CAMERON COMMERCIAL

-

AUSTIN, TEXAS

Architecture By : KELLY GROSSMAN

DESIGN CRITERIA

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2015 IBC CODE.

2. 1607.1 – LIVE LOADS: (1)
   (1) FLOOR: 50 psf
   (2) BALCONY: 100 psf (AS PUBLIC AREA)
   (3) PUBLIC AREA: 100 psf

3. 1607.1 – ROOF LIVE LOAD: 20 psf

4. 1608.2 – ROOF SNOW LOAD:
   1. SLOPED ROOF SNOW LOAD, Ps: 3.15 psf
   2. SNOW EXPOSURE FACTOR, Ce: 0.90
   3. SNOW LOAD IMPORTANCE FACTOR, Is: 1.00
   4. THERMAL FACTOR, Ct: 1.00

5. 1609.3.1 – WIND DESIGN DATA: (1)
   1. NOMINAL DESIGN WIND SPEED, Vasd=93mph
      ULTIMATE DESIGN WIND SPEED, Vult=120mph
   2. WIND IMPORTANCE FACTOR, Iw: 1.00
   3. EXPOSURE CATEGORY: B
   4. INTERNAL PRESSURE COEFFICIENT: +/- 0.18
   5. COMPONENTS AND CLADDING DESIGN WIND PRESSURES: RE: S0-4

6. 1613.3.1 – EARTHQUAKE DESIGN DATA:
   1. SEISMIC IMPORTANCE FACTOR, Ie: 1.00
   2. SEISMIC USE GROUP: II
   3. SPECTRAL RESPONSE ACCELERATIONS, Ss & S1: 0.05 & 0.022
   4. SITE CLASS: C
   5. SEISMIC DESIGN CATEGORY: A
   6. BASIC SEISMIC FORCE RESISTING SYSTEM: LIGHT-FRAMED WALLS WITH SHEAR PANELS OF ALL OTHER MATERIALS.
   7. DESIGN BASE SHEAR: 0.0265*W
   8. SEISMIC RESPONSE COEFFICIENT, Cs: 0.0265
   9. RESPONSE MODIFICATION FACTOR, R: 2
   10. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE

7. 1612.4 – FLOOD LOAD
   1. N/A

8. 1603.1.8 – SPECIAL LOADS
   1. N/A

9. 1603.1.7 – SYSTEM AND COMPONENTS REQUIRING SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE
   1. AS SPECIFIED IN SECTION 1707.1

10. ADDITIONAL CODE RECOMMENDED LIVE LOADS ARE AS FOLLOWS:
    1. HANDRAILS AND GUARDRAILS: 50 PLF, 200 LB POINT LOAD
    2. GRAB BARS: 250 LB POINT LOAD
    3. STAIRS (CONCENTRATED LOAD): 300 LBS OVER 4 SQ INCHES
    4. VEHICULAR BARRIERS: 6000 LB POINT LOAD @ HEIGHT OF 18"

11. THE SUBSURFACE INFORMATION AND FOUNDATION DESIGN ARE BASED ON A REPORT PREPARED BY: ALPHA TESTING, PROJECT NO. A183125, DATED DECEMBER 21, 2018.

12. THE FOUNDATION FOR THE STRUCTURE CONSISTS OF POST TENSION FOUNDATION AND HAS BEEN DESIGNED USING THE FOLLOWING SOIL CHARACTERISTICS AND CAPACITIES AS PROVIDED BY THE GEOTECHNICAL ENGINEER:

    1. BEARING CAPACITY = 1500 PSF

    2. POST TENSIONING INSTITUTE DESIGN PARAMETERS BASED ON "DESIGN OF POST-TENSIONED SLABS-ON-GROUND, THIRD EDITION, DATED 2004 WITH THE 2008 SUPPLEMENT

       EDGE MOISTURE VARIATION Em:
       EDGE LIFT = 4.4 FEET
       CENTER LIFT = 8.5 FEET

       DIFFERENTIAL SWELL Ym:
       EDGE LIFT = 1.3 INCHES
       CENTER LIFT = 0.9 INCHES

13. THE PT FOUNDATIONS FOR THIS PROJECT HAVE BEEN DESIGNED BASED ON THE FOLLOWING SOIL PREPARATION AS PROVIDED BY THE GEOTECHNICAL ENGINEER (FOR OPTION 2):

    A. REFERENCE GEOTECH REPORT FOR ADDITIONAL SUBGRADE PREPARATION REQUIREMENTS IN ORDER TO LOWER PVR TO 1 INCH.

14. CONCRETE FOR THIS PROJECT SHALL HAVE NATURAL SAND FINE AGGREGATE AND NORMAL WEIGHT COARSE AGGREGATE CONFORMING TO ASTM C33, TYPE I PORTLAND CEMENT CONFORMING TO ASTM C150, AND A 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS:

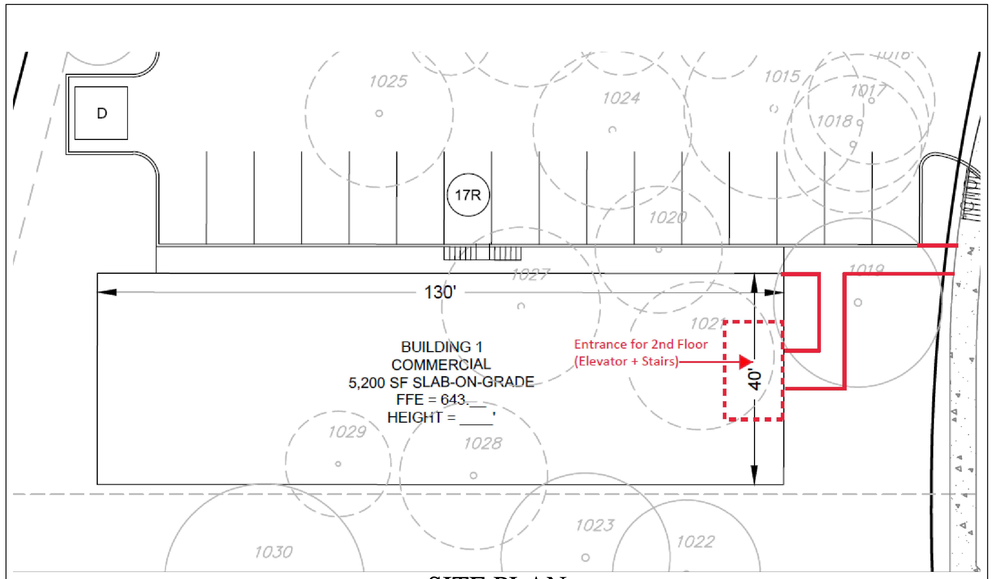
    1. FOUNDATIONS: 3000 PSI
    2. SLAB ON GRADE 3000 PSI

PERMIT OFFICIAL NOTES

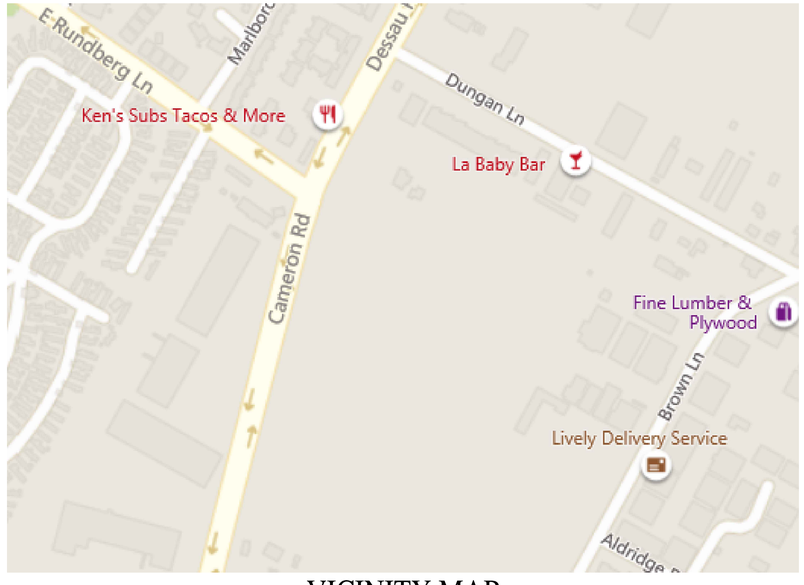
DEFERRED SUBMITTALS

THE FOLLOWING PREMANUFACTURED SYSTEMS HAVE BEEN SHOWN ON THESE DRAWINGS AND SHALL BE PREPARED BY THE MANUFACTURER AND WILL BE REVIEWED BY STERLING ENGINEERING AND DESIGN GROUP FOR COMPLIANCE WITH THE DESIGN DOCUMENTS. SUBMITTALS SHALL BE SEALED BY A REGISTERED ENGINEER. THE REVIEWED DRAWINGS WILL BE SUBMITTED AT A LATER DATE AS A DEFERRED SUBMITTAL:

1. PLATED WOOD FLOOR TRUSSES
2. PLATED WOOD ROOF TRUSSES
3. PLATED WOOD COMPONENTS
4. MECHANICAL WOOD CONNECTORS
5. STEEL STAIRS, HANDRAILS, GUARDRAILS, METAL AWNINGS.



SITE PLAN



VICINITY MAP

SEQ NO	DRAWING NUMBER	DRAWING LIST	ISSUE DESCRIPTION	PERMIT SET	CITY COMMENTS	RE-ISSUED SET
			DATE	3/12/2019	5/17/2019	5/17/2019
1	S0-0	COVER SHEET	●	●	●	
2	S0-1	GENERAL NOTES	●			●
3	S0-2	GENERAL NOTES	●			●
4	S0-3	SCHEDULES	●	●	●	
5	S0-4	SCHEDULES	●	●	●	
6	S0-5	SCHEDULES	●			●
7	S0-6	SCHEDULES	●	●	●	
8	S0-7	INSPECTIONS	●			●
9	S1-1	FOUNDATION PLAN	●	●	●	
10	S2-1	2ND FLOOR FRAMING PLAN	●	●	●	
11	S3-1	1ST AND 2ND FLOOR SHEARWALL PLAN	●			●
12	S4-1	ROOF FRAMING PLAN	●	●	●	
13	SD1-1	FOUNDATION SECTIONS AND DETAILS	●			●
14	SD2-1	FLOOR FRAMING SECTIONS AND DETAILS	●	●	●	
15	SD2-2	FLOOR FRAMING SECTIONS AND DETAILS	●	●	●	
16	SD3-1	SHEARWALL SECTIONS AND DETAILS	●			●
17	SD4-1	ROOF FRAMING DETAILS	●	●	●	
18	SD5-1	GENERAL STEEL DETAILS	●	●	●	

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CAMERON COMMERCIAL
–
AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **COVER SHEET**

05/17/2019 Date

CITY COMMENTS Description

Rev.

Drawn By: HT | Checked By: DVH/ZA

Drawing Scale: As Noted | Project No. 136-087

ISSUED FOR: | DATE:
- [ ] SD 30%
- [ ] CD 50%
- [ ] CD 95%
- [ ] CD 100%
- [ ] Pricing
- [ ] Bidding
- [x] Permit 03/12/2019
- [ ] Construction

STATE OF TEXAS
SANDEEP N. PATEL
80656
LICENSED
PROFESSIONAL ENGINEER

05/17/2019

Texas Registered Engineering Firm F-19122

THIS DRAWING IS PART OF A SET OF DRAWINGS FOR THIS PROJECT AND SHALL NOT BE CONSIDERED VALID UNLESS IT IS ACCOMPANIED BY THE COMPLETE SET OF DRAWINGS.

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SHEET NO.

COVER

COVER SHEET

G:\136 – KELLY GROSSMAN\136-087 Cameron Commercial\Structural Drawings\Working Drawings\Cover Sheet.dwg Plotted: May 29, 2019 – 10:01 AM by Hoo Tran

1 GENERAL

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GENERAL CONDITIONS

5. METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
6. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS.
7. THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY ANY CONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, DUE TO ANY ERRORS THAT MAY OCCUR HEREON.
8. ALL MATERIALS AND WORKMANSHIP CONFORM TO THE DRAWINGS AND SPECIFICATIONS AND TO THE LATEST EDITION OF THE BUILDING CODE.
9. ALL ERECTION PROCEDURES SHALL CONFORM TO OSHA STANDARDS, ANY DEVIATION MUST BE APPROVED BY OSHA PRIOR TO ERECTION.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND BE RESOLVED BEFORE PROCEEDING WITH ANY WORK.
12. ANY REFERENCE TO CODES OR SPECIFICATIONS SHALL BE WITH RESPECT TO CURRENT EDITIONS OF THE SAME.
13. THE STRUCTURAL INTEGRITY OF ANY BUILDING RELIES ON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS, WITH NO PROVISIONS MADE FOR CONDITIONS AND/OR SEQUENCES OF CONSTRUCTION AND THE STRUCTURAL DESIGN IS BASED ON THIS PREMISE. THEREFORE, THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING OF SUPERSTRUCTURE DURING CONSTRUCTION.
14. INTERIOR OR EXTERIOR BEARING AND SHEAR WALLS, IF LOADED BEFORE SHEATHING, SHALL HAVE CONTINUOUS, TEMPORARY BRACING AT MID HEIGHT OF STUDS PRIOR TO APPLYING ANY CONSTRUCTION LOADS.
15. FRAMING LAYOUTS ARE PROVIDED TO REPRESENT DESIGN CONCEPTS AND SYSTEMS CONSTRUCTION. CONTRACTOR AND HIS SUBCONTRACTORS ARE RESPONSIBLE FOR MATERIAL QUANTITIES AND ANY AND ALL UNSPECIFIED COMPONENTS REQUIRED FOR CONSTRUCTION.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR RIGID BRACING OF ALL WALLS, FORMWORK, SHORING AND FALSE WORK DURING CONSTRUCTION.
17. BEARING WALL STUDS DERIVE THEIR LOAD CARRYING CAPACITY WHEN SHEATHED AND NAILED ON AT LEAST ONE SIDE. FLOOR FRAMING SUPPORTED BY STUD WALLS SHALL NOT BE LOADED BY BUILDING MATERIALS OR ANY OTHER DEAD LOADS UNLESS APPROVED BY THE ENGINEER.
18. CONTRACTOR SHALL VERIFY ALL DROPS, OFFSETS, BLOCKOUTS, BRICK LEDGES AND DIMENSIONS WITH ARCHITECTURAL PLANS PRIOR TO PROJECT LAYOUT.
19. THE PERFORMANCE OF THE FOUNDATION AS DESIGNED DEPENDS ON PROPER CONSTRUCTION OF THE DRAINAGE SYSTEMS AND MAINTENANCE OF DRAINAGE SYSTEMS AFTER CONSTRUCTION IS COMPLETE. ALL ROOF DRAINAGE SHOULD BE COLLECTED AND REMOVED INTO UNDERGROUND STORM DRAIN SYSTEM. LANDSCAPE IRRIGATION AND DRAINAGE AROUND THE FOUNDATION MUST BE CONSTRUCTED WITH POSITIVE DRAINAGE WELL AWAY FROM THE BUILDING PERIMETER ON ALL SIDES. UNDERGROUND STORM DRAINS SHOULD NOT BE PLACED BENEATH BUILDINGS AND AIR CONDITIONING CONDENSATE DRAINS SHOULD NOT BE DRAINED EITHER ADJACENT TO THE FOUNDATION.
20. THE CONTRACTOR IS RESPONSIBLE FOR THE FABRICATION, ERECTION AND JOB SAFETY. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REQUIREMENTS AND SAFETY ORDINANCES FROM PUBLIC AGENCIES. THE CONTRACTOR SHALL INSTRUCT ALL PERSONNEL AND SUB CONTRACTORS REGARDING SAFETY PROCEDURES THAT ARE BEING USED FOR THE DURATION OF THE PROJECT CONSTRUCTION.
21. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED.
22. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AS HE SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THE DRAWINGS OR NOT AND SHALL VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL CONTRACTOR ANY DEVIATION FROM THE OPENINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL.
23. ALL BEAMS AND GIRDERS SHALL BE CAMBERED IF INDICATED ON STRUCTURAL DRAWINGS.
24. ANY TEMPORARY SHORING OR BRACING DURING THE CONSTRUCTION PHASE BEFORE COMPLETION OF CONNECTION AND POURING OF FLOOR TOPPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
25. THE STEEL FABRICATOR SHALL BE CERTIFIED BY THE AISC QUALITY CERTIFICATION PROGRAM.
26. SEE ARCHITECTURAL PLANS FOR WHEEL STOP LOCATIONS.

2 CONCRETE

1. FLY ASH MAY BE USED AS A POZZOLAN TO REPLACE A PORTION OF THE PORTLAND CEMENT IN A CONCRETE MIX, SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER. FLY ASH, WHEN USED, SHALL CONFORM TO ASTM C618. CONCRETE MIXES USING FLY ASH SHALL BE PROPORTIONED TO ACCOUNT FOR THE PROPERTIES OF THE SPECIFIC FLY ASH USED AND TO ACCOUNT FOR THE SPECIFIC PROPERTIES OF THE FLY ASH CONCRETE THUS RESULTING. THE RATIO OF THE AMOUNT OF THE FLY ASH TO THE TOTAL CEMENTITIOUS MATERIAL IN THE MIX SHALL NOT EXCEED ARCHITECTURAL SPECIFICATIONS, NOR 20 PERCENT, WHICHEVER IS LESS.
2. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF THE ACI DETAILING MANUAL ACI 315.
3. MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO ACI 301.
4. CONCRETE COVER PROTECTION FOR REINFORCING SHALL CONFORM TO ACI 318.
5. CONCRETE REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60, WITH SUPPLEMENTARY REQUIREMENTS (S1). THE "N" DESIGNATION SHALL BE ACCEPTED IN LIEU OF THE "S" DESIGNATION REQUIREMENT; HOWEVER, OTHER REQUIREMENTS OF SUPPLEMENT S1 SHALL BE MET. REINFORCEMENT BARS SHALL NOT BE TACK WELDED, WELDED, HEATED, OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.
6. WELDING OF REINFORCEMENT BARS, WHEN APPROVED BY THE STRUCTURAL ENGINEER, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.479. ELECTRODES FOR SHOP AND FIELD WELDING OF REINFORCEMENT BARS SHALL CONFORM TO ASTM A233, CLASS E90XX.
7. COMPLETE REINFORCING PLACEMENT DRAWINGS PREPARED IN ACCORDANCE WITH ACI 315 SHALL BE REVIEWED BY THE ENGINEER AND AVAILABLE ON THE JOB SITE PRIOR TO THE PLACING OF CONCRETE.
8. MAXIMUM SLUMP IN CONCRETE SHALL NOT EXCEED 5". ALL CONCRETE MIX SHALL BE DESIGNED BY A QUALIFIED REGISTERED ENGINEER AND LAB CONCRETE MIX DESIGN DATA RESULTS SHALL BE SUBMITTED TO STRUCTURAL ENGINEER FOR REVIEW.

CONCRETE (CONTINUES)

9. WATER FOR CONCRETE SHALL BE CLEAN, FRESH AND POTABLE.
10. CONCRETE MIX DESIGNS MUST BE SUBMITTED A MINIMUM OF 15 DAYS PRIOR TO THE START OF THE WORK FOR ENGINEER AND OWNER'S TESTING LABORATORY APPROVAL PRIOR TO PLACEMENT OF CONCRETE IN THE PLANT OR FIELD. ANY ADJUSTMENTS IN APPROVED MIX DESIGNS INCLUDING CHANGES IN ADMIXTURES MUST BE SUBMITTED IN WRITING TO THE ENGINEER AND OWNER'S TESTING LABORATORY FOR APPROVAL PRIOR TO USE IN THE FIELD.
11. WELDED WIRE FABRIC (WWF) SHALL BE IN ACCORDANCE WITH ASTM A185. PROVIDE FABRIC IN FLAT SHEETS. ROLLED SHEETS ARE NOT ACCEPTABLE. LAP FABRIC TWO MESHES AT SPLICE LOCATIONS.
12. ALL REINFORCING STEEL SHALL BE SUPPORTED TO MID-DEPTH USING PLASTIC CHAIRS SPACED AT 48" ON CENTER EACH WAY.
13. AFTER COMPLETING THE SURFACE FINISH ON A CONCRETE POUR, THE POUR SHALL BE COVERED WITH PLASTIC AND KEPT DAMP FOR THE NEXT 72 HOURS.
14. CURING COMPOUND MAY BE USED IN LIEU OF WET CURING. SUBMIT CURING COMPOUND TO ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL. CURING COMPOUNDS THAT MAY HAVE CONFLICT WITH THE FINISH SHALL NOT BE USED.

3 MISCELLANEOUS METALS

1. STRUCTURAL STEEL ROLLED SHAPES SHALL CONFORM TO A572-50.
2. STRUCTURAL STEEL TUBES SHALL CONFORM TO ASTM A500 GR. B
3. ANCHOR BOLTS SHALL CONFORM TO ASTM A307 OR ASTM A36, UNLESS NOTED OTHERWISE ON PLANS.
4. UNLESS OTHERWISE NOTED, INSTALL 22 ga x 1" CORRUGATED BRICK TIES 3" INTO MASONRY AT SPACING NOT GREATER THAN 16" HORIZONTAL AND VERTICAL OR AS REQUIRED BY THE LOCAL BUILDING CODE.
5. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED IN-PLACE BEFORE CONCRETE IS POURED.

4 POST-TENSIONED CONCRETE

1. DESIGN AND CONSTRUCTION OF POST-TENSIONED SLABS-ON-GRADE SHALL BE IN ACCORDANCE WITH POST-TENSIONING INSTITUTE.
2. ALL POST-TENSIONING TENDONS SHALL BE LO-LAX AND ANCHORAGES SHALL CONFORM TO REPORT No. ACI 423-3R-83. TENDONS SHALL BE FABRICATED FROM 1/2" DIA. 270 KSI STRAND MEETING ASTM A-416.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT TIME OF FULL STRESSING. WATER CONTENT SHALL BE CONTROLLED AND MINIMIZED OTHERWISE, CRACKING DUE TO SHRINKAGE WILL BE EXCESSIVE.
4. THE LOCATION OF CONSTRUCTION JOINTS AS DETAILED ON THE CONTRACT DOCUMENTS MAY NOT BE CHANGED WITHOUT APPROVAL FROM ENGINEER.
5. TENDONS AND REINFORCING BARS SHALL BE TIED AT ALL INTERSECTIONS. TENDONS SHALL BE SUPPORTED ON CHAIRS AT NO MORE THAN 4 FEET O.C. REBAR SHALL BE ADEQUATELY SUPPORTED. CARE SHALL BE USED DURING PLACEMENT OF CONCRETE SO THAT POSITIONING OF TENDONS AND SUPPORTS IS MAINTAINED.
6. AT DEAD ENDS, TENDON SHEATHING MAY BE CUT BACK AS MUCH AS 12" FROM THE ACHORAGE. AT STRESSING ENDS, SHEATHING MAY BE CUT BACK A MAXIMUM OF 2". REPAIR DAMAGED SHEATHING PRIOR TO CONCRETE PLACEMENT.
7. DEAD ENDS AND STRESSING ENDS SHALL NOT BE CHANGED IN THE FIELD WITHOUT A PRIOR WRITTEN APPROVAL FROM ENGINEER.
8. CONCRETE SHALL BE WELL CONSOLIDATED IN THE VICINITY OF END ANCHORAGE.
9. TENDON FORCE VARIATIONS INDICATED BY GAGE PRESSURE AND ELONGATION IN EXCESS OF 10 PERCENT SHALL BE REPORTED TO THE STRUCTURAL ENGINEER.
10. TENDONS SHALL BE STRESSED AS FOLLOWS:
    a. TENDONS LESS THAN 100 FEET IN LENGTH SHALL BE FULLY STRESSED WITHIN 3 TO 4 DAYS AFTER CONCRETE PLACEMENT AND ACHIEVING A COMPRESSIVE STRENGTH OF 2,500 PSI.
    b. TENDONS GREATER THAN 100 FEET IN LENGTH SHALL BE PARTIALLY STRESSED TO 25% OF THE FULL STRESS FORCE WITHIN 24 TO 36 HOURS OF CONCRETE PLACEMENT. FULL STRESSING OF THESE TENDONS SHALL OCCUR WITHIN 3 AND 4 DAYS, AFTER CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF 2,500 PSI.
11. THE JACKING FORCE IN THE 1/2" DIAMETER LO-LAX PRESTRESSING STRANDS SHALL BE AS FOLLOWS:
    a. INITIAL JACKING FORCE (0.80 Fpu) = 33 KIPS
    b. FINAL JACKING FORCE (0.75 Fpu) = 31 KIPS
12. THE POST TENSIONED SLAB-ON-GRADE DESIGN IS BASED ON PRESTRESSING LOSSES NOT EXCEEDING 20% OR 4.59 KIPS PER TENDON EXCLUDING SEATING AND FRICTIONAL LOSSES.
13. TENDONS 1/2" DIA. 270KSI SHALL BE EFFICIENTLY ANCHORED AT 31.0 KIPS. THESE TENDONS MAY BE TEMPORARILY STRESSED TO 33.0 KIPS IN ORDER TO OVERCOME FRICTION AND COMPENSATE FOR SEATING LOSSES.
14. ELONGATIONS SHALL BE APPROXIMATELY 0.079" PER FOOT OF STRESSED TENDON LENGTH U.N.O. ON PLAN. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
15. TENDON ENDS SHALL BE CUT OFF WITH A SAW OR SHEAR, NOT WITH A TORCH.
16. STRESSING POCKETS SHALL BE PATCHED WITH A STIFF GROUT MIX.
17. CONTRACTOR SHALL SUBMIT COMPLETE PLACING PLANS, DETAILS OF TENDON AND BAR PLACEMENTS.
18. POST-TENSIONING TENDONS IN BEAMS SHALL BE DRAPED AS SHOWN IN PLANS USING SMOOTH PARABOLIC DRAPES.
19. CONTRACTOR SHALL PROVIDE ALL BAR AND TENDON SUPPORTS AND ADDITIONAL REINFORCING REQUIRED TO MAINTAIN SPECIFIED COVERAGES AND DRAPES.
20. AFTER TENDONS ARE STRESSED AND EXCESS CUT OFF, ANY EXPOSED HARDWARE SHALL BE SPRAYED WITH RUST-INHIBITIVE PAINT AND OPENINGS SHALL BE GROUTED FLUSH WITH SLAB EDGE.
21. TENDONS SHALL HAVE THE PRESTRESSING STRAND PERMANENTLY PROTECTED AGAINST CORROSION BY A CHEMICALLY STABLE, PROPERLY APPLIED CONTINUOUS COATING OVER THE ENTIRE TENDON LENGTH. SHEATHING FOR UNBONDED TENDONS SHALL HAVE SUFFICIENT TENSILE STRENGTH AND WATER-RESISTANCE TO RESIST DAMAGE AND DETERIORATION AND SHALL BE CONTINUOUS OVER THE TENDON LENGTH.
22. ANCHORAGES OF UNBONDED TENDONS SHALL DEVELOP AT LEAST 95 PERCENT OF THE MINIMUM SPECIFIED ULTIMATE STRENGTH OF THE PRESTRESSING STEEL WITHOUT EXCEEDING ANTICIPATED SET. SPECIAL REINFORCEMENT, REQUIRED FOR THE PERFORMANCE OF THE ANCHORAGE, SHALL BE SPECIFIED BY THE TENDON SUPPLIER.
23. POST-TENSIONING CONTRACTOR SHALL SUBMIT TO ENGINEER FOR REVIEW THE FOLLOWING:
    a. LAB TEST AND RESULTS ON ANCHORAGE SYSTEM;
    b. CURRENT CALIBRATION DATE FOR STRESSING EQUIPMENT TO BE USED;
    c. COEFFICIENT OF FRICTION FOR STRANDS;
    d. MILL TESTS FOR STRANDS
24. POST-TENSIONING SLAB TENDONS SHALL BE PLACED IN A STRAIGHT LINE FROM STRESSING END TO DEAD END AS SHOWN ON PLANS. DEVIATION AT ANY PLACE FROM THE LAYOUT SHOWN ON PLANS SHALL NOT EXCEED 10 DEGREES IN A HORIZONTAL GRADUAL PARABOLIC SWEEP.
25. TENDONS SHALL NOT BE PLACED WITHIN 6" OF A PARALLEL EDGE.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL POST-TENSIONING TENDONS WHEN USING EXPANSION BOLTS, ADHESIVE ANCHORS OR POWDER ACTUATED FASTENERS. THE CONTRACTOR SHALL LOCATE TENDONS USING NON DESTRUCTIVE MEANS.

