

K:\1102100\DRAWINGS\4-PLOT SHEETS\SP1.1 PROJECT SPECIFICATIONS.DWG 11/8/2011 9:44:51 AM DARREN PENEWITT

**SECTION 01010 – SUMMARY OF WORK**

A. SCOPE: The Work, as defined in the general conditions as described in the Contract Documents is summarized as follows:

Construct a single story retail facility with reinforced concrete unit masonry, metal stud frame construction, reinforced plaster wall panels, metal shell standard fascia, Single-ply TPO membrane roof, on metal decking, aluminum windows and doors, entrance, interior drywall partitions, millwork, hollow metal doors and frames, acoustic ceilings, floors, finishes toilet room accessories, equipment site work, and mechanical, plumbing and electrical work.

B. RELATED WORK PROVIDED BY THE OWNER  
Refer to schedules on drawings.

C. PRIOR ENTRY:  
1. Owner reserves the right to prior entry to completed and partially completed areas for performance of other work to be performed under other contracts.  
2. Confine construction operations, materials, and equipment storage, apparatus, temporary construction, equipment, and other construction related activities to such limits and portions of the Project Site, as designated by the owner, and indicated on the drawings.  
3. Do not use adjacent properties including private properties and that of public domain, for material and equipment storage or for construction operations without the specific written approval of any and all authorities having full and proper jurisdiction.

**SECTION 01018 – OWNER PROVIDED DOCUMENTS**

A. COPIES OF CONTRACT DOCUMENTS: The owner will supply to the contractor one set of contract documents, free of charge, for construction purposes. Additional sets will be available to the Contractor if he pays for the cost of reproduction.  
B. COPIES OF SUPPLEMENTARY CONTACT DOCUMENTS: The following owner provided documents are hereby designated as Supplementary Contract Documents. The architect does not guarantee their contents as to accuracy, completeness, or suitability.  
1. Sales Report  
2. Survey

**SECTION 01025 – MEASUREMENTS AND PAYMENT**

A. PROGRESS SCHEDULE AND COST BREAKDOWN: Within 21 days after the execution of the Contract, submit, in acceptable form, anticipated progress schedule showing subdivision of contract into various items of permanent construction, stating quantities and prices as a basis for computing value to owner of permanent reusable parts of work to be paid for on monthly estimates. No payment will be made to the Contractor until such a schedule has been submitted and approved.  
B. PROGRESS PAYMENTS: Monthly payments will be made of the value of completed work, and materials stored at the site, less retainage. Owner will not pay for materials stored at site. Payment of owner will be made in reasonable time of the date the application was received. Contractor will pay for all permits, fees, local and state taxes.  
1. RETAINAGE: Retainage of 10 % of amount due to the Contractor will be held by the owner until 30 days after substantial completion.

**SECTION 01070 – DEFINITIONS**

A. THE CONTRACT DOCUMENTS: The Drawings are those enumerated in the "List of Drawings" and identified in the contract. The drawings in many instances are schematic and do not define exact locations of every part and piece of this work. Items furnished may vary in size, dimensions and other requirements from those items called for in the Contract Documents. In some cases determine the exact location of each part by measurements, drawings from equipment manufacturers, and coordination with other work.  
B. SPECIFICATIONS:  
1. The format of the Specifications divides the work into Major Divisions and Work Sections attempts to group the work in each section by source of material or by trade, solely for the convenience of the users. No trade jurisdictions are intended or implied.  
2. The outline form and imperative voice are typically used to emit repetitious work or word groups (such as "furnish and install", "contractor shall" and other similar statements), and to call for the type of materials and methods and limit the use in the briefest possible manner. Such words omitted from the text shall be construed to be included just as if they were repeated each time.  
C. MINIMUM COMPLIANCE STANDARDS AND INDUSTRY SPECIFICATIONS:  
Materials and operations specified by reference to published specifications of a manufacturer, a society, an association, a code, or other referenced standard, shall comply with the current requirements of referenced document, officially published on or before the date of the receipt of bids.  
**SECTION 01100 – TESTING LABORATORY SERVICES**  
A. An independent testing laboratory may be selected by the owner to inspect and test the materials and methods of construction as hereinafter specified for compliance with the contract documents.  
B. The owner will pay for the initial laboratory testing of materials that comply with the requirements of the contract documents. The contractor shall pay for the testing and retesting of the material that do not comply with the requirements of the contract document.  
C. STRUCTURAL CHECKS:  
1. AGGREGATE TEST: Check the proposed aggregate in accordance with the ASTM C 33.  
2. MIX DESIGN: Check the proposed mixes for proportions, water cement ratio and slump in accordance with ASTM C 613 and C 318.  
3. SLUMP TEST: Take slump test ASTM C 143 at the beginning of each days pouring operations and whenever water adjustments are noticeable of slump occurs daily.  
D. Make five standard cylinders at the beginning of each placement. Take extra samples at noticeable change in the concrete makeup.  
E. Take four additional test cylinders for every one hundred cubic yards or fraction thereof. Cure of ASTM C 192.  
F. Perform sampling in compliance with ASTM C 172  
5. TESTING: Test cylinders for compression in accordance to ASTM C 39.  
A. LABORATORY CURE: 2 cylinders in accordance with ASTM C 192.  
B. FIELD CURING: remaining cylinders in accordance with ASTM C 31.  
C. Test Cylinders two at seven days, and two at twenty eight days averaging test results. Testing remaining cylinders at fifty six days.

