PHARR-SAN JUAN-ALAMO ISD BALDEMAR G. CANO CENTRAL KITCHEN COMPLEX CANOPY ADDITIONS CONSTRUCTION DOCUMENTS BID NO. 19-20-028



SCHOOL BOARD

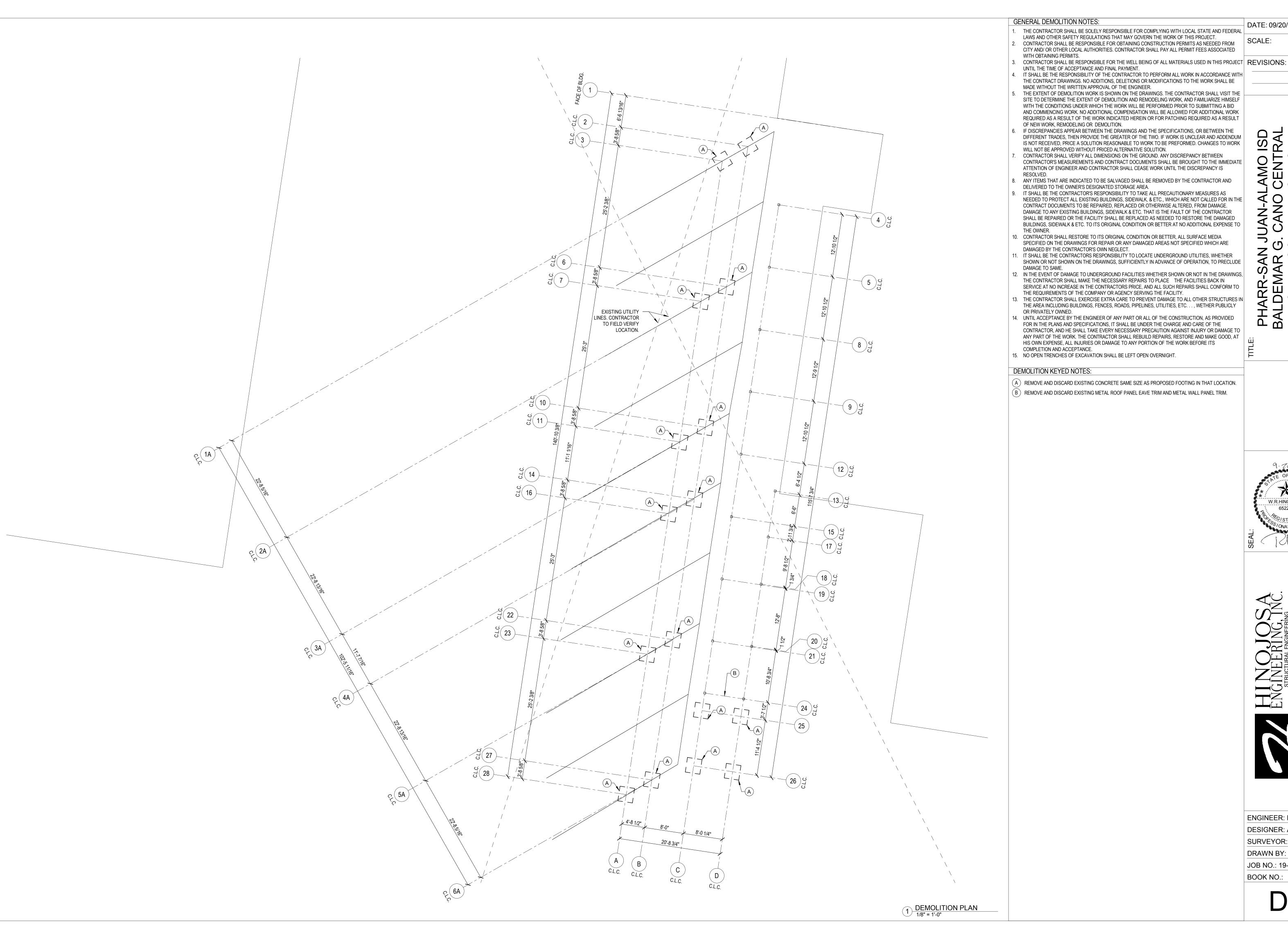
PRESIDENT:	JESUS "JESSE" ZAMBRANO
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MEMBER:	VICTOR PEREZ
MEMBER:	JESUS "JESSE" VELA, JR.
MEMBER:	CARLOS G. VILLEGAS, JR.

PROJECT TEAM: DATE: 09/20/2019 SCALE: **OWNER:** PSJA I.S.D. **REVISIONS:** 601 E. KELLY PHARR, TX 78577 TEL: 956.354.2000 EMAIL: GERARDO.LOPEZ@PSJAISD.US STRUCTURAL: HINOJOSA ENGINEERING, INC. 108 W 18TH ST MISSION, TEXAS 78572 TEL: 956.581.0143 FAX: 956.581.2074 EMAIL: HINOJOSAENGINC@AOL.COM MEP: SIGMA HN ENGINEERS. PLLC 701 S 15TH ST MCALLEN, TEXAS 78501 TEL: 956.332.3206 FAX: 956.687.5561 EMAIL: TONYNICANOR@SIGMAHNE.COM SHEET INDEX: STRUCTURAL: CS: COVER SHEET AND INDEX OF SHEETS C1: SITE PLAN D1: DEMOLITION PLAN S1: GENERAL NOTES S2: FOUNDATION PLAN S3: ROOF & FRAMING PLAN S4: SECTIONS S5: DETAILS **ELECTRICAL**: E-0.0: ELECTRICAL SPECIFICATION SHEET ES-1.0: ELECTRICAL SITE PLAN LOCATION: E US Highway 83 **ENGINEER: RH** DESIGNER: AT STEWART RD SURVEYOR: DRAWN BY: MR JOB NO.: 19-123 E Sam Houston Blvd BOOK NO.: CS



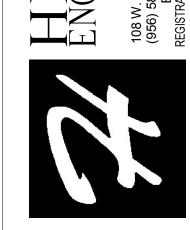
DATE: 09/20/2019 SCALE: REVISIONS:

JOB NO.: 19-123 BOOK NO.:



SCALE:

DATE: 09/20/2019



ENGINEER: RH DESIGNER: AT

SURVEYOR: DRAWN BY: MR JOB NO.: 19-123

BOOK NO.:

GENERAL NOTES STRUCTURAL STEEL REINFORCING STEEL STRUCTURAL OBSERVATIONS MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE AISC BAR REINFORCEMENT SHALL CONFORM TO THE FOLLOWING GRADES OF ASTM A615. INCLUDING JOB SITE OBSERVATIONS BY THE PROFESSIONAL ENGINEER OR HIS AUTHORIZED THESE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE UNLESS OTHERWISE INDICATED THEY DO NOT INDICATE THE METHOD OF SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR REPRESENTATIVE SHALL CONSIST OF VISUAL OBSERVATION OF MATERIALS, EQUIPMENT OR SUPPLEMENT S1. GRADE 40 - #3 AND SMALLER. GRADE 60 - #4 AND LARGER DETAILS OF REINFORCEMENT SHALL BE IN ACCORDANCE WLTH CHAPTER 7 OF THE AMERICAN CONSTRUCTION THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT BUILDINGS CONSTRUCTION WORK FOR THE PURPOSE OF ASCERTAINING THAT THE WORK IS IN THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING ASTM DESIGNATIONS: CONCRETE INSTITUTE (ACI) 318, UNLESS OTHERWISE NOTED. SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE INTENT. SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR EARTH BANKS, FORMS, STRENGTH VERTICAL REINFORCEMENT SHALL BE TLED AND FIXED IN POSITION AT THE TOP AND BOTTOM AND SUCH OBSERVATIONS SHALL NOT BE RELIED UPON BY OTHERS AS ACCEPTANCE OF THE WORK, DESIGNATION NOR SHALL IT BE CONSTRUED TO RELIEVE THE CONTRACTOR IN ANY WAY FROM HIS SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES, AT INTERMEDIATE LOCATIONS, SPACED NOT GREATER THAN 48 INCHES O.C. ANCHOR RODS Fv=36 ksi ETC. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY WELDED STEEL WLRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185 OBLIGATIONS AND RESPONSIBILITIES UNDER THE CONSTRUCTION CONTRACT. PLATES Fy=36 ksi RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND LAPS OF WELDED STEEL WLRE FABRIC AT SPLICES SHALL BE NOT LESS THAN 12 INCHES. SPECIFICALLY BUT WITHOUT LIMITATION. OBSERVATIONS BY THE DESIGN PROFESSIONAL SHALL ANGLES Fv=36 ksi PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR THE ENGINEER DO WALLS, PILASTERS, COLUMNS SHALL BE DOWELED TO THE SUPPORTING FOOTINGS WLTH NOT REQUIRE THE DESIGN PROFESSIONAL TO ASSUME RESPONSIBILITY FOR THE MEANS AND CHANNELS Fy=36 ksi NOT INCLUDE INSPECTION OF THE ABOVE AND BELOW ITEMS. REINFORCEMENT OF THE SAME SIZE, GRADE AND AT THE SAME SPACING AS THE VERTICAL METHODS OF CONSTRUCTION, NOR FOR SAFETY ON THE JOB SITE, NOR FOR ITEMS NOT WIDE FLANGE SHAPES Fy=50 ksi REINFORCEMENT IN THE WALLS, PILASTERS, OR COLUMNS. INSTALLED OR IMPROPERLY INSTALLED BY THE CONTRACTOR OR HIS/HER SUBCONTRACTORS ALL CONSTRUCTION AND QUALITY OF MATERIALS SHALL COMPLY WITH THE GOVERNING STEEL PIPE Fy=35 ksi BUILDING CODES AND REGULATIONS. BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WLTH THE PROVISIONS OF "BAR SUPPORT NOTIFY ENGINEER 48 HOURS IN ADVANCE WHEN A STRUCTURAL OBSERVATION IS REQUIRED. SQUARE & RECT. STEEL TUBES (HSS) Fv=46 ksi THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOB A500 GRADE B SPECIFICATIONS" AS CONTAINED IN THE LATEST EDITION OF THE "MANUAL OF STANDARD SITE BEFORE COMMENCEMENT OF WORK AND SHALL IMMEDIATELY REPORT ANY PRACTICE" BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI), EXCEPT AT SLABS: THE ROUND TUBES (HSS) 500 GRADE B Fy=42 ksi REINFORCING SHALL BE SUPPORTED BY CHAIRS SPACED AT 36 INCHES O.C. FOR #3 REBARS AND DISCREPANCIES OR OMISSIONS TO THE ARCHITECT IN WRITING, ANY OMISSION OR CONFLICT BEFORE PLACEMENT OF CONCRETE FOR SLAB/FOUNDATION ALL STRUCTURAL STEEL SHALL BE FABRICATED, ERECTED, AND PAINTED IN ACCORDANCE WITH BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS 48 INCHES ON CENTER FOR LARGER REBARS. CHAIRS FOR SLAB ON GRADE SHALL BE CONCRETE BEFORE PLACEMENT OF FOUR (4) FEET OF GROUT IN CMU & BMU WALL N.A. THE SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY AFTER FRAMING OF ROOF STRUCTURE BUT BEFORE PLACEMENT OF WORK SO INVOLVED. FOR BUILDINGS AS AMENDED TO DATE AND THE CODE OF STANDARD PRACTICE, LATEST EDITION REINFORCING STEEL DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WLTH THE IN CASE OF CONFLICT, NOTES AND DETAILS ON THE BALANCE OF THE DRAWINGS TAKE ROOFING MATERIAL CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE". LATEST EDITION. AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. WELDING SHALL BE DONE IN ACCORDANCE WITH THE STANDARD CODE FOR ARC AND GAS ALL REINFORCEMENT SHALL BE SECURELY TLED IN PLACE BEFORE PLACING CONCRETE OR PRECEDENCE OVER STANDARD NOTES AND TYPICAL DETAILS WHERE CONSTRUCTION DETAILS ARE NOT SPECIFICALLY SHOWN OR NOTED FOR ANY PART OF WELDING IN BUILDING CONSTRUCTION AS PUBLISHED BY THE AMERICAN WELDING SOCIETY, THE WORK, SUCH DETAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN EXCEPT THAT ALL WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS. ALL WELDING 10. PROVIDE CORNER BARS TOP AND BOTTOM AT ALL BEAM CORNERS AND DEAD END BEAM INTERSECTIONS. BARS TO EQUAL SIZE AND QUANTITY OF THE NOTED BEAM STEEL. BARS SHALL FOR SIMILAR CONDITIONS AND MATERIALS. WHERE SUFFICIENTLY SIMILAR WORK IS NOT SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL CONFORM TO ANSI/AWS D1.1-04. CONNECTION DESIGN: DELEGATED DESIGN SHOWN. THE ENGINEER SHALL BE CONSULTED FOR CLARIFICATION. LAP BEAM REINFORCEMENTS. 5.A. ALL DETAILED AND/OR SCHEDULED CONNECTIONS ARE TO BE CONSIDERED CONCEPTUAL BARS DETAILED AS CONTINUOUS SHALL BE LAPPED AT SPLICES. EACH SUBCONTRACTOR IS CONSIDERED AN EXPERT IN HIS RESPECTIVE FIELD AND SHALL 12. EXTEND THE SLAB REINFORCING STEEL, PERPENDICULAR TO BEAM, TO THE TOP OUTSIDE PRIOR TO THE SUBMISSION OF BID OR PERFORMANCE OF WORK, NOTIFY THE GENERAL AND SHALL BE DESIGNED BY THE STEEL FABRICATOR WITH SIGNED AND SEALED CONTRACTOR OR OWNER OF ANY WORK CALLED OUT ON THE DRAWINGS IN HIS TRADE THAT CALCULATIONS BY A TEXAS LICENSED PROFESSIONAL ENGINEER. REINFORCING BAR OF PERIMETER BEAMS. START THE SLAB REINFORCING STEEL. PARALLEL TO ANY CONNECTIONS NOT DETAILED OR SCHEDULED OR ALTERED FOR FABRICATION BEAM, NOT MORE THAN 6" FROM THE TOP INSIDE REINFORCING BAR OF PERIMETER BEAMS. THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AS TO PURPOSES SHALL BE DESIGNED AND DETAILED BY THE FABRICATOR AND SHALL BE . PROVIDE #4 "Z" BARS AT 12" ON CENTER WHERE THE SLAB STEPS DOWN MORE THAN 2". THE "Z" BARS SHALL LAP THE MAIN SLAB REINFORCING STEEL. WEIGHTS AND EXACT LOCATIONS. WITH STRUCTURAL SUPPORTS. IN THE EVENT THAT THE MARKED FOR THE ENGINEER'S VERIFICATION. CONNECTIONS SHALL BE DESIGNED ACCORDING TO THE REACTIONS INDICATED ON THE 14. ALL CONDUIT OR PLUMBING LINES IN SLAB SHALL BE PLACED BELOW SLAB THICKNESS AREA. PURCHASED EQUIPMENT DEVIATES IN WEIGHT AND LOCATION FROM THOSE INDICATED ON THE PLANS, THE ARCHITECT MUST BE NOTIFIED AND APPROVAL OBTAINED PRIOR TO INSTALLATION. STRUCTURAL DRAWINGS. ALL REACTIONS SHOWN ARE BASED ON SERVICE LOADS AND ARE AREA. ALL CONDUIT NO GREATER THAN 1" DIAMETER MAY BE PLACED IN CENTER OF SLAB. NO THIS STRUCTURE IS DESIGNED AS A STABLE UNIT AFTER ALL COMPONENTS ARE IN PLACE. THE INTENDED FOR USE WITH THE ALLOWABLE STRENGTH DESIGN (ASD) METHOD UNLESS CONDUITS OR PLUMBING LINES GREATER THAN 1 INCH ALLOWED IN THE SLAB. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BRACING AS REQUIRED TO NOTED OTHERWISE. IF NO REACTIONS SHOWN, DESIGN BEAM CONNECTIONS TO SUPPORT 15. WELDING OF CROSSING BARS AND TACK WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED. INSURE THE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE, OR ANY PORTION AT LEAST 50% OF THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY SHOWN IN TABLE 3-6 OF 16. WELDING OF REINFORCING STEEL IS NOT PERMITTED. 17. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW BEFORE THEREOF, DURING CONSTRUCTION. THE AISC MANUAL. NEITHER THE OWNER NOR THE ARCHITECT NOR THE ENGINEER WILL ENFORCE SAFETY THE CONCEPTUAL CONNECTION DETAILS SHOWN INDICATE THE CONNECTION TYPE FARRICATION AND INSTALLATION MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN REQUIRED AND MAY NOT FULLY REFLECT THE FINAL COMPLEXITY OR SCOPE OF THE 18. LAPS AT BAR SPLICES, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS: ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE MASONRY - GRADE 60: LAP 50 DIA. (30" MIN.) FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS ADDITIONAL CONNECTION ELEMENTS MAY BE REQUIRED IN THE FINAL DESIGN SUCH AS: GRADE 40: LAP 48 DIA. (24" MIN.) STIFFENER PLATES, DOUBLER PLATES, SHIMS, AND/OR OTHER CONNECTION MATERIAL. CONCRETE - LAP PER SCHEDULE BELOW TRADE NAMES AND MANUFACTURERS REFERRED TO ARE FOR QUALITY STANDARDS ONLY. ALL CONNECTION PLATES AND STIFFENERS SHALL BE MADE WITH 1/4" THICK PLATES, LINI ESS OTHERWISE NOTED ON PLANS SUBSTITUTIONS WILL BE PERMITTED AS APPROVED BY THE ENGINEER. BAR SPLICE LAP LENGTH IN CONCRETE ANY OPTIONS OR APPROVED SUBSTITUTIONS ARE FOR CONTRACTORS CONVENIENCE. THE SEE ARCHITECTURAL PLANS FOR MISCELLANEOUS STEEL ITEMS NOT INDICATED ON STRUCTURAL DRAWINGS. STEEL ITEMS SHOWN ON ARCHITECTURAL DRAWINGS AND NOT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES, ADDITIONAL COSTS AND SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGN BY THE STEEL FABRICATOR. SEE COORDINATION WITH ALL ITEMS THAT THE SUBSTITUTIONS MAY IMPACT. THE ENGINEER IS TO BE NOTIFIED IN WRITING WHEN CONSTRUCTION AT THE SITE BEGINS. DESIGN CRITERIA FOR LOADING. ANY QUESTIONS RELATED TO INTERPRETATION OR INTENT OF THESE DRAWINGS SHALL BE ALL WELDED CONNECTIONS SHALL BE MADE USING 1/4" FILLET WELD, U.N.O. REFERRED TO THE ENGINEER. ALL BOLTED CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER HIGH STRENGTH BOLTS. ASTM THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO LOCATE AND PROTECT ANY A325, BEARING TYPE CONNECTION W/ WASHERS ASTM F436, U.N.O. ON DESIGN DRAWINGS. EXISTING UNDERGROUND OR CONCEALED CONDUIT, PLUMBING, OR OTHER UTILITIES PRIOR TO SPECIAL INSPECTION REQUIRED FOR ALL HIGH STRENGTH BOLTING. ALL NUTS SHALL BE PER FOR WELDED WIRE FABRIC: SPACING OF WIRE PLUS 12". ASTM A563. ALL CONNECTION PLATES AND STIFFENERS SHALL BE MADE WITH 1/4" THICK PLATES, UNLESS PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL NOT BE PLACED IN BEAMS, OR WALLS UNLESS 19. CONCRETE COVER FOR REINFORCING AS FOLLOWS: SPECIFICALLY SHOWN OR NOTED NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES. OTHERWISE NOTED ON PLANS. . ALL STEEL (INCLUDING BOLTS) EXPOSED TO THE WEATHER SHALL BE HOT DIPPED GALVANIZED. DUCTS, ETC. UNLESS NOTED CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION MINIMUM TOLERANCE EXPOSURE CONDITION (INCLUDES STEEL THAT IS ONLY COVERED WITH PLASTER OR STUCCO). SEE ARCHITECTURAL OF ANY ADDITIONAL PIPES, DUCTS, ETC. PLANS IF STRICTER REQUIREMENTS ARE REQUIRED. DRILLED PIERS, FOOTINGS AND OTHER PRINCIPAL STRUCTURAL DESIGN CRITERIA SHOP DRAWINGS AND SUBMITTALS ALL EXPOSED STEEL SHALL FOLLOW SECTION 10 OF THE CODE OF STANDARD PRACTICE OF AISC 3/8" MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST GROUND: SECTION 10 OF THE CODE ADDRESSES ARCHITECTURALLY EXPOSED STRUCTURAL STEEL WHERE CONCRETE SURFACES, AFTER REMOVAL OF FORMS, DESIGN LOADS, STRUCTURAL ANALYSIS AND PREPARATIONS OF STRUCTURAL SHOP DRAWINGS SHALL BE PREPARED AND SUBMITTED FOR REVIEW TO THE STRUCTURAL ARE EXPOSED TO WEATHER OR GROUND: ENGINEER FOR EACH STRUCTURAL BUILDING MATERIAL AS INDICATED IN THE STRUCTURAL MEMBERS ARE BASED UPON THE FOLLOWING CRITERIA CONNECTIONS SHALL BE PER HOLLOW STRUCTURAL SECTIONS, CONNECTION MANUAL BY AISC GENERAL NOTES AND THE CONTRACT SPECIFICATIONS. SEE THE CONTRACT SPECIFICATIONS FOR BARS GREATER THAN 5/8" IN DIAMETE ..2012 IBC. ASCE/SEI 7-10 WHERE STEEL MEMBER PASS THROUGH CMU WALLS, PROVIDE HALF INCH GAP BETWEEN THE FOR BARS 5/8" OR LESS IN DIAMETER FOR SUBMITTAL PROCEDURES AND ADDITIONAL INFORMATION A. CONCRETE: . . . ACI 318-11 CMU AND THE STEEL MEMBER. PROVIDE ELASTOMERIC MATERIAL BETWEEN THE THE STEEL WHERE SURFACES ARE NOT DIRECTLY EXPOSED TO WEATHER SHOP DRAWINGS SHALL USE DRAFTING LINE WORK AND LETTERING THAT IS CLEARLY LEGIBLE. MEMBER AND CMU WALL. PROVIDE FIRE PROOF ELASTORMERIC MATERIAL WHERE REQUIRED. B. COLD-FORMED STEEL: . .AISI S100-12 SHOP DRAWINGS SHALL NOT CONTAIN NO REPRODUCTIONS OF THE CONTRACT DRAWING PLANS OR GROUND 4. ALL BEAMS NOT SHOWN SHALL BE W18X35. ALL COLUMNS NOT SHOWN SHALL BE HSS 5X5X1/4. C. MASONRY: . . TMS 402-11/ACI 530-11/ASCE5-11 FOR SLAB ON GRADE (FROM TOP OF SLAB) STEEL FABRICATOR SHOP SHALL BE AISC CERTIFIED. D. STEEL: . . SUBMIT ONE REPRODUCIBLE VELLUM AND ONE COPY OF EACH SHOP DRAWING. . AISC 325-11(14TH EDITION) FOR BEAMS COLUMNS 16. HOLES FOR BOLTS IN STRUCTURAL STEEL SHALL BE DRILLED OR PUNCHED. BURNING OF HOLES SHOP DRAWINGS SHALL NOT SHOW MATERIALS FOR MORE THAN ONE LEVEL OF THE SAME PLAN. ANSI/AISC 360-10 (JUNE 22, 2010) SHALL NOT BE PERMITTED. UNLESS NOTED OTHERWISE, HOLES SHALL BE STANDARD SIZE 1/16 FOR JOISTS AND SLABS SHOP DRAWINGS SHALL SHOW CLEAR AND COMPLETE INFORMATION FOR THE FABRICATION INCH LARGER THAN THE BOLT, UNLESS NOTED OTHERWISE. (DETAIL SHEETS AND/OR MATERIAL LISTS) AND INSTALLATION. METAL CANOPY SYSTEM ALL STRUCTURAL STEEL SHAPES SHALL BE PRIMED WITH A RUST RESISTANT PRIMER BEFORE ALLOW A MINIMUM OF (2) WEEKS FOR REVIEW OF EACH SET OF SHOP DRAWINGS. SHIPMENT TO THE PROJECT SITE. PRIMER SHALL NOT BE APPLIED TO THE IMMEDIATE AREA OF ROOF DEAD LOAD SELF WEIGHT CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS SUBMITTED BY THE SUB-CONTRACTOR AND STEEL INTENDED TO RECEIVE SLIP CRITICAL BOLTED CONNECTIONS. COLLATERAL LOAD 10 PSF COORDINATE SHOP DRAWINGS WITH ALL OTHER TRADING PRIOR TO SUBMITTING THEM FOR 3. HIGH STRENGTH BOLTS INSTALLATION SHALL BE CONTINUOUSLY INSPECTED BY A SPECIAL ROOF LIVE LOAD 20 PSF ENGINEER REVIEW INSPECTOR. FOLLOWING ARE REQUIREMENTS OF THE SPECIAL INSPECTOR: CONTRACTOR SHALL ANSWER ALL QUESTIONS OR CLARIFICATIONS BY THE SUB- CONTRACTOR CANOPY DRIFT 18.A. THE INSPECTOR SHALL VERIFY THE MILL CERTIFICATES FOR MATERIAL. BEFORE SUBMITTING TO ENGINEER FOR REVIEW. ANY QUESTIONS THAT THE CONTRACTOR 18.B. THE INSPECTOR SHALL VERIFY THAT THE MATERIAL USED ARE PROPERLY STORED AND WITH METAL SIDING H/ 240 CANNOT ANSWER WITH THE INFORMATION ON THE DRAWINGS SHALL CLEARLY BE MARKED FOR GIRT DEFLECTION PREPARED FOR USE THE ENGINEER FOR REVIEW. 18.C. THE INSPECTOR SHALL VERIFY THAT CONSTRUCTION DETAILS, PROCEDURES, TOOL WITH METAL SIDING CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, SEE NOTE NUMBER 3 UNDER CALIBRATIONS, WORKMANSHIP ARE IN ACCORDANCE WITH THE CONSTRUCTION LATERAL LOADS GENERAL NOTES. DOCUMENTS AND BUILDING CODE REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR GENERAL CONFORMANCE TO THE WIND LOAD 18.D. FOR SNUG-TIGHT CONNECTIONS, THE INSPECTOR SHALL VERIFY THAT THE PLIES OF THE STRUCTURAL DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER DOES NOT ULTIMATE DESIGN WIND SPEED, Vult . .132 MPH CONNECTED ELEMENTS HAVE BEEN BROUGHT INTO SNUG CONTACT WITH EACH OTHER. RELIEF THE CONTRACTOR FOR ANY ERRORS IN DIMENSIONS OR MATERIALS INDICATED ON THE FOR SLIP-TIGHT CONNECTIONS, THE INSPECTOR SHALL VERIFY THE PRETENSION METHOD NOMINAL DESIGN WIND SPEED, Vasd. .106 MPH SHOP DRAWINGS. SELECTED BY THE CONTRACTOR HAS INDUCED THE REQUIRED MINIMUM TENSION IN THE RISK CATEGORY. IF THERE IS ANY DISCREPANCY BETWEEN THE STRUCTURAL DRAWINGS AND SHOP DRAWINGS. BOLT IN ACCORDANCE TO THE AISC SPECIFICATION TABLE J3.1. THE INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS GOVERN. INFORMATION THAT IS NOT **EXPOSURE CATEGORY** A CERTIFICATE OF INSPECTION SHALL BE FURNISHED BY THE SPECIAL INSPECTOR TO THE INDICATED ON THE SHOP DRAWINGS SHALL BE OBTAINED FROM THE STRUCTURAL DRAWINGS. INTERNAL PRESSURE COEFFICIENT BUILDING OFFICIAL PRIOR TO SCHEDULED INSPECTION AND TO THE ARCHITECT AND PROVIDE SUBMITTALS FOR THE FOLLOWING ITEMS: A. STRUCTURE DESIGNED AS OPEN. 19. WELDING IN THE FIELD SHALL BE CONTINUOUSLY INSPECTED, BY A SPECIAL INSPECTOR COMPONENTS & CLADDING A. CONCRETE MIX DESIGN FOLLOWING ARE REQUIREMENTS OF THE SPECIAL INSPECTOR: A. THIS STRUCTURE IS LOCATED IN A HURRICANE PRONE REGION. 