

3. EXISTING GARAGE SLAB

4. NEW 11 7/8" I-JOIST AT NEW FLOOR JOIST DIRECTION. USE TJI SERIES 210, MINIMUM.

5. NEW (2) 1-1/3" X 11-7/8" LVL ON TRIPLE STUD PACK (2 JACK STUDS AND ONE KING

PROJECT NAME:

SCHLEIGH RESIDENCE

11830 RAMSBURG ROAD MARRIOTSVILLE, MD 21104

WINTHORPE DESIGN & BUILD, INC. 13050 WAINWRIGHT ROAD Highland MD 20777 301-854-2092



DRAWING TITLE:

STRUCTURAL LAYOUT FIRST FLOOR FRAMING

No.	Description	Date

PROJECT NUMBER
DATE
DRAWN BY
CHECKED BY
DRAWING NO.

S.02.1

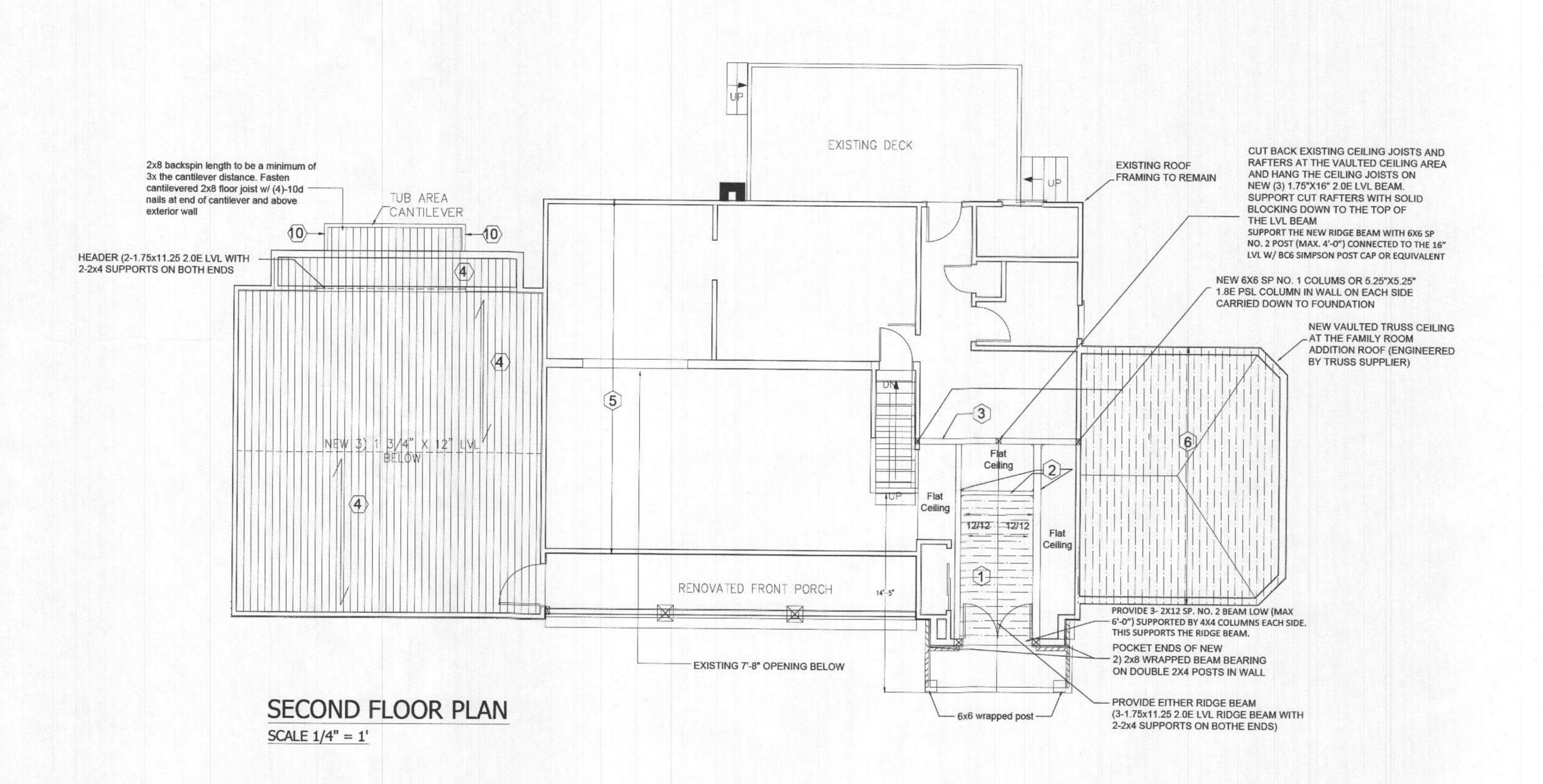
Field & Tung Structural Engineers 1210 18th Street, NW Third Floor Washington, DC 20036

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER

THE LAWS OF THE STATE OF MARYLAND, LICENSE

NO. 25862, EXPIRATION DATE: 02-05-2023."

SCALE AS INDICATED



KEY NOTES:

- 1. NEW VAULTED CEILING AREA. 2 X 6 CEILING JOISTS @16" O.C, 12/12 PITCH PADDED
- DOWN FOR INSULATION.
- 2. NEW 2) 1.75" X 12" LVL BEAM IN FLAT CEILING BEARING ON DOUBLE 2 X 4 STUD
- PACK AT WALL AND HANGING ON LVL AT APPOSITE END.
- 3. NEW (3) 1 .75" X 16" 2.0e LVL BEAM IN FLAT CEILING BEARING ON 6 X 6 SP NO.1 COLUMN OR 5.25X5.25 1.8E PSL
- COLUMN EACH SIDE.
- 4. NEW 2 X 8, FLOOR JOIST @ 16" O.C.
- 5. EXISTING 2 X 8, 16" JOIST FRAMING.
- 6. NEW TRUSS VAULTED CEILING, ENGINEERED BY TRUSS SUPPLIER. 7. EXISTING GARAGE SLAB
- 8. NEW (2) 2 X 6 HEADER @ OPENING 3' OR LESS
- 9. NEW 11 7/8" I-JOIST AT NEW FLOOR. 10.DOUBLE 2X8 FLOOR JOIST UNDER THE ENDS OF THE TUB AREA CANTLIVER



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PROJECT NAME:

SCHLEIGH RESIDENCE

11830 RAMSBURG ROAD MARRIOTSVILLE, MD 21104

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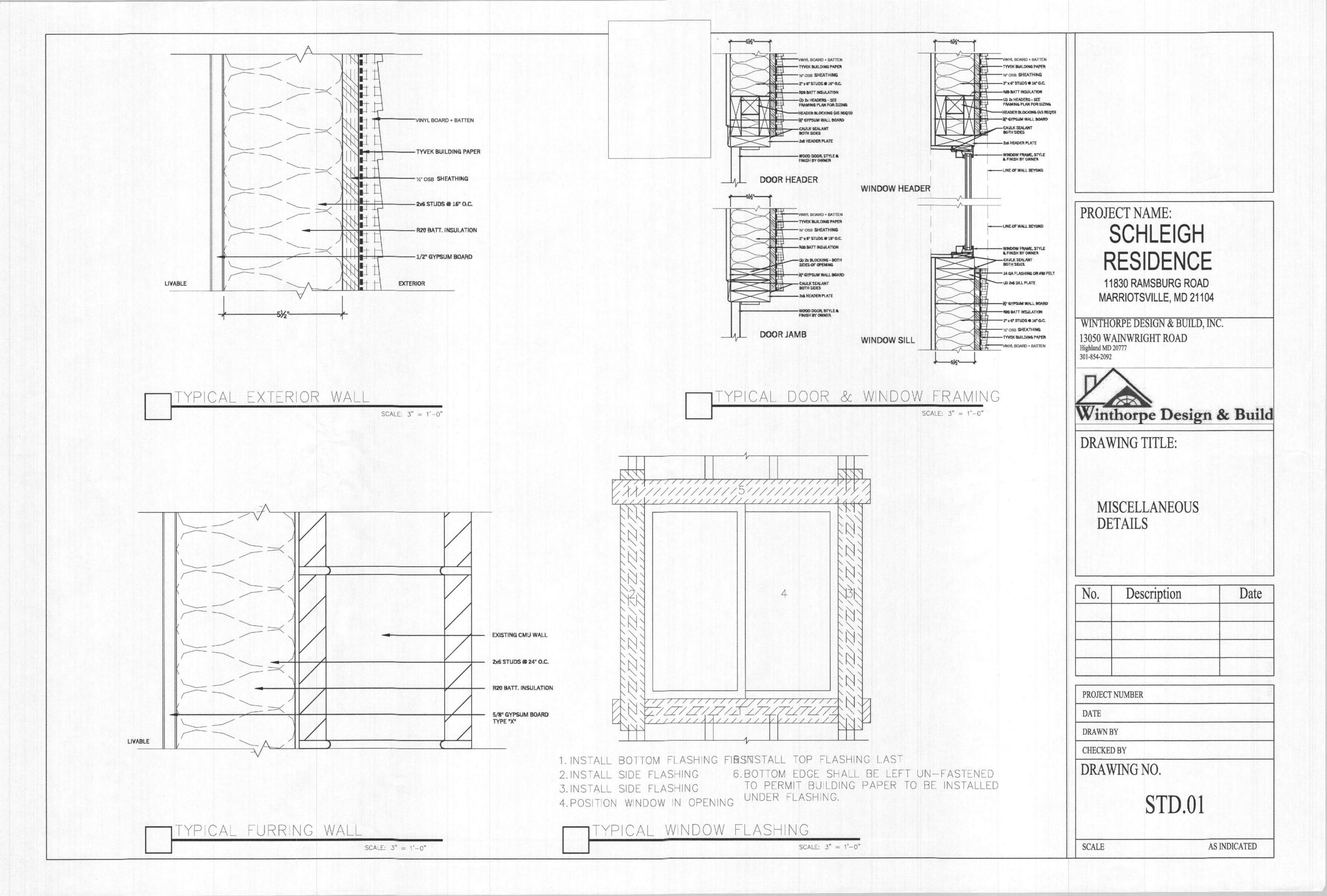
STRUCTURAL LAYOUT SECOND FLOOR FRAMING

No.	Description	Date

PROJECT NUMBER	
DATE	
DRAWN BY	
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DRAWING NO.	

S.02.2

SCALE AS INDICATED



GENERAL STRUCTURAL NOTES

BUILDING CODE: INTERNATIONAL RESIDENTIAL BUILDING CODE 2021 AMERICAN SOCIETY FOR CIVIL ENGINEERS (ASCE 7-16) - AMERICAN CONCRETE INSTITUTE (ACE 318-14) - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS 2021) - FLOOR DEAD LOAD: 15 PSF FLOOR LIVE LOAD: 40 PSF ROOF LIVE LOAD: 40 PSF GROUND SNOW LOAD: 30 PSF WIND LOAD DATA: BASIC WIND SPEED (MPH, 3-5 GUST) 115 BASIC WIND EXPOSURE CATEGORY B
WIND IMPORTANCE (I) 1.0 1.0 EARTHQUAKE DESIGN DATA FACTOR OCCUPANCY CATEGORY SEISMIC SITE CLASS ACCELERATION, SHORT PERIOD, Ss N/A ACCELERATION, 1 SECOND, S1 SITE COEFF., SHORT PERIOD, Fa SITE COEFF., 1 SECOND, FV RESPONSE MODIFICATION FACTOR, R N/A BASIC STRUCTURE SYSTEM/SEISMIC RESISTING SYSTEM: WOOD SHEAR WALLS AND ORDINARY REINFORCED MASONRY SHEAR WALLS

ANALYSIS PROCEDURE

EQUIVALENT LATERAL FORCE

SPECIAL SEISMIC CONSIDERATIONS: GOVERNS LATERAL DESIGN

- BOTTOM OF FOOTING 30" BELOW GRADE. ALLOWABLE BEARING PRESSURE 1500 PSF per IRC TABLE R401.4.1. SPREAD FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL (CONTROLLED COMPACTED FILL).IN BOTTOM OF FOOTING TO BE 18" MINIMUM BELOW FINISHED RADE. (THESE FOOTING DEPTHS ARE MINIMUMS AND THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO ENSURE THESE MINIMUMS ARE SUFFICIENT FOR THE WORK.)

MINIMUM 28 DAY STRENGTH 4,000 PSI (TYPE II, U.N.O.)

MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, ETC. MAXIMUM SLUMP 4 1/2" FOR CONCRETE WITHOUT PLASTICIZER. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL, CAST CLOSURE POUR AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED. UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITECT, ALL CONCRETE SLABS ON GRADE SHALL BE BOUND BY CONTROL JOINTS (KEYED OR SAW CUT). SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 225 SQUARE FEET. KEYED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES LOCATIONS FOR APPROVAL PRIOR TO CONSTRUCTION.

STONE VENEER WITH WOOD STUD BACKING:

VENEER TIES SHALL BE 3/16" DIA. WIRE LOOP TIES AND SHOULD EMBED IN VENEER JOINT A MINIMUM 1/2 THE WIDTH OF THE VENNER. WIRE SHALL BE COLD DRAWN STEEL CONFORMING TO ASTM A82, WIRE LOOP TIES SHALL BE ATTACHED TO WOOD STUD BACKING AT EACH STUD AND 12" O.C. MAX. VERTICAL SPACING, WIRE LOOP TIES SHALL BE ATTACHED TO WOOD STUDS USING 12 GAGE X 3/4* WIRE ANCHOR STRAP, ATTACH ANCHOR STRAP TO STUD USING 1 1/2" X 10 GAGE WOOD SCREWS. WIRE LOOP AND ANCHOR STRAPS SHALL BE HOT DIPPED GALVANIZED AND SHALL CONFORM TO ASTM A153

ASTM A615 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS. ALL GRADE 60 REINFORCING TO BE WELDED SHALL BE ASTM A706. WELDED WIRE FABRIC PER ASTM A185, WIRE PER ASTM A82. NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE WITH THE STRUCTURAL ENGINEER, LATEST ACI CODE AND DETAILING MANUAL APPLY, CLEAR CONCRETE COVERAGES AS

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ----- 3" EXPOSED TO EARTH OR WEATHER 6 OR LARGER ----5 AND SMALLER -BEAMS (TO STIRRUPS) -FLAT SLAB ALL OTHER PER LATEST EDITION OF ACI 318.

