



10405 Merrill Road
P.O. Box 157
Hamburg, MI 48139
(810) 231-1000
www.hamburg.mi.us

Supervisor Jason Negri Clerk Mike Dolan Treasurer Jennifer Daniels Trustees Chuck Menzies, Patricia Hughes, Nick Miller, Joanna Hardesty

ZONING BOARD OF APPEALS

Wednesday, May 13, 2026 at 6:00 PM
Hamburg Township Hall Board Room

AGENDA

CALL TO ORDER

PLEDGE TO THE FLAG

ROLL CALL OF THE BOARD

CORRESPONDENCE

APPROVAL OF THE AGENDA

CALL TO THE PUBLIC

NEW/OLD BUSINESS

1. Election of ZBA Chair
2. Approval of the November 12, 2025 ZBA meeting minutes.

VARIANCE REQUESTS

3. **ZBA 26-0001**

Owner: Kevin & Brianna Karas

Location: 3816 Langley Dr.

Parcel ID: 4715-29-202-033

Request: Variance application to permit construction of a new screened porch. Highwater mark setback of **40 feet** rather than 50 feet, per section 36-171(4). Maximum lot coverage of **46%** rather than 40 percent, per section 36-171(D).

4. **ZBA 26-0002**

Owner: Kate & Jeff Borough

Location: 4467 Cornwell Ln.

Parcel ID: 4715-33-110-017

Request: Variance application to permit renovation of existing garage. Side setback of **8.2 feet** rather than 10 feet, per section 36-171(D)

ADJOURNMENT



10405 Merrill Road
P.O. Box 157
Hamburg, MI 48139
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www.hamburg.mi.us

Supervisor Pat Hohl Clerk Mike Dolan Treasurer Jason Negri Trustees Bill Hahn, Patricia Hughes, Chuck Menzies, Cindy Michniewicz

ZONING BOARD OF APPEALS MEETING
Wednesday, November 12, 2025, at 7:00 PM
Hamburg Township Hall Board Room

MINUTES

CALL TO ORDER

Chair Priebe called the meeting to order at 7:00 pm.

PLEDGE TO THE FLAG

ROLL CALL OF THE BOARD

Members PRESENT:

Joanna Hardesty, Trustee
Brian Ignatowski
Benedict Russell
Joyce Priebe, Chair

ABSENT:

William Rill

CONSENT AGENDA

Approval motion by Trustee Hardesty, seconded by Member Ignatowski, to approve Zoning Board of Appeals Agenda for tonight, as presented.

Voice Vote: Ayes: (4) Absent: (1) Member Rill

VOTE: MOTION CARRIED

GENERAL CALL TO THE PUBLIC

Chair Priebe opened the general call to the public, but no one came up to speak so she closed the session.

CURRENT BUSINESS**1. ZBA 25-0009**

Owner: Nick Passucci
 Location: 3168 Nisbet
 Parcel ID: 4715-17-301-005
 Request: Variance application to permit construction of a new deck on the rear of the home that will be 34 ft from the OHM (high water mark) when 50 ft is required per section 36-171 (D) (footnote 4), and 5 ft from the eastside property line when 10 ft is required per section 36-171 (D).

Chair Priebe invited Nick to the podium who explained that the grinder pump location was 3 ft closer to the wetlands than was shown on the site plan. He explained that his wife and him were planning to retire in this home in a few years. The lot is small and due to the floodplain, the site had to be graded higher than it had originally been. The deck is being proposed at 16 ft wide so they can entertain company in the rear yard. There is a set of stairs on the west side to allow them access to the rear deck from the front yard. Nick returned to his seat and Chair Priebe opened the meeting to David Rohr to allow him to briefly address the case to the Zoning Board Members.

Chair Priebe then opened this case up to the public for comment. Since there was no public there to address the board, she closed the ZBA comment portion of the meeting. Trustee Hardesty asked Nick if he had any letters from his neighbors regarding this proposal. The home to the west is being sold so there is no one to reach out to. The neighbor to the east didn't have any negative comments regarding the proposal. Nick said he had a retaining wall built to keep water from draining from his parcel onto that parcel. Hardesty said the retaining wall looked nice.

Member Ignatowski said it was difficult to view the proposed rear yard where the deck was going to be built. He said the site plan shows 34 ft to the water's edge. He mentioned that there is a steep incline to the water. He asked Nick how far the existing tree would be from the deck. Nick said there was a large distance between the tree and the deck. Nick said that they took down 6 junk trees when they built the new home. Nick said that they were planning on keeping that tree in place for shade. Trustee Hardesty said she didn't feel that Nick was being unreasonable with requesting a 16 ft wide deck.

Member Russell said when he looked on Google Earth Map, most of the homes on that street have patios and no decks. He asked for clarification why he was looking to do a deck instead of a patio. David answered Russell's question by explaining that there are two different types of decks. There are elevated decks (24 inches and greater in height) and non-elevated decks (24-inches or below in height). Non elevated decks can encroach further into the yard. Decks above 2 ft in elevation need guard rails around them. Decks allow water to percolate into the ground so are not an impervious surface. Patios can go all the way to the water's edge, but they can't be more than 50% of the width of the parcel.

Patios go into lot coverage as impervious surfaces since they don't allow water to infiltrate into the ground.

David continued to explain to Russell that if this home had been built at grade, he could have proposed to build a patio and then he would not need to come before the ZBA for this variance. This home requires an elevated deck due to the topography. Chair Priebe stated there is quite a drop off there now. There are a lot of exceptions and encroachments with decks verses patios, and small 144 sq. ft. structures on the lakes. Nick said that they had originally planned on doing a cement patio but due to the grading change of the parcel to build the home, they had to build an elevated deck. Russell continued to explain that many of the existing homes and their structures are encroaching decks and patios to the water that are grandfathered in.

Approval Motion by Member Ignatowski, seconded by Member Russell, to approve variance application ZBA # 25-0009 at 3168 Nisbet Tax ID #4715-17-301-005 to grant applicants a rear deck setback of 34 feet rather than the required 50 feet, per Section 36-171 (D) (footnote 4); and a side yard setback of 5 feet where 10 feet is required per Section 36-171 (D) Side.

The variance meets variance standards one (1) through seven (7) of Section 36-137 of the Hamburg Township Zoning Ordinance, and a practical difficulty exists on the subject site when strict compliance with the Zoning Ordinance standards is applied, as discussed at the meeting this evening and as presented in the staff report.

Voice Vote: Ayes: (4) Absent: (1) Member Rill

VOTE: MOTION CARRIED

APPROVAL OF THE MEETING MINUTES

Approval motion by Trustee Hardesty, seconded by Russell, to approve the September 10, 2025, Meeting Minutes as presented.

Voice Vote: Ayes: (4) Absent: (1) Member Rill

VOTE: MOTION CARRIED

Zoning Administrators Report:

No meeting agenda for ZBA Meeting of December 10, 2025. David will be working on the end of year report. He will get that to all the boards by the end of January or early February. Starting in January 2026 we will start the Planning Commission and Zoning Board of Appeals Meeting at 6pm instead of 7pm. This change will help us not have so much downtime between meetings and to get people in and out of meetings earlier, allowing driving to be during daylight hours verses nighttime hours. Trustee Hardesty asked if that would make it more difficult for board members to attend. David said that applicants shouldn't have difficulty in getting to the board meetings since it is a one-time event. David said that all the board members that he has talked to endorse the earlier

schedule meetings. Trustee Hardesty said she was good with the change. She stated that she had concerns with applicants that have jobs and who needed to attend the board meetings. David said that is why he doesn't advocate for these board meetings scheduled during the day or any earlier than 6pm. She stated that the public has the option to write a letter to the board if they can't attend a board meeting. They don't need to be physically present to voice their opinions.

Chair Priebe asked David if the board is actively looking for an alternative ZBA replacement. David said that Jason Negri is reaching out to a few people since he will propose his candidates to the Township Board for approval. David stated there is one application that has been received so far. Since we have only had one alternative for the past few years, David said that Jason is looking for a second alternative now since he needs to seek approval by the board.

ADJOURNMENT

Approval motion by Member Ignatowski, seconded by Trustee Hardesty, to adjourn at 7:19 pm.

Voice Vote: Ayes: (4) Absent: (1) Member Rill

VOTE: MOTION CARRIED

Respectfully submitted,

Lisa Perschke

Planning/Zoning Coordinator & Recording Secretary

David Rohr

Planning & Zoning Director

The minutes were approved as presented/corrected: _____

Joyce Priebe, Chair

Redacted
Version

ZBA Case Number 26-0001

\$500.00



FAX 810-231-4295
PHONE 810-231-1000

P.O. Box 157
10405 Merrill Road
Hamburg, Michigan 48139

**APPLICATION FOR A ZONING BOARD OF APPEALS (ZBA)
VARIANCE/INTERPRETATION
(FEE \$500 plus \$50 each additional)**

1. Date Filed: March 1st, 2026
2. Tax ID #: 15- _____ Subdivision: _____ Lot No.: _____
3. Address of Subject Property: 3816 Langley Dr.
4. Property Owner: Kevin and Brianna Karas Phone: (H) _____
 Email Address: _____ (W) _____
 Street: 3816 Langley Dr. City Pinckney State MI
5. Appellant (If different than owner): _____ Phone: (H) _____
 E-mail Address: _____ (W) _____
 Street: _____ City _____ State _____
6. Year Property was Acquired: 2023 Zoning District: WFR Flood Plain NO
7. Size of Lot: Front 57 ft. Rear 50 ft. Side 1 131.32 ft. Side 2 _____ Sq. Ft. 6,966 ft.²
11. Dimensions of Existing Structure (s) 1st Floor 1,156 ft.² 2nd Floor _____ Garage 776 ft.²
12. Dimensions of Proposed Structure (s) 1st Floor Deck 476 ft.² 2nd Floor _____ Garage (screened porch is 240 ft.² of the 476 ft.²)
13. Present Use of Property: Residential; Primary Home
14. Percentage of Existing Structure (s) to be demolished, if any 0 %
15. Has there been any past variances on this property? Yes X No _____
16. If so, state case # and resolution of variance application PZBA19-0015 Approved
17. Please indicate the type of variance or zoning ordinance interpretation requested:

- ① Rear Yard Setback: Requires 30' for structures to rear lot line
 - ② Yard Coverage SEC. 36-230 9b: Percentage of total lot coverage
 - 1) Asking for 10' of forgiveness on screen porch side and 12' on deck side
 - 2) Asking for additional 3.5% in non-permeable lot coverage.
18. Please explain how the project meets each of the following standards:

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Hamburg Township
Planning and Zoning Department

- a) That there are exceptional or extraordinary circumstances or conditions applicable to the property involved that do not apply generally to other properties in the same district or zone.

This Lake-front property was over yard coverage from simply the house & driveway. The lot is narrow and so you can only build on the lake-side.

- b) That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same zone and vicinity. The possibility of increased financial return shall not be deemed sufficient to warrant a variance.

A deck allows outdoor living space to enjoy the peace & nature provided by a lakefront property.

- c) That the granting of such variance or modification will not be materially detrimental to the public welfare or materially injurious to the property or improvements in such zone or district in which the property is located.

Since the structure doesn't touch the water, the ecosystem remains unaffected. Since it extends from our existing structure it doesn't hinder others' views.

- d) That the granting of such variance will not adversely affect the purpose or objectives of the master plan of the Township.

This will not adversely affect the purpose or any objectives of the master plan of the Township

- e) That the condition or situation of the specific piece of property, or the intended use of said property, for which the variance is sought, is not of so general or recurrent a nature.

This is a one time project. We plan to retire here, and the deck is our final addition to complete our forever home.

- f) Granting the variance shall not permit the establishment with a district of any use which is not permitted by right within the district.

To our knowledge, this project does not violate any rules the district has established.

- g) The requested variance is the minimum necessary to permit reasonable use of the land.

The deck must extend length of Lake side of house ~~length~~ to allow stair access & create safe passage of people. The screened porch roof must align with existing roof (this pushes in to the yard setback) for proper drainage & curb appeal.

- I hereby certify that I am the owner of the subject property or have been authorized to act on behalf of the owner(s) and that all of the statements and attachments are true and correct to the best of my knowledge and belief.
- I acknowledge that approval of a variance only grants that which was presented to the ZBA.
- I acknowledge that I have reviewed the Hamburg Township Zoning Ordinance, the ZBA Application and the ZBA Checklist and have submitted all of the required information.
- I acknowledge that filing of this application grants access to the Township to conduct onsite investigation of the property in order to review this application.
- I understand that the house or property must be marked with the street address clearly visible from the roadway.
- I understand that there will be a public hearing on this item and that either the property owner or appellants shall be in attendance at that hearing.
- I understand that a Land Use Permit is required prior to construction if a variance is granted.

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• I understand that any order of the ZBA permitting the erection alteration of a building will be void after one (1) year (12 months), unless a valid building permit is obtained and the project is started and proceeds to completion (See Sec. 6.8 of the Township Zoning Ordinance).

[Signature] 3/11/26
Owner's Signature Date

Appellant's Signature Date

[Signature] 3/11/26

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Hamburg Township
Planning and Zoning Department

Miles Bradley

Building and Remodeling Inc.

2370 Medinah Ct. • Commerce Twp., MI 48382
Office 248.478.8660

Miles Bradley is a licensed Residential Builder, License No. 2102113873. A Residential Builder is required to be licensed under Article 24 of the Act 289 of the Public Acts of 1980, as amended, being sections 399.2401 to 399.2412 of the Michigan Compiled Laws. An electrician is required to be licensed under Act No. 217 of the Public Acts of 1956, as amended, being sections 338.881 to 338.882 of the Michigan Compiled Laws. A plumber is required to be licensed under Act No. 266 of the Public Acts of 1929, as amended, being sections 338.901 to 338.917 of the Michigan Compiled Laws. If Miles Bradley is required to be licensed to provide the contracted improvement, it is so licensed.

Submitted To: <u>Karas</u>	Date: <u>2-11-26</u>	Job Address: <u>N 19 Cordley Ln</u>	<input checked="" type="checkbox"/> Check Box if Job Address is same as Current Address	
Current Address: <u>3816 Langley Drive</u>	City: <u>Pinckney</u>	Zip: <u>48169</u>	County: <u>Livingston</u>	
City: <u>Pinckney</u>	Zip: <u>48169</u>	County: <u>Livingston</u>	Development:	Lot No.
Cell: <u>()</u>	Other: <u>()</u>	Job Location: <u>N 19 Cordley Ln</u>	Off: <u>W Whitewood Dr.</u>	Off:

Specifications and included options for plan number 5585 Proposal / Contract Page 1 of 3

Decking Information

Decking Material Trex Transcend Lineage Decking Fastener Clips

Decking Color Rainier Decking Direction Straight Herringbone

Angle Straight

Railing Information

Railing Material Trex Signature Baluster Type Vertical on Steps / Glass on the deck

Railing Color White Baluster Color White Steps / Clear Deck

Railing Post Color White Baluster Accessories N/A

Railing Top Cap White Post Cap Color White

Fascia Information

Nosing Material Trex Lineage Nosing Color Rainier

Fascia Material Azek P.V.C. Fascia Color White

Stone Yes/No No Low Voltage Lights

2 Board Border No LED Step # → Rail # 10-White

Footing Post size 6x6 Misc/Other

All leftover material is the property of Miles Bradley Building & Remodeling Inc. and not to be taken by the homeowner.

Building Permit with Livingston Building Department.

Please see "Contract Specification Sheet" page # 2

Please see "Contract Payment Schedule" page # 3

Labor

Materials

18 Month Warranty

Job site Cleanup

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Hamburg Township
Planning and Zoning Department

Not included in this proposal: Sprinkler repairs / relocation-Gate Warranty

ZBA permit + fees



Since 1991

Miles Bradley Building and Remodeling Inc.

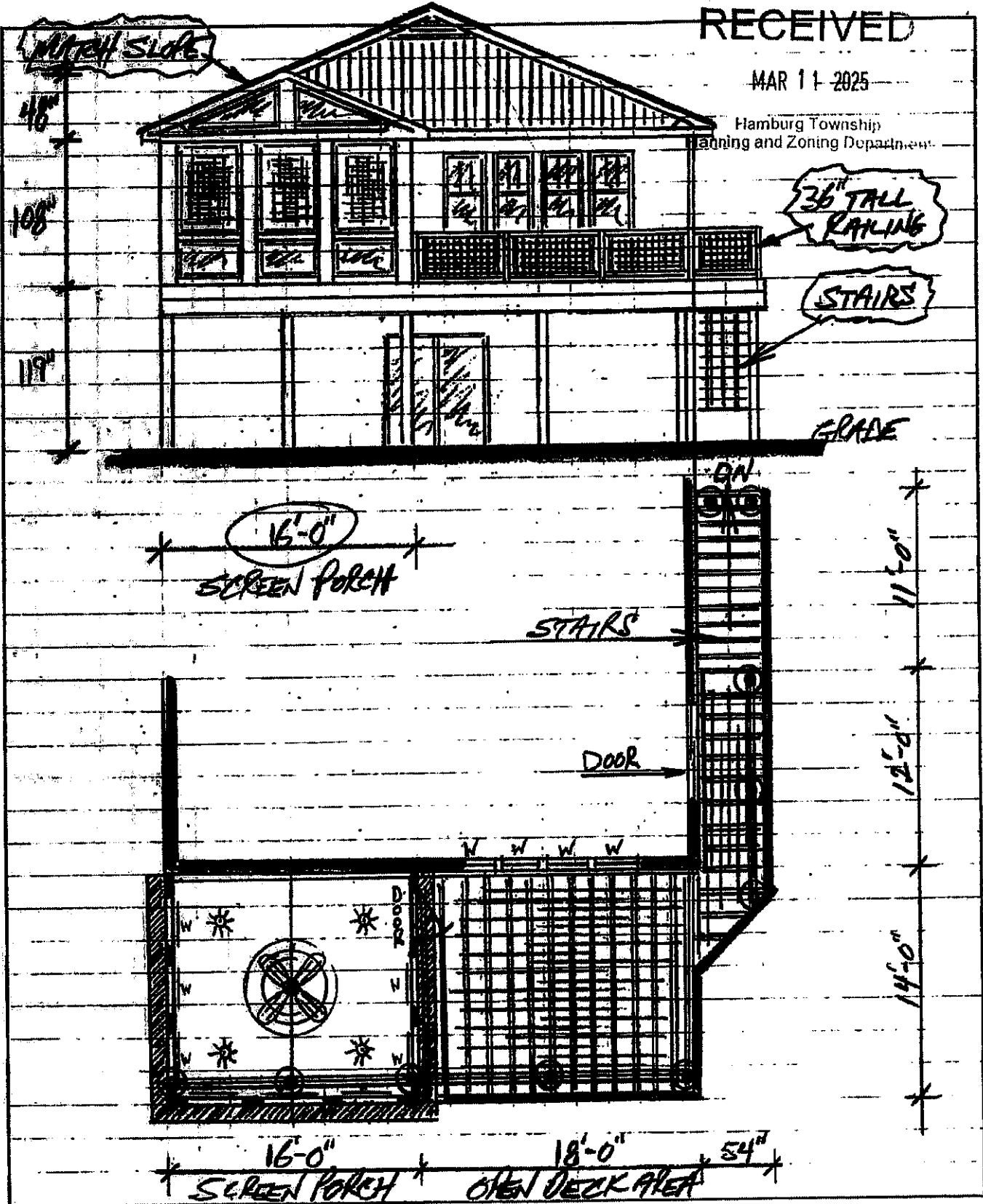
WWW.MILESBRADLEY.COM
Office 248.478.8660

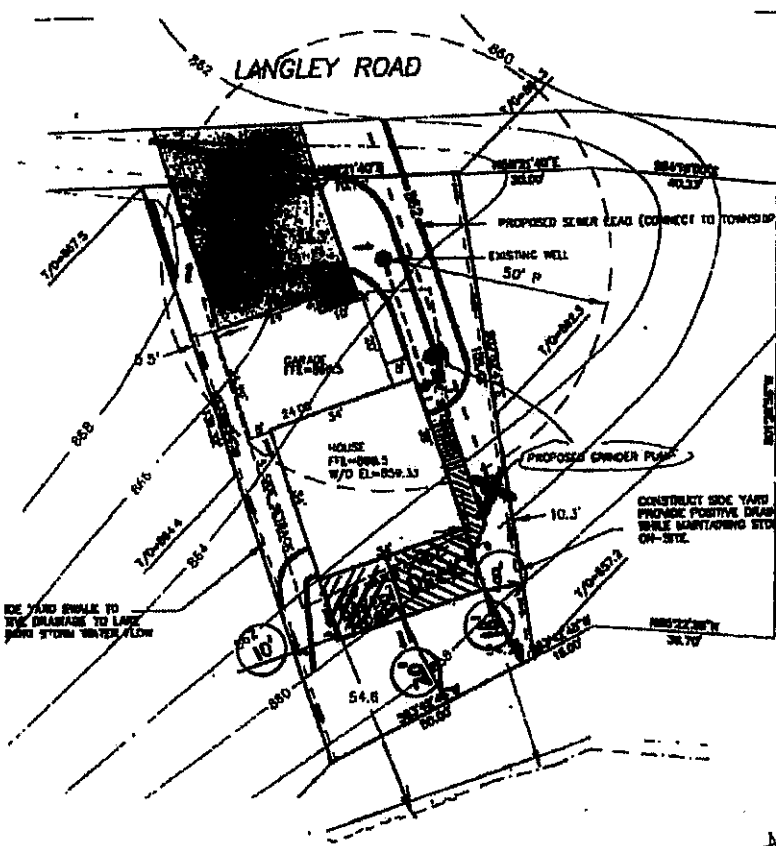
Project KARAS
Plan Number 5585 Date 2-3-26
Prepared By BRIAN KOLODY
Scale 1/8" = 1'-0"

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Hamburg Township
Planning and Zoning Department





LOT 31 AND PART OF LOT 32 CLEAR BEACH SUBDIVISION AS RECORDED IN LIBRY 2 OF PLAT 3, PAGE 83, LIVINGSTON COUNTY RECORDS

LOT COVERAGE CALCULATION

LOT AREA = 8960 S.F.

