

REQUEST FOR BIDS
THIS IS NOT AN ORDER RETURN ORIGINAL KEEP ONE COPY

BID # 2016-004
HOBBLE CREEK GOLF COURSE CLUBHOUSE REMODEL PROJECT

Return your Bid in an envelope, sealed and clearly marked on the outside with Bid # shown:

CITY OF SPRINGVILLE
FINANCE DEPARTMENT
ATTN: BRUCE RIDDLE
110 SOUTH MAIN STREET
SPRINGVILLE, UT 84663

Bids must be received and logged in prior to the date and time indicated. Bids will not be accepted after:

10:00 a.m. Tuesday, April 12, 2016

For Technical Information Contact:
Alex Roylance, Parks & Grounds Director
Email: aroylance@springville.org
Phone: (801) 489-5742

Delivery Requirement:

FAILURE TO SIGN THIS SECTION WILL DISQUALIFY YOUR RESPONSE	
If awarded the bid pursuant to this Request for Bids, the undersigned agrees (1) to furnish the articles and/or services listed in this document at the prices listed by the undersigned on the Bid/Proposal Form and (2) to be bound by the provisions of the Contract Documents, as defined in Section 1.16.	
Firm Name	
Signature	
Printed Name	
Date	Phone
Fax	
Email	Website

This proposal is a paper based bid requiring Respondents to submit their final proposal to the above address prior to the bid opening.

TABLE OF CONTENTS
SPRINGVILLE CITY
HOBBLE CREEK GOLF COURSE CLUBHOUSE REMODEL PROJECT

<u>SECTION</u>	<u>TITLE</u>
SECTION 1	Instruction to Bidders
SECTION 2	General Terms & Conditions
SECTION 3	Requirements & Specifications
SECTION 4	Project Requirements and Specs
SECTION 5	Bid/Proposal Form

SECTION 1: INSTRUCTION TO BIDDERS

The general rules and conditions which follow apply to all formal solicitations and resulting purchase orders or other awards issued by Springville City (hereinafter referred to as “Owner”), unless otherwise specified. Bidders or their authorized representatives are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting proposals. Failure to do so will be at the Bidder’s own risk and cannot secure relief on the plea or error. Disputes or appeals on all proposals or contracts shall conform to Springville City Code 2-10.

Owner is soliciting this bid for the Hobble Creek Golf Course Clubhouse Remodel Project. The Hobble Creek Golf Course is located in Hobble Creek Canyon, at 94 Hobble Creek Canyon Rd, Springville, Utah 84663. This is a “Sealed Bid” to be opened at the date and time designated. It is the intent that Springville City will award a contract for the services under this Invitation to Bid to the lowest responsible bidder selected under the selection criteria outlined in this document.

The term “Bidder” in this Request for Bids shall refer to all bidders that submit a bid. The term “Contractor” shall refer to the bidder(s) who is awarded the bid(s).

1.1 ELIGIBILITY TO BID

To be eligible to bid this project, your company must:

- a. Be able to meet all applicable environmental laws and regulations during all phases of construction.
- b. Meet all City requirements pertaining to Bonding and Insurance coverage.
- c. Have a valid contractor’s license to perform all the work associated with the construction and/or demolition of the facilities.
- d. Have the financial and operational resources necessary for the execution and completion of this project.
- e. Have sufficient technical resources to complete this project.

1.2 PRE-BID WALK THROUGH

There will be a **mandatory** pre-bid walk through of the project at site on **Tuesday, March 29, 2016 at 11:00 a.m.** Meet at the Hobble Creek Golf Course site, 94 Hobble Creek Canyon Road, Springville, Utah. This walk through is an opportunity for all contractors to make their own inspection of the property and proposed location to become more familiar with the site, site conditions, and to ask questions concerning the project.

1.3 FORMS & MAILING OF PROPOSALS

- 1.3.1 All proposals shall be properly signed in ink in the proper spaces, and submitted in a sealed envelope identifying proposal as Bid #2016-004. Failure to do so may cause premature opening.
- 1.3.2 Bidder shall submit the ORIGINAL copy and retain a copy of the solicitation.
- 1.3.3 In the event that the proposal contains bulky subject material, the special mailing envelope must be firmly affixed to any other wrapper being used.
- 1.3.4 All information required by the solicitation must be supplied to constitute a responsive proposal.
- 1.3.5 Owner reserves the right to reject any and all proposals should the proposal prices and/or any other submissions differ on the copies of the submitted proposal. Owner reserves the right to waive informalities in proposals.
- 1.3.6 For information pertaining to the proposal preparation contact:
Alex Roylance
aroylance@springville.org
(801) 489-5742.

1.4 DULY AUTHORIZED SIGNATURE

The Proposal must contain the signature of a duly authorized officer or agent of the Bidder's company empowered with the right to bind the Bidder for the amounts estimated and terms proposed. The Bidder must also provide evidence of the authority of the officer or agent to bind the Bidder.

1.5 TIME FOR RECEIVING PROPOSALS

- 1.5.1 Proposals received prior to the time of opening will be securely kept, unopened.
- 1.5.2 The Purchasing Agent and/or representative will decide when the specified time has arrived for opening. Proposals received thereafter will not be considered.
- 1.5.3 The Purchasing Agent and/or his representative will not be liable for and will not accept any responsibility, for the premature opening of a proposal not properly addressed and identified.

1.6 PROPOSAL SUBMITTAL

Proposal must contain all information requested in this Request for Bids including, but not limited to, the following:

- a. Proposal costs and bid bond for the project submitted in sealed envelope. Bid bond shall be supplied for the largest bid sum proposed.
- b. Acknowledgement of receiving all addenda.
- c. Drawings of the construction and finished appearance of the proposed bridge.
- d. List of all sub-contractors and/or engineers that the contractor proposes to employ for the project.
- e. Proposed timeline for the project.

1.7 CONDITIONAL PROPOSALS

Conditional proposals are subject to rejection in whole or in part.

1.8 LATE PROPOSALS & MODIFICATIONS OF PROPOSALS

- 1.8.1 Any proposal modification received at the office designated in the solicitation after the exact time specified for receipt is considered a late proposal/modification. Late proposal/modifications will not be considered for award except if it is received before award is made and either:
 - a. It was sent by registered or certified mail not later than the fifth (5th) calendar day prior to the date specified for receipt of the proposal/modification; or
 - b. It was sent by mail and is determined by the Purchasing Agent that the late receipt was due solely to mishandling by the City after receipt at the address specified in the solicitation.
- 1.8.2 The time of receipt of proposals at the specified location is time-date stamped on the proposal wrapper or other documentary evidence of receipt and maintained by the Owner at specified location.

1.9 WITHDRAWAL OF PROPOSALS

- 1.9.1 A Bidder may request withdrawal of their proposal under the following circumstances.
 - a. Proposals may be withdrawn by written request to Owner received no later than the day and hour set for opening of proposals. The proposal will be returned unopened.
 - b. Requests for withdrawal of proposals after opening of such proposals but prior to award shall be transmitted to the Purchasing Agent, in writing, accompanied by full documentation supporting the request. If the request is based on a claim of error, documentation must show the basis of the error. Such documentation may take the form of supplier quotations, vendor work sheets, etc. If bid bonds were tendered with the proposal, the Owner may exercise its right to collection.

- 1.9.2 A Bidder who is permitted to withdraw a proposal shall not supply any material, labor or perform any subcontract or other work agreement for any type of compensation for the person or firm to whom the contract is awarded. A Bidder who is permitted to withdraw a proposal shall not otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn proposal was submitted.

1.10 ERRORS IN PROPOSALS

When an error is made in extending total prices, the unit proposal price will govern. Corrections in proposals must be initialed by an authorized representative. Carelessness in quoting prices or in preparation of the proposal will not relieve the Bidder from performance. Bidders are cautioned to recheck their proposal for possible error. Errors discovered after public opening will be reviewed on a case by case basis for bid acceptance.

1.11 BIDDER'S PRESENT

- 1.11.1 All proposals will be publicly opened and read at the time and place specified and will remain available for public inspection in the Finance Department during regular City business hours for a period of thirty (30) calendar days after date of opening.
- 1.11.2 Abstracts or tabulation of proposals received are not prepared for public distribution. Proposal results may be obtained at a reasonable cost. Information that is proprietary may not be obtained.

1.12 ACCEPTANCE / AWARD OF PROPOSALS

- 1.12.1 All proposals submitted shall be binding for sixty (60) calendar days following the opening date, unless extended by mutual consent of all parties.
- 1.12.2 The Bidder may bid on any or all items listed on the Bid/Proposal form. The Purchasing Agent reserves the right to make award on all items in a manner that is in the best interests of the City.
- 1.12.3 Owner is exempt from the payment of any federal excise or any Utah sales tax. The price must be net, exclusive of taxes. However, when under established trade practice any federal excise tax is included in the list price, Bidder may quote the list price and shall show separately the amount of federal tax, either as a flat sum or as a percentage of the list price, which shall be deducted by the City.
- 1.12.4 Any proposal in which the Bidder names a total price for all the articles without quoting a unit price for each and every separate item may not be considered for award. Unit prices submitted will be totaled by Owner representatives in order to determine lowest responsive price.
- 1.12.5 Proposals will be awarded to the lowest responsive and responsible Bidder. The determination of the lowest responsive and responsible Bidder may involve all or some of the following factors but not be limited to: price, handling, storage, disposal costs, installation, conformity to specifications, financial ability to meet the contract, previous performance, facilities, equipment, experience, delivery promise, terms of payments, compatibility as required, other costs, and other objective and accountable factors.
- 1.12.6 The Purchasing Agent shall encourage open and competitive bidding by all possible means and shall endeavor to obtain the maximum degree of open competition on all purchase transactions using the competitive sealed proposals, competitive negotiation, or open market transaction methods of procurement. In submitting a proposal, each Bidder shall by virtue of submitting a proposal guarantee that the Bidder has not been a party with other Bidder to an agreement to proposal a fixed or uniform price. Violation of this implied guarantee shall render void the proposal of such Bidders. Any disclosure to or acquisition by a competitive Bidder in advance of the opening of the proposals, of the terms or conditions of the proposal submitted by another competitor shall render the entire proceedings void and shall require re-advertising for proposals.
- 1.12.7 Owner reserves the right, in case of vendor default, to procure the services and/or material from other sources while holding the defaulting vendor responsible for any excess costs occasioned thereby.

1.13 EVALUATION PROCESS AND SELECTION CRITERIA

The Owner's Purchasing Agent will judge the merit of all proposals received in accordance with the general evaluation criteria listed below. Failure to provide any of the information requested may result in the proposal being removed from further consideration. In determining lowest responsible bidder, in addition to **PRICE**, the Owner will consider:

- a. The ability, capacity, and skill of the Bidder to perform the services required under the contract;
- b. Whether the Bidder can provide the services promptly, or within the time specified, without delay or interference;
- c. The character, integrity, reputation, judgment, experience, and efficiency of the Bidder;
- d. The quality of service and level of performance of Bidder under previous contracts, if any;
- e. The previous and existing compliance by the Bidder with laws and ordinances relating to the contract or service; and
- f. Whether the Bidder is in arrears to the Owner on a debt or contract or is in default on surety, or whether the Bidder's taxes or assessments are delinquent.
- g. Other relevant information, which the Owner feels, would help in the evaluation of their proposal.

1.14 DISCLOSURE OF PROPOSAL CONTENT

The Government Records Access and Management Act, (Utah State Code Title 63G, Chapter 2) states that certain information in the submitted Proposal may be open for public inspection. If the Bidder desires to have information contained in its proposal protected from such disclosure, the Bidder may request such treatment by providing a "written claim of business confidentiality and a concise statement of reasons supporting the claim of business confidentiality" with the Proposal (Utah State Code 63G-2-309). All material contained in and/or submitted with the Proposal becomes the property of Springville and may be returned only at Owner's option.

1.15 BID BOND

A bid bond shall accompany the submitted bid in the amount of five percent (5%) of the amount of the largest base cost of the proposal submitted.

1.16 CONTRACT DOCUMENTS

- 1.16.1 The Contract Documents for this Request for Bids shall include the Instructions to Bidders, General Terms & Conditions, Requirements & Specifications, and all Addenda.
- 1.16.2 All Bidders must base their bids on all the requirements and specifications in the Contract Documents.

SECTION 2: GENERAL TERMS AND CONDITIONS

2.0 PERMITS AND FEES

The Contractor will be responsible, at their sole expense to acquire all necessary permits for this project from Utah County, and to pay all associated fees.

2.1 SITE INVESTIGATIONS, REPRESENTATIONS, AND PHOTOGRAPHIC SURVEY

The Contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions particularly those bearing upon transportation, disposal, handling and storage of materials, availability of labor, materials, water, electric power, road, uncertainties of weather, the conformation and condition of the ground, the character, quality and quantity of surfaces and subsurface materials to be encountered, the character of the equipment and facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost

thereof under this contract. Failure by the Contractor shall not relieve him from responsibility for performing the work.

2.2 INTERPRETATION OF SPECIFICATIONS AND DRAWINGS

- 2.2.1 The Contract Documents are complementary and what is called for by any one shall be as binding as if called for by all.
- 2.2.2 For convenience of reference and to facilitate the letting of subcontracts, the specifications are separated into respective divisions and sections. The forming of these separations shall not operate to make the City or any of its representatives any arbiter to establish subcontract limits between Contractor and subcontractors or suppliers.
- 2.2.3 Omissions from the drawings or specifications, or the misdescription of the details of work which are manifestly necessary to carry out the intent of the drawings or specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details or work, but they shall be performed as if duly and clearly set forth and described in the drawings and specifications.
- 2.2.4 Where contradictions existing within the documents, the Contractor represents that he has bid the most costly of all interpretations of the documents.
- 2.2.5 Where definitions and procedures are in conflict between the General Conditions and Specifications, the specification sections shall govern the conflicting directions.

2.3 SUBSTANTIAL COMPLETION

The Contractor shall submit with their bid a proposed timeline for the project. After receiving a Notice to Proceed from the Owner, the contractor must complete all work described within the scope in the timeline proposed in the bid. The project will be considered substantially complete when the work is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the work for its intended use and to the satisfaction of the Owner and with all necessary permits and inspections having been approved.

2.4 RIGHT OF OWNER TO TERMINATE CONTRACT

Owner, upon written notice, may terminate the Contract, or any part thereof, as a result of the Contractor's failure to render to the satisfaction of Owner, the material, work and/or services required of it, including progress of the work and such abandonment or termination shall not be deemed a breach by Owner. Owner shall be the sole determinant in all termination for cause issues. The Contractor shall not be entitled, nor shall Owner give any consideration to claims for any costs or for loss of anticipated revenue(s), including overhead and profit, due to the abandonment or termination of this Contract, or any part hereof, by Owner for cause.

Owner, upon written notice, may abandon or terminate the Contract, or any part thereof, and such action shall in no event be deemed a breach of this Contract. Such termination may come about for the sole convenience of Owner. Upon receipt of written notification from Owner that the Contract, or any part thereof, is to be terminated, the Contractor shall immediately cease operation of the work stipulated, and assemble all material that has been prepared, developed, furnished or obtained under the provisions of the Contract that may be in its possession or custody, and shall transmit the same to Owner on or before the fifteenth day following the receipt of the above-written notice of termination, together with its evaluation of the cost of the work performed. The Contractor shall be entitled to just and equitable payment in accordance with the Contract for any uncompensated work satisfactorily performed prior to such notice.

Owner shall determine the amount of work satisfactorily performed by the Contractor and Owner's evaluation shall be used as a basis to determine the amount of compensation due the Contractor for this work.

Termination by Owner for cause, default, or negligence on the part of the Contractor shall be excluded from the foregoing provision; termination costs shall not apply.

2.5 INDEMNIFICATION

Contractor at its own expense, agrees to protect, indemnify, pay on behalf of, defend (with counsel acceptable to Owner) and hold harmless the City, its elected and appointed officials, employees and volunteers and their agents from all claims, demands, judgments, expenses, and all other damages of every kind and nature, made, rendered, or incurred by or in behalf of any person or persons whomsoever, including the parties hereto and their employees, which may arise out of any act or failure to act, work or other activity related in any way to this Project under the Contract by the Contractor, Contractor's agents, employees, subcontractors, or suppliers in the performance and execution of the Contract.

2.6 INSURANCE

Contractor shall provide the following minimum insurance coverage from companies holding a General Rating of "A" or better as set forth in the most current issue of Best's Key Rating Insurance Guide written for not less than the following, or greater if required by law and all such insurance to be primary to any insurance maintained by Owner, shall name Owner as additional insured with waiver of subrogation:

- a. The Contractor's Worker's Compensation Insurance shall be written for not less than the statutory limits for the State of Utah and the Contractor's Employer's Liability Insurance shall be written for not less than \$1,000,000.
- b. The Contractor's Comprehensive Automobile Liability Insurance shall be written with combined single limits of not less than \$1,000,000 each occurrence.
- c. The Contractor's Comprehensive General Liability Insurance with contractual liability coverage on occurrence form with limits not less than \$1,000,000 each occurrence and \$2,000,000 aggregate.
- d. The Contractor shall not commence work under the Contract until all of the insurance required herein shall have been obtained by the Contractor. The Contractor shall furnish to the Owner Certificates of Insurance verifying that such insurance has been obtained. Such certificates will provide that Owner will receive at least thirty (30) days prior written notice of any material change in, cancellation of, or non-renewal of such insurance.

