ZONING BOARD OF APPEALS
CITY OF NOVI
Community Development Department
(248) 347-0415

Case No. PZ14-0036

Location: 25843 STRATH HAVEN

Zoning District: RA, Residential Acreage District
The applicant is requesting variances from the CITY OF NOVI, CODE OF ORDINANCES, Section 2400 to allow construction of a new single family home with a reduced front setback of 40 ft. (45 ft. required), reduced rear setback of 40 ft. (50 ft. required), and reduced aggregate side yard setback of 41.34 ft. (50 ft. required) on an existing non-conforming lot. The property is located east of Beck Road and north of 10 Mile Road.

Ordinance Sections:
CITY OF NOVI, CODE OF ORDINANCES, Section 2400 requires that structures constructed within the RA zoning district have a minimum front yard setback of 45 ft., rear yard setback of 50 ft., and an aggregate side yard setback of 50 ft.

City of Novi Staff Comments:
The petitioner is proposing to construct a new single family detached home on an existing lot non-conforming lot with the RA zoning district. The lot area is significantly less than the current minimum of 1 acre at just over .27 acres. Variances were approved under ZBA PZ13-0020 for construction of the new single home on an existing non-conforming lot. Staff supports consideration of the request provided that substantial justice can be provided to the other property owners in the district

Standards for Granting a Dimensional Variance:
A variance may be granted if a practical difficulty exists due to all of the following:

- There are unique circumstances or physical conditions of the property such as narrowness, shallowness, shape, water, topography or similar physical conditions and the need for the variance is not due to the applicant's personal or economic difficulty because_____.
- The need is not self-created because_____.
- because_____.
- The requested variance is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district because_____.
- The requested variance will not cause an adverse impact on surrounding property, property values or the use and enjoyment of the property in the neighborhood or zoning district because_____.

COMMUNITY DEVELOPMENT DEPARTMENT

PZ130020 - ACTION SUMMARY

PROJECT SUMMARY:

SETBACK VARIANCE FOR NEW HOME

APPLICANT/OWNER INFORMATION:

APPLICANT
CANZANO BUILDING COMPANY
32233 SCHOOLCRAFT
Livonia MI 48150

OWNER
ZIELINSKI, THOMAS
25788 BECK
N OVI MI

PROPERTY INFOMATION:

LOCATION/ADDRESS: 25843 STRATH HAVEN
PARCEL NUMBER: 50-22-21-101-020 **ZONING DISTRICT:** R-A
SUBDIVISION: PIONEER MEADOWS PH 1 **LOT/UNIT #:** 59

ACTION SUMMARY:

ZBA MEETING DATE: 05/14/2013

CASE NO. PZ13-0020 25843 STRATH HAVEN
The applicant is requesting variances from the CITY OF NOVI, CODE OF ORDINANCES, Section 2400 to allow construction of a new single family home with a reduced front setback of 40 ft. (45 ft. required), reduced rear setback of 40 ft. (50 ft. required) and reduced aggregate side yard setback of 41 ft. (50 ft. required) on an existing non-conforming lot. The property is located east of Beck Road and north of 10 Mile Road.

CITY OF NOVI, CODE OF ORDINANCES, Section 2400 requires that structures constructed within the RA zoning district have a minimum front yard setback of 45 ft., a minimum rear setback of 50 ft. and an aggregate side yard setback of 50 ft.

In CASE No. PZ13-0020 Motion to approve the variance as requested. The request is based on circumstances and features that are exceptional unique to the property such as the narrowness, shallowness, shape, water, topography or similar physical conditions and the need for the variance is not due to the applicant's personal or economic difficulty because the applicant has stated there are imposing setbacks for this lot that make it difficult to build a single family home on this lot.
The need is not self-created because the lot itself is non-conforming and has been vacant for a long time. The requested variance is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district. The requested variance will not cause an adverse impact on surrounding property, property values or the use and enjoyment of the property in the neighborhood or zoning district. Development of this lot will enhance the neighborhood and improve the property values of the surrounding homes in the subdivision.

Motion carried: 4-0
Motion maker: Ibe

ZONING BOARD OF APPEALS APPLICATION

CITY OF NOVI
Community Development Department
(248) 347-0415

cityofnovi.org

For Official Use Only

ZBA Case No. PZ14-0036 ZBA meeting date 9/9/14

Check#_____ Include payment with cash or check written to "City of Novi"

TO BE COMPLETED BY APPLICANT - PLEASE PRINT

*****Please submit one original full set of all documentation relevant to the appeal plus 14 additional complete sets.**

Applicant's Name Strathhaven DEVELOPMENT LLC Date 7-29-14

Company (if applicable)

Address* 40480 GRAND RIVER, STE. H City NOVI

State MI Zip code 48375 *Where all case correspondence is to be mailed

Applicant's E-mail address barry kemperata@gmail.com

Phone number 909-429-1563 Fax number 248-218-0005

Request is for:

☐ Residential ☒ Vacant property ☐ Commercial ☐ Signage

Address of subject ZBA case 25843 STRATH HAVEN DR. Zip code 48374

Cross roads of property BECK RD, SOUTH OF 11 MILE RD.

Sidwell number 50-22- 21-10-020 May be obtained from Assessing Department (248) 347-0485

Is the property within a Homeowner's Association jurisdiction? ☑ Yes ☐ No

Zoning (Please circle one) (R-A) R-1 R-2 R-3 R-4 RM-1 RM-2
MH I-1 I-2 RC TC TC-1 _____ Other

Property owner name (if other than applicant) SPENCER ROED

Does your appeal result from a Notice of Violation or Citation issued? ☐ Yes ☒ No

Indicate Ordinance section(s) and variances requested:

1. Section 2400 Variance requested SETBACK FRONT YARD 40' (IN LIEU OF 45
2. Section 2400 Variance requested SETBACK REAR YARD 40' (IN LIEU OF ~~50~~
3. Section 2400 Variance requested SETBACK SIDE YARD AGGREGATE 40' (IN LIEU OF 50'
4. Section _____ Variance requested _____

Please submit an accurate, scaled drawing of the property showing:

a. All property lines and dimensions correlated with the legal description.
b. The location and dimensions of all existing and proposed structures and uses on property.
c. Any roads, easements, drains, or waterways which traverse or abut the property and the lot area and setback.
d. Dimensions necessary to show compliance with the regulations of this Ordinance.

State the practical difficulties which prevent conformance with the Zoning Ordinance requirements (attach separate sheet if necessary):

SEE ATTACHMENT

The subject lot is a non-conforming use under existing RA Zoning Classification which requires setbacks more typical of RA minimum size lots of one acre which does not fit with size of subject platted lot of .27 acre.

Variances have been granted to other property owners in Pioneer Meadows Subdivision including this lot in 2013.

Describe any unique circumstances regarding the property (i.e., shape, topography, etc.) which are not common to other properties in the area and which prevent strict compliance with the Zoning Ordinance:

SEE ATTACHMENT

This ZBA application for variances is solely requesting variances to establish reduced front, rear and side setbacks which is essential in order to build a home to fit on the lot to be of consistent size with existing homes in PIONEER MEADOWS.

There is a five (5) day hold period before work/action can be taken on variance approvals.

SIGN CASES ONLY:

Your signature on this application indicates that you agree to install a **Mock-Up Sign** ten (10) days before the scheduled ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Board, postponed to the next scheduled ZBA meeting, or cancelled. A mock-up sign is **NOT** to be the actual sign. Upon approval, the mock-up sign must be removed within five (5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five (5) days of the meeting.

City of Novi Ordinance, Section 3107. - Miscellaneous

No order of the Board permitting the erection of a building shall be valid for a period longer than one (1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty (180) days unless such use is established within such a period; provided, however, where such use permitted is dependent upon the erection or alteration of a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one (1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

PLEASE TAKE NOTICE:

The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made

- [x] Construct new home/building
- [ ] Addition to existing home/building
- [ ] Accessory building
- [ ] Use
- [ ] Signage
- [ ] Other

Applicants Signature — Date: 7-29-14

Property Owners Signature — Date: 7-29-14

DECISION ON APPEAL

_____ Granted _____ Denied

The Building Inspector is hereby directed to issue a permit to the Applicant upon the following items and conditions:

Chairperson, Zoning Board of Appeals — Date

STRATHHAVEN DEVELOPMENT LLC

40480 Grand River Ave., Ste. H, Novi, MI 48375

TO: Zoning Board of Appeals

FROM: Colette Scholten, Associate Broker, Keller Williams Royal Oak

RE: Application for Setback variances in Pioneer Meadows Subdivision

Dear Chairman and Members of the City of Novi Zoning Board of Appeals:

As owners of the subject Pioneer Meadows Lot #59 and Palazzi Homes, Spencer Road and Barry Kemper have requested that, as the real estate agent for this homesite, I explain the hardship created by the current City of Novi zoning for this lot with the RA-Residential Zoning Classification. The current zoning classification results in the lot becoming "non-conforming use" and also being subject to the one-acre lot setback requirements while the lot is approximately ¼ acre.

The requested variance is the practical variance to do justice to the applicant as well as the other property owners in the area because the variance when granted will conform to the Pioneer Meadows Subdivision deed restrictions setback requirements. The variances will not cause any adverse impact on surrounding property, values or the use and enjoyment of the property in the neighborhood or zoning district.

The RA Zoning minimum setback requirements are designed for minimum required one-acre and larger lots. The minimum setback requirements under RA are:

- Front setback required – 45'
- Rear setback required – 50'
- Aggregate side yard setback required – 50'

The existing Pioneer Meadows restrictions requires minimum setbacks designed for approximately ¼ acre lots which exist throughout the existing subdivision and are technically non-conforming use lots because the lot sizes do not meet the existing RA zoning for minimum of one acre lot sizes.

The Pioneer Meadows subdivision minimum setbacks are:

- Front setback minimum – 40'
- Rear setback minimum – 40'
- Aggregate side yard setback – 30' (15' on each side)

The Applicant is requesting ZBA approval of setback variances from the City of Novi RA Zone setback requirements being requested to comply with the Pioneer Meadows Subdivision setback requirements which supports that justice is being provided to the other property owners in the district. The Pioneer Meadows Architectural Control Committee has issued a letter of approval for the proposed setbacks for this Lot #59 as well as the proposed home.

The variance when granted because of the unique difficulty of the RA zone setback requirements designed for one-acre and larger lots where these approximately ¼ acre lots exist would be in conformity with ZBA-approved setback variances in the past for Pioneer Meadows, including this lot in 2013. It would also allow this lot to conform with the existing homes built in Pioneer Meadows by other property owners so it does not cause any adverse impact on surrounding homes, property values or use and enjoyment of the property in the neighborhood or zoning district.

We appreciate your consideration and hope for approval of our request for ZBA variance of the setback requirements.

Sincerely,

Colette Scholten

Associate Broker, Keller Williams Royal Oak

cc: Barry Kemper, Strath Haven Development LLC

PIONEER MEADOWS ASSOCIATION

Architectural Committee

July 27, 2014

Ms. Angela Pawlowski
City of Novi Zoning Board of Appeals
45175 W. Ten Mile Road
Novi, MI 48375

RE: Zoning Board of Appeals
Pioneer Meadows Lot 59 (Parcel # 50-22-21-101-020)

Dear Ms. Pawlowski,

The Architectural Control Committee, Pioneer Meadows Association has reviewed a request by Ms. Colette Scholten for a variance on Lot #59.