**SECTION 01510 – TEMPORARY FACILITIES**

A. CONSTRUCTION FACILITIES: Provide the following facilities for the use of all personnel, subcontractors and all authorized personnel.  
1. TOILET FACILITIES: Provide sanitary and adequate facilities to meet the legal requirements.  
2. DRINKING WATER: provide clean drinking water with disposable paper cups and containers for the used cups.  
3. ELECTRIC: Provide connections and controls for 115V, single phase power with control within 200 feet of locations used.  
4. LIGHTING: Provide 50 foot–candles for construction purpose where daylight is not adequate.  
5. CONSTRUCTION WATER: provide adequate water lines and hoses with control within 200 feet of locations used  
E. HOISTING FACILITIES: Provide hoisting equipment as necessary, for light construction material complying with jurisdictional safety codes.  
B. FIELD OFFICE:  
2. Provide and maintain a watertight building with lockable door and windows to serve as job office available to the contractor, subcontractor and owner. Provide lighting, air-conditioning and heating as needed. Provide a drawing table with lockable doors and a drafting bench. Remove office from the premises when one can be set up inside the building.  
A. STORAGE FACILITIES:  
3. Provide and maintain a watertight storage facilities raised with a six inch minimum above the ground with sides and tops enclosed, and with lockable doors.  
4. Replace materials improperly stored and damaged by normal or predicted weather conditions. Remove storage facility when materials can be properly stored in a watertight condition.  
D. GRAPHICS:  
4. JOB SIGN:  
a. SIZE: nominal 64 square feet  
b. MATERIAL: 3/4 inch APA exposure 1 or exterior plywood A-C grade or MD Overlay.  
c. POSTS: 4 inches by 4 inches, 2 required  
d. FRAMING AND BRACES: 2 inches by 4 inches.  
e. LETTING: Name of job, owner, contractor, architect and engineers  
f. LAYOUT AND COLOR SELECTION: As selected solely by the owner.  
E. RESTORATION OF SIGNS: No advertising signs may be installed anywhere on the site.

**SECTION 01600 – MATERIALS AND EQUIPMENT**

A. SUBSTITUTIONS:  
1. Submit all proposed substitutions after the award of the contract in writing with sufficient information samples and differences in cost, evaluation. Do not make substitutions unless approved in writing.  
2. Prepare quotations for proposed changes in the work in a "break down" form giving the number of units, unit cost material, hours of labor, hourly cost of labor, total costs, overhead and profit, reflecting credit as well as extras.

B. USE MATERIALS THAT ARE:  
1. New and high quality suited to the use of intended except wherein noted as used.  
2. Suitable for the function intended.  
3. Corresponding in quality to related materials in the absence of a definite Specification.  
4. Of good appearance where exposed to view.  
5. Of one manufacturer or source for the same specific purpose with uniform appearance and physical properties.  
6. Plainly marked and delivered to the site in original unopened containers when the nature of container is suitable for containers.

C. WORK BY OTHERS: Arrange to accommodate N.I.C. work. When information is adequate request more information before proceeding.

D. Follow manufacturers instructions. When such instructions are in conflict with the Contract Documents make request for clarification before proceeding. Keep a copy of the manufacturers instructions on the job.

