STRUCTURAL NOTES

A. GENERAL NOTES

1. THIS PROJECT HAS BEEN DESIGNED USING THE 2020 EDITION OF THE BUILDING CODE OF NEW YORK STATE
2. STRUCTURAL INSPECTIONS ARE A REQUIREMENT FOR THIS PROJECT. AN INDEPENDENT INSPECTION AGENCY SHALL BE SELECTED TO PERFORM THIS SERVICE. ALL INSPECTIONS OF THE APPLICABLE BUILDING CODE ARE REQUIRED AT A MINIMUM. SEE THE NOTES ON THIS DRAWING FOR ANY ADDITIONAL INSPECTIONS REQUIRED.
3. ALL CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR ADHERING TO THE REQUIREMENTS AS INDICATED IN THE NOTES FOR THIS JOB. FAILURE OF THE CONTRACTOR TO READ THE STRUCTURAL NOTES DOES NOT PERMIT THE CONTRACTOR TO DEVIATE FROM THEIR REQUIREMENTS.
4. NO FIELD MODIFICATIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE ARCHITECT.
5. ALL CONSTRUCTION AND DEMOLITION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES INCLUDING ALL OSHA REGULATION.
6. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PEOPLE WHO MAY BE ON OR NEAR THE WORK AREA, BY MAINTAINING A SAFE WORK AREA, SAFE WORKING CONDITIONS, AND LIMITING ACCESS TO THE WORK AREA.
7. CONTRACTOR IS FULLY RESPONSIBLE FOR HIS WORKERS' SAFETY, SAFETY EQUIPMENT, FIRST AID, AND EMERGENCY HANDLING PROCEDURES.
8. CONTRACTOR SHALL PERSONALLY SUPERVISE THE WORK AND SHALL BE PRESENT AT THE WORK SITE AT ALL TIMES DURING CONSTRUCTION WORK. CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL FOR THE PROPER COORDINATION AND EXPEDITING OF THE WORK.
9. THESE DRAWINGS SHALL NOT BE SCALED FOR PURPOSES OF CONSTRUCTION.
10. IN CASE OF CONFLICT BETWEEN STRUCTURAL DRAWINGS AND OTHER DRAWINGS OF THIS PROJECT, CONTRACTOR SHALL IMMEDIATELY CONTACT ARCHITECT FOR CLARIFICATION PRIOR TO START OF WORK.
11. THE CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND VERIFICATION OF EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO THE LOCATION, ELEVATIONS AND DIMENSIONS OF THE SITE.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION INCLUDING THE DESIGN OF SHORING, SCAFFOLDING AND FORMWORK.
13. SECTIONS SHOWN ON PLANS APPLY TO SIMILAR CONDITIONS THROUGHOUT THE BUILDING.
14. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL DRAWINGS FOR THE PROJECT TO LOCATE ALL REQUIRED OPENINGS IN WALLS, FLOORS, ROOF, ETC. ALL OPENINGS MAY NOT BE INDICATED ON STRUCTURAL DRAWINGS.

B. BUILDING STRUCTURE AND LATERAL BRACING DURING CONSTRUCTION

1. THE GRAVITY LOAD RESISTING ELEMENTS OF THE BUILDING STRUCTURE CONSIST OF WOOD STUD BEARING WALLS. LATERAL WIND AND SEISMIC FORCES ARE REGISTERED BY STRUCTURAL SHEATHING AND SHEAR WALLS.
2. WOOD STUDS IN BEARING WALLS ARE TO BE BRACED DURING CONSTRUCTION WITH BLOCKING AT ¼ POINTS ALONG LENGTH OF STUDS. BLOCKING MUST BE INSTALLED TO THE WALL STUDS SUPPORTING THE FLOOR BEING CONSTRUCTED BEFORE PROCEEDING TO THE NEXT HEIGHT FLOOR LEVEL.
3. TEMPORARY LATERAL BRACING OF THE BUILDING STRUCTURE TO RESIST WIND AND SEISMIC FORCES DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR. THIS BRACING MUST REMAIN IN PLACE UNTIL THE PLYWOOD SHEAR WALLS ARE FULLY SHEATHED, NAILED, AND ALL TIES BETWEEN FLOORS HAVE BEEN COMPLETED. TEMPORARY LATERAL BRACING IS TO BE INSTALLED AS THE BUILDING IS BEING CONSTRUCTED. AS EACH LEVEL OF FLOOR FRAMING IS COMPLETED, THE LATERAL BRACING BELOW THAT FLOOR MUST BE INSTALLED BEFORE CONSTRUCTING THE NEXT FLOOR LEVEL.
4. PROPER WEIGHT DISTRIBUTION OF CONSTRUCTION MATERIALS DURING CONSTRUCTION IS A MUST AND IS THE RESPONSIBILITY OF THE CONTRACTOR. DO NOT STACK CONSTRUCTION MATERIALS ON UNBRACED TRUSSES. AVOID STACKING HEAVY CONSTRUCTION MATERIALS AT MID-SPAN OF TRUSSES. HEAVY CONSTRUCTION MATERIALS SHOULD BE STORED AT GROUND LEVEL AND ONLY MOVED TO ELEVATED FLOOR AND ROOF LOCATIONS WHEN REQUIRED FOR INSTALLATION.
5. A CONTINUOUS LOAD PATH FROM THE ELEVATED FLOOR AND ROOF STRUCTURE IS TO BE PROVIDED IN ALL BEARING WALLS. ALL BEARING WALL STUDS SHALL ALIGN WITH FLOOR AND ROOF TRUSS POINTS OF BEARING. ADDITIONAL STUD FRAMING SHALL BE ADDED WHERE FLOOR AND ROOF TRUSSES DO NOT ALIGN WITH A WALL STUD. PROVIDE SOLID BLOCKING AS REQUIRED BETWEEN FLOORS TO PROVIDE A CONTINUOUS LOAD PATH THROUGH THE FLOOR TO THE FOUNDATION.

