CONSTRUCTOR'S GUIDE

III. Construction Phase Procedures

(Revised: February 26, 2010)



Yale University Facilities Planning & Construction

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CONSTRUCTION PHASE PROCEDURES

REQUIRED CONTRACT LANGUAGE

All Bid forms issued to subcontractors from Construction Manager must contain the following language:

["The undersigned further attests and affirms that:

The Bidder has not colluded with any other persons in regard to this Bid or any component Sub-bid. No person employed by Yale University has exercised influence, provided confidential information, or stands to profit form this bid or the Work described in the Bid Documents

The Bidder is not presently barred from bidding or performing work in any jurisdiction, due to non-compliance with Affirmative Action or Equal Opportunity regulations."]

If Federal money is involved additional requirements concerning bidding process and contract language may be required.

Refer to the Yale University Contractor Health and Safety Advisory for additional submittal requirements.

INVOICING REQUIREMENTS

FOR PRE-CONSTRUCTION SERVICES

In order for us to promptly process your invoices, please note the following:

Invoice must be on the company letterhead.

Invoice must be an original (no copies or faxes).

Invoice must have an original signature.

Invoice must include the Yale University Purchase Order Number.

Invoice must be in the appropriate format. See Exhibit III-A.

Ideally, if the invoice is less that \$50,000 the check should be issued within two weeks from the date it is received at 100 Church Street South, Suite 214. If the invoice is over \$50,000 the check should be issued within three weeks from the date it is received at 100 Church Street South, Suite 214.

All invoices need to come to Yale University Facilities Planning & Construction Administrative Support personnel first so they can be logged. Do not hand invoices directly to Project Manager.

Provide back-up information for all reimbursable expenses.

INVOICING REQUIREMENTS FOR CONSTRUCTION

All invoices must show the project name exactly as shown on the contract and include the Yale purchase order number assigned to the contract.

Three <u>original</u> invoices for Construction Requisitions for payment must be submitted. The requisition form shown in Exhibit III-B, Forms, must be accompanied by an AIA G702, supplemented by AIA Form # 703. Certificate of Payment must be fully executed and sealed.

Back-up for all invoiced amounts must accompany invoice.

Submit draft copy of invoice to Architect for approval prior to submitting to Yale Facilties Planning & Construction.

Ideally, if the invoice is less the \$50,000, the check should be issued within two weeks from the date it is received at 100 Church Street South, Suite 214. If the invoice is over \$50,000 the check should be issued within three weeks from the date it is receive at 100 Church Street South, Suite 214.

All invoices need to come to YSM FC&R Administrative Support personnel first so they can be logged. Do not hand invoices directly to Project Manager.

Note: For PO contracts less that \$10,000 and no subcontractors involved, the form shown in Exhibit A.1 is acceptable. Backup for invoiced total is required whether using the AIA Certificate for Payment or the form in Exhibit III-A.1.

Note: See Yale Contract agreement for additional requirements.

Note: Yale Facilities Planning & Construction Finance & Administration requests that all vendors (designers and constructors) hold small billings (\$100 or less) and aggregate them into a larger billing for more efficient processing.

Note: Invoice must separately identify amount being invoiced for each sole source or work-by-own forces category and include detailed separate backup for each. Backup must include subcontractor's itemized costs for labor, materials substantiated by signed time cards or bills of materials.

Please note:

For construction without an architect or engineer, or if design-build, Yale Facilities Planning & Construction Project Manager will countersign the Certificate of Payment unless other procedures are agreed to.

Requisitions for Change Orders including work by own forces or for sole source subcontracts are the same as those for base contract.

FORMS

The formats of the forms in Exhibit III-B can be considered a general model. The exact look of the form may vary slightly from constructor to constructor, given the difference in office practice and software. Any major deviation from these formats must be reviewed in advance with the Yale Facilities Planning & Construction Project Manager. Regardless of the agreed upon format, the content of the form must be consistent with what is shown here.

BIDDING AND GMP DOCUMENTATION REQUIREMENTS

SUBMITTALS REGARDLESS OF AMOUNT:

(Electronic copies of exhibits listed below and attached are available on request)

1. Provide summary for GMP (See Exhibit III-H)

Provide GMP Breakdown (See Exhibit III-I)

General Conditions: Provide in format required by contract.

Sole Source (non-bid) Construction

Yale procurement requirements prohibit sole source construction for over \$2,000 unless approved in accordance with stipulated guidelines. If sole source construction is proposed, submit letter or email to YSM PM explaining reasons. This must be submitted sufficiently in advance of GMP due date to permit bidding if required. Submit, for each proposed sole source, a succinct *explicit* paragraph – 4 to 6 lines – justifying sole source procurement in this instance. Approval for sole source procurement must be obtained, in advance, in writing, from the YSM project manager. Enter amount for each sole source contract in Column 3 in Exhibit III-I. At the discretion of the Project Manager, subcontractor's sole source prices will be considered GMPs with substantiating back up required equivalent to that required for the construction manager own work.

Work by CM's own forces

For any work proposed for CM's own forces, enter amount for all work by own forces in form shown in Exhibit III -I, Column 1.

Itemize all work in Division 1 or other work proposed for own forces in detail, including tasks, hours, rates and other costs.

Total work in Divisions 1 through 16 by own forces must not exceed 10% of trade costs unless explicitly authorized by YSM FC&R in writing, prior to submittal of GMP.

Provide Bid Comparison for GMP Backup (See Exhibit III- J)

All construction must be bid unless 1) it falls within the above limits for work by own forces; 2) the total value of the item or service is below \$2,000; or 3) procurement from sole source is approved in writing by YSM PM prior to submittal of GMP.

Prior to bidding, submit list of proposed bidders to YSM PM with sufficient lead-time to revise invitees if needed.

Submit copy of invitation to each invited bidder.

For all bid work provide bid tabulation sheets – see Exhibit III-J – and copies of all bids on bidder's letterhead. *Officer of Construction Management firm must sign each bid tabulation sheet.*

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For each bid note all terms and conditions are met in the appropriate spaces. At least 2 fully responsive bids must be obtained or the procurement will be considered Sole Source.

QUALIFICATIONS OF TRADE CONSTRUCTORS

The University exists in a highly competitive environment in terms of both performance and finite resources. Competitiveness is evaluated in terms of all aspects of experience and performance as well as cost. Qualified contractors shall be determined and documented by standard qualitative and quantitative evaluation protocols.

- 1. craft background
- 2. documented successful comparable (size, scope, quality) project experience
- 3. historical managerial and contractual performance
- 4. management experience
- 5. specific personnel to be assigned to a project
- 6. size of administrative staff
- 7. size and distribution of direct workforce
- 8. availability or direct control of specialized equipment
- 9. financial capacity, insurability, claims history
- 10. other work in process or pending

After satisfactory completion of an evaluation according to the above criteria, bidders can be placed on bid lists for projects appropriate to their specific experience and capabilities. Evaluations of subsequent bids will be made according to standard trade practices and as outlined in the Contract Documents. Selection will be made in the framework of "lowest qualified bidder," and per all the contracting documents.

Bidders' List/Bid Review

Constructor shall provide to YSM FC&R a list of all potential bidders to be reviewed by the Project Manager. Once bids are received, a bid summary is to be submitted to the CM showing the proposed successful bidder, the unsuccessful bidders and those who chose not to bid.

Submittals related to bidding must confirm with all requirements of the Yale University Contractor's Health and Safety Advisory and the Constructor's agreements with Yale University.

See the Yale University Contractor's Health and Safety Advisory for additional submittal requirements.