BUILDING AREA = 1958 S.F.

LOT COVERAGE = 1958/8960 = 21.8%

+ GRAVEL DRIVE 925 S.F.

+ SIDEWALK 60 S.F.

+ FRONT PORCH 25 S.F.

+ SCREENED PORCH 240 S.F.

SCALE 3,200 S.F. / 16,966 LOT = 46%
5/1/18

18-2-11

Stetson

★ High Water Side of House EAST - 54' WEST - 54'

★ Proposed Roof Structure Lot Coverage: 3.45%

3010 LANGLEY ROAD

ACE CIVIL ENGINEERS

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Hamburg Township Planning and Zoning Department



Zoning Board of Appeals Staff Report



TO: Zoning Board of Appeals
(ZBA)

FROM: David Rohr

HEARING DATE: May 13, 2026

SUBJECT: ZBA 26-0001

PROJECT Screened Porch

SITE: 3816 Langley Dr.

TID 4715-29-202-033

OWNER: Kevin & Brianna Karas

APPLICANT: Kevin & Brianna Karas

PROJECT: Variance application to permit the construction of a new screened porch in the rear yard. Variance request:

- Highwater mark setback of **40 feet** rather than 50 feet, per section 36-171(4)
- Maximum lot coverage of **46%** rather than 40 percent, per section 36-171(D)

ZONING: WFR- Waterfront Residential

Project Description

Variance application to permit the construction of a new screened in porch at the rear of the house. With limited buildable area at the rear of the house and existing lot coverage of **42.5%** on the parcel, the applicant requests multiple variances to construct screened porch.

- Highwater mark setback of **40 feet** rather than 50 feet, per section 36-171(4)
- Maximum lot coverage of **46%** rather than 40 percent, per section 36-171(D)

Standards of Review

In accordance with Section 36-137 of the Hamburg Township Zoning Ordinance, the ZBA's decision on this matter is to be based on findings of fact to support the standards provided below. The applicable discretionary standards are listed below in **bold typeface**, followed by Staff's analysis of the request as it relates to these standards. A variance may be granted only if the ZBA finds that all of the following standards are met:

- 1. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved that do not apply generally to other properties in the same district or zone.**

The applicant's parcel has limited buildable area on the rear side of the house. Staff supports the request for variances.

- 2. That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same zone and vicinity. The possibility of increased financial return shall not be deemed sufficient to warrant a variance.**

Granting these variance requests is necessary for the preservation and enjoyment of a substantial property right.

- 3. That the granting of such variance or modification will not be materially detrimental to the public welfare or materially injurious to the property or improvements in such zone or district in which the property is located.**

The variance setback requests is not likely to be materially detrimental to the public welfare or materially injurious to the property or improvements in the district.

- 4. That the granting of such variance will not adversely affect the purpose or objectives of the master plan of the Township.**

Granting this variance will not adversely affect the 2020 Master plan.

5. That the condition or situation of the specific piece of property, or the intended use of said property, for which the variance is sought, is not of so general or recurrent a nature.

The condition or situation of the specific piece of property is not of a general and recurrent nature.

6. Granting the variance shall not permit the establishment with a district of any use which is not permitted by right within the district.

The site is zoned for single-family dwellings and related appurtenances. Approval of the variance requests would not permit the establishment of a use not permitted by right within the district.

7. The requested variance is the minimum necessary to permit reasonable use of the land.

Staff finds that the proposed screened porch will provide a safe means to access the rear yard and act will have minimal impact on the surrounding properties. Staff believes the location and size of the proposed screened porch is reasonable and will have minimal impact on the surrounding residents.

“Practical difficulty” exists on the subject site when the strict compliance with the Zoning Ordinance standards would render conformity unnecessarily burdensome (such as exceptional narrowness, shallowness, shape of area, presence of floodplain or wetlands, exceptional topographic conditions).

Recommendation

Staff recommends the ZBA open the public hearing, take testimony, close the public hearing, evaluate the proposal for conformance with the applicable regulations, and deny or approve the application. In the motion to deny or approve the project, the ZBA should incorporate the ZBA’s discussion and analysis of the project and the findings in the staff report.

Approval Motion

Motion to approve variance application ZBA 26-0001 at 3816 Langley Dr. TID 4715-29-202-033.

- Highwater mark setback of **40 feet** rather than 50 feet, per section 36-171(4)
- Maximum lot coverage of **46%** rather than 40 percent, per section 36-171(D)

The variance meets variance standards one (1) through seven (7) of Section 36-137 of the Hamburg Township Zoning Ordinance, and a practical difficulty exists on the subject site when strict compliance with the Zoning Ordinance standards is applied, as discussed at the meeting this evening and as presented in the staff report.

Denial Motion

Motion to deny variance application ZBA 26-0001 at 3816 Langley Dr. TID 4715-29-202-033.

- Highwater mark setback of **40 feet** rather than 50 feet, per section 36-171(4)
- Maximum lot coverage of **46%** rather than 40 percent, per section 36-171(D)

The variance does not meet variance standards of Section 36-137 of the Hamburg Township Zoning Ordinance, and no practical difficulty exists on the subject site when strict compliance with the Zoning Ordinance standards is applied, as discussed at the meeting this evening, and as presented in this staff report.

Attachments:

Application
Project plans

Redacted

Item 4.

ZBA Case Number 26-0002

\$500

PROPERTY TAX
FILING DATE
4-15-2025
PROPERTY VALUE
\$500.00



FAX 810-231-4295
PHONE 810-231-1000

P.O. Box 157
10405 Merrill Road
Hamburg, Michigan 48139

**APPLICATION FOR A ZONING BOARD OF APPEALS (ZBA)
VARIANCE/INTERPRETATION
(FEE \$500 plus \$50 each additional)**

1. Date Filed: _____
2. Tax ID #: 15- 33 - 110 - 066 Subdivision: Cornwell Acres Lot No.: 180 & 1/2 of 179
3. Address of Subject Property: 4467 Cornwell Lane
4. Property Owner: Kate and Jeff Borough Phone: (H) _____
Email Address: _____ (W) _____
Street: 4467 Cornwell Lane City Whitmore Lake State Mi
5. Appellant (If different than owner): Timothy McCotter for
McCotter Architecture & Design Phone: (H) _____
E-mail Address _____ (W) _____
Street: 2060 Ore Creek Lane City Brighton State Mi
6. Year Property was Acquired: 2019 Zoning District: WFR Flood Plain _____ PROPERTY YES
STRUCTURE NO
7. Size of Lot: Front 125.0' Rear 104.8 Side 1 104.8 Side 2 104.8 Sq. Ft. 23,710 sf
11. Dimensions of Existing Structure (s) 1st Floor 968 sf 2nd Floor 1,087 Garage 614 sf
12. Dimensions of Proposed Structure (s) 1st Floor 968 sf 2nd Floor 1701 Garage none
13. Present Use of Property: Single Family Residential
14. Percentage of Existing Structure (s) to be demolished, if any 30 %
15. Has there been any past variances on this property? Yes _____ No X
16. If so, state case # and resolution of variance application _____
17. Please indicate the type of variance or zoning ordinance interpretation requested:
Side yard setback variance of 1.8'

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Hamburg Township
Planning and Zoning Department

18. Please explain how the project meets each of the following standards:

• I understand that any order of the ZBA permitting the erection alteration of a building will be void after one (1) year (12 months), unless a valid building permit is obtained and the project is started and proceeds to completion (See Sec. 6.8 of the Township Zoning Ordinance).

Owner's Signature

Date

Matthew S. McCOTTER 3/23/26

Appellant's Signature

Date

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APR 02 2025

Hanover Township
Planning and Zoning Department

VARIANCE (ZBA) APPLICATION CHECKLIST:

Eight (8) sets of plans must be submitted. The sets are for the individual use of the Zoning Board members and for the Township's records. None will be returned to you. The Land Use Permit will not be released until three (3) final construction blueprints and three (3) copies of your site plan are submitted which have been prepared according to the variances granted and conditions imposed at the appeals meeting.

 Zoning Board of Appeals Application Form **Site (plot) Plan with the following information:**

- Location and width of road(s) and jurisdiction (public or private road).
- Location and dimensions of existing/proposed construction.
- Dimensions, designation, and heights of existing structures on property clearly marked.
- Dimensions of property (lot lines).
- Location and dimensions of required setbacks.
- Measurement from each side of existing and proposed structure to the property lines.
- All easements.
- Any bodies of water (lake, stream, river, or canal) with water body name.
- Distance proposed structure and existing structures are from any body of water.
- Septic tank and field, sewer (grinder pump), and water well.
- All areas requiring variances clearly marked with dimensions and amount of variance requested.
- Any outstanding topographic features that should be considered (hills, drop-offs, trees, boulders, etc.)
- Any other information which you may feel is pertinent to your appeal.
- If the variance is to a setback requirement a licensed professional stamp shall be on the site plan.

 Preliminary sketch plans:

a) Elevation plans:

- Existing and proposed grade
- Finished floor elevations
- Plate height
- Building height
- Roof pitch

b) Floor plans:

- Dimension of exterior walls
- Label rooms
- Clearly identify work to be done
- Location of floor above and floor below

c) All other plans you may need to depict the variance you're requesting (surveys, grading plans, drainage plans, elevation certificates, topographical surveys, etc.)

 Proof of Ownership: Include one of the following:

- a) Warranty Deed – showing title transaction bearing Livingston County Register of Deeds stamps, OR
- b) Notarized letter of authorization from seller of property giving the purchaser authorization to sign a Land Use Permit.

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APR 07 2025

Hamburg Township
Planning and Zoning

VARIANCE PROCESS:

Once a project is submitted:

The Zoning Administrator will review your submittal to make sure you have submitted a complete set of project plans (1 week if complete).

Once the project has been deemed complete by the Zoning Administrator:

The project will be scheduled for a Zoning Board of Appeals (ZBA) hearing. ZBA hearings are held the second Wednesday of each month. Your project will need to be deemed complete by the Zoning Administrator a minimum of three (3) weeks prior to a hearing in order to be scheduled for that hearing.

Once the project has been scheduled for a ZBA hearing:

All property owners within a three hundred (300) foot radius of the subject property shall be notified if the date and time of the public hearing on your variance request and the basic nature of your proposed project and variances being requested, and the owner's name and address of the subject property. Notices will be sent on or before fifteen (15) days prior to the date of the hearing.

A public hearing notice stating all appeals for a given date will be published in the Tuesday edition of the Livingston County Daily Press & Argus fifteen (15) days prior to the date of the hearing.

At the ZBA meeting/hearing:

- You and/or your representative (Lawyer, builder, contractor, relative, friend, etc.) must attend.
- Variance requests/appeals are taken in order of submission.
- Unless your variance request/appeal is tabled due to lack of information, insufficiency of drawings, etc., you will know the disposition of the appeal at the meeting before you leave.
- ***No Land Use Permits will be available for pick up on the night of the meeting, so please do not ask the Zoning Administrator for them that night. You may bring the requirements for the Land Use Permit to the Township Zoning Department on the next business day.***
- In the event that the Zoning Board of Appeals **does not grant** your variance request there will be **no refund** of the filing fee, as it pays for administration costs, the member's reviewing and meeting time, and noticing costs in the newspaper and for postage.
- Rehearing requests may be charged \$200.00 for postage and newspaper costs in addition to the original \$500.00 charge, at the discretion of the Zoning Board of Appeals.

Once the project has been approved:

You will need to submit a completed Land Use Permit, three (3) sets of your final construction plans and three (3) copies of your site plan from which your project will actually be constructed, before your Land Use Permit will be released. If the Board has made special conditions, they must be met before your Land Use Permit will be released.

If the project is denied:

Section 6.8 (C) of the Hamburg Township Zoning Ordinance states that a one (1) year period must elapse before a rehearing of the appeal "except on grounds of newly-discovered evidence or proof of changed conditions found upon inspection of the Zoning Board of Appeals to be valid."

Section 6.8 (E) of the Zoning Ordinance governs appeals to Circuit Court. If you desire to appeal the decision of the Zoning Board of Appeals, you need to contact your attorney for filing appeals to Circuit Court.

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VARIANCE STANDARDS:

Variance: (definition) A modification of the literal provisions of the zoning ordinance granted when strict enforcement would cause undue hardship due to circumstances unique to the individual property for which the variance is granted.

Section 6.5 (C) & (D) of the Township Zoning Ordinance:

- A. Where, owing to special conditions, a literal enforcement of the provisions of this Zoning Ordinance would involve practical difficulties, the Zoning Board of Appeals shall have power upon appeal in specific cases to authorize such variation or modification of the provisions of this Zoning Ordinance with such conditions and safeguards as it may determine, as may be in harmony with the spirit of this Zoning Ordinance and so that public safety and welfare be secured and substantial justice done. No such variance or modification of the provisions of this Zoning Ordinance shall be granted unless it appears that, at a minimum, the applicant has proven a practical difficulty and that all the following facts and conditions exist:
1. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved that do not apply generally to other properties in the same district or zone.
 2. That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same zone and vicinity. The possibility of increased financial return shall not be deemed sufficient to warrant a variance.
 3. That the granting of such variance or modification will not be materially detrimental to the public welfare or materially injurious to the property or improvements in such zone or district in which the property is located.
 4. That the granting of such variance will not adversely affect the purpose or objectives of the master plan of the Township.
 5. That the condition or situation of the specific piece of property, or the intended use of said property, for which the variance is sought, is not of so general or recurrent a nature.
 6. Granting the variance shall not permit the establishment with a district of any use which is not permitted by right within the district.
 7. The requested variance is the minimum necessary to permit reasonable use of the land.
- B. For the purpose of the above, a “practical difficulty” exists on the subject land when the strict compliance with the Zoning Ordinance standards would render conformity unnecessarily burdensome (such as exceptional narrowness, shallowness, shape of area, presence of floodplain or wetlands, exceptional topographic conditions), and the applicant has proven all of the standards set forth in Section 6.5 (C) (1) through (7). Demonstration of practical difficulty shall focus on the subject property or use of the subject property, and not on the applicant personally.
- C. In consideration of all appeals and all proposed variations to this Zoning Ordinance, the Zoning Board of Appeals shall, before making any variations from this Zoning Ordinance in a specific case, determine that the standards set forth above have been met, and that the proposed variation will not impair an adequate supply of light and air to adjacent property, or unreasonably increase the congestion in public streets, or increase the danger of fire or endanger the public safety, or unreasonably diminish or impair established property values within the surrounding area, or in any other respect impair the public health, safety, or welfare of the inhabitants of the Township.

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Hamburg Township
Planning and Zoning Commission



Zoning Board of Appeals Staff Report



TO: Zoning Board of Appeals
(ZBA)

FROM: David Rohr

HEARING DATE: May 13, 2026

SUBJECT: ZBA 26-0002

PROJECT Roof extension

SITE: 4467 Cornwell Lane
TID 4715-33-110-066

OWNER: Kate & Jeff Borough

APPLICANT: Kate & Jeff Borough

PROJECT: Variance application to permit the conversion of existing garage into living space. Variance request:

- Side setback of **8.2 feet** rather than 10 feet, per section 36-171(D)

ZONING: WFR- Waterfront Residential

Project Description

Variance application to permit the conversion of existing garage into an accessory dwelling unit(ADU) for an elderly family member. The garage is currently 8.2 feet from the side lot line. Applicant intends to raise the roof two feet during the conversion. The applicant requests a variance to raise the garage roof.

- Side setback of **8.2 feet** rather than 10 feet, per section 36-171(D)

Standards of Review

In accordance with Section 36-137 of the Hamburg Township Zoning Ordinance, the ZBA's decision on this matter is to be based on findings of fact to support the standards provided below. The applicable discretionary standards are listed below in **bold typeface**, followed by Staff's analysis of the request as it relates to these standards. A variance may be granted only if the ZBA finds that all of the following standards are met:

- 1. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved that do not apply generally to other properties in the same district or zone.**

The applicant's house is non-conforming. The footprint is not changing, only a vertical increase. Staff supports the request for variances.

- 2. That such variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same zone and vicinity. The possibility of increased financial return shall not be deemed sufficient to warrant a variance.**

Granting this variance request is necessary for the preservation and enjoyment of a substantial property right.

- 3. That the granting of such variance or modification will not be materially detrimental to the public welfare or materially injurious to the property or improvements in such zone or district in which the property is located.**

The variance setback request is not likely to be materially detrimental to the public welfare or materially injurious to the property or improvements in the district.

- 4. That the granting of such variance will not adversely affect the purpose or objectives**

of the master plan of the Township.

Granting this variance will not adversely affect the 2020 Master plan.

5. That the condition or situation of the specific piece of property, or the intended use of said property, for which the variance is sought, is not of so general or recurrent a nature.