2.7 PERFORMANCE AND PAYMENT BONDS

The successful proposer shall furnish to the City, at the Contractor's own expense, a 100% Full Performance Bond and a 100% Material and Labor Full Payment Bond on forms acceptable to the City with good and sufficient sureties to be approved by the City to guarantee the payment and performance of the contracted services.

2.8 INVOICING

- 2.8.1 Owner shall make payment to Contractor for all services performed by Contractor pursuant to the Contract Documents. Contractor shall submit a written invoice, for services rendered and Owner shall pay the invoice fee within thirty (30) days, as long as all Contract requirements are met.
- 2.8.2 Waivers of Mechanic's Lien: With each Application for Payment, Contractor shall submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the work covered by the payment.
 - a. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 - b. When an application shows completion of an item, submit conditional final or full waivers.
 - c. Owner reserves the right to designate which entities involved in the work must submit waivers.
 - d. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.

- 2.8.3 Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
- a. List of subcontractors.
 - b. Schedule of values.
 - c. Contractor's construction schedule (preliminary if not final).
 - d. List of Contractor's staff assignments.
 - e. Copies of authorizations and licenses from authorities having jurisdiction for performance of the work.
 - f. Report of preconstruction conference.
 - g. Certificates of insurance and insurance policies.
 - h. Performance and payment bonds.
 - i. Data needed to acquire Owner's insurance.
- 2.8.4 Application for Payment at Substantial Completion: After Owner issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the work claimed as substantially complete.
- a. Include documentation supporting claim that the work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - b. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the work.
- 2.8.5 Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
- a. Evidence of completion of Project closeout requirements.
 - b. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - c. Updated final statement, accounting for final changes to the Contract Sum.
 - d. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - e. AIA Document G707, "Consent of Surety to Final Payment."
 - f. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

2.9 MINOR CHANGES IN THE WORK

Owner will issue supplemental instructions authorizing minor changes in the work, not involving adjustment to the Contract Sum or the Contract Time.

2.9 PROPOSAL REQUESTS

Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Owner that includes the following:

- a. A statement outlining reasons for the change and the effect of the change on the work, providing a complete description of the proposed change that indicates the effect of the proposed change on the Contract Sum and the Contract Time.
- b. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
- c. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- d. Proposal Request Form: Use form acceptable to Owner.

2.10 CHANGE ORDERS

On Owner's approval of a work changes proposal request, Owner will issue a Change Order for signatures of Owner and Contractor.

2.11 LIQUIDATED DAMAGES

The Contractor agrees to deliver services as quoted in this proposal. Failure to deliver as quoted constitutes an event of default. The actual damages to Owner for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages, the Contractor shall pay to Owner, liquidated damages for each calendar day of delay, an amount of \$300.00 per day, up to a maximum of sixty (60) calendar days. Should the Contractor be unable to complete the delivery at the end of the sixty (60) day period, Owner, at its option, may treat the contract as breached, terminate the contract, purchase substitute product else-where, and charge the full increase, if any, in cost and handling for such purchase to the defaulting Contractor, and seek such additional relief as provided by law. The Contractor shall not be charged for liquidated damages when delay arises out of causes beyond control and without the fault or negligence of the Contractor.

2.12 SILENCE OF SPECIFICATIONS

The apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of specifications shall be made on the basis of this statement. The items furnished under the Contract shall be new, unused of the latest product in production to commercial trade and shall be of the highest quality as to materials used and workmanship. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item bid.

2.13 NON-DISCRIMINATION AND EQUAL OPPORTUNITY

The Contractor agrees to comply with all federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps and the Americans with Disabilities Act of 1990; (d) the Age Discrimination Act of 1974, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to the nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (I) any other nondiscrimination provisions in any specific statute(s) applicable to any Federal funding for this Agreement; and (j) the requirements of any other nondiscrimination statute(s) which may apply to this Agreement.

2.14 LAWS AND ORDINANCES

2.14.1 The laws of the State of Utah shall govern the Contract. Further, the place of performance and transaction of business shall be deemed to be in the Utah County, Utah, and in the event of litigation, exclusive venue and place of jurisdiction shall be Utah, and more specifically, the district court of Utah County, Utah.

2.14.2 The Contractor agrees to register and participate in a Status Verification System such as E-Verify, to verify the work eligibility status of the Contractor's new employees that are employed in the

state. The Contractor further agrees to have each contractor or subcontractor who works for or under main contractor, certify by affidavit that the contractor or subcontractor has verified through a Status Verification System the employment status of each new employee of the respective contractor or subcontractor.

2.15 CONFIDENTIAL MATTERS

All data and information gathered by the Contractor, and all reports, recommendations, documents, and data shall be treated by the Contractor as confidential. The Contractor must agree not to communicate and disclose the aforesaid matters to a third party or use them in advertising, publicity, or propaganda and/or in another job or jobs, unless prior written consent is obtained from Owner.

2.16 FORCE MAJEURE

“FORCE MAJEURE” shall be considered to be an act of God, fire, or explosion that, due to its consequences, threatens to delay the timely performance of the parties’ obligations hereunder. Whenever either party has knowledge of any event of Force Majeure or other situation that is delaying or threatens to delay the timely performance of any obligation called for by the Contract, the party shall immediately give written notice thereof, including all relevant information with respect thereto, to the other party.

Neither party to this Contract shall be liable for delay or failure to perform pursuant to the terms of this Contract, if and to the extent such delay or failure is due to the event of Force Majeure as defined above provided that:

- 2.16.1 Neither party may claim the benefit of this section unless the delay or failure to perform is due to causes beyond its control and without its fault or negligence; and
- 2.16.2 Any delay or failure by a Contractor or subcontractor at any tier of either party shall not be excusable unless such delay or failure arises out of causes beyond the control of Contractor, and the services to be furnished by Contractor or subcontractor are not obtainable from other sources at comparable costs in sufficient time to permit its commitments to be met pursuant to this Contract.

2.17 FAILURE TO DELIVER

In case of failure to deliver services in accordance with the Contract terms and conditions, the Owner, after due oral or written notice, may procure the services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which the Owner may have. The Owner shall be entitled to offset such costs against any sums owed by the Contractor to the Owner under this Contract.

2.18 MATERIAL SAFETY DATA SHEETS

Under the "Hazardous Communication Act", commonly known as the "Utah Right To Know Act", a Contractor must provide to Owner with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the Contractor to furnish this documentation will be cause to reject any bid applying thereto.

2.19 WARRANTY

The Contractor assumes all responsibility for all of the materials and services provided under this Agreement, whether those materials and services are provided by the Contractor, purchased ready-made, or provided by a sub-contractor.

SECTION 3: REQUIREMENTS AND SPECIFICATIONS

3.1 WORK COVERED BY CONTRACT DOCUMENTS (SCOPE OF WORK)

3.1.1 The project is defined by the Contract Documents and consists of the following:

- a) Remodeling a defined portion of the interior upper level of the clubhouse including structural, mechanical and electrical work as noted on the project drawings.
 - a. Entry – vestibule added to meet existing energy codes
 - b. Kitchen – reducing the size of the kitchen to make room for new men and women toilet rooms. Kitchen and equipment will be rearranged to allow eye connection between grill and front.
 - c. Restaurant
 - d. Banquet Room – updated with electrical outlets, projector screen and hearth
- b) Furnishing all supervision, labor, materials, transportation of materials and equipment required to complete the work depicted in the project drawings attached hereto.
- c) Obtaining and paying for all permits required for a complete job.
- d) Managing the project area.
 - a. Maintaining strict control of dust and debris emanating from the project area.
 - b. Keeping the project area broom clean and clear of debris daily.
 - c. At all times conducting operations as to ensure the least inconvenience to the general public.
 - d. Complying with applicable codes and ordinances for safety.
 - e. Scheduling and performing the work so that other tenants in the building will not be disturbed, damage to existing work outside of the project area will not occur, and to comply with the building owner's requirements.

3.2 FUTURE WORK

The Contract Documents include requirements that will allow Owner to carry out future work following completion of this Project. The future work provided by Owner shall include the installation of improvements and landscaping of property located within the Project site.

3.3 ACCESS TO SITE

- 3.3.1 Contractor shall have full use of the Project site for construction operations during construction period. Contractor's use of the Project site is limited only by Owner's right to perform work or to retain other contractors on portions of the Project.
- 3.3.2 Contractor shall be limited to use of property within the Project site and shall not disturb property beyond the Project site. Construction operations shall be limited to Project lines.
- 3.3.3 Contractor shall perform work in a manner so as to minimally disturb the operations of the golf course, within reason. Contractor and sub-contractor vehicles may be parked in in the parking lot during regular work hours. No vehicles should be parked along Hobble Creek Canyon Road. Materials delivery vehicles should be on site as is minimally required for their purpose. No Contractor or sub-contractor vehicles or trailers should be left in the parking lot overnight.
- 3.3.4 Contractor, sub-contractor, and their employees are welcome to utilize the clubhouse restroom facilities during business hours. Excessive debris tracked into the clubhouse by such use will be cleaned up by the Contractor.

3.4 WORK RESTRICTIONS

- 3.4.1 Contractor shall comply with restrictions on construction operations, including, but not limited to, complying with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- 3.4.2 Work Hours: Construction is limited to work during normal business working hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise indicated.
- 3.4.3 Utility Shutoff: Contractor shall not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - a. Notify Owner not less than three days in advance of proposed utility interruptions.
 - b. Obtain Owner's written permission before proceeding with utility interruptions.
- 3.4.4 Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- 3.4.5 Noise: No noises beyond that which is required to complete the work will be allowed. Contractor, subcontractors, and all of their employees will refrain from playing music, using loud language, or any other noises that might disturb golfers or patrons of the golf course.

3.5 UNIT PRICES

- 3.5.1 Definition: Unit price is an amount incorporated in the Agreement, applicable during the duration of the work as a price per unit of measurement for materials, equipment, or services, or a portion of the work, added to or deducted from the Contract sum by appropriate modification, if the scope of work or estimated quantities of work required by the Contract Documents are increased or decreased.
- 3.5.2 Procedures:
 - a. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
 - b. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

3.6 REMOVE, REPAIR AND CLEAN UP

- 3.6.1 Definition: "Remove" means to detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged.
- 3.6.2 Material Ownership:
 - a. Unless otherwise indicated, demolition waste becomes property of Contractor.
 - b. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
- 3.6.3 Site Restoration:
 - a. Restoration of existing landscape: Any areas that have existing landscape installed will be returned to their original state. This may include, but not be limited to, regarding soils, re-planting plants, and repairing sprinkling systems.
 - b. Restoration of Clubhouse: Any damage or alteration to the clubhouse caused by the performance of this project, apart from items addressed in the Scope of Work, will be restored to their original condition.
- 3.6.4 Repairs:
 - a. Contractor will Promptly repair damage to adjacent buildings, parking lots, sidewalks, fences, or other features to the same condition that existed prior to the caused damage by demolition or construction operations.
- 3.6.5 Disposal of Demolished Materials:
 - a. Remove demolition waste materials from Project site and legally dispose of them in an EPA approved landfill acceptable to authorities having jurisdiction.

- i. Do not allow demolished materials to accumulate on-site.
 - ii. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - b. Do not burn demolished materials.
- 3.6.6 Cleaning:
 - a. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition and construction operations. Return adjacent areas to condition existing before operations began.
 - i. Clean roadways of debris caused by debris transport.
 - ii. Contractor will keep the site clean at all times. All trash and debris created as a result of this project will be immediately gathered and properly disposed of.
 - iii. Worksite will be cleaned at the end of each work day.
 - iv. Contractor will provide, at their expense, all necessary dumpsters and/or trash containment devices. Such devices will be emptied in a timely manner.

3.7 BID FORM

- 3.7.1 Contractor will be able to bid one or any combination of the following:
 - Bid should be submitted as a total project package.

3.8 PERMITS AND FEES

- 3.8.1 Contractor will, at their expense, acquire all necessary permits and pay all associated fees, to Utah County in order to complete the project
- 3.8.2 Contractor will schedule all necessary inspections with Utah County and provide Owner with copies of all inspections including proof of final inspection.

SECTION 4: PROJECT REQUIREMENTS AND SPECIFICATIONS

- 4.1 All project requirements and specifications are as noted in the attached drawings and associated notes.

SECTION 5: BID/PROPOSAL FORM

PROPOSAL OF _____
(Name of Bidder)

PROPOSAL FOR:
Springville City Hobble Creek Golf Course Clubhouse Remodel Project

Dear Sir/Madam:

The undersigned, having examined the specifications, all related documents, and the site of the proposed work; being familiar with all of the conditions relating to the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, services, equipment and appliances required in connection with or incidental to the execution of the above named project in strict conformance with the following specifications and drawings:

Instructions to Bidders, General Terms & Conditions, Requirements & Specifications, Bridge Requirements and Specs, and all applicable addenda and drawings issued by the Owner.

I. For the entire work describing the **Springville City Hobble Creek Golf Course Clubhouse Remodel Project** the undersigned proposes a Total Bid Amount of:

_____ Dollars (\$))
The above bid requires an execution time of ___ calendar days from the date of authorization to proceed.

This bid shall be good for 60 days after bid opening.

BID BOND:

Enclosed is _____, as required in the sum of _____ Dollars (\$))
(Bond or Check)

ADDENDA:

The undersigned hereby acknowledges receipt of the following addenda to the drawings and specifications and all of the provisions and requirements of the addenda have been taken into consideration in the preparation of the foregoing proposal.

I/We acknowledge receipt of the following Addenda:

RESPECTFULLY SUBMITTED,

CORPORATIONS ONLY FILL IN
THE FOLLOWING:

(Legal name of corporation)

(State of incorporation)

(Type name of officer)

(Signature of officer)

(Title of officer)

(Date)

BIDDERS (OTHER THAN CORPORATIONS)
FILL IN THE FOLLOWING:

(Legal Name of Bidding Firm)

(Address)

(Type Name of Officer)

(Signature of Officer)

(Title of Officer)

(Date)

SEAL OF CORPORATION:

(Signature of bidder, including corporation officer, must be witnessed and proposal dated to validate)

ATTACHMENT 1

RFB #2016 – 004

HOBBLE CREEK GOLF COURSE CLUBHOUSE REMODEL PROJECT

TO: Springville City Corporation
Department of Buildings and Grounds
110 South Main Street
Springville, Utah 84663

The undersigned, having carefully read and considered the Request for Bids to provide services for Springville City, does hereby offer to perform such services on behalf of the City, in the manner described and subject to the terms and conditions set forth in the attached proposal. Services will be performed at the rates set forth in said proposal.

OFFEROR

Company Name: _____

Doing business as: **an individual** **a partnership** **a corporation** **a limited liability company** (mark appropriate box), duly organized under the laws of the State of _____.

