

PUBLIC NOTICE

CITY OF BERKLEY, MICHIGAN REGULAR MEETING OF THE CITY PLANNING COMMISSION

Tuesday, September 23, 2025
7:00PM – City Hall Council Chambers
Information: 248-658-3320

CALL TO ORDER
PLEDGE OF ALLEGIANCE
ROLL CALL
APPROVAL OF AGENDA
APPROVAL OF MINUTES – *Meeting minutes of August 26, 2025*
COMMUNICATIONS
CITIZEN COMMENTS
OLD BUSINESS

NEW BUSINESS

1. **PUBLIC HEARING PSU-04-25: 3462 Greenfield Rd.:** The applicant, Blue RX, LLC, is requesting special land use approval to occupy a tenant space for retail pharmacy use in the Residential Corridor District.

LIAISON REPORTS
COMMISSIONER / STAFF COMMENTS
ADJOURN

Notice: Official Minutes of the City Planning Commission are stored and available for review at the office of the City Clerk. The City of Berkley will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon four working days notice to the city. Individuals with disabilities requiring auxiliary aids or services should contact the city by writing or calling: City Clerk, ADA Contact, Berkley City Hall, 3338 Coolidge, Berkley, Michigan 48072, (248) 658-3300.

You can watch the meeting on Channel 10 for both Comcast and WOW, at <http://www.youtube.com/CityofBerkley> or <http://www.berkleymich.org/livestream>.

THE REGULAR MEETING OF THE BERKLEY CITY PLANNING COMMISSION WAS CALLED TO ORDER AT 7:00 PM, AUGUST 26, 2025 AT BERKLEY CITY HALL BY CHAIR LISA KEMPNER.

The minutes from this meeting are in summary form capturing the actions taken on each agenda item. To view the meeting discussions in their entirety, this meeting is broadcasted on the city's government access channel, WBRK, every day at 9AM and 9PM. The video can also be seen, on-demand, on the city's YouTube channel: <https://www.youtube.com/user/cityofberkley>

DRAFT

PRESENT: Lisa Hamameh Mike Woods
Shiloh Dahlin
Lisa Kempner
Eric Arnsman

ABSENT: Josh Stapp
Joe Bartus

ALSO PRESENT: Kristen Kapelanski, Community Development Director

APPROVAL OF AGENDA

Community Development Director Kapelanski noted that the election of officers should be added to the agenda.

Motion by Commissioner Hamameh to approve the amended agenda with the election of officers added as item number six and supported by Commissioner Arnsman.

Voice vote to approve the agenda

AYES: 5
NAYS: 0
ABSENT: Bartus, Stapp

MOTION CARRIED

* * * * *

APPROVAL OF THE MINUTES

Motion by Commissioner Hamameh to approve the minutes of the May 27, 2025 regular Planning Commission meeting and supported by Commissioner Arnsman.

Voice vote to approve the meeting minutes of May 27, 2025.

AYES: 5
NAYS: 0
ABSENT: Bartus, Stapp

MOTION CARRIED

* * * * *

COMMUNICATIONS

Community Development Director Kapelanski shared that the latest issue of the Michigan Association of Planning magazine was provided for the Commissioners. Also included in the packet was a report from the Michigan Municipal League and SEMCOG showcasing ideas to spur development on West Twelve Mile from near Tyler to Greenfield.

CITIZEN COMMENTS

NONE

OLD BUSINESS

NONE

NEW BUSINESS

1. **PUBLIC HEARING PSU-02-25: 2114 Eleven Mile Rd.:** The applicant, F & L Berkley, LLC, is requesting special land use approval for a gas station/convenience store in the Flex District on the northwest corner of Eleven Mile Rd. and Henley Ave.

Community Development Director Kapelanski presented the special land use request noting no changes to the site are proposed. She highlighted the special land use review standards and a needed variance for a deficient pump island setback. She noted that since the site was not being altered, dimensional and general standards from the zoning did not apply as the site and any dimensional requirements would be considered non-conforming. Since this was a special land use, the standards for special land uses and the automotive uses would apply.

The Planning Commission asked some clarifying questions confirming the distinction between a non-conforming use and non-conforming structures. Community Development Director Kapelanski confirmed that if a service use was proposed, the applicant would need to receive special land use approval for that use at a future time.

The applicant's attorney, Ellis Freatman, confirmed no changes to the site are proposed and a service station use was not proposed. The applicant has no objection to providing planters or light shielding as suggested in the staff review. The applicant, Fadi Kajy, stated that there would be one employee per shift. The hours of operation would be 6AM to 11PM.

Chair Kempner opened the public hearing at 7:13PM.

No one wished to speak and no correspondence was received.

Chair Kempner closed the public hearing at 7:14PM.

The Commission discussed the existing screen wall, which covers the majority of the rear property line. They confirmed with the applicant that the vegetation would be trimmed. Community Development Director Kapelanski confirmed that the area not covered by the screen wall was an existing non-conforming condition. The Commission agreed that the location of the garage on the adjacent residential property also helped to buffer the residence.

The Commission asked that a barrier be added to the parking area along Henley to provide a buffer from the sidewalk. The applicant agreed he could do that. The Commission suggested planters as a buffer option to protect the area and to provide greenspace. The applicant said he would be willing to place planter(s) there but would want to confirm it wouldn't conflict with the operation of the underground tanks in that area.

The Commission went through the special land use and all agreed that all standards were met.

Motion by Commissioner Hamameh and supported by Commissioner Dahlin to recommend approval of PSU-02-25 2114 W. Eleven Mile Rd. with the following findings:

- The proposed plan meets the standards of approval in Chapter 138, Section 10.03;

And the following conditions:

- The applicant obtaining a variance from the Zoning Board of Appeals for the front yard setback;
- Shielding of the lights, as required by the ordinance;
- The trees and shrubs along Henley Ave. to be trimmed to accommodate the corner clearance requirements; and
- The installation of substantial landscaping planters along Henley Ave. to clearly delineate the sidewalk to the extent practicable as determined appropriate by the Community Development Director. Alternatively, converting a portion of the pavement adjacent to Henley Ave. in the northeast corner to some sort of greenspace.

Roll call vote on the motion to approve PSU-02-25 2114 W. Eleven Mile Rd.

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

- 2. PUBLIC HEARING** An ordinance to amend Article 2 Definitions, Article 6 Site Design Based Districts, Article 9 General Provisions, Article 11 Sign Regulations, Article 14 Off-Street Parking Loading and Access Standards and Article 25 Site Plan Review Procedures and Requirements of Chapter 138 Zoning of the Berkley Code of Ordinances to add definitions for business services and live/work units, to clarify site area governs site layout, to clarify the reviewer for fences, to allow ground-mounted solar energy systems in residential districts, to clarify regulations for residential driveways, to modify the width requirements for attached garages, to clarify regulations for detached accessory buildings and swimming pools, to clarify regulations for window signs and temporary signs, to clarify clear vision zone requirements, to add regulations for areas of residential parking and recreational vehicles, to clarify requirements for where on-street parking may be counted as individual business parking and to clarify requirements and procedures for pre-application and preliminary site plan review.

Community Development Director Kapelanski presented the amendments and referenced her staff review for a list of the included items. These are amendments that have come up in the course of staff using the ordinance and responding to property inquiries, residential zoning certificate requests, et cetera.

Chair Kempner opened the public hearing at 7:50PM.

No one wished to speak and no comments were received.

Chair Kempner closed the public hearing at 7:50PM.

Chair Kempner asked that the next round of amendments clarify when a site plan is required for special land use application. Commissioner Dahlin asked that at a minimum, a scaled sketch plan be provided. Community Development Director Kapelanski said she would add this to the next round of amendments.

Motion by Commissioner Dahlin and supported by Commissioner Woods to recommend approval of the first round of zoning ordinance cleanup amendments listed in the August 26, 2025 Planning Commission agenda.

Roll call vote on the motion to recommend approval of the zoning ordinance amendments

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

3. Community Development Annual Report

Community Development Director Kapelanski presented the Community Development Department Annual Report.

Motion by Commissioner Arnsman and supported by Commissioner Dahlin to accept the Community Development Department Annual Report for Fiscal Year 24/25.

Voice vote on the motion to accept the Community Development Annual Report.

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

4. Planning Commission Bylaws and Rules of Procedure

Community Development Director Kapelanski pointed out the changes suggested for the Bylaws and Rules of Procedure to comply with the Board and Commission Handbook recently approved by the City Council.

Motion by Commissioner Woods and supported by Commissioner Dahlin to approved the revised Bylaws and Rules of Procedure.

Voice vote on the motion to approve the Bylaws and Rules of Procedure.

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

5. Discussion of Training Needs

Community Development Director Kapelanski pointed out that the State's Redevelopment Ready Communities program requires a joint board and commissions meeting be held every year. She thought this could be an opportunity for joint training between some combination of the Planning Commission, City Council and Zoning Board of Appeals.

The Commission suggested exploring special land use consideration and motion making training for the Planning Commission and City Council, and parliamentary procedure training for the Planning Commission, City Council and Zoning Board of Appeals.

6. Election of Officers

Chair Kempner said she would be happy to continue serving as Chair.

Motion by Commissioner Hamameh and supported by Commissioner Dahlin to nominate Lisa Kempner to continue as Chair of the Planning Commission.

Voice vote on the motion to approve Lisa Kempner as Chair of the Planning Commission.

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

Commissioner Dahlin said she would be willing to serve as Vice-Chair.

Motion by Commissioner Woods and supported by Commissioner Hamameh to nominate Shiloh Dahlin as the Vice-Chair of the Planning Commission.

Voice vote on the motion to approve Shiloh Dahlin as Vice-Chair of the Planning Commission.

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

Commissioner Arnsman said he would be willing to serve as Secretary.

Motion by Commissioner Dahlin and supported by Commissioner Hamameh to nominate Eric Arnsman as the Secretary of the Planning Commission.

Voice vote on the motion to approve Eric Arnsman as the Secretary of the Planning Commission.

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

MOTION CARRIED

LIAISON REPORT

Commissioners provided updates on the Chamber of Commerce, the Downtown Development Authority and Zoning Board of Appeals.

COMMISSIONER COMMENTS

NONE

STAFF COMMENTS

NONE

ADJOURNMENT

Motion to adjourn by Commissioner Dahlin, supported by Commissioner Arnsman.

Voice vote for adjournment

AYES: 5

NAYS: 0

ABSENT: Bartus, Stapp

With no further business, the meeting was adjourned at 8:15PM.



CITY OF BERKLEY

COMMUNITY DEVELOPMENT

3338 COOLIDGE HWY, BERKLEY, MICHIGAN 48072

MEMORANDUM

To: Planning Commission

From: Kristen Kapelanski, Community Development Director

Subject: **PSU-04-25 3462 Greenfield Rd.**

Date: September 23, 2025

Background

- The applicant is proposing to occupy a vacant suite at the recently constructed office building at 3462 Greenfield with a pharmacy use.
- The zoning of the property is Residential Corridor District, which permits pharmacies as special land uses.
- Drive-throughs are not permitted and one is not proposed.
- The Planning Commission is required to recommend approval/denial of the special land use request and hold the required public hearing.
- No site improvements are proposed and the plans are for reference purposes only.

Summary

- An analysis of the special land use standards is provided in the staff review.

Recommendation

Any motions recommending approval of the special land use request should reference the standards in Chapter 138, Section 10.03 and include any conditions the Planning Commission chooses to add.



CITY OF BERKLEY COMMUNITY DEVELOPMENT

3338 COOLIDGE HWY, BERKLEY, MICHIGAN 48072

APPLICATION FOR SPECIAL LAND USE REVIEW

NOTICE TO APPLICANT: Applications for Special Land Use review by the Planning Commission must be submitted to the City of Berkley Building Department in ***substantially complete form*** at least 30 days prior to the Planning Commission's meeting at which the application will be considered. The application must be accompanied by the data specified in the Zoning Ordinance, including fully dimensioned site plans, plus the required review fee.

The Planning Commission will hold the required *public hearing* and will make a recommendation to the City Council. Special Land Use approval shall be obtained from the City Council.

The Planning Commission meets the fourth Tuesday of the month at 7:00pm in the Council Chambers at the City of Berkley City Hall, 3338 Coolidge Hwy, Berkley, MI 48072. The City Council meets the first and third Mondays of the month at 7:00pm in the Council Chambers at the City of Berkley City Hall, 3338 Coolidge Hwy, Berkley, MI 48072.

TO BE COMPLETED BY APPLICANT:

I (We), the undersigned, do hereby respectfully request Special Land Use Review and provide the following information to assist in the review:

Project Name: Rhone Pharmacy

Applicant: Blue Rx LLC

Mailing Address: 635 Hibiscus St, Apt 611, West Palm Beach, FL 33401

Telephone: [REDACTED]

Email: [REDACTED]

Property Owner(s), if different from Applicant: North Green Trust

Mailing Address: 1359 Davis Ave, Birmingham, MI 48009

Telephone: [REDACTED]

Email: [REDACTED]

Applicant's Legal Interest in Property: Lease

LOCATION OF PROPERTY:

Street Address: 3462 Greenfield Rd, Suite 102, Berkley, MI 48072

Nearest Cross Streets: Greenfield Rd and W 12. Mile Rd

Sidwell Number(s): _____

PROPERTY DESCRIPTION:

Provide lot numbers and subdivision: _____

Property Size (Square Feet): _____ (Acres): _____

EXISTING ZONING DISTRICT *(please check):*

- | | | |
|--------------------------------|--|--|
| <input type="checkbox"/> R-1AB | <input type="checkbox"/> Community Centerpiece | <input checked="" type="checkbox"/> Residential Corridor |
| <input type="checkbox"/> R-1CD | <input type="checkbox"/> Downtown | <input type="checkbox"/> Woodward Corridor |
| <input type="checkbox"/> R-2 | <input type="checkbox"/> Flex | <input type="checkbox"/> Cemetery |
| <input type="checkbox"/> R-M | <input type="checkbox"/> Gateway Corridor | <input type="checkbox"/> Parking Overlay |
| <input type="checkbox"/> R-M-H | | |

Street Type:

- ☒ Corridor ☐ Downtown ☐ Walkable Area ☐ Residential

Present Use of Property: ~~Medical and Professional~~

Proposed Use of Property: Pharmacy and related services

Is the property located within the Downtown Development Authority? ☐ Yes ☒ No

PROJECT DESCRIPTION:

~~The creation of a retail pharmacy focused on providing medical prescription medication and medication management services~~

Does the proposed project / use of property require Site Plan Approval? ☐ Yes ☒ No

Does the proposed project require Variance(s) from the Zoning Board of Appeals? ☐ Yes ☒ No

If yes, describe the variances that will be required: _____

PLEASE COMPLETE THE FOLLOWING CHART:

Type of Development	Number of Units	Gross Floor Area	Number of Parking Spaces On Site	Number of Employees on Largest Shift
Attached Residential				
Office	6	600	17	2
Commercial				
Industrial				
Other				

STANDARDS FOR SPECIAL LAND USE APPROVAL:

To be considered for Special Land Use approval, the Planning Commission and City Council shall consider the following standards. Please address **how** the proposed use satisfies each standard, as specified in Section 138-10.03

1. The proposed use will promote the use of land in a socially and economically desirable manner.

~~Yes, providing a local community pharmacy provides localized and focused~~ _____
medical and medication care through individualized care

2. The proposed use is necessary for the public convenience at that location.

~~Yes, the location is in a residentially dense area with a high number of medical~~ _____
offices. To support these offices, a local pharmacy would provide a benefit to the community

3. The proposed use is compatible with adjacent land uses.

~~Yes, medical and professional use is compatible with a pharmacy~~ _____

4. The proposed use is designed so that the public health, safety and welfare shall be protected.

~~Yes, a community pharmacy will promote personalized care and healthcare~~ _____

5. The proposed use will not cause injury to other property in the neighborhood.

~~No, Pharmacies provide the community with vital medication needs esp~~
~~in a long term care setting.~~

PROFESSIONALS WHO PREPARED PLANS:

A. Name: Tim Fought
Mailing Address: 24045 Woodland Drive Southfield, MI. 48034
Telephone: 248.514.7612
Email: timothy fought <tfoughtarchitectllc@gmail.com>
Design Responsibility (engineer, surveyor, architect, etc.): Architect

B. Name: _____
Mailing Address: _____
Telephone: _____
Email: _____
Design Responsibility: _____

SUBMIT THE FOLLOWING:

1. A PDF electronic copy of a complete set of plans, sealed by a registered architect, engineer, or surveyor and any supporting documents, emailed to planning@berkleymi.gov.
 2. Proof of property ownership (title insurance policy or registered deed with County stamp).
-

PLEASE NOTE: The applicant, or a designated representative, **MUST BE PRESENT** at all scheduled meetings, or the Special Land Use request may be tabled due to lack of representation.

Failure to provide true and accurate information on this application shall provide sufficient grounds to deny approval of a Special Land Use application or to revoke any permits granted subsequent to the Site Plan Approval.

We encourage applicants to make a presentation of the proposed project to the Planning Commission and City Council, as appropriate. To assist in this effort, we have available for your use at meetings a projector, laptop computer and screen. This will allow the Planning Commission and audience to be fully engaged so they can give your project the attention it deserves. Planning Commission and City Council meetings are recorded and televised.

PROPERTY OWNER'S APPROVAL: (Initial each line)

NG I hereby authorize and give permission for the City of Berkley to install one or more temporary signs on my property, in order to notify the public of the required public hearing related to the Special Land Use request.

NG I hereby authorize the employees and representatives of the City of Berkley to enter upon and conduct an inspection and investigation of the above referenced property in relation to the above request.

APPLICANT'S ENDORSEMENT: (Initial each line)

AP All information contained therein is true and accurate to the best of my knowledge.

AP I acknowledge that the Planning Commission will not review my application unless all information in this application and the Zoning Ordinance has been submitted.

AP I acknowledge that the City and its employees shall not be held liable for any claims that may arise as a result of acceptance, processing or approval of this Special Land Use application.

If an application is withdrawn more than three (3) weeks prior to the meeting date, 90% of the fee will be refunded. If the application is withdrawn less than three (3) weeks prior to the meeting, no refund will be given.


Signature of Applicant

08/19/2025

Date

Akshar Patel
Applicant Name (Print)

Signature of Applicant

08/19/2025

Date

Applicant Name (Print)


Signature of Property Owner Authorizing this Application

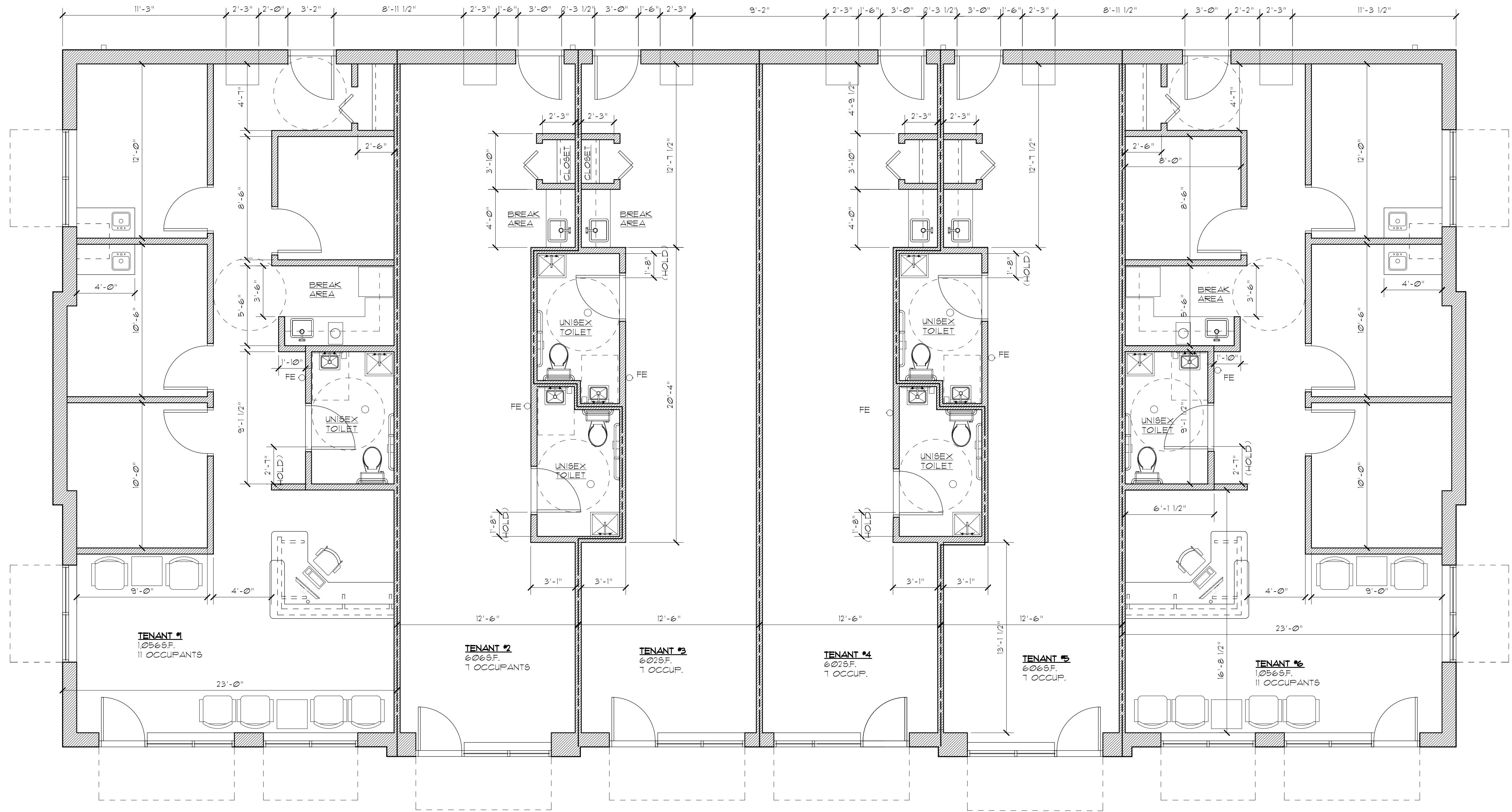
8/19/25
Date

North Green Trust
Property Owner Name (Print)

OFFICE USE ONLY

Received 8-19-25 Receipt # _____ Meeting Date _____ Case # PSU-04-25

Fee: \$1,000.00



FLOOR PLAN INTERIOR WALL DIMENSIONS
SCALE: 1/4"=1'-0"



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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
FLOOR PLAN &
EXTERIOR ELEVATIONS

ARCHITECTS
T. FOUGHT & ASSOCIATES LLC
24045 WOODLAND DR, SOUTHFIELD, MI 48034
(248) 514-7612

ISSUED:
BIDS & PERMITS
05/24/2022
REVISED PER
CITY COMMENTS
07/12/2022
08/22/2022
09/23/2022
REVISED
02/13/2024
04/11/2024

DRAWN T.J.F.
CHECKED T.J.F.
APPROVED T.J.F.
DATE
COMMENTS

DO NOT SCALE
PRINTS - USE
FIGURED
DIMENSIONS ONLY

JOB NO.
T2021024

SHEET
A.1A

34 GREENFIELD
OFFICE

Proposed:
OFFICE BUILDING

3462-3478 Greenfield Rd.
Berkley, MI 48702

Owners:
GREEN TRUST

1359 Davis Ave.
Birmingham, MI 48009

Architect:
T. FOUGHT & ASSOCIATES LLC

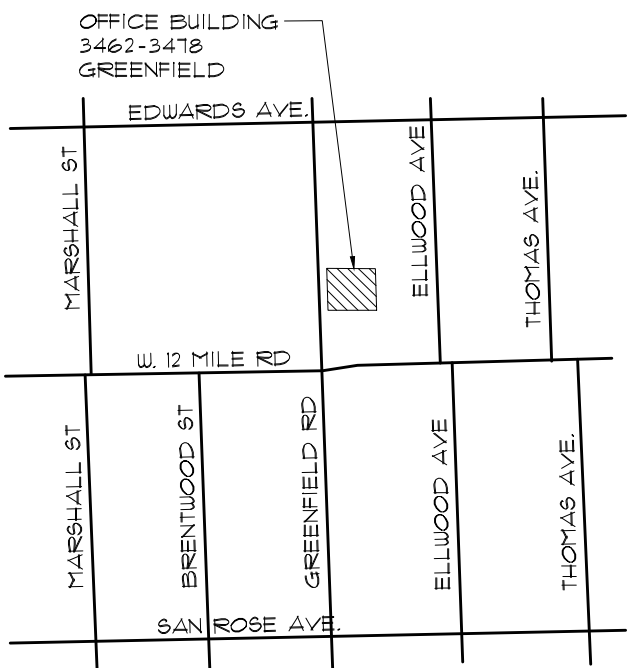
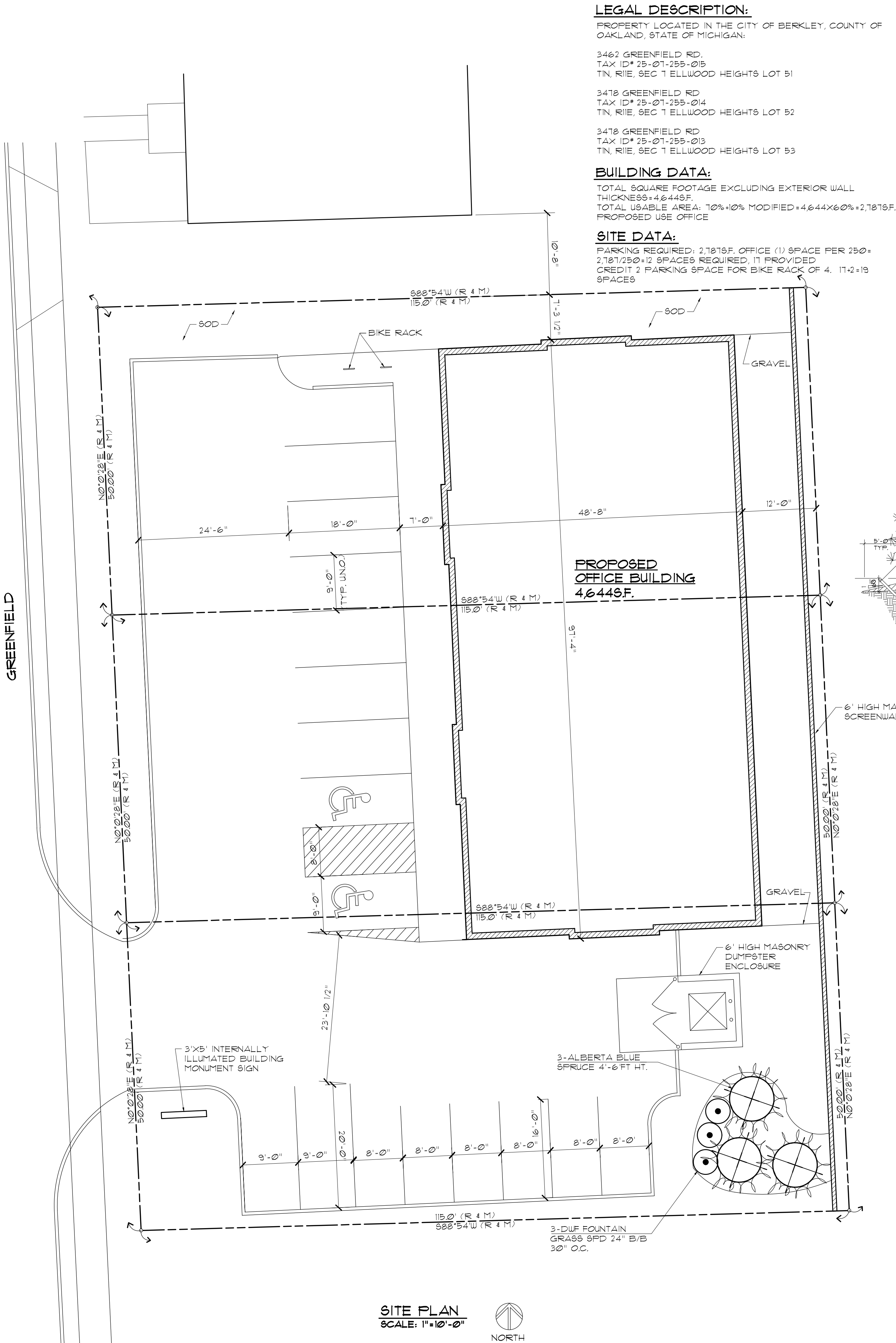
24045 Woodland Dr.
Southfield, MI 48076
P: (248)514-7612

Project No. T2021014

CODE INFORMATION:
BUILDING CODES:
2015 MICHIGAN BUILDING CODE -ICC/ANSI A117.1-2009
2015 MICHIGAN PLUMBING CODE
2015 MICHIGAN MECHANICAL CODE
2017 NATIONAL ELECTRICAL CODE
(W/ MICHIGAN AMENDMENTS)
2015 MICHIGAN UNIFORM ENERGY CODE PART 10A
ANSI/ASHRAE/IESNA STANDARD 90.1
2012 INTERNATIONAL FIRE CODE W/ AMENDMENTS

SCOPE OF WORK
THIS PROJECT INVOLVES NEW BUILD FOR OFFICE BUILDING.

SHEET INDEX
C.1 TITLE SHEET, LOCATION, SITE, & LANDSCAPE PLANS
A.1 FLOOR PLAN, EXTERIOR ELEVATIONS, ENLARGED PLAN & DETAILS
A.2 EXTERIOR WALL SECTIONS
A.3 DOOR SCHEDULE, BARRIER FREE MOUNTING HEIGHTS & DETAILS
S.N.1 GENERAL NOTES
S.N.2 GENERAL NOTES
S.1 FOUNDATION PLAN & DETAILS
S.2 ROOF FRAMING PLAN & DETAILS
M.0 MECHANICAL LEGENDS, SYMBOLS, & SHEET INDEX
M.1.0 OVERALL DOMESTIC WATER & GAS PIPING FLOOR PLAN
M.2.0 OVERALL HVAC FLOOR PLAN
M.4.0 MECHANICAL SCHEDULES
M.4.1 MECHANICAL DETAILS
M.5 MECHANICAL SPECIFICATIONS
E.0 ELECTRICAL RISER DIAGRAM, SCHEDULE & SYMBOL LIST
E.1 SITE PLAN LIGHTING & POWER PLANS



LOCATION PLAN
SCALE: NONE



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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
TITLE SHEET, LOCATION,
SITE & LANDSCAPE PLANS

ARCHITECTS
T. FOUGHT & ASSOCIATES LLC
24045 WOODLAND DR. SOUTHFIELD, MI 48034
(248) 514-7612

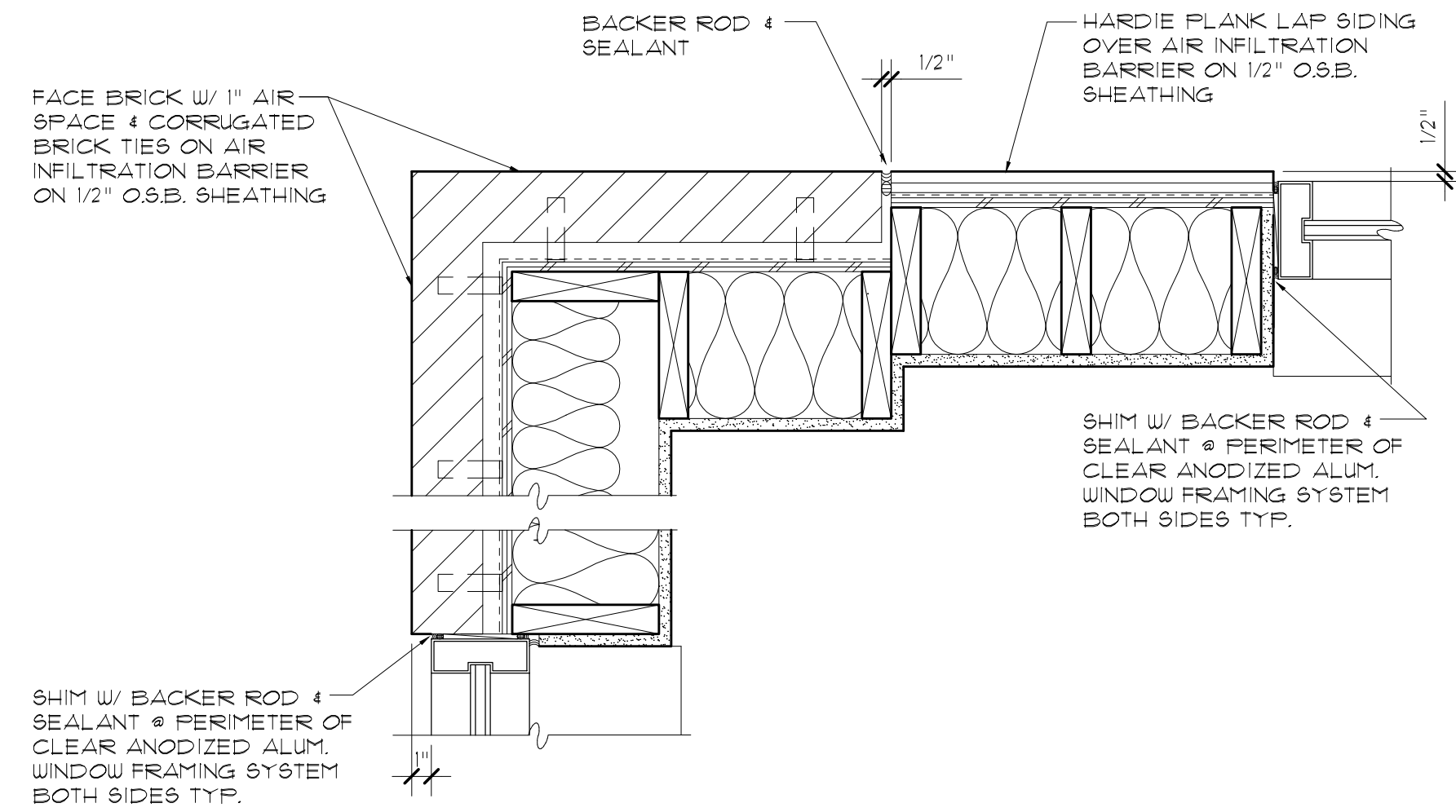
ISSUED:
BIDS & PERMITS
06/24/2022

DRAWN T.J.F.
CHECKED T.J.F.
APPROVED T.J.F.
BIDS
CONTRACT

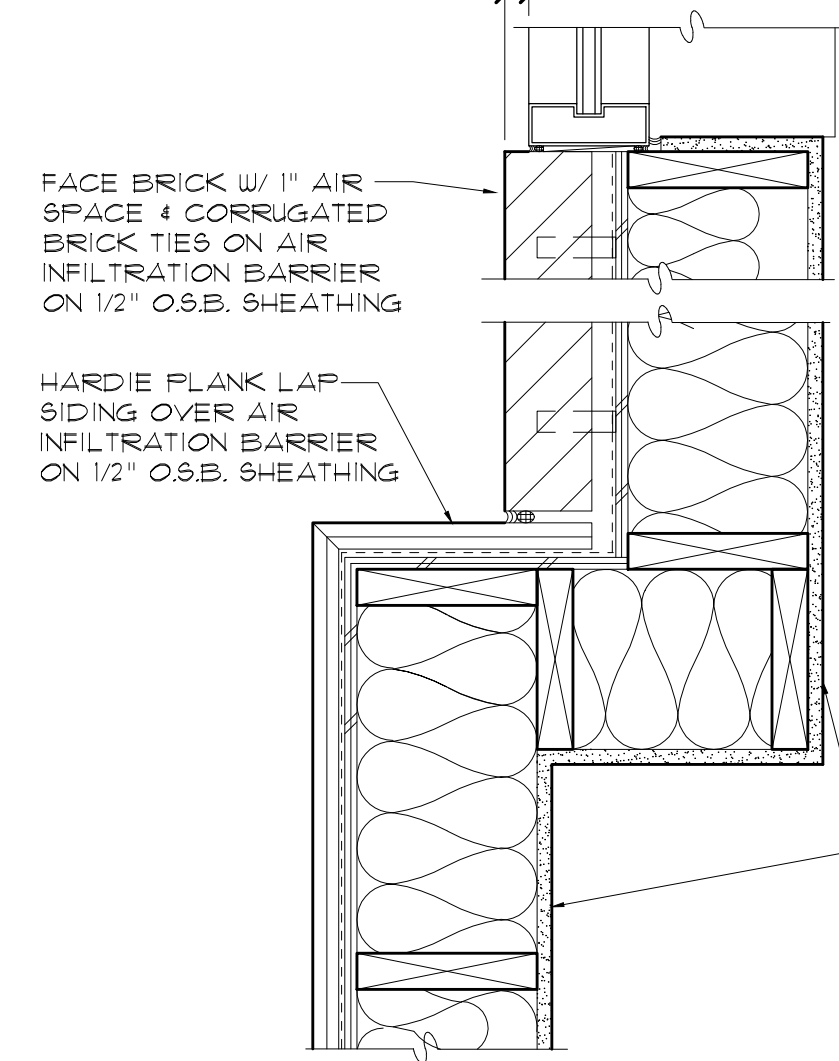
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JOB NO.
T2021024

