DESIGN CRITERIA:

BUILDING CODE - INTERNATIONAL BUILDING CODE 2024 WITH GEORGIA AMENDMENTS.

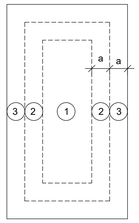
1. RISK CATEGORY & IMPORTANCE FACTORS:
   - A. RISK CATEGORY..... II
   - B. SNOW FACTOR..... 1.0
   - C. SEISMIC FACTOR..... 1.0
2. DESIGN DEAD LOADS:
   - A. FRONT CANOPY ROOF..... 10 PSF
   - B. BUILDING ROOF..... 55 PSF
3. DESIGN LIVE LOADS*:
   - A. ROOF..... 20 PSF

   * LIVE LOADS ARE REDUCIBLE IN ACCORDANCE WITH THE BUILDING CODE.
4. WIND LOADS:
   - A. ULTIMATE WIND SPEED..... 105 MPH
   - B. DIRECTIONALITY FACTOR (Kd)..... 0.85
   - C. EXPOSURE CATEGORY..... B
   - D. ENCLOSURE CLASSIFICATION - BUILDING..... ENCLOSED BUILDING
   - E. ENCLOSURE CLASSIFICATION - FRONT CANOPY... OPEN w/ OBSTRUCTIONS
   - F. GUST EFFECT FACTOR (G)..... 0.85
   - G. COMPONENT AND CLADDING LOADS (ZONES ARE PER ASCE-7)

FRONT CANOPY ROOF	< 10 FT²	> 10 FT²
NEGATIVE ZONE 1	-15.7 PSF	-15.7 PSF
NEGATIVE ZONE 2	-23.7 PSF	-15.7 PSF
NEGATIVE ZONE 3	-47.1 PSF	-15.7 PSF
POSITIVE ZONE 1	6.8 PSF	6.8 PSF
POSITIVE ZONE 2	10.7 PSF	6.8 PSF
POSITIVE ZONE 3	13.7 PSF	6.8 PSF

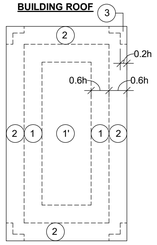
BUILDING ROOF	10 FT²	100 FT²
NEGATIVE ZONE 1	-38.4 PSF	-30.0 PSF
NEGATIVE ZONE 1'	-22.1 PSF	-22.1 PSF
NEGATIVE ZONE 2	-50.6 PSF	-39.8 PSF
NEGATIVE ZONE 3	-69.0 PSF	-47.4 PSF
POSITIVE ALL ZONES	16.0 PSF	16.0 PSF
OVERHANG ZONE 1&1'	-34.7 PSF	-32.7 PSF
OVERHANG ZONE 2	-47.0 PSF	-32.5 PSF
OVERHANG ZONE 3	-65.3 PSF	-40.1 PSF

CANOPY ROOF



C & C WIND ZONES
MONOSLOPES ≤ 3°, h ≤ 60'-0"

BUILDING ROOF

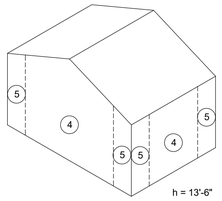


C & C WIND ZONES
GABLES Θ ≤ 7°, h ≤ 60'-0"
MONOSLOPES ≤ 3°, h ≤ 60'-0"

BUILDING WALLS		
NEGATIVE ZONE 4	-23.9 PSF	-20.6 PSF
NEGATIVE ZONE 5	-29.4 PSF	-22.9 PSF
POSITIVE ZONES 4 & 5	22.1 PSF	18.8 PSF

REFERENCE ASCE 7 FOR EFFECTIVE WIND AREAS NOT LISTED. OTHERWISE, USE THE SMALLEST APPLICABLE AREA.