Please accept this letter as our approval for the following setbacks for Lot #59 based on the attached Plot Plan and design:

Location	Setback
Front (East):	40 feet
Rear (West):	40 feet
Left Side (South):	**20** feet
Right Side (North):	20 feet
Side, combined:	40 feet

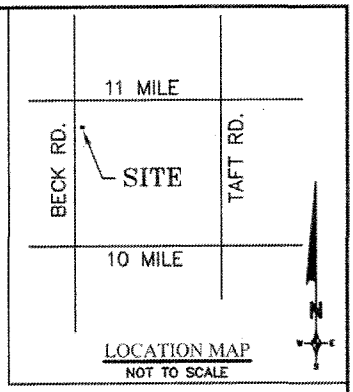
Sincerely,

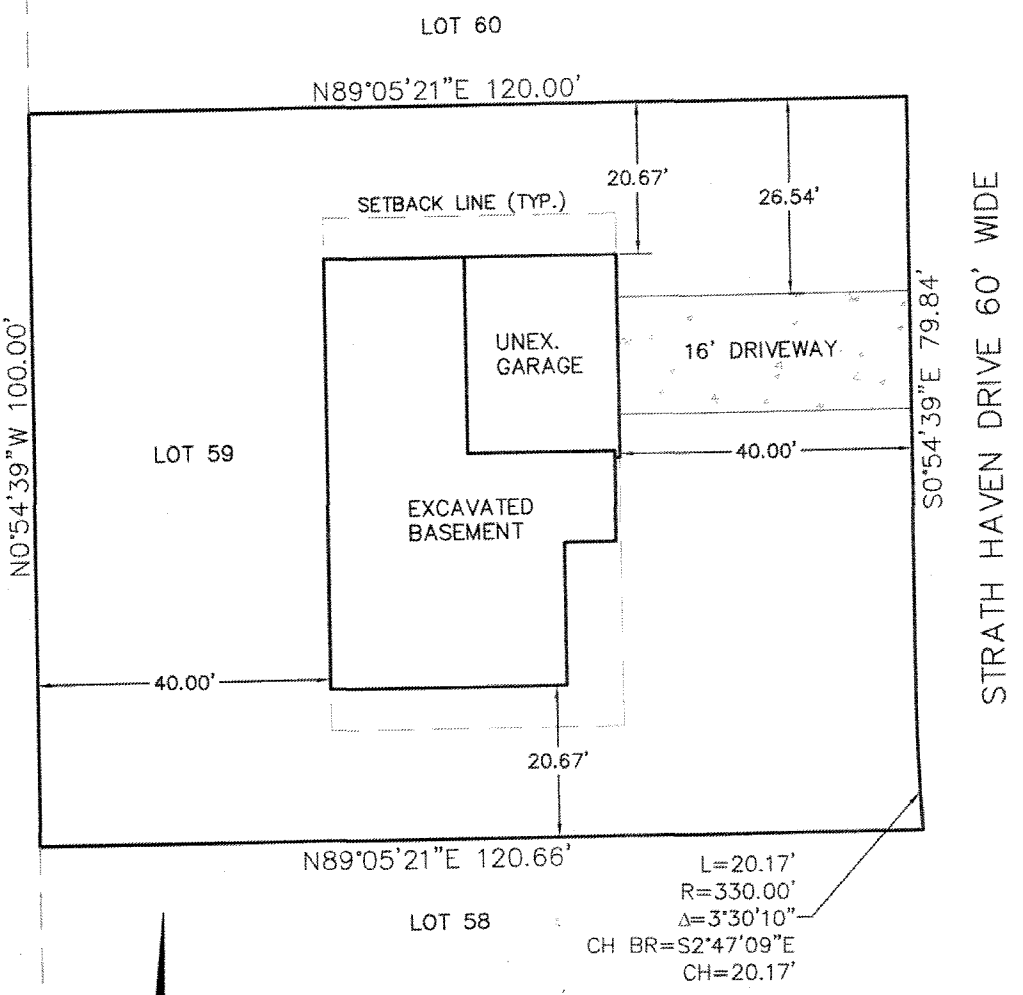
Gregory M. Nelson

.cc Diana Canup (President), Shannon Tierney (Secretary)

LEGAL DESCRIPTION

LOT 59 OF "PIONEER MEADOWS NO. 1" A SUBDIVISION OF PART OF THE N.W. 1/4 SECTION 21, T. 1 N., R. 8 E. NOVI, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 97, P. 22





SCALE: 1" = 20'

REQUIRED SETBACKS:

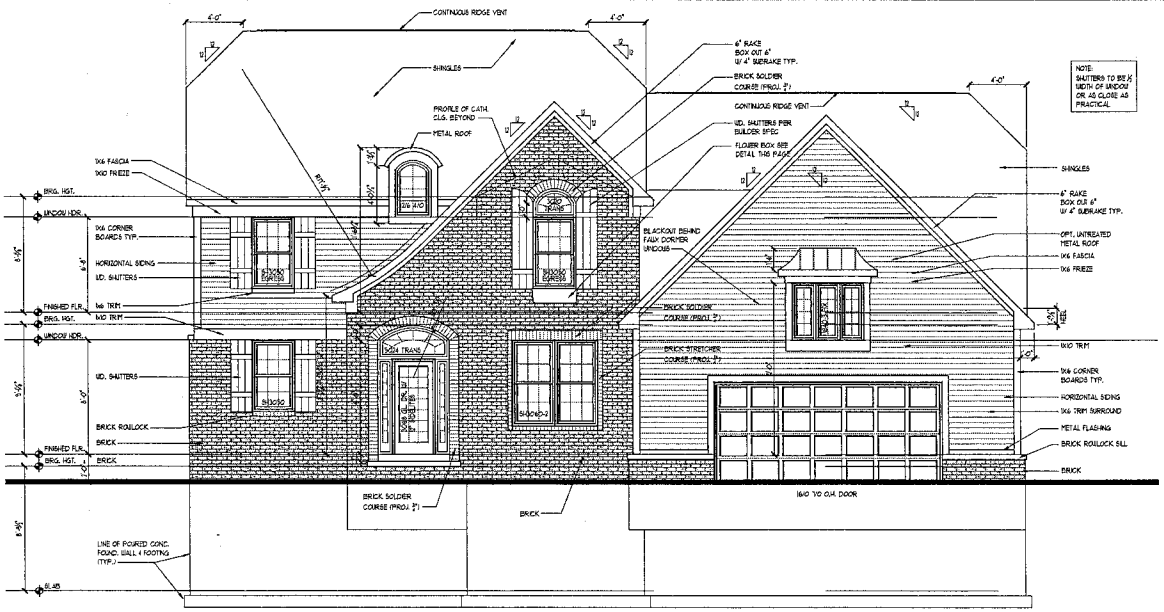
FRONT:	40 FEET
REAR:	40 FEET
SIDE:	15 FEET EACH

REVISIONS		
ITEM	DATE	BY

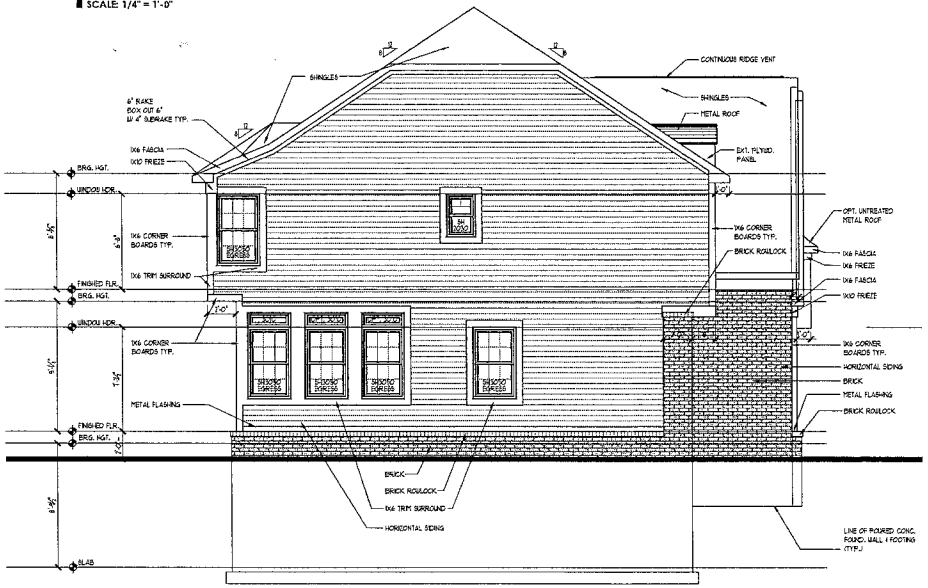
LOT 59
PIONEER MEADOWS NO. 1
NOVI MICHIGAN

ZEIMET WOZNIAK & ASSOCIATES
Civil Engineers & Land Surveyors
55800 GRAND RIVER AVE, SUITE 100
NEW HUDSON, MICHIGAN 48165
P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

DATE 7-25-14	SCALE HOR: 1" = 20' FIELD BOOK NO.
DESIGNED BY RH	JOB NO. 14137
DRAWN BY PTG	SHEET NO. 1/1



FRONT ELEVATION
SCALE: 1/4" = 1'-0"

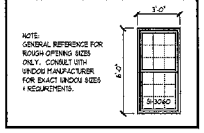


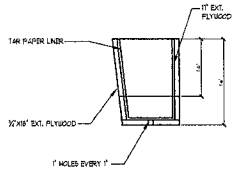
LEFT ELEVATION
SCALE: 1/4" = 1'-0"

ELEVATION NOTES

1. ALL ROOF SADDLES TO BE PLYWOOD SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
2. PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL VALLEYS
3. FIREPLACE FLUE TO BE DETERMINED PER MANUFACTURER'S SPECIFICATION.
4. METAL FLASHING AS REQUIRED BY CODE.
5. ROOF & SOFFIT VENTS AS REQUIRED BY CCCE.
6. ROUGH CARPENTER TO VERIFY MASONARY DEPTH PRIOR TO BUILDING BRICK RACK
7. PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.

TYPICAL WINDOW DESIGNATION





FLOWER BOX DETAIL
SCALE: 1/2" = 1'-0"

FOR PERMIT ONLY

NOTE: SHUTTERS TO BE 1/2 WIDTH OF WINDOW OR AS CLOSE AS PRACTICAL

TK DESIGN & ASSOCIATES
26030 PONTIAC TRAIL
SOUTH LYON, MI 48178
PHONE: (248)-446-1960
FAX: (248)-446-1961

WWW.TKHOMEDESIGN.COM

CLIENT/PROJECT:

THE CARMIN

STRATH HAVEN DEVELOPMENT

JOB No.

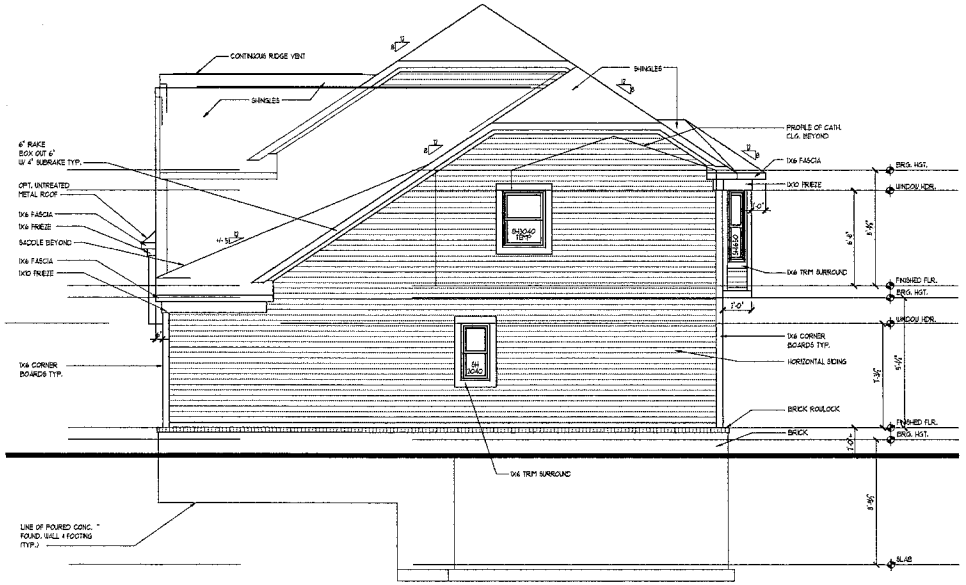
DRAWN: MSM
CHECKED:

REVIEW

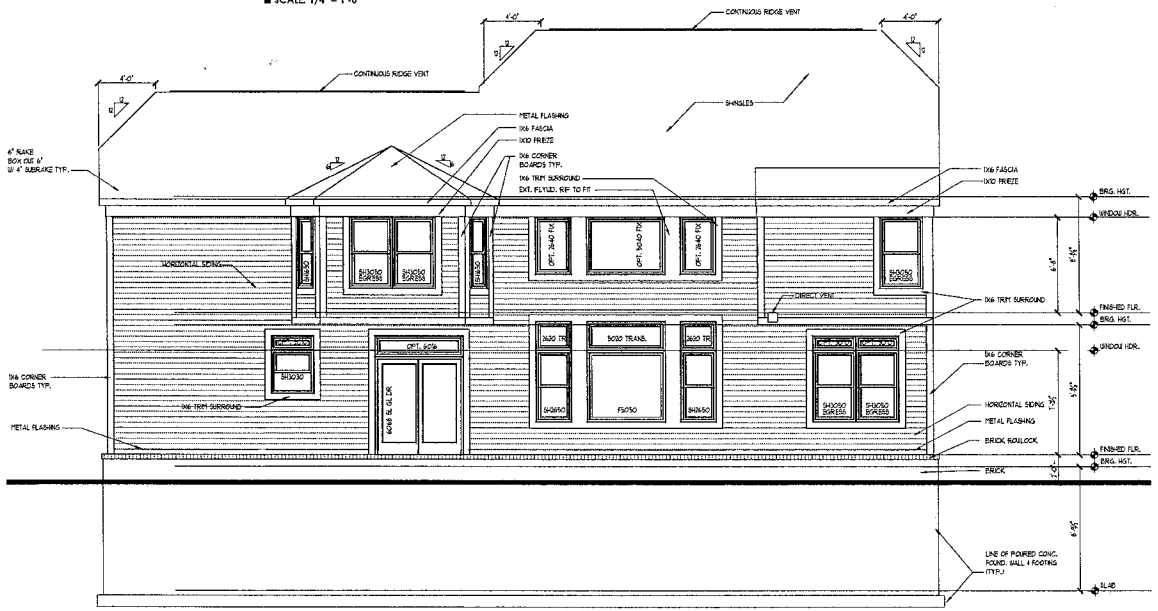
PERMIT 7-17-14
FINAL

SCALE:
AS NOTED

SHEET #
A4



RIGHT ELEVATION
SCALE 1/4" = 1'-0"



REAR ELEVATION
SCALE 1/4" = 1'-0"