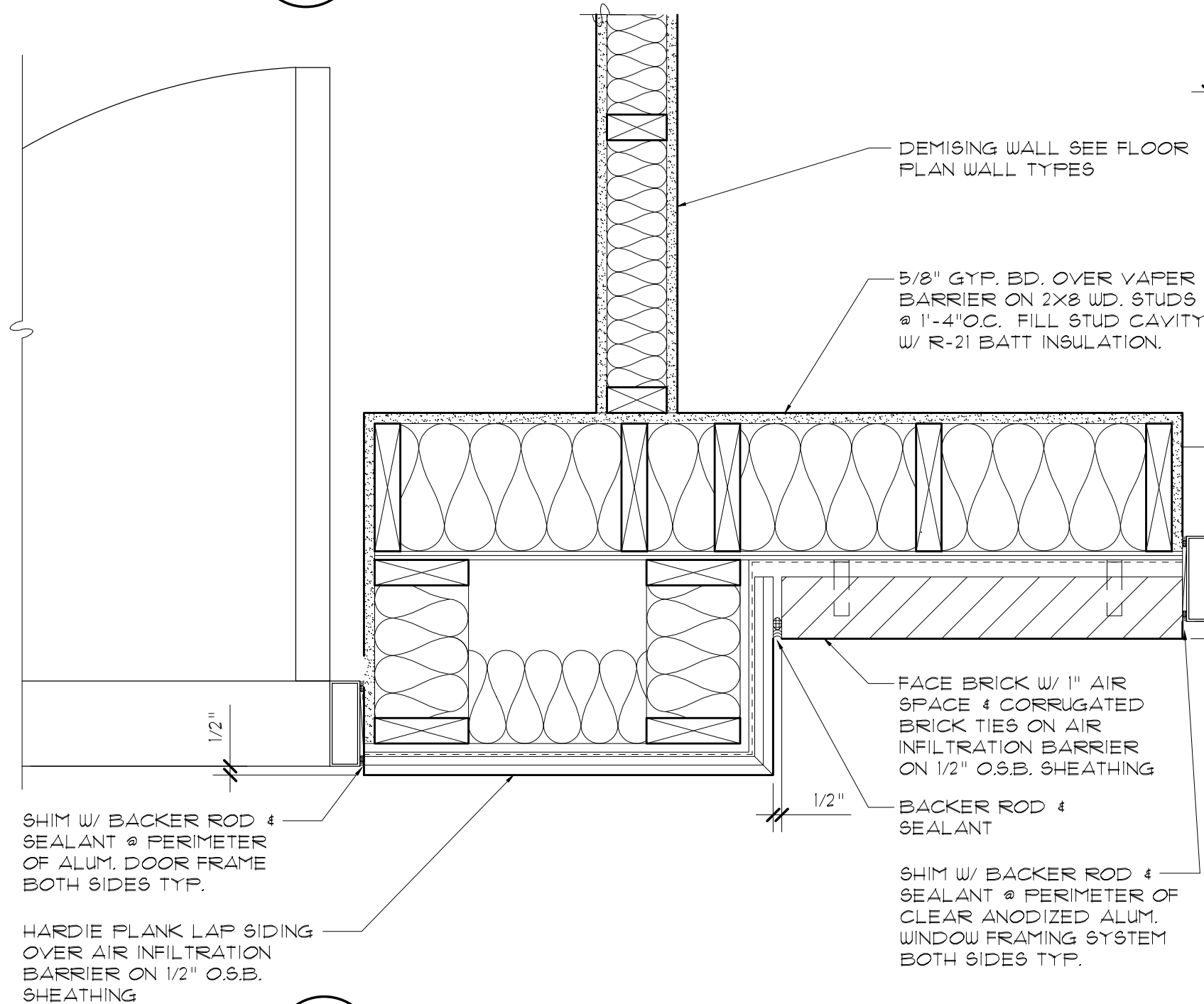
SHEET
C.1



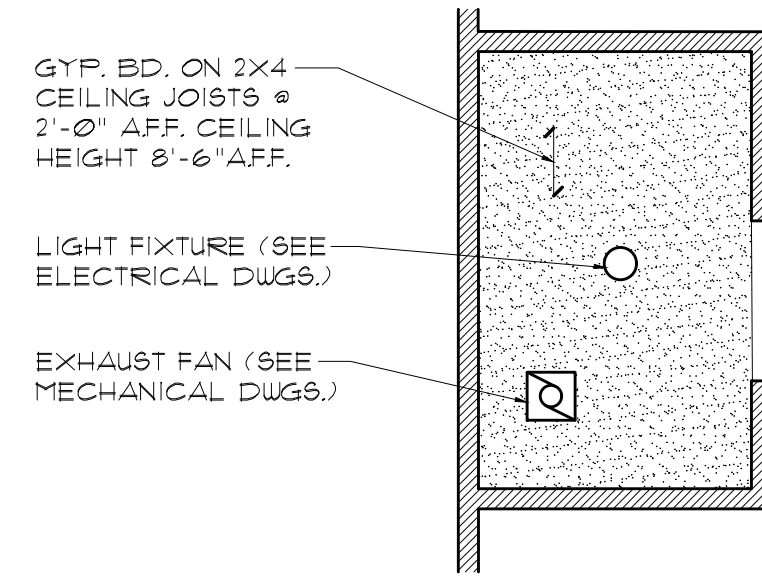
4 ENLARGED PLAN DETAIL
SCALE: 1/2"=1'-0"



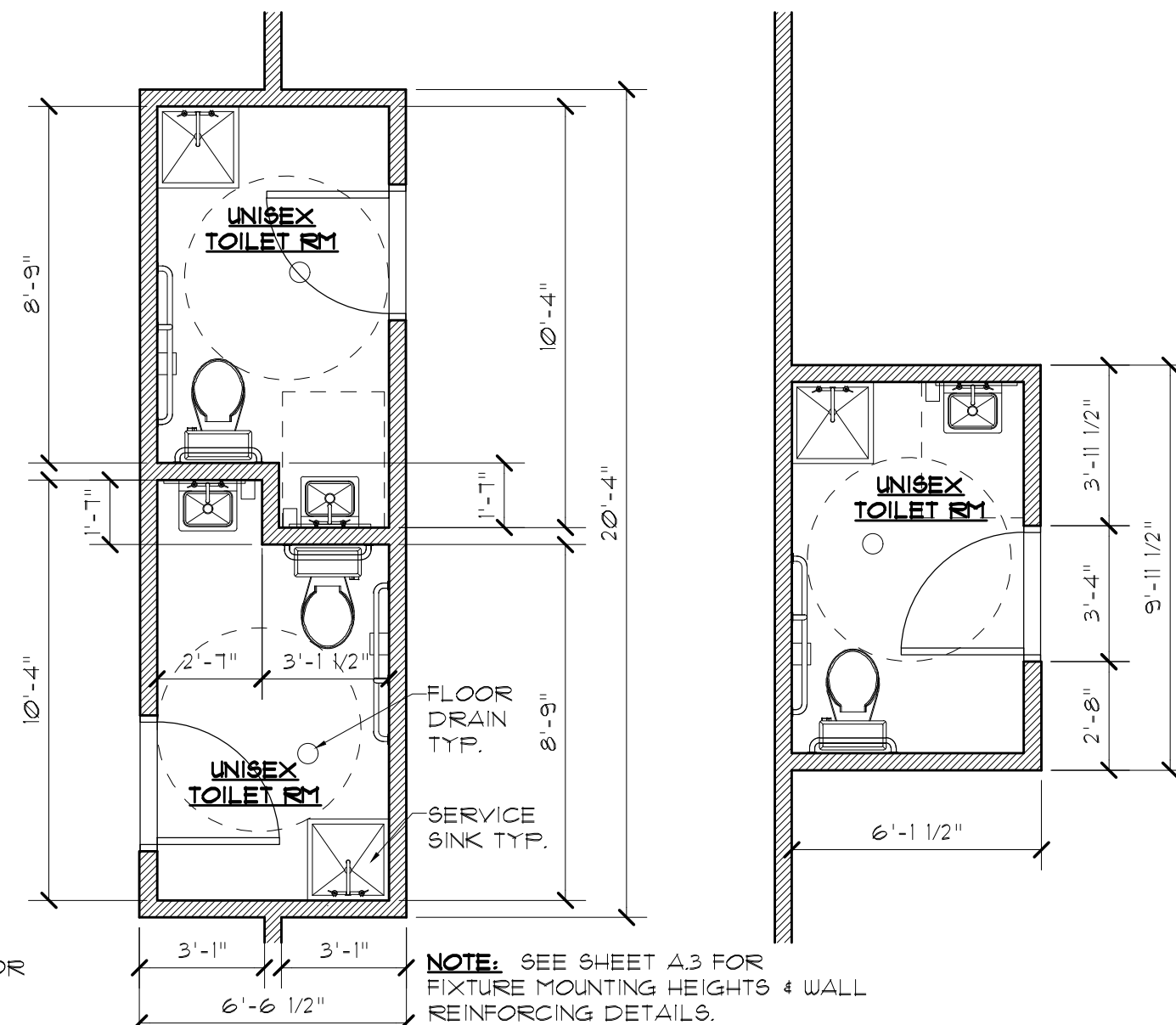
3 ENLARGED PLAN DETAIL
SCALE: 1/2"=1'-0"



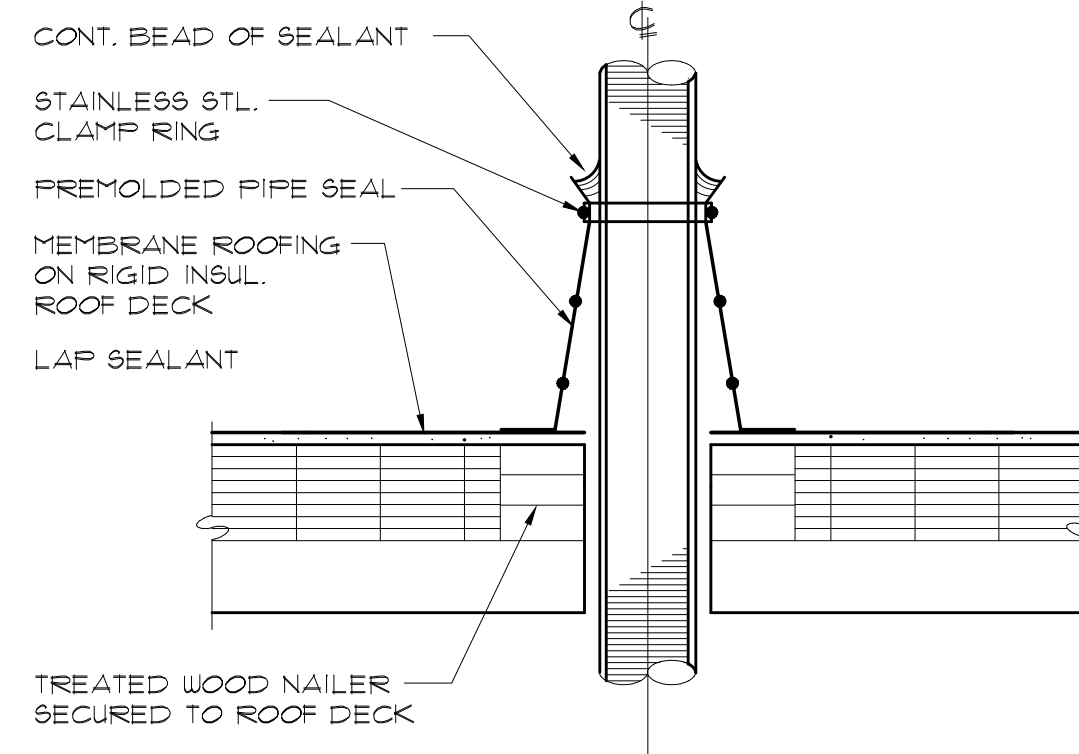
2 ENLARGED PLAN DETAIL
SCALE: 1/2"=1'-0"



TYP. TOILET ROOM
REFLECTED CEILING PLAN
SCALE: 1/4"=1'-0"



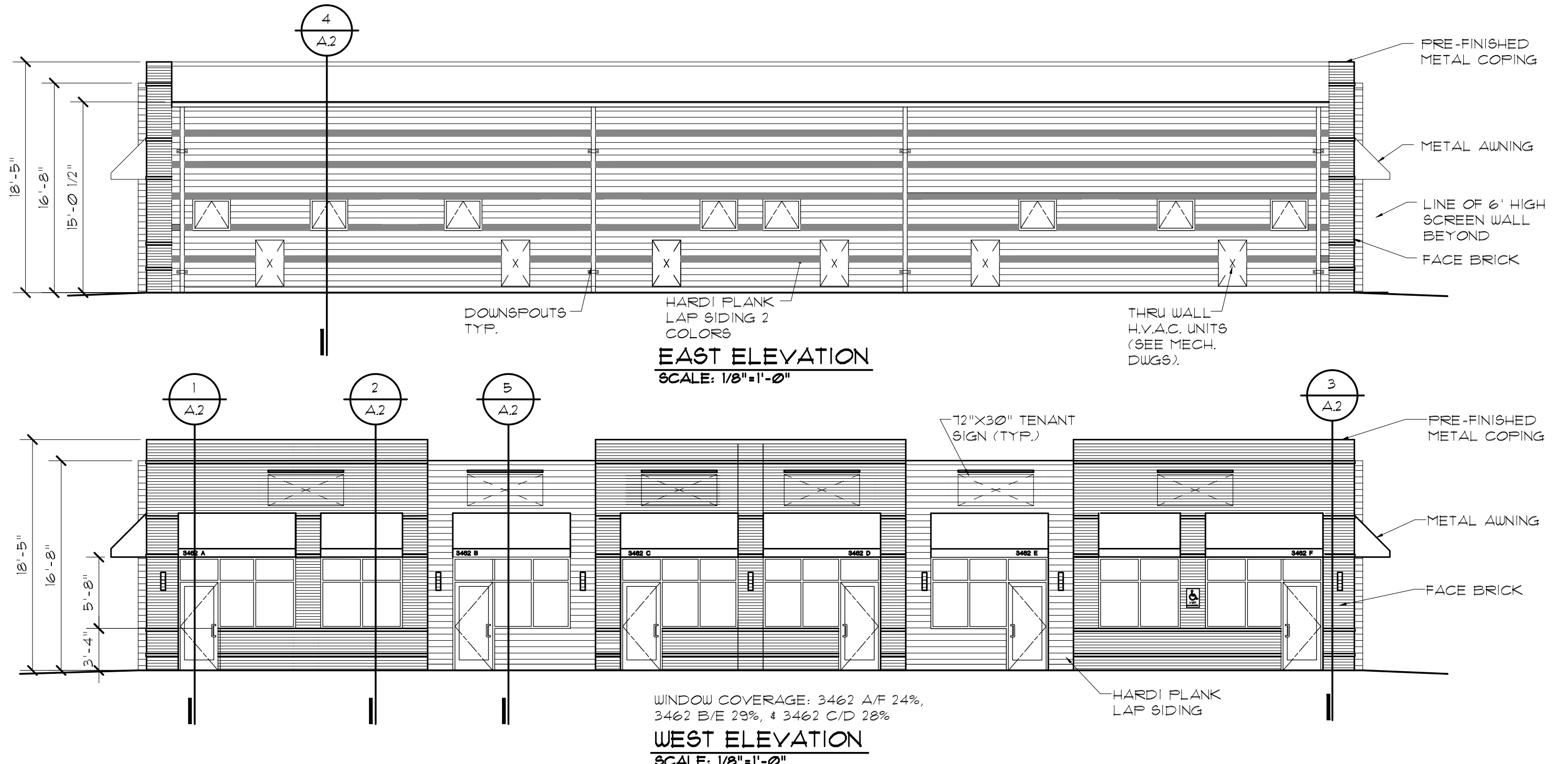
1 ENLARGED FLOOR PLAN
SCALE: 1/4"=1'-0"



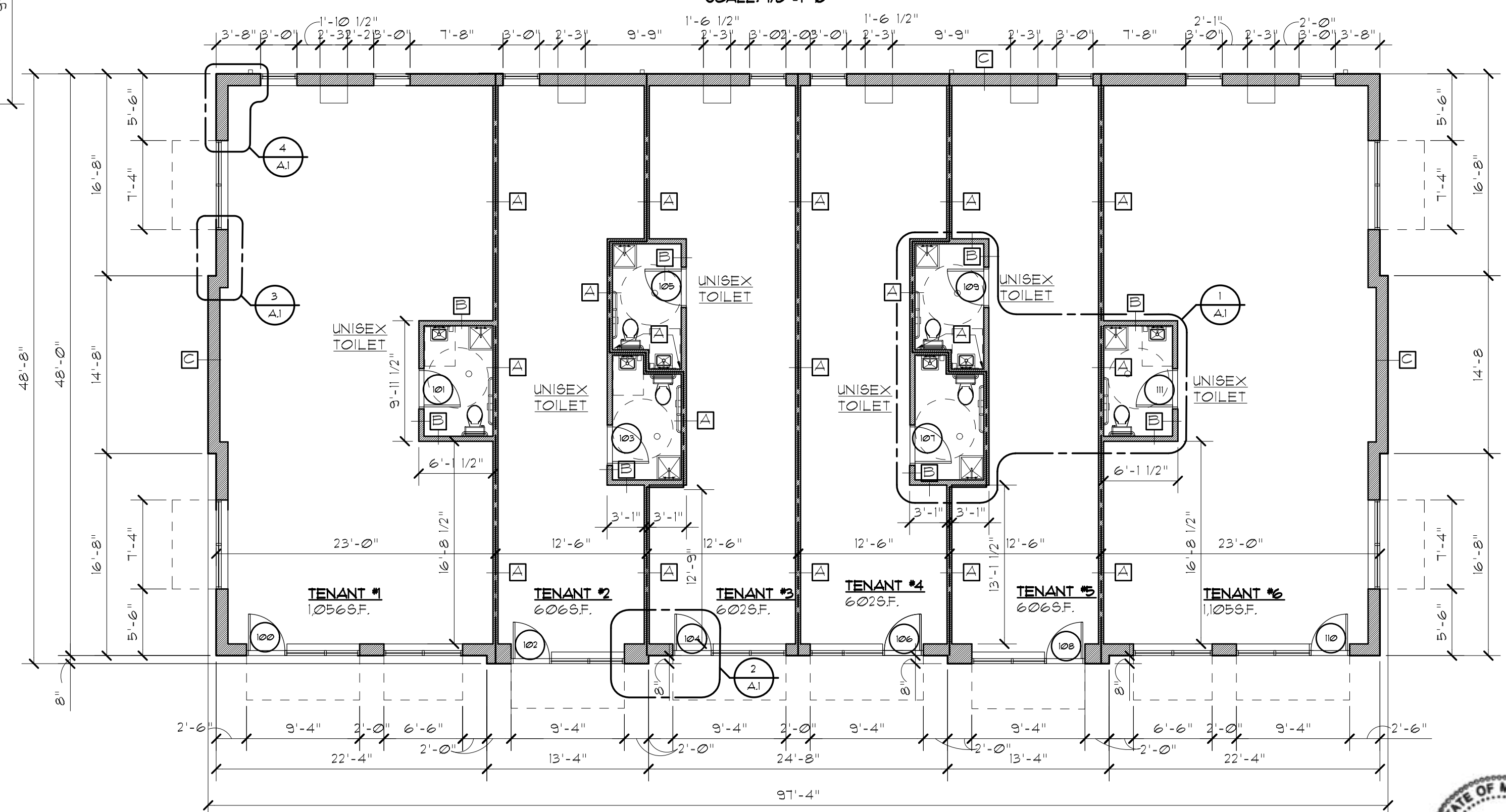
TYPICAL
ROOF PENETRATION
SCALE: 1/2"=1'-0"



EAST ELEVATION
SCALE: 1/8"=1'-0"



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



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



WALL TYPES:

- 1/2" TYPE 'X' GYP. BD. ON EA. SIDE OF 2X4 STUDS @ 1'-4" O.C. UP TO BOTTOM CHORD OF ROOF TRUSS (TYP.) (1 HOUR RATED) U.L. U314
- 5/8" GYP. BD. ON EACH SIDE OF 2X4 STUDS @ 1'-4" O.C. FROM FINISH FLOOR TO UNDERSIDE OF TRUSS.
- EXTERIOR WALLS FACE BRICK OR HARDI PLANK LAP SIDING OVER WEATHER PROOFING MEMBRANE ON 1/2" O.S.B. BOARD ON 2X6 WD STUDS @ 16" O.C. W/ VAPOR BARRIER W/ 5/8" GYP. BD. FILL STUD CAVITY W/ BATT INSULATION, TYP.



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ISSUED:
BIDS & PERMITS
06/24/2022

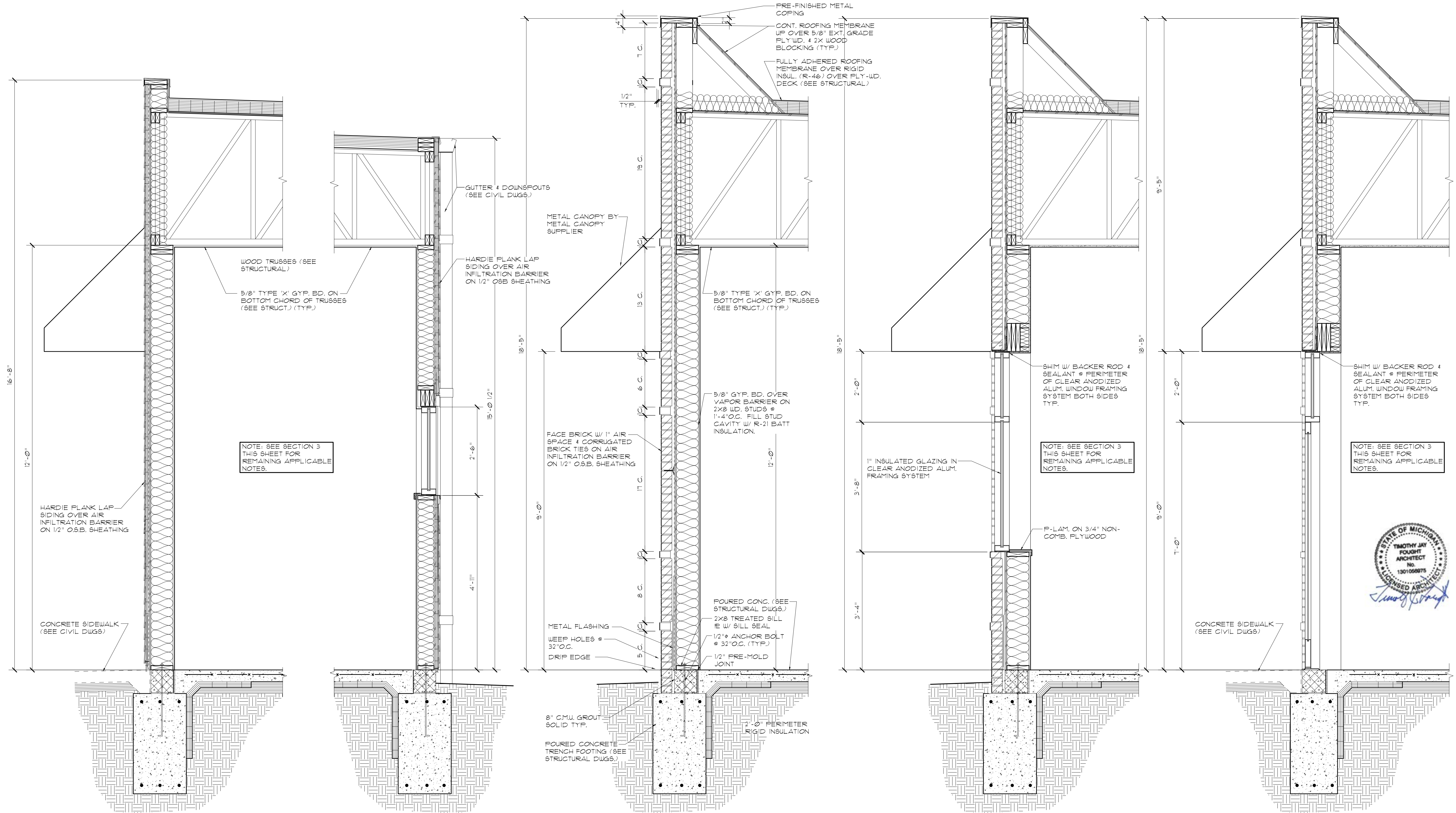
DRAWN T.J.F.
CHECKED T.J.F.
APPROVED T.J.F.
DESIGNER

DO NOT SCALE
PRINTS - USE
FIGURED
DIMENSIONS ONLY

JOB NO.
T2021024

SHEET
A.1

34 GREENFIELD
OFFICE



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

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

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

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

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

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T. FOUGHT & ASSOCIATES LLC

PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
EXTERIOR WALL SECTIONS

ARCHITECTS
T. FOUGHT & ASSOCIATES LLC
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(248) 514-7612

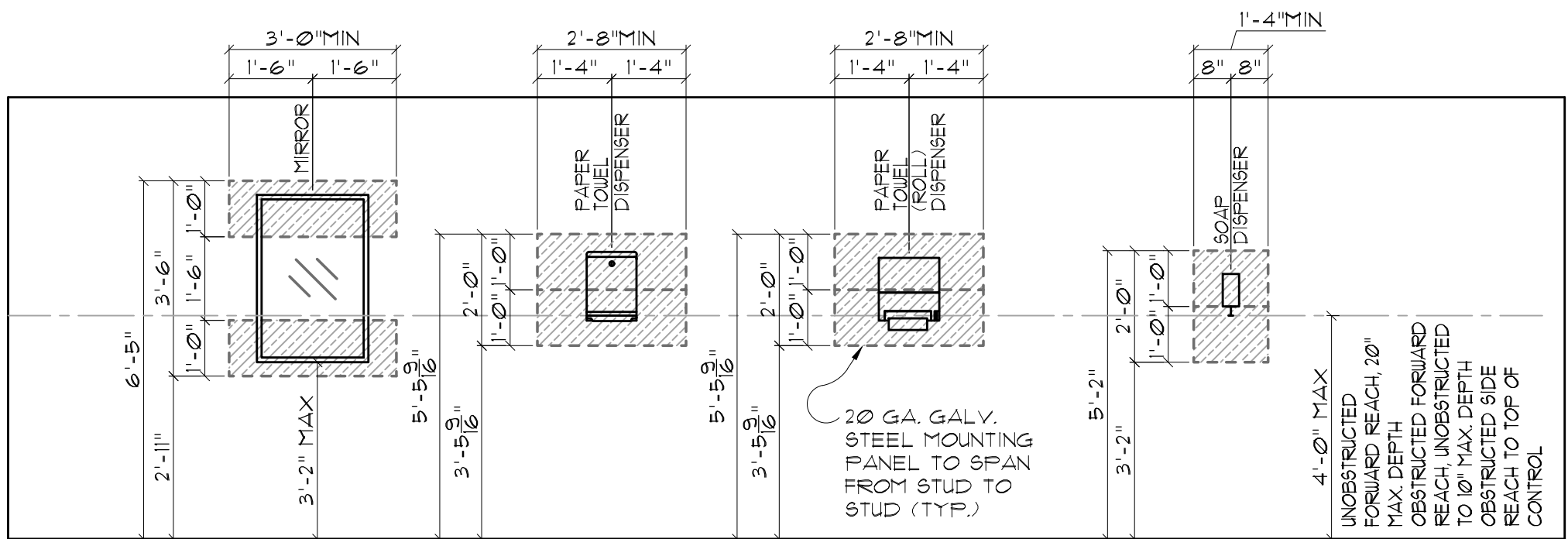
ISSUED:
BIDS & PERMITS
06/24/2022

DRAWN T.J.F.
CHECKED T.J.F.
APPROVED T.J.F.
BIDS
CONSTR.

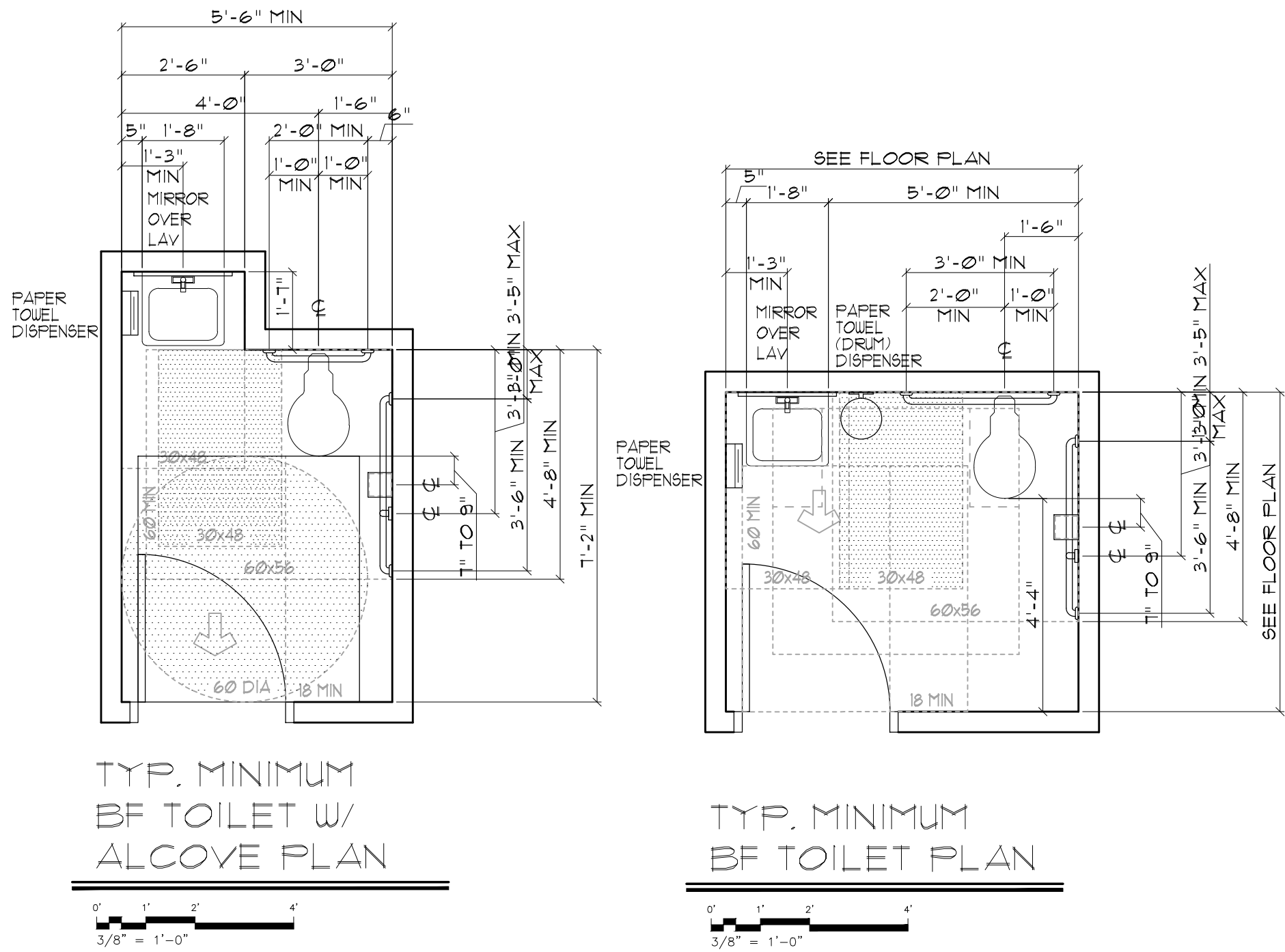
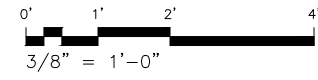
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SHEET
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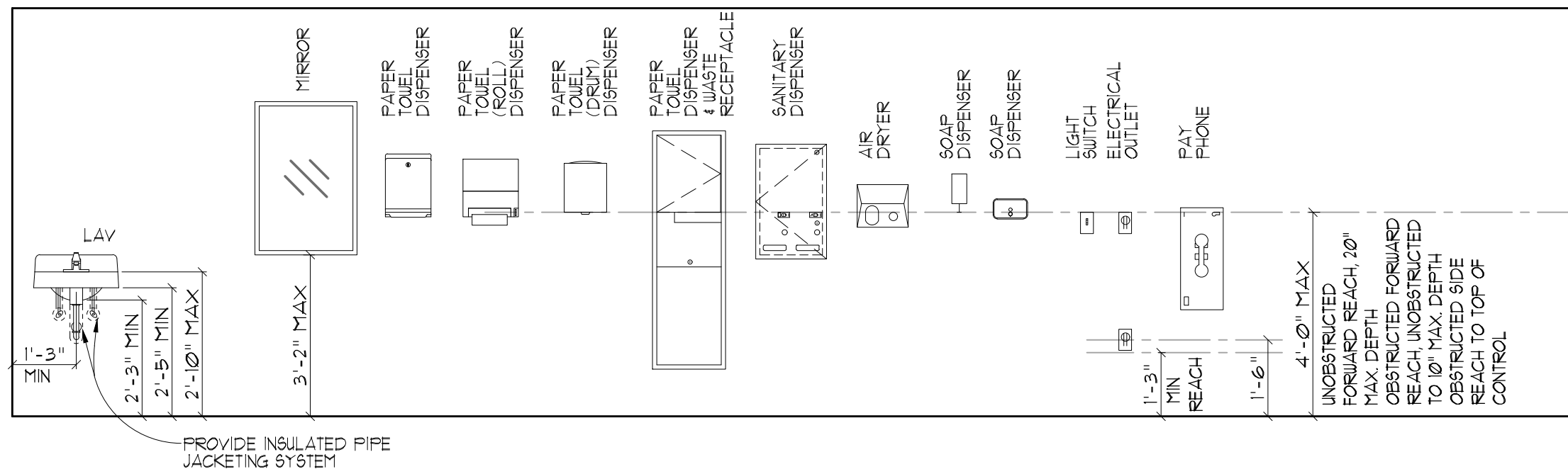
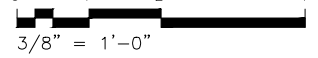
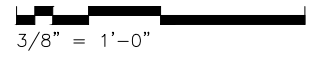


TYP. WALL MOUNTED EQUIPMENT ANCHORAGE ELEVATIONS

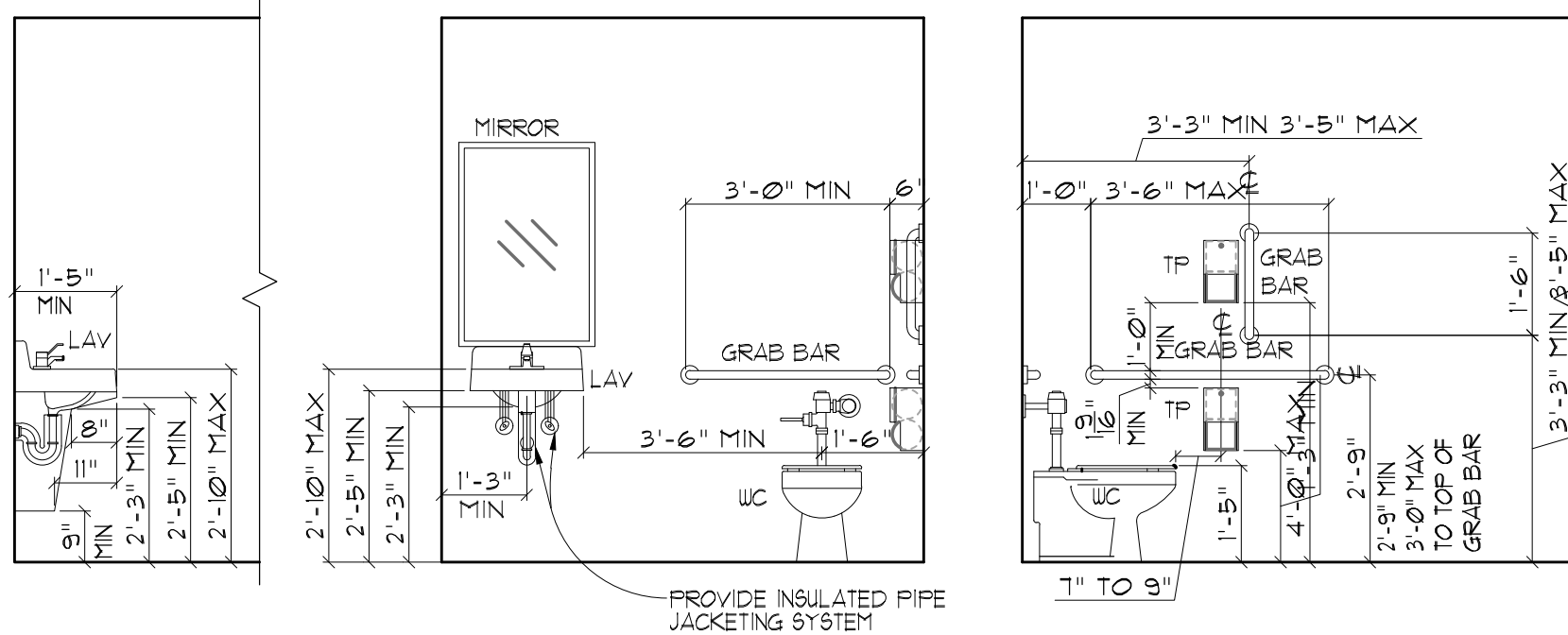
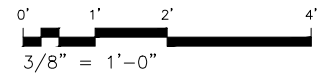


TYP. MINIMUM
BF TOILET W/
ALCOVE PLAN

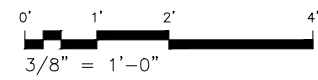
TYP. MINIMUM
BF TOILET PLAN



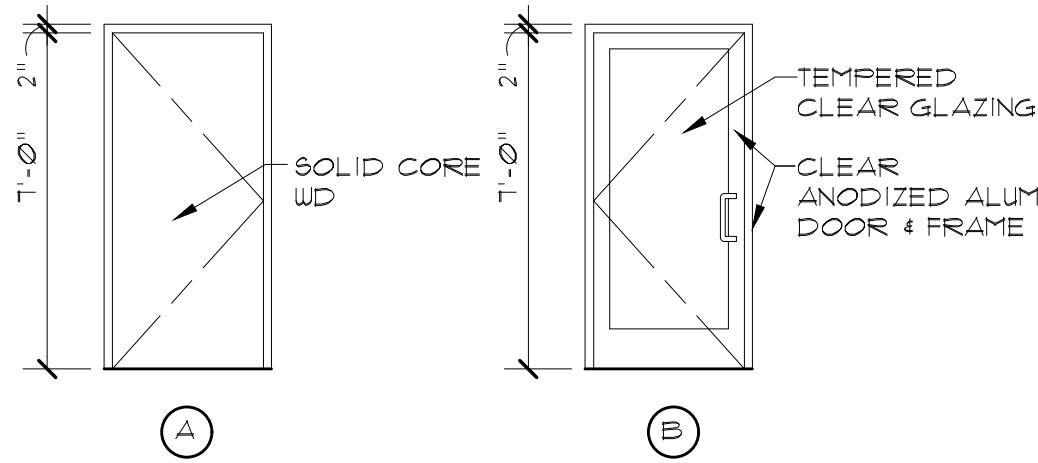
TYPICAL BARRIER FREE MOUNTING HEIGHTS



BARRIER FREE TOILET



DOOR SCHEDULE							
DOOR NO.		DOOR			FRAME		HDWR SET
		TYPE	MAT'L	FINISH	MAT'L	FINISH	
100	3'-0"X7'-0"X 1 3/4"	B	ALUM	FRE-FIN.	ALUM	FRE-FIN.	HWS-1
101	3'-0"X7'-0"X 1 3/4"	A	WD	STAIN	HM	PT	HWS-2
102	3'-0"X7'-0"X 1 3/4"	B	ALUM	FRE-FIN.	ALUM	FRE-FIN.	HWS-1
103	3'-0"X7'-0"X 1 3/4"	A	WD	STAIN	HM	PT	HWS-2
104	3'-0"X7'-0"X 1 3/4"	B	ALUM	FRE-FIN.	ALUM	FRE-FIN.	HWS-1
105	3'-0"X7'-0"X 1 3/4"	A	WD	STAIN	HM	PT	HWS-2
106	3'-0"X7'-0"X 1 3/4"	B	ALUM	FRE-FIN.	ALUM	FRE-FIN.	HWS-1
107	3'-0"X7'-0"X 1 3/4"	A	WD	STAIN	HM	PT	HWS-2
108	3'-0"X7'-0"X 1 3/4"	B	ALUM	FRE-FIN.	ALUM	FRE-FIN.	HWS-1
109	3'-0"X7'-0"X 1 3/4"	A	WD	STAIN	HM	PT	HWS-2
110	3'-0"X7'-0"X 1 3/4"	B	ALUM	FRE-FIN.	ALUM	FRE-FIN.	HWS-1
111	3'-0"X7'-0"X 1 3/4"	A	WD	STAIN	HM	PT	HWS-2



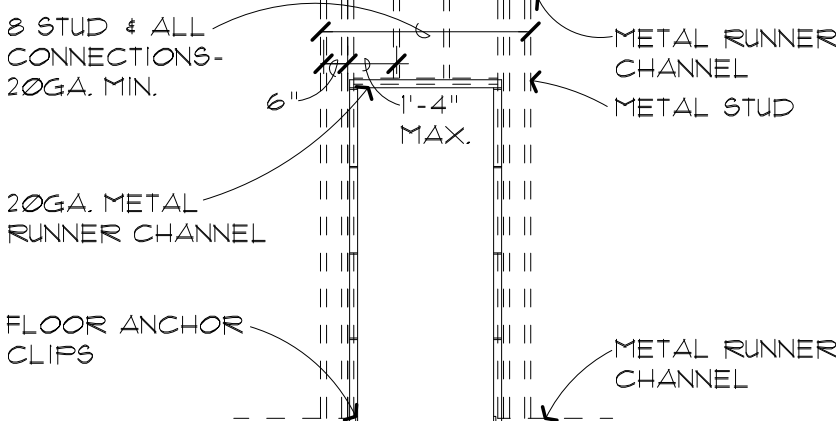
DOOR TYPES

GENERAL NOTES:

- CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS AND NOTIFY ARCHITECT IMMEDIATELY IF THAT WHICH EXISTS DIFFERS FROM THAT WHICH IS SHOWN ON DRAWINGS.
- ALL WORK TO COMPLY WITH CURRENT FEDERAL, STATE AND LOCAL CODES, LAWS AND ORDINANCES.
- THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) ARE TO BE FULLY SATISFIED.
- ALL WORK SHALL MEET THE MOST STRINGENT REQUIREMENTS OF BOTH INCLUDING, BUT NOT LIMITED TO CLEARANCES, LIMITATIONS, ACCESSORIES, ETC.
- THESE DRAWINGS ARE PREPARED IN ACCORDANCE WITH THE LIMITED SERVICES FOR WHICH THE ARCHITECT WAS CONTRACTED. THE ARCHITECT MAKES NO REPRESENTATION THAT THE INTERPRETATION OF THESE DOCUMENTS WILL RESULT IN COMPLETE COMPLIANCE WITH THE ADA.
- ALL DOORS REQUIRED TO BE LABELED SHALL BE SET IN LABELED FRAMES AND IDENTIFIED WITH UL LABEL AND BE PROVIDED WITH APPROVED SELF-CLOSING DEVICES AND POSITIVE LATCHING HARDWARE.
- ALL DESIGNATED EXIT DOORS SHALL BE EQUIPPED WITH THE REQUIRED EGRESS HARDWARE.
- FURNISH HARDWARE AS SCHEDULED WITHOUT SUBSTITUTION. NO ALTERNATES WILL BE APPROVED.
- PROVIDE PDQ2 CORES+ KEYED TO MASTER SYSTEM, INCLUDE KEY CONFERENCE AND KEY SYSTEM SCHEDULE. FURNISH A KEYED CORE AND TWO CUT KEYS FOR EACH LOCKING DEVICE SPECIFIED. ADDITIONAL PROVIDE 6 MASTER KEYS AND 2 CONTROL KEYS TOTAL.
- FURNISH AND PROVIDE ALL NECESSARY REINFORCEMENTS, BRACKETS, FASTENERS, SPACERS AND FILLERS TO PROVIDE A COMPLETE FUNCTIONING OPENING.
- PROVIDE COMPLETE SHOP DRAWINGS, SUBMITTALS AND CUT SHEETS COMPLYING WITH DHI PRESCRIBED METHODS AND VERTICAL FORMAT DOUBLE SPACED HARDWARE SCHEDULE.

