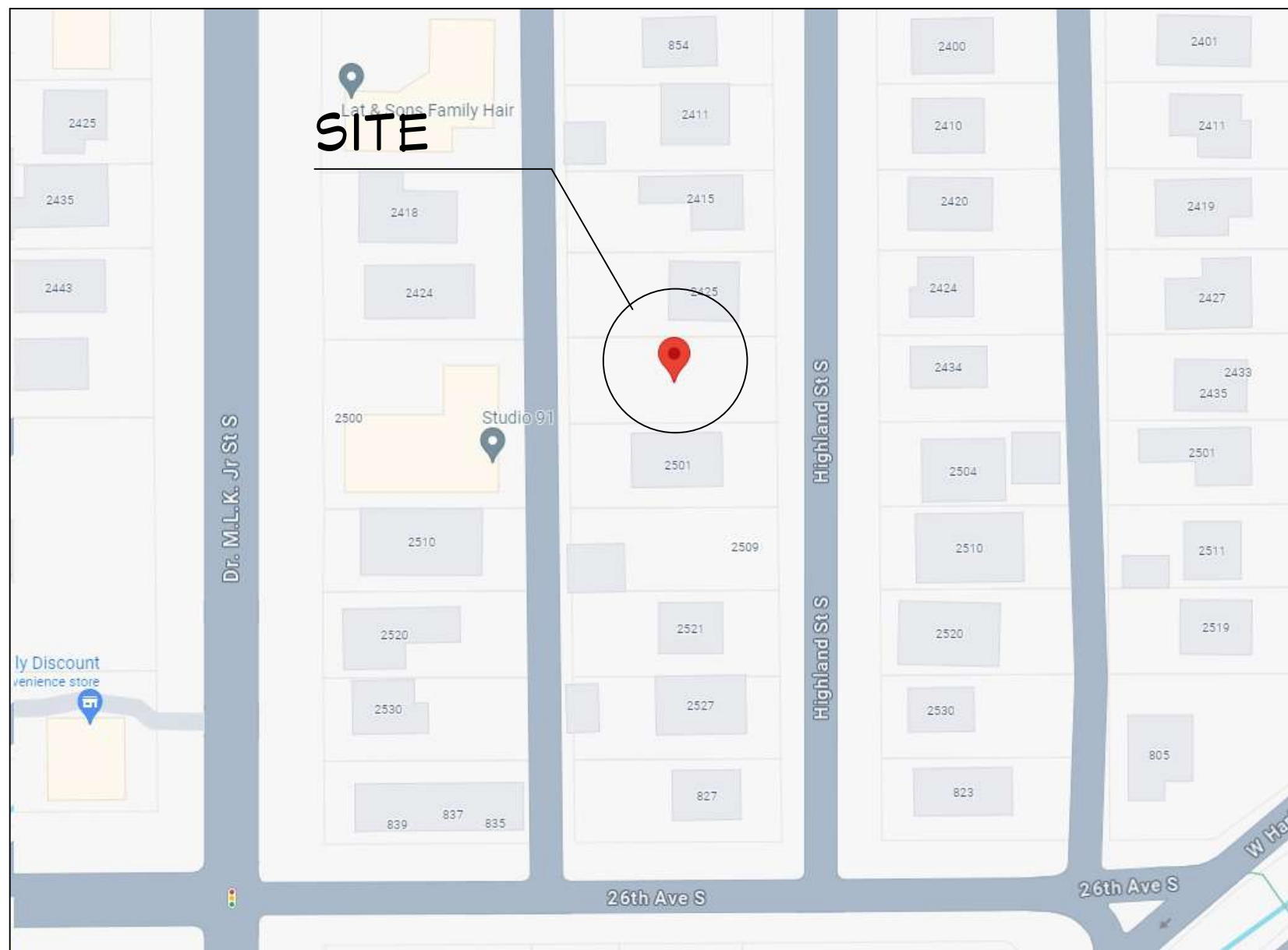


SINGLE-FAMILY RESIDENTIAL BUILDING

2435 HIGHLAND ST. S, ST. PETERSBURG, FL 33705



VICINITY MAP
NOT TO SCALE



RENDERING
FOR ILLUSTRATION ONLY



RENDERING
FOR ILLUSTRATION ONLY

GENERAL NOTES:

THIS PLAN SET, COMBINED WITH THE BUILDING CONTRACT, PROVIDES BUILDING DETAILS FOR THE RESIDENTIAL PROJECT. THE CONTRACTOR SHALL VERIFY THAT SITE CONDITIONS ARE CONSISTENT WITH THESE PLANS BEFORE STARTING WORK. WORK NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED TO THE SAME QUALITY AS SIMILAR WORK THAT IS DETAILED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH INTERNATIONAL BUILDING CODES AND LOCAL CODES. CONTRACTOR SHALL BE RESPONSIBLE AND BEAR ANY FINES OR PENALTIES FOR CODE, ORDINANCE, REGULATION OR BUILDING PROCESS VIOLATIONS. INSURANCES SHALL BE IN FORCE THROUGHOUT THE DURATION OF THE BUILDING PROJECT.

WRITTEN DIMENSIONS AND SPECIFIC NOTES SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND GENERAL NOTES. THE ENGINEER/DESIGNER SHALL BE CONSULTED FOR CLARIFICATION IF SITE CONDITIONS ARE ENCOUNTERED THAT ARE DIFFERENT THAN SHOWN, IF DISCREPANCIES ARE FOUND IN THE PLANS OR NOTES, OR IF A QUESTION ARISES OVER THE INTENT OF THE PLANS OR NOTES. CONTRACTOR SHALL VERIFY AND IS RESPONSIBLE FOR ALL DIMENSIONS (INCLUDING ROUGH OPENINGS). ALL TRADES SHALL MAINTAIN A CLEAN WORK SITE AT THE END OF EACH WORK DAY.

PLEASE SEE ADDITIONAL NOTES CALLED OUT ON OTHER SHEETS.

BUILDING DESIGN AND CODE DATA:

NOTE: THIS WAS A PURPOSE DRAWING Branch Circuitry and Panel designations to be designed and installed by certified local electrician. L.S. (NFPA 101 LIFE SAFETY CODE) AS APPLICABLE.

APPLICABLE BUILDING CODES:

8TH EDITION 2023 FLORIDA BUILDING CODE - BUILDING
8TH EDITION 2023 FLORIDA BUILDING CODE - ENERGY
8TH EDITION 2023 FLORIDA BUILDING CODE - PLUMBING
8TH EDITION 2023 FLORIDA BUILDING CODE - MECHANICAL
8TH EDITION 2023 FLORIDA BUILDING CODE - ACCESSIBILITY
8TH EDITION 2023 FLORIDA FIRE PREVENTION CODE
NEC NATIONAL ELECTRICAL CODE - NFPA 70

CONSTRUCTION TYPE: (BASED ON CHAPTER 5 OF THE IBC)

CONSTRUCTION TYPE: V B
FIRE RATINGS FOR BUILDING ELEMENTS (BASED ON SECTION 602.1 & TABLES 601 & 602 OF THE IBC):

FIRE PROTECTION SYSTEMS SUMMARY:

AN AUTOMATIC FIRE SPRINKLER SYSTEM AS DESCRIBED PER IBC SECTION 903 IS NOT REQUIRED.

OWNER: NATALIE WILLIAMS

PROJECT: PROPOSED SINGLE-FAMILY RESIDENTIAL BUILDING
ADDRESS: 2435 HIGHLAND ST. S, ST. PETERSBURG, FL 33705

WATER/SEWER: PUBLIC
BUILDING PERMIT: STATE OF FLORIDA
ZONING: NT-1
COUNTY: PINELLAS
OCCUPANCY CLASSIFICATION USE: R-3 (RESIDENTIAL-BASED ON CHAPTER 3 OF THE IBC)

LOT AREA: 6,286 SF
BUILDING AREA: 2771 SF
SITE DISTURBANCE: 3194 SF

DESIGNER: ASWIN KUMAR
DESIGN CONSULTANT: TRANSFORMATIVE CONSTRUCTION
BUILDER: TBD
ENGINEERING: ARMENTROUT MATHENY THURMOND, P.C.
ADDRESS: OAKBROOK CORPORATE CAMPUS
330 RESEARCH DRIVE, SUITE A240
ATHENS, GEORGIA 30605-2760
MR. MICHAEL B. THURMOND, PE
706-548-8211

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PROJECT SUMMARY

2435 Highland St S, Saint
Petersburg, FL 33705
SINGLE-FAMILY
RESIDENTIAL HOUSE

TRANSFORMATIVE
CONSTRUCTION
EXPERTS

TransformativeConstruction@gmail.com
3975 Summit Circle NW
Acworth, GA 30101

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SHEET NUMBER

1

SCALE @ 24" X 36"

DATE: 05-08-2024

DRAWN BY: AK

GENERAL NOTES:

- DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN. ALL CLEAR DIMENSIONS ARE NOT TO BE ADJUSTED WITHOUT APPROVAL OF THE ARCHITECT. WHEN SHOWN IN PLAN, ALL DIMENSIONS ARE TO FACE OF STUD, CONCRETE, CENTERLINE OF COLUMNS, OR CENTERLINE OF WALL ASSEMBLIES, UNLESS OTHERWISE NOTED. WHEN SHOWN IN SECTION OR ELEVATION, ALL DIMENSIONS ARE TO TOP OF PLATE, TOP OF CONCRETE, OR TOP OF CEMENT-BASED UNDERLAYMENT UNLESS OTHERWISE NOTED. DIMENSIONS TO EXISTING ELEMENTS ARE TO FACE OF FINISH AT TIME EXISTING CONDITIONS ARE DOCUMENTED.
- ARCHITECTURAL SERVICE AGREEMENT IS ONLY FOR DRAWINGS REQUIRED FOR PERMIT & APPROVAL. EXTENSIVE DRAWINGS & SPECIFICATIONS ARE NOT PART OF THIS AGREEMENT. COORDINATION, CODE COMPLIANCE, CONSTRUCTION DETAILING, & MECHANICAL, ELECTRICAL, & PLUMBING DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR AND/OR OTHER CONSULTANTS. THE PROFESSIONAL SERVICES OF THE ARCHITECT DO NOT EXTEND TO OR INCLUDE THE REVIEW OR OBSERVATION OF THE CONTRACTOR'S WORK OR PERFORMANCE.
- CIVIL/ SITE ENGINEERING PERFORMED BY OTHERS. REFER TO THOSE DOCUMENTS FOR SITE RELATED ITEMS, INCLUDING BUT NOT LIMITED TO GRADING, WALKS AND STOOPS, ADA ACCESS, ZONING CRITERIA, FINISH FLOOR ELEVATION, ETC.
- SUBMITTALS WILL BE REVIEWED BY THE ARCHITECT ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201; AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
- DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
- PROVIDE AND INSTALL 2x FLAT WOOD BLOCKING OR 16 GA METAL STRAPPING FOR ALL BATH ACCESSORIES, HANDRAILS, CABINETS, TOWEL BARS, WALL MOUNTED FIXTURES AND ANY OTHER ITEMS ATTACHED TO WALLS.
- ALL CHANGES IN FLOOR MATERIALS OCCUR AT CENTERLINE OF DOOR OR FRAMED OPENINGS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- INSTALL ALL FIXTURES, EQUIPMENT, AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS AND THE REQUIREMENTS OF THE CODES. ALL APPLIANCES, FIXTURES, AND EQUIPMENT ASSOCIATED WITH PLUMBING, ELECTRICAL, AND MECHANICAL SYSTEMS SHALL BE LISTED BY A NATIONALLY RECOGNIZED AND APPROVED AGENCY. IF MANUFACTURER'S RECOMMENDATIONS & CODE REQUIREMENTS CONTRADICT THE CONTRACT DOCUMENTS, CONTRACTOR SHALL NOTIFY THE ARCHITECT, IN WRITING IMMEDIATELY, TO RESOLVE DISCREPANCIES PRIOR TO PROCEEDING.
- THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS, OR DISCOLORATION. JOINTING SHALL BE TIGHT FITTING, NEAT AND WELL SCRIBED. THE FINISH WORK SHALL NOT HAVE EXPOSED UNSIGHTLY ANCHORS OR FASTENERS AND SHALL NOT PRESENT HAZARDOUS, UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISION FOR EXPANSION CONTRACTION, AND SHRINKAGE AS NECESSARY TO PREVENT CRACKS, BUCKLING AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONDITIONS.
- ATTACHMENTS, CONNECTIONS, OR FASTENINGS OF ANY NATURE ARE TO BE PROPERLY AND PERMANENTLY SECURED IN CONFORMANCE WITH BEST PRACTICE AND THE CONTRACTOR IS RESPONSIBLE FOR IMPROVING THEM ACCORDING TO THESE CONDITIONS. THE DRAWINGS SHOW ONLY SPECIAL CONDITIONS TO ASSIST THE CONTRACTOR: THEY DO NOT ILLUSTRATE EVERY SUCH CONDITION AND DETAIL.
- PROVIDE FIRE-BLOCKING & DRAFT STOPPING AT ALL CONCEALED DRAFT OPENINGS (VERTICAL & HORIZONTAL) AS REQUIRED PER APPLICABLE CODES.
- MECHANICAL, PLUMBING, ELECTRICAL, AND OTHER PENETRATIONS OF FLOORS, WALLS, AND CEILINGS SHALL BE SEALED AIRTIGHT WITH ACOUSTICAL SEALANT AND FIRE SAFING AS REQUIRED.
- ALL EXTERIOR DOORS AND WINDOWS ARE TO BE WEATHERSTRIPPED.
- DISCREPANCIES: WHERE A CONFLICT IN REQUIREMENTS OCCURS BETWEEN THE SPECIFICATIONS AND DRAWINGS, OR ON THE DRAWINGS, AND A RESOLUTION IS NOT OBTAINED FROM THE ARCHITECT BEFORE THE BIDDING DATE, THE MORE STRINGENT ALTERNATE WILL BECOME THE CONTRACTUAL REQUIREMENTS.
- ANY CHANGE OR FIELD ALTERATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO CONSTRUCTION.
- THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS, OR DISCOLORATION. JOINTING SHALL BE TIGHT FITTING, NEAT AND WELL SCRIBED. THE FINISH WORK SHALL NOT HAVE EXPOSED UNSIGHTLY ANCHORS OR FASTENERS AND SHALL NOT PRESENT HAZARDOUS, UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISION FOR EXPANSION CONTRACTION, AND SHRINKAGE AS NECESSARY TO PREVENT CRACKS, BUCKLING AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONDITIONS.
- CUT AND FIT COMPONENTS FOR ALTERATION OF EXISTING WORK AND INSTALLATION OF NEW WORK. PATCH DISTURBED AREAS TO MATCH ADJACENT MATERIALS AND FINISHES.
- PATCH AND REPAIR ALL FIREPROOFING DAMAGED OR REMOVED DURING PERFORMANCE OF THE WORK. FIREPROOF NEW PENETRATIONS REQUIRED BY THE WORK AND EXISTING PENETRATIONS IN EXPOSED PLENUM AREAS.
- MAKE ALL NECESSARY PROVISIONS FOR ITEMS TO BE FURNISHED OR INSTALLED BY OWNER. PROVIDE PROTECTION FOR THESE PROVISIONS UNTIL COMPLETION OF THE PROJECT. GENERAL CONTRACTOR TO COORDINATE N.I.C. ITEMS WITH APPROPRIATE TRADES
- ALL WORK SHALL BE PERFORMED BY LICENSED & INSURED CONTRACTORS. CONTRACTOR & ALL SUBCONTRACTORS MUST SUPPLY PROOF OF INSURANCE, LIABILITY, & WORKMAN'S COMPENSATION.
- THE GENERAL CONTRACTOR SHALL CONTINUOUSLY CHECK ARCHITECTURAL & STRUCTURAL CLEARANCE FOR ACCESSIBILITY OF EQUIPMENT & MEP SYSTEMS AND THAT NO CONFLICTS EXIST IN LOCATIONS OF ANY AND ALL MECHANICAL, TELEPHONE, ELECTRICAL, PLUMBING AND SPRINKLER EQUIPMENT AND ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE OF ALL ABOVE EQUIPMENT ARE PROVIDED. WHAT ELEMENTS ARE TO BE EXPOSED OR CONCEALED SHALL BE DETERMINED AND REVIEWED WITH ARCHITECT PRIOR TO CONSTRUCTION PROCEEDING.
- THE CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, AND TECHNIQUES FOR CONSTRUCTION.
- ALL OSHA REGULATIONS SHALL BE FOLLOWED. THE GENERAL CONTRACTOR & EACH SUB-CONTRACTOR IS RESPONSIBLE FOR JOB-SITE SAFETY.
- UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT ARE TO BE INSTALLED PER THE APPLICABLE PROVISIONS OF THESE DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- CONTRACTOR TO VERIFY ALL FRAMING MEMBERS FOR LIVE AND DEAD LOAD SUPPORT.
- WHEN USING THESE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, ALL CONTRACTORS ARE REQUIRED TO REVIEW AND TREAT THEM AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT THEIR PORTION OF THE WORK; EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE AFFECTED CONTRACTOR IS REQUIRED TO EITHER OBTAIN DIRECTION FROM AN APPROPRIATE REPRESENTATIVE OF THE OWNER, OR OTHERWISE APPLY THE MORE STRINGENT LOCATIONS.
- THESE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL; AND THEY ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION. CONTRACTORS ARE REQUIRED TO REVIEW THESE PLANS FOR ERRORS AND OMISSIONS, AND BRING THESE TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER; AND ANY CONTRACTOR WHO FAILS TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING ASSUMES THE RISK OF ANY CONSEQUENCES. CONTRACTORS PROCEED AT THEIR OWN RISK IF THEY FAIL TO VERIFY FIELD MEASURE DIMENSIONS BEFORE PROCEEDING WITH ANY AFFECTED PROCUREMENT, FABRICATION, OR CONSTRUCTION. SCHEMATIC PLANS ARE INTENDED ONLY TO DEMONSTRATE THE RELATIONSHIP AMONG COMPONENT PARTS, AND NOT TO DEPICT SPECIFIC LOCATIONS.
- THE GENERAL CONTRACTOR SHALL VERIFY AND ASSUME RESPONSIBILITY FOR ALL DIMENSIONS AND SITE CONDITIONS. THE GENERAL CONTRACTOR SHALL INSPECT THE EXISTING PREMISES AND TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE REASONABLY BEEN INFERRED FROM SUCH AN EXAMINATION. ANY VARIATIONS OR DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, & ELECTRICAL SYSTEMS. THIS INCLUDES REVIEWING REQUIREMENTS OF INDIVIDUAL SYSTEMS BEFORE ORDERING AND INSTALLATION OF ANY WORK. VERIFY ALL ARCHITECTURAL DETAILS AND ALL FINISH CONDITIONS (WHETHER DEPICTED IN DRAWINGS OR NOT) WITH SAME DISCIPLINES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING AND OBTAINING ALL REQUIRED INSPECTIONS & PERMITS. ALL WORK SHALL CONFORM WITH LOCAL & NATIONAL BUILDING & FIRE CODES.
- CONTRACTOR IS RESPONSIBLE FOR SECURING SITE FROM WEATHER & THEFT FOR THE DURATION OF THE PROJECT
- THE SITE SHALL BE KEPT CLEAN & ORDERLY AT ALL TIMES. TRASH SHALL BE REMOVED ON A DAILY BASIS.
- CONTRACTOR TO SUPPLY ALL INSPECTION APPROVALS & LIEN WAVERS PRIOR TO RELEASE OF RETAINAGE.
- GENERAL CONTRACTOR SHALL COORDINATE THE LAYOUT AND EXACT LOCATIONS OF ALL PARTITIONS, DOORS, ELECTRICAL/TELEPHONE OUTLETS AND LIGHT SWITCHES WITH ARCHITECT BEFORE PROCEEDING WITH CONSTRUCTION.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR AND SHALL PROVIDE PROTECTION FOR ANY INSTALLED BUILDING FINISHES.
- CONTRACTOR SHALL PROVIDE MANUFACTURER'S SPECIFICATIONS, INSTALLATION INSTRUCTIONS, SHOP DRAWINGS AND SAMPLES FOR REVIEW AND APPROVAL OF ALL MATERIAL AND METHODS TO BE USED PRIOR TO ORDERING OR PROCEEDING WITH THE WORK.
- CONTRACTOR TO VERIFY CLEARANCES FOR FLUES, VENTS, CHASES, SOFFITS, FIXTURES, FIREPLACES, ETC., BEFORE ANY CONSTRUCTION, ORDERING OF, OR INSTALLATION OF ANY ITEM OF WORK.
- EXERCISE EXTREME CARE AND PRECAUTION DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT STRUCTURES AND THEIR OCCUPANTS, PROPERTY, PUBLIC THOROUGHFARES, ETC. CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS FROM CONSTRUCTION PROCEDURES
- THE CONTRACT DOCUMENTS ARE THE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT WHETHER HE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THE CONTRACT DOCUMENTS ARE NOT TO BE USED BY THE OWNER FOR OTHER PROJECTS OR EXTENSIONS TO THE PROJECT NOR ARE THEY TO BE MODIFIED IN ANY MANNER WHATSOEVER EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ARCHITECT.
- ALL EGRESS DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. NO BOLTS, HOOKS, OR SIMILAR DEVICES SHALL BE USED. INSTALLATION SHALL BE IN ACCORDANCE WITH IBC BUILDING CODE; APPLICABLE EDITION.



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3975 Summit Circle NW
Acworth, GA 30101

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2435 Highland St S, Saint Petersburg, FL 33705

**SINGLE-FAMILY
RESIDENTIAL HOUSE**

GENERAL NOTES

SCALE @ 24" = 36"

DATE: 05-08-2024

DRAWN BY: AK

SHEET NUMBER

2

SOIL: *2,000 PSF ALLOWABLE (ASSUMED) TO BE AT TIME OF EXCAVATION. SHALLOW AND MODERATELY DEEP, WELL-DRAINED SOIL FORMED IN MATERIAL WEATHERED FROM BASALT THAT HAS A SMALL AMOUNT OF LOESS IN THE UPPER PART OF THE PROFILE. THE PERMEABILITY IS ESTIMATED TO BE GOOD.

SITE SURVEY TO VERIFY PIN LOCATIONS AND HOME LOCATION PRIOR TO EXCAVATION.
CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES. ALL FINISH GRADES SHALL BE SMOOTH AND UNIFORM

THE PROPOSED SITE LOCATION IS 2435 HIGHLAND ST. S, ST. PETERSBURG, FL 33705. THE PROPOSED PROJECT INCLUDES A SINGLE-FAMILY RESIDENCE,

EROSION CONTROL NOTES:

1. INSTALL SILT FENCE PRIOR TO ANY EXCAVATION OR CONSTRUCTION
2. MINIMIZE SITE DISTURBANCE BY TIGHT CONTROL OF EXCAVATION LIMITS.
3. ALL EXPOSED SOIL SHALL BE MULCHED WITH STRAW OR WOOD CHIPS TO MINIMIZE SOIL EROSION. NO SOIL SHALL BE LEFT IN AN EXPOSED CONDITION. IT IS RECOMMENDED THAT THE CONTRACTOR MAINTAIN A STOCK PILE OF THIS MATERIAL ON SITE FOR QUICK APPLICATION.
4. HYDROSEED WITH A WOOD CELLULOSE FIBER MULCH APPLIED AT A RATE OF 2,000# / ACRE. USE AN OAT OR RYE SEED AT NO LESS THAN 1# / ACRE OR PER MANUFACTURER'S RECOMMENDATION IF HIGHER. APPLICATION OF TACKIFIER SHALL BE HEAVIER AT EDGES, IN VALLEYS AND AT CRESTS OF BANKS AND OTHER AREAS WHERE SEED CAN BE MOVED BY WIND OR WATER
5. STRIP SNAKES SHALL OVERTLOW ONTO NATIVE UNDISTURBED GROUND. NO SITE DISTURBANCE BELOW SWALES.