LAP SPLICES IN CONCRETE:

LAP SPLICES, UNLESS NOTED OTHERWISE, SHALL BE CLASS "8" TENSION LAP SPLICES PER LATEST EDITION OF ACI 318. LAP SPLICES IN CONCRETE COLUMNS SHALL BE STANDARD COMPRESSION LAP SPLICES, STAGGER SPLICES A MINIMUM OF ONE LAP LENGTH, LAPS IN WELDED WIRE FABRIC SHALL BE MADE SO THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES. ALL WELDED WIRE FABRIC SHALL BE CHAIRED TO ENSURE PROPER CLEARANCES.

ALL SPLICE LOCATIONS SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER, PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON CENTERS, ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK, DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH STANDARD 90-DEGREE HOOKS UNLESS NOTED OTHERWISE. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE, CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL WITH EMBEDMENT LENGTH ACCORDING TO THE LATEST EDITION OF THE ACI 318. (UNLESS NOTED OTHERWISE ON PLANS OR DETAILS).

PLYWOOD WEB JOIST (TJI TYPE):

PLYWOOD WEB JOISTS SHALL BE DESIGNED AND SUPPLIED BY A MANUFACTURER WITH CURRENT LC.C. CODE APPROVAL. JOISTS SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS SUPERIMPOSED LIVE LOADS AND DEAD LOADS STATED IN THE GENERAL STRUCTURAL NOTES OR ON PLANS.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER IN THE APPLICABLE STATE FOR REVIEW PRIOR TO MANUFACTURE. CALCULATIONS SHALL INCLUDE DEFLECTION, LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/360, TOTAL LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/240, U.N.O. ON PLANS

AT ROOF LOCATIONS, JOIST'S SHALL BE DESIGNED TO ACCOMMODATE A FUTURE MECHANICAL LOAD OF 200 POUNDS AT ANY LOCATION.

PREFABRICATED WOOD TRUSSES:

PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS STATED IN THE GENERAL STRUCTURAL NOTES OR LOCATED ON PLANS. BRIDGING SIZE AND SPACING BY TRUSS MANUFACTURER UNLESS NOTED OTHERWISE. TRUSS SHALL BE DESIGNED TO ACCOMMODATE A FUTURE MECHANICAL LOAD OF 350 POUNDS AT ANY LOCATION. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, CONNECTION DESIGN AND DETAILS, ERECTION DRAWINGS AND DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE. CALCULATIONS AND SHOP DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS. ALL CONNECTORS SHALL HAVE CURRENT I.C.C. APPROVAL

ADDITIONAL TRUSSES SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT.

MULTIPLE TRUSS MEMBERS SHALL BE FASTENED TOGETHER TO ALLOW TRANSFER OF SHEAR AND TENSION FORCES (MINIMUM 200 PLF) AT PLYWOOD SHEATHING JOINTS AND TO PREVENT CROSS GRAIN BENDING OF TOP CHORDS, ATTACHMENT SHALL BE A CONTINUOUS 20 GAGE METAL PLATE OR OTHER APPROVED MEANS. METHOD OF ATTACHMENT SHALL BE INDICATED ON SHOP DRAWINGS FOR REVIEW.

CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/360, TOTAL LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/240. ALL PERIMETER (EDGE) JOISTS AND JOIST GIRDERS SHALL BE DESIGNED FOR MAXIMUM LIVE LOAD DEFLECTION NOT TO EXCEED 1/2". ALL JOISTS AND JOIST GIRDERS SHALL BE CAMBERED FOR THE DESIGN DEAD LOAD. MANUFACTURER SHALL ADD ADDITIONAL WEB MEMBERS AS REQUIRED AND ADJUST CHORD AND WEB SIZES ACCORDINGLY, BUT SHALL NOT ALTER DEPTH OF JOISTS AND JOIST GIRDERS, DESIGN CALCULATIONS SHALL INCLUDE SUPERIMPOSED LOADS FOR FRAMING SUPPORTED EQUIPMENT, VERIFY SIZE, WEIGHT AND LOCATION OF EQUIPMENT WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. SPRINKLER OR PLUMBING PIPING 4" DIA. OR GREATER MUST BE ADDED TO JOIST DESIGN LOADS (SEE FIRE PROTECTION AND PLUMBING DRAWINGS)

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB). MAXIMUM MOISTURE CONTENT AT TIME OF INSTALL AND IN SERVICE NOT TO EXCEED 19%. ALL MEMBER SIZES SHOWN IN STRUCTURAL DRAWINGS ARE NOMINAL SIZES U.N.O. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES (USE OTHER GRADES WHERE NOTED ON PLANS

SPECIES & ALL DESIGN VALUES LISTED IN POUNDS PER SQ. INCH (PSI) FV FC FT 2X4 SUBPURLINS 1,800,000 IN PANELIZED ROOF 2X,3X,&4X 1,600,000 (6X6, AND LARGER) (I.E.6X10,6X128X12, ETC.) DF-L#1 1,600,000

ENGINEERED WOOD PRODUCTS. (GLULAM) (PSL) (LSL):

ALL ENGINEERED LUMBER SHALL BE FABRICATED USING WATERPROOF GLUE, FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAM TO BEAR GRADE STAMP AND ATIC STAMP AND CERTIFICATE. CAMBER AS SHOWN ON DRAWINGS. PRODUCTS SHALL BE MANUFACTURED. HANDLED, AND INSTALLED PER LATEST CODE APPROVAL REPORTS. ALL WOOD PRODUCTS EXPOSED TO WEATHER SHALL BE TREATED PER THE PROJECT SPECIFICATIONS.

GLUED-LAMINATED BEAMS SHALL HAVE THE FOLLOWING MINIMUM PROPERTES: FB = 2,400 PSI, FV = 215 PSI, FC (PERPENDICULAR) = 650 PSI, FC (PARALLEL) = 1,450 PSI, FT = 1150 PSI, E = 1,700,000 PSI. BEAMS CONTINUOUS OVER SUPPORTS OR SUPPORTING SHEAR WALL SHALL HAVE THE SPECIFIED MINIMUM FB = 2,400 PSI, TOP AND BOTTOM. MAXIMUM MOISTURE CONTENT AT TIME OF INSTALL AND IN SERVICE NOT TO EXCEPT 16%

FB = 2,900 PSI, PSI, FV = 290 PSI, FC (PERPENDICULAR =750 PSI) E = 2,000,000 PSI. LISTED PROPERTIES ARE BASED ON 12" DEEP SECTION. FOR PSL MEMBERS 20" AND DEEPER, E = 2,200,000 PSI, MAXIMUM MOISTURE CONTENTS AT TIME OF INSTALLION AND IN SERVICE NOT TO EXCEED 16%.

PARALLAM (PSL) BEAM AND HEADER MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES.

TIMBERSTAND (LSL) BEAM MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: FB = 2,325 PSI, FV = 310 PSI, FC (PERPENDICULAR) = 800 PSI, E = 1,550,000 PSI. LISTED PROPERTIES ARE on CENTER LVI. 2.1E LVL, OR EQUIVALENT LVI. SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES;

FB= 3,100 PSI, FV= 290, FC (PERPENDICULAR)= 750 PSI, FC (PARALLEL)= 3,200 PSI, MODULUS OF ELASTICITY= 2.1 x 10 DOWEL TYPE FASTENERS:

USE COMMON NAILS WHERE DRAWINGS SHOW PENNYWEIGHT NAIL SIZES UNLESS NOTED OTHERWISE IN THE STRUCTURAL DRAWING, BOX, SINKER, OR OTHER NAILS TYPES DO NOT ACHIEVE THE REQUIRED CONNECTION STRENGTH. POWER DRIVEN NAILS MAY BE USED. THEY MUST BE EQUIVALENT IN LENGTH AND SHANK DIAMETER TO THE PENNYWEIGHT NAILS THEY ARE REPLACING. ALL POWER DRIVEN. ASTENERS SHALL BE MANUFACTURED AND INSTALLED PER ESR-1539. ALL NAILING SHALL BE PER IBC TABLE 2304.9.1 UNLESS NOTED OTHERWISE IN THE STRUCTURAL DRAWINGS. ATTACH ALL MECHANICAL FRAMING ANCHORS AND HANGERS WITH COMMON NAILS OR OTHER APPROVED FASTENERS PER THE MANUFACTURER'S SPECIFICATIONS TO ACHIEVE 100% OF THE MAXIMUM LISTED CAPACITY OF THE HANGER UNLESS NOTED OTHERWISE. COMMON NAILS SHALL BE OF THE FOLLOWING MINIMUM

	and the second second			
PENNYWEIGHT EMBEDMENT	SHANK DIAMETER	LENGTH	HEAD DIAMETER	MIN.
6D 8D 10D 16D 20D	0.113" 0.131" 0.148" 0.162" 0.192"	27 2 1/2* 3* 3 1/2* 4*	0.266" 0.281" 0.312" 0.344" 0.406"	1 1/4" 1 3/8" 1 1/2" 1 5/8"

HOLES FOR BOLTS SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN THE BOLT SHANK DIAMETER. A METAL PLATE, STRAP, OR WASHER NOT LESS THAN A STANDARD CUT WASHER SHALL BE BETWEEN THE WOOD AND THE BOLT HEAD AND THE WOOD AND THE NUT. PREDRILL LEAD IOLES AS REQUIRED TO PREVENT SPLITTING. WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENT USE STANDARD WOOD SCREWS (PER ANSI B18.6.1) UNLESS NOTED OTHERWISE EXTERIOR GLUE AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. (ON ROOFS WHERE PLYWOOD IS LAYED UP WITH FACE GRAIN PARALLEL

ALL PLYWOOD SHALL BE OSB SHEATHING OR C-D INTERIOR SHEATHING, STRUCTURAL 2 OR BETTER WITH

TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD). MAXIMUM MOISTURE CONTENT AT TIME OF INSTALLATION TO BE LESS THAN 16%. STAGGER JOINTS, ALL NAILING, COMMON NAILS, WHERE SCREWS ARE INDICATED FOR WOOD TO WOOD ATTACHMENTS, USE WOOD SCREWS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATIO AND SHALL BE ATTACHED AS FOLLOWS UNLESS NOTED OTHERWISE

THICKNESS SPAN/INDEX RATIO EDGE ATTACHMEN INTERMEDIATE ATTACHMENT 8D @ 6" O.C. 8D @ 12" O.C.

WOOD SCREWS AT FLOOR SHEATHING SHALL BE #8 X 2 1/2" LONG FOR SHEATHING LESS THAN 1" THICK. SCREWS AT FLOOR SHEATHING SHALL BE #8 X 3" LONG FOR SHEATHING LESS THAN 1 1/4" THICK, ALL FLOOR SHEATHING SHALL BE GLUED TO JOISTS WITH AN APA AFG-01 QUALIFIED GLUE.

AMERICAN PLYWOOD ASSOCIATION (APA) PERFORMANCE RATED SHEATHING MAY BE USED AS AN EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT

ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFING CONTRACTOR. WHERE ROOF IS TO BE GUARANTEED, IT MAY NOT BE USED WITHOUT PRIOR APPROVAL FROM BUILT-UP ROOF SYSTEM MANUFACTURER. RATED SHEATHING SHALL COMPLY WITH LC.C. REPORT NO. NER-108, REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THRU THE ARCHITECT, DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER PARTITIONS, PROVIDE 2" SOLID BLOCKING AT SUPPORTS OF ALL JOISTS, DOUBLE UP STUDS AT JAMBS AND AS REQUIRED UNDER BEAMS IN BEARING WALLS. EVERY OTHER STUD OF WOOD FRAME BEARING WALL SHALL HAVE A SIMPSON H3 ANCHOR TOP AND BOTTOM, EXCEPT AT THOSE WALLS WHERE PLYWOOD SHEATHING IS NAILED DIRECTLY TO THE TOP AND BOTTOM PLATES. PROVIDE 2 X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO TABLE 23-II-B-1 OF THE UNIFORM BUILDING CODE. WOOD CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT AND EQUIVALENT

DO NOT SUSPEND ANY SPRINKLERS, PIPING, CEILINGS OR ANY OTHER ITEMS FROM 2X JOISTS IN PANELIZED ROOF SYSTEM.

ANCHORAGES:

1. 5/8" ANCHORS EMBEDDED 7" AT 48" OC.

EXPANSION AND SCREW ANCHORS:

USE STUD TYPE EXPANSION ANCHOR WITH A SINGLE PIECE WEDGE ONLY WHERE NOTED ON PLANS. IF USE IS REQUESTED FOR OTHER THAN WHERE NOTED CONTACT STRUCTURAL ENGINEER THROUGH

CONTRACTOR SHALL SUBMIT MANUFACTURER'S SIZE AND STRENGTH DATA TO ENGINEER THROUGH ARCHITECT PRIOR TO CONSTRUCTION. INSTALL ALL BOLTS AS OUTLINED IN MANUFACTURER'S SPECIFICATIONS, UTILIZING PROPER SIZE AND TYPE OF DRILL, CLEANING HOLE, DRIVING AND TIGHTENING BOLT.

ANCHORS USED MUST HAVE ICC APPROVAL AND INCLUDE HILTI KWIK BOLT TZ (ESR-1917), AND SIMPSON STRONG BOLT (ESR-1771), AND SIMPSON TITEN HD (ESR-2713), HILTI KWIK HUS-EZ (ESR-3027), OR

ANCHORS USED MUST HAVE ICC APPROVAL AND INCLUDE HILTI KWIK BOLT 3 (ESR-1385), AND SIMPSON WEDGE-ALL (ESR-1396), HILTI KWIK HUS-EZ (ESR-3056) AND SIMPSON TITEN HD (ESR-1056), OR

EPOXY ANCHORS IN CONCRETE AND MASONRY:

INJECTABLE ADHESIVE SHALL BE USED FOR INSTALLATION OF REINFORCING STEEL DOWELS OR THREADED ANCHOR RODS AND INSERTS INTO NEW OR EXISTING CONCRETE OR SOLID GROUTED CONCRETE MASONRY UNITS ONLY WHERE SPECIFIED ON PLANS. IF USE IS REQUESTED FOR OTHER THAN WHERE NOTED CONTACT STRUCTURAL ENGINEER THROUGH ARCHITECT FOR APPROVAL. ADHESIVE SHALL BE FURNISHED IN SIDE BY SIDE PACKS WHICH KEEP COMPONENT A AND COMPONENT B SEPARATE. USE ONLY INJECTION TOOLS AND STATIC MIXING NOZZLES RECOMMENDED BY MANUFACTURER. MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED.

ANCHORS USED MUST HAVE I.C.C. APPROVAL IN CRACKED CONCRETE AND INCLUDE SIMPSON SET-XP (ESR-2508), HILTI HIT-RE500-SD (ESR-2322), OR APPROVED EQUIVALENT. THE USE OF ANY EPOXY ANCHOR MUST BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO INSTALLATION.

ANCHORS USED MUST HAVE ICC APPROVAL AND INCLUDE SIMPSON SET (ESR-1772) AND HILTI HIT-HY 70 MAX (ESR-2682) OR APPROVED EQUIVALENT. THE USE OF ANY EPOXY ANCHOR MUST BE APPROVED BY

THE ENGINEER OR RECORD PRIOR TO INSTALLATION. NOTES ON CRACKING OF CONCRETE STRUCTURES: CRACKING IS INHERENT TO THE MATERIAL PROPERTIES OF CONCRETE CONSTRUCTION (INCLUDING

OST-TENSIONED CONCRETE STRUCTURES). WHILE EVERY EFFORT HAS BEEN MADE TO MINIMIZE THE EFFECTS OF UNSIGHTLY CRACKING, THE PRESENCE OF CRACKS ARE NORMAL AND UNAVOIDABLE. THE DESIGN OF THE CONCRETE STRUCTURAL ITEMS HAVE BEEN ANALYZED USING A "CRACKING SECTION." THE PRESENCE OF THE CRACKING SHOULD NOT BE CONSIDERED DETRIMENTAL TO THE STRUCTURE, CRACKS LARGER THAN 10 MILS SHALL BE FILLED AND SEALED WITH AM APPROVED CRACK FILLER TO PREVENT FUTURE DETERIORATION. ALLOWANCE SHALL BE MADE IN THE CONSTRUCTION BUDGET FOR SEALING OF SUCH CRACKS. IN SOME CASE, CRACKS DO NOT APPEAR UNTIL WELL AFTER CONSTRUCTION HAS BEEN COMPLETED, IT IS THE RESPONSIBILTY OF THE OWNER TO MAINTAIN THE STRUCTURE PROPERLY OVER THE LIFE OF THE STRUCTURE. CONCRETE CRACKS, SHOULD THEY OCCUR. SHALL BE FILLED AND SEALED TO PREVENT PREMATURE DETERIORATION OF THE STRUCTURE.

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON HIS REVIEW.

VERIFY ALL DIMENSIONS WITH ARCHITECT AND ALL FINISHED GRADE WITH CIVIL DRAWINGS. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS SHALL BE CLOUDED BY

MANUFACTURER OR FABRICATOR. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS

AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT ARE NOT TO BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS. THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. DEFERRED SUBMITTALS: (PER 2021 IBC)

FOR THE PURPOSES OF THIS SECTION, DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION AND THAT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD

DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW. THE CONTRACTOR SHALL FORWARD THE REVIEWED DOCUMENTS TO BUILDING OFFICAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

DEFERRED SUBMITTAL ITEMS: WOOD TRUSSES PLYWOOD WEB JOISTS

GENERAL

ANY ENGINEEING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF AN ENGINEER

OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF HE CHOOSES AN OPTION, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. ALL DIMENSIONS SHOWN (INCLUDING ELEVATIONS) ON STRUCTURAL DRAWINGS ARE TO ASSIST

CONTRACTOR IN VERIFICATION, SCALING DIMENSIONS FROM DRAWINGS IS NOT PERMITTED, LOCATION OF ALL ITEMS SHALL BE DETERMINED BY DIMENSIONS OR NOTES ONLY; DO NOT USE GRAPHIC APPEARANCE TO ASSUME SPECIFIC LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL

AND FINISHED GRADE WITH CIVIL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT. TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY LINLESS NOTED OTHERWISE.

WHIERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.

OF AN ENGINEER REGISTERED IN THE STATE OF MARYLAND. SUPPLIER OF ENGINEERED STRUCTURAL COMPONENTS (I.E. STEEL JOISTS, STAIRS, PRECAST ITEMS) SHALL BE RESPONSIBLE FOR COMPLETE DESIGN AND SHALL USE ENTIRE CONTRACT DOCUMENTS TO INCLUDE ALL LOADS AND DETAIL REQUIREMENTS FROM ALL DISCIPLINES. SUPPLIER SHALL PROVIDE ADDITIONAL MATERIAL REQUIRED TO MEET ALL THEIR REQUIREMENTS FOR INSTALLATION (I.E. WIDER

ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL

BEARING PLATES, SHIMS, ERECTION BOLTS ETC.). STRUCTURAL STEEL SUPPLIER SHALL FURNISH BOLTS FOR OSHA CONNECTIONS (SEE DRAWINGS FOR DETAILS).

WALL SHORING SHALL BE INSTALLED PRIOR TO BACKFILLING BEHIND ALL BUILDING RETAINING WALLS, UNLESS ALL RESTRAINING SLABS ARE INSTALLED. USE HANDTAPPING ONLY WHEN WITHIN 8'-0", OR WITHIN HALF THE WALL HEIGHT OF BACKFILLED WALL.

CONTINUOUS FOUNDATION DRAIN PIPES (FRENCH DRAINS) OR WEEP HOLES SHALL BE PROVIDED BEHIND ALL BASEMENT WALLS AND ALL EXTERIOR RETAINING WALLS THAT RETAIN MORE THAN 3'-0" OF SOIL WEEP HOLES WHERE USED SHALL BE 2" IN DIAMETER AT 6-0" O.C. MAXIMUM.

STANDARD TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE AND ACI 117, STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION

EXISTING STRUCTURE

EXISTING STRUCTURAL DIMENSIONS AND MEMBER SIZES ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO FABRICATION. THE CONTRACTOR SHALL VERIFY THE ACTUAL CONFIGURATION OF EXISTING CONSTRUCTION AND THE CONDITION OF THE STRUCTURE BEFORE BEGINNING WORK, ANY DISCREPANCIES OR UNSOUND CONDITIONS SHALL BE REPORTED TO THE ARCHITECT FOR RESOLUTION BEFORE BEGINNING WORK. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, EMBEDMENTS, AND OPENINGS NOT SHOWN. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR DUCTS, PIPING, EMBEDMENTS, AND OPENINGS NOT SHOWN.

TEMPORARY SHORING AND BRACING MAY BE NECESSARY IN ORDER TO PERFORM THE NECESSARY ARCHITECTURAL PLANS AND DETAILS. THE CONTRACTOR MUST RETAIN A LICENSED STRUCTURA ENGINEER WHO SHALL INVESTIGATE WHERE THIS TEMPORARY SHORING/BRACING IS REQUIRED, AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING

DRAWIN	GS INDEX - STRUCTURAL
SHEET NO.	SHEET NAME
S.00	STRUCTURAL GENERAL NOTES
S.01	FOUNDATION PLAN
S.02.1	STRUCTURE LAYOUT FIRST FLOOR FRAMING
S.02.2	STRUCTURE LAYOUT SECOND FLOOR FRAMING
S.02.3	STRUCTURAL LAYOUT SECOND LEVEL CEILING
S.03.1	ROOF PLAN
S.04	STRUCTURAL MISCELLANEOUS DETAILS
S.05	STRUCTURAL MISCELLANEOUS DETAILS
S.06	STRUCTURAL MISCELLANEOUS DETAILS
S.07	TYPICAL LOOSE STEEL ANGLE LINTEL



Field & Tung Structural Engineers 1210 18th Street, NW Third Floor Washington, DC 20036 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A

DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE

NO. 25862, EXPIRATION DATE: 02-05-2023."

MINIMUM FASTENING SCHEDULE BLOCKING RETWEEN JOISTS, RAFTERS, OR TRUSSES TO 2-8d COMMON (2 12" x 0.131 3-8d COMMON (2 1/2" × 0 131"); or 3-10d BOX (3" × 0.120"); or CERING JOISTS TO TOP PLATE EACH JOIST, TOENAL CER ING JOIST NOT ATTACHED TO PARALLEL RAFTER LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1) PER TABLE 2308.7.3.1 (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1) 3-10d COMMON (3" × 0.148"); or COLLAR TIE TO RAFTER 4-10d BOX (3" × 0.128"); or 4-3" × 0.131" NAILS; or 3-10d COMMON (3" x 0.148"); or 3-10d BOX (2 16" x 0.135"); or 4-10d BOX (2" x 0.128"); or 4-3" x 0.131" MALLS, or 4-3" M GAGE STAPLES, 716" CROWN RAFTER OR ROOF TRUSS TO TOP PLATE 3-3" × 0.131" NAILS; or 3-3" 14 GAGE STAPLES, 716" GROWN 3-10d COSEMON (3 1/2" × 0 148"); or 3-10d BOX (3 1/2" × 0.136"); or 4-10d BOX (3" × 0.126"); or OR ROOF RAFTER TO TO 2º RIDGE BEAM STUD TO STUD (NOT @ BRACED WALL PANELS) 15d 8CX (3 1/2" × 0.128"); or 16" O.C. FACE NA 16d BOX (3 1/2" × 0.135"); 12" O.C. FACE NAME H COMMON (3 1/2" x 0.162 16d BOX (3 1/2" × 0.135" 12" O.C. FACE NAIL 11 CONTINUOUS HEADER TO STUD 18" O.C. FACE NAIL file (90X (3 1/2" = 9.128"); or 3" x 0.131" NAES; or 3" 14 GAGE STAPLES, 716" CROWN 12" O.C. FACE NAIL TOP PLATE TO TOP PLATE @ END JOINTS 12-10d BOX (3" × 0.128"); or 2-3" # 0.131" NAILS, or 12-3" 14 GAGE STAPLES, 716" CROWN BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR -16d CICMMON (3 1/2" × 6.162"); or -16d BOX (3 1/2" × 6.135"); or BLOCKING AT BRACED WALL PANELS 4-3" 14 GAGE STAPLES, 716" CROWN STUD TO TOP OR BOTTOM PLATE 2-164 COMMON (3 1/2" x 0.162"); or 3-166 BOX (3" x 0.128"); or 3-3" x 0.131" NAILS; or 3-5" 14 GAGE STAPLES, 716" CROWN 2-164 COMMON (3 1/2" × 0.162"); 3-104 BOX (3 1/2" × 0.128"); or 2-18d COMMON (3 1/2" × 0.182"); 3-10d BOX (3 1/2" × 0.12H"); or

1808		3-3" 14 GAGE STAPLES, 716" CROWN	PHOE HOUL	
19	1" BRACE TO EACH STUD AND PLATE	2-86 COMMON (2 1/2" × 0.131"); or 2-10d BOX (3 1/2" × 0.128"); or 2-3" × 0.131" NALE; or 2-3" 14 GAGE STAPLES, 716" CROWN	FACE NAIL	
20	I" x 6" SHEATHING TO EACH BEARING	2-8d COMMON (2 12" x 8.131"); or 2-10d BOX (3" x 8.128")	FACE NAIL	1111
21	1" x 8" AND WIDER SHEATHING TO EACH BEARING	3-8d COMMON (2 12" x 0.131"); or 3-10d BOX (3" x 0.128")	FAGE NAIL	
ITEM (DESCRIPTION OF BUILDING ELEMENTS	NUMBER & FASTENER TYPE FA	STENER SPA	CING
		FLOOR		
22	JOST TO SEL, TOP PLATE, OR GIRDER	3-8d COMMON (2 1/2" × 0.131"); or 3-10d BOX (3" × 8.128"); or 3-3" × 0.131" NALS; or 3-3" 14 GAGE STAPLES, 716" CROWN	TOENAIL	
23	1º BRACE TO EACH STUD AND PLATE	8d COMMON (2 1/2" × 0.131"); or 10d BOX (5" × 0.138"); or 3" × 0.131" NAILS; or 3" 14 GAGE STAPLES, 710" CROWN	8° O.C., NAIL	
24	1"x6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON (2 12" x 8.131"); or 2-16d BOX (3" x 8.128")	FACE NAIL	
25	2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (3 12" = 0.182")	FACE NAM	
26	2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	2-16d COMMON (3 12" x 8.162")	EACH SEARIN	G. FACE NAIL
		20d COMMON (4" x 0.182")	32" D.C., FACE I	NAIL AT TOP AND BOTTO
		10d BOX (3 1/2" x 0,128"); or 2" x 0,131" NAILS; or 3" 14 GAGE STAPLES, 716" CROWN	24" O.C., FACE N	NAIL AT TOP AND BOTTON NO CPPOSITE SIDES
27	BUILT-UP GINDERS AND BEAMS, 2° LUMBER LAYERS	AND: 2-20d COMMON (4 1/2" × 6.192"); or 3-10d BDX (3" × 6.128"); or 3-3" × 6.131" NAILS; or 3-3" 14 GAGE STAPLES, 718" CROWN	ENDS AND AT	EACH SPLICE, FACE NAME
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	2-164 COMMON (3 1/2" x 0.162"); or 4-104 BOX (3" x 0.121"); or 4-3" x 0.131" NAB b; or 4-3" 14 GAGE STA/4.E5, 716" CROWN	EACH JOIST O	R RAFTER, FACE NAIL
29	JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON (3 1/2" x 0.182"); or 4-10d BOX (3" x 0.125"); or 4-3" x 0.131" NAILS; or 4-3" 14 GAGE STAPLES, 716" CROWN	END NAIL	1 25.2
30	BRIDGING, OR BLOCKING TO JOIST, RAFTER OR TRUSS	3-18d COMMON (3 1/2" × 0.162"), or 4-10d BOX (3" × 0.128"); or 4-5" × 0.131" NARS; or 4-5" 14 GAGE STAPLES, 716" CROWN	EACH END, TO	DENAIL
		FLOOR, ROOF AND INTERIOR WAL DARD WALL SHEATHING TO FRAMI	L SHEATHING NG	то
TEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER & FASTENER TYPE	FASTEN	VER SPACING
			EDGES (INCHES)	ANTERIOR ATE BUPPERS
		6d COMMON or DEFORMED (2" x 0.113") (SUBFLOOR AND WALL)	6	12
		8d BOX or DEFORMED (2 12" x 0.113") (ROC 2 36" x 0.113" NAIL (SUBPLOOR AND WALL)		12
31	38* - 12*	1 34" 18 GAGN STAPLE, 710" CROWN		12
		(SUBFLOOR AND WALL)	4	8
		2 36" x 0.113" NAIL (ROOF)	4	8
		1 34" 16 DAGE STAPLE, 716" CROWN (ROOF)	3	0
32	1932*-34*	Bd COMMON (2 12" x 0.131"); or Bd DEFORMED (2" x 0.113")		12
		2" 16 GAGE STAPLE, 718" CROWN	4	
33	781-1141	104 COMMON (3" x 0.148"); ex		

NER SPACING 8d DEFORMED (2 12" x 0.131") OTHER EXTERIOR WALL SHEATHING 1 12" GALVANIZED ROOFING NAIL (716" HEAD DAMETER); or 1 14" 18 GAGE STAPLE 34 12" FIBERBOARD SHEATHINGS WITH 715' or 1' CROWN 1 34" GALVANIZED ROOFING NAIL (716" HEAD DIAMETER'S or 1 14" 16 GAGE STAPLE 35 2532* FIBERBOARD SHEATHING^b OMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING 10d COMMON (3" x 0.148"); or 8d DEFORMED (2 12" x 0.131") 8 PANEL SIDING TO FRAMING INTERIOR PANELING

NAILS SPACED AT 6 INCHES AT INTERMEDIATE 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. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS NOTED OTHERWISE). WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE, THE NUMBER OF TOENALS IN THE RAFTER SHALL BE

PROJECT NAME: SCHLEIGH RESIDENCE

> 11830 RAMSBURG ROAD MARRIOTSVILLE, MD 21104

WINTHORPE DESIGN & BUILD, INC.

13050 WAINWRIGHT ROAD Highland MD 20777 301-854-2092



Winthorpe Design & Build

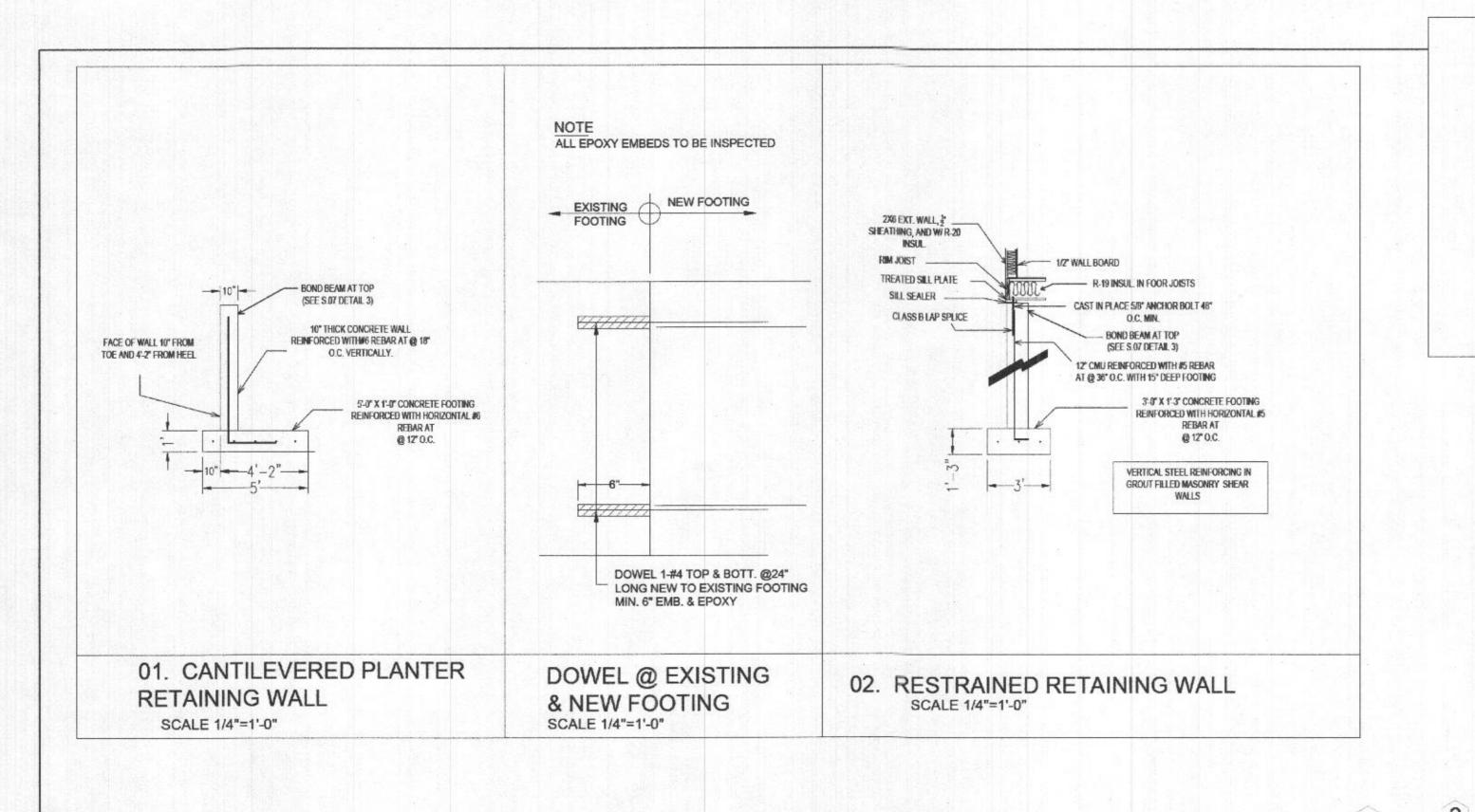
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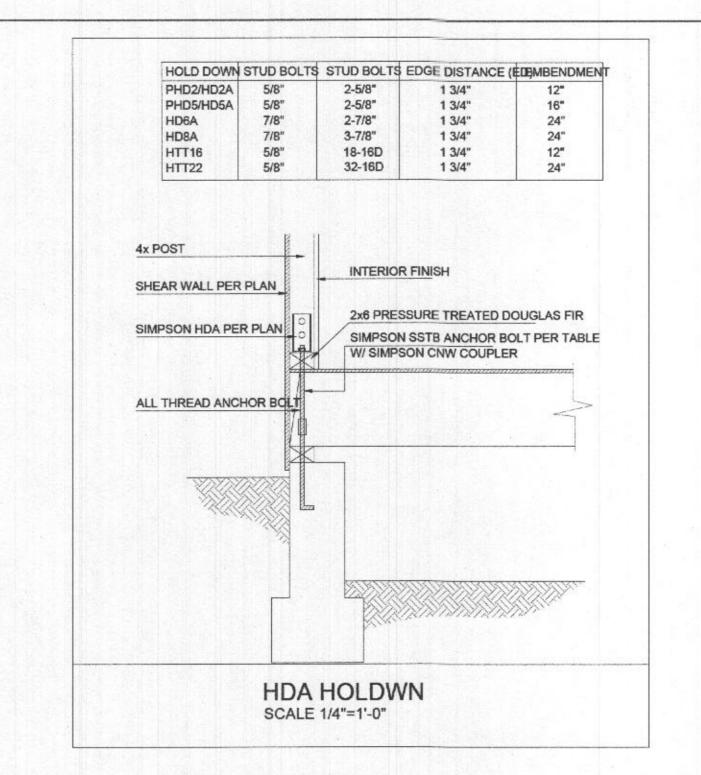
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No.	Description	Date

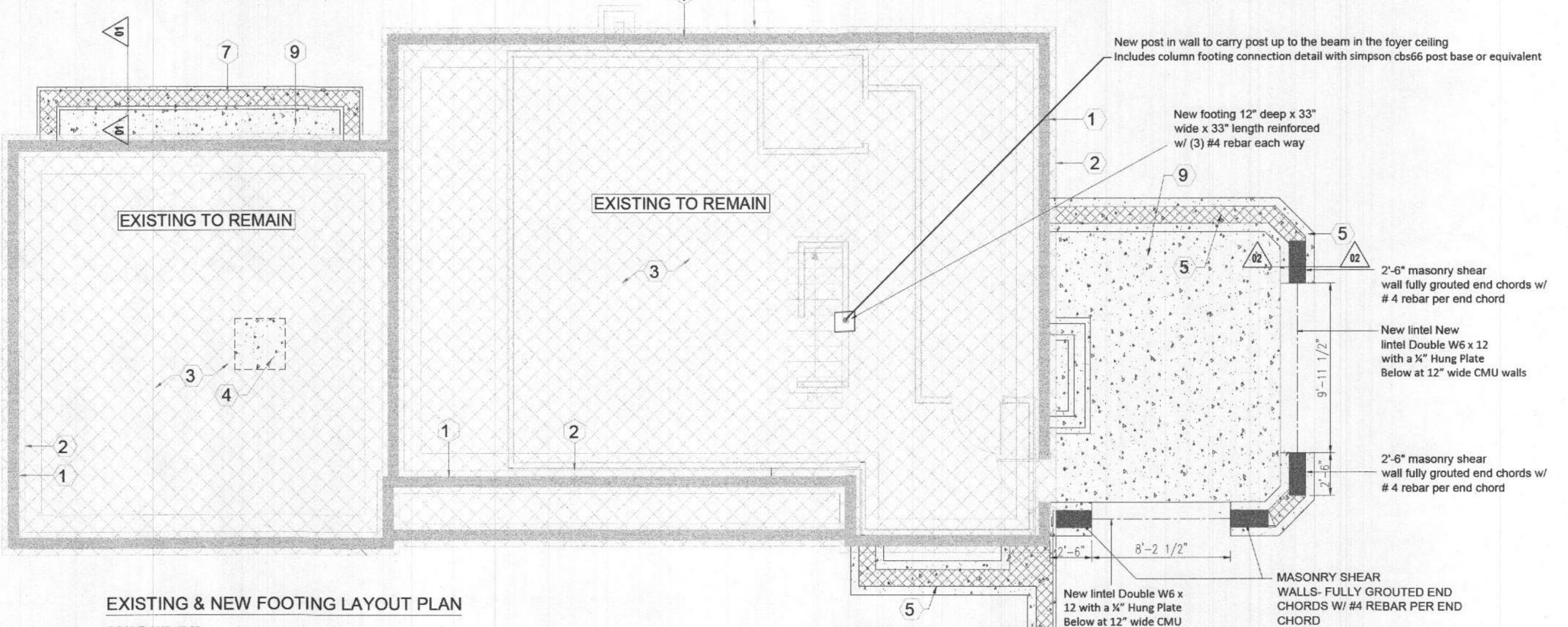
PROJECT NUMBER	
DATE	
DRAWN BY	
CHECKED BY	
DRAWING NO.	

SCALE AS INDICATED





DRAWINGS INDEX - STRUCTURAL SHEET NO. | SHEET NAME STRUCTURAL GENERAL NOTES FOUNDATION PLAN STRUCTURAL LAYOUT FIRST FLOOR FRAMING STRUCTURAL LAYOUT SECOND FLOOR FRAMING STRUCTURAL LAYOUT SECOND FLOOR CEILING S.03.1 ROOF PLAN STRUCTURAL MISCELLANEOUS DETAILS STRUCTURAL MISCELLANEOUS DETAILS STRUCTURAL MISCELLANEOUS DETAILS STRUCTURAL MISCELLANEOUS DETAILS STRUCTURAL MISCELLANEOUS DETAILS

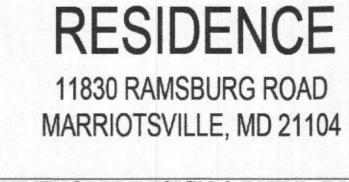


SCALE 1/4"=1'-0"

KEY NOTES:

- 1. EXISTING CMU FOUNDATION WALL (TYP.) 2. EXISTING 24" CONTINUOUS FOOTING (TYP.)
- 3. EXISTING 4" SLAB
- 4. NEW 36" X 36" X 12" PIER FOOTING WITH THREE #4 REBAR EACH WAY.
- DRILL AND EPOXY #4 BARS INTO (E) SLAB ON GRADE. PROVIDE A MINIMUM 6"
- EMBEDMENT DEPTH. USE HILTI HIT HY-200 ADHESIVE OR EQUIVALENT ALTERNATIVE
- 5. DESIGNED AS RESTRAINED RETAINING WALL- REQUIRES THE FLOOR OR CONCRETE SLAB BE TIED INTO WALL TO STABALIZE AND RESTRAIN WALL AT TOP. MAX WALL HEIGHT: 8'-0". 12" CMU REINFORCED WITH #5 @ 32" O.C. VERTICALLY ON 3'-0" WIDE BY 15" DEEP FOOTING REINFORCED WITH 3#5 HORIZONTAL REBAR 12" O.C. FOOTING OR 10" CONCRETE REINFORCED W/ #5 @16" O.C. @EACH FACE W/ 15" DEEP FOOTING
- 6. THE CANTILEVERED PLANTER RETAINING WALL MUST BE 10" THICK CONCRETE REINFORCED W/ #6 @18" O.C. (NO GREATER SPACING THAN 18" O.C. PER ACI CODE) AND THE FOOTING MUST BE 5'-0" WIDE (10" TOE FROM FRONT FACE OF WALL AND 4'-2" HEEL) REINFORCED W/ #6 @12" O.C.
- 7. NEW 20" X 10" CONTINUOUS FOOTING, USE TWO #4 REBAR. ALIGN WITH AND DOWEL INTO THE EXISTING FOOTING. 8" CMU OR 8" POURED CONCRETE WALL
- 8. RESTRAINED PLANTER RETAINING WALL MUST BE 10" THICK CONCRETE REINFORCED W/ #5 @18" O.C. (NO GREATER

SPACING THAN 18" O.C. PER ACI CODE) AND THE FOOTING MUST BE 2'6" WIDE (CENTERED ON WALL) REINFORCED W/ #5 @12" O.C.. 9. REINFORCED 4" CONCRETE SLAB W/ 6X6 W1.4/1.4 WELDED WIRE MESH.



PROJECT NAME:

WINTHORPE DESIGN & BUILD, INC. 13050 WAINWRIGHT ROAD Highland MD 20777 301-854-2092

SCHLEIGH



Winthorpe Design & Build

DRAWING TITLE:

FOUNDATION PLAN

No.	Description	Date

DATE	
DRAWN BY	
CHECKED BY	

Field & Tung Structural Engineers

1210 18th Street, NW

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE

Washington, DC 20036

NO. 25862, EXPIRATION DATE: 02-05-2023."

AS INDICATED SCALE