The condition or situation of the specific piece of property is not of a general and recurrent nature.

6. Granting the variance shall not permit the establishment with a district of any use which is not permitted by right within the district.

The site is zoned for single-family dwellings and related appurtenances. Approval of the variance requests would not permit the establishment of a use not permitted by right within the district.

7. The requested variance is the minimum necessary to permit reasonable use of the land.

Staff finds that the proposed raising of the roof for the garage will have minimal impact on the surrounding properties. Staff believes the location and size of the proposed ADU is reasonable and will have minimal impact on the surrounding residents.

“Practical difficulty” exists on the subject site when the strict compliance with the Zoning Ordinance standards would render conformity unnecessarily burdensome (such as exceptional narrowness, shallowness, shape of area, presence of floodplain or wetlands, exceptional topographic conditions).

Recommendation

Staff recommends the ZBA open the public hearing, take testimony, close the public hearing, evaluate the proposal for conformance with the applicable regulations, and deny or approve the application. In the motion to deny or approve the project, the ZBA should incorporate the ZBA’s discussion and analysis of the project and the findings in the staff report.

Approval Motion

Motion to approve variance application ZBA 26-0002 at 4467 Cornwell Lane. TID 4715-33-110-066.

- Side setback of **8.2 feet** rather than 10 feet, per section 36-171(D)

The variance meets variance standards one (1) through seven (7) of Section 36-137 of the Hamburg Township Zoning Ordinance, and a practical difficulty exists on the subject site when strict compliance with the Zoning Ordinance standards is applied, as discussed at the meeting this evening and as presented in the staff report.

Denial Motion

Motion to deny variance application ZBA 26-0002 at 4467 Cornwell Lane. TID 4715-33-110-066.

- Side setback of **8.2 feet** rather than 10 feet, per section 36-171(D)

The variance does not meet variance standards of Section 36-137 of the Hamburg Township Zoning Ordinance, and no practical difficulty exists on the subject site when strict compliance with the Zoning Ordinance standards is applied, as discussed at the meeting this evening, and as presented in this staff report.

Attachments:

Application
Project plans

GENERAL NOTES AND SPECIFICATIONS

- WORK SHALL COMPLY IN ALL RESPECTS TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS, CODES, AND REGULATIONS.
- THESE DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR FOLLOWING THE MINIMUM GUIDELINES SET FORTH IN CURRENT EDITION OF THE THE MICHIGAN RESIDENTIAL CODE. THIS PUBLICATION IS CONSIDERED PART OF THESE SPECIFICATIONS AND REQUIREMENTS.
- WORK SHALL COMPLY TO BUILDING MATERIALS MANUFACTURER'S WRITTEN SPECIFICATIONS AND RECOMMENDATIONS
- DEVIATIONS FROM THESE DRAWINGS SHALL BE MADE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT
- IF ANY GENERAL NOTE CONFLICTS WITH ANY DETAIL OR NOTE ON THE PLANS OR SPECIFICATIONS, THE STRICTEST PROVISION SHALL GOVERN
- THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
- CALL VESB UTILITIES AND SERVICES PRIOR TO EXCAVATION
- DO NOT SCALE DRAWINGS. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY.
- IF FIELD DIMENSION CONDITIONS VARY FROM THOSE INDICATED ON DRAWINGS CONTACT THE ARCHITECT FOR CLARIFICATION
- PROVIDE SOLID WOOD BLOCKING FOR TONEL BARS, PAPER HOLDERS, HOOKS, DRAPERIES, SHELVING, ETC. COORDINATE LOCATIONS WITH OWNER
- PROVIDE FRAMING INTERVALS 10'-0" INTERVALS IN WALL TALLER THAN 10'-0" AND AT ALL FLOOR AND CEILING LOCATIONS
- REMOVE ALL CONSTRUCTION DEBRIS FROM PROJECT AND LEGALLY DISPOSE OF DEBRIS.
- STORE AND DISPOSE OF SOLVENT-BASED MATERIALS, AND MATERIALS USED WITH SOLVENT BASED MATERIALS, IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION

TEMPORARY CONSTRUCTION SHORING

- THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE DESIGN OR PROPER INSTALLATION OF TEMPORARY BUILDING BRACING AND SHORING OR THE MEANS AND METHODS REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR AND HIS ENGINEER ARE RESPONSIBLE FOR THE DESIGN AND PROPER INSTALLATION OF BOTH TEMPORARY SHORING AND BRACING REQUIRED FOR A SAFE AND STRUCTURALLY SOUND PROJECT. THE STRUCTURAL MEMBERS INDICATED ON THESE DRAWINGS ARE NOT SELF-BRACING AND SHALL BE CONSIDERED UNSTABLE UNTIL ATTACHED TO THE COMPLETED STRUCTURE AS INDICATED ON THESE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES INCURRED DUE TO IMPROPER SHORING OR BRACING DURING THE CONSTRUCTION PROJECT. ACCEPTANCE OF THE CONSTRUCTION PROJECT BY THE CONTRACTOR IS PROOF OF ACCEPTANCE OF THE ABOVE MENTIONED ITEMS.

SOIL BEARING REQUIREMENTS:

- CONCRETE SLAB LOADS BEARING ON EXISTING MATERIALS SHALL ADHERE TO THE FOLLOWING: TOP SOIL, SOFT OR LOOSE SOIL, OR OBVIOUSLY OBJECTIONABLE MATERIAL SHOULD BE REMOVED AND THE SUBGRADE THOROUGHLY PROOF-COMPACTED WITH HEAVY RUBBER-TIRED EQUIPMENT. IF DURING THE PROOF-COMPACTION OPERATION, AREAS ARE FOUND WHERE THE SOILS YIELD EXCESSIVELY, THE YIELDING MATERIALS SHOULD BE SCARIFIED, DRIED AND RECOMPACTED OR REMOVED AND REPLACED WITH ENGINEERED FILL. WHERE FILL OR BACKFILL IS REQUIRED TO RAISE THE SUBGRADE FOR CONCRETE FLOORS, IT IS REQUIRED THAT CLEAN, WELL-GRADED GRANULAR SOIL FILL MATERIAL SHOULD BE DEPOSITED IN HORIZONTAL LIFTS NOT TO EXCEED NINE INCHES (9") IN THICKNESS WITH EACH LIFT BEING COMPACTED UNIFORMLY TO A MINIMUM DENSITY OF NINETY-FIVE PERCENT (95%) OF ITS MAXIMUM VALUE AS DETERMINED BY THE MODIFIED PROCTOR TEST (A.A.S.H.O.T-100 OR A.S.T.M. D-1587).
- ALL TOP SOIL, ORGANIC AND VEGETATIVE MATERIAL SHALL 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-1587.
- FOUNDATION EXISTING SOILS AND AREAS SHALL BE PROVED FOR A MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 2.0 PSF UNLESS NOTED OTHERWISE. THE ALLOWABLE SOIL BEARING CAPACITY MUST BE VERIFIED BY A REGISTERED SOILS ENGINEER PRIOR TO THE START OF CONSTRUCTION AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
- NOTIFY THE ARCHITECT IF THE ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 2,500 PSF SO THAT THE FOUNDATIONS CAN BE REDESIGNED FOR THE NEW ALLOWABLE BEARING CAPACITY.
- DO NOT PLACE CONCRETE OR SUB-BASE ON FROZEN GROUND AND/OR WATER, SNOW OR STANDING WATER. DEWATERING TECHNIQUES MAY BE REQUIRED DURING EXCAVATION AND PLACEMENT OF CONCRETE.

CONCRETE:

- CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITION OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY" EXCEPT AS MODIFIED HEREIN.
- CONCRETE SHALL HAVE A MINIMUM OF 3,000 PSI, 28 DAY COMPRESSIVE STRENGTH, UNLESS NOTED OTHERWISE (U.N.O.). (517 LBS. OF CEMENT PER CUBIC YARD MINIMUM (9.5 SACKS) & A WATER/CEMENT RATIO NOT TO EXCEED 6 GALLONS PER SACK). EXTERIOR CONCRETE SLABS SHALL HAVE A MINIMUM OF 4,000 PSI, 28 DAY COMPRESSIVE STRENGTH, AND 4% AIR ENTRAINMENT.
- ALL SLABS ON GROUND SHALL BE 4" THICK UNLESS NOTED OTHERWISE
- THE USE OF JOINTS, REINFORCING AND OTHER DETAILS SHALL BE AT THE OPTION OF THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ARCHITECT. FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER FOR PROPER USE OF ADDITIVES, ADDITIVES CONTAINING CHLORIDE SALTS SHALL NOT BE USED.
- CONTROL JOINTS IN CONCRETE SLABS SHALL BE LOCATED AT 12'-0" ON CENTER MAXIMUM AND BE OF THE TOOLED OR SAWCUT TYPE.

MASONRY:

- MASONRY WORK SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF A.C.I. 530 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES," AND SPECIFICATIONS FOR MASONRY STRUCTURES A.C.I. 530.1.
- CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-90, GRADE N, TYPE 1 FOR HOLLOW CONCRETE MASONRY UNITS, AND ASTM C145, GRADE N, TYPE 1 FOR SOLID CONCRETE MASONRY UNITS.
- BRICK SHALL CONFORM TO ASTM C216, GRADE SN.
- MORTAR SHALL CONFORM TO ASTM C210, TYPE M OR S FOR BLOCK, AND TYPE N FOR BRICK.
- CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1900 PSI.
- GROUT SHALL CONFORM TO ASTM C416 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
- EXPANSION JOINTS FOR BRICK MASONRY SHALL BE PLACED AT 20' TO 30' O.C. MAXIMUM.
- CONTROL JOINTS FOR CONCRETE MASONRY SHALL BE PLACED AT 24' O.C. MAXIMUM, UNLESS NOTED OTHERWISE (U.N.O.).
- CONCRETE BLOCK WALLS SHALL HAVE "DUR-O-WAL" OR EQUIVALENT TRUSS-TYPE HORIZONTAL REINFORCING INSTALLED AT EVERY OTHER COURSE. HORIZONTAL WIRE REINFORCEMENT SHALL BE #4 GA. WIRE WITH ASTM A641 GALVANIZED COATING UNLESS NOTED OTHERWISE. WALLS WITH VERTICAL REINFORCEMENT SHALL HAVE ONLY "LADDER" TYPE REINFORCEMENT. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS.
- INSTALL VERTICAL REINFORCING (AS NOTED ON PLANS) IN THE CENTER OF BLOCK CORES AND GROUT IN MAXIMUM OF FOUR FOOT HEIGHTS. REINFORCING STEEL SHALL BE ASTM 615 GRADE 60. REINFORCEMENT SPLICES SHALL BE PLACED IN ACCORDANCE WITH ACI 530-99, SECTION 8.5.7.1.
- BRICK WORK SHALL HAVE PROPER TIES TO THE STRUCTURE, FLASHING, KEEPHOLES, ETC., IN ACCORDANCE WITH THE MOST RECENT SPECIFICATIONS OF THE BRICK INSTITUTE OF AMERICA AND THE MICHIGAN RESIDENTIAL CODE.
- STEEL BEAMS BEARING ON MASONRY WALLS SHALL HAVE A 1 1/2" x 1 1/2" x 3/8" BEARING PLATE WITH TWO 1/2" DIAMETER X 6" LONG HEADED STUDS, U.N.O. THE TOP THREE COURSES OF BLOCK BELOW THE BEARING SHALL BE GROUTED SOLID. STEEL LINTELS SUPPORTING MASONRY FROM THE BOTTOM FLANGE SHALL HAVE A CONTINUOUS 5/16" STEEL PLATE WELDED TO THE BOTTOM FLANGE AS REQUIRED.
- PRECAST MASONRY LINTELS BEARING ON MASONRY SHALL HAVE 8" MINIMUM BEARING AT EACH END.
- THE MASONRY CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF TEMPORARY SHORING AND FALSE-WORK REQUIRED TO WITHSTAND WIND LOAD AND TEMPORARY CONSTRUCTION LOADS. WORK PERFORMED SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS, REQUIREMENTS.

STONE VENEER:

- PERFORM WORK IN ACCORDANCE WITH ACI 930 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES AND WITH MANUFACTURER'S RECOMMENDATIONS
- DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST. WHEN AIR TEMPERATURE IS BELOW 40 DEGREES COMPLY WITH MANUFACTURER'S COLD-WEATHER CONSTRUCTION REQUIREMENTS.
- MORTAR FOR STONE MASONRY VENEER TO BE ASTM C270 TYPE N OR S, PROPORTION SPECIFICATION AS RECOMMENDED BY STONE MANUFACTURER.

STONE VENEER (continued):

- WIRE REINFORCING SHALL BE GALVANIZED EXPANDED METAL LATH CONFORMING TO ASTM C647 2.5 LB/S.Y. OR 18 GAUGE.
- TILE WIRES, NAILS, SCREWS AND OTHER METAL SUPPORTS SHALL BE GALVANIZED AND OF THE TYPE AND SIZE TO SUIT THE APPLICATION AND RIGIDLY SECURE MATERIALS IN PLACE.
- STONE MATERIAL SHALL CONFORMING TO THE FOLLOWING REQUIREMENTS
 - COMPRESSIVE STRENGTH SHALL BE GREATER THAN 20,000 PSI PER ASTM C170
 - SHEER BOND SHALL BE 50 PSI PER ASTM C482
 - WATER ABSORPTION SHALL BE LESS THEN 130% PER ASTM C47
 - MINIMUM DENSITY SHALL BE OF 150LBS/CUBIC FT PER ASTM C47
- POINT STONE JOINTS BY PLACING AND COMPACTING MORTAR IN LAYERS NOT GREATER THAN 3/8 INCH. COMPACT EACH LAYER THOROUGHLY AND ALLOW TO BECOME THUMBPRINT HARD BEFORE APPLYING NEXT LAYER.
- TOOL JOINTS, WHEN POINTING MORTAR IS THUMBPRINT HARD, WITH A SMOOTH JOINTING TOOL, POINT OFF PROFILE.
- CLEAN STONE VENEER AS WORK PROGRESSES. REMOVE MORTAR FINIS AND SMEARS BEFORE TOOLING JOINTS. PERFORM FINAL CLEANING AFTER MORTAR IS THOROUGHLY CURED BY REMOVING LARGE MORTAR PARTICLES, SCRUBBING, AND RINSING STONE VENEER.
- LATH INSTALLED OVER SHEATHING AND ASPHALT-SATURATED FELT SHALL BE FASTENED THROUGH SHEATHING INTO FRAMING COMPLYING WITH ASTM C1063. LATH INSTALLED OVER UNIT MASONRY AND CONCRETE SHALL COMPLY WITH ASTM C1063.

REINFORCING STEEL:

- REINFORCING BARS, DOMELS, AND TIES SHALL CONFORM WITH ASTM-A615 GRADE 60 REQUIREMENTS AND SHALL BE FREE OF RUST, DIRT AND MUD.
- WELDED WIRE FABRIC SHALL CONFORM WITH ASTM A-105 AND BE POSITIONED AT THE MID HEIGHT OF SLABS, U.N.O. WITH END AND SIDE LAPS OF MIN 6" UNO
- REINFORCING SHALL BE PLACED AND SECURELY TIED IN PLACE SUFFICIENTLY AHEAD OF PLACING OF CONCRETE TO BE PROTECTED
- WELDING OF REINFORCING STEEL IS NOT ALLOWED.
- HORIZONTAL WALL AND FOOTING REINFORCEMENT CALLED FOR ON THE DRAWINGS SHALL BE CONTINUOUS AND HAVE A MINIMUM OF 36 BAR DIAMETER LAP. CORNER BARS SHALL BE PROVIDED AT ALL OUTSIDE CORNERS AND SHALL BE THE SAME SIZE AND SPACING OF THE MAIN REINFORCEMENT. EXTEND REINFORCING BARS A MINIMUM OF 36" AROUND CORNERS. PROVIDE TWO #5 BARS ON EACH SIDE OF ALL OPENINGS
- DEFORMED STEEL REINFORCING BARS SHALL ALL CONFORM TO ASTM A-615, GRADE 60. LAP ALL CORNERS OF TRUSSES WITH 36" DIAMETERS, MIN. (UNO).
- CONCRETE COVER OVER REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI 318 SECTION 7.1.
- PROVIDE CHAIRS, SPACERS AND BOLSTERS AS REQUIRED TO SECURELY HOLD REINFORCING BARS AND WIRE MESH IN PLACE UNTIL CONCRETE HAS CURED. USE WIRE BAR TYPE SUPPORTS COMPLYING WITH CRSI SPECIFICATIONS, AND HAVING RUBBER TIPS ON ALL LEGS TOUCHING EXPOSED SURFACES.
- REINFORCING BARS IN FOOTINGS TWENTY FEET OR LONGER SHALL BE BONDED TOGETHER WITH STEEL WIRES, SHALL BE CONSIDERED PART OF THE GROUNDING ELECTRODE SYSTEM AND CONNECTED TO THE MAIN ELECTRICAL SYSTEM.

STRUCTURAL STEEL:

- ALL STRUCTURAL STEEL SHAPES, PLATES, BARS, ETC., ARE TO BE ASTM A-36 (UNLESS NOTED OTHERWISE) DESIGNED AND CONSTRUCTED PER THE LATEST EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION". ALL WIDE FLANGE AND CHANNELS SHALL CONFORM TO ASTM A992 Fy=50 KSI, Fu=65 KSI.
- ALL STEEL PIPE COLUMNS SHALL BE ASTM A 501, Fy=36 KSI. ALL STRUCTURAL TUBING SHALL BE ASTM A500, GRADE B, Fy=46 KSI.
- ALL WELDED CONNECTIONS SHALL CONFORM WITH THE LATEST AISC D1.1 "STRUCTURAL WELDING CODE", AND SHALL UTILIZE ETOXX ELECTRODES UNLESS NOTED OTHERWISE. WELDING SHALL BE DONE BY CERTIFIED WELDERS.
- ALL BOLTED CONNECTIONS SHALL UTILIZE ASTM A-325 BOLTS TIGHTENED TO A "SNUG TIGHT" CONDITION (UNLESS NOTED OTHERWISE).
- THE STEEL ERECTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY GUYS, BRACES, FALSEWORK, CRIBBING AND OTHER ELEMENTS REQUIRED FOR THE SAFE AND PROPER INSTALLATION OF ALL BUILDING ELEMENTS UNTIL THE STRUCTURE IS PERMANENTLY BRACED. THE FABRICATOR AND ERECTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH OSHA REQUIREMENTS.
- VERIFY ALL JOINTS AND CONNECTIONS IN FIELD PRIOR TO CONSTRUCTION.
- ALL EXPOSED STRUCTURAL STEEL SHALL BE COATED WITH RUST PREVENTIVE FINISH.
- THE MINIMUM PLATE THICKNESS SHALL BE 3/8". MINIMUM BOLT DIAMETER SHALL BE 3/4". MINIMUM WELD SHALL BE 1/4". MINIMUM DESIGN LOAD ON ANY CONNECTION SHALL BE 6 KIPS UNO

WOOD CONSTRUCTION:

- ALL WOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AITC "TIMBER CONSTRUCTION MANUAL" BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, AND THE LATEST EDITION OF THE NDS "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AS PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION.
- ALL FRAMING LUMBER USED FOR STUDS SHALL BE SPF/STUD (NLGA) OR BETTER GRADE, (UNO), AT 19% MAXIMUM MOISTURE CONTENT.
- ALL LUMBER USED AS STRUCTURAL LUMBER SUCH AS HEADERS AND JOISTS SHALL BE A MINIMUM OF #2 HEM FIR AT 19% MAXIMUM MOISTURE CONTENT.
- ALL STRUCTURAL CONNECTIONS SHALL COMPLY WITH APA EN5 LVL STEEL CLASS 1,8E-2800F.
- SHEATHING SHALL BE IDENTIFIED WITH THE APPROPRIATE TRADE MARK OF THE ENGINEERED WOOD ASSOCIATION (APA) AND SHALL MEET THE REQUIREMENTS FOR THE LATEST EDITION OF THE U.S. PRODUCT STANDARDS FOR CONSTRUCTION AND INDUSTRIAL SHEATHING. ALL EXTERIOR WALL AND ROOF SHEATHING SHALL BE EXPOSURE 1 (ONE). ALL SHEATHING WHICH WILL BE EXPOSED TO WEATHER AFTER COMPLETION SHALL BE EXTERIOR GRADE. FOLLOW THE MANUFACTURER'S GUIDELINE REQUIREMENTS FOR SHEATHING(NAILING, SPACING, BLOCKING, STORAGE, HANDLING, AND PROTECTION, ETC.)
- ALL STRUCTURAL LUMBER IN CONTACT WITH CONCRETE, MASONRY, EXPOSED TO THE WEATHER OR LESS THAN 8" ABOVE GRADE SHALL BE PRESSURE PRESERVATIVE TREATED IN ACCORDANCE WITH MICHIGAN RESIDENTIAL CODE R317
- ALL HANGERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE SIMPSON 6-MAX TRIPLE GALVANIZED, STAINLESS STEEL OR EQUAL.