BY: _____
(Signature of authorized representative) (Please Print or Type Name)

PRINCIPAL OFFICE ADDRESS:

Street
Address _____

City _____

County _____

State _____

Zip Code _____

Telephone (____) _____

FAX (____) _____

E-mail Address _____

TAXPAYER IDENTIFICATION NUMBER:

Employer I.D. No. _____ OR Social Security No. _____
(Corporation or Partnership) (Individual)

Hobble Creek Club House

Remodel

Springville, Utah

REVIEW SET

March 11th, 2016

METAMORPHOSE PROJECT NUMBER: 16002

SCHEDULE OF DRAWINGS

GENERAL

G001	COVER
G002	ARCH. GENERAL INFORMATION
G003	ACCESSIBILITY COMPLIANCE, GEN. DETAILS
G004	ARCH. ABBR. & INFO, WALL TYPES

ARCHITECTURAL

A100	EXISTING LOWER FLOOR PLAN
A101	MAIN FLOOR PLAN

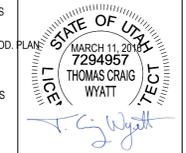
MECHANICAL

M-000	MECH. SCHED / SYMBOL LGND. & DETAILS
M-100	MAIN FLOOR DEMO & FLOOR PLAN
M-101	MAIN FLOOR HAVAC/PLUMB. DEMO/REMOD. PLANS
M-500	MECHANICAL DETAILS
M-700	MECHANICAL CONTROLS & DETAILS
MP-100	BSMT & MAIN FLOOR PLUMB./HVAC PLANS
MS-100	MECHANICAL SPECIFICATIONS
P-500	PLUMBING DETAILS

ELECTRICAL

E101	ELECTRICAL PLANS
ESP-101	ELECTRICAL SPECIFICATIONS
ESP-102	ELECTRICAL SPECIFICATIONS

Metamorphose, PLLC.
95 West 100 South, Suite 108
Logan, Utah 84321
Tele: 435.512.8083
thomas@metamorphose.energy



Original drawings remain the property of the Architect and as such the Architect retains total ownership and control. The design represented by these drawings is sold to the client of a one time use, unless otherwise agreed upon in writing by the Architect.
© Metamorphose 2016

ARCHITECT

Metamorphose

95 West 100 South, Suite 108
Logan, UT 84321
PHONE: 435.890.4005 CONTACT: Thomas Wyatt
E-MAIL: thomas@metamorphose.energy

REVIEW SET
March 11th, 2016
METAMORPHOSE PROJECT NUMBER: 16002

Hobble Creek
Remodel
Springville, Utah

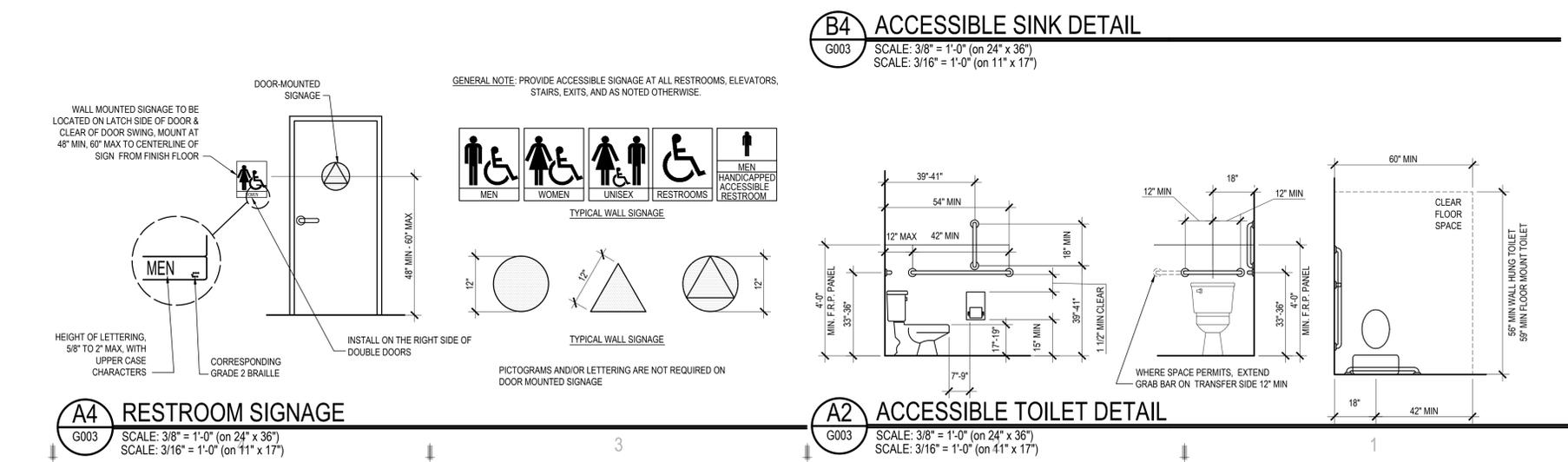
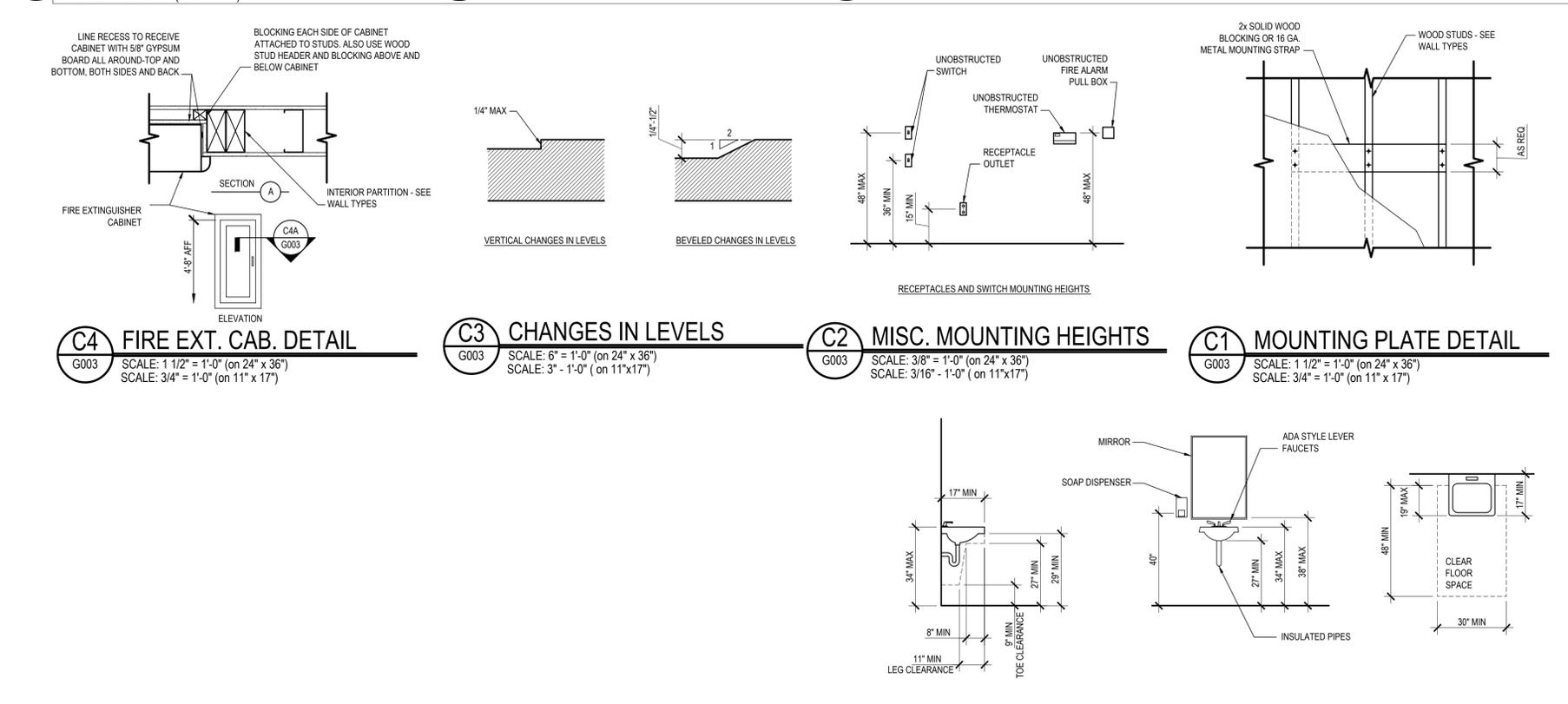
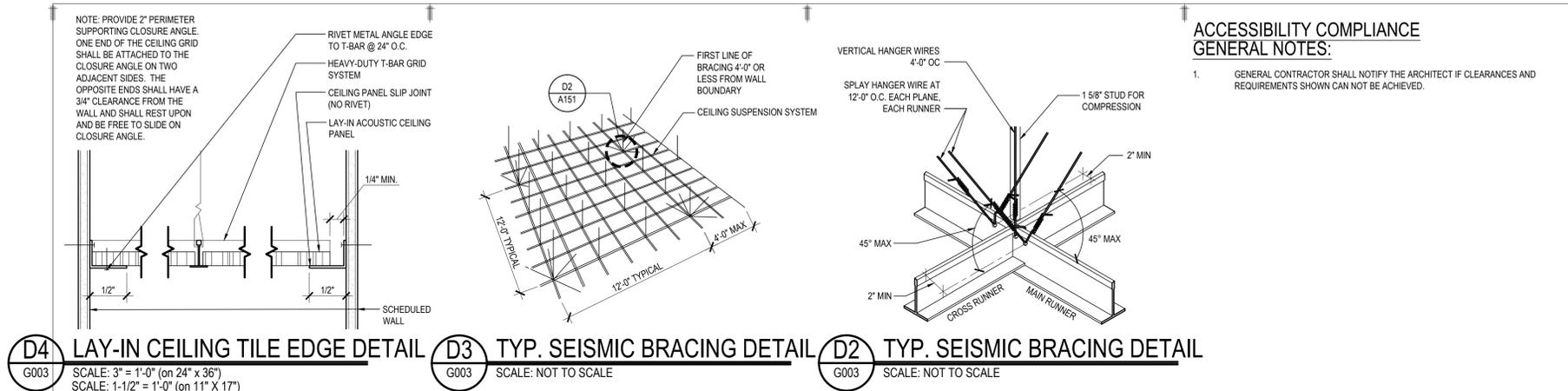
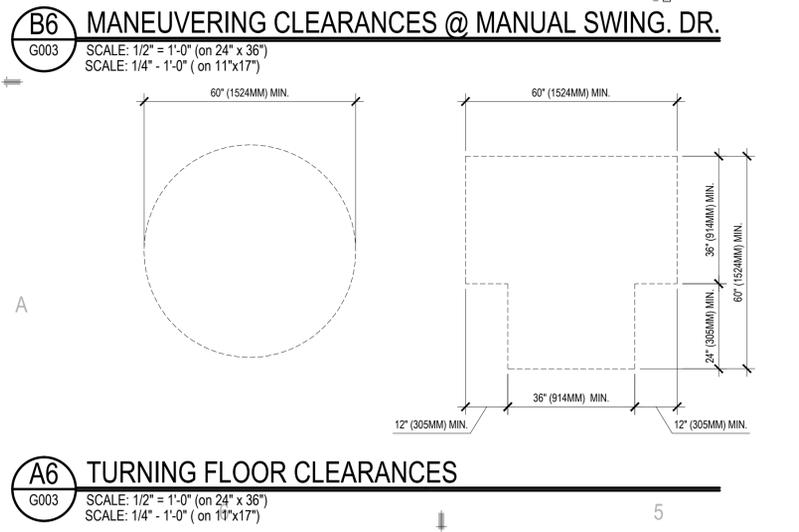
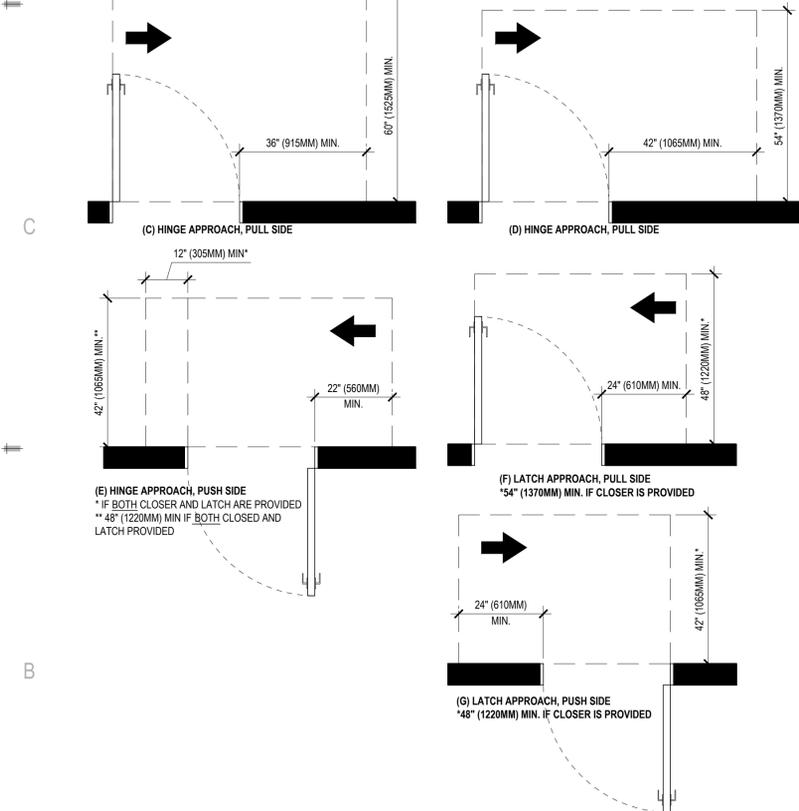
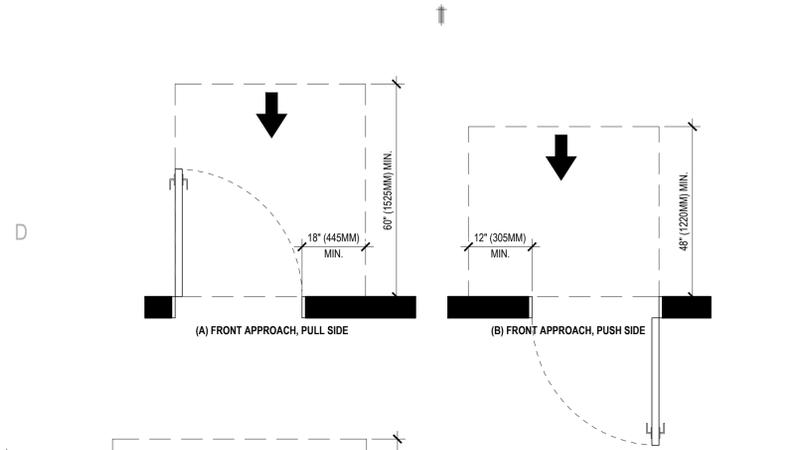
PRINTING INSTRUCTIONS

WHEN PRINTING DOCUMENTS ON LEDGER 11"x17" PAPER SIZE IT IS NECESSARY TO SCALE THE DOCUMENTS BY 50% TO RETAIN THE SCALE. IF PRINTED ON 11"x17" FIT TO PAGE SETTING DRAWINGS WILL NOT BE TO SCALE.

APPLICABLE CODES

ACCESSIBILITY CODE	ICC/ANSI A117.1-CURRENT EDITION
INTERNATIONAL BUILDING CODE	2012 EDITION
INTERNATIONAL ENERGY CONSERVATION CODE	2009 EDITION
INTERNATIONAL FIRE CODE	2009 EDITION
INTERNATIONAL MECHANICAL CODE	2012 EDITION
INTERNATIONAL PLUMBING CODE	2012 EDITION
NATIONAL ELECTRICAL CODE	2011 EDITION
ZONING ORDINANCE:	LOGAN CITY CURRENT EDITION

G001



ACCESSIBILITY COMPLIANCE GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IF CLEARANCES AND REQUIREMENTS SHOWN CAN NOT BE ACHIEVED.

Metamorphose, PLLC.
 95 West 100 South, Suite 108
 Logan, Utah 84321
 Tele: 435.512.8083
 thomas@metamorphose.energy

Original drawings remain the property of the Architect and as such the Architect retains total ownership and control. The design represented by these drawings is sold to the client of a one time use, unless otherwise agreed upon in writing by the Architect.
 © Metamorphose, 2016

Hobble Creek Club House
 Springville
 UT, 84xxx

REVISIONS

METAMORPHOSE # 16002
 CHECKED BY: TCW
 DRAWN BY: TCW
 DATE 02/11/2016

ACCESSIBILITY COMPLIANCE/
 GENERAL DETAILS
G003
 REVIEW SET
 NOT FOR CONSTRUCTION

PLUMBING SYMBOL LEGEND \ ABBREVIATIONS

	FLOOR DRAIN		RISE IN PIPE		UNION
	WALL CLEAN OUT		ELBOW IN PIPE		CHECK VALVE
	DOMESTIC COLD WATER (DCW)		TEE IN PIPE		BALANCE VALVE
	DOMESTIC HOT WATER (DHW)		GAS SHUTOFF VALVE		VENT THROUGH ROOF
	WASTE (W)		BALL VALVE		WATER HAMMER ARRESTOR
	VENT (V)		PIPE CAP		ACCESS DOOR
	DROP IN PIPE		VALVE IN DROP		ABOVE FINISHED FLOOR

