



LUCAS COUNTY OHIO

INVITATION TO BID

TOILET ROOM RENOVATIONS TO BUILDING A
1049 McCORD ROAD, HOLLAND, OH.

COMMISSIONERS	13-010C
COUNTY AGENCY	BID NUMBER

May 1, 2013 at 2:00 PM (Local Time)

DATE AND TIME OF BID OPENING

BIDDER MUST COMPLETE THE FOLLOWING:

NAME OF COMPANY OFFICIAL _____

OFFICIAL'S SIGNATURE _____

NAME OF COMPANY _____

ADDRESS _____

CITY, STATE & ZIP _____

TELEPHONE NUMBER _____

FAX NUMBER _____

E-MAIL ADDRESS _____

The Lucas County Board of Commissioners is seeking bids for **Toilet Room Renovations at 1049 S. McCord Road, Holland, Ohio.**

Any bidder submitting a bid must submit a completed bid following the procedure outlined in this Invitation to Bid (ITB) no later than **May 1, 2013 @ 2:00 PM (Local Time)** and submit to **One Government Center, Suite 480, Toledo, Ohio 43604**. All of the sections applicable in the Invitation to Bid shall be read so as to give meaning to all such provisions. However, when there is a conflict in the interpretation between a specification in the Invitation to Bid and sections, the specification in the Invitation to Bid shall take precedence.

1.0 Legal Framework

This Invitation to Bid (ITB) is issued under the provisions of the Ohio Revised Code (ORC) Sections 307.86 to 307.92. All bids submitted in response to this ITB shall comply with Ohio law. The laws of the State of Ohio will govern any disputes arising under this ITB and subsequent contract.

2.0 Bid Opening

The bid opening is scheduled for **May 1, 2013 @ 2:00 PM (Local Time)**. All sealed bids received after this time and date, for any reason, will be rejected. The official time will be maintained by the clock located within Lucas County Support Services, Suite 480, reception area. The opening of the sealed bids will take place at Lucas County Support Services, Purchasing Division, One Government Center, Suite 480, Fourth Floor, Toledo, Ohio 43604-2247

3.0 Bid's Bid Bond Requirement

A signed Bond for the full amount of the Bid, meeting the requirements of section 153.54 to 153.57, Ohio Revised code, OR a certified check payable to the Lucas County Treasurer for ten percent (10%) of the full amount of the bid, must be included with each bid or be disqualified. Bonds will be returned to unsuccessful bidders within thirty (30) days of contract award.

4.0 Pre-Bid Conference

X	Applicable if box is checked
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No mandatory pre-bid conference is required for this project. The building will be available for inspection by prospective bidders on **Thursday, April 25 and Friday, April 26, 2013 between the hours of 10:00 a.m. and 2:00 p.m.** Prospective bidders must call the Lucas County Engineer's office at (419) 213-4540 to arrange access during the above dates and times.

5.0 Prevailing Wage

X	Applicable if box is checked
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Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated

to be more than \$78,258.00 for new construction or \$23,447.00 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.

All contractors and subcontractors performing any work on any project that meets the above requirements are responsible for paying prevailing wage rates to their workers. Prime contractors are solely responsible for informing their subcontractors of these requirements. For more information relating to Ohio's prevailing wage laws, please visit <http://wagehour.bes.state.oh.us>.

All prevailing wage related questions or concerns should be directed to:

Kelleigh Decker
Lucas County Prevailing Wage Coordinator
Office of Management & Budget
Lucas County Commissioners
One Government Center, Suite 800
Toledo, OH 43604
419 213-4649
419 213-2601 FAX

6.0 Administrative Requirements

By submitting a bid, the bidder will be held accountable to know the specifications and conditions under which this contract will be accomplished. This includes the contents of all proposal documents, regulations, and applicable laws.

Each bid will be submitted in a clearly marked sealed container or envelope, with the project title, Bid #, date and time of bid opening marked clearly on the outside of the package. If a selected bidder chooses not to submit a bid, the bid should be returned and marked "No Bid" for the project title, Bid #, date and time of bid opening on the envelope or package. All bids must be sent to:

**Lucas County Support Services, Purchasing Division
One Government Center, Suite 480
Toledo OH 43604-2247**

The entire set of completed ITB documents must be returned intact and in the following order:

- a. Entire original completed Request for Bid (ITB) and **one (1) copy**; this includes any amendments applicable to this ITB.
- b. Completed Affidavits: (1) Delinquent Property Tax, (2) Non-Discrimination, (3) Non-collusion, (4) No Findings for Recovery, (5) Compliance Affidavit for Businesses, (6) Transparency Purchasing Policy Disclosure, (7) Sweatfree Affidavit and (8) Best Bid Criteria; all signed by your legally authorized representative and notarized and (9) Government Business and Funding Contracts.
- c. Bid Bond - Separated from (ITB) and Marked "Bid Bond", your Company's Name, Project Title and Bid Number. **The bid bond is mandatory.** A bidder will be disqualified if the bid bond is not submitted.
- d. The ITB Pricing Response Form completed in its entirety (**Section F**).

Faxed transmissions of bid are unacceptable. Sealed bids received through the mail after the specified date and time will also be returned.

of materials, equipment and supplies. However, the successful Bidder will be required to furnish the particular item referred to in the bid specifications unless a departure or substitution is clearly noted and described in the proposal shown to be compatible with the specifications and accepted by the Board. Lucas County reserves the right to be the sole judge of suitability and fitness of the product bid.

If any items being bid have an expiration date, items delivered cannot be expired and must carry a good date for at least 6 (six) months after receipt.

All materials in the bid will become the property of Lucas County and may be returned only at the County's discretion. Materials received constitute public information as a matter of statutory law and will be made available for public inspection and copying upon request by members of the public pursuant to ORC Section 149.43. Any portion of the bid to be held confidential should be marked to that effect and will not be considered public record if it clearly falls within an exemption enumerated in ORC Section 149.43.

Additional information, such as brochures, glossies and or promotional materials, is to be provided in a separate section at the back of the response.

6.1 Additional Administrative Requirements - Compliance with Support Order(s)

Financial responsibility, integrity, and accountability are essential for operating a business that services the public. Unpaid obligations are a social problem, which threatens the welfare of children and increases the burden on taxpayers to provide social services. Due to the public's growing concern with non-paying parents, government initiatives to create additional, effective enforcement mechanisms are necessary. It is in the County's interest that all contractors doing business with Lucas County demonstrate financial responsibility and integrity and accountability.

All bidders must submit the completed "Compliance Affidavit For Businesses" with their bid. Once a lowest and best bidder has been determined and prior to award, this form will be submitted by Lucas County to the Child Support Enforcement Agency for certification of substantial compliance of court ordered and/or agency ordered child support of any individuals of the company who have twenty-five (25%) percent or greater vested interest in the company. If the individual is found to be not in compliance, said bidder will be notified that the individual is not in compliance and therefore the bidder/company/contractor is not in compliance and will have five (5) days to be in compliance from date of notification. Failure to comply will cause disqualification of the bidder's/company's /contractor's bid.

Bidders should contact Lucas County Child Support Enforcement Agency, (419) 213-3106, regarding this requirement should they have questions.

6.2 Additional Administrative Requirements - Best Bid Criteria

All Bidders must complete the Best Bid Criteria Form found in Section B and Submit with their bid / response. Failure to do so may disqualify the bid. Additionally, any subcontractor with 15% or more of the final contract value shall also be required to submit a Best Bid Criteria Form.

6.3 Not Used

7.0 Contract Administration

The Lucas County Purchasing Department will administer the contract.

8.0 Bid Evaluation Criteria and Award

An award will be made to the provider who is considered lowest and best bid for the County's needs.

Lucas County Board of Commissioners reserves the right to reject any and all bids, to waive minor technicalities and to request a re-bid through the bid process. Lucas County reserves the right to conduct site visits of proposed facilities (at County expense) to determine capability of the bidder to perform.

9.0 Bid Alterations, Amendments, and Alternate Bids

No alterations, additions (alternate bids), or exceptions to the specifications contained herein are permitted except by amendments issued by the Lucas County Purchasing Department to all bidders that have received an ITB.

During the bid process, bidders may be furnished certain amendments covering additions or deletions to the ITB documents. Amendments will be included in the scope of work and will become a part of contract documents. Amendments may be issued up to seventy-two (72) hours preceding the bid opening date, excluding weekends and holidays.

Any prospective bidder desiring an explanation or interpretation of the ITB or specifications must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids but no later than 7 (seven) business days prior to the bid opening. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning the ITB will be furnished promptly to all other prospective bidders as an amendment, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

10.0 Equal Opportunity Provisions Required

All bidders must be willing to enter a contract containing the express language contained in Section 125.111 of the ORC, which requires the following:

Every contract for or on behalf of the state or any of its political subdivisions for the purchase of materials, equipment, supplies, contract of insurance, or services shall contain provisions similar to those required by Section 153.59 of the Revised Code in the case of construction contracts by which the bidder agrees to both of the following:

That in the hiring of employees for the performance of work under the contract or any subcontract no bidder or subcontractor shall, by reasons of race, color, religion, sex, age, handicap, national origin or ancestry, discriminate against any citizen of this state in the employment of a person qualified and available to perform the work to which the contract relates.

That no bidder, subcontractor, or any person acting on behalf of any bidder or subcontractor shall, in any manner, discriminate against, intimidate, or retaliate against any employee hired for the performance of work under the contract on account of race, color, religion, sex, age, handicap, national origin or ancestry.

All bidders who contract with the state or any of its political subdivisions for materials, equipment, supplies, contracts of insurance, or services shall have a written affirmative action program for the employment and effective utilization of economically disadvantaged persons, as defined in Section 122.71 of the Revised Code. Annually, each such bidder shall file a description of the affirmative action program and a progress report on its implementation with the Ohio Civil Rights Commission and the Minority Business Development Office established under Section 122.92 of the Ohio Revised Code.

11.0 Insurance Requirements

See attached General Conditions of the Contract for Construction.

12.0 Contract Term and Extension

See attached General Conditions of the Contract for Construction.

13.0 Invoices

See attached General Conditions of the Contract for Construction.

14.0 Assignment/Subcontractor

Neither the contract nor any rights, duties or obligations described herein will be assigned by either party hereto without prior express, written consent of the other party. The contract will be made pursuant to the bid submitted by the bidder. The contract will be based on the bidder's qualifications and responsibilities. The bidder will not sublet or assign the contract nor shall any subcontractor commence performance of any part of the work included in the resulting contract, without the previous written consent of Lucas County.

15.0 Taxes

Lucas County does not pay local, state or Federal taxes. If requested, the bidder will be furnished with an exemption certificate.

16.0 Permits/Codes

The selected bidder is responsible for obtaining all permits and licenses required for performance of the work specified. All labor and materials provided under this agreement shall meet or exceed minimum standards covered by the current applicable code(s) or bidder shall have obtained a legal waiver. The Owner will be responsible to pay for and obtain the general building permit.

17.0 Compliance with the Law

The bidder must agree to comply with all applicable Federal, state, and local laws in the conduct of the work specified in this ITB including applicable state

and Federal laws regarding drug-free work places. The bidder will be required to accept full responsibility for payment of all taxes and insurance premiums including, but not limited to; Unemployment Compensation insurance premiums, Workers' Compensation, all income tax deductions, Social Security Deductions, and any other taxes or payroll deductions required for all employees engaged by the bidder in the performance of the work specified in this ITB.

18.0 Pricing

Bidders are expected to quote firm and fixed prices in the format specified in **Section F**. The successful bidder will not change the unit price or the scope of work during the contract period or any extension periods, however, the bidder should receive a decrease in overall costs associated with the commodity, this provision shall allow for modification of the existing contract to decrease the price.

Bidders must utilize pricing forms supplied in this document contained with **Section F**.

19.0 Termination for Convenience

See attached General Conditions of the Contract for Construction.

20.0 Termination for Default

See attached General Conditions of the Contract for Construction.

21.0 Non-Acceptance Criteria for Work, Materials and Service

See attached General Conditions of the Contract for Construction.

22.0 Performance Requirements

See attached General Conditions of the Contract for Construction.

23.0 Indemnification

See attached General Conditions of the Contract for Construction.

24.0 Non-Appropriation of Funds

Bidders are advised that although the term of this contract may span several fiscal years, this contract is contingent upon the County budgeting and appropriating the funds necessary for the continuation of this contract in the current year. In the event that the funds necessary for the continuation of this contract are not approved for expenditure in any year, this contract shall terminate on the last day of the fiscal year in which funding was approved, with no penalty to the County.

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SECTION A - NOT USED

SECTION B - AFFIDAVITS

DELINQUENT PERSONAL PROPERTY TAX STATEMENT
(O.R.C. Section 5719.042)

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY AND NOTARIZED

I _____, _____, _____
(NAME) (TITLE) (NAME OF COMPANY)
affirm that at the time that I submitted the bid for _____
(BID TITLE)
to the Board of Lucas County Commissioners on _____ that
(DATE)
_____ was / was not charged with delinquent
(NAME OF COMPANY) (CIRCLE ONE)
Personal Property Taxes by the Lucas County Auditor.

(If Personal Property Taxes are delinquent, complete the following section)

The amount of delinquent Personal Property Taxes due Lucas County is
_____ and unpaid penalties and interest are _____.
(AMOUNT) (AMOUNT)

(SIGNATURE)

(COMPANY)

(DATE)

Sworn to and subscribed before me this _____ day of, _____ 20__.

(SEAL)

(NOTARY)

My Commission Expires:

(Date)

NON-DISCRIMINATION AND EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT

STATE OF _____

SS

COUNTY OF _____

_____ being first duly sworn, deposes and says that
(Name)

he/she is _____ of _____ the party
(Title) (Company)

that made the foregoing proposal; that such party as bidder does not and shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. If awarded the bid and contract under this proposal, said party shall take affirmative action to insure that applicants are employed and that employees are treated, during employment, without regard to their race, religion, color, sex or national origin. If successful as the lowest and best bidder under the foregoing proposal this party shall post non-discrimination notices in conspicuous places available to employees and applicants for employment setting forth the provision of this affidavit.

Furthermore, said party agrees to abide by the assurances found in Section 153.59 of the Ohio Revised Code in the Contract Provisions with the Owner if selected as the successful bidder by the owner.

(Signature)

(Affiant)

(Company/Corporations)

(Address)

(City/State/Zip Code)

Sworn to and subscribed before me this _____ day of _____, 20__-__-__.

(Seal)

(Notary)

My Commission Expires:

(Date)

NON-COLLUSION AFFIDAVIT

STATE OF OHIO,

COUNTY OF LUCAS, SS:

_____ being first duly SWORN, deposes and says that he is the
_____ or authorized representative of _____
_____ or is the party submitting this bid; that such bid is genuine and not collusive
or sham; that said bidder has not colluded, conspired, connived, or agreed, directly or
indirectly, with any other bidder or person, to submit a sham bid, or refrain from
bidding; has not in any manner, directly or indirectly sought by agreement or
collusion, or communication or conference, with any person, to fix the bid price of
affiant or any other bidder, to fix any overhead, profit or cost element of said bid
price, or of that of any other bidder; to secure any advantage against the County of
Lucas or any person or persons interested in the proposed contract; that all statements
contained in said proposal of bid are true and that, such bidder has not, directly or
indirectly submitted this bid, or the contents thereof, or divulged information or data
relative thereto to any other potential bidder. Further, Affiant affirms that no
county employee has any financial interest in this company or the bid being submitted.

(Affiant Signature)

(Affiant Title)

SWORN to before me and subscribed in my presence
this _____ day of _____, 20_____.
(Date) (Month) (Year)

(Notary Public)

(SEAL)

My Commission Expires

(Date)

NO FINDINGS FOR RECOVERY AFFIDAVIT

THIS FORM MUST BE COMPLETED IN ITS ENTIRETY AND NOTARIZED

I _____, _____, _____
(NAME) (TITLE) (NAME OF COMPANY)

affirm that at the time that I submitted the bid for _____
(BID TITLE)

to the Board of Lucas County Commissioners on _____ that
(DATE)

_____ has / has no unresolved
(NAME OF COMPANY) (CIRCLE ONE)
finding for recovery from the State Auditor per Ohio Revised Code
Section 9.24.

(If there is unresolved finding for recovery from the State Auditor , complete the following section)

The amount of unresolved finding for recovery due the State Auditor is
_____ and unpaid penalties and interest are _____.
(AMOUNT) (AMOUNT)

(SIGNATURE)

(COMPANY)

(DATE)

Sworn to and subscribed before me this _____ day of, _____ 20__.

(SEAL)

(NOTARY)

My Commission Expires:

**Additional Administrative Requirements
Compliance with Support Order(s)**

Financial responsibility, integrity and accountability are essential for operating a business that services the public. Unpaid obligations are a social problem which threatens the welfare of children and increases the burden on taxpayers to provide social services. Due to the public's growing concern with non-paying parents, government initiatives to create additional, effective enforcement mechanisms are necessary. It is in the County's interest that all contractors doing business with Lucas County demonstrate financial responsibility and integrity and accountability.

All bidders **must submit** the **completed** "Compliance Affidavit For Businesses" with their bid. Once a lowest and best bidder has been determined and prior to award, this form will be submitted by Lucas County to the Child Support Enforcement Agency for certification of substantial compliance of court ordered and/or agency ordered child support of any individuals of the company who have twenty-five percent (25%) or greater vested interest in the company. If the individual is found to be not in compliance, said bidder will be notified that the individual is not in compliance and therefore the bidder/company/contractor is not in compliance and will have five (5) days to be in compliance from date of notification. Failure to comply will cause disqualification of the bidder's/company's/contractor's bid.

Bidders should contact Lucas County Child Support Enforcement Agency, 419-213-3106, regarding this requirement should they have questions.

LUCAS COUNTY SWEATFREE AFFIDAVIT

STATE OF _____

COUNTY OF _____, ss:

Personally appeared before me the undersigned, as an individual or as a representative of

_____ for a contract for _____
(Name of Entity (Type of Product or Service)

to be let by the Board of Commissioners, Lucas County, Ohio, who, being duly cautioned and sworn, makes the following statement with respect to the Lucas County Sweatfree Procurement Policy and further states that the undersigned has the authority to make the following representation on behalf of himself or herself or of the business entity:

1. Name, physical address, phone number and contact persons for each production facility that will be involved in the production of goods or the provision of services.

2. I have personal knowledge of the information contained in section 1 or I have obtained such information from any resale entity.
3. I understand my obligation to ensure that all applicable production facilities adhere to the sweatfree code of conduct as defined in Section IV of the Lucas County Sweatfree Procurement Policy.
4. I understand that if Lucas County, the State and Local Sweatfree Consortium, and/or an independent monitor find any of the production facilities listed above to be out of compliance with any of the provisions of Section IV of the Lucas County's Sweatfree Procurement Policy, and I fail to take all reasonable steps as specified by and/or its designee(s), I will be deemed out of compliance with the sweatfree code of conduct as defined in the Lucas County Sweatfree Procurement Policy.

5. I have furnished a copy of the sweatfree code of conduct as defined in Section IV of the Lucas County Sweatfree Procurement Policy to each production facility named in paragraph 1 and to each relevant subcontractor and I have instructed each subcontractor to furnish the code of conduct to each relevant production facility.

BIDDER:

SIGNATURE: _____

NAME: _____

TITLE: _____

DATE: _____

Sworn to before me and subscribed in my presence by the above named person this _____ day of _____, 20_____.

NOTARY PUBLIC: _____

My Commission Expires: _____

BEST BID CRITERIA

This form must be completed in its entirety and submitted with the Bid and all other documents required at the time of the Bid or response to request for proposal.

Name of Project (as identified in the "Request for Proposals")

Submitted by: _____
(Name of Contractor)

(Address)

1. Please explain the experience Bidder has on projects of the nature for which Bids were solicited.

2. Please detail the continuity of the Bidder's workforce.

3. For construction projects, please describe the Bidder's participation in trade-relevant Department of Labor or State of Ohio approved apprenticeship programs, if such apprenticeship programs are available to the Bidder.

4. Please describe the Bidder's familiarity with this specific project.

Has the Bidder reviewed the specifications (and if applicable, the drawings) for the project? Yes No

Has the Bidder visited the actual site of the project? Yes No

Has the bidder reviewed all other applicable Contract Documents? Yes No

5. Does the Bidder provide any of the following for its employees?

OSHA-Compliant Safety Plan Yes No

EPA-Compliant Plans (if applicable)
 (For asbestos & lead abatement) Yes No

5a. Has the Bidder been cited for any OSHA violations in the preceding six (6) months? (If yes, please describe - add pages as needed)

Yes No

Type of Violation (de minimis, other than serious, serious, or willful)	Nature of Violation

6. How many years has the Bidder been in the construction, professional or personal service business or the number of years in the commodities supply business? ___

7. For all construction projects completed by the Bidder in the preceding twenty-four (24) months, please complete the information in the table below (add additional pages if needed):

Project Identification	Original Contract Price	Actual Final Cost

7a. For all projects listed in #7, did the Bidder:

Comply with all completion deadlines? Yes No

Provide timely response to "punch list" items and perform site clean-up in a timely manner? Yes No

File a maintenance bond in a timely manner? Yes No

Arrange for adequate bonding? Yes No

8. Does the Bidder comply with unemployment laws, workers compensation laws, federal & state Prevailing Wage laws, the Fair Labor Standards Act, local and state taxation laws and is the Bidder a participant in the Drug Free Workplace Program for small Employers (OAC 4123-17-58.1)?

Yes No

The undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading:

Name of Bidder _____

By (Signature) _____

Title _____

Dated at _____ this _____ day of _____, 20____

Mr./Mrs./Ms. _____ being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this _____ day of _____, 20__

Notary Public:

My Commission Expires:

SECTION C - SPECIFICATIONS

SCOPE OF WORK

Toilet Renovations to Building A
1049 S. McCord Road
Holland, Ohio

1.0. GENERAL INFORMATION:

- 1.1. This contractor shall provide supervision, labor, material, accessories, equipment, tools, scaffolding, taxes, labor burdens, overhead, profit, fringe benefits, insurance, etc. necessary to complete all work associated with the Project.
- 1.2. Trade permits and or licenses required to perform this type of work at this location, complete with inspections, and associated fees.
- 1.3. Construction materials testing shall be provided and paid for by the Owner.
- 1.4. The General Building Permit shall be provided and paid for by the Owner.
- 1.5. Compliance with requirements of all applicable Federal, State and Local codes, ordinances and agencies, including Owner's program and guidelines.
- 1.6. Notification of public agencies as required for testing and inspections.
- 1.7. The cost of materials incorporated into the construction is exempt from State of Ohio sales tax.
- 1.8. The importance of a site visit during the bid is emphasized in order to become familiar with the existing conditions and their effect on the performance of the work of this contract. No change orders for additional costs shall be accepted for any conditions which could have been determined by a site visit.
- 1.9. Coordinate new work with existing utilities and the work of other trades in the area of construction.
- 1.10. The Contractor shall be responsible for and repair and make good, at its own expense, all damage to streets, sidewalks (not scheduled to be removed as part of this Project), utility lines, adjoining premises or any other public or private property, by whomsoever owned and wherever located, resulting from or in connection with the performance of the Work.
- 1.11. Contractors are permitted to have no more than one (1) week supply of material onsite. Any off-site storage of materials is the sole responsibility of the Contractors.
- 1.12. Include all engineering, layout and control work as required to complete the respective work items included in this bid package.
- 1.13. Temporary wall, floor or roof openings required by any subcontractor and the temporary protection, temporary weatherproofing or required safety provisions for such openings are the responsibility of the subcontractor requiring the opening(s) except as specifically noted herein.

- 1.14. The contractor will be required to warranty all work as per the project specifications but not less than one (1) year after occupancy.
- 1.15. All equipment operated within the building after closure or when so instructed by the Owner or Architect must be electric powered.
- 1.16. The drawings are diagrammatic in nature and indicated the required end result. The contractor(s) may have to deviate from suggested routing and/or installation methods to obtain the required end results. Reasonable and customary labor and material required to achieve the end results, whether indicated on the drawings and specifications or not, are the responsibility of the installing contractors.
- 1.17. The contractor will be required to inspect all previously installed work to which this scope of work systems are to interface with or attach to and accept the same. Should anything not be acceptable, the contractor shall notify the Architect to have it corrected prior to commencing installation of this scope of work. This field check must be accomplished to allow for corrective action to be performed prior to starting of this scope of work. No back chargers for delays will be allowed.
- 1.18. Minimum lighting as required by OSHA will be provided. Should additional lighting be required to perform this scope of work, the performing contractor will be required to supply.
- 1.19. This contractor shall provide all hangers, "unistrut", rods, raceway supports and secondary structural support steel per the project specifications, as required to meet the project specifications or as required by the equipment manufacturer including all peripheral materials necessary to support the items included in this scope of work from the building structural steel.
- 1.20. All contractors are required to make all necessary field measurements to insure correct fit. Coordinate with other trades in so as not to cause a conflict or delay.
- 1.21. A Bid Guarantee and Contract Bond (Section 153.571 Ohio revised Code) will be required for this project, reference Section G.

SCOPE DOCUMENTS:

The Work is based upon **SCOPE DOCUMENTS**. As scope documents, the drawings, details and specifications do not necessarily indicate nor describe all Work required for the full performance and completion of the requirements of the Contract Documents. On the basis of the general scope indicated, the Contractor shall use all reasonable care to include those items necessary and/or implied, but not necessarily detailed, on the **Toilet Room Renovations to Building A** Contract Documents.

SCOPE DOCUMENT LIST

Sheet Number	Sheet Name
A1.01	Overall Floor Plan
A1.02	Enlarged Floor Plans, Interior Elevations
A1.03	Interior Elevations, Details, Schedules
A1.04	Specifications
A1.05	Specifications
P0.01	Plumbing Legend and Schedules
P0.02	Plumbing Specifications
P0.03	Plumbing Schematic
P1.01	Partial Floor Plan - Plumbing
M1.01	First Floor Plan New Equipment - Mechanical
E1.01	Electrical Legend, Schedule & First Floor Plan Demolition: Electrical
E2.01	First Floor Plan: Lighting & Electrical

SCOPE OF WORK – ALLOWANCES:

The Contractor shall include an allowance to be used as directed by the Owner and Architect. The Contractor is to include the amount of seven thousand dollars (\$7,000.00) in the base bid. All overhead and profit for the allowance is to be included in the base bid number. The remaining allowance balance at the completion of the project will be returned to the Owner by a deduct change order.

Contractor shall refer to specifications and drawings for additional requirements and scope of work.

SECTION D - INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

For the following project:

Toilet Room Renovations to Building A
1049 South McCord Road
Holland, Ohio

County:

Lucas County Board of Commissioners
One Government Center, Suite 800
Toledo, Ohio
Project Representative: Mark Drennen, Administrative Deputy

Architect / Engineer:

The Collaborative Inc.
500 Madison Avenue
Toledo, Ohio 43604
Design Professional Representative: Audie Bates, AIA

ARTICLE 1 - GENERAL INSTRUCTIONS

1.1. APPLICATION AND GOVERNING LAW

- 1.1.1. The rights of any Bidder or any party to a subsequent Contract shall be governed by the laws of the state of Ohio and only Ohio courts shall have jurisdiction over any action or proceeding related to the Bid or any subsequent Contract. The Bidder irrevocably consents to such jurisdiction.
- 1.1.2. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the County and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.
- 1.1.3. Definitions set forth in the Lucas County Board of Commissioners General Conditions of the Contract for Construction or in other Contract Documents are applicable to the Bidding Documents.

1.2. PROJECT SCHEDULING AND COORDINATION

- 1.2.1. When the Contract Documents refer to a period of time by a number of days, it excludes the first day and includes the last day of the period. If the last day of the period falls on a Saturday, Sunday, or a legal holiday, that day shall be omitted and the period shall end on the next day which is not a Saturday, Sunday, or legal holiday.
- 1.2.2. The time for completion of the Project indicated on the Bid Form is the time for Contract Completion applicable to the Bidder.
- 1.2.3. The Lead Contractor is responsible for scheduling the Project, coordinating the Contractors, and providing other services identified in the Contract Documents. The General Trades Contractor shall be the Lead Contractor for this project.
- 1.2.4. The award of separate Contracts for the Project requires sequential, coordinated, and otherwise interrelated Contractor operations and may involve interference, disruption, hindrance, or delay in the

progress of any individual Contractor's Work. Each Contractor shall cooperate with the Lead Contractor, or Construction Manager if applicable, the Architect/Engineer ("A/E"), the County and County's Project Representative, and Separate Contractors to minimize interference, disruption, hindrance, or delay of the Project.

- 1.2.5. By submitting its Bid, the Bidder indicates its understanding that the Contract Sum, based on its Bid and as amended by Change Orders, includes all costs that the County owes the Bidder.

1.3. BIDDERS' REPRESENTATIONS

1.3.1. The Bidder by making a Bid represents that:

- .1 The Bidder has read and understands the Bidding Documents and Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, bid concurrently or presently under construction.
- .2 The Bid is made in compliance with the Bidding Documents.
- .3 The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.
- .4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

1.4. NOTICE

1.4.1. Notice under the Contract Documents shall be validly given if:

- .1 Delivered personally to a member of the organization for whom the notice is intended;
- .2 Delivered, or sent by registered or certified mail, to the last known business address of the organization; or
- .3 Sent by email, or Web-based project management software with verification of delivery to the organization's email service provider; or
- .4 Posted on the County's website not less than 72-hours prior to the bid opening date and time, excluding Saturdays, Sundays and legal holidays.

ARTICLE 2 - BIDDING PROCEDURES

2.1. EXAMINATION OF CONTRACT DOCUMENTS AND THE SITE

- 2.1.1. Copies of Plans and Specifications may be obtained from Becker Impressions, 4646 Angola Rd., Toledo, OH 43615, Phone: 419-385-5303, Fax: 419-385-0529. One (1) complete set of plans and specifications will be provided to each Prime Contractor. Additional sets may be purchased at the expense of the Contractors.
- 2.1.2. Before submitting a Bid, the Bidder shall examine all Contract Documents, including but not limited to, the Drawings, Specifications, and Addenda for a divisions of Work for the Project, noting in particular all requirements which may affect its Work in any way.
- 2.1.3. The Bidder's failure to become acquainted with the extent and nature of Work required to complete any portion of the Work in conformity with the requirements of the Contract Documents, shall not be a basis for additional compensation.

- 2.1.4. Before submitting a Bid, the Bidder should not only examine and evaluate the Site and related Project conditions where the Work will be performed, but shall also consider when the Work will be performed including but not limited to, the following:
- .1 The condition, layout, and nature of the Site and surrounding area;
 - .2 The availability and cost of labor;
 - .3 The availability and cost of materials, supplies, and equipment;
 - .4 The cost of temporary utilities required in the Bid;
 - .5 The cost of any permit or license required by a local or regional authority having jurisdiction over the Project;
 - .6 The usual weather conditions of the Project location;
 - .7 Conditions bearing upon transportation, disposal, handling, and storage of equipment, materials, and waste; and
 - .8 Subsurface and concealed physical conditions and related information provided in the Contract Documents.
 - .9 The inspection of the Project site shall be arranged by the Bidder through the County's Project Representative.
 - .10 The County's Project Representative will establish a date and time and notify registered Plan Holders of the opportunity for inspection of the Project Site.

2.2. PRE-BID MEETING

- 2.2.1. Bidders are encouraged to visit the site and become familiar with the project area and building. There will be no mandatory pre-bid meeting. Bidders may call the Office of the Lucas County Engineer as listed earlier and make arrangements to walk through the building on Thursday, April 25 and Friday, April 26, 2013 between the hours of 10:00 am and 2:00 pm.
- 2.2.2. Additional compensation shall not be awarded based upon the Bidder's failure to arrange a site visit and walk-through as noted in 2.2.1 above, which results in the Bidder's incomplete knowledge and familiarity of the Project requirements.

2.3. REQUEST FOR INTERPRETATION

- 2.3.1. If the Bidder finds any perceived ambiguity, conflict, error, omission, or discrepancy within the Contract Documents, including the Drawings, Specifications, and Addenda, or between any of the Contract Documents and Applicable Law, the Bidder shall submit a written Request for Interpretation ("RFI") to the A/E, or Construction Manager if applicable, for an interpretation or clarification.
- 2.3.2. The Bidder is responsible for prompt delivery of the RFI.
- 2.3.3. The A/E shall respond to RFIs received more than 7 days before the bid opening.
- 2.3.4. The A/E shall issue Addenda in response to RFIs that modify or clarify the Contract Documents. Any Addenda issued within 72 hours before any bid opening (excluding Saturdays, Sundays, and legal holidays) shall extend the bid opening date by 7 days pursuant to subparagraph 3.3.1.
- 2.3.5. The Addenda may be delivered via facsimile or e-mail, posted to a Web or FTP site, or otherwise furnished to each registered Plan Holder
- 2.3.6. Any interpretation or clarification of the Contract Documents made by any Person other than the A/E, or Construction Manager if applicable, or the County's Project Representative in any manner other

than a written Addendum, shall not be binding, and the Bidder shall not rely upon the interpretation or clarification.

- 2.3.7. The successful Bidder shall not be compensated for a claim alleging insufficient data, incomplete, ambiguous, conflicting, or erroneous Contract Documents or proposed Contract Documents, or assumed conditions regarding the nature, extent, or character of the Work, if the Bidder did not submit a related RFI prior to the bid opening.

2.4. BASIS OF DESIGN AND ACCEPTABLE COMPONENTS

- 2.4.1. The Contract Documents may list components produced by specific manufacturers to denote kind, quality, or performance requirements.
- 2.4.2. The component listed as the Basis of Design is the preferred component and is designated as such in the Contract Documents.
- 2.4.3. Other listed components are Acceptable Components
- 2.4.4. If the Bidder includes an Acceptable Component in its Bid, the Bidder is responsible for the costs of coordination and modification required.

2.5. SUBSTITUTIONS PRIOR TO BID OPENING

- 2.5.1. If the Bidder proposes to use an article, device, material, equipment, form of construction, fixture, or item other than the Basis of Design or Acceptable Components named in the Specifications, the Bidder shall certify that the proposed item is equal in quality and all aspects of performance and appearance, to the item specified.
- 2.5.2. If approval of a Substitution requires changes to the Contract Documents or affects the work of other trades, the Bidder is responsible for the additional costs, including, but not limited to, changes to the design by the A/E.
- 2.5.3. The Bidder shall submit its request for Substitution to the A/E no later than 7 days prior to the bid opening, which must include:
- 2.5.4. The name and complete description of the proposed Substitution, including Drawings, performance and test data, and other information necessary for a complete evaluation; and
- 2.5.5. A statement setting forth any changes that the Proposed Substitution will require in the Contract Documents or the Project.
- 2.5.6. If the A/E approves the Proposed Substitution, the A/E shall issue an Addendum.
- 2.5.7. If the A/E does not approve the Proposed Substitution, the A/E shall inform the Bidder of its decision, which is final. The A/E may reject a proposed Substitution because the Bidder failed to provide sufficient information to enable the A/E to completely evaluate the Proposed Substitution without causing a delay in the scheduled bid opening.
- 2.5.8. Proposed Substitutions received by the A/E less than 10 days prior to the bid opening shall not be considered.

2.6. BID FORM

- 2.6.1. Each Bid shall be submitted on the Bid Form and sealed in an envelope clearly marked as containing a Bid, indicating the County's Project number and name, construction trade of the Bid, and the date and time of the bid opening on the envelope. Refer to subparagraph 3.1.2 for requirements related to envelope markings.

- .1 Any change, alteration, omission, or addition in the wording of the Bid Form shall cause the Bid to be rejected as non-responsive.
 - .2 All pages of the Bid Form shall be submitted with the Bid. Failure to do so may cause the Bid to be rejected as nonresponsive.
 - .3 Unless the Bidder withdraws the Bid as provided in Article 4, the Bidder is required to comply with all requirements of the Contract Documents, regardless of whether the Bidder had actual knowledge of the requirements and regardless of any statement or omission made by the Bidder that might indicate a contrary intention.
- 2.6.2. The Bidder shall fill in all relevant blank spaces on the Bid Form by printing in ink or by typewriting, and not in pencil.
- .1 The Bidder shall write "Not Applicable" or "N/A" to fill spaces in the Bid Form that are not applicable to the Bid of the Bidder.
 - .2 The Bidder shall show all bid amounts in both words and figures. In the case of a conflict between the words and figures, the amount shown in words shall govern, where the words are not ambiguous. When the Bidder's intention and the meaning of the words are clear, omissions, or misspellings of words shall not render the words ambiguous.
 - .3 The Bidder shall initial alteration or erasure of items filled in on the Bid Form.
- 2.6.3. If the Bidder is a corporation, partnership or sole proprietorship, an officer, partner or principal of the Bidder shall print or type the legal name of the Bidder on the line provided, and sign the Bid Form. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided, and sign the Bid Form on behalf of that member. All signatures must be original

2.7. ALLOWANCES

- 2.7.1. If Allowances are provided on the Bid Form, the amount of each Allowance shall be included in the Base Bid amount. Allowances shall be used solely for the purpose of determining the adjustment to the Contract Sum for the difference between the amount of the Allowance and the actual cost of the related Work provided.

2.8. UNIT PRICES

- 2.8.1. If Unit Prices are requested on the Bid Form, the amount of the scheduled quantities shall be included in the Base Bid amount. Unit prices shall be used solely for the purpose of determining the adjustment to the Contract Sum for the difference between the estimated quantities on the Bid Form and the actual quantities provided.
- 2.8.2. Unit Prices shall include all materials, equipment, labor, delivery, installation, overhead, profit, and any other cost or expense, in connection with, or incidental to, the performance of that portion of the Work. The Bidder shall submit Unit Prices for all items listed.
- 2.8.3. Where there is a conflict between the Unit Price and the extension thereof made by the Bidder, the Unit Price shall govern and the Bid Amount for the Unit Price extension will be corrected for such Unit Price and the corrected extension shall be used for the purpose of comparing bids.

2.9. ALTERNATES

- 2.9.1. If an Alternate is listed on the Bid Form, the Bidder shall fill in the applicable blank with an increased or decreased bid amount and indicate which by circling the word "ADD" or the word "DEDUCT" as

applicable. The County reserves the right to accept or reject any or all bid amounts for Alternates, in whole or in part, and in any order.

- 2.9.2. If no change in the bid amount is required, indicate "No Change" or "\$0."
- 2.9.3. Failure to make an entry or an entry of "No Bid," "N/A," or similar entry on any Alternate shall cause the Bid to be rejected as non-responsive if that Alternate is selected.
- 2.9.4. Failure to indicate a negative number by circling "DEDUCT," preceding the number by a minus sign, or enclosing the number in parentheses will indicate the Bidder's intent to increase the Base Bid by the amount entered in the applicable blank.
- 2.9.5. If an Alternate is not selected, an entry as listed in subparagraph 2.9.1.2 on that Alternate shall not, by itself, render a Bid non-responsive.
- 2.9.6. In a Combined Bid, a blank entry or an entry of "No Bid," "N/A," or similar entry on an Alternate shall cause the County to reject the Bid as non-responsive if that Alternate applies to the Combined Bid and that Alternate is selected.

2.10. SUBMITTALS WITH BID FORM

- 2.10.1. The County shall reject a Bid as non-responsive if the Bidder fails to submit the following with the Bid Form in a sealed envelope:
 - .1 A Bid Guaranty as provided in Article 5, meeting the requirements of Ohio Revised Code ("O.R.C.") Sections 153.54 and 153.571.
- 2.10.2. If the apparent low Bidder does not submit a valid Power of Attorney of the agent signing for the Surety with its Bid, the County shall direct the apparent low Bidder to deliver a valid and appropriate Power of Attorney to the County within a period determined by the County. The County shall not enter into a Contract without a valid Power of Attorney.
- 2.10.3. The Bidder is encouraged to submit background information with its Bid using the "Best Bid Criteria" form and including, but not limited to, the information listed in this paragraph 2.10. If the apparent low Bidder does not submit the "Best Bid Criteria" form and related information with its Bid, the Bidder shall provide it upon request in accordance with subparagraph 3.5.4, including, but not limited to:
 - .1 The overall experience of the Bidder, including number of years in business under present and former business names;
 - .2 A complete listing of all the Bidder's ongoing construction projects and a listing of construction projects which are similar in cost and type to the Project completed by the Bidder in the last 5 years. Include information of the scope of work and value of each contract, a description of Encouraging Diversity Growth and Equity ("EDGE") participation and performance, and a project name/contact Person/address/phone number for the County and the architect or engineer for each project;
 - .3 A Certificate of Compliance with Affirmative Action Programs, issued pursuant to O.R.C. Section 9.47, by the Equal Opportunity Division of the Department of Administrative Services;
 - .4 A complete listing of Affirmative Action and EDGE program violations in the last 5 years;
 - .5 A complete listing of Prevailing Wage, EPA, OSHA, or other regulatory entity issues or violations in the last 5 years;
 - .6 A complete listing of judgments, claims, arbitration proceedings or suits pending or outstanding in the last 5 years;

- .7 A complete listing of Drug-Free Workplace Program and Drug-Free Safety Program (“DFSP”) violations in the last 5 years;
- .8 Upon request of the County, the apparent low Bidder shall submit the following information, which is not a public record under O.R.C. Section 149.43; and shall remain confidential, except under proper order of a court:
 - 8.1. An annual financial statement prepared within the 12 months prior to the bid opening by an independent licensed accounting firm; and the name, address, contact Person, and phone number of the bank normally used by the Bidder for its primary banking; or
 - 8.2. A financial report generated within 30 days prior to the bid opening from Standard and Poor, Dun and Bradstreet or a similar company acceptable to the County documenting the financial condition of the Bidder; and the name, address, contact Person, and phone number of the bank normally used by the Bidder for its primary banking;
- .9 A description of the Bidder’s relevant facilities and major equipment, whether leased or owned;
- .10 A description of the management experience of the Bidder’s project manager(s) and superintendent(s) and a comprehensive resume for each;
- .11 A description of the EDGE-certified Business Enterprises the Bidder proposes as Subcontractors and Material Suppliers for this Project by attaching a fully completed EDGE Affidavit for each EDGE certified Business Enterprise;
- .12 To support a Bond, a current and signed Certificate of Compliance issued by the Ohio Department of Insurance, showing the Surety is licensed to do business as a surety in Ohio;
- .13 A current Ohio Workers' Compensation Certificate;
- .14 If the Bidder is a foreign corporation not incorporated under the laws of Ohio, a Certificate of Good Standing from the Ohio Secretary of State; or, if the Bidder is a foreign person or partnership, evidence that the Bidder filed, with the Ohio Secretary of State, a Power of Attorney designating the Ohio Secretary of State as the Bidder's agent for the purpose of accepting service of summons in any action brought under O.R.C. Section 153.05 or under O.R.C. Sections 4123.01 to 4123.94, inclusive;
- .15 Evidence that the Bidder is enrolled in, and in good standing in, a DFSP approved by the Ohio Bureau of Workers’ Compensation (“OBWC”); and
- .16 Any other data or information which the A/E may request concerning the responsibility of the Bidder, including a complete list of major Subcontractors with an estimated contract value of \$150,000 or more, which the Bidder proposes to employ on the Project.

2.11. CHANGES IN BID AMOUNT

- 2.11.1. Any change to a previously submitted Bid shall be in writing and received by the County before the time scheduled for the bid opening.
- 2.11.2. Changes shall provide an amount to be added to, or subtracted from, the bid amount, so that the final bid amount may be determined only after the sealed envelope is opened.
- 2.11.3. If the Bidder's written instruction reveals the bid amount in any way prior to the bid opening, the County may, in its sole discretion, reject the Bid as non-responsive.

2.12. COMBINED BIDS

- 2.12.1. If only 2 items are listed on the Bid Form, the Bidder may only submit 1 combined Bid with the combination of those 2 items.

- 2.12.2. If more than 2 items are listed on the Bid Form, the Bidder may, as described on the Bid Form, submit a combined Bid by circling the items on which the Bidder is bidding in the combined Bid.
 - .1 The Bidder may only submit 1 combined Bid on a Bid Form.
 - .2 The Bidder may submit multiple combined Bids by submitting separate Bids in accordance with the Contract Documents.
 - 2.1. If the Bidder submits multiple combined Bids with a single Bid, that Bid shall be rejected as non-responsive, in accordance with subparagraph 2.6.1.1.

ARTICLE 3 - BID OPENING AND EVALUATION

3.1. DELIVERY OF BID

- 3.1.1. The Bidder shall submit its Bid to the County at the location indicated in the "Invitation to Bid" prior to the time scheduled for the bid opening.
- 3.1.2. If the sealed bid envelope is enclosed in another envelope for the purpose of delivery, the exterior envelope shall also be clearly marked as containing a Bid with the Project name and Project number, construction trade of the Bid, and the date and time of the bid opening shown on the envelope.
- 3.1.3. Bids that arrive at the location designated in the "Invitation to Bid" after the time set for the bid opening shall not be opened or considered.

3.2. BID OPENING

- 3.2.1. Sealed Bids shall be received at the location designated in the "Invitation to Bid" until the time stated when all Bids shall be opened, read aloud, and the tabulation made public.
- 3.2.2. The public opening and reading of Bids is for informational purposes only and is not to be construed as an acceptance or rejection of any Bid submitted.
- 3.2.3. The contents of the bid envelope are public records and open for inspection, upon request, at any time after the bid opening, except for any information that is not defined as a public record under Ohio law.

3.3. BID OPENING EXTENSION

- 3.3.1. If an Addendum is issued within 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, the bid opening shall be extended 7 days. If the County approves, the bid opening may be extended for more than 7 days, and consideration for additional advertising may be recommended.
- 3.3.2. As part of issuing any Addendum earlier than 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, only the County may approve a revised bid opening date or additional advertising.

3.4. BID EVALUATION CRITERIA

- 3.4.1. The County reserves the right to accept or reject any or all Bids, in whole or in part, and reserves the right to award the Contract to any remaining Bidder the County determines, in its sole discretion, to have submitted the lowest responsive and responsible Bid.
- 3.4.2. The County reserves the right to accept or reject any or all Alternates. Alternates may be accepted or rejected in any order.
- 3.4.3. If any Bidder has engaged in collusive bidding, the County shall reject that Bidder's Bid as non-responsible for the Contract. A collusive bidder may also be debarred from future County Contracts.

- 3.4.4. The County reserves the right to waive, or to allow any Bidder a reasonable opportunity to cure a minor irregularity or technical deficiency in a Bid, provided the irregularity or deficiency does not affect the bid amount, or otherwise give the Bidder a competitive advantage. Noncompliance with any material requirements of the Contract Documents shall cause a Bid to be rejected as non-responsive.
- 3.4.5. If, in the opinion of the County, the award of the Contract to the lowest Bidder is not in the best interest of the County, the County may accept, in its discretion, another Bid so opened, or the County may reject all Bids and advertise for other Bids. The advertisement shall be for the period, in the form, and in the publications directed by the County.

3.5. BID EVALUATION PROCEDURE

- 3.5.1. The Contract shall be awarded to the lowest responsive and responsible Bidder as determined in the discretion of the County, or all Bids may be rejected in accordance with Applicable Law.
- .1 In determining which Bid is the lowest, the County shall consider the Base Bid and the bid amounts for any Alternate, or Alternates, which the Owner decides, in its sole discretion, to accept.
 - .2 The total of the bid amounts for the accepted Alternate(s) shall be added to, or deducted from, the Base Bid, as applicable, for determining the lowest Bidder.
 - .3 If two Bidders submit the same bid amount and both are determined to be responsive and responsible, the County may select one Bidder by the flip of a coin, which shall be conducted in the presence of both Bidders and shall be final.
 - 3.1. If one of the Bidders refuses to participate in, or fails to be present at, the flip of a coin, the remaining Bidder shall be selected.
- 3.5.2. A Bidder for a Contract shall be considered responsive if the Bidder's Bid responds to the Contract Documents in all material respects and contains no irregularities or deviations from the Contract Documents that would affect the amount of the Bid or otherwise give the Bidder a competitive advantage.
- .1 A Bid shall be rejected as non-responsive if the Bid contains a Bid Guaranty executed by a Surety not licensed in Ohio or a Bid Guaranty that is otherwise determined to be insufficient by the County.
- 3.5.3. In determining whether a Bidder is responsible, factors to be considered include, without limitation:
- .1 Preferences required by law, where applicable;
 - .2 The experience of the Bidder including number of years in business;
 - .3 The financial condition of the Bidder;
 - .4 The conduct and performance of the Bidder on previous Contracts, including compliance with Equal Employment Opportunity in the Construction Industry Administrative Rules, OSHA and Prevailing Wage laws, and demonstration of good faith effort to participate in the EDGE Business Development program, or actual participation in the EDGE Business Development program, or both, as indicated in the O.R.C. and the O.A.C;
 - .5 The facilities of the Bidder;
 - .6 The management skills of the Bidder;
 - .7 The Bidder's ability to execute the Contract properly, including past performance of the Bidder and the Subcontractors that the Bidder proposes to use on the Project.; and

- .8 Additional criteria contained in the "Best Bid Criteria Form" included in the Bid Documents.
- 3.5.4. The County reserves the right to evaluate any Bidder's proposed subcontractors using the same criteria specified in paragraphs 3.5.3.1 through 3.5.3.8.
- 3.5.5. The A/E shall obtain from the lowest responsive Bidder any information the County determines appropriate to consideration of factors showing responsibility. If the lowest responsive Bidder is responsible, the Contract shall be awarded to that Bidder, unless all Bids are rejected. The Bidder shall provide all requested information within 3 days of a request from the A/E, or a longer period, if the County consents in writing.
- 3.5.6. If the lowest responsive Bidder is not responsible, the County shall evaluate the next lowest Bidder according to the procedures set forth in this paragraph 3.5 until the Contract is awarded, all Bids are rejected, or all responsive Bidders are determined to be not responsible.