WOOD TRUSSES

- DESIGN INFORMATION:
- DESIGNS SHALL CONFORM WITH THE LATEST EDITION OF THE (NDS), "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (BY THE AMERICAN FOREST & PAPER ASSOCIATION), THE ANSI/TPI 1-2007 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" (BY THE AMERICAN NATIONAL STANDARDS INSTITUTE AND THE TRUSS PLATE INSTITUTE) AND THE LOCAL CODE JURISDICTIONS.
 - TRUSSES SHALL BE SPACED AS INDICATED ON THE PLANS UNLESS THE DESIGNER DETERMINES THAT DIFFERENT SPACING IS REQUIRED TO MEET THE DEFLECTION REQUIREMENTS.
 - MAXIMUM DEFLECTION OF TRUSSES SHALL BE LIMITED TO L/360 FOR TOTAL LOAD AND L/480 FOR LIVE LOAD, U.N.O.
 - DESIGN LOADS:
 - ROOF:
 - 25 PSF TOP CHORD LIVE LOAD *
 - 1 PSF TOP CHORD DEAD LOAD
 - 10 PSF BOTTOM CHORD DEAD LOAD **

* A 15% INCREASE IN ALLOWABLE STRESSES FOR SHORT TERM LOADING IS ALLOWED. DRIFT LOADING SHALL BE ACCOUNTED FOR PER THE CURRENT MBC REQUIREMENTS. ** ADD ADDITIONAL ATTIC STORAGE AND HABITABLE FLOOR LIVE LOADS PER THE CURRENT MBC/MRC REQUIREMENTS.

SHOP DRAWINGS

- THE FOLLOWING INFORMATION SHALL APPEAR ON ALL TRUSS SHOP DRAWINGS:
 - DESIGN CRITERIA, INCLUDING LOAD INFORMATION ACCOUNTING FOR SNOW BUILD-UP WHERE APPLICABLE.
 - CONNECTOR PLATE MANUF., GAGE, SIZE AND LOCATION AT EACH TRUSS JOINT.
 - THE LUMBER GRADE AND SIZE OF ALL MEMBERS.
 - ALL REQUIRED STRUCTURAL LATERAL BRACINGS (SIZE, CONNECTION AND LOCATION).
- COMPLETE TRUSS LAYOUTS (FRAMING PLANS) SHALL BE PREPARED BY THE TRUSS FABRICATOR. LAYOUTS SHALL INDICATE TRUSS TYPE AND SPACING. REQUIRED TRUSS HANGER CONNECTIONS SHALL BE INDICATED ON THE LAYOUTS. HANGERS AND HOLD-DOWNS FOR ALL TRUSS/GIRDER, TRUSS/WALL, AND TRUSS/BREAM CONNECTIONS MUST BE SPECIFIED AS WELL AS OTHER PERTINENT CONNECTIONS AND DETAILS.
- THE TRUSS FABRICATOR SHALL SUBMIT FINAL TRUSS SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE TRUSSES WILL BE USED.

WOOD TRUSSES (continued):

- SHOP DRAWINGS:
- THE FOLLOWING INFORMATION SHALL APPEAR ON ALL TRUSS SHOP DRAWINGS:
 - DESIGN CRITERIA, INCLUDING LOAD INFORMATION ACCOUNTING FOR SNOW BUILD-UP WHERE APPLICABLE.
 - CONNECTOR PLATE MANUF., GAGE, SIZE AND LOCATION AT EACH TRUSS JOINT.
 - THE LUMBER GRADE AND SIZE OF ALL MEMBERS.
 - ALL REQUIRED STRUCTURAL LATERAL BRACINGS (SIZE, CONNECTION AND LOCATION).
 - COMPLETE TRUSS LAYOUTS (FRAMING PLANS) SHALL BE PREPARED BY THE TRUSS FABRICATOR. LAYOUTS SHALL INDICATE TRUSS TYPE AND SPACING. REQUIRED TRUSS HANGER CONNECTIONS SHALL BE INDICATED ON THE LAYOUTS. HANGERS AND HOLD-DOWNS FOR ALL TRUSS/GIRDER, TRUSS/WALL, AND TRUSS/BEAM CONNECTIONS MUST BE SPECIFIED AS WELL AS OTHER PERTINENT CONNECTIONS AND DETAILS.
 - THE TRUSS FABRICATOR SHALL SUBMIT FINAL TRUSS SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE TRUSSES WILL BE USED.

HANDLING AND ERECTION:

- HANDLING AND ERECTION OF THE TRUSSES ARE NOT THE RESPONSIBILITY OF THE ARCHITECT. 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.
- 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, SHALL BE INSTALLED IN ACCORDANCE WITH DSB-89 (DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES) AS PUBLISHED BY THE TRUSS PLATE INSTITUTE, AND INCLUDES CROSS BRACING BETWEEN THE TRUSSES TO PREVENT TOPPLING OR "DOMINIONING" OF THE TRUSSES.
- TEMPERARY BRACING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, AS PUBLISHED BY THE AMERICAN FOREST & PAPER ASSOCIATION AND THE 2010 EDITION BCSI (BUILDING COMPONENT SAFETY INFORMATION), AS PUBLISHED JOINTLY BY THE WOOD TRUSS COUNCIL OF AMERICA AND THE TRUSS PLATE INSTITUTE. PERMANENT BRACING CONSISTS OF LATERAL AND DIAGONAL BRACING NOT TO EXCEED SPACING REQUIREMENTS OF THE TRUSS FABRICATOR, WTCGA, AND TPI. CONTACT TPI AT (608) 533-5100 FOR FURTHER INFORMATION.
- CORNER BRACING OF TRUSSES SHALL COMPLY WITH AIA 2605-1.007. UNLESS OTHERWISE NOTED ON TRUSS SHOP DRAWINGS, BOTTOM CHORDS MUST BE BRACED AT INTERVALS NOT TO EXCEED 10' O.C. OR AS NOTED ON THE TRUSS FABRICATORS DRAWINGS.
- CONSTRUCTION LOADS GREATER THAN THE DESIGN LOADS OF THE TRUSSES SHALL NOT BE APPLIED TO THE TRUSSES AT ANY TIME.
- NO LOADS SHALL BE APPLIED TO THE TRUSSES UNTIL ALL FASTENING AND REQUIRED BRACING IS INSTALLED.
- THE SUPERVISION OF THE TRUSS ERECTING SHALL BE UNDER THE DIRECT CONTROL OF PERSON(S) EXPERIENCED IN THE INSTALLATION AND PROPER BRACING OF WOOD TRUSSES. IMPROPER INSTALLATION AND BRACING OF TRUSSES CAN LEAD TO COLLAPSE AND POSSIBLE INJURIES TO WORKERS.

SHEET METAL FLASHING AND TRIM:

- COMPLY WITH SMACNAS "ARCHITECTURAL SHEET METAL MANUAL," CONFORM TO DIMENSIONS AND PROFILES SHOWN UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.
- COORDINATE INSTALLATION OF SHEET METAL FLASHING AND TRIM WITH INTERFACING AND ADJOINING CONSTRUCTION TO PROVIDE A LEAK-PROOF, SECURE, AND NON-CORROSIVE INSTALLATION.
- ALUMINUM SHEET SHALL COMPLY WITH ASTM B209, ALLOY 3003, 3004, 3105, OR 5005, TEMPER SUITABLE FOR FORMING AND STRUCTURAL PERFORMANCE REQUIRED, BUT NOT LESS THAN 0.024 INCH THICK, AND FINISHED A MILL FINISH OR MANUFACTURER'S STANDARD TWO COAT SYSTEM WITH TOPCOAT CONTAINING NOT LESS THAN 70 PERCENT POLYVINYLIDENE TEREPHTHALATE RESIN BY WEIGHT. COMPLY WITH AIA 2605-1.007. UNLESS OTHERWISE NOTED ON TRUSS SHOP DRAWINGS, BOTTOM CHORDS MUST BE BRACED AT INTERVALS NOT TO EXCEED 10' O.C. OR AS NOTED ON THE TRUSS FABRICATORS DRAWINGS.
- STAINLESS STEEL SHEET SHALL COMPLY WITH ASTM A240/A240M, TYPE 304, WITH NO. 2D FINISH NOT LESS THAN 0.016" THICK.
- FABRICATE SHEET METAL FLASHING AND TRIM TO COMPLY WITH RECOMMENDATIONS IN SMACNAS "ARCHITECTURAL SHEET METAL MANUAL" THAT APPLY TO THE DESIGN, DIMENSIONS, METAL, AND OTHER CHARACTERISTICS OF THE ITEM INDICATED.
- PROVIDE MATERIALS AND TYPES OF FASTENERS, SOLDER, WELDING RODS, PROTECTIVE COATINGS, SEPARATORS, SEALANTS, AND OTHER MISCELLANEOUS ITEMS AS REQUIRED FOR COMPLETE SHEET METAL FLASHING AND TRIM INSTALLATION.
- BUTYL SEALANT SHALL COMPLY WITH ASTM C 1311, SOLVENT-RELEASE TYPE, FOR EXPANSION JOINTS WITH LIMITED MOVEMENT.
- EXPANDED MASTIC SHALL COMPLY WITH MSPC-PAINT 12, ASBESTOS FREE, SOLVENT FREE.
- ROOFING CEMENT SHALL COMPLY WITH ASTM D 4586, TYPE I, ASBESTOS FREE, ASPHALT BASED.
- COMPLY WITH SMACNAS "ARCHITECTURAL SHEET METAL MANUAL." ALLOW FOR THERMAL EXPANSION; SET TRUE TO LINE AND LEVEL. INSTALL WORK WITH LAPS, JOINTS, AND SEAMS PERMANENTLY WATER-TIGHT AND WEATHERPROOF; CONCEAL FASTENERS WHERE POSSIBLE.
- SECURE METAL FLASHING AT ROOF EDGES ACCORDING TO FM6 LOSS PREVENTION DATA SHEET 1-44 FOR SPECIFIED WIND SPEEDS.
- FORM NON-EXPANSION, BUT MOVABLE, JOINTS IN METAL TO ACCOMMODATE ELASTOMERIC SEALANT TO COMPLY WITH SMACNA STANDARDS.
- FABRICATE NONMOVING SEAMS IN SHEET METAL WITH FLAT-LOCK SEAMS.
- SEPARATE NON-COMPATIBLE METALS OR CORROSIVE SUBSTRATES WITH A COATING OF ASPHALT MASTIC OR OTHER PERMANENT SEPARATION.
- EXTEND VERTICAL FLASHING A MINIMUM OF 8" ABOVE ADJACENT HORIZONTAL COMPONENT/SURFACE UNLESS NOTED OTHERWISE

INSULATION SYSTEM:

- SURFACE-BURNING CHARACTERISTICS PER ASTM E-84 SHALL BE AS FOLLOWS:
 - FLAME-SPREAD INDEX OF 25 OR LESS WHERE EXPOSED
 - SMOKE DEVELOPED INDEX OF 450 OR LESS WHERE EXPOSED
- RIGID INSULATION SHALL BE POLY STYRENE ASTM C810 TYPE IV OR POLYISOCYANURATE ASTM C-1289 TYPE I, CLASS 1.
- BELOW SLAB AND ON GRADE RIGID INSULATION SHALL BE RESISTANT TO DEGRADATION FROM CONTINUOUS CONTACT WITH SOIL AND WATER.
- BELOW SLAB RIGID INSULATION SHALL HAVE A COMPRESSIVE STRENGTH OF 25 LBS/SQUARE INCH OR GREATER.
- MINERAL FIBER BLANKET INSULATION SHALL BE ASTM-C695, WITH FIBERS MANUFACTURED FROM GLASS, SLAG WOOL OR ROCK WOOL WITH FLAME SPREAD INDEX OF 25 OR LESS.
- BLOWN CELLULOSE INSULATION SHALL CONFORM TO ASTM C-739.
- INSTALL INSULATION IN AREA AND IN THICKNESS INDICATED OR REQUIRED TO PROVIDE R-VALUED INDICATED. CUT AND FIT TIGHTLY AROUND OBSTRUCTION AND FILL VOIDS WITH INSULATION.
- DO NOT COMPRESS INSULATION
- EXTEND VAPOR RETARDER TO EXTREMITIES OF AREAS TO BE PROTECTED FROM VAPOR TRANSMISSION. SECURE IN PLACE WITH ADHESIVES OR OTHER ANCHORAGE. LOCATED SEAMS AT FRAMING MEMBERS AND OVERLAP.
- CLOSE CELL SPRAY FOAM INSULATION SHALL CONFORM TO ASTM D1622 WITH A DENSITY OF 2.0LBS PER CUBIC FOOT AND A 30PSI COMPRESSIVE STRENGTH. SPRAY FOAM INSULATION SHALL HAVE AN AIR PERMEANCE OF LESS THAN 0.004 CUBIC FEET PER MINUTE PER SQUARE FOOT OF AREA UNDER A PRESSURE DIFFERENTIAL OF 0.3 INCHES OF WATER.
- DO NOT INSTALL SPRAY FOAM INSULATION IN RAIN, FOG OR MIST OR WHEN THE TEMPERATURE OF SUBSTRATE SURFACES AND SURROUNDING AIR IS BELOW MANUFACTURER'S RECOMMENDATIONS.
- DO NOT SPRAY FOAM INSULATION WITHIN 3' OF HEAT EMITTING DEVICES SUCH AS LIGHT FIXTURES AND CHIMNEYS
- TRIM EXCESS INSULATION AS REQUIRED THAT WOULD INTERFERE WITH THE APPLICATION OF CLADDING/GOVERING SYSTEM BY OTHER TRADES
- APPLY SPRAY FOAM INSULATION IN CONSECUTIVE PASSES OF NOT LESS THAN 1/2" AND NOT GREATER THAN 3 1/2". AN ADDITIONAL PASS SHALL ONLY BE DONE AFTER THE FIRST PASS HAS HAD TIME TO COMPLETELY COOL.

GENERAL NOTES CONTINUED ON SHEET A2

AFF	ABOVE FINISHED FLOOR	FT6	FOOTING	REGTS	REQUIREMENTS
BIT	BLOCKING	FDN	FOUNDATION	REQ'D	REQUIRED
BLKG	BLOCKING	GYP BD	GYP/SM BOARD	R.O.	ROUGH OPENING
BF	BARRIER FREE	HB	HOSE BIB	SCHED	SCHEDULE
BRG	BEARING	HF	HEM FIR	SECT	SECTION
BTM	BOTTOM	LB/#	POUND	SIM	SIMILAR
CL	CENTERLINE	LVL	LAMINATED VENEER LUMBER	SQ	SQUARE
COL	COLUMN	MANUF	MANUFACTURER	S.F.	SQUARE FOOT
COMP	COMPACTED	MATL	MATERIAL	STL	STEEL
CONG	CONCRETE	MAX	MAXIMUM	STRUCT	STRUCTURAL
CMU	CONCRETE MASONRY UNIT	MIN	MINIMUM	T&B	TOP AND BOTTOM
CONST	CONSTRUCTION	MISC	MISCELLANEOUS	TME	TO MATCH EXISTING
CJ	CONTROL/CONST. JOINT	M.O.	MASONRY OPENING	TYF	TYPICAL
CONT	CONTINUE/CONTINUOUS	MTL	METAL	TOM	TOP OF MASONRY
DEC	DECORATIVE	NIC	NOT IN CONTRACT	T.O.S.	TOP OF SLAB
DET	DETAIL	NOT TO SCALE	NOT TO SCALE	T.O.W.	TOP OF WALL
Ø	DIAMETER	O.C.	ON CENTER	UNEX	UNEXCAVATED
ELEV	ELEVATION	PERF	PERFORATED	UNO	UNLESS NOTED OTHERWISE
ENG	ENGINEERED	P.LAM	PLASTIC LAMINATE	UNO	UNLESS OTHERWISE NOTED
E.N.	EACH WAY	PSF	POUNDS PER SQUARE FOOT	VERT	VERTICAL/VERTICALLY
EX	EXISTING	PSI	POUNDS PER SQUARE INCH	W/V.N.M.	WELDED WIRE FABRIC
EXIST	EXISTING	P. CONC.	POURED CONCRETE	W/	WITH
EXT	EXTERIOR	PT	PRESSURE TANK	W/O	WITHOUT
FIN	FINISH/FINISHED	REF	REFERENCE	W	WOOD
FF	FINISH FLOOR	REIN	REINFORCING/REINFORCEMENT	WH	WATER HEATER
FD	FLOOR DRAIN			WT	WATER TREATMENT

LOADING CRITERIA:	
FLOORS	
LIVE LOAD	40 LBS/SF
DEAD LOAD	15 LBS/SF
DEAD LOAD (TILE)	25 LBS/SF
ROOFS	
LIVE LOAD (SNOW)	25 LBS/SF
DEAD LOAD	17 LBS/SF
WIND LOADING	
	115 MPH/3 SEC GUST
	EXP. CLASSIFICATION "B"
DEFLECTION CRITERIA:	
FLOORS	
LIVE LOAD	L/360
TOTAL LOAD	L/240
ROOFS	
LIVE LOAD	L/240
TOTAL LOAD	L/180
WALLS	
	L/180

LOWER LEVEL	
UNFINISHED	102 SF
FINISHED	866 SF
MAIN LEVEL	
FINISHED	1,087 SF
GARAGE TO BE CONVERTED TO FINISHED LIVING SPACE	614 SF
TOTAL:	
FINISHED	2,567 SF

CODE USED:	MICHIGAN RESIDENTIAL CODE (2015 EDITION)
CONSTRUCTION TYPE:	5B-UNPROTECTED
FIRE SUPPRESSION:	NONE INSTALLED
USE GROUP:	SINGLE FAMILY RESIDENTIAL