5 FOUNDATION AND BUILDING PAD

1. THE CONTRACTOR SHALL PERFORM EXCAVATIONS, FOOTING CONSTRUCTION, AND PREPARATION OF THE COMPACTED FILL UNDER THE SLAB-ON-GRADE IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT.
2. DRILLED SHAFTS IF SHOWN ON PLANS SHALL BE FOUNDED AT DEPTHS NOTED IN SOILS REPORT.
3. EXCAVATIONS FOR FOUNDATIONS SHALL BE CLEANED AND HAND TAMPED TO A UNIFORM SURFACE. FOOTING EXCAVATIONS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 6 MIL VISQUEEN IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 2 HOURS OF THE EXCAVATION OF THE FOOTING.
4. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND/OR THE GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.
5. GENERAL CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER 48 HOURS PRIOR TO PLACEMENT OF CONCRETE IN THE FOUNDATIONS.
6. IF THERE IS SEEPAGE IN EXCESS OF ONE INCH (1"), THE FOOTING EXCAVATION SHOULD BE PUMPED DRY.
7. ALL BACKFILL SHALL BE PLACED AND COMPACTED IN 8" LIFTS OR AS SPECIFIED IN THE GEOTECHNICAL REPORT.
8. FILL SHALL BE CLEAN INACTIVE CLAY NOT SILT.
9. STRUCTURAL FILL UNDER FLOOR SLAB, BALCONIES AND PATIOS SHALL HAVE A PLASTICITY INDEX AS SPECIFIED IN THE SOILS REPORT. FILL SHALL BE COMPACTED IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED IN THE SOILS REPORT.
10. SUBGRADE SOILS SHALL BE SCARIFIED TO MINIMUM SIX INCHES DEPTH, PROOF ROLLED AND COMPACTED TO BETWEEN 95% TO 100% OF STANDARD PROCTOR DENSITY (ASTM D-698). ALL UNSUITABLE MATERIAL AND SOFT SPOTS SHALL BE REMOVED AND BACKFILLED WITH SELECT FILL PLACED IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. MOISTURE CONTENT OF SUBGRADE SHALL BE 2% OF OPTIMUM.
11. SITE EXCAVATED SOIL MAY BE USED FOR SLAB ON GRADE FILL MATERIAL PROVIDED THAT ALL VEGETATION AND ROOTS ARE REMOVED PRIOR TO THEIR USE AND IF THE PLASTICITY INDEX IS LESS THAN REQUIRED. VERIFY USE WITH GEOTECHNICAL ENGINEER.
12. ALL GRADE ADJUSTMENTS FOR SLAB-ON-GRADE CONSTRUCTION SHALL BE ACCOMPLISHED WITH SELECT FILL AS SPECIFIED.
13. SLAB-ON-GRADE CONCRETE SHALL NOT BE POURED AGAINST A FINAL PREPARED SUBGRADE CONTAINING FREE WATER, ICE, FROST, MUD OR OTHER UNSUITABLE MATERIALS.
14. TRENCHES FOR BURIED PLUMBING SHALL NOT RUN ALONG OR UNDER BEAMS EXCEPT THEY MAY CROSS AT RIGHT ANGLES. TRENCH BACKFILLS SHALL BE THOROUGHLY COMPACTED.
15. BEAM TRENCHES SHALL BE CLEAN OF LOOSE SOIL, CLODS AND TRASH. DEBRIS SHALL BE REMOVED PRIOR TO PLACING CONCRETE AND ALL VOIDS SHALL BE REPLACED WITH SAND.
16. BEAMS EXCAVATED MORE THAN THE SCHEDULED DEPTH, SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE CONCRETE PLACEMENT.

6 JOINTS AND WATERSTOPS

1. WALKWAY POURS SHALL HAVE CONSTRUCTION JOINTS SPACING NOT TO EXCEED 10'-0"O.C. AND LIKEWISE SHOULD LINE UP WITH ANY VERTICAL CONSTRUCTION JOINT IN WALLS. ALL JOINTS SHALL BE KEYED AND DOWELED.
2. CONTRACTOR SHALL SUBMIT A DRAWING SHOWING PROPOSED CONSTRUCTION AND CONTROL JOINT LOCATIONS IN ALL SLAB CONSTRUCTION.
3. ALL VERTICAL AND HORIZONTAL JOINTS IN EXTERIOR WALLS SHALL BE KEYED.
4. ALL KEYWAYS FOR WALLS SHALL BE 2x AND CONTINUOUS.
5. HORIZONTAL JOINTS SHALL NOT BE PERMITTED IN CONCRETE CONSTRUCTION EXCEPT AS SHOWN ON THE CONTRACT DOCUMENTS. VERTICAL JOINTS SHALL OCCUR AT LOCATIONS APPROVED BY THE STRUCTURAL ENGINEER.

7 SLAB-ON-GRADE

1. ALL PIPE SLEEVES IN CONCRETE MEMBERS SHALL BE SCHEDULE 40, GALVANIZED STEEL PIPE UNLESS SHOWN OTHERWISE ON THE STRUCTURAL DRAWINGS. LOCATION OF SLEEVES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. ADDITIONAL REINFORCING MAY BE REQUIRED.
2. NO CONDUIT OR PIPING LARGER THAN 1" I.D. SHALL BE RUN IN STRUCTURAL CONCRETE MEMBERS UNLESS SHOWN ON STRUCTURAL DRAWINGS.
3. TOP OF ALL FLOOR DRAINS SHALL BE AT ELEVATION (-1/2" FROM FINISHED FLOOR) OR AS OTHERWISE NOTED ON PLAN. SLOPE SURFACE FOR AREAS AROUND THESE DRAINS OR AS INDICATED ON THE ARCHITECTURAL FLOOR PLANS.
4. SLAB DEPRESSIONS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL SLAB RECESSES NOT SHOWN ON STRUCTURAL DRAWINGS. ALL RECESS REVISIONS REQUIRED BY ALTERNATE SUBMITALS SHALL BE COORDINATED BY THE CONTRACTOR.
5. WATERPROOFING MEMBRANE SHALL BE 10 MIL THICKNESS AND ALL JOINTS SHALL BE LAPPED 12" AND PROTECTED.
6. PROVIDE 1 - #4 REINFORCEMENT BAR x 6'-0" AT RE-ENTRANT CORNERS AND AROUND RECTANGULAR HOLES IN SLABS UNLESS NOTED OTHERWISE. PLACE BAR DIAGONALLY TO CORNER WITH 1" CLEARANCE FROM THE TOP AND THE SIDE OF THE SLAB AT THE CORNER.
7. PIPING SHALL NOT BE CAST IN GRADE BEAMS OR SLABS.

8 MECHANICAL ANCHORS AND HARDWARE

1. EXPANSION ANCHORS SHALL BE HILTI "KWIK BOLTS TZ", SIMPSON "STRONG BOLT" OR AN APPROVED EQUIVALENT.
2. ADHESIVE ANCHORS SHALL BE HILTI "HVA ANCHORS", SIMPSON "SET EPOXY" OR AN APPROVED EQUIVALENT.
3. POWDER ACTUATED FASTENERS SHALL BE HILTI "DS SERIES FASTENERS", SIMPSON "PDP SERIES FASTENERS" OR AN APPROVED EQUIVALENT.
4. HOLDDOWNS, STRAPS AND HURRICANE CLIPS SHALL BE INSTALLED ACCORDING TO SIZE AND SPACING SHOWN ON PLANS. ALTERNATES SHALL BE SUBMITTED TO ENGINEER FOR REVIEW.
5. REFER TO "MISCELLANEOUS METALS" FOR SILL BOLT REQUIREMENTS.
6. PROVIDE SIMPSON "STANDARD U JOIST HANGERS" AT FLUSH JOIST CONNECTIONS AND SIMPSON "B/HB BEAM HANGERS" AT FLUSH BEAM CONNECTIONS EXCEPT AS NOTED ON PLANS.
7. ALL WOOD FASTENING ITEMS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE.

9 TESTING AND INSPECTION

1. THE STRUCTURAL ENGINEER SHALL VISUALLY OBSERVE THE ERECTION OF THE WOOD FRAME INCLUDING WALL FRAMING, SHEAR WALLS, WOOD TRUSSES AND PLYWOOD DECKING.
2. THE GEOTECHNICAL CONSULTANT SHALL EXAMINE EACH FOOTING EXCAVATION AND FILL PLACEMENT TO DETERMINE THAT THE PROPER DESIGN REQUIREMENTS HAVE BEEN REACHED. THIS VISUAL OBSERVATION SHOULD BE PERFORMED PRIOR TO THE PLACEMENT OF REINFORCEMENT IN THE EXCAVATION. VISUAL OBSERVATION OF THE FOUNDATION REINFORCEMENT FOR THE SLAB POUR SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER PRIOR TO PLACING OF CONCRETE IN EACH POUR.
3. THE GEOTECHNICAL CONSULTANT SHALL MONITOR THE DEGREE OF COMPACTION OF THE FILL FOR THE SUBGRADE BENEATH THE SLAB-ON-GRADE. ANY AREAS OF WEAKNESS SHALL BE REWORKED ACCORDING TO CONSULTANTS RECOMMENDATIONS.
4. ATTERBERG LIMITS TESTS OF ALL MATERIAL TO BE USED AS COMPACTED FILL UNDER THE STRUCTURES SHALL BE PERFORMED AND RESULTS SUBMITTED FOR ENGINEER'S REVIEW.
5. COMPACTION TESTS OF EACH LIFT OF COMPACTED SOILS SUPPORTING ALL SLABS-ON-GRADE SHALL BE PERFORMED.
6. CONCRETE CYLINDER TESTS AND SLUMP TESTS FOR FOOTINGS, GRADE BEAMS, SLABS-ON-GRADE, 4 CYLINDERS: 1 AT 3 DAYS, 1 AT 7 DAYS, AND 2 AT 28 DAYS PER 50 CUBIC YARDS.
7. THE STRUCTURAL ENGINEER SHALL VISUALLY OBSERVE THE TENDON PLACEMENTS AND REBAR IN THE SLAB POURS PRIOR TO THE PLACING OF THE CONCRETE.
8. ALL BOLTED OR NAILED CONNECTIONS FOR HOLDDOWNS AND STRAPS SHALL BE VISUALLY OBSERVED BY STRUCTURAL ENGINEER.

10 SHEARWALLS AND DIAPHRAGMS

1. SHEATHING FOR ROOF SHALL BE 15/32" THICK PLYWOOD STANDARD C-D INTERIOR GRADE WITH EXTERIOR GLUE OR OSB WITH PANEL SPAN RATING OF 48/24.
2. DECKING FOR FLOORS SHALL BE 23/32" THICK, TANDG APA RATED PLYWOOD STANDARD C-D INTERIOR WITH EXTERIOR GLUE OR ORIENTED STRAND BOARD (OSB) (STURDY FLOOR) WITH PANEL SPAN RATING OF 48/24. INSTALL DECKING WITH FACE GRAIN PERPENDICULAR TO SUPPORT.
3. WOOD SHEATHING AT SHEARWALL SHALL BE APA RATED PLYWOOD STANDARD C-D INTERIOR WITH EXTERIOR GLUE OR OSB GRADE WITH THICKNESS AS SHOWN IN SHEARWALL SCHEDULE.
4. PLYWOOD SHEATHING FOR CHIMNEY CONSTRUCTION AND OTHER MISCELLANEOUS USES SHALL BE 15/32" THICK, EXTERIOR GRADE.
5. EXTERIOR GYPSUM SHEATHING USED IN SHEARWALLS SHALL BE MIN. 1/2" THICK AND FREE OF IMPERFECTIONS AND CONFORM TO ASTM C79-76A. THICKNESS OF SHEATHING SHALL BE AS SCHEDULED IN SHEARWALL SCHEDULE AND AS REQUIRED FOR 1 HR. ASSEMBLY.
6. INTERIOR GYPSUM WALLBOARD FOR SHEARWALLS SHALL BE 5/8" THICK AND FREE FROM IMPERFECTIONS AND CONFORM TO SPECIFICATIONS SHOWN ON ARCHITECTURAL DRAWINGS.

11 PREMANUFACTURED WOOD TRUSSES

1. TRUSSES ARE DESIGNED FOR IN SERVICE CONDITIONS ONLY. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROPERLY BRACE TRUSSES DURING LIFTING AND ERECTION.
2. TRUSS MANUFACTURER SHALL DESIGN ALL FLOOR AND ROOF TRUSS FOR ALL GRAVITY, SHEAR AND WIND LOADS.
3. TRUSS LENGTHS AND PROFILES SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION. CONFIGURATION AND SIZE OF WEB AND CHORD MEMBERS SHALL BE DETERMINED BY TRUSS MANUFACTURER.
4. CONTRACTOR SHALL KEEP TRUSSES LATERALLY BRACED DURING ERECTION, UNTIL ALL DIAPHRAGMS ARE INSTALLED.
5. DESIGN AND FABRICATION CRITERIA OF ALL WOOD TRUSSES SHALL MEET WITH "NATIONAL DESIGN SPECIFICATIONS FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" BY NATIONAL FOREST PRODUCTS ASSOCIATION (LATEST REVISION). "TIMBER CONSTRUCTION STANDARDS", BY AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (LATEST REVISION), AND "DESIGN SPECIFICATIONS FOR LIGHT METAL CONNECTED WOOD TRUSSES", BY TRUSS PLATE INSTITUTE.
6. THE FOLLOWING DESIGN DATA SHALL BE INCLUDED ON THE SHOP DRAWINGS:
    a. SIZE AT METAL CONNECTOR
    b. LUMBER GRADES
    c. DESIGN LOADINGS AND ALLOWABLE UNIT STRESS INCREASES.
    d. DEFLECTIONS.
7. THE MOISTURE CONTENT OF LUMBER SHALL NOT EXCEED 19% NOR BE LESS THAN 7% AT THE TIME OF FABRICATION.
8. CHORD AND WEB MEMBERS SHALL BE EITHER SOUTHERN YELLOW PINE OR DOUGLAS FIR.
9. ALL TRUSS CONNECTOR PLATES SHALL BE MANUFACTURED FROM STRUCTURAL QUALITY GALVANIZED SHEET METAL NOT LESS THAN 20 GAUGE THICKNESS, WITH A MINIMUM YIELD OF 33,000 PSI AND A MINIMUM ULTIMATE TENSILE STRENGTH OF 45,000 PSI. THE CORROSION RESISTANT COATING SHALL MEET OR EXCEED ASTM A446, STANDARD SPECIFICATION FOR SHEET METAL.
10. OPEN JOINTS WHICH DEPEND ON THE STIFFNESS OF THE METAL CONNECTOR PLATE TO TRANSMIT STRESSES AND IMPROPER FITTING JOINTS WILL NOT BE ACCEPTED.
11. DEAD KNOTS AND WANES ON LUMBER SHALL NOT BE USED UNDER THE CONNECTOR PLATES.
12. DESIGN AND DETAILING OF PRE-MANUFACTURED PRODUCTS, CONNECTIONS AND ACCESSORIES SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE A.I.T.C. "TIMBER CONSTRUCTION MANUAL" AND THE N.F.P.A. "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION".
13. TRUSSES SHALL BE KEPT COVERED DURING SHIPPING, STORAGE AND CONSTRUCTION.
14. TRUSSES SHALL BE DESIGNED AND FABRICATED BY TRUSS MANUFACTURER. THE DESIGN SHALL BE PREPARED BY A REGISTERED ENGINEER BEARING AN ENGINEERING SEAL.
15. TRUSSES SHALL BE DESIGNED FOR THE LOADING CRITERIA NOTED ON PLANS.
16. MAXIMUM LIVE LOAD DEFLECTION SHALL BE SPAN/240 FOR ROOF TRUSSES AND SPAN/360 FOR FLOOR, BALCONY AND BREEZEWAY/CORRIDOR TRUSSES.

12 PREMANUFACTURED WOOD COMPONENTS

1. CONSTRUCTION OF PREMANUFACTURED WOOD COMPONENTS (PWC) i.e. CONTINUOUS BEARING MEMBERS, SHEAR PANELS, HEADER TRUSSES, ETC. SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES.
2. MATERIAL USED FOR COMPONENT SHALL BE IN ACCORDANCE WITH LUMBER QUALITY STANDARDS ESTABLISHED IN "WOOD TRUSSES" SECTION OF THIS SHEET.
3. ALL PREMANUFACTURED WOOD COMPONENTS SHALL BE DESIGNED AND FABRICATED BY TRUSS MANUFACTURER. THE DESIGN SHALL BE PREPARED BY A REGISTERED ENGINEER AND SHALL BEAR AN ENGINEERING SEAL.
4. SHEAR PANELS SHALL BE LOCATED WITHIN THE SHEARWALL LENGTH AND DESIGNED FOR FORCE SHOWN IN NAILING SCHEDULE.
5. CONTINUOUS BEARING (CB) MEMBERS SHALL BE DESIGNED TO RESIST ALL ROOF AND FLOOR GRAVITY LOADS. PARTS OF CB LOCATED WITHIN THE SHEAR WALLS SHALL BE DESIGNED TO RESIST THE SCHEDULED FLOOR/ROOF SHEAR TIMES THE SHEARWALL LENGTH.
6. PROVIDE PROPER BEARING FOR COMPONENTS AT ALL SUBSEQUENT FLOOR LEVELS.
7. MAX.LIVELOAD DEFLECTION SHALL BE L/480 OVER LONGER SPAN W/O MIDDLE SUPPORT (LIVING ROOM AREA)

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Architecture By: KELLY GROSSMAN

Sheet Title: **GENERAL NOTES**

Rev.	Description	Date
1	CITY COMMENTS	05/17/2019

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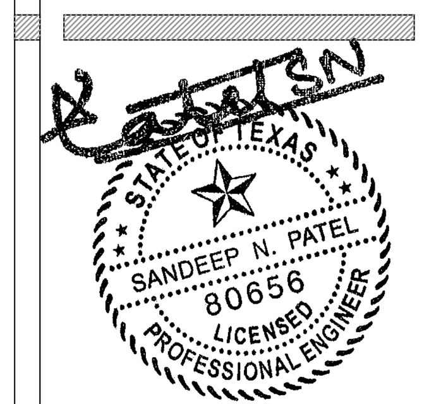

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SHEET NO.
S0-1
GENERAL NOTES

1 PARALLEL STRAND (PSL) AND GLULAM LUMBER (GLB)

1. PSL LUMBER SHALL BE FABRICATED FROM LONG, THIN STRANDS OF EITHER EASTERN OR WESTERN SPECIES WOOD BONDED TOGETHER WITH A MICROWAVE PROCESS.
2. EASTERN PSL LUMBER (ES) MAY INCLUDE SOUTHERN PINE OR YELLOW POPLAR. WESTERN PSL BEAMS (WS) MAY INCLUDE DOUGLAS FIR, LODGEPOLE PINE, WESTERN HEMLOCK OR WHITE FIR.
3. PSL LUMBER SHALL BE FABRICATED IN PARALLEL STRANDS (PSL) IN CONFORMANCE WITH NER 292.
4. GLB LUMBER SHALL BE FABRICATED FROM LAMINATED 2x LUMBER ACCORDING TO STANDARDS SET FORTH IN NDS AND OTHER APPLICABLE CODES.
5. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN STRESSES:

	PSL	GLB
a. SHEAR MODULUS OF ELASTICITY (G)	125,000 PSI	125000 PSI
b. MODULUS OF ELASTICITY (E)	2.0X10^6 PSI	2.0 X 10^6 PSI
FLEXURAL STRESS (fb)	2,900 PSI	24,00 PSI
c. COMPRESSION PERPENDICULAR TO GRAIN AND PARALLEL TO WIDE FACE OF STRANDS (fc)	750 PSI	740 PSI
d. COMPRESSION PERPENDICULAR TO GRAIN AND PERPENDICULAR TO WIDE FACE OF STRANDS (fc)	525 PSI	525 PSI
e. COMPRESSION PARALLEL TO GRAIN (fc)	2,900 PSI	2,400 PSI
f. HORIZONTAL SHEAR PERPENDICULAR TO WIDE FACE OF STRANDS (fv)	290 PSI	290 PSI
g. HORIZONTAL SHEAR PARALLEL TO WIDE 210 PSI FACE OF STRANDS (fv)	210 PSI	210 PSI

6. HEAL CUTS ON BEAMS MUST NOT OVERHANG INSIDE FACE OF SUPPORT MEMBER.
7. PSL LUMBER MEMBERS SHALL BE FABRICATED WITHOUT CAMBER. GLULAM BEAMS MAY BE CAMBERED TO REMOVE DEAD LOAD DEFLECTION.
8. THE PSL AND GLB MEMBERS SHALL BE PROTECTED FROM THE WEATHER WHILE IN STORAGE. CARE SHALL BE EXERCISED DURING HANDLING TO PREVENT DAMAGE.

2 CONVENTIONAL 2X WOOD FRAMING

1. LUMBER AND ITS FASTENINGS, SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATIONS OF STRESS-GRADE LUMBER AND ITS FASTENINGS, LATEST EDITION, AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
2. MATERIALS FOR EXTERIOR WALLS, INTERIOR BEARING WALLS AND SHEARWALLS SHALL BE NO. 2 SOUTHERN YELLOW PINE (MC19) OR BETTER AND SHALL HAVE THE FOLLOWING UNFACTORED MINIMUM ALLOWABLE DESIGN STRESSES.

