HISTORIC AND DESIGN REVIEW COMMISSION

January 16, 2019

HDRC CASE NO: 2019-004 2310 ROOSEVELT AVE **ADDRESS: LEGAL DESCRIPTION:** NCB 7456 BLK LOT 11 (D FAULKNER) **ZONING:** I-1, H, RIO-5 **CITY COUNCIL DIST.:** 3 **DISTRICT:** Mission Historic District **APPLICANT:** Dathan Faulkner/Allstate Gear **OWNER:** Dathan Faulkner/Allstate Gear Construction of a storage structure **TYPE OF WORK: APPLICATION RECEIVED:** January 02, 2019 March 03, 2019 **60-DAY REVIEW:**

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to construct a storage structure at the rear of the site to feature a footprint of approximately 12,000 square feet.

APPLICABLE CITATIONS:

Mission Historic District Design Manual, Section 3, Guidelines for New Construction

3. Commercial Construction (Commercial, Institutional, and Multifamily projects consisting of 8 units or more)

A. BUILDING ORIENTATION AND SITE DEVELOPMENT

i. Division of structures — Multifamily residential or mixed used developments consisting of multiple buildings should be divided, scaled, and arranged in a manner that is respectful of the surrounding context. For instance, sites that are located adjacent to single-family residential areas should incorporate multiple, smaller buildings instead of larger buildings that are out of scale with the surrounding context. A site analysis of the surrounding context should be included in schematic design development. Site constraints or other limitations may be demonstrated and submitted as part of the application to explain the logistical and programmatic requirements for a single structure.

ii. Site configuration — Multifamily residential or mixed used developments consisting of multiple buildings should be organized in a campus-like configuration with primary facades that address external views from the public right-of-way as well as create comfortable interior spaces such as courtyards and circulation spaces.

iii. Building spacing — Buildings should be arranged to include interstitial spaces between structures that maintain a comfortable pedestrian scale. Single story buildings should be sited to include a minimum separation of 10 feet between buildings. Multi-story buildings should maintain a minimum separation of 50% of the adjacent building heights. For spaces between two buildings of differing heights, 50% of the average of the two heights shall be used.

iv. Transitions — Sites that are located adjacent to single-family residential areas or context areas consisting of predominantly singlestory, contributing buildings should utilize transitions in building scale and height along the edge conditions of the site to improve compatibility with the surrounding context. New buildings sited at these edge conditions should not exceed the height of adjacent contributing buildings by more than 40%. The width of the primary, street-facing façade of new buildings should not exceed the width of adjacent contributing buildings by more than 60%.

v. Setbacks — In general, new buildings should follow the established pattern of the block in terms of front building setback where there is a strong historic context (adjacent contributing buildings). On corridors where building setbacks vary or are not well-defined by existing contributing buildings, buildings buildings should maintain a minimum front setback of 15' for properties north of SE Military and a maximum front setback of 35' for properties south of SE Military. *vi. Location of parking areas along corridors* — Rear / side parking is encouraged north of SE Military Drive. Front parking with landscape buffers are encouraged south of SE Military Drive.

vii. Vehicular access and driveways along corridors — In general, driveway widths should not exceed 24'. Shared driveways are allowed and can have a maximum width of 30'. Shared driveways are encouraged to incorporate a pedestrian island. In order to accommodate functions requiring access by heavy trucks (Min SU 30), request for driveways wider than what is recommended by the guidelines should be coordinated with TCI for an alternative to be considered by the HDRC.

B. BUILDING MASS, SCALE AND FORM

i. Monolithic elements and fenenstrations — Historic masonry construction in the Missions lack numerous voids in the wall plane resulting in a monolithic aesthetic that is appropriate to reference in new construction. Wall planes and fenestration patterns should be organized to yield facades that appear monolithic and enduring while still allowing for visual interest through breaks in scale and pattern. Traditional punched window openings with uniform spacing throughout the building facade is discouraged. Glass curtain walls or uninterrupted expanses of glass may also be grouped and used to create uniform building mass as a contemporary alternative to the historic construction type. *ii. Maximum facade length* — Notwithstanding the provisions of RIO, commercial structures in the Mission Historic District should not include uninterrupted wall planes of more than 50 feet in length. Building facades may utilize an offset, substantial change in materials, or change in building height in order to articulate individual wall planes. *iii. Height* — Notwithstanding the provisions of RIO, commercial structures in the Mission Historic District should be a maximum of three stories in height. Sites located within a Mission Protection Overlay District may be subject to more restrictive height regulations. Height variability between buildings within complexes is encouraged. Additional height may be considered on a case by case basis depending on historic structures of comparable height in the immediate vicinity.

C. ROOF FORM

i. Primary roof forms — A flat roof with a parapet wall is recommended as a primary roof form for all commercial buildings. Parapets may vary in height to articulate individual wall planes or programmatic elements such as entrances. Complex roof designs that integrate multiple roof forms and types are strongly discouraged.

ii. Secondary roof forms — Secondary roofs should utilize traditional forms such as a hip or gable and should establish a uniform language that is subordinate to the primary roof form. Contemporary shed roofs may be considered on a case by case basis as a secondary roof form based on the design merit of the overall proposal and the context of the site. Conjectural forms such as domes, cupolas, or turrets that convey a false sense of history should be avoided.

iii. Ridge heights — The ridgelines of roofs with multiple gables or similar roof forms should be uniform in height; cross gables should intersect at the primary ridgeline unless established as a uniform secondary roof form.

D. MATERIALS

i. Traditional materials — Predominant façade materials should be those that are durable, high-quality, and vernacular to San Antonio such as regionally-sourced stone, wood, and stucco. Artificial or composite materials are discouraged, especially on primary facades or as a predominate exterior cladding material. The use of traditional materials is also encouraged for durability at the ground level and in site features such as planters and walls.

ii. Traditional stucco — Stucco, when correctly detailed, is a historically and aesthetically appropriate material selection within the Mission Historic District. Artificial or imitation stucco, such as EIFS or stucco-finish composition panels should be avoided. Applied stucco should be done by hand and feature traditional finishes. Control joints should be limited to locations where there is a change in materials or change in wall plane to create a continuous, monolithic appearance.

iii. Primary materials — The use of traditional materials that are characteristic of the Missions is strongly encouraged throughout the historic district as primary materials on all building facades. For all new buildings, a minimum of 75% of the exterior facades should consist of these materials. Glass curtain walls or uninterrupted expanses of glass may be counted toward the minimum requirement.

iv. Secondary materials — Non-traditional materials, such as metal, tile, or composition siding may be incorporated into a building façade as a secondary or accent material. For all new buildings, a maximum of 25% of the exterior facades should consist of these nontraditional materials.

v. Visual interest — A variety and wellproportioned combination of exterior building materials, textures, and colors should be used to create visual interest and avoid monotony. No single material or color should excessively dominate a building or multiple buildings within a complex unless the approved architectural concept, theme, or idea depends upon such uniformity. While a variety is encouraged, overly-complex material palettes that combine materials that are not traditionally used together is discouraged.

vi. Decorative patterns and color — The use of decorative patterns and color is encouraged any may be conveyed through a variety of contemporary means such as tile, cast stone, and repetition in architectural ornamentation. In general, the use of natural colors and matte 6inishes is encouraged; vibrant colors which re6lect the historic context of the area are encouraged as accents.

vii. Massing and structural elements — The use of materials and textures should bear a direct relationship to the building's organization, massing, and structural elements. Structural bays should be articulated wherever possible through material selection.

E. FACADE ARRANGEMENT AND ARCHITECTURAL DETAILS

i. Human scaled elements — Porches, balconies, and additional human-scaled elements should be integrated wherever possible.

ii. Entrances — The primary entrance to a commercial and mixed used structures, such as a lobby, should be clearly defined by an architectural element or design gesture. Entrances may be recessed with a canopy, defined by an architectural element such as a prominent trim piece or door surround, or projecting mass to engage the pedestrian streetscape.

iii. Windows — Windows should be recessed into the façade by a minimum of 2 inches and should feature profiles that are found historically within the immediate vicinity. Wood or aluminum clad wood windows are recommended. *iv. Architectural elements* — Façade designs should be inspired by the San Antonio Missions and regional architectural styles. Contemporary interpretations of buttresses, colonnades, arcades, and similar architectural features associated with the Missions are encouraged. Historicized elements or ornamentation with false historical appearances should be avoided. *v. Corporate architecture and branding* — Formula businesses, retail chains, and franchises are encouraged to seek creative and responsive alternatives to corporate architecture that respect the historic context of the Mission Historic District. The use of corporate image materials, colors, and designs should be significantly minimized or eliminated based on proximity to the Missions or location on a primary corridor.