3.6. REJECTION OF BIDS

- 3.6.1. If the lowest Bidder is not responsive or responsible, the County shall reject the Bid and notify the Bidder in writing by Certified Mail of the finding and the reasons for the finding.
- 3.6.2. Ten Percent Rule:
- .1 If the lowest responsive and responsible Bid for the Contract, including the Base Bid and accepted Alternates if any, exceeds an amount 10 percent greater than the published Estimated Construction Cost for the Contract, the County shall reject all Bids.
 - .2 If the Project includes multiple contracts, the aggregate total price of all contracts awarded for the phases to date of the Project shall not exceed an amount 10 percent over the aggregate estimate of the contracts awarded, including the Base Bid and accepted Alternates, if any.
- 3.6.3. A Bidder notified in accordance with subparagraph 3.6.1 may object to its rejection by filing a written protest, which must be received by the County within 5 days of the notification provided pursuant to subparagraph 3.6.1.
- 3.6.4. Upon receipt of a timely protest, the County shall meet with the protesting Bidder to hear its objections. O.R.C. Chapter 119 administrative hearing requirements are not applicable to the bid protest meeting.
- .1 No Contract award shall become final until after the County has met with all Bidders who have timely filed protests and the award of the Contract is affirmed by the County.
 - .2 If all protests are rejected, the Contract shall be awarded to the lowest responsive and responsible Bidder, or all Bids shall be rejected.

3.7. NOTICE OF INTENT TO AWARD

- 3.7.1. The County shall notify the apparent successful Bidder that upon satisfactory compliance with all conditions precedent for execution of the Contract, within the time specified, the Bidder shall be awarded the Contract.
- 3.7.2. The County reserves the right to rescind any Notice of Intent to Award if the County determines it issued the Notice of Intent to Award in error, or if the conditions precedent for execution of Contract set forth in Article 6 are not met.

ARTICLE 4 - WITHDRAWAL OF BID

4.1. WITHDRAWAL PRIOR TO BID OPENING

4.1.1. A Bidder may withdraw a Bid after the County receives the Bid, provided the Bidder makes a request in writing and the County receives the request prior to the time of the bid opening, as determined by the County.

4.2. WITHDRAWAL AFTER BID OPENING

4.2.1. The Bid shall remain valid and open for acceptance for a period of 60 days after the bid opening; provided, however, a Bidder may withdraw a Bid from consideration after the bid opening if the bid amount was substantially lower than the amounts of other Bids, providing the Bid was submitted in good faith, and the reason for the bid amount being substantially lower was a clerical mistake, as opposed to a judgment mistake, and was actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of Work, labor, or material made directly in the compilation of the bid amount.

.1 Notice of a request to withdraw a Bid shall be made in writing filed with the County within 2 business days after the bid opening. The County reserves the right to request the Bidder to submit evidence substantiating the Bidder's request to withdraw the Bid.

.2 No Bid may be withdrawn under subparagraph 4.2.1 which would result in awarding a Contract involving the same item on another Bid to the same Bidder.

4.2.2. If a Bidder withdraws its Bid under subparagraph 4.2.1, the County may award the Contract to the next lowest responsive and responsible Bidder, or reject all Bids and advertise for other Bids. In the event the County advertises for other Bids, the withdrawing Bidder shall pay the costs, in connection with the re-bidding, of printing new Contract Documents, required advertising, and printing and mailing of notices to prospective Bidders, if the County finds that these costs would not have been incurred but for the withdrawal.

4.2.3. A Bidder may withdraw the Bidder's Bid at any time after the 60-day period described in subparagraph 4.2.1 by giving written notice to the County.

4.3. REFUSAL TO ACCEPT WITHDRAWAL

4.3.1. If the County contests the right of a Bidder to withdraw a Bid pursuant to subparagraph 4.2.1, a hearing shall be held within 10 days after the bid opening and the County shall issue an order allowing or denying the claim of this right within 5 days after the hearing is concluded. The County shall give the withdrawing Bidder timely notice of the time and place of the hearing.

.1 The County shall make a stenographic record of all testimony, other evidence, and rulings on the admissibility of evidence presented at the hearing. The Bidder shall pay the costs of the hearing.

.2 Pursuant to O.R.C. Section 119.12, the Bidder may appeal the order of the County required by subparagraph 4.3.1.

4.4. REFUSAL TO PERFORM

4.4.1. In the event the County denies the request for withdrawal and the Bidder refuses to perform the Contract, the County may reject all Bids or award the Contract to the next lowest responsive and responsible Bidder.

4.5. EFFECT OF WITHDRAWAL

4.5.1. A Bidder, who is permitted to withdraw a Bid under subparagraph 4.2.1, shall not supply material or labor to, or perform a subcontract or other work for, the Person to whom the Contract is awarded; or otherwise benefit, directly or indirectly, from the performance of the Project for which the withdrawn Bid was submitted; without the County's prior written consent.

ARTICLE 5 - BID GUARANTY AND BOND

5.1. BID GUARANTY

- 5.1.1. The Bidder shall submit a Bid Guaranty with the Bidder's Bid, payable to the County, in the form of either:
- .1 The signed "Bid Security Form" contained in the Contract Documents for the amount of the Base Bid plus all additive Alternates; or
 - .2 A certified check, cashier's check, or letter of credit, for 10 percent of the Base Bid, plus all additive Alternates. A letter of credit shall expressly provide that it is revocable only by the County.
 - 2.1. If chosen, the certified check, cashier's check or letter of credit must be drawn on a solvent bank or savings and loan.
- 5.1.2. The Bid Guaranty shall be in form and substance satisfactory to the County and shall serve as an assurance that upon acceptance of the Bid, the Bidder shall comply with all conditions precedent for Contract execution, within the time specified by the County.
- 5.1.3. If the blank line on the Bid Guaranty and Contract Bond is not filled in, the penal sum shall be the full amount of the Base Bid plus all additive Alternates. If the blank line is filled in, the amount shall not be less than the full amount of the Base Bid plus all additive Alternates, stated in dollars and cents. A percentage is not acceptable. In the event the blank line is filled in for an amount less than the full amount of the Base Bid plus all additive alternates, the Bid shall be rejected as non-responsive.
- 5.1.4. An authorized agent must sign the Bid Security Form, and the Bidder shall provide a Power of Attorney from the Surety. A Surety authorized by the Ohio Department of Insurance to transact business in Ohio must issue the Bid Security Form.
- 5.1.5. The requirements of O.R.C. Section 3901.86 may be applicable requiring an Ohio resident agent countersign the Bid Guaranty and Contract Bond. The Bidder shall determine the applicability of this provision.
- 5.1.6. Bid Guaranties in the form of a certified check, cashier's check, or letter of credit shall be returned to unsuccessful Bidders 60 days after the bid opening. Bid Guaranties in the form of a certified check, cashier's check, or letter of credit shall be returned to the successful Bidder upon providing "Performance and Payment Bond Form" from a Surety satisfactory to the County.

5.2. FORFEITURE OF BID GUARANTY

- 5.2.1. If for any reason, other than as authorized by subparagraph 4.2.1 or paragraph 5.3, the Bidder fails to execute the Contract Form, and the County awards the Contract to another Bidder, which the County determines is the lowest responsive and responsible Bidder:
- .1 The Bidder who failed to execute the Contract Form is liable to the County for the difference between its Bid and the Bid of the next lowest responsive and responsible Bidder, or for a penal sum not to exceed ten percent of the bid amount, whichever is less.
- 5.2.2. If the County then awards a Contract to another Bidder, which the County determines is the lowest responsive and responsible Bidder and that Bidder fails or refuses to execute the Contract Form:
- .1 The liability of the lowest responsive and responsible Bidder shall be the difference between the bid amount of the lowest responsive and responsible Bidder and another Bidder which the County determines is the lowest responsive and responsible Bidder, except as provided in paragraph 5.3, but not in excess of the liability specified in subparagraph 4.2.2;

- .2 The liability on account of an award to the lowest responsive and responsible Bidder beyond the third lowest responsive and responsible Bidder shall be determined in like manner.
- 5.2.3. If the County does not award the Contract to another Bidder under subparagraph 5.2.2, but submits the Project for re-bidding:
- .1 The Bidder failing or refusing to execute the Contract Form is liable to the County for a penal sum not to exceed 10 percent of the Bidder's bid amount or the costs in connection with the resubmission of printing new Contract Documents, required advertising, and printing and mailing notices to prospective Bidders, whichever is less, except as provided in paragraph 5.3.

5.3. EXCEPTION TO FORFEITURE

- 5.3.1. A Bidder for a Contract with the County costing less than \$500,000 may withdraw its Bid from consideration if its Bid for another Contract with the County for less than \$500,000 has already been accepted if:
- .1 The Bidder certifies in good faith that the total amount of its current contracts is less than \$500,000; and
 - .2 The Bidder's Surety certifies in good faith that the Bidder is unable to perform the subsequent Contract because such performance would exceed the Bidder's bonding capacity.
- 5.3.2. If a Bid is withdrawn pursuant to subparagraph 5.3.1:
- .1 The County may award the Contract to another Bidder which the County determines is the lowest responsive and responsible Bidder or reject all Bids and submit the Project for re-bidding; and
 - .2 Neither the withdrawing Bidder nor the Bidder's Surety shall be liable for the difference between the Bidder's Bid and that of the next lowest responsive and responsible Bidder for a penal sum, or for the costs of printing new Contract Documents, required advertising, and printing and mailing notices to prospective Bidders.

5.4. BOND

- 5.4.1. Prior to signing the Contract Form, the Bidder shall provide the Bond required by law in form and substance satisfactory to the County, and from a Surety licensed to do business in the County of Ohio and satisfactory to the County.
- .1 If the Bidder provided the "Bid Security Form," described in subparagraph 5.1.1.1, as its Bid Guaranty then that form shall be the Bond.
 - .2 If the Bidder provided another form of Bid Guaranty, described in subparagraph 5.1.1.2, then a "Performance and Payment Bond Form," described in subparagraph 5.1.6, shall be the Bond.
 - .3 The Bidder shall not be required to provide both forms described above.
- 5.4.2. The Bond must be in the full amount of the Contract to indemnify the County against all direct and consequential damages suffered by failure of the Contractor to perform according to the provisions of the Contract and in accordance with the Plans, Specifications, details, and bills of material therefore and pay all lawful claims of Subcontractors, Material Suppliers, and laborers for labor performed or materials furnished in performing and completing the Contract.

ARTICLE 6 - CONTRACT AWARD AND EXECUTION

6.1. CONDITIONS PRECEDENT FOR EXECUTION OF CONTRACT

- 6.1.1. The successful Bidder must submit the items in this paragraph 6.1 to the County before executing the Contract Form. The award and execution of the Contract is based upon the expectation that the

lowest and best Bidder will comply with all conditions precedent for Contract execution within ten (10) days of the date of the Notice to Award.

- 6.1.2. Bond, and to support the Bond, a Certificate of Compliance issued by the Ohio Department of Insurance, showing the Surety is licensed to do business in the State of Ohio.
- 6.1.3. Current Ohio Workers' Compensation Certificate
- 6.1.4. Certificate of Insurance (ACORD form is acceptable) and copy of additional insured or loss payee endorsement. The County reserves the right to request and receive a certified copy of the Contractor's insurance policies.
- 6.1.5. If a Bidder is a foreign corporation, e.g., not incorporated under the laws of Ohio, it must submit a Certificate of Good Standing from the Ohio Secretary of State showing the right of the Bidder to do business in the State of Ohio.
- 6.1.6. If a Bidder is an individual or partnership, nonresident of the State of Ohio, it must submit a Power of Attorney designating the Ohio Secretary of State as the Bidder's agent for accepting service of summons in any action brought under O.R.C. Section 153.05 or under O.R.C. Sections 4123.01 to 4123.94, inclusive.
- 6.1.7. Evidence that Bidder has successfully executed an agreement complying with the terms contained in the "Project Labor Agreement" contained in the "Invitation to Bid" and delivered signed copy to Owner's Project Manager and Clerk of the Board of County Commissioners.
- 6.1.8. Plumbing, electrical, hydronics, refrigeration, and heating, ventilating and air conditioning ("HVAC") Contractors must submit proof of current licensing by Applicable Law.
- 6.1.9. Evidence that the Bidder is enrolled in, and in good standing in, a DFSP approved by the OBWC.
- 6.1.10. Other forms and affidavits required by the County in Document 00-10-00 "Solicitation" or the "Invitation to Bid" and in Bid Documents.
- 6.1.11. Required Notice of Unresolved Findings for Recovery:
 - .1 By submitting its Bid, the Bidder warrants that it is not subject to an unresolved findings for recovery under O.R.C. Section 9.24. O.R.C. Section 9.24 prohibits the County from awarding a Contract to any Bidder against whom the Auditor of County has issued a finding for recovery if the finding for recovery is unresolved at the time of award. If the Contract is awarded to a Bidder subject to an unresolved finding for recovery under O.R.C. Section 9.24, the Contract is void on its face and the Contractor shall immediately repay to the Owner any funds paid under the Contract.
- 6.1.12. EDGE Program – Supporting Documentation Required:
 - .1 The Bidder shall provide evidence acceptable to the County of the Bidder's participation in the EDGE Program by contracting with EDGE-certified Business Enterprise(s) for the Project by submitting a fully completed EDGE Affidavit for each EDGE-certified Business Enterprise, by requesting a waiver or partial waiver of the advertised EDGE Program participation goal for the Project on the Bidder's company letterhead including full documentation of the Bidder's good faith effort to contract with EDGE-certified Business Enterprise(s) for this Project, or both.
- 6.1.13. Registered Apprentices – Supporting Documentation Required:
 - .1 The Bidder shall provide evidence acceptable to the County of the registration of all apprentices who the Bidder or its Subcontractors intend to employ on the Project pursuant to O.R.C. Section 4115.05.

6.2. NON-COMPLIANCE WITH CONDITIONS PRECEDENT

- 6.2.1. The award of the Contract and execution of the Contract Form require the Contractor to comply with:
- .1 All conditions precedent for execution of the Contract within 15 days of the date of the Notice of Intent to Award; and
 - .2 The Bidder's Qualifications form, including a fully completed EDGE Affidavit for each EDGE certified Business Enterprise, not previously provided within 3 business days of receiving the County's request.
- 6.2.2. Non-compliance with the conditions precedent for execution of the Contract as stated in paragraph 6.1 within the timelines stated in subparagraph 6.2.1 following the date of the Notice of Intent to Award shall be sufficient cause to permit the County to cancel the Notice of Intent to Award, for the Bidder's lack of responsibility and award the Contract to another Bidder, which the County determines is the lowest responsive and responsible Bidder; or the County may re-bid the Work at its sole discretion.
- 6.2.3. The County may extend the time for complying with the conditions precedent for execution of the Contract for good cause. The extension is not a waiver of the conditions precedent for execution of the Contract.

6.3. TIME LIMITS

- 6.3.1. The County's failure to award the Contract and execute the Contract Form within 60 days of the bid opening invalidates the entire bid process and all Bids submitted, unless the time is extended by written consent of the apparent lowest responsive and responsible Bidder and the County.
- .1 If the County awards the Contract within 60 days of the bid opening, increases in material, labor, and subcontract costs shall be borne by the Bidder.
 - .2 If failure to execute the Contract within 60 days of the bid opening is due to matters for which the County is solely responsible, the Contractor is entitled to a Change Order authorizing payment of verifiable increased costs in materials, labor, or subcontracts. This increase shall not exceed the difference in price between the successful Bidder and the price of the next lowest responsive and responsible Bidder.
 - .3 If failure to execute the Contract within 60 days of the bid opening is due to matters for which the Contractor is responsible, the County shall not grant a request for increased costs.

6.4. NOTICE TO PROCEED

- 6.4.1. The County shall issue a Notice to Proceed to the Contractor, which establishes the date for commencement and the calendar days allocated for Contract Completion. Within 10 days of the date of the Notice to Proceed, or other period as mutually agreed by the Contractor and the County, the Contractor shall furnish the following submittals to the A/E:
- .1 Schedule of Values;
 - .2 Preliminary schedule of Shop Drawings and other Submittals;
 - .3 Subcontractor and Material Supplier Declaration form, with completed Bidder Affirmation and Disclosure forms acknowledging that the Contractor affirms, understands, and will abide by the requirements of Executive Order 2010-09S for Subcontractors that were not identified in the Bid Form;

- .4 Qualifications of proposed project manager(s) and superintendent(s) and a comprehensive resume of each.
- 6.4.2. The Contractor shall, within ten (10) days of the date of the Notice of Commencement, provide the County's Prevailing Wage Coordinator with a schedule of dates during the term of the contract on which wages will be paid to employees for the Project.

End of Instructions to Bidders

SECTION E - GENERAL CONDITIONS

**Lucas County Board of Commissioners
General Conditions of the Contract for
Construction
(Lead Contractor Edition)**

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ARTICLE 1

1. GENERAL PROVISIONS

1.1 APPLICATION AND GOVERNING LAW

- 1.1.1 The Contractor, the Architect and the County shall be familiar with all provisions of the Standard Conditions.
- 1.1.2 There shall be no change in the Standard Conditions unless so provided in the Special Conditions prepared by the Architect and approved in writing by the County.
- 1.1.3 The parties to the Contract shall comply with all applicable federal, State and local codes, statutes, ordinances and regulations in the performance of the Work of the Project.
- 1.1.4 The State of Ohio shall have exclusive jurisdiction over any action or proceeding concerning the Contract and performance thereunder. Any such action or proceeding arising out of or related in any way to the Contract or performance thereunder shall be brought only in the Lucas County Common Pleas Court, General Division, Lucas County, Ohio and the Contractor irrevocably consents to such jurisdiction. The Contract shall be construed in accordance with the laws of the State of Ohio.
- 1.1.5 Other rights and responsibilities of the Contractor, the Architect and the County are set forth throughout the Contract Documents and are included under different titles, articles and paragraphs for convenience.
- 1.1.6 The County may maintain an action for violations of any law relating to the Project or for any injury to persons or property pertaining to the Work, or for any other cause which is necessary in the performance of the County's duties.

1.2 CONDITIONS OF CONTRACT

1.2.1 Nondiscrimination

- 1.2.1.1 During the performance of the Contract, the Contractor agrees that in the hiring of employees for the performance of Work, including without limitation Work to be performed by a Subcontractor, no Contractor or Subcontractor, and no person acting on behalf of the Contractor or Subcontractor, shall, by reason of race, religion, national origin, age, sex, disability, Vietnam era Veteran status, or color, discriminate against any citizen in the employment of labor or workers who are qualified and available to perform the Work to which the employment relates.
- 1.2.1.2 The Contractor further agrees that no Contractor or Subcontractor, and no person acting on behalf of the Contractor or Subcontractor, shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work on account of race, religion, national origin, age, sex, disability, Vietnam era Veteran status or color.
- 1.2.1.3 The Contractor agrees that the Contractor will fully cooperate with the County Equal Opportunity Coordinator, with any other official or agency of the state or federal government which seeks to eliminate unlawful employment discrimination, and with all other state and federal efforts to assure equal employment practices under the Contract.
- 1.2.1.4 In the event of the Contractor's noncompliance with the nondiscrimination clauses, the Contract may be terminated or suspended in whole or in part, and the Contractor may be declared not responsive or responsible for further County contracts or such other sanctions as provided in Section 153.60, ORC.

1.2.2 Hiring Under County Public Improvement Contracts

1.2.3 Wages and Hours

- 1.2.3.1 The Contractor shall pay the prevailing wage rates of the Project locality, as determined by the Ohio Bureau of Employment Services, Wage and Hour Division, to laborers and mechanics performing Work on the Project.
- 1.2.3.2 The Contractor shall comply with the provisions, duties, obligations, and is subject to the remedies and penalties of Chapter 4115, ORC, "Wages and Hours on Public Works."

1.2.3.3 The County shall, within seven (7) working days after receipt of a notice of a change in the prevailing wage rates, notify the Contractor of the change. The Contractor shall make the necessary adjustment in the prevailing wage rate and pay any wage increase during the term of the Contract.

1.2.4 Notice of Commencement

1.2.4.1 Pursuant to Section 1311.252, ORC, the County shall prepare a Notice of Commencement in affidavit form identifying the name and address of the public authority, the Project number, the name, address and trade of all Contractors, the date of execution of the Contracts, and the name and address of the Surety for each Contractor, in addition to the name and address of the County's Project Representative upon whom a Claim Affidavit may be served.

1.2.4.2 The Notice of Commencement shall be made available upon request. The unavailability of a Notice of Commencement or incorrect information in the Notice of Commencement does not adversely affect the right of claimants, pursuant to Section 1311.252(C), ORC.

1.3 GIVING NOTICE

1.3.1 Whenever any provision of the Contract Documents requires the giving of any notice, such notice shall be deemed to have been validly given if delivered in person to the individual or to a member of the company or organization for whom the notice is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address of such individual or company known to the giver of the notice.

1.3.1.1 All notices provided to the Contractor from the Architect shall be copied to the County Project Representative.

1.3.1.2 All notices provided to the Contractor from the County Project Representative shall be copied to the Architect.

1.3.1.3 All notices provided to the Architect from the Contractor shall be copied to the County Project Representative.

1.3.1.4 All notices provided to the County Project Representative from the Contractor shall be copied to the Architect.

1.3.2 When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday or a legal holiday, such day will be omitted from the computation and such period shall be deemed to end on the next succeeding day which is not a Saturday, Sunday or legal holiday.

1.4 USE OF FACSIMILE TRANSMISSION

1.4.1 Any notice required to be given shall be effective if provided by facsimile transmission, but such notice shall not be considered official until the original signed document is delivered pursuant to Paragraph 1.3.1.

1.4.2 Facsimile transmittals in excess of ten (10) pages are discouraged.

1.5 CONTRACT DOCUMENTS

1.5.1 Intent

1.5.1.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. The Contractor shall be held to provide all labor and materials necessary for the entire completion of the Work described in the Contract Documents and reasonably implied therefrom to produce the intended results.

1.5.1.2 The Standard Conditions may not be superseded or amended by drawings and specifications unless so provided in Special Conditions prepared by the Architect and approved in writing by the County.

1.5.1.3 The Drawings shall generally govern dimensions, details and locations of the Work. The Specifications shall generally govern quality of materials and workmanship.

- 1.5.1.4 The organization of the Specifications in divisions, sections and articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- 1.5.1.5 In the event of inconsistencies within or between the Contract Documents, the Contractor shall provide the better quality or greater quantity of Work, and shall comply with the more strict requirement.
- 1.5.1.6 Unless otherwise specified in the Contract Documents, words which have well-known technical or construction industry meanings are used in accordance with such recognized meanings.
- 1.5.2 Interpretation
- 1.5.2.1 If the Contractor finds any perceived conflict, error, omission or discrepancy on or between the Drawings and Specifications, or any of the Contract Documents, the Contractor, before proceeding with the Work, shall submit a written request, through the Architect, to the County for an interpretation or clarification. The Contractor shall be responsible for the prompt delivery of such request.
- 1.5.2.2 The County, through the Architect shall respond in writing, within three (3) days of receipt of the request, to any and all requests for interpretation of the Contract Documents.
- 1.5.2.3 Any interpretation or clarification of the Contract Documents made by any person other than the Architect or the County, or in any manner other than writing, shall not be binding and the Contractor shall not rely upon any such interpretation or clarification.
- 1.5.2.4 If any change to the Work is made to accommodate unforeseen circumstances, the Architect shall initiate the appropriate action and notify the County.

1.6 DRAWINGS AND SPECIFICATIONS

1.6.1 Ownership

- 1.6.1.1 All Drawings and Specifications are the property of the County.
- 1.6.1.2 In making copies of the Drawings and Specifications available, the County does not confer a license or grant permission for any use other than Work on the Project.

1.6.2 Access

- 1.6.2.1 The Lead Contractor shall maintain a set of Drawings and Specifications, approved by the local permitting authority at a secure location at the Project.
- 1.6.2.2 The Contractor shall maintain in good order at the Project site one (1) copy of all Drawings, Specifications, Bulletins, Addenda, approved Shop Drawings, catalog data, manufacturer operating and maintenance instructions, certificates, Warranties, Contract Modifications, and other modifications, including As-Built Drawings.
- 1.6.2.3 The Contractor shall at all times permit access to the Contract Documents to authorized representatives of the County and the Architect.

1.6.3 As-Built Drawings

- 1.6.3.1 The Contractor shall keep an accurate record of all approved changes made to the Drawings to show actual installation where installation varies from Work as originally shown, including the exact location and depth of underground utility lines.
- 1.6.3.2 During the performance of the Work, the Contractor shall record any approved changes on the Drawings, neatly in colored pencil, noting new information not shown on the original Drawings.
- 1.6.3.3 Where Shop Drawings are used, the Contractor shall cross reference the corresponding sheet numbers on the Drawings. The Contractor shall note related Contract Modification numbers where applicable.
- 1.6.3.4 The Contractor shall keep a record of any change made to the Specifications, noting particularly any variation from manufacturer's installation instructions and recommendations.

ARTICLE 2

2. THE CONTRACTOR

2.1 CONSTRUCTION PROCEDURES

2.1.1 The Contractor shall be responsible for and have control over all construction means, methods, techniques, sequences and procedures for all portions of the Contractor's Work and shall be responsible for any injury or damage which may result from improper construction, installation, maintenance or operation to the fullest extent permitted by law.

2.1.2 The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the Architect and the County at once.

2.1.3 Unless otherwise specified in the Contract Documents, the Contractor shall be responsible for properly and accurately laying out all lines, levels, elevations and measurements for all the Work as required by the Contract Documents.

2.1.4 The Contractor shall do all cutting, fitting or patching required for the Contractor's Work and shall not endanger the Project by cutting, excavating or otherwise altering the Project, or any part of it.

2.1.4.1 The Contractor requiring sleeves shall furnish and coordinate the Contractor's installation of the sleeves. The Contractor shall be responsible for the exact location and size of all holes and openings required to be formed or built for the Work, to permit coordination with any Work performed by others on the Project.

2.1.4.2 The Contractor shall allow sufficient time for installation of any Work by others before covering or closing the applicable portion of the Project.

2.1.4.3 Patching shall match and blend with the existing or adjacent surface. Any patching required because of faulty or ill-timed Work shall be done by and at the expense of the Contractor.

2.1.5 The Contractor shall not cut away any timber or dig under any foundation or into any wall, or other part of the Project, without the written approval of the Architect.

2.1.5.1 Unless otherwise specified in the Contract Documents, the Contractor, prior to starting excavation or trenching, shall notify any public authority having jurisdiction over the Project and secure any required approval.

2.1.5.2 The Contractor shall backfill any excavation with the material specified and approved by the Architect.

2.1.6 The Contractor shall install all Work in accordance with the Contract Documents and any installation recommendations of the manufacturer, including required dryness for installation of the various materials.

2.1.7 The Contractor shall comply with all requirements and conditions of the National Pollutant Discharge Elimination System (NPDES) general permit, including, but not limited to, implementing and maintaining the control measures specified in the storm water pollution prevention plan, maintaining records of construction activities, removing materials no longer required and taking proper action if there is a reportable quantity spill.

2.2 CONSTRUCTION SUPERVISION

2.2.1 The Contractor shall provide continuous supervision at the Project by a competent superintendent when any Work is being performed, unless waived by the County.

2.2.2 The Contractor's superintendent shall have responsibility and authority to act on behalf of the Contractor. All communications to the Contractor's superintendent shall be as binding as if given directly to the Contractor.

2.2.3 The Contractor shall submit an outline of the qualifications and experience of the Contractor's proposed superintendent, including references, through the Architect, to the County within ten (10) days of the Notice to Proceed.

2.2.3.1 The County reserves the right to reject the Contractor's proposed superintendent. Failure of the County to notify the Contractor of such rejection within 30 days of receipt of the required information shall constitute notice that the County has no objection.

2.2.3.2 If the County rejects the Contractor's superintendent, the Contractor shall replace the superintendent at no additional cost.

2.2.4 The Contractor shall not change the Contractor's superintendent without written approval of the County.

2.2.4.1 If the Contractor proposes to change the Contractor's superintendent, the Contractor shall submit to the County a written justification for the change, along with the name and qualifications of the individual whom the Contractor proposes to be the new superintendent.

2.2.4.2 The procedure provided in Paragraph 2.2.3 shall be conducted to evaluate the Contractor's proposed new superintendent.

2.3 PROTECTION OF THE PROJECT

2.3.1 The Contractor shall protect the Contractor's Work from weather, and shall maintain the Work and all materials, apparatus, and fixtures free from injury or damage during the entire construction period.

2.3.1.1 Work likely to be damaged shall be covered or protected at all times to prevent damage.

2.3.1.2 Any Work damaged by failure of the Contractor to provide coverage or protection shall be removed and replaced with new Work at the Contractor's expense.

2.3.1.3 Any adjacent property, including without limitation facilities, roads, walks, shrubbery, plants, trees or turf, damaged during the Contractor's Work shall be properly repaired or replaced at the Contractor's expense.

2.3.2 The Lead Contractor shall protect the Project and existing or adjacent property from damage at all times and shall erect and maintain necessary barriers, furnish and keep lighted necessary danger signals at night, and take precaution to prevent injury or damage to persons or property.

2.3.3 The Contractor shall not load, nor permit any part of the Project to be loaded, in any manner that will endanger the Project, or any portion thereof, nor shall the Contractor subject any part of the Project or existing or adjacent property to stress or pressure that will endanger the property.

2.3.4 The Contractor shall provide all temporary bracing, shoring and other structural support required for safety of the Project and proper execution of the Work.

2.4 MATERIAL AND EQUIPMENT

2.4.1 The Contractor's material and equipment shall be new and of the quality specified in the Contract Documents.

2.4.2 Only the materials and equipment which are to be used directly in the Work shall be brought to or stored at the Project by the Contractor and the Contractor's Subcontractors and Material Suppliers.

2.4.2.1 The Contractor shall be responsible for the proper storage of all material and equipment brought to the Project.

2.4.2.2 After the material or equipment is no longer required for the Work, the Contractor shall remove such material and equipment from the Project.

2.4.3 The Contractor's material and equipment shall not cause damage to the Project or adjacent property and shall not endanger any person at, or in the vicinity of, the Project.

2.4.4 Any injury to person or damage to property resulting from the Contractor's material or equipment shall be the responsibility of the Contractor. This provision is intended to be, and shall be construed as, consistent with, and not in conflict with, Section 4113.62, ORC.

2.5 LABOR

2.5.1 The Contractor shall maintain a sufficient workforce to efficiently execute the Work in accordance with the Construction Schedule.

2.5.2 The Contractor shall and enforce good discipline and order among the Contractor's employees the employees of the Contractor's Subcontractors and Material Suppliers. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

2.5.3 The Contractor shall dismiss from the Project any person employed by the Contractor or the Contractor's Subcontractors and Material Suppliers who is found by the County, pursuant to a recommendation from the Architect, to be incompetent, guilty of misconduct, or detrimental to the construction of the Project.

2.5.4 The Contractor shall employ all legal efforts to minimize the likelihood or effect of any strike, work stoppage or other labor disturbance. Informational pickets shall not justify any work stoppage.

2.6 SAFETY PRECAUTIONS

2.6.1 The Contractor shall take precautions for the safety of persons on the Project and shall comply with all applicable provisions of federal, State and municipal safety laws and buildings codes to prevent injury to persons on or adjacent to the Project.

2.6.2 The Contractor shall comply with the rules and regulations of the Department of Labor, Occupational Safety and Health Act (OSHA). The Contractor shall be responsible for any fine or cost incurred as a result of any violation or alleged violation.

2.6.3 Prior to starting the Work, the Lead Contractor shall provide and inform all Contractors of the methods and equipment for protecting the Project and persons from fire damage, in accordance with applicable fire regulations.

2.6.4 Methods and equipment for protecting persons and the Project shall be subject to inspection and approval of the appropriate authority having jurisdiction over the Project site.

2.6.5 Work Stoppage Due to Hazardous Materials

2.6.5.1 In the event the Contractor encounters materials reasonably believed to be containing asbestos, polychlorinated biphenyl (PCB) or other hazardous waste or material, which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the County and the Architect in writing.

2.6.5.2 The Work in the affected area shall be resumed upon written notice from the Architect that the material has been removed or rendered harmless.

2.6.5.3 The term "rendered harmless" shall mean that the level of exposure is less than any applicable exposure standards set forth in OSHA or other applicable regulations.

2.7 TEMPORARY FACILITIES AND UTILITIES

2.7.1 Unless otherwise specified in the Contract Documents, the Lead Contractor shall provide and maintain in a clean condition the following temporary facilities, equipment and services for use by the Architect:

2.7.1.1 On renovation Projects where space is available near the Project, two (2) separate office spaces, both of which shall be adequately heated, lighted, air conditioned, and with doors which lock, the keys to which shall be provided to the Architect;

2.7.1.2 When space is not available near the Project, a standard width job trailer shall be provided, which shall be adequately heated, lighted, air conditioned, and with doors which lock, the keys to which shall be provided to the Architect;

2.7.1.3 Each office space shall be equipped with at least one (1) desk, one (1) desk chair and two (2) side chairs and reasonable circulation space;

2.7.1.4 Each office space shall have one (1) four-drawer filing cabinet or equivalent;

2.7.1.5 A plan rack and 4 by 8 foot plan table shall be provided in one (1) office space;

2.7.1.6 Each office space shall have at least one (1) telephone in service;

2.7.1.7 Use of a facsimile and copy machine shall be provided for use either in one of the office spaces or in an adjacent office space.

2.7.2 Unless otherwise specified in the Contract Documents, the Lead Contractor shall provide adequate space, equipment and furnishings to conduct progress meetings for the Project. The meeting area shall measure approximately 200 square feet and shall be furnished with a 30 by 120 inch table and an appropriate number of folding or stacking chairs to adequately seat all participants at the meeting.

2.7.3 Unless otherwise specified in the Contract Documents, the Contractor shall provide temporary heat necessary so that the Work shall proceed expeditiously during inclement weather, and to protect the Contractor's Work and materials from damage, until the Project is enclosed.

2.7.3.1 The term "enclosed" shall mean when all permanent walls and roofs are in place, insulated and weather tight, windows are covered and all entrances are permanently in place or are provided with suitable temporary enclosure.

2.7.3.2 At the time the Project is enclosed, the Lead Contractor shall assume responsibility for and pay all costs for temporary heat.

2.7.4 Unless otherwise specified in the Contract Documents, the Contractor shall provide all water necessary for the Contractor's Work.

2.7.5 The Contractor shall erect and maintain adequate hoisting facilities as required for the Contractor's Work in coordination with the Lead Contractor.

2.7.5.1 If electric service requirements of hoisting facilities differ from that available at the Project site, the Contractor requiring use of such hoisting facilities shall make and pay for all necessary connections.

2.7.5.2 Unless otherwise specified in the Contract Documents, the Contractor requiring use of hoisting facilities, after the Project is enclosed, shall be responsible for transporting persons and materials as required for the Contractor's Work.

2.7.6 Unless otherwise specified in the Contract Documents, the electrical Contractor shall make all arrangements for temporary light and power services and shall pay all charges, both for service installation and removal, if required, and for energy consumed until completion of the Project.

2.7.6.1 Unless otherwise specified in the Contract Documents, the electrical Contractor shall not be responsible for any electrical service requirements of any other Contractor relating to temporary hoists, cranes, welding equipment or elevators.

2.7.6.2 The Contractor requiring such services shall subcontract with a licensed contractor for such service requirements and shall be responsible for all costs of such services.

2.7.7 Unless otherwise specified in the Contract Documents, the Lead Contractor shall provide, and maintain in a clean condition, adequate and approved sanitary facilities for use by all persons at the Project.

2.7.8 The Contractor shall be responsible for all temporary drainage necessary for the Contractor's Work and shall employ pumps, trenches, drains, sumps or other necessary elements as required to afford satisfactory working conditions for the protection, execution and completion of the Project.

2.8 PERMITS

2.8.1 Building Permits

2.8.1.1 The Architect shall secure the required general building permits.

2.8.1.2 The Contractor shall schedule the intermediate and final inspections required for any permit certification. The Contractor shall give the Architect and the County reasonable notice of the date arranged for any inspection.

2.8.2 Local Permits

2.8.2.1 Unless otherwise specified in the Contract Documents, the Contractor shall obtain, maintain and pay for any permit or license required by local authorities having jurisdiction over the Project.

2.8.3 National Pollutant Discharge Elimination System (NPDES) Storm Water General Permit

2.8.3.1 The Architect shall secure the NPDES general permit by submitting a notice of intent application form (NOI) to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction.

2.8.3.2 The Architect shall prepare and certify a storm water pollution prevention plan to provide sediment and erosion controls at the Project.

2.8.3.3 Architect shall prepare and process the required notice of termination (NOT) prior to Contract Completion.

2.9 TESTS

2.9.1 Unless otherwise specified in the Contract Documents, the Contractor shall apply, secure and pay for any inspection, testing or approval required by the Contract Documents, laws, ordinance, rules, regulations or orders of any public authority having jurisdiction over the Project.

2.9.1.1 The Contractor shall give the Architect and the County reasonable notice of the date arranged for such inspection, testing or approval.

2.9.1.2 The Contractor shall provide an original report of the inspection, testing or approval to the Architect for review and, if applicable, approval.

2.9.2 If after the commencement of the Work, the Architect determines that any portion of the Work requires special inspection, testing or approval in order to insure proper conformance to the Contract Documents, the Architect may instruct the Contractor in writing to order such special inspecting, testing or approval, or the Architect may make the arrangements for same.

2.9.2.1 If such special inspection, testing or approval reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall pay all costs associated with such special inspection, testing or approval.

2.9.2.2 If such special inspection, testing or approval reveals that the Work is in compliance with the Contract Documents, the Contractor will be paid, by appropriate Contract Modification, for all costs associated with such special inspection, testing or approval.

2.9.3 Neither the observations of the Architect in the administration of the contract, nor inspections, tests or approvals by persons other than the Contractor shall relieve the Contractor from the Contractor's obligation to perform the Work in conformity with the Contract Documents.

2.10 CLEANING UP

2.10.1 During the progress of the Work, the Contractor shall be responsible for the removal of all waste materials and rubbish attributable to the Work to an appropriate disposal site designated by the Lead Contractor. The Contractor shall perform daily broom cleaning in the area of the Contractor's Work.

2.10.1.1 The Lead Contractor shall, at the end of each working day or as directed by the Architect, remove all waste materials and rubbish from the Project.

2.10.1.2 The Lead Contractor shall, as required for the Project or as directed by the Architect, remove any waste materials or rubbish from areas adjacent to the Project.

2.10.2 If the Contractor fails to clean up during the progress of the Work, the provision of Paragraph 5.3 shall be invoked.

2.10.3 If the Contractor fails to maintain the areas adjacent to the Project clean and free of waste materials and rubbish, upon written notification by the Architect, the County shall direct the local jurisdiction having responsibility for the area to clean the area.

2.10.3.1 The cost of cleaning the area adjacent to the Project shall be deducted from the responsible Contractor as the Architect recommends and the County determines to be just.

2.10.3.2 The decision of the County shall be final.

2.11 SUBSTITUTIONS

2.11.1 Substitutes for Standards or Approved Equals shall not be considered after the bid opening unless the Contractor can conclusively demonstrate to the County one of the following conditions:

2.11.1.1 Unavailability of all Standards or Approved Equals through no fault of the Contractor or the Contractor's Subcontractors and Material Suppliers;

2.11.1.2 All Standards or Approved Equals are no longer produced;

2.11.1.3 All Standards or Approved Equals will not perform as designed.

2.12 EXPLOSIVES AND BLASTING

2.12.1 Blasting will not be permitted and explosives may not be brought onto or kept on the site of the Project, except with prior written approval of the County.

2.12.2 All blasting, storing and handling of explosives shall be done as prescribed in the Ohio Revised Code and other applicable regulations of the Ohio Industrial Commission.

2.12.3 The Contractor shall carry appropriate liability insurance and shall be responsible for any damages to persons or property resulting from any blasting operation.

2.13 EMERGENCY

2.13.1 In the event of an emergency affecting the safety of persons, the Project or adjacent property, the Contractor, without special instruction or authorization, shall act to prevent any threatened damage, injury or loss.

2.13.2 The Contractor shall give the Architect and the County written notice if the Contractor believes that any significant change in the Work or variation from the Contract Documents has been caused by any emergency or action taken in response to an emergency.

2.13.3 If the Architect recommends that a change in the Contract Documents be made because of any emergency or action taken in response to an emergency, and the County approves, a Contract Modification will be issued.

2.14 UNCOVERING THE WORK

2.14.1 If any Work is covered contrary to the requirements of the Contract Documents or to the written request of the Architect, such Work must, if required by the Architect in writing, be uncovered for observation and replaced, if not in conformity with the Contract Documents, and recovered at the Contractor's expense.

2.14.2 If any Work has been covered in accordance with the Contract Documents and is Work which the Architect had not requested the opportunity to observe prior to covering, the Architect may request that such Work be uncovered by the Contractor.

2.14.2.1 If such Work is found not to be in conformity with the Contract Documents, the Contractor shall pay all costs of uncovering, replacing and recovering the Work, unless it is found by the County that such condition was caused by another Contractor.

2.14.2.2 If such Work is found to be in conformity with the Contract Documents, the cost of uncovering and replacing and recovering the Work shall, by appropriate Contract Modification, be paid to the Contractor.

2.15 CORRECTION OF THE WORK

2.15.1 The Architect shall notify the Contractor in writing if any Work is found by the Architect to be Defective, whether observed before or after Contract Completion. The Architect shall specify in the written notice the time within which the Contractor shall correct the Defective Work.

2.15.2 The Contractor shall bear all costs of correcting such Defective Work, including the cost of any consequential damages.

2.15.3 If the Contractor fails to correct any Defective Work within the time fixed in the written notice, the County may correct such Work and seek recovery of all costs, including any consequential damages, from the Contractor or the Contractor's Surety.

2.16 INTERRUPTION OF EXISTING SERVICES

2.16.1 Whenever it becomes necessary to interrupt existing services in use by the County, such as sewer, water, gas and steam lines, electric or telephone and cable service, the Contractor responsible for the Work shall continue the Work on a 24 hour basis until the Work is completed and the service restored, or at such alternate time required by the County.

2.16.2 Before beginning such Work, the Contractor shall apply in writing to and receive approval in writing from the County and the authority with appropriate jurisdiction over the Project, to establish a time when interruption of the service will cause a minimum of interference with the activities of the County.

ARTICLE 3

3. THE ARCHITECT

3.1 PROJECT OVERSIGHT

3.1.1 The Architect shall notify, advise and consult with the County and shall protect the County against Defective Work throughout the completion of the Project.

3.1.1.1 The Architect shall designate an authorized representative, who shall be approved by the County, to attend the Project, as required by Agreement, to observe and check the progress and quality of the Work and to take such action as is necessary or appropriate to achieve conformity with the Contract Documents.

3.1.1.2 It shall be the duty of the Architect to have any consultant attend the Project at such intervals required by Agreement or as may be deemed necessary by the County to review the Work in order to achieve the results intended by the Contract Documents.

3.1.2 The Architect shall have the authority to disapprove or reject any item of Work which is Defective, or that the Architect believes will not produce a Project that conforms to the Contract Documents, or that will prejudice the integrity of the design concept of the Project as a functioning whole as indicated by the Contract Documents. The Architect shall immediately notify the County at any time that Work has been disapproved or rejected.

3.1.3 The Architect shall not be responsible for construction means, methods, techniques, sequences, procedures, safety precautions and programs in connection with the Work, or for the Contractor's failure to carry out the Work in conformity with the Contract Documents.

3.2 CONTRACT ADMINISTRATION

3.2.1 The Architect shall provide administration of the construction contracts for the Project as provided in the Agreement and including the performance of the functions hereinafter described.

3.2.1.1 The Architect shall secure the NPDES general permit by submitting a notice of intent application form (NOI) to the Ohio Environmental Protection Agency at least 45 days prior to the start of construction. The Architect shall prepare and certify a storm water pollution prevention plan and process the required notice of termination (NOT) prior to completion of the Project.

- 3.2.1.2 The Architect shall attend and conduct any and all progress meetings. The Architect shall prepare an agenda and a written report of each progress meeting and distribute the report to the County and the Contractors. The Architect shall not delegate the duty to prepare the agenda and written reports of any progress meeting.
- 3.2.1.3 The Architect may authorize minor changes or alterations in the Work not involving additional costs and not inconsistent with the overall intent of the Contract Documents.
- 3.2.1.4 The Architect shall review and approve, or recommend approval, of all forms required under the Contract Documents.
- 3.2.1.5 The Architect shall render decisions in connection with the Contractor's responsibilities under the Contract Documents, and submit recommendations to the County for enforcement of the Contract as necessary.
- 3.2.2 The Architect will be the initial interpreter of all requirements of the Contract Documents, pursuant to Paragraph 1.5.2. All decisions of the Architect shall be subject to final determination by the County.
- 3.2.3 The Architect shall be authorized to require special inspection, testing or approval of the Work, as provided in Paragraph 2.9, whenever in the Architect's reasonable opinion such action is necessary or advisable to insure the proper conformance to the Contract Documents.
- 3.2.4 Based upon the Architect's on-site observation and evaluation of the Contractor's Application for Payment, the Architect shall review and certify the amounts due the Contractor. The Architect may recommend to the County that payments be withheld from, or Liquidated Damages be assessed against, a Contractor's Applications for Payment, stating the reasons for such recommendation. The Architect's certification for payment shall constitute a representation that the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, the Work is in conformity with the Contract Documents and the Contractor is entitled to payment in the amount certified.
- 3.2.5 The Architect shall review and approve or take other appropriate action upon the Contractor's submittals, within the required time, for the purpose of checking for conformity with the Contract Documents.
- 3.2.6 The Architect shall prepare all Bulletins and Contract Modifications, including a cost estimate and supportive documentation and data, and shall verify with the County that funds are available for any change to the Work.
- 3.2.7 The Architect shall conduct inspections to determine the date of Contract Completion and shall receive, review and forward to the appropriate entity all Project record submittals required by the Contract Documents.
- 3.2.8 The Architect shall render written decisions, within the time specified, on all claims, disputes or other matters in question between the Contractor and the County and shall provide information or services to the County until final disposition of all claims. **ARTICLE 4**

4. CONSTRUCTION PHASE COORDINATION

4.1 RESPONSIBILITY OF CONTRACTORS

- 4.1.1 The Contractor shall afford other Contractors and such Contractor's Subcontractors and Material Suppliers reasonable opportunity for the introduction and storage of materials and execution of Work and shall properly connect and coordinate the Contractor's Work with the Work of other Contractors on the Project. The Contractor shall complete portions of the Work in such order and time as provided in the Construction Schedule.
- 4.1.2 The Contractor shall perform the Work so as not to interfere, disturb, hinder or delay the Work of other Contractors. The sole remedy which may be provided by the County for any injury, damage or expense resulting from interference, hindrance, disruption or delay caused by or between Contractors or their agents and employees shall be an extension of time in which to complete the Work. This provision is intended to be, and shall be construed as, consistent with, and not in conflict with, Section 4113.62, ORC.
- 4.1.2.1 Should the Contractor, or the Contractor's Subcontractors or Material Suppliers, cause damage or injury to the property or Work of any other Contractor, or by failure to perform the Work with due diligence, delay, interfere,

hinder or disrupt any Contractor who suffers additional expense or damage thereby, the responsible Contractor shall be responsible for such damage, injury or expense.