CONSTRUCTION CHANGE DIRECTIVES/CHANGE ORDERS

The process by which costs for changes to the work get officially "approved" is as follows:

The Prime Design Professional initiates the process by filling out a CCD and forwarding this to the Constructor. The Constructor obtains cost information from the appropriate sub-contractors and applies the appropriate administration cost and mark-ups and forwards this response to the prime Design Professional. This Design Professional then is responsible for reviewing this response either directly or with the appropriate Subcontracting Design Professional. If upon review it is agreed that the costs are appropriate for the scope, the Design Professional directs the constructor to submit the completed Construction Change Directive to the YSM Project Manager for sign off. Exhibit C in the Appendices shows the Change Directive which should be used for this purpose. When the Constructor is authorized to implement the scope change. However, the contract underlying this effort needs to be changed as well. The mechanism for changing this is through the Change Order process. Typically, multiple approved Construction Change Directives are included within one Change Order.

Yale University form YGMP-17 change order.doc (Exhibit D) is to be used to initiate the Change Order process. This form should reference the CCD numbers and dates of the signed CCDS. These are attached as backup to the Change Order. In the Change Order process the Change Order form is initiated by the Design Professional and is signed first by the Constructor and then the Design Professional and then by Yale University. Note that since the Change Order is a change to the underlying Contract and since the Contract is with Yale University, not with Yale University School of Medicine, the Change Order form needs to reflect this in the line for the Owner's signature. Unsigned Change Orders should be submitted by the Design Professional to the YSM Project Manager for internal processing. When the Change Order has been signed by all parties, the Purchase Order, which is the Yale University vehicle for disbursements, is then also changed to reflect the new total of the Contract, after which applications for payment reflecting these costs can be processed.

The Yale University address shown on Change Orders should be 2 Whitney Avenue, New Haven, CT 06510 NOT 100 Church Street South, Suite 214.

Costs Associated with Construction Changes Regardless of Amount

By submitting a price for a construction change, the CM is expressly attesting that the price has been thoroughly evaluated and is fair and reasonable for the work required.

A detailed breakdown, including hours, rates and materials costs, with fully substantiating backup, is required for any changes involving work by own forces or sole source subcontractors.

Changes when subcontract is based on competitive bidding may be submitted as lump sum amounts subject to the requirements of paragraph 1 above. Detailed breakdown must be submitted if requested.

CONSTRUCTION KICK-OFF MEETING AGENDA

- 1. Schedule of values
- 2. Submittals list & log
- Construction schedule
 Certificate of Insurance
- 5. Emergency Phone Numbers
- Security ID
- 7. Theft prevention
- 8. Parking
- 9. Keys
- 10. Field phone
- 11. Yale University Contractor Health and Safety Advisory
- 12. Safety Clearances
- 13. Shutdown requests (change #2, 6/26/09)
- 14. Shutdown notifications
- 15. Construction hours
- 16. Weekend work / Off-hours work
- 17. Adjacency disturbances
- 18. No Smoking
- 19. No Radios
- 20. No Foul Language
- 21. Sexual harassment
- 22. Use of toilet facilities
- 23. Use of Cafeterias
- 24. Protection of University property
- 25. Material Staging / Storage
- 26. Dumpsters
- 27. Deliveries
- 28. Pre-Demolition & DDC Shut-off
- 29. Two Week Look Ahead
- 30. Job Meetings
- 31. Pay Applications 32. Changes in work
- 33. Change Log
- 34. Equipment procurement & relocation 35. Access to Mechanical/Electrical equip
- 36. Record Drawings
- 37. Shop Drawings/Submittals 38. Closeout/O&E Manual Submission
- 39. Signage
- 40. Radiography Contractors
- 41. Elevator Protection
- 42. Constructor's Guide
- 43. No photographs to show people or animals

At the initiation of the Construction Phase of the project, all members of the Design Team and Constructor meet to go over the basic ground rules for the construction phase and to work out the process for the particular project.

Constructor must have the latest version of the Constructor's Guide. Meeting shall be run according to the agenda in the guide. The following is a short description of each agenda topic:

- 1. Schedule of Values.
- 2. Submittals list and log.
- 3. Construction Schedule.
- 4. Certificate of Insurance.
- 5. Emergency Phone Numbers.

Items 1-5 are requested to be submitted within one week of this meeting. They should follow the format shown in the Constructor's Guide. Note that Item 4 should be submitted to both YSM FC&R and to Contract Administration at 2 Whitney Avenue.

- 6. Security ID Obtain ID card through the YSM FC&R ID Coordinator.
- 7. Theft Prevention. Constructor should be vigilant that there is no opportunity for stealing of property of the subcontractors or the University. Be sure to lock up equipment and doors, etc.
- 8. Parking. YSM provides no parking for non employee. "Pay by Phone" parking is located in the CP2 (Triangle Lot). This lot is designed for short term visitors. There are three large self explanatory signs posted within the lot. The first time use will spend a few minutes for set up on their cell phone, subsequent parking takes no more than a phone call and PIN number. Paid parking is available at the Doctor's Building at 2 Church Street South, Howard Avenue Garage or on the street.
- 9. Keys. There are three ways to acquire keys at YSM to facilitate construction activities:
 - The first is a **Construction Core Key**. Typically, when a constructor starts construction activities the YSM PM requests that the key cores on the doors to the area in construction be changed to a "construction core" (either black or orange). The Project Manger puts in a Request for Service that states what doors require construction cores and the number of keys needed.
 - The second type is a Day Key. Often projects are not in a discreet area. Rather the constructor requires access to a number of occupied spaces where it would be inappropriate to change to construction cores, as users need regular access. In these situations the constructor can request day keys as necessary for the constructor's use. Typically if a room (or rooms) in a particular area must be accessed for example, room keys can be signed out at the Customer Service Center at LEPH Room 173. The keys must be returned by 4pm daily. The PM must call ahead to the Customer Service Center to authorize verbally that the constructor can borrow a key.
 - The third type is a Long Term Key. Alternate arrangements can be made if a project *must* be implemented off-hours. In such cases the PM will facilitate keys being made available for the constructor to sign out so the constructor can hold the required keys without returning them daily. In such a case the Project Manager will email Norman Brody with: the constructor's company name, the name of the individual who will sign out the keys (and their social security number), a list of the areas or room numbers that the constructor needs access to and the anticipated period of time the keys are needed. Norman Brody will notify the Project Manager when said keys are ready to be picked up (should take one to two days). The Project Manger will notify the constructor to pick up the keys at the Lockshop at 55 Dagett Street. The constructor will sign a key agreement at the time the key is signed out.

Please note: It cannot be emphasized enough the importance of key control to maintain security at YSM. For this reason Yale keys must never be placed on a surface where another party can remove them. When a key is lent to a constructor the constructor is required to

wear such keys on their person at all times. In addition to a security impact on YSM, the loss of keys poses a liability on the borrower since the re keying of spaces that result from the loss of keys will be at the constructor's expense.

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Typically it costs \$60 to rekey a door. If a key is a master the cost to rekey is increased based on the number of doors the master opens. All keys must be returned at the end of a project. The return of all borrowed keys is a required condition for the payment of the constructor's final invoice.