C. FOUNDATIONS

1. BOTTOM OF ALL FOOTINGS HAVE BEEN DESIGNED TO BEAR ON SOIL CAPABLE OF SAFELY SUPPORTING 3,000 PSF.
2. EXISTING FOUNDATIONS, SLABS, PAVEMENTS, UNDERGROUND UTILITIES AND OTHER BELOW GRADE STRUCTURES SHALL BE REMOVED FROM THE PROPOSED PROJECT SITE BUILDING FOOTPRINT. REMOVE SURFACE VEGETATION, TOPSOIL, ROOT SYSTEMS, ORGANIC MATERIAL, EXISTING FILL AND SOFT UNSUITABLE MATERIAL FROM THE BUILDING AREA.
3. THE CONTRACTOR MUST PROVIDE SURFACE DRAINAGE AND PUMPS TO PROTECT ALL EXCAVATION FROM FLOODING OR GROUND WATER INFILTRATION. FLOODING OF ANY EXCAVATION AFTER APPROVAL OF THE SUBTRADE WILL BE CAUSE FOR COMPLETE RE-PREPARATION OF THE SUBGRADE.
4. BOTTOM OF ALL FOOTINGS MUST BE INSPECTED AND APPROVED BY A REGISTERED SOILS ENGINEER BEFORE PLACING ANY CONCRETE. APPROVAL IN WRITING MUST INDICATE THE SOIL IS ADEQUATE TO SAFELY SUSTAIN A SOIL BEARING PRESSURE OF 3,000 PSF BELOW ALL FOOTINGS.
5. STANDARD PROCEDURES FOR FROST PROTECTION OF FOUNDATIONS AND EXCAVATIONS SHALL BE EMPLOYED FOR WINTER CONSTRUCTION. BACKFILLING OF EXCAVATIONS SHALL BE DONE AS SOON AS POSSIBLE TO PROTECT FOUNDATIONS FROM FROST.
6. HORIZONTAL REINFORCING BARS IN FOUNDATIONS AND STEM WALLS SHALL BE CONTINUOUS. PROVIDE CORNER BARS AT ALL CORNERS AND INTERSECTIONS.