	2x4	2x6
a. MODULUS OF ELASTICITY (E)	1.4 X 10^6 PSI	1.4 X 10^6 PSI
b. MIN. MODULUS OF ELASTICITY (EMIN)	0.51 X 10^6 PSI	0.51 X 10^6 PSI
c. FLEXURAL STRESS (FB)	1,100 PSI	1,000 PSI
d. COMPRESSION PERPENDICULAR TO GRAIN (FC)	565 PSI	565 PSI
e. COMPRESSION PARALLEL TO GRAIN (FC)	1,450 PSI	1,400 PSI
f. SHEAR PARALLEL TO GRAIN (FV)	175 PSI	175 PSI
g. TENSION PARALLEL TO GRAIN (FT)	675 PSI	600 PSI

3. LUMBER FOR HEADERS, BEAMS, AND OTHER FRAMING MEMBERS SHALL BE #2 SYP (MC19) OR BETTER
4. LOAD BEARING WALLS, CONSTRUCTED FROM FINGER JOINTED STUDS SHALL BE SHEATHED ON AT LEAST ONE FACE OR BRACED W/ 1x4 HORIZONTAL (CONT.) AT MID-HEIGHT OF WALL.
5. FINGER JOINTED STUDS SHALL MEET OR EXCEED THE MATERIAL PROPERTIES AND ALLOWABLE STRESSES FOR SOLID LUMBER AS SPECIFIED FOR STUD GRADE CONSTRUCTION.
6. TOP AND BOTTOM PLATES SHALL BE 2x4 #2 OR 2x6 #2 SOUTHERN YELLOW PINE(MC19).
7. SUBJECT TO ENGINEER'S REVIEW AND ACCEPTANCE, OTHER WALL CONSTRUCTION SHALL BE EITHER CONSTRUCTION GRADE OR UTILITY HEADER AND OTHER MISCELLANEOUS FLEXURAL MEMBERS SHALL BE NO. 2 SYP (MC19 OR BETTER U.N.O.)
8. SUBJECT TO ENGINEER'S REVIEW AND ACCEPTANCE, OTHER NON-STRUCTURAL WALL CONSTRUCTION SHALL BE EITHER CONSTRUCTION GRADE OR UTILITY SOUTHERN YELLOW PINE (MC19) OR DOUGLAS FIR LARCH (MC19).
9. MATERIALS MUST BE GRADE MARKED.
10. SOLE PLATES AT FIRST FLOOR SHALL BE PRESSURE TREATED LUMBER, 0.25ACQ/MCQ OR BORATE (DOT .28) MINIMUM, 2x4 #2 OR 2x6 #2 SOUTHERN YELLOW PINE.
11. FOR OVERLAY FRAMING AT ROOFS OR OTHER CONVENTIONAL ROOF FRAMING, CONTRACTOR SHALL PROVIDE 2x FRAMING IN ACCORDANCE WITH ROOF RAFTER TABLES IN THE APPLICABLE BUILDING CODE.
12. BOLT HOLES THROUGH WOOD SHALL BE DRILLED 1/16" MAXIMUM LARGER THAN THE DIAMETER OF THE BOLTS TO BE INSTALLED.
13. BOLTS THROUGH WOOD SHALL BE FITTED WITH STANDARD WASHERS AT HEAD AND NUT ENDS.
14. FLITCH BEAMS AND MULTIPLE MEMBER WOOD BEAMS WHEN SHOWN ON PLANS SHALL BE BOLTED TOGETHER WITH ONE 1/2" DIA. BOLT, TOP AND BOTTOM OVER THE SUPPORTS AND/OR AT THE ENDS OF THE BEAM AND 24" ON CENTER, STAGGERED FULL LENGTH OF THE BEAM.
15. A HOLE GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH MAY NOT BE BORED IN ANY WOOD STUD. BORED HOLES IN DIAMETER EQUAL TO 60 PERCENT OF THE WIDTH OF THE STUD ARE PERMITTED IN NON-LOAD BEARING PARTITIONS OR WALLS WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLE STUDS OCCUR.
16. EDGE OF A BORED HOLE SHALL NOT BE WITHIN 5/8 INCH OF THE STUD EDGE. BORED HOLES SHALL NOT BE LOCATED AT A CUT OR NOTCH IN THE STUD.

3 WOOD FRAMING TOLERANCES FOR SHRINKAGE

1. THE CONSTRUCTION OF A 3-STORY, TYPE FIVE WOOD FRAME REQUIRES AN UNDERSTANDING OF FRAMING TOLERANCES, SHRINKAGE, INTERACTION WITH DISSIMILAR MATERIALS AND CONTRACTOR SHOULD DEVELOP A PROACTIVE QUALITY CONTROL PROCEDURE AND REVIEW WITH ARCHITECT AND ENGINEER.
2. THE APPROXIMATE SHRINKAGE IN THE CONVENTIONAL 2x WOOD FRAME IS AS FOLLOWS:
   THREE STORY.....3/4" TO 1/4".
3. ROUGH OPENINGS IN EXTERIOR WALLS SHALL BE UPSIZED APPROXIMATELY 1/2" TO ACCOMMODATE SHRINKAGE PRIMARILY AT TOP FLOORS.
4. PROVIDE 1/8" WIDE JOINT IN SHEATHING AT TOP AND BOTTOM OF THE FLOOR CAVITY AT EACH LEVEL.

4 FOUNDATIONS ON EXPANSIVE SOIL

DESIGN ASSUMPTIONS:

1. SITE SLOPE SHALL CAUSE WATER TO FLOW AWAY FROM THE BUILDING FOOTPRINT FOR A MINIMUM DISTANCE OF 10 FT.
2. NO VEGETATION OVER SIX FEET IN HEIGHT SHALL BE PLANTED WITHIN 20 FEET OF BUILDING PERIMETER UNLESS SPECIALLY COUNTED FOR.
3. THE DESIGN ASSUMES DOWN-SPOUTS TO BE TIED INTO STORM-DRAIN OR OTHER MEANS TO DIRECT EXCESSIVE LOCALIZED MOISTURE AWAY FROM THE BUILDING FOOTPRINT.
4. IT IS ASSUMED THAT THE SITE WILL BE MAINTAINED DURING ITS USEFUL LIFE-CYCLE OF POST-TENSIONED SLAB.
5. IT IS NOT RECOMMENDED TO DESIGN OR CONSTRUCT A POST-TENSION SLAB OVER AN AREA COVERING PARTIALLY CUT AND FILL OF EXPANSIVE OR COMPRESSIBLE SOILS, WITHOUT DUE SETTLEMENT CONSIDERATIONS.
6. UNLESS OTHERWISE NOTED ON THE PLANS: STOOPS, ELECTRICAL/MECHANICAL PADS, PORCHES AND PATIOS OR OTHER ATTACHMENTS SHALL BE DESIGNED AND CAST INDEPENDENTLY OF THE POST-TENSIONED SLAB FOUNDATION. THE DESIGN OF SUCH ADDITIONS SHALL BE SUBMITTED TO SEDG FOR APPROVAL TO ENSURE THAT IT DOES NOT ADVERSELY AFFECT THE PERFORMANCE OF THE BUILDING SLAB. EXCEPTION IS TAKEN FOR FOUNDATION EXTENSIONS SUPPORTING THE SUPERSTRUCTURE (SUCH AS POSTS) OR SUPPORTING MEMBERS WHICH ARE CONNECTED TO THE BUILDING. SUCH SLAB EXTENSIONS SHALL BE PART OF THE SLAB.

COMPATIBILITY CONSIDERATIONS:

1. POST-TENSIONED SLAB FOUNDATIONS AS WELL AS OTHER CONVENTIONALLY REINFORCED SHALLOW FOUNDATION SYSTEMS CONSTRUCTED ON COMPRESSIBLE OR EXPANSIVE SOILS ARE EXPECTED TO DEFORM. THE FLEXIBLE FOUNDATION PRIMARILY DISTRIBUTES LOCALIZED SOIL MOVEMENT TO A MORE UNIFORM SLAB SHAPE (EDGE LIFT, CENTER LIFT). OTHER CONSULTANTS AND SUPPLIERS SHALL CONSIDER COMPATIBLE DESIGNS ORPRODUCTS FOR THE SELECTED FLEXIBLE FOUNDATION SYSTEM. IN PARTICULAR, DEFORMATION COMPATIBILITY SHOULD BE ADDRESSED FOR ROOF TRUSSES, LOAD CONCENTRATION, BRITTLE EXTERIOR SIDING, AREAS WHICH SLOPE TO DRAIN AND UTILITY CONNECTIONS. THE FOUNDATION IS INTENDED TO MOVE WITHIN THE SPECIFIED SERVICEABILITY LIMITS AS FOLLOWS:

MATERIAL	CENTER LIFT	EDGE LIFT
WOOD FRAME	L/240	L/480
STUCCO OR PLASTER	L/360	L/720
BRICK VENEER	L/480	L/960
CONCRETE MASONRY UNITS	L/960	L/1920
PREFAB ROOF TRUSSES*	L/1000	L/2000

*TRUSSES WHICH CLEARSPAN THE FULL LENGTH OR WIDTH OF THE FOUNDATION FROM EDGE TO EDGE.

SOIL PARAMETERS:

1. REFER TO THE COVER SHEET FOR ALL OF THE DESIGN VALUES USED TO DESIGN THE POST-TENSION FOUNDATIONS. ALL OF THESE VALUES ARE BASED ON THE DESIGN VALUES GIVEN BY THE SPECIFIED GEOTECHNICAL ENGINEER.
2. FACTORS NOT RELATED TO CLIMATE MAY INDUCE SOIL MOVEMENTS MANY TIMES LARGER THAN THOSE RESULTING FROM CLIMATIC INFLUENCES ALONE. WHILE IT MAY BE POSSIBLE TO QUANTIFY THE EFFECTS OF MANY NON-CLIMATIC FACTORS, THEIR PRESENCE OR ABSENCE IS OFTEN BEYOND THE DIRECT CONTROL OF THE STRUCTURAL AND/OR GEOTECHNICAL ENGINEER. IN GENERAL, AN EFFECTIVE MEANS FOR MITIGATING NON-CLIMATIC FACTORS IS TO PROVIDE DETAILED LIMITATIONS ON CONSTRUCTION AND USE ON THE PLANS AND/OR CONTRACT DOCUMENTS. SOME DESIGNERS AND BUILDERS ACTUALLY PREPARE "USER MANUALS" FOR THE OWNER OF BUILDINGS ON EXPANSIVE SOILS, WITH DETAILED GUIDELINES ON IRRIGATION, DRAINAGE, VEGETATION, SLOPES, AND OTHER NON-CLIMATIC FACTORS WHICH MAY AFFECT THE PERFORMANCE OF THE FOUNDATION. THE MAJOR FACTORS INFLUENCING SOIL MOVEMENT THAT ARE NOT RELATED TO CLIMATE ARE:

   (A) PRE-VEGETATION:
   LARGE INDIVIDUAL TREES, THICKETS OR OTHER VEGETATION REQUIRING LARGE AMOUNTS OF MOISTURE FROM THE SOIL TEND TO MAKE THE SOIL IN THE AREAS REACHED BY THEIR ROOTS DRIER THAN ADJACENT AREAS. THESE DESICCATED POCKETS HAVE A MUCH HIGHER POTENTIAL FOR SWELLING THAN DO THE ADJACENT, LESS DESICCATED AREAS.

   (B) FENCE LINES, TRAILS, AND TRACKS:
   THESE SURFACE FEATURES TYPICALLY HAVE THE VEGETATION WORN AWAY, LEAVING ONLY BARE OR THINLY COVERED STRIPS WHICH ARE MUCH DRIER THAN THE SOIL ON EITHER SIDE. LIKE THE DESICCATED AREAS CAUSED BY PRE-CONSTRUCTION VEGETATION, THESE AREAS WILL SWELL MORE THAN OTHER AREAS.

   (C) SLOPES:
   SLOPES COMPRISED OF ACTIVE EXPANSIVE SOIL HAVE A TENDENCY TO MIGRATE DOWNHILL AS THE SOIL EXPERIENCES SHRINK-SWELL CYCLES.

   (D) CUT AND FILL SECTIONS:
   CUT AND FILL SECTIONS WILL EXPERIENCE DIFFERENTIAL SOIL MOVEMENT BECAUSE OF VARIATIONS OF COMPACTED DENSITIES.

   (E) DRAINAGE:
   IF RAINFALL RUNOFF IS ALLOWED TO POND OR COLLECT ADJACENT TO A STRUCTURE BUILT ON EXPANSIVE SOIL, THE STRUCTURE MAY BE SUBJECTED TO DISTRESS CAUSED BY THE SOIL BENEATH THE STRUCTURE SWELLING AS A DIRECT RESULT OF INCREASED SOIL MOISTURE CONTENT. LOT SURFACES MUST BE GRADED TO DRAIN AWAY FROM THE STRUCTURE. EXCESS RUNOFF SHOULD NOT BE COLLECTED AND DISPOSED OF BY CARRYING DISCHARGE PIPE BENEATH THE STRUCTURE. CARE SHOULD ALSO BE TAKEN WITH SEWAGE AND WATER UTILITY LINES TO ENSURE THAT LEAKS DO NOT DEVELOP BENEATH THE SLAB.

   (F) TIME OF CONSTRUCTION:
   IF THE SLAB IS CAST AT THE END OF A LENGTHY DRY PERIOD, IT MAY EXPERIENCE GREATER UPLIFT AROUND THE EDGES WHEN THE SOIL BECOMES WETTER AT THE CONCLUSION OF THE DRY PERIOD. SIMILARLY, A SLAB CAST AT THE END OF A WET PERIOD, MAY EXPERIENCE GREATER DRYING AROUND THE EDGES DURING THE SUBSEQUENT PERIOD OF DRYNESS.

   (G) POST-CONSTRUCTION:
   A NUMBER OF POST-CONSTRUCTION PRACTICES BEYOND THE CONTROL OF THE DESIGN ENGINEER CAN OCCUR TO CAUSE DISTRESS TO STRUCTURES FOUNDED ON EXPANSIVE CLAY. PLANTING FLOWER BEDS OR SHRUBS NEXT TO THE FOUNDATION AND KEEPING THESE AREAS FLOODED WILL GENERALLY CAUSE A NET INCREASE IN SOIL EXPANSION AROUND THE FOUNDATION PERIMETER IN THAT VICINITY. PLANTING SHADE TREES CLOSER TO THE STRUCTURE THAN A DISTANCE TO HALF THE MATURE HEIGHT OF THE TREE WILL ALLOW THE TREE ROOTS TO PENETRATE BENEATH THE FOUNDATION AND WITHDRAW MOISTURE FROM THE SOIL; THE RESULT WILL BE A SOIL SHRINKAGE IN THE REGION OF THE ROOTS. REDIRECTING SURFACE RUNOFF CHANNELS OR SWALES BY THE OWNER CAN RESULT IN IMPROPER DRAINAGE AS DETAILED ABOVE. TO MINIMIZE MOVEMENTS IN SOILS DUE TO POST - CONSTRUCTION FACTORS THAT ARE NOT CLIMATE RELATED, THE FOLLOWING OWNERS MAINTENANCE PROCEDURES ARE RECOMMENDED:

   (i) INITIAL LANDSCAPING SHOULD BE DONE ON ALL SIDES ADJACENT TO THE FOUNDATION AND DRAINAGE AWAY FROM THE FOUNDATION SHOULD BE PROVIDED.

   (ii) WATERING SHOULD BE DONE IN A UNIFORM, SYSTEMATIC MANNER AS POSSIBLE ON ALL SIDES OF THE FOUNDATION TO KEEP THE SOIL MOIST. AREAS OF SOIL THAT DO NOT HAVE GROUND COVER MAY REQUIRE MORE MOISTURE AS THEY ARE MORE SUSCEPTIBLE TO EVAPORATION. PONDING OR TRAPPING OF WATER IN LOCALIZED AREAS ADJACENT TO THE FOUNDATIONS CAN CAUSE DIFFERENTIAL MOISTURE LEVELS IN SUBSURFACE SOILS.

   (iii) STUDIES HAVE SHOWN THAT TREES WITHIN 20 FEET OF FOUNDATIONS HAVE CAUSED DIFFERENTIAL MOVEMENTS IN FOUNDATIONS. THESE WILL REQUIRE MORE WATER IN PERIODS OF EXTREME DROUGHT AND IN SOME CASES A ROOT INJECTION SYSTEM MAY BE REQUIRED TO MAINTAIN MOISTURE EQUILIBRIUM.

   (iv) DURING EXTREME HOT AND DRY PERIODS, CLOSE OBSERVATIONS SHOULD BE MADE AROUND FOUNDATIONS TO INSURE THAT ADEQUATE WATERING IS BEING PROVIDED TO KEEP SOIL FROM SEPARATING OR PULLING BACK FROM THE FOUNDATION.

5 METALS

5.01 - STRUCTURAL STEEL

1. STRUCTURAL STEEL WIDE FLANGE SECTIONS SHALL BE EITHER ASTM A992 OR A572-50. TYPE 50 KSI STEEL & MISC. STEEL SECTIONS & PLATES SHALL BE ASTM 36 STEEL.
2. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING", LATEST EDITION AND AMENDMENTS, AND THE A.I.S.C. "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", LATEST EDITION AND AMENDMENTS.
3. STRUCTURAL STEEL CONNECTIONS NOT DETAILED ON THE CONTRACT DOCUMENTS SHALL BE DETAILED IN ACCORDANCE WITH THE A.I.S.C. "MANUAL OF STEEL CONSTRUCTION", LATEST EDITION, TABLE II AND TABLE III OF PART 4 MAY BE USED. THE END REACTION OF THE CONNECTED BEAM SHALL BE DETERMINED FROM PART 2 "UNIFORM LOAD CONSTANTS". BEAM REACTIONS GIVEN ON THE CONTRACT DOCUMENTS SHALL SUPERSEDE THIS NOTE. CONNECTIONS SHALL BE DESIGNED TO DEVELOP A MINIMUM END REACTION OF 12.0 KIPS. COMPARE TABLE VALUES WITH REACTIONS SHOWN ON DRAWINGS AND USE LARGER OF THE TWO.
4. CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL CONFORM TO ASTM A325, TYPE N, X, OR F. CONNECTION BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED. BOLTS SHALL BE TIGHTENED ACCORDING TO THE "TURN-OF-NUT" TIGHTENING METHOD. LOAD INDICATING BOLTS AND HARDENED WASHERS MAY BE USED IN LIEU OF THE STANDARD BOLT ASSEMBLY. LOAD INDICATING BOLTS SHALL BE THE LEJEUNE TENSION CONTROL FASTENING SYSTEM AS MANUFACTURED BY THE LEJEUNE BOLT COMPANY, OR THE BETHLEHEM LOAD INDICATOR BOLT AS MANUFACTURED BY THE BETHLEHEM COMPANY, OR AN APPROVED EQUAL. LOAD INDICATING BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
5. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B.
6. ANCHOR BOLTS AND COLUMN CAP PLATE BOLTS SHALL CONFORM TO ASTM A307, UNLESS NOTED OTHERWISE.
7. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.1-80. ELECTRODES FOR SHOP AND FIELD WELDS SHALL CONFORM TO ASTM A233, CLASS E70XX.
8. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.
9. BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED. ANY MEMBER WITH BURNED HOLES SHALL BE REPLACED.
10. STRUCTURAL STEEL SHALL BE PUNCHED FOR WOOD BLOCKING AND NAILERS.
11. ANY AND ALL MISFABRICATION OF STRUCTURAL STEEL SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER BEFORE ERECTION OF SAME.
12. NO ATTEMPT HAS BEEN MADE TO DIFFERENTIATE BETWEEN SHOP AND FIELD WELDED CONNECTIONS. ALL WELDING IS TO COMPLY WITH AWS SPECIFICATIONS AND IS TO BE DONE BY CERTIFIED WELDERS.
13. UNLESS A LARGER SIZE OF FILLET WELD IS SPECIFIED ON THE PLANS, PROVIDE MINIMUM SIZE OF WELD PER AISC SECTION AND TABLE 1.17.2A.
14. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S GRADE B, OR ASTM A501. MILL TEST REPORTS FOR THE STEEL PIPE SHALL BE SUBMITTED FOR APPROVAL.
15. HEADED CONCRETE ANCHORS SHALL BE NELSON OR KSM HEADED CONCRETE ANCHORS (OR APPROVED EQUAL), AND SHALL CONFORM TO ASTM A108. ANCHORS SHALL BE AUTOMATICALLY END WELDED WITH SUITABLE STUD WELDING EQUIPMENT IN THE SHOP OR IN THE FIELD. WELDING SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY OR THE KSM WELDING SYSTEMS COMPANY.
16. DEFORMED BAR ANCHORS (D.B.A.) SHALL BE NELSON OR KSM DEFORMED BAR ANCHORS (OR APPROVED EQUAL), AND SHALL BE MADE FROM COLD DRAWN WIRE CONFORMING TO ASTM A496. ANCHORS SHALL BE AUTOMATICALLY END WELDED WITH SUITABLE WELDING EQUIPMENT IN THE SHOP OR IN THE FIELD. WELDING SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY OR THE KSM WELDING SYSTEMS COMPANY.
17. HOT DIP GALVANIZE AFTER FABRICATION STRUCTURAL STEEL ITEMS SHOWN ON PLANS AND THEIR CONNECTIONS PERMANENTLY EXPOSED TO THE OUTSIDE, WHETHER SPECIFIED ON THE DRAWINGS OR NOT. SUCH ITEMS INCLUDE, BUT ARE NOT LIMITED TO SHELF ANGLES. EXAMINE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR OTHER ITEMS REQUIRED TO BE HOT DIPPED GALVANIZED. GALVANIZED ALL NUTS, BOLTS, AND WASHERS USED IN THE CONNECTION OF SUCH STEEL. FIELD WELDED CONNECTIONS SHALL HAVE WELDS PROTECTED WITH "Z.R.C. COLD GALVANIZING COMPOUND" AS MANUFACTURED BY Z.R.C. PRODUCTS COMPANY.
18. HEADED STUD SHEAR CONNECTORS SHALL BE 3/4" x 3 1/2" LONG AND SHALL CONFORM TO SECTION 14 OF SPECIFICATIONS AND CODE OF "MANUAL OF STEEL CONSTRUCTION A.S.D. 9TH EDITION".

5.02 - HANDRAILS

1. HANDRAILS AND GUARD SHALL BE DESIGNED IN COMPLIANCE WITH IBC 1607.7.1, TO RESIST A 50 PLF LIVE LOAD ALONG ITS TOP EDGE AND A NON-CONCURRANT 200# CONCENTRATED LOAD, APPLIED IN ANY DIRECTION. DEFERRED SUBMITTAL SHALL BE SUPPLIED FOR PRE-FABRICATED METAL STAIRS AND STEEL CANOPIES.

5.03 - STEEL STAIRS

1. ALL STAIRS ARE TO BE STEEL STAIRS PER THE ARCHITECTURAL DRAWINGS EXCEPT WHERE CONCRETE STAIRS ARE SPECIFICALLY SHOWN ON THE DRAWINGS.
2. STRUCTURAL CALCULATIONS AND DRAWINGS SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. DRAWINGS AND BIDS ARE TO INCLUDE CONNECTIONS TO THE STRUCTURE.
4. ENGINEER WILL APPROVE THE DRAWINGS AS TO THEIR COMPLIANCE WITH THE INTENT OF THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.
5. ALL STAIRS MUST BE DESIGNED FOR LIVE AND DEAD LOADS PER CODE.
6. STAIR SUPPORTS MAY BE HUNG FROM FLOOR FRAMING OR SELF-SUPPORTED.
7. STAIR FABRICATOR SHALL COORDINATE CONSTRUCTION OF STAIRS WITH GENERAL CONTRACTOR.
8. THE STAIR FRAMING AND CONNECTIONS DETAILING, INCLUDING TREADS, STRINGERS, LANDINGS AND HANDRAILS SHALL BE SUBMITTED TO ENGINEER FOR HIS REVIEW. THE STAIR SHOP DRAWING WITH SUPPORTING DESIGN SHALL BE SEALED BY A REGISTERED ENGINEER.

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CAMERON COMMERCIAL - AUSTIN, TEXAS
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Sheet Title: **GENERAL NOTES**

Rev.	Description	Date
1	CITY COMMENTS	05/17/2019

Drawn By: HT | Checked By: DVH/ZA
Drawing Scale: As Noted | Project No. 136-087

ISSUED FOR: DATE:
- [ ] SD 30%
- [ ] CD 50%
- [ ] CD 95%
- [ ] CD 100%
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- [ ] Bidding
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STATE OF TEXAS
SANDEEP N. PATEL
86656
LICENSED PROFESSIONAL ENGINEER
05/17/2019
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SHEET NO.
S0-2
GENERAL NOTES

G:\$136 - KELLY GROSSMAN\136-087 Cameron Commercial\Structural Drawings\Working Drawings\$S0-2.dwg Plotted: May 29, 2019 - 10:01 AM by Hao Tran

LENGTH OF SHEARWALL / NO. OF SHEAR PANELS											
WALL TYPE	≤8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'
2 –	1	2	2	2	2	3	3	3	3	3	4
2 1	2	2	2	3	3	4	4	4	5	5	5
2 3	2	3	3	4	4	5	5	5	6	6	7
3 –	2	2	2	2	2	2	3	3	3	3	3
3 1	2	2	3	3	3	4	4	5	5	5	6
3 3	2	2	3	3	4	4	4	5	5	6	6
5 –	2	3	3	4	4	5	5	6	6	7	7
5 1	3	3	4	5	6	6	7	8	9	9	10
5 3	3	4	5	6	7	7	8	9	10	11	12
5 5	5	6	7	8	10	11	12	13	15	16	17
6 –	4	5	5	6	7	8	9	9	10	11	12
6 1	5	6	7	8	9	10	12	13	14	15	16

NOTES:
1. SHEAR PANELS ARE PREFABRICATED COMPONENTS INSTALLED IN THE FLOOR CAVITY WHEN FRAMING IS PERPENDICULAR TO SHEARWALL.
2. SHEAR PANELS TRANSMIT THE DIAPHRAGM SHEARS FROM THE DIAPHRAGM ABOVE TO THE WALL BELOW.
3. SCHEDULE SHALL BE USED WHEN PANEL QUANTITIES ARE NOT SHOWN ON BRACING PLANS.
4. PANELS SHALL BE DESIGNED FOR A LATERAL FORCE OF 1200 LBS.

1 SHEAR PANEL SCHEDULE

BEAM SIZE (INCHES x INCHES)	TRIBUTARY FLOOR AREA			NOTES
	<50FT²	<100FT²	<150FT²	
(2) – 2x10	HGUS210-2	N/A	N/A	1 & 2
(2) – 2x12	HGUS212-2	N/A	N/A	1 & 2
(3) – 2x10	HGUS210-3	N/A	N/A	1 & 2
(3) – 2x13	HGUS212-3	N/A	N/A	1 & 2
3 1/2 x 9 1/4 PSL	HGUS48	HGUS48	N/A	1 & 2
3 1/2 x 11 1/4 PSL	HGUS48	HGUS48	N/A	1 & 2
3 1/2 x 14 PSL	HGUS410	HGUS410	HGUS412	1 & 2
5 1/4 x 14 PSL	N/A	HGUS5.5/10	HGUS5.5/12	1 & 2
5 1/4 x 16 PSL	N/A	HGUS5.5/10	HGUS5.5/14	1 & 2
5 1/4 x 18 PSL	N/A	HGUS5.5/12	HGUS5.5/14	1 & 2

NOTES:
1. HANGERS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE.
2. ALTERNATES TO THE SIZES SHOWN ABOVE MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL ALONG WITH PERTINENT TECHNICAL DATA.
3. TRUSS TO BEAM HANGERS SHALL BE DESIGNED BY A TRUSS DESIGN ENGINEER.