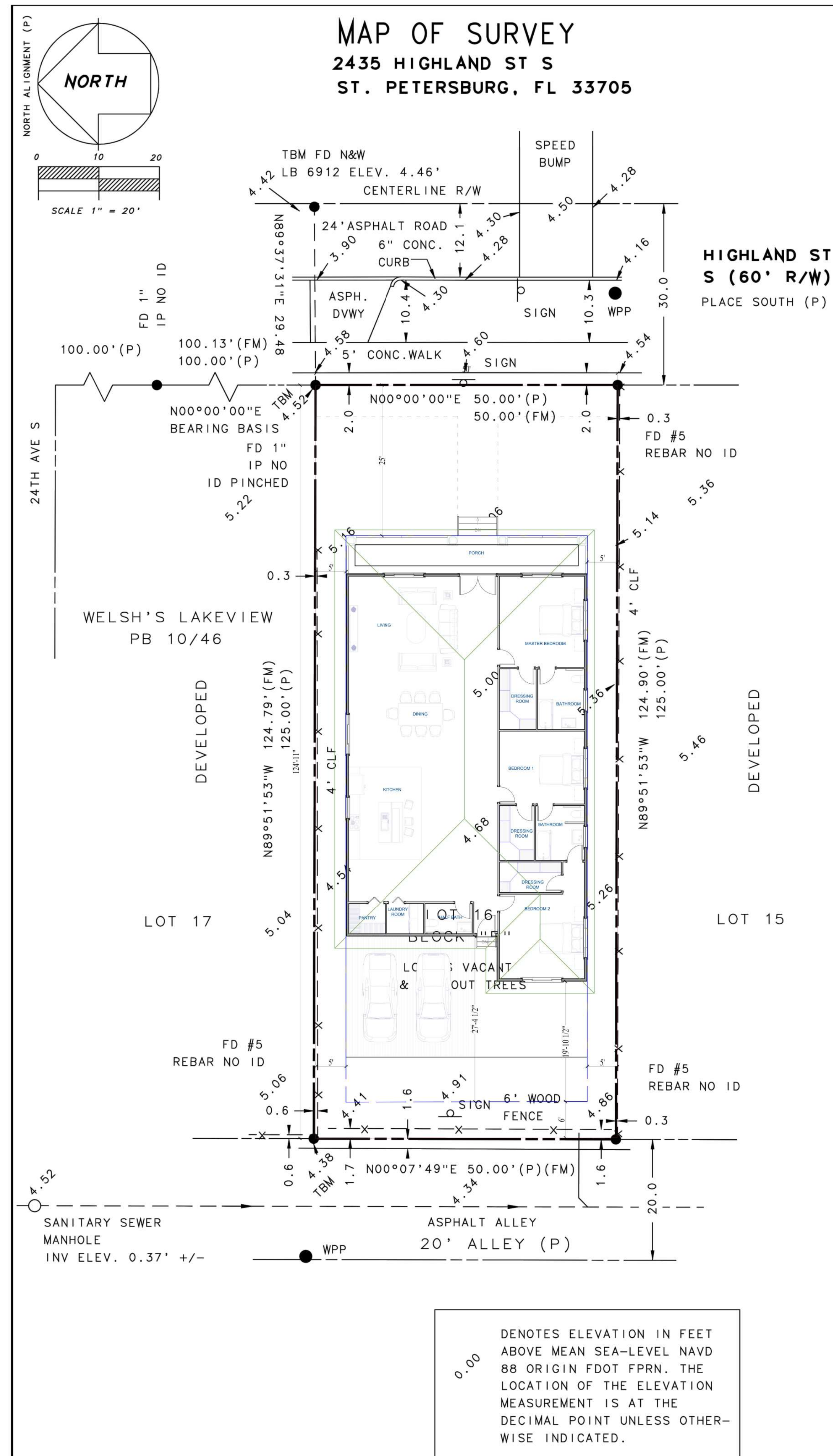
GRADING NOTES:

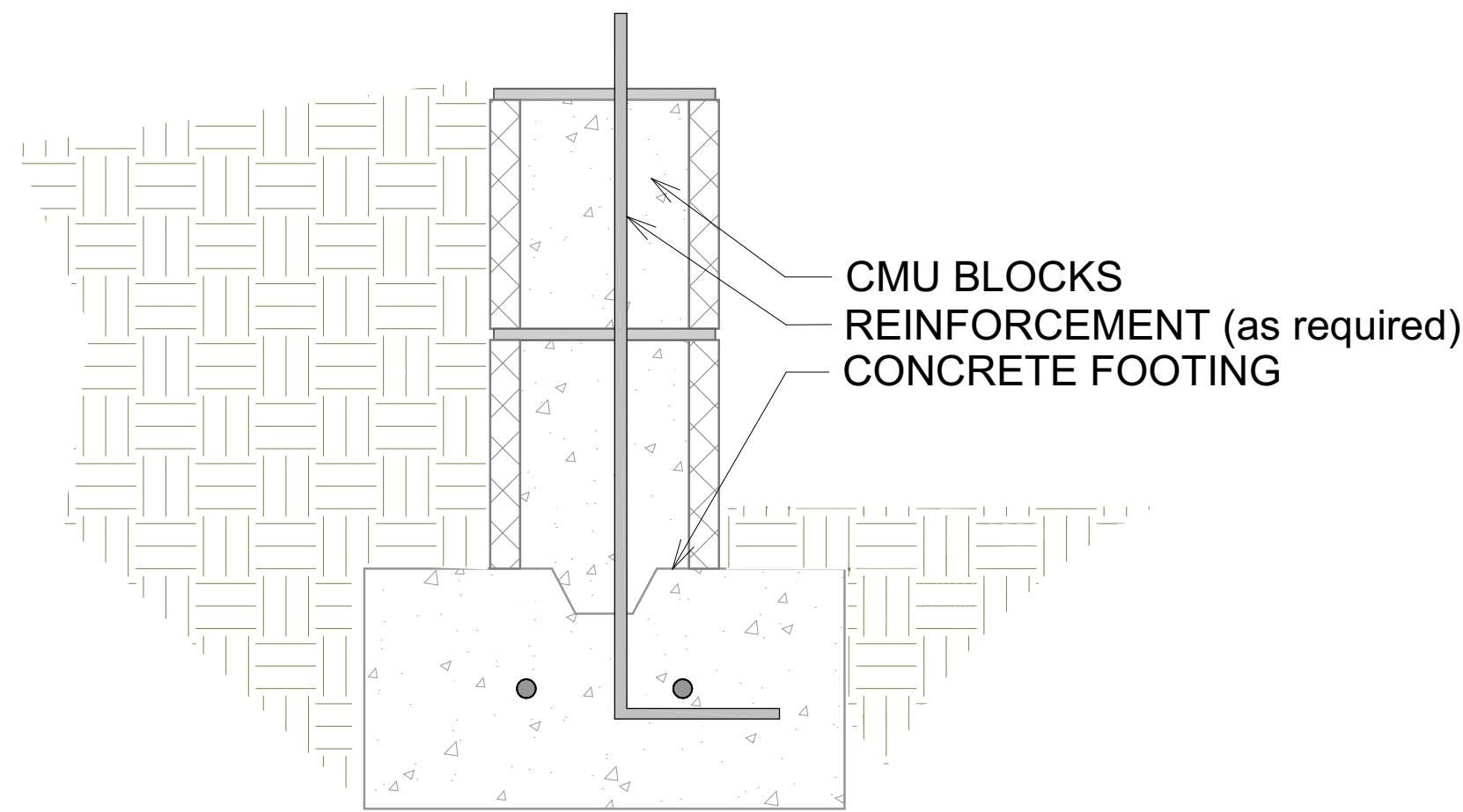
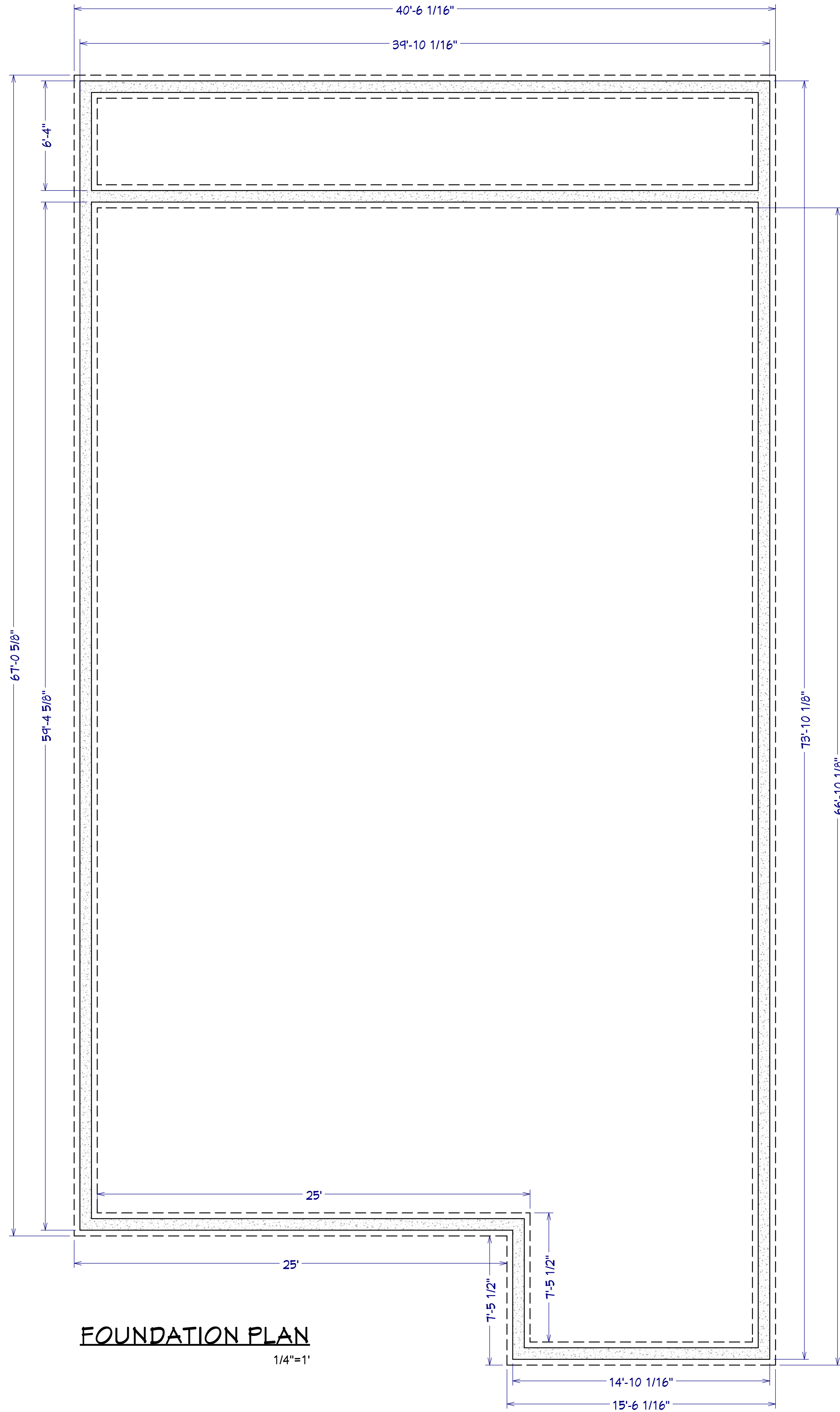
1. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES.
2. ALL FINISH GRADES SHALL BE SMOOTH AND UNIFORM.
3. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING.
4. FINAL GRADE TO CONVEY SURFACE DRAINAGE TOWARD ROCK CHANNELS AND DISPERSION TRENCHES.
5. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL AND STRIPPED OF TOPSOIL.
6. PLACE FILL SLOPES WITH A GRADIENT STEEPER THAN 3:1 IN LIFTS NOT TO EXCEED 8 INCHES, AND MAKE SURE EACH LIFT IS PROPERLY COMPACTED.

LANDSCAPE NOTES:

- 1 OWNER RESPONSIBLE FOR LANDSCAPING - SUCH AS LAWN, TREES, SHRUBS, ETC
- 2 IRRIGATION SYSTEM SHALL BE STUBBED IN WITH VALVE BOX AND IRRIGATION MAIN LINES RUN UNDER CONCRETE. OWNER SHALL PROVIDE FINISH FENCES AND LINES
- 3 OWNER SHALL PROVIDE TRAILS AND STEPPING STONES
- 4 OWNER SHALL PROVIDE POND & EQUIPMENT

LOT SIZE: 6286 SF
ANTICIPATED DISTURBED AREA: 3194 SF (0.5%)
ALLOWED COVERAGE: 4057.5 SF (0.6%)

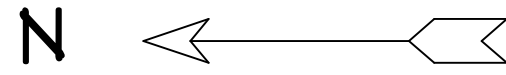

$$1/4"=1'$$



FOOTING DETAIL
NTS

FOUNDATION NOTES

- FOUNDATIONS TO BEAR A MINIMUM OF 24" BELOW FINISH GRADE
- ALL ANCHOR BOLTS TO BE 5/8" DIA X 10 @ 32" O/C UNO. SEE SHEAR PLANS FOR HOLD DOWN DETAILS
- ALL REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60
- ALL REINFORCING STEEL TO OVERLAP A MINIMUM OF 24" FOR SPLICES FOR #4 BARS & 36" FOR #5 BARS
- PROVIDE CORNER BARS TO MATCH CONTINUOUS STEEL
- MINIMUM ALLOWABLE CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,000 PSI (DESIGNED AS 2,500 PSI) AT 28 DAYS. MAXIMUM AGGREGATE SIZE IS 1". MAXIMUM AIR ENTRAINMENT IS 3%. CEMENT SHOULD BE TYPE 1 OR 2
- SOIL BEARING CAPACITY ASSUMED TO BE 2,000 PSF. IF SOIL CONDITIONS VARY FROM THIS, THE PROJECT ENGINEER MUST BE NOTIFIED. ALL FOOTINGS MUST BEAR ON UNDISTURBED SOIL. ALL SLOPES MUST BE STABILIZED
- ADJACENT GROUND SURFACES SHALL BE SLOPED AWAY FROM STRUCTURE DRAINAGE OF SURROUNDING AREA SHALL ALSO BE PROVIDED TO PREVENT ACCUMULATION OF SOIL AND EROSION OF SOIL NEAR FOOTINGS
- UNIFORM SOIL CONDITIONS, MUST BE PROVIDED UNDER SLAB AND FOOTINGS. CUT/FILL OR NON-UNIFORM SOIL CONDITIONS SHOULD BE EXCAVATED AND REPLACED W/ UNIFORM ENGINEERED FILL MATERIAL TO MINIMIZE DIFFERENTIAL MOVEMENT
- THE TOPS OF FOUNDATION WALLS SHALL EXTEND 6" ABOVE THE ADJACENT FINISH GRADE
- MINIMUM 18" CLEARANCE FOR WOOD JOIST GIRDERS REQUIRED IN THE GARAGE GRAVEL SPACE UNLESS TREATED WOOD IS USED THROUGHOUT FLOOR SYSTEM



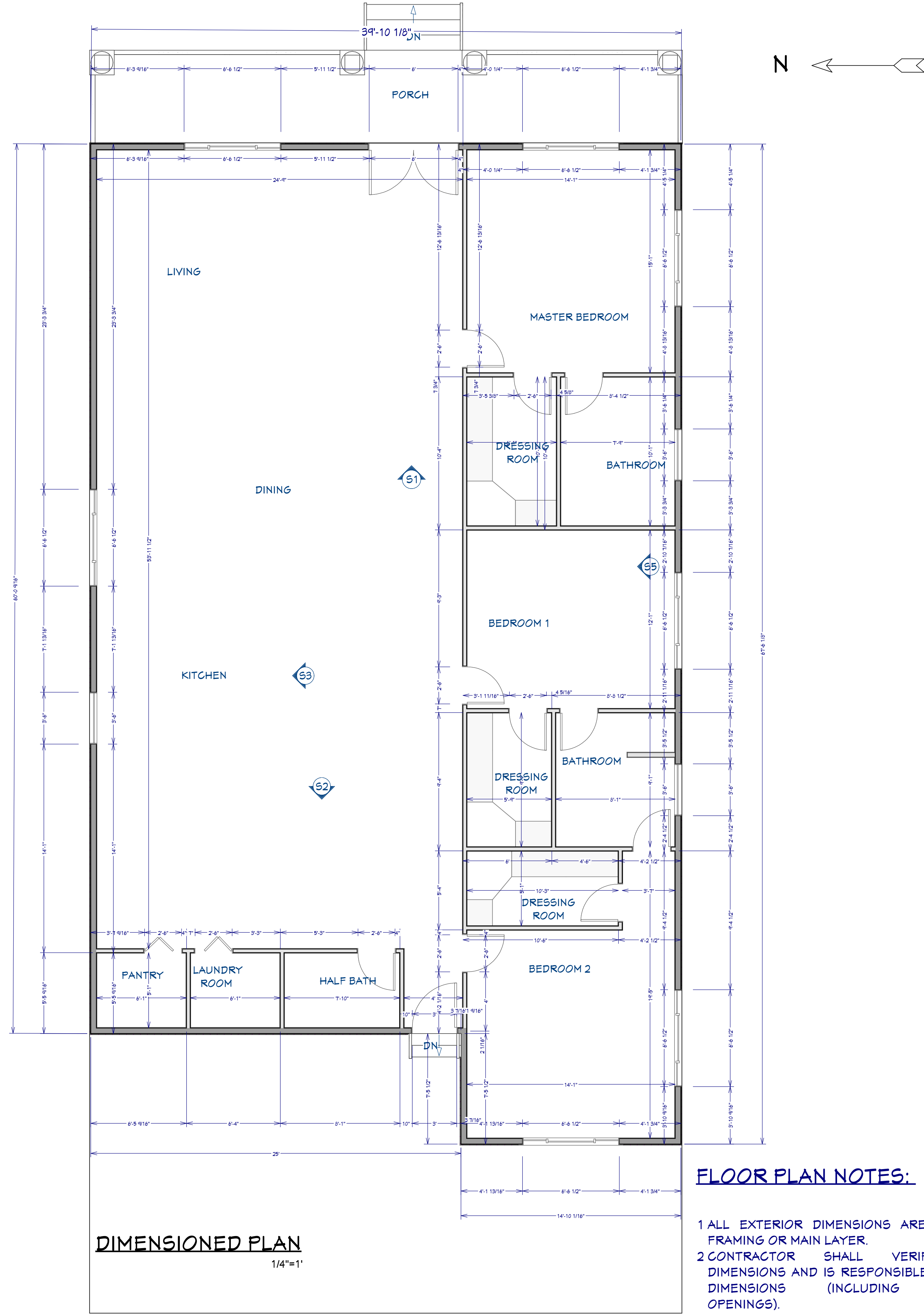
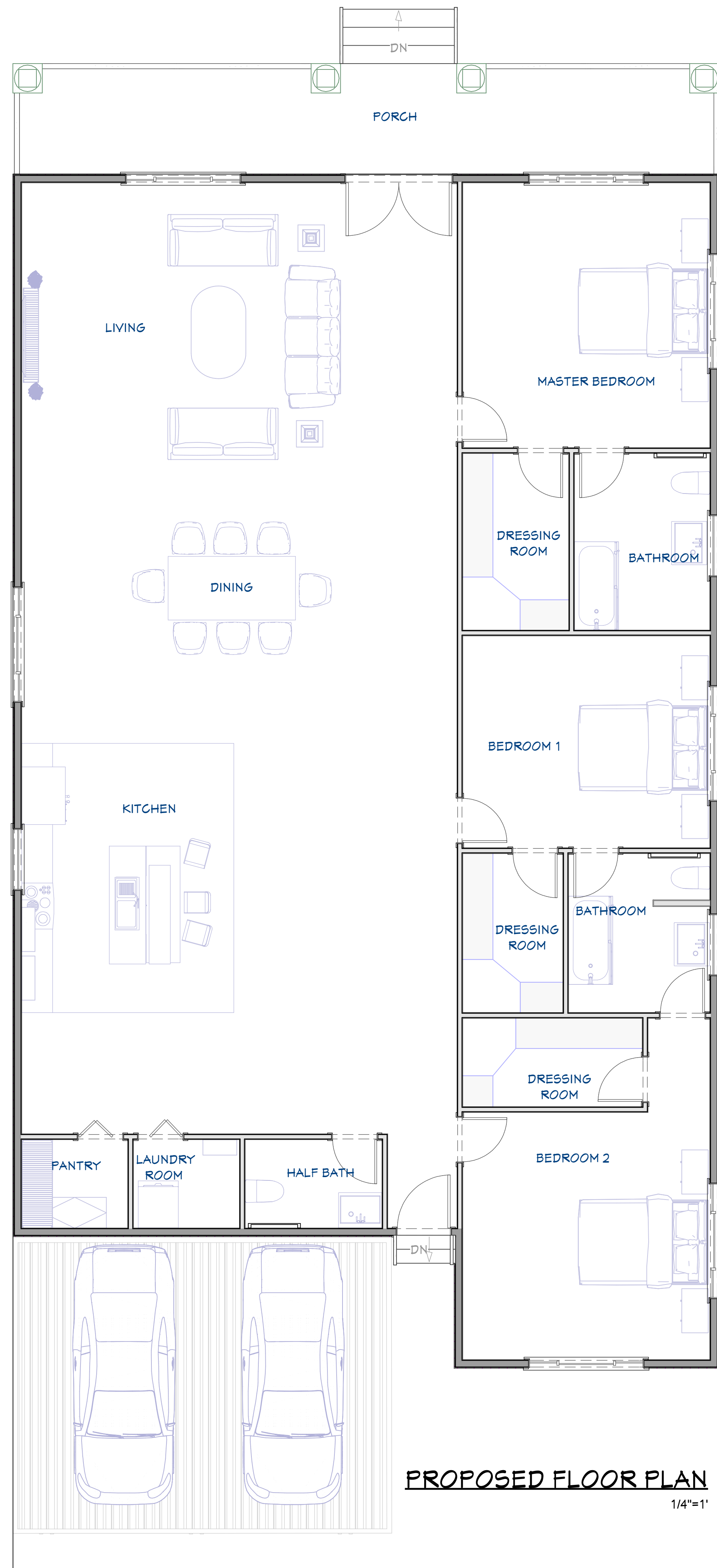
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**SINGLE-FAMILY
RESIDENTIAL HOUSE**

FOUNDATION PLAN


SCALE @ 24" X 36"
DATE: 05-08-2024
DRAWN BY: AK

SHEET NUMBER
4



FLOOR PLAN NOTES:

- 1 ALL EXTERIOR DIMENSIONS ARE TO THE FRAMING OR MAIN LAYER.
- 2 CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND IS RESPONSIBLE FOR ALL DIMENSIONS (INCLUDING ROUGH OPENINGS).

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SINGLE-FAMILY RESIDENTIAL HOUSE

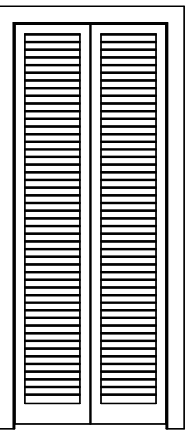
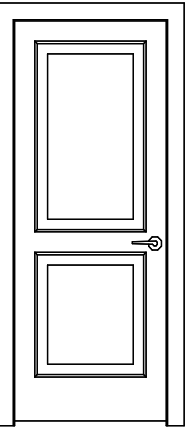
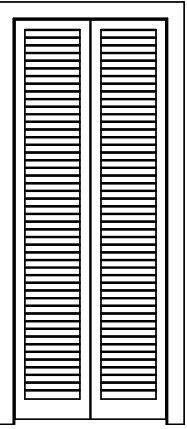
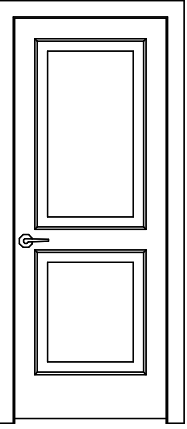
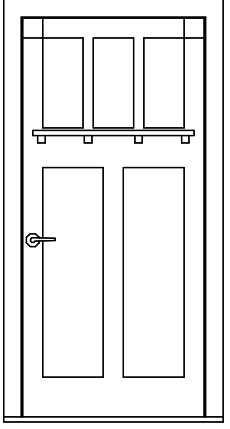
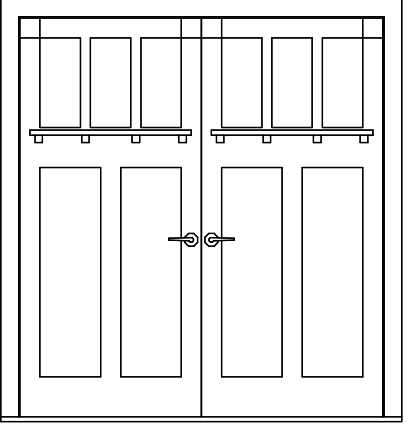
PROPOSED FLOOR PLAN

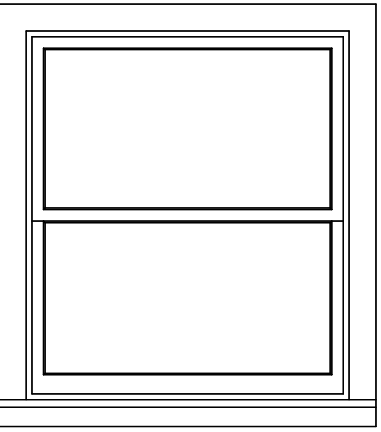
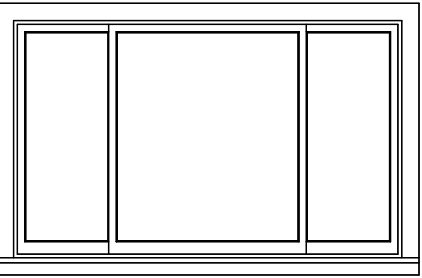
SCALE @ 24" X 36"
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DRAWN BY: AK

SHEET NUMBER

5

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DOOR SCHEDULE								
3D EXTERIOR ELEVATION	NUMBER	LABEL	QTY	FLOOR	SIZE	R/O	DESCRIPTION	HEADER
	D01	2668	2	1	2668 L	32"X82 1/2"	2 DR. BIFOLD-LOUVERED	2"X6"X35" (2)
	D02	2668	10	1	2668 L IN	32"X82 1/2"	HINGED-DOOR P04	2"X6"X35" (2)
	D03	2668	2	1	2668 R	32"X82 1/2"	2 DR. BIFOLD-LOUVERED	2"X6"X35" (2)
	D04	2668	9	1	2668 R IN	32"X82 1/2"	HINGED-DOOR P04	2"X6"X35" (2)
	D05	3068	2	1	3068 R EX	38"X83"	EXT. HINGED-DOOR E21	2"X6"X41" (2)
	D06	6068	2	1	6068 L/R EX	74"X83"	EXT. DOUBLE HINGED-DOOR E21	2"X10"X77" (2)

