CODES AND DESIGN SPECIFICATIONS:

1. BUILDING CODE: 2018 IBC
2. STRUCTURAL CONCRETE: 2018 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (A.C.I. 3-18).

   THE REINFORCED CONCRETE BEAM AND SLAB FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318-14 AND ANALYZED USING STANDARD ENGINEERING PRACTICES.
3. WOOD DESIGN: NATIONAL DESIGN SPECIFICATIONS (NDS 2015)
4. STEEL DESIGN: AMERICAN INSTITUTE OF STEEL DESIGN 14TH EDITION

   THE STEEL LINTELS HAVE BEEN DESIGNED IN ACCORDANCE WITH AISC 14 AND ANALYZED USING TANDARD ENGINEERING PRACTICES.
5. DESIGN LOADS: LATEST EDITION OF THE ASCE STANDARD 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS

DESIGN LOADS:

1. GRAVITY DESIGN LOADS:

   ROOF DEAD LOAD = 10 PSF
   ROOF LIVE LOAD = 20 PSF
2. HORIZONTAL DESIGN LOAD:

   WIND LOAD ANALYSIS PER ASCE 7-17 MAIN WIND-FORCE RESISTING SYSTEM
   ULTIMATE DESIGN WIND SPEED = 3 SECOND GUST WIND SPEED OF 115 MPH AT 33 FEET ABOVE GROUND, EXPOSURE C.

CONCRETE MIX DESIGN:

3. THE CONCRETE MIX DESIGNS SHALL BE PROPORTIONED TO MINIMIZE THE ADVERSE EFFECTS OF CLIMATE AT THE TIME OF YEAR THE CONCRETE IS PLACED. USE OF WORKABILITY ADMIXTURES AND AIR ENTRAINMENT IS PERMITTED AND MUST BE NOTED ON MIX DESIGNS.
4. USE OF CALCIUM CHLORIDE ADMIXTURES IS NOT PERMITTED.
5. ADDING WATER AT THE SITE IS NOT PERMITTED.
6. THE BUILDER/CONTRACTOR IS RESPONSIBLE FOR MAKING CONCRETE COMPRESSIVE STRENGTH CYLINDER TESTS AS REQUIRED BY A.C.I. 318-14.

CONCRETE REINFORCEMENT:

1. ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO A.S.T.M. A-615 GRADE 60. REINFORCEMENT SHALL BE FREE OF RUST AND DETERIOUS OR APPROVED EQUAL MATERIALS.

CONSTRUCTION:

1. TRENCHES FOR DEEP PLUMBING LINES SHOULD NOT BE LOCATED DIRECTLY UNDER (PARALLEL TO) BEAMS. PLACE PLUMBING LINES PERPENDICULAR TO BEAMS. HAND COMPACT BACKFILL IN 8 INCH LIFTS USING SANDY CLAY SOIL.
2. BEAM SIZES SHOWN SHALL NOT BE DECREASED WITHOUT WRITTEN APPROVAL OF FALKOFSKE ENGINEERING, INC. BEAM DEPTHS MAY BE INCREASED UP TO 36 IN. TO MEET MINIMUM DEPTH TO BEARING REQUIREMENTS WITHOUT ADDITIONAL REINFORCEMENT.
3. ALL SLABS AND BEAMS SHALL BE PROPERLY GRADED AND LEVELED UTILIZING A THIN (1"±) LAYER OF SAND OR SELECT FILL UNDER THE SLAB.
4. A POLYETHYLENE VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE AND SOIL. A THIN LAYER OF LEVELING SAND MAY BE PLACED ON TOP OF THE POLYETHYLENE IF DESIRED.
5. CONTRACTOR SHALL PROVIDE SLIP JOINTS BETWEEN THE CONCRETE SLAB AND ALL PLUMBING AND GAS LINES.
6. THE BUILDER/CONTRACTOR IS RESPONSIBLE FOR MAKING CONCRETE COMPRESSIVE STRENGTH CYLINDER TESTS AS REQUIRED BY A.C.I. 318-14.
7. CONTRACTOR NOTE: BEFORE PROCEEDING WITH ANY WORK OR ORDERING OF MATERIALS, THE CONTRACTOR AND/OR SUB-CONTRACTORS SHALL VERIFY ALL MEASUREMENTS AND LOCATION OF BUILDING COMPONENTS AND THEIR INTER-RELATIONSHIP AT THE BUILDING SITE AND FOR THEIR CORRECTNESS.

ALL FILL AREAS AND MATERIALS SHALL BE PLACED, COMPACTED, AND TESTED PER THE GEO-TECHNICAL ENGINEERS RECOMMENDATIONS.

