RFQ/P No. 24-0312-09-25-13

REQUEST FOR QUALIFICATIONS/PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P ACCEPTANCE DUE DATE:
Wednesday, September 25, 2024 @ 3:00 PM

Ignacio Amezcua MBA, CTCM, CTCD
Hidalgo County Purchasing Director

Project Contact Information:
Juan Herrera, Contract Specialist III
(956) 318-2626 Ext: 4887
Juan.Herrera@co.hidalgo.tx.us

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The above-mentioned items shall be found in this Request for Qualifications/Proposals (RFQ/P) packet that is attached herewith. Should you find that any of the listed items are not attached in its entirety, please contact the Purchasing Department by calling (956) 318-2626 or e-mail, to advise us of the missing documentation, and the Purchasing Department will forward information through e-mail or the portal.

Thank you.

_____ _____

Ignacio Amezcua MBA, CTCM, CTCD Date

September 25, 2024

Participant's/Firms Name

Address

City

State, Zip Code

RE: Hidalgo County - RFQ/P No. 24-0312-09-25-13
Request for Qualifications/Proposals – "[ARPA-24-340-352] - Construction Manager at Risk (CMAR) for McAllen Health Center Improvement Project"

Dear Gentlemen/Ladies:

Enclosed, please find the Request for Qualifications/Proposals (RFQ/P) procurement packet for the "Construction Manager at Risk (CMAR) for the McAllen Health Center Improvement Project". Carefully read and review all instructions, requirements and specifications as RFQ/P packets have been modified and new requirements have been added and implemented.

The Hidalgo County Purchasing Department welcomes and appreciates your interest and participation in the Request for Qualifications/Proposals process.

If any further assistance is required, please do not hesitate to call the Purchasing Department at (956) 318-2626.

Sincerely,

Ignacio Amezcua, MBA, CTCM, CTCD
Hidalgo County Purchasing Director

1) **Sealed qualifications/proposals will be received for "[ARPA-24-340-352] - Construction Manager at Risk (CMAR) for the McAllen Health Center Improvement Project"**, in accordance with the requirements attached hereto as Exhibit "A". Statement of Qualifications/Proposals ("SOQ/P") should address all requirements set forth. Proposers may suggest substitutions of features which they feel would be in the best interest of Hidalgo County ("County"). Strong rationale must be presented for any deviation from the requirements. County reserves the right to reject the deviation and its effect on the overall proposal.

2) Proposers are required to electronically submit a response via the Portal at https://procurement.opengov.com/portal/co-hidalgo-tx or hand deliver one (1) hard copy, and two (2) USBs in original PDF format of the SOQ/P, sealed, clearly marked and/or labeled with the Company's Name, RFQ/P Number, Project Title, and Opening Date to the Hidalgo County Purchasing Department, Physical Address: 2802 S. Business Hwy 281; Postal/Mailing Address: 2812 S. Business Hwy 281, Edinburg, Texas 78539, **on or before 3:00 p.m., Wednesday, September 25, 2024**.

NO EMAILS OR LATE ARRIVALS WILL BE ACCEPTED. ANY QUALIFICATIONS/PROPOSALS RECEIVED AFTER THAT TIME WILL NOT BE OPENED AND WILL BE RETURNED. OVERNIGHT MAIL MUST ALSO BE PROPERLY LABELED ON THE OUTSIDE OF EXPRESS ENVELOPE OR PACKAGE WITH REFERENCE TO:

RFQ/P No. 24-0312-09-25-13– "[ARPA-24-340-352] - Construction Manager at Risk (CMAR) for the McAllen Health Center Improvement Project.

Additionally, all forms listed below must be properly executed and included with your RFQ/P response:

1. Legal Notice (See Page 9)
2. Cost Proposal Form (See Attachment "D")
3. Insurance and Project Requirements Acknowledgment Forms (See Exhibit "C");
4. Form CIQ-Conflict of Interest Questionnaire (See Exhibit "D");
5. Bidder/Vendor Application, HUB Declaration & W-9 forms (See Exhibit "E");
6. Certification Regarding Debarment (See Exhibit "F");
7. Required Contract Clauses – 2 CFR 200 (See Exhibit "H")
8. Proposer's Affidavit (See Exhibit "J");
9. Deficiencies and Deviations (See Exhibit "L");
10. Reference Form (See Exhibit "M")
11. SAM.gov Registration Acknowledgement (See Number 18 below)
12. RFQ/P Submittal Check List (See page following Proposer's Affidavit)

3) The County reserves the right to separate and accept or eliminate any items(s) listed under this proposal that it deems necessary to accommodate budgetary and/or operational requirements. County also reserves the right to reject any or all proposals submitted and further reserves the right to design the evaluation criteria to be used in selecting the best proposal for approval. Receipt of any proposal shall under no circumstances obligate the County to accept the lowest dollar proposal. The award of this contract shall be made to the responsible offeror whose proposal is determined to be the best evaluated offer resulting from evaluation factors as herein set forth.

4) Failure of the delivered item(s) to perform as specified or failure to meet the stated delivery schedule shall release the County from all obligations to the contracting party with regard to the item(s) in question. In such event, County may elect to award the contract to the next best evaluated offeror, or to reject all proposals and re-advertise.

5) For work to be performed at a County owned or operated location, each proposer shall, in its sole discretion, visit the job site before preparing the proposal and thoroughly familiarize himself/herself with existing conditions. Proposer should take field dimensions and note all circumstances which affect the dollar amount of the proposal.

6) Descriptive specifications are referenced in this document to indicate the general kind and quality of equipment desired by the County. Due to various styles and models of equipment, proposers are required to include illustrations, specifications, explanation of warranties, and service data with their proposal including catalogue numbers and any necessary references.

7) No proposal may be withdrawn within sixty (60) days from the scheduled time to open proposals.

8) Proposed prices are to remain firm for a minimum of ninety (90) days after priced proposal opening.

9) Any interpretations, amendments, corrections or changes to this proposal document must be in a written addendum and signed by the County Judge or his designee. Addenda will be mailed to all who are known to have received a copy of the Request for Qualifications/Proposals. Proposers shall acknowledge receipt of all addenda as a part of their proposal.

10) County reserves the right to accept or reject any or all proposals.

11) Costs are to be net F.O.B., County Prepaid.

12) The County is exempt from Federal Excise Tax, State Tax and Local Tax. DO NOT include tax in cost figure. If it is determined that tax was included in the cost figures it will not be included in the tabulation of any awards. Tax exemption certificates will be furnished upon request.

13) Funds for this procurement have been provided through the County budget for this fiscal year only. County, on an annual basis, has the right to reconsider a contract during the budget process for ensuing years if financial resources of County are insufficient to meet the liabilities of said contract. The award of a proposal or contract hereunder will not be construed to create a debt of the County which is payable out of funds beyond the current fiscal year.

14) ARPA funds may be utilized for this project. Please be advised that ARPA funds may only be expected until December 31, 2026.

15) **DELIVERY INSTRUCTIONS: (If applicable)**

- No deliveries accepted after 3:00 P.M., Monday-Friday.
- At least seventy-two (72) hours prior notice of delivery must be given to Guillermo “William” Arriaga, Division Manager before delivery will be accepted.
- If you need additional information, call the office listed below:

Hidalgo County Purchasing Department
Ignacio Amezcua, MBA, CTCM, CTCD, Purchasing Director
(956) 318-2626

16) **BILLING AND PAYMENT INSTRUCTIONS:**

- Invoices must include:
  a) Name and address of successful proposer
  b) Name and address of receiving department or official
  c) Purchase Order Number and Contract Number (if any)
  d) Notation – **[ARPA-24-340-352] - Construction Manager at Risk (CMAR) for McAllen Health Center Improvement Project**
  e) Descriptive information as to the items or services delivered, including product code, item number, quantity, etc.
  f) Discount payments will be considered when offered.
  g) Contact person for Billing and Payment questions:

HIDALGO COUNTY AUDITOR'S OFFICE
POSTAL/MAILING: 2808 S. BUSINESS HWY 281
EDINBURG, TEXAS 78539
(956)318-2511

17) **SCHEDULE OF EVENTS:**

RFQ/P ACTIVITIES:		
	EVENT DESCRIPTION	**DATE:**
1.	Hidalgo County Commissioner's Court Approval of RFQ/P Packet and Authority to Advertise	09/3/2024
2.	1st Advertisement	09/7/2024
3.	Start RFQ/P Packet Distribution	09/7/2024
4.	2nd Advertisement	09/14/2024
5.	PRE-SUBMITTAL MEETING – Hidalgo County Purchasing Department, Conference Room 2802 S. Business Hwy 281, Edinburg TX 78539	09/16/2024
6.	Deadline for Questions	09/17/2024
7.	Deadline for Answers	09/19/2024
8.	**SOQ/P SUBMITTAL OPENINGS**	09/25/2024

18) **BID OR PERFORMANCE BOND AND DEBARMENT CERTIFICATION, PAYMENT UNDER CONTRACT:**

- **If the contract proposed is for the construction of public works or is for a contract for goods and services exceeding $100,000, all bidders shall furnish a good and sufficient bid bond in the amount of five percent of the total contract price. A bid bond must be executed with a surety company authorized to do business in Texas.**
- If the contract exceeds Fifty Thousand Dollars ($50,000.00), the bidder shall furnish a payment bond and a performance bond to the County for the full amount of the contract within thirty (30) days after the date of signing of the contract or issuance of a Purchase Order following the acceptance of a proposal, but in any event prior to the commencement of actual work.

- If the contract is for $50,000 or less, no money will be paid to the contractor until completion and acceptance of the work or the fulfillment of the purchase obligation to the County, and, if applicable, the receipt by County of satisfactory evidence that all subcontractors and material men have been paid.
- If a contract is for the construction, alteration or repair of public building or public works, the contractor *shall* provide a payment bond for a contract in excess of Twenty-Five Thousand Dollars ($25,000), as required by Tex. Govt. Code Ch. 2253.
- For requirements contracts, bond requirements are determined by applying the proposed unit price to the estimated quantities included in the specifications.
- All participants are also required to furnish a certification or acknowledgement stating that the contractor or vendor is free from suspension or debarment pursuant to federal regulation 45 CFR Part 76. Register at SAMs System for Award Management @ www.sam.gov.

19) **TITLE VI NOTICE / NONDISCRIMINATION**

a. By submitting a proposal, the proposer certifies that it will comply with the following nondiscrimination statutes and their implementing regulations. Title VI of the Civil Rights Act of 1964, as amended (78 Stat.252, 42 U.S.C. §§2000d to 2000d-4) provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal Financial assistance. Title VI has been broadened by related statutes, regulations and executive orders as found in Appendices "A" through "E" as delineated in the USDOT Standard Title VI/Non-Discrimination Assurances-Specific Assurances to prohibit discrimination on other grounds including, but not limited to, religion, sex, age, and disability. (Title VI-Appendices "A" through "E" are hereby attached as **Exhibit "G"**.)

b. The following required statement and the applicable provisions of the Title VI Appendices "A" through "E" expanding these protections to the categories described herein are hereby incorporated by reference as applicable.

- "The County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat.252, 42 U.S.C. §§2000d to 2000d-4) and the Regulations, hereby notifies all proposers that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against o the grounds of race, color, or national origin in consideration for an award."

c. The proposer will attach all applicable notices, including those referenced in Title VI – Appendices "A" through "E", to which it is obligated to provide or submit as part of proposal.

- If applicable, Form FHWA 1273 – "Required Contract Provisions Federal Aid Construction Contracts", must be physically attached to certain Federal-Aid construction contracts. A contractor (or subcontractor) is required to insert Form FHWA 1273 in each subcontract and lower tier subcontracts. Form FHWA 1273 is attached as **Exhibit "N"**, and if applicable, its provisions are incorporated in and made part of the contract entered into between the County and the successful respondent related to the present procurement.

20) **ETHICAL STANDARDS:**

- It shall be breach of ethics to offer, give or agree to give any elected official, department head or employee, or former elected official, department head or employee, of the County, or for any elected official, department head or employee or former elected official, department head or employee of the County, to solicit, demand, accept or agree to accept from another person, entity or organization, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore pending before any department or agency of the County.
- It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for the County, or any person associated therewith, as an inducement for the award of a subcontract or order.
- No public official shall have an interest in a contract awarded hereunder except in accordance with Tex. Loc. Govt. Code Chapter 171.

21) **DISCLOSURE OF CONFLICT OF INTEREST:**

- Chapter 176 of the Texas Local Government Code requires that any vendor, person, consultant or contractor considering doing business with the County to disclose in the Conflict-of-Interest Questionnaire (CIQ) attached as **Exhibit "D"**, the vendor, person consultant or contractor's affiliation or business relationship that might cause a conflict of interest with the County. By law, the CIQ must be filed with the Hidalgo County Clerk's Office no later than the seventh business day after the date the person becomes aware of facts that require that statement to be filed. The disclosure requirement applies to a person or business that contracts or seeks to contract with the County for the sale or purchase of property, goods or service. Any purchase order or contract resulting from this process shall be considered null and void if the successful Proposer fails to comply with Texas Local Government Code Chapter 176. Vendors, consultants, contractors and others who desire to conduct business with the County are encouraged to refer to Texas Local Government Code Chapter 176 for the details of this law. An offense under Texas Local Government Code Chapter 176 is a Class C Misdemeanor.

If applicable completed Form CIQ must be submitted to the Hidalgo County Clerk's Office located at 317 North Closner, Edinburg, Texas 78539.

COMPLETION AND SUBMISSION OF FORM CIQ IS THE SOLE RESPONSIBILITY OF THE PROSPECTIVE PROPOSER. QUESTIONS REGARDING COMPLIANCE SHOULD BE DIRECTED TO YOUR LEGAL COUNSEL.

22) **CERTIFICATE OF INTERESTED PARTIES (HB 1295):**

- **As of January 1, 2016, to comply with Texas Government Code Section §2252.908, and the rules issued by the Texas Ethics Commission found in Title 1, Section 46.1, 46.3 and 46.5 of the Texas Administrative Code, we have updated and revised our RFQ/P packet. In accordance with these**

requirements, a business must submit a completed Certificate of Interested Parties Form 1295 to the County before the County may enter into a contract with the entity. In box 3 of Form 1295, you will provide the RFQ/P No. 24-0312-09-25-13, as shown on the packet. Once completed and filed with the Texas Ethics Commission, Form 1295 must be printed and signed and submitted to our office via email to: Juan.Herrera@co.hidalgo.tx.us. The County cannot enter into a contract until Form 1295 is submitted. Therefore, failure to timely submit a signed Form 1295 may result in a delay of award. Full instructions for completion and submittal of Form 1295 may be found on the Texas Ethics Commission website:

https://www.ethics.state.tx.us./tec/1295-Info.htm

THE AWARDED VENDOR WILL HAVE THIRTY (30) DAYS TO SUBMIT THE SIGNED FORM 1295.
THE COUNTY CANNOT ENTER INTO A CONTRACT UNTIL FORM 1295 IS SUBMITTED.

23) Proposal, and all goods and services provided thereunder, shall comply with all federal, state, and local laws concerning this type(s) of goods and/or services.

24) Minimum Standards for Responsible Prospective Proposers: A prospective proposer must affirmatively demonstrate the proposer's responsibility. A prospective proposer, by submitting a proposal, represents to the County that it meets the following requirements:

- Possess or is able to obtain adequate financial resources as required to perform under the proposal;
- Be able to comply with the required or proposed delivery schedule;
- Have a satisfactory record of performance;
- Have a satisfactory record of integrity and ethics; and
- Be otherwise qualified and eligible to receive an award.

25) Successful proposer will pay or cause to be paid, without cost or expenses to the County, all FICA, FUTA/SUTA and Federal Income Withholding Taxes of all employees, and all wages and benefits as required by Federal or State law.

26) Any contract award to a successful proposer will be in effect until (a) the contract expires, (b) delivery and acceptance of products, and/or performance of services ordered, or (c) terminated by County with thirty (30) day's written notice prior to cancellation.

27) The County reserves the right to enforce performance of any contract awarded hereunder in any manner prescribed by law or deemed to be in the best interest of the County. In the event of breach or default by successful proposer; County reserves the right to terminate any contract immediately in the event a successful proposer fails to:

A. Meet schedules;
B. Pay any required fees or taxes; or
C. Otherwise perform in accordance with the requirements.

28) **INDEMNIFICATION**: Successful proposer shall defend, indemnify and save harmless the County and all its elected officials, officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful proposer, or

of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from proposal award. Successful proposer indemnifies and will indemnify and save harmless the County from liability, claim or demand on their part, agents, servants, customers, and/or employees whether such liability, claim or demand arise from event or casualty happening or within the occupied premises themselves or happening upon or in any of the halls, elevators, entrances, stairways or approaches of or to the facilities within which the occupied premises are located. Successful proposer shall pay any judgment with costs which may be obtained against the County growing out of such injury or damages, and shall, upon request, provide a defense to the County by counsel reasonably acceptable to the County. Successful proposer's indemnity hereunder shall include, but is not limited to, claims relating to patent, copyright or trademark infringement, and the like, arising out of the goods or services provided by successful proposer.

29) Successful proposer shall warrant that all items/services shall conform to the specifications and/or all warranties provided under the Uniform Commercial Code and be free from all defects in material, workmanship and the like. Items supplied under a contract pursuant to this Request for Qualifications/Proposals shall be subject to County's approval. Items found to be defective or not meeting specifications shall be replaced by successful proposer within two business days at no expense to the County. Items not picked up within one (1) week after notification shall be deemed a donation to the County and may be used or disposed of at County's discretion and without waiver of any other rights of the County as to the item's nonconformity.

30) This document and any disputes arising hereunder shall be governed and construed according to the laws of the State of Texas, and will be performable exclusively in Hidalgo County, Texas.

31) The successful proposer shall not assign, sell, transfer or convey its rights under any awarded contract, in whole or in part, without the prior written consent of County.

32) **CONTRACTS SUBJECT TO FEDERAL AWARD:**

• The procurement standards of 2 CFR, Part 200, including, but not limited to 2 CFR 200.317-200.327, address the County's requirements, as a non-Federal entity, in regards to contracts it enters into that are subject to federal award. Pursuant to 2 CFR 200.327, the County, as a non-Federal entity, is required to include into contracts subject to federal award, the applicable provisions and contract clauses described in Appendix II to 2 CFR 200, (Contract Provisions for non-Federal Entity Contracts Under Federal Awards). As such, if applicable, the procurement standards found in 2 CFR, Part 200, and the provisions of Appendix II to 2 CFR 200, and the required contract clauses found in **Exhibit "H"** are incorporated by reference, whether specified explicitly or not, as part of this procurement packet and any resulting agreement.

• In addition, should the County's contracts under Federal award be subject to assistance from the Federal Emergency Management Agency (FEMA), FEMA requires the inclusion of contract terms in addition to those under Appendix II to 2 CFR 200. If applicable, the additional contract clauses required by FEMA are found in **Exhibit "H"** and incorporated by reference, whether specified explicitly or not, as part of this procurement packet and any resulting agreement. Should the contract be subject to assistance from FEMA, it is the County's intention to comply with FEMA requirements; therefore, any conflict in terms should be resolved as such.

• If applicable, in accordance with 2 CFR 200.319, Contractors that develop or draft specifications, requirements, statements of work, or invitations for bids or requests for proposals must be excluded from competing for such procurements. (See 2 CFR 200.219).

33) **HISTORICALLY UNDERUTILIZED BUSINESS/DISADVANTAGED BUSINESS ENTERPRISES**:

The County is committed to ensuring that Historically Underutilized Businesses (HUB) and Disadvantaged Business Enterprises (DBE) such as small business enterprises (SBE), minority and women-owned business enterprises (MWBE) receive a fair and equal opportunity for participation in the County's procurement process. The County encourages the use of these enterprises both as prime and subcontractors. (See Exhibit "E" for requirements).

When federal funds are expended by the County, the County will take affirmative steps set forth in 2 CFR 200.321 to assure that small, minority, women-owned businesses and labor surplus area owned firms are used when possible. Pursuant to 2 CFR 321, the County requires that a prime contractor who uses sub-contractors take affirmative steps set forth in 2 CFR 200.321, including:

a) Placing qualified small and minority business and women's business enterprises on solicitation lists;
b) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
d) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and
e) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

Nothing in this section is to be construed to require the County to award a contract other than as required by law.

34) **TEX. GOVT. CODE 2270 – BOYCOTT ISRAEL VERIFICATION:** Effective September 1, 2017, the Texas Government Code was amended to require state agencies and political subdivisions to obtain written verification from the Company that their Company (i) does NOT boycott Israel and (ii) will not boycott Israel during the life of this contract, agreement or purchase order (herein after referred to as "Contract"). By accepting this contract, the Company verifies that it does not Boycott Israel, and agrees that during the term of this Contract will not Boycott Israel as that term is defined in Texas Government Code §2270.001(1) and §808.001(1), as amended. The County cannot execute a contract for goods or services without this declaration.

35) Proposers shall provide with the proposal response, a list of at least four (4) references where like services have been supplied by their firm. Include the name of the business or government, address, telephone number and name of representative or contact person. (**See Exhibit "M")**

36) Proposers must provide all documentation requested with this Proposal in their response (except for **Form CIQ** if **NOT APPICABLE**). Failure to provide this information may result in rejection of the proposal as non-conforming.

Request for Qualifications/Proposals
For
HIDALGO COUNTY
"[ARPA-24-340-352] - Construction Manager at Risk (CMAR) for
McAllen Health Center Improvement Project"

To: Ignacio Amezcua, MBA, CTCM, CTCD, Purchasing Director
Hidalgo County Purchasing Director
Physical Address: 2802 S Business Hwy 281
Mailing/US Postal Address: 2812 S Business Hwy 281
Edinburg, TX 78539

In accordance with the Requirements, and subject to all laws and regulations of the United States and state and local laws, the undersigned proposer proposes and commits to furnish all labor, equipment, material, software and services as set forth in documents hereinbefore mentioned. The undersigned proposer further agrees, upon acceptance of its proposal, to execute a contract and/or Purchase Order issued by the County for performing and completing the work described in the Requirements within the time stated and for the prices proposed in the documents attached hereto and made a part hereof.

Proposer acknowledges receipt of all of the pages of the documents referenced in the Request for Qualifications/Proposal Checklist presented in connection with this procurement. Proposer understands that if the County feels that none of the submitted sealed qualifications/proposals meet its requirements, the County reserves the right to refuse and reject all qualifications/proposals and start the procurement process anew**.**

Proposer agrees that this proposal shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving proposals, as contained in the Requirements.

Respectfully submitted,

FIRM: _____

ADDRESS: _____

BY: _____

PRINT NAME: _____

TITLE: _____

EXHIBIT "A"

REQUIREMENTS

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P No. 24-0312-09-25-13

Hidalgo County (***"Owner"***) will procure Construction Manager at Risk (CMAR) Services in one step:

Submission Due Date: Wednesday, September 25, 2024, 3:00 PM Central

The County of Hidalgo (County) will be accepting Statement of Qualifications and Proposal (referred to herein as SOQ/P) from qualified firms for selection of a Construction Manager at Risk (referred to herein as "CMAR") for the McAllen Health Center Improvement Project. **The County will be procuring the CMAR through a One-Step Process.** County will receive sealed Statements of Qualifications/Proposals for the provision of ***"[ARPA-24-340-352] - Construction Manager at Risk for the McAllen Health Center Improvement Project"*** (including all funding sources, Programs, and Entities) – Request for Qualifications / Proposals (referred to herein as "RFQ/P") as specified herein. Statements of Qualifications and Proposal will be accepted until **3:00 PM on September 25, 2024.**

ANY SOQ/P RECEIVED AFTER THAT TIME WILL NOT BE OPENED AND WILL BE RETURNED.

The following outlines the Request for Qualifications:

SECTION-I
GENERAL TERMS AND CONDITIONS

RFQ/P DOCUMENT SUBMITTAL / DELIVERY:

Respondents have two (2) options for submitting a response. Respondents shall submit their response using one (1) of the following methods (DO NOT duplicate submittals by submitting both an electronic and hard copy response. Respondents shall select one only (1) method to respond):

A. Submit responses electronically via the PORTAL: https://procurement.opengov.com/portal/co-hidalgo-tx on or before Wednesday, September 25, 2024, at 3:00 pm. OR;

B. Submit one (1) hard copy and two (2) USBs in original PDF format via personal hand-delivery or delivery service on or before Wednesday, September 25, 2024, at 3:00 pm.

Respondents must complete and include in their response, all documentation requested in this RFQ/P. Refer to enclosed RFQ/P Submittal Check List form for documents to be included in your response.

When hand delivering the SOQ/P, Hidalgo County is requesting that statement of qualifications and proposal responses be sealed, clearly marked and/or labeled with the Company's name, RFQ/P Number, Project Title, and Opening Date, be delivered to Ignacio Amezcua, MBA, CTCM, CTCD, Purchasing Director, at:

US Postal Mail Address:
Ignacio Amezcua, MBA, CTCM, CTCD, Purchasing Director
Attn: Juan Herrera, Contract Specialist III
Hidalgo County Purchasing Department
Administration Building
2812 S. Business Hwy 281
Edinburg, Texas 78539

Physical Address:
Ignacio Amezcua, MBA, CTCM, CTCD, Purchasing Director
Attn: Juan Herrera, Contract Specialist III
Hidalgo County Purchasing Department
Administration Building
2802 S. Business Hwy. 281
Edinburg, Texas 78539

County requires respondents, when hand delivering statements of qualifications and proposals, to have a Purchasing Department representative time/date stamp and initial the envelope when delivering the SOQ/P for submittal.

All costs and expenses associated with the preparation and submission of the SOQ/P shall be the responsibility of the respondent participant, and no reimbursement for such charges or expenses shall be paid by the County.

PRE-SUBMITTAL MEETING: A pre-submittal meeting is tentatively scheduled for Wednesday, September 16, 2024 at 10:00 AM. Location: Hidalgo County Purchasing Department 2802 S. Bus Hwy 281, Edinburg, Texas 78539.

PROPOSERS AFFIDAVIT: Respondents to this RFQ/P must submit a signed Proposer's Affidavit (attached herein as Exhibit J) certifying that the submission is (1) not the result of Collusion as described in the Proposer's Affidavit, (2) that the Respondent does not have a Conflict of Interest as described in the Proposer's Affidavit, or (3) that the Respondent has not and will not attempt to lobby directly or indirectly as described in the Proposer's Affidavit.

NON-DESCRIMINATION: Respondents, during the performance of any services for the County, shall not discriminate against any employee or applicant for employment because of race, religion, sex, national origin or disability except where religion, sex, national origin or disability is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor.

PROCESSING TIME FOR PAYMENT:
Respondents are advised that a minimum of thirty (*30*) days is required to process invoices for payment

PROOF OF FINANCIAL AND BUSINESS CAPABILITY:
Respondents must, upon request, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these requirements. Hidalgo County will make the final determination as to the vendor's ability.

RESPONDENT DEFAULT: County reserves the right, in case of Respondent default, to procure the articles or services from other sources and hold the defaulting Respondent responsible for any excess costs occasioned thereby.

RESTRICTIVE OR AMBIGUOUS REQUIREMENTS: It is the responsibility of the respondent to review the RFQ/P packet and to notify in writing the County if the requirements are formulated in a manner that would unnecessarily restrict competition. These criteria also apply to requirements that are ambiguous.

RFQ/P QUESTIONS AND ANSWERS: Any protest(s) or question(s) regarding the requirements or request for qualifications procedures must be received by the Purchasing Department via the PORTAL's Question and Answer Tab (Q&A) at https://procurement.opengov.com/portal/co-hidalgo-tx **by NO LATER than TUESDAY, September 17, 2024** at **5:00 P.M.** Responses to properly submitted questions will be published in the Portal and emailed to all plan holders who are listed as a Follower in the Portal by **THURSDAY, September 19, 2024.** **TELEPHONE INQUIRIES WILL NOT BE ACCEPTED.**

"CODE OF SILENCE" PERIOD: From the date of release of this RFQ/P until a Respondent is selected and a contract for the project executed, Respondents must not communicate with any County staff, elected officials, or other representatives concerning the RFQ/P or the Project except

through the County's Point of Contact. **FAILURE TO COMPLY MAY RESULT IN DISQUALIFICATION.**

SIGNING OF QUALIFICATIONS/PROPOSALS: In order to be considered, all submittals **must** be signed by an authorized representative of the firm. **For hardcopy submissions, please sign the original in blue ink and ensure the copy is clearly labeled. For electronic submissions, please ensure all appropriate certifications are marked.**

WAIVING OF INFORMALITIES: The County reserves the right in its sole discretion to waive minor informalities or technicalities when it is in the best interest of the County

.

DAVIS BACON ACT: All selected and awarded firms are required to include the appropriate prevailing wage rate when advertising and developing project specifications.

SECTION-II

PROJECT INFORMATION AND RFQ/P REQUIREMENTS

GENERAL PROJECT DESCRIPTION

The County, is planning to procure a Construction Manager at Risk (CMAR) in a one-step process to provide construction management services to build a new facility that house offices and other functional spaces for the County. The building location will be located South of the existing Hidalgo County Health Clinic / Registration buildings located on North Cynthia Street in McAllen, TX. The proposed facility will be constructed as a brick Building. Estimated size of the new Facility will be 6,000 square feet. Further details are provided in Attachment A – Scope Statement, Attachment B – Project Budget, Attachment C – Draft Project Schedule, and Attachment D – Cost Proposal Form, Attachment E- Procurement Schedule and Attachment F – Project Location.

SCOPE OF SERVICES

This one-step CMAR Selection Process is soliciting CMAR Services to deliver the project. Generally, those services include adequate and necessary preconstruction, construction, and closeout phase services to construct the Project as defined below.

1 PRE-CONSTRUCTION PHASE SERVICES

- 1.1 Manage the GMP DOCUMENTATION, including:
  - 1.1.1 Detailed quantity surveys, pricing.
  - 1.1.2 Procurement strategy and implementation.

- 1.2 SITE UTILIZATION STUDY
  - 1.2.1 Coordinate mobilization and plan logistical requirements.
  - 1.2.2 Project office and material staging locations.
  - 1.2.3 Ingress, egress.
  - 1.2.4 Security requirements.

- 1.3 Prepare SUBCONTRACTOR BID OR PROPOSAL PACKAGES, including:
  - 1.3.1 Project Manual, outlining the requirements of the construction.
  - 1.3.2 Schedule (by bid or Proposal package interface).
  - 1.3.3 Detailed scope of work.
  - 1.3.4 Detailed document listing.

1.3.5 Proposal forms for each bid or Proposal package.
1.3.6 Form of contract and purchase order forms.
1.3.7 Insurance requirements.
1.3.8 Bonding requirements.
1.3.9 Prequalification of bidders/proposers.
1.3.10 Other special requirements.

1.4 CONDUCT PRE-BID MEETINGS
1.4.1 Project Requirements.
1.4.2 Document review for specific questions.
1.4.3 Sequence/schedule review.
1.4.4 Site restrictions.
1.4.5 Other questions raised during discussions.

1.5 RECEIVE BIDS:
1.5.1 Generate interest in vendors/contractors.
1.5.2 Advertise or solicit for bids/proposals.
1.5.3 Conduct bid/proposal openings.
1.5.4 Prepare tabulations for each bid or proposal package.
1.5.5 Review proposals for compliance with contract documents.
1.5.6 Review apparent low vendor's qualifications, past experience and liquidity.

1.6 CONDUCT PROPER AWARD OF CONTRACTS/PURCHASE ORDERS:
1.6.1 Conduct pre-award meetings.
1.6.2 Review schedule of values.
1.6.3 Review subcontractors' general conditions.
1.6.4 Review scope of work.
1.6.5 Identify shop drawings requirements.
1.6.6 Perform document review and specifications review.
1.6.7 Review contractors' personnel:
Project Managers
Superintendents
Foremen
1.6.8 Establish quality requirements and standards.
1.6.9 Review sequence and schedule.
1.6.10 Identify accounting requirements.
1.6.11 Review insurance requirements.
1.6.12 Review safety and security requirements.
1.6.13 Recommend award of contracts.

2 THE SUCCESSFUL CONSTRUCTION MANAGER SHALL BE REQUIRED TO PERFORM THE FOLLOWING SERVICES DURING THE CONSTRUCTION PHASE OF THIS PROJECT:

2.1 PROVIDE COORDINATION AND MANAGEMENT OF SUBCONTRACTORS
2.1.1 Establish site organization, including work and storage areas.
2.1.2 Establish jobsite management organization and jobsite procedures.
2.1.3 Maintain daily log for jobsite record.
2.1.4 Provide general conditions work to meet Project requirements.
2.1.5 Prepare and issue change orders and contracts.
2.1.6 Prepare subcontractor change orders and contracts.

2.1.7 Monitor construction cost and projections.
2.1.8 Monitor and maintain quality control.
2.1.9 Shop drawing control.
2.1.10 Equipment and material control.
2.1.11 Provide and monitor overall progress and short interval scheduling.
2.1.12 Prepare billings and progress payments.
2.1.13 Conduct subcontractor coordination meetings.
2.1.14 Provide coordination between subcontractors.
2.1.15 Prepare and receive requests for information.
2.1.16 Prepare agendas and conduct weekly safety and progress meeting.
2.1.17 Prepare and distribute weekly safety and progress meeting minutes.
2.1.18 Establish subcontractor progress payment procedure for processing and payment.
2.1.19 Monitor subcontractors' pay applications.

2.2 MONTHLY REPORT:
2.2.1 Summarize Project financial status.
2.2.2 Review and summarize past month's construction performance.
2.2.3 Project the coming month's construction activities.
2.2.4 Present status report on change orders – delays and time extensions.
2.2.5 Identify problems that threaten construction quality, cost and schedule.

2.3 PROVIDE CHANGE ORDER CONTROL:
2.3.1 Allocate change order responsibilities.
2.3.2 Review change order requests from subcontractors.
2.3.3 Negotiate change orders with subcontractors.
2.3.4 Submit recommendations to Owner.

2.4 ESTABLISH QUALITY MANAGEMENT PROGRAM:
2.4.1 All members of the team participate in the quality control effort.
2.4.2 Project Scope Review:
2.4.2.1 Intended purpose.
2.4.2.2 Are the Project needs met?
2.4.2.3 Existing conditions reviewed.
2.4.2.4 Future needs.
2.4.3 Incorporate Restrictive Conditions in documentation to include:
2.4.3.1 Social environment, influence of neighbors, environmental impact.
2.4.3.2 Natural conditions, grounds and peripherals.
2.4.3.3 Research on legal requirements.
2.4.3.4 Research on existing structures, facilities.
2.4.4 Review of Design Development for:
2.4.4.1 Complete construction documents in the order they are to be purchased and constructed.
2.4.4.2 Complete documents for pre-purchased equipment.
2.4.4.3 Design compatibility with future operation and maintenance.
2.4.4.4 Constructability.
2.4.5 Coordinate schedule and assist independent testing and inspection agencies selected by the County, involving the following work:
2.4.5.1 Underground piping.
2.4.5.2 Soils.
2.4.5.3 Concrete.

2.4.5.4 Rebar.
2.4.5.5 Miscellaneous steel.
2.4.5.6 Structural steel.
2.4.5.7 Mechanical systems.
2.4.5.8 Electrical.
2.4.5.9 Life safety systems.
2.4.5.10 Energy management systems.
2.4.5.11 Others as required.
2.4.5.12 Work with area superintendents of subcontractors.
2.4.5.13 Prepare operations to minimize quality control problems.
2.4.5.14 Ensure conformance to Project's quality standards previously established.
2.4.5.15 Follow-up to assure correction of deficiencies on test reports.

2.5 JOB SAFETY Objectives:
2.5.1 Conduct weekly safety meeting.
2.5.2 Implement Project safety requirements.
2.5.3 Require weekly toolbox safety meeting.
2.5.4 Maintain safety meeting minutes.
2.5.5 Inform subcontractors of procedures.
2.5.6 Enforce alcohol and drug programs by subcontractors.
2.5.7 Implement and maintain clean-up.

2.6 JOBSITE SECURITY Functions:
2.6.1 Monitor and control employee, vendor and public access to the jobsite.
2.6.2 Monitor and control material and equipment deliveries to the jobsite.
2.6.3 Monitor and control material and equipment being removed from jobsite through a material release form.
2.6.4 Monitor and control site traffic.
2.6.5 Monitor and perform periodic checks for alcohol and drugs.
2.6.6 Monitor and control tools.
2.6.7 Monitor material storage.
2.6.8 Monitor trailers and all equipment within.
2.6.9 Maintain proficiency first-aid and CPR programs.
2.6.10 Monitor and control employee, vendor theft.

3 PROJECT POST CONSTRUCTION SERVICES:
3.1 Provide operating and maintenance manuals.
3.2 Secure and assemble warranties or guarantees.
3.3 Provide check-out of equipment.
3.4 Instruct operating personnel in equipment operating and maintenance procedures.
3.5 Assist in actual start-up of equipment.
3.6 Implement close-out procedures and ensure requirements are met:
3.6.1 Subcontractors' and vendors' final payment.
3.6.2 Resolution of claims.
3.6.3 Final change orders.
3.6.4 Lien releases.
3.6.5 Final lien waivers.
3.6.6 Consent of sureties.
3.7 Assist Owner in enforcement of warranties or guaranties.

3.8 Conduct walk-through with Owner and Contractor one year after Project completion.

REQUEST FOR QUALIFICATIONS/PROPOSALS

The required contents and limitations for the preparation of the SOQ/P, as well as the anticipated Scope of Services, are described in this section. Failure to provide the requested information or adhere to any County limitations may result in disqualification of the submitted SOQ/P.

The following sections should be clearly marked in the submitted SOQ/P – (1) Cover Letter, (2) Understanding of the Project, (3) Firm Qualifications and Approach, and (4) Personnel & Staffing, & (5) Cost Proposal Form (Refer to Attachment D) detailed as follows:

(1) COVER LETTER

Include a cover letter introducing your firm (or team), highlighting relevant experience as a CMAR, the "value-add" your team presents, and any other information you deem important to highlight. The cover letter should also include a Point of Contact with email and phone number.

(2) UNDERSTANDING OF THE PROJECT

Narrative

This section of the SOQ should demonstrate the Respondent's understanding of this Project, the services that may be required and any local issues or concerns. In narrative format, describe the issues that may apply to this project, such as local labor and material issues, site concerns, working on an operating, etc. The SOQ should list, in table format, any relevant experience on similar projects completed within the State of Texas within the past seven (7) years, to include overall square footage and final construction cost.

This section is limited to no more than three (3) pages.

(3) FIRM QUALIFICATIONS AND APPROACH

This section of the SOQ should demonstrate how the Respondent is qualified to act as the County's CMAR delivering the fully constructed Project.

This SOQ should demonstrate a highly qualified ability to accomplish the objectives of this RFQ/P including, without limitation, delivering the project on time and within budget. The selected firm and its key personnel must have substantial CMAR experience in the construction of similar major, public, capital improvement projects including, without limitation, project delivery under Cost of the Work, Plus a Fee with Guaranteed Maximum Price contracts. The SOQ should describe strategies the Respondent has used to achieve high-performing CMAR construction building delivery and how those would be employed on this project. The SOQ should provide information that demonstrates the strength of the firm to assist the owner during the preconstruction phase to work with project constraints.

Project Sheets (1 per page)

In the second part of this section, provide at least three (3), and no more than five (5) similar, relevant projects that demonstrate understanding of this Project through experience with similar major, public, capital improvement projects using the same or similar project delivery method, Similar, relevant projects are defined as being between 3,000 and 15,000 SF and between $500k - $3 Million construction cost.

Indicate clearly if the project(s) were not constructed by the prime firm. For each project, list the following factual information:

(1) a client contact name and phone number
(2) Pre-Construction phase and Construction phase fee percentages (as percent of the construction cost limitation)
(3) original construction budget versus final construction cost (and any explanations for substantial deviations)
(4) accuracy (in percentage) of final Design Development estimate versus final construction cost (and any explanations for substantial deviations)
(5) gross square footage of project
(6) original scheduled substantial completion versus actual substantial completion
(7) actual duration from substantial completion to final completion
(8) number of open punch list items at substantial completion
(9) number of submitted change proposals
(10) number of approved change proposals
(11) number of approved change orders
(12) number of submitted Requests for Information (RFI)
(13) architecture firm's name
(14) identify any key personnel who worked on the referenced project that are proposed for this Project
(15) other relevant information.

This section should also address the following:

- Cost Control
  - Describe Respondent's typical cost estimating methods during the pre-construction and construction phases.
  - Describe Respondent's methodology for working with the Project Team (Architect, Engineers, Project Manager, Owner and others) to deliver a Guaranteed Maximum Price within budget.
  - Describe typical cost control methods during construction.
  - Describe the means of procuring subcontracts, scope confirmation, amounts, and ensuring proper payment.
  - The owner intends to accept a Guaranteed Maximum Price prior to completion of Construction Documents. Describe:
    - your process for ensuring that the design documents provide the information necessary to arrive at a complete GMP, including all owner requirements with reasonable contingencies, and
    - your process for subsequently ensuring that the final construction documents align with the Project scope in the previously accepted GMP proposal documents.
  - Provide a sample of a cost estimate used to establish a contract amount from any project listed in response to Section II.2.
- Schedule Control
  - Describe Respondent's typical scheduling methods during the pre-construction and construction phases.
  - Describe typical schedule control methods during construction.
  - Give examples of how you assured timely completion of other projects, including methods for schedule recovery, if necessary. From the projects

listed in response to Section II.2, provide examples of how these techniques were used including specific scheduling challenges/requirements and actual solutions.

- Describe Respondent's experience with using CPM scheduling. From the projects listed in response Section II.2, provide one (1) sample of the monthly schedule reports, including identified milestones and schedule recovery plans.

The SOQ should disclose any litigation or claims related to relevant projects within the past five (5) years and whether the Respondent has ever been barred from performing public work projects.

Respondent shall provide a list of at least three (3) references where like services have been supplied by their firm. Include the name of the client, address, telephone number, and the name of a representative or contact person.
This section is limited to no more than fifteen (15) pages, not including requested examples.

(4) PERSONNEL AND STAFFING

The SOQ should provide an organizational chart for the proposed Project key personnel and a summary paragraph of the Project services to be performed by each proposed staff member. Key personnel should include at a minimum the firm's proposed Project Manager and Site Superintendent. Biographic summaries (resume) that highlight the experience relevant to the specific Project responsibilities should be provided for all proposed personnel. A statement should also be included about such personnel's education, training, and experience related to the services to be provided. There is a one (1) page limitation for each biographic summary provided (multiple resumes per page are acceptable).

This section is limited to no more than three (3) pages, not including distinct resume pages.

(5) COST PROPOSAL

The Cost Proposal should follow the Cost Proposal Form attached to the RFQ/P labeled Attachment D.

INSURANCE AND BOND REQUIREMENTS

The SOQ/P should affirm in writing that the Respondent's insurance program meets or will meet the mandatory insurance requirements described in **Exhibit C**, Insurance Requirements. Provide proof of compliance with the key coverages and limitation of such insurance requirements. The SOQ/P should affirm that the respondent can obtain the required bonds.

AGREEMENT COMMENTS

Once a contractor has been selected, the Agreement will be provided for review and comment if Respondent chooses to request a deviation, modification or takes exception to any of the components of the Agreement, Insurance Requirements, or other areas of this solicitation, the appropriate section shall be referenced, cited verbatim, and the substitution verbiage/exception clearly stated. The County reserves the right to determine the responsiveness, acceptable level and best value of any such deviation(s)/exception(s) and will, at its sole discretion, accept or decline the deviations(s)/exception(s). Failure of the County to accept deviation(s)/exception(s) may result in the Respondent's response being eliminated from further consideration.

SECTION-III
SELECTION / EVALUATION

RFQ/P SELECTION/EVALUATION PROCESS

The respondent's SOQ/P will be evaluated based on the criteria presented below. The evaluation system consists of a 100-point system.

SCORING PROCESS

Each submitted SOQ/P will be graded by up to five evaluators of the selection committee according to these criteria and then assigned a rank, based on the grade, for each evaluator (from 1st place to however many firms submit). Each evaluator's *ranks* will then be summed together for a final ranked score. The lowest ranked scores will represent the most qualified firms (for example, if Firm X is ranked 1, 3, 4, 2, 7, then the ranked score would be 17 and then sorted from lowest to highest against the other firms). In the case of a tie in the ranked scores (e.g. two firms received a ranked score of 17), the evaluators may use the average of the grades to break the tie and rank them accordingly.

RFQ/P EVALUATION CRITERIA

1) **Understanding the Project (10 Points)**

The SOQ should demonstrate the Respondent's understanding of this Project, the services that may be required, and any local issues or concerns. Consideration will be given for the following:

- Experience with relevant projects that demonstrate an understanding of this Project;
- Experience in working in the same or similar geographic conditions.
- Understanding of the scope of services expected during Pre-Construction, Construction and Close-Out phases.

2) **Firm Qualifications & Approach (25 Points)**

The SOQ should demonstrate how the Respondent is qualified to act as County's CMAR delivering the fully constructed Project. Consideration will be given to the following:

- Experience with similar major, public, capital improvement projects using the same or similar project delivery method;
- Experience with similar projects;
- Evidence of a highly qualified ability to accomplish the objectives of this RFQ/P including, without limitation, delivering the project on time and within budget;
- The experience of the firm and its key personnel acting in a CMAR capacity in the construction of similar major, public, capital improvement projects including, without limitation, project delivery under Cost of the Work Plus a Fee with Guaranteed Maximum Price contracts;
- Accomplishments in delivering similar projects on schedule and within budget;
- Strategies the Respondent has used to achieve high-performing CMAR construction building delivery;
- Experience and capability in providing the Scope of Required Services;
- Ability to provide the required insurance.
- Experience in assisting the client and design team in meeting budget and schedule constraints through the preconstruction phase;
- Quality of Respondent's cost control methodology
- Quality of Respondent's schedule control methodology

3) **Personnel & Staffing** **(20 Points)**

The SOQ should demonstrate the appropriateness of the personnel that the firm will commit to the Project:

- Experience in similar projects, education, and training of proposed personnel;
- Roles of committed personnel in this Project and experience in such roles in prior projects;
- Commencement date and time commitment of proposed personnel to this Project;
- Lines of communications and decision-making as evidenced in an organizational chart and otherwise;
- Experience of proposed personnel on public works projects.

4) **Fee Proposal** **(45 Points)**

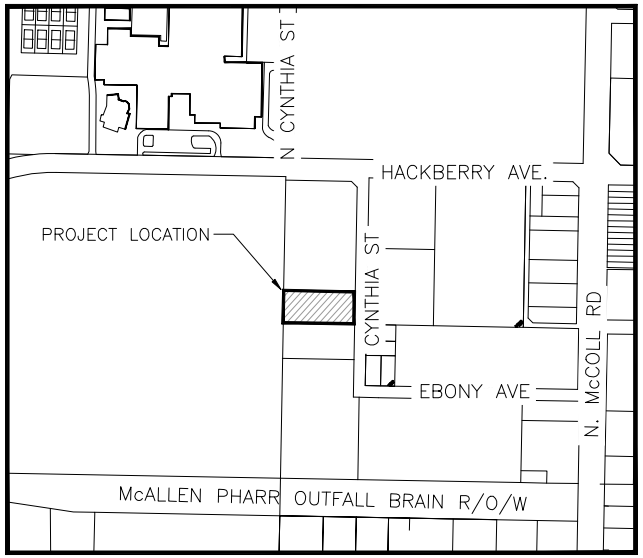
Total: **100 Points**

ATTACHMENT A
SCOPE STATEMENT

Project Mission	To provide a functional and adequate working space for the McAllen Health Center Employees and the citizens of the surrounding area. Provide updated amenities that conform to McAllen Health Center Department requirements.
Project Description	McAllen Health Center Facility plans to construct a new facility that will house offices and other functional spaces for the McAllen Health Center. The building location will be located South of the existing Hidalgo County Clinic / Vehicle Registration buildings located on North Cynthia Street in McAllen, TX. The proposed facility will be constructed as a brick Building. Estimated size of the new Facility will be 6,400 square feet and will contain the following: ▪ Administrative Offices ▪ Reception Area ▪ Breakroom ▪ Patient Education Room ▪ Immunization Room ▪ Restrooms ▪ Storage ▪ Server Room ▪ Electrical Room ▪ Other required adjacent spaces

HIDALGO COUNTY HEALTH CLINIC CITY OF McALLEN

City of McALLEN, TEXAS
HIDALGO COUNTY



LOCATION MAP - SCALE: 1"=250'

HIDALGO COUNTY PRECINCT 2
COMMISSIONER
EDUARDO "EDDIE" CANTU

INDEX

SHEET No.	DESCRIPTION
1	COVER SHEET & GENERAL NOTES
2	EXISTING CONDITIONS PLAN
3	DIMENSION SITE PLAN
4	WATER AND SANITARY, SEWER LAYOUT
5	GRADING & DRAINAGE PLAN
6	EROSION PLAN
7	DRAINAGE AREA PLAN
8	WATER DETAILS
9	SEWER DETAILS
10	DRAINAGE DETAILS
11	PAVING & SIDEWALK DETAILS
12	PAVING & SIDEWALK DETAILS

STATE OF TEXAS
JOSE N. SALDIVAR
94076
LICENSED PROFESSIONAL ENGINEER

This seal appearing on this document was authorized by Jose N. Saldivar P.E. No. 94076 on the above designated date.

PRELIMINARY

JOSE N. SALDIVAR–P.E. No. 94076

Texas 811
Know what's below.
Call before you dig.

B2Z ENGINEERING

GENERAL CONSTRUCTION NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND ELECTRICAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE LOCATIONS AND SIZES HAVE BEEN TAKEN FROM FIELD WORK AND EXISTING RECORDS AND THE BEST AS–BUILT INFORMATION AVAILABLE; HOWEVER, IT IS EXPECTED THAT THERE MAY BE SOME DISCREPANCIES IN THE LOCATIONS, QUALITIES AND SIZES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE, SIZE AND LOCATION OF ALL UTILITIES AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ARRANGE FOR THE REPAIR AND RESTORATION OF CONTRACTOR DAMAGED UTILITIES. THE COST OF ANY REPAIR OR REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CURRENT LINE SPOTTING TOLL FREE NUMBER AND COORDINATE WITH ALL THE UTILITY COMPANIES FOR ACTUAL LOCATING AND UNCOVERING OF EXISTING LINES PRIOR TO EXCAVATION OPERATIONS.

2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY UNREPORTED OBSTACLES THAT MAY IMPEDE OR PREVENT THE PROPER CONSTRUCTION OF THIS PROJECT.

3. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPLICABLE STATE STATUES AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (OSHA). COPIES OF THE O.S.H.A. STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM O.S.H.A. AT 611 EAST 6TH STREET, ROOM 303, AUSTIN, TEXAS.

4. THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT AND WORKMAN LIKE MANNER AT ALL TIMES. JOB SAFETY SHALL NOT BE COMPROMISED. ANY UNSAFE OR UNATTRACTIVE NUISANCE SHALL BE REMOVED OR OTHERWISE TAKEN CARE OF BY THE CONTRACTOR WHEN DIRECTED BY THE OWNER OR PROJECT ENGINEER.

5. EXCAVATIONS, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES AT ALL TIMES.

6. CONSTRUCTION OF THIS PROJECT WILL BE SUBJECT TO INSPECTIONS AND TESTING AS DEEMED NECESSARY OR APPROPRIATE BY THE ENGINEER AND/OR THE CITY OF WESLACO . THE CONTRACTOR SHALL FURNISH INCIDENTAL LABOR AND EQUIPMENT TO ALLOW THE TESTING PERSONAL ACCESS TO THE WORK AND WILL COOPERATE FULLY WITH THE PERSONS CONDUCTING THE TESTING AND INSPECTION PROGRAM.

7. A PART OF THE WORK THAT IS NECESSARY OR REQUIRED TO MAKE EACH SYSTEM OR INSTALLATION SATISFACTORY AND OPERABLE FOR ITS INTENDED PURPOSE, EVEN THOUGH IT IS NOT SPECIFICALLY INCLUDED IN THE SPECIFICATIONS OR DRAWINGS, SHALL BE PERFORMED AS INCIDENTAL WORK AS IF IT WERE DESCRIBED IN THE SPECIFICATIONS AND SHOWN ON THE DRAWINGS.

8. THE DRAWINGS DO NOT ALWAYS INDICATE ALL VERTICAL BENDS AND TRANSITIONS. WHEN NECESSARY, MAKE VERTICAL TRANSITIONS BY A DEFLECTION AT THE JOINTS OR THE INSTALLATION OF FITTINGS. DO NOT DEFLECT PIPE JOINTS MORE THAN 80% OF THE MANUFACTURERS RECOMMENDATION.

9. ALL PIPING MUST BE INSTALLED WITH A MINIMUM OF 36–INCHES OF COVER UNLESS OTHERWISE NOTED ON THE PLANS.

10. ALL EXCAVATION FOR THIS PROJECT SHALL BE UNCLASSIFIED.

11. ALL UTILITIES WHICH ARE TO REMAIN AND WHICH ARE DAMAGED OR REMOVED WILL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

12. PIPE SHALL BE BACKFILLED WITH JOINTS EXPOSED FOR TESTING, BEFORE NEW JOINTS ARE COVERED. PRESSURE LINES ARE TO BE HYDROSTATICALLY TESTED AT NOT LESS THAN 150 PSIG FOR A PERIOD OF TWO HOURS. THE OWNER SHALL OBSERVE AND APPROVE OR REJECT THE TEST. REPAIRS, IF REQUIRED, SHALL BE MADE AND THE LINE SHALL BE RETESTED UNTIL APPROVED. TEST SHALL NOT BEGIN UNTIL THRUST BLOCKS HAVE AGED A MINIMUM OF 24 HOURS.

13. AS SOON AS PRACTICAL, ALL PORTIONS OF EXCAVATIONS NOT OCCUPIED BY THE PERMANENT STRUCTURE SHALL BE BACKFILLED.

14. WHERE WATER LINE INTERSECTS SANITARY SEWER SYSTEM MAINS AT LESS THAN 9.0 FEET SEPARATION, THE CONTRACTOR SHALL INSTALL A 20 FOOT SECTION OF C–900 PVC PRESSURE PIPE CENTERED ON THE POINT OF INTERSECTION.

15. CONTRACTOR SHALL REMOVE AND REINSTALL ALL SIGNS, MAILBOXES, FENCES, CULVERTS AND OTHER ITEMS IN WAY OF THE WORK.

16. CONTRACTOR SHALL REPAIR ALL OPEN CUTS OF PAVED AREAS BACK TO BETTER THAN "AS–IS" CONDITION WITH LIKE MATERIALS.

17. PROVIDE INTERIM DRAINAGE DURING CONSTRUCTION AS REQUIRED. USE PUMPS, TEMPORARY DITCHES, ETC. TO MAINTAIN A WELL DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS.

18. ANCHOR ALL UNDERGROUND PRESSURE PIPING AS NECESSARY TO PREVENT MOVEMENT UNDER PRESSURE TEST AND SERVICES.

19. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A–165, GRADE 60 ALL BARS SHALL CONFORM TO ASTM SPECIFICATION A–305.

20. ALL CONCRETE AND FORM WORK SHALL CONFORM TO CURRENT ACI CODE REQUIREMENTS.

21. THE CONTRACTOR SHALL EXERCISE EXTRA CARE TO PREVENT DAMAGE TO ALL OTHER STRUCTURES IN THE AREA INCLUDING BUILDINGS, FENCES, ROADS, PIPELINES, UTILITIES, ETC., WHETHER PUBLICLY OR PRIVATELY OWNED.

22. UNTIL ACCEPTANCE BY THE ENGINEER OF ANY OR ALL OF THE CONSTRUCTION, AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS, AND ACCEPTANCE BY THE PROPER UTILITY PROVIDER, IT SHALL BE UNDER THE CHARGE AND CARE OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE EVERY NECESSARY PRECAUTION AGAINST TO ANY PART OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD, AT HIS OWN EXPENSE, OF ALL THE DAMAGE TO ANY PORTION OF THE WORK BEFORE ITS ACCEPTANCE.

23. NO OPEN TRENCHES OR EXCAVATION SHALL BE LEFT OPEN OVERNIGHT.

24. ALL WATERLINE TAPS AND WATER METERS SHALL BE INSTALLED BY CONTRACTOR. COORDINATE WITH THE CITY OF McALLEN BEFORE COMMENCING ANY UTILITY WORK.

25. COORDINATE ALL UTILITY WORK WITH THE PLUMBING PLANS BEFORE COMMENCING ANY UTILITY WORK. REFER TO PLUMBING PLANS FOR CONTINUATION.

26. COORDINATE WITH GRADING PLANS FOR WATER LINE, STORM AND SANITARY SEWER LINES INSTALLATION.

27. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INCLUDING THOSE FROM THE CITY OF McALLEN , PRIOR TO START OF CONSTRUCTION.

28. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISHED PAVEMENT GRADE. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN GRASSED AREAS SHALL BE SIX INCHES ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED ON PLANS).

29. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO VERIFY EXISTING CONDITIONS.

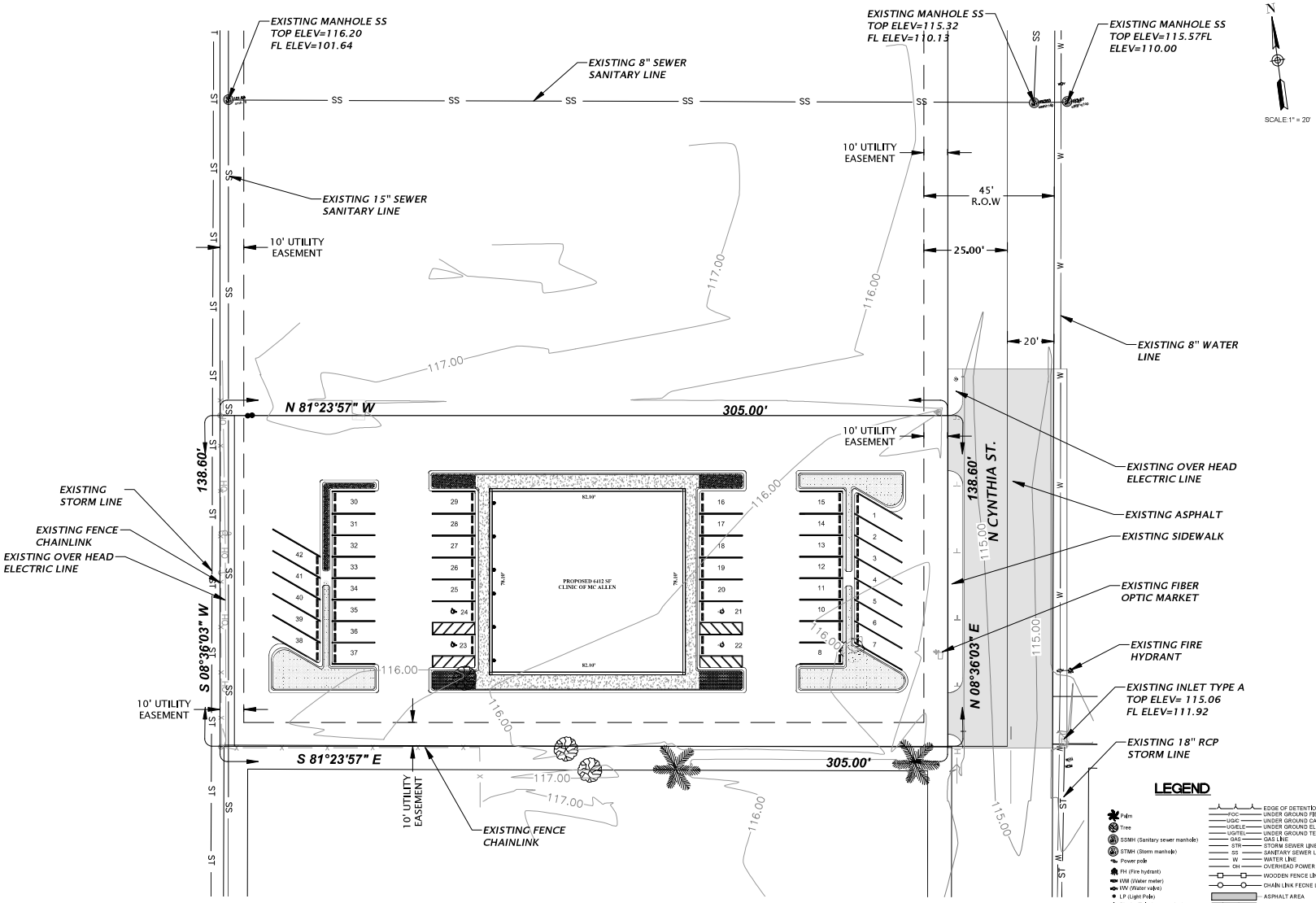
30. REFER TO GEOTECH REPORT BEFORE INSTALLATION OF DRIVES AND PARKING AREAS.

31. BOTH SITE AND BUILDING CONTRACTORS TO VERIFY EXISTING SITE ELEVATIONS PRIOR TO POURING CONCRETE TO VERIFY ACCESIBILITY.

32. PERMIT NEEDED FROM CITY OF WESLACO BUILDING DEPARTMENT AND PRE–CONSTRUCTION CONFERENCE NEEDED WITH CITY OF McALLEN .

33. CONTRACTOR TO LEAVE OPENINGS IN CURB AT SIDEWALK RAMP LOCATIONS.

34. CONSULT WITH PROPERTY OWNER BEFORE RELOCATING EXISTING FENCES THAT MIGHT BE IN THE WAY OF THE CONSTRUCTION AREA AND/OR CONSTRUCTION PLANS.



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JOSE N. SALDIVAR P.E. No. 94076

HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
EXISTING CONDITIONS PLAN

PROJECT NO.	S2-C-24-1
SCALE:	1" = 20'
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	2 OF 12

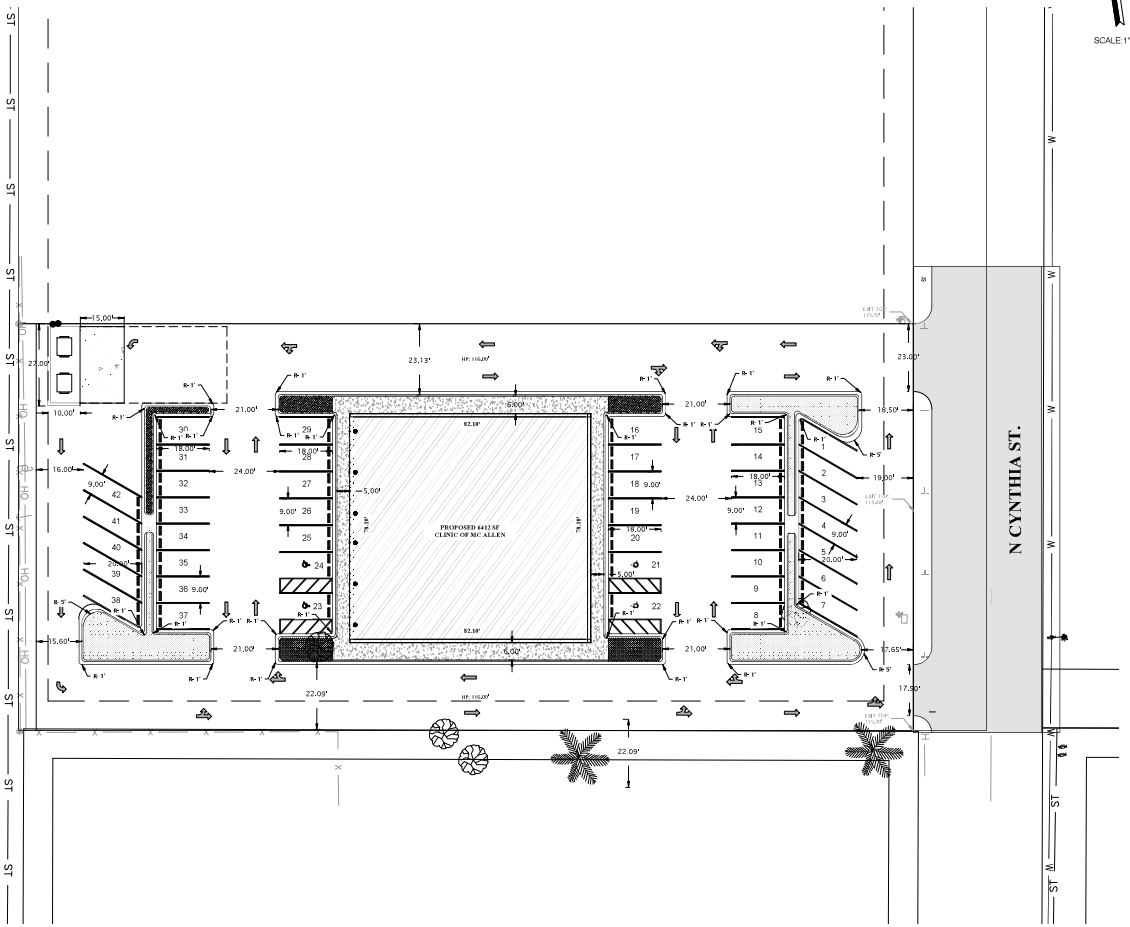
LEGEND

- Palm
- Tree
- SSMH (Sanitary sewer manhole)
- STMH (Storm manhole)
- Power pole
- FH (Fire hydrant)
- WM (Water meter)
- WV (Water valve)
- LP (Light Pole)
- Pmrkr (Telephone marker)
- Metal Pipe
- Gv (Gas valve)

- EDGE OF DETENTION POND LINE
- FOC — UNDER GROUND FIBER OPTIC LINE
- UGC — UNDER GROUND CABLE LINE
- UG/ELE — UNDER GROUND ELECTRICAL LINE
- UG/TEL — UNDER GROUND TELEPHONE LINE
- GAS — GAS LINE
- STR — STORM SEWER LINE
- SS — SANITARY SEWER LINE
- W — WATER LINE
- OH — OVERHEAD POWER LINE
- WOODEN FENCE LINE
- CHAIN LINK FECNE LINE
- ASPHALT AREA
- CONCRETE AREA
- EXIST. EXISTING
- C.C.M.R. CAMERON COUNTY MAP RECORDS
- CONC. CONCRETE

4 HANDICAP PARKING SPACES
38 REGULAR PARKING SPACES

42 TOTAL PARKING SPACES



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HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
DIMENSIONAL CONTROL PLAN

PROJECT NO.	S2-C-24-1
SCALE:	1" = 20'
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	3 OF 12

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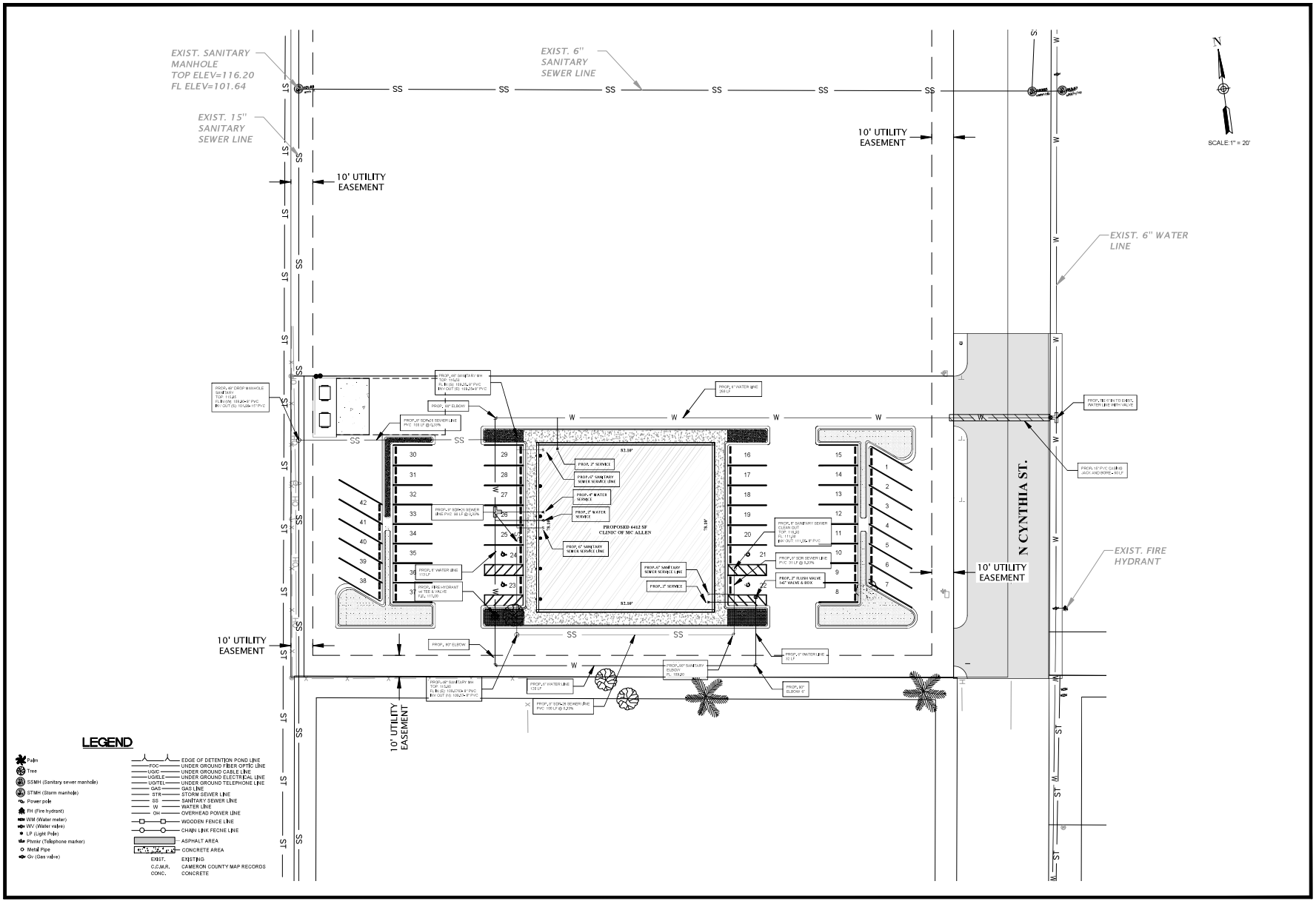

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HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
WATER AND SANITARY SEWER LAYOUT

PROJECT NO.	S2-C-24-1
SCALE:	1" = 20'
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	4 OF 12

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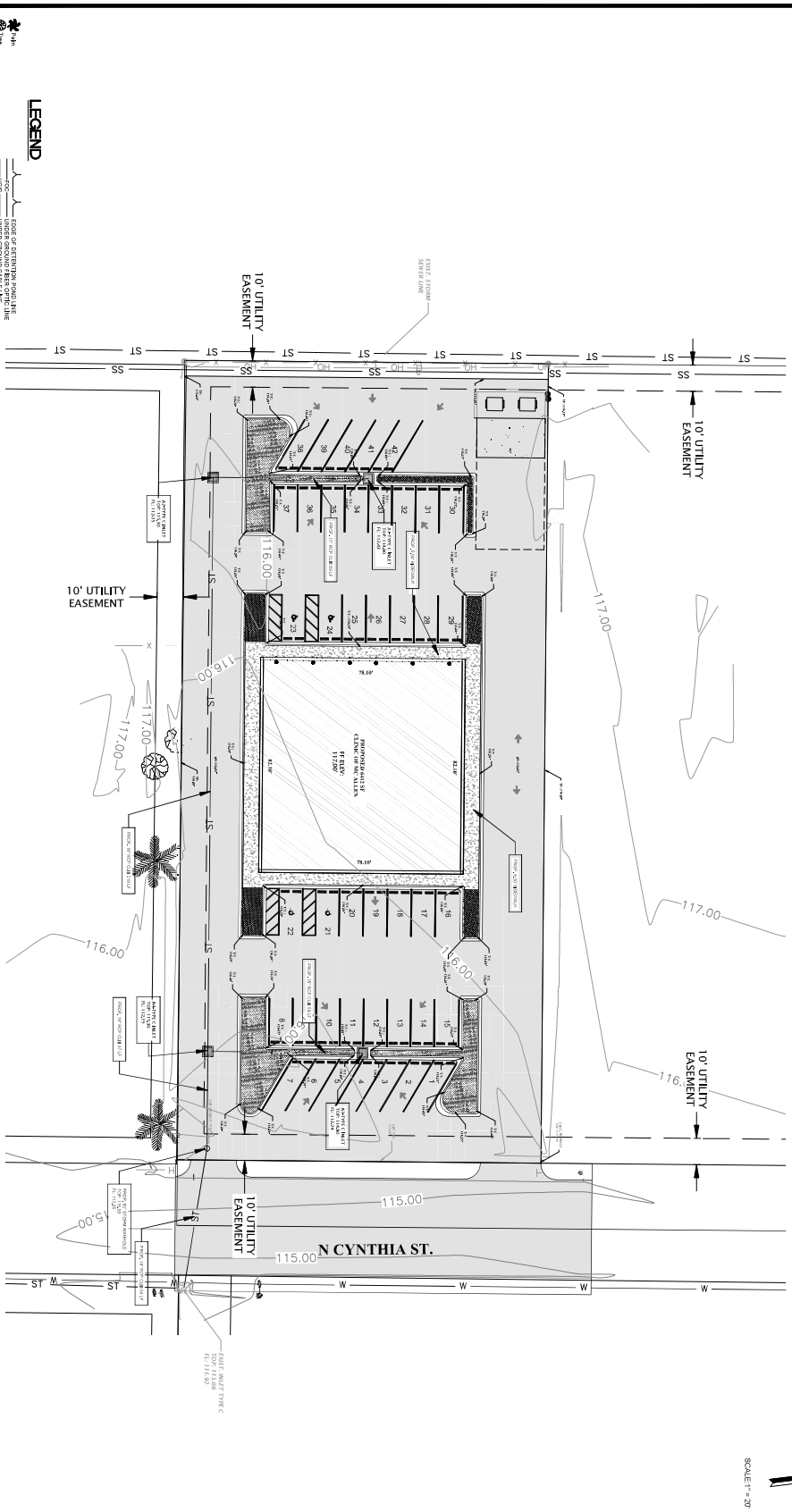

HIDALGO COUNTY HEALTH

CLINIC CITY OF McALLEN

DRAINAGE AND PAVING LAYOUT

PRELIMINARY

JOSE N. SALDIVAR P.E. NO. 94076

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PROJECT NO.	S24-C-241
SCALE:	1" = 20'
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TOPO BY:	M.P.
SHEET:	5 OF 12

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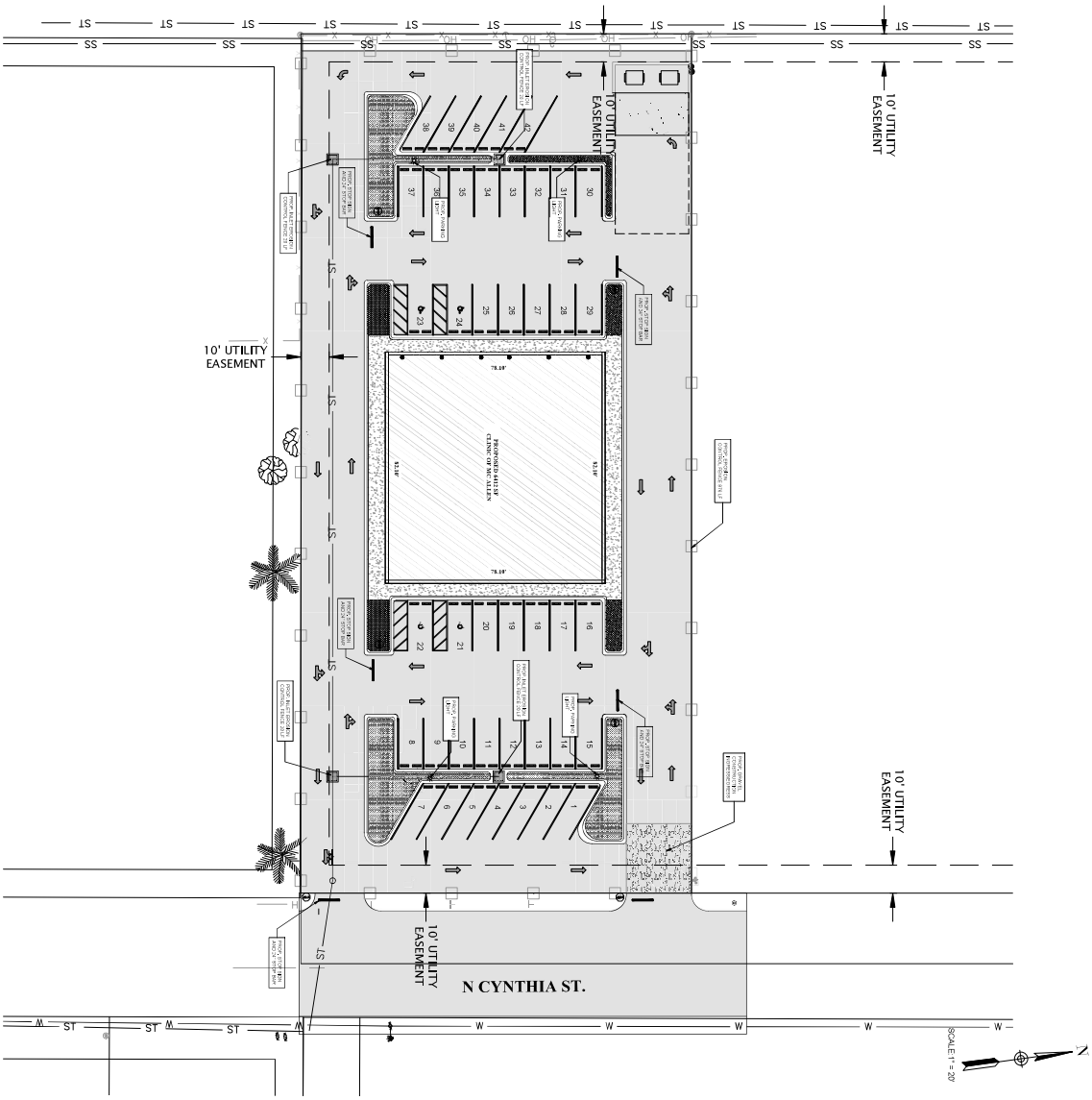
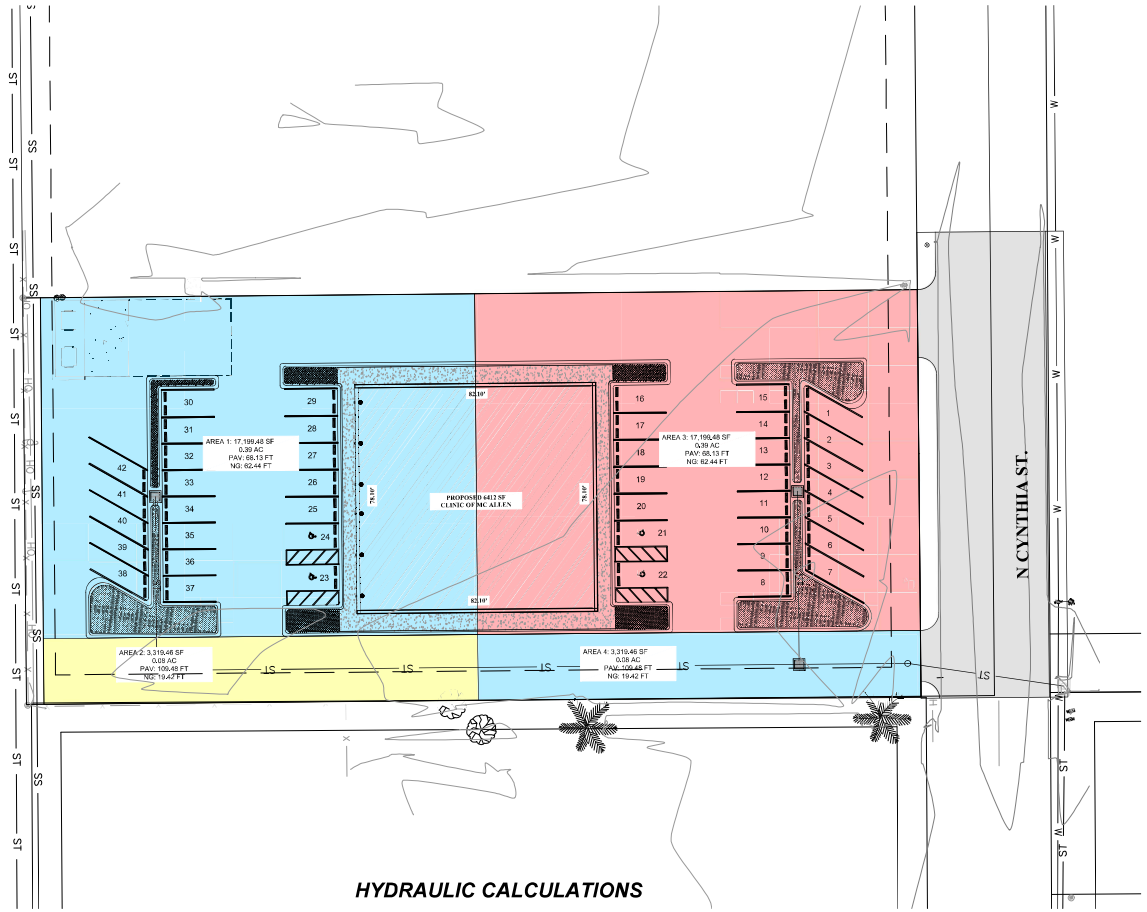


PROJECT NO. S2-C-24-1	**HIDALGO COUNTY HEALTH**	This seal appearing on this document was authorized by John N. Saldivar, P.E. No. 94076 on the date indicated here.	B2Z ENGINEERING
SCALE: 1" = 20'	**CLINIC CITY OF McALLEN**		
DRAWN BY:	**EROSION CONTROL AND PARKING**	PRELIMINARY	
CHECKED BY:	**LIGHTS PLAN**	JOSE N. SALDIVAR P.E. No. 94076	
TOPO BY:			
SHEET: 6 OF 12			



HYDRAULIC CALCULATIONS

Time of Concentration Calculations

Time of concentration (tc): tc = L/60V
Minimum 10 min.
FHA Hydraulic Engineering Circular No. 22, Third Edition
Urban Drainage Design Manual
Shallow Concentrated Flow Velocity Formula
Average velocity (V): V= Ku(i Sp%)^0.5
k value for short grass pasture (overland flow): 0.213
k value for paved area (shallow concentrated flow): 0.619
Ku constant: 3.28

Atlas 14 Values
10 year frequency

	e	b	d
CITY	0.812	92.23	12.33
TXDOT	0.8133	85.7576	9.0525

50 year frequency

	e	b	d
CITY	0.795	123.47	12.86
TXDOT	0.8095	90.4138	9.5079

10 year frequency

DA#	Enter Distances in Feet: Overland Flow	Pipe Flow	Gutter Flow	Velocities Calculated: Overland Velocity	Overland Slope	Gutter Velocity	Gutter Slope	Pipe Velocity West Line	Time of Concentration:	I CITY	I TXDOT	C MULTY	A ACRES	Q CFS	n value
A-1		0	68.13	0.24	0.12	0.91	0.2	3	tc = 10.00 min	7.40584		0.8	0.39	2.31	0.013
A-2		0	109.48	0.24	0.12	0.91	0.2	3	tc = 10.00 min	7.40594		0.8	0.08	0.47	0.013
A-3		0	68.13	0.24	0.12	0.91	0.2	3	tc = 10.00 min	5.98368		0.8	0.39	1.87	0.013
A-4		0	109.48	0.24	0.12	0.91	0.2	3	tc = 10.00 min	5.98368		0.8	0.08	0.38	0.013
															0.013
MH 1															0.013

DA#	RUN	R ID/4	F/L IN FT	F/L OUT FT	Slope FT/FT	Dist FT	Veloc FPS	drop FT	Length FT	A SQFT	PIPE Q CFS	EXIST. Q CFS	Over/Undr. Design cfs	Head Lose	Minor Loose	Flow Time in
A-1	A1-A2	0.31	112.43	112.35	0.001956	1.26	1.93758	0.08	59.00	1.23	2.38	2.31	0.07	0.5	0.0200	0.5075
A-2	A2-A4	0.38	112.35	112.19	0.000731	1.50	1.80617	0.16	219.00	1.77	2.84	2.78	0.05	0.5	0.0291	2.2725
A-3	A3-A4	0.31	112.24	112.19	0.000847	1.26	1.53179	0.05	59.00	1.23	1.88	1.87	0.01	0.5	0.0200	0.5420
A-4	A4-MH 1	0.38	112.19	112.05	0.003794	1.50	3.65625	0.14	37.00	1.77	6.46	5.03	1.42	0.5	0.1037	0.1687
MH 1	MH1-OUT 1	0.38	112.05	111.92	0.002407	1.50	2.91561	0.13	54.00	1.77	5.15	5.03	0.12	0.5	0.0660	0.3087

LEGEND

- Palm
- Tree
- SSMH (Sanitary sewer manhole)
- Power pole
- FH (Fire hydrant)
- WM (Water meter)
- WV (Water valve)
- LP (Light Pole)
- Phmkr (Telephone marker)
- Pipe
- Grdpst (Guardrail post)
- Gv (Gas valve)
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
- BOTTOM OF DETENTION POND LINE
- EDGE OF DETENTION POND LINE
- CHAIN LINK FENCE LINE
- UGCTV — UNDER GROUND CABLE TV LINE
- UGELE — UNDER GROUND ELECTRICAL LINE
- UGTEL — UNDER GROUND TELEPHONE LINE
- GAS — GAS LINE
- STR — STORM SEWER LINE
- SS — SANITARY SEWER LINE
- W — WATER LINE
- OH — OVERHEAD POWER LINE
- ASPHALT AREA
- CONCRETE AREA
- TC — TOP OF CONCRETE (GUTTER)
- SW — TOP OF SIDEWALK
- FL — FLOW LINE
- LF — LINEAR FEET
- PROP. — PROPOSED
- EXIST. — EXISTING
- CONC. — CONCRETE

B2Z ENGINEERING

STATE OF TEXAS — JOSE N. SALDIVAR — 94076 — LICENSED PROFESSIONAL ENGINEER

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PRELIMINARY
JOSE N. SALDIVAR P.E. No. 94076

HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
DRAINAGE AREA PLAN

PROJECT NO.	S2-C-24-1
SCALE:	1" = 20'
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	7 OF 12

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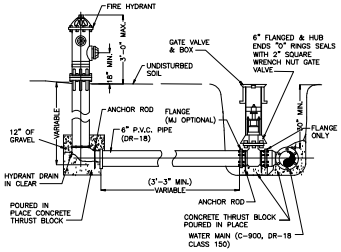
NOTES:

1. CONTRACTOR TO CONTACT ALL UTILITIES COMPANIES IN THE AREA FOR FIELD VERIFICATION OF EXISTING FACILITIES. UTILITY COMPANY'S SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

CITY OF McALLEN	956-972-7600
CENTRAL POWER & LIGHT CO.	800-274-2611
SOUTHERN UNION GAS CO.	800-743-2945
AT&T	800-288-2020
U.S. SPRINT CO.	956-948-3100
TIME WARNER CABLE	800-222-5355
TX. EXCAVATION SAFETY SYSTEM	800-344-8377

2. CONTRACTOR TO EXPOSE ANY EXISTING FACILITY THAT MAY BE IN CONFLICT PRIOR TO START OF CONSTRUCTION.
3. ALL EXISTING CITY UTILITIES (WATER/SEWER) SHOWN ARE FROM BEST INFORMATION AVAILABLE. NEITHER THE ENGINEER NOR THE CITY IS RESPONSIBLE FOR THE ACCURACY OF LOCATION.
4. CONTRACTOR SHALL AT ALL TIMES ALLOW ACCESS TO EXISTING DRIVEWAYS OR PROVIDE/MAINTAIN ALTERNATIVE ALL WEATHER ROUTES.
5. ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
6. TRENCHES OR EXCAVATIONS MAY NOT BE LEFT OPEN OVERNIGHT UNLESS AUTHORIZED IN WRITING BY THE ENGINEERING DEPARTMENT. IN SUCH CASES, THE CONTRACTOR MUST PROVIDE 1/2" STEEL PLATES OVER PLATES WITH ANCHORING AS PER SPECIFICATIONS TO BE PROVIDED BY THE CITY OF MCALLEN.
7. ANY DAMAGE TO FENCES, WALKS, OR PRIVATE PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXCAVATED MATERIAL AND DEBRIS FROM THE SITE AT NO ADDITIONAL EXPENSE TO THE OWNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING CONSTRUCTION MATERIALS TESTING THROUGH THE CITY'S DESIGNATED FIELD REPRESENTATIVE 24 HOURS PRIOR TO TESTING. CONTRACTOR IS RESPONSIBLE FOR ADHERING CLOSELY TO TESTING SCHEDULE AND AVOID ANY DELAYS IN THE FIELD.

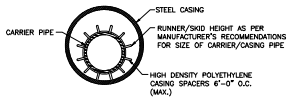
WATER UTILITIES
GENERAL NOTES



NOTES:

1. FIRE HYDRANT ELEVATIONS WILL BE SET BY THE ENGINEER.
2. FLANGE MUST BE AT FINISHED GRADE OR 3" TO 6" ABOVE 2. FLANGE MUST BE AT FINISHED GRADE OR 3" TO 6" ABOVE TOP OF CURB.
3. FLANGED GATE VALVE INSTALLATION TO BE USED WITH 10" WATER LINES OR GREATER.
4. BBF TEES TO BE USED WITH 10" WATER LINE OR GREATER BBF TEES TO BE UED WITH SMALLER DIA. PIPES.
5. ACCEPTABLE HYDRANT BRANDS ARE MUELLER, AMERICAN DARLING AND KENNEDY.

TYPICAL FIRE HYDRANT
INSTALLATION

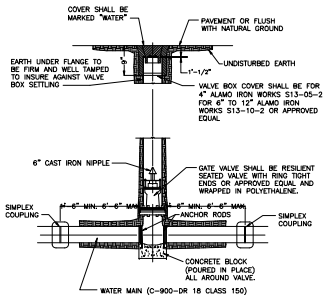


BORING INSTALLATION		
CARRIER PIPE SIZE	PIPE CASING SIZE	MIN. WALL THICKNESS
6"	14"	0.3125"
8"	16"	0.3125"
10"	18"	0.3125"
12"	21"	0.3750"
14", 15"	24"	0.4375"
16"	26"	0.4375"
18"	30"	0.5000"
24"	36"	0.5625"
36"	48"	0.6250"

GENERAL NOTES:

1. ALL STEEL CASING SHALL BE WELDED.
2. STEEL CASING SHALL BE CLOSED AT EACH END USING USING SYNTHETIC RUBBER END SEALS.
3. CASING SPACERS SHALL BE USED TO INSTALL THE CARRIER PIPE INSIDE THE ENCASEMENT PIPE. CASING SPACERS SHALL FASTEN TIGHTLY ON THE CARRIER PIPE TO PREVENT RELATIVE MOVEMENT ON PIPE DURING INSTALLATION. CASING SPACERS SHALL BE DOUBLED ON EACH END OF THE ENCASEMENT.
4. PROJECTION TYPE CASING SPACERS SHALL BE CONSTRUCTED SECTIONS OF HIGH DENSITY POLYETHYLENE.
5. INSTALLATION AND SIZE OF SPACERS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

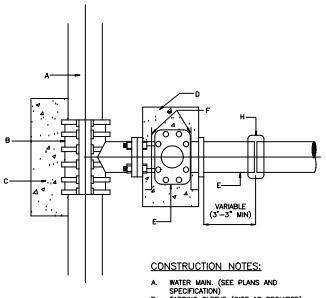
UTILITY LINE BORE DETAIL



NOTES:

1. CAST IRON BOOT TO BE USED IN HEAVY TRAFFIC AREAS CONCRETE BLOCK (POURED IN PLACE)

TYPICAL VALVE
& VALVE BOX



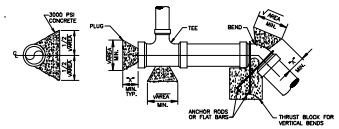
GENERAL NOTES:

1. ALL CONCRETE TO HAVE A MINIMUM OF 28 DAYS COMPRESSIVE STRENGTH OF 3,000 P.S.I.

CONSTRUCTION NOTES:

A. WATER MAIN. (SEE PLANS AND SPECIFICATION)
B. TAPPING SLEEVE (SIZE AS REQUIRED).
C. CONCRETE SUPPORT UNDER TAPPING SLEEVE AND BEHIND.
D. THRUST BLOCK AS PER SPECIFICATIONS.
E. FLANGED AND HUB ENDS "O" RING SEALS WITH 2" SQUARE WRENCH NUT GATE VALVE.
F. ANCHOR RODS.
G. PVC PIPE.
H. SIMPLEX COUPLING.

WATER TAPPING SLEEVE
& VALVE INSTALLATION



THRUST BLOCK REQUIREMENTS VS. FITTING TYPE											
DIAMETER	"X"	END/TEE		90° BEND		45° BEND		22.5° BEND		11.25° BEND	
(IN.)	(FT.)	(S.F.)		(S.F.)	(LB.)	(S.F.)	(LB.)	(S.F.)	(LB.)	(S.F.)	(LB.)
4	1	1.4		1.9	3839	1.0	2077	0.5	1059	0.3	532
6	1	2.8		4.0	7932	2.1	4293	1.1	2188	0.5	1100
8	1.25	4.8		6.8	13646	3.7	7385	1.9	3765	0.9	1892
10	1.25	7.3		10.3	20528	5.6	11110	2.8	5664	1.4	2846
12	1.50	10.3		14.5	29030	7.9	15711	4.0	8009	2.0	4024
14	1.75	13.8		19.5	39001	10.6	21107	5.4	10760	2.7	5406
16	2	17.8		25.2	50442	13.6	27299	7.0	13917	3.5	6992

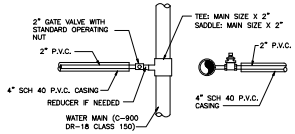
NOTES:

1. THRUST BLOCKING TO BE PLACED AT ALL DEAD ENDS, TEES, BENDS, WYES, AND REDUCERS AND OTHER AREAS THAT REQUIRE THRUST RESISTANCE.
2. MINIMUM AREAS SHOWN ARE IN SQUARE FEET, BLOCK WEIGHTS FOR VERTICAL BENDS ARE IN POUNDS.
3. THRUST BLOCK AREAS SHOWN ARE BASED ON A TEST PRESSURE OF 150 P.S.I., SOIL BEARING PRESSURE OF 2000 PSF, AND MINIMUM 30" COVER. IF REQUIRED TEST PRESSURE IS LESS OR THE SOIL BEARING CAPACITY IS GREATER, THE CONTRACTOR MAY, AFTER APPROVAL BY THE ENGINEER, REDUCE THE THRUST BLOCK AREA SHOWN. THRUST BLOCKING AREA SHALL BE INCREASED IF SOIL BEARING CAPACITY IS LESS THAN 2000 PSI.
4. AT DOWNWARD VERTICAL BENDS, PIPING SHALL BE RESTRAINED BY THRUST BLOCK AS SHOWN WITH WEIGHT INDICATED IN THE TABLE. ANCHOR RODS OR FLAT BARS SHALL BE STAINLESS STEEL.
5. BEARING MUST BE ON UNDISTURBED EARTH.
6. USE 3000 PSI CONCRETE.
7. RESTRAINING JOINTS MAY BE REQUIRED AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
8. THRUST BLOCK SHALL BEAR ON FULL 180° OF CIRCUMFERENCE OF PIPE.

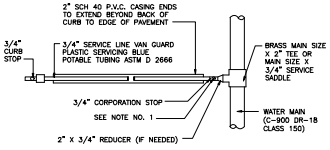
CONCRETE THRUST BLOCKS

NOTES:

1. ON ALL SERVICE LINES GREATER THAN 1" (2" P.V.C. SCHEDULE 40), A 2" VALVE WILL BE REQUIRED.
2. ONE SERVICE PER EACH LOT.

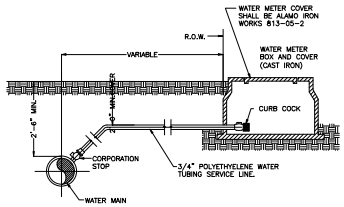


2" SERVICE LINE



SINGLE CONNECTION

TYPICAL SERVICE
CONNECTION
(STREET CROSSING)



NOTES:

1. ALL SERVICE CONNECTIONS NEED TO HAVE A MIN. 2'-0" COVER FROM FINISHED GRADE.
2. WATER METER COVER SHALL BE ALAMO IRON WORKS S13-05-2.
3. ALL WATER MAINS HAVE 30 INCHES OF COVER FROM FINISHED GRADE.
4. METER BOX SHALL BE CAST IRON.
5. ALL CONCRETE TO HAVE A MIN. 28 DAYS COMPRESSIVE STRENGHT OF 3,000 P.S.I.
6. 2" GATE VALVE ONLY REQUIRED FOR 2" SERVICE.
7. POLYETHYLENE TUBING ACCEPTABLE FOR LINE SIZES 1" OR LESS, SCHEDULE 40 PVC REQUIRED FOR LINE SERVICES GREATER THAN 1".

CONSTRUCTION NOTES:

A. WATER VALVE COVER
B. CURB COCK
C. METER BOX & METER PROVIDED
D. WATER TUBING SERVICE LINE
E. CORPORATION STOP
F. WATER MAIN

TYPICAL SERVICE
CONNECTION
WITH METER BOX

B2Z ENGINEERING

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PRELIMINARY
JOSE N. SALDIVAR P.E. No. 94076

HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
WATER DETAILS

PROJECT NO.	S2-C-24-1
SCALE:	N.T.S.
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	8 OF 12

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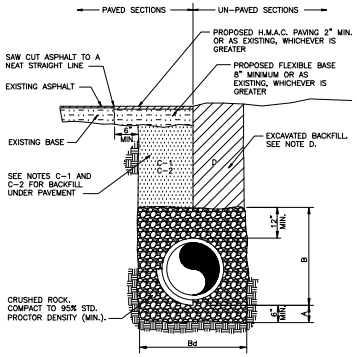


SANITARY SEWER
(NON-FORCEMAIN)
PIPE BEDDING DETAIL

GENERAL NOTES:

A. CRUSHED ROCK BEDDING PLACED, HAND LEVELED, AND COMPACTED BEFORE PIPE IS LAID, UP TO BOTTOM OF PIPE (MIN. THICKNESS = 6").

B. CRUSHED ROCK BACKFILL PLACED AND COMPACTED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO 12" ABOVE THE TOP OF PIPE. WORK IN UNDER PIPE HAUNCHES AND COMPACT BY HAND TO SPRING LINE. USE VIBRATORY-TYPE COMPACTORS FOR LIFTS ABOVE THE SPRING LINE. MAXIMUM 6" LIFTS.

Bd. MINIMUM TRENCH WIDTH: PIPE O.D. + 16" (FOR 16" PIPE AND SMALLER); PIPE O.D. X 1.25 + 12" (FOR 18" PIPE AND LARGER)

C-1. (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 8" MAX. LIFTS.

C-2 (STATE MAINTAINED ROADWAY) SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED TO 95% STANDARD PROCTOR DENSITY.

D. EXCAVATED EARTH BACKFILL MECHANICALLY COMPACTED IN 12" MAX. LIFTS. MINIMUM STANDARD PROCTOR DENSITY: 90% OUTSIDE RIGHT OF WAY; 95% INSIDE RIGHT OF WAY

EMBEDMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2321. EMBEDMENT MATERIAL SHALL BE CLASS 1A (CRUSHED ROCK) OR 1B (CRUSHED ROCK-SAND MIXTURE) WITH LESS THAN 50% PASSING A No. 4 SIEVE. MAXIMUM ¾" SIZE FOR PIPE SIZE ≤ 15". GREATER THAN 90% OF CRUSHED ROCK SHALL HAVE AT LEAST THREE BROKEN FACES. NO MORE THAN 2% UNBROKEN FRACTION ALLOWED.

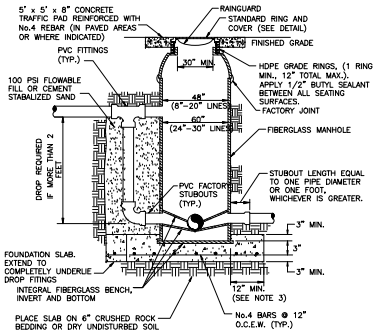
IN SATURATED OR UNSTABLE SOILS, EMBEDMENT SHALL BE CLASS 1B ONLY (SEE SPECIFICATIONS FOR GRADATION REQUIREMENTS).

WHERE THIS STANDARD CONFLICTS WITH THE RECOMMENDATION OF ANY GEOTECHNICAL REPORT, OBTAIN WRITTEN CLARIFICATION FROM THE UTILITY ENGINEER PRIOR TO CONSTRUCTION.

FOUNDATION PREPARATION USING COBBLES, GRAVEL, CEMENT STABILIZATION, OR OTHER METHODS AS APPROVED BY THE ENGINEER SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.

BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, AND COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6" MAXIMUM LIFTS. STRUCTURE BACKFILL MATERIAL SHALL BE SAND.

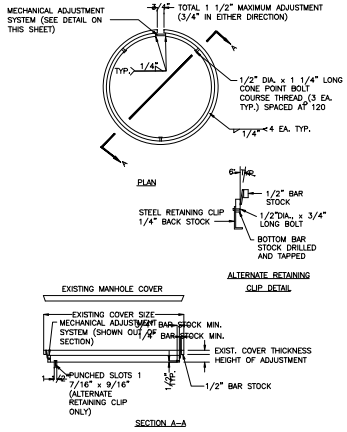
SANITARY SEWER
(NON-FORCEMAIN)
PIPE BEDDING DETAIL



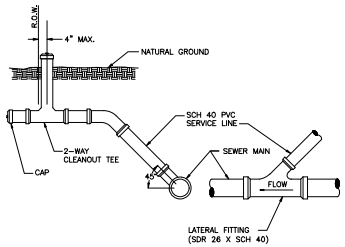
NOTES

1. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. BACKFILL SHALL BE SAND COMPACTED TO 95% STANDARD PROCTOR.
3. BASE SLAB SHALL BE 4 FT. LARGER THAN MANHOLE DIAMETER WHERE SOIL BEARING CAPACITY < 2000 PSF, WATER TABLE < 5 FT., OR DEPTH > 20 FT. SLAB SHALL BE DESIGNED TO PREVENT FLOTATION OF MANHOLE.
4. COAT ALL INTERNAL CEMENTITIOUS AND METALLIC SURFACES WITH COAL TAR EPOXY.
5. OUTLET STUBOUT SHALL BE SPIGOT END. INLET STUBOUTS SHALL BE BELL END EXCEPT FOR DROP CONNECTIONS.

TYPICAL FIBERGLASS
MANHOLE



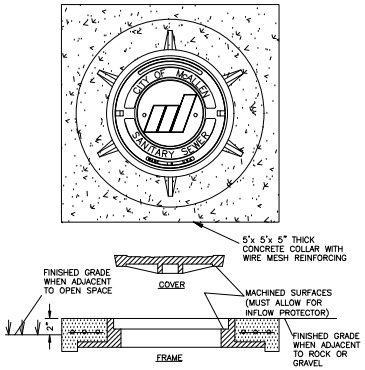
MANHOLE COVER
ADJUSTMENT DETAILS



NOTES

1. INDIVIDUAL SERVICE LATERALS TO BE PROVIDED TO EACH LOT.
2. SINGLE FAMILY SERVICE SHALL BE 4" MIN. MULTI-FAMILY, COMMERCIAL, AND INDUSTRIAL SERVICE SHALL BE 6" OR GREATER AS REQUIRED.

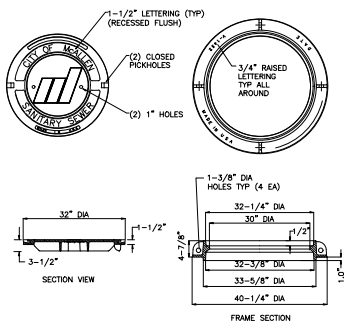
STANDARD SERVICE
CONNECTION



NOTES:

1. COLLAR IS REQUIRED ONLY WHEN MANHOLE IS OUT OF PAVEMENT.
2. STANDARD FRAME AND COVER SIZE SHALL BE USED.
3. A STEEL MANHOLE RISER, APPROVED HDPE ADJUSTING RINGS OR ADDITIONAL BRICKS MAY BE USED TO ELEVATE EXISTING MANHOLE COVERS TO RESURFACED GRADE (MAX. 4" HEIGHT).
4. COVER SHALL FIT FLUSH WITH THE FRAME WITH THE INFLOW PROTECTOR INSTALLED.

CONCRETE COLLAR FOR
SANITARY SEWER MANHOLES



NOTES:

1. FRAME AND COVER SHALL CONFORM TO REQUIREMENTS OF AASHTO M 306.
2. FRAME AND COVER SHALL BE PROOF-LOAD TESTED TO 74,000 LBS.
3. FRAME SHALL BE GRAY CAST IRON CONFORMING TO AASHTO M 105 CLASS 35B OR ASTM A48 CLASS 35B.
4. COVER SHALL BE DUCTILE IRON CONFORMING TO ASTM A536 GRADE 80-55-06.

SANITARY SEWER MANHOLE
STANDARD RING & COVER

B2Z ENGINEERING

STATE OF TEXAS
JOSE N. SALDIVAR
94076
LICENSED
PROFESSIONAL ENGINEER

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PRELIMINARY
JOSE N. SALDIVAR-P.E. No. 94076

HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
SANITARY SEWER DETAILS

PROJECT NO.	S2-C-24-1
SCALE:	N.T.S.
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	9 OF 12

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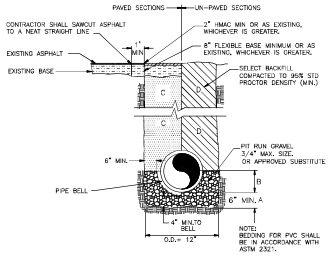
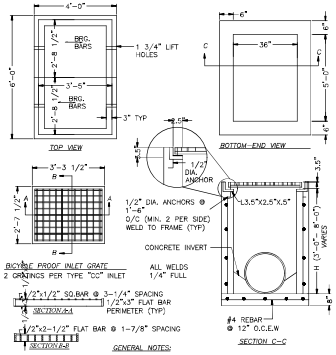


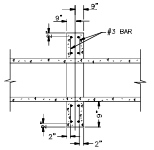
A. GRAVEL, BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE (MIN. THICKNESS=4") PIT RUN GRAVEL 3/4" MAX SIZE.
B. GRAVEL, PLACED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO THE SPRING LINE. PIT RUN GRAVEL, 3/4" MAX. SIZE OR APPROVED SUBSTITUTE.
C. CITY STREETS PARKING AREA, DRIVEWAYS: SELECT EXCAVATED BACK FILL COMPACTED 95% STD. 8" LIFTS, MECHANICAL COMPACTION.
D. STATE MAINTAINED ROADWAYS: COMPACTED SAND/CEMENT STABILIZED BACK FILL 7% PORTLAND CEMENT COMPACTED AS PER ASTM D-4253 AND ASTM D-698.
E. SELECT EARTH BACKFILL COMPACTED TO 95% STD. PROCTOR DENSITY (12" LIFTS, MECHANICAL COMPACTION) FOUNDATION PREPARATION (WELLPOINTS, GRAVEL OR GEOTECH STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE PROVIDED AS REQUIRED. ALL BACKFILL AND SCARIFYING OF EXISTING SOIL SHALL BE PLACED IN UNIFORM LAYERS OF MOISTURE AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO 95% STD. PROCTOR DENSITY (USE RELATIVE DENSITY TEST PER ASTM D-4253 & ASTM D-698), THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 6". STRUCTURE BACK FILL MATERIAL SHALL BE SAND, EXCAVATED MATERIAL, OR OTHER APPROVED SUBSTITUTE.

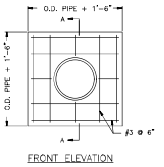
TYPICAL STORM SEWER PIPE BEDDING DETAIL



GENERAL NOTES:
1. REINFORCEMENT: #4 BARS AT 12" O.C. EACH WAY.
2. CONCRETE TO HAVE A MIN. 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
3. "H" DIMENSION AVAILABLE IN 6" INCREMENTS FROM 3'-0" TO 8'-0".
4. INLETS SHALL BE COMPOSED OF PRE-CAST SECTIONS, CAST IN PLACE OR A COMBINATION OF BOTH.
5. 6" GRAVEL BEDDING IS REQUIRED IF UNSTABLE SOIL OR GROUND WATER IS FOUND.

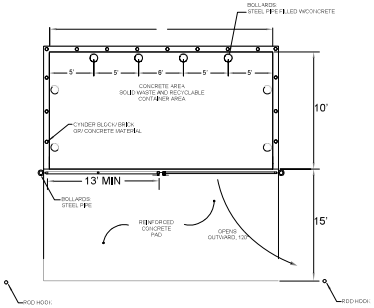
TYPE "CC" INLET





CONCRETE PIPE COLLAR

DETAIL 402
DUAL DUMPSTER ENCLOSURE



B2Z ENGINEERING

STATE OF TEXAS
JOSE N. SALDIVAR
94076
LICENSED PROFESSIONAL ENGINEER

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PRELIMINARY
JOSE N. SALDIVAR-P.E. No. 94076

HIDALGO COUNTY HEALTH CLINIC CITY OF McALLEN

DRAINAGE AND PAVING DETAILS

PROJECT NO.	S2-C-24-1
SCALE:	N.T.S.
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	10 OF 12

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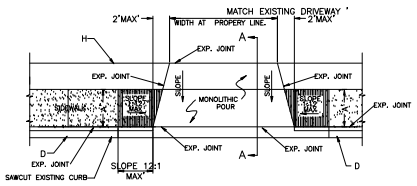
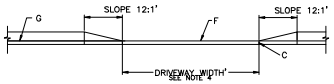
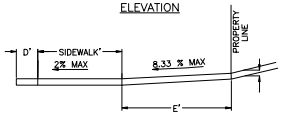


PLAN

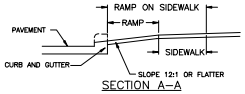


ELEVATION

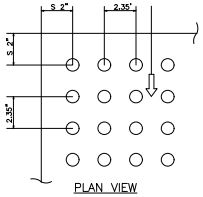


SECTION A–A

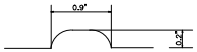
CONCRETE DRIVEWAY APRON (SIDEWALK ADJACENT TO CURB)



SECTION A–A

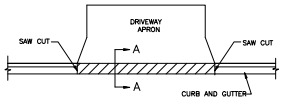


PLAN VIEW

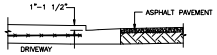


TRUNCATED DOME

CRUB RAMP DETECTABLE WARNING



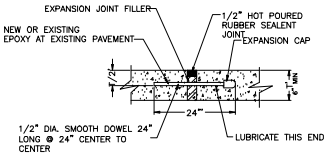
PLAN VIEW



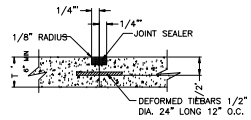
SECTION A–A

NOTE:
ANY PAVEMENT DAMAGE WILL REQUIRE A ASPHALT CUT AND RESTORE

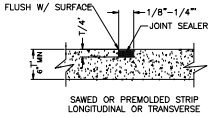
CURB AND GUTTER SAWCUT FOR DRIVEWAY DETAIL OPTION 1



EXPANSION JOINT



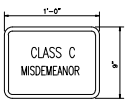
CONSTRUCTION JOINT



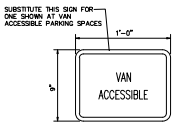
SAWED CONTRACTION JOINT

TYPICAL CONCRETE JOINT DETAILS

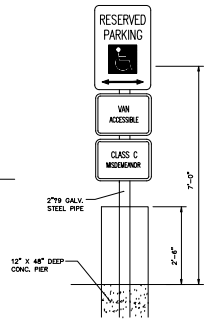
PRIMARY SIGN
N.T.S.



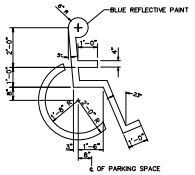
PENALTY SIGN
N.T.S.



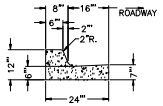
SUPPLEMENTARY SIGN
N.T.S.



PARKING SIGNAGE: HANDICAPPED
N.T.S.



HANDICAP SYMBOL DETAIL
N.T.S.



STANDARD CURB & GUTTER TYPE A

B2Z ENGINEERING

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PRELIMINARY
JOSE N. SALDIVAR–P.E. No. 94076

HIDALGO COUNTY HEALTH CLINIC CITY OF McALLEN

PAVING & SIDEWALKS DETAILS

PROJECT NO.	S2-C-24-1
SCALE:	N.T.S.
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	11 OF 12

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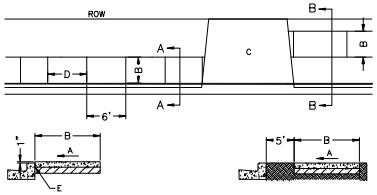
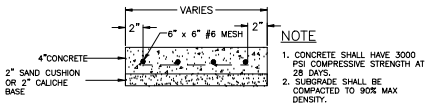




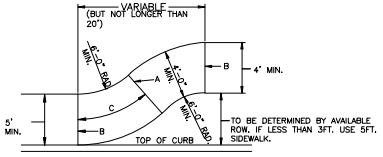
GENERAL NOTES:

1. DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. SIDEWALK SHALL BE CONSTRUCTED WITHIN STREET R.O.W.
3. PROVIDE 5' X 5' PASSING SPACE AT A MAXIMUM 200' INTERVALS, IF SIDEWALK IS LESS THAN 5' ON WIDTH (DRIVEWAY IS CONSIDERED A PASSING SPACE)

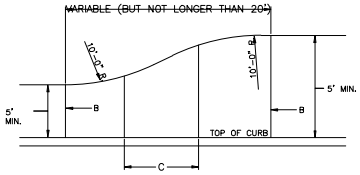
CONSTRUCTION NOTES:

A. CROSS–SLOPE AT 1.5% USUAL AND 2.0% MAX.
B. SIDEWALK, WIDTH VARIES. 4 FT MINIMUM WHEN SETBACK 5 FT FROM THE CURB. 5 FT. MINIMUM WHEN ADJACENT TO THE CURB.
C. SEE DRIVEWAY APRON DETAIL.
D. CONTRACTION JOINTS EVERY 6 FT.; EXPANSION JOINT EVERY 30 FT. AND ALONG CURB AND GUTTER WHEN SIDEWALK ADJACENT TO CURB AND ALONG ANY STRUCTURE EXISTING.
E. 1/2" EXPANSION JOINT.

TYPICAL SIDEWALK DETAILS



CURB TYPE TO OFFSET TYPE

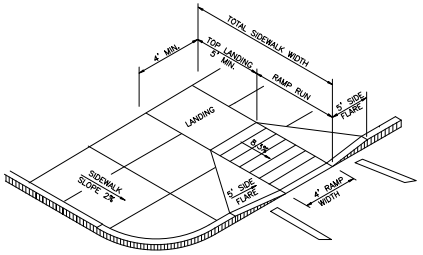


CURB TYPE WITH VARYING WIDTHS

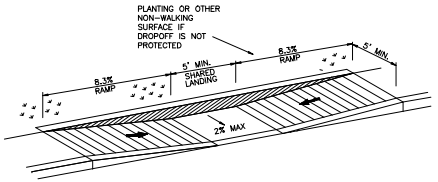
CONSTRUCTION NOTES:

A. WEAKENED PLAN JOINT ALIGNMENT TO BE RADIAL.
B. 1/2" EXPANSION JOINT.
C. CONSTRUCTION JOINTS SHALL NOT BE GREATER THAN 6 FEET ON CENTER BETWEEN EXPANSION JOINTS, MEASURED ALONG SIDEWALK.

TYPICAL SIDEWALK DETAILS
TRANSITION



PERPENDICULAR CURB RAMP–TYPE 5

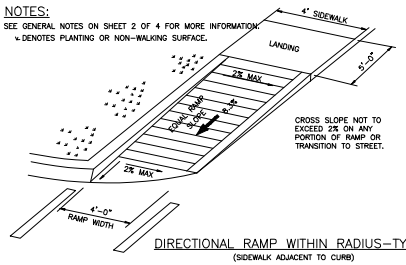


PARALLEL CURB RAMP–TYPE 6

(USE ONLY WHERE WATER WILL NOT POND IN THE LANDING.)

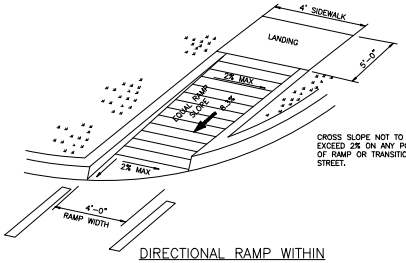
NOTES:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.
↳ DENOTES PLANTING OR NON–WALKING SURFACE.



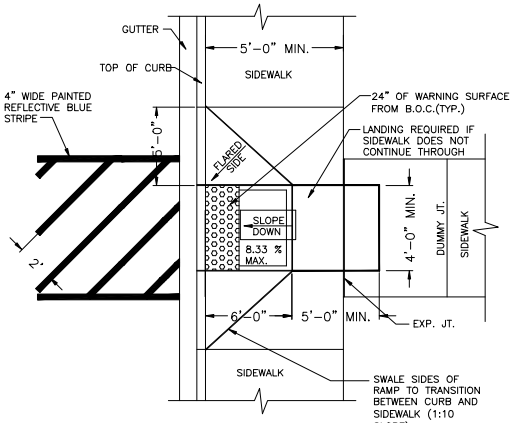
DIRECTIONAL RAMP WITHIN RADIUS–TYPE 7

(SIDEWALK ADJACENT TO CURB)

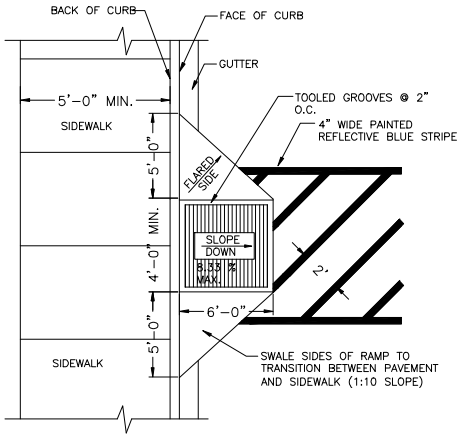


DIRECTIONAL RAMP WITHIN RADIUS–TYPE 8

(SIDEWALK SET BACK FROM CURB)



TYPICAL HANDICAP RAMP BUILT
INTO SIDEWALK



TYPICAL HANDICAP RAMP BUILT
ON TOP OF PARKING LOT

B2Z ENGINEERING

STATE OF TEXAS
JOSE N. SALDIVAR
94076
LICENSED PROFESSIONAL ENGINEER

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HIDALGO COUNTY HEALTH
CLINIC CITY OF McALLEN
PAVING & SIDEWALKS DETAILS

PROJECT NO.	S2-C-24-1
SCALE:	N.T.S.
DRAWN BY:	L.M.
CHECKED BY:	N.S.
TOPO BY:	M.P.
SHEET:	12 OF 12

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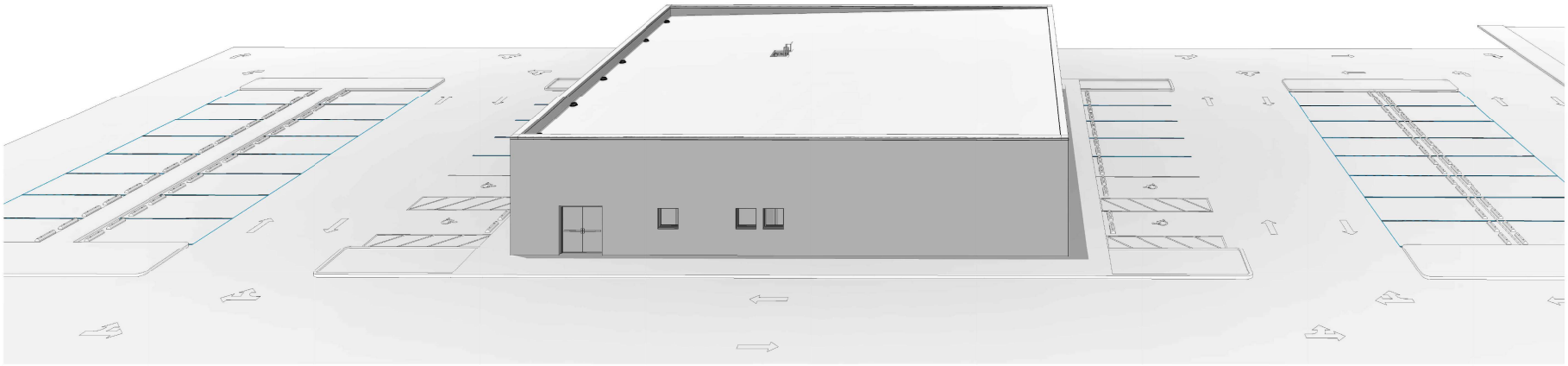

RENDER No. 1

NOTES:
1. 3D VIEWS ARE SHOWN FOR REFERENCE ONLY AND TO PROVIDE A GENERAL ILLUSTRATIVE UNDERSTANDING OF THE STRUCTURAL FRAMES AND FOUNDATIONS OF THE PROJECT BUILDING STRUCTURES. NOT ALL STRUCTURAL MEMBERS MAY BE SHOWN IN THESE VIEWS.

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OIM ENGINEERING PLLC
STRUCTURAL DESIGN

O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

FIRM REGISTRATION NO. 20913

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

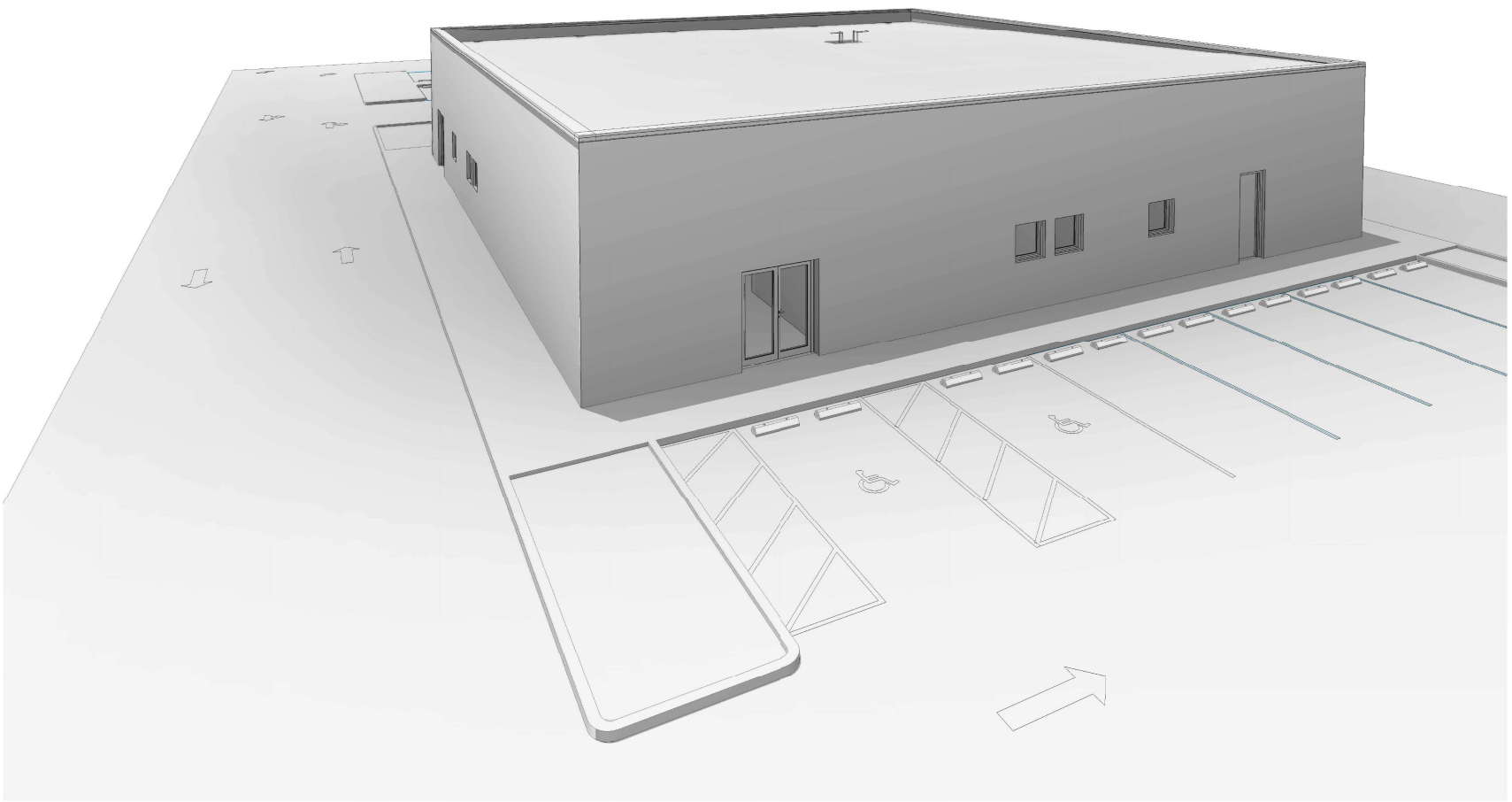
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: RENDER No.1

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: AG0.0
SCALE:	



RENDER No. 2

NOTES:
1. 3D VIEWS ARE SHOWN FOR REFERENCE ONLY AND TO PROVIDE A GENERAL ILLUSTRATIVE UNDERSTANDING OF THE STRUCTURAL FRAMES AND FOUNDATIONS OF THE PROJECT BUILDING STRUCTURES. NOT ALL STRUCTURAL MEMBERS MAY BE SHOWN IN THESE VIEWS.

OIM ENGINEERING PLLC
STRUCTURAL DESIGN

O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: RENDER No. 2

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: AG0.1
SCALE:	

CHAPTER 3: BUILDING BLOCKS

302 FLOOR OR GROUND SURFACES

302.2 CARPET. CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2 INCH (13 MM) MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE. CARPET EDGE TRIM SHALL COMPLY WITH 303.

FIGURE 302.2 CARPET PILE HEIGHT

302.3 OPENINGS. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2 INCH (13 MM) DIAMETER EXCEPT AS ALLOWED IN 407.2.5, 409.2.5, 410.4, 810.5.3, AND 810.10.1. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

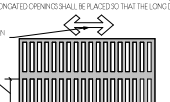


FIGURE 302.3 ELONGATED OPENINGS IN FLOOR OR GROUND SURFACES

303.1 GENERAL. WHERE CHANGES IN LEVEL ARE PERMITTED IN FLOOR OR GROUND SURFACES, THEY SHALL COMPLY WITH 303.

303.2 VERTICAL CHANGES IN LEVEL. OF 1/4 INCH (6.4 MM) HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL.

303.3 CHANGES IN LEVEL.

FIGURE 303.2 VERTICAL CHANGE IN LEVEL

303.3.1 BEVELED CHANGES IN LEVEL BETWEEN 1/4 INCH (6.4 MM) HIGH MINIMUM AND 1/2 INCH (13 MM) HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.

FIGURE 303.3 BEVELED CHANGE IN LEVEL

304 TURNING SPACE

304.3.1 CIRCULAR SPACE. THE TURNING SPACE SHALL BE A SPACE OF 60 INCHES (1,525 MM) DIAMETER MINIMUM, THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306.

304.3.2 T-SHAPED SPACE. THE TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60 INCH (1,525 MM) SQUARE MINIMUM WITH ARMS AND BASE 36 INCHES (915 MM) WIDE MINIMUM, EACH ARM OF THE T-SHALL BE CLEAR OF OBSTRUCTIONS 12 INCHES (305 MM) MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24 INCHES (610 MM) MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 306 ONLY AT THE END OF EITHER THE BASE OR ONE ARM.

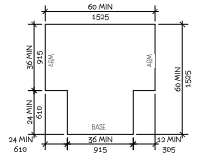


FIGURE 304.3.2 T-SHAPED TURNING SPACE

305 CLEAR FLOOR OR GROUND SPACE

305.3 SIZE. THE CLEAR FLOOR OR GROUND SPACE SHALL BE 30 INCHES (760 MM) MINIMUM BY 48 INCHES (1220 MM) MINIMUM.

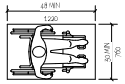


FIGURE 305.3 CLEAR FLOOR OR GROUND SPACE

305.5 POSITION. UNLESS OTHERWISE SPECIFIED, CLEAR FLOOR OR GROUND SPACE SHALL BE POSITIONED FOR EITHER FORWARD OR PARALLEL APPROACH TO AN ELEMENT.

305.6 APPROACH. ONE FULL, UNOBSTRUCTED SIDE OF THE CLEAR FLOOR OR GROUND SPACE SHALL ADJOIN AN ACCESSIBLE ROUTE OR ADJOIN ANOTHER CLEAR FLOOR OR GROUND SPACE. 305.7 MANEUVERING CLEARANCE. WHERE A CLEAR FLOOR OR GROUND SPACE IS LOCATED IN AN ALCOVE OR OTHERWISE CONFINED ON ALL OR PART OF THREE SIDES, ADDITIONAL MANEUVERING CLEARANCE SHALL BE PROVIDED IN ACCORDANCE WITH 305.7.1 AND 305.7.2.

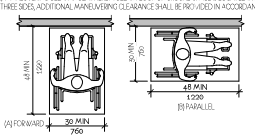


FIGURE 305.5 POSITION OF CLEAR FLOOR OR GROUND SPACE

305.7.1 FORWARD APPROACH. ALCOVES SHALL BE 36 INCHES (915 MM) WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24 INCHES (610 MM).

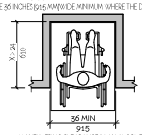


FIGURE 305.7.1 MANEUVERING CLEARANCE IN AN ALCOVE, FORWARD APPROACH

305.7.2 PARALLEL APPROACH. ALCOVES SHALL BE 60 INCHES (1,525 MM) WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15 INCHES (381 MM).

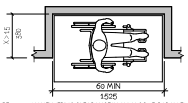


FIGURE 305.7.2 MANEUVERING CLEARANCE IN AN ALCOVE, PARALLEL APPROACH

306 KNEE AND TOE CLEARANCE

306.1 GENERAL. SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE AND SHALL COMPLY WITH 306.2.

306.2.1 MAXIMUM DEPTH. TOE CLEARANCE SHALL EXTEND 25 INCHES (635 MM) MAXIMUM UNDER AN ELEMENT.

306.2.2 MINIMUM REQUIRED DEPTH. WHERE TOE CLEARANCE IS REQUIRED AT AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE TOE CLEARANCE SHALL EXTEND 17 INCHES (430 MM) MINIMUM UNDER THE ELEMENT.

306.3 TOE CLEARANCE.

306.3.1 ADDITIONAL CLEARANCE SPACE EXTENDING GREATER THAN 6 INCHES (150 MM) BEYOND THE AVAILABLE KNEE CLEARANCE AT 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL NOT BE CONSIDERED TOE CLEARANCE.

306.3.2 WIDTH. TOE CLEARANCE SHALL BE 30 INCHES (760 MM) WIDE MINIMUM.

FIGURE 306.3 TOE CLEARANCE

306.3 KNEE CLEARANCE.

306.3.1 GENERAL. SPACE UNDER AN ELEMENT BETWEEN 9 INCHES (230 MM) AND 27 INCHES (685 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED KNEE CLEARANCE AND SHALL COMPLY WITH

306.3.2 MAXIMUM DEPTH. KNEE CLEARANCE SHALL EXTEND 25 INCHES (635 MM) MAXIMUM UNDER AN ELEMENT AT 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND.

306.3.3 MINIMUM REQUIRED DEPTH. WHERE KNEE CLEARANCE IS REQUIRED UNDER AN ELEMENT AS PART OF A CLEAR FLOOR SPACE, THE KNEE CLEARANCE SHALL BE 11 INCHES (280 MM) DEEP MINIMUM AT 9 INCHES (230 MM) ABOVE THE FINISH FLOOR OR GROUND, AND 8 INCHES (205 MM) DEEP MINIMUM AT 27 INCHES (685 MM) ABOVE THE FINISH FLOOR OR GROUND.

306.3.4 CLEARANCE REDUCTION. BETWEEN 9 INCHES (230 MM) AND 27 INCHES (685 MM) ABOVE THE FINISH FLOOR OR GROUND, THE KNEE CLEARANCE SHALL BE PERMITTED TO REDUCE AT A RATE OF 1 INCH (25 MM) IN DEPTH FOR EACH 6 INCHES (150 MM) IN HEIGHT.

306.3.5 WIDTH. KNEE CLEARANCE SHALL BE 30 INCHES (760 MM) WIDE MINIMUM.

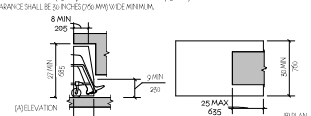


FIGURE 306.3 KNEE CLEARANCE

307 PROTRUDING OBJECTS

307.2 PROTRUSION LIMITS. OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES (685 MM) AND NOT MORE THAN 80 INCHES (2030 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE 4 INCHES (100 MM) MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH.

EXCEPTION: HANDRAILS SHALL BE PERMITTED TO PROTRUDE 4 1/2 INCHES (115 MM) MAXIMUM.

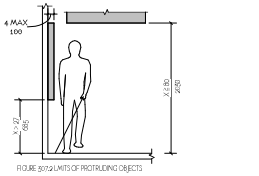


FIGURE 307.2 LIMITS OF PROTRUDING OBJECTS

307.3 POST-MOUNTED OBJECTS. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PYLONS SHALL OVERHANG CIRCULATION PATHS 12 INCHES (305 MM) MAXIMUM WHERE THE VERTICAL CLEARANCE IS LESS THAN 80 INCHES (2030 MM) MINIMUM AND 80 INCHES (2030 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE A SIGN OR OTHER OBSTRUCTION IS MOUNTED BETWEEN POSTS OR PYLONS AND THE CLEAR DISTANCE BETWEEN THE POSTS OR PYLONS IS GREATER THAN 12 INCHES (305 MM), THE LOWEST EDGE OF SUCH SIGN OR OBSTRUCTION SHALL BE 27 INCHES (685 MM) MAXIMUM OR 80 INCHES (2030 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

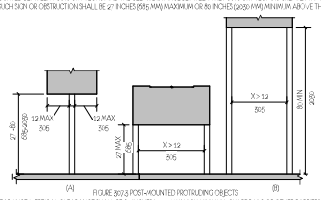


FIGURE 307.3 POST-MOUNTED PROTRUDING OBJECTS

307.4 VERTICAL CLEARANCE. VERTICAL CLEARANCE SHALL BE 80 INCHES (2030 MM) HIGH MINIMUM. GUARDRAILS OR OTHER BARRIERS SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE IS LESS THAN 80 INCHES (2030 MM) HIGH. THE LEADING EDGE OF SUCH GUARDRAIL OR BARRIER SHALL BE LOCATED 27 INCHES (685 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

EXCEPTION: DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78 INCHES (1,980 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

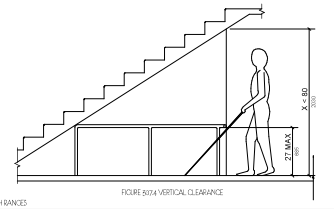


FIGURE 307.4 VERTICAL CLEARANCE

308 REACH RANGES

ADVISORY 308.1 GENERAL. THE FOLLOWING TABLE PROVIDES GUIDANCE ON REACH RANGES FOR CHILDREN ACCORDING TO AGE WHERE BUILDING ELEMENTS SUCH AS COAT HOOKS, LOCKERS, OR OPERABLE PARTS ARE DESIGNED FOR USE PRIMARILY BY CHILDREN. THESE DIMENSIONS APPLY TO EITHER FORWARD OR SIDE REACHES. ACCESSIBLE ELEMENTS AND OPERABLE PARTS DESIGNED FOR ADULT USE OR CHILDREN OVER AGE 12 CAN BE LOCATED OUTSIDE THESE RANGES BUT MUST BE WITHIN THE ADULT REACH RANGES REQUIRED BY 308.

CHILDREN'S REACH RANGES			
FORWARD OR SIDE REACH	AGES 3 AND 4	AGES 5 THROUGH 8	AGES 9 THROUGH 12
HIGH (MAXIMUM)	36 IN (915 MM)	40 IN (1015 MM)	44 IN (1120 MM)
LOW (MINIMUM)	20 IN (510 MM)	18 IN (455 MM)	16 IN (405 MM)

308.2 FORWARD REACH.

308.2.1 UNOBSTRUCTED. WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48 INCHES (1,220 MM) MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15 INCHES (380 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

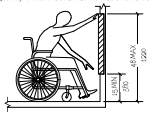
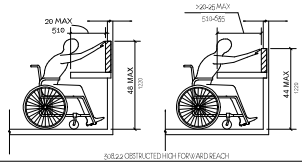


FIGURE 308.2.1 UNOBSTRUCTED FORWARD REACH

308.2.2 OBSTRUCTED HIGH REACH. WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN THE REQUIRED REACH DEPTH OVER THE OBSTRUCTION. THE HIGH FORWARD REACH SHALL BE 48 INCHES (1,220 MM) MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES (510 MM) MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 20 INCHES (510 MM), THE HIGH FORWARD REACH SHALL BE 44 INCHES (1,120 MM) MAXIMUM AND THE REACH DEPTH SHALL BE 25 INCHES (635 MM) MAXIMUM.



308.2.2 OBSTRUCTED HIGH FORWARD REACH

308.3 SIDE REACH.

308.3.1 UNOBSTRUCTED. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE SIDE REACH IS UNOBSTRUCTED, THE HIGH SIDE REACH SHALL BE 48 INCHES (1,220 MM) MAXIMUM AND THE LOW SIDE REACH SHALL BE 15 INCHES (380 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND.

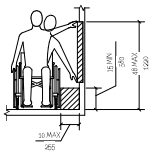


FIGURE 308.3.1 UNOBSTRUCTED SIDE REACH

308.3.2 OBSTRUCTED HIGH REACH. WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES (865 MM) MAXIMUM AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES (610 MM) MAXIMUM. THE HIGH SIDE REACH SHALL BE 48 INCHES (1,220 MM) MAXIMUM FOR A REACH DEPTH OF 10 INCHES (255 MM). MAXIMUM, WHERE THE REACH DEPTH EXCEEDS 10 INCHES (255 MM), THE HIGH SIDE REACH SHALL BE 46 INCHES (1,170 MM) MAXIMUM FOR A REACH DEPTH OF 24 INCHES (610 MM) MAXIMUM.

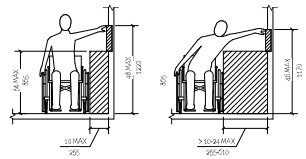


FIGURE 308.3.2 OBSTRUCTED HIGH SIDE REACH

309 OPERABLE PARTS

309.2 CLEAR FLOOR SPACE. A CLEAR FLOOR OR GROUND SPACE COMPLYING WITH 305 SHALL BE PROVIDED.

309.3 HEIGHT. OPERABLE PARTS SHALL BE PLACED WITHIN ONE OR MORE OF THE REACH RANGES SPECIFIED IN 308.

309.4 OPERATION. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS (22.2 N) MAXIMUM.

CHAPTER 4: ACCESSIBLE ROUTES

401 ACCESSIBLE ROUTES

401.2 ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20, DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS. ALL COMPONENTS OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTER 4. ADVISORY 402.2 COMPONENTS. WALKING SURFACES MUST HAVE RUNNING SLOPES NOT STEEPER THAN 1:20, SEE 403.3. OTHER COMPONENTS OF ACCESSIBLE ROUTES, SUCH AS RAMPS (405) AND CURB RAMPS (406), ARE PERMITTED TO BE MORE STEEPLY SLOPED.

402 WALKING SURFACES

402.1 GENERAL. WALKING SURFACES THAT ARE A PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 402.

402.2 FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACES SHALL COMPLY WITH 302.

402.3 SLOPE. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20. THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48.

402.4 CHANGES IN LEVEL. CHANGES IN LEVEL SHALL COMPLY WITH 303.

403.5 CLEARANCES. WALKING SURFACES SHALL PROVIDE CLEARANCES COMPLYING WITH 403.5.

EXCEPTION: WITHIN EMPLOYEE WORK AREAS, CLEARANCES ON COMMON USE CIRCULATION PATHS SHALL BE PERMITTED TO BE DECREASED BY WORK AREA EQUIPMENT PROVIDED THAT THE DECREASE IS ESSENTIAL TO THE FUNCTION OF THE WORK BEING PERFORMED.

403.5.1 CLEAR WIDTH. EXCEPT AS PROVIDED IN 403.5.2 AND 403.5.3, THE CLEAR WIDTH OF WALKING SURFACES SHALL BE 36 INCHES (915 MM) MINIMUM.

EXCEPTION: THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32 INCHES (815 MM) MINIMUM FOR A LENGTH OF 24 INCHES (610 MM) MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48 INCHES (1,220 MM) LONG MINIMUM AND 36 INCHES (915 MM) WIDE MINIMUM.

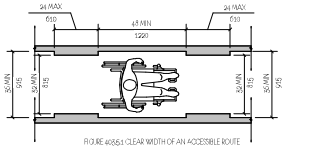


FIGURE 403.5.1 CLEAR WIDTH OF AN ACCESSIBLE ROUTE

403.5.2 CLEAR WIDTH AT TURN. WHERE THE ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN ELEMENT WHICH IS LESS THAN 48 INCHES (1,220 MM) WIDE, CLEAR WIDTH SHALL BE 42 INCHES (1,065 MM) MINIMUM APPROACHING THE TURN, 48 INCHES (1,220 MM) MINIMUM AT THE TURN AND 42 INCHES (1,065 MM) MINIMUM LEAVING THE TURN.

EXCEPTION: WHERE THE CLEAR WIDTH AT THE TURN IS 60 INCHES (1,525 MM) MINIMUM, COMPLIANCE WITH 403.5.3 SHALL NOT BE REQUIRED.

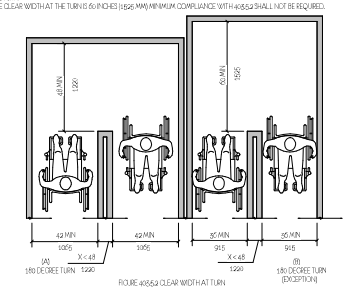


FIGURE 403.5.2 CLEAR WIDTH AT TURN

403.5.3 PASSING SPACES. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES (1,525 MM) SHALL PROVIDE PASSING SPACES AT INTERVALS OF 200 FEET (61 M) MAXIMUM.

404.2.3 CLEAR WIDTH. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES (815 MM) MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 24 INCHES (610 MM) DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES (915 MM) MINIMUM. THERE SHALL BE NO PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES (865 MM) ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES (865 MM) AND 80 INCHES (2030 MM) ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES (100 MM).

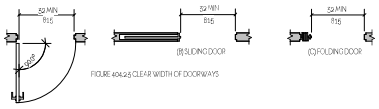


FIGURE 404.2.3 CLEAR WIDTH OF DOORWAYS

404.2.4 MANEUVERING CLEARANCES. MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 404.2.4. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE.

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/06/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: GENERAL NOTES

PROJECT: ---------

STRUCTURAL DESING: ----------

DRAWING BY: ----------

CHECKED BY: ----------

DATE: 08/26/2024

DRAWING NO: AG1.0

SCALE: 1" = 1'-0"

404.2.4.3 RECESSED DOORS AND GATES. MANEUVERING CLEARANCES FOR FORWARD APPROACH SHALL BE PROVIDED WHEN ANY OBSTRUCTION WITHIN 18 INCHES (455 MM) OF THE LATCH SIDE OF A DOORWAY PROJECTS MORE THAN 8 INCHES (205 MM) BEYOND THE FACE OF THE DOOR, MEASURED PERPENDICULAR TO THE FACE OF THE DOOR OR GATE.

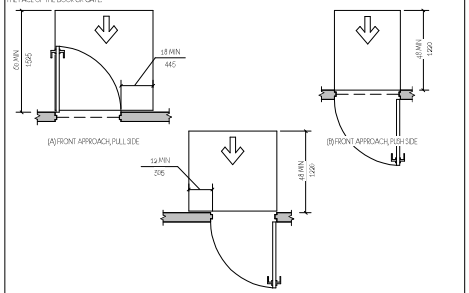


FIGURE 404.2.4.3 MANEUVERING CLEARANCES AT RECESSED DOORS AND GATES

404.2.6 DOORS IN SERIES AND GATES IN SERIES. THE DISTANCE BETWEEN TWO HINGED OR PIVOTED DOORS IN SERIES AND GATES IN SERIES SHALL BE 48 INCHES (1220 MM) MINIMUM PLUS THE WIDTH OF DOORS OR GATES SWINGING INTO THE SPACE.

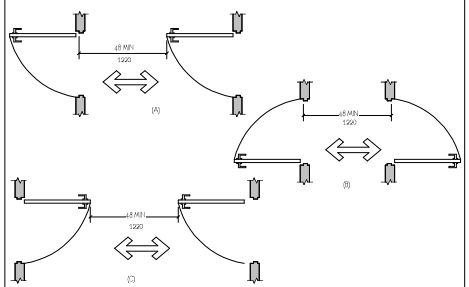


FIGURE 404.2.6 DOORS IN SERIES AND GATES IN SERIES

404.2.7 DOOR AND GATE HARDWARE. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH 309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES (865 MM) MINIMUM AND 48 INCHES (1220 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.

404.2.8.1 DOOR CLOSERS AND GATE CLOSERS. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

404.2.8.2 SPRING HINGES. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM.

404.2.9 DOOR AND GATE OPENING FORCE. FIRE DOORS SHALL HAVE A MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:

1. INTERIOR HINGED DOORS AND GATES: 5 POUNDS (22.2 N) MAXIMUM.
2. SLIDING OR FOLDING DOORS: 5 POUNDS (22.2 N) MAXIMUM.

THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR OR GATE IN A CLOSED POSITION.

404.2.10 DOOR AND GATE SURFACES. SWINGING DOOR AND GATE SURFACES WITHIN 10 INCHES (255 MM) OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACES SHALL BE WITHIN 1/16 INCH (1.6 MM) OF THE SAME PLANE AS THE OTHERS.

CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED.

404.2.11 VISION LIGHTS. DOORS, GATES, AND SIDE LIGHTS ADJACENT TO DOORS OR GATES, CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43 INCHES (1090 MM) MAXIMUM ABOVE THE FINISH FLOOR.

404.3 AUTOMATIC AND POWER-ASSISTED DOORS AND GATES. AUTOMATIC DOORS AND AUTOMATIC GATES SHALL COMPLY WITH 404.3. FULL-POWERED AUTOMATIC DOORS SHALL COMPLY WITH ANSI/BHMA A156.10 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 35). LOW-ENERGY AND POWER-ASSISTED DOORS SHALL COMPLY WITH ANSI/BHMA A156.19 2007 OR 2002 EDITION (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 35).

404.3.2 MANEUVERING CLEARANCE AT POWER-ASSISTED DOORS AND GATES SHALL COMPLY WITH 404.2.4. CLEARANCES AT AUTOMATIC DOORS AND GATES WITHOUT STANDBY POWER AND SERVING AN ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH 404.2.4.

404.3.7 REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES. REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE.

405 RAMPS

405.2 SLOPE. RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12.

405.3 CROSS SLOPE. CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 1:48.

405.5 CLEAR WIDTH. THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36 INCHES (915 MM) MINIMUM.

405.6 RISE. THE RISE FOR ANY RAMP RUN SHALL BE 30 INCHES (760 MM) MAXIMUM.

405.7 LANDINGS. RAMPS SHALL HAVE LANDINGS AT THE TOP AND THE BOTTOM OF EACH RAMP RUN. LANDINGS SHALL COMPLY WITH

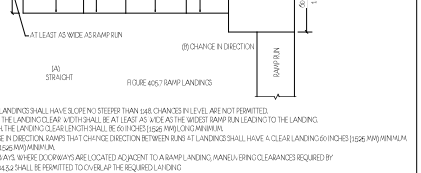


FIGURE 405.7 RAMP LANDINGS

405.7.1 SLOPE. LANDINGS SHALL HAVE SLOPES NO STEEPER THAN 1:48. CHANGES IN LEVEL ARE NOT PERMITTED.

405.7.2 WIDTH. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING.

405.7.3 LENGTH. THE LANDING CLEAR LENGTH SHALL BE 60 INCHES (1525 MM) LONG MINIMUM.

405.7.4 CHANGE IN DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60 INCHES (1525 MM) MINIMUM BY 60 INCHES (1525 MM) MINIMUM.

405.7.5 DOOR AVE. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY 404.2.4 AND 404.2.5 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING.

405.8 HANDRAILS. RAMP RUNS WITH A RISE GREATER THAN 6 INCHES (150 MM) SHALL HAVE HANDRAILS COMPLYING WITH 505.

405.9 EDGE PROTECTION. EDGE PROTECTION COMPLYING WITH 405.9.1 OR 405.9.2 SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS.

405.9.1 EXTENDED FLOOR OR GROUND SURFACE. THE FLOOR OR GROUND SURFACE OF THE RAMP RUN OR LANDING SHALL EXTEND 12 INCHES (305 MM) MINIMUM BEYOND THE INSIDE FACE OF A HANDRAIL COMPLYING WITH 505.

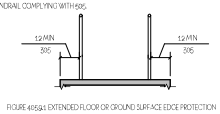


FIGURE 405.9.1 EXTENDED FLOOR OR GROUND SURFACE EDGE PROTECTION

405.9.2 CURB OR BARRIER. A CURB OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4 INCH (100 MM) DIAMETER SPHERE, WHERE ANY PORTION OF THE SPHERE IS WITHIN 4 INCHES (100 MM) OF THE FINISH FLOOR OR GROUND SURFACE.

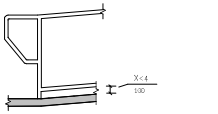


FIGURE 405.9.2 CURB OR BARRIER EDGE PROTECTION

406 CURB RAMPS

406.1 GENERAL. CURB RAMPS ON ACCESSIBLE ROUTES SHALL COMPLY WITH 406.1 THROUGH 406.5, AND 405.10.

406.2 COUNTER SLOPE. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.

FIGURE 406.2 COUNTER SLOPE OF SURFACES ADJACENT TO CURB RAMPS

406.3 SIDES OF CURB RAMPS. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10.

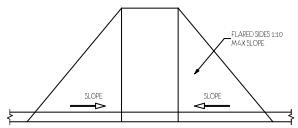


FIGURE 406.3 SIDES OF CURB RAMPS

406.4 LANDINGS. LANDINGS SHALL BE PROVIDED AT THE TOPS OF CURB RAMPS. THE LANDING CLEAR LENGTH SHALL BE 36 INCHES (915 MM) MINIMUM. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING.

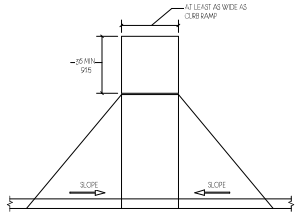


FIGURE 406.4 LANDINGS AT THE TOP OF CURB RAMPS

406.5 LOCATION. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.

406.6 DIAGONAL CURB RAMPS. DIAGONAL OR CORNER-TYPE CURB RAMPS WITH RETURNED CURBS OR OTHER WELL-DEFINED EDGES SHALL HAVE THE EDGES PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE A CLEAR SPACE 48 INCHES (1220 MM) MINIMUM OUTSIDE ACTIVE TRAFFIC LANES OF THE ROADWAY. DIAGONAL CURB RAMPS PROVIDED AT MARKED CROSSINGS SHALL PROVIDE THE 48 INCHES (1220 MM) MINIMUM CLEAR SPACE WITHIN THE MARKINGS. DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 24 INCHES (610 MM) LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.

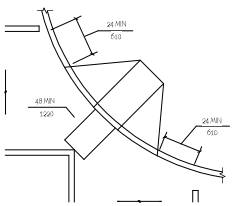


FIGURE 406.6 DIAGONAL OR CORNER-TYPE CURB RAMPS

406.7 ISLANDS. RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES. EACH CURB RAMP SHALL HAVE A LEVEL AREA 48 INCHES (1220 MM) LONG MINIMUM BY 48 INCHES (915 MM) WIDE MINIMUM AT THE TOP OF THE CURB RAMP IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS. EACH 48 INCH (1220 MM) MINIMUM BY 48 INCH (1220 MM) MINIMUM AREA SHALL BE CONTERMINOUS SO THAT THE 48 INCH (1220 MM) MINIMUM LENGTH IS IN THE DIRECTION OF THE RUNNING CURB OF THE ROADWAY IT SERVES. THE 48 INCH (1220 MM) MINIMUM BY 48 INCH (915 MM) MINIMUM AREAS AND THE ACCESSIBLE ROUTE SHALL BE PERMITTED TO OVERLAP.

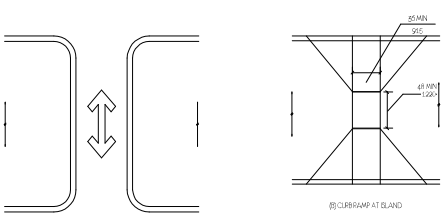


FIGURE 406.7 ISLANDS IN CROSSINGS

407 ELEVATORS

407.2 GENERAL. ELEVATORS SHALL COMPLY WITH 407 AND WITH ASME A17.1 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 35) THEY SHALL BE PASSENGER ELEVATORS AS CLASSIFIED BY ASME A17.1. ELEVATOR OPERATION SHALL BE AUTOMATIC. EXCEPTION: EXISTING CONDITIONS DOES NOT HAVE TO COMPLY.

407.2.1.2 SIZE. CALL BUTTONS SHALL BE 3/4 INCH (19 MM) MINIMUM IN THE SMALLEST DIMENSION.

407.2.2.1 VISIBLE AND AUDIBLE SIGNALS. A VISIBLE AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL AND THE CAR'S DIRECTION OF TRAVEL. WHERE ENCHRONICHALS ARE PROVIDED, THEY SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTONS.

407.2.2.2 VISIBLE SIGNALS. VISIBLE SIGNAL FIXTURES SHALL BE CENTERED AT 72 INCHES (1830 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND. THE VISIBLE SIGNAL ELEMENTS SHALL BE 2 1/2 INCHES (64 MM) MINIMUM, MEASURED ALONG THE VERTICAL CENTERLINE OF THE ELEMENT. SIGNALS SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTON.

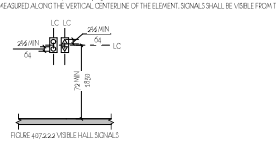


FIGURE 407.2.2.2 VISIBLE HALL SIGNALS

407.2.3.1 FLOOR DESIGNATION. FLOOR DESIGNATIONS COMPLYING WITH 703.4 AND 703.4.1 SHALL BE PROVIDED ON BOTH JAMBS OF ELEVATOR HOISTWAY ENTRANCES. FLOOR DESIGNATIONS SHALL BE PROVIDED IN BOTH TACTILE CHARACTERS AND BRAILLE. TACTILE CHARACTERS SHALL BE 2 INCHES (51 MM) HIGH MINIMUM. A TACTILE STAR SHALL BE PROVIDED ON BOTH JAMBS AT THE MAIN ENTRY LEVEL.

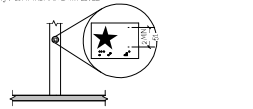


FIGURE 407.2.3.1 FLOOR DESIGNATIONS ON JAMBS OF ELEVATOR HOISTWAY ENTRANCES

407.2.3.2 CAR DESIGNATIONS. DESTINATION-ORIENTED ELEVATORS SHALL PROVIDE TACTILE CAR IDENTIFICATION COMPLYING WITH 703.2 ON BOTH JAMBS OF THE HOISTWAY IMMEDIATELY BELOW THE FLOOR DESIGNATION. CAR DESIGNATIONS SHALL BE PROVIDED IN BOTH TACTILE CHARACTERS AND BRAILLE. TACTILE CHARACTERS SHALL BE 2 INCHES (51 MM) HIGH MINIMUM.

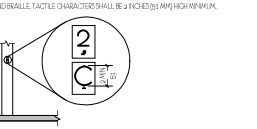


FIGURE 407.2.3.2 CAR DESIGNATIONS ON JAMBS OF DESTINATION-ORIENTED ELEVATOR HOISTWAY ENTRANCES

407.3.5.1 HEIGHT. THE DEVICE SHALL BE ACTIVATED BY SENSING AN OBSTRUCTION PASSING THROUGH THE OPENING AT 5 INCHES (125 MM) NOMINAL AND 29 INCHES (735 MM) NOMINAL ABOVE THE FINISH FLOOR.

407.3.5.6 DURATION. DOOR REOPENING DEVICES SHALL REMAIN EFFECTIVE FOR 20 SECONDS MINIMUM.

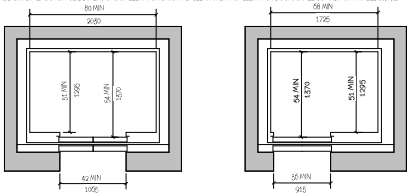
407.3.6 DOOR AND SIGNAL TIMING. THE MINIMUM ACCEPTABLE TIME FROM NOTIFICATION THAT A CAR IS ANSWERING A CALL OR NOTIFICATION OF THE CAR ASSIGNED AT THE MEANS FOR THE ENTRY OF DESTINATION INFORMATION UNTIL THE DOORS OF THAT CAR START TO CLOSE SHALL BE CALCULATED FROM THE FOLLOWING EQUATION: T = D / 1.5 FT/S OR T = D / 455 MM/S = 5 SECONDS MINIMUM, WHERE T EQUALS THE TOTAL TIME IN SECONDS AND D EQUALS THE DISTANCE (IN FEET OR MILLIMETERS) FROM THE POINT IN THE LOBBY OR CORRIDOR 60 INCHES (1,525 MM) DIRECTLY IN FRONT OF THE FARTHEST CALL BUTTON CONTROLLING TO THE CENTERLINE OF ITS HOISTWAY DOOR. THAT CAR.

407.3.7 DOOR DELAY. ELEVATOR DOORS SHALL REMAIN FULLY OPEN IN RESPONSE TO A CAR CALL FOR 5 SECONDS.

407.3.8 WIDTH. THE WIDTH OF ELEVATOR DOORS SHALL COMPLY WITH TABLE 407.4.1.

407.4 ELEVATOR CAR REQUIREMENTS. ELEVATOR CARS SHALL COMPLY WITH 407.4.

407.4.1 CAR DIMENSIONS. INSIDE DIMENSIONS OF ELEVATOR CARS AND CLEAR WIDTH OF ELEVATOR DOORS SHALL COMPLY WITH TABLE 407.4.1.



407.4.5 PLATFORM TO HOISTWAY CLEARANCE. THE CLEARANCE BETWEEN THE CAR PLATFORM SILL AND THE EDGE OF ANY HOISTWAY LANDING SHALL BE 1 1/4 INCH (32 MM) MAXIMUM.

407.4.6 LEVELING. EACH CAR SHALL BE EQUIPPED WITH A SELF-LEVELING FEATURE THAT WILL AUTOMATICALLY BRING AND MAINTAIN THE CAR AT FLOOR LANDINGS WITHIN A TOLERANCE OF 1/2 INCH (13 MM) UNDER RATED LOADING TO ZERO LOADING CONDITIONS.

407.4.7 ILLUMINATION. THE LEVEL OF ILLUMINATION AT THE CAR CONTROLS, PLATFORM, CAR THRESHOLD AND CAR LANDING SILL SHALL BE 5 FOOT CANDLES (54 LUX) MINIMUM.

407.4.8 ELEVATOR CAR CONTROLS. WHERE PROVIDED, ELEVATOR CAR CONTROLS SHALL COMPLY WITH 407.4.6 AND 309.4.

407.4.8.1 LOCATION. CONTROLS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN 308.

407.4.9 BUTTON CAR CONTROL BUTTONS WITH FLOOR DESIGNATIONS SHALL COMPLY WITH 407.4.6.2 AND SHALL BE RAISED OR FLUSH.

407.4.9.1 SIZE. BUTTONS SHALL BE 3/4 INCH (19 MM) MINIMUM IN THEIR SMALLEST DIMENSION.

407.4.9.4 HEIGHT. EMERGENCY CONTROL BUTTONS SHALL HAVE THEIR CENTERLINES 35 INCHES (890 MM) MINIMUM ABOVE THE FINISH FLOOR.

407.4.7.1.1 TYPE. CONTROL BUTTONS SHALL BE IDENTIFIED BY TACTILE CHARACTERS COMPLYING WITH 703.2.

407.4.7.1.3 SYMBOLS. THE CONTROL BUTTON FOR THE EMERGENCY STOP, ALARM, DOOR OPEN, DOOR CLOSE, MAIN ENTRY FLOOR, AND PHONE, SHALL BE IDENTIFIED WITH TACTILE SYMBOLS AS SHOWN IN TABLE 407.4.7.1.3. 407.4.7.1.5. SIZE. CHARACTERS SHALL BE 1/2 INCH (13 MM) HIGH MINIMUM.

407.4.9.2 BOTTOM LEVEL. THE VERBAL ANNUNCIATOR SHALL BE 120 dB MINIMUM ABOVE AMBIENT, BUT SHALL NOT EXCEED 80 dB, MEASURED AT THE ANNUNCIATOR.

407.4.9.4.3 FREQUENCY. THE VERBAL ANNUNCIATOR SHALL HAVE A FREQUENCY OF 300 HZ MINIMUM TO 3000 HZ MAXIMUM.

408 LIMITED-USE/LIMITED-APPLICATION ELEVATORS. 408.1 GENERAL. LIMITED-USE/LIMITED-APPLICATION ELEVATORS SHALL COMPLY WITH 408 AND WITH ASME A17.1 (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 35). THEY SHALL BE PASSENGER ELEVATORS AS CLASSIFIED BY ASME A17.1. ELEVATOR OPERATION SHALL BE AUTOMATIC.

408.2 ELEVATOR LANDINGS. LANDINGS SERVING LIMITED-USE/LIMITED-APPLICATION ELEVATORS SHALL COMPLY WITH 408.2.

408.2.1 CALL BUTTONS. ELEVATOR CALL BUTTONS AND KEYPADS SHALL COMPLY WITH 407.2.1.

408.2.2 HALL SIGNALS. HALL SIGNALS SHALL COMPLY WITH 407.2.2.

408.2.3 HOISTWAY SIGNS. SIGNS AT ELEVATOR HOISTWAYS SHALL COMPLY WITH 407.2.3.1.

408.3 ELEVATOR DOORS. ELEVATOR HOISTWAY DOORS SHALL COMPLY WITH 408.3.

408.3.1 SLIDING DOORS. SLIDING HOISTWAY AND CAR DOORS SHALL COMPLY WITH 407.3.1 THROUGH 407.3.5 AND 408.4.1.

CHAPTER 4: ACCESSIBLE ROUTES

410 PLATFORM LIFTS

410.1 GENERAL. PLATFORM LIFTS SHALL COMPLY WITH ASME A18.1 (1999 EDITION OR 2003 EDITION) (INCORPORATED BY REFERENCE, SEE "REFERENCED STANDARDS" IN CHAPTER 1).

PLATFORM LIFTS SHALL NOT BE ATTENDANT-OPERATED AND SHALL PROVIDE UNASSISTED ENTRY AND EXIT FROM THE LIFT.

VERTICAL TRANSPORTATION, BECAUSE AN ACCESSIBLE ROUTE REQUIRES AN 80 INCH (2030 MM) VERTICAL CLEARANCE, CARE SHOULD BE TAKEN IN SELECTING LIFTS AS THEY MAY NOT BE EQUALLY SUITABLE FOR USE BY PEOPLE USING WHEELCHAIRS AND PEOPLE STANDING. IF A LIFT DOES NOT PROVIDE 80 INCH (2030 MM) VERTICAL CLEARANCE, IT CANNOT BE CONSIDERED PART OF AN ACCESSIBLE ROUTE IN NEW CONSTRUCTION. THE ADA AND OTHER FEDERAL CIVIL RIGHTS LAWS REQUIRE THAT ACCESSIBLE FEATURES BE MAINTAINED IN WORKING ORDER SO THAT THEY ARE ACCESSIBLE TO AND USABLE BY THOSE PEOPLE THEY ARE INTENDED TO BENEFIT. BUILDING OWNERS ARE REMINDED THAT THE ASME A18.1 SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS REQUIRES ROUTINE MAINTENANCE AND INSPECTIONS. ISOLATED OR TEMPORARY INTERRUPTIONS IN SERVICE DUE TO MAINTENANCE OR REPAIRS MAY BE UNAVOIDABLE; HOWEVER, FAILURE TO TAKE PROMPT ACTION TO EFFECT REPAIRS COULD CONSTITUTE A VIOLATION OF FEDERAL LAWS AND THESE REQUIREMENTS.

410.2 FLOOR SURFACES. FLOOR SURFACES IN PLATFORM LIFTS SHALL COMPLY WITH 302 AND 303.

410.5 CLEAR FLOOR SPACE. CLEAR FLOOR SPACE IN PLATFORM LIFTS SHALL COMPLY WITH 305.

410.6 PLATFORM TO RUNWAY CLEARANCE. THE CLEARANCE BETWEEN THE PLATFORM SILL AND THE EDGE OF ANY RUNWAY LANDING SHALL BE 1 INCH (32 MM) MAXIMUM.

410.5 OPERABLE PARTS. CONTROLS FOR PLATFORM LIFTS SHALL COMPLY WITH 309.

410.6 DOORS AND GATES. PLATFORM LIFTS SHALL HAVE LOW-ENERGY POWER-OPERATED DOORS OR GATES COMPLYING WITH 404.3. DOORS SHALL REMAIN OPEN FOR 20 SECONDS MINIMUM. END DOORS AND GATES SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES (815 MM) MINIMUM. SIDE DOORS AND GATES SHALL PROVIDE A CLEAR WIDTH OF 42 INCHES (1065 MM) MINIMUM.

EXCEPTION: PLATFORM LIFTS SERVING TWO LANDINGS MAXIMUM, AND HAVING DOORS OR GATES ON OPPOSITE SIDES SHALL BE PERMITTED TO HAVE SELF-CLOSING MANUAL DOORS OR GATES.

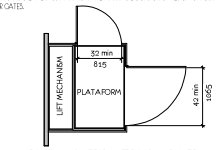


FIGURE 410.6 PLATFORM LIFT DOORS AND GATES

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

501 GENERAL. 501.1 SCOPE. THE PROVISIONS OF CHAPTER 5 SHALL APPLY WHERE REQUIRED BY CHAPTER 2 OR WHERE REFERENCED BY A REQUIREMENT IN THIS DOCUMENT.

502 PARKING SPACES. 502.1 GENERAL. CAR AND VAN PARKING SPACES SHALL COMPLY WITH 502. WHERE PARKING SPACES ARE MARKED WITH LINES, WIDTH MEASUREMENTS OF PARKING SPACES AND ACCESS AISLES SHALL BE MADE FROM THE CENTERLINE OF THE MARKINGS.

EXCEPTION: WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLE, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.

502.2 VEHICLE SPACES. CAR PARKING SPACES SHALL BE 96 INCHES (2440 MM) WIDE MINIMUM, AND VAN PARKING SPACES SHALL BE 132 INCHES (3350 MM) WIDE MINIMUM. SHALL BE MARKED TO DEFINE THE WIDTH, AND SHALL HAVE AN ADJACENT ACCESS AISLE COMPLYING WITH 502.3.

EXCEPTION: VAN PARKING SPACES SHALL BE PERMITTED TO BE 96 INCHES (2440 MM) WIDE MINIMUM WHERE THE ACCESS AISLE IS 96 INCHES (2440 MM) WIDE MINIMUM.

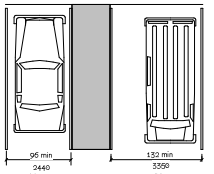


FIGURE 502.2 VEHICLE PARKING SPACES

502.3 ACCESS AISLE. ACCESS AISLES SERVING PARKING SPACES SHALL COMPLY WITH 502.3. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE. TWO PARKING SPACES SHALL BE PERMITTED TO SHARE A COMMON ACCESS AISLE.

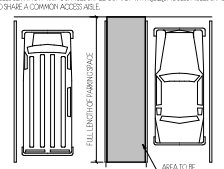


FIGURE 502.3 PARKING SPACE ACCESS AISLE

502.3.1 WIDTH. ACCESS AISLES SERVING CAR AND VAN PARKING SPACES SHALL BE 60 INCHES (1525 MM) WIDE MINIMUM.

502.3.2 LENGTH. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACES THEY SERVE.

502.3.3 MARKING. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.

502.3.4 LOCATION. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.

502.4 FLOOR OR GROUND SURFACES. PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.

502.5 VERTICAL CLEARANCE. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF 98 INCHES (2490 MM) MINIMUM.

502.6 IDENTIFICATION. PARKING SPACE IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY COMPLYING WITH 703.7.2.1. SIGNS IDENTIFYING VAN PARKING SPACES SHALL CONTAIN THE DESIGNATION "VAN ACCESSIBLE." SIGNS SHALL BE 60 INCHES (1525 MM) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN.

502.7 RELATIONSHIP TO ACCESSIBLE ROUTES. PARKING SPACES AND ACCESS AISLES SHALL BE DESIGNED SO THAT CARS AND VANS, WHEN PARKED, CANNOT OBSTRUCT THE REQUIRED CLEAR WIDTH OF ADJACENT ACCESSIBLE ROUTES.

503 PASSENGER LOADING ZONES

503.2 VEHICLE PULL-UP SPACE. PASSENGER LOADING ZONES SHALL PROVIDE A VEHICULAR PULL-UP SPACE 96 INCHES (2440 MM) WIDE MINIMUM AND 20 FEET (6100 MM) LONG MINIMUM.

503.3 ACCESS AISLE. PASSENGER LOADING ZONES SHALL PROVIDE ACCESS AISLES COMPLYING WITH 502.3. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.

503.3.1 WIDTH. ACCESS AISLES SERVING VEHICLE PULL-UP SPACES SHALL BE 60 INCHES (1525 MM) WIDE MINIMUM.

503.3.2 LENGTH. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE VEHICLE PULL-UP SPACES THEY SERVE.

503.3.3 MARKING. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.

503.4 FLOOR AND GROUND SURFACES. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.

EXCEPTION: SLOPES NOT STEEPER THAN 1:48 SHALL BE PERMITTED.

503.5 VERTICAL CLEARANCE. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 114 INCHES (2895 MM) MINIMUM.

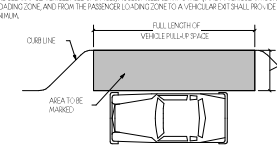


FIGURE 503.2 PASSENGER LOADING ZONE ACCESS AISLE

503.4 FLOOR AND GROUND SURFACES. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL COMPLY WITH 302. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.

503.5 VERTICAL CLEARANCE. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SHALL PROVIDE A VERTICAL CLEARANCE OF 114 INCHES (2895 MM) MINIMUM.

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/06/24	PRELIMINARY REVIEW
B	08/26/24	100% REVIEW SETS

PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
GENERAL NOTES

PROJECT:

CODE SUMMARY

PROJECT TITLE	McALLEN CLINIC
BUILDING LOCATION	McALLEN, TEXAS
PROJECT DESCRIPTION	1-STORY OFFICE BUILDING WITH OFFICES, BREAK ROOM, CONFERENCE ROOM, EXAM ROOMS, ASSEMBLY SPACES.

APPLICABLE CODES

- CITY OF ALTON, TX -CODE OF ORDINANCE
- 2021 INTERNATIONAL BUILDING CODE (IBC)
- 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
- 2021 INTERNATIONAL MECHANICAL CODE (IMC)
- 2021 INTERNATIONAL PLUMBING CODE (IPC)
- 2021 INTERNATIONAL FIRE CODE (IFC)
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2017 NATIONAL ELECTRICAL CODE
- 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ADAAG
- TEXAS DEPARTMENT OF LICENSING AND REGULATION: ARCHITECTURAL BARRIERS TEXAS ACCESSIBILITY STANDARDS (TDLR-TAS)
- ALL OTHER APPLICABLE STANDARDS

BUILDING OCCUPANCIES

PRIMARY OCCUPANCY	PER SECTION 304.1 BUSINESS GROUP B (INCLUDES MECHANICAL, ELECTRICAL, MDF AND IDF ROOMS THAT ARE USED FOR THE PROPERLY FUNCTION OF THE PRINCIPAL OCCUPANCY)
NON-SEPARATED OCCUPANCY	NONE
CONSTRUCTION TYPE	IIB

ALLOWABLE BUILDING HEIGHTS AND AREAS

TABULAR ALLOWABLE AREA	
-BUSINESS	23,000 SF (IBC TABLE 506.2)
ACTUAL AREA	
-BUSINESS	7,974 SF
TOTAL ALLOWABLE STORIES (PER 504.4)	
-BUSINESS	3
ACTUAL STORIES	1

FIRE RESISTANCE RATINGS

OCCUPANCY SEPARATION	NO SEPARATION REQUIRED (508.3)
CORRIDORS	0 HR (IBC TABLE 1020.1)
EXTERIOR WALL RATINGS	
- REQUIRED FOR FIRE SEPARATION DISTANCE	NONE (IBC TABLE 602 / TABLE 705.8)

INTERIOR FINISH RATINGS (IBC 803.13)

EXIT STAIRWAYS, RAMPS, PASSAGEWAYS	CLASS A OR B
CORRIDORS	CLASS A, B OR C
ROOMS AND ENCLOSED SPACES	CLASS A, B OR C

FIRE SAFETY SYSTEMS

AUTOMATIC SPRINKLERS	NOT REQUIRED
STANDPIPE SYSTEM	NOT REQUIRED (IBC 905.3)
OCCUPANT NOTIFICATION FIRE ALARM SYSTEM	NOT REQUIRED (IBC 907.2.2) * BUILDING WILL BE EQUIPPED WITH MANUAL FIRE ALARM SYSTEM
FIRE EXTINGUISHERS -LIMITED AREA COVERAGE	PER IBC SECTION 906.1, PROVIDED IN LOCATION DESCRIBED IN 906.1 ITEMS 2 THROUGH 6
-MINIMUM RATING 2-A	TABLE 906.3(1)
-MAXIMUM AREA PER 4A EXT: 11,250 SF	TABLE 906.3(1)
-MAXIMUM TRAVEL DISTANCE 75 FT	TABLE 906.3(1)

OCCUPANT LOAD CALCULATIONS FACTORS (IBC TABLE 1004.5)

BUSINESS	150 SF / OCCUPANT (GROSS)
BUSINESS (CONCENTRATED)	50 SF / OCCUPANT (GROSS)
ASSEMBLY (UNCONCENTRATED)	15 SF / OCCUPANT (NET)
STORAGE / MECHANICAL	300 SF / OCCUPANT (GROSS)
OCCUPANT LOAD BY CODE	159

REQUIRED EGRESS WIDTH FACTORS

LEVEL EXITS:	0.15 IN. / OCC. (IBC 1005.3.2 EXCEPTION 1)

MINIMUM CLEAR WIDTH

LEVEL EXITS:	32 IN. (IBC 1010.1.1)
CORRIDORS:	44 IN. (IBC TABLE 1020.3)

MEANS OF EGRESS CONFIGURATION

MINIMUM EXIT SEPARATION	
-1/3 DIAGONAL OF AREA SERVED	IBC 1007.1.1

MEANS OF EGRESS MARKING/ILLUMINATION

EXIT SIGNAG 3	
-CHANGES IN DIRECTION	IBC 1013.1
-ROOMS WITH 2 OR MORE EXITS	IBC 1013.1
-CORRIDOR MARKING	IBC 1013.1
SIGNAGE ILLUMINATION	INTERNAL / 90 MIN. (IBC 1013.3)
MEANS OF EGRESS ILLUMINATION	
NORMAL POWER	
-FLOOR	MIN. 1 FOOTCANDLE (IBC 1008.2.1)
EMERGENCY POWER	
-FLOOR	0.6 FOOT CANDLE AVG. / 0.06 FOOTCANDLE MIN. (IBC1008.3.5)
-DURATION	90MIN (IBC 1008.3.4)

MAX. TRAVEL DISTANCES

BUSINESS OCCUPANCY	
-COMMON PATH OF TRAVEL	100FT (IBC TABLE 1006.2.1)
-DEAD-END LIMIT	20FT (IBC 1020.5)
-TOTAL TRAVEL DISTANCE	200FT (IBC TABLE 1017.2)

PLUMBING FIXTURE COUNT (IBC TABLE 2902.1)

RESTROOM CALCULATIONS BY FLOOR	TOTAL NUMBER OF OCCUPANTS	GENDER EQUAL DISTRIBUTION	WATER CLOSETS			LAVATORIES			DRINKING FOUNTAINS	SERVICE SINK
			MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX		
TOTAL FIXTURE NEEDED (BUSINESS)	159	80	3	3		2	2		2	1
TOTAL FIXTURE PROVIDED			3	3	1	2	2	1	2	1

PARKING LOT CALCULATION (HIDALGO COUNTY PLANNING DEPARTMENT OFF-STREET PARKING REQUIREMENTS FOR VARIOUS USE)
FOUR (4) SPACES FOR UP TO FOUR HUNDRED (400) SQUARE FEET OF FLOOR AREA, PLUS ONE SPACE FOR EACH ADDITIONAL FOUR HUNDRED (400) SQUARE FEET OF FLOOR AREA UP TO FIVE THOUSAND (5,000) SQUARE FEET FOR BUILDING CONTAINING OVER FIVE THOUSAND (5,000) SQUARE FEET, A SEPARATE PARKING PLAN MUST BE SHOWN.

HEALTH CLINIC AREA	= 7,974 S.F.
PARKING REQUIRED	= 23 SPACES
PARKING PROVIDED	= 31 SPACES
ACCESSIBLE PARKING REQUIRED	= 2 SPACES
ACCESSIBLE PARKING PROVIDED	= 2 SPACES
TOTAL PARKING PROVIDED	= 31 SPACES

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: CODE SUMMARY

PROJECT:	STRUCTURAL DESING:
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DRAWING BY:	CHECKED BY:
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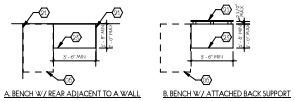
DATE: 08/26/2024	DRAWING NO:
SCALE:	AG1.2

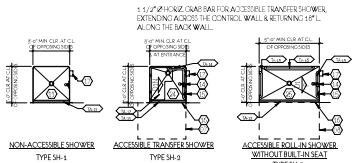
NOT USED 16

NOT USED 13

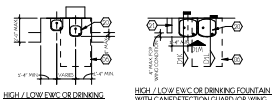


G1 TYP. FLOOR PLANS FOR ACCESSIBLE BENCHES

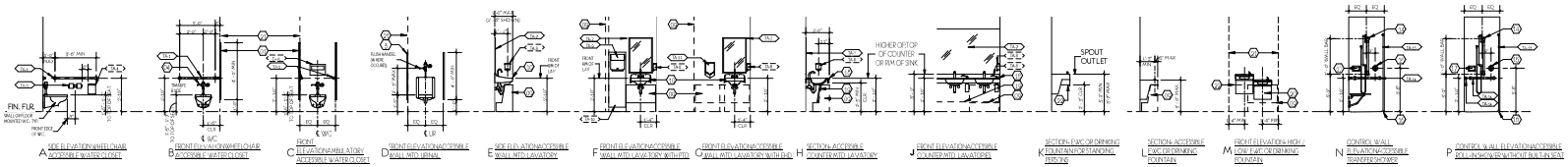
G1 TYP. FLOOR PLANS FOR ACCESSIBLE BENCHES 9



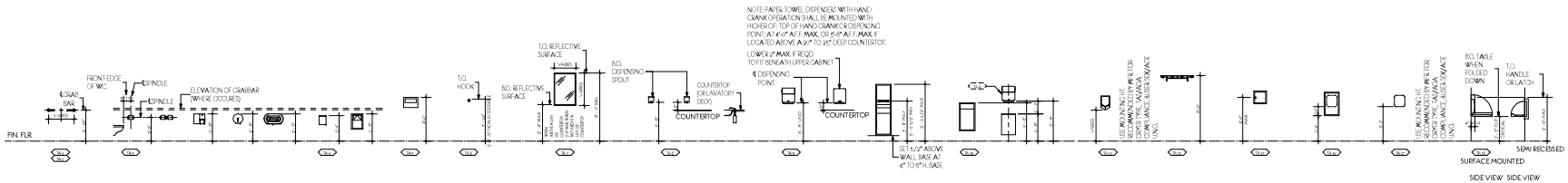
G5 TYP. FLOOR PLANS FOR SHOWERS 5



C10 TYP. EWC OR DRINKING FOUNTAIN FLOOR PLANS 1



TYP. ELEVATIONS & SECTIONS 2

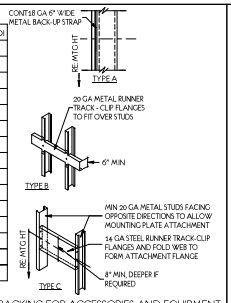


TYP. TOILET ACCESSORY MOUNTING HEIGHTS 3

TOILET ACCESSORY LIST

DESCRIPTION	MFG	MODEL No.	CPCI	OPCI	OPOI
TA1 36" X 1 1/2" Ø HORIZ. GRAB BAR	BOBRICK	B-6806.99 X 36	■		
TA2 42" x Ø HORIZ. GRAB BAR	BOBRICK	B-6806.99 X 42	■		
TA3 TOILET TISSUE DISPENSER		CONTRACTOR TO COORDINATE WITH OWNER		■	
TA4 SANITARY NAPKIN DISPOSAL-PROVIDE AT WOMENS, FAMILY, &UNISEX TOILETS ONLY	BOBRICK	B-270	■		
TA5 SURFACE-MOUNTED TOILET SEAT COVER DISPENSER	BOBRICK	B-4221	■		
TA6 COAT HOOK (INSTALLED AT ALL TOILET PARTITIONS)	BOBRICK	B-233	■		
TA7 TEMPERED GLASS CHANNEL FRAME 24"X36" STAINLESS STEEL	BOBRICK	B-1658 2436	■		
TA8 SOAP DISPENSER		CONTRACTOR TO COORDINATE WITH OWNER		■	
TA9 MANUAL ROLL TOWEL DISPENSER		CONTRACTOR TO COORDINATE WITH OWNER		■	
TA10 MOP & BROOM HOLDER WITH SHELF & RAG HOOKS.	BOBRICK	B-225 x 36	■		
TA11 RECESSED SPECIMEN PASS-THRU CABINET. STAINLESS STEEL	BOBRICK	B-30517	■		
TA12 HAND DRYER RECESS KIT. BRUSHED STAINLESS STEEL	XLERATOR	40502	■		
TA13 HAND DRYER. BRUSHED STAINLESS STEEL	XLERATOR	XL-SB	■		
TA14 CHANGING STATION	BRADLEY	962	■		
TA15 TOILET PARTITIONS	BRADLEY	ELRO PARTITION FLOAT SERIES	■		

THE FOLLOWING LIST IS GENERIC. REFER TO PROJECT-SPECIFIC TOILET ACCESSORY SCHEDULE FOR ACTUAL PRODUCTS. SOME ACCESSORIES LISTED MAY NOT BE IN PROJECT SCOPE. PROVIDE ACCESSORIES WITH DASHED ID TAGS ON PLANS & ELEVATIONS ON THIS SHEET ONLY IF INDICATED IN PROJECT-SPECIFIC DRAWINGS OR SPECS.



METAL BACKING FOR ACCESSORIES AND EQUIPMENT

TOILET ACCESSORY LIST 15

GENERAL NOTES

1. GUIDELINES HAVE BEEN DESIGNED WITH THE INTENT TO COMPLY WITH ALL CURRENT 2012 TEXAS ACCESSIBILITY STANDARDS & 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN. INSTALLED ACCESSORIES, FIXTURES & EQUIPMENT SHALL COMPLY WITH TAS/ADA REQUIREMENTS AS REQD.
2. DIMENSIONS NOTED AS CLEAR (CLR) ARE FROM FACE OF FINISHED WALL/PARTITION SURFACE, DOOR JAMB, &/OR CENTERLINE OF FIXTURE/ACCESSORY U.N.O.
3. DIMENSIONS SHOWN ARE FOR ADULTS AND CHILDREN ABOVE 12 YEARS OF AGE SPACES THAT ARE PRIMARILY DESIGNED FOR CHILDREN 12 YEARS OF AGE OR YOUNGER REQUIRE DIFFERENT DIMENSIONS- REF. TAS/ADA SECTION 604.9, ADVISORY 308.1, ETC. AS REQD.
4. REFER TO PROJECT-SPECIFIC DRAWINGS FOR ACTUAL LAYOUT OF COMPARTMENTS AND ROOMS. MINIMUM, MAXIMUM, & CLEAR DIMENSIONS SHALL BE MAINTAINED AS INDICATED ON THIS SHEET. LAYOUTS MAY BE OPPOSITE HAND.
5. REFER TO PLUMBING, MECHANICAL, & ELECTRICAL FOR ADDITIONAL INFORMATION.
6. 2'-6" (OR 5'-0") X 4'-0" MIN. CLEAR FLOOR SPACE FOR ACCESSIBLE PLUMBING FIXTURES SHALL BE ORIENTED FOR FORWARD APPROACH U.N.O., & SHALL INCLUDE ACCESSIBLE KNEE & TOE CLEARANCE MIN. CLEAR FLOOR SPACE SHALL BE CENTERED ON PLUMBING FIXTURE.
7. EXPOSED WATER SUPPLY & DRAIN PIPING UNDER ACCESSIBLE LAVATORIES OR SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES OR SINKS.
8. VERIFY & COMPLY WITH MFR'S RECOMMENDED MINIMUM CLEARANCES REQUIRED FOR ACCESSORY & EQUIPMENT MAINTENANCE & DISPENSER REFILLING PROCEDURES.
9. NOT ALL KEYED NOTES ARE REFERENCED ON THIS SHEET
10. ACCESSIBLE TOILET COMPARTMENT DOORS SHALL BE SELF-CLOSING, & AN ACCESSIBLE DOOR PULL HANDLE BY TOILET PARTN. MFR. SHALL BE MOUNTED ON BOTH SIDES OF DOOR.
11. COAT HOOK BY TOILET PARTN. MFR., MOUNTED WITH TOP AT 4'-0" A.F.F. & CENTERED ON PUSH SIDE OF DOOR. AT ADJACENT PERPENDICULAR WALL WHERE OCCURS, PROVIDE DOOR STOP AS REQD. BY TOILET PARTN. MFR. ON PULL SIDE OF DOOR (NOT SHOWN).

GENERAL NOTES 12

KEYED NOTES

(1) TOILET PARTITION WITH 1" NOM. THICKNESS.
(2) URINAL SCREEN (OR FINISHED WALL SURFACE WHERE OCCURS).
(3) ADJACENT COMPARTMENT WHERE OCCURS.
(4) ORIENT HAND-OPERATED FLUSH HANDLE (WHERE OCCURS) TO TRANSFER SIDE OF WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS & ROOMS.
(5) COAT HOOK / DOOR BUMPER BY TOILET PARTN. MFR.
(6) 2'-6" X 4'-0" MIN. CLEAR FLOOR SPACE.
(7) 3'-0" X 4'-0" MIN. CLEAR FLOOR SPACE.
(8) 3'-0" X 5'-0" MIN. CLEAR FLOOR SPACE.
(9) 2'-8" W." MIN. X 2'-2" H. MIN. KNEE CLEARANCE & 2'-6" W." MIN. X 6" D. MAX. X 9" H. MIN. TOE CLEARANCE.
(10) WHEELCHAIR ACCESSIBLE WALL MOUNTED LAVATORY: 20 1/2" W. X 18 1/4" FRONT TO BACK NOMINAL DIMENSIONS, PROVIDE MOLDED VINYL PIPING PROTECTION FOR EXPOSED WASTE & SUPPLY PIPING.
(11) PREFABRICATED SHOWER UNIT OR FIELD-BUILT SHOWER WITH PREFABRICATED SHOWER PAN, FIXED SHOWER HEAD, 4' MAX. HT. THRESHOLD, & CENTER DRAIN LOCATION U.N.O. CENTER SHOWER HEAD & CONTROLS ON CONTROL WALL.
(12) TRANSFER TYPE PREFABRICATED SHOWER UNIT OR FIELD-BUILT SHOWER WITH CENTER REAR DRAIN, 2'-6" X 5'-0" CLEAR SIZE AS NOTED IS CRITICAL, 3'-0" X 4'-0" MIN. CLEAR FLOOR SPACE ADJACENT TO SHOWER SHALL EXTEND 1'-0" PAST SEAT WALL AS SHOWN & MAY NOT BE FLIPPED.
(13) ROLL-IN TYPE PREFABRICATED SHOWER UNIT OR FIELD-BUILT SHOWER WITH CENTER DRAIN & WITHOUT BUILT-IN SEAT.
(14) SLIDING HAND HELD SHOWER ASSEMBLY WITH REMOVABLE SPRAY HEAD, 1 1/2"Ø X 5'-0" L. VERT. W ALL BAR & 70"± FLEXIBLE HOSE. WALL BAR SHALL BE DUAL PURPOSE GRAB BAR & SLIDE BAR. BASIS OF DESIGN- DELTA # 55005-UF.
(15) SHOWER CONTROL / MIXING VALVE.
(16) 1/2" H. THRESHOLD WITH 1:2 BEVELED EXPOSED EDGE(S) OR APPROVED TAS/ADA COMPLIANT EQUIVALENT.
(17) AT PREFABRICATED SHOWER UNIT, PROVIDE MOLDED SOAP LEDGE IN CORNER AT 3'-8" A.F.F. MAX. AT FIELD-BUILT SHOWER, PROVIDE WALL MOUNTED RECESSED SOAP DISH 'SPDH' AS SCHEDULED 4" CLR. FROM CORNER ON CONTROL WALL.
(18) COUNTERTOP W/ 4" H. INTEGRAL BACKSPLASH & INTEGRAL SINK U.N.O. PROVIDE PIPING PROTECTION FOR ALL SINKS WHETHER ACCESSIBLE OR NOT. MOLDED VINYL PIPING PROTECTION IS NOT REQUIRED WHERE PIPING IS CONCEALED BEHIND A REMOVABLE PANEL.
(19) SLOPED REMOVABLE PANEL(S) FOR PIPING PROTECTION WHERE INDICATED ON PROJECT SPECIFIC DRAWINGS.
(20) WALL-MOUNTED HIGH / LOW ELECTRIC WATER COOLER OR DRINKING FOUNTAIN.
(21) ADJACENT SIDE WALL OR WING WALL WHERE OCCURS.
(22) WHERE REQD. FOR TAS/ADA COMPLIANCE, PROVIDE ARRON BY EWC MFR. (OR APPROVED EQUIVALENT) FOR CANE DETECTION OF PROTRUDING OBJECT.
(23) ACCESSIBLE BENCH SEATING FOR HOLDING CELLS, DRESSING, FITTING, LOCKER, SAUNA, & STEAM ROOMS. TOP OF SEATING SURFACE SHALL BE 1'-5" MIN. A.F.F. TO 1'-7" MAX. A.F.F. BENCH SHALL BE SUPPORTED BY MIN. OF (3) WALL BRACKETS OR (4) FLOOR PEDESTALS, EACH CABLE OF SUPPORTING 250 LB. MIN. HORIZONTAL OR VERTICAL FORCE. WHERE INSTALLED IN WET AREAS, SEATING SURFACE SHALL BE SLIP RESISTANT & SHALL NOT ACCUMULATE WATER.
(24) BACK SUPPORT ATTACHED TO BENCH & EXTENDING FROM 2" MAX. ABOVE SEATING SURFACE TO 1'-6" MIN. ABOVE SEATING SURFACE.

KEYED NOTES 4

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: TYPICAL TOILET AND ACCESSORY

PROJECT: ---------

STRUCTURAL DESIGNG: ---------

DRAWING BY: ---------

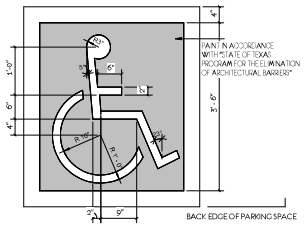
CHECKED BY: ---------

DATE: 08/26/2024

DRAWING NO: AG1.3

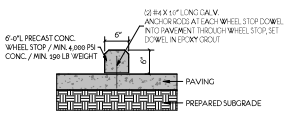
SCALE: 1" = 1'-0"

NOT USED 16

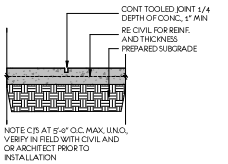


ALL PAVEMENT MARKING STENCILS SHALL BE CENTERED IN PARKING SPACE AND ALIGNED WITH THE END OF THE PARKING STRIPING. NO PAVEMENT MARKING SHOULD EXTEND INTO DRIVE LANES

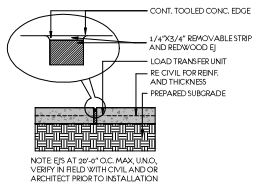
TYP. PAINTED ADA PARKING 12



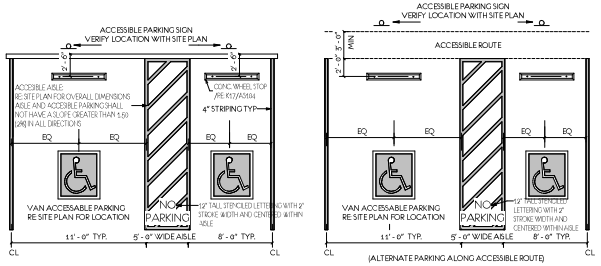
CONCRETE WHEEL STOP 8



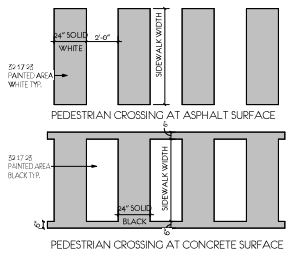
CONCRETE WALK E.J. 5



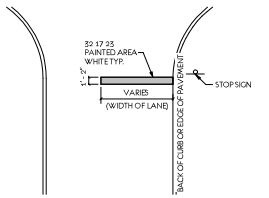
CONCRETE WALK E.J. 1



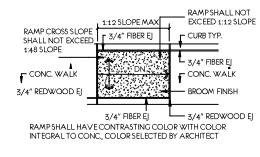
TYP. ADA PARKING 13



CROSS WALK STRIPING 9

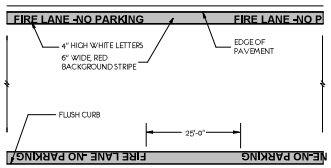


WHITE SINGLE STOP LINE 6

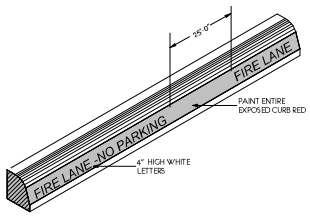


ACCESSIBLE CURB RAMP PLAN 2

NOTES:
1. ALL REQUIRED FIRE LANES SHALL BE PROVIDED AND MAINTAINED WITH FIRE LANE STRIPING THAT CONSIST OF A SIX INCH (6") WIDE RED BACKGROUND STRIPE WITH FOUR INCH (4") HIGH WHITE LETTERS STATING "FIRE LANE NO PARKING" TO BE PAINTED UPON THE RED STRIPE EVERY TWENTY FIVE FEET (25') ALONG THE ENTIRE LENGTH OF THE FIRE LANE SHOWING THE EXACT BOUNDARY OF THE FIRE LANE. FIRE LANE MARKINGS SHALL BE UPON THE VERTICAL SURFACE OF THE CURB, UNLESS OTHERWISE APPROVED BY THE FIRE CHIEF OR AUTHORIZED REPRESENTATIVE.
2. ALL DESIGNATED FIRE LANES SHALL BE MAINTAINED AND KEPT IN A STATE OF GOOD REPAIR AT ALL TIMES BY THE OWNER OR PERSON IN CONTROL OF THE PREMISES

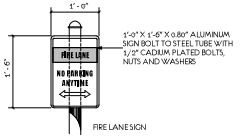


FIRE LANE STRIPING ON PAVEMENT

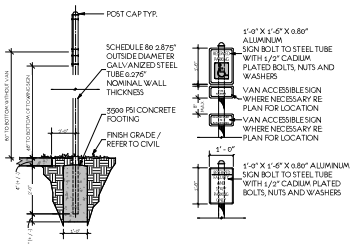


FIRE LANE STRIPING ON CURB FACE

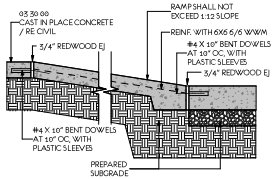
NOTES:
SIGNS SHALL READ "NO PARKING FIRE LANE" OR "FIRE LANE NO PARKING AND SHALL BE 12" WIDE AND 18" HIGH. SIGNS SHALL BE PAINTED ON A WHITE BACKGROUND WITH LETTERS AND BORDERS IN RED, USING NOT LESS THAT 2" LETTERING. SIGN SHALL BE PERMANENTLY AFFIXED TO A STATIONARY POST AND THE BOTTOM OF THE SIGN SHALL BE SIX FEET SIX INCHES (6'-6") ABOVE FINISHED GRADE. SIGN SHALL BE SPACED NOT MORE THAN FIFTY FEET (50') APART ALONG BOTH SIDES OF THE FIRE LANE. SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALLS AS APPROVED BY THE FIRE CHIEF.



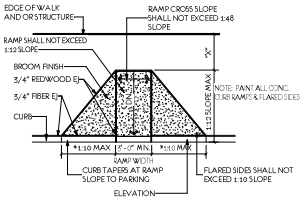
FIRE LANE 15



WALK AT EDGE 10



ACCESSIBLE CURB RAMP SECTION 7



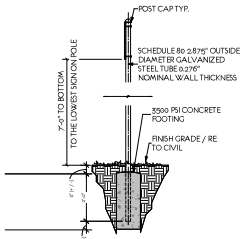
ACCESSIBLE CURB RAMP 3

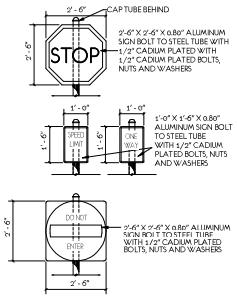
STOP SIGN DETAIL
1. 30" FLAT ALUMINUM, WITH A 0.080 THICKNESS
2. BACKGROUND TO BE HI-INTENSITY PRISMATIC GRADE SHEETING (WHITE)
3. LEGEND TO BE ELECTRO CUT TE FILM (SC FILM/RED) OR SCREENED TRANSPARENT COLOR (RED)
4. SIGN TO BE SHEETED WITH A PROTECTIVE ANTIGRAFFITI OVERLAY FILM

WARNING SIGN DETAIL
1. WARNING SIGNS TO BE A 30" DIAMOND FLAT ALUMINUM RECTANGLE, WITH A 0.080 THICKNESS, ADVISORY PLAQUES TO BE 18" X 24", WITH A 0.080 THICKNESS
2. BACKGROUND TO BE FLUORESCENT DIAMOND GRADE SHEETING (YELLOW)
3. LEGEND TO BE COMMERCIAL GRADE SHEETING (BLACK)

SPEED LIMIT SIGN DETAIL
1. 30" X 24" FLAT ALUMINUM, WITH A 0.080 THICKNESS
2. BACKGROUND TO BE HI-INTENSITY PRISMATIC GRADE SHEETING (WHITE)
3. LEGEND TO BE COMMERCIAL GRADE SHEETING (BLACK)
4. SIGN TO BE SHEETED WITH A PROTECTIVE ANTIGRAFFITI OVERLAY FILM

* ALL MATERIALS TO BE NEW AND FREE FROM DEFECTS
* SIGN LEGEND IDS SHALL MEET TMUTCD STANDARDS
* ADVISORY SPEEDS TO BE BASED ON INCLINOMETER TEST AND APPROVED BY THE TRAFFIC OPERATIONS STAFF PRIOR TO INSTATION
* SHEETING GRADE TO CONFORM WITH ASTM D 4956-01





TRAFFIC SIGN 4

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

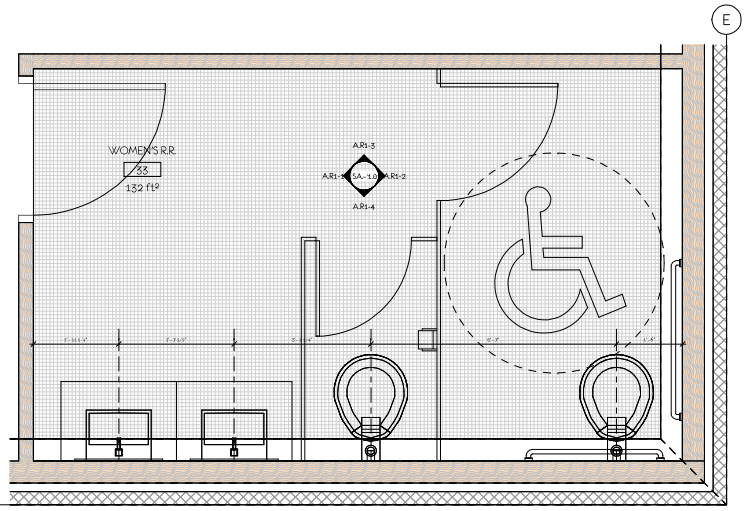
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

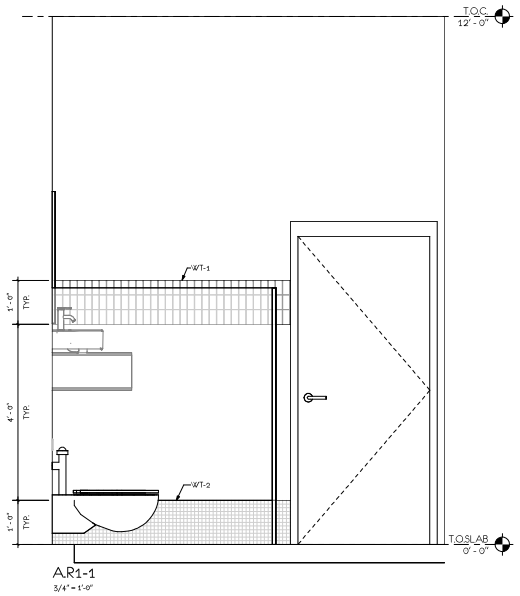
PLAN: SITE PLAN DETAILS

PROJECT: ---------	STRUCTURAL DESIGNO: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE: 08/26/2024	DRAWING NO: AG1.4
SCALE: 1" = 1'-0"	



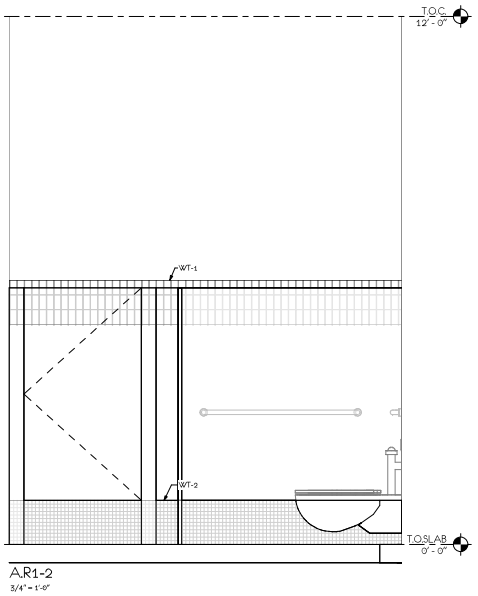
A.R-1 RESTROOM 1

3/4" = 1'-0"



A.R1-1

3/4" = 1'-0"



A.R1-2

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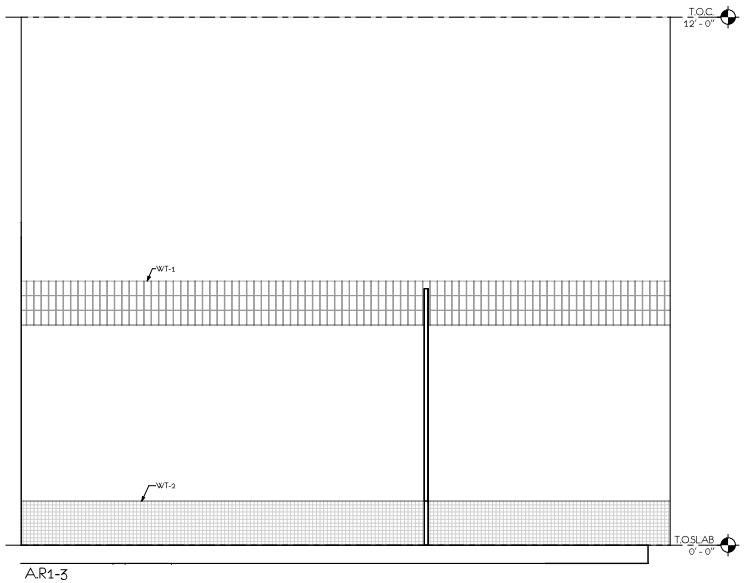
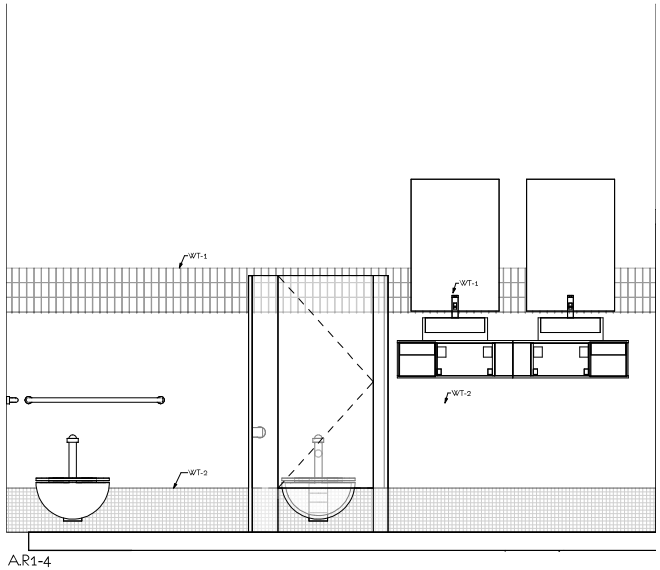


A.R1-3

3/4" = 1'-0"



A.R1-4

3/4" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

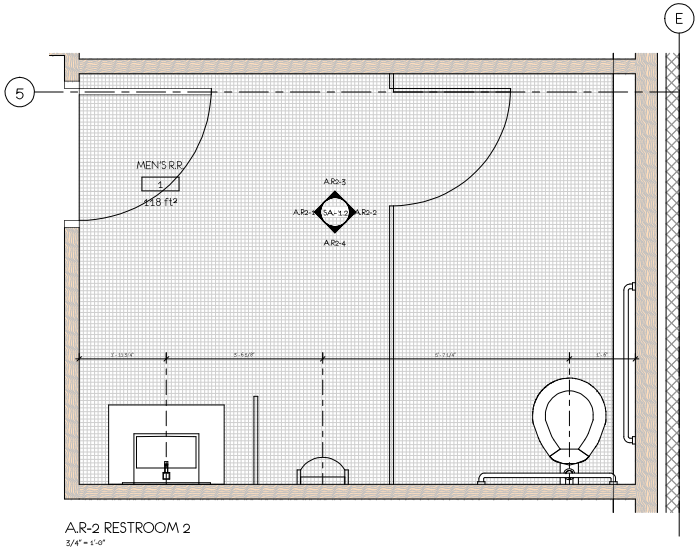
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: RESTROOM FLOOR & ELEVATIONS

PROJECT:	STRUCTURAL DESING:
---------	---------
DRAWING BY:	CHECKED BY:
---------	---------
DATE: 08/26/2024	DRAWING NO:
SCALE: 3/4" = 1'-0"	SA.R1.0



A.R-2 RESTROOM 2

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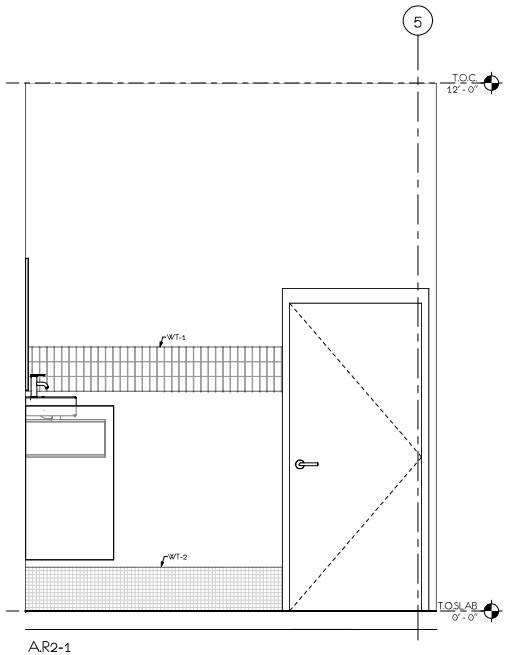

A.R2-1

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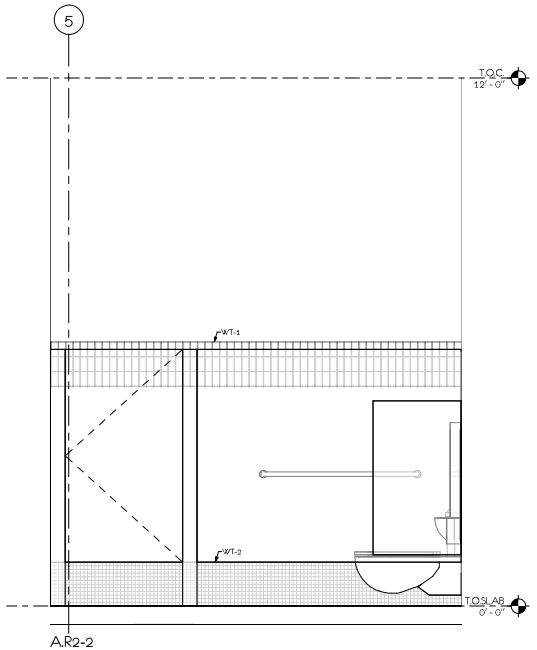
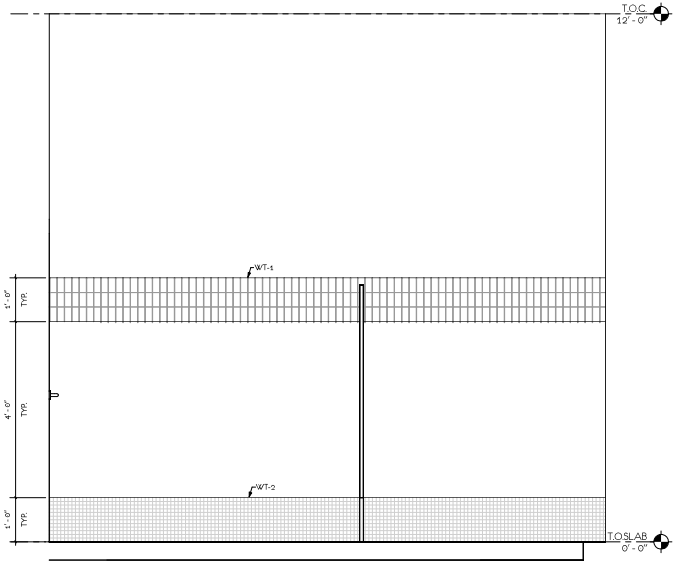


A.R2-2

3/4" = 1'-0"



A.R2-3

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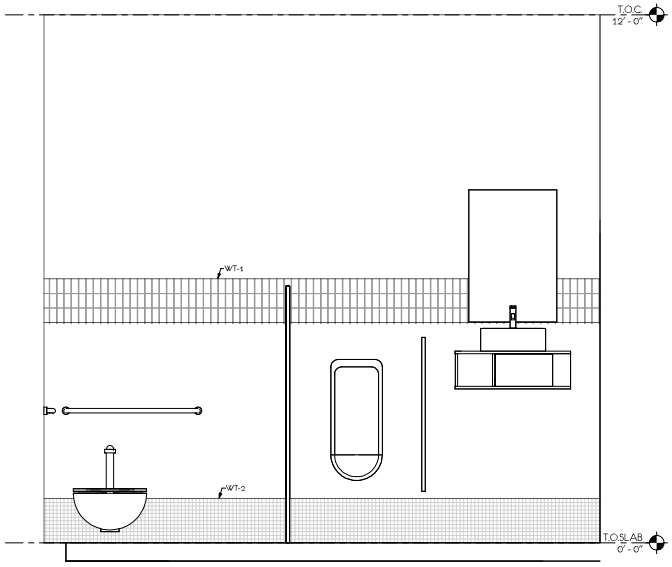

A.R2-4

3/4" = 1'-0"

O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

FIRM REGISTRATION NO. 20913

PRELIMINARY - NOT FOR CONSTRUCTION

NOTE

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

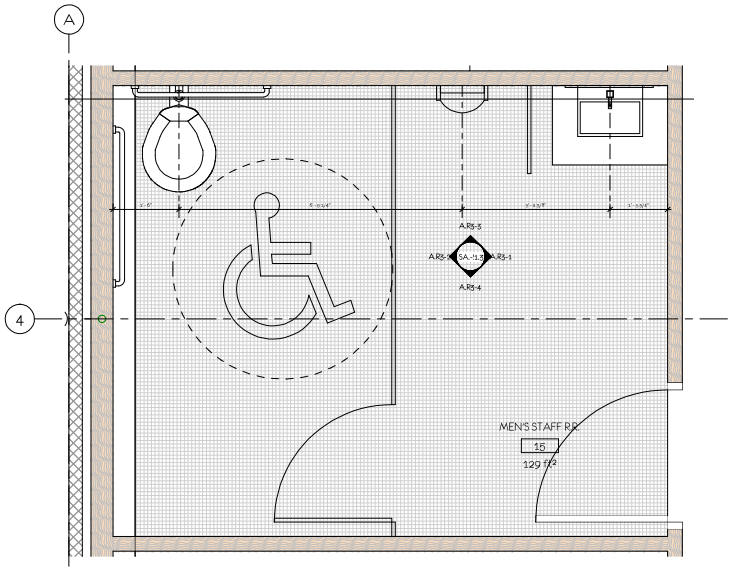
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: RESTROOM FLOOR & ELEVATIONS 1

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO:
SCALE: 3/4" = 1'-0"	SA.R1.2



A.R-3 RESTROOM 3

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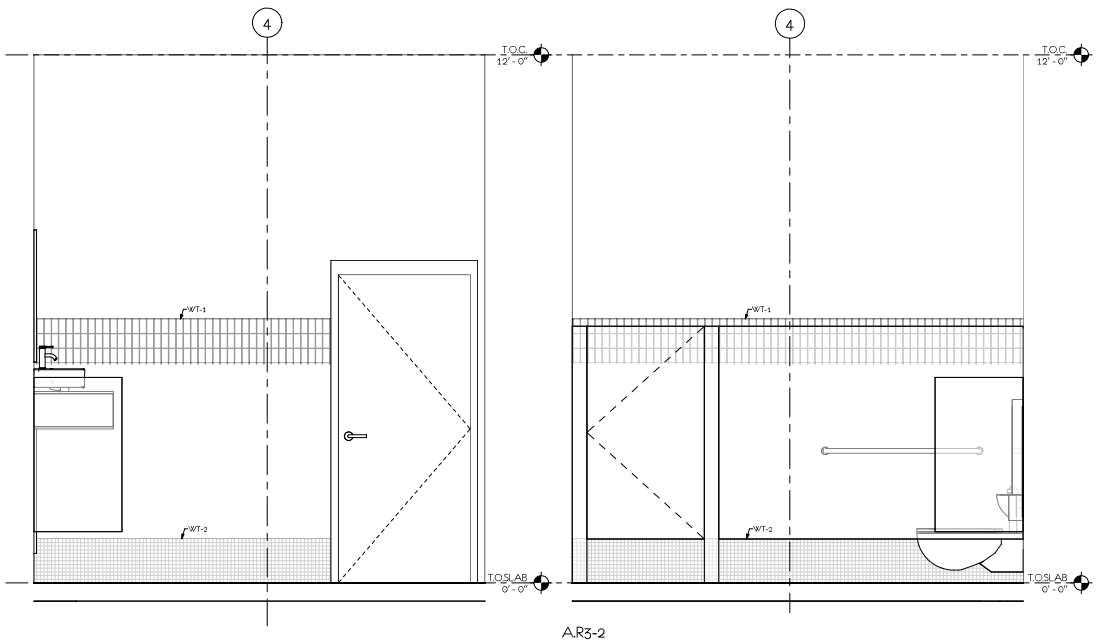
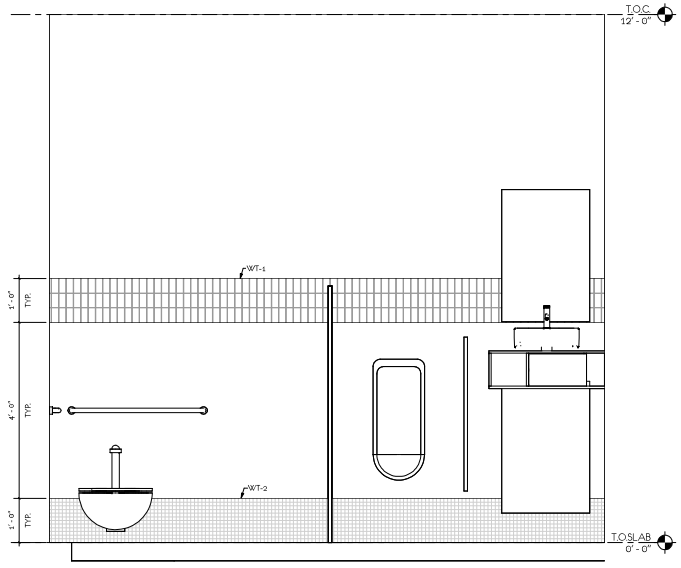


A.R3-1

3/4" = 1'-0"

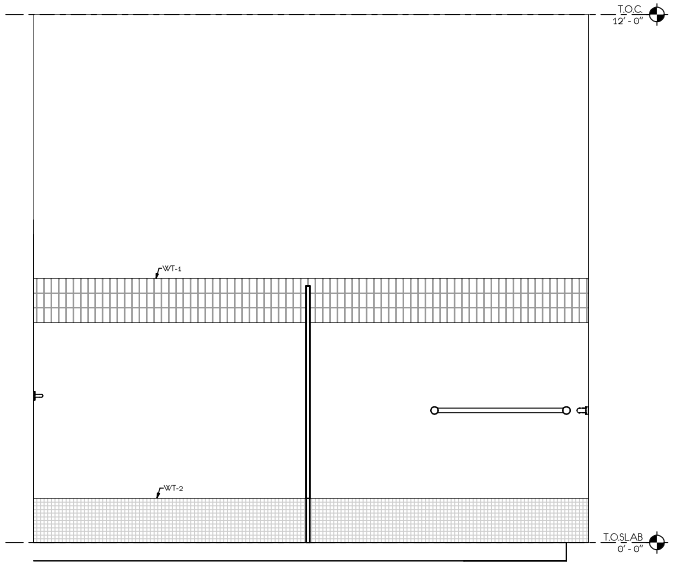
A.R3-2

3/4" = 1'-0"



A.R3-3

3/4" = 1'-0"



A.R3-4

3/4" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/16/24	80% REVIEW SETS

PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
RESTROOM FLOOR & ELEVATIONS 2

PROJECT:	STRUCTURAL DESING:
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DRAWING BY:	CHECKED BY:
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DATE: 08/26/2024	DRAWING NO: SA.R1.3
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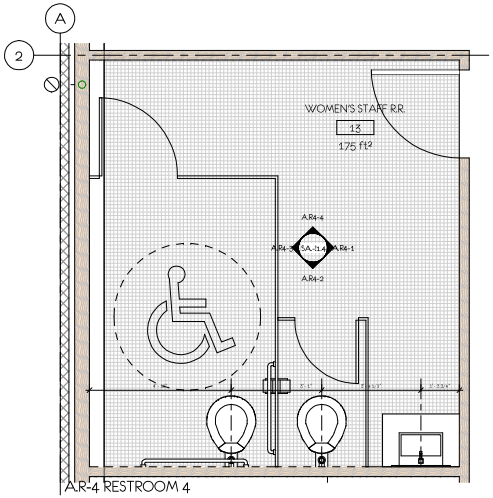

A.R-4 RESTROOM 4

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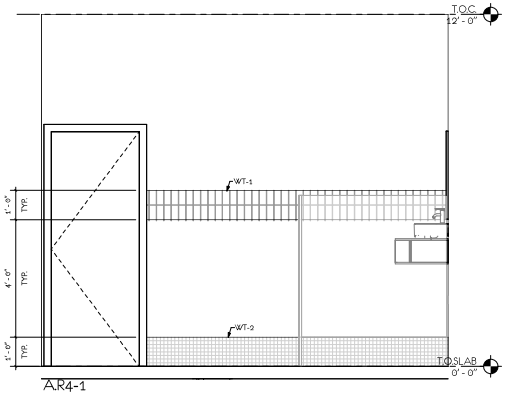
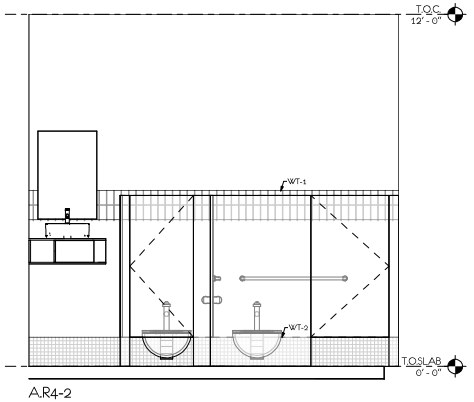


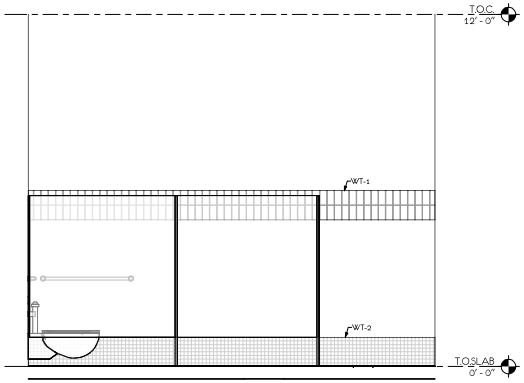
A.R4-1

1/2" = 1'-0"



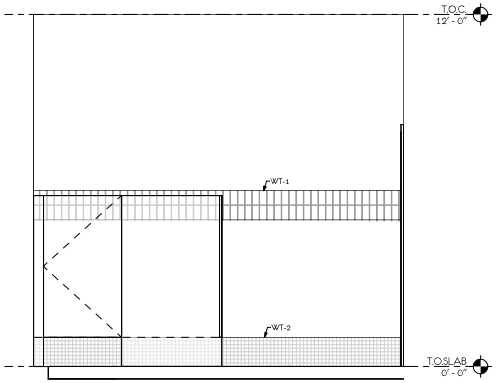
A.R4-2

1/2" = 1'-0"



A.R4-3

1/2" = 1'-0"



A.R4-4

1/2" = 1'-0"

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503
FIRM REGISTRATION NO. 20913

PRELIMINARY - NOT FOR CONSTRUCTION

NOTE

NOTE: THIS DRAWING AND IT INFORMATION CONTAINED HERE IN ARE PROPERTY OF OIM ENGINEERING PLLC STRUCTURAL DESIGN , THEY MAY NOT BE REUSED, REPRODUCED OR ALTERED IN ANY WAY BY ANY MEANS WITHOUT APPROVAL AND WRITTEN AUTHORIZATION OF OIM ENGINEERING PLLC STRUCTURAL DESIGN.

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

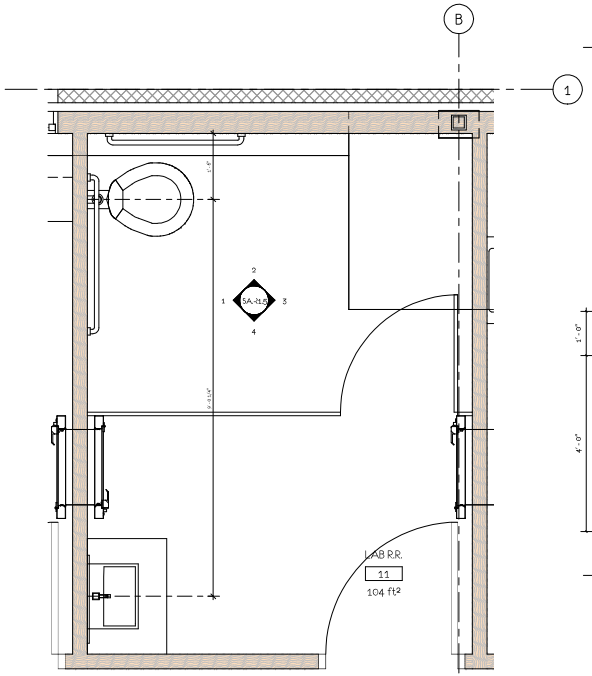
OWNER: ----------

PLAN: RESTROOM FLOOR & ELEVATIONS 3

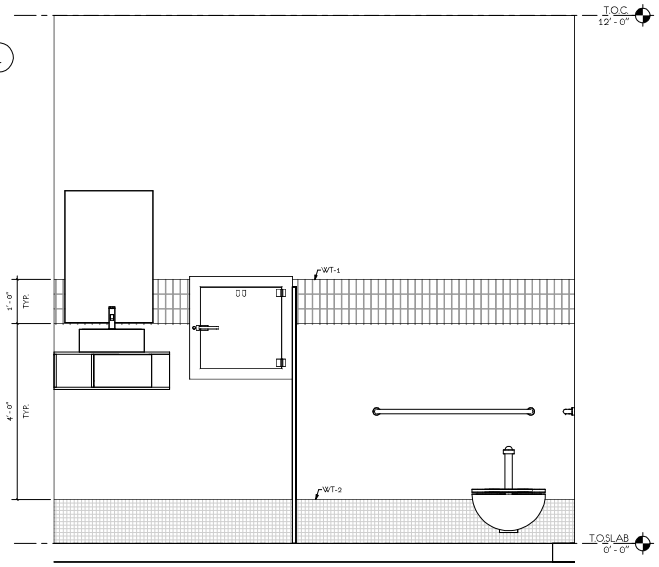
PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO:

SCALE: 1/2" = 1'-0"

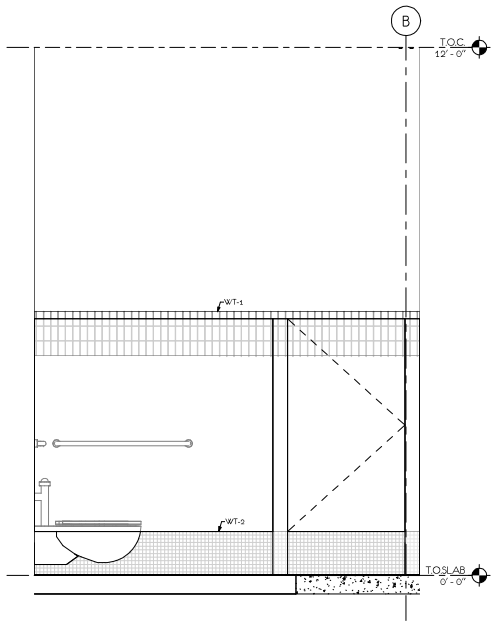
SA.R1.4



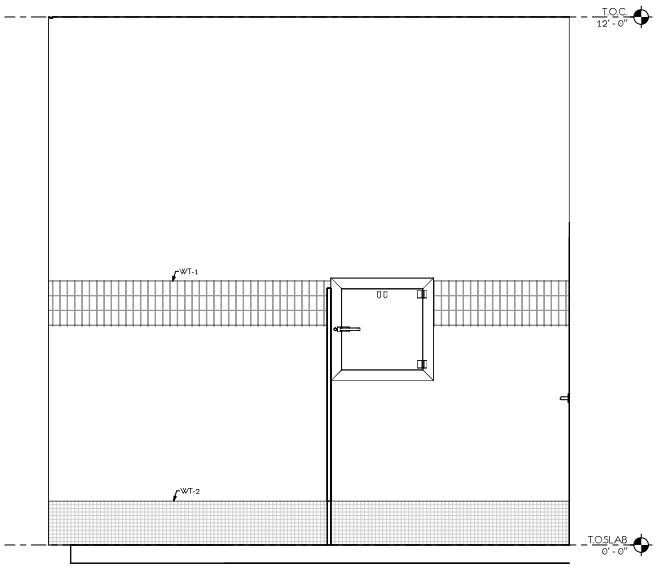
A.R-5 RESTROOM 5
3/4" = 1'-0"



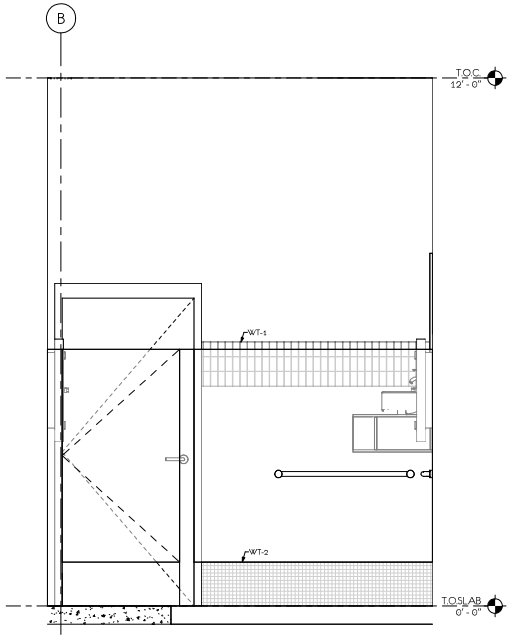
A.R5-1
3/4" = 1'-0"



A.R5-2
3/4" = 1'-0"



A.R5-3
3/4" = 1'-0"



A.R5-4
3/4" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

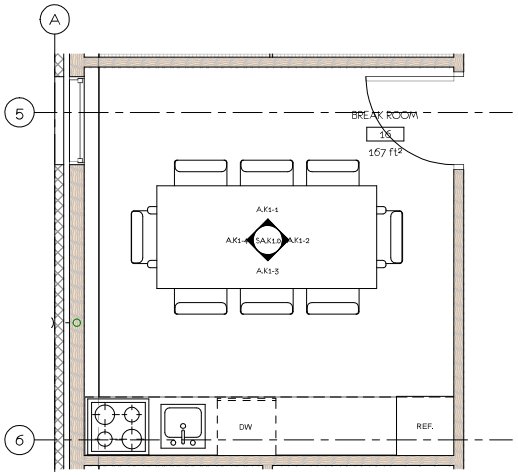
PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

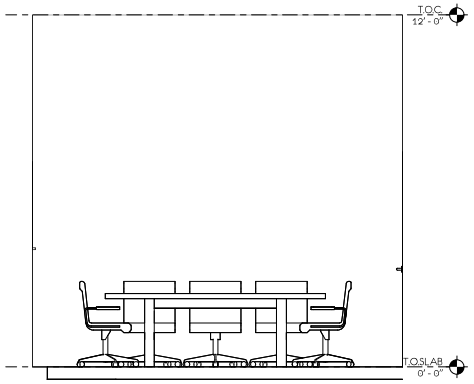
OWNER:

PLAN:
RESTROOM FLOOR & ELEVATIONS 4

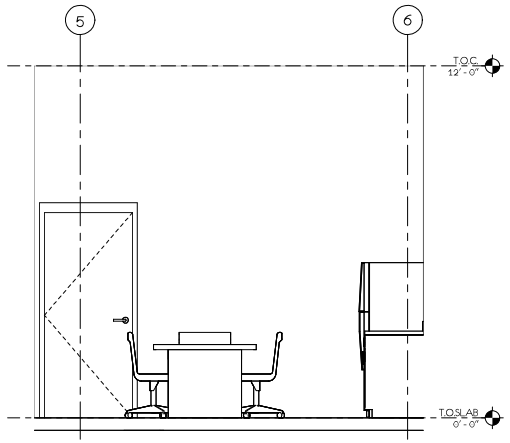
PROJECT:	STRUCTURAL DESING:
---	---
DRAWING BY:	CHECKED BY:
---	---
DATE: 08/26/2024	DRAWING NO:
SCALE: 3/4" = 1'-0"	SA.R1.5



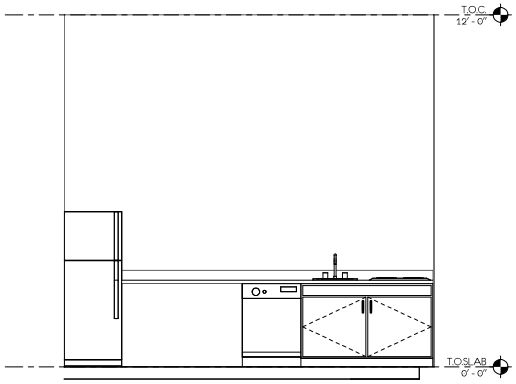
A.K-1 KITCHEN
1/2" = 1'-0"



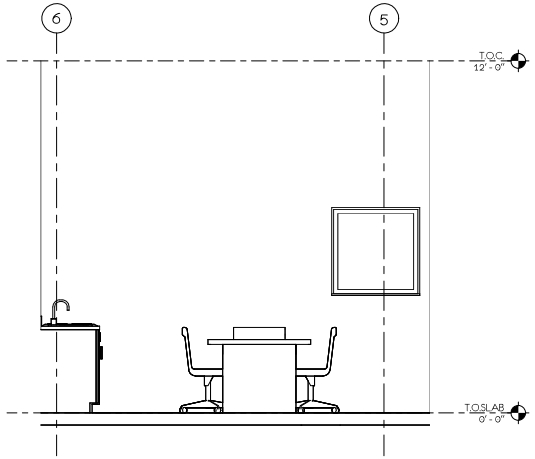
A.K1-1
1/2" = 1'-0"



A.K1-2
1/2" = 1'-0"



A.K1-3
1/2" = 1'-0"



A.K1-4
1/2" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

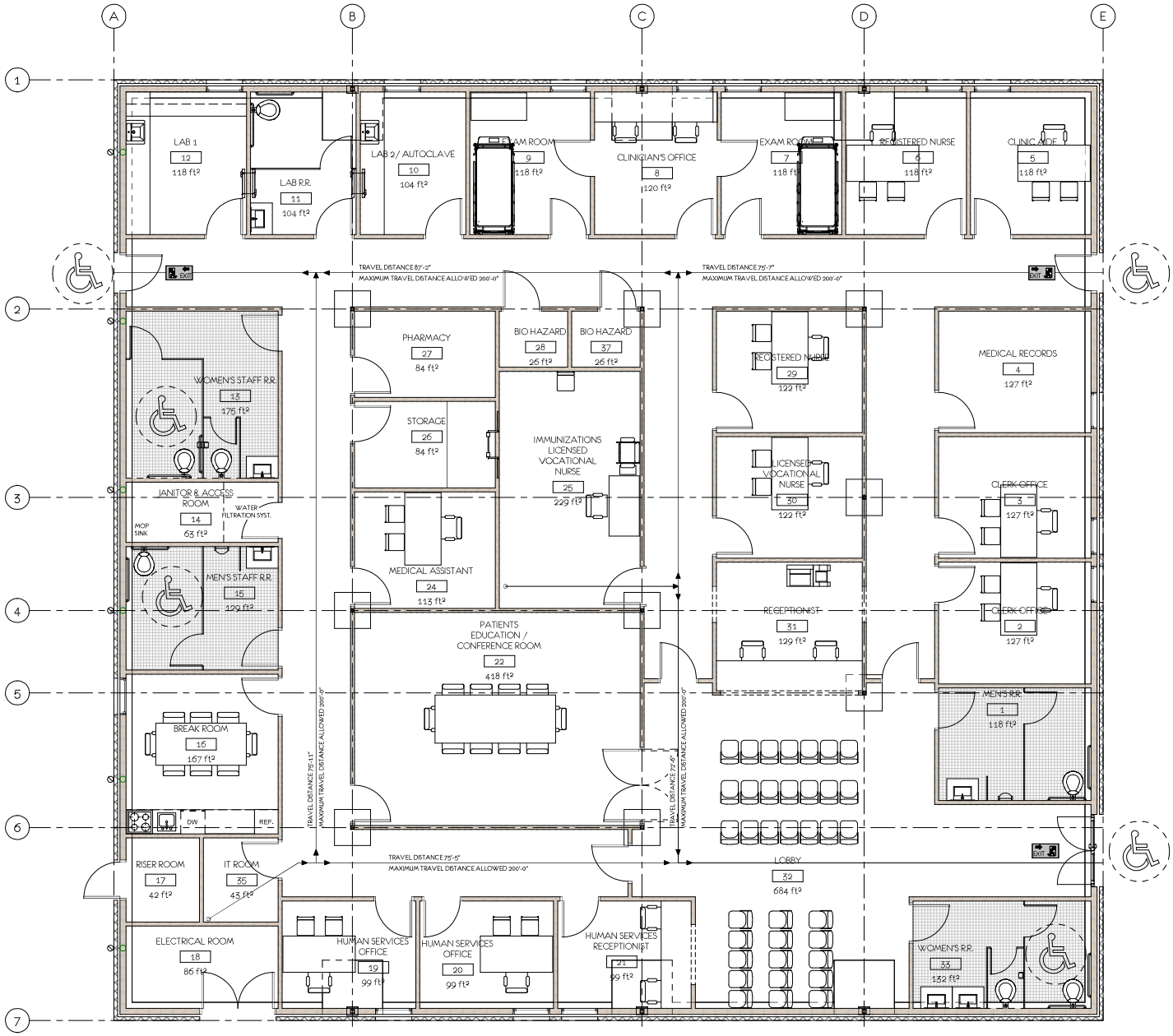
PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
KITCHEN FLOOR & ELEVATIONS

PROJECT:	STRUCTURAL DESING:
---	---
DRAWING BY:	CHECKED BY:
---	---
DATE: 08/26/2024	DRAWING NO: SA.K1.0
SCALE: 1/2" = 1'-0"	



B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/16/24	80% REVIEW SETS

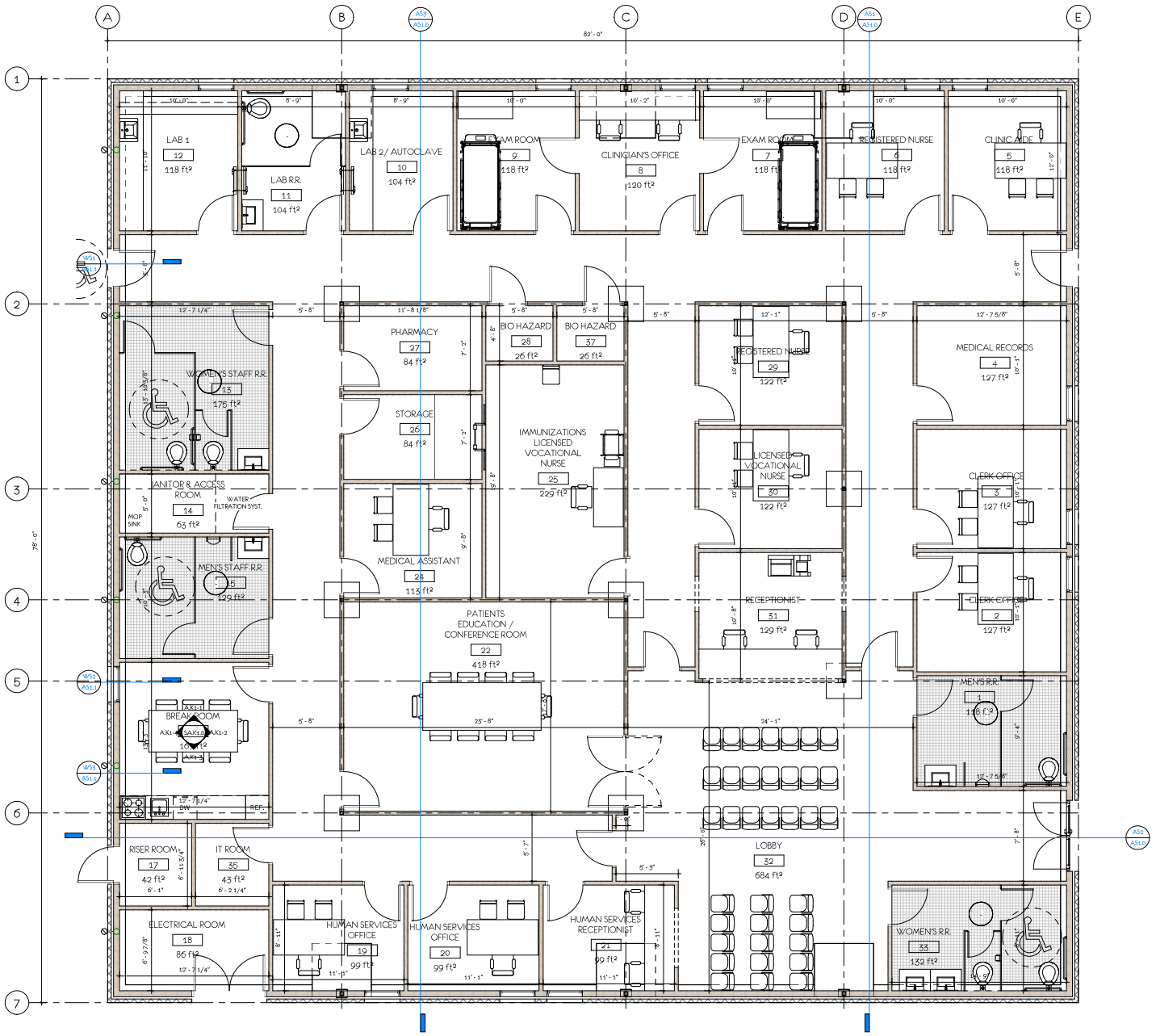
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: LIFE SAFETY PLAN

PROJECT:	STRUCTURAL DESING:
---------	---------
DRAWING BY:	CHECKED BY:
---------	---------
DATE: 08/26/2024	DRAWING NO: A1.0
SCALE: 1/4" = 1'-0"	



FLOOR PLAN

1/4" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW		
REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

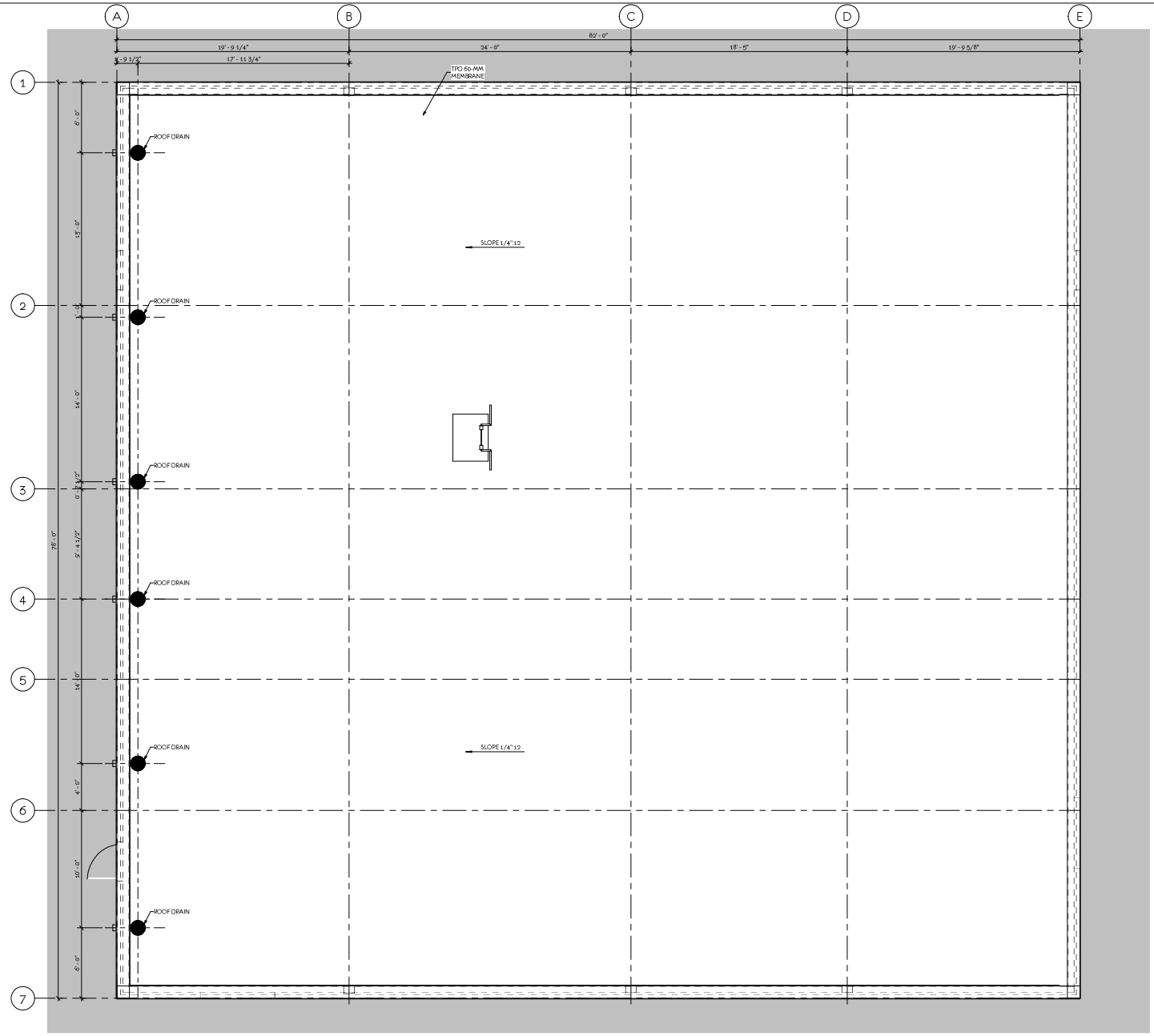
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: FLOOR PLAN

PROJECT:	STRUCTURAL DESING:
---------	---------
DRAWING BY:	CHECKED BY:
---------	---------
DATE: 08/26/2024	DRAWING NO: A1.1
SCALE: 1/4" = 1'-0"	



ARCH ROOF PLAN

1/4" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

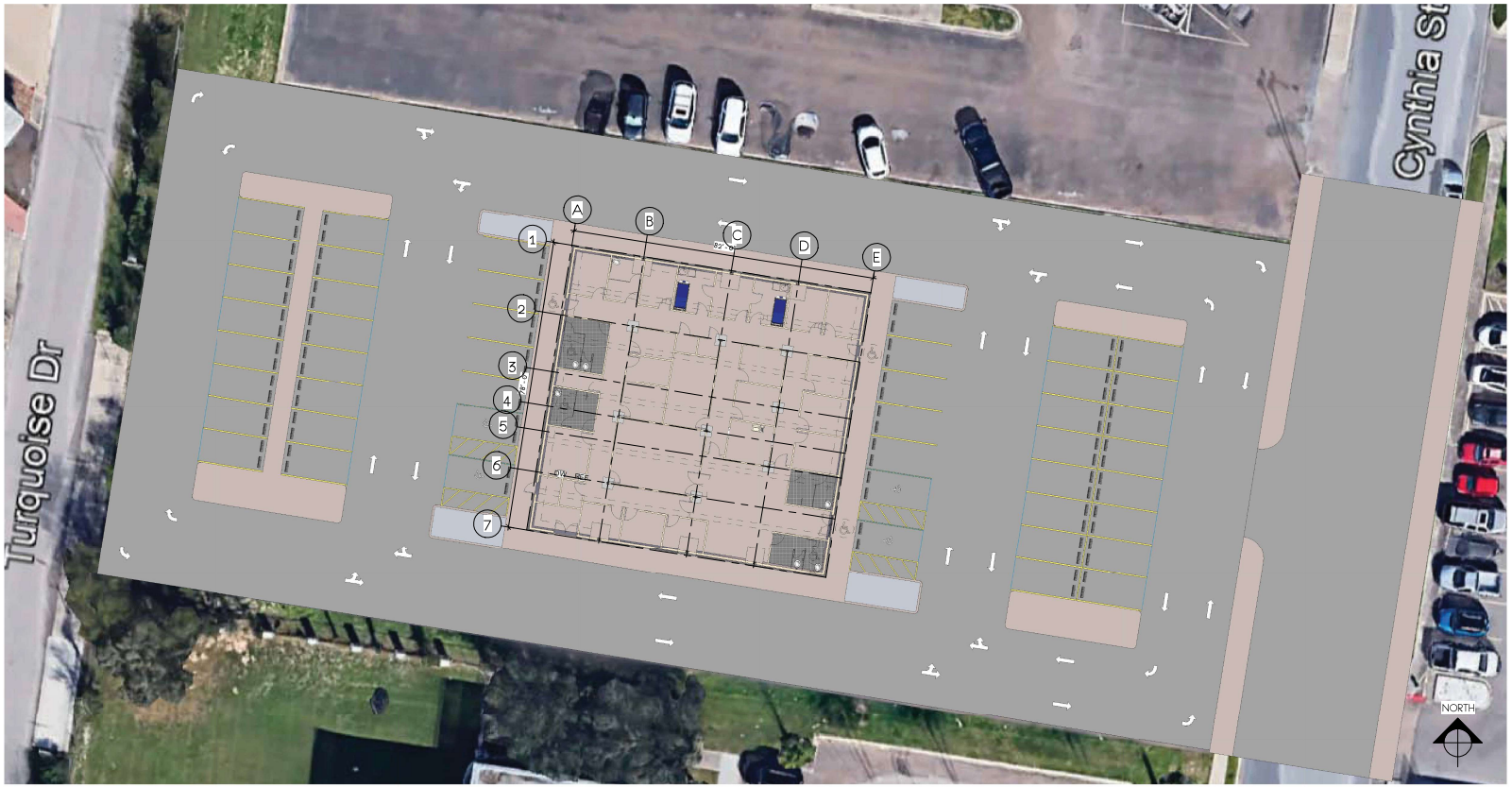
PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
ARCH ROOF PLAN

PROJECT:	STRUCTURAL DESING:
---	---
DRAWING BY:	CHECKED BY:
---	---
DATE: 08/26/2024	DRAWING NO: A1.2
SCALE: 1/4" = 1'-0"	



LOCATION PLAN
1" = 15'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

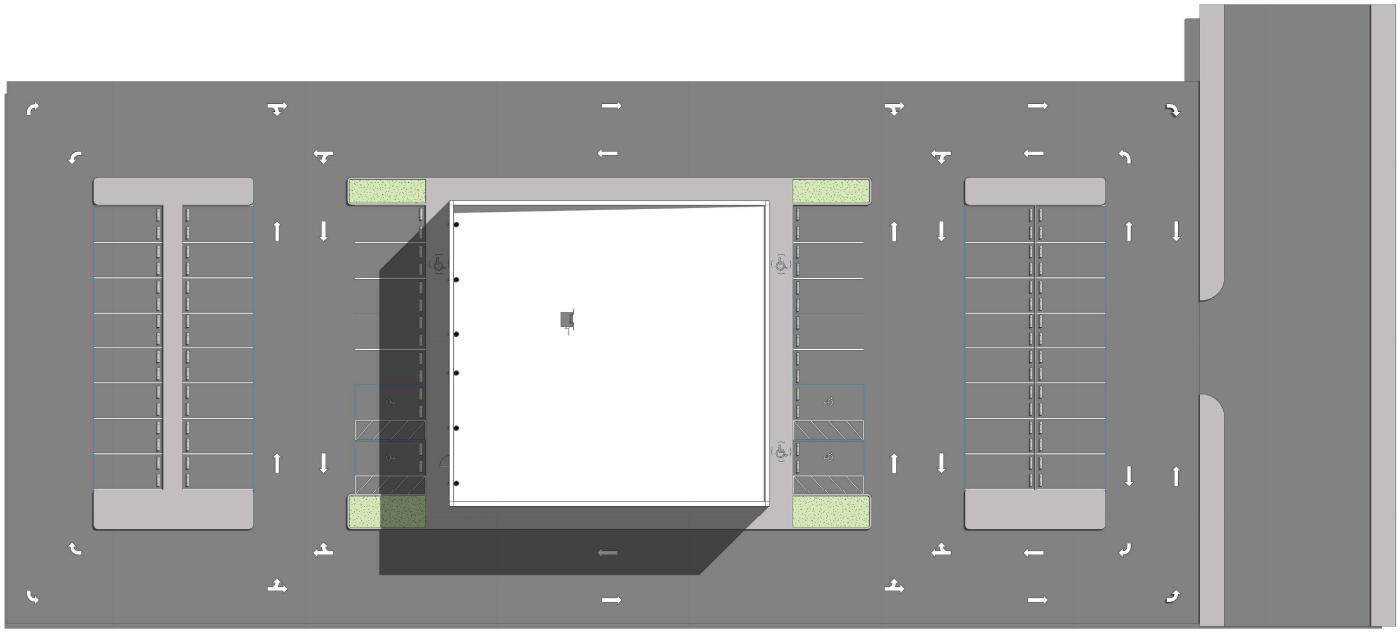
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: LOCATION MAP

PROJECT:	STRUCTURAL DESING:
---------	---------
DRAWING BY:	CHECKED BY:
---------	---------
DATE: 08/26/2024	DRAWING NO: A1.3
SCALE: 1" = 15'-0"	



B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/16/24	80% REVIEW SETS

PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
SITE PLAN

PROJECT:	STRUCTURAL DESING:
---------	----------
DRAWING BY:	CHECKED BY:
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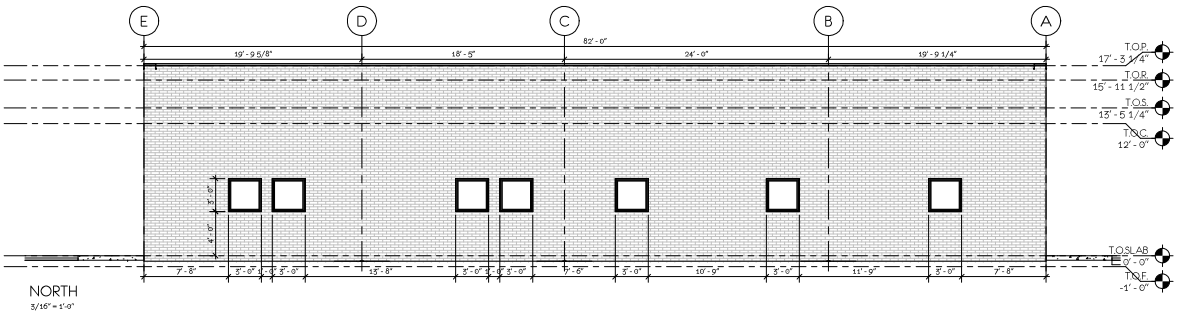
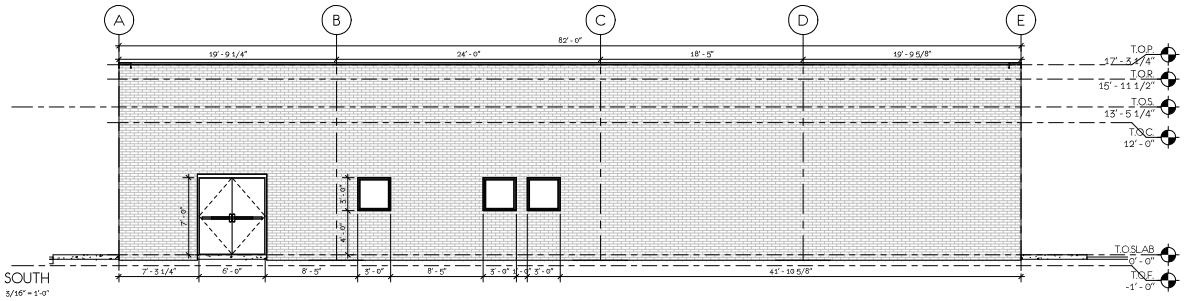
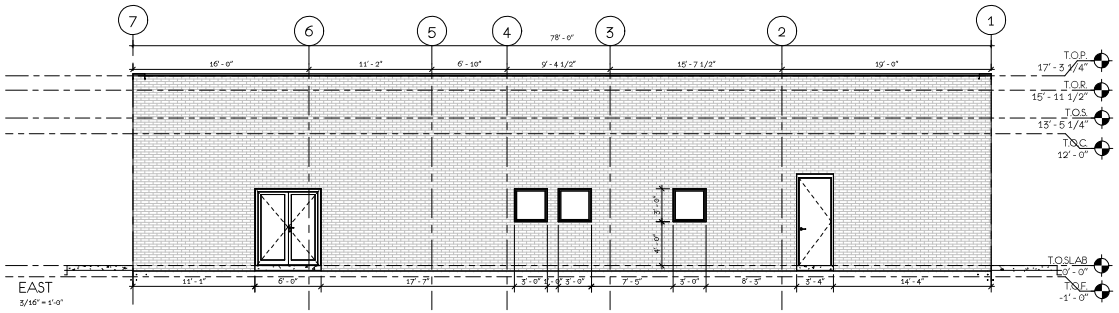
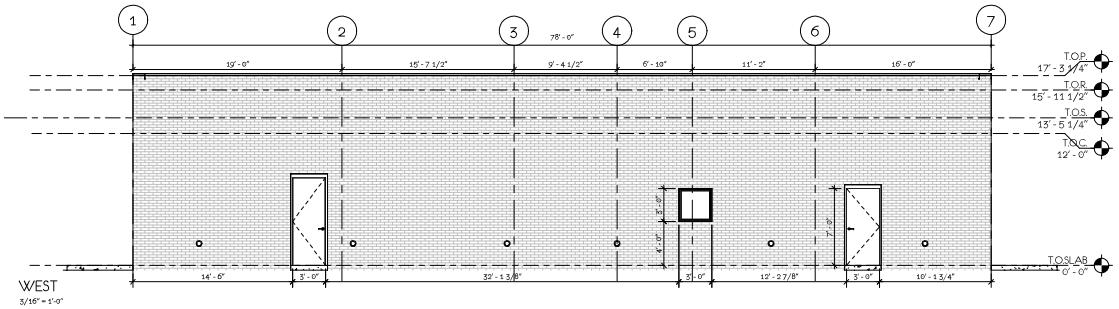
DATE: 08/26/2024	DRAWING NO: A1.4
SCALE: 1" = 15'-0"	









B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

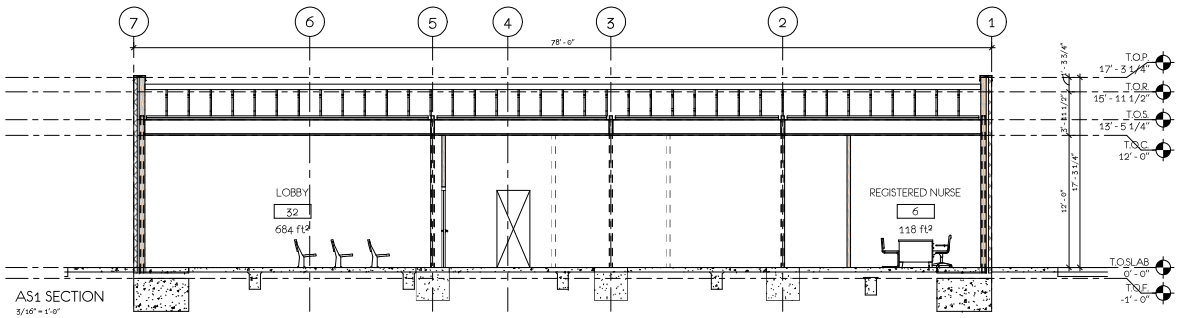
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

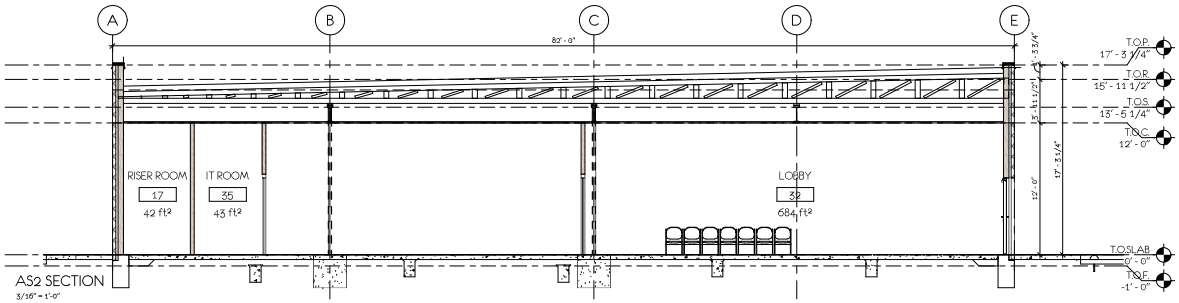
OWNER: ----------

PLAN: ELEVATIONS

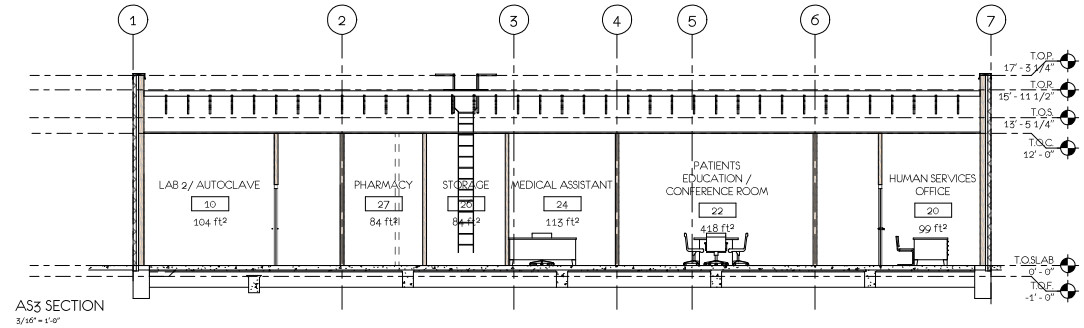
PROJECT:	STRUCTURAL DESING:
---------	----------
DRAWING BY:	CHECKED BY:
----------	----------
DATE: 08/26/2024	DRAWING NO: AE1.0
SCALE: 3/16" = 1'-0"	



AS1 SECTION
3/16" = 1'-0"



AS2 SECTION
3/16" = 1'-0"



AS3 SECTION
3/16" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

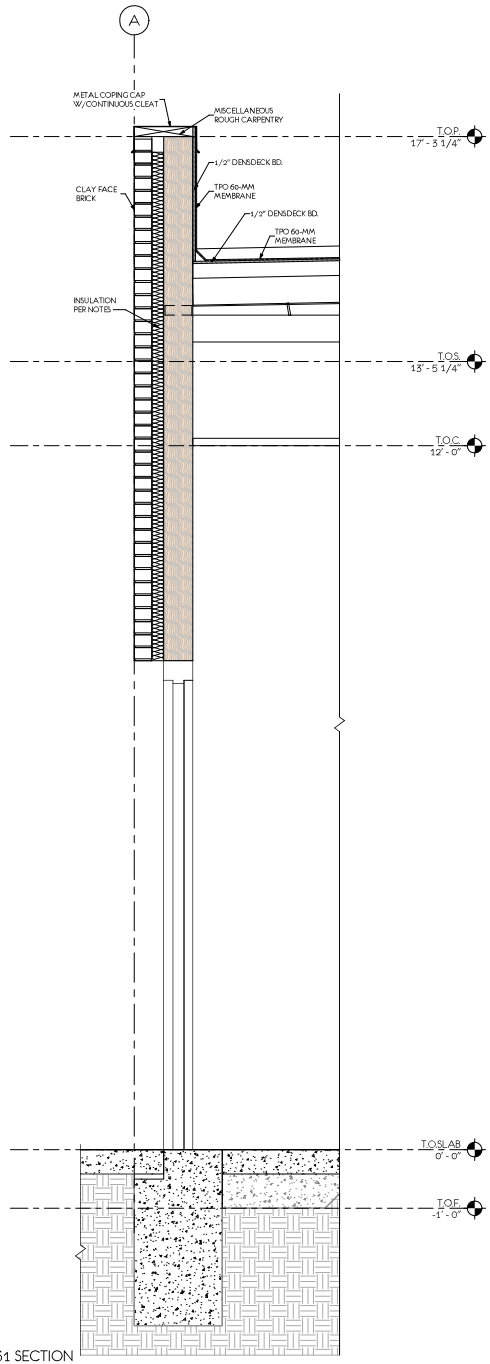
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

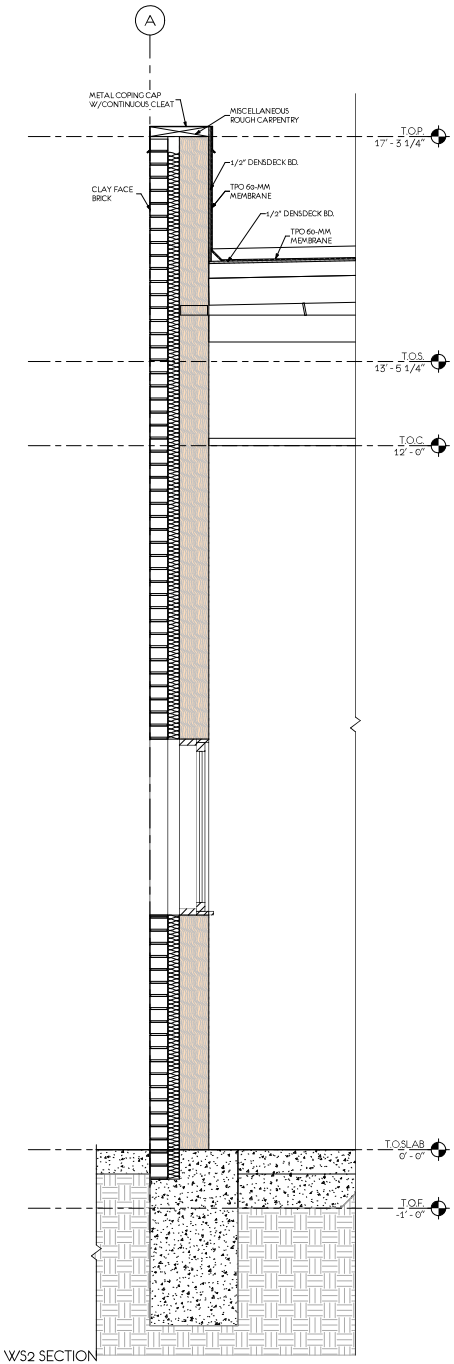
PLAN: ARCH SECTIONS

PROJECT:	STRUCTURAL DESING:
---------	---------
DRAWING BY:	CHECKED BY:
---------	---------
DATE: 08/26/2024	DRAWING NO: AS1.0
SCALE: 3/16" = 1'-0"	



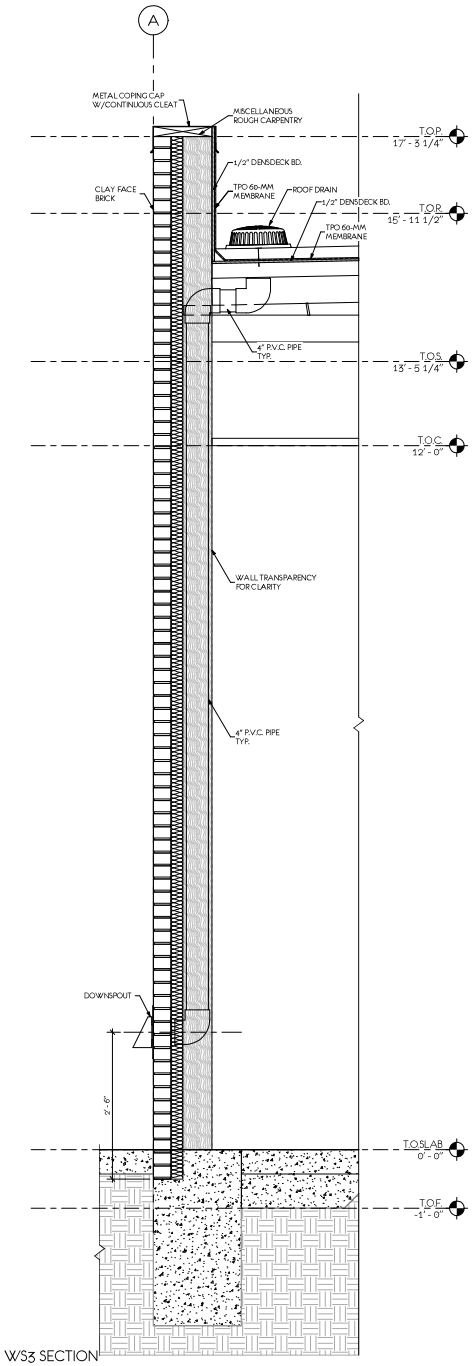
WS1 SECTION

1" = 1'-0"



WS2 SECTION

1" = 1'-0"



WS3 SECTION

1" = 1'-0"

B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

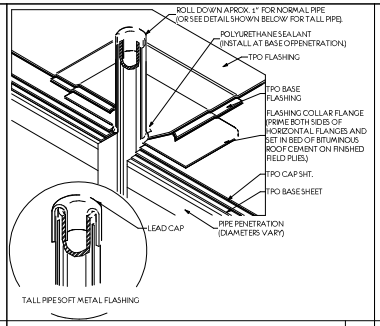
LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

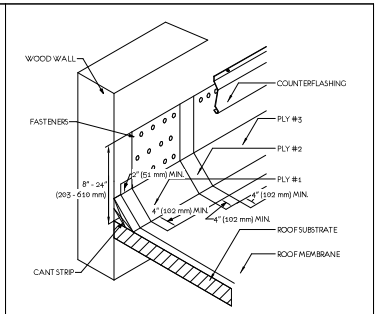
OWNER: ----------

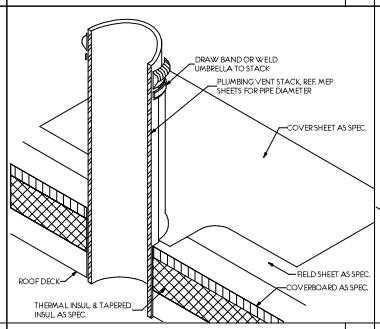
PLAN: WALL SECTIOS

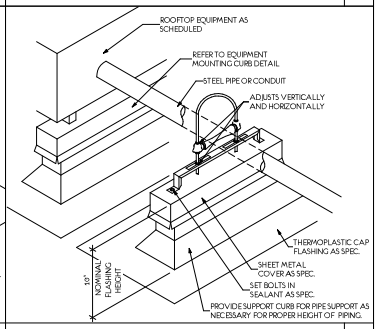
PROJECT:	STRUCTURAL DESING:
---------	---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE: 08/26/2024	DRAWING NO: AS1.1
SCALE: 1" = 1'-0"	

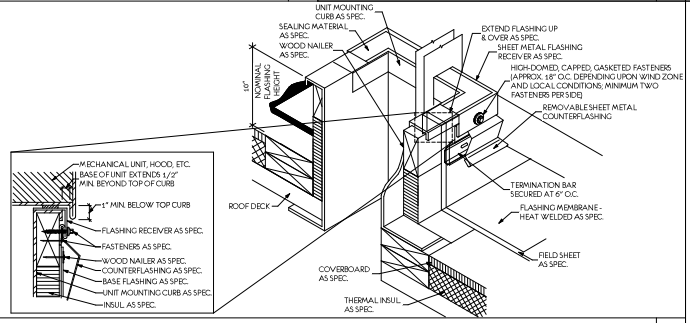
NOT USED	17	NOT USED	13	NOT USED	9	TYP. VENT PIPE DETAIL	5
NOT USED	18	NOT USED	14	NOT USED	10	ROOF DETAIL VENT PIPE	6
NOT USED	19	NOT USED	15	ROOF DETAIL CURB FLASHING	7		
NOT USED	20	NOT USED	16	ROOF & WALL FLASHING DETAIL	8	ROOF DETAIL ROOF HATCH	4

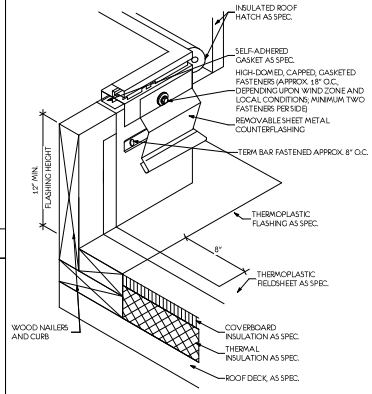


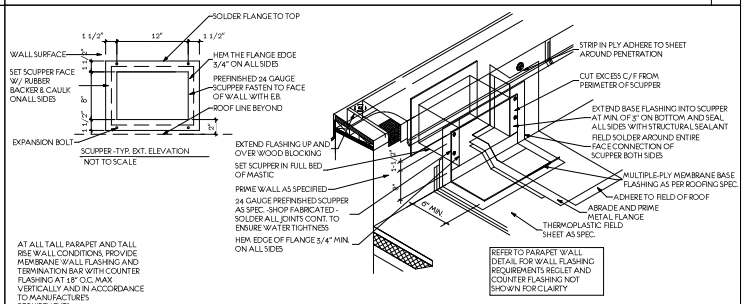












B2Z ENGINEERING

NOTE

REVIEW

REV	DATE	DESCRIPTION
A	08/06/24	PRELIMINARY REVIEW
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: ARCH ROOF DETAILS

PROJECT:	STRUCTURAL DESING:
---------	----------
DRAWING BY:	CHECKED BY:
----------	----------
DATE: 08/26/2024	DRAWING NO: AS1.2
SCALE: 1" = 1'-0"	

GENERAL :

A. GENERAL
1. ALL CONSTRUCTION AND QUALITY OF MATERIALS SHALL COMPLY WITH THE GOVERNING BUILDING CODES, CONSTRUCTION DOCUMENTS, AND SPECIFICATIONS.
2. THE ARCHITECT AND ENGINEER ARE TO BE NOTIFIED FORMALLY WHEN CONSTRUCTION AT THE SITE BEGINS.

B. MEANS AND METHODS
1. METHOD OF CONSTRUCTION IS BY CONTRACTOR.
2. THE CONTRACTOR SUPERVISES AND DIRECTS THE WORK AND SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, AND PROCEDURES.
3. THE CONTRACTOR IS TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION.

C. SAFETY
1. ALL CONSTRUCTION PROCEDURES SITE CONDITIONS SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) LAW AND REGULATIONS.
2. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT CONSTRUCTION WORKERS, INSPECTORS, AND JOB SITE VISITORS DURING CONSTRUCTION, MEASURES SUCH AS BRACING, SHORING FOR EARTH EXCAVATIONS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES, POLES, ETC.
3. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
4. NEITHER THE OWNER NOR THE ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. OBSERVATION VISITS TO THE SITE BY THE ENGINEER DO NOT INCLUDE INSPECTION OF OSHA SAFETY LAWS AND REGULATIONS.

D. GENERAL CONTRACTOR RESPONSIBILITIES PRIOR TO CONSTRUCTION
1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, TOLERANCES AND CONDITIONS AT THE JOB SITE BEFORE COMMENCEMENT OF WORK AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR OMISSIONS TO THE ARCHITECT AND ENGINEER IN WRITING BEFORE PROCEEDING ANY WORK.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AS TO WEIGHTS AND EXACT LOCATIONS, WITH STRUCTURAL SUPPORTS. IN THE EVENT THAT THE PURCHASED EQUIPMENT DEVIATES IN WEIGHT AND LOCATION FROM THOSE INDICATED ON THE PLANS, ENGINEER IS TO MUST BE NOTIFIED IN WRITING AND APPROVAL MUST BE OBTAINED BEFORE INSTALLATIONS.
3. ANY OMISSION OR CONFLICT BETWEEN THE VARIOUS TRADES IN CONST. DOCS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.

E. SUBCONTRACTOR QUALIFICATION
1. EACH SUBCONTRACTOR, PRIOR TO THE SUBMISSION OF A BID OR PERFORMANCE OF WORK, NOTIFY THE GENERAL CONTRACTOR, ENGINEER, OR OWNER, IN WRITING OF ANY WORK IS TO IN THE CONSTRUCTION DOCUMENTS IN THE RESPECTIVE TRADE THAT REQUIRES GUARANT PERFORMANCE OR PERFORMED AS INDICATED.

F. STRUCTURAL DRAWINGS AND CONTRACT DOCUMENTS
1. THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE.
2. THE CONSTRUCTION DRAWINGS ARE ONLY A PORTION OF THE COMPOSITE CONTRACT DOCUMENTS.
3. THE GENERAL CONTRACTOR AND TRADE SUBCONTRACTORS ARE RESPONSIBILITY FOR APPLICABLE WORK WITHIN THE COMPOSITE CONTRACT DOCUMENTS AND SPECIFICATIONS.
4. IN ANY DISCREPANCIES, PROJECT NOTES AND DETAILS GOVERN OVER GENERAL NOTES AND TYPICAL DETAILS. DRAWINGS GOVERN OVER SPECIFICATIONS. IN CASE OF A DISCREPANCY ON THE SAME ITEM, THE MORE STRINGENT GOVERN.
5. IN CASE OF CONSTRUCTION DETAILS NOT SPECIFICALLY SHOWN OR NOTED FOR PART OF THE WORK, SUCH DETAILS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN FOR SIMILAR CONDITIONS AND MATERIALS. THE ENGINEER SHALL BE CONSULTED FOR CLARIFICATIONS.
6. ANY QUESTIONS RELATED TO INTERPRETATION OF THESE DRAWINGS SHALL BE REFERRED TO THE ENGINEER.

G. STRUCTURAL DESIGN
1. STRUCTURES ARE DESIGNED WITH STABILITY AFTER ALL COMPONENTS ARE IN PLACE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE THE VERTICAL AND LATERAL STABILITY OF STRUCTURES, CONSIDERATIONS, DURING CONSTRUCTION.

H. SUBSTITUTIONS
1. MANUFACTURERS REFERRED TO ARE FOR QUALITY CONSIDERATIONS ONLY. SUBSTITUTIONS CAN BE PERMITTED AS APPROVED BY THE ENGINEER.
2. ANY APPROVED SUBSTITUTIONS ARE FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES, ADDITIONAL COSTS (INCLUDING REDESIGN SERVICES BY THE ENGINEER), AND COORDINATION THAT THE SUBSTITUTIONS MAY IMPACT.

I. EXISTING UTILITIES AND ADJACENT STRUCTURES
1. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO LOCATE AND PROTECT ANY EXISTING UNDERGROUND OR CONCEALED CONDUIT, PLUMBING, OR OTHER UTILITIES PRIOR TO BEGINNING ANY WORK.
2. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING STRUCTURES NEAR, ADJACENT, OR WITHIN THE AREA OF CONSTRUCTION.

J. NON-PERMITTED PROCEDURES
1. PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL NOT BE PLACED IN BEAMS, COLUMNS, OR WALLS UNLESS APROVED BY ENGINEER.
2. STRUCTURAL MEMBERS SHALL NOT BE CUT OR MODIFIED TO ALLOMODULATE OTHER TRADES, UNLESS NOTED OTHERWISE

SERVICEABILITY AND MAINTENANCE :

A. CONCRETE CRACKING STATEMENT
1. STRUCTURAL ELEMENTS CONSTRUCTED OUT OF CONCRETE AND/OR MASONRY MAY DEVELOP CRACKS DUE TO INHERENT CONCRETE SHRINKAGE AND CREEP, AND RESTRAINING EFFECTS DUE TO CONNECTIONS IN WHICH THE CONCRETE AND/OR MASONRY MEMBERS ARE TIED TO.
2. CRACKING DUE TO SHRINKAGE, CREEP, AND RESTRAINING EFFECTS ARE COSMETIC, THE CONCRETE AND/OR MASONRY MEMBERS WILL MAINTAIN THE STRENGTH AND SERVICEABILITY REQUIREMENTS EVEN WITH SUCH CRACKS PRESENT.
3. SPECIAL EFFORT HAS BEEN MADE TO REDUCE THE POTENTIAL CAUSES AND NUMBER OF CRACKS SUCH AS LOCATING CONTROL JOINTS, EXPANSION JOINTS, ISOLATION JOINTS, CONTRACT JOINTS, AND TEMPERATURE SUPPLEMENTARY REINFORCING; HOWEVER, IT IS NOT PRACTICAL TO ACHIEVE COMPLETE INHIBITION OF ALL CRACKS.
4. MOST CRACKS DEVELOP WITHIN 3 YEARS OF THE LIFESPAN OF THE STRUCTURE. CRACKS WIDER THAN 0.01" SHOULD BE PRESSURE EPOXIED.

B. MAINTENANCE STATEMENT
1. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXTEND THE LIFESPAN OF THE STRUCTURE AND TO ENSURE THE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT.
2. THE OWNER SHALL ESTABLISH A PLANNED PROGRAM FOR MAINTENANCE THAT SHALL INCLUDE SERVICING ITEMS INCLUDING BUT NOT LIMITED TO:
   a. STRUCTURAL STEEL PAINT
   b. CONCRETE PROTECTIVE COATING
   c. SEALANTS
   d. CAULKED JOINTS
   e. EXPANSION JOINTS
   f. CONTROL JOINTS
   g. SPALLS AND CRACKS IN CONCRETE
   h. PRESSURE WASHING OF STRUCTURAL ELEMENTS EXPOSED TO SALT OR OTHER DAMAGING CHEMICALS

DESIGN CRITERIA :

A. CODES:

BUILDING CODE:	IBC 2018
MINIMUM DESIGN LOADS:	ASCE 7-16
CONCRETE:	ACI 318-19
STEEL:	AISC 360-16 (15TH EDITION)
MASONRY:	TMS 402-18/ACI 530-13/ASCE 5-13
COLD-FORMED STEEL:	AISI S100-2016

B. GRAVITY LOADS

1. DEAD LOAD
a. ROOFS: 5 PSF

2. ROOF LIVE LOAD: 20 PSF

3. LIVE LOAD

PARTITIONS:	UNIFORM	CONCENTRATED
ACCESS FLOOR SYSTEMS	SEE NOTE D	-
OFFICE:	50 PSF	2000 LB
COMPUTER	100 PSF	2000 LB
ASSEMBLY AREAS		
FIXED SEATS:	60 PSF	-
FOLLOW SPOT BOOTHS:	50 PSF	-
LOBBIES:	100 PSF	-
MOVEABLE SEATS:	100 PSF	-
STAGE FLOORS:	150 PSF	-
OTHER ASSEMBLY AREAS:	100 PSF	-
BALCONIES AND DECKS:	SEE NOTE C	-
CAT WALKS:	40 PSF	300 LB
CORRIDORS		
FIRST FLOOR	100 PSF	1000 LB
OTHER FLOORS:	SEE NOTE B	1000 LB
DINING ROOMS:	100 PSF	-
LIBRARIES		
READING ROOMS:	60 PSF	1000 LB
STACK ROOMS:	150 PSF	1000 LB
RECREATION USE		
DANCE HALLS:	100 PSF	-
GYMNASIUMS:	100 PSF	-
WEIGHTROOMS:	-	SEE NOTE E
BLEACHERS:	100 PSF	-
SIDEWALKS:	100 PSF	8000 LB
STAIRS AND EXIT WAYS:	100 PSF	300 LB
STORAGE/MECHANICAL		
LIGHT:	125 PSF	SEE NOTE E
HEAVY:	250 PSF	SEE NOTE E

LIVE LOAD NOTES:
A. DESIGN LIVE LOADS ARE BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LOAD OR THE CONCENTRATED LOAD ACTING OVER AN AREA OF 2'-6" BY 2'-6", 4 1/2" BY 4 1/2" FOR PARKING GARAGES, OR 2" BY 2" FOR STAIR TREADS.
B. SAME AS THE OCCUPANCY SERVED.
C. 1.5 TIMES THE OCCUPANCY SERVED BUT NOT GREATER THAN 100 PSF.
D. IN AUDITORIUMS WHERE PARTITIONS ARE SUBJECTED TO CHANGE, AN ALLOWANCE OF 15 PSF OF ADDITIONAL LIVE LOAD HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD WHERE THE LIVE LOAD IS LESS THAN OR EQUAL TO 80 PSF.
E. DESIGN CONCENTRATED LOAD IS THAT REQUIRED BY THE ASSUMED EQUIPMENT WEIGHT.
F. LIVE LOADS HAVE BEEN REDUCED USING THE STANDARD PROCEDURE IN THE BUILDING CODE UP TO A MAXIMUM REDUCTION OF 50% FOR MEMBERS SUPPORTING ONE FLOOR AND 60% FOR MEMBERS SUPPORTING TWO OR MORE FLOORS.
G. LIVE LOADS IN EXCESS OF 100 PSF HAVE NOT BEEN REDUCED, EXCEPT A 20% MAXIMUM REDUCTION HAS BEEN MADE FOR MEMBERS SUPPORTING TWO OR MORE FLOORS.

REFERENCE SHEETS SG205 FOR LIVE LOAD PLAN.

4. RAIN LOAD: PENDING

5. SNOW LOAD
GROUND SNOW LOAD, pg: 0 PSF

6. ICE LOAD : NOT APPLICABLE

C. LATERAL LOADS

1. WIND LOAD
ULTIMATE WIND SPEED, Vult : 140 MPH
NOMINAL WIND SPEED, Vasd : 108 MPH

THE STRUCTURE IS LOCATED IN A HURRICANE PRONE REGION (Vult(II) > 135 MPH) AS DEFINED BY ASCE 7-16 SECTION 26.2.

THE STRUCTURE IS NOT LOCATED WITHIN 1 MILE OF THE COASTAL MEAN HIGH WATER LINE.

RISK CATEGORY:	III
EXPOSURE CATEGORY:	C
ENCLOSURE CLASSIFICATION :	ENCLOSED
INTERNAL PRESSURE COEFFICIENT :	±0.18

2. SEISMIC LOAD

SEISMIC IMPORTANCE FACTOR, Ie	1.25
MAPPED SPECTRAL RESPONSE ACCELERATION (SHORT), Ss:	0.042 g
MAPPED SPECTRAL RESPONSE ACCELERATION (1 SEC), S1 :	0.013 g
SITE CLASS:	D
DESIGN SPECTRAL RESPONSE ACCELERATION (SHORT), SDS :	0.044 g
DESIGN SPECTRAL RESPONSE ACCELERATION (1 SEC), SD1 :	0.021 g
SEISMIC DESIGN CATEGORY (SDC)	A
SEISMIC FORCE-RESISTING SYSTEM: SHEAR WALLS	ORDINARY REINFORCED MASONRY
ANALYSIS PROCEDURE USED.	ASCE 7-10 SECTION 14.2
BASE SHEARS, V :	--- KIPS

3. FLOOD LOAD
FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NO: 480334 0450 C
REVISION DATE: MARCH 18, 1991
ZONE DESIGNATION: ZONE X (AREAS OF MINIMAL FLOODING)

THE PROJECT IS NOT LOCATED IN A FLOOD HAZARD AREA. FLOOD LOADS DO NOT GOVERN THE DESIGN OF THE STRUCTURE.

D. GEOTECHNICAL INFORMATION

1. GEOTECHNICAL REPORT	
PREPARED BY :	BSZ ENGINEERING
PROJECT NO. :	NO. 6288
DATE:	OCTOBER 18, 2023
2. SHALLOW FOUNDATION	
a. MINIMUM FOUNDATION REQUIREMENTS :	
MINIMUM SPREAD FOOTING WIDTH :	24 INCHES
MINIMUM CONTINUOUS FOOTING WIDTH :	18 INCHES
b. SOIL PARAMETERS :	
MODULUS OF SUBGRADE REACTION, k:	150 PCI (SELECT FILL)
ALLOWABLE SOIL BEARING PRESSURE:	2400 PSF
WIRE REINFORCEMENT INSTITUTE (WRI) CRITERIA :	
CLIMATIC RATING, Cw :	15
EFFECTIVE PLASTICITY INDEX, PI:	31
POTENTIAL VERTICAL RISE (PVR) - UNDISTURBED SOIL:	2.8 TO 3.5 INCHES.
POTENTIAL VERTICAL RISE (PVR) - WITH SELECT FILL:	1 INCH (+/- .5 INCHES)
c. UPLIFT RESISTANCE	
UNIT WEIGHT OF SOIL FOR UPLIFT :	(NOT AVAILABLE)
UNIT WEIGHT OF CONCRETE FOR UPLIFT :	(NOT AVAILABLE)
d. LATERAL RESISTANCE:	
ALLOWABLE SOIL ADHESION :	(NOT AVAILABLE)

WOOD FRAMING:

A. MATERIAL
1. ALL STRUCTURAL WOOD FRAMING LUMBER SHALL BE SOUTHERN PINE NO. 2 OR BETTER UNLESS NOTED OTHERWISE.
2. SOUTHERN PINE SPECIFIED IN THESE STRUCTURAL DRAWINGS SHALL BE GRADED IN ACCORDANCE TO THE SOUTHERN PINE INSPECTION BUREAU'S (SPIB) STANDARD GRADING RULES FOR SOUTHERN PINE LUMBER
   SECTION 05: STRESS RATED BOARDS:
   A. INDUSTRIAL 1S (IND 1S) SHALL BE GRADED AS PER NO. 1 DIMENSION
   B. INDUSTRIAL 1S (IND 1S) SHALL BE GRADED AS PER NO. 2 DIMENSION
   C. INDUSTRIAL 2S (IND 2S) SHALL BE GRADED AS PER NO. 3 DIMENSION
3. WOOD FRAMING MEMBERS FOR LOAD-BEARING/EXTERIOR AND NON LOAD-BEARING/PARTITION WALLS SHALL HAVE THE FOLLOWING GRADES IN ACCORDANCE WITH ANSI/AWC NDS SUPPLEMENT TABLE 4B

FRAMING MEMBER	LOAD-BEARING/EXTERIOR	NON LOAD-BEARING/PARTITION
a. STUDS	2"-4" THICK, 5"-6" WIDE NO.2	2"-4" THICK, 2"-4" WIDE NO. 3 AND STUD
	2"-4" THICK, 8" WIDE NO. 2	2"-4" THICK, 5"-6" WIDE NO. 3 AND STUD
b. SOLE PLATE	2"-4" THICK, 5"-6" WIDE NO. 2	2"-4" THICK, 2"-4" WIDE NO. 3 AND STUD
	2"-4" THICK, 8" WIDE NO. 2	2"-4" THICK, 5"-6" WIDE NO. 3 AND STUD
c. TOP PLATES	2"-4" THICK, 5"-6" WIDE NO. 2	2"-4" THICK, 2"-4" WIDE NO. 3 AND STUD
	2"-4" THICK, 8" WIDE NO. 2	2"-4" THICK, 5"-6" WIDE NO. 3 AND STUD
d. BLOCKING	2"-4" THICK, 2"-4" WIDE NO. 2	2"-4" THICK, 2"-4" WIDE NO. 3 AND STUD

4. ALL LUMBER SHALL BE GRADE MARKED.
5. ALL LUMBER SHALL BE DRY WITH A MOISTURE CONTENT LESS THAN 19% PRIOR TO THE INSTALLATION OF BUILDING ENVELOPE ASSEMBLIES AND ARCHITECTURAL FINISHES.
6. SOLE PLATES IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.
7. REFERENCE THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LUMBER FIRE-RETARDANT TREATMENT REQUIREMENTS.
8. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED STEEL.
9. ROOF SHEATHING SHALL BE CDX EXTERIOR, STRUCTURAL I, APA-RATED PLYWOOD.
10. WALL SHEATHING FOR LOAD-BEARING/EXTERIOR WALLS SHALL BE STRUCTURAL I, APA-RATED PLYWOOD.
11. WALL SHEATHING FOR NON LOAD-BEARING/INTERIOR PARTITION WALLS SHALL BE RATED SHEATHING.
12. CONNECTION HARDWARE PRODUCTS SUCH AS HOLD-DOWNS, FRAMING ANCHORS, CLIPS, STRAPS, HANGERS, ETC. SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE.

B. FRAMING
1. WOOD FRAMING SHALL BE AS FOLLOWS UNLESS NOTED OR DETAILED OTHERWISE
   A. STUDS (NON LOAD-BEARING): 2X4@ 16" OC OR 2X6 @ 24" OC
   B. STUDS (LOAD-BEARING/EXTERIOR): 2X6 @ 16" OC
   C. SOLE PLATE: 1 X STUD SIZE
   D. TOP PLATES: 2 X STUD SIZE
   E. BLOCKING: 2X4 @ 48" OC
2. REFERENCE THE ARCHITECTURAL DRAWINGS FOR NON LOAD-BEARING STUD WALLS.
   C. ROOF SHEATHING
1. ROOF SHEATHING SHALL BE INSTALLED WITH END JOINTS STAGGERED AND FASTENED TO THE FRAMING MEMBERS AS INDICATED IN THE DRAWINGS.
2. ROOF SHEATHING SHALL BE INSTALLED WITH THE GRAIN PERPENDICULAR TO THE SUPPORTS (LONG DIRECTION PERPENDICULAR TO RAFTERS, JOISTS, OR TRUSSES).
   D. WALL SHEATHING
1. WALL SHEATHING SHALL BE INSTALLED WITH END JOINTS ALIGNED AND FASTENED TO THE FRAMING MEMBERS AS INDICATED IN THE DRAWINGS.
2. WALL SHEATHING SHALL BE INSTALLED WITH THE GRAIN PARALLEL TO THE SUPPORTS (LONG DIRECTION PARALLEL TO STUDS).

WOOD TRUSSES:

A. DESIGN
1. WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED BY AN APPROVED FABRICATOR UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN.
2. WOOD TRUSSES SHALL BE DESIGNED FOR THE LOADS INDICATED IN THESE DRAWINGS AS A MINIMUM REQUIREMENT. REFERENCE THE "DESIGN CRITERIA" GENERAL NOTES FOR LOADING.
   B. SHOP DRAWINGS
1. SUBMIT THE FOLLOWING ITEMS, SIGNED AND SEALED BY THE SUPERVISING ENGINEER, TO THE DESIGN TEAM, FOR REVIEW:
   A. SHOP DRAWINGS INDICATING TRUSS LAYOUT, SPACING, INDIVIDUAL MEMBER SIZES, BRIDGING, CAMBER, METAL-PLATE SIZES, FASTENERS, FRAMED OPENINGS, AND END REACTIONS TO ALL SUPPORTS.
   B. STRUCTURAL CALCULATIONS
2. REFERENCE "SHOP DRAWINGS AND SUBMITTALS" GENERAL NOTES, NOTE C FOR ADDITIONAL INFORMATION.
   C. COORDINATION
1. REFERENCE THE MECHANICAL DRAWINGS FOR REQUIRED FRAMED OPENINGS IN THE WEB OF THE TRUSSES.
2. THE GENERAL CONTRACTOR SHALL NOT ALTER, CUT, OR MODIFY THE TRUSSES WITHOUT WRITTEN APPROVAL FROM THE WOOD TRUSS ENGINEER.

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503
FIRM REGISTRATION NO. 20913

PRELIMINARY - NOT FOR CONSTRUCTION

NOTE

NOTE: THIS DRAWING AND IT INFORMATION CONTAINED HERE IN ARE PROPERTY OF OIM ENGINEERING PLLC STRUCTURAL DESIGN , THEY MAY NOT BE REUSED, REPRODUCED OR ALTERED IN ANY WAY BY ANY MEANS WITHOUT APPROVAL AND WRITTEN AUTHORIZATION OF OIM ENGINEERING PLLC STRUCTURAL DESIGN.

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT:
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
GENERAL NOTES

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY:	CHECKED BY:
J.M.W.V.	IVAN M.
DATE:	DRAWING NO:
08/26/2024	SG1.0
SCALE:	
12" = 1'-0"	

STRUCTURAL STEEL :

A. MATERIAL

1. MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE AISC 360 SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING ASTM DESIGNATIONS :

SHAPE/MATERIAL :	GRADE :	YIELD STRENGTH :
a. W AND WT	A992	Fy = 50 KSI
b. M AND S	A36	Fy = 36 KSI
c. C	A36	Fy = 36 KSI
d. L	A36	Fy = 36 KSI
e. HSS-ROUND	A500 GRADE B	Fy = 42 KSI
f. HSS-RECTANGULAR	A500 GRADE B	Fy = 46 KSI
g. HSS-SQUARE	A500 GRADE B	Fy = 46 KSI
h. PIPE	A53 GRADE B	Fy = 35 KSI
i. PLATES	A36	Fy = 36 KSI
j. ANCHOR RODS	F1554 GRADE 55	Fy = 55 KSI
k. HEADED STUDS	A108	-

B. FABRICATION AND ERECTION

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED, ERECTED, AND PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AS AMENDED TO DATE AND THE CODE OF STANDARD PRACTICE, LATEST EDITION AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).

2. WELDING SHALL BE DONE IN ACCORDANCE WITH THE STANDARD CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION AS PUBLISHED BY THE AMERICAN WELDING SOCIETY (AWS). ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL CONFORM TO ANSI AWS D1.1-04.

3. ALL STEEL (INCLUDING BOLTS) EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED (INCLUDES STEEL THAT IS ONLY COVERED WITH PLASTER OR STUCCO).

4. WHERE STEEL MEMBERS PASS THROUGH MASONRY WALLS, PROVIDE A HALF INCH GAP BETWEEN THE MASONRY WALL AND THE STEEL MEMBER. PROVIDE ELASTOMERIC MATERIAL BETWEEN THE STEEL MEMBER AND MASONRY WALL. PROVIDE FIRE PROOF ELASTOMERIC MATERIAL WHERE REQUIRED BY THE GOVERNING FIRE CODE.

5. HOLES FOR BOLTS IN STRUCTURAL STEEL SHALL BE DRILLED OR PUNCHED. BURNING OF HOLES SHALL NOT BE PERMITTED. HOLES SHALL BE STANDARD SIZE, 1/16 INCH LARGER THAN THE BOLT DIAMETER.

6. ALL STRUCTURAL STEEL SHAPES SHALL BE PRIMED WITH A RUST RESISTANT PRIMER BEFORE SHIPMENT TO THE PROJECT SITE. PRIMER SHALL NOT BE APPLIED TO THE IMMEDIATE AREA OF STEEL INTENDED TO RECEIVE SLIPCRITICAL BOLTED CONNECTIONS. REFER TO NOTES ABOVE FOR STEEL REQUIRING HOT-DIPPED GALVANIZING.

7. THE STEEL FABRICATOR SHALL BE AISC CERTIFIED.

C. CONNECTION DESIGN

1. STEEL CONNECTIONS NOT COVERED BY THE PRE-ENGINEERED STEEL CONNECTIONS, NOR DETAILED, NOR SCHEDULED IN THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE RESPECTIVE STATE THE PROJECT IS.

2. THE STEEL FABRICATOR IS NOT REQUIRED TO PROVIDED A STEEL CONNECTION DESIGN, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN, IF ALL OF THE FOLLOWING CRITERIA ARE MET:

a. REACTIONS INDICATED IN THE STRUCTURAL DRAWINGS ONLY HAVE A VERTICAL REACTION.
b. NO MOMENTS, AXIAL LOADS, OR HORIZONTAL LOADS ARE INDICATED ON THE STEEL CONNECTION.
c. A PRE-ENGINEERED STEEL CONNECTION IS USED AND REFERENCED IN THE SHOP DRAWING AS TO WHICH PRE-ENGINEERED STEEL CONNECTION WAS USED IN THE DETAILING.
d. ALL COMPONENTS, ELEMENTS, AND CRITERIA OF THE PRE-ENGINEERED STEEL CONNECTION ARE FOLLOWED IN THE DETAILING.

3. ALL OTHER STEEL CONNECTIONS NOT MEETING THE CRITERIA IN NOTE 2 ABOVE SHALL BE DESIGNED ACCORDING TO THE REACTIONS INDICATED ON THE STRUCTURAL DRAWINGS. ALL REACTIONS SHOWN ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD-RESISTANCE FACTOR DESIGN (LRFD) METHOD UNLESS NOTED OTHERWISE. WHEN REACTIONS ARE NOT SHOWN, DESIGN BEAM CONNECTIONS TO DEVELOP AT LEAST 60% OF THE SHEAR CAPACITY OF THE BEAM BUT NOT LESS THAN 10 KIPS.

4. ADDITIONAL CONNECTION ELEMENTS MAY BE REQUIRED IN THE FINAL DESIGN, SUCH AS: STIFFENER PLATES, DOUBLER PLATES, SHIMS, AND/OR OTHER CONNECTION MATERIAL.

5. ALL CONNECTION PLATES AND STIFFENERS SHALL BE A MINIMUM 1/4" THICK.

D. STRUCTURAL BOLTS AND THREADED FASTENERS

1. ALL BOLTED CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER HIGH STRENGTH BOLTS, ASTM A325N, BEARING TYPE CONNECTION WITH WASHERS CONFORMING TO ASTM F436, UNLESS NOTED OTHERWISE.

2. ALL NUTS SHALL CONFORM TO ASTM A563.

3. THREADED FASTENERS AND RODS SHALL CONFORM TO ASTM A36.

4. SLIP-CRITICAL BOLTS, WHEN SPECIFIED, SHALL BE INSTALLED ON A CLASS A FAYING SURFACE AND PRETENSIONED TO AT LEAST 70% OF THE BOLT'S TENSILE CAPACITY IN ACCORDANCE WITH AISC 360 TABLE J3.1.

E. WELDING

1. ELECTRODES FOR WELDING SHALL CONFORM TO E70XX, UNLESS NOTED OTHERWISE.

2. ALL WELDED CONNECTIONS SHALL BE MADE USING THE FOLLOWING FILLET WELD SIZES UNLESS NOTED OTHERWISE:

BASE MATERIAL THICKNESS (t)	NOMINAL FILLET WELD SIZE THICKNESS OF THE BASE MATERIAL
t < 1/4"	1/4"
1/4" ≤ t ≤ 3/4"	1/4"
> 3/4"	5/16"

F. ANCHOR RODS

1. ALL ANCHOR RODS, UNLESS NOTED OTHERWISE IN THE DRAWINGS, SHALL CONFORM TO ASTM F1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) WITH A DIAMETER OF 3/4" AND SHALL EMBED INTO THE CONCRETE FOUNDATION A MINIMUM 12" WITH A HEAVY HEX NUT AT THE EMBEDDED END.

G. MISCELLANEOUS METALS
1. REFERENCE THE COMPOSITE DRAWING FOR MISCELLANEOUS STEEL ITEMS NOT INDICATED ON THE STRUCTURAL DRAWINGS.

2. STEEL ITEMS SHOWN ON ARCHITECTURAL DRAWINGS AND NOT SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR.

3. METAL STAIRS
a. ALL METAL STAIR FRAMING SHALL BE DESIGNED AND DETAILED BY THE STEEL FABRICATOR SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN.
b. DESIGN THE METAL STAIRS IN ACCORDANCE TO THE "DESIGN CRITERIA" SECTION OF THE GENERAL NOTES. THE METAL STAIRS SHALL SUPPORT THE EFFECTS OF GRAVITY LOADS PLUS THE FOLLOWING LIVE LOAD:
i. UNIFORM LIVE LOAD : 100 PSF
ii. CONCENTRATED LIVE LOAD : 300 LB / 4 SQ IN
iii. LOADS DO NOT ACT CONCURRENTLY
c. THE METAL STAIRS SHALL BE DESIGNED TO WITHSTAND THE EFFECTS FROM GUARDRAILING:
i. TOP RAIL UNIFORM LOAD : 50 PLF APPLIED IN ANY DIRECTION
ii. TOP RAIL CONCENTRATED : 200 LB APPLIED IN ANY DIRECTION
iii. INTERMEDIATE RAILS: 50 LB APPLIED HORIZONTALLY
iv. LOADS DO NOT ACT CONCURRENTLY
d. DEFLECTION LIMIT : L/360 OR 1/4" WHICHEVER IS LESS.
e. ALL RESPECTIVE CONNECTIONS WITHIN THE METAL STAIR FRAMING AND ATTACHMENTS TO THE SUPPORT STRUCTURE SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN.

4. FIXED METAL LADDERS
a. ALL FIXED LADDERS SHALL BE DESIGNED AND DETAILED BY THE STEEL FABRICATOR SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN.
b. DESIGN THE FIXED LADDERS TO SUPPORT THE EFFECTS OF GRAVITY LOADS PLUS THE FOLLOWING LIVE LOAD:
i. CONCENTRATED LOAD (RUNGS) : 300 LB ON A RUNG FOR EVERY 10 FT OF LADDER
ii. CONCENTRATED LOAD (RAILS) : 100 LB IN ANY DIRECTION
c. ALL CONNECTIONS WITHIN THE FIXED LADDER FRAMING AND ATTACHMENTS TO THE SUPPORT STRUCTURE SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN.
d. SHIP LADDERS WITH TREADS INSTEAD OF RUNGS SHALL BE DESIGNED AS METAL STAIRS.
H. SPECIAL INSPECTION

1. REFERENCE THE "SPECIAL INSPECTION AND MATERIAL TESTING" GENERAL NOTES FOR SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL STEEL CONSTRUCTION.

I. NON-SHRINK GROUT

1. ALL NON-SHRINK GROUT FOR LEVELING OF BASE PLATES SHALL HAVE A MINIMUM 5000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

J. TOLERANCES
1. ALL MILL FABRICATION TOLERANCES SHALL CONFORM TO ASTM A6 "STANDARD SPECIFICATION FOR GENERAL REQUIREMENTS FOR ROLLED STRUCTURAL STEEL BARS, PLATES, SHAPES, AND SHEET PILING" AND TO THE AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
2. ALL ERECTION TOLERANCES SHALL CONFORM TO AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
3. THE TOTAL OF MILL TOLERANCES AND FABRICATION TOLERANCES SHALL NOT EXCEED THE ERECTION TOLERANCES.

SHOP DRAWINGS AND SUBMITTALS :

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THE LIST SHALL INCLUDE:
a. DESIGN CALCULATIONS
b. PRODUCTS, ASSEMBLIES, AND HARDWARE
c. PRODUCT CERTIFICATES, MILL CERTIFICATES, AND FABRICATOR CERTIFICATES
d. SHOP DRAWINGS

B. SHOP DRAWINGS AND SUBMITTALS

1. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEERING REVIEW SHOP DRAWINGS AND SUBMITTALS FOR THE FOLLOWING ITEMS BUT NOT LIMITED TO:
a. CONCRETE MIX DESIGN AND ACCESSORIES
b. CONSTRUCTION JOINT LOCATIONS IN SLAB-ON-GRADE
c. EMBEDDED PLATES
d. GROUT MIX DESIGN
e. MASONRY ASSEMBLAGE
f. MISCELLANEOUS STEEL
g. MORTAR MIX DESIGN
h. PRE-ENGINEERED CANOPY REACTIONS*
i. REINFORCING STEEL
j. ROOF DECK
k. ROOFTOP UNITS LOCATIONS AND ANCHORAGE*
l. STEEL JOISTS AND JOIST GIRDERS
m. STEEL STAIRS AND LADDERS*
n. STRUCTURAL STEEL CONNECTION DESIGN*
o. STRUCTURAL STEEL

*SHOP DRAWINGS OR SUBMITTALS REQUIRED TO BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS IN.

2. ALLOW A MINIMUM OF 12 WORKING DAYS FOR REVIEW OF EACH SET OF SHOP DRAWINGS.

C. GENERAL CONTRACTORS ROLE PRIOR TO SUBMISSION

1. ALL SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.
2. THE GENERAL CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS SUBMITTED BY THEIR SUB-CONTRACTORS AND COORDINATE SHOP DRAWINGS WITH ALL OTHER TRADES PRIOR TO SUBMISSION TO THE ENGINEER FOR REVIEW.
3. THE GENERAL CONTRACTOR SHALL ANSWER ALL QUESTIONS OR CLARIFICATIONS BY THE SUB-CONTRACTORS BEFORE SUBMITTING TO THE ENGINEER FOR REVIEW.

D. SHOP DRAWING AND SUBMITTAL LEGIBILITY

1. SHOP DRAWINGS AND SUBMITTALS SHALL USE DRAFTING LINE WORK AND LETTERING THAT IS CLEAR.
2. SHOP DRAWINGS AND SUBMITTALS SHALL SHOW CLEAR AND COMPLETE INFORMATION FOR THE FABRICATION AND INSTALLATION.

E. ERRORS AND OMISSIONS

1. REVIEW OF THE SHOP DRAWINGS AND SUBMITTALS IS FOR GENERAL CONFORMANCE TO THE STRUCTURAL DRAWINGS. REVIEW OF THE SHOP DRAWINGS AND SUBMITTALS BY THE ENGINEER DOES NOT INDEMNIFY THE CONTRACTOR FOR ANY ERRORS AND/OR OMISSIONS IN DIMENSIONS, MATERIALS, AND/OR STRUCTURAL ELEMENTS INDICATED IN THE SHOP DRAWINGS AND SUBMITTALS.

F. DISCREPANCIES

1. IF THERE EXISTS ANY DISCREPANCIES BETWEEN THE STRUCTURAL DRAWINGS AND SHOP DRAWINGS AND/OR SUBMITTALS, THE INFORMATION IN THE STRUCTURAL DRAWINGS SHALL SUPERSEDE. INFORMATION THAT IS NOT INDICATED ON THE SHOP DRAWINGS SHALL BE OBTAINED FROM THE STRUCTURAL DRAWINGS.

G. REPRODUCTION

1. THE USE OF THE ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY THE GENERAL CONTRACTOR, AND SUB-CONTRACTOR, ERECTOR, FABRICATOR, OR SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS AND/OR SUBMITTALS INDICATES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN IN THESE DOCUMENTS ARE 100% CORRECT, AND OBLIGATES THEMSELVES TO ANY EXPENSES, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

REINFORCING STEEL :

A. GENERAL:
1. DEFORMED BAR REINFORCEMENT SHALL CONFORM TO THE FOLLOWING GRADES OF ASTM A615 GRADE 60 ON THE DRAWINGS OR IN NOTES.
2. DETAILING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH CHAPTER 25 OF ACI 318
3. REINFORCING STEEL REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706.
4. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064.
5. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE BEFORE CONCRETE AND/OR GROUT.

B. SUPPORTS FOR REINFORCEMENT

1. SUPPORT FOR REINFORCEMENT SHALL INCLUDE BOLSTERS, CHAIRS, SPACERS, AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCING BARS AND WELDED WIRE REINFORCEMENT IN PLACE.
2. BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF "BAR SUPPORT SPECIFICATIONS" AS THE LATEST EDITION OF "MANUAL OF STANDARD PRACTICE" BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
a. SLAB-ON-GRADE USE PRECAST CONCRETE BAR SUPPORTS (DOBIES) OR CHAIRS DESIGNED FOR SOILSUPPORTED SLABS SPACED AT 36 INCHES ON CENTER FOR #3 BARS AND 48 INCHES ON CENTER FOR #4 AND ABOVE.
b. SPREAD FOOTINGS AND GRADE BEAMS: USE PRECAST CONCRETE BAR SUPPORTS (DOBIES) OR CHAIRS DESIGNED FOR SOIL-SUPPORTED SLABS.
c. PIERS: USE PRECAST CONCRETE BAR SUPPORTS (DOBIES), CRSI CLASS 1 WHEELS, AND BOLSTERS
d. SUSPENDED SLABS, BEAMS, AND GIRDERS: PROVIDE CRSI CLASS 1 SUPPORTS WITH LEGS.

C. DETAILING

1. REINFORCING STEEL DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE", LATEST EDITION.
2. BARS DETAILED AS CONTINUOUS SHALL BE LAPPED AT SPLICES.
3. REFERENCE APPLICABLE SCHEDULES FOR LAPS AT BAR SPLICES.

D. PLACEMENT OF WELDED WIRE REINFORCING

1. WELDED WIRE REINFORCING SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS.
2. LAPS OF WELDED WIRE REINFORCING AT SPLICES SHALL BE AS INDICATED IN THE SCHEDULE.

E. NON-PERMITTED ITEMS
1. WELDING OF CROSSING BARS AND TACK WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED.
2. WELDING OF REINFORCING STEEL IS NOT PERMITTED, UNLESS NOTED OTHERWISE.

F. SHOP DRAWINGS
1. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW. FABRICATION SHOP DRAWINGS SHALL BE APPROVED BEFORE INSTALLATION.

FOUNDATION SUBGRADE :

A. PREPARATION OF EXISTING GRADE

1. ALL AREA TO SUPPORT SELECT FILL SHALL BE STRIPPED OF ALL VEGETATION AND/OR ORGANIC TOPSOIL.
2. REMOVE ALL TREES AND ROOTS UNDER THE BUILDING'S FOOTPRINT INCLUDING CANOPIES AND OTHER STRUCTURAL FOUNDATIONS SHOWN IN THESE CONTRACT DOCUMENTS.
3. THE SCOPE OF EXISTING GRADE PREPARATION SHALL BE AS FOLLOWS:
a. MINIMUM DEPTH OF REMOVAL: 8 INCHES
b. EXTEND BEYOND THE BUILDING FOOTPRINT: 5 FEET

B. EXCAVATION

1. WHERE SELECT FILL IS INDICATED IN THESE CONTRACT DOCUMENTS, THE CORRESPONDING SCOPE OF EXCAVATION SHALL BE AS FOLLOWS:
a. MINIMUM ELEVATION OF EXCAVATION: 4 FEET BELOW FFE
b. EXTEND BEYOND THE BUILDING FOOTPRINT: 5 FEET

2. THE EXPOSED SUBGRADE, AFTER EXCAVATION, SHOULD BE PROOFROLLED IN ACCORDANCE WITH ITEM 216 OF TXDOT's 2014 STANDARD.

3. WEAK OR SOFT AREAS IDENTIFIED DURING PROOFROLLING ACTIVITIES SHOULD BE TREATED WITH HYDRATED LIME OR PORTLAND CEMENT OR REMOVED AND REPLACED WITH SUITABLE, COMPACTED SELECT FILL. IF THE TREATMENT OPTION IS SELECTED, WEAK OR SOFT AREAS MAY BE MIXED WITH HYDRATED LIME OR PORTLAND CEMENT DOWN TO A MINIMUM DEPTH OF 8 INCHES.
4. THE EXPOSED SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED TO WITHIN 0% TO +3% OF THE OPTIMUM MOISTURE CONTENT.
5. THE SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698.
6. FOLLOWING COMPLETE CLEARING AND PREPARATION OF THE SITE FOR CONSTRUCTION, THE GEOTECHNICAL ENGINEER SHALL OBSERVE THE SITE TO DETERMINE THAT SATISFACTORY PREPARATION HAS BEEN ACCOMPLISHED.

C. SELECT FILL

1. THE FOLLOWING SOILS MAY BE CONSIDERED SATISFACTORY FOR USE AS SELECT FILL MATERIAL AT THIS SITE
a. SOILS CLASSIFIED ACCORDING TO USCS AS SC, SM, GM, CL, ML, AND COMBINATIONS OF THESE SOILS
i. SELECT FILL SHALL HAVE A LIQUID LIMIT OF LESS THAN 40.
ii. SELECT FILL SHALL HAVE A PLASTICITY INDEX BETWEEN AND INCLUSIVE OF 8 AND 20, LL < 40

2. THE NATIVE SOILS AT THIS SITE ARE NOT CONSIDERED SUITABLE FOR USE AS SELECT FILL MATERIAL.
3. PLACEMENT OF SELECT FILL SHALL MEET THE FOLLOWING CRITERIA:
a. SELECT FILL SHALL BE CONDITIONED AND COMPACTED UP TO THE PROPOSED FINISH FLOOR ELEVATION.
b. FILL LIFTS: NOT EXCEEDING 8 INCH LOOSE LIFTS (6 INCHES COMPACTED)
c. MOISTURE CONTENT: -3% TO +3% WITHIN OPTIMUM.
d. COMPACTION: 95% OF MAXIMUM DRY DENSITY DETERMINED BY ASTM D698

4. ORGANIC OR OTHER PERISHABLE MATERIAL ARE NOT PERMITTED IN THE SELECT FILL.
5. STONES LARGER THAN 2 INCHES OR ONE-HALF THE LOOSE LIFT THICKNESS, WHICHEVER IS SMALLER, ARE NOT PERMITTED IN THE SELECT FILL.

6. THE FINISH FLOOR SHALL BE AS INDICATED ON CIVIL DRAWINGS.

7. SOILS CLASSIFIED AS BASE MATERIAL MEETING THE REQUIREMENTS OF TXDOT 2014 SPECIFICATION ITEM 247 TYPE E, GRADE 4 - CALICHE (SEE TABLE 3 FOR SPECIFICATIONS & REQUIREMENTS) OR ITEM 247 TYPE A, GRADE 1-2 - LIMESTONE (SEE TABLE 4 FOR SPECIFICATIONS & REQUIREMENTS).

8. BQZ RECOMMENDS ADDITIONAL QUALITY CONTROL OF ALL STRUCTURAL FILL MATERIALS AS THEY ARE PLACED AND COMPACTED TO ENSURE THAT THEY MEET THE REQUIREMENTS SPECIFIED.

9. STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D698 AT MOISTURE CONTENTS RANGING BETWEEN MINUS TWO (-2) AND PLUS TWO (+2) PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT. STRUCTURAL FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8 INCHES (6 INCHES COMPACTED). THE FILL SHOULD BE PROPERLY COMPACTED IN ACCORDANCE WITH THESE RECOMMENDATIONS AND TESTED FOR COMPACTION AS SPECIFIED.

10. PLEASE REERENCE GEOTECH REPORT FOR STRUCTURAL FILL GRADATION TO RESPECTIVE TYPE.

D. PERIMETER FOUNDATION CAP

1. THE FINAL 18 INCHES OF FILL OUTSIDE THE BUILDING AREA SHOULD CONSIST OF A COHESIVE LOW PERMEANCE CLAY CAP (CH OR CL) SOIL. THE CLAY CAP SHALL BE SLOPED AWAY FROM THE FOUNDATION WITH A MINIMUM GRADIENT OF 6 INCHES IN 5 FEET AND THE SURROUNDING AREAS SHOULD HAVE A POSITIVE DRAINAGE. REFER TO THE CIVIL DRAWINGS FOR FINAL ELEVATIONS.
2. THE CLAY CAP CANNOT BE ALLOWED TO DRY OUT DURING OR AFTER COMPACTION. THE MINIMUM PLASTICITY INDEX SHALL BE 20.
3. THE CLAY CAP SHALL BE A MINIMUM 50% BY WEIGHT PASSING THE NO. 200 SIEVE.
4. THE CLAY CAP SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY DETERMINED BY ASTM D698.
5. THE MOISTURE CONTENT SHOULD BE 0% TO +4% WITHIN OPTIMUM.
6. IF PLANTINGS ARE INTENDED, ADD 4 TO 6 INCHES OF LOAM ON TOP OF THE CLAY CAP.

E. FIELD CONDITIONS

1. IN THE EVENT FOUNDATION EXCAVATIONS ARE CARRIED TO A DEPTH GREATER THAN REQUIRED, THE ADDITIONAL DEPTH SHALL BE FILLED WITH THE SAME CONCRETE AS THAT FOR THE FOOTINGS AT NO ADDITIONAL EXPENSE TO THE OWNER. NO UNCONTROLLED FILL WILL BE PERMITTED.
2. THE FOOTING EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER.
3. CARE SHOULD BE TAKEN TO SHAPE THE BUILDING AREAS SUCH THAT WATER WILL NOT POND AROUND THE STRUCTURE DURING CONSTRUCTION AND CAUSE THE NEAR SURFACE CLAYS TO SWELL. THE PROPOSED STRUCTURE SHALL BE ISOLATED FROM ANY MOISTURE SOURCE WHICH MIGHT ALSO CAUSE SWELLING OF THE CLAYS AFTER COMPLETION OF THE CONSTRUCTION.
4. WHEN THE STRUCTURE IS COMPLETE, THE GROUND SURFACE SHOULD SLOPE AWAY FROM THE STRUCTURE.
5. DO NOT PLANT OR LEAVE IN PLACE DEEP ROOTED TREES WITHIN PROXIMITY TO THE PERIMETER OF THE STRUCTURE. DEEP ROOTED TREES HAVE THE POTENTIAL TO REMOVE MOISTURE FROM BENEATH THE BUILDING IF PLANTED CLOSE ENOUGH TO ALLOW THE ROOT BULB TO EXTEND NEAR OR BENEATH THE BUILDING.
6. AIR CONDITIONING CONDENSER DRAIN LINES SHALL DISCHARGE WATER AWAY FROM THE PERIMETER OF THE STRUCTURE. THE DISCHARGE AREA SHALL HAVE SUFFICIENT SLOPE AWAY FROM THE STRUCTURE TO PREVENT STANDING WATER.

F. COORDINATION WITH GEOTECHNICAL ENGINEER

1. THE GEOTECHNICAL ENGINEER SHALL BE THE OWNER'S REPRESENTATIVE TO CONTROL THE PLACEMENT OF COMPACTED FILL.
2. THE GEOTECHNICAL ENGINEER SHALL APPROVE THE SUBGRADE PREPARATION, THE SELECT FILL MATERIAL, THE METHOD OF PLACEMENT, AND COMPACTION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE PLACEMENT AND TESTING OF ALL LIFTS WITH THE GEOTECHNICAL ENGINEER. FAILURE TO DO SO WILL REQUIRE REMOVAL OF FILL AT THE CONTRACTOR'S EXPENSE.
4. A WRITTEN SOILS REPORT SHALL BE FORMULATED BY THE GEOTECHNICAL ENGINEER TO INDICATE APPROVAL OF THE COMPLETED FILL.

G. GEOTECHNICAL REPORT

1. THE PROJECT GEOTECHNICAL REPORT SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS.
2. ALL EARTHWORK AND GRADING SHALL BE PERFORMED ACCORDANCE WITH THE RECOMMENDATIONS INDICATED IN THE REPORT OR AS INDICATED ABOVE WHICHEVER IS MORE STRINGENT.

H. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION.

SOILS REPORT STATEMENT THE OWNER DID NOT FURNISH A GEOTECHNICAL REPORT FOR THIS PROJECT. THE FOUNDATION WAS DESIGNED BASED ON IBC MINIMUM REQUIREMENTS. IN THE EVENT EXPANSIVE SOILS, OR NON FAVORABLE CONDITIONS, ARE ENCOUNTERED, FOUNDATION SETTELEMENT MAY BE EXPECTED.
OIM ENGINEERING PLLC DOES NOT ASSUME ANY RESPONSIBILITY OVER THE FOUNDATION PERFORMANCE.

PRELIMINARY - NOT FOR CONSTRUCTION

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

FIRM REGISTRATION NO. 20913

NOTE

NOTE: THIS DRAWING AND IT INFORMATION CONTAINED HERE IN ARE PROPERTY OF OIM ENGINEERING PLLC STRUCTURAL DESIGN , THEY MAY NOT BE REUSED, REPRODUCED OR ALTERED IN ANY WAY BY ANY MEANS WITHOUT APPROVAL AND WRITTEN AUTHORIZATION OF OIM ENGINEERING PLLC STRUCTURAL DESIGN.

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: GENERAL NOTES

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.1
SCALE: 12" = 1'-0"	

SHOP DRAWINGS AND SUBMITTALS :

A. GENERAL
1. VERIFY ALL DIMENSIONS: COORDINATE WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO BIDDING, AND/OR CONSTRUCTION.
2. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) SPECIFICATIONS, ACI 301, ACI 304, AND ACI 117 LATEST EDITIONS. FOOTINGS, MATS, AND DRILLED PIERS SHALL COMPLY WITH ACI 336. LATEST EDITION.
3. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, AND ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", LATEST EDITION.

B. CLASSES OF CONCRETE
1. REFERENCE 1/SG1.2 FOR THE MINIMUM 28-DAY COMPRESSIVE STRENGTH (f'c) FOR ALL CLASSES OF CONCRETE.

C. CONCRETE MIX
1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE CONCRETE MIX FOR EACH CLASS OF CONCRETE TO ACHIEVE THE 28-DAY COMPRESSIVE STRENGTH. PREPARE DESIGN MIXES SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE THE PROJECT IS IN FOR EACH CLASS OF CONCRETE, PROPORTIONED ACCORDING TO ACI 301, FOR BOTH NORMAL WEIGHT AND LIGHTWEIGHT CONCRETE DETERMINED BY EITHER LABORATORY TRIAL MIX OR FIELD TEST DATA.
2. FIELD EXPERIENCE OR TRIAL MIXTURES ARE ACCEPTABLE PROVIDED ALL CRITERIA ARE MET:
   a. THE CONTRACTOR PROVIDES PROPER DOCUMENTATION OF THE STRENGTH TEST RECORDS NOT MORE THAN 24 MONTHS OLD AND SHALL CLEARLY INDICATE MATERIALS, QUALITY CONTROL PROCEDURES, AND CONDITIONS SIMILAR TO THOSE EXPECTED FOR THE PROJECT. THE CONCRETE MATERIALS INCLUDED IN THE MIX DESIGN SHALL BE THE SAME MATERIALS PROVIDED FOR THE PROJECT, AND SHALL BE PREPARED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE OWNER.
   b. A MINIMUM OF 30 CONSECUTIVE TESTS OR TWO GROUPS OF CONSECUTIVE TESTS TOTALING TO 30 TESTS.
   c. ALL CONSECUTIVE TESTS ARE WITHIN 1000 PSI OF f'c.
   d. THE CONTRACTOR SHALL SUBMIT A CALCULATION OF THE SAMPLES STANDARD DEVIATION AND THE REQUIRED AVERAGE COMPRESSIVE STRENGTH, f'cr, IN ACCORDANCE TO ACI 318 (EDITION LISTED ON DESIGN CRITERIA) SECTION R5.3.1 AND TABLE 5.3.2.1, RESPECTIVELY.
3. SLUMP: REFERENCE 1/SG1.2 FOR SLUMP, 5" UNLESS NOTED OTHERWISE.
4. ADJUSTMENT TO CONCRETE MIXES: MIX DESIGN ADJUSTMENTS MAY BE REQUESTED BY THE CONTRACTOR WHEN CHARACTERISTICS OF MATERIALS, JOB CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT, AT NO ADDITIONAL COST TO OWNER AND AS ACCEPTED BY THE OWNER. LABORATORY TEST DATA FOR REVISED MIX DESIGN AND STRENGTH RESULTS MUST BE SUBMITTED TO AND ACCEPTED BY THE OWNER OR OWNER REP. BEFORE USING IN WORK. BOTH THE CONCRETE TESTING AND INSPECTION AGENCY AND THE CONCRETE CONTRACTOR SHALL SATISFY THEMSELVES THAT THE CONCRETE MIX DESIGN WILL PRODUCE A CONCRETE MIX THAT WILL MEET THE SPECIFICATIONS FOR THIS PROJECT. IN ADDITION, THE CONTRACTOR AND CONCRETE FINISHER SHALL VERIFY THAT THE WORKABILITY, FINISH, AND SETTING TIMES ARE APPROPRIATE FOR CONCRETE INSTALLATIONS. PLACEMENT SHALL BE MADE BY CHUTE DIRECTLY FROM THE CONCRETE TRUCKS. PUMPING OF THE CONCRETE IS CONTEMPLATED FOR ANY SPECIAL LOCATIONS, THE PROPORTIONS ESTABLISHED ABOVE SHALL NOT BE ALTERED TO THE CAPABILITIES OF THE PUMPING EQUIPMENT. PUMP SHALL NOT BE PRIMED OVER STRUCTURAL CONCRETE LOCATIONS.
5. READY MIX CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C94. DISCHARGE OF THE CONCRETE SHALL BE COMPLETED WITHIN 90 MINUTES OR BEFORE THE DRUM HAS REVOLVED 300 REVOLUTIONS, WHICHEVER COME FIRST.
6. WATER/CEMENT RATIO SHALL BE BASED ON SURFACE DRY MATERIAL REFERENCE 1/SG1.2.
7. PORTLAND CEMENT: CONFORM TO ASTM C150, TYPE I USE ONE MANUFACTURER OF CEMENT THROUGHOUT THE PROJECT.
8. FLY ASH: CONFORM TO ASTM C618.
9. COARSE AND FINE AGGREGATES: CONFORM TO ASTM C33 FOR NORMAL WEIGHT CONCRETE AND ASTM C330 FOR LIGHTWEIGHT CONCRETE.
10. WATER: CONFORM WITH ASTM C1602.
11. CHEMICAL ADMIXTURES: CONCRETE SHALL CONTAIN CHEMICAL ADMIXTURES TO OBTAIN THE SPECIFIED DESIGN STRENGTH IN ACCORDANCE WITH ASTM C494.
12. AIR-ENTRAINING ADMIXTURES: SHALL CONFORM TO ASTM C260. AIR-ENTRAINING ADMIXTURE SHALL NOT BE USED ON INTERIOR CONCRETE.
13. WATER-REDUCING ADMIXTURE: SHALL CONFORM TO ASTM C494, TYPE A AND CONTAIN NOT MORE THAN 0.05% CHLORIDE IONS.
14. WATER REDUCING, RETARDING ADMIXTURE: SHALL CONFORM TO ASTM C494, TYPE D, AND CONTAIN NOT MORE THAN 0.05% CHLORIDE IONS.
15. HIGH RANGE WATER-REDUCING ADMIXTURE (SUPERPLASTICIZER): SHALL CONFORM TO ASTM C494, TYPE F OR TYPE G AND CONTAIN NOT MORE THAN 0.05% CHLORIDE IONS.
16. WATER-REDUCING, NON-CORROSIVE ACCELERATING ADMIXTURE: SHALL CONFORM TO ASTM C494, TYPE C OR E AND CONTAIN NOT MORE CHLORIDE IONS THAN THAT ARE PRESENT IN MUNICIPAL DRINKING WATER. THE ADMIXTURE MANUFACTURER MUST HAVE LONG-TERM, NON-CORROSIVE TEST DATA FROM AN INDEPENDENT TESTING LABORATORY (OF AT LEAST 4 YEARS DURATION) USING AN ACCEPTABLE ACCELERATED CORROSION TEST METHOD TO VERIFY NON-CORROSIVE ELECTRICAL POTENTIAL MEASURES.
17. PROHIBITED ADMIXTURES: CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 0.05% CHLORIDE IONS ARE NOT PERMITTED.

D. CONSTRUCTION JOINTS
1. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN SLABS OR BEAMS BLOCK OUT "BLEEDS SHALL BE DEMOLISHED.
2. VERTICAL CONSTRUCTION JOINTS IN SLABS OR BEAMS ARE TO BE AS SHOWN ON PLANS OR AS APPROVED BY THE ENGINEER.
3. SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED AND LAITANCE REMOVED.
4. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER REMOVED.
5. REFERENCE TYPICAL DETAILS FOR CONSTRUCTION JOINT REINFORCING AND SHEAR KEY REQUIREMENTS.
6. CONSTRUCTION JOINTS IN FLOORS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN OF SLABS, BEAMS, AND GIRDERS.
7. CONSTRUCTION JOINTS IN GIRDERS SHALL BE OFFSET A MINIMUM DISTANCE OF TWO TIMES THE WIDTH OF THE INTERSECTING BEAMS.
8. BEAMS, GIRDERS, HAUNCHES, DROP PANELS, SHEAR CAPS, AND CAPITALS SHALL BE PLACED MONOLITHICALLY UNLESS NOTED OTHERWISE.

E. OPENINGS AND PENETRATIONS
1. ALL OPENINGS IN SLABS (FOR PIPES, DRAINS, ETC.) SHALL BE SEALED WITH SEALANT.
2. UTILITIES THAT PROJECT THROUGH SLAB FLOORS SHALL BE DESIGNED WITH SLEEVES IN ORDER TO PREVENT DAMAGE TO THE LINE SHOULD ANY MOVEMENT OCCUR.
3. ALL OPENINGS AND PENETRATIONS ARE TO BE REINFORCED AROUND THE PERIMETER. REFERENCE THE TYPICAL DETAILS FOR REINFORCING REQUIREMENTS.

F. EMBEDMENTS
1. ANCHOR RODS, DOWELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACING CONCRETE.
2. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ALL MOLDS, GROOVES, REGLETS, PIPES, CONDUITS, INSERTS, ETC. TO BE CAST IN CONCRETE. PROVIDE OVERSIZED SLEEVES FOR PLUMBING AND ELECTRICAL CONDUITS AND PIPES. NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE FOOTINGS, BEAMS, COLUMNS, WALLS, OR SLABS UNLESS DETAILED IN STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER OF RECORD.
3. CONDUITS ARE PERMITTED TO BE LOCATED BELOW SLAB-ON-GRADE REINFORCING THESE MUST BE LOCATED BELOW THE DESIGN DEPTH OF THE SLAB WITHIN A THICKENED SLAB. COORDINATE INSTALLATION OF RACEWAYS PRIOR TO PLACEMENT.
4. NO LIQUID, GAS, OR VAPOR, EXCEPT WATER NOT EXCEEDING 90 DEGREES FAHRENHEIT NOR 50 PSI PRESSURE SHALL BE PLACED IN THE PIPES UNTIL THE CONCRETE HAS ACHIEVED ITS DESIGN STRENGTH.
5. ALUMINUM CONDUITS, PIPES, OR OTHER INSERTS ARE NOT PERMITTED TO BE EMBEDDED INTO STRUCTURAL CONCRETE.

G. FORMWORK, SHORING, AND BACKSHORING
1. ALL FORMWORK SHALL BE DESIGNED BY THE GENERAL CONTRACTOR IN ACCORDANCE TO THE ACI 347 " GUIDE TO FORMWORK FOR CONCRETE" LATEST EDITION.
2. DESIGN OF FORMWORK SHALL CONSIDER:
   a. RATE AND METHOD OF PLACING CONCRETE.
   b. CONSTRUCTION LOADS, INCLUDING VERTICAL, HORIZONTAL AND IMPACT LOADS.
   c. SPECIAL FORM REQUIREMENTS FOR CONSTRUCTION OF CURVED MEMBERS, SHELLS, FOLDED PLATES, DOMES, ARCHITECTURAL CONCRETE, OR SIMILAR TYPES OF ELEMENTS.
3. FORMS SHALL BE PROPERLY BRACED OR TIED TOGETHER TO MAINTAIN POSITION OF SHAPE.
4. FORMS SHALL BE SUBSTANTIAL AND SUFFICIENTLY TIGHT TO PREVENT LEAKAGE OR BLOWOUTS.
5. FORMS SHALL BE REMOVED SUCH THAT IT DOES IMPAIR THE SAFETY, SERVICEABILITY, AND STRUCTURAL INTEGRITY OF THE STRUCTURE.
6. BEFORE STARTING CONSTRUCTION, THE GENERAL CONTRACTOR IS RESPONSIBLE IN DEVELOPING A PROCEDURE AND SCHEDULE FOR REMOVAL OF SHORES AND INSTALLATION OF RESHORES AND FOR CALCULATING THE LOADS TRANSFERRED TO THE STRUCTURE DURING THE PROCESS.
7. NO CONSTRUCTION LOADS SHALL BE SUPPORTED ON, ANY SHORING REMOVED FROM, ANY PART OF THE STRUCTURE UNDER CONSTRUCTION EXCEPT SHORING HAS SUFFICIENT STRENGTH TO SUPPORT, SAFELY, ITS SELF-WEIGHT AND LOADS PLACED THEREON.
8. SUFFICIENT STRENGTH OF THE STRUCTURE BEING CONSIDERED IS OBTAINED WHEN THE CONCRETE STRENGTH HAS REACHED ITS DESIGN STRENGTH THROUGH APPROVED TESTING.

H. CONCRETE TESTING
1. CONCRETE SHALL BE TESTED IN ACCORDANCE TO ASTM C172, ASTM C31, ASTM C39, ASTM D3665, AND ACI 214R, ALL LATEST EDITION.
2. FREQUENCY OF SAMPLES FOR STRENGTH TESTING OF EACH CLASS OF CONCRETE SHALL BE:
   a. ONCE EACH DAY A GIVEN CLASS IS PLACED.
   b. ONCE FOR EACH 150 CYD OF EACH CLASS PLACED EACH DAY.
   c. FOR SLABS OR WALLS LESS THAN OR EQUAL TO 9 3/4" THICK, SAMPLING SHALL BE ONCE FOR EACH 5000 SQ FT OF SLAB OR WALL SURFACE AREA (ONE SIDE ONLY) PLACED EACH DAY. FOR SLABS OR WALLS GREATER THAN 9 3/4" THICK, SAMPLING SHALL BE ONCE FOR EACH 2500 SQ FT OF SLAB OR WALL SURFACE AREA (ONE SIDE ONLY) PLACED EACH DAY.
3. CONCRETE TESTING SHALL BE THREE SETS OF CYLINDERS. ONE SET CONSISTS OF THREE 4 BY 8 IN CYLINDERS TESTED FOR COMPRESSION AT 7 DAYS AND THREE 4 BY 8 IN CYLINDERS AT 28 DAYS. 1 CYLINDER AT 56 DAYS.
4. WHERE THE TOTAL VOLUME OF CONCRETE FOR A GIVEN CLASS OF CONCRETE WOULD BE LESS THAN FIVE TESTS, PROVIDE A TEST FOR EACH BATCH.
5. LABORATORY AND FIELD TECHNICIANS SHALL BE CERTIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI "CONCRETE FIELD TESTING TECHNICIAN-GRADE 1 CERTIFICATION PROGRAM" OR THE REQUIREMENTS OF ASTM C1077 OR AN EQUIVALENT PROGRAM.
6. TEST REPORTS SHOULD BE PROMPTLY DISTRIBUTED TO THE OWNER, ARCHITECT, ENGINEER, GENERAL CONTRACTOR, SUB-CONTRACTORS, SUPPLIERS, AND BUILDING OFFICIAL TO ALLOW EITHER COMPLIANCE OR THE NEED FOR CORRECTIVE ACTION.
7. STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF CONCRETE SHALL MEET THE FOLLOWING CRITERIA:
   a. THE AVERAGE OF THREE CONSECUTIVE STRENGTH TESTS SHALL BE EQUAL TO OR EXCEED THE DESIGN STRENGTH, f'c.
   b. THE AVERAGE OF THE STRENGTHS OF EACH TEST SHALL NOT FALL BELOW THE DESIGN STRENGTH, f'c, BY MORE THAN 500 PSI FOR f'c ≤ 5000 PSI OR BY 0.1*f'c FOR f'c > 5000 PSI.
8. IF THE CRITERIA ABOVE IS NOT MET, THREE CORE DRILLED SAMPLES IN THE AREA OF QUESTION SHALL BE TAKEN. AT THE EXPENSE OF THE GENERAL CONTRACTOR, FOR EACH STRENGTH TEST THAT FAILS TO MEET THE CRITERIA. TESTING OF CORE DRILLED SAMPLES SHALL BE IN ACCORDANCE TO ASTM C42.
9. CORE DRILLED SAMPLES SHALL BE TESTED NO EARLIER THAN 48 HOURS AND NOT LATER THAN 7 DAYS AFTER CORING.

REINFORCED CONCRETE (CONT) :

I. PLACEMENT OF CONCRETE
1. READY-MIXED CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE TO ASTM C94.
2. CONCRETE SHALL BE CONVEYED FROM MIXER TO PLACE OF FINAL DEPOSIT BY METHODS THAT WILL PREVENT SEPARATION OR LOSS OF MATERIALS. CONCRETE SHALL BE DEPOSITED AT OR NEAR ITS FINAL POSITION BY THE USE OF PUMPS, TREMIES, AND OTHER MEANS AND METHODS.
3. DO NOT ALLOW CONCRETE TO FREE FALL MORE THAN 5 FEET DURING PLACEMENT.
4. ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED DURING PLACEMENT IN ACCORDANCE TO ACI 309R LATEST EDITION.
5. MECHANICALLY VIBRATE ALL CONCRETE DURING PLACEMENT TO AVOID AIR ENTRAPMENTS.
6. NO CONCRETE PLACEMENT IS PERMITTED WHEN THE TEMPERATURE OF FRESH CONCRETE IS GREATER THAN OR EQUAL TO 96°F.
7. NO CONCRETE PLACEMENT IS PERMITTED DURING RAIN FALL.
8. COLD WEATHER REQUIREMENTS:
   a. WHEN THE AMBIENT TEMPERATURE IS BELOW 50°F, PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE TO ACI 306R.
   b. ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR-FREEZING WEATHER.
   c. ALL CONCRETE MATERIAL AND ALL REINFORCING, FORMS, FILLERS, AND GROUND WITH WHICH CONCRETE IS TO COME IN CONTACT SHALL BE FREE OF FROST.
9. HOT WEATHER REQUIREMENTS:
   a. WHEN THE AMBIENT TEMPERATURE EQUALS OR EXCEEDS 80°F, PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE TO ACI 305R.
   b. PROPER ATTENTION SHALL BE GIVEN TO CONCRETE MIX, PRODUCTION METHODS, HANDLING, PLACING, PROTECTION, CURING TO PREVENT EXCESSIVE CONCRETE TEMPERATURES OR WATER EVAPORATION THAT COULD IMPAIR THE REQUIRED DESIGN STRENGTH.
   c. NON-TOXIC EVAPORATION RETARDERS ARE ACCEPTABLE PROVIDED THE PRODUCT DOES NOT IMPAIR THE REQUIRED DESIGN STRENGTH. WHEN USED, THE GENERAL CONTRACTOR MUST EXERCISE PROPER SAFETY MEASURES.
10. ALL EXPOSED CONCRETE SHALL HAVE A SMOOTH FINISH SURFACE. EXPOSED CONCRETE SURFACES WITH SPALLS, CHIPS, CRACKS, HONEYCOMBS, DISCOLORATION, AND OTHER IMPERFECTIONS SHALL BE PATCHED WITH A FAST-SETTING, READY TO USE, CEMENTITIOUS POLYMER-MODIFIED REPAIR MORTAR THAT SHALL MEET ALL THE FOLLOWING CRITERIA:
   a. MINIMUM COMPRESSIVE STRENGTH = 5000 PSI @ 28 DAYS IN ACCORDANCE WITH ASTM C109
   b. MINIMUM FLEXURAL STRENGTH = 1100 PSI @ 28 DAYS IN ACCORDANCE WITH ASTM C293
   c. MINIMUM BOND STRENGTH = 1800 PSI @ 28 DAYS IN ACCORDANCE WITH ASTM C882
   d. COLOR = CONCRETE GRAY
   e. WET MIX DENSITY ≤ 110 PCF

J. TOLERANCES
1. ALL CONCRETE TOLERANCES SHALL COMPLY WITH ACI 117, "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS" LATEST EDITION.
2. ALL SLAB-ON-GRADES AND SUSPENDED FLOOR SLABS SHALL BE TESTED FOR FLOOR FLATNESS AND FLOOR LEVELNESS IN ACCORDANCE TO ASTM E1155 UTILIZING THE F-NUMBER METHOD. THE SLAB-ON-GRADE AND SUSPENDED FLOOR SLABS MEASURED F-NUMBERS SHALL MEET THE FOLLOWING CLASSIFICATION:
   a. SPECIFIED OVERALL FLOOR FLATNESS (SOFF): 25
   b. SPECIFIED OVERALL FLOOR LEVELNESS (SOFL): 20
   c. MINIMUM LOCAL FLOOR FLATNESS (MLFF): 0.66*SOFF
   d. MINIMUM LOCAL FLOOR LEVELNESS (MLFL): 0.66*SOFL
3. F-NUMBERS SHALL BE MEASURED WITHIN 72 HOURS OF PLACING THE SLAB.
4. WHERE DEFICIENCIES ARE DETECTED, REMEDIATION TO THE DEFICIENT AREA WILL BE REQUIRED AT THE EXPENSE OF THE GENERAL CONTRACTOR. REMEDIAL PROCEDURES SUCH AS, BUT NOT LIMITED TO, GRINDING OR THE USE OF A SELF-LEVELING UNDERLAYMENT SHALL BE DETERMINED BY THE CONTRACTOR TO BRING THE DEFICIENT AREAS IN COMPLIANCE WITH MINIMUM TOLERANCES.
5. IN ALL INSTANCES THE MINIMUM SLAB/WALL THICKNESS, BEAM DEPTHS AND WIDTHS, COLUMN DIMENSIONS, SHALL BE OBTAINED. COORDINATE SLAB FINISHES WITH ARCHITECTURAL PLANS.

K. PLACEMENT OF REINFORCEMENT
1. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. REFERENCE "REINFORCING STEEL" NOTES FOR ADDITIONAL INFORMATION.
2. SLAB-ON-GRADE:
   a. REINFORCEMENT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE UNLESS NOTED OTHERWISE.
   b. PROVIDE Z-BARS, SAME SIZE AND SPACING AND IN THE APPLICABLE DIRECTION WHERE THE SLAB STEPS DOWN MORE THAN 3". THE Z-BARS SHALL LAP THE MAIN SLAB REINFORCING STEEL AS NEEDED.

3. GRADE BEAMS, CONTINUOUS WALL FOOTINGS, AND SPREAD FOOTINGS:
   a. REINFORCEMENT SHALL BE CONTINUOUS ACROSS THE ENTIRE PROFILE UNLESS NOTED OTHERWISE.
   b. PROVIDE CORNER BARS, TOP AND BOTTOM, AT ALL BEAM CORNERS AND DEAD END BEAM INTERSECTIONS; REFERENCE APPLICABLE DETAILS FOR ADDITIONAL INFORMATION. BARS TO EQUAL SIZE AND QUANTITY OF THE NOTED BEAM STEEL BARS UNLESS NOTED OTHERWISE.
   c. EXTEND THE SLAB REINFORCING STEEL PERPENDICULAR TO BEAM, TO THE TOP OUTSIDE REINFORCING BAR OF THE PERIMETER BEAMS. START THE SLAB REINFORCING STEEL, PARALLEL TO THE BEAM, NOT MORE THAN 6" FROM THE TOP INSIDE REINFORCING BAR OF PERIMETER BEAMS.
   d. VERTICAL REINFORCEMENT SHALL BE TIED AND PLACED IN POSITION AT THE TOP AND BOTTOM, AND AT INTERMEDIATE LOCATIONS, SPACED NOT GREATER THAN 18 INCHES ON CENTER.

4. DRILLED PIERS:
   a. REINFORCEMENT SHALL BE CONTINUOUS ACROSS THE ENTIRE PROFILE UNLESS NOTED OTHERWISE.

5. SUSPENDED SLAB (ONE-WAY)
   a. REINFORCEMENT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE. DESIGN REINFORCING IS PLACED PARALLEL TO THE DIRECTION OF SPAN. TEMPERATURE STEEL IS PROVIDED PERPENDICULAR TO THE DIRECTION OF THE SPAN.
   b. WHERE LAP SPLICES OF BARS ARE REQUIRED, LOCATE BOTTOM BAR LAP SPLICES OVER CONCRETE BEAMS OR GIRDERS, AND LOCATE TOP BAR LAP SPLICES AT MIDSPAN IN BETWEEN BEAMS.
   c. REFERENCE TYPICAL DETAILS FOR ADDITIONAL REQUIREMENTS.
6. SUSPENDED SLAB (TWO-WAY)
   a. TOP AND BOTTOM REINFORCING MATS SHALL BE CONTINUOUS EACH WAY UNLESS NOTED OTHERWISE.
   b. ADDITIONAL BARS ARE SHOWN ON THE DRAWINGS.
   c. WHERE LAP SPLICES OF BARS ARE REQUIRED, LOCATE BOTTOM BAR LAPS CENTERED TO THE COLUMN STRIPS, AND TOP BAR LAPS CENTERED TO THE MIDDLE STRIPS IN EACH DIRECTION.
   d. REFERENCE DETAILS FOR ADDITIONAL REQUIREMENTS.
7. BEAMS AND GIRDERS:
   a. REFERENCE REINFORCING SCHEDULE FOR LONGITUDINAL BAR PLACEMENT. BARS ARE TO BE CONTINUOUS UNLESS NOTED OTHERWISE.
   b. REFERENCE TYPICAL DETAILS FOR BAR LAP SPLICES. LOCATE LAP SPLICES OF BOTTOM BARS CENTERED OVER SUPPORTS, AND LOCATE TOP BAR LAPS CENTERED AT MIDSPAN IN BETWEEN SUPPORTS.
   c. REFERENCE DETAILS FOR ADDITIONAL REQUIREMENTS.
8. COLUMNS:
   a. PROVIDE CONTINUOUS LONGITUDINAL REINFORCING EQUALLY SPACED.
   b. WHERE REQUIRED, SPLICE LONGITUDINAL REINFORCING WITH A CLASS B TENSION LAP SPLICE.
   c. REFERENCE DETAILS FOR ADDITIONAL REQUIREMENTS.
9. WALLS
   a. PROVIDE CONTINUOUS REINFORCING IN BOTH DIRECTIONS AND IN EACH FACE WHERE APPLICABLE.
   b. AT HORIZONTAL CONSTRUCTION JOINTS (CONSTRUCTION LIFTS), VERTICAL BARS MUST PROJECT THE LAP SPLICE LENGTH AS SCHEDULED AS A MINIMUM LENGTH. THE GENERAL CONTRACTOR MUST COORDINATE BAR PLACEMENTS TO AVOID OVER-REINFORCING THE CONCRETE WALL.
   c. REFERENCE DETAILS FOR ADDITIONAL INFORMATION.
10. DOWELS
   a. WALLS, PILASTERS, AND COLUMNS SHALL BE DOWELED TO THE SUPPORTING FOOTINGS WITH REINFORCEMENT AS SCHEDULED OR OF THE SAME SIZE, GRADE AND AT THE SAME SPACING AS THE VERTICAL REINFORCEMENT IN THE WALLS, PILASTERS, OR COLUMNS UNLESS NOTED OTHERWISE.

REINFORCED CONCRETE (CONT) :

11. TOPPING SLABS
   a. PROVIDED WELDED WIRE REINFORCING 6X6-W2.9XW2.9 IN ALL TOPPING SLABS UNLESS NOTED OTHERWISE.
12. HOUSEKEEPING PADS:
   a. PROVIDED #5 AT 12" ON CENTER EACH WAY IN ALL HOUSEKEEPING PADS THAT SUPPORT MECHANICAL EQUIPMENT.

L. VAPOR RETARDER
1. REFERENCE DRAWINGS FOR LOCATION AND EXTENTS OF VAPOR RETARDERS. FOR SLAB-ON-GRADE FOUNDATIONS, A VAPOR RETARDER IS TO BE INSTALLED OVER APPROVED SELECT FILL UNLESS NOTED OTHERWISE.
2. FOR ALL CONDITIONS, THE VAPOR RETARDER SHALL CONFORM TO ASTM E1745, CLASS A AND SHALL HAVE A MINIMUM WATER VAPOR PERMEANCE OF 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E96. THE VAPOR RETARDER SHALL NOT BE LESS THAN 15 MILS THICK.
3. PRE-APPROVED PRODUCTS:
   a. STEGO WRAP 15 MIL VAPOR BARRIER (CLASS A).
   b. OTHERS PROPOSED BY SUBMITAL PROCESS.

4. INSTALLATION
   a. LAY SHEETS SMOOTHLY, STRETCH AND WEIGHT EDGES. LAP JOINTS AND SEAL WITH TAPE AS SPECIFIED BY THE VAPOR RETARDER MANUFACTURER. TURN THE RETARDER UP AT WALLS AND AT ALL PIPES, ABUTMENTS, ETC., AND TAPE AND SEAL AT PENETRATIONS AND AT EDGES AS SPECIFIED BY THE VAPOR RETARDER MANUFACTURER.

5. PATCHING
   a. PATCH ALL PUNCTURES WITH A MINIMUM OVERLAP OF 6" IN ALL DIRECTIONS AND TAPE AROUND THE ENTIRE PERIMETER OF REPAIR.

M. PRE-INSTALLATION CONFERENCE
1. AT LEAST 30 DAYS PRIOR TO THE START OF THE CONCRETE CONSTRUCTION SCHEDULE, THE CONTRACTOR SHALL CONDUCT A MEETING TO REVIEW THE PROPOSED MIX DESIGNS AND TO DISCUSS THE REQUIRED METHODS AND PROCEDURES TO ACHIEVE THE REQUIRED CONCRETE CONSTRUCTION. THE CONTRACTOR SHALL SEND A PRE-INSTALLATION CONFERENCE AGENDA TO ALL ATTENDEES 20 DAYS PRIOR TO THE SCHEDULED DATE OF THE CONFERENCE.
2. THE CONTRACTOR SHALL REQUIRE RESPONSIBLE REPRESENTATIVES OF EVERY PARTY CONCERNED WITH THE CONCRETE WORK TO ATTEND THE CONFERENCE, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   a. GENERAL CONTRACTOR'S SUPERINTENDENT
   b. LABORATORY RESPONSIBLE FOR CONCRETE MIXES AND/OR FIELD QUALITY CONTROL
   c. READY-MIX CONCRETE PRODUCER
   d. CONCRETE SUB-CONTRACTOR
   e. JOINT FILLING APPLICATOR
3. MINUTES OF THE MEETING SHALL BE RECORDED, TYPED AND PRINTED BY THE CONTRACTOR AND DISTRIBUTED TO ALL CONCERNED PARTIES, INCLUDING THE OWNER'S REPRESENTATIVE, THE ARCHITECT, AND THE STRUCTURAL ENGINEER WITHIN FIVE DAYS OF THE MEETING.

N. CONCRETE SUB-CONTRACTOR QUALIFICATION
1. THE CONCRETE SUB-CONTRACTOR SHALL INCLUDE IN THEIR BID PACKAGE TO THE GENERAL CONTRACTOR EVIDENCE DATA THAT CLEARLY INDICATES THE CONCRETE CONTRACTOR'S ABILITY TO SUCCESSFULLY PERFORM THE WORK AND TO ACHIEVE THE TOLERANCES SPECIFIED IN THIS SECTION.

O. CONCRETE CURING
1. CONCRETE SHALL BE MAINTAINED ABOVE 50°F AT ALL TIMES.
2. CONCRETE, OTHER THAN HIGH-EARLY STRENGTH CONCRETE, SHALL BE IN MOIST CONDITION FOR AT LEAST 7 DAYS.
3. HIGH-EARLY STRENGTH CONCRETE SHALL BE IN MOIST CONDITION FOR AT LEAST 3 DAYS.
4. EXTERIOR CURING: ALL EXTERIOR CONCRETE SLABS SHALL BE CURED USING A LIQUID MEMBRANE-FORMING CURING COMPOUND. THE LIQUID MEMBRANE-FORMING CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C1315 WITH A MAXIMUM VOLATILE ORGANIC CONTENT (VOC) OF 700 g/L.
5. INTERIOR CURING: ALL INTERIOR CONCRETE SLABS SHALL BE CURED USING A REDUCED ODOR, DISSIPATING LIQUID MEMBRANE-FORMING CURING COMPOUND THAT IS FORMULATED FROM HYDROCARBON RESINS. THE DISSIPATING LIQUID MEMBRANE-FORMING CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C309 WITH A MAXIMUM VOLATILE ORGANIC CONTENT (VOC) OF 399 g/L. APPLY AT 400 SF/GALLON.
6. CURING COMPOUNDS SHALL BE PLACED WITHIN 4 HOURS AFTER PLACEMENT OF CONCRETE.
7. FOR POLISHED SLAB FINISHES, PROVIDE BURLAP MEMBRANES DURING ENTIRE CONSTRUCTION OF THE BUILDING. DO NOT PROVIDE CURING COMPOUND.

P. CONTRACTION JOINTS IN SLAB-ON-GRADE
1. SAW 1/8" SHALLOW PLANE CONTRACTION JOINTS SPACED NOT FURTHER THAN 15'-0" ON CENTER EACH WAY. SECTION CONCRETE INTO AREAS AS INDICATED IN THE DRAWINGS.
2. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST 1/4 OF THE CONCRETE THICKNESS.
3. SAWED JOINTS: ALL SAW CUTTING SHALL BE ACCOMPLISHED WITH A SOFT-CUT SAW AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND OPERATOR.
4. CONCRETE DUST SHALL BE REMOVED COMPLETELY AND IMMEDIATELY.
5. ALL CONTRACTION JOINTS SHALL BE CAULKED WITH AN EFFECTIVE SEALANT THAT CAN BOND TO THE CONCRETE, IS IMPERMEABLE AND ABLE TO WITHSTAND THERMAL EXPANSION AND CONTRACTION.

Q. CONCRETE PROTECTION
1. SLAB PROTECTION
   a. FOR ALL CONCRETE PLACED AND HYDRAULIC EQUIPMENT PREVENT FLUID LEAKS.
   b. PROVIDE NON-MARKING TIRES ON RUBBER TIRED VEHICLES OR EQUIP RUBBER TIRES WITH TIRE BOOTS MADE OF NYLON FABRIC.
   c. PROVIDE MATS AT ALL ENTRANCES TO PREVENT MUD STAINS.
   d. COVER SLAB PRIOR TO PAINTING. ALL SPILLS ARE TO BE CLEARED WITH SOAP AND WATER.
2. CONCRETE COVER
   1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS OF THE ACI 318 (EDITION IN THE DESIGN CRITERIA) SECTION 7.7 AND THE DETAILS.
   2. INCREASE COVER TO MAINTAIN THE MINIMUM SPECIFIED WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES.
   3. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGES/SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.
   4. MINIMUM CONCRETE COVER FOR REINFORCING AS FOLLOWS:
      a. ALL CONCRETE CAST AND PERMANENTLY EXPOSED TO EARTH..... 3"
      b. CONCRETE EXPOSED TO EARTH OR WEATHER:
         i. #6 THROUGH #18..... 2"
         ii. #5, W31 OR D31, AND SMALLER..... 1-1/2"
      c. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
         i. SLABS, WALLS, JOISTS:
            #14 THROUGH #18..... 1-1/2"
            #11 AND SMALLER..... 3/4"
         ii. B

MISCELLANEOUS :

A. CONTRACT DOCUMENTS
1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONSTRUCTION DOCUMENTS, THE LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUB-CONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND, ERECTION IN THE FIELD.
2. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES.
3. THE GENERAL CONTRACTOR SHALL COORDINATE ALL OPENINGS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS AND SUB-CONTRACTORS.
4. REFERENCE THE COMPLETE CONTRACT DOCUMENTS ASIDE FROM THE STRUCTURAL DRAWINGS SUCH
5. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN OR SPECIFIED IN SIMILAR CONDITIONS.
6. WHERE DETAILS OR SECTIONS ARE NOT SHOWN IN THE DRAWINGS, THE GENERAL CONTRACTOR SHALL DEVELOP THEIR OWN DETAILS OR SECTIONS BASED ON SIMILAR DETAILS OR SECTIONS IN THE DRAWINGS.

B. DRAWING CONFLICTS
1. THE GENERAL CONTRACTOR SHALL GIVE NOTIFICATION OF ANY AND ALL DISCREPANCIES WITHIN THE STRUCTURAL DRAWINGS PRIOR TO BIDDING, FABRICATION, AND INSTALLATION OF ALL STRUCTURAL MEMBERS.

C. CONFLICTS IN STRUCTURAL REQUIREMENTS
1. WHERE CONFLICTS EXIST WITHIN THE STRUCTURAL DRAWINGS, GENERAL NOTES, OR SPECIFICATIONS, THE MORE STRINGENT, STRICTEST, REQUIREMENT SHALL SUPERCEDE.

D. EXISTING CONDITIONS
1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE EXISTING BUILDINGS AT THE JOB SITE AND REPORT ANY DISCREPANCIES FROM ASSUMED CONDITIONS SHOWN ON THE DRAWINGS TO THE ENGINEER PRIOR TO FABRICATION, ERECTION, OR INSTALLATION OF ANY STRUCTURAL MEMBERS.
2. WORK SHOWN ON THE DRAWINGS IS NEW CONSTRUCTION, UNLESS NOTED AS EXISTING IN THE DRAWINGS.
3. EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS IS LIMITED SITE OBSERVATION. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS.
4. DEMOLITION, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH HIGH CAUTION SUCH THAT IT DOES NOT JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING. IF ANY ENGINEER, STRUCTURAL, OR MEP MEMBERS OR ELEMENTS ARE CONFLICTING WITH THE NEW CONSTRUCTION, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND APPROVAL SHALL BE OBTAINED PRIOR TO REMOVING CONFLICTING MEMBERS OR ELEMENTS.
5. THE CONTRACTOR SHALL SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF NEW CONSTRUCTION. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TAKE EXTRA CARE TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES CAUSED DURING CONSTRUCTION WITH SIMILAR AND DISSIMILAR MATERIALS AS WELL AS WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE OWNER.

E. ADJACENT BUILDINGS
1. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION WILL NOT CAUSE DAMAGE TO THE ADJACENT BUILDINGS AND PROPERTY.

F. RESPONSIBILITY OF THE CONTRACTOR
1. ALL STRUCTURAL ELEMENTS AND MEMBERS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE CODE REQUIRED VERTICAL AND LATERAL LOADS THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BRACE, STABILIZE, AND MAINTAIN SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE STRUCTURAL SYSTEM HAS BEEN COMPLETED.
2. THE STRUCTURE HAS BEEN DESIGNED TO THE VERTICAL AND LATERAL LOADS INDICATED IN THESE DOCUMENTS. THE CONTRACTOR IS CAUTIONED NOT TO OVERLOAD THE STRUCTURAL SYSTEM DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING AND STORAGE, SHORING OR RESHORING, OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL SUBMIT CALCULATIONS SIGNED AND SEALED BY A LICENSED REGISTERED ENGINEER IN THE STATE THE PROJECT IS LOCATED TO VERIFY THE ADEQUACY OF THE STRUCTURE FOR ANY PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED BY ANY CONSTRUCTION ACTIVITY.

G. SUBSTITUTIONS
1. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT DIFFER FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL DOCUMENTS WILL BE APPROVED ONLY IF THERE IS A COST SAVINGS TO THE OWNER, DOCUMENTED, AND AN INTERNATIONAL CODE COUNCIL (ICC) REPORT IS SUBMITTED WITH THE REQUEST.
2. FOR SUBSTITUTIONS FOR ANY MATERIALS OR PRODUCTS SUPPORTING VERTICAL OR LATERAL LOADS SHALL BE SUBMITTED WITH SIGNED AND SEALED CALCULATIONS BY A LICENSED REGISTERED ENGINEER IN THE STATE THE PROJECT IS LOCATED IN ADDITION TO THE CRITERIA STATED ABOVE. REFER TO THE SPECIFICATIONS ON SUBSTITUTIONS.

SPECIAL INSPECTION AND MATERIAL TESTING :

A. GENERAL
1. SPECIAL INSPECTION AND MATERIAL TESTING ARE REQUIRED FOR THIS PROJECT TO ENSURE COMPLIANCE WITH THE PROJECT BUILDING CODE, THE CONTRACT DOCUMENTS, AND SPECIFICATIONS.
2. ALL SPECIAL INSPECTION AND MATERIAL TESTING SHALL COMPLY WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (IBC), PROJECT EDITION.
3. ALL SPECIAL INSPECTION AND MATERIAL TESTING SHALL BE PERFORMED BY A QUALIFIED APPROVED AGENCY.

B. DEFINITIONS
1. SPECIAL INSPECTION: INSPECTION OF CONSTRUCTION REQUIRING THE EXPERTISE OF AN APPROVED SPECIAL INSPECTOR IN ORDER TO ENSURE COMPLIANCE WITH THE APPLICABLE BUILDING CODE AND THE CONTRACT DOCUMENTS.
2. APPROVED AGENCY: AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING TESTS AND/OR FURNISHING INSPECTION SERVICES APPROVED BY THE BUILDING OFFICIAL OR AUTHORITIES HAVING JURISDICTION.
3. SPECIAL INSPECTOR: A QUALIFIED PERSON, EMPLOYED OR RETAINED BY THE APPROVED AGENCY AND APPROVED BY THE BUILDING OFFICIAL, HAVING THE COMPETENCE AND QUALIFICATIONS NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION.
4. CONTINUOUS INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.
5. PERIODIC INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHEN THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.
6. APPROVED FABRICATOR: AN AISC OR IAS CERTIFIED FABRICATOR THAT HAS AN ESTABLISHED QUALITY CONTROL MANAGEMENT PROGRAM AND PERIODIC AUDITING OF FABRICATION PRACTICES THAT IS APPROVED BY THE BUILDING OFFICIAL AND THE ENGINEER OF RECORD THAT ALLOWS WORK TO BE DONE ON THE PREMISES OF THE FABRICATOR WITHOUT SPECIAL INSPECTION.
7. ENGINEER OF RECORD (EOR): REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURAL SYSTEM.
8. REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC): A LICENSED ARCHITECT OR ENGINEER ACTING AS THE OWNER'S AGENT WHO IS RESPONSIBLE FOR THE SPECIAL INSPECTION.
9. BUILDING OFFICIAL: AN OFFICER OR OTHER DESIGNATED AUTHORITY CHARGED WITH THE ADMINISTRATION AND ENFORCEMENT OF THE GOVERNING BUILDING CODE.

C. OWNER RESPONSIBILITIES
1. THE OWNER SHALL EMPLOY OR CONTRACT THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC). THE RDPIRC SHALL NOT BE ANY DESIGN PROFESSIONAL ASSOCIATED WITH THE DESIGN TEAM.
2. THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC), ACTING AS THE OWNER'S AGENT, SHALL EMPLOY ANY APPROVED AGENCY TO PERFORM SPECIAL INSPECTIONS AND MATERIAL TESTING DUTIES SPECIFIED IN THE SECTION APPROVED BY THE BUILDING OFFICIAL OR AUTHORITIES HAVING JURISDICTION. THE RDPIRC IS PERMITTED TO ACT AS THE APPROVED AGENCY.

D. REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE RESPONSIBILITIES
1. THE RDPIRC SHALL IMPLEMENT A SPECIAL INSPECTIONS PROGRAM AND IS RESPONSIBLE FOR DETERMINING ALL REQUIRED SPECIAL INSPECTIONS AS DEFINED IN THE PROJECT BUILDING CODE.
2. THE RDPIRC SHALL ASSIGN ONLY TRAINED, EXPERIENCED, QUALIFIED SPECIAL INSPECTORS AND TESTING TECHNICIANS.
3. THE RDPIRC IS RESPONSIBLE FOR PROVIDING THE ARCHITECT, THE ENGINEER(S) OF RECORD, AND THE GENERAL CONTRACTOR A LIST OF ALL REQUIRED SPECIAL INSPECTIONS AND THE ASSOCIATED SPECIAL INSPECTORS PRIOR TO CONSTRUCTION.
4. THE RDPIRC SHALL PREPARE A STATEMENT OF SPECIAL INSPECTIONS.
5. THE RDPIRC SHALL SUBMIT APPLICABLE REPORTS AND CERTIFICATES TO THE BUILDING OFFICIAL.

E. STATEMENT OF SPECIAL INSPECTIONS
1. THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) SHALL PREPARE, SIGN AND SEAL A STATEMENT OF SPECIAL INSPECTIONS IN ACCORDANCE TO THE INTERNATIONAL BUILDING CODE (IBC), PROJECT EDITION, SECTION 1704.3 AND SUBMIT TO THE BUILDING OFFICIAL AS A CONDITION OF PERMIT ISSUANCE.
2. THE STATEMENT OF SPECIAL INSPECTIONS SHALL INCLUDE THE FOLLOWING:
   a. OWNER'S NAME
   b. OWNER'S ADDRESS
   c. PROJECT NAME
   d. PROJECT ADDRESS
   e. PROJECT BUILDING CODE
   f. ARCHITECT OF RECORD
   g. STRUCTURAL ENGINEER OF RECORD
   h. MEP ENGINEER OF RECORD
   i. RDPIRC'S NAME
   j. RDPIRC'S SEAL AND SIGNATURE
   k. BUILDING PERMIT NUMBER
3. THE STATEMENT OF SPECIAL INSPECTIONS SHALL INCLUDE CONTENT, AS REQUIRED IN THE INTERNATIONAL BUILDING CODE SECTION 1704.3, SUCH AS, BUT NOT LIMITED TO
   a. THE MATERIALS, SYSTEMS, COMPONENTS AND WORK REQUIRED TO HAVE SPECIAL INSPECTION
   b. THE TYPE AND EXTENT OF EACH SPECIAL INSPECTION
   c. THE TYPE AND EXTENT OF EACH TEST
   d. ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTION OR TESTING FOR SEISMIC OR WIND REQUIREMENTS
   e. IDENTIFICATION AS TO WHERE IT WILL BE CONTINUOUS OR PERIODIC SPECIAL INSPECTION FOR EACH TYPE OF SPECIAL INSPECTION.

F. SUBMITTALS TO THE BUILDING OFFICIAL
1. THE REGISTERED DESIGN PROFFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) SHALL SUBMIT REPORTS AND CERTIFICATES IN ACCORDANCE TO THE INTERNATIONAL BUILDING CODE (IBC), PROJECT EDITION, SECTION 1704.5, TO THE BUILDING OFFICIAL FOR EACH OF THE FOLLOWING:
   a. CERTIFICATES OF COMPLIANCE FOR THE FABRICATION OF STRUCTURAL LOAD-BEARING OR LATERAL LOAD RESISTING MEMBERS OF ASSEMBLIES ON THE PREMISES OF AN APPROVED FABRICATOR.
   b. CERTIFICATES OF COMPLIANCE FOR THE SEISMIC QUALIFICATION OF NONSTRUCTURAL COMPONENTS, SUPPORTS, AND ATTACHMENTS.
   c. CERTIFICATES OF COMPLIANCE FOR DESIGNATED SEISMIC SYSTEMS.
   d. REPORTS OF PRECONSTRUCTION TESTS FOR SHOTCRETE.
   e. CERTIFICATES OF COMPLIANCE FOR OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.
   f. REPORTS OF MATERIAL PROPERTIES VERIFYING COMPLIANCE WITH THE REQUIREMENTS OF AWS D1.4 FOR WELDABILITY FOR REINFORCING BARS IN CONCRETE COMPLYING WITH A STANDARD OTHER THAN ASTM A706.
   g. REPORTS OF MILL TESTS FOR ASTM A615 REINFORCING BARS USED IN EARTHQUAKE-INDUCED FLEXURAL OR AXIAL FORCES IN SPECIAL MOMENT FRAMES, SPECIAL STRUCTURAL WALLS, OR COMPLING BEAMS OF SEISMIC FORCE-RESISTING SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY B, C, D, E, OR F.

G. CONTRACTOR RESPONSIBILITIES
1. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY ACKNOWLEDGING THE SPECIAL INSPECTION REQUIREMENTS OF THE MAIN WIND OR SEISMIC FORCE-RESISTING SYSTEM, AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTION, TO THE ARCHITECT OF RECORD, STRUCTURAL ENGINEER OF RECORD, THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR AND TESTING LABORATORY WITH A CONSTRUCTION SCHEDULE TO FACILITATE THE PROPER COORDINATION. ANY WORK PERFORMED WITHOUT SPECIAL INSPECTION IS SUBJECT TO REMOVAL AT THE CONTRACTOR'S EXPENSE.
3. THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS.
4. THE CONTRACTOR SHALL REIMBURSE THE OWNER FOR RETESTING WHERE RESULTS OF INSPECTIONS AND TESTS PROVE UNSATISFACTORY AND INDICATED NONCOMPLIANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

H. SCOPE
1. THE ITEMS LISTED HEREIN PERTAIN TO THE SPECIAL INSPECTIONS AND MATERIAL TESTING REQUIRED BY THE INTERNATIONAL BUILDING CODE (IBC) CHAPTER 17. THE APPROVED AGENCY SHALL DETERMINE ALL THE PROJECTS APPLICABLE SPECIAL INSPECTION AND MATERIAL TESTING REQUIREMENTS FOR THE PROJECT.
2. PRIOR TO PROJECT COMMENCEMENT, THE APPROVED AGENCY WILL CONFER WITH AND OBTAIN THE APPROVAL FROM THE APPROPRIATE ENGINEER OF RECORD REGARDING THE INSPECTION AND TESTING PROCEDURES OR SPECIFICATIONS INCLUDING ANY APPROPRIATE ASTM METHODS, CODE REQUIREMENTS, OR PROJECT SPECIFICATION REQUIREMENTS AT THE START AND DURING EACH INSPECTION OF THE PROJECT TO ASCERTAIN PROPOSED CONFORMITY OF MATERIALS, PERSONNEL QUALIFICATIONS, AS REQUIRED, AND PROCEDURES WITH THE APPLICABLE CODES, THE CONTRACT DOCUMENTS, AND SPECIFICATIONS.
3. THE FOLLOWING CONSTRUCTION TYPES REQUIRE SPECIAL INSPECTION:
   a. STEEL CONSTRUCTION (1705.2)
      -STRUCTURAL STEEL (1705.2.1)
      STRUCTURAL STEEL WELDING (AISC 360 N5.4)
      NONDESTRUCTIVE TESTING OF WELDED JOINTS (AISC 360 N5.5)
      STRUCTURAL STEEL BOLTING (AISC 360 N5.6)
      STRUCTURAL STEEL FRAMING (AISC 360 N5.7)
      COMPOSITE CONSTRUCTION (AISC 360 N6)
      -STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL (1705.2.2)
      -OPEN-WEB STEEL JOISTS AND JOIST GIRDERS (1705.2.3)
   b. CONCRETE CONSTRUCTION (1705.3)
   c. MASONRY CONSTRUCTION (1705.4)
   d. WOOD CONSTRUCTION (1705.5)
   e. SOILS (1705.6)
   f. DRIVEN DEEP FOUNDATIONS (1705.7)
   g. CAST-IN-PLACE DEEP FOUNDATIONS (1705.8)
   h. HELICAL PILE FOUNDATIONS (1705.9)
   i. FABRICATED ITEMS (1705.10)
   j. WIND RESISTANCE (1705.11)
      -STRUCTURAL WOOD (1705.11.1)
      -COLD-FORMED STEEL (1705.11.2)
      -WIND-RESISTING COMPONENTS (1705.11.3)
   k. SEISMIC RESISTANCE (1705.12)
      -STRUCTURAL STEEL (1705.12.1)
      -STRUCTURAL WOOD (1705.12.2)
      -COLD-FORMED STEEL (1705.12.3)
      -DESIGNATED SEISMIC SYSTEMS (1705.12.4)
      -ARCHITECTURAL COMPONENTS (1705.12.5)
      -MECHANICAL AND ELECTRICAL COMPONENTS (1705.12.6)
      -STORAGE RACKS (1705.12.7)
      -SEISMIC ISOLATION SYSTEMS (1705.12.8)
      -COLD-FORMED STEEL BOLTED MOMENTS FRAMES (1705.12.9)
   l. TESTING FOR SEISMIC RESISTANCE (1705.13)
      -STRUCTURAL STEEL (1705.13.1)
      -NONSTRUCTURAL COMPONENTS (1705.13.2)
      -DESIGNED SEISMIC SYSTEMS (1705.13.3)
      -SEISMIC ISOLATION SYSTEMS (1705.13.4)
   m. SPRAYED FIRE-RESISTANT MATERIALS (1705.14)
   n. MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (1705.15)
   o. EXTERIOR INSULATION AND FINISH SYSTEMS (1705.16)
   p. FIRE-RESISTANT PENETRATIONS AND JOINTS (1705.17)
   q. SMOKE CONTROL (1705.18)

SPECIAL INSPECTION AND MATERIAL TESTING (CONT):

I. SPECIAL INSPECTION AND TEST REPORTS
1. ALL REPORTS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS LOCATED IN.
2. ALL COPIES OF THE TEST RESULTS AND FINAL REPORTS SHALL BE FURNISHED TO THE ARCHITECT, ENGINEER, AND BUILDING OFFICIAL WITHIN TWO DAYS AFTER THE ELEMENT HAS BEEN INSPECTED AND/OR TESTED.
3. THE SPECIAL INSPECTOR SHALL FURNISH DAILY INSPECTION REPORTS TO THE ARCHITECT, ENGINEER, AND BUILDING OFFICIAL AT A MINIMUM, PER WEEK FREQUENCY. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT, SIGNED BY BOTH THE INSPECTOR AND THE INSPECTOR'S SUPERVISING LICENSED PROFESSIONAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED CONTRACT DOCUMENTS, SPECIFICATIONS, AND APPLICABLE BUILDING CODE.
4. IN CASE OF DISCREPANCIES OR DEFICIENCIES, THE APPROVED AGENCY SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, AND THE BUILDING OFFICIAL. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY HAVING JURISDICTION AND THE BUILDING OFFICIAL.
5. SPECIAL INSPECTION REPORTS SHALL INCLUDE, AS A MINIMUM, THE FOLLOWING INFORMATION:
   a. APPROVED AGENCY NAME, ADDRESS, AND PHONE NUMBER
   b. OWNER'S NAME AND ADDRESS
   c. NAME AND ADDRESS OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE
   d. UNIQUE IDENTIFICATION OF THE REPORT
   e. DESCRIPTION OF THE TYPE OF INSPECTION PERFORMED
   f. ANY UNRESOLVED DEVIATION, EXCLUSIONS, AND ADDITIONS TO OR FROM THE APPROVED CONTRACT DOCUMENTS AND SPECIFICATIONS RELEVANT TO THE SPECIFIC INSPECTION OR TEST
   g. COMPLIANCE OF FINDINGS AND REFERENCE
   h. DESCRIPTION OF LOCATION WHERE THE INSPECTION WAS PERFORMED WITHIN THE PROJECT
   i. TIME AND DATE OF THE INSPECTION
   j. MEASUREMENTS, EXAMINATIONS, AND DERIVED RESULTS SUPPORTED BY TABLES, GRAPHS, SKETCHES, OR PHOTOGRAPHS AS NEEDED
   k. THE NAME, SIGNATURE, AND TITLE OF THE FIELD INSPECTOR PERFORMING THE SPECIAL INSPECTION
   l. SIGNATURE AND PROFESSIONAL ENGINEERING SEAL OF THE SPECIAL INSPECTOR'S SUPERVISING LICENSING PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS LOCATED IN.

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503
FIRM REGISTRATION NO. 20913

PRELIMINARY - NOT FOR CONSTRUCTION

NOTE

NOTE: THIS DRAWING AND IT INFORMATION CONTAINED HERE IN ARE PROPERTY OF OIM ENGINEERING PLLC STRUCTURAL DESIGN , THEY MAY NOT BE REUSED, REPRODUCED OR ALTERED IN ANY WAY BY ANY MEANS WITHOUT APPROVAL AND WRITTEN AUTHORIZATION OF OIM ENGINEERING PLLC STRUCTURAL DESIGN.

REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: GENERAL NOTES

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.3
SCALE: 12" = 1'-0"	

AND INSPECTION OF WIND-RESISTING COMPONENTS

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	INSPECTION FREQUENCY CONTINUOUS	INSPECTION FREQUENCY PERIODIC	REFERENCE STANDARD	IBC REFERENCE
YES	1. ROOF CLADDING	-	X	-	1705.10.3
YES	2. WALL CLADDING	-	X	-	

NOTES:
1. PERIODIC SPECIAL INSPECTION OF WIND-RESISTING COMPONENTS IS REQUIRED IF ONE OF THE FOLLOWING CRITERIA IS MET:
   a. IN WIND EXPOSURE B, WHERE Vasd ≥ 120 MPH
   b. IN WIND EXPOSURE C OR D, WHERE Vasd ≥ 110 MPH

VERIFICATION AND INSPECTION OF SOILS

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	INSPECTION FREQUENCY CONTINUOUS	INSPECTION FREQUENCY PERIODIC	REFERENCE STANDARD	IBC REFERENCE
YES	1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	-	X	-	1705.6
YES	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS	-	X	-	
YES	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	-	X	-	
YES	4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	-	-	
YES	5. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS	-	X	-	

NOTES:
1. SPECIAL INSPECTION AND TESTING PROCEDURES OF EXISTING SOIL CONDITIONS, EXCAVATION, FILL PLACEMENT, AND LOAD-BEARING REQUIREMENTS SHALL BE BASED ON THE APPROVED GEOTECHNICAL REPORT AND THE CONTRACT DOCUMENTS.

VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	INSPECTION FREQUENCY CONTINUOUS	INSPECTION FREQUENCY PERIODIC	REFERENCE STANDARD	IBC REFERENCE
YES	1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	-	X	ACI 318: 25.1, 25.2, 25.3, 26.6.1-26.6.3	1910.4
YES	2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b	-	-	AWS D1.4 ACI 318: 26.6.4	-
YES	3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED	-	X	ACI 318: 17.8.2, 26.13.1.3	1908.5, 1909.1
YES	4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDEN CONCRETE MEMBERS:			ACI 318: APPENDIX D	1909.1
	a. SPECIAL INSPECTOR CERTIFIED ACI/CRSI ADHESIVE ANCHOR INSTALLER	X	-		
	b. ADHESIVE ANCHOR INSTALLATION REPORT INDICATING CONFORMANCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII)	X	-		
	c. INSTALLATION OF MECHANICAL ANCHORS	X	-		
	d. POST-INSTALLED ANCHOR INSTALLERS CERTIFICATIONS AVAILABLE	X	-		
	5. VERIFYING USE OF REQUIRED DESIGN MIX	-	X	ACI 318: CH. 4, 5.2-5.4	1904.2, 1910.2, 1910.5
YES	6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	-	ASTM C172, ASTM C31, ACI 318: 5.6, 5.8	1910.10
YES	7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	-	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
YES	8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	-	X	ACI 318: 5.11-5.13	1910.9
NO	9. INSPECTION OF PRESTRESSED CONCRETE:				-
	a. APPLICATION OF PRESTRESSING FORCES	X	-	ACI 318: 18.20	-
	b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORCE-RESISTING SYSTEM	X	-	ACI 318: 18.18.4	-
YES	10. ERECTION OF PRECAST CONCRETE MEMBERS	-	X	ACI 318: CH. 16	-
NO	11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	X	ACI 318: 6.2	-
YES	12. INSPECT FORM WORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	-	X	ACI 318: 6.1.1	-

VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

SPECIAL INSPECTION	VERIFICATION AND INSPECTION TASK	SPECIAL INSPECTOR QCI	SPECIAL INSPECTOR QAI	REFERENCE STANDARD	IBC REFERENCE
	1. INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT				
YES	a. VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	PP		SDI QA/QC TABLE 1.1	1705.2.2
YES	b. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND ACCESSORIES DECK	P	P		
	2. INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT				
YES	a. VERIFY COMPLIANCE OF DECK AND ALL ACCESSORIES INSTALLATION WITH CONSTRUCTION DECK DOCUMENTS	P	P	SDI QA/QC TABLE 1.2	1705.2.2
YES	b. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	-	P		
YES	c. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	P	P		
	3. INSPECTION OR EXECUTION TASKS PRIOR TO WELDING				
YES	a. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	O	O	SDI QA/QC TABLE 1.3	1705.2.2
YES	b. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	O	O		
YES	c. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O		
YES	d. CHECK WELDING EQUIPMENT	O	O		
	4. INSPECTION OR EXECUTION TASKS DURING WELDING				
YES	a. USE OF QUALIFIED WELDERS	O	O	SDI QA/QC TABLE 1.4	1705.2.2
YES	b. CONTROL AND HANDLING OF WELDING CONSUMABLES	O	O		
YES	c. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE/TEMPERATURE)	O	O		
YES	d. WPS FOLLOWED	O	O		
	5. INSPECTION OR EXECUTION TASKS AFTER WELDING				
YES	a. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDE-LAP AND PERIMETER WELDS	P	P	SDI QA/QC TABLE 1.5	1705.2.2
YES	b. WELDS MEET VISUAL ACCEPTANCE CRITERIA	P	P		
YES	c. VERIFY REPAIR ACTIVITIES	P	P		
YES	d. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	P	P		
	6. INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING				
YES	a. MANUFACTURER'S INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS	O	O	SDI QA/QC TABLE 1.6	1705.2.2
YES	b. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	O	O		
YES	c. PROPER STORAGE FOR MECHANICAL FASTENERS	O	O		
	7. INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING			SDI QA/QC TABLE 1.7	1705.2.2
YES	a. FASTENERS ARE POSITIONED AS REQUIRED	O	O		
YES	b. FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	O	O		
	8. INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING			SDI QA/QC TABLE 1.8	1705.2.2
YES	a. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS	P	P		
YES	b. CHECK SPACING, TYPE, AND INSTALLATION OF SIDE-LAP FASTENERS	P	P		
YES	c. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS	P	P		
YES	d. VERIFY REPAIR ACTIVITIES	P	P		
YES	e. DOCUMENT ACCEPTANCE OR REJECTION OF FASTENERS MECHANICAL	P	P		

NOTES:
1. QCI= INSTALLER'S QUALITY CONTROL INSPECTOR RESPONSIBLE FOR CONFIRMING THAT THE MATERIAL PROVIDED AND WORK PERFORMED MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS, INSTALLATION DRAWINGS, SHOP DRAWINGS, DESIGN DOCUMENTS, AND REFERENCE STANDARDS.
   QAI= THE OWNER'S APPROVED AGENCY'S QUALITY ASSURANCE INSPECTOR (SPECIAL INSPECTOR) RESPONSIBLE FOR INSPECTION OF MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS AND CONFIRM COMPLIANCE WITH CONSTRUCTION DOCUMENTS AND REFERENCE STANDARDS.
   O= OBSERVE THESE ITEMS ON AN INTERMITTENT BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
   P= PERFORM THESE TASKS PRIOR TO FINAL ACCEPTANCE FOR EACH ITEM OR ELEMENT.
2. WHERE A TASK IS NOTED TO BE PERFORMED BY BOTH THE QCI AND QAI, IT IS PERMITTED TO COORDINATE THE INSPECTION FUNCTION BETWEEN THE QCI AND QAI SO THAT THE INSPECTION FUNCTION IS PERFORMED BY ONLY ONE PARTY.

VERIFICATION AND INSPECTION OF STRUCTURAL WOOD

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	SPECIAL INSPECTOR QCI	SPECIAL INSPECTOR QAI	REFERENCE STANDARD	IBC REFERENCE
	1. INSPECTION TASK PRIOR TO BOLTING:				
YES	a. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P	AISC 360-10 TABLE N5.6-1	1705.2.1
YES	b. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O		
YES	c. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O		
YES	d. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O		
YES	e. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O		
YES	f. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O		
YES	g. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O		
	2. INSPECTION TASK DURING BOLTING:				
YES	a. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O	AISC 360-10 TABLE N5.6-2	1705.2.1
YES	b. JOINT BROUGHT TO THE SNUG-TIGHT POSITION CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O		
YES	c. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O		
YES	d. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O		
	3. INSPECTION TASK AFTER BOLTING:				
YES	a. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P	AISC 360-10 TABLE N5.6-3	1705.2.1

NOTES:
1. QCI = FABRICATORS OR ERECTORS QUALITY CONTROL INSPECTOR RESPONSIBLE FOR WORK PERFORMED IS IN COMPLIANCE WITH THE SHOP DRAWINGS, ERECTION DRAWINGS, REFERENCE SPECIFICATIONS, CODES AND STANDARDS.
   QAI = THE OWNER'S APPROVED AGENCY'S QUALITY ASSURANCE INSPECTOR (SPECIAL INSPECTOR) RESPONSIBLE FOR INSPECTION OF FABRICATED ITEMS, INSPECTION OF THE ERECTED STEEL SYSTEM, REVIEW TEST REPORTS AND CERTIFICATIONS, ITEMS NOTED IN THE TABLE ABOVE, AND FURNISHES INSPECTIONS, REPORTS, AND NONDESTRUCTIVE TESTING (NDT) REPORTS.
   O = OBSERVE THESE ITEMS IN A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
   P = PERFORM THE TASK FOR EACH BOLTED CONNECTION.
2. THE QAI IS NOT REQUIRED TO INSPECT FABRICATED ITEMS IF THE STEEL FABRICATOR IS DEEMED AN APPROVED FABRICATOR.
3. WHERE A TASK IS NOTED TO BE PERFORMED BY BOTH THE QCI AND QAI, IT IS PERMITTED TO COORDINATE THE INSPECTION FUNCTION BETWEEN THE QCI AND QAI SO THAT THE INSPECTION FUNCTION IS PERFORMED BY ONLY ONE PARTY.

VERIFICATION AND INSPECTION OF STEEL FRAMING

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	SPECIAL INSPECTOR QCI	SPECIAL INSPECTOR QAI	REFERENCE STANDARD	IBC REFERENCE
YES	1. VERIFY FABRICATED STEEL IS IN COMPLIANCE WITH THE SHOP DRAWINGS	P	O	AISC 360-10 N5.7	1705.2.1
YES	2. VERIFY ERECTED STEEL IS IN COMPLIANCE WITH THE ERECTION DRAWINGS	P	O		
YES	3. INSPECTION DURING PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS	-	P		
YES	4. VERIFY DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM AND THE EXTENT OR DEPTH OF EMBEDMENT INTO CONCRETE PRIOR TO PLACEMENT OF CONCRETE	-	P		

NOTES:
1. QCI = FABRICATORS OR ERECTORS QUALITY CONTROL INSPECTOR RESPONSIBLE FOR WORK PERFORMED IS IN COMPLIANCE WITH THE SHOP DRAWINGS, ERECTION DRAWINGS, REFERENCE SPECIFICATIONS, CODES AND STANDARDS.
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   O = OBSERVE THESE ITEMS IN A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
   P = PERFORM THE TASK FOR EACH STEEL ELEMENT.
2. THE QAI IS NOT REQUIRED TO INSPECT FABRICATED ITEMS IF THE STEEL FABRICATOR IS DEEMED AN APPROVED FABRICATOR.
3. WHERE A TASK IS NOTED TO BE PERFORMED BY BOTH THE QCI AND QAI, IT IS PERMITTED TO COORDINATE THE INSPECTION FUNCTION BETWEEN THE QCI AND QAI SO THAT THE INSPECTION FUNCTION IS PERFORMED BY ONLY ONE PARTY.
4. AS A MINIMUM, THE DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR RODS OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE SHALL BE VERIFIED PRIOR TO PLACEMENT OF CONCRETE

VERIFICATION AND INSPECTION OF STRUCTURAL STEEL BOLTING

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	SPECIAL INSPECTOR QCI	SPECIAL INSPECTOR QAI	REFERENCE STANDARD	IBC REFERENCE
	1. INSPECTION TASK PRIOR TO BOLTING:				
YES	a. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P	AISC 360-10 TABLE N5.6-1	1705.2.1
YES	b. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O		
YES	c. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O		
YES	d. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O		
YES	e. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O		
YES	f. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	P		
YES	g. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O		
	2. INSPECTION TASK DURING BOLTING:				
YES	a. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O	AISC 360-10 TABLE N5.6-2	1705.2.1
YES	b. JOINT BROUGHT TO THE SNUG-TIGHT POSITION CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O		
YES	c. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O		
YES	d. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O		
	3. INSPECTION TASK AFTER BOLTING:				
YES	a. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P	AISC 360-10 TABLE N5.6-3	1705.2.1

NOTES:
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   P = PERFORM THE TASK FOR EACH WELDED JOINT OR MEMBER.
2. THE QAI IS NOT REQUIRED TO INSPECT FABRICATED ITEMS IF THE STEEL FABRICATOR IS DEEMED AN APPROVED FABRICATOR.
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VERIFICATION AND INSPECTION OF STRUCTURAL STEEL WELDING

SPECIAL INSPECTION REQUIRED	VERIFICATION AND INSPECTION TASK	SPECIAL INSPECTOR QCI	SPECIAL INSPECTOR QAI	REFERENCE STANDARD	IBC REFERENCE
	1. INSPECTION TASK PRIOR TO WELDING:				
YES	a. WELDING PROCEDURES SPECIFICATIONS (WPS) AVAILABLE	P	P	AISC 360-10 TABLE N5.4-1, AWS D1.1	1705.2.1
YES	b. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P		
YES	c. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O		
YES	d. WELDER IDENTIFICATION SYSTEM	O	O		
YES	e. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) 1) JOINT PREPARATION 2) DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) 3) CLEANLINESS (CONDITION OF STEEL SURFACES) 4) TACKING (TACK WELD QUALITY AND LOCATION) 5) BACKING TYPE AND FIT (IF APPLICABLE)	O	O		
YES	f. CONFIGURATION AND FINISH OF ACCESS HOLES	O	O		
YES	g. FIT-UP OF FILLET WELDS 1) DIMENSIONS (ALIGNMENT, GAPS AT ROOT) 2) CLEANLINESS (CONDITION OF STEEL SURFACES) 3) TACKING (TACK WELD QUALITY AND LOCATION)	O	O		
YES	h. CHECK WELDING EQUIPMENT	O	-		
	2. INSPECTION TASK DURING WELDING:				
YES	a. USE OF QUALIFIED WELDERS	O	O	AISC 360-10 TABLE N5.4-2, AWS D1.1	1705.2.1
YES	b. CONTROL AND HANDLING OF WELDING CONSUMABLES 1) PACKING 2) EXPOSURE CONTROL	O	O		
YES	c. NO WELDING OVER CRACKED TACK WELDS	O	O		
YES	d. ENVIRONMENTAL CONDITIONS 1) WIND SPEED WITHIN LIMITS 2) PRECIPITATION AND TEMPERATURE	O	O		
YES	e. WPS FOLLOWED 1) SETTINGS ON WELDING EQUIPMENT 2) TRAVEL SPEED 3) SELECTED WELDING MATERIALS 4) SHIELDING GAS TYPE/FLOW RATE 5) PREHEAT APPLIED 6) INTERPASS TEMPERATURE MAINTAINED (MIN./MAX) 7) PROPER POSITION (F,V,H,OH)	O	O		
YES	f. WELDING TECHNIQUES 1)INTERPASS AND FINAL CLEANING 2)EACH PASS WITHIN PROFILE LIMITATIONS 3)EACH PASS MEETS QUALITY REQUIREMENTS	O	O		
	3. INSPECTION TASK AFTER WELDING:				
YES	a. WELDS CLEANED	O	O	AISC 360-10 TABLE N5.4-3, AWS D1.1	1705.2.1
YES	b. SIZE, LENGTH AND LOCATION OF WELDS	P	P		
YES	c. WELD MEET VISUAL ACCEPTANCE CRITERIA 1) CRACK PROHIBITION 2) WELD/BASE-METAL FUSION 3) CRATER CROSS SECTION 4) WELD PROFILES 5) WELD SIZE 6) UNDERCUT 7) POROSITY	P	P		
YES	d. ARC STRIKES	P	P		
YES	e. k-AREA	P	P		
YES	f. REMOVED AND WELD TABS REMOVED	P	P		
YES	g. REPAIR ACTIVITIES	P	P		
YES	h. DOCUMENT ACCEPTANCE OR REJECTION OF WELD JOINT OR MEMBER	P	P		

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4. ALL FIELD WELDING, COMPLETE, AND PARTIAL JOINT PENETRATION WELDS SHALL BE SUBJECTED TO NONDESTRUCTIVE TESTING (NDT) IN ACCORDANCE WITH AWS D1.1. ACCEPTANCE CRITERIA SHALL BE IN ACCORDANCE WITH THE AWS D1.1.
5. ACCEPTABLE NONDESTRUCTIVE TESTING (NDT) METHODS AS PER THE AISC 360 SPECIFICATION ARE AS FOLLOWS:
   a. ULTRASONIC TESTING (UT)
   b. MAGNETIC PARTICLE TESTING (MT)
   c. PENETRANT TESTING (PT)
   d. RADIOGRAPHIC TESTING (RT)
6. THE SPECIAL INSPECTOR SHALL BE RESPONSIBLE FOR DETERMINING THE APPROPRIATE NDT METHOD FOR EACH WELD.
7. ALL NDT PERFORMED SHALL BE DOCUMENTED INTO A REPORT AND SHALL INCLUDE THE FOLLOWING:
   a. LOCATION OF THE TESTED WELD
   b. PIECE MARK
   c. LOCATION OF THE PIECE

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503
FIRM REGISTRATION NO. 20913

PRELIMINARY - NOT FOR CONSTRUCTION

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

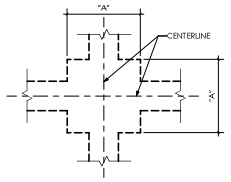
LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: SPECIAL INSPECTION

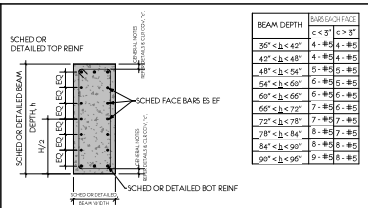
PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.4
SCALE: 12" = 1'-0"	

FOOTING SCHEDULE AT STEEL COLUMNS				
TYPE	A	B	DEPTH	REBAR REINFORCEMENT
S1	5'-0"	5'-0"	3'-0"	5# 7'S EACH WAY TOP AND BOTTOM
S2	5'-0"	5'-0"	3'-0"	7# 7'S EACH WAY TOP AND BOTTOM



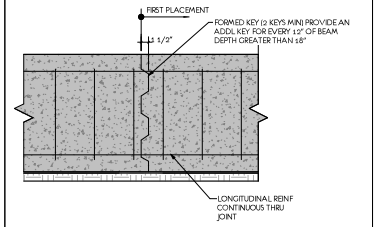
TYPE "S"

WIDENED BEAM FOOTINGS



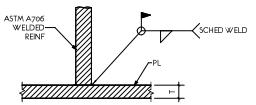
BEAM DEPTH	BARS EACH FACE
	c < 3" | c > 3"
36" < h < 42"	4 - #5 | 4 - #5
42" < h < 48"	4 - #5 | 4 - #5
48" < h < 54"	5 - #5 | 5 - #5
54" < h < 60"	6 - #5 | 5 - #5
60" < h < 66"	6 - #5 | 6 - #5
66" < h < 72"	7 - #5 | 6 - #5
72" < h < 78"	7 - #5 | 7 - #5
78" < h < 84"	8 - #5 | 7 - #5
84" < h < 90"	8 - #5 | 8 - #5
90" < h < 96"	9 - #5 | 8 - #5

NOTES:
1. FACE BARS ARE REQUIRED FOR ALL CONCRETE BEAMS GREATER THAN OR EQUAL TO 36". PROVIDE FACE BARS AS SCHEDULED UNLESS NOTED OR DETAILED OTHERWISE.
2.SCHEDULED FACE BARS APPLY TO EACH FACE OF THE BEAM.
3.FACE BARS SHALL BE CONTINUOUS THROUGH THE SPAN.
4.LAP BOTTOM FACE BARS (BELOW h/2) WITH CLASS B LAP SPLICE AT SUPPORTS. SIMILARLY, LAP TOP FACE BARS, INCLUDING CENTER BARS (ABOVE OR EQUAL TO h/2), WITH A CLASS B LAP SPLICE AT MIDSPAN.
5.SPACE FACE BARS EVENLY EACH FACE BETWEEN TOP AND BOTTOM REINFORCEMENT.
6.REFERENCE "REINFORCED CONCRETE" GENERAL NOTES AND DETAILS FOR APPLICABLE CLEAR COVER.

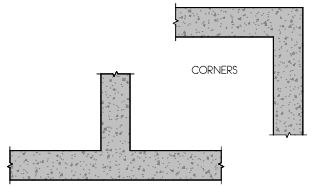


NOTES:
1.LOCATIONS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
2.ALL FORMED KEYS SHALL BE HORIZONTAL.

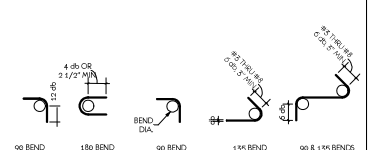
DEVELOPMENT OF WELDABLE REINFORCING GRADE 60 ASTM A706 REINFORCING, E70 ELECTRODE		
BAR SIZE	NOMINAL WELD SIZE (INCHES)	MINIMUM PLATE THICKNESS, T (INCHES)
#3	1/4	1/4
#4	5/16	1/4
#5	3/8	1/4
#6	7/16	5/16
#7	1/2	3/8
#8	9/16	7/16
#9	5/8	1/2
#10	11/16	9/16
#11	3/4	5/8



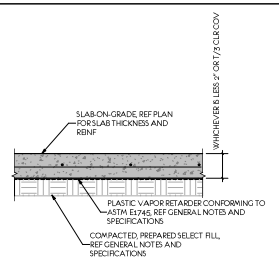
NOT USED	17	FOOTING SCHEDULE	13	FACE BAR PLACEMENT SCHEDULE FOR CONCRETE BEAMS GREATER THAN OR EQUAL TO 3 FEET	9	TYPICAL GRADE BEAM CONSTRUCTION JOINTS	5	TYPICAL DEVELOPMENT OF WELDABLE REINFORCING	1



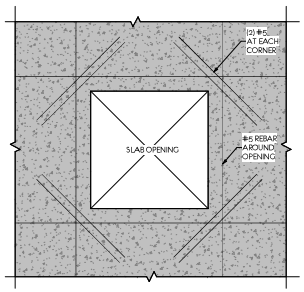
NOTE:
PROVIDE (4) #6 x 5'-0" CORNER BARS
(2-TOP & 2-BOTTOM) AS SHOWN IN DETAILS ABOVE

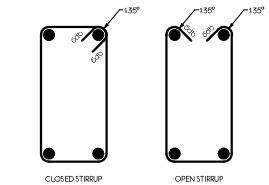


DIAMETER OF BENDS	
STIRRUPS AND TIES	4 db FOR #3 THRU #5 BARS
	6 db FOR #6 THRU #8 BARS
ALL OTHERS	6 db FOR #3 THRU #8 BARS
	8 db FOR #9 THRU #11 BARS
	10 db FOR #14 THRU #18 BARS

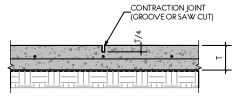


NOT USED	18	NOT USED	14	TYPICAL CORNER BARS	10	STANDARD HOOKS	6	TYPICAL SLAB-ON-GRADE PROFILE	2



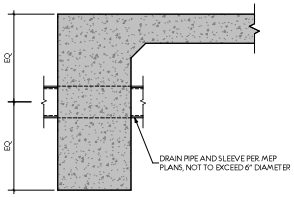


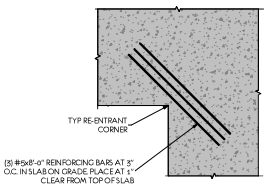
NOTE:
1. REFERENCE 6/S-- FOR TYPICAL REINFORCING BAR BENDS.



NOTES:
1. JOINT PATTERN SHALL BE NEARLY SQUARE.
2. JOINT SPACING SHALL NOT EXCEED 15'-0"
3. ALL CONTRACTION JOINTS SHALL BE CHAULKED WITH AN EFFECTIVE SEALANT THAT CAN BOND TO THE CONCRETE, IS IMPERMEABLE, AND ABLE TO WITHSTAND THERMAL EXPANSION AND CONTRACTION.

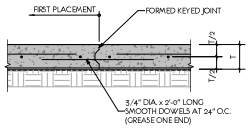
NOT USED	19	NOT USED	15	OPENINGS IN SLAB	11	TYPICAL STIRRUPS	7	CONTRACTION JOINT DETAIL	3





PLAN VIEW

NOTES:
1. DETAIL APPLIES TO CONCRETE FOUNDATIONS, CONCRETE FLOORS, AND CONCRETE FILL ON METAL DECKING.
2. DESIGN REINFORCING IS NOT SHOWN FOR CLARITY.



1. CONTRACTOR TO SUBMIT ANY PROPOSED LOCATIONS OF CONSTRUCTION JOINTS TO STRUCTURAL ENGINEER BEFORE COMMENCING WORK.
2. GRADE BEAM REINFORCING SHALL BE CONTINUOUS THRU JOINT

DOWEL SCHEDULE			
SLAB THICKNESS T (IN)	DOWEL SIZE (IN)	DOWEL LENGTH (IN)	DOWEL SPACING (IN)
5 TO 6	5/4	16	12
6 1/2 TO 8	1	18	12

NOT USED	20	NOT USED	16	PIPE EXTERIOR FOOTING	12	TYPICAL SLAB REINFORCING	8	CONSTRUCTION JOINT DETAIL	4

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OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

FIRM REGISTRATION NO. 20913

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A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

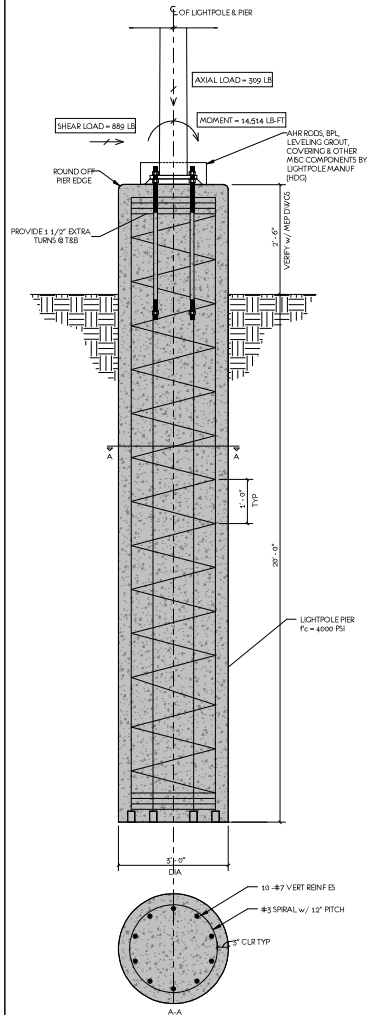
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

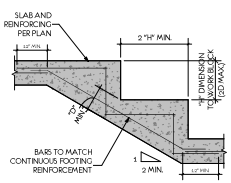
PLAN: TYPICAL CONCRETE DETAIL

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY:	CHECKED BY:
J.M.W.V.	IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.5
SCALE: 1" = 1'-0"	

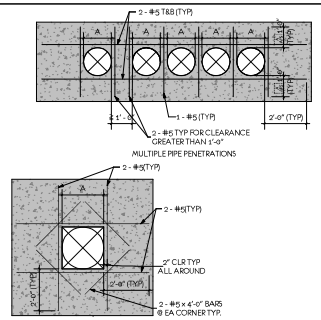


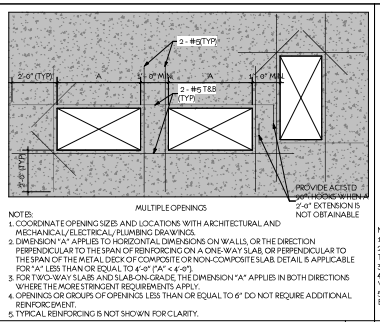
NOTES:
1. THE CONTRACTOR SHALL SUBMIT REACTIONS FOR ALL TYPES OF LIGHTPOLES WITHIN THE PROJECT TO THE ENGINEER FOR VERIFICATION OF PIER CAPACITY PRIOR TO INSTALLATION OF PIER.
2. BASIS OF DESIGN: (PENDING GEOTECHNICAL REPORT)
   LIGHTPOLE: PENDING
   LAMP: PENDING
3. REFERENCE CIVIL/ARCHITECTURAL FOR LIGHT POLE BASE LOCATIONS

NOT USED | 20



TYPICAL STEPPED FOOTING | 13





NOTES:
1. COORDINATE OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS.
2. DIMENSION "A" APPLIES TO HORIZONTAL DIMENSIONS ON WALLS, OR THE DIRECTION PERPENDICULAR TO THE SPAN OF REINFORCING ON A ONE-WAY SLAB, OR PERPENDICULAR TO THE SPAN OF THE METAL DECK OF COMPOSITE OR NON-COMPOSITE SLAB. DETAIL IS APPLICABLE FOR "A" LESS THAN OR EQUAL TO 4'-0" ("A" < 4'-0").
3. FOR TWO-WAY SLABS AND SLAB-ON-GRADE, THE DIMENSION "A" APPLIES IN BOTH DIRECTIONS - WHERE THE MORE STRINGENT REQUIREMENTS APPLY.
4. OPENINGS OR GROUPS OF OPENINGS LESS THAN OR EQUAL TO 6" DO NOT REQUIRE ADDITIONAL REINFORCEMENT.
5. TYPICAL REINFORCING IS NOT SHOWN FOR CLARITY.

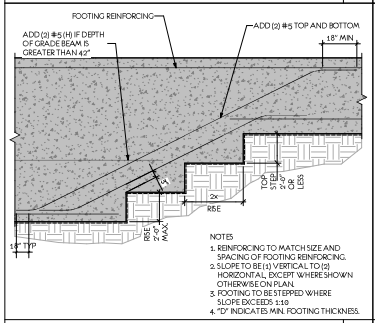
FACE BAR PLACEMENT SCHEDULE FOR CONCRETE BEAMS GREATER THAN OR EQUAL TO 3 FEET | 5

COMPRESSION DEVELOPMENT AND LAP SPLICE LENGTHS
GRADE 60 REINFORCEMENT, NORMAL WEIGHT CONCRETE

BAR SIZE	COMPRESSION DEVELOPMENT LENGTH (Ldc) f'c = 3000 PSI	f'c = 3500 PSI	f'c = 4000 PSI	f'c = 4500 PSI	f'c = 5000 PSI	f'c = 6000 PSI	LAP SPLICE
#3	9	8	8	8	8	8	12
#4	11	11	10	9	9	9	15
#5	14	13	12	12	12	12	19
#6	17	16	15	14	14	14	23
#7	20	18	17	16	16	16	27
#8	22	21	19	18	18	18	30
#9	25	23	22	21	21	21	34
#10	28	26	24	23	23	23	38
#11	31	28	27	25	25	25	42
#14	39	36	34	32	32	32	53
#18	50	46	43	41	41	41	68

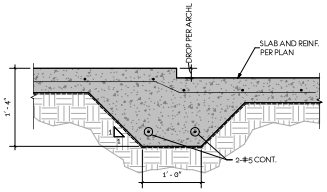
NOTES:
1. ALL DEVELOPMENT AND LAP SPLICE LENGTHS ARE IN INCHES.
2. FOR BARS ENCLOSED IN SPIRALS OR TIES WITH A PITCH OR SPACING NO MORE THAN 4", MULTIPLY THE TABULATED DEVELOPMENT LENGTH (Ldc) BY 0.75.
3. FOR LIGHTWEIGHT CONCRETE, MULTIPLY THE TABULATED DEVELOPMENT LENGTH (Ldc) BY 1.33.
4. SPIRAL/TIE AND LIGHTWEIGHT CONCRETE FACTORS ARE MULTIPLICATIVE: Ldc = (TABULATED VALUE) x (SPIRAL/TIE ENCLOSURE FACTOR) x (LIGHTWEIGHT CONCRETE FACTOR)
5. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT NOT LESS THAN THE COMPRESSION DEVELOPMENT LENGTH (Ldc) OF THE LARGER BAR.

COMPRESSION DEVELOPMENT AND LAP SPLICE LENGTHS SCHEDULE | 1



NOTES
1. REINFORCING TO MATCH SIZE AND SPACING OF FOOTING REINFORCING.
2. SLOPE TO BE (1) VERTICAL TO (3) HORIZONTAL, EXCEPT WHERE SHOWN OTHERWISE ON PLAN.
3. FOOTING TO BE STEPPED WHERE SLOPE EXCEEDS 1:10
4. "D" INDICATES MIN. FOOTING THICKNESS.

NOT USED | 14



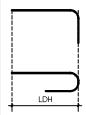
DROP AT SLAB ON GRADE | 10

LAP LENGTHS FOR WELDED WIRE REINFORCEMENT ASTM A1064 REINFORCEMENT, NORMAL WEIGHT CONCRETE

WELDED WIRE SIZE PLAIN	DEFORMED	f'c = 3000 PSI	f'c = 3500 PSI	f'c = 4000 PSI	f'c = 4500 PSI	f'c = 5000 PSI	f'c = 6000 PSI
W1.4	-	8	8	8	8	8	8
W2	-	8	8	8	8	8	8
W2.5	-	8	8	8	8	8	8
W2.9	-	8	8	8	8	8	8
W3	-	8	8	8	8	8	8
W3.5	-	8	8	8	8	8	8
W4	D4	9	9	8	8	8	8
W4.5	-	11	10	9	9	8	8
W5	D5	12	11	10	10	9	8
W5.5	-	13	12	11	10	10	9
W6	D6	14	13	12	11	11	10
W6.5	-	15	14	13	12	12	11
W7	D7	16	15	14	13	12	11
W7.5	-	17	16	15	14	13	12
W8	D8	18	17	16	15	14	13
W8.5	-	19	18	17	16	15	14
W9	D9	20	19	18	17	16	15
W9.5	-	22	20	19	18	17	15
W10	D10	23	21	20	19	18	16
W10.5	-	24	22	21	20	19	17
W11	D11	25	23	22	20	19	18
W12	D12	27	25	23	22	21	19
W14	D14	32	29	27	26	25	23
W16	D16	36	33	31	29	28	26
W18	D18	40	37	35	33	31	29
W20	D20	45	41	39	37	35	32
W22	D22	49	46	43	40	38	35
W24	D24	54	50	47	44	42	38
W26	D26	58	54	50	48	45	41
W28	D28	63	58	54	51	49	44
W30	D30	67	62	58	55	52	48
W31	D31	69	64	60	57	54	49

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION GRADE 60 REINFORCEMENT, NORMAL WEIGHT CONCRETE

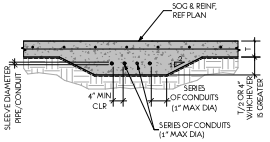
BAR SIZE	f'c = 3000 PSI	f'c = 3500 PSI	f'c = 4000 PSI	f'c = 4500 PSI	f'c = 5000 PSI	f'c = 6000 PSI
#3	9	8	8	7	7	6
#4	11	11	10	9	9	8
#5	14	13	12	12	11	10
#6	17	16	15	14	13	12
#7	20	18	17	16	15	14
#8	22	21	19	18	17	16
#9	25	23	22	21	20	18
#10	28	26	24	23	22	20
#11	31	28	27	25	24	22
#14	39	36	34	32	30	28
#18	50	46	43	41	39	35



NOTES:
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES).
2. WHERE 2 1/2" MINIMUM COVER IS PROVIDED NORMAL TO THE PLANE OF THE HOOK AND 2" MINIMUM COVER IS PROVIDED ON THE BAR EXTENSION FOR 90° HOOKS, MULTIPLY THE TABULATED VALUE BY 0.7. (APPLIES TO #11 BARS OR SMALLER)
3. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED VALUES BY 1.2.
4. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATED VALUES BY 1.33.
5. REFERENCE DETAIL 6 SG607 FOR STANDARD HOOK BENDS.
6. CLEAR COVER, EPOXY, AND LIGHTWEIGHT CONCRETE FACTORS ARE MULTIPLICATIVE WHEN APPLICABLE. Ldh = (TABULATED VALUE) x (CLEAR COVER FACTOR) x (EPOXY-COATED FACTOR) x (LIGHTWEIGHT CONCRETE FACTOR)

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION SCHEDULE | 2

NOT USED | 15



NOTES:
1. CONDUITS ARE NOT ALLOWED TO BE LOCATED WITHIN THE SLAB THICKNESS (T). WHEN T < 6".
2. FOR VERTICAL PENETRATIONS THROUGH THE SLAB, REFERENCE 4/SG008.
3. CONDUITS SHALL NOT BE LARGER THAN 1".
4. SERIES OF CONDUITS SHALL BE SPACED APART TO ALLOW FOR SUFFICIENT AMOUNT OF CONCRETE.
5. CONDUITS SHALL BE FABRICATED AND INSTALLED TO AVOID CUTTING, BENDING OR DISPLACEMENT OF REINFORCING STEEL.
6. ALUMINUM CONDUITS, OR OTHER EMBEDS ARE NOT ALLOWED.
7. FOR PIPING GREATER THAN 1", DETAIL 7/SG008 APPLIES.

TYPICAL SERIES OF CONDUITS IN A SLAB-ON-GRADE | 11

LAP SPLICE LENGTHS FOR PLAIN & DEFORMED WELDED WIRE REINFORCEMENT | 7

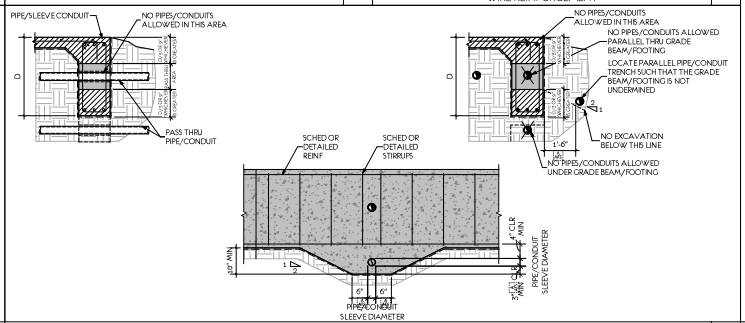
TENSION DEVELOPMENT AND LAP SPLICE LENGTHS
GRADE 60 REINFORCEMENT, NORMAL WEIGHT CONCRETE

BAR SIZE	LAP CLASS	f'c = 3000 PSI TOP BARS	f'c = 3000 PSI OTHER BARS	f'c = 4000 PSI TOP BARS	f'c = 4000 PSI OTHER BARS	f'c = 5000 PSI TOP BARS	f'c = 5000 PSI OTHER BARS	f'c = 6000 PSI TOP BARS	f'c = 6000 PSI OTHER BARS	f'c = 8000 PSI TOP BARS	f'c = 8000 PSI OTHER BARS
#3	A	22	17	20	16	19	15	18	14	17	13	16	12
	B	29	23	26	21	25	20	24	19	23	17	21	16
#4	A	29	22	27	21	25	19	24	18	23	17	21	16
	B	38	29	35	28	33	25	32	24	30	23	28	21
#5	A	36	28	33	26	31	24	30	23	28	22	26	20
	B	47	37	43	34	41	32	39	30	37	29	34	26
#6	A	43	33	40	31	37	29	35	27	34	26	31	24
	B	56	43	52	41	49	38	46	36	45	34	41	32
#7	A	63	48	58	45	54	42	51	40	49	38	45	34
	B	82	63	76	59	71	55	67	52	64	50	59	45
#8	A	72	55	66	51	62	48	59	45	56	43	51	39
	B	94	72	86	67	81	63	77	59	73	56	67	51
#9	A	81	62	75	58	70	54	66	51	63	48	57	44
	B	106	81	98	76	91	71	86	67	82	63	75	58
#10	A	90	69	83	64	78	60	73	56	69	54	63	49
	B	117	90	108	84	102	78	95	75	90	71	82	64
#11	A	98	75	91	70	85	66	80	62	76	59	70	54
	B	128	99	119	91	111	86	104	81	99	77	91	71
#14	A	125	96	116	89	108	84	102	79	97	75	89	68
	B	163	126	151	116	141	110	133	103	127	98	116	89
#18	A	161	124	149	115	139	107	131	101	125	96	114	88
	B	210	162	194	150	181	140	171	132	163	125	149	115

NOTES:
1. ALL DEVELOPMENT AND LAP SPLICE LENGTHS ARE IN INCHES.
2. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO A "CLASS A" LAP SPLICE LENGTH.
3. "TOP BARS" INDICATES HORIZONTAL BARS WITH 12" OR MORE OF FRESH CONCRETE CAST BELOW THE BARS BEING DEVELOPED OR SPLICED.
4. "OTHER BARS" PERTAIN TO ALL OTHER CONDITIONS THAT DO NOT SATISFY THE CONDITIONS OF "TOP BARS"
5. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED BY THE FOLLOWING FACTORS (db = BAR DIAMETER)
   TOP BARS:
   1.3 FOR BAR COVER < 3db
   1.2 FOR BAR COVER > 3db
   OTHER BARS:
   1.5 FOR BAR COVER < 3db
   1.2 FOR BAR COVER > 3db
6. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATED VALUES BY 1.33.
7. EPOXY AND LIGHTWEIGHT CONCRETE FACTORS ARE MULTIPLICATIVE: SPLICE LENGTH = (TABULATED VALUE) x (EPOXY-COATED FACTOR) x (LIGHTWEIGHT CONCRETE FACTOR)
8. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT NOT LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.

TENSION DEVELOPMENT AND LAP SPLICE LENGTHS SCHEDULE | 4

NOT USED | 16



TYPICAL PIPE/CONDUIT PENETRATIONS IN GRADE BEAMS OR FOOTINGS | 8

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503
FIRM REGISTRATION NO. 20913

NOTE

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PRELIMINARY - NOT FOR CONSTRUCTION

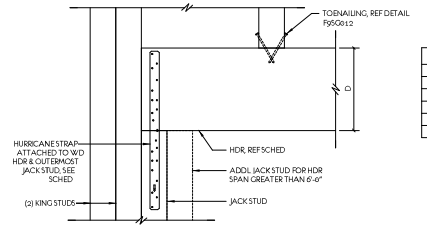
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: TYPICAL CONCRETE DETAIL

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.6
SCALE: 1" = 1'-0"	



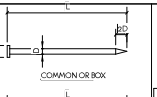
HURRICANE STRAP SCHEDULE		
D	STRAP	NAILING (TOTAL)
5 1/2"	SIMPSON ST9	8 -0.162" X 2 1/2" COMMON
7 1/4"	SIMPSON ST12	10 -0.162" X 2 1/2" COMMON
9 1/4"	SIMPSON ST18	14 -0.162" X 2 1/2" COMMON
11 1/4"	SIMPSON ST19	18 -0.162" X 2 1/2" COMMON
13 1/4"	SIMPSON ST6624	28 -0.162" X 2 1/2" COMMON

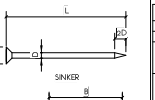
TYPICAL HEADER-TO-STUD DETAIL

DOUBLE BEAM TO COLUMN CONNECTION | 13

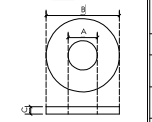
STANDARD COMMON, BOX, AND SINKER NAIL SCHEDULE											
TYPE	DIMENSIONS	PENNYWEIGHT									
		6d	7d	8d	10d	12d	16d	20d	30d	40d	50d	60d
COMMON	L	2"	2 1/4"	2 1/2"	3"	3 1/4"	3 1/2"	4"	4 1/2"	5"	5 1/2"	6"
	D	0.113"	0.113"	0.131"	0.148"	0.148"	0.162"	0.192"	0.207"	0.225"	0.244"	0.263"
	H	0.266"	0.266"	0.281"	0.312"	0.312"	0.344"	0.406"	0.438"	0.469"	0.5"	0.531"
BOX	L	2"	2 1/4"	2 1/2"	3"	3 1/4"	3 1/2"	4"	4 1/2"	5"	-	-
	D	0.099"	0.099"	0.113"	0.128"	0.128"	0.135"	0.148"	0.148"	0.162"	-	-
	H	0.266"	0.266"	0.297"	0.312"	0.312"	0.344"	0.375"	0.375"	0.406"	-	-
SINKER	L	1 7/8"	2 1/8"	2 3/8"	2 7/8"	3 1/8"	3 1/4"	3 3/4"	4 1/4"	4 3/4"	-	5 3/4"
	D	0.092"	0.099"	0.113"	0.12"	0.135"	0.148"	0.177"	0.192"	0.207"	-	0.244"
	H	0.234"	0.250"	0.266"	0.281"	0.312"	0.344"	0.375"	0.406"	0.438"	-	0.500"

NOTE:
1. ALL NAILS SHALL MEET THE TOLERANCES SPECIFIED IN ASTM F1667.
2. DEFINITIONS:
L = LENGTH
D = DIAMETER
H = HEAD DIAMETER





STANDARD PLATE WASHER SCHEDULE			
NOMINAL WASHER SIZE (IN)	A	B	C
	INSIDE DIAMETER (IN)	OUTSIDE DIAMETER (IN)	THICKNESS (IN)
3/8"	0.438"	1.000"	0.085"
1/2"	0.562"	0.375"	0.109"
5/8"	0.688"	1.750"	0.134"
3/4"	0.812"	2.000"	0.148"
7/8"	0.938"	2.250"	0.165"
1"	1.062"	2.500"	0.165"



NAIL AND STANDARD CUT WASHER SCHEDULES | 5

FASTENING SCHEDULE		
CONNECTION TYPE	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
	ROOF	
BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	5 -8d COMMON (0.131" X 2 1/2"); OR	EACH END, TOENAIL
	5 -10d BOX (0.128" X 3"); OR	
	5 -0.131" X 3" NAILS	
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	5 -8d COMMON (0.131" X 2 1/2"); OR	EACH END, TOENAIL
	5 -0.131" X 3" NAILS	
	2 -16d COMMON (0.162" X 3 1/2"); OR	END NAIL
	3 -0.131" X 3" NAILS	
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (0.162" X 3 1/2") @ 6" OC	FACE NAIL
	0.131" X 3" NAILS @ 6" OC	
CEILING JOIST TO TOP PLATE	5 -8d COMMON (0.131" X 2 1/2"); OR	EACH JOIST, TOENAIL
	5 -10d BOX (0.128" X 3"); OR	
	5 -0.131" X 3" NAILS	
CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER LAPS OVER PARTITIONS,	5 -16d COMMON (0.162" X 3 1/2"); OR	FACE NAIL
	4 -10d BOX (0.128" X 3"); OR	
	4 -0.131" X 3" NAILS	
CEILING JOIST ATTACHED TO PARALLEL RAFTER	4 -16d COMMON (0.162" X 3 1/2")	FACE NAIL
COLLAR TIE TO RAFTER	5 -10d COMMON (0.148" X 3"); OR	FACE NAIL
	4 -10d BOX (0.128" X 3"); OR	
	4 -0.131" X 3" NAILS	
RAFTER OR ROOF TRUSS TO TOP PLATE	5 -10d COMMON (0.148" X 3"); OR	TOENAIL
	5 -16d BOX (0.135" X 3 1/2"); OR	
	4 -10d BOX (0.128" X 3"); OR	
	4 -0.131" X 3" NAILS	
ROOF RAFTER TO RIDGE VALLEY OR HIP RAFTERS, OR ROOF RAFTE TO 2-INCH RIDGE BEAM	2 -16d COMMON (0.162" X 3 1/2"); OR	END NAIL
	3 -10d BOX (0.128" X 3"); OR	
	3 -0.131" X 3" NAILS OR	
	3 -10d COMMON (0.148" X 3"); OR	TOENAIL
	3 -16d BOX (0.135" X 3 1/2"); OR	
	4 -10d BOX (0.128" X 3")	
	WALL	
STUD TO STUD (NOT AT BRACED WALLS)	16d COMMON (0.162" X 3 1/2"); OR	24" OC, FACE NAIL
	10d BOX (0.128" X 3"); OR	16" OC, FACE NAIL
	0.131" X 3" NAILS	
STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (0.162" X 3 1/2"); OR	16" OC, FACE NAIL
	16d BOX (0.135" X 3 1/2"); OR	12" OC, FACE NAIL
	0.131" X 3" NAILS	
BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (0.162" X 3 1/2"); OR	16" OC EA SIDE, FACE NAIL
	16d BOX (0.135" X 3 1/2")	12" OC EA SIDE, FACE NAIL
CONTINUOUS HEADER TO STUD	4 -8d COMMON (0.131" X 2 1/2"); OR	TOENAIL
	4 -10d BOX (0.128" X 3")	
TOP PLATE TO TOP PLATE	16d COMMON (0.162" X 3 1/2"); OR	16" OC, FACE NAIL
	10d BOX (0.128" X 3"); OR	12" OC, FACE NAIL
	0.131" X 3" NAILS	
TOP PLATE TO TOP PLATE, AT END JOINTS	8 -16d COMMON (0.162" X 3 1/2"); OR	EA SIDE OF END JOINT, FACE NAIL
	12 -10d BOX (0.128" X 3"); OR	
	12 -0.131" X 3" NAILS	
BOTTOM PLATE TO JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (0.162" X 3 1/2"); OR	16" OC, FACE NAIL
	16d BOX (0.135" X 3 1/2"); OR	12" OC, FACE NAIL
	0.131" X 3" NAILS	
BOTTOM PLATE TO JOIST OR BLOCKING (AT BRACED WALL PANELS)	2 -16d COMMON (0.162" X 3 1/2"); OR	16" OC, FACE NAIL
	3 -16d BOX (0.135" X 3 1/2"); OR	
	4 -0.131" X 3" NAILS	
STUD TO TOP OR BOTTOM PLATE	4 -8d COMMON (0.131" X 2 1/2"); OR	TOENAIL
	4 -10d BOX (0.128" X 3"); OR	
	4 -0.131" X 3" NAILS OR	
	2 -16d COMMON (0.162" X 3 1/2"); OR	END NAIL
	3 -10d BOX (0.128" X 3"); OR	
	3 -0.131" X 3" NAILS	
TOP OR BOTTOM PLATE TO STUD	2 -16d COMMON (0.162" X 3 1/2"); OR	FACE NAIL
	3 -10d BOX (0.128" X 3"); OR	
	3 -0.131" X 3" NAILS	
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2 -16d COMMON (0.162" X 3 1/2"); OR	FACE NAIL
	3 -10d BOX (0.128" X 3"); OR	
	3 -0.131" X 3" NAILS	
BRACE TO EACH STUD AND PLATE	2 -8d COMMON (0.131" X 2 1/2"); OR	FACE NAIL
	2 -10d BOX (0.128" X 3"); OR	
	2 -0.131" X 3" NAILS	

FASTENING SCHEDULE | 3

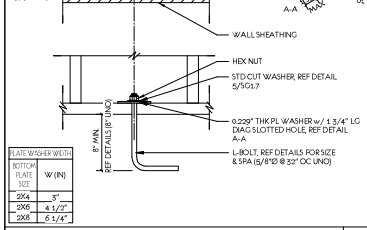
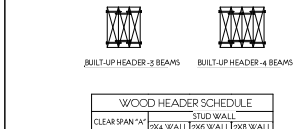


PLATE WASHER WIDTH	
BOTTOM PLATE SIZE	W (IN)
2X4	3"
2X6	4 1/2"
2X8	6 1/4"

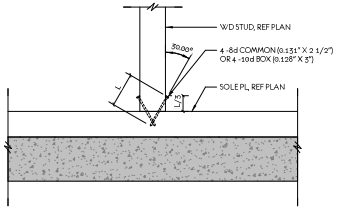
TYPICAL ANCHOR BOLT-TO-BOTTOM PLATE DETAIL | 18



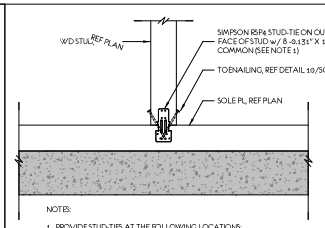
WOOD HEADER SCHEDULE			
CLEAR SPAN "A"	STUD WALL		
	2X4 WALL	2X6 WALL	2X8 WALL
0'-0" < A ≤2'-0"	2 -2X6	3 -2X6	4 -2X6
2'-0" < A ≤4'-0"	2 -2X8	3 -2X8	4 -2X8
4'-0" < A ≤6'-0"	2 -2X10	3 -2X10	4 -2X10
6'-0" < A ≤10'-0"	2 -2X12	3 -2X12	4 -2X12
10'-0" < A ≤12'-0"	2 -2X14	3 -2X14	4 -2X14

NOTE
1. THE CLEARN SPAN "A" IS DEFINED IN 2/SG1.8

WOOD HEADER SCHEDULE | 14

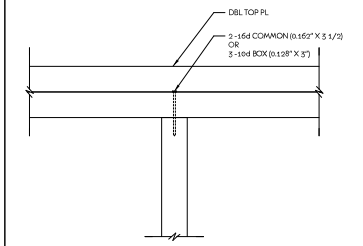


TYPICAL STUD TO BOTTOM PLATE DETAIL | 10

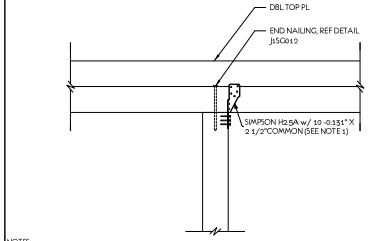


NOTES:
1. PROVIDE STUD-TIES AT THE FOLLOWING LOCATIONS:
a. EVERY OTHER STUD
b. ALL KING STUDS
c. ALL JACK STUDS
d. AS DETAILED IN DRAWINGS

TYPICAL STUD TO BOTTOM PLATE DETAIL WITH STUD-PLATE TIE | 6

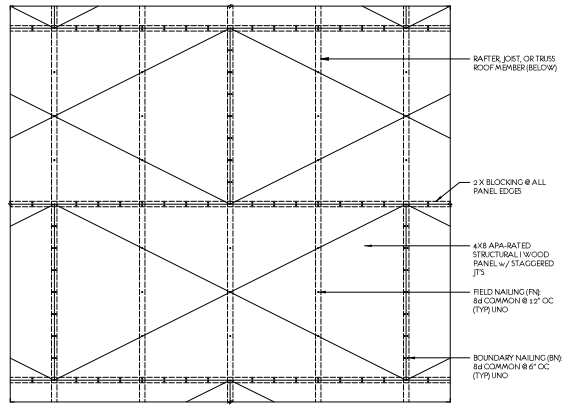


TYPICAL STUD TO DOUBLE TOP PLATE DETAIL | 19

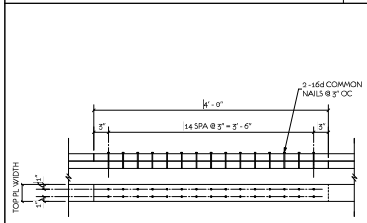


NOTES:
1. PROVIDE HURRICANE-TIES AT THE FOLLOWING LOCATIONS:
a. EVERY OTHER STUD
b. ALL KING STUDS
c. ALL CORNER STUDS WITH HOLD-DOWNS
d. AS DETAILED IN DRAWINGS

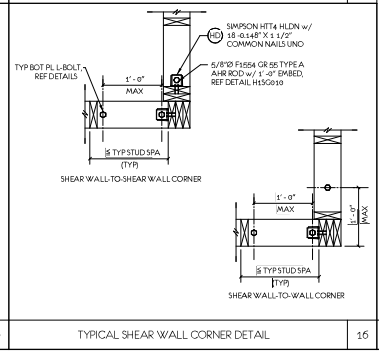
TYPICAL STUD TO DOUBLE TOP PLATE DETAIL WITH HURRICANE TIE | 15



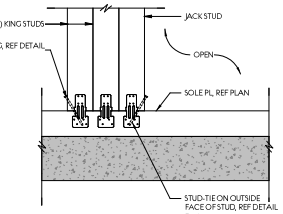
TYPICAL ROOF SHEATHING PANEL ATTACHMENT DETAIL | 8



TYPICAL DOUBLE TOP PLATE SPLICE | 20



TYPICAL SHEAR WALL CORNER DETAIL | 16



TYPICAL STUD TO DOUBLE TOP PLATE DETAIL | 4

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503
FIRM REGISTRATION NO. 20913

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PRELIMINARY - NOT FOR CONSTRUCTION

REVIEW		
REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

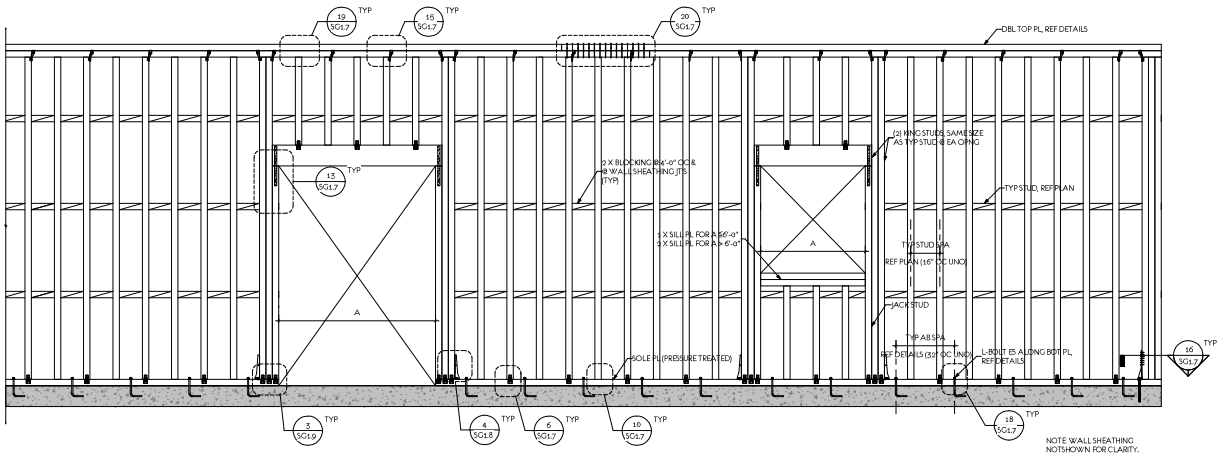
OWNER: ----------

PLAN: TYPICAL WOOD FRAMING DETAILS

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY:	CHECKED BY:
J.M.W.V.	IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.7
SCALE: 1" = 1'-0"	

NOT USED 17

NOT USED 18



TYPICAL LOAD-BEARING/EXTERIOR WOOD STUD WALL 2

NOT USED 19

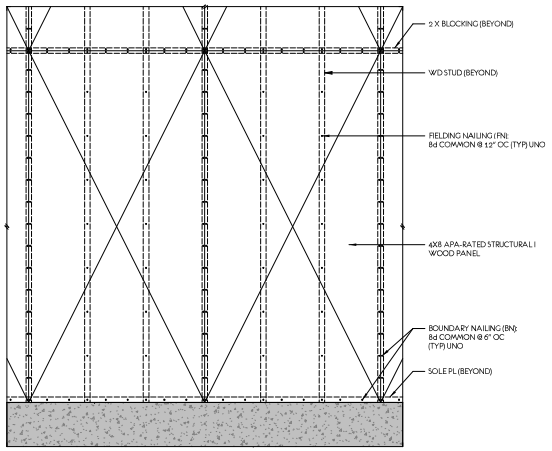
NOT USED 15

NOT USED 11

NOT USED 20

NOT USED 16

NOT USED 12



TYPICAL WALL SHEATHING PANEL ATTACHMENT DETAIL 4

OIM ENGINEERING PLLC STRUCTURAL DESIGN

O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
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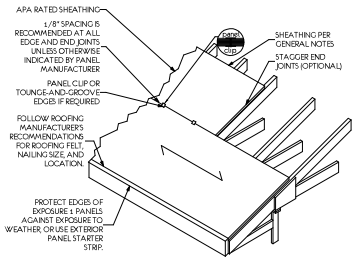
PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: TYPICAL WOOD FRAMING DETAILS 2

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.8
SCALE: 1" = 1'-0"	

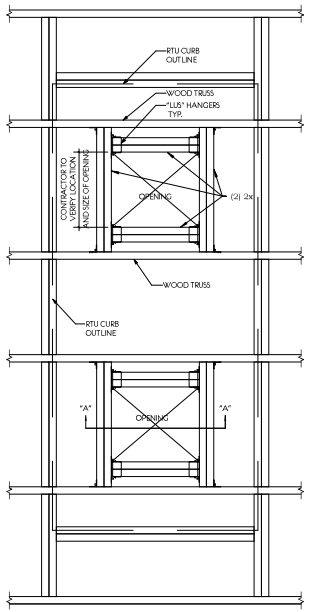


NOTE

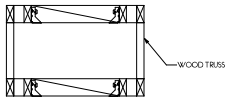
COVER SHEATHING AS SOON AS POSSIBLE WITH ROOFING FELT FOR EXTRAPROTECTION AGAINS EXCESSIVE MOISTURE PRIOR TO ROOFING APPLICATION.

SCREENED SURFACE OR SIDE WITH SKID RESISTANT COATING UP IF OSB PANELS ARE USED. KEEP ROOF SURFACE FREE OF DIRT, SAWDUST AND DEBRIS, AND WEAR SKID-RESISTANT SHOES WHEN INSTALLING ROOF SHEATHING.

FOR BUILDINGS WITH CONVENTIONALLY FRAMED ROOFS (TRUSSES OR RAFTERS), LIMIT THE LENGTH OF CONTINUOUS SECTIONS OF ROOF AREA TO 80 FEET MAXIMUM DURING CONSTRUCTION, TO ALLOW FOR ACCUMULATED EXPANSION IN WET WEATHER CONDITIONS. OMIT ROOF SHEATHING PANELS IN EACH COURSE OF SHEATHING BETWEEN SECTIONS, AND INSTALL "FILL IN" PANELS TO COMPLETE ROOF DECK INSTALLATION PRIOR TO APPLYING ROOFING.

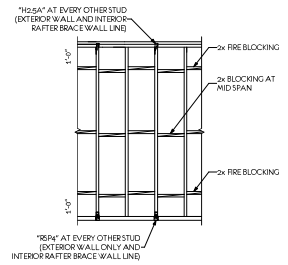


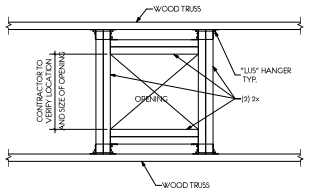
PLAN VIEW

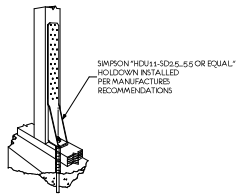


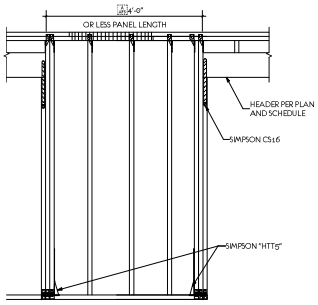
SECTION "A"-"A"

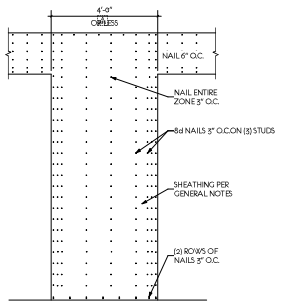
NOTE:
CONTRACTOR TO PROVIDE BLOCKING AT ALL CURB ATTACHMENT LOCATIONS FOR PROPER ANCHORAGE. FOR ATTACHMENT METHOD OF CURB TO STRUCTURE AND CURB INFORMATION SEE MEP DRAWINGS. REFER TO CURB MANUFACTURER INSTALLATION INSTRUCTION FOR ANY LEVELING REQUIRED.











NOT USED	17	TYPICAL ROOF SHEATHING	9			EXTERIOR WALL DETAIL	1
NOT USED	18	NOT USED	14	NOT USED	10	SUPPORT FOR HATCH OPENING	2
NOT USED	19	NOT USED	15	NOT USED	11	SUPPORT FOR MECHANICAL UNIT	8	SIMPSON STRONG-TIE "HDU11-SD2.5_5.5"	3
NOT USED	20	NOT USED	16	NOT USED	12	4'-0" OR LESS SHEAR WALLS	4		

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O. Ivan Mata, P.E.
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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: WOOD FRAMING DETAILS

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SG1.9
SCALE: 1" = 1'-0"	

NOT USED 17

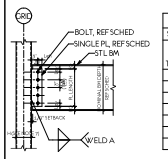
NOT USED 18

NOT USED 19

NOT USED 20

SINGLE PLATE AT HSS COLUMN CONNECTION CAPACITY							
BEAM DEPTH	NO. OF BOLTS PER VERT ROW	PLATE SIZE	WELD SIZE	MAXIMUM REACTION (LRFD) - KIPS			
				5/4" DIA BOLTS		7/8" DIA BOLTS	
				STD	SSLT	STD	SSLT
W8	2	1/4"	5/16"	24	24	26	26
W10	2	1/4"	5/16"	24	24	26	26
W12	3	1/4"	5/16"	38	38	39	39
W14	3	5/16"	1/4"	43	43	48	48
W16	4	5/16"	1/4"	62	62	65	65
W18	5	5/16"	1/4"	81	80	81	81
W21	6	5/16"	1/4"	89	95	97	97
W24	7	5/16"	1/4"	108	111	114	114
W27	7	3/8"	1/4"	-	118	137	137
W30	8	3/8"	1/4"	-	137	157	156
W33	9	3/8"	1/4"	-	155	175	174
W36	10	5/8"	1/4"	-	173	194	192
W40	11	5/8"	1/4"	-	190	212	210
W44	12	5/8"	1/4"	-	208	230	228

NOTES:
1. PROVIDED REACTION CAPACITIES ARE GIVEN IN KIPS AND AT STRENGTH DESIGN LEVEL USING LOAD-RESISTANCE FACTOR DESIGN (LRFD).
2. ALL BOLTS SHALL BE ASTM A325N.
3. THE SINGLE PLATE SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).
4. WELDING ELECTRODES SHALL CONFORM TO E70XX.
5. BEAMS OF VARIOUS WEB THICKNESSES ARE GROUPED BASED ON THEIR DEPTH. NUMBER OF BOLTS SHOWN ARE BASED ON THE THINNEST WEB IN EACH GROUP.
6. WHEN THE TOP FLANGE IS COPED OR WHEN BOTH FLANGES ARE COPED, REFERENCE THE APPLICABLE ALL-BOLTED DOUBLE ANGLE PRE-ENGINEERED REACTION CAPACITIES.
7. THIS DETAIL IS ONLY APPLICABLE WHEN THE HSS COLUMN IS CLASSIFIED AS NONSLENDER IN ACCORDANCE WITH AISC 360. THE NONSLENDER CRITERIA IS AS FOLLOWS:

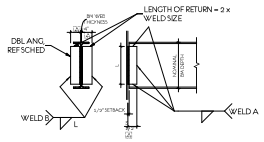


HSS NONSLENDER CRITERIA		
SQ OR RECT HSS (Fy = 46 KSI)		ROUND HSS (Fy = 42 KSI)
NOMINAL WALL THICKNESS (IN)	MAXIMUM H (IN)	
5/8"	20"	ALL AISC ROUND HSS SHAPES ARE CLASSIFIED AS NONSLENDER
1/2"	16"	
3/8"	12"	
5/16"	10"	
1/4"	8"	
3/16"	6"	
1/8"	4"	

Lev = ± 1 1/4" FOR 5/4" DIA BOLTS
= ± 1 1/2" FOR 7/8" DIA BOLTS
Leh = ± 1 1/2" FOR 5/4" DIA BOLTS
= ± 3/4" FOR 7/8" DIA BOLTS

TYPICAL PRE-ENGINEERED SINGLE PLATE AT HSS COLUMN CONNECTION 14

ALL-WELDED DOUBLE ANGLE CONNECTION CAPACITY							
BEAM DEPTH	L (IN)	ANGLE SIZE	WELD A	WELD B	MINIMUM BEAM WEB THICKNESS	MINIMUM SUPPORT THICKNESS	MAXIMUM REACTION (LRFD) - KIPS
W8	6"	2L4X3 1/2X1/4	5/16"	1/4"	0.286"	0.190"	32
W10	6"	2L4X3 1/2X1/4	5/16"	1/4"	0.286"	0.190"	32
W12	9"	2L4X3 1/2X1/4	5/16"	1/4"	0.286"	0.190"	64
W14	9"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	80
W16	12"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	124
W18	15"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	185
W21	18"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	196
W24	22"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	256
W27	22"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	256
W30	24"	2L4X3 1/2X5/16	1/4"	5/16"	0.381"	0.238"	286
W33	28"	2L4X3 1/2X3/8	5/16"	3/8"	0.476"	0.286"	416
W36	30"	2L4X3 1/2X3/8	5/16"	3/8"	0.476"	0.286"	452
W40	34"	2L4X3 1/2X3/8	5/16"	3/8"	0.476"	0.286"	523
W44	36"	2L4X3 1/2X3/8	5/16"	3/8"	0.476"	0.286"	558

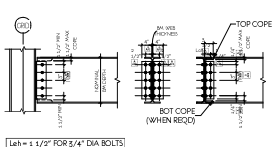


NOTES:
1. PROVIDED REACTION CAPACITIES ARE GIVEN IN KIPS AND AT STRENGTH DESIGN LEVEL USING LOAD-RESISTANCE FACTOR DESIGN (LRFD).
2. DOUBLE ANGLES SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).
3. WELDING ELECTRODES SHALL CONFORM TO E70XX.

TYPICAL PRE-ENGINEERED ALL-WELDED DOUBLE ANGLE CONNECTION 10

ALL-BOLTED DOUBLE ANGLE CONNECTION CAPACITY																
BEAM DEPTH	NO. OF BOLTS PER VERT ROW	MINIMUM BEAM WEB/COLUMN FLANGE THICKNESS	ANGLE SIZE	MAXIMUM REACTION (LRFD) - KIPS												
				3/4" DIAMETER BOLTS							7/8" DIAMETER BOLTS					
				UNCOPED	TOP FLANGE COPED			BOTH FLANGES COPED			UNCOPED	TOP FLANGE COPED			BOTH FLANGES COPED	
				STD/OVS/SSLT	STD	OVS	SSLT	STD	OVS	SSLT	STD/OVS/SSLT	STD	OVS	SSLT	STD	OVS	SSLT
W8	2	0.170"	2L4X3 1/2X1/4	29	22	21	21	21	19	21	34	21	19	20	19	18	19
W10	2	0.190"	2L4X3 1/2X1/4	33	25	23	24	23	22	23	38	23	22	22	22	20	22
W12	3	0.200"	2L4X3 1/2X1/4	52	39	36	38	37	35	37	61	36	34	35	35	33	35
W14	3	0.230"	2L4X3 1/2X5/16	60	44	42	43	42	40	42	70	42	39	40	40	37	40
W16	4	0.250"	2L4X3 1/2X5/16	87	64	60	63	62	58	62	102	60	56	59	58	54	58
W18	5	0.390"	2L4X3 1/2X5/16	131	95	90	94	93	87	93	153	90	84	88	87	82	87
W21	6	0.350"	2L4X3 1/2X5/16	184	133	125	131	130	122	130	185*	125**	117**	123**	122**	115**	122**
W24	7	0.395"	2L4X3 1/2X3/8	242	175	164	173	171	161	171	258*	164**	154**	160**	161**	151**	161**
W27	7	0.460"	2L4X3 1/2X3/8	251*	204**	191**	201**	200**	188**	200**	258*	191**	179**	186**	188**	176**	188**
W30	8	0.470"	2L4X3 1/2X3/8	286*	237**	223**	235**	233**	219**	233**	296*	223**	209**	221**	219**	206**	219**
W33	9	0.550"	2L4X3 1/2X3/8	322*	312**	293**	309**	307**	289**	307**	331*	293**	275**	290**	289**	271**	289**
W36	10	0.590"	2L4X3 1/2X1/2	358*	358*	358**	358*	358*	351**	358*	487*	358**	332**	350**	351**	328**	351**
W40	11	0.630"	2L4X3 1/2X1/2	394*	394*	394*	394*	394*	394*	384**	535*	416**	383**	406**	405**	379**	405**
W44	12	0.710"	2L4X3 1/2X1/2	430*	430*	430*	430*	430*	430*	430*	584*	583**	471**	500**	498**	467**	498**

*INDICATES THAT A REACTION INCREASE IS NOT PERMITTED.
**INDICATES THAT A REACTION INCREASE IS PERMITTED BUT NOT MORE THAN THE CORRESPONDING UNCOPED REACTION CAPACITY.



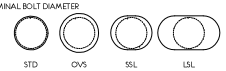
DEPTH	ULTIMATE REACTION (KIPS)	
	5/8" DIA BOLTS	7/8" DIA BOLTS
W8	48	45
W10	48	45
W12	76	71
W14	95	89
W16	126	122
W18	156	155
W21	187	-
W24	251	-

NOTES:
1. PROVIDED REACTION CAPACITIES ARE GIVEN IN KIPS AND AT STRENGTH DESIGN LEVEL USING LOAD-RESISTANCE FACTOR DESIGN (LRFD).
2. ALL BOLTS SHALL BE ASTM A325N.
3. DOUBLE ANGLES SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).
4. BEAMS OF VARIOUS WEB THICKNESSES ARE GROUPED BASED ON THEIR NOMINAL DEPTH. THE NUMBER OF BOLTS SHOWN ARE BASED ON THE THINNEST WEB IN EACH GROUP.
5. REACTION CAPACITIES TABULATED ARE BASED ON THE THINNEST WEB IN EACH GROUP. AN INCREASE IN THE REACTION CAPACITY IS PERMITTED, WHERE ALLOWED IN THE TABLE, BY MULTIPLYING THE TABULATED VALUE BY THE RATIO OF THE ACTUAL BEAM WEB THICKNESS TO THE MINIMUM BEAM WEB THICKNESS TABULATED. THIS CAN BE EXPRESSED AS FOLLOWS: ACTUAL REACTION CAPACITY = (TABULATED REACTION CAPACITY) x (ACTUAL WEB THICKNESS / TABULATED MINIMUM WEB THICKNESS)
6. WHERE TABULATED REACTION CAPACITIES DO NOT HAVE * OR ** INCREASES SHALL NOT EXCEED THE FOLLOWING RESPECTIVE ULTIMATE REACTION CAPACITIES:

TYPICAL PRE-ENGINEERED ALL-BOLTED DOUBLE ANGLE CONNECTION 2

NOMINAL BOLT HOLE DIMENSIONS				
BOLT DIAMETER	STANDARD (DIA)	OVERSIZED (DIA)	SHORT-SLOTTED (WIDTH X LENGTH)	LONG-SLOTTED (WIDTH X LENGTH)
1/2"	9/16"	5/8"	9/16" X 11/16"	9/16" X 1 1/4"
5/8"	11/16"	13/16"	11/16" X 7/8"	11/16" X 1 9/16"
3/4"	13/16"	15/16"	13/16" X 1"	13/16" X 1 7/8"
7/8"	15/16"	1 1/16"	15/16" X 1 1/8"	15/16" X 2 3/16"
1"	1 1/16"	1 1/4"	1 1/16" X 1 5/16"	1 1/16" X 2 1/2"
≥ 1 1/8"	d + 1/16"	d + 1/8"	(d + 1/16") x (d + 3/8")	(d + 1/16") X [2.5*d]

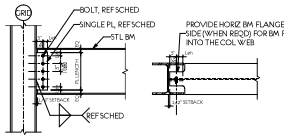
d = NOMINAL BOLT DIAMETER



NOTES:
1. ALL BOLT HOLES SHALL BE STANDARD SIZE HOLES UNLESS NOTED OR DETAILED OTHERWISE.
2. NOMINAL BOLT HOLE DESIGNATIONS ARE AS FOLLOWS: STD = STANDARD HOLE OVS = OVERSIZED HOLE SSL = SHORT-SLOTTED HOLE LSL = LONG-SLOTTED HOLE
3. SHORT-SLOTTED OR LONG-SLOTTED HOLE DESIGNATIONS NOT SHOWN OR NOTED IN THE DRAWINGS SPECIFY THE ORIENTATION OF THE SLOT BY ADDING A "P" OR "T" TO THE DESIGNATION (i.e. SSLP, SSLT, LSLP, LSLT) INDICATING THE SLOT IS PARALLEL TO THE DIRECTION OF THE APPLIED LOAD OR THE SLOT IS TRANSVERSE TO THE DIRECTION OF THE APPLIED LOAD, RESPECTIVELY.

TYPICAL NOMINAL BOLT HOLE DIMENSIONS 15

SINGLE PLATE AT WIDE FLANGE COLUMN CONNECTION CAPACITY						
BEAM DEPTH	NO. OF BOLTS PER VERT ROW	PLATE SIZE	WELD SIZE	MAXIMUM REACTION (LRFD) - KIPS		
				5/4" DIAMETER BOLTS		7/8" DIAMETER BOLTS
				STD	SSLT	STD	SSLT
W8	2	1/4"	5/16"	24	24	26	26
W10	2	1/4"	5/16"	24	24	26	26
W12	3	1/4"	5/16"	38	38	39	39
W14	3	5/16"	1/4"	43	43	48	48
W16	4	5/16"	1/4"	62	62	65	65
W18	5	5/16"	1/4"	81	80	81	81
W21	6	5/16"	1/4"	89	95	97	97
W24	7	5/16"	1/4"	108	111	114	114
W27	7	3/8"	1/4"	-	118	137	137
W30	8	3/8"	1/4"	-	137	157	156
W33	9	3/8"	1/4"	-	155	175	174
W36	10	3/8"	1/4"	-	173	194	192
W40	11	3/8"	1/4"	-	190	212	210
W44	12	3/8"	1/4"	-	208	230	228

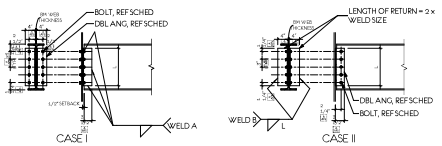


Lev = ± 1 1/4" FOR 5/4" DIA BOLTS = 1 1/2" FOR 7/8" DIA BOLTS Leh = ± 1 1/2" FOR 5/4" DIA BOLTS
= ± 3/4" FOR 7/8" DIA BOLTS

NOTES:
1. PROVIDED REACTION CAPACITIES ARE GIVEN IN KIPS AND AT STRENGTH DESIGN LEVEL USING LOAD-RESISTANCE FACTOR DESIGN (LRFD).
2. ALL BOLTS SHALL BE ASTM A325N.
3. THE SINGLE PLATE SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).
4. WELDING ELECTRODES SHALL CONFORM TO E70XX.
5. BEAMS OF VARIOUS WEB THICKNESSES ARE GROUPED BASED ON THEIR NOMINAL DEPTH. THE NUMBER OF BOLTS SHOWN ARE BASED ON THE THINNEST WEB IN EACH GROUP.
6. WHEN THE TOP FLANGE IS COPED OR WHEN BOTH FLANGES ARE COPED, REFERENCE THE APPLICABLE ALL-BOLTED DOUBLE ANGLE PRE-ENGINEERED REACTION CAPACITIES.

TYPICAL PRE-ENGINEERED SINGLE PLATE AT WIDE FLANGE COLUMN CONNECTION 12

BOLTED/WELDED DOUBLE ANGLE CONNECTION CAPACITY										
BEAM DEPTH	NO. OF BOLTS PER VERT ROW	L (IN)	CASE I				CASE II			
			WELD A	MINIMUM BEAM WEB THICKNESS	ANGLE SIZE	REACTION (LRFD) - KIPS	WELD B	MINIMUM SUPPORT THICKNESS	ANGLE SIZE	REACTION (LRFD) - KIPS
W8	2	5 1/2"	5/16"	0.286"	2L4X3 1/2X1/4	75	1/4"	0.190"	2L4X3 1/2X5/16	21
W10	2	5 1/2"	5/16"	0.286"	2L4X3 1/2X1/4	75	1/4"	0.190"	2L4X3 1/2X5/16	21
W12	3	8 1/2"	5/16"	0.286"	2L4X3 1/2X1/4	110	1/4"	0.190"	2L4X3 1/2X5/16	48
W14	3	8 1/2"	1/4"	0.381"	2L4X3 1/2X5/16	147	5/16"	0.238"	2L4X3 1/2X3/8	60
W16	4	11 1/2"	1/4"	0.381"	2L4X3 1/2X5/16	190	5/16"	0.238"	2L4X3 1/2X3/8	99
W18	5	14 1/2"	1/4"	0.381"	2L4X3 1/2X5/16	229	5/16"	0.238"	2L4X3 1/2X3/8	143
W21	6	17 1/2"	1/4"	0.381"	2L4X3 1/2X5/16	267	5/16"	0.238"	2L4X3 1/2X3/8	188
W24	7	20 1/2"	5/16"	0.476"	2L4X3 1/2X3/8	379	3/8"	0.286"	2L4X3 1/2X1/2	280
W27	7	20 1/2"	5/16"	0.476"	2L4X3 1/2X3/8	379	3/8"	0.286"	2L4X3 1/2X1/2	280
W30	8	23 1/2"	5/16"	0.476"	2L4X3 1/2X3/8	422	3/8"	0.286"	2L4X3 1/2X1/2	355
W33	9	26 1/2"	5/16"	0.476"	2L4X3 1/2X3/8	463	3/8"	0.286"	2L4X3 1/2X1/2	389
W36	10	29 1/2"	5/16"	0.476"	2L4X3 1/2X1/2	505	3/8"	0.286"	2L4X3 1/2X1/2	443
W40	11	32 1/2"	5/16"	0.476"	2L4X3 1/2X1/2	548	3/8"	0.286"	2L4X3 1/2X1/2	496
W44	12	35 1/2"	5/16"	0.476"	2L4X3 1/2X1/2	589	3/8"	0.286"	2L4X3 1/2X1/2	550



NOTES:
1. PROVIDED REACTION CAPACITIES ARE GIVEN IN KIPS AND AT STRENGTH DESIGN LEVEL USING LOAD-RESISTANCE FACTOR DESIGN (LRFD).
2. ALL BOLTS SHALL BE 7/4" DIAMETER A325N INSTALLED IN STANDARD HOLES.
3. CASE I BOLTED AT SUPPORT AND WELDED TO BEAM WEB. CASE II BOLTED TO BEAM WEB AND WELDED TO SUPPORT
4. THIS PRE-ENGINEERED CONNECTION IS ONLY APPLICABLE IF THE WEB OR SUPPORT THICKNESSES MEET THE TABULATED MINIMUM THICKNESSES FOR CASE I AND CASE II, RESPECTIVELY.
5. WHEN THE TOP FLANGE IS COPED OR WHEN BOTH FLANGES ARE COPED FOR A CASE II ARRANGEMENT, REFERENCE THE APPLICABLE ALL-BOLTED DOUBLE ANGLE PRE-ENGINEERED REACTION CAPACITIES.
6. WELDING ELECTRODES SHALL CONFORM TO E70XX.

TYPICAL PRE-ENGINEERED BOLTED/WELDED DOUBLE ANGLE CONNECTION 4

A. GENERAL
1. ALL THE PRE-ENGINEERED CONNECTION DETAILS SHOWN ON THIS SHEET ARE PROVIDED TO ASSIST THE STEEL FABRICATOR WITH THE DETAILING OF THE SIMPLE SHEAR CONNECTIONS FOR ALL THE STEEL FRAMING BASED OFF THE REACTIONS INDICATED ON THE STRUCTURAL DRAWINGS.
2. WHERE THESE PRE-ENGINEERED CONNECTION DETAILS ARE USED, NO DESIGN CALCULATIONS ARE REQUIRED TO BE SUBMITTED FROM THE STEEL FABRICATOR.
3. WHERE THESE PRE-ENGINEERED CONNECTION DETAILS ARE USED, ALL ASPECTS OF THE CONNECTIONS MUST CONFORM TO THE APPLICABLE PRE-ENGINEERED CONNECTION DETAIL BEING REFERENCED.

B. REACTIONS
1. THE FABRICATOR SHALL SELECT A TYPICAL PRE-ENGINEERED BEAM CONNECTION FROM THESE DETAILS USING THE REACTION INDICATED ON THE DRAWINGS.
2. ALL REACTIONS INDICATED ON THE DRAWINGS HAVE BEEN FACTORED USING THE LOAD RESISTANCE FACTOR DESIGN (LRFD) METHOD.
3. WHERE REACTIONS HA..E NOT BEEN PROVIDED, THE STEEL FABRICATOR SHALL ASSUME THE REACTION TO BE 65% OF THE FACTORED SHEAR STRENGTH OF THE BEAM, BUT NOT LESS THAN 10 KIPS.

C. PRE-ENGINEERED CONNECTION PROVISIONS
1. BEAMS OF VARIOUS WEB THICKNESS HAVE BEEN GROUPED BASED ON THEIR NOMINAL DEPTH.
2. THE NUMBER OF BOLTS INDICATED IN ALL DETAILS ARE BASED ON THE THINNEST WEB OF EACH GROUP.
3. BEAMS ARE BASED OFF ASTM A992 (Fy = 50 KSI), ANGLES AND PLATES ARE BASED OFF ASTM A36 (Fy = 36 KSI), BOLTS ARE BASED OFF ASTM A325N (THREADS NOT EXCLUDED FROM THE SHEAR PLANE), AND WELDS ARE BASED OFF E70XX ELECTRODES.

D. CONNECTIONS NOT COVERED BY PRE-ENGINEERED CONNECTIONS
1. CONNECTIONS SHOWN IN THE STRUCTURAL DRAWINGS NOT COVERED BY THE PRE-ENGINEERED CONNECTION DETAILS SHALL BE DESIGNED BY THE STEEL FABRICATOR AND SUBMITTED WITH DESIGN CALCULATIONS SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN. REFERENCE THE "STRUCTURAL STEEL - GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. THE STEEL FABRICATOR MAY, AT THEIR OPTION, SUBMIT ALTERNATE CONNECTION DETAILS FOR USE ON THE PROJECT. ALTERNATE CONNECTION DETAILS MUST CONFORM TO THE PRE-ENGINEERED DETAILS AND SUBMITTED WITH SIGNED AND SEAL CALCULATIONS FROM A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN.
3. WHEN A CONNECTION IS SHOWN TO HAVE OTHER REACTIONS OTHER THAN A VERTICAL REACTION (R) SUCH AS: AXIAL REACTION (F) = TENSION (+) OR COMPRESSION (-), HORIZONTAL REACTION (H), VERTICAL MOMENT (M), HORIZONTAL MOMENT (MH), AND / OR TORSION REACTION (T), THEN THE STEEL FABRICATOR SHALL SUBMIT SIGNED AND SEALED CALCULATIONS FROM A LICENSED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS IN DO NOT PROVIDE SLOTTED HOLES WHEN AXIAL OR HORIZONTAL REACTIONS ARE PRESENT UNLESS THE CONNECTION IS SPECIFICALLY DESIGNED FOR SLIP.

PRE-ENGINEERED STEEL CONNECTIONS 16

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.
OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

FIRM REGISTRATION NO. 20913

PRELIMINARY - NOT FOR CONSTRUCTION

NOTE

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

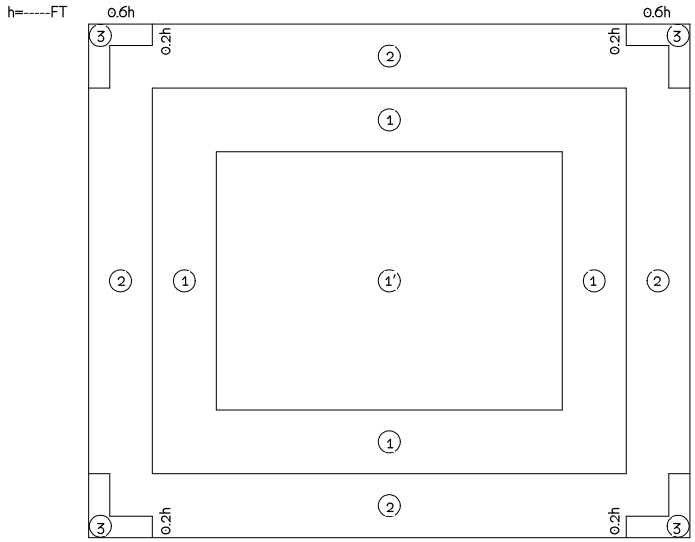
OWNER: ----------

PLAN: TYPICAL PRE-ENGINEERED STEEL CONNECTION DETAILS

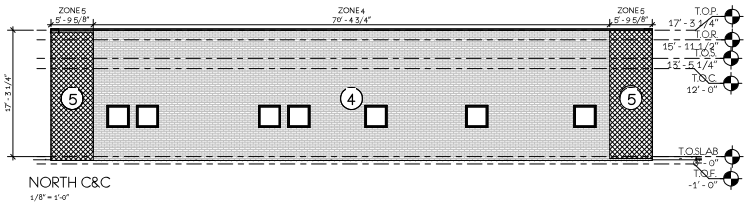
PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO:
SCALE: 1" = 1'-0"	SG1.10

WIND PRESSURE SUMMARY FOR C&C ROOF & WALL BASED UPON AREAS CH 30 PT 1 (TABLE 1 OF 2) ALL WIND PRESSURES INCLUDE A LOAD FACTOR (LF) OF 1.0

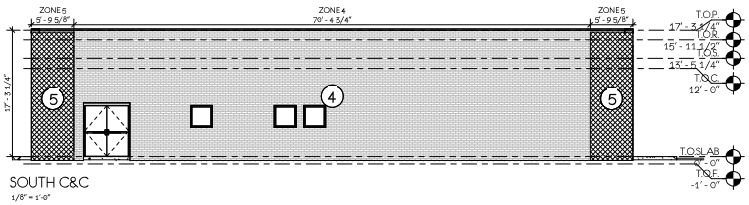
ZONE	FIGURE	POS A < 10 FT² PSF	NEG A < 10 FT² PSF	POS A = 20 FT² PSF	NEG A = 20 FT² PSF	POS A = 50 FT² PSF	NEG A = 50 FT² PSF	POS A = 100 FT² PSF	NEG A = 100 FT² PSF	POS A = 200 FT² PSF	NEG A = 200 FT² PSF	POS A = 500 FT² PSF	NEG A = 500 FT² PSF
1'	30.3-2A	16.93	-66.31	16.00	-61.94	16.00	-55.15	16.00	-51.78	16.00	-47.40	16.00	-41.62
1	30.3-2A	16.93	-38.09	16.00	-38.09	16.00	-38.09	16.00	-38.09	16.00	-32.78	16.00	-25.77
2	30.3-2A	16.93	-87.47	16.00	-81.85	16.00	-74.41	16.00	-68.79	16.00	-63.16	16.00	-55.73
3	30.3-2A	16.93	-119.22	16.00	-107.97	16.00	-93.10	16.00	-81.85	16.00	-70.60	16.00	-55.73
4	30.3-1	38.09	-41.27	36.41	-39.58	34.18	-37.35	32.49	-35.66	30.80	-33.98	28.57	-31.74
4 Parapet	30.3-1/30.3-2A	115.09	67.97	107.63	64.53	97.77	59.98	90.32	56.54	82.86	53.10	73.01	48.55
5	30.3-1	38.09	-50.79	36.41	-47.42	34.18	-42.96	32.49	-39.58	30.80	-36.21	28.57	-31.74
5 Parapet	30.3-1/30.3-2A	147.45	77.68	134.26	72.52	116.83	65.70	103.64	60.54	90.44	55.38	73.01	48.55



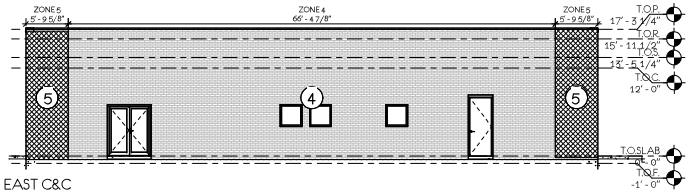
COMPONENTS AND CLADDING
1/8" = 1'-0"



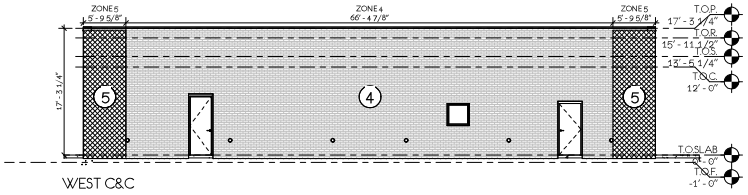
NORTH C&C
1/8" = 1'-0"



SOUTH C&C
1/8" = 1'-0"



EAST C&C
1/8" = 1'-0"



WEST C&C
1/8" = 1'-0"

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

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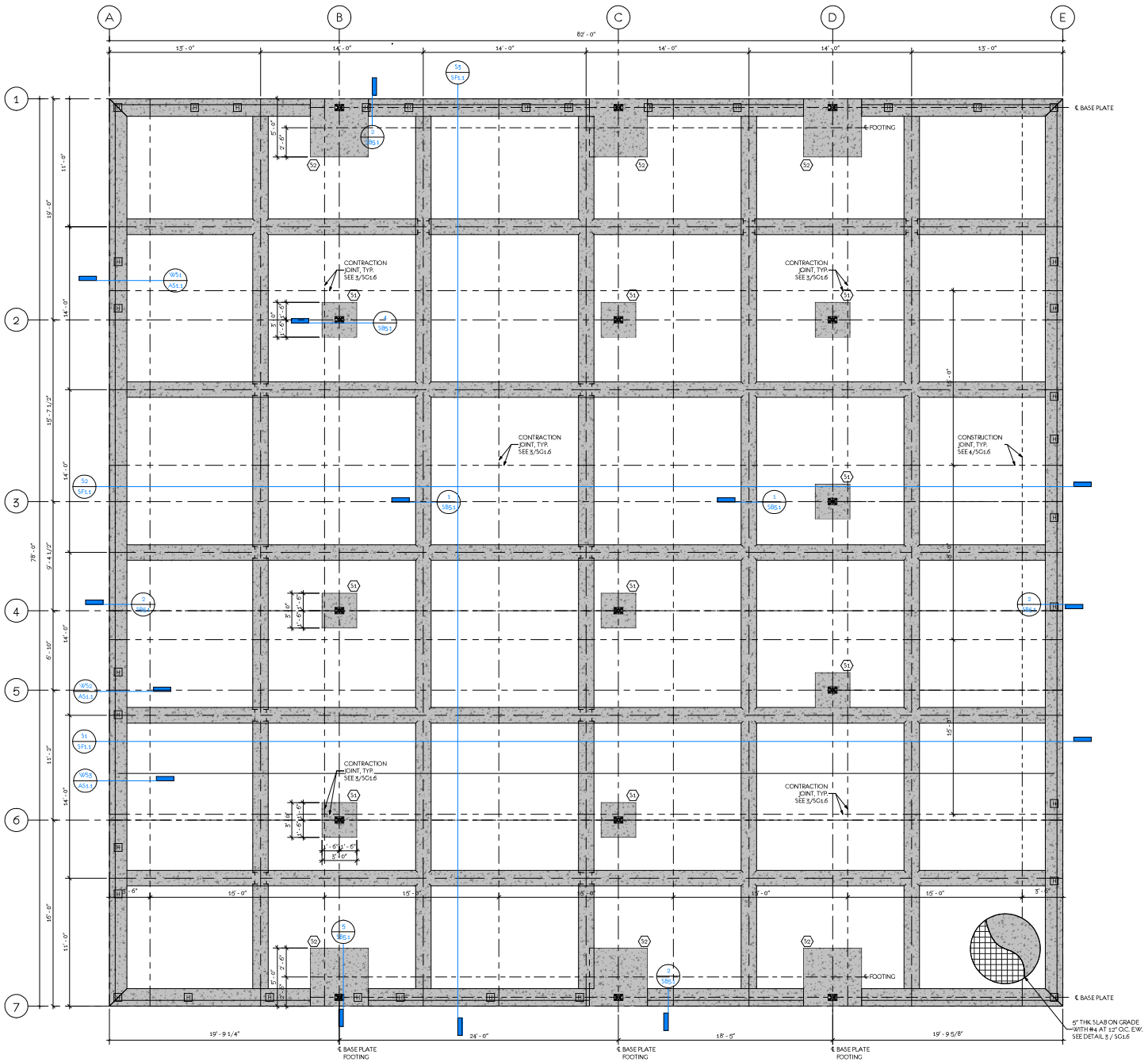
HCH CLINIC, McALLEN

LOCATION:
HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER:

PLAN:
COMPONENTS AND CLADDING

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO:
SCALE: Como se indica	SG1.11



FOUNDATION NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS BEFORE COMMENCING WORK.
2. CONTRACTOR TO VERIFY LOCATION OF ANY/ALL DROPS AND DRAINS IN SLAB WITH AUTHORITY HAVING JURISDICTION.
3. CONTRACTOR TO VERIFY REQUIRED T.O.S. ELEVATION WITH PUMP MANUFACTURER, ENGINEERING DRAWINGS AND/OR AUTHORITY HAVING JURISDICTION.
4. REFER TO FOOTING SCHEDULE FOR FOOTING SIZE AND REINFORCEMENT, SEE DETAIL 15/S1.6
5. [H] HOLD-DOWN LOCATIONS

FOUNDATION PLAN
SCALE 1/4"=1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

OIM ENGINEERING PLLC
STRUCTURAL DESIGN
O. Ivan Mata, P.E.

OVED IVAN MATA, PE
IVAN@OIMRGV.COM
PH: 956-458-9910
3613 S H ST.
McALLEN, TX. 78503

FIRM REGISTRATION NO. 20913

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REVIEW

REV	DATE	DESCRIPTION
A	08/05/24	PRELIMINARY
B	08/26/24	80% REVIEW SETS

PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: FOUNDATION PLAN

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SB5.0
SCALE: 1/4" = 1'-0"	

NOT USED	17	NOT USED	13	NOT USED	9	BORDER FOOTING	5
NOT USED	18	NOT USED	14	NOT USED	6	3D FOOTING D4	6
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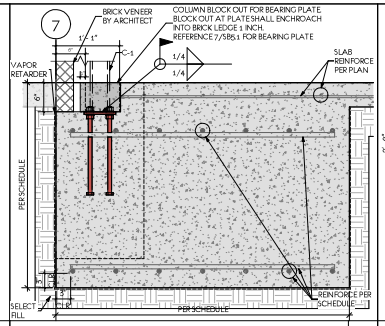
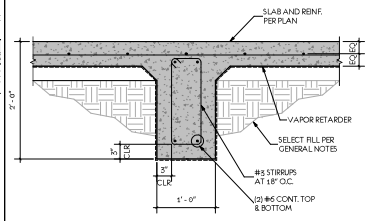
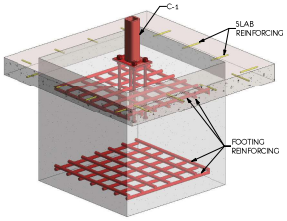
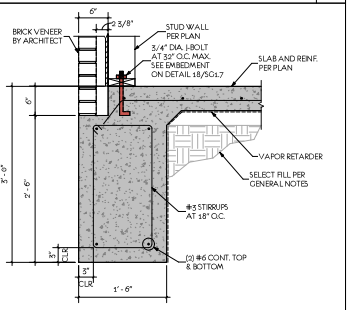


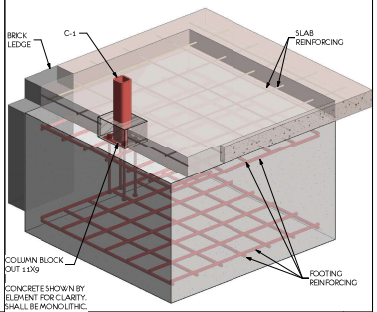


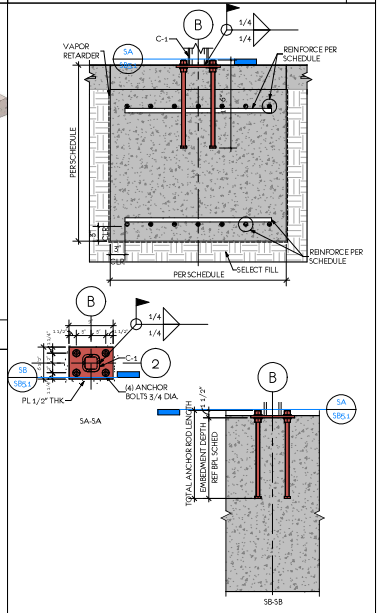
INTERIOR GRADE BEAM 1





EXTERIOR GRADE BEAM 2





ANCHOR BOLT SCHEDULE			
SIMPSON	DIAMETER	ASTM DESIGNATION	EMBEDMENT
THREADED ROD WITH END NUT	3/4"	F1554 GR 36 OR EQUAL	1'-6"

FOOTING AND BASE PLATE DETAIL 4

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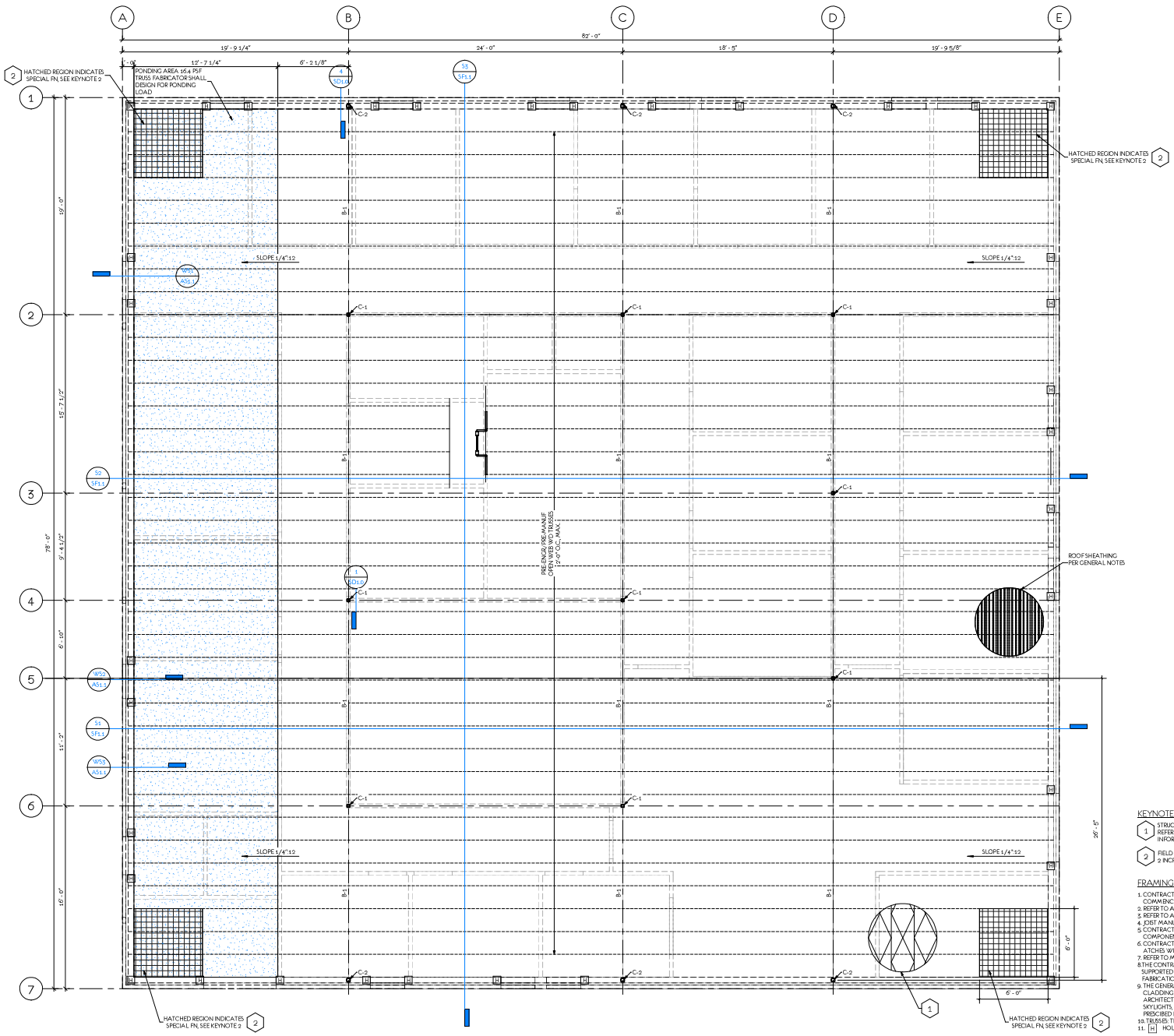
LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: FOUNDATION DETAILS

PROJECT:	STRUCTURAL DESING:
---------	----------
DRAWING BY: J.M.W.V.	CHECKED BY: ----------
DATE: 08/26/2024	DRAWING NO: SB5.1
SCALE: 1" = 1'-0"	



COLUMN MATERIAL LIST	
MARK	ITEM
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1	HSS-Hollow Structural Section-Column: HSS5-1/2X5-1/2X1/2
C-1: 9	
C-2	HSS-Hollow Structural Section-Column: HSS4X4X1/2
C-2	HSS-Hollow Structural Section-Column: HSS4X4X1/2
C-2	HSS-Hollow Structural Section-Column: HSS4X4X1/2
C-2	HSS-Hollow Structural Section-Column: HSS4X4X1/2
C-2	HSS-Hollow Structural Section-Column: HSS4X4X1/2
C-2	HSS-Hollow Structural Section-Column: HSS4X4X1/2
C-2: 6	

BEAM MATERIAL LIST	
MARK	ITEM
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1	W-Wide Range: W16X26
B-1: 12	

KEYNOTES:

1. STRUCTURAL I APA- RATED 7/16" THICK SHEATHING. REFERENCE THE GENERAL NOTES FOR ADDITIONAL INFORMATION.
2. FIELD NAILING IN THE HATCHED REGION SHALL BE 2 INCREASED TO 6" ON CENTER.

FRAMING NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING WORK.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL DIMENSIONS.
3. REFER TO ARCH'L PLANS FOR ROOF OVERHANG DIMENSION.
4. JOIST MANUFACTURER TO PROVIDE ADEQUATE BRIDGING FOR JOISTS.
5. CONTRACTOR TO COORDINATE ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SUPPORTED BY THE STRUCTURE WITH THE TRUSS MANUFACTURER.
6. CONTRACTOR TO COORDINATE EXACT LOCATION AND SIZE OF ANY AND ALL ROOF ATCHES WITH ARCH'L DRAWINGS.
7. REFER TO M.E.P. DRAWINGS FOR ANY HOUSEKEEPING PADS AT MECHANICAL ROOMS.
8. THE CONTRACTOR SHALL SUBMIT THE ACTUAL WEIGHTS OF EQUIPMENT TO BE SUPPORTED BY TRUSS AND/OR BEAMS TO THE TRUSS MANUFACTURER PRIOR TO FABRICATION AND ERECTION.
9. THE GENERAL NOTES FOR ADDITIONAL INFORMATION. ALL EXTERIOR COMPONENT AND CLADDING SYSTEMS (E.G. WINDOWS, CURTAIN WALLS, STOREFRONTS, EXTERIOR DOORS, ARCHITECTURAL SIDINGS, METAL WALL AND ROOF PANELS, ROOFING SYSTEMS, SKYLIGHTS, ROOFTOP EQUIPMENT, ETC.) MUST MEET MINIMUM WIND REQUIREMENTS AS PRESCIBED BY THE INTERNATIONAL BUILDING CODE (IBC), PROJECT EDITION.
10. TRUSSES: TRUSS MANUFACTURER TO ACCOUNT FOR WEIGHTS OF RTU WEIGHTS.
11. H HOLD-DOWN LOCATIONS.

ROOF FRAMING PLAN

SCALE 1/4"=1'-0"

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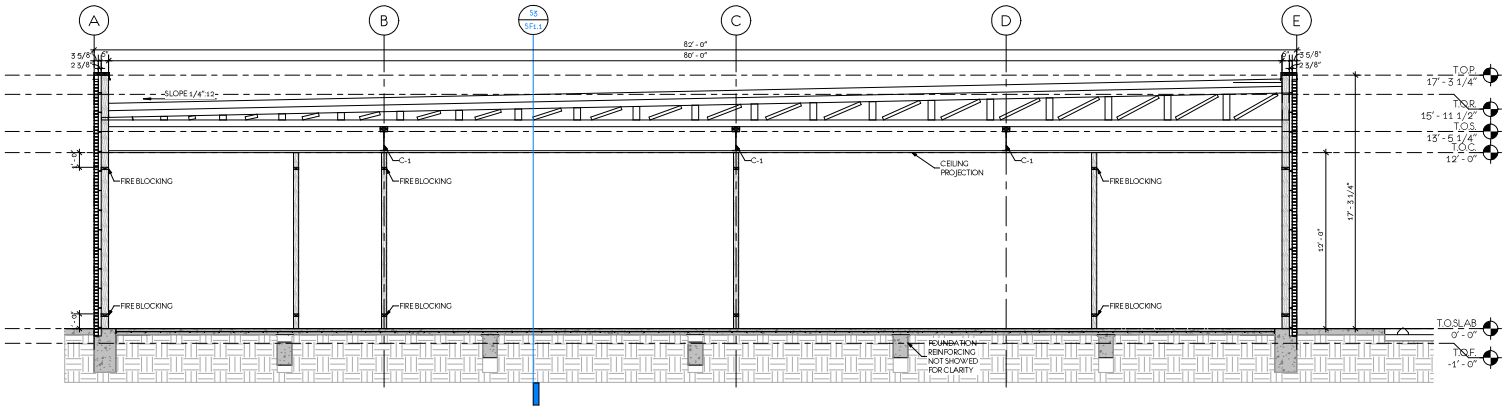
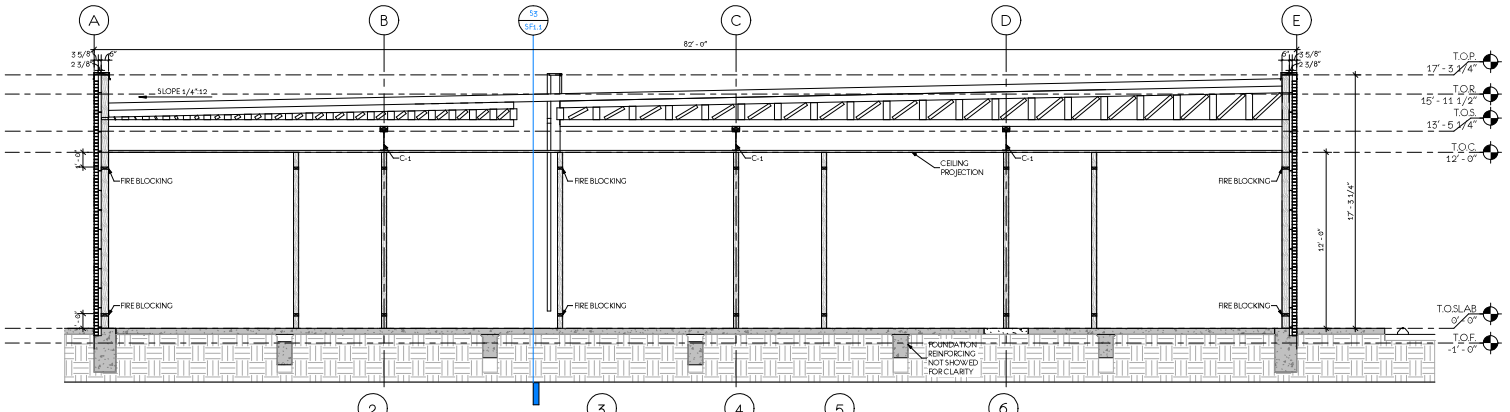
OWNER: ----------

PLAN: FRAMING PLAN

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SF1.0
SCALE: 1/4" = 1'-0"	



SECTION 1
1/4" = 1'-0"



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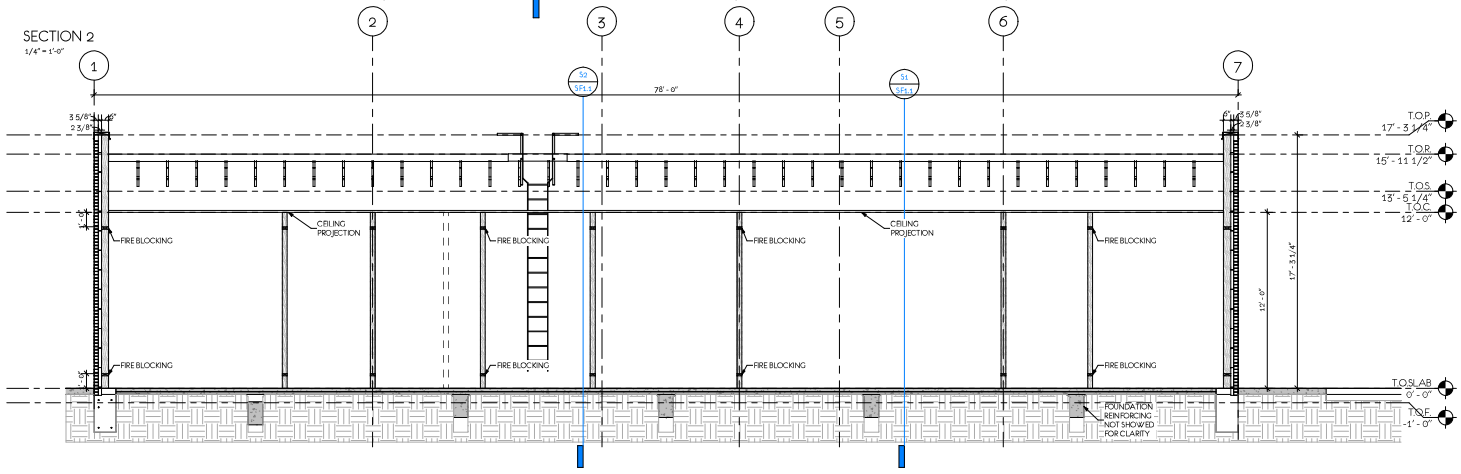
1/4" = 1'-0"



SECTION 3
1/4" = 1'-0"

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PROJECT: HCH CLINIC, McALLEN

LOCATION: HIDALGO COUNTY HEALTH CLINIC , MCALLEN, TEXAS.

OWNER: ----------

PLAN: STRUCTURAL SECTIONS

PROJECT:	STRUCTURAL DESING:
IVAN M.	IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SF1.1
SCALE: 1/4" = 1'-0"	

NOT USED	17	NOT USED	13	NOT USED	9	SECTION TRUSS TO WALL	5	DOUBLE BEAM TO COLUMN	1		
NOT USED	18	NOT USED	14	NOT USED	10	SECTION TRUSS TO WALL	6	3D CONNECTION DETAIL 1	2		
NOT USED	19	NOT USED	15	NOT USED	11	WOOD TRUSS TO STEEL BEAM	7	BEAM TO COLUMN	3		
NOT USED	20	NOT USED	16	NOT USED	12	NOT USED	8	3D CONNECTION DETAIL 2	4		

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LOCATION:
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OWNER:

PLAN:
CONNECTION DETAILS

PROJECT: IVAN M.	STRUCTURAL DESING: IVAN M.
DRAWING BY: J.M.W.V.	CHECKED BY: IVAN M.
DATE: 08/26/2024	DRAWING NO: SD1.0
SCALE: 1" = 1'-0"	

GENERAL NOTES - MECHANICAL:

(1) THE MECHANICAL CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE WORK IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES UNDER THIS SECTION OF THE CONTRACT. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE LOCAL CODES, HE/SHE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET APPLICABLE LOCAL CODES, AND RE-WORK SHALL BE AT CONTRACTOR'S EXPENSE.

(2) CONTRACTOR SHALL HANG AND INSTALL ALL DUCTWORK FLUSH WITH THE BUILDING STRUCTURE TO ACCOMMODATE NEW CEILINGS. CONTRACTOR SHALL COORDINATE ALL INSTALLATION WORK WITH ARCHITECTURAL AND ELECTRICAL DESIGN. ALL DUCTWORK SHALL BE MODIFIED AS NECESSARY AND REQUIRED TO FIT AROUND BUILDING STRUCTURES, ARCHITECTURAL BUILDOUT AND ELECTRICAL CABLE TRAY INSTALLATIONS. MECHANICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE WORK SCOPE OF OTHER TRADES AND PARTICIPATE IN COORDINATING ALL CONSTRUCTION EFFORTS.

(3) CONNECT EACH DIFFUSER TO THE MAIN DISTRIBUTION DUCTS WITH A FLEX-DUCT SECTION. CONNECTION SHALL BE COMPLETED IN ACCORDANCE WITH THE DETAIL. EACH FLEX-DUCT CONNECTION SHALL INCLUDE A BUTTERFLY DAMPER TO BE INSTALLED AT THE TRUNK DUCT.

(4) CONTRACTOR SHALL PROVIDE ALL DUCTWORK REQUIRED TO COMPLETE THE HVAC SYSTEM. TIE IN BRANCH DUCTS TO MAIN DUCTS WITH SHEET METAL FLANGES. FLANGE CONNECTION SHALL BE FASTENED WITH CRIMPED SHEET METAL STRIPS AND SEALED WITH SILICONE CAULK.

(5) CONTRACTOR SHALL SUPPLY AND INSTALL FIRE DAMPERS AND ACCESS DOORS IN THE HORIZONTAL DUCTS WHERE THEY PENETRATE FIRE WALLS & BARRIERS.

(6) ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS. CONTRACTOR SHALL REINFORCE ALL OPENINGS AS REQUIRED BY THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (ESCUTCHEONS) AT ALL PIPES, DUCTS OR EQUIPMENT PENETRATIONS THROUGH FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

(7) ON ANY WORK SHOWN ON MECHANICAL DRAWINGS REQUIRING DEMOLITION OF EXISTING OR NEW BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT-APPROVED PATCHING MATERIALS. REPAIRS SHALL BE COMPLETED ACCORDING TO ARCHITECTURAL SPECIFICATIONS. ALL REFINISHES SHALL BE APPROVED BY THE ARCHITECT.

(8) CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE INSTALLATION OF THE AIR DISTRIBUTION SYSTEM SHOWN. DUCTWORK, DUCT ACCESSORIES, AND DIFFUSERS SHOWN AND REQUIRED SHALL BE SUPPLIED AND INSTALLED. ALL INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE CODES, INCLUDING NFPA 90A AND 90B. NFPA 90A: STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS) NFPA 90B: STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR-CONDITIONING SYSTEMS)

(9) CONTRACTOR SHALL BALANCE ALL AIR DISTRIBUTION SYSTEMS TO ACHIEVE THE AIR VOLUME REQUIREMENTS INDICATED. BALANCING SHALL INCLUDE ADJUSTMENT OF ALL MANUAL VOLUME DAMPERS, SHUTTER DAMPERS, ZONE DAMPERS (IF REQUIRED), BUTTERFLY DAMPERS AND TERMINAL DIFFUSER VOLUME DAMPERS (FINAL BALANCING ONLY). CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A COMPLETE BALANCING REPORT WHICH INCLUDES: VOLUME, ROOM REFERENCE AND ZONE VOLUME TOTALS.

(10) MOUNT ALL THERMOSTATS (SENSORS) 48" ABOVE THE FINISHED FLOOR LEVEL. THERMOSTATS SHOWN SHALL BE IN CONTROL OF THE ZONE SYSTEM WHICH THE THERMOSTAT IS ARTIFOUND IN THE AREA WHERE THE THERMOSTAT IS LOCATED. CONTRACTOR SHALL SUPPLY AND INSTALL ALL CONTROL VOLTAGE WIRING AND CONDUIT FOR THERMOSTAT (DDC CONTROL) INSTALLATION.

(11) CONTRACTOR SHALL INSTALL NEW REFRIGERANT PIPING FLUSH WITH THE BUILDING STRUCTURE AND MECHANICAL ROOM EQUIPMENT AS SHOWN. CONTRACTOR SHALL COORDINATE ALL INSTALLATION WORK WITH DUCTS, AND ELECTRICAL CONDUIT. MECHANICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE WORK SCOPE OF OTHER TRADES AND PARTICIPATE IN COORDINATING ALL CONSTRUCTION EFFORTS.

(12) ALL PIPING SHALL BE INSULATED AND JACKETED. REFER TO THE SPECIFICATIONS. THE CONDENSING UNIT AND ROOF TOP CONDENSER COILS ARE TO BE COATED IN ACCORDANCE WITH THE SPECIFICATIONS.

(13) PROVIDE EACH HVAC SYSTEM OF 2000 CFM & GREATER AN DUCT SMOKE DETECTOR(S) IN COMPLIANCE WITH IBC 907.2.13.1.2 & 907.3. UNITS WITH AIR DUCTWORK TO SHUTDOWN CONTROLS ON AIR HANDLERS AND SUPPLY FANS. SMOKE DETECTORS SHALL BE PROVIDED BY: MEC-MECHANICAL & INSTALLED BY ELECTRICAL (OR REGISTERED FIRE ALARM COMPANY WHERE APPLICABLE). COORDINATE AN EQUIPMENT MANUFACTURER & AUTHORITY HAVING JURISDICTION "FOR RECOMMENDED MOUNTING LOCATION AND METHOD. COORDINATE TO PROVIDE A COMPLETE SYSTEM. PROVIDE BOTH SUPPLY AND RETURN SIDE DEVICES.

(14) PROVIDE SEVEN DAY PROGRAMMABLE THERMOSTAT, 24 HOUR SINGLE/MULTI STAGE COMMERCIAL THERMOSTAT, DUAL SET POINTS, OCCUPIED AND UNOCCUPIED PERIODS, UNIT OPTIMIZATION, AUTO HEATING/COOLING AND AUTO CHANGE OVER, SUB-BASE BACK-UP BATTERY AND TEMPORARY OVERRIDE. 24 VAC CONTROL VOLTAGE. PROVIDE PLASTIC SEE THRU PROTECTIVE COVER WITH KEY LOCK.

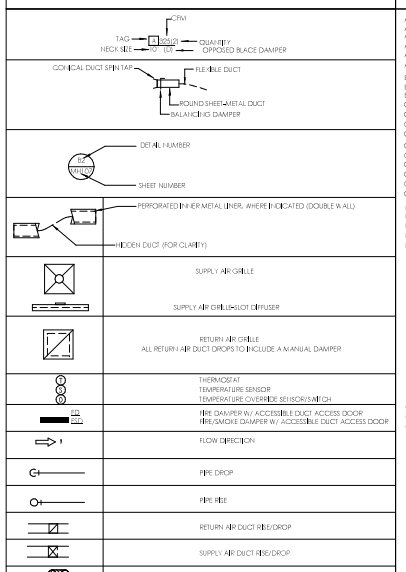
(15) **FILTER INSTALLATION AND REPLACEMENT**
A. INSTALL CONSTRUCTION RETURN FILTER AT EACH RETURN GRILLE BEFORE OPERATING PERMANENT AIR HANDLERS DURING CONSTRUCTION.
B. REPLACE FILTERS AFTER COMPLETING CONSTRUCTION AND BEFORE CONDUCTING BUILDING FLUSH-OUT.
1. REPLACE CONSTRUCTION RETURN FILTERS WITH FLUSH-OUT RETURN FILTERS.
2. REPLACE SUPPLY FILTERS.

(16) **PRIOR TO START UP**
A. CONTRACTOR SHALL FOLLOW THE AIR CONDITIONING EQUIPMENT MANUFACTURERS STARTUP CHECKLIST.
1. CONTRACTOR SHALL MAKE SURE THAT ALL DUCTWORK IS CLEAN AND THAT FILTERS ARE PROVIDED FOR EACH UNIT. IN INTERIOR CONDITIONS ARE NOT CLEAN AND AIR BORN DUST IS STILL PRESENT, TEMPORARY FILTERS SHALL BE PROVIDED AT EVERY RETURN AIR GRILLE.

APPLICABLE BUILDING CODE

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2017 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE

MECHANICAL SYMBOL LEGEND



MECHANICAL ABBREVIATIONS

A/C	AIR CONDITIONED	MAX.	MAXIMUM
AD	ACCESS DOOR	MBD	MANUAL BALANCING DAMPER
AFF	ABOVE FINISHED FLOOR	MD	MOTORIZED DAMPER
AHU	AIR HANDLING UNIT	MECH	MECHANICAL
APPROX	APPROXIMATE	MIN	MINIMUM
ARCH	ARCHITECTURAL	MS	MOTOR STARTER
BDD	BACK DRAFT DAMPER	NA	NOT APPLICABLE
BHP	BRAKE HORSEPOWER	NC	NORMALLY CLOSED
BTU	BRITISH THERMAL UNIT	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NORMALLY OPEN
CH	CHILLER	NTS	NOT TO SCALE
CHP	CHILLED WATER PUMP		
CLG	CEILING	OA	OUTSIDE AIR
CWP	CONDENSER WATER PUMP	OAH	OUTSIDE AIR INTAKE HOOD
CO	CLEANOUT	OBD	OPPOSED BLADE DAMPER
CT	COOLING TOWER	OC	ON CENTER
CU	CONDENSING UNIT		
CW	COLD WATER	P	PUMP
CL	CENTERLINE	PBD	PARALLEL BLADE DAMPER
		PP	PRIMARY CHILLED WATER PUMP
DB	DRY BULB	PRESS	PRESSURE
DIA	DIAMETER	PRV	PRESSURE REDUCING VALVE
DN	DOWN	PSIG	POUNDS PER SQUARE INCH (GAUGE)
DWG	DRAWING		
DX	DIRECT EXPANSION	R	RETURN (AIR DEVICE)
EAT	ENTERING AIR TEMPERATURE	RA	RETURN AIR
EDH	ELECTRIC DUCT HEATER	RE: 4/M7.01	REFER TO DETAIL 4, SHEET M7.01
EF	EXHAUST FAN	RET	RETURN
ELEC	ELECTRICAL	RH	RELATIVE HUMIDITY
ELEV	ELEVATION	RHD	RELIEF HOOD
		RPM	REVOLUTIONS PER MINUTE
F	DEGREES FAHRENHEIT	RTU	ROOF TOP UNIT
FC	FAN COIL		
FD	FIRE DAMPER W/ DUCT ACCESS DOOR		
FLEX	FLEXIBLE	S	SUPPLY (AIR DEVICE)
FLG	FLANGE	SA	SUPPLY AIR
FLR	FLOOR	SCH	SCHEDULE
FPM	FEET PER MINUTE	SCHP	SECONDARY CHILLED WATER PUMP
FT	FEET, FOOT	SD	SMOKE DAMPER
FS	FLOW SWITCH	SEC	SECOND
		SF	SUPPLY FAN
GAL	GALLON	SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
GALV	GALVANIZED		
GPM	GALLONS PER MINUTE	SP	STATIC PRESSURE
HB	HOSE BIBB	SPEC	SPECIFICATION
HP	HORSEPOWER	SF	SQUARE FOOT
HR	HEAT PUMP (WATER SOURCE)	STD	STANDARD
HR	HOUR	TEMP	TEMPERATURE
HVAC	HEATING/VENTILATING/ AIR CONDITIONING	T'STAT	THERMOSTAT
		TYP	TYPICAL
HWP	HOT WATER PUMP		
HZ	HERTZ	UF	UNDER FLOOR
		UH	UNIT HEATER
ID	INSIDE DIAMETER	UL	UNDERWRITERS LABORATORIES
IE	INVERT ELEVATION (FLOW LINE)		
IN	INCHES	VEL	VELOCITY
INSUL	INSULATION	VENT	VENTILATE
IN WG	INCHES OF WATER	VT	VENTILATION FAN
		VOL	VOLUME
KW	KILOWATT(S)	VOLT	VOLTAGE
LAT	LEAVING AIR TEMPERATURE	W	WIDE, WIDTH
LB	POUND	W/	WITH
L	LOUVER	WB	WET BULB
		W/O	WITHOUT

TESTING, ADJUSTING & BALANCING

A.	Air Handlers & Roof Top Units:	
	1.	Test Data: Include design and actual values for the following:
	a.	Total airflow rate in CFM.
	b.	Total system static pressure in inches w.c.
	c.	Discharge static pressure in inches w.c.
	d.	Outside airflow in CFM.
	e.	Return airflow in CFM.
	f.	Outside-air damper position. Damper Position shall be marked with oblopased paint marker
B.	Fan Test:	
	1.	Test Data: Include design and actual values for the following:
	a.	Total airflow rate in CFM.
	b.	Total system static pressure in inches w.c.
	c.	Discharge static pressure in inches w.c.
	d.	Suction static pressure in inches w.c.
C.	Room Grilles, Registers, or Diffusers:	
	1.	Test Data: Include design and actual values for the following:
	a.	Total airflow rate in CFM.
	b.	Damper Position shall be marked with oblopased paint marker.

H.V.A.C. SYSTEM — SECTION 15500

THE WORK INCLUDES PROVIDING THE HVAC SYSTEMS, INCLUDING DUCTWORK, DIFFUSERS AND GRILLES, INSULATION, CONTROLS, AND ALL OTHER EQUIPMENT IF NECESSARY FOR A COMPLETE FUNCTIONING SYSTEM. HVAC SYSTEM SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:

- HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) UNITS.
- SUPPLY AND RETURN DUCTWORK SYSTEMS WITH GRILLES, DIFFUSERS, FILTERS, AND DAMPERS.
- TEMPERATURE CONTROL SYSTEM INCLUDING LOW VOLTAGE WIRING AND CONDUIT.
- DUCT, PIPING, AND EQUIPMENT INSULATION, WHERE INDICATED HEREIN.
- CONTROLS AND WIRING FOR CONNECTION TO LANDLORD'S FIRE-SMOKE ALARM SYSTEM (WHERE APPLICABLE).

THE CONTRACTOR SHALL COORDINATE ALL NEW DUCT WORK INCLUDING DUCTWORK INSULATION AND REINFORCING WITH EXISTING DUCTWORK AND DUCTWORK ANGLE BRACING SUCH THAT THE NEW DUCT WORK WILL FIT WITHIN THE SPACE LIMITATIONS OF THE PROJECT.

CONDENSATE PIPING: CONDENSATE PIPING SHALL BE A MINIMUM OF 3/4" COPPER TYPE 'L' PIPE. ALL CONDENSATE DRAINS SHALL BE INSULATED WITH 1/2" THICK CLOSED CELL INSULATION SIMILAR TO ARMAFLEX 2000.

THE DESIGN, SELECTION, SPACING AND APPLICATION OF HORIZONTAL PIPE HANGERS, SUPPORTS, RESTRAINTS, ANCHORS AND GUIDES SHALL BE IN ACCORDANCE WITH THE STANDARD CODE FOR PRESSURE PIPING AND B31.1 AND THE LATEST EDITION OF THE MANUFACTURERS STANDARDIZATION SOCIETY STANDARDS MSS SP-69, "PIPE HANGERS AND SUPPORTS-SELECTION AND APPLICATIONS".

PROVIDE PIPE COVERING PROTECTION SHIELDS AT ID SADDLES FOR ALL INSULATED PIPING AT THE LOCATIONS OF ALL SUPPORTS. THE PROTECTION SHIELD LENGTH AND GAUGE THICKNESS FOR USE AT EACH CLEVIS HANGER SHALL BE AS SPECIFIED FOR TYPE 40 PROTECTION SHIELDS IN THE CURRENT EDITION OF MSS SP-69. PROTECTION SHIELDS SHALL BE GALVANIZED AND SHALL BE ARRANGED TO COVER ONE-HALF OF THE CIRCUMFERENCE OF THE INSULATION AND SHALL BE MOUNTED ON THE OUTSIDE OF THE INSULATION WITH INSULATION BLOCKING BETWEEN THE PIPE AND SADDLE TO PREVENT CRUSHING OF THE INSULATION. INSULATION BLOCKING SHALL BE UP JOHN'S 2 POUND HIGH DENSITY MOLDED URETHANE OR SEGMENTED MAGNESIA PER WORK OPPOSED (NOT ASPHALT VAPOR SEAL OF HOT LESS THAN THE SAME LENGTH AND CIRCUMFERENCE AS THE PIPE PROTECTION SHIELD.

ALL HANGERS, HARDWARE, RODS, CLAMPS, CHANNELS, BASE PLATES, ANGLES, BOLTS, NUTS AND OTHER FACTORY-BUILT OR SHOP FABRICATED PIPE SUPPORT DEVICES SHALL BE GALVANIZED OR CADMIUM PLATED UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL SHOP FABRICATED AND WELDED STEEL SUPPORTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

ALL CONCRETE INSERTS FOR HANGER RODS SHALL BE MALLEABLE PIPE HANGERS CORPORATION FIGURE 606 WITH FIGURE 607 NUT OR GRINNELL FIGURE 282, FIGURE 152, OR APPROVED EQUAL. METAL DECK CONCRETE INSERT SHALL BE F & S MANUFACTURING CORPORATION FIGURE 250, GALVANIZED FASTENED TO METAL DECK USING HD BOLT, PHILLIPS RED HEAD, OR APPROVED EQUAL. RAMSET/RED INSERTS, ETC., SHALL BE USED AS THEY ARE NOT RECOMMENDED BY THE HANGER MANUFACTURER FOR THE SERVICE INTENDED.

FIELD VERIFY THE EXACT SIZES AND LOCATIONS OF ALL EXISTING DUCT WORK AND PIPING PRIOR TO DEMOLITION OF ANY EXISTING WORK. THE DEMOLITION WORK SHALL BE COORDINATED WITH THE NEW WORK TO ASSURE PROPER LEVELS OF DEMOLITION.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT. PROVIDE A SEPARATE LINE ITEM DEDUCT AMOUNT ON THE PROPOSAL FORM TO DELETE WARRANTY SERVICE AT THE OWNER'S OPTION.

DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURERS STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS, AS REQUIRED. PROVIDE ALL DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE SYSTEM FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED. THE WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES OR ORDINANCES AND SUBJECT TO INSPECTION.

COORDINATE WITH THE WORK OF OTHER SECTIONS. EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE LANDLORD, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

EXTRA STOCK: PROVIDE TWO SETS OF REPLACEMENT FILTERS PER EACH INSTALLED FOR ALL THE ROOFTOP UNITS, AND OTHER EQUIPMENT AND DEVICES, AND PROVIDE AN ITEMIZED LIST OF THE NUMBER, TYPE REQUIRED, AND WHERE USED. OBTAIN A RECEIPT FROM OWNER THAT THESE ITEMS HAVE BEEN DELIVERED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE.

DUCT DIMENSIONS: UNLESS OTHERWISE NOTED, DUCT DIMENSIONS ON DRAWINGS ARE SHEET METAL DIMENSIONS ON LINED DUCTS (INTERIOR DIMENSION).

SHEET METAL DUCTWORK: SHEET METAL DUCTWORK SHALL BE FABRICATED AND INSTALLED TO MEET ASHRAE AND SMACNA STANDARDS, FOR 1" W.G. PRESSURE CLASS. SHEET METAL SHALL BE GALVANIZED SHEET STEEL OF LOCK FORMING QUALITY, ASTM A-525. ALL ALLOWANCES USED FOR SUPPORT SHALL BE GALVANIZED. CONNECTIONS TO WALLS OR FLOOR SHALL BE AIR TIGHT WITH AIR BARRIER AND CAULKING. SEAL ALL DUCT SEAMS, TRANSVERSE AND LONGITUDINAL, AIR TIGHT. PROVIDE TURNING VANES AT ALL ELBOWS OR OFFSETS EXCEEDING 30°.

DUCT SHALL BE EXTERNALLY WRAPPED W/ 2" FIBERGLASS BLANKET INSULATION.

ROUND DUCT: ROUND GALVANIZED DUCT SHALL BE SPIRAL OR SNAP LOCK GALVANIZED SHEET METAL COMPLYING WITH SMACNA.

FIBERGLASS DUCT BOARD: IS AN ACCEPTABLE W/ PRIOR WRITTEN OWNER PERMISSION AND R-VALUE OF THE REQUIRED FOR CONDITIONED SPACES AND MINIMUM R-VALUE OF R-8 FOR UNCONDITIONED SPACES.

FLEXIBLE DUCT CONNECTOR: WHERE INDICATED PROVIDE U.L. LABELED 30oz. NEOPRENE COATED FIBERGLASS FABRIC DUCT CONNECTORS.

GRILLES AND DIFFUSERS: PROVIDE GRILLES, DIFFUSERS, AND DAMPERS IN SIZES, CAPACITIES, MATERIALS, AND PATTERN INDICATED ON THE DRAWINGS.

ACCESS PANELS: PROVIDE HINGED ACCESS PANELS IN DUCTWORK WHERE REQUIRED FOR ACCESS TO EQUIPMENT. PROVIDE INSULATED ACCESS DOORS IN INSULATED DUCTWORK.

PROVIDE WHERE APPLICABLE, DUCT MOUNTED SUPPLY AND/OR RETURN AIR PHOTOELECTRIC TYPE UL LISTED SMOKE DETECTORS. DETECTORS SHALL BE LISTED FOR THE AIR VELOCITIES ENCOUNTERED. PROVIDE INTERLOCK WIRING AND RELAYS FOR UNIT SHUT DOWN. ON ACTIVATION OF ANY DETECTOR, ALL HVAC UNIT FANS SHALL STOP.

TEST AND ADJUST EACH PIECE OF EQUIPMENT AND EACH SYSTEM AS REQUIRED TO ASSURE PROPER BALANCE AND OPERATION. TEST AND BALANCE SHALL BE PERFORMED BY AN INDEPENDENT NEBB OR AABC REGISTERED CONTRACTOR. ELIMINATE NOISE AND VIBRATION, AND ASSURE PROPER FUNCTION OF ALL CONTROLS, MAINTENANCE OF TEMPERATURE, AND OPERATION. BALANCE MECHANICAL SYSTEMS, AND SUBMIT COMPLETED TEST.

EXPOSED ROUND (SPIRAL) DUCT TO BE INTERNALLY LINED. SUPPLY DUCTWORK SHALL BE LINED W/1" INSULATION. RETURN/EXHAUST/VENTILATION DUCT TO BE LINED W/1/2" INSULATION. CONCEALED ROUND DUCT TO BE EXTERNALLY INSULATED USING R-6 INSULATION MIN FOR CONDITIONED SPACES (WHERE PLENUM RETURN IS USED) OR R-8 INSULATION MIN FOR UNCONDITIONED SPACES.

INDEX OF SHEETS MECH	
Sheet Number	Sheet Name
MG01	MECHANICAL NOTES AND LEGEND
MP01	MECHANICAL FLOOR PLAN
MP02	MECHANICAL ROOF PLAN
MC01	MECHANICAL CONTROLS
MS01	MECHANICAL SCHEDULES
MD01	MECHANICAL DETAILS

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PRJE CT: Mc ALLEN CLINIC

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PLAN : MECHANICAL NOTES AND LEGEND

PROJE CT: ---------	STRUCTURAL DESIGN: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 08/05/2024	DRAWING NO: MG01
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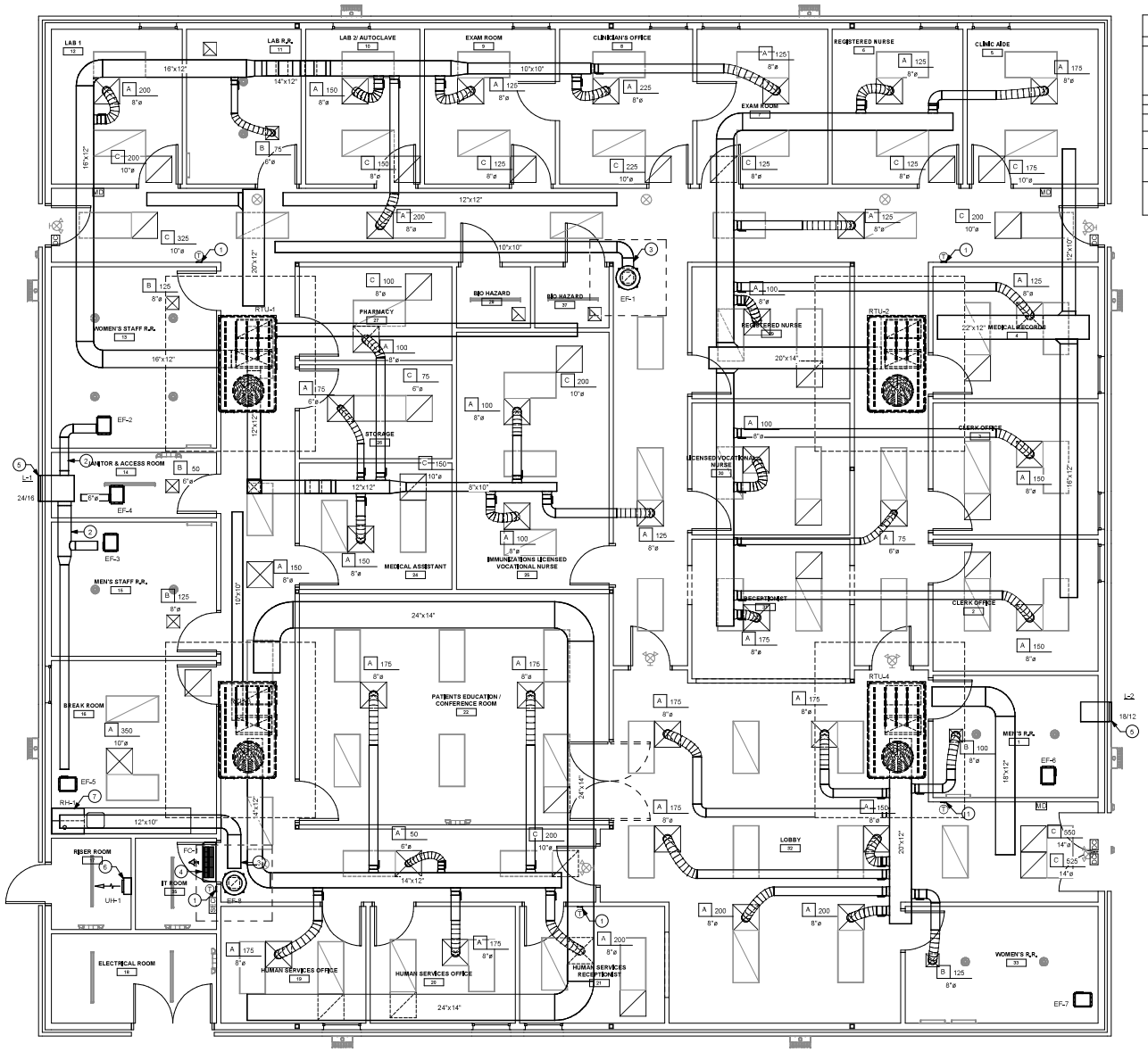

MECHANICAL FLOOR PLAN - FIRST FLOOR
1/4" = 1'-0"

MECHANICAL KEYED NOTES

1	CONTROLS FOR A/C UNIT WILL BE BY MEANS OF A 24 VOLT 7-DAY PROGRAMMABLE THERMOSTAT WITH HEAT-OFF-COOL AND FAN ON-AUTO CAPABILITIES SHOWN ON A DIGITAL DISPLAY WITH 5Δ° F DEADBAND AND HAVE SETPOINT OVERLAP RESTRICTIONS. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. PROVIDE WITH KEYED CLEAR PLASTIC COVER.
2	EXHAUST DUCT OUT TO LOUVER.
3	EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST FAN.
4	MOUNT AIR CONDITIONING UNIT CENTERED ABOVE DOOR. REFER TO PLUMBING PAGES FOR CONDENSATE ROUTING.
5	COORDINATE LOCATION OF LOUVERS/WALLCAPS TO NOT CONFLICT WITH CONTROL JOINTS AND DOWNSPOUTS.
6	MOUNT UNIT HEATER RECESSED IN WALL OR SURFACE MOUNTED ON WALL, BOTTOM OF UNIT HEATER TO BE AT MINIMUM OF 6'-0" A.F.F. PROVIDE W/ ACCESSORIES AS REQUIRED FOR WALL MOUNTING APPLICATION.
7	RANGE HOOD EXHAUST DUCT TO BE SIZED AS PER MANUFACTURES RECOMMENDATIONS. WRAP GREASE DUCT & TOP OF HOOD ABOVE CEILING W/ TWO LAYERS OF "3M FIRE BARRIER DUCT WRAP 615+" OR EQUAL FROM HOOD COLLAR TO WALL CAP.

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DATE : 07/05/2024	DRAWING NO: MP01
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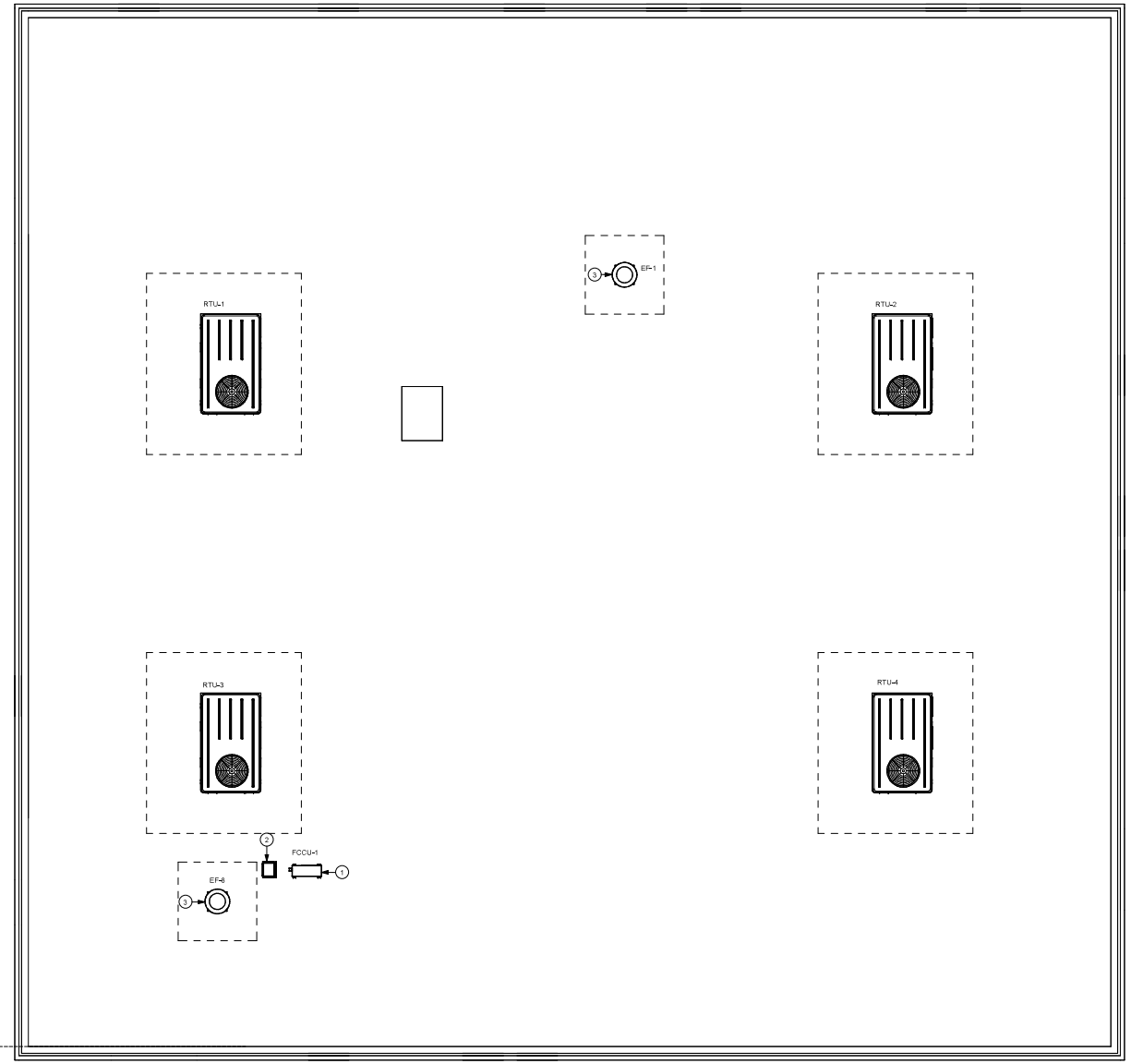

1 MECHANICAL ROOF PLAN
1/4" = 1'-0"

MECHANICAL KEYED NOTES	
1	PROVIDE NEW ROOF CURB FOR CONDENSING UNIT. REFER TO ARCHITECTURAL DETAILSDOCUMENTS FOR CURB TYPE & FLASHING. MECHANICALLY FASTEN UNIT TO CURB.
2	ROUTE REFRIGERANT LINES AND CONDENSER ELECTRICAL CONDUIT BELOW ROOF VIA A "ROOF PENETRATION HOUSING" EQUAL TO "SMALL VAULT" FROM "ROOFPENETRATIONHOUSING.COM" ROUTE REFRIGERANT LINES TO RESPECTIVE AIR HANDLER. ANCHOR LINES TO STRUCTURE AND SEAL ALL PENETRATIONS WATER TIGHT. PROVIDE ALUMINUM JACKETING ON ALL LINES EXTERIOR TO THE BUILDING.
3	EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST FAN.

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DATE : 07/05/2024	DRAWING NO: MP02
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ROOFTOP UNIT SINGLE ZONE VAV DXRTU FLOW DIAGRAM (TYPICAL OF ALL RTU'S, 3 NEW)

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:

OCCUPIED MODE: THE UNIT SHALL MAINTAIN
A 74ºF (ADJ.) COOLING SETPOINT
A 70ºF (ADJ.) HEATING SETPOINT.

UNOCCUPIED MODE (NIGHT SETBACK): THE UNIT SHALL MAINTAIN
A 85ºF (ADJ.) COOLING SETPOINT.
A 55ºF (ADJ.) HEATING SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

ZONE SETPOINT ADJUST:
THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR.

ZONE OPTIMAL START:
THE UNIT SHALL USE AN OPTIMAL START ALGORITHM FOR MORNING START-UP. THIS ALGORITHM SHALL MINIMIZE THE UNOCCUPIED WARM-UP OR COOL-DOWN PERIOD WHILE STILL ACHIEVING COMFORT CONDITIONS BY THE START OF SCHEDULED OCCUPIED PERIOD.

ZONE UNOCCUPIED OVERRIDE:
A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO AN OCCUPIED MODE FOR AN ADJUSTABLE PERIOD OF TIME. AT THE EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES, TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

COOLING STAGES:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND STAGE THE COOLING TO MAINTAIN ITS COOLING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE COOLING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS GREATER THAN 40ºF (ADJ.), AND THE ECONOMIZER (IF PRESENT) IS DISABLED OR FULLY OPEN, AND THE ZONE TEMPERATURE IS ABOVE COOLING SETPOINT, AND THE SUPPLY FAN STATUS IS ON, AND THE HEATING IS NOT ACTIVE.

ECONOMIZER:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE ECONOMIZER DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT. IF LESS THAN THE ZONE COOLING SETPOINT, THE OUTSIDE AIR DAMPERS SHALL MAINTAIN A MINIMUM ADJUSTABLE POSITION OF 20% (ADJ.) OPEN WHENEVER OCCUPIED.

THE ECONOMIZER'S ARE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS LESS THAN 60ºF (ADJ.), AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE, AND THE SUPPLY FAN STATUS IS ON.

THE ECONOMIZER'S ARE CLOSE WHENEVER:
MIXED AIR TEMPERATURE DROPS FROM 45ºF TO 40ºF (ADJ.), OR ON LOSS OF SUPPLY FAN STATUS, OR THE FREEZESTAT (IF PRESENT) IS ON.

THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN WHEN THE UNIT IS OFF. IF OPTIMAL START-UP IS AVAILABLE, THE MIXED AIR DAMPER SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE EXCEPT THAT THE OUTSIDE AIR DAMPER SHALL MODULATE TO FULLY CLOSED.

MINIMUM OUTSIDE AIR VENTILATION - CARBON DIOXIDE (CO2) CONTROL:
WHEN IN THE OCCUPIED MODE, THE CONTROLLER SHALL MEASURE THE RETURN AIR CO2 LEVELS AND MODULATE THE OUTSIDE AIR DAMPERS OPEN AS NEEDED TO MAINTAIN CO2 CONCENTRATION IS, OVERRIDING NORMAL DAMPER OPERATION TO MAINTAIN A CO2 SETPOINT OF 750 PPM (ADJ.).

DEHUMIDIFICATION:
THE CONTROLLER SHALL MEASURE THE RETURN AIR HUMIDITY AND OVERRIDE THE COOLING SEQUENCE TO MAINTAIN RETURN AIR HUMIDITY AT OR BELOW 55% RH (ADJ.). DEHUMIDIFICATION SHALL BE ENABLED WHENEVER THE SUPPLY FAN STATUS IS ON.

RETURN AIR CARBON DIOXIDE (CO2) CONCENTRATION MONITORING:
THE CONTROLLER SHALL MEASURE THE RETURN AIR CO2 LEVELS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR CARBON DIOXIDE CONCENTRATION: IF THE RETURN AIR CO2 CONCENTRATION IS GREATER THAN 1000PPM (ADJ.), WHEN IN THE OCCUPIED MODE.

RETURN AIR HUMIDITY:
THE CONTROLLER SHALL MONITOR THE RETURN AIR HUMIDITY AND USE AS REQUIRED FOR ECONOMIZER CONTROL (IF PRESENT) OR HUMIDITY CONTROL (IF PRESENT).

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS GREATER THAN 70% (ADJ.).
LOW RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS LESS THAN 35% (ADJ.).

RETURN AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE RETURN AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL (IF PRESENT).

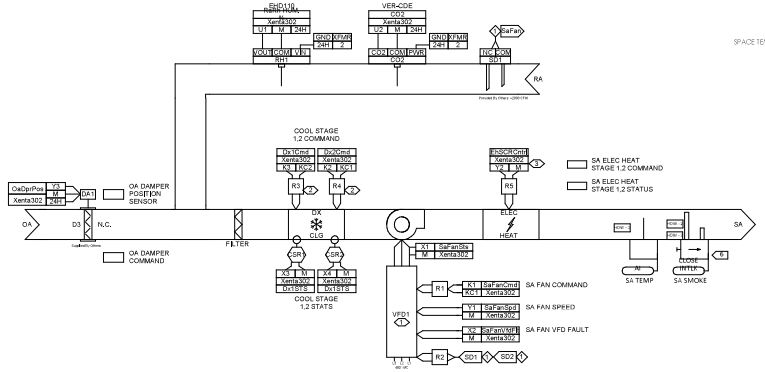
ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90ºF (ADJ.).
LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45ºF (ADJ.).

SUPPLY AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 120ºF (ADJ.).
LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45ºF (ADJ.).

DX SINGLE ZONE VAV RTU SYSTEM DIAGRAM

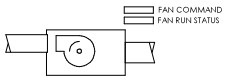
TYPICAL of RTU-1-4



NOTE:

NEW UNITS SHALL BE INTEGRATED VIA BACNET COMMUNICATION INTERFACE CARD. COORDINATE WITH SUCCESSFUL RTU MANUFACTURER.

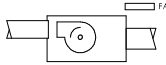
EXHAUST FANS



EXHAUST FAN CONTROLS:

A. EXHAUST FAN OPERATION SHALL BE DICTATED BY THE BAS SYSTEM UNDER A TIME OF DAY SCEHDULE UNLESS INTERLOCKED WITH AN AIR HANDLER SYSTEM IN WHICH CASE THE AIR HANDLER OF OPERATION SHALL DICTATE OPERATION. THE FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, AFTER THE DAMPER STATUS HAS PROVEN (IF APPLICABLE), UNLESS SHUTDOWN ON SAFETIES. THE BAS SHALL MONITOR THE FAN STATUS.
B. ANY EXHAUST FAN CURRENTLY ON SWITCHES TO REMAIN, BUT NO TO BE DISABLED OUTSIDE OF OCCUPIED SCHEDULE.

EXHAUST FANS - SINGLE RESTROOM



EXHAUST FAN CONTROLS:

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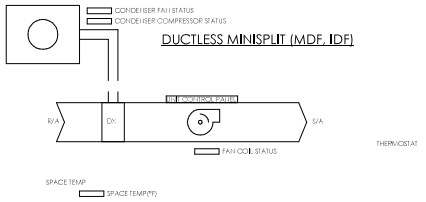
B. ANY EXHAUST FAN CURRENTLY ON SWITCHES TO REMAIN, BUT NO TO BE DISABLED OUTSIDE OF OCCUPIED SCHEDULE.

AIR CONTROL DAMPER

DAMPER SHALL LINEARLY MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT. 100% OPEN WHEN 2 F BEYOND SETPOINT TO 20% OPEN WHEN 2 F UNDER SETPOINT.



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PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

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PLAN : MECHANICAL CONTROLS

PROJE CT: --------	STRUCTURAL DESIGNS: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: MC01
SCALE: 1/8" = 1'-0"	

DX PACKAGED UNIT SCHEDULE

TAG	RTU-1.3	RTU-2.4
TYPE	SNGL ZN VAV	SNGL ZN VAV
DISCHARGE CONFIGURATION	DOWN-FLOW	DOWN-FLOW
AREA SERVED	EXAM/ OFFICES	OFFICES/ LOBBY
FAN DATA		
SUPPLY CFM	1730	1300
MIN. OUTSIDE AIR (CFM)	350	250
EXT. STATIC INCHES W.C.	0.5	0.5
MIN FAN POWER	1.0 HP. - ECM	1.0 HP. - ECM
COOLING COIL		
ENTERING AIR DB/WB (°F)	79.8/65.5	79.5/65.3
LEAVING AIR DB/WB (°F)	57.6/55.5	55.7/54.1
MIN. TOTAL/SEN. CAPACITY (MBH)	52.4/41.8	43.2/33.4
DESIGN RETURN AIR DB/WB (°F)	75/61	75/61
DESIGN OUTSIDE AIR DB/WB (°F)	107/80	107/80
DEHUMIDIFICATION SELECTION		
TYPE	ON/OFF HGRH	ON/OFF HGRH
REHEAT CAPACITY	30.8 MBH	27 MBH
MIN. MOISTURE REMOVAL RATE	1.20 GPH	1.11 GPH
HEATING SELECTION		
HEAT TYPE/AMBIENT DB (°F)	ELEC/33	ELEC/33
HEAT INPUT/STAGES	13.5 KW/2	9 KW/2
ENTERING/LEAVING DB (°F)	62/86	62/84
DETAILS AND ACCESSORIES		
MIN COOL/HEAT EFFICIENCY	16.1 SEER-	16.1 SEER-
COMPRESSOR QTY/COOL STAGE QTY	1/2	1/2
VOLTAGE/PHASE	208/3	208/3
MCA/MOCP	39/60	45/45
MOUNTING	14" TDI CURB	14" TDI CURB
MANUFACTURER	TRANE	TRANE
MODEL	THC067	THC047
NOMINAL UNIT SIZE/TONNAGE	5.0 Tons	4.0 Tons
MAX. WEIGHT	1002 lbs	950 lbs
NOTES:	ALL	ALL

NOTES:
01. PROVIDE W/ FACTORY DISCONNECT & GFI DUPLEX 120V RECEPTACLE, FACTORY PWRD.
02. PROVIDE W/ MOTORIZED OA DAMPER, DIFF ENTH ECON, & BARR RELIEF DAMPER. PROVIDE WITH ECONOMIZER FAULT DETECTION & DIAGNOSTICS (FDD).
03. TRANE, LENNOX, CARRIER, APPROVED AS MAN'UFACTURERS.
04. PROVIDE IBC 2015 COMPLIANT CURB & ATTACHMENTS FROM UNIT TO CURB & CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAILED ANALYSIS OF:
   A) ATTACHMENT OF EQUIPMENT TO CURB.
   B) CURB TO STRUCTURE.
   C) CURB & ATTACHMENT HARDWARE STRENGTH.
   REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS. PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 'A' & 'B' LISTED ABOVE. BOTH, THE ENGINEERED ANALYSIS & THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING & PROJECT SITE & STAMPED & SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.
05. CLEARANCES & SA/RA COLLARS SHOWN ON PLANS ARE FOR SCHEDULED MAKE/MODEL. IF A SUBSTITUTION IS MADE, CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING SA/RA MANUFACTURER'S REQUIREMENTS.
06. UNIT TO HAVE SINGLE ZONE VAV CONTROL, & CO2 DEMAND CONTROL VENTILATION.
07. MECHANICAL CONTRACTOR TO PROVIDE ADDITIONAL BELTS & PULLEYS AS NECESSARY SUCH THAT TESTING ADJUSTING & BALANCING CAN BE PERFORMED TO THE DESIGN AIR VOLUMES SPECIFIED IN SCHEDULE ABOVE.
08. PROVIDE W/ FACTORY DUCT SMOKE DETECTOR. REFER TO MANUFACTURERS INTALLATION INSTRUCTIONS FOR INSTRUCTIONS TO BE MOUNTED & WIRED BY MECH CONTRACTOR.

DX MINI-SPLIT SCHEDULE

INDOOR UNIT TAG	FC-1
SERVES	IT ROOM
LOCATION	WALL
UNIT TYPE	COOLING ONLY
FAN PROPERTIES	
MIN SUPPLY (CFM)	400
MIN/MIN OVA (CFM)	0
UNIT CAPACITIES	
ENTERING AIR DB/WB	74/62
TOTAL CAPACITY (BTUH)	9,000
HEATING CAPACITY (BTUH)	0
UNIT DETAILS	
VOLTAGE/PHASE	208/1
MANUFACTURER	DAIKIN
MODEL NO.	FTKS9NMVJU
MAX WEIGHT (LBS)	25

CONDENSING UNIT TAG	FCCU-1
DETAILS	
VOLTAGE/PHASE	208/1
MCA/MOCP	13/15
AMB. AIR TEMP. (CLOPP/HEOPP)	120/33
REFRIGERANT	R-410A
COOLING MODE OPER. RANGE	19°F - 110°F
HEATING MODE OPER. RANGE	N/A
MANUFACTURER	DAIKIN
MODEL NO.	RKS9NMVJU
MAX WEIGHT (LBS)	75
MIN COOL/HEAT EFFICIENCY	19 SEER-
MIN EQUIVALENT LINE LENGTH (FT)	65
MIN VERTICAL RISE (FT)	45
CONTROL TYPE	W-IRC
NOTES	ALL

NOTES:
01. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE CIRCUIT POWER FROM SERVICE TO OUTDOOR UNIT & WIRE TO INDOOR UNIT.
02. PROVIDE W/ WIRED WALL MOUNTED THERMOSTAT W/ OFF-AUTO-ON FUNCTIONALITY. FAN COIL TO BE SET TO AUTO (TURNS FAN OFF WHEN SET-POINT IS REACHED).
03. PROVIDE INDOOR UNITS WITH MOUNTING BRACKETS IF REQUIRED.
04. SEE PLUMBING FOR CONDENSATE ROUTING.
05. CONTRACTOR TO PROVIDE ROOF CURB TO ANCHOR CONDENSER TO.
06. CONTRACTOR TO PROVIDE LINE SETS.
07. SIGHT GLASSES, FILTER DRYERS, & FIELD SUPPLIED EXPANSION VALVES ARE NOT TO BE USED ON THIS EQUIPMENT.
08. INSTALL PER MANUFACTURER'S INSTRUCTIONS & PIPING RECOMMENDATIONS.
09. PROVIDE W/ SINGLE POINT POWERED CONDENSATE PUMP, REFER TO PLUMBING SHEETS FOR ROUTING.

FAN SCHEDULE

TAG	EF-1	EF-2,3,7	EF-5	EF-4	EF-6	EF-8
SERVICE	LAB/ BIO/ RR	RRs	BREAK	JANITOR	RRs	RANGE HOOD
LOCATION	ROOF	CEILING	CEILING	CEILING	CEILING	ROOF
FAN PROPERTIES						
CFM	300	150	190	50	125	500
FAN RPM	1680	1287	1287	613	855	1593
EXT SP (IN WG)	0.5	0.25	0.25	0.2	0.2	0.5
FAN MOTOR SIZE	1/10 HP ECM	37 W	37 W	12 W	128 W	1/10 HP- ECM
VOLTS/PHASE	120/1	120/1	120/1	120/1	120/1	120/1
SOUND LEVEL	8.4 SONES	1.5 SONES	1.5 SONES	0.7 SONES	1.3 SONES	7.7 SONES
MOUNTING	14" TDI CURB	CEILING	CEILING	CEILING	CEILING	14" TDI CURB
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	G-083-VG	SP-A110	SP-A110	SP-A70	SP-A130	G-090-VG
MAX WEIGHT	30 lbs	30 lbs	30 lbs	25 lbs	25 lbs	30 lbs
NOTES	1-3,6,9	1-3	1-3,9	1-3	1-3	1-3,6,8,10,11

NOTES:
01. PROVIDE WITH FACTORY INSTALLED DISCONNECT.
02. PROVIDE W/ FAN SPEED CONTROLLER
03. PROVIDE W/ BACKDRAFT DAMPER.
04. INTERLOCK FAN W/ LIGHTS. PROVIDE STEP UP TRANSFORMER IF LIGHTS ARE AT DIFFERENT VOLTAGE, REFER TO LIGHTING SHEETS.
05. PROVIDE W/ TIMED DELAY SHUTOFF
06. PROVIDE W/ LIFTING LUGS.
07. FAN OPERATION TO BE HARDWIRED. PROVIDE W/ CURRENT SENSOR & FAN OPERATION INDICATOR TO BE WALL MOUNTED.
08. PROVIDE IBC 2018 COMPLIANT CURB & ATTACHMENTS FROM UNIT TO CURB & CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAILED ANALYSIS OF:
   A) ATTACHMENT OF EQUIPMENT TO CURB.
   B) CURB TO STRUCTURE.
   C) CURB & ATTACHMENT HARDWARE STRENGTH.
   REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS. EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 'A' & 'B' LISTED ABOVE. BOTH, THE ENGINEERED ANALYSIS & THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING & PROJECT SITE & STAMPED & SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.
09. PROVIDE W/ WALL MOUNTED ROTARY TIMED DIAL SWITCH, 0-60 MINS, LABELED 'VENT FAN'.
10. FAN TO BE OPERATED BY RANGE HOOD FAN SWITCH.
11. PROVIDE FAN W/ HONEYWELL COATINGS & GREASE KIT FOR RESTAURANT APPLICATIONS.

RANGE HOOD SCHEDULE

TAG	RH-1
DIMENSIONS	
LENGTH (IN)	30
DEPTH (IN)	20
AIR FLOW DETAILS	
MIN EXHAUST CFM	500
NUMBER OF COLLARS	1
MIN. SIZE OF EXHAUST COLLARS (IN)	(REAR)
DETAILS AND ACCESSORIES	
VOLTS/PHASE	120/1
MCOP	15
MAX SOUND LEVEL	8.0 SONES
FINISH	STAINLESS
MANUFACTURER	GREENECK
MODEL	GRPS-30
NOTES:	ALL

NOTES
01. PROVIDE PREWIRED FOR POWER AND LIGHT.
02. PROVIDE MAKE/OR BRACKETS.
03. PROVIDE W/ DUAL GAS/ELEC RANGE ELEMENT DISCONNECT
04. PLACE HOOD AT LEAST 24" ABOVE COOKING SURFACE.
05. PROVIDE W/ FACTORY SELF-CONTAINED FIRE SUPPRESSION SYSTEM.
06. HOOD TO BE CONSTRUCTED OF TYPE 430 STAINLESS STEEL.
07. PROVIDE W/ MANUAL PULL STATION 48", 25 FT CABLE, ELBOWS
08. PROVIDE W/ TOP DISCHARGE, WIRE SWITCH TO REMOTE FAN.
10. PROVIDE W/ LIGHT & FAN SWITCHES.
11. PROVIDE W/ FIRE TEST 10' & FIRE SYSTEM PERMIT AND TEST.
12. COORDINATE W/ ARCH/OWNER TO VERIFY IF TOP WILL BE FINISHED OR UNDER CABINET.

AIR DEVICE SCHEDULE

TAG	A	B	C	D
SERVICE TYPE	SUPPLY	SUPPLY	RETURN	RETURN
PHYSICAL PROPERTIES				
FACE SIZE	24"x24"	12"x12"	24"x24"	12"x12"
NECK SIZE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
MOUNTING SURFACE	CEILING	CEILING	CEILING	CEILING
DETAILS AND ACCESSORIES				
DAMPER TYPE	OPPOSED BLADE	OPPOSED BLADE	OPPOSED BLADE	OPPOSED BLADE
ACCESSORY	INSUL BACK PAN	INSUL BACK PAN	INSUL BACK PAN	INSUL BACK PAN
COLOR/FINISH	WHITE	WHITE	WHITE	WHITE
MATERIAL	STEEL	ALUMINUM	ALUMINUM	ALUMINUM
MANUFACTURER	PRICE	PRICE	PRICE	PRICE
MODEL	SCD	ASCD	80	80
NOTES				

NOTES:

UNIT HEATER SCHEDULE

TAG	UH-1
SERVICE/LOCATION	RISER ROOM
DETAILS & ACCESSORIES	
VOLTS/PHASE	208/1
POWER INPUT	1 KW
AMPERAGE	5
MANUFACTURER	MARKEL
MODEL	(3000 series)
NOTES	ALL

NOTES:
01. PROVIDE W/ AUTOMATICE ON/OFF VIA THERMOSTAT.
02. UNIT TO SWITCH ON WHEN SPACE TEMPERATURE REACHES 39°.
03. PROVIDE W/ DISCONNECT.
04. PROVIDE W/ SURFACE MOUNT FRAME

AIR BALANCE SCHEDULE

MARK	O.A. (+)	E.A. OUT (-)	BALANCE (+/-)
RTU-1	350		
RTU-2	250		
RTU-3	350		
RTU-4	250		
EF-1		150	
EF-2		150 (INTERMITTENT)	
EF-3		150 (INTERMITTENT)	
EF-4		50 (INTERMITTENT)	
EF-5		150 (INTERMITTENT)	
EF-6		125 (INTERMITTENT)	
EF-7		150 (INTERMITTENT)	
EF-8		500 (INTERMITTENT)	
TOTAL	**1,200**	**150**	**(+) 1050**

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Texas Registered Engineering Firm - F10362
Project number: 24.42.2
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RE	DAT	DESCRIPTI
VA	08/05/24	PRELIMINARY REVIEW

PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : MECHANICAL SCHEDULES

PROJE CT: --------

STRUCTURAL DESING: ---------

DRAWING BY: ---------

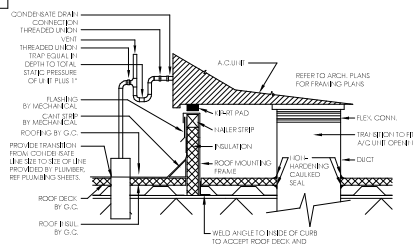
CHECKED BY: ---------

DATE : 07/05/2024

DRAWING NO: MS01

SCAL E: 3/16" = 1'-0"

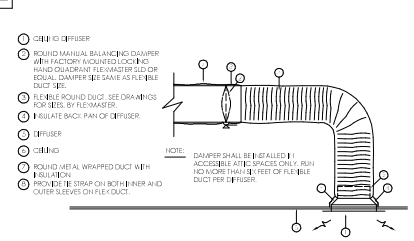
01



ROOF TOP UNIT DETAIL

NO SCALE

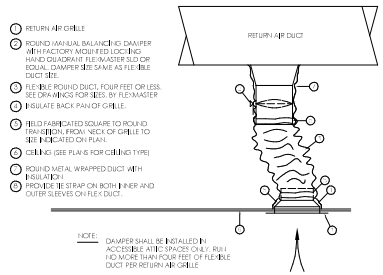
02



DIFFUSER RUN OUT DETAIL

NO SCALE

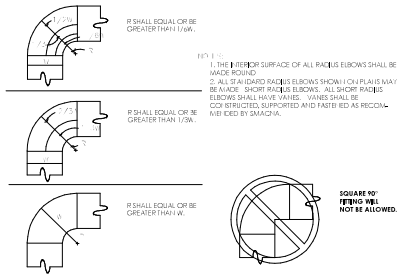
03



RETURN AIR GRILLE ATTACHMENT DETAIL

NO SCALE

04



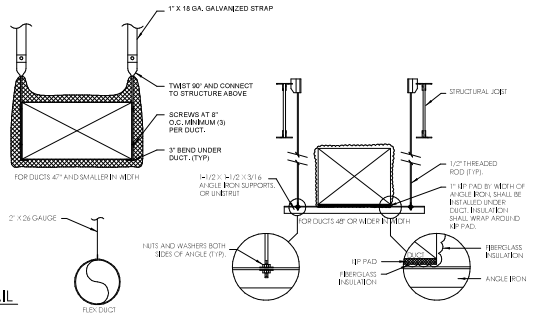
RADIUS DUCT ELBOW DETAIL

NO SCALE

05

DUCT SUPPORT:

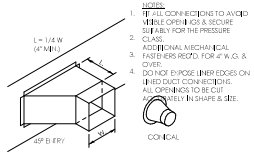
1. HANGER ATTACHMENTS TO STRUCTURE: SEE DIVISION 23 SECTION "HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT:. MINIMUM ROD OR BOLT SIZE IS(6MM).
2. SUSPEND HORIZONTAL GALVANIZED RECTANGULAR DUCTWORK 47" (1220MM) OR LESS IN LARGEST DIMENSION FROM CONSTRUCTION BY 1 INCH BY 18 GAUGE (25MM X 1.3MM) GALVANIZED STRAP HANGERS SCREWED 8 INCHES (200MM) O.C.-TO DUCTS. USE THREE (3) SCREWS MINIMUM PER STRAP. BEND STRAP UNDER DUCT AND SCREW INTO BOTTOM OF DUCT.
3. SUSPEND HORIZONTAL RECTANGULAR STAINLESS STEEL AND COATED DUCTWORK 48" (1220MM) OR LESS IN LARGEST DIMENSION FROM CONSTRUCTION BY 1 INCH BY 18 GAUGE (25MM BY 1.3MM) GALVANIZED STEEL STRAP HANGERS BOLTED TO MATING FLANGES AT MINIMUM OF THREE LOCATIONS. (TOP,MIDDLE,BOTTOM).
4. DUCTS OVER 48" (1220MM) IN LARGEST DIMENSION SUPPORT FROM UNISTRUT, SUPERSTRUT, OR EQUAL, TRAPEZE HANGERS SIZED FOR THE LOAD, PER SMACNA STANDARDS.
5. SUPPORT ROUND STEEL DUCTWORK FROM CONSTRUCTION BY 1 INCH BY 18 GUAGE (25MM BY 1.3MM) GALVANIZED STRAP HANGERS WITH INSIDE RADIUS OF LOOP HANGER EQUAL TO OUTSIDE RADIUS OF DUCT. FOR DUCTS UNDER 12" DIAMETER, PROVIDE SUPPORTS 10 FEET (3CM) O.C. 12 FEET (3.6M) AND OVER, 6 FEET (1.8M) O.C. PROVIDE NOT LESS THAN ONE HANGER PER BRANCH AND AT EACH CHANGE OF DIRECTION.
6. SUPPORT ROUND FLEXIBLE DUCTWORK FROM CONSTRUCTION BY 2 INCHES BY 26 GAUGE (50 MM BY 0.5MM) GALVANIZED STRAP HANGERS WITH INSIDE RADIUS OF LOOP HANGER EQUAL TO OUTSIDE RADIUS OF DUCT. LOCATE SUPPORTS TO AVOID KINKS AND SHARP BENDS.
7. DOUBLE FOLD STRAPS AT ATTACHMENTS TO STRUCTURE.
8. SPACE HANGERS NOT OVER 96 INCHES (2440MM) ON CENTER FOR DUCTS SMALLER THAN 18 INCHES (457MM) IN LARGEST DIMENSION. 60 INCHES (1524MM) O.C. FOR DUCTS 18 INCHES (457MM) AND OVER.



DUCT HANGER DETAIL

NO SCALE

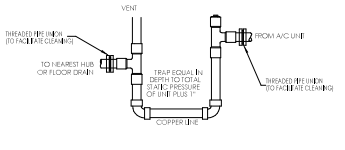
06



BRANCH CONN. DETAIL

NO SCALE

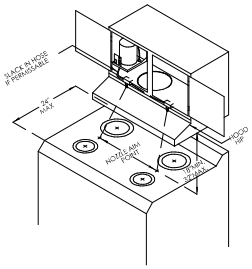
07



CONDENSATE TRAP DETAIL

NO SCALE

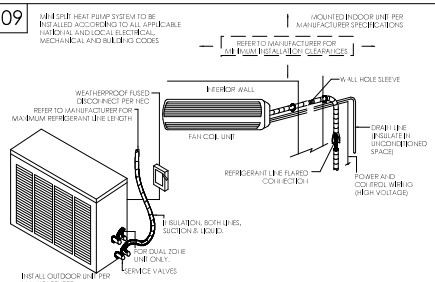
08



RANGE HOOD FIRE SUPPRESSION SYSTEM

NO SCALE

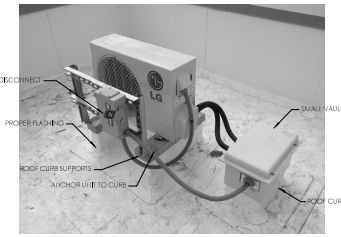
09



MINI SPLIT UNIT - CONDENSER AND EVAPORATOR

NO SCALE

10



MINI SPLIT CONDENSING UNIT

NO SCALE

11

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RE	DAT	DESCRIPTI
VA	08/5/24	PRELIMINARY REVIEW

PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : MECHANICAL DETAILS

PROJE CT: ---------	STRUCTURAL DESIGNS: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: MD01
SCAL E: 3/16" = 1'-0"	

ELECTRICAL LEGEND-LIGHTING

—ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	2'x4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'x4' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	2'x2' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'x2' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	1'x4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	TRACK LIGHT WITH HEADS AS INDICATED
	INCANDESCENT, LED, FLUORESCENT, OR HID WALL WASHER LIGHT FIXTURE CEILING MTD, REFER TO LUMINAIRE SCHEDULE
	INCANDESCENT, LED, FLUORESCENT, OR HID FIXTURE CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	LED, FLUORESCENT, OR HID FIXTURE WITH EMERGENCY BATTERY PACK, CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT, CEILING OR WALL MOUNTED - SHADING INDICATING SINGLE OR DOUBLE FACE; DIRECTIONAL ARROWS AS INDICATED REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT SAME AS ABOVE, EXCEPT WITH AN EMERGENCY UNIT AS A COMBO, REFER TO LUMINAIRE SCHEDULE
	CEILING FAN
	STRIP UTILITY LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	STRIP UTILITY STRIP LIGHT WITH EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	WALL SWITCH SPST, 20A,120/277V
	DOUBLE POLE TOGGLE SWITCH, 20A/120/277V
	3-WAY WALL SWITCH, 20A,120/277V
	4-WAY WALL SWITCH, 20A,120/277V
	WALL DIMMER SWITCH
	WALL SWITCH SPST, 20A,120/277V - PILOT LIGHT SWITCH
	WALL SWITCH SPST, 20A,120/277V - KEYED SWITCH, X = 3 OR 4 WAY

ELECTRICAL LEGEND-SPECIAL SYSTEMS

—ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION	
	WALL MOUNTED VOICE/DATA OUTLET, FURNISH AND INSTALL 1.25"C., WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MIN.MIN.2 1/8" DEEP.	
	WALL MOUNTED VOICE OUTLET, FURNISH AND INSTALL 1"C. , WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MIN.MIN.2 1/8" DEEP.	
	WALL MOUNTED DATA OUTLET. FURNISH AND INSTALL 1.25"C , WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING. +24" UNLESS OTHERWISE NOTE. BOX TO BE MIN.MIN.2 1/8" DEEP.	
	PUBLIC TELEPHONE OUTLET. - J-BOX & 1"C.	
	TELEVISION OUTLET. CLG. OR WALL MOUNTED - STUB 1" C. ABOVE CEILING FROM OUTLET BOX	
	PUSHBUTTON WALL MOUNTED.	
	AUDIO VIDEO DROP, REFER TO DETAIL	
	INTERCOM - CALL SWITCH - J-BOX WITH 3/4"C	
	INTERCOM/PAGING LAY-IN SPEAKER	
	PA EXTERIOR SPEAKER	10'-0" AFF
	SECURITY DOOR CONTACT SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
	SECURITY MOTION DETECTOR SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
	SECURITY GLASS BREAK SENSOR - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX	
	SECURITY KEYPAD - STUB 3/4"C ABOVE CEILING FROM OUTLET BOX	
MJB	SECURITY PANEL JUNCTION BOX	54"
ACP	ACCESS CONTROL PANEL JUNCTION BOX - BY OTHERS	54"
	CARD READER BOX - STUB 3/4"C ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS	----
	MAGNETIC LOCK BOX - STUB 3/4"C ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS	----
	INTRUSION EXTERIOR SPEAKER	10'-0" AFF
	SINGLE SIDED CLOCK, J-BOX W/3/4"C	96" AFF MIN.
	DOUBLE SIDED CLOCK, J-BOX W/3/4"C	96" AFF MIN.
	CAMERA - J-BOX W/ 3/4" CONDUIT	----
	TELEPHONE BOARD - 3/4 MB FIRE RATED	

ELECTRICAL LEGEND-FIRE ALARM

—ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

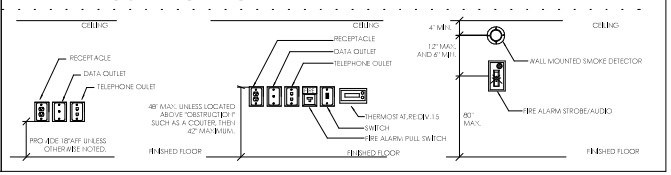
SYMBOL	DESCRIPTION
	FIRE ALARM PULL STATION: STUB 3/4"C ABOVE CEILING FROM J-BOX
	FIRE ALARM AUDIBLE/VISUAL SIGNAL: STUB 3/4"C ABOVE CEILING FROM J-BOX
	FIRE ALARM VISUAL SIGNAL: STUB 3/4"C ABOVE CEILING FROM J-BOX
	FIRE ALARM CEILING MOUNT SPEAKER STROBE. UL LISTED. : J-BOX WITH 3/4"C
	FIRE ALARM CEILING WALL MOUNT OUTDOOR SPEAKER STROBE. UL LISTED. : J-BOX WITH 3/4"C
	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED: STUB 3/4"C ABOVE CEILING FROM J-BOX
	HEAT DETECTOR CEILING OR WALL MOUNTED: STUB 3/4"C ABOVE CEILING FROM J-BOX
	DUCT SMOKE DETECTOR: STUB 3/4"C ABOVE CEILING FROM J-BOX
	SMOKE DETECTOR WITH AN AUDIBLE BASE: STUB 3/4"C ABOVE CEILING FROM J-BOX
FACP	FIRE ALARM CONTROL PANEL, ADDRESSABLE, SURFACE MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB+ACE-1
FACP/VA	FIRE ALARM CONTROL PANEL WITH EMERGENCY VOICE SYSTEM, ADDRESSABLE, FLUSH MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB+ACE-1
EVS	FIRE ALARM EMERGENCY VOICE EVACUATION SYSTEM, FLUSH OR SURFACE.
FAA	FIRE ALARM REMOTE ANNUNCIATOR PANEL, FLUSH MOUNTED UNO
PAS-1	POWER SUPPLY, DEDICATED 110V
H	DOOR HOLDER DEVICE: STUB 3/4"C ABOVE CEILING FROM J-BOX
T	TAMPER SWITCH: STUB 3/4"C ABOVE CEILING FROM J-BOX
F	FLOW SWITCH: STUB 3/4"C ABOVE CEILING FROM J-BOX
	FIRE ALARM OUTDOOR SPEAKER, WEATHER PROOF: STUB 3/4"C ABOVE CEILING FROM J-BOX

ELECTRICAL LEGEND-GENERAL

—ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	HEAVY DUTY DISCONNECT SWITCH FUSED
	HEAVY DUTY DISCONNECT SWITCH NONFUSED
	HEAVY DUTY COMBINATION DISCONNECT/MOTOR STARTER
	HEAVY DUTY MOTOR STARTER
	ENCLOSED BREAKER, RE: TO SCH. FOR MORE INFO.
	ROTARY TYPE DISCONNECT SWITCH
	120/277~208/480V,20AMP, MOTOR RATED SWITCH, NEMA~ INTERIOR, ENCLOSURE, NEMA~3R(WEATHER) ENCLOSURE. VOLTAGE TO BE SELECTED PER EQUIPMENT CIRCUIT REQUIREMENTS.
	MOTOR
	PANELBOARD, CLEARANCE AS PER LATEST NEC
	SWITCH LEG
	ELECTRICAL CONDUIT
	UNDERGROUND ELECTRICAL CONDUIT
	COMMUNICATION CONDUIT AND WIRING
X, X, X	MULTI-POLE DEVICE CIRCUIT NUMBERS
X/X/X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS
A–1	CONDUIT AND WIRE HOMERUN TO PANEL. SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATED OR INSULATED GROUND. ALPHA/NUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
A–1	UNDERGROUND CONDUIT AND WIRE HOMERUN TO PANEL. SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATED OR INSULATED GROUND. ALPHA/NUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
	DETAIL NUMBER
	SHEET NUMBER
	THERMOSTAT WALL MOUNTED - STUB 1/2"C ABOVE CEILING FROM OUTLET BOX . COORDINATE EXACT LOCATION AND HEIGHT WITH MECHANICAL DIVISION.
	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED MINIMUM OF 4" SQUARE
	PHOTO CELL(MFR.) (THERMATIC #K4136W)
	LIGHTING CONTACTOR, (NEMA~), W/H.O.A. SWITCH
	TIME CLOCK (MFR.TORK#7202)
	CIRCULATING PUMP
	ELECTRICAL DEVICE AS SHOWN ON PLANS SURFACE MOUNT RACEWAY. SURFACE MOUNT RACEWAY SHALL BE WIREMOLD #V700 SERIES. PROVIDE ALL RELATED #V700 SERIES ACCESSORIES FOR AN OPERABLE SYSTEM.

MOUNTING HEIGHT DETAIL



NOTE: VERIFY WITH ARCHITECTURAL FOR **ADA REQUIREMENTS.**

ELECTRICAL ABBREVIATIONS:

ABBV:	DESCRIPTION	ABBV:	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	MFR. (S.C.)	MANUFACTURER SHARE CIRCUIT
BFC	BELOW FINISHED CEILING	QRCPT(S)	QUAD RECEPTACLE(S)
C	CONDUIT	RCPT(S)	DUPLEX RECEPTACLE(S)
CB	CIRCUIT BREAKER	CRCPT(S)	1.G. RECEPTACLE(S)
EC	EMPTY CONDUIT	QCRCPT(S)	QUAD I.G. RECEPTACLE(S)
EX	EXISTING	PNL	PANEL
F	FUSE	SO (S.O.)	SPACE ONLY
G	GROUND (EQUIPMENT)	SP	SPARE
GFI	GROUND FAULT INTERRUPTER	ST (S.T.)	SHUNT TRIP
MTD	MOUNT OR MOUNTED	SW	SWITCH
NF	NONFUSED	UF	UNDERFOOR
NIC	NOTIN CONTRACT	UG	UNDERGROUND
H.D	HEAVY DUTY	UNO(U.N.O.)	UNLESS NOTED OTHERWISE
NL	NIGHT LIGHT	WG	WIRE GUARD
AC	ABOVE COUNTER	WP	WEATHERPROOF
HT.	HEIGHT	XFMR	TRANSFORMER
MTD.	MOUNTING	MB	MAIN BREAKER
FDR.	FEEDER	MLO	MAIN LUGS ONLY
CKT.	CIRCUIT	RMC	RIGID METAL CONDUIT
LTG.	LIGHTING	IMC	RIGID NONMETALLIC CONDUIT
LC	LIGHTING CONTACTOR	EMT	ELECTRICAL METALLIC TUBING CONDUIT
IG	ISOLATED GROUND	S/N	SOLID NEUTRAL
EA.	EACH	AC	ABOVE COUNTER
N1	NEMA-1	AFI	ARC-FAULT CIRCUIT INTERRUPTER
N3R	NEMA-3R	T	TAMPER PROOF
N4X	NEMA-4X		
SS	STAINLESS STEEL		

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
15" AFF INDICATES TO BOTTOM OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
AC INDICATES 6" ABOVE COUNTER TO BOTTOM OF DEVICE.

ELECTRICAL LEGEND - WIRING DEVICES

—ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

	SINGLE RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX RECEPTACLE TAMPER RESISTANT - 20A/125V/2P/3W/G NEMA 5-20R
H	HOSPITAL GRADE DUPLEX RECEPTACLE/GFI - 20A/125V/2P/3W/G NEMA 5-20R
	DUPLEX: RCPT. GFI - 20A/125V/2P/3W/G NEMA 5-20R
WP/ H-USE*	DUPLEX: RCPT.,WEATHER RESISTANT "WP", GFI INSTALLED IN A "H-USE" WEATHER PROOF STEEL ENCLOSURE~20A/125V/2P/3W/G NEMA 5-20R WP/ H-USE* SHALL BE EQUAL TO MFR. CARLON, METALLIC SERIES. HINGE DAVICS, VERTICAL MOUNT. #MEPU2WG DOUBLE GANG, VERTICAL MOUNT #MEPU2VMG
	QUADRAPLEX RECEPTACLE
	ISOLATED CIRCUIND QUADPLEX RECEPTACLE
	ISOLATED GROUND DUPLEX RECEPTACLE - 20A/125V NEMA 5-20R
	208V RECEPTACLE, VERIFY NEMA NO. WITH EQUIPMENT SUPPLIER
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)
	J-BOX - AIR HAND DRYER; (RECESSED HAND DRYERS TO BE PROVIDED BY DIVISION 16, ELECTRICAL) 120V MODEL AS (MODEL) AS (MANUFACTURER) BY WORLD DRYER. (COLOR WHITE) QUANTITY: REFER TO DRAWINGS (MIN. ONE PER LAV. COMPLETE W/ ELECTRICAL CONNECTIONS TYP.)
6G	6-GANG FLOOR MOUNTED BOX, 2-DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)/2-GANG FOR DATA - FLUSH MOUNTED UNO FLOOR BOX = MFR.~HUBBELL MODELS#CFBG6S30RC6~CFBS18RCVRNU(COVER)~(3)FBMPDUF~FBMP6KS ~CFBH82(MULTISERVICE STEEL RECESSED FLOOR BOX~VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
6P	6" FIRE RATED POKE~THROUGHS BOX, 2~DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)~ MFR.~HUBBELL MODEL #S1R6PTFE~S1R6SPTE~S1R6SPTL~S1R6SPT(50/50 DEVICE: PLATE COMBINATION)~S1R6CVRALU(COVER) ~VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.
AP	6" FIRE RATED POKE~THROUGHS BOX, FURNITURE FEED ~ MFR.~HUBBELL MODEL #S1R6PTFEAU(ALUMINUM COVER) ~VERIFY FLOOR FINISH PRIOR TO ORDER.
8P	8" FIRE RATED POKE~THROUGHS BOX, 2~DUPLEX RECEPTACLE(INCLUDE RECEPTACLE WITH COVER PLATE)~ MFR.~HUBBELL MODEL #S1R8PTFE~S1R8CSPE~S1R8CSPE~S1R8PSPT(50/50 DEVICE PLATE COMBINATION)~S1R8CVRALU(COVER)~VERIFY FLOOR FINISH PRIOR TO ORDER SAME BOX FOR DATA OUTLETS.

GENERAL ELECTRICAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
2. USE DIRECTIONAL ARROW ON ENTASIGNS AS REQUIRED.
3. IEEE STANDARD C37.2-1991, ELECTRICAL POWER SYSTEM DEVICE FUNCTION NUMBERS.
4. CONTRACTOR SHALL NOT INSTALL MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A COMMON RACEWAY. IF CONTRACTOR IS PLANNING ON GROUPING MULTIPLE CIRCUITS IN A SINGLE RACEWAY, THE CONTRACTOR MUST SUBMIT A DERATING CALCULATIONS FOR THE PROPOSED INSTALLATION IN ACCORDANCE WITH NEC ARTICLE 310.15 (B) (2) FOR APPROVAL PRIOR TO INSTALLATION. NON APPROVED INSTALLATIONS WILL BE REMOVED AND RE-INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE NEC AT NO ADDITIONAL COST TO THE OWNER.
5. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF THREE 90º BENDS (270 DEGREES TOTAL) BETWEEN PULL POINTS. WHERE THERE ARE MORE THAN THREE QUARTER BENDS, CONTRACTOR SHALL PROVIDE PULL BOXES AS SPECIFIED AND SIZED IN ACCORDANCE WITH NEC.
6. COMPLY WITH NEC REQUIREMENTS FOR ELECTRICAL INSTALLATIONS. ALL ELECTRICAL EQUIPMENT AND MATERIAL TO BE APPROVED, LISTED, LABELED, IDENTIFIED AND INSTALLED PER RECOGNIZED ELECTRICAL TESTING LABORATORY.
7. ALL RECEPTACLES, SWITCHES AND JUNCTION BOXES SERVED BY EMERGENCY BRANCH CIRCUITS SHALL BE RED IN COLOR, COVERPLATES SHALL BE LABELED IN ACCORDANCE WITH SPECIFICATIONS IS TO INDICATE PANELBOARD AND CIRCUIT NO., (IE: E**-1,3).

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

CONTRACTOR SHALL PERFORM THE TASK BELOW TO COMMISSION THE LIGHTING CONTROL SYSTEM.

CONTRACTOR SHALL SUBMIT A DOCUMENTATION DETAILING THE LIGHTING CONTROL SYSTEM, SETTING/CONDITION, ACTIONS PERFORMED AND FINAL SETTING CONDITION. SUBMIT DOCUMENTATION AT OR BEFORE SUBSTANTIAL COMPLETION TO FACILITATE OBTAINING THE CERTIFICATE OF OCCUPANCY.

A. ENSURE ALL LIGHTING FIXTURES HOUSES HAVE LAMPS INSTALLED AND ARE FUNCTIONAL.
B. TEST ALL EXISTING EMERGENCY LIGHTING FIXTURES, AND EMERGENCY BALLASTS FURNISHED INTEGRAL TO FIXTURES.
C. ENSURE ALL OCCUPANCY SENSORS HAVE BEEN INSTALLED AND ARE OPERATIONAL.
D. VERIFY ALL WALLBOX AND SCENE CONTROLLERS ARE INSTALLED AND OPERATIONAL.
E. TEST EACH INDIVIDUAL DEVICE FOR OCCUPANCY SENSOR TYPE (VI, OS) AND TEST THE LIGHTING CONTROL RELAY PANEL SYSTEM.
F. TEST 10% OF ALL THE DEVICES FOR OCCUPANCY SENSOR TYPE (VI+OS)+SA.
G. VERIFY THE FOLLOWING:
1. ALL SENSORS ARE LOCATED AND AIMED PER THE MANUFACTURERS RECOMMENDATIONS.
2. STATUS INDICATORS ON DEVICES ARE OPERATIONAL AND CORRECT.
3. DEVICES CONTROL LIGHTING ZONES AS INDICATED ON DRAWINGS.
4. TIME DELAYS HAVE BEEN SET AS PER CODE AND PER OWNERS DIRECTIONS.
5. MOVEMENT IN ADJACENT AREAS AND CYCLING OF HVAC SYSTEMS DOES NOT FALSE TRIGGER SENSORS.
6. PHOTOCELL LOCATION AND AIMED PER MANUFACTURERS RECOMMENDATIONS.
7. PROGRAM INTERIOR RELAYS WITH A TIME FUNCTION ACCEPTABLE TO OWNER.
8. PROGRAM INTERIOR OVERRIDE SWITCH WITH A TIME FUNCTIONAL ACCEPTABLE BY OWNER.

CONTRACTOR SHALL PROVIDE A MINIMUM OF 8 HOURS OF OWNER TRAINING.

CONTRACTOR SHALL COORDINATE A MANUFACTURER CERTIFIED TECHNICIAN TO PROVIDE A COMPLETE TRAINING SESSION TO OWNER REPRESENTATIVES. TRAINING SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING: CALIBRATE SENSOR SETTINGS, PROGRAMMING EXISTING CONDITIONS AND HOW TO ADD NEW CIRCUITS, TROUBLE SHOOTING, OVERVIEW OF PANEL AND ANY REQUEST FROM OWNER. TRAINING MAY TAKE DAYS; CONTRACTOR/MANUFACTURER SHALL INCLUDE ALL COST IN BID. CONTRACTOR SHALL NOTIFY OWNER/ARCHITECT/ENGINEER ON THE DAY FOR THE TRAINING. TECHNICIAN SHALL CALIBRATE ALL SENSORS TO OWNERS DESIRE, INCLUDE COST FOR TECHNICIAN TO PROVIDE SERVICE AFTER THE JOB IS COMPLETE.

LIGHTING CONTROL SENSORS LEGEND

SYMBOL	ACUITY MODEL NUMBER	CONDUIT	COMMENTS
O1	NCA~PDT~10	3/4"C	PROVIDE POWER PACK, POSITIONED AS DIRECTED BY MANUFACTURER. REFER TO PLANS FOR TYPE OF POWER PACK. REFER TO PLANS AND SCHEDULES FOR SWITCHING TYPES.
OS2	MSXA~MO~PDT~DAW~WH	3/4"C	3~WAY APPLICATIONS WITH DIMMING, WITH VACANCY OFFICE USE
OS3	MSXA~MO~PDT~WH	3/4"C	3~WAY APPLICATION IS NO DIMMING, AUTOMATIC ON RESTROOMS USE
NP	nPP16 D	3/4"C	POWER PACK, 120,240/277, VAC, 1A AMPS/POLS, 0~10VDC DIMMING, PLENUM RATED, RELAY CONFACT PROTECTION, R~45 PORT
SW1	nPODA~___~WH	3/4"C	W ALL MOUNT SWITCH WITH ON/OFF WITH STAINLESS STEEL PLATE
SW2	nPODA~ST~D%~WH	3/4"C	W ALL MOUNT SWITCH WITH 2 SCENE, ON/OFF, WITH RAISE/LOWER FUNCTION
SW3	nPODA~ST~D%~WH	3/4"C	W ALL MOUNT SWITCH WITH 4 SCENE, ON/OFF, WITH RAISE/LOWER FUNCTION

GENERAL NOTES:
A. CONTRACTOR SHALL REFER TO MANUFACTURERS INSTRUCTIONS AND WIRING DIAGRAMS PRIOR TO BID DATE.
B. CONTRACTOR SHALL INCLUDE ALL COST IN BID FOR AN OPERABLE LIGHTING SYSTEM.
NOTES:

1. All sensor locations are approximate, refer to manufacturers installation instructions prior to installation.
2. Ultrasonic ceiling mount sensors should be located a minimum of six feet from HVAC supply/return vents.
3. Contractor is responsible for: proper sensitivity & time delay settings (for non~adaptive products) recommended placement, and field~verification of circuits within respect to power placement.
4. Contractor is responsible for field~verification of required number of power packs:
   - One power pack is required for each circuit to be controlled.
   - One power pack is required for every three sensors in the zone.
   - If multiple circuits are to be controlled by a sensor, an auxiliary relay can be used in conjunction with the power pack.
   - The maximum number of sensors that can be put on a power pack is to be reduced by one for each 10~A power pack used.
5. Sensors mounted over the door must be placed one foot inside the threshold.
6. Contractor is responsible for ensuring that the sensor bill of materials complies with the sensor design and layout specifications.
7. Contractor is responsible for installing equipment in compliance with local codes.
8. Refer to cross reference symbol drawings
9. NOTE: complete training session to owner representatives. Training shall include but not limited to the following: calibrate sensor settings, programming existing conditions and how to add new~circuits, trouble shooting, overview of panel and any request from owner. Training may take days; contractor/manufacturer shall include all cost in bid. Contractor shall notify owner/Architect/Engineer on the day for the training. Technician shall calibrate all sensors to owners desire, include cost for technician to provide service after the job is complete.

B2Z ENGINEERING

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MEP ENGINEERING
3533 Moreland Dr, Ste A | Weslaco, Tx
78596 p:956.973.0500 | f:956-551-5760
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Texas Registered Engineering Firm - F10382
Project number: 24.2.2
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	08/05/24	PRELIMINARY REVIEW

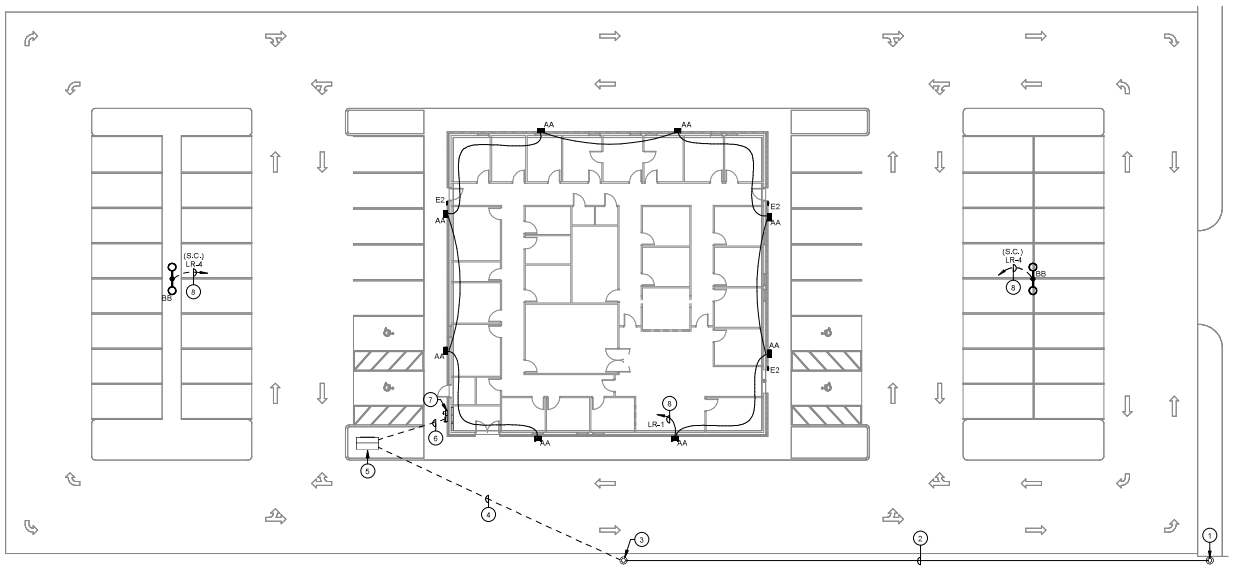
PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL LEGEND

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E0.0
SCAL E: 1/8" = 1'-0"	



1 ELECTRICAL SITE PLAN
1" = 15'-0"

GENERAL NOTES - ELECTRICAL SITE

A. CONTRACTOR TO VERIFY ALL EXISTING MAIN POWER SERVICES AND COORDINATE WITH POWER COMPANY FOR ALL NEW REQUIREMENTS AND ALL COST ASSOCIATED. CONTRACTOR SHALL INCLUDE ANY COST FOR THE NEW TRANSFORMER AND OTHER ASSOCIATED FEES IN BID. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL FEES WITH POWER COMPANY AND TO INCLUDE IN BID. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH POWER COMPANY AS SOON THE CONTRACT IS AWARDED TO ORDER TRANSFORMER AND THE RELATED ELECTRICAL SERVICE EQUIPMENT AS SOON AS POSSIBLE.

B. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, TRENCHING AND BACKFILLING. COORDINATE WITH ALL UTILITIES PRIOR TO EXCAVATION.

C. CONTRACTOR TO VERIFY ALL EXISTING MAIN TELEPHONE SERVICES AND COORDINATE WITH TELEPHONE COMPANY FOR ALL REQUIREMENTS AND ALL COST ASSOCIATED. INCLUDE ALL COST IN BID. CONDUIT FROM MAIN TELEPHONE RISER SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

D. ALL ELECTRICAL EQUIPMENT OUTDOORS SHALL BE RATED TYPE NEMA 3R UNLESS OTHERWISE NOTED.

E. CONTRACTOR SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES. ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODES AND ALL OTHER AUTHORITY HAVING JURISDICTION. OBTAIN PERMITS AND PAY ALL FEES. PERFORM MODIFICATIONS TO MEET CODE AND ORDINANCE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER. ARCHITECT OR ENGINEER. VERIFY PRIOR TO BID DATE.

F. VERIFY AT JOB SITE THE EXACT LOCATIONS OF STRUCTURAL MEMBERS SUCH AS BEAMS, COLUMNS, ETC, TO LOCATE EQUIPMENT CONDUIT, PANELS AND DEVICES. IF DEVIATIONS FROM THE DRAWING ARE NECESSARY TO MEET STRUCTURAL CONDITIONS MAKE DEVIATIONS WITHOUT ADDITIONAL COST, TO OWNER, ARCHITECT, OR ENGINEER.

G. IN COOPERATION WITH OTHER CONTRACTORS, DETERMINE THE EXACT LOCATION OF EQUIPMENT AND DEVICES AND CONNECTIONS THERETO BY REFERENCE TO THE SUBMITTALS AND ROUGH-IN DRAWINGS, AND BY MEASUREMENTS AT THE SITE. REFER TO ALL OTHER TRADES SUBMITTAL FOR ELECTRICAL INFORMATION.

H. GROUND ENTIRE ELECTRICAL SYSTEM IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

I. VERIFY AT JOB SITE GENERAL WORK TO BE DONE AS SPECIFIED, AS NOTED, OR AS REQUIRED FOR INSTALLATION ELECTRICAL SYSTEMS PRIOR TO SUBMISSION OF BIDS.

J. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND EQUIPMENT TO BE REMOVED AND REPLACED BEFORE SUBMITTING HIS BID.

K. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SMALL SCALE ONLY. THEY CONVEY THE INTENT OF THE WORK BUT DO NOT SHOW DETAIL SUCH AS JUNCTION AND PULL BOXES REQUIRED BY THE SPECIFICATIONS AND THE NATIONAL ELECTRICAL CODE(NEC). PROVIDE ALL MATERIALS AND METHODS CALLED FOR IN THE SPECIFICATIONS AND AS REQUIRED IN THE NEC TO PROVIDE A COMPLETE INSTALLATION OF ALL WORK.

L. ALL WIRING SHALL BE COPPER.

M. ALL SLEEVES, PENETRATIONS, ETC, SHALL BE SEALED SOLID NONSHRINKING MATERIAL IMMEDIATELY UPON FILLING OF THE OPENING WITH PIPE OR CONDUIT.

N. ARRANGE FOR SOURCES OF TEMPORARY CONSTRUCTION SERVICES. SUCH SERVICES SHALL BE NOMINALLY 120/240V, 1-PHASE, 3-WIRE FROM WHICH A COMPLETE SYSTEM OF TEMPORARY POWER AND LIGHTING SHALL BE PROVIDED FOR ALL CONSTRUCTION NEEDS.

ELECTRICAL KEYNOTES

1	NEW POWER COMPANY POWER POLE.COORDINATE COST AND INSTALLATION WITH POWER COMPANY PRIOR TO ANY WORK.
2	NEW OVERHEAD POWER LINES.
3	NEW POWER COMPANY POWER POLE WITH RISER DIP POLE.COORDINATE COST AND INSTALLATION WITH POWER COMPANY PRIOR TO ANY WORK.
4	CONTRACTOR TO PROVIDE AND INSTALL (1)-4" PVC CONDUIT FROM PROPOSED NEW UTILITY COMPANY POWER POLE WITH RISER DIP POLE TO NEW PAD MOUNT TRANSFORMER. ALL UNDERGROUND WORK SHALL BE ACCORDING TO POWER COMPANY STANDARDS. VERIFY ALL REQUIREMENTS WITH THE POWER COMPANY BEFORE ANY ROUGH-IN. COORDINATE LOCATION, COST, AND INSTALLATION WITH POWER COMPANY PRIOR TO BID.
5	NEW POWER COMPANY PAD MOUNTED TRANSFORMER. PROVIDE CONCRETE PAD PER POWER COMPANY STANDARDS. COORDINATE COST AND INSTALLATION WITH POWER COMPANY PRIOR TO BID DATE. COORDINATE EXACT LOCATION WITH POWER COMPANY PRIOR TO ANY ROUGH-IN.
6	CONTRACTOR TO PROVIDE AND INSTALL PVC CONDUIT FROM NEW UTILITY TRANSFORMER TO NEW ELECTRICAL SERVICE EQUIPMENT PER POWER COMPANY STANDARDS. VERIFY ALL REQUIREMENTS PRIOR TO ANY ROUGH-IN. REFER TO THE ELECTRICAL RISER DIAGRAM.
7	NEW 120/208V, 3-PHASE, 4W, ELECTRICAL SERVICE METER AND DISCONNECT.
8	SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL 'LCP1'. REFER TO RISER AND SPECIFICATION FOR ADDITIONAL INFORMATION.

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

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Project number: 24.2.2
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	08/05/24	PRELIMINARY REVIEW

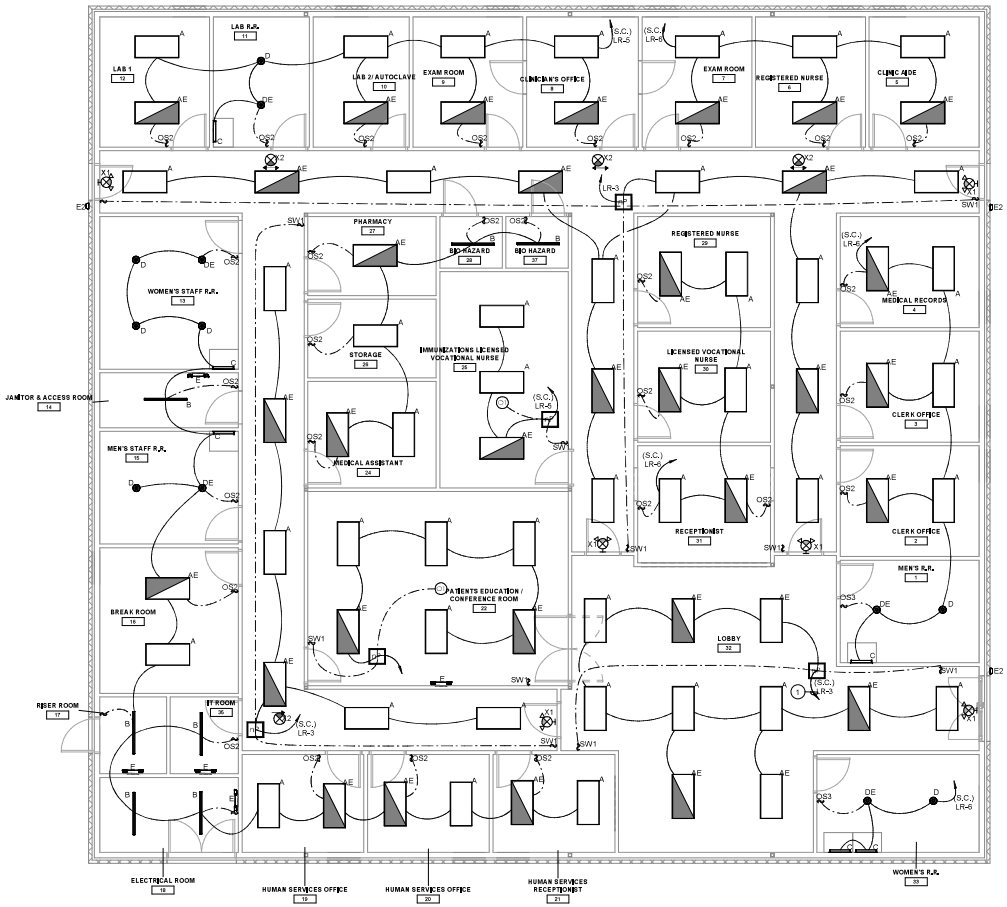
PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL SITE LIGHTING PLAN

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: ES1.1
SCAL E: 1" = 15'-0"	



ELECTRICAL LIGHTING PLAN - FIRST FLOOR
3/16" = 1'-0"

APPLICABLE BUILDING CODE

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2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
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2018 International Fire Code
2012 Texas Accessibility Standards

GENERAL NOTES- LIGHTING

A. ALL EXIT FIXTURES/EMERGENCY BATTERY PACK LIGHT FIXTURE SHALL BE CONNECTED TO UNSWITCHED OR NON-DIMMING HOT LEG OF SAME VOLTAGE/PHASE OF LOCAL LIGHTING CIRCUIT IN SPACE. A ALL EXIT FICTURES/EMERGENCY BATTERY PACK LIGHT FIXTURE SHALL BE CONNECTED TO UNSWITCHED OR NON-DIMMING HOT LEG OF SAME VOLTAGE/PHASE OF LOCAL LIGHTING CIRCUIT IN SPACE.
B. VERIFY CEILING TYPES AND COORDINATE WITH FIXTURE TYPE LIGHT FIXTURE SHALL BE COMPATIBLE WITH CEILING TYPE AS INDICATED ON THE ARCHITECTURAL DOCUMENTS. NOTIFY ENGINEER IF DISCREPANCIES EXIST PRIOR TO ORDERING FIXTURES.
C. COORDINATE EXACT ROUTING OF ALL CONDUIT ABOVE CEILING IN BUILDING. TYPICAL FOR ALL BUILDING EXTERIOR LIGHTING.
D. COORDINATE LOCATION OF LIGHTS WITH DIFFUSERS AND GRILLES.
E. SWITCH LEGS ARE NOT SHOWN WHERE SWITCHING SCHEMES OBVIOUS.
F. ALL EXIT FIXTURES TYPE-"X1 & X2", EMERGENCY LIGHT FIXTURE TYPE-"E" AND ALL EMERGENCY BALLAST SHALL BE ON CIRCUIT "DPEL-36", FIXTURE TYPE LABEL WITH AN ", E" ARE LIGHT FIXTURES WITH EMERGENCY BALLAST, REFER TO LIGHT FIXTURE SCHEDULE.

ELECTRICAL KEYNOTES	
1	SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL 'LCP1'. REFER TO RISER AND SPECIFICATION FOR ADDITIONAL INFORMATION.

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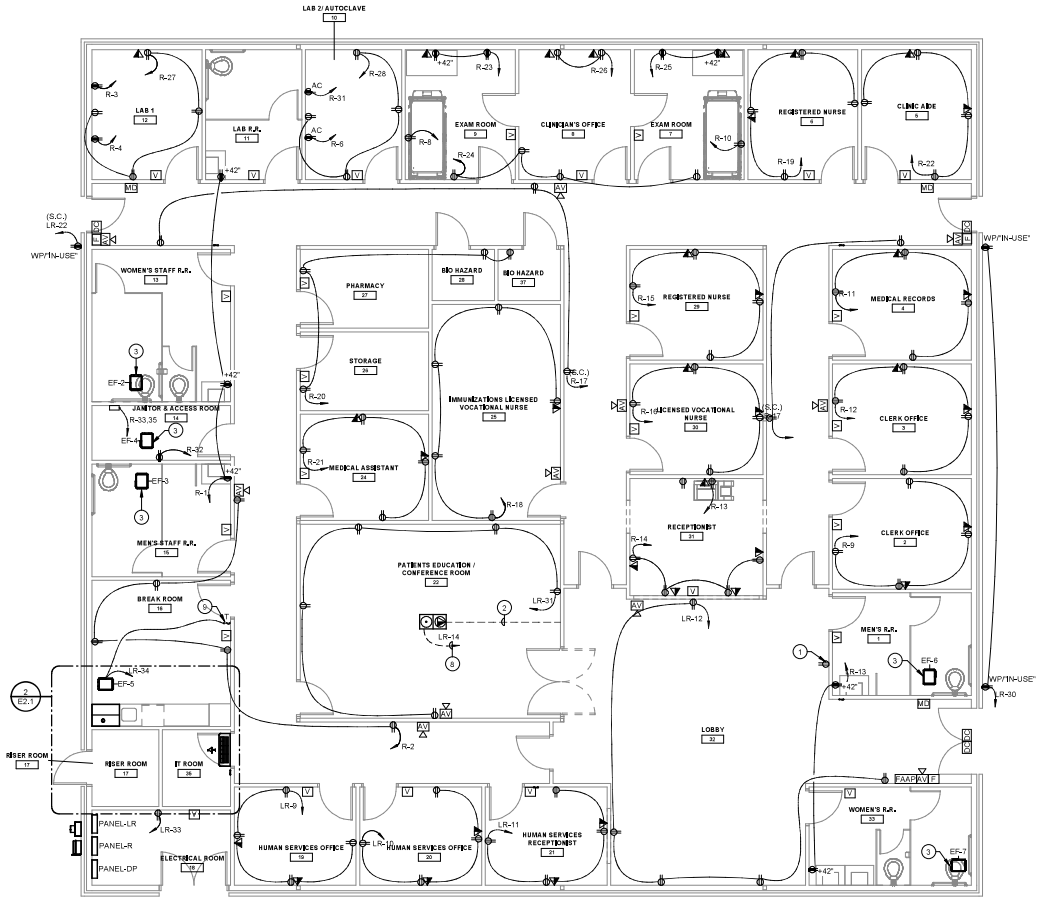
PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

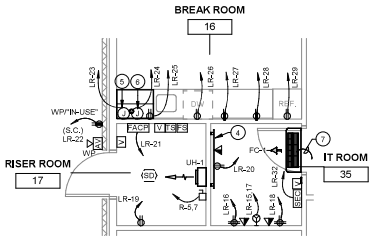
OWNE R: ----------

PLAN : ELECTRICAL LIGHTING FLOOR PLAN

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E1.1
SCAL E: 3/16" = 1'-0"	



1 ELECTRICAL POWER PLAN
3/16" = 1'-0"



2 ELECTRICAL POWER PLAN - ENLARGEMENT
1/4" = 1'-0"

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

GENERAL NOTES- POWER

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL POWER SOURCE WIRING IN ACCORDANCE WITH ARCHITECTURAL MILLWORK.
B. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTION TO H.V.A.C EQUIPMENT, PLUMBING EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
C. ELECTRICAL CONTRACTOR SHALL PROVIDE STARTERS, RELAYS, CONTACTORS AND THE REQUIRED ELECTRICAL ACCESSORIES FOR MECHANICAL SYSTEM AS REQUIRED.
D. COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT IN ACCORDANCE W/MECHANICAL DRAWINGS TO MEET ELECTRICAL AND MECHANICAL REQUIRED CLEARANCE BY THE LATEST CODE.
E. COORDINATE EXACT LOCATION OF ISOLATED OUTLETS FOR COMPUTERS WITH OWNER.
F. ELECTRICAL CONTRACTOR SHALL PROVIDE J-BOX AND CONDUIT FOR H.V.A.C. CONTROLS AND THERMOSTATS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
G. NEMA RATED OUTLETS, REFER TO BREAKER SIZE AND COORDINATE WITH EQUIPMENT REQUIREMENTS PRIOR TO BID.

ELECTRICAL KEYNOTES

1	COORDINATE EXACT LOCATION WITH PLUMBER TO CONCEAL CORD BEHIND ELECTRIC DRINKING FOUNTAIN PRIOR TO ANY ROUGH-IN.
2	PROVIDE 2" CONDUIT FOR DATA. STUB IN WALL TO CEILING LEVEL.
3	TIE INTO ROOMS LIGHTING CIRCUIT AND INTERLOCK FAN WITH ROOMS LIGHTS. WIRING SHALL BE 2#12, 1#12G, 1/2"C.
4	3/4"X8'HK4W PLYWOOD TELEPHONE BOARD FINISHED ONE SIDE. PROVIDE GROUND BAR AND TIE INTO ELECTRICAL GROUNDING SYSTEM V/A WIRE #4.
5	PROVIDE J-BOX FOR RANGE HOOD FIRE SUPPRESSION SYSTEM AND REMOTE FIRE PULL. COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS PRIOR TO ANY WORK.
6	J-BOX FOR RANGE HOOD. COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS PRIOR TO ANY WORK.
7	INTERLOCK FCCU WITH FC H.V.A.C. EQUIPMENT. WIRING SHALL BE 3#10, 1#10G, 3/4"C.
8	ROUTE THROUGH NEAREST PULL WALL. ALL CONDUIT MUST BE CONCEALED. COORDINATE WITH CONTRACTOR PRIOR TO COMMENCING ANY WORK.
9	PROVIDE A 120v, 20 AMP, SPRINGWOUND AUTO-OFF WALL TIMER SWITCH, EQUAL TO MFR.INTERMATIC #FF60MHC.

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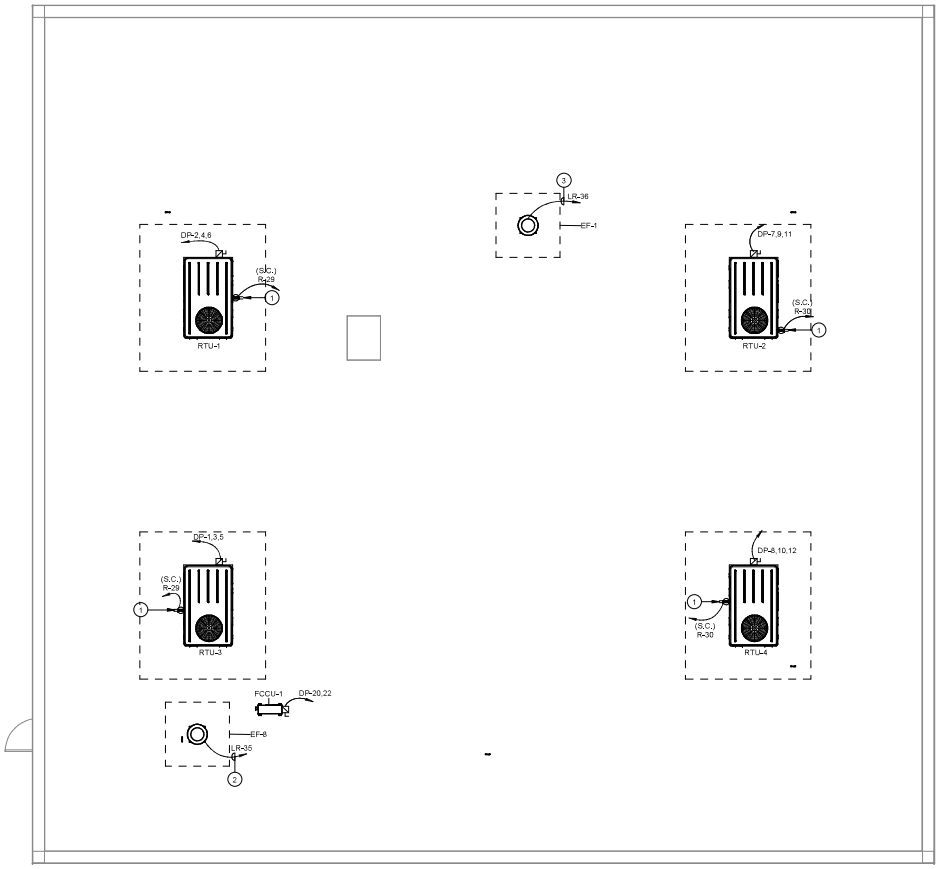
PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL POWER PLAN

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E2.1
SCAL E: As indicated	



1 ELECTRICAL ROOF POWER PLAN
3/16" = 1'-0"

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

GENERAL NOTES- POWER

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL POWER SOURCE WIRING IN ACCORDANCE WITH ARCHITECTURAL MILLWORK.
B. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTION TO H.V.A.C EQUIPMENT, PLUMBING EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
C. ELECTRICAL CONTRACTOR SHALL PROVIDE STARTERS, RELAYS, CONTACTORS AND THE REQUIRED ELECTRICAL ACCESSORIES FOR MECHANICAL SYSTEM AS REQUIRED.
D. COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT IN ACCORDANCE W/MECHANICAL DRAWINGS TO MEET ELECTRICAL AND MECHANICAL REQUIRED CLEARANCE BY THE LATEST CODE.
E. COORDINATE EXACT LOCATION OF ISOLATED OUTLETS FOR COMPUTERS WITH OWNER.
F. ELECTRICAL CONTRACTOR SHALL PROVIDE J-BOX AND CONDUIT FOR H.V.A.C. CONTROLS AND THERMOSTATS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
G. NEMA RATED OUTLETS, REFER TO BREAKER SIZE AND COORDINATE WITH EQUIPMENT REQUIREMENTS PRIOR TO BID.

ELECTRICAL KEYNOTES	
1	GFI DUPLEX RECEPTACLE LOCATED ON ROOF. PROVIDE ROOF PITCH PAN FOR CONDUIT. PROVIDE WP/'IN-USE' ENCLOSURE FOR RECEPTACLE.
2	SHALL BE CONTROLLED VIA RANGE HOOD CONTROLS. COORDINATE WITH MECHANICAL DOCUMENTS.
3	FAN SHALL BE HARDWIRED. REFER TO MECHANICAL DOCUMENTS FOR CONTROL METHOD.

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PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL POWER PLAN

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E2.2
SCAL E: 3/16" = 1'-0"	

APPLICABLE BUILDING CODE

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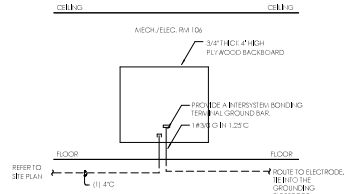


2 TELE/DATA RISER
SCALE: NTS

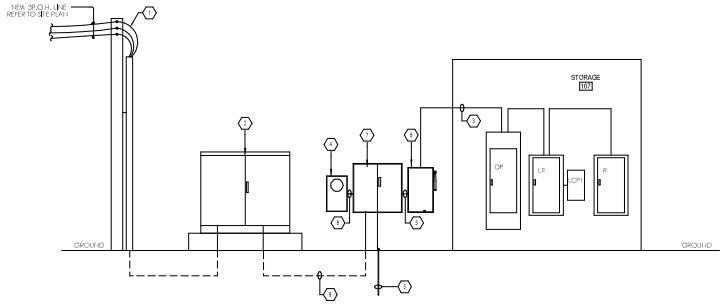
GENERAL NOTES:

A. PROVIDE GROUND /BONDING AS INDICATED ON THE NATIONAL ELECTRICAL CODE.
B. NAME PLATES SHALL BE PROVIDED FOR ALL ELECTRICAL SWITCH GEAR, PANEL BOARDS, LIGHTING CONTACTORS, LIGHTING CONTROL PANELS, ETC., BY ELECTRICAL CONTRACTOR.
C. NEW ELECTRICAL METERING AND SERVICE EQUIPMENT SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE LOCAL POWER UTILITY CO. AND CITY REQUIREMENTS. VERIFY AND COORDINATE WITH POWER UTILITY CO. AND AHJ BEFORE BID AND INSTALLATION.
D. COMPLY WITH NFPA 70E SAFETY REQUIREMENTS.
E. PANELBOARDS WITH MORE THAN 42 CIRCUITS SHALL BE IN ONE CABINET ENCLOSURE, UNLESS OTHERWISE NOTED.
F. PROVIDE 4"CONCRETE PAD FOR ALL DRY-TYPE TRANSFORMERS.
G. ALL TWO SECTION PANELBOARDS SHALL BE FEED THRU LUGS.
H. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF ELECTRICAL SERVICE TO THE NEW BUILDING WITHIN PROJECT SCHEDULE. COORDINATE ALL COST FOR LABOR AND MATERIALS WITH LOCAL ELECTRICAL UTILITY COMPANY PRIOR TO BID. ALL COST ASSOCIATED WITH THE DELIVERY OF ELECTRICAL SERVICE INCLUDING ALL MATERIALS SHALL BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE SHALL PROCEED IN WEEKENDS OR HOLIDAYS. INCLUDE ALL COST IN BID FOR OVERTIME FROM ELECTRIC UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SERVICE DELIVERY COSTS AFTER CONTRACT HAS BEEN AWARDED.
I. ELECTRICAL SERVICE 480/277V 1000AMPS OR MORE SHALL INCLUDE GROUND FAULT PROTECTION.
J. ELECTRICAL SERVICE 120V THRU 480V 1000AMPS OR MORE SHALL INCLUDE AN ARC REDUCTION MAINTENANCE SWITCH. COORDINATE EXACT LOCATION OF SUCH SWITCH.
K. PROVIDE TRENCHING AND BACKFILLING FOR ALL UNDERGROUND CONDUITS FOR REGULAR NON-ASP.-ALT/CONCRETE SURFACE.
L. PROVIDE SAWCUT AND PATCHING FOR ALL UNDERGROUND CONDUITS FOR REGULAR ASPHALT OR CONCRETE SURFACE. INCLUDE ALL COST TO PATCH SURFACE TO MATCH EXISTING FINISH.
M. METER MANUFACTURE ACCEPTED BY P.U.B. ARE AS FOLLOWS: MILBANK, SQUARE-D, AND LANDIS GYR. ALL TO BE ALUMINUM & PINLESS. VERIFY WITH P.U.B. FOR EXACT REQUIREMENTS PRIOR TO BID.
N. CT CABINET MANUFACTURE ACCEPTED BY P.U.B. ARE AS FOLLOWS: MILBANK, BARTELD, DURHAM, AND METER DEVICES CO. ALL TO BE ALUMINUM. VERIFY WITH P.U.B. FOR EXACT REQUIREMENTS PRIOR TO BID.

ELECTRICAL RISER
DIAGRAM KEYED NOTES:

1. NEW POWER CO. POWER POLE WITH RISER DIP. POLE AT NEW POWER POLE LOCATION. COORDINATE ALL WORK WITH POWER COMPANY.
2. NEW POWER COMPANY PAD MOUNT TRANSFORMER 130/208V, 3-PHASE, 4W. PROVIDE CONCRETE PAD AS PER POWER COMPANY REQUIREMENTS.
3. PROVIDE 3-RUNS OF 4#350 KCMIL, 1 #1G, 4"C.
4. NEW ELECTRICAL SERVICE METER 120/208V, 3-PHASE, 4W. . CONTRACTOR SHALL PROVIDE METER BASE. VERIFY WITH P.U.B. FOR METER BASE REQUIREMENTS PRIOR TO BID DATE. INCLUDE ALL COST IN BID. COORDINATE ALLOCATION OF METER SOCKET AND WIRING WITH POWER COMPANY.
5. (#3/0 G) IN 1"C, 3/4"X10' COPPER CLAD RODS. PROVIDE GROUNDING AS PER NEC REQUIREMENTS.
6. PROVIDE 600AMPS, 208V, 3 , 4W, S/N, NBR, HEAVY DUTY FUSED SERVICE ENTRANCE DISCONNECT. FUSED@600AMPS.
7. PROVIDE NEMA-3R ENCLOSURE FOR UTILITY POWER COMPANY CTS. COORDINATE WITH P.U.B. FOR REQUIREMENTS PRIOR TO BID DATE.
8. PROVIDE 1-2"C WITH PULLSTRING.
9. PROVIDE 3-RUNS OF 4#350 KCMIL, 4"C.

120/208V, 3-PHASE, 4W, ELECTRICAL LOAD ANALYSIS	
DESCRIPTION	TOTAL KVA
LIGHTING	8.47
GENERAL POWER	28.8
A/C	77.99
WATER HEATER	6
TOTAL WATTS:	121 KVA
TOTAL AMPS:	336 AMPS
TOTAL AMPS+ 25%:	420 AMPS
WIRE SIZE AMPS:	600 AMPS



1 ELECTRICAL SCHEMATIC DIAGRAM
SCALE: NTS

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PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL RISER DIAGRAM

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E3.1
SCAL E: 1/8" = 1'-0"	

Light Fixture Schedule

Tag	Lamp	Voltage	Mounting	Description	Manufacturer	Model
A	LED (4200LM) (45W)	120V	LAY-IN	2X4 LAY-IN LED FLAT PANEL FIXTURE, SATIN WHITE LENS, UL LISTED.	LITHONIA	CPX 2X4 ALO8 80CRI SWW7 SWL-HIGH LUMEN-E10WLCP
AE	LED (4200LM) (45W)	120V	LAY-IN	2X4 LAY-IN LED FLAT PANEL FIXTURE, SATIN WHITE LENS, UL LISTED, EMERGENCY BATTERY BACKUP.,	LITHONIA	CPX 2X4 ALO8 80CRI SWW7 SWL-HIGH LUMEN-E10WLCP
B	LED (5884LM) (43W)	120V	SURFACE	4' LED STRIP LIGHT, UL LISTED, INCLUDE ALL MOUNTING ACCESSORIES.	LITHONIA	CCS-L48-AL03-MVOLT-SWW3-80CRI
C	LED	120V	SURFACE	2' LED CYLINDER VANITY FIXTURE, UL LISTED.	LITHONIA	FMVCCL 24IN MVOLT 30K 90CRI BN 90CRI BNM69
D	LED	120V	RECESSED	6' RECESSED LED DOWNLIGHT WITH LED DRIVER TRIM COLOR TO BE SELECTED BY OWNER/ARCITECT.	LITHONIA	LBR6-AL03-40LM -SWW1-AR-LLS-WD-MVOLT-UGZ-ELR
DE	LED	120V	RECESSED	6' RECESSED LED DOWNLIGHT WITH LED DRIVER AND BATTERY BACKUP, TRIM COLOR TO BE SELECTED BY OWNER/ARCITECT.	LITHONIA	LBR6-AL02-40LM -SWW1-AR-LLS-WD-MVOLT-UGZ-ELR
E	INCLUDED	120V	SURFACE	THERMOPLASTIC EXIT/EMERGENCY UNIT WITH SELF-DIAGNOSTICS	LITHONIA	ELM2 LED SD
E2	INCLUDED	120V	SURFACE	THERMOPLASTIC EMERGENCY UNIT WITH SELF-DIAGNOSTICS	LITHONIA	AFP-OEL-DDBTXD-UVOLLTSDRT-WT
X1	INCLUDED	120V	SURFACE	THERMOPLASTIC EXIT/EMERGENCY LIGHT COMBO UNIT WITH SELF-DIAGNOSTICS	LITHONIA	LHQM LED _ R SD
X2	INCLUDED	120V	SURFACE	THERMOPLASTIC EMERGENCY UNIT WITH SELF-DIAGNOSTICS	LITHONIA	LHQM LED _ R SD
AA	LED (4900LM) 4000K	120V	SURFACE	WALL MOUNTED FIXTURE RATED FOR WET LOCATION, FIXTURE SHALL BE MOUNTED 12'-0" A.F.F. COORDINATE WITH ALL DISCIPLINES AND ARCHITECTURAL DOCUMENTS PRIOR TO ROUGH-INS.	LITHONIA	WDGE2 LED P3 40K 80CRI VF MVOLT DNAXD
BB	LED(14022LM)(218W)	120V	SURFACE	LED AREA LIGHT ON 28' POLE, INCLUDE BASE COVER RATED FOR WET LOCATION. UL LISTED POLE SHALL BE SIZE FOR MIN 110MPH INCLUDE VIBRATION DAMPERS.	LITHONIA	RSX1-LED-P3-40K-R3-MVOLT-RPA-DNAXD POLE MFR, KW INDUSTRIES #RTSP28-7.0-11-DM2180-BC-VD

GENERAL NOTES:
1.) EQUAL MANUFACTURER SHALL BE ACCEPTABLE WITH EQUAL PERFORMANCE OF SPECIFIED EQUIPMENT AND APPROVED BY ENGINEER.
2.) SUBMIT EQUAL MANUFACTURERS TO ENGINEER 10 DAYS PRIOR TO BID DATE.
3.) SUBMIT LIGHT FIXTURES CUTSHEETS TO OWNER FOR APPROVAL PRIOR TO ORDER.
4.) CONTRACTOR SHALL VERIFY THAT ANY IRRIGATION SPRINKLER HEAD IS AWAY FROM ANY LIGHT POLE A MINIMUM OF 75' TO AVOID CONSISTENT WATER TO LIGHT POLE. COORDINATE WITH IRRIGATION CONTRACTOR PRIOR TO ANY WORK.
5.) ANCHOR BOLTS SHALL BE OF NON-CORROSIVE MATERIAL (STAINLESS STEEL).

Electrical Disconnect Schedule

Mark	Description
FCCU-1	30AMP, 1-PHASE, 3W, N3R,208V, S/N, H.D, FUSED DISCONNECT
RTU-1	60AMP, 3-PHASE, 4W, N3R,208V, S/N, H.D, FUSED DISCONNECT
RTU-2	60AMP, 3-PHASE, 4W, N3R,208V, S/N, H.D, FUSED DISCONNECT
RTU-3	60AMP, 3-PHASE, 4W, N3R,208V, S/N, H.D, FUSED DISCONNECT
RTU-4	60AMP, 3-PHASE, 4W, N3R,208V, S/N, H.D, FUSED DISCONNECT
UH-1	30AMP, 1-PHASE, 3W, N1, 208V, S/N, N.F., H.D. DISCONNECT
WH-1	60AMP, 1-PHASE, 3W, N1,208V, S/N, N.F., H.D. ROTARY TYPE DISCONNECT

GENERAL NOTES:
1.) REFER TO BREAKER SIZE FOR FUSE SIZE.
2.) REFER TO PANELBOARD FOR DISCONNECT PHASES AND VOLTAGE.

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

Branch Panel: PANEL-DP

Location: ELECTRICAL ROOM 16 | Volts: 120/208 Wye | A.I.C. Rating: 35
Supply From: | Phases: 3 | Mains Type: MLO
Mounting: Surface | Wires: 4 | Mains Rating: 600 A
Enclosure: Type 1 | MCB Rating: 600 A

CKT	Circuit Description	Trip	Poles	Comments	A	B	C	Comments	Poles	Trip	Circuit Description	CKT
DP-1	RTU-1	45 A	3		7080 VA	7080 VA			1	30 A	RTU-4	DP-2
DP-3	–	–	–	–		7080 VA	7080 VA	–	–	–	–	DP-4
DP-5	–	–	–	–			7080 VA	7080 VA	–	–	–	DP-6
DP-7	RTU-2	45 A	3		5400 VA	5400 VA			3	45 A	RTU-3	DP-8
DP-9	–	–	–	–			5400 VA	5400 VA	–	–	–	DP-10
DP-11	–	–	–	–			5400 VA	5400 VA	–	–	–	DP-12
DP-13	PANEL-LR	100 A	3		6511 VA	6060 VA			3	20 A	PANEL-P	DP-14
DP-15	–	–	–	–			6464 VA	6160 VA	–	–	–	DP-16
DP-17	–	–	–	–			6311 VA	5140 VA	–	–	–	DP-18
DP-19	Space	–	1		–	1052 VA			2	100 A	FCCU-1	DP-20
DP-21	Space	–	1			–	1052 VA		–	–	–	DP-22
DP-23	Space	–	1				–	–	1	–	Space	DP-24
DP-25	Space	–	1		–	–			1	–	Space	DP-26
DP-27	Space	–	1			–	–		1	–	Space	DP-28
DP-29	Space	–	1					–	1	–	Space	DP-30
DP-31	Spare	20 A	1		0 VA	0 VA			1	20 A	Spare	DP-32
DP-33	Spare	20 A	1			0 VA	0 VA		1	20 A	Spare	DP-34
DP-35	Spare	20 A	1				0 VA	0 VA	1	20 A	Spare	DP-36
DP-37	UPPO	30 A	3		0 VA	0 VA			1	20 A	Spare	DP-38
DP-39	–	–	–	–		0 VA	0 VA		1	20 A	Spare	DP-40
DP-41	–	–	–	–			0 VA	0 VA	1	20 A	Spare	DP-42
		Total Load:			36814 VA	42625 VA	48811 VA					
		Total Amps:			324 A	373 A	410 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Equipment	1200 VA	100,00%	1200 VA	
HVAC	77992 VA	100,00%	77992 VA	Total Conn. Load: 131208 VA
Lighting - Exterior	420 VA	125,00%	540 VA	Total Est. Demand: 121372 VA
Other	600 VA	100,00%	600 VA	Total Conn.: 1144 A
Receptacle	32880 VA	65,21%	21440 VA	Total Est. Demand: 1058 A
Power	5000 VA	100,00%	5000 VA	
Lighting	5381 VA	125,00%	6726 VA	
Emergency Lighting	1200 VA	100,00%	1200 VA	
Water Heater	6000 VA	100,00%	6000 VA	

Notes:
1) PROVIDE INTEGRAL SURGE PROTECTION PER IDE, 100 A.

Branch Panel: PANEL-LR

Location: ELECTRICAL ROOM 16 | Volts: 120/208 Wye | A.I.C. Rating: 10
Supply From: PANEL-DP | Phases: 3 | Mains Type: MLO
Mounting: Surface | Wires: 4 | Mains Rating: 100 A
Enclosure: Type 1 | MCB Rating: 100 A

CKT	Circuit Description	Trip	Poles	Comments	A	B	C	Comments	Poles	Trip	Circuit Description	CKT
LR-1	Exterior Lighting	20 A	1		2660 VA	1200 VA			1	30 A	EMERGENCY LIGHTING	LR-2
LR-3	Lighting	20 A	1			870 VA	456 VA		1	20 A	Lighting - Parking	LR-4
LR-5	Lighting	20 A	1				1171 VA	540 VA	1	20 A	Lighting	LR-6
LR-7	Space	–	1		–	–			1	–	Space	LR-8
LR-9	Receptacle	20 A	1			800 VA	800 VA		1	20 A	Receptacle	LR-10
LR-11	Receptacle	20 A	1				800 VA	1000 VA	1	20 A	Receptacle	LR-12
LR-13	Receptacle	20 A	1		360 VA	400 VA			1	20 A	Receptacle	LR-14
LR-15	IT ROPT	20 A	2			3000 VA	600 VA		1	20 A	IT QUAD	LR-16
LR-17	–	–	–	–			3000 VA	600 VA	1	20 A	IT QUAD	LR-18
LR-19	Receptacle	20 A	1		200 VA	200 VA			1	20 A	Receptacle	LR-20
LR-21	FACP	20 A	1			200 VA	1200 VA		1	20 A	Receptacle	LR-22
LR-23	FIRE SUPPRESSION SYSTEM	20 A	1				200 VA	200 VA	1	20 A	RANGE HOOD	LR-24
LR-25	Receptacle	20 A	1		200 VA	200 VA			1	20 A	Receptacle	LR-26
LR-27	Receptacle	20 A	1			180 VA	180 VA		1	20 A	Receptacle	LR-28
LR-29	Receptacle	20 A	1				200 VA	1200 VA	1	20 A	Receptacle	LR-30
LR-31	Receptacle	20 A	1		1000 VA	0 VA			1	20 A	Receptacle	LR-32
LR-33	Receptacle	20 A	1			200 VA	0 VA		1	20 A	EF-5	LR-34
LR-35	EF-4	20 A	1				200 VA	200 VA	1	20 A	HVAC	LR-36
LR-37	Spare	20 A	1		0 VA	0 VA			1	20 A	Spare	LR-38
LR-39	Spare	20 A	1			0 VA	0 VA		1	20 A	Spare	LR-40
LR-41	Spare	20 A	1				0 VA	0 VA	1	20 A	Spare	LR-42
		Total Load:			6511 VA	6464 VA	6311 VA					
		Total Amps:			54 A	73 A	80 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	400 VA	100,00%	400 VA	
Lighting - Exterior	420 VA	125,00%	540 VA	Total Conn. Load: 34389 VA
Other	600 VA	100,00%	600 VA	Total Est. Demand: 32859 VA
Receptacle	16520 VA	65,00%	10160 VA	Total Conn.: 97 A
Lighting	5381 VA	125,00%	6726 VA	Total Est. Demand: 93 A
Emergency Lighting	1200 VA	100,00%	1200 VA	

Notes:

Branch Panel: PANEL-R

Location: ELECTRICAL ROOM 16 | Volts: 120/208 Wye | A.I.C. Rating: 10
Supply From: PANEL-DP | Phases: 3 | Mains Type: MLO
Mounting: Surface | Wires: 4 | Mains Rating: 100 A
Enclosure: Type 1 | MCB Rating: 100 A

CKT	Circuit Description	Trip	Poles	Comments	A	B	C	Comments	Poles	Trip	Circuit Description	CKT
R-1	Receptacle	20 A	1		540 VA	1000 VA			1	20 A	Receptacle	R-2
R-3	Receptacle	20 A	1			180 VA	180 VA		1	20 A	Receptacle	R-4
R-5	WATER HEATER	20 A	2				600 VA	180 VA	1	20 A	Receptacle	R-6
R-7	–	–	–	–	600 VA	200 VA			1	20 A	Receptacle	R-8
R-9	Receptacle	20 A	1			800 VA	200 VA		1	20 A	Receptacle	R-10
R-11	Receptacle	20 A	1				800 VA	800 VA	1	20 A	Receptacle	R-12
R-13	Receptacle	20 A	1						1	20 A	Receptacle	R-14
R-15	Receptacle	20 A	1			800 VA	800 VA		1	20 A	Receptacle	R-16
R-17	Receptacle	20 A	1				1000 VA	1000 VA	1	20 A	Receptacle	R-18
R-19	Receptacle	20 A	1		800 VA	800 VA			1	20 A	Receptacle	R-20
R-21	Receptacle	20 A	1			800 VA	800 VA		1	20 A	Receptacle	R-22
R-23	Receptacle	20 A	1				360 VA	800 VA	1	20 A	Receptacle	R-24
R-25	Receptacle	20 A	1		360 VA	400 VA			1	20 A	Receptacle	R-26
R-27	Receptacle	20 A	1			800 VA	800 VA		1	20 A	Receptacle	R-28
R-29	Power	20 A	1				2800 VA	2800 VA	1	20 A	Power	R-30
R-31	Receptacle	20 A	1		180 VA	180 VA			1	20 A	Receptacle	R-32
R-33	WATER HEATER	20 A	2			3600 VA						R-34
R-35	–	–	–	–			3000 VA					R-36
R-37	Spare	20 A	1		0 VA	0 VA			1	20 A	Spare	R-38
R-39	Spare	20 A	1			0 VA	0 VA		1	20 A	Spare	R-40
R-41	Spare	20 A	1				0 VA	0 VA	1	20 A	Spare	R-42
		Total Load:			6893 VA	9160 VA	11160 VA					
		Total Amps:			57 A	85 A	102 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Equipment	1200 VA	100,00%	1200 VA	
Receptacle	16560 VA	90,19%	15240 VA	Total Conn. Load: 30893 VA
Power	5000 VA	100,00%	5000 VA	Total Est. Demand: 29080 VA
Water Heater	6000 VA	100,00%	6000 VA	Total Conn.: 91 A
				Total Est. Demand: 72 A

Notes:

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VA	08/05/24	PRELIMINARY REVIEW

PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL SCHEDULES

PROJE CT: ---------

STRUCTURAL DESING: ---------

DRAWING BY: ---------

CHECKED BY: ---------

DATE : 08/05/2024

DRAWING NO: E4.1

SCAL E:

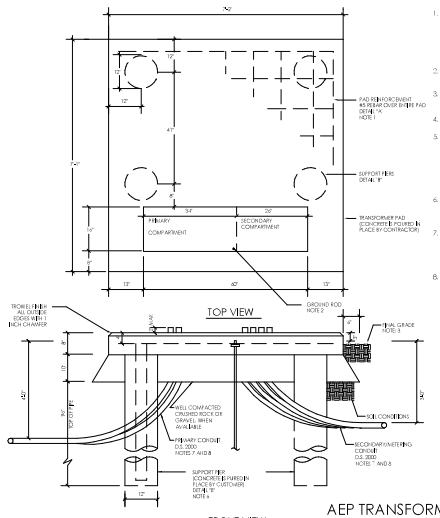
01

OCCUPANCY SENSOR SCHEMATIC

NO SCALE

02

CONCRETE PAD & PIERS FOR THREE PHASE PAD-MOUNTED TRANSFORMER



AEP TRANSFORMER CONCRETE PAD DETAIL

NO SCALE

AMERICAN ELECTRIC POWER COMPANY DISTRIBUTION STANDARDS

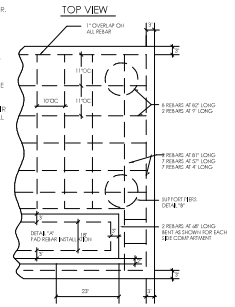
DETAIL - "B" - PIER REBAR INSTALLATION

NOTE:

1. SLAB REINFORCEMENT SHALL BE #5 REBARS, ON CENTER (OC) SPACING TO FOLLOW DIMENSIONS SHOWN ON THE DRAWING WITH 4" COVER. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AFTER 28 DAYS.
2. FOR GROUND ROD PLACEMENT, REFER TO DS 2235, 2236, OR 2237.
3. FINAL GRADE SHALL BE ESTABLISHED BEFORE INSTALLATION OF PAD.
4. CONCRETE PAD WITH PIERS IS TO BE INSTALLED OF PAD.
5. PIERS SHALL BE 12"X 9"MINIMUM IN DIAMETER, 8 FEET DEEP WITH 4 - #4 VERTICAL REBAR AND #3 TIES AT 12" ON CENTER (OC), AND PROVIDE A MINIMUM 3" COVER. THE #4 BEND BARS SHOULD BE 12" LONG IN THE HORIZONTAL DIRECTION.
6. PIERS REBAR BENT IN THE HORIZONTAL DIRECTION SO THAT IT MAY TIE IN WITH PAD REBAR.

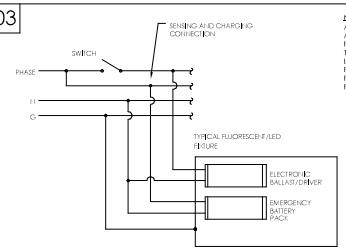
DETAIL - "A" - PAD INSTALLATION

7. THE NUMBER AND PLACEMENT OF PIERS TO BE DETERMINED BY ENGINEERING. CONDUIT MAY EXTEND IN ANY DIRECTION AS REQUIRED BY THE CUSTOMER.
8. BURIAL DEPTH OF CONDUIT IS DEFINED AS THE DISTANCE BETWEEN FINAL GRADE AND THE TOP OF THE CONDUIT. UNLESS OTHERWISE DESIGNATED BY ENGINEERING, CONDUITS SHALL BE INSTALLED AT A BURIAL DEPTH OF NOT LESS THAN 42" AND SECONDARY CONDUITS SHALL BE INSTALLED AT A BURIAL DEPTH OF NOT LESS THAN 24". THESE BURIAL DEPTHS ARE TO ALLOW FOR CHANGES TO THE SURFACE CONDITIONS. LOCAL ASSEMBLIES AND CODES MAY REQUIRE ADDITIONAL DEPTH. IF OTHER ARE KNOWN EXTENSIVE CHANGES TO THE FINAL GRADE SUCH THAT THESE DEPTHS ARE NOT MAINTAINED, CORRECTIVE ACTION SHALL BE TAKEN.



CONCRETE PAD AND PIERS FOR THREE PHASE PAD-MOUNTED TRANSFORMERS HIGH VOLTAGE UP TO 34.5KV GRD Y/19.92KV OR 25KV AND BELOW

03

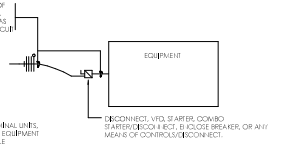


NOTE:
ALL EXIT LIGHT FIXTURE AND EMERGENCY FIXTURES SHALL BE ON THE NON-SWITCHED LEG. REFER TO LIGHT FIXTURE SCHEDULE FOR FIXTURE TYPE AND PLANS.

TYPICAL EMERGENCY LIGHT FIXTURE SCHEMATIC

NO SCALE

04



NOTE:
FOR MECHANICAL TERMINAL UNITS, REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE

EQUIPMENT CIRCUIT DETAIL

NO SCALE

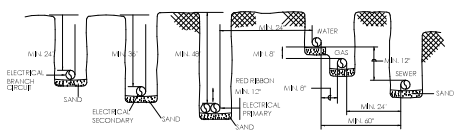
05

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 48 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS PIPES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



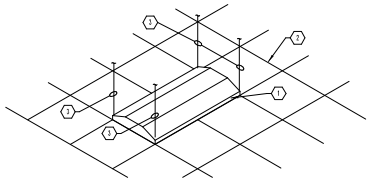
TRENCH DETAIL

NO SCALE

06

KEYED NOTES:

1. 2'x 4' LAY-IN LED/FLUORESCENT FIXTURE
2. SUSPENDED CEILING
3. TIE WIRE. CONNECT TO ALL FOUR CORNERS OF FIXTURE TO TOP OF STRUCTURE. INDEPENDENT OF CEILING SUPPORTS.

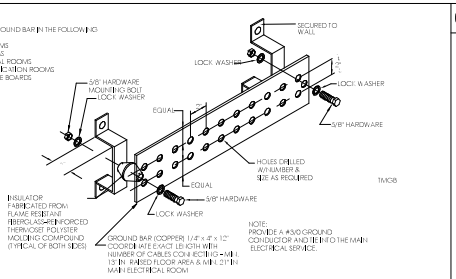


TYPICAL LAY-IN FIXTURE SUPPORT

NO SCALE

07

PROVIDE GROUND BAR IN THE FOLLOWING ROOMS:
1. MDF ROOMS
2. IDF ROOMS
3. ELECTRICAL ROOMS
4. COMMUNICATION ROOMS
5. TELEPHONE BOARDS

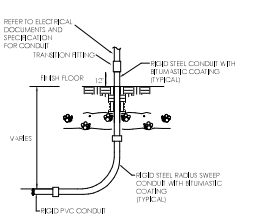


NOTE:
PROVIDE A #3/0 GROUND CONDUCTOR AND TIE INTO THE MAIN ELECTRICAL SERVICE.

WALL MOUNTED SINGLE-POINT GROUND BAR DETAIL

NO SCALE

08

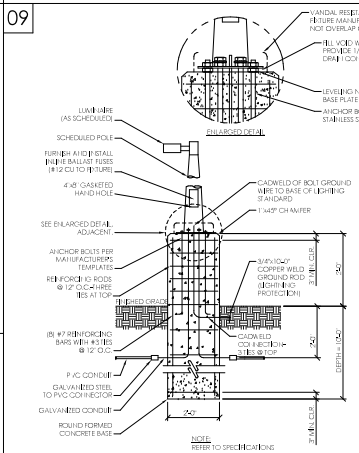


NOTES:
1. SEE ELECTRICAL DOCUMENTS FOR SIZES.
2. THIS APPLIES TO POWER AND SPECIAL SYSTEMS CONDUITS.

TYPICAL UNDERGROUND CONDUIT -ABOVE GROUND INSTALLATION

NO SCALE

09



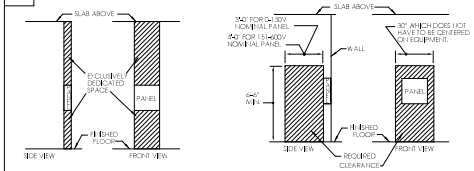
NOTE:
REFER TO STRUCTURAL DOCUMENTS FOR STRUCTURAL REQUIREMENTS

NOTE:
REFER TO SPECIFICATIONS FOR FIXTURE SCHEDULE.

PARKING LOT LIGHT POLE BASE

NO SCALE

10

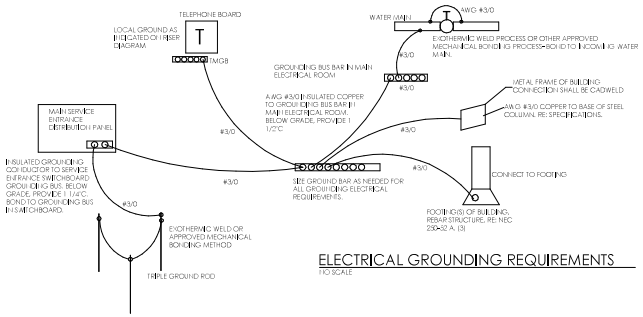


NOTE:
REFER TO THE LATEST NATIONAL ELECTRICAL CODE AND LOCAL CODES.

TYPICAL PANEL BOARD REQUIRED CLEARANCE

NO SCALE

11



ELECTRICAL GROUNDING REQUIREMENTS

NO SCALE

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

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VA	08/05/24	PRELIMINARY REVIEW

PRJE CT: Mc ALLEN CLINIC

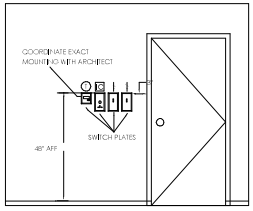
LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL DETAILS

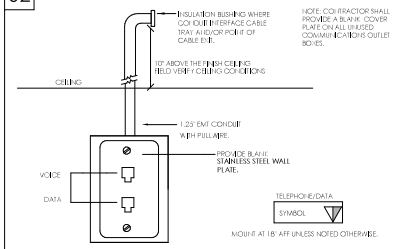
PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E5.1
SCAL E: 1/8" = 1'-0"	

01



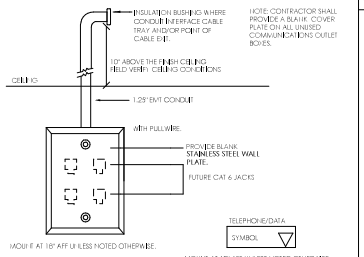
SWITCH PLATE LOCATION DETAIL
NO SCALE

02



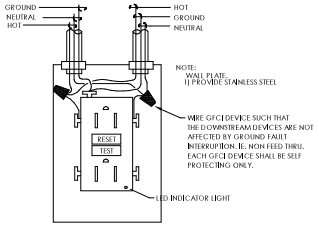
VOICE/ DATA DETAIL
NO SCALE

03



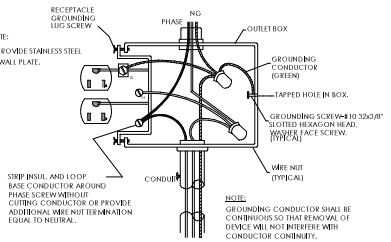
DATA DETAIL
NO SCALE

04



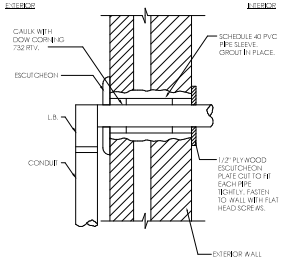
GFI RECEPTACLE- WIRING DIAGRAM
NO SCALE

05



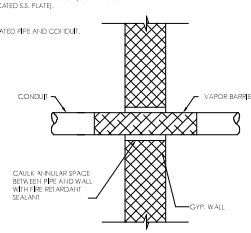
TYPICAL RECEPTACLE GROUNDING DETAIL
NO SCALE

06



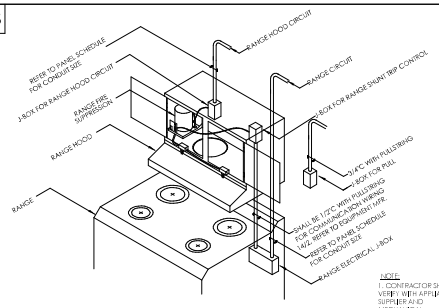
CONDUIT ENTRY THROUGH EXTERIOR
NO SCALE

07



CONDUIT THROUGH FIRE RATED WALL
NO SCALE

08



RANGE HOOD FIRE SUPPRESSION SYSTEM
NO SCALE

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

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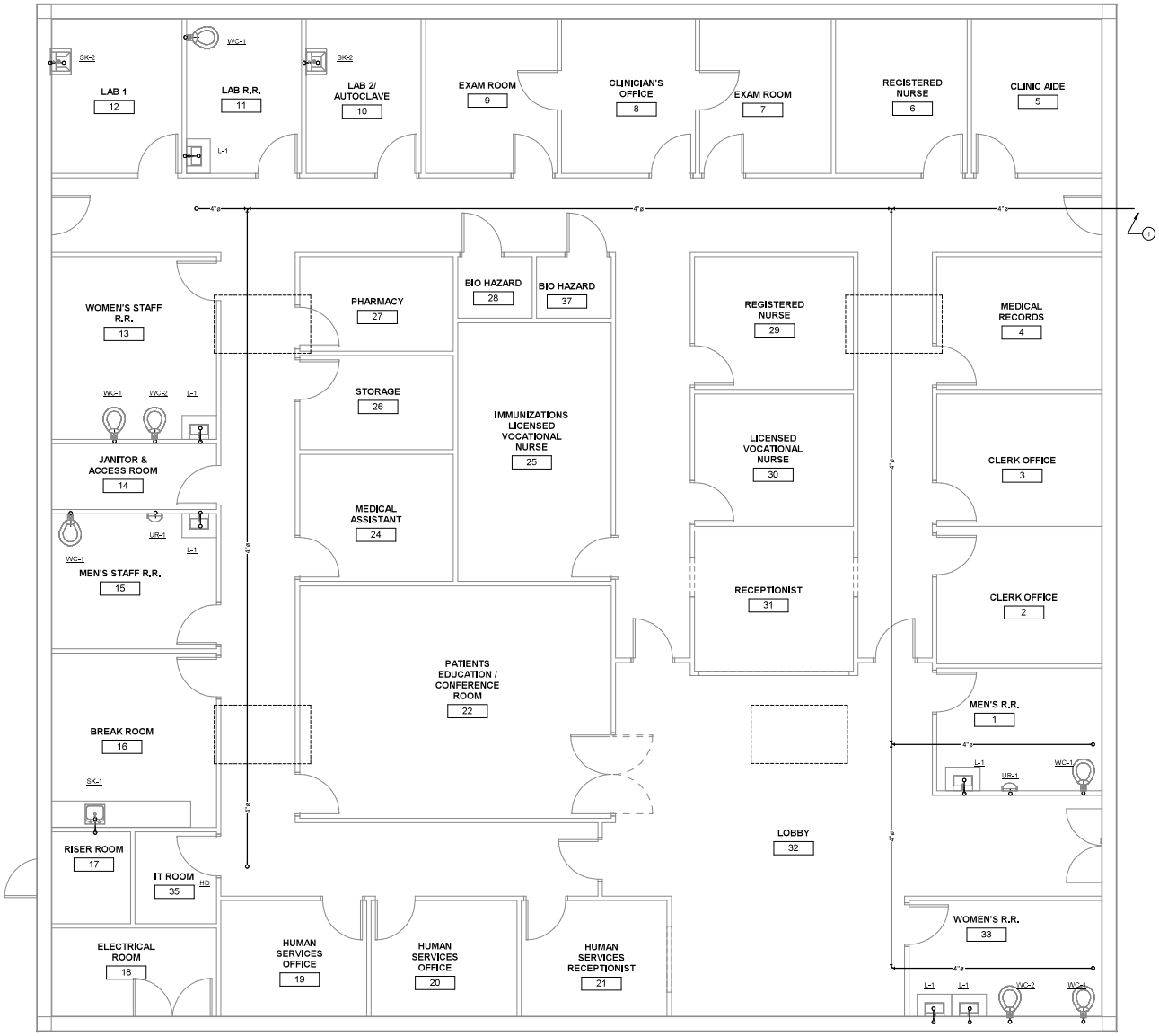
LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : ELECTRICAL DETAILS #2

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: E5.2
SCAL E: 1/8" = 1'-0"	



PLUMBING KEYED NOTES	
1	REFER TO CIVIL SITE PLAN FOR CONTINUATION OF PLUMBING FIVE FEET AWAY FROM BUILDING. PLUMBING CONTRACTOR SHALL VERIFY LOCATIONS, INVERT SLOPE, ELEVATION, AND DIRECTION OF FLOW WITH CIVIL ENGINEERING DRAWINGS.

① PLUMBING SEWER - FIRST FLOOR
1/4" = 1'-0"

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	08/05/24	PRELIMINARY REVIEW

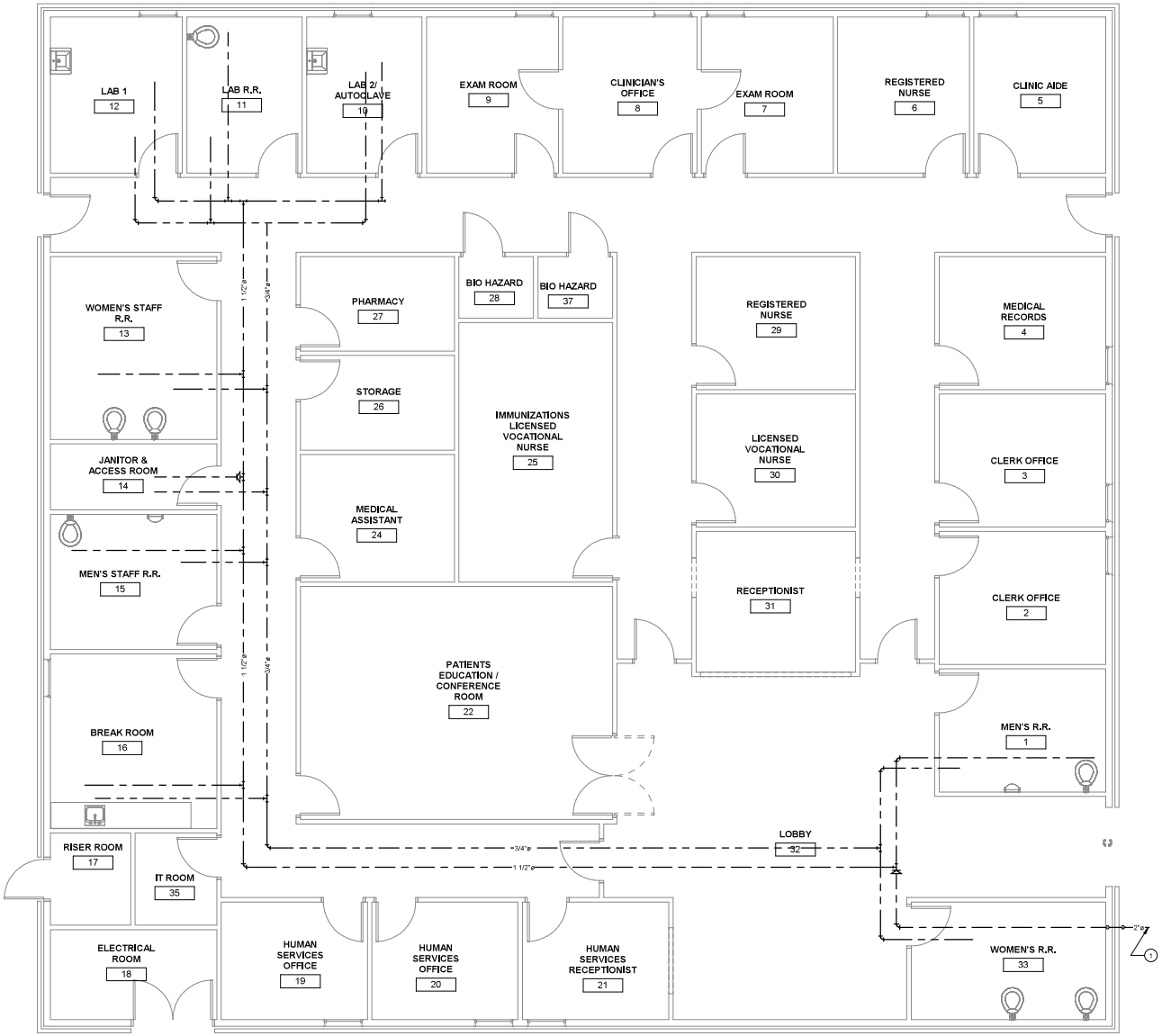
PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : PLUMBING SEWER & VENT FLOOR PLAN

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: P1.1
SCAL E: 1/4" = 1'-0"	



1 PLUMBING DOMESTIC WATER- FIRST FLOOR
1/4" = 1'-0"

PLUMBING KEYED NOTES	
1	REFER TO CIVIL SITE PLAN FOR CONTINUATION OF DOMESTIC WATER PIPE.

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VA	08/05/24	PRELIMINARY REVIEW

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LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : PLUMBING DOMESTIC WATER FLOOR PLAN

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: P2.1
SCAL E: 1/4" = 1'-0"	

ABBREV. / DESCRIPTION

ABBREV.	DESCRIPTION
AC	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
ASA	AMERICAN STANDARDS ASSOCIATION
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AW	ACID WASTE
AWWA	AMERICAN WATER WORKS ASSOCIATION
AV	ACID VENT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMPRESSED AIR
CI	CAST IRON
CO	CLEAN OUT
CU	COPPER
DN	DOWN
EQ	EQUAL
FCO	FLOOR CLEANOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
GAL	GALLON(S)
GALV	GALVANIZED
GW	GREASE WASTE
HB	HOSE BIBB
HP	HORESPOWER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
RD	ROOF DRAIN(S)
RE:4/P6	REFER TO DETAIL 4 DRAWING P-6
RO	REVERSE OSMOSIS
SD	STORM DRAIN
SPEC	SPECIFICATION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
VTR	VENT THRU ROOF
V	VACUUM
W/	WITH
WCO	WALL CLEAN OUT
YCO	YARD CLEAN OUT

PLUMBING GENERAL NOTES: (ALL SHEETS)

A. ALL WORK AND MATERIAL SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.

B. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH ALL ELECTRICAL WORK, MECHANICAL WORK AND STRUCTURAL MEMBERS. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.

C. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION OF WORK.

D. SLEEVE ALL OUTSIDE WALL, FLOOR SLAB, AND GRADE BEAM PENETRATIONS PER DETAILS AND PER CODE.

E. LOCATE ALL PLUMBING VENTS TO ROOF (VTR) SO THAT THEY TERMINATE A MINIMUM OF 10'-0" AWAY FROM ANY VERTICAL SURFACE AND 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKES.

F. RECORD INVERT ELEVATIONS OF ALL YCO'S ON AS-BUILT DRAWINGS.

G. MINIMUM 3" WASTE LINE BELOW FLOOR AND MINIMUM 2" WASTE PIPER, UNLESS NOTED OTHERWISE (UNO).

H. PLUMBING CONTRACTOR SHALL PAY FOR ALL UTILITY CONNECTIONS FEES, PERMITS, TESTS AND INSPECTIONS. FURNISH 3 COPIES OF INSPECTION CERTIFICATE BEFORE REQUESTING FINAL PAYMENT.

I. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND REPAIRING ALL AREAS WHICH ARE DAMAGED BY HIS OPERATIONS.

J. CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW. HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS.

K. PRESSURE TEST ALL INSTALLATIONS PRIOR TO CONNECTING EQUIPMENTS.

L. LABEL ALL PIPING PER ANSI STANDARD.

M. PROVIDE PROPER INSULATION ON ALL HOT WATER PIPING, STORM PIPING AND CONDENSATE PIPING.

N. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGHING TO FIXTURES AND EQUIPMENTS.

O. PROVIDE ANY BACK FLOW PREVENTION DEVICE REQUIRED BY CODE OR GOVERNING AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY OR LOCAL AGENCIES AND INCLUDE COST OF SAME IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.

P. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.

Q. ALL EXPOSED PIPING FOR DESIGNATED DISABLED ACCESS FIXTURES SHALL BE COVERED OR OTHERWISE WRAPPED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND LOCAL AUTHORITY.

R. ALTERNATE MATERIALS NOT IDENTIFIED IN SPECIFICATIONS/DRAWINGS BUT APPROVED BY LOCAL AUTHORITY SHALL BE SUBMITTED TO ARCHITECT AND PLUMBING ENGINEER FOR REVIEW PRIOR TO INSTALLATION.

S. ISOMETRIC DIAGRAMS ARE FOR SIZING PURPOSES ONLY. AND SHALL NOT BE USED FOR MATERIAL TAKE-OFFS, OR BE CONSTRUED TO INDICATE ACTUAL DETAILS INSTALLATION.

T. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

U. EVERY FLOOR DRAIN, FLOOR SINK OR HUB DRAIN SHALL BE SERVED BY AN AUTOMATIC TRAP PRIMER, U.N.O.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BALL VALVE		DOMESTIC COLD WATER
	CHECK VALVE		DOMESTIC HOT WATER
	GATE VALVE		DOMESTIC HOT WATER RETURN
	UNION		SANITARY SEWER VENT
	DIRECTION OF FLOW		SANITARY WASTE LINE
	WALL CLEANOUT	140°	140F HOT WATER
	FLOOR CLEANOUT W/ ARD CLEAN OUT		SANITARY DIRECTION OF FLOW
	FLOOR SINK		BRANCH - TOP CONNECTION
	FLOOR DRAIN		PIPE RISER
	WALL HYDRANT OR HOSE BIBB		PIPE DROP
			POINT OF CONNECTION (APPROXIMATED FIELD VERIFY EXACT POINT OF CONNECTION)

NOTE: 1. NOT ALL SYMBOLS USED ON THIS PROJECT
2. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDER SIDE OF WATER CLOSET OR DOOR OPENING.
3. INSTALL ADA APPROVED FLUSH VALVE HANDLE FOR ADA PLUMBING FIXTURES.

APPLICABLE BUILDING CODE

2018 International Building Code
2018 International Plumbing Electrical Code
2018 International Mechanical Code
2018 International Energy Conservation Code
2018 International Existing Building Code
2017 National Electrical Code of the National Fire Protection Association
2018 International Fire Code
2012 Texas Accessibility Standards

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	CONNECTION SIZE: San. Sewer	Vent	Cold Water	Hot Water	DESCRIPTION
WC-1	WATER CLOSET FLOOR MOUNTED ADA	4"	2"	1"	-	KOHLER "HIGHCLIFF ULTRA" MODEL NO. K-76057, FLOOR MOUNTED WATER CLOSET, WITH ELONGATED RIM, 1.6-GPF TRAP HEIGHT, VITREOUS CHINA, SIPHON JET FLUSH ACTION. 10 - 12" ROUGH-IN, WITH SLOAN "ROYAL" MANUAL FLUSHOMETER VALVE MODEL NUMBER 111 - .28, FLOW RATE 11.28 GPF). INCLUDES 1" TOP SPUD AND 2 BOLTS CAPS. COMPLETE WITH BEMIS MODEL NO. 1955SSTPR, OPEN FRONT SEAT LESS COVER. FLUSH LEVER SHALL BE MOUNTED ON APPROACH SIDE OF FIXTURE.
WC-2	WATER CLOSET FLOOR MOUNTED	4"	2"	1"	-	KOHLER "WELLCOMME ULTRA" MODEL NO. K-76057, FLOOR MOUNTED WATER CLOSET, WITH ELONGATED RIM, 1.6-1.28 TRAP HEIGHT, VITREOUS CHINA, SIPHON JET FLUSH ACTION. 10 - 12" ROUGH-IN, WITH SLOAN "ROYAL" MANUAL FLUSHOMETER VALVE MODEL NUMBER 111 - .28, FLOW RATE 11.28 GPF). INCLUDES 1" TOP SPUD AND 2 BOLTS CAPS. COMPLETE WITH BEMIS MODEL NO. 1955SSTPR, OPEN FRONT SEAT LESS COVER. FLUSH LEVER SHALL BE MOUNTED ON APPROACH SIDE OF FIXTURE.
UR-1	URINAL (STANDARD & HANDICAPPED) REFER TO ARCH'L DRAWING FOR MOUNTING HEIGHTS	2"	2"	3/4"	-	KOHLER "DEXTER" MODEL NO. K-5016-ER, SIPHON JET WALL HUNG URINAL, VITREOUS CHINA, 1 GPF FLUSH OR LESS, COMPACT DESIGN, WITH INTEGRAL TRAP, 3/4" TOP INLET, 14" LIP. INCLUDES WALL HANGERS, 2" PS OUTLET FLANGE AND RUBBER GASKET. WITH SLOAN "ROYAL" MANUAL URINAL FLUSHOMETER VALVE MODEL NUMBER 186-0.5, FLOW RATE (0.5 GPF). INCLUDES 3/4" TOP SPUD AND 2 BOLTS CAPS. GT PRIVATE ZURN CARRIER SYSTEM MODEL NO. Z-1221.
L-1	LAVATORY WALL HUNG ADA REFER TO ARCH'L DRAWING FOR MOUNTING HEIGHTS	2"	2"	1/2"	1/2"	SCHOLAR "BRENHAM" MODEL NO. K-2997-4 (21-1/2" WALL HUNG LAVATORY, WITH OVERFLOW. INCLUDES WALL HANGER. VITREOUS CHINA, WITH 4-INCH CENTER FAUCET HOLES. PROVIDE FAUCET EQUAL TO MOEN MODEL 6410SRS, SINGLE HANDLE, FLOW RATE (1.5 GPM) . VANDAL RESISTANT, ADA APPROVED. PROVIDE ANTI-RIGHTATION SECURITY SCREW. PROVIDE MODEL NO. 9953D. PROVIDE PROTECTIVE COVER SHIELD ZURN AQUASPEC PART MODEL NO. Z6903-WS ON P-TRAP AND STOPS. PROVIDE ZURN CARRIER SYSTEM MODEL Z1231 PROVIDE P-TRAP, 17 GAUGE CHROME DEARBORN BRAND PROVIDE BRADLEY WALL MOUNTED SINGLE OUTLET THERMOSTATIC MIXING VALVE (TMV), WATTS LFMMV-1.5-M1, SET TEMPERATURE AS PER LOCAL JURISDICTION.
SK-1	SINGLE-COMPARTMENT SINK ADA COMPLIANT	2"	2"	1/2"	1/2"	ELKAY LRAD2219-5-GR 18-GAUGE, FULLY UNDERCOATED, STAINLESS STEEL, SINGLE-BOWL, THREE FAUCET HOLE, OFF-CENTER DRAIN, ADA COMPLIANT, 5-1/4-INCH OUTLET. FAUCET: ELKAY LKD244639HS1BS, FLOW RATE (2.2 GPM) . LEDGE MOUNTED, 8-INCH CENTER-SET ESCUTCHEON, TWO WIDE BLADE HANDLES, 8-INCH GOOSENECK SPOUT, SUPPLY: MCGUIRE 21x-7 SERIES, TRAP: MCGUIRE 8912 SERIES, STRAINER AND TAILPIECE: MCGUIRE 151 SERIES, BASKET TYPE.
MS-1	MOP SINK	3"	2"	1/2"	1/2"	FIAT MODEL NO. TSB1100, 24"-24"-12" TERRAZZO MOP SINK, COMPLETE WITH FAUCET MODEL 832AA-A, MOP SINK SHALL INCLUDE ALL HOSE BRACKETS, HOSE, AND MOP HANGER. WITH 3" DRAIN WITH STRAINER & DEEP SEAL P-TRAP. PROVIDE WALL GUARD MSG2424.
EDF-1	ELECTRIC WATER COOLER W/ Water Refilling Station REFER TO ARCH'L DRAWING FOR MOUNTING HEIGHTS	2"	2"	1/2"	-	BI-LEVEL ELECTRIC WATER COOLER SHALL BE "ELKAY" MODEL No. LZSTLBWSVRSK WITH Elkay EZH2O Water Refilling Station, CAPACITY OF 8.0 GALLONS, STAINLESS STEEL BASIN WITH INTEGRAL DRAIN GRID AND EMBOSSED BUBBLER PAD, LEAD FREE ADA COMPLIANT, WITH ZURN CARRIER MODEL No. Z-1223, WITH APRON MODEL NO. LKAPS-21 TO COMPLY WITH TAS AND ADA.
IM-C	ICE MAKER CONNECTION BOX	-	-	1/2"	-	CONNECTION BOX EQUAL TO GUY GRAY NO. BMB75 PREFABRICATED RECESSED BOX WITH COMPRESSION ANGLE VALVE.
HB-1	HOSE BIB EXTERIOR GENERAL USE	-	-	3/4"	-	MILD TEMPERATURE WALL HYDRANT SHALL BE WADE MODEL #8600AT-175 3/4" INLET WITH BRONZE CASING, BRONZE FACE AND STRAIGHT INLET CONNECTION WITH INTEGRAL BACKFLOW PREVENTER.
TMV-1	THERMOSTATIC MIXING VALVE	-	-	3/4"	3/4"	BRADLEY THERMOSTATIC MIXING VALVE MODEL S19-A205-AMV25 SURFACE. PROVIDE WITH CABINET TO BE EQUAL TO BRADLEY CABINET MODEL CAB-MV25-A-P-A25-W SURFACE MOUNT STAINLESS STEEL CABINET.
TD-1	TRENCH DRAIN	4"	2"	-	-	ZURN No. Z-886-4-D-D-S-M1 WIDE PRE-SLOPED POLYETHYLENE COMPOSITE 80' SECURE-IT ALTRENCH DRAIN UNIT FLUSH WITH LOW POINT OF AREA. PROVIDE TRENCH BOTTOM OUTLET AND DOME STRAINER AT LOWEST POINTS OF CONTINUOUS SLOPE SEGMENTS OR AS SHOWN PLAN AND WITH DEEP SEAL P-TRAP, WITH PS STAINLESS STEEL HEAVY DUTY PERFORATED HEEL PROOF SEGMENTAL GRATE WITH LOCKDOWN HARDWARE AND STAINLESS STEEL FRAME. PROVIDE TRAP PRIMER CONNECTION. REFER TO ARCHITECTURAL PLANS FOR TRENCH OVERALL LENGTH DIMENSIONS.
FD-1	RESTROOM FLOOR DRAIN	AS NOTED ON PLANS				EQUAL TO JOSAM PART # 33000-Y-A-Y-NH, CAST IRON BODY WITH CLAMP RING, FLANGE, ADJUSTABLE NI-ALOY STRAINER, HUB OUTLET WITH GASKET AND 1/2" PRIMER TAP.
FD-2	FLOOR DRAIN	AS NOTED ON PLANS				EQUAL TO JOSAM PART # 33000-Y-TEY, COATED CAST IRON BODY WITH CLAMP RING, TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, ADJUSTABLE NI-ALOY FUNNEL STRAINER.
FCO	FLOOR CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C1100-A-T" ADJUSTABLE FLOOR CLEANOUT, COMPLETE WITH NICKEL BRONZE TOP ASSEMBLY, LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, AND PRIMARY GASKET SEAL.
YCO	YARD CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C1-1220" LACQUERED CAST IRON CLEANOUT, THREADED BRONZE PLUG FOR AIR TIGHT SEAL AND STANDARD REINFORCED SATIN FINISHED NICKEL BRONZE ADJUSTABLE TOP ASSEMBLY.
WCO	WALL CLEANOUT	AS NOTED ON PLANS				MIFAB MODEL "C1-1400-AD" CAST BRONZE CLEANOUT PLUG, COMPLETE WITH STAINLESS STEEL WALL ACCESS COVER AND ANCHOR SCREW. MOUNT AT 24" A.F.F.

NOTES:

1.) INSULATE ALL WATER AND WASTE PIPING UNDER LAVATORIES WITH HANDY-SHIELD JACKET BY PLUMBEREX.

2.) PROVIDE SINGLE FIXTURE WATER HAMMER ARRESTORS EQUAL TO MINI-PESTER , HYDRA-PESTER SIOUX CHIEF. FOR ALL PLUMBING FIXTURES IN THE WATER SUPPLY SYSTEM.

3.) ALL VITREOUS CHINA FIXTURES SHALL BE WHITE.

PLUMBING PIPING MATERIAL:

1. SANITARY DRAIN & VENT INSIDE BUILDING BELOW GRADE: SCHEDULE 40 PVC.
2. SANITARY DRAIN OUTSIDE BUILDING: SCHEDULE 40 PVC.
3. SANITARY DRAIN & VENT INSIDE BUILDING ABOVE GRADE: NO-HUB CAST IRON.
4. SANITARY DRAIN & VENT IN PLENUM CEILING: NO-HUB CAST IRON.
5. ACID WASTE PIPING: PP POLYPROPYLENE
6. ACID VENT IN PLENUM CEILING: PP-PVDF
7. DOMESTIC HOT & COLD WATER: COPPER, TYPE "L" HARD DRAWN
8. DOMESTIC WATER BELOW GRADE: COPPER, TYPE "K" SOFT W/ NO SEALED
9. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING 2" SIZE AND SMALLER: COPPER, TYPE "L" HARD DRAWN
10. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING OVER 2" SIZE: SDR 26 CLASS 160 PVC.

ELECTRIC WATER HEATER SCHEDULE

DESIG.	STORAGE GALLONS	RECOVERY G.P.H.	DEGREE RISE °F	WATER TEMP. LEAVING	WATER INLET	WATER OUTLET	REMARKS
WH-1	50	68	60°	120°	3/4"	3/4"	RHEEM MODEL NO. ELDS50-TB, 4.5KW, 208V/1 , ELECTRIC TANK TYPE. PROVIDE 5 GALLON EXPANSION TANK. PROVIDE 8 INCH CONCRETE PAD.

RECIRCULATING PUMP SCHEDULE

MARK	GPM	FEET HEAD	POWER	RPM	VOLTS/PHASE	REMARKS
CP-1	0-11	0-13	44W	3250	120 volts/1	EQUAL TO TACO MODEL 006E3LC, COMPSOITE CASING, WET ROTOR CIRCULATOR, MAINTENANCE FREE, WET-ROTOR, IN-LINE, 3SETTING SPEED DIAL. PROVIDE WITH GRUNDFOS AQUASTAT TIMER AND THERMOSTATIC CONTROL KIT.

B2Z ENGINEERING

TRINITY
MEP ENGINEERING
3533 Moreland Dr, Ste A | Weslaco, Tx
78596 p: 956.973.0500 | f: 956-551-5760
www.trinitymep.com | Copyright 2020
Texas Registered Engineering Firm - F10382
Project number: 24.2.2
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RE V#	DAT	DESCRIPTI ON:
V#	08/05/24	PRELIMINARY REVIEW

PROJECT: Mc ALLEN CLINIC

LOCATION: McALLEN, TEXAS.

OWNER: ----------

PLAN: PLUMBING LEGEND

PROJECT: ---------

STRUCTURAL DESIGNING: ---------

DRAWING BY: ---------

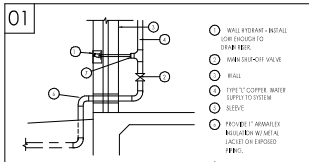
CHECKED BY: ---------

DATE: 07/05/2024

DRAWING NO: P3.1

SCALE: 1/8" = 1'-0"

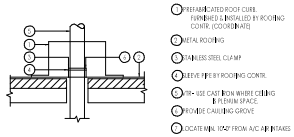
01



WATER SERVICE ENTRANCE DETAIL

NO SCALE

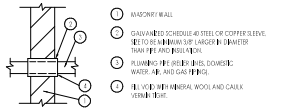
05



VENT THRU ROOF DETAIL

NO SCALE

09



WALL SLEEVE DETAIL

NO SCALE

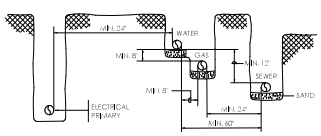
02

CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 90% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

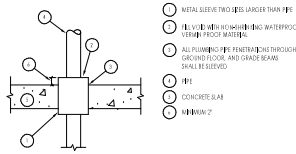
MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND STEAM. MAINTAIN A MIN. OF 12" VERTICALLY OR OF WHICHEVER IS GREATER BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.



TRENCHING DETAIL

NO SCALE

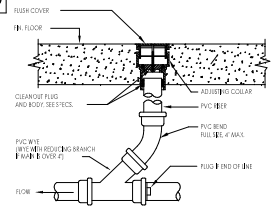
06



FLOOR PENETRATION DETAIL

NO SCALE

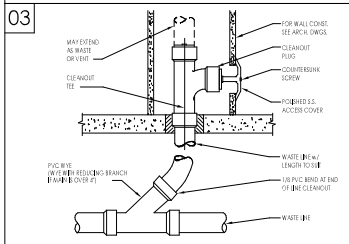
10



FLOOR CLEANOUT DETAIL

NO SCALE

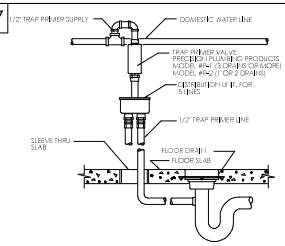
03



WALL CLEANOUT DETAIL

NO SCALE

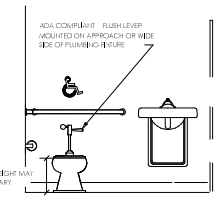
07



TRAP SEAL PRIMER DETAIL

NO SCALE

11



ADA WATER CLOSET DETAIL

NO SCALE

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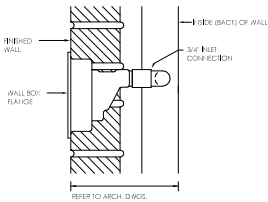
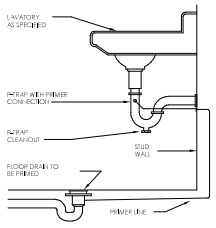


WALL HYDRANT DETAIL

NO SCALE

08



TRAP SEAL PRIMER INSTALLATION DETAIL

NO SCALE

12

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3533 Moreland Dr, Ste A I Weslaco, Tx
78596 p 956.973.0500 I f 956-551-5760
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RE V#	DAT	DESCRIPTI
	08/05/24	PRELIMINARY REVIEW

PRJE CT: Mc ALLEN CLINIC

LOCATIO N: McALLEN, TEXAS.

OWNE R: ----------

PLAN : PLUMBING DETAILS

PROJE CT: ---------	STRUCTURAL DESING: ---------
DRAWING BY: ---------	CHECKED BY: ---------
DATE : 07/05/2024	DRAWING NO: P4.1
SCAL E: 1/8" = 1'-0"	

ATTACHMENT B
PROJECT BUDGET

The project has a budget of One Million Three Hundred Thousand Dollars and 00/100 ($1,300,000.00)

ATTACHMENT C
DRAFT PROJECT SCHEDULE

TO BE PROVIDED BY CONTRACTOR UPON AWARD OF PROJECT

ATTACHMENT D
DRAFT COST PROPOSAL FORM

PROPOSAL FORM – MCALLEN HEALTH CENTER IMPROVEMENT PROJECT
FOR CONSTRUCTION MANAGER AT RISK SERVICES
HIDALGO COUNTY

NOTE: CM AT RISK PROPOSER SHALL FILL IN AMOUNTS FOR ALL APPLICABLE COST FOR EACH PROEJCT AND PROVIDE TOTAL FOR EACH LINE. IF THERE IS NO COST BY THE PROPOSER FOR AN ITEM, THE PROPOSER MUST PLACE A ZERO TO ILLUSTRATE NO COST. IF A LINE ITEM IS NOT REASONABLY PRICED BY THE PROPOSER, THE OWNER WILL ASSUME AN AVERAGE COST (FROM OTHER PROPOSERS) FOR THAT ITEM. THE OWNER WILL NOT ALLOW ANY ITEM LISTED BELOW TO BE TRANSFERRED TO SUBCONTRACTORS OR TO THE "COST OF THE WORK" UNLESS NOTED BY THE OWNER ON THE PROPOSAL FORM INLUDED IN THE RFQ/P DOCUMENTS.

	Summary	Improvements
1	Pre-construction fees:	$ 5,000.00
2	Construction services percentage:	%
	Construction budget amount	$
	Construction fee amount - % x budget amount	$
3	Field & office staff cost: (from line 33 below)	$
4	General conditions (from line 86 below)	$
5	Total = (Pre-Construction + Construction Services Fee + Field & Office Staff + General Conditions)	$
	Proposal Signature	
	Name of Company	Signature / Title

	Staff to be charged to the project: Include all necessary overhead, insurances, and multipliers within each line where applicable. General home office staff will be included in the Construction Fee.	**Improvements**
6	Project Manager	
7	Number of weeks included	W
8	Percentage of time dedicated to the project	%
9	Superintendent On-Site	
10	Number of weeks included	W
11	Percentage of time dedicated to the project	%
	Subtotal for Field & Office Staff	$

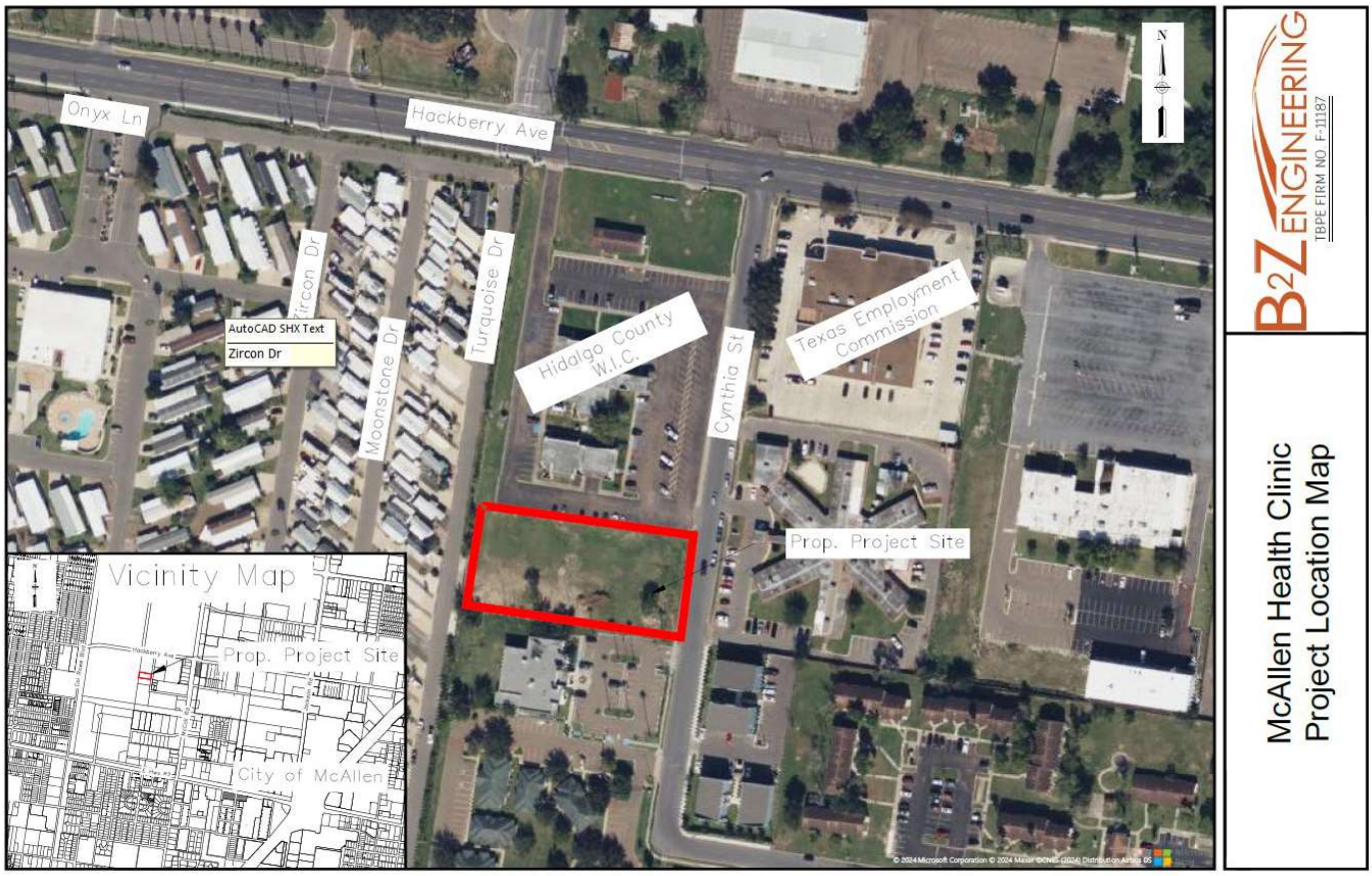
	General conditions: Include all necessary overhead, insurances, taxes and multipliers within each line where applicable:	**Improvements**
12	**Field office including accommodations for Project Manager:**	$
13	Job office including rental, moving and set-up	$
14	Office equipment	$
15	Computers	$
16	Office Supplies	$
17	Phone, fax and internet service	$
18	Utilities for job office	$
19	Drinking water, ice, cups, coffee and etc for meetings	$
20	Office furniture & furnishings	$
21	Postage and express shipping costs	$
22	Miscellaneous document printing	$
23	Janitorial services	$
24	**Staff Support Services**	$
25	Vehicle, rental, fuel and insurance	$
26	Cell Phone	$
27	**Miscellaneous project requirements:**	$
28	Temporary project signage	$
29	Layout	$
30	Power consumption	$

31	Water Consumption	$
32	Temporary sanitary facilities	$
33	Equipment / storage trailers	$
34	General handling & hoisting, fuel & maintenance	$
35	Safety equipment, labor & supplies	$
36	Field engineering labor, equipment	$
37	Small tools and consumables	$
38	Temporary fencing	$
39	Erosion control	$
40	Barricades / protection / safety rails / equipment	$
41	Equipment Rentals / Scaffolding	$
42	Construction clean up (daily and weekly)	$
43	Final cleaning (site & building)	$
44	Dumpsters (rental & disposal costs, exclude demolition)	$
45	Independent testing and inspections	$
46	Permit and impact fees	$
47	**CM Insurance and Bonding**	$
48	Builder's risk insurance	$
49	General commercial liability	$
50	Performance & payment bonds (Contractor and Subcontractor)	$
51	**Subtotal for General Conditions**	$

ATTACHMENT E
PROCUREMENT SCHEDULE

RFQ/P ACTIVITIES:		
	EVENT DESCRIPTION	**DATE:**
1.	**Hidalgo County Commissioner's Court** Approval of RFQ/P Packet and Authority to Advertise	09/03/2024
2.	1st Advertisement	09/07/2024
3.	Start RFQ/P Packet Distribution	09/07/2024
4.	2nd Advertisement	09/14/2024
5.	PRE-SUBMITTAL MEETING – Hidalgo County Purchasing Dept, (Conference Room) 2802 S Bus Hwy 281, Edinburg TX 78539	09/16/2024
6.	Deadline for Questions	09/17/2024
7.	Deadline for Answers	09/19/2024
8.	**RFQ/P SUBMITTAL OPENINGS**	09/25/2024

ATTACHMENT F
PROJECT LOCATION



Proposed Project Site

EXHIBIT "B"

"EVALUATION CRITERIA/FORMS"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

EXHIBIT "B"

Evaluation Form

This form is provided for Respondent's reference and will be used by the selection committee's evaluators to grade and rank each Respondent's submitted Statement of Qualifications/Proposal.

RFQ/P Evaluations – Evaluator's Respondent Grading Sheet (one per respondent)

RFQ/P No. 24-0312-09-25-13

RFQ/P Project: [ARPA-24-340-352] - Construction Manager at Risk (CMAR) for the McAllen Health Center Improvement Project

Respondent's Name: _____

Evaluation Criteria	Max Points	Points Awarded
Understanding the Project	**10**	
Firm Qualifications & Approach	**25**	
Personnel & Staffing	**20**	
Fee Proposal	**45**	

Evaluator's Name: _____

Evaluator's Signature: _____ Date: _____

RFQ/P Evaluations – Evaluator's Ranking Sheet (one per evaluator)

RFQ/P NO. 24-0312-09-25-13

RFQ/P Project: [ARPA-24-340-352] - Construction Manager at Risk (CMAR) for the McAllen Health Center Improvement Project

An evaluator is to rank firms based on grades given on individual score sheets. In the case of a tie, evaluator shall give each tied firm the same rank.

Rank	Grade (Max 100)	Respondent's Name
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Evaluator's Name: _____

Evaluator's Signature: _____ **Date:** _____

RFQ/P NO. 24-0312-09-25-13

RFQ/P Project: [ARPA-24-340-352] - Construction Manager at Risk (CMAR) for the McAllen Health Center Improvement Project

The County will combine the ranking sheets of each evaluator into a final combined scoring matrix.

Respondent's Name	Evaluator 1's Rank	Evaluator 2's Rank	Evaluator 3's Rank	Sum of Evaluator's Rankings	Final Rank

The column titled "Sum of Evaluator's Rankings" will be sorted from Lowest to Highest, indicating the final rankings in order (lowest score representing the best evaluation). In the case of a tie in the sum of rankings, the average of all evaluators' grades will be used to break the tie (solely for the tied rankings).

EXHIBIT "C"

"INSURANCE REQUIREMENTS, INSURANCE / PROJECT ACKNOWLEDGEMENT FORMS"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

EXHIBIT "C"

Insurance Requirements
Applicable to the Acquisition of Goods and/or Services
(Other than Professional Services)

The Bidder awarded the contract shall furnish proof of insurance, which will also include any subcontractor that is subcontracted by the bidder in at least the following limits, to be in place prior to providing any services under this Contract and to continue at all times in force in effect during the term of this Contract and any extension hereof:

1. **Comprehensive General Liability insurance** policy with limits of not less than Five Hundred Thousand Dollar ($500,000.00) providing additional coverage to all underlying liabilities of County. Policy shall cover, but not be limited to, Bidder's activities in providing the Services for County; all persons, vehicles, equipment connected with providing Services; and theft or loss of Bidder's property.

2. **Automobile liability insurance** policy, covering all owned, non-owned or hired/leased automobiles, with limits of at least Three Hundred Thousand Dollars ($300,000.00) per person and Five Hundred Thousand Dollars ($500,000.00) per occurrence. Coverage should include injury to or death of persons and property damage claims with limits up to five Hundred Thousand ($500,000.00) arising out of the services provide d to County hereunder.

3. **Uninsured/Underinsured motorist coverage** in an amount equal to the auto liability limits set forth immediately above;

4. **Workers Compensation Insurance**: Workers Compensation insurance in amounts established by Texas law, unless the Bidder is specifically exempted from the Texas Workers Compensation Act, Texas Labor Code Chapter 401, et. seq. Workers Compensation policies must include other States Endorsement to include TEXAS if the business is domiciled outside the State of Texas.

- *Bidder shall obtain and maintain any and all other insurances which may be necessary in providing the good/service applicable to this procurement or are otherwise required by law.*
- *Any and all insurance policies shall be in amounts prescribed by law or otherwise specified by the County, but in no event less than the minimum amounts prescribed by law.*

Additional Insurance Requirements:

a. Bidder shall furnish to County certificate(s) of insurance, and all renewals throughout the duration of the Project, issued by the insurer that such insurance is in full force and effect.
b. Certificates of insurance shall be submitted to County for approval prior to any services being performed by Bidder.
c. **Hidalgo County will only accept certificates of insurance on an Acord form (as attached hereto).**

d. For each policy, except Workers' Compensation, Bidder shall name the County as an additional insured.
e. Each policy of insurance required hereunder shall extend for a period equivalent to, or longer than the term of the Contract, and any insurer hereunder shall be required to give at least thirty (30) days written notice to the County prior to the cancellation of any such coverage on the termination date, or otherwise.
f. This Contract shall be automatically suspended upon the cancellation, or other termination, of any required policy of insurance hereunder, and such suspension shall continue until evidence of adequate replacement coverage is provided to County. If replacement coverage is not provided within thirty (30) days following suspension of the Contract, this Contract shall automatically terminate.
g. All insurance policies will be endorsed to provide a waiver of subrogation in favor of the County.
h. County reserves the right to review the insurance requirements of this section during the effective period of the contract and to require adjustment of insurance coverage and their limits when deemed necessary and prudent by County based upon changes in statutory law, court decisions, or the claims history of the industry as well as the Bidder.
i. Insurance policies shall be obtained at Bidder's sole expense. County does not maintain and will not obtain insurance of any type to protect Bidder against loss, damage or injury that may in any way result from Bidders performance of the services.
j. In no event shall the County be liable for any loss, damage to or destruction of any property belonging to the Bidder.
k. Bidder is responsible for ensuring all required insurance policies are valid for the duration of the contract.
l. All insurance policies are to be issued by an insurance company authorized to do business in the State of Texas and acceptable to County.
m. Bidder shall make any other insurance documentation available to County upon request.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:
	PHONE (A/C, No, Ext): / FAX (A/C, No):
	E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A :	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	CLAIMS-MADE / OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC						PRODUCTS - COMP/OP AGG	$
								$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO / ALL OWNED AUTOS / HIRED AUTOS / SCHEDULED AUTOS / NON-OWNED AUTOS						BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						WC STATU-TORY LIMITS / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / N/A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

HIDALGO COUNTY
ATTN: PURCHASING DEPARTMENT
2812 S, HIGHWAY BUS. 281
EDINBURG, TEXAS 78539

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

SAMPLE

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INSURANCE REQUIREMENT ACKNOWLEDGEMENT

I,_____, authorized representative for _____,
Company/Vendor

hereby acknowledge receipt of the County's required insurance limits. Said requirements:

- will be acquired within 10 working days after notification from Purchasing Department of award of the project by the Hidalgo County Commissioners' Court;

- will acquire additional amount needed to meet the County's requirements within 10 working days after notification from Purchasing Department of award of the project by the Hidalgo County Commissioners' Court; currently carry the following:

Professional Liability (Errors & Omissions): $_____
Automobile Liability: $_____General Liability: $_____

- have already been met, see attached copy of certificate of insurance.

_____ _____
Authorized Representative Date

Notice to Bidder:
A certificate of insurance for the required insurance limits shall be provided to the Purchasing Department in order to qualify for award of the project and to execute a contract between your Company and the County.

Failure to provide Certificates of Insurance to the Purchasing Department's Contract Managers will cause the award of the project to be rescinded and then re-awarded to next qualified vendor. Certificates of Insurance will be monitored and verified on a **quarterly basis** to ensure coverage policy is in place. It is the Company's obligation to maintain the appropriate insurance coverage throughout the term of the contract.

THIS FORM MUST BE ACCOMPANY YOUR RESPONSE

PROJECT REQUIREMENTS ACKNOWLEDGMENT

This is to certify that I, _____, possess all of the **APPLICABLE**:

1. Licenses: _____

2. Bonds: _____

3. Certificates: _____

4. Permits: _____

5. Other: _____

necessary to carry out the required project. Furthermore, I am providing copies of the required documentation so that, if my company is awarded this project, I may be eligible to enter into a contract with Hidalgo County and proceed to complete the project in a timely manner.

*** Any licenses, bonds, certificates, permits, etc. which are required must be presented as part of the bid packet in order to expedite the bid evaluation process. Failure to provide said documentation will result in the disqualification of your bid or response.**

_____ _____

Authorized Signature Date

_____

Company

_____

Address

_____

City, State, Zip

EXHIBIT "D"

"FORM (CIQ) CONFLICT OF INTEREST QUESTIONNAIRE"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____

Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

EXHIBIT "E"

"BIDDER/VENDOR APPLICATION, HUB DECLARATION, AND W-9 FORM(S)"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

EXHIBIT "E"

HIDALGO COUNTY
PURCHASING DEPARTMENT
Bidder/Vendor Application

Complete in print or type. Please return this application to the Hidalgo County Purchasing Department
thru Facsimile: (956) 318-2629 or (956) 292-7612
in person or regular mail to: 2812 S. Business Hwy. 281 , Edinburg, Texas 78539
or email: purchasing@co.hidalgo.tx.us

Company Name: **Telephone No. ( )**

dba Name:

Legal Name:

Mailing Address : **Fax No. ( )**

Physical Address:

City, State, Zip **Tax I.D. No.**

Remit to Address : **City, State, Zip**

E-Mail Address:

Representative(s) Name(s) & Title(s)

Type of Organization (check one): _____ **Individual** _____ **Partnership** _____ **Corporation** _____**Non-Profit**
_____ **LLC** _____ **Sole Proprietor** _____ **Other, Specify**
State Identification No._____ **(Please attached completed W-9 form with this application)**
Federal Identification No. or (if individual) SS No.

State of Incorporation: _____ **Date:**_____ **Other:**

Type of Business (check one): _____ **Manufacturer** _____ **Wholesaler** _____ **Retailer** _____ **Broker**
_____ **Distributor** _____ **Service Organization** _____ **Other, Specify**

Name & Title of Person(s) Authorized to Sign Bids, Proposals, and/or Contracts:

Small and/or Disadvantaged Business Information (check application criteria)
Small Business: **Disadvantaged Business (At Least 51% Ownership)**

☐ Less than 125,000 annual gross receipt
☐ Less than 250,000 annual gross receipt
☐ Less than 499,000 annual gross receipt
☐ More than 500,000 annual gross receipt

☐ Black American
☐ Hispanic American
☐ Asian Pacific American

☐ Native American
☐ Women
☐ Other

Have you been certified as a HUB or an MBE/WBE source?: ☐ Yes ☐ No

Indicate Certification No.(s):_____ **or are Certificate(s) attached?:** ☐ Yes ☐ No

What type of product(s) is/are solicited by your company?:

Would you like to be provided with specifications for procurements of such products?: ☐ Yes ☐ No

To Be Completed by the County: Rec'd by (Purchasing):_____ **Date Rec'd by (Purchasing):**

Date Forwarded Information to Auditor's Office:_____**Entry Date:** _____ **Vendor No.:**

Revised12/14/06

HISTORICALLY UNDERUTILIZED BUSINESS (HUB) DECLARATION

The primary objective of the Hidalgo County HUB Program is to ensure Historically Underutilized Businesses receive a fair and equal opportunity for participation in the County's procurement process. This fact holds true for Services (Professional & Non-Professional), Commodities, and Construction contracts and any subcontracts thereto. The program strongly encourages Prime Contractors to provide subcontracting opportunities to Certified Hub Contractors/Vendors. Our goal for HUB contractor/vendor participation, as well as HUB subcontractor participation is 30%. To be considered as a "Certified HUB Contractor/Vendor" the contractor/vendor must have been certified by, and hold a current and valid certification with any of the three agencies listed below.

Have you been Certified as a HUB or an MBE/WBE source?: □Yes □ No

If yes, by whom?: □ Texas Building & Procurement Commission □ Other_____

Indicate Certification No(s).:_____ or Are Certificate(s) Attached?: □ Yes □ No

LIST OF CERTIFIED HUB SUBCONTRACTORS

(Attach additional pages if necessary)

What percentage of the Bid, RFP,or RFQ is to be subcontracted with Certified HUB sources?: _____%
(List HUB Subcontractor information below).

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): □Texas Building & Procurement Commission □ Other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): □Texas Building & Procurement Commission □ Other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

HUB Subcontractor Name: _____ HUB Status:
Certifying Agency (Check all applicable): □Texas Building & Procurement Commission □ Other
Address: _____ City: _____ State: _____ Zip:
Contact Person: _____ Title: _____ Phone No.: ( )
Subcontract Amount: $_____ Description of Work to be Performed:

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give form to the requester. Do not send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See ***Specific Instructions*** on page 3.

1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)

2 Business name/disregarded entity name, if different from above.

3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor ☐ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate

☐ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) . . . . .

Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.

☐ Other (see instructions)

3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . ☐

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any)

(Applies to accounts maintained outside the United States.)

5 Address (number, street, and apt. or suite no.). See instructions.

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

☐☐☐ – ☐☐ – ☐☐☐☐

or

Employer identification number

☐☐ – ☐☐☐☐☐☐☐

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	**Signature of U.S. person**	**Date**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

must obtain your correct taxpayer identification number (TIN), which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid).
- Form 1099-DIV (dividends, including those from stocks or mutual funds).
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds).
- Form 1099-NEC (nonemployee compensation).
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers).
- Form 1099-S (proceeds from real estate transactions).
- Form 1099-K (merchant card and third-party network transactions).
- Form 1098 (home mortgage interest), 1098-E (student loan interest), and 1098-T (tuition).
- Form 1099-C (canceled debt).
- Form 1099-A (acquisition or abandonment of secured property).

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

Caution: If you don't return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued);

2. Certify that you are not subject to backup withholding; or

3. Claim exemption from backup withholding if you are a U.S. exempt payee; and

4. Certify to your non-foreign status for purposes of withholding under chapter 3 or 4 of the Code (if applicable); and

5. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting is correct. See *What Is FATCA Reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding. Payments made to foreign persons, including certain distributions, allocations of income, or transfers of sales proceeds, may be subject to withholding under chapter 3 or chapter 4 of the Code (sections 1441–1474). Under those rules, if a Form W-9 or other certification of non-foreign status has not been received, a withholding agent, transferee, or partnership (payor) generally applies presumption rules that may require the payor to withhold applicable tax from the recipient, owner, transferor, or partner (payee). See Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities.

The following persons must provide Form W-9 to the payor for purposes of establishing its non-foreign status.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the disregarded entity.
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the grantor trust.
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust and not the beneficiaries of the trust.

See Pub. 515 for more information on providing a Form W-9 or a certification of non-foreign status to avoid withholding.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person (under Regulations section 1.1441-1(b)(2)(iv) or other applicable section for chapter 3 or 4 purposes), do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515). If you are a qualified foreign pension fund under Regulations section 1.897(l)-1(d), or a partnership that is wholly owned by qualified foreign pension funds, that is treated as a non-foreign person for purposes of section 1445 withholding, do not use Form W-9. Instead, use Form W-8EXP (or other certification of non-foreign status).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a saving clause. Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if their stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first Protocol) and is relying on this exception to claim an exemption from tax on their scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include, but are not limited to, interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third-party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester;

2. You do not certify your TIN when required (see the instructions for Part II for details);

3. The IRS tells the requester that you furnished an incorrect TIN;

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only); or

5. You do not certify to the requester that you are not subject to backup withholding, as described in item 4 under "*By signing the filled-out form*" above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier.

What Is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all U.S. account holders that are specified U.S. persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you are no longer tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

• **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note for ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040 you filed with your application.

• **Sole proprietor.** Enter your individual name as shown on your Form 1040 on line 1. Enter your business, trade, or "doing business as" (DBA) name on line 2.

• **Partnership, C corporation, S corporation, or LLC, other than a disregarded entity.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

• **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. Enter any business, trade, or DBA name on line 2.

• **Disregarded entity.** In general, a business entity that has a single owner, including an LLC, and is not a corporation, is disregarded as an entity separate from its owner (a disregarded entity). See Regulations section 301.7701-2(c)(2). A disregarded entity should check the appropriate box for the tax classification of its owner. Enter the owner's name on line 1. The name of the owner entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, enter it on line 2.

Line 3a

Check the appropriate box on line 3a for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3a.

IF the entity/individual on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation.
• Individual or • Sole proprietorship	Individual/sole proprietor.
• LLC classified as a partnership for U.S. federal tax purposes or • LLC that has filed Form 8832 or 2553 electing to be taxed as a corporation	Limited liability company and enter the appropriate tax classification: P = Partnership, C = C corporation, or S = S corporation.
• Partnership	Partnership.
• Trust/estate	Trust/estate.

Line 3b

Check this box if you are a partnership (including an LLC classified as a partnership for U.S. federal tax purposes), trust, or estate that has any foreign partners, owners, or beneficiaries, and you are providing this form to a partnership, trust, or estate, in which you have an ownership interest. You must check the box on line 3b if you receive a Form W-8 (or documentary evidence) from any partner, owner, or beneficiary establishing foreign status or if you receive a Form W-9 from any partner, owner, or beneficiary that has checked the box on line 3b.

Note: A partnership that provides a Form W-9 and checks box 3b may be required to complete Schedules K-2 and K-3 (Form 1065). For more information, see the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

If you are required to complete line 3b but fail to do so, you may not receive the information necessary to file a correct information return with the IRS or furnish a correct payee statement to your partners or beneficiaries. See, for example, sections 6698, 6722, and 6724 for penalties that may apply.

Line 4 Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

• Generally, individuals (including sole proprietors) are not exempt from backup withholding.

• Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.

• Corporations are not exempt from backup withholding for payments made in settlement of payment card or third-party network transactions.

• Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space on line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2).

2—The United States or any of its agencies or instrumentalities.

3—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities.

5—A corporation.

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or territory.

7—A futures commission merchant registered with the Commodity Futures Trading Commission.

8—A real estate investment trust.

9—An entity registered at all times during the tax year under the Investment Company Act of 1940.

10—A common trust fund operated by a bank under section 584(a).

11—A financial institution as defined under section 581.

12—A middleman known in the investment community as a nominee or custodian.

13—A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
• Interest and dividend payments	All exempt payees except for 7.
• Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
• Barter exchange transactions and patronage dividends	Exempt payees 1 through 4.
• Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5.[2]
• Payments made in settlement of payment card or third-party network transactions	Exempt payees 1 through 4.

[1] See Form 1099-MISC, Miscellaneous Information, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) entered on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37).

B—The United States or any of its agencies or instrumentalities.

C—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i).

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i).

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state.

G—A real estate investment trust.

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940.

I—A common trust fund as defined in section 584(a).

J—A bank as defined in section 581.

K—A broker.

L—A trust exempt from tax under section 664 or described in section 4947(a)(1).

M—A tax-exempt trust under a section 403(b) plan or section 457(g) plan.

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, enter "NEW" at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have, and are not eligible to get, an SSN, your TIN is your IRS ITIN. Enter it in the entry space for the Social security number. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.SSA.gov*. You may also get this form by calling 800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/EIN*. Go to *www.irs.gov/Forms* to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to *www.irs.gov/OrderForms* to place an order and have Form W-7 and/or Form SS-4 mailed to you within 15 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and enter "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, you will generally have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon. See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier, for when you may instead be subject to withholding under chapter 3 or 4 of the Code.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third-party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor[2]
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee[1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner[1]
6. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
7. Grantor trust filing under Optional Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))**	The grantor*
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity[4]
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing Form 1041 or under the Optional Filing Method 2, requiring Form 1099 (see Regulations section 1.671-4(b)(2)(i)(B))**	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name on line 1, and enter your business or DBA name, if any, on line 2. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.)

* **Note:** The grantor must also provide a Form W-9 to the trustee of the trust.

** For more information on optional filing methods for grantor trusts, see the Instructions for Form 1041.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information, such as your name, SSN, or other identifying information, without your permission to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax return preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity, or a questionable credit report, contact the IRS Identity Theft Hotline at 800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 877-777-4778 or TTY/TDD 800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 800-366-4484. You can forward suspicious emails to the Federal Trade Commission at *spam@uce.gov* or report them at *www.ftc.gov/complaint*. You can contact the FTC at *www.ftc.gov/idtheft* or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see *www.IdentityTheft.gov* and Pub. 5027.

Go to *www.irs.gov/IdentityTheft* to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and territories for use in administering their laws. The information may also be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payors must generally withhold a percentage of taxable interest, dividends, and certain other payments to a payee who does not give a TIN to the payor. Certain penalties may also apply for providing false or fraudulent information.

EXHIBIT "F"

"CERTIFICATION REGARDING DEBARTMENT"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

Certification
Regarding Debarment, Suspension and Ineligibility

As is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 76, Government-wide Debarment and Suspension, the applicant certifies, to the best of his or her knowledge and belief, that both it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;

b. Have not within a three-year period preceding this bid proposal and/or application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a government entity with commission of any of the offenses enumerated herein; and

d. Have not within a three-year period preceding this bid proposal and/or application had one or more public transactions terminated for cause or default.

Signature:_____
Print Name:_____
Title:_____
Telephone Number:_____
Date:_____

If the bidder is unable to certify to all of the statements in this Certification, such bidder should attach an explanation to this proposal.

EXHIBIT “G”

“TITLE VI APPENDICES”

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

APPENDIX A
THE TITLE VI CONTRACTOR ASSURANCES

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor will comply with the Regulations relative to nondiscrimination in federally assisted programs of the United States Department of Transportation Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, disability, income or Limited English Proficiency in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, sex, age, or disability.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the federal funding agency (FHWA or FTA) to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Recipient or the Federal Funding Agency, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Non-compliance:** In the event of the contractor's non-compliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Funding Agency may determine to be appropriate, including, but not limited to:
    a. withholding contract payments to the contractor under the contract until the contractor complies; and/or
    b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Funding Agency may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with, litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX B
CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the **COUNTY OF HIDALGO** will accept title to the lands and maintain the project constructed thereon in accordance with (Name of Appropriate Legislative Authority), the Regulations for the Administration of (Naming of Appropriate Program), and the policies and procedures prescribed by the (Federal Highway Administration) of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **COUNTY OF HIDALGO** all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto **COUNTY OF HIDALGO** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the **COUNTY OF HIDALGO**, its successors and assigns.

The **COUNTY OF HIDALGO**, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (l) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and] * (2) that the **COUNTY OF HIDALGO** will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction]. *

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

APPENDIX C
CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the **COUNTY OF HIDALGO** pursuant to the provisions of Assurance 7(a):

A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

    1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, **COUNTY OF HIDALGO** will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to a deed, in the event of breach of any of the above Non-discrimination covenants, the **COUNTY OF HIDALGO** will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the **COUNTY OF HIDALGO** and its assigns. *

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

APPENDIX D
CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by **COUNTY OF HIDALGO** pursuant to the provisions of Assurance 7(b)"

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the List of discrimination Acts And Authorities.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above nondiscrimination covenants, **COUNTY OF HIDALGO** will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above nondiscrimination covenants, **COUNTY OF HIDALGO** will there upon revert to and vest in and become the absolute property of **COUNTY OF HIDALGO** and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E
TITLE VI LIST OF PERTINENT NONDISCRIMINATION ACTS AND AUTHORITIES

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d *et seq*., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 *et seq*.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 *et seq*.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 471, Section 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-209) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 USC §§ 12131 – 12189) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC 1681 et seq).

EXHIBIT "H"

(IF APPLICABLE)

2 C.F.R. § 200.327 & 2 C.F.R. PART 200, APPENDIX II, REQUIRED CONTRACT CLAUSES FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS

&

REQUIRED CONTRACT CLAUSES FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS WITH THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT CENTER

RFQ/P NO. 24-0312-09-25-13

APPENDIX "H"

(IF APPLICABLE)

2 C.F.R. § 200.327 & 2 C.F.R. PART 200, APPENDIX II, REQUIRED CONTRACT CLAUSES FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS

&

REQUIRED CONTRACT CLAUSES FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS WITH THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

2 C.F.R. § 200.327 & 2 C.F.R. PART 200, APPENDIX II, REQUIRED CONTRACT CLAUSES FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS

The United States Office of Management and Budget (OMB) issued in 2 C.F.R. 200: *Uniform Administrative Requirements, Cost Principals and Audit Requirements for Federal Awards* (Uniform Guidance). Subpart D: Post Federal Award Requirements: 2 CFR §§200.317-200.327 of the Uniform Guidance contain provisions applicable to procurements made with federal grant funding. [Except as otherwise provided, updated Post Federal Award Requirements (i.e.: 2 CFR §§200.317-200.327) apply to declarations and awards issued on or after November 12, 2020].

As a non-Federal entity, the County of Hidalgo's ("County") contracts must contain the applicable contract clauses described in Appendix II to the Uniform Guidance (Contract Provisions for non-Federal Entity Contracts Under Federal Awards), which are set forth below. (2 C.F.R. §200.327). If applicable, the following clauses shall supersede any existing, similar clauses stated within the bid document, contract, and/or Terms and Conditions. *The term "Contractor" used herein refers to the proposer, bidder or other entity/individual responding to the applicable procurement packet.*

If applicable, the regulations in 2 CFR, Part 200 and Appendix II to the Uniform Guidance, as it may be amended from time to time, and the contract clauses below, are incorporated by reference as part of this procurement packet and any resulting agreement.

To procure goods and services using funds under a federal grant or contract, specific federal laws, regulations, and requirements may apply in addition to those under state law. The following provisions are required and apply when federal funds are expended by the County of Hidalgo for any contract resulting from this procurement process.

1. **Remedies**.

   a. Applicability. This requirement applies to all Federal grant and cooperative agreement programs.

   b. Standard. Contracts for more than the simplified acquisition threshold currently set at $150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. See 2 C.F.R. Part 200, Appendix II, ¶ A.

   c. Statement. Pursuant to Federal Rule (A) above, when federal funds are expended by the County, the County reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party. Contractor shall comply with all applicable Federal, State of Texas, and local laws, rules, and regulations and shall obtain all applicable licenses and permits for the conduct of its business and the performance of the services, and any provision of equipment and material ("Applicable Law"). All transactions related to any of the Contract Documents shall be governed by the laws of the State of Texas, and trial of any action brought in connection with the bid or the Contract Documents shall be held exclusively in a state court in the County of Hidalgo, Texas.

2. **Termination for Cause and Convenience**.

   a. Applicability. This requirement applies to all Federal grant and cooperative agreement programs.

   b. Standard. All contracts in excess of $10,000 shall address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement as follows. See 2 C.F.R. Part 200, Appendix II, ¶ B.

   c. Statement. *Termination*. County may terminate this Agreement for any reason upon ten (10) days written notice to the other party. County may terminate this Agreement immediately upon written notice if Contractor

breaches this Agreement. In the event of any termination, Contractor shall promptly deliver to the County any and all Work Materials prepared for the County prior to the effective date of such termination, all of which shall become County's sole property. After receipt of the Work Materials, County will pay Contractor for the services which the County determines were satisfactorily performed as of the effective date of the termination.

Excuses for Non-Performance. Either party shall be absolved from its obligations under this contract when and to the extent that performance is delayed or prevented (and in the County of Hidalgo's case when and to the extent that its need for the articles, materials or work to be supplied hereunder is reduced or eliminated) by reason of acts of God, fire explosion, war riots, strikes, labor disputes, or governmental laws, orders or regulations.

Default. If Contractor or Subcontractor shall breach any provision hereof or shall become insolvent, enter voluntary or involuntary bankruptcy or receivership proceedings or make an assignment to the benefit of creditors, County of Hidalgo shall have the right (without limiting any other rights or remedies which it may have hereunder or by operation of law) to terminate this contract by written notice to Contractor whereupon County shall be relieved of all further obligation hereunder except the obligation to pay the reasonable value of Contractor's prior performance (at not exceeding the contract rate), and Contractor shall be liable to County for all costs incurred by County in completing or procuring the completion of performance in excess of the contract price herein specified. The County's right to require strict performance of any obligation hereunder shall not be affected by any previous waiver, forbearance of course of dealing. Time is of the essence thereof.

3. **Equal Employment Opportunity**.

a. Applicability: This requirement applies to all Federal grant and cooperative agreement programs.

b. Standard. Except as otherwise provided under 41 C.F.R. Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 C.F.R. § 60-1.3 must include the equal opportunity clause provided under 41 C.F.R. § 60- 1.4(b), in accordance with Executive Order 11246, *Equal Employment Opportunity* (30 Fed. Reg. 12319, 12935, 3 C.F.R. Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, *Amending Executive Order 11246 Relating to Equal Employment Opportunity*, and implementing regulations at 41 C.F.R. Part 60 (Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor). See 2 C.F.R. Part 200, Appendix II, ¶ C.

c. Key Definitions:

(1) *Federally Assisted Construction Contract*. The regulation at 41 C.F.R. § 60-1.3 defines a "federally assisted construction contract" as any agreement or modification thereof between any applicant and a person for construction work which is paid for in whole or in part with funds obtained from the Government or borrowed on the credit of the Government pursuant to any Federal program involving a grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, or any application or modification thereof approved by the Government for a grant, contract, loan, insurance, or guarantee under which the applicant itself participates in the construction work.

(2) *Construction Work*. The regulation at 41 C.F.R. § 60-1.3 defines "construction work" as the construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction

d. Statement: Contractor will comply with the Nondiscrimination Civil Rights Act of 1964, as amended and all Federal regulations relative to nondiscrimination in Federally assisted programs. The regulation at 41 C.F.R. Part 60-1.4(b) requires the insertion of the following contract clause:

"During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States."

4. **Davis Bacon Act and Copeland Anti-Kickback Act**.

   a. Applicability of Davis-Bacon Act. The Davis-Bacon Act only applies to the emergency Management Preparedness Grant Program, Homeland Security Grant Program, Nonprofit Security Grant Program, Tribal Homeland Security Grant Program, Port Security Grant Program, and Transit Security Grant Program. **It does not apply to other Federal grant and cooperative agreement programs, including the Public Assistance Program**.

b. Standard. All prime construction contracts in excess of $2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. §§ 3141-3144 and 3146-3148) as supplemented by Department of Labor regulations at 29 C.F.R. Part 5 (Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction)).

In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week.

The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

In contracts subject to the Davis-Bacon Act, the contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. § 3145), as supplemented by Department of Labor regulations at 29 C.F.R. Part 3 (Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States). The Copeland Anti-Kickback Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to FEMA or applicable Federal entity. See 2 C.F.R. Part 200, Appendix II, ¶ D.

c. Statement. The regulation at 29 C.F.R. § 5.5(a) does provide the required contract clause that applies to compliance with both the Davis-Bacon and Copeland Acts. However, as discussed in the previous subsection, the Davis-Bacon Act does not apply to Public Assistance recipients and subrecipients. In situations where the Davis-Bacon Act does not apply, neither does the Copeland "Anti-Kickback Act." However, for purposes of grant programs where both clauses do apply, FEMA or applicable Federal entity requires the following contract clause:

"Compliance with the Copeland "Anti-Kickback" Act.

(1) *Contractor*. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

(2) *Subcontracts.* The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as Federal requirements may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

(3) *Breach*. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12."

5. **Contract Work Hours and Safety Standards Act**.

a. Applicability: This requirement applies to all Federal grant and cooperative agreement programs.

b. Standard. Where applicable (see 40 U.S.C. § 3701), all contracts awarded by the non-Federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations at 29 C.F.R. Part 5.

Under 40 U.S.C. § 3702, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week.

The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence. See 2 C.F.R. Part 200, Appendix II, ¶ E.

The regulation at 29 C.F.R. § 5.5(b) provides the required contract clause concerning compliance with the Contract Work Hours and Safety Standards Act:

c. Statement.

"Compliance with the Contract Work Hours and Safety Standards Act.

(1) *Overtime requirements*. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) *Violation; liability for unpaid wages; liquidated damages*. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) *Withholding for unpaid wages and liquidated damages*. The County of Hidalgo shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) *Subcontracts*. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section."

6. **Rights to Inventions Made Under a Contract or Agreement.**

a. Applicability: Stafford Act Disaster Grants. This requirement **does not apply to the Public Assistance**, Hazard Mitigation Grant Program, Fire Management Assistance Grant Program, Crisis Counseling Assistance and Training Grant Program, Disaster Case Management Grant Program, and Federal Assistance

to Individuals and Households – Other Needs Assistance Grant Program, as FEMA or Federal awards under these programs do not meet the definition of "funding agreement."

b. Standard. If the FEMA or Federal award meets the definition of "funding agreement" under 37 C.F.R. § 401.2(a) and the non-Federal entity wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the non-Federal entity must comply with the requirements of 37 C.F.R. Part 401 (Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements), and any implementing regulations issued by FEMA or applicable awarding agency. See 2 C.F.R. Part 200, Appendix II, ¶ F.

c. Key Definition: The regulation at 37 C.F.R. § 401.2(a) currently defines "funding agreement" as any contract, grant, or cooperative agreement entered into between any Federal agency, other than the Tennessee Valley Authority, and any contractor for the performance of experimental, developmental, or research work funded in whole or in part by the Federal government. This term also includes any assignment, substitution of parties, or subcontract of any type entered into for the performance of experimental, developmental, or research work under a funding agreement as defined in the first sentence of this paragraph.

7. **Clean Air Act and the Federal Water Pollution Control Act**.

a. Applicability and Standard: Contracts of amounts in excess of $150,000 must contain a provision that requires the contractor to agree to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. §§ 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency. See 2 C.F.R. Part 200, Appendix II, ¶ G.

b. Statement: Included in contracts as provided in section "7a" above.

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. and the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(2) The contractor agrees to report each violation to the Federal awarding agency (e.g. Federal Emergency Management Agency-FEMA) and the Regional Office of the Environmental Protection Agency. Contractor understands and agrees that each violation reported to the County of Hidalgo will, in turn, be reported as required to assure notification to the Federal awarding agency and the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by the applicable Federal awarding agency (e.g. FEMA).

8. **Debarment and Suspension**.

a. Applicability: This requirement applies to all Federal grant and cooperative agreement programs.

b. Standard. Non-Federal entities and contractors are subject to the debarment and suspension regulations implementing Executive Order 12549, *Debarment and Suspension* (1986) and Executive Order 12689, *Debarment and Suspension* (1989) at 2 C.F.R. Part 180 and the Department of Homeland Security's regulations at 2 C.F.R. Part 3000 (Nonprocurement Debarment and Suspension).

These regulations restrict awards, subawards, and contracts with certain parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs and activities. See 2 C.F.R. Part 200, Appendix II, ¶ H; and Chapter IV, ¶ 6.d and Appendix C, ¶ 2. A contract award must not be made to parties listed in the SAM Exclusions. SAM Exclusions is the list maintained by the General

Services Administration that contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. SAM exclusions can be accessed at www.sam.gov. See 2 C.F.R. § 180.530; Chapter IV, ¶ 6.d and Appendix C, ¶ 2.

In general, an "excluded" party cannot receive a Federal grant award or a contract within the meaning of a "covered transaction," to include subawards and subcontracts. This includes parties that receive Federal funding indirectly, such as contractors to recipients and subrecipients. The key to the exclusion is whether there is a "covered transaction," which is any nonprocurement transaction (unless excepted) at either a "primary" or "secondary" tier. Although "covered transactions" do not include contracts awarded by the Federal Government for purposes of the nonprocurement common rule and DHS's implementing regulations, it does include some contracts awarded by recipients and subrecipient.

Specifically, a covered transaction includes the following contracts for goods or services:

(1) The contract is awarded by a recipient or subrecipient in the amount of at least $25,000.
(2) The contract requires the approval of FEMA or applicable Federal entity, regardless of amount.
(3) The contract is for Federally-required audit services.
(4) A subcontract is also a covered transaction if it is awarded by the contractor of a recipient or subrecipient and requires either the approval of FEMA or applicable Federal entity or is in excess of $25,000.

c. Statement. The following provides a debarment and suspension clause. It incorporates a method of verifying that contractors are not excluded or disqualified:

For maximum protection, provide a print or electronic document for every prime and subcontractor, from www.sam.gov in order to ensure that they are not debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs and activities.

This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

This certification is a material representation of fact relied upon by (insert name of subrecipient). If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to (name of entity serving as recipient and name of subrecipient), the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions."

9. **Byrd Anti-Lobbying Amendment**.

a. Applicability: This requirement applies to all Federal grant and cooperative agreement programs.

b. Standard. Contractors that apply or bid for an award of $100,000 or more must file the required certification. See 2 C.F.R. Part 200, Appendix II, ¶ I; 44 C.F.R. Part 18; Chapter IV, 6.c; Appendix C, ¶ 4. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or

organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. § 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award. See Chapter IV, ¶ 6.c and Appendix C, ¶ 4.

c. Statement. The following statement in bold provides a Byrd Anti-Lobbying contract clause:

(IF APPLICABLE, PLEASE FILL IN BLANKS AND SIGN)

"Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended)

Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient."

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding $100,000)

The undersigned Contractor, _____ certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form- LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying

Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, _____ , certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 *et seq*., apply to this certification and disclosure, if any.

_____
Signature of Contractor's Authorized Official

_____
Name and Title of Contractor's Authorized Official

_____
Date"

10. **Procurement of Recovered Materials**.

a. Applicability: This requirement applies to all Federal grant and cooperative agreement programs.

b. Standard. A non-Federal entity that is a **state agency or agency of a political subdivision** of a state and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, Pub. L. No. 89-272 (1965) (codified as amended by the Resource Conservation and Recovery Act at 42 U.S.C. § 6962). See 2 C.F.R. Part 200, Appendix II, ¶ J; 2 C.F.R. § 200.323; *PDAT Supplement*, Chapter V, ¶ 7.

The requirements of Section 6002 include procuring only items designated in guidelines of the EPA at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired by the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

c. Statement. The following provides the clause that a state agency or agency of a political subdivision of a state and its contractors can include in contracts meeting the above contract thresholds:

"(1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA- designated items unless the product cannot be acquired—

(i) Competitively within a timeframe providing for compliance with the contract performance schedule;
(ii) Meeting contract performance requirements; or
(iii) At a reasonable price.

(2) Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.

(3) The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act."

11. **Prohibition on Contracting for Covered Telecommunications Equipment or Services – 2 CFR § 200.216 (FEMA Interim Policy #405-143-1 effective August 13, 2020).**

a. Applicability: This requirement applies to all Federal grant and cooperative agreement programs and/or as provided below, and is effective August 13, 2020.

b. Standard. A non-Federal entity is prohibited against using federal funds to purchase telecommunications and video surveillance equipment and services (such as but not limited to mobile phones, land lines, internet, video surveillance, and cloud servers) from certain companies/entities in covered foreign countries for national security reasons. This regulation is being incorporated into federal grants and contracts received by the County through 2 CFR 200.216 and/or Federal Acquisition Regulations (FAR) clause 52.204-25; as well as guidance provided through Federal Emergency Management Agency (FEMA) Policy #405-143-1. See 2 C.F.R. Part 200, Appendix II, ¶ K

Currently, applicable federal provisions provide that Covered Foreign country means the People's Republic of China and covered telecommunications equipment or services means –

i. Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation, (or any subsidiary or affiliate of such entities);

ii. For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

iii. Telecommunications or video surveillance services provided by such entities or using such equipment; or

iv. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

The definition of "Affiliate" can be found in FAR 2.101. Listing of subsidiaries and affiliates can be found in Supplement Number 4 to 15 CFR Part 744.

c. Statement. Federal awards recipients and subrecipients, as well as their contractors and subcontractors, include the following required contract clause in applicable new, extended, or renewed contracts and subcontracts as per the provisions discussed above.

PROHIBITION ON CONTRACTING FOR COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES

(a) Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy, #405-143-1 Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services As used in this clause—

(b) Prohibitions.

(1) Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

(2) Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

(i) Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(ii) Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(iii) Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

(iv) Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) Exceptions.

(1) This clause does not prohibit contractors from providing—

a. A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
b. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) By necessary implication and regulation, the prohibitions also do not apply to:

a. Covered telecommunications equipment or services that:
   i. Are not used as a substantial or essential component of any system; and
   ii. Are not used as critical technology of any system.
b. Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

(d) Reporting requirement.

(1) In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments.

12. **Domestic Preferences for Procurements**

a. Applicability: This requirement of this section must be included in all subawards including all contracts and purchase orders for work or products under Federal award applies to all contracts and purchase orders for work or products using federal funds.

b. Standard. As appropriate, and to the extent consistent with law, Non Federal Entities should, to the greatest extent practicable under a federal award, provide a preference for the purchase, acquisition, or use of goods, products or materials produced in the United States. This includes, but is not limited to, iron, aluminum, steel, cement, and other manufactured products. See 2 C.F.R. Part 200.322 and2 C.F.R. Part 200, Appendix II, ¶ L

c. Statement. The following provides the required Domestic Preferences for Procurements contracts clause that is incorporated herein by reference.

"Domestic Preference for Procurements
As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.
For purposes of this clause:

- *Produced in the United States* means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
- *Manufactured products* mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber."

ADDITIONAL REQUIRED CONTRACT CLAUSES FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS WITH THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

Additional FEMA or applicable Federal Requirements. In addition to the requirements above, non-Federal entity contracts under Federal award subject to financial assistance from FEMA are required to contain the following additional contract clauses. The Uniform Guidance authorizes FEMA to require additional provisions for non-Federal entity contracts. FEMA, pursuant to this authority, requires or recommends the following:

These clauses are incorporated by reference as part of this procurement packet and any resulting agreement.

1. **Changes**.

a. Standard. To be eligible for FEMA assistance under the non-Federal entity's Federal grant or cooperative agreement, the cost of the change, modification, change order, or constructive change must be allowable, allocable, within the scope of its grant or cooperative agreement, and reasonable for the completion of project scope. FEMA or applicable Federal entity recommends, therefore, that a non-Federal entity include a changes clause in its contract that describes how, if at all, changes can be made by either party to alter the method,

price, or schedule of the work without breaching the contract. The language of the clause may differ depending on the nature of the contract and the end-item procured.

b. Statement. The following provides a contract clause regarding access to records:

"The contractor shall secure written authorization before proceeding with any additional work, whether requested by the County or required to complete the contract. The cost for any changes to the contract price, whether requested by the County or the Contractor will be approved only after submitting the contractor's true costs for the work and related equipment costs and site expenses."

2. **Access to Records**.

a. Standard. All non-Federal entities must place into their contracts a provision that all contractors and their successors, transferees, assignees, and subcontractors acknowledge and agree to comply with applicable provisions governing Department and FEMA or applicable Federal entity access to records, accounts, documents, information, facilities, and staff. See DHS Standard Terms and Conditions, v 3.0, ¶ XXVI (2013).

b. Statement. The following provides a contract clause regarding access to records:

"Access to Records. The following access to records requirements apply to this contract:

(1) The contractor agrees to provide the County of Hidalgo, the FEMA or applicable Federal Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(3) The contractor agrees to provide the FEMA or applicable Federal Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract."

3. **DHS Seal, Logo, and Flags**.

a. Standard. All non-Federal entities must place in their contracts a provision that a contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS officials without specific FEMA or applicable Federal entity pre-approval. See DHS Standard Terms and Conditions, v3.0, ¶ XXV (2013).

b. Statement. The following provides a contract clause regarding DHS Seal, Logo, and Flags:

"The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS officials without specific FEMA or applicable Federal entity pre- approval."

4. **Compliance with Federal Law, Regulations, and Executive Orders**.

a. Standard. All non-Federal entities must place into their contracts an acknowledgement that FEMA or applicable Federal financial assistance will be used to fund the contract along with the requirement that the contractor will comply with all applicable Federal law, regulations, executive orders, and FEMA or applicable Federal policies, procedures, and directives.

b. Statement. The following provides a contract clause regarding Compliance with Federal Law, Regulations and Executive Orders:

"This is an acknowledgement that Federal financial assistance will be used to fund the contract only. The contractor will comply will all applicable Federal law, regulations, executive orders, FEMA or applicable Federal policies, procedures, and directives."

5. **No Obligation by Federal Government**.

   a. Standard. The non-Federal entity must include a provision in its contract that states that the Federal Government is not a party to the contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

   b. Statement. The following provides a contract clause regarding no obligation by the Federal Government:

      "The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract."

6. **Program Fraud and False or Fraudulent Statements or Related Acts**.

   a. Standard. The non-Federal entity must include a provision in its contract that the contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to its actions pertaining to the contract.

   b. Statement. The following provides a contract clause regarding Fraud and False or Fraudulent Related Acts:

      "The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract."

7. **FEMA Contract requirement regarding Prohibition on Contracting for Covered Telecommunications Equipment or Services – 2 CFR § 200.216 (FEMA Interim Policy #405-143-1 effective August 13, 2020)**.

   FEMA recipients and subrecipients and their contractors and subcontractors are required per 2 C.F.R. Part 200, Appendix II ¶ K to include a contract provision in all FEMA-funded contracts and subcontracts, including any purchase orders. To satisfy this requirement, the contract provision found in Number 11 above is incorporated by reference by the County of Hidalgo in all new, extended, or renewed contracts and subcontracts. Applicable County contractors and subcontractors shall also comply with the applicable law and requirements. (*See* Number 11 above).

8. **FEMA Contract requirement regarding Domestic Preferences for Procurements**

   For purchases in support of FEMA declarations and awards issued on or after November 12, 2020, all FEMA recipients and subrecipients are required per 2 C.F.R. Part 200, Appendix II ¶ L to include in all contracts and purchase orders for work or products the contract provision included in number 12 above encouraging domestic preference for procurements.

Contractor agrees to comply with all federal, state and local laws, rules, regulations and ordinances, as applicable. It is further acknowledged that the Contractor read and understands all provisions, laws, acts, regulations, etc. as specifically noted above and certifies compliance with the same.

Vendor's Name/Company Name: _____

Printed Name and Title of Authorized Representative: _____

Signature of Authorized Representative: _____

Date: _____

EXHIBIT "I"

"GOVERNMENT CODE CHAPTER 2252, SUBCHAPTER F CERTIFICATION"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

EXHIBIT I

COUNTY OF HIDALGO
PURCHASING DEPARTMENT

GOVERNMENT CODE CHAPTER 2252, SUBCHAPTER F CERTIFICATION

On this day, I, _____, the Purchasing Representative for the County of Hidalgo, Texas, pursuant to Texas Government Code, Chapter 2252, Subchapter F, certify that I did review the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Texas Government Code (including but not limited to Chapter 2270 and Section 2252.153) and I have ascertained that the below-named company is not contained in said listing of companies which do business with Iran, Sudan or any Foreign Terrorist Organization.

COMPANY NAME:

_____
RFB, RFP, RFQ, RFSQ, Contract or Extension No.
(or) Vendor number (maybe modified accordingly)

CERTIFICATION CHECK PERFORMED BY:

_____ _____
Purchasing Representative Date

EXHIBIT "J"

"PROPOSER'S AFFIDAVIT"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

EXHIBIT J
PROPOSER'S AFFIDAVIT

PROPOSER'S AFFIDAVIT OF NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING

STATE OF TEXAS
COUNTY OF HIDALGO

Affiant, _____, being first duly sworn, deposes that:

(1) Affiant does hereby state neither the proposer nor any of the proposer's officers, partners, owners, agents, representatives, employees, or parties in interest, has in any way colluded, conspired, agreed, directly or indirectly with any person, firm, corporation, or another proposer, or potential proposer, to provide any money or other valuable consideration for assistance in procuring or attempting to procure a contract or fix the prices in the attached proposed or the proposal of any other proposer, and further states that no such money or another reward will be hereinafter paid.

(2) Affiant further states they have neither recommended nor suggested to Hidalgo County or any of its officials or employees, any of the terms or provisions set forth in their Request for Proposal and subsequent agreement, except at a meeting open to all interested proposers, of which proper notice was given.

(3) Affiant, further states their officers, employees, or agents have not, and will not attempt to lobby, directly or indirectly, the Hidalgo County Commissioner's Court between proposal submission date and award by the Hidalgo County Commissioner's Court.

(4) Affiant further states no officer, or stockholder of the proposer is a member of the staff, or related to any employee of Hidalgo County except as noted herein below:

Signature/Title: _____

Subscribed and sworn to before me this _____day of _____, 20_____.

_____

Notary Public

My commission expires: _____, 20____

PROPOSER'S AFFIDAVIT
Exhibit "J"

EXHIBIT "K"

"DRAFT AGREEMENT"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

THE STATE OF TEXAS §
§
COUNTY OF HIDALGO §

CONSTRUCTION CONTRACT
C-XX-XXXX-XX-XX (ARPA XX-XXX-XXX)

This Agreement entered into this _____ day of _____, **2024**, by and between the **County of Hidalgo** (hereinafter called the "**OWNER**," or "County") and, The _____ (a corporation), (a partnership), (an individual) of Edinburg, State of Texas, hereinafter called "**CONTRACTOR**".

On or about March 10, 2021, the Federal Government passed the American Rescue Plan Act ("ARPA"), including the Coronavirus State and Local Fiscal Recovery Fund (the "SLFRF") which provides for direct payments to qualifying units of local governments navigating the impact of the COVID-19 outbreak. Pursuant to the U.S. Department of the Treasury's guidance, the funds may be used for certain eligible purposes to respond to the pandemic and its economic effects and to replace revenue lost due to the public health emergency, preventing cuts to government services. The guidance goes on to provide specific eligible uses for these funds. The services made the basis of this Agreement are being procured for one of these eligible purposes.

*As such, this Agreement is subject to the requirements applicable to federal awards as provided in 2 CFR 200 and the required contract provisions for contracts subject to federal award found in Appendix II to 2 CFR 200 are applicable to this Agreement and were included as part of the initial procurement packet. Additionally, the ARPA required contract provisions found in the attached **ARPA Addendum** are applicable to this Agreement. All referenced required contract provisions are incorporated herein and made part of this agreement for all purposes, and Parties agree to abide by the same.*

WITNESSETH

WHEREAS, OWNER requested responses to notices for Request for Bid (RFB) for: "_____" for the **County** (the "**Services**"). A copy of the procurement packet, including applicable specifications, is attached hereto as **Exhibit "A"** (the "**Procurement Packet**"), and is incorporated herein and made part of this agreement for all purposes;

WHEREAS, CONTRACTOR submitted a response to provide services in accordance with the specifications as proposed. A copy of the CONTRACTOR's response to the Procurement Packet is attached hereto as **Exhibit "B"** (the "**Response**"), and is incorporated herein and made part of this agreement for all purposes;

WHEREAS, OWNER has determined that CONTRACTOR has submitted the lowest and best bid to meet OWNER's requirements for the Service, as herein described.

WHEREAS, CONTRACTOR represents that it is qualified and desires to perform such services; and

WHEREAS, in recognition of and in consideration of CONTRACTOR's agreement to perform the Services in accordance with the Procurement Packet, the Commissioners Court of County awards this contract to CONTRACTOR.

NOW, THEREFORE, that for and in consideration of the payments and agreement hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction described as follows:

1. OWNER and CONTRACTOR hereby agree that this Contract is entered into in order to provide the Services to OWNER. This Contract does not extend to any third parties any duties or benefits conferred in any manner hereunder or otherwise. During the term of this Contract, CONTRACTOR shall be obligated and hereby promises and agrees to render and provide the Services in accordance with specifications and terms contained in Exhibit "A" Procurement Packet and Exhibit "B" CONTRACTOR's Response. If there are any discrepancies between this agreement and the General and Special Conditions of the Contract contained in Exhibit A, the General and Special Conditions of the Contract shall control.

2. **Project/Consideration**. Hereinafter called the project, for the sum of **($)** and all extra work in connection therewith, under the terms and stated in the General and Special Conditions of the Contract (See Exhibit "A"); and at CONTRACTOR'S own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions and Special Conditions printed or written explanatory matter thereof, the specifications and contract documents therefore as prepared by **[NAME OF ENGINEER]**, entitled the Engineer, and as enumerated in Paragraph 1.01.A.12 of the General Conditions, all of which are made a part hereof and collectively evidence and constitute the contract.

The CONTRACTOR hereby agrees to commence work under this contract on or after a date to be specified in written "Notice to Proceed" of the OWNER and to fully complete the project within (TBD) working calendar days thereafter. The CONTRACTOR further agrees to pay, as liquidated damages, the sum of **$500.00** for each consecutive calendar day thereafter.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions, as provided in the General Conditions of the contract,

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and to make payments on account thereof as provided in Paragraphs 14.02.C and 14.07.C of the General Conditions.

3. CONTRACTOR agrees in performing the Services that it will use proper professional standards, comply with any and all appropriate laws and regulations and devote such time as is necessary to safely and efficiently provide the Services.

4. **Licenses/Certifications**. As a condition of this Contract, CONTRACTOR shall hold and maintain throughout the term of this Contract all licenses and permits required, or which may be required by any authority, including the State of Texas, during the term hereof to provide the Services. CONTRACTOR further represents that it is qualified to perform and execute the services described above. If such license or permit is suspended or revoked, this Contract shall automatically be terminated and CONTRACTOR shall immediately notify the OWNER. CONTRACTOR shall provide the OWNER with all current state certifications, permits, and/or licenses with applicable seals, or as otherwise required by the State of Texas.

5. **Equipment**. If applicable, CONTRACTOR shall provide a sufficient number of trucks, vehicles, personnel and equipment available to safely and efficiently provide the Services. All trucks or vehicles operated by the CONTRACTOR to perform the Services shall contain all equipment required by any authority to operate on streets and roads and all persons in the employ of CONTRACTOR who operate such trucks or vehicles shall have the required licenses, qualifications, skill, and expertise to perform such Services and shall comply with all laws, rules, and regulations prescribed by any agency or authority having jurisdiction with regard to the operation of such trucks or vehicles in providing the Services. CONTRACTOR shall provide a sufficient number of trucks, vehicles, personnel, and equipment available to safely and efficiently provide the Services.

6. **Independent Contractor**. The CONTRACTOR must comply with all applicable Hidalgo County policies and with any applicable federal, state, or local laws, regulations, orders, or ordinances applicable to the Services provided by CONTRACTOR under this Agreement. Notwithstanding the foregoing sentence, CONTRACTOR represents and maintains that CONTRACTOR is an Independent Contractor and is not an employee of the OWNER, or any agency thereof, and represents and warrants that CONTRACTOR does not desire or request any fringe benefits provided to employees of OWNER, and/or any agency of the OWNER, including but not limited to benefits associated with Hidalgo County's Civil Service Program. CONTRACTOR agrees to be responsible for any federal income tax, withholding or social security tax liability that might arise from payments received hereunder. CONTRACTOR will incur no financial obligation on behalf of the OWNER without prior written approval of the OWNER. CONTRACTOR will be responsible for all personal and professional expenses,

including, but not limited to, membership fees and dues and expenses of attending conventions and meetings.

7. **Termination**. OWNER may terminate this Agreement without cause upon thirty (30) days written notice.

8. **Non-Exclusive Services of CONTRACTOR.** Hidalgo OWNER reserves the right to request this Product, Good and/or service from other sources other than the CONTRACTOR and shall not be in violation of any terms or conditions of this Agreement.

9. **Insurance**. Consistent with its status as an independent contractor and at its sole expense, CONTRACTOR agrees that throughout the duration of the work under this contract and any extension hereof, it shall provide and maintain any and all insurances and abide by any requirements which are specified in the Procurement Packet/Specifications and/or which may be necessary in providing Services or are otherwise required by law. Insurance policies shall cover, but are not limited to, CONTRACTOR's activities and all persons, vehicles, equipment and property connected with providing Services, to include theft or loss. The amount of insurance required shall be in accordance with amounts specified by the OWNER or as prescribed by law, but in no event shall any amount be less than the minimum amounts prescribed by law, including, but not limited to the Texas Tort Claims Act. These requirements do not establish limits of CONTRACTOR's liability. Any and all applicable insurance requirements and amounts are incorporated herein by reference for all purposes. CONTRACTOR is responsible for ensuring all required insurance policies are valid for the duration of the contract. All insurance policies are to be issued by an insurance company authorized to do business in the State of Texas and acceptable to OWNER. CONTRACTOR shall cause all subcontractors utilized by CONTRACTOR to also comply with these specifications. CONTRACTOR shall furnish to OWNER certificate(s) of coverage, and all renewals throughout the duration of the Project, issued by the insurer that such insurance is in full force and effect. (See **Exhibit "C"** attached hereto and incorporated herein for all purposes). For each applicable policy, CONTRACTOR shall name the OWNER as an additional insured. CONTRACTOR shall notify OWNER a minimum of thirty (30) days in advance of cancellation of all or part of a policy. CONTRACTOR shall make any other insurance documentation available to OWNER upon request. CONTRACTOR will be considered in breach of contract should the CONTRACTOR fail to maintain an insurance policy in the minimum limits of liability and requirements identified above while performing services for and under this Agreement, and will be subject to default and immediate termination of the Agreement. Additionally, CONTRACTOR covenants and agrees to use its best efforts to maintain an insurance policy in the minimum limits of liability and requirements identified above until one year following the conclusion of this Agreement.

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10. **INDEMNIFICATION. CONTRACTOR SHALL INDEMNIFY AND HOLD OWNER, ITS ELECTED OFFICIALS, EMPLOYEES AND AGENTS HARMLESS FROM ANY AND ALL CLAIMS, ACTIONS, LIABILITY, DAMAGES, LOSSES AND EXPENSES (INCLUDING COSTS OF JUDGMENTS, SETTLEMENTS, COURT COSTS, AND ATTORNEYS' FEES, REGARDLESS OF THE OUTCOME OF SUCH CLAIM OR ACTION) CAUSED BY, RESULTING FROM, OR ALLEGING NEGLIGENT OR INTENTIONAL ACTS OR OMISSIONS OR ANY FAILURE TO PERFORM ANY OBLIGATION UNDERTAKEN OR ANY COVENANT IN THIS CONTRACT, WHETHER SUCH ACT, OMISSION, OR FAILURE WAS THE CONTRACTOR'S OR THAT OF ANY PERSON PROVIDING SERVICES HEREUNDER THROUGH OR FOR THE CONTRACTOR. UPON WRITTEN NOTICE FROM THE OWNER, THE CONTRACTOR WILL RESIST AND DEFEND AT ITS OWN EXPENSE, AND BY COUNSEL REASONABLY SATISFACTORY TO OWNER, ANY SUCH CLAIM OR ACTION. THE CONTRACTOR WILL CARRY PROPER INSURANCE WITH THE OWNER AS AN ADDITIONAL NAMED INSURED. THIS INDEMNIFICATION CLAUSE SHALL SURVIVE THIS AGREEMENT AND BE ENFORCEABLE AS A SEPARATE AGREEMENT IN THE EVENT ITS SURVIVAL AND ENFORCEMENT BECOME NECESSARY.**

11. **Notice**. Except as may be otherwise specifically provided in this Agreement, all notices, demands, requests, or communications required or permitted hereunder shall be in writing and shall either be (i) personally delivered against a written receipt, or (ii) sent by registered or certified mail, return receipt requested, postage prepaid and addressed to the parties at the addresses set forth below, or at such other addresses as may have been theretofore specified by written notice delivered in accordance herewith:

If to OWNER: The County of Hidalgo
Attn: County Judge
100 E. Cano, 2nd Floor
Edinburg, Texas 78539

If to CONTRACTOR: CONTRACTOR Name:
Attention:
Address
City, State, Zip Code

Each notice, demand, request, or communication which shall be delivered or mailed in the manner described above shall be deemed sufficiently given for all purposes at such time as it is personally delivered to the addresses or if mailed at such time as it is deposited in the United States mail.

12. **GENERAL PROVISIONS.**

a. **Assignment**. Except as otherwise herein provided, CONTRACTOR shall not assign the obligations or rights under this Agreement to any person without the prior written consent of OWNER.

b. **Conflict with Applicable Laws.** Nothing in this Agreement shall be construed so as to require the commission of any act contrary to law, and whenever there is any conflict between any provision of this Agreement and any present or future law, ordinance or administrative, executive or judicial regulation, order or decree, or amendment thereof, contrary to which the parties have no legal right to contract, the latter shall prevail, but in such event, the affected provision or provisions of this Agreement shall be modified only to the extent necessary to bring them within the legal requirements and only during the time such conflict exists. In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

c. **No Waiver**. No waiver by OWNER of any breach of any provision of this Agreement shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision hereof.

d. **Governing Law**. This Agreement shall be construed under and in accordance with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Hidalgo County, Texas. The CONTRACTOR hereby consents to personal jurisdiction in Hidalgo County, Texas.

e. **Successors**. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective heirs, executors, administrators, legal representatives, successors, and assigns where permitted by this Agreement.

f. **Commitment of Current Revenues Only**. In the event that, during any term hereof, the Commissioners Court does not appropriate sufficient funds to meet the obligations of OWNER under this Agreement, OWNER may terminate this Agreement upon ninety (90) days written notice to CONTRACTOR. OWNER agrees, however, to use reasonable efforts to secure funds necessary for the continued performance of this Agreement. The parties intend this provision to be a continuing right to terminate this Agreement at the expiration of each budget period of OWNER. *Agreements for the acquisition, including lease of real or personal property under*

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Tex. Loc. Govt. Code §271.903: In the event that, during any term hereof, the Commissioner's Court does not appropriate sufficient funds to meet the obligations of OWNER under this Agreement, OWNER may terminate this Agreement upon ninety (90) days written notice to CONTRACTOR, OWNER agrees, however, to use a best efforts attempt to obtain and appropriate funds for payment of the Agreement. The parties intend this provision, if applicable, to be a continuing right to terminate this at the expiration of each budget period of OWNER in accordance with the Texas Local Government Code.

g. **Immunities**. Nothing in this Agreement is intended to and OWNER does not hereby waive, release or relinquish any right to assert any of the defenses OWNER enjoys by virtue of the state or federal constitution, laws, rules or regulations, and any sovereign, official or qualified immunity available to OWNER as to any claim or action of any person, entity, or individual against OWNER.

h. **Headings**. The headings and captions contained in this Agreement are solely for convenient reference and shall not be deemed to affect the meaning or interpretation of any provision or paragraph hereof.

i. **Gender and Number**. All pronouns used in this Agreement shall include the other gender, whether used in the masculine, feminine or neuter gender, and the singular shall include the plural whenever and as often as may be appropriate.

j. **Entire Agreement**. This Agreement contains the entire agreement between the parties hereto, and each party acknowledges that neither has made (either directly or through any agent or representative) any representations or agreements in connection with this Agreement not specifically set forth herein. This Agreement may be modified or amended only by an agreement in writing executed by OWNER and CONTRACTOR, and not otherwise.

k. **Purchasing Ethics**. CONTRACTOR represents and warrants it has not, during the process of being awarded this contract violated the following ethical standards of OWNER and, upon and after the execution of this Agreement, agrees to abide by the following ethical standards of OWNER:

    i. It shall be a breach of ethics to offer, give or agree to give any elected official, department head or employee, or former elected official, department head or employee, of OWNER, or for any elected official, department head or employee or former elected official, department head or employee of OWNER, to solicit, demand, accept or agree to accept from another person, entity or organization, a gratuity or an office of employment in connection with any decision, approval, disapproval, recommendation, preparation or any

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part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advise, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore pending before any department or agency of OWNER.

ii. It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for OWNER, or any person associated therewith, as an inducement for the award of a subcontract or order.

l. **Void Contract**. CONTRACTOR understands that an awarded contract may immediately become void if the OWNER determines that a lack of compliance with applicable policies and/or statutes has occurred in the procurement process.

m. **Nondiscrimination**. CONTRACTOR, including subcontractors, assignees and successors in interest, ensures that no person shall on the grounds of race, religion, color, national origin, sex, age, or disability, or any other protected class under law, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination or retaliation in any federally or non-federally funded program or activity when providing any services described herein under this contract/agreement. Applicable nondiscrimination statements and provisions of Title VI of the Civil Rights Act of 1964, as amended, were provided as part of the initial procurement packet and are incorporated herein and made a part of this agreement for all purposes.

n. **Additional Documents**. The parties hereto covenant and agree that they will execute each such other and further instruments and documents as are or may become necessary or convenient to effectuate and carry out the terms of this Agreement.

o. **Required Contract Provision for Contracts Subject to Federal Award (*if applicable*)**. Pursuant to 2 CFR 200.327, a non-federal entity's contracts must contain the applicable provisions described in appendix II to 2 CFR 200-Contract Provisions for non-Federal Entity Contracts under Federal Awards. Additionally, OWNER contracts under Federal award which are subject to assistance from the Federal Emergency Management Agency (FEMA) are also required to contain additional contract clauses. The applicable required contract clauses were provided as part of the initial procurement packet and are incorporated herein and made part of this agreement for all purposes.

p. **Authority to Execute**. The execution and performance of this Agreement by OWNER and CONTRACTOR have been duly authorized by all necessary laws, resolutions, or corporate action, and this Agreement constitutes the valid and enforceable obligations of OWNER and CONTRACTOR in accordance with its terms.

[SIGNATURE PAGE TO FOLLOW]

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IN WITNESS WHEREOF, the parties to these present have executed this contract in the year and day first written above.

APPROVED BY COMMISIONERS COURT ON _____, 2024.
Agenda Item No.: _____ **Executive Office: _____**

CONTRACTOR:
_____

Signature: _____
Print Name: _____
Title: _____

COUNTY:
COUNTY OF HIDALGO, Texas

_____
Hon. Richard F. Cortez, County Judge

APPROVED AS TO FORM
Office of the Hidalgo County
Criminal District Attorney,
Toribio "Terry" Palacios

_____
_____, ADA

ATTEST:

_____
Arturo Guajardo, Jr., County Clerk

ATTACHMENTS:
A. PROCUREMENT PACKET
B. RESPONSE
C. CERTIFICATE OF INSURANCE

SUPPLEMENTAL SIGNATURES:
(If Applicable)

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COUNTY OF HIDALGO
AMERICAN RESCUE PLAN ACT (ARPA) CONTRACT ADDENDUM

The contract or purchase order to which this addendum is attached is made using federal assistance provided to the County of Hidalgo by the US Department of Treasury under the American Rescue Plan Act ("ARPA"), Sections 602(b) and 603(b) of the Social Security Act, Pub. L. No. 117-2 (March 11, 2021).

As such, this contract or purchase order is subject to the requirements applicable to federal awards as provided in 2 CFR 200. Further, in addition to any and all required contract clauses included in the procurement packet incorporated herein and made part of this Addendum and Agreement, including but not limited to those found in **Appendix II to 2 CFR 200** (required contract provisions for contracts subject to federal award) and the included Legal Notice, the following terms and conditions apply to you, the contractor or vendor, as a contractor of the County of Hidalgo, according to the County's Award Terms and Conditions; by ARPA and its implementing regulations; and as established by the Treasury Department. This list is not exclusive and shall include any amendments to the referenced required contract clauses, and other required contract clauses and/or any future required contract clauses. Applicable clauses and additional information for contracts subject to federal award may be found in the respective procurement packet (*See procurement packet Appendix regarding the same*) and are incorporated herein and made part of this Addendum and Agreement.

1. **Equal Opportunity**. Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by EO 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

2. **Minority and Women Business Enterprises (if applicable to this Contract)**. Contractor hereby agrees to comply with the following when applicable: The requirements of Executive Orders 11625 and 12432 (concerning Minority Business Enterprise), and 12138 (concerning Women's Business Enterprise), when applicable. Accordingly, the Contractor hereby agrees to take affirmative steps to assure that women and minority businesses are utilized when possible as sources of supplies, equipment, construction and services. Affirmative steps shall include the following:

a. Including qualified women's business enterprises and small and minority businesses on solicitation lists;

b. Assuring that women's enterprises and small and minority businesses are solicited whenever they are potential sources;

c. When economically feasible, dividing total requirements into smaller tasks or quantities so as to permit maximum participation by small and minority business, and women's business enterprises;

d. Where the requirement permits, establishing delivery schedules which will encourage participation by women's business enterprises and small and minority business;

e. Using the services and assistance of the Small Business Administration, and the U.S. Office of Minority Business Development Agency of the Department of Commerce; and

f. If any subcontracts are to be let, requiring the prime Contractor to take the affirmative steps in a through e above. For the purposes of these requirements, a Minority Business Enterprise (MBE) is defined as an enterprise that is at least 51 percent owned and controlled in its daily operation by members of the following groups: Black, Hispanic, Asian or Pacific Islander, American Indian, or Alaskan Natives. A Women Business Enterprise (WBE) is defined as an enterprise that is at least 51 percent owned and controlled in its daily operation by women.

3. **Suspension and Debarment**. (applies to all purchases.) (A) This contract is a covered transaction for purposes of 2 CFR pt. 180 and 2 CFR pt. 3000. As such, the Contractor is required to verify that none of Contractor's principals (defined at 2 CFR § 180.995) or its affiliates (defined at 2 CFR § 180.905) are excluded (defined at 2 CFR § 180.940) or disqualified (defined at 2 CFR § 180.935). (B) The Contractor must comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into. (C) This certification is a material representation of fact relied upon by the County of Hidalgo. If it is later determined that the contractor did not comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, in addition to remedies available to the County, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. (D) The Contractor agrees to comply with the requirements of 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

4. **Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352, as amended. (Applies to all purchases.)** Contractor certifies that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Contractor shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency. **For Purchases over $100,000 - Contractors must sign the certification included in the Byrd Anti-Lobbying section of the procurement packet APPENDIX entitled-*Required Contract Clauses for Contracts under Federal Award*.**

5. **Access to Records**. (applies to all purchases.) (A) The Contractor agrees to provide the County of Hidalgo, the U.S. Department of Treasury, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions. The Contractor agrees to permit any of the foregoing parties to reproduce by any means or to copy excerpts and transcriptions as reasonably needed, and agrees to cooperate with all such requests. (B) The Contractor agrees to provide the Treasury Department or authorized representatives access to construction or other work sites pertaining to the work being completed under the contract. (C) No language in this contract is intended to prohibit audits or internal reviews by the Treasury Department or the Comptroller General of the United States.

6. **Rights to Inventions Made Under a Contract or Agreement**. Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any applicable implementing regulations.

7. **Contract Work Hours and Safety Standards Act (40 U.S.C. 327 through 333) (applies only to purchases over $100,000, when laborers or mechanics are used.)** Where applicable, all contracts in excess of $100,000 that involve the employment of mechanics or laborers shall include a provision for compliance with 40 U.S.C. 3702 and 3704 of the Contract Work Hours and Safety Standards Act, as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 3702 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate of not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. The requirements of 40 U.S.C. 3704 are applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

8. **Clean Air Act & Federal Water Pollution Control Act (applies to purchases of more than $150,000.)** (A) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. (B) The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. (C) The Contractor agrees to report each violation of the Clean Air Act and the Water Pollution Control Act to the County of Hidalgo and understands and agrees that the County will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office. (D) Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance.

9. **Prohibition on certain telecommunications and video surveillance services or equipment (Huawei and ZTE)**

Contractor is prohibited from obligating or expending loan or grant funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115–232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and

telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

9. **Buy USA** - Domestic Preference for certain procurements using federal funds. Contractor should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award. For purposes of this section:

(1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

10. **Procurement of Recovered Materials**: (applies only if the work involves the use of materials) (A) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired: i. Competitively within a timeframe providing for compliance with the contract performance schedule; ii. Meeting contract performance requirements; or iii. At a reasonable price. (B) Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensiveprocurement-guideline-cpg-program. (C) The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

11. **Publications**. Any publications produced with funds from this award must display the following language: "**This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to [name of Recipient] by the U.S. Department of the Treasury**."

12. **Increasing Seat Belt Use in the United States**. Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Contractor is encouraged to adopt and enforce on-the-job seat belt policies and programs for your employees when operating company-owned, rented or personally owned vehicles.

13. **Reducing Text Messaging While Driving**. Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Contractor is encouraged to adopt and enforce policies that ban text messaging while driving, and establish workplace safety policies to decrease accidents caused by distracted drivers.

EXHIBIT "L"

"DEFICIENCIES AND DEVIATIONS"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

DEFICIENCIES AND DEVIATIONS FORM

This form must be signed and included in your submission.

- The Respondent is to list ALL deficiencies and deviations from the Requirements or Specifications as outlined in this solicitation packet.
- Unless specifically listed below, the response will be considered to be in FULL compliance with this solicitation as released by Hidalgo County Purchasing Department.
- It is the Offeror's responsibility to submit a response that meets all minimum specifications stated within this solicitation. Because of the variations in manufacturer's conditions, the Offeror must compare their product with the required listed minimum specifications and identify any deviations.
- The Offeror should note that a descriptive brochure of the model is supplemental information, but is not sufficient nor acceptable as proper identification of deviations from written specifications.
- If awarded, and a deviation is identified after the fact, the awarded vendor assumes the responsibility and agrees to meet and fulfill all stipulated requirements of this solicitation at no additional expense to Hidalgo County.

Company Name	Signature of Authorized Company Official
Name of Authorized Company Official	Title of Authorized Company Official

If necessary, please use additional sheets.

EXHIBIT “M”

“REFERENCE FORM”

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

REFERENCE FORM

Respondent's involvement with reference checks is not permitted. Only Hidalgo County Purchasing Department or authorized designees will conduct reference checks. Any deviation to this may result in rejection of your response.

Reference One

Client's Name: _____

Type of Organization: _____

Address: _____

Contact Person: _____ Title: _____

Telephone: _____ E-mail: _____

Project Information

Name of Project: _____

Scope of Work: _____

_____

_____

Contract Period: From _____ to _____

Cost: Projected $: _____ Actual $: _____

Timeframe (Include Unit Measure) Projected _____ Actual _____

Status as of _____ (Circle One) Complete In Progress Canceled
Date

Reference Two

Client's Name: _____

Type of Organization: _____

Address: _____

Contact Person: _____ Title: _____

Telephone: _____ E-mail: _____

Project Information

Name of Project: _____

Scope of Work: _____

_____

_____

Contract Period: From _____ to _____

Cost: Projected $: _____ Actual $: _____

Timeframe (Include Unit Measure) Projected _____ Actual _____

Status as of _____ (Circle One) Complete In Progress Canceled
Date

Reference Three

Client's Name: _____
Type of Organization: _____
Address: _____

Contact Person: _____ Title: _____
Telephone: _____ E-mail: _____

Project Information
Name of Project: _____
Scope of Work: _____
_____
_____

Contract Period: From _____ to _____
Cost: Projected $: _____ Actual $: _____
Timeframe (Include Unit Measure) Projected _____ Actual _____
Status as of _____ (Circle One) Complete In Progress Canceled
Date

Reference Four

Client's Name: _____
Type of Organization: _____
Address: _____

Contact Person: _____ Title: _____
Telephone: _____ E-mail: _____

Project Information
Name of Project: _____
Scope of Work: _____
_____
_____

Contract Period: From _____ to _____
Cost: Projected $: _____ Actual $: _____
Timeframe (Include Unit Measure) Projected _____ Actual _____
Status as of _____ (Circle One) Complete In Progress Canceled
Date

EXHIBIT "N"

"REQUIRED CONTRACT PROVISIONS FHWA 1273"

REQUEST FOR QUALIFICATIONS / PROPOSALS (RFQ/P)

[ARPA-24-340-352]

CONSTRUCTION MANAGER AT RISK (CMAR)

FOR

MCALLEN HEALTH CENTER

IMPROVEMENT PROJECT

RFQ/P NO. 24-0312-09-25-13

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

REQUEST FOR QUALIFICATIONS/PROPOSALS

"[ARPA-24-340-352] - Construction Manager at Risk (CMAR) – McAllen Health Center Improvement Project"

RFQ/P NO. 24-0312-09-25-13

RFQ/P SUBMITTAL CHECKLIST

All forms listed below MUST be included in the RFQ/P response.

Indicate with a check mark (✓) the Forms completed and included in this response:

_____ Page 10 of Legal Notice

_____ Attachment "D" – Cost Proposal Form

_____ Exhibit "C" – Insurance and Project Requirements Acknowledgment Forms

_____ Exhibit "D" – Form CIQ (Conflict of Interest Questionnaire) – Copy of Co. Clerk Recording fee receipt (if applicable)

_____ Exhibit "E" – Bidder/Vendor Application, HUB Declaration, and IRS form W-9

_____ Exhibit "F" – Certification Regarding Debarment

_____ Exhibit "H" – Required Contract Clauses for Contracts Under Federal Award (2 CFR 200)

_____ Exhibit "J" – Proposer's Affidavit

_____ Exhibit "L" – Deficiencies and Deviations

_____ Exhibit "M" – Reference Form

_____ SAMS.gov Registration – Acknowledgement www.sam.gov

_____ Electronic Submittal to Portal or if hand delivered One (1) Original hard copy, (pages one sided-clearly marked original), and Two (2) USB's in original PDF format (see number 2f of Legal Notice)