PLUMBING FIXTURE SCHEDULE

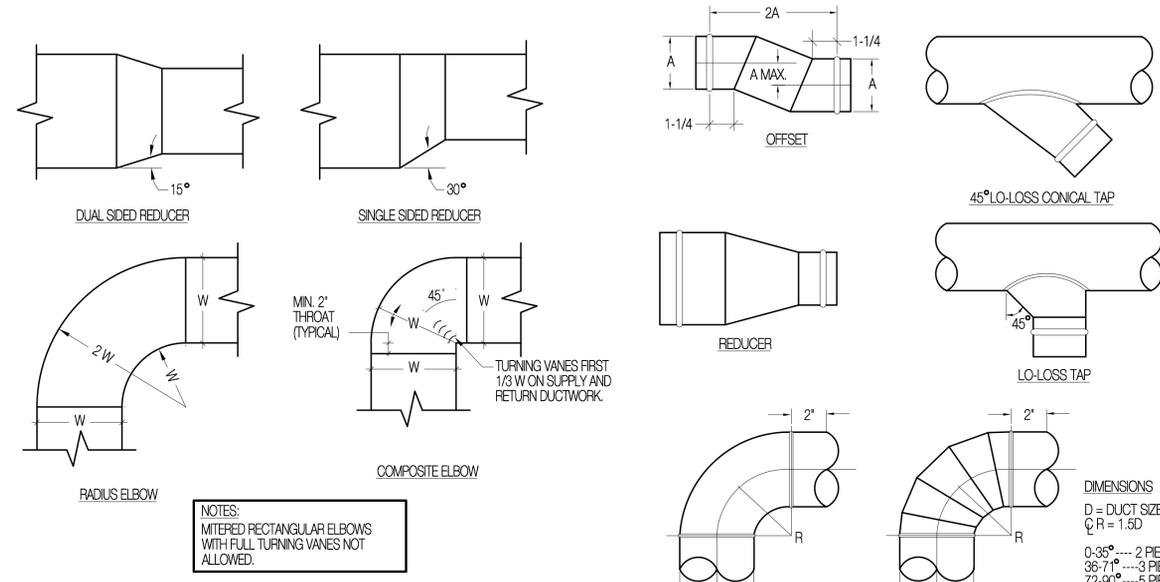
SYMBOL	DESCRIPTION	COLD	HOT	TRAP	WASTE	VENT	REMARKS
P-1A	WATER CLOSET, FLOOR MOUNTED, FLUSH TANK, ADA HEIGHT	1/2"	-	INT.	3"	2"	-
P-1B	WATER CLOSET, FLOOR MOUNTED, FLUSH TANK	1/2"	-	INT.	3"	2"	-
P-2	URINAL, ADA COMPLIANT, AUTOMATIC FLUSH VALVE	3/4"	-	INT.	2"	2"	-
P-3	LAVATORY, WALL MOUNTED, ADA COMPLIANT, TWO HANDLE FAUCET	1/2"	1/2"	1-1/2"	2"	1-1/2"	-
FD	FLOOR DRAIN, 6" DIAMETER GRATE	-	-	2"	2"	2"	-
FS-1	FLOOR SINK, 12"x12" WITH HALF GRATE	-	-	2"	2"	2"	-
FS-2	FLOOR SINK, 8"x8" WITH HALF GRATE	-	-	2"	2"	2"	-
WCO	WALL CLEAN OUT	-	-	-	-	-	-

GENERAL FIXTURE NOTES:

- THE PLUMBING CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF ALL PLUMBING EQUIPMENT AND THE RELATED ROUGH IN LOCATIONS WITH THE MECHANICAL AND ARCHITECTURAL PLANS AND SPECIFICATIONS. PROVIDE ALL ACCESSORIES AND OPTIONS REQUIRED TO PROVIDE THE OWNER A COMPLETELY FUNCTIONAL PLUMBING SYSTEM.
- ALL WALL HUNG PLUMBING FIXTURES SHALL BE SUPPORTED BY FLOOR MOUNTED CARRIERS (WADE, SMITH, JOSAM, MPAB, OR WATTS) CARRIERS SHALL BE CONSTRUCTED UTILIZING ALL METAL COMPONENTS WITH SUPPORT FEET SECURELY ANCHORED TO FLOOR STRUCTURE. FIXTURE ARMS SHALL SUPPORT FIXTURE INDEPENDENT FROM WALL STRUCTURE.
- EACH INDIVIDUAL FIXTURE SUPPLY SHALL BE PROVIDED WITH A CHROME-PLATED QUARTER TURN STOP VALVE BRASSCRAFT MODEL KTCR, OR ENGINEER APPROVED EQUAL.
- FIXTURES AND ACCESSORIES SHALL BE AS SCHEDULED. EACH ITEM SHALL BE COMPLETE WITH CHROME-PLATED BRASS TRIM.
- ADA COMPLIANT FIXTURES SHALL BE INSTALLED WITH PRE-FORMED INSULATION AND PROTECTIVE COVERS ON P-TRAPS AND STOPS. COVERS TO BE MANUFACTURED BY BUCKARCOOS OR TRUEBRO.
- CAULK ALL FIXTURES TO THE WALL OR FLOOR WITH APPLICABLE SILICONE COMPOUND. UTILIZE MULTIPLE BEADS TO FILL GAPS AND FINISH TO SMOOTH, FILLETED EDGE. USE APPROPRIATE TOOLS TO PROVIDE PROFESSIONAL APPEARANCE.
- ALL PLUMBING SHALL BE INSTALLED TO CONFORM TO THE LATEST ADOPTED EDITION OF THE INTERNATIONAL PLUMBING CODE INCLUDING LOCAL AMENDMENTS. CONSULT AUTHORITIES HAVING JURISDICTION.

PIPING MATERIALS SCHEDULE

SERVICE	MATERIAL	REMARKS
DOW / DHW	TYPE "L" COPPER TUBING W/ WROUGHT COPPER FITTINGS / PEX AT OWNERS DISCRETION	-
PROPANE	SCHEDULE 40 BLACK IRON	-
WASTE / VENT	SOLID CORE ABS OR PVC WITH DWV FITTINGS ABOVE AND BELOW GRADE	-



2 RECTANGULAR DUCT FITTINGS

SCALE: NONE

1 ROUND DUCT FITTINGS

SCALE: NONE

SYMBOL LEGEND

	SUPPLY AIR DIFFUSER		RISE OR DROP IN DUCT	HET	HIGH EFFICIENCY TAKEOFF
	ROUND SUPPLY AIR DUCT CROSS SECTION		SUPPLY AIR DIRECTION	S.A	SUPPLY AIR
	HAND DAMPER, SEE DETAIL 9M-500		ABOVE FINISHED FLOOR	NK	NECK

MAKEUP AIR UNIT (MAU)

SYMBOL	MIN. CFM	MIN. E.S.P. IN. WG.	FAN TYPE	FAN ELEC. REQ.		HEATING SECTION (2)		EVAPORATIVE SECTION		CAPTIVE AIR MODEL	UNIT WEIGHT	REMARKS
				V / PH. / HZ.	HP.	TYPE	BTUH INPUT	TYPE	PUMP GPH			
MAU-1	1,600	.75"	FC	208 / 3 / 60	1	DIRECT FIRED	275,000	12" CELDEX	3	A2-D.250-G10	730#	COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER, PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR

① CAPACITIES AT JOB SITE ELEVATION OF 4,800 FEET ABOVE SEA LEVEL ② PROPANE FIRED

HOOD (H)

SYMBOL	MIN. CFM	HOOD CONSTRUCTION	HOOD SIZE (W x L) (FIELD VERIFY)	CAPTIVE AIR MODEL	REMARKS
H-1	1,600	430 STAINLESS STEEL	60" W x 84" L	8424 / ND-2-PSP-F	COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER, PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR

ROOFTOP EXHAUST FAN (REF)

SYMBOL	MINIMUM CFM	MIN. E.S.P. IN. WG.	FAN RPM	ELEC. REQUIREMENTS				MIN. MOTOR HP.	DRIVE TYPE	CAPTIVE AIR MODEL	UNIT WEIGHT	REMARKS
				VOLTS	PH.	HZ.	BHP					
REF-1	1,600	1.25	1,380	120	1	60	0.85	3/4	BELT	NCA14HFFA	140#	COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER, PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR

① CAPACITIES AT JOB SITE ELEVATION OF 4,500 FEET ABOVE SEA LEVEL.

CEILING EXHAUST FANS (CEF)

SYMBOL	MINIMUM CFM	TOTAL STATIC PRESSURE IN. WG.	ELECTRICAL REQUIREMENTS				BROAN MODEL	SERVICE	REMARKS
			VOLTS	PH.	HZ.	WATTS			
CEF-1	100	0.375"	120	1	60	100	L150MG	WOMENS R.R. 102	-
CEF-2	100	0.375"	120	1	60	100	L150MG	MENS R.R. 103	-

① CAPACITIES AT JOB SITE ELEVATION.

GRILLES AND DIFFUSERS

SYMBOL	CFM	NECK SIZE	FACE SIZE	KRUEGER MODEL	REMARKS
S-1	AS NOTED	AS NOTED	AS NOTED	SH	WITH LAY-IN TILE FRAME / BLOW AS INDICATED
S-2	AS NOTED	AS NOTED	AS NOTED	SH	

GENERAL NOTES

- ALL DRAWINGS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL ASPECTS OF THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING PRICING. ANY AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ANY INSTALLATION SUCH THAT CLARIFICATIONS CAN BE ISSUED.
- ANY WORK PERFORMED OR MATERIAL USED WHICH IS SHOWN TO BE IN CONFLICT WITH THE CONTRACT DRAWINGS, SPECIFICATIONS OR ANY APPLICABLE CODE OR GOVERNING REGULATION SHALL BE REMOVED AND REPLACED OR CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL SYMBOLS AND ABBREVIATIONS USED ON THE CONTRACT DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
- DO NOT SCALE THE DRAWINGS. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO FABRICATION OF MATERIALS OR ERECTION OF ASSEMBLIES. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT, TRANSPORTATION AND SERVICES REQUIRED FOR COMPLETION OF THE WORK. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE DONE IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND GOVERNING REGULATIONS.
- ALL PERMITS AND FEES WHICH ARE REQUIRED FOR THIS WORK SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR.
- ALL PLUMBING AND MECHANICAL INSTALLATIONS SHALL ADHERE TO THE 2012 IECC INCLUDING: MINIMUM R-6 INSULATION ON ALL NON-ACOUSTICALLY LINED DUCTWORK; ACOUSTICAL LINER SHALL PROVIDE A MINIMUM OF R-6 INSULATING VALUE. ALL DOMESTIC WATER PIPING SHALL BE INSULATED WITH A MINIMUM 1" FIBERGLASS INSULATION.

Metamorphose, PLLC.
95 West 100 South, Suite 108
Logan, Utah 84321
Tel: 435.512.8083
thomas@metamorphose-energy.com

Original drawings remain the property of the Architect and as such the Architect retains total ownership and control. The design represented by these drawings is sold to the client for a one time use, unless otherwise agreed upon in writing by the Architect.
© Metamorphose, 2016

Hobble Creek Club House
Springville
Utah 84663

REVISIONS	DATE	BY	DESCRIPTION

MECH. SCHED. / SYMBOL LGND. & DETAILS

M-000

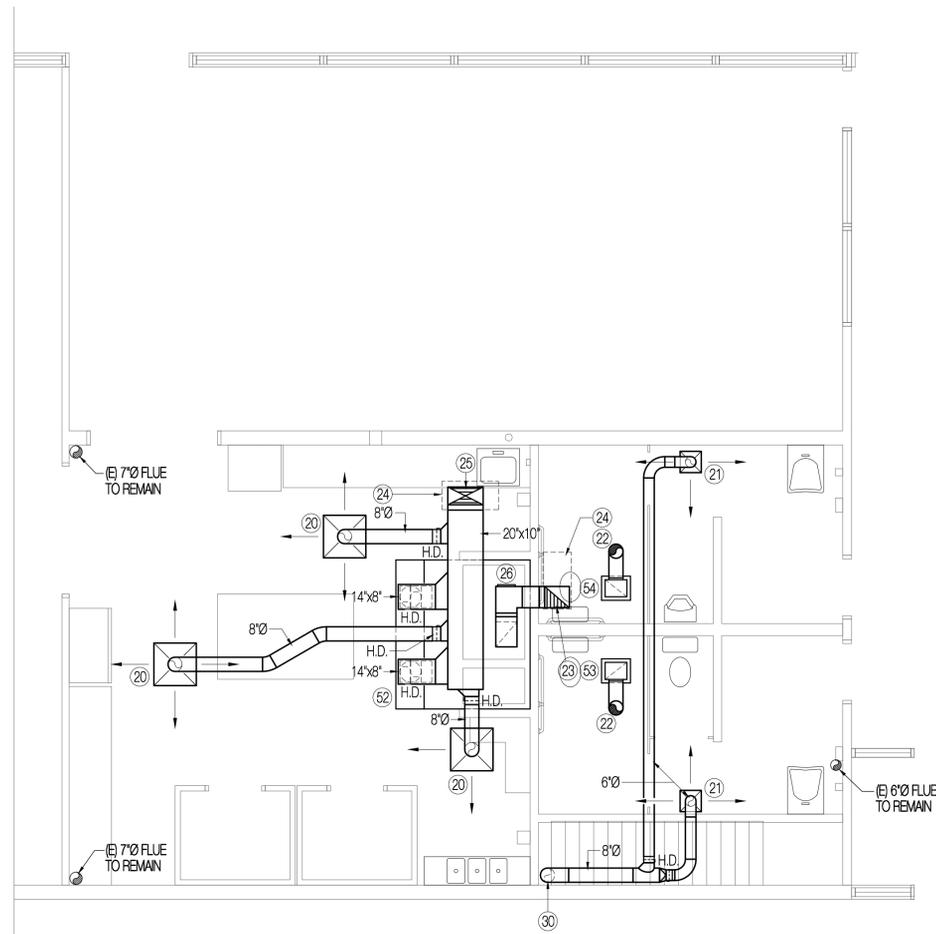
REVIEW SET
NOT FOR CONSTRUCTION

D

C

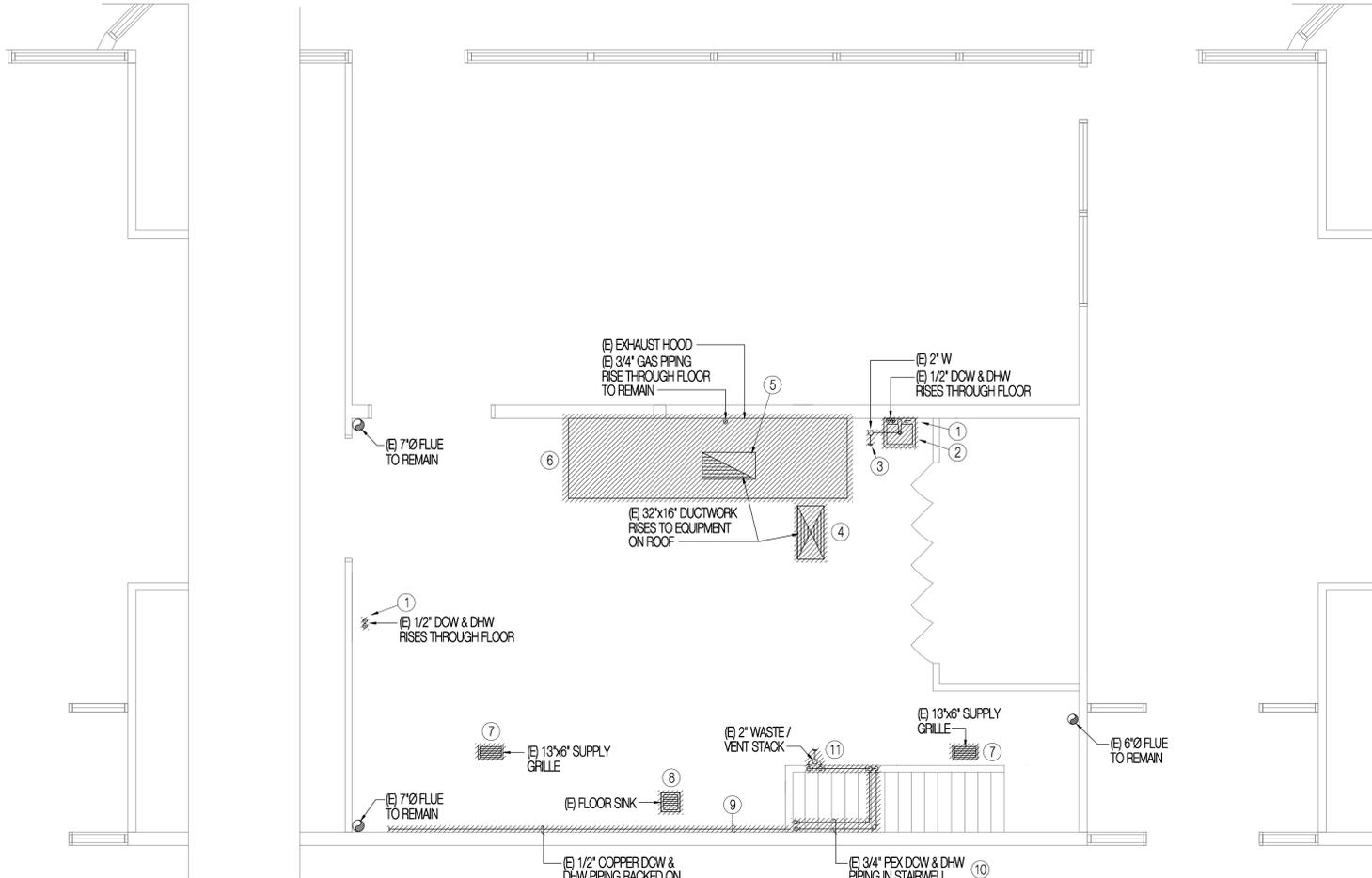
B

A



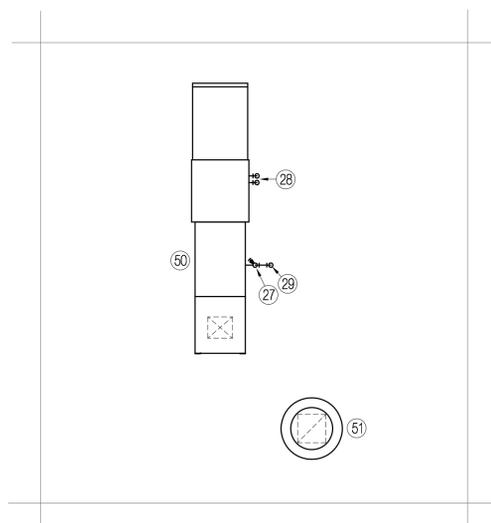
MAIN FLOOR HVAC REMODEL PLAN

SCALE 1/4" = 1' - 0"



MAIN FLOOR HVAC / PLUMBING DEMOLITION PLAN

SCALE 1/4" = 1' - 0"



PARTIAL HVAC / PLUMBING ROOF PLAN

SCALE 3/16" = 1' - 0"



DRAWING NOTES

- 30 8" SUPPLY DUCTWORK DROP TO EXISTING HVAC SYSTEM IN BASEMENT. SEE BASEMENT HVAC REMODEL PLAN SHEET ___ FOR CONTINUATION.