TK DESIGN & ASSOCIATES
26030 PONTIAC TRAIL
SOUTH LYON, MI 48178
PHONE: (248)-446-1960
FAX: (248)-446-1961

WWW.TKHOMEDESIGN.COM

CLIENT/PROJECT:
THE CARMIN
STRATH HAVEN DEVELOPMENT

JOB No.
DRAWN: MSM
CHECKED:
REVIEW
PERMIT 7-17-14
FINAL

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

SHEET #
A5

FOR PERMIT ONLY

Page 4 of 5

PIONEER MEADOWS ASSOCIATION

Appendix A

Application for New House or Addition Construction

APPLICANT INFORMATION

Name (Print)	STRATHHAVEN DEVELOPMENT LLC
Street Address	P.O. BOX 1222
City, State, Zip	WALLED LAKE, MI 48390
Phone Number	248-412-3743
Email address (optional)	colettes18@yahoo.com

BUILDER INFORMATION

Company Name	APOLLO MANAGEMENT & CONSTRUCTION LLC
Name	BARRY KEMPER
City, State, Zip	WALLED LAKE, MI 48390
Builders License #	2102206312
Phone Number	509-429-1563

PIONEER MEADOWS PROPERTY INFORMATION

Lot Number and dimensions	#59 - 79.84' x 120.66'

PROPOSED PLAN CHECKLIST

			COMMITEE COMPLETES	
	SECTION MUST BE COMPLETED BY APPLICANT		REQUIREMENT	APPROVED?
1.	Are FINAL plans (Plot Plan, Floor Plan, etc) included?	(Yes) or No	Yes	
2.	Are two sets of plans included?	(Yes) or No	Yes	
3.	Calculated total square footage of first and second floor(s):	2937 Sq. Ft.	1,500 to 3,000	
4.	Footprint of house:	58' 8" Ft. x 40 Ft.	40 ft x 60ft max	
5.	Front setback:	40 Feet	40 Feet min	
6.	Rear setback:	40 Feet	40 Feet min	
7.	Side 1 setback:	20.67 Feet	15 Feet min	
8.	Side 2 setback:	20.67 Feet	15 Feet min	
9.	Driveway setback:	26.54 Feet	5 Feet min	
10.	Applicant agrees to not operate equipment on roadway:	(Yes) or No	Yes	
11.	Applicant agrees to 8am to 6pm construction hours and NO on-site work on Sundays or holidays? (See 14-9)	(Yes) or No	Yes	

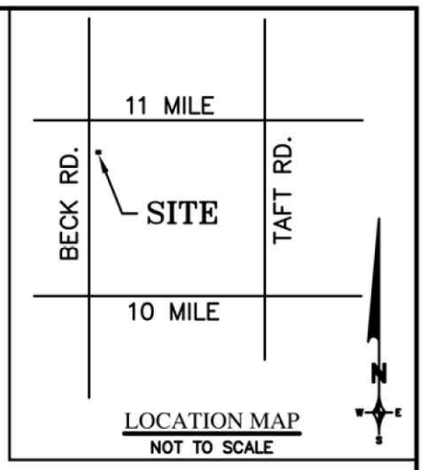
APPLICANT SIGNATURE AND DATE

Signature: Colette Schaefer

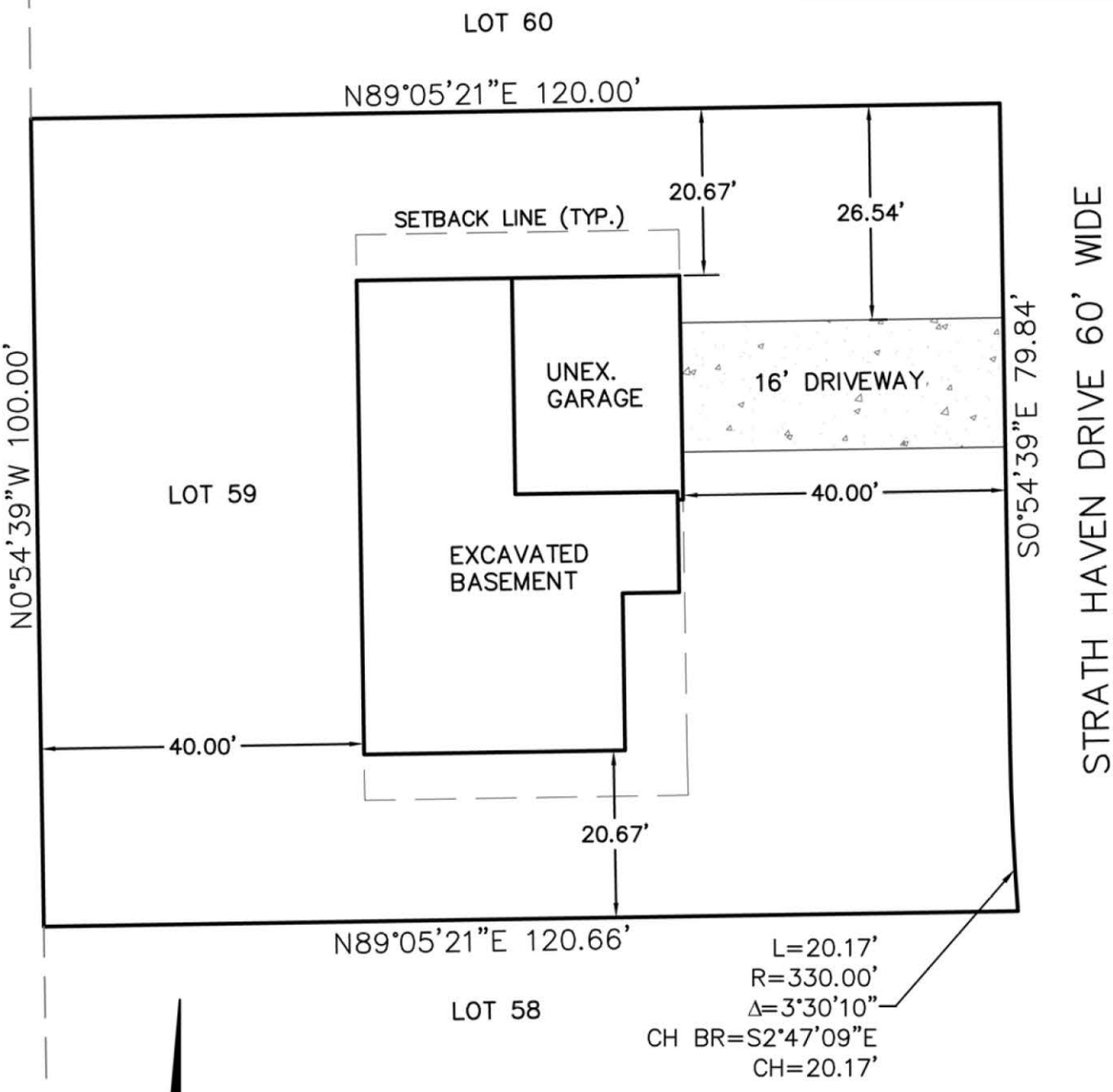
Date: 7-25-14

LEGAL DESCRIPTION

LOT 59 OF "PIONEER MEADOWS NO. 1" A SUBDIVISION OF PART OF THE N.W. 1/4 SECTION 21, T. 1 N., R. 8 E. NOVI, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 97, P. 22



LOCATION MAP
NOT TO SCALE



SCALE: 1" = 20'

REQUIRED SETBACKS:

FRONT:	40 FEET
REAR:	40 FEET
SIDE:	15 FEET EACH

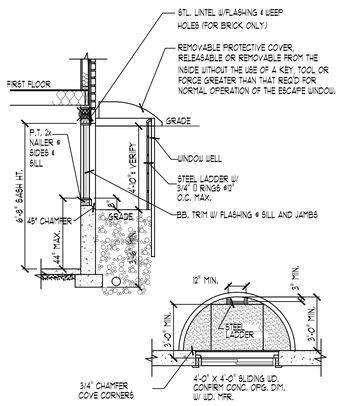
REVISIONS		
ITEM	DATE	BY

LOT 59
PIONEER MEADOWS NO. 1

NOVI MICHIGAN

ZEIMET WOZNIAK & ASSOCIATES
Civil Engineers & Land Surveyors
55800 GRAND RIVER AVE, SUITE 100
NEW HUDSON, MICHIGAN 48165
P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

DATE 7-25-14	SCALE HOR: 1" = 20'
	FIELD BOOK NO.
DESIGNED BY RH	JOB NO. 14137
DRAWN BY PTG	SHEET NO. 1/1



WINDOW WELL DETAIL

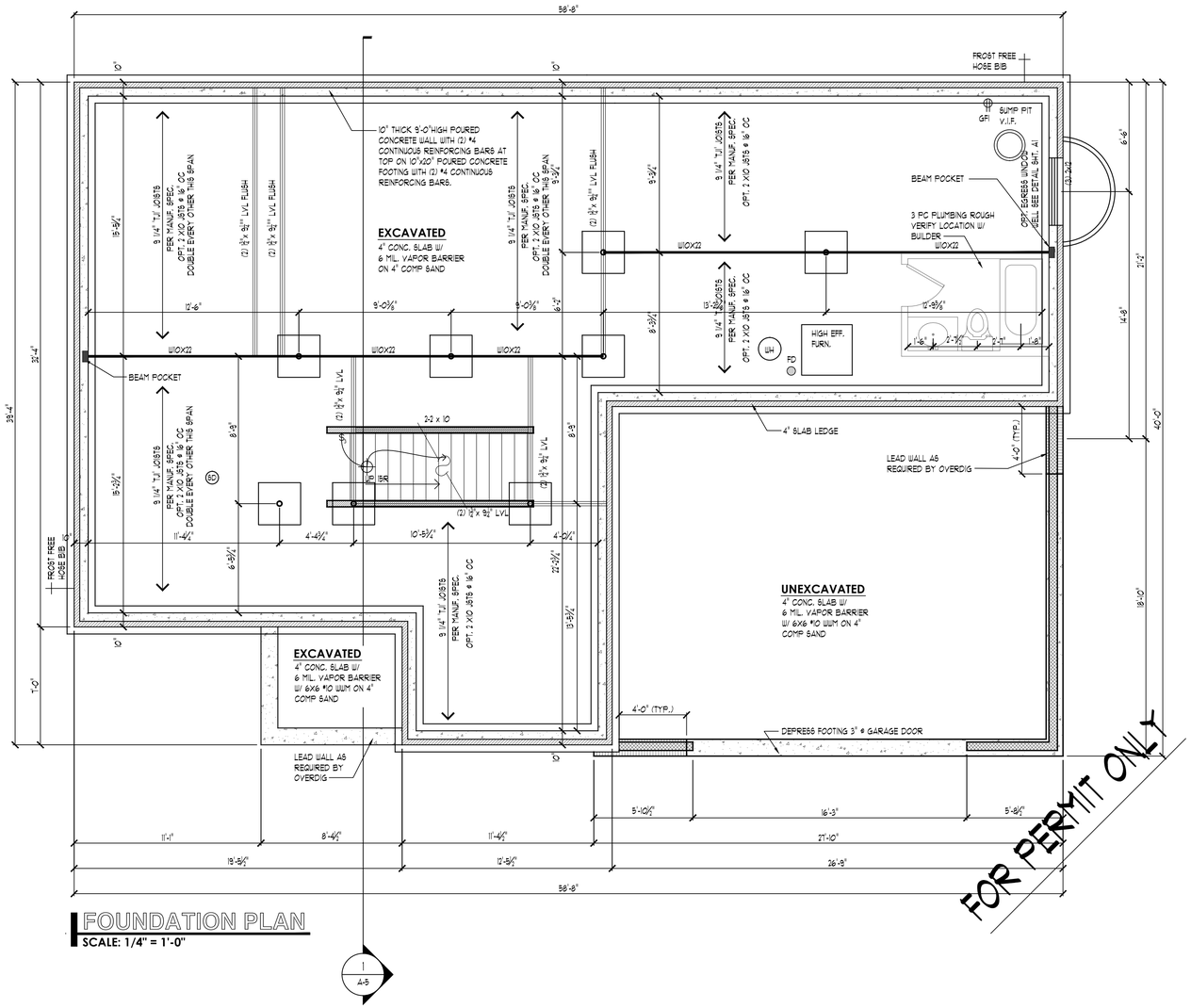
SCALE: 3/8" = 1'-0"

FOUNDATION NOTES

FOUNDATION WALL:
10" THICK 9'-0"HIGH POURED CONCRETE WALL WITH (2) #4 CONTINUOUS REINFORCING BARS AT TOP ON 10'x20" POURED CONCRETE FOOTING WITH (2) #4 CONTINUOUS REINFORCING BARS.

TRENCH FOOTING:
12" THICK x 42" DEEP BELOW GRADE POURED CONCRETE TRENCH FOOTING W/ (2) #5 BARS TOP & BOTTOM (TO BEAR ON UNDISTURBED SOIL) WITH ONE COURSE OF GARAGE GRADE 6"x8" BLOCK (AS REQUIRED). DEPRESS TRENCH FOOTING 3" AT GARAGE DOOR LOCATIONS.

1. ALL COLUMNS SHOWN SHALL BE 3 1/2" DIAMETER ON 36"x36"x16" POURED CONCRETE PAD. TOP OF CONCRETE PAD TO BE 4" BELOW FINISH BASEMENT SLAB. (TYPICAL UNLESS NOTED OTHERWISE)
2. ALL STRUCTURAL STEEL BEAMS SHALL HAVE A 2x4 TOP PLATE SECURED TO BEAM WITH TWO ROWS OF 1/2" BOLTS @ 64" O.C. (STAGGER ROWS) OR SHOT-IN ANCHORS @ 48" O.C. (STAGGER ROWS)
3. WHERE STEEL BEAMS REST ON FOUNDATION WALLS, SIZE BEAM POCKET APPROPRIATELY AND SHIM AS REQUIRED.
4. AT BASEMENT POUR 4" CONCRETE SLAB WITH 6 MIL VAPOR BARRIER ON 4" COMPACTED GRANULAR FILL.
5. AT PORCH POUR 4" CONCRETE SLAB WITH 6x6 #10 W.W.M. ON COMPACTED GRANULAR FILL.
6. AT GARAGE POUR 4" CONCRETE SLAB W/ 6 MIL. VAPOR BARRIER ON 4" COMPACTED GRANULAR FILL. SLOPE SLAB 2" TOWARDS OVERHEAD DOORS.
7. WHERE ADJACENT TO FOUNDATION WALLS, REINFORCE GARAGE SLAB WITH #4 REINFORCING BARS @ 24" O.C. (10" LONG BARS)
8. AS REQUIRED DROP FOYER FLOOR SHEATHING 3/4" FOR MUDSET TILE INSTALLATION
9. VERIFY ALL UTILITY LOCATIONS IN FIELD.
10. PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
11. PROVIDE LADDERING UNDER ANY WALL RUNNING PARALLEL W/ JOIST THAT DOES NOT LAND DIRECTLY ON A JOIST
12. PROVIDE SQUASH BLOCKS UNDER ALL BEARING CONDITIONS.



FOUNDATION PLAN

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

1 / A-5

FOR PERMIT ONLY

TK DESIGN & ASSOCIATES
26030 PONTIAC TRAIL
SOUTH LYON, MI 48178
PHONE: (248)-446-1960
FAX: (248)-446-1961

WWW.TKHOME DESIGN.COM

CLIENT/PROJECT:

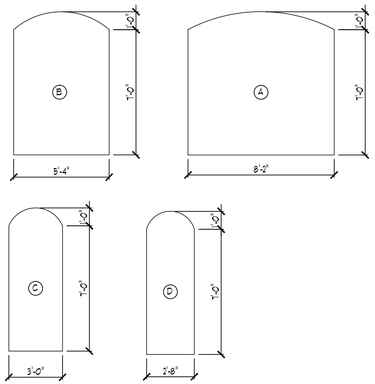
THE CARMIN

STRATH HAVEN DEVELOPMENT

JOB No.	14-186
DRAWN:	MSM
CHECKED:	.
REVIEW	.
PERMIT	7-17-14
FINAL	.

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

SHEET # A1



PLAN NOTES

INTERIOR WALLS:
1/2" GYPSUM WALL BOARD ON EACH SIDE OF 2x4 WOOD STUDS @ 16" O.C. 4 1/2" THICK TYPICAL (UNLESS NOTED OTHERWISE).

EXTERIOR WALLS:
SIDING AND/OR BRICK WITH AIRSPACE, MOISTURE BARRIER PAPER (HOUSE WRAP) ON 7/16" O.S.B. SHEATHING ON 2x4 OR 2x6 WOOD STUDS @ 16" O.C. OR AS NOTED, 3 1/2" BATT INSULATION R-13, 1/2" GYPSUM WALL BOARD (GLUE & SCREW). PROVIDE STEEL LINTELS AT MASONRY OPENINGS AS REQUIRED. WALL TO BE 4 1/2" THICK WITH SIDING AND 9" THICK WITH BRICK (TYPICAL UNLESS NOTED OTHERWISE).

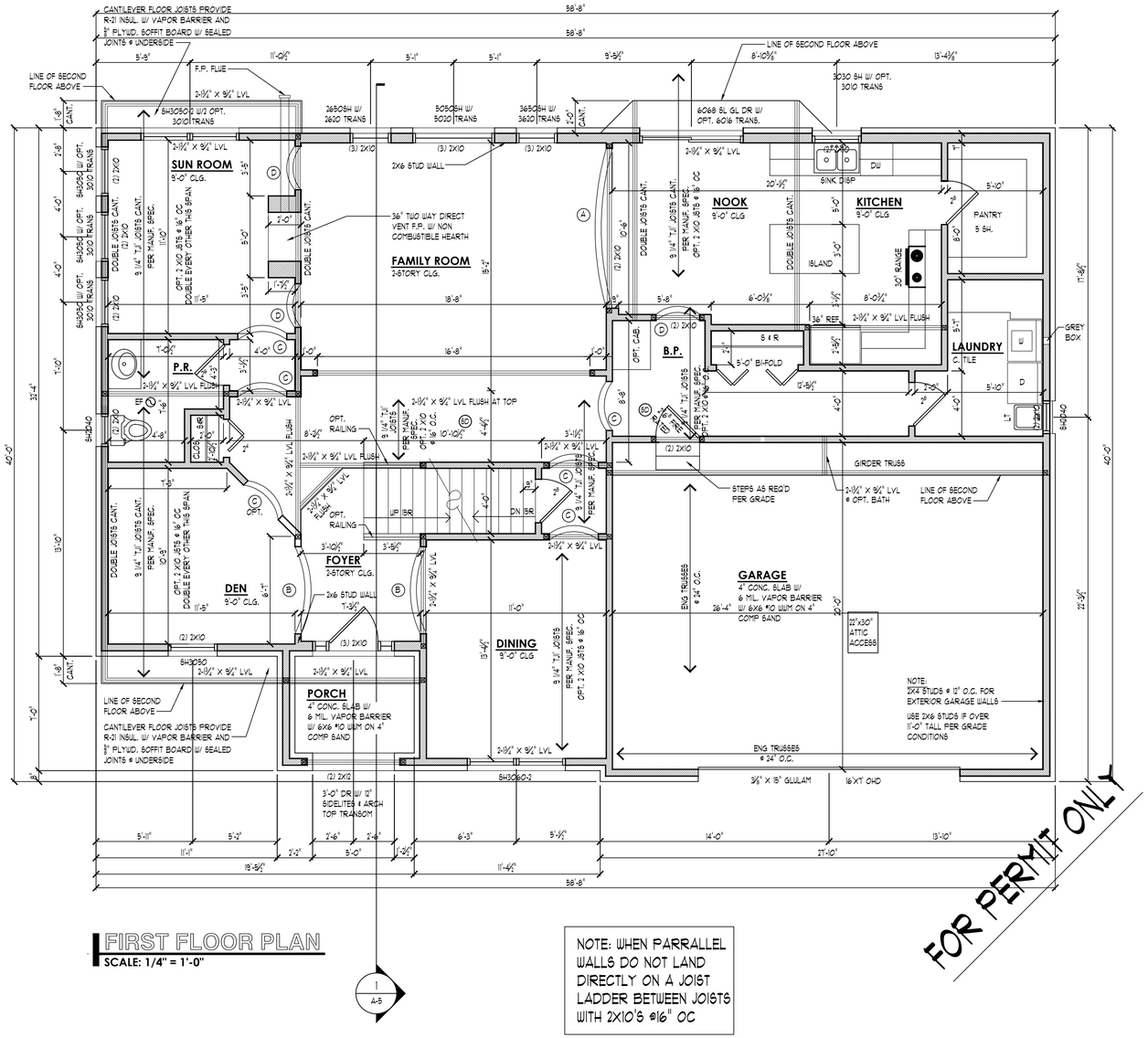
AREA SUMMARY:

OVERALL FLOOR AREA	
FIRST FLOOR	1671 S.F.
SECOND FLOOR	1310 S.F.
TOTAL AREA	2931 S.F.

1. TRUSSES TO BEAR ON EXTERIOR WALLS ONLY UNLESS NOTED OTHERWISE.
2. AT GARAGE AND RESIDENCE COMMON WALLS AND CEILING APPLY ONE LAYER OF TYPE "X" GYPSUM WALL BOARD (GARAGE SIDE).
3. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH 20-MINUTE FIRE RATED DOORS (OR EQUIVALENT PER 2003 MRC SECTION R309.1).
4. VENT ALL EXHAUST FANS TO EXTERIOR.
5. WHEN POSSIBLE DIRECT ALL FLUES AND VENTS THAT PENETRATE ROOF BEHIND MAIN RIDGE.
6. INSTALL WATER SUPPLY AND DRAIN BOX (GREY BOX) AT WASHING MACHINE LOCATION.
7. USE GREENBOARD AT ALL AREAS SUSCEPTIBLE TO MOISTURE.
8. ALL INTERIOR DOORS TO BE 6'-8" TALL UNLESS NOTED OTHERWISE.
9. PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
10. WINDOW NOMENCLATURE: 3050 = 3'-0" x 5'-0"
11. IF TILE IS SELECTED FOR FLOORING AREAS VERIFY TJI SPECIFICATIONS W/ MANUFACTURER

ARCH DETAILS

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



FIRST FLOOR PLAN

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

NOTE: WHEN PARRALLEL WALLS DO NOT LAND DIRECTLY ON A JOIST LADDER BETWEEN JOISTS WITH 2X10'S @16" OC

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THE CARMIN

STRATH HAVEN DEVELOPMENT

JOB No.	
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FINAL	.

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

SHEET # A2

PLAN NOTES

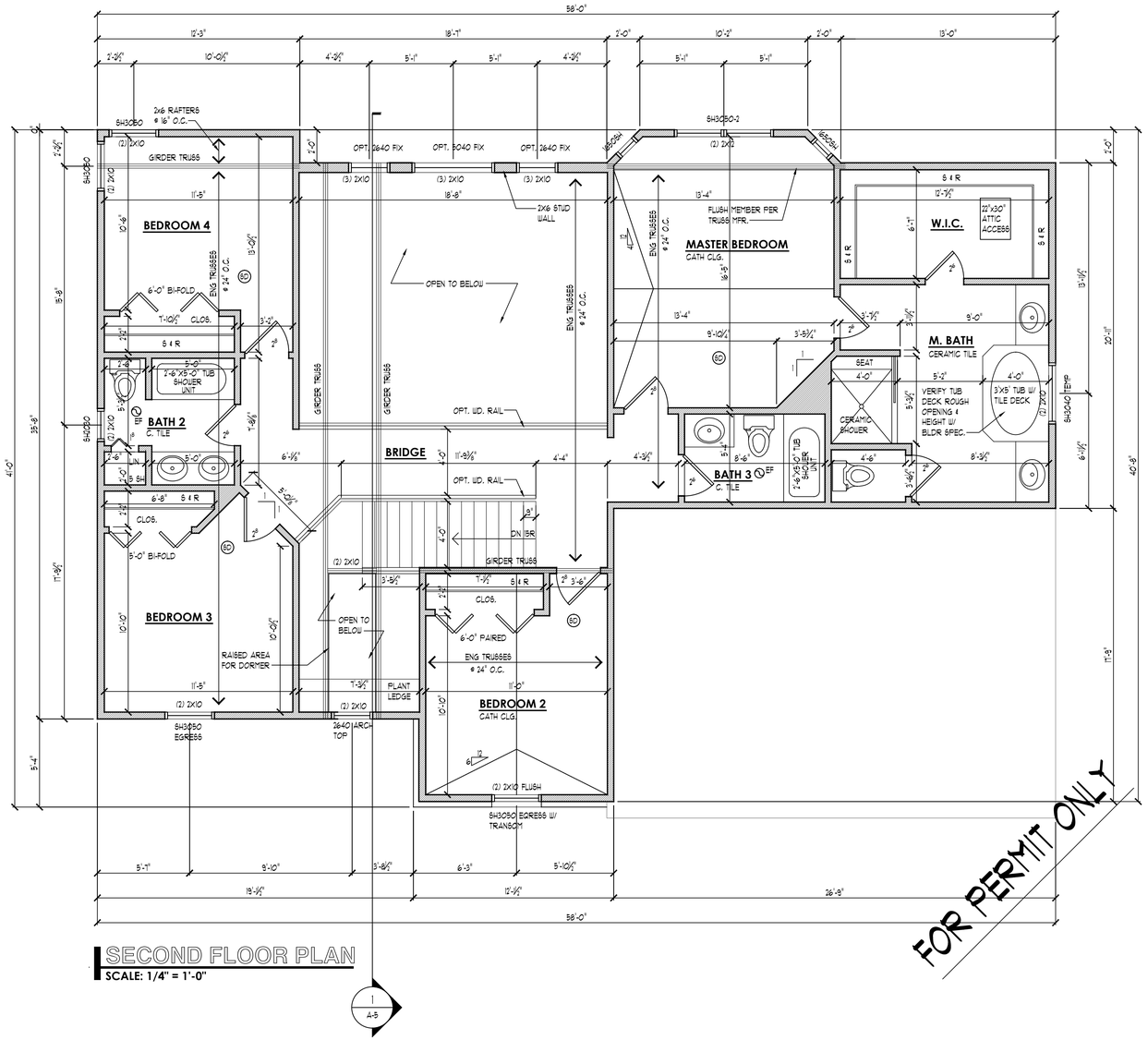
INTERIOR WALLS:
1/2" GYPSUM WALL BOARD ON EACH SIDE OF 2x4 WOOD STUDS @ 16" O.C. 4 1/2" THICK TYPICAL (UNLESS NOTED OTHERWISE).

EXTERIOR WALLS:
SIDING AND/OR BRICK WITH AIRSPACE, MOISTURE BARRIER PAPER (HOUSE WRAP) ON 7/16" O.S.B. SHEATHING ON 2x4 OR 2x6 WOOD STUDS @ 16" O.C. OR AS NOTED, 3 1/2" BATT INSULATION R-13, 1/2" GYPSUM WALL BOARD (GLUE & SCREW). PROVIDE STEEL LINTELS AT MASONRY OPENINGS AS REQUIRED. WALL TO BE 4 1/2" THICK WITH SIDING AND 9" THICK WITH BRICK (TYPICAL UNLESS NOTED OTHERWISE).

AREA SUMMARY:

OVERALL FLOOR AREA	
FIRST FLOOR	1671 S.F.
SECOND FLOOR	1310 S.F.
TOTAL AREA	2931 S.F.

1. TRUSSES TO BEAR ON EXTERIOR WALLS ONLY UNLESS NOTED OTHERWISE.
2. AT GARAGE AND RESIDENCE COMMON WALLS AND CEILING APPLY ONE LAYER OF TYPE "X" GYPSUM WALL BOARD (GARAGE SIDE).
3. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH 20-MINUTE FIRE RATED DOORS (OR EQUIVALENT PER 2003 MRC SECTION R309.1).
4. VENT ALL EXHAUST FANS TO EXTERIOR.
5. WHEN POSSIBLE DIRECT ALL FLUES AND VENTS THAT PENETRATE ROOF BEHIND MAIN RIDGE.
6. INSTALL WATER SUPPLY AND DRAIN BOX (GREY BOX) AT WASHING MACHINE LOCATION.
7. USE GREENBOARD AT ALL AREAS SUSCEPTIBLE TO MOISTURE.
8. ALL INTERIOR DOORS TO BE 6'-8" TALL UNLESS NOTED OTHERWISE.
9. PROVIDE GUARDRAIL AT STAIRS DURING CONSTRUCTION.
10. WINDOW NOMENCLATURE: 3080 = 3'-0" x 5'-0"
11. IF TILE IS SELECTED FOR FLOORING AREAS VERIFY TJI SPECIFICATIONS W/ MANUFACTURER



SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

1 / A-5

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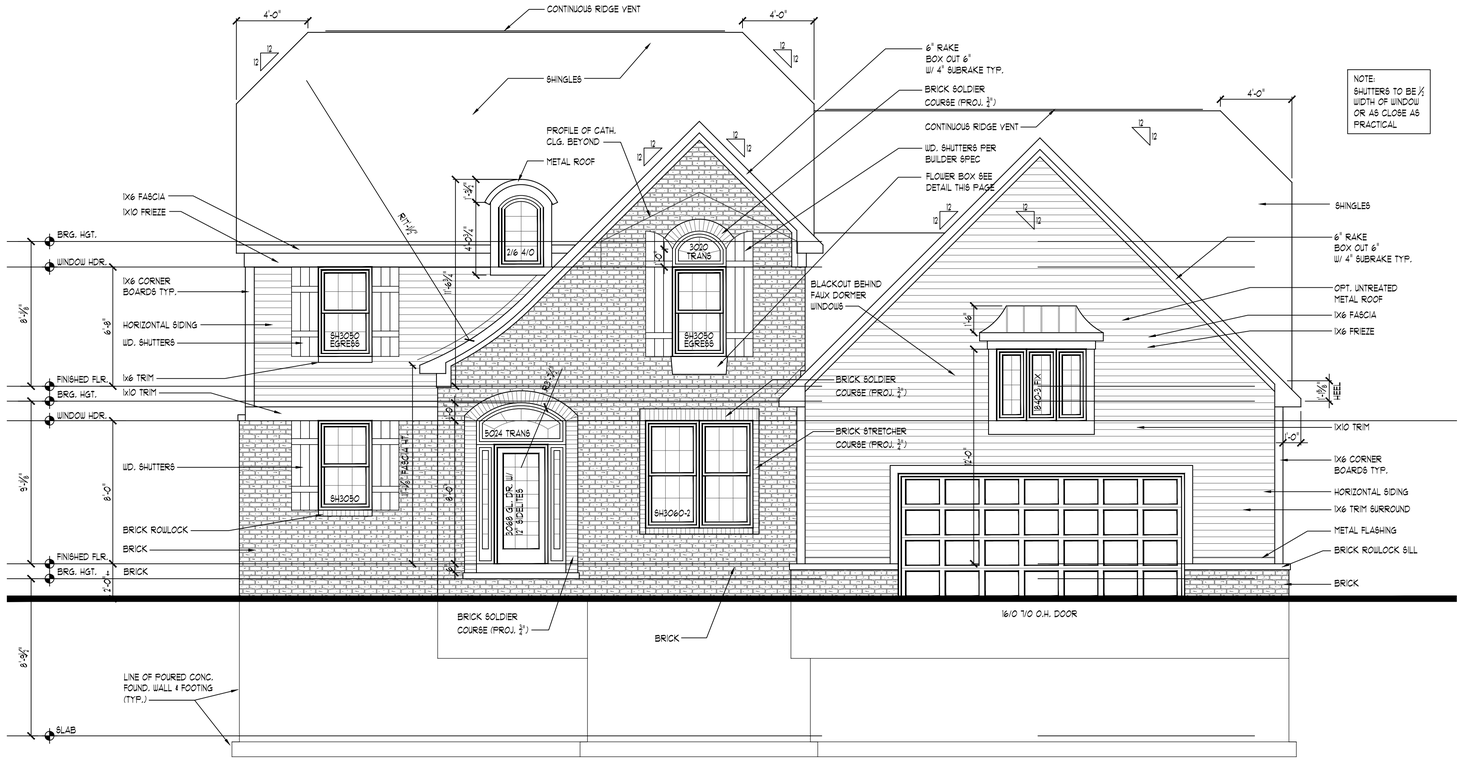
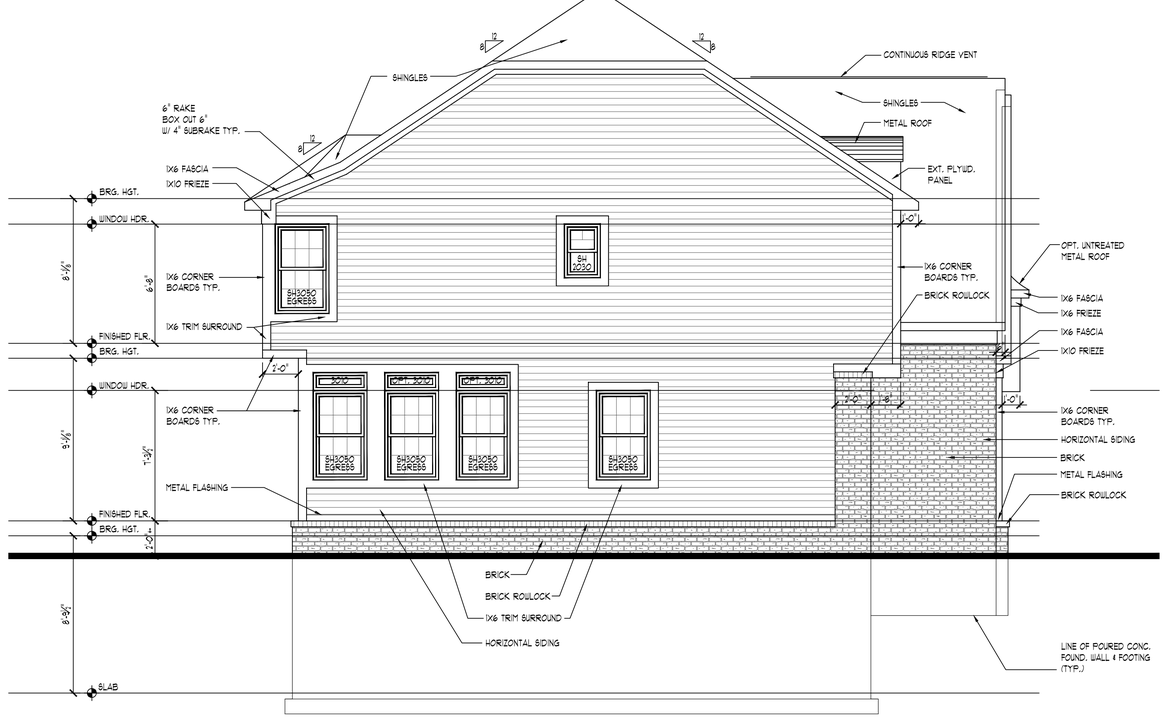
SCALE: 1/4" = 1'-0"

SHEET # A3



FRONT ELEVATION

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



LEFT ELEVATION

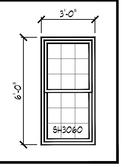
SCALE: 1/4" = 1'-0"

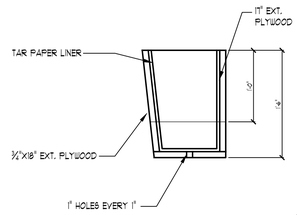
ELEVATION NOTES

1. ALL ROOF SADDLES TO BE PLYWOOD SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
2. PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL VALLEYS
3. FIREPLACE FLUE TO BE DETERMINED PER MANUFACTURER'S SPECIFICATION
4. METAL FLASHING AS REQUIRED BY CODE.
5. ROOF & SOFFIT VENTS AS REQUIRED BY CODE.
6. ROUGH CARPENTER TO VERIFY MASONARY DEPTH PRIOR TO BUILDING BRICK RACK
7. PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.

TYPICAL WINDOW DESIGNATION

NOTE:
GENERAL REFERENCE FOR ROUGH OPENING SIZES ONLY. CONSULT WITH WINDOW MANUFACTURER FOR EXACT WINDOW SIZES & REQUIREMENTS.





FLOWER BOX DETAIL

SCALE: 1/2" = 1'-0"

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-CALL MISS DIG AT 800-482-7171 3 DAYS PRIOR TO ANY EXCAVATION -CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE PERMIT HOLDER

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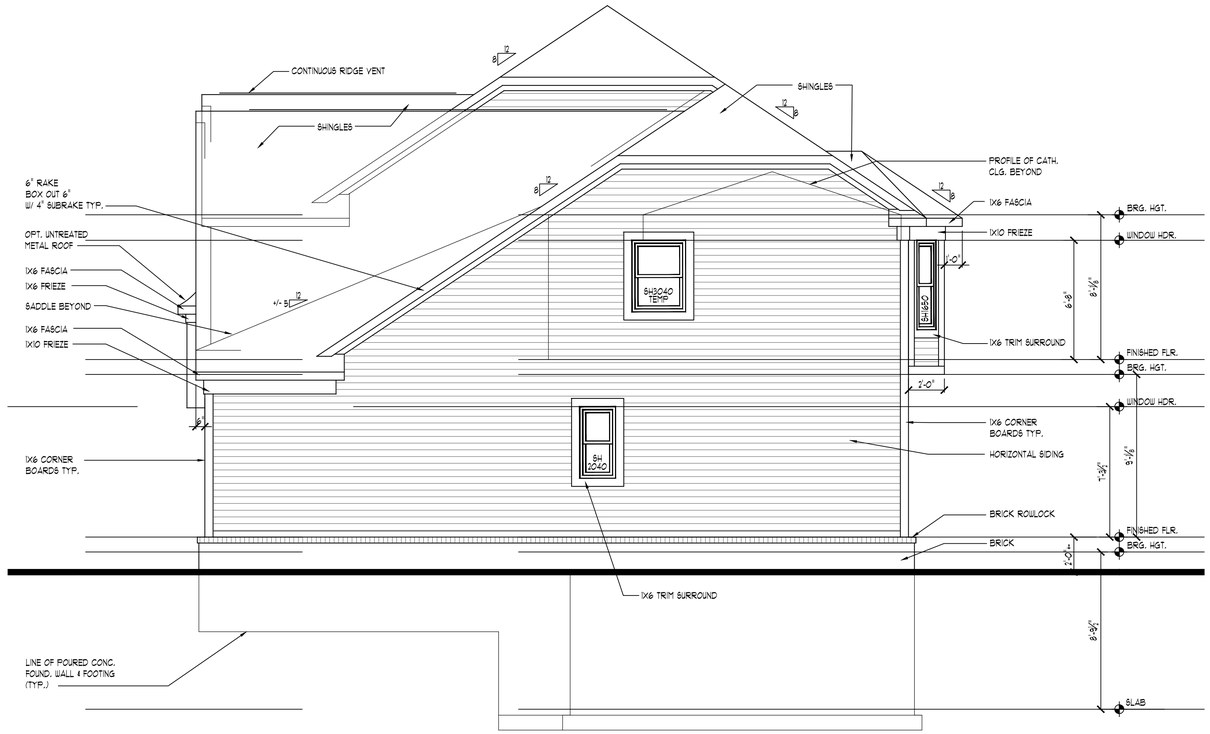
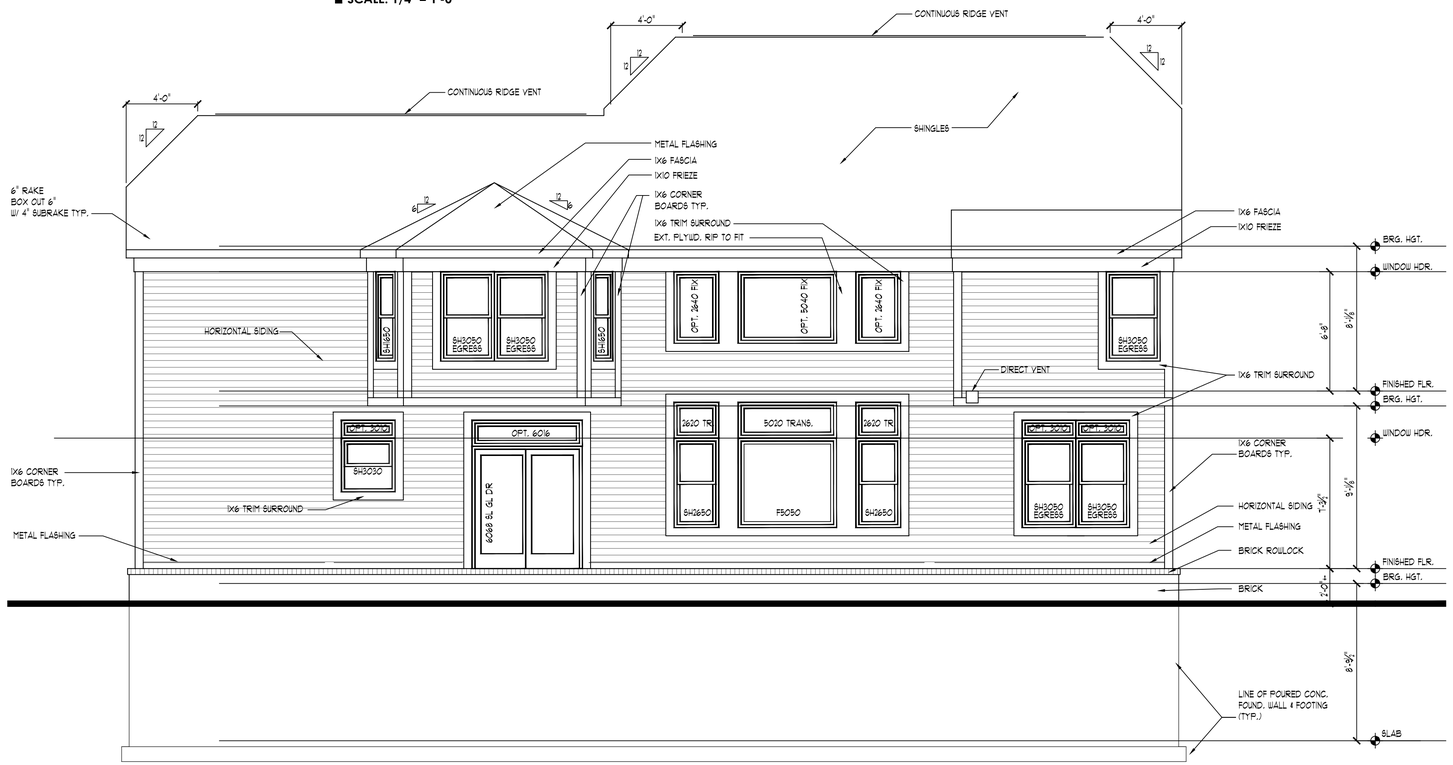
SCALE:
AS NOTED

SHEET #
A4



RIGHT ELEVATION

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



REAR ELEVATION

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

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

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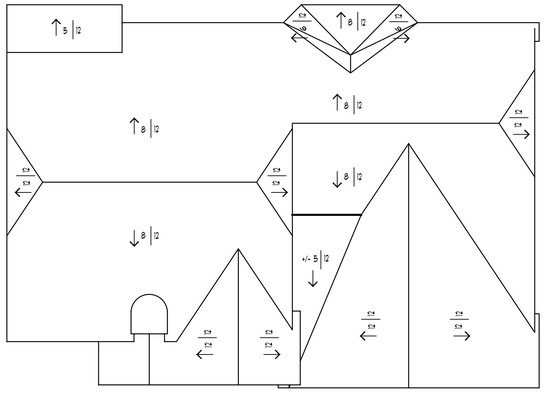
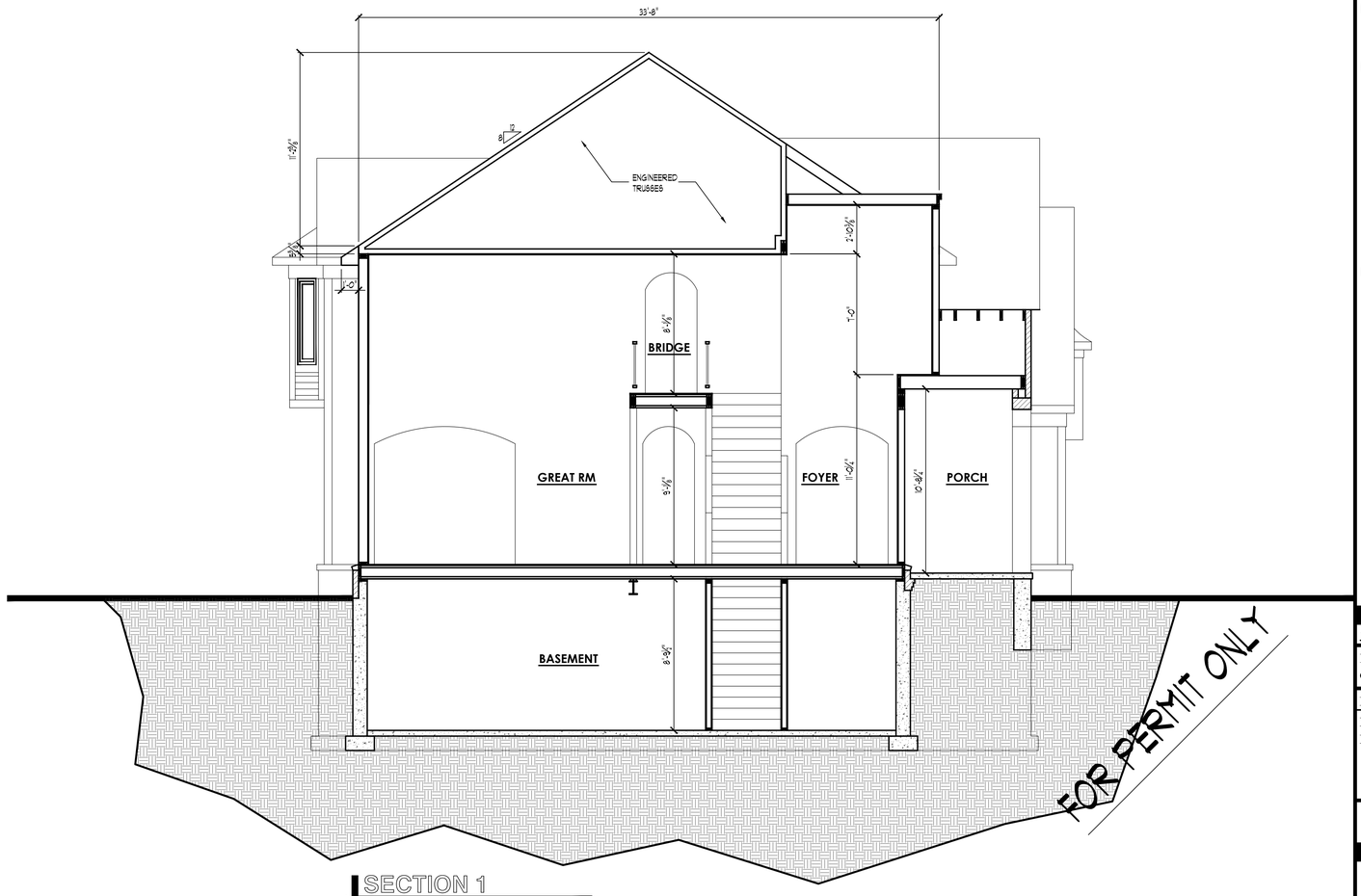


ROOF PLAN
SCALE: 1/8" = 1'-0"



SECTION 1
SCALE: 1/4" = 1'-0"

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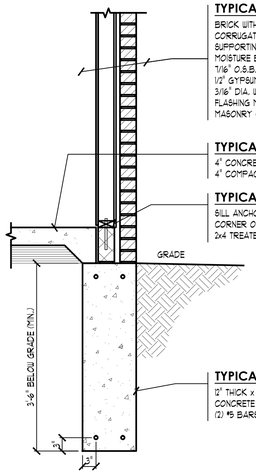
SCALE:
AS NOTED

SHEET #
A6



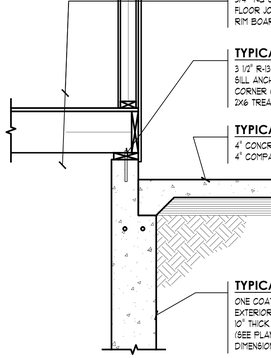
TYPICAL EXTERIOR WALL CONSTRUCTION
BRICK WITH AIRSPACE W/ 22 U.S. GAGE x 7/8" CORRUGATED METAL BRICK TIES @ 24" O.C. HORIZONTALLY SUPPORTING NO MORE THAN 3 1/4 SQ. FT., MOISTURE BARRIER PAPER (HOUSE WRAP) ON 7/16" O.S.B. SHEATHING ON 2X4 WOOD STUDS @ 16"O.C., 1/2" GYPSUM WALL BOARD (GLUE & SCREW), 3/16" DIA. WEEP HOLES @ 32" O.C. (MIN.) FLASHING MEMBRANE BENEATH THE FIRST COURSE OF MASONRY CONTINUED ABOVE FINISHED GROUND LEVEL

TYPICAL GARAGE FLOOR CONSTRUCTION
4" CONCRETE SLAB W/ 6 MIL. VAPOR BARRIER ON 4" COMPACTED GRANULAR FILL

TYPICAL SILL CONSTRUCTION
SILL ANCHORS @ 32" O.C. WITHIN 12" OF ANY CORNER OR OPENING. 2x4 TREATED SILL ON 4"X8"X16" C.M.U.

TYPICAL TRENCH FOOTING CONSTRUCTION
12" THICK x 42" DEEP BELOW GRADE (MIN.) POURED CONCRETE TRENCH FOOTING (2) #5 BARS TOP & BOTTOM

TYPICAL GARAGE FOOTING AND WALL DETAIL (BRICK)
SCALE: 3/4" = 1'-0"



TYPICAL COMMON WALL CONSTRUCTION
5/8" TYPE "X" G.W.B. SCREW ONLY (NO GLUE) ON 7/16" O.S.B. WALL SHEATHING ON 2X4 WOOD STUDS @ 16"O.C. W/ 3 1/2" INSUL. R-13 1/2" G.W.B. (GLUED AND NAILED)

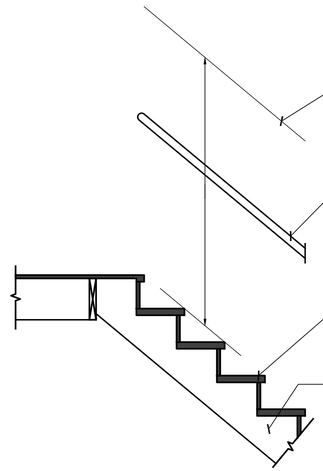
TYPICAL FLOOR CONSTRUCTION
FINISH FLOOR ON 3/4" T&G SUBFLOOR GLUED & NAILED TO FLOOR JOISTS (SEE PLAN FOR SIZE & SPACING) RIM BOARD

TYPICAL SILL PLATE
3 1/2" R-13 BOND INSULATION SILL ANCHORS @ 32" O.C. (WITHIN 12" OF ANY CORNER OR OPENING) 2x6 TREATED SILL PLATE W/ SILL SEALER

TYPICAL GARAGE FLOOR CONSTRUCTION
4" CONCRETE SLAB W/ 6 MIL. VAPOR BARRIER ON 4" COMPACTED GRANULAR FILL

TYPICAL FOUNDATION WALL
ONE COAT DAMPROOFING AT FACE OF EXTERIOR WALL AND BRICKLEDGE. 10" THICK POURED CONCRETE WALL (SEE PLANS FOR WALL HEIGHT AND FOOTING DIMENSIONS)

TYPICAL GARAGE COMMON WALL DETAIL
SCALE: 3/4" = 1'-0"



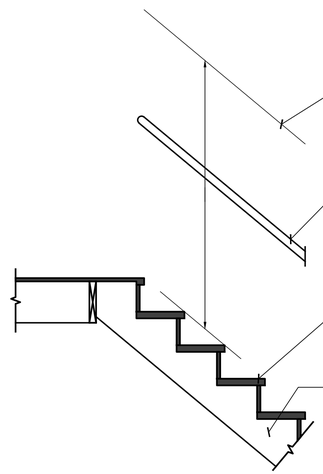
R311.5.2 HEADROOM
THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM.

R311.5.6 HANDRAILS
HANDRAILS THAT HAVE MINIMUM AND MAXIMUM HEIGHTS OF 34" AND 38" RESPECTIVELY, MEASURED VERTICALLY FROM THE NOSING OF THE TREAD.