WINDOW SCHEDULE								
3D EXTERIOR ELEVATION	NUMBER	LABEL	QTY	FLOOR	SIZE	R/O	DESCRIPTION	HEADER
	W01	3640DH	6	1	3640DH	43"X49"	DOUBLE HUNG	2"X6"X46" (2)
	W02	6740TS	14	1	6740TS	79 1/2"X49"	TRIPLE SLIDING	2"X10"X82 1/2" (2)

DOOR NOTES:

1. DOORS SHALL BE 96", UNO
2. ALL DOORS SHALL BE SOLID CORE 1 3/4" THICK, UNO
3. INTERIOR DOORS SHALL BE PAINTED OR STAINED, VERIFY WITH OWNER
4. DOORS BETWEEN GARAGE AND LIVING AREA SHALL BE 1 3/4" TIGHT FITTING SOLID CORE DOORS WITH A RATING OF 60 MINUTES. DOOR SHALL BE SELF CLOSING
5. EXTERIOR EXIT DOORS SHALL BE 36" MIN. NET CLEAR DOOR WAY SHALL BE 32" MIN. DOOR SHALL BE OPENABLE FROM INSIDE
6. GARAGE DOORS TO BE SECTIONAL INSULATED, OVERHEAD DOORS. GLASS PANELS TO BE INSULATED
7. ALL GLAZING WITHIN 18 IN. OF THE FLOOR AND/OR WITHIN 24 IN. OF ANY DOOR (REGARDLESS OF WALL PLANE) ARE TO HAVE SAFETY GLAZING
8. ALL TUB AND SHOWER ENCLOSURES ARE TO BE GLAZED WITH SAFETY GLASS
9. BARN DOORS, MEASURE TO FIT OPENING. ALL HARDWARE TO BE STAINLESS, UNO

WINDOW NOTES:

- 1 WOOD WINDOWS WITH CLAD EXTERIOR
- 2 INTERIOR WINDOW MATERIALS: PAINTED OR STAINED WITH FACTORY FINISH, VERIFY WITH OWNER
- 3 WINDOW HARDWARE TO BE OWNER SELECTED AT TIME OF ORDER
- 4 WINDOW ROUGH OPENING: 1/2" FOR TOP/BOTTOM & 1/2" FOR SIDES, UNO BY MFG
- 5 SEE WINDOW SCHEDULE CALLOUT FOR WINDOWS THAT USE A WOOD OR STEEL BEAM FOR THE HEADER
- 6 BEDROOM WINDOWS SILL FINISHED MUST BE WITHIN 44: OF THE FLOOR AND PROVIDE MINIMUM CLEAR OPENINGS OF 5.7 SQ. FEET WITH HEIGHT DIMENSION NOT LESS THAN 24" AND WIDTH DIMENSION NOT LESS THAN 20" - HRC R310.1-R310.1.4



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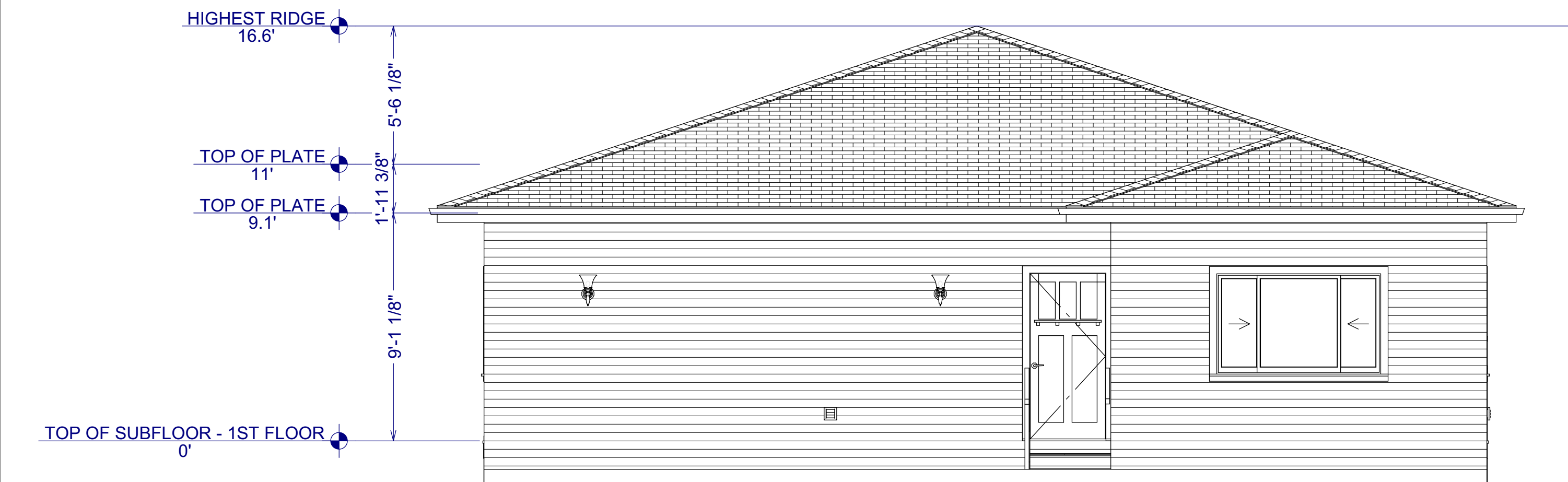
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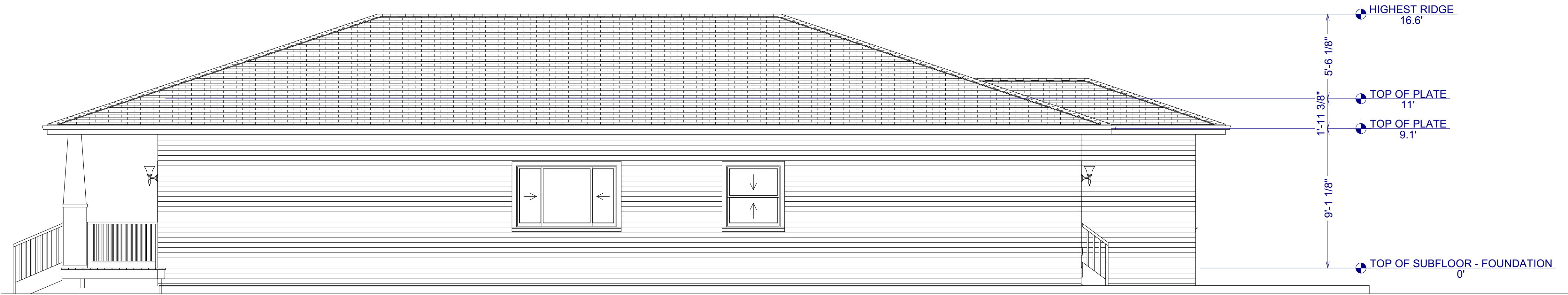
DOOR AND WINDOW
SCHEDULE

SCALE @ 24" X 36"
DATE: 05-08-2024
DRAWN BY: AK

SHEET NUMBER
6



REAR ELEVATION
1/4"=1'



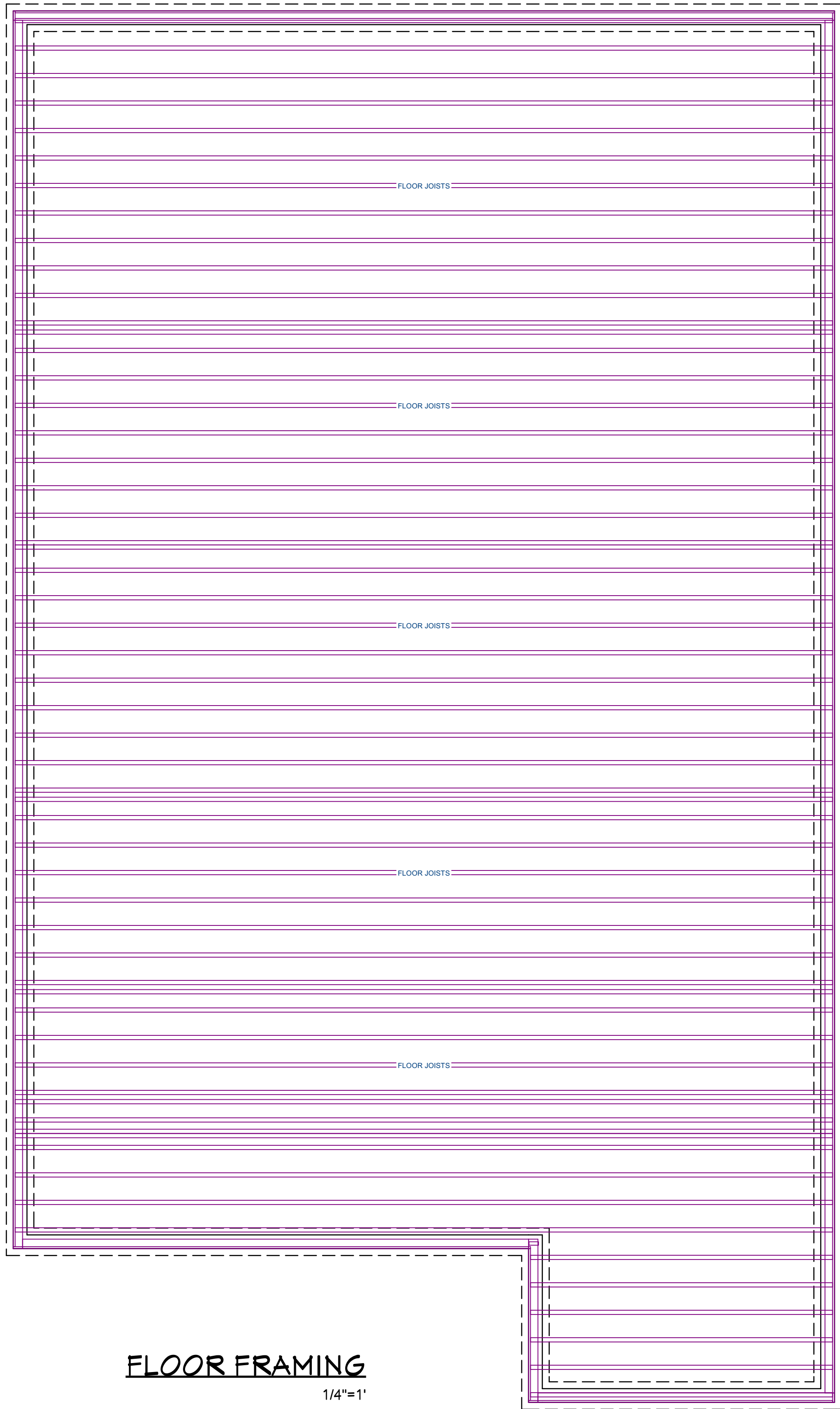
RIGHT SIDE ELEVATION
1/4"=1'



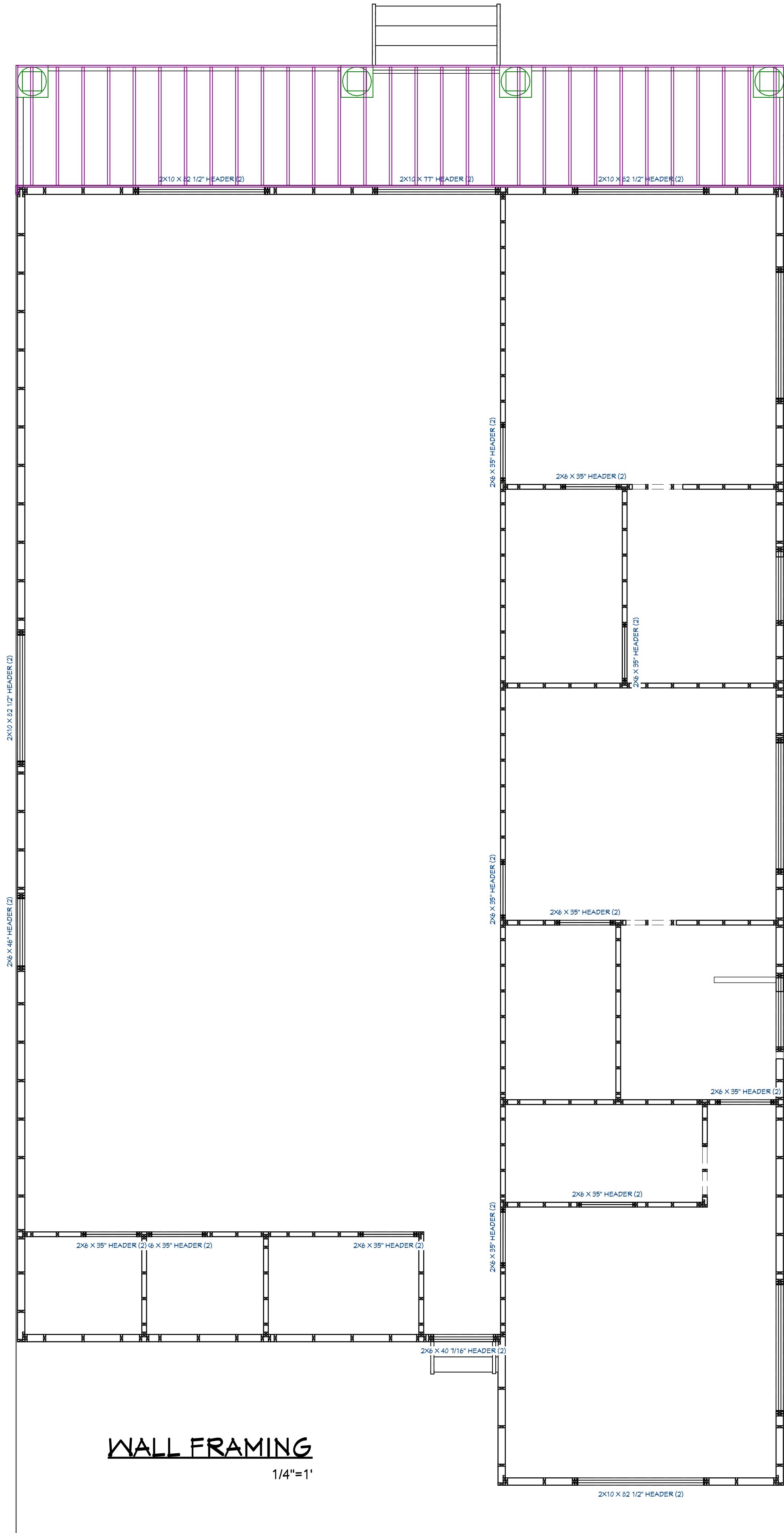
REAR ELEVATION
1/4"=1'



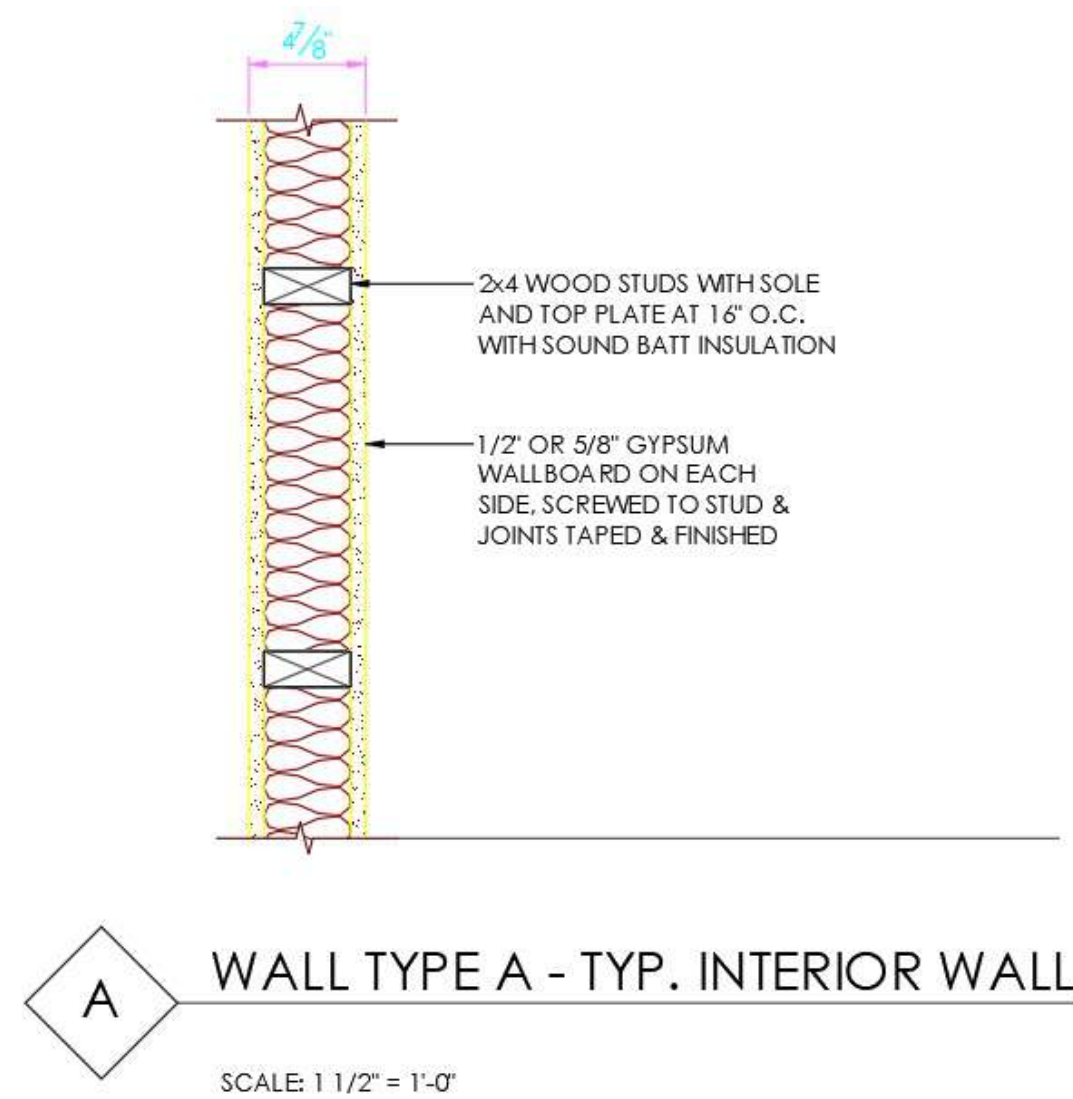
LEFT SIDE ELEVATION
1/4"=1'



FLOOR FRAMING
1/4"=1'



WALL FRAMING
1/4"=1'



WALL FRAMING NOTES:

FRAMING & STRUCTURAL NOTES
WINDOW ROUGH OPENING: 1/2" FOR TOP/BOTTOM & 1/2" FOR SIDES.
CONFIRM WINDOW MFG. SPECS. BEFORE FRAMING
WALL HEADERS ON EXTERIOR WALLS: (2) 2" X 10" DF 2 TYP. INSULATED w/ (1) 2x CRIPPLE & (1) 2x KING, UNO
PROVIDE DOUBLE FLOOR JOISTS. UNDER ALL WALLS RUNNING PARALLEL
PROVIDE FIRE BLOCKING, DRAFT STOPS AND FIRE STOPS AS PER I.B.C. SEC. R502.12.
PROVIDE POSITIVE CONNECTIONS AT EACH END OF ALL POSTS AND COLUMNS TO RESIST LATERAL DISPLACEMENT
ALL LUMBER NOT SPECIFICALLY NOTED TO BE D.F. #2 OR BETTER. ALL WOOD IN PERMANENT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED
UNLESS AN APPROVED BARRIER IS PROVIDED
SEE ROOF FRAMING FOR ADDITIONAL FRAMING NOTES

LUMBER SPECIES:
POSTS, BEAMS, HEADERS, JOISTS, AND RAFTERS TO BE DF-#2
EXPOSED CEDAR BEAMS TO BE DF-#2 OR BETTER,
SILLS, PLATES BLOCKING, AND BRIDGING TO BE DF-#2
ALL STUDS TO BE DF#2 OR BETTER
SHEATHING SHALL BE AS FOLLOWS:
WALL SHEATHING SHALL BE 1/2" INT-APA RATED OR 7/16" OSB
FLOOR SHEATHING SHALL BE 3/4" T & G INT-APA RATED PLYWOOD



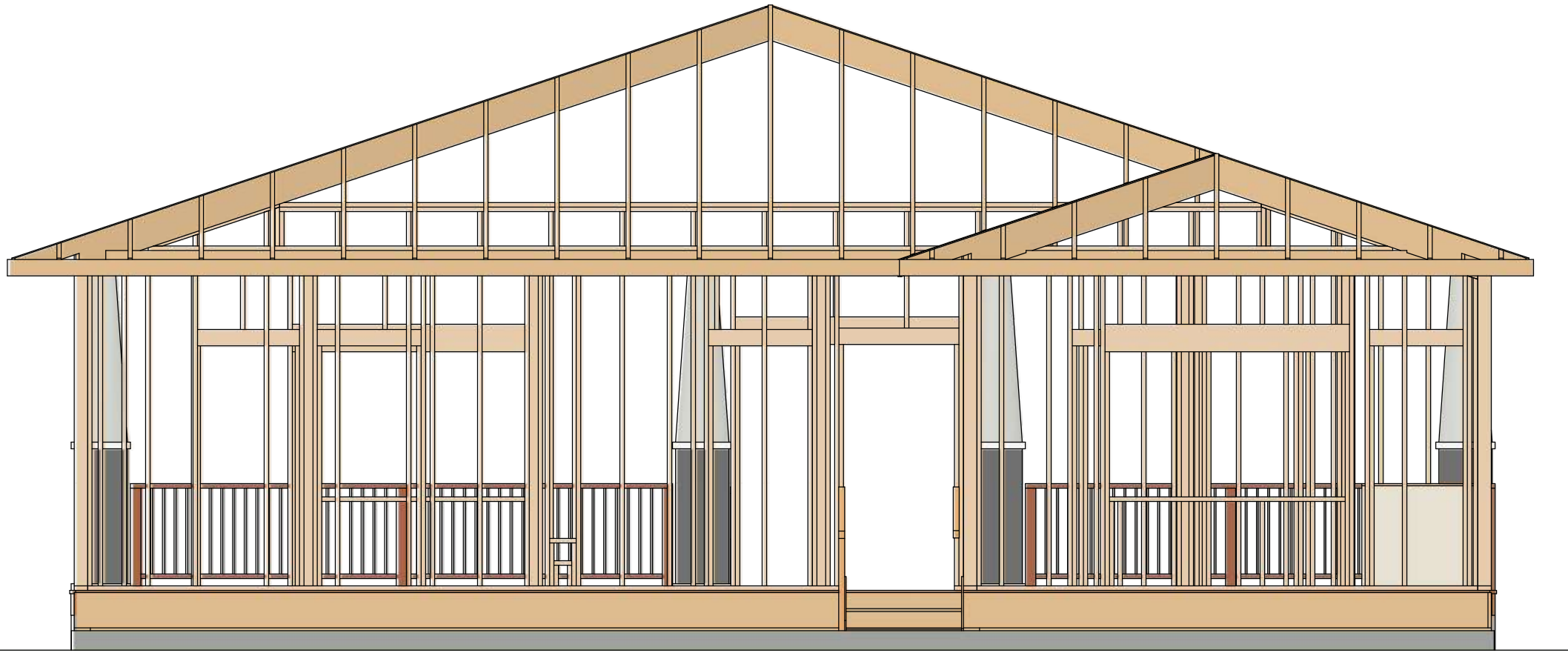
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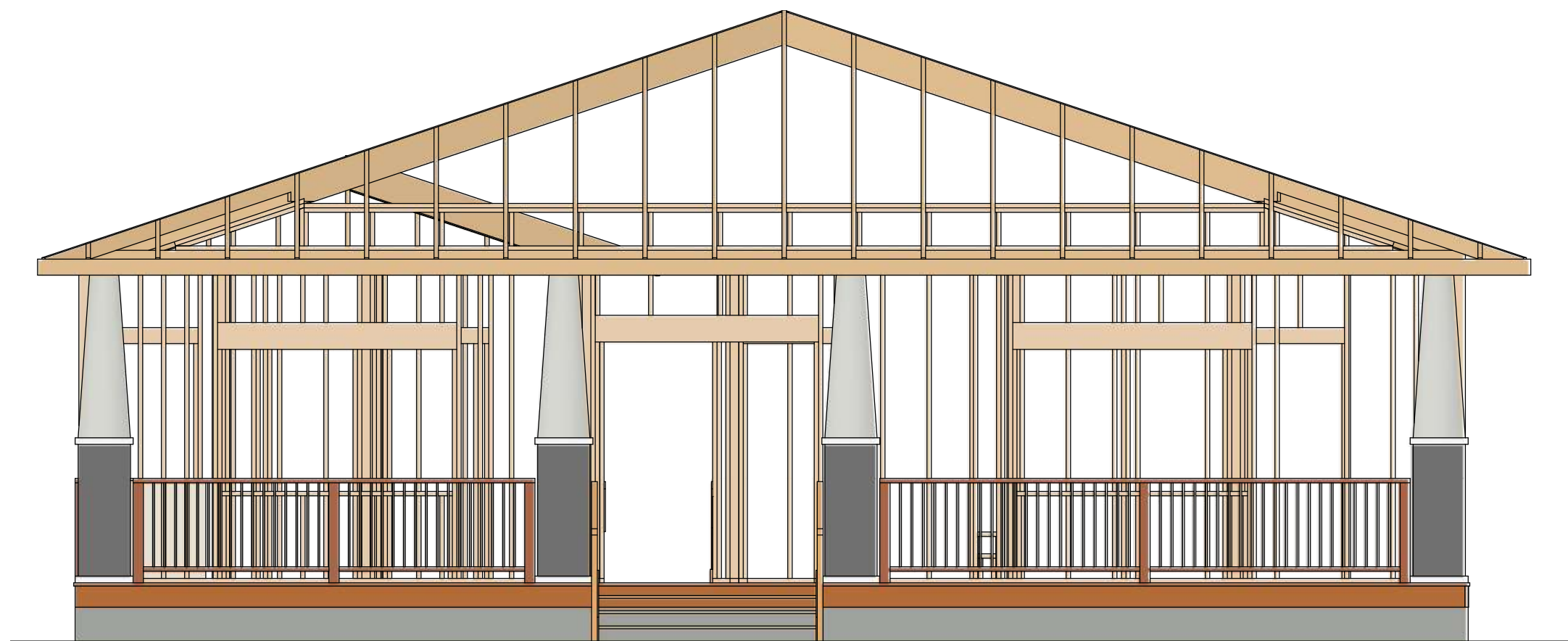
FLOOR AND WALL FRAMING PLAN