5 BEAM TO BEAM CONNECTOR SCHEDULE

EPOXY-EMBEDDED HOLD DOWN ANCHOR BOLT SCHEDULE					
MARK	SIMPSON HOLD DOWN	ANCHOR BOLT DIAMETER	EMBEDMENT DEPTH	SIMPSON THREADED ROD ANCHOR	END MEMBER
HLD-1	LTT19	5/8"	2 1/2"	A307 (SAE 1018)	4x4 OR DBL 2x
HLD-2	HTT4	5/8"	3 3/4"	A307 (SAE 1018)	4x4 OR DBL 2x
HLD-3	HTT5	5/8"	5"	A307 (SAE 1018)	4x4 OR DBL 2x
HLD-4	HD7B	7/8"	6"	A307 (SAE 1018)	4x4 OR DBL 2x
HLD-5	HD9B	7/8"	6"	A307 (SAE 1018)	4x6 OR TPL 2x
HLD-6	HD9B	7/8"	7 3/4"	A307 (SAE 1018)	4x6 OR TPL 2x
HLD-7	HD12	1"	9"	A307 (SAE 1018)	4x6 OR TPL 2x
HLD-8	HD12	1"	12"	A307 (SAE 1018)	4x6

NOTES:
1. ALL THREADED ROD ANCHORS GIVEN IN THIS TABLE SHALL BE INSTALLED WITH SIMPSON SET-XP EPOXY OR APPROVED EQUAL.
2. THE LOAD VALUES OF THESE ANCHOR BOLTS AND HOLD DOWNS HAVE BEEN INCREASED BY 33% FOR WIND LOADS, IN COMPLIANCE WITH THE CODE REQUIREMENTS.
3. FOR INSTALLATION PROCEDURE OF THREADED ROD ANCHORS, SEE ANCHORING SYSTEMS IN SIMPSON CATALOGUE.
4. ALL HARDWARE IN CONTACT WITH ACQ TREATED LUMBER CLASS G185 MUST BE SIMPSON ZMAX PRODUCTS THAT MEET ASTM A653.

6 ALTERNATE HOLD DOWN SCHEDULE

SHEARWALL SCHEDULE														
WALL TYPE	WALL MATERIAL			EDGE NAILING		SILL BOLTS		SOLE PLATE NAILING		REMARKS		SILL P.A.F. HILTI X-CP72 P8 S23	
MARK	TYPE	THKNESS	SIDES	SPA	SIZE	SPA	SIZE	SPA	SIZE	RE: NOTES	CAPACITY	SPA	SIZE
1	GYPSHEATH	5/8" MIN.	1	4"	6d COOLER	48"	1/2"	16"	16d	1, 2, 5, 7	75 PLF	40"	0.145"
2	GYPSHEATH	5/8"	1	4"	6d COOLER	48"	1/2"	16"	16d	1, 2, 6, 7	125 PLF	24"	0.145"
3	GYPSUM BOARD	5/8"	1	4"	6d COOLER	42"	1/2"	12"	16d	1, 2, 6, 7	145 PLF	20"	0.145"
X	GYPSUM BOARD	5/8" TWO PLY	1	4"	6d COOLER	32"	1/2"	12"	16d	1, 2, 6, 7, 10	250 PLF	12"	0.145"
4	GYPSUM BOARD	5/8"	1	4"	6d COOLER	36"	1/2"	10"	16d	1, 6, 7, 8, 9,10	175 PLF	16"	0.145"
5	PLYWOOD/OSB	15/32"	1	4"	8d COMMON	32"	1/2"	6"	16d	1, 7,10	380 PLF	7"	0.145"
6	PLYWOOD/OSB	15/32"	1	3"	10d COMMON	24"	1/2"	4"	16d	1, 7, 10	490 PLF	6"	0.145"

NOTES:
1. NAIL SPACING INDICATED IS FOR EDGE NAILING OF THE SPECIFIED WALL MATERIAL TYPICAL INTERMEDIATE STUDS (FIELD NAILING) AND BLOCKING, IF PRESENT, SHALL BE NAILED AT 4" O.C. @ GYPSHEATH AND GYPSUM BOARD, 6" O.C. @ PLYWOOD / O.S.B. SHEARWALLS.
2. WALL TYPES ARE UNBLOCKED CONSTRUCTION.
3. 11 GAGE NAILS SHALL BE 1 3/4" LONG, 7/16" DIA, DIAMOND POINT AND GALVANIZED.
4. SHEARWALL LENGTHS NOTED ON PLANS HAVE BEEN ADJUSTED TO PROVIDE CLEARANCES FOR LOCATING AND INSTALLING HOLDOWNS WHEN REQUIRED. CONTRACTOR SHALL CONSTRUCT SHEARWALL LENGTHS TO ACTUAL WALL DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS.
5. SHEET SIZE MAY BE 2' x 8'.
6. SINKER NAILS MAY BE SUBSTITUTED PROVIDED THE SHEAR CAPACITY MATCHES COOLER NAILS.
7. ALL SHEARWALLS SHALL BE FRAMED WITH WIND POST AT EACH END. WIND POST CAN BE A 4x4 OR (2)-2x4 NAILED W/ 16d @ 12" O.C. EACH FACE.
8. WALL TYPE IS BLOCKED CONSTRUCTION.
9. SHEET SIZE TO BE 4'X8'.
10. VALUES FOR P.A.F. ARE FOR MINIMUM 2 3/4" EDGE DISTANCE (i.e. MIDDLE OF CONCRETE).

10 SHEARWALL HOLD DOWN SCHEDULE

TWO STORY BUILDINGS					
LEVEL	LOAD BEARING WALLS (SYP #2 GRADE)				
	PLATE HT.	EXTERIOR	INTERIOR	PARTY	CORRIDOR
2rd FLOOR	9'-1 1/8"	2x6@16"O.C.	2x4@16"O.C./2x6@16"O.C.	2x4@16"O.C./2x6@16"O.C.	2x4@16"O.C./2x6@16"O.C.
1st FLOOR	9'-1 1/8"	2x6@16"O.C.	2x4@12"O.C./2x6@16"O.C.	2x4@16"O.C./2x6@16"O.C.	2x4@12"O.C./2x6@16"O.C.
1st FLOOR	26'-1 1/8"	2x6@8"O.C.	–	–	–

* 2x6 @ 16" O.C. AT EXTREME CORNERS OF STRUCTURE FOR A DISTANCE OF 4 FT. FROM CORNER EACH WAY.
NON LOAD-BEARING WALLS ARE TO BE 2x4 @ 16" O.C. TO MEET UL REQUIREMENTS.

NOTES:
1. STUDS USED IN SHEARWALL FRAMING SHALL BE AS SHOWN IN THE ABOVE SCHEDULE FOR BEARINGS WALLS WITH HEIGHTS LESS THAN OR EQUAL TO PLATE HEIGHT SHOWN ON PLANS.
2. REFER TO "CONVENTIONAL 2X WOOD FRAMING" SECTION OF GENERAL NOTES SHEET FOR THE USE OF FINGER JOINTED STUDS.
3. REFER TO "CONVENTIONAL 2X WOOD FRAMING NOTES" SECTIONS OF GENERAL NOTES FOR MATERIAL SPECIFICATION AND LUMBER GRADE.
4. STUD SPACING SHOWN ARE ON CENTER DIMENSIONS AND ARE BASED ON A MAXIMUM STUD HEIGHT OF 8'-8 5/8" UNLESS OTHERWISE NOTED.

14 WALL STUD SCHEDULE

DESIGN CRITERIA					
TRUSSES		FLOOR	PRIVATE BALCONY	PUBLIC AREA	ROOF
UNIFORM LOADING IN P.S.F.	TCLL	50	100	100	20
	TCDL	45	45	25	15
	BCLL	0	0	0	0
	BCDL	5	5	5	5
	TOTAL	100PSF	150PSF	130PSF	40PSF
U.S.I.		0	0	0	25%
SPACING		24" MAX.	24" MAX.	24" MAX.	24" MAX.
DPTH/PITCH		24"	RE: ARCH	RE: ARCH	RE: ARCH

NOTES:
1. TC = TOP CHORD, BC = BOTTOM CHORD, LL = LIVE LOAD, DL = DEAD LOAD.
2. ROOF LIVE LOADS MAY BE REDUCED ACCORDING TO APPLICABLE CODE REQUIREMENTS FOR RISE AND TRIBUTARY CONSIDERATIONS.
3. LOADS MARKED THUS (*) INCLUDE DISTRIBUTED WEIGHT OF SPRINKLER SYSTEM AT 2 PSF.
4. DEAD LOADS DO NOT INCLUDE SELF WEIGHT.
5. TRUSS MANUFACTURER SHALL BE RESPONSIBLE WITH COORDINATING THE EQUIPMENT LOAD, PENETRATION, DUCTS AND CLEARANCES REQUIREMENTS OF ALL OTHER SYSTEMS INCLUDING MEP PRESENT IN THE FLOOR AND ROOF CAVITY.

2 TRUSS LOADING SCHEDULE

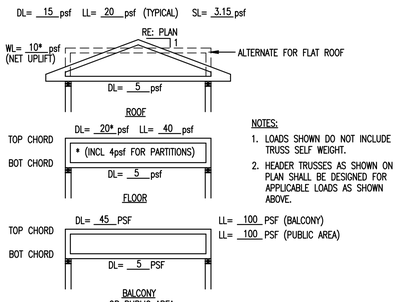
SPECIFIED ANCHOR	ALTERNATE ANCHOR	APPLICATION	NOTES
1/2" DIA.	MASA	EXTERIOR	4
LSTHD8	HD3B, HDU2	EXTERIOR	1, 2, & 3
MPAHD	STHD10, HD3B	EXTERIOR	1, 2, & 3
STHD10	STHD14, HD5B	EXTERIOR	1, 2, & 3
HD3B	HDU2, DTT2Z	INTERIOR	1, 2, & 3
HD5B	HDU5, HTT4	INTERIOR	1, 2, & 3
HDU5	HD5B, HTT5	INTERIOR	1, 2, & 3
HD7B	HDU8	INTERIOR	1, 2, & 3
LTT20B	HD5B	INTERIOR	1, 2, & 3
HTT4	STHD10	EXTERIOR	1, 2, & 3
HTT5	STHD14, (2)STHD10	EXTERIOR	1, 2, & 3

NOTES:
1. INSTALL HOLDOWN 10" MINIMUM FROM EDGE OF CONCRETE SLAB.
2. HOLDOWNS SHALL BE INSTALLED ACCORDING TO RECOMMENDATIONS BY SIMPSON STRON-TIE.
3. ALTERNATES SHOWN ABOVE ARE ACCEPTABLE SUBSTITUTES FOR SIZES SHOWN ON FIRST FLOOR BRACING PLANS.
4. REFER TO DETAIL 9/S0-2.

11 SHEARWALL SCHEDULE

METAL STAIR STRINGER SCHEDULE	
STRINGER LENGTH	STRINGER SIZE
≤10'	MC 10X8.4
≤20'	MC 12X10.6

15 METAL STAIR STRINGER SCHEDULE



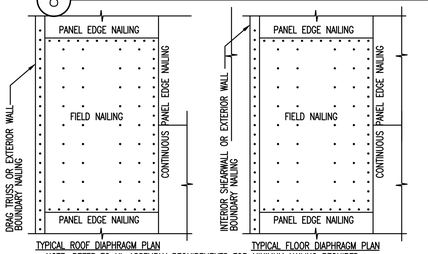
NOTES:
1. LOADS SHOWN DO NOT INCLUDE TRUSS SELF WEIGHT.
2. HEADER TRUSSES AS SHOWN ON PLAN SHALL BE DESIGNED FOR APPLICABLE LOADS AS SHOWN ABOVE.

3 BUILDING LOADS DIAGRAM

MAXIMUM SPAN LENGTH (FT)	LINTEL SIZE
0 to 4'-0"	L 3 1/2 x 3 1/2 x 5/16
4'-0" to 6'-0"	L 5 x 3 1/2 x 5/16 LLV
6'-0" to 8'-0"	L 5 x 3 1/2 x 3/8 LLV
8'-0" to 10'-0"	L 6 x 4 x 3/8 LLV
10'-0" to 12'-0"	L 7 x 4 x 3/8 LLV
> 12'-0"	COORDINATE W/ENGINEER

NOTES:
1. LINTEL ANGLE SHALL BEAR A MINIMUM OF 8" AT SUPPORTS.
2. LINTEL SHALL NOT BE SHORED DURING CONSTRUCTION.
3. LLV = LONG LEG VERTICAL.

7 LOOSE LINTEL SCHEDULE



NOTE: REFER TO UL ASSEMBLY REQUIREMENTS FOR MINIMUM NAILING REQUIRED.

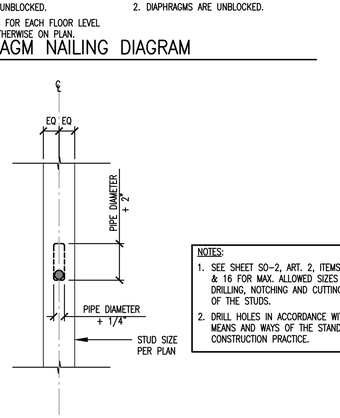
FLOOR DIAPHRAGM NAILING SCHEDULE		
LOCATION	SIZE	SPACING
BOUNDARY	10d	6"
PANEL EDGE	10d	6"
FIELD	10d	12"

NOTES:
1. MINIMUM PENETRATION IN FRAMING IS 1 1/2".
2. DIAPHRAGMS ARE UNBLOCKED.
3. NAILING SHOWN IS FOR EACH FLOOR LEVEL UNLESS NOTED OTHERWISE ON PLAN.

ROOF DIAPHRAGM NAILING SCHEDULE		
LOCATION	SIZE	SPACING
BOUNDARY	8d	6"
PANEL EDGE	8d	6"
FIELD	8d	6"

NOTES:
1. MINIMUM PENETRATION IN FRAMING IS 1 1/2".
2. DIAPHRAGMS ARE UNBLOCKED.

8 POST BASE SCHEDULE



NOTES:
1. SEE SHEET SO-2, ART. 2, ITEMS 15 & 16 FOR MAX. ALLOWED SIZES OF DRILLING, NOTCHING AND CUTTINGS OF THE STUDS.
2. DRILL HOLES IN ACCORDANCE WITH MEANS AND WAYS OF THE STANDARD CONSTRUCTION PRACTICE.

RECOMMENDATION FOR PLUMBING HOLE IN WOOD STUDS

16

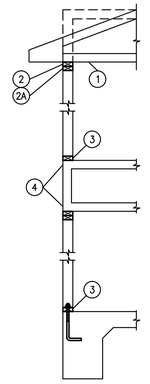
12 DIAPHRAGM NAILING DIAGRAM

CONTINUOUS LOAD PATH SCHEDULE

(1) ROOF TO TOP PLATE			WIND SPEED (3 SEC GUST)	(2) (2A) TOP PLT. TO STUD		(4) FLOOR TO FLOOR		(3) STUD TO BOT. PLT.	
MODEL NO.	UPLIFT (LBS)	NOTES	M.P.H.	TYPE	SPACING	TYPE	SPACING	TYPE	SPACING
H2.5A	< 415	1, 3, & 5	110 OR LESS	H2.5A	48" O.C.	CS16x36	48" O.C.	H2.5A	48" O.C.
(2) – H2.5A	415–830	3 & 5							
H2.5A	< 600	3 & 6	115	H2.5A	24" O.C.	CS16x36	48" O.C.	H2.5A	24" O.C.
(2) – H2.5A	600–1200	3 & 6							
H6	< 915	2, 3, & 7	120	H2.5A	24" O.C.	CS16x36	48" O.C.	H2.5A	24" O.C.
(2) – H6	915–1830	3 & 7							

ALL CONNECTIONS ARE SIMPSON STRONG-TIE CONNECTIONS.

NOTES:
1. EVERY OTHER TYPICAL ROOF TRUSS SHALL HAVE (1) – H2.5 CONNECTOR AT EACH END UNLESS TRUSS MANUFACTURER'S BEARING REACTIONS AS NOTED ON SHOP DRAWINGS ARE HIGHER THAN SPECIFIED UPLIFT.
2. TYPICAL ROOF GIRDER TRUSSES SHALL HAVE (2) – H6 CONNECTOR AT EACH END UNLESS TRUSS MANUFACTURER'S REACTIONS AS NOTED ON SHOP DRAWINGS ARE HIGHER THAN SPECIFIED UPLIFT.
3. SCHEDULED UPLIFT VALUES INCLUDE THE CAPACITY OF (2) – 16d ERECTION NAILS INSTALLED BY TOENAILING TRUSS BOTTOM CHORD TO BEARING PLATE.
4. UPLIFT VALUES ARE IN ACCORDANCE WITH LOAD DURATION FACTORS SET FORTH BY NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION, CURRENT EDITION.
5. USE (5) – 8d NAILS TO TRUSS CHORDS AND TO PLATES FOR EACH CONNECTOR SCHEDULED.
6. USE (4) – 8d NAILS TO TRUSS CHORDS AND TO PLATES FOR EACH CONNECTOR SCHEDULED.
7. USE (4) – 8d NAILS TO TRUSS CHORDS, (2) – 8d TO PLATES, AND (8) – 8d TO STUDS FOR EACH CONNECTOR SCHEDULED.



4 CONTINUOUS LOAD PATH

LUMBER

POST SIZE LOCATION	SIMPSON EMBEDDED POST BASE	SIMPSON BOLTED POST BASE
4x4	CB44	ABU44
6x6	CB66	ABU66
8x8	CB88	ABU88

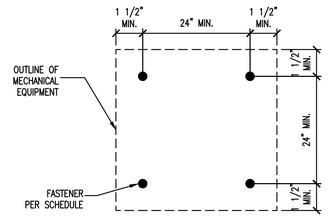
1.8E PARALLAM PSL

COLUMN PRODUCT	COLUMN SIZE	CONNECTOR
1.8E PARALLAM PSL	3 1/2"x3 1/2"	LCB44
		CB44
	3 1/2"X 5 1/4"	CB46
	3 1/2"X 7"	CB7 1/8-4
	5 1/4"X 5 1/4"	CB66
	5 1/4"X 7"	CB6-7
	7"X 7"	CB7 1/8"-7

ATTACHMENT ANCHOR TYPE	EMBEDMENT	LOCATION AND SPACING			NOTES
		EXTERIOR WALLS	INTERIOR WALLS	NON-LOAD BEARING WALLS	
1/2" DIA. ANCHOR BOLTS	7"	48" O.C.	72" O.C.	N/A	2, 3 & 4
1/2" DIA. EXPANSION ANCHORS	2 1/4"	N/A	72" O.C.	N/A	1 & 3
0.117" DIA. POWDER ACTUATED FASTENERS	1 1/2"	12"	24" O.C.	48" O.C.	3 & 5
0.099" DIA. POWDER ACTUATED FASTENERS	1"	N/A	12" O.C.	12" O.C.	3

NOTES:
1. EXPANSION ANCHORS SHALL NOT BE ALLOWED WITHIN 10 INCHES OF SLAB EDGE.
2. REFER TO SHEARWALL SCHEDULE FOR ANCHORAGE REQUIREMENTS.
3. RE: PLAN FOR ADDITIONAL NOTES.
4. ALL HARDWARE IN CONTACT WITH ACQ TREATED LUMBER CLASS G185 MUST BE SIMPSON ZMAX PRODUCTS THAT MEET ASTM A653.
5. MIN. EDGE DISTANCE FOR P.A.F. AT EXT. BEARING WALLS SHALL BE 2 3/4".

9 BEARING WALL ANCHOR SCHEDULE



WIND SPEED (MPH)	90	100	110	120	130
FASTENER EMBEDMENT DEPTH	1"	1"	1"	1 1/2"	1 1/2"

NOTES:
1. APPLIES TO GROUND LOCATED MECHANICAL EQUIPMENT MAXIMUM DIMENSIONS OF 3'x3'x3'.
2. FASTENER SHALL BE SIMPSON TITEN HD 3/8" STAINLESS STEEL CONCRETE ANCHOR.
3. MINIMUM CONCRETE PAD THICKNESS IS 3" AND MINIMUM 2000 PSI CONCRETE.

13 MECHANICAL EQUIPMENT FASTENING SCHEDULE

SCALE: 3/4"=1'-0"

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CAMERON COMMERCIAL – AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN
Sheet Title: **SCHEDULES**

CITY COMMENTS Description	Rev.	Date
		05/17/2019

Drawn By: HT
Checked By: DVH/ZA
Drawing Scale: As Noted
Project No. 136-087

ISSUED FOR: DATE:
- ☐ CD 30%
- ☐ CD 50%
- ☐ CD 95%
- ☐ CD 100%
- ☐ Pricing
- ☐ Bidding
- ☒ Permit 03/12/2019
- ☐ Construction

STATE OF TEXAS
SANDEEP N. PATEL
80656
LICENSED PROFESSIONAL ENGINEER
05/17/2019
Texas Registered Engineering Firm F-19122

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SHEET NO.
S0-3
SCHEDULES

G:\136 – KELLY GROSSMAN\136-087 Cameron Commercial\Structural Drawings\Working Drawings\S0-3.dwg Plotted: May 29, 2019 – 10:01 AM by Hoo Tran

Eff. Window and Door Area (SF)	3 Second Gust Wind Speed V (MPH) EXPOSURE B up to 40 ft. Mean Roof Height	
	V_{ult} = 120 mph; V_{asd} = 93mph(Design)	
≤ 10	−18.7	17.2
11 to 20	−18	16.5
21 to 50	−16.9	15.5
51 to 100	−16.1	14.6
101 to 500	−14.3	12.8
NOTE: These values are for EXPOSURE B zone 4 (walls) and zone 1 (roof) conditions and structure mean roof height ≤ 40 feet. * Doors and Windows products to be used should be evaluated and specified by Texas Department of Insurance.		
ROOF >10 DEGREES	3 Second Gust Wind Speed V (MPH) EXPOSURE B up to 40. ft. Mean Roof Height	
	V_{ult} = 120 mph; V_{asd} = 93mph(Design)	
≤ 10	−15.8	9.9
11 to 20	−15.3	9.1
21 to 50	−14.7	7.9
51 to 100	−14.3	7.0

** RE : 2/S0-4 FOR NOTES AND ZONE DETAILS

ZONE 4 (WALLS) AND ZONE 1 (ROOF)

Eff. Window and Door Area (SF)	3 Second Gust Wind Speed V (MPH) EXPOSURE B up to 40 ft. Mean Roof Height	
	V_{ult} = 120 mph; V_{asd} = 93mph(Design)	
≤ 10	−23.1	17.2
11 to 20	−21.5	16.5
21 to 50	−19.4	15.5
51 to 100	−18.0	14.6
101 to 500	−14.3	12.8
NOTE: These values are for EXPOSURE B zone 5 (walls) and zone 2 & 3 (roof) conditions and structure mean roof height ≤ 40 feet. * Doors and Windows products to be used should be evaluated and specified by Texas Department of Insurance.		
ROOF >10 DEGREES	3 Second Gust Wind Speed V (MPH) EXPOSURE B up to 40 ft. Mean Roof Height	
	V_{ult} = 120 mph; V_{asd} = 93mph(Design)	
≤ 10	−27.4	9.9
11 to 20	−25.3	9.1
21 to 50	−23.9	8.5
51 to 100	−23.1	8.2

** RE : 2/S0-4 FOR NOTES AND ZONE DETAILS

ZONE 5 (WALLS) AND ZONE 2 & 3 (ROOF)

1 EXPOSURE B 35FT MEAN ROOF HEIGHT SCHEDULE

STUCCO LATH FASTENING SCHEDULE

WIND SPEED / M.R.H.	V_{ult} = 120 mph; V_{asd} = 93 mph(Design)	NOTES
20'	16" O.C. VERT.	1, 2, 3, 4
	16" O.C. HORIZ.	
30'	14" O.C. VERT.	1, 2, 3, 4
	16" O.C. HORIZ.	
40'	14" O.C. VERT.	1, 2, 3, 4
	16" O.C. HORIZ.	
50'	14" O.C. VERT.	1, 2, 3, 4
	16" O.C. HORIZ.	
60'	12" O.C. VERT.	1, 2, 3, 4
	16" O.C. HORIZ.	

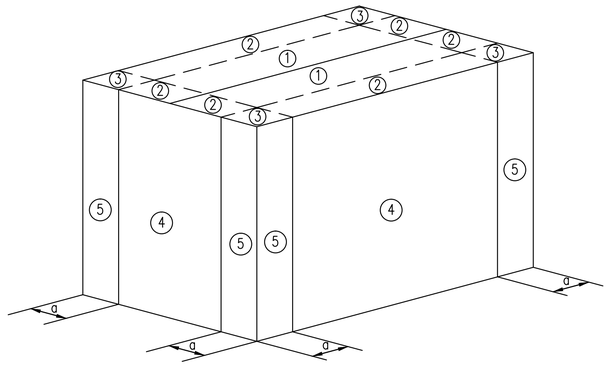
NOTES:

1. METAL CONNECTORS AND FASTENERS SHALL BE EITHER STAINLESS STEEL AND MEET ASTM A167; HOT-DIP GALVANIZED AFTER FABRICATION AND MEET ASTM A123 OR ASTM A153; OR HOT-DIP GALVANIZED OR GALVANNEALED PRIOR TO FABRICATION AND MEET ASTM A653.
2. METAL CONNECTORS AND FASTENERS LOCATED IN INLAND I AND INLAND II TDI REGIONS SHALL BE EITHER STAINLESS STEEL AND MEET ASTM A167; HOT-DIP GALVANIZED AFTER FABRICATION AND MEET ASTM A123 OR ASTM A153; HOT-DIP GALVANIZED OR GALVANNEALED PRIOR TO FABRICATION AND MEET ASTM A653; HOT-DIP GALVANIZED OR ELECTROGALVANIZED IN ACCORDANCE WITH ASTM A641; MECHANICALLY DEPOSITED ZINC COATINGS IN ACCORDANCE WITH ASTM B695; OR ELECTRODEPOSITED ZINC COATINGS IN ACCORDANCE WITH ASTM B633.
3. FASTENER SHALL BE 16 GA. STAPLE 15/16" CROWN x 1 1/2".
4. SPACING SHOWN IS FOR STRUCTURAL REQUIREMENTS ONLY. ACTUAL SPACING MAY BE GOVERNED BY LOCAL BUILDING CODE.