E. Perform high quality professional workmanship. Join material to uniform, accurate fit so that they meet with straight lines, free of seams or overlap. Install exposed materials appropriately leveled, plumb, and accurate right angles or flush with adjoining materials. Attach materials with sufficient strength, number and  
B. COPIES OF ATTACHMENTS that will not fail until materials joined and are broken or permanently deformed.  
**SECTION 01700 CONTRACT CLOSE-OUT**

A. SUBSTANTIAL COMPLETION:  
1. When the contractor determines that the Work is substantially complete, the contractor will send a written notice to the owner that the project is substantially complete and requests an inspection of the work.  
2. Within a reasonable time after receipt of the contractors notice claiming substantial completion, the owner will make an inspection of the work to determine the state of completion and will prepare a punch list of items requiring completion or correction.  
3. If during the course of inspection the owner determines the work substantially complete, he will discontinue the inspection and will notify the contractor that the work does not comply with requirements of substantial completion.  
4. Immediately after the receipt of notice that the work is not substantially complete the contractor shall correct the deficiencies and send a second written notice to the owner as specified above.  
5. When the owner feels the work meets the requirements of substantial completion, the owner will prepare a certificate of substantial completion, AA Document G704.  
6. The contractor shall prepare and submit to the owner a list of items to be completed or corrected within the time constraints established on the certificate of substantial completion.  
7. The owner will review and amend the list of items to be completed or corrected and append the complete list to the certificate of substantial completion.

B. MANUALS, INSTRUCTIONS AND KEYS:  
1. The contractor shall assemble and deliver to the owner printed or typewritten, operating servicing and maintenance and cleaning instructions and part list for all items of equipment provided as part of the contract. Include names and address of local representative of each unit of equipment, index manuals of equipment containing items of different equipment.  
2. Provide two copies of each required manual including mechanical and electrical portions of work.  
3. The contractor shall provide services of skilled and competent supervisory personnel to instruct the owners personnel in operation and maintenance of all operating equipment and systems provided as part of the contract.  
4. Upon completion of work, the contractor shall deliver all keys including master keys and any special keys and two copies of the keying ring to the owner and will assist the owner in deactivation of construction keyed locks used on the projects.  
C. RELEASE OF LIENS:  
1. The contractor shall deliver to the owner a blanket release of liens covering all work performed under this contract, including that of subcontractors, subcontractors, vendors and other suppliers of materials and labor. Execute the release of liens on the documents similar to AA Document G706 "Contractors affidavit of payment of debtors and claims and G706A "Contractors affidavit of release of liens."  
2. The forms will be executed by authorized officer and notarized. All required attachments will be included as noted on AA document G706. If exceptions are listed in either AA G706 or Document G706A, the contractor shall furnish bond satisfactory to the owner for each exception.  
3. No final payment will be made by the owner to the contractor until all release of liens have been delivered to the owner.  
D. GUARANTEES, BONDS, AND INSPECTION CERTIFICATES:  
1. The contractor shall have guarantees on upon materials and workmanship as required by article 13 of the AA general conditions and special guarantees and bond required by the contract documents executed in the owners name.  
2. Prior to making the application to final payment, the contractor shall collect and assemble all required guarantees and bonds and deliver them to the owner.  
3. The contractor shall collect and assemble all required guarantees and bonds and deliver them to the owner. The contractor shall collect and assemble all required certificates of inspection, testing, approval, and deliver them to the owner.  
E. WARRANTIES:  
1. Furnish written warranties to the owner including specific items in each product warranty stipulated in the individual section.  
2. Secure and transmit required inspection certificates.  
3. Repair and replace damaged portions of the construction, under warranty, when damages result from faulty materials and negligent workmanship.  
4. Warrant that modifications or substitutions suggested by the contractor will give satisfactory results and that they will be equal or superior to the specified item or method unless shortcoming are specifically listed in the request for modification or substitution.  
F. FINAL COMPLETION:  
1. When the work has been completed fully in accordance with the requirements of the contract, the contractor shall send a written notice claiming final completeness and shall specify each note on the punch list as being complete or any incomplete item.  
2. The contractor shall submit final application for payment indicating adjustment and accounts including original contract sum, additions and deductions as included on charge orders, cash allowances, deductions on incorrect work, and other requirements listed in the documents contract, including the Consent of Surety Company to final payment, AA Document G707.  
3. Upon receipt of the contractors notice claiming final completion the owner will perform a final inspection, and if the work is fully complete in accordance with the requirements of the document contract, the owner will issue a certificate of completion, and a certificate for final payment.  
G. TERMINAL INSPECTION:  
1. Immediately prior to expiration of the one year guarantee period, the contractor shall make an inspection of the project in the company of the owner. The owner shall not be given less than five days notice prior to the anticipated date of terminal inspection.  
2. Where any portion of the work has been proven to be defective and requires replacement, repair, or adjusting, the contractor shall immediately provide materials and labor necessary to repair such defective work and shall execute work until completed and to the satisfaction of the owner even though that the date of completion has past the expiration date of the guarantee period.  
3. The contractor shall not be responsible for work that has been damaged due to neglect or abuse by the owner nor the replacement parts necessitated by normal wear and tear.  
**SECTION 01710 – CLEANING**