SCALE @ 24" X 36"
DATE: 05-08-2024
DRAWN BY: AK

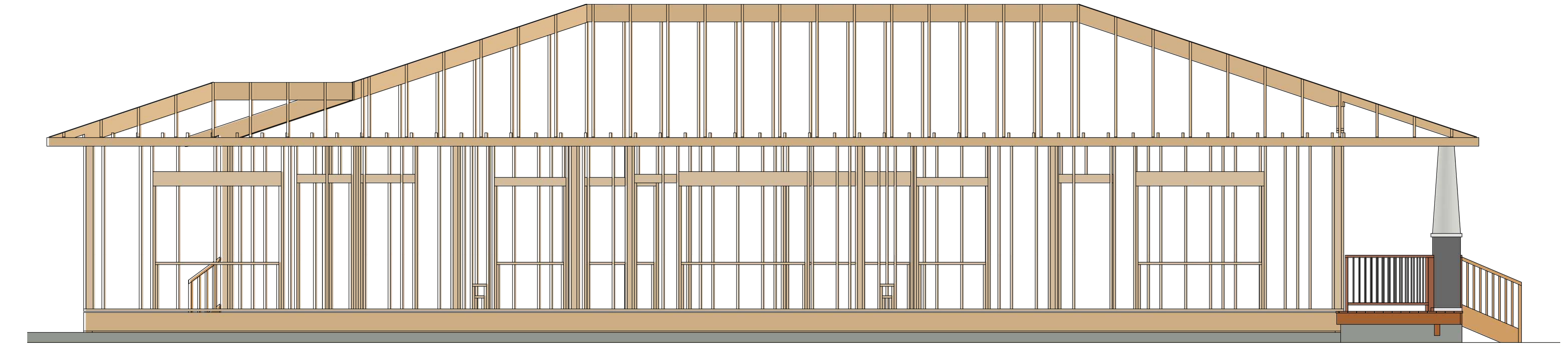
SHEET NUMBER
8



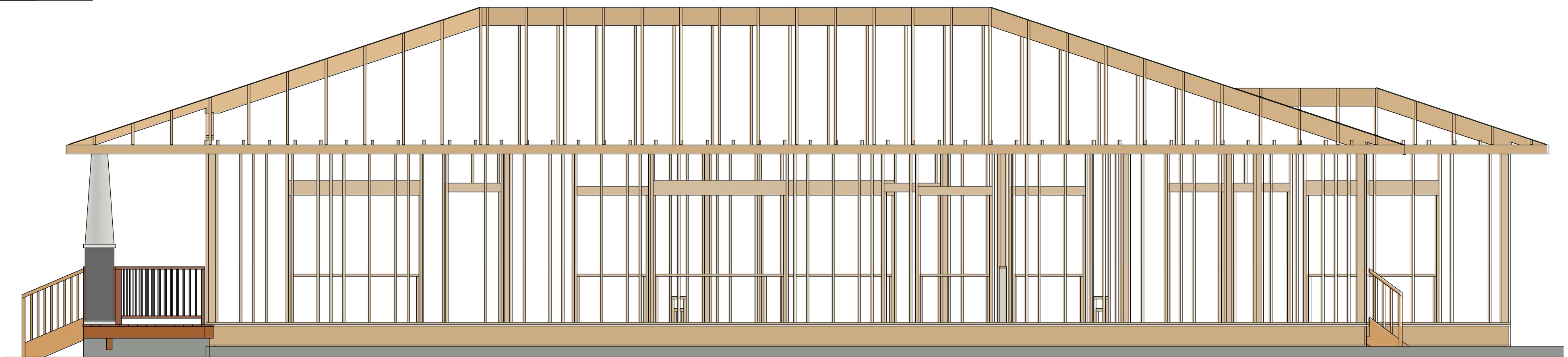
F1 FRONT WALL FRAME DETAIL
1/4"=1'



F2 REAR WALL FRAME DETAIL
1/4"=1'



F3 RIGHT WALL FRAME DETAIL
1/4"=1'



F4 LEFT WALL FRAME DETAIL
1/4"=1'

WALL FRAMING NOTES:

FRAMING & STRUCTURAL NOTES

WINDOW ROUGH OPENING: 1/2" FOR TOP/BOTTOM & 1/2" FOR SIDES. CONFIRM WINDOW MFG. SPECS. BEFORE FRAMING
WALL HEADERS ON EXTERIOR WALLS: (2) 2" X 10" DF 2 TYP. INSULATED w/ (1) 2x CRIPPLE & (1) 2x KING, UNO
PROVIDE DOUBLE FLOOR JOISTS UNDER ALL WALLS RUNNING PARALLEL
PROVIDE FIRE BLOCKING, DRAFT STOPS AND FIRE STOPS AS PER I.B.C. SEC. R502.12.
PROVIDE POSITIVE CONNECTIONS AT EACH END OF ALL POSTS AND COLUMNS TO RESIST LATERAL DISPLACEMENT
ALL LUMBER NOT SPECIFICALLY NOTED TO BE D.F. #2 OR BETTER. ALL WOOD IN PERMANENT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED UNLESS AN APPROVED BARRIER IS PROVIDED
SEE ROOF FRAMING FOR ADDITIONAL FRAMING NOTES

LUMBER SPECIES:

POSTS, BEAMS, HEADERS, JOISTS, AND RAFTERS TO BE DF-#2
EXPOSED CEDAR BEAMS TO BE DF-#2 OR BETTER,
SILLS, PLATES BLOCKING, AND BRIDGING TO BE DF-#2
ALL STUDS TO BE DF-#2 OR BETTER
SHEATHING SHALL BE AS FOLLOWS:
WALL SHEATHING SHALL BE 1/2" INT-APA RATED OR 7/16" OSB
FLOOR SHEATHING SHALL BE 3/4" T & 6 INT-APA RATED PLYWOOD

SHEET NUMBER

9

SCALE @ 24" X 36"

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WALL FRAMING

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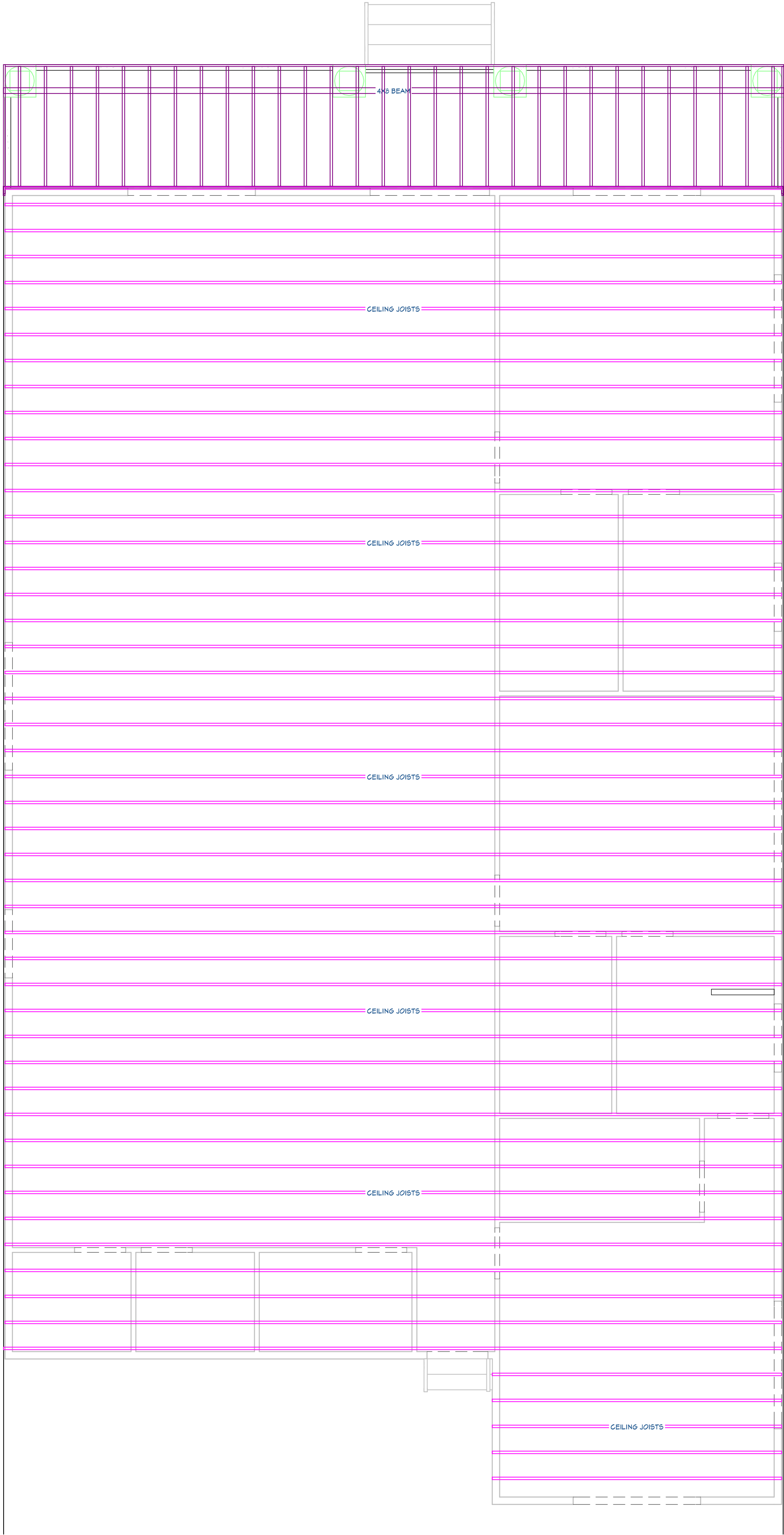


BUILDING PERFORMANCE:

- 1. HEAT LOSS CALCULATIONS SHALL COMPLY WITH REScheck AND/OR REQUIREMENTS OF LOCAL CODES.
- 2. PORCHES, DECKS, BALCONIES, FOUNDATION AND GARAGE AREAS NOT INCLUDED IN LIVING AREA.
- 3. ALL EXHAUST FANS TO BE VENTED DIRECTLY TO THE EXTERIOR. ALL PENETRATIONS OF THE BUILDING ENVELOPE SHALL BE SEALED WITH CAULK OR FOAM.
- 4. PROVIDE CRAWLSPACE VENTING TO MEET LOCAL CODE REQUIREMENTS INSULATE ALL ACCESS DOORS/ HATCHES TO CRAWL SPACES AND ATTICS TO THE EQUIVALENT RATING OF THE WALL, FLOOR OR CEILING THROUGH WHICH THEY PENETRATE, UNO.
- 5. MINIMUM INSULATION:
 - ATTIC/CEILING R-50
 - WALLS R-21
 - FLOORS R-38

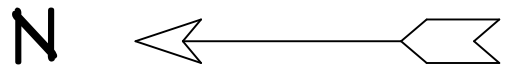
INSPECTION NOTES:

- 1. PROVIDE SPECIAL INSPECTION, SPECIAL TESTING, REPORTING AND COMPLIANCE PROCEDURES ACCORDING TO THE LOCAL BUILDING CODE.
- 2. SPECIAL INSPECTOR QUALIFICATIONS: DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION IN QUESTION. PRIOR TO THE BEGINNING OF CONSTRUCTION, REVIEW THE SPECIAL INSPECTION REQUIREMENTS WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, GENERAL CONTRACTOR AND SPECIAL INSPECTORS. DUTIES OF THE SPECIAL INSPECTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - A. OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED PERMIT DRAWINGS AND SPECIFICATIONS. BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR BUILDING OFFICIAL.
 - B. FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, ENGINEER, GENERAL CONTRACTOR AND OWNER IN A TIMELY MANNER.
 - C. SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED, AND WHETHER THE WORK IS IN CONFORMANCE WITH THE APPROVED PERMIT DRAWINGS AND SPECIFICATIONS.
- 3. DUTIES OF THE CONTRACTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - A. NOTIFY SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE THE INSPECTION IS REQUIRED.
 - B. MAINTAIN ACCESS TO WORK REQUIRING SPECIAL INSPECTION UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.
 - C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED PERMIT DRAWINGS AND SPECIFICATIONS AT THE JOB SITE.
 - D. MAINTAIN JOB-SITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.



PROPOSED CEILING PLAN

1/8"=1'



CEILING FRAMING
PLAN

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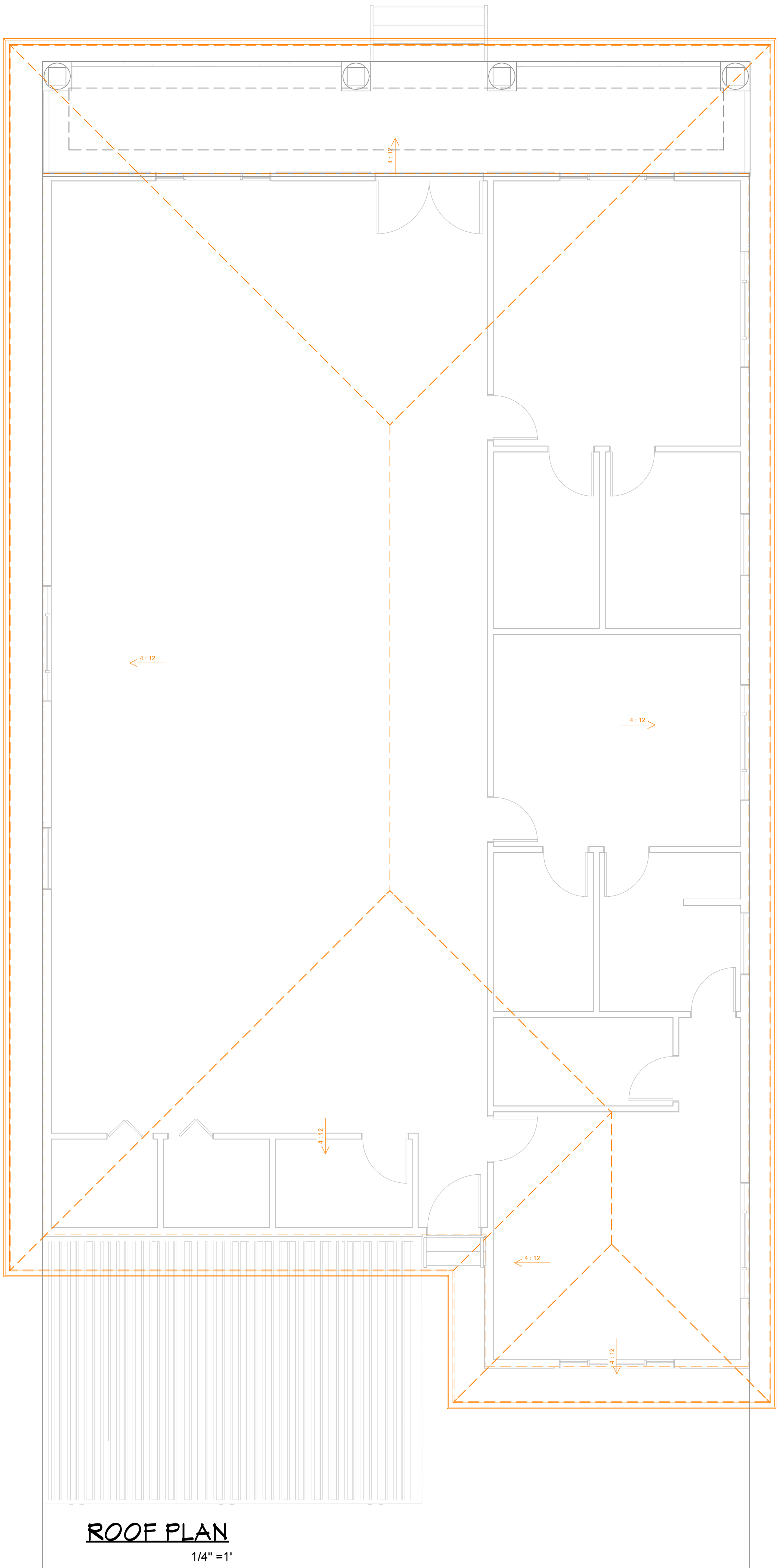
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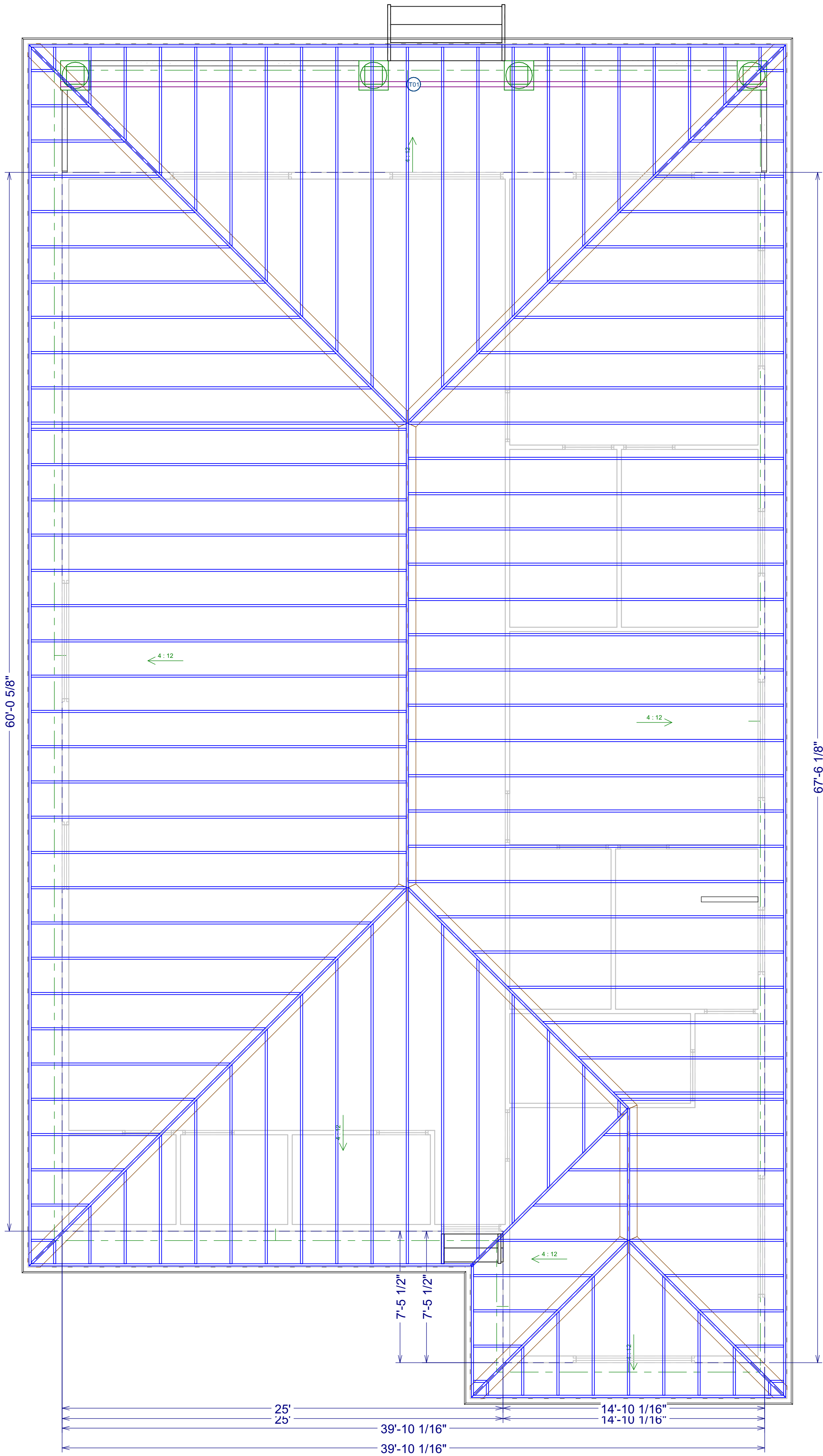
SCALE @ 24" X 36"

DATE: 05-08-2024

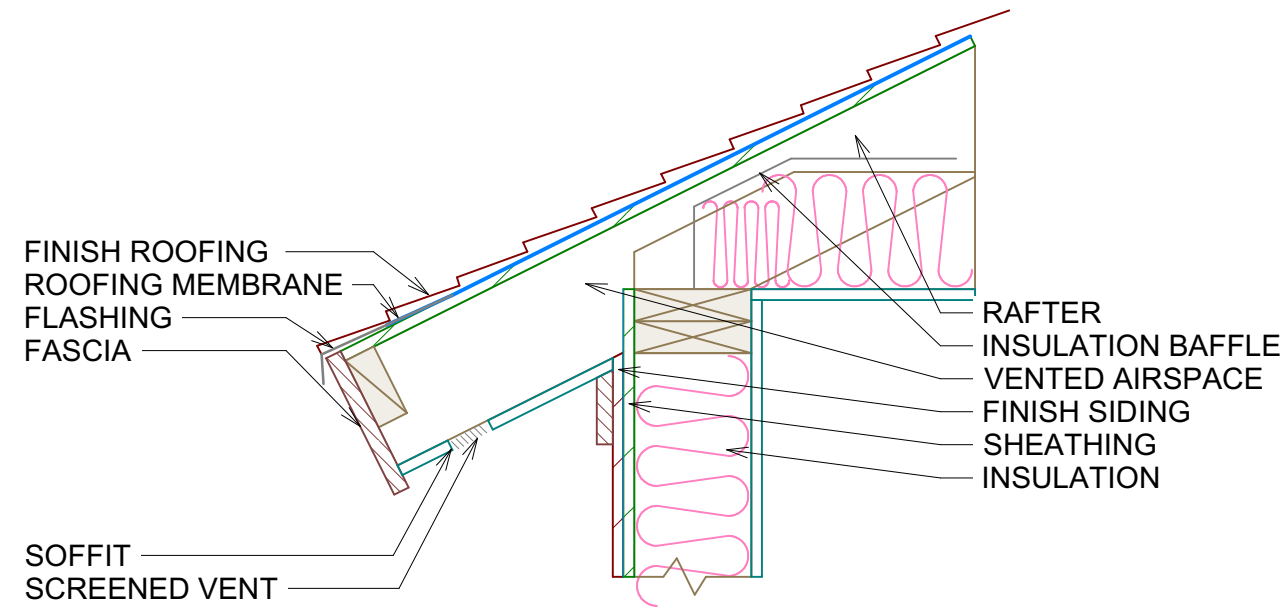
DRAWN BY: AK



ROOF PLAN
1/4" = 1'



ROOF FRAMING PLAN
1/4" = 1'



ROOF EAVE DETAIL
NTS

ROOF & FRAMING NOTES:

1. FRAMING IS FOR ILLUSTRATION ONLY. ALL FRAMING SHALL BE INSTALLED & BRACED TO MANUFACTURER'S DRAWINGS & SPECIFICATIONS
2. ALL TRUSSES OR TJI'S SHALL CARRY MANUFACTURER'S STAMP
3. TRUSSES OR TJI'S SHALL NOT BE FIELD ALTERED WITHOUT PRIOR ENGINEERING APPROVAL
4. ALL TRUSSES OR TJI'S SHALL HAVE DESIGN DETAILS & DRAWINGS ON SITE FOR FRAMING INSPECTION
5. ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO MAIN GIRDER TO BE PROVIDED BY TRUSS MANUFACTURER
6. ROOF JOIST TO BE TJI 560 OR EQUIVALENT
7. ALL ROOF FRAMING 24" O.C. UNO
8. ALL ROOF OVERHANGS 24" UNO
9. INSTALL ICE SHIELD AS REQUIRED
10. INSTALL POLYISOCYANURATE FOAM TYPE INSULATION AT FLOOR AND PLATE LINES, OPENINGS IN PLATES, CORNER STUD CAVITIES AND AROUND DOOR AND WINDOW ROUGH OPENING CAVITIES.
11. MIN. SNOW LOAD SHALL BE 25 LBS PER SQUARE FOOT
12. ROOF SHEATHING 15/32" OSB OR 1/2" PLYWOOD 32/16 APA RATED W/ 8d @ 6" O/C ALL SUPPORTED PANEL EDGES, 12" O/C FIELD
13. ROOF TRUSS OR TJI'S MANUFACTURER: _____