3 STUCCO FASTENING SCHEDULE

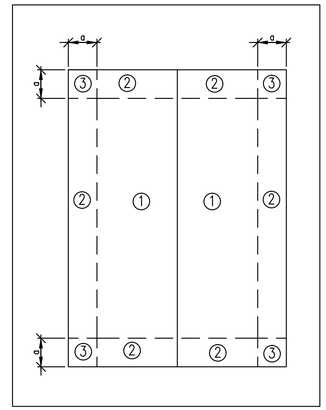
TYPICAL NOTES ON WIND PRESSURES

1. "−" INDICATES SUCTION ON THE SURFACE AREA; "+" INDICATES COMPRESSION ON THE SURFACE AREA.
2. INTERPOLATION BETWEEN EFFECTIVE WIND AREA IS PERMITTED.
3. A WIND DIRECTIONAL FACTOR OF Kd=0.85 HAS BEEN INCLUDED.
4. THE WIND PRESSURE SHALL BE USED IN ACCORDANCE WITH ASCE 7-10, SECTION 2.3 AND 2.4.
5. MINIMUM C & C WIND NET PRESSURE SHALL COMPLY WITH ASCE 7-10, 30-2.2.



a = 4'-0"

ROOFS w/$\theta \leq 7°$
AND ALL WALLS



ROOFS w/$\theta \leq 7°$

2 WIND PRESSURE ZONES AND NOTES

BRICK/STONE VENEER FASTENING SCHEDULE

WIND SPEED / M.R.H.	V_{ult} = 120 mph; V_{asd} = 93 mph(Design)	NOTES
20'	16" O.C. VERT.	1, 2, 3, 4
	32" O.C. HORIZ.	
30'	16" O.C. VERT.	1, 2, 3, 4
	32" O.C. HORIZ.	
40'	12" O.C. VERT.	1, 2, 3, 4
	32" O.C. HORIZ.	
50'	12" O.C. VERT.	1, 2, 3, 4
	32" O.C. HORIZ.	
60'	12" O.C. VERT.	1, 2, 3, 4
	32" O.C. HORIZ.	

NOTES:

1. METAL CONNECTORS AND FASTENERS SHALL BE EITHER STAINLESS STEEL AND MEET ASTM A167; HOT-DIP GALVANIZED AFTER FABRICATION AND MEET ASTM A123 OR ASTM A153; OR HOT-DIP GALVANIZED OR GALVANNEALED PRIOR TO FABRICATION AND MEET ASTM A653.
2. METAL CONNECTORS AND FASTENERS LOCATED IN INLAND I AND INLAND II TDI REGIONS SHALL BE EITHER STAINLESS STEEL AND MEET ASTM A167; HOT-DIP GALVANIZED AFTER FABRICATION AND MEET ASTM A123 OR ASTM A153; HOT-DIP GALVANIZED OR GALVANNEALED PRIOR TO FABRICATION AND MEET ASTM A653; HOT-DIP GALVANIZED OR ELECTROGALVANIZED IN ACCORDANCE WITH ASTM A641; MECHANICALLY DEPOSITED ZINC COATINGS IN ACCORDANCE WITH ASTM B695; OR ELECTRODEPOSITED ZINC COATINGS IN ACCORDANCE WITH ASTM B633.
3. FASTENER SHALL BE 8d (0.131" x 2 1/2") COMMON NAIL.
4. SPACING SHOWN IS FOR STRUCTURAL REQUIREMENTS ONLY. ACTUAL SPACING MAY BE GOVERNED BY LOCAL BUILDING CODE.

4 BRICK/STONE VENEER FASTENING SCHEDULE

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CAMERON COMMERCIAL – AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **SCHEDULES**

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1	CITY COMMENTS	05/17/2019

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Drawing Scale: As Noted | Project No. 136-087

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- ☐ Pricing
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SHEET NO.
S0-4
SCHEDULES

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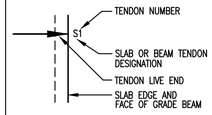
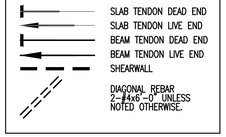
TENDON ELONGATION SCHEDULE

LENGTH (FEET)	ELONGATION (INCHES)	LENGTH (FEET)	ELONGATION (INCHES)	LENGTH (FEET)	ELONGATION (INCHES)
10	0.8	64	5.1	118	9.3
12	0.9	66	5.2	120	9.5
14	1.1	68	5.4	122	9.6
16	1.3	70	5.5	124	9.8
18	1.4	72	5.7	126	10.0
20	1.6	74	5.8	128	10.1
22	1.7	76	6.0	130	10.3
24	1.9	78	6.2	132	10.4
26	2.1	80	6.3	134	10.6
28	2.2	82	6.5	136	10.7
30	2.4	84	6.6	138	10.9
32	2.5	86	6.8	140	11.1
34	2.7	88	7.0	142	11.2
36	2.8	90	7.1	144	11.4
38	3.0	92	7.3	146	11.5
40	3.2	94	7.4	148	11.7
42	3.3	96	7.6	150	11.9
44	3.5	98	7.7	152	12.0
46	3.6	100	7.9	154	12.2
48	3.8	102	8.1	156	12.3
50	4.0	104	8.2	158	12.5
52	4.1	106	8.4	160	12.6
54	4.3	108	8.5	162	12.8
56	4.4	110	8.7	164	13.0
58	4.6	112	8.8	166	13.1
60	4.7	114	9.0	168	13.3
62	4.9	116	9.2	170	13.4

NOTE:
1. THE TESTING LAB SHALL OBTAIN TENDON SHOP DRAWINGS FROM THE SUPPLIER TO DETERMINE THE INDIVIDUAL ELONGATIONS OF THE CABLES.

PLAN LEGEND

1. BEAM WIDTHS / DEPTHS SHALL BE AS SHOWN IN GRADE BEAM SCHEDULE, U.N.O.
2. PROVIDE 4-#3 x 3'-0" AT OPENINGS LARGER THAN 10".
3. 

4. SYMBOLS:


FLOOR FRAMING NOTES

1. TRUSS SPACING SHALL BE 24" ON CENTER UNLESS NOTED OTHERWISE.
2. EXTERIOR BEARING WALLS AND / OR SHEARWALLS LOCATED PARALLEL TO FLOOR TRUSS FRAMING SHALL HAVE CONTINUOUS BEARING MEMBERS ABOVE PLATE LINE TO SUPPORT WALLS ABOVE.
3. ARCHITECTURAL BACKGROUND SHOWN IS LAYOUT OF FLOOR BELOW. SHOWN THUS:
4. SHEARWALLS AS NOTED ON PLAN SHALL BE CONSTRUCTED FROM FRAMING LEVEL BELOW TO FRAMING LEVEL SHOWN.
5. HOLDOWNS AND / OR STRAPS SHOWN SHALL BE MANUFACTURED BY SIMPSON STRONG TIE OR APPROVED EQUAL.
6. BEARING WALLS ARE INDICATED THUS:
7. VERIFY ALL FLOOR TOP OF PLATE ELEVATIONS WITH ARCHITECTURAL PLANS AND WALL SECTIONS.
8. NON LOAD-BEARING PARTITIONS 10'-0" OR LONGER IN LENGTH SHALL HAVE CONTINUOUS BEARING MEMBERS SUPPORT FROM WALLS OR FLOOR TRUSSES BELOW.
9. THE TRUSS LAYOUT SHOWN ON THIS DRAWING REPRESENTS DIRECTION OF TRUSS SPANS ONLY. THIS DRAWING SHALL NOT BE USED FOR PLACEMENT OF TRUSSES. REFER TO APPROVED TRUSS MANUFACTURER'S DRAWINGS FOR PLACEMENT, DIMENSIONS, BRACING AND CONNECTIONS.
10. QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES AND SHOULD BE CONFIRMED WITH THE ARCHITECTURAL DRAWINGS.
11. REFER TO GENERAL NOTES AND DIAGRAM FOR NAILING, STUD, HEADER, SHEARWALL BRACING, LOOSE LINTEL SCHEDULE, AND OTHER INFORMATION NOT SHOWN ON PLAN.
12. VERIFY ALL FRAMING DIMENSIONS AND BACKGROUNDS WITH THE ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER.
13. PROVIDE MINIMUM DOUBLE 2x STUD UNDERNEATH EACH GIRDER TRUSS.

FLOOR FRAMING LEGEND

- HEADER
- DROP BEAM
- FLUSH BEAM
- FLOOR/BALCONY/CORRIDOR TRUSS
- GT – GIRDER TRUSS
- BT – BALCONY TRUSS
- CT – CORRIDOR TRUSS
- CB – CONTINUOUS BEARING TRUSS
- FT – FLOOR TRUSS
- GT – GIRDER TRUSS
- RT – ROOF TRUSS
- MSTA – STRAP, FOR SIZE RE: PLAN
- PSL – PARALLEL STRAND LUMBER
- GLB – GLULAM BEAM
- CONT – CONTINUOUS
- NON-LOAD BEARING WALL ABOVE 100PLF UNLESS NOTED OTHERWISE
- BRIDGING
- UWA – UNDER WALL ABOVE

WOOD BEAM SCHEDULE

PLAN MARK	BEAM TO USE *	SIMPSON HANGER
226	(2) 2 x 6	HU26-2
228	(2) 2 x 8	HU28-2
2210	(2) 2 x 10	HU210-2
2212	(2) 2 x 12	HU212-2
326	(3) 2 x 6	HU26-3
328	(3) 2 x 8	HU28-3
3210	(3) 2 x 10	HU210-3
3212	(3) 2 x 12	HU212-3
4212	(4) 2 x 12	HHUS210-4

PSL BEAM SCHEDULE

B408	3 1/2" x 7 1/4"	HGUS410
B409	3 1/2" x 9 1/4"	HGUS412
B411	3 1/2" x 11 1/4"	HGUS412
B412	3 1/2" x 11 7/8"	HGUS412
B414	3 1/2" x 14"	HGUS414
B416	3 1/2" x 16"	HGUS414
B418	3 1/2" x 18"	HGUS414
B609	5 1/4" X 9 1/4"	HGUS5.50/10
B611	5 1/4" x 11 1/4"	HGUS5.50/12
B612	5 1/4" x 11 7/8"	HGUS5.50/12
B614	5 1/4" x 14"	HGUS5.50/14
B616	5 1/4" x 16"	HGUS5.50/14
B618	5 1/4" x 18"	HGUS5.50/14
B711	7" x 11 1/4"	HGUS7.25/12
B712	7" x 11 7/8"	HGUS7.25/12
B714	7" x 14"	HGUS7.25/14
B716	7" x 16"	HGUS7.25/14
B718	7" x 18"	HGUS7.25/14

* NOTE:
REFER TO GENERAL NOTES FOR MEMBER PROPERTIES.

LOAD BEARING HEADER SCHEDULE
(#2 SYP OR #2 D. FIR)

CLEAR SPAN	SIZE (UNLESS NOTED)	REMARKS
≤2'-0"	2-2x6	1 , 2
2'-1" ≤ 4'-0"	2-2x8	1 , 2
4'-1" ≤ 5'-0"	2-2x10	1 , 2
5'-1" ≤ 6'-0"	2-2x12	1 , 2
6'-1" ≤ 8'-0"	2-2x12	1 , 2
8'-1" ≤ 10'-0"	2-2x12	1 , 2

NOTES:
1. MULTIPLE LUMBER BEAMS SHALL BE CONSTRUCTED WITH A 1/2" THICK OSB/PLYWOOD SPACER BETWEEN MEMBERS. MEMBERS SHALL BE NAILED TOGETHER USING 16d NAILS @ 12" O.C. TOP AND BOTTOM (STAGGERED).
2. HEADERS LOCATED IN DESIGNATED BEARING WALLS AND IN WALLS SUBJECT TO EXTERIOR WIND LOAD ARE CONSIDERED LOAD BEARING.

NON LOAD BEARING HEADER SCHEDULE
(#2 SYP OR #2 D. FIR)

CLEAR SPAN	SIZE (UNLESS NOTED)	REMARKS
≤ 4'-0"	2-2x6	1
4'-1" ≤ 6'-0"	2-2x8	1
6'-1" ≤ 8'-0"	2-2x10	1
8'-1" ≤ 10'-0"	2-2x12	1

NOTES:
1. MULTIPLE LUMBER BEAMS SHALL BE CONSTRUCTED WITH A 1/2" THICK OSB/PLYWOOD SPACER BETWEEN MEMBERS. MEMBERS SHALL BE NAILED TOGETHER USING 16D NAILS @ 12" O.C. TOP AND BOTTOM (STAGGERED).

ROOF FRAMING NOTES

1. TRUSS SPACING SHALL BE 24" ON CENTER UNLESS NOTED OTHERWISE.
2. ARCHITECTURAL BACKGROUND SHOWN IS LAYOUT OF FLOOR BELOW.
3. BEARING WALLS ARE INDICATED THUS:
4. TOP OF PLATES AT ROOF MAY VARY FROM ELEVATIONS SHOWN ON PLANS. REFER TO ARCHITECTURAL DRAWINGS FOR CONDITIONS NOTED DIFFERENTLY ON THE STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO STRUCTURAL ENGINEER.
5. VERIFY ALL FRAMING DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO STRUCTURAL ENGINEER.
6. AREAS SHADED ON PLAN REPRESENT OVERLAY CONDITIONS. FRAME WITH 2x6 AT 24" ON CENTER MAXIMUM WITH 2x8 RIDGE.
7. ROOF TRUSSES SHALL BE ANCHORED AT BEARING SUPPORTS WITH HURRICANE TIES AT 24" ON CENTER MAXIMUM USING SIMPSON H2.5 TIES.
8. CONTRACTOR SHALL PROVIDE ERECTION BRACING FOR ROOF FRAMING INSTALLATION IN ACCORDANCE WITH TRUSS MANUFACTURER'S RECOMMENDATIONS UNLESS NOTED OTHERWISE.
9. REFER TO ARCHITECTURAL DRAWINGS FOR ALL ROOF SLOPES.
10. THE TRUSS LAYOUT SHOWN ON THIS DRAWING REPRESENTS DIRECTION OF TRUSS SPANS ONLY. THIS DRAWING SHALL NOT BE USED FOR PLACEMENT OF TRUSSES. REFER TO APPROVED TRUSS MANUFACTURER'S DRAWINGS FOR PLACEMENT, DIMENSIONS, BRACING AND CONNECTIONS.
11. PROVIDE MINIMUM DOUBLE 2x STUDS UNDERNEATH EACH GIRDER TRUSS.

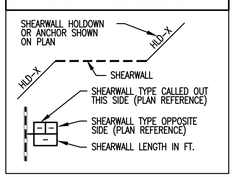
ROOF FRAMING LEGEND

- HEADER
- DROP BEAM
- FLUSH BEAM
- RT – ROOF TRUSS
- WT – WALL TRUSS
- GT – GIRDER TRUSS
- HANGER BY SIMPSON
- OVERLAID FRAMING AREA
- STRONGBACK OR DIAGONAL BRACING

SHEARWALL NOTES

1. SHEARWALL WITH OPENINGS MAY REQUIRED HARDWARE AT CORNERS OF OPENINGS. RE: SHEARWALL DETAIL SHEET FOR DETAILS.
2. REFER TO SHEET SD3-1 FOR SHEARWALL DETAILS.

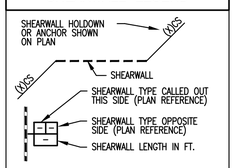
SHEARWALL LEGEND



SHEARWALL NOTES

1. SHEARWALLS WITH OPENINGS MAY REQUIRE HARDWARE AT CORNERS OF OPENINGS. RE: SHEARWALL DETAIL SHEET FOR DETAILS
2. REFER TO SHEET SD3-1 FOR SHEARWALL DETAILS.

SHEARWALL LEGEND



1CS = (1)CS16x60
2CS = (2)CS16x60
3CS = (3)CS16x60

TWO STORY SCHEDULE
(#2 SYP OR #2 D. FIR)

EXT. LOAD BEARING TRIMMER/KING POST SCHEDULE
(FLOOR TRUSSES PARALLEL TO WALLS)

CLEAR SPAN	STUDS	1ST FLOOR	2ND FLOOR
≤2'-0"	TRIMMER KING POST	1 1	1 1
2'-1" ≤ 4'-0"	TRIMMER KING POST	1 2	1 2
4'-1" ≤ 5'-0"	TRIMMER KING POST	1 2	1 2
5'-1" ≤ 6'-0"	TRIMMER KING POST	2 2	1 2
6'-1" ≤ 8'-0"	TRIMMER KING POST	2 3	2 3
8'-1" ≤ 10'-0"	TRIMMER KING POST	2 3	2 3

ONE STORY SCHEDULE
(STUD GRADE SYP OR STUD GRADE D. FIR)

INTER. LOAD BEARING TRIMMER/KING POST SCHEDULE

CLEAR SPAN	STUDS	1ST FLOOR
≤ 2'-0"	TRIMMER KING POST	1 1
2'-1" ≤ 4'-0"	TRIMMER KING POST	1 1
4'-1" ≤ 5'-0"	TRIMMER KING POST	1 1
5'-1" ≤ 6'-0"	TRIMMER KING POST	1 1
6'-1" ≤ 8'-0"	TRIMMER KING POST	2 1
8'-1" ≤ 10'-0"	TRIMMER KING POST	2 1

TWO STORY SCHEDULE
(#2 SYP OR #2 D. FIR)

INTERIOR LOAD BEARING TRIMMER/KING POST SCHEDULE

CLEAR SPAN	STUDS	1ST FLOOR	2ND FLOOR
≤2'-0"	TRIMMER KING POST	1 1	1 1
2'-1" ≤ 4'-0"	TRIMMER KING POST	1 1	1 1
4'-1" ≤ 5'-0"	TRIMMER KING POST	1 1	1 1
5'-1" ≤ 6'-0"	TRIMMER KING POST	2 1	1 1
6'-1" ≤ 8'-0"	TRIMMER KING POST	2 1	2 1
8'-1" ≤ 10'-0"	TRIMMER KING POST	3 1	2 1

ONE STORY SCHEDULE
(STUD GRADE SYP OR STUD GRADE D. FIR)

LOAD BEARING TRIMMER/KING POST SCHEDULE

CLEAR SPAN	STUDS	1ST FLOOR
≤ 2'-0"	TRIMMER KING POST	1 1
2'-1" ≤ 4'-0"	TRIMMER KING POST	1 1
4'-1" ≤ 5'-0"	TRIMMER KING POST	1 1
5'-1" ≤ 6'-0"	TRIMMER KING POST	1 2
6'-1" ≤ 8'-0"	TRIMMER KING POST	2 2
8'-1" ≤ 10'-0"	TRIMMER KING POST	2 3

TWO STORY SCHEDULE
(#2 SYP OR #2 D. FIR)

EXT. LOAD BEARING TRIMMER/KING POST SCHEDULE
(ROOF/TRUSSES @ SAME DIRECTION-WORST CASE)

CLEAR SPAN	STUDS	1ST FLOOR	2ND FLOOR
≤2'-0"	TRIMMER KING POST	1 1	1 1
2'-1" ≤ 4'-0"	TRIMMER KING POST	1 2	1 2
4'-1" ≤ 5'-0"	TRIMMER KING POST	1 2	1 2
5'-1" ≤ 6'-0"	TRIMMER KING POST	2 2	1 2
6'-1" ≤ 8'-0"	TRIMMER KING POST	2 3	2 3
8'-1" ≤ 10'-0"	TRIMMER KING POST	3 3	2 3

STUD PACK SCHEDULE (S)[1]

PLAN MARK	SIZE
S26	(2) 2x6 STUDS
S36	(3) 2x6 STUDS
S46	(4) 2x6 STUDS
S56	(5) 2x6 STUDS
S66	(6) 2x6 STUDS

PSL COULMN SCHEDULE (C)[1]

PLAN MARK	SIZE
C314	3-1/2"x14" PSL COL.
C55	5-1/4"x5-1/4" PSL COL.
C57	5-1/4"x7" PSL COL.
C59	5-1/4"x9-1/4" PSL COL.
C511	5-1/4"x11-1/4" PSL COL.

POST SCHEDULE (P)[1]

PLAN MARK	SIZE
P44	4"x4" #2 POST

STEEL COLUMN SCHEDULE (SC)[2]

PLAN MARK	SIZE
SC1	HSS 5"x5"x3/8"

1 FOUNDATION SCHEDULE

2 FLOOR FRAMING NOTES

3 BEAM SCHEDULE

4 LOAD BEARING AND NON LOAD BEARING HEADER SCHEDULE

5 ROOF FRAMING NOTES

6 SHEARWALL SCHEDULE

7 STORY SCHEDULE

8 COLUMN & STUD PACKS SCHEDULE

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CAMERON COMMERCIAL
–
AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **SCHEDULES**

Rev.	Description	Date
1	CITY COMMENTS	05/17/2019

Drawn By: HT
Checked By: DVH/ZA
Drawing Scale: As Noted
Project No. 136-087

ISSUED FOR: DATE:
- ☐ SD 30%
- ☐ CD 50%
- ☐ CD 95%
- ☐ CD 100%
- ☐ Pricing
- ☐ Bidding
- ☑ Permit 03/12/2019
- ☐ Construction

05/17/2019
Texas Registered Engineering Firm
F-19122

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SHEET NO.
S0-5
SCHEDULES

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TABLE 2304.9.1
FASTENING SCHEDULE (IBC 2015)

CONNECTION	FASTENING[o, m]	LOCATION
1. Joist to sill or girder	3 – 8d common (2 ½" x 0.131") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
2. Bridging to joist	2 – 8d common (2 ½" x 0.131") 2 – 3" x 0.131" nails 2 – 3" 14 gage staples	toenail each end
3. 1" x 6" subfloor or less to each joist	2 – 8d common (2 ½" x 0.131")	face nail
4. Wider than 1" x 6" subfloor to each joist	3 – 8d common (2 ½" x 0.131")	face nail
5. 2" subfloor to joist or girder	2 – 16d common (3 ½" x 0.162")	blind and face nail
6. Sole plate to joist or blocking	16d (3 ½" x 0.135") at 16" o.c. 3" x 0.131" nails at 8" o.c. 3" 14 gage staples at 12" o.c.	typical face nail
Sole plate to joist or blocking at braced wall panel	3 – 16d (3 ½" x 0.135") at 16" o.c. 4 – 3" x 0.131" nails at 16" o.c. 4 – 3" 14 gage staples at 16" o.c.	braced wall panels
7. Top plate to stud	2 – 16d common (3 ½" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	end nail
8. Stud to sole plate	4 – 8d common (2 ½" x 0.131") 4 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
	2 – 16d common (3 ½" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	end nails
9. Double studs	16d (3 ½" x 0.135") at 24" o.c. 3" x 0.131" nail at 8" o.c. 3" 14 gage staple at 8" o.c.	face nail
10. Double top plates	16d (3 ½" x 0.135") at 16" o.c. 3" x 0.131" nail at 12" o.c. 3" 14 gage staple at 12" o.c.	typical face nail
Double top plates	8 – 16d common (3 ½" x 0.162") 12 – 3" x 0.131" nails 12 – 3" 14 gage staples	lap splice
11. Blocking between joists or rafters to top plate	3 – 8d common (2 ½" x 0.131") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
12. Rim joist to top plate	8d (2 ½" x 0.131") at 6" o.c. 3" x 0.131" nail at 6" o.c. 3" 14 gage staple at 6" o.c.	toenail
13. Top plates, laps and intersections	2 – 16d common (3 ½" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	face nail
14. Continuous header, two pieces	16d common (3 ½" x 0.162")	16" o.c. along edge
15. Ceiling joints to plate	3 – 8d common (2 1/2" x 0.131") 5 – 3" x 0.131" nails 5 – 3" 14 gage staples	toenail
16. Continuous header to stud	4 – 8d common (2 ½" x 0.131")	toenail
17. Ceiling Joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 – 16d common (3 ½" x 0.162") minimum, Table 2308.10.4.1 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	face nail
18. Ceiling Joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 – 16d common (3 ½" x 0.162") minimum, Table 2308.10.4.1 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	face nail
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 – 8d common (2 ½" x 0.131") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
20. 1" diagonal brace to each stud and plate	2 – 8d common (2 ½" x 0.131") 2 – 3" x 0.131" nails 3 – 3" 14 gage staples	face nail
21. 1" x 8" sheathing to each bearing	3 – 8d common (2 ½" x 0.131")	face nail
22. Wider than 1" x 8" sheathing to each bearing	3 – 8d common (2 ½" x 0.131")	face nail
23. Built-up corner studs	16d common (3 ½" x 0.162") 3" x 0.131" nails 3" 14 gage staples	24" o.c. 16" o.c. 16" o.c.
24. Built-up girder and beams	20d common (4" x 0.192") 32" o.c. 3" x 0.131" nails at 24" o.c. 3" 14 gage staple at 24" o.c.	face nail at top and bottom staggered on opposite sides
	2 – 20d common (4" x 0.192") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	face nail at ends and at each splice
25. 2" planks	16d common (3 ½" x 0.162")	at each bearing
26. Collar tie to rafter	3 – 10d common (3" x 0.148") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	face nail
27. Jack rafter to hip	3 – 10d common (3" x 0.148") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	toenail
	2 – 16d common (3 ½" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	face nail
28. Roof rafter to 2-by ridge beam	2 – 16d common (3 ½" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	toenail
	2 – 16d common (3 ½" x 0.162") 3 – 3" x 0.131" nails 3 – 3" 14 gage staples	face nail

TABLE 2304.9.1—continued
FASTENING SCHEDULE (IBC 2015)

CONNECTION	FASTENING[o, m]	LOCATION
29. Joist to band joist	3 – 16d common (3 ½" x 0.162") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	face nail
30. Ledger strip	3 – 16d common (3 ½" x 0.162") 4 – 3" x 0.131" nails 4 – 3" 14 gage staples	face nail at each joist
31. Wood structural panels and particleboard[b] Subfloor, roof and wall sheathing (to framing)	1/2" and less: 6d[c,l]; 2 ⅜" x 0.113" nail[n]; 1 ¾" 16 gage[o] 19/32" to 3/4": 8d[c] or 6d[e]; 2 ⅜" x 0.113" nail[p]; 2" 16 gage[p] 7/8" to 1": 8d[c] 1 ⅛" to 1 ¼": 10d[d] or 8d[e]	face nail
Single floor (combination subfloor–underlay–ment to framing)	3/4" and less: 6d[e] 7/8" to 1": 8d[e] 1 ⅛" to 1 ¼": 10d[d] or 8d[e]	
32. Panel siding (to framing)	1/2" or less: 6d[f] 5/8": 8d[f]	
33. Fiberboard sheathing[g]	1/2": No. 11 gage roofing nail[h]; 6d common nail (2" x 0.113"); No. 16 gage staple[i] 25/32": No. 11 gage roofing nail[h]; 8d common nail (2 ½" x 0.131"); No. 16 gage staple[i]	
34. Interior paneling	1/4": 4d[j] 3/8": 6d[k]	

For SI: 1 inch = 25.4 mm.

a. Common or box nails are permitted to be used except where otherwise stated.

b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.

c. Common or deformed shank (6d – 2" x 0.113"; 8d – 2 ½" x 0.131"; 10d – 3" x 0.148")

d. Common (6d – 2" x 0.113; 8d – 2 ½" x 0.131"; 10d – 3" x 0.148")

e. Deformed shank (6d – 2" x 0.113"; 8d – 2 ½" x 0.131"; 10d – 3" x 0.148")

f. Corrosion–resistant siding (6d – 1 ⅞" x 0.106"; 8d – 2 ⅜" x 0.128";) or casing (6d – 2" x 0.099"; 8d – 2 ½" x 0.113") nail.

g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports. when used as structural sheathing. Spacing shall be 6 inches on center on the edge and 12 inches on center at intermediate supports for nonstructural applications.

h. Corrosion–resistant roofing nails with 7/16–inch–diameter head and 1 ½–inch length for 1/2–inch sheathing and 1 ¾–inch length for 25/32–inch sheathing.

i. Corrosion–resistant staples with nominal 7/16–inch crown and 1–inch crown and 1 ¼–inch length for 1/2–inch sheathing and 1 ½–inch length for 25/32–inch sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).

j. Casing (1 ½" x 0.080") or finish (1 ½" x 0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

k. Panel supports at 24 inches, Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

l. For roof sheathing applications, 8d nails (2 ½" x 0.113") are the minimum required for wood structural panels.

m. Staples shall have a minimum crown width of 7/16 inch.

n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.

p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

1 NAILING SCHEDULE AND NOTES (IBC 2015) 1

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CAMERON COMMERCIAL
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AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **SCHEDULES**

CITY COMMENTS Description	Date
	05/17/2019

Rev.