A. PERIODIC CLEANING:  
1. GARBAGE COLLECTIONS: Provide a garbage can at each location on the site as used as an eating area. Pick up all garbage not deposited in cans daily. If garbage is left overnight cover cans. Remove garbage from cans weekly. Keep the site free from garbage, trash, and vermin infestation.  
2. TRASH REMOVAL: Clean the work area of trash once a week. When rapid accumulation occurs remove trash more frequently. Remove highly combustible trash every day, paper cardboard, wood.  
3. DISPOSITION OF DEBRIS: Remove debris from site and make legal disposition. Locations for disposal shall be of contractors choice. No debris may be buried or burned on site. Take necessary precautions to prevent accidental burning of materials by avoiding large accumulations of combustible materials.

**B. FINAL CLEANING:**

1. The work area shall be thoroughly cleaned inside and outside. Cleaning includes removal of smudges marks and stains, fingerprints, soil dirt spots, dust lint, and any other foreign matter from finished and exposed surfaces.  
2. Remove all temporary facilities.

**SECTION 02110 – SITE CLEARING AND GRUBBING**

A. VEGETATION PRESERVATION: Do not remove trees or shrubs without the specific approval of the architect. Damaged vegetation will be replaced.  
B. REQUIREMENTS OF REGULATORY AGENCY: Adhere to state and local code requirements for the disposal of trees and shrubs removed from site.  
C. OWNERSHIP OF REMOVED MATERIALS AND VEGETATION: Unless noted otherwise, removed property become property of the contractor.  
D. PROTECTION OF VEGETATION: Rotate or fence off vegetation that is to remain to prevent damage.  
E. Grubbing: Grubb construction depth to a minimum of one foot to the existing grade.  
A. The surface report governs existing subsurface conditions.  
B. CONCEALED CONDITIONS: Variations from the contract document for conditions not apparent at the start of the work will be adjusted as described in the contract conditions.  
C. SOIL STIFFNESS: When soil concerning subsurface soil stiffness is not available assume an angle of repose 45 degrees under optimum moisture conditions. No angle of repose can be assumed when soil is under adverse condition. Where concrete is shown vertical or steeper than the angle of repose forms are required.  
D. GOVERNING DOCUMENTS: The following documents governs the work.  
1. Occupational Safety and Health administration, recommendations, Chapter XVI, 1926.625  
2. IN TEXAS: Texas trench laws, HB 662 and HB 665  
E. EXCAVATION INSPECTION: Do not place concrete in footing excavations without the architects inspection.  
F. FILL AND BACK FILL MATERIAL: Select fill material under placed under slabs foundation and paving shall comply with the following requirements. Materials may be provided it is made to comply with the use of admixtures sand or lime.  
1. LIQUID LIMIT: 30 to 45  
2. PLASTICITY INDEX: 7 to 20  
3. LINEAR SHRINKAGE: 10 % maximum.  
4. PURITY: No stones or debris larger than 3 inches  
G. COMPACTING: Provides 90 % maximum density under walk and grassy areas, 95 % minimum anywhere elsewhere. Add water or dry out to maintain optimum moisture content. AASHTO compaction test method T-99, performed at optimum moisture. Place fill in layer not to exceed 6 inches after completion.  
H. COMPACTING OF GRANULAR FILL: Compact trenches under slabs as follows:  
1. 12 INCHES OR LESS: provide granular material soft enough to compact readily by water saturation.  
2. BETWEEN 12 AND 36 INCHES: compact by water saturation to within two thirds of the surface. The final 2 feet and 0 layers shall be compacted by six inch layers.  
3. OVER 36 INCHES: compact at 6 inch layers starting at the bottom.  
I. SAND LAYER:  
1. LOCATION: Where sand cushion is noted under concrete slabs.  
2. MATERIAL: #1 well graded inorganic mineral sand in loose stratified deposits per ASTM D 2488.  
3. THICKNESS: 2 inches under walks and 4 inches elsewhere.  
4. COMPACTING: Compact to support concrete without settlement during placing.  
J. VAPOR BARRIER: Provide a 6 mil polyethylene plastic film vapor barrier under floor slabs placed on earth.  
**SECTION 02246 – SOIL STABILIZATION**  
A. Coordinate the requirements of the structural drawings with the requirements of this section. If a conflict exist notations on the structural drawings take precedence. Refer to the soil reports and survey for existing subsurface conditions.  
**SECTION 02284 – TERMITE CONTROL**