WALLS



5. EARTHQUAKE LOADS:
   - A. SITE CLASS..... D (ASSUMED)
   - B. Ss =..... 0.24
   - C. S1 =..... 0.091
   - D. SDS =..... 0.2
   - E. SD1 =..... 0.13
   - F. SEISMIC DESIGN CATEGORY..... B
6. SNOW LOADS:
   - A. GROUND SNOW LOAD..... 15.0 PSF
   - B. FLAT ROOF SNOW LOAD (Pf)..... 12.4 PSF
   - C. THERMAL FACTOR (Ct)..... 1.185
   - D. SNOW EXPOSURE FACTOR (Ce)..... 1.0
   - E. UNIFORM ROOF SNOW LOAD..... 15.0 PSF

SPECIAL INSPECTIONS:

1. THE OWNER OR OWNER'S AGENT SHALL EMPLOY THE SERVICES OF ONE OR MORE APPROVED AGENCIES TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION ACCORDING TO THE SCHEDULE OF SPECIAL INSPECTIONS.
2. SPECIAL INSPECTION AND A FINAL REPORT IN ACCORDANCE WITH IBC SECTION 1704 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.
3. PRIOR TO THE START OF THE CONSTRUCTION, THE APPROVED AGENCIES SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THE COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION.
4. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   - A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   - B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   - C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
5. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
   - A. NOTIFY THE SPECIAL INSPECTOR THAT SPECIAL INSPECTIONS ARE NEEDED.
   - B. COORDINATE THE SCHEDULING AND TIMELY NOTIFICATION OF THE SPECIFIC INDIVIDUALS NEEDED FOR THE SPECIAL INSPECTION.
   - C. PROVIDE DIRECT ACCESS TO THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
   - D. SUBMIT FABRICATOR'S CERTIFICATES OF COMPLIANCE, WELDER'S CERTIFICATES, AND OTHER REQUIRED DOCUMENTATION FOR REVIEW BY THE SPECIAL INSPECTOR.
   - E. PROVIDE SAFE ACCESS TO THE WORK TO BE INSPECTED AND DELIVER SAMPLES FOR TESTING WHEN NEEDED.
6. THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS.
7. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION, EXCEPT WHERE THE FABRICATOR HAS BEEN APPROVED TO PERFORM WORK WITHOUT SPECIAL INSPECTIONS.

STRUCTURAL OBSERVATIONS:

1. WHERE REQUIRED, THE OWNER OR THE OWNER'S AUTHORIZED AGENT SHALL EMPLOY A REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS. THE STRUCTURAL OBSERVER SHALL VISUALLY OBSERVE REPRESENTATIVE LOCATIONS OF STRUCTURAL SYSTEMS, DETAILS AND LOAD PATHS FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
2. STRUCTURAL OBSERVATIONS (WHERE REQUIRED) DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTIONS BY THE AUTHORITY HAVING JURISDICTION OR SPECIAL INSPECTIONS.
3. PRIOR TO THE COMMENCEMENT OF OBSERVATIONS, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT IDENTIFYING THE FREQUENCY AND EXTENT OF STRUCTURAL OBSERVATIONS.
4. AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
5. IF WILLETT ENGINEERING IS NOT SPECIFICALLY ENGAGED TO PERFORM THE SERVICES AS THE STRUCTURAL OBSERVER, WEC ASSUMES THE OWNER OR OWNER'S AGENT HAS CONTACTED A THIRD-PARTY ENGINEER FOR THESE SERVICES.

QUALITY ASSURANCE:

1. THE CONTRACTOR/OWNER SHALL EMPLOY AND PAY FOR THE SERVICES OF AN INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE OWNER TO PROVIDE QUALITY ASSURANCE TESTING AND INSPECTIONS. THE TESTING AGENCY SHALL BE LICENSED BY THE PROJECT STATE AND ALL TESTING AND INSPECTIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF AN ENGINEER REGISTERED IN THE PROJECT STATE.
2. FAILURE OF QUALITY ASSURANCE TESTING AND INSPECTIONS TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS NOTED, NOR SHALL IT OBLIGATE THE OWNER'S REPRESENTATIVE FOR FINAL ACCEPTANCE.
3. THE TESTING AGENCY AND ITS REPRESENTATIVE ARE NOT AUTHORIZED TO REVOKE, ALTER, RELAX, ENLARGE OR RELEASE ANY PORTION OF THE WORK, PERFORM ANY DUTIES OF THE CONTRACTOR OR BE A PARTY TO SCHEDULING OF WORK.
4. RECORDS OF INSPECTIONS SHALL BE KEPT AVAILABLE TO THE BUILDING OFFICIAL DURING PROGRESS OF THE WORK AND FOR TWO YEARS AFTER COMPLETION OF THE PROJECT. RECORDS SHALL BE PRESERVED BY THE INDEPENDENT TESTING AGENCY.