SHT #	SHEET NAME
A1	TITLE SHEET
A2	PLOT AND DEMO PLAN
A3	PROPOSED PLANS
A4	CEILING PLAN AND EXTERIOR ELEVATIONS
A5	BUILDING SECTIONS
A6	CONSTRUCTION DETAILS

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Issue/Revision:

PERMIT 4/9/2026

GENERAL NOTES AND SPECIFICATIONS CONTINUED

INTERIOR WOOD TRIM AND CASEWORK:

1. ARCHITECTURAL WOODWORK SHALL CONFORM TO THE ARCHITECTURAL WOODWORK INSTITUTES' ARCHITECTURAL WOODWORK QUALITY STANDARDS' PREMIUM GRADE QUALITY.
2. DO NOT DELIVER OR INSTALL WOODWORK UNTIL BUILDING IS ENCLOSED, NET WORK IS COMPLETED, AND HVAC SYSTEM IS OPERATING.
3. COMPLETE FABRICATION BEFORE SHIPPING TO PROJECT SITE TO MAXIMUM EXTENT POSSIBLE. DISASSEMBLE ONLY AS NEEDED FOR SHIPPING AND INSTALLING. WHERE NECESSARY FOR FITTING AT PROJECT SITE, PROVIDE FOR SCRIBING AND TRIMMING.
4. BACK-CUT OR GRAVE-BACK GROOVE MEMBERS OR OTHER FLAT MEMBER 2" AND WIDER, EXCEPT FOR MEMBERS WITH ENDS EXPOSED IN FINISH WORK.
5. CONDITION WOODWORK TO PREVAILING CONDITIONS BEFORE INSTALLING. MOISTURE CONTENT SHALL BE BETWEEN 8-10 PERCENT TO REDUCE SHRINKAGE.
6. INSTALL WOODWORK TO COMPLY WITH A91 SECTION 1100 FOR GRADE SPECIFIED.
7. INSTALL WOODWORK LEVEL, PLUMB, TRUE, AND STRAIGHT. SHIM AS REQUIRED WITH CONCEALED SHIMS. INSTALL TO A TOLERANCE OF 1/8 INCH IN 48 INCHES FOR LEVEL AND PLUMB.
8. SCRIBE AND CUT WOODWORK TO FIT ADJOINING WORK. SEAL CUT SURFACES, AND REPAIR DAMAGED FINISH AT CUTS.
9. INSTALL TRIM WITH MINIMUM NUMBER OF JOINTS POSSIBLE, USING FULL-LENGTH PIECES TO GREATEST EXTENT POSSIBLE. STAGGER JOINTS IN ADJACENT AND RELATED MEMBERS.
10. ALL WOODWORK TO BE STAINED SHALL BE CLEAR OF KNOTS WITH CONCEALED JOINTS.
11. EXPOSED ENDS OF RUNNING TRIM SHALL BE PROFILED OR HAVE SELF-MITERED RETURNS.
12. COPE OR MITER INSIDE CORNERS FOR TIGHT FITTING JOINTS. MITER OUTSIDE CORNERS FOR TIGHT FITTING JOINTS.
13. BLIND NAILING AND CONCEALED TYPE FASTENERS SHALL BE USED WHENEVER POSSIBLE. WHERE REQUIRED, EXPOSED FASTENERS SHALL BE TRIM STYLE NAILS OR SCREWS AND HEAD SHALL BE DEEP SET.

GYPSUM BOARD

1. ALL GYPSUM BOARD/CEMENTITIOUS PANELS SHALL BE OF THICKNESS INDICATED, WITH MANUFACTURER'S FINISH UNLESS NOTED OTHERWISE AND PROVIDED IN MAXIMUM LENGTHS AVAILABLE TO MINIMIZE END-TO-END BUTT JOINTS.
2. REGULAR GYPSUM BOARD SHALL CONFORM TO ASTM C36 AND ASTM C1396, AND SURFACED WITH PAPER FRONT AND BACK.
3. WATER RESISTANT GYPSUM BOARD SHALL HAVE ADDITIVES TO ENHANCE WATER RESISTANCE OF CORE, COMPLY WITH ASTM C1396 AND ASTM C630, AND BE SURFACED WITH GREEN-COLORED PAPER AND GREY BACKING PAPER.
4. FIRE RESISTANCE RATED GYPSUM BOARD SHALL HAVE GLASS FIBERS TO ENHANCE FIRE RESISTANCE OF CORE, AND COMPLY WITH ASTM C1396 AND ASTM C630, TYPE X.
5. CEMENTITIOUS BACKER UNITS SHALL CONFORM TO ANSI A10.9.
6. JOINT TREATMENT TAPE SHALL CONFORM TO ASTM C415 AND 6A-216.
7. JOINT COMPOUND SHALL COMPLY WITH ASTM C475 AND BE VINYL TYPE PRE-MIXED COMPOUND OR SETTING TYPE LIGHTWEIGHT, JOB MIXED CHEMICAL-HARDENING COMPOUND.
8. TRIM ACCESSORIES SHALL CONFORM TO ASTM C1047, FORMED FROM GALVANIZED OR ALUMINUM-COATED STEEL SHEET, ROLLED ZINC, OR FLAT, STIC.
9. BESTRIPS AND CONCEALED JOINTS SHALL BE NONSAG, PAINTABLE, NONSTAINING LATEX SEALANT COMPLYING WITH ASTM G 834.
10. SOUND-ATTENUATION BLANKETS SHALL BE MINERAL FIBER BLANKETS CONFORMING TO ASTM C665, TYPE I (UNFACED) OR BLOWN CELLULOSE INSULATION.
11. DO NOT INSTALL INTERIOR PRODUCTS UNTIL INSTALLATION AREAS ARE ENCLOSED AND CONDITIONED. MAINTAIN ENVIRONMENTAL CONDITIONS WITHIN LIMITS RECOMMENDED BY MANUFACTURER FOR OPTIMUM RESULTS.
12. ALL INSTALLED PANELS THAT ARE NET, THOSE THAT ARE MOISTURE DAMAGED, AND THOSE THAT ARE MOLD DAMAGED.
13. PROVIDE CORNER BEAD AT OUTSIDE CORNERS, UNLESS OTHERWISE INDICATED. PROVIDE LG-BEAD (J-BEAD) AT EXPOSED PANEL EDGES, PROVIDE CONTROL JOINTS WHERE INDICATED.
14. INSTALL AND FINISH GYPSUM PANELS TO COMPLY WITH ASTM C840 AND 6A-214. FASTEN GYPSUM PANELS TO SUPPORTS WITH SCREWS AND ADHESIVE.
15. INSTALLATION OF CEMENTITIOUS BACKER UNITS SHALL COMPLY WITH ANSI A10.9.11.

VINYL FLOORING:

1. ALL FLOORING INSTALLATIONS SHALL COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. FLOOR TILE SHALL CONFORM TO ASTM F1066.
3. ADHESIVE SHALL BE WATER RESISTANT AND PROVIDED BY MANUFACTURER AND SUITABLE FOR SUBSTRATE.
4. LEVELING AND PATCHING COMPOUNDS SHALL BE LATEX MODIFIED, PORTLAND CEMENT, OR BLENDED HYDRAULIC CEMENT BASED FORMULATIONS AND PROVIDED BY FLOORING MANUFACTURER.
5. PREPARE ALL CONCRETE SUBSTRATES IN ACCORDANCE WITH ASTM F710. WOOD SUBSTRATES SHALL BE PREPARED IN ACCORDANCE WITH ASTM F1482.
6. ALL SUBSTRATES SHALL BE DRY AND FREE OF ANY CHEMICALS OR FOREIGN MATERIAL PRIOR TO INSTALLATION.
7. INSTALL REDUCER STRIPS AT EDGES OF FLOORING THAT WOULD OTHERWISE BE EXPOSED.
8. LAY OUT TILE/PLANK WIDTHS SO THAT OPPOSITE EDGES OF ROOM ARE EQUAL AND AT LEAST ONE HALF A TILE.
9. MAINTAIN FLOOR MATERIALS AND ROOM WHERE WORK OCCURS ABOVE 65 DEGREES AND BELOW 100 DEGREES FOR 48 HOURS PRIOR, DURING, AND 48 HOURS AFTER INSTALLATION.
10. STORE MATERIAL IN WEATHERTIGHT AND DRY STORAGE FACILITY, PROTECT FROM DAMAGE BEFORE, DURING AND AFTER INSTALLATION.
11. ACCLIMATE VINYL FLOOR COVERS IN AREA TO BE INSTALLED FOR A MINIMUM 48 HOURS PRIOR TO INSTALLATION.
12. INSPECT SUBSTRATE AND CORRECT AND CONDITIONS WHICH WILL IMPAIR PROPER INSTALLATION INCLUDING BUT NOT LIMITED TO TROWEL MARKS, PITS, DENTS, PROTRUSIONS, CRACKS, OR JOINTS PRIOR TO INSTALLATION.

JOINT SEALANTS:

1. DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 DEG. F. DO NOT INSTALL JOINT SEALANTS ON MATERIALS WHICH ARE NET, DAMP, OR CONTAIN FROST.
2. PROVIDE JOINT SEALANTS, JOINT FILLERS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER SERVICE AND APPLICATION CONDITIONS.
3. SEALANT FOR GENERAL EXTERIOR USE WHERE ANOTHER TYPE IS NOT SPECIFIED SHALL BE ONE OF THE FOLLOWING: SINGLE-COMPONENT, NONSAG POLYSULFIDE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 12-1/2; USES NT, M, G, A, AND O. SINGLE-COMPONENT, NEUTRAL-CURING SILICONE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 25; USES T, NT, M, G, A, AND O. SINGLE-COMPONENT, NONSAG URETHANE SEALANT.
4. SEALANT FOR EXTERIOR TRAFFIC-BEARING JOINTS, WHERE SLOPE PRECLUDES USE OF POURABLE SEALANT SHALL BE SINGLE-COMPONENT, NONSAG URETHANE SEALANT, ASTM C 920, TYPE S; GRADE P; CLASS 25; USES T, M, G, A, AND O3. SEALANT FOR USE IN INTERIOR JOINTS IN CERAMIC TILE AND OTHER HARD SURFACES IN KITCHENS AND TOILET ROOMS AND AROUND PLUMBING FIXTURES SHALL BE SINGLE-COMPONENT, MILDEX-RESISTANT SILICONE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 25; USES NT, G, A, AND O; FORMULATED WITH FUNGICIDE.
6. SEALANT FOR INTERIOR USE AT PERIMETERS OF DOOR AND WINDOW FRAMES SHALL BE LATEX SEALANT, SINGLE-COMPONENT, NONSAG, MILDEX-RESISTANT, PAINTABLE, ACRYLIC-EMULSION SEALANT COMPLYING WITH ASTM C834.
7. PROVIDE SEALANT BACKINGS OF MATERIAL AND TYPE THAT ARE NONSTAINING; ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS; AND ARE APPROVED FOR APPLICATIONS INDICATED BY SEALANT MANUFACTURER.
8. CYLINDRICAL SEALANT BACKINGS SHALL BE OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEALANT PERFORMANCE AND SHALL COMPLY WITH ASTM C1930.
9. BOND-BREAKER TAPE SHALL BE POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER FOR PREVENTING SEALANT FROM ADHERING TO RIGID, INFLEXIBLE JOINT-FILLER MATERIALS OR JOINT SURFACES AT BACK OF JOINT.
10. INSTALLATION SHALL COMPLY WITH ASTM C1193 AND COMPLY WITH ASTM C414 FOR JOINT SEALANTS IN ACoustICAL APPLICATIONS.
11. REMOVE DIRT, DUST, OIL, GREASE, RUST, LOOSE MATERIALS, AND EXISTING SEALANTS FROM SURFACES THAT CONTACT SEALANTS. CLEAN SURFACES 1 TO 2 HOURS BEFORE APPLYING SEALANTS.
12. INSTALL SEALANTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, WITH UNIFORM APPEARANCE AND IN PROPER RELATION TO ADJACENT MATERIALS.
13. REMOVE EXCESS SEALANTS FROM GLASS, METAL, AND PLASTIC SURFACES WHILE STILL UNCURED. REMOVE EXCESS SEALANTS FROM POROUS SURFACES AFTER INITIAL CURE OR SET-UP.

VINYL SIDING:

1. INSTALL VINYL SIDING AND ACCESSORIES IN ACCORDANCE WITH ASTM D 4756 AND THE MANUFACTURER'S WRITTEN SPECIFICATIONS.
2. FASTENERS USED TO SECURE VINYL SIDING SHALL BE NON-CORROSIVE AND PENETRATE SOLID SUBSTRATE BY 1/2" MIN.
3. IF FACE NAILING IS REQUIRED, PREDRILL HOLE IN INCONSPICUOUS AREA. THE HOLE MUST BE LARGER THAN THE SHANK OF THE NAIL, BUT SMALLER THAN THE HEAD TO ALLOW FOR EXPANSION. THE HEAD SHALL BE PAINTED TO MATCH SIDING.
4. FASTENING OF PANELS SHOULD NOT RESTRICT PANEL MOVEMENT AND EXPANSION.
5. INSTALL PANELS WITH SPACERS AND FASTENERS IN FINISH WORK AS RECOMMENDED BY THE MANUFACTURER FOR THE TEMPERATURE DURING INSTALLATION.

PAINT:

1. PAINT PRODUCTS SHALL BE SHERWIN WILLIAMS OR EQUAL.
2. PROVIDE MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH SUBSTRATES.
3. BLOCK FILLERS AND PRIMERS FOR EACH COATING SYSTEM SHALL BE FROM SAME MANUFACTURER AS FINISH COATS.
4. PROVIDE MANUFACTURER'S BEST-QUALITY PAINT MATERIAL OF COATING TYPES SPECIFIED THAT ARE FORMULATED AND RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED.
5. STORE AND DISPOSE OF SOLVENT BASED MATERIAL, AND MATERIALS USED WITH SOLVENT-BASED MATERIALS, IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
6. ENSURE SURFACES RETAINING SUBSTRATES TO RECEIVE FINISHES HAVE MOISTURE CONTENT WITHIN TOLERANCES ALLOWED BY COATING MANUFACTURER.
7. DO NOT START WORK UNTIL SURFACES TO BE FINISHED ARE IN PROPER CONDITION TO PRODUCE FINISHED SURFACES OF UNIFORM, SATISFACTORY APPEARANCE.
8. REMOVE HARDWARE, LIGHTING FIXTURES AND SIMILAR ITEMS THAT ARE NOT TO BE PAINTED. MASK ITEMS THAT CANNOT BE REMOVED. REINSTALL ITEMS IN EACH AREA AFTER PAINTING IS COMPLETE.
9. DO NOT PAINT PRE-FINISHED ITEMS, ITEMS WITH AN INTEGRAL FINISH, OPERATING PARTS, AND LABELS UNLESS OTHERWISE INDICATED.
10. THINNER ADDITION SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS. DO NOT USE KEROSENE OR OTHER ORGANIC SOLVENTS TO THIN WATER-BASED PAINTS. WHERE PAINT IS TO BE SPRAYED, THIN ACCORDING TO MANUFACTURER'S CURRENT GUIDELINES.
11. PAINT EXPOSED SURFACES, (NEW), UNLESS OTHERWISE INDICATED. PAINT THE BACK SIDE OF ACCESS PANELS.
12. APPLY COATINGS BY BRUSH, ROLLER, SPRAY OR OTHER APPLICATORS ACCORDING TO COATING MANUFACTURER'S WRITTEN INSTRUCTIONS. USE BRUSHES ONLY FOR EXTERIOR PAINTING AND WHERE THE USE OF OTHER APPLICATORS IS NOT PRACTICAL. USE ROLLERS FOR FINISH COAT ON INTERIOR WALLS AND CEILING.
13. APPLY PIGMENTED (OPAQUE) FINISHES TO COMPLETELY COVER SURFACES PROVIDING A SMOOTH, OPAQUE SURFACE OF UNIFORM APPEARANCE.
14. APPLY TRANSPARENT (CLEAR) FINISHES USING MULTIPLE COATS TO PRODUCE A GLASS-SMOOTH SURFACE FILM OF EVEN FINISH.
15. ALL PAINT FIXTURES, MARKS, BRUSH MARKS, ROLLER MARKS, ORANGE-PEEL CLOUDINESS, COLOR IRREGULARITY, OR OTHER APPLICATION IMPERFECTIONS.
16. PROVIDE OWNER WITH ONE QUART OF EACH COLOR AND TYPE OF FINISH COAT PAINT USED ON PROJECT, IN CONTAINERS, PROPERLY LABELED AND SEALED.

PLUMBING NOTES:

1. THESE DOCUMENTS ARE DIAGRAMATIC DEVELOPED FOR DESIGN/BUILD AND ARE FOR REFERENCE ONLY. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL SYSTEM, REQUIRED SUBMITTALS, AND ENGINEERING. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS REQUIRED TO PROVIDE COMPLETE OPERABLE SYSTEMS REGARDLESS IF NOTED ON PLANS OR NOT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND FEES ALL WORK SHALL COMPLY WITH THE LATEST MICHIGAN, FEDERAL, AND LOCAL CODES, AND OSHA, REQTS.
3. FIXTURE CONNECTIONS SHALL BE CHROME PLATED FLEXIBLE BRASS PIPE. ALL WATER SUPPLY CONNECTIONS SHALL BE PROVIDED WITH WHEEL HANDLE STOPS OR VALVES WITH ESCRUTCHONS, BRASS-CRAFT CR112A OR EQUAL.
4. DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE "L" OR TYPE "M" COPPER W/WORKED COPPER FITTINGS AND 95/5 SOLDER. BELOW GROUND PIPING TO BE TYPE "K" COPPER W/1/2" ARMAFLEX INSULATION, PROVIDE INSULATING UNIONS IN FERROUS TO NON-FERROUS PIPE CONNECTIONS. ALTERNATIVELY, PEK MAY BE USED FOR ABOVE GROUND HOT AND COLD WATER SUPPLY PIPING. USE BLUE FOR COLD WATER LINES AND RED FOR HOT WATER LINES.
5. ALL WATER PIPING SHALL BE CAST IRON ANSI A21.10 WITH "NO HUB" FITTINGS OR SCHEDULE 80 OR 40 PVC W/SOLVENT WELD JOINTS. "NO-HUB" FITTINGS SHALL BE NEOPRENE SLEEVE WITH STAINLESS STEEL SHIELD CONFORMING TO AISI 301 AND ASTM C564.
6. PROVIDE FLOOR DRAINS WHERE SHOWN ON PLAN W/ DEEP SEAL TRAPS AND POLISHED NICKEL ALLOY STRAINER.
7. PROVIDE ZURN Z-100 SERIES "SHOCKTROLS" WITH STABILIZED 18-8 STAINLESS STEEL CASING AND PRESSURE CHARGED BELLOW FOR BOTH HOT AND COLD WATER.
8. ALL RADIANT HEAT PIPING SHALL BE BLACK STEEL PIPE WITH SCREENED JOINTS OR S304 CORRUGATED STAINLESS STEEL WITH YELLOW PVC PROTECTIVE COVERING. SUPPORT ALL PIPING AS REQD BY CODE. PROVIDE DIRTLES, UNION, SHUT-OFF VALVE, AND FLEXIBLE CONNECTIONS TO ALL EQUIPMENT. PRESSURE TEST ALL PIPING PRIOR TO PUTTING INTO USE. COORDINATE REQUIREMENTS WITH LOCAL GAS COMPANY PRIOR TO INSTALLATION.
9. WORK SHALL BE COORDINATED WITH THAT OF OTHER TRADES.
10. ALL NEW WATER PIPING SHALL BE INSTALLED TIGHT TO STRUCTURE, ADEQUATELY SUPPORTED, PROTECTED, AND INSULATED TO ALLOW TOTAL DRAINAGE.
11. USE PIPE HANGERS WHERE REQUIRED WITH SADDLES TO AVOID CRUSHING INSULATION. ON PIPING 1"Ø OR SMALLER, SPACE HANGERS AT 8'-0" O.C. FOR PIPES 1 1/4"Ø OR LARGER, INSTALL HANGERS AT 4'-0" O.C.
12. COORDINATE ROUTING OF PIPING WITH OTHERS, LINE UP WORK TRUE TO OR AT A RIGHT ANGLE TO ADJACENT SURFACES AND IN A WORKMANLIKE MANNER. SUPPORT ALL INTERIOR PIPING FROM BUILDING STRUCTURE BY MEANS OF A HANGER OR INSERTS TO MAINTAIN PITCH OF LINES, PREVENT FRICTION, AND TO SECURE PIPING PLACE.
13. ALL WATER PIPING SHALL BE HYDROSTATICALLY TESTED FOR 2 HOURS AT 150 PSIG BEFORE COVERING.
14. ALL HOT AND COLD WATER PIPING SHALL BE INSULATED WITH A MINIMUM OF 1/2" ELASTOMERIC INSULATION AND WITHIN BUILDING INSULATION.
15. FLUSH AND STERILIZE THE WATER DISTRIBUTION SYSTEM PRIOR TO BEING PLACED INTO SERVICE.
16. SHOWER VALVE SHALL BE COMBINATION PRESSURE BALANCED/THERMOSTATIC MIXING TYPE.
17. PROVIDE CLEANOUTS AT THE FOOT OR BASE OF EACH VERTICAL WASTE STACK AND IN ALL DRAINAGE CHANGES IN DIRECTION OVER 45 DEGREES. CLEANOUT SHALL BE PROVIDED WITH HEX PLUGS IN CONCEALED LOCATIONS AND RECESSED PLUGS WITH COVER PLATES IN EXPOSED LOCATIONS.
18. VENT LINES SHALL SLOPE UP TO ALL STACKS AND TERMINATE A MINIMUM 12' ABOVE THE ROOF LINE.