- 10. Field Phone: Contractors must arrange for service. (see Constructor's Guide, Contractor Telecom Services)
- 11. Yale University Contractor Health & Safety Advisory applies to all construction work at YSM.
- 12. Safety clearances required in accordance with above item 11.
- 13. Shutdown Request: Inform Project Manager of request for shutdown two weeks in advance of major shutdowns and fire protection shutdowns or at least 5 days in advance of all others. Provide location, service, and day and time desired. Determine the type of shutdown required. See Constructor's Guide, Shutdown Requests. Please note that all requests for Facilities Operations (shutdowns or others) must go through the Project Manager. No direct requests to Facilities Operations are permitted.
- 14. Shutdown Notifications. Constructor will receive a confirmation of shutdown from the PM. Facilities Operations will notify affected users of the impending shutdown.
- 15. Construction Hours. Job specific. Standard hours are 7 a.m. 3 p.m., but can vary. If vibration is an issue, work hours can be 5 a.m. 2 p.m.
- 16. Weekend/Off Hours Work. If any weekend or off-hour work is anticipated, the Project Manager must be notified one week prior so that appropriate notification to Security and other departments can be made.
- 17. Adjacency disturbances. When work is anticipated which will impact occupants above, below or adjacent to the project, notify the Project Manager to schedule the work at a time convenient for the occupants. Constructor and Project Manager will meet with and coordinate work with affected occupants. Safety clearances may be required.
- 18. No smoking
- 19. No radios.
- 20. No foul language.
- 21. No sexual harassment.

Items 18-21: Be aware that the project is taking place in the work place of our customers and we want to disturb them as little as possible. Yale expects constructors to be courteous and as unobtrusive as possible.

- 22. Use of toilet facilities. Job specific. Generally, if there is not a lot of traffic and workers can keep the facilities clean, they may use the facilities. If there is a problem, portable toilets will be required.
- 23. Use of Cafeterias. There will be no use of Yale cafeterias. Cafeterias are a private service provided for the staff of the Medical School only.
- 24. Protection of University Property. While working at the University, the Constructor is responsible for protecting University property, as appropriate. Notify Security (785-5555) if a problem arises.
- 25. Material staging site utilization plan must be reviewed with PM. CM must inform YSM PM, of all intended storage locations, duration and items to be stored. CM must label stored items with sign using YSM FC&R format. The sign must be filled out and posted prominently near the neatly stacked materials. See Exhibit III-G.

- 26. Dumpsters. Determine location as part of material staging. Job specific. Arrange a location which is acceptable to the work being performed and the University's needs.
- 27. Deliveries. Be very specific about where deliveries are to be made and to whom. We often have delivery people wandering around asking building occupants where to go. Someone needs to be present to receive deliveries.
- 28. Pre-Demolition. Prior to demolition, disconnect all DDC and pneumatic controls by a controls contractor. See Constructor's Guide, Control Systems for appropriate method.

- 29. Two Week Look Ahead. CM must submit a two week Look-Ahead prior to every two week period
- 30. during construction to the Project Manager. This can be done efficiently via email so PM can distribute it.
- 31. Job Meetings. Job specific. Set regular time and place for job meetings. Follow format for meetings as per the Constructor's Guide. Constructor to keep meeting minutes.
- 32. Pay Applications. Process in accordance with contract and Constructor's guide.
- 33. Changes in work. Process in accordance with contract and Constructor's guide.
- 34. Change Log. See Constructors' Guide Exhibit III-C for suggested format for these logs. They need to

be presented at each job meeting for review.

- 35. Equipment procurement and relocation. Clarify, if not already done on the documents, what is the constructor's responsibility and what is being provided by an outside vendor.
- 36. Access to Mechanical/Electrical Equipment. Stress the need for compliance with the YSM standard access statement shown on M/E/P drawings. It will save time and money to watch for access issues during construction and catch issues prior to final installation.
- 37. Record Drawings. Constructor shall maintain a marked-up set of drawings on site which is kept current with the construction changes or conditions which differ from the construction documents. The Design Team shall check these record documents occasionally to be sure they are up to date and represent changes accurately. Constructor shall bring set to all job meetings except for major projects with very large drawing sets and where mark up set is permanently in place for reference.
- 38. Shop Drawings/Submittals. Submittals should be made to the Design Team with the Project Manager copied and, if it is an MEP submittal, Facilities Operations must be copied as well. If a submittal requires the YU Fire Marshal's review (fire protection, fire alarms, and other fire-related equipment), an additional copy of that submittal for Yale Fire Marshal should be provided. YUFM review will be concurrent with the Design Team's review of submittal. YUFM will transmit any comments to the Design Team during the review period. If Design Team accepts the submittal, a copy of accepted submittal goes to the Project Manager and a number of copies back to Constructor (number to be determined on a project-specific basis). If submittal is rejected, Design Team returns submittal direct to Constructor with transmittal copied to PM.
- 39. Closeout/O&M Manuals. Contractor shall submit the O&M Manuals no later than the date of at the time of Substantial Completion. Substantial Completion will not be agreed to unless the O&M manuals are submitted to the Owner. This is very important because contractually the Owner must maintain the space once substantially complete and this cannot be done without the O&M manuals. As-built drawings need to be submitted to the Architect at the time of Substantial Completion. Architect cannot initiate Archive Documents without the As-builts placing the As-builts on the critical path. Final invoices will not be paid if As-builts are not submitted. NOTE: YSM expects the entire close out documents to be transmitted without reminders.
- 40. Signage. No company signs shall be allowed on street frontage. Identifying signs, if desired, can be mounted on the trailer. Any signage must be approved by the Project Manager prior to installation.
- 41. Radiography Contractors. If the project involves site conditions investigations using radiography, the CM must notify the Project Manager prior to the start of work. The Yale Office of Environmental Health & Safety must meet with the contractor for required review prior to commencement of their work.
- 42. Elevator Protection. Most elevators at YSM have protection pads available, located in elevator machine room. These should be installed as needed once the CM identifies elevators they will be using. If heavy-duty work is involved, plywood can be installed on walls and floors. (Old carpeting can be used to protect floor as well). YSM requires that before and after photos of

elevators be taken with constructor and FAC OPS representative present. Constructor will be responsible to turn the elevator back to YSM in the condition as when work commenced.

43. Constructor's Guide. It is the responsibility of the CM and all the subcontractors on the project to be familiar with the Constructor's Guide and apply it in its entirety.

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CONTRACTOR'S TELECOM SERVICES

The following is the appropriate procedure to follow when contractors need telecommunications services in areas where the telecommunications facilities are owned by Yale.

The YSM FC&R PM or other authorized facilities staff member will submit a Project Management Request form (PMR) using the Project Management Office website: (<u>https://www-</u>iisp1.its.yale.edu/pmo/). The PMR should provide the Contractor Company name, the contact name, phone number and address. Provide the services the contractor needs, including what type of line (i.e., ATT/SBC line, data line, etc), location of line, installation charging instructions. NOTE: No Yale monthly charges will be incurred for ATT/SBC services, ATT/SBC will charge contractor's directly). (ONLY One Time Yale Installation Charges Will Be Incurred).

Telecommunications can no longer supply Yale Services for Contractors.

When ATT/SBC service is requested, a Telecommunications Specialist will assign a jack and pin for the ATT/SBC technician to terminate the service in the Yale switch room. The Telecommunications Specialist will email/fax the Contractor contact the ATT/SBC form with the jack and pin location, switch room address, the PMR number. This information will be provided on the attached form – ATT/SBC services request.

The Contractor will then contact ATT/SBC directly to order the services and will provide ATT/SBC with the jack and pin and switch room location. The contractor must make sure than ATT/SBC understands that the services are to be terminated on the jack and pin in the switch room, NOT to the actual building the service is needed. This is important – if the contractor gives the incorrect installation address ATT/SBC will engineer the services to be installed in the wrong building. This will delay the installation and may add to the ATT/SBC charges. The contractor will provide the billing address on the SBC services request. SBC will bill the contractor directly for the ATT/SBC installation and monthly charges.