INSPECTIONS:

1. INSPECTIONS ARE TO BE AS REQUIRED BY LOCAL BUILDING DEPARTMENT.
2. FALKOFSKE ENGINEERING INC. SHALL BE CALLED FOR CONSTRUCTION REVIEW OF FOUNDATION BEAMS AND REINFORCEMENT PRIOR TO PLACING CONCRETE.

BRACED WALL PANELS:

"ENGINEERED DESIGN IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE IS PERMITTED FOR ALL BUILDINGS AND STRUCTURES, AND PARTS THEREOF, INCLUDED IN THE SCOPE OF THISCODE."

THE ENGINEERED PLANS INCLUDED HEREIN ARE CONSIDERED TO BE DESIGNED WITHIN THE REQUIREMENTS OF THE 2018 IBC

ALLOWABLE BRACE WALL PANEL RESISTING LOADS ARE BASED UPON THE FOLLOWING REFERENCES.

1. ORIENTED STRAND BOARD (OSB) OR PLYWOOD STRUCTURAL PANELS: BASED ON NDS 2018.
2. GYPSUM BOARD WOOD FRAMED WALL ASSEMBLIES: BASED ON TABLE 2306.7 OF THE 2018 IBC.
3. THERMO-PLY RED & THERMO-PLY RED AMG STRUCTURAL SHEATHING: BASED ON SECTION 5.2.6.2 OF DrJ TECHNICAL EVALUATION REPORT No. 1004-01, DATED MAY 26, 2015.
4. APA PORTAL FRAME AT GARAGE DOORS: THE PORTAL FRAME BRACING AT THE SIDES AND TOP OF THE GARAGE DOOR OPENING IS BASED UPON APA REPORT T2003 - 48, DATED AUGUST 20, 2003, BY THE ENGINEERED WOOD ASSOCIATION (APA). AN ALLOWABLE RACKING LOAD OF 1000 POUNDS PER PORTAL FRAME WAS USED IN THE DESIGN OF THE PORTAL FRAME AS PART OF THE OVERALL BRACED WALL LINES AND BRACE WALL PANEL DESIGN.

STRUCTURAL TIMBER AND WOOD:

NOTE: THE FOLLOWING SPECIFICATIONS ARE FOR ALL STRUCTURAL WOOD FRAMING ON THIS PROJECT.

1. SOUTHERN PINE SAWN LUMBER

ITEM	SIZE	GRADE	COMPRESSION Fc
FOUNDATION SILL PLATES	2X6	No. 2 TREATED	565 PSI
FOUNDATION SILL PLATES (INTERIOR)	2X4	No. 2 TREATED	565 PSI
STUDS @ 16" O.C.	2X6	No. 3/STUD	925 PSI
STUDS @ 16" O.C. (INTERIOR)	2X4	No. 3/STUD	975 PSI

NOTE: STRUCTURAL END JOINTED (FINGER JOINTED) STUDS MAY BE USED PROVIDED THE STUDS ARE STAMPED AS SUCH - CERTIFIED GLUED JOINTS.

ITEM	SIZE	GRADE	BENDING Fb
2X4 BENDING MEMBER	2X4	No. 2	1100 PSI
2X6 BENDING MEMBER	2X6	No. 2	1000 PSI
2X8 BENDING MEMBER	2X8	No. 2	925 PSI
2X10 BENDING MEMBER	2X10	No. 2	800 PSI
2X12 BENDING MEMBER	2X12	No. 2	750 PSI

2. LAMINATED VENEER LUMBER (LVL)

ITEM	SIZE	SPECIES	BENDING Fb
HEADER, CEILING BEAM, ROOF BEAM	VARIES	2.0E	>2850 PSI

SILL PLATE CONNECTIONS - TO CONCRETE:

1. ALL SILL PLATES SHALL BE TREATED.
2. SILL PLATES UNDER EXTERIOR WALLS SHALL BE INSTALLED WITH ½" DIA. J-BOLTS CAST INTO CONCRETE WITH 7" EMBEDMENT. BOLTS SHALL BE LOCATED NO MORE THAN 6'-0" APART AND AT 6" O.C. MAX.FROM PLATE ENDS.
3. BOLTS THAT CAN NOT BE CAST IN PLACE WITH THE CONCRETE SHALL BE RETROFITTED WITH THE USE OF TITEN BOLTS, OR EQUIVALENT, 1/2" DIA ALL THREAD RODS (ATR) WITH 7" MIN. EMBED AND SIMPSON HIGH STRENGTH SET EPOXY SYSTEM, OR EQUIVALENT.
4. SILL PLATES UNDER INTERIOR WALLS MAY BE FASTENED WITH POWER DRIVEN HILTI FASTENER X-DNI72 OR EQUIVALENT. LOCATE NO MORE THEN 3'-0" APART AND SPACED AT 6" FROM EACH END, U.N.O.