MECHANICAL NOTES:

1. THESE DRAWINGS ARE DIAGRAMATIC AND ARE FOR REFERENCE ONLY. ALL ENGINEERING, SUBMITTALS, PERMITS, LICENSES, FEES, ETC. SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
2. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR AS INDICATED AND/OR REQUIRED TO PROVIDE COMPLETE AND OPERABLE SYSTEMS AS OUTLINED.
3. WORK SHALL BE IN FULL COMPLIANCE WITH THE LATEST MICHIGAN, FEDERAL, AND LOCAL CODES, AND OSHA.
4. ALL DUCTWORK AND FITTINGS SHALL BE MINIMUM 28 GAUGE GALVANIZED OR ALUMINUM CONSTRUCTION IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS. ANY SIDE, TOP OR BOTTOM OF A FITTING, OR LENGTH OF DUCTWORK 12" OR WIDER SHALL BE CROSS BROKE TO CONTROL DUCT BANGING.
5. ALL DUCT WORK IN UNCONDITIONED SPACES TO BE INSULATED IN ACCORDANCE WITH LATEST APPROVED VOLUME CONTROL DUCTWORK INSULATION STANDARDS. INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 80 OR LESS.
6. ALL HORIZONTAL AND VERTICAL SUPPLY AND RETURN DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST ISSUE OF SMACNA'S AND ASHRAE'S MINIMUM INSTALLATION STANDARDS.
7. ALL DUCT CONNECTIONS SHALL BE SEALED WITH DUCT MASTIC.
8. PROVIDE VOLUME CONTROL DUCTWORK INSULATION STANDARDS. INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 80 OR LESS.
9. SUPPLY AND RETURN BRANCH DUCTS MAY BE INSULATED FLEX DUCT IF THE RUN IS LESS THAN FIVE FEET IN LENGTH. ANY LENGTHS OVER FIVE FEET SHALL BE RIGID DUCTWORK. FLEX DUCT WHERE INSTALLED SHALL HAVE NO ANGULAR BENDS.
10. PROVIDE TURNING VANES IN ALL RECTANGULAR ELBOYS CONFORMING TO SMACNA DUCT

MECHANICAL NOTES (continued):

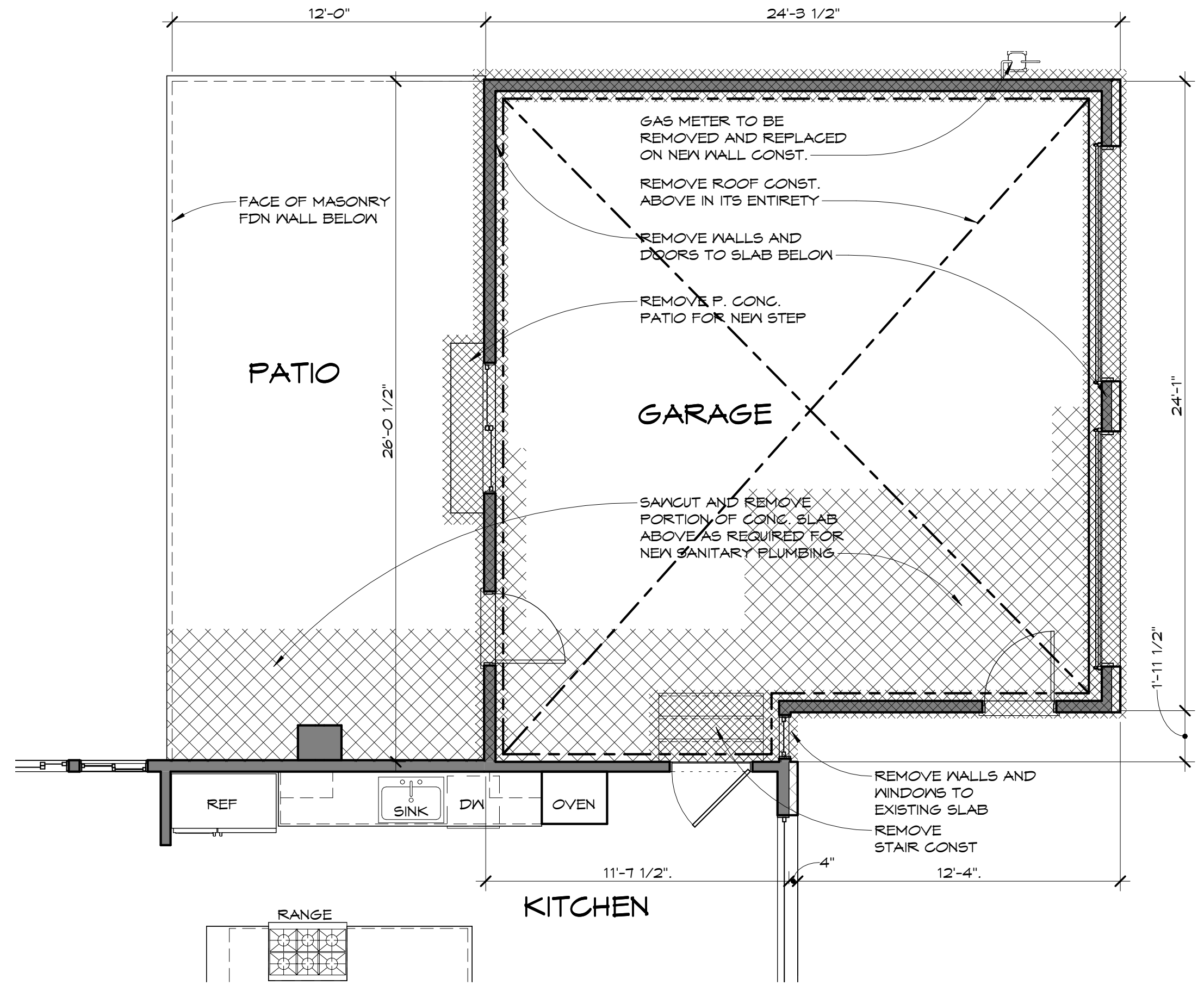
11. DIFFUSERS SHALL BE 1" MINIMUM OR PAINTED STEEL, EACH EQUIPPED WITH OFFSETTING BLADE DAMPER.
12. RETURN AIR GRILLES SHALL BE ALL ALUMINUM OR PAINTED STEEL CONSTRUCTION.
13. PAINT WALL CAVITIES BEHIND RETURN AIR GRILLES BLACK.
14. PROVIDE VIBRATION ISOLATION DEVICES AND FLEXIBLE DUCT CONNECTIONS AT ALL EQUIPMENT.
15. CONDENSATE DRAINAGE FROM AIR HANDLING UNITS SHALL BE TRAPPED AND RUN TO FLOOR DRAIN OR SUMP CROCK.
16. PROVIDE PROGRAMMABLE THERMOSTATS SHALL CAPABLE OF MAINTAINING TWO SEPARATE PROGRAMS AND FOUR TEMPERATURE SETTINGS EACH DAY. THERMOSTATS SHALL BE LOCATED BE FIELD COORDINATED WITH OWNER TO AVOID INTERFERENCE WITH WALL MOUNTED WORK.

ELECTRICAL NOTES:

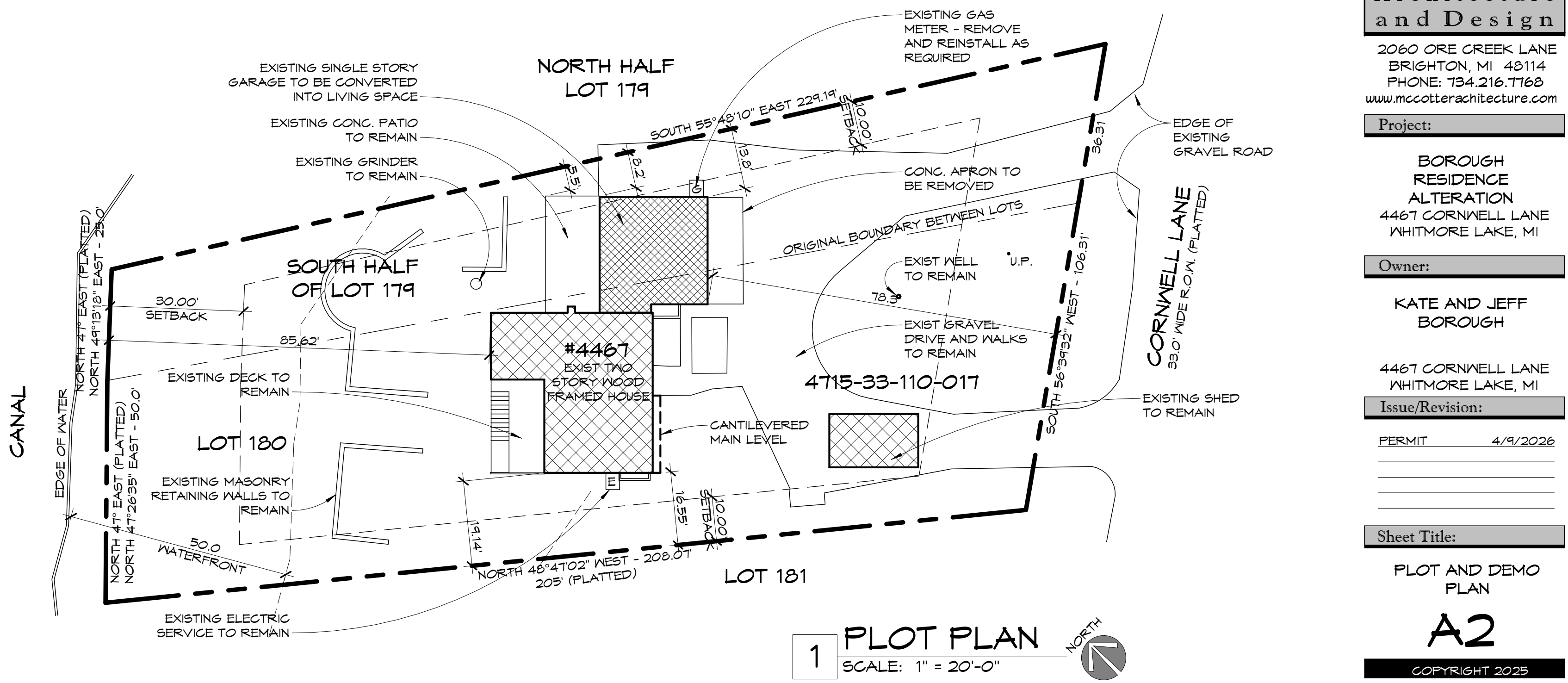
1. ALL ENGINEERING, SUBMITTALS, PERMITS, AND FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. WORK SHALL BE IN FULL COMPLIANCE WITH THE LATEST MICHIGAN, FEDERAL, AND LOCAL CODES, AND OSHA.
3. COORDINATE AND VERIFY ROUGH-IN LOCATIONS, FINAL CONNECTIONS, MOUNTING HEIGHTS, VOLTAGE, CURRENT, AND PHASE REQUIREMENTS PRIOR TO INSTALLATION OF ALL MOTORS, PANELS, EQUIPMENT, ETC. PROVIDED BY OTHERS.
4. COORDINATE NETWORK/LOW VOLTAGE CONTROLS SERVICE INSTALLATION, PROVIDE ALL CONDUITS, OUTLETS, PULL STRINGS, BACKBOARDS, ETC. AS REQUIRED.
5. PANELS, CABINETS, CONDUIT SYSTEMS, STARTERS, MOTOR FRAMES, ETC SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C. AND LOCAL CODES.
6. MATERIALS SHALL BE NEW AND BEAR THE U.L. LABEL OR LISTING, WHEREVER STANDARDS HAVE BEEN ESTABLISHED.
7. FEEDERS SHALL BE TYPE "TH" OR "XHHN", BRANCH CIRCUIT WIRING SHALL BE TYPE "TW" OR "THHN/THWN", #12 MINIMUM. ALL WIRE SHALL BE COPPER, HAVING 600 VOLT INSULATION.
8. ALL OUTLET WIRING LONGER THAN 100' SHALL BE INCREASED ONE CODE SIZE MIN. VERIFY VOLTAGE DROP COMPLIES WITH THE REQUIREMENTS OF THE N.E.C.
9. SWITCHES SHALL BE 15A 120/240V, 1 POLE, 2 POLE, 3 AND 4 WAY AS REQUIRED.
10. RECEPTACLE OUTLETS SHALL BE PROVIDED IN ACCORDANCE W/ SECTIONS E3401 & E3402 OF THE 2015 MRC.
11. LIGHTING OUTLETS SHALL BE PROVIDED IN ACCORDANCE W/ SECTION E3403 OF THE MRC. INSTALL DIMMERS ON SWITCHES AS DIRECTED BY OWNER.
12. RECEPTACLES SHALL BE DUPLEX GROUNDING TYPE 15A, 125V, OUTLETS IN KITCHENS SHALL BE 20A 125V DUPLEX GROUNDING TYPE. SPECIAL PURPOSE RECEPTACLES 30A, 40A, 50A, -2P OR 3P ETC SHALL BE SPECIFICATION GRADE. OUTLETS IN KITCHENS, BATHROOMS, GARAGES, STORAGE ROOMS, AND EXTERIOR APPLICATIONS SHALL BE GROUND FAULT INTERRUPT PROTECTED.
13. VERIFY ALL LIGHTING FIXTURE, AND SWITCH LOCATIONS W/ OWNER PRIOR TO INSTALLATION.
14. SINGLE PHASE MOTOR STARTERS SHALL BE MANUAL TOGGLE SWITCH WITH THERMAL OVERLOADS, FLUSH MOUNTED WITH PILOT LIGHT ALLEN BRADLEY #600 OR EQUAL.
15. DISCONNECTS SHALL BE HEAVY DUTY TYPE FUSED IN A NEMA 1 ENCLOSURE. DISCONNECTS INSTALLED OUTDOORS SHALL BE IN A NEMA 3R ENCLOSURE.
16. ALL FUSES SHALL BE DUAL ELEMENT TIME DELAY 200,000 A.I.C. RATED.
17. SMOKE ALARMS AND CARBON MONOXIDE DETECTORS SHALL BE PROVIDED IN ACCORDANCE W/ SECTION 314 AND 315 THE 2015 MRC.
18. MINIMUM SIZE CONDUIT SHALL BE 1/2" THINWALL (EMT). CONDUIT INSTALLED ON OR UNDER FLOOR SHALL BE 3/4" MINIMUM. CONDUIT INSTALLED IN FINISHED AREAS SHALL BE CONCEALED.
19. PROVIDE MINIMUM 50 CFM EXHAUST FANS WITHIN EACH BATHROOM VENTED THROUGH EXTERIOR WALL W/ MIN 3"Ø DUCT.
20. OUTLETS TO BE INSTALLED AT 18" A.F.F. AND AT 42" ABOVE FINISH FLOOR AT COUNTERS UNO. SWITCHES SHALL BE MOUNTED AT 48" A.F.F. UNO.

DEMOLITION NOTES

1. COORDINATE ALL DIMENSIONS OF NEW CONSTRUCTION AS RELATED TO EXISTING DIMENSIONS IN FIELD.
2. REMOVE ALL ITEMS (INCLUDING ASSOCIATED INCIDENTAL ITEMS) DENOTED ON PLANS AS NECESSARY TO IMPLEMENT NEW WORK INCLUDING BUT NOT LIMITED TO WALLS, ROOFS, AND FLOORS DURING DEMOLITION AND REBUILDING OPERATIONS.
3. PROVIDE TEMPORARY BRACING, SHORING, AND SUPPORT FOR STRUCTURAL SYSTEMS TO PREVENT POSSIBLE DAMAGE AND/OR DISPLACEMENT OF EXISTING CONSTRUCTION DURING DEMOLITION AND REBUILDING OPERATIONS.
4. PROTECT STRUCTURES AND SURFACES SCHEDULED TO REMAIN.
5. NOTIFY ARCHITECT AND OWNER OF ANY STRUCTURAL DAMAGE EXISTING OR INCURRED.
6. IDENTIFICATION, ABATEMENT, AND/OR DISPOSAL OF ANY HAZARDOUS MATERIAL (I.E. LEAD, ASBESTOS) IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. ITEMS SHOWN ARE EXISTING TO REMAIN UNO.
8. REMOVE INTERIOR AND EXTERIOR FINISHES AS REQUIRED FOR PROPOSED RENOVATIONS AS REQUIRED.