4.1.2.2 The intent of Paragraph 4.1.2.1 is to benefit the other Contractors on the Project and to demonstrate that each other Contractor who performs Work on the Project is third party beneficiary of the Contract.

4.1.2.3 Claims, disputes or actions between Contractors concerning such damage, injury or expense shall not delay completion of the Work which shall be continued by the parties to any such dispute, action or claim.

4.1.3 If any part of the Contractor's Work is preceded by the Work of another Contractor, the Contractor shall inspect such other Contractor's Work before commencing any Work, and report in writing to the Lead Contractor and the Architect any defects which render the other Contractor's preceding Work unsuitable as related to the Contractor's Work.

4.1.3.1 Failure of the Contractor to make such inspection and report in writing, as required by Paragraph 4.1.3, shall constitute an acceptance of the other Contractor's Work as fit and proper for the reception of the Contractor's Work, except as to latent defects which such inspection fails to disclose.

4.1.4 The Contractor shall supervise the Work in conformity with the coordination of the Lead Contractor and shall take orders and directions from the Lead Contractor and the Architect, to the extent appropriate.

4.1.5 The Contractor shall give reasonable notice to the Architect when the Architect's presence is required for special consultations, inspections or decisions.

4.1.6 If the Contractor fails to perform the Contract according to the requirements of the Contract Documents, such failure to perform may be just cause for the County to find the Contractor is not responsible for consideration of future contract awards. Other factors in determining whether a Bidder is responsible for future contract award include, but are not limited to, the experience of the Bidder, the financial condition of the Bidder, the facilities of the Bidder, the management skills of the Bidder and the ability of the Bidder to execute the contract properly.

4.1.7 The Contractor shall cooperate with the Architect and the Lead Contractor so as not to interfere, disturb, hinder or delay the work of the other Contractors or the responsibilities of the Architect and the Lead Contractor.

4.2 RESPONSIBILITY AND AUTHORITY OF THE LEAD CONTRACTOR

4.2.1 The Lead Contractor shall consult with the County's Project Representative to obtain full knowledge of all rules, regulations or requirements affecting the Project. The Lead Contractor shall establish the regular working hours, subject to approval by the Architect and the County.

4.2.2 The Lead Contractor shall coordinate the Work of all Contractors with each other and with the activities and responsibilities of the Architect and the County to complete the Project in accordance with the Contract Documents.

4.2.2.1 The Lead Contractor may direct the Work of the Contractors to seek adherence to the construction schedule.

4.2.2.2 In the event the Contractor fails to prosecute the Work in accordance with the Construction Schedule, the Lead Contractor may recommend that the Architect act as provided in Paragraph 5.3.

4.2.2.3 Coordination of the Work of the Contractors by the Lead Contractor shall not relieve the Contractor from the Contractor's duty to supervise and direct the Contractor's Work in accordance with the Contract Documents.

4.2.3 The Lead Contractor shall develop the Construction Schedule for the Project in accordance with Paragraph 4.3 and shall prepare and keep current, for the Architect's approval, a schedule of submittals which is coordinated with the Construction Schedule.

4.2.3.1 The Construction Schedule shall not exceed the time limit specified in the Notice to Proceed, shall provide for reasonable, efficient and economical execution of the Work and shall be related to the entire Project to the extent required by the Contract Documents.

4.2.3.2 The Construction Schedule shall be used to plan, organize and execute the Work, record and report actual performance and progress and show how the Lead Contractor plans to coordinate all remaining Work by Contract Completion.

4.2.4 The Lead Contractor shall monitor the progress of the Work for conformance with the Construction Schedule and shall initiate revisions of the Construction Schedule as required by the Contract Documents.

4.2.5 The Lead Contractor shall have the authority to approve the Contractor's Application for Payment and may recommend to the County that payments be withheld from, a Contractor's Application for Payment, stating the reasons for such recommendation.

4.2.6 In the event of default by any Contractor, the Lead Contractor shall cooperate with the Architect, the County and the defaulting Contractor's Surety to Contract Completion.

4.2.7 The Lead Contractor shall remove all snow and ice as may be required for access to the Project.

4.2.8 The Lead Contractor shall keep a daily log containing a record of weather, number of workers on site for each Contractor, identification of equipment, Work accomplished, problems encountered and other similar relevant data.

4.3 CONSTRUCTION SCHEDULE

4.3.1 The Lead Contractor shall prepare the Construction Schedule for the Project. When the cost estimate for the Project is \$100,000 or more, critical path scheduling methods shall be provided.

4.3.1.1 Within seven (7) days of the date of the Notice to Proceed, the Lead Contractor shall furnish to each Contractor a proposed schedule for the prosecution of the Work under the Lead Contractor's Contract.

4.3.1.2 The Contractor shall, within seven (7) days of receipt of the Lead Contractor's proposed schedule, prepare a proposed schedule to coordinate the Contractor's Work with the Work of the Lead Contractor and submit such proposed schedule to the Lead Contractor.

4.3.2 The Contractor shall cooperate with the Lead Contractor to prepare a Construction Schedule which shall include, without limitation, the following information.

4.3.2.1 A graphic presentation of the sequence of the Work for the Project which includes, without limitation, the Contractor's resource loading curve;

4.3.2.2 Shop Drawing review and approval, product procurement, fabrication, shop inspection, and delivery dates including lead times;

4.3.2.3 Each phase of the Work, including Punch List, Project close-out requirements, Contract Completion and occupancy;

4.3.2.4 Milestone dates that are required by the Contract Documents;

4.3.2.5 The critical path of the Work, if applicable;

4.3.2.6 Disruptions and shutdowns due to other operations, facilities and functions, if any;

4.3.2.7 The Contractor's signature.

4.3.3 The Lead Contractor shall submit to the Architect, within 30 days of the date of the Notice to Proceed, a proposed Construction Schedule signed by all Contractors.

4.3.3.1 Upon receipt of the proposed Construction Schedule, the Architect shall review and approve the Construction Schedule and submit a copy of the Construction Schedule and schedule of submittals to the County.

4.3.3.2 No payment will be made without a Construction Schedule approved by all the Contractors, the Architect and the County.

4.3.4 Unless otherwise specified by the Contract Documents, the Contractor shall, on a weekly basis, prepare and submit to the Lead Contractor a written report describing activities begun or finished during the preceding week, Work in progress, expected completion of the Work, a projection of all activities to be started or finished in the following two (2) weeks, including without limitation, the Contractor's resource loading curve associated with such Work and any other information requested by the Lead Contractor.

4.3.5 Unless otherwise specified in the Contract Documents, the Lead Contractor shall provide monthly progress reports the Architect and the County which shall include recommendations for adjusting the Construction Schedule to meet milestone completion and Contract Completion dates.

4.3.5.1 When it is apparent to the Lead Contractor or the Architect that critical path activities, scheduled milestone completion dates, or Contract Completion dates will not be met, the Lead Contractor, with the assistance of the Architect, shall submit to the Contractor, for review and approval, a plan to avoid or minimize any delay.

4.3.5.2 Such a plan may include, without limitation, increasing the Contractor's workforce in such quantities as will eliminate the backlog of Work; increasing the number of working hours per shift, shifts per workday, workdays per week, the amount of construction equipment, or any combination thereof; rescheduling of activities to achieve maximum practical concurrency of Work efforts.

4.3.6 Unless otherwise specified in the Contract Documents, the Lead Contractor shall update the Construction Schedule on a monthly basis and upon any approval of all Contractors in accordance with Subparagraph 4.3.5.1.

4.3.6.1 The updated Construction Schedule shall be signed by the Contractor which shall serve as an affirmation that the Contractor can meet the requirements of the updated Construction Schedule.

4.3.6.2 The updated Construction Schedule shall be submitted to the Architect who shall review and approve it and submit a copy to the County.

4.3.6.3 No payment will be made without an updated Construction Schedule approved by all the Contractors, the Architect and the County.

4.4 PARTNERING

4.4.1 This project will not require use of a partnering agreement.

4.5 PROGRESS MEETINGS

4.5.1 The Architect shall schedule a weekly progress meeting for all Contractors and other parties involved in the Project. The purpose of the progress meeting is to review progress in the Work during the previous week, discuss anticipated progress during the following weeks, and review critical operations and existing and potential problems.

4.5.2 The Contractor and the Architect shall be represented at every progress meeting by a person authorized with signature authority to make decisions regarding possible modification of the Contract Documents.

4.5.2.1 The Architect shall notify the Contractor of the time and place of the progress meeting which shall thereafter be the same day and hour of the week for the duration of the Project, unless the Architect shall notify the Contractor of a different day and hour at least two (2) days in advance.

4.5.2.2 The Contractor shall have any of the Contractor's Subcontractors and Material Suppliers attend the progress meeting as deemed advisable by the Contractor or as requested by the Architect.

4.5.3 The Architect shall prepare a written report of each progress meeting and distribute such report to the County and the Contractor. The Architect shall not delegate the duty to prepare a written report of each progress meeting.

4.5.3.1 If any person in attendance objects to anything in a report of a progress meeting, the person shall notify the County in writing explaining the objection and shall provide a copy of the notice to other persons as required by Paragraph 1.3.

4.5.3.2 The report of each progress meeting shall reflect any objection made to the report of the previous progress meeting and any response.

4.6 COORDINATION MEETINGS

4.6.1 Unless otherwise specified in the Contract Documents, the Lead Contractor shall schedule a weekly coordination meeting for all Contractors and appropriate Subcontractors and Material Suppliers.

- 4.6.1.1 The purpose of the coordination meeting is to establish the exact location of each piece of equipment, pipe, duct, conduit, or other component of the Project; to discuss the sequence of construction consistent with the Construction Schedule, and to appropriately share available construction and storage space.
- 4.6.1.2 Unless otherwise specified in the Contract Documents, the Lead Contractor shall prepare a written report of each coordination meeting and distribute the report to the Architect and the Contractors. The Lead Contractor shall not delegate the duty to prepare a written report of each coordination meeting.
- 4.6.2 Unless otherwise specified in the Contract Documents, the HVAC Contractor shall prepare one-fourth inch equals one foot scale drawings of all sheet metal work with plan and elevation dimensions to specifically locate all duct work, equipment and HVAC pipe work, either on the same or separate drawings.
- 4.6.2.1 The HVAC Contractor will provide the drawings to the other Contractors for use in preparing drawings of the Contractor's Work, to specifically locate equipment, piping, conduit and other Work.
- 4.6.2.2 The Contractor shall resubmit the drawings to the HVAC Contractor showing the location of the Contractor's equipment, piping, conduit, and other Work for preparation of detailed coordination drawings by the HVAC Contractor.
- 4.6.3 The Contractor shall be represented at every coordination meeting by a person authorized with signature authority to make decisions regarding possible modification of the Contract Documents. The Contractor shall have any of the Contractor's Subcontractors and Material Suppliers attend the coordination meeting as deemed advisable by the Contractor or as requested by the Lead Contractor.

ARTICLE 5

5. COUNTY'S RIGHTS AND RESPONSIBILITIES

5.1 PUBLIC FACILITIES MANAGEMENT

- 5.1.1 Public Facilities Management serves as the authorized contracting agent for the Lucas County Board of Commissioners on permanent improvement Projects.
- 5.1.2 Public Facilities Management shall act on behalf of the County and shall competitively bid, execute and administer construction contracts for the County, in compliance with applicable federal, state and local statutes, ordinances, codes and regulations.
- 5.1.3 Information and services required of the County shall be furnished in good faith and in a timely manner to avoid delay in the progress of the Project.
- 5.1.4 The County's officers, agents, employees and consultants shall at all times have access to the Work whenever the Project is in preparation or progress.
- 5.1.5 Upon the issuance of the Notice to Proceed or at a reasonable time thereafter, the County shall provide the Contractor the Project site in such condition to permit the Contractor to perform the Work.
- 5.1.6 The County may request any change in the Work.
- 5.1.7 The County may send directions to the Contractor through the Architect or the Project Representative.
- 5.1.8 The foregoing are in addition to other rights and responsibilities of the County enumerated herein and especially those in respect to the County's right to prosecute the Work, approve payments and accept the Project.

5.2 PROJECT REPRESENTATIVE

- 5.2.1 The County shall designate a Project Representative authorized to act on the behalf of the County with respect to decisions required by the County during the Project.
- 5.2.2 The Project Representative shall at all times have access to the Work whenever the Project is in preparation or progress.

5.3 COUNTY'S RIGHT TO PROSECUTE WORK AND BACKCHARGE CONTRACTOR

5.3.1 If the Contractor fails or neglects to prosecute the Work with the necessary diligence so as to complete the Work within the time specified in the Contract Documents or any portion of the Work by the applicable milestone date as set forth in the Construction Schedule, the Architect shall notify the Contractor in writing of such failure or neglect.

5.3.2 If the Contractor fails or refuses to cure such failure or neglect within three (3) working days after receipt of the written notice, the Architect shall recommend enforcement of the Contract to the County pursuant to Paragraph 3.2.1.5. without prejudice to any other remedy the County may have, the County may employ upon the Work the additional force, or supply the materials or such part of either as is appropriate, to correct the deficiency in the Contractor's Work.

5.3.2.1 In such case, a Contract Modification shall be issued deducting from payments then or thereafter due the Contractor the costs of correcting such deficiency.

5.3.2.2 If the payments then or thereafter due the Contractor are not sufficient to cover such costs, the Contractor and the Contractor's Surety shall pay the amount of the insufficiency to the County.

5.3.2.3 The decision of the County to backcharge the Contractor shall be final.

5.4 COUNTY'S RIGHT TO PARTIAL OCCUPANCY

5.4.1 If the County finds it necessary to occupy or use a portion of the Project prior to Contract Completion, such occupancy or use may be accomplished if the Architect informs the County that the area in question has been approved for temporary occupancy by the local permitting authority.

5.4.2 If such Partial Occupancy or use is approved by the County, the Architect will process a Certificate of Substantial Completion and Punch List listing the deficient Work under the Contract, provided that no such occupancy or use shall commence before any insurers providing property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby.

5.4.3 From the date of execution of the Certificate of Substantial Completion by the County, the Contractor shall be relieved of obligation to maintain the accepted portion of the Work, but shall remain obligated to correct any Punch List items then uncorrected. The Contractor shall continue to carry the appropriate insurance during performance of any Punch List Work.

5.4.4 Partial Occupancy or use of the premises by the County shall not constitute acceptance of any Work not in conformity with the Contract Documents. Partial occupancy shall not relieve the Contractor of liability for any express or implied warranties or responsibility for Defective Work.

5.4.5 Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld.

ARTICLE 6

6. TIME

6.1 TIME OF ESSENCE

6.1.1 Time is of the essence to the Contract Documents and all obligations thereunder. By executing the Contract, the Contractor acknowledges that the time for Contract Completion and any specified milestone completion dates are reasonable, taking into consideration the average climatic range and usual conditions prevailing in the locality of the Project.

6.1.1.1 The Contractor agrees that the Notice to Proceed shall establish the date for commencement of the Work.

6.1.1.2 The Contractor agrees that the County has entered into, or may enter into, agreements for use of all or part of the premises where the Work is to be completed based upon the Contractor achieving Contract Completion within the Contract time.

- 6.1.1.3 The Contractor agrees that the Work will be prosecuted in a reasonable, efficient and economical sequence, in cooperation with the other Contractors and in the order and time as provided in the Construction Schedule.
- 6.1.1.4 The Contractor shall perform the Work so as not to interfere, disturb, hinder or delay the Work of other Contractors and such other Contractors' Subcontractors and Material Suppliers.
- 6.1.1.5 The Contractor agrees that the possibility that the Contractor may be subject to interference, disruption, hindrance or delay in the progress of the Work from any and all causes is within the contemplation of the parties and that the sole remedy for such interference, disruption, hindrance or delay shall be an extension of time granted pursuant to Paragraphs 6.2 except as otherwise required by section 4113.62, ORC.

6.2 EXTENSIONS

6.2.1 If the Contractor is interfered with, disrupted, hindered or delayed at any time in the progress of the Work by any of the following causes, the Contract time shall be extended for such reasonable time which the County determines, in consultation with the Architect, has been caused by the interference, disruption, hindrance or delay in the Work:

- 6.2.1.1 Delay due to suspension of the Work for which the Contractor is not responsible; inclement weather conditions not normally prevailing in the particular season; labor dispute; fire; flood;
- 6.2.1.2 Neglect, delay or fault of any Contractor having a Contract for adjoining or contiguous Work; or
- 6.2.1.3 By any unforeseeable cause beyond the control and without fault or negligence of the Contractor.

6.3 SOLE REMEDY

6.3.1 To the fullest extent permitted by law, any extension of time granted pursuant to Paragraph 6.2 shall be the sole remedy which may be provided by the County and the Contractor shall not be entitled to additional compensation or mitigation of Liquidated Damages for any delay listed in Paragraph 6.2, including, without limitation, costs of acceleration, consequential damages, loss of efficiency, loss of productivity, lost opportunity costs, impact damages, lost profits or other similar remuneration.

6.3.2 The Contractor agrees that the possibility that the Contractor may accelerate its performance to meet the construction schedule is within the contemplation of the parties and that such acceleration is solely within the discretion of the Contractor. This provision is intended to be, and shall be construed as, consistent with, and not in conflict with, section 4113.62, ORC.

6.4 REQUEST FOR EXTENSION

6.4.1 Any request by the Contractor for an extension of time shall be made in writing to the Architect no more than ten (10) days after the initial occurrence of any condition which, in the Contractor's opinion, entitles the Contractor to an extension of time. Failure to timely provide such notice to the Architect shall constitute a waiver by the Contractor of any claim for extension, damages or mitigation of Liquidated Damages, to the fullest extent permitted by law.

6.4.2 The Contractor shall notify the Architect in writing providing the following information.

- 6.4.2.1 Nature of the interference, disruption, hindrance or delay;
- 6.4.2.2 Identification of persons, entities and events responsible for the interference, disruption, hindrance or delay;
- 6.4.2.3 Date (or anticipated date) of commencement of the interference, disruption, hindrance or delay;
- 6.4.2.4 Activities on the Construction Schedule which may be affected by the interference, disruption, hindrance or delay, or new activities created by the interference, disruption, hindrance or delay and the relationship with existing activities;
- 6.4.2.5 Anticipated duration of the interference, disruption, hindrance or delay;
- 6.4.2.6 Specific number of days of extension requested; and
- 6.4.2.7 Recommended action to avoid or minimize any future interference, disruption, hindrance or delay.

6.5 EVALUATION OF REQUEST

6.5.1 Within ten (10) days of receipt of the Contractor's request, the Architect shall evaluate the facts and extent of any interference, disruption, hindrance or delay to the Work, consult with the County about the request and respond in writing to the Contractor.

6.5.1.1 The Contract Completion time may only be extended by execution of an appropriate Contract Modification.

6.5.1.2 The Lead Contractor shall make any necessary change in the Construction Schedule.

6.6 CRITICAL PATH

6.6.1 Notwithstanding any other provision of the Contract Documents, time extensions will depend upon the extent to which the Work on the Critical Path of the Construction Schedule is affected, if applicable.

6.6.2 A Contract Modification granting a time extension may provide that the Contract Completion date will be extended for only those specific elements so interfered, disrupted, hindered or delayed and that remaining milestone completion dates will not be altered and may further provide for equitable adjustment of Liquidated Damages.

ARTICLE 7

7. CHANGES IN THE WORK

7.1 CHANGE ORDER

7.1.1 The County, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. To the extent the Contract time or Contract price are affected, the Contract will be equitably adjusted by Contract Modification in accordance with this Article and the Contract Modification Procedure and Pricing Guidelines (CO).

7.1.1.1 The Contractor shall proportionately increase the amount of the Bond whenever the Contract price is increased.

7.1.1.2 If notice of any change affecting the Contract is required by the provision of any Bond, the giving of any such notice shall be the Contractor's responsibility, and the amount of each applicable Bond shall be adjusted accordingly.

7.1.2 The Contractor shall not proceed with any change in the Work without the required written authorization. If the Contractor believes that any item is not work required by the Contract Documents, the Contractor shall obtain a Contract Modification before proceeding with such item. Except as provided in Article 8, failure to obtain such a Contract Modification shall constitute a waiver by the Contractor of any claim for additional compensation for such item.

7.1.3 The County reserves the right to cancel or modify any Contract Modification authorization.

7.2 PRICE DETERMINATION

7.2.1 The cost or credit resulting from a change in the Work shall be determined in accordance with the Contract Modification Procedure and Pricing Guidelines.

7.2.1.1 Lump sum Proposals will not be considered or accepted under any circumstances.

7.2.1.2 A Unit Price Proposal shall only be valid when incorporated into the Contract by Contract Modification.

7.2.2 The Contractor shall not assign any portion of the Work to another wherein the Contractor would benefit directly or indirectly from the double application of charges for overhead or profit.

7.2.3 In the event that no agreement can be reached as to the cost or credit resulting from a change in the Work, said cost or credit shall be determined by the County, upon the recommendation of the Architect.

7.2.3.1 The Contractor shall proceed with the Contract Modification Work when so directed by the County.

7.2.3.2 The Contractor may dispute the County's determination by filing a claim in accordance with Article 8.

7.2.4 The County reserves the right to require notarized invoices for material costs and reserves the right to audit the records of the Contractor and the Contractor's Subcontractors and Material Suppliers.

7.3 DIFFERING SITE CONDITIONS

7.3.1 Unless otherwise specified in the Contract Documents, borings, test excavations and other subsurface information, if any, are incomplete, are not a part of the Contract Documents, and are not warranted to show the actual subsurface conditions and may not be relied upon by the Contractor. Such matters are provided solely to share information available to the County and any use of them by the Contractor is at the risk of the Contractor.

7.3.2 Should the Contractor encounter, during the progress of the Work, concealed physical conditions at the Project, differing materially from those upon which the Contract Documents permit the Contractor to rely and differing materially from those ordinarily encountered and generally recognized as inherent in the Work of the character provided for in the contract, the Contractor shall notify the Architect in writing of such conditions, before they are disturbed.

7.3.3 The County, in consultation with the Architect, will promptly investigate the conditions and if the County finds that such conditions do materially differ from those upon which the Contract Documents permit the Contractor to rely, or differ materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract, causing an increase or decrease in the cost of the Contract, an appropriate Contract Modification shall be processed.

7.3.3.1 The Contractor will only proceed with a proper authorization, in writing, as provided by the Contract Documents.

7.3.3.2 No claim of the Contractor under Paragraph 7.3.3 shall be allowed unless the Contractor provided the notice required in Paragraph 7.3.2.

7.4 TIME EXTENSION

7.4.1 Notwithstanding any other provision of the Contract Documents, time extensions for changes in the Work will depend upon the extent to which the change causes delay in Work on the Critical Path of the Construction Schedule, if applicable, as determined pursuant to Paragraph 6.4 to 6.5.

7.4.2 If the circumstances are that extending the Contract Completion date is not possible, the Contractor shall price all costs of accelerated performance in the Contractor's Proposal.

7.4.3 A Contract Modification granting a time extension may provide that the Contract Completion date will be extended for only those specific elements so delayed and that remaining milestone completion dates will not be altered and may further provide for adjustment of Liquidated Damages.

ARTICLE 8

8. DISPUTE RESOLUTION PROCEDURE

8.1 FILING OF CLAIM

8.1.1 Any claim against the County shall be made in writing to the Architect and filed prior to Contract Completion, provided the Contractor notified the Architect no more than ten (10) days after the initial occurrence of the facts which are the basis of the claim. Failure of the Contractor to timely provide such notice shall constitute a waiver by the Contractor of any claim for additional compensation or for mitigation of Liquidated Damages.

8.1.2 In every such written claim submitted in accordance with Paragraph 8.1, the Contractor shall provide the following information.

8.1.2.1 Amount of the claim, which the Contractor shall certify before a Notary Public is a fair and accurate assessment of the damages suffered by the Contractor;

- 8.1.2.2 Identification of persons, entities and events responsible for the claim;
- 8.1.2.3 Activities on the Construction Schedule affected by the claim or new activities created by any event and the relationship with existing activities;
- 8.1.2.4 Anticipated duration of any interference, disruption, hindrance or delay; and
- 8.1.2.5 Recommended action to avoid or minimize any future interference, disruption, hindrance or delay.

8.2 INITIAL RESPONSE

8.2.1 The Architect shall, within 30 days of receipt of a claim filed pursuant to Paragraph 8.1, render a decision on the claim unless a mutual agreement is made to extend such time limit.

8.3 FIELD LEVEL REVIEW

8.3.1 The Contractor may appeal the decision of the Architect by providing written notice to the Project Representative within 30 days of the date of the Architect's decision.

8.3.2 The Project Representative shall, within 30 days of receipt of the notice, schedule a meeting in an effort to resolve the claim, unless a mutual agreement is made to extend such time limit. The meeting scheduled by the Project Representative shall be attended by persons expressly and fully authorized to resolve the dispute on behalf of the parties.

8.4 FINAL ADMINISTRATIVE DECISION

8.4.1 If the efforts of the Project Representative do not lead to resolution of the claim, the Contractor may appeal to the Director of Public Facilities Management in writing.

8.4.2 The Director shall, within 30 days of receipt of the notice, render a decision or schedule a meeting, unless a mutual agreement is made to extend such time limit. The purpose of the meeting shall be to settle the issues in dispute.

8.4.2.1 The Director shall, within 60 days of any meeting scheduled pursuant to Paragraph 8.3, render a decision on the claim, unless a mutual agreement is made to extend such time limit.

8.4.2.2 The decision of Director shall be the final and conclusive decision of the County.

8.5 ALTERNATIVE DISPUTE RESOLUTION

8.5.1 If, upon consideration of a claim, the County recommends, and the parties mutually agree, the dispute resolution procedure provided in this Article may be waived, or the claim may be referred to a form of Alternative Dispute Resolution, including a procedure to equitably share the costs of the Alternative Dispute Resolution.

8.6 PERFORMANCE AND PAYMENT

8.6.1 The Contractor shall proceed with performance of the Work during any dispute resolution process, unless otherwise agreed by the Contractor and the County in writing.

8.6.2 The County shall continue to make payment in accordance with the Contract Documents pending final resolution of a claim.

ARTICLE 9

9. CONTRACTOR PAYMENT

9.1 CONTRACT COST BREAKDOWN

9.1.1 Pursuant to Section 153.12, ORC, the Contractor shall submit to the Architect a full, accurate and detailed estimate (the "Contract Cost Breakdown") of the various kinds of labor to be performed and material to be furnished, with separate amounts shown for labor and materials for each branch of Work, following the preferred titles and sequences of Sections of Construction Specifications Institute (CSI) format used by the Architect in developing the Specifications.

9.1.2 The grand total shown on the Contract Cost Breakdown must equal the total Contract price. The County reserves the right to use the approved Contract Cost Breakdown to determine the cost or credit to the County resulting from any change in the Work.

9.1.3 The following items shall be included in the Contractor's Contract Cost Breakdown:

9.1.3.1 Bond, Insurance, Permits and Tests. These items shall be listed at their actual cost.

9.1.3.2 Cleanup. This item shall not be less than 2% of the Contract price.

9.1.3.3 Safety. This item shall not be less than 3% of the value of the labor for this Contract.

9.1.3.4 Closeout. This item shall not be less than 5% of the Contract price.

9.1.3.5 Shop Drawings and Submittals. This item shall be 5% of the Contract price or \$50,000, at the discretion of the County. Payment of this line item shall be made only after completion of all shop drawings and submittals.

9.1.4 The amounts for labor and material shall accurately reflect the cost for each item. Separate items shall not be shown for overhead or profit, but shall be included in the totals for labor and materials.

9.1.5 Whenever the material allocation exceeds 55 percent of the Contract price, the Contractor shall provide, upon request, sufficient information to support such higher percentage.

9.1.6 Subcontract Work shall show amounts for labor and materials. Fringe benefits shall be shown as a part of labor costs.

9.1.7 When more than one (1) major structure is included in the Contract, the Contract Cost Breakdown shall be subdivided accordingly if requested by the Architect, with cost details for each structure shown separately.

9.1.8 Unless otherwise specified in the Contract Documents, mechanical and electrical Contractors shall include separate line items for all major pieces of equipment, and group smaller equipment items by type.

9.1.9 The Contract Cost Breakdown will be returned to the Contractor for resubmittal if it does not meet the requirements or contains insufficient items or details of the Work.

9.1.10 No payment will be made without an approved Contract Cost Breakdown.

9.2 APPLICATION FOR PAYMENT

9.2.1 The Contractor shall submit monthly to the Architect an itemized Application for Payment for Work performed based upon the Contract Cost Breakdown.

9.2.1.1 The Application for Payment shall be supported by data substantiating the Contractor's right to payment. The Contractor shall supply such additional documentation as the Architect may request in connection with each payment to the Contractor.

9.2.1.2 Certified payroll reports for the period of time indicated shall be attached to one (1) copy of every Application for Payment, see also Paragraph 18.2.

9.2.1.3 The Contractor shall list on the Application for Payment any approved Contract Modifications processed and performed during the time covered by the Application for Payment.

9.2.2 The Application for Payment shall include the following information:

9.2.2.1 Name and address of bidder.

9.2.2.2 Billing period.

9.2.2.3 Project location.

9.2.2.4 Purchase Order or Contract Number.

9.2.3 The County reserves the right to require proof of the renewal of required insurance as a condition precedent to payment.

9.2.4 The amount of Liquidated Damages to which the County is entitled under the Contract Documents may be deducted from any Application for Payment.

9.3 LABOR PAYMENTS

9.3.1 Partial payments to the Contractor for labor performed under either a Unit Price or lump sum Contract shall be made at the rate of 92 percent of the amount invoiced through the Application for Payment which shows the total Contract Completion at 50 percent or greater, pursuant to Section 153.13, ORC.

9.3.2 After the contract is 50 percent complete, as evidenced by payments in the amount of at least 50 percent of the Contract price to the Contractor, except in the case of Contracts the total of which is less than \$15,000, no additional funds shall be retained from payments for labor.

9.4 MATERIAL PAYMENTS

9.4.1 The County shall pay to the Contractor a sum at the rate of 92 percent of the invoice cost, not to exceed the bid amount in a Unit Price or lump sum Contract, for material delivered on the site of the Project, or other point in the vicinity of the Project, or other storage site approved by the Architect, provided the Contractor provides the following information with the Application for Payment:

9.4.1.1 A list of the fabricated materials consigned to the Project, giving the place of storage, together with copies of invoices, in order to verify quantity and cost.

9.4.1.2 A certification of materials stored off site, prepared by the Contractor and signed by the Architect to evidence that the materials are in conformity with the Specifications and have been tagged with the Project name and number for delivery to the Project. All costs incurred by the Architect to visit a storage site, other than the areas adjacent to the Project, shall be paid by the Contractor.

9.4.2 The balance of such invoiced cost shall be paid when such material is incorporated into and becomes a part of the Project.

9.4.3 When payment is allowed on account of material delivered on the site of the Project or in the vicinity thereof or under the possession and control of the Contractor but not yet incorporated therein, such material shall become the property of the County, but if such material is stolen, destroyed, or damaged by casualty before being used, the Contractor will be required to replace it at the Contractor's expense, pursuant to Section 153.14, ORC.

9.4.4 Completed line items concealed, underground and buried and not subject to final Punch List may be paid for at the rate of 100 percent. Completed line items subject to a final Punch List requiring testing or start-up shall be paid at the rate of 95 percent.

9.5 RETAINAGE

9.5.1 When the major portion of the Project is occupied or in use, and there exists no other reason to withhold retainage, the retained percentages held in connection with such portion shall, upon request of the Contractor, be released and paid to the Contractor, withholding only that amount necessary to assure completion, in the discretion of the County.

9.5.1.1 Any reduction or release of retainage, or portion thereof, shall not be a waiver of the County's right to retainage in connection with other payments to the Contractor, or any other right or remedy the County has under the Contract Documents at law or in equity.

9.5.1.2 Funds not previously paid shall be released to the Contractor within 30 days of approval of a final pay request by the County and execution of the Certificate of Contract Completion by the County.

9.5.2 Upon consent by the Contractor's Surety, the County may reduce the amount of funds retained for the faithful performance of Work by 50 percent of the amount of funds required to be retained, provided the Contractor's Surety remains responsible for all damages that may be caused due to default by the Contractor, including without limitation, the following:

9.5.2.1 Completion of the Work;

9.5.2.2 All interference, disruption, hindrance and delay claims;

9.5.2.3 All Liquidated Damages; and

9.5.2.4 All additional expenses incurred by the County.

9.6 PAYMENTS WITHHELD

9.6.1 The Architect and the Lead Contractor shall have the authority to recommend to the County that payments be withheld from, or Liquidated Damages be assessed against, a Contractor's Application for Payment, stating the reasons for such recommendation.

9.6.2 The County reserves the right to decline to approve any Application for Payment or part thereof, or because of subsequent evidence or inspection, may nullify any previous Application for Payment, in whole or in part, to such extent as may be necessary in the County's opinion to protect the County from loss because of:

9.6.2.1 Defective Work not remedied;

9.6.2.2 Damage caused by the Contractor;

9.6.2.3 Failure to comply with the requirements of Chapter 4115, ORC, "Wages and Hours on Public Works."

9.6.3 If the basis for withholding payment pursuant to Paragraph 9.6.2 is removed, payment shall be made for amounts withheld because of them.

9.6.4 Whenever the County receives a Claim Affidavit, the County shall detain the stated amount from the Contractor's subsequent Application for Payment unless the Contractor provides a release and waiver of lien with the Application for Payment.

9.6.4.1 The release and waiver of lien shall be executed by the person or entity supplying labor, materials or services on a Project, which has or may have a right of lien against the Contractor's proceeds.

9.6.4.2 If the County detains an amount as set forth above, such action shall not be construed as conferring any right on such Subcontractor or Material Supplier, nor as enlarging or altering the application or effect of the existing lien law.

9.7 FINAL APPLICATION FOR PAYMENT

9.7.1 The Contractor, as a condition precedent to execution of the Certificate of Contract Completion and to final payment, shall provide all documents required pursuant to Paragraph 11.1.1 for approval by the Architect.

9.7.1.1 The Contractor shall execute an affidavit to certify that the Contractor has complied with all requirements of Chapter 4115, ORC, "Wages and Hours on Public Works."

9.7.1.2 The Contractor shall execute an affidavit to certify that all Subcontractors and Material Suppliers have been paid in full for all Work performed or materials furnished for the Project.

9.7.2 Payment of the final Application for Payment shall be made within 30 days from the date of approval by the County.

9.7.2.1 The inability of a Contractor to complete Project close-out requirements within the time specified by the Architect shall not be grounds for withholding final payment to another Contractor.

9.7.3 The making of final payment by the County shall constitute a waiver of all claims by the County except those arising after Contract Completion, including, without limitation, the following:

9.7.3.1 Defective or nonconforming Work resulting from latent defects, fraud or gross mistakes;

9.7.3.2 Outstanding liens;

9.7.3.3 Failure of the Contractor to comply with any Warranties required by the Contract Documents.

9.7.4 The acceptance of final payment by the Contractor shall constitute a waiver of all claims against the County except those that the Contractor has previously made in writing and which remain unsettled at the time of final payment. This provision is intended to be, and shall be construed as, consistent with, and not in conflict with, Section 4113.62, ORC.

ARTICLE 10

10. FINAL INSPECTION AND ACCEPTANCE

10.1 CONTRACTOR'S PUNCH LIST

10.1.1 When the Work is near completion, the Contractor shall prepare a list of all deficient items remaining on the Work. Said list shall be known as the Contractor's Punch List.

10.1.1.1 The Contractor shall proceed to correct all items listed on the Contractor's Punch List and verify that the deficient items have been corrected by signing said Punch List.

10.1.1.2 The Contractor shall submit the signed Contractor's Punch list to the Architect, together with a request for a Final Inspection of the Work.

10.2 ARCHITECT'S PUNCH LIST

10.2.1 The Architect shall, within seven (7) days of receipt of the request for Final Inspection, notify the Contractor of acceptance or rejection of the request for Final Inspection, stating reasons for any rejection.

10.2.1.1 Upon acceptance of the Contractor's request, the Architect shall conduct the Final Inspection to determine whether the Work is in conformity with the Contract Documents. The Architect shall notify the Contractor and the County of the scheduled time of the Final Inspection.

10.2.1.2 Within three (3) days of the Final Inspection, the Architect shall notify the Contractor of any items remaining in a deficient or unacceptable condition. The list of such items shall be known as the Architect's Punch List.

10.3 SUBSTANTIAL COMPLETION

10.3.1 Following Final Inspection, if the Work or designated portion thereof is substantially complete to the satisfaction of the Architect and the County, and the County finds it necessary to occupy or use a portion of the Project prior to Contract Completion, the Architect will prepare a Certificate of Substantial Completion.

10.3.2 The Certificate of Substantial Completion shall establish the date of Substantial Completion and shall establish responsibilities of the County and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance.

10.3.3 The Certificate of Substantial Completion shall be submitted to the County and Contractor for their written acceptance of responsibilities assigned to them in such Certificate.

10.3.4 Upon such acceptance and consent of surety, if any, the County shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

10.4 CORRECTION OF PUNCH LIST ITEMS

10.4.1 Within 30 days of receipt of the notice required by Paragraph 10.2.1.2, the Contractor shall complete and correct all items remaining on the Architect's Punch List.

10.4.1.1 If the Contractor does not complete the items on the Architect's Punch List within 30 days of receipt of the notice, the provisions of Paragraph 5.3 shall be invoked.

10.4.1.2 If the Work on the Architect's Punch List cannot be completed within 30 days of receipt of the notice, the Contractor shall justify to the reasonable satisfaction of the County the reasons the items cannot be so completed, and the Contractor, the County and the Architect shall agree upon a time when such items will be completed.

10.4.1.3 Failure of the Architect to include any items on the Architect's Punch List shall not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents.

10.5 CERTIFICATE OF CONTRACT COMPLETION

10.5.1 When all items on the Architect's Punch List items have been corrected to the satisfaction of the Architect and the provisions of Paragraphs 11.1 through 11.4 have been fulfilled, the Architect shall process a Certificate of Contract Completion. The County reserves the right of Final Acceptance of the Project.

10.6 DEFERRED ITEMS

10.6.1 With the approval of the Architect, when upon Final Inspection, items of Work cannot be completed because of seasonal condition, such as bituminous paving or landscaping, or if the County agrees that a particular item need not be completed until a subsequent date, the County may release payment to the Contractor less twice the cost of completing the remaining Work as determined in the sole discretion of the County.

ARTICLE 11

11. CONTRACT COMPLETION

11.1 PROJECT RECORD DOCUMENT SUBMITTALS

11.1.1 The Contractor, as a condition precedent to execution of the Certificate of Contract Completion, release of retainage and final payment, shall provide all Project record documents to the Architect for approval, which may include, without limitation:

11.1.1.1 Certificate of Occupancy issued by the appropriate permitting authority;

11.1.1.2 Inspection Certificates required and issued by the appropriate permitting authority, such as Pressure Piping, Elevator, Boiler, Electrical, etc.;

11.1.1.3 Inspection Certificates required and issued by the appropriate permitting authority such as Plumbing or Piping Purification, etc.;

11.1.1.4 Letter of Approval from the appropriate permitting authority for fire suppression system;

11.1.1.5 Operating and Maintenance Manuals, which shall be organized into suitable sets of manageable size. Indexed data shall be bound in individual binders, with pocket folders for folded sheet information and appropriate identification shall be marked on the front and the spine of each binder;

11.1.1.6 Neatly and accurately marked sets of As-Built Drawings and other Contract Documents reflecting the actual construction of the Project;

11.1.1.7 Reproducible detailed Drawings reflecting the exact location of any concealed utilities, mechanical or electrical systems and components;

- 11.1.1.8 Assignment to the County of all Warranties and Guarantees, including the most recent address and telephone number of any Subcontractors, Material Suppliers, or manufacturers;
- 11.1.1.9 An affidavit to certify that all Subcontractors and Material Suppliers have been paid in full for all Work performed or materials furnished for the Project;
- 11.1.1.10 Final certified payroll reports;
- 11.1.1.11 An affidavit to certify that the Contractor has complied with all requirements of Chapter 4115, ORC, "Wages and Hours on Public Works."

11.2 RECORD DRAWINGS

- 11.2.1 Upon completion of the Work, the Contractor shall organize the As-Built Drawings into manageable sets, bind the sets with durable paper cover sheets, certify to the accuracy of the As-Built Drawings by signature thereon, and deliver the As-Built Drawings to the Architect.
- 11.2.2 The Architect shall revise the original contract Drawing tracings or computer files with the information contained on the As-Built Drawings provided by the Contractor. The revised original contract Drawing tracings or computer files shall be labeled "Drawings of Record" and reflect the date of the Architect's revision of the As-Built Drawings. These drawings and files shall be provided to the County in electronic format.
- 11.2.3 The County may thereafter use the Record Drawings for any purpose relating to the Project including, without limitation, additions to or completion of the Project.

11.3 GUARANTEE AND WARRANTY

- 11.3.1 The Contractor shall provide a Guarantee to the County that all Work is in conformity with the Contract Documents and free from defects in workmanship, materials and equipment for a period of one (1) year or such longer period as specified in the Contract Documents. The bond shall remain in effect until the expiration of that period unless the Contractor shall provide a Maintenance Bond satisfactory to the County in form and substance.
 - 11.3.1.1 The Guarantee time period shall commence on the date of approval of the Certificate of Contract Completion by the County, unless otherwise provided in writing.
 - 11.3.1.2 The Guarantee time period for any incomplete or uncorrected Work at the time of Partial Occupancy, if any, shall commence with the date of approval of the Certificate of Contract Completion by the County, unless otherwise provided in writing.
 - 11.3.1.3 The Guarantee provided in this Article shall be in addition to, and not in limitation of, any other Guarantee, Warranty or remedy provided by law or by the Contract Documents.
- 11.3.2 The Contractor shall, prior to installing material or equipment which is subject to a Warranty, provide a copy of the Warranty to the Architect for review and approval.
- 11.3.3 Should defects in the material or equipment become apparent within the Warranty period, the County shall promptly notify the Contractor in writing and provide a copy of said notice to the Architect.
 - 11.3.3.1 Within ten (10) days of receipt of said notice, the Contractor shall visit the Project in the company of the County to determine the extent of all defects and shall promptly repair or replace the Defective Work, including all adjacent Work damaged as a result of such defects or as a result of remedying the defects, whether or not such adjacent Work was originally provided by the Contractor.
 - 11.3.3.2 If the Defective Work is considered by the County to be an emergency, the County may require the Contractor to visit the Project within one (1) day of receipt of said notice.
 - 11.3.3.3 The Contractor shall be fully responsible for the cost of temporary materials or equipment required during the repair or replacement of the Defective Work.
- 11.3.4 If the Contractor does not promptly repair or replace Defective Work, the County may repair or replace such Defective Work and charge the cost thereof to the Contractor or the Contractor's Surety.

11.3.5 Work which is repaired or replaced by the Contractor shall be inspected and accepted by the County and shall be guaranteed by the Contractor for one (1) year from the date of acceptance of the corrective Work by the County.

11.4 FINAL CLEANING

11.4.1 At the completion of the Work, the Contractor shall restore all property not designated for alteration by the Contract Documents to as near its original condition as practicable and clean the site of all waste materials and rubbish attributable to the Work, including without limitation:

11.4.1.1 Clean transparent materials, including mirrors and glass in doors and windows, leaving both sides of the glass in a polished condition;

11.4.1.2 Replace chipped, scratched or broken glass or other damaged transparent materials;

11.4.1.3 Remove excess glazing or caulking compound, and other substances that are noticeable vision-obscuring materials;

11.4.1.4 Remove labels that are not permanent, remove marks, stains and soiled spots from finished surfaces;

11.4.1.5 Remove dust, dirt, marks, stains, paint droppings and other blemishes and leave in polished condition all equipment and material with exposed finished surfaces, including, without limitation, ceilings, walls, doors, counter tops, piping, ductwork, air inlet and outlet devices, hangers and supports, unit ventilators, aluminum or stainless steel trim and finish hardware;

11.4.1.6 Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances;

11.4.1.7 Vacuum carpeted surfaces, damp mop all hard floors, sweep paved areas broom clean, rake grounds that are neither paved nor planted to a smooth even-textured surface, and broom clean and damp mop concrete floors;

11.4.1.8 Clean washable air filters or replace all air filters at the Project;

11.4.1.9 Remove all waste materials and rubbish from any roof surface and clean any roof drains;

11.4.1.10 Remove any temporary controls required pursuant to the storm water pollution prevention plan and permit.

11.4.2 At the completion of the Project, the electrical Contractor shall clean all light fixtures, which includes, without limitation, removing bugs, debris, stains, rust and dirt, and replacing any burned out or substantially diminished light bulbs.

11.4.3 Unless otherwise specified in the Contract Documents, the Contractor shall strip, apply one (1) seal coat, two (2) finish coats of wax and shall polish all resilient flooring, except waxless floors.

11.4.4 Should any Work be performed after a final cleaning by the Contractor, the Contractor responsible for such Work shall clean any affected area again as provided above so that upon Contract Completion, the premises shall be left ready for occupancy by the County.

11.4.5 Final cleaning shall be done to the reasonable satisfaction of the Architect and the County.

11.4.5.1 If the Contractor fails to clean up at completion of the Work, the provision of Paragraph 5.3 shall be invoked.

11.4.5.2 If a dispute arises among Contractors as to responsibility for final cleaning, the Architect may authorize another Contractor, or engage a qualified cleaning company, to perform the clean up and deduct the cost from amounts due to those Contractors responsible as the Architect recommends and the County determines to be appropriate. The decision of the County on the responsibility for such cost shall be final.

ARTICLE 12

12. INSURANCE

12.1 CONTRACTOR'S LIABILITY INSURANCE

12.1.1 The Contractor shall purchase and maintain such liability and other insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's performance or obligations under the Contract Documents, whether due to action or inaction by the Contractor or any person for whom the Contractor is responsible.

12.1.1.1 Claims under workers' compensation, occupational sickness or disease, disability benefit and other similar employee benefit acts;

12.1.1.2 Claims for damages because of bodily injury, disease, illness, death or personal injury, and other claims usually covered by bodily injury liability insurance;

12.1.1.3 Claims for damages because of injury to or destruction of property and other claims usually covered by property damage liability insurance.

12.1.2 Refer to Exhibit "B" for Insurance Requirements for this Project.

12.2 BUILDER'S RISK - NEW CONSTRUCTION

12.2.1 Unless otherwise specified in the Contract Documents, the Contractor shall provide and maintain, during the progress of the Work and until the execution of the Certificate of Contract Completion by the County, a Builder's Risk insurance policy to cover all Work in the course of construction including falsework, temporary buildings and structures and materials used in the construction process, stored on or off site, or while in transit. Such insurance shall be on a "Risk of Direct Physical Loss" form policy and shall insure against the perils of fire and extended coverage and physical loss or damage including, without limitation, theft, vandalism, malicious mischief, earthquake, tornado, lightning, explosion, breakage of glass, flood, collapse and water damage. It shall also include debris removal, demolition occasioned by enforcement of any applicable legal requirement, and shall cover reasonable compensation for the County's services and expenses required to limit further loss.

12.2.1.1 Coverage must include provision to pay the reasonable extra costs of expediting temporary and/or permanent repairs to, or permanent replacement of, damaged property. This shall include overtime wages and the extra cost of "express" or other means for rapidly transporting materials and supplies necessary to such repair or replacement.

12.2.1.2 Such Builder's Risk policy shall protect both the Contractor and the County from loss and provide coverage for materials in transit or stored off site and identified for the Project.

12.2.1.3 Coverage for other perils may be required if specified in the Special Conditions.

12.2.2 Unless otherwise specified in the Contract Documents, the Builder's Risk policy shall be written in the amount equal to 100 percent of the Contract price, including landscaping, paving and other site Work.

12.2.3 The Builder's Risk policy shall specifically permit and allow for partial occupancy by the County prior to acceptance of the Project by the County.

12.3 BUILDER'S RISK - RENOVATIONS

12.3.1 When a Contractor is involved solely in the installation of materials and equipment and not in new building construction, the Contractor shall purchase and maintain either a Builder's Risk, Builder's Risk-Renovations, or Installation Floater insurance policy. Such policy shall comply with the provisions of Paragraph 12.2.

12.4 INSURANCE POLICY REQUIREMENTS

12.4.1 Each policy of insurance required to be purchased and maintained by the Contractor shall name the County as an additional insured and each policy and respective Certificate of Insurance shall expressly provide that no less than 30 days prior written notice shall be given to the County in the event of cancellation, non-renewal, expiration or material alteration of the coverage contained in such policy or evidenced by such Certificate of Insurance.