D. CONCRETE

1. ALL CONCRETE SHALL BE NORMAL WEIGHT, READY-MIX. ALL CONCRETE FOR FOUNDATIONS & SLAB ON GRADE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS, A MIMIMUM OF 488 LBS. OF CEMENT PER CUBIC YARD, AND HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.52 BY WEIGHT. ALL EXTERIOR CONCRETE (CONCRETE EXPOSED TO WEATHER) SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS AND SHALL HAVE A MINIMUM OF 535 LBS. OF CEMENT PER CUBIC YARD. ALL EXTERIOR CONCRETE SHALL HAVE 5 PERCENT (MINIMUM) AIR ENTRAINMENT AND HAVE A MAXIMUM WATER-CEMENT RATION OF 0.45 BY WEIGHT. SUBMIT ALL CONCRETE MIX DESIGNS TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
2. ALL CONCRETE SHALL HAVE A WATER REDUCING ADMIXTURE AS REQUIRED TO INCREASE WORKABILITY. WORKABILITY SHALL NOT BE ACHIEVED THROUGH THE ADDITION OF WATER TO THE MIX. CONCRETE SLUMP PRIOR TO ADMIXTURE ADDITION SHALL BE A MAXIMUM OF 3 INCHES.
3. DO NOT USE ADMIXTURES THAT CONTAIN CHLORIDES. FLY ASH OR SLAG SHALL NOT BE USED IN ANY CONCRETE.
4. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITIONS OF THE FOLLOWING ACI PUBLICATIONS ACI 301 (SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS), ACI 302 (RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION), ACI 304 (ACI MANUAL OF CONCRETE INSPECTION), ACI 311 (RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE), ACI 315 (DETAILS AND DETAILING OF CONCRETE REINFORCEMENT), ACI 318 (BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE), AND ACI 347 (RECOMMENDED PRACTICE FOR CONCRETE FORMWORK).
5. PRIOR TO FABRICATION OR SHIPMENT OF MATERIAL, THE CONTRACTOR SHALL SUBMIT AND RECEIVE APPROVAL OF SHOP DRAWINGS. SHOP DRAWINGS SHALL INDICATE BENDING DIAGRAMS, SPLICING, LAPPING, SHAPES, DIMENSIONS AND DETAILS OF ALL BAR REINFORCING. THE APPROVAL OF SHOP DRAWINGS WILL BE FOR ARRANGEMENT ONLY AND SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ERRORS, OMISSIONS OR THE ACCURACY OF HIS OWN DIMENSIONS. DRAWINGS AND DETAILS SHALL CONFORM WITH ACI 315.
6. ALL REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM DESIGNATION A-615 GRADE 60. WWF SHALL COMPLY WITH ASTM A-185.
7. LAP ALL BARS MINIMUM 40 DIAMETERS. LAP ALL WWF A MINIMUM OF 6 INCHES.
8. CONTRACTOR SHALL PROVIDE ALL BOLSTERS, CHAIRS, BAR POSITIONERS, ETC. AS REQUIRED TO SET REBAR AND SLAB WWF TO REQUIRED DIMENSIONS INDICATED ON DRAWINGS.
9. CONTROL JOINTS FOR SLABS-ON-GRADE SHALL BE SAW CUT IN ACCORDANCE WITH THE PATTERN APPROVED BY THE ARCHITECT.
10. CONSTRUCTION JOINTS IN SLABS SHALL BE KEY JOINTED WITH REINFORCING CONTINUOUS ACROSS JOINT. COORDINATE WITH THE ARCHITECT FOR CONSTRUCTION JOINT LOCATIONS PRIOR TO CONSTRUCTION.
11. ALL CONCRETE PLACED AT TEMPERATURES BELOW 50 DEGREES F. SHALL CONFORM TO THE REQUIREMENTS OF ACI 306 'COLD WEATHER CONCRETING'. ALL CONCRETE PLACED IN HOT WEATHER SHALL CONFORM TO THE REQUIREMENTS OF ACI 305 'HOT WEATHER CONCRETING'.
12. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL SLEEVES, INSERTS, ANCHOR BOLTS, AND OTHER EMBEDDED ITEMS AS REQUIRED BY OTHER TRADES.
13. ALL CONCRETE SHALL BE PROPERLY CONSOLIDATED THROUGH THE USE OF VIBRATORS. VIBRATORS SHALL NOT BE USED TO TRANSPORT CONCRETE ALONG FORMWORK.
14. UNLESS OTHERWISE SPECIFIED, A TESTING LABORATORY SHALL BE EMPLOYED FOR EVALUATION AND QUALITY CONTROL OF CONCRETE PLACED. FREQUENCY OF CONCRETE TESTING SHALL MEET THE REQUIREMENTS OF ACI 318 AT A MINIMUM UNLESS REQUIRED OTHERWISE BY THE APPLICABLE BUILDING CODE.

E. STEEL

1. ALL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A992 (FY = 50 KSI). ALL ANGLES AND PLATE MATERIAL SHALL CONFORM TO ASTM A36.
2. ALL STEEL SHALL HAVE A SHOP COAT OF RUST INHIBITIVE PAINT. ALL PRIMER THAT IS DAMAGED IN THE FIELD AND ALL FIELD WELDS SHALL BE TOUCHED UP WITH FIELD APPLIED PRIMER.
3. PROVIDE ALL STEEL REQUIRED TO SUPPORT ELEVATOR EQUIPMENT THIS INCLUDES SHAFT RAIL BEAMS, SILL SUPPORT ANGLES, AND HOIST BEAMS.