FINDINGS:

- a. The applicant is requesting a Certificate of Appropriateness for approval to construct a storage structure at the rear of the site to feature a footprint of approximately 12,000 square feet. The location of the proposed storage structure is located at the northeast corner of the site.
- b. BUILDING SPACING Per the Mission Design Manual, Buildings should be arranged to include interstitial spaces between structures that maintain a comfortable pedestrian scale. Per the applicant's site plan, the applicant has arranges the proposed new structure to feature spacing from existing structures that is consistent with the Manual.
- c. SETBACKS In general, new buildings should follow the established pattern of the block in terms of front building setback where there is a strong historic context (adjacent contributing buildings). On corridors where building setbacks vary or are not well-defined by existing contributing buildings, buildings should maintain a minimum front setback of 15' for properties north of SE Military and a maximum front setback of 35' for properties south of SE Military. The applicant has proposed to site the storage structure at the rear of the site, where visibility from the right of way at Roosevelt is minimal. Staff finds the proposed setback appropriate.
- d. HEIGHT The Mission Design Manual notes that structures should not feature a height that exceeds three (3) stories in height. The proposed height is consistent with the Manual.
- e. FAÇADE SEPARATION The Mission Design Manual notes that structures within the Mission Historic District should not feature façade planes that are greater than fifty (50) feet in width. The applicant has proposed façade panels that are twenty-five (25) feet in width each.
- f. ROOF FORM The applicant has proposed for the structure to feature a low-sloped gabled roof. Staff finds the proposed roof form to be appropriate.
- g. MATERIALS The applicant has proposed for the structure to feature a steel structure and metal siding. The proposed materials are consistent with those existing on site.

RECOMMENDATION:

Staff recommends approval as submitted based on findings a through g with the following stipulation:

i. That the applicant explore the use of masonry as a primary or secondary material on portions of the proposed storage structure.

CASE MANAGER:

Edward Hall



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Flex Viewer

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<u>6.(</u> 6.1 6.2 6.3 6.5 7.1

 1.1 THIS FOUNDATION DESIGN IS SITE SPECIFIC AND MAY NOT BE USED FOR DIFFERENT SITE LOCATIONS WITHOUT WRITTEN PERMISSION FROM M&S ENGINEERING, LLC

 1.2 THIS FOUNDATION HAS BEEN DESIGNED AS A GROUND SUPPORTED CONCRETE SLAB-ON-GRADE FOUNDATION, AND AS SUCH WILL MOVE WITH THE SOILS UPON WHICH IT BEARS. THIS DESIGN IS INTENDED TO LIMIT SUCH MOVEMENT TO WITHIN THE DEFLECTION TOLERANCES SET FORTH IN THE

INTERNATIONAL BUILDING CODE, EDITION IN FORCE AT TIME OF DESIGN.

 1.3 THIS FOUNDATION DESIGN IS BASED ON GEOTECHINICAL REPORT DONE BY ROCK ENGINEERING & TESTING (REPORT #G217250)
 1.4 DO NOT SCALE THIS DRAWING. THIS IS A SCHEMATIC PLAN TO BE USED TO LOCATE AND IDENTIFY STRUCTURAL FOUNDATION ELEMENTS ONLY. DIMENSIONAL CONTROL IS THE RESPONSIBILITY OF THE BUILDER AND CONTRACTOR TO FOLLOW THE ARCHITECTURAL, DESIGNER PLANS, OR EXISTING SITE CONDITIONS. USE THIS PLAN FOR PLACEMENT OF STRUCTURAL FOUNDATION ELEMENTS ONLY.
 1.5 THE BUILDER SHALL VERIFY ALL DIMENSIONS, SLAB DROP DEPTH AND LOCATIONS, BRICK- LEDGE DEPTH AND LOCATIONS, DOOR LUG LENGTH, DEPTH AND LOCATIONS, SLOPES, AND ALL OTHER NOTED ITEMS WITH THE ARCHITECTURAL OR DESIGNER PLANS AND SHALL NOTIFY THE ARCHITECT OR DESIGNER AND M&S IN WRITING OF ANY DISCREPANCY AND FOR DIRECTIONS TO RESOLVE THE DISCREPANCY. THE ARCHITECTURAL OR DESIGNER

PLANS TAKE PRECEDENCE OVER THIS DRAWING IF ANY NON-STRUCTURAL DIMENSIONAL DISCREPANCY EXISTS. 1.6 THE BUILDER SHALL COORDINATE THIS DRAWING WITH ALL STRUCTURAL, CIVIL, ELECTRICAL, AND MECHANICAL PLANS FOR ALL OPENINGS, EMBEDDED ITEMS, DROPS, OFFSETS, SLOPES, ETC. AND SHALL NOTIFY THE ARCHITECT OR DESIGNER AND M&S IN WRITING OF ANY DISCREPANCY AND FOR DIRECTIONS TO RESOLVE THE DISCREPANCY.

 SEE SITE PLAN, ARCHITECTURAL PLAN, OR DESIGNER PLAN FOR ACTUAL TOP-OF-SLAB FINISH FLOOR ELEVATION.
 VERTICAL EXPANSION JOINTS SHALL BE INSTALLED IN BRICK VENEERS AND STUCCO WALL FINISHES IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS OR AT A MAXIMUM SPACING OF 25 FEET PER RUN OF STRAIGHT WALL, WHICHEVER IS LESS.

2.0 DESIGN DATA AND CRITERIA 2.1 THE FOUNDATION DESIGN UTILIZED GUIDANCE PROVIDED IN THE 2015 IBC.

2.2 STRUCTURAL FOUNDATION DESIGN LOADS:

DEAD LOAD: WEIGHT OF BUILDING COMPONENTS AND FOUNDATION 2.3 GEOTECHNICAL INFORMATION BASED ON GEOTECHINICAL REPORT DONE BY ROCK ENGINEERING & TESTING (REPORT #G217250) - DESIGN PI = 25 LIVE LOAD:

ROOF - 20/16 PSF CEILING - 20 PSF FLOOR - 40 PSF

3.0 SITE PREPARATION AND DRAINAGE

3.1 A GEOTECHNICAL REPORT EXISTS FOR THE PROJECT, SITE DEVELOPMENT SHALL INCLUDE REGRADING AND REMOVAL OF EXISTING SITE NATIVE SOILS, AND PLACEMENT AND COMPACTION OF SELECT STRUCTURAL FILL PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3.2 AT A MINIMUM, WHERE THE SITE SURFACE SOILS CONSIST OF CLAY OR CLAYEY MATERIALS, A MINIMUM OF 6 INCHES OF SURFACE SOILS SHALL BE EXCAVATED. IN THE CASE OF HEAVY BLACK OR BROWN CLAYS, THE MINIMUM DEPTH OF SOILS REMOVAL IS RECOMMENDED AT 36 INCHES. PROOF ROLLING, SOILS CONSOLIDATION, AND COMPACTING ARE RECOMMENDED. IT IS THE ENGINEER'S RECOMMENDATION THAT IN ACCORDANCE WITH ANY GEOTECHNICAL REPORT, OR IN THE ABSENCE THEREOF, SELECT STRUCTURAL FILLS BE PROVIDED AT THE LOCATION OF PROPOSED FOUNDATION CONSTRUCTION. A MINIMUM DEPTH OF FILL MATERIAL SHALL BE AS SPECIFIED IN THE GEOTECHNICAL REPORT, OR EQUAL TO THE DEPTH OF SURFACE SOILS EXCAVATION. THEREAFTER, ADDITIONAL FILL MATERIAL SHALL BE PROVIDED TO FORM A STRUCTURAL BASE AT THE GREATER OF A MINIMUM OF 12" IN HEIGHT, OR AS REQUIRED FOR PROPER FOUNDATION EXPOSURE. THE STRUCTURAL FILL SHALL CONSIST OF TYPE A CRUSHED LIMESTONE, OR TYPE B CLAYEY CRUSHED GRAVEL, IN ACCORDANCE WITH TXDOT SPECIFICATION ITEM 247 FOR GRADE 1 FILL MATERIALS. STRUCTURAL FILL SHALL BE

PLACED IN LIFTS OF 8 INCHES, AND COMPACTED IN ACCORDANCE WITH TXDOT SPECIFICATION TEX-113-E, WITH MOISTURE CONTENT CONTROLLED TO CONFORM TO TXDOT SPECIFICATION ITEM 204 "SPRINKLING". 3.3 TREES WITHIN A DISTANCE TO THE FOUNDATION OF ONE TIMES THE MATURE TREE HEIGHT MAY DAMAGE THE FOUNDATION. EXISTING AND NEWLY PLANTED TREES WITHIN ONE TIMES THE MATURE TREE HEIGHT TO THE FOUNDATION PERIMETER ARE AT THE RISK OF BUILDER AND/OR OWNER AND MUST HAVE A PROPERLY DESIGNED AND PLACED ROOT SHIELD (ROOT BARRIER), DESIGNED BY AN ARBORIST OR TREE EXPERT, TO INHIBIT TREE ROOT

GROWTH TOWARD AND UNDER THE FOUNDATION. 3.4 VOIDS (HOLES) CREATED AS A RESULT OF DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, TREES, AND OTHER EXISTING OBJECTS SHALL BE FILLED WITH WELL COMPACTED SELECT FILL MATERIAL. THIS IS USUALLY DONE BY LAYERING THE HOLE WITH SELECT FILL MATERIAL APPLYING WATER AND COMPACTING EACH LAYER, COMPACTING WITH HEAVY EARTH MOVING EQUIPMENT OR A HEAVY TRUCK. CONTINUE THIS PROCESS UNTIL THE HOLE IS FILLED.

