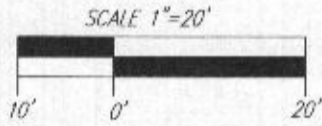


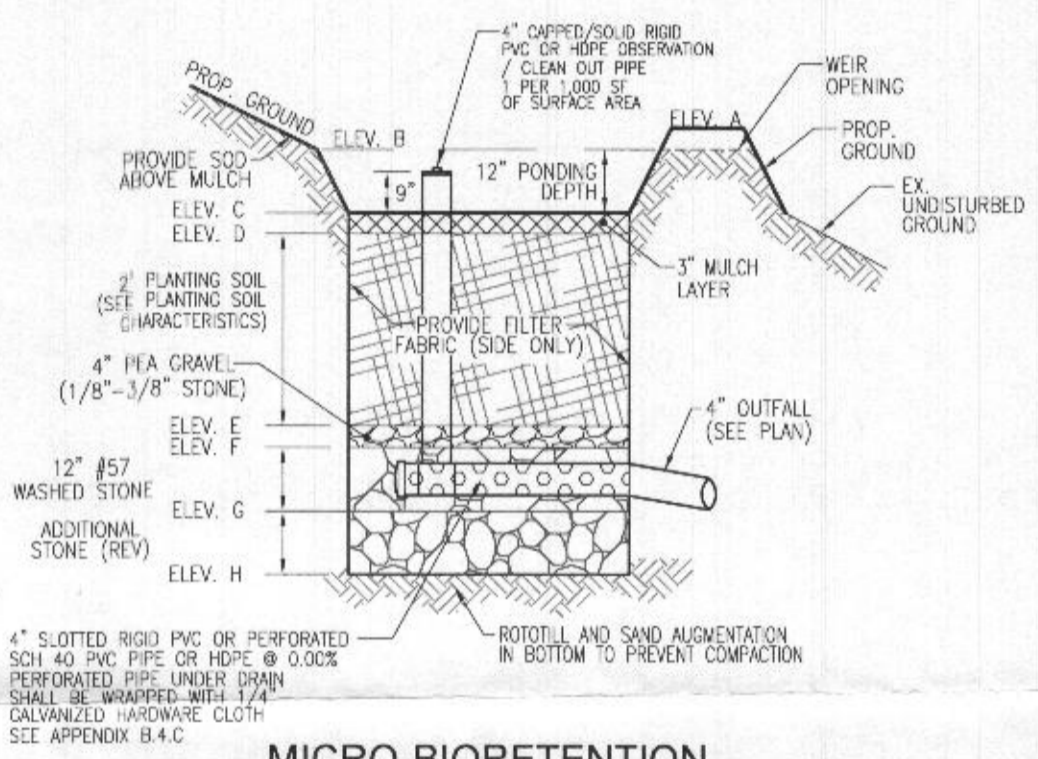
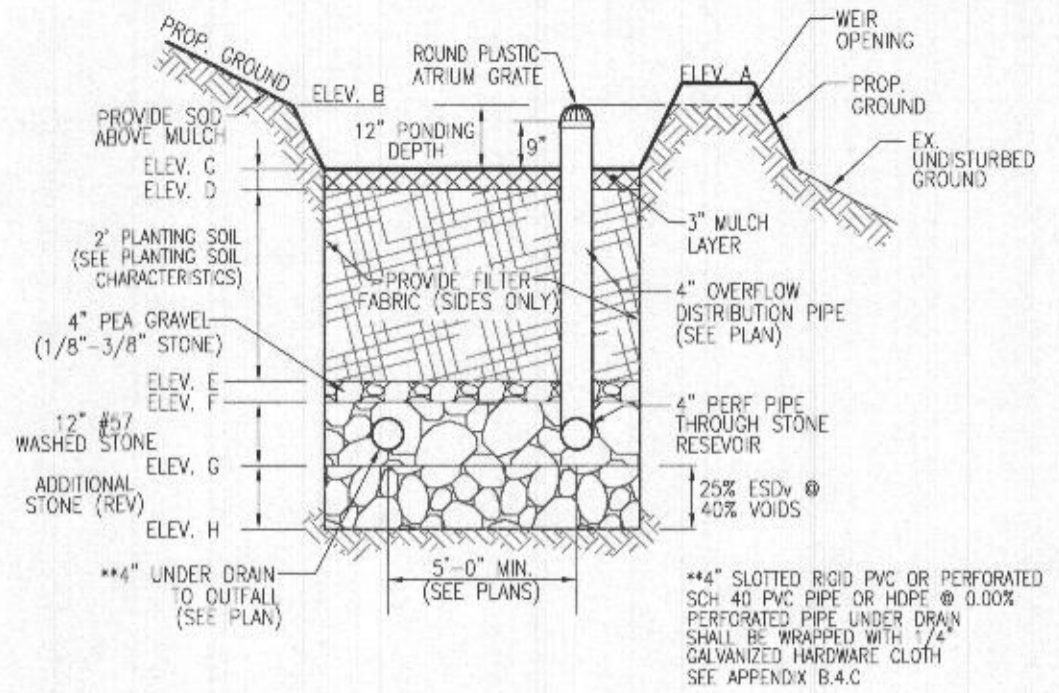
SPILL WAY ELEVATION = 426.00

MBR-9 DESIGN DETAIL (514 SF)

SCALE: 1"=20'



MBR-9
 D.A.=10,503 SF IMP=4,805 I=46
 $R_v=0.05+(0.009)(46)=.46$
 $ESD_v=(10,503)(1.58)(0.46)/12=636$ CF
 AREA ABOVE MULCH=(636 CF)(0.75)=477 SF
 PROVIDED 514 SF



MICRO-BIORETENTION
 W/ WEIR OUTFALL
 NOT TO SCALE

MICRO-BIORETENTION FACILITY ELEVATIONS (M-6)													
LOT #	FACILITY	A	B	C	D	E	F	G	H	WEIR ELEV.	UNDERDRAIN INV. OUT	OUTFALL INV.	FACILITY SIZE
LOT 12	MBR-9	426.30	426.00	425.00	424.75	422.75	422.42	421.42	420.59	426.00	421.75	421.00	514 SF

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 N. RIDGE ROAD, SUITE 110
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

OWNER
 ESTATES AT RIVER HILL, LLC
 MICHAEL PFAU, MEMBER
 3675 PARK AVENUE, SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

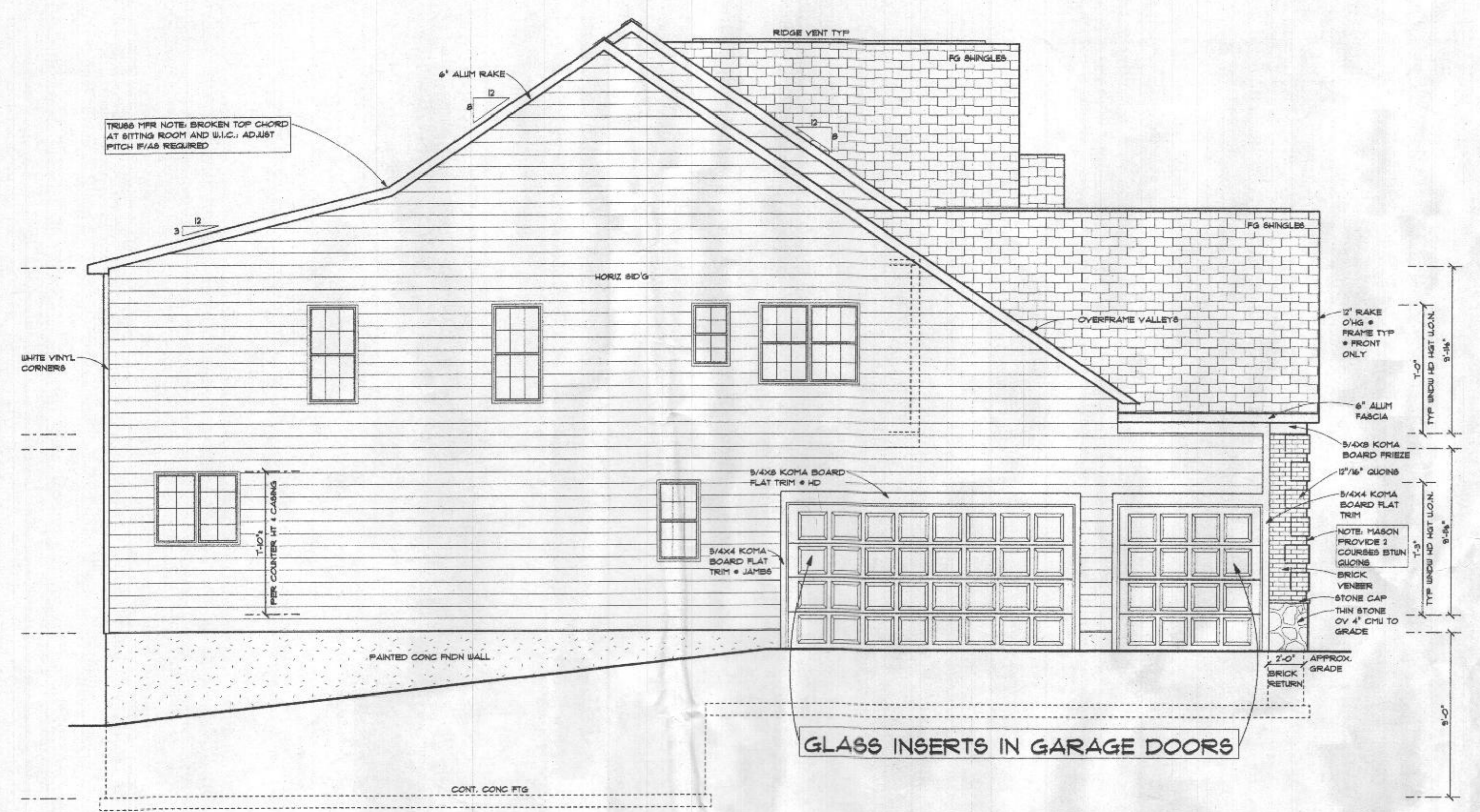
DEVELOPER
 TRINITY HOMES MARY LAND, LLC
 3675 PARK AVENUE, SUITE 301
 ELLICOTT CITY, MD 21043
 (410) 480-0023

SCALE AS SHOWN
 DRAWN BY JMR
 CHECKED BY RHV
 DATE MAY 03, 2019
 W. O. # 15-39
 SHEET# 3 OF 3

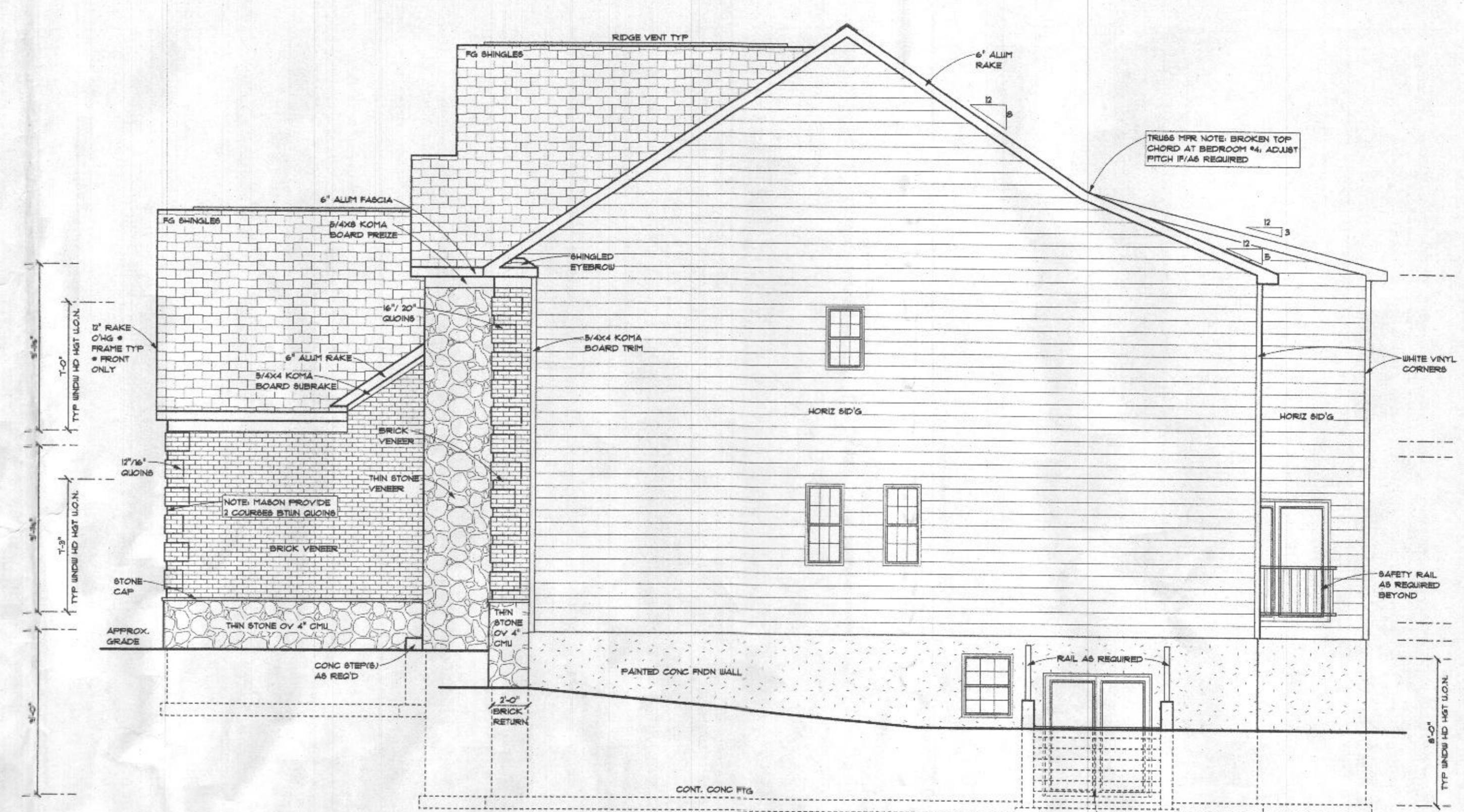
PLOT PLAN
THE ESTATES AT RIVER HILL - LOT 12
 13600 OLIVIA WAY
 HIGHLAND, MD 20777

5TH ELECTION DISTRICT
 TAX MAP: 34 PARCEL: 389
 DPZ REF'S: ECP-16-064, WP-17-034,
 WP-17-128, SP-17-007, F-18-064

BLOCK: 23
 ZONED: RR-DEO
 HOWARD COUNTY, MARYLAND



Left Elevation
 SCALE: 3/16" = 1'-0"



Right Elevation
 SCALE: 3/16" = 1'-0"



Front Elevation #515
 SCALE: 1/4" = 1'-0"

*Estates at River Hill
 Lot 12*

LOT 12
ESTATES AT RIVER HILL

NOTE: FRONT, SIDES & REAR.
 WHITE ALUM. SOFFIT & FASCIA.

NOTE: INSULATOR
 ANTI-AIR INFILTRATION SYSTEM:
 CAULKING AT EXTERIOR JOINTS,
 BEAMS, AND OPENINGS AROUND
 DOOR AND WINDOW JAMBS, FOAM
 SEALER AT OPENINGS ON
 EXTERIOR WALLS.

NOTE: CARPENTER
 TYVEK HOUSE WRAP ALL 4 SIDES

UNITED DOUBLE-HUNG WINDOWS
 5900 DOUBLE HUNG, LOW-E TILT &
 WASH WINDOWS W/ GRILLES, SCREENS,
 WOOD EXTENSIONS & CASINGS
 EXCEPT GARAGE

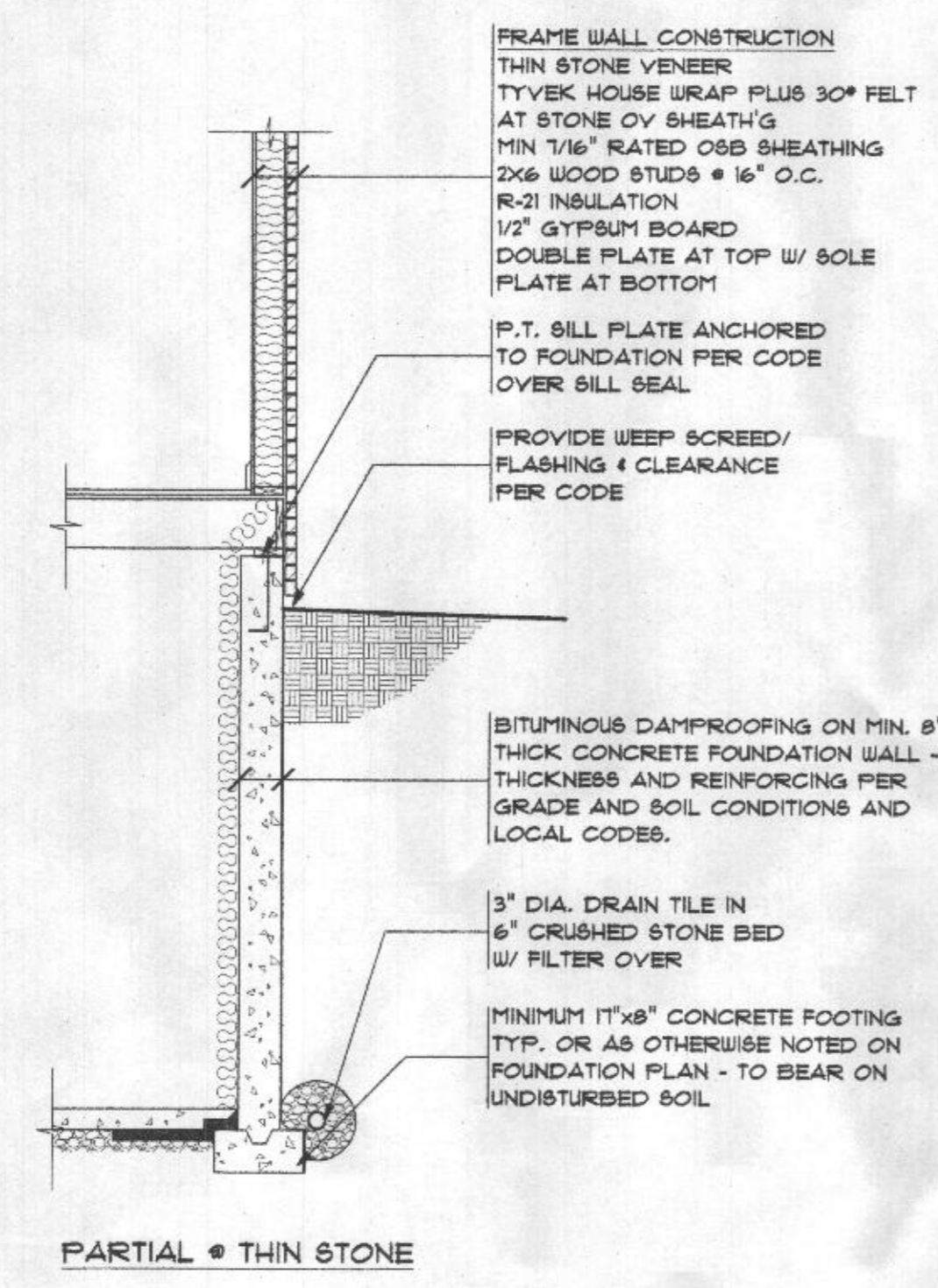
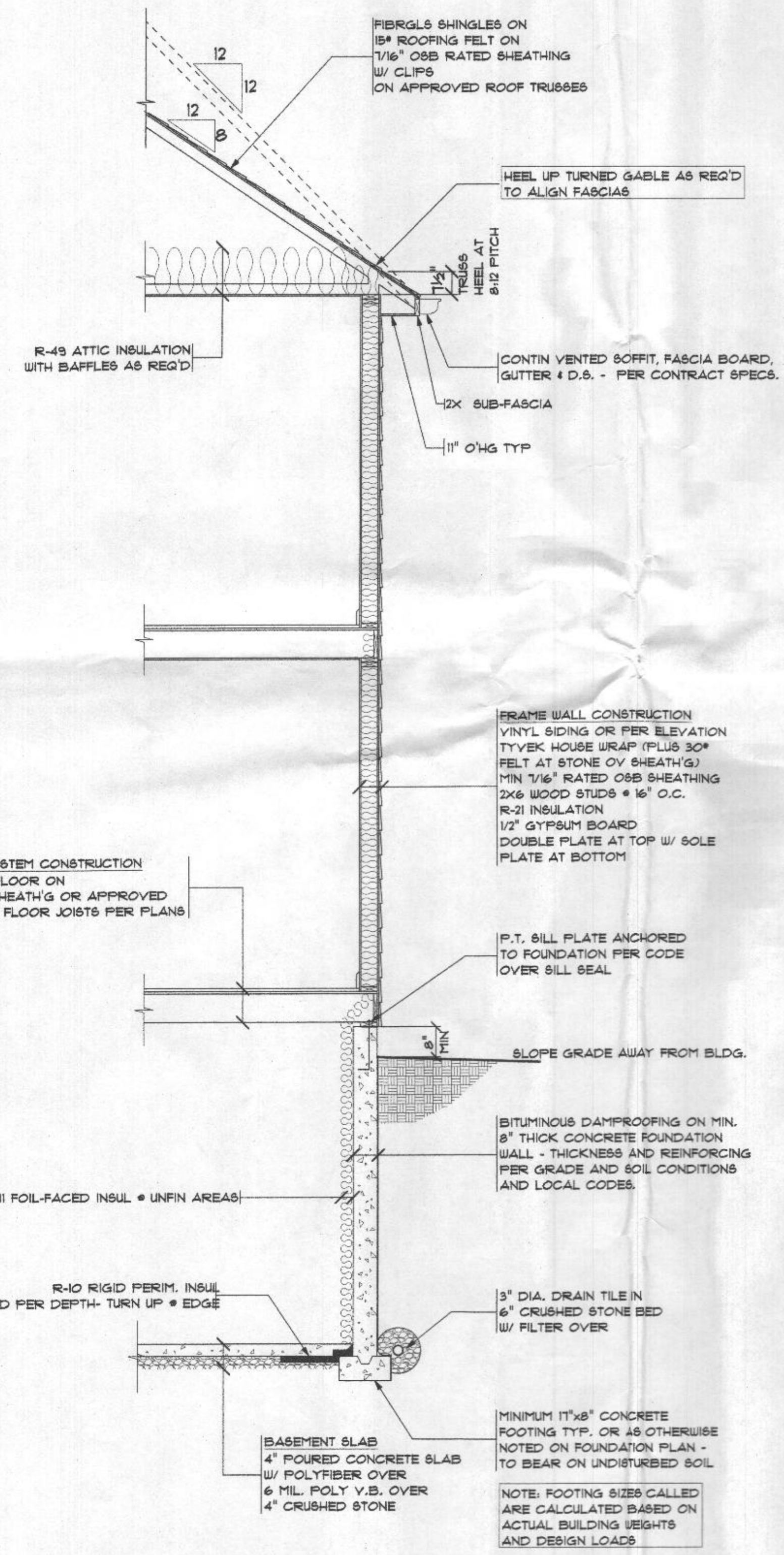
**NOTE: USE WINDOW DEVICES WHERE
 REQUIRED PER IRC 2018 R312.2**

**NOTE: HERITAGE 30 YEAR LAYERED
 ARCHITECTURAL SHINGLE BY TAMKO**

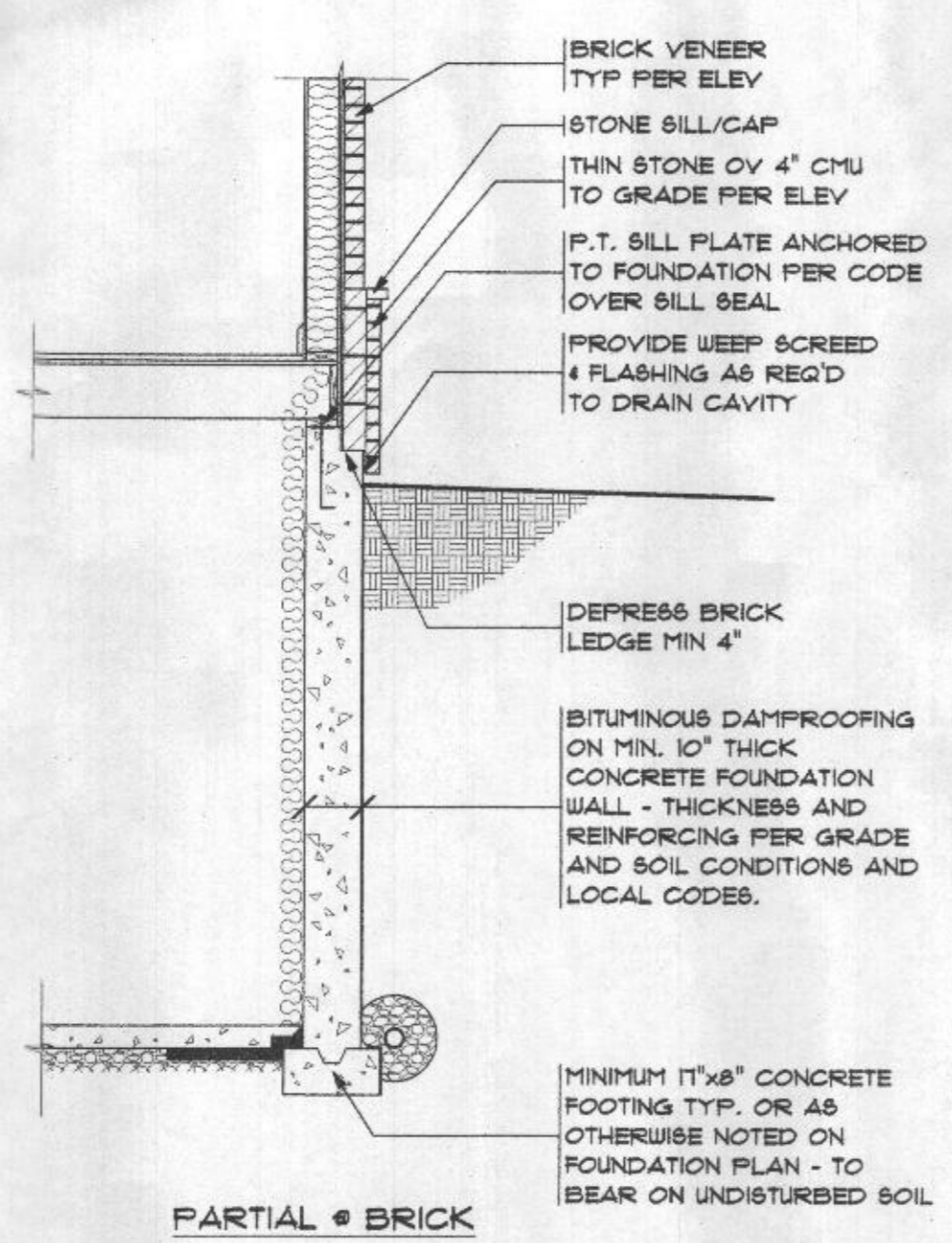
INTERIOR SPRINKLER
 STANDARD HEADS EXPOSED

REVISIONS	08-13-2021
DATE	06-16-2021
SHEET NO.	A-1
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PROVIDE APPROVED CORROSION-RESISTIVE FLASHING AT THE INTERSECTION OF MASONRY AND WOOD FRAME CONSTRUCTION; OVER PROJECTING TRIM, WHERE DECKS, PORCHES, AND THE LIKE ARE ATTACHED TO WOOD FRAME CONSTRUCTION; AT ROOF TO WALL AND ROOF TO CHIMNEY INTERSECTIONS; IN ROOF VALLEYS; AT ALL ROOF PENETRATIONS; AT ALL WALL OPENINGS; AT ALL CAVITY INTERRUPTIONS AT MASONRY VENEER; AND ALL OTHER LOCATIONS REQUIRED TO PREVENT WATER PENETRATION OF THE STRUCTURE.



2018 IECC ENERGY CODE COMPLIANCE REQUIREMENTS

THE BUILDING SHALL CONFORM TO THE FOLLOWING MANDATORY REQUIREMENTS PER THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE:

COMPLIANCE CERTIFICATE	PERMANENT CERTIFICATE APPROVED BY THE LOCAL JURISDICTION DESCRIBING THE R-VALUES, U-FACTORS, AND SHGC OF THE BUILDING COMPONENTS AND BUILDING AIR LEAKAGE TEST RESULTS SHALL BE AFFIXED TO THE ELECTRICAL DISTRIBUTION PANEL OR ANOTHER LOCATION APPROVED BY THE LOCAL JURISDICTION, PER IECC R401.3 (IRC N1101.14).
AIR LEAKAGE	ALL NEW CONSTRUCTION BUILDINGS SHALL BE CONSTRUCTED TO LIMIT THE THERMAL ENVELOPE AIR LEAKAGE TO 3 AIR CHANGES PER HOUR AT 50 PASCAIS OF PRESSURE AND TESTED VIA A BLOWER DOOR TEST PER IECC R402.4 (IRC N1102.4).
MAXIMUM PENETRATION U-FACTOR AND SHGC	THE MAXIMUM U-FACTOR ALLOWED USING EITHER THE TOTAL UA ALTERNATIVE METHOD PER IECC R402.1.5 (IRC N1102.1.5) OR THE SIMULATED PERFORMANCE ALTERNATIVE PER IECC R405 (IRC N1105) SHALL BE 0.48 FOR VERTICAL PENETRATION AND 0.75 FOR SKYLIGHTS PER IECC R402.5 (IRC N1102.5).
HVAC CONTROLS	EACH HEATING AND COOLING SYSTEM SHALL HAVE AT LEAST ONE THERMOSTAT PER IECC R403.1 (IRC N1103.1). THE THERMOSTAT CONTROLLING THE PRIMARY HEATING AND COOLING SYSTEM SHALL BE A PROGRAMMABLE THERMOSTAT PER IECC R403.1.1 (IRC N1103.1.1).
HEAT PUMP SUPPLEMENTARY HEAT	HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT, EXCEPT DURING DEFROST, PREVENT SUPPLEMENTAL HEAT FROM OPERATING WHEN THE HEAT PUMP COMPRESSOR CAN MEET THE HEATING LOAD PER IECC R403.1.2 (IRC N1103.1.2).
DUCT SEALING	WHEN NEW FORCED AIR SYSTEMS ARE PROVIDED, ALL DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED PER IECC R403.4.1. DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER A ROUGH-IN OR POSTCONSTRUCTION TEST PER IECC R403.3.3 (IRC N1103.3.3) UNLESS DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.
BUILDING CAVITIES AS DUCTS OR PLENUMS	BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS PER IECC R403.3.5 (IRC N1103.3.5).
MECHANICAL SYSTEM PIPING INSULATION	MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105°F OR BELOW 55°F SHALL BE INSULATED TO R-3 MINIMUM PER IECC R403.4 (IRC N1103.4). PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DEGRADATION AND DECAY PER IECC R403.4.1 (IRC N1103.4.1).
CIRCULATING HOT WATER SYSTEMS	CIRCULATING HOT WATER SYSTEMS SHALL BE PROVIDED WITH AN AUTOMATIC OR READILY ACCESSIBLE MANUAL SWITCH TO TURN OFF THE CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE PER IECC R403.5.1 (IRC N1103.5.1).
MECHANICAL VENTILATION	THE BUILDING SHALL BE PROVIDED WITH VENTILATION PER IECC R403.5.1 (IRC N1103.5.1) OR OTHER APPROVED MEANS OF VENTILATION PER IECC R403.6 (IRC N1103.6). WHOLE-HOUSE VENTILATION FANS SHALL MEET EFFICIENCY STANDARDS PER IECC TABLE R403.6.1 (IRC TABLE N1103.6.1).
EQUIPMENT SIZING	HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES PER IECC R403.7 (IRC N1103.7).
SYSTEMS SERVING MULTIPLE DWELLING UNITS	SYSTEMS SERVING MULTIPLE DWELLING UNITS SHALL CONFORM TO IECC SECTIONS C403 AND C404.
SNOW MELT SYSTEMS CONTROLS	SNOW AND ICE MELT SYSTEMS SUPPLIED THROUGH ENERGY SERVICE TO THE BUILDING SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE PAVEMENT TEMPERATURE IS ABOVE 50°F AND NO PRECIPITATION IS FALLING, AND AUTOMATIC OR MANUAL CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE OUTDOOR TEMPERATURE IS ABOVE 40°F PER IECC R403.9 (IRC N1103.9).
POOLS AND INGROUND PERMANENTLY INSTALLED SPAS	POOLS AND INGROUND SPA HEATERS SHALL HAVE AN ACCESSIBLE ON-OFF SWITCH MOUNTED ON THE OUTSIDE OF THE HEATER THAT ALLOWS SHUT-OFF WITHOUT AFFECTING THE THERMOSTAT SETTING PER IECC R403.10.1 (IRC N1103.10.1); GAS-FIRED HEATERS SHALL NOT HAVE CONSTANT BURNING PILOT LIGHTS. HEATERS SHALL HAVE TIME SWITCHES OR OTHER CONTROL METHODS TO AUTOMATICALLY TURN ON AND OFF PER A PRESET SCHEDULE PER IECC R403.10.2 (IRC N1103.10.2). HEATED POOLS AND INGROUND SPAS SHALL BE PROVIDED WITH A VAPOR-RETARDANT COVER PER IECC R403.10.3 (IRC N1103.10.3).
LIGHTING EQUIPMENT	A MINIMUM OF 90% OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS PER IECC R404.1 (IRC N1104.1).
FUEL GAS LIGHTING EQUIPMENT	FUEL GAS SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHT SYSTEMS PER IECC R404.1.1 (IRC N1104.1.1).

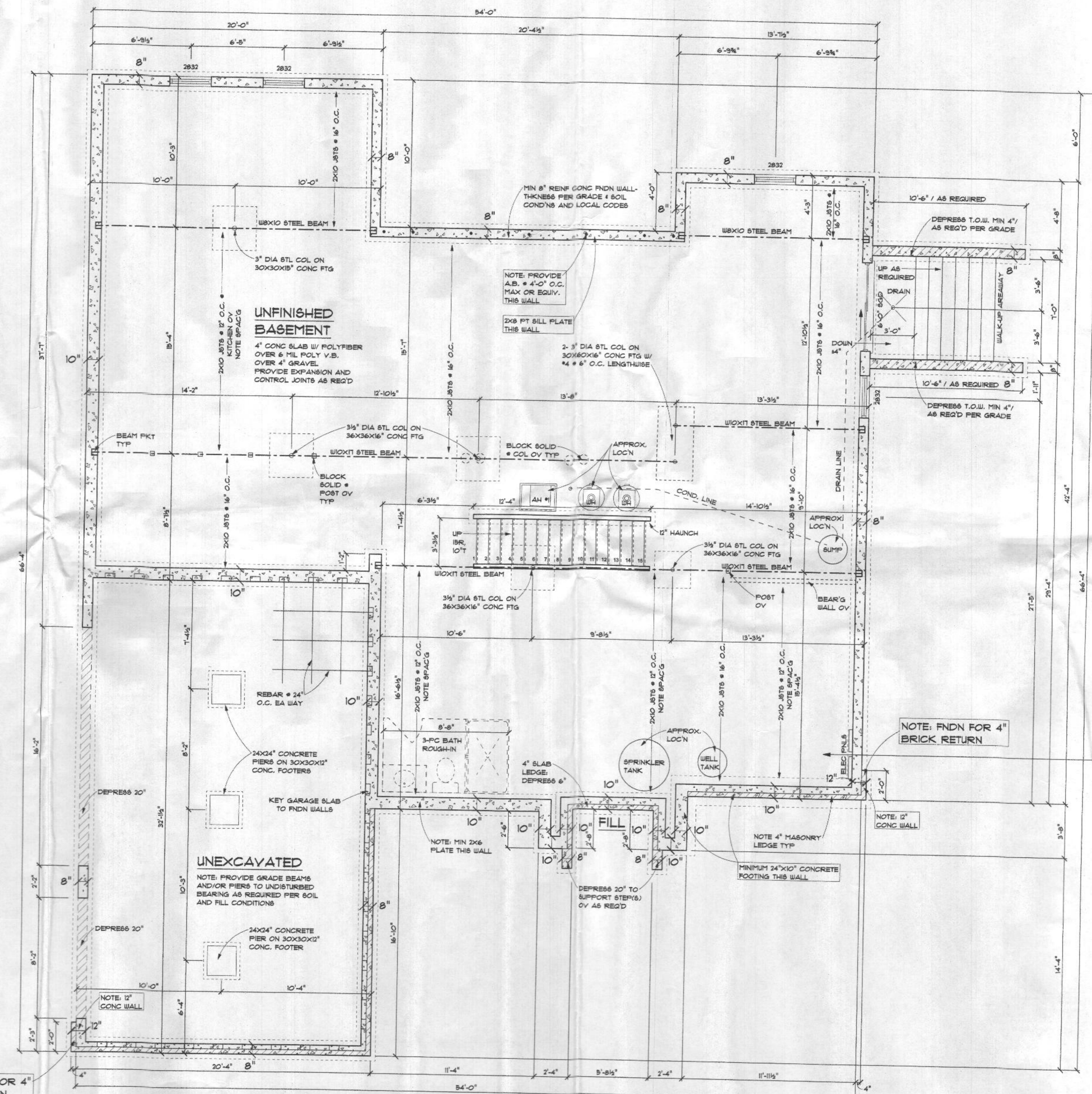


THE BUILDING SHALL ALSO CONFORM TO THE FOLLOWING PRESCRIPTIVE REQUIREMENTS:

THE BUILDING CONFORMS TO THE PRESCRIPTIVE REQUIREMENTS DETAILED IN THE CHART BELOW PER IECC R402.1.2 & R402.1.3 (IRC N1102.1.2 & N1102.1.3). EQUIVALENT U-FACTORS MAY BE SUBSTITUTED FOR REQUIRED R-VALUES PER IECC R402.1.4 (IRC N1102.1.4). THE BUILDING SHALL ALSO CONFORM TO THE DETAILED REQUIREMENTS OF IECC R402.2 (IRC N1102.2).

COMPONENT	REQUIRED VALUE
CEILING/ROOF	R-49 (COMPRESSED OVER WALL TOP PLATE AT EAVES) OR R-38 (UNCOMPRESSED OVER WALL TOP PLATE AT EAVES)
WALLS	R-20 CAVITY OR R-13 CAVITY PLUS R-5 CONTINUOUS
BASEMENT WALLS	R-10 CONTINUOUS OR R-13 CAVITY
SLAB	R-10, 2" DEPTH
CRAWL SPACE WALLS	R-10 CONTINUOUS OR R-13 CAVITY
FLOORS OVER UNCONDITIONED SPACE	R-19
DUCTS OUTSIDE CONDITIONED SPACE	R-8 FOR SUPPLY DUCTS IN ATTICS R-6 FOR ALL OTHER DUCTS
HOT WATER PIPES	R-3 UNLESS OTHERWISE ALLOWED BY IECC R403.5.3 (IRC N1103.5.3)
FENESTRATION	U-FACTOR = 0.32 MAX; SHGC = 0.40 MAX
SKYLIGHTS	U-FACTOR = 0.55 MAX; SHGC = 0.40 MAX

The Yorkshire Manor II - 3 Car



NOTE: PLUMBER
PASSIVE RADON SYSTEM
 3" PVC PIPE VENTED THROUGH ROOF (LOCATION PER PLUMBER)

HVAC: EQUIPMENT - GOODMAN
 ZONE 1: 92% EFFICIENCY PROPANE GAS FURNACE WITH 14 BEER A/C UNIT 3 1/2 TON
 ZONE 2: 14 BEER HEAT PUMP 3 1/2 TON
 * VENT RANGE HOOD TO EXTERIOR

NOTE: 9'-0" FOUNDATION WALLS

NOTES
 1. 2000 PSF SOIL BEARING CAPACITY ASSUMED.
 2. BEAMS, JOISTS, HEADERS AND RAFTERS TO BE 6-P-F #1/2 OR EQUAL TYPICAL THROUGHOUT UNLESS OTHERWISE NOTED
 3. VERIFY SIZE AND LOCATIONS OF DOORS AND WINDOWS THIS PLAN PER GRADE AND BUILDER

NOTE: FNDN FOR 4" BRICK RETURN

NOTE: 9'-0" FOUNDATION WALLS
 APPROX. 2,041 SF UNFINISHED BASEMENT

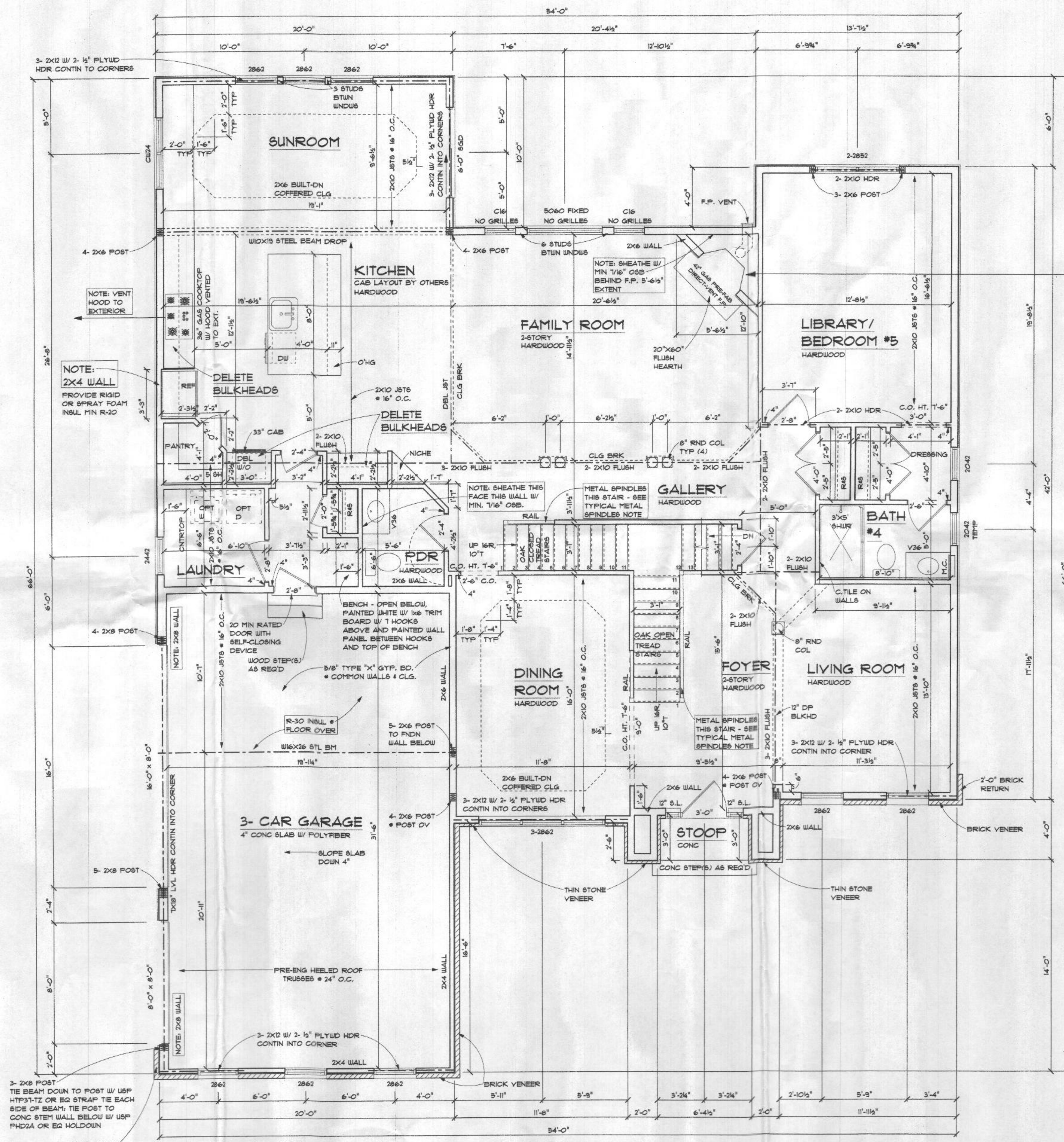
HYAC
 C.F.A. = 3,975

Foundation Plan
 SCALE: 1/4" = 1'-0"

ELECTRIC METER

2018 CODE

REVISIONS	08-13-2021
DATE	06-16-2021
SHEET NO.	A-3
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THE ESTATES AT RIVER HILL INTERIOR TRIM PACKAGE

DOORS: 1ST, 2ND, & BASEMENT FLOORS - FREHING MASONITE, RAISED CAMDEN

DOOR HARDWARE: SATIN NICKEL STOPS, KNOBS, HINGES, AND HANDLES

DOOR TRIM: 1ST AND 2ND FLOORS - 3/4" BEADED EDGE CASING, FINGER JOINT

BASE: 1ST AND 2ND FLOORS - 5/4" WM-163E

CHAIR RAIL: TWO PIECES WM-302 W/ 4/4" BEADED BOTTOM BACKER IN DINING ROOM

CROWN MOULDING: THREE PIECE 4 5/8" CROWN W/ BEADED BOTTOM BACKER W/ #183 TRIM IN LIVING ROOM, DINING ROOM, FOYER, LIBRARY/BEDROOM #5 AND SECOND FLOOR HALL, COFFERED CEILINGS; TWO PIECE 4 5/8" CROWN W/ BOTTOM BACKER

NOTE: CARPENTER
ALLOW 4" FOR 3/4" CASING ON 1ST FLOOR AND 2ND FLOOR

NOTE: ELECTRICIAN:
HARDWARE BOX INSIDE FIREPLACE

FAMILY ROOM FIREPLACE: HEATILATOR FIREPLACES PROPANE GAS PRE ENGINEERED DIRECT VENT FIREPLACE

F.P. ROUGH OPENING, HEATILATOR FIREPLACE

CONTACT INFO:
FIRESIDE HEARTH & HOME
BONNIE GEYER (703) 367-9218
CALL TO:
1) SET/INSTALL F.P.
2) SET MANTEL & SURROUND & START UP F.P.

GARAGE DOOR OPENERS

ADULT HEIGHT POWDER ROOM VANITY

NOTE: INTERIOR STAIRS SHALL CONFORM TO THE FOLLOWING GEOMETRY:

STRAIGHT:
RISER HEIGHT 7.75" MAX
TREAD DEPTH 10" MIN
NOBING .75" MIN 1.25" MAX
(NOTE: NOBING MAY BE OMITTED • TREAD DEPTH OF 11" OR GREATER)

NOTE: 9' CEILINGS U.O.N.
2X6 EXTERIOR WALLS U.O.N.

First Floor Plan
SCALE: 1/4" = 1'-0"
APPROX. 2,105 SF 1ST FLOOR

TYPICAL METAL SPINDLES
INCLUDES SATIN BLACK IRON BASKET STYLE OR KNUCKLE STYLE AND STRAIGHT BALUSTERS FRONT & REAR STAIRS (PER PLAN)

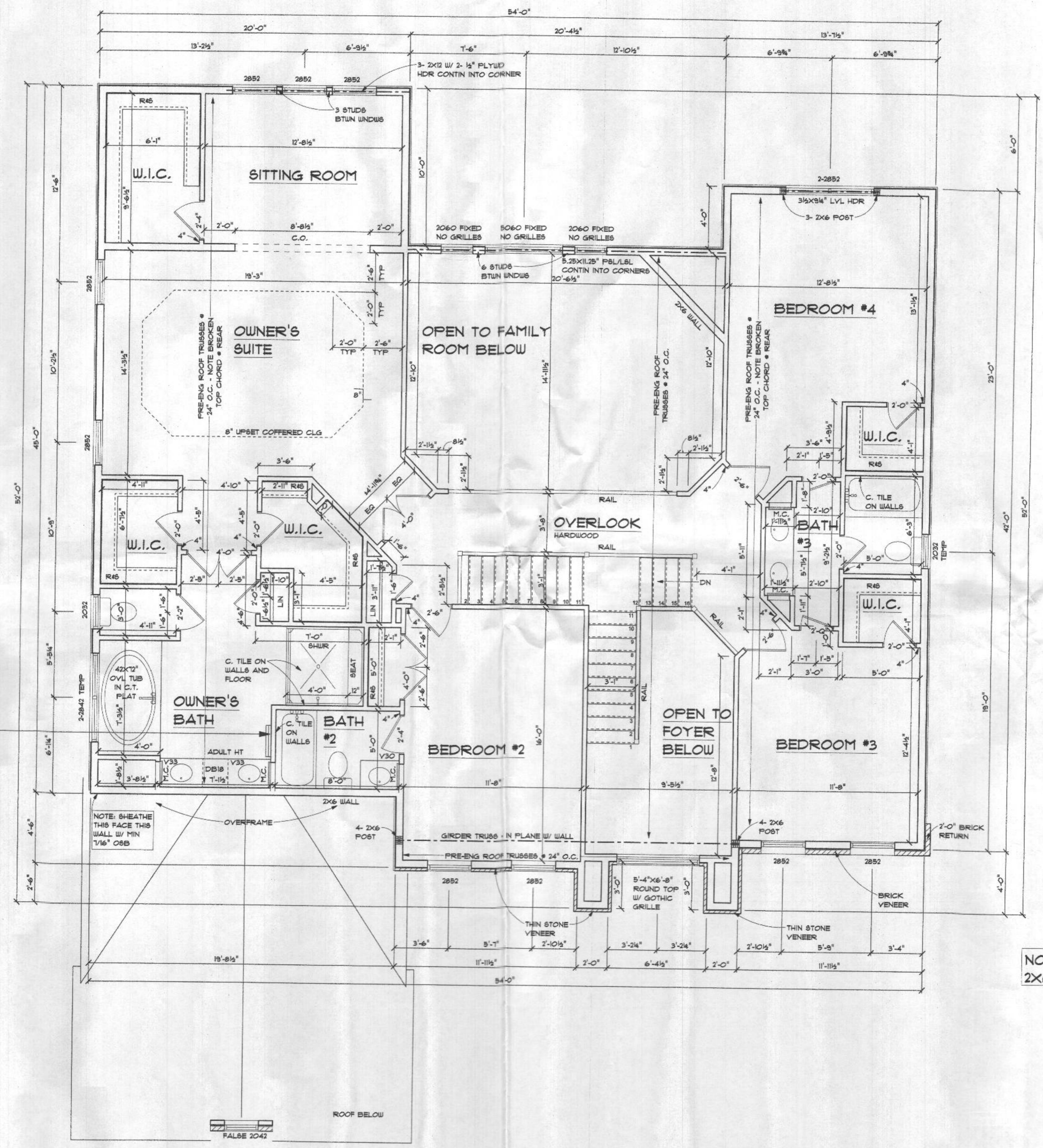


The Yorkshire Manor II - 3 Car

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DATE	06-16-2021
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The Yorkshire Manor II - 3 Car



NOTE: ELECTRIC
 ADD 220V BASE HEAT, 2' LONG
 W/ WALL THERMOSTAT IN
 OWNER'S BATH OVER GARAGE

ADULT HEIGHT OWNER'S
 BATH VANITIES

NOTE: CARPENTER:
 RAISE MCs 4"

NOTE: 9' CEILINGS
 2X6 EXTERIOR WALLS

NOTE: 9'-1/8" WALL HGT
 ANGLES 45 DEGREES TYP U.O.N.

APPROX. 1870 SF 2ND FLOOR
 APPROX. 122 SF OPEN FOYER
 APPROX. 313 SF OPEN FAMILY ROOM

Second Floor Plan
 SCALE: 1/4" = 1'-0"

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