N

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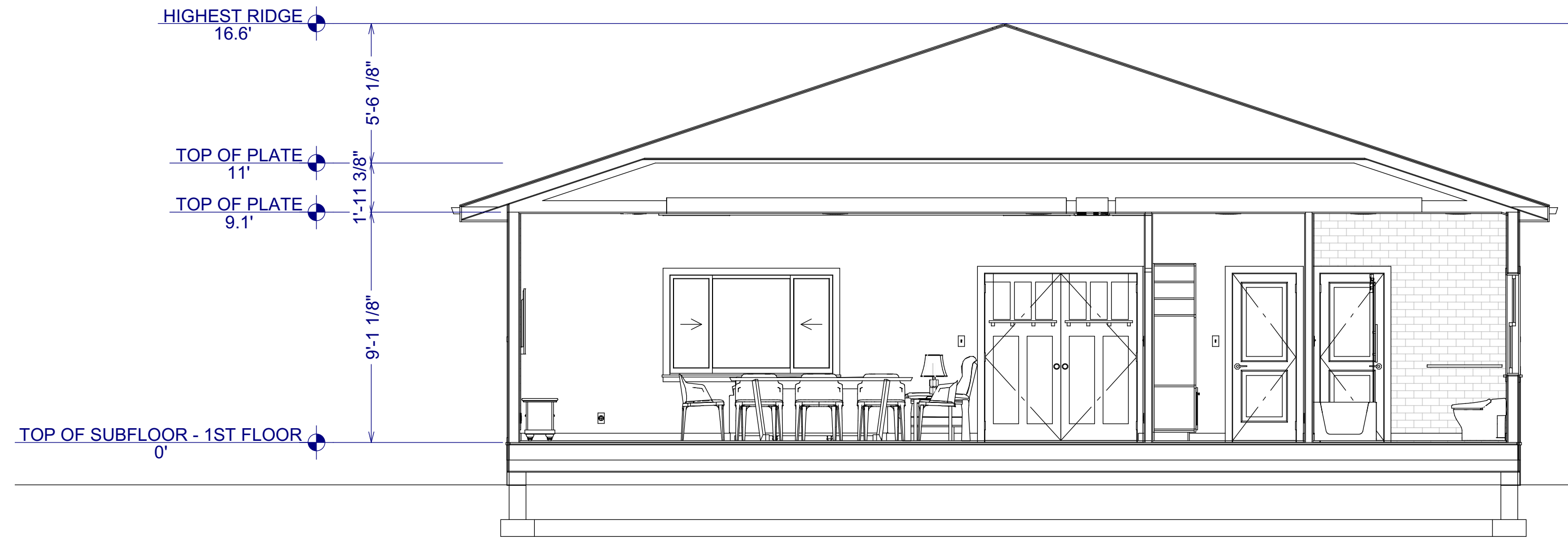
SCALE @ 24" X 36"

DATE: 05-08-2024

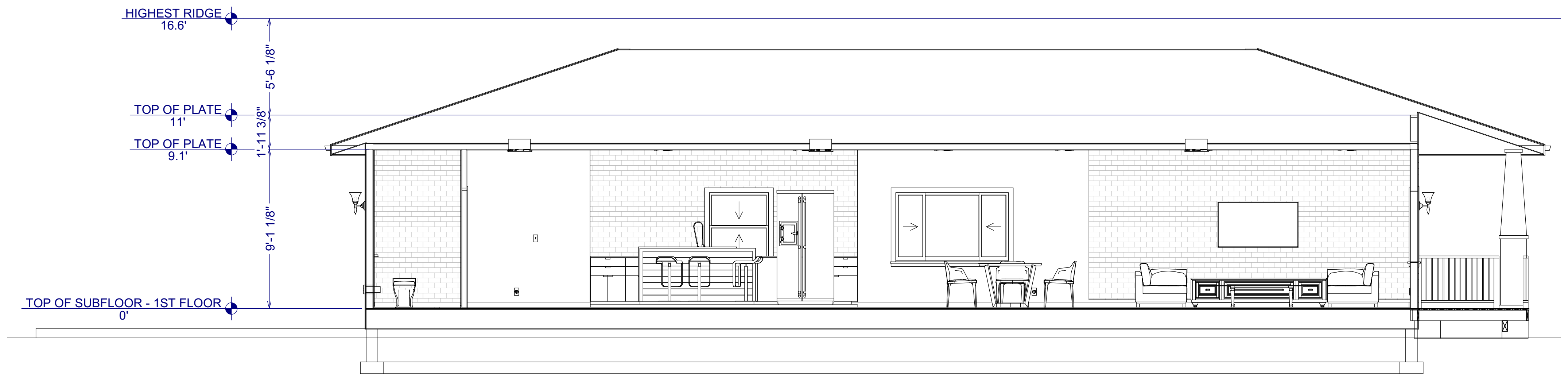
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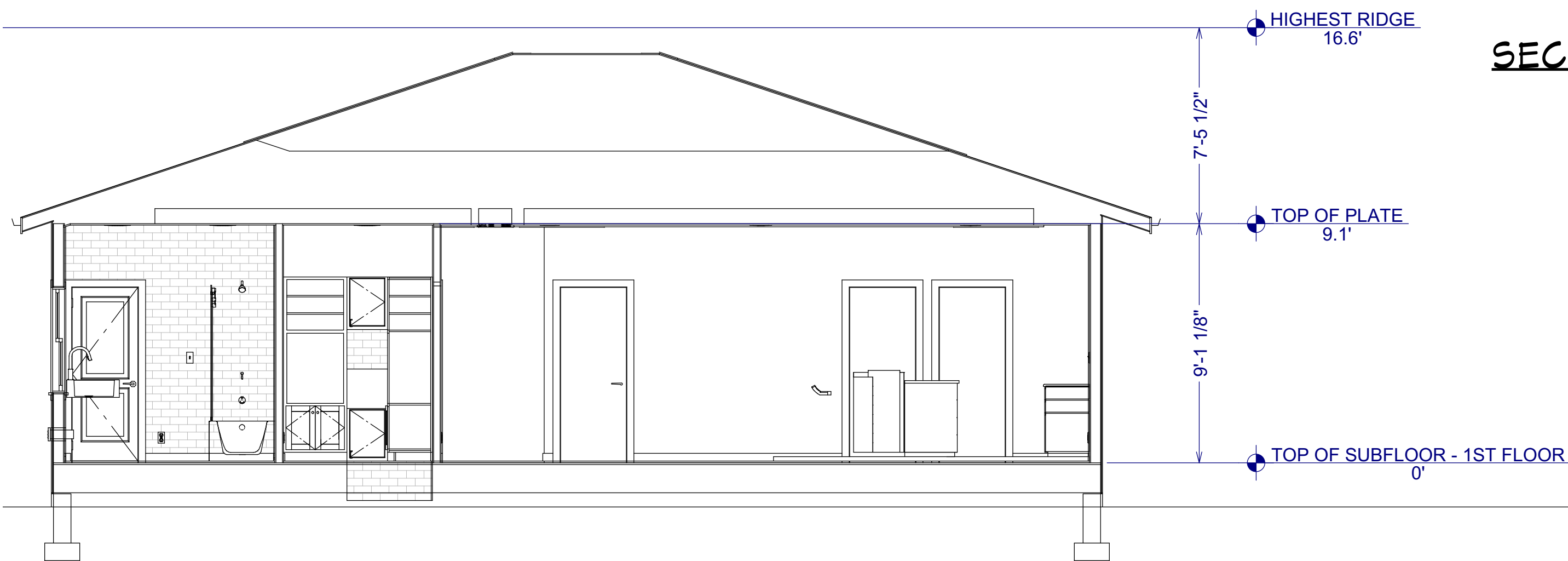
11



SECTION 1
1/4"=1'



SECTION 2
1/4"=1'



SECTION 3
1/4"=1'



SECTION 4
1/4"=1'

SHEET NUMBER
12

SCALE @ 24" X 36"
DATE: 05-08-2024
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**3D SECTIONS &
SECTIONS**

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SPECIFICATIONS

A. APPLICABLE CODE

CONTRACTOR SHALL FOLLOW ALL APPLICABLE GOVERNING CODES AS WELL AS ANY STATE AMENDMENTS. CONTRACTOR SHALL ENSURE CORRECT EDITION IS REFERENCED ACCORDING TO CODE ADOPTION BY STATE AND PERMITTING AGENCIES. APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO:

INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
INTERNATIONAL FIRE CODE (IFC), 2018 EDITION
NATIONAL ELECTRICAL CODE (NFPA 70), 2023 EDITION
STATE ACCESSIBILITY CODE FOR BUILDINGS AND FACILITIES

B. GENERAL NOTES

- CONTRACTOR SHALL REFER TO ALL RELATED DOCUMENTS, ARCHITECTURAL, STRUCTURAL, CIVIL, AND MEP DRAWINGS, AND FULLY UNDERSTAND THE SCOPE OF WORK AND CONDITION OF CONSTRUCTION.
- BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE SUBMISSION OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED, OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD AN EXAMINATION BEEN MADE, WILL NOT BE ALLOWED.
- ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- CONTRACTOR TO PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING.
- IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL NECESSARY DEVICES AND COMPONENTS FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- THE ELECTRICAL CONTRACTOR SHALL MEET AND COORDINATE WITH THE LOCAL POWER COMPANY AT THE SITE PRIOR TO CONSTRUCTION. AT THAT TIME, THE CONTRACTOR SHALL COORDINATE ALL RELATED WORK WITH THE UTILITY COMPANY'S RESPONSIBILITIES TO MEET THE OWNER'S SCHEDULE.
- CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF CONTRACT DRAWINGS AT JOB SITE WITH COLORED MARKINGS INDICATING PROGRESS OF WORK. THIS SET OF CONTRACT DRAWINGS IS TO BE SEPARATE FROM AND IN ADDITION TO CONTRACTOR'S CONSTRUCTION SET. EVERY UNIT OF EQUIPMENT, DEVICE, CONDUIT AND WIRE IS TO BE MARKED WHEN INSTALLED. USE GREEN TO INDICATE INSTALLATION AS SHOWN ON DRAWINGS AND USE RED TO INDICATE FIELD CHANGES. UPON COMPLETION OF WORK, THIS SET OF CONTRACT DRAWINGS IS TO BE TURNED OVER TO, AND BECOME PROPERTY OF, THE ARCHITECT.
- THE OWNER RESERVES THE RIGHT TO REVISE THE DRAWING FROM TIME TO TIME TO INDICATE CHANGES IN THE WORK. WHEN REVISED DRAWINGS AND/OR ANY REVISIONS ARE ISSUED, THE CONTRACTOR SHALL EVALUATE THE CHANGES PROMPTLY. BEFORE INSTALLATION OF ANY ITEM OR PERFORMANCE OF THE WORK INDICATED BY THE REVISED DRAWINGS OR REVISIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IN WRITING THAT THE REVISED DRAWINGS INVOLVE AN ADDITION OR DEDUCTION OF A SPECIFIC AMOUNT OF MONEY TO THE CONTRACT PRICE. THE CONTRACTOR SHALL NOT PROCEED WITH THE REVISED WORK WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT/ENGINEER OF THE COST OF THE REVISED WORK.
- IF THE ELECTRICAL CONTRACTOR HAS QUESTIONS, OR IN THEIR OPINION FINDS OMISSIONS OR ERRORS ON ELECTRICAL DOCUMENTS, IT IS THEIR RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE ELECTRICAL ENGINEER/ARCHITECT/OWNER IMMEDIATELY. IF THE ELECTRICAL CONTRACTOR PROCEEDS WITH ANY CHANGES TO THE CONTRACT DOCUMENTS WITHOUT WRITTEN PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER/ARCHITECT/OWNER, THEY WILL NOT BE COMPENSATED.
- THE SHORT-CIRCUIT COORDINATION STUDY SHALL BE PERFORMED BY THE MANUFACTURER OF THE ELECTRICAL EQUIPMENTS. TRIP SETTINGS OF ADJUSTABLE BRANCHES SHALL BE ADJUSTED ADEQUATELY TO CONFORM TO THIS STUDY.

C. SUBMITTALS/SHOP DRAWINGS

- CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS FOR LIGHT FIXTURES, SWITCHGEAR, WIRING DEVICES, EMERGENCY GENERATOR/TRANSFER EQUIPMENT, AND ALL SYSTEMS (FIRE ALARM, SECURITY, ETC.). PROVIDE TWO (2) COPIES, TEN (10) DAYS PRIOR TO BID DATE FOR ENGINEER'S APPROVAL TO SUBMIT. ENGINEER'S APPROVAL OF THE PRIOR APPROVAL PACKAGE WILL BE CONSIDERED PRELIMINARY. FINAL APPROVAL WILL BE CONTINGENT UPON REVIEW OF FINAL SHOP DRAWINGS. ALL PROPOSED ALTERNATES MUST BE INDUSTRY STANDARD EQUALS TO THE ITEMS SPECIFIED AS THE BASIS OF DESIGN; HOWEVER, IF THE ITEMS ARE NOT CONSIDERED EQUAL BY THE ENGINEER, IT SHALL BE DISAPPROVED FOR FINAL SUBMITTAL. IF ELECTRICAL CONTRACTOR/GENERAL CONTRACTOR DOES NOT SUBMIT SHOP DRAWINGS TO ELECTRICAL ENGINEER FOR ITEMS LISTED ABOVE, ELECTRICAL ENGINEER WILL NOT BE RESPONSIBLE FOR ANY, AND OR OMISSIONS OR ERRORS DUE TO SHOP DRAWINGS NOT SUBMITTED. SHOP DRAWINGS AND SUBMITTALS WILL ONLY BE REVIEWED TWICE AS PART OF THIS CONTRACT. ADDITIONAL SHOP DRAWING REVIEWS SHALL BE INVOICED AT \$85.00 PER HOUR. BILLABLE TO THE SUB-CONTRACTOR, C.O.D.

D. QUALITY OF WORK

- MATERIALS AND INSTALLATION, AS A MINIMUM, ARE TO CONFORM WITH THE APPLICABLE EDITION, INCLUDING REVISIONS, AMENDMENTS, AND REFERENCED CODES AND STANDARDS, NATIONAL ELECTRICAL CODE, WHERE APPLICABLE. WILL BE LISTED WITH THE UNDERWRITERS LABORATORIES, INC. QUALITY AND WORKMANSHIP ESTABLISHED BY DRAWINGS AND SPECIFICATIONS ARE NOT TO BE REDUCED BY THE ABOVE MENTIONED CODES.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM IS TO BE FULLY OPERABLE AND ACCEPTANCE OF THIS SYSTEM BY THE ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUBCONTRACT.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. COORDINATE LOCATION AND DIMENSIONS OF DEVICES WITH ARCHITECTURAL DRAWINGS.
- CONTRACTOR TO GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE UNLESS INDICATED OTHERWISE IN THE WRITTEN SPECIFICATIONS.
- CORRECTION OF ANY DEFECTS TO BE COMPLETED WITHOUT ADDITIONAL CHARGE AND TO INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.

ELECTRICAL INSTALLATION TO MEET ALL STANDARD REQUIREMENTS OF LOCAL POWER, CABLE, INTERNET, AND TELEPHONE COMPANIES. ELECTRICAL CONTRACTOR SHALL CONTACT LOCAL POWER, CABLE, INTERNET, AND TELEPHONE COMPANIES PRIOR TO START OF CONSTRUCTION.

- EACH WALL-MOUNTED ITEM SHALL BE MOUNTED AT HEIGHT NOTED IN THE ELECTRICAL SCHEDULES UNLESS SHOWN OTHERWISE ON THE DRAWINGS. COORDINATE ALL WALL-MOUNTED DEVICES WITH ARCHITECTURAL DRAWINGS AND ELEVATIONS. HEIGHTS SHALL AT LEAST CONFORM TO THE MINIMUM REQUIREMENTS OF ALL APPLICABLE CODES.

- ALL RACEWAY AND EQUIPMENT SUPPORTS AND HANGERS SHALL BE FULLY COORDINATED WITH STRUCTURAL DRAWINGS.

E. CONDUITS AND RACEWAYS

- ALL WIRING SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED. MINIMUM WIRE SIZE SHALL BE #12 AWG, EXCLUDING CONTROL WIRING. ALL CONDUCTORS SHALL BE COPPER WITH THWN/THHN INSULATION. CONDUCTORS #10 AND SMALLER MAY BE SOLID; ALL THOSE #8 AND LARGER TO BE STRANDED.
- ALL UNDERGROUND RACEWAYS SHALL BE MINIMUM 3/4"; GALVANIZED RIGID STEEL CONDUIT OR SCHEDULE 40 PVC. ALL OTHER RACEWAYS TO COMPLY WITH GOVERNING CODES, WHERE RIGID STEEL IS USED, IT SHALL BE COMPLETELY COATED WITH AN ALKALI AND RUST RESISTANT BITUMASTIC PAINT. COPPER NO. 50, AND THREADS SHALL BE COATED WITH ZINC CHROMATE. RIGID STEEL SHALL ALSO BE USED WHEN CONDUIT IS EXPOSED TO EXTERIOR ENVIRONMENT SUCH AS EXTERIOR OF BUILDING OR WHERE IT IS EXPOSED AND SUBJECT TO DAMAGE, INSIDE OF BUILDING.
- ALL UNDERGROUND SERVICE CONDUITS/RACEWAYS ENTERING BUILDING OR STRUCTURE FROM OUTSIDE TO INSIDE SHALL BE SEALED, INCLUDING SPARE CONDUITS. SEALANT SHALL BE SUITABLE FOR THIS USE.

SPECIFICATIONS

- ALL UNDERGROUND PVC CONDUIT RUNS SHALL HAVE RIGID STEEL ELBOWS AND RIGID STEEL SECTIONS AT SLAB PENETRATIONS WHERE SUBJECT TO POSSIBLE DAMAGE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING ALL CONDUIT PENETRATIONS MADE THROUGH FIRE RATED WALLS, CEILINGS, SLABS, ETC. PENETRATION SEALS SHALL BE PER U.L. ASSEMBLY STANDARDS.
- ALL HORIZONTAL RUNS OF CONDUIT SHALL BE PROPERLY SUPPORTED BY MEANS OF APPROVED HANGERS FROM THE STRUCTURAL CEILING.
- WALL-MOUNTED CONDUIT SHALL BE CONCEALED BEHIND FINISHED WALLS EXCEPT WHERE NOTED OTHERWISE OR WHERE CONNECTING TO SURFACE-MOUNTED ENCLOSURES IN ROOMS SELECTED FOR SURFACE-MOUNTED INSTALLATION.
- CONDUCTORS**
 - ALL ELECTRICAL CONDUCTORS SHALL BE INSTALLED IN AN APPROVED RACEWAY, EMT, IMC, RIGID GALVANIZED CONDUIT OR SCHEDULE 40 P.V.C. THERE SHALL BE NO TYPE NM, ELECTRICAL NON-METALLIC TUBING, & FLEXIBLE METAL CONDUIT USED FOR BRANCH CIRCUITING. TYPE MC CABLE MAY ONLY BE USED FOR BRANCH CIRCUITS IN CONCEALED LOCATIONS, MAXIMUM NUMBER OF 120V CIRCUITS ALLOWED IN A COMMON CONDUIT SHALL BE SIX (6). THE CONTRACTOR SHALL STRICTLY CONFORM TO THE N.E.C. REQUIREMENTS OF DERATING FOR CONDUCTOR AMPACITY AND CONDUIT FILL. NO CONDUITS SHALL BE INSTALLED, EXPOSED ON ROOF.
 - ALL WIRING IS 2 #12 COPPER THHN/THWN AND 1 #12 COPPER GROUND IN 1/2" EMC U.N.O.
 - AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN EVERY CONDUIT AND RACEWAY AND SECURELY BONDED IN AN APPROVED GROUNDING TERMINAL AT BOTH ENDS OF THE RUN. THE GROUNDING CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH TABLE 250.122 OF THE N.E.C. CONTRACTOR SHALL SIZE CONDUIT TO ACCOMMODATE ADDITIONAL CONDUCTOR.
 - A SEPARATE, GREEN TYPE THW COPPER GROUND CONDUCTOR SHALL BE RUN FROM GROUND LUG OF EACH GROUNDED RECEPTACLE TO AN APPROVED CONNECTION INSIDE THE ENCLOSING STEEL OUTLET BOX. DEVICE MOUNTING SCREWS SHALL NOT BE CONSIDERED AN APPROVED GROUND.
 - CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:

THREE PHASE SYSTEM	PHASE SEQUENCE
NEUTRAL - WHITE	ABC, TOP TO BOTTOM, LEFT TO RIGHT, FRONT TO BACK
PHASE A - BLACK	
PHASE B - RED	
PHASE C - BLUE	
GRD.CON - GREEN	

NOTE: DISREGARD PHASE C IF SYSTEM IS NOT THREE PHASE.

6. VOLTAGE DROP

- ASSUMPTION:**
- 20A/1Ø, 120 OR 277V CIRCUIT
 - COPPER CONDUCTORS
 - 75° RATING AND CIRCUIT LOADED TO 80% OF OVER-CURRENT DEVICE RATING
 - "L" IS THE ACTUAL "ONE-WAY" LENGTH OF THE BRANCH CIRCUIT
- OPTIONALLY, THE CONTRACTOR MAY CALCULATE THE WIRE SIZE TO MAINTAIN A VOLTAGE DROP BELOW 3% FOR EACH 20A/1Ø BRANCH CIRCUITS BASED ON THE ACTUAL/NEC LOAD CONNECTED.
- 120 VOLT:**
- #12 AWG FOR 1>55'
 - #10 AWG FOR 55'<L<90'
 - #8 AWG FOR 90'<L<140'
 - #6 AWG FOR 140'<L<225'
 - #4 AWG FOR 225'<L<350'
 - #3 AWG FOR 350'<L<450'
 - #2 AWG FOR 450'<L<580'
- 277 VOLT:**
- #12 AWG FOR 1>125'
 - #10 AWG FOR 125'<L<215'
 - #8 AWG FOR 215'<L<330'
 - #6 AWG FOR 330'<L<525'

FOR L>500', THE BRANCH CIRCUIT WIRING SHALL BE SIZED TO LIMIT THE VOLTAGE DROP TO 3%.

NOTE: FOR CIRCUITS NOT FITTING THIS ASSUMPTION, CONTRACTOR TO VERIFY WIRE SIZING TO LIMIT VOLTAGE DROP TO NO MORE THAN 3%.

- LOAD DATA IS BASED ON INFORMATION GIVEN TO THE ENGINEER AT THE TIME OF DESIGN. VERIFY ALL EQUIPMENT NAMEPLATE RATINGS BEFORE ORDERING.
- CIRCUITS SHOWN ON PLANS ARE TO DETERMINE LOAD DATA AND PANEL SIZES. THE CONTRACTOR IS TO PROVIDE CIRCUITS AND ROUTING OF CONDUITS TO SUIT JOB CONDITIONS.
- ALL SWITCHGEAR, PANELS, STARTERS, CONTACTORS ETC., SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. THE SYSTEM DESIGN IS BASED ON SQUARE "D"; HOWEVER, COMPARABLE EQUIPMENT BY G.E., SIEMENS AND CUTLER HAMMER ONLY WILL BE ACCEPTABLE. TANDEM AND HALF-SPACE CIRCUIT BREAKERS SHALL NOT BE USED.
- TYPEWRITTEN CIRCUIT INDEX SHALL BE AFFIXED TO INSIDE SURFACE OF EACH PANELBOARD DOOR, CLEARLY INDICATING AREA AND TYPE OF LOAD SERVED BY EACH BRANCH CIRCUIT PROTECTIVE DEVICE, INCLUDING SPARES. HAND PRINTED WILL NOT BE ACCEPTED.
- ENGRAVED, LAMINATED PLASTIC IDENTIFICATION PLATES SHALL BE FURNISHED AND INSTALLED ON ALL PANELS AND SWITCHGEAR. PLATES SHALL BE AFFIXED TO FRONT OF PANELS, INDICATING PANEL NAME, VOLTAGE, AMPERAGE, AND, WHEN REQUIRED BY NEC 110.24, THE AVAILABLE FAULT CURRENT.
- ARC-FLASH WARNINGS AND LABELS SHALL BE AFFIXED TO REQUIRED EQUIPMENT AS REQUIRED BY NEC SECTION 110.16.
- PANELS SHALL BE MOUNTED PER NEC AND PER ADA REQUIREMENTS.
- SERVER RATED PANELBOARD AND BRANCHES ARE PROHIBITED.
- PRIOR TO ORDERING THE PANEL BOARDS, THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE MAXIMUM FAULT CURRENT AVAILABLE FROM THE UTILITY COMPANY. THE CONTRACTOR SHALL PERFORM A FAULT CURRENT ANALYSIS OF THE ELECTRICAL SYSTEM AND SHALL REVISE, AS REQUIRED, THE AIC RATING OF ALL EQUIPMENTS TO BE ABLE TO SUSTAIN THE MAXIMUM FAULT CURRENT FROM THIS ANALYSIS.