12.4.2 The Contractor shall furnish the County, when requested, a certified copy of any insurance or additional insured endorsement required to be purchased or maintained by the Contract Documents. In no event shall any failure of the County to demand a certified copy of any required insurance or insured endorsement be construed as a waiver of the obligation of the Contractor to obtain insurance required to be purchased or maintained by the Contract Documents.

12.4.3 The Contractor shall maintain all insurance in the required amounts, without interruption, from the date of the execution of the Contract until the date of approval of the Certificate of Contract Completion by the County. Failure to maintain the required insurance during the time specified shall be cause for termination of the Contract.

12.4.4 Insurance policies required to be purchased and maintained by the Contractor may include a reasonable loss deductible, which shall be the responsibility of the Contractor to pay in the event of loss.

12.4.5 The prompt repair or reconstruction of the Work as a result of an insured loss or damage shall be the Contractor's responsibility and shall be accomplished at no additional cost to the County.

12.5 WAIVERS OF SUBROGATION

12.5.1 The County and the Contractor waive all rights against each other for damages caused by fire or other perils to the extent of actual recovery of any insurance proceeds under any property insurance obtained pursuant to this Article or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the County as fiduciary.

ARTICLE 13

13. CONTRACT TERMINATION

13.1 SUSPENSION OF THE WORK

13.1.1 If, in the judgment of the County, the Contractor is causing undue risk of damage to any part of the Project or adjacent area, the County may suspend the Work temporarily, either wholly or in part, for such period until, in the judgment of the County, the safe and proper prosecution of the Work may be resumed. The County shall provide notice to the Contractor's Surety of any suspension ordered pursuant to this Article.

13.1.1.1 In case of such suspension, an extension of time, if appropriate, will be allowed as provided in the Contract Documents but no payment will be made to the Contractor for any expense or damages resulting therefrom. This provision is intended to be, and shall be construed as, consistent with, and not in conflict with, Section 4113.62, ORC.

13.1.1.2 Any failure of the County to suspend the Work shall not relieve the Contractor of the Contractor's responsibility to perform the Work safely and in accordance with the Contract Documents.

13.1.2 The Contractor shall, upon receipt of notice of suspension, cease Work on the suspended activities and take all necessary or appropriate steps to limit disbursements and minimize costs with respect thereto. The Contractor shall furnish a report to the County, within five (5) days of receipt of the notice of suspension, describing the status of the Work, including without limitation, results accomplished, conclusions resulting therefrom, and such other information as the County may require.

13.1.3 In the event of suspension under this Article, the Contractor shall be entitled to payment of compensation due under the Contract Documents, upon submission of a proper invoice, for the Work performed prior to receipt of notice of suspension, which shall be payable based upon the Contract Cost Breakdown.

13.2 TERMINATION FOR CONVENIENCE

13.2.1 The County may, at any time upon 20 days written notice to the Contractor, terminate the Contract in whole or in part for the County's convenience and without cause.

13.2.2 Upon receipt of the notice of termination for convenience, the Contractor shall immediately, in accordance with instructions from the County, proceed with performance of the following duties.

13.2.2.1 Cease operation as specified in the notice;

13.2.2.2 Place no further orders and enter into no further subcontracts for materials, labor, services or facilities except as necessary to complete continued portions of the Project;

13.2.2.3 Terminate all subcontracts and orders to the extent they relate to the Work terminated;

13.2.2.4 Proceed to complete the performance of any Work not terminated;

13.2.2.5 Take actions that may be necessary, or that the County may direct, for the protection and preservation of the terminated Work.

13.2.3 Upon such termination, the Contractor shall be paid in accordance with the Contract Cost Breakdown for Work completed, including any amount retained, and the value of materials ordered and delivered, less any salvage credit the Contractor may receive for them.

13.2.3.1 All materials, equipment, facilities and supplies at the Project site, or stored off site, for which the Contractor has been compensated, shall become property of the County.

13.2.3.2 The Contractor shall be entitled to a fair and reasonable profit for all Work performed. In no event shall the Contractor's compensation exceed the total Contract price.

13.2.3.3 Any dispute as to the sum then payable to the Contractor shall be resolved in accordance with the provisions of Article 8 of the General Conditions.

13.3 TERMINATION FOR CAUSE

13.3.1 If the County determines that the Contractor has failed to prosecute the Work with the necessary force, or has refused to remedy any Defective Work, the County shall notify the Contractor and the Contractor's Surety of such failure or refusal. The Contractor shall begin to cure such failure or refusal within five (5) days of receipt of the notice.

13.3.2 If the Contractor fails to cure such failure or refusal within 20 days of receipt of the notice, the County may terminate the Contract and employ upon the Work the additional force, or supply the materials or such part of either as is appropriate, and may remove Defective Work.

13.3.3 If the Contractor is so terminated, the Contractor's Surety shall have the option to perform the Contract. If the Contractor's Surety does not commence performance of the Contract within ten (10) days of the date on which the Contract was terminated, the County may complete the Work by such means as the County deems appropriate. The County may take possession of and use all materials, facilities and equipment at the Project site or stored off site for which the County has paid.

13.3.4 If the Contractor is so terminated, the Contractor shall not be entitled to any further payment. If the County completes the Work and if the cost of completing the Work exceeds the balance of the Contract price, including compensation for all direct and consequential damages incurred by the County as a result of the termination, such excess shall be paid by the Contractor or the Contractor's Surety.

13.3.5 If the Contractor's Surety performs the Work, the provisions of the Contract Documents shall govern such Surety's performance, with the Surety being substituted for the Contractor in all such provisions including, without limitation, provisions for payment for the Work and provisions about the right of the County to complete the Work.

13.3.6 Upon a final determination, either by a court or by arbitrators having jurisdiction, that the termination pursuant to Paragraph 13.3.1 was improper, the termination will be deemed to be a termination for convenience.

13.3.7 The Contractor's sole remedy for a wrongful termination by the County shall be limited to recovery of profit on Work completed prior to such declaration.

13.4 CONTRACTOR BANKRUPTCY

13.4.1 If the Contractor shall file a voluntary petition in bankruptcy or shall have an involuntary petition in bankruptcy filed against the Contractor, or if the Contractor makes a general assignment for the benefit of creditors, or if a receiver is appointed for all or a substantial part of the Contractor's business or property, the County shall serve written notice on the Contractor and the Contractor's Surety stating that any failure of the Contractor to provide adequate assurances of continued performance will be considered a rejection of the Contract, which shall result in termination of the Contract for cause. Such termination of the Contract need not be evidenced by an order of any court rejecting the Contract.

13.4.2 Upon a final determination, either by a court or by arbitrators having jurisdiction, that the termination pursuant to Paragraph 13.4.1 was improper, the termination will be deemed to be a termination for convenience.

13.4.3 The Contractor's sole remedy for a wrongful declaration of default by the County shall be limited to recovery of profit on Work completed prior to such declaration.

ARTICLE 14

14. SHOP DRAWINGS AND SAMPLES

14.1 DESCRIPTION

14.1.1 Shop Drawings, Samples and other submittals shall be provided by the Contractor for any item required by the Contract Documents but not fully described in the Drawings and Specifications, unless waived by the Architect, and shall include, without limitation:

14.1.1.1 Construction of the various parts, method of joinery, type of material, grade, quality and thickness of material, alloy of material, profiles of all sections, reinforcement, method of hanging doors or installing windows, anchorage, type and grade of finish.

14.1.1.2 Capacities, types of materials and performance charts that are pertinent to the materials and performance charts that are pertinent to the equipment item. Wiring diagrams, control diagrams, schematic diagrams, working and erection dimensions, arrangement and specifications.

14.2 FORM OF SUBMITTALS

14.2.1 The Contractor shall provide a submittal letter and shall stamp and submit the Shop Drawings or other submittals to the Architect in accordance with a schedule established by the Architect and the Contractor.

14.2.1.1 Unless otherwise specified in the Contract Documents, the Contractor shall submit one (1) mylar and three (3) prints of all Shop Drawings and four (4) copies of any other submittal.

14.2.1.2 The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show the Architect the materials and equipment which the Contractor proposes to provide.

14.2.1.3 Each Sample will be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which intended and other uses as the Architect may require to enable the Architect to review the submittal.

14.3 VARIATION FROM CONTRACT DOCUMENTS

14.3.1 If the Shop Drawings or other submittals show variations from the requirements of the Contract Documents, the Contractor shall make specific mention of such variations in the Contractor's letter of submittal to the Architect.

14.3.1.1 If the variation is acceptable to the Architect, the Architect shall recommend acceptance of the variation to the Project Representative for approval.

14.3.1.2 The Contractor shall not be relieved of any responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings or Samples.

14.4 CONTRACTOR'S REVIEW

14.4.1 All Shop Drawings, Samples and other submittals shall be reviewed and stamped by the Contractor prior to submittal to the Architect. If it is apparent to the Architect that the Contractor has not reviewed the submittals, or has conducted an incomplete review, the Architect shall reject the submittals.

14.4.1.1 Correction of dimensions, location of various items, encroachments of Work of other Contractors or variations from the requirements of the Contract Documents shall be made or corrected by the Contractor.

14.4.1.2 If required by the Contract Documents or applicable law, the Contractor shall have the Shop Drawings or other submittals prepared by persons and entities possessing expertise and experience in an appropriate trade or profession or by a licensed architect, engineer or other professional.

14.5 ARCHITECT'S REVIEW

14.5.1 The Architect shall review and approve or disapprove Shop Drawings, Samples or other submittals within 15 days of receipt or in accordance with the approved submittal schedule or such other period of time as is mutually agreed by the Architect and the Contractor.

14.5.1.1 The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of Shop Drawings, product data, Samples or other submittals until approved, which resubmission shall be acted upon by the Architect with 15 days of receipt or such other period of time as is mutually agreed by the Architect and the Contractor.

14.5.1.2 When resubmitting submittals, the Contractor shall direct the Architect's attention to any revisions made by noting such revisions on the resubmitted submittal.

14.5.1.3 All costs incurred by the Architect in reviewing resubmittals of resubmittals, for reason of failure of the initial submittal to meet the requirements of the Contract Documents, shall be paid by the Contractor.

14.6 RISK OF NONPAYMENT

14.6.1 No portion of the Work requiring a Shop Drawing or other submittal shall be commenced until the submittal has been approved by the Architect. Any Work commenced by the Contractor prior to final approval of the Shop Drawings or other submittal by the Architect shall be performed by the Contractor under risk that no payment will be approved or made by the County for such Work.

14.7 SCOPE OF ARCHITECT'S REVIEW

14.7.1 The Architect's review and approval is to determine if the items covered by the submittals will, after installation and incorporation into the Work, conform to the Contract Documents and be compatible with the design concept of the Project as a functioning whole.

14.7.1.1 The Architect's review and approval shall not extend to means, methods, techniques, sequences, procedure of construction or to safety precautions or programs incident thereto.

14.7.1.2 The review and approval of a separate item will not indicate approval of the assembly in which the item functions.

14.8 EQUIPMENT STATEMENT

14.8.1 Shop Drawings on all equipment shall include the following written statement from the manufacturer of the equipment:

14.8.1.1 "This equipment submitted for approval shall perform as specified when installed by the Contractor in the arrangement shown on this drawing and in the Contract Documents and in conjunction with all other accessories such as flues, breaching, piping, controls and equipment not furnished by this manufacturer but required as an

accessory or supplement to this equipment, providing that the accessory or supplementary items perform as specified and are installed as shown in the Contract Documents."

ARTICLE 15

15. SUBCONTRACTORS AND MATERIAL SUPPLIERS

15.1 COUNTY'S APPROVAL

15.1.1 Within ten (10) days of the Notice to Proceed, the Contractor shall prepare a list of the Contractor's proposed Subcontractors and Material Suppliers, and submit their names to the Architect for the County's approval.

15.1.1.1 The County reserves the right to reject any Subcontractor or Material Supplier. Failure of the Architect to notify the Contractor of rejection within ten (10) days of receipt of the list shall constitute notice that the County has no objection.

15.1.1.2 If the County rejects any Subcontractor or Material Supplier, the Contractor shall replace the Subcontractor or Material Supplier at no additional cost to the County.

15.2 REPLACEMENT

15.2.1 The Contractor shall not replace any Subcontractor or Material Supplier after execution of the Contract without written approval of the County.

15.3 CONTRACTOR'S RESPONSIBILITY

15.3.1 The Contractor shall be fully responsible for all acts and omissions of the Contractor's Subcontractors and Material Suppliers and shall be responsible for scheduling and coordinating the Work of the Contractor's Subcontractors and Material Suppliers with the Lead Contractor.

15.3.1.1 Delays, interference, disruption, hindrance attributable to the Contractor's Subcontractors or Material Suppliers shall be deemed to be within the control of the Contractor.

15.3.1.2 The Contractor shall require that each of the Contractor's Subcontractors have a competent supervisor at the Project whenever Work is being performed by the Subcontractor.

15.3.1.3 The Contractor agrees to bind the Contractor's Subcontractor and Material Supplier to the terms of the Contract Documents, so far as applicable to the Work of such Subcontractor or Material Supplier.

15.4 WARRANTY AND GUARANTEE

15.4.1 The Contractor shall require each Subcontractor and Material Supplier to fully warrant and guarantee, for the benefit of the County, the effectiveness, fitness for the purpose intended, quality and merchantability of any Work performed or item provided or installed by such Subcontractor or Material Supplier.

15.5 PROMPT PAYMENT

15.5.1 Pursuant to Section 4113.61(A)(1), ORC, if a Subcontractor or Material Supplier requests payment in time to allow the Contractor to include the request in the Contractor's Application for Payment, the Contractor shall pay within ten (10) days after receipt of payment from the County:

15.5.1.1 To a Subcontractor an amount equal to percent of completion allowed by the County for the Subcontractor's Work,

15.5.1.2 To a Material Supplier an amount equal to all or a portion of the Material Supplier's request for materials furnished.

15.5.2 The Contractor may reduce the amount to be paid to a Subcontractor or Material Supplier pursuant to Paragraph 15.5.1 by the amount of any retainage withheld from the Contractor and may withhold amounts necessary to resolve disputed liens or claims involving the Work of the Subcontractor or Material Supplier.

15.5.3 If the Contractor fails to comply with the provision of Paragraph 15.5, the Contractor shall pay to the applicable Subcontractor or Material Supplier 18 percent interest on any unpaid amount beginning on the 11th day after receipt of payment from the County.

15.6 CLAIM AFFIDAVIT

15.6.1 In order to establish lien rights, Subcontractors and Material Suppliers not in privity of contract with the Contractor must serve a notice of furnishing on the Contractor whose contract is the contract under which the Subcontractor or Material Supplier is performing, pursuant to Section 1311.261, ORC.

15.6.1.1 The notice of furnishing must be served upon the Contractor within 21 days of performing the Work or furnishing the materials.

15.6.1.2 Subcontractors and Material Suppliers not in privity of contract with the Contractor must, at the time of filing a Claim Affidavit with the County's Project Representative, provide a copy of the notice of furnishing and proof that it was received by the Contractor.

15.6.2 In order to establish lien rights pursuant to Section 1311.26, ORC, a claimant must file a Claim Affidavit with the County's Project Representative, within 120 days from the date of the last Work or furnishing of materials.

15.6.2.1 In order to receive priority over similar claims, the claimant must file a copy of the claim with the county recorder's office within 30 days of serving the County's Project Representative, pursuant to Section 1311.29, ORC.

15.6.2.2 All claimants who serve the County's Project Representative, and file with the county recorder within 30 days, have no priority among themselves and share in the funds prorata.

15.6.2.3 Claimants who file with the County's Project Representative, but not with the county recorder, are paid only if there are sufficient funds left after paying those claimants who file with the county recorder.

15.6.3 The County shall notify the Contractor of the receipt of the claim within five (5) days of receiving the Claim Affidavit. A copy of the Claim Affidavit and a statement advising the Contractor of the Contractor's right to dispute the claim will accompany the County's notice.

15.6.3.1 The Contractor shall have 20 days to dispute said claim.

15.6.3.2 If the Contractor does not notify the County in writing of an intention to dispute the claim within 20 days after receipt of the Claim Affidavit, the Contractor is deemed to have assented to its correctness, pursuant to Section 1311.31, ORC.

15.6.4 The County shall detain the amount stated in the Claim Affidavit from subsequent Applications for Payment and deposit said amount in an escrow account in accordance with a general escrow agreement between the County and a bank in the State in fulfillment of the requirements of Section 153.63, ORC.

15.6.4.1 The escrow agent shall hold the deposit and any interest earned thereon until receipt of notice from the County specifying an amount to be released and the person to whom the amount is to be released.

15.6.4.2 The County reserves the right to pay a Claim Affidavit which is not timely disputed, pursuant to Section 1311.31, ORC.

15.7 CLAIMS AGAINST THE BOND

15.7.1 Pursuant to Section 153.56, ORC, laborers, Subcontractors or Material Suppliers who have furnished or delivered labor or materials to the Project may, at any time after performing the labor or delivering the materials, but not later than 90 days after the acceptance of the Project by the County, furnish the Surety a statement of the amount due.

15.7.2 After furnishing the statement, laborers, Subcontractors or Material Suppliers must wait 60 days to bring a suit for the amount due. If the Surety has not paid the claim at the expiration of 60 days, laborers, Subcontractors or Material

Suppliers may bring suit for amounts not paid, but must bring the suit within one (1) year of the acceptance of the Project by the County.

ARTICLE 16

16. INDEMNIFICATION

16.1 INDEMNIFICATION FOR INJURY OR DAMAGE

16.1.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the County and the Architect, their respective officers, consultants, agents and employees, in both individual and official capacities, from and against all claims, damages, losses and expenses, direct, indirect or consequential arising out of or allegedly arising out of or resulting from the Work.

16.1.1.1 In the event of any such injury, including death, or loss or damage, or claims therefor, the Contractor shall give prompt notice thereof to the County.

16.1.1.2 This provision is intended to be, and shall be construed, as consistent with, and not in conflict with, Section 2305.31, ORC.

16.1.2 The indemnification obligations of the Contractor under Paragraph 16.1.1 shall not extend to the liability of the Architect, the Architect's consultants, agents or employees for negligent preparation or approval of Drawings, Specification, Contract Modifications, opinions, and any other responsibility of the Architect, except to the extent covered by the Contractor's insurance.

16.2 INDEMNIFICATION FOR PATENT OR COPYRIGHT USE

16.2.1 To the fullest extent permitted by law, the Contractor shall indemnify, hold harmless and defend the County and the Architect, their respective members, officers, consultants, agents, representatives and employees, in both individual and official capacities from and against all claims, damages, losses and expenses arising out of the Contractor's infringement of patent rights or copyrights.

ARTICLE 17

17. AUDITS AND RECORDS

17.1 EXAMINATION

17.1.1 The County shall have the right to examine all books, records, documents and other data of the Contractor and of the Contractor's Subcontractors and Material Suppliers related to the bidding, pricing or performance of the Work for the purpose of evaluating any claim filed pursuant to Article 8 of the General Conditions.

17.1.2 Contractor, Subcontractor or Material Supplier, as applicable, shall retain such records and make them available at all reasonable times for inspection, audit and reproduction until the expiration of six (6) years after the date of acceptance of the Project by the County.

17.1.3 To the extent that the Contractor, Subcontractor or Material Supplier, as applicable, informs the County in writing that any documents copied by the County are trade secrets, the County shall treat such documents as trade secrets of the Contractor, Subcontractor or Material Supplier, as applicable. In the event any dispute arises with any other person about whether such other person should be given access to the documents, the Contractor, Subcontractor or Material Supplier, as applicable, agrees to indemnify the County against all costs, expenses, and damages, including without limitation attorney fees, incurred by reason of that dispute.

17.1.4 The right of inspection, audit and reproduction shall extend to all documents necessary to permit adequate evaluation of the cost of pricing data submitted along with the computations and projections used therein.

17.1.5 If the Contract has been terminated, in whole or in part, the records relating to the Work terminated shall be made available to the County or County for a period of three (3) years from the date of any applicable final settlement.

17.1.6 Records which relate to disputes, litigation, or settlement of claims arising out of the performance of the Work shall be made available until such dispute, litigation or claims have been finally decided or settled.

ARTICLE 18

18. PREVAILING WAGE PAYROLL SUBMITTALS

18.1 PAYROLL SCHEDULE

18.1.1 Within ten (10) days of the date of the Notice to Proceed, the Contractor shall provide the County's Prevailing Wage Coordinator a schedule of dates during the term of the Contract on which wages will be paid to employees for the Project.

18.2 PAYROLL REPORTS

18.2.1 The Contractor shall submit payroll reports with each Application for Payment, which reports shall be certified by the Contractor that the payroll is correct and complete and the wage rates shown are not less than those required by the Contract. The Contractor shall be responsible for submitting all payroll reports of the Contractor's Subcontractors.

18.2.1.1 The payroll report shall indicate the period covered and shall include a list containing the name, address and social security number of each employee of the Contractor and the Contractor's Subcontractors paid for the Work.

18.2.1.2 The payroll report shall list the number of hours each employee worked each day on the Project during the reporting period, the total hours each week on the Project, the employee's hourly rate of pay, job classification, fringe benefits and all deductions from wages and net pay.

18.2.1.3 The payroll report shall also list each fringe benefit and state if it is paid as cash to the employee or to a named plan.

18.2.1.4 The Contractor and the Contractor's Subcontractors shall also submit apprenticeship agreements for all apprentices utilized on the Project.

ARTICLE 19

19. PERFORMANCE EVALUATIONS

19.1 Performance Evaluations are not included as part of this Project.

ARTICLE 20

20. MISCELLANEOUS

20.1 TAXES

20.1.1 Only those materials which ultimately become a part of the completed structure or improvement which constitutes the Project will be exempt from State sales tax as provided in Section 5739.02, ORC, and State use tax as provided in Section 5741.01, ORC.

20.1.2 The purchase, lease or rental of material, equipment, parts or expendable items such as form lumber, tools, oils, greases and fuels, which are used in connection with the Work, are subject to the application of State sales tax and State use tax.

20.2 ROYALTIES AND PATENTS

20.2.1 The Contractor shall pay all royalties, license fees and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others.

20.2.2 If a particular invention, design, process, product or device is specified in the Contract Documents and if, to the knowledge of the Architect, use of the specified item is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the Architect in the Contract Documents.

20.2.2.1 If the Contractor has reason to believe that use of the specified item is subject to patent or copyright protection, the Contractor shall immediately notify the County.

20.3 ASSIGNMENT OF ANTITRUST CLAIMS

20.3.1 By executing the Contract, the Contractor assigns, conveys and transfers to the County any right, title and interest to any claims or causes of action it may have or acquire under State or federal antitrust laws relating to any goods, products, or services purchased, procured or rendered to the County pursuant to the Contract.

20.4 BOND REDUCTION

20.4.1 Pursuant to Section 153.80, ORC and upon notice and consent of the Contractor's Surety, the County may reduce the Bond by 25 percent of the total amount of the Bond after at least 50 percent of the Work has been completed, and by 50 percent after at least 75 percent of the Work has been completed, provided that all of the following conditions are met:

20.4.1.1 The County determines that the percentage of Work that has been completed at the time of determination has been satisfactorily performed and meets the terms of the Contract Documents, including a provision in regard to the time when the whole or any specified portion of the Work must be completed;

20.4.1.2 The County determines that no disputed claim caused by the Contractor exists or remains unresolved;

20.4.1.3 The bid upon which the Contract is based was not more than ten (10) percent below the next lowest bid or not more than ten (10) percent below the cost estimate for the Work as published in the Notice to Bidders.

20.5 PROJECT IDENTIFICATION SIGN

20.5.1 Unless otherwise specified in the Contract Documents, the Lead Contractor shall furnish and erect a Project identification sign within 30 days of the date of the Notice to Proceed, which sign shall be in accordance with a sketch provided by the Architect.

20.5.2 The sign shall be maintained in good condition until the completion of the Project at which time it shall be removed by the entity providing same.

20.5.3 Any cost associated with moving or repairing the Project identification sign during the progress of the Project shall be the responsibility of the entity providing same.

ARTICLE 21

21. DEFINITIONS

21.1 Addenda or Addendum - A written or graphic instruction issued prior to the opening of bids which clarifies, amends or interprets the Contract Documents.

21.2 Alternate - A proposed change in the Work described in the Contract Documents providing the County with an option to select between alternative materials, products or systems, or to add or delete portions of the Work.

- 21.3 Alternative Dispute Resolution** - A method of resolving disputes other than arbitration or litigation.
- 21.4 Application for Payment** - The form furnished by the County that is to be used by the Contractor in requesting progress payments and which when signed by the Contractor shall serve as an affidavit that payments previously paid by the County have been applied by the Contractor to discharge in full all of Contractor's obligations incurred in connection with the Work covered by all prior Applications for Payment.
- 21.5 Approved Equal** - Material, equipment or method proposed by the Contractor and approved by the County for incorporation in or use in the Work as being equivalent to essential attributes of the material, equipment or method specified in the Contract Documents.
- 21.6 As-Built Drawings** - Drawings or computer files revised by the Contractor to show changes made during the construction process.
- 21.7 Architect** - The individual or firm responsible for providing professional design services and contract administration for the Project according to an Agreement with the County.
- 21.8 Base Bid** - The amount of money stated in a bid as the sum for which the Bidder offers to perform the Work described in the Contract Documents, exclusive of adjustments for Alternate bids.
- 21.9 Bid Form** - The form furnished by the County that is to be completed, signed and submitted as the Bidder's bid.
- 21.10 Bidder** - A person or entity who submits a bid for a public improvement contract with the County.
- 21.11 Bid Guaranty** - The bond or other instrument of security furnished by the bidder to provide assurance that the bidder will execute the contract.
- 21.12 Bond** - Bid, performance and payment bonds and other instruments of security, furnished by the Contractor and the Contractor's Surety in accordance with Sections 153.54 to 153.57, ORC.
- 21.13 Bulletin** - A document issued by the Architect after the execution of the Contract requesting a Proposal from the Contractor which, if approved as provided in the Contract Documents, will cause the execution of a Contract Modification to modify, amend or alter the Contract Documents.
- 21.14 Claim Affidavit** - A claim on the funds that are due to a Contractor, created by statute in favor of a person supplying labor, materials or services for the value of labor, materials or services supplied by the claimant.
- 21.15 Construction Budget** - The total amount budgeted by the County for the construction Contracts required for the Project.
- 21.16 Construction Schedule** - The schedule for the construction of the Project showing the time for completing the Work, the planned sequence for performing the Work, the Contractor's resource loading curve and the interrelationship between the activities of the Contractors and the County.
- 21.17 Contract Completion** - The date upon which all deficiencies noted in the Punch List have been corrected, the Contractor's Work is 100 percent complete, and the Contractor has complied with all conditions precedent to final payment and release of retainage.

21.18 Contract Cost Breakdown - A statement furnished by the Contractor to the County reflecting the portions of the Contract price allocated to the various portions of the Work and used as the basis for reviewing the Contractor's Applications for Payment.

21.19 Contract Documents - Collectively, the Drawings, Specifications, Addenda, Notice to Bidders, Instructions to Bidders, Definitions, Bid Form, Contract and Attachments, Bond, Bulletins, Shop Drawings, Contract Modifications, Contract Modification Procedure and Pricing Guidelines and Standard Conditions of the Contract (General and Special).

21.20 Contract Modification - A document recommended by the Architect, authorized by the County, issued after execution of the Contract, which authorizes a change in the Work or an adjustment in the Contract price or Contract time.

21.21 Contractor - A successful Bidder with whom the County has entered into an Contract for the performance of Work on the Project in cooperation with other Contractors and persons and in accordance with the Contract Documents. The word Contractor in the Contract Documents shall apply with equal force to the Lead Contractor.

21.22 Day - Calendar day, unless otherwise expressly specified to mean a working day.

21.23 Defective - When modifying the word Work, refers to Work that does not conform to the Contract Documents, or does not meet the requirements of any applicable statute, rule or regulation, inspection, reference standard, test or approval, or has been damaged prior to the Architect's recommendation of final payment, unless responsibility for the protection thereof has been expressly assumed by the County.

21.24 County - The Board of Commissioners of Lucas County, Ohio, and it's authorized representatives.

21.25 Design Schedule - The schedule of the Architect's services showing start and completion of the following milestone events: predesign, schematic design, design development, construction documents, bidding, contract award, construction, project close-out and Project record document submittals.

21.26 Detailed Estimate of Construction Cost - A detailed cost estimate for the construction of the Project with subtotals for each separate bid item and Alternate bid item, prepared by the Architect upon completion of the design development phase.

21.27 Drawings - The graphic and pictorial portions of the Contract Documents, showing the design, type of construction, location, dimension and character of the Work to be provided by the Contractor, generally including plans, elevations, sections, details, schedules, diagrams, notes and portions of Specification.

21.28 Emergency Contract Modification - An emergency change in the Work costing not more than \$15,000 and initiated by the Director of Public Facilities Management pursuant to the Contract Modification Procedure and Pricing Guidelines.

21.29 Field Work Order - A written order issued by the Project Representative that clarifies or interprets the Contract Documents or orders a change to the Work which is estimated to cost not more than \$3,000.

21.30 Final Acceptance - The County's acceptance of the Project from the Contractor upon certification by the Architect of Contract Completion.

21.31 Final Inspection - Final review of the Work of the Contractor by the Architect to determine whether issuance of the Certificate of Contract Completion is appropriate.

21.32 Guarantee - Legally enforceable assurance, for a period of one year from Contract Completion, of quality or performance of the Contractor's workmanship.

21.33 Lead Contractor - The Contractor identified by the County in the Notice to Bidders as responsible for scheduling the Project, coordinating the Contractors and providing other services identified in the Contract Documents.

21.34 Liquidated Damages - The sum established in the Contract Documents as the predetermined measure of damages to be paid to the County due to the Contractor's failure to complete the Work, or portions thereof, within a stipulated time.

21.35 Material Supplier - A person or entity who furnishes materials or supplies for Work on a Project.

21.36 Notice of Intent to Award - The notice provided to the apparently successful Bidder stating that upon satisfactory compliance with all conditions precedent for Contract execution, within the time specified, the County intends to execute a Contract with the Bidder.

21.37 Notice of Commencement - The notice prepared by the County identifying the Project, the Contractors, the Surety for each Contractor and the name of the County's Project Representative upon whom a Claim Affidavit may be served.

21.38 Notice to Proceed - A notice provided by the County to the Contractor authorizing the Contractor to proceed with the Work and establishing the date for commencement of the Work.

21.39 Or Equal - See Approved Equal.

21.40 ORC - The Ohio Revised Code.

21.41 Owner - The Board of Commissioners of Lucas County, Ohio.

21.42 Partial Occupancy - The stage in the progress of the Work when the Project, or a designated portion thereof, is sufficiently complete in accordance with the Contract Documents so the County can occupy or utilize the Project, or designated portion thereof, for its intended use.

21.43 Project - The public improvement to be constructed, of which the Work performed under the Contract Documents may be the whole or a part.

21.44 Project Representative - The designated representative of the County who is assigned to the Project to consult with the Architect and the Contractor, and authorized to perform specific responsibilities of the County.

21.45 Program of Requirements - A detailed description of the requirements of the County for the Project.

21.46 Proposal - The offer of a Contractor to complete the Work set forth in a Bulletin or scope of work description.

21.47 Public Facilities Management - The agency within the County, acting on behalf of the Board of Commissioners of Lucas County to administer public improvement Projects.

21.48 Punch List - A list of items of Work to be completed or corrected by the Contractor as a condition precedent to Contract Completion.

21.49 Record Drawings - Drawings or computer files revised by the Architect to show the changes made during the construction process, based on the As-Built Drawings furnished by the Contractor to the Architect.

21.50 Samples - Physical examples furnished by the Contractor to illustrate materials, equipment or workmanship and establish Standards by which the Work will be judged.

21.51 Schedule of Values - See Contract Cost Breakdown.

21.52 Shop Drawings - Drawings, diagrams, illustrations, schedules, performance charts, brochures, catalog data and other data specially prepared or provided by the Contractor, a Subcontractor or Material Supplier to illustrate some portion of the Work.

21.53 Special Conditions - Amendments to the Standard Conditions, which describe conditions unique to a particular Project, including without limitation, provisions regarding the assignment of responsibility for refuse removal and for safety and security precautions and programs, regarding temporary Project facilities and utilities, weather and fire protection, scaffolding and equipment, materials and services to be used commonly by Contractors and requiring Contractors to provide assistance in the utilization of any applicable equipment system, preparation of operation and maintenance manuals, and training of County personnel for operation and maintenance of the Project.

21.54 Specifications - Those portions of the Contract Documents consisting of the written requirements and standards for materials, equipment, construction systems and workmanship as applied to the Work and certain administrative details applicable thereto.

21.55 Standard - The items named in the Specifications or Addendum to denote kind, quality or performance requirement for each significant portion of the Work. All bids or Proposals shall be based on the trade names, catalog numbers, manufacturers, materials or equipment named in the Specifications or Addendum.

21.56 Standard Conditions - The standard terms and conditions of the Contract for construction, as in effect from time to time.

21.57 Statement of Probable Construction Cost - A cost estimate for the construction of the Project based on current area volume and other unit costs and a preliminary Project schedule, prepared by the Architect upon completion of the Schematic Design Phase.

21.58 Subcontractor - A person or entity who undertakes to construct, alter, erect, improve, repair, demolish, remove, dig or drill any part of the Project under a contract with any person other than the County, Section 1311.25(E), ORC.

21.59 Substantial Completion - the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the County can occupy or utilize the Work for its intended use.

21.60 Substitution - A proposed Equal to a Standard which must be submitted to the Architect in writing no later than ten (10) days prior to the bid opening and which, if approved, will be listed in an Addendum and distributed to all Bidders.

21.61 Surety - A person or entity providing a Bid Guaranty or a Bond to a bidder or a Contractor to indemnify the County against all direct and consequential damages suffered by failure of the bidder to enter into the contract or of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable.

21.62 Technical Proposal - A statement prepared by the Architect which confirms the nature of the design services for the Project, the scope of basic and additional services to be provided by the Architect, a list of reimbursable expenses for the Project, the Construction Budget and a preliminary Project schedule.

21.63 Unit Price - The amount stated in the bid as the price per unit of measurement for materials or services described in the Contract Documents, which cost shall include overhead, profit and any other expense for the Work.

21.64 Warranty - Legally enforceable assurance, for the specified duration from acceptance by the County, of quality or performance of materials and equipment.

21.65 Work - The construction services required by the Contract Documents, to include all labor, materials, equipment and services performed or provided by the Contractor for the Project.

End of General Conditions of the Contract – Lead Contractor Edition

EXHIBIT A

PROGRESS PAYMENTS

1. Partial payment to Contractor for labor performed under with a unit or lump sum price contract shall be made at the rate of ninety-two percent (92%) of the estimates prepared by Contractor and approved by Architect. All labor performed after the job is fifty percent (50%) completed shall be paid for at the rate of one hundred percent (100%) of the estimates submitted by Contractor and approved by Architect. In addition to all other payments on account of work performed, there shall be allowed by Owner and paid to Contractor a sum a rate of ninety-two percent (92%) of the invoice costs, not to exceed the bid price in a unit price contractor, for materials delivered on the Site; provided, that, such materials have been inspected and found to meet the Specifications. The balance of such invoiced value shall be paid when such materials are incorporated into and becomes a part of such building, construction, addition, improvement, alteration or installation unless Contractor does not prosecute the Work with diligence as set forth in the Contract Documents.
2. From the date the Work is fifty percent (50%) completed, the 8% of the contract amount that is held back for the faithful performance of work shall be kept by the Owner until the Architect has signed off that the work is completed satisfactorily. After the contract is fifty percent (50%) complete no further funds shall be retained. Payment based on any certified payment application will be made within thirty (30) days following receipt of the certified application by Owner and Architect. The time to process and certify the application by the Architect will not count towards the thirty (30) day payment period.
3. By submitting any Application for Payment, Contractor attests to the accuracy of the amounts requested, represents that the Work has been satisfactory executed in compliance with the Contract Documents and that Contractor is entitled to the amount shown. By submitting the second or any subsequent Application for Payment, Contractor attests that it has paid all just claims for labor, materials, equipment, subcontracts or other expenses represented by all previous Applications for Payment.
4. Concurrent with the submittal of each Application for Payment completed by Contractor, Subcontractors and suppliers during the period, Contractor shall furnish Affidavit and Waivers of Lien evidencing that all wages for labor and all invoices for materials or services for work performed by Contractor's own work forces included in the previous partial payment have been paid in full. Furnishing of Affidavits and Waivers of Lien, in forms as approved and when required by Construction Manager, shall be a prerequisite to the issuance of all Certificates of Payment.
5. Full or partial payment on the Contract Sum or in reducing the retained amount (percentage) shall not relieve Contractor or its surety from fulfilling all obligations of this Contract, including guarantee of the work. Under the conditions of the Contract, Contractor and its surety agree that they waive any actual or alleged rights of subrogation or action against Owner and Architect as a result of such payments being made. The surety may at any time examine the status of Work and may request the Owner and/or Construction Manager withhold additional sums as they consider appropriate to protect their interests.

EXHIBIT B

COUNTY OF LUCAS CONTRACTOR INSURANCE

21 INSURANCE

21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly employed by any of them, or by any one for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation, disability, benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, sickness or disease or death of his employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting there from.

21.2 Certificate of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK naming OWNER as additional insured. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least thirty (30) days prior WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified;

21.3.1 Comprehensive General Liability and Property Damage, Contractor's Protective Liability, Contractual Liability, Completed Operations-Products, Automobile Bodily Injury and Property Damage, owned and non-owned and hired vehicles and Owner's Protective Liability. The latter policy shall name as the insured the OWNER. If excluded from CONTRACTOR'S standard coverages, the following shall be deleted for policies provided under the CONTRACT DOCUMENT EXCLUSIONS: (1) "Underground Operations" (2) "Third Party Beneficiary" and (3) "Collapse" - where exposure is determined. Bodily Injury Liability and Property Damage Insurance shall cover the use of "Explosives" if used in performance of the CONTRACT. Insurance should be placed with a carrier with an AM Best Rating of at least an A-.

The types and **minimum** limits of insurance shall be as follows:

Commercial General Liability Insurance - General Aggregate Limit - \$2,000,000
Products-Completed Operations- Aggregate Limit - \$2,000,000
Personal and Advertising Injury Limit - \$1,000,000 Each Occurrence Limit - \$1,000,000
Comprehensive Automobile Liability Bodily Injury & Property Damage Liability Limit
Each Occurrence - \$1,000,000

The above minimum coverages may be obtained through the primary insurance or any combination of primary and umbrella insurance. In addition, the General Aggregate Limit shall be required on a per project basis.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage Insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.

21.4 The CONTRACTOR shall procure and maintain at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any work is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause such SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for Work to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, and the OWNER.

22. INDEMNITY

22.1 PROFESSIONAL LIABILITY

Relative to any and all claims, losses, damages, liability and costs, the CONTRACTOR agrees to indemnify and save the County of Lucas, its officials and employees (herein after "County") harmless from and against any and all suits, actions or claims for property losses, damages or personal injury claimed to arise from a negligent act, error or omission by the CONTRACTOR or its employees.

22.2 NON-PROFESSIONAL LIABILITY

To the fullest extent permitted by law, the CONTRACTOR shall indemnify and hold harmless the County of Lucas, its officers, officials and employees (hereinafter "County"), or any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees arising out of the acts or omissions of the CONTRACTOR, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of property (other than the Work itself) including loss of use resulting there from, but only to the extent caused in whole or in part by the acts or omissions of the CONTRACTOR, any subCONTRACTOR(s) of the CONTRACTOR, its agents, or anyone directly employed by them or anyone whose acts they may deem liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this paragraph 22.2. It is understood and agreed that this indemnification

obligation is enforceable to the full extent permitted by Ohio Revised Code Section 2305.31.

22.3 It is expressly understood and 'agreed that these indemnification obligations are enforceable to the full extent permitted by Ohio Revised Code Section 2305.31. In any and all claims against the County by any employee of the CONTRACTOR, and any subCONTRACTOR(s) of the CONTRACTOR, agent or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. CONTRACTOR hereby expressly waives the immunity provided to CONTRACTOR by Article II, Section 35, of the Ohio Constitution and Ohio Revised Code Section 4123.74 and 4123.741, all regarding worker's compensation immunity, so that this indemnification obligation may be enforced by the County of Lucas against CONTRACTOR in those instances.

22.4 If the CONTRACTOR subcontracts with the County, the CONTRACTOR shall require its subCONTRACTORS to indemnify the County of Lucas in accord with Article 22.

22.5 CONTRACTOR Responsible - The CONTRACTOR expressly understands that the insurance requirements as outlined above are minimum requirements to be met under the contract and does not in any manner represent that the limits, coverage or policy forms are sufficient or adequate to protect the interest or liability of the CONTRACTOR and/or its subCONTRACTORS.

THE FOLLOWING MUST BE INCLUDED (IN THE SPECIFIED AREAS) ON ALL INSURANCE CERTIFICATES:

- DESCRIPTION OF THE PROJECT AND LOCATION: you may use a generalized listing of the duties to be performed under this certificate of insurance. Example: "Projects Executed for the Board of Lucas County Commissioners."
- CERTIFICATE HOLDER: Board of Lucas County Commissioners, One Government Center, Suite 800, Toledo, Ohio 43604-2247.

EXHIBIT C

CHANGE ORDER PRICING

1. The increase or decrease in the Contract Sum shall be determined in one of the following ways and, unless otherwise approved or directed by Owner, in the precedence of the order listed:
 - a. by an accepted unit price included in the Agreement;
 - b. by a lump sum cost acceptable to Owner and Architect, based on Contractor's detailed, itemized breakdown of the actual basic costs, with allowance for Contractor's profit and overhead, as provided for under Subparagraph 3 below.
 - c. by mutually agreeable unit prices for the Work, with allowance for contractor's profit and overhead, computed in a similar manner as provided for in Subparagraph 3 below.
 - d. on the actual Cost of the Work, as determined by payroll records and paid receipts, plus allowances for profit and overhead, as provided for in Subparagraph 2 through 11 below, subject to the predetermined maximum amount.
2. Except for unit prices included in the Agreement, and unless otherwise approved by Owner and Architect, for proposed changes in the Work Contractor shall submit an itemized list of quantities with the applicable unit cost and extended price for each, in such form and detail as required by Owner. Unit prices set forth in the Agreement are not subject to further profit or overhead adjustments, nor the conditions of Subparagraphs 2 through 11 below. The Contract Sum will be adjusted by the direct extension of the number of units and the unit cost price.
3. The maximum that will be allowed for overhead, profit or commission shall be as follows, expressed as a percentage of the actual basic cost of the change. The percentages for profit, overhead and commission allowed by Owner may be less, depending on the nature, extent or complexity of the change, where the percentage is not commensurate with the responsibility and administration involved (such as Contractor merely processing a Change Order to a Subcontractor), but in no event shall they exceed the following, as applied to labor and materials:

	Overhead / Profit
(a) To Contractor for Work performed with its own forces	8%
(b) To Contractor for Work performed by other than its own forces	5%

4. Material costs shall be at the actual costs to Contractor. Upon request, Contractor shall submit evidence to Architect to substantiate the costs. Materials shall be quoted at trade discount prices, with quantity discounts also applied where the quantities warrant. In any proposal with material credits, the credit shall be based on the actual contract cost for the materials (including trade and quantity discounts) less any charge actually incurred for handling or returning a material that has been delivered.

5. The percentages allowed for overhead and profit under Subparagraph 3 above shall be deemed to include: (1) field and office supervision and administration, including the field superintendent and administrative foremen; (2) general insurance, except that listed as the labor burden; (3) use of small tools; (4) shop burden; (5) equipment rental (other than required additional hoisting equipment or required equipment necessary solely as a result of the change); (6) estimating and administrative costs; (7) indirect costs related to the Work, including impact costs resulting from the performance of cumulative Change Orders; and (8) any other costs resulting from the change not expressly enumerated as a cost of the work.
6. Except for changes based on unit prices included in the Agreement, costs changes shall be computed by determining the actual cost of the work to which the overhead and profit figures may be added.
7. Subcontractors shall compute their costs in the same way and are subject to the maximum percentage for overhead and profit, which they may divide among the various tiers as they agree upon. No more than three (3) stated percentages for overhead, profit and commission will be allowed.
8. For changes involving extra cost by Contractor and Subcontractor, the overhead and profit, shall be applied only to the net difference where the extra exceeds the credit.
9. For changes involving both extra and credit amounts, the overhead and profit, or commission, shall be applied only to the net difference where the extra exceeds the credit.
10. For changes resulting in a net credit in the basic costs, an allowance for overhead, profit or commission shall be credited to Owner, as determined by Architect.
11. On changes where the value or extent of Work cannot be reasonable predetermined or agreed upon, Owner, through the Architect, may authorize Work to proceed on an agreed upon cost plus basis, not to exceed a predetermined maximum amount authorized by Owner and Construction Manager. In such cases, the basic costs and mark-up for overhead, profit and commission will be in accordance with this Exhibit.

SECTION F - PRICING

PRICING SHEET

TOILET ROOM RENOVATIONS TO BUILDING A AT 1049 S. McCORD ROAD

Company Name: _____

Street Address: _____

City, State, Zip: _____

Mailing Address:
(If Different) _____

Contact Name: _____

Telephone No.: _____

Fax No.: _____

Email Address: _____

Due: May 1, 2013 @ 2:00 PM LOCAL TIME

To: Lucas County Support Services, Purchasing Division
One Government Center, Suite 480
Toledo, Ohio 43604-2247

We, the undersigned, having carefully examined the Bid Documents agree to perform all work required by these documents heretofore submitted to bidder, as modified by addenda listed herein.

1.0 BASE BIDS – GENERAL CONTRACT

1.1 – General Contract: (Estimate: \$ 97,750.00):

Provide all necessary labor, material, supervision, taxes, insurance, cartage, storage, temporary protection, tools, equipment, layout, field engineering, required allowances, and all things necessary or incidental to furnish, deliver and install complete in every detail the Work as defined by the Drawings and Specifications for the lump sum price of:

Base Bid Amount: _____

_____ Dollars \$ _____

2.0 OWNER'S CONTINGENCY ALLOWANCE

Bidder shall include the sum of Seven Thousand dollars (\$7,000.00) in the above base bid number for discretionary use by the Owner during the execution of the project. Bidders overhead and profit is to be included in the base bid number. The remaining allowance balance at the close of the project will be returned to the Owner by way of a deduct change order.

3.0 TAXES

1. Project is tax exempt.

4.0 CONTRACTOR'S FEE

After the signing of the contracts for the work included for this project, in the event it becomes necessary to authorize changes to the Scope of Work included in the Base Bid, the following "fees" shall apply.

- a. For additional work performed by Contractor's own forces, a fee of eight (8%) percent of the Contractor's approved cost of the work.
- b. For additional work performed by Subcontractors, a fee of five (5%) percent of the Subcontractor's approved cost of the work.

The "fee" stated above shall be the total amount to be added to the "approved cost" of the extra work and shall include "Profit and Overhead".

Cost shall be limited to the following: Cost of materials, including applicable tax and cost of delivery, cost of labor and applicable fringe benefits including Social Security, and Unemployment Insurance (labor cost may include a pro rata share of foreman's time; Workmen's Compensation and other applicable insurance); rental value of power tools and equipment.

Profit and Overhead shall include the following: travel, supervision, wages of timekeepers, watchmen and clerks, small tools, incidentals, general office expense and all other expenses not included in "Cost". The cost as used herein shall include all items of labor, materials and equipment.

Fee shall include all profit and overhead and shall include the following: Travel other than required by Labor Agreement for trades directly involved in the work, supervision, wages of timekeepers, field engineers and clerks, small tools, incidentals, general field and main office expenses and all other expenses not included in "Cost".

5.0 ADDENDA

In the event that addenda have been received during the bidding period covering changes to the bid documents, the undersigned bidder subscribes to the following statement:

The work described in the following addenda is included in this proposal:

Addendum No. _____ Dated: _____

6.0 TIME OF COMPLETION

The undersigned bidder agrees to complete the work in accordance with the Bid Documents within _____ consecutive calendars days from date of Notice to Proceed.

7.0 REJECTION OF BIDS

The undersigned bidder acknowledges that the Owner reserves the right to reject any and all proposals and to award the work to other than the low bidder.

All bids will be opened publicly.