R311.5.3 STAIR TREADS AND RISERS
HEIGHT @ 7 15/16" EACH WITH A TREAD DEPTH OF 9.00" EACH (NOSE TO NOSE W/ A NOSE OVERHANG OF $\frac{3}{4}$" TO $1\frac{1}{4}$"). THE GREATEST RISER HEIGHT SHALL NOT EXCEED THE SHORTEST BY 3/8", LIKEWISE THE SHORTEST RUN SHALL NOT EXCEED THE GREATEST BY 3/8".

TYPICAL STRINGERS
DOUBLE 2x12 MINIMUM STRINGERS AT ENDS AND ONE (1) STRINGER AT CENTER

TYPICAL STAIR DETAIL FIRST TO SECOND FLOOR
SCALE: 3/4" = 1'-0"



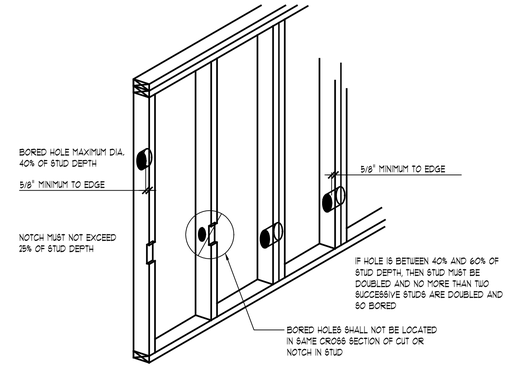
R311.5.2 HEADROOM
THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM.

R311.5.6 HANDRAILS
HANDRAILS THAT HAVE MINIMUM AND MAXIMUM HEIGHTS OF 34" AND 38" RESPECTIVELY, MEASURED VERTICALLY FROM THE NOSING OF THE TREAD.

R311.5.3 STAIR TREADS AND RISERS
HEIGHT @ 7 11/16" EACH WITH A TREAD DEPTH OF 9.00" EACH (NOSE TO NOSE W/ A NOSE OVERHANG OF $\frac{3}{4}$" TO $1\frac{1}{4}$"). THE GREATEST RISER HEIGHT SHALL NOT EXCEED THE SHORTEST BY 3/8", LIKEWISE THE SHORTEST RUN SHALL NOT EXCEED THE GREATEST BY 3/8".

TYPICAL STRINGERS
DOUBLE 2x12 MINIMUM STRINGERS AT ENDS AND ONE (1) STRINGER AT CENTER

TYPICAL STAIR DETAIL BASEMENT TO FIRST FLOOR
SCALE: 3/4" = 1'-0"

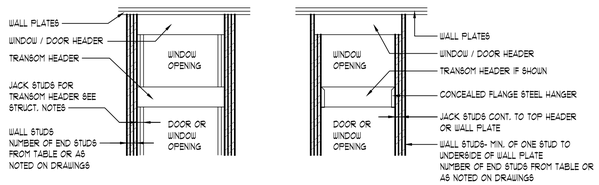


STUD SIZE	NOTCH	HOLE DIAMETER 60%	40%
2X4	7/8"	2"	1 3/8"
2X6	1 3/8"	3"	2 3/8"
2X8	1 3/4"	4 1/4"	2 7/8"

ALL SIZES INDICATED ARE MAXIMUM AND INCLUDE ANY OVER-CUT BEYOND OPENING

*** SEE CURRENT CODE FOR COMPLETE WRITTEN DESCRIPTION OF ALLOWABLE CUTTING & BORING.

STUD BORING & CUTTING DETAILS
BEARING WALLS **NO SCALE**



WALL STUDS AT OPENING JAMB						
OPENING WIDTH	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
NUMBER OF STUDS EACH SIDE	1	2	2	3	3	4

A MINIMUM OF ONE WALL STUD SHALL BE CONTINUOUS TO WALL PLATE AT EACH SIDE OF OPENING

WINDOW / DOOR END STUD DETAIL
NO SCALE

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SHEET # A7

GENERAL NOTES

WOOD TRUSS SPECIFICATIONS

1. Designs shall conform with the latest versions of (NDS), "National Design Specification for Wood Construction" by the American Forest & Paper Association, and Design Standard for Metal Plate Connected Wood Truss Construction by the American Standard (ANSI) and the Truss Plate Institute (T.P.I.) and the local code jurisdiction.
2. Trusses shall be spaced as indicated on the plans unless the designer determines that different spacing is required to meet deflection requirements.
3. Maximum deflection of floor trusses shall be limited to l/360 for total load and l/480 for live load. Maximum deflection of roof trusses shall be limited to l/240 for total loes and l/360 for live load u.n.o.
4. Adequate camber shall be built into floor and parallel chord roof trusses to compensate for normal dead load deflection.
5. Design loads:
   - Roof: 30 p.s.f. top chord live load * (or per "Michigan Residential Code" snow load)
     7 p.s.f. top chord
     10 p.s.f. bottom chord dead load **
   - floor: 40 p.s.f. live load (per "Michigan Residential Code")
     10 p.s.f. top chord dead load **
     9 p.s.f. bottom chord dead load

* A 15% increase on allowable stresses for short term loading as allowed. Drift loading shall be accounted for per the current "Michigan Residential Code" requirements.
** Add additional attic storage live loads per the current "Michigan Residential Code" requirements.
*** Tile, marble, or other special features shall be designed using the appropriate dead loads and deflection limitations. Partition loads shall also be considered where appropriate.

HANDLING AND ERECTION SPECIFICATIONS

1. Trusses are to be handled with particular care during fabrication, bundling, loading, delivery, unloading and installation in order to avoid damage and weakening of the trusses.
2. Temporary and permanent bracing for holding the trusses in a straight and plumb position is always required and shall be designed and installed by the erecting contractor. Temporary bracing during installation, includes cross bracing between the trusses to prevent toppling or "dominoing" of the trusses.
3. Permanent bracing shall be installed in accordance with the latest of the "National Design Standard", as published by the American Forest & Paper Association and H.I.B.-91 and D.S.B.-89 as published by the truss plate institute. Permanent bracing consists of lateral and diagonal bracing not to exceed spacing requirements of the truss fabricator. Top chords of trusses must be continuously braced by roof sheathing unless otherwise note on the truss shop drawings. Bottom chords must be braced at intervals not to exceed 10' o.c. or as noted on the truss fabricators drawings.
4. Construction loads greater than the design loads of the trusses shall not be applied to the trusses at any time.
5. No loads shall be applied to the truss until all fastening and required bracing is installed.
6. The supervision of the truss erecting shall be under the direct control of persons(s) experienced in the installation and proper bracing of wood trusses.
7. Field modification or cutting of pre-engineered roof trusses is strictly prohibited without expressed prior written consent and details from a licensed professional structural engineer experienced in wood truss design and modifications.

SOIL REQUIREMENTS & EARTH WORK AND CONCRETE

1. All top soil, organic and vegetative material should be removed prior to construction. Any required Fill shall be clean, granular material compacted to at least 95% of maximum dry density as determined by ASTM D-1557.
2. Foundations bearing on existing soils have been designed for a minimum allowable soil bearing capacity of 3000 psf, u.n.o.
3. Notify the engineer/architect if the allowable soil bearing capacity is less than 3000 psf so that the foundations can be redesigned for the new allowable bearing capacity.

R404.1.1 Backfill placement.
Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above or has been sufficiently braced to prevent damage by the backfill.

R506.2.1. Fill.
Ill material shall be free of vegetation and foreign material. The fill shall be compacted to assure uniform support of the slab, and except where approved, the fill depths shall not exceed 24 inches for clean sand or gravel and 8 inches for earth.

R506.2.3 Vapor retarder.
A 6 ell polyethylene or approved vapor retarder with joints lapped not less than 6 inches shall be placed between the concrete floor slab and the base course or the prepared subgrade where no base course exists.

1. Concrete work shall conform to the requirements of ACI 301-96, "Specifications for Structural Concrete for Buildings", except as modified as supplemental requirements.
2. Concrete shall have a minimum of 3000 psi, 28 day compressive strength, unless noted otherwise, (6I1 lbs. of cement per cubic yard minimum (5.5 sacks) ¢ a water/cement ratio not to exceed 6 gallons per sack). Exterior concrete slabs shall have a minimum of 4000 psi, 28 day compressive strength, ¢ 4% air entrainment.
3. The use of additives such as fly ash or calcium chloride is not allowed without prior review from the architect.

R405.1 Concrete or masonry foundations.
Drains shall be provided around all concrete or masonry foundations that retain earth and enclose habitable or usable spaces located below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot beyond the outside edge of the footing and 6 inches above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper, and the drainage tiles or perforated pipe shall be placed on a minimum of 2 inches of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches of the same material.

Exception: A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group 1 Soils, as detailed in Table R405.1.

STRUCTURAL STEEL SPECIFICATIONS

1. Structural steel shapes, plates, bars, etc. Are to be ASTM A-36 (unless noted other wise) designed and constructed per the 1989 AISC "Specifications For The Design, Fabrication, And Erection Of Steel For Buildings", and the latest edition of the AISC "Manual Of Steel Construction".
2. Steel columns shall be ASTM A-501, Fy=36 KSI. Structural tubing shall be ASTM A500, grade B, Fy=46 KSI.
3. Welds shall conform with the latest AWS D1.1 "Specifications For Welding in Building Construction", And shall utilize E70XX electrodes unless noted otherwise.
4. Bolted connections shall utilize ASTM A-325 bolts tightened to a "snug fit" condition (unless noted otherwise).

REINFORCING STEEL SPECIFICATIONS

1. Reinforcing bars, dowels and ties shall conform to ASTM-615 grade 60 requirements and shall be free of rust, dirt, and mud.
2. Welded wire fabric shall conform to ASTM a-185 and be positioned at the mid height of slabs U.N.O.
3. Reinforcing shall be placed and securely tied in place sufficiently ahead of placing of concrete to allow inspection and correction, if necessary without delaying the concrete placement.
4. Extend reinforcing bars a minimum of 36" around corners and lap bars at splices a minimum of 24" U.N.O.
5. Welding of reinforcing steel is not allowed.

STAIRWAYS AND HANDRAILS

R311.5.1 Width.
Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31.5 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides.
Exception: The width of spiral stairways shall be in accordance with Section R311.5.8.

R311.5.6 Handrails.
Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers.

R311.5.6.1 Height.
Handrails that have minimum and maximum heights of 34 inches and 38 inches, respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways. All required handrails shall be continuous the full length of the stairs with three or more risers from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight. Ends shall be returned or shall terminated in newal posts or safety terminals. Handrails adjacent wil shall have a space of not less than 1.5 inches between the wall and the handrail.

Exception:
1. Handrails shall be permitted to be interrupted by a newal post at a turn.
2. The use of a volute, turnout, or a starting easing shall be allowed over the lowest tread.

SMOKE ALARMS

(R) R313.1 Smoke alarms.
Smoke alarms shall be installed in the following locations:
1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwellings units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72.

FLASHING AND WEEPHOLES

R703.7.5 Flashing.
Flashing shall be located beneath the first course of masonry above finished ground level above the foundation wall or slab and at other points of support, including structural floors, shelf angles and lintels when masonry veneers are designed in accordance with Section R703.7. See Section R703.8 for additional requirements.

R703.7.6 Weepholes.
Weepholes shall be provided in the outside wythe of masonry walls at a maximum spacing of 33 inches on center. Weepholes shall not be less than 3/16 inch in diameter. Weepholes shall be located immediately above the flashing.

R703.8 Flashing.
Approved corrosion-resistive flashing shall be provided in the exterior wall envelope in such a manner as to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. The flashing shall extend to the surface of the exterior wall finish and shall be installed to prevent water from reentering the exterior wall envelope. Approved corrosion-resistant flashings shall be installed at all of the following locations:
1. At top of all exterior window and door openings in such a manner as to be leakproof, except that self-flashing window having a continuous lap of not less than 1 1/8 inches (28 mm) over the sheathing material around the perimeter of the opening, including corners, do not require additional flashing. Jamb flashing may also be omitted when specifically approved by the building official.
2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, wood or metal copings and sills.
4. Continuously above all projecting structural wood elements.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.

FIREPLACES

R1003.10 Hearth extension dimensions.
Hearth extensions shall extend at least 16 inches in front of and at least 8 inches beyond each side of the fireplace opening. Where the fireplace opening is 6 square feet or larger, the hearth extension shall extend at least 20 inches in front of and at least 12 inches beyond each side of the fireplace opening.

R1003.12 Mantel and trim.
Woodwork or other combustible materials shall not be placed within 6 inches of a fireplace opening. Combustible material within 12 inches of the fireplace opening shall not project more than 1/8-inch for each 1-inch distance from such opening.

EGRESS WINDOW REQUIREMENTS

- Min. net clear opening of 5.7 sq. ft. (second floor bedrooms)
- Min. net clear opening of 5.0 sq. ft. (first floor bedrooms only)
- Min. net clear opening ht. of 24 inches
- Min. net clear opening width of 20 inches
- Max. sill ht. above finish floor of 44 inches

AREAS THAT REQUIRE SAFETY GLAZING

Fixed or operable glazing adjacent to a door where the nearest vertical edge is within a 24" arc of the door in a closed position and whose bottom edge is less than 60" above the walking surface.

Glazing in doors ¢ enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs ¢ showers.