After the Contractor has placed the order with ATT/SBC and gets a ATT/SBC work order number with the assigned phone numbers and due date, they must fax this info to the ITS Project Management Office @ 203-432-8704.

When the installation is complete, the Telecommunications department will charge the Yale labor costs to the charging instruction on the PMR form.

If you have any questions regarding this process, please call the ITS Project Management Office @ 432-9600.

Information Technology Services Network Services Project Management Office 105 Hamilton St. New Haven, Ct. 462-9600

CONTRACTOR'S TELEPHONE/DATA SERVICES ORDER CONFIRMATION

Date:

COMPANY:

CONTACT:

Phone Number/Fax Number:

PMO Reference #:

This is to confirm your request for SBC telephone services at Yale University. You are required to provide SBC with a JACK & PIN and Switchroom address as indicated below, when you submit your order to SBC for your phone/data service.

DEMARCATION POINT / SWITCHROOM ADDRESS: (COMMONS: 200 Grove St., KBT: 219 Prospect St or LCI: 15 York Sq

JACK:

PIN:

TYPE OF SERVICE REQUESTED:

YALE BUILDING ADDRESS: YALE BUILDING NAME: ROOM NUMBER:

When you get the assigned ATT/SBC Telephone number, please fax this information to the Project Management Office @ 432-8704 so that we can extend the service to your location. Please call 432-9600 for any questions.

SHUTDOWN REQUESTS (change #2, 6/26/09. Rev 07/27/09)

- Requests for MAJOR or UNUSUAL building systems shut-downs (those involving a whole floor or building, or Fire Protection Systems will be submitted a minimum of ten full business days prior to the proposed event. Requests for all other building systems shut-downs will be submitted a minimum of five full business days prior to the proposed event. Every effort will be made to accommodate these requests. The PM will be notified within 24 hours if the request cannot be accommodated. FO will suggest alternate dates at that time. If the PM does not hear from FO within 24 hours, the PM can assume the shutdown will occur as requested.
- 2. All requests for shutdowns submitted less than 5 full business days prior to the proposed event shall be submitted in the following manner:
 - a) the PM will secure the initials of Director or Associate Director of Project Management on the request for service (RFS) form;
 - b) the PM will fax the RFS form to the customer service center (CSC) at 737-4446;
 - c) the PM will call the CSC at 785-4620 indicating the emergency nature of the shutdown request;
 - d) the CSC staff will secure the initials of the Associate Director of plant operations or the Director of Facilities Operations.
 - e) the above mentioned will contact the appropriate trade manager to determine if the shutdown is possible.

Again, every effort will be made to accommodate these requests. The PM will be notified within 24 hours if the request cannot be accommodated.

- 3. FO will maintain a log of all shutdown requests. This log will be reviewed periodically to assess the effectiveness of this policy.
- 4. Get all the information from the constructor as to the location (building and room number), time and date requested and services to be shut down.
- 5. Use the Request for Services on the FC&R website indicate charging instructions, location and time the shutdown is requested, the name of the construction company who is doing the work, and a contact name. Also include the beeper or telephone number of the contact for coordination purposes.
- 6. Form should be sent electronically to the customer service center. If computers are down, fax the filled out form to 7-4446, customer service center.
- 7. If you need other services beyond shutdown, e.g. locksmith, custodial services, etc., use the same service request form.

8. Types of shutdowns. Before sending out a request, determine type of shutdown required, as described below:

"CONTRACTOR SHUTDOWNS", performed by contractor personnel (with notice provided by the contractor to the affected customers and FO):

With operations affecting only the area within the project limit lines including,

- Domestic hot and cold water lines to sinks, with individual shut off valves.
- Domestic cold water lines to water closets, with individual shut off valves.
- Plumbing line to a piece of equipment that does not affect additional pieces of equipment.
- Electrical feed to a piece of equipment that does not affect additional pieces of equipment.
- Electrical branch lines that only affect the project area.
- Fans and fan coil units that only affect the project area.
- Cold rooms.
- Warm rooms.
- Lab air to project area.
- Control air to project area.
- All other building systems affecting only the area within the project limit lines.

MAJOR "FO SHUTDOWNS", shutdowns performed by FO personnel (require ten days notice):

Major Building Systems including,

- All systems affecting YARC facilities and BL3 labs
- Major supply fans
- All supply fans under BAS control
- Major exhaust fans
- All exhaust fans under BAS control
- High, Medium and Low pressure mains and reducing stations
- Domestic hot and cold water mains and reducing stations
- Chilled water mains
- DI water mains
- Control air mains and compressors
- Electrical Mains and transformers
- All Fire alarm systems including heat detectors
- All Sprinkler systems (drain system and piping work by contractor, fire alarm issues by FO & YU Fire Marshall)*

*<u>Please Note</u>: When you request a shutdown of a fire sprinkler system, speak with YSM Fire Marshal (785-4624) first to determine if it is a shutdown that requires the assistance of a FO plumber (shutdowns vary a lot in their complexity and labor intensity). If s/he advises that s/he needs assistance, when you request the shutdown specifically request a plumber in addition to an electrician.

MINOR "FO SHUTDOWNS", shutdowns performed by FO (require five days notice): Everything else, including,

- Supply fans
- Control air
- Lab air branch lines
- Domestic hot and cold water lines
- Waste lines
- Hot water heating lines
- Chilled water branch lines
- 9. If your shutdown impacts YARC areas, notify Scott Francis at YARC of the proposed work.

CONTROL SYSTEMS

DEMOLITION

The control system contractor will be required to disconnect and remove all control system devices before demolition is started.

All pneumatic air lines will be capped off using correct fittings (compression or soldered caps on copper tubing and barbed air line plugs for plastic tubing). If the branch lines will not be reused, it must be capped off at the point of origin on the main air line. All tubing that will not be used must be removed from the wall and ceilings.

All DDC devices being removed or replaced for construction will be disconnected on the BAS workstations so no alarms will be generated. All effected device wiring will be removed from the terminals on the controller.

If communication wiring is involved, a shutdown request will be forwarded through the Project Manager and scheduled through the Controls Systems Manager. All communications to other controllers must be intact by the close of business each day.

CONDUITS/RACEWAYS

Telecom and security wiring is not to be installed in existing raceways provided for other purposes such as building control systems wiring.

SPECIFIC SAFETY REQUIREMENTS – SEE Y.U. CONTRACTOR HEALTH AND SAFETY ADVISORY

Use link to CH&S Advisory: <u>F:\PM&C Shared\Guides Plus\6</u> ConstructorsGuide\ConstrSafetyAdvisory\Yale_Safety_Advisory 10-08-07[1].doc#advisory

EMR (EXPERIENCE MODIFICATION RATE) PROCEDURE

- 1. CMs must require all subcontractors to submit their current EMRs with bids.
- 2. Until May 1 2007 an EMR of 1.1 will be acceptable. Revision of the required EMR will be considered at that time.
- 3. If EMR exceeds 1.1 CM shall obtain written explanation from Sub.
- 4. If, in the judgment of the CM, the reason is acceptable, for example a "one-time" unusual occurrence, the CM may solicit a bid from this sub after review and approval of the reason by the YSM FC&R PM.
- 5. If the sub is the low bidder, the CM should state, in their MP cover letter, that the GMP includes a price from a sub with an EMR exceeding 1.1 and that the sub's explanation approved and signed by the YSM FC&R PM, is included.

MINORITY PARTICIPATION

Yale University School of Medicine uses the following guidelines to encourage the minority, women, and small contractor work force.