8.0 SITE INSPECTION

The undersigned bidder acknowledges that bidder has been afforded the opportunity to inspect the jobsite to arrive at a clear understanding of the Conditions under which the work is to be done; to compare the site with the drawings and specifications; to satisfy bidder as to the condition of the premises; existing obstructions; condition, location, and size and configuration of buildings and areas allocated for construction purposes; location and availability of roads; location and availability of utilities, including the electrical characteristics of the available power; proximity and nature of Owner's existing operations; and any other conditions affecting the performance of the work.

No allowances or extra consideration on behalf of the undersigned bidder will be allowed by Owner by reason of additional costs, damages or other difficulties incurred by the undersigned bidder that could have been avoided had an adequate site inspection been undertaken by him.

9.0 EEO

The undersigned bidder agrees to comply with all applicable local, state, and federal EEO.

10.0 BID GUARANTEE

The undersigned bidder agrees that this proposal will remain firm for a period of not less than sixty (60) days and extended past sixty (60) days when in accordance with the requirements of the instructions to bidders.

11.0 LEGAL STATUS AND SIGNATURE OF BIDDER

Check one of the following:

- a. Bidder is an individual _____.
- b. Bidder is a corporation _____.
- c. Bidder is a partnership _____.

1) If Corporation -
State of Corporation _____

States in which qualified to do business -

2) If partnership, list names of all partners.

Name of Contractor

By (Signature)

Title

Address of Bidder

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SECTION G - BID GUARANTEE & CONTRACT BOND

BID GUARANTEE & CONTRACT BOND
(Section 153.571 Ohio revised Code)

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned

(Name and Address)

As Principal and _____

(Name of Surety)

As Surety, are hereby held and firmly bound unto the Board of Lucas County Commissioners, hereinafter called the Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the Obligee on _____ to undertake the project known as:

12-033P, Renovations to Buildings B, C and D, 1049 S. McCord Rd., Holland, OH

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of _____

_____ Dollars (\$_____). If the foregoing blank is not filled in, the penal sum will be the full amount of the principal's bid, including alternates. Alternatively, if the blank is filled in, the amount stated must not be less than the full amount of the bid including alternates, in dollars and cents. For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named Principal has submitted a bid on the above referred to project;

NOW, THEREFORE, if the obligee accepts the bid of the Principal and Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the Obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the Principal will pay the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with resubmission, of printing new contract documents, required advertising and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be void, otherwise to remain in full force and effect. If the Obligee accepts the bid of the Principal and the Principal within ten days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every conditions of such Contract; and indemnify the Obligee against all damage suffered by failure to perform such contract according to the provisions thereof and in accordance with the plans, details, specifications, and bills of material herefore; and shall pay all lawful claims of subcontractors, herefore and laborers, for labor performed and materials furnished in the carrying forward performing, or completing of said contract;

we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Survey for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The above Surety hereby certifies that it is authorized by the superintendent of insurance, State of Ohio to execute the above bond and that the liability incurred is within the limits proscribed by Section 3929.121 of the Ohio Revised Code.

THE SAID Surety hereby stipulates and agrees that no modification, omissions, or additions, in or to the terms of said contract or in or to the plans and specifications herefore shall in any wise affect the obligation of said Surety on this bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

SIGNED AND SEALED This _____ day of _____, 20_____.

PRINCIPAL:

By _____

Title: _____

SURETY:

SURETY COMPANY ADDRESS:

By: _____
Attorney-in-Fact

_____ City State Zip

SURETY AGENT'S ADDRESS:

_____ Agency Name

_____ Street State Zip

_____ City

SECTION H - CONTRACT

AGREEMENT

THIS AGREEMENT, made this _____ day of _____ by and between Lucas County, Ohio, hereinafter called "COUNTY", and _____ hereinafter called "CONTRACTOR"

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

Section 1. The CONTRACTOR shall provide the work in accordance with The Specifications for _____ dated _____ and CONTRACTOR'S response to said specifications submitted _____.

Section 2 The CONTRACTOR shall furnish all of the materials, supplies, tools, equipment, labor and other services necessary for the performance of the Work.

Section 3. The parties agree that the actual work shall not commence prior to date of this agreement and shall be completed on or before the date established by the project schedule.

Section 4 The CONTRACTOR agrees to perform all of the work described in the contract documents and to comply with the terms therein for the sum of _____ (In _____ words _____ and _____ figures) _____.

Section 5 Payments by the COUNTY to the CONTRACTOR shall be made according to the following schedule: on an as-completed basis billed monthly.

Section 6. All payments shall be payable to the CONTRACTOR in U.S. dollars at the CONTRACTOR'S address as the CONTRACTOR directs in writing.

Section 7. The term "Contract Documents" means and includes the following:

- A) Agreement with Attachments
- B) Specifications for _____ dated _____.
- C) Bid and Proposal submitted by _____ in response to the Specifications for Request as previously mentioned.
- D) Notice to Bidders
- E) "Best Bid" Criteria Form
- F) Notice of Award
- G) Instructions to Bidders
- H) Definitions
- I) Bid Guaranty and Contract Bond
- J) Performance Bond (to be used only if Bid Guaranty and Contract Bond are not used)

- K) Delinquent Personal Property Tax Statement
- L) Not Used
- M) Wage Determination, Lucas County and Prevailing Wage Instructions
- N) Certificate of Drug-Free Workplace Compliance
- O) General Conditions
- P) Notice of Commencement / Notice to Proceed
- Q) Construction Contract Exemption Certificate
- R) Power of Attorney
- S) Additional Terms and Conditions

Section 8. This Agreement in no way precludes, prevents, or restricts the CONTRACTOR from obtaining and working under an additional contractual arrangement with other parties aside from the COUNTY, assuming that the contractual work in no way impedes the CONTRACTOR'S ability to perform the services required under this Agreement. The CONTRACTOR warrants and represents that at the time of entering into the Agreement it has no interest in nor shall it acquire any interest, direct or indirect, in any agreement which will conflict with or impede its ability to perform the required services under this Agreement.

Section 9. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns. IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three (3) copies, each of which shall be deemed an original on the date first above written.

CONTRACTOR:

Please report your Employer Identification Number in the place provided.

Emp. I.D. No.: _____

Name: _____

Address: _____

Phone Number: _____

By: _____

Title: _____

**BOARD OF LUCAS COUNTY
COMMISSIONERS LUCAS COUNTY, OHIO**

APPROVED AS TO FORM:
Julia R. Bates,
Prosecuting Attorney

Pete Gerken, President

Tina Skeldon Wozniak, Commissioner

Carol Contrada, Commissioner

IMPORTANT NOTE

Due to heightened security at One Government Center, if your bid is to be delivered to the bid-opening site by other than US Mail, UPS or Federal Express, you must complete, print and attach this label to the front of the container holding your document. Note: Upon entering One Government Center, you will be required to show a photo ID.

Formal bid to: Lucas County Support Services
One Government Center, Suite 480
Toledo OH 43604-2247

Item for bid _____

Invitation to Bid No. or Request for Proposal No. _____

Date of Bid Opening _____

Bid Opening Time _____

Vendor Name _____

BUILDING CODE:	2011 OHIO BUILDING CODE
TYPE OF PROJECT:	INTERIOR ALTERATIONS
EXISTING USE GROUP:	B
PROPOSED USE GROUP:	B
MIXED USE GROUPS:	NOT APPLICABLE
EXISTING CONSTRUCTION CLASSIFICATION:	V-B
PROPOSED CONSTRUCTION CLASSIFICATION:	V-B
EXISTING BUILDING AREA:	10,250 SQ. FT.
PROPOSED BUILDING AREA:	10,250 SQ. FT.
ALLOWABLE AREA:	9,000 SQ. FT.
PERIMETER INCREASE:	5,625 SQ. FT.
SPRINKLER INCREASE:	NOT APPLICABLE
TOTAL ALLOWABLE AREA:	14,625 SQ. FT.
EXISTING BUILDING HEIGHT:	10 FT. - 1 STORY
PROPOSED BUILDING HEIGHT:	10 FT. - 1 STORY
ALLOWABLE HEIGHT:	15 FT. - 1 STORY
SPRINKLER INCREASE:	0 FT. 0 STORIES
TOTAL ALLOWABLE HEIGHT:	15 FT. - 3 STORIES

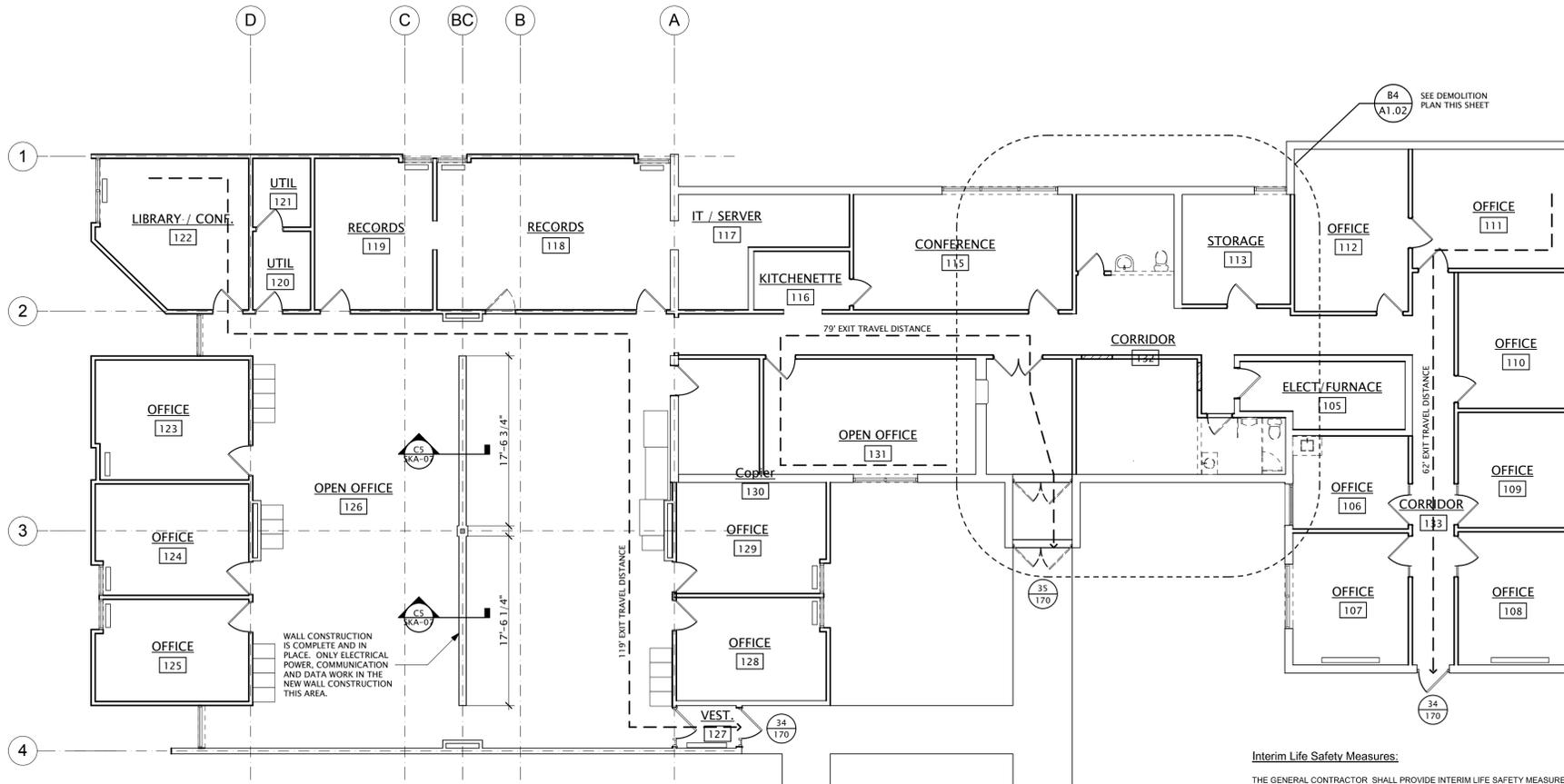
FIRE RESISTANCE RATINGS:		REQUIRED	PROPOSED
STRUCTURAL FRAME - INCLUDING COLUMNS, BEAMS, TRUSSES	0 - HOUR	0 - HOUR	0 - HOUR
BEARING WALLS - EXTERIOR	0 - HOUR	0 - HOUR	0 - HOUR
INTERIOR	0 - HOUR	0 - HOUR	0 - HOUR
NON BEARING WALLS & PARTITIONS - EXTERIOR	0 - HOUR	0 - HOUR	0 - HOUR
INTERIOR	0 - HOUR	0 - HOUR	0 - HOUR
FLOOR CONSTRUCTION - INCLUDING SUPPORTING BEAMS & JOISTS	0 - HOUR	0 - HOUR	0 - HOUR
ROOF CONSTRUCTION - INCLUDING SUPPORTING BEAMS & JOISTS	0 - HOUR	0 - HOUR	0 - HOUR
FIRE WALLS (TO SEPARATE BUILDINGS AREAS W/ STRUCTURAL STABILITY)	N/A	N/A	N/A
FIRE BARRIERS			
SEPARATION OF INCIDENTAL USES	N/A	N/A	N/A
SEPARATION OF OCCUPANCIES	N/A	N/A	N/A
EXIT STAIRS (1005.3.2)	N/A	N/A	N/A
EXIT PASSAGEWAYS	N/A	N/A	N/A
HORIZONTAL EXITS	N/A	N/A	N/A
SHAFTS (707.2)	N/A	N/A	N/A
SMOKE BARRIERS	N/A	N/A	N/A
FIRE PARTITIONS			
DWELLING UNIT SEPARATION	N/A	N/A	N/A
TENANT SPACE SEPARATION	N/A	N/A	N/A

OCCUPANT LOAD:		REQUIRED	PROVIDED
FIRST FLOOR	103 OCCUPANTS		
TOTAL	103 OCCUPANTS		
NUMBER OF EXITS REQUIRED:	2		
NUMBER OF EXITS PROVIDED:	3		
MAXIMUM TRAVEL DISTANCE:	200'		
EGRESS WIDTHS:			
STAIRWAYS (INCHES PER OCCUPANT)	N/A	N/A	
DOORS, RAMPS, CORRIDORS (INCHES PER OCCUPANT)	0.2	0.33 (34/103)	
REST ROOM FACILITIES:			
WOMEN'S WATER CLOSETS	2	3	
WOMEN'S LAVATORIES	2	3	
MEN'S WATER CLOSETS	2	2	
MEN'S URINALS	-	2	
MEN'S LAVATORIES	2	3	
DRINKING FOUNTAINS	1	1	
SERVICE SINKS	1	1	

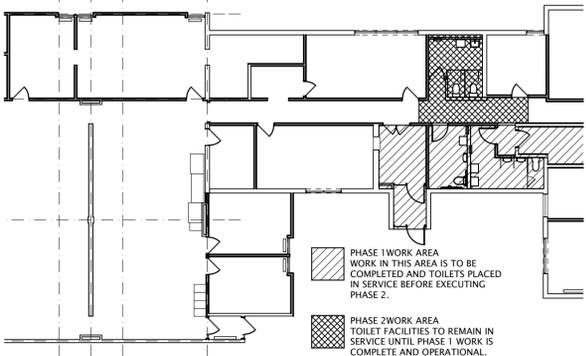
FIRE SPRINKLER SYSTEM: NOT REQUIRED BY USE GROUP
 FIRE ALARM SYSTEM: NOT REQUIRED BY USE GROUP

INTERIOR ALTERATIONS MEET REQUIREMENTS OF 2011 OHIO BUILDING CODE.
 REMAINDER OF BUILDING MEETS REQUIREMENTS OF CHAPTER 34 OF THE OHIO BUILDING CODE.

LEGEND	
---	1 HOUR WALL
----	2 HOUR WALL
-----	3 HOUR WALL
-----	4 HOUR WALL
20 180	REQUIRED OCCUPANT LOAD FOR THIS EXIT PROVIDED OCCUPANT LOAD FOR THIS EXIT
(NFPA 10) → F.E.	BRACKET MOUNTED FIRE EXTINGUISHER
(NFPA 10) ⇨ F.E. CAB.	FIRE EXTINGUISHER AND CABINET



1st FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 PLAN NORTH



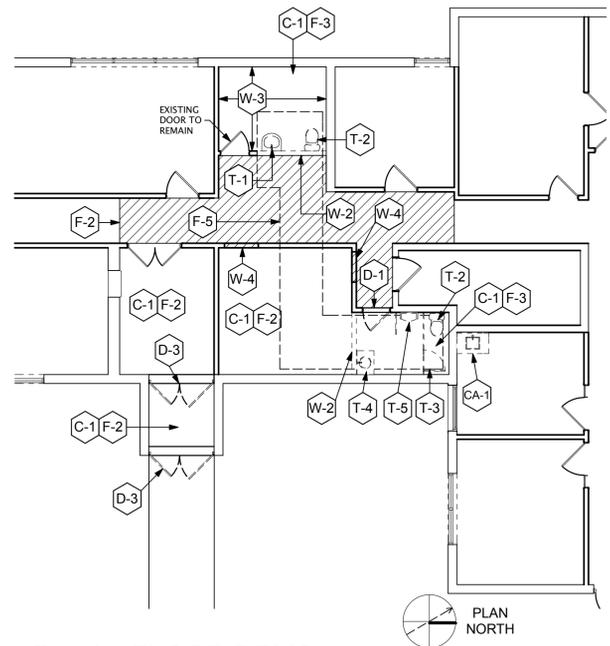
WORK PHASING PLAN
 SCALE: 1/16" = 1'-0"
 PLAN NORTH

DRAWING INDEX

- A1.01 Overall Floor Plan
- A1.02 Enlarged Floor Plans, Interior Elevations
- A1.03 Interior Elevations, Details, Schedules
- A1.04 Specifications
- A1.05 Specifications
- P0.01 Plumbing Legend and Schedules
- P0.02 Plumbing Specifications
- P0.03 Plumbing Schematic
- P1.01 Partial Floor Plan - Plumbing
- M1.01 First Floor Plan New Equipment - Mechanical
- E1.01 Electrical Legend, Schedule & First Floor Plan Demolition/Electrical
- E2.01 First Floor Plan: Lighting & Electrical

DEMOLITION DESIGNATIONS:
 CEILING:
 C-0: NO CEILING IN THIS AREA - EXISTING STRUCTURAL SYSTEM EXPOSED ABOVE
 C-1: REMOVE ACOUSTICAL TILE CEILING SYSTEM INCLUDING METAL SUSPENSION SYSTEM - 9" X 9", 1'-0" X 1'-0", 2'-0" X 2'-0" AND/OR 2'-0" X 4'-0"
 C-2: REMOVE GYPSUM BOARD CEILING SYSTEM
 C-3: EXISTING ACOUSTICAL TILE CEILING TO REMAIN UNLESS NOTED OTHERWISE. PROTECT CEILING GRID, TILES AND RELATED ITEMS INCLUDING LIGHT FIXTURES, SPEAKERS, DIFFUSERS AND SIMILAR ITEMS FROM DAMAGE DURING DEMOLITION.
 C-4: EXISTING PLASTER OR DRYWALL CEILING TO REMAIN
 ADDITIONAL NOTES FOR CEILING:
 1. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR REMOVALS ASSOCIATED WITH THOSE TRADES LOCATED ON THE SURFACE, WITHIN AND/OR ABOVE CEILING SYSTEMS.
 CASEWORK:
 CA-0: EXISTING CASEWORK AND/OR OVERHEAD SHELVES TO REMAIN
 CA-1: REMOVE BUILT-IN CASEWORK INCLUDING BASE CABINETS, COUNTERTOPS, WALL CABINETS, DESKS AND/OR SHELVING COMPLETELY. REMOVE EXISTING COUNTERTOP SINK UNIT INCLUDING FAUCET. CAP EXISTING SUPPLY (HOT AND COLD) AND SANITARY DRAIN BEHIND WALL FINISH MATERIAL AND REPAIR WALL SMOOTH AND FLUSH WITH SURROUNDING WALL SURFACE READY TO RECEIVE NEW FINISHES.
 ADDITIONAL NOTES FOR CASEWORK:
 1. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR REMOVALS ASSOCIATED WITH THOSE TRADES LOCATED ON THE SURFACE AND/OR WITHIN CASEWORK.
 2. REMOVE GLUE, ANCHORS, SHIMS, SUPPORT BRACKETS, ETC. ASSOCIATED WITH CASEWORK TO PROVIDE A SMOOTH SURFACE FOR NEW CONSTRUCTION.
 3. IF WALL IS TO REMAIN, PATCH ANY HOLES TO MATCH SURROUNDING AREA TO CREATE SMOOTH SURFACE.
 DOORS:
 D-1: REMOVE SINGLE DOOR, FRAME, TRIM (IF ANY) AND RELATED CONSTRUCTION COMPLETELY FROM OPENING.
 D-2: REMOVE DOUBLE DOORS, FRAME, TRIM, AND RELATED CONSTRUCTION COMPLETELY FROM OPENING.
 D-3: REMOVE ALUMINUM ENTRANCE DOOR, FRAMES, ANCHORS, AND RELATED CONSTRUCTION COMPLETELY.
 ADDITIONAL NOTES FOR DOORS:
 1. CONTRACTOR SHALL INCLUDE REMOVAL AND DISPOSE OF EXISTING DOOR HARDWARE.
 2. CONTRACTOR SHALL INCLUDE REMOVAL OR CUTTING OF EXISTING DOOR FRAME ANCHORS, SHIMS AND THRESHOLDS TO PROVIDE A CLEAN, CLEAR OPENING FOR NEW CONSTRUCTION.
 FLOORING:
 F-0: NO FLOORING DEMOLITION IN THIS AREA.
 F-1: REMOVE EXISTING RESILIENT FLOORING - ASPHALT, VINYL COMPOSITION, RUBBER TILE AND/OR SHEET GOODS.
 F-2: REMOVE EXISTING CARPET FLOORING - CARPET, PAD, AND/OR TACK STRIPS
 F-3: REMOVE EXISTING CERAMIC OR QUARRY TILE FLOORING - THIN SET
 F-4: NO FLOORING DEMOLITION IN THIS AREA-EXISTING FLOOR FINISH TO REMAIN
 F-5: SAW-CUT EXISTING CONCRETE FLOOR SLAB AS REQUIRED FOR NEW UNDERFLOOR UTILITIES INSTALLATION. BACKFILL WITH CLEAN, GRANULAR FILL MATERIAL AND COMPACT AS REQUIRED FOR SOLID SUBBASE. PROVIDE NEW CONCRETE OF AT LEAST 4-INCHES THICKNESS, LEVEL AND FLUSH WITH SURROUNDING CONCRETE FLOOR.
 ADDITIONAL FLOORING NOTES:
 1. CONTRACTOR TO SCRAPE AND REPAIR EXISTING CONCRETE FLOOR SYSTEM AS REQUIRED IN ALL AREAS TO PROVIDE A SMOOTH SURFACE FOR NEW CONSTRUCTION.
 TOILET FIXTURES:
 T-1: REMOVE WALL MOUNTED SINK AND ASSOCIATED PLUMBING LINES
 T-2: REMOVE TOILET, TANK AND ASSOCIATED PLUMBING LINES. CAP SANITARY BELOW FLOOR IF NOT TO BE REUSED.
 T-3: REMOVE TOILET PARTITIONS, DOORS, BRACKETS, ANCHORS AND RELATED ACCESSORIES COMPLETELY.
 T-4: REMOVE EXISTING VANITY INCLUDING SINK, CABINET AND ASSOCIATED PLUMBING LINES. CAP PLUMBING LINES SO AS TO NOT INTERFERE WITH PROPOSED NEW CONSTRUCTION.
 T-5: REMOVE EXISTING URINAL INCLUDING MOUNTING SUPPORTS, FLUSH VALVE AND ASSOCIATED PLUMBING.
 ADDITIONAL TOILET FIXTURE NOTES:
 1. IF WALLS TO REMAIN, PATCH ANY HOLES TO MATCH SURROUNDING WALL AND PROVIDE A SMOOTH SURFACE FOR NEW FINISHES.
 2. CAP ALL PLUMBING LINES BEHIND WALL SURFACE THAT ARE NOT TO BE REUSED. REMOVE PLASTIC LINES BACK TO MAIN FEED IN ACCESSIBLE AREA.
 WALLS AND PARTITIONS:
 W-1: REMOVE CONCRETE MASONRY UNIT (CMU) WALL - 4", 6", 8", 10" AND/OR 12" THICK
 W-2: REMOVE METAL OR WOOD STUD AND GYPSUM BOARD PARTITION
 W-3: REMOVE WALL COVERINGS (WOOD PANELING, LAMINATE, CERAMIC TILE, ETC.) TO EXPOSE EXISTING SUBSTRATE. REMOVE GLUE, MORTAR, ANCHORS, ETC. ASSOCIATED WITH WALL COVERING TO PROVIDE A SMOOTH SURFACE FOR NEW CONSTRUCTION.
 W-4: REMOVE SECTION OF EXISTING METAL OR WOOD STUD AND GYPSUM BOARD PARTITION FOR NEW DOOR OPENING. SEE NEW WORK FOR DOOR SIZE AND FRAME REQUIREMENTS TO DETERMINE ROUGH OPENING REQUIRED.
 ADDITIONAL NOTES FOR WALLS AND PARTITIONS:
 1. SEE ARCHITECTURAL FLOOR PLANS FOR THICKNESS OF WALL WHERE APPLICABLE

Interim Life Safety Measures:
 THE GENERAL CONTRACTOR SHALL PROVIDE INTERIM LIFE SAFETY MEASURES DURING CONSTRUCTION INCLUDING:
 1. ENSURE EXITS PROVIDE FREE AND UNOBSTRUCTED EGRESS. PROVIDE TEMPORARY SIGNAGE AS NECESSARY.
 2. TRAIN PERSONNEL IF ALTERNATE EXIT ROUTES ARE REQUIRED AND DESIGNATED.
 3. MAINTAIN ESCAPE FACILITIES FOR CONSTRUCTION WORKERS AT ALL TIMES.
 4. INSPECT MEANS OF EGRESS IN CONSTRUCTION AREAS DAILY.
 5. MAINTAIN FIRE ALARM, DETECTION AND SUPPRESSIONS SYSTEMS TO THE GREATEST EXTENT POSSIBLE. PROVIDE TEMPORARY, BUT EQUIVALENT SYSTEMS WHILE ANY FIRE PROTECTION SYSTEM IS DISABLED. OBTAIN APPROVAL BY LOCAL BUILDING AND FIRE OFFICIALS PRIOR TO DISABLING ANY SYSTEM. INSPECT AND TEST TEMPORARY SYSTEMS MONTHLY.
 6. PROVIDE ADDITIONAL FIREFIGHTING EQUIPMENT AND TRAINING FOR PERSONNEL.
 7. PROHIBIT SMOKING IN ALL CONSTRUCTION AREAS.
 8. ENFORCE STORAGE, HOUSEKEEPING AND DEBRIS REMOVAL PRACTICES THAT REDUCE FLAMMABLE AND COMBUSTIBLE FIRE LOAD TO LOWEST LEVEL NECESSARY FOR DAILY OPERATIONS.
 9. PROVIDE HAZARD SURVEILLANCE OF BUILDING, GROUNDS AND EQUIPMENT WITH SPECIAL ATTENTION TO EVACUATIONS, CONSTRUCTION AREA AND CONSTRUCTION STORAGE AND FIELD OFFICES DURING HOURS OF CONSTRUCTION WORK.



1st FLOOR DEMO
 SCALE: 1/8" = 1'-0"
 PLAN NORTH

500 Madison Ave
 Toledo, OH 43604
 419.242.7405 tel
 419.242.7400 fax
 www.thecollaborativeinc.com
 to@thecollaborativeinc.com



SPACE STUDY
Lucas Co. Engineer
Building A
Renovations
 1049 S. McCord Rd.
 Holland, OH 43528

04.12.2013	PERMIT
04.12.2013	BIDDING
04.08.2013	OWNER REVIEW

CHECKED ARB
 APPROVED ARB

TCI JOB NO. 106048

SHEET TITLE
Overall Floor Plan

SHEET NO.
A1.01

D

D

C

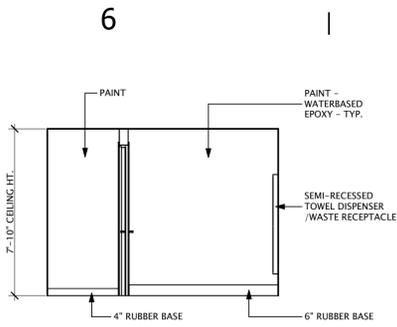
C

B

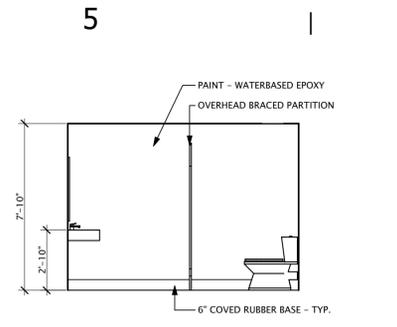
B

A

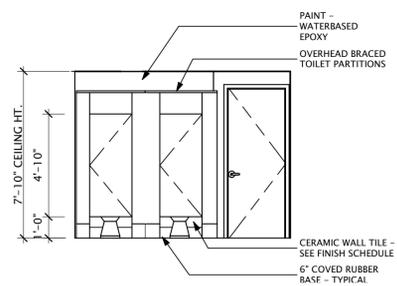
A



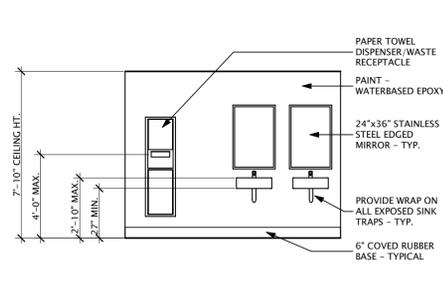
D6
A1.02 114 Women's Restroom
SCALE: 1/4" = 1'-0"



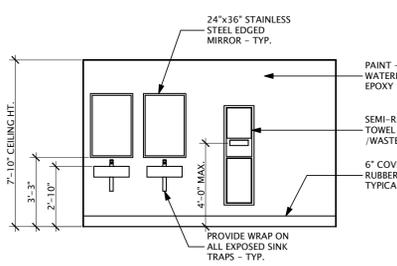
D5
A1.02 114 Women's Restroom
SCALE: 1/4" = 1'-0"



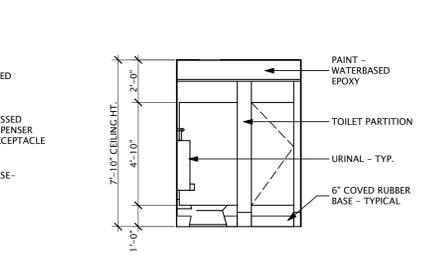
C6
A1.02 114 Women's Restroom
SCALE: 1/4" = 1'-0"



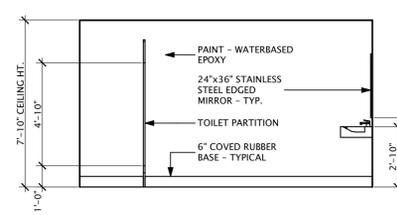
C5
A1.02 114 Women's Restroom
SCALE: 1/4" = 1'-0"



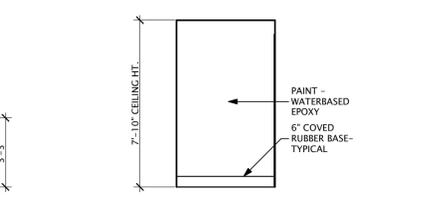
B6
A1.02 104 MEN
SCALE: 1/4" = 1'-0"



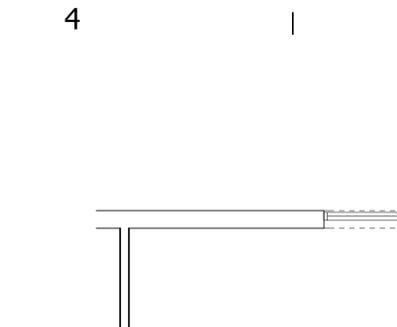
B5
A1.02 104 MEN
SCALE: 1/4" = 1'-0"



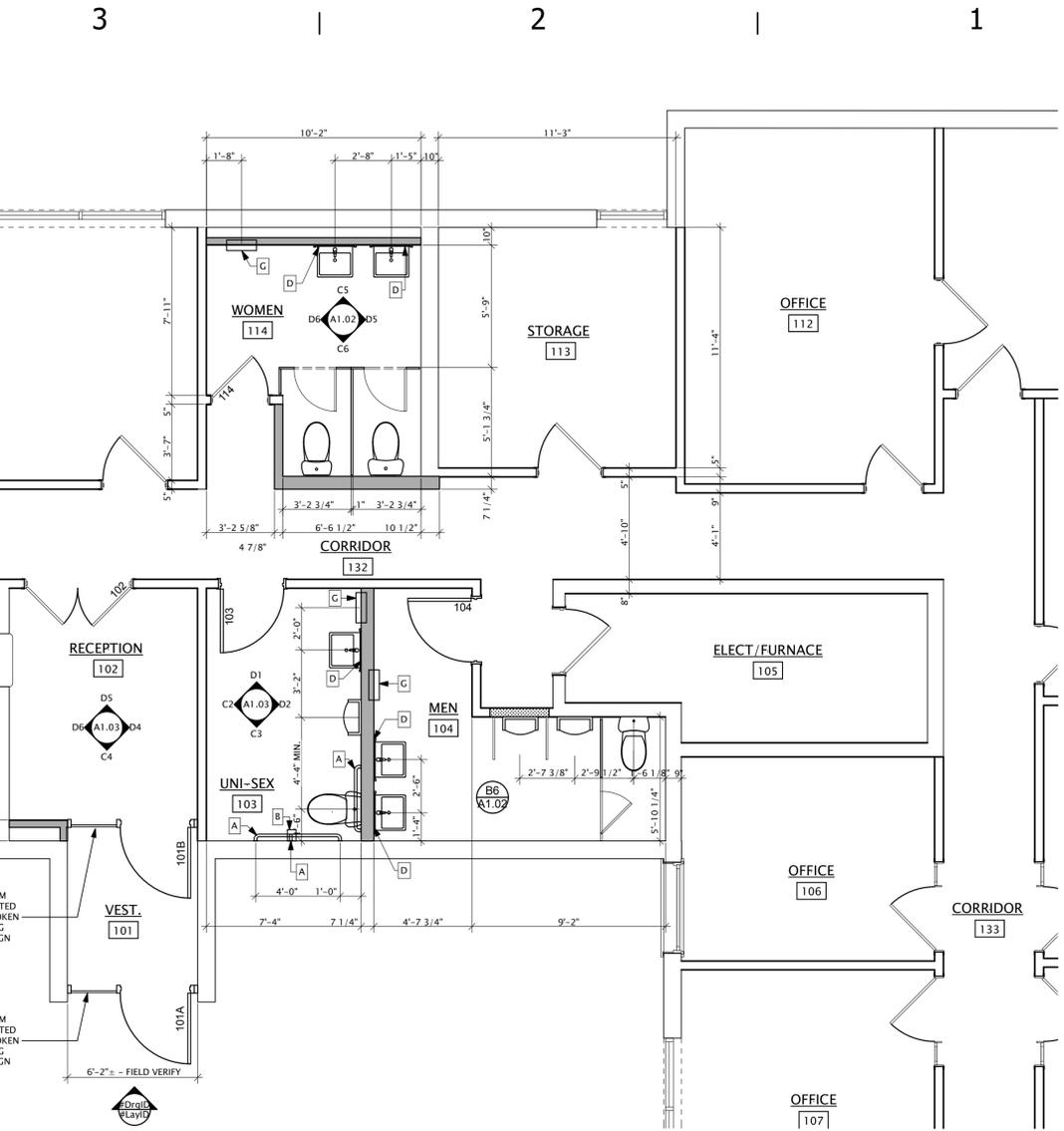
A6
A1.02 104 MEN
SCALE: 1/4" = 1'-0"



A5
A1.02 104 MEN
SCALE: 1/4" = 1'-0"



A4
A1.02 104 MEN
SCALE: 1/4" = 1'-0"



WALL CONSTRUCTION LEGEND

- WOOD STUD WALL WITH 5/8" GYPSUM BOARD ON BOTH SIDES TO UNDERSIDE OF ROOF JOISTS ABOVE. SEE FLOOR PLAN DIMENSIONS FOR SIZE OF WOOD STUDS REQUIRED. ANCHOR TO FLOOR WITH A MINIMUM OF 3" EXPANSION ANCHORS SPACED 48" O.C. PROVIDE 2x WOOD BLOCKING BETWEEN EXISTING ROOF JOISTS TO SECURE TOP OF WALL FOR LATERAL STABILITY. PROVIDE 2x WOOD HEADER CONSTRUCTION AT OPENINGS OF SIZE REQUIRED BUT IN NO CASE LESS THAN (2) - 2x6 MEMBERS VERTICAL. PROVIDE FIBERGLASS BATT INSULATION IN WALLS ALONG CORRIDORS.
- WOOD STUD WALL WITH 5/8" GYPSUM BOARD ON ROOM SIDE ONLY TO UNDERSIDE OF ROOF JOISTS ABOVE. ANCHOR TO FLOOR WITH A MINIMUM OF 3" EXPANSION ANCHORS SPACED 48" O.C. PROVIDE 2x WOOD BLOCKING BETWEEN EXISTING ROOF JOISTS TO SECURE TOP OF WALL FOR LATERAL STABILITY. PROVIDE 2x WOOD HEADER CONSTRUCTION AT OPENINGS OF SIZE REQUIRED BUT IN NO CASE LESS THAN (2) - 2x6 MEMBERS VERTICAL.
- WOOD STUD WALL INFILL CONSTRUCTION WITH 5/8" GYPSUM BOARD ON BOTH SIDES FLUSH WITH EXISTING WALL FINISH ON BOTH SIDE AND EDGES. GYPSUM BOARD THICKNESS MAY BE ADJUSTED TO 1/2" THICKNESS AS REQUIRED TO PROVIDE A FLUSH AND SMOOTH FINISH WITH ADJACENT WALL SURFACE. ANCHOR STUDS TO EXISTING WOOD JAMB STUDS WITH 16d NAILS SPACED 12" O.C. MAXIMUM.

FINISHES LEGEND

WALK OFF CARPET (WCPT) - SHAW, WELCOME, 10118 EBONY

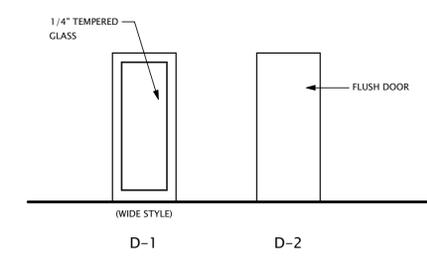
CARPET (CPT) - INTERFACE, EARTH II, 9242 PRAIRE

ACOUSTICAL CEILING PANELS (ACP) - ARMSTRONG WORLD INDUSTRIES FINE FISSURED #1774 "DUNE" WITH PRELUDE 15/16" PAINTED STEEL GRID

VINYL COMPOSITION TILE (VCT) - ARMSTRONG STANDARD EXCELON, 57501 NOUGAT

PAINTS (PT) - SHERWIN WILLIAMS, SW7631 CITY LOFT

RESILIENT BASE (RESIL) - JOHNSONITE, 80 FAWN, 4" COVE RUBBER WALL BASE, COILS



DOOR SCHEDULE

No.	SIZE		Door		FRAME		HDW SET	FIRE RATING	REMARKS	
	W	HT	EL	MATL	FN	EL				H
101A	3'-4"	7'-0"	D-1	ALUM	ANOD.					ALUM ANOD.
101B	3'-4"	7'-0"	D-1	ALUM	ANOD.					ALUM ANOD.
102	5'-0"	7'-0"	D-2	WOOD	STAIN					H.M. PAINT
103	3'-0"	7'-0"	D-2	WOOD	STAIN					H.M. PAINT
104	3'-0"	7'-0"	D-2	WOOD	STAIN					H.M. PAINT
114	2'-8"	7'-0"	EXIST.	EXIST.	EXIST.	EXIST.				EXIST. PAINT

ROOM FINISH SCHEDULE

NO.	ROOM NAME	Floor	Base	WALL FINISH				CEILING		CASEWORK		Remarks
				NORTH	EAST	SOUTH	WEST	MATL	FINISH	HORZ.	VERT.	
102	RECEPTION	WCPT-1	RWB-1	PT-1	PT-1	PT-1	PT-1	ACP-1	---	---	---	
103	UNI-SEX	VCT-1,2	RWB-2	PT-1	PT-1	PT-1	PT-1	ACP-1	---	---	---	VCT CHECKER BOARD PATTERN; EPOXY WALL PAINT
104	MEN	VCT-1,2	RWB-2	PT-1	PT-1	PT-2	PT-1	ACP-1	---	---	---	VCT CHECKER BOARD PATTERN; EPOXY WALL PAINT
114	WOMEN	VCT-1,2	RWB-2	PT-1	PT-1	PT-1	PT-2	ACP-1	---	---	---	VCT CHECKER BOARD PATTERN; EPOXY WALL PAINT

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SPACE STUDY
Lucas Co. Engineer
Building A Renovations
1049 S. McCord Rd.
Holland, OH 43528

04.12.2013	PERMIT
04.12.2013	BIDDING
04.08.2013	OWNER REVIEW

CHECKED ARB
APPROVED ARB

TCI JOB NO. 106048

SHEET TITLE
Enlarged Floor Plans, Interior Elevations

SHEET NO.
A1.02

6

5

4

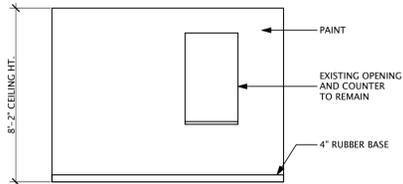
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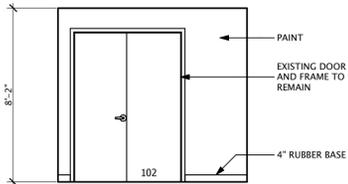
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D

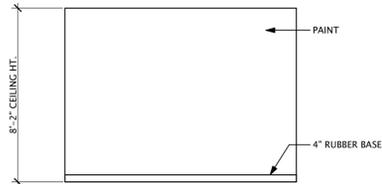
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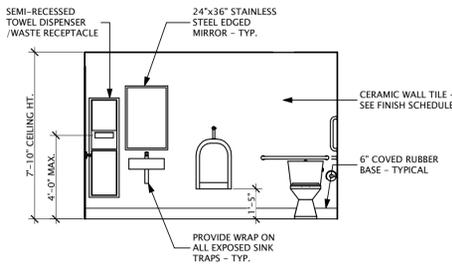
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SCALE: 1/4" = 1'-0"



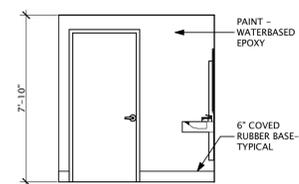
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SCALE: 1/4" = 1'-0"



D4 RECEPTION
SCALE: 1/4" = 1'-0"



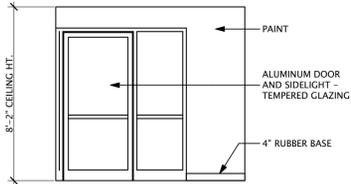
D2 103 UNI-SEX
SCALE: 1/4" = 1'-0"



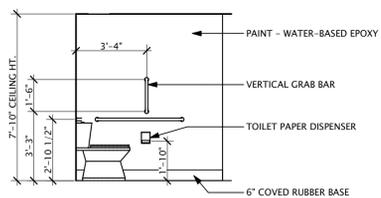
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C

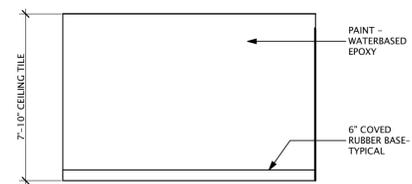
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C4 RECEPTION
SCALE: 1/4" = 1'-0"



C3 103 UNI-SEX
SCALE: 1/4" = 1'-0"



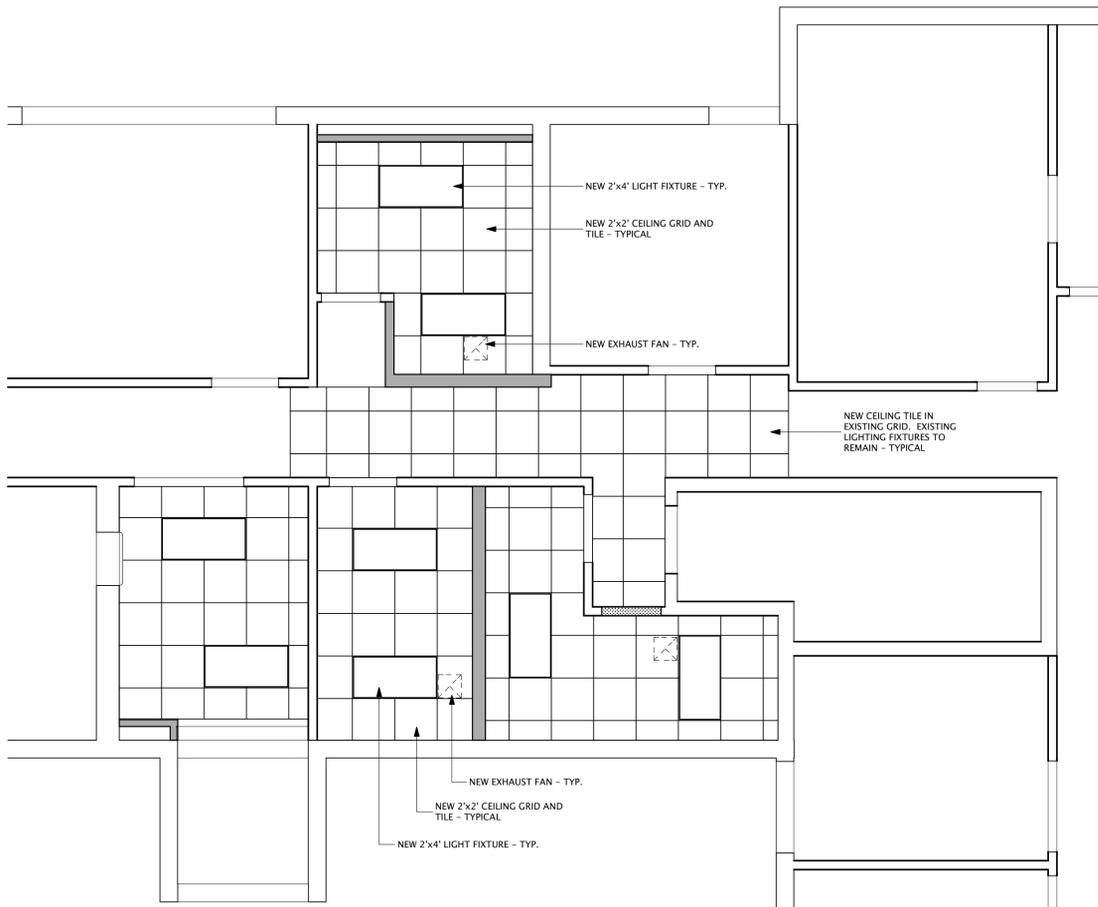
C2 103 UNI-SEX
SCALE: 1/4" = 1'-0"

SECTION 061000 - ROUGH CARPENTRY

- 1.1 SUMMARY
 - A. Section Includes:
 1. Framing with dimension lumber.
 2. Wood blocking and nailers.
- 1.2 DEFINITIONS
 - A. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater but less than 5 inches nominal (114 mm actual) in least dimension.
 - B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 1. NELMA: Northeastern Lumber Manufacturers' Association.
 2. NLGA: National Lumber Grades Authority.
 3. WCIIB: West Coast Lumber Inspection Bureau.
 4. WPA: Western Wood Products Association.
- 1.3 DELIVERY, STORAGE, AND HANDLING
 - A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.
- 1.4 WOOD PRODUCTS, GENERAL
 - A. Lumber: DOK PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - B. Maximum Moisture Content of Lumber: 19 percent unless otherwise indicated.
- 1.5 DIMENSION LUMBER FRAMING
 - A. Non-Load-Bearing Interior Partitions: Construction, Stud, or No. 3 grade.
 1. Application: Interior partitions not indicated as load-bearing.
 2. Species:
 - a. Spruce-pine-fir, NLGA.
 - B. Load-Bearing Partitions: Construction or No. 2 grade.
 1. Application: interior load-bearing partitions.
 2. Species:
 - a. Spruce-pine-fir, NLGA.
- 1.6 MISCELLANEOUS LUMBER
 - A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 1. Blocking.
 2. Nailers.
 3. Cans.
 - B. For items of dimension lumber size, provide Standard, Stud, or No. 3 grade lumber.
 - C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
 - D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
- 1.7 FASTENERS
 - A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
 - B. Nails, Brads, and Staples: ASTM F 1667.
 - C. Power-Driven Fasteners: NESMER-272.
 - D. Wood Screws: ASAE B18.1.1.
 - E. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry assemblies and equal to four times the load imposed when installed in concrete as determined by testing per ASTM E-488 conducted by a qualified independent testing and inspecting agency.
 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
- 1.8 INSTALLATION, GENERAL
 - A. Framing Standards: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
 - B. Do not splice structural members between supports unless otherwise indicated.
 - C. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
 - D. Provide fire blocking in furred spaces, stud spaces, and other concealed cavities as indicated and as follows:
 1. Fire block furred spaces of walls, at each floor level, at ceiling, and at not more than 96 inches (2438 mm) o.c. with solid wood blocking or noncombustible materials accurately fitted to close furred spaces.
 - E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
 - F. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.
- 1.9 WALL AND PARTITION FRAMING INSTALLATION
 - A. General: Provide single bottom plate and double top plates using members of 2-inch nominal (38-mm actual) thickness whose widths equal that of studs, except single top plate may be used for non-load-bearing partitions and for load-bearing partitions where framing members bearing on partition are located directly over studs. Fasten plates to supporting construction unless otherwise indicated.
 - B. Construct corners and intersections with three or more studs, except that two studs may be used for interior non-load-bearing partitions.
 - C. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs. Support headers on jamb studs.