SUBMITTALS:

1. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATES MAY IMPACT REVIEW SCHEDULE.
2. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
   - A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
   - B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE ICC-ES, AND THE ICC-ES REPORT IS SUBMITTED WITH THE REQUEST. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.
   - C. BEAR THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IN THE PROJECT STATE VERIFYING THE STRUCTURAL ADEQUACY OF THE SUBSTITUTION.
3. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER-OF-RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER-OF-RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. SEE SPECIFIC PROVISIONS IN THE CONTRACT DOCUMENTS DEALING WITH THE APPROPRIATE DESIGN RESPONSIBILITIES OF CONTRACTORS, SUBCONTRACTORS AND CONTRACT SUPPLIERS.
4. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT AND OBLIGATES HIM TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING FROM ANY ERRORS THAT MAY OCCUR HEREIN.

DEFERRED SUBMITTALS (DELEGATED DESIGN):

1. DEFERRED SUBMITTALS ARE DEFINED AS THE FOLLOWING PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF APPLICATION AND THAT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD:
   - A. COLD-FORMED METAL FRAMING
   - B. HANDRAILS & GUARDS
2. THE DEFERRED SUBMITTALS SHALL BE APPROVED BY THE PROJECT ARCHITECT AND/OR ENGINEER-OF-RECORD. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN AUTHORIZED BY THE BUILDING OFFICIAL.
3. DOCUMENTS FOR DEFERRED STRUCTURAL SUBMITTAL ITEMS SHALL BE DESIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT STATE.
4. DEFERRED SUBMITTAL DOCUMENTS WILL BE REVIEWED FOR DESIGN LOADS AND GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
5. DEFERRED SUBMITTALS THAT DO NOT CONTAIN THE SEAL OF A PROFESSIONAL ENGINEER WILL BE REJECTED WITHOUT REVIEW.

MISCELLANEOUS:

1. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD, IN WRITING, OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD, REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN THE WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
2. THE CONTRACTOR SHALL NOTIFY, IN WRITING, THE ARCHITECT OR STRUCTURAL ENGINEER-OF-RECORD OF CONDITIONS ENCOUNTERED IN THE FIELD WHICH ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS. THIS INCLUDES VERIFICATION OF ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK.
3. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL THE TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.
4. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECT'S OR ENGINEER'S PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
6. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.
7. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN OR TO ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT OR ENGINEER-OF-RECORD.
8. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT OR ENGINEER-OF-RECORD.
9. DO NOT SCALE THESE DRAWINGS: USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.
10. WHERE A SECTION/DETAIL IS CUT ON THE PLAN, IT IS ASSUMED/UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
11. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ALL OTHER TRADES AND DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ARCHITECT OR ENGINEER-OF-RECORD OF ANY DISCREPANCIES OR OMISSIONS.
12. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.
13. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AND SHALL PROVIDE FOR ALL OPENINGS WHETHER SHOWN ON THE DRAWINGS OR NOT. THEY SHALL VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL CONTRACTOR. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL.
14. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZE AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
15. THE CONTRACTOR SHALL VERIFY ALL FLOOR AND ROOF MOUNTED MECHANICAL EQUIPMENT WEIGHTS AS WELL AS FLOOR AND/OR ROOF OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
16. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
17. NONSTRUCTURAL COMPONENTS SUCH AS ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING COMPONENTS SHALL BE DESIGNED AND DETAILED TO RESIST SEISMIC FORCES, IF APPLICABLE, BY THE DISCIPLINE THAT HAS SPECIFIED THE COMPONENT.
18. EXISTING BUILDINGS & THEIR COMPONENTS ARE SHOWN AS THE UNDERSTOOD IN-PLACE CONDITION. SHOULD EXISTING CONDITIONS DIFFER FROM WHAT IS SHOWN, NOTIFY THE ARCHITECT OR STRUCTURAL ENGINEER-OF-RECORD PRIOR TO FABRICATION OF ANY AFFECTED ELEMENTS.