F. STRUCTURAL CMU MASONRY

1. MASONRY UNITS SHALL BE TYPE 1 ASTM C-90 (NORMAL WEIGHT) MOISTURE CONTROLLED WITH MINIMUM COMPRESSIVE STRENGTH OF 1,900 PSI AT 28 DAYS ON THE NET AREA OF INDIVIDUAL UNITS. ALL CMU SHALL BE ERECTED IN A RUNNING BOND PATTERN AND SHALL BE LAID IN A FULL BED OF MORTAR. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL BLOCK REQUIREMENTS FOR ALL CMU LOCATED IN UL FIRE RATED ASSEMBLIES.
2. ALL MORTAR SHALL BE PORTLAND CEMENT/LIME CONFORMING TO ASTM SPEC. C270 TYPE S WITH A MINIMUM COMPRESSIVE STRENGTH OF 1,900 PSI. DO NOT USE ADMIXTURES THAT CONTAIN CHLORIDES.
3. GROUT SHALL BE A HIGH SLUMP MIX IN ACCORDANCE WITH ASTM SPECIFICATION C476 HAVING A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS. GROUT MUST HAVE A SLUMP OF 8 TO 11 INCHES. DO NOT USE ADMIXTURES THAT CONTAIN CHLORIDES. DO NOT SUBSTITUTE MORTAR FOR GROUT. CONSOLIDATION OF GROUT IN BLOCK CORES SHOULD BE ACHIEVED WITH A LOW VELOCITY MECHANICAL VIBRATOR WHICH HAS A ¾ INCH HEAD. THE VIBRATOR IS NORMALLY ACTIVATED FOR ONE OR TWO SECONDS IN EACH GROUTED CORE OF HOLLOW UNIT MASONRY.
4. LAID UP MASONRY STRENGTH F'M FOR THE COMPOSITE OF CMU, MORTAR AND GROUT FOR ALL STANDARD MASONRY WALLS SHALL BE 1,500 PSI.
5. ALL CONCRETE MASONRY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THH 'BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ACI 530-05/ASCE 5-05/TMS 402-05' AND 'SPECIFICATIONS FOR MASONRY STRUCTURES ACI 530.1-05/ASCE 6-05/TMS 602-05'.
6. PERFORM INSPECTIONS OF MASONRY CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE.
7. ALL REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60.
8. PROVIDE HOT-DIPPED GALVANIZED TRUSS TYPE HORIZONTAL JOINT REINFORCEMENT (MIN. 9 GAGE COLD DRAWN GALVANIZED STEEL WIRE) IN ACCORDANCE WITH ASTM A-82 AT 16" ON CENTER VERTICAL IN ALL MASONRY WALLS.
9. ALL CMU CORES WHICH CONTAIN VERTICAL REINFORCING BARS SHALL BE GROUTED SOLID. FILLING CORES WITH MORTAR AS WORK PROGRESSES IS NOT ACCEPTABLE.
10. MINIMUM LENGTH OF LAP SPLICES FOR VERTICAL REINFORCING SHALL NOT BE LESS THAN THE FOLLOWING:
 #3 - 18 INCHES
 #4 - 24 INCHES
 #5 - 30 INCHES
11. VERTICAL REINFORCING BARS SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING BY GALVANIZED BAR POSITIONERS SPACED AT INTERVALS NOT TO EXCEED 112 BAR DIAMETERS. PROVIDE A MINIMUM OF TWO POSITIONERS PER INDIVIDUAL REINFORCING BAR.
12. MASON TO DESIGN, FURNISH AND INSTALL ALL REQUIRED SHORING FOR ERECTION OF THE CMU MASONRY WALLS AND PIERS.
13. MASONRY CONTRACTOR SHALL PROVIDE LINTELS FOR ALL CMU OPENINGS. FOR LINTELS NOT INDICATED (IN NON-LOAD BEARING WALLS) THE CONTRACTOR SHALL REFER TO THE NON-BEARING WALLS LINTEL SCHEDULE.
14. PROVIDE CONTROL JOINTS IN MASONRY WALLS AT A MAXIMUM SPACING OF 35 FEET ON CENTER UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS. CONTROL JOINTS SHALL BE LOCATED AT ALL CHANGES IN MASONRY WALL HEIGHT AND AT ALL CHANGES IN MASONRY WALL THICKNESS. COORDINATE WITH THE ARCHITECT FOR ALL MASONRY CONTROL JOINT LOCATIONS.