CONSTRUCTION BRACING:

1. ALL WOOD FRAMING (STUD WALLS) SHALL BE PROPERLY BRACED DURING CONSTRUCTION. BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR.

NOTES TO THE CONTRACTOR:

1. THE FRAMING PLANS WERE DEVELOPED FOR THE PURPOSE OF TRANSFERRING LOADS OF THE ROOF AND CEILING ONTO THE CONCRETE FOUNDATION. THE FOUNDATION DESIGN WAS ANALYZED BASED UPON THE DIRECTION AND LOCATION OF THE ROOF AND CEILING FRAMING MEMBERS. THEREFORE, THE FRAMING PLANS MAY NOT BE CHANGED WITHOUT APPROVAL OF FALKOFSKE ENGINEERING, INC.

STEEL FRAMING:

1. ALL STRUCTURAL ANGLES (L) SHALL CONFORM TO ASTM A36 WITH Fy = 36 KSI.

REFER TO THE 2018 IBC FOR OTHER FRAMING REQUIREMENTS.

CONSTRUCTION REVIEW:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION.
2. CONTACT THE LOCAL BUILDING OFFICIAL FOR INSPECTIONS REQUIRED BY THE LOCAL BUILDING OFFICIAL.
3. FALKOFSKE ENGINEERING, INC. WILL REVIEW THE CONSTRUCTION WORK AS IT RELATES TO THE INSTALLATION OF THE PROPOSED FOUNDATION BY REVIEWING THE REINFORCEMENT PRIOR TO PLACEMENT OF CONCRETE, AS WELL AS THE INSTALLATION OF THE PROPOSED STRUCTURAL FRAMING AND WALL BRACING. THESE REVIEWS WILL BE PERFORMED BY A PROFESSIONAL ENGINEER (P.E.), AN ENGINEER IN TRAINING (E.I.T.), OR A FIELD TECHNICIAN. FIELD REPORTS OF EACH VISIT WILL BE COMPLETED (WITH PICTURES) AND AT THE END OF CONSTRUCTION FALKOFSKE ENGINEERING, INC. WILL PROVIDE A LETTER STATING THE CONSTRUCTION WORK WAS COMPLETED IN GENERAL AGREEMENT WITH OUR PLANS AND RECOMMENDATIONS.

SURFACE DRAINAGE AWAY FROM STRUCTURE:

1. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE PROPER POSITIVE DRAINAGE AWAY FROM THE STRUCTURE AS REQUIRED BY THE CIVIL ENGINEERING GRADING PLANS OR THE LANDSCAPE ARCHITECTS PLANS (BY OTHERS). IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE PROPER DRAINAGE DURING THE LIFE OF THE STRUCTURE.

MANSFIELD TEXAS

APPROVED
Reviewed for Code Compliance
Project Name: CB-24-02984
Date: 8/13/2024
Approved plans in no way excludes items that may be found in the field and shall not be construed to be a permit or approval of any violation of any code provision.

NO.	DATE	REVISION	BY
	07-08-24	UPDATES PER CITY COMMENTS	MAA

	DATE	BY
DES.	07-08-24	MAA
DRN.	07-08-24	MAA
CHK.	07-08-24	MMR

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

Falkofske Engineering, Inc.
Structural Engineering Consultants
Texas Registration F-4038
722 North Fielder Road
Arlington, Texas 76012
(817) 261-8300

FALKOFSKE ENGINEERING

The set of these plans and specifications is prepared for the stipulated use for which it is intended by the architect and is not to be used in whole or in part for any other project. The ideas, designs and arrangements represented thereby are and shall remain the property of FALKOFSKE ENGINEERING and the same may not be used without the written consent of FALKOFSKE ENGINEERING.