SECTION 079200 - JOINT SEALANTS

- 1.1 SUMMARY
 - A. Section Includes:
 1. Silicone joint sealants.
- 1.2 PROJECT CONDITIONS
 - A. Do not proceed with installation of joint sealants under the following conditions:
 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
 2. When joint substrates are wet.
 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.
- 1.3 MATERIALS, GENERAL
 - A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
 - B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.
- 1.4 SILICONE JOINT SEALANTS
 - A. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 50, for Use NT.
- 1.5 EXAMINATION
 - A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
 - B. Proceed with installation only after unsatisfactory conditions have been corrected.
- 1.6 PREPARATION
 - A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dirt, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
- 1.7 INSTALLATION OF JOINT SEALANTS
 - A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
 - B. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
 - C. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
 - D. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint.
- 1.8 CLEANING
 - A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.
- 1.9 PROTECTION
 - A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.



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Holland, OH 43528

04.12.2013	PERMIT
04.12.2013	BIDDING
04.08.2013	OWNER REVIEW

CHECKED ARB
APPROVED ARB

TCI JOB NO. 106048

SHEET TITLE
**Interior Elevations,
Details, Schedules**

SHEET NO.

A1.03

6

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SECTION 081213 - HOLLOW METAL FRAMES

- 1.1 SUMMARY
 - A. Section includes hollow-metal frames.
 - 1. Section 081416 "Flush Wood Doors" for wood doors installed in hollow-metal frames.
- 1.2 DEFINITIONS
 - A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 303 or SDA A250.8.
- 1.3 COORDINATION
 - A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and drawings for installing anchors, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver each item to Project site in time for installation.
- 1.4 ACTION SUBMITTALS
 - A. Shop Drawings: Include the following:
 - 1. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
 - 2. Locations of reinforcement and preparations for hardware.
 - 3. Details of each different wall opening condition.
 - 4. Details of anchorages, joints, field splices, and connections.
 - 5. Details of moldings, removable stops, and glazing.
 - 6. Details of conduit and preparations for power, signal, and control systems.

D

- 1.5 DELIVERY, STORAGE, AND HANDLING
 - A. Deliver hollow-metal work palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
 - 1. Provide additional protection to prevent damage to factory-finished units.
 - B. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum 4-inch (102-mm) high wood blocking. Provide minimum 1/4-inch (6-mm) space between each unit to permit air circulation.

- 1.6 INTERIOR FRAMES
 - A. Construct interior frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
 - 1. Heavy-Duty Frames: SDI A250.8, Level 2.
 - a. Physical Performance: Level B according to SDA A250.4.
 - b. Materials: Uncoated steel sheet, minimum thickness of 0.053 inch (1.3 mm).
 - 2. Construction: Knocked down.
 - 3. Exposed Finish: Prime.

- 1.7 FRAME ANCHORS
 - A. Jamb Anchors:
 - 1. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch (1.0 mm) thick.

- 1.8 FABRICATION
 - A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radii and metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
 - B. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
 - 1. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
 - 2. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Stud-Wall Type: Locate anchors not more than 18 inches (457 mm) from top and bottom of frame. Space anchors not more than 32 inches (813 mm) o.c. and as follows:
 - 1) Three anchors per jamb up to 60 inches (1524 mm) high.
 - 2) Four anchors per jamb from 60 to 90 inches (1524 to 2286 mm) high.
 - 3) Five anchors per jamb from 90 to 96 inches (2286 to 2438 mm) high.
 - 4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches (610 mm) or fraction thereof above 96 inches (2438 mm) high.
 - b. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
 - 1. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
 - 2. Double-Door Frames: Drill stop in head jamb to receive two door silencers.

C

- C. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDA A250.6, the Door Hardware Schedule, and templates.
 - 1. Reinforce frames to receive nontemplated, mortised, and surface-mounted hardware.
 - 2. Comply with applicable requirements in SDA A250.6 and HMMA A156.115 for preparation of hollow-metal work for hardware.

- 1.9 STEEL FINISHES
 - A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
 - 1. Shop Primer: Manufacturer's standard, fast-drying, lead- and chromate-free primer complying with SDA A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

- 1.10 EXAMINATION
 - A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the work.
 - B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
 - C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work. Proceed with installation only after unsatisfactory conditions have been corrected.

- 1.11 PREPARATION
 - A. Drill and tap frames to receive nontemplated, mortised, and surface-mounted hardware.

- 1.12 INSTALLATION
 - A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
 - B. Hollow-Metal Frames: Install hollow-metal frames of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 440 as required by standards specified.
 - 1. Set frames accurately in position; plumb, align, and brace securely until permanent anchors are set. After wall construction is complete, remove temporary bracing, leaving surfaces smooth and undamaged.
 - 2. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
 - 3. Installation Tolerances: Adjust hollow-metal door frames for squares, alignment, twist, and plumb to the following tolerances:
 - a. Squares: Plus or minus 1/16 inch (1.6 mm), measured at door rabbet on a line 90 degrees following from frame head.
 - b. Alignment: Plus or minus 1/16 inch (1.6 mm), measured at jams on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch (1.6 mm), measured at opposite face corners of jams on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch (1.6 mm), measured at jams at door.

B

- 1.13 ADJUSTING AND CLEANING
 - A. Final Adjustments: Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.
 - 1. Remove grot and other bonding material from hollow-metal work immediately after installation.
 - B. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
 - C. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

SECTION 081416 - FLUSH WOOD DOORS

- 1.11 SUMMARY
 - A. Section includes:
 - 1. Solid-core doors with wood-veneer faces.
 - 2. Factory finishing flush wood doors.
 - 3. Factory finishing flush wood doors to frames and factory machining for hardware.
- 1.2 ACTION SUBMITTALS
 - A. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; and the following:
 - 1. Dimensions and locations of blocking.
 - 2. Dimensions and locations of mortises and holes for hardware.
 - 3. Dimensions and locations of cutouts.
 - 4. Undercuts.
 - 5. Requirements for veneer matching.
 - 6. Doors to be factory finished and finish requirements.
 - B. Samples for Initial Selection: For factory-finished doors.

- 1.3 DELIVERY, STORAGE, AND HANDLING
 - A. Comply with requirements of referenced standard and manufacturer's written instructions.
 - B. Package doors individually in plastic bags or cardboard cartons.
 - C. Mark each door on top and bottom rail with opening number used on Shop Drawings.

- 1.4 FIELD CONDITIONS
 - A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC systems are operating and maintaining ambient temperature and humidity conditions at required levels during remainder of construction period.

- 1.5 WARRANTY
 - A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Warping (bow, cup, or twist) more than 1/4 inch (6.4 mm) in a 42-by-84-inch (1067-by-2133-mm) section.
 - b. Telegraphing of core construction in faces veneered 0.01 inch in a 3-inch (76.2 mm) in a 76.2-mm span.
 - c. 23 (ten) sections.
 - 2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 3. Warranty Period for Solid-Core Interior Doors: Life of installation.

A

- 1.6 MANUFACTURERS
 - A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Algoma Hardwoods, Inc.
 - 2. Eggers Industries.
 - 3. Graham Wood Doors, an Asxa Abloy Group company.
 - 4. Marshfield Door Systems, Inc.
 - 5. Mohawk Doors, a Masonite company.
 - 6. Vancouver Door Company.
- 1.7 FLUSH WOOD DOORS, GENERAL
 - A. Particledoor-Core Doors:
 - 1. Faceboard: ANSI A208.1, Grade LD-1.

- 2. Blocking: Provide wood blocking in particledoor-core doors as needed to eliminate blocking hardware.
- 1.8 VENEER-FACED DOORS FOR TRANSPARENT FINISH
 - A. Interior Solid-Core Doors Interim Drawing designation:
 - 1. Grade: Premium, with Grade A faces.
 - 2. Species: Select white birch.
 - 3. Cut: Rotary cut.
 - 4. Match between Veneer Leaves: Book match.
 - 5. Assembly of Veneer Leaves on Door Faces: Center-Surface match.
 - 6. Exposed Vertical and Top Edges: Same species as faces or a compatible species - edge Type A.
 - 7. Core: Particledoor.
 - 8. Construction: Seven plies, either bonded or nonbonded construction.

- 1.9 FACTORY FINISHING
 - A. General: Comply with referenced quality standard for factory finishing. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
 - 1. Finish faces, all four edges, edges of cutouts, and mortises. Surfaces and fillers may be omitted on top and bottom edges, edges of cutouts, and mortises.
 - B. Factory finish doors that are intended to receive transparent finish.
 - C. Transparent Finish:
 - 1. Grade: Premium.
 - 2. Finish: WDMA TR-4 conversion varnish or WDMA TR-4 catalyzed polyurethane.
 - 3. Staining: As selected by Architect from manufacturer's full range.
 - 4. Effect: Filled finish.
 - 5. Sheen: Satin.

- 1.10 EXAMINATION
 - A. Examine doors and installed door frames, with Installer present, before hanging doors.
 - 1. Verify that installed frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jams.
 - 2. Repeat doors with defects.
 - B. Proceed with installation only after unsatisfactory conditions have been corrected.

- 1.11 INSTALLATION
 - A. Hardware: For installation, see hardware sets indicated on drawings.
 - B. Installation Instructions: Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.
 - 1. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels as indicated below; do not trim sills and rails in excess of limits set by manufacturer or permitted for fire-rated doors.
 - 2. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.
 - 1. Clearances: Provide 1/8 inch (3.2 mm) at heads, jams, and between pairs of doors. Provide 1/8 inch (3.2 mm) from bottom of door to top of decorative floor finish or covering unless otherwise indicated. Where threshold is shown or scheduled, provide 1/4 inch (6.4 mm) from bottom of door to top of threshold unless otherwise indicated.
 - 2. Bevel non-fire-rated doors 1/8 inch in 2 inches (3.1/2 degrees) at lock and hinge edges.

- 1.12 ADJUSTING
 - A. Operation: Rehang or replace doors that do not swing or operate freely.
 - 1. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

SECTION 084213 - ALUMINUM-FRAMED ENTRANCES

- 1.11 SUMMARY
 - A. Section includes:
 - 1. Exterior manual-swing entrance doors and door-frame units.
 - 2. Interior manual-swing entrance doors and door-frame units.
 - 3. Sidights.

- 1.2 ACTION SUBMITTALS
 - A. Shop Drawings: For aluminum-framed entrances. Include plans, elevations, sections, full-size details, and attachments to other work.
 - 1. Include details of provisions for assembly sequencing and contraction and for draining moisture occurring within the assembly to the exterior.
 - 2. Include full-size isometric details of each vertical-to-horizontal intersection of aluminum-framed entrances, showing the following:
 - a. Finicity, including concealed welds.
 - b. Anchorage.
 - c. Expansion provisions.
 - d. Glazing.
 - e. Flashing and drainage.
 - 3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.

- 1.3 WARRANTY
 - A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.
 - B. Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Warranty Period: 10 years from date of Substantial Completion.

- 1.4 PERFORMANCE REQUIREMENTS
 - A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances representing those indicated for this Project without failure due to defective manufacturing, fabrication, installation, or other defects in construction.
 - B. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:
 - 1. Entrance Doors:
 - a. Single Doors: Maximum air leakage of 0.5 cfm/sq. ft. (2.54 L/sq. ft. per sq. m) at a static-air pressure differential of 1.57 lbf/sq. ft. (75 Pa).
 - b. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows.
 - 1. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 2.4 lbf/sq. ft. (109 Pa).
 - C. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:
 - 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

- 1.5 MANUFACTURERS
 - A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Commercial Architectural Products, Inc.
 - 2. EFCO Corporation.
 - 3. Kawneer North America.
 - 4. Oklaiste Building/Envelope.
 - 5. Talside.
 - 6. United States Aluminum.
 - 7. YKK AP America Inc.

- 1.6 ENTRANCE DOOR SYSTEMS
 - A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing operation.
 - 1. Door Construction: 2-inch (50.8-mm) overall thickness, with minimum 0.180-inch (4.57-mm) thick, extruded-aluminum tubular rail and stile members. Mechanically fasten frames with reinforcing brackets that are deeply penetrated and filled welded or that incorporate concealed tie bars.
 - 2. Door Design: Wide stile; 5-inch (127-mm) nominal width.
 - 3. Glazing Stops and Gaskets: Square, snap-on, extruded-aluminum stops and preformed gaskets.
 - a. Provide nonremovable glazing stops on outside of door.
 - 4. Framing Members: Manufacturer's standard extruded aluminum, minimum 0.125 inch (3.2 mm) thick and reinforced as required to support imposed loads.
 - 1. Nominal Size: 1.3-1.4 by 4.1/2 inches (33 by 115 mm).
 - B. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.
 - C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
 - D. Materials:
 - 1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - a. Sheet and Plate: ASTM B 209 (ASTM B 209M).
 - b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).
 - c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
 - d. Structural Profiles: ASTM B 308/B 308M.

- 1.7 ENTRANCE DOOR HARDWARE
 - A. Entrance Door Hardware: Hardware not specified in this Section is specified on drawings in hardware sets.

- 1.8 GLAZING
 - A. Glazing: Comply with Section 08800 "Glazing."
 - 1. Glazing Gaskets: Manufacturer's standard seal-ener compression-gelating system of black, resilient elastomeric glazing gaskets, setting blocks, and slims or spacers.
 - 2. Glazing Sealants: As recommended by manufacturer.

- 1.9 ACCESSORIES
 - A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
 - 1. Use fastening devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
 - 2. 23 (ten) sections as required to receive fastener threads.
 - 3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
 - B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch (25.4 mm) that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.
 - 1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.
 - C. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.

- 1.10 GLASS PRODUCTS, GENERAL
 - A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Algona Hardwoods, Inc.
 - 2. Eggers Industries.
 - 3. Graham Wood Doors, an Asxa Abloy Group company.
 - 4. Marshfield Door Systems, Inc.
 - 5. Mohawk Doors, a Masonite company.
 - 6. Vancouver Door Company.

- 1.10 FABRICATION
 - A. Form or extrude aluminum shapes before finishing.
 - 1. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish.
 - 2. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
 - B. Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fitted joints with ends coped or mitered.
 - 3. Physical and thermal isolation of glazing from framing members.
 - 4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 5. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

- D. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
 - 1. At exterior doors, provide compression weather stripping at fixed stops.
 - 2. At interior doors, provide silencers at stops to prevent metal-to-metal contact. Install three silencers on strike jamb of single-door frames and two silencers on head of frames for pairs of doors.
- E. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
 - 1. At pairs of exterior doors, provide sliding-type weather stripping retained in adjustable strip and mortised into door edge.
 - 2. At exterior doors, provide weather seals applied to door bottoms.
- F. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.

- 1.11 ALUMINUM FINISHES
 - A. Clear Anodize Finish: AAMA 611, AA-M1224A1, Class 1, 0.018 mm or thicker.

- 1.12 EXAMINATION
 - A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the work.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

- 1.13 PREPARATION
 - A. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.

- 1.14 INSTALLATION
 - A. General:
 - 1. Comply with manufacturer's written instructions.
 - 2. Do not install damaged components.
 - 3. Fit joints to produce herring joints free of burrs and distortion.
 - 4. Rigidly secure nonmovement joints.
 - 5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent ingoing movement of moving joints.
 - 6. Seal perimeter and other joints watertight unless otherwise indicated.
 - B. Protection:
 - 1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or installing nonconductive spacers between dissimilar metals.
 - 2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

- C. Set continuous sill members and flashing in full sealant bed as specified in Section 07200 "Joint Sealant" to produce weathertight installation.
 - 1. Install components plumb and true in alignment with established lines and grades.
 - 2. E. Install glazing as specified in Section 08800 "Glazing."
- D. Entrance Doors: Install doors to produce smooth operation and tight fit at contact points.
 - 1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
 - 2. Field-Installed Entrance Door Hardware: Write instructions mounted entrance door hardware according to entrance door hardware manufacturer's written instructions using concealed fasteners to greatest extent possible.

- 1.15 MAINTENANCE SERVICE
 - A. Entrance Door Hardware:
 - 1. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal or replacement of entrance door hardware.

SECTION 08800 - GLAZING

- 1.11 SUMMARY
 - A. Section includes:
 - 1. Glass for windows, doors, and storefront framing.
 - 2. Glazing sealants and accessories.

- 1.2 DEFINITIONS
 - A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.
 - B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.
 - C. Interspace: Space between lites of an insulating-glass unit.

- 1.3 COORDINATION
 - A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

- 1.4 QUALITY ASSURANCE
 - A. Manufacturer Qualifications for Insulating-Glass Units with Sputter-Coated, Low-E Coatings: A qualified insulating-glass manufacturer who is approved and certified by coated-glass manufacturer.
 - B. Glass Testing Agency Qualifications: A qualified independent testing agency accredited according to the NFRC CAP 1 Certification Agency Program.
 - C. Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 1021 to conduct the testing indicated.

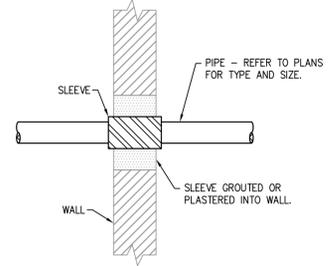
- 1.5 DELIVERY, STORAGE, AND HANDLING
 - A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.
 - B. Comply with insulating-glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal rupture due to altitude change.

- 1.6 FIELD CONDITIONS
 - A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
 - 1. Do not install glazing seals when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 deg F (4.4 deg C).

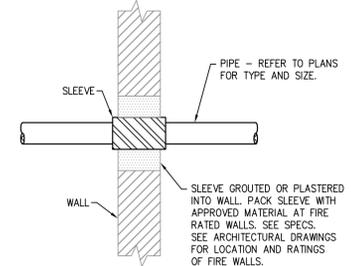
- 1.7 WARRANTY
 - A. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surface of glass.
 - 1. Warranty Period: 10 years from date of Substantial Completion.

- 1.8 MANUFACTURERS
 - A. Basis-of-Design Glass Product: Subject to compliance with requirements, provide product indicated in glass schedule or comparable product by one of the following:
 - 1. AGC Glass Company North America, Inc.
 - 2. Cardinal Glass Industries.
 - 3. Guardian Industries Corp.
 - 4. Oklaiste Building Envelope.
 - 5. Pilkington North America Inc.
 - 6. PPG Industries, Inc.
 - 7. Viracon, Inc.
 - B. Source Limitations for Glass: Obtain from single source from single manufacturer for each glass type.
 - 1. Obtain tinted glass from single source from single manufacturer.
 - C. Source Limitations for Glazing Accessories: Obtain from single source from single manufacturer for each product and installation method.

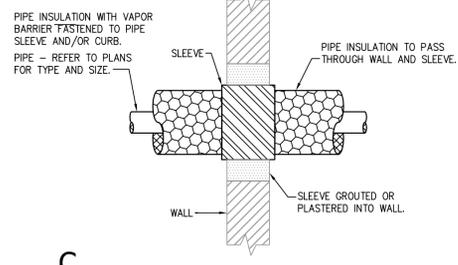
- 1.9 PERFORMANCE REQUIREMENTS
 - A. General: Installed glazing systems shall withstand normal thermal movement and wind impact loads (where applicable) without failure, including loss of glass or breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealant or gaskets to remain watertight and airtight; deterioration of glazing material; or other defects in construction.
 - 1. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II.
 - 2. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
 - 1. For monolithic-glass lites, properties are based on units with lites 6 mm thick.



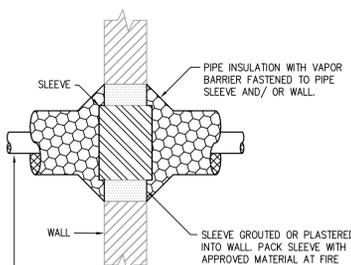
PIPE THRU WALL DETAIL NO SCALE



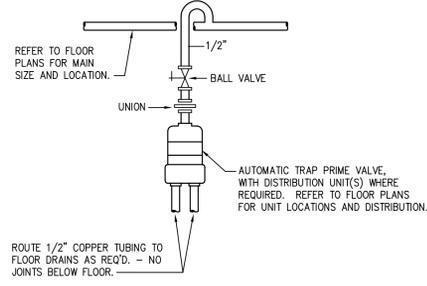
PIPE THRU RATED WALL DETAIL NO SCALE



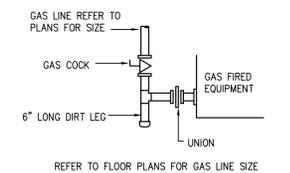
INSULATED PIPE THRU WALL DETAIL NO SCALE



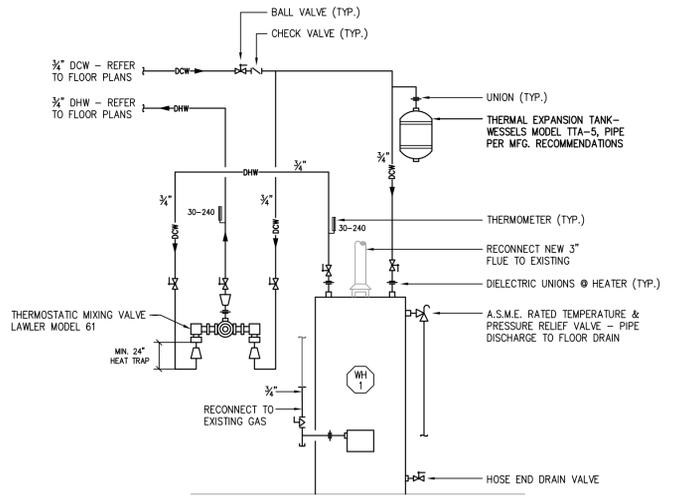
INSULATED PIPE THRU RATED WALL DETAIL NO SCALE



AUTOMATIC TRAP PRIMER DETAIL NO SCALE



TYPICAL GAS CONNECTION DETAIL NO SCALE



GAS FIRED WATER HEATER DETAIL NO SCALE

INTERIOR INSULATION APPLICATION SCHEDULE				
PIPE SIZES (NPS)	MATERIALS	THICKNESS	VAPOR BARRIER REQ'D	FIELD-APPLIED JACKET
DOMESTIC HOT WATER, 60° F TO 140° F				
½" TO 1½"	GLASS FIBER	1"	NO	NONE
½" TO 1½"	FLEXIBLE ELASTOMERIC	½"	NO	NONE
1½" TO 4"	GLASS FIBER	1"	NO	NONE
1½" TO 4"	FLEXIBLE ELASTOMERIC	¾"	NO	NONE
DOMESTIC COLD WATER, 35° F TO 60° F				
½" TO 1½"	GLASS FIBER	1"	YES	NONE
½" TO 1½"	FLEXIBLE ELASTOMERIC	½"	YES	NONE
1½" TO 4"	GLASS FIBER	1"	YES	NONE
1½" TO 4"	FLEXIBLE ELASTOMERIC	¾"	YES	NONE

FIRE SEALANT SCHEDULE – INSULATED PIPING				
PIPING TYPE	FIRE RATING	HILTI PRODUCT	UL SYSTEM NUMBER	SEALANT DEPTH
INSULATED METAL PIPES THROUGH CONCRETE				
MAX. 4" STEEL OR COPPER PIPE w/ MAX. 2" THICK GLASS FIBER INSULATION	2-HOUR	CP 680	FA 5017	N/A
MAX. 12" STEEL, MAX. 6" COPPER PIPE w/ MAX. 2" GLASS FIBER INSULATION	2-HOUR	FS-ONE	CAJ 5091	½"
MAX. 4" STEEL, COPPER, CONDUIT OR EMT PIPE w/ MAX. 3/4" AB/PVC INSULATION	3-HOUR	FS-ONE	CAJ 5090	¾"
MAX. 6" STEEL, COPPER, CONDUIT OR EMT PIPE w/ MAX. 1 1/2" GLASS FIBER INSULATION	4-HOUR	FS-ONE	WJ 5028	2"
INSULATED METAL PIPES IN WOOD				
MAX. 2" COPPER OR STEEL PIPE w/ MAX. 1½" GLASS FIBER INSULATION	1-HOUR	FS-ONE	FC 5036	N/A
INSULATED METAL PIPES IN GYPSUM				
MAX. 12" STEEL, 6" COPPER, 4" CONDUIT OR EMT PIPE w/ MAX. 2" GLASS FIBER INSULATION	1 OR 2-HOUR	FS-ONE	WL 5029	¾"

FIRE SEALANT SCHEDULE – NON-INSULATED PIPING				
PIPING TYPE	FIRE RATING	HILTI PRODUCT	UL SYSTEM NUMBER	SEALANT DEPTH
METAL PIPE THROUGH CONCRETE				
MAX. 10" STEEL, 4" COPPER, STEEL CONDUIT, EMT PIPE	2-HOUR	FS-ONE, CP 601S, OR CP 606	CAJ 1149	½"
MAX. 30" STEEL, CAST IRON, MAX 6" COPPER CONDUIT OR MAX. 4" EMT PIPE	2-HOUR	FS-ONE	CAJ 1291	½"
MAX. 10" STEEL, CAST IRON, MAX. 4" COPPER, CONDUIT OR EMT PIPE	3-HOUR	FS-ONE	CAJ 1184	1"
MAX. 20" STEEL, CAST IRON, MAX. 6" COPPER, CONDUIT OR 4" EMT PIPE	3-HOUR	FS-ONE	CAJ 1155	½"
MAX. 6" STEEL, COPPER, STEEL CONDUIT, MAX. 4" EMT PIPE	4-HOUR	FS-ONE	WJ 1068	1½"
PLASTIC AND GLASS PIPE IN CONCRETE				
MAX. 4" ABS, NOM. 6" FRPP	2-HOUR	CP 680	FA 2065	N/A
MAX 2" PVC OR CPVC	2-HOUR	FS-ONE	CAJ 2167	2"
MAX. 4" ABS, NOM 6" FRPP	3-HOUR	CP 680	FA 2066	N/A
MAX 2" PVC, CPVC, FRPP, OR ABS	3-HOUR	FS-ONE	CAJ 2220	2½"
MAX 6" PVC, CPVC, FRPP, OR ABS	3-HOUR	CP 642/643	CAJ 2109	N/A
MAX 6" GLASS PIPE	3-HOUR	FS-ONE	CAJ 2118	¾"
PLASTIC PIPE IN WOOD				
MAX. 4" PVC, CPVC, ABS, OR FRPP	1 OR 2-HOUR	CP 643	FC 2025	N/A
METAL PIPE THROUGH GYPSUM				
MAX 8" STEEL, CAST IRON, MAX. 6" CONDUIT MAX. 4" COPPER OR EMT	1 OR 2-HOUR	FS-ONE	WL 1205	1"
PLASTIC PIPE IN GYPSUM				
MAX 6" PVC, CPVC, ABS OR FRPP	1 OR 2-HOUR	CP 642/643	WL 2078	N/A

LEGEND AND SYMBOLS			
→	FLOW DIRECTION	CO	CLEANOUT
—DCW—	DOMESTIC COLD WATER PIPING – ABOVE GROUND	FD	FLOOR DRAIN
—DHW—	DOMESTIC HOT WATER PIPING – ABOVE GROUND	V	VENT
—SAN—	SANITARY PIPING – UNDERGROUND	VTR	VENT THROUGH ROOF
—SAN—	SANITARY PIPING – ABOVE GROUND	IE	INVERT ELEVATION
—V—	SANITARY VENT PIPING	FFE	FINISHED FLOOR ELEVATION
		AFF	ABOVE FINISHED FLOOR
		AFG	ABOVE FINISHED GRADE
		RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
—B—	BALL VALVE	—T—	"P" TRAP
—C—	CHECK VALVE	—ATP—	AUTOMATIC TRAP PRIMER
—G—	GAS VALVE	—U—	UNION
—R—	TEMPERATURE AND PRESSURE RELIEF VALVE	—T—	THERMOMETER w/ RANGE
—S—	"Y" STRAINER	—P—	PRESSURE GAUGE w/ RANGE

PLUMBING FIXTURE SCHEDULE (refer to specifications for approved alternate manufacturers list)						
DESCRIPTION	SYMBOL	DCW	DHW	WASTE	VENT	SPECIFICATIONS
WATER CLOSET – FLOOR SET TANK TYPE	WC-1	1/2"	---	3"	2"	PROFLO #F8201 WHITE VITREOUS CHINA FLOOR SET, 1.6 GPF HIGH PERFORMANCE WATER CLOSET WITH ELONGATED FRONT RIM, 16" BOWL HEIGHT, 2-1/8 INCH PASSAGEWAY, AND 3 INCH FLUSH VALVE. FURNISH COMPLETE WITH PROFLO #PFTSC0200 WHITE ELONGATED PLASTIC OPEN FRONT SEAT WITH COVER, CLOSET BOLT/MAX RING KIT, AND ANGLE SUPPLY WITH LOOSE KEY STOP AND RISER TUBE. PROVIDE WATER CLOSET TRIP LEVER TO THE LEFT SIDE OF THE COMPARTMENT. WATER HAMMER ARRESTOR PDI "A".
WATER CLOSET – FLOOR SET TANK TYPE – BARRIER FREE	WC-2	1/2"	---	3"	2"	PROFLO #F8203 WHITE VITREOUS CHINA FLOOR SET, 1.6 GPF HIGH PERFORMANCE WATER CLOSET WITH ELONGATED FRONT RIM, 17-1/8" BOWL HEIGHT, 2-1/8 INCH PASSAGEWAY, AND 3 INCH FLUSH VALVE. FURNISH COMPLETE WITH PROFLO #PFTSC0200 WHITE ELONGATED PLASTIC OPEN FRONT SEAT WITH COVER, CLOSET BOLT/MAX RING KIT, AND ANGLE SUPPLY WITH LOOSE KEY STOP AND RISER TUBE. PROVIDE WATER CLOSET TRIP LEVER TO THE WIDE SIDE OF THE TOILET ROOM OR COMPARTMENT. WATER HAMMER ARRESTOR PDI "A".
URINAL WALL HUNG – FLUSH VALVE BARRIER FREE	UR-1	3/4"	---	2"	1-1/2"	PROFLO #F1825, WHITE VITREOUS CHINA, WALL HUNG URINAL WITH ¾" TOP SPUD AND CONCEALED HANGERS, 14" ELONGATED RIM, 2" I.P.S. OUTLET FLANGE AND RUBBER GASKET WITH INTEGRAL TRAP. FURNISH COMPLETE WITH ZURN #Z6003AV-EWS, 0.5 GPF FLUSH VALVE, CHROME PLATED WITH POLISHED EXTERIOR, PRESSURE VACUUM BREAKER, ADJUSTABLE TAILPIECE, SPUD COUPLING, AND FLANGE FOR TOP SPUD CONNECTION, VANDAL-RESISTANT STOP CAP AND WALL FLANGE WITH SET-SCREW. PROVIDE ZURN #Z1221 (AND/OR) Z1222 CARRIER(S). MOUNTING HEIGHT SHALL BE DETERMINED BY ARCHITECT. WATER HAMMER ARRESTOR PDI "A".
LAVATORY – WALL HUNG – BARRIER FREE	L-1	1/2"	1/2"	1 1/2"	1 1/2"	PROFLO #F5504 WHITE VITREOUS CHINA WALL HUNG LAVATORY WITH CONCEALED FRONT OVERFLOW, AND PUNCHED FOR CONCEALED CARRIER. FURNISH COMPLETE WITH WITH GRID DRAIN STRAINER, OFFSET DRAIN, "P"-TRAP AND WALL BEND WITH ESCUTCHEON, WATER SUPPLY KIT WITH TWO CHROME-PLATED SOLID BRASS ANGLE STOPS WITH LOOSE KEYS, AND TWO SUPPLY RISERS, ADA OFFSET TRAP AND SUPPLY WRAP PROTECTOR KIT, PROFLO #PFT004L SINGLE LEVER FAUCET WITH 5 GPM AERATOR, AND WATTS MODEL USC-P-MT THERMOSTATIC MIXING VALVE – ASSE STANDARD 1070, OUTLET TEMPERATURE TO BE SET AT 110 DEG F. PROVIDE CARRIER EQUAL TO ZURN MODEL Z-1231.

PLUMBING SPECIALTIES, FLOOR DRAINS SCHEDULE (refer to specifications for approved alternate manufacturers list)							
DESCRIPTION	SYMBOL	DCW	DHW	WASTE	VENT	SPECIFICATIONS	
FLOOR CLEANOUT	○	FC0	---	---	4"	---	EQUAL TO SIOUX CHIEF MODEL #34-4PNR ADJUSTABLE FLOOR CLEANOUT WITH PVC BODY, GAS AND WATER-TIGHT ABS TAPERED, POLYPROPYLENE THREADED PLUG, AND POLISHED NICKEL-BRONZE COVER AND PLATE ADJUSTABLE TO FINISHED FLOOR.
FLOOR DRAIN – FINISHED AREAS	⊗	FD-1	1/2"	---	3"	---	EQUAL TO SIOUX CHIEF MODEL #B33-3PNR FINISH LINE ADJUSTABLE FLOOR DRAIN WITH PVC BODY AND BOTTOM OUTLET. PROVIDE FLOOR DRAIN WITH ADJUSTABLE TOP, 6% INCH ROUND RING/STRAINER, AND TRAP PRIMER CONNECTION.

NATURAL GAS-FIRED WATER HEATER SCHEDULE										
SYMBOL	MANUFACTURER	MODEL NUMBER	BTU INPUT	STOR. GAL.	RECOVERY GPH @ 90° F	NAT'L. GAS CONNECTION	HW/CW CONNECTION	FLUE CONNECTION	LWT ° F	REMARKS
WH-1	LOCHINVAR	LTN040 40	40,000	40	41	¾"	¾"	3"	140° F	RECONNECT TO EXISTING FLUE

GENERAL NOTES – PLUMBING

- NOTE: THESE NOTES ARE GENERAL IN NATURE. SPECIFIC MEANS, METHODS AND MATERIALS ARE DETAILED IN THE SPECIFICATIONS. CONTRACTOR IS DIRECTED TO THOROUGHLY REVIEW THE FULL SPECIFICATION. CONTRACT SPECIFICATIONS SHALL GOVERN IN CASE OF CONFLICT.
- PERFORM ALL WORK IN ACCORDANCE WITH THE OHIO PLUMBING CODE, LATEST EDITION AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
 - CONTRACTOR SHALL VISIT SITE TO VERIFY ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK.
 - CONTRACT SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS, ETC., FOR A COMPLETE AND OPERABLE INSTALLATION. ALL MATERIALS SHALL BE NEW, SPECIFICATION GRADE, AND U.L. LISTED PRODUCTS, UNLESS NOTED OTHERWISE.
 - COORDINATE ALL WORK AND SCHEDULES WITH OWNER, DEVELOPMENT MANAGER, ARCHITECT, OTHER CONTRACTORS AND APPROPRIATE UTILITY COMPANIES.
 - STORE MATERIALS WHERE DIRECTED. PROTECT STORED MATERIALS AND INSTALLED WORK FROM DAMAGE. REPLACE ALL DAMAGED ITEMS WITH NEW.
 - REMOVE DIRT, DEBRIS AND UNUSED MATERIALS FROM SITE REGULARLY AND DISPOSE OF BY PROPER AND LEGAL METHODS.
 - SCHEDULE ALL WATER, GAS SERVICE AND SEWER INTERRUPTIONS WITH OWNER, TENANT, AND OTHER CONTRACTORS 72 HOURS PRIOR TO INTERRUPTION.
 - PATCH AND FINISH CONSTRUCTION DAMAGED DURING THE COURSE OF PLUMBING INSTALLATIONS.
 - PROVIDE PROPER SEALS AND FIRE STOPPING AT ALL WALL, FLOOR AND CEILING PENETRATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS FOR WALLS, FLOORS AND CEILINGS.
 - PERFORM TESTING AND MAKE FINAL ADJUSTMENTS TO VERIFY PROPER PERFORMANCE OF ALL SYSTEMS AND EQUIPMENT.
 - MAINTAIN "AS BUILT" RECORDS OF ALL INSTALLED ITEMS AND PROVIDE TO ARCHITECT AT PROJECT COMPLETION.
 - MOUNT ALL HANDICAP DEVICES AND EQUIPMENT PER FEDERAL ADA GUIDELINES. INDICATED HEIGHTS ARE NOMINAL. WORK TO MASONRY COURSES, WAINSCOTS, COUNTERS, BACK SPLASHES, ETC., FOR ROUGH-INS.
 - COORDINATE ALL SANITARY INVERT ELEVATIONS WITH EXISTING CONDITIONS / OTHER CONTRACTORS PRIOR TO INSTALLING ANY PIPING.
 - THE CONTRACTOR IS RESPONSIBLE FOR FULLY COORDINATING ALL WORK WITH OTHER TRADES TO ENSURE PROPER CLEARANCES FOR INSTALLATION AND MAINTENANCE. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS. EXACT LOCATIONS OF EQUIPMENT, MATERIAL AND DEVICES, ETC., MUST BE COORDINATED IN THE FIELD.

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ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS



SPACE STUDY
Lucas Co. Engineer
Building A
Renovations
1049 S. McCord Rd.
Holland, OH 43528

04.12.2013 BIDDING
04.12.2013 PERMITS

CHECKED RFY
APPROVED KPL

TCI JOB NO. 106048

SHEET TITLE
PLUMBING LEGEND,
AND SCHEDULES

SHEET NO.
P0.01



PLUMBING SPECIFICATION

1.00 GENERAL

1.01 GENERAL SCOPE

A. THE WORK REQUIRED UNDER THIS SPECIFICATION SHALL CONSIST OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, POWER, TRANSPORTATION, HOISTING IMPLEMENTS, ETC. OF EVERY DESCRIPTION NECESSARY FOR THE ENTIRE COMPLETION OF THE PLUMBING WORK OF THE CONTRACT...

1.02 INSPECTION OF EXISTING AND GENERAL CONDITIONS:

A. THE CONTRACTOR WILL BE HELD TO HAVE PERSONALLY INSPECTED THE SITE OF THE PROPOSED WORK TO ARRIVE AT A CLEAR UNDERSTANDING OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED...

B. NO ALLOWANCES OR EXTRA CONSIDERATION ON BEHALF OF THE CONTRACTOR WILL SUBSEQUENTLY BE ALLOWED BY REASON OF THE CONTRACTOR'S FAILURE TO HAVE BECOME FAMILIAR WITH SITE CONDITIONS, ERROR OR OVERSIGHT ON THE PART OF THE CONTRACTOR OR DUE TO INTERFERENCE BY THE OWNER'S OR OTHER CONTRACTOR'S ACTIVITIES.

C. ITEMS SPECIFIED ON PLUMBING SCHEDULES AND PLANS ARE THE BASIS OF DESIGN. EQUALITY OF OTHER EQUIPMENT SHALL BE DETERMINED BY THE OWNER AND ENGINEER. ANY MODIFICATION TO THESE IDENTIFICATION METHODS THAT IS MADE NECESSARY BY ALTERNATE EQUIPMENT IS THE RESPONSIBILITY OF THE SUPPLIER OF THE ALTERNATE EQUIPMENT.

D. CONTRACTOR IS DIRECTED TO INCLUDE ALL NECESSARY OVER TIME AND PREMIUM TIME (SATURDAY, SUNDAY, HOLIDAYS) REQUIRED FOR THE COMPLETION OF THE INTENDED WORK TO MEET SPECIFIED SCHEDULES.

E. DO NOT SCALE PLUMBING DRAWINGS. FOR EXACT DIMENSIONS USE DIMENSIONED DRAWINGS OR ACTUAL FIELD CONDITIONS.

1.03 CODES, PERMITS AND COMPLIANCE:

A. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY LAWS OF GOVERNING BODIES. COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES AND ALL LEGAL REQUIREMENTS. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY CHANGES NECESSARY FOR CODE COMPLIANCE REQUIRES OF THE METHOD OF INSTALLATION SHOWN ON THE DRAWINGS OR SPECIFIED.

B. ALL PLUMBING WORK SHALL COMPLY WITH CURRENT EDITIONS OF ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.

C. ALL EQUIPMENT, DEVICES, AND MATERIALS SHALL BE THE LATEST PRODUCTS OF MANUFACTURER AND SHALL CONFORM TO THE REQUIREMENTS NOTED ON PLANS.

1.04 WORKMANSHIP:

A. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY CONFORMING TO THE BEST PLUMBING INSTALLATION PRACTICE. ANY WORK OR MATERIAL WHICH IS REJECTED MUST BE REMOVED IMMEDIATELY AND REPLACED. NO SUB-STANDARD WORK WILL BE ACCEPTED.

B. THE BREVITY OF THIS SPECIFICATION SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM ALL WORK IN A FIRST CLASS WORKMAN LIKE MANNER.

1.05 SUBMITTALS AND RECORD DRAWINGS:

A. SUBMIT SHOP DRAWINGS AND CATALOG DATA FOR APPROVAL FOR ALL EQUIPMENT AND MATERIALS SPECIFIED FOR THIS PROJECT PRIOR TO ORDERING OR MANUFACTURE OF SUCH SHOP DRAWINGS NOT STAMPED WITH CONTRACTOR APPROVAL WILL BE REJECTED.

B. THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ALL DEVIATIONS FROM THE APPROVED DESIGN DOCUMENTS AND SPECIFICATIONS WHICH MAY OCCUR IN THE WORK AS ACTUALLY CONSTRUCTED, AND SHALL SUBMIT SAME TO THE ENGINEER OR OWNER'S REPRESENTATIVE AT COMPLETION OF THE JOB.

C. SUBMITTALS SHALL BE COORDINATED THROUGH THE ARCHITECT CONSTRUCTION MANAGER ENGINEER.

1.06 TESTS AND GUARANTEE:

A. ALL TESTS FOR VARIOUS SYSTEMS SHALL BE PERFORMED AS REQUIRED, CONSISTENT WITH GOOD GENERAL PRACTICE, AND IN COMPLIANCE WITH CODES AND AUTHORITIES.

B. AS A CONDITION PRECEDENT TO THE FINAL PAYMENT, THE CONTRACTOR SHALL EXECUTE TO THE OWNER A GUARANTEE IN A FORM APPROVED BY THE OWNER. GUARANTEE SHALL WARRANT THAT ALL WORK INCLUDED IN THIS DIVISION OF THE SPECIFICATIONS WILL REMAIN IN SERVICE AND PERFECT CONDITION (ORDINARY WEAR AND TEAR, ABUSE AND CAUSES BEYOND THE CONTROL OF THE CONTRACTOR EXCLUDED) FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL COMPLETION AND ACCEPTANCE OF WORK...

C. ALL PLUMBING SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED. REPLACE ANY AND ALL DEFECTIVE DEVICE ITEMS OR SYSTEMS BEFORE COMPLETION OF THE PROJECT.

1.07 COORDINATION:

A. FIELD VERIFY EXACT LOCATION OF ALL NEW EQUIPMENT WITH EXISTING CONDITIONS AND COORDINATE WITH THE GENERAL AND OTHER CONTRACTORS PRIOR TO ROUGH-IN AND/OR INSTALLING ANY OF THIS WORK.

B. FIELD VERIFY ALL CLEARANCES AND CONDITIONS PRIOR TO THE START OF ANY PIPING, FIXTURES, ETC.; VERIFY LOCATIONS OF ALL PIPING, FIXTURES, EQUIPMENT, DEVICES, ETC., WITH ARCHITECTURAL, H.V.A.C., FIRE PROTECTION, STRUCTURAL AND ELECTRICAL DRAWINGS PRIOR TO ROUGH-IN. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

C. ALL INTERRUPTIONS OF SERVICES TO EXISTING OR OPERABLE FACILITIES SHALL BE SCHEDULED WITH THE OWNER A MINIMUM 72 HOURS IN ADVANCE. THE CONTRACTOR SHALL NOT INTERRUPT OR RESTORE SERVICES WITHOUT PRIOR CONSENT OF THE OWNER. THE INTERRUPTION SHALL BE ONLY FOR THE SPECIFIC SCHEDULED TIME. THE OWNER OR ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR DISCONNECTING AND START-UP OF ELECTRICAL OR PROCESS SYSTEMS.

D. COORDINATE ALL POWER WIRING. SAFETY DISCONNECT MEANS, MOTOR CONTROL AND CONTROL WIRING FOR PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

E. REFER TO ELECTRICAL DRAWINGS FOR WORK INVOLVING ELECTRICAL POWER SUPPLY WIRING FROM POWER SOURCE TO UNIT CONNECTION POINTS.

F. LOCATE AND INSTALL ALL HANDICAP DEVICES AS INDICATED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT GUIDELINES.

G. PREPARE COORDINATION DRAWINGS TO A SCALE OF ONE-QUARTER INCH EQUALS ONE FOOT OR LARGER; DETAILING MAJOR ELEMENTS, COMPONENTS AND SYSTEMS OF MECHANICAL EQUIPMENT AND MATERIALS IN RELATIONSHIP WITH OTHER SYSTEMS, INSTALLATIONS, ELEVATIONS, AND BUILDING COMPONENTS. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR INSTALLATION OF ALL SYSTEMS IF COORDINATION DRAWINGS ARE NOT PREPARED.

H. COORDINATE FINAL INVERT ELEVATIONS OF ALL SANITARY AND STORM DRAINAGE PIPING WITH THE SITE CONTRACTOR/EXISTING CONDITIONS PRIOR TO INSTALLATION.

1.08 IDENTIFICATION:

A. INSTALL SNAP-ON PLASTIC OR ADHESIVE PIPE MARKERS WITH SYSTEM IDENTIFICATION AND DIRECTION OF FLOW ON ALL PIPING SYSTEMS.

B. INSTALL ENGRAVED PLASTIC LAMINATE SIGN OR EQUIPMENT MARKER ON OR NEAR EACH MAJOR ITEM OF PLUMBING EQUIPMENT.

C. INSTALL VALVE TAG ON VALVES AND CONTROL DEVICES IN PIPING SYSTEMS, EXCEPT CHECK VALVES, VALVES WITHIN FACTORY-FABRICATED EQUIPMENT UNITS, PLUMBING FIXTURE SUPPLY STOPS, SHUT-OFF VALVES, FAUCETS, CONVENIENCE AND LAWN-WATERING HOSE BIBBS, AND SIMILAR ROUGHING-IN CONNECTIONS OF END-USE FIXTURES AND UNITS. LIST TAGGED VALVES IN VALVE SCHEDULE MOUNTED IN EACH MAJOR EQUIPMENT ROOM.

1.09 DEMOLITION, REMOVALS, CLEAN-UP, PROTECTION AND TOUCH-UP:

A. REMOVE ALL EXISTING PIPING, FIXTURES, EQUIPMENT, DEVICES, ETC. SCHEDULED FOR REMOVAL OR NOT REQUIRED TO REMAIN IN SERVICE. CONTRACTOR SHALL COORDINATE REMOVAL WITH OWNER AND ALL OTHER TRADES ON THE PROJECT. ALL PIPING, ETC. SHALL BE REMOVED BACK TO THE POINT OF SERVICE. PROVIDE ADDITIONAL PIPING, ETC., TO MAINTAIN FUNCTIONAL SYSTEMS.

B. THIS CONTRACTOR SHALL DISPOSE OF ALL MATERIALS GENERATED FROM REMOVAL AND INSTALLATION OF THIS WORK. DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE WEEKLY. THIS CONTRACTOR SHALL PROVIDE TO THE OWNER ANY SALVAGEABLE MATERIALS AS DIRECTED BY THE OWNER OR ENGINEER.

C. UPON COMPLETION OF WORK, THIS CONTRACTOR SHALL THOROUGHLY CLEAN ALL APPARATUS FURNISHED BY THIS CONTRACT.

D. ALL EQUIPMENT, FIXTURES, ITEMS, DEVICES AND APPURTENANCES SHALL BE PROTECTED FROM DEBRIS AND DAMAGE WHILE STORED AT THE SITE, AND DURING AND AFTER INSTALLATION.

E. SCARRED FACTORY-FINISHED MECHANICAL EQUIPMENT SHALL BE TOUCHED UP WITH FACTORY FURNISHED PAINT. RUSTED OR MARRED SURFACES OF PLUMBING EQUIPMENT SHALL BE CLEANED AND PRIMED BEFORE PAINTING.

F. CRACKED OR CHIPPED VITREOUS CHINA PLUMBING FIXTURES WILL NOT BE ACCEPTED.

G. PATCH FINISHED SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS MATCHING EXISTING MATERIALS AND EXPERIENCED INSTALLERS.

H. ALL CUTTING AND PATCHING OF ROOF, WALLS, FLOORS, AND SLABS, ETC. IS THE RESPONSIBILITY OF THIS CONTRACTOR UNLESS SPECIFICALLY STATED OTHERWISE ON THE DRAWINGS.

1.10 MAINTENANCE MANUALS

A. PREPARE MAINTENANCE MANUALS. PROVIDE A MINIMUM OF FOUR COPIES TO THE ENGINEER FOR APPROVAL. INCLUDE THE FOLLOWING INFORMATION FOR EQUIPMENT ITEMS:

- 1. COMPLETE INFORMATION ON PROJECT EQUIPMENT AND SERVICES AS WAS SUBMITTED DURING THE COURSE OF THE PROJECT. THIS INFORMATION IS SOLELY INTENDED TO PROVIDE THE OWNER WITH ACCURATE, USABLE INFORMATION ON HOW TO CARE FOR HIS FACILITY.
2. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS.
3. MANUFACTURER'S PRINTED WARRANTIES.
4. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN AND ROUTING AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS.
5. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS.
6. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.

2.00 BASIC MATERIALS AND METHODS

2.01 PIPE AND EQUIPMENT INSULATION

A. FIRE-TEST-RESPONSE CHARACTERISTICS: AS DETERMINED BY TESTING MATERIALS IDENTICAL TO THOSE SPECIFIED IN THIS SECTION ACCORDING TO ASTM E 84, BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. FACTORY LABEL INSULATION AND JACKET MATERIALS AND SEALER AND CEMENT MATERIAL CONTAINERS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AND INSPECTING AGENCY.

- 1. INSULATION INSTALLED INDOORS: FLAME-SPREAD RATING OF 25 OR LESS, AND SMOKE-DEVELOPED RATINGS OF 50 OR LESS.
2. INSULATION INSTALLED OUTDOORS: FLAME-SPREAD RATING OF 75 OR LESS, AND SMOKE-DEVELOPED RATING OF 150 OR LESS.

B. INSULATION MATERIALS

1. MINERAL-FIBER INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN COMPLYING WITH THE FOLLOWING:

- A. PREFORMED PIPE INSULATION: COMPLY WITH ASTM C 547, TYPE I, WITH FACTORY-APPLIED, ALL PURPOSE, VAPOR-RETARDER JACKET
B. BLANKET INSULATION: COMPLY WITH ASTM C 533, TYPE II, WITHOUT FACING

2. MINERAL-FIBER BOARD THERMAL INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 612, TYPE 1B, WITHOUT FACING AND WITH ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL AND VINYL FILM.

3. MINERAL-FIBER BLANKET THERMAL INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 533, TYPE II, WITHOUT FACING AND WITH ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRIM, ALUMINUM FOIL, AND VINYL FILM.

4. FLEXIBLE ELASTOMERIC THERMAL INSULATION: CLOSED-CELL, SPONGE- OR EXPANDED-RUBBER MATERIALS. COMPLY WITH ASTM C 534, TYPE I FOR TUBULAR MATERIALS AND TYPE II FOR SHEET MATERIALS. FOR CONCEALED PIPING INSTALLATIONS (IN WALLS, BELOW FLOORS, OR NON-ACCESSIBLE CHASES ONLY).

a. ADHESIVE: AS RECOMMENDED BY INSULATION MATERIAL MANUFACTURER.

b. ULTRAVIOLET-PROTECTIVE COATING: AS RECOMMENDED BY INSULATION MANUFACTURER.

5. PREFABRICATED THERMAL INSULATING FITTING COVERS: COMPLY WITH ASTM C 450 FOR DIMENSIONS USED IN PREFORMING INSULATION TO COVER VALVES, ELBOWS, TEES, AND FLANGES.

C. FIELD-APPLIED JACKETS

1. GENERAL: ASTM C 921, TYPE I, UNLESS OTHERWISE INDICATED.

2. FOIL AND PAPER JACKET: LAMINATED, GLASS-FIBER-REINFORCED, FLAME-RETARDANT KRAFT PAPER AND ALUMINUM FOIL.

3. PVC JACKET: HIGH-IMPACT, ULTRAVIOLET-RESISTANT; 20 MIL (0.5 MM) THICK; ROLL STOCK READY FOR SHOP OR FIELD CUTTING AND FORMING.

4. STANDARD PVC FITTING COVERS: FACTORY-FABRICATED FITTING COVERS MANUFACTURED FROM 20 MIL (0.5 MM) THICK, HIGH-IMPACT, ULTRAVIOLET-RESISTANT PVC.

D. APPLY INSULATION MATERIALS, ACCESSORIES, AND FINISHES ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS; WITH SMOOTH, STRAIGHT, AND EVEN SURFACES; FREE OF VOIDS THROUGHOUT THE LENGTH OF PIPING AND EQUIPMENT, INCLUDING FITTINGS, VALVES, AND SPECIALTIES.

2.02 VALVES

A. BALL VALVES

1. BALL VALVES, 2 INCHES AND SMALLER: MSS SP-110, CLASS 150, 600-PSI CWP, ASTM B 584 BRONZE BODY AND BONNET, 2-PIECE CONSTRUCTION; CHROME-PLATED BRASS BALL; STANDARD PORT FOR PLUMBING APPLICATIONS; FULL PORT FOR HVAC APPLICATION; BLOWOUT PROOF; BRONZE OR BRASS STEM; TEFLON SEATS AND SEALS; THREADED OR SOLDERED END CONNECTIONS:

- a. OPERATOR: VINYL-COVERED STEEL LEVER HANDLE.
b. STEM EXTENSIONS: FOR VALVES INSTALLED IN INSULATED PIPING.

2.03 PIPING

A. REGULATORY REQUIREMENTS: COMPLY WITH THE PROVISIONS OF THE FOLLOWING:

- 1. ASME B 31.9 "BUILDING SERVICES PIPING" FOR MATERIALS, PRODUCTS AND INSTALLATION.
2. SAFETY VALVES AND PRESSURE VESSELS SHALL BEAR THE APPROPRIATE ASME LABEL.
3. ASME "BOILER AND PRESSURE VESSEL CODE", SECTION IX, "WELDING AND BRAZING QUALIFICATION" FOR QUALIFICATIONS FOR WELDING PROCESSES AND OPERATORS.
4. OHIO PLUMBING CODE.

B. PROVIDE COMPONENTS AND INSTALLATION CAPABLE OF PRODUCING SYSTEMS WITH THE FOLLOWING MINIMUM WORKING PRESSURE RATINGS, EXCEPT WHERE INDICATED OTHERWISE:

- 1. WATER DISTRIBUTION SYSTEMS, BELOW GROUND: 150 PSIG.
2. WATER DISTRIBUTION SYSTEMS, ABOVE GROUND: 125 PSIG.
3. SOIL, WASTE, AND VENT SYSTEMS: 10-FOOT HEAD OF WATER.

C. SANITARY WASTE AND VENT PIPING BELOW FLOOR.

1. POLY VINYL CHLORIDE (PVC) PLASTIC DWV PIPE; ASTM D 2665, SCHEDULE 40, PLAIN ENDS WITH SOCKET-TYPE DWV FITTINGS.

D. SANITARY WASTE AND VENT PIPING ABOVE FLOOR.

1. POLY VINYL CHLORIDE (PVC) PLASTIC DWV PIPE; ASTM D 2665, SCHEDULE 40, PLAIN ENDS WITH SOCKET-TYPE DWV FITTINGS. (NOT PERMITTED IN HVAC RETURN AIR PLENUMS).

2. HUBLESS CAST IRON SOIL PIPE; PLAIN ENDS, CISPI 301, WITH STAINLESS STEEL, HEAVY-DUTY COUPLINGS FOR HUBLESS CAST-IRON SOIL PIPE AND FITTINGS; ASTM C 564 NEOPRENE SEALING GASKET, WITH TYPE 304 STAINLESS-STEEL HOUSING OR SHIELD AND STAINLESS-STEEL CLAMPS TIGHTENED TO 80 INCH POUNDS OF TORQUE; COUPLING SHALL BE 3 INCHES WIDE IN SIZES 1-1/2 TO 4 INCHES AND 4 1/2 INCHES WIDE IN SIZES 5 TO 10 INCHES.

E. DOMESTIC WATER SERVICE BELOW FLOOR

1. SOFT COPPER TUBE; ASTM B 88, TYPE K, WATER TUBE, ANNEALED TEMPER; WITH WROUGHT COPPER SOLDER-JOINT PRESSURE FITTINGS ASME B16.22. LIMIT JOINTS BELOW FLOOR.

F. DOMESTIC WATER SERVICE ABOVE FLOOR.

1. HARD COPPER TUBE; ASTM B 88, TYPE L, WATER TUBE, DRAWN TEMPER, WITH WROUGHT COPPER SOLDER-JOINT PRESSURE FITTINGS ASME B16.22.

2. COPPER PRESSURE-SEAL-JOINT FITTINGS:

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

- 1. ELKHART PRODUCT CORPORATION; INDUSTRIAL DIVISION.
2. NIBCO, INC.
3. VEGA; PLUMBING AND HEATING SYSTEMS.
a. NPS AND SMALLER: WROUGHT-COPPER FITTING WITH EPDM-RUBBER O-RING SEAL IN EACH END.
b. NPS 2-1/2 TO NPS 4: CAST-BRONZE OR WROUGHT-COPPER FITTING WITH PDM-RUBBER O-RING SEAL IN EACH END.

B. PRESSURE-SEALED JOINTS: JOIN COPPER TUBE AND PRESSURE-SEAL FITTINGS WITH TOOLS RECOMMENDED BY FITTING MANUFACTURER.

G. MISCELLANEOUS FITTINGS:

1. BRONZE FLANGES: ASME B16.24, CLASSES 150 AND 300.

2. COPPER UNIONS: ASME B16.18, CAST-COPPER-ALLOY BODY, HEXAGONAL STOCK, WITH BALL-AND-SOCKET JOINT, METAL-TO-METAL SEATING SURFACES, AND SOLDER-JOINT, THREADED, OR SOLDER-JOINT AND THREADED ENDS.

a. THREADED ENDS: THREADS CONFORMING TO ASME B1.20.1.

3. MALLEABLE-IRON UNIONS: ASME B16.39, CLASSES 150 AND 300, HEXAGONAL STOCK, WITH BALL-AND-SOCKET JOINT, METAL-TO-METAL BRONZE SEATING SURFACES, AND FEMALE THREADED ENDS HAVING THREADS CONFORMING TO ASME B1.20.1.

H. PIPE SUPPORT

1. INSTALL HANGERS WITH THE FOLLOWING MINIMUM ROO SIZES AND MAXIMUM SPACING OR WHERE MORE STRINGENT, COMPLY WITH LOCAL BUILDING CODE REQUIREMENTS:

Table with columns: NOM. PIPE SIZE, STEEL PIPE MAX. SPAN, COPPER TUBE MAX. SPAN, MIN. ROD SIZE. Rows include UP TO 3/4", 1", 1 1/2", 2", 2 1/2" for both horizontal and vertical orientations.

CAST-IRON SOIL PIPE 5' 15'

PVC PLASTIC PIPE 4' 4'

I. CLEANING

1. CLEAN AND DISINFECT WATER DISTRIBUTION PIPING AS FOLLOWS:

- a. PURGE NEW POTABLE WATER DISTRIBUTION PIPING SYSTEMS AND PARTS OF EXISTING POTABLE WATER SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED PRIOR TO USE.
b. USE PURGING AND DISINFECTING PROCEDURE PRESCRIBED BY AUTHORITY HAVING JURISDICTION OR, IF A METHOD IS NOT PRESCRIBED BY AUTHORITY, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW:

1. FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.

2. FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE. ISOLATE (VALVE OFF) AND ALLOW TO STAND FOR 24 HOURS.

3. DRAIN SYSTEM OR PART THEREOF OF PREVIOUS SOLUTION AND REFILL WITH WATER/CHLORINE SOLUTION CONTAIN AT LEAST 200 PARTS PER MILLION OF CHLORINE. ISOLATE AND ALLOW TO STAND FOR 3 HOURS.

4. FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL CHLORINE DOES NOT REMAIN IN WATER COMING FROM SYSTEM FOLLOWING ALLOWED STANDING TIME.

5. SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AUTHORITY HAVING JURISDICTION. REPEAT PROCEDURE IF BIOLOGICAL EXAMINATION MADE BY THE AUTHORITY SHOWS EVIDENCE OF CONTAMINATION.

2. PREPARE AND SUBMIT REPORTS FOR PURGING AND DISINFECTING ACTIVITIES.

3. CLEAN INTERIOR OF PIPING SYSTEM. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES.

3.00 PRODUCTS AND EXECUTION

3.01 TRAP SEAL PRIMER VALVES:

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: MIFAB; PRECISION PLUMBING PRODUCTS, INC.; J.R. SMITH MANUFACTURING COMPANY; WATTS REGULATOR COMPANY; ZURN INDUSTRIES.

B. TRAP SEAL PRIMER VALVES: ASSE 1018, WATER-SUPPLY-FED TYPE, WITH THE FOLLOWING CHARACTERISTICS:

- 1. 125-PSIG MINIMUM WORKING PRESSURE.
2. BRONZE BODY WITH ATMOSPHERIC-VENTED DRAIN CHAMBER.
3. INLET AND OUTLET CONNECTIONS: 1/2-INCH THREADED, UNION, OR SOLDER JOINT.
4. GRAVITY DRAIN OUTLET CONNECTION: 1/2 INCH THREADED OR SOLDER JOINT.
5. FINISH: CHROME PLATED, OR ROUGH BRONZE FOR UNITS USED WITH PIPE OR TUBE THAT IS NOT CHROME FINISH.

3.02 FLOOR DRAINS

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: J.R. SMITH MANUFACTURING COMPANY; JOSAM COMPANY; MIFAB; SIOUX CHIEF; WADE; ZURN INDUSTRIES, WATTS DRAINAGE PRODUCTS.

B. FLOOR DRAIN INSTALLATION

1. INSTALL FLOOR DRAINS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, IN LOCATIONS INDICATED.

2. INSTALL FLOOR DRAINS AT LOW POINTS OF SURFACE AREAS TO BE DRAINED, OR AS INDICATED. SET TOPS OF DRAINS FLUSH WITH FINISHED FLOOR.

3.03 PLUMBING FIXTURES:

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

- 1. WATER CLOSETS: AMERICAN STANDARD; KOHLER COMPANY; TOTO, USA; ZURN INDUSTRIES; PROFLO BRAND.
2. URINAL: AMERICAN STANDARD; KOHLER COMPANY; TOTO, USA; ZURN INDUSTRIES; PROFLO BRAND.
3. LAVATORIES: AMERICAN STANDARD; KOHLER COMPANY; TOTO, USA; ZURN INDUSTRIES; PROFLO BRAND.

4. TOILET SEATS: BENIS MANUFACTURING COMPANY; BENEKE; CHURCH SEAT COMPANY; KOHLER COMPANY; OLSONITE CORPORATION; ZURN INDUSTRIES.

5. FLUSH VALVES: SLOAN VALVE COMPANY; ROYAL; ZURN INDUSTRIES.

6. FAUCETS: AMERICAN STANDARD; ELKAY MANUFACTURING COMPANY; KOHLER COMPANY; SPEAKMAN COMPANY; ZURN INDUSTRIES.

7. LAVATORY SAFETY KITS: BROCAR PRODUCTS, INC. (TRAP WRAP); TRUEBRO (HAND-LAV GUARD); ZURN INDUSTRIES; PROFLO BRAND.

8. MISCELLANEOUS FITTINGS (EXCEPT FAUCETS): BRASS CRAFT; CENTRAL BRASS MANUFACTURING; DEARBORN BRASS; KOHLER COMPANY; MCGUIRE MANUFACTURING COMPANY; ZURN INDUSTRIES; PROFLO BRAND.

9. SUPPORTS: JOSAM COMPANY; J.R. SMITH MANUFACTURING COMPANY; WADE; WATTS DRAINAGE PRODUCTS; ZURN INDUSTRIES.

3.04 FUEL FIRED WATER HEATERS:

A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: BRADFORD WHITE CORPORATION; LOCHINVAR CORPORATION; A.O. SMITH COMPANY; STATE INDUSTRIES.

B. SPECIFIED MANUFACTURER'S STANDARD COMPONENTS AND FEATURES ARE ACCEPTABLE WHERE SPECIFIC PRODUCT REQUIREMENTS ARE NOT INDICATED.

C. TANK JACKET: STEEL, WITH BAKED-ON ENAMEL FINISH, EXCEPT WHERE OTHERWISE SPECIFIED.

D. HEAT EXCHANGER: ASME COPPER FINNED TUBE.

E. BURNER: STAINLESS STEEL, FOR NATURAL-GAS FUEL.

F. GAS SHUTOFF VALVE: ANSI Z21.15, MANUALLY OPERATED. FURNISH FOR INSTALLATION IN PIPING.

G. PRESSURE REGULATOR: ANSI Z21.18, FACTORY OR FIELD INSTALLED, FOR GAS APPLIANCES. PROVIDE REGULATORS WITH PRESSURE RATING, CAPACITY, AND PRESSURE DIFFERENTIAL REQUIRED FOR WATER HEATER AND GAS SUPPLY.

H. AUTOMATIC IGNITION: ANSI Z21.20, AUTOMATIC HOT-SURFACE GAS-IGNITION SYSTEM AND COMPONENTS.

I. RELIEF VALVE: ASME TEMPERATURE AND PRESSURE RELIEF VALVE, TANK MOUNTED.

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SHEET TITLE
PLUMBING
SPECIFICATIONS

SHEET NO.
P0.02



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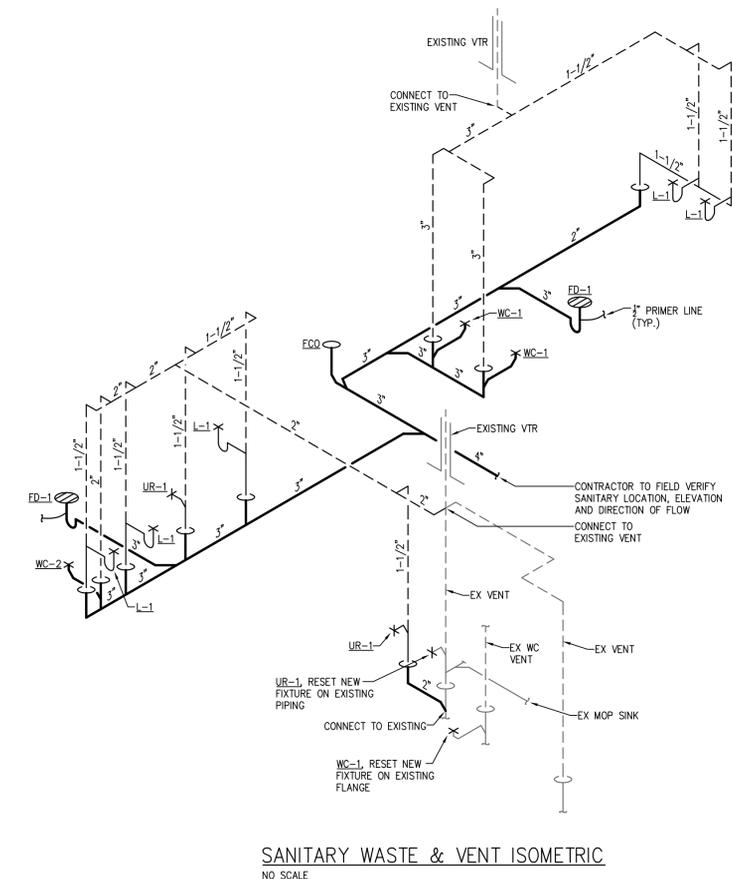
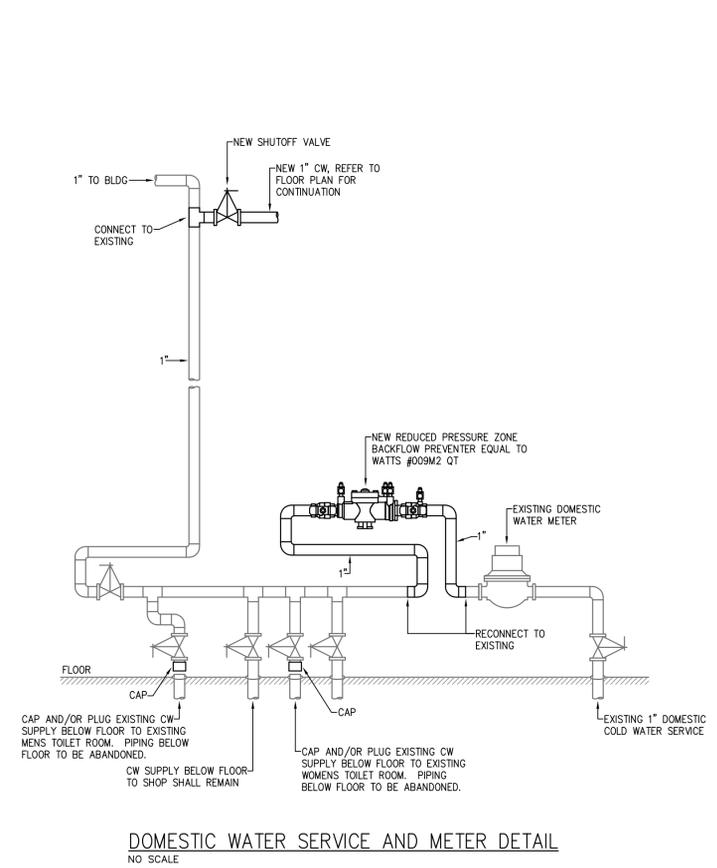
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CHECKED MJK
 APPROVED KPL

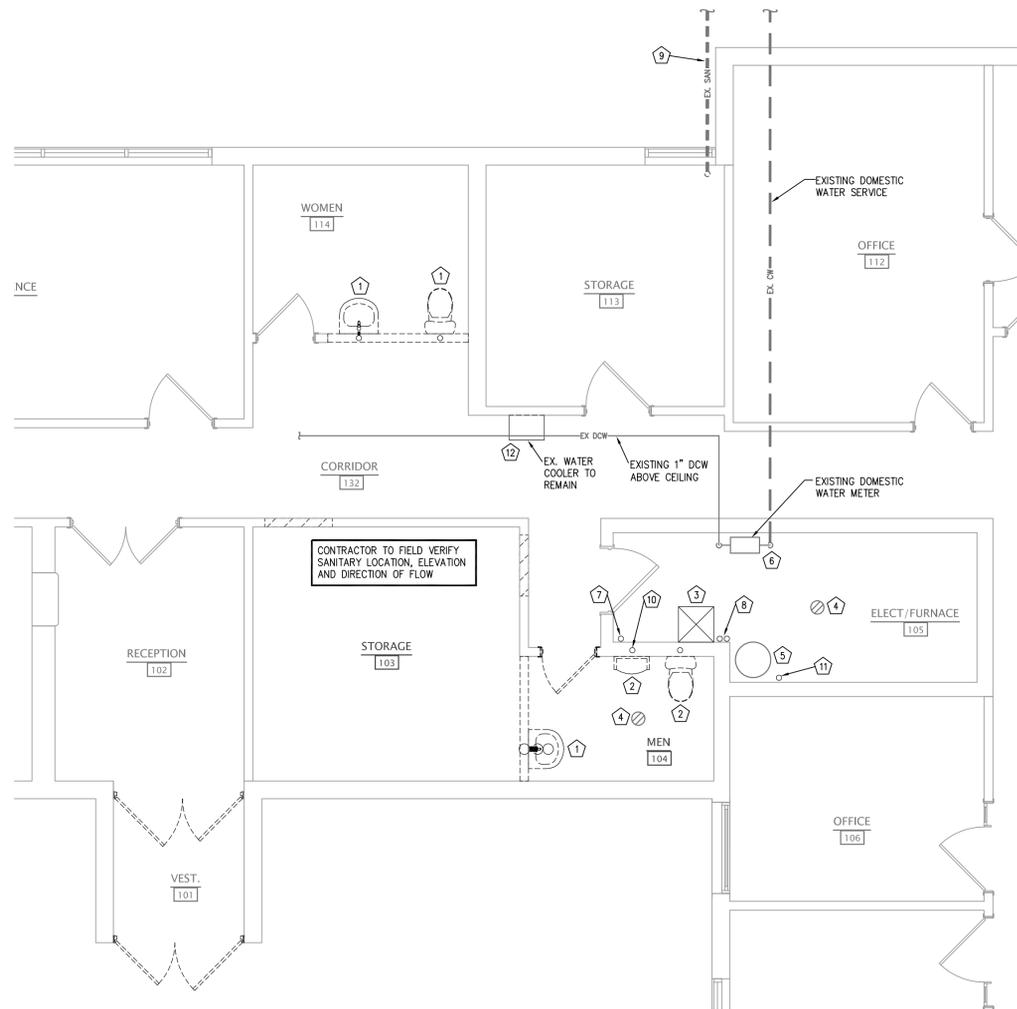
TCI JOB NO. 106048

SHEET TITLE
PLUMBING
SCHEMATIC

SHEET NO.
P0.03



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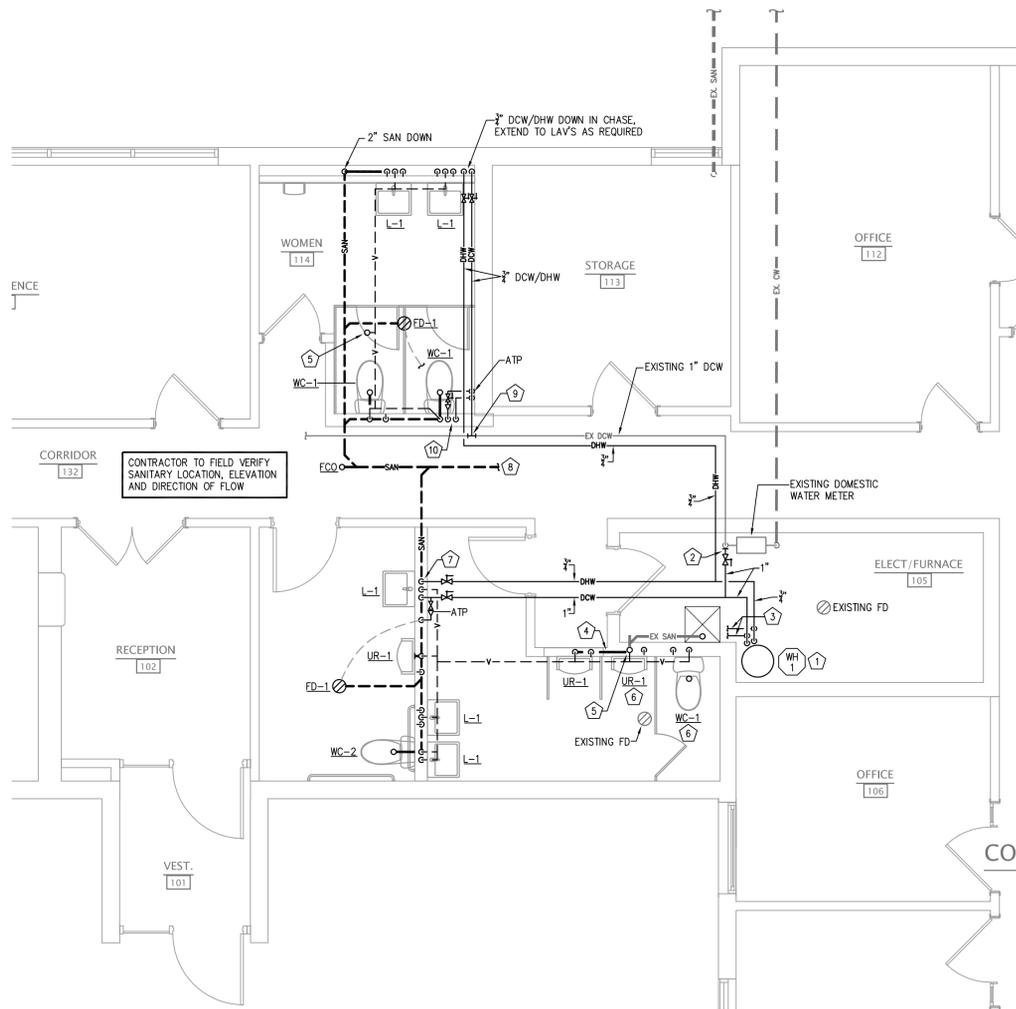


PARTIAL FIRST FLOOR PLAN - PLUMBING - DEMOLITION
 0 1 2 3 4 feet
 1/4" = 1'-0" N

DEMOLITION NOTES:

- 1 EXISTING PLUMBING FIXTURE TO BE REMOVED AS REQUIRED. CAP AND/OR PLUG EXISTING WATER SUPPLY AND WASTE CONNECTIONS BEHIND AND/OR BELOW FINISH WALL OR FLOOR. COORDINATE SAWCUTTING AND PATCHING WITH GENERAL TRADES CONTRACTOR.
- 2 EXISTING URINAL AND WATER CLOSET TO BE REMOVED AND REPLACED WITH NEW FIXTURE. SEE PLUMBING FIXTURE SCHEDULE.
- 3 EXISTING UTILITY SINK TO REMAIN, DISCONNECT EXISTING WATER SUPPLIES.
- 4 EXISTING FLOOR DRAIN TO BE REMAIN.
- 5 EXISTING WATER HEATER TO BE REMOVED. DISCONNECT EXISTING WATER SUPPLIES, GAS SUPPLY & VENT AS REQUIRED. REMOVE ALL DHW PIPING THAT EXTENDS FROM THIS WATER HEATER, CUT AND ABANDON EXISTING PIPING THAT EXTENDS BELOW FLOOR TO SERVE EXISTING TOILET ROOMS.
- 6 EXISTING DOMESTIC WATER METER TO REMAIN. CUT AND ABANDON EXISTING DCW BELOW FLOOR THAT SERVES EXISTING MEN'S AND WOMEN'S TOILET ROOMS AS REQUIRED.
- 7 CUT EXISTING 3/4" DCW THAT EXTENDS UP FROM BELOW FLOOR. ABANDON PIPING BELOW FLOOR AND REMOVE ALL DCW PIPING FROM THIS POINT BACK TO EXISTING WATER HEATER.
- 8 CUT AND ABANDON EXISTING DHW PIPING THAT EXTENDS BELOW FLOOR.
- 9 EXISTING TO REMAIN. FIELD VERIFY EXACT LOCATIONS. CONTRACTOR TO FIELD VERIFY SANITARY, LOCATION, ELEVATION, AND DIRECTION OF FLOW.
- 10 OPEN EXISTING TOILET ROOM WALL AS REQUIRED FOR INSTALLATION OF NEW URINALS. COORDINATE CUTTING AND PATCHING WITH GENERAL CONTRACTOR.
- 11 EXISTING 3" VENT UP THRU FLOOR AND ASSOCIATED VENT PIPING ALONG WALL TO REMAIN.
- 12 EXISTING WATER COOLER TO REMAIN, DISCONNECT EXISTING WATER SUPPLY.

D



PARTIAL FIRST FLOOR PLAN - PLUMBING - RENOVATION
 0 1 2 3 4 feet
 1/4" = 1'-0" N

RENOVATION NOTES:

- 1 NEW GAS WATER HEATER, CONNECT NEW WATER SUPPLIES. RECONNECT EXISTING GAS & VENT PIPING AS REQUIRED.
- 2 CONNECT NEW 1" DCW TO EXISTING 1" DCW, HIGH AS POSSIBLE, EXTEND FULL SIZE AS INDICATED.
- 3 EXTEND 3/4" DCW, 3/4" DHW, RECONNECT TO EXISTING UTILITY SINK, WATER CLOSET AND URINAL AS REQUIRED.
- 4 EXTEND 2" SAN IN WALL, CONNECT TO EXISTING SAN WASTE AT EXISTING URINAL. EXTEND NEW 3/4" DCW IN WALL TO NEW URINAL AS REQUIRED.
- 5 CONNECT NEW 3" VENT TO EXISTING VENT STACK AS REQUIRED. FIELD VERIFY EXACT LOCATION.
- 6 RECONNECT NEW LAVATORY AND WATER CLOSET TO EXISTING SAN WASTE ROUGH-INS AS REQUIRED. SEE PLUMBING FIXTURE SCHEDULE.
- 7 1" DCW, 3/4" DHW DOWN, EXTEND FULL SIZE IN WALL TO LAVATORIES, URINAL AND WATER CLOSET AS REQUIRED.
- 8 CONTRACTOR TO FIELD VERIFY SANITARY LOCATION, ELEVATION AND DIRECTION OF FLOW. EXTEND & CONNECT NEW 4" SAN TO EXISTING AS REQUIRED. SAWCUT FLOOR AS REQUIRED, FOR INSTALLATION OF NEW SANITARY. PATCH FLOOR TO MATCH EXISTING. COORDINATE SAWCUTTING AND PATCHING WITH GENERAL CONTRACTOR PRIOR TO START OF CONSTRUCTION.
- 9 CONNECT NEW 1" DCW TO EXISTING 1" DCW.
- 10 3/4" DCW DOWN, EXTEND FULL SIZE IN WALL TO WATER CLOSETS.

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TCI JOB NO. 106048

SHEET TITLE
 PARTIAL FLOOR
 PLANS - PLUMBING

SHEET NO.
 P1.01



MECHANICAL SPECIFICATION

- 1.00 GENERAL
- 1.01 GENERAL SCOPE
 - A. THE WORK REQUIRED UNDER THIS SPECIFICATION SHALL CONSIST OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, POWER, TRANSPORTATION, HOISTING IMPLEMENTS, ETC. OF EVERY DESCRIPTION NECESSARY FOR THE ENTIRE COMPLETION OF THE MECHANICAL WORK OF THE CONTRACT, ALL AS SPECIFIED HEREIN, SHOWN ON THE DRAWINGS OR REASONABLY IMPLIED BY EITHER, COMPLETE IN EVERY RESPECT UNLESS SPECIFICALLY EXCLUDED HEREIN. THE WORK INCLUDED IN THIS CONTRACT SHALL CONSIST OF THE INSTALLATION, TEST AND GUARANTEE OF ALL WORK HEREIN SPECIFIED.
- 1.02 INSPECTION OF EXISTING AND GENERAL CONDITIONS
 - A. THE CONTRACTOR WILL BE HELD TO HAVE PERSONALLY INSPECTED THE SITE OF THE PROPOSED WORK TO ARRIVE AT A CLEAR UNDERSTANDING OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, THE EXTENT OF OTHER CONTRACTORS' ACTIVITIES IN THE AREA, AND TO BECOME FULLY ACQUAINTED WITH THE RECEIVING AND STORAGE SPACES AVAILABLE. THE CONTRACTOR SHALL BE HELD TO HAVE COMPARED THE PREMISES AND SITE WITH THE DRAWINGS AND SPECIFICATIONS, AND SHALL BE SATISFIED AS TO THE CONDITIONS OF THE PREMISES, THE ACTUAL ELEVATIONS, AND ANY OTHER CONDITIONS AFFECTING THE CARRYING OUT OF THE WORK, BEFORE THE DELIVERY OF THIS PROPOSAL.
 - B. NO ALLOWANCES OR EXTRA CONSIDERATION ON BEHALF OF THE CONTRACTOR WILL SUBSEQUENTLY BE ALLOWED BY REASON OF THE CONTRACTOR'S FAILURE TO HAVE BECOME FAMILIAR WITH SITE CONDITIONS, ERROR OR OVERSIGHT ON THE PART OF THE CONTRACTOR OR DUE TO INTERFERENCES BY THE OWNER'S OR OTHER CONTRACTOR'S ACTIVITIES.
 - C. ITEMS SPECIFIED ON MECHANICAL EQUIPMENT SCHEDULES AND PLANS ARE THE BASIS OF DESIGN. EQUALITY OF OTHER EQUIPMENT SHALL BE DETERMINED BY THE OWNER AND ENGINEER. ANY MODIFICATION TO THESE DOCUMENTED METHODS THAT IS MADE NECESSARY BY ALTERNATE EQUIPMENT IS THE RESPONSIBILITY OF THE SUPPLIER OF THE ALTERNATE EQUIPMENT.
 - D. DO NOT SCALE MECHANICAL DRAWINGS. FOR EXACT DIMENSIONS USE DIMENSIONED DRAWINGS OR ACTUAL FIELD CONDITIONS.
- 1.03 CODES, PERMITS AND COMPLIANCE
 - A. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY LAWS OF GOVERNING BODIES. COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES AND ALL LEGAL REQUIREMENTS. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY CHANGES NECESSARY FOR CODE COMPLIANCE REGARDLESS OF THE METHOD OF INSTALLATION SHOWN ON THE DRAWINGS OR SPECIFIED.
 - B. ALL MECHANICAL WORK SHALL COMPLY WITH CURRENT EDITIONS OF ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
 - C. ALL EQUIPMENT, DEVICES, AND MATERIALS SHALL BE THE LATEST PRODUCTS OF MANUFACTURER AND SHALL CONFORM TO THE REQUIREMENTS NOTED ON PLANS.

- 1.04 WORKMANSHIP
 - A. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY CONFORMING TO THE BEST MECHANICAL INSTALLATION PRACTICE. ANY WORK OR MATERIAL WHICH IS REJECTED MUST BE REMOVED IMMEDIATELY AND REPLACED. NO SUB-STANDARD WORK WILL BE ACCEPTED.
 - B. THE BREVITY OF THIS SPECIFICATION SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM ALL WORK IN A FIRST CLASS WORKMAN LIKE MANNER.
- 1.05 SUBMITTALS AND RECORD DRAWINGS
 - A. SUBMIT SHOP DRAWINGS AND CATALOG DATA FOR APPROVAL FOR ALL EQUIPMENT AND MATERIALS SPECIFIED FOR THIS PROJECT PRIOR TO ORDERING OR MANUFACTURE OF SUCH. SHOP DRAWINGS NOT STAMPED WITH CONTRACTOR APPROVAL WILL BE REJECTED.
 - B. THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ALL DEVIATIONS FROM THE APPROVED DESIGN DOCUMENTS AND SPECIFICATIONS WHICH MAY OCCUR IN THE WORK AS ACTUALLY CONSTRUCTED, AND SHALL SUBMIT SAME TO THE ENGINEER OR OWNER'S REPRESENTATIVE AT COMPLETION OF THE JOB.
 - C. SUBMITTALS SHALL BE COORDINATED THROUGH THE ARCHITECT.
- 1.06 TESTS AND GUARANTEES
 - A. ALL TESTS FOR VARIOUS SYSTEMS SHALL BE PERFORMED, AS REQUIRED, CONSISTENT WITH GOOD GENERAL PRACTICE, AND IN COMPLIANCE WITH CODES AND AUTHORITIES.
 - B. AS A CONDITION PRECEDENT TO THE FINAL PAYMENT, THE CONTRACTOR SHALL EXECUTE TO THE OWNER A GUARANTEE IN A FORM APPROVED BY THE OWNER. GUARANTEE SHALL WARRANT THAT ALL WORK INCLUDED IN THIS DIVISION OF THE SPECIFICATIONS WILL REMAIN IN SERVICEABLE AND PERFECT CONDITION (ORDINARY WEAR AND TEAR, ABUSE AND CAUSES BEYOND THE CONTROL OF THE CONTRACTOR EXCLUDED) FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL COMPLETION AND ACCEPTANCE OF WORK, AND THAT THE CONTRACTOR WILL MAKE GOOD AT HIS OWN EXPENSE, WITHOUT COST TO THE OWNER, ANY IMPERFECTIONS IN WHOLE OR IN PART WHICH MAY DEVELOP IN THIS WORK DURING THE PERIOD ABOVE SPECIFIED, INCLUDING ANY DAMAGE TO OTHER WORK CAUSED BY SUCH IMPERFECTIONS OR REPAIRING OF SAME.
 - C. ALL MECHANICAL SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED. REPLACE ANY AND ALL DEFECTIVE DEVICE ITEMS OR SYSTEMS BEFORE COMPLETION OF THE PROJECT.
- 1.07 COORDINATION
 - A. FIELD VERIFY EXACT LOCATION OF ALL NEW EQUIPMENT WITH EXISTING CONDITIONS AND COORDINATE WITH THE GENERAL AND OTHER CONTRACTORS PRIOR TO ROUGH-IN AND/OR INSTALLING ANY OF THIS WORK.
 - B. FIELD VERIFY ALL CLEARANCES AND CONDITIONS PRIOR TO THE START OF ANY PIPING, DUCTWORK, ETC.; VERIFY LOCATIONS OF ALL PIPING, DUCTWORK, DEVICES, ETC., WITH ARCHITECTURAL, PLUMBING AND ELECTRICAL DRAWINGS PRIOR TO ROUGH-IN. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

- C. ALL INTERRUPTIONS OF SERVICES TO EXISTING OR OPERABLE FACILITIES SHALL BE SCHEDULED WITH THE OWNER A MINIMUM TWO (2) WEEKS IN ADVANCE. THE CONTRACTOR SHALL NOT INTERRUPT OR RESTORE SERVICES WITHOUT PRIOR CONSENT OF THE OWNER. THE INTERRUPTION SHALL BE ONLY FOR THE SPECIFIC SCHEDULED TIME. THE OWNER OR ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR SHUTDOWN AND START-UP OF ELECTRICAL OR PROCESS SYSTEMS.
 - D. COORDINATE ALL POWER WIRING, SAFETY DISCONNECT MEANS, MOTOR CONTROL AND CONTROL WIRING FOR MECHANICAL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
 - E. REFER TO ELECTRICAL DRAWINGS FOR WORK INVOLVING ELECTRICAL POWER SUPPLY WIRING FROM POWER SOURCE TO UNIT CONNECTION POINTS.
- 1.08 DEMOLITION, REMOVALS, CLEAN-UP, PROTECTION AND TOUCH-UP
 - A. REMOVE ALL EXISTING PIPING, DUCTWORK, EQUIPMENT, DEVICES, ETC., SCHEDULED FOR REMOVAL OR NOT REQUIRED TO REMAIN IN SERVICE. CONTRACTOR SHALL COORDINATE REMOVAL WITH OWNER AND ALL OTHER TRADES ON THE PROJECT. ALL PIPING, DUCTWORK, ETC., SHALL BE REMOVED BACK TO THE POINT OF SERVICE. PROVIDE ADDITIONAL PIPING, DUCTWORK, ETC., TO MAINTAIN FUNCTIONAL SYSTEMS.
 - B. PATCH FINISHED SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS MATCHING EXISTING MATERIALS AND EXPERIENCED INSTALLERS.
 - C. ALL CUTTING AND PATCHING IS THE RESPONSIBILITY OF THIS CONTRACTOR UNLESS SPECIFICALLY STATED OTHERWISE ON THE DRAWINGS.
 - 2.00 BASIC MATERIALS AND METHODS
 - 2.01 DUCT INSULATION
 - A. FIRE-TEST-RESPONSE CHARACTERISTICS: AS DETERMINED BY TESTING MATERIALS IDENTICAL TO THOSE SPECIFIED IN THIS SECTION ACCORDING TO ASTM E 84, BY A TESTING AND INSPECTION AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. FACTORY LABEL INSULATION AND JACKET MATERIALS AND SEALER AND CEMENT MATERIAL CONTAINERS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AND INSPECTING AGENCY.
 - 1. INSULATION INSTALLED INDOORS: FLAME-SPREAD RATING OF 25 OR LESS, AND SMOKE-DEVELOPED RATING OF 50 OR LESS.
 - B. INSULATION MATERIALS
 - 1. MINERAL-FIBER BLANKET THERMAL INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 553, TYPE II, WITHOUT FACING AND WITH ALL-SERVICE JACKET MANUFACTURED FROM KRAFT PAPER, REINFORCING SCRM, ALUMINUM FOL, AND VINYL FILM.
 - C. APPLY INSULATION MATERIALS, ACCESSORIES, AND FINISHES ACCORDING TO THE MANUFACTURER'S WRITTEN INSTRUCTIONS, WITH SMOOTH, STRAIGHT, AND EVEN SURFACES; AND FREE OF VOIDS THROUGHOUT THE LENGTH OF DUCTS AND FITTINGS.

- D. INDOOR DUCT AND PLENUM APPLICATION SCHEDULE:
 - 1. SERVICE: ROUND EXHAUST AIR DUCTS, CONCEALED, FROM EXHAUST FANS: INSTALL MINERAL FIBER BLANKET INSULATION, 1 INCH THICK, SINGLE LAYER WITH FOIL AND PAPER JACKET AND VAPOR RETARDER
- 2.02 DUCTWORK AND DUCT ACCESSORIES
 - A. CONSTRUCT RECTANGULAR DUCTWORK TO MEET ALL FUNCTIONAL CRITERIA DEFINED IN SECTION VI OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE LATEST EDITION. ALL DUCTWORK MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL CODE REQUIREMENTS.
 - B. EXCEPT AS OTHERWISE INDICATED, FABRICATE RECTANGULAR DUCTS WITH GALVANIZED SHEET STEEL, IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, TABLES 1-3 THROUGH 1-19, INCLUDING THEIR ASSOCIATED DETAILS.
 - C. STATIC PRESSURE CLASSIFICATIONS: UNLESS OTHERWISE INDICATED, CONSTRUCT DUCTS TO THE FOLLOWING:
 - 1. LOW PRESSURE SUPPLY DUCTS INCLUDING DOWN STREAM OF AIR TERMINALS: 2-INCH WG (500 PA).
 - 2. EXHAUST DUCTS: 2-INCH WG (500 PA), NEGATIVE OR POSITIVE PRESSURE.
 - D. FABRICATE ROUND DUCTS WITH SPIRAL LOCKSEAM CONSTRUCTION. COMPLY WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, TABLE 3-2 FOR GALVANIZED STEEL GAGES.
 - E. SEAL DUCT JOINTS AND SEAMS WITH DUCT SEALANT, TAPE OR MASTICS.
 - 1. PRESSURE CLASSIFICATION 2-INCH WG (500 PA): TRANSVERSE JOINTS.
- 3.00 PRODUCTS AND EXECUTION
- 3.01 POWER VENTILATORS
 - A. QUALITY ASSURANCE: PROVIDE FANS THAT ARE U.L. LISTED AND LABELED. MOTORS AND ELECTRICAL ACCESSORIES SHALL COMPLY WITH NEMA STANDARDS.
 - B. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING: ACME, CARNES, COOK, GREENHECK, JENN.
 - C. GENERAL: PROVIDE FANS THAT ARE FACTORY FABRICATED AND ASSEMBLED, FACTORY TESTED, AND FACTORY FINISHED WITH INDICATED CAPACITIES AND CHARACTERISTICS.
 - D. CEILING MOUNTED VENTILATORS: CENTRIFUGAL FAN DESIGNED FOR INSTALLATION IN CEILING OR WALL APPLICATIONS, CONSISTING OF HOUSING, FAN WHEEL, CEILING GRILLE, ELECTRICAL JUNCTION BOX WITH RECEPTACLE FOR MOTOR.

- 3.02 AIR INLETS AND OUTLETS
 - A. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE AIR OUTLETS AND INLETS OF ONE OF THE FOLLOWING:
 - 1. DIFFUSERS, REGISTERS AND GRILLES: ANEMOSTAT PRODUCTS, CARNES, KRUEGER, METAL AIRE, PRICE, TITUS PRODUCTS AND HART & COOLEY.
 - B. GRILLES, REGISTERS AND DIFFUSERS: OFF-WHITE, UNLESS OTHERWISE INDICATED.
 - C. TEST, ADJUST, AND BALANCE THE FOLLOWING MECHANICAL SYSTEMS IN AREA OF WORK:
 - 1. SUPPLY AIR SYSTEMS;
 - 2. EXHAUST AIR SYSTEMS;
 - 3. VERIFY TEMPERATURE CONTROL SYSTEM OPERATION.

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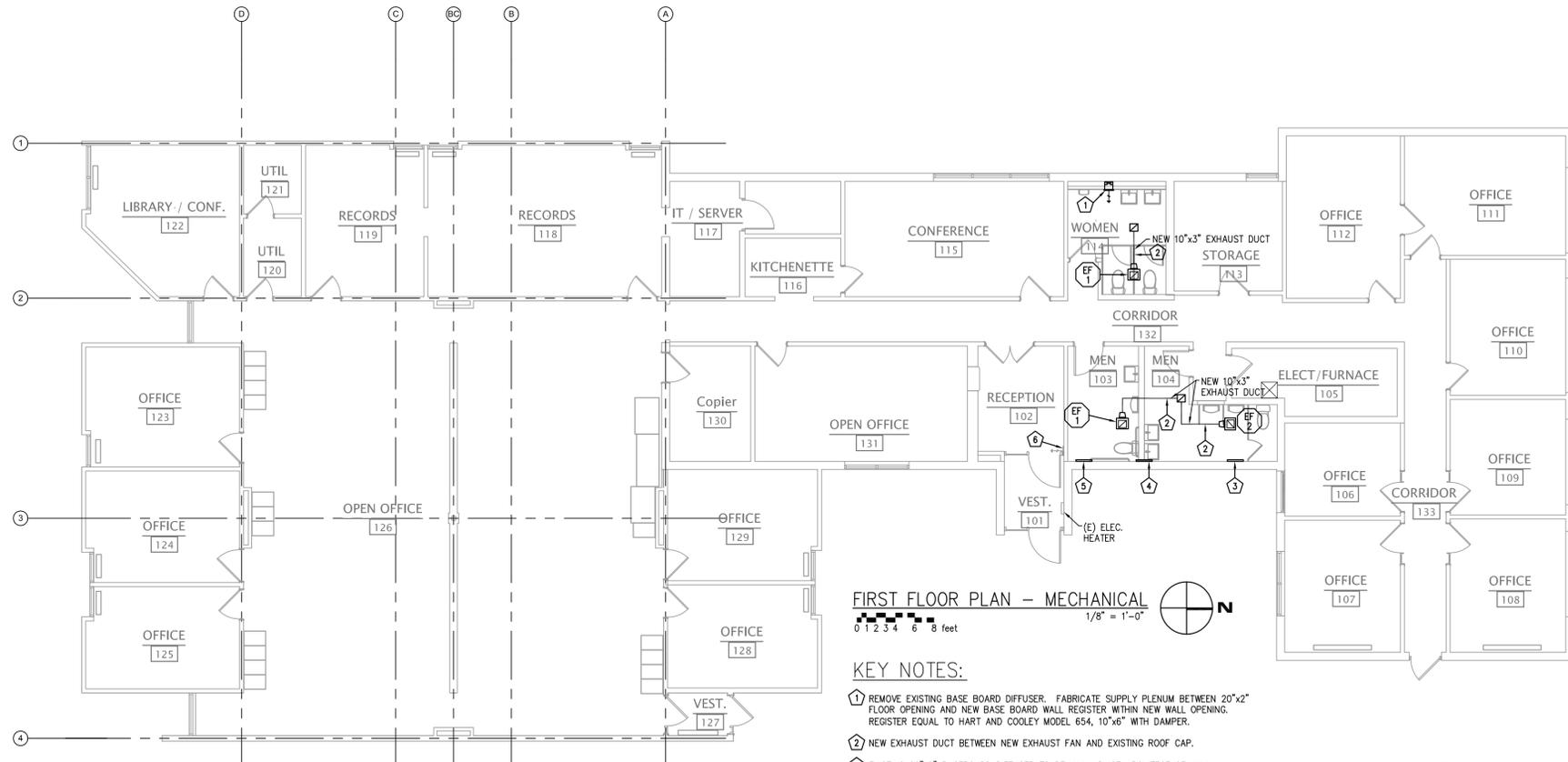
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EXHAUST FAN SCHEDULE

TAG	LOCATION		TYPE	CFM	SP (in.)	MOTOR			DRIVE	FAN RPM	SONES	ACCESSORIES				OPER. WT. (lbs.)	CONTROL	MAKE	MODEL	REMARKS
	DWG	ROOM				HP	RPM	VOLTAGE				CURB	SCREEN	DISC	B/D					
EF-1	M1.01	MEN 103	CEILING	100	0.25	49WATTS	950	120/1/60	DIRECT	950	1.1	N/A	N/A	YES	YES	25	ON/OFF W/LIGHTS	GREENHECK	SP-A110	QTY. (2)
EF-2	M1.01	MEN 104/WOMEN 114	CEILING	150	0.25	113WATTS	1400	120/1/60	DIRECT	1400	2.4	N/A	N/A	YES	YES	25	ON/OFF W/LIGHTS	GREENHECK	SP-A190	



FIRST FLOOR PLAN - MECHANICAL
 0 1 2 3 4 6 8 feet
 1/8" = 1'-0"

- KEY NOTES:**
- 1 REMOVE EXISTING BASE BOARD DIFFUSER. FABRICATE SUPPLY PLENUM BETWEEN 20"x2" FLOOR OPENING AND NEW BASE BOARD WALL REGISTER WITHIN NEW WALL OPENING. REGISTER EQUAL TO HART AND COOLEY MODEL 654, 10"x6" WITH DAMPER.
 - 2 NEW EXHAUST DUCT BETWEEN NEW EXHAUST FAN AND EXISTING ROOF CAP.
 - 3 EXISTING 20"x2" BASEBOARD DIFFUSER TO REMAIN. ADVISE ARCHITECT OF ANY INTERFERENCE WITH NEW TOILET PARTITION.
 - 4 PROVIDE SHEET METAL TO COVER EXISTING 20"x2" FLOOR OPENING. G.C. TO FINISH WITH NEW FLOORING MATERIAL.
 - 5 EXISTING 20"x2" FLOOR GRILLE TO BE CLEANED AND RE-INSTALLED.
 - 6 MODIFY DUCT IN WALL FOR NEW LOCATION OF WALL SUPPLY REGISTER INTO RECEPTION ROOM AND NOT INTERFERING WITH NEW DOOR FRAMING.

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04.12.2013 BIDDING
 04.12.2013 PERMITS

CHECKED DRR
 APPROVED JNH

TCI JOB NO. 106048

SHEET TITLE
**First Floor Plan
 New Equipment**

Mechanical

SHEET NO.
M1.01

PLAN SYMBOLS LEGEND	
SYMBOL	DESCRIPTION
—	INDICATES CONDUIT ABOVE GRADE, SURFACE MOUNTED OR CONCEALED INSIDE THE BUILDING SURFACE. EXPOSED CONDUIT ON THE BUILDING EXTERIOR WILL NOT BE ACCEPTED.
- - - -	INDICATES CONDUIT BELOW GRADE OR UNDER FLOOR.
— —	INDICATES CONDUCTOR IN CONDUIT, QUANTITY AS SHOWN.
— / —	INDICATES PHASE, NEUTRAL AND GROUND CONDUCTORS IN CONDUIT.
— / / —	INDICATES (2) PHASE, NEUTRAL AND GROUND CONDUCTORS IN CONDUIT.
— / / / —	INDICATES (3) PHASE, NEUTRAL AND GROUND CONDUCTORS IN CONDUIT.
□	JUNCTION BOX BLANK COVER.
MSP	PACKAGED MOTOR STARTER PANEL FURNISHED WITH EQUIPMENT, BUILT-IN SAFETY DISCONNECT. WIRING TO LINE TERMINALS BY E.C.
○	MOTOR HORSEPOWER AND VOLTAGE AS SCHEDULED.
\$	SINGLE POLE WALL SWITCH, 20A-120/277V, FLUSH MOUNTED U.N.O. M.H. 48" A.F.F.
⊙	CEILING MOUNTED OCCUPANCY SENSOR, DUAL TECHNOLOGY, 20A-120/277V, TIME DELAY OFF SET AT 10 MINUTES. PROVIDE APPROPRIATE COVERAGE TYPE AND POWER PACKS FOR ROOM APPLICATION.
□	WALL PLATE OCCUPANCY SENSOR, DUAL TECHNOLOGY, DUAL RELAY; 20A-1/3HP-120/277V, FLUSH MOUNTED WALL FINISHED SPACE; M.H. 48" A.F.F. TIME DELAY OFF SET AT 10 MINUTES.
⊕	DUPLEX OR DOUBLE DUPLEX RECEPTACLE, GROUNDING TYPE, NEMA 5-20R, 20A-120V, 18" A.F.F., FLUSH MOUNTED U.N.O.
⊕	GROUND FAULT INTERRUPTER DUPLEX OR DOUBLE DUPLEX RECEPTACLE, GROUNDING TYPE, NEMA 5-20R, 20A-120V, 18" A.F.F. FLUSH MOUNTED U.N.O.
▽	VOICE/DATA WORKSTATION OUTLET, 4" SQUARE 2 1/2" DEEP BOX WITH 1-GANG RAISED RING AND 1-GANG COVER PLATE. FLUSH MOUNTED 18" A.F.F. U.N.O.; PROVIDE CAT 6 RJ45 MODULAR JACKS FOR DATA (2 DATA, COLOR RED) AND CAT 3 FOR VOICE. (2 VOICE, COLOR WHITE). STUB 1" C WITH INSULATED BUSHING TO ABOVE ACCESSIBLE CEILING. EXTEND 4-PR. (2) CAT 6 & (2) CAT 3 CABLE TO IT SERVER ROOM 117.

LIGHTING FIXTURE SCHEDULE											
SYMBOL	LAMP DATA	BALLAST DATA	DESCRIPTION					LINE VOLT.	MANUFACTURER		NOTES
			HOUSING	REFLECTOR ASSEMBLY	LENS/REFRACTOR	USE LOCATION	MOUNTING		BASE SPECIFICATION	APPROVED EQUAL	
⊙	LED, RED — —	90-MINUTE EMERGENCY OPERATION —	POLYCARBONATE WHITE HOUSING —	SINGLE FACE —	RED DIFFUSE LETTERS ARROWS AS SHOWN —	EMERGENCY EXT —	WALL/CEILING WITH MATCHING CANOPY —	120	LITHONIA "QUANTUM" #LQM-S-W-1-R-120/277-ELN —	MCPHIBEN SURE-LITES DUAL LITE —	1,2
⊙	2-32W T8 3500K —	(1) 2-LAMP ELECTRONIC —	STEEL HOUSING WHITE FINISH —	WHITE REFLECTOR —	0.125" THICK ACRYLIC —	GRID TROFFER —	LAY-IN —	120	LITHONIA #2GT8-2-32-A12125-MVOLT- GE10S —	DAYBRITE COLUMBIA —	—

FIXTURE SCHEDULE NOTES - GENERAL

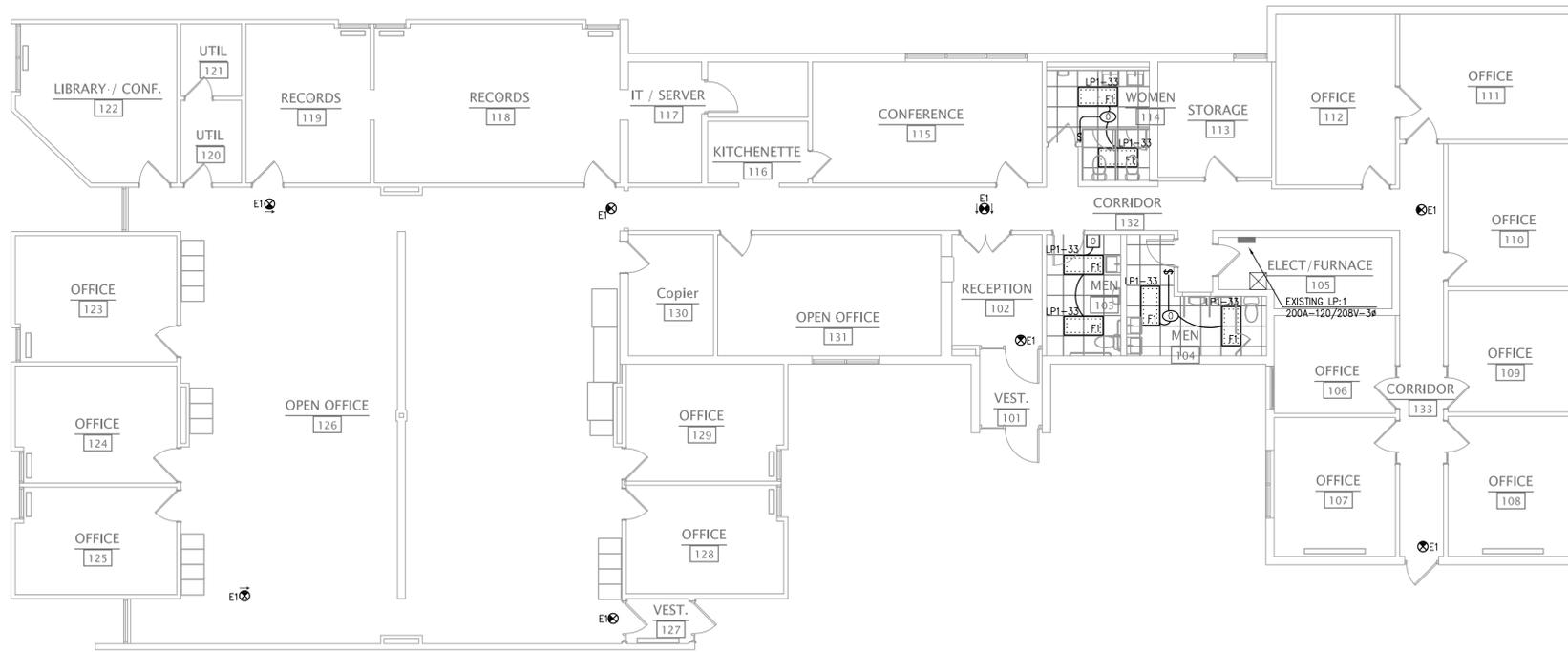
- A. SPECIFICATION NUMBERS ARE MANUFACTURERS SERIES NUMBERS ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/EQUIPMENT SUPPLIER TO COMPLETE CATALOG NUMBERS TO MATCH THE FIXTURE DESCRIPTION, COMPLIANCE WITH SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
- B. ALL FLUORESCENT LIGHTING FIXTURES SHALL BE PROVIDED WITH INTERNAL BALLAST DISCONNECT.

FIXTURE SCHEDULE NOTES

- 1. PROVIDE 90-MINUTE EMERGENCY/EGRESS BATTERY BACK. WIRE ENTIRE FIXTURE TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING FOR CONTINUOUS NIGHT LIGHT AND EMERGENCY OPERATION.
- 2. NEW EGRESS LIGHTING SHALL BE BID AS ALTERNATE E1.

EXISTING PANEL: LP:1				LOCATION: ELECT/FURN 105				
NOTES	LOAD DESCRIPTION	CIRCUIT BREAKER		BIMBO CIRCUIT # BIMBO CIRCUIT #	CIRCUIT BREAKER		LOAD DESCRIPTION	NOTES
		#A	#B		#A	#B		
	EXISTING LOAD	20ASP	500	1	2	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	3	4	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	5	6	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	7	8	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	9	10	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	11	12	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	13	14	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	15	16	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	17	18	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	19	20	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	21	22	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	23	24	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	25	26	500	20ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	27	28	4000	50ASP	EXISTING LOAD
	EXISTING LOAD	20ASP	500	29	30	4000	50ASP	EXISTING LOAD
	1 RECEPTACLES-RESTROOMS	20ASP	540	31	32	4000	50ASP	EXISTING LOAD
	1 LG-RESTROOMS & EXHAUST FANS	20ASP	800	33	34	4000	50ASP	EXISTING LOAD
	1 RECEPTACLES-OPEN OFFICE	20ASP	720	35	36	720	20ASP	RECEPTACLES-OPEN OFFICE
	1 RECEPTACLES-OPEN OFFICE	20ASP	720	37	38	720	20ASP	RECEPTACLES-OPEN OFFICE
	1 RECEPTACLES-OPEN OFFICE	20ASP	720	39	40	720	20ASP	RECEPTACLES-OPEN OFFICE
				41	42			
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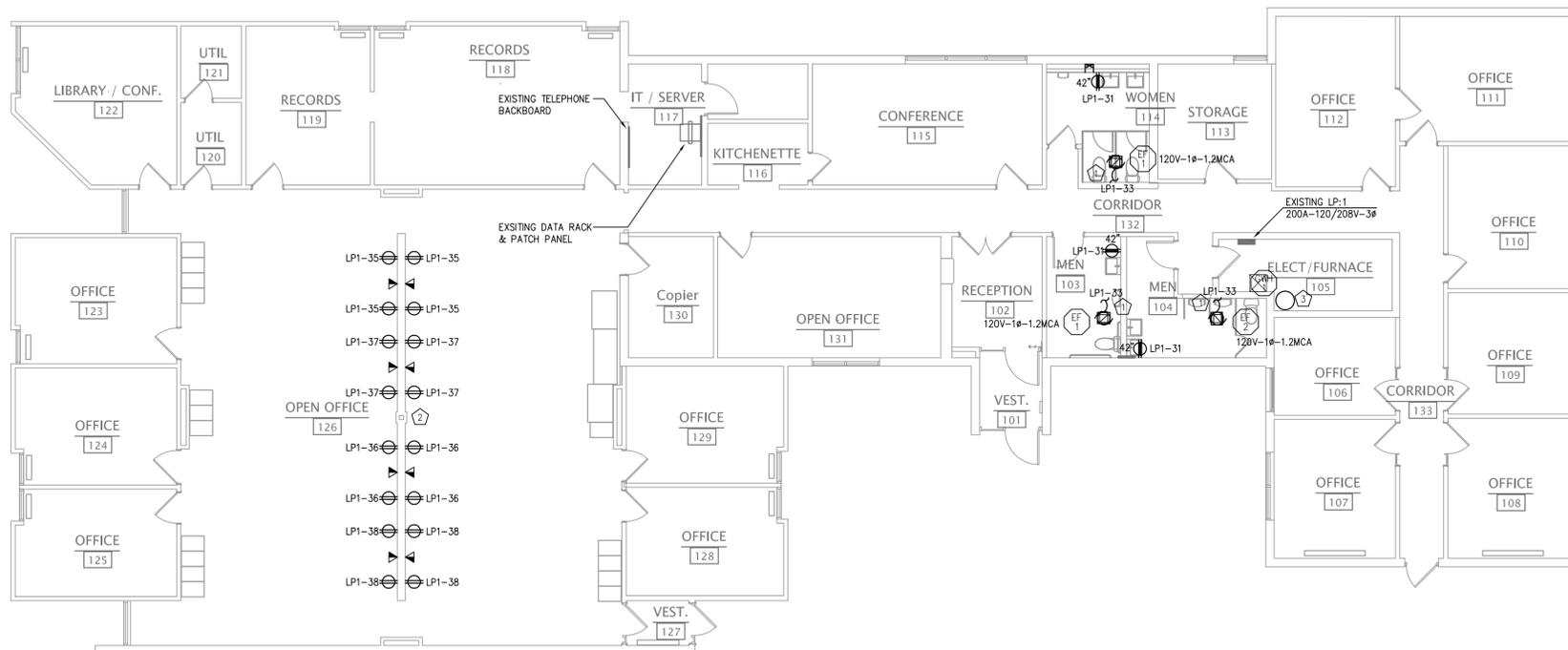


1st FLOOR LIGHTING

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1st FLOOR ELECTRICAL

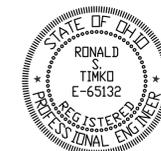
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04.12.2013 BIDDING
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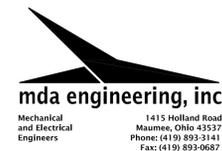
CHECKED B.STOTZ
APPROVED R.TIMKO

TCI JOB NO. 106048

SHEET TITLE
**First Floor Plan:
Lighting &
Electrical**

SHEET NO.

E2.01



ELECTRICAL SPECIFICATIONS:

1.00 GENERAL

1.01 GENERAL SCOPE

A. THE WORK REQUIRED UNDER THIS SPECIFICATION SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, POWER, TRANSPORTATION, HOISTING IMPLEMENTS, ETC., NECESSARY FOR THE COMPLETION OF THE ELECTRICAL WORK OF THE CONTRACT: ALL AS SPECIFIED HEREIN, SHOWN ON THE DRAWINGS OR REASONABLY IMPLIED BY EITHER, COMPLETE IN EVERY RESPECT UNLESS SPECIFIED OTHERWISE HEREIN. THE WORK INCLUDED IN THIS CONTRACT SHALL CONSIST OF THE INSTALLATION, TEST AND GUARANTEE OF ALL WORK DESCRIBED ON THE PLANS AND SPECIFICATIONS.

1.02 INSPECTION OF EXISTING AND GENERAL CONDITIONS

A. THE CONTRACTOR WILL BE HELD TO HAVE PERSONALLY INSPECTED THE SITE OF THE PROPOSED WORK TO ARRIVE AT A CLEAR UNDERSTANDING OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE EXTENT OF OTHER CONTRACTOR'S ACTIVITIES IN THE AREA, AND TO BECOME FULLY ACQUAINTED WITH THE RECEIVING AND STORAGE SPACES AVAILABLE. THE CONTRACTOR SHALL COMPARE THE PREMISES AND SITE WITH THE DRAWINGS AND SPECIFICATIONS, AND SHALL BE SATISFIED AS TO THE CONDITIONS OF THE PREMISES, THE ACTUAL ELEVATIONS, AND ANY OTHER CONDITIONS AFFECTING THE SCOPE OR COMPLETION PERFORMANCE OF THE WORK, BEFORE THE DELIVERY OF THIS PROPOSAL.

B. NO ALLOWANCES OR EXTRA CONSIDERATION ON BEHALF OF THE CONTRACTOR WILL BE ALLOWED BY REASON OF THE CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH SITE CONDITIONS; ERROR OR OVERSIGHT ON THE PART OF THE CONTRACTOR OR DUE TO INTERFERENCE'S BY THE OWNER'S OR OTHER CONTRACTOR'S ACTIVITIES.

C. ITEMS SPECIFIED ON ELECTRICAL EQUIPMENT SCHEDULES AND PLANS ARE THE BASIS OF DESIGN. EQUALITY OF OTHER EQUIPMENT SHALL BE DETERMINED BY THE OWNER AND ENGINEER. ANY MODIFICATION TO THESE DOCUMENTED METHODS THAT IS MADE NECESSARY BY ALTERNATE EQUIPMENT IS THE RESPONSIBILITY OF THE SUPPLIER OF THE ALTERNATE EQUIPMENT.

D. CONTRACTOR IS DIRECTED TO INCLUDE ALL NECESSARY OVER TIME AND PREMIUM TIME (SATURDAY, SUNDAY, HOLIDAYS) REQUIRED FOR THE COMPLETION OF THE INTENDED WORK TO MEET SPECIFIED SCHEDULES.

E. DO NOT SCALE ELECTRICAL DRAWINGS. FOR EXACT DIMENSIONS USE DIMENSIONED DRAWINGS OR ACTUAL FIELD CONDITIONS.

1.03 CODES, PERMITS, AND COMPLIANCE

A. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS REQUIRED BY LAWS OF GOVERNING BODIES. COMPLY WITH ALL APPLICABLE CODES, ORDINANCES AND ALL LEGAL REQUIREMENTS. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY CHANGES NECESSARY FOR CODE COMPLIANCE REGARDLESS OF THE METHOD OF INSTALLATION SHOWN ON THE DRAWINGS OR SPECIFIED.

B. ALL ELECTRICAL WORK SHALL COMPLY WITH CURRENT ADOPTED EDITIONS OF NATIONAL ELECTRICAL CODE, NFPA, THE LIFE SAFETY CODE AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.

C. ALL ELECTRICAL EQUIPMENT SHALL BE NEW AND SHALL BE LABELED OR LISTED BY U.L. OR A QUALIFIED TESTING ORGANIZATION.

D. ALL EQUIPMENT, DEVICES, AND MATERIALS SHALL BE THE LATEST PRODUCTS OF MANUFACTURER AND SHALL CONFORM TO THE REQUIREMENTS NOTED ON PLANS.

1.04 WORKMANSHIP

A. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY CONFORMING TO THE BEST ELECTRICAL INSTALLATION PRACTICE. ANY WORK OR MATERIAL WHICH IS REJECTED MUST BE REMOVED IMMEDIATELY AND REPLACED. NO SUB-STANDARD WORK WILL BE ACCEPTED.

B. THE BREVITY OF THIS SPECIFICATION SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM ALL WORK IN A FIRST CLASS WORKMANLIKE MANNER.

1.05 SUBMITTALS AND RECORD DRAWINGS

A. SUBMIT SHOP DRAWINGS AND CATALOG DATA FOR APPROVAL FOR ALL NEW EQUIPMENT AND MATERIALS SPECIFIED FOR THIS PROJECT PRIOR TO ORDERING OR MANUFACTURE OF SUCH. SHOP DRAWINGS NOT STAMPED WITH CONTRACTOR APPROVAL WILL NOT BE REVIEWED.

B. THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ALL DEVIATIONS FROM THE APPROVED DESIGN AND SPECIFICATIONS WHICH MAY OCCUR IN THE WORK AS ACTUALLY CONSTRUCTED, AND SHALL SUBMIT TAGS TO THE ENGINEER OR OWNER'S REPRESENTATIVE AT COMPLETION OF THE JOB.

C. SUBMITTALS SHALL BE COORDINATED THROUGH THE ARCHITECT.

1.06 TESTS AND GUARANTEE

A. ALL TESTS FOR VARIOUS SYSTEMS SHALL BE PERFORMED AS REQUIRED, CONSISTENT WITH GOOD GENERAL PRACTICE, AND IN COMPLIANCE WITH CODES AND AUTHORITIES.

B. AS A CONDITION PRECEDENT TO FINAL PAYMENT, THE CONTRACTOR SHALL EXECUTE TO THE OWNER A GUARANTEE IN A FORM APPROVED BY THE OWNER. GUARANTEE SHALL WARRANT THAT ALL WORK INCLUDED IN THIS SPECIFICATION WILL REMAIN IN SERVICEABLE CONDITION (ORDINARY WEAR, ABUSE AND CAUSES BEYOND THE CONTROL OF THE CONTRACTOR EXCLUDED) FOR A PERIOD OF AT LEAST ONE YEAR (OR OTHER TIME PERIOD SPECIFIED ELSEWHERE) FROM DATE OF FINAL COMPLETION AND ACCEPTANCE OF WORK. THE CONTRACTOR AGREES TO CORRECT, WITHOUT COST TO THE OWNER, ANY IMPERFECTIONS IN WHOLE OR IN PART WHICH MAY DEVELOP IN THIS WORK, INCLUDING ANY DAMAGE TO OTHER WORK CAUSED BY SUCH IMPERFECTIONS OR REPAIRING OF SAME.

C. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROPER DIRECTION OF MOTOR ROTATION. DAMAGE TO MOTORS, EQUIPMENT, OR SYSTEMS DUE TO IMPROPER ROTATION SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.

D. ALL ELECTRICAL SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED. REPLACE ANY AND ALL DEFECTIVE DEVICE ITEMS OR SYSTEMS BEFORE COMPLETION OF THE PROJECT.

1.07 COORDINATION

A. FIELD VERIFY EXACT LOCATION OF ALL NEW EQUIPMENT WITH EXISTING CONDITIONS AND COORDINATE WITH THE GENERAL AND OTHER CONTRACTORS PRIOR TO ROUGH-IN AND/OR INSTALLING ANY OF THIS WORK.

B. FIELD VERIFY ALL CLEARANCES AND CONDITIONS PRIOR TO THE INSTALLATION OF ANY CONDUIT, CABLE TRAY, RACEWAY, ETC.; VERIFY LOCATIONS OF ALL OUTLET BOXES, SURFACE MOUNTED DEVICES, PANELBOARD ENCLOSURES, FIXTURE LOCATIONS, ETC., WITH CIVIL, ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS PRIOR TO ROUGH-IN. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

C. ALL POWER OUTAGES TO EXISTING OR OPERABLE FACILITIES SHALL BE SCHEDULED WITH THE OWNER A MINIMUM TWO (2) WEEKS IN ADVANCE. THE CONTRACTOR SHALL NOT INTERRUPT OR RESTORE POWER WITHOUT PRIOR CONSENT OF THE OWNER. ANY INTERRUPTION SHALL BE ONLY FOR THE SPECIFIC SCHEDULED TIME.

D. COORDINATE ALL POWER WIRING, SAFETY DISCONNECT MEANS, MOTOR CONTROL AND CONTROL WIRING FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING TO MOTOR OR EQUIPMENT THROUGH STARTERS AND SAFETY SWITCH.

E. THE MECHANICAL CONTRACTOR, MECHANICAL EQUIPMENT SUPPLIER, OR TEMPERATURE CONTROL CONTRACTOR WILL BE RESPONSIBLE FOR ALL LOW VOLTAGE TEMPERATURE CONTROL CONDUIT AND WIRING REQUIRED FOR THE PROJECT. THE ELECTRICAL CONTRACTOR SHALL INSTALL, TERMINATE AND LABEL ALL POWER, CONTROL AND INTERLOCK WIRING DETAILED ON THESE PLANS.

F. LOCATE AND INSTALL ALL NEW DEVICES AND FIXTURES IN ACCORDANCE WITH AMERICAN DISABILITY ACT GUIDELINES.

1.08 IDENTIFICATION/LABELING

A. FURNISH AND INSTALL PHENOLIC LAMINATE NAME PLATES WITH 1/2 INCH LETTERS INDICATING PANEL NAME AND VOLTAGE ON ALL PANELS AND CABINETS. STARTERS, PUSH BUTTONS AND DISCONNECTS SWITCHES SHALL HAVE NAMEPLATES WITH 3/8 INCH HIGH LETTERS INDICATING NAME OR ITEM CONTROLLED. ALL NAMEPLATES SHALL BE WHITE SURFACE WITH BLACK LETTERS AND BE UV, WATER AND ABRASION RESISTANT.

B. INSTALL CLEAR ADHESIVE TAPE WITH BLACK LETTERING ON WIRING DEVICE OUTLETS DEFINING SOURCE (PANEL) AND CIRCUIT NUMBER IDENTIFICATION.

C. PROVIDE NEW TYPED PANEL DIRECTORIES FOR ALL NEW AND EXISTING PANELBOARDS AFFECTED BY THIS WORK.

1.09 DEMOLITION, REMOVALS, CLEAN-UP, PROTECTION AND TOUCH-UP

A. REMOVE ALL EXISTING RACEWAY, WIRING, FIXTURES, DEVICES, CONTROLLERS, ETC., SCHEDULED FOR REMOVAL OR NOT REQUIRED TO REMAIN IN SERVICE. CONTRACTOR SHALL COORDINATE REMOVAL WITH OWNER AND ALL OTHER TRADES ON THE PROJECT. ALL RACEWAY AND WIRE SHALL BE REMOVED BACK TO THE POINT OF SERVICE. PROVIDE ADDITIONAL MAKE-UP RACEWAY, JUNCTION BOXES, WIRING, ETC., TO MAINTAIN RACEWAY AND CIRCUIT CONTINUITY FOR FUNCTIONAL CIRCUITS.

B. THIS CONTRACTOR SHALL DISPOSE OF ALL MATERIALS GENERATED FROM REMOVAL AND INSTALLATION OF THIS WORK. DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE WEEKLY. THIS CONTRACTOR SHALL PROVIDE TO THE OWNER ANY SALVAGEABLE MATERIALS AS DIRECTED BY THE OWNER OR ENGINEER.

C. DEPOSIT ALL PCB OR OTHER HAZARDOUS CLASSIFIED MATERIALS (INCLUDING FLUORESCENT LAMPS AND BALLASTS) FROM REMOVALS IN APPROVED CONTAINERS AT A LOCATION DIRECTED BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL PCB OR OTHER HAZARDOUS CLASSIFIED MATERIAL.

D. ALL EQUIPMENT, ITEMS, DEVICES AND APPURTENANCES SHALL BE PROTECTED FROM DEBRIS AND DAMAGE WHILE STORED AT THE SITE, AND DURING AND AFTER INSTALLATION.

E. UPON COMPLETION OF WORK THIS CONTRACTOR SHALL THOROUGHLY CLEAN ALL APPARATUS FURNISHED BY THIS CONTRACT.

F. SCARFED FACTORY-FINISHED ELECTRICAL EQUIPMENT SHALL BE TOUCHED UP WITH FACTORY FURNISHED PAINT. RUSTED OR MARRED SURFACES OF ELECTRICAL EQUIPMENT SHALL BE CLEANED AND PRIMED BEFORE PAINTING.

G. PATCH FINISHED SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS MATCHING EXISTING MATERIALS AND EXPERIENCED INSTALLERS.

1.12 MAINTENANCE MANUALS

A. PREPARE MAINTENANCE MANUALS. PROVIDE A MINIMUM OF TWO COPIES WITH A SINGLE COPY SENT TO THE ENGINEER FOR APPROVAL. INCLUDE THE FOLLOWING INFORMATION FOR EQUIPMENT ITEMS:

1. COMPLETE INFORMATION ON PROJECT EQUIPMENT AND SERVICES AS WAS SUBMITTED DURING THE COURSE OF THE PROJECT. THIS INFORMATION IS SOLELY INTENDED TO PROVIDE THE OWNER WITH ACCURATE, USABLE INFORMATION ON HOW TO CARE FOR THE FACILITY.

2. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS.

3. MANUFACTURER'S PRINTED OPERATING INSTRUCTIONS.

4. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.

2.00 BASIC MATERIALS AND METHODS

2.01 FASTENING AND SUPPORTS

A. ALL CONDUITS AND EQUIPMENT SHALL BE ADEQUATELY SUPPORTED, EITHER SUSPENDED FROM THE CONSTRUCTION ABOVE, OR BY MEANS OF STRUTS TO THE CONSTRUCTION BELOW. CONDUIT, TRAY, FIXTURES, ETC., SHALL NOT SPAN FLEXIBLE CONNECTIONS OF AIR HANDLING EQUIPMENT, ETC., AND SHALL NOT BE SUPPORTED FROM DUCTWORK OR OTHER TRADES' SUPPORTS.

2.02 RACEWAYS

A. ALL CONDUCTORS SHALL BE INSTALLED IN RACEWAY UNLESS SPECIFICALLY NOTED OTHERWISE.

B. UNLESS OTHERWISE NOTED, CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (EMT) WITH STEEL COMPRESSION OR SET SCREW FITTINGS 3/4 INCH TRADE SIZE MINIMUM. CAST METAL FITTINGS ARE NOT ACCEPTABLE.

C. ALL CONDUIT AND WIRING IN FINISHED AREAS SHALL BE CONCEALED IN THE CONSTRUCTION WHERE PRACTICABLE.

D. ALL RACEWAYS SHALL BE ROUTED WITHIN STRUCTURAL STEEL AND FURRED SPACES UTILIZING FACTORY MADE ELBOWS AS GOOD PRACTICE AND WORKMANSHIP ALLOWS. INSTALL SLEEVES THROUGH STRUCTURAL CONCRETE OR WHERE PENETRATING STRUCTURAL FLOOR DECKS.

E. RACEWAYS SHALL BE CAPPED UNTIL CONDUCTORS ARE INSTALLED. EMPTY RACEWAYS SHALL EACH BE TAGGED AND INCLUDE FULL WIRE.

F. RACEWAYS 1-1/2 INCH TRADE SIZE AND SMALLER SHALL BE SECURED WITH ONE HOLE MALLEABLE STRAPS OR WALL BRACKETS. TRAPEZE SUPPORTS SHALL BE USED FOR GROUPS OF PARALLEL RACEWAYS WITH EACH SECURED TO TRAPEZE WITH PROPER CLAMPS. INDIVIDUAL RUNS OF RACEWAY 2 INCHES AND LARGER SHALL BE SUPPORTED WITH MALLEABLE IRON HANGERS. WHERE SURFACE CONDUIT IS INSTALLED BELOW THE 10 FT. LEVEL, USE OF "MINERALACS" FOR SUPPORTS IS PROHIBITED.

G. INSTALL SLEEVES FOR ALL RACEWAYS 1-1/2 INCHES AND LARGER PASSING THROUGH MASONRY, CONCRETE, TILE OR GYPSUM WALL CONSTRUCTION. SLEEVES SHALL BE PACKED WITH THERMAFIBRE SAFING INSULATION WITH A FIRE RATING EQUAL TO THE WALL, FLOOR OR ROOF RATINGS.

H. INSTALL FIRE STOPPING WHERE REQUIRED BY THE BUILDING CONSTRUCTION.

I. FINAL CONNECTIONS TO VIBRATING EQUIPMENT (MOTORS, TRANSFORMERS, ETC.), PROCESS MACHINERY AND INSTRUMENTATION DEVICES SHALL BE VIA FLEXIBLE, SEAL TIE CONDUIT, MAXIMUM 42 INCHES IN LENGTH. PROVIDE FLEXIBLE CONDUIT CONNECTIONS TO RECESSED LIGHT FIXTURES, MAXIMUM LENGTH 72 INCHES, 1/2 INCH DIAMETER TRADE SIZE MINIMUM.

2.04 OUTLET AND JUNCTION BOXES

A. OUTLET AND DEVICE BOXES FOR EXPOSED OR EXTERIOR APPLICATIONS AND USE WITH R.G.S. CONDUIT SHALL BE CAST FS/FD TYPE WITH GALVANIZED, STAMPED STEEL COVER PLATES.

B. FLUSH MOUNTED OUTLET DEVICE BOXES AND JUNCTION BOXES IN CONCEALED OR PROTECTED SPACES SHALL BE GALVANIZED PRESSED STEEL.

C. SURFACE TYPE BOXES FOR SPECIAL SYSTEMS SUCH AS FIRE ALARM, PAGING, SECURITY, ETC., SHALL BE PROPERLY SIZED BACKBOXES FOR THE DEVICE AS PROVIDED BY THE SYSTEM VENDOR.

2.05 CONDUCTORS (600V AND BELOW)

A. FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE STRANDED COPPER WITH 600V INSULATION. SIZES #12 THROUGH #2 SHALL BE THHN/THWN. SIZES #1 AND LARGER SHALL BE XHHW-2.

B. MINIMUM WIRE SIZE FOR BRANCH CIRCUIT CONDUCTORS SHALL BE #12 AWG, STRANDED COPPER.

C. ALL CONDUCTORS SHALL BE PROTECTED IN ACCORDANCE WITH NEC ART 240.4 AND AMPACITY SHALL BE IN ACCORDANCE WITH NEC 310.15 BASED ON 60 DEGREES C RATING FOR SIZES #2 AND SMALLER AND 75 DEGREES C FOR SIZES #1 AWG AND LARGER.

D. ALL SINGLE POLE BRANCH CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS TO COMPLY WITH N.E.C. 210.4.

E. EACH BRANCH CIRCUIT SHALL HAVE AN INDIVIDUAL NEUTRAL. EACH NEUTRAL SHALL BE IDENTIFIED AT ALL JUNCTION BOXES AND TERMINALS THE SAME AS ITS CORRESPONDING BRANCH CIRCUIT NUMBER.

2.06 GROUNDING

A. BOND METAL PIPING AND MECHANICAL DUCT SYSTEMS PER NEC ARTICLE 250.104.

B. BOND AND GROUND ALL NON-CURRENT CARRYING METAL PARTS OF THE BUILDING AND ELECTRICAL SYSTEM AS REQUIRED.

C. INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTOR IN RACEWAYS WITH CONDUCTORS FOR ALL FEEDER AND BRANCH CIRCUITS.

D. NONMETALLIC RACEWAYS: INSTALL AN EQUIPMENT COPPER GROUNDING CONDUCTOR IN NONMETALLIC RACEWAYS UNLESS THEY ARE DESIGNATED FOR TELEPHONE, DATA OR OTHER LOW VOLTAGE SYSTEM CABLING.

2.08 WIRING DEVICES

A. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE, HEAVY DUTY FOR SIDE AND BACK WIRING CONVENIENCE.

B. CONVENIENCE RECEPTACLES SHALL BE 20 AMPERE, 125 VOLT, NEMA 5-20R, HEAVY DUTY, SPECIFICATION GRADE, HUBBELL #HBL 5362 OR EQUAL.

C. WALL SWITCHES SHALL BE TOGGLE TYPE, 20 AMPERE, 125/277 A.C., QUIET TYPE, HUBBELL #HBL 1221 SERIES OR EQUAL.

D. ALL WIRING DEVICES SHALL HAVE IVORY (VERIFY WITH ARCHITECT) BODY UNLESS OTHERWISE SPECIFIED TO MATCH DECOR. ETC.

E. COVER PLATES IN FINISHED AREAS TO BE TYPE 302, BRUSHED STAINLESS STEEL, SMOOTH FINISH, HUBBELL S1/S8 OR EQUAL.

F. DEVICE PLATES IN UNFINISHED AREAS SHALL BE STAMPED, GALVANIZED, SHEET METAL.

3.00 PRODUCTS AND EXECUTION

3.02 LIGHTING FIXTURES

A. ALL NEW LIGHTING FIXTURES SHALL BEAR THE LABEL OF APPROVAL OF THE UNDERWRITERS LABORATORIES, INC. ALL FIXTURES OF EACH TYPE SHALL BE OF ONE MANUFACTURER.

B. BALLASTS FOR FLUORESCENT AND H.I.D. LAMPS SHALL BE 120 VOLT AS INDICATED ON THE DRAWINGS, BY PANELBOARD VOLTAGE AND BRANCH CIRCUITING.

C. FLUORESCENT BALLASTS SHALL BE ELECTRONIC TYPE, CBM CERTIFIED, 265 MA, 95 PERCENT POWER FACTOR, 10 PERCENT THD FOR T8 SERIES LAMPS. BALLASTS SHALL BE MOTOROLA OR EQUAL BY GENERAL ELECTRIC OR MAGNETEK. UTILIZE MULTIPLE LAMP BALLASTS TO ACCOMMODATE SWITCHING OR CIRCUITING AS SHOWN ON THE PLANS.

D. BALLASTS FOR DOUBLE ENDED FLUORESCENT FIXTURES SHALL CONTAIN A BUILT-IN DISCONNECTING MEANS IN ACCORDANCE WITH N.E.C. 410.73.

E. FLUORESCENT LAMPS SHALL BE TOLP COMPLIANT 265 MA, T8, INSTANT START, COLOR CORRECTED, TRI-PHOSPHOR LAMPS, RATED 80 CRI, 3500 DEGREE KELVIN LAMPS SHALL BE GENERAL ELECTRIC, SPX SERIES OR EQUAL BY OSRAM/SYLVANIA OR PHILIPS.

F. RECESSED FIXTURES SHALL BE SECURELY FASTENED TO THE CEILING FRAMING MEMBER BY MEANS IDENTIFIED PER NEC 410.36.

G. SEE SCHEDULE ON PLANS FOR FIXTURE DESCRIPTIONS, MODELS, MANUFACTURERS, ETC.

3.03 RACEWAYS FOR TELECOMMUNICATION CABLING FOR VOICE/DATA SYSTEMS

A. PROVIDE AND INSTALL EMPTY CONDUIT STUBS FROM EACH VOICE/DATA OUTLET LOCATION AS INDICATED ON THE PLANS TO NEAREST ACCESSIBLE CEILING SPACE. PROVIDE 90 DEGREE SWEEP ELBOW AND INSULATED BUSHING AT EACH STUB.

B. CONDUIT SHALL BE 1 INCH DIAMETER MINIMUM AND SHALL BE SIZED FOR 28 PERCENT MAXIMUM FILL PER BICSI AND EIA/TIA STANDARDS.

C. VOICE/DATA FLUSH OUTLET BOXES SHALL BE 4 INCH SQUARE, 2 1/8 INCH DEEP GALVANIZED PRESSED STEEL WITH 1 GANG PLASTER RING AND BLANK FINISHED COVER PLATE.

D. INCLUDE A PULL STRING IN ALL EMPTY RACEWAYS TO FACILITATE FUTURE CABLING BY OTHERS.

E. FURNISH AND INSTALL EMPTY RACEWAY OF SIZE AND TYPE AS INDICATED ON THE PLANS FOR BACKBONE CABLING. INCLUDE GROUNDED INSULATING BUSHING ON EACH END. SLEEVE FLOORS AND WALLS WITH R.G.S. CONDUIT AND INSTALL FIRE STOPPING.

3.04 TELECOMMUNICATION CABLING AND TERMINATIONS FOR VOICE/DATA SYSTEMS

A. ALL VOICE/DATA CABLING RECEPTACLES, AND ASSOCIATED TERMINATION EQUIPMENT SHALL BE FURNISHED, TERMINATED, TESTED AND CERTIFIED BY THE ELECTRICAL CONTRACTOR.

B. VOICE AND DATA RECEPTACLES: MODULAR RJ45 T568A OR T568B (VERIFY WITH OWNER) JACK WITH INDIVIDUAL SOLID COPPER 4 PAIR U.T.P. CATEGORY 6 CERTIFIED CABLE FROM THE RECEPTACLE JACK TO THE INDICATED IDF/MDF AND TERMINATED AS INDICATED. VOICE RECEPTACLES SHALL BE GRAY IN COLOR (VERIFY WITH OWNER). DATA RECEPTACLES SHALL BE RED IN COLOR (VERIFY WITH OWNER). PROVIDE DUST CAPS IN ALL RECEPTACLE JACKS. COVERPLATES SHALL MATCH WIRING DEVICE COVERPLATES.

C. IDF/MDF TERMINATIONS: ALL HORIZONTAL WORKSTATIONS CABLING FOR VOICE/DATA OUTLETS SHALL TERMINATE AT INTERMEDIATE DISTRIBUTION FRAME (IDF) OR MAIN DISTRIBUTION FRAME (MDF) EQUIPMENT CLOSETS.

1. VOICE U.T.P. CABLE TERMINATIONS: WALL MOUNTED 110 BLOCKS

2. DATA U.T.P. CABLE TERMINATIONS: RACK MOUNTED CATEGORY 6 PATCH PANELS.

D. INSTALL CABLING IN RACEWAY WHERE INDICATED AND/OR PROVIDED PER EIA/TIA AND BICSI RECOMMENDED PRACTICE. WHERE RACEWAYS ARE NOT PROVIDED, INSTALL CABLING ON J-HOOKS OR OTHER APPROVED MEANS. ALL CABLING AND INNERDUCT IN AIR HANDLING PLENUM SPACES SHALL BE LISTED AND LABELED FOR THE APPLICATION.

E. U.T.P. COPPER CABLES AND TERMINATIONS SHALL BE TESTED AND CERTIFIED TO MEET APPROPRIATE CATEGORY 3 AND 6 LEVELS PER EIA/TIA STANDARDS. NOTIFY THE ENGINEER AT LEAST 7 DAYS PRIOR TO ANY FIELD TESTING. FINAL REPORTS TO BE SUBMITTED WITH CLOSE OUT DOCUMENTS BEFORE FINAL PAYMENTS WILL BE AUTHORIZED.

F. VERIFY MODULAR JACK WIRING PATTERN T568A OR T568B WITH OWNER PRIOR TO TERMINATION.

G. IDENTIFY ALL CABLES AT BOTH ENDS, ALL WORKSTATION AND TELEPHONE RECEPTACLE JACKS AND ALL CONNECTOR FIELDS IN IDF/MDF EQUIPMENT ROOMS PER EIA/TIA-606 GUIDELINES. VERIFY OWNER SPECIFIC NOMENCLATURE. ALL LABELS SHALL BE MACHINE PRINTED.

H. BOND ALL EQUIPMENT RACKS AND METALLIC RACEWAYS ASSOCIATED WITH THIS SYSTEM TO THE BUILDING GROUNDING ELECTRODE SYSTEM PER EIA/TIA STANDARDS.

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the COLLABORATIVE inc

ARCHITECTS
LANDSCAPE ARCHITECTS
INTERIOR DESIGNERS
PLANNERS



SPACE STUDY
Lucas Co. Engineer
Building A
Renovations
1049 S. McCord Rd.
Holland, OH 43528

04.12.2013 BIDDING
04.12.2013 PERMITS

CHECKED B.STOTZ

APPROVED R.TIMKO

TCI JOB NO. 106048

SHEET TITLE
Electrical
Specification

SHEET NO.

E3.01



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