G. TIMBER

1. CONTRACTOR SHALL SUBMIT CERTIFICATION FOR ALL LUMBER USED ON PROJECT. CERTIFICATION SHALL INDICATE LUMBER COMPLIANCE WITH DESIGN PROPERTIES INDICATED IN THESE NOTES AND ON THE DRAWINGS.
2. ALL STRUCTURAL TIMBER NOTED ON PLANS SHALL HAVE PROPERTIES AS FOLLOWS. SPF NO. 2 (OR BETTER) AND HAVE MIN. ALLOWABLE PROPERTIES AS FOLLOWS: FLO = 875 PSI, FV = 70 PSI, FC (PARALLEL) = 1,100 PSI. ALL STRUCTURAL TIMBER TO BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S 'CONSTRUCTION MANUAL'.
3. ALL TIMBER AND TIMBER CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND CODES AS SPECIFIED BELOW:
 A. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION: TIMBER CONSTRUCTION MANUAL.
 B. ANSI / AF& PA: NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION 1997.
 C. AMERICAN PLYWOOD ASSOCIATION: PLYWOOD DESIGN SPECIFICATION.
 D. AMERICAN WOOD-PRESERVERS ASSOCIATIONS STANDARDS.
 E. NATIONAL LUMBER MANUFACTURERS ASSOCIATIONS: NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS.
4. DESIGN, FABRICATION AND INSTALLATION OF WOOD TRUSSES AND SHEET METAL CONNECTORS SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 A. NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (ANSI/TPI 1-1995).
 B. TRUSS PLATE INSTITUTE RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES (DSB-89).
 C. TRUSS PLATE INSTITUTE COMMENTARY AND RECOMMENDATIONS FOR HANDLING AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES (HIB-91).
5. ALL TIMBER CONNECTIONS ARE TO BE MADE USING PREFABIRCATED CONNECTORS. TOE-NAILING WILL NOT BE PERMITTED. SUBMIT MANUFACTURER'S DATA FOR APPROVAL. FASTENERS TO BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL.
6. ALL TIMBER CONNECTORS SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. USING SIMPSON PRODUCTS AS A BASIS, CONNECTORS FOR PRESSURE TREATED APPLICATIONS SHALL BE 'ZMAX', POST HOT DIPPED GALVANIZED, OR STAINLESS STEEL. ANY PRODUCT SUBSTITUTIONS MUST MEET THIS MINIMUM STANDARD.
7. SIMPSON STRONG TIE CONNECTORS HAVE BEEN SPECIFIED TO MEET THE STRUCTURAL CALCULATIONS OF PLAN ELEMENTS. PRIOR TO SUBSTITUTING ANOTHER BRAND, CONFIRM LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OR CALCULATIONS. THE ENGINEER SHALL EVALUATE AND GIVE WRITTEN APPROVAL FOR SUBSTITUTIONS PRIOR TO INSTALLATIONS.
8. ALL NAILS FOR PROJECT SHALL BE COMMON WIRE NAILS. SEE PLANS AND DETAILS FOR NAILING REQUIREMENTS. STAPLES SHALL NOT BE SUBSTITUTED FOR NAILS. WALL SHEATHING FASTENING PER MANUFACTURERS REQUIRMENTS.
9. WOOD FLOOR AND ROOF TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL ENGINEER AND SEALED CALCULATIONS ARE TO BE SUBMITTED FOR APPROVAL. TRUSS FABRICATOR TO PROVIDE PREFABRICATED HANGERS AS REQUIRED.
10. PROVIDE BRACING FOR ALL ROOF TRUSSES AS REQUIRED BY FABRICATOR.
11. PLYWOOD PANELS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE U.S. DEPARTMENT OF COMMERCE VOLUNTARY PRODUCT STANDARD PS-1 OR PS-2.
12. SHEATHING FOR ROOFS SHALL BE 5/8 INCH THICK 40/20 SPAN RATING APA RATED SHEATHING, EXPOSURE 1. CLASSIFICATION AND A STRUCTURAL 1 CLASSIFICATION. ALL JOINTS IN SHEATHING SHALL BE STAGGERED. USE PANEL CLIPS, TONGUE & GROOVE, OR LUMBER BLOCKING EDGE SUPPORTS AS RECOMMENDED BY APA FOR ROOF SHEATHING EDGES. NAILING SHALL COMPLY WITH REQUIREMENTS FOR PLYWOOD ROOF DIAPHRAMS (SEE PLANS).
13. SHEATHING FOR FLOORS SHALL BE ¾ INCH THICK 24" SPAN RATING APA STURD-I-FLOOR, EXPOSURE 1. ALL JOINTS IN SHEATHING SHALL BE STAGGERED. ALL EDGES IN FLOOR SHEATHING SHALL BE TONGUE AND GROOVE.
14. SHEATHING FOR EXTERIOR WALLS SHALL BE 1 1/2 INCH THICK ZIP R-SHEATHING APA RATED SHEATHING, EXPOSURE 1. ALL JOINTS IN SHEATHING SHALL BE STAGGERED. USE BLOCKING AT ALL PANEL EDGES AND NAIL AS SHOWN ON DETAILS.
15. ALL WOOD EXPOSED TO WEATHER AND/OR IN CONTACT WITH GROUND, CONCRETE, OR CMU SHALL BE PRESURE TREATED.
16. ALL TRUSS TO TRUSS CONNECTIONS SHALL BE BY THE TRUSS MANUFACTURER.
17. ALL PARALLAM PSL AND MICROLAM LVL LUMBER SHALL BE I LEVEL AS MANUFACTURED BY WEYERHAUSER OR APPROVED EQUALS.