FOUNDATIONS:

1. FOUNDATION DESIGN IS BASED ON ASSUMED STABLE, NON-EXPANSIVE SOIL WITH AN ALLOWABLE NET BEARING PRESSURE OF 2.0 KSF UNDER FULL SERVICE LIVE AND DEAD LOAD WITH A MAXIMUM OF 1/2 INCH OF DIFFERENTIAL SETTLEMENT. A GEOTECHNICAL ENGINEER LICENSED IN THE PROJECT STATE SHALL DETERMINE THE VALIDITY OF THESE ASSUMPTIONS AND THE ENGINEER-OF-RECORD SHALL BE NOTIFIED IF THE SOIL DOES NOT MEET ANY OF THE MINIMUM CRITERIA.
2. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NON-EXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY EXISTS.
3. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
4. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZES AND DIMENSIONS, AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.
5. IN THE AREA OF THE STRUCTURE, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS AS IDENTIFIED BY THE GEOTECHNICAL INVESTIGATION REPORT SHALL BE REMOVED. ANY FILL MATERIAL REQUIRED AT THE SITE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT AND APPROVED BY A SOILS ENGINEER. ROCKS OF A DIAMETER GREATER THAN THAT SPECIFIED SHALL BE EXCLUDED FROM STRUCTURAL FILL LIFTS. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS ACCORDING TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND COMPACTED TO A SPECIFIED MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED COMPACTION TEST (ASTM D1557). ADEQUATE FIELD DENSITY AND MOISTURE CONTENT TESTS SHALL BE PERFORMED TO ENSURE COMPLIANCE.
6. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REWORKED TO THE SATISFACTION OF THE TESTING ENGINEER PRIOR TO CASTING THE CONCRETE.
7. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
8. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-0" BELOW FINAL GRADE FOR FROST PROTECTION.
9. WHEN UNSATISFACTORY OR UNCONTROLLED FILL IS ENCOUNTERED, REMOVAL AND REPLACEMENT WILL BE PAID ON THE BASIS OF UNIT PRICES SET FORTH IN THE CONTRACT IF APPLICABLE.
10. DRAINAGE FILL SHALL BE AN EVENLY GRADED MIXTURE OF NATURAL OR CRUSHED STONE, CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD C33, AND HAVING A GRADATION AS FOLLOWS:

    100 % PASSING.....A 3/4" SIEVE
    10-30 % PASSING..... A 1/2" SIEVE
    0-10 % PASSING..... A 3/8" SIEVE
    0-5 % PASSING..... A #4 SIEVE
11. ANY FILL WITHIN 10'-0" OF THE STRUCTURE SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER FOR PREPARATION.
12. BACKFILL AROUND AND OVER FOUNDATION ELEMENTS SHALL BE OF SUITABLE MATERIAL, INSPECTED AND PRE-APPROVED BY THE TESTING AGENCY.
13. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8-INCH LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF THE WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLABS/FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM DESIGN COMPRESSIVE STRENGTH. WALLS WITH SLAB-ON-GROUND AT THE TOP OF THE WALL SHALL BE SAFELY SHORED AND BRACED DURING BACKFILLING.
14. MAXIMUM SLOPE OF EXCAVATIONS SHALL BE IDENTIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT AND ADHERED TO. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.
15. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
16. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.
17. THERE SHALL BE NO HORIZONTAL OR VERTICAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
18. CONCRETE CAST ON SLOPING SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POUR IS COMPLETED.
19. THE CONTRACTOR SHALL TAKE PREVENTATIVE MEASURES TO LOCATE AND NOT DAMAGE UNDERGROUND UTILITIES.
20. THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT OR SHORING TO EXISTING OR IN-PLACE FOUNDATIONS WHERE EXCAVATIONS OCCUR ADJACENT TO THE EXISTING BUILDING OR NEW IN-PLACE ELEMENTS TO PREVENT UNDERMINING.