3.5 SITE SURFACE DRAINAGE DURING CONSTRUCTION IS VERY IMPORTANT IN CONTROLLING MOISTURE PROBLEMS ASSOCIATED WITH THE BELOW SLAB FILL, LOT FILL MATERIAL, AND SUB-GRADE SOILS. BUILDER SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE FOUNDATION. THE BUILDER IS RESPONSIBLE FOR THE INSTALLATION OF BERMS OR SWALES ON THE UPHILL SIDE OF THE CONSTRUCTION AREA TO DIVERT SURFACE RUNOFF AWAY FROM THE FOUNDATION AREA DURING CONSTRUCTION.

 3.6 THE BUILDER IS RESPONSIBLE FOR LOCATION OF WATER-BEARING UTILITIES, ROOF DRAINAGE OUTLETS, AND IRRIGATION SPRAY HEADS OUTSIDE OF THE FOUNDATION PERIMETER DRAIN BOUNDARIES. ROOF DOWNSPOUTS SHOULD BE EXTENDED OR BE CONNECTED TO UNDERGROUND PIPING SYSTEMS THAT DIRECT ROOF DRAINAGE WATER AT LEAST FIVE FEET TO "DAYLIGHT" AWAY FROM THE FOUNDATION PERIMETER. ALL AIR CONDITIONING CONDENSER DRAIN LINES SHOULD DISCHARGE A MINIMUM OF FIVE FEET AWAY FROM THE FOUNDATION PERIMETER.
 3.7 THE BUILDER IS RESPONSIBLE FOR CONSTRUCTION OF FINAL SURFACE DRAINAGE PATTERN TO PREVENT PONDING AND LIMIT SURFACE WATER

INFILTRATION AT THE FOUNDATION PERIMETER. M&S IS NOT RESPONSIBLE FOR FOUNDATION WITH INADEQUATE DRAINAGE AND/OR GROUND WATER COLLECTION PROXIMATE TO THE FOUNDATION PERIMETER OR BENEATH THE FOUNDATION. THE GROUND ADJACENT TO THE FOUNDATION SHALL SLOPE DOWN AND AWAY A MINIMUM OF SIX INCHES IN THE FIRST FIVE FEET (10% MIN. SLOPE). 3.8 LIVING AREA TOP-OF-SLAB FINISH FLOOR ELEVATION SHALL BE A MINIMUM OF EIGHT INCHES ABOVE THE FINAL LOT GRADE ADJACENT TO THE FOUNDATION PERIMETER.

3.9 IT IS THE RESPONSIBILITY OF THE BUILDER TO NOTIFY THE PROPERTY OWNER OF THE IMPORTANCE TO MAINTAIN PROPER SURFACE DRAINAGE SLOPING DOWN AND AWAY FROM THE FOUNDATION PERIMETER AND TO MAINTAIN UNIFORM MOISTURE CONTENT OF THE SOIL AROUND THE FOUNDATION PERIMETER. SYSTEMATIC AND UNIFORM WATERING OF THE SOIL IN THE AREAS SURROUNDING THE FOUNDATION DURING DRY PERIODS MAY BE REQUIRED TO MAINTAIN UNIFORM MOISTURE CONTENT OF THE SOIL. DO NOT OVER-WATER.

4.0 FOUNDATION CONSTRUCTION

4.1 FILL MATERIAL PLACED BENEATH THE FOUNDATION SLAB AREAS (SLAB FILL MATERIAL) SHALL BE WELL GRADED GRANULAR LOW PLASTICITY SELECT FILL MATERIAL HAVING A PI OF 5 TO 20 WITH A LIQUID LIMIT NOT EXCEEDING 40 PERCENT. THE FILL MATERIAL SHOULD BE FREE OF ORGANICS, TRASH, RUBBLE, OR OTHER DELETERIOUS MATERIALS AND SHALL HAVE NO PARTICLE SIZE GREATER THAN 3 INCHES IN DIAMETER. CRUSHED LIMESTONE OR CRUSHED AND UNCRUSHED GRAVEL MATERIAL MEETING THE REQUIREMENTS OF TXDOT ITEM 247, TYPE A OR B, GRADE 1 OR 2 IS PREFERRED.
4.2 SOIL FROM BEAM EXCAVATION AND OTHER SITE EXCAVATIONS SHALL NOT BE USED AS SLAB FILL MATERIAL.
4.3 SLAB FILL MATERIAL SHALL BE COVERED AND PROTECTED FROM GETTING WET PRIOR TO PLACEMENT IN THE FOUNDATION SLAB AREAS AND AFTER

PLACEMENT IN THE FOUNDATION SLAB AREAS. 4.4 THE SLAB FILL MATERIAL SHALL BE A MINIMUM OF (12) TWELVE INCHES THICK BENEATH ALL FOUNDATION SLAB AREAS AND PLACED TO A FINISH GRADE ELEVATION EQUAL TO THE GRADE ELEVATION OF THE BOTTOM OF THE SLAB. THE SLAB FILL MATERIAL SHALL BE PLACED IN MAXIMUM 6 INCH LIFTS AND MACHINE TAMPED TO REDUCE FILL SETTLEMENT.

4.5 TRENCHING OF GRADE BEAMS SHALL BE EXCAVATED TO PROVIDE THE BEAM CROSS SECTION INDICATED. BEAM AND SLAB DEPTHS AND WIDTHS AS INDICATED ARE MINIMUM ACCEPTABLE SIZES. LARGER SIZE BEAMS AND SLABS FORMED BY LESS ACCURATE TRENCHING MAY REQUIRE ADDITIONAL REINFORCING NOT SHOWN WHICH SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION REVIEW. ALL LOOSE DIRT FROM SIDES AND BOTTOMS OF TRENCHES SHALL BE REMOVED. HAUNCHES SHALL BE CUT ON EACH SIDE OF TRENCHES OF ADEQUATE SIZE TO MAINTAIN THE VERTICAL SIDES OF THE TRENCH.
4.6 NOT USED

4.7 IN DEEP SLAB FILL AREAS, IT IS PERMISSIBLE TO UTILIZE CRUSHED LIMESTONE OR CRUSHED AND UNCRUSHED GRAVEL FILLED BAGS TO FORM THE SIDES OF THE FOUNDATION BEAMS.
4.8 THE CONTRACTOR AND/OR BUILDER IS RESPONSIBLE FOR THE STABILITY OF ALL SLAB FILL MATERIAL.

 4.9 PROVIDE A LAYER OF 10 MILL. POLYETHYLENE VAPOR BARRIER MEMBRANE OR EQUIVALENT BENEATH ALL SLAB AREAS. THE VAPOR BARRIER MEMBRANE MUST BE TAPED AT ALL SPLICES AND TEARS. BARRIER MEMBRANE MUST EXTEND TO THE BOTTOM OF THE SIDES OF THE BEAM TRENCHES. IF BARRIER IS EXTENDED ACROSS BOTTOM OF BEAM, BARRIER MUST BE FLAT FORMING A SQUARE BOTTOM TO THE BEAM.
 4.10 ALL EXTERIOR FOUNDATION BEAMS ARE TO BE EXCAVATED AND EMBEDDED INTO UNDISTURBED SOIL OR PROPERLY COMPACTED LOT FILL MATERIAL TO A MINIMUM DEPTH OF 6 INCHES OR AS NOTED IN THE DETAILS AND DESIGN CHART ON THIS DRAWING, WHICHEVER IS GREATER, OR INTO BEDROCK TO A MINIMUM DEPTH OF 6 INCH.

4.11 REMOVE FREE WATER FROM BEAM TRENCHES AND ALL OTHER EXCAVATIONS BEFORE PLACING CONCRETE. CLEAN BOTTOM OF BEAM TRENCHES OF LOOSE SOIL, ROOTS, GRAVEL, AND ALL DEBRIS PRIOR TO PLACING CONCRETE. CONCRETE SHALL NOT BE PLACED ON SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR WATER SEEPAGE.
4.12 FORMWORK SHORING SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) ACI 347, "STANDARD FOR DESIGN AND PLACEMENT OF CONCRETE FORMWORK",

4.13 ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 302.1R.
4.14 PROPER CURING OF ALL CONCRETE SURFACES SHALL BE PROVIDED BY THE BUILDER AND IN ACCORDANCE WITH THE LATEST EDITION OF ACI 308, "STANDARD PRACTICE FOR CURING CONCRETE." IF SPRAY-ON CURING COMPOUNDS ARE USED, THEY NEED TO BE COMPATIBLE WITH SUBSEQUENT FINISH APPLICATIONS.
4.15 DO NOT PLACE CONCRETE WHEN TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT UNLESS COLD WEATHER CONCRETE PROCEDURES ARE FOLLOWED. CALCIUM CHLORIDE SHALL NOT BE USED. PROVIDE SPECIAL CARE TO PREVENT HIGH TEMPERATURES DURING HOT WEATHER CONDITIONS IN FRESH CONCRETE. USE WATER REDUCING SET RETARDING ADMIXTURES IN SUCH QUANTITIES AS SPECIFICALLY RECOMMENDED BY THE

MANUFACTURER TO ASSURE THE CONCRETE REMAINS WORKABLE. 4.16 SCHEDULING OF CONCRETE DELIVERY SHALL BE SUCH TO PREVENT PLACED CONCRETE FROM HARDENING PRIOR TO PLACEMENT OF ADDITIONAL FRESH CONCRETE. NO HORIZONTAL JOINTS WILL BE PERMITTED IN THE CONCRETE EXCEPT AS NOTED. THE BUILDER SHALL CONTACT M&S PRIOR TO PLACING ANY CONCRETE IF CONSTRUCTION JOINTS ARE REQUIRED.