Drawn By: HT
Checked By: DVH/ZA
Drawing Scale: As Noted
Project No. 136-087

ISSUED FOR: DATE:
- ☐ SD 30%
- ☐ CD 50%
- ☐ CD 95%
- ☐ CD 100%
- ☐ Pricing
- ☐ Bidding
- ☑ Permit 03/12/2019
- ☐ Construction

STATE OF TEXAS
SANDEEP N. PATEL
80656
LICENSED PROFESSIONAL ENGINEER
05/17/2019
Texas Registered Engineering Firm F-19122

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SHEET NO.
S0-6
SCHEDULES

STATEMENT OF SPECIAL INSPECTIONS (2015 IBC)

Special Inspections may be required by local code or building official. Below is an except from the IBC showing typical inspections. Actual required special inspections and their frequency should be confirmed prior to construction. This office takes no responsibility for inspections not conducted by a representative of this firm.

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION
SECTION 1705

1705.2	Steel construction. The special inspections for steel elements of buildings and structures shall be as required in this section. Exception: Special inspection of the steel fabrication process shall not be required where the fabricator does not perform any welding thermal cutting or heating operation of any kind as part of the fabrication process. In such cases, the fabricator shall be required to submit a detailed procedure for material control that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification, and grade for the main stress–carrying elements are capable of being determined. Mill test report shall be identifiable to the main stress–carry elements when required by the approved construction documents.
1705.2.1	Structural steel. Special inspection for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360.
1705.2.2	Steel construction other than structural steel. Special inspection for steel construction other than structural steel shall be in accordance with Table 1705.2.2 and this section.
1705.2.2.1	Welding. Welding inspection and Welding inspector qualification shall be in accordance with this section.
1705.2.2.1.1	Cold–formed steel. Welding inspection and Welding inspector qualification Cold–formed steel floor and roof decks shall be in accordance with AWS D1.3.
1705.2.2.1.2	Reinforcing steel. Welding inspection and Welding inspector qualification for reinforcing steel shall be in accordance with AWS D1.4 and ACI 318.
1705.2.2.2	Cold–formed steel trusses spanning 60 feet or greater. Where a Cold–formed steel truss clear span is 60 feet (18 288 mm) or greater. the special inspector shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package,

TABLE 1705.2.2
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[d]
1. Material verification of cold–formed steel deck:			
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	---	X	Applicable ASTM material standards
b. Manufacturer's certified test reports.	---	X	
2. Inspection of welding:			
a. Cold–formed steel deck:			
1) Floor and roof deck welds.	---	X	AWS D1.3
b. Reinforcing steel:			
1) Verification of weldability of reinforcing steel other than ASTM A 706	---	X	AWS D1.4 ACI 318: Section 3.5.2
2) Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and shear reinforcement.	X	---	
3) Shear reinforcement.	X	---	
4) Other reinforcing steel.	---	X	

For SI: 1 inch = 25.4 mm.
a. Where applicable, see also Section 1705.11, Special inspections for seismic resistance.

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION
TABLE 1705.3

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[a]	IBC REFERENCE
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	---	X	ACI 318: 3.5, 7.1–7.7	1910.4
2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, Item 2b.	---	---	AWS D1.4 ACI 318: 3.5.2	---
3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.	---	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4. Inspection of anchors post–installed in hardened concrete members[b]	---	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1
5. Verifying use of required design mix.	---	X	ACI 318: Ch. 4, 5.2–5.4	1904.2, 1910.2 1910.3
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	---	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	---	ACI 318: 5.9, 5.10	1910.6, 1910.7 1910.8
8. Inspection for maintenance of specified curing temperature and techniques.	---	X	ACI 318: 5.11–5.13	1910.9
9. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic force–resisting system.	X X	---	ACI 318: 18.20 ACI 318: 18.18.4	---
10. Erection of precast concrete members.	---	X	ACI 318: Ch. 16	---
11. Verification of in–situ concrete strength, prior to stressing of tendons in post–tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	---	X	ACI 318: 6.2	---
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	---	X	ACI 318: 6.1.1	---

For SI: 1 inch = 25.4 mm.
a. Where applicable, see also Section 1705.11, Special inspections for seismic resistance.

Table 1.19.1 – Level A Quality Assurance

MINIMUM TESTS
None
MINIMUM INSPECTION
Verify compliance with the approved submittals

Table 1.19.2 – Level B Quality Assurance

MINIMUM TESTS
Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5 B.1.b.3 for self–consolidating grout.
Verification of f'_m and f'_{MC} in accordance with Specification Article 1.4 B prior to construction, except where specifically exempted by this code.

MINIMUM INSPECTION

Inspection Task	Frequency[a]		Reference for Criteria	
	Continuous	Periodic	TMS 402 ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
1. Verify compliance with the approved submittals		X		Art. 1.5
2. As masonry construction begins, verify that the following are in compliance:				
a. Proportions of site–prepared mortar		X		Art. 2.1 2.6 A
b. Construction of mortar joints		X		Art. 3.3 B
c. Grade and size of prestressing tendons and anchorages		X		Art. 2.4 B, 2.4 H
d. Location of reinforcement, connectors, and prestressing tendons and anchorages		X		Art. 3.4, 3.6 A
e. Prestressing technique.		X		Art. 3.6 B
f. Properties of thin–bed mortar for AAC masonry	X[b]	X[c]		Art. 2.1 C
3. Prior to grouting, verified that the following are in compliance:				
a. Grout space		X		Art. 3.2 D 3.2 F
b. Grade, type and size of reinforcement and anchor bolts, and prestressing tendons and anchorages.		X	Sec. 1.16	Art. 2.4, 3.4
c. Placement of reinforcement, connectors, and prestressing tendons and anchorages		X	Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A
d. Proportions of site–prepared grout and prestressing grout for bonded tendons		X		Art. 2.6 B 2.4 G.1.b
e. Construction of mortar joints		X		Art. 3.3 B
4. Verify during construction:				
a. Size and location of structural elements		X		Art. 3.3 F
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction		X	Sec. 1.16.4.3, 1.17.1	
c. Welding of reinforcement	X		Sec. 2.1.8.7.2, 3.3.3.4 (c) 8.3.3.4 (b)	
d. Preparation, construction and protection of masonry during cold weather (temperature below 40°F) (4.4°C) or hot weather (temperature above 90°F) (32.2°C)		X		Art. 1.8 C, 1.8 D
e. Application and measurement of prestressing force	X			Art. 3.6 B
f. Placement of grout and prestressing grout for bonded tendons is in compliance	X			Art. 3.5, 3.6 C
g. Placement of AAC masonry units and construction of thin–bed mortar joints	X[b]	X[c]		Art. 3.3 B.8
5. Observe preparation of grout specimens, mortar specimens, and/or prisms	X			Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4,

(a) Frequency refers to the frequency of inspection, which may be continuous during the task listed or periodically during the listed task, as defined in the table.
(b) Required for the first 5000 square feet (465 square meters) of AAC masonry.
(c) Required after the first 5000 square feet (465 square meters) of AAC masonry.

Table 1.19.3 – Level C Quality Assurance

MINIMUM TESTS
Verification of f'_m and f'_{MC} in accordance with Article 1.4 B prior to construction and for every 5,000 sq. ft (465 sq. m) during construction
Verification of proportions of materials in premixed of preblended mortar, prestressing grout, and grout other than self–consolidating grout, as delivered to the project site
Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Article 1.5 B.1.b.3 for self–consolidating grout.

MINIMUM INSPECTION

Inspection Task	Frequency[a]		Reference for Criteria	
	Continuous	Periodic	TMS 402 ACI 530/ ASCE 5	TMS 602/ ACI 530.1/ ASCE 6
1. Verify compliance with the approved submittals		X		Art. 1.5
2. Verify that the following are in compliance:				
a. Proportions of site–mixed mortar, grout and prestressing grout for bonded tendons		X		Art. 2.1, 2.6 A, 2.6 B, 2.6 C, 2.4 G.1.b
b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		X	Sec. 1.16	Art. 2.4, 3.4
c. Placement of masonry units and construction of mortar joints		X		Art. 3.3 B
d. Placement of reinforcement, connectors, and prestressing tendons and anchorages	X		Sec. 1.16	Art. 3.2 E, 3.4, 3.6 A
e. Grout space prior to grouting	X			Art. 3.2 D 3.2 F
f. Placement of grout and prestressing grout for bonded tendons	X			Art. 3.5, 3.6 C
g. Size and location of structural elements		X		Art. 3.3 F
h. Type, size and location of anchors including other details of anchorage of masonry to structural members, frames, or other construction	X		Sec. 1.16.4.3 1.17.1	
i. Welding of reinforcement	X		Sec. 2.1.8.7.2, 3.3.3.4 (c) 8.3.3.4 (b)	
j. Preparation, construction and protection of masonry during cold weather (temperature below 40°F) (4.4°C) or hot weather (temperature above 90°F) (32.2°C)		X		Art. 1.8 C, 1.8 D
k. Application and measurement of prestressing force.	X			Art. 3.6 B
l. Placement of AAC masonry units and construction of thin–bed mortar joints	X			Art. 3.3 B.8
m. Properties of thin–bed mortar for AAC masonry	X			Art. 2.1 C.1
5. Observe preparation of grout specimens, mortar specimens, and/or prisms	X			Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

(a) Frequency refers to the frequency of inspection, which may be continuous during the task listed or periodically during the listed task, as defined in the table.

REQUIRED VERIFICATION AND INSPECTION OF SOILS
TABLE 1705.6

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASKS LISTED	PERIODICALLY DURING TASK LISTED
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	---	X
2. Verify excavations are extended to proper depth and have reached proper material.	---	X
3. Perform classification and testing of compacted fill materials.	---	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	---
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	---	X

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Sheet Title: **INSPECTIONS**

05/17/2019 Date

CITY COMMENTS Description

Rev.

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Drawing Scale: As Noted | Project No. 136–087

ISSUED FOR: DATE:
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- ☐ CD 50% ____
- ☐ CD 90% ____
- ☐ CD 100% ____
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05/17/2019
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S0-7
INSPECTIONS

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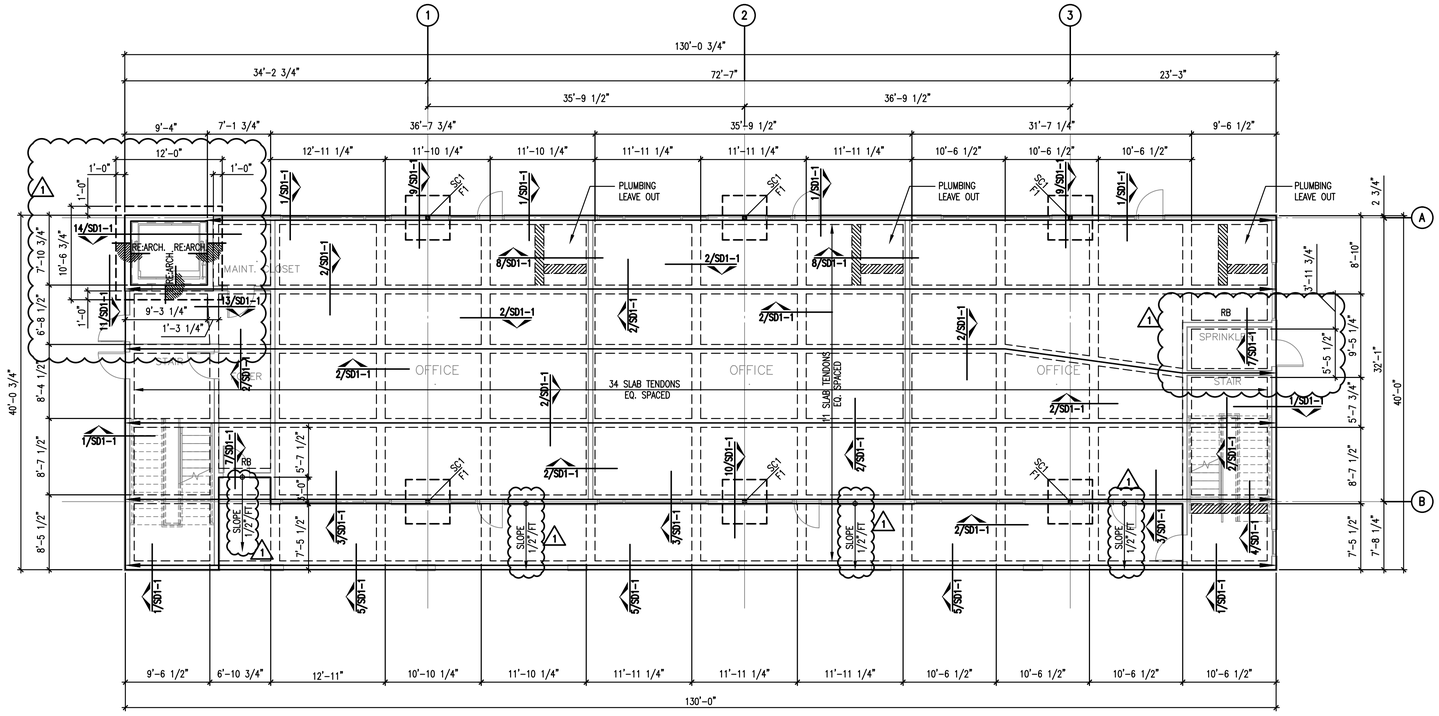
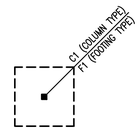


1 FOUNDATION PLAN

SCALE: 1/8"=1'-0"

SPREAD FOOTING LEGEND



SPREAD FOOTING SCHEDULE				
MARK	LENGTH	WIDTH	THICKNESS	BOT. REINF.
F1	5'-0"	5'-0"	12"	5-#5's EACH WAY BOTT.

SLAB NOTE

"4" THICK CONCRETE SLAB (UNLESS NOTED OTHERWISE) ON MINIMUM TEN (10) MIL VAPOR BARRIER ON COMPACTED FILL SUBGRADE. THE VAPOR BARRIER SHALL CONFORM TO ASTM E1745 CLASS A OR BETTER AND SHALL HAVE A MAXIMUM WATER VAPOR PERMANENCE OF 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E96.
THE VAPOR BARRIER SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND ASTM E1643, STANDARD PRACTICE FOR INSTALLATION OF WATER VAPOR BARRIERS USED IN CONTACT WITH EARTH OR GRANULAR FILL UNDER CONCRETE SLABS. REFER TO GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION AND COMPACTION REQUIREMENTS.

RE: S0-1, S0-2 & S0-5 FOR FOUNDATION NOTES & SCHEDULE

PLEASE REVIEW ARCHITECTURAL DRGS. FOR DIMENSIONS, SLOPES, DROPS & DEPRESSIONS.

GRADE BEAM SCHEDULE

PLAN MARK	PLAN SYM.	BEAM WIDTH	BEAM DEPTH	NOTES
THICKENED SLAB		RE:PLAN	12"	2-#5 BOTT.
REINF. BEAM	RB	12"	30"	2-#5 BOTT. w/#3 TIES@EACH TENDON
GRADE BEAM		12"	30"	1 TENDON

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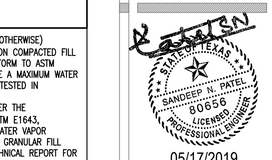

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S1-1
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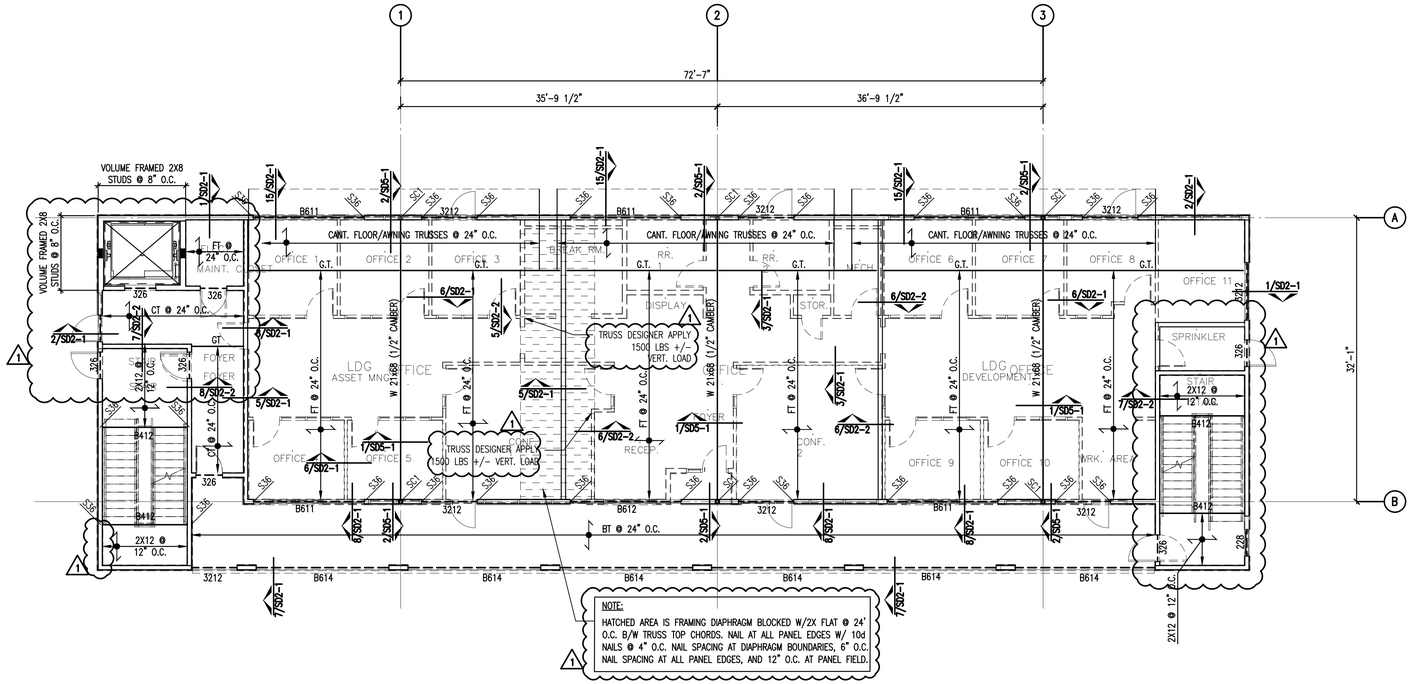
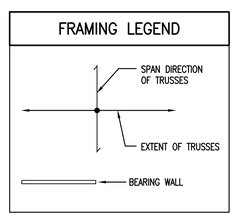


1 2ND FLOOR FRAMING PLAN

SCALE: 1/8"=1'-0"

FRAMING LEGEND



RE: SO-1, SO-3 & SO-5 FOR FRAMING NOTES AND SCHEDULE

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Sheet Title: **FLOOR FRAMING PLAN**

Rev.	Description	Date
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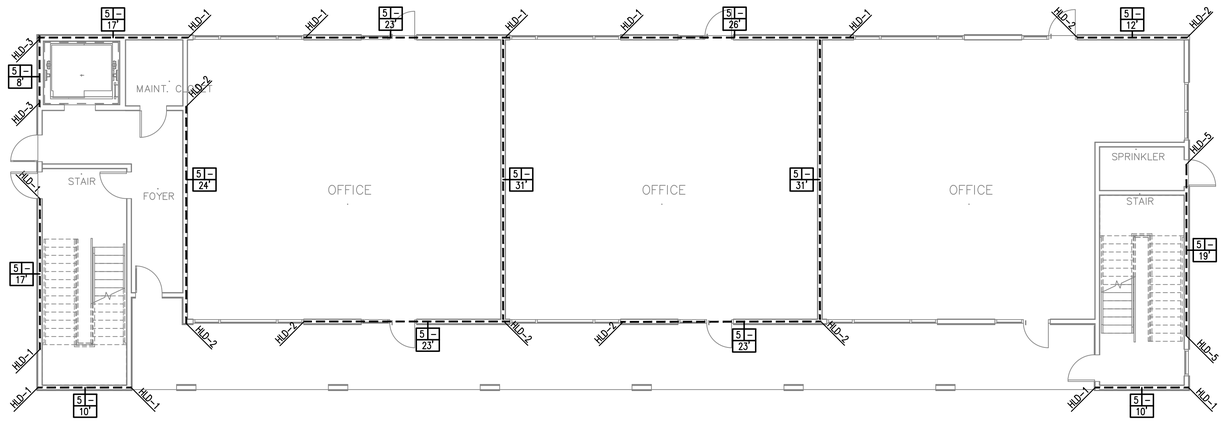
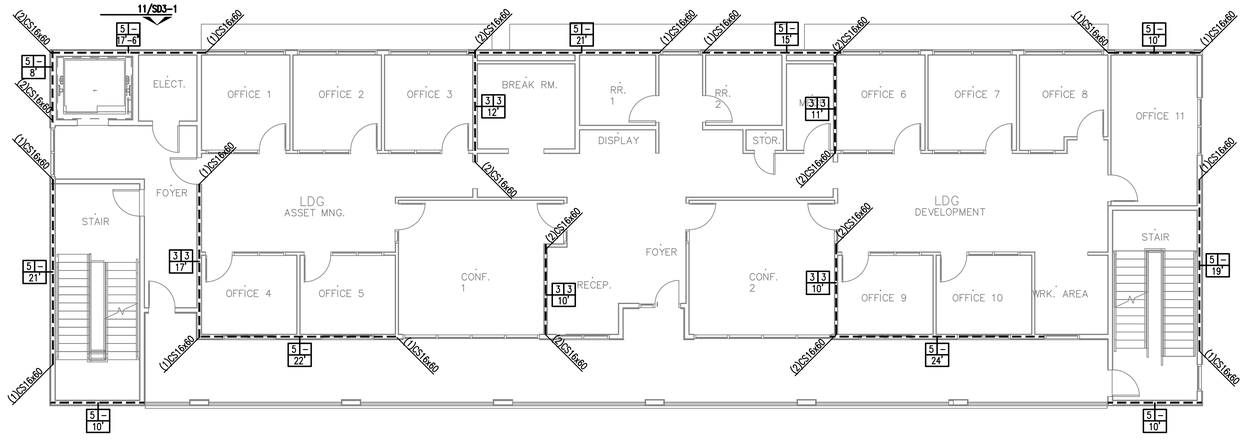


1 1ST FLOOR SHEARWALL FRAMING PLAN

SCALE: 1/8"=1'-0"



2 2ND FLOOR SHEARWALL FRAMING PLAN

SCALE: 1/8"=1'-0"

RE: SO-1, SO-3 & SO-5 FOR SHEARWALL NOTES AND SCHEDULE

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Sheet Title: **SHEARWALL FRAMING PLAN**