A. MINIMUM COMPLIANCE STANDARDS: Comply with all applicable governmental standards. unauthorized use of these chemicals is strictly prohibited.  
B. Warrant the work herein for five years. Defects shall include but not be limited to the following:  
1. termite activity  
2. Damage of building material caused by termites  
C. include replacement of materials caused by termites within the warranty period.  
D. APPLICATOR: Applicator shall be bonded to reform this type of work. Where local licensing is available or required, applicator shall be licensed to perform this type of work.  
E. POISON DILUANT: Potable water  
F. Provide EPA approved chemicals of the following types:  
1. ORGANOPHOSPHATES: Durston TC, Dow chemicals USA, Midland MI 4874 (517) 636-1000.  
2. PYRETHOIDS:  
a. Dregnet FT: FMC Corp. Agricultural chemical group Philadelphia, PA, 19103 (215) 299-6000.  
b. Dregnet TC: ICI Americas Inc. Wilmington DE 19899 (303) 575-3000  
c. Torpedo: ICI Americas Inc. Wilmington DE 19899 (303) 575-3000  
d. Tribute: Vetical chemical Corp. Rosemont IL 60018 (312) 698-9700  
G. QUANTITIES OF WORKING SOLUTION: Provide one gallon per 10 square feet under the building slab, and 2 gallons per 5 linear feet at the slab perimeter.  
H. PROCEDURES: Notify the supervising authority before commencing work. do not apply poison to soil that are excessively wet. Apply solution immediately after placing vapor barrier.  
**SECTION 02510 – CONCRETE CURBS WALKS AND PAVING**

A. WORK GOVERNED BY OTHER SECTIONS: The actual work of this segment remains within this section, but subject to the applicable requirements of division 3 – Concrete.  
B. MINIMUM COMPLIANCE STANDARDS: Work in accordance with the following:  
1. ACI 318 and ACI 325  
2. Portland cement Assoc. PA017 and PL136  
3. ACI 302  
C. CONCRETE MATERIALS: Provide 3000 PSI gray concrete with air in training and water reducing with accelerating and retarding compounds.  
D. PAVING AND CURB JOINTER FILLING: Provide 3/4 inch thick clear heart construction grade redwood with dowels as detailed on the drawings.  
E. PAVING JOINT SEALING COMPOUND: Provide a single component, rubberized, hot applied sealing compound similar to allied NO. 9005 complying with F.S. SS-5-1401B.  
F. SLOPE FOR DRAINAGE: Slope walks, driveways, paving and gutters.  
G. TOOLING:  
1. EDGING: Edge walks and paving edges to 3/8 inch radius at expansion joints and where needed for a neat appearance.  
2. JOINTING: Where shown on the drawing as control joints or tool joints.  
3. CONTROL JOINT: 3/4 inch wide. Use wax smooth dowels to maintain alignment  
4. TOOLED JOINT DEPTH: 1/4 inch unless otherwise specified  
5. WORKMANSHIP: Remove marks and tooling from the surfaces  
H. FINISH: light broom or belt finish with lines perpendicular to traffic.  
**SECTION 03110 – CONCRETE FORMWORK**

A. FORMING SURFACES: Provide formwork in accordance with recommend practice for concrete framework. ACI 347 with smooth and clean surfaces.  
1. WOOD: Dressed to uniform thickness without loose knots or other defects. Plywood a minimum of 5/8 inch thick  
2. STEEL: Rust free or galvanized from surfaces.  
B. STEEL MATERIALS:  
1. STEEL PLATES: ASTM A 36 to tolerance of ASTM A 6  
2. STEEL PIPE ASTM 501 or 500 to shape detailed  
3. BOLTS: ASTM A 307 typically 325 high bolts nuts, washers, where shown.