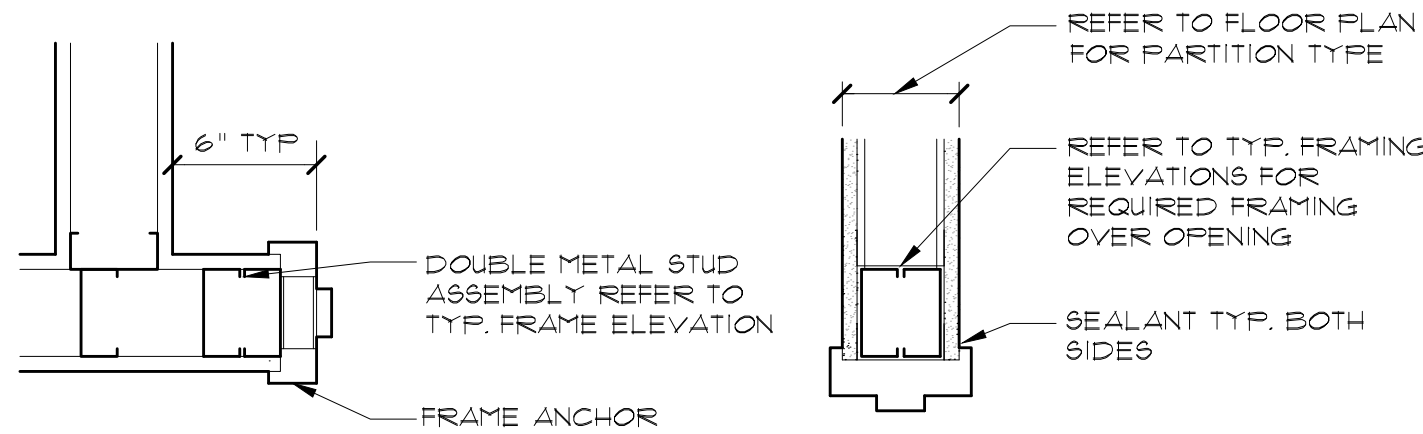
HARDWARE SET 1 - DEADBOLT + PUSH FULL BAR (LOCK / UNLOCK) + CLOSER
 1 EA. CONTINUOUS HINGE CG31
 1 EA. DEAD BOLT M818505 X REQUIRED FACEPLATE, STRIKE & BACKSET
 1 SET LOCK STATUS INDICATOR LI-4089
 1 EA. SIGN (THESE DOORS TO REMAIN UNLOCKED DURING BUSINESS HOURS)
 1 EA. INSIDE THUMB TURN 12601 + COLLAR
 1 EA. MORTISE CYLINDER 15301 X 15201-1 PDQ2 X TRIM RING
 1 EA. PUSH FULL BAR 15141 X 4 134 MOUNT AT LOOSE ENDS
 1 EA. CLOSER 7101 BC PA X DB REGULAR ARM (FULL SIDE MOUNT)
 1 EA. FLOOR STOP 1411 MOUNT 4 FT OF FOOT TRAFFIC
 1 EA. THRESHOLD 5205A
 1 EA. SWEET 354A MOUNT FULL SIDE
 1 SET WEATHERSTRIP BY DOOR AND FRAME SUPPLIER

HARDWARE SET 2 - PRIVACY SET (LOCK / UNLOCK) + CLOSER
 3 EA. BUTT HINGE BB81 4 1/2" X 4 1/2"
 1 EA. PRIVACY SET SD 116 BSN
 1 EA. CLOSER 5501 BC PA REGULAR ARM (FULL SIDE MOUNT)
 1 EA. KICKPLATE 90 10 X 2" LDW B4E
 2 EA. HINGE PIN 1512



TYPICAL STUD OR WOOD FRAMING
@ DOOR OPENING

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



4 DOOR FRAME
SCALE: 3/4"=1'-0"

3 DOOR HEAD
SCALE: 3/4"=1'-0"



CONSTRUCTION PHASE ENGINEERING/PERFORMANCE SPECIFIED PORTIONS OF WORK
CPE1. ALL WORK ON THE CONSTRUCTION PHASE ENGINEERING SHALL BE CONSIDERED A DEFERRED SUBMITTAL. EACH LICENSED CONSTRUCTION PHASE ENGINEER SHALL UPON REQUEST OF THE LOCAL BUILDING CODE OFFICIAL, OWNER, ARCHITECT OR ENGINEER, BE PREPARED TO SUBMIT THEIR WORK FOR THE APPROVAL OF THE LOCAL BUILDING CODE OFFICIAL. I SHALL NOT BE MISCONSTRUED THAT, SHOULD THE LOCAL BUILDING CODE OFFICIAL NOT REQUEST REVIEW OF THE WORK OF THE LICENSED CONSTRUCTION PHASE ENGINEER, THAT ANY PROFESSIONAL LIABILITY FOR THE WORK DOES NOT APPLY. NOT ALL LOCAL BUILDING CODE OFFICIALS CHOOSE TO REVIEW ALL CONTRACT DOCUMENTS AND/OR DEFERRED SUBMITTALS.

CPE2. PORTIONS OF WORK FOR ITEMS SUCH AS: "STOREFRONTS" AND CURTAINWALL SYSTEMS AND THEIR ATTACHMENT TO THE STRUCTURE, WINDOWS AND DOORS AND THEIR ATTACHMENT TO THE STRUCTURE, STRUCTURAL STEEL STAIRS, LADDERS, AND/OR HANDRAIL/GUARDRAIL SYSTEMS AND THEIR ATTACHMENT TO THE STRUCTURE, STRUCTURAL STEEL JOISTS, METAL PLATE CONNECTED WOOD TRUSSES, PRECAST CONCRETE HOLLOWCORE FLANK, COLD-FORMED STEEL FRAMING AND SHaft WALLS AND THEIR ATTACHMENT TO THE STRUCTURE, ATTACHMENT OF ANY WALL, WALL SYSTEM TO THE STRUCTURE, INSULATED METAL PANEL WALL SYSTEMS AND ITS ATTACHMENT TO THE STRUCTURE, EXTERIOR INSULATED FACADE SYSTEMS AND ITS ATTACHMENT TO THE STRUCTURE, AND ANY DESIRED ALTERNATES TO THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS (TO NAME A FEW ITEMS) REQUIRE ENGINEERING AFTER CONSULTING WITH AND SHALL BE DEFINED AS "PERFORMANCE SPECIFIED" PORTIONS OF WORK. SUCH WORK REQUIRES A LICENSED STRUCTURAL ENGINEER TO PERFORM CALCULATIONS AND OVERSEE THE PREPARATION OF SHOP DRAWINGS TO COMPLETE THE SPECIFIED DESIGN.

CPE3. BY SUBMITTING SHOP DRAWINGS, THE MATERIAL/BUILDING COMPONENT SUPPLIER AND/OR INSTALLER (AS GENERAL DISCUSSED IN NOTE CPE1) ATTESTS THAT THEIR LICENSED ENGINEER HAS HAD FULL OVERSIGHT ON THE PROJECT FROM THE DAY THE CONTRACT DOCUMENTS WERE FIRST PROVIDED TO THE BUILDING COMPONENT MANUFACTURER. FURTHER, THE MATERIAL/BUILDING COMPONENT SUPPLIER AND/OR INSTALLER (AS GENERAL DISCUSSED IN NOTE CPE2) ATTESTS THAT THEIR LICENSED ENGINEER HAS BEEN PROVIDED ALL CONTRACT DOCUMENTS AND HAS COMPLIED WITH SAME. IN ADDITION, ANY SUB-CONTRACTUAL AGREEMENT THAT CONTRADICTS THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS AND LIMITS THE LIABILITY IN ANY WAY OF THE LICENSED ENGINEER FOR THE MATERIAL/BUILDING COMPONENT SUPPLIER AND/OR INSTALLER (AS GENERAL DISCUSSED IN NOTE CPE2) THE ENTIRE SUB-CONTRACTUAL AGREEMENT BECOMES NULL AND VOID AND THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS SHALL GOVERN.

CPE4. IF ANY LICENSED ENGINEER FOR A MATERIAL/BUILDING COMPONENT SUPPLIER AND/OR INSTALLER (AS GENERAL DISCUSSED IN NOTE CPE2) CHOOSES TO SUBMIT ANY SHOP DRAWING WITHOUT A SIGNATURE AND SEAL, IT SHALL NOT BE MISCONSTRUED AS RELIEF FROM ANY REQUIREMENT OF THESE CONTRACT DOCUMENTS. REVIEW OF SHOP DRAWINGS THAT HAVE NOT BEEN SIGNED AND SEALED WILL BE PERFORMED AS A COURTESY UNDER THE ASSUMPTION THAT THE LICENSED ENGINEER FOR THE MATERIAL/BUILDING COMPONENT SUPPLIER AND/OR INSTALLER (AS GENERAL DISCUSSED IN NOTE CPE2) HAS IN EVERY OTHER WAY ACCEPTED, FULLY, THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS AND WILL, AS REQUIRED BY LAW, SUBMIT THE SIGNED AND SEALED SHOP DRAWINGS FOR THE APPROVAL OF THE LOCAL BUILDING CODE OFFICIAL, AS A DEFERRED SUBMITTAL.

CPE5. THE LICENSED STRUCTURAL ENGINEER FOR THESE PORTIONS OF WORK IS REQUESTED TO DETERMINE CODE REQUIRED LOADS, AND LOAD COMBINATIONS, AS REQUIRED FOR EACH PORTION OF WORK. NOTE THAT THE MINIMUM REQUIREMENTS OF THE BUILDING CODE ARE JUST THAT, MINIMUM REQUIREMENTS. THESE CONTRACT DOCUMENTS SPECIFY (OR CLARIFY) OUR (EXPERIENCE BASED) RECOMMENDATIONS FOR MINIMUM REQUIREMENTS TO BE USED FOR THIS WORK.

CPE6. IT IS ASSUMED THAT THE LICENSED STRUCTURAL ENGINEER CARRIES FULL PROFESSIONAL LIABILITY COVERAGE IN THE AMOUNT OF ONE MILLION DOLLARS PER CLAIM AND AN AGGREGATE OF TWO MILLION DOLLARS.

CPE7. THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ADEQUACY OF THE PORTION OF WORK HE/SHE IS PERFORMING. THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR SHALL PREPARE OR OVERSEE THE PREPARATION OF SPEC. ENGINEERING CALCULATIONS, REVIEW ALL SHOP DRAWINGS, AND CERTIFY THAT THE WORK HAS BEEN FABRICATED AND INSTALLED PER HIS/HER DESIGN INTENT AND THE DESIGN INTENT OF THESE CONTRACT DOCUMENTS.

CPE7.1. CALCULATIONS SHALL BE PREPARED AND MAY BE REQUESTED SUBMIT, SEALED AND SIGNED, FOR RECORD, AND/OR FOR NOTATION THAT THEY HAVE BEEN PERFORMED. CALCULATIONS SUBMIT WITHOUT REQUEST WILL NOT BE REVIEWED FOR ANY REASON.

CPE7.2. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR PRIOR TO THEIR SUBMISSION TO THE ARCHITECT FOR REVIEW. THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR MAY CHOOSE SEAL AND SIGN THE SHOP DRAWINGS OR APPLY A "REVIEW STAMP" TO THEM INDICATING THE SHOP DRAWINGS WERE REVIEWED AND MET WITH THEIR DESIGN CRITERIA. REVIEW COMMENTS BY THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR WHILE ENCOURAGED, SHOULD BE MINIMAL. FOR THE SHOP DRAWINGS SUBMIT TO THE ARCHITECT FOR REVIEW (IN OTHER WORDS, IF THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR HAS MANY REVIEW COMMENTS, THE SHOP DRAWINGS SHALL BE RETURNED TO THE CONTRACTOR FOR REVISION PRIOR TO SUBMITTING THEM TO THE ARCHITECT FOR REVIEW).

CPE7.3. THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR IS RESPONSIBLE FOR ALL FIELD INQUIRIES MADE BY HIS/HER CONTRACTOR. THIS MAY INCLUDE INVESTIGATION OF INQUIRIES THAT ARE THE RESULT OF DIFFICULTIES CREATED BY HIS/HER CONTRACTOR.

CPE7.4. THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR SHALL BE PREPARED TO, UPON REQUEST, VISIT THE SITE TO CONFIRM THE WORK HAS BEEN SATISFACTORILY PERFORMED PER HIS/HER DESIGN INTENT. UPON COMPLETION OF THE WORK, THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR MAY NEED TO PERFORM ADDITIONAL CALCULATIONS TO VERIFY THE ADEQUACY OF THE AS-BUILT WORK. THE LICENSED STRUCTURAL ENGINEER MAY NEED TO REQUIRE THE CONTRACTOR TO "REPEAT" ANY WORK HE/SHE MAY DEEM INSUFFICIENT. THE LICENSED STRUCTURAL ENGINEER FOR THE CONTRACTOR SHALL PREPARE AND SUBMIT A SEALED AND SIGNED LETTER CERTIFYING THAT PORTION OF WORK HAS BEEN DESIGNED PER THE MINIMUM REQUIREMENTS OF THE BUILDING CODE AND THE INSTALLATION MEETS WITH SAID REQUIREMENTS AND THEIR DESIGN INTENT.

CPE8. IF IT APPEARS THAT THE LICENSED ENGINEER FOR THE CONTRACTOR IS NOT FAMILIAR WITH EXISTING CONDITIONS, HE/SHE SHALL BE PREPARED TO, UPON REQUEST, VISIT THE SITE PRIOR TO A SECOND REVIEW OF SHOP DRAWINGS.

CPE9. THE LICENSED ENGINEER FOR A CONTRACTOR SHALL NOT SPECIFY ANY BUILDING COMPONENT THAT WILL OVERSTRESS ANY OTHER PORTION OF THE BUILDING. TWO EXAMPLES FOLLOW.

CPE9.1. THE LICENSED STRUCTURAL ENGINEER FOR THE WOOD TRUSS SUPPLIER SHALL NOT SPECIFY A BEARING CONNECTION THAT WILL OVERSTRESS THE TOP PLATES PROVIDED, THE LICENSED ENGINEER SHALL SPECIFY SUFFICIENT BEARING LENGTH AND WIDTH SUCH THAT THE PLATES PROVIDED ARE NOT OVERSTRESSED.

CPE10. OTHER PORTIONS OF WORK SHOWN ARCHITECTURALLY AND NOT INCLUDED WITHIN THE STRUCTURAL CONTRACT DOCUMENTS ARE SUBJECT TO THESE GENERAL REQUIREMENTS FOR PERFORMANCE SPECIFIED WORK. WHEN IN DOUBT DURING BIDDING, A CONTRACTOR SHOULD ASSUME A LICENSED STRUCTURAL ENGINEER IS REQUIRED AND INCLUDE SUCH COSTS AS AN ALTERNATE WITH THEIR BID. WHEN IN DOUBT DURING CONSTRUCTION, THE CONTRACTOR SHOULD MAKE AN INQUIRY WITH ARCHITECT THROUGH THE GENERAL CONTRACTOR FOR CLARIFICATION. THIS INQUIRY COULD SAVE THE CONTRACTOR MUCH RE-WORK IF IT IS DETERMINED THAT A PORTION OF WORK IS TO BE OVERSEEN BY A LICENSED STRUCTURAL ENGINEER.

MISCELLANEOUS

MISC1. STRUCTURAL CONTRACT DOCUMENTS SHOW SOME ARCHITECTURAL INFORMATION WHICH IS SHOWN FOR REFERENCE ONLY. ANY DISSIMILARITY WITH FINAL ARCHITECTURAL CONTRACT DOCUMENTS SHALL BE ASSUMED UNINTENTIONAL. HOWEVER, THE CONTRACTOR SHOULD VERIFY INTENT WITH ARCHITECT PRIOR TO STARTING ANY WORK. SOME INFORMATION IN STRUCTURAL SECTIONS IS NOT DRAIN TO SCALE.

MISC2. THE INFORMATION CONTAINED WITHIN THESE CONTRACT DOCUMENTS REPRESENTS INTELLECTUAL PROPERTY THAT HAS PROVIDED AS A PROFESSIONAL SERVICE FOR THE SPECIFIC USE TO DESCRIBE THE REQUIREMENTS FOR THIS PROJECT. REPRODUCTION, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

MISC3. ALL WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL CODES.

MISC4. THESE STRUCTURAL CONTRACT DOCUMENTS PROVIDE THE REQUIREMENTS FOR A BUILDING CODE COMPLIANT STRUCTURE. ALL SUB CONTRACTORS SHALL REVIEW THE CONTRACT DOCUMENTS FOR POTENTIAL CONCERNS REGARDING CONSTRUCTION "MEANS AND METHODS" REQUIREMENTS, ET AL, AND NOTIFY THE ARCHITECT WITH THEIR PROPOSAL FOR WORK OF ANY POTENTIAL AFFECT TO THE COST FOR THEIR WORK. PROJECT SAFETY AND COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. SHOULD THE CONTRACTOR FAIL TO NOTIFY THE ARCHITECT OF ANY SUCH CONCERNS, THESE CONCERNS WILL BE ASSUMED TO BE MINIMAL AND ACCOMMODATED WITHIN THEIR BID PRICE AND NO ADDITIONAL INFORMATION OR COSTS WILL BE NECESSARY FOR THE CONTRACTOR TO PERFORM THE WORK.

MISC5. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED STRUCTURAL ENGINEER, REGISTERED WITH THE STATE OF MICHIGAN, TO PROVIDE A COMPLETE TEMPORARY BRACING DESIGN FOR THE STABILITY OF THE BUILDING DURING CONSTRUCTION. THE SHORING DESIGN SHALL MEET THE REQUIREMENTS OF ASCE 31 (DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION).

MISC6. THE STRUCTURAL CONTRACT DOCUMENTS SHOW A PORTION OF THE WORK TO BE PERFORMED BY THE CONTRACTOR. SUPPLEMENTARY REQUIREMENTS FOR STRUCTURAL STEEL, CONCRETE, ETC. MAY BE FOUND WITHIN THE CONTRACT DOCUMENTS OF OTHER DISCIPLINES AND REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.

MISC7. THESE NOTES ARE COMPLEMENTARY TO THE SPECIFICATIONS AND SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS.

MISC8. EVERY EFFORT HAS BEEN MADE TO PROVIDE COMPLETE AND UNAMBIGUOUS INFORMATION ON THE CONTRACT DOCUMENTS. THE STRUCTURAL CONTRACT DOCUMENTS ARE NOT INTENDED TO STAND ALONE. CONTRACT DOCUMENTS PREPARED BY THE ARCHITECT AND OTHER BUILDING DISCIPLINES CONTAIN REQUIREMENTS THAT AFFECT THE STRUCTURAL CONTRACT DOCUMENTS. THE INFORMATION WITHIN THESE CONTRACT DOCUMENTS, THEREFORE, MAY CONTAIN AMBIGUOUS INFORMATION. ANY SUCH AMBIGUITY SHALL BE CORRECTED BY THE CONTRACTOR AND SUBMITTED WITH THE BID PRICE. THE CONTRACTOR SHALL INCLUDE AN ALLOWANCE FOR ANY SUCH AMBIGUITY ALONG WITH WHAT WAS ASSUMED AS THE BASIS FOR THE ALLOWANCE. (AMBIGUITIES SHALL NOT BE LIMITED TO THOSE BETWEEN DRAWING AND SPECIFICATIONS AND CONTRACT DOCUMENTS OF OTHER DISCIPLINES. AMBIGUITIES DISCUSSED HERE SHALL ALSO INCLUDE INCOMPLETE INFORMATION PRIOR TO SUBMISSION OF BIDS. THE CONTRACTORS SHALL SUBMIT A WRITTEN REQUEST FOR THE NECESSARY CLARIFICATION OR SUPPLEMENTARY INFORMATION REQUIRED BY THE CONTRACTOR TO PROCEED WITH THE WORK. THIS REQUEST SHALL BE SUBMIT TO THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER. THE BID ASSUMPTION IN THE ABSENCE OF THIS DOCUMENT, THE ARCHITECT WILL DETERMINE WHICH AMBIGUOUS REQUIREMENT GOVERNS AND THE CONTRACTOR SHALL PROVIDE AT NO ADDITIONAL COST TO THE OWNER. IN THE ABSENCE OF THIS DOCUMENT, THE ARCHITECT WILL DETERMINE THAT WHICH COULD HAVE BEEN ASSUMED FROM THE CONTRACT DOCUMENTS WHERE THE CONTRACT DOCUMENTS INCLUDE INCOMPLETE INFORMATION. THE BASIS FOR THIS DETERMINATION SHALL BE THAT THE CONTRACTOR SHOULD HAVE INCLUDED AN ALLOWANCE BASED UPON SIMILAR INFORMATION PROVIDED ELSEWHERE.

MISC9. THE FULLY COMPLETED STRUCTURE HAS BEEN DESIGNED TO BE STABLE AND CAPABLE OF RESISTING ALL CODE REQUIRED LOADS, TO THE BEST OF ANY STRUCTURAL ENGINEER'S ABILITY. THE CONTRACTOR REMAINS RESPONSIBLE FOR ALL MEANS AND METHODS ISSUES SUCH AS:

MISC9.1. TO DETERMINE THE ERECTION AND PLACING PROCEDURES AND SEQUENCES.
MISC9.2. TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENTS DURING ERECTION BY PROVIDING TEMPORARY SUPPORTS SUCH AS TEMPORARY BRACING, SHORING, GUYS AND TIE DOWNS.
MISC9.3. TO PROVIDE TEMPORARY SUPPORTS AND THEY SHALL REMAIN UNTIL ALL STRUCTURAL COMPONENTS ARE IN PLACE, COMPLETED, AND HAVE REACHED THEIR REQUIRED DESIGN STRENGTH.

MISC10. VERIFY THE SIZES, LOCATIONS, ELEVATIONS AND DETAILS OF EXISTING CONDITIONS THAT AFFECT THE WORK. INFORM THE ARCHITECT OF ANY DISCREPANCIES IN DIMENSIONS, SIZES, DETAILS, PIPES, VENTS, DUCTS, CONDUIT, AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THE EXISTING CONDITIONS. (EXISTING CONDITIONS' CAN INCLUDE NEW CONSTRUCTION PLACED IN EXISTING PHASES).

MISC11. PROVIDE SHORING, BRACING, UNDERPINNING, AND ANY OTHER MEANS REQUIRED TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION.

MISC12. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AT THE SITE, INCLUDING UTILITIES, SERVICES, ETC., AND SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGE HE CAUSES TO THE PROPERTY, EXISTING AND NEW CONSTRUCTION, AND FOR ANY UNAUTHORIZED DISRUPTIONS TO THE OWNER'S NORMAL USE OF UTILITIES, SERVICES AND THE SURROUNDING FACILITIES.

MISC13. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL CONTRACT DOCUMENTS AND SHOP DRAWINGS FOR SIZE AND LOCATION OF WALL AND FLOOR OPENINGS, WALL OFFSETS, STAIR DETAILS, PIPES, VENTS, DUCTS, CONDUIT, AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS.

MISC14. TYPICAL DETAILS, WHEN USED, APPLY TO ALL CONTRACT DOCUMENTS AND SHALL BE USED EXCEPT WHERE OTHERWISE SHOWN OR NOTED. EVERY EFFORT HAS BEEN MADE TO PROVIDE THE CONTRACTOR WITH COMPLETE AND UNAMBIGUOUS DETAILS. SINCE IT IS NOT POSSIBLE TO CUT THE CONTRACTOR AND EVERY DETAIL, THE DETAILS CUT SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE.

MISC15. THESE DOCUMENTS ATTEMPT TO PROVIDE AS COMPLETE A "PICTURE" AS IS HUMANLY POSSIBLE FOR BIDDING PURPOSES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO REQUIRE THE CONTRACTOR TO FOREGO THEIR NORMAL METHOD OF OPERATION. CONTRACTORS WISHING TO DISCUSS POTENTIAL EQUAL CONSTRUCTION SHOULD NOT HESITATE SUGGEST AN ALTERNATE. ALTERNATE CONSTRUCTION MUST BE SUBMIT TO THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER FOR THEIR ACCEPTANCE. THE CONTRACTOR SHALL SUBMIT THESE REQUESTS FOR ALTERNATES PRIOR TO PREPARING SHOP DRAWINGS TO ELIMINATE THE POSSIBILITY THAT AN ALTERNATE IS NOT DEEMED EQUAL. THE BUILDING'S STRUCTURAL ENGINEER OF RECORD HAS SOLE DISCRETION AS TO THE EQUALITY OF ANY PROPOSED ALTERNATE.

MISC16. THE ENGINEERING FOR ALTERNATES (AS DESCRIBED ABOVE) IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO THE REQUIREMENTS OF CONSTRUCTION PHASE ENGINEERING. IT SHALL NOT BE ASSUMED THAT THE ENGINEER OF RECORD WILL PERFORM THE ENGINEERING FOR ANY ALTERNATE, WHETHER DEEMED POTENTIALLY EQUAL OR OTHERWISE. UNLESS THE ENGINEER OF RECORD INDICATES, IN WRITING, THAT THE ALTERNATE DOES NOT REQUIRE ADDITIONAL ENGINEERING TO PROVE EQUALITY, THE CONTRACTOR SHALL, UPON REQUEST, RETAIN THE SERVICES OF A LICENSED STRUCTURAL ENGINEER, REGISTERED WITH THE STATE OF MICHIGAN, TO ENGINEER SUCH ALTERNATE(S). THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DELAY ASSOCIATED WITH THEIR REQUESTED ALTERNATE.

MISC17. ANY WORK THAT IS NOT PLACED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS IS SUBJECT TO REPAIR BY THE ENGINEER FOR ANY WORK PERFORMED THAT IS DEEMED UNACCEPTABLE. IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO THE REQUIREMENTS OF CONSTRUCTION PHASE ENGINEERING. IT SHALL NOT BE ASSUMED THAT THE ENGINEER OF RECORD WILL PERFORM THE ENGINEERING FOR ANY WORK THAT IS NOT PLACED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL, UPON REQUEST, RETAIN THE SERVICES OF A LICENSED STRUCTURAL ENGINEER, REGISTERED WITH THE STATE OF MICHIGAN, TO ENGINEER SUCH REPAIRS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DELAY ASSOCIATED WITH THE REPAIR(S) TO THEIR WORK.

MISC18. WHEN CONTRACT ALTERNATES ARE INCORPORATED INTO THE WORK, THE CONTRACTOR'S AND THEIR LICENSED ENGINEER SHALL AGREE TO DEFEND, INDEMNIFY, AND HOLD THE OWNER, CONSTRUCTION MANAGER, ARCHITECT, AND STRUCTURAL ENGINEER OF RECORD HARMLESS FROM ALL CLAIMS, INJURIES, DAMAGES, LOSSES, EXPENSES, AND ATTORNEY'S FEES ARISING OUT OF THE USE OF ANY ALTERNATE TO THE CONSTRUCTION DOCUMENTS.

MISC19. DIMENSIONS THAT DEPEND UPON SPECIFIC EQUIPMENT PURCHASED, SUCH AS WINDOW, DOOR, AND ELEVATOR OPENINGS AND MECHANICAL EQUIPMENT, TO NAME A FEW, MUST BE COORDINATED BETWEEN SUB CONTRACTORS PRIOR TO SUBMITTING OR PREPARING SHOP DRAWINGS. REQUESTS ON SHOP DRAWINGS TO PROVIDE SUCH DIMENSIONS SHALL BE RESPONDED TO ON THE SHOP DRAWINGS BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ARCHITECT FOR REVIEW. FAILURE TO RESPOND TO SUCH INQUIRY MAY RESULT IN THE RETURN OF A SET OF SHOP DRAWINGS TO THE GENERAL CONTRACTOR WITHOUT REVIEW. WHEREVER POSSIBLE, THE GENERAL CONTRACTOR SHOULD COORDINATE THESE ITEMS, AS EARLY AS POSSIBLE, THROUGH THE DISTRIBUTION OF CERTIFIED MANUFACTURER'S SHOP DRAWINGS.

MISC20. EVERY EFFORT HAS BEEN MADE TO PROVIDE THE CONTRACTOR WITH NECESSARY DIMENSIONS ON THE CONTRACT DOCUMENTS. WHERE A DIMENSION IS NOT PROVIDED, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR CLARIFICATION OF DIMENSION(S) THAT HAS (HAVE) NOT BEEN PROVIDED AND OBTAIN A WRITTEN RESPONSE PRIOR TO SUBMITTING THEIR BID PRICE.

MISC21. THESE CONTRACT DOCUMENTS DEFINE THE REQUIREMENTS FOR THIS WORK AS WELL AS DESIGN RESPONSIBILITIES FOR PORTIONS OF WORK, WHETHER THEY ARE "PERFORMANCE SPECIFIED" OR NOT. THESE CONTRACT DOCUMENTS, AND THE BUILDING CODE AS WELL, MAY REFER TO STANDARDS AND/OR GUIDELINES. TYPICALLY, THESE STANDARDS ARE PREPARED BY MANUFACTURING AND/OR MARKETING ASSOCIATIONS. REFERENCE TO THESE STANDARDS AND GUIDELINES ARE FOR QUALITY OF WORK AND FOR GENERAL PHYSICAL DESIGN CRITERIA. USE OF THESE STANDARDS AND GUIDELINES SHALL NOT INCLUDE ANY CRITERIA WITH REGARD TO DESIGN RESPONSIBILITIES, OR DESIGN LOADS. IF INCLUDED THEREIN, ANY DESIGN RESPONSIBILITIES AND/OR DESIGN LOAD RECOMMENDATIONS FOUND WITHIN SUCH GUIDELINES IS SUBJECT TO WRITTEN VERIFICATION (CLEAR AND UNAMBIGUOUS ACCEPTANCE) FROM THE INTERNATIONAL CODE COUNCIL AND/OR THE MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES STANDARDS COMMITTEE OF THE CODES AND STANDARDS DIVISION OF THE STRUCTURAL ENGINEERING INSTITUTE.

CODE SUMMARY

1. GOVERNING BUILDING CODE:

MICHIGAN BUILDING CODE 2015 INCORPORATING THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE.

2. ROOF WOOD TRUSS DESIGN LOADS:

2.1 TOP CHORD: DL + 10 PSF, LL + 20 PSF
2.2 BOTTOM CHORD: DL + 10 PSF, LL + 10 PSF (NOT SIMULTANEOUS WITH TOP CHORD LIVE LOAD)
2.3 TOTAL LOAD DEFLECTION SHALL NOT EXCEED SPAN/360
2.4 ROOF TRUSSES PARALLEL TO AND OVER SHEAR WALLS SHALL BE DESIGNED TO HORIZONTALLY TRANSFER THE LATERAL LOADS TO THE SHEAR WALL BELOW

3. SNOW LOADS

3.1. GROUND SNOW LOAD, Pg = 25 PSF
3.2. FLAT-ROOF SNOW LOAD, Pf = 15 PSF
3.3. SNOW EXPOSURE FACTOR, Ce = 1.0
3.4. SNOW LOAD THERMAL FACTOR, Ct = 1.2
3.5. SNOW LOAD IMPORTANCE FACTOR, Is = 1.0
3.6. ROOF SLOPE FACTOR, Cs = 1.0

4. DESIGN WIND LOAD FOR STRUCTURAL FRAME (ALL WIND FORCES ARE ULTIMATE LOADS, AS SPECIFIED WITHIN THE MICHIGAN BUILDING CODE. FOR EXAMPLE, WIND LOADS CARRY A 0.6 LOAD FACTOR IN ASD LOAD COMBINATIONS).

4.1. BASIC WIND SPEED, Valt = 115 MPH, Vast = 90 MPH
4.2. IMPORTANCE FACTOR, Is = 1.0
4.3. BUILDING CATEGORY: II
4.4. EXPOSURE: B
4.4.1. INTERNAL PRESSURE COEFFICIENT, +/- 0.18
4.5. VELOCITY PRESSURE, Qz = 34.0 PSF
4.6. MAIN WIND-FORCE-RESISTING SYSTEM PRESSURE (WINDWARD PLUS LEEWARD) H + HEIGHT UP TO 20' - 10 PSF
4.7. MAIN WIND-FORCE-RESISTING SYSTEM PRESSURE (ROOF) - 22.0 PSF

5. DESIGN WIND LOAD FOR EXTERIOR COMPONENTS AND CLADDING

PLEASE NOTE THAT THE WIND LOADS PROVIDED ARE UN-FACTORED LOADS CALCULATED FROM THE MICHIGAN BUILDING CODE AND ASCE 7. FOR EXAMPLE, WIND LOADS CARRY A 0.6 LOAD FACTOR IN ASD LOAD COMBINATIONS.