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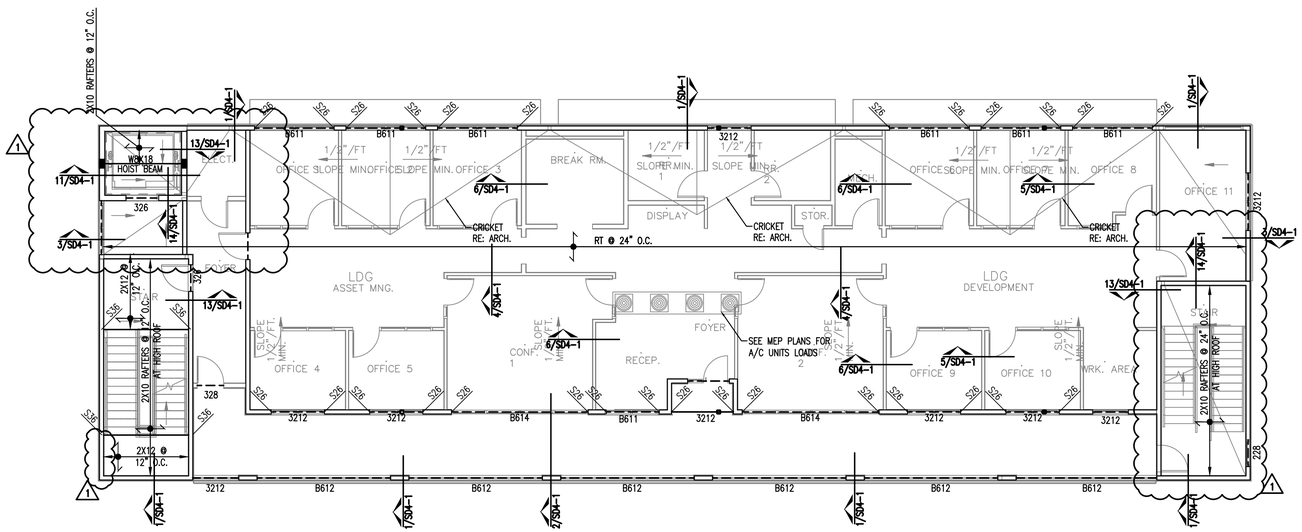
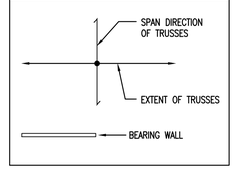


1 ROOF FRAMING PLAN – BLDG TYPE I

SCALE: 1/8"=1'-0"

FRAMING LEGEND



RE: S0-1, S0-3 & S0-5 FOR FRAMING NOTES AND SCHEDULE

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Sheet Title: **ROOF FRAMING PLAN**

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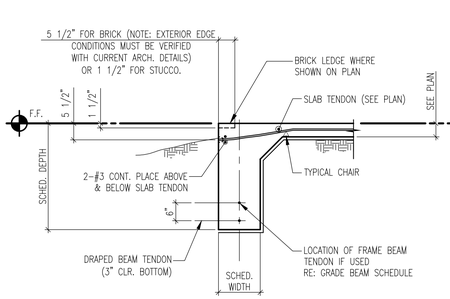
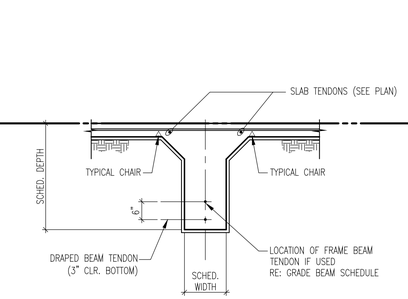


1 TYPICAL EXTERIOR GRADE BEAM
SCALE: 1/2"=1'-0"



2 TYPICAL INTERIOR GRADE BEAM
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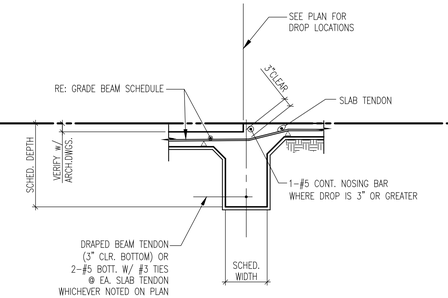
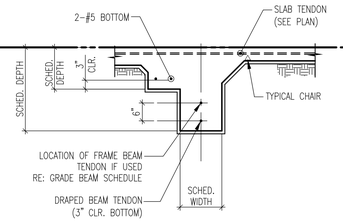
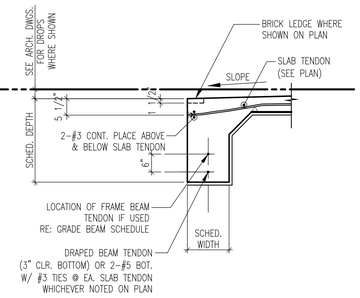


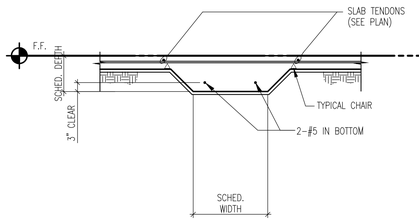
3 GRADE BEAM AT FLOOR DEPRESSION
SCALE: 1/2"=1'-0"



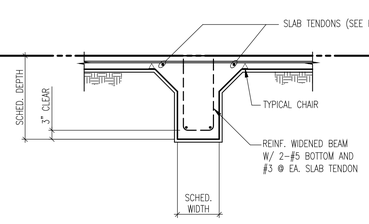
4 INTERIOR THICKENED SLAB
SCALE: 1/2"=1'-0"



5 EXTERIOR GRADE BEAM AT PATIO
SCALE: 1/2"=1'-0"



6 THICKENED SLAB
SCALE: 1/2"=1'-0"



7 TYPICAL INT. REINFORCED GRADE BEAM
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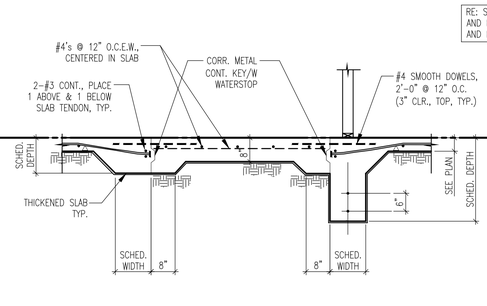
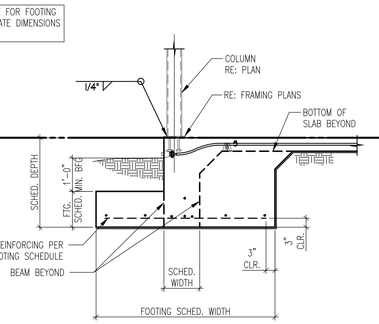
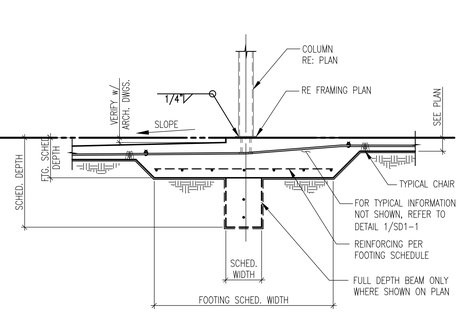


8 PLUMBING LEAVE OUT AT PT SLAB
SCALE: 1/2"=1'-0"

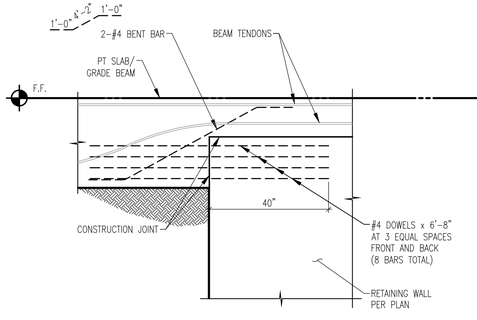
RE: SCHEDULE FOR FOOTING AND BASE PLATE DIMENSIONS AND REINF.



9 PERIMETER BREACHED LOAD FOOTING
SCALE: 1/2"=1'-0"



10 INTERIOR MONOLITHIC FOOTING DETAIL
SCALE: 1/2"=1'-0"



11 PERIMETER PT GRADE BEAM @ RETAINING WALL
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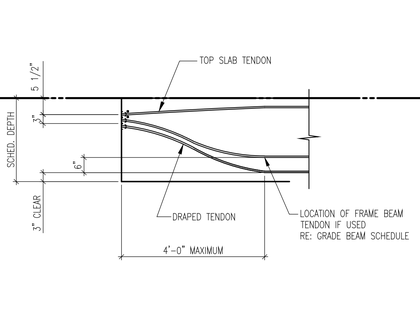
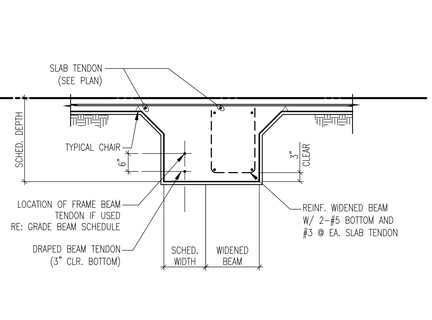
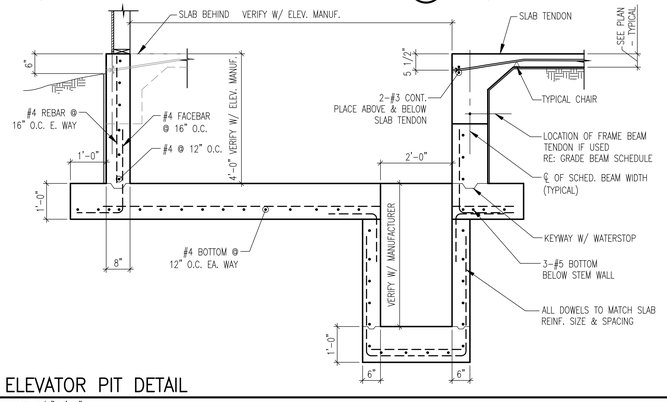


12 DRAPED TENDON BEAM ELEVATION
SCALE: 1/2"=1'-0"



13 WIDENED INTERIOR GRADE BEAM
SCALE: 1/2"=1'-0"



14 ELEVATOR PIT DETAIL
SCALE: 1/2"=1'-0"

STERLING ENGINEERING DESIGN GROUP
14025 West Road, Suite 201
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CAMERON COMMERCIAL – AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **FOUNDATION SECTIONS AND DETAILS**

Rev.	Description	Date
1	CITY COMMENTS	05/17/2019

Drawn By: HT
Checked By: DVH/ZA
Drawing Scale: As Noted
Project No. 136-087

ISSUED FOR: DATE:
- ☐ SD 30%
- ☐ CD 50%
- ☐ CD 95%
- ☐ CD 100%
- ☐ Pricing
- ☐ Bidding
- ☒ Permit 03/12/2019
- ☐ Construction

STATE OF TEXAS
SANDEEP N. PATEL
80656
LICENSED PROFESSIONAL ENGINEER
05/17/2019
Texas Registered Engineering Firm F-19122

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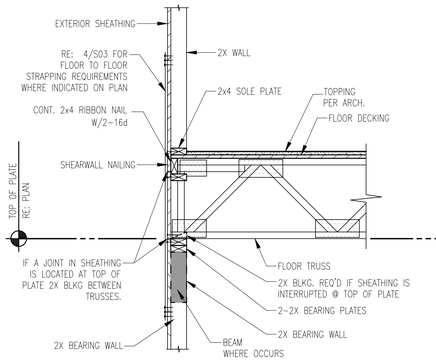
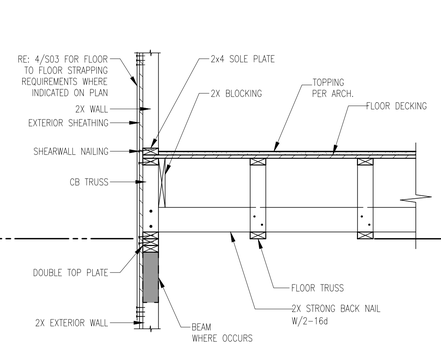
SHEET NO.
SD1-1
SECTIONS

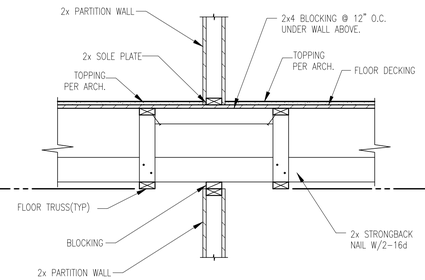
G:\$136 – KELLY GROSSMAN\136-087 Cameron Commercial\Structural Drawings\Working Drawings\$SD1-1.dwg Plotted: May 29, 2019 – 10:02 AM by Hao Tran



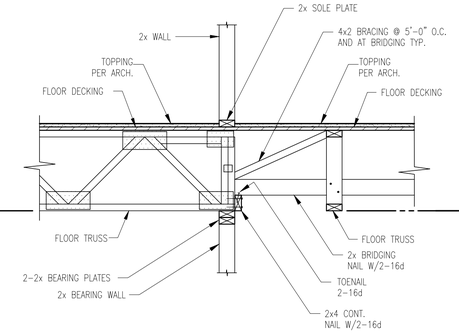
1 EXTERIOR LOAD BEARING WALL
SCALE: 3/4"=1'-0"



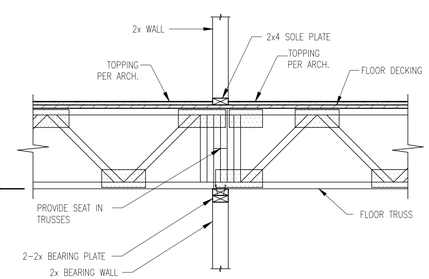
2 EXTERIOR WALL DETAIL
SCALE: 3/4"=1'-0"



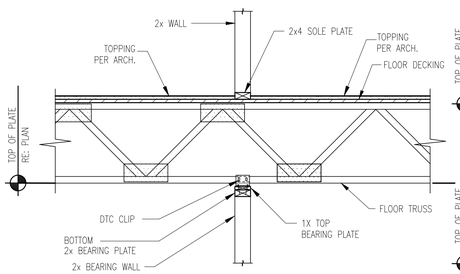
3 NON LOAD BEARING WALL
SCALE: 3/4"=1'-0"



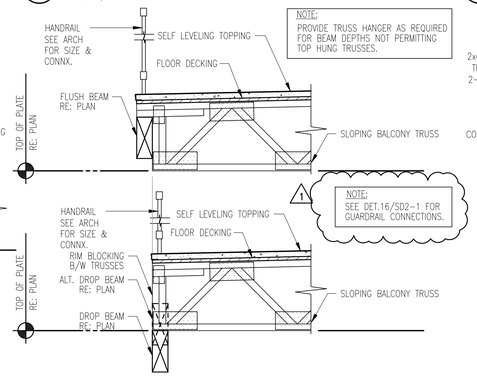
4 INTERIOR LOAD BEARING WALL
SCALE: 3/4"=1'-0"



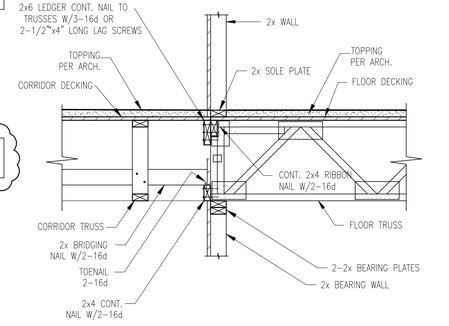
5 INTERIOR LOAD BEARING WALL
SCALE: 3/4"=1'-0"



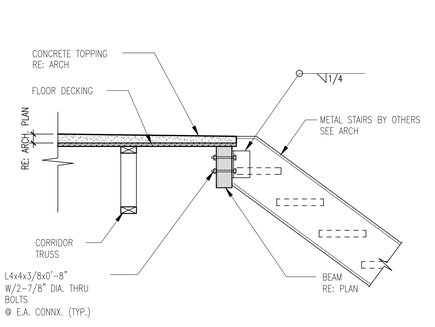
6 NON LOAD BEARING WALL
SCALE: 3/4"=1'-0"



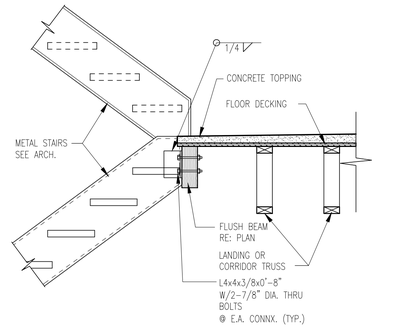
7 BALCONY DETAIL
SCALE: 3/4"=1'-0"



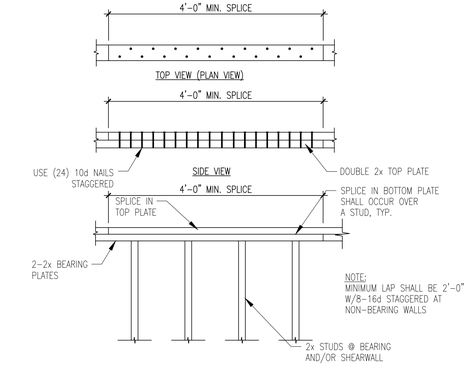
8 CORRIDOR/UNIT FRAMING DETAIL
SCALE: 3/4"=1'-0"



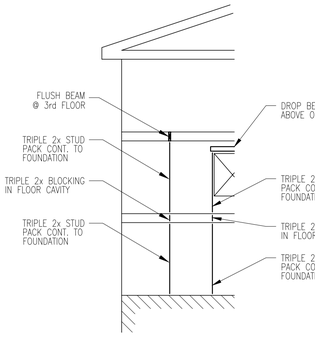
9 STAIR LANDING
SCALE: 3/4"=1'-0"



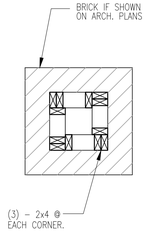
10 INTERMEDIATE LANDING
SCALE: 3/4"=1'-0"



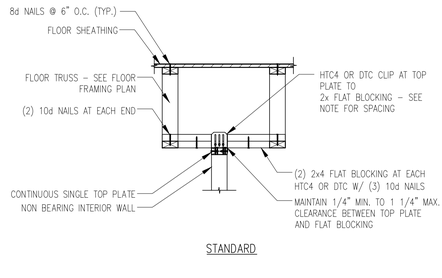
11 PLATE SPLICE DETAIL
SCALE: 3/4"=1'-0"



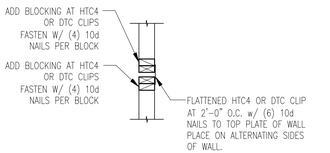
12 STUD PACK BELOW BEAMS
SCALE: 3/4"=1'-0"



13 BOX COL. FRAMING
SCALE: 3/4"=1'-0"

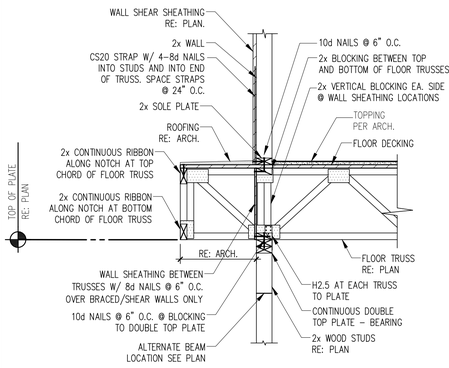


STANDARD

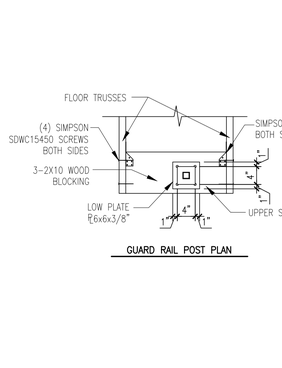


ALTERNATE

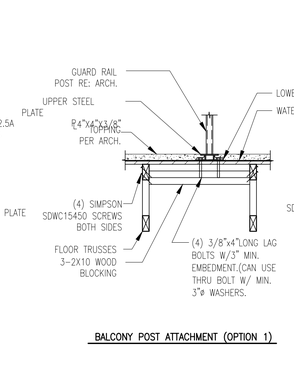
14 TYPICAL NON-SHEAR/NON-BEARING PARALEL WALL CONNECTION
SCALE: 3/4"=1'-0"



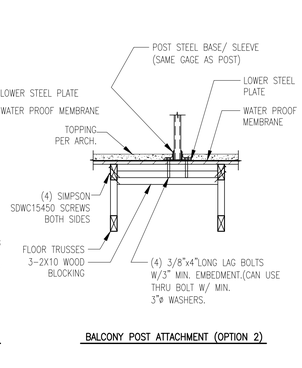
15 CANTILIVERED TRUSS AT WALL
SCALE: 3/4"=1'-0"



GUARD RAIL POST PLAN

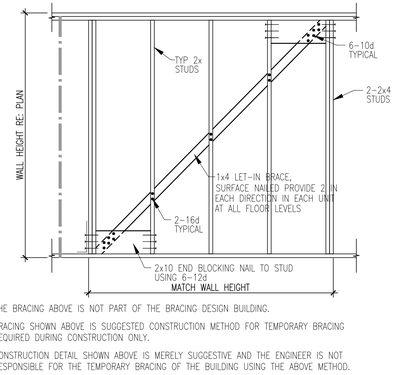


BALCONY POST ATTACHMENT (OPTION 1)



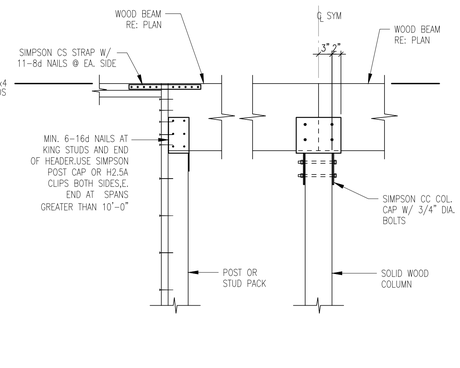
BALCONY POST ATTACHMENT (OPTION 2)

NOTE:
TOP OF INTERIOR NON-BEARING WALLS TO BE SUPPORTED BY HTC4 OR INTERSECTING WALL @ 8'-0" O.C. WITH A MINIMUM OF (2) SUPPORTS PER WALL. SUPPORTS SHALL BE NO MORE THAN 12" FROM END OF WALL. INTERSECTING WALL TO BE 2'-0" MINIMUM LENGTH TO QUALIFY AS SUPPORT.



NOTES:
1. THE BRACING ABOVE IS NOT PART OF THE BRACING DESIGN BUILDING.
2. BRACING SHOWN ABOVE IS SUGGESTED CONSTRUCTION METHOD FOR TEMPORARY BRACING REQUIRED DURING CONSTRUCTION ONLY.
3. CONSTRUCTION DETAIL SHOWN ABOVE IS MERELY SUGGESTIVE AND THE ENGINEER IS NOT RESPONSIBLE FOR THE TEMPORARY BRACING OF THE BUILDING USING THE ABOVE METHOD.

17 TEMPORARY BRACING
SCALE: 3/4"=1'-0"



18 BEAM/HEADER FRAMING DETAIL
SCALE: 3/4"=1'-0"

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CAMERON COMMERCIAL
–
AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **FLOOR FRAMING SECTIONS & DETAILS**

CITY COMMENTS Description — 05/17/2019 Date

Rev.