CONCRETE:

1. CODE: AMERICAN CONCRETE INSTITUTE (ACI) 318
2. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI
3. ALL CONCRETE SHALL HAVE A DENSITY OF 145 PCF UNLESS NOTED OTHERWISE.
4. CONCRETE SHALL BE ENTRAINED AS REQUIRED TO CONFORM TO DURABILITY REQUIREMENTS OF ACI 318.
5. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR ALL UNIQUE CONCRETE APPLICATIONS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. MIX DESIGN TEST DATA SHALL COMPLY WITH ACI 318 AND SHALL INCLUDE (AT A MINIMUM) AVERAGE 28-DAY STRENGTH, NUMBER OF SAMPLES, AND STANDARD DEVIATION (IF APPLICABLE). TEST RESULTS SHALL NOT BE MORE THAN 24 MONTHS OLD AT TIME OF SUBMITTAL.
6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064. CAST WIRE AT THE ELEVATION SPECIFIED, DO NOT PULL THE WIRE INTO POSITION. LAP FABRIC 6" MINIMUM SIDES AND ENDS.
7. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF THE ACI DETAILING MANUAL.
8. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE. SITE MIXING CONCRETE (INCLUDING ADDING WATER ON SITE) IS PROHIBITED.
9. REINFORCEMENT LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 (CLASS "B" WHERE APPLICABLE), UNLESS NOTED OTHERWISE. ALL CONTINUOUS REINFORCEMENT SHALL BE SPLICED AS REQUIRED.
10. HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90-DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS, AS SHOWN ON TYPICAL BAR PLACING DETAILS.
11. PROVIDE STANDARD BAR CHAIRS WITH PROTECTIVE TIPS FOR ALL REINFORCEMENT.
12. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
13. PRODUCTS AND MATERIALS:
    - A. TYPE I/II PORTLAND CEMENT SHALL CONFORM TO ASTM-C150.
    - B. AGGREGATES SHALL CONFORM TO ASTM C-33.
    - C. REINFORCING BARS SHALL CONFORM TO ASTM A-615 (GRADE 60).
    - D. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.
    - E. NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER.
14. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH LATEST ADDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
15. MINIMUM CONCRETE COVER (UNLESS NOTED OTHERWISE) SHALL BE:

    CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH..... 3 INCHES
    CONCRETE EXPOSED TO EARTH OR WEATHER:
    #6 BARS AND LARGER..... 2 INCHES
    #5 BARS AND SMALLER..... 1-1/2 INCHES
    CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
    BEAMS AND COLUMNS..... 1-1/2 INCHES
    SLABS, WALLS, AND JOISTS..... 3/4 INCHES
16. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED WITHOUT ENGINEER'S APPROVAL. WHERE WELDING IS APPROVED, IT SHALL CONFORM TO AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL.
17. SLAB-ON-GRADE SHALL BE SAW CUT IMMEDIATELY AFTER CONCRETE HARDENS. THE CONTRACTOR SHALL SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE ("SOFT CUT" ® INTERNATIONAL OR SIM.)
18. CONTROL JOINTS IN SLABS ON GROUND SHALL BE LOCATED AT 12'-0" MAXIMUM SPACING AND SHALL CREATE SECTIONS OF SLAB WITH A MAXIMUM ASPECT RATIO OF 1.5:1. CONTROL JOINTS SHALL BE SAWN AND SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS DEEP IF CUT WITH A CONVENTIONAL SAW, OR 1" DEEP IF CUT WITH AN EARLY-ENTRY DRY-CUT SAW. THE CONTROL JOINTS SHALL BE SAWN AS SOON AS THE SAW BLADE CAN CUT THE CONCRETE WITHOUT DISPLACING THE AGGREGATE. CUT EVERY OTHER MESH WIRE AT THE CONTROL JOINT LOCATION PRIOR TO PLACING CONCRETE.
19. SAWN CONTROL JOINTS SHALL BE PLACED AS SOON AS CONCRETE IS ABLE TO BE SAWN WITHOUT PULLING AGGREGATE FROM FLOOR. SLABS SHALL NOT BE LEF