H. EQUIPMENT/DEVICES/FUSES

- DISCONNECT SWITCHES SHALL BE H.P., RATED, GENERAL DUTY, QUICK-MAKE, QUICK-BREAK TYPE. ENCLOSURES SHALL BE AS REQUIRED BY N.E.C. AND LOCATION (WEATHERPROOF, EXPLOSION PROOF, ETC.). ENGRAVED LAMINATED PLASTIC IDENTIFICATION PLATES SHALL BE FURNISHED AND INSTALLED ON ALL DISCONNECT SWITCHES, CONTACTORS AND STARTERS.
- FUSES FOR SAFETY SWITCHES SHALL BE DUAL ELEMENT, CARTRIDGE TYPE. FUSES SHALL BE THOSE MANUFACTURED BY EITHER BUSSMAN OR LITTELFUSE. THE CONTRACTOR SHALL FURNISH TO THE OWNER ONE SPARE FUSE FOR EACH SIZE AND TYPE OF FUSE INSTALLED. FUSES 400 AMPS OR LESS SHALL BE CLASS RK1, TYPICAL UNLESS OTHERWISE NOTED. FUSES OVER 400 AMPS SHALL BE CLASS L.
- FURNISH AND INSTALL DISCONNECT SWITCHES, WIRING, AND CONNECTIONS ON MECHANICAL AND PLUMBING SYSTEMS AS SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING SUPPLY AND INSTALLATION OF ALL REQUIRED CONTROLS AND VERIFY THAT ALL EQUIPMENT POWER REQUIREMENTS AND PROTECTION ARE AS INDICATED ON THESE PLANS.
- THE DISCONNECT SWITCH, FUSE SIZES, CONDUIT AND WIRE SHOWN FOR ALL HVAC ARE SIZED PER THE MANUFACTURER, AND MODEL NUMBER LISTED ON THE MECHANICAL PLANS. IF THERE IS AN EQUAL MANUFACTURER, OR OTHER MANUFACTURER PROVIDED, THE MECHANICAL / GENERAL CONTRACTOR SHALL BARE ANY ADDITIONAL COST INCURRED IF THE ELECTRICAL IS NOT EQUAL TO SPECIFICATIONS.

SPECIFICATIONS

- ALL GENERAL-PURPOSE SWITCHES AND RECEPTACLES SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. CATALOG NUMBERS LISTED ARE LEVITON; HOWEVER, COMPARABLE DEVICES BY PASS & SEYMOUR, BRYANT, OR ARROW HART WILL BE ACCEPTED. COLOR OF DEVICES AND PLATES SHALL BE DICTATED BY ARCHITECT/OWNER.

A.	SWITCHES: LEVITON #CS81-20
B.	RECEPTACLES: LEVITON #BR20
C.	COVER PLATES: SMOOTH THERMOSET PLASTIC
D.	COVER PLATES: STAINLESS STEEL (IN KITCHEN, SERVICE AREA & PREP AREA)

NOTE: ALL OTHER REQUIRED DEVICES SHALL MATCH IN COLOR AND STYLE.
- ALL RECEPTACLES SHALL BE RATED AS GFCI, AFCI, WEATHERPROOF, AND/OR TAMPERPROOF AS REQUIRED BY THE NEC IN LOCATIONS.
- PROVIDE CIRCUIT NUMBER PERMANENT LABELS TYPE WRITTEN 1/8" HIGH BLOCK STYLE LETTER IN BLACK ON CLEAR TAPE ON ALL RECEPTACLE. COORDINATE WITH OWNER PRIOR TO INSTALLATION.
- OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND BE OF SPECIAL CONSTRUCTION FOR OTHER CLASSIFIED AREAS. ALL BOXES SHALL BE RECESSED (FLUSH) IN WALLS OR CEILINGS WHENEVER POSSIBLE.
- LABEL ALL JUNCTION BOX COVERS WITH CIRCUIT NUMBERS/SYSTEM USING PERMANENT MARKERS.

LOW VOLTAGE INSTALLATION

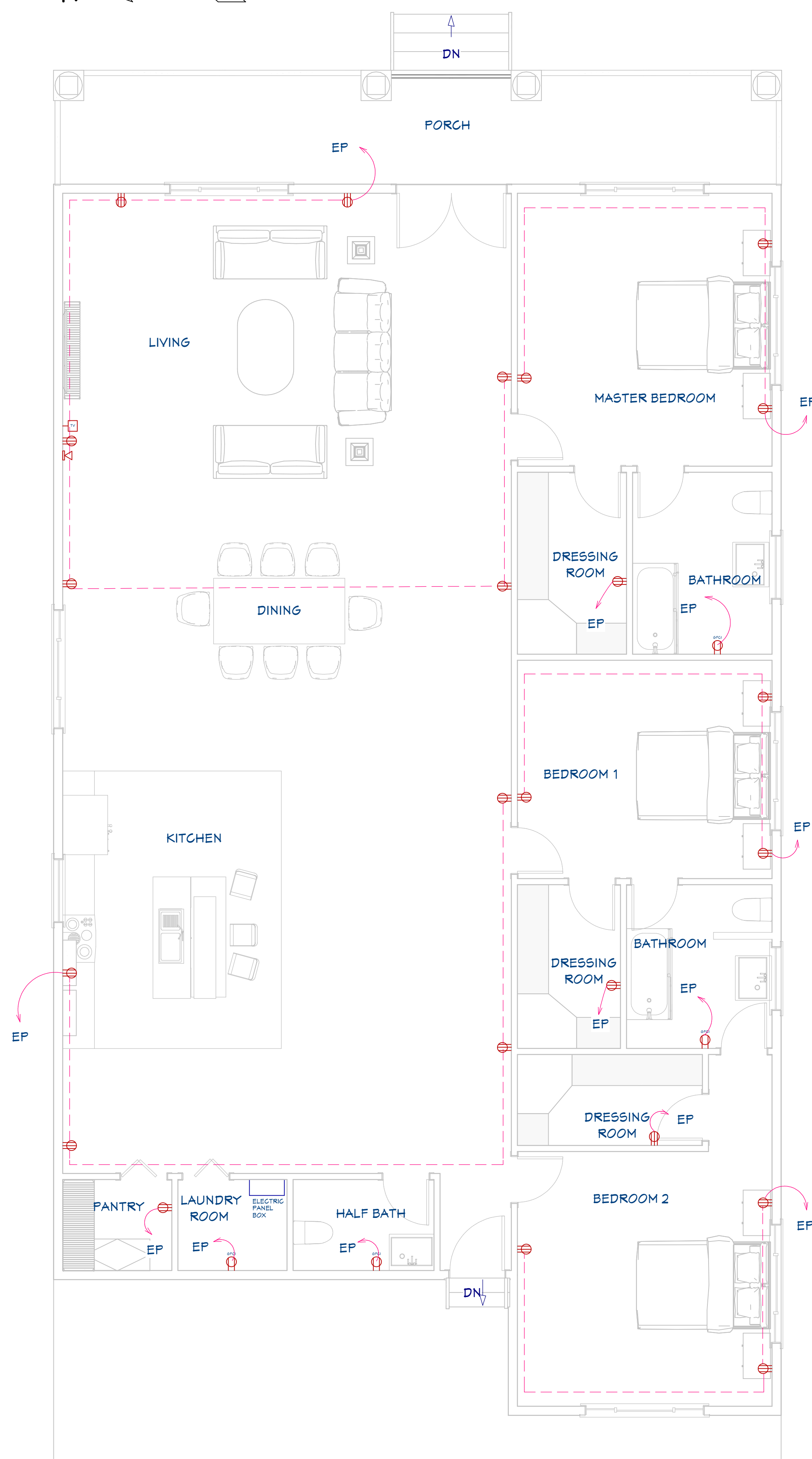
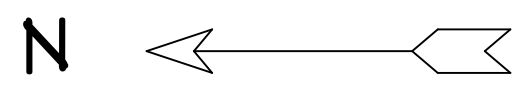
GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR A COMPLETE LOW VOLTAGE INSTALLATION (TURN-KEY) FOR THE FOLLOWING:
 - SECURITY
 - VOICE (TELEPHONE)
 - DATA
 - TV
 - DOOR REMOTE RELEASE
- LOW VOLTAGE LIGHTING APPLICATIONS SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENT AND PER THE APPLICABLE CODES AND STANDARDS OF THE NEC AND IECC.
- FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY TO NFPA 70, NFPA 72, AND ALL OTHER CODES/STANDARDS REQUIRED BY LOCAL AUTHORITIES.

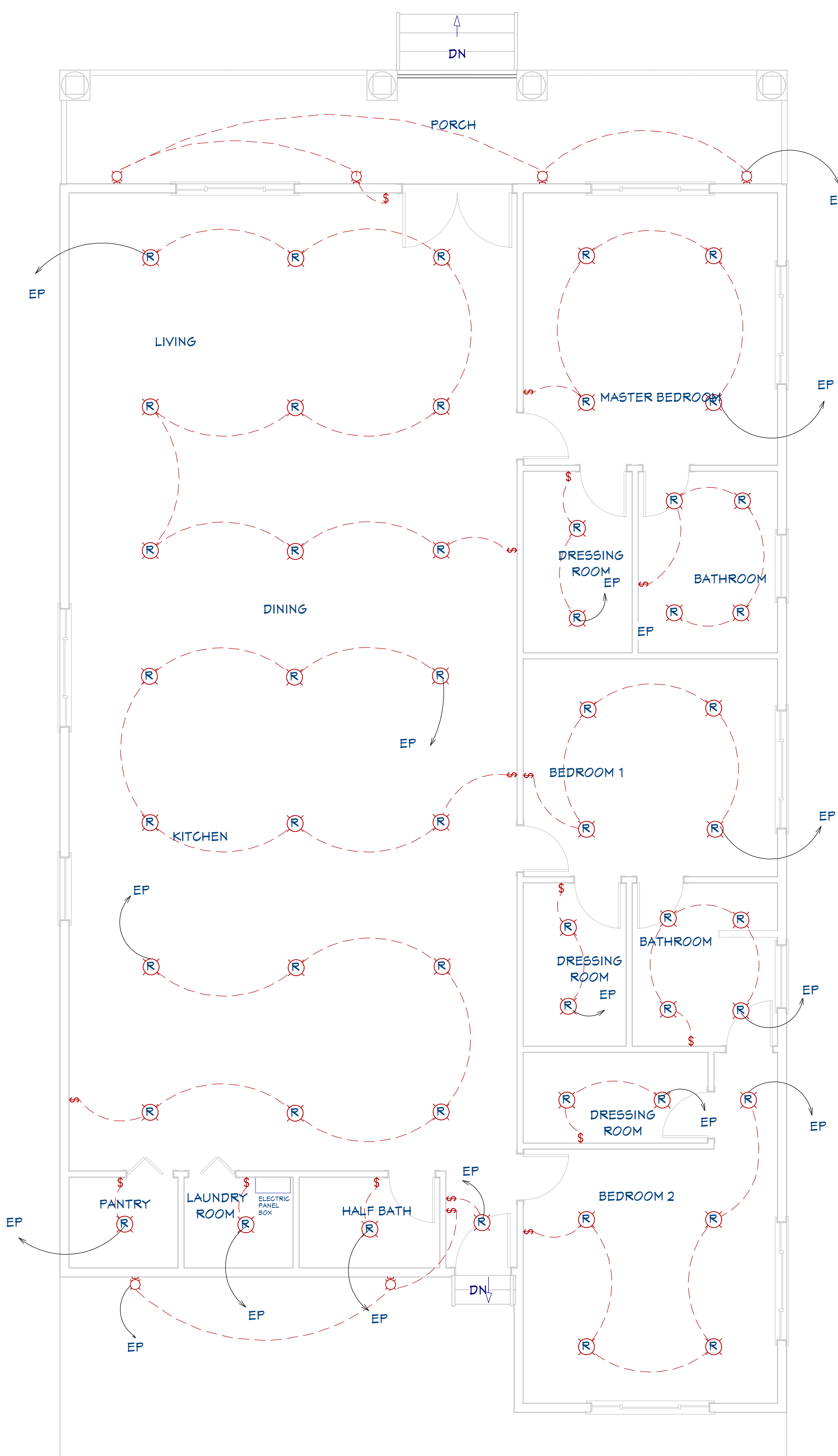
ABBREVIATIONS AND CALLOUTS (TYP.)

Δ	DELTA	IU-X	INDOOR UNIT
Y	WYE	J/JB	JUNCTION BOX
A	AMPS	kcmil	THOUSAND CIRCULAR MIL
AC	ALTERNATING CURRENT	KEF-X	KITCHEN EXHAUST FAN
AD	ACCESS DOOR	kW	KILOWATT
AFCI/AFI	ARC FAULT CIRCUIT INTERRUPTER	L-X	LOUVER (POWERED)
AFF	ABOVE FINISH FLOOR	LED	LIGHT EMITTING DIODE
AHU-X	AIR HANDLING UNIT	MAU-X	MAKE UP AIR UNIT
AIC	AMPERE INTERRUPTING CAPACITY	MAX	MAXIMUM
AJD	ADJUSTABLE	MCA	MAX. CIRCUIT AMPERAGE
AL	ALUMINUM	MCB	MAIN CIRCUIT BREAKER
AOR	ARCHITECT OF RECORD	MCC	MOTORIZED CONTROL CENTER
ATS	AUTOMATIC TRANSFER SWITCH	MIN	MINIMUM
BC-X	BRANCH CONTROLLER	MIU-X	MULTI-SPLIT INDOOR UNIT
BKR	BREAKER	MLO	MAIN LUGS ONLY
BOD	BASIS OF DESIGN	MOCP	MAX. OVERCURRENT PROTECTION
CB	CIRCUIT BRANCH	MOU-X	MULTI-SPLIT OUTDOOR UNIT
CLG	CEILING	MOD	MOTORIZED DAMPER
COMP-X	COMPRESSOR	N	NEUTRAL
CU	COPPER	N/A	NOT APPLICABLE
CU-X	CONDENSING UNIT	NC	NORMALLY CLOSED
DC	DIRECT CURRENT	NO	NORMALLY OPEN
DIM	DIMMER	OU-X	OUTDOOR UNIT
DWGS	DRAWINGS	PNL	PANEL
EDH	ELECTRICAL DUCT HEATER	PIU-X	POWERED INDUCTION UNIT
EF-X	EXHAUST FAN	RMS	ROOT MEAN SQUARE
EOR	ENGINEER OF RECORD	RTU-X	ROOFTOP UNIT
EX	EXISTING	SF	SQUARE FEET
FA	FIRE ALARM	SWBD	SWITCHBOARD
FAA	FIRE ALARM ANNUNCIATOR PANEL	TP	TAMPER PROOF
FACP	FIRE ALARM CONTROL PANEL	TV	TELEVISION
FCU-X	FAN COIL UNIT	TYP	TYPICAL
FD	FIRE DAMPER	UG	UNDERGROUND
FSD	FIRE/SMOKE DAMPER	UH-X	UNIT HEATER (ELECTRIC)
FT	FEET	V	VOLTS
G/GRND	GROUND	VA	VOLT-AMPERES
GEN	GENERATOR	VAV-X	VARIABLE AIR VOLUME UNIT
GFCI/GFI	GROUND FAULT CIRCUIT INTERRUPTER	VD	VOLUME DAMPER (MANUAL)
GUH-X	GAS UNIT HEATER	VFD	VARIABLE FREQUENCY DRIVE
H/C	HEATING COIL	W	WATTS
HP	HORSEPOWER	W/	WITH
HP-X	HEAT PUMP	WH-X	WATER HEATER
HR	HOOR	WP	WEATHERPROOF
HZ	HERZ	XFMR	TRANSFORMER
IG	ISOLATED GROUND	XP	EXPLOSION PROOF
IN	INCHES	Z	IMPEDANCE

NOTE: ANY EQUIPMENT CALLOUTS NOT FOUND IN THIS LIST MAY BE FOUND IN THE EQUIPMENT SCHEDULES OF THE RESPECTIVE TRADE INVOLVED. OTHERWISE REFER TO SECTION B, NOTE 9 ON THIS SHEET.



POWER PLAN
1/4"=1'



LIGHTING PLAN
1/4"=1'

ELECTRICAL LEGEND

- 110V OUTLET (RECEPTACLES)
- CONNECTION
- CFGI OUTLET
- HOME RUN
- ELECTRICAL PANEL
- LED LIGHT
- WALL MOUNTED LIGHT
- SWITCHES
- TV OUTLET
- TELEPHONE OUTLET

NOTE:

BRANCH CIRCUITRY AND PANEL DESIGNATIONS TO BE DESIGNED AND INSTALLED BY CERTIFIED LOCAL ELECTRICIAN

ABBREVIATIONS AND CALLOUTS (TYP.)

Δ	DELTA	IU-X	INDOOR UNIT
Y	WYE	J/JB	JUNCTION BOX
A	AMPS	kcml	THOUSAND CIRCULAR MIL
AC	ALTERNATING CURRENT	KEF-X	KITCHEN EXHAUST FAN
AD	ACCESS DOOR	kW	KILOWATT
AFCI/AFI	ARC FAULT CIRCUIT INTERRUPTER	L-X	LOUVER (POWERED)
AFF	ABOVE FINISH FLOOR	LED	LIGHT EMITTING DIODE
AHU-X	AIR HANDLING UNIT	MAU-X	MAKE UP AIR UNIT
AIC	AMPERE INTERRUPTING CAPACITY	MAX	MAXIMUM
AJD	ADJUSTABLE	MCA	MAX. CIRCUIT AMPERAGE
AL	ALUMINUM	MCB	MAIN CIRCUIT BREAKER
AOR	ARCHITECT OF RECORD	MCC	MOTORIZED CONTROL CENTER
ATS	AUTOMATIC TRANSFER SWITCH	MIN	MINIMUM
BC-X	BRANCH CONTROLLER	MIU-X	MULTI-SPLIT INDOOR UNIT
BKR	BREAKER	MLO	MAIN LUGS ONLY
BOD	BASIS OF DESIGN	MOCP	MAX. OVERCURRENT PROTECTION
CB	CIRCUIT BRANCH	MOU-X	MULTI-SPLIT OUTDOOR UNIT
CLG	CEILING	MOD	MOTORIZED DAMPER
COMP-X	COMPRESSOR	N	NEUTRAL
CU	COPPER	N/A	NOT APPLICABLE
CU-X	CONDENSING UNIT	NC	NORMALLY CLOSED
DC	DIRECT CURRENT	NO	NORMALLY OPEN
DIM	DIMMER	OU-X	OUTDOOR UNIT
DWGS	DRAWINGS	PNL	PANEL
EDH	ELECTRICAL DUCT HEATER	PIU-X	POWERED INDUCTION UNIT
EF-X	EXHAUST FAN	RMS	ROOT MEAN SQUARE
EOR	ENGINEER OF RECORD	RTU-X	ROOFTOP UNIT
EX	EXISTING	SF	SQUARE FEET
FA	FIRE ALARM	SWBD	SWITCHBOARD
FAA	FIRE ALARM ANNUNCIATOR PANEL	TP	TAMPER PROOF
FACP	FIRE ALARM CONTROL PANEL	TV	TELEVISION
FCU-X	FAN COIL UNIT	TYP	TYPICAL
FD	FIRE DAMPER	UG	UNDERGROUND
FSD	FIRE/SMOKE DAMPER	UH-X	UNIT HEATER (ELECTRIC)
FT	FEET	V	VOLTS
G/GRND	GROUND	VA	VOLT-AMPERES
GEN	GENERATOR	VAV-X	VARIABLE AIR VOLUME UNIT
GFCI/GFI	GROUND FAULT CIRCUIT INTERRUPTER	W	WATTS
GUH-X	GAS UNIT HEATER	W/	WITH
H/C	HEATING COIL	WH-X	WATER HEATER
HP	HORSEPOWER	WP	WEATHERPROOF
HP-X	HEAT PUMP	XFMR	TRANSFORMER
HR	HOUR	XP	EXPLOSION PROOF
HZ	HERZ	Z	IMPEDANCE
IG	ISOLATED GROUND		
IN	INCHES		

SPECIFICATIONS

A. APPLICABLE CODE

CONTRACTOR SHALL FOLLOW ALL APPLICABLE GOVERNING CODES AS WELL AS ANY STATE AMENDMENTS. CONTRACTOR SHALL ENSURE CORRECT EDITION IS REFERENCED ACCORDING TO CODE ADOPTION BY STATE AND PERMITTING AGENCIES. APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO:

INTERNATIONAL PLUMBING CODE (IPC)
INTERNATIONAL FUEL AND GAS CODE (IFGC)
INTERNATIONAL FIRE CODE (IFC)

B. GENERAL NOTES

- 1 CONTRACTOR SHALL REFER TO ALL RELATED DOCUMENTS, ARCHITECTURAL, STRUCTURAL, CIVIL, AND MEP DRAWINGS, AND FULLY UNDERSTAND THE SCOPE OF WORK AND CONDITION OF CONSTRUCTION.
- 2 FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH THE APPLICABLE EDITION, INCLUDING REVISIONS AND REFERENCED CODES AND STANDARDS (INCLUDING ALL APPLICABLE STATE AMENDMENTS).
- 3 FURNISH AND INSTALL ALL SYSTEMS OF SOIL, WASTE, AND VENT PIPING, HOT & COLD WATER PIPING, AND DRAINAGE PIPING INCLUDING ALL FITTINGS, VALVES, ETC. AS REQUIRED.
- 4 FURNISH AND INSTALL ALL PLUMING FIXTURES AND EQUIPMENT AS SHOWN ON THE DRAWINGS.
- 5 ALL PLUMBING WORK SHALL BE DONE UNDER THE SUPERVISION OF AND BY LICENSED AND QUALIFIED PLUMBERS IN ACCORDANCE WITH THE APPLICABLE EDITION, INCLUDING REVISIONS (INCLUDING ALL APPLICABLE STATE AMENDMENTS) AND TO THE COMPLETE SATISFACTION OF THE LOCAL AHJ.
- 6 SUBMISSION OF A BID OR PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS, SPECIFICATIONS, AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO BIDS FOR MATERIALS AND/OR LABOR DUE TO DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, UNLESS DIFFICULTIES COULD NOT HAVE BEEN FORESEEN EVEN THOUGH PROPER EXAMINATION HAD BEEN MADE.
- 7 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY CONNECTIONS AND SHALL BEAR ALL COSTS OF INSTALLING NEW WATER METER.
- 8 ALL MATERIALS SHALL BE NEW, CLEAN, AND WITHOUT DEFECTS. ANY DEFECTIVE MATERIALS SHALL BE REMOVED FROM THE JOB SITE.
- 9 ALL PLUMBING PIPING SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE AND ABOVE DROP CEILINGS.
- 10 ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 11 IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE PLUMBING SYSTEM AND PROVIDE ALL NECESSARY DEVICES AND COMPONENTS FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- 12 THE PLUMBING CONTRACTOR SHALL MEET AND COORDINATE WITH THE LOCAL UTILITY COMPANY AT THE SITE PRIOR TO CONSTRUCTION. AT THAT TIME, THE CONTRACTOR SHALL COORDINATE ALL RELATED WORK WITH THE UTILITY COMPANY'S RESPONSIBILITIES TO MEET THE OWNER'S SCHEDULE.
- 13 CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF CONTRACT DRAWINGS AT JOB SITE WITH COLORED MARKINGS INDICATING PROGRESS OF WORK. THIS SET OF CONTRACT DRAWINGS IS TO BE SEPARATE FROM AND IN ADDITION TO CONTRACTOR'S CONSTRUCTION SET. EVERY UNIT OF EQUIPMENT AND PIPING IS TO BE MARKED WHEN INSTALLED. USE GREEN TO INDICATE INSTALLATION AS SHOWN ON DRAWINGS AND USE RED TO INDICATE FIELD CHANGES. UPON COMPLETION OF WORK, THIS SET OF CONTRACT DRAWINGS IS TO BE TURNED OVER TO, AND BECOME PROPERTY OF, THE ARCHITECT.
- 14 THE OWNER RESERVES THE RIGHT TO REVISE THE DRAWING FROM TIME TO TIME TO INDICATE CHANGES IN THE WORK. WHEN REVISED DRAWINGS AND/OR ANY REVISIONS ARE ISSUED, THE CONTRACTOR SHALL EVALUATE THE CHANGES PROMPTLY. BEFORE INSTALLATION OF ANY ITEM OR PERFORMANCE OF THE WORK INDICATED BY THE REVISED DRAWINGS OR REVISIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IN WRITING THAT THE REVISED DRAWINGS INVOLVE AN ADDITION OR DEDUCTION OF A SPECIFIC AMOUNT OF MONEY TO THE CONTRACT PRICE. THE CONTRACTOR SHALL NOT PROCEED WITH THE REVISED WORK WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT/ENGINEER OF THE COST OF THE REVISED WORK.
- 15 IF THE PLUMBING CONTRACTOR HAS QUESTIONS, OR IN THEIR OPINION FINDS OMISSIONS OR ERRORS. ON THE PLUMBING DOCUMENTS, IT IS THEIR RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE PLUMBING ENGINEER/ARCHITECT/OWNER IMMEDIATELY. IF THE PLUMBING CONTRACTOR PROCEEDS WITH ANY CHANGES TO THE CONTRACT DOCUMENTS WITHOUT WRITTEN PRIOR APPROVAL FROM THE PLUMBING ENGINEER/ARCHITECT/OWNER, THEY WILL NOT BE COMPENSATED.