4.17 SLAB SURFACE FINISH SHALL BE TROWELED FINISHES SUITABLE (TRUE AND LEVEL) FOR DIRECT APPLICATION OF VINYL FLOOR FINISH AND/OR CARPET OR PER THE BUILDER AND/OR OWNER REQUIREMENTS. SLAB FINISH TOLERANCES SHALL BE TRUE PLANES WITHIN 1/8 INCH IN 10 FEET AS DETERMINED BY A 10 FOOT DIRECTION.
4.18 PROVIDE EXPANSION JOINT MATERIAL BETWEEN BUILDING FOUNDATIONS AND ADJACENT CONCRETE WALKS AND PAVEMENT, 1/2 INCH MIN BY DEPTH

OF WALK. SEAL EXPANSION JOINTS WITH FLEXIBLE SEALANT UNLESS NOTED OTHERWISE. PROVIDE SMOOTH DOWELS 1/2 INCH BY 16 INCHES LONG AT 18 INCHES ON CENTER ALONG ALL ENTRIES. LOCATE DOWELS BELOW FOUNDATION TOP BEAM OR SLAB REINFORCEMENT. 5.0 CONCRETE AND REINFORCING STEEL

 5.1 ALL CONCRETE AND REINFORCING STEEL SHALL MEET LATEST EDITION OF ASTM A615 AND ACI 117 "STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".
 5.2 WHILE SOME SHRINKAGE CRACKING IS TO BE EXPECTED IN THE CONCRETE, IT HAS BEEN SHOWN TO BE SIGNIFICANTLY REDUCED THROUGH PROPER

CURING PROCEDURES AND PROPER CONTROL OF ADMIXTURES. ONLY THOSE ADMIXTURES HAVING SPECIFIC WRITTEN AUTHORIZATION OF THE DESIGN ENGINEER SHALL BE INTRODUCED WITH THE CONCRETE MIX. 5.3 TESTING SHALL BE THE SOLE RESPONSIBILITY OF THE BUILDER, AND ANY SUBSTANDARD STRENGTHS SHALL BE REPORTED TO M & S ENGINEERING. 5.4 CONCRETE SHALL BE PLACED IN ACCORDANCE WITH LATEST EDITION OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".

5.5 CONCRETE COMPRESSIBLE STRENGTH SHALL BE 3000 PSI MINIMUM STRENGTH AT 28 DAYS.
5.6 CEMENT SHALL BE TYPE 1 (GRAY) PORTLAND. MAXIMUM WATER CEMENT RATIO SHALL BE 0.5 AND A SLUMP RANGE OF 2 TO 5 INCHES. CONTRACTOR SHALL SATISFY HIMSELF THAT THE MIX DESIGN IS ACCEPTABLE FOR ITS INTENDED PURPOSE.
5.7 REINFORCING STEEL SHALL MEET LATEST EDITION OF ASTM A-615, GRADE 60 DEFORMED BARS. #3 BARS MAY BE GRADE 40.

 5.8 WELDED WIRE MESH (WWM) SHALL MEET LATEST EDITION OF ASTM A-185 OR ASTM A-497. USE FLAT SHEETS ONLY. ALL LAPS TO BE 2 FULL SQUARES.
 5.9 ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED AT 48" O.C. TO PREVENT VERTICAL AND HORIZONTAL MOVEMENT DURING THE PLACEMENT OF CONCRETE. METAL, PLASTIC, CONCRETE, OR MASONRY CHAIRS MAY BE USED TO SUPPORT REINFORCEMENT. SLAB REINFORCING SHALL BE CENTERED IN CONCRETE SLAB THICKNESS.
 5.10 SLAB REINFORCING BARS SHALL BE TIED AT EVERY OTHER INTERSECTION AND SUPPORTED AT 48 INCHES O.C. WITH METAL, PLASTIC, CONCRETE, OR

MASONRY CHAIRS. EVERY STIRRUP BAR SHALL BE TIED AT BOTH TOP AND BOTTOM BEAM REINFORCING BAR LOCATION. STIRRUPS ARE TO BE INSTALLED VERTICALLY. ANGLED STIRRUPS ARE NOT PERMITTED. 5.11 ALL BEAM REINFORCING BARS SHALL HAVE A MINIMUM CLEAR COVER OF 3 INCHES FROM THE BOTTOM OF THE BEAM AND 2 INCHES FROM THE TOP AND SIDES OF THE BEAM.

5.12 REINFORCING STEEL LAPS AND SPLICES SHALL BE A MINIMUM OF 30 BAR DIAMETERS, BUT NO LESS THAN 12 INCHES. SPLICES OF THE TOP AND BOTTOM BEAM REINFORCEMENT SHALL BE STAGGERED A MINIMUM OF 5 FEET. 5.13 ALL BEAM SIZES, SLAB THICKNESS, AND REINFORCING SIZES ARE A MINIMUM AND SHALL NOT BE DECREASED WITHOUT PRIOR APPROVAL BY M&S.

5.14 ALL BEAM SPACING ARE MAXIMUM AND SHALL NOT BE INCREASED OR RELOCATED WITHOUT APPROVAL BY M&S.
5.15 FOR EXTERIOR BEAMS REQUIRING DEPTHS EXCEEDING 3 FEET DUE TO GRADE CONDITIONS, PROVIDE 2-#4 INTERMEDIATE HORIZONTAL BARS AT 18" CENTERS IN ADDITION TO REINFORCING NOTED ABOVE. BEAMS GREATER THAN 6 FEET DEEP REQUIRES STIRRUP SPACING @ 18" O.C. MAX.
5.16 WHERE ROCK IS ENCOUNTERED SHALLOWER THAN THE DETAILED BEAM DEPTH, THE BEAM MAY BE REDUCED IN DEPTH TO A MINIMUM OF 16" DEEP INTERIOR, 20" EXTERIOR.

5.17 ALL EXTERIOR BEAMS SHALL EXTEND AT LEAST SIX (6) INCHES INTO UNDISTURBED SOIL UNLESS FILL HAS BEEN TESTED AND CERTIFIED TO HAVE BEEN PLACED IN COMPLIANCE WITH F.H.A. DATA SHEET 79-G. TEST DATA SHALL ALSO INDICATE THE PLASTICITY INDEX OF FILL MATERIAL. A REDESIGN OF THE FOUNDATION WILL BE REQUIRED IF FOREIGN MATERIAL WITH A PLASTICITY INDEX GREATER THAN 10 ABOVE THE DESIGN STANDARD IS USED FOR FILL MATERIAL.

6.0 SITE OBSERVATION INSPECTIONS BY M&S

6.1 M&S ACCEPTS NO RESPONSIBILITY FOR THE PERFORMANCE OF THIS FOUNDATION UNLESS SITE OBSERVATIONS ARE PERFORMED BY M&S OR A REPRESENTATIVE OF M&S AND THE CONCRETE IS PLACED WITHIN 48 HOURS AFTER THE M&S SITE OBSERVATION INSPECTION.
6.2 OBSERVATIONS MADE BY M&S ARE TO CHECK FOR GENERAL CONFORMANCE WITH THE M&S PLANS AND SPECIFICATIONS. THE RESPONSIBILITY FOR INSURING ACCURACY OF THE CONSTRUCTION AND QUALITY CONTROL PROCEDURES REMAINS WITH THE BUILDER.
6.3 M&S REQUIRES A SITE OBSERVATION INSPECTION TO VERIFY UNDER SLAB SLOPES, UNDER SLAB FRENCH DRAINS, AND ALL SLAB AND BEAM CONSTRUCTION AND REINFORCEMENT PRIOR TO THE PLACEMENT OF CONCRETE.
6.5 NOTIFY M&S AT LEAST 48 HOURS BEFORE EACH SITE OBSERVATION INSPECTION IS NEEDED.

7.0 ANCHOR BOLTS: 7.1 ANCHOR BOLTS TO BE 1/2"DIA. STEEL THROUGH THE BASE PLATE AROUND THE PERIMETER, OR ENGINEERING APPROVED ALTERNATE CONNECTION. COMMENCING AT 8" FROM ALL EXTERIOR CORNERS. BOLTS ARE TO BE CENTERED AT 3'-0" FEET ON CENTER MAXIMUM, AND EMBEDDED 6" MIN.