The Constructor shall make a good faith effort to utilize local, minority and women owned businesses and solicit local, minority and women for apprentice and journeymen positions wherever practicable, and to fairly distribute work within the limits of good business practice. The acceptance of an uncompetitive bid or an unqualified bidder is deemed to be not in the University's best interest.

The Constructor shall make good faith efforts during the bidding process to include as many MBE, WBE and New Haven based businesses as possible that meet the project qualifications. The Contractor will submit its list of MBEs and WBEs invited to bid with the bidding information accompanying the GMP.

With the GMP backup showing the results of bidding, MBE, WBE and New Haven based businesses must be noted. The unavailability of qualified MBE, WBE and New Haven bidders should also be noted.

The Constructor must comply with all sections of the Yale construction agreement with respect to minority participation.

APPENDIX III

Exhibit III-A: Pre-Construction Services Invoice Format

(Place Company Letterneed Hero) PRECONSTRUCTION SERVICES INVOICE From: Javoles Date: To: Invoice No.: Project Name: Perchase Onlar No.: Proj. Number: For the Parind: From J.o Γ_{1} In accordance with the Agreement dated (C time for the above referenced project the following payment; CONTRACT PERCENT BELED SERVICE or EXPENSE PREVIOUSLY CURRENT AMOUNT COMPLETE TO DATE * Preconstruction Service? BILLED CHARGES Other _ Cesanthy Additional Services U TOTAL CONTRACT Reimbursable Expense Summary BUDGET AMT. Ztam 1 - Travel Item 2 Communications Item 3 - Reproductions Item 4 - Pustage & Haudling Item 5 - Offier Auth, Expenses TOTAL REIMBURSABLES TOTAL DUE THIS INVOICE · . · 5 This invides accurately represents the companyation due for services performed during this period. ~ 1 . Principal Dete Billed to date includes amount of entrout involce OUTSTANDING INVOICES STATEMENT **9** -No.(ì [Date] Ampunt No.[[Date] [Amount] No.[[Date] (<u>اسمىمە)</u> TOTAL OUTSTANDING 5. 2007 A.C. 1.6 1. 1 : ۰.

Exhibit III-A1: Construction Services Invoice Format

CONSTRUC (Use when Country	Company Letterbard Here) TION SERVICES INVOICE verion is matherized prior to a CMP or ted on a Purchase Onter Communi)	
From;	Date:	
To:	Invoice No	
Project Name:	Purchase Order No.: PA	SQ
Froj. Number:	For dus Period: From To	
In accordance with the Agreement dated (following payment:], there is due at this time for the above referenced	project the
SERVICE OF EXPENSE		URRENT HARGES
TOTAL CONTRACTOR INVOLCE	for CM work done prior to a GMP, Use each authorizatio ized on a purchase order cuntrace, list each item of work a hanger] RMATORESSEE \$	n. nd
Billed to date includes uncome of current invoice DUISTANDING INVOICES ST <u>ATEME</u> NT		
In.[] [Date] [Ampunt] IOTAL OUTSTANDING \$		
incarely. [Authorizing Signature and Title]		
tlachments:		

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Y 272 10/1/38

EXHIBIT III B – Required Forms

Description of Forms

A. **Estimate Format**: The attached sample shows the minimum amount of CSI categories to be used within an estimate. Additional CSI categories can be added as required. The number of items quantified by "lump sums" should be minimized. If a unit of measure can be attached to a lump sum it should be. For example, a lump sum per door for hardware times a number of doors.

B. **Meeting Minutes Format**: The attached meeting minutes format shows a typical agenda for a construction meeting. The minutes taken from this meeting should reflect this sequence of events.

C. **Budget Control Log**: The purpose of this log is to, at any give time, show the estimated adjusted Guaranteed Maximum Price for the project. This log should be updated for each meeting. For those proposed changes for which the constructor does not have confirmed numbers, the constructor should estimate in round numbers the order-of-magnitude of such a change.

D. **Submittal Log**: Entries into this log should be organized by CSI division number. This log should be reviewed at each meeting to see that submittals are being returned in a timely manner and to check on which key submittals are outstanding.

E. **Requisition Format**: The attached requisition format is the required backup to be attached to an AIA G702 form. Three original G702 forms must be signed by the Constructor and notarized, provide one additional copy of the requisition for YSM FC&R. This requisition format should be filled in with a schedule of values after the award of the GMP and submitted to the project manager for approval before submitting the first requisition.

F. **Project Closeout Checklist**: This checklist monitors outstanding deliverables required by contract.

G. **Punch list Format**: A punch list following this format should be attached in this format to letters of Substantial Completion for given projects.

Sample Forms:

Form A: Yale School of Medicine - Construction Estimate

Location:	Total GSF:	Total NSF
Name:		

C.S.I	DIVISION	QTY.	UNIT	LABOR	MATERIAL	TOTAL	TOTAL/NSF
02050	Demolition						
02000	Sitework						
03300	Concrete						
04000	Masonry						
05000	Metals						
06200	Finished Carpentry						
07000	Moisture Protection						
07700	Roofing						
08100	Doors/Frames						
08500	Windows						
08700	Hardware						
08800	Glass/Glazing						
09000	Drywall						
09500	Acoustical Ceiling						
09680	Flooring/Carpeting						
09900	Painting/Wallcovering						
10100	Specialties/Boards/Windows						
11600	Lab Casework						
14200	Conveying System						
15300	Fire Protection						
15400	Plumbing						
15950	Temperature Controls						
15500	HVAC						
16000	Electrical						

Permits Contingency		\$ \$	
	Trade Subtotal		\$
General Conditions	CM Payroll Field Office \$ Preconstr \$	\$ \$ \$	
	Not-To-Exceed Subtotal		\$
C.M. Fee		\$	\$
	C.M. Subtotal		\$
Bonds (if required)		\$	\$
TOTAL G.M. P.			\$

Form B: Format of a Typical Meeting

- A) Corrections to Previous Minutes
- B) Project Status:
 - 1. Updated/Current Project Schedule (Attached to Minutes)
- C) Purchasing Status
- D) Budget Review:
 - 1. Approval Letters (Log No required format)
 - 2. Budget Control Log
- E) Submittal Status (Log)
- F) Information Required (Log)
- G) Necessary Events: (With "Action" items) + Log
- H) Progress Report:
- I) Tie-in/Shutdown Schedule (Attached)
- J) Close-out:
- K) Contract & Application for Payment
- L) New Business
- M) Next Meeting

Form C: Budget Control Log

Budget Control Log

Yale University School of Medicine Project Name: YSM Project #:

REF.		DATE	ESTIM	ATED CHA	NGES	PENDI	NG CHANG	ES	APPR	OVED CHA	NGES		AIA	со	ТІМЕ
LINE	DESCRIPTION	INITIATED	DATE	NO.	AMOUNT		NO.	AMOUNT	ARCH	OWNER	AMOUNT	REMARKS	CO#	DATE	CHANGE
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

TOTALS

ESTIMATE

PENDING

APPROV

Guaranteed Maximum Price	x,xxx₋xx
Approved Change Estimates	x,xxx₋xx
Pending Change estimates	x,xxx_xx
Adjusted Guaranteed Maximum Price	x,xxx_xx

Date:

SUBMITTAL LOG

Yale University School of Medicine Project Name:

YSM Project #:

SPEC.SECTION	DESCRIPTION	TYPE OF	CONTRACTOR	SUBMITTED	SUBMITTED	RETURNED	SUBM	RETURNED	REMARKS	PROJ
REF #	DESCRIPTION	SUBM	CONTRACTOR	BY SUB	TOARCH	TO CONTRACTOR	STATUS	TO SUB	INLIMATING	
		OODM		01000		TO CONTRACTOR	UIAIUU	10.000		
4200	UNIT MASONRY									
04200-100.0	CMU	pd								
	Horizontal Jt. Reinforcement	pd								
04200-102.0	Corrugated metal anchor	pd pd								
04200-102.0										
7270	FIRE STOPPING									
	(w/trades)									
7920	SEALANTS									
07920-100.0	Sealants	pd								
07920-101.0	Sealant sample	sample								
07920-102.0	Joint Filler Material	pd								
07920-103.0	Certificate of Qualification	certificate								
07920-104.0	5 year sealant warranty	warranty								
8100	HOLLOW METAL WORK									
08100-100.0	Hollow metal schedule	sd								
8240	FRP DOORS									
08240-100.0	FRP Door product data	pd								
08240-101.0	FRP finish sample	sample								
8350	ACCESS DOORS									
8710	FINISH HARDWARE									
08710-100.0	Hardware schedule & cuts	pd								
9250	PLASTER & LATH REST									
09250-100.0	Gypsum Plaster materials	pd								
9250	GYPSUM WALLBOARD									
	Wallboard materials	pd								
09250-101.0	Metal components	pd								
9510	ACOUSTICAL CEILINGS									
	Ceiling tile	pd								
09510-101.0	Ceiling tile samples	sample								
9705	SEAMLESS EPOXY FLOOR									

Date:

Form E: Requisition Format

REQUISITION FORMAT

А						D	E			Н			K	L
	DESCRIPTION OF WORK	SCHEDULE	ADDS	REVISED	AWARD	BUY-OUT	ANTICIPATED	WORK C	OMPLETED	MATERIALS	TOTAL COMPLETED	%		RETAINAGE
NO.		VALUE	DEDUCTED	SCHEDULE	AMOUNT	HOLD		FROM PREVIOUS		PRESENTLY	& STORED TO DATE	(G/C4)	TO FINISH	
				VALUE				APPLICATION		STORED (NOT	F+ C4 - H		C4-I	
										IN DOR F)				
										F)				
	TOTAL													

Constructor:

Yale University School of Medicine

Project Name: YSM Project #:

								PROJE	CT CLOS	SEOUT C	HECKLIST					
													IP	= IN PROGR	ESS	
											TO OWNER		DATE	= DATE COM	PLETED	
											EST.7/1/95	1				
												1				
SUB	PUNCH	WARRANTY	0&M	OWNER		۵S	ΔΤΤΙΟ	ORIG	00	RE//		GENI	FORM	FINAL	PERE	REMARKS
000		W/ ddo ddi i														
	LI31		WIANUALS	INSTR	KEP OK 13	DUILIS	31000	CONTENTS	ψ	CONT\$	AFFLIC	RELEASE	540	FATIVILINT		
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	TOTALS														1	
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DATE: 15-Nov-95

REQ = REQUIRED

Form G: Final Punchlist

FORM G

FINAL PUNCHLIST (DATE)

Yale University School of Medicine Project Name: YSM Project #:

X = incomplete
C = complete
E = extra work
B = by Owner

ITEM #	INITIATOR	DESCRIPTION	ROOM	SUB	STATUS	DATE COMPL
	1					

Construction Change Directive

Project:

Project No:

Construction Manager: CCD No: ____

Date: Project Contact: Department: Planning & Construction YSM Facilities

The Construction Manager is hereby directed to perform the following as a change to the Professional Services Agreement between Owner and Construction Manager for the Project listed above. Contractor shall proceed with such services expeditiously. All Work shall be performed in accordance with the Drawings, Specifications, Project Conditions, the terms and conditions of the Contract Documents, and the latest accepted Schedule, as are modified hereby. By signing below, the Construction Manager and Architect confirm that they have reviewed the costs presented herein and attest to their appropriateness for the work scope described.

(description of directive(s))

PROPOSED ADJUSTMENTS

- 1 The proposed basis of adjustment to the contract Sum or Guaranteed Maximum Price is:
 - □ Lump Sum (increase) (decrease) of \$
 - Unit Price of \$ per
 - □ As provided in Article 6.3 of the Agreement.
 - As follows:

The Contract Time is proposed to (be adjusted by (an increase) (a decrease) of days.) (remain unchanged).

Agreed to by: (Construction Manager)	Recommended by: (Architect)	Agreed to by: Yale University
(Name)	(Name)	(Name)
Date:	Date:	Date:

Top of the Document

CCD Word Doc

Exhibit III-D

Change Order

Project: Project No: Purchase Order No:

Construction Manager:

Change Order No:

Date:

Yale Project Contact:

The Professional Services Agreement between Owner and Construction Manager for the Project listed above is hereby revised in the following manner:

(description of change(s))

All Work shall be performed in accordance with the Drawings, Specifications, Project Conditions, terms and conditions of the Contract Documents, and the latest accepted Schedule, as they are modified hereby.

This Change Order constitutes a final settlement of all matters relating to the change(s) described above, including, but not limited to, all direct costs associated with such change(s), as well as all indirect costs such as claims for delays, disruptions, acceleration, impacts, lost overhead, and/or lost profits resulting from, caused by, or incident to the Work on which this Change Order is based.

ORIGINAL GUARANTEED MAXIMUM PRICE:	\$XX,XXX,XXX.XX
NET CHANGES BY PREVIOUSLY AUTHORIZED CHANGE ORDERS:	\$ <u>X,XXX,XXX.XX</u>
GMP PRIOR TO THIS CHANGE ORDER:	\$XX,XXX,XXX.XX
GMP TO BE [INCREASED][DECREASED] BY THIS CHANGE ORDER:	\$ <u>XXX,XXX.XX</u>
REVISED GMP, INCLUDING THIS CHANGE ORDER:	\$XX,XXX,XXX.XX

The Contract Time shall be [unchanged] [reduced by ____ Days] [extended by ____ Days] as a result of this Change Order. [The Work of this Change Order shall be completed by ____]

Agreed to by: (Construction Manager)	Recommended by: (Architect)	Agreed to by: Yale University	
(Name)	(Name)	(Name)	
Date:	Date:	Date:	

Exhibit III-E: OMITTED

Exhibit III-F: Sample Two Week Look Ahead

Subject: SHM CE Two Week Look Ahead Schedule **Date:** Mon, 04 Jan 1999 16:44:30 -0500 From: Walter Chabla <walter.chabla@vale.edu> Organization: Yale University School of Medicine **To:** Patrick Nolan <patrick.nolan@yale.edu>, Virginia Chapman <virginia.chapman@yale.edu>, John W. Schuster < john.schuster@vale.edu>, James Adams < james.adams@yale.edu>, Alan Weiner <alan.weiner@vale.edu>. Moira Healey <moira.healey@yale.edu>, Patience Benassi <patience.benassi@yale.edu>, Pamela Costa <pamela.costa@yale.edu>, Oscar Ferland <oscar.ferland@yale.edu>, Kevin Charbonneau <kevin.charbonneau@yale.edu>, Keith Roberts <keith.roberts@yale.edu>, Philip Colavecchio <philip.colavecchio@yale.edu>, Sharon Cohen <sharon.cohen@yale.edu>, Judith Mayo <judith.mayo@yale.edu>, Dawn Krieger <dawn.krieger@yale.edu>, Robert Skolozdra <svigals@aol.com>, David Finlay <dfinlay@hvac.vanderweil.com>, Richard Breese <richard.breese@whiting-turner.com>

Yale University School of Medicine Sterling Hall 'C' Wing Entry Level & Basement Morgue Renovations

Two Week Look Ahead Schedule January 4, 1999 through January 15, 1999

Walter:

The following work will be performed during the above referenced time period.