EQUIPMENT NOTES

- | | |
|------------------------------|------------------------------|
| 50 MAU 1 MAKEUP AIR UNIT | 53 CEF 1 CEILING EXHAUST FAN |
| 51 REF 1 ROOFTOP EXHAUST FAN | 54 CEF 2 CEILING EXHAUST FAN |
| 52 H 1 HOOD | |

DRAWING NOTES

- REMODEL NOTES:
- 20 S-1 300 CFM, 10" NK. S.A. DIFFUSER.
 - 21 S-2 85 CFM, 6" NK. S.A. DIFFUSER.
 - 22 8" EXHAUST DUCT RISE TO VENT CAP ON ROOF. SEE DETAIL 5/M-001 FOR ADDITIONAL INFORMATION.
 - 23 12"x14"-16 GA. BLACK IRON GREASE DUCT WITH 3" 3M FIRE WRAP RISE TO EXHAUST FAN ON ROOF. SEE PARTIAL HVAC ROOF PLAN THIS SHEET FOR CONTINUATION.
 - 24 EXISTING HOLE IN ROOF DECK, REUSE AND RE-SEAL AS REQUIRED.
 - 25 20'x10" SUPPLY DUCTWORK RISE TO MAKEUP AIR UNIT ON ROOF. SEE PARTIAL HVAC ROOF PLAN THIS SHEET FOR CONTINUATION.
 - 26 10'x10" GREASE DUCT CLEANOUT.
 - 27 GAS PIPING CONNECTION AT APPLIANCE. SEE GAS FLOW DIAGRAM SHEET P-401 FOR ADDITIONAL INFORMATION. CONNECT EACH APPLIANCE WITH 6" DIRT LEG, SHUTOFF VALVE AND CORRUGATED STEEL TUBE FLEXIBLE CONNECTION.
 - 28 1/2" DOMESTIC COLD WATER AND 3/4" PVC DRAIN PIPING FROM EVAPORATIVE COOLING MODULE TO NEAREST UTILITY. EXTEND WASTE PIPING TO NEAREST FLOOR SINK AND DOMESTIC WATER TO NEAREST MAIN. CONNECT DOMESTIC WATER WITH NEW SHUTOFF AND PROVIDE BLEED VALVE AFTER SHUTOFF FOR WINTERIZING. EXTEND BLEED LINE TO NEAREST NEAREST FLOOR SINK. SUPPORT ALL PIPING WITH UNISTRUT AND CLAMPS.
 - 29 3/4" GAS (483 CFH) PIPING DROP. SEAL PIPING PENETRATION DROP WATER TIGHT SIMILAR TO DETAIL 9/P-0.0.

DRAWING NOTES

- DEMOLITION NOTES:
- 1 REMOVE EXISTING 1/2" DOMESTIC COLD WATER PIPING STUBS BACK TO BASEMENT LEVEL AND CAP PREPARATORY TO NEW WORK. COORDINATE PATCH AND REPAIR OF EXISTING FLOOR WITH GENERAL CONTRACTOR.
 - 2 REMOVE EXISTING FIXTURE COMPLETE PREPARATORY TO NEW WORK.
 - 3 REMOVE EXISTING 2" WASTE PIPING BACK TO BASEMENT LEVEL AND CAP PREPARATORY TO NEW WORK. COORDINATE PATCH AND REPAIR OF EXISTING FLOOR WITH GENERAL CONTRACTOR.
 - 4 REMOVE EXISTING 32"x16" SUPPLY AIR DUCTWORK AND DIFFUSERS ABOVE CEILING PREPARATORY TO NEW WORK.
 - 5 REMOVE EXISTING 32"x16" EXHAUST AIR DUCTWORK BETWEEN HOOD AND EXHAUST FAN ON ROOF PREPARATORY TO NEW WORK.
 - 6 REMOVE EXISTING EXHAUST HOOD COMPLETE PREPARATORY TO NEW WORK. REMOVAL SHALL INCLUDE HOOD, FIRE SUPPRESSION SYSTEM, LIGHTING, ALL HOOD CONTROLS, ALL HOOD ACCESSORIES, FANS, ETC.
 - 7 REMOVE EXISTING FLOOR MOUNTED SUPPLY GRILLE PREPARATORY TO NEW WORK. COORDINATE PATCH AND REPAIR OF EXISTING FLOOR WITH GENERAL CONTRACTOR.
 - 8 REMOVE EXISTING FLOOR SINK PREPARATORY TO NEW WORK. COORDINATE PATCH AND REPAIR OF EXISTING FLOOR WITH GENERAL CONTRACTOR.
 - 9 REMOVE ALL SURFACE MOUNTED COPPER / PEX DOMESTIC WATER SUPPLY PIPING PREPARATORY TO NEW WORK.
 - 10 REMOVE EXISTING 3/4" PEX DOMESTIC WATER PIPING IN STAIRWELL AREA. REMOVE PIPING BACK TO BASEMENT STAIRWELL OPENING PREPARATORY TO NEW WORK.
 - 11 REMOVE EXISTING 2" WASTE / VENT STACK TO BASEMENT LEVEL AND CAP PREPARATORY TO NEW WORK.

Vertical Logo.jpg

The Design Guild, PLLC.
DBA, Wyatt Mitchell

95 West 100 South, Suite 108
Logan, Utah 84321
Tel: 435.712.2893

office@wyatt-mitchell.com

Original drawings remain the property of the Architect and as such the Architect retains total ownership and control. The design represented by these drawings is sold to the client of a one time use, unless otherwise agreed upon in writing by the Architect.
© Wyatt Mitchell, 2015

HOBBLE CREEK
SPRINGVILLE

REVISIONS	

WYATT MITCHELL # 15010
 CHECKED BY: TCW
 DRAWN BY: HH
 DATE: 08/10/2015

M-100

BID SET

6

5

4

3

2

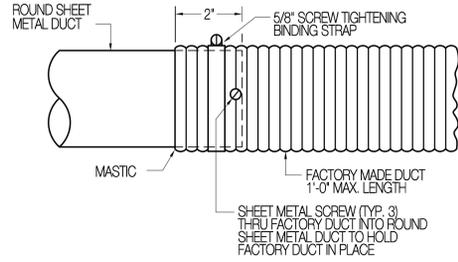
1

D

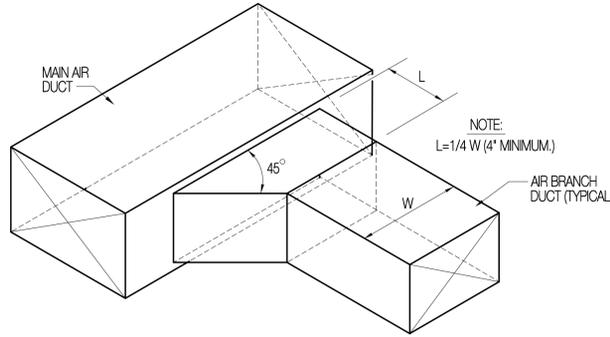
C

B

A



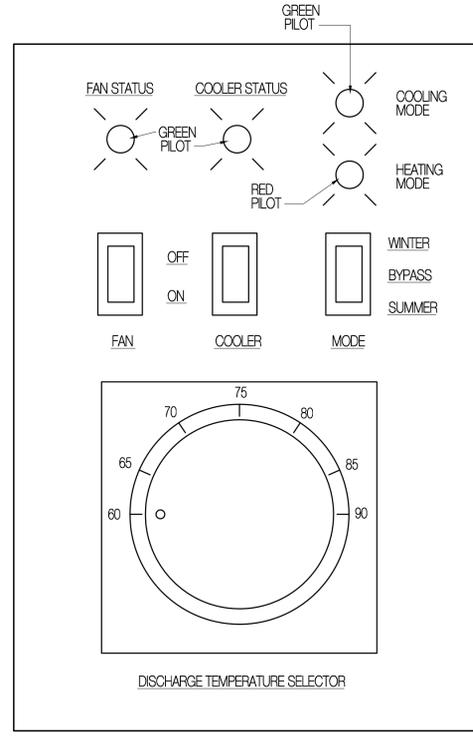
1 FACTORY DUCT DETAIL
SCALE: NONE



2 RECT. DUCT RUNOUT DETAIL
SCALE: NONE

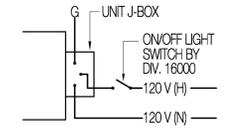
GENERAL NOTES FOR MECHANICAL CONTROLS

1. ALL ELECTRICAL INSTALLATIONS INCLUDING POWER DISTRIBUTION AND SPECIAL SYSTEMS ARE INCLUDED IN THE SCOPE OF THE GENERAL CONTRACT. OF SPECIFIC CONCERN ARE THE CONTROL SYSTEMS RELATED TO MECHANICAL EQUIPMENT. RESPONSIBILITY FOR THE CONTROL WORK IS DIVIDED BETWEEN THE PROJECT ELECTRICIAN (DIV. 26000) AND A SPECIALTY CONTROLS CONTRACTOR (DIV. 15000).
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH DIVISION 16000 AND TO THE FULLEST EXTENT POSSIBLE, PRODUCTS AND PRACTICES SHALL BE SIMILAR FOR ALL INSTALLATIONS.
3. THE ELECTRICIAN SHALL PROVIDE ALL POWER TO AND THROUGHOUT THE BUILDING, TO INCLUDE MOTOR CONTROL CENTERS, BREAKER PANELS AND ALL OTHER SYSTEMS DESIGNATED TO THE ELECTRICIANS.
4. THE ELECTRICIAN SHALL RUN AND CONNECT ALL WIRING AND DEVICES 120 VOLTS AND ABOVE WHICH POWER MOTORS AND OTHER MECHANICAL DEVICES, WHERE CONTROL DEVICES ARE LOCATED IN POWER CIRCUIT, THE CONTROLS CONTRACTOR SHALL INTERRUPT THE CIRCUIT IN THE MECHANICAL EQUIPMENT JUNCTION BOX, WIRE THROUGH THE CONTROL DEVICE AND BACK TO THE JUNCTION BOX.
5. THE CONTROLS CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR CONTROL SYSTEM CIRCUITS.
6. BREAKERS AND DISCONNECTS, AUXILIARY CONTACTS, STANDARD PILOT LIGHTS AND MAGNETIC STARTERS ARE THE RESPONSIBILITY OF DIVISION 26000.
7. AUXILIARY RELAYS, LOW VOLTAGE TRANSFORMERS, CONTROL PANEL SWITCHES & DEVICES, THERMOSTATS, PRESSURE SWITCHES, ELECTRIC OPERATED VALVES, ETC., ARE THE RESPONSIBILITY OF DIVISION 15000.
8. ANY QUESTION OF RESPONSIBILITY SHALL BE CLARIFIED BY THE GENERAL CONTRACTOR
9. ALL WIRING SHALL TERMINATE AT LABELED TERMINAL STRIPS.



MAKEUP AIR UNIT CONTROL SCHEMATIC

CONTROL SEQUENCE: OCCUPANT SELECTS ON / OFF STATUS OF BOTH THE FAN AND COOLER SECTIONS OF THE MAKEUP AIR UNIT. THE STATUS PILOTS SHALL ILLUMINATE WHENEVER EACH SECTION IS ENERGIZED. DURING WINTER OPERATION THE OCCUPANT SHALL ENERGIZE THE FAN AND SELECT THE DESIRED MAU DISCHARGE AIR TEMPERATURE. THE UNIT CONTROLS SHALL MODULATE THE GAS VALVE TO ACHIEVE THE DESIRED TEMPERATURE. MONITOR THE DISCHARGE AIR TEMPERATURE THROUGH THE USE OF A DISCHARGE AIR SENSOR MOUNTED AT THE MAU. PROVIDE AND INSTALL ALL REQUIRED RELAYS, CONTACTORS, TRANSFORMERS, ETC. REQUIRED TO IMPLEMENT THE CONTROL SEQUENCE. INTERLOCK CONTROL OF THE COOLER AND GAS VALVE OPERATION WITH THE SUMMER / WINTER MODE SWITCH TO PREVENT OPERATION OF EACH DURING THE APPROPRIATE SEASON. BOTH FUNCTIONS SHALL BE AVAILABLE IN BYPASS MODE. INTERLOCK OPERATION OF MAKEUP AIR UNIT WITH THE EXHAUST FAN TO ENSURE THAT BOTH OPERATE WHENEVER THE HOOD IS ENERGIZED.



CEILING EXHAUST FAN CONTROL DIAGRAM

TYPICAL OF CEILING EXHAUST FANS CEF-1 & 2.

Metamorphose, PLLC.

95 West 100 South, Suite 108
Logan, Utah 84321
Tel: 435.512.8083

thomas@metamorphose.energy



Original drawings remain the property of the Architect and as such the Architect retains total ownership and control. The design represented by these drawings is sold to the client of a one time use, unless otherwise agreed upon in writing by the Architect.
© Metamorphose, 2016

Hobble Creek Club House
Springville
Utah 84663

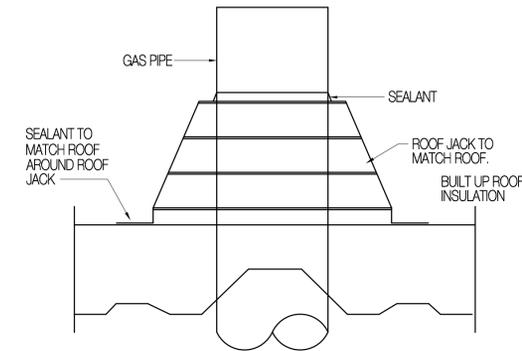
REVISIONS

METAMORPHOSE # 16002
CHECKED BY: NDC
DRAWN BY: NDC
DATE 03/11/2016

MECHANICAL CONTROLS & DETAILS

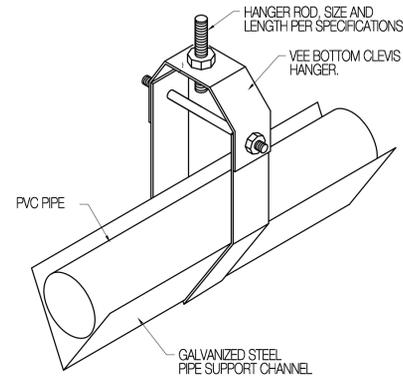
M-700

REVIEW SET
NOT FOR CONSTRUCTION



7 PIPE THROUGH ROOF DETAIL

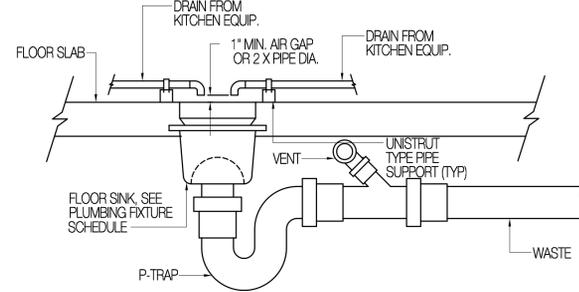
SCALE: NONE



NOTE: HANGER AND CHANNEL BASED ON B-LINE HANGER B3106 AND CHANNEL B3106V.