GENERAL NOTES
305 REGENCY PARKWAY
MANSFIELD, TX

KHALIL CAPITAL GROUP, CO
2967 CAYUGA LANE
GRAND PRAIRIE, TEXAS 75054

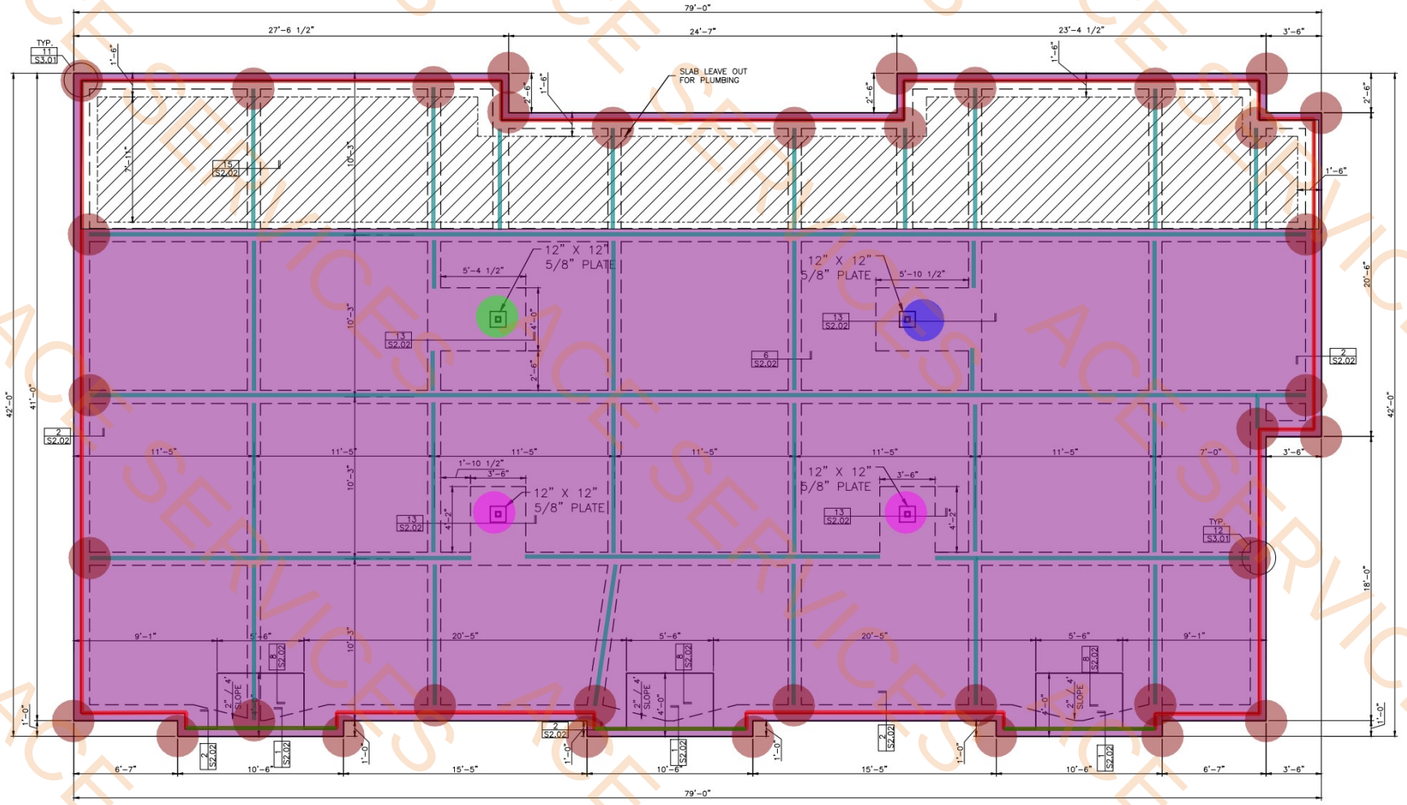
STATE OF TEXAS
THOMAS J WHITECOTTON
106958
LICENSED
PROFESSIONAL ENGINEER
7-9-24

JOB NO. 289.24

S1.01

ACE SERVICES

APPROVED
Reviewed for Code Compliance
Project Name: CB-24-02984
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SQUARE DISTANCE: 79'-0" X 42'-0" = 89'-5 1/2"
AREA = 3137 SQUARE FEET
R.C.B. = REINFORCED CONCRETE BEAM RE: NOTES
EXTERIOR BEAMS: 10" WIDE X 34" DEEP

4" Thick Concrete Slab	2476.7 SQ FT
10" Wide x 28" Deep Grade Beam	451.4 FT
12" Wide x 34" Deep Grade Beam	247.2 FT
6'-2"x4'-0"x3'-0" Concrete Pad Footing	1.0 EA
6'-8"x4'-0"x3'-0" Concrete Pad Footing	1.0 EA
5'-0"x3'-6"x3'-0" Concrete Pad Footing	2.0 EA
#5 Corner Rebar @ Top & Bottom (4'-0" L)	36.0 EA
Thicken Edge 1	28.7 FT

1 S2.01 FOUNDATION PLAN

MANSFIELD TEXAS

NO.	DATE	REVISION	BY
1	07-08-24	UPDATED PER COMMENTS	MAA

DATE 07-08-24 | BY MAA | DES. 07-08-24 | DRN. 07-08-24 | CHK. 07-08-24 MMR | SCALE: 1/4"=1'-0"

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FOUNDATION PLAN
305 REGENCY PARKWAY
MANSFIELD, TX

KHALIL CAPITAL GROUP, CO
2967 CAYUGA LANE
GRAND PRAIRIE, TEXAS 75054

STATE OF TEXAS
THOMAS J WHITECOTTON
108958
LICENSED
PROFESSIONAL ENGINEER
7-9-24

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S2.01

ACE SERVICES