SHEET:

 $\frac{\text{POWER PLAN}}{\text{SCALE:} \quad 3/32" = 1'-0"}$

 $\frac{\text{LIGHTING PLAN}}{\text{SCALE: } 3/32" = 1'-0"}$

KEYED ELECTRICAL NOTES:

(1) VERIFY EXACT LOCATION OF PANEL "PS" AND TIMER-CLOCK WITH OWNER.

2 BUILDING DISCONNECT TO BE ACCESSIBLE TO FIRE DEPT.

2					in the second	
		LIGHTING	FIXTURE SCHEDULE	E de la constante de		
TYPE	MFGR.		DESCRIPTION	MOUNTING	LAMPS	VOLTS
Α	ELITE	CB2-LED-13000L-DIM10-MVDLT- W-40K-85-VHCH	1' × 4' LED HIGH BAY	SUSPENDED	90W-LED	120
AE	ELITE	CB2-LED-13000L-DIM10-MVDLT- W-40K-85-VHCH-D-EMG-LED	1' × 4' LED HIGH BAY W/BAT-PAK	SUSPENDED	90W-LED	120
В	ELITE	ELM-LED-803-W	EMERGENCY EGRESS LIGHT W/BAT PAK	SURFACE	2M-FED	120
х	ELITE	ELM-LED-603-R-W-MAXLINE	EXIT SIGN W/BAT PAK	SURFACE	2M-TED	120
AA	ELITE	□WP-FC-201-LED-4900L-MV□LT 40K-BZ	WALL PAK W/BAT PAK	WALL	63W-LED	120
-						
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FAN SCHI	EDULE	
MARK	EF-1	
SERVES	OPEN BAY	1
TYPE/DRIVE	CENTR/DIRECT	
CFM	4200	
E.S.P. IN W.G.	0.125	
MOTOR (HP)	1/4	
RPM (MAX.)	690	
SONES (MAX.)	12.7	
VOLTS/PHASE/HERTZ	120/1/60	
MANUFACTURER	СООК	
MODEL NUMBER	24XLW	
APPROX. WEIGHT (LBS)	150	
1, BOTES	1,2	

NOTES:

1.) FAN SHALL BE CONTROLLED BY WALL MOUNTED SWITCH. 2.) PROVIDE OSHA WIRE GUARD, WALL COLLAR, GSS WALL SHUTTER AND WEATHER HOOD WITH FAN.

KEYED LIGHTING FIXTURES NOTES:

, LIGHT FIXTURES "A & AE" MOUNTING HEIGHTS SET AT 18' FOR MAXIMUM LIGHTING LEVELS.

, INSTALL AN OCCUPANCY/VACANCY SENSOR Switch equal to leviton "Ossmt-MDW ULTRASONIC/INFRARED, DUAL RELAY WALL

ROUTE WALL PAK FIXTURES "AA" THROUGH TIMER-CLOCK (TC).

ELECTRICAL LIGHTING AND POWER PLANS		
D. FAULKNER STORAGE BUILDING		
	AZTEC ENGINEERING	
2310 ROOSEVELT AVE. SAN ANTONIO, TEXAS 78210	1846 LOCKHILL-SELMA, SUITE 101 San Antonio, TX 78213 Ph. (210) 222-1970 Fax (210) 222-2004	

REVISIONS	
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DRAWN BY:	M.L.
DATE:	07/20/2018
CHECK BY:	D.R.
PROJ. NO .:	AE18-09
SCALE:	AS NOTED
SHEET NO .:	
	E2.0

	PANEL: "PS"				RATING:	60A			KAIC: 12	
· · · · ·	VOLTAGE: 120/208				PHASE:	1ø, 3W			MAIN: 60 MCB	
CIRC NO.	EQUIPMENT		KVA	BREAKER TRIP/POLE	A	В	BREAKER TRIP/POLE	KVA	EQUIPMENT	CIRC NO.
1	LIGHTING		2.0	20/1			20/1	1.6	WALL PAK LIGHTING	2
3	LIGHTING		2.0	20/1			20/1	1.6	WALL PAK LIGHTING	4
5	RECEPTACLES		08	20/1 -			20/1	08	EXHAUST FAN	6
7	RECEPTACLES	-	0.8	20/1 -			20/1		SPARE	8
9	SPARE	-		20/1 -			20/1		SPARE	10
11	SPARE			20/1 -			20/1		SPARE	12
13										14
15		-		F						16
17			· · · · · · · · · · · · · · · · · · ·	F						18
19										20
21										22
23										24
PHASE	A LOAD:	5.2	KVA				AVERAGE AM	⊃S:	40	
PHASE	B LOAD:	4.4	KVA							
TOTAL	LOAD:	9.6	KVA							

KEYED ELECTRICAL NOTES:

- (1) (E) 225A, 120/208V, NEMA 1, 10, 3W PANEL.
- (N) WEATHERPROOF 8"×8" PULL BOX.
- $\langle 3 \rangle$ (N) 60A, 240V, 1Ø, 3W, NEMA 3R, DISCONNECT.
- (N) 60A, 120/208V, NEMA 1, 10, 3W PANEL "PS".

LDA	D AN	ALYSIS		
SINGLE PHASE	208V	2-POLES	3-W	WSA
DESCRIPTION	KVA	FACTOR	KVA	
LIGHTING *	7.2	1.25	9.0	<u> </u>
RECEPTACLES	1.6	10 + 50%	1.6	
HVAC (NONE)	0	1.0	0	
MISC	0.8	0.75	0.6	
TOTAL:	9.6		11.2	65
* USING 2017 NEC ARTI	CLE 220.1	2 "LIGHTING I	LOAD FOR	

* USING 2017 NEC ARTICLE 220.12 LIGHTING LOAD FOR SPECIFIED OCCUPANCIES" THE MINIMUM FOR THIS PANEL IS 3.0 KVA. ! THE MINIMUM LOAD FOR EACH OUTLET WAS CALCULATED USING 2017 NEC ARTICLE 220.14 (A) THROUGH (L).

These Documents to be Printed on 11x17 Paper

Mendad J. Janfade

PDF processed with CutePDF evaluation edition www.CutePDF.com

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GENERAL NOTES

THE STRUCTURE UNDER THIS CONTRACT HAS BEEN DESIGNED AND DETAILED FOR THE LOADS AND CONDITIONS STIPULATED IN THE CONTRACT AND SHOWN ON THESE DRAWINGS. ANY ALTERATIONS TO THE STRUCTURAL SYSTEM, REMOVAL OF ANY COMPONENT PARTS, OR THE ADDITION OF OTHER CONSTRUCTION MATERIALS OR LOADS MUST BE DONE UNDER THE ADVICE AND DIRECTION OF A REGISTERED ARCHITECT, CIVIL OR STRUCTURAL ENGINEER. THE BUILDING MANUFACTURER WILL ASSUME NO RESPONSIBILITY FOR ANY LOADS NOT INDICATED.

THIS METAL BUILDING IS DESIGNED WITH THE BUILDING MANUFACTURER'S STANDARD PRACTICES WHICH ARE BASED ON PERTINENT PROCEDURES AND RECOMMENDATIONS OF THE FOLLOWING ORGANIZATIONS AND CODES AS APPLICABLE.

1. AMERICAN INSTITUTE OF STEEL CONSTRUCTION, SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS

2. AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.

3. AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE' AWS D1.1 4. METAL BUILDING MANUFACTURER'S ASSOCIATION , LOW RISE BUILDING SYSTEMS MANUAL

4. METAL BUILDING MANUFACTURER'S ASSOCIATION, LOW RISE BUIL 5. INTERNATIONAL CODE COUNCIL: INTERNATIONAL BUILDING CODE

ALL WELDING ELECTRODES SHALL BE A233 CLASS E-70 SERIES. MINIMUM WELDS ON PRIMARY STRUCTURAL MEMBERS SHALL BE 3/16 FILLET WELDS UNLESS SHOWN OTHERWISE ON SHOP FABRICATION DRAWINGS.

ALL STRUCTURAL STEEL SHALL BE SHOP FABRICATED UNLESS NOTED.

MATERIAL PROPERTIES OF STEEL PLATE AND SHEET USED IN THE FABRICATION OF PRIMARY RIGID FRAMES AND ALL PRIMARY STRUCTURAL FRAMING MEMBERS (OTHER THAN COLD-FORMED SECTIONS) CONFORM TO THE CHEMISTRY REQUIREMENTS OF ASTM-A36 WITH MINIMUM YIELD POINT OF 50,000 P.S.I. OR 36,000 P.S.I. AS REQUIRED BY DESIGN.

MATERIAL PROPERTIES OF COLD FORMED LIGHT GAGE STEEL MEMBERS CONFORM TO THE REQUIREMENTS OF A.S.T.M. A-570, GRADE 55, WITH A MINIMUM YIELD POINT OF 57,000 P.S.I.

ALL PIPE SHALL BE MINIMUM SCHEDULE 40 AND 36,000 P.S.I. UNLESS OTHERWISE NOTED.