Drawn By: HT
Checked By: DVH/ZA
Drawing Scale: As Noted
Project No. 136-087

ISSUED FOR: DATE:
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STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER
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SHEET NO.
SD2-1
PLAN

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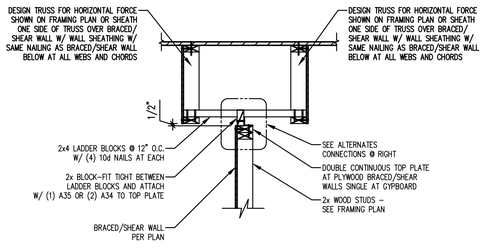
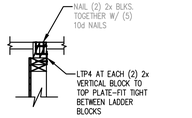
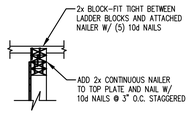


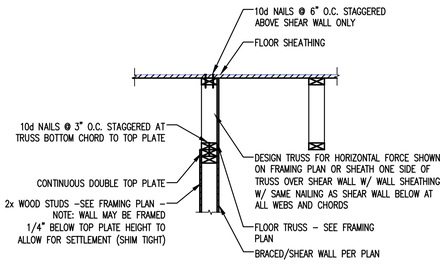
CONDITION 'A'



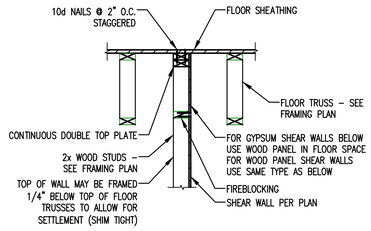
ALTERNATE #1



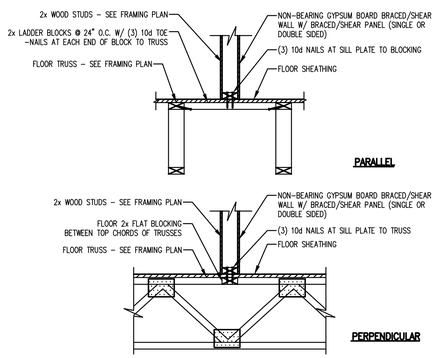
ALTERNATE #2



CONDITION 'B'

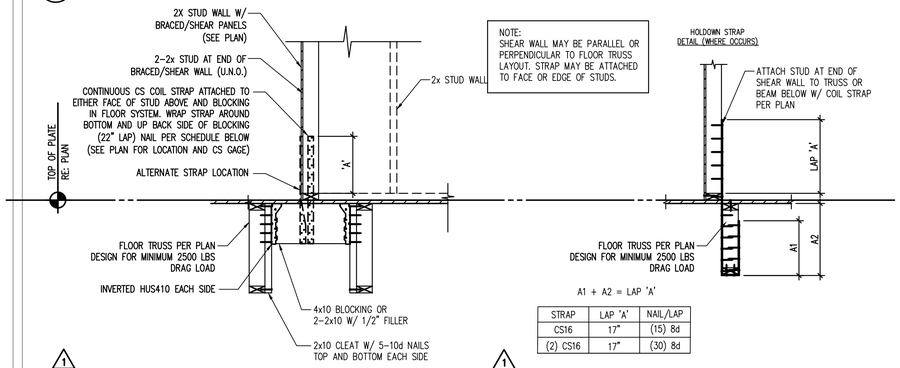


CONDITION 'C'



1 SHEAR TRANSFER AT INTERIOR SHEAR WALL

SCALE: 3/4"=1'-0"

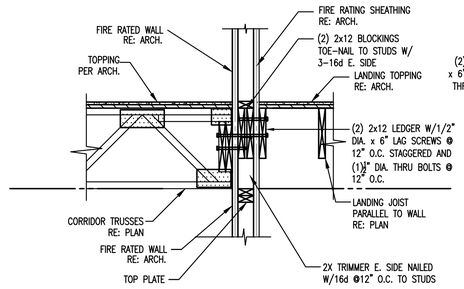


A1 + A2 = LAP 'A'

STRAP	LAP 'A'	NAIL/LAP
CS16	17"	(15) 8d
(2) CS16	17"	(30) 8d

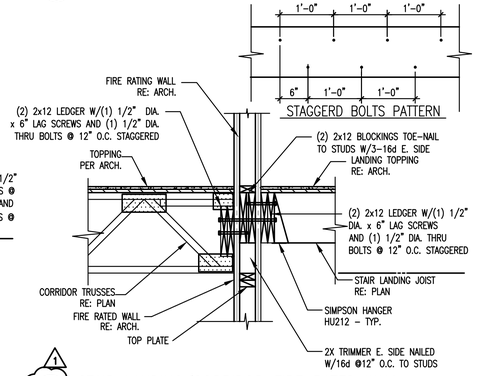
2 SHEAR TRANSFER AT INTERIOR SHEAR WALL

SCALE: 3/4"=1'-0"



3 SHEAR TRANSFER AT INTERIOR SHEAR WALL

SCALE: 3/4"=1'-0"



4 SHEAR TRANSFER AT INTERIOR SHEAR WALL

SCALE: 3/4"=1'-0"

5 HOLDOWN STRAP CONNECTION

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

6 TRUSS OFFSET W/SHEAR WALL

SCALE: 3/4"=1'-0"

7 STAIR LANDING/CORRIDOR FIRE RATED WALL

SCALE: 3/4"=1'-0"

8 STAIR LANDING/CORRIDOR FIRE RATED WALL

SCALE: 3/4"=1'-0"

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CAMERON COMMERCIAL
-
AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **FLOOR FRAMING SECTIONS & DETAILS**

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Drawn By: HT
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SHEET NO.
SD2-2
PLAN

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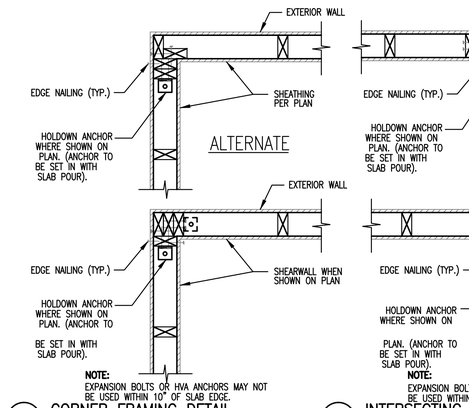
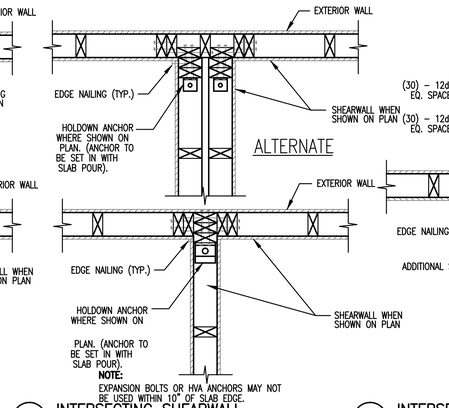
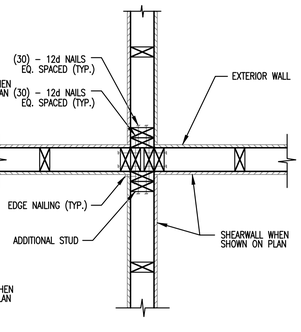


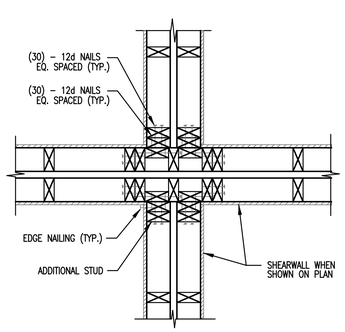
1 CORNER FRAMING DETAIL
N.T.S



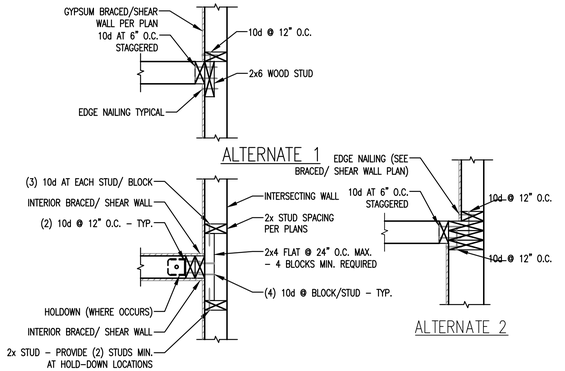
2 INTERSECTING SHEARWALL
N.T.S



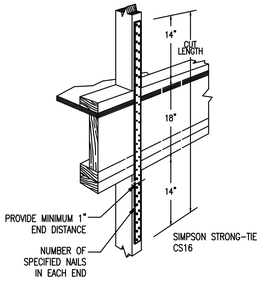
3 INTERSECTING SHEARWALL
N.T.S



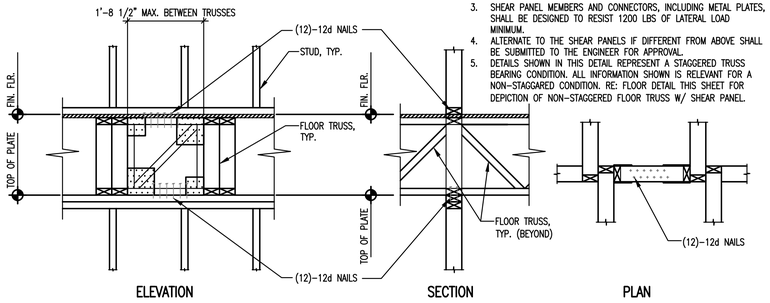
4 INTERSECTING SHEARWALL
N.T.S



5 INTERSECTING SHEARWALL
N.T.S

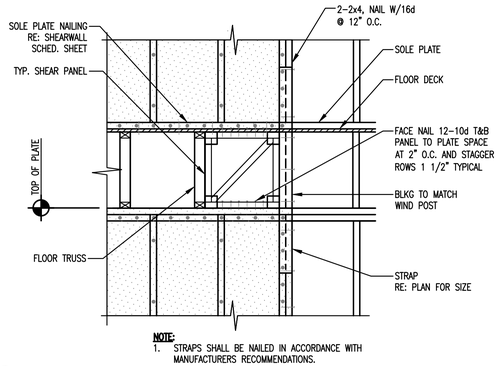


6 CS-16 DETAIL
N.T.S



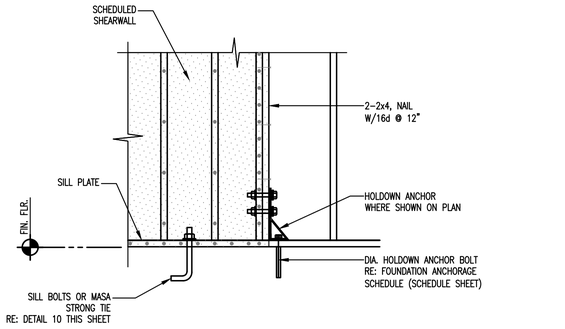
NOTE:
1. ALL LUMBER USED FOR SHEAR PANEL CONSTRUCTION SHALL BE 2x, S.Y.P. #2.
2. RE: NAILING SCHEDULE (SCHEDULE SHEET) FOR SHEAR PANEL TO PLATE AND DIAPHRAGM CONNECTION.
3. SHEAR PANEL MEMBERS AND CONNECTORS, INCLUDING METAL PLATES, SHALL BE DESIGNED TO RESIST 1200 LBS OF LATERAL LOAD MINIMUM.
4. ALTERNATE TO THE SHEAR PANELS IF DIFFERENT FROM ABOVE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
5. DETAILS SHOWN IN THIS DETAIL REPRESENT A STAGGERED TRUSS BEARING CONDITION. ALL INFORMATION SHOWN IS RELEVANT FOR A NON-STAGGARED CONDITION. RE: FLOOR DETAIL THIS SHEET FOR DEPICTION OF NON-STAGGERED FLOOR TRUSS W/ SHEAR PANEL.

7 TYPICAL SHEAR PANEL
N.T.S

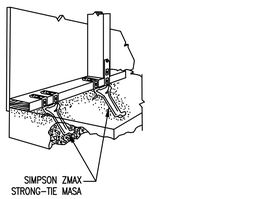


NOTE:
1. STRAPS SHALL BE NAILED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

8 FLOOR DETAIL
N.T.S

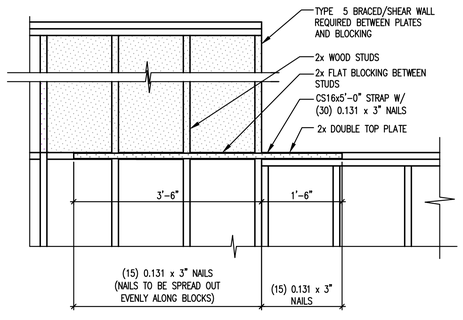


9 FOUNDATION DETAIL
N.T.S

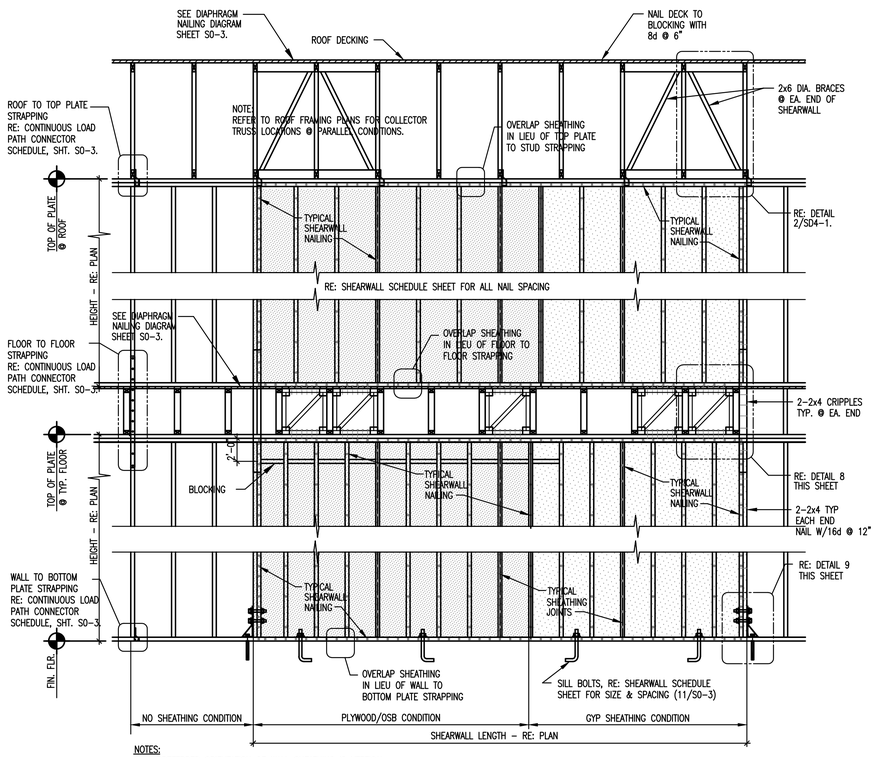


NOTE:
12"O.C. SPACING FROM END OF WALL OR FROM CORNERS AND @ 4'-0" SPACING THEREAFTER. (TYPICAL)

10 MASA STRONG TIE
N.T.S

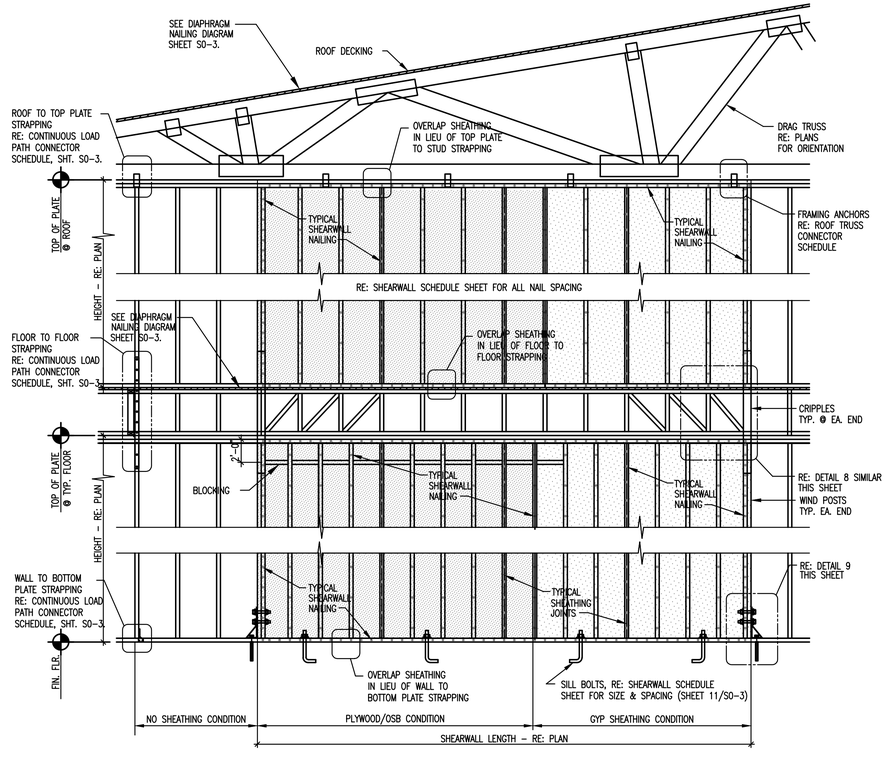


11 DRAG CONNECTION @ PLATE BREAK
N.T.S



NOTES:
1. PREFERRED ORIENTATION OF WALL SHEATHING IS VERTICAL.

11 ELEVATION OF TYPICAL SHEARWALL (PERPENDICULAR TO FRAMING)
N.T.S



12 ELEVATION OF TYPICAL SHEARWALL (PARALLEL TO FRAMING)
N.T.S

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CAMERON COMMERCIAL – AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **SHEARWALL SECTIONS AND DETAILS**

CITY COMMENTS Description	Rev.	Date
		05/17/2019

Drawn By: HT | Checked By: DVH/ZA
Drawing Scale: As Noted | Project No. 136-087

ISSUED FOR: | DATE:
- ☐ SD 30%
- ☐ CD 50%
- ☐ CD 95%
- ☐ CD 100%
- ☐ Pricing
- ☐ Bidding
- ☑ Permit 03/12/2019
- ☐ Construction

STATE OF TEXAS
SANDEEP N. PATEL
90656
LICENSED PROFESSIONAL ENGINEER
05/17/2019
Texas Registered Engineering Firm F-19122

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SHEET NO.
SD3-1
DETAILS

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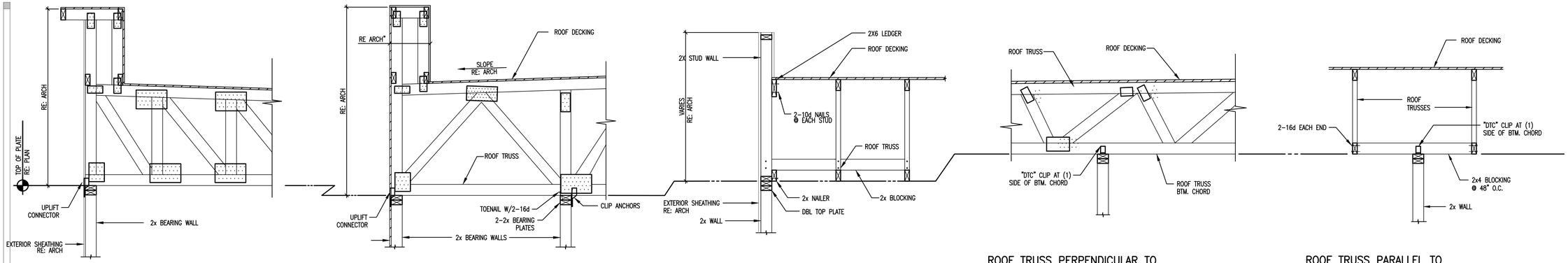


1 PARAPET TRUSS PERP. TO EXT. WALL
SCALE: 3/4"=1'-0"

2 EXT. LOAD BEARING WALL W/INTERIOR LOAD BEARING WALL
SCALE: 3/4"=1'-0"

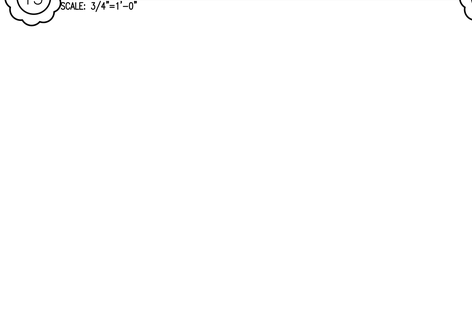
3 PARAPET WALL DETAIL
SCALE: 3/4"=1'-0"

4 ROOF TRUSS PERPENDICULAR TO NON-LOAD BEARING INTERIOR WALL
SCALE: 3/4"=1'-0"

5 ROOF TRUSS PARALLEL TO NON-LOAD BEARING INTERIOR WALL
SCALE: 3/4"=1'-0"

6 DRAG TRUSS DETAIL
SCALE: 3/4"=1'-0"

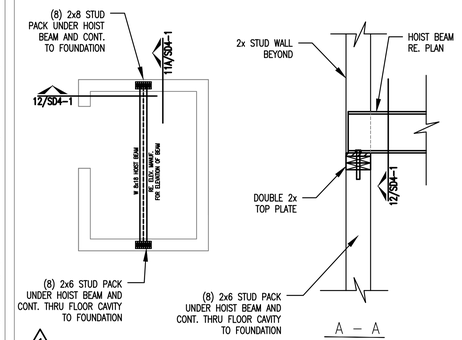
7 DRAG TRUSS DETAIL (ALT.)
SCALE: 3/4"=1'-0"



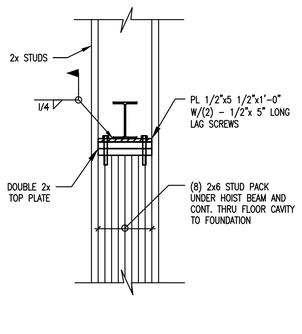
8 LATERAL SUPPORT DETAIL (SECTION)
SCALE: 3/4"=1'-0"

9 LATERAL SUPPORT DETAIL (ELEVATION)
SCALE: 3/4"=1'-0"

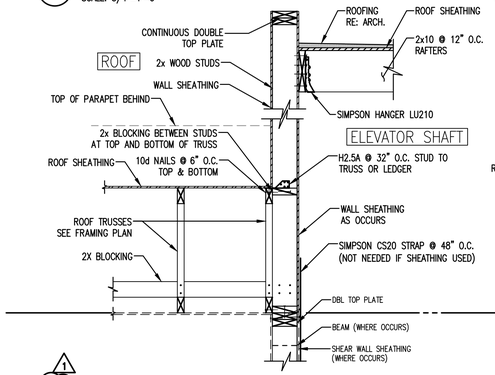
10 ROOF BRACING
SCALE: 3/4"=1'-0"



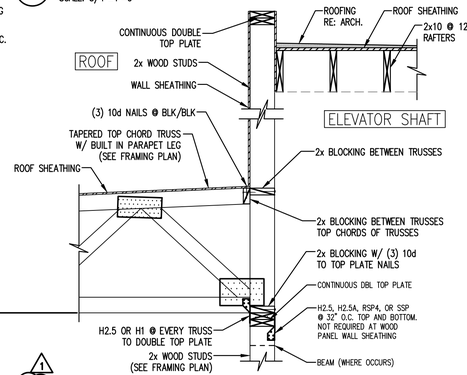
11 HOIST BEAM PLAN
SCALE: N.T.S.



12 HOIST BEAM TO WOOD WALL CONNX.
SCALE: N.T.S.



13 PARALLEL TRUSS AT STAIR/ELEVATOR WALL
SCALE: 3/4"=1'-0"



14 PERPENDICULAR TRUSS AT STAIR/ELEVATOR WALL
SCALE: 3/4"=1'-0"

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CAMERON COMMERCIAL – AUSTIN, TEXAS
Architecture By: KELLY GROSSMAN

Sheet Title: **FLAT ROOF FRAMING DETAILS**

CITY COMMENTS Description	Rev.	Date
		05/17/2019

Drawn By: HT | Checked By: DVH/ZA
Drawing Scale: As Noted | Project No. 136-087

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- [ ] SD 50%
- [ ] CD 50%
- [ ] CD 95%
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STATE OF TEXAS
SANDEEP N. PATEL
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PROFESSIONAL ENGINEER
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SD4-1

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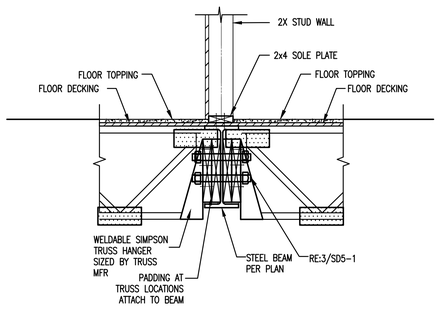
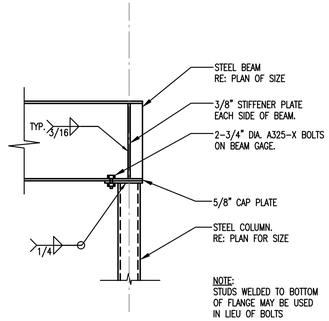
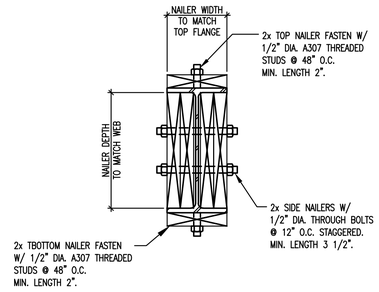


1 FLOOR TRUSS TO STEEL BEAM CONNECTION
SCALE: 3/4"=1'-0"



2 BEAM TO COLUMN CONNECTION
SCALE: 3/4"=1'-0"

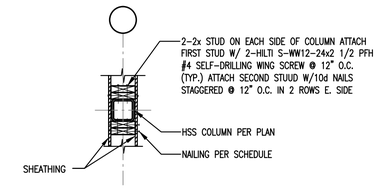


3 TYPICAL DETAIL – WOOD NAILER ATTACHMENT
SCALE: 3/4"=1'-0"

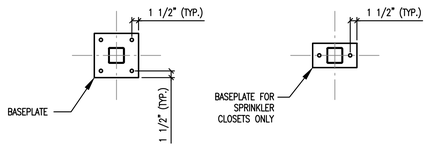
NOTE:

1. THE DETAILS GIVEN IN THIS SHEET ARE "TYPICAL" ONLY. THE BASIC CONCEPT/PRINCIPLE PRESENTED IN THESE DETAILS CAN BE EXTENDED TO SUIT SIMILAR SITUATIONS NOT MENTIONED IN THIS DRAWING.
2. THESE DETAILS ARE APPLICABLE FOR BRICK/STONE VENEER SITUATIONS WHERE:
   a) THE VENEER DOES NOT EXCEED 40lb/sq.ft. IN WEIGHT.
   b) THE HEIGHT OF VENEER DOES NOT EXCEED 30 FEET.
3. ALL ELEMENTS OF BRICK/STONE VENEER SUPPORT SHALL BE FULLY ENGINEERED. FOR ANY INFORMATION NOT GIVEN IN THE STRUCTURAL DRAWINGS, YOU MAY REFER BACK TO THE STRUCTURAL ENGINEER FOR FURTHER CLARIFICATION.
4. ALL VENEER SUPPORTING WOOD MEMBERS SHALL BE DESIGNED FOR A DEFLECTION NOT EXCEEDING 1/600 OF THEIR SPAN.
5. THE DETAILS SHOWN HERE ARE DESIGN TO SUPPORT A MAXIMUM 10'-0" HEIGHT OF BRICK. FOR HEIGHTS GREATER THAN 10'-0" CONTACT THE STRUCTURAL ENGINEER FOR THE SUPPORT DESIGN FOR THESE CONDITIONS.

4 BRICK SUPPORT NOTES
SCALE: N.T.S.



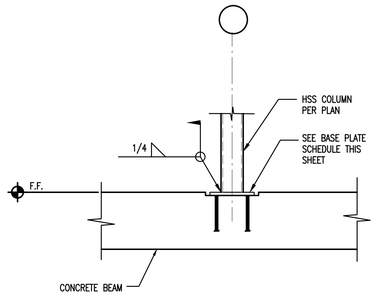
5 HSS COLUMN INSIDE WALL DETAIL – TYPICAL
SCALE: 3/4"=1'-0"



COLUMN CENTERED ON BASE PLATE (U.N.O.)

HSS SIZES	BASE PLATE	ANCHOR BOLTS
HSS 5 X 5 X 3/8	12"x1'-0"x1/2"	4 – 3/4" DIA. A307 X 8"

6 BASE PLATE SCHEDULE
SCALE: 3/4"=1'-0"



BASEPLATE

7 HSS COLUMN BASE DETAIL
SCALE: 3/4"=1'-0"

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Architecture By: KELLY GROSSMAN

Sheet Title: **GENERAL STEEL DETAILS**

Rev.	Description	Date
1	CITY COMMENTS	05/17/2019

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Drawing Scale: As Noted | Project No. 136-087

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SHEET NO.
SD5-1
DETAILS

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