SCHEDULED SHUTDOWNS:

1. The steam and pump condensate shutdown previously scheduled for January 5, 1998 from 6:00am until 2:00pm, has been canceled pending warmer weather. We will submit a revised shutdown request, targeting warmer weather, so as to minimize the impacts of this shutdown.

SCHEDULED CONSTRUCTION:

1. Installation of ductwork and pipe racks will be completing in the North half of the Entry Level and testing of the new pipe and ductwork systems in the North half of the facility will continue.

NOTE: Part of this work will require installation (drilling) of anchorage in the existing Entry Level ceiling/1st floor.

2. Installation of constant and variable volume boxes will be completed in the Northern portion of the facility.

3. The drywall contractor will continue to frame and install gypsum wallboard through out the Entry Level.

NOTE: Part of this work will require use of a chop saw to cut metal studs and will produce loud high-pitched noise.

5. The mechanical contractor will continue preparations for tying into the high-pressure steam system in the North end basement tunnel.

NOTE: This work may create unpleasant odors as the steam lines are welded.

6. The sprinkler contractor will complete roughing in the new sprinkler system lines in the North half of the facility.

7. Fit-up of the new Air Handling Unit and rough-in of the basement level mechanical room will continue.

8. Electrical rough in will continue through out the Entry and Basement levels.

NOTE: This work will require some drilling for anchorage and may produce intermittent noise on 1st floor.

9. Acoustical ceiling tile grid installation will continue in the South half of the facility.

NOTE: This work will require shooting anchorage into the 1st floor for hangers. This work will stop after 10:00am.

10. Painting will continue in the South half of the C Wing facility. Smells from this work should be minimal as the majority of this work will be with water based material.

11. Vinyl Composition Tile (VCT) flooring and floor patching activities will continue in the South half of the C Wing.

12. Delivery, layout, and installation of laboratory casework in the South half of the facility is scheduled to begin on January 12, 1999! Mechanical and electrical fit-up of the casework will follow its installation immediately.

13. Installation of storm windows, starting in the South half of the facility, is scheduled to begin on January 6, 1999.

14. Infill of the existing duct shaft in the Southern portion of the facility is scheduled to take place during the week of January 11, 1999.

NOTE: This work will generate some noise from drilling rebar dowels and anchorage. The noise from this work will stop after 10:00am. Whiting-Turner will continue to notify Yale of various shutdowns and potential disruptions as work progresses. Please call if you have any questions or need additional information.

Sincerely, THE WHITING-TURNER CONTRACTING COMPANY

Richard C. Breese Project Engineer

Exhibit III-G – Materials Staging Sign

(see next page)



CONSTRUCTION MANAGER: _____

SUBCONTRACTOR: _____

PROJECT NAME: _____

YSM PROJECT MANAGER: _____

DATE: _____ BS&O INITIALS: _____

THIS MATERIAL IS STORED IN THIS LOCATION WITH PERMISSION OF YSM FC & R PROJECT MANAGEMENT AND YSM FACILITIES OPERATIONS. IT IS ANTICIPATED TO BE IN THIS LOCATION UNTIL / / .

Exhibit III H – Sample GMP Sum (NOTE:USE OF THIS FORM NOT REQUIRED IF THE SAME FORMAT IS CM NAME:		
PROJECT NAME:		
DATE:		
Provide detail for subdivions as required using Exhibit III H Total Division 1 - GENERAL REQUIREMENTS	\$	
Total Division 1 - GENERAL REQUIREMENTS	φ	
Total Division 2 - SITE WORK	\$	
Total Division 3 - CONCRETE	\$	
Total Division 4 - MASONRY	\$	
Total Division 5 - METALS	\$	
Total Division 6 - WOOD & PLASTICS	\$	
Total Division 7 - THERMAL / MOISTURE PROTECTION	\$	
Total Division 8 - DOORS & WINDOWS	\$	
Total Division 9 - FINISHES	\$	
Total Division 10 - SPECIALTIES	\$	
Total Division 11 - EQUIPMENT	\$	
Total Division 12 - FURNISHINGS	\$	
Total Division 13 - SPECIAL CONSTRUCTION	\$	
Total Division 14 - CONVEYING SYSTEMS	\$	
Total Division 15 - MECHANICAL	\$	
Total Division 16 - ELECTRICAL	\$	
Contingency	\$	
SUBTOTAL	\$	
Permits @ \$16 per \$1000	\$	
Trade Subtotal	\$	
General Conditions	\$	
CM Fee	\$	
TOTAL	\$	

Exhibit III I – Yale School of Medicine Sample Breakdown

CM Name Project Name (Approved) Date

SPEC. DIVISIO				DL1 COL	
	#	NAME	TOTAL	OWN FORCES	SOLE SOURCE
Division					
Div. #			\$	\$	\$
Div. #			\$	\$	\$
Div. #			\$	\$	\$
Div. #			\$	\$	\$
Div. #			\$	\$	\$
Total			\$	\$	\$
Division					
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$ \$	\$
Div. #			\$	\$	\$
Total			\$	\$	\$
Division					
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	φ •	\$
Div.#			\$	\$ \$	\$
Total			\$	\$	\$
Total			Ψ	Ψ	Ψ
Division				•	
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Total			\$	\$	\$
Division					
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#			\$	\$	\$
Div.#		1	\$	\$ \$	\$
Div.#			\$	\$	\$
Total			\$	\$	\$
(Last sheet only)				
Grand Totals					

Exhibit III J – Yale School of Medicine Sample Bid Comparison Sheet

CM NAME:			
APPROVED			
PROJECT NAME:			
DESCRIPTION:			
DATE:			
Contractor / Tel. #			
Total Base Bid	\$	\$	\$
Proposal Comments			
CM Proposal Executed			
Addenda Acknowledge	d		
Subcontractors listed			
Cancellation charges			
Labor Rates Submitted			
Manpower Schedule Su	ubmitted		
Unit Prices Submitted			
Requested Alternate Pr			
Voluntary Alternate Price	ing		
		1	Ι.
Alternates	\$	\$	\$
-			1
Comments:			
Signed			
Dete	Title		
Date			
(iviust be signed by Office	cer of Construction Manager)		
1			1

Exhibit III K – Meeting Minutes Format

The Constructor is required to record and circulate meeting minutes for each construction meeting.

Format should conform to the following example.

Key requirements:

- Use official YSM FC&R Project Name.
- List all recipients; show those attending.
- Minutes should be circulated promptly by email.
- Date each entry.
- Distinguish items added or updated at latest meeting with italics and bold text.
- Review schedule at each meeting and note in minutes.