CABLE BRACING TO BE "BRACE GRIP" SYSTEM AS MANUFACTURED BY FLORIDA WIRE AND CABLE COMPANY, EHS CABLE OR EQUAL. BRACING IN FLUSH GIRT SIDEWALL / ENDWALL BAYS MAY REQUIRE THE FIELD CUTTING OF SLOTS SO THAT CABLE IS INSTALLED WITHIN GIRTS.

STRUCTURAL JOINTS WITH A.S.T.M. A-325 HIGH STRENGTH BOLTS, WHERE INDICATED ON THE DRAWINGS, SHALL BE ASSEMBLED AND THE FASTENERS TIGHTENED IN ACCORDANCE WITH 'SNUG-TIGHT' METHOD AS DESCRIBED IN THE SPECIFICATION FOR STRUCTURAL JOINTS USING A.S.T.M. A-325 OR A-490 BOLTS (JUNE 30, 2004 EDITION), UNLESS OTHERWISE NOTED. ALL JOINTS WILL BE ASSEMBLED WITHOUT WASHERS UNLESS OTHERWISE NOTED.

ALL STEEL MEMBERS EXCEPT BOLTS AND FASTENERS SHALL RECEIVE ONE SHOP COAT OF IRON OXIDE CORROSION INHIBITIVE PRIMER.

SHOP AND FIELD INSPECTIONS AND ASSOCIATED FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

UNLESS OTHERWISE NOTED, ALL SCREWED-DOWN ROOF AND WALL PANELS ARE TO BE INSTALLED USING A MINIMUM OF ONE SCREW PER FOOT AT EACH PURLIN / GIRT AND ONE STITCH SCREW EVERY 24 INCH ALONG THE PANEL LAPS AND ENDS AS DESCRIBED IN THE INSTALLATION MANUAL. SINCE BEARING FRAME ENDWALLS DEPEND ON DIAPHRAGM STRENGTH TO PROVIDE LATERAL SUPPORT, THE NUMBER AND SIZE OF FIELD INSTALLED OPENINGS IN THESE WALLS MAY BE LIMITED. SEE THE APPLICABLE WALL DRAWING OR CONTACT YOUR SALES REPRESENTATIVE FOR MORE INFORMATION.

BUILDING DESCRIPTION

BLDG	WIDTH		LENGTH		HEI	GHT	ROOF	PITCH
					BACK	FRONT	BACK	FRONT
1	80'-0"	Х	150'-0"	Х	24'-0"	24'-0"	1.00:12	1.00:12

WARRANTY NOTE

ENGINEERING CALCULATIONS AND DESIGN ARE BASED ON PRE-FABRICATED METAL BUILDING(S) AS SHOWN IN THESE DRAWINGS AND SUPPLIED BY MUELLER, INC. AND ANY FIELD FABRICATION AND/OR MODIFICATION OF SAID BUILDING(S) IS THE SOLE RESPONSIBILITY OF THE CUSTOMER AND MAY VOID ALL ENGINEERING AND WARRANTY.

NOTE:
THIS BUILDING IS DESIGNED AS AN ENCLOSED
STRUCTURE. ANY ACCESSORIES USED WITH THIS
BUILDING (DOORS, WINDOWS, VENTS, ETC.) MUST
BE RATED TO MEET THE SAME WIND CRITERIA AS
THIS BUILDING.

PRODUCT CERTIFICATIONS

THIS IS TO CERTIFY THE ABOVE REFERENCED BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH A.I.S.C. AND A.I.S.I. DESIGN PROCEDURES AND GOOD ENGINEERING PRACTICE AND FOR THE FOLLOWING LOADS. ALL WELDING IS PER THE A.W.S. D1.1 & D1.3 CODES. LOADS ARE APPLIED IN ACCORDANCE WITH THE M.B.M.A. LOW RISE BUILDING SYSTEMS MANUAL, AND THE DESIGN SATISFIES THE REQUIREMENTS OF IBC'15

DEAD LOAD: METAL BLDG STRUCTURE ONLY AS FURNISHED BY MUELLER, INC.

LIVE LOAD (ROOF): 20.0 (psf)	GROUND SNOW LOAD: $P_g = 5.0$ (psf)
LIVE LOAD REDUCED PER CODE? Y	$\underline{\text{ES}} \qquad \qquad \text{ROOF SNOW LOAD (Flat): } P_{\rm f} = \underline{5.0} \text{ (psf)}$
WIND EXPOSURE: C	Ce = 1.0 $Is = 1.0$
RISK CATEGORY: II - Normal	WIND LOAD: $V_{\text{ULT}} = 115.0$ MPH
	$V_{ASD} = 90.0$ MPH
SE	EISMIC LOADS
$I_e = 1.0$ S	EISMIC DESIGN CATEGORY: B
$S_{s} = 0.083$ $S_{DS} = 0.089$ S	ITE CLASS:
$S_1 = 0.030$ $S_{D_1} = 0.048$ A	NALYSIS PROCEDURE: Equivalent Lateral Force Method

							N		
	Collateral		SNOW	Roof (Sloped)	WIND		:	SEISMIC	
BLDG	Load (psf)	Ct	Cs	P_{s} (psf)	Enclosure	GC_{Pi}	R	Cs	${ m V}$ (kips)
1	0.0	1.0	1.0	5.00	Enclosed	± 0.18	3.25	0.027	3.08

THIS LETTER OF CERTIFICATION APPLIES SOLELY TO THIS BUILDING AND ITS COMPONENT PARTS AS FURNISHED AND/OR FABRICATED BY MUELLER, INC. AND SPECIFICALLY EXCLUDES FOUNDATION, MASONRY OR GENERAL CONTRACT WORK INCLUDING ERECTION CERTIFICATION. THE DESIGN AND CERTIFICATION FOR THIS PROJECT IS IN ACCORDANCE WITH THE PROVISIONS AND LOADS SPECIFIED ON THE CONTRACT DOCUMENTS. THE CUSTOMER IS TO INSURE ALL LOADS ARE IN COMPLIANCE WITH LOCAL REGULATORY AUTHORITIES. ALL COMPONENTS AND PARTS MUST WITHSTAND THE WIND LOAD AND DESIGN SPECIFICATIONS MENTIONED ABOVE.

PANEL ACCESSORY INFORMATION

	PANEL TYPE	PANEL COLOR	TRIM COLOR
WALL SHEETS	126_R	NC Need Common	NC Need Common
ROOF SHEETS	126_PBR	GP Galvalume Plus	NC Need Common

WARNING: IN NO CASE SHOULD GALVALUME STEEL PANELS BE USED IN CONJUNCTION WITH LEAD OR COPPER. BOTH LEAD AND COPPER HAVE HARMFUL CORROSION EFFECTS ON THE ALUMINUM ZINC ALLOY COATING WHEN THEY ARE USED IN CONTACT WITH GALVALUME STEEL PANELS. EVEN RUN-OFF FROM COPPER FLASHING, WIRING, OR TUBING ONTO GALVALUME SHOULD BE AVOIDED.

NOTE: THE UNDERSIGNED ENGINEER IS NOT THE "REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE" NOR "ENGINEER OF RECORD" FOR THE OVERALL PROJECT.

0 REV M 1913 H (800) S COVE SALESMAN CHUCE CUSTOME	07/26/2017 For Constru DATE E UELLER, STEEL BUILDING SYSTEMS utchins Ave. Ballinge 527-1087 SESCRIPTION: RSHEET KBELL NAME:	DESCRIPTION INC. & COMPONENTS er, TX 76821 BUILDING DESCRIPTION: 80'-0" X 150'-0" X 24'-0" ADDRESS: SCALE
0 REV 1913 H (800) S DRAWING I COVE SALESMAN	07/26/2017 For Constru DATE E UELLER, STEEL BUILDING SYSTEMS utchins Ave. Ballinge 527-1087 DESCRIPTION: RSHEET	DESCRIPTION INC. & COMPONENTS er, TX 76821 BUILDING DESCRIPTION: BUILDING DESCRIPTION:
0 REV 1913 H (800) 5 DRAWING	07/26/2017 For Constru DATE E UELLER, STEEL BUILDING SYSTEMS utchins Ave. Ballinge 527-1087	DESCRIPTION INC. & COMPONENTS er, TX 76821
0 REV 1913 H (800) 3	07/26/2017 For Constru DATE C UELLER, STEEL BUILDING SYSTEMS utchins Ave. Ballinge	DESCRIPTION INC. & COMPONENTS er, TX 76821
0 REV 1913 H	07/26/2017 For Constru DATE C UELLER, STEEL BUILDING SYSTEMS utchins Ave. Ballinger	DESCRIPTION INC. & COMPONENTS er, TX 76821
o REV	07/26/2017 For Constru- DATE C UELLER,	DESCRIPTION INC.
0 REV	07/26/2017 For Constru DATE C	
0 REV	07/26/2017 For Constru DATE D	DESCRIPTION
0	07/26/2017 For Constru	
		uction
	S101	SHEETING DETAILS
	E103	ERECTION DETAILS
	E102	ERECTION DETAILS
	E101	ERECTION DETAILS
	E5	WALL ELEVATION AT GRID / FRAME ELEVATION ON GRID 2.3.4.5.6
	E4	WALL ELEVATION AT GRID 1
	E3	WALL ELEVATION AT GRID A
	E2	WALL ELEVATION AT GRID E
	E1	ROOF PLAN
	AB3	REACTIONS
	ABI	
	PAGE	DESCRIPTION
		PART MARK = Part001
		PART MARK = Part001