H. WOOD TRUSS BRACING

1. WOOD TRUSSES SHALL BE DESIGNED, BRACED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING STANDARDS.
 A. ANSI/TPI 1-1995 NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION.
 B. TRUSS PLATE INSTITUTE DSB-89 RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
 C. TRUSS PLATE INSTITUTE HIB-91 - COMMENTARY AND RECOMMENDATIONS FOR HANDLING INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES.
2. BRACING IN THE PLANE OF THE WEB MEMBERS:
 A. THE TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
 B. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
 C. A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED. ONE AT EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS.
3. THE BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8 TO 10 FEET NAILED TO TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45 DEGREES TO THE LATERAL BRACES SHALL BE LOCATED AT EACH END. IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BE REPEATED AT 20 FOOT INTERVALS.
4. TOP CHORD BRACING: ROOF SHEATHING APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPHRAM ACTION, BRACING IS NOT REQUIRED.
5. WOOD ROOF TRUSSES ARE TO BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL ENGINEER AND SEALED CALCULATIONS ARE TO BE SUBMITTED FOR APPROVAL.
6. ALL GABLE END TRUSSES SHALL BE DESIGNED AND BRACED TO SUPPORT COMPONENT AND CLADDING WIND LOAD ON EXPOSED FACE OF TRUSS.

FRAMING NOTES

1. ALL FRAMING TO MEET THE REQUIREMENTS OF THE 2020 EDITION OF THE BUILDING CODE OF NEW YORK AND THE TOWN OF CLARKSTOWN.

2. ALL EXTERIOR WALLS AND INTERIOR BEARING PARTITIONS TO HAVE HEADERS OVER WINDOWS, DOORS AND OPENINGS AS FOLLOWS:

HEADER SCHEDULE

LOCATION/OPENING SIZE		DESCRIPTION
EXTERIOR OPENINGS	2'-0" TO 3'-4"	(3) 2 X 10'S WITH (1) JACK AT EACH END
EXTERIOR OPENINGS	3'-5" TO 6'-0"	(3) 2 X 10'S WITH (2) JACKS AT EACH END
EXTERIOR OPENINGS	6'-1" TO 10'-0"	(2) MICRO-LAM LVL 1 ¾" X 9 ¼" W/ (3) JACKS AT EACH END
INTERIOR OPENINGS	2'-0" TO 3'-4"	(3) 2 X 10'S WITH (1) JACK AT EACH END
INTERIOR OPENINGS	3'-5" TO 4'-6"	(3) 2 X 10'S WITH (1) JACKS AT EACH END
INTERIOR OPENINGS	4'-7" TO 6'-0"	(2) MICRO-LAM LVL 1 ¾" X 9 ¼" W/ (2) JACKS AT EACH END
INTERIOR OPENINGS	6'-1" TO 9'-0"	(2) MICRO-LAM LVL 1 ¾" X 11 ⅞" W/ (3) JACKS AT EACH END

3. ALL EXTERIOR WALLS TO BE
 A. BASEMENT - 2 X 6 @ 12" O.C. - 9'-1 ¼" HIGH
 B. FIRST FLOOR - 2 X 6 @ 12" O.C. - 9'-1 ¼" HIGH
 C. SECOND - 2 X 6 @ 24" O.C. - 9'-1 ¼" HIGH
 D. STUDS TO ALIGN WITH FLOOR & ROOF TRUSSES - SEE FRAMING PLANS FOR STUD/TRUSS SPACING. STARTING POINTS

4. ALL INTERIOR BEARING PARTITIONS
 A. BASEMENT AND FIRST FLOOR - 2 X 6 @ 12" O.C. - (2 X 4 @ 24" O.C. AS NOTED)
 B. SECOND AND THIRD FLOOR - 2 X 6 @ 24" O.C. - (2 X 4 @ 24" O.C. AS NOTED)
 C. STUDS TO ALIGN WITH FLOOR & ROOF TRUSSES - SEE FRAMING PLANS FOR STUD/TRUSS SPACING. STARTING POINTS

5. PROVIDE FIRE BLOCKING & DRAFT STOPPING AS REQUIRED IN SECTION 718 OF THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE. NOTE: THE BUILDING WILL BE FULLY SPRINKLED IN ACCORDANCE OF NFPA 13 AND SECTION 903.1.1 OF THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE.