5.1. TYPICAL EXTERIOR WALL SURFACE: +20.3/-22.1 PSF
5.2. EXTERIOR WALL SURFACE AT CORNERS, WITHIN TEN FEET OF EACH CORNER OF THE BUILDING: +20.3/-22.1 PSF
5.3. PARAPET: +142/-149.9 PSF
5.4. TYPICAL ROOF SURFACE: +85/-22.6 PSF
5.4. ROOF SURFACE WITHIN TEN FEET OF THE EDGE OF THE ROOF (NOT AT CORNERS): +9.4/- 30.1 PSF
5.5. ROOF SURFACE AT CORNERS (INTERSECTION OF TEN FOOT PERIMETER AREAS): +9.4/- 41.3 PSF

6. DESIGN SEISMIC LOAD

6.1. SEISMIC IMPORTANCE FACTOR: Is = 1.0
6.2. SEISMIC USE GROUP: II
6.2.1. HAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss = 0.0954 S1 = 0.0441
6.3. SITE (S01) CLASS: D
6.4. SITE COEFFICIENTS: F0 = 1.6, Fv = 2.4
6.4.1. MAX. CONSIDERED SPECTRAL RESPONSE ACCELERATIONS: Sms = 0.53, Sm1 = 0.07
6.4.2. SPECTRAL RESPONSE COEFFICIENTS: Sds = 0.20, Sd1 = 0.07
6.5. SEISMIC DESIGN CATEGORY: B
6.6. BASIC SEISMIC-FORCE-RESISTING SYSTEM, LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE, R16.5, Cd = 4.00
6.7. SEISMIC RESPONSE COEFFICIENT (Cs): Cs = 0.091
6.8. DESIGN BASE SHEAR: 4,320 POUNDS
6.9. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE METHOD

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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
GENERAL NOTES

ARCHITECTS
T. FOUGHT & ASSOCIATES LLC
24045 WOODLAND DR., SOUTHFIELD, MI 48034
(248) 514-7622

ISSUED:
BIDS & PERMITS
03/24/2022

DRAWN T.J.F.
CHECKED T.J.F.
APPROVED T.J.F.
DESIGNED
CONSTRUCTED

DO NOT SCALE
PRINTS - USE
FIGURED
DIMENSIONS ONLY

JOB NO.
T2021024

SHEET
SN.2

34 GREENFIELD
OFFICE

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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
FOUNDATION PLAN
& DETAILS

ARCHITECTS
T. FOUGHT & ASSOCIATES LLC
24045 WOODLAND DR. SOUTHFIELD, MI 48034
(248) 514-7612

ISSUED:
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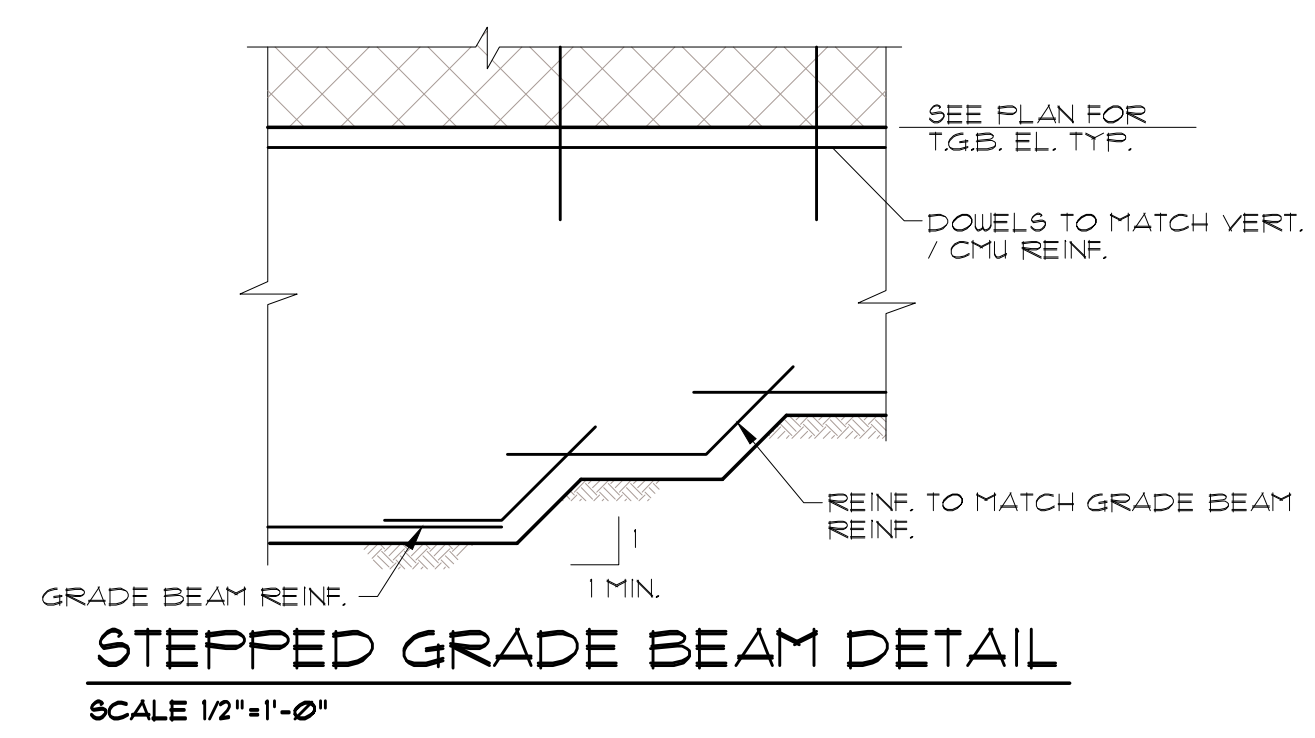
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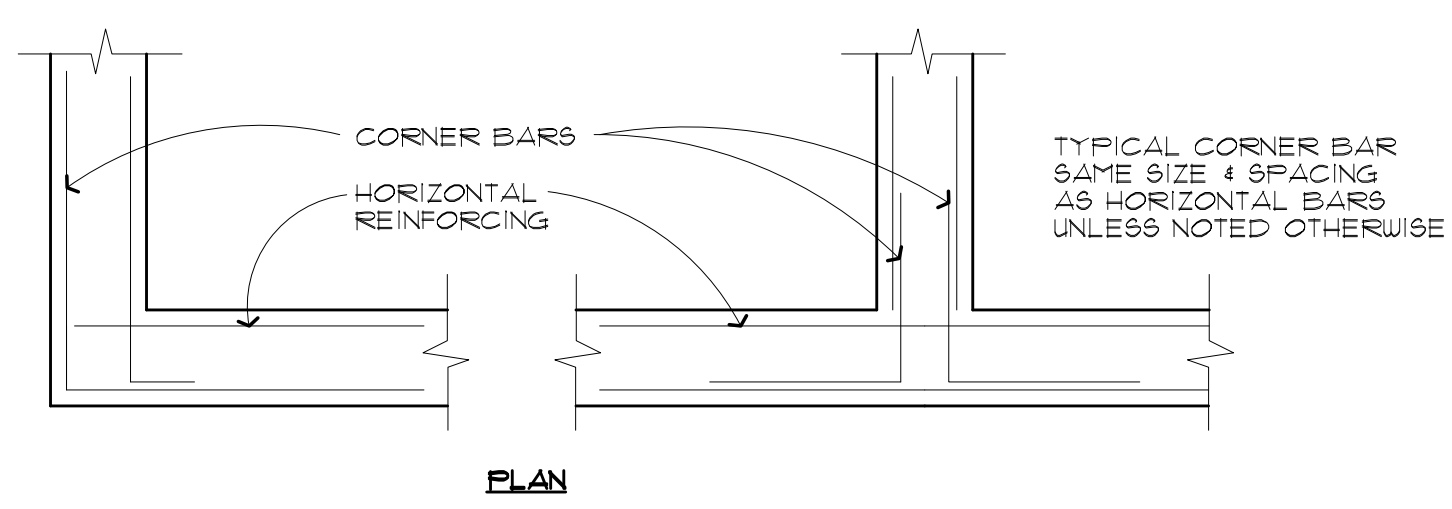
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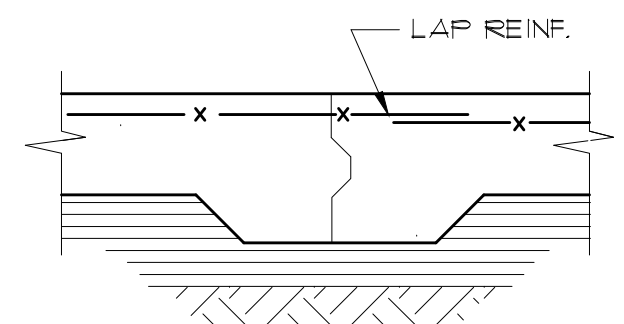
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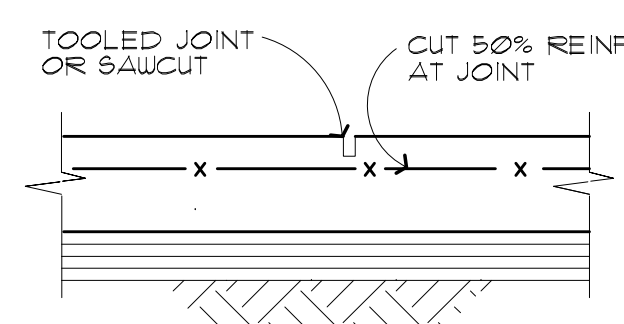
STEPPED GRADE BEAM DETAIL
SCALE 1/2"=1'-0"



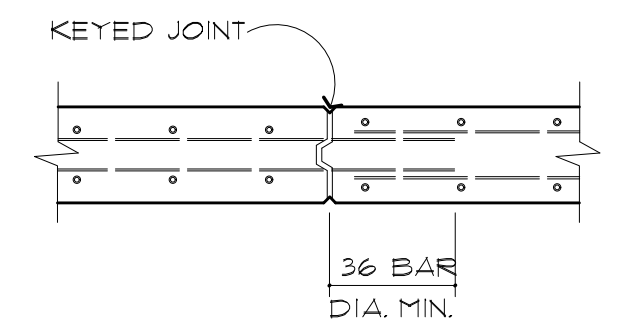
TYPICAL WALL CORNER DETAIL
SCALE 1/2"=1'-0"



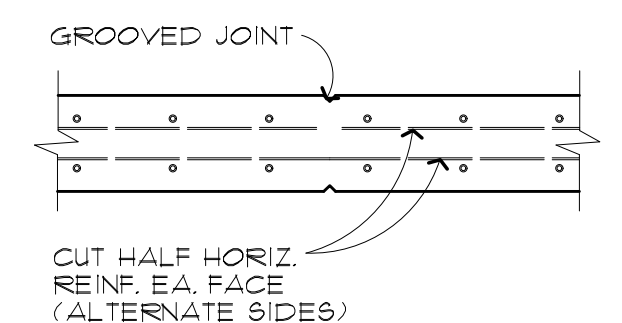
TYP. CONSTRUCTION JOINT
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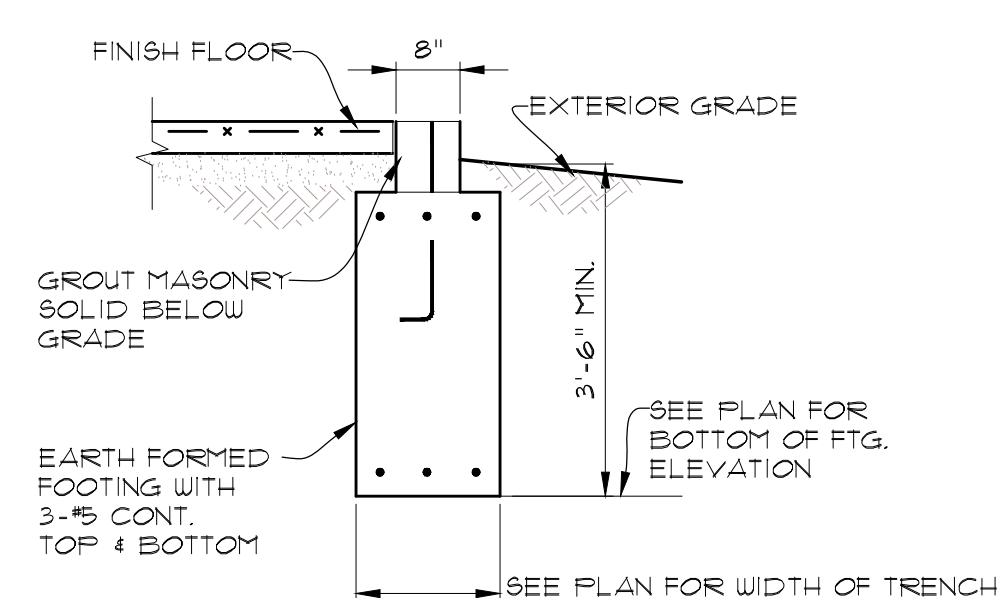
TYP. CONTROL JOINT
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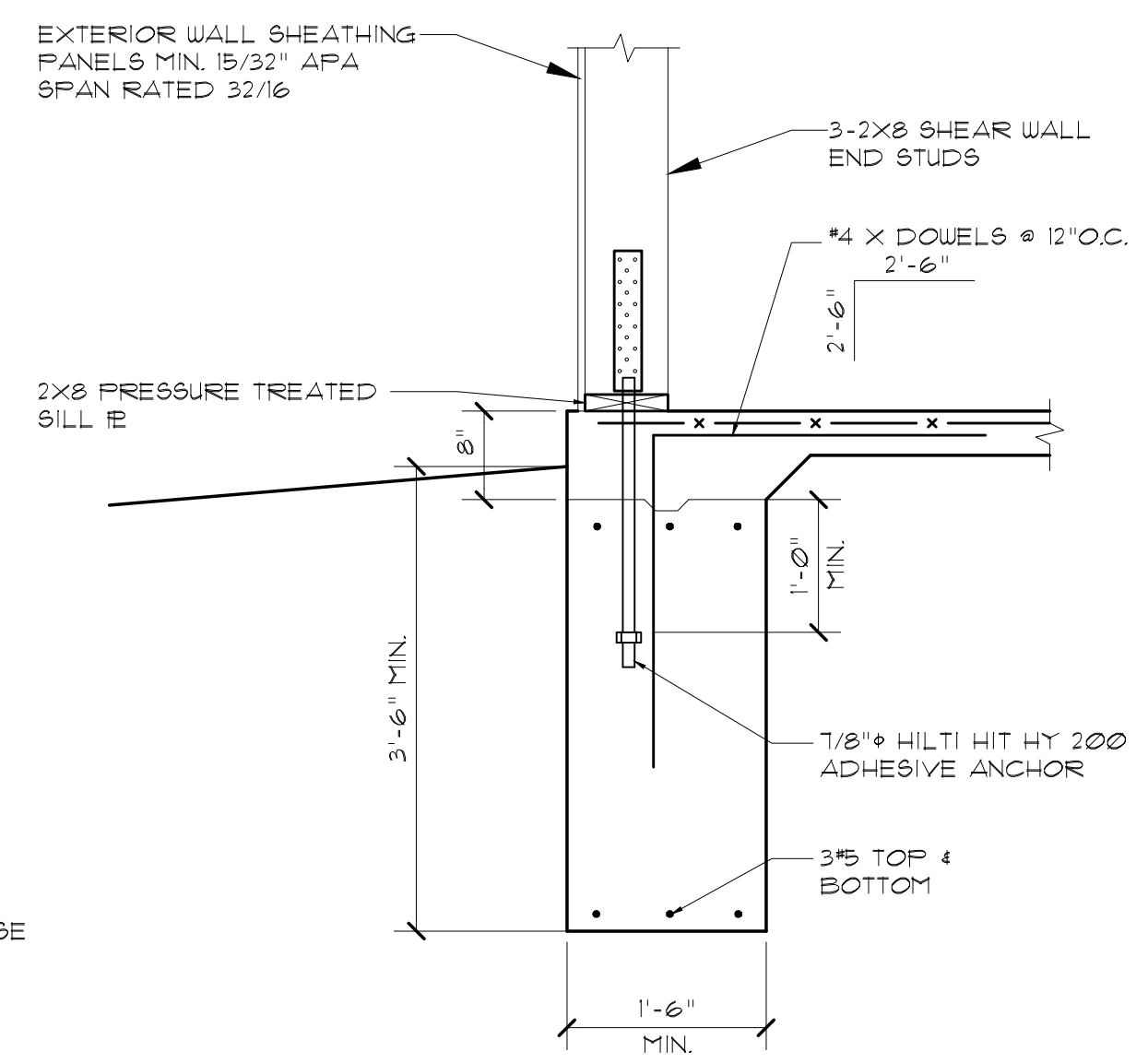
CONSTRUCTION JOINT AS REQUIRED



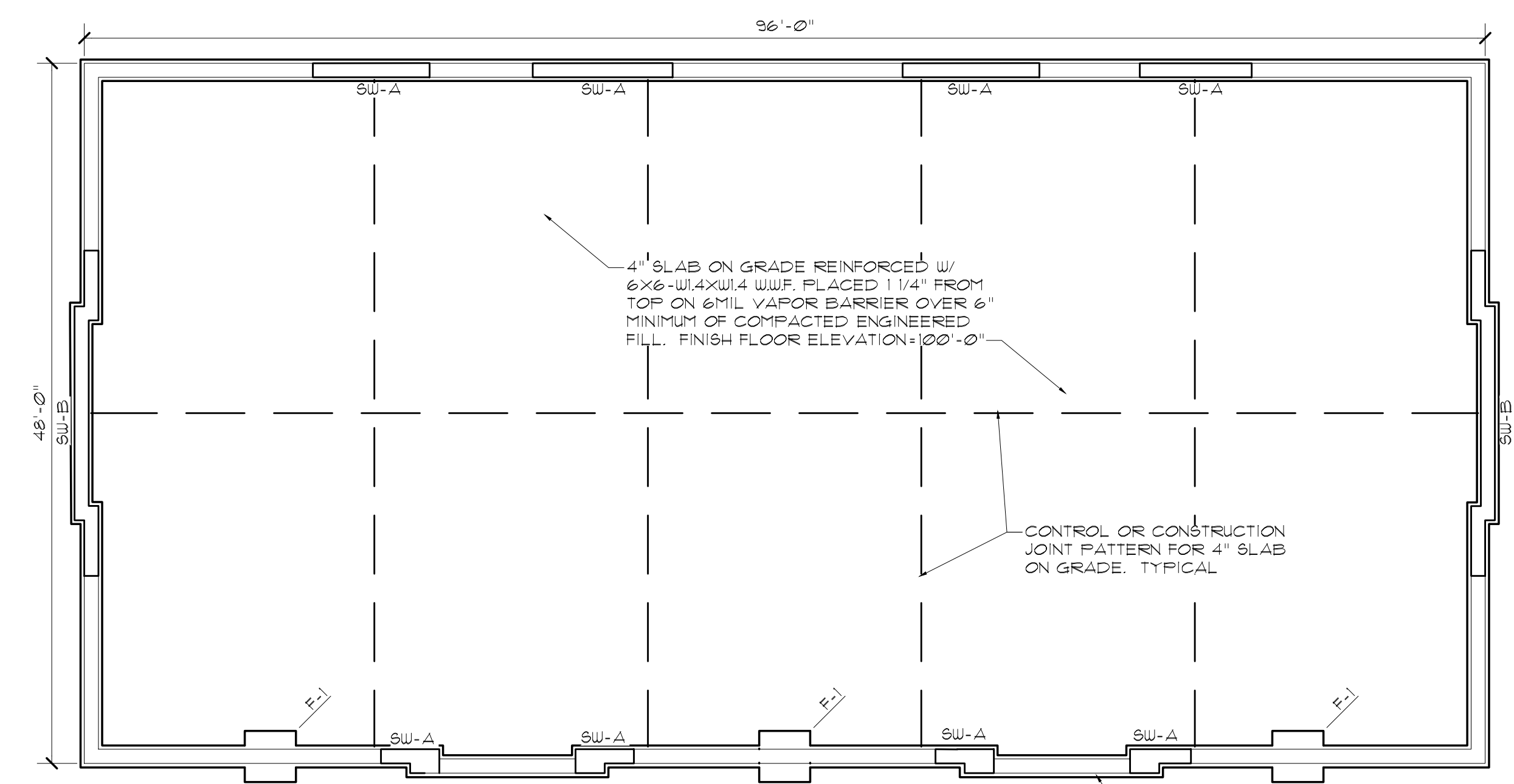
TYP. WALL JOINT DETAILS
SCALE 1/2"=1'-0"



(TYPICAL)
EXT. MAS. WALL FTG.
SCALE: 1/2"=1'-0"



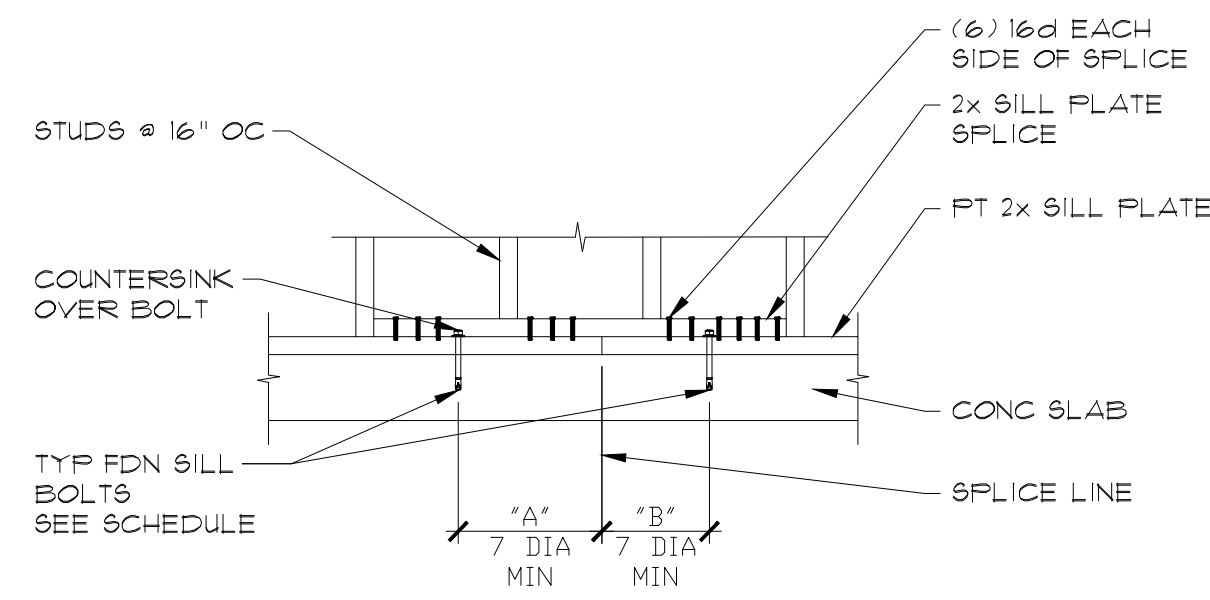
EXTERIOR SHEAR WALL
HOLDDOWN DETAIL
SCALE: 3/4"=1'-0"



NOTES:
1. TOP OF EXTERIOR TRENCH FOOTING ELEVATION 99'-4" TYP. U.O.N.
2. F-1: 3'-6"x3'-6"x3'-6" DEEP PLAIN CONCRETE

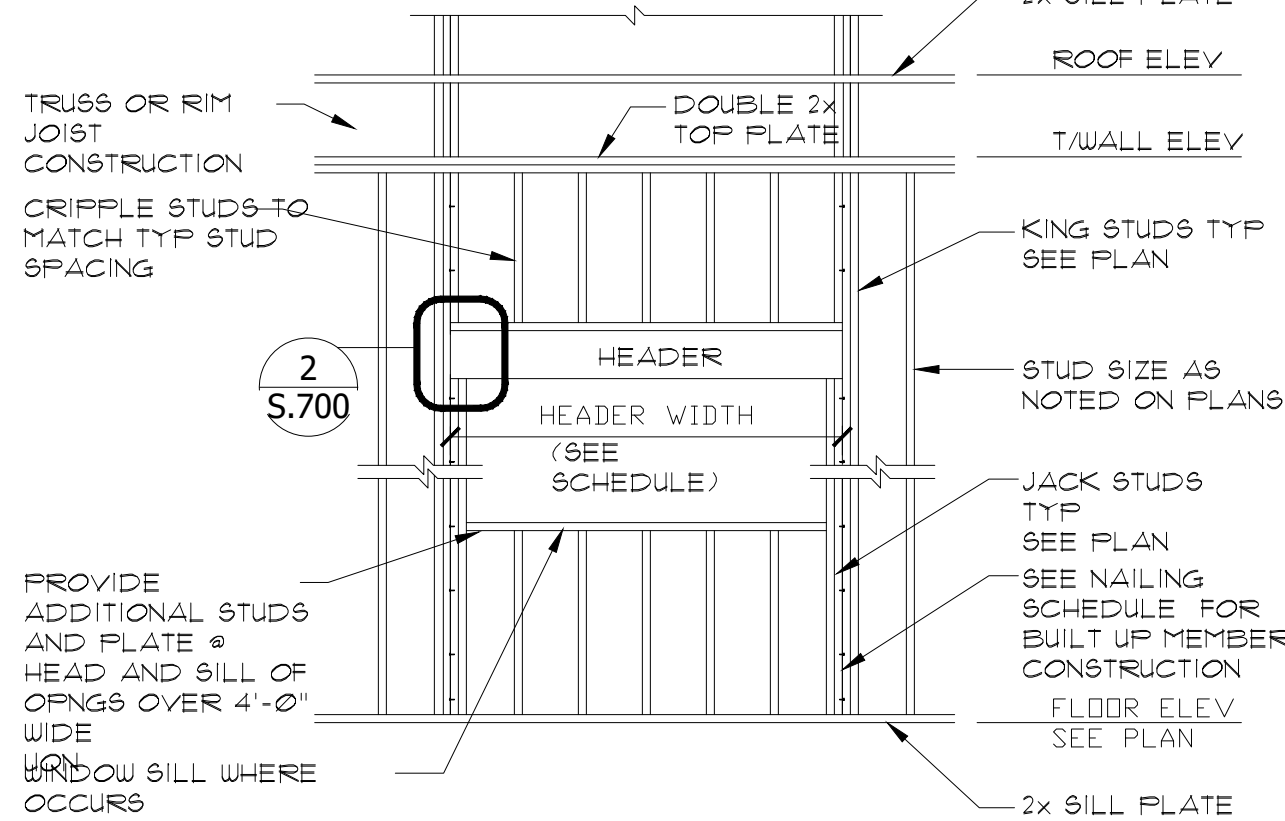
FOUNDATION PLAN
SCALE: 1/8"=1'-0"





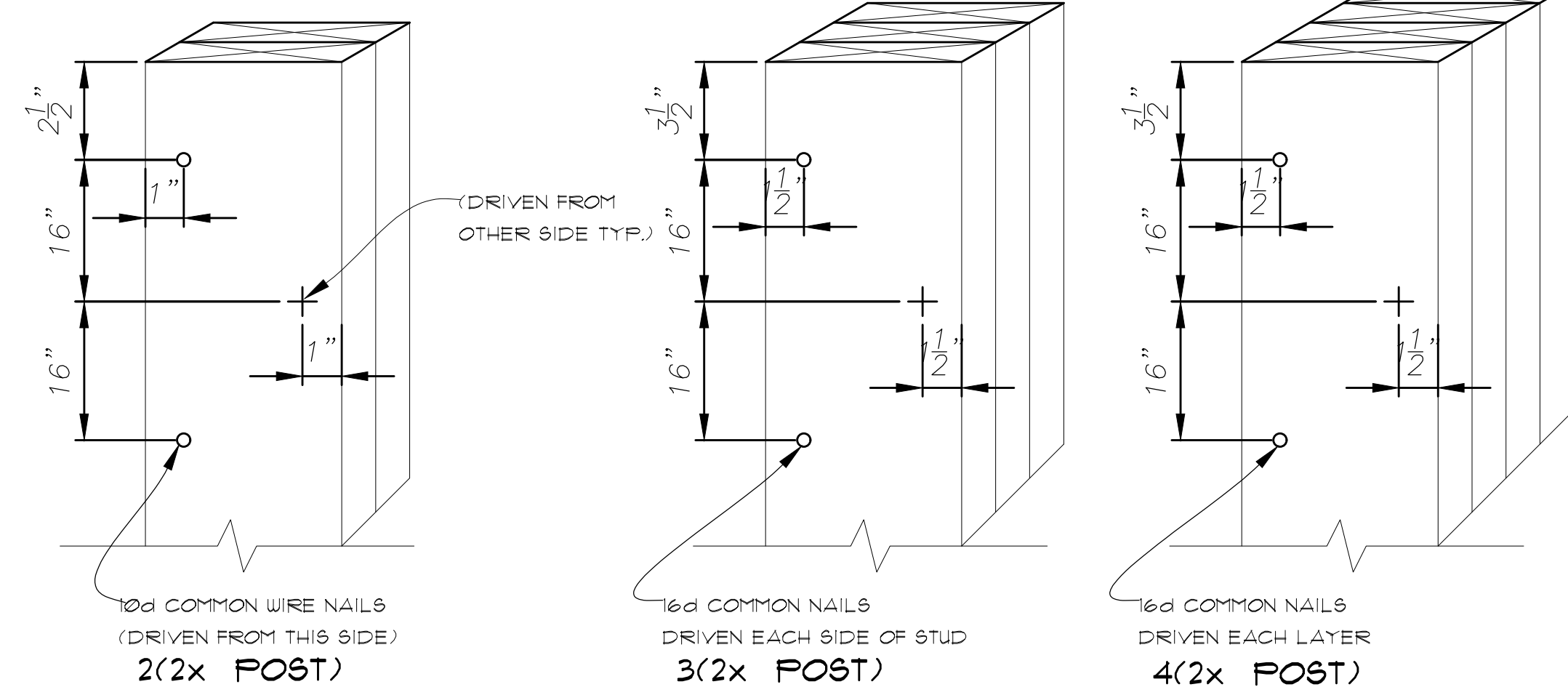
NOTE: THIS DETAIL REQUIRED WHEN EITHER "A" OR "B" IS GREATER THAN 12"

11 SHEARWALL SILL ANCHORAGE SPLICE
SCALE: 3/4"=1'-0"

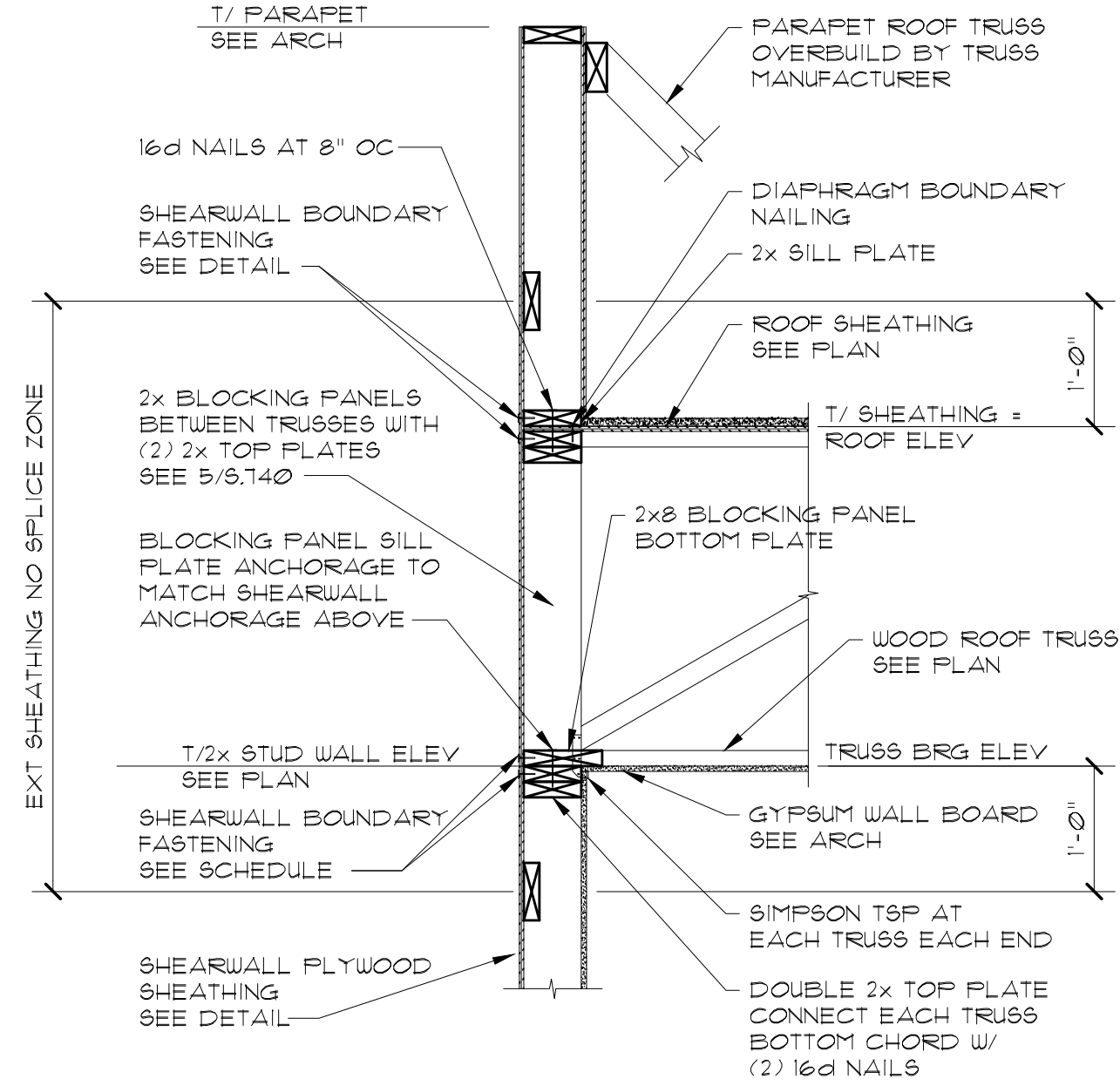


10 TYP. HEADER DETAIL
SCALE: 3/4"=1'-0"

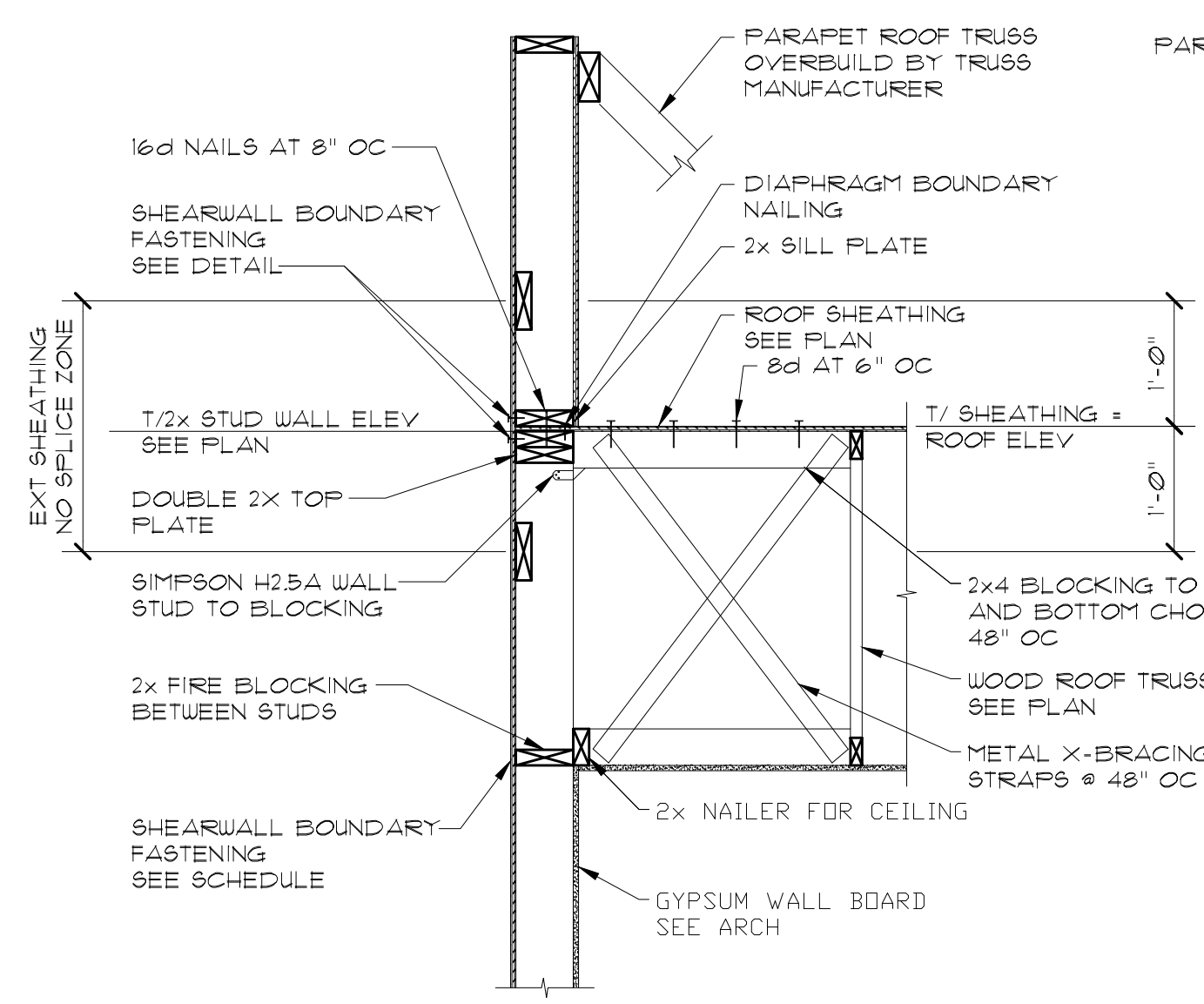
9 TYP. WOOD HEADER BEARING DETAIL
SCALE: 3/4"=1'-0"



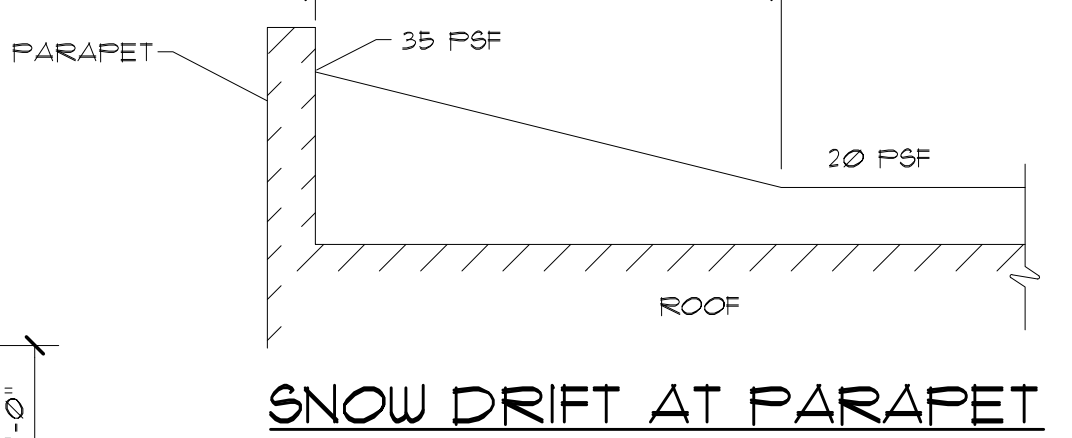
8 CONNECTIONS FOR MULTI-PLY 2X POST CRIPPLE STUDS
SCALE: 3/4"=1'-0"



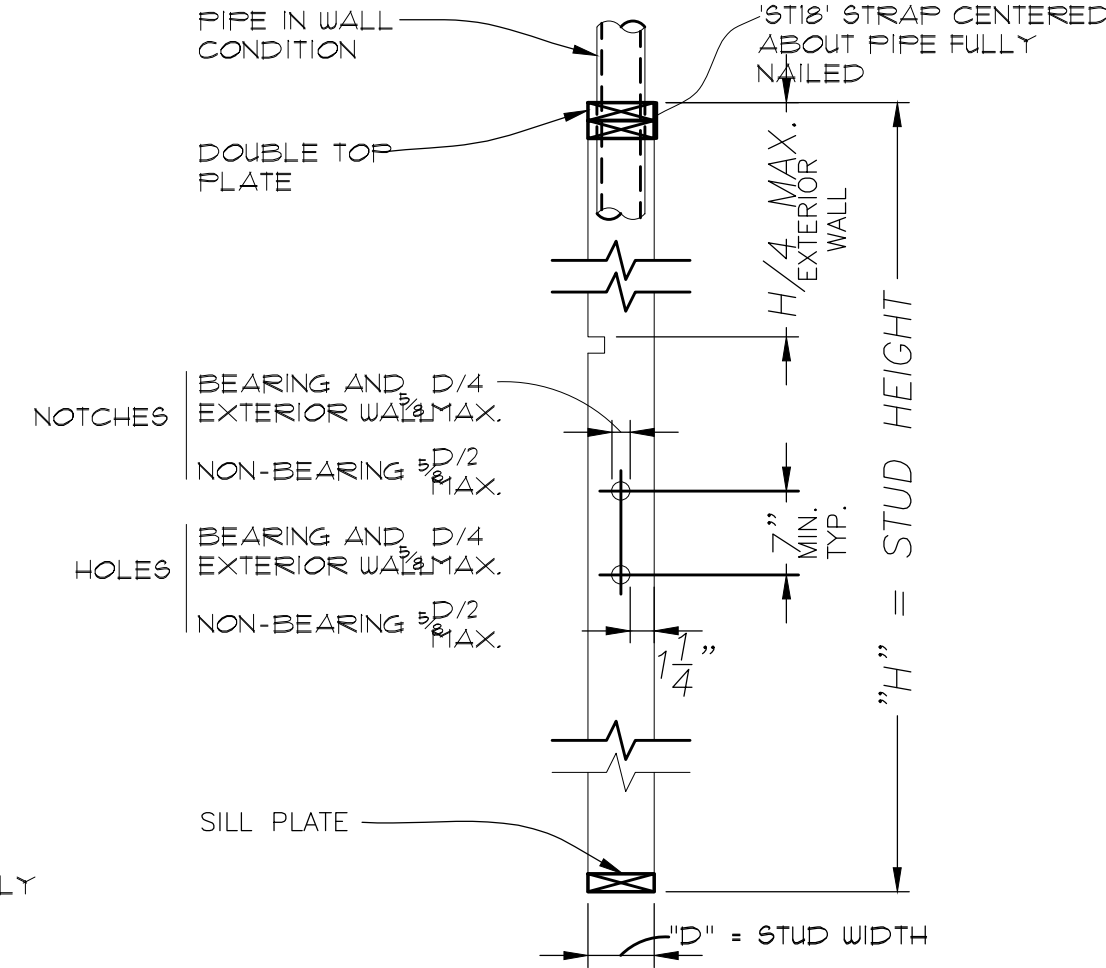
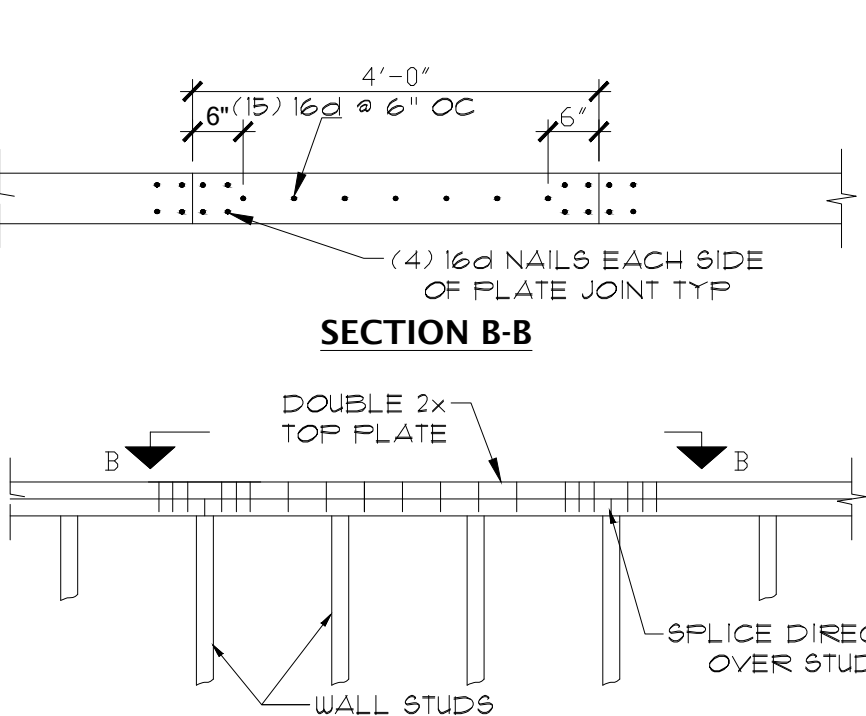
3 TYP. EXTERIOR SHEAR WALL ROOF SECTION PARALLEL TO TRUSS
SCALE: 3/4"=1'-0"



4 TYP. EXTERIOR SHEAR WALL ROOF SECTION PARALLEL TO TRUSS
SCALE: 3/4"=1'-0"

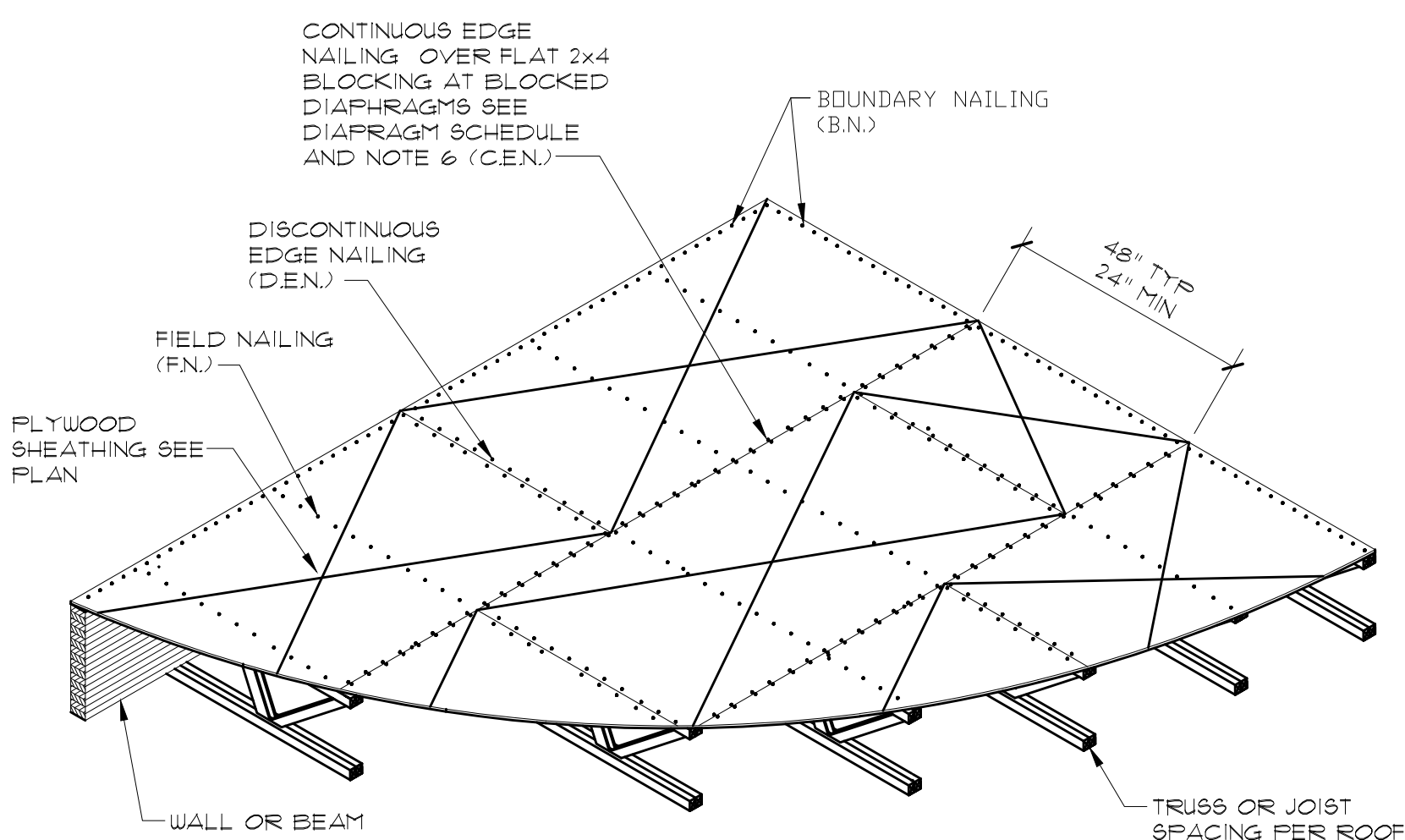
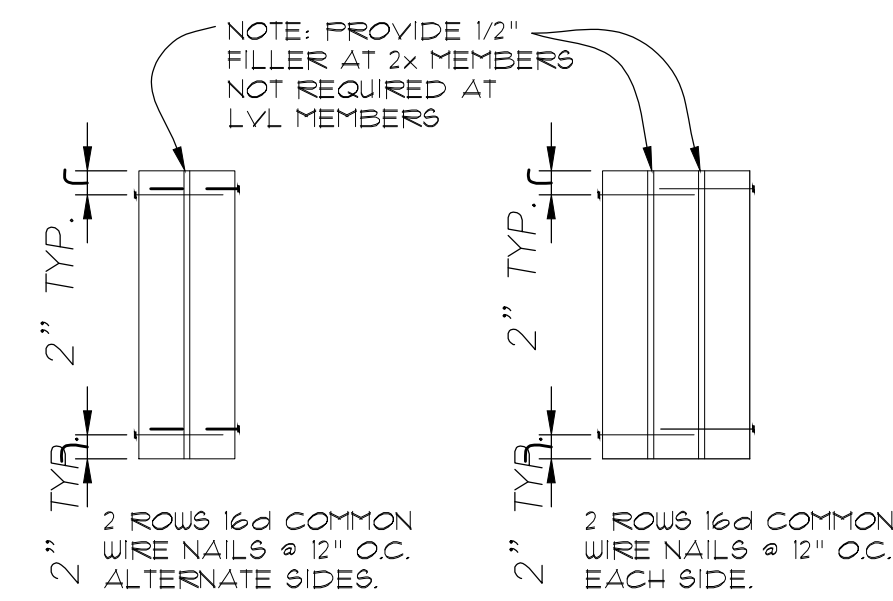


5 TYP. DOUBLE TOP PLATE SPLICE DETAIL
SCALE: 3/4"=1'-0"



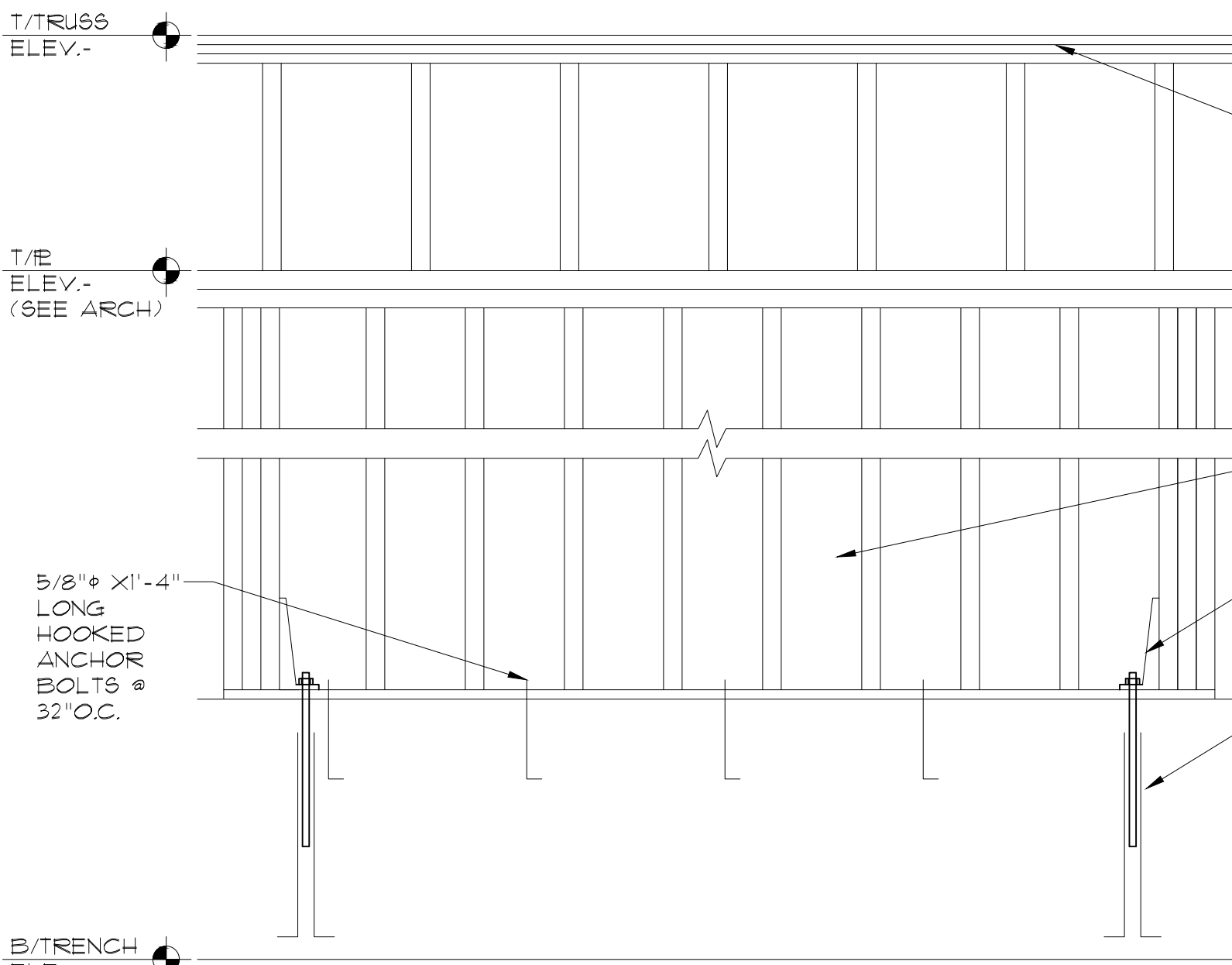
6 ALLOWABLE NOTCHES & DRILLED HOLES (STUDS)
SCALE: 3/4"=1'-0"

1 CONNECTIONS FOR MULTI-PLY HEADERS
SCALE: 3/4"=1'-0"

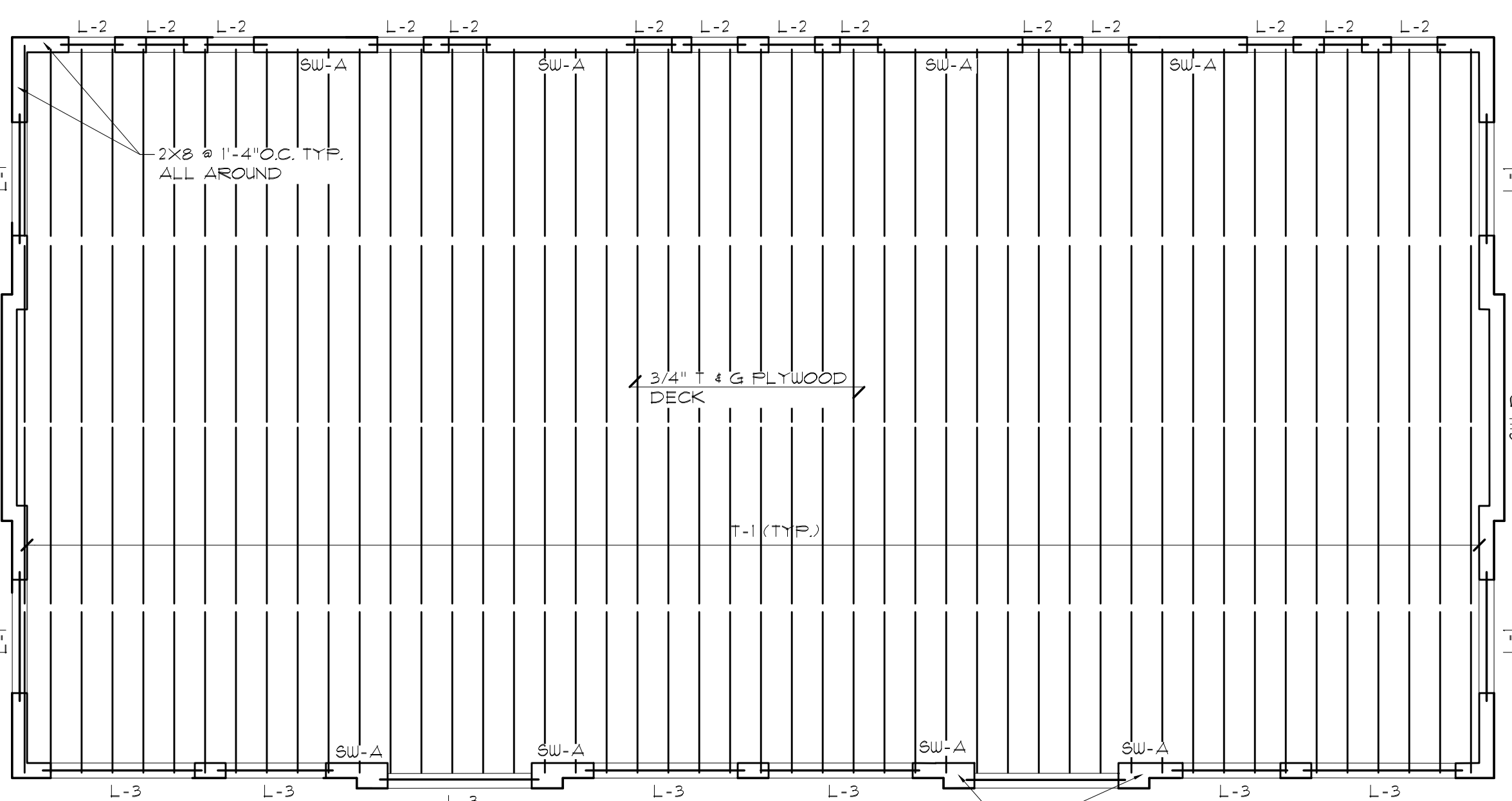


NOTES:
1. RUN LONG DIMENSION OF PLYWOOD PERPENDICULAR TO TRUSS.
2. NAILING SIZE AND SPACING AS NOTED ON DIAPHRAGM SCHEDULE.
3. NAILS SHALL HAVE A MIN 3/8" EDGE DISTANCE.
4. USE BOUNDARY NAILING CONTINUOUS @ ALL NAILING ZONE BOUNDARIES. SEE PLAN FOR ZONE EXTENTS.
5. ALL FASTENERS SHALL BE COMMON NAILS. SIMPSON'S WENTL SUBFLOOR SCREWS OF EQUAL LENGTH MAY BE USED IN LIEU OF NAILS.
6. ALL PANELS SHALL BE APPLIED WITH 1/8" SPACE AT ALL PANEL EDGES AND P8CL 15/32 PANEL SHEATHING CLIP AT MIDSPAN OF ALL UNSUPPORTED SHEATHING EDGES. PANEL SHEATHING CLIPS ARE NOT REQUIRED FOR T & G PLYWOOD SHEATHING.
7. ALL NAILS OR SCREWS SHALL BE DRIVEN SO THEIR HEAD/ CROWN IS FLUSH W/ SHEATHING

2 ROOF SECTION PARALLEL TO TRUSS
SCALE: 3/4"=1'-0"



1 SHEAR WALL DETAIL
SCALE: N.T.S.



LEGEND:
L-1: 3-2X10-4L5X3/8 LOOSE BRICK LINTEL
L-2: 3-2X6 HEADER
L-3: 3-1/15"X9.25" LVL - L5X5X3/8 BRICK LINTEL CONNECT L5X5 TO WOOD HEADER W/ 3/4" @ BOLTS @ 32" O.C. MAX. TYP. ALONG FRONT ELEVATION
T-1: PRE-ENGINEERED WOOD TRUSSES @ 2'-0" O.C. TYP.
P1: 3-2X8 KING STUDS-1-2X8 JACK STUD @ HEADER

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



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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
ROOF FRAMING PLAN & DETAILS

ARCHITECTS
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03/24/2022

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APPROVED T.J.F.
BDS
COORDINATOR

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



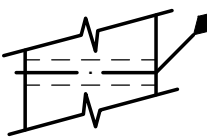
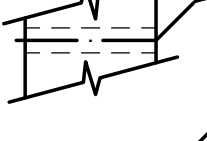

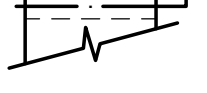



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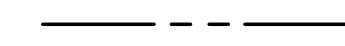

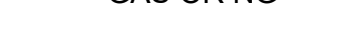


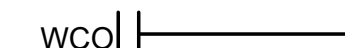
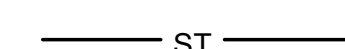
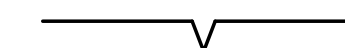

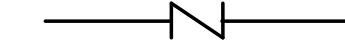


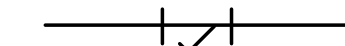








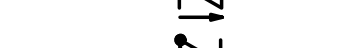


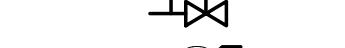





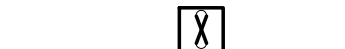





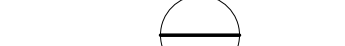






ABBREVIATIONS

A.L.	ACOUSTICAL LINING
B.V.	BALANCING VALVE
C.D.	CEILING DIFFUSER
C.F.M.	CUBIC FEET PER MINUTE
C.I.	CAST IRON
F.C.O.	FLOOR CLEAN OUT
DPR.	DAMPER
D.F.	DRINKING FOUNTAIN
D.W.S.	DRINKING WATER SUPPLY
D.W.R.	DRINKING WATER RETURN
E.F.	EXHAUST FAN
ER-#	EXHAUST REGISTER
EW	ELECTRIC WATER COOLER
F.D.	FLOOR DRAIN
F.DPR.	FIRE DAMPER
H.B.	HOSE BIBB
H.O.	HUB OUTLET
I.E.	INVERT ELEVATION
I.W.	INDIRECT WASTE
LAV.	LAVATORY
LD-#	LINEAR SUPPLY AIR DIFFUSER
LR-#	LINEAR RETURN AIR DIFUSER
O.A.	OUTSIDE AIR
O.B.D.	OPPOSED BLADE DAMPER
O.E.D.	OPEN END DUCT
P.H.	PHYSICAL HANDICAPPED
P.REL.V.	PRESSURE RELIEF VALVE
P-1	PUMP #1
R.A.	RETURN AIR
R.C.	RAIN CONDUCTOR
RG -#	RETURN AIR GRILLE
R.P.B.P.	REDUCED PRESSURE BACKFLOW PREVENTER
RR-#	RETURN AIR REGISTER
R.S.	ROOF SUMP
S.A.	SUPPLY AIR
SD-#	SUPPLY DIFFUSER
SR-#	SUPPLY REGISTER
SAN.	SANITARY
S.S.	SERVICE SINK
ST.	STORM
S.W.S.	SAFE WASTE SINK
T.A.D.	TRANSFER AIR DUCT
T.W.	TEMPERED WATER
U/GRD.	UNDERGROUND
U.H.	UNIT HEATER
UR.	URINAL
V.	VENT
V.T.R.	VENT THRU ROOF
V.V.B.	VARIABLE VOLUME AIR TERMINAL BOX
W.C.O	WALL CLEAN OUT
W.C.	WATER CLOSET
W.H.	WATER HEATER
W.	WASTE

H.V.A.C. SYMBOLS

	SPIN-IN FITTING W/DAMPER
	FLEXIBLE DUCT
	RETURN AIR GRILLE
	SUPPLY AIR DIFFUSER
	HORIZONTAL FIRE DAMPER
	VERTICAL FIRE DAMPER
	RADIANT TYPE DIFFUSERS IN GYP. BD. CEILING AREA
	VOLUME DAMPER
	RECTANGULAR TO ROUND TRANSITION
	THERMOSTAT
	DAMPER

PLUMBING & PIPING SYMBOLS

	DOMESTIC COLD WATER (C.W.)
	DOMESTIC HOT WATER (H.W.)
	DOMESTIC HOT WATER RETURN (H.W.R.)
	NATURAL GAS
	SANITARY SEWER—UNDER GROUND
	SANITARY SEWER—ABOVE GROUND
	FLOOR CLEAN—OUT
	WALL CLEAN—OUT
	STORM SEWER
	VENT
	GATE VALVE
	CHECK VALVE
	BALANCING VALVE
	THERMOMETER
	STRAINER
	UNION
	FLEXIBLE CONNECTOR
	BALL VALVE
	NEW CONNECTION
	VALVE
	GLOBE VALVE
	NEEDLE VALVE
	GAS COCK VALVE
	VALVE WITH HANDWHEEL
	MODULATING VALVE
	DAMPER
	STOP CHECK STRAIGHT VALVE
	CHECK VALVE
	PNEUMATIC CONTROL VALVE
	PRESSURE REGULATOR
	BACK PRESSURE REGULATOR
	DIFFERENTIAL REGULATOR
	SOLENOID VALVE (NORM. OPEN)
	SOLENOID VALVE (NORM. CLOSED)
	MOTOR ACTUATOR BALL VALVE
	PRESSURE GAUGE TO MATCH EXISTING
	TURBINE FLOW METER
	FLEX COUPLING (2 FT MIN)
	SPARK PLUG
	PUMP
	STEAM TRAP
	CURRENT / PNEUMATIC POSITIONER
	ELECTRIC MOTOR / ACTUATOR
	INSTRUMENT — NON—ACCESSIBLE

GENERAL MECHANICAL NOTES:

- COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSULATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- ALL NEW MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.
- NEW MECHANICAL EQUIPMENTS, DUCTWORK, AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
- REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
- INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- OVERHEAD HANGERS AND SUPPORTERS FOR EQUIPMENT, DUCTWORK, AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- COORDINATE LOCATION OF EQUIPMENT SUPPORTERS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
- COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS, AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL, AND DUCT INSTALLATION REQUIREMENTS.
- ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS, AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
- LOCATE AND SET THERMOSTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECTS PRIOR TO INSTALLATION. INSTALL DEVICES WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. MECHANICAL CONTROLS CONTRACTOR SHALL INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 16. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE CEILING.

MECHANICAL SHEET INDEX

SHEET No.	DESCRIPTION
M.0	MECHANICAL LEGENDS, SYMBOLS, & SHEET INDEX.
M.1.0	OVERALL SANITARY & VENT PLUMBING FLOOR PLAN.
M.1.1	OVERALL DOMESTIC WATER & GAS PIPING FLOOR PLAN
M.2	OVERALL HVAC FLOOR PLAN.
M.4.0	MECHANICAL SCHEDULES.
M.4.1	MECHANICAL DETAILS.
M.5	MECHANICAL SPECIFICATIONS

NOT ALL SYMBOLS AND ABBREVIATIONS ARE APPLICABLE TO THIS PROJECT

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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
MECHANICAL LEGENDS,
SYMBOLS, & SHEET
INDEX.

ARCHITECTS
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BIDS & PERMITS
06/24/2022

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SHEET
M.0



PLUMBING GENERAL NOTES:

1. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE TO OBSERVE THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE ARCHITECT REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS. REFER TO SPECIFICATIONS.
3. PROVIDE TO THE ARCHITECT A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS. REFER TO SPECIFICATIONS.
4. INSTALLATION SHALL COMPLY WITH LEGALLY CONSTITUTED CODES AND THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
5. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
6. VERIFY LOCATION AND DEPTH OF UTILITIES AT POINTS OF CONNECTION BEFORE START OF PIPING INSTALLATION.
7. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.

8. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
9. INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE AND AS HIGH AS POSSIBLE. INSTALL EXPOSED PIPING TIGHT TO THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
10. PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED. EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
11. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
12. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.
13. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 25' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
14. INSULATE LAST 25 LINEAL FEET OF NEW AND EXISTING VENT PIPING INSIDE BUILDING PER SPECIFICATIONS AT VENT THRU ROOF PENETRATIONS WITHIN SCOPE.
15. RUN SANITARY LINE WITH 1/8" SLOPE.



OVERALL SANITARY & VENT PLUMBING FLOOR PLAN
SCALE: 1/4"=1'-0"



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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
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SUBJECT
OVERALL SANITARY &
VENT PLUMBING FLOOR
PLAN

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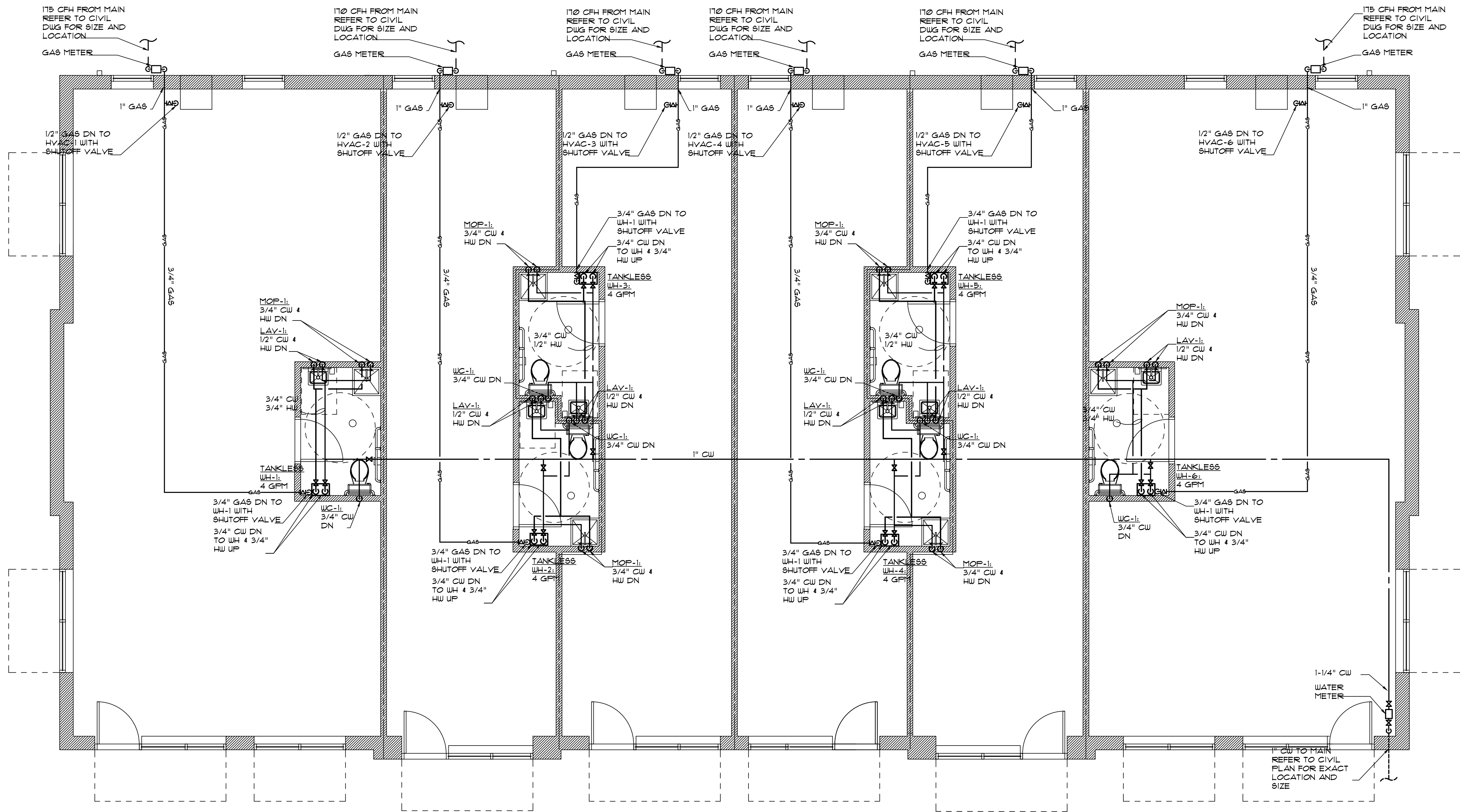
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5. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
6. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
7. PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DIVV TO CAST IRON SANITARY, WASTE AND VENT PIPE AT SLAB ON GRADE.

8. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
9. INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE AND AS HIGH AS POSSIBLE. INSTALL EXPOSED PIPING TIGHT TO THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
10. PROVIDE SHUT OFF VALVE AT EACH FIXTURE AND EQUIPMENT. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
11. PIPING IN FINISHED AREA SHALL BE ROUTED CONCEALED. EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
12. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
13. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
14. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.
15. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 25' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
16. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.



OVERALL DOMESTIC WATER & GAS PIPING FLOOR PLAN
SCALE: 1/4"=1'-0"



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3462 3478 GREENFIELD RD
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SUBJECT
OVERALL DOMESTIC
WATER & GAS PIPING
FLOOR PLAN

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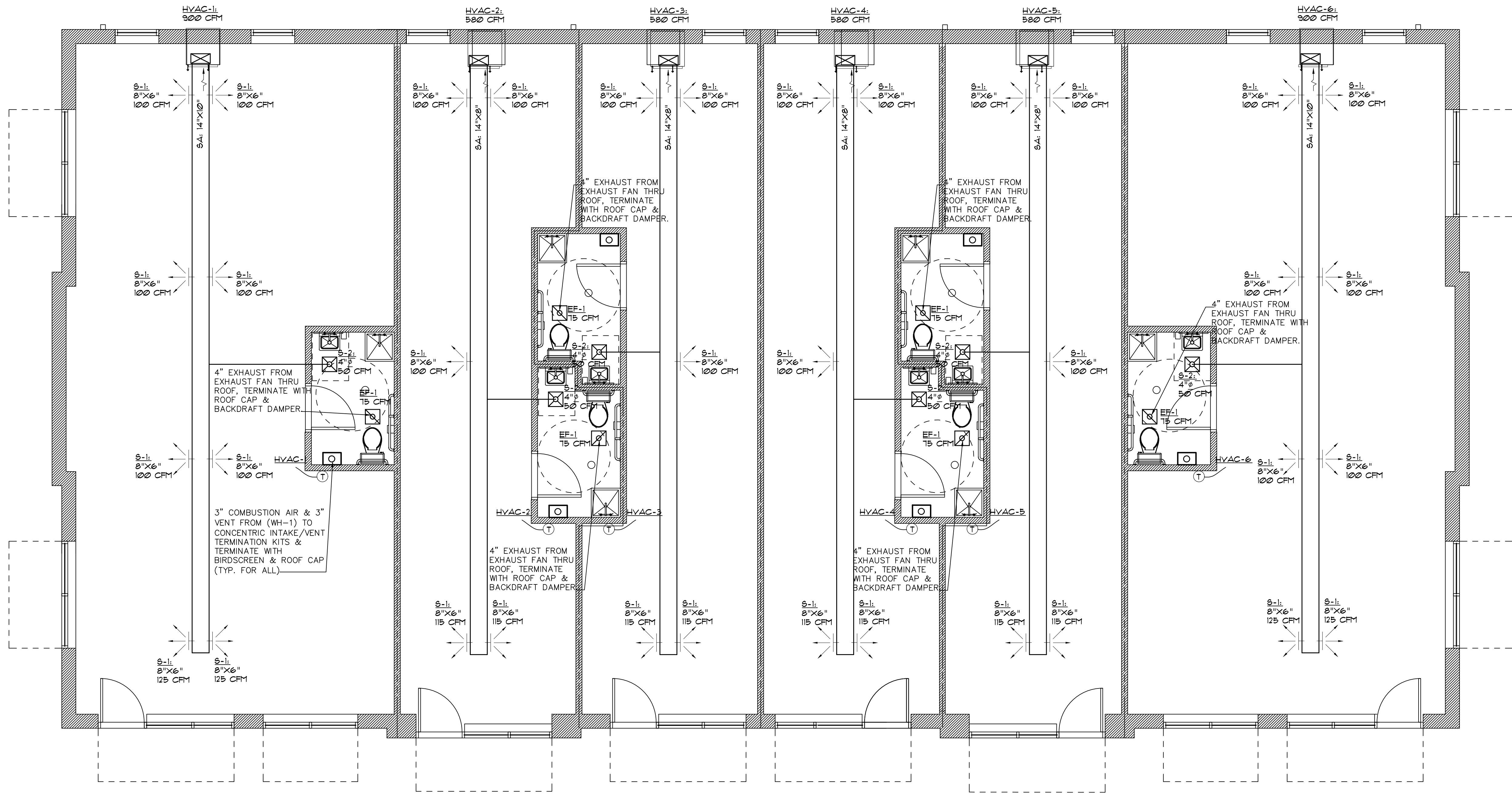
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OFFICE

MECHANICAL GENERAL NOTES:

- COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- ALL NEW MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.
- REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
- OVERHEAD HANGERS AND SUPPORTERS FOR EQUIPMENT, DUCTWORK, AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
- COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS, AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL, AND DUCT INSTALLATION REQUIREMENTS.
- ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS, AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
- PROVIDE A PREFABRICATED RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING WITH MANUAL BALANCING DAMPER AND LOCKING QUADRANT FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES.
- BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
- REFER TO SPECIFICATIONS FOR DUCTWORK AND PIPING INSULATION REQUIREMENTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS.
- FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- IN EXPOSED AREA (NO CEILING) PROVIDE PREFABRICATED SPIRAL ROUND DUCT OF SIZES AS SHOWN ON DWG UNLESS OTHERWISE NOTED.
- COORDINATE LOCATION OF EQUIPMENT SUPPORTERS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- PROVIDE 1/2" UNDERCUT DOORS FOR ALL THE INTERIOR RESTROOMS TO ALLOW MAKE UP AIR THRU THE ROOMS.



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



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PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
OVERALL HVAC FLOOR
PLAN

ARCHITECTS
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UNITARY HVAC UNIT SCHEDULE													
TAG	MANUFACTURER & MODEL NO.	AREA SERVED	HEATING CAPACITY		COOLING CAP. 80DEG. DB/67DEG. WB TOTAL MBH	SUPPLY FAN (CFM)	MIN. O.A. (CFM)	ELECTRICAL			WEIGHT (LB)	SEER	NOTES & ACC.
			INPUT	OUTPUT				VOLTS/PH/HZ	MCA	MOCP			
HVAC-1 &6	MAGIC PAK/HWC9N5512P30B	SEE PLAN	55	51.5	27.4	900	135	208-1-60	21.3	30	339.0	12.0	A, B, C, D, E, F, G
HVAC-2,3,4&5	MAGIC PAK /HWC8N4812P18A	SEE PLAN	48	38	17.4	580	80	208-1-60	12.4	15	313.0	12.0	A, B, C, D, E, F, G
NOTES:													
A	FIRESTAT ON UNITS BELOW 2000 CFM						F	CONDENSATE DRAIN TUBING THRU LOUVER					
B	DIGITAL, PROGRAMMABLE REMOTE THERMOSTAT.						G	DISCONNECT SWITCH					
C	MOUNT ON PLATFORM (PROVIDED BY OTHERS)												
D	THROWAY FILTER												
E	WALL SLEEVE KIT IF REQUIRED CHECK WITH MANUFACTURERS												

PLUMBING FIXTURE SCHEDULE								
ITEM	FIXTURE	ITEM	MANUFACTURER & MODEL NUMBER	ACCESSORIES	PIPE CONNECTIONS SIZES (INCH)			
					WASTE	VENT	COLD W.	HOT W.
WC-1	WATER CLOSET	FLOOR MOUNTED TANK TYPE WATER CLOSET	MANSFIELD WATER CLOSET "SUMMIT" MODEL: 382-387	MANSFIELD, TANK TYPE TOILET 1.28 GPF, BEMIS 1655-SSC SEAT	4"	-	1/2"	-
LAV-1	LAVATORY	PUBLIC WALL MOUNT LAVATORY	AMERICAN STANDARD WALL HUNG LAVATORY "DECLYN"	FAUCET: AMERICAN STANDARD TWO HANDLE CENERESET FAUCET "COLONY SOFT" MODEL 2275.509 AERATOR : AMERICAN STANDARD V05 DRAIN : MCGUIRE #155A SUPPLY: MCGUIRE #H170BV-LR 1/4 TURN P-TRAP: MCGUIRE #8872C-17T 1-1/2" CHROME PLATED BRASS.	1-1/2"	1-1/2"	1/2"	1/2"
MOP-1	MOP SINK	MOP SINK	MOP SINK MUSTEE 63M SERVICE BASIN ONE PIECE	OVERSIZED MOP SINK: 24"x24"x10" INCLUDES 1 HEAVY DUTY SERVICE FAUCET: #63.600A THREE SPRING LOADED HANDED HOLDERS.	3"	2"	1/2"	1/2"
MX-1	MIXING VALVE	THERMOSTATIC MIXING VALVE.	WATTS USG-B	ASSE 1070 THERMOSTATIC MIXING VALVE	-	-	1/2"	1/2"
APPROVED PLUMBING FIXTURE MANUFACTURERS : AMERICAN STANDARD, MANSFIELD, CRANE, TOTO, ELKAY, KOHLER, ZURN, FIAT, MUSTEE, FLORESTONE.								
APPROVED PLUMBING HARDWARE MANUFACTURERS: AMERICAN STANDARD, DELTA, KOHLER, CHICAGO, SLOAN, ZURN, TOTO.								
(FIXTURES TO BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE "BARRIER FREE DESIGN REQUIREMENTS OF THE MICHIGAN CONSTRUCTION CODE").								

TANKLESS WATER HEATER SCHEDULE										
TAG	BASIS OF DESIGN	MODEL	SERVICE	LOCATION	MAX GPM	INPUT BTU/HR	GPM @ 90 DEG. F. RISE	GAS CON.	COMBUSTION INLET AND VENT SIZE	NOTES & ACC.
WH-1	AO SMITH	ATI-140H-N	SEE PLAN	SEE PLAN	6.6	120,000	3	1/2"	3"	A, B, D, E, F, G
NOTES:										
A	P & T RELIEF TO FD									
B	WALL MOUNTED									
C	NOT USED									
D	CONCENTRIC VENT KIT THRU ROOF									
E	NATURAL GAS									
F	120V DISCONNECT SWITCH									
G	EXPANSION TANK									
H	NOT USED									

EXHAUST FAN SCHEDULE											
SNO.	TAG	BASIS OF DESIGN	MODEL	SERVICE	LOCATION	CAPACITY (CFM)	ESP "WC	RPM	ELECTRICAL VOLT/PH/HZ	WATTS / AMPS	NOTES /ACCESSORIES
1	EF-1	GREENHECK	SP-A90	RESTROOM	CEILING	75	0.25	870	120 / 1 / 60	20 W	A,C,D,E
NOTE:											
A	PROVDE FACTORY MOUNTED DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION										
B	CONTRACTOR TO FURNISH COMBINATION STARTOR / DISCONNECT SWITCH										
C	VERIFY MODEL NUMBER WITH MANUFACTURER EQUIPMENT SUBMITTAL										
D	INTERLOCK FAN OPERATION WITH LIGHT SWITCH										
E	GRAVITY BACKDRAFT DAMPER										

GRILLE, REGISTER & DIFFUSER SCHEDULE							
TAG	BASIS OF DESIGN	MODEL	SERVICE	MOUNTING	OVERALL SIZE	NECK SIZE	NOTES /ACCESSORIES
S-1	TITUS	301 RL	SUPPLY	DUCT MOUNTED	SEE PLAN	SEE PLAN	A,B,C
S-2	TITUS	OMNI	SUPPLY	CEILING	12"x12"	SEE PLAN	A,C
NOTE:							
A	WHITE FINISH						
B	22.5 DEGREE DEFLECTION						
C	OPPOSED BLADE DAMPER						

GAS LOADS				
S.#	ITEM	QTY	GAS LOAD (CFH)	TOTAL GAS LOAD (CFH)
GAS METER 1	HVAC-1	1	55	175
	WH-1	1	120	
GAS METER 2	HVAC-2	1	48	168
	WH-2	1	120	
GAS METER 3	HVAC-3	1	48	168
	WH-3	1	120	
GAS METER 4	HVAC-4	1	48	168
	WH-4	1	120	
GAS METER 5	HVAC-5	1	48	168
	WH-5	1	120	
GAS METER 6	HVAC-6	1	55	175
	WH-6	1	120	

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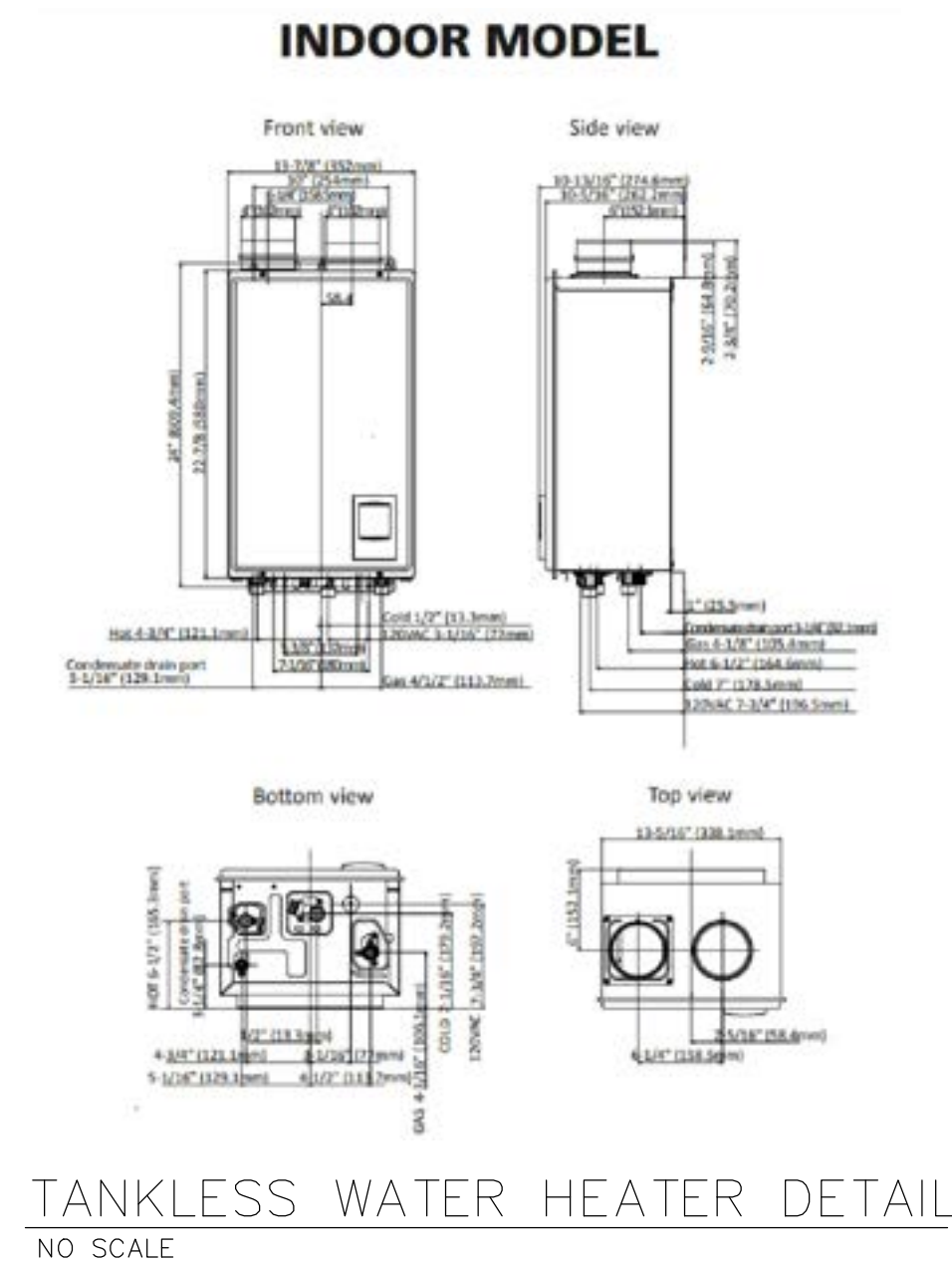
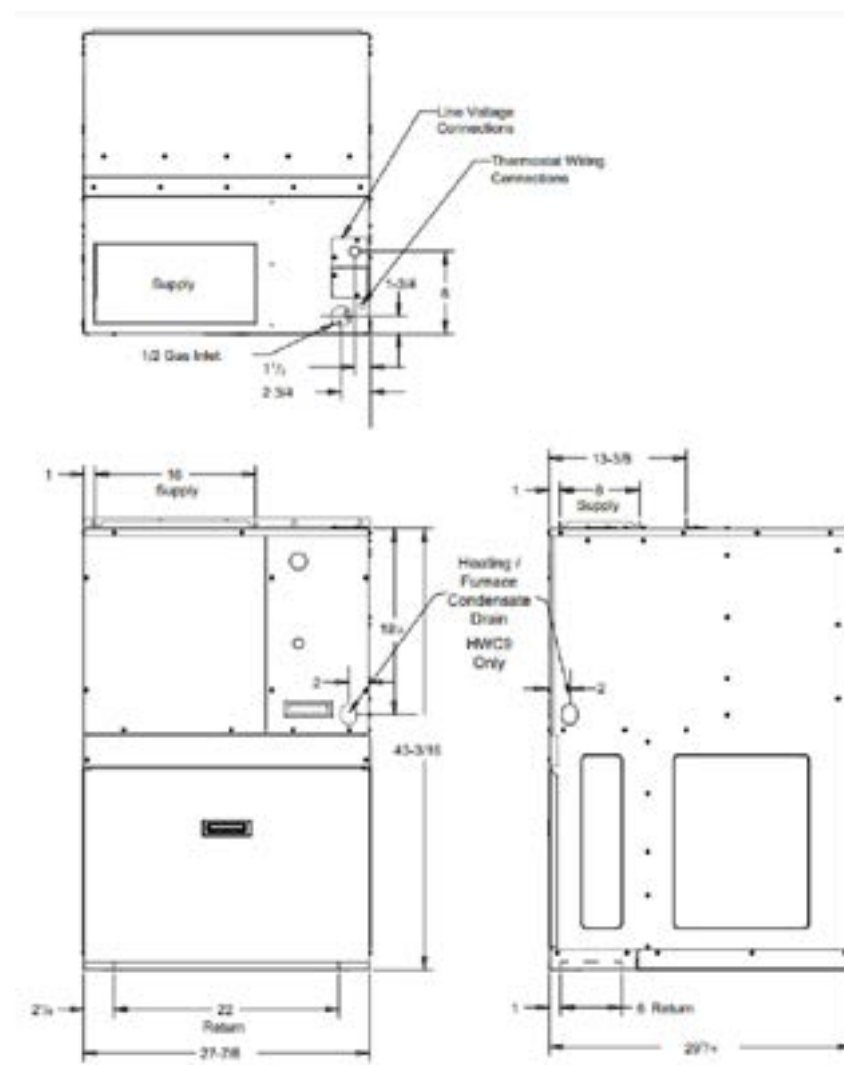
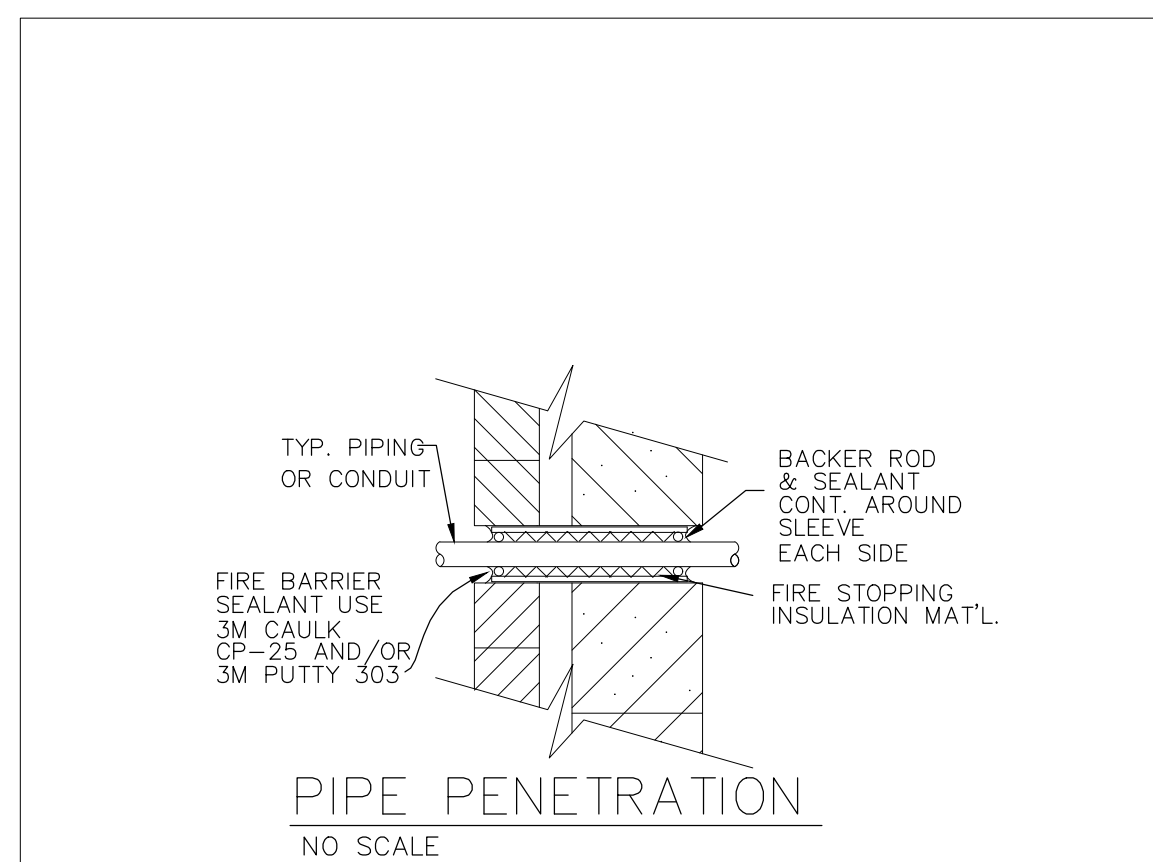
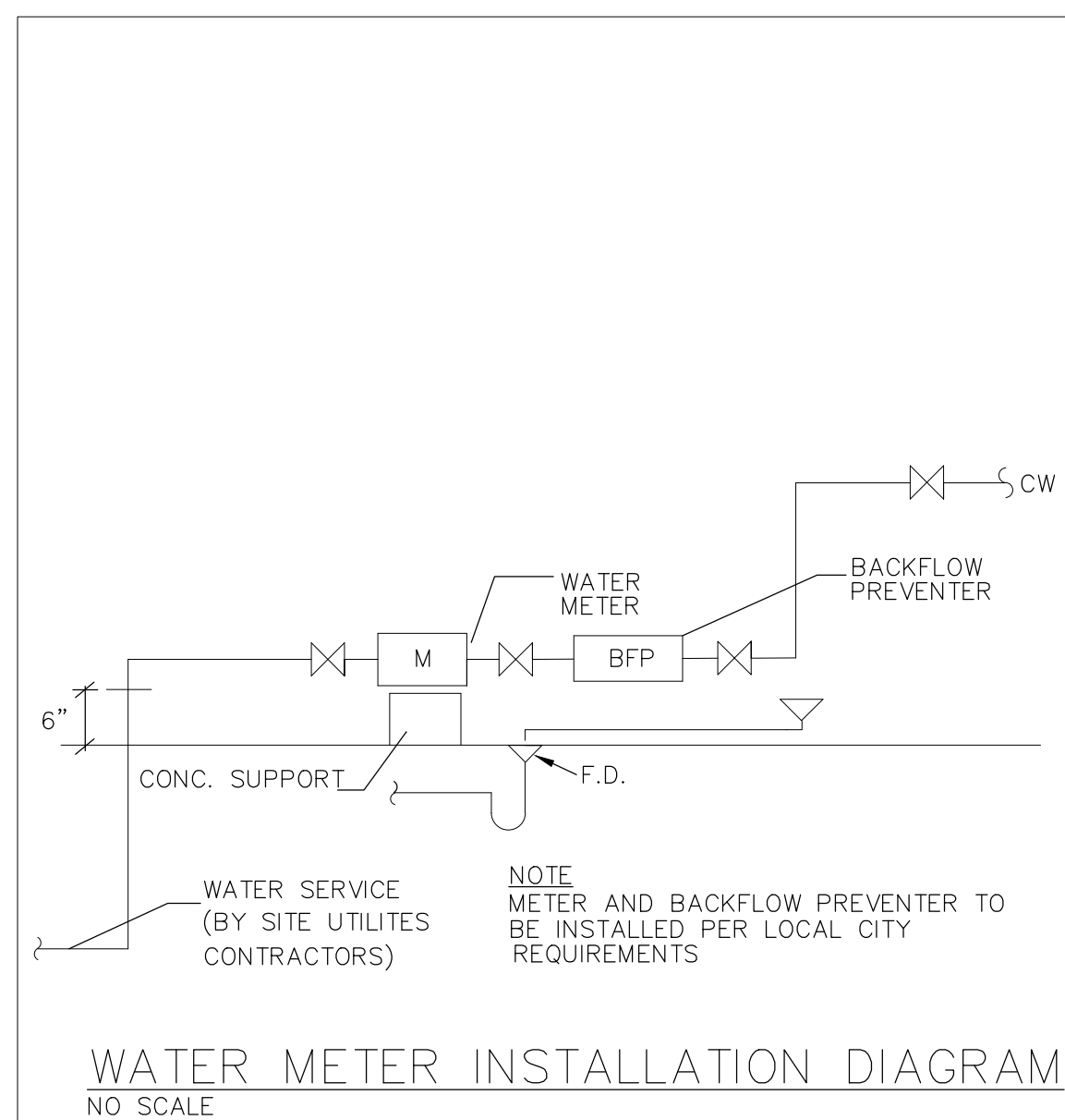
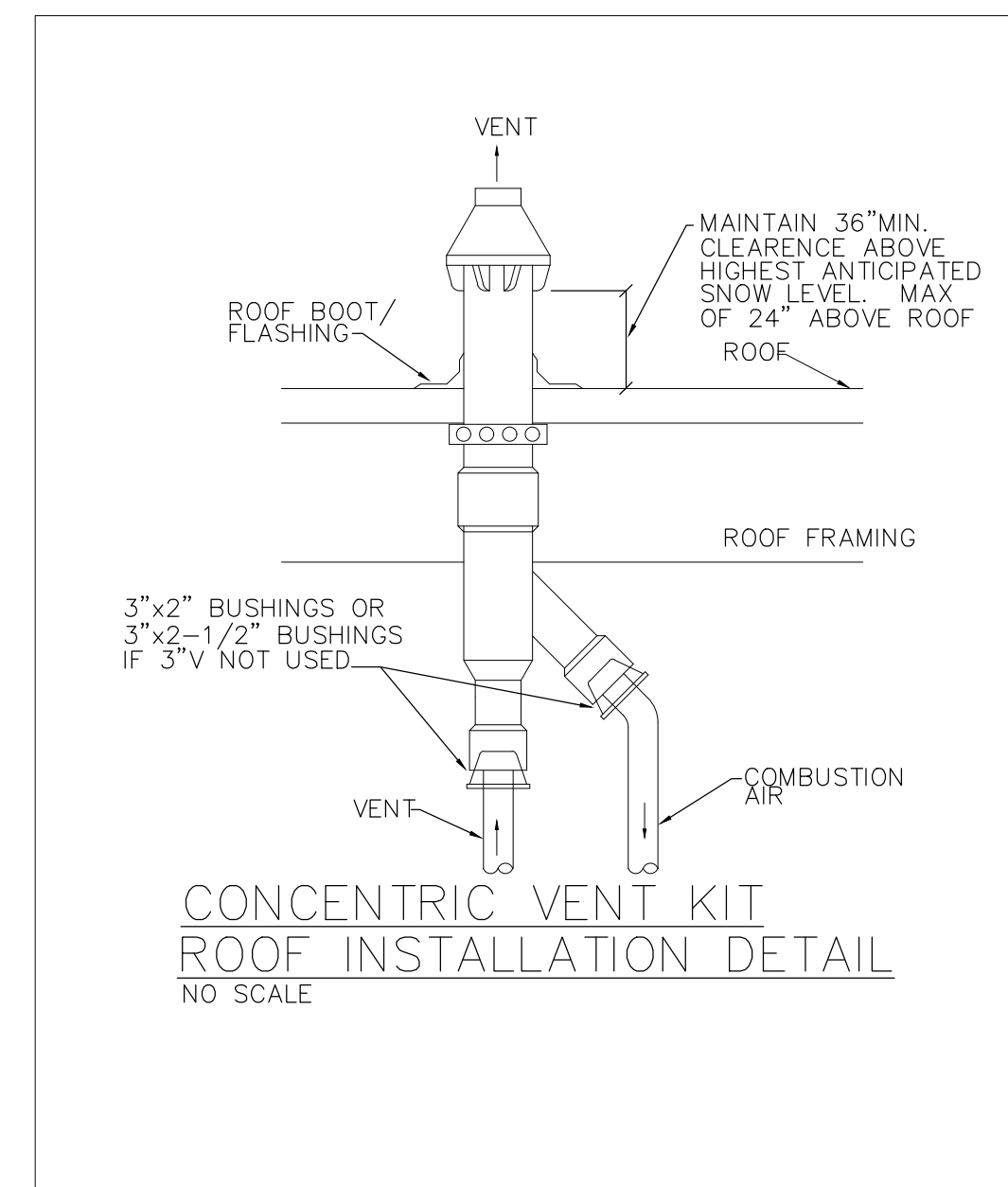
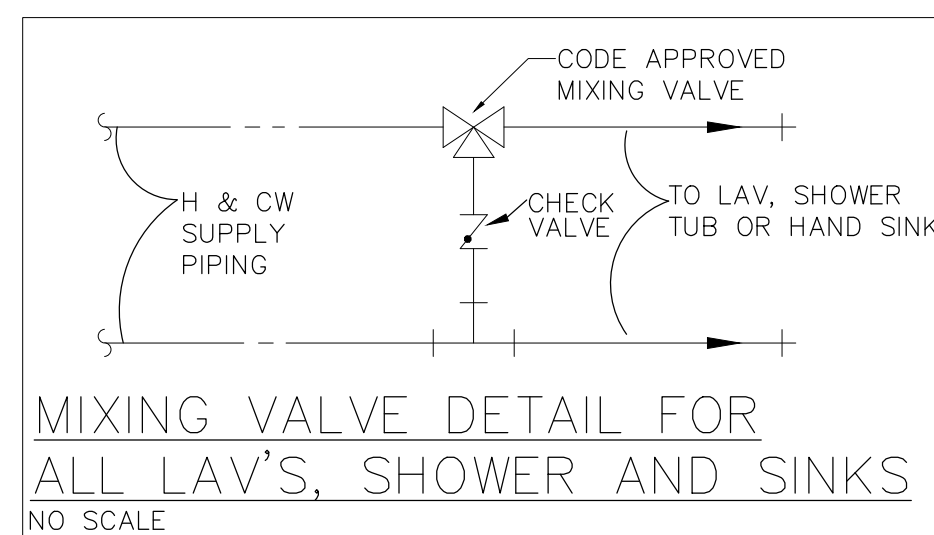
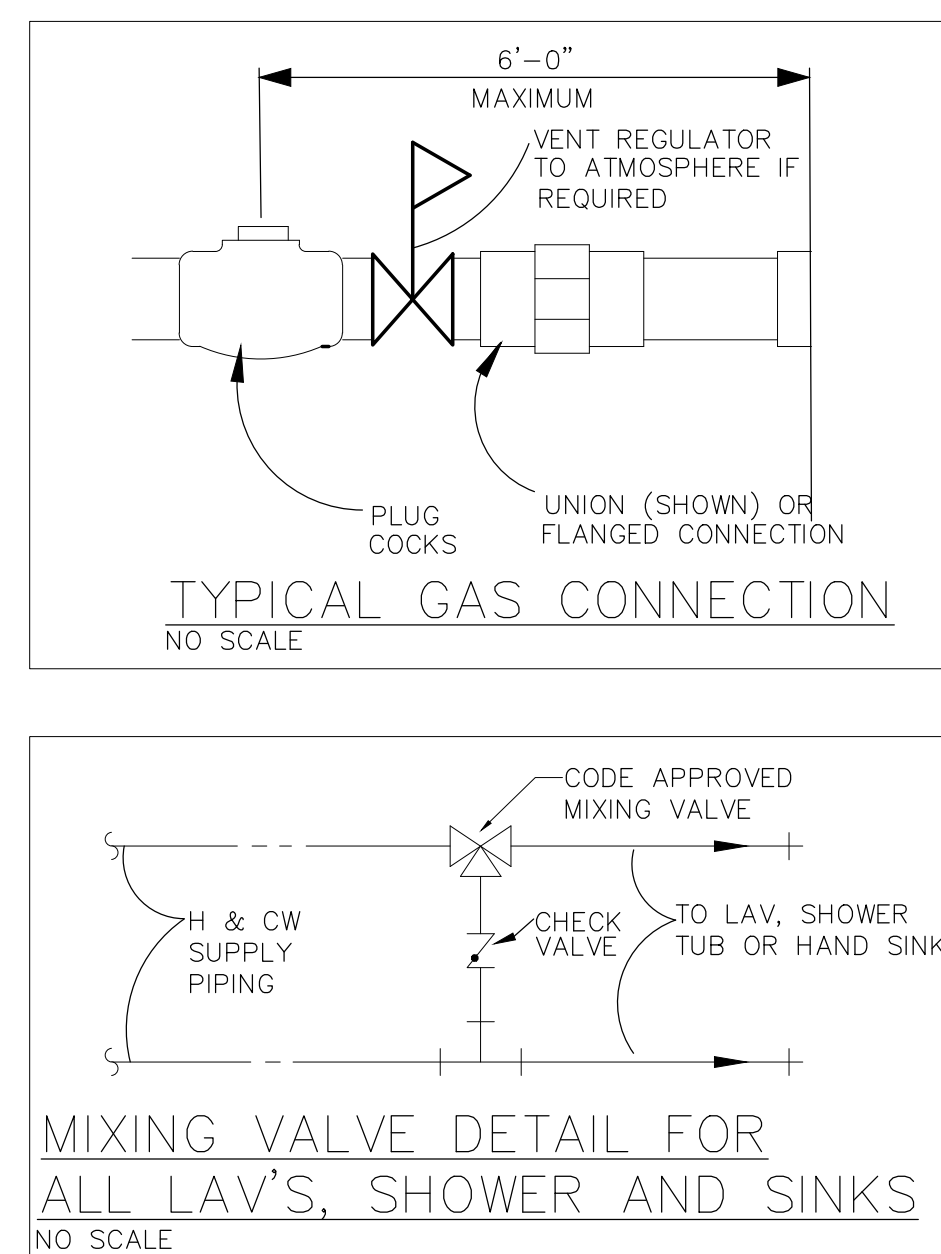
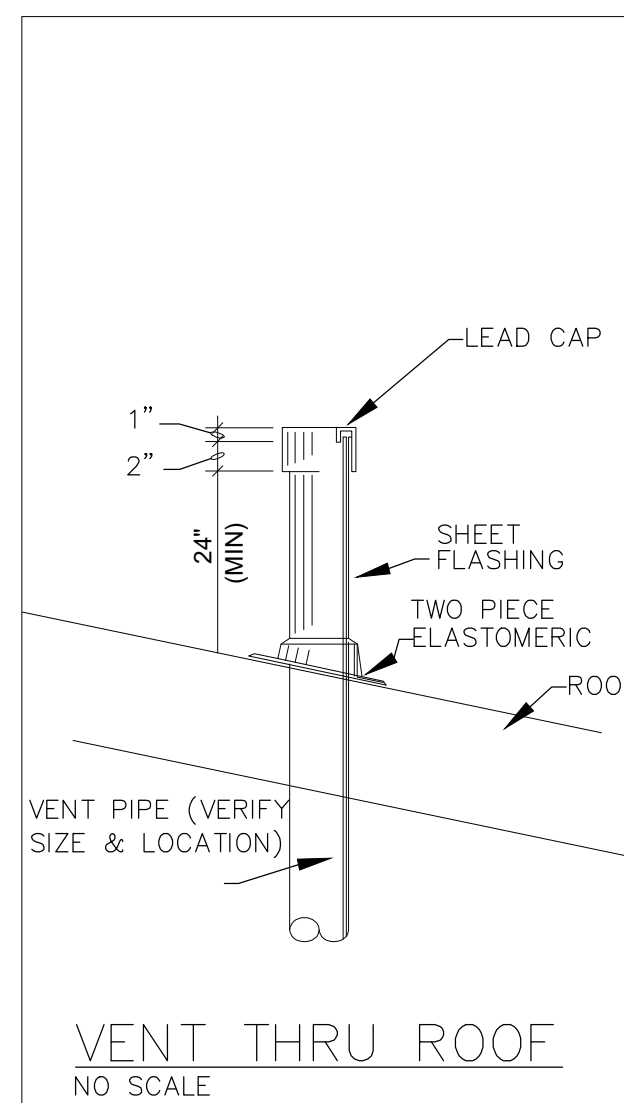
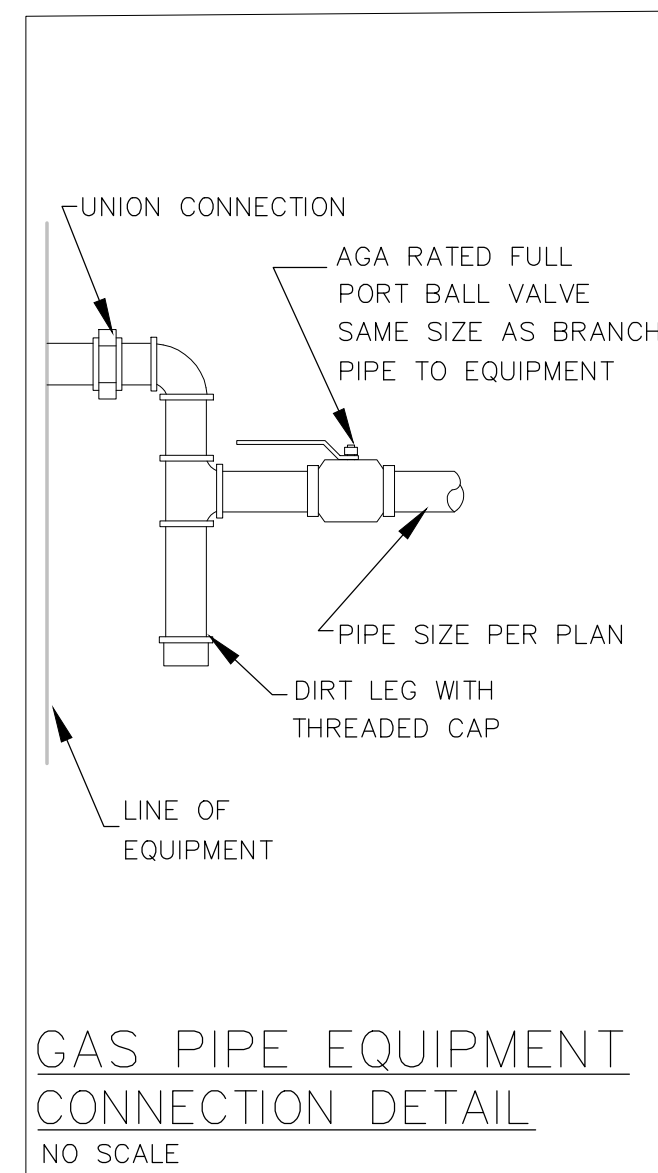
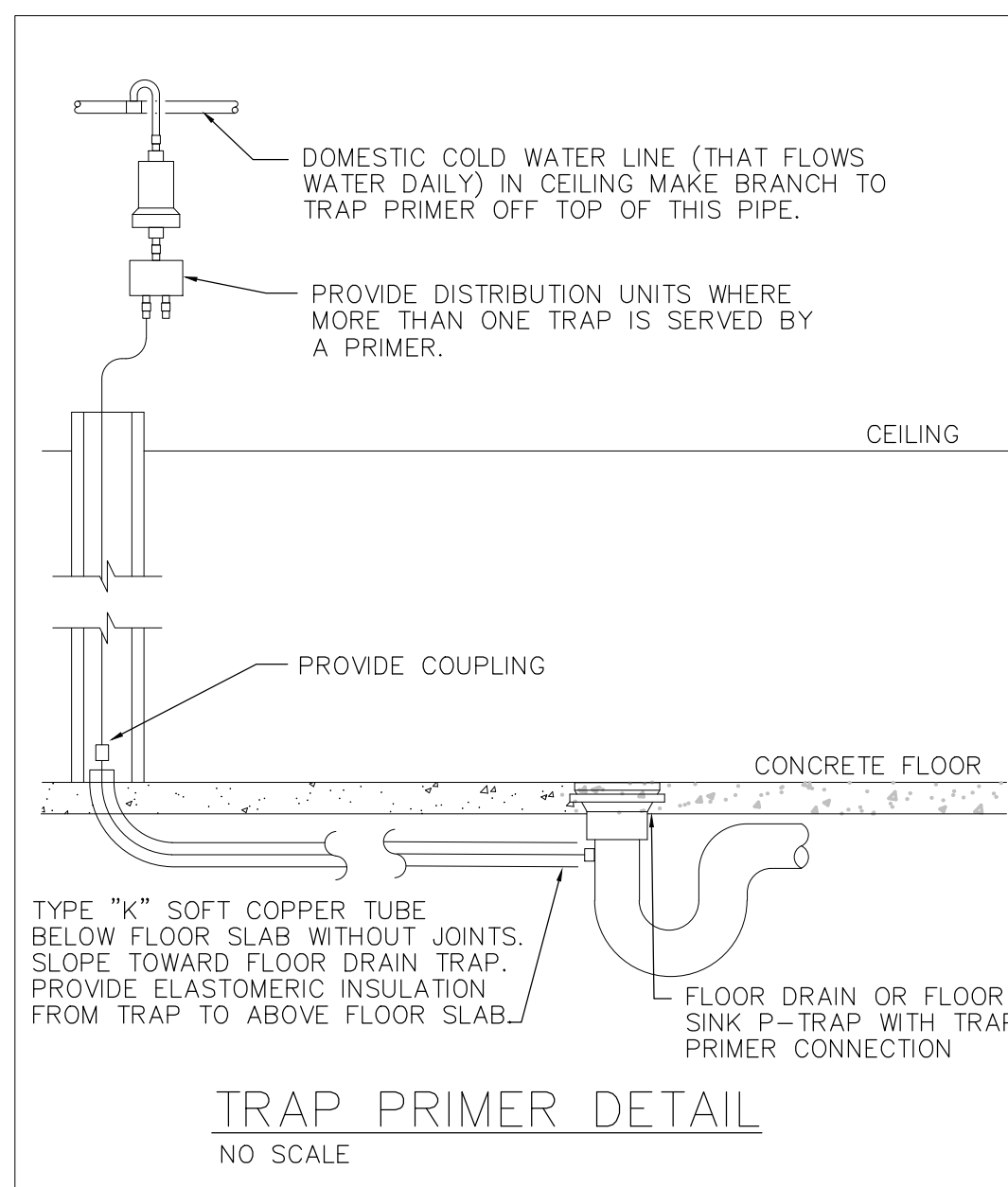
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JOB NO.
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SHEET
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GENERAL MECHANICAL SPECIFICATIONS

GENERAL REQUIREMENTS:
READ AND BE BOUND BY THE ARCHITECTURAL SPECIFICATION.
THESE SPECIFICATIONS AND DOCUMENTS ATTACHED HERETO, ALL APPENDA ISSUED AND THE ACCOMPANYING PLANS, ARE INTENDED TO PROVIDE FOR THE COMPLETE FURNISHING AND INSTALLATION OF THE ENTIRE MECHANICAL SYSTEM.
THE WORK SHALL BE DONE IN ACCORDANCE WITH BEST PRACTICE SO AS TO CONTRIBUTE TO EFFICIENCY OF OPERATION AND MINIMUM MAINTENANCE AND SHALL BE INSTALLED WITH PROPERLY ACCESSIBLE MATERIALS AND ACCESSORIES.
ACCESSORIES SHALL BE PUT INTO PROPER ADJUSTMENT SO THAT THE COMPONENT PARTS FUNCTION TOGETHER AS A WORKABLE SYSTEM. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS AND OPERATIONS AS INDICATED EITHER ON THE DRAWINGS OR CONTAINED HEREIN OR AS MAY BE REASONABLY IMPLIED BY EITHER TO ACCOMPLISH THE COMPLETE INSTALLATION.
PROVIDE ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY FOR COMPLETE AND OPERABLE MECHANICAL SYSTEMS. PROVIDE ALL NECESSARY TESTS AND PAY FOR ALL FEES, PERMITS, INSPECTIONS, ETC. AS REQUIRED BY LOCAL AUTHORITIES. SECURE PERMITS, INSPECTIONS AND BONDS. PERFORM ALL TESTS REQUIRED.
UPON COMPLETION OF THE WORK OBTAIN AND SEND CERTIFICATES OF INSPECTION AND APPROVAL TO THE ARCHITECT/OWNER. PAY ALL FEES AND EXPENSES FOR PERMITS, LICENSES, TESTS AND INSPECTIONS.
IT IS THE RESPONSIBILITY OF THE CONTRACTOR THAT HIS WORK IS INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER AND THAT INTERFERENCE IS AVOIDED.
THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE EQUIPMENT AND SYSTEMS TO BE INSTALLED AND THE SCALE OF THE DRAWINGS IT IS POSSIBLE TO INDICATE THE EXACT LOCATION OF MECHANICAL WORK. HOWEVER, NO REFERENCE DIMENSIONS ARE SPECIFICALLY INDICATED ON DRAWINGS. DEVIATIONS FROM CONTRACT DRAWING LAYOUT IN ORDER TO AVOID INTERFERENCES WITH OTHER TRADES OR OTHER MECHANICAL WORK SHALL BE CONSIDERED INCIDENTALS. THE SUBCONTRACTOR SHALL INCREASE IN CONTRACT PRICE, ALL COSTS FOR REMOVAL AND RELOCATION OF MECHANICAL WORK RESULTING FROM FAILURE TO COORDINATE WITH OTHER TRADES SHALL BE PAID BY THE MECHANICAL SUBCONTRACTOR.
INSTALLATION SHALL CONFORM TO ALL LOCAL UTILITY COMPANIES. BEFORE SUBMITTING HIS BID, THE CONTRACTOR SHALL CHECK WITH EACH UTILITY (WATER, SEWER, ETC.) AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE, INCLUDE COST OF SAME IN THE BID.
ALL EQUIPMENT IS TO BE UL LISTED AND LABELED.
EACH TRADE SHALL BE RESPONSIBLE FOR ITS OWN CLEAN-UP. COORDINATE WITH THE ARCHITECTURAL TRADES (A/T).
UNLESS OTHERWISE NOTED, ALL CUTTING SHALL BE PROVIDED BY THE M/T, AND PATCHING BY THE A/T. ROOF PENETRATIONS ARE TO BE PERFORMED BY THE OWNER'S (LANDLORD'S) ROOFER AND PAID FOR BY THE M/T. COORDINATE ALL OPENINGS WITH THE A/T.
FURNISH ELECTRIC MOTORS AND CONTROL DEVICES IN CONNECTION WITH THE VARIOUS PIECES OF MOTOR-DRIVEN EQUIPMENT. SPECIFY HIGH EFFICIENCY MECHANICAL WORK. AS SPECIFIED HEREIN, ALL MOTORS SHALL BE OF THE "PREMIUM" HIGH EFFICIENCY TYPE.
AIR SYSTEMS BALANCING IS REQUIRED. REFER TO THE HVAC SPECIFICATIONS.
FURNISH THE OWNER WITH TWO COPIES OF OPERATION/MAINTENANCE MANUALS FOR ALL EQUIPMENT AND PROVIDE FULL OPERATION INSTRUCTIONS TO THE OWNERS PERSONNEL.
GUARANTEE: THE M/T SHALL REPAIR OR REPLACE ANY PART OF THE MECHANICAL SYSTEMS INSTALLATION WHICH MAY FAIL WITHIN A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.
PIPING SYSTEM-COMMON REQUIREMENTS:
A. INSTALL PIPING ACCORDING TO THE FOLLOWING REQUIREMENTS SPECIFYING PIPING SYSTEMS.
B. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS WERE USED TO SIZE PIPE AND CALCULATE FRICTION LOSS, EXPANSION, PUMP SIZING, AND OTHER DESIGN CONSIDERATIONS. INSTALL PIPING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON COORDINATION DRAWINGS.
C. INSTALL PIPE PARALLEL WITH LINES OF BUILDING.
D. ALLOW FOR EXPANSION AND CONTRACTION OF PIPING.
E. PROVIDE UNIONS, VALVES, HANGERS, SUPPORTS AND OTHER APPURTENANCES AS REQUIRED FOR COMPLETE INSTALLATION.
F. PROVIDE ACCESS TO ALL VALVES, CONTROL DEVICES, DAMPERS AND REHEAT BOX CONTROL PANELS.
G. PROVIDE VIBRATION ISOLATORS AT ALL MECHANICAL EQUIPMENT ITEMS PRODUCING VIBRATIONS.
H. PROVIDE AT STEEL NECESSARY FOR MECHANICAL EQUIPMENT SUSPENSION AND FRAMED OPENINGS. COMPLY WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) REQUIREMENTS.
I. PROVIDE INDEPENDENT ISOLATION VALVES AT EVERY BRANCH. MULTIFUNCTIONAL VALVES ARE NOT ACCEPTABLE.
J. INSTALL PIPING IN CONCEALED LOCATIONS, UNLESS OTHERWISE INDICATED AND EXCEPT IN EQUIPMENT ROOMS AND SERVICE AREAS.
K. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY INDICATED OTHERWISE.
L. INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.
M. INSTALL PIPING TO PERMIT VALVE SERVICING.
N. INSTALL PIPING AT INDICATED SLOPES.
O. INSTALL PIPING FREE OF SAGS AND BENDS.
P. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS, T-DRILL SYSTEM OR MECHANICALLY FORMED FITTEE CONNECTIONS AND COUPLINGS, AND VITACULIC HOLE CUT PIPING SYSTEM ARE NOT ALLOWED.
Q. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION.
R. PIPING SHALL NOT PROJECT BEYOND WALLS OR STEEL LINES NOR SHALL IT HANG BELOW SLABS MORE THAN IS ABSOLUTELY NECESSARY. PARTICULAR ATTENTION SHALL BE PAID TO THE REQUIRED CLEARANCES.
S. OFFSET PIPING WHERE REQUIRED TO AVOID INTERFERENCE WITH OTHER WORK, TO PROVIDE GREATER HEADROOM OR CLEARANCE, OR TO CONCEAL PIPE MORE READILY. OFFSETS SHALL BE PROPERLY DRAINED OR TRAPPED WHERE NECESSARY.
T. PROVIDE SWING JOINTS AND EXPANSION BENDS WHEREVER REQUIRED TO ALLOW THE PIPING TO EXPAND WITHOUT UNDUE STRESS TO EQUIPMENT.
U. ISOLATE PIPE FROM THE BUILDING CONSTRUCTION TO PREVENT TRANSMISSION OF VIBRATION TO THE STRUCTURE AND TO ELIMINATE NOISE.
V. EXPOSED PIPING AROUND FIXTURES OR IN OTHER CONSPICUOUS PLACES SHALL NOT SHOW TOOL MARKS AT FITTINGS.
W. DO NOT ROUTE PIPING THROUGH TRANSFORMER VAULTS OR ABOVE TRANSFORMERS, PANELBOARDS, OR SWITCHBOARDS, INCLUDING THE REQUIRED SERVICE SPACE FOR THIS EQUIPMENT, UNLESS THE PIPING IS SERVING THIS EQUIPMENT.
X. SELECT SYSTEM COMPONENTS WITH PRESSURE RATING EQUAL TO OR GREATER THAN SYSTEM OPERATING PRESSURE.
Y. ECCENTRIC REDUCING COUPLINGS SHALL BE PROVIDED IN ALL CASES WHERE AIR OR WATER POCKETS WOULD OTHERWISE OCCUR DUE TO A REDUCTION IN PIPE SIZE. ECCENTRIC COUPLINGS SHALL MAKE THE PIPE FLUSH ON THE TOP FOR WATER LINES.
Z. INSTALL ESCUTOCHONS FOR PENETRATIONS OF WALLS, CEILINGS, AND FLOORS ACCORDING TO THE FOLLOWING:
1. NEW PIPING:
a. PIPING WITH FITTING OR SLEEVE PROTRUDING FROM WALL: ONE-PIECE, DEEP-PATTERN TYPE.
b. CHROME-PLATED PIPING: ONE-PIECE, CAST-BRASS TYPE WITH POLISHED CHROME-PLATED FINISH.
c. BARE PIPING AT WALL AND FLOOR PENETRATIONS IN FINISHED SPACES: ONE-PIECE, CAST-BRASS TYPE WITH POLISHED CHROME-PLATED FINISH.
d. BARE PIPING AT CEILING PENETRATIONS IN FINISHED SPACES: ONE-PIECE, CAST-BRASS TYPE WITH POLISHED CHROME-PLATED FINISH.
e. BARE PIPING IN UNFINISHED SERVICE SPACES: ONE-PIECE, CAST-BRASS TYPE WITH ROUGH-BRASS FINISH.
f. BARE PIPING IN EQUIPMENT ROOMS: ONE-PIECE, CAST-BRASS TYPE.
A. ALL PIPES EXTENDING THROUGH THE ROOF SHALL BE FLASHED WITH SIX POUND LEAD FLASHING EXTENDING 6 INCHES BEYOND THE PIPE, WELDED TO A LEAD SLEEVE EXTENDED UP AROUND THE VENT PIPES, AND ROLLED OVER INTO THE PIPE.
B. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS AND CONCRETE FLOOR AND ROOF SLABS:
1. SLEEVES PLACED IN FLOORS SHALL BE FLUSH WITH THE CEILING AND SHALL HAVE PLANED, SQUARE ENDS, EXTENDING 2 INCHES ABOVE THE FINISHED FLOOR, UNLESS OTHERWISE SPECIFIED OR DETAILED.
2. WHERE SLEEVES PASS THROUGH REINFORCED CONCRETE FLOORS, THEY SHALL BE PROPERLY SET IN POSITION BEFORE THE CONCRETE IS POURED, AND SHALL BE MAINTAINED IN POSITION BY THE CONTRACTOR UNTIL THE CONCRETE IS SET.
3. PIPES PASSING THROUGH ABOVE GRADE FLOOR SLABS AND MASONRY WALLS SHALL HAVE THE SPACE BETWEEN THE PIPE OR INSULATION AND THE SLEEVE PACKED WITH NON-ASBESTOS WICKING OR OTHER SUITABLE, APPROVED, NON-COMBUSTIBLE MATERIAL.
4. PIPES PASSING THROUGH WALLS OF MECHANICAL EQUIPMENT ROOMS SHALL BE MADE GAS-TIGHT BY CAULKING THE SPACE BETWEEN THE PIPE AND SLEEVE WITH A FIBER SATURATED WITH AN APPROVED TYPE OF PLASTIC MATERIAL.
C. FIRE-BARRIER PENETRATIONS MAY BE INDICATED FIRE RATING OF WALLS, PARTITIONS, CEILINGS, AND FLOORS AT PIPE PENETRATIONS. SEAL PIPE PENETRATIONS WITH FIRESTOP MATERIALS. REFER TO DIVISION 07 SECTION "PENETRATION FIRESTOPPING" FOR MATERIALS.
AD. VERIFY FINAL EQUIPMENT LOCATIONS FOR ROUGH-IN-ING.
AE. REFER TO EQUIPMENT SPECIFICATIONS IN OTHER SECTIONS OF THESE SPECIFICATIONS FOR ROUGH-IN-ING REQUIREMENTS.
AF. ALL NEW DOMESTIC WATER PIPING AND EQUIPMENT SHALL BE DISINFECTED WITH CHLORINE FOR 24 HOURS, AND TER SAMPLE SHALL BE TAKEN NO SOONER THAN 24 HOURS AFTER FLUSHING, FROM VARIOUS OUTLETS, AND FROM THE MAIN WATER ENTRY AS A BASELINE.

THE WORK INCLUDED IN THE CONTRACT SHALL CONSIST OF FURNISHING, INSTALLING, LASTING AND GUARANTEEING OF THE FOLLOWING WORK:
1. MAGIC PAK UNIT:
2. POWER VENTILATOR.
3. DOMESTIC TANKLESS WATER HEATER.
4. PIPING / PLUMBING.
5. DUCTWORK AND HVAC ACCESSORIES.
6. TEST, ADJUSTMENT AND ACCEPTANCE.
I. MAGIC PAK UNIT:
PART 1 - GENERAL
1.1 SECTION INCLUDES
A. GAS HEATING/ ELECTRIC COOLING PACKAGED UNITS. (HWC)
1.2 RELATED SECTIONS
A. SECTION 15050 - COMMON WORK RESULTS FOR HVAC.
B. SECTION 16050 - COMMON WORK RESULTS FOR ELECTRICAL.
1.3 REFERENCES
A. ANSI/AHRI 210/240: PERFORMANCE RATING OF UNITARY AIR-CONDITIONING & AIR-SOURCE AND HEAT PUMP EQUIPMENT.
1.4 SUBMITTALS
A. SUBMIT UNDER PROVISIONS OF SECTION 01300 - ADMINISTRATIVE REQUIREMENTS.
B. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
1. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.
3. INSTALLATION METHODS.
C. SHOP DRAWINGS AND WIRING SCHEMATICS: PROVIDE DETAILED PHYSICAL LAYOUT AND WIRING SCHEMATICS FOR INSTALLATION.
2.2 GAS HEATING/ ELECTRIC COOLING ALL-IN-ONE UNITS
A. HWC V-SERIES MODEL UNITS: GAS HEATING / ELECTRIC SINGLE-PACKAGE AIR CONDITIONERS (SPAC) AS MANUFACTURED BY ALLIED AIR ENTERPRISES LLC, A LENNOX INTERNATIONAL INC. COMPANY.
1. CONSTRUCTION:
a. CERTIFIED ANSI/AHRI 210/240: PERFORMANCE RATING OF UNITARY AIR-CONDITIONING & AIR-SOURCE AND HEAT PUMP EQUIPMENT.
b. COMPLETELY SELF-CONTAINED HEATING AND COOLING PACKAGE.
c. NO OUTSIDE CONDENSING UNIT.
d. NO EXTERNAL REFRIGERANT LINES.
e. NO SEPARATE COOLING COIL.
f. NO SEPARATE VENTING SYSTEM.
g. NO ADDITIONAL DRAIN PIPE REQUIRED.
h. PRE-WIRED AND PRE-CHARGED.
i. DRAIN PAN IS INFUSED WITH ANTIMICROBIAL PROTECTION.
j. INDIVIDUALLY METERED AND CONTROLLED.
k. SLIDE-OUT COOLING SECTION.
l. INTERNAL VENT SYSTEM (DIRECT VENT).
2. REFRIGERANT SYSTEM:
a. R410-A REFRIGERANT.
b. DRAIN PAN WITH LANCED FIN COILS.
c. HEAT EXCHANGER.
d. STANDARD STAINLESS-STEEL HEAT EXCHANGER.
e. CABINET:
a. ATTRACTIVE NEUTRAL-TONED FINISH.
b. WALL SLEEVE AS SCHEDULED OR INDICATED.
c. OPTIONAL DECORATIVE EXTRUDED ALUMINUM LOUVER AS SCHEDULED OR INDICATED.
f. BLOWER:
a. MULTISPEED MOTOR FOR WIDE AIRFLOW RANGE.
b. ELECTRICALLY COMMUTATED MOTOR (ECM) FOR MAXIMUM EFFICIENCY.
c. DYNAMICALLY BALANCED BLOWER WITH RESILIENT MOTOR MOUNTS FOR SMOOTH AND QUIET OPERATION.
d. INTERNAL WASHABLE FILTER.
e. UPGRADE MERV 8 FILTER.
7. CONTROLS:
a. COLOR CODED WIRING FOR EASY SERVICE.
8. INSTALLATION:
a. EASY TO INSTALL AND SERVICE.
b. EXTERNAL UTILITY CONNECTIONS FOR GAS AND HIGH AND LOW VOLTAGE LINES.
9. WARRANTY:
a. 5 YEAR LIMITED WARRANTY ON ALL PARTS.
b. 20 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER.
PART 3 EXECUTION
3.1 EXAMINATION
A. DO NOT BEGIN INSTALLATION UNTIL WALL OPENINGS AND ROUGH-IN HAVE BEEN PROPERLY PREPARED.
B. IF PREPARATION IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.
3.2 PREPARATION
A. PREPARE CONDITIONS USING THE METHODS RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE OPERATION UNDER THE PROJECT CONDITIONS.
3.3 INSTALLATION
A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. TEST FOR PROPER OPERATION AND ADJUST AS REQUIRED UNTIL SATISFACTORY RESULTS ARE OBTAINED.
A. PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT.
B. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.
END OF SECTION
2. POWER VENTILATORS:
FURNISH AND INSTALL CEILING EXHAUST FAN THAT IS FACTORY FABRICATED AND ASSEMBLED WITH CAPACITY AS SCHEDULED.
A. PROVIDE HANGING VIBRATION ISOLATORS AND NECESSARY ACCESSORIES. COORDINATE LOCATION AND DIMENSIONS. PROVIDE WALL LOUVER WHERE APPLICABLE.
b. PROVIDE THE FOLLOWING ACCESSORIES: DISCONNECT SWITCH, BIRD SCREEN AND BACK DRAFT FACTORY SET TO CLOSE WHEN FAN STOPS.
c. FANS SHALL COMPLY WITH "UL" 105 "POWER VENTILATORS" AND SHALL BE LISTED AND LABELED. MOTOR AND ELECTRICAL ACCESSORIES SHALL COMPLY WITH NEMA STANDARDS AND "NFFPA 10" NATIONAL ELECTRICAL CODE.
d. ACCEPTABLE MANUFACTURERS: COOK, GREENHECK AND ACME.
3. DOMESTIC TANKLESS WATER HEATERS:
FURNISH AND INSTALL GAS TANKLESS WATER HEATER THAT IS FACTORY TESTED AND ASSEMBLED.
A. UNIT SHALL BE "UL" LISTED AND LABELED AND COMPLY WITH THE LATEST "PRESSURE VESSEL CODES".
B. UNITS SHALL BE PLUMBED AND WIRED PER MANUFACTURERS WRITTEN INSTRUCTIONS.
C. APPROVED MANUFACTURERS: AO SMITH, BRADFORD WHITE 4 LOCHINVAR
4. PLUMBING SPECIFICATIONS:
GENERAL
SEWERS ARE TO BE PITCHED DOWN IN DIRECTION OF FLOW AT 1/8" PER FOOT UNLESS OTHERWISE NOTED. PITCH VENT PIPING UP. WATER PIPING SHALL BE FITCHED TO FACILITATE DRAINAGE.
PROVIDE MINIMUM 10 PIPE DIAMETERS DISTANCE BETWEEN FIXTURE CONNECTIONS TO HORIZONTAL UNDERGROUND WASTE OR SOIL STACKS. MINIMUM 3" SIZE FOR ALL UNDERGROUND SEWERS.
NATURAL GAS PIPING: STD WEIGHT BLACK STEEL, FABRICATED AND INSTALLED IN ACCORDANCE WITH "NFFPA 84" AND "ASTM A58" PROVIDE SCREWED GALVANIZED MALLEABLE IRON FITTING IN ACCORDANCE WITH ANSI B16.5 CLASS 150. CONNECT GAS PIPING WITH DRIFLEGS AND SHUT OFF GAS VALVE. COMPLY WITH MANUFACTURERS INSTRUCTIONS.
NEW PLUMBING SERVICES ARE TO CONNECT TO EXISTING STUBS OR MAINS. FIELD VERIFY EXACT SIZE AND LOCATIONS.
ALL PIPING SHALL BE CONCEALED UNLESS NOTED OR APPROVED BY THE ARCHITECT. EXPOSED PIPING SERVING PLUMBING FIXTURES SHALL BE CHROME PLATED.
PROVIDE CLEANOUTS AT THE BASE OF ALL WASTE STACKS AND RAIN CONDUCTORS. CHANGES IN DIRECTION GREATER THAN 45 DEGREES AND 50 FEET ON CENTER ON STRAIGHT RUNS.
PROVIDE BRANCH LINE SHUT-OFF VALVES ON DOMESTIC WATER PIPING TO EACH GROUP OF PLUMBING FIXTURES OR EQUIPMENT. PROVIDE CHROME PLATED RIGID SUPPLIES WITH LOOSE KEY STOPS AT EACH FIXTURE.
ALL HOSE END FITTINGS ARE TO BE FURNISHED WITH WATTS 84 VACUUM BREAKERS. OTHER BACKDRAFT FACTORY SET TO CLOSE WHEN FAN STOPS.
Faucets, etc. AS INDICATED ON THE DRAWINGS AND/OR AS REQUIRED BY THE LOCAL AUTHORITIES.
ALL VALVES ARE TO BE TYPE AS RECOMMENDED BY THE MANUFACTURER FOR THE INTENDED SERVICE AND SHALL BE PROPERLY RATED FOR PRESSURE AND TEMPERATURE.
TO PREVENT ELECTROLYTIC CORROSION, PROVIDE INSULATED COUPLINGS WHERE DISSIMILAR METALS ARE JOINED. COUPLINGS SHALL BE EQUAL TO LOCHINVAR "V-LINE" OR EQUAL. FLAME-RETARDANT, UL LISTED, IMPREGATED LATEX MATERIAL SHALL BE THREADED TO NPS STANDARDS. COUPLINGS SHALL BE SUITABLE FOR HYDROSTATIC PRESSURE UP TO 300 PSI AND 25 DEGREE F TEMPERATURE.
PROVIDE WATER HANGER ARRESTERS (SHOCK ABSORBERS) EQUAL TO ZURN Z-1000 OR ZUOX CHIEF 6002 QUICK CLOSING VALVES AT ALL JOINTS OF PIPING.
MAINS SERVING PLUMBING FIXTURES, ARRESTER CASING AND BELLIOUS SHALL BE OF TYPE 304 STAINLESS STEEL CONSTRUCTION OR COPPER TUBE STYLE WITH LUBRICATED POLYPTRO PISTON.
CORRUGATED STAINLESS STEEL TUBING MAY ALSO USED WHERE APPROVED BY LOCAL CODE. CONTRACTOR SHALL SUPPLY COMPLETE SYSTEM DESIGN DRAWING INDICATING LAYOUT, PIPE SIZING, PRESSURE DROP CALCULATIONS AND A COPY OF THE CURRENT MANUFACTURER'S INSTALLATION GUIDE.
CORRUGATED STAINLESS STEEL TUBING SHALL BE MANUFACTURED FROM ASTM A240, TYPE 304 STAINLESS STEEL WITH A MINIMUM WALL THICKNESS OF 0.010". THE SYSTEM SHALL COMPLY WITH ANSI L-1 FITTINGS SHALL BE MANUFACTURED FROM 360 BRASS ASTM B316 WITH INCORPORATE A DOUBLE WALL RATED FLARE FOR GAS TIGHT SEAL. TUBING SHALL HAVE A UV RESISTANT POLYETHYLENE JACKET THAT ALSO MEETS ASTM E84 FOR SMOKE AND FLAME. TUBING SYSTEM SHALL BE INSTALLED PER LOCAL CODE BY A MANUFACTURE CERTIFIED INSTALLER.
PIPE INTERIOR CLEANING:
PROVIDE ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FLUSH THE LISTED 1/2" DIA SYSTEM WITH NO INCREASE IN PRESSURE AT ANY POINT.
DIRTY WATER DOES NOT APPEAR AT THE OUTLETS. USE OPEN END BRANCHES, SETTLING BASINS, PUMPS, OR TEMPORARY FILTERS AS SUITABLE FOR THE JOB CONDITIONS AND AS THE REASONABLE DISPOSAL OF FLUSHING WATER.
THE CONTRACTOR HAS THE OPTION OF HIGH PRESSURE HYDRAULIC JET CLEANING IN LIEU OF FLUSHING. PROTECT ALL VALVES AND DEVICES FROM DAMAGE DURING THE CLEANING OPERATION.
DISINFECTION:
ALL DOMESTIC WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILATION. THE METHOD TO BE FOLLOWED SHALL BE AS PRESCRIBED BY THE HEALTH AUTHORITY HAVING JURISDICTION, OR IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE IN EITHER AWWA C651 OR AWWA C652 OR AS FOLLOWS:
FLUSH OUT SYSTEM FIRST, THEN HOLD A SOLUTION MIXTURE OF 50 PPM OF CHLORINE / WATER FOR A 24 HOUR PERIOD OR THE SYSTEM SHALL BE FILLED WITH WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PPM OF CHLORINE AND ALLOWED 1 REMAIN TO STAND FOR AT LEAST 3 HOURS. DRAIN SYSTEMS AND FLUSH WITH CLEAN WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
CHLORINATION PROCEDURES SHALL CONFORM TO AWWA C651 OR AWWA C652. REPEAT CHLORINATION AS NECESSARY UNTIL NO CONTAMINANTS REMAIN IN THE SYSTEM.
PROVIDE FIRE CONTENT AND FLOW DIRECTION IDENTIFICATION LABELS EQUAL TO SETON BETHKARK ON ALL PIPE MAINS ADJACENT TO EACH VALVE. AT EACH FITTING, AT BUILDING ENTRANCE, AT LEAST ONCE IN EACH DIRECTION AND AT INTERVALS NO LONGER THAN 20 FEET, TEXT TO BE 2" HIGH ON PIPES 4" AND LARGER AND 3/4" HIGH ON PIPES 3" AND SMALLER.
PROVIDE VALVE TAGS FOR EACH VALVE. TAGS ARE TO BE AT LEAST 1" DIAMETER 1/8" THICK LAMINATED PLASTIC WITH 3/8" HIGH BLACK CHARACTERS ON WHITE FACE OR ENGRAVED BRASS. ATTACH TAGS WITH "V" HOOKS. CONSECUTIVELY NUMBER WITH PREFIX "V" AT COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE REPRODUCIBLE TRANSPARENCY "AS-BUILT" DRAWINGS OF ALL PLUMBING WORK.
PLUMBING MATERIALS
UNDERGROUND SEWERS AND VENTS SHALL BE STANDARD WEIGHT CAST IRON SOIL PIPE WITH COMPRESSION TYPE FITTINGS OR SCHEDULE 40 PVC.
ABOVEGROUND WASTE AND VENT PIPING SHALL BE CAST IRON WITH NO-HUB JOINTS OR SCHEDULE 40 GALVANIZED STEEL, SCHEDULE 40 PVC MAY BE USED ABOVEGROUND WHERE CODE PERMITS. RETURN AIR FLENUMS SHALL BE GALVANIZED STEEL OR WITH MAXIMUM FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 OR LESS.
DOMESTIC WATER PIPING 2-1/2" AND SMALLER SHALL BE TYPE "1/2" HARD DRAIN. COPPER WITH LEAD-FREE SOLDER TYPE FITTINGS AND/OR FLEX TUBING MEETING THE REQUIREMENTS OF ASTM F86 AND APPROVED BY LOCAL AUTHORITIES. 3" AND LARGER SHALL BE THE SAME MATERIAL AS THE WATER SERVICE. DUCTILE IRON MEETING ASTM A511 OR OTHER AS APPROVED BY THE LOCAL WATER DEPARTMENT. REFER TO CIVIL ENGINEERING DRAWINGS AND SPECIFICATIONS. ALL UNDERFLOOR PIPING IS TO BE TYPE "K" COPPER WITH NO JOINTS.
NATURAL GAS PIPING: STD WEIGHT BLACK STEEL, FABRICATED AND INSTALLED IN ACCORDANCE WITH "NFFPA 84" AND "ASTM A58" PROVIDE SCREWED GALVANIZED MALLEABLE IRON FITTING IN ACCORDANCE WITH ANSI B16.5 CLASS 150. CONNECT GAS PIPING WITH DRIFLEGS AND SHUT OFF GAS VALVE. COMPLY WITH MANUFACTURERS INSTRUCTIONS.
WATER SEWER AND VENT PIPING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE ON CLEVIS TYPE HANGERS SPACED IN ACCORDANCE WITH ASHRAE GUIDE.
RECOMMENDATIONS: PIPE SUPPORT SPACING FOR NATURAL GAS PIPING SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL FIRE STOPPING CODE.
THE PLUMBING TRADES SHALL BE RESPONSIBLE FOR THE FIRE-STOPPING OF ALL HOLES ASSOCIATED WITH THE PLUMBING IN FIRE RATED WALLS, FLOORS AND ROOF.
UNRAP EACH RISER PIPE, ETC. WITH NON-COMBUSTIBLE MATERIAL AND FILL ALL FLOOR OPENINGS WITH A MINIMUM OF 5" OF IMPREGATED FIRE-STOPPING MATERIAL. EQUAL TO ARMAFLEX OR NOMACOR M-1000 OR FIBERGLASS "FIRE PUTTY". PIPES REQUIRING INSULATION SHALL BE INSULATED BEFORE PLACING FIRE-STOPPING MATERIAL.
SLEEVE ALL PIPING PASSING THROUGH STRUCTURAL FOUNDATIONS.
PLUMBING SPECIALTIES
PLUMBING SPECIALTIES SHALL BE JOSEPH, JR. SMITH, WADE, MIFAB, ZUOX CHIEF OR ZURN. CLEANOUTS:THREADED BRASS PLUGS WITH ZURN Z-1460-3 STAINLESS STEEL COVER IN WALLS AND Z-1400-2 NICKEL BRONZE SCORIATED COVER IN FLOORS. FLOOR DRAINS: SEE PLUMBING FIXTURE SCHEDULE.
CONTRACTOR SHALL HAVE THE OPTION OF USING TRAP PRIMERS OR TRAP SEAL DEVICES AS FOLLOWS:
TRAP SEALS SHALL BE PROVIDED FOR ALL FLOOR DRAINS, FLOOR SINKS AND OTHERS TO PREVENT TRAP EVAPORATION. SEALS SHALL BE EQUAL TO SURESEAL, SIZED TO MATCH THE DRAIN TRAP.
TRAP PRIMERS SHALL BE MIFAB, SMITH OR ZURN Z-1022 "SAN-GARD", ALL BRONZE BODY WITH INTERNAL VACUUM BREAKER, ANTI-BACK-SIPHON DESIGN, NON-LIMING OPERATING ASSEMBLY, REPLACEABLE VALVE SEAT, CHROME PLATED FINISH. LOCATE TRAP PRIMER VALVES ON THE NEAREST DOMESTIC COLD WATER MAIN SERVING THE SPACE AND PIPE TO FLOOR DRAIN TRAP PRIMER CONNECTION.
PROVIDE HEAT TRAPS IN BOTH HOT AND COLD WATER PIPE RISERS AT WATER HEATERS UNLESS TRAPS ARE INTEGRAL WITH THE HEATERS.
PLUMBING FIXTURES
PLUMBING FIXTURES SHALL BE AS MANUFACTURED BY AMERICAN STANDARD, CRANE, DELTA, KOHLER, SLOAN OR HANSFIELD COMPLETE WITH ALL STANDARD ACCESSORIES. FIXTURES TO BE WHITE VITREOUS CHINA UNLESS NOTED.
PLUMBING FIXTURES FOR PHYSICALLY HANDICAPPED USE SHALL BE MOUNTED AND PIPED PER STATE OF MICHIGAN "BARRIER FREE CODE"
(ADA) REQUIREMENTS. AND PROVIDED WITH DELTA, LEONARD, POWERS "HYDROGUARD" SERIES 480 (BRASS SCHEDULED) OR WATTS FRY SUELT JOINT.
OR THREADED UNION TEMPERING VALVES TO SUPPLY MAXIMUM 10 DEGREE HOT WATER. PROVIDE ADJUSTMENT CAP WITH LOCKING FEATURE. VALVES SHALL COMPLY WITH ASSE 1010 STANDARD.
JOINTS BETWEEN PLUMBING FIXTURES AND WALLS OR COUNTERTOPS SHALL BE FILLED WITH WHITE PLASTIC BEAM COMPOUND EQUAL TO LOCHINVAR "V-LINE" TYPE TIL-100.
FAUCETS AND CONTROL VALVES SHALL BE AS MANUFACTURED BY DELTA, BREAKMAN, SYMMONS, LEONARD, AMERICAN STANDARD, KOHLER, MOEN, GROHE OR CHICAGO FAUCET, CHROME PLATED ALL METAL UNLESS OTHERWISE NOTED. FLUSH VALVES SHALL BE CHROME PLATED AS MANUFACTURED BY SLOAN, BREAKMAN, DELTA OR ZURN.
5. DUCTWORK AND ACCESSORIES:
GENERAL
SUPPLY RETURN AND EXHAUST AIR DUCTWORK SHALL BE GALVANIZED STEEL, CONSTRUCTED OF PROPER PRESSURE CLASSIFICATION GAUGES AND INSTALLED IN ACCORDANCE WITH SMAGNA STANDARDS. MINIMUM 2" PRESSURE RATING FOR LOW VELOCITY SYSTEMS.
RECTANGULAR
RECTANGULAR UTILIZE JOINTS SHALL BE CONNECTED WITH DUCTMASTE 25/35/45 JOINT SYSTEMS THAT UTILIZE ROLL-FORMED FLANGES, CORNER PIECES, GASKET AND CLEAT. DUCT JOINTS MAY BE INDIVIDUALLY REMOVED, SEAL ALL JOINTS WITH UL 181 B-M LISTED JOINT SEALANT. EQUAL TO DUCTMASTE PROSEAL OR AIRSEAL FOR THE APPROPRIATE PRESSURE CLASSIFICATION, TEMPERATURE AND WEATHER-RESISTANCE.
ROUND DUCT FITTINGS AND ELBOWS SHALL BE JOINED USING SLIP-JOINT FITTINGS. FITTING SHALL HAVE A STOP BEAD TO LOCATE FITTING INSIDE PIPE. ALL PIPE TO PIPE CONNECTIONS SHALL BE MADE WITH SLIP JOINTS. EQUAL TO DUCTMASTE PROSEAL. HARDCAST OR AIRSEAL FOR THE APPROPRIATE PRESSURE CLASSIFICATION, TEMPERATURE AND WEATHER-RESISTANCE.
EXPOSED SPIN IN FITTINGS SHALL BE DOUBLE WALL INSULATED.
DUCTWORK FITTINGS SHALL BE PER SMAGNA RECOMMENDATIONS. RADIUS TURNS ON SUPPLY AIR DUCTS SHALL BE 1-1/2 TIMES DUCT WIDTH. MINIMUM, WHERE SPACE OR CLEARANCE REQUIRES THE USE OF MITERED TURNS, PROVIDE HIGH PERFORMANCE DOUBLE THICKNESS TURNING VANES EQUAL TO AERODYNE "HEP" AND VOLUME DAMPERS. REFER TO DETAILS ON THE DRAWINGS.
PROVIDE FACTORY MANUFACTURED TEST HOLE UNITS IN DUCTWORK WHERE REQUIRED TO FACILITATE AIR BALANCE.
ALL DUCTWORK AND PIPING INSIDE THE BUILDING IS TO BE SUSPENDED FROM THE TOP CORNER OF BAR JOIST AT PANEL POINTS. DO NOT CONNECT TO THE ROOF DUCTS AND PIPES LOCATED ON THE ROOF ARE TO BE MOUNTED ON PATE PIPE OR EQUIPMENT CURBS. DO NOT EQUIPMENT CURBS TO BE TYPE 304 OR 316. PROVIDE ROOFS. CONTRACTOR HAS THE OPTION TO USE MISO INDUSTRIES OR PORTABLE PIPE HANGERS. NO FILLING BLOCK PIPE STANDS IN LIEU OF THE PATE PIPE CURBS. DUCT SIZES INDICATED ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

PROVIDE DUCT VOLUME DAMPERS AT EACH BRANCH CONNECTION TO DIFFUSERS AND REGISTER FOR PROPER AIR SYSTEMS BALANCING. REFER TO DETAILS OF THE DRAWING.
PROVIDE GRAVITY BACKDRIFT DAMPERS FOR ALL EXHAUST FANS AND BUILDING PRESSURE RELIEF VENTS (UNLESS OTHERWISE NOTED.) USE COUNTERBALANCE WEIGHTS TO OPPOSE GRAVITY AND PREVENT DAMPERS.
THE CONTRACTOR HAS THE OPTION OF USING EQUIVALENT SIZE ROUND DUCT (NOT FLEXIBLE DUCT) WHERE SPACE PERMITS.
NO OUTDOOR AIR INTAKES ARE TO BE LOCATED WITHIN 10 FEET OF EXHAUST FAN DISCHARGE OR PLUMBING VENTS. FIELD VERIFY.
PROVIDE FLEXIBLE CONNECTIONS ON ALL DUCT CONNECTIONS TO AIR HANDLING UNITS. FLEXIBLE FLAME-RETARDANT, UL LISTED, IMPREGATED LATEX MATERIAL SHALL BE USED. CONNECTORS SHALL BE MINIMUM 8" LONG. MADE OF TWO LAYERS OF 8 OZ. OR ONE LAYER OF 16 OZ. NEOPRENE COATED CLOTH WITH AIRTIGHT SEAMS. FASTEN WITH BOLTED FLARE OR GAS TIGHT SEAL. TUBING SHALL HAVE A UV RESISTANT POLYETHYLENE JACKET THAT ALSO MEETS ASTM E84 FOR SMOKE AND FLAME. TUBING SYSTEM SHALL BE INSTALLED PER LOCAL CODE BY A MANUFACTURE CERTIFIED INSTALLER.
PIPE INTERIOR CLEANING:
PROVIDE ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FLUSH THE LISTED 1/2" DIA SYSTEM WITH NO INCREASE IN PRESSURE AT ANY POINT.
DIRTY WATER DOES NOT APPEAR AT THE OUTLETS. USE OPEN END BRANCHES, SETTLING BASINS, PUMPS, OR TEMPORARY FILTERS AS SUITABLE FOR THE JOB CONDITIONS AND AS THE REASONABLE DISPOSAL OF FLUSHING WATER.
THE CONTRACTOR HAS THE OPTION OF HIGH PRESSURE HYDRAULIC JET CLEANING IN LIEU OF FLUSHING. PROTECT ALL VALVES AND DEVICES FROM DAMAGE DURING THE CLEANING OPERATION.
DISINFECTION:
ALL DOMESTIC WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILATION. THE METHOD TO BE FOLLOWED SHALL BE AS PRESCRIBED BY THE HEALTH AUTHORITY HAVING JURISDICTION, OR IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE IN EITHER AWWA C651 OR AWWA C652 OR AS FOLLOWS:
FLUSH OUT SYSTEM FIRST, THEN HOLD A SOLUTION MIXTURE OF 50 PPM OF CHLORINE / WATER FOR A 24 HOUR PERIOD OR THE SYSTEM SHALL BE FILLED WITH WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PPM OF CHLORINE AND ALLOWED 1 REMAIN TO STAND FOR AT LEAST 3 HOURS. DRAIN SYSTEMS AND FLUSH WITH CLEAN WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
CHLORINATION PROCEDURES SHALL CONFORM TO AWWA C651 OR AWWA C652. REPEAT CHLORINATION AS NECESSARY UNTIL NO CONTAMINANTS REMAIN IN THE SYSTEM.
PROVIDE FIRE CONTENT AND FLOW DIRECTION IDENTIFICATION LABELS EQUAL TO SETON BETHKARK ON ALL PIPE MAINS ADJACENT TO EACH VALVE. AT EACH FITTING, AT BUILDING ENTRANCE, AT LEAST ONCE IN EACH DIRECTION AND AT INTERVALS NO LONGER THAN 20 FEET, TEXT TO BE 2" HIGH ON PIPES 4" AND LARGER AND 3/4" HIGH ON PIPES 3" AND SMALLER.
PROVIDE VALVE TAGS FOR EACH VALVE. TAGS ARE TO BE AT LEAST 1" DIAMETER 1/8" THICK LAMINATED PLASTIC WITH 3/8" HIGH BLACK CHARACTERS ON WHITE FACE OR ENGRAVED BRASS. ATTACH TAGS WITH "V" HOOKS. CONSECUTIVELY NUMBER WITH PREFIX "V" AT COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE REPRODUCIBLE TRANSPARENCY "AS-BUILT" DRAWINGS OF ALL PLUMBING WORK.
PLUMBING MATERIALS
UNDERGROUND SEWERS AND VENTS SHALL BE STANDARD WEIGHT CAST IRON SOIL PIPE WITH COMPRESSION TYPE FITTINGS OR SCHEDULE 40 PVC.
ABOVEGROUND WASTE AND VENT PIPING SHALL BE CAST IRON WITH NO-HUB JOINTS OR SCHEDULE 40 GALVANIZED STEEL, SCHEDULE 40 PVC MAY BE USED ABOVEGROUND WHERE CODE PERMITS. RETURN AIR FLENUMS SHALL BE GALVANIZED STEEL OR WITH MAXIMUM FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 OR LESS.
DOMESTIC WATER PIPING 2-1/2" AND SMALLER SHALL BE TYPE "1/2" HARD DRAIN. COPPER WITH LEAD-FREE SOLDER TYPE FITTINGS AND/OR FLEX TUBING MEETING THE REQUIREMENTS OF ASTM F86 AND APPROVED BY LOCAL AUTHORITIES. 3" AND LARGER SHALL BE THE SAME MATERIAL AS THE WATER SERVICE. DUCTILE IRON MEETING ASTM A511 OR OTHER AS APPROVED BY THE LOCAL WATER DEPARTMENT. REFER TO CIVIL ENGINEERING DRAWINGS AND SPECIFICATIONS. ALL UNDERFLOOR PIPING IS TO BE TYPE "K" COPPER WITH NO JOINTS.
NATURAL GAS PIPING: STD WEIGHT BLACK STEEL, FABRICATED AND INSTALLED IN ACCORDANCE WITH "NFFPA 84" AND "ASTM A58" PROVIDE SCREWED GALVANIZED MALLEABLE IRON FITTING IN ACCORDANCE WITH ANSI B16.5 CLASS 150. CONNECT GAS PIPING WITH DRIFLEGS AND SHUT OFF GAS VALVE. COMPLY WITH MANUFACTURERS INSTRUCTIONS.
WATER SEWER AND VENT PIPING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE ON CLEVIS TYPE HANGERS SPACED IN ACCORDANCE WITH ASHRAE GUIDE.
RECOMMENDATIONS: PIPE SUPPORT SPACING FOR NATURAL GAS PIPING SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL FIRE STOPPING CODE.
THE PLUMBING TRADES SHALL BE RESPONSIBLE FOR THE FIRE-STOPPING OF ALL HOLES ASSOCIATED WITH THE PLUMBING IN FIRE RATED WALLS, FLOORS AND ROOF.
UNRAP EACH RISER PIPE, ETC. WITH NON-COMBUSTIBLE MATERIAL AND FILL ALL FLOOR OPENINGS WITH A MINIMUM OF 5" OF IMPREGATED FIRE-STOPPING MATERIAL. EQUAL TO ARMAFLEX OR NOMACOR M-1000 OR FIBERGLASS "FIRE PUTTY". PIPES REQUIRING INSULATION SHALL BE INSULATED BEFORE PLACING FIRE-STOPPING MATERIAL.
SLEEVE ALL PIPING PASSING THROUGH STRUCTURAL FOUNDATIONS.
PLUMBING SPECIALTIES
PLUMBING SPECIALTIES SHALL BE JOSEPH, JR. SMITH, WADE, MIFAB, ZUOX CHIEF OR ZURN. CLEANOUTS:THREADED BRASS PLUGS WITH ZURN Z-1460-3 STAINLESS STEEL COVER IN WALLS AND Z-1400-2 NICKEL BRONZE SCORIATED COVER IN FLOORS. FLOOR DRAINS: SEE PLUMBING FIXTURE SCHEDULE.
CONTRACTOR SHALL HAVE THE OPTION OF USING TRAP PRIMERS OR TRAP SEAL DEVICES AS FOLLOWS:
TRAP SEALS SHALL BE PROVIDED FOR ALL FLOOR DRAINS, FLOOR SINKS AND OTHERS TO PREVENT TRAP EVAPORATION. SEALS SHALL BE EQUAL TO SURESEAL, SIZED TO MATCH THE DRAIN TRAP.
TRAP PRIMERS SHALL BE MIFAB, SMITH OR ZURN Z-1022 "SAN-GARD", ALL BRONZE BODY WITH INTERNAL VACUUM BREAKER, ANTI-BACK-SIPHON DESIGN, NON-LIMING OPERATING ASSEMBLY, REPLACEABLE VALVE SEAT, CHROME PLATED FINISH. LOCATE TRAP PRIMER VALVES ON THE NEAREST DOMESTIC COLD WATER MAIN SERVING THE SPACE AND PIPE TO FLOOR DRAIN TRAP PRIMER CONNECTION.
PROVIDE HEAT TRAPS IN BOTH HOT AND COLD WATER PIPE RISERS AT WATER HEATERS UNLESS TRAPS ARE INTEGRAL WITH THE HEATERS.
PLUMBING FIXTURES
PLUMBING FIXTURES SHALL BE AS MANUFACTURED BY AMERICAN STANDARD, CRANE, DELTA, KOHLER, SLOAN OR HANSFIELD COMPLETE WITH ALL STANDARD ACCESSORIES. FIXTURES TO BE WHITE VITREOUS CHINA UNLESS NOTED.
PLUMBING FIXTURES FOR PHYSICALLY HANDICAPPED USE SHALL BE MOUNTED AND PIPED PER STATE OF MICHIGAN "BARRIER FREE CODE"
(ADA) REQUIREMENTS. AND PROVIDED WITH DELTA, LEONARD, POWERS "HYDROGUARD" SERIES 480 (BRASS SCHEDULED) OR WATTS FRY SUELT JOINT.
OR THREADED UNION TEMPERING VALVES TO SUPPLY MAXIMUM 10 DEGREE HOT WATER. PROVIDE ADJUSTMENT CAP WITH LOCKING FEATURE. VALVES SHALL COMPLY WITH ASSE 1010 STANDARD.
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SLEEVE ALL PIPING PASSING THROUGH STRUCTURAL FOUNDATIONS.
PLUMBING SPECIALTIES
PLUMBING SPECIALTIES SHALL BE JOSEPH, JR. SMITH, WADE, MIFAB, Z

RP-A AND F 120/208V, 3 PHASE 4 WIRE 100A. MCB

NO	LOAD DESCRIPTION	LOAD IN KILO-VOLT-AMPS										LOAD IN KILO-VOLT-AMPS										LOAD DESCRIPTION								NO	
		A/C	HTG	KIT	MIS	MTS	RCP	LTD	CB	P	CKT	PH	CKT	P	CB	LTD	RCP	MTS	MIS	KIT	HTG										A/C
1	LIGHTING							0.65	20	1	1	A	2	1	20		0.18						RECEPTACLE								2
3	RECEPTACLES						0.90		20	1	3	B	4	1	20				0.10				WM-1								4
5	TYPICAL FOR HVAC-1 AND 6	1.78							30	2	5	C	6	1	20	1.00							SIGN								6
7			1.78						20	1	7	A	8	1	20								SPARE								8
9	SPARE								20	1	9	B	10	1	20								SPARE								10
11	SPARE								20	1	11	C	12	1	20								SPARE								12
13	SPARE								20	1	13	A	14	1	20								SPARE								14
15	SPARE								20	1	15	B	16	1	20								SPARE								16
17	SPARE								20	1	17	C	18	1	20								SPARE								18
19	SPARE								20	1	19	A	20	1	20								SPARE								20
21	SPARE								20	1	21	B	22	1	20								SPARE								22
23	SPARE								20	1	23	C	24	1	20								SPARE								24
25	SPARE								20	1	25	A	26	1	20								SPARE								26
27	SPARE								20	1	27	B	28	1	20								SPARE								28
29	SPARE								20	1	29	C	30	1	20								SPARE								30
31	SPARE								20	1	31	A	32	1	20								SPARE								32
33	SPACE								20	1	33	B	34	1	20								SPARE								34
35	SPACE								20	1	35	C	36	1	20								SPACE								36
37	SPACE								20	1	37	A	38	1	20								SPACE								38
39	SPACE								20	1	39	B	40	1	20								SPACE								40
41	SPACE								20	1	41	C	42	1	20								SPACE								42

CONNECTED KILO-VOLT-AMPS					DEMAND FACTORS		DEMAND KILO-VOLT-AMPS					ACCESSORIES	
LOAD TYPE	A	B	C	TOTAL			LOAD TYPE	A	B	C	TOTAL		
MOTORS (MTS)	0	0	0	0	0.65		MOTORS	0	0	0	0	X	SURFACE
MISCELLANEOUS (MIS)	0	0	0	0	1.00		MISCELLANEOUS	0	0	0	0		FLUSH
HEATING (HTG)	2	0	0	2	0.65		HEATING	1	0	0	1		NEMA ENCLOSURE TYPE NUMBER
AIR CONDITIONING (AC)	0	0	2	2	0.65		AIR CONDITIONING	0	0	1	1		ISOLATED GROUND BUS
KITCHEN	0	0	0	0	0.65		KITCHEN	0	0	0	0		HANDLE ATTACHMENT
RECEPTACLES	0	1	0	1	NEC220		RECEPTACLES	0	1	0	1		ARC-FAULT PROTECTION
LIGHTING	1	0	1	2	1.00		LIGHTING	1	0	1	2		EQUIPMENT GROUND BAR
CONNECTED kVA (phase)	3	1	3	6			DEMAND kVA	2	1	2	5		BUS MATERIAL
CONNECTED AMPS (phase)	13	5	13	18			DEMAND AMPS (phase)	10	5	10	14		ALARM SWITCHES
CONNECTED AMPS (L-N)	22	8	23	<<			DEMAND AMPS (L-N)	17	8	18	<<		SHUNT TRIP CIRCUIT BREAKER
													GROUND FAULT INTERRUPTER

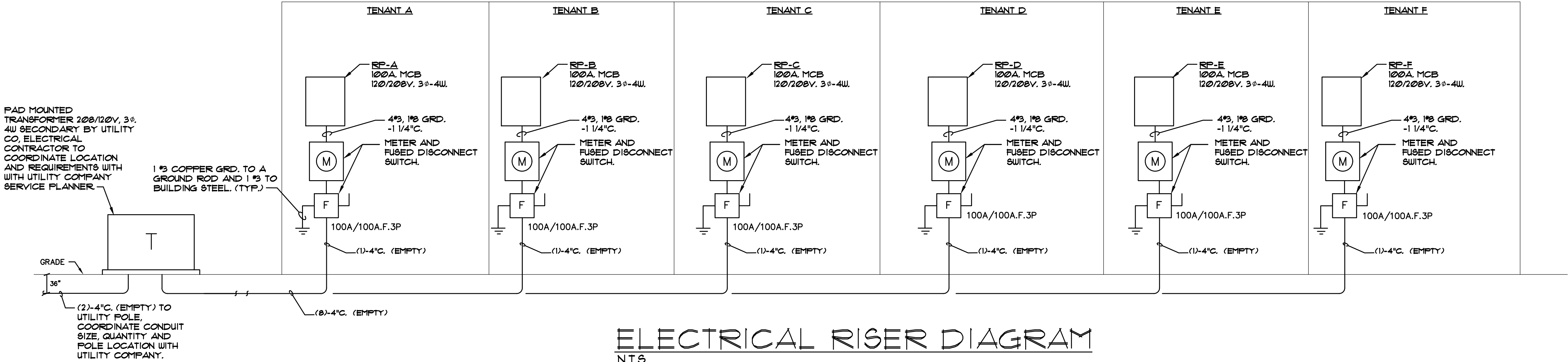
LIGHTING FIXTURE SCHEDULE	
TYPE	DESCRIPTION
"DL"	LED DOWNLIGHT FIXTURE AS SELECTED BY OWNER.
"TL"	TRACK LIGHT FIXTURE AS SELECTED BY OWNER.
"L1"	LED WALL SCONCE LIGHT FIXTURE, FINISH AS SELECTED BY ARCHITECT, FIXTURE AS SELECTED BY OWNER.
"L2"	LED WALL MOUNTED SIGN LIGHT FIXTURE AS SELECTED BY OWNER.
"EBU"	SURFACE CEILING MOUNTED BATTERY OPERATED 6V. LED EMERGENCY LIGHTING FIXTURE, SEALED BATTERY, SOLID STATE CHARGER, TEST SWITCH 4 PILOT LIGHT, MVOLT, LITHONIA, EUC2C-HO OR APPROVED EQUAL.
"XA"	COMBINATION EXIT/EMERGENCY LED FIXTURE WITH 6V DC, HIGH OUTPUT BATTERY, TWO EMERGENCY HEADS AND EXTERIOR LED REMOTE HEAD, WHITE HOUSING, RED LETTERS, 2-LED HEADS, MVOLT, LITHONIA QUANTUM SERIES ELA-QUF.

ELECTRICAL LEGEND		
SYMBOL	TYPE	DESCRIPTIONS
\$		SWITCH
\$3		THREE WAY SWITCH
\$OS		SWITCH WITH BUILT-IN OCCUPANCY SENSOR
⊕		DUPLEX RECEPTACLE
⊕		DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
▽		DATA OUTLET
☐		2x4 LED LIGHT FIXTURE
○		RECESSED CEILING LED LIGHT DOWNLIGHT
○		MOTOR
↶	"EM"	EMERGENCY LIGHT FIXTURES, UNIVERSAL MOUNT, 2-LED HEADS, BUILT-IN BATTERY/CHARGER
↶	"X"	EXIT SIGN, BUILT-IN BATTERY/CHARGER, 2-LED HEADS
⊙		CEILING MOUNTED OCCUPANCY SENSOR

RP-B, C, D AND E 120/208V, 3 PHASE 4 WIRE 100A. MCB																															
NO	LOAD DESCRIPTION	LOAD IN KILO-VOLT-AMPS										LOAD IN KILO-VOLT-AMPS										LOAD DESCRIPTION								NO	
		A/C	HTG	KIT	MIS	MTS	RCP	LTD	CB	P	CKT	PH	CKT	P	CB	LTD	RCP	MTS	MIS	KIT	HTG										A/C
1	LIGHTING							0.65	20	1	1	A	2	1	20		1.08							RECEPTACLE							2
3	RECEPTACLES							0.90	20	1	3	B	4	1	20				0.10					WM-1							4
5	TYPICAL FOR HVAC-2, 3, 4 AND 5	1.04							15	2	5	C	6	1	20									SPARE							6
7			1.04						20	1	7	A	8	1	20									SPARE							8
9	SPARE								20	1	9	B	10	1	20									SPARE							10
11	SPARE								20	1	11	C	12	1	20									SPARE							12
13	SPARE								20	1	13	A	14	1	20									SPARE							14
15	SPARE								20	1	15	B	16	1	20									SPARE							16
17	SPARE								20	1	17	C	18	1	20									SPARE							18
19	SPARE								20	1	19	A	20	1	20									SPARE							20
21	SPARE								20	1	21	B	22	1	20									SPARE							22
23	SPARE								20	1	23	C	24	1	20									SPARE							24
25	SPARE								20	1	25	A	26	1	20									SPARE							26
27	SPARE								20	1	27	B	28	1	20									SPARE							28
29	SPARE								20	1	29	C	30	1	20									SPARE							30
31	SPARE								20	1	31	A	32	1	20									SPARE							32
33	SPACE								20	1	33	B	34	1	20									SPARE							34
35	SPACE								20	1	35	C	36	1	20									SPACE							36
37	SPACE								20	1	37	A	38	1	20									SPACE							38
39	SPACE								20	1	39	B	40	1	20									SPACE							40
41	SPACE								20	1	41	C	42	1	20									SPACE							42

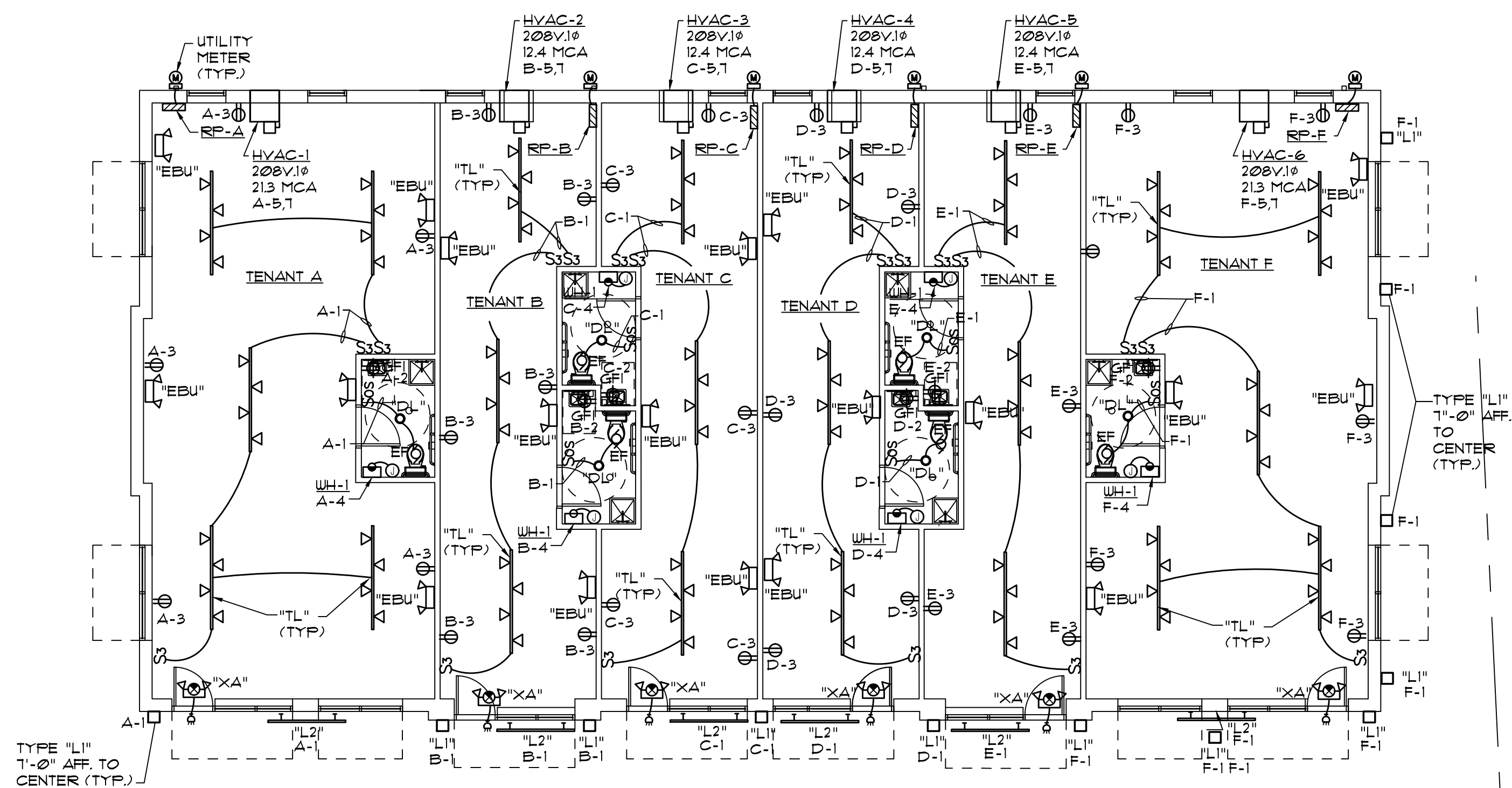
CONNECTED KILO-VOLT-AMPS					DEMAND FACTORS		DEMAND KILO-VOLT-AMPS					ACCESSORIES	
LOAD TYPE	A	B	C	TOTAL			LOAD TYPE	A	B	C	TOTAL		
MOTORS (MTS)	0	0	0	0	0.65		MOTORS	0	0	0	0		
MISCELLANEOUS (MIS)	0	0	0	0	1.00		MISCELLANEOUS	0	0	0	0		
HEATING (HTG)	1	0	0	1	0.65		HEATING	1	0	0	1		
AIR CONDITIONING (AC)	0	0	1	1	0.65		AIR CONDITIONING	0	0	1	1		
KITCHEN	0	0	0	0	0.65		KITCHEN	0	0	0	0		
RECEPTACLES	1	1	0	2	NEC220		RECEPTACLES	1	1	0	2		
LIGHTING	1	0	0	1	1.00		LIGHTING	1	0	0	1		
CONNECTED kVA (phase)	3	1	1	5			DEMAND kVA	2	1	1	4		
CONNECTED AMPS (phase)	13	5	5	13			DEMAND AMPS (phase)	12	5	3	11		
CONNECTED AMPS (L-N)	23	8	9	<<<			DEMAND AMPS (L-N)	20	8	8	<<<		

X SURFACE ACCESSORIES	
	FLUSH
	NEMA ENCLOSURE TYPE NUMBER
	ISOLATED GROUND BUS
	HANDLE ATTACHMENT
	ARC-FAULT PROTECTION
	EQUIPMENT GROUND BAR
	BUS MATERIAL
	ALARM SWITCHES
	SHUNT TRIP CIRCUIT BREAKER
	GROUND FAULT INTERRUPTER

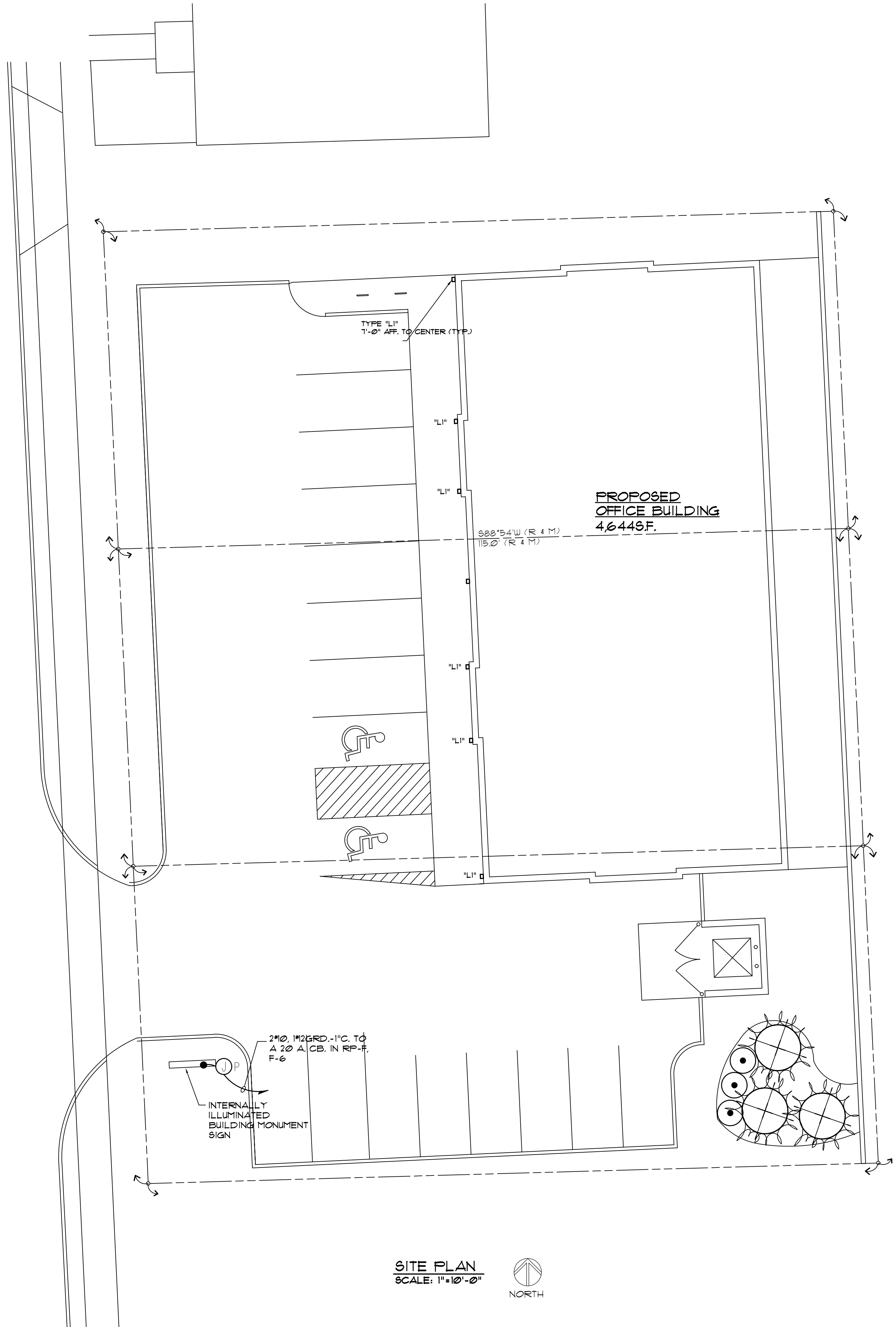


ELECTRICAL RISER DIAGRAM

N.T.S.



ELECTRICAL FLOOR PLAN
SCALE: 1/8"=1'-0"



SITE PLAN
SCALE: 1"=10'-0"



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WITHOUT THE WRITTEN PERMISSION OF
T. FOUGHT & ASSOCIATES LLC

PROJECT
SPEC OFFICE SPACE
3462 3478 GREENFIELD RD
BERKLEY, MI

SUBJECT
SITE PLAN LIGHTING
LIGHTING & POWER
PLANS

ARCHITECTS
T. FOUGHT & ASSOCIATES LLC
24045 WOODLAND DR. SOUTHFIELD, MI 48034
(248) 514-7612

ISSUED:
BIDS & PERMITS
06/24/2022

DRAWN T.J.F.
CHECKED T.J.F.
APPROVED T.J.F.
SEAL
CONTRACT

DO NOT SCALE
PRINTS - USE
FIGURED
DIMENSIONS ONLY

JOB NO.
T2021024

SHEET
E.1

34 GREENFIELD
OFFICE

Occupant
 15526 W 12 MILE RD
 SOUTHFIELD MI 48076 3008

Occupant
 4100 12 MILE RD
 BERKLEY MI 48072 3177

JESSICA C STURM
 JAMES W SCHOFIELD
 3577 ELLWOOD AVE
 BERKLEY MI 48072 3119

K & C DONUTS INC
 37102 TURNBURY DR
 LIVONIA MI 48152 4021

A & W OF BERKLEY
 3830 RAVENA AVE
 ROYAL OAK MI 48073 6440

JAMES R PETERS
 SHANNON J PETERS
 3611 ELLWOOD AVE
 BERKLEY MI 48072 3120

MARK A PENXA
 3446 ELLWOOD AVE
 BERKLEY MI 48072 1130

JACOB LEIDER
 JEFFREY S LEIDER
 3446 THOMAS AVE
 BERKLEY MI 48072 1142

JAMES DRAIN
 3560 GREENFIELD RD
 BERKLEY MI 48072 3132

BRIAN D GIFFORD
 3541 THOMAS AVE
 BERKLEY MI 48072 3163

COUNTY OF OAKLAND
 3338 COOLIDGE HWY
 BERKLEY MI 48072 1636

Occupant
 3612 GREENFIELD RD
 BERKLEY MI 48072 3133

ELIZABETH LUCKER
 MARY MACHEN
 3462 ELLWOOD AVE
 BERKLEY MI 48072 1130

ALCO GLASS & MIRROR INC.
 4165 12 MILE RD
 BERKLEY MI 48072 1121

DALE MORRIS
 3279 PRAIRIE
 ROYAL OAK MI 48073

Occupant
 3461 THOMAS AVE
 BERKLEY MI 48072 1142

RONNIE JAMIL
 4138 12 MILE RD
 BERKLEY MI 48072 1122

NATALIA NEMTSEVA
 3596 GREENFIELD RD
 BERKLEY MI 48072 3132

3461 THOMAS AVE LLC
 5836 TROTTER LN
 WEST BLOOMFIELD MI 48322 1835

Occupant
 3462 GREENFIELD RD
 BERKLEY MI 48072

Occupant
 29131 GREENFIELD RD
 SOUTHFIELD MI 48076 6831

Occupant
 4141 12 MILE RD
 BERKLEY MI 48072 1121

NORTH GREEN TRUST
 1359 DAVIS AVE
 BIRMINGHAM MI 48009 2075

ABRO PLAZA SOUTHFIELD LLC
 3807 BEECHCREST
 ROCHESTER HILLS MI 48309 3595

DONALD F MOORE
 1900 HICKORY VALLEY RD
 MILFORD MI 48380 4278

Occupant
 4129 12 MILE RD
 BERKLEY MI 48072 1121

LINDA R CRUMBLEY
 3586 ELLWOOD AVE
 BERKLEY MI 48072 3117

WILLIAM SEAMAN
 PHYLLIS D YOUNG
 3461 ELLWOOD AVE
 BERKLEY MI 48072 1129

CALVIN KASSAB
 6895 ARLINGTON DR
 WEST BLOOMFIELD MI 48322 2716

DAVID MILLER
 LINDSAY MILLER
 3523 THOMAS AVE
 BERKLEY MI 48072 3163



JAMES REED
3559 ELLWOOD AVE
BERKLEY MI 48072 3119

Occupant
29111 GREENFIELD RD
SOUTHFIELD MI 48076 6831

Occupant
29069 GREENFIELD RD
SOUTHFIELD MI 48076 2225

TREVOR JOHN GAVAN
3505 THOMAS AVE
BERKLEY MI 48072 3163

ABRO PLAZA SOUTHFIELD LLC
3807 BEECHCREST
ROCHESTER HILLS MI 48309 3595

TIM DONUT US INC
PO BOX 460389
HOUSTON TX 77056 8389

EDWARD SOSNOSKI JR
3493 THOMAS AVE
BERKLEY MI 48072 1142

EILEEN KRUSE
3541 ELLWOOD AVE
BERKLEY MI 48072 3119

JARRETT SANDERS
OLIVIA SANDERS
3493 ELLWOOD AVE
BERKLEY MI 48072 1128

Occupant
3535 ELLWOOD AVE
BERKLEY MI 48072 3119

Occupant
3510 GREENFIELD RD
BERKLEY MI 48072 3132

ELIZABETH GLOVER
3506 ELLWOOD AVE
BERKLEY MI 48072 3117

CRAIG PEARCE
47335 ANCHOR DR
MACOMB MI 48044 5404

GREENFIELD-BERKLEY LLC
21170 W 8 MILE RD STE 200
SOUTHFIELD MI 48076 6800

BROOKE KELTER
3477 THOMAS AVE
BERKLEY MI 48072 1142

DEVAN SHAMO
3524 ELLWOOD AVE
BERKLEY MI 48072 3117

MARY SMITH
3478 ELLWOOD AVE
BERKLEY MI 48072 1130

Occupant
4150 12 MILE RD
BERKLEY MI 48072 1122

MICHAEL C MOERMAN
3477 ELLWOOD AVE
BERKLEY MI 48072 1128

Occupant
4129 12 MILE RD
BERKLEY MI 48072 1121

RONNIE JAMIL
WASIM JAMIL
4136 12 MILE RD
BERKLEY MI 48072 1122

BENJAMIN HIRCHE
3540 ELLWOOD AVE
BERKLEY MI 48072 3117

BATOOL KASSAB
EXPRESS COLLISION
21470 COOLIDGE HWY
OAK PARK MI 48237 3267

Occupant
15556 W 12 MILE RD
SOUTHFIELD MI 48076 3008

Occupant
29095 GREENFIELD RD
SOUTHFIELD MI 48076 2225

Occupant
3494 ELLWOOD AVE
BERKLEY MI 48072 1130

ABRO ELEVEN PROPERTY LLC
3807 BEECHCREST
ROCHESTER MI 48309 3595

ABRO PLAZA SOUTHFIELD LLC
3807 BEECHCREST
ROCHESTER HILLS MI 48309 3595

RAMZI H AJO SR
87 PANAMA DR
WATERFORD MI 48327 3666

GEVALIN GOGAJ
4162 12 MILE RD
BERKLEY MI 48072 1122



AMANDA PRESTON
3540 GREENFIELD RD
BERKLEY MI 48072 3132

Occupant
3560 ELLWOOD AVE
BERKLEY MI 48072 3117

Occupant
4111 12 MILE RD
BERKLEY MI 48072 1121

LAURA LAZAR
ISRAEL LAZAR
26497 HEREFORD DR
HUNTINGTON WOODS MI 48070 1651

ROBERT E JONES
CARLA M JONES
41870 CHATTMAN DR
NOVI MI 48375 4225

OPAL FAIR
3605 ELLWOOD AVE
BERKLEY MI 48072 3119

Occupant
4105 12 MILE RD
BERKLEY MI 48072 1121

Occupant
4135 12 MILE RD
BERKLEY MI 48072 1121

ROBERT E JONES
CARLA M JONES
41870 CHATTMAN DR
NOVI MI 48375 4225

DONALD F MOORE
1800 HICKORY VALLEY RD
MILFORD MI 48380 4278

Occupant
28801 GREENFIELD RD
SOUTHFIELD MI 48076 7120

Occupant
4075 12 MILE RD
BERKLEY MI 48072 1119

28801 GREENFIELD ROAD HOLDINGS LLC
900 19TH ST NW FL 8
WASHINGTON DC 20008 2106

GEZIM PLLUMAJ
LIZE PLLUMAJ
42820 SILVERWOOD DR
STERLING HEIGHTS MI 48314

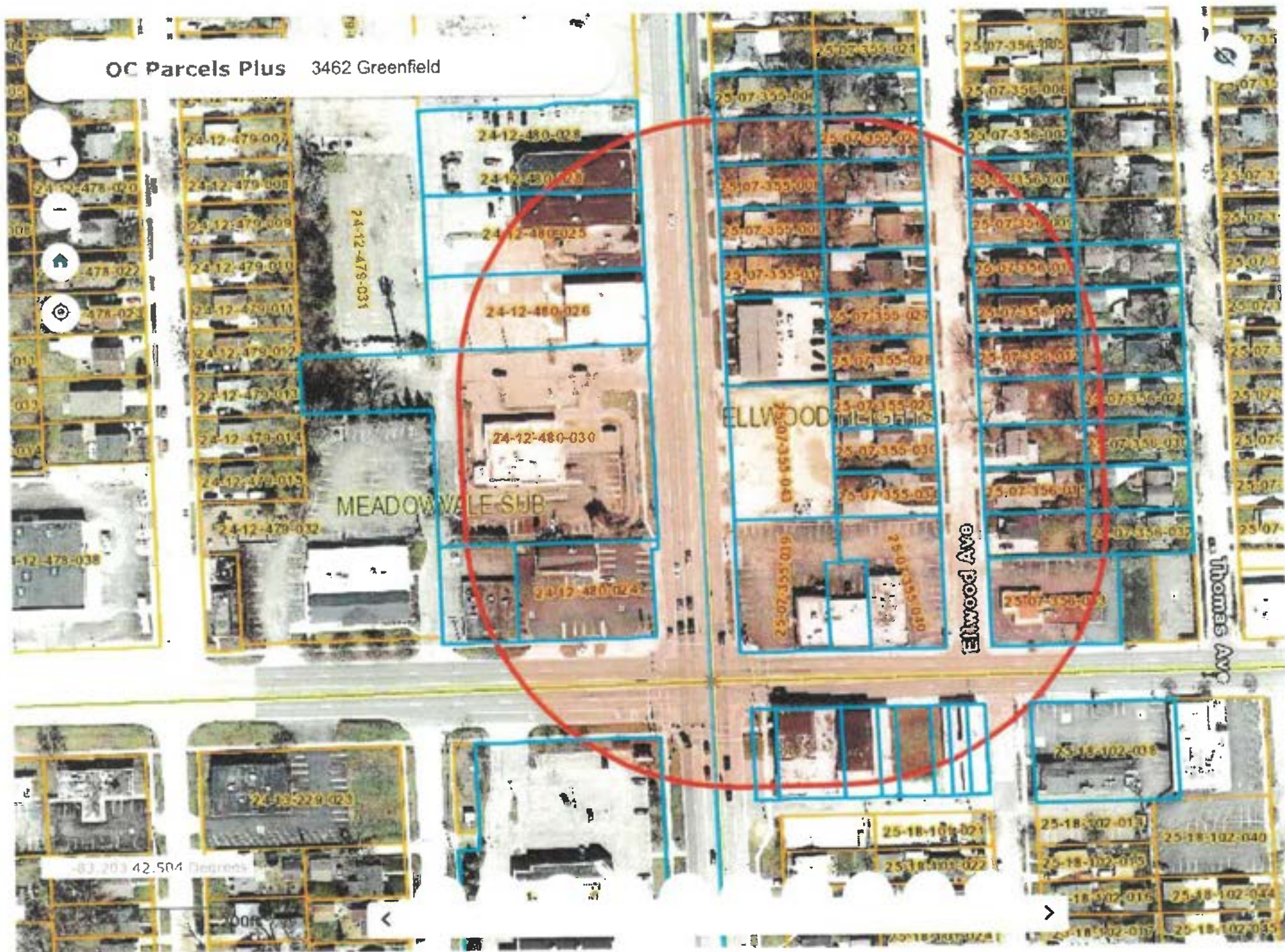
JOSEPH REMEKA
3578 ELLWOOD AVE
BERKLEY MI 48072 3117

Prime Management
1359 Davis Ave
Birmingham, MI 48009

DENNIS W PETERSON
3678 GREENFIELD RD
BERKLEY MI 48072 3132

STEVEN CARSON
JULIE I SPECTOR
3595 ELLWOOD AVE
BERKLEY MI 48072 3119

OC Parcels Plus 3462 Greenfield





THE CITY OF BERKLEY
Community Development Department
3338 Coolidge, Berkley, Michigan 48072
(248) 658-3320

NOTICE OF PUBLIC MEETING
BERKLEY PLANNING COMMISSION

NOTICE IS HEREBY GIVEN, in accordance with Section 3.09 of Chapter 138 of the Berkley City Code, that there will be a meeting of the Berkley Planning Commission to be held at the City of Berkley in the Council Chambers, 3338 Coolidge Hwy, Berkley Michigan, on **Tuesday, September 23, 2025** at 7:00pm, or as near thereto as the matter may be reached.

APPLICATION PSU-04-25

Blue RX, LLC is requesting Special Land Use approval to occupy a tenant space for retail pharmacy use at 3462 Greenfield Rd. – Parcel 25-07-355-043 in the Residential Corridor District.

The complete application information is available for review at <https://berkleymi.gov/community-development/development-projects>.

Comments regarding the request may be made in person on the night of the meeting or may be made in writing. All written comments must be submitted to the Community Development Department or emailed to planning@berkleymi.gov before 5:00p.m on the date of the Planning Commission meeting.

You can watch the meeting: <https://www.youtube.com/user/cityofberkley>

KRISTEN KAPELANSKI
COMMUNITY DEVELOPMENT DIRECTOR

THE CITY OF BERKLEY
Community Development Department
3338 Coolidge, Berkley, Michigan 48072
(248) 658-3320

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KRISTEN KAPELANSKI
COMMUNITY DEVELOPMENT DIRECTOR

Publish Once:
Royal Oak Tribune
Friday, September 5, 2025



CITY OF BERKLEY

COMMUNITY DEVELOPMENT

3338 COOLIDGE HWY, BERKLEY, MICHIGAN 48072

MEMORANDUM

To: Blue RX, LLC, Applicant

From: Kristen Kapelanski, Community Development Director

Subject: PSU-04-25: 3462 Greenfield Rd.

Date: August 29, 2025

The applicant has requested to operate a pharmacy in a tenant space at the recently developed office building at 3462 Greenfield Rd.

Background

The current zoning of the parcel is Residential Corridor. Pharmacy uses are considered retail (no drive-through allowed) in the Zoning Ordinance use classifications. The site type (medium) and street type (corridor) allow retail uses as special land uses in the Residential Corridor District.

The subject property was recently developed under the standards of the previous Zoning Ordinance.

Special Land Use Standards

Special land uses require the approval of the City Council after a recommendation from the Planning Commission. Standards listed in the ordinance for consideration of a special land use request are identified below. Staff comments are italicized.

- **Compatibility with Adjacent Uses:** The special land use must be designed and constructed in a manner harmonious with the character of adjacent properties and the surrounding area, as compared to the impacts of permitted uses. *The impacts from a small pharmacy use would not be greatly different from those of a small office tenant, which was originally approved for the site. Additionally, adequate buffering has been provided from the residential uses to the rear and the site fronts a major thoroughfare.*
 - **Compatibility with the Master Plan:** The proposed special land use must be compatible and in accordance with the goals and objectives of the City of Berkley Master Plan and any associated sub-area and corridor plans, including the Downtown Master Plan. *While the master plan recommends attached and multi-family residential uses for this area of the City, it is important to note that the site was recently approved for offices (under the old zoning ordinance) and office and retail uses exist along this corridor.*
 - **Traffic Impact:** The proposed special land use must be located and designed in a manner that will minimize the impact of traffic, taking into consideration the following: pedestrian access and safety; vehicle trip generation; types of traffic; access location and design; loading and unloading;
-

circulation; parking design; street and bridge capacity; and traffic operations at nearby intersections and access points. Efforts must be made to ensure that multiple transportation modes are safely and effectively accommodated in an effort to provide alternate modes of access and alleviate vehicular traffic congestion. *The site fronts a major thoroughfare and traffic impacts from a pharmacy retail space will not lead to any concerns.*

- **Impact on Public Services:** The proposed special land use must be adequately served by essential public facilities and services, such as streets, pedestrian or bicycle facilities, police and fire protection, drainage systems, refuse disposal, water and sewage facilities and schools. Such services must be provided and accommodated without an unreasonable public burden. *This is a recently developed site served by public utilities and with stormwater detention.*
- **Compliance with Zoning Standards:** The proposed special land use must be designed, constructed, operated and maintained to meet the stated intent of the zoning district and must comply with applicable ordinance standards. *The applicant is intending to occupy this recently developed site as is. The site already contains buffering, landscaping and lighting that match or closely match current Zoning Ordinance standards. No alterations or additions are required to meet the intent of the Zoning Ordinance.*
- **Impact on the Overall Environment:** The proposed special land use must not unreasonably impact the quality of the natural features and the environment in comparison to the impacts associated with typical permitted uses. *The applicant is proposing to use an already developed site and no new environmental impacts are proposed.*
- **Special Land Use Approval Specific Requirements.** The general standards and requirements of this section are basic to all uses authorized by special land use approval. The specific and detailed requirements relating to particular uses and area requirements must also be satisfied for those uses.
- **Additional Factors:** The following factors must also be considered by the Planning Commission when reviewing a special land use request.
 - The nature and character of the activities, processes, materials, equipment or conditions or operation, either specifically or typically associated with the use.
 - Vehicular circulation and parking areas.
 - Outdoor activity, storage and work areas. *No outdoor storage or work areas are proposed.*
 - Hours of operation. *The applicant should confirm the hours of operation.*
 - Production of traffic, noise vibration, smoke, fumes, odors, dust, glare, light or other public nuisances.

General Zoning Ordinance Standards

- **Non-conforming Site Standards:** Per Article 16 of the Zoning Ordinance, non-conforming lots and structures may be used for a permitted or special land use in the applicable district provided the non-conformity is not increased. Any additions or other site changes would need to comply with