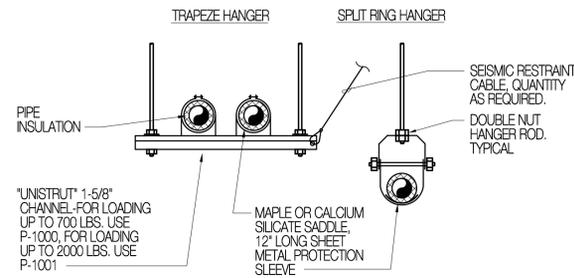
4 PVC / ABS PIPE SUPPORT DETAIL

SCALE: NONE



5 KITCHEN EQUIPMENT INDIRECT WASTE

SCALE: NONE

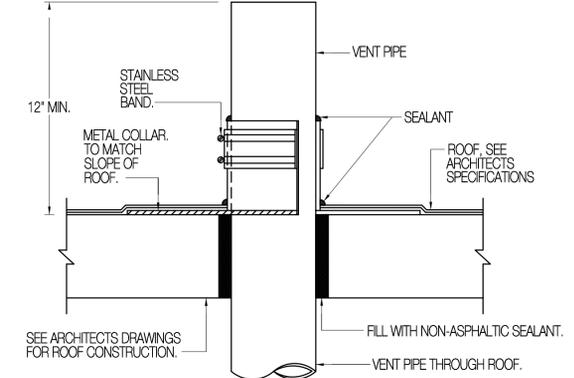


PIPE SIZE	MAX. SPACING	PIPE LOAD WEIGHT/FT. TOTAL	ROD SIZE
1" AND SMALLER	8	2.5/20	3/8"
1-1/4" - 2"	10	6/60	3/8"

HANGERS SIZES AND SPACING ARE FOR SINGLE PIPES. HANGER ROD LOADING FOR TRAPEZE HANGERS SHALL NOT EXCEED THE TOTAL LOADING INDICATED. IF SMALLER ROD SIZE IS USED, DECREASE MAXIMUM SPACING SO THAT TOTAL LOADING IS NOT EXCEEDED.

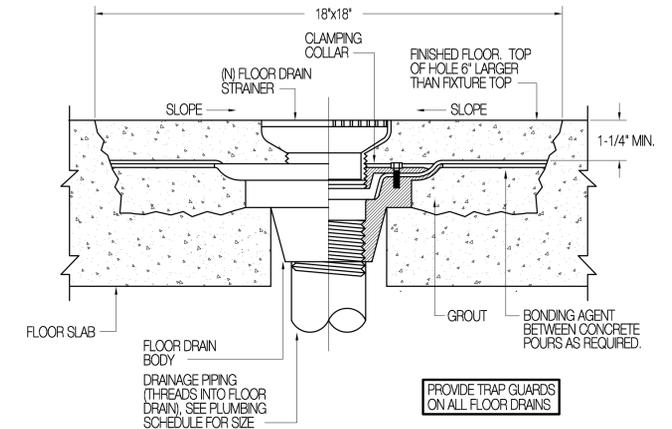
6 PIPE HANGER DETAIL

SCALE: NONE



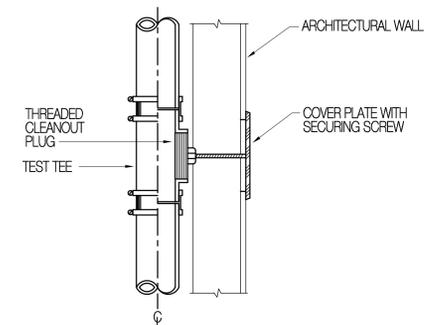
1 TYPICAL VENT THRU ROOF DETAIL

SCALE: NONE



2 FLOOR DRAIN IN CONCRETE FLOOR

SCALE: NONE



3 WALL CLEANOUT DETAIL

SCALE: NONE

Metamorphose, PLLC.
 95 West 100 South, Suite 108
 Logan, Utah 84321
 Tele: 435.512.8383
 thomas@metamorphose.energy

Original drawings remain the property of the Architect and as such the Architect retains total ownership and control. The design represented by these drawings is sold to the client of a one time use, unless otherwise agreed upon in writing by the Architect.
 © Metamorphose, 2016

Hobble Creek Club House
 Springville
 Utah 84663

REVISIONS	DATE	BY	DESCRIPTION

METAMORPHOSE #	18002
CHECKED BY:	NDC
DRAWN BY:	NDC
DATE	03/11/2016

PLUMBING
 DETAILS

P-500

REVIEW SET
 NOT FOR CONSTRUCTION

D

C

B

A

6

5

4

3

2

1

SECTION 26 0001 – ELECTRICAL GENERAL PROVISIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary and other conditions) and Division One apply to the work specified in this Section.
- B. This Section 260001 is a part of all other Sections of this Division 26.
- C. It is understood that Division 26 shall govern and be the direct responsibility of the Electrical Contractor, who shall comply with the specifications and the accompanying drawings to describe and provide for the furnishings, delivering, installing, testing and placing in satisfactory and successful operation all equipment, materials, devices, and necessary appurtenances to provide a complete electrical system for lighting, power and auxiliaries; together with such other equipment and devices furnished and installed under other contracts which shall be wired and connected under this contract.
- D. If a discrepancy occurs between the equipment supplied and the intent or function of the equipment, catalog numbers, discontinued products, drawings, specifications, etc., the Contractor shall bring this to the attention of the Architect or Engineer in writing prior to bidding. Failure to report any conflict does not relieve the Contractor from meeting the intent of the contract documents nor shall it change the contract cost. It shall further be understood that if the contractor is unable to interpret any part of the plans and specifications, or should he find discrepancies therein, he shall call attention of the fact to the Architect prior to bid date. The Architect will issue additional instructions to Bidders before the project is bid.
- E. State Licensed Contractor – All contractors shall have a current state contracting license for the trade engaged in.

1.2 DESCRIPTION OF WORK

- F. The work covered by these specifications consists of furnishing all labor, materials, equipment, supervision and service necessary for the proper completion of all electrical work shown on the drawings and hereinafter specified. Items shown or described in other drawings or specifications and/or all items necessary to make the electrical system complete and workable shall be understood to form a part of the work.
- G. The main items of work are enumerated below. The work shall include but is not necessarily limited to the following items:
 - 1. Lighting, convenience and power outlets.
 - 2. Light fixtures, lamps and associated equipment.
 - 3. Power distribution.
 - 4. Connection of motors, appliances and owner-furnished equipment.
 - 5. Connections to equipment not supplied in this contract.
- H. Work and materials not included under this Division:
 - 6. Supply of heating and ventilation control equipment unless noted on the electrical drawings. See mechanical drawings for division 26 requirements.

1.3 VISITING SITE

- J. Visit the site during the bidding period to determine existing conditions that will affect the electrical and other work as it pertains to the construction of this structure. All costs arising from site conditions and/or preparation shall be included in the base bid. No additional charges will be allowed due to inadequate site inspection.

1.4 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

- K. At the time of bidding, contractor shall familiarize himself with the drawings and specifications of this project. Any questions, misunderstandings, conflicts, omissions, etc. shall be submitted to the Architect in writing for clarification prior to issuance of the final addendum and bidding of the project. After signing the contract, the contractor shall meet the intent, purpose, and function of the contract documents; and of any omissions, labor, and equipment arising therefrom, to make each system complete and operable, shall be paid by the contractor, which shall not result in any change in contract cost.

1.5 DRAWING INTERPRETATION

- M. The electrical contractor shall refer to the architectural and/or mechanical drawings for exact placement of all electrical equipment. The electrical drawings unless specifically dimensioned are to be considered diagrammatic and are not to be scaled for placement of equipment.

1.6 CODES-REGULATIONS AND PERMITS

- N. In the installation of this work, comply in every way with the requirements of the laws, ordinances and rules of the State and National Board of Fire Underwriters, the National Electrical Code, and the rules and regulations of local ordinances.

1.7 SUPERVISION

- Q. Workmanship shall be neat, have a good mechanical appearance and conform to the best electrical construction practices. A competent superintendent shall be in charge of the work at all times. Any person employed and found incompetent shall be removed, once and replaced by someone satisfactory when requested by the Architect. All work shall be carried out under the direction of the Architect to fulfill the true intent and meaning of the drawings and specifications. Only licensed master or journeyman craftsmen may be engaged in this project, except apprentice electricians may be used on not more than a 1:1 ratio with the total number of master or journeyman electricians.

1.8 FIELD DESIGN CHANGES

- R. No field changes, additions, or locations shall be made without written approval.
- S. Current red line drawings must be on site at all times.

1.9 SHOP DRAWINGS

- T. It is understood that, before the manufacture or installation of any equipment under this contract is carried forward, shop drawings of such work shall be submitted for review. It is the responsibility of the electrical contractor to check the shop drawings for detailed compliance with the contract documents. Prior to submitting the drawings for review, verify that all dimensions, contract document requirements, ballast voltages, and correlation at job site have been checked. The electrical contractor shall indicate any corrections to the shop drawings or any explanations to the contract document requirements, by notation on the shop drawings and by cover letter. IF THIS IS NOT DONE THE DRAWINGS WILL BE RETURNED. At least eight (8) catalog sheets or shop drawings shall be submitted in ample time, no work being executed until each review has been completed.

1.10 SHOP DRAWING SUBMITTAL PROCESS

- U. The alarm shop drawing submittal process –
 - 13. After award of contract and prior to purchase of equipment, submit seven sets of shop drawings with specifications and calculations to Architect and two sets to local jurisdiction having authority for fire prevention for review. Provide manufacturer's out sheet information for components required.
 - 14. Integrate Architect's and local jurisdiction's comments into drawings.
 - 15. Submit revised documents to area office and local jurisdiction having authority for fire prevention for final approval.
 - 16. After final approval submit four copies of approved documents to Architect. Include manufacturer's out sheet information.
 - 17. Failure of system to meet requirements of authority having jurisdiction shall be corrected at no additional cost to Owner.
- V. Verification of Contract Document Requirements. The Electrical Contractor shall be required to furnish shop drawings with the contract document requirements high-lighted to verify they have been checked. Items to be high-lighted include, but are not limited to:
 - 18. Electrical Panels
 - a. Panel number or designation
 - b. Panel type
 - c. Phase
 - d. Voltage
 - e. Flush or surface
 - f. Main lug amps
 - g. Main breaker amps
 - h. Fault current capacity
 - i. Branch circuit breakers
 - 19. Lighting fixtures: Items on the shop drawings that correlate to all items shown on the fixture schedule
 - j. All items in catalog number
 - k. Fixture mounting
 - l. Lamp type

1.11 REVIEW OF SHOP DRAWINGS

- W. The review of shop drawings by the engineer is only to determine if they are in general compliance with the information given in the contract documents, and serves to determine the contractors understanding of the design concept. If some errors are detected but others are overlooked during the review this does not grant the contractor permission to proceed in error. Regardless of any information contained in the shop drawings, the requirements of the contract documents must be followed and are not waived or superseded in any way by the shop drawing review.

1.12 FOLLOWING SHOP DRAWINGS ARE REQUIRED WITHIN 30 DAYS AFTER SIGNING OF THE CONTRACT.

20. PANELBOARDS

21. DISCONNECTS

22. LIGHTING FIXTURES (COORDINATE WITH CEILING CONTRACTOR)

23. SOUND SYSTEM EQUIPMENT

24. WIRING DEVICES

Y. ONE MONTH AFTER THE CONTRACT IS SIGNED, BIND AND NUMERICALLY INDEX FOUR (4) COMPLETE SETS OF ALL SHOP DRAWINGS AND SUBMIT TO THE MECHANICAL CONTRACTOR FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUAL. EACH UNIT TYPE SHALL HAVE ITS OWN INDIVIDUAL CATALOG SHEET GIVING CHARACTERISTICS, DATA, DIMENSIONS, CATALOG NUMBERS AND PARTS LISTINGS. (EXAMPLE: IF TWO ITEMS OF EQUIPMENT A & D APPEAR ON THE SAME SHEET, AN INDIVIDUAL SHEET SHALL BE PROVIDED FOR EACH UNIT SPECIFIED.) THE MANUAL SHALL BE NUMERICALLY INDEXED WITH AN INDEX SHEET EXPLAINING THE CONTENTS OF EACH SECTION.

1.10 GUARANTEE

- Z. The entire electrical system installed under this contract shall be left in proper working order and be in compliance with the drawings, specifications and/or authorized changes to the satisfaction of the Owner's Representative. Without additional charge, replace any work or materials which develop defects, except from ordinary wear and tear, within one year from the date of final acceptance. Exception: Incandescent and fluorescent lamps which shall be guaranteed for a period of two months from acceptance of the installation by the Owner or his agent. A written guarantee covering the above provisions shall be signed and delivered to the Architect after the project has final acceptance by the inspecting Authority.

PART 2 – PRODUCTS

21 SPECIFIED PRODUCTS

- AA. The contractors under this division shall thoroughly familiarize themselves with all specified products and their application relating to their work. Any objections to the use of any specified product shall be submitted to the architect in writing prior to bidding.

2.2 MATERIALS AND WORKMANSHIP

- AB. All materials and equipment furnished and installed shall be of high quality, new, and meet the standards of NEMA, IFC, IA, UL, NFPA, EIC, IJCSA, NEC, and shall bear their label wherever standards have been established and label service is available. Where materials and equipment are specified by manufacturer's name, the type and quality required is thereby denoted. The Architect shall be afforded every facility, deemed necessary to inspect and examine the materials and apparatus being installed to prove their quality, skill and competency of workmanship.
- 2.3 SUBSTITUTIONS
 - AC. The equipment specified carries brand names and catalog numbers and shall be interpreted as establishing a standard of quality unless otherwise noted. Substitutions will be considered if a duplicate written application (2 copies) is at the offices of the Architect and Engineer at least four (4) working days prior to issue of the final addendum. The application shall include the following:
 - 1) A statement declaring the equipment proposed is equal to that specified by having the same physical characteristics and dimensions and meet the drawings layout and structural conditions as well as load requirements;
 - 2) The specified and submitted catalog numbers of the equipment under consideration;
 - 3) A pictorial and specification brochure.
 - AD. Any conflict arising from the use of substituted equipment shall be the responsibility of the contractor, who shall bear all costs required to make the equipment comply with the intent of the plans and specifications.
 - AE. At the option of the Architect, samples may be required for non-standard or substituted items before installation during construction.
 - AF. No materials or apparatus shall be substituted after the bid opening except where the equipment manufacturer has been discontinued or delivery becomes a problem, then written approval of the Architect is required.
 - AG. Bidding – only equipment specified in the contract documents and/or approved by an addendum will be used in the base bid.

PART 3 – EXECUTION

3.1 PROGRESS AND COORDINATION OF WORK

- AH. The electrical work shall be laid out in advance of construction to eliminate unnecessary cutting, drilling, chaming, etc. Where such cutting and drilling, or chaming becomes necessary for proper installation, perform with care, use skilled mechanics of the trades involved, repair damage to building and equipment at no additional cost to the Owner. Cutting work of other trades shall be done only with the consent of the General Contractor. Cutting of structural members shall be done only with the approval of the Architect.
 - AI. Cooperate with other trades to coordinate locations of electrical outlets and apparatus.
 - AJ. Before any electrical panels, disconnects & motor starters or their associated feeders are installed, the electrical contractor shall be responsible to inform all other trades on the job of the requirements of N.E.C. 110-26. If any conflicts are noted he shall notify the architect immediately, along with notification in writing. No additional cost, to the job under the electrical contract, will be allowed for relocating electrical panels after installation.
 - AK. Perform for other trades the electrical wiring and connections for all devices or apparatus where not specified herein or indicated on the drawings. Consult the Architectural and Mechanical drawings to avoid the location of switches, outlets and other equipment from being hidden behind doors, cabinets, counters, heating equipment, etc. Buried electrical devices and/or connections shall be relocated as directed, at no additional cost to the Owner.
 - AL. Where conduit, outlets or apparatus is to be cast in concrete or masonry, it must be located and secured by a journeyman or foreman present at the point of installation. He shall check the locations of the electrical items before and after the concrete and masonry installation and shall relocate displaced items.
 - AM. No changes shall be made in the design or location of apparatus unless specifically approved in writing.

3.2 DRAWINGS

- AN. Architectural and Mechanical Drawings are a part of the electrical work insofar as they apply, as if referred to in full.
- AO. Since the drawings of floor and ceiling installation are made at small scale, outlets, devices, equipment, etc., are indicated only in their approximate location, unless dimensioned. Locate outlets and apparatus symmetrically on floors, walls and ceilings where not dimensioned, and coordinate such locations with work of other trades to prevent interferences. All dimensions on the job shall be verified. Do not scale the electrical drawings, but refer to the architectural and mechanical drawings and dimensions.

3.3 EQUIPMENT CONNECTIONS

- AP. The standard industry symbols together with the special symbols, noted and instructions indicated on the drawings describe the work, materials, apparatus and outlets required and all are to be installed in accordance with this specification.

3.4 CLEAN-UP

- AQ. Clean up all equipment, conduit, fittings, packing cartons and other debris that is a direct result of the installation of the equipment under this contract.

3.5 STORAGE AND PROTECTION OF MATERIALS

- AS. Provide storage space for storage of materials and apparatus and assume complete responsibility for all losses due to any cause except fire, theft, or in no case shall storage interfere with traffic conditions in any public thoroughfare or constitute a hazard to persons in the vicinity. Protect completed work, work underway, and apparatus against loss or damage.

3.6 DEMOLITION

- AT. This Contractor shall be responsible for block-outs or demolition work pertaining to the installation of the electrical system.
- AZ. Seal around all electrical equipment penetrating outside walls, roofs, unheated spaces, air plenums, etc., with Dow Corning Silicone RTV foam.

