

FINISHED BASEMENT PLAN
1/4"=1'-0"

5/8" F.C. GYP BD WALLS & CIG. OVER CRT @ 16" W/ W.O.M. B/PAT.
RTB BATS @ EXTERIOR WALLS

NOTE: USE PORCELED FIBERGLASS E-84 INTUMESCENT PAINT
MFR'D BY SHIELD INDUSTRIES OR DC333 FIREPROOF PAINT
FOR ANY AREAS NOT ABLE TO BE COVERED BY 5/8" F.C.

2015 IECC

PRESCRIPTIVE METHOD
The most common prescriptive method identifies the wall/ceiling/roof insulation R-values and the window/door U-factor required for each component. There are one code exceptions to the requirements that can offer a small amount of flexibility, but generally this method requires consistent treatment of building components, using the compliance method has the benefit of simplifying code review and inspection.

The most common prescriptive method used is:

- Insulation and fenestration criteria for building components (see Table 402.1.1 below).

Other ways of meeting the prescriptive method are:

- R-value comparison summation of layers of insulation to compute component R-value.
- U-factor alternative assembly meeting the criteria for components (see Table 402.1.3 below).
- Total UA alternative is the total building thermal envelope UA (sum of U-factor x assembly area) is less than or equal to the total UA resulting from using the U-factor in Table 402.1.3 (multiplied by the same assembly area as in the proposed building).

Regardless of which prescriptive method is used, the mandatory requirements in the code must be met (see separate "Mandatory Requirements" section).

CLIMATE TYPE	INSULATION STRATEGY	INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT*									
		CEILING	WALL	ROOF	GLAZING	DOOR	WINDOW	OPENER	SLAB	FLOOR	FOUNDATION
1	1	5	13	15	0.18	0.18	0.18	0.18	0.18	0.18	0.18
2	2	5	13	15	0.18	0.18	0.18	0.18	0.18	0.18	0.18
3	3	5	13	15	0.18	0.18	0.18	0.18	0.18	0.18	0.18
4	4	5	13	15	0.18	0.18	0.18	0.18	0.18	0.18	0.18
5	5	5	13	15	0.18	0.18	0.18	0.18	0.18	0.18	0.18

MANDATORY REQUIREMENTS

- In addition to the prescriptive or performance compliance requirements, there are mandatory requirements that apply to all permits.
- See the code for specific requirements in each of the following mandatory compliance categories:
- All leakage control required for:
 - Building thermal envelope to limit infiltration.
 - Seal with caulking, gaskets, weatherstripping or other barrier material:
 - All joints, seams and penetrations.
 - Slab-on-grade, doors and windows.
 - Openings between walls and door assemblies and the jamb/trimming.
 - Utility penetrations.
 - Disposed ceilings or chases adjacent to the thermal envelope.
 - Frame walls.
 - Walk and ceiling separating a garage from conditioned spaces.
 - Behind tubs and showers on exterior walls.
 - Attic access openings.
 - Other sources of infiltration.
 - Vapor Retarder.
 - Testing of building thermal envelope airtightness and insulation installation is required by either:
 - Air leakage test method (blower door test) rough-in and after installation of penetrations of the envelope (see Section 402.1.1 and Table 301.1).
 - Visual inspection when there is field verification of all items for envelope airtightness.
 - Replaces that are new and wood burning are required to have gasketed doors and outdoor combustion air:
 - Fenestration or leakage for windows, skylights and sliding glass doors is limited to 0.3 cfm/ft² and for swinging doors to 0.3 cfm/ft².
 - Fenestration maximum U-factor and SHGC.
 - Recessed lighting installed in the building thermal envelope must be sealed to limit leakage between conditioned and unconditioned spaces by means of gasket or caulking between the housing and the interior wall or ceiling. All recessed lighting shall be IC-rated and ASTM E 263.
 - Heating and cooling controls are required:
 - Programable thermostat.
 - Heat pump supplementary heat.
 - Duct (except ducts or portions thereof excluded completely inside the thermal envelope) insulation required:
 - Supply ducts in attics & crawl spaces.
 - All other R-4.
 - Performance method:
 - Supply and return ducts R-4.
 - Sealing required:
 - All ducts, air handlers, filter bases and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1401.2004 IECC. Verification of duct airtightness is required by either:
 - Postconstruction testing of leakage to outdoors.
 - Rough-in test.
 - Exception: Duct airtightness test is not required if the air handler and all the ducts are located within the conditioned space.
 - Mechanical system piping insulation (R-3 min.) required for piping capable of carrying fluids above 100°F.
 - Circulating service hot water systems are required to be insulated (R-2 min.) and have a manual switch to turn off circulating pump when not in use.
 - Mechanical ventilation outdoor air intakes and exhausts must have automatic or gravity dampers.
 - Equipment sizing for heating and cooling must be in accordance with Section M1401.2004 IECC.
 - Snow melting - See SNOW & ICE MELTING section below.
 - Replace - See PREFACE section below.

ALTERNATE MATERIALS - METHOD OF CONSTRUCTION DESIGN OR INSULATING SYSTEMS

The energy code allows the use of any alternate material, method of construction or design or insulation system as long as it has been approved by the code official as meeting the intent of the code.

ERV SYST PER 2015 IECC
90CFM CONT VENT AIRFLOW RATE

SPECIAL CONSTRUCTION REQUIREMENTS

- These construction requirements are:
- ACCESS HATCHES & DOORS** - Prescriptive requirement 402.1.1.1. Access between unconditioned and conditioned space must be weatherstripped and insulated to the level of the surrounding surfaces.
 - BASEMENT WALLS** - Prescriptive requirement 402.1.1.2. Conditioned basement walls must be insulated from the top of the basement wall down to 10 feet below grade or to the basement floor. Walls of unconditioned basement space must meet the requirements unless the floor above is insulated to R-30.
 - CEILING WITH ATTIC SPACE ABOVE** - Prescriptive requirement 402.1.1.3. Where ceiling insulation is required to be higher than R-30, it is acceptable wherever the full value of uncompressed R-30 insulation extends over the wall top plate of the eaves.
 - CEILING WITHOUT ATTIC SPACE ABOVE - VAULTED CEILING, FLAT ROOF, ETC.** - Prescriptive requirement 402.1.1.4. Where ceiling insulation is required to be higher than R-30, and there is not sufficient space to allow for its placement in the framing, R-30 is acceptable but it is limited to 500 ft² or 20% of the total insulated ceiling area, whichever is less.
 - CIRCULATING SERVICE HOT WATER PIPING** - Mandatory requirement 403.2.009 IECC. All circulating service hot water piping to be insulated with at least R-2 and have an automatic manual switch that can turn off the hot water circulating pump when the system is not in use.
 - CRAWL SPACE WALLS** - Prescriptive requirement 402.1.1.5. Crawl spaces may be either conditioned or unconditioned.
 - If the crawl space is not vented to the outside (conditioned), the wall insulation must be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches. Exposed earth must be covered with Class II vapor retarder. All joints of the vapor retarder must overlap by 4" (min.) and be sealed or taped and the vapor retarder must extend 4" (min.) up and be attached to the stem wall.
 - If the crawl space is vented to the exterior, the floor above must be insulated to R-30 and the separating wall from the basement must meet the basement wall requirements for insulation.
 - DUCTS NOT IN THERMAL ENVELOPE** - Prescriptive requirement 402.1.1.6. Supply ducts in attics to be insulated with R-8 (min.). All other ducts to be insulated with a minimum of R-4.
 - DUCT SEALING** - Mandatory requirement 402.1.1.7. Sealing of ducts and all mechanical components is required. Testing of duct airtightness is required (exception: if all ducts are located within the conditioned space).
 - EQUIPMENT** - Prescriptive requirement 403.2.010.
 - Service water heating (boiler/cooling).
 - Furnace.
 - PREFACE** - Mandatory requirement 402.1.1.8. New wood burning stoves must have gasketed doors and outdoor combustion air.
 - FLOORS** - Prescriptive requirement 402.1.1.9. Floor insulation must be installed to maintain permanent contact with the underside of the subfloor decking above.
 - LIGHTING** - Prescriptive requirement 402.1.1.10. At least one (1) incandescent light fixture must be high-efficiency compact fluorescent (CFL).
 - MASONRY VENEER** - Prescriptive requirement 402.1.1.11. Masonry veneer shall be installed on the horizontal portion of the foundation that supports masonry veneer.
 - MASS WALLS** - Prescriptive requirement 402.1.1.12. Mass wall on conditioned above-grade walls of concrete block, concrete, insulated concrete form (ICF), masonry cavity, brick (other than brick veneer), earth and soil timber/logs.
 - MECHANICAL SYSTEM PIPING** - Mandatory requirement 403.2.011. Piping carrying fluids above 100°F or below 50°F to be insulated with a minimum of R-3.
 - OPAQUE DOOR EXEMPTION** - Prescriptive requirement 402.1.1.13. One side-hinged door up to 24" is exempted from the U-factor requirement in Section 402.1.1.3 and total UA alternative in Section 402.1.4.
 - SLAB-ON-GRADE FLOORS** - Prescriptive requirement 402.1.1.14. Slab-on-grade concrete floor less than 12 inches below grade must be insulated from the top of the slab on the inside or outside of the foundation. Insulation must be R-10 (min.) and be extended 2 feet in any combination of vertical and horizontal insulation as allowed in this section.
 - SNOW & ICE MELTING** - Prescriptive requirement 403.2.012. Snow and ice melting systems supplied through energy service to the building, must have automatic control capable of shutting off the system when the pavement temperature is above 50°F and no precipitation is falling and an automatic or manual control to allow shutoff when the outdoor temperature is above 40°F.
 - STEEL-FRAME CEILING, WALL & FLOOR** - Prescriptive requirement 402.1.1.15. Steel framed ceilings, walls and floors must be insulated according to Table 402.1.1.1.
 - SUNROOMS - THERMALLY ISOLATED** - Prescriptive requirement 402.1.1.16. Insulation values for thermally isolated sunrooms are:
 - Ceiling R-24.
 - Walls R-13.
 - SWIMMING POOLS** - Mandatory requirement 403.2.013. Swimming pools must be provided with energy conserving measures as they can be large consumers of energy, mainly for water heating.
 - Pool heaters must have an on/off switch that is readily accessible to allow shutting off the heater without adjusting the thermostat setting. Pool heaters with continuously burning pilot lights are not allowed.
 - The switches that can automatically turn off and on heaters and pumps according to a preset schedule must be installed on swimming pool heaters and pumps.
 - Exceptions:
 - Where public health standards require 24-hour pump operation.
 - Where pumps are required to operate solar and waste-heat-recovery pool heating systems.
 - Heated pools shall be equipped with a vapor retardant pool cover on or at the water surface. Pools heated to more than 90°F shall have a pool cover with a minimum insulative value of R-12.
 - Exception:
 - Pools deriving over 40% of the energy for heating from site-recovered energy or solar energy source.
 - WATER** - See Circulating Service Hot Water Piping.

SEE TABLE R 403.5.1 - MECHANICAL VENTILATION EFF P.E. RANGE HOODS, IN LAUNDRY, BATH, UTILITY R

Building thermal envelope shall be tested and verified as having an air leakage rate of not exceeding five air changes per hour by a blower door test. Testing shall be conducted by an approved third party with a signed-results test report submitted during final inspections. IECC R402.4.1.

REVISIONS	BY

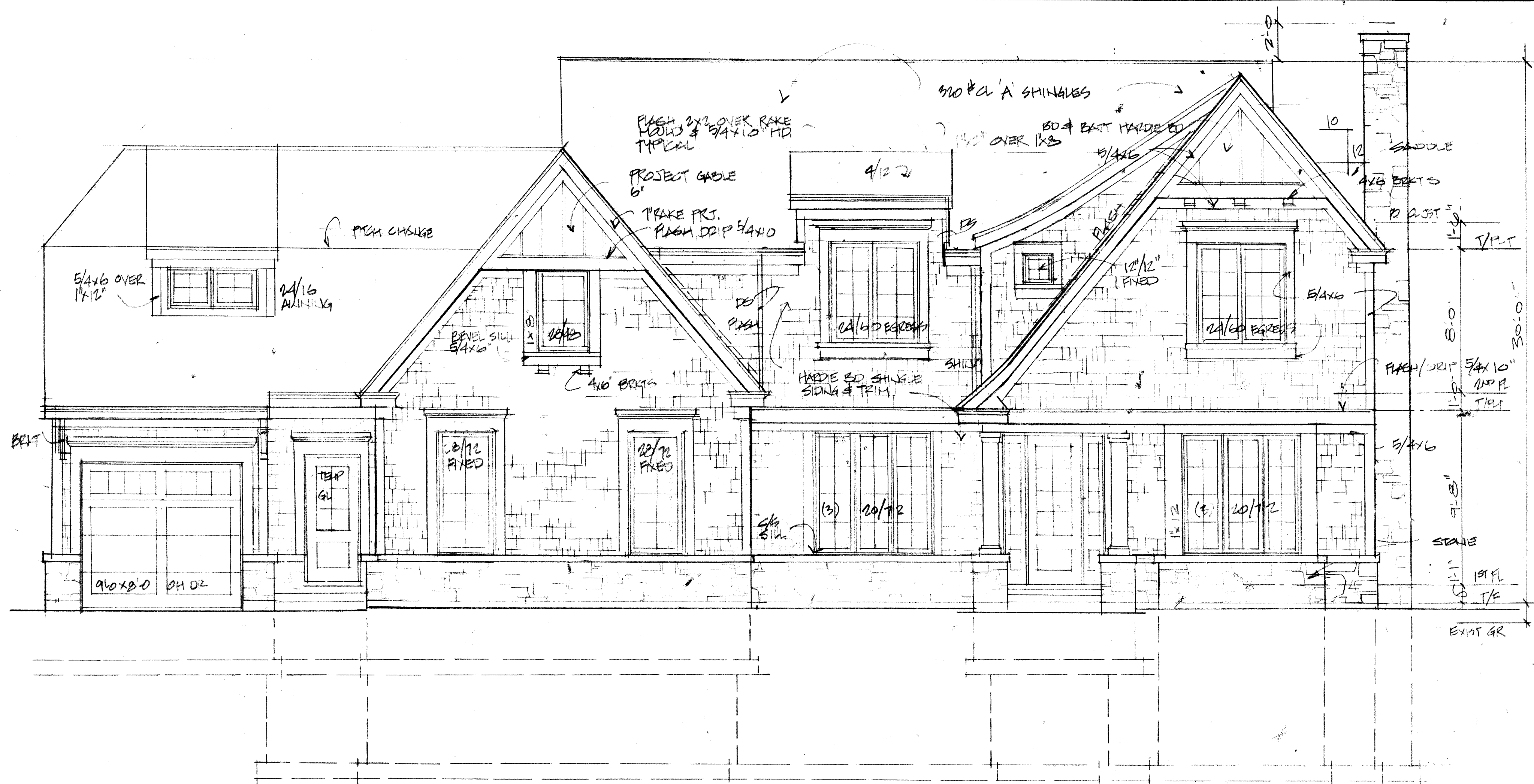
A RESIDENCE FOR
1541 MEADOW LN.
GLENVIEW, IL
GIANNETTOS BLDGS
1022 PARKWAY GLENVIEW, IL

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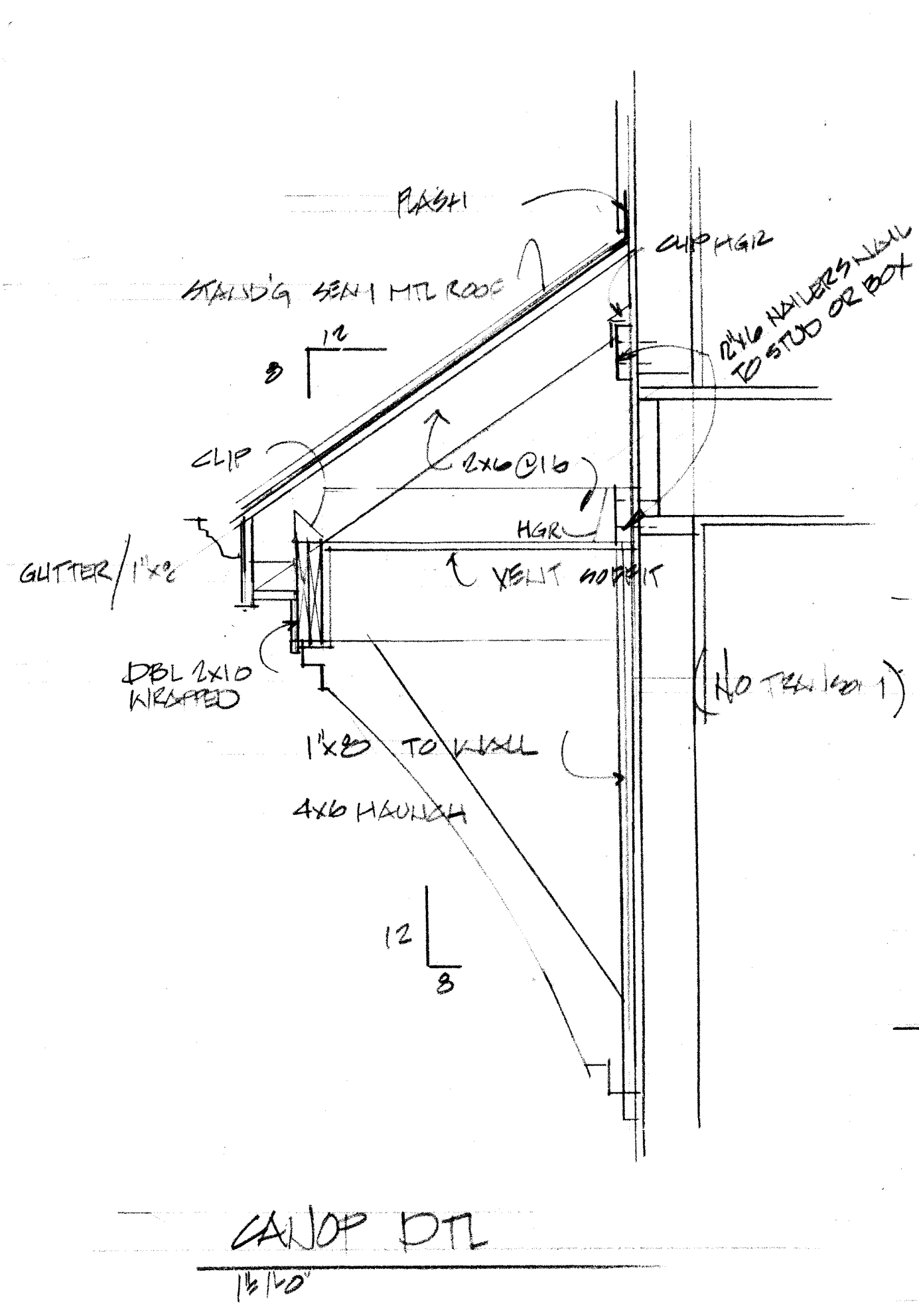
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GIANNETTOS BLDGS 1541 MEADOW LN GLENVIEW, IL

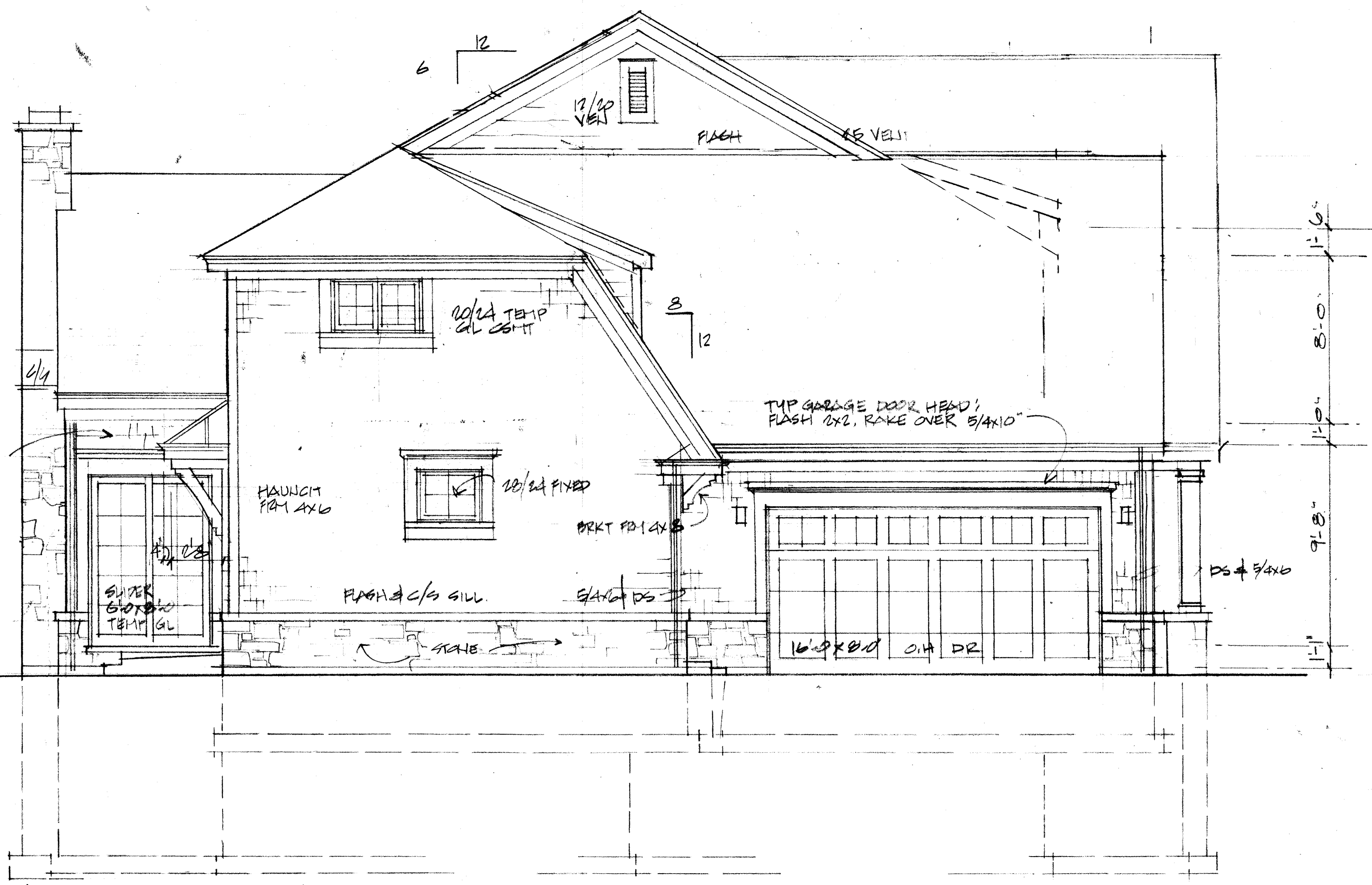
REVISIONS	BY



WEST ELEVATION
1/8" = 1'-0"



CANOP DTL
1/8" = 1'-0"



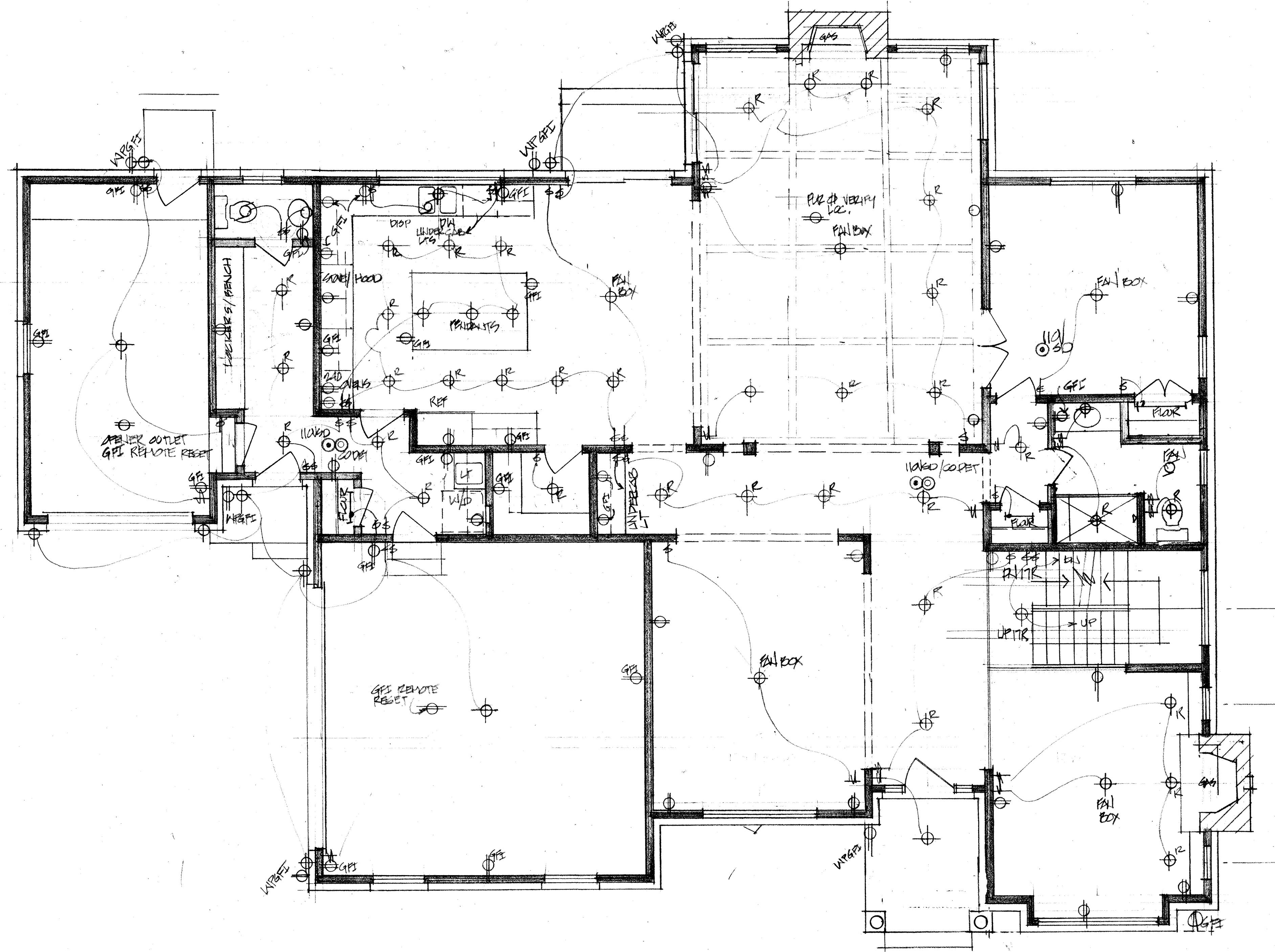
NORTH ELEVATION
1/8" = 1'-0"

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Date	5/27/17
Scale	1/8" = 1'-0"
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Job	17-138
Sheet	5
Of 9	Sheets

GLENVIEW ELDERS 1541 MEADOW LN



12x22.4 402
 56x44.4 2452
 4x19.4 77
 15
 150
 2750

**ELECTRICAL
 1ST FLOOR PLAN**
 1/4"=1'-0"

- NOTES**
- 11/16/20/20 DET ALL LEVELS ≤ 15' FROM ALL BR'S
 - 11/16/20 ALL BR'S, ALL DETECTORS WIRED IN SERIES
 - ALL OUTLETS ARC-FAULT PROTECTED EXCEPT GFI
 - OUTLETS MAX 12' O.C., ≤ 6'-0" FROM OPENINGS, WALLS ≥ 2'-0"
 - 10 A.CCT. ALL KITCHEN OUTLETS & BATH OUTLETS
 - ALL REC. LITS UNDER UNCOND. SPACE TO BE 1CTYPE W/ VENT GASHT
 - 75% OF ALL LAMPS IN FIXTURES TO BE HIGH EFF.
 - FRANCE DISTRIBUTION OF LITS, GFI'S, MECH EQ ON ALL DR.
 - LITES LOCATED OVER TUBS/SHRS TO BE RATED FOR WET LOCATIONS & G
 - NO. SD'S LOCATED W/I 36" OF HT REG OR FAN BLADES

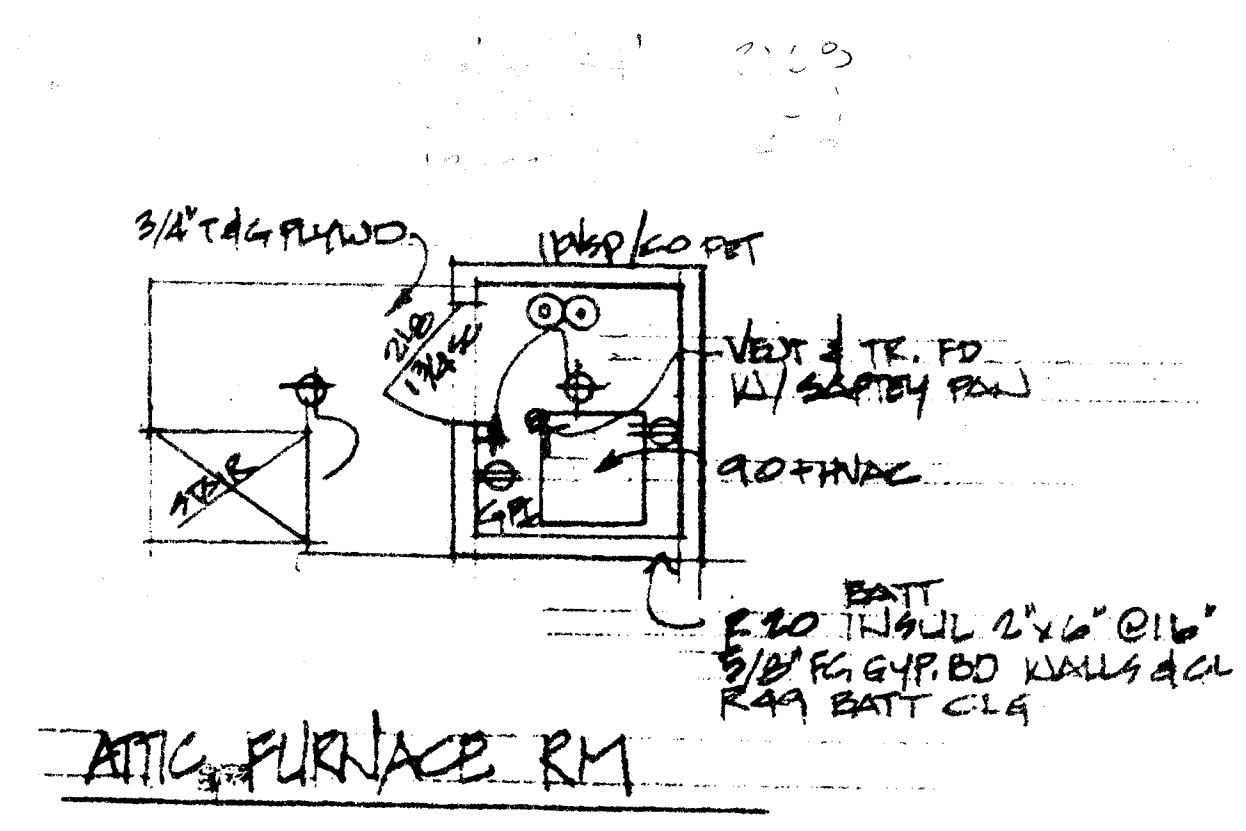
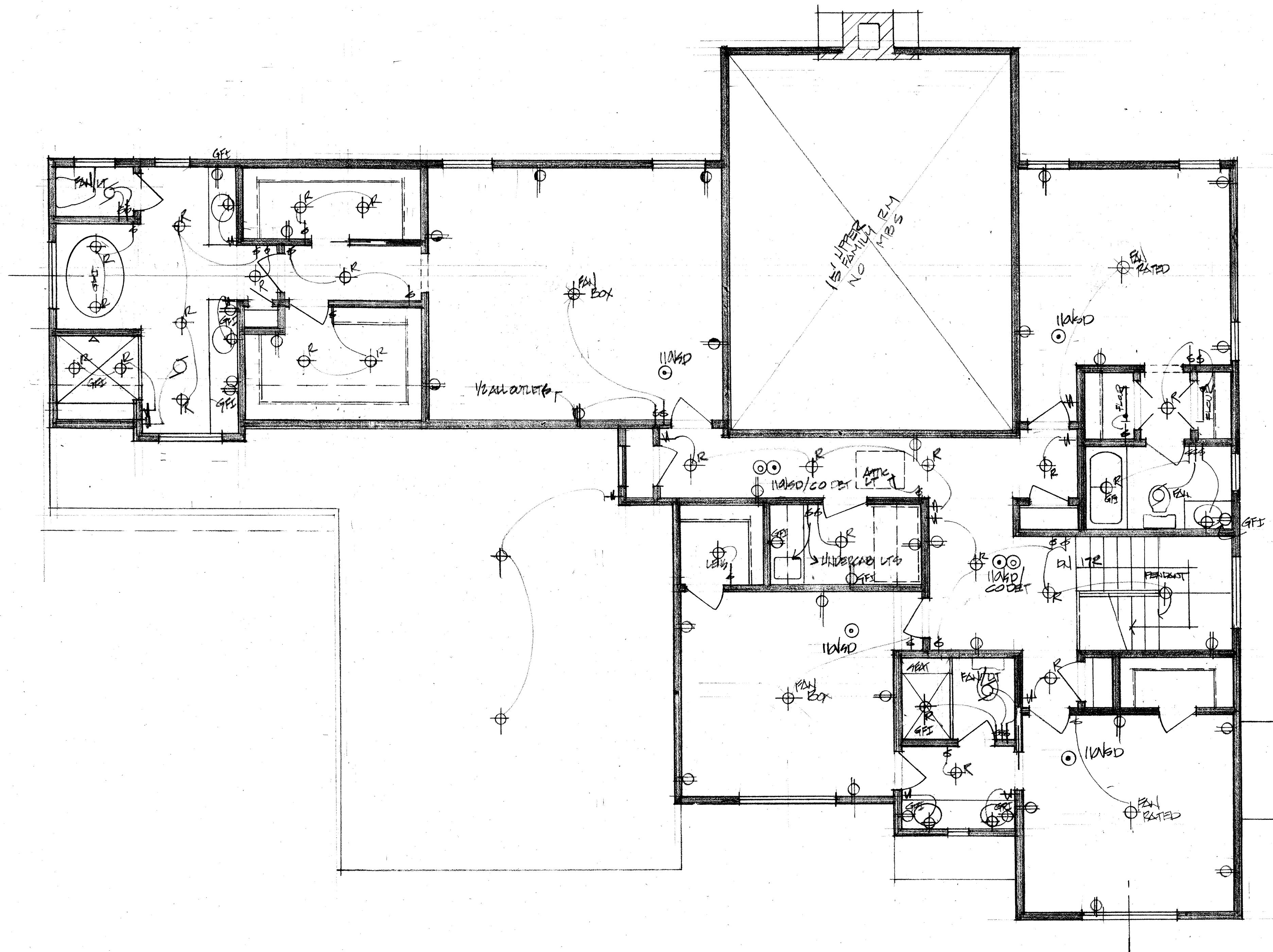
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Date 8/27/17
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 Of 9 Sheets

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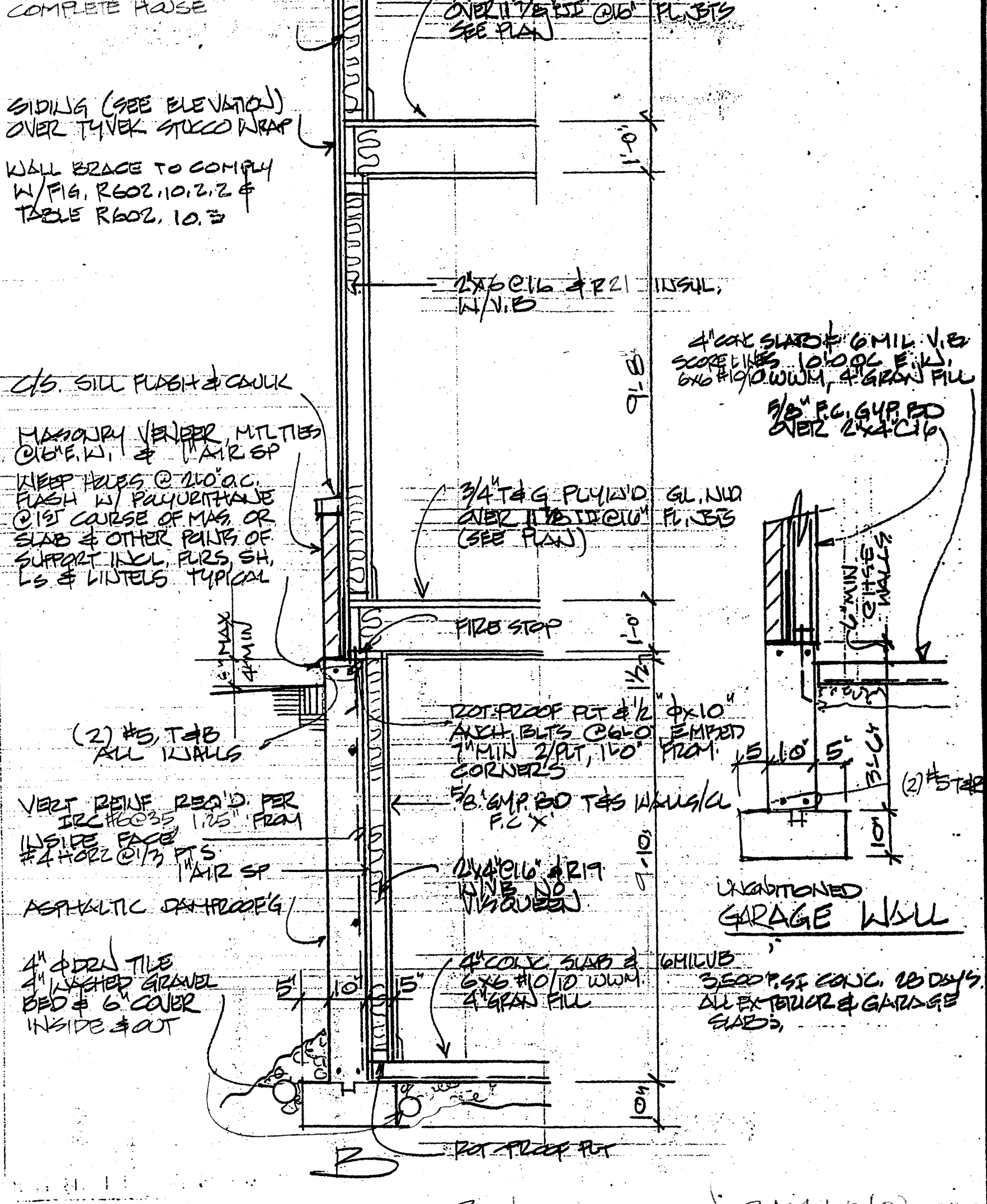
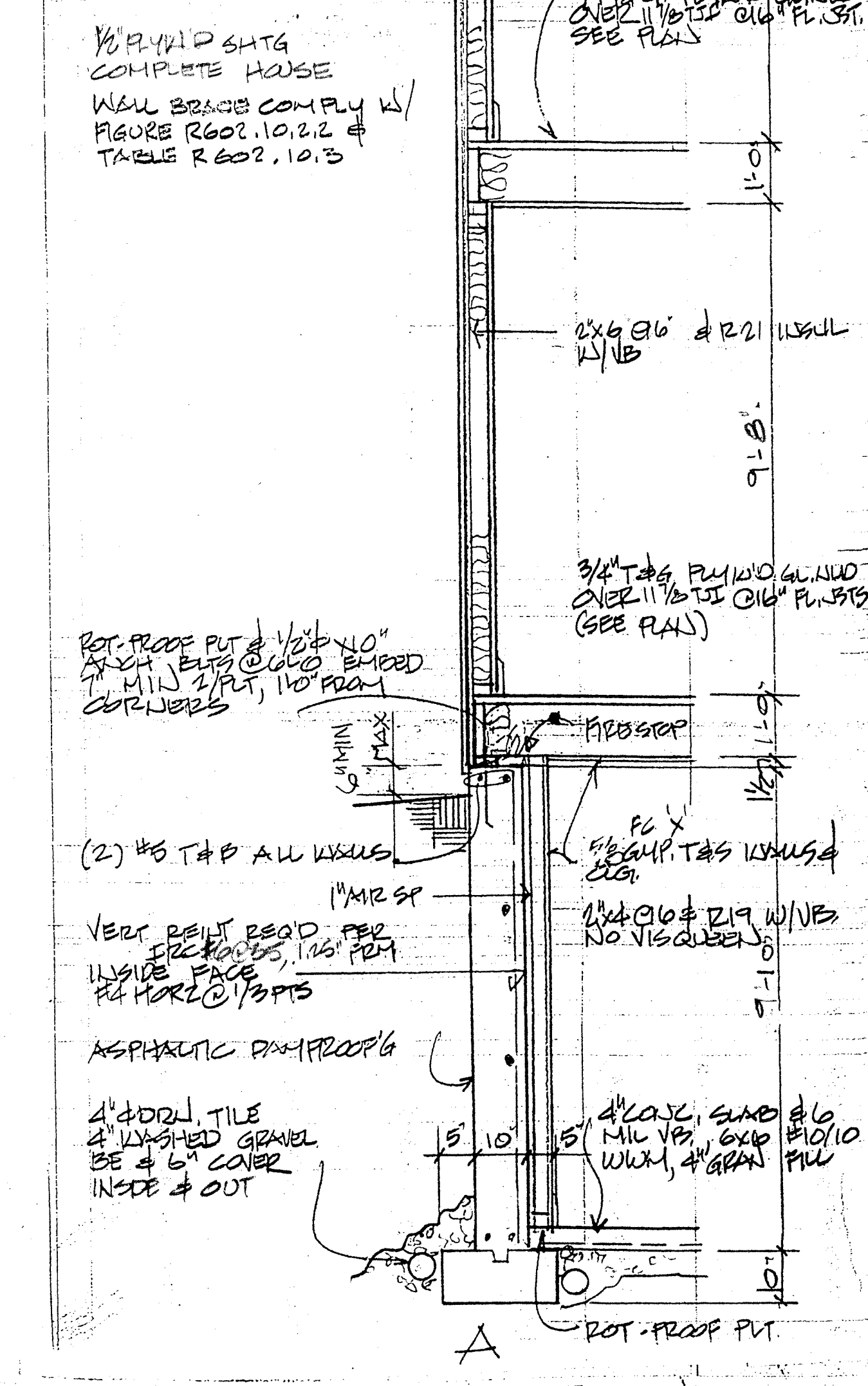
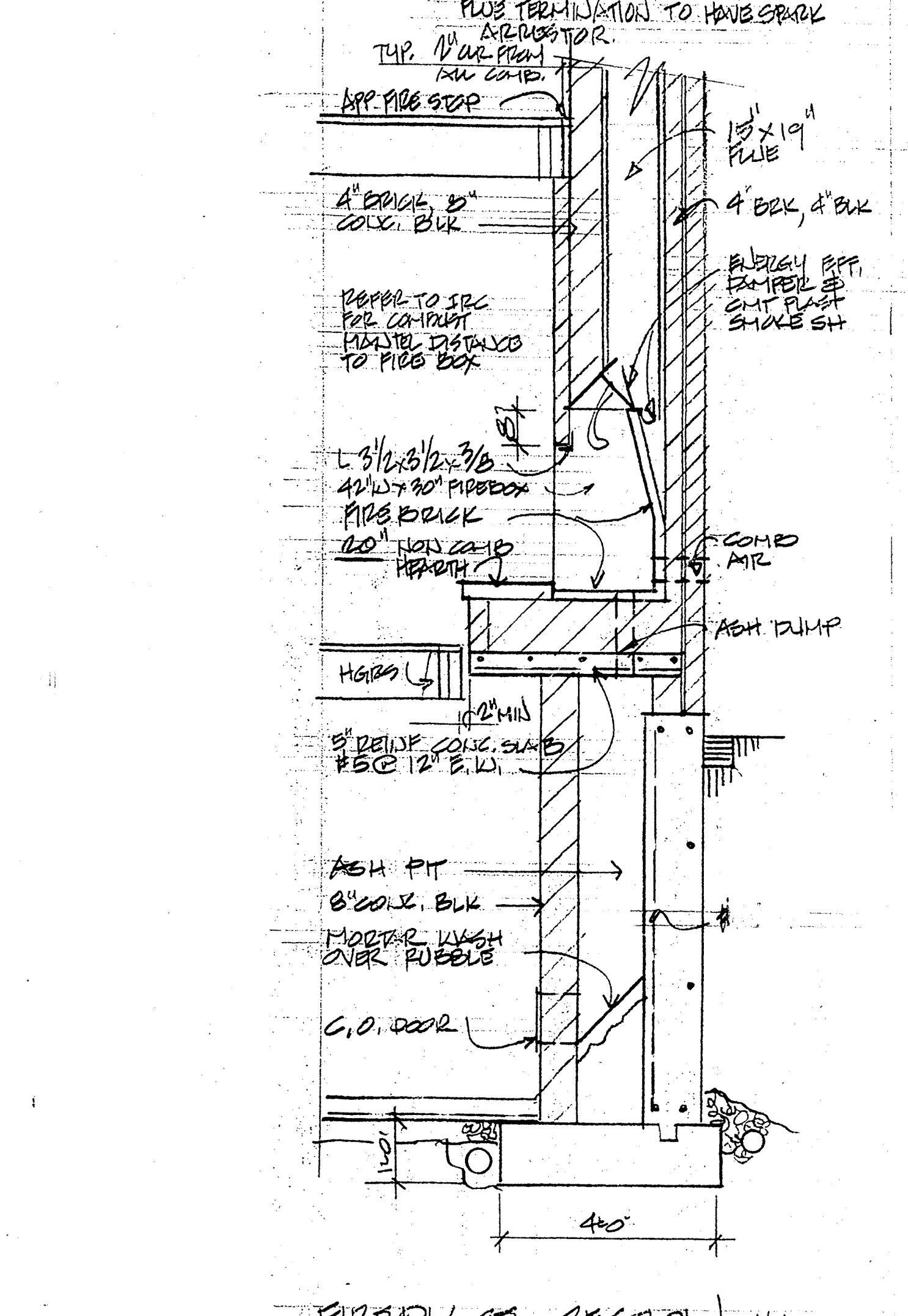
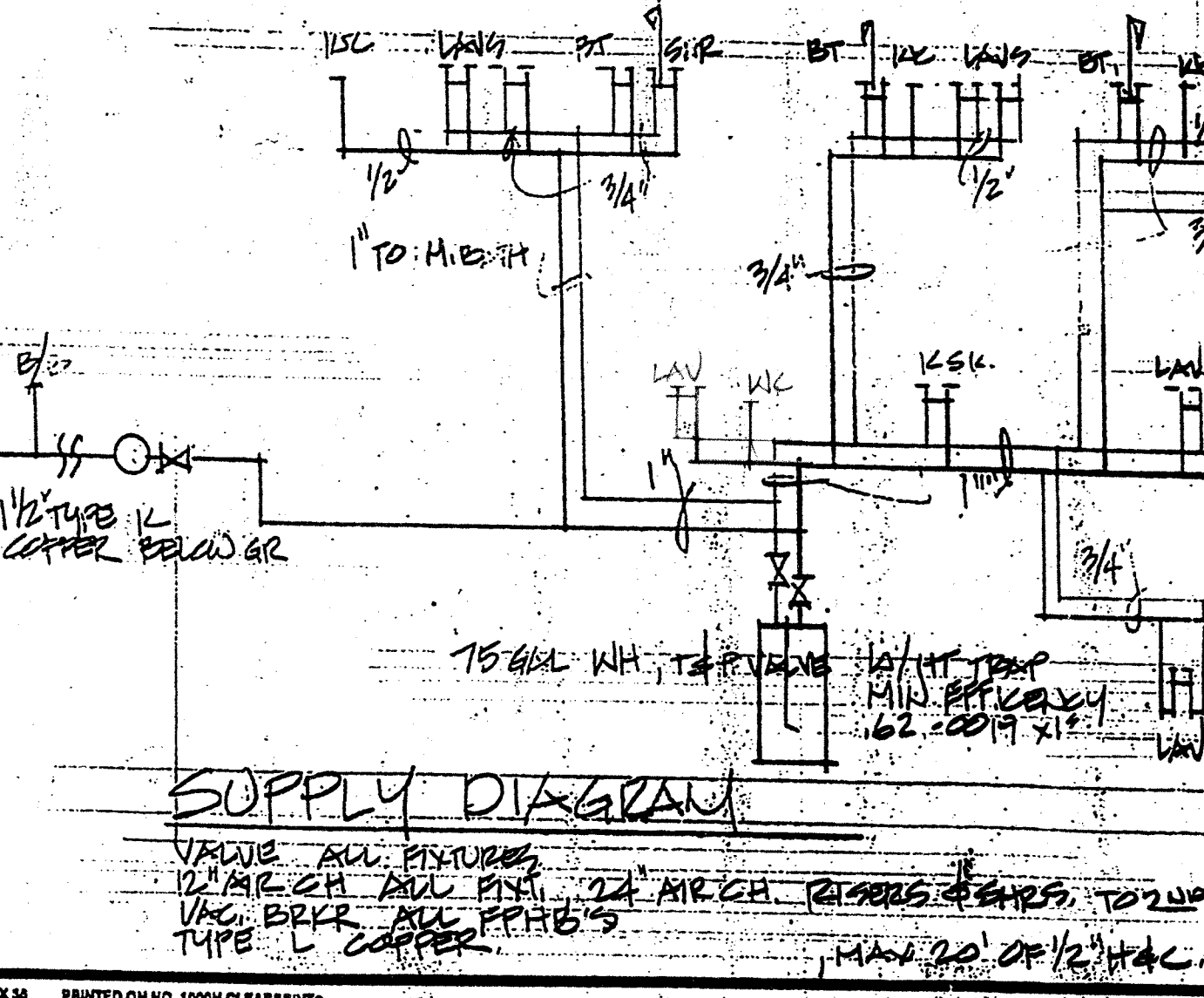
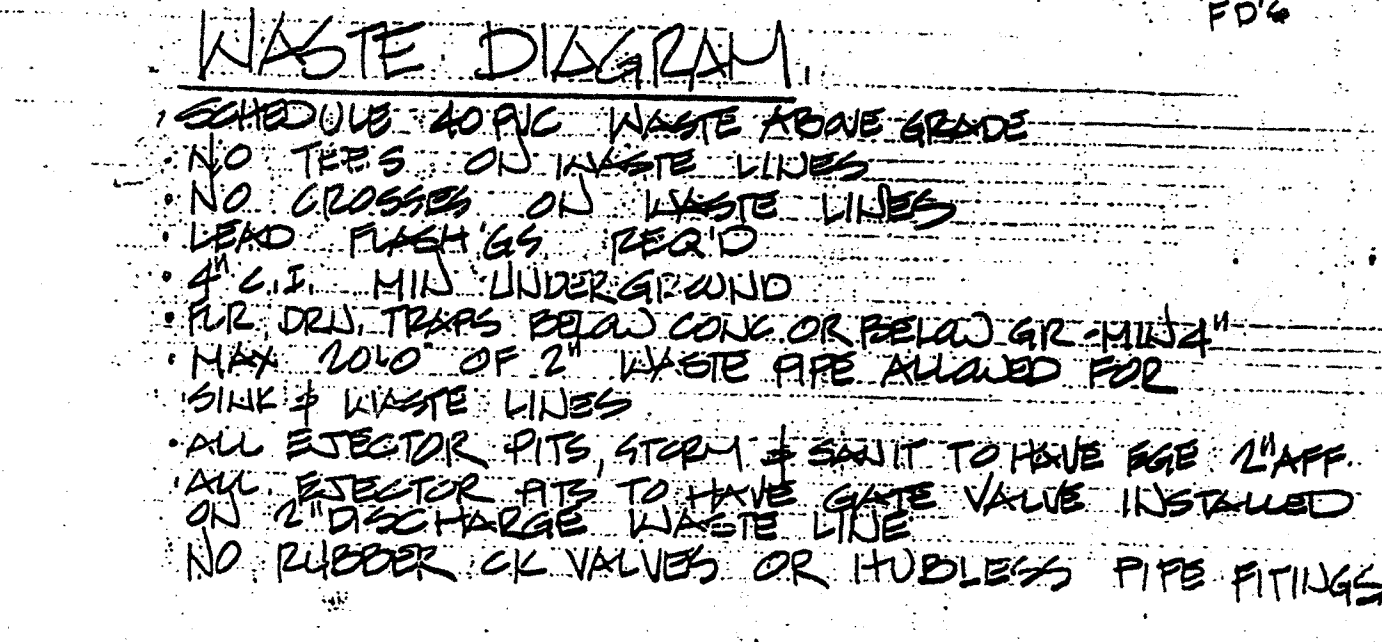
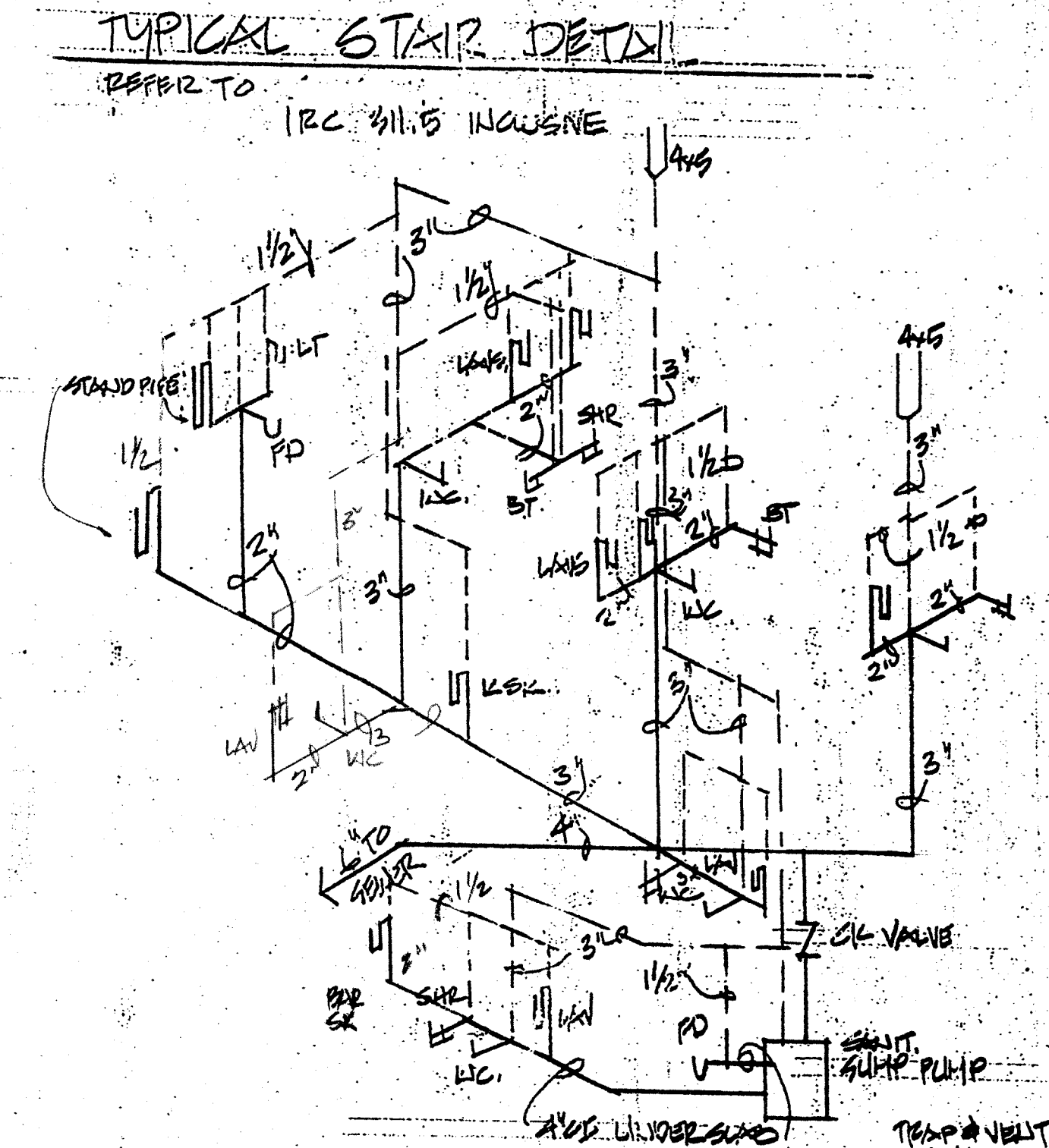
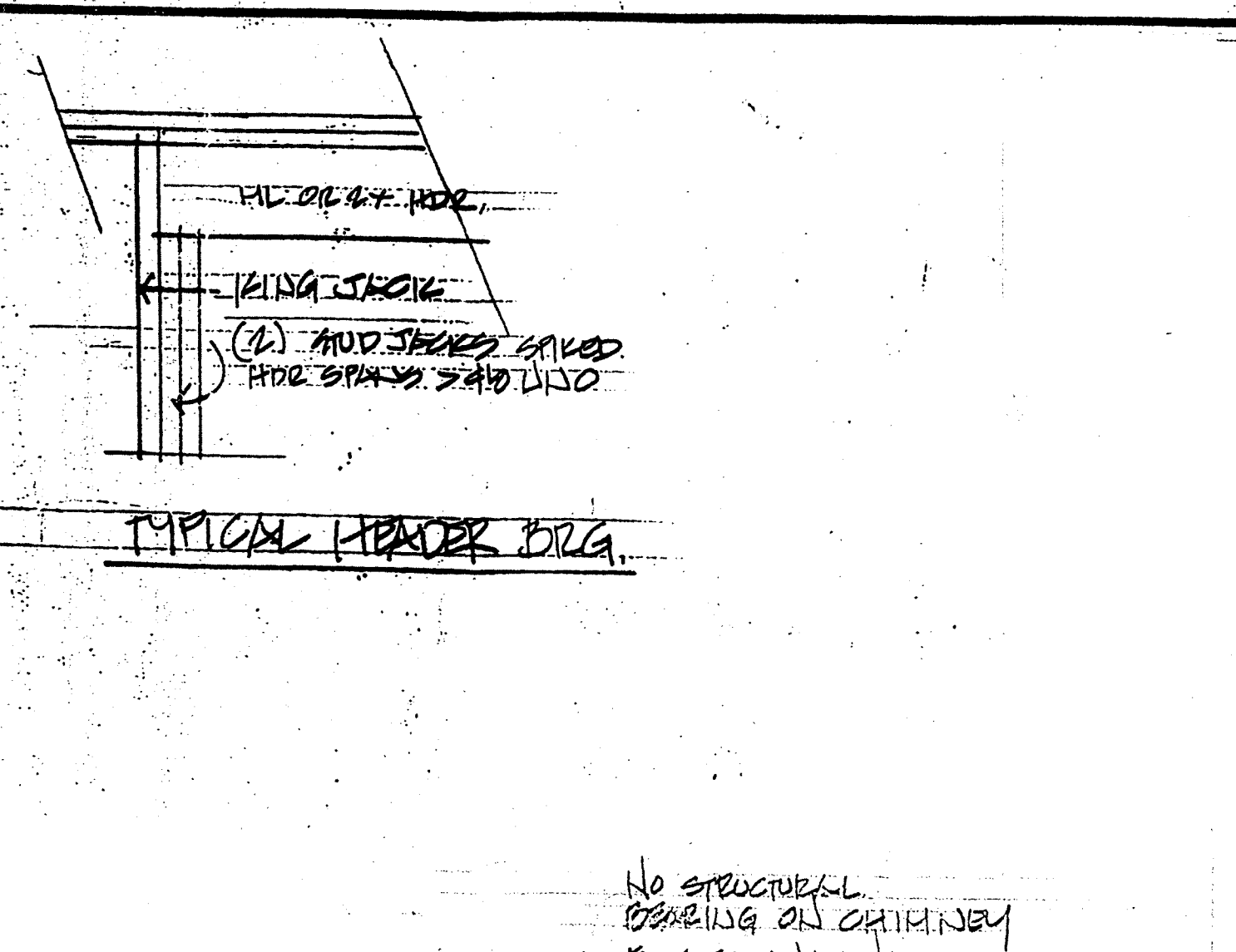
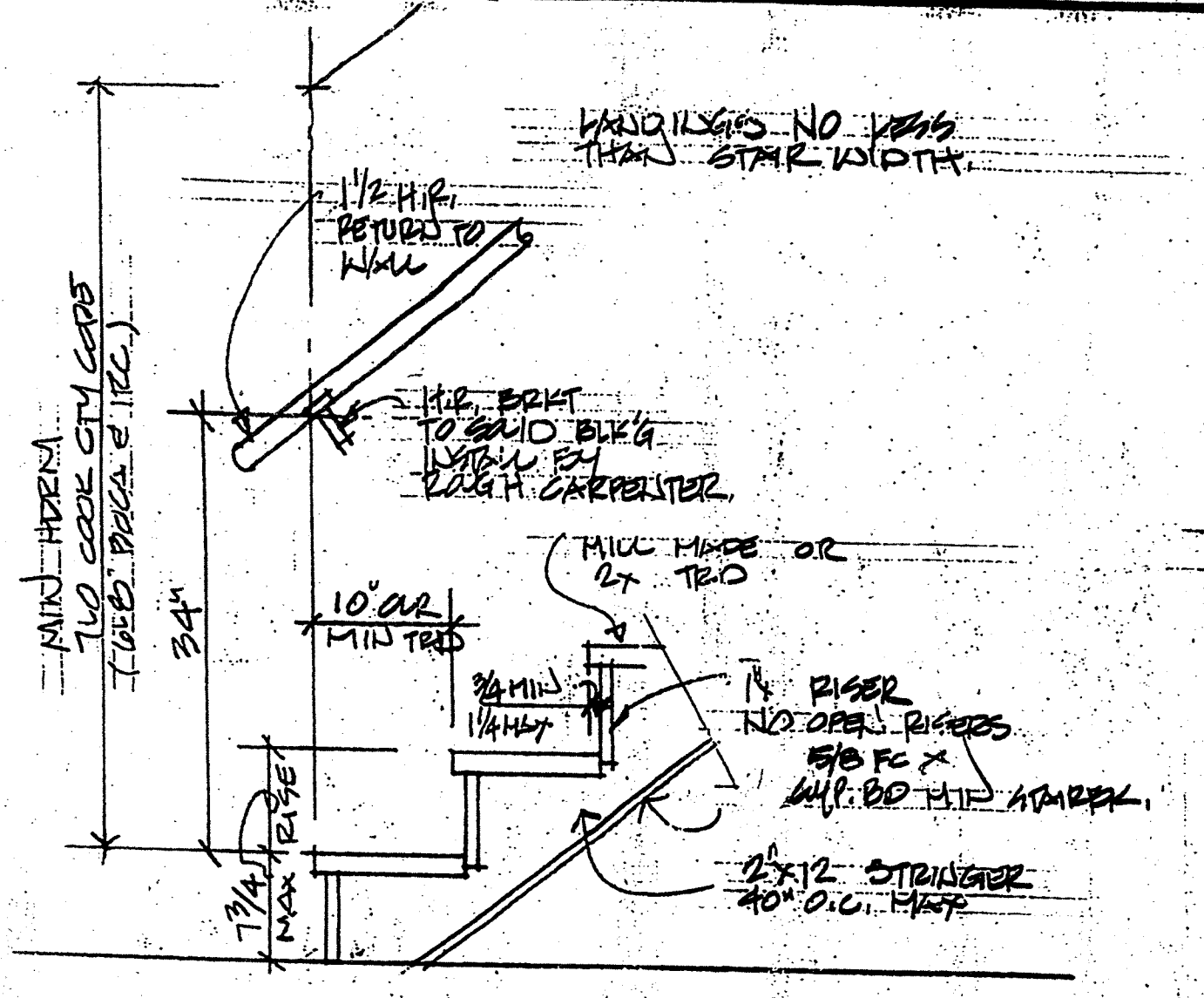
ELECTRICAL
2ND FLOOR PLAN
 1/4/15

REVISIONS	BY

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Date	5/27/17
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Sheet	8
Of 9	Sheets



- FIREPLACE SECTION 1/2" = 1'-0"**
- GENERAL NOTES**
1. ALL ELECT & PLUMB'G TO LOCAL & STATE CODES, VILLAGE AMEND
 2. ALL FOOTINGS TO BEAR ON 3,000 P.S.F. SOIL
 3. ALL HEADERS DEL 2"x12 W/ 1/2" FLUID STRIP LINO
 4. FLOOR/ROOF FLOOR LUMBER #2 HEM FIR UNO
 5. VERIFY MILLWORK PER A FINISH W/G, C, OR OTHER
 6. ALL WINDOWS TO HAVE INSUL GL. W/ SCREENS, ALL 1/4" PER R209
 7. TEMP GL AND HAZARDOUS LOC. PER CODE - ALL TUBES < 48" ABOVE DEN. IRC 209
 8. ALL HANDICAP TO BE EXCHANGE F SERIES OR EQ THUMB TURN DRAD BLOTS, EXCEPTED JAMBS
 9. PLUMBING FIXT. TO BE ROTULAR WATER SAVING TYPE OR EQ
 10. FIRE & DRAFT STOP W/ APP MTL'S PER CODE DRAFT STOP @ ALL CORNERS & TOPS
 11. 1/2" MIN. SUP. BD STAIRS EKS
 12. FRT. R.O.'S MIN (2) 2" COPPLERS > 5'0"
 13. ALL WATER DIST. PIPING TO BE SIZED IN ACCORD W/ IL PLUMB'G CODE 104 SECT 800.1210
 14. MAX 20 DRAINAGE FIXT UNITS @ (2) W/C. ALLOWED ON 3" PERZ. WASTE LINE, SECT 800.1240
 15. STACK TEST REQ'D ON UNDERGRD & RAUGH PLUMB'G'S
 16. 25 LB AIR TEST REQ'D ON GAS PIPING @ TIME OF RAUGH INSGP.
 17. TO LEAK AIR TEST OR WATER PRESSURE REQ'D ON WATER PIPING @ TIME OF RAUGH INSGP.
 18. ALL PUMP'G TO COMPLY W/ 24 IL PLUMB'G CODE

- WALL SECTION A 1/2" = 1'-0"**
- WALL SECTION B 1/2" = 1'-0"**
- RETINE BRICK @ 1 R404.1.2 (2) 10" WALL SOLID 45 10" WALL AT 9" MIN. (UNEXPOSED W/W/BEPL)
- ALL JOI'S TO BE INSTALLED PER III SPEC. SHEET SPEC TO VILLAGE
- * ALL WALLS, CLG, STAIRS EKS 5/8" FC X GYP BD IN LIEU OF SPRINKLER SYST