	FRAME LINES: 2 3 4 5 6
Wind Wind Wind Wind Wind Wind Wind Wind	
Frm Col Dead Live Snow Left1 Right1 Left2 Right2 Press Suct Long1 Long2 Left Line Line Vert Vert Vert Vert Vert Vert Horz Horz Vert Vert Vert Vert	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
$ \begin{bmatrix} 1 & 0 & 1.5 & 3.4 & 1.7 & -9.4 & -9.1 & -9.4 & -9.1 & -9.4 & -9.1 & -9.4 & -9.1 & -9.4 & -9.1 & -9.4 & -9.1 & -9.4 &$	
$ \begin{bmatrix} 1 & D & 1.3 & 5.4 & 1.4 & -5.1 & -9.4 & -5.1 & -9.4 & -5.6 & 6.1 & -5.1 & -9.4 & 0.0 \\ 1 & E & 0.6 & 2.0 & 0.5 & -1.9 & -3.2 & -1.9 & -3.2 & -2.7 & 3.1 & -2.0 & -3.3 & 0.1 \\ \end{bmatrix} $	
Frm Col Right -MIN_SNOW E1UNB_SL_L- E1UNB_SL_R- E1PAT_LL_1- E1PAT_LL_2- E1PAT_LL_3-	
Line Line Vert Horz Vert 1 A 0.1 0.0 0.5 0.0 0.5 0.0 0.2 0.0 1.9 0.0 -0.2 0.0 0.0	
1 B 0.0 0.0 1.4 0.0 1.8 0.0 0.3 0.0 5.6 0.0 2.2 0.0 -0.3	
$ \begin{bmatrix} 1 & 0 & -0.1 & 0.0 & 1.2 & 0.0 & 1.3 & 0.0 & 1.3 & 0.0 & 2.3 & 0.0 & 5.3 & 0.0 & 2.3 \\ 1 & D & 0.0 & 0.0 & 1.4 & 0.0 & 0.3 & 0.0 & 1.8 & 0.0 & -0.3 & 0.0 & 2.2 & 0.0 & 5.6 \end{bmatrix} $	
$\begin{bmatrix} 1 & E & 0.0 & 0.0 & 0.5 & 0.0 & 0.2 & 0.0 & 0.5 & 0.0 & 0.0 & -0.2 & 0.0 & 1.9 \end{bmatrix}$	
Frm Col E1PAT_LL_4- E1PAT_LL_5-	
Line Line Horz Vert Horz Vert 1 A 0.0 2.2 0.0 -0.3	
1 B 0.0 2.6 0.0 2.7	
1 D 0.0 2.7 0.0 2.6	
1 E 0.0 - 0.3 0.0 2.2	RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES
Wind Wind Wind Wind Wind Wind Wind Wind	Column Reactions (k)
Line Line Vert Vert Vert Vert Vert Vert Vert Horz Horz Vert Vert Vert	Frm Col Load Hmax V Load Hmin V AncBolt Base_Plate (in) Grout Line Line ID H Vmax ID H Vmin Oty Dia Width Length Thick (in)
7 E 0.6 2.0 0.5 -3.2 -1.9 -3.2 -1.9 -2.7 3.1 -3.3 -2.0 0.0 7 D 1.3 5.4 1.4 -9.4 -5.1 -9.4 -5.1 -5.6 6.1 -9.4 -5.1 0.0	
7 C 1.1 4.5 1.2 -6.1 -6.1 -6.1 -6.1 -6.0 6.6 -6.0 -0.1	2* A 1 9.2 16.2 2 -8.0 -11.1 4 0.750 6.000 11.00 0.500 0.0 1 9.2 16.2 4 -2.2 -13.2
$\begin{bmatrix} 7 & B & 1.3 & 5.4 & 1.4 & -5.1 & -9.4 & -5.1 & -9.4 & -5.6 & 6.1 & -5.1 & -9.4 & 0.0 \\ \hline 7 & A & 0.6 & 2.0 & 0.5 & -1.9 & -3.2 & -1.9 & -3.2 & -2.7 & 3.1 & -2.0 & -3.3 & 0.1 \end{bmatrix}$	2* E 3 8.0 -11.1 1 -9.2 16.2 4 0.750 6.000 11.00 0.500 0.0
Saic	1 -9.2 16.2 5 2.2 -13.2
Frm Col Right -MIN_SNOW E2UNB_SL_L- E2UNB_SL_R- E2PAT_LL_1- E2PAT_LL_2- E2PAT_LL_3-	2* Frame lines: 2 3 4 5 6
The Line Vert Horz Vert	RIGID FRAME: BASIC COLUMN REACTIONS (K)
7 D 0.0 0.0 1.4 0.0 1.8 0.0 0.3 0.0 5.6 0.0 2.2 0.0 -0.3 7 C -0.1 0.0 1.2 0.0 1.5 0.0 1.5 0.0 2.3 0.0 5.5 0.0 2.3	Frame ColumnDeadLiveSnowWind_Left1Wind_Right1Wind_Left2-
7 B 0.0 0.0 1.4 0.0 0.3 0.0 1.8 0.0 -0.3 0.0 2.2 0.0 5.6	Line Line Horiz Vert Horiz Vert Horiz Vert Horiz Vert Horiz Vert Horiz Vert Horiz Vert 2* A 2.1 4.2 7.1 12.0 3.0 5.0 -15.4 -22.7 -5.0 -15.3 -12.6 -13.1
	2* E -2.1 4.2 -7.1 12.0 -3.0 5.0 5.0 -15.3 15.4 -22.7 2.2 -5.7
Frm Col E2PAT_LL_4- E2PAT_LL_5-	Frame Column -Wind_Right2Wind_Long1Wind_Long2Seismic_Left Seismic_Right -Seismic_Long
7 = 0.0 = 2.2 = 0.0 = -0.3	$\begin{bmatrix} Line & Line & Horiz & Vert & Hor$
7 C 0.0 2.3 0.0 2.3	2* E 12.6 -13.1 6.5 -22.2 5.8 -26.1 -0.2 0.1 0.2 -0.1 0.0 -1.7
7 B 0.0 2.7 0.0 2.6 7 A 0.0 -0.3 0.0 2.2	Frame Column -MIN_SNOW F1UNB_SL F1UNB_SL_R-
	2* A 3.0 5.0 2.8 5.2 2.8 3.2
ENDWALL CULUMIN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES	2* E -3.0 5.0 -2.8 3.2 -2.8 5.2
Column Reactions (k)	2* Frame lines: 2 3 4 5 6
Frm Col Load Hmax V Load Hmin V Anc. Bolt Base_Plate (in) Grout Line Line ID H Vmax ID H Vmin Qty Dia Width Length Thick (in)	BUILDING BRACING REACTIONS
	± Reactions (k) Panel_Shear
1 A 6 1.9 -1.6 / -1.6 4 0.750 6.000 10.00 0.500 0.0 1 0.0 2.6 6 1.9 -1.6	Wall ColWind Seismic (Ib/ft) Loc Line Line Horz Vert Horz Vert Wind Seis
1 B 8 3.6 -4.9 7 -3.3 -4.9 4 0.625 6.000 10.00 0.500 0.0	
	L_EW 1 31 4 FSW E 2.3 5.7 5.1 0.8 0.7
1 0.0 5.7 9 4.0 -3.0	5,6 5.7 5.1 0.8 0.7
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	B_SW A 6,5 5.7 5.1 0.8 0.7
1 E 11 1.9 -1.6 10 -1.6 -1.6 4 0.750 6.000 10.00 0.500 0.0	3,2 5.7 5.1 0.0 0.7
1 0.0 2.0 11 1.9 -1.0 7 E 6 1.9 -1.6 7 -1.6 -1.6 4 0.750 6.000 10.00 0.500 0.0	
1 0.0 6.6 8 3.6 -4.9 4 0.625 6.000 10.00 0.500 0.0	
7 C 9 4.0 -3.0 7 -3.6 -2.9 4 0.625 6.000 10.00 0.500 0.0	
7 B 9 3.6 -4.9 10 -3.3 -4.9 4 0.625 6.000 10.00 0.500 0.0	
7 A 11 1.9 -1.6 10 -1.6 4 0.750 6.000 10.00 0.500 0.0 1 0.0 2.6 11 1.9 -1.6	