B. ACCESSORIES:  
1. CHAIRS AND BLOCKS: Provide plastic chair where formed surfaces are exposed  
2. EXPANSION JOINTS: Provide crossed dowels or cardboard tools for alignment and reinforcement. across expansion joints.  
3. FORM RELEASE AGENT: Provide chemical type form release agent.  
C. INSTALLATION: Do not allow form release agent to contact reinforcement or concrete against which fresh concrete fresh concrete shall be placed. Wet board forms until wettable. Formwork shall be strong enough to withstand the fresh concrete and light enough prevent leakage from the mortar.  
D. FORM REMOVAL: Do not remove formwork until concrete has attained strength enough to prevent leakage of the mortar.  
**SECTION 03200 – CONCRETE REINFORCEMENT**

A. MINIMUM COMPLIANCE STANDARDS: The following documents govern the work except where more restrictive requirements are specified.  
1. Specifications for structural concrete in building ACI 301.  
2. Manual and standard practice for detailing reinforced concrete structures ACI 305.  
3. Building code requirements for reinforced concrete ACI 318  
B. MILL REPORTS: Provide certificate from manufacture describing steel used. If reinforcing cannot be identified provide tensile and bending reports.  
C. REINFORCEMENT:  
1. BARS: ASTM A 615  
a. NO 3 BARS: grade 40  
b. all others: grade 60  
2. WIRE: ASTM A 62  
3. FABRICS: ASTM A 185  
D. ACCESSORIES: provide galvanized accessories  
E. TILES: 16 gauge annealed wire or standard clips  
F. FABRICATION: Bend and cut bars, fabric and wire cold to the following tolerances:  
1. Sheared length plus or minus one inch  
2. Depth or truss plus or minus 1/2inch  
3. Stirrup, lugs and spirals plus or minus 1/2 inch  
4. other bands plus or minus 1 inch  
G. PREPARATION: Before relaying reinforcement inspect framework for fit and tolerance. Clean reinforcing free from form coating sealers and powders and soiled rust and other bonded reducing conditions.  
H. SPLICES NOT DETAILED: Staggered spllices at adjacent bars do not splice at ends of greatest stress.  
I. INSTALLATION: Support and reposition reinforcement to prevent displacement by the construction loads of concrete placement. Support bar reinforcement on chairs over concrete blocks of cement mix design as concrete.  
**SECTION 03312 – CAST IN PLACE CONCRETE**