3.7 SEALS

- BA. Seal around all electrical equipment penetrating fire walls with a noncombustible sealer approved for the purpose.
- BB. Use proper fire penetration tests of existing electrical systems.

3.8 COMPLETION OF WORK AND TESTS

- BC. Before any underground service entrance circuits or feeder circuits are energized, make megger ground tests on the conductors. Record the readings along with ambient temperature and moisture conditions and submit to the Architect.
- BD. Submit with a letter of guarantee a record of all voltage reading and amp meter reading on all feeders and motors. If there are any abnormal conditions, they shall be brought to the attention of the Architect in writing as a part of this submittal.

END OF SECTION 26 0001

SECTION 26 0050 – BASIC MATERIALS AND METHODS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- EA. All wiring shall be run concealed, except at surface mounted panels and apparatus – See raceways for type of materials and additional information. All wiring shall be run in conduit unless specifically noted otherwise.
- EB. All branch circuit splices, taps, fixture connections, etc., shall be made with an approved pressure connector or wire nuts such as Ideal Spring type. Pigtail at each outlet or device box shall be 6 inches long.
- EC. Labeling: Engaged back terminals w/white core labels, 1/8" thick shall be ballot on the interior and the exterior of branch panels (panel name and voltage) and the exterior of disconnect switches, motor controls, major J-boxes (power and auxiliary), push buttons, thermal switches, time switches and similar equipment. The labels shall be 1/4" high engraved letters, such as 1-1/2 HP FAN, F-1, PANEL – A.
- ED. The phase of each feeder conductor shall be color coded at each end in panels and junction boxes.
- EE. The Contractor is responsible for all demolition, patching and repair of all finished interior surfaces pertaining to the installation of this particular phase of work. All surfaces shall be finished (Painted, Etc.) to match the adjacent materials, finishes and color. Work shall be done by professional tradesmen on the job.
- EF. Hard surfaces: Whenever demolition or excavation is required for installation of the electrical system, it shall be the responsibility of this contractor to make repairs and/or replacements of hard finish surfaces such as concrete, asphalt, etc.
- EG. The method of patching and repair should follow good construction practices and all finished surfaces shall match materials and finish wherein the demolition occurred. Coordinate with Contractor for patching requirements.

END OF SECTION 26 0050

SECTION 26 0070 – ELECTRICAL CONNECTIONS FOR EQUIPMENT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- EA. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
- EB. This section is a Division-26 Basic Materials and Methods section, and is part of each Division-26 section making reference to electrical connections.
- 1.2 DESCRIPTION OF WORK
 - EC. Extent of electrical connection for equipment includes final electrical connection of all equipment having electrical requirements. Make final connections for all owner furnished equipment. See other applicable portions of specification for building temperature control wiring requirements.
 - ED. Refer to Division-23 sections for motor starters and controls furnished integrally with equipment; not work of this section.
 - EE. Refer to Division-23 section for control system wiring; not work of this section.
 - EF. Refer to sections of other Divisions for specific individual equipment power requirements.
- 1.3 QUALITY ASSURANCE
 - EG. NEC Compliance: Comply with applicable portions of NEC as to type products used and installation of electrical power connections.
 - EH. UL-Labels: Provide electrical connection products and materials which have been UL-listed and labeled.

PART 2 – PRODUCTS

21 GENERAL

- EF. For each electrical connection indicated, provide complete assembly of materials, including but not necessarily limited to, raceways, conductors, cords, cord caps, wiring devices, pressure connectors, terminal (lug), electrical insulating tape, heat-drinkable insulating tubing, cable ties, address wire nuts, and other items and accessories as needed to complete splices, terminations, and connections as required. See Section 260110, Conduit, Raceways; Section 260140, Wiring Devices; and Section 260120, Wire and Cables for additional requirements. Provide final connections for equipment consistent with the following:
 - 30. Permanently installed fixed equipment – flexible seal-tite conduit from branch circuit terminal equipment, or raceway, to equipment, control cabinet, terminal junction box or wiring terminals. Include direct end wiring in raceway.
 - 31. Movable and/or portable equipment – wiring device, cord cap, and multi-conductor cord suitable for the equipment and in accordance with NEC requirements (Article 400). Provide 5 foot cords for washers, dryers, ranges and disposals.
 - 32. Other methods of connection as specified by the National Electrical Code and/or as required by special equipment of field conditions.

22. UL LABELS

- EG. All electrical equipment for power connections, required for operation of mechanical equipment not furnished as an integral part of that equipment shall be furnished and treated under Division 26.

PART 3 – EXECUTION

3.1 INSTALLATION OF ELECTRICAL CONNECTIONS

- EA. Make electrical connections in accordance with connector manufacturer's written instructions and with recognized industry practices, and complying with requirements of NEC and NECA's "Standard of Installation" to ensure that products fulfill requirements.

BN. CONNECT ELECTRICAL POWER SUPPLY CONDUCTORS TO EQUIPMENT CONDUCTORS IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S WRITTEN INSTRUCTIONS AND WIRING DIAGRAMS.

BE. COORDINATE INSTALLATION OF ELECTRICAL CONNECTIONS FOR EQUIPMENT WITH EQUIPMENT INSTALLATION WORK.

BF. VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, FULL LOAD AMPERES, NUMBER AND POINT OF CONNECTIONS, MINIMUM CIRCUIT AMPACITY, ETC.) FOR EQUIPMENT FURNISHED UNDER OTHER DIVISIONS OF THIS SPECIFICATION, BY REVIEWING RESPECTIVE SHOP DRAWINGS FURNISHED UNDER EACH DIVISION. Meet with each subcontractor furnishing equipment requiring electrical service and review equipment electrical characteristics. Report any variances from electrical characteristics noted on the electrical drawings to Architect before proceeding with rough-in work.

BG. OBTAIN AND REVIEW THE EQUIPMENT SHOP DRAWINGS TO DETERMINE PARTICULAR FINAL CONNECTION REQUIREMENTS BEFORE ROUGH-IN BEGINS FOR EACH EQUIPMENT ITEM.

CH. LOCATION OF DISCONNECT SWITCHES AS SHOWN ON THE DRAWINGS IS APPROXIMATE. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROPER PHYSICAL CHARACTERISTICS AND DIMENSIONS FOR REQUIRED CODE CLEARANCES.

CI. ELECTRICAL CONTRACTOR TO VERIFY MOTOR SIZES WITH MECHANICAL BEFORE ORDERING OVERLOAD PROTECTORS FOR STARTERS.

CK. REFER TO SECTION 260120, CONDUITS, FOR IDENTIFICATION OF ELECTRICAL POWER SUPPLY CONDUCTOR TERMINATIONS.

END OF SECTION 26 0070

SECTION 26 0110 – CONDUIT RACEWAYS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work of this section.
- B. This section is a Division-26 Basic Materials and Methods section, and is part of each Division-26 section making reference to electrical raceways and specified herein.
- 1.2 DESCRIPTION OF WORK
 - C. Extent of raceways is indicated by drawings and schedules.
 - D. Types of raceways in this section include the following:
 - 1. Electrical Metallic Tubing
 - 2. Flexible Steel Conduit
 - 3. Liquid-Tight Flexible Steel Conduit
 - 4. Rigid Metal Conduit
 - 5. Plastic Rigid Conduit
 - 6. MC cable allowed where allowed by code (NEC).

1.3 QUALITY ASSURANCE

- E. Manufacturers: Firms regularly engaged in manufacture of raceway systems of types and sizes required, whose products have been in satisfactory use in similar service for not less than three (3) years.
- F. Standards: Comply with applicable portions of NEMA standards pertaining to raceways. Comply with applicable portions of UL safety standards pertaining to electrical raceway systems, and provide products and components which have been UL-listed and labeled. Comply with NEC requirements as applicable to construction and installation of raceway systems.

PART 2 – PRODUCTS

- H. Provide and install raceways for the electrical system as shown on the plans, or as required by NEC. The raceways shall be concealed except at surface mounted panels and/or apparatus and open truss ceilings. Minimum conduit size is 3/4".
- I. Acceptable raceways (metallic conduit to be galvanized):
 - 6. Galvanized Rigid Conduit (GRC) – may be used in all locations. When installed in earth, cover with one layer of scotch wrap.
 - 7. Electrical Metallic Tubing (EMT) – may be used in indoor, dry locations not subject to damage, not in contact with earth, and not embedded in the concrete floor slab (but on earth grade only). EMT shall not be used outdoors.
 - 8. Plastic Rigid Conduit (PVC) – PVC schedule 40 may be used underground, or below concrete. (See ground conductors). All bends greater than 30 degrees shall be GRC. (This includes rising up through the floor). All connections to concrete or structure shall be a minimum of 10' of GRC at the end of the PVC run. All conduits passing horizontally through concrete shall be GRC for 5' before and after passing through the concrete (not applicable to stub up through floor slab). All underground conduits shall be run below the concrete slab.
 - 9. Flexible Steel Conduit: 1/2" minimum used for indoor final connections to equipment.
 - 10. Liquid Tight Flexible Steel Conduit: 1/2" minimum used for outdoor final connections to equipment.

PART 3 – EXECUTION

- J. All exposed conduit shall be installed parallel with and at right angles to the building structure lines. Raceways above ceilings in accessible attics shall be considered as exposed installations.
- K. All branch circuit conduit runs shall be installed concealed in walls and ceilings. Conduit installation in existing walls that requires cutting and patching shall have patch and finish work done under the Division 26 contract. All work shall be done by the professional finish subcontractor on the job and shall subcontract the work under the Division 26 subcontractor.
- L. When installing conduit, all cuts shall be smooth and square with the run and inside and outside burrs removed. Conduit joints in concrete or in the earth shall be made water tight with compound seal.
- M. Install accessible junction boxes or condulets in conduit runs as required by NEC, and at 100 ft. intervals on long runs. Each junction box shall be supported independent of the conduit. Support vertical conductor runs per NEC 300-19.
- N. The open ends of conduit shall be capped to keep out debris until the project is complete.
- O. All mechanical exterior equipment shall be connected with vinyl covered flexible conduit with accompanying grounding conductor.
- P. Pull a mandrel and swab through all conduit before installing conductors.
- Q. All empty conduit shall be left with a 200-lb. nylon plug cord installed.
- R. 3/8" steel file may be used for single connections to recessed light fixtures.

END OF SECTION 26 0110

SECTION 26 0120 – CONDUCTORS AND CABLES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- S. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
- T. This section is a Division-26 Basic Materials and Methods section, and is part of each Division-26 section making reference to conductors and cables specified herein.
- 1.2 DESCRIPTION OF WORK
 - U. Extent of electrical conductor and electrical cable work is indicated by drawings and schedules.
 - V. Types of conductors and cables in this section include the following:
 - 1. Copper conductors (600V)
 - W. Applications for conductors and cables required for project include:
 - 12. Feeders
 - 13. Branch Circuits

1.3 QUALITY ASSURANCE

- X. Comply with NEC as applicable to construction and installation of electrical conductors and cable. Comply with UL standards and provide electrical conductors and cables which have been UL-listed and labeled.
- Y. Comply with applicable portions of NEMA/Insulated Cable Engineers Association standards pertaining to materials, construction and testing of conductors and cable.

1.4 SUBMITTALS

- AA. Product Data: Submit manufacturer's data on electrical wire, cable and conductors.
- PART 2 – PRODUCTS

AB. COPPER CONDUCTORS (600V):

- AC. Provide factory-fabricated conductors of sizes, ratings, materials, and types indicated for each service. Where not indicated provide proper selection to comply with project's installation requirements and NEC standards.
- AD. Provide color and coding of conductors as follows:
 - 15. Wire sizes of #8 and smaller shall be factory colored throughout. Larger conductors shall be identified with a minimum of 6" of color wrapped tape at junction boxes and terminations.
 - 120/208V
 - A-Phase – Black
 - B-Phase – Red
 - C-Phase – Blue
 - Neutral – White
 - Ground – Green

16. SWITCH LEGS AND TRAVELERS SHALL BE COLORS OTHER THAN THOSE LISTED ABOVE.

- AE. Unless more stringent requirements are noted on the drawings, provide #10 conductors for branch circuits for which the distance from panelboard to furthest outlet is more than 75' for 120 volt, or more than 140' for 277 volt circuits.

PART 3 – EXECUTION

- 3F. INSTALLATION
 - AF. General: Install electrical conductors and cables as indicated, in compliance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standards of Installation", and in accordance with recognized industry practices.
 - AG. Coordinate installation work with electrical raceway and equipment installation work, as necessary for proper interface.
 - AH. Use pulling compound or lubricant, where necessary, compounds must not deteriorate conductor or insulation.
 - AI. Keep conductor splices to a minimum.
 - AJ. Install splices and tapes which have mechanical strength and insulation rating equivalent-or-better than conductor.
 - AK. Use splice and tap connectors which are compatible with conductor rating.

3.2 FIELD QUALITY CONTROL

- AL. Prior to energization, test cable and wire for continuity of circuitry, and demonstrate for short circuits. Correct malfunctions when detected.
- AM. Subsequent to wire and cable connections, energize circuitry and demonstrate functioning in accordance with requirements.
- AN. Provide a full sized ground wire in all parallel conduits per NEC 250-122.

END OF SECTION 26 0120

SECTION 26 0135 – ELECTRICAL BOXES AND FITTINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- AQ. Drawings and general provisions of Contract, including general and Supplementary Conditions and Division-1 Specifications sections, apply to work of this section.
- AP. This section is a Division-26 Basic Materials and Methods section, and is a part of each Division-26 section making

reference to electrical wiring boxes and fittings specified herein. See Section 260110, Raceways, for additional requirements.

AQ. EXTENT OF ELECTRICAL BOX AND ELECTRICAL FITTING WORK IS INDICATED BY DRAWINGS AND SCHEDULES.

AR. TYPES OF ELECTRICAL BOXES AND FITTINGS IN THIS SECTION INCLUDE THE FOLLOWING:

- 19. Outlet boxes
- 20. Junction boxes
- 21. Pull boxes
- 22. Conduit bodies
- 23. Bushings
- 24. Locknuts
- 25. Knockout closures
- 26. Miscellaneous boxes and fittings

1.3 QUALITY ASSURANCE

- AS. Comply with NEC as applicable to

SECTION 26 0140 – WIRING DEVICES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- C2. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
- 04. This section is a Division-26 Basic Materials and Methods section, and is part of each Division-26 section making reference to wiring devices specified herein.

1.2 DESCRIPTION OF WORK

- Q. The extent of wiring device work is indicated by drawings and schedules. Wiring devices are defined as single discrete units of electrical distribution systems which are intended to carry but not utilize electric energy.
- 01. Types of electrical wiring devices in this section include the following:
 - 27. Receptacles
 - 28. Switches
 - 29. Cover plates
 - 30. Card caps
 - 31. Card connectors

1.3 QUALITY ASSURANCE

- 0K. Comply with NEC and NEMA standards as applicable to construction and installation of electrical wiring devices. Provide electrical wiring devices which have been UL listed and labeled.

1.4 SUBMITTALS

- C. Product Data: Submit manufacturer's data on electrical wiring devices.

PART 2 – PRODUCTS

21 FABRICATED WIRING DEVICES

- 0M. General: Provide factory-fabricated wiring devices, in types, and electrical ratings for applications indicated and complying with NEMA Std's Pub No. WD 1.

- 0N. Provide wiring devices (of proper voltage rating) as follows:
 - 34. Convenience Outlets: (Provide Decora equal if required by Owner)

Mfg.	Standard	Isolated Ground	Surge Protected	Isolated Ground Surge Protected
Hubbell	HEL5362	IG 5362	5362 IS	IG 5362 IS
P & S	5362	IG 6300	No	No
Leviton	5362		Substitute	Substitute
Cooper	5362			

35. Switches: (Provide Decora equal if required by Owner)

Mfg.	1 pole	3 way	4 way	W-Floot
Hubbell	HEL1221	HEL1223	HEL1224	HEL1221-PL
P & S				
Leviton	1221	1223	1224	1221-PL
Cooper	1221	1223	1224	

- 0O. Other device manufacturers will be considered only if one convenience outlet sample is submitted to the engineer to verify equality with those specified prior to issuance of the final addendum.

- 0P. Provide devices in colors to match wall surfaces, brown, ivory, white, or gray per architect's direction. Provide isolated ground outlets in ivory, orange, or gray per architect's direction.

- 0Q. Ground-fault Interrupter: Provide where required by code, general-duty, duplex receptacle, ground-fault circuit interrupters; grounding type UL-rated Class A, Group A, 20-ampere rating, 120-volts, 60 Hz, with solid-state ground-fault sensing and signaling, with 5 milliamperes ground-fault trip level, color as selected by Architect. Provide units of one of the following:
 - 36. Hubbell
 - 37. Square D

- 0S. Card Caps and Connectors: Provide 3-wire grounding, cap plugs, and connectors of ampere and voltage rating required, for final equipment connection, and as indicated otherwise on drawings.