Yale University School of Medicine – Sargent Drive 150, 2nd I.V.F. Expansion Project

PROJECT TEAM MEETING MINUTES # 7 – CONSTRUCTION

July 19, 2005

7.1.0 ATTENDEES

Y	WBL	Wilfrid Lamb	Yale University School of Medicine
N	ML	Maryjo Lanzillotta	Yale University – OEHS
N	DL	Dave Larocca	Yale University - BS&O
N	RA	Riccardo Aird	Yale University – OEHS
N	DC	Darius Czainola	Yale University – OEHS
Y	DL	Doug Lovegren	Svigals + Partners
N	KR	Keith Roberts	Yale University - BS&O
N	JG	John Gilligan	Yale University – Yale Security
N	DS	Denny Sakkas	Yale I.V.F.
Y	PP	Pasquale Patrizio	Yale I.V.F
Y	VW	Valerie Wohlstrom	CHC Physicians
N	LC	Linda Cioughr	ADPTC
N	JD	Jessica Dovey	Yale I.V.F.
N	MR	Marie Raccio	Yale I.V.F.
Y	KCM	Karen Muth	Yale University - OBGYN
N	EK	Ed Kuczynski	Yale University - OBGYN
N	SO	Scott O'Dell	The Whiting-Turner Contracting Company
Y	MB	Mickey Brown	The Whiting-Turner Contracting Company
Y	AS	Alon Solomon	The Whiting-Turner Contracting Company
Y	DC	Dan Chesnick	The Whiting-Turner Contracting Company
Y	AD	Andy Dowd	The Whiting-Turner Contracting Company
N	OS	Olga Sobko	Yale I.V.F.
N	JMB	Jay Brotman	Svigals + Partners
N	HR	Hesh Rosenberg	Yale University – Yale Security
N	RD	Ryan Dudley	Yale Fire Marshal
N	PHB	P.H. Bartlett	Yale University School of Medicine
Ν	NV	Nick Vitale	CHC Physicians
N	JM	Jackie McClure	Yale I.V.F.
Ν	JP	Jean Page	Yale Biz Office
Ν	JS	Jill Stronk	Yale I.V.F.
Y	HB	Harold Behrman	Yale University – OBGYN
N	OMF	Mike Ferland	Yale Telecom
Y	JE	Jeannine Estrada	R.E.I

Action By:

N/A

Date Due:

07/26/05

N/A

7.2.0 <u>Corrections to Previous Minutes</u>

7.2.1 None

7.3.0 Old Business

2.4.3 07/19/05 – WT to schedule a meeting with GDD, Dinto Electrical, Valerie WT
Wohlstrom and Yale School of Medicine to discuss metering change.
07/12/05 – WT to proceed with work associated with the separation of meters for the IVF facility.
06/28/05 – Pricing was submitted to Yale for approval. Wilfrid Lamb authorized WT to proceed with additional work associated with the separation of the meters for the IVF space. WT to review schedule impact.

Svigals / GDD to provide explanation and pricing to Yale and YNHH.

06/14/05 - GDD/Svigals to provide a CCD and a diagram for the additional work related to the separation of the meters at the renovated space. WT is continuing with the currant approved work. Once the CCD is received and priced, WT to forward cost and schedule to Yale.

	05/31/2005 – WT to coordinate the exact location of the meters. Valerie Wohlstrom requested to arrange the move of the electrical meter of the IVF facility. The move can be done after phase I. Valerie Wohlstrom to coordinate with WT superintendent.		
3.4.3	 07/19/05 - WT reported that pricing for CCD # 4 has been submitted to Svigals and YSM for approval. 07/12/05 - WT reported that pricing for CCD # 4 will be submitted shortly. 06/28/05 - WT stated that work for CCD # 4 (low voltage for phase I removal, based on time and material) was completed. WT to summarize all tickets and process pricing for CCD # 4. 06/14/05 - CCD # 4 was issued for work related to unused low voltage. WT to follow with pricing. WT noted that per the electrical inspector, all unused low voltage above ceiling needs to be caped and removed. This additional work requires a CCD. 	Svigals & YSM	07/26/05
3.4.5	 07/12/05 - Svigals to issue a CCD for additional work at room # 282 (room outside the project limit). 06/28/05 - Olga Sobko noted that a new door would be required for room # 282. Ed Kuczynski to review and approve additional work at room # 282. If room is going to be used for clean / dirty storage, Yale OEHS to review the room for requirements. 06/14/05 - Valerie Wohlstrom and / or Olga Sobko to verify utilization of room # 282 for the IVF department use. Valerie Wohlstrom noted that room # 282 is part of the IVF lease space, but is not included in this renovation project. WT noted that room # 282 is not part of this project and it currently out of the project scope. Valerie Wohlstrom to verify utilization of room # 282 for the IVF department use. 	Svigals / DL	07/26/05
4.4.3	 07/19/05 - WT reported that the Building Inspector is scheduled to perform the Certificate of Occupancy inspection on Wed. July 20, 2005. WT to provide a copy of the temporary Certificate of Occupancy to Jackie McClure at the end of Phase I. 	WT	07/25/05
5.4.3	• WT to complete corridor # 13 by July 29, 2005.	WT	07/29/05
6.4.1	 07/19/05 - WT to proceed with approved work based on time and materials. Pricing for this work to follow up in CCD # 8. Yale IVF requested to convert room 277 to an office space. WT to follow up with pricing or a not to exceed number for this work. 	WT	07/25/05
6.4.2	 07/19/05 – WT reported that testing of the fire alarms is to take place on Wednesday, 07/20/05, at 9:30am. Tenants and security have been informed of the testing and WT will inform all parties affected by the testing before and after the testing is complete. WT to provide a specific day and time for the fire alarm testing. 	WT	07/20/05
6.4.3	• Yale IVF asked WT to connect equipment (ice machines, refrigerators, etc.) during the move. WT to provide a not to exceed number based on time and material to perform work associated with the equipment connection. Svigals to issue a CCD for this additional work. WT to report to Wilfrid Lamb (on a weekly basis) the status of the funds spent for this work.	WT/Svigals	07/29/05
6.4.4	• WT to remove hardware from door at corridor C #14.	WT	07/26/05

7.4.0 7.4.1	 <u>New Business</u> Wilfrid Lamb inquired about the status of CCD#7 and CCD#8. WT reported that they are being processed and should be completed by August 2, 2005. 	wт	08/02/05
7.4.2	 Wilfrid Lamb and Valerie Wohlstrom asked to be informed of all emergency system tests to be performed. 	WT	07/20/05
7.4.3	• Karen Muth and Olga Sobko to coordinate move of furniture into the new facility space. Furniture to be delivered by Friday July 29, 2005. A meeting is set up between Karen Muth, Pasquale Patrizio and Mickey Brown to discuss moving details for Tuesday July 19, 2005.	WT/KCM/PP	07/29/05
7.4.4	 Wilfrid Lamb inquired about keying for door hardware. WT responds that Yale owns the keying. 	WBL	07/26/05
7.4.5	Wilfrid Lamb to order signage for the facility.	WBL	07/26/05
7.5.0 7.5.1	Project Schedule Status Update WT reported that due to CCD # 6 (electrical meter separation) substantial completion for phase I will take place on 07/26/2005.	WT	07/26/05
7.6.0 7.6.1	Submittal Log ReviewSubmittal log was not reviewed.	N/A	N/A
7.7.0 7.7.1	 RFI Log Review RFI log was not reviewed. No outstanding RFI. 	N/A	N/A
7.8.0 7.8.1	Budget Review Budget was not reviewed.	N/A	N/A
7.9.0 7.9.1	 <u>Distributions</u> Revised construction schedule dated 07/11/2005. Contractor Two-Week Look Ahead Schedule, for the weeks of 07/18/2005 – 07/30/2005. 	N/A	N/A
7.10.0	<u>The next meeting is scheduled for:</u> Tuesday, August 2, 2005 at 150 Sargent Drive, 11:00 am, 1 st Floor, conference room "A".		

These minutes represent our summary of this meeting. They will become part of the project record and form the basis in which we will proceed. Your response is appreciated within three (3) business days if you have any comments or wish to make any corrections. After this period this document will be the official record transcription for this project.

Respectfully submitted, *Dan Chesnick* Project Engineer

END OF MEETING MINUTES cc: All Attendees WT File