MINIMUM COMPLIANCE STANDARDS: The following Documents govern the work except where more restrictive items are specified.  
1. Specifications for structural concrete in building, ACI 301  
2. Guide for concrete floor and slab construction ACI 318  
3. Building code requirements for reinforced concrete ACI 318.  
4. In hot weather work in accordance with the recommended practice for hot weather ACI 305  
5. In cold weather work in accordance with the recommended practice of the cold weather ACI 309  
B. DOCUMENTS PRECEDENCE: Notations on requirements on the structural drawing supersede conflicting requirement of this section.  
C. MATERIALS:  
1. CEMENT: ASTM C 150 Type I or III  
2. AGGREGATES: Standard weight aggregates ASTM C 33. Refer to ACI 301- 3.6 for max. size.  
3. WATER: Potable and clean  
4. ADMIXTURES:  
a. water reducers and set retarders: ASTM C 494,AB, or D. Do not use Chlorides.  
b. air retainer: ASTM C 262  
D. MIXTURE: Design concrete mixture to comply with the standard of deviations specified in ACI – 301 and ACI – 318 for the concrete strength shown on the structural drawings. If no strength is shown provide 300 PSI of concrete. Include air entrained for exterior exposed concrete to produce 5% plus or minus 1% total air content as determined by ASTM C 231 or ASTM C 158. Provide a maximum slump of four inches.  
E. INSPECTION AND PREPARATION: Do not place concrete until it is forming reinforcement and built in items have been inspected by the architect.  
1. SUBGRADE: dampen subgrades not covered with membrane by immediately sprinkling. Omit when subgrade is already damp. Dry out soggy subgrade before placing slabs unless wetting is uniform and placing can be done without damage to subgrade. Place slab screeds to precise elevation. Obtain the architects approval to the sub grade and screed before laying down the concrete.  
2. FORMS: Remove dirt sawdust nails and other foreign objects from formed space.  
3. BUILT IN ITEMS: install pipe sleeves bolts, anchors, and other cast in place items securely. Use templates to set built in objects.  
F. PLACING  
1. Use huggies and metal chutes at slopes between 1:2 and 1:3 to avoid separation of aggregates drop concrete in the center, do not rake or drag concrete to position.  
2. Use ready mix concrete only. Comply with the requirements of ASTM C 94 for making and transportation of cement.  
3. Place concrete continuously in any one part of the work.  
4. If a whole part of work cannot be placed monolithically place to construction joints indicated on the drawing as shown or as approved by the architect.  
5. Realign forms clean hardened surfaces and cover with bonding compound before placing against hardened concrete.  
6. Placed slope concrete from bottom up.  
5. Use temp. screeds when placing slabs to maintain levels support levels and slopes to maintain accurate elevations.  
**BHMA BUILDING HARDWARE MANUFACTURERS ASSOCIATION**  
80 EAST 42ND STREET  
NEW YORK, NEW YORK 10017  
212 - 682-8142  
**CPRI THE CARPET AND RUG INSTITUTE**  
310 HOLIDAY DRIVE  
2002 DALTON, GEORGIA 30220  
404 - 278-3176  
**DHI DOOR AND HARDWARE INSTITUTE**  
1815 N. FT. WYER DRIVE, SUITE 412  
ARLINGTON, VIRGINIA 22209  
703 - 527-2069  
**GA Gypsum ASSOCIATION**  
6763 ORRINGTON AVENUE  
EVANSTON, ILLINOIS 60201  
312 - 481-1744  
**HPMA HARDWOOD PLYWOOD MANUFACTURERS ASSOCIATION**  
808 RIVER  
NORFOLK, VIRGINIA 22206  
703 - 671-6262  
**NPA NATIONAL PARTICLE BOARD ASSOCIATION**  
2328 FENWICK PLACE  
SILVER SPRING, MARYLAND 20910  
301 - 587-2284  
**NFCA NATIONAL PAINT AND COATING ASSOCIATION**  
1500 BRIDGE BLVD AVE. N.W.  
WASHINGTON, D.C. 20005  
202 - 462-6272  
**TCA THE COUNCIL OF AMERICA, INCORPORATED**  
308 B  
PRINCETON, NEW JERSEY 08540  
609 - 921-7050  
**UL UNDERWRITERS LABORATORIES INC**  
**WFI WOOD AND SYNTHETIC FLOORING INSTITUTE**  
1000 PICK WICK AVENUE  
GLEN VIEW, ILLINOIS 60029  
312 - 724-7700  
**WIC WOODWORK INSTITUTE OF CALIFORNIA**  
850 S VAN NESS  
SAN FRANCISCO, CALIFORNIA 94109

C. GALVANIZED MATERIALS: All Exterior exposed steel and where noted onto drawing.  
1. NONSTRUCTURAL PIPES: ASTM A 120  
2. IRON AND STEEL HARDWARE: ASTM 153  
3. STEEL SHEET PILES AND BARS: ASTM A 123  
4. STEEL SHEETS: ASTM A 446  
5. ASSEMBLED STEEL PRODUCTS: ASTM A 386  
6. DELIVERY OF HOT DIPPED ITEMS ASTM A 525  
D. STEEL SHOP PRIMER: Apply with spray for exposed items. Apply primer free of runs and the irregularities that may require notification to achieve specified finish.  
E. WORKMANSHIP:  
1. EXPOSED ITEMS: Moderate irregularities not visible at 30 feet may remain. Mill marks may remain.  
2. WELDS: grind welds to uniform size cove.  
3. BOLTS: Use flat or oval head screws where exposed to view.  
c. JOINTS: provide maximum gap of 1/16 inch.  
2. OTHER LOCATIONS: no improvements from the mill finish required except preparation for galvanizing or priming  
3. WELDS: grinding not required  
4. BOLTS: exposed bolts permitted  
**SECTION 06100 – ROUGH CARPENTRY**