7. TRUSS DESIGN SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. TRUSSES TO BE NYS CODE APPROVED, CERTIFIED BY A PROFESSIONAL ENGINEER. TRUSS SPECIFICATIONS TO BE PRESENTED TO THE LOCAL BUILDING DEPARTMENT.

 A. TRUSS HEIGHTS - FLOOR TRUSSES - AS NOTED

 B. ALL FLOOR TRUSSES TO BE SPACED 24" O.C. MAX.

 C. ROOF TRUSS PITCH
  1. MAIN ROOF 6 : 12
  2. PORCH ROOF TRUSSES: AS NOTED ON THE ROOF PLAN

 D. TRUSS LOADING

1. ROOF LOADS
 GROUND SNOW LOAD: 50 PSF
 LIVE LOAD: 20 PSF
 TOP DEAD: 25 PSF
 BOTTOM DEAD: 15 PSF

2. FLOOR LOADS - FIRST & SECOND FLOORS (APARTMENTS)
 TOP LIVE: 40 PSF
 TOP DEAD: 10 PSF
 BOTTOM DEAD: 10 PSF

3. FLOOR LOADS - FIRST & SECOND (CORRIDOR, AND PUBLIC ROOMS)
 TOP LIVE: 100 PSF
 TOP DEAD: 10 PSF
 BOTTOM DEAD: 10 PSF

4. DEFLECTION - LIMITED TO 1/360

8. STEEL LINTEL SCHEDULE
 AT 8" CONCRETE BLOCK: (2) 3 ½" X 4" X ⅜"

9. PARALLAM SCHEDULE
 ML-1 (4) 2 x 10s
 ML-2 (1) 7" x 16" 2.OE PARALLAM
 ML-3 (1) 5-1/4" x 14" 2.OE PARALLAM
 ML-4 (1) 3-1/2" x 9-1/4 2.OE PARALLAM

DESIGN INFORMATION

1. GROUND SNOW LOAD: 50 PSF

2. WIND
 ULTIMATE DESIGN WIND SPEED, VULT 115 MPF
 NOMINAL DESIGN WIND SPEED, VASD 89 MPF

WIND LOAD REPORT

CODE STANDARD	ASCE 7-10
BUILDING INPUTS:	
BUILDING WIDTH, W	63'-4"
BUILDING LENGTH, L	97'-8"
WALL HEIGHT, z	42'-0"
MEAN ROOF HEIGHT, h	42'-0"
PARAMETERS:	
RISK CATEGORY	II
EXPOSURE CATEGORY	C
BASIC WIND SPEED, V	115 MPH
ENCLOSURE CLASSIFICATION	ENCLOSED
TOPOGRAPHIC FACTOR, KZT	1.0
DIRECTIONALITY FACTOR, KD	.85
VELOCITY PRESSURE	27.8 PSF

3. SEISMIC
 SEISMIC USE GROUP - GROUP II
 SITE CLASS = D
 IMPORTANCE FACTOR, IE = 1.00 (CATEGORY I)
 SMS = 0.391
 SM1 = 0.171
 SDS = 0.0.18, SEISMIC DESIGN CATEGORY = B GOVERNS
 SD1 = 0.106, SEISMIC DESIGN CATEGORY = B GOVERNS

 SIMPLIFIED ANALYSIS PROCEDURE (PER 1617.5)
 SEISMIC BASE SHEAR, V = 0.0482W

4. SOIL DESIGN LOAD-BEARING VALUE
 ALLOWABLE FOUNDATION PRESSURE = 2,500 PSF ON EXISTING SOIL.

BID SET
09-18-20

SPECIAL INSPECTIONS

THE OWNER WILL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED BELOW. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE CODE ENFORCEMENT OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION.

THE SPECIAL INSPECTORS WILL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR WILL FURNISH INSPECTION REPORTS TO THE CODE ENFORCEMENT OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CODE ENFORCEMENT OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK.

LIST OF SPECIAL INSPECTIONS

1. EXCAVATION AND PLACEMENT OF STRUCTURAL FILL - AS OUTLINED IN THE GEOTECHNICAL REPORT
2. CONCRETE WORK - SEE CONCRETE SPECIAL INSPECTIONS SCHEDULE
3. MASONRY - SEE MASONRY SPECIAL INSPECTIONS SCHEDULE
4. WOOD FRAME CONSTRUCTION
 A. FRAMING MEMBERS & SHEATHING MATERIALS FOR COMPLIANCE WITH THE PLANS & SPECIFICATIONS.
 B. WOOD FRAME CONNECTIONS FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS & 2020 BCNYS.