C. SYSTEM TESTING

- 1 UPON COMPLETION OF THE WORK, TEST ALL PIPING SYSTEMS AS FOLLOWS:
- A DRAINAGE SYSTEMS INCLUDING SANITARY SEWER, ROOF DRAINAGE, AND SANITARY VENTS: PLUG LOW POINTS OF SYSTEM AND FILL WITH WATER TO UPPERMOST OUTLET UP TO TWELVE (12) FEET HIGH, WHICHEVER IS LOWER. LET SYSTEM STAND FULL OF WATER WITH NO INDICATIONS OF LEAKS.
- B DOMESTIC HOT AND COLD WATER: 150 PSIG HYDROSTATIC TEST. HOLD HYDROSTATIC TESTS FOR A MINIMUM OF EIGHT (8) HOURS WITHOUT LOSS OF PRESSURE. HOLD AIR TESTS FOR A MINIMUM OF ONE HOUR WITHOUT SIGNIFICANT LOSS OF PRESSURE. WITH APPROVAL OF ARCHITECT, AIR TESTING MAY BE SUBSTITUTED FOR HYDROSTATIC TESTING IN FREEZING WEATHER.
- C GAS PIPING: 60 PSIG AIR PRESSURE TEST. MAINTAIN THIS PRESSURE FOR A MINIMUM OF EIGHT (8) HOURS WITHOUT A LOSS OF PRESSURE. FOLLOW INSTRUCTIONS 2.11 AND 2.12 IN NFPA MANUAL 54.
- 2 RETESTING: RETEST PIPING FAILING INITIAL TESTS FOLLOWING CORRECTION OF DEFECTIVE WORK. REQUIREMENTS OF INITIAL TEST SHALL APPLY.

D. PIPING SYSTEM AND MATERIALS

- 1 SANITARY, WASTE, AND VENT PIPING ABOVE GRADE SHALL BE NO-HUB CAST IRON OR ASTM D2665-81 PVC SCHEDULE 40 PIPE.
- 2 GAS PIPING SHALL BE SCHEDULE 40 ASTM-A53 BLACK STEEL WITH 150# BLACK MALLEABLE FITTINGS AND DART #0832 UNIONS. PROVIDE DRIP LEGS AND CAPS FOR MOISTURE REMOVAL. PROVIDE UNIONS AND LUBRICATED PLUGS FOR ALL EQUIPMENT.
- 3 DOMESTIC WATER PIPING SHALL BE EITHER COPPER TYPE L, PVC (COLD WATER SUPPLY), OR CPVC (HOT WATER SUPPLY). CROSS-LINKED POLYETHYLENE (PEX) PIPING MAY BE USED WHERE APPROVED BY OWNER AND IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS. PEX PIPING MAY NOT BE CONNECTED DIRECTLY TO HOT WATER HEATER.
- 3 ALL HOT WATER PIPING SHALL BE INSULATED WITH 1/2" THICK PRE-FORMED FOAM PIPE INSULATION. INSULATE FITTINGS WITH MITERED SECTIONS.
- 4 WATER SUPPLY AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE COVERED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. PIPE COVERINGS SHALL COMPLY WITH ASME A112.18.9.
- 5 CLEANOUT PLUGS SHALL BE INSTALLED IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS AT EACH CHANGE IN DIRECTION. CLEANOUTS SHALL BE PLACED IN READILY ACCESSIBLE LOCATIONS.
- 6 ALL EXPOSED FIXTURE SUPPLY AND DRAINAGE PIPING SHALL BE BRASS, CHROME PLATED. THIS INCLUDES PIPING UNDER COUNTERS OR IN CABINETS.
- 7 PROVIDE VALVES IN DOMESTIC WATER SYSTEM TO CUT-OFF WATER SERVICE MAIN INSIDE THE BUILDING, AT EACH WALL HYDRANT, AND TO ISOLATE EACH FIXTURE IN THE BUILDING.
- 8 PROVIDE BACK-FLOW PREVENTER AND SHUT-OFF VALVES AT WATER ENTRANCE, OR AS SHOWN, WATTS SERIES 009 OR EQUAL, WITH DRAIN TO OUTSIDE.
- 9 PROVIDE WATER PRESSURE REDUCING VALVE WATTS USB OR EQUAL. (SET AT 50 PSIG).
- 10 THERMAL EXPANSION TANKS SHALL BE SUPPORTED BY A MOUNTING BRACKET OR OTHER APPROVED METHOD BY THE TANK MANUFACTURER TO A WALL NEAR TO THE WATER HEATER. THERMAL EXPANSION TANKS SHALL NOT BE SUPPORTED BY CONNECTED PIPING PER IPC ARTICLE 308.10.
- 11 WATER, SOIL AND WASTE PIPES INSTALLED OUTSIDE OF BUILDING, IN ATTICS OR CRAWL SPACES, CONCEALED IN OUTSIDE WALLS, OR IN ANY OTHER PLACE SUBJECTED TO FREEZING TEMPERATURES SHALL BE PROVIDED WITH ADEQUATE PROTECTION (INSULATION, HEAT, OR BOTH). EXTERIOR WATER SUPPLY PIPING SHALL BE INSTALLED NOT LESS THAN 6 INCHES BELOW THE FROST LINE AND NOT LESS THAN 12 INCHES BELOW GRADE.
- 12 JOINTS AT THE ROOF AND AROUND VENT PIPES SHALL BE MADE WATER TIGHT BY THE USE OF AN APPROVED FLASHING OR FLASHING MATERIAL. EXTERIOR WALL OPENINGS SHALL BE MADE WATER TIGHT.
- 13 ALL PLUMBING PIPING SHALL BE SUPPORTED IN AN APPROVED MANNER INDICATED IN SECTION 308 OF THE IPC. MAXIMUM SPACING OF SUPPORTS SHALL BE IN ACCORDANCE WITH THE MATERIAL USED AND AS INDICATED IN IPC TABLE 308.5.
- 14 CONDENSATE PIPING SERVING A FUEL BURNING APPLIANCE SHALL BE OF APPROVED CORROSION-RESISTANT MATERIAL AND NOT SMALLER THAN THE DRAIN CONNECTION TO THE APPLIANCE.
- 15 CONDENSATE PIPING SERVING COOLING COILS AND EVAPORATORS SHALL BE OF AN APPROVED MATERIAL AS LISTING IN IPC ARTICLE 314.2.1. COMPONENTS SHALL BE LISTED FOR THE PRESSURE AND TEMPERATURE RATING OF THE INSTALLATION. PIPING SHALL BE NOT LESS THAN 3/4 INCH IN DIAMETER AND NOT DECREASE IN SIZE FROM THE DRAIN PAN TO THE PLACE OF DISPOSAL.
- 16 CONDENSATE DRAINS FROM FUEL-BURNING APPLIANCES AND FROM COOLING AND EVAPORATOR COILS SHALL BE CONVEYED TO AN APPROVED PLACE OF DISPOSAL OR PLUMBING FIXTURE. SUCH PIPING SHALL MAINTAIN A HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN 1%. CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY, PEDESTRIAN WALKWAY, OR OTHER AREAS SO. AS TO CAUSE A NUISANCE.
- 17 PRIMARY CONDENSATE REMOVAL SYSTEMS FOR FUEL-BURNING APPLIANCES, COOLING COILS, AND EVAPORATORS SHALL BE PROVIDED WITH A SECONDARY DRAIN SYSTEM TO PREVENT OVERFLOW AS LISTED IN IPC ARTICLE 314.2.3.

ABBREVIATIONS			
AAV	AIR ADMITTANCE VALVE	IM	ICE MACHINE
AD	ACCESS DOOR	KS	KITCHEN SINK
AFF	ABOVE FINISH FLOOR	kW	KILOWATT
ADJ	ADJUSTABLE	LAV	LAVATORY
AOR	ARCHITECT OF RECORD	LBS	POUNDS
BFP	BACKFLOW PREVENTER	MAX	MAXIMUM
BOD	BASIS OF DESIGN	MBH	1,000 BTU/HR
BTU	BRITISH THERMAL UNIT	MCA	MAX. CIRCUIT AMPERAGE
BTU/HR	BRITISH THERMAL UNIT PER HOUR	MIN	MINIMUM
CFH	CUBIC FEET PER HOUR	MOCP	MAX. OVERCURRENT PROTECTION
CO	CLEANOUT	MS	MOP SINK
COND	CONDENSATE	N/A	NOT APPLICABLE
CW	COLD WATER	PRV	PRESSURE REDUCING VALVE
Ø	DIAMETER	REF	REFRIGERATOR
DF-X	DRINKING FOUNTAIN	RPM	ROTATIONS PER MINUTE
DN	DOWN	SF	SQUARE FEET
DW-X	DISHWASHER	SH	SHOWER
DWG/S	DRAWING/S	SK	SINK
ECO	EXTERIOR CLEANOUT	SP	STATIC PRESSURE
EOR	ENGINEER OF RECORD	SS	SANITARY SEWER
EX	EXISTING	TYP	TYPICAL
FCO	FLOOR CLEANOUT	UR	URINAL
FD	FLOOR DRAIN	V	VENT
FS	FLOOR SINK	VTR	VENT THRU ROOF
FT	FEET	W/	WITH
HB	HOSE BIBB	WC-X	WATER CLOSET
HD	HUB DRAIN	WC	WATER COLUMN
HP	HORSEPOWER	WCO	WALL CLEANOUT
HR	HOURLY	WG	WATER GAUGE
HW	HOT WATER	WH	WATER HEATER
IN	INCHES	WM	WASHING MACHINE/LAUNDRY

PLUMBING NOTES

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SINGLE-FAMILY RESIDENTIAL HOUSE

TRANSFORMATIVE

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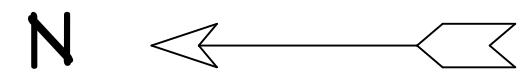
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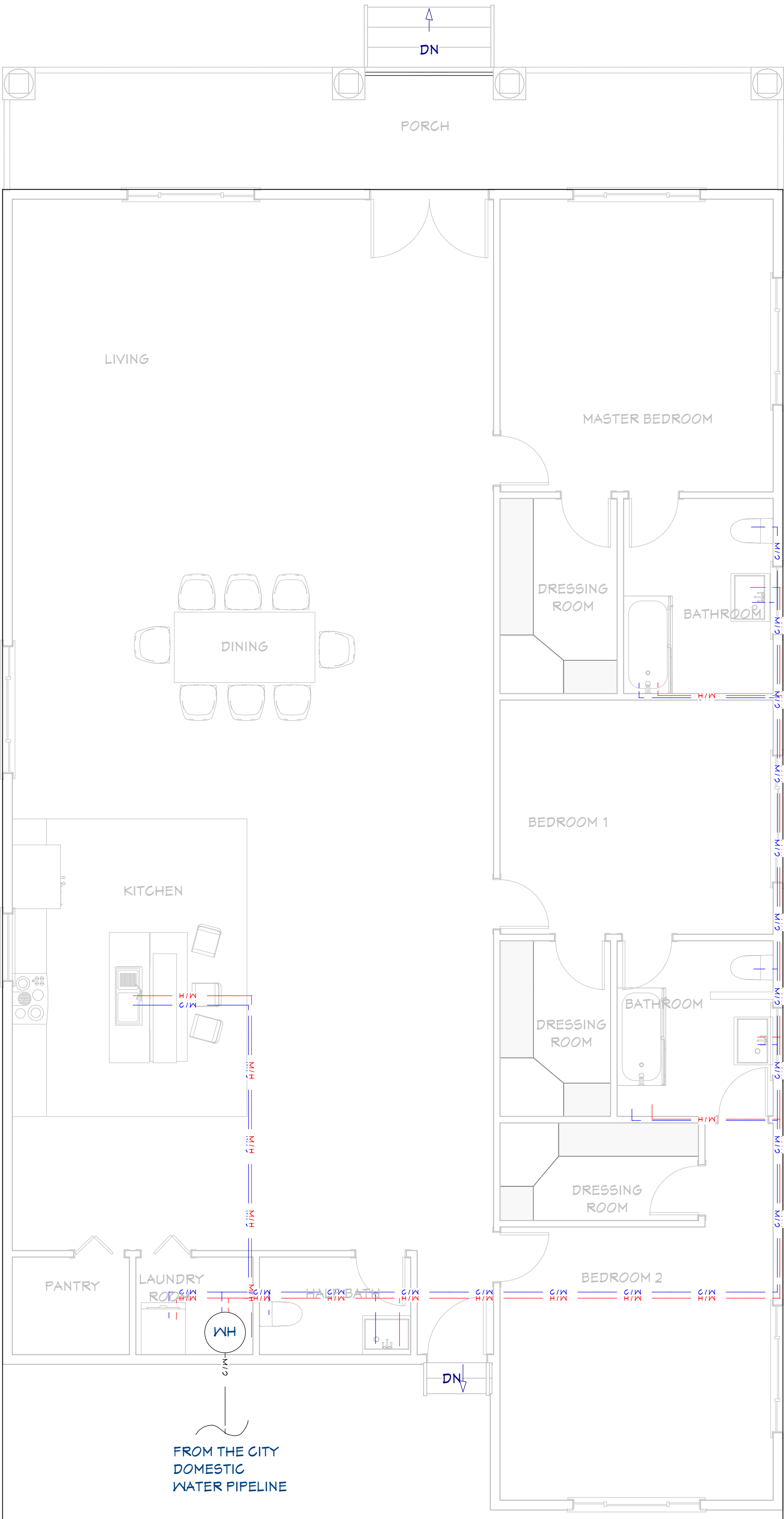
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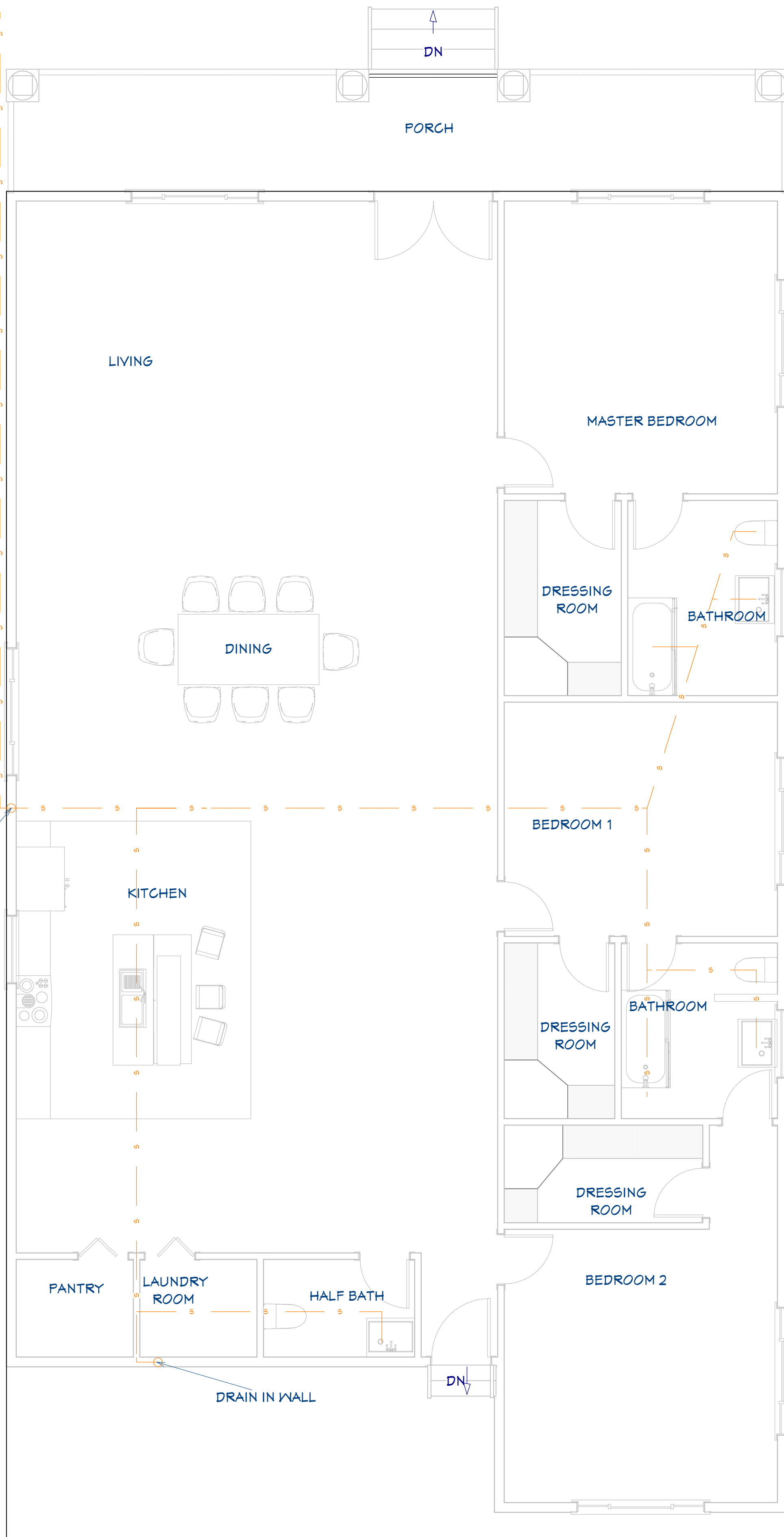
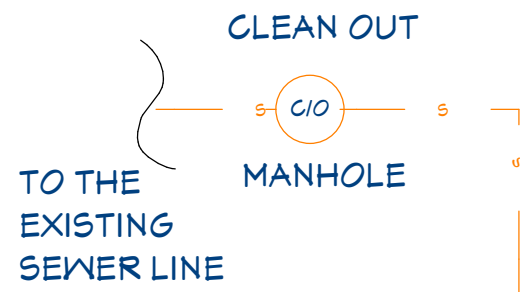
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PLUMBING LEGEND	
SYMBOL	DESCRIPTION
— HW —	HOT WATER, COPPER TYPE L, OR CPVC
— W —	COLD WATER, COPPER TYPE L, OR PVC
— SS —	WASTE, PVC, SCHEDULE 40 (DWV)
— — —	VENT, (DWV)



DOMESTIC PIPELINE PLAN
1/4"=1'



SEWER PLAN
1/4"=1'



SPECIFICATIONS

A. APPLICABLE CODE

CONTRACTOR SHALL FOLLOW ALL APPLICABLE GOVERNING CODES AS WELL AS ANY STATE AMENDMENTS. CONTRACTOR SHALL ENSURE CORRECT EDITION IS REFERENCED ACCORDING TO CODE ADOPTION BY STATE AND PERMITTING AGENCIES. APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO:

INTERNATIONAL ENERGY CONSERVATION CODE (IECC) INTERNATIONAL FIRE CODE (IFC)
INTERNATIONAL FUEL GAS CODE (IFGC)
INTERNATIONAL MECHANICAL CODE (IMC)
INTERNATIONAL PLUMBING CODE (IPC)

B. EXISTING CONDITIONS

- 1
- BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE SUBMISSION OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED, OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD AN EXAMINATION BEEN MADE, WILL NOT BE ALLOWED.
- 2
- CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY SUPPORT AND MAINTAIN ALL EXISTING ACTIVE SERVICES. IF INTERRUPTION OF THE ACTIVE SERVICES IS NECESSARY, IT SHALL BE COORDINATED WITH ALL AFFECTED PARTIES, INCLUDING THE OWNER, LANDLORD AND/OR TENANT(S) IF APPLICABLE. EXISTING SERVICES THAT ARE INACTIVE OR WILL NOT BE REUSED AS PART OF THIS WORK SHALL BE REMOVED, CAPPED AND/OR PLUGGED AS NECESSARY.
- 3
- WALL, FLOOR, OR CEILING SURFACES DISTURBED DURING THE COURSE OF THE MECHANICAL WORK SHALL BE REPAIRED TO MATCH NEW AND/OR EXISTING SURROUNDING CONDITIONS.

C. GENERAL NOTES

- 1
- CONTRACTOR TO PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING.
- 2
- "VERIFY" OR "VERIFY IN THE FIELD" (VIF) SHALL MEAN CHECK CONDITIONS ON SITE AGAINST DRAWINGS AND SPECIFICATION AND ADJUST WORK TO MATCH EXISTING. OBTAIN RULING FROM OWNER ON ANY ITEMS REQUIRING CLARIFICATION.
- 3
- THE SCHEDULED "BASIS OF DESIGN" (BOD) IS INTENDED TO INDICATE THE PERFORMANCE REQUIRED FOR THE PARTICULAR ITEM OF EQUIPMENT. SUBSTITUTIONS WILL BE PERMITTED BASED ON THE REQUIREMENTS OF THE SPECIFICATIONS AND WITH THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD. SUBSTITUTIONS SHALL BE DEEMED TO INCLUDE ALL ASSOCIATED CHANGES TO BUILDING, STRUCTURE, AND OTHER SERVICES WITHOUT ANY ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT SUBSTITUTIONS WILL FIT INTO THE SPACE AVAILABLE WITH PROVISIONS FOR PROPER ACCESS, MAINTENANCE, PARTS REPLACEMENT, WEIGHT ALLOWANCE, AND FOR COORDINATION WITH OTHER TRADES (INCLUDING ELECTRICAL, PLUMBING, STRUCTURAL, AND ARCHITECTURAL).
- 4
- DO NOT SCALE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL SIZES, MATERIALS, TEMPERATURES, AND PRESSURES BEFORE ORDERING OR FABRICATION OF ANY MATERIALS.
- 5
- ALL DUCT DIMENSIONS INDICATED ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
- 6
- WHERE DUCT OR PIPE SECTION SIZE ARE NOT SHOWN, USE THE SIZE SHOWN ON THE LAST SECTION SIZE SHOWN UPSTREAM OF THE SECTION.
- 7
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF OWN PERSONNEL EMPLOYED ON THIS PROJECT AND IN PARTICULAR WHEN WORKING IN CONFINED SPACES AND SHALL COMPLY WITH OSHA REQUIREMENTS.
- 8
- THE TOTAL CFMS AT DIFFUSERS MAY NOT ADD UP TO THE TOTAL CFMS SCHEDULED FOR THE AIR HANDLING UNITS IN ALL CASES. WHERE THIS OCCURS ADJUST THE SPEED/FAN DRIVES TO ACHIEVE THE DESIGN CFMS AT THE REGISTERS.
- 9
- THE MECHANICAL (SUB) CONTRACTOR SHALL COORDINATE THE SPACE REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT AND DUCTWORK WITH THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING AND FABRICATION OF STRUCTURAL ELEMENTS, INCLUDING ROOF TRUSSES, TO SUIT THE PROPOSED ROUTING OF THE DUCTWORK AND LOCATION OF EQUIPMENT. PROVIDE ADEQUATE CLEARANCES AROUND, AND ACCESS TO, ALL EQUIPMENT FOR MAINTENANCE.
- 10
- REFER TO ARCHITECT'S REFLECTED CEILING PLANS FOR LOCATION OF LIGHTS AND OTHER CEILING MOUNTED DEVICES. COORDINATE AIR DISTRIBUTION DEVICES WITH THIS REFLECTED CEILING PLAN. IF A PARTICULAR ITEM CANNOT BE LOCATED APPROXIMATELY AS SHOWN ON THE HVAC LAYOUT, THE CONTRACTOR SHALL PREPARE A DRAWING SHOWING A PROPOSED LOCATION AND SHALL SUBMIT IT TO THE OWNER FOR APPROVAL.
- 11
- THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS AND THE WRITTEN SPECIFICATIONS IF PROVIDED. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENT OF THE PROJECT AND SHALL IMMEDIATELY INFORM THE ARCHITECT OR ENGINEER OF RECORD OF ANY DISCREPANCY OR LACK OF INFORMATION IS FOUND PRIOR TO SUBMITTING PROPOSAL. ONCE THE CONTRACTOR HAS SUBMITTED A PROPOSAL FOR THE WORK, THE CONTRACTOR ACCEPTS THAT THE INFORMATION PROVIDED HERE IS SUFFICIENT AND NO ADDITIONAL COST SHALL RESULT BASED ON CLARITY OF THE CONTRACT DOCUMENTS.
- 12
- THE MECHANICAL CONTRACTOR SHALL BE FAMILIAR WITH THE ENTIRE CONSTRUCTION DOCUMENT DURING THE PRICING AND CONSTRUCTION TO COORDINATE WITH ALL OTHER DISCIPLINES.
- 13
- A TECHNICIAN, FACTORY TRAINED AND CERTIFIED BY THE MANUFACTURER OF THE HVAC EQUIPMENT PROVIDED, SHALL PERFORM PRE-START-UP CHECKS AND SHALL SUBMIT A REPORT TO THE OWNER ON EACH EQUIPMENT, INCLUDING BUT NOT LIMITED TO THE AIR HANDLING UNIT, ROOF-TOP UNIT, AND SPLIT SYSTEM. THIS REPORT SHALL INCLUDE CERTIFICATION, IN WRITING, THAT THE EQUIPMENT IS CORRECTLY INSTALLED (INCLUDING PROPER DRAINAGE FROM DRAIN PANS AND SEALING OF ALL AIR LEAKS); ELECTRICAL CONNECTION AND TERMINAL TIGHTNESS; GAS PIPING IS LEAK FREE; INDOOR FILTERS ARE CLEAN, IN PLACE, AND EASILY REPLACEABLE; FANS AND COMPRESSORS ROTATE CORRECTLY; ELECTRICAL AMP DRAWS SHALL BE RECORDED AND CERTIFIED WITHIN MANUFACTURER'S RECOMMENDED LIMITS; REFRIGERANT SUCTION AND DISCHARGE PRESSURES FOR ALL CIRCUITS WITH STATEMENT THAT SYSTEMS ARE CORRECTLY CHARGED.
- 14
- PROVIDE A COMPLETE FUNCTIONAL HVAC SYSTEM WITH ALL ACCESSORIES REQUIRED FOR PROPER OPERATION, ALL IN ACCORDANCE WITH THE APPLICABLE REFERENCED CODES AND STANDARDS. THE SYSTEMS SHALL BE FREE FROM ANY OBJECTIONABLE NOISES AND VIBRATIONS.