A. GENERAL REQUIREMENTS FOR LUMBER:  
1. STANDARDS: PS-20/70 American softwood lumber standard and PS-1-83 soft plywood.  
2. GRADING: SFGA, SPIB, WPPA, WCLB, AND APA  
3. MARKING: Stamp each piece with grade assoc.  
4. SPECIES: Douglas Fir and Southern Yellow Pine  
5. FINISH: Provide S4S finish unless otherwise specified  
6. SEASONING REQUIREMENT: Kiln Dry or Air Dry to 15 % max. moisture content  
7. GRADES: comply with the minimum grades for each specific use as specified by the specific grading assoc. such as southern pine use guide. Table 2 as specified in the structural guide  
B. WOOD TREATMENT FOR THE ABOVE-GROUND LOCATIONS: Stamp each piece of lumber with the type of treatment and amount of retention. Ready water born treatment to 18 and stamp S DRY  
1. APPLICATION: apply pressure or vacuum treatment. comply with the AFWB standards.  
2. LOCATIONS: Provide treated wood at the following locations:  
a. where shown on the drawing  
b. wood members resting on concrete or masonry  
c. ground imbedded in concrete or masonry  
d. blocking or grounds imbedded in construction in such a manner as to prevent exposure to circulating air.  
e. roof cutting  
3. CUT TREATMENT: treat cuts by dipping in preservatives  
C. PLYWOOD: Provide PS-1-83 softwood plywood marked with APA grade trademarks indicating quality of wood. Only plywood with APA stamp will be acceptable  
D. PLYWOOD ROOF SHEATHING: Mark each piece with APA grade trademarks as noted above. Maintain a 1/8 inch gap between cross gaps.  
1. PLYWOOD THICKNESS: 1/2 to 1 inch, use 8d common nails  
2. SPACING: 6 inches at edges and 12 inches at field  
E. INSTALLATION:  
1. Nail framing accurately and neatly, brace well and nail securely. Frame on 16 inches from the center or as indicated on the drawing.  
2. Set wood grounds for attachments of work specified in other sections.  
3. Use washers on bolts to attach wood. use galvanized treated bolts and washers.  
4. Use galvanized metal framing anchors beam seats and clips where indicated.

**SECTION 07214 – FOAMED-IN-PLACE MASONRY WALL INSULATION**

PART 1 – GENERAL

DESCRIPTION OF WORK:

A. Applications of insulation specified in this section include the following:  
Foamed-in-Place masonry insulation for thermal, sound and fire resistance values.  
QUALITY ASSURANCE:  
A. Insulation shall be installed as per manufacture's recommendation and must come from the manufacturer pre-mixed to ensure consistency. Upon request, a one year product and installation warranty will be issued by both the manufacturer and installer.  
B. Engage an experienced dealer/appliator who has been trained and licensed by the product manufacturer and which has not less than three years direct experience in the installation of the product used.  
**PART 2 – PRODUCTS**

ACCEPTABLE MANUFACTURERS  
A. "Core-Fill 500(TM)" as manufactured by Tailored Chemical Products, P.O. Drawer 4186, Hickory, N.C. 28603, (800) 627-1687.  
No substitutions allowed.  
MINIMUM PRODUCT PERFORMANCE STANDARDS  
1) Fire-Resistance Ratings:  
Minimum four (4) hour fire resistance wall rating (ASTM E-119) for 8" and 12" concrete masonry units when used in standard two (2) hour rated OULs.  
2) Surface Burning Characteristics:  
Maximum flame spread, smoke developed and fuel contribution of 0, 5 and 0 respectively.  
3) Combustion Characteristics:  
Must be noncombustible, Class A building material.  
4) Thermal Values:  
R" value of 4.91/inch @ 32 degrees F mean; ASTM C-177.  
5) Sound Abatement:  
Minimum Sound Transmission Class ("STC") rating of 53 and a minimum Outdoor Indoor Transmission Class ("OTC") rating of 44 for 8" wall assembly ASTM E90-90).  
**PART 3 – EXECUTION**

INSTALLATION GUIDELINES  
Fill all open cells and voids in hollow concrete masonry walls where shown on drawings. The foam insulation shall be pressure injected through a series of 5/8" to 7/8" holes drilled into every vertical column of block cells (every 8" on center) beginning at an approximate height of four (4) feet from finished floor level. Repeat this procedure at an approximate height of ten (10) feet above the first horizontal row of holes (or as needed) until the void is completely filled. Patch holes with mortar and score to resemble existing surface.

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DATE	11.11.2011
PROJECT NO.	1102100
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CHECKED BY	

Project Specifications

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