38. Hubbell

- 22. WIRING DEVICE ACCESSORIES

- 0T. Wall Plates: Provide coverplates for wiring devices; plate color to match wiring devices to which attached. Provide nylon coverplates in all finished areas. Provide galvanized steel plates in unfinished area. Engrave all receptacle plates other than those serving 120 volt, single phase devices. State voltage and amperage characteristics. Example: "208V, 30A".

PART 3 – EXECUTION

- 0U. Install wiring devices as indicated, in compliance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standard of Installation" and in accordance with recognized industry practices to fulfill project requirements.

- 0V. Coordinate with other work, including painting, electrical box and wiring work, as necessary to interface installation of wiring devices with other work. Install devices in boxes such that front of device is flush and square with coverplate. Drawings are small scale and, unless dimensioned, indicate approximate locations only of outlets, devices, equipment, etc. Locate outlets and apparatus symmetrically on floors, walls and ceilings where not dimensioned and coordinate with other work. Verify all dimensioned items on job site. Consult architectural cabinet, millwork, and equipment shop drawings before beginning rough-in of electrical work. Adjust locations of all electrical outlets as required to accommodate work in area, and to avoid conflicts with wainscot, back splash, lockboards, and other items.

- 0W. Install wiring devices only in electrical boxes which are clean, free from excess building materials, dirt, and debris.

- 0X. Convenience outlets shall be installed flush with the wall surface and firmly mounted. Provide steel washers behind device ears where outlet boxes are recessed from wall surface.

- 0Y. Install blank plates on all boxes without devices.

- 0Z. Delay installation of wiring devices until wiring work is completed. Delay installation of wall plates until after painting work is completed. Provide separate neutral conductor for each circuit that serves GFI receptacles.

- 0A. Where dedicated equipment is connected by cord and plug, provide a single receptacle as required by code.

- 0B. Protection of wall plates and receptacles: At time of substantial completion, replace those items which have been damaged, including those stained, burned and scored.

- 0C. Grounding: Provide electrically continuous, light grounding connections for wiring devices, unless otherwise indicated.

- 0D. Testing: Prior to energizing circuitry, check wiring devices for electrical continuity and proper polarity connections. After energizing circuitry, test wiring devices to demonstrate compliance with requirements.

END OF SECTION 26 0140

SECTION 26 0160 – PANELBOARDS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.
- B. This section is a Division-26 Basic Materials and Methods section, and is part of each Division-26 section making reference to panelboards specified herein.

1.2 DESCRIPTION OF WORK

- C. Extent of panelboard and enclosure work, is indicated by drawings and schedules.
- D. Types of panelboards and enclosures in this section include lighting and appliance panelboards, and power distribution panelboards.

1.3 QUALITY ASSURANCE

- E. Provide units which have been UL listed and labeled. Comply with NEC as applicable to installation of panelboards, cabinets, and outlet boxes. Comply with NEC pertaining to installation of wiring and equipment in hazardous locations. Comply with NEMA stds: Pub No. 250, "Enclosures for Electrical Equipment (1000 volt maximum)"; Pub No. 1, "Instructions for Safe Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less".

1.4 SUBMITTALS

- F. Product Data: Submit manufacturer data including specifications, installation instructions and general recommendations, for each type of panelboard required.

- G. Shop Drawings: Submit dimensioned drawings of panelboards and enclosures showing accurately scaled layouts of enclosures and required individual panelboard devices, including but not necessarily limited to, circuit breakers, fusible switches, fuses, ground-fault circuit interrupters, and accessories. Panel dimensions shown on the drawings are one manufacturer's dimensions. Panel dimensions submitted by other manufacturers shall not exceed the panel dimensions shown on the drawings.

PART 2 – PRODUCTS

- H. Acceptable Manufacturers: Subject to compliance with requirements, provide one of the following:
 - 1. General Electric Company
 - 2. Square D Company
 - 3. Cutler Hammer

- I. Panel Sizes shown on drawings are for Square D panels. If other panels are substituted, the contractor shall verify proper clearances per NEC. Unless otherwise noted, main and distribution panels shall be a minimum 36" wide.

- J. Prior to submittals of shop drawings the panel board manufacturer's representative shall make a field visit to verify that existing panels have available space for the new breakers called for on the drawings and that the proper frame breakers will be supplied.

- K. Panelboards: General: Except as otherwise indicated, provide panelboards, enclosures and ancillary components, of types, sizes, and ratings indicated. Equip with number of unit panelboard devices as required for complete installation. Fully equip "spaces" with hardware to receive breaker or switch of size indicated.

- L. Lighting and Appliance Panelboards: Provide dead-front safety type lighting and appliance panelboards as indicated, with switching and protective devices in quantities, ratings, types, and arrangement shown. Provide ball-on thermal magnetic type branch breakers. Where multiple breakers are indicated provide with common trip handle. Equip with copper bus bars, neutral bus, and ground bus.

- M. Manufacturer: All distribution and branch panels, breakers, and associated equipment shall be of the same manufacturer.

- N. Bus bracing shall be as required to handle fault current as shown on the drawings.

- O. "Space" denotes a space fully equipped to receive a breaker of the type noted.

- P. Panelboard Enclosures: Provide galvanized sheet steel cabinet type enclosures, in sizes and NEMA types as indicated, code-gage minimum 16-gage thickness. Provide fronts with adjustable indicating trim clamps, and doors with flush locks and keys, all panelboard enclosures keyed alike, with concealed door hinges and door swings as indicated. Equip with interior circuit-directory frame, and card with clear plastic covering. Provide baked gray enamel finish over a rust inhibitor. Provide enclosures fabricated by same manufacturer as overcurrent devices contained therein. B&I engraved Farnico labels indicating panel name and voltage on the interior and exterior of panelboards.

- Q. Finish: Coat interior and exterior of surface with manufacturer's standard color; baked on enamel finish.

- R. Identification: Provide 1/16" thick black Farnico labels with 1/4" high white lettering on the interior of each panelboard, include panelboard name and voltage. Provide red Farnico labels on emergency system panels.

PART 3 – EXECUTION

3.1 INSTALLATION OF PANELBOARDS

- V. General: Install panelboards and enclosure where indicated, in accordance with manufacturer's written instructions, applicable requirements of NEC and NECA's "Standard of Installation", in compliance with recognized industry practices to ensure products fulfill requirements.

- W. Panelboard Makeup: In making up a panel, the conductors shall be neatly formed therein. Wires shall be protected from sharp metal edges or corners.

- X. Coordinate installation of panelboards and enclosures with cable and raceway installation work. Anchor enclosures firmly to walls and structural surfaces, ensuring they are permanently and mechanically secure. Arrange conductors neatly within enclosure, and secure with suitable nylon ties.

- Y. Branch panels shall generally be installed with the top of the panel at 6 ft. above floor.

- Z. Fill out panelboard's circuit directory card upon completion of installation work. Utilize actual field building room numbers, not architectural numbers used on drawings. Identify individual lighting circuits and individual receptacle circuits by room served. Include room number with equipment circuit designations. All directories to be typewritten.

- AA. Provide stand off wall brackets for surface wall mounted panels and/or gutters as required to bring front edges flush with each other as required by NEC 110-16A.

- AB. Provide identification of disconnecting means as required by NEC 225-37 or 230-2.

- AC. All subpanels shall be labeled to identify the main panel that supplies the feeder circuit.

- AD. All feeder circuit breakers shall be labeled to identify the location of the subpanel or equipment supplied.

- AE. Electrical Contractor shall verify the fit and required N.E.C. clearances of the equipment in the main electrical room(s) with shop drawings before the installation of service and feeder conduits.

END OF SECTION 26 0160

SECTION 26 0452 – GROUNDING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- AF. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

- AG. Division-26 Basic Materials and Methods sections apply to work specified in this section.

1.2 DESCRIPTION OF WORK

- AH. Provide grounding as specified herein, and as indicated on drawings.

- AI. Types of grounding in this section include the following:
 - 15. Grounding electrodes
 - 16. Service equipment
 - 17. Enclosures
 - 18. Systems
 - 19. Equipment
 - 20. Other items indicated on drawings

- 0H. Requirements of this section apply to electrical grounding work specified elsewhere in these specifications.

1.3 QUALITY ASSURANCE

- Q. Comply with NEC as applicable to electrical grounding and ground fault protection systems. Comply with applicable ANSI and IEEE requirements. Provide products which have been UL listed and labeled.

1.4 SUBMITTALS

- C1. None required.

PART 2 – PRODUCTS

21 GROUNDING

- 0K. Materials and Components: General: Except as otherwise indicated, provide each electrical grounding system as specified herein, and as shown on drawings, including but not necessarily limited to, cables/wires, connectors, terminals (solderless lugs), grounding rods/electrodes and plate electrodes, bonding jumper braid, and other items and accessories needed for complete installation.

- 0L. Where Materials or Components are not otherwise indicated, comply with NEC, NEMA and established industry standards for applications indicated.

- 0M. Electrical Grounding Conductors: Unless otherwise indicated, provide electrical grounding conductors for grounding connection matching power supply wiring materials and sized according to NEC.

PART 3 – EXECUTION

3.1 GENERAL

- 0N. The electrical conduit system throughout the project shall be grounded as required by NEC.

- 0O. All rotating equipment shall be grounded in compliance with the NEC.

- 0P. All plastic conduit runs shall include a grounding conductor as per N.E.C. requirements. Conduit sizes shown are for steel conduit. If plastic conduit is used the contractor shall verify conduit size to accommodate the required grounding conductor.

- 0Q. Separate neutrals shall be installed on all GFI breakers.

3.2 INSTALLATION OF GROUNDING SYSTEMS

- 0R. Install electrical grounding systems in accordance with manufacturer's written instructions and with recognized industry practices to ensure grounding devices comply with requirements.

- 0S. Install clamp-on connectors only on thoroughly cleaned and metal contact surfaces, to ensure electrical conductivity and circuit integrity.

- 0T. Provide grounding for the entire raceway, enclosure, equipment and device system in accordance with NEC. All non-metallic raceways shall include copper grounding conductor sized in accordance with NEC.

- 0U. See drawings for additional grounding requirements.

END OF SECTION 26 0452

SECTION 26 0510 – INTERIOR AND EXTERIOR BUILDING LIGHTING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.2 DESCRIPTION OF WORK

- C. Extent of interior and exterior lighting fixture work is indicated by drawings and schedules.
- D. Types of lighting fixtures in this section include the following:
 - 1. High-Intensity-Discharge (HID)
 - 2. Fluorescent
 - 3. Incandescent

1.3 QUALITY ASSURANCE

- E. Comply with NEC, NEMA and ANSI 13.21 as applicable to installation and construction of lighting fixtures. Comply with NEC 410-64C for all recessed incandescent light fixtures. Provide lighting fixtures which have been UL-listed and labeled.

- F. CBM Labels: Provide fluorescent-lamp ballasts which comply with Certified Ballast Manufacturers Association standards and carry the CBM label.

1.4 SUBMITTALS

- G. Product Data: Submit manufacturer's data on interior and exterior building lighting fixtures.

- H. Shop Drawings: Submit dimensioned drawings of lighting fixtures. Submit fixture shop drawings in booklet form with separate sheet for each fixture, assembled in luminare "type" numerical order, with proposed fixture and accessories clearly indicated on each sheet.

PART 2 – PRODUCTS

21 ACCEPTABLE MANUFACTURERS

- I. Subject to compliance with requirements, provide products of one of the following (for each type of fixture):
 - 4. Fluorescent Ballasts:
 - a. Magnetek (Universal)
 - b. Motorola

- 5. HID Ballasts:
 - c. Advance Transformer Co.
 - d. Valmont Electric Co.
 - e. Universal Mfg. Co.

- 6. Incandescent and Fluorescent Lamps:
 - f. General Electric Co.
 - g. Sylvania Lamp Div., GTE Corp.

- 7. HD Lamps:
 - h. General Electric Co.
 - i. Sylvania Lamp Div., GTE Corp.

22 INTERIOR AND EXTERIOR LIGHTING FIXTURES

- J. General: Provide lighting fixtures, of sizes, types and ratings indicated complete with, but not necessarily limited to, housings, lamps, lamp holders, reflectors, ballasts, starters, and wiring. Label each fixture with manufacturer's name and catalog number. Provide all enclosed fixtures with positive latch mechanisms; spring tension clips not acceptable. Provide all exterior fixtures with damp or wet location label as required by application.

- K. Outdoor light fixtures: Recessed soft light and entrance lights shall be provided as noted on the plans and in compliance with the conditions heretofore covered. Electric discharge light fixtures shall be equipped with a -20 degree F constant wattage ballast.

- L. Fluorescent emergency light battery packs shall be connected to the same circuit that the serves the light fixture it is in, and connected so as to be able to operate in the test mode when the normal switch leg is turned on and unless noted otherwise on the drawings shall illuminate 1 lamp for a total of 1,100 lumens. Radiant SVC 842 or engineer approved equal.

- M. Where the light fixture schedule indicates "Color per Architect," this shall be interpreted as requiring a non-standard color.

- N. Support Requirements: Provide all pendant and stem hung fixtures with flexible ball joint hangers rated for seismic zone 3 at all points of support. Equip hooks used to hang fixtures with safety latches. Provide all detachable fixture parts, luminous ceiling accessories, louvers, diffusers, lenses, and reflectors with locking catches, screws, safety chain, or safety cable.

- O. Diffusers: Where plastic diffusers are specified, provide 100 percent virgin acrylic compound, minimum thickness, .125 inches. Provide a spare set of diffusers (acrylic and/or glass only) for each fixture type and one for each additional 10 fixtures of each type; not to exceed 10 spares for any single fixture type.

2.3 BALLASTS

- P. Fluorescent-Lamp Ballasts: Provide fluorescent-lamp ballasts, capable of operating lamp types indicated, with high power factor, and low-noise features, Class P; sound-rated A and with internal thermal protection. See plans for voltage requirements. For interior fixtures, provide full light output electronic ballasts, 10% THD, where available as standard

- 8. Magnetek – Triad HP, Motorola

- Q. Light fixtures designated on the fixture schedule may be required to have single ballasts or multiple ballasts depending on the application as noted on the drawings. The contractor is responsible to provide all information pertaining to light fixture requirements, shown on the drawings, to the lighting supplier.

- R. Comply with manufacturer's written recommendations for all lamp/ballast combinations.

- S. Equip outdoor fixtures with low temperature starting ballasts.

- T. High-Intensity-Discharge-Lamp Ballasts: Provide HID ballasts, of ratings, types and makes as recommended by lamp manufacturer, which properly match lamps to power line by providing appropriate voltage and impedances for which lamps are designed. Equip exterior fixtures with low temperature starting ballasts. Provide high power factor, or power factor improved ballasts.

2.4 LAMPS

- U. Fluorescent Lamps: Equip interior fluorescent fixtures with full light output, energy conserving lamps where available as standard product of General Electric or Sylvania. Where applicable, equip fixtures with lamps as follows:
 - 9. Rapid Start 2950 initial lumens
 - 10. Sylvania F032/835. Equip exterior fixtures and dimmed fixtures with standard lamps.

PART 3 – EXECUTION

3.1 INSTALLATION OF LIGHTING FIXTURES

- V. Install lighting fixtures at locations and heights as indicated, in accordance with fixture manufacturer's written instructions, applicable requirements of NEC, NECA's "Standard of Installation", NEMA standards, and with recognized industry practices to ensure that lighting fixtures fulfill requirements.

- W. Seismic bracing: Provide galvanized chain braces on all chain pendant hung light fixtures (pendant length greater than 12") to prevent swaying in any direction. On continuous row installations provide "4 direction" bracing every 16 feet.

- X. All recessed light fixtures mounted in fire rated ceiling (See architectural drawings) shall have a fire rated cover installed over them per the ceiling manufacturer's recommendation, and shall have ballasts approved for installation under such covers.

- Y. Coordinate with other work as appropriate to properly interface installation of lighting fixtures with other work. Consult architectural reflected ceiling plan for exact location of all lighting fixtures.

- Z. Provide all necessary supports, brackets, and miscellaneous equipment for mounting of fixtures. Support all ceiling mounted fixtures from the building structure, independent of the ceiling system, unless noted. Support each recessed T-bar mount fixture (fluorescent incandescent, and/or HID) from the building structure with #10 gal. steel wire attached to each corner (in addition to supports normally provided for attachment to the ceiling system). Provide backing supports above (or behind) sheetrock, plaster and similar ceiling and wall materials. Support surface mounted ceiling fixtures from channel. Support ceiling mounted outlet boxes independent of the raceway system, and capable of supporting 200 pounds. See plans for additional details.

- AA. Fixture support by toggle bolts through sheetrock is not acceptable.

- AB. Coordination Meetings: Meet with the General Contractor and the ceiling installer before submittal of shop drawings to coordinate each light fixture mounting condition with ceiling type and thickness. Coordinate fixture layout in each area.

- AC. Adjust fixture mount as required by thickness of ceiling for proper fixture trim installation.
</