END OF GENERAL NOTES



1 PLOT PLAN SCALE: 1" = 20'-0"

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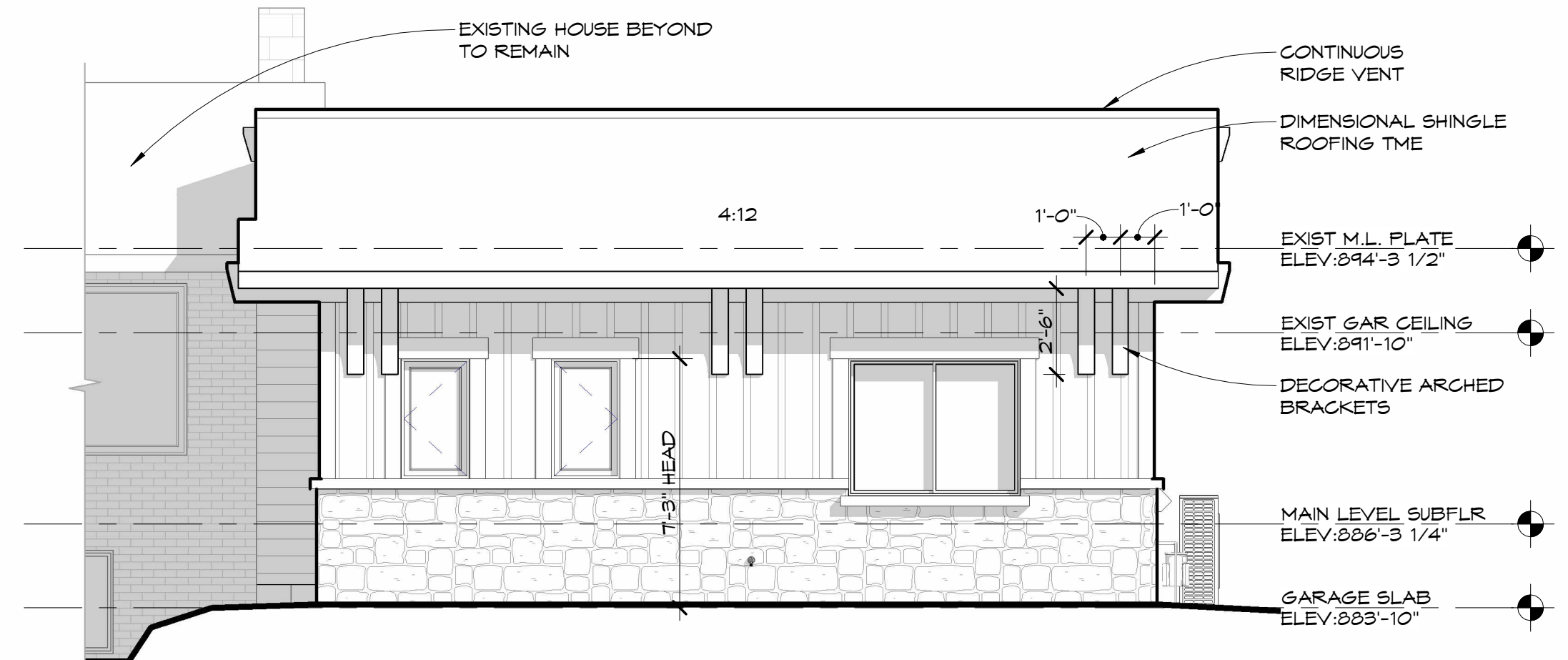
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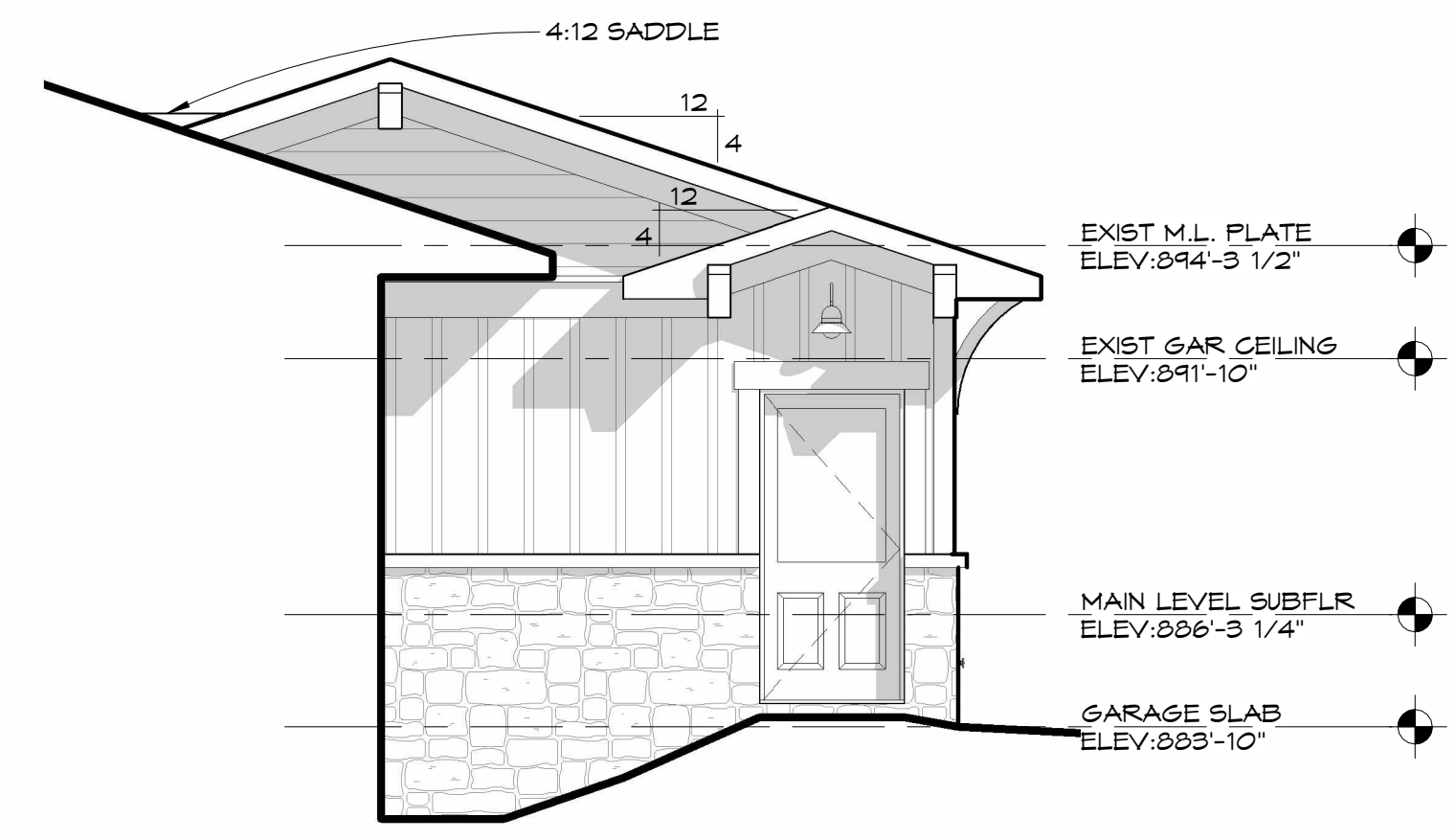
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PLOT AND DEMO
PLAN

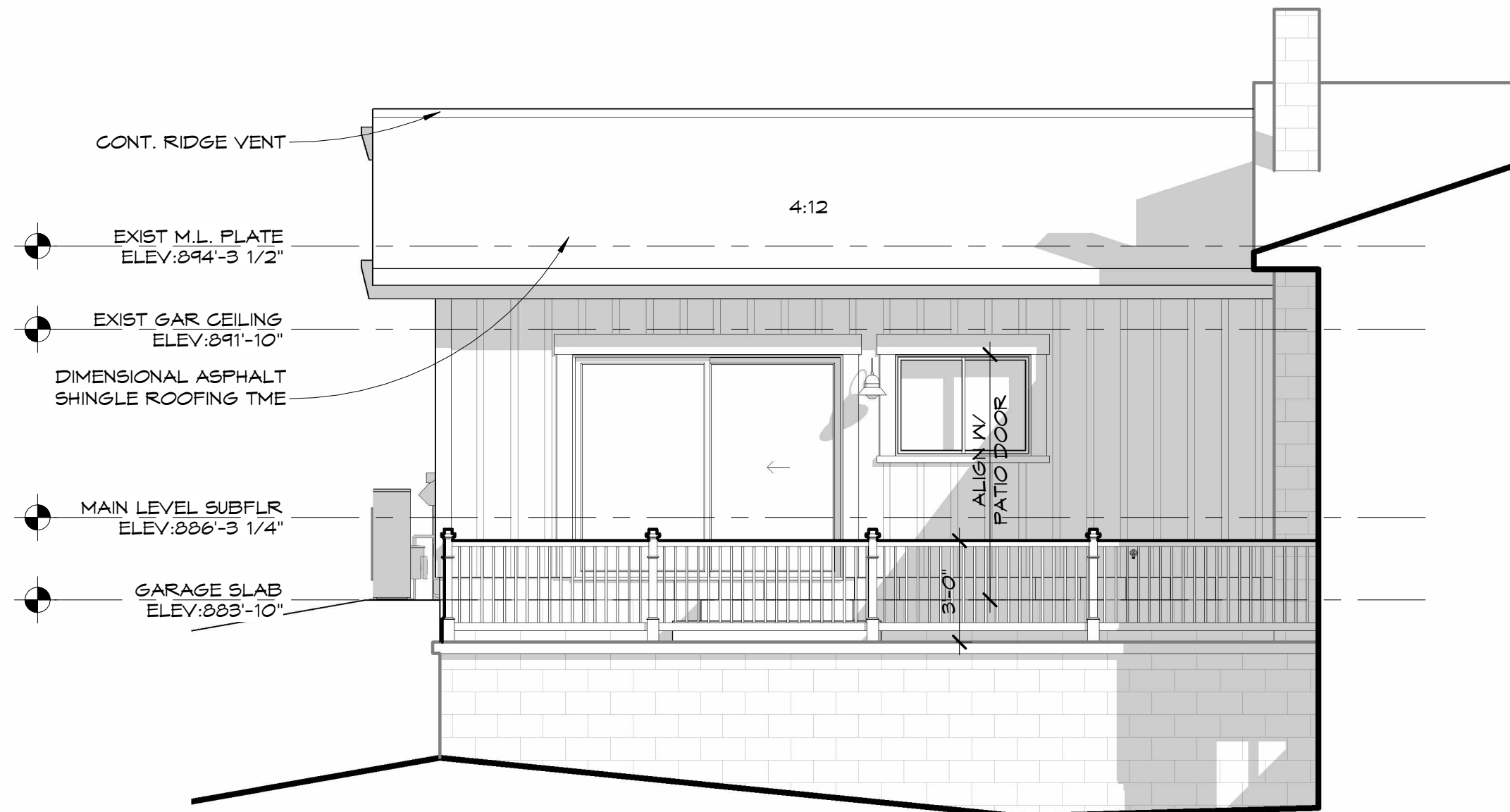
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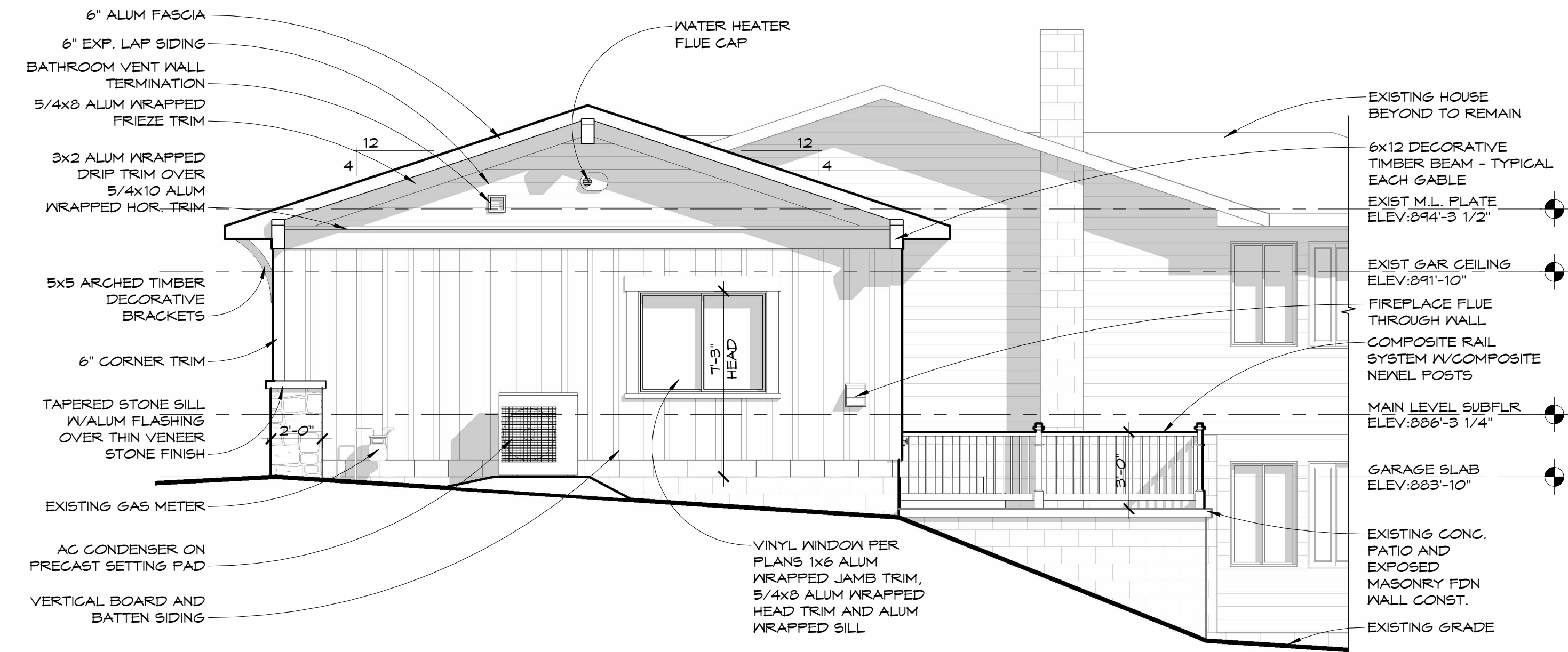
5 DRIVE SIDE ELEVATION
SCALE: 1/4" = 1'-0"



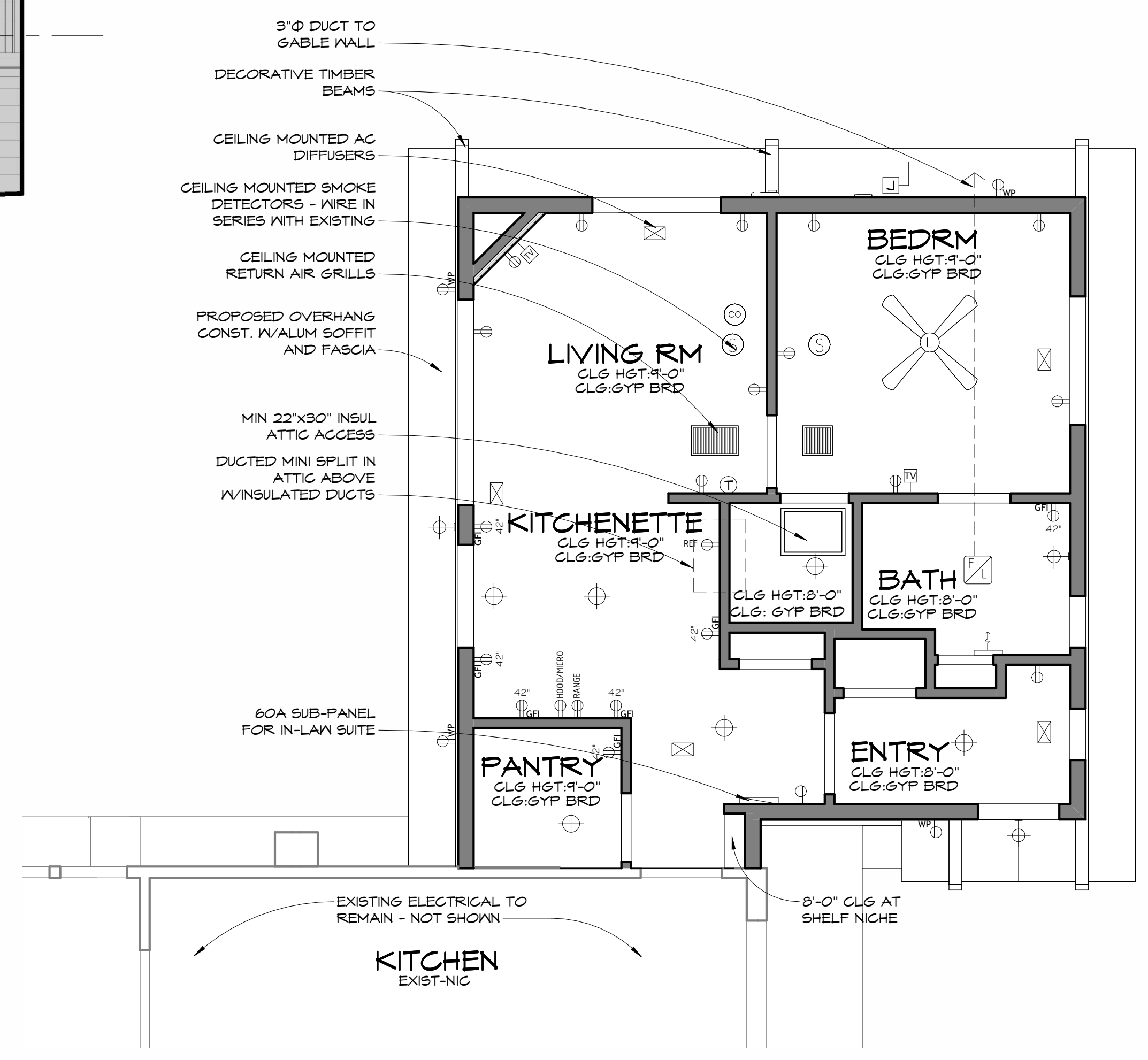
4 ENTRY SIDE ELEVATION
SCALE: 1/4" = 1'-0"



3 RIVER SIDE ELEVATION
SCALE: 1/4" = 1'-0"



2 IN-LAW END ELEVATION
SCALE: 1/4" = 1'-0"



1 IN-LAW CEILING/ELECTRICAL
SCALE: 1/4" = 1'-0"

PROVIDE SMOKE DETECTORS (WIRED IN SERIES) IN EXISTING BEDROOM AND DIRECTLY ADJACENT TO EXISTING BEDROOMS

GENERAL NOTES:

- COVER WITH SHEET METAL ALL SHEATHING HOLES OVER 1" IN DIAMETER, CRACKS OVER 1/2" IN WIDTH, LOOSE KNOTS, AND EXCESSIVELY RESINOUS AREAS.
- INSTALL METAL DRIP EDGE TIGHT TO FASCIA BOARDS AND LAP JOINTS MIN 2". NAIL DRIP EDGE AT TOP OF FLANGE.
- FLASHING SHALL BE APPROVED CORROSION RESISTIVE FLASHING INSTALLED AT ALL ROOF AND WALL INTERSECTIONS AS WELL AS THE LOCATIONS SPECIFIED IN THE 2015 MRC.
- PAINT ALL ROOF PENETRATIONS W/COLOR TO MATCH ADJACENT ROOFING
- 15# AND 30# ROOFING UNDER-LAYMENT (FELT) SHALL MEET OF EXCEED THE REQUIREMENTS OF ASTM D4869 TYPE 1.
- PROVIDE ATTIC VENTILATION IN ACCORDANCE WITH SECTION R806 OF THE 2015 MRC

ICE AND WEATHER SHIELD:

- APPLY ICE AND WEATHER GUARD ON ALL EAVES TO A DISTANCE AT LEAST 24" HORIZONTALLY BEYOND THE INTERIOR FACE OF THE EXTERIOR WALL. INSTALL MINIMUM 36" WIDE AT ALL VALLEYS. AT WALLS AND ROOF PENETRATIONS APPLY ICE AND WEATHER SHIELD A MIN 12" ON TO THE ROOF IN ALL DIRECTIONS AND 6" UP WALL WHERE WALL WHERE POSSIBLE. LAP ALL ENDS MIN 6"
- ICE AND WEATHER SHIELD SHALL BE A GOLF APPLIED, SELF-ADHERING MEMBRANE COMPOSED OF A HIGH DENSITY, CROSS LAMINATED POLYETHYLENE FILM COATING ON ONE LAYER OF RUBBERIZED ASPHALT ADHESIVE. GLACIER GUARD BY ECOSTAR

ASPHALT SHINGLES:

- FINISH ROOFING SHALL BE DIMENSIONAL SHINGLE ON 15# FELT W/ ICE & WATER SHIELD AS REQ'D BY CODE
- HIP AND RIDGE SHINGLES SHALL BE PROVIDED BY SAME MANUFACTURER AND COLOR/FINISH TO MATCH
- INSTALL SHINGLES AND FLASHING IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTION AND "THE NRCA ROOFING AND WATERPROOFING MANUAL"
- VALLEYS SHALL BE MOVEN OR CLOSED CUT STYLE
- RIDGE VENT SHALL BE SINGLE VENT II OR EQUAL INSTALLED TO RAKE EAVES

SOFFITS:

- ALL SOFFITS SHALL BE WHITE ALUMINUM
 - NON VENTED AT RAKE EAVES AND LOW SLOPED EAVES
 - VENTED AT ALL OTHER GABLE ROOF EAVES

GUTTERS:

- GUTTERS SHALL BE CONTINUOUS PREFORMED K-STLYE ALUMINUM W/MATCHING BRACKETS AND DOWNSPOUTS.
- GUTTERS AND DOWNSPOUTS NOT SHOWN ON DRAWINGS FOR CLARITY.
- COORDINATE DOWNSPOUT LOCATIONS IN FIELD WITH ARCHITECT

ROOFING NOTES

ELECTRICAL LEGEND	
⊕	240V DEDICATED CIRCUIT
⊕	120V DUPLEX OUTLET
⊕ _{WP}	WEATHERPROOF GROUND FAULT CIRCUIT INT. 120V DUPLEX OUTLET
⊕ _{GF}	GROUND FAULT CIRCUIT INT. 120V DUPLEX OUTLET
⊕	120V FOURPLEX OUTLET
○	6" RECESSED CAN LIGHT
○ _c	6" RECESSED CAN LIGHT (RATED FOR NET LOCATION)
⊕	6" DIRECTIONAL RECESSED CAN LIGHT
⊕	CEILING MOUNTED LIGHT FIXTURE
⊕	CEILING HUNG PENDANT FIXTURE
⊕	CEILING HUNG CHANDELIER
⊕	WALL HUNG LIGHT FIXTURE
⊕	FLOOR OUTLET W/COVER PLATE 120V DUPLEX
⊕	50 CFM EXHAUST FAN W/LIGHT (PROVIDE TIMER ON EXHAUST FAN SWITCHING)
⊕	50 CFM EXHAUST FAN (PROVIDE TIMER ON EXHAUST FAN SWITCHING)
⊕	COAXIAL CABLE OUTLET
⊕	DATA OUTLET - CAT 6
⊕	CARBON MONOXIDE DETECTOR
⊕	SMOKE DETECTOR-WIRE IN SERIES
⊕	CEILING FAN ("L" INDICATES W/LIGHT)
⊕	CEILING MOUNTED FLUORESCENT CLOUD LIGHT 1x4'
⊕	UNDER CABINET/TRAY LIGHTING
⊕	WALL MTD LINEAR CLOSET LIGHT
⊕	WALL MTD THERMOSTAT @ 54" AFF
⊕	JUNCTION BOX W/DISCONNECT

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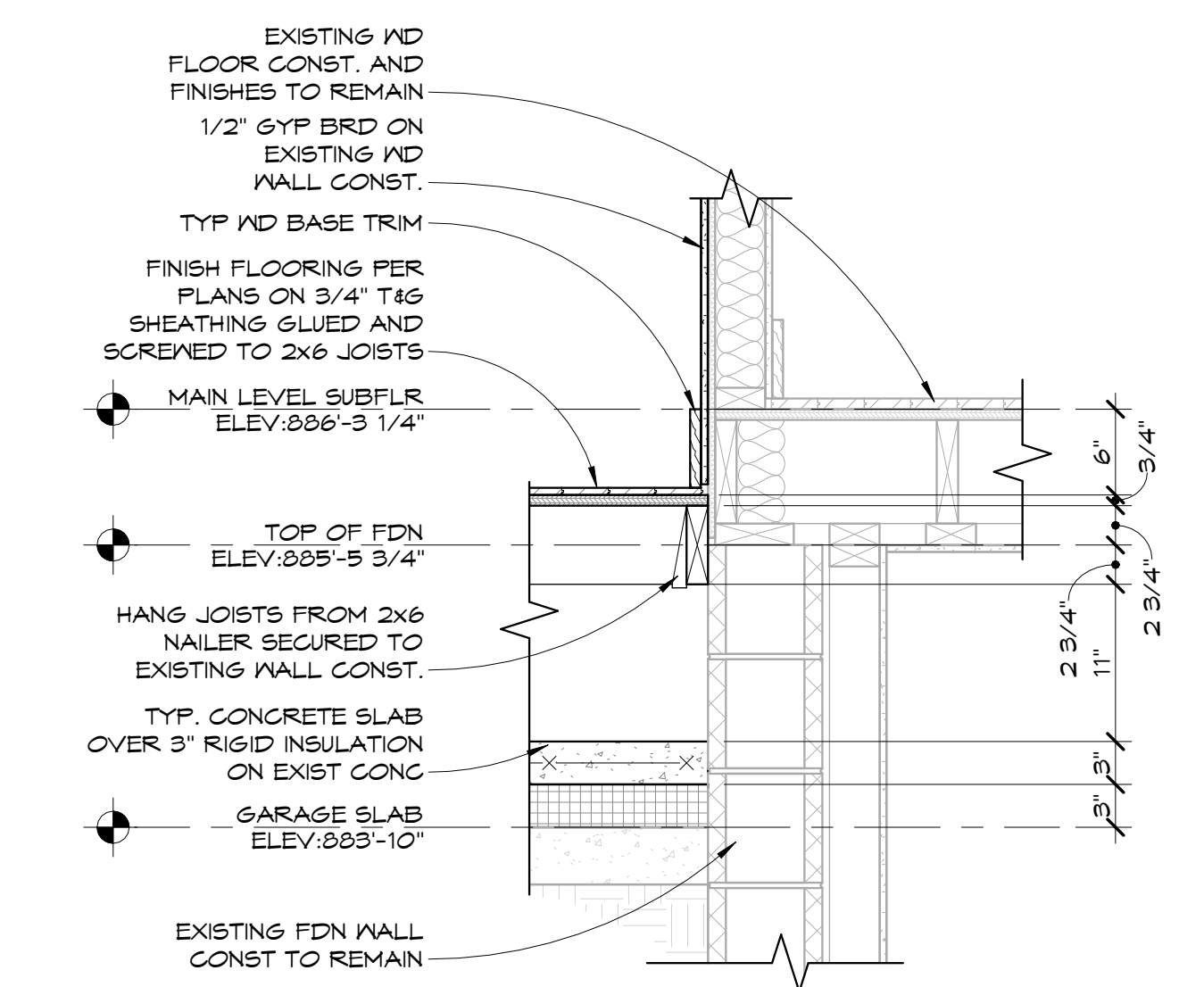
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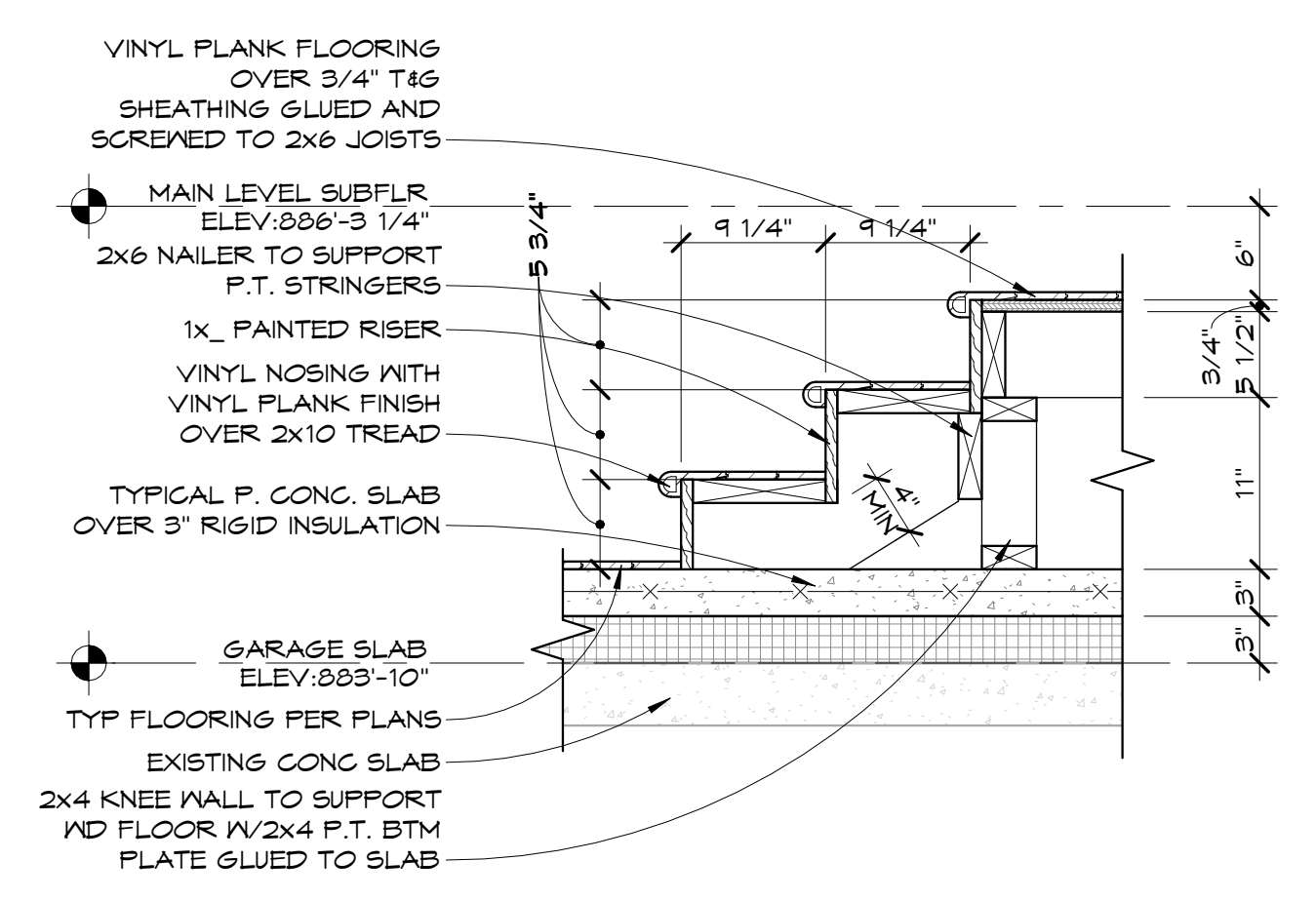
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CEILING PLAN AND
EXTERIOR
ELEVATIONS

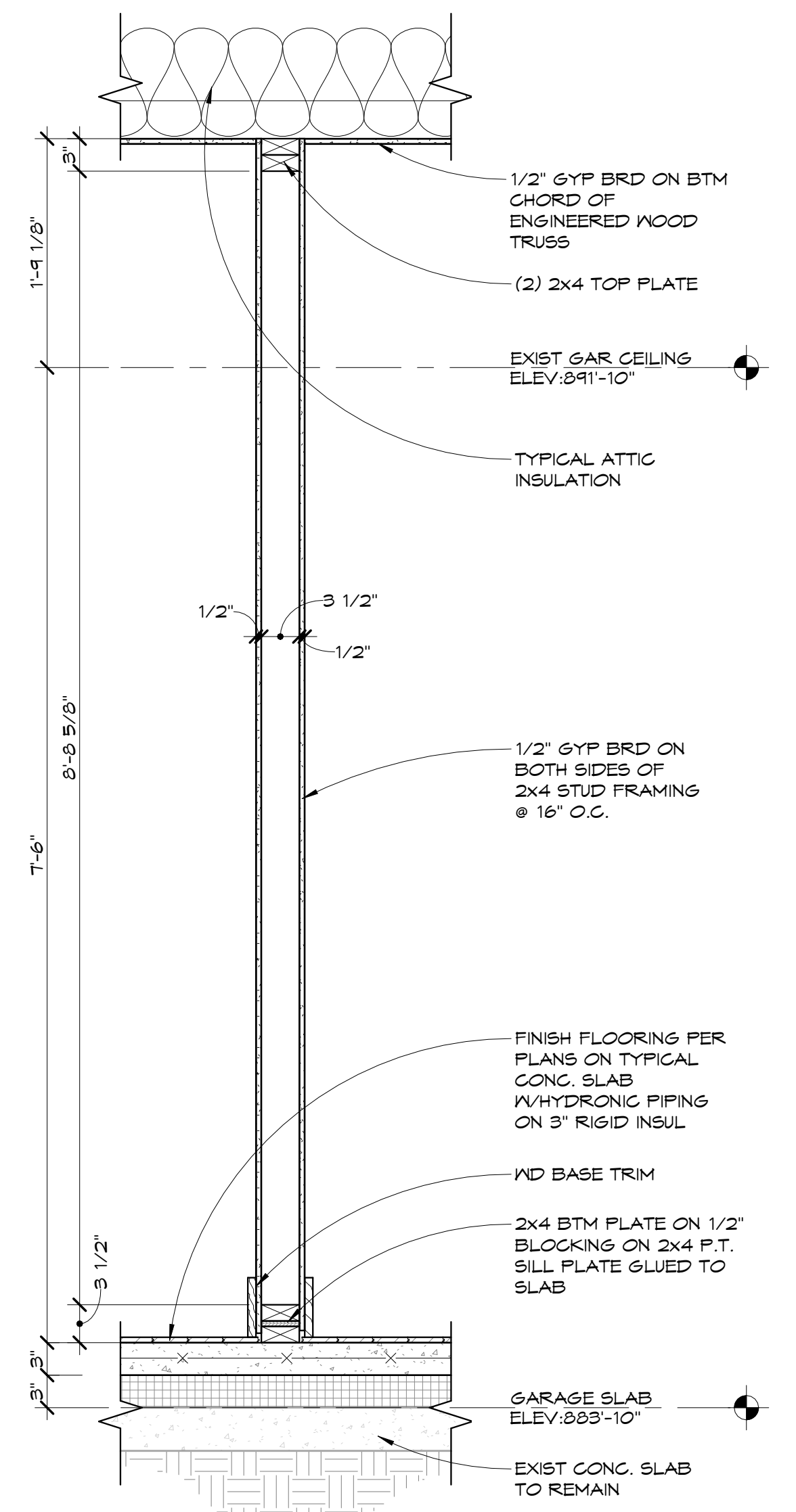
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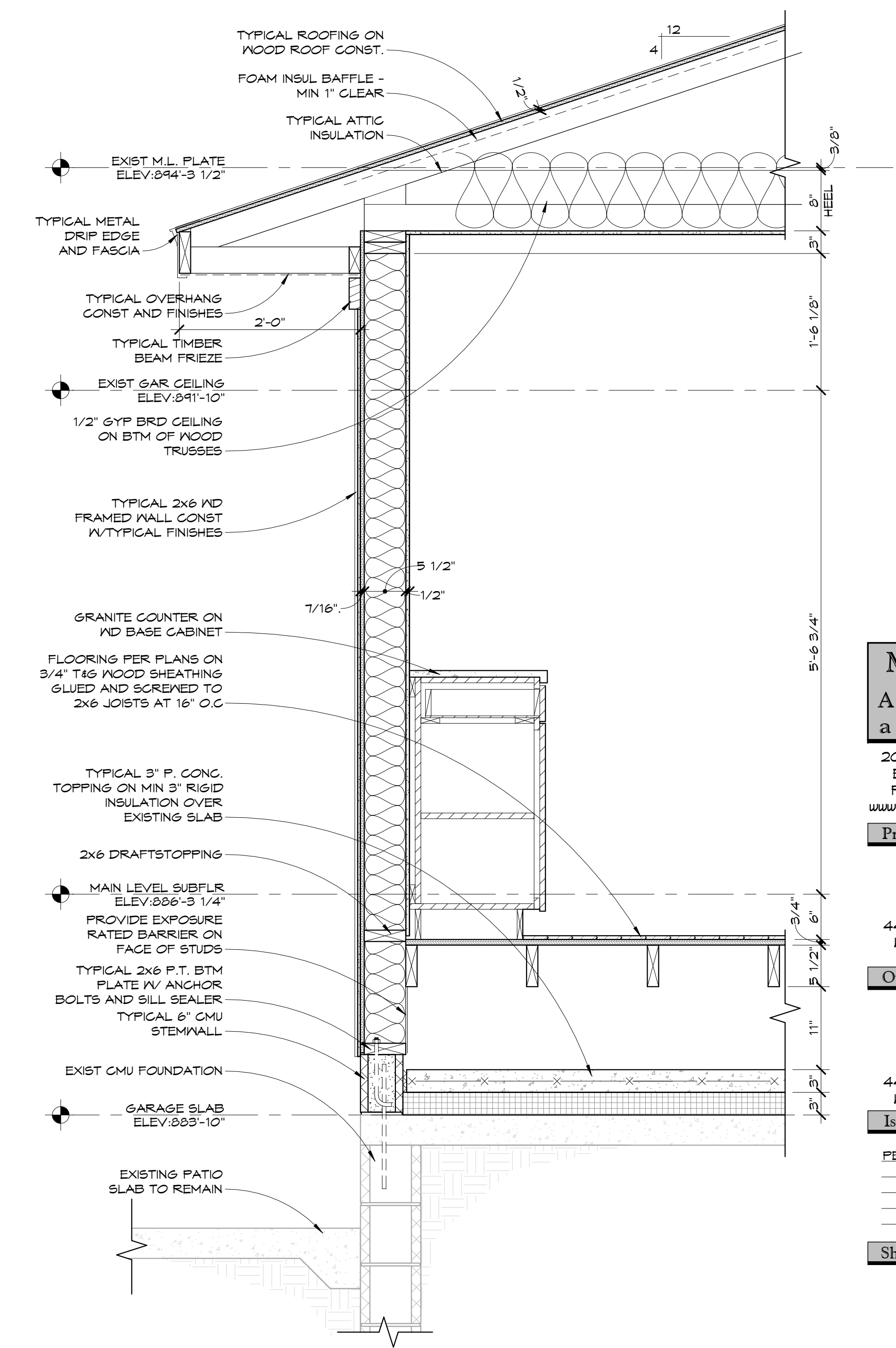
4 EXISTING WALL
SCALE: 1" = 1'-0"



3 STAIRS
SCALE: 1" = 1'-0"



2 INTERIOR WALL
SCALE: 1" = 1'-0"



1 PANTRY WALL
SCALE: 1" = 1'-0"

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CONSTRUCTION
DETAILS

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