Building reactions are based on the following building data: 80 Uength (ft) 150 Back Eave Height (ft) 24 Front EAve Height (ft) 24 Back Roof Slope (rise/12) 1.0:12 Front Roof Slope (rise/12) 1.0:12 Dead Load (psf) 0 Roof Live Load (psf) 0 Roof Live Load (psf) 0 Roof Live Load (psf) 0 Roof Snow Load (psf) 0 Sull at the second (psf) Sull at the second (ps]	NOTES FOR REACTIONS
ID Description 1 Dead+Collateral+Live 2 0.6Dead+0.6Wind_Left1 3 0.6Dead+0.6Wind_Long1 5 0.6Dead+0.6Wind_Long2 6 0.6Dead+0.6Wind_Suction+0.6Wind_Long1 7 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1 8 0.6Dead+0.6Wind_Pressure+0.6Wind_Suction 9 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2 11 0.6Dead+0.6Wind_Suction+0.6Wind_Long2 11 0.6Dead+0.6Wind_Suction+0.6Wind_Long2		Building reactions are based on the following building data: Width (ft) 80 Length (ft) 150 Back Eave Height (ft) 24 Front Rave Height (ft) 24 Back Roof Slope (rise/12) 1.0:12 Dead Load (psf) 0 Reduce Frame Live Load (psf) 0 Roof Live Load (psf) 000 Reduced Frame Live Load (psf) 5.0000 Roof Snow Load (psf) 5.0000 Wind Speed (mph) 115 Wind Exposure C Enclosure Closed Importance Seismic 1.00 Seismic Design Category B Seismic Coefficent 0.230
1 Dead+Collateral+Live 2 0.6Dead+0.6Wind_Left1 3 0.6Dead+0.6Wind_Long1 4 0.6Dead+0.6Wind_Long1 5 0.6Dead+0.6Wind_Long2 6 0.6Dead+0.6Wind_Suction+0.6Wind_Long1 7 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1 8 0.6Dead+0.6Wind_Left2+0.6Wind_Suction 9 0.6Dead+0.6Wind_Right2+0.6Wind_Suction 10 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2 11 0.6Dead+0.6Wind_Suction+0.6Wind_Long2		ID Description
		1 Dead+Collateral+Live 2 0.6Dead+0.6Wind_Left1 3 0.6Dead+0.6Wind_Right1 4 0.6Dead+0.6Wind_Long1 5 0.6Dead+0.6Wind_Long2 6 0.6Dead+0.6Wind_Suction+0.6Wind_Long1 7 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1 8 0.6Dead+0.6Wind_Left2+0.6Wind_Suction 9 0.6Dead+0.6Wind_Right2+0.6Wind_Suction 10 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2 11 0.6Dead+0.6Wind_Suction+0.6Wind_Long2

0	07/26/2017	For Construction			
REV	DATE	DESCRIPTION			
MUELLER, INC. 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087 DRAWING DESCRIPTION: PEACTORS					
SALESMAN					
		1 00.10			
CHUCK BELL 80'-0" X 150'-0" X 24'-0"			1.00:12		
CUSTOMER NAME: ADDRESS:		SCALE			
DAVID FAULKNER A SAN ANTONIO, TX 78210		NONE			
DETAILER:	CHECKER	DATE: JOB # DWG #	REV.		
TMR	N	T 07/26/2017 5176090 AB3	0		

Bill of Materials				
Qty	Mark	Profile	Length	
6	BA5	L4X2x14GA	24'-11 1/2"	
4	CB1	CB5/16D	31'-7 1/4"	
10	FB2	2X2L12	3'-2 15/16"	
2	G9	8X25Z16	26'-1 1/2"	
3	G11	8X25Z16	26'-1 1/2"	
2	G12	8X25Z16	26'-1 1/2"	
3	G13	8X25Z16	26'-1 1/2"	
10	G14	8X25Z16	27'-3 1/2"	
10	G15	8X25Z16	27'-3 1/2"	

		Bill of Materials	
Qty	Mark	Profile	Length
5	BA5	L4X2x14GA	24'-11 1/2"
2	BA7	L4X2x14GA	5'-1 1/2"
4	CB1	CB5/16D	31'-7 1/4"
10	FB2	2X2L12	3'-2 15/16"
1	G9	8X25Z16	26'-1 1/2'
1	G10	8X25Z14	26'-1 1/2'
2	G11	8X25Z16	26'-1 1/2'
2	G12	8X25Z16	26'-1 1/2'
10	G14	8X25Z16	27'-3 1/2"
9	G15	8X25Z16	27'-3 1/2'
1	G16	8X25Z14	27'-3 1/2'
З	G17	8X25Z16	6'-3 3/8'
1	G18	8X25Z12	26'-1 1/2"
З	G19	8X25Z16	5'-1 3/8'
1	H1	8X35C14	13'-11 1/2"
2	J2	8X35C12	14'-11 1/4"

		Bill of Materials			
Qty	Mark	Profile	Length		
2	WC1	W10X12			
2	WEP1	W10X12			
1	WEP2	W10X12			
2	WR1	W10X12			
1	WR2	W10X12			
1	WR3	W10X12			
1	BA1	L4X2x14GA	2'-7 1/2"		
1	BA2	L4X2x14GA	2'-4 1/2"		
2	BA3	L4X2x14GA	19'-5 1/2"		
1	BA4	L4X2x14GA	19'-8 1/2"		
6	FB1	2X2L12	2'-6 5/8"		
3	G1	8X25Z16	1'-1 1/2"		
1	G2	8X25Z12	18'-1 9/16"		
1	G3	8X25Z16	18'-1 9/16"		
3	G4	8X25Z16	2'-3 5/16"		
6	G5	8X25Z14	19'-3 5/16"		Cor
4	G6	8X25Z16	19'-3 5/16"		COL
2	G7	8X25Z14	18'-1 1/2"	Detail ID	Bolte
3	G8	8X25Z16	18'-1 1/2"	RC002	Ť
1	H1	8X35C14	13'-11 1/2"		WR2 -
2	J1	8X35C12	16'-7 1/4"		WR3 -

		Bill of Materials				
Qty	Mark	Profile	Length			
2	WC1	W10X12				
2	WEP1	W10X12				
1	WEP2	W10X12				
2	WR1	W10X12				
1	WR2	W10X12				
1	WR3	W10X12				
2	BA3	L4X2x14GA	19'-5 1/2"			
2	BA4	L4X2x14GA	19'-8 1/2"			
6	FB1	2X2L12	2'-6 5/8"			
3	G3	8X25Z16	18'-1 9/16"		Component D	
6	G5	8X25Z14	19'-3 5/16"		Сотронент во	
4	G6	8X25Z16	19'-3 5/16"	Detail ID	Bolted Parts	Bolt Descriptio
4	G7	8X25Z14	18'-1 9/16"	RC002	↑ ↓	
2	G8	8X25Z16	18'-1 1/2"		WR2 -> WEP1	2 ~ 5/8" x 2" A32
1	G20	8X25Z14	18'-1 9/16"		WR3 → WEP1	2 ~ 5/8" x 2" A32

ALL A325 STRUCTURAL BOLT CONNECTIONS SHOWN IN THESE DETAILS HAVE STANDARD MINIMUM BOLT INFORMATION. FOR SPECIFIC BOLT QUANTITIES AND AND SIZES, REFER TO COMPONENT BOLT TABLES LOCATED ON FRAME AND WALL ELEVATION DWGS.

0 07/26/2017 For Construction		
REV DATE DESCRIPTION		
MUELLER, INC. 1913 Hutchins Ave. Ballinger, TX 76821 (800) 527-1087		
SALESMAN: BUILDING DESCRIPTION: ROOF SL	OPE	
CHUCK BELL 80'-0" X 150'-0" X 24'-0"		
CUSTOMER NAME: ADDRESS:		
DAVID FAULKNER A. SAN ANTONIO, TX 78210 NON	E	
Detailer: CHECKER Date: JOB # 5176090 DWG # E103 Rev.	0	

ROOF SHEETING PLAN PANELS: 26 Ga. PBR - GP Galvalume Plus

CAUTION THE FOLLOWING MAXIMUM ADDITIONAL LINEAR FOOTAGE MEASURED (HORIZONTIALLY) OF PANELS MAY BE REMOVED FOR FIELD LOCATED FRAMED OPENINGS WITHOUT AFFECTING THE DIAPHRAGM STRENGTH

LEFT ENDWALL: 0 RIGHT ENDWALL: 0

ROOF SLOPES GREATER THAN 1:12 REQUIRE ENDWALL PANELS BE FIELD CUT TO MATCH ROOF SLOPE.

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3070 WALK DOOR TO BE FIELD INSTALLED IN THIS BAY.

ENDWALL SHEETING & TRIM: FRAME LINE 7 PANELS: 26 Ga. R - NC Need Common

0	07/26/2017	For Construction			
REV	DATE	DES	DESCRIPTION		
1913 H (800) 5	UEL STEEL BUILDI utchins Ave. 527-1087	LER, NG SYSTEMS & Ballinger,	INC. components TX 76821		
DRAWING DESCRIPTION:					
SHEE	FING DETAILS				
SALESMAN:			BUILDING DESCRIPTION:	ROOF SLOPE	
CHUCK BELL			80'-0" X 150'-0" X 24'-0" 1.00:		
CUSTOMER NAME:		ADDRESS:		SCALE	
DAVID FAULKNER		SAN ANTONIO, TX 7821	0	NONE	
DETAILER: CHECKER DATE: JOB #		^{JOB #} 5176090	^{DWG#} S101	REV. 0	