WALL CONSTRUCTION NAILING REQUIREMENTS

(UNLESS NOTED OTHERWISE)

BUILDING ELEMENT	NAIL SIZE AND TYPE AND NUMBER	LOCATION
STUD TO SOLE PLATE	(2) 16d COMMON	END NAIL
CAP PLATE TO STUD	(2) 16d COMMON	END NAIL
DOUBLE STUDS	16d COMMON @ 16" O.C.	FACE NAIL
CORNER STUDS	16d COMMON @ 16" O.C.	FACE NAIL
SOLE PLATE TO FLOOR TRUSS OR BLOCKING	16d COMMON @ 16" O.C.	FACE NAIL
INTERIOR-BRACED WALL SOLE PLATE TO PARALLEL FLOOR TRUSS	16d COMMON @ 12" O.C.	FACE NAIL
DOUBLE CAP PLATE	16d COMMON @ 16" O.C.	FACE NAIL
CAP PLATE LAPS	(2) 16d COMMON	FACE NAIL
INTERIOR-BRACED WALL TOP PLATE TO TRUSS OR BLOCKING	16d COMMON @ 16" O.C.	FACE NAIL

1. ALL NAILS MUST BE INSTALLED IN ACCORDANCE WITH THE 2020 EDITION OF THE BCNYS

CONCRETE SPECIAL INSPECTION SCHEDULE

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	BC-NYS REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PLACEMENT.		X	ACI 318: 3.5, 7.1-7.7	1903.5, 1907.1, 1907.7
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B.			AWS D1.4 ACI 318: 3.5.2	1903.5.2
3. VERIFYING USE OF REQUIRED DESIGN MIX.		X	ACI 318; CH. 4, 5.2-5.4	1904, 1905.2-1905.4,
4. SAMPLING FRESH CONCRETE AND PERFORMING SLUMP, AIR CONTENT AND DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR STRENGTH TESTS.	X		ASTM C 172 ASTM C 31 ACI 318: 5, 6, 5.8	1905.6,
5. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X		ACI 318: 5.9, 5.10	1905.9, 1905.10,
6. INPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X	ACI 318: 5.11-5.13	1905.11, 1905.13, 1914.9

MASONRY SPECIAL INSPECTION SCHEDULE

INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: BC-NYS SECTION	REFERENCE FOR CRITERIA: ACI 530/ ASCE 5/TMS 402[a]	REFERENCE FOR CRITERIA: ACI 530.1/ ASCE 6/TMS 602[a]
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
A. PROPORTIONS OF SITE-PREPARED MORTAR.	-	X	-	-	ART. 2.6A
B. CONSTRUCTION OF MORTAR JOINTS.		X			ART. 3.3B
C. LOCATION OF REINFORCEMENT AND CONNECTORS		X			ART. 3.4 AND ART.3.6A ART. 3.6B
2. THE INSPECTION PROGRAM SHALL VERIFY:					
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.		X			3.3G
B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.		X		SEC. 1.15.4, 2.1.2	
C. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT.		X		SEC. 1.12	ART. 2.4,3.4
D. WELDING OF REINFORCING BARS.	X			SEC. 2.1.8.6 SEC. 2.1.8.6.2	
E. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 F) OR NOT WEATHER (TEMPERATURE ABOVE 90 F)		X	SEC.2104.3, 2104.4		ART. 1.8
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE.					
A. GROUT SPACE IS CLEAN.	-	X	-		ART. 3.2D
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS		X		SEC. 1.12	ART. 3.4
C. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.		X			ART. 2.6B
D. CONSTRUCTION OF MORTAR JOINTS.		X			ART. 3.3B
4. A. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	X	-	-	-	ART. 3.2D
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	X	-	SEC. 2105.3, 2105.4 2105.5	-	ART. 1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	-	X	-	-	ART. 1.5

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FILE NAME L Dor Apartments (Clarkstown Senoir Living Apt)\ST1 -ST5 - Framing Plans 09-17-20.dwg
X-Refs:

DATE: 07/31/20
REVISED:

PROJECT NO:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE: AS NOTED
NOTES:

STRUCTURAL NOTES

HARRIS A. SANDERS ARCHITECTS, P.C.
252 WASHINGTON AVENUE, ALBANY, NEW YORK 12210

L'DOR ADULT CARE FACILITY
WEST CLARKSTOWN ROAD
NEW CITY N.Y. 10956

SHEET NO:
ST1
OF: