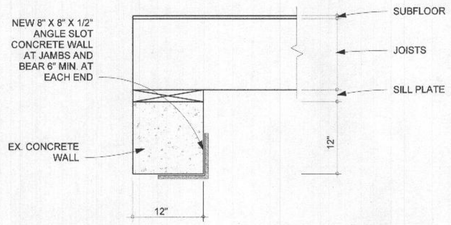
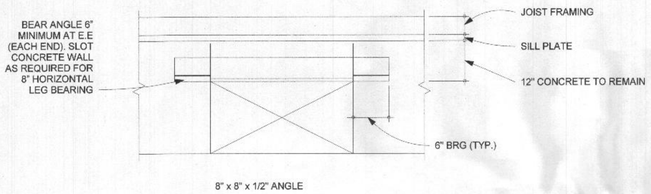
BEAM SCHEDULE

MARK	MEMBER	TYPE	REMARKS
B1	(2) 2" x 12" + 1 1/2" x 11" STEEL FLITCH PLATE		SECURE TOGETHER WITH (2) ROWS OF 1/2"ø THRU BOLTS @ 24" O.C. STAGGERED -BEAR ON 5 1/2" X 5 1/2" POST AT EACH END WITH SIMPSON POST CAP
B2	(2) 2" x 12"		SEE NOTE 4
B3	(2) 2" x 10"		SEE NOTE 4

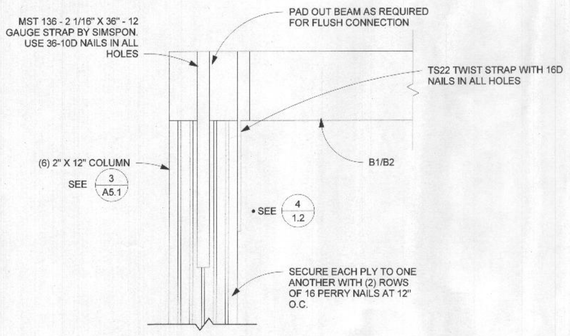


1 / S1.2 LINTEL SECTION

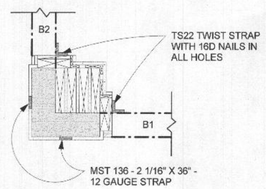


8" x 8" x 1/2" ANGLE

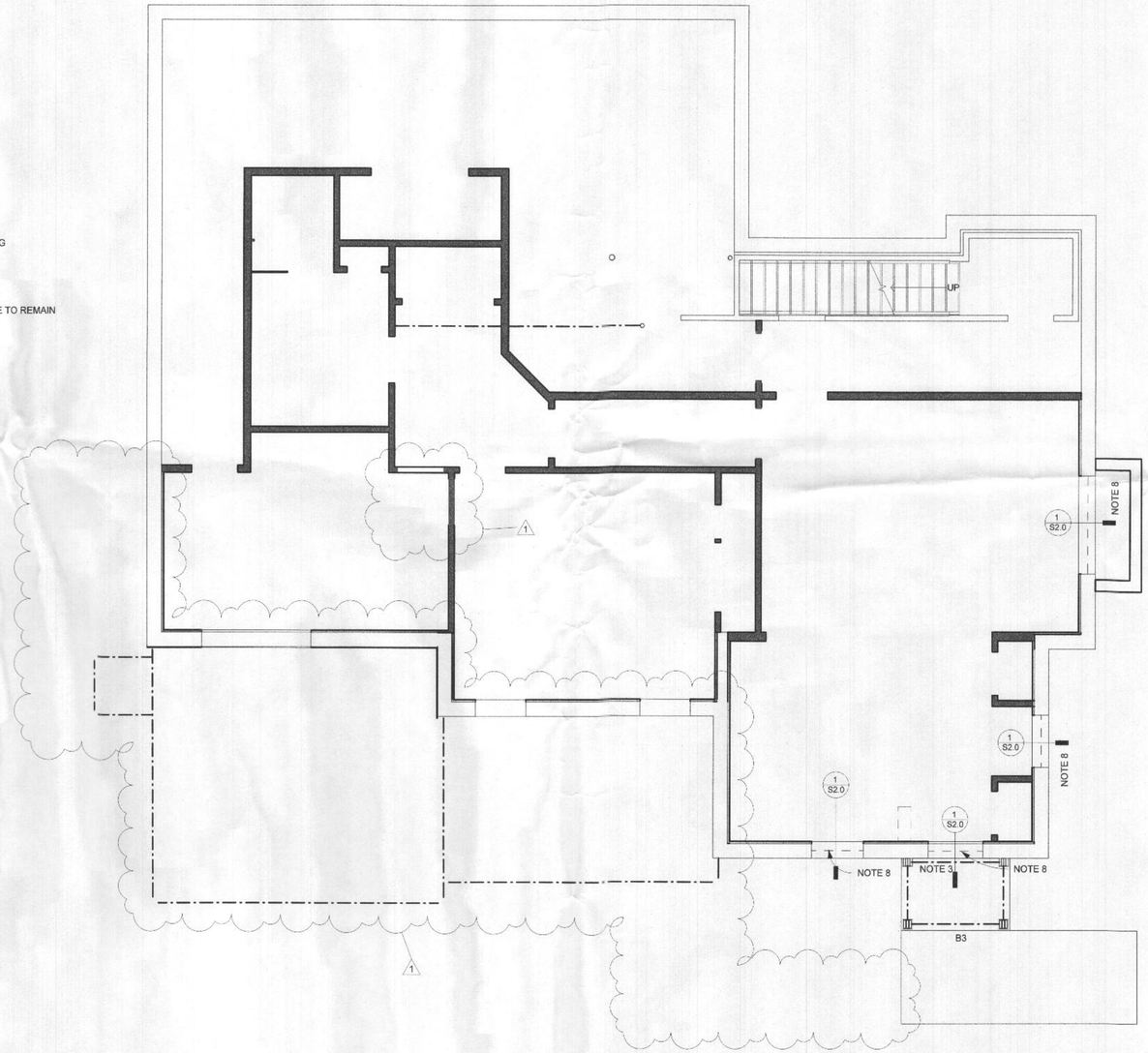
2 / S1.2 ELEVATION AT OPENING IN CONCRETE FOUNDATION WALL



3 / S1.2 BEAM TO COLUMN CONNECTION



4 / S1.2 PLAN VIEW AT CORNER COLUMN



2 FIRST FLOOR FRAMING PLAN
1/4" = 1'-0"

FIRST FLOOR DECK FRAMING PLAN

1. DECK SHALL BE 2" RIPPED SLEEPERS AT 12" O.C. OVER WOOD JOISTS. PROVIDE 1/2" PLYWOOD AND ROOFING MEMBRANE BELOW ICE TILE TECH PAVERS.
2. PROVIDE A CONTINUOUS ROW OF SOLID BRDIGING AT MIDSPAN AND BEARING OF ALL DECK JOISTS.
3. SECURE 2" X 12" LEDGER BOARD TO EXISTING BAND BOARD AT HOUSE WITH (2) ROWS OF 1/2" DIAMETER THRU BOLTS AT 12" O.C. STAGGERED
4. SECURE BEAM MEMBERS TOGETHER WITH (2) ROWSOF 16 PENNY NAILS AT 12" O.C.
5. ALL WOOD SHALL BE NO. 2 SOUTHERN YELLOW PINE (PRESSURE TREATED) WITH THE FOLLOWING MINIMUM PROPERTIES:

   Fb = 975 PSI Fv = 175 PSI Ev = 1,600,000 PSI
6. PROVIDE 16 GAUGE JOIST HANGERS AND 10 PENNY NAILS AT ALL FLUSH CONNECTIONS AND SIMPSON H2.5A HURRICANE ANCHORS AT ALL CONDITIONS WHERE JOIST BEAR OR CANTILEVER OVER BEAMS.
7. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF RAILING AND RAILING DESIGN. RAILING SHALL BE DESIGNED PER THE REQUIREMENTS OF IBC 2018.
8. SAWCUT NEW WINDOW/DOOR OPENINGS IN EXISTING 12" CONCRETE FOUNDATION WALL. PROVIDE 8" X 8" X 1/2" ANGLE LINTEL PER DETAIL 2 ON S2.0.

0' 4' 8' 16'
SCALE : 1/4" = 1'-0"

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Architectural Registration Board 7286-A Jeffrey A. Penza State of Maryland

Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly licensed architect under the laws of the state of Maryland, license number 7286, Expiration Date 09/29/2022.

ADDITION & RENOVATION

HICKS RESIDENCE

14838 Michele Dr.
Glenelg, MD 21737

#	DATE	DESCRIPTION
1	12.22.2021	permit re-submission

ISSUED FOR:
- ☐ REVIEW ☐ SD SET
- ☐ BID ☐ DD SET
- ☒ PERMIT ☐ CD SET

DRAWN: KW PROJECT #: 21003
CHECKED: JEFFREY PENZA, AIA
CAD FILE: Z:\PBA Projects\21003 Hicks Residence\Drawings\CAD\Hicks permit 12-22.rvt
DATE: 10/14/2021

FIRST FLOOR FRAMING PLAN

S1.2

GENERAL NOTES

OWNERSHIP OF DOCUMENTS: THE CONTRACTOR ACKNOWLEDGES THESE PLANS AND SPECIFICATIONS PREPARED BY MORABITO CONSULTANTS, INC., AS INSTRUMENTS OF PROFESSIONAL SERVICE. NEVERTHELESS, THE PLANS AND SPECIFICATIONS PREPARED UNDER THIS AGREEMENT SHALL REMAIN THE PROPERTY OF MORABITO CONSULTANTS, INC. UPON COMPLETION OF THE WORK. THE CONTRACTOR AGREES TO HOLD HARMLESS AND INDEMNIFY MORABITO CONSULTANTS INC., AGAINST ALL DAMAGES, CLAIMS, AND LOSSES, INCLUDING DEFENSE COSTS, ARISING OUT OF ANY REUSE OF THE PLANS AND SPECIFICATIONS WITHOUT THE WRITTEN AUTHORIZATION OF MORABITO CONSULTANTS, INC.

CONTRACTOR RESPONSIBILITIES: THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING ERECTION. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY GUYS, BRACING OR TIEDOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS. IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT AND SHALL REMAIN THE CONTRACTORS PROPERTY. THE ENGINEER HAS NO EXPERTISE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOBSITE SAFETY DURING CONSTRUCTION. PROCESSING AND/OR APPROVED SUBMITTALS MADE BY THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OF SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUCTED AS VOLUNTARY ASSUMPTION BY THE ENGINEER OR ANY RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE ENGINEER IS NOT ENGAGED IN, AND DOES NOT SUPERVISE CONSTRUCTION.

CONTROLLED FILL AND BACKFILL: SAMPLES OF ALL MATERIALS THAT THE CONTRACTOR PROPOSES TO USE FOR COMPACTED FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. COMPACTED FILL SHALL CONSIST OF LOCAL MATERIAL FREE OF DELETERIOUS MATTER AND CLASSIFIED CL, SC, GC, GM, OR SM PER ASTM D-2487. THE CONTROL OF THE MOISTURE FOR PLACING THE FILL WILL BE BASED ON THE RESULTS OF COMPACTION TESTS PER ASTM D-1557. ALL COMPACTED FILL SHALL HAVE A DENSITY OF AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. PRIOR TO PLACEMENT OF ANY FILLS, THE SITE SHALL BE STRIPPED OF ALL TOPSOIL, VEGETATION, ROCKS, AND ORGANIC MATERIALS AND THE EXPOSED SUBGRADE SHALL BE COMPACTED IN PLACE TO A CONFIRMED DENSITY OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8" IN THICKNESS AND SHALL BE MIXED, SPREAD AND PLACED IN SUCH A WAY AS TO PRODUCE A UNIFORM THICKNESS OF MATERIAL AFTER PLACING. EACH LAYER OF FILL SHALL BE COMPACTED WITH A MINIMUM OF 6 COMPLETE PASSES ON ALL PORTIONS OF THE SURFACE OF EACH LIFT OF FILL BY ROBBER-TIRED ROLLERS, SHEEPS-FOOT ROLLERS OR OTHER MECHANICAL EQUIPMENT APPROVED BY THE GEOTECHNICAL ENGINEER. COMPACTED FILL PLACED WITHIN 4 FEET OF STRUCTURES AND PIPES SHOULD BE PLACED IN HORIZONTAL LIFTS NOT TO EXCEED 4 INCHES THICKNESS AND COMPACTED WITH HAND TAMPERS OR LIGHT COMPACTION EQUIPMENT TO THE SAME STANDARD. HEAVY COMPACTION EQUIPMENT SHOULD NOT BE ALLOWED WITHIN 4 FEET OF STRUCTURES UNLESS A MINIMUM 2 FEET DEPTH OF FILL COVERS THE STRUCTURES. WHENEVER IN PLACE DENSITIES ARE FOUND BELOW ACCEPTABLE LIMITS, ADDITIONAL ROLLING TO PRODUCE THE SPECIFIED DENSITIES SHALL BE REQUIRED. THE CONTRACTOR SHALL TAKE ALL MEASURES REQUIRED TO PROVIDE FOR FREE DRAINAGE OF THE SITE AND TO PREVENT PONDING OF WATER. SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. PLACING OF FILL CONTAINING ORGANIC MATTER. PLACING OF FILL WITH MOISTURE CONTENT TOO HIGH OR TOO LOW FOR PROPER COMPACTION. PLACING OF FILL WHEN FREE WATER IS STANDING ON THE EXISTING FILL SURFACE; PLACING OF FILL IN A FROZEN CONDITION OR ON TOP OF FROZEN MATTER WILL NOT BE PERMITTED. THE SOILS ENGINEER SHALL SUPERVISE THE PLACING OF THE COMPACTED FILL AND ALL THE MATERIAL AND EQUIPMENT USED FOR THIS PURPOSE AND SHALL MAKE SUCH SOILS TESTS AS MAY BE REQUIRED FOR THE COMPLETION OF THE WORK PERFORMING AT LEAST 6 IN PLACE DENSITY TESTS DURING EACH EIGHT HOUR SHIFT.

FOUNDATIONS-SPREAD FOOTINGS: BOTTOM OF ALL FOOTINGS SHALL BE A MINIMUM OF 2'-0" BELOW ORIGINAL GRADE OR PLACED IN APPROVED COMPACTED FILL. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 2'-6" BELOW FINISHED GRADE. A SOIL BEARING CAPACITY OF 2000 PSF WAS USED IN THE FOUNDATION DESIGN, AND MUST BE FIELD VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER. IF SOIL OF THIS BEARING CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS INDICATED ON THE CONTRACT DRAWINGS, FOOTINGS SHALL BE LOWERED OR INCREASED IN SIZE AS DIRECTED BY THE STRUCTURAL ENGINEER. ELEVATIONS SHOWN ON PLAN ARE TO THE BOTTOM OF THE FOOTINGS.

CONCRETE: ALL CONCRETE WORK SHALL CONFORM TO ALL THE PROVISIONS OF THE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301 R85) AND TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (AI 318-89). ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS NOTED OTHERWISE. ADDITIONALLY, THE CONCRETE SHALL CONFORM TO ALL THE PROVISIONS OF "RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING" (ACI 305-R82) AND "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING" (ACI 305-R83). ALL FORMWORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "FORMWORK FOR CONCRETE" SPECIAL PUBLICATION NO. 4 AND ACI'S "STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" (ACI-347-LATEST EDITION). ALL CONCRETE EXPOSED TO THE WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 5%+/-1%. THE MAXIMUM WATER CEMENT RATIO W/C SHALL NOT EXCEED 0.53 FOR ALL CONCRETE EXCEPT CONCRETE EXPOSED TO WEATHER WHICH SHALL NOT EXCEED 0.45. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. THE MAXIMUM SLUMP OF ALL CONCRETE SHALL BE 4". FLOOR SLABS SHALL BE FINISHED TO A MINIMUM FLATNESS F-NUMBER Ff = 30 AND A MINIMUM LEVELNESS F-NUMBER Fl = 25 IN ANY DIRECTION. ALL CONCRETE SHALL BE CURED WITH LIQUID SEALING COMPOUND CONFORMING TO ASTM C-309, TYPE I AND FEDERAL SPECIFICATION TT-C-00800 OR OTHER APPROVED METHODS WHICH IS COMPATIBLE WITH FLOORING ADHESIVES AND OTHER SURFACE TREATMENTS. ALL CONCRETE LEFT EXPOSED AT THE COMPLETION OF THE PROJECT SHALL BE TREATED WITH A CLEAR, PENETRATING ACRYLIC BASE POLYMER CAPABLE OF PREVENTING INFILTRATION OF WATER BORNE CHLORIDES SUCH AS CONSPEC #1 BY CONSPEC MARKETING & MANUFACTURING COMPANY OR APPROVED EQUAL. LOADS GREATER THAN THE DESIGN LIVE LOADS SHALL NOT BE PLACED ON THE STRUCTURE. A CONCRETE STRUCTURE MAY NOT SUPPORT ITS DESIGN LIVE LOAD FOR 28 DAYS. CONTRACTOR SHALL SUPPORT ADJACENT STRUCTURES, UTILITIES, AND EXCAVATIONS AS REQUIRED FOR COMPLETION OF WORK. ONE SET OF COMPRESSIVE TEST CYLINDERS FOR EACH 100 CUBIC YARDS POURED, BUT NOT LESS THAN ONE SET FOR EACH DAY'S POUR AND EACH CLASS OF CONCRETE, ALONG WITH SLUMP TESTS SHALL BE PERFORMED BY A TESTING LABORATORY APPROVED BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY FORMWORK, INCLUDING STRIPPING PROCEDURES FOR CONCRETE FLAT SLABS, SHEETING, SHORING, UNDERPINNING, ETC. SEALED BY A REGISTERED PROFESSIONAL ENGINEER AS PART OF THE CONTRACTOR'S WORK.

CONCRETE SLAB ON GRADE CONSTRUCTION: THE CONCRETE SLABS ON GRADE FOR THIS PROJECT HAVE BEEN DESIGNED UTILIZING A MODULUS OF SUBGRADE REACTION "K" EQUAL TO 200 PCI FOR ALL WAREHOUSES, LOADING DOCKS, AND OTHER STORAGE AREAS, AND A MODULUS OF SUBGRADE REACTION "K" EQUAL TO 100 PCI FOR ALL OTHER AREAS OF THE CONCRETE SLABS ON GRADE. PLEASE NOTE THAT THE CONCRETE SLABS ON GRADE THROUGHOUT THIS PROJECT ARE NOT DESIGNED TO SUPPORT THE CRANES USED DURING THE ERECTION OF THE STRUCTURAL STEEL OR CONCRETE TILT-UP WALL BEARING PANELS. IF THE CONTRACTOR ELECTS TO PLACE THE CRANE ON THE CONCRETE SLAB ON GRADE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL NECESSARY PRECAUTIONS, INCLUDING THE TEMPORARY INSTALLATION OF WOOD CRIBBING ON THE SLAB, IN ORDER TO PREVENT CRACKS FROM FORMING IN THE SLAB ON GRADE. ALL CRACKS WHICH FORM IN THE CONCRETE SLABS ON GRADE DUE TO THE CRANE BEING PLACED ON THE SLAB WILL BE REPLACED OR REPAIRED TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND OWNER AT THE CONTRACTOR'S EXPENSE.

REINFORCING STEEL: REINFORCING STEEL SHALL BE DEFORMED BARS IN ACCORDANCE WITH ASTM A-615, GRADE 60. BENDS ARE TO BE FABRICATED AS PER DETAILS. PLACE MAIN REINFORCING STEEL SO AS TO PROVIDE 3" MINIMUM COVER FOR FOUNDATIONS POURED ON EARTH, 2" MINIMUM COVER FOR BEAMS AND COLUMNS, 3/4" MINIMUM COVER FOR SLABS AND 1½" FOR ALL REBAR IN EXPOSED CONCRETE (EXCEPT AS OTHERWISE DETAILED). ALL BEAM AND SLAB STEEL SHALL HAVE A MINIMUM EXTENSION INTO THE SUPPORTS IN ACCORDANCE WITH THE LATEST ADDITION OF THE ACI CODE. PROVIDE ACCESSORIES AND BAR SUPPORTS IN ACCORDANCE WITH THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315-80). WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185, GRADE 60. UNLESS OTHERWISE NOTED, WWF REINFORCING SHALL BE PLACED AT MID-DEPTH OF SLABS ON GRADE AND DRAPED OVER SUPPORTS IN CONCRETE SLABS ON CENTERING. END LAPS OF ALL WWF REINFORCING SHALL BE LAPPED 8" MINIMUM. CONCRETE ENGINEERED REINFORCING FIBERS SHALL BE POLYPROPYLENE, COLLATED, FIBRILLATED FIBERS FROM FIBERMESH, INC. INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL STEEL: STRUCTURAL STEEL 2-BEAMS SHALL CONFORM TO ASTM A-992, GRADE 50. STRUCTURAL STEEL PLATES, ANGLES, AND BARS SHALL CONFORM TO ASTM A-36. STRUCTURAL STEEL TUBULAR SHAPES SHALL CONFORM TO ASTM A-500 GRADE B (FY=46KSI). BOLTS USED IN TEMPORARY ERECTION CONNECTIONS WITH STRUCTURAL STEEL SHALL CONFORM TO ASTM A-308-61T. ALL CONNECTIONS WITH SLOTTED AND OVERSIZE HOLES SHALL HAVE SLIP CRITICAL CONNECTIONS. ALL OTHER CONNECTIONS MAY BE BEARING TYPE CONNECTIONS. ALL BOLTS SHALL CONFORM TO ASTM A-325. WELDS SHALL CONFORM TO ALL THE PROVISIONS OF THE STRUCTURAL WELDING CODE, AWS D1.1-2002 OF THE AMERICAN WELDING SOCIETY EXCEPT SECTIONS 2.3, 2.4, 2.5, 8.13.1.2 AND 9. HEADED STUD TYPE SHEAR CONNECTORS SHALL BE COLD FINISHED CARBON STEEL COMPLYING WITH ASTM A-108, GRADE 1015 OR 1020, WITH DIMENSIONS COMPLYING WITH AISC SPECIFICATIONS. NO OPENINGS IN BEAMS OTHER THAN SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. USE ONE OF THE FOLLOWING SHOP PAINTS. NO. 769 GREY PRIMER MANUFACTURED BY RUST-OLEUM CORPORATION; NO. 769 GREY PRIMER MANUFACTURED BY TNEMEC COMPANY AND WETSALL PRIMER MANUFACTURED BY FARBOIL COMPANY. PROVIDE SHOP AND FIELD INSPECTION OF ALL STRUCTURAL STEEL BY A TESTING LABORATORY APPROVED BY THE STRUCTURAL ENGINEER.

SHOP DRAWINGS: SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY GENERAL CONTRACTOR AND REVIEWED BY THE ENGINEER. ALL CONTRACTOR MODIFICATIONS (INCLUDING PRODUCTS SUBMISSION) MUST BE IDENTIFIED IN WRITING AS AS A PROPOSED "AS EQUAL" CHANGES AT TIME OF SUBMISSION. IF A CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS OR FAILS TO FOLLOW THE ABOVE "AS EQUAL" PROCEDURE, THE FIRM MORABITO CONSULTANTS, INC. WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT. SHOP DRAWINGS ARE REVIEWED BY THE ENGINEER AS A CONVENIENCE TO THE CONTRACTOR AND ARE NOT A CONTRACT DOCUMENT.

INSPECTION: ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH THE BUILDING CODE AND ALL LOCAL ORDINANCES. THE OWNER OR CONTRACTOR SHALL HIRE AN EXPERIENCED QUALIFIED INSPECTOR TO PERFORM ALL REQUIRED INSPECTION WORK. INSPECTION SHALL CONSIST OF VISUAL OBSERVATIONS OF MATERIALS, EQUIPMENT OR CONSTRUCTION WORK FOR THE PURPOSE OF ASCERTAINING THAT THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE DESIGN INTENT. THE ENGINEER WILL NOT PERFORM THE REQUIRED INSPECTION AS PART OF THIS PRESENT CONTRACT WITH THE ARCHITECT/OWNER. UNDER THIS PRESENT CONTRACT, THE ENGINEER MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. HOWEVER, SUCH VISITS SHALL NOT BE RELIED UPON BY OTHERS AS ACCEPTANCE OF THE WORK, NOR SHOULD IT BE CONSTRUED TO RELIEVE THE CONTRACTOR IN ANY WAY FROM HIS OBLIGATIONS AND RESPONSIBILITIES UNDER THE CONSTRUCTION CONTRACT. HOWEVER, IF DESIRED, MORABITO CONSULTANTS, INC. MAY BE HIRED UNDER A SEPARATE CONTRACT TO PERFORM THIS INSPECTION WORK.

STRUCTURAL LUMBER: STRUCTURAL WOOD SHALL BE NO. 2 SOUTHERN YELLOW PINE WITH A MAXIMUM WATER CONTENT OF 19% AND THE FOLLOWING MINIMUM PROPERTIES:

Fb = 975 PSI	Fc = 425 PSI
Ft = 425 PSI	Fc = 1,100 PSI
Fv = 175 PSI	E = 1,600,000 PSI

STRUCTURAL FLOOR SHEATHING SHALL BE 3/4" EXPOSURE I, APA GROUP 1 RATED STURD-I-FLOOR, GLUED AND NAILED TO WOOD JOISTS. STRUCTURAL ROOF SHEATHING SHALL BE 3/4" EXTERIOR 24/16 APA GROUP 1 RATED SHEATHING, WITH PLYWOOD SHEATHING CLIPS BETWEEN SUPPORTING MEMBERS WHERE EDGES OF THE PLYWOOD ABUT ONE ANOTHER. WHERE WOOD JOISTS FRAME INTO BEAMS, USE 16 GAUGE STANDARD JOIST HANGERS AND 10d NAILS. PROVIDE SOLID WOOD BLOCKING OR 16 GAUGE DIAGONAL X-BRIDGING BETWEEN ALL FLOOR JOISTS OR TRUSSES AT 8'-0" o/c. AND BETWEEN ALL ROOF JOISTS OR TRUSSES AT 10'-0" o/c. MAXIMUM. ALL ROOF TRUSSES WITH OVERHANGS, ALL ROOF RAFTERS IN CATHEDRAL CEILING AREAS, ALL FLOOR JOISTS/ TRUSSES IN EXTERIOR BALCONIES, EVERYWHERE FIRST FLOORS AND DECKS ARE ELEVATED ABOVE THE PERIMETER GRADE ELEVATIONS AND ALL OTHER HORIZONTAL SURFACES EXPOSED TO WIND UPLIFT SHALL BE SECURED TO THE BUILDING FRAMING WITH 18 GAUGE HURRICANE ANCHORS AND 10d NAILS. WHERE PLYWOOD SHEATHING IS USED IN A SHEAR WALL, ALL EXTERIOR EDGES SHALL BE NAILED USING 8d NAILS AT 4" o/c. AND ALL INTERNAL STUDS SHALL BE NAILED USING 8d NAILS AT 6" o/c. ALL LUMBER, BLOCKING, FURRING AND OTHER WOOD IN CONTACT WITH CONCRETE, MASONRY, THE GROUND OR EXPOSED TO THE WEATHER SHALL BE PRESSURE TREATED WITH WATER-BORNE PRESERVATIVES IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS' INSTITUTE STANDARD AWPA-P5. LUMBER SHALL BE KILN-DRIED TO 15% MOISTURE CONTENT AFTER TREATMENT. COAT ALL CUT SURFACES OF TREATED LUMBER WITH AN APPROVED PRESERVATIVE. ALL CONNECTIONS OF BEAMS TO BEAMS, BEAMS TO COLUMNS, BRACING TO STRUCTURE AND COLUMNS TO FOUNDATIONS SHALL BE ACCOMPLISHED USING STEEL CONNECTIONS OF TYPES SHOWN ON THESE DRAWINGS. ALL PLATES AND BARS USED IN THESE CONNECTIONS SHALL BE FABRICATED FROM STRUCTURAL STEEL CONFORMING TO ASTM A-36 WITH BOLTS CONFORMING TO ASTM A-307. ALL CONNECTIONS INCLUDING PLATES, DOWELS, BOLTS AND NAILS EXPOSED TO THE WEATHER SHALL BE GALVANIZED. ALL CONNECTIONS TO PRESSURE TREATED WOOD SHALL BE GALVANIZED PER ASTM A-653M, DESIGNATION G185 COATING.

PROVIDE A MINIMUM OF 3 COURSES OF SOLID BRICK OR ONE COURSE OF 100% SOLID BLOCK UNDER WALL BEARING ENDS OF ALL JOISTS AND SLABS, THE FULL WIDTH OF THE WALL, UNLESS NOTED OTHERWISE. IN BEARING WALLS, PROVIDE SOLID BRICK OR 100% BLOCK EXTENDING 8" BEYOND WALL OPENINGS THE FULL WALL THICKNESS DOWN TO THE FLOOR, UNLESS NOTED OTHERWISE. ALL PORTIONS OF MASONRY WALLS HAVING A HORIZONTAL CROSS SECTION OF 4 SQ. FT. OR LESS SHALL BE OF SOLID MASONRY DOWN TO FOOTINGS. PROVIDE HORIZONTAL MASONRY REINFORCING (DUR-O-WAL OR EQUAL) AT 16" o/c. IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE. ALL MASONRY WALLS SHALL HAVE CONTROL JOINTS AT 40'-0" o/c. MAXIMUM. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS. ALL MORTAR JOINTS IN MASONRY WALLS (HORIZONTAL AND VERTICAL) SHALL BE FILLED 100% WITH MORTAR. USE BUCKETS TO MEASURE MATERIALS FOR MIXING MORTAR.

LINTELS: ALL OPENINGS IN NEW WALLS AND PARTITIONS ARE TO BE PROVIDED WITH LINTELS. LINTELS SHALL BE STONE, CONCRETE, SLAG CONCRETE, OR STRUCTURAL STEEL. PROVIDE 4" MINIMUM END BEARING FOR LINTELS IN NON-BEARING PARTITIONS AND 8" MINIMUM END BEARING FOR LINTELS IN ALL EXTERIOR WALLS AND BEARING PARTITIONS. FOR ANY OPENING NOT SPECIFICALLY SHOWN, PROVIDE ONE 4" x 3 1/2" x 5/16" (LLV) ANGLE FOR EACH 4" OF WALL THICKNESS FOR SPANS NOT EXCEEDING 6'-0"; ONE 6" x 3 1/2" x 5/16" (LLV) ANGLE FOR EACH 4" OF WALL THICKNESS FOR SPANS EXCEEDING 6'-0" BUT LESS THAN 8'-0" OR PRECAST CONCRETE LINTELS AS DIRECTED BY THE ARCHITECT. PRECAST CONCRETE LINTELS SHALL HAVE ONE #4 TOP AND BOTTOM FOR EACH 4" OF WALL THICKNESS FOR SPANS EXCEEDING 6'-0"; ONE #5 TOP AND BOTTOM FOR EACH 4" OF WALL THICKNESS FOR SPANS EXCEEDING 6'-0" BUT LESS THAN 8'-0". ALL PRECAST CONCRETE LINTELS SHALL ALSO BE REINFORCED WITH #2 WIRE TIES AT 8" o/c. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF LINTELS. CONSULT STRUCTURAL ENGINEER FOR LINTEL REQUIREMENTS FOR ALL NEW OPENINGS IN EXISTING WALLS.

POST-INSTALLED ANCHORS: POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, FATIGUE, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

ANCHOR CAPACITY IS HIGHLY DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE/MASONRY. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS. IF EDGE DISTANCES OR ANCHOR SPACING IS NOT SPECIFIED ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM DISTANCES.

A) EDGE DISTANCES
- a. ADHESIVE ANCHORS: 2 TIMES THE ANCHOR EMBEDMENT LENGTH
- b. UNDERCUT ANCHORS: 2.5 TIMES THE ANCHOR EMBEDMENT LENGTH
- c. EXPANSION ANCHORS (SLEEVE OR WEDGE): 4 TIMES THE ANCHOR EMBEDMENT LENGTH

B) ANCHOR SPACINGS
- a. ALL ANCHORS: 3 TIMES THE ANCHOR EMBEDMENT

ANCHORS SHALL BE INSTALLED BY QUALIFIED PERSONNEL IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, BUILDING CODE, AND MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL POST-INSTALLED ANCHORS HAVE BEEN PROPERLY TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING FOR EACH SPECIFIC PRODUCT. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS (AS DETERMINED BY THE ENGINEER) SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY THE ACI-CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM".

ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL FURNISH A REPORT TO THE STRUCTURAL ENGINEER OF RECORD AND BUILDING OFFICIAL THAT THE WORK COVERED BY THE REPORT HAS BEEN PROPERLY PERFORMED AND THAT THE MATERIALS USED AND THE INSTALLATION PROCEDURES USED CONFORM WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION. IF HIGH-EARLY STRENGTH CONCRETE MIXES ARE SPECIFIED, CONTACT THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL OF MINIMUM INSTALLATION AGE. EXISTING REINFORCING BARS OR PRESTRESSING STEEL IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TESTING TO LOCATE THE POSITION AND DEPTH OF THE REINFORCING BARS OR PRESTRESSING AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY HILTI FERROSCAN, GPR, X-RAY, CHIPPING OR OTHER MEANS.

EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES. ANCHORS EXPOSED TO WEATHER AND AT SILL PLATES SHALL BE STAINLESS STEEL.

A) MECHANICAL ANCHORS IN CRACKED OR UNCRACKED CONCRETE USE:
- a. HILTI KWIK BOLT-TZ EXPANSION ANCHORS
- b. HILTI KWIK HUS-EZ AND KWIK HUS EZ-I SCREW ANCHORS

B) ADHESIVE ANCHORS IN CRACKED AND UNCRACKED CONCRETE USE:
- a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HIT-Z ROD
- b. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT SYSTEM WITH HAS-E THREADED ROD

C) REBAR DOWELING INTO CONCRETE:
- a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT SYSTEM

D) ADHESIVE ANCHORS IN HOLLOW / GROUTED / MULTI-WYTHE MASONRY USE:
- a. HILTI HIT-HY 70 MASONRY ADHESIVE ANCHORING SYSTEM

E) MECHANICAL ANCHORS IN GROUTED MASONRY USE:
- a. HILTI KWIK HUS-EZ SCREW ANCHORS
- b. HILTI KWIK BOLT-3 EXPANSION ANCHORS

DESIGN DATA:
f'c = 3,000 PSI
fy = 60,000 PSI
Fy = 50,000 PSI
Fb = 875 PSI
Fb = 2,600 PSI (MICROLAMS)

LIVE LOADS:
SLAB ON GRADE = 100 PSF
WIND = 115 MPH PER IBC 2018
TYPICAL FLOOR = 40 PSF
ATTIC = 20 PSF

DEAD LOADS
PARTITIONS = 15 PSF

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Architectural Registration Board 7286-A
Jeffrey A. Penza
State of Maryland

Professional Certification: I certify that these documents were prepared or approved by me, and that I am a duly licensed architect under the laws of the state of Maryland, license number 7286, Expiration Date 09/29/2022.

ADDITION & RENOVATION

HICKS RESIDENCE

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Glenelg, MD 21737

#	DATE	DESCRIPTION

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- ☐ REVIEW
- ☐ SD SET
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DATE: 10/14/2021	

STRUCTURAL NOTES & DETAILS

S2.1

TRUSS NOTES

1. PRE-ENGINEERED WOOD ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING UNIFORM LOADS IN POUNDS PER SQUARE FOOT. (UNO)

   WIND LOAD: 115 MPH PER IBC 2018

   LIVE LOAD: TOP CHORD = 30 PSF
   BOTTOM CHORD = 40 PSF AT ATTIC TRUSSES

   DEAD LOAD: TOP CHORD = 15 PSF
   BOTTOM CHORD = 10 PSF

   IN ADDITION, ALL TRUSSES SHALL BE DESIGNED FOR SNOW DRIFT PER THE REQUIREMENTS OF IBC 2018. TRUSSES SHALL ALSO BE DESIGNED TO SUPPORT ALL MECHANICAL EQUIPMENT.
2. STRUCTURAL ROOF DECK OVER WOOD TRUSSES SHALL BE 1/2" APA RATED 24/16 SHEATHING NAILED TO WOOD TRUSSES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ALONG WITH WORKING POINTS OF PREFABRICATED ROOF TRUSSES. VERIFY ALL DIMENSIONS PRIOR TO FABRICATION
4. PROVIDE 2" X 6" CONTINUOUS BOTTOM CHORD BRIDGING AT 7'-0" O.C. MAXIMUM FOR ALL WOOD TRUSSES.
5. TOP CHORD OF ALL WOOD TRUSSES SHALL BE DESIGNED FOR ALL AXIAL AND BENDING STRESSES.
6. COORDINATE TRUSS WEB MEMBERS WITH MECHANICAL DUCTWORK, MECHANICAL AND ELECTRICAL EQUIPMENT, AND ARCHITECTURAL LOUVERS. THE WEB SPACING AS SHOWN IS FOR GENERAL CONCEPT ONLY AND MAY NOT REFLECT THE ACTUAL WEB SPACING.
7. STRUCTURAL ROOF TRUSSES SHALL BE DESIGNED PER THE STANDARD DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES TPI-78, AS PREPARED BY THE TRUSS PLATE INSTITUTE, INC.. THE WOOD TRUSSES SHALL BE CUSTOM DESIGNED TO FIT THE DIMENSIONS INDICATED ON THE DRAWINGS. ALL DESIGNS SHALL BE IN ACCORDANCE WITH THE ALLOWABLE LOAD VALUES SHOWN ON THE DRAWINGS. ALL PREPARED TRUSSES SHALL HAVE ERECTION BRACING, STRUT BRACING AND BRIDGING AS REQUIRED BY THE MANUFACTURER TO RESIST ALL CONSTRUCTION AND BUILDING LOADS.
8. SHOP DRAWINGS, INCLUDING DESIGN CALCULATIONS, MEMBER FORCES AND STRESS CONTROL POINTS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL
9. IF SEPARATE OR PIGGY-BACK TRUSSES ARE DEEMED NECESSARY BY THE CONTRACTOR, DUE TO SHIPPING AND HANDLING, ANY COST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ROOF FRAMING PLAN NOTES

1. FOR ROOF SLOPES, PITCHES, AND WORKING POINTS REFER TO ARCHITECTURAL DRAWINGS.
2. STRUCTURAL ROOF SHALL BE 1/2" EXTERIOR 24/16 EXPOSURE 1 APA RATED SHEATHING NAILED TO WOOD ROOF JOIST FRAMING OR WOOD ROOF TRUSSES.
3. PLYWOOD SHEATHING CLIPS SHALL BE SPACED AT 16" O.C. WHERE EDGES OF PLYWOOD ABUT ONE ANOTHER.
4. COORDINATE ALL ROOF OPENING SIZES AND LOCATIONS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE DOUBLE JOISTS AND HEADERS AT ALL OPENINGS WIDER THAN JOIST SPACING. CONNECT HEADERS TO DOUBLE JOISTS WITH STEEL JOIST HANGERS.
5. REFER TO LINTEL SCHEDULE ON S1-1.
6. REFER TO GENERAL NOTES ON S2-1 FOR SPECIFICATIONS AND ADDITIONAL INFORMATION.
7. WALL TYPES ARE SHOWN ON PLAN THUS:

   2"X6" STUD WALLS @ 16" O.C.
8. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ROOF ELEVATIONS.
9. SECURE MULTIPLE MEMBER BEAMS TOGETHER WITH (2) ROWS OF 16 PENNY NAILS @ 12" O.C. STAGGERED.
10. PROVIDE (3)-2"X6" FULL HEIGHT COLUMNS AT BEAM BEARING TYPICAL.
11. CONTRACTOR SHALL ADJUST TOP OF WALL ELEVATION TO ACCOMMODATE BEARING ELEVATION OF 14" TJI FLOOR JOISTS

FOUNDATION NOTES

1. STRUCTURAL SLAB ON GRADE SHALL BE 4" CONCRETE SLAB ON GRADE REINFORCED WITH 6" X 6" W1.4 / W1.4 WELDED WIRE FABRIC POURED OVER VAPOR BARRIER OVER 4" POROUS FILL OVER COMPACTED GRADE. SLOPE SLAB PER ARCHITECTURAL DRAWINGS.
2. ALL WALL FOOTINGS NOT SPECIFICALLY SHOWN ON PLAN SHALL BE 12" DEEP BY WALL WIDTH PLUS 6" PROJECTION ON EACH SIDE OF WALL.
3. ASSUMED SOIL BEARING PRESSURE - 2000 PSF SHALL BE FIELD VERIFIED BY REGISTERED GEOTECHNICAL ENGINEER.
4. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS & FLOOR ELEVATIONS.
5. FOUNDATION WALL TYPES ARE SHOWN ON PLAN THUS:

   NEW BLOCK WALLS (ASTM-90). SEE DETAILS FOR REINFORCING

   NEW 2" x 6" STUD WALLS AT 16" O.C.
6. CONCRETE SHALL BE Fc = 3000 PSI @ 28 DAYS.
7. ELEVATION OF BOTTOM OF EXTERIOR FOOTING SHALL BE 2'-6" MIN. BELOW FINISH GRADE.

LINTEL SCHEDULE

MARK	MEMBER	TYPE	REMARKS
L1	(3) 2" x 8" PLUS (2) 1/2" PLYWOOD PLATES		DOUBLE STUDS @ JAMBS ONE JACK, ONE FULL HT.
L5	(3) 1 3/4" x 11 7/8" LVL		FIVE STUDS AT JAMBS, TWO JACK, THREE FULL HT.

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STRUCTURAL PLANS - GARAGE

SG1.1