Glazing in railings regardless of area or height above a walking surface.

Glazing adjacent to stairways, landings and ramps within 36 inches horizontally of a walking surface when the exposed surface of the glass is less than 60 inches above the plane of the adjacent walking surface.

Glazing adjacent to stairways within 60 inches horizontally of the bottom tread of a stairway in any direction when the exposed surface of the glass is less than 60 inches above the nose of the tread.

Fixed or operable glazing that meets all the following conditions:
1.) Exposed area of an individual pane greater then 9 sq. ft.
2.) Bottom edge less than 18" above the floor.
3.) Top edge greater than 36" above the floor.
4.) One or more walking surfaces within 36" horizontally of the glazing.

TABLE R602.3.1
MAXIMUM ALLOWABLE LENGTH OF WOOD STUDS EXPOSED TO WIND SPEEDS OF 100 MPH OR LESS IN SEISMIC DESIGN CATEGORIES A, B, C, AND D1 b,c

HEIGHT (FEET)	ON-CENTER SPACING (INCHES)			
	24	16	12	8
SUPPORTING A ROOF ONLY				
>10	2x4	2x4	2x4	2x4
12	2x6	2x4	2x4	2x4
14	2x6	2x6	2x6	2x4
16	2x6	2x6	2x6	2x4
18	NA a	2x6	2x6	2x6
20	NA a	NA a	2x6	2x6
24	NA a	NA a	NA a	2x6
SUPPORTING ONE FLOOR AND A ROOF				
>10	2x6	2x4	2x4	2x4
12	2x6	2x6	2x6	2x4
14	2x6	2x6	2x6	2x6
16	NA a	2x6	2x6	2x6
18	NA a	2x6	2x6	2x6
20	NA a	NA a	2x6	2x6
24	NA a	NA a	NA a	2x6
SUPPORTING TWO FLOORS AND A ROOF				
>10	2x6	2x6	2x4	2x4
12	2x6	2x6	2x6	2x6
14	2x6	2x6	2x6	2x6
16	NA a	NA a	2x6	2x6
18	NA a	NA a	2x6	2x6
20	NA a	NA a	NA a	2x6
22	NA a	NA a	NA a	NA a
24	NA a	NA a	NA a	NA a

a. Design required
b. Applicability of this table assumes the following:
   Snow load not exceeding 25 psf, but not less than 1310 psi determined by multiplying the AF&PA NDS tabular base design value by the repetitive use factor, and by the size factor for all species except southern pine, it not less than 1.6 by 106 psi, tributary dimensions for floors and roofs not exceeding 6 feet, maximum span for floors and roofs not exceeding 12 feet, eaves not greater than 2 feet in dimension and exterior sheathing. Where the conditions are not within these parameters, design is required.
c. Utility, standard, stud and no. 3 grade lumber of any species are not permitted.

TABLE R602.3.(5)
SIZE, HEIGHT AND SPACING OF WOOD STUDS a.

STUD SIZE (inches)	BEARING WALLS					NONBEARING WALLS	
	Laterally unsupported stud height 'a' (feet)	Maximum spacing when supporting roof and ceiling only (inches)	Maximum spacing when supporting one floor, roof and ceiling only (inches)	Maximum spacing when supporting two floors, roof and ceiling only (inches)	Maximum spacing when supporting one floor only (inches)	Laterally unsupported stud height 'a' (feet)	Maximum spacing (inches)
2x3 b	-	-	-	-	-	10	16
2x4	10	24	16	-	24	14	24
3x4	10	24	24	16	24	14	24
2x5	10	24	24	-	24	16	24
2x6	10	24	24	16	24	20	24

a. Listed heights are distances between points of lateral support placed perpendicular to the plane of the wall. Increases in unsupported height are permitted where justified by analysis.
b. Shall not be used in exterior walls.

TABLE R703.7.3
ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER a,b,c

SIZE OF STEEL ANGLE o.c (inches)	NO STORY ABOVE	ONE STORY ABOVE	TWO STORIES ABOVE	NO. OF ½" OR EQUIVALENT REINFORCING BARS c
3x3x¼	6'-0"	4'-6"	3'-0"	1
4x3x¼	8'-0"	6'-0"	4'-6"	1
5x3½x5/16	10'-0"	8'-0"	6'-0"	2
6x3½x5/16	14'-0"	9'-6"	7'-0"	2
2-6x3½x5/16	20'-0"	12'-0"	9'-6"	4

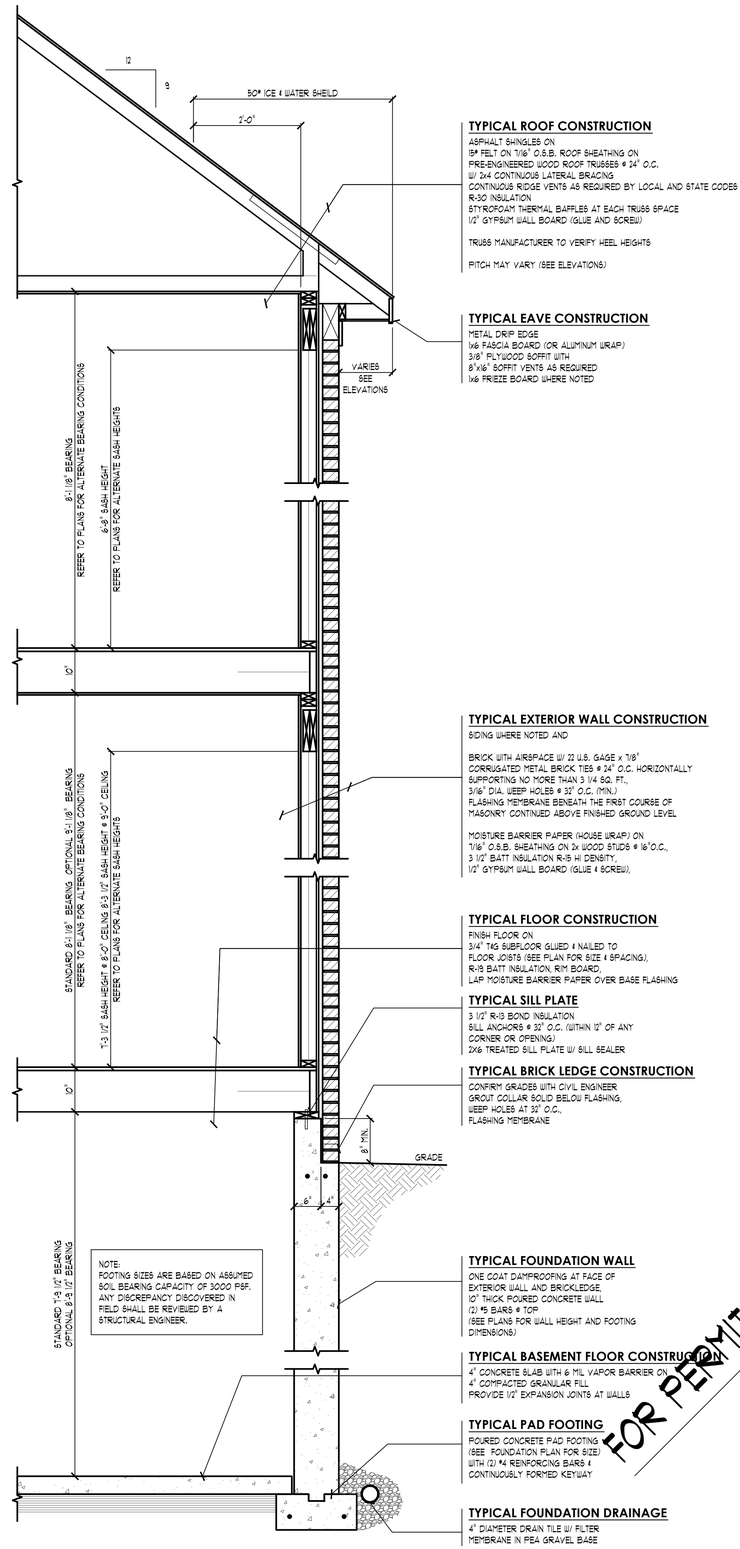
a. Long leg of angle shall be placed in a vertical position.
b. Depth of reinforcing lintels shall not be less than 8 inches and all cells of hollow masonry lintels shall be grouted solid. Reinforcing bars shall extend not less than 8 inches into the support.
c. Steel members indicated are adequate typical examples; other steel members meeting structural design requirements may be used.

TYPICAL CONVENTIONAL ROOF FRAMING
*** RIDGE BEAM SIZE WILL BE EQUAL TO THE RAFTER CUT EDGE ***

RAFTER SPANS	0'-0" - 4'-0"	4'-0" - 8'-0"	8'-0" - 12'-0"	12'-0" - 16'-0"
LUMBER SIZE	2x4	2x6	2x8	2x12

ATTIC VENTILATION CALCULATIONS:
FOR RIDGE VENTING

AREA OF ATTIC SPACE = 2150 SQ. FT.
2150/300 = 7.17' (SQ. FT. REQ'D)
7.17' X 144" = 1032" (SQ. INCH CONVERSION)
1032" X 2/3 = 688" (SQ. INCHES REQ'D)
688" / 18 = 39' (LINEAR FT. OF RIDGE VENT REQ'D)



TYPICAL ROOF CONSTRUCTION
ASPHALT SHINGLES ON
15# FELT ON 7/16" O.S.B. ROOF SHEATHING ON
FIRE-ENGINEERED WOOD ROOF TRUSSES @ 24" O.C.
w/ 2x4 CONTINUOUS LATERAL BRACING
CONTINUOUS RIDGE VENTS AS REQUIRED BY LOCAL AND STATE CODES
R-30 INSULATION
STYROFOAM THERMAL BAFFLES AT EACH TRUSS SPACE
1/2" GYPSUM WALL BOARD (GLUE AND SCREW)

TRUSS MANUFACTURER TO VERIFY HEEL HEIGHTS

PITCH MAY VARY (SEE ELEVATIONS)

TYPICAL EAVE CONSTRUCTION
METAL DRIP EDGE
1x6 FASCIA BOARD (OR ALUMINUM WRAP)
3/8" PLYWOOD SOFFIT WITH
8"x16" SOFFIT VENTS AS REQUIRED
1x6 FRIEZE BOARD WHERE NOTED

TYPICAL EXTERIOR WALL CONSTRUCTION
SIDING WHERE NOTED AND

BRICK WITH AIRSPACE W/ 22 U.S. GAGE x 7/8" CORRUGATED METAL BRICK TIES @ 24" O.C. HORIZONTALLY SUPPORTING NO MORE THAN 3 1/4 SQ. FT.,
3/16" DIA. WEEP HOLES @ 32" O.C. (MIN.)
FLASHING MEMBRANE BENEATH THE FIRST COURSE OF MASONRY CONTINUED ABOVE FINISHED GROUND LEVEL

MOISTURE BARRIER PAPER (HOUSE WRAP) ON
7/16" O.S.B. SHEATHING ON 2x WOOD STUDS @ 16"O.C.,
3 1/2" BATT INSULATION R-15 HI DENSITY
1/2" GYPSUM WALL BOARD (GLUE & SCREW).

TYPICAL FLOOR CONSTRUCTION
FINISH FLOOR ON
3/4" T&G SUBFLOOR GLUED & NAILED TO
FLOOR JOISTS (SEE PLAN FOR SIZE & SPACING),
R-19 BATT INSULATION, RIM BOARD,
LAP MOISTURE BARRIER PAPER OVER BASE FLASHING

TYPICAL SILL PLATE
3 1/2" R-13 BOND INSULATION
SILL ANCHORS @ 32" O.C. (WITHIN 12" OF ANY CORNER OR OPENING)
2x6 TREATED SILL PLATE W/ SILL SEALER

TYPICAL BRICK LEDGE CONSTRUCTION
CONFIRM GRADES WITH CIVIL ENGINEER
GROUT COLLAR SOLID BELOW FLASHING,
WEEP HOLES AT 32" O.C.,
FLASHING MEMBRANE

TYPICAL FOUNDATION WALL
ONE COAT DAMPROOFING AT FACE OF EXTERIOR WALL AND BRICKLEDGE,
10" THICK POURED CONCRETE WALL
(2) #5 BARS @ TOP
(SEE PLANS FOR WALL HEIGHT AND FOOTING DIMENSIONS)

TYPICAL BASEMENT FLOOR CONSTRUCTION
4" CONCRETE SLAB WITH 6 MIL VAPOR BARRIER ON
4" COMPACTED GRANULAR FILL
PROVIDE 1/2" EXPANSION JOINTS AT WALLS

TYPICAL PAD FOOTING
POURED CONCRETE PAD FOOTING
(SEE FOUNDATION PLAN FOR SIZE)
WITH (2) #4 REINFORCING BARS @
CONTINUOUSLY FORMED KEYWAY

TYPICAL FOUNDATION DRAINAGE
4" DIAMETER DRAIN TILE W/ FILTER
MEMBRANE IN PEA GRAVEL BASE

FOR PERMIT ONLY

TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"

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CLIENT/PROJECT:
THE CARMIN
STRATH HAVEN DEVELOPMENT

JOB No.
DRAWN: MSM
CHECKED: -
REVIEW -
PERMIT 7-17-14
FINAL -

SCALE:
AS NOTED

SHEET #
A8