D. SUBMITTALS AND SHOP DRAWINGS

- 1
- MANUFACTURER CATALOG SHOP DRAWINGS SUBMITTED SHALL BE MARKED TO INDICATE PROJECT SPECIFIC INFORMATION: FULL MODEL NUMBERS; IDENTIFY AND HIGHLIGHT SCHEDULED ITEM CAPACITIES; HIGHLIGHT INCLUDED OPTIONS AND EDIT OUT THOSE THAT ARE NOT PROVIDED; CLEARLY IDENTIFY DEVIATIONS FROM SPECIFIED AND SCHEDULED CAPACITIES.
- 2
- NOTWITHSTANDING THE LISTING HEREIN OF ANY EQUIPMENT BY MANUFACTURER AND MODEL, THE CONTRACTOR SHALL VERIFY WITH THE VENDORS THAT ALL MANUFACTURERS' NAMES, MAKES, AND MODELS OF EQUIPMENT LISTED MEET SPECIFICATION AND COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATION. ANY DEVIATION FROM MODEL NUMBER OR EQUIPMENT DESIGN, FABRICATION, OR CONSTRUCTION OF MAKES OR EQUIPMENT SHALL REQUIRE SUBMITTAL OF THE PARTICULAR ITEM OF EQUIPMENT FOR PRIOR APPROVAL AT LEAST 10 WORKING DAYS BEFORE THE DATE FOR SUBMITTAL OF BIDS OR AS DEFINED IN THE WRITTEN SPECIFICATION BOOK (IF PROVIDED).
- 3
- ALL EQUIPMENT PROVIDED SHALL BE COMMERCIALY AVAILABLE PRODUCTS SPECIFICALLY MADE FOR THE APPLICATION FOR WHICH IT IS INTENDED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND START-UP INSTRUCTIONS. PROVIDE WRITTEN CERTIFICATION FROM THE MANUFACTURER OR THEIR AUTHORIZED REPRESENTATIVE TO THIS EFFECT BEFORE FINAL INSPECTION FOR ALL EQUIPMENT AND COMPONENTS.

- 4
- THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED AND INSTALLED WITH SUITABLE PROTECTED AND RATED DISCONNECT SWITCHES.
- 5
- THE CONTRACTOR SHALL PREPARE DUCT CONSTRUCTION SHOP DRAWINGS, TO SCALE (MINIMUM SCALE=1'-0"). SUBMIT TO THE OWNER FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION. DUCT SHOP DRAWINGS SHALL BE UPDATED, DURING CONSTRUCTION, TO SHOW ANY CHANGES MADE DURING CONSTRUCTION AND SUBMITTED TO THE OWNER AT THE END OF THE PROJECT FOR "AS-BUILT" RECORD.
- 6
- DRAWINGS ARE DIAGRAMMATIC AND ALL CHANGES IN ELEVATION, ACCESS DOORS, AND TRANSITIONS IN DUCT SIZES SHALL BE SHOWN ON THE SHOP DRAWINGS AS REQUIRED BY THE APPLICABLE CODES AND CONTRACT DOCUMENTS. DUCT CROSS-OVERS IMPLY CHANGES IN ELEVATION IN ONE OR BOTH DUCTS; TRANSITIONS IN DUCT SIZE AND SHAPE ARE IMPLIED BY SIZES SHOWN ON DRAWINGS. BIDDERS SHALL MAKE ALLOWANCE FOR THESE IN THEIR PRICE.
- 7
- SHOP DRAWINGS AND SUBMITTALS WILL ONLY BE REVIEWED TWICE AS PART OF THIS CONTRACT. ADDITIONAL SHOP DRAWINGS REVIEWS SHALL BE INVOICED AT \$85 PER HOUR, BILLABLE TO THE SUB CONTRACTOR, C.O.D.

E. QUALITY OF WORK

- 1
- CONTRACTOR TO GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE UNLESS INDICATED OTHERWISE IN THE WRITTEN SPECIFICATIONS.
- 2
- COORDINATE THE INSTALLATION OF THE DUCTWORK, EQUIPMENT, PIPING, ETC., TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR ALTERING ANY STRUCTURAL MEMBER SHALL NOT BE PERMITTED.
- 3
- ALL DUCTWORK AND EQUIPMENT SHALL BE SUPPORTED INDEPENDENTLY FROM STRUCTURAL MEMBERS. PROVIDE ADDITIONAL SUPPORT MEMBERS WHERE REQUIRED TO ACHIEVE SMACNA RECOMMENDED SUPPORT SPACING.
- 4
- ALL MATERIALS IN PLENUM SHALL MEET THE FLAME SPREAD AND SMOKE DEVELOPMENT INDEX PER NFPA 90A SECTION 4.3.11.
- 5
- ALL PENETRATION THROUGH FIRE RATED FLOORS, WALLS, AND PARTITIONS SHALL BE FIRE STOPPED TO COMPLY WITH THE APPLICABLE EDITION, INCLUDING AMENDMENTS, OF THE INTERNATIONAL BUILDING CODE, PARTICULARLY SECTION 714. FIRE STOP SYSTEM USED SHALL BE UL LISTED, OR EQUIVALENT AS ACCEPTED BY THE AHJ, AND SHALL BE INSPECTED AND CERTIFIED BY THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE.
- 6
- INSTALL FIRE DAMPERS IN ALL DUCTS EXCEEDING 100 SQ. IN. CROSS-SECTIONAL AREA PENETRATING RATED WALLS. FIRE DAMPERS ARE NOT REQUIRED IN DUCTS, THROUGH 1-HOUR FIRE RATED WALLS, LESS THAN 100 SQ. IN. LOCATED ABOVE A CEILING WHICH HAS A MINIMUM 5'-0" OF HARD 0.0217" THICK STEEL MINIMUM DUCT TO NEAREST INLET OR OUTLET ON EITHER SIDE OF THE 1-HOUR FIRE RATED PARTITION.
- 7
- SOLVENTS, PAINTS, ADHESIVES, SEALANTS, AND OTHER MATERIALS THAT EMIT POLLUTANTS THAT COULD CAUSE IRRITATION OR HEALTH PROBLEMS FOR OCCUPANTS SHALL NOT BE USED UNLESS THE WORK IS DONE AFTER HOURS AND ADEQUATE VENTILATION IS PROVIDED DURING CONSTRUCTION AND AS LONG AFTERWARDS AS REQUIRED TO KEEP THE POLLUTANTS WITHIN EPA AND OSHA APPROVED LIMITS.
- 8
- PIPING, CONDUITS, CABLES, ETC., SHALL BE RUN NEATLY, PARALLEL TO EXISTING AND NEW PIPING AND TO BUILDING (WALLS, FLOORS). SUPPORT SHALL BE PROVIDE IN ACCORDANCE WITH INDUSTRY STANDARD.
- 9
- ALL WIRING IN THE CEILING PLENUM SHALL BE DONE WITH PLENUM RATED CABLE OR RUN IN ELECTRO-METALLIC TUBING (CONDUIT).
- 10
- MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETRY AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS, IN THE DIRECT AIR STREAM FROM ANY DIFFUSER, WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT, NOR ON WALL AREAS EXPOSED TO DIRECT SUNLIGHT.
- 11
- PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
- 12
- ENSURE PROPER CONDENSATE REMOVAL FROM ALL AIR HANDLING UNIT DRAINS. CONDENSATE DRAIN PIPING AND FITTINGS REQUIRED SHALL BE TYPE "L" COPPER. INSTALL WITHOUT ANY SAGGING TO ENSURE COMPLETE DRAINAGE. PROVIDE A TRAP OR CONDENSATE DRAINS AT EACH UNIT AS DETAILED OR AS INDICATED IN MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE CONDENSATE DRAIN SHALL BE THE SAME SIZE AS THE UNIT DRAIN CONNECTION BUT SHALL NOT BE LESS THAT PIPE DIAMETER RECOMMENDED BY MANUFACTURER.
- 13
- PROVIDE WATERTIGHT SHEET METAL RUST PROOF PAN UNDER INDOOR UNITS, 2" DEEP.
- 14
- ALL WALL OPENINGS NOTED ON FLOOR PLANS SHALL BE LOCATED ABOVE THE CEILING UNLESS NOTED OTHERWISE.
- 15
- THE GENERAL CONTRACTOR SHALL ENSURE THAT THE BUILDING ENVELOPE AROUND THE AIR-CONDITIONED SPACE IS SEALED. THE MECHANICAL CONTRACTOR SHALL ENSURE THAT RETURN AND EXHAUST AIR DUCT LOCATED OUTSIDE THE AIR-CONDITIONED ENVELOPE, WHICH INCLUDES VERTICAL CHASES, CEILING SPACES, ATTICS, ETC., ARE SEALED.
- 16
- ROOF CURBS, RAILS, AND PENETRATIONS: ALL ROOF PENETRATIONS SHALL BE WATERPROOF AND GUARANTEED FREE FROM LEAKS FOR ONE YEAR. USE CURBS AND RAILS MANUFACTURED BY THE MANUFACTURER OF THE EQUIPMENT PROVIDED OR BY PATE, CUSTOM CURBS, OR APPROVED EQUAL. INSTALL ROOF MOUNTED AIR HOODS AND EQUIPMENT CURBS AND RAILS IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S INSTRUCTIONS AND THE "GUIDELINES FOR ROOF MOUNTED OUTDOOR AIR-CONDITIONER INSTALLATIONS" AS PREPARED BY ARI, SMACNA, AND THE NATIONAL ROOFING CONTRACTORS ASSOCIATIONS, AUGUST 1997. THE CURBS FOR AND ROOF MOUNTED EQUIPMENT SHALL BE SELECTED BY THE MANUFACTURER OF THE CURB TO SUIT THE TYPE OF ROOF AND STRUCTURE AND SHALL BE FABRICATED TO MATCH THE FOOTPRINTS AND INSTALLATION REQUIREMENTS OF THE EQUIPMENT PROVIDED. ALL ROOFING WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS, AND TO THE APPROVAL OF, THE MANUFACTURER OF THE BUILDING AND ROOFING SYSTEMS PROVIDED.
- 17
- ALL EQUIPMENT, VALVES, DAMPERS AND OTHER ELEMENTS REQUIRING ACCESS PER CODE, STANDARDS OR MANUFACTURER REQUIREMENTS SHALL BE PROVIDED WITH AN ACCESS PANEL. ACCESS PANEL FIRE RATING SHALL BE PER WALL, CEILING OR FLOOR RATING BEING PENETRATED.
- 18
- ALL CONTROL WIRING AND TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

F. TEST AND BALANCE

- 1
- MECHANICAL CONTRACTOR SHALL RETAIN THE SERVICE OF AN INDEPENDANT TEST AND BALANCING FIRM TO PERFORM A COMPLETE TESTING, ADJUSTING AND BALANCING (TAB) FOR ALL MECHANICAL EQUIPMENT UNDER FIELD CONDITIONS TO ENSURE THE COMPLIANCE OF SYSTEM TO THE REQUIREMENTS OF THIS PLAN SET, ALL APPLICABLE CODES AND STANDARDS. TAB SHALL BE PERFORMED ACCORDING TO A STANDARD PROCEDURE BY NEBB OR AABC AND SHALL BE SUBMITTED TO THE OWNER.

G. DUCT WORK

- 1
- ALL AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL, FABRICATED AND INSTALLED PER THE SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE". FLEXIBLE DUCT SHALL BE ALLOWED FOR 6 FEET MAXIMUM AT AIR REGISTERS.
- 2
- DUCTWORK SUPPORT FOR MEDIUM AND LOW-PRESSURE RIGID METAL DUCTWORK SHALL BE TRAPEZE TYPE (SEE SMACNA FIG. 4-4); STRAP HANGERS SCREWED AND/OR BOLTED TO DUCTWORK SHALL NOT BE ACCEPTED. FLEXIBLE DUCTWORK SHALL BE SUPPORTED PER SMACNA SECTION 3.7 AND FIGS. 3-9 AND 3-10.
- 3
- PROVIDE MANUAL VOLUME DAMPERS AT ALL BRANCH TAKE OFFS AND DUCT RUNOUTS TO DIFFUSERS AND FROM GRILLES WHETHER SHOWN ON THE DRAWINGS OR NOT. DAMPERS AT AIR REGISTERS ARE NOT TO BE USED IN LIEU OF THESE DAMPERS FOR PRIMARY BALANCING.
- 4
- ALL DIFFUSERS SUPPLIED BY DUCT BRANCHES LOCATED ABOVE AN INACCESSIBLE CEILING SHALL BE PROVIDED WITH A FACE OPERABLE DAMPER TO ALLOW THE BALANCING OF THE SYSTEM.

- 5
- TRANSITION RECTANGULAR DUCTWORK ON THE BOTTOM AND SIDES. MAINTAIN DUCTWORK LEVEL AND AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.
- 6
- TRANSFORM DUCT SIZE SHOWN TO SUIT EQUIPMENT CONNECTION SIZE AT CONNECTIONS TO EQUIPMENT.
- 7
- PROVIDE A FLEXIBLE DUCT CONNECTION ON INTAKE AND DISCHARGE OF FANS, AIR HANDLING UNITS, ETC.
- 8
- DUCT BRANCH RUNOUTS TO THE DIFFUSERS, UNLESS OTHERWISE NOTED, SHALL BE THE SAME AS THE DIFFUSER NECK SIZES.
- 9
- ALL EXPOSED DUCTS TO BE PAINT GRIP CONSTRUCTION. PAINT TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

H. DUCT AND PIPING INSULATION

- 1
- DUCT INSULATION SHALL BE AS FOLLOW:
 - SUPPLY DUCT: R-6 INSIDE AND R-8 OUTSIDE
 - RETURN DUCT: R-6 INSIDE AND R-8 OUTSIDE
 - OUTDOOR AIR DUCT: R-6 INSIDE AND R-8 OUTSIDE
 - EXHAUST DUCT: NOT INSULATED OR AS NOTED ON THE PLAN
 - TYPE 1 GREASE EXHAUST DUCT: FIRE RATED BLANKET/BOARD WITH THICKNESS TO ACHIEVE
 - 2-HOUR RATING (INSTALL PER MANUFACTURER)
- 2
- DUCT WORK INSULATION SHALL BE PROVIDED WITH A VAPOR BARRIER AND SHALL HAVE FLAME AND SMOKE RATING OF 25 AND 50 RESPECTIVELY. OVERLAP BUTTING EDGES, FOLD, SEAL AND TAPE, AND PROVIDE A CONTINUOUS VAPOR BARRIER. USE OF STAPLES WILL NOT BE ACCEPTED. ALL SHEET METAL SURFACES, INCLUDING THE TOPS OF SUPPLY AIR DIFFUSERS EXPOSED ABOVE THE CEILING, SHALL BE INSULATED.
- 3
- EXPOSED SPIRAL OR RECTANGULAR DUCT IN CONDITIONED SPACES SHALL BE PROVIDED WITH FIBERGLASS DUCT LINER. R-VALUE SHALL BE AS INDICATED ABOVE. DUCT LINER SHALL BE CUT TO PROVIDE OVERLAPPED AND COMPRESSED LONGITUDINAL CORNER JOINTS. DUCT LINER SHALL BE ADHERED TO THE DUCTWORK WITH A 100% COVERAGE OF THE SHEET METAL SURFACES USING A FIRE RETARDANT ADHESIVE. INSULATION SHALL CONTAIN AN EPA REGISTERED IMMOBILIZED ANTI-MICROBIAL AGENT TO EFFECTIVELY RESIST THE GROWTH OF BACTERIA AND FUNGI AS PROVEN BY TESTS IN ACCORDANCE WITH ASTM (USA) STANDARDS G21 AND G22. COAT ALL EXPOSED LEADING AND TRAILING EDGES AND ALL TRANSVERSE JOINT WITH FIRE RETARDANT ADHESIVE. THE LINER SHALL BE ADDITIONALLY SECURED USING METAL PINS WELDED TO THE DUCT AND SPEED WASHERS. SPACING OF METAL PINS SHALL BE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS FIG. 2-19. PROVIDE A CHANNEL OR ZEE METAL NOSING SECTION PER SMACNA FIG. 2-19 ON EVERY LEADING EDGE REGARDLESS OF THE AIR DUCT VELOCITY IN THE DUCT SECTION.
- 4
- REFRIGERANT PIPE INSULATION: INSTALL 2" FLEXIBLE FOAM PLASTIC INSULATION ON SUCTION AND LIQUID LINES AND 1" ON HOT GAS LINES.

I. DIFFUSERS, GRILLES AND LOUVERS

- 1
- THE FINISH ON AIR REGISTERS IN LAY-IN CEILINGS SHALL EXACTLY MATCH THE CEILING TEES. EXCEPT IF NOTED OTHERWISE. THE TYPE AND FINISH FOR REGISTERS AND LOUVERS IN WALLS, DOORS, SHALL BE APPROVED BY ARCHITECT.
- 2
- REFER TO THE SCHEDULE FOR BASIS OF DESIGN SELECTION. CONTRACTOR TO VERIFY THAT BOD IS SUITABLE FOR THE APPLICATION PRIOR TO ORDERING.

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RESIDENTIAL HOUSE

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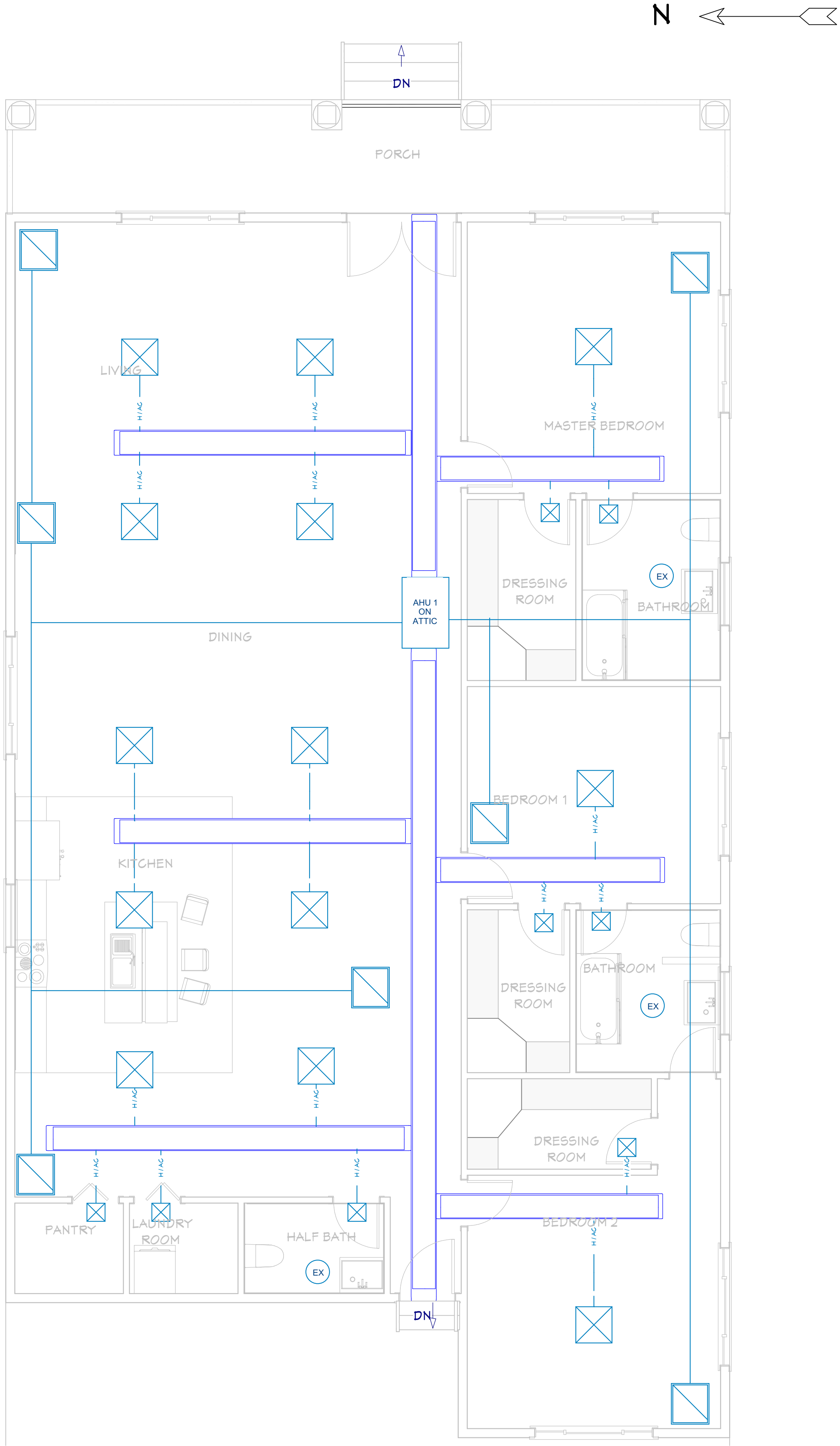
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ABBREVIATIONS			
AD	ACCESS DOOR	KW	KILOWATT
AFF	ABOVE FINISH FLOOR	LAT	LEAVING AIR TEMPERATURE
AHU-X	AIR HANDLING UNIT	LBS	POUNDS
AJD	ADJUSTABLE	LD	LINEAR SLOT DIFFUSER
AOR	ARCHITECT OF RECORD	LF	LINEAR FEET
BD	BACKDRAFT DAMPER	LR	LINEAR SLOT RETURN
BOD	BASIS OF DESIGN	MA	MAKE UP AIR
BTU	BRITISH THERMAL UNIT	MAU-X	MAKE UP AIR UNIT
BTU/HR	BRITISH THERMAL UNIT PER HOUR	MAX	MAXIMUM
C/C	COOLING COIL	MBH	1,000 BTH/HR
CD	CEILING DIFFUSER	MCA	MAX. CIRCUIT AMPERAGE
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CLG	CEILING	MIU-X	MULTI-SPLIT INDOOR UNIT
COMP-X	COMPRESSOR	MOCP	MAX. OVERCURRENT PROTECTION
CONC	CONCRETE	MOD	MOTORIZED DAMPER
COND	CONDENSATE	MOU-X	MULTI-SPLIT OUTDOOR UNIT
CU-X	CONDENSING UNIT	MD	MANUAL DAMPER
dB	DECIBEL	NO	NORMALLY OPENED
DB	DRY BULB	NC	NORMALLY CLOSED
Ø	DIAMETER	N/A	NOT APPLICABLE
DD	DUCT MOUNTED AIR DIFFUSER	OA	OUTSIDE AIR
DN	DOWN	OC	ON CENTER
DR	DUCT MOUNTED AIR RETURN	OU-X	MINI-SPLIT OUTDOOR UNIT
DWGS	DRAWINGS	PIU-X	POWERED INDUCTION UNIT
EA	EXHAUST AIR	RA	RETURN AIR
EAT	ENTERING AIR TEMPERATURE	RG	RETURN AIR GRILLE
EDH	ELECTRICAL DUCT HEATER	RH	RELATIVE HUMIDITY
EF-X	EXHAUST FAN	RPM	ROTATIONS PER MINUTE
EG	EXHAUST GRILLE	RTU-X	ROOFTOP UNIT
EOR	ENGINEER OF RECORD	SA	SUPPLY AIR
ESP	EXTERNAL STATIC PRESSURE	SF	SQUARE FEET
EX	EXISTING	SP	STATIC PRESSURE
EXH	EXHAUST	SR	SUPPLY REGISTER
FCU-X	FAN COIL UNIT	SS	STAINLESS STEEL
FD	FIRE DAMPER	TG	TRANSFER GRILLE
FSD	FIRE/SMOKE DAMPER	TYP	TYPICAL
FT	FEET	UC	UNDERCUT
H/C	HEATING COIL	UH-X	UNIT HEATER
HP	HORSEPOWER	VAV-X	VARIABLE AIR VOLUME UNIT
HP-X	HEAT PUMP	VFD	VARIABLE FREQUENCY DRIVE
HR	HOUR	W/	WITH
IN	INCHES	WET BULB	WET BULB
IU-X	MINI-SPLIT INDOOR UNIT	WC	WATER COLUMN
KEF-X	KITCHEN EXHAUST FAN	WG	WATER GAUGE



HVAC LEGEND

-  RETURN
-  SUPPLY AIR DIFFUSER

HVAC PLAN
3/16"=1'

SHEET NUMBER

19

SCALE @ 24" X 36"

DATE: 05-08-2024

DRAWN BY: AK

HVAC PLAN

2435 Highland St S, Saint Petersburg, FL 33705

SINGLE-FAMILY RESIDENTIAL HOUSE

TRANSFORMATIVE CONSTRUCTION EXPERTS

TRANSFORMATIVE

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