19.A. THE INSPECTOR SHALL VERIFY THAT THE MATERIAL USED ARE PROPERLY STORED AND B. CURING COMPOUND FOR CONCRETE Χ B. THIS STRUCTURE IS NOT LOCATED IN A WIND-BORNE DEBRIS REGION. PREPARED FOR USE. C. REINFORCING STEEL 19.B. THE INSPECTOR SHALL VERIFY THE WELDER'S QUALIFICATIONS. C. PROTECTION OF GLAZED OPENINGS IS NOT REQUIRED. REFERENCE D. STRUCTURAL STEEL Χ 19.C. THE INSPECTOR SHALL VERIFY THAT CONSTRUCTION DETAILS, PROCEDURES AND COMPONENTS & CLADDING NOTES FOR ADDITIONAL INFORMATION. E. METAL DECKING (INDICATE LAYOUT AND TYPES OF DECK PANELS, ANCHORAGE WORKMANSHIP ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND GEOTECHNICAL INFORMATION (STORAGE FACILITY) BUILDING CODE. DETAILS, REINFORCING CHANNELS, PANS, DECK OPENINGS, SPECIAL JOINTING, 19.D. A CERTIFICATE OF INSPECTION SHALL BE FURNISHED BY THE SPECIAL INSPECTOR TO THE GEOTECHNICAL REPORT ACCESSORIES, AND ATTACHMENTS TO OTHER CONSTRUCTION.) BUILDING OFFICIAL PRIOR TO SCHEDULED INSPECTION AND TO THE ARCHITECT AND PREPARED BY TERRACON CONSULTANTS, INC. F. METAL BUILDING SYSTEM CANOPY PROJECT No. 88195081 19.E. ALL NON SHRINK GROUT FOR LEVELING OF BASE PLATES SHALL HAVE A MINIMUM 5000 PSI (INCLUDING SIGNED AND SEALED CALCULATION) DATE JUNE 18, 2019 COMPRESSIVE STRENGTH AT 28 DAYS. GROUT SHALL COMPLY WITH CORPS OF ENGINEERS SHALLOW FOUNDATION ALL NON SHRINK GROUT FOR LEVELING OF BASE PLATES SHALL HAVE A MINIMUM 5000 PSI MINIMUM EMBEDMENT BELOW FINISHED GRADE 2 1/2 FEET COMPRESSIVE STRENGTH AT 28 DAYS. GROUT SHALL COMPLY WITH CORPS OF ENGINEERS NET ALLOWABLE BEARING PRESSURE 3000 PSF SPECIFICATION CRD-C 621. APPROXIMATE TOTAL SETTLEMENT 1 INCH ESTIMATED DIFFERENTIAL SETTLEMENT 450 PSF APPROXIMATE TOTAL SETTLEMENT 1 INCH ESTIMATED DIFFERENTIAL SETTLEMENT 1/2 INCH ALLOWABLE PASSIVE PRESSURE 700 PSF COEFFICIENT OF SLIDING FRICTION 0.40 UPLIFT RESISTANCE FOUNDATION WEIGHT (150 PCF) & SOIL WEIGHT (120 PCF) 3. DEEP FOUNDATION MINIMUM EMBEDMENT DEPTH 15 FEET MAXIMUM EMBEDMENT DEPTH 25 FEET NET TOTAL LOAD BEARING PRESSURE 5000 PSF AVERAGE ALLOWABLE SIDE-SHEAR 450 PSF APPROXIMATE TOTAL SETTLEMENT 1 INCH STRAIGHT SHAFT PIERS SPECIAL NOTES TO OWNER ESTIMATED DIFFERENTIAL SETTLEMENT 1/2 INCH CAST-IN-PLACE CONCRETE ALLOWABLE PASSIVE PRESSURE 600 PSF VERIFY ALL DIMENSIONS. COORDINATE WITH ENGINEERING PLANS PRIOR TO CONSTRUCTION CONCRETE PIERS SHALL BE PER SCHEDULE OR DETAIL. THE ACTUAL UNDER NORMAL CONDITIONS. AND FOR CONVENTIONAL BUILDINGS SUCH AS 4. EMBEDDED POLES FOUNDATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES. ELEVATION SHALL BE DETERMINED IN THE FIELD BY A GEOTECHNICAL THE SUBJECT MATTER. REINFORCED CONCRETE AND MASONRY DEVELOP THE FOUNDATION DESIGN IS BASED UPON SECTION 1807.3.2.1 IBC 2012 EDITION ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE ENGINEER LICENSED IN THE STATE OF TEXAS WITH EXPERIENCE IN THIS AREA. CRACKS. THE CRACKS ARE DUE TO INHERENT SHRINKAGE OF CONCRETE, (EQUATION 18-1). THE DESIGN CRITERIA SELECTED ASSUMES SITE CLASS D MATERIAL CREEP AND RESTRAINING EFFECTS OF VERTICAL AND OTHER STRUCTURAL SPECIFICATIONS, ACI #301 LATEST EDITION. DRILLED PIERS SHALL COMPLY WITH ACE 336.1 ALL REINFORCING BARS SHALL BE NEW BILLET STEEL AND SHALL CONFORM TO ELEMENTS TO WHICH THE BEAMS/SLABS ARE TIED. OR BETTER, SOIL BEARING CAPACITY OF 5000 P.S.F., AND A PASSIVE SOIL PRESSURE LATEST EDITION AND ACI 336.3R LATEST EDITION. ASTM A-615, GRADE 60. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, AND ALL ACCESSORIES ALL REINFORCING STEEL SHALL BE CONTINUOUS WITH SPLICES LAPPED 75 THE CRACKS FORMED ARE NORMALLY COSMETIC. THE SLAB MAINTAINS ITS OF 650 P.S.F. PER FOOT OF DEPTH UNLESS OTHERWISE NOTED. SHALL BE IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD BAR DIAMETERS SERVICEABILITY AND STRENGTH REQUIREMENTS. IT IS EMPHASIZED THAT CENTER PIER UNDER COLUMN OR WALL UNLESS DIMENSIONED OTHERWISE. PRACTICE FOR DETAILING REINFORCED CONCRETE". ACI #315 LATEST EDITION. ALTHOUGH SPECIAL EFFORT IS MADE TO REDUCE THE POTENTIAL CAUSES AND THE MINIMUM 28 DAYS CYLINDER STRENGTH SHALL BE AS FOLLOWS: PIERS SHAFT SHALL BE DRILLED PLUMB ALONG ITS TOTAL LENGTH (1" PER NUMBER OF SUCH CRACKS, IT IS NOT PRACTICAL TO PROVIDE TOTAL ARTICULATION BETWEEN THE FLOOR SYSTEM AND ITS SUPPORTS AND 10'-0" MAXIMUM TOLERANCE). LOCATION: STRENGTH AT 28 DAYS: MAXIMUM SLUMP: MAXIMUM AGGREGATE: BOTTOM OF PIER TO BE CLEAN AND FREE OF ALL LOOSE MATERIALS AND THEREBY ACHIEVE COMPLETE INHIBITION OF ALL CRACKS. FOOTINGS 3000 PSI 1 1/2" MOST SUCH CRACKS DEVELOP OVER THE FIRST THREE YEARS OF THE LIFE OF WATER CENTER STEEL CAGE IN SHAFT WITH A MINIMUM 3 LEVELS OF CONCRETE 5000 PSI THE FLOOR SYSTEM. CRACKS WHICH ARE WIDER THAN 0.01 INCH MAY NEED TO BE PRESSURE EPOXIED. BLOCK SPACERS (8 FT. MAXIMUM SPACING) AT A MINIMUM OF 3 EVENLY ON 3" THE OBJECT OF THE JOINTS PROVIDED IS TO ALLOW MOVEMENT. MOVEMENTS PORTLAND CEMENT SHALL CONFORM TO A.S.T.M. C150-97A, TYPE I OR II. STRUCTURAL CONCRETE SEAT BLOCK. CONCRETE AGGREGATE SHALL CONFORM TO ASTM C 33-97, STANDARD WEIGHT. DO NOT RAISE CAGE OFF OF FOOTING BOTTOM DURING CONCRETE DUE TO CREEP AND SHRINKAGE MAY BE NOTICEABLE AT JOINTS UP TO TWO ALL CONCRETE SHALL CONTAIN "POZZOLITH" ADMIX AS PER MANUFACTURER'S SPECIFICATIONS, PLACEMENT. YEARS AFTER CONSTRUCTION, BEYOND WHICH MOVEMENTS DUE TO VARIATIONS IN TEMPERATURE WILL PERSIST. CONCRETE AND REINFORCING IN SHAFTS SHALL BE PLACED THE SAME DAY AS IN ACCORDANCE WITH ASTM C494. NO CALCIUM CHLORIDE AS CEMENT REPLACEMENT WILL BE PERMITTED IN CONCRETE DRILLING REQUIREMENTS FOR COLD AND HOT WEATHER SHALL BE PER IBC SECTIONS 1905.12 AND 10. PIERS SHALL BE FOUNDED IN UNDISTURBED NATURAL SOIL. 11. CONTRACTOR SHALL COORDINATE WITH GEOTECHNICAL ENGINEER FOR CONCRETE COVER FOR REINFORCING AS FOLLOWS: A. DRILLED PIERS, FOOTINGS AND OTHER VERIFICATION OF PIERS BEARING STRATUM AT TIME OF DRILLING. PRINCIPAL STRUCTURAL MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST GROUND: 3" 12. PROVIDE INSPECTING ENGINEER WITH AN ELECTRIC LIGHT AND PLUMB-BOB TO ANCHOR BOLTS, DOWELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACING OBSERVE ALL DRILLED PIERS 13. ALL DRILLED FOOTINGS SHALL BE FREE OF WATER PRIOR TO PLACING OF MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94. WHEN AIR 14. PIER HOLES SHALL NOT BE LEFT OPEN OVERNIGHT (NO EXCEPTIONS). 15. PROVIDE STEEL CASING TO PREVENT CAVE-IN AND SEAL OFF SUBSURFACE TEMPERATURE IS BETWEEN 85° AND 90° F, REDUCE MIXING AND DELIVERY TIME FROM 90 MINUTES TO 75 MINUTES; WHEN AIR TEMPERATURE IS ABOVE 90° F, REDUCE MIXING AND WATER 16. STEEL CASING SHALL BE REMOVED DURING POURING SEQUENCE. DELIVERY TIME TO 60 MINUTES. 17. CONTRACTOR SHALL INCLUDE IN BID DOCUMENTS THE COSTS FOR CASING. 18. REFER TO GEOTECHNICAL INVESTIGATION REPORT FOR CONCRETE 9. CONCRETE SHALL BE PLACED THROUGH A SUITABLE TUBE OR TREMIE TO PREVENT SEGREGATION OF MATERIALS.

DATE: 09/20/2019

SCALE:

REVISIONS:

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W.R.HINOJOSA
65228

W.S.JONAL ENGRED

ENGINEERING, INC. STRUCTURAL ENGINEERING CIVIL ENGINEERING CIVIL ENGINEERING MISSION, TEXAS (956) 581-0143 FAX: (956) 581-2071



ENGINEER: RH
DESIGNER: AT

SURVEYOR:

DRAWN BY: MR

JOB NO.: 19-123

C

BOOK NO.:

EXISTING UTILITY
LINES. CONTRACTOR
TO FIELD VERIFY
LOCATION. 2 14 C 12 7. C 2A FOUNDATION NOTES 1. FOR GENERAL NOTES SEE SHEET S1.
2. CONTRACTOR/SUBCONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING DIMENSIONS WITH ENGINEERING PLANS BEFORE COMMENCING ANY WORK. THE CONTRACTOR/SUBCONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE ANY WORK HAS BEGUN.
3. REFER TO DETAIL 4/S5 FOR PIER SCHEDULE.
4. REFER TO DETAIL 8/S5 FOR FOOTING SCHEDULE. 1 FOUNDATION PLAN
1/8" = 1'-0"

PHARR-SA BALDEMAR KITCHEN (

DATE: 09/20/2019

SCALE:

REVISIONS:

W.R.HINOJOSA
65228

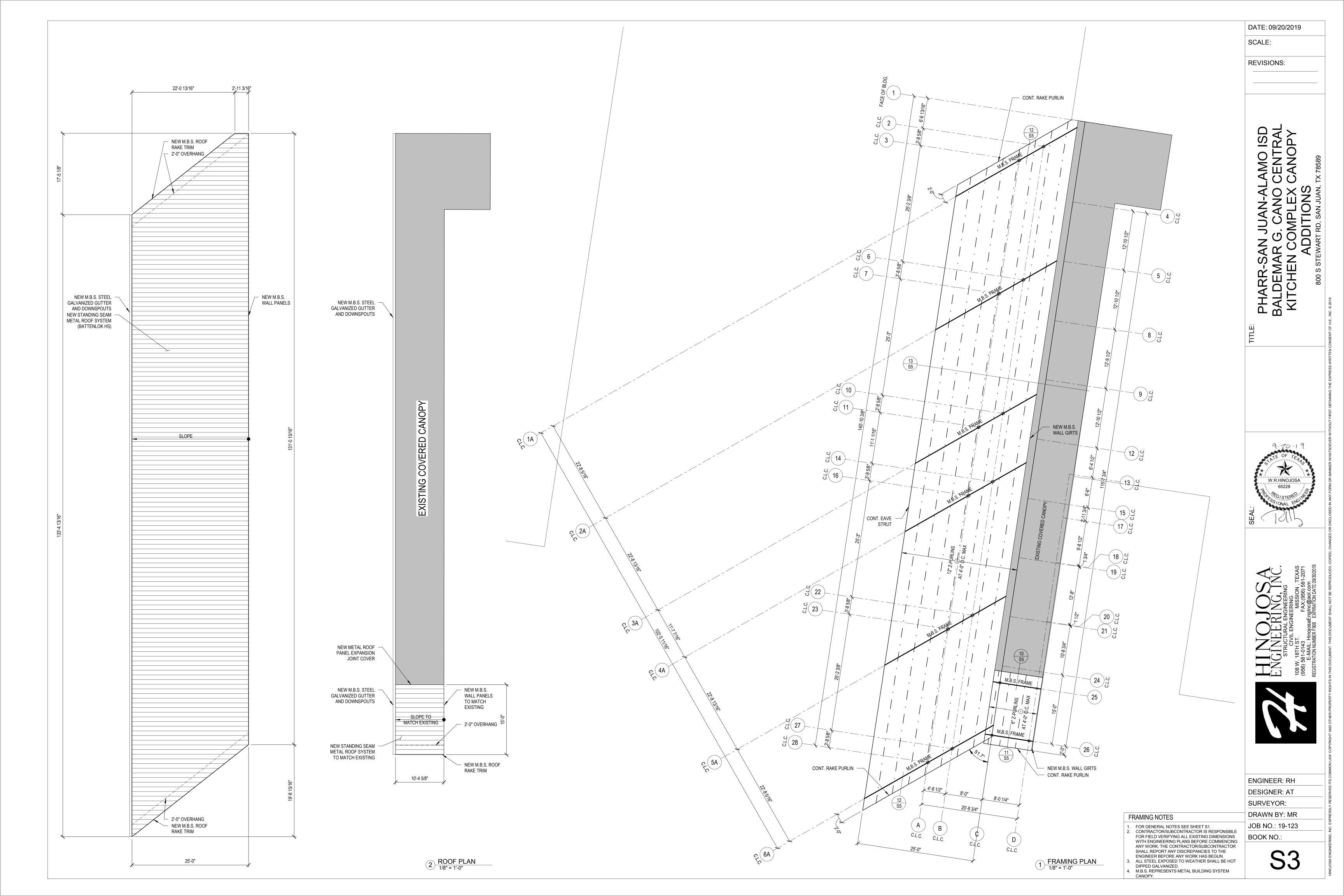
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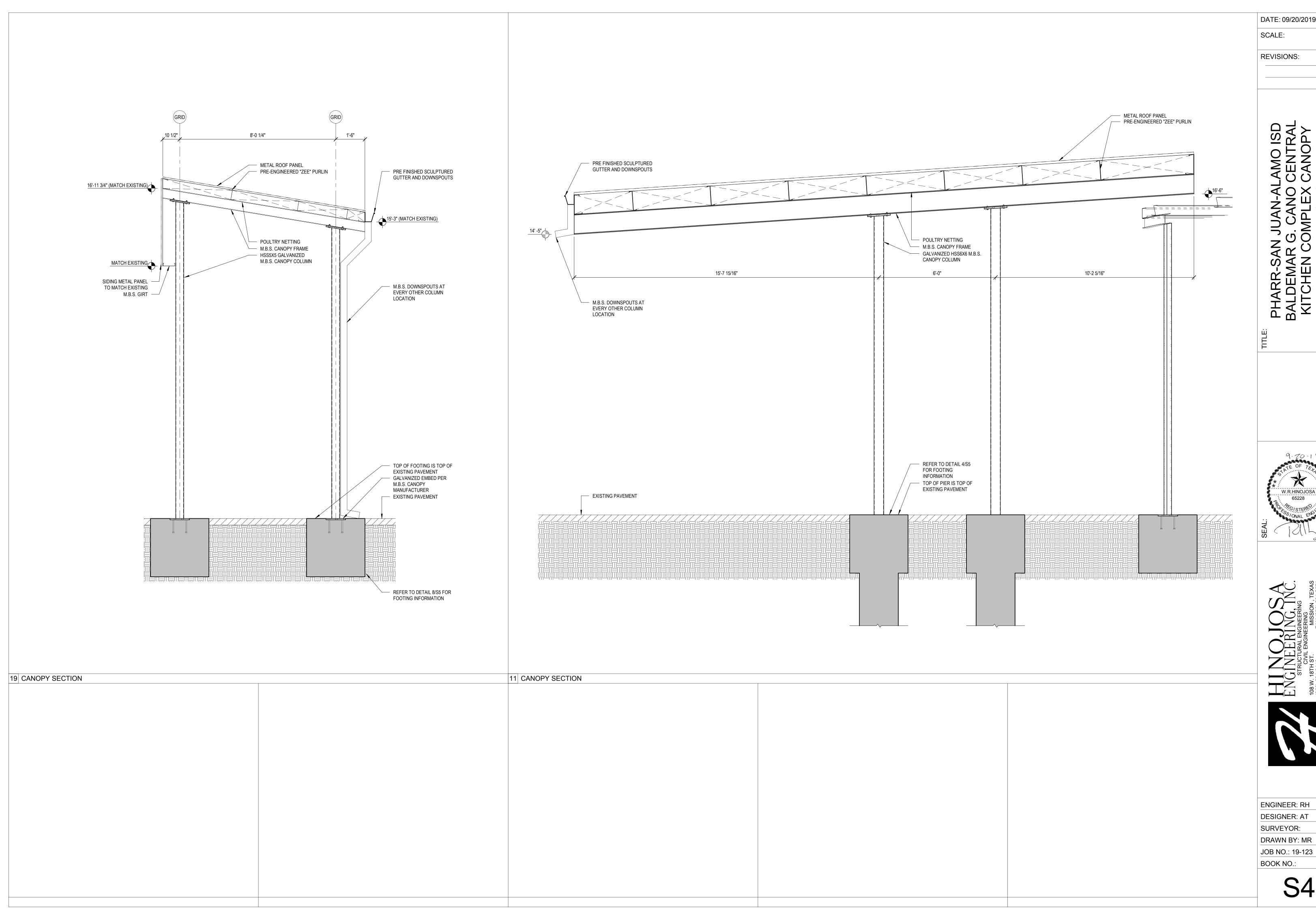
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STRUCTURAL ENGINEERING
CIVIL ENGINEERING
CIVIL ENGINEERING
RW. 18TH ST.
FAX: (956) 581-2071
E-MAIL: HinojosaEnginc@aoi.com
SISTRATION NUMBER F908 EXPIRATION DATE 09/30/2019

ENGINEER: RH
DESIGNER: AT

DESIGNER: AT
SURVEYOR:
DRAWN BY: MR
JOB NO.: 19-123

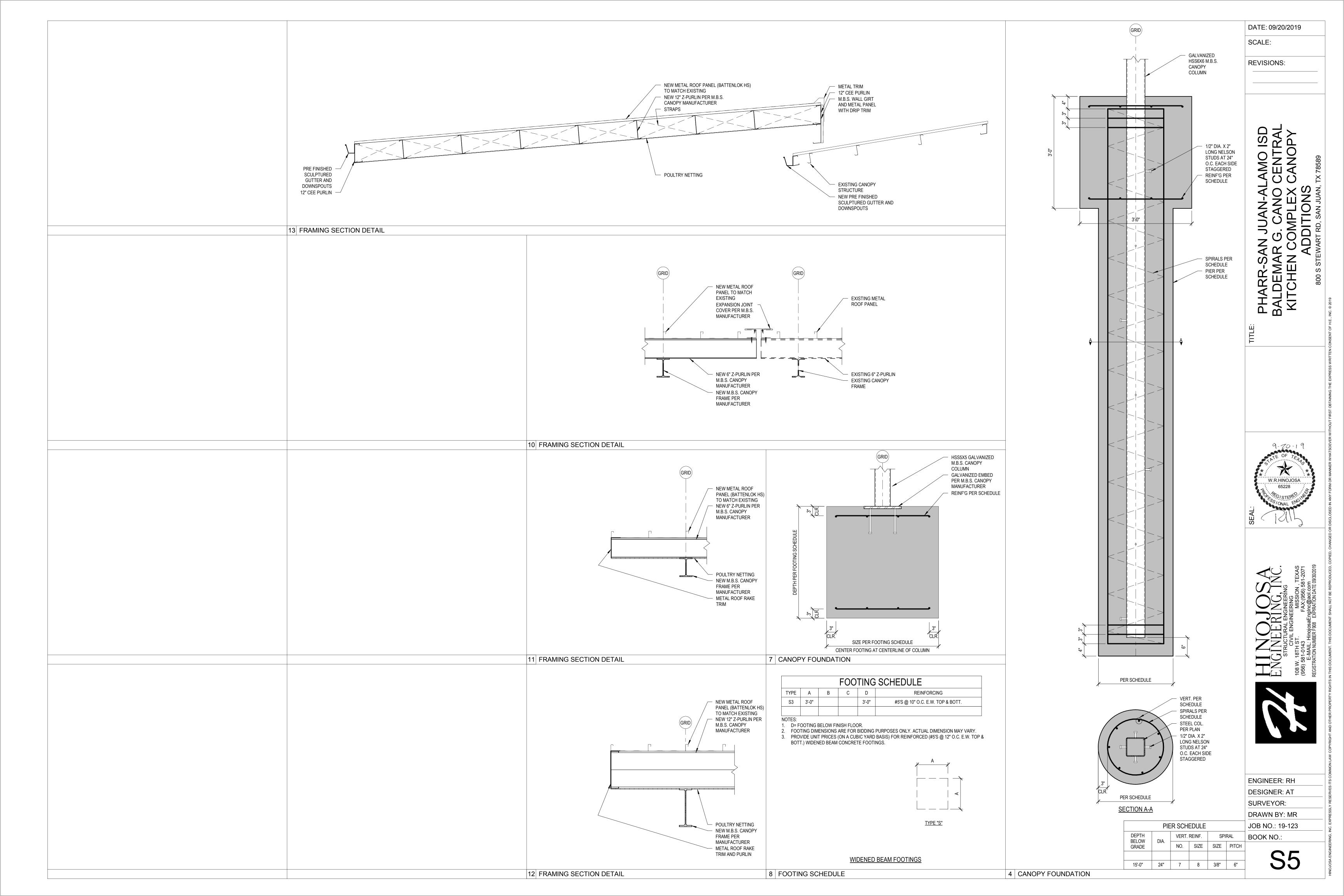
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DATE: 09/20/2019

JOB NO.: 19-123



DIVISION 26 - ELECTRICAL

- A. THE REQUIREMENTS AS SET FORTH UNDER GENERAL CONDITIONS, INSTRUCTIONS TO BIDDERS AND
- GENERAL REQUIREMENTS ARE A PART OF THIS CONTRACT. B. BIDS SHALL BE BASED ON A COMPLETE/FULL SET OF DRAWINGS.
- C. CONTRACTOR MUST READ THE ENTIRE SPECIFICATIONS COVERING OTHER BRANCHES OF WORK AND IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH WORK PERFORMED BY OTHER TRADES.

- A. PROVIDE ALL LABOR, MATERIALS, TESTING, EQUIPMENT, INCIDENTALS AND TOOLS TO PERFORM WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION AND OPERABLE
- B. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND AS SUCH APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT.
- C. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES.
- D. INCLUDE ANY LABOR AND MATERIALS NOT SPECIFICALLY MENTIONED, BUT NECESSARY TO PROVIDE COMPLETE AND FULLY OPERATIVE SYSTEMS.

- A. SECURE AND PAY FOR ALL REQUIRED PERMITS, FEES, ASSESSMENTS AND INSPECTION CERTIFICATES THAT RELATE TO THE WORK.
- B. PROVIDE APPROVED CERTIFICATE OF FINAL INSPECTION, AND PROVIDE TO OWNER AT COMPLETION OF PROJECT.

DRAWINGS AND SPECIFICATIONS:

A. PLANS ARE DIAGRAMMATIC, NOT SHOWING EVERY ITEM IN EXACT LOCATION OR DETAIL. MEASUREMENTS AND LOCATIONS MUST BE FIELD VERIFIED AND COORDINATED WITH ARCHITECTURAL, PLUMBING, HVAC, FIRE PROTECTION, STRUCTURAL AND OTHER WORK.

- A. CONDUIT SHALL BE STANDARD STEEL RIGID, IMC OR EMT (THIN WALL) ACCORDING TO LOCAL CODE AND LANDLORD REQUIREMENTS. CONDUIT SHALL BE CONCEALED IN FINISHED AREAS, EXCEPT AS OTHERWISE APPROVED BY OWNER. EMT CONNECTIONS SHALL BE COMPRESSION OR SET SCREW TYPE.
- B. FLEXIBLE METAL CONDUIT SHALL BE USED FOR FINAL CONNECTIONS TO LUMINAIRES, MOTORS AND VIBRATING EQUIPMENT ONLY; AND WHERE SO USED TO BE GROUNDED WITH A SEPARATE FULL SIZED GREEN GROUNDING CONDUCTOR. FINAL FLEXIBLE METAL CONDUIT CONNECTIONS SHALL BE LIMITED TO 5'-0" IN LENGTH. (ARRANGE CIRCUITS TO AVOID THE USE OF JUNCTION BOXES ABOVE DRYWALL CEILING AREAS. JUNCTION BOXES LOCATED ABOVE LAY IN CEILINGS ARE ACCEPTABLE).
- 1. MINIMUM SIZES OF CONDUITS SHALL BE 3/4" FOR STANDARD CONDUIT, AND 1/2" FOR FLEXIBLE METAL CONDUIT (1/2" STANDARD CONDUIT MAY BE USED AS SPECIFIED ABOVE, IF ACCEPTABLE WITH LOCAL CODES. COORDINATE WITH INSPECTION AGENCIES PRIOR TO INSTALLATION). ELECTRIC METALLIC TUBING (EMT) SHALL BE GALVANIZED OR ELECTRO-GALVANIZED. FITTINGS SHALL BE SET SCREW OR COMPRESSION TYPE, FITTING SHALL BE AS MANUFACTURED BY REGEL, STEEL CITY, RACO, T & B, EFCOR OR EQUAL. EMT SHALL BE USED FOR FEEDERS AND BRANCH CIRCUITS RUN ABOVE SUSPENDED CEILINGS OR CONCEALED IN INTERIOR PARTITIONS.
- 2. PAINT CONDUITS, ETC., TO MATCH SURROUNDING SURFACES WHERE EXPOSED TO PUBLIC VIEW. C. THE USE OF NM, ROMEX, OR BX IS NOT PERMITTED.
- D. MAXIMUM CONDUIT HANGER SPACING SHALL BE 8'-0" FOR 3/4" THRU 1 1/4" AND 10'-0" FOR 1-1/2" THRU 4" CONDUITS. DO NOT SUPPORT CONDUIT FROM CEILING SYSTEM.
- E. PROVIDE NYLON PULL STRING IN ALL EMPTY CONDUITS. F. SECURE ALL CONDUITS TO THE BUILDING STRUCTURE IN A RIGID AND SECURE MANNER, USING
- FASTENERS SUCH AS "CADDY CLIPS" OR EQUAL. G. FLASH AND COUNTER FLASH ALL CONDUITS WHICH PENETRATE THE ROOF OR USE PITCH POCKETS.
- PENETRATIONS SHALL BE COMPLETELY WEATHERPROOF. ALL CONDUIT SYSTEMS EXPOSED TO WEATHER SHALL BE WEATHERPROOF.
- H. SLAB OPENINGS FOR CONDUITS IN WET AREAS MUST BE SLEEVED 2" ABOVE FLOOR AND SEALED TO PROPER FLOOR WATERPROOFING SYSTEM PER B-2. X-RAY SLAB PRIOR TO CORE DRILLING.

- A. WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. MINIMUM WIRE SIZE SHALL BE #12 AWG, ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES. ALL WIRING OF ANY TYPE SHALL BE IN CONDUIT. WHERE ALLOWED BY LOCAL CODES, TYPE MC CABLE IS ALLOWED. NO STRANDED WIRE ALLOWED FOR #10 AND #12 AWG SIZES. (INCREASE CONDUCTOR BY ONE SIZE FOR EVERY 150' INCREMENT OF DISTANCE FROM THE PANEL BOARD FOR ALL 120 VOLT CIRCUITS.)
- 1. GENERAL WIRING SHALL BE COPPER THWN OR THHN. B. WIRE CONNECTORS SHALL BE EQUAL TO SCOTCHLOCK FOR #8 AND SMALLER, AND EQUAL TO T & B
- "LOCK-TITE" FOR #6 AND LARGER.
- C. ALL WIRING SHALL BE COLOR CODED AS FOLLOWS 208/120 VOLT SYSTEM
 - NEUTRAL WHITE PHASE A OR L1-BLACK
 - PHASE B OR L2-RED
- PHASE C OR L3-BLUE **GROUND-GREEN**

- A. LUMINAIRES SHALL BE PROVIDED AS SCHEDULED ON THE LUMINAIRE SCHEDULE. FLUORESCENT LAMPS SHALL HAVE HPF BALLASTS WITH EFFICIENCY FACTORS IN ACCORDANCE WITH "NATIONAL APPLIANCE ENERGY CONSERVATION ACT OF 1987, AMENDMENTS OF 1988."
- B. LUMINAIRES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE VIA ALL THREAD AND UNISTRUT, NOT SUPPORTED BY CEILING SYSTEM.

- A. PROVIDE A COMPLETE WIRED GROUNDING SYSTEM FOR ELECTRICAL EQUIPMENT AND CIRCUITS AS SHOWN ON THE DRAWINGS AND DESCRIBED GENERALLY BELOW.
- B. ALL GROUNDING CONDUCTORS SHALL BE GREEN, WHERE EXPOSED IN PANEL, SWITCHBOARD, OUTLET, BOXES, ETC.
- C. ALL ENCLOSURES AND NON-CURRENT CARRYING METALS SHALL BE GROUNDED. ALL METAL CONDUIT SYSTEMS SHALL BE GROUNDED. ALL LOCK NUTS MUST CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS.
- D. RUN A SEPARATE GROUNDING CONDUCTOR IN EACH CONDUIT, #12 MINIMUM. FOR PANEL FEEDERS BOND THE GROUNDING CONDUCTOR TO THE CONDUIT, WHERE ENTERING AND LEAVING THE CONDUIT. ALL GROUND CLAMPS SHALL BE PENN-UNION OR EQUAL, SIMILAR TO "GPL" TYPE. CONDUIT GROUND BUSHINGS SHALL BE THOMAS & BETTS OR EQUAL, SIMILAR TO #3800 SERIES WITH NYLON INSULATED THROAT.
- E. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM. USE A BONDING JUMPER BETWEEN THE OUTLET BOX AND THE DEVICE GROUNDING TERMINAL. METAL TO METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES. ALL JUNCTION BOXES, OUTLET BOXES AND PULL BOXES SHALL BE BONDED TO THE CONDUIT SYSTEM. ALL FLEXIBLE CONDUIT SHALL BE JUMPERED WITH A GROUNDING CONDUCTOR.

- A. DEVICES AND COVERPLATES 1. RECEPTACLES SHALL BE 20 AMP, 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362.
- 2. SWITCHES SHALL BE 20 AMP SPECIFICATION GRADE, RATED AT 120 VOLT.
- 3. SPECIAL DEVICES SHALL BE A SPECIFICATION GRADE. 4. ALL DEVICES & COVER PLATES SHALL BE WHITE IN COLOR.
- 5. EQUAL ALTERNATES = ARROW-HART, GENERAL ELECTRIC, BRYANT, PASS & SEYMOUR, OR SIERRA.

PANELBOARDS AND SAFETY SWITCHES:

- A. PROVIDE BRANCH CIRCUIT PANEL BOARDS WHICH SHALL BE OF THE BOLTED CIRCUIT BREAKER TYPE WITH SOLID COPPER BUSSING FULL SIZED NEUTRAL, 100% GROUND BUSSING, OVERALL HINGED/LOCKABLE DOOR, AND TYPE-WRITTEN DIRECTORY INSIDE DOOR. ALL SERVICE ENTRANCE EQUIPMENT SHALL BEAR THE MANUFACTURER'S LABEL WHICH SHALL STATE THAT THE EQUIPMENT IS RATED FOR SERVICE ENTRANCE APPLICATION IN ACCORDANCE WITH N.E.C. #230-70. LOAD BALANCE ALL ELECTRICAL PHASES AT PANELS AND SWITCHBOARDS. TWO AND THREE POLE BREAKERS SHALL BE COMMON TRIP TYPE. WHEN USED AS SWITCHES IN 120V LIGHTING CIRCUITS, FURNISH TYPE "SWD" BREAKERS IN ACCORDANCE WITH N.E.C. #240-83B.
- SQUARE D OR EQUAL BY CUTLER-HAMMER, WESTINGHOUSE, OR GENERAL ELECTRIC (OR APPROVED EQUAL). B. PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NON-FUSED, AS INDICATED ON DRAWINGS AND AS REQUIRED BY CODE (FUSES AS MANUFACTURED BY BUSSMAN, CHASE SHAWMUT, WESTINGHOUSE, ECONOMY FUSE CO., OR LITTLE FUSE CO. ARE ACCEPTABLE). SWITCHES SHALL BE HEAVY DUTY, QUICK MAKE/QUICK BREAK TYPE, FUSIBLE OR NON-FUSIBLE, WEATHERPROOF AS INDICATED ON THE DRAWINGS, OR AS REQUIRED BY LOCAL CODES. LOAD AND HORSEPOWER RATED SWITCHES AS MANUFACTURED BY SQUARE D, CUTLER HAMMER, WESTINGHOUSE, OR GENERAL ELECTRIC (OR APPROVED EQUAL).
- C. ALL HVAC EQUIPMENT SHALL BE PROVIDED WITH INTEGRAL SAFETY SWITCH AND CONVENIENCE OUTLET. VERIFY ALL MINIMUM CIRCUIT AMPACITIES AND MINIMUM OVERCURRENT PROTECTION WITH EQUIPMENT PROVIDED PRIOR TO INSTALLING FEEDERS TO EQUIPMENT.

- A. OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE PIECE PRESSED STEEL KNOCKOUT.
- B. JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL, CODE GAUGE SIZE. C. INSTALL BOXES RIGIDLY ON BUILDING STRUCTURE AND SUPPORT INDEPENDENTLY OF CONDUIT SYSTEM. ALSO PROVIDE SUITABLE/PROPER BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF WALLS ETC.

ALL OUTLET BOXES TO HAVE SUITABLE BLOCKING BEHIND THEM TO MINIMIZE THE DEFLECTION THAT

OCCURS WHEN PLUGGING/UNPLUGGING INTO THESE DEVICES.

- A. PROVIDE TEMPORARY SERVICE, LIGHTING, POWER AND WIRING AS REQUIRED TO FACILITATE APPLICABLE TEMPORARY NEEDS. ANY TEMPORARY WIRING, FUSES, ETC., SHALL BE REMOVED UPON COMPLETION OF THE PROJECT. PROVIDE GROUND FAULT PROTECTION AS REQUIRED BY NEC AND LOCAL CODES.
- B. PROVIDE ELECTRICAL SERVICE AS SHOWN ON THE DRAWINGS, FIELD VERIFY ALL UTILITY REQUIREMENTS PRIOR TO BID. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE UTILITY COMPANY SHALL BE PROVIDED BY THE CONTRACTOR. CLOSELY COORDINATE ENTIRE INSTALLATION WITH UTILITY COMPANY AS REQUIRED. PROVIDE EQUIPMENT THAT IS COMPATIBLE WITH AVAILABLE FAULT CURRENT LEVELS.
- C. PROVIDE PROVISIONS FOR NEW TELEPHONE SERVICE AS REQUIRED, AND AS INDICATED ON THE DRAWINGS D. CONDUIT SYSTEM FOR TELEPHONE DISTRIBUTION WITHIN BUILDING SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE TELEPHONE SYSTEM. OUTLET BOXES SHALL BE 4" SQUARE MINIMUM WITH SINGLE DEVICE COVER AND TELEPHONE PLATE.

FIRE ALARM SYSTEM

A. FURNISH AND INSTALL A COMPLETE OPERATION FIRE ALARM SYSTEM. THE SYSTEM SHALL INCLUDE BUT IS NOT LIMITED TO HORN/STROBE, PULL STATIONS, AREA SMOKE DETECTORS, HEAT DETECTORS, DUCT SMOKE DETECTORS, TAMPER SWITCHES, FLOAT SWITCHES, REMOTE TEST STATIONS AND ANSUL SUPPRESSION SYSTEM INTERFACE COMPONENTS. ONLY THOSE DEVICES REQUIRED BY CODE SHALL BE INSTALLED. A LICENSED FIRE ALARM CONTRACTOR HIRED BY THE GENERAL CONTRACTOR AND DESIGNATED SHALL PREPARE AND SUBMIT A COMPLETE FIRE ALARM DRAWING AND MATERIAL LIST, PRIOR TO COMMENCING WORK.

INSTALLATION:

- A. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO BUILDING STEEL, CONCRETE OR MASONRY, BUT NOT TO PIPING OR DUCTWORK. EXPOSED CONDUITS SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONGSIDE OR ACROSS
- B. PROVIDE ALL LINE VOLTAGE POWER AND CONTROL WIRING INCLUDING CONNECTIONS TO MOTORS, DAMPERS, INTERLOCKING, ETC. ALL LINE VOLTAGE WIRING, CONDUIT, AND FINAL CONNECTIONS FROM THE POWER SOURCE THRU THE STARTER/DISCONNECT ETC. TO THE MOTOR OR EQUIPMENT IS THE
- RESPONSIBILITY OF THE CONTRACTOR. C. SLEEVES SHALL EXTEND AT LEAST TWO (2") INCHES ABOVE FINISHED FLOOR AND SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL BY HILTI AFTER
- CONDUIT/CABLES INSTALLATION SO AS TO RETAIN THE FIRE RATING. D. PANEL BOARDS, DISCONNECT/SAFTEY SWITCHES SHALL BE PROVIDED WITH ENGRAVED NAMEPLATE,
- APPROXIMATELY 1" X 2" IN SIZE AND BE FASTENED WITH POP RIVETS OR SCREWS. E. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE OWNER REPRESENTATIVE SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE
- THEY ARE INSTALLED WITHOUT ADDITIONAL COST. F. CONTRACTOR SHALL RECORD ALL FIELD CHANGES IN THE WORK AS THE JOB PROGRESSES, AND TURN THIS "AS BUILT" INFORMATION OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.
- G. CONTRACTOR SHALL PROTECT ALL EQUIPMENT AGAINST DAMAGE FROM LEAKS, ABUSE, ETC., AND PAY COST OF REPAIR OR REPLACEMENT OF EQUIPMENT MADE NECESSARY BY FAILURE TO PROVIDE
- SUITABLE SAFEGUARDS OR PROTECTION. H. PROVIDE ALL FINAL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM. AFTER ALL EQUIPMENT HAS BEEN INSPECTED AND APPROVED, THOROUGHLY CLEAN ALL

EQUIPMENT PROVIDED UNDER THIS WORK JUST PRIOR TO COMPLETION OF PROJECT.

GUARANTEE: A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR

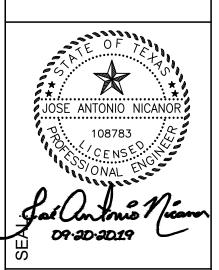
- FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

A. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.

DATE: 09/19/2019

SCALE:

REVISIONS:



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TBPE Firm No. F-14767

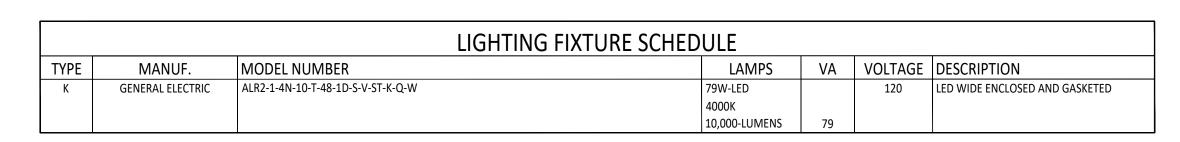
701 S. 15th Street McAllen, Texas 78501

SURVEYOR: DRAWN BY: KA JOB NO.: 19-123 300K NO.:

E-0.0

ENGINEER: JAN

DESIGNER: JAN



ELECTRICAL GENERAL LEGEND				
ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.				
SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)		
	LED LIGHT FIXTURES	SEE FIX. SCH.		
2	SINGLE LINE CONTINUATION	-		
-	CIRCUIT HOME RUN TO PANELBOARD (2 #12, 1 #12G, 3/4"C. 20A/1P CB UNO)	-		
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	-		
X/X/X	MULTI-POLE DEVICE CIRCUIT NUMBERS	-		
#	PULL BOX	-		
×	TRANSFORMER	-		
	ELECTRICAL SERVICE PANELBOARD	AS REQD.		

ABS	ABOVE BACK SPLASH	TYP	TYPICAL
AFF	ABOVE FINISHED FLOOR	EP	ELECTRICAL PRIMARY
BFC	BELOW FINISHED CEILING	NL	NIGHT LIGHT
С	CONDUIT	NO	(N.O.) NORMALLY OPEN
СВ	CIRCUIT BREAKER	RCPT(S)	RECEPTACLE(S)
CLG	CEILING	PNL	PANEL
EC	EMPTY CONDUIT	SO	(S.O.) SPACE ONLY
EX	EXISTING	SP	SPARE
F	FUSE	ST	(S.T.) SHUNT TRIP
G	GROUND (EQUIPMENT)	SW	`SWITCH
GFI	GROUND FAULT INTERRUPTER	UF	UNDERFLOOR
IC	INTERRUPTING CAPACITY	UG	UNDERGROUND
IG	ISOLATED GROUND	WG	WIRE GUARD
MTD	MOUNT OR MOUNTED	WP	WEATHERPROOF
NC (N.C.)	NORMALLY CLOSED	XFMR	TRANSFORMER
NF	NONFUSED	UNO	UNLESS NOTED OTHERWISE
NIC	NOT IN CONTRACT		

GENERAL NOTES:

KEY NOTES: #

1. FURNISH AND INSTALL LIGHT FIXTURE SURFACED MOUNTED TO CANOPY JOISTS. CONTRACTOR SHALL INCLUDE IN HIS BID TO OWNER MATERIAL AND LABOR REQUIRED TO CONNECT NEW LIGHT FIXTURES TO EXISTING PANEL "7K". FURNISH AND INSTALL NEW

20/1 POLE BRANCH BREAKER IN EXISTING SPACE "7K-34". ROUTE CIRCUIT TO NEW POWER PACK.

2. FURNISH AND INSTALL NEW CIRCUIT CONSISTING OF 2#12, 1#12EGC, 1/2" EMT CONDUIT. CONTRACTOR SHALL CONNECT NEW LIGHTING BRANCH CIRCUIT TO THE EXISTING CANOPY LIGHT FIXTURES AND LIGHTING

3. CONTRACTOR SHALL INCLUDE IN HIS BID MATERIAL AND LABOR REQUIRED TO REPLACE EXISTING CANOPY LIGHT FIXTURES, DISCONNECT EXISTING HOMERUN AND RECONNECT TO NEW LIGHTING CIRCUIT "7K-34".

A. ELECTRICAL CONTRACTOR SHALL INSTALL ALL UNDERGROUND CONDUIT, CONDUCTORS AND CABLES AS SPECIFIED. REFER TO SPECIFICATION SECTIONS FOR REQUIREMENTS.

DATE: 09/19/2019 SCALE:

REVISIONS:

4. APPROXIMATE LOCATION OF EXISTING 208/120 VOLT, THREE, PHASE, 4-WIRE ELECTRICAL PANEL "7K"

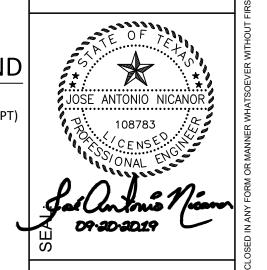
5. FURNISH AND INSTALL DIMMING POWER PACK FOR CONTROL OF CANOPY LIGHTING. INSTALL POWER BACK INSIDE THE CORRIDOR, ACCESSIBLE ABOVE CEILING. FURNISH AND INSTALL THE DIMMING CONTROL SWITCH ADJACENT TO EXISTING LIGHTING

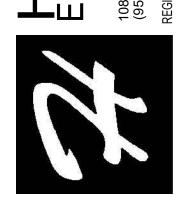
LIGHTING CONTROLS LEGEND

CONTROLS.

PJ2-3BRL-GWH-L01 (CW-1-WH-PICOWBX-ADAPT)

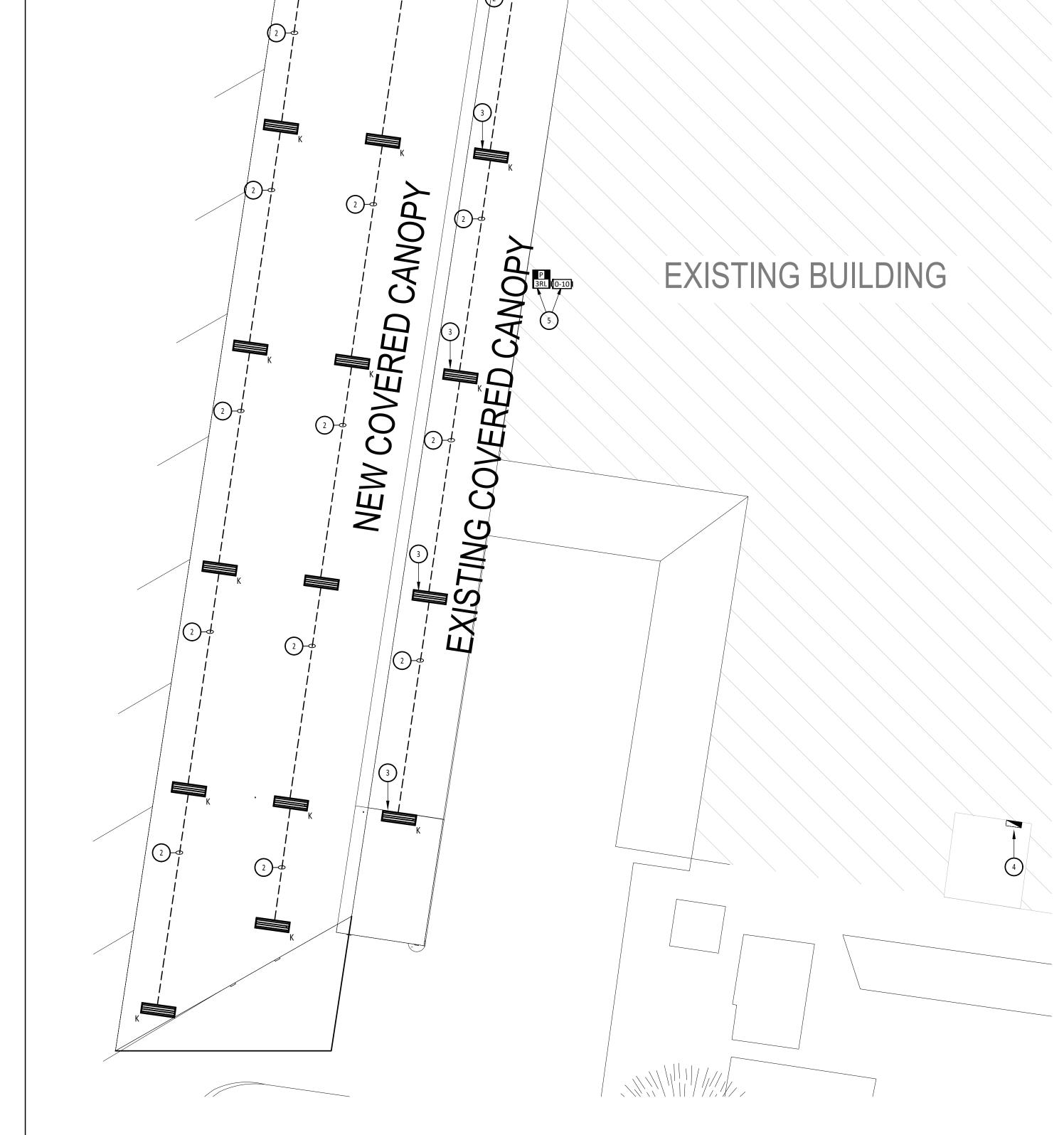
0-10 RMJS-8T-DV-B





TBPE Firm No. F-14767 701 S. 15th Street McAllen, Texas 78501

ENGINEER: JAN DESIGNER: JAN JOB NO.: 19-123 BOOK NO.:



1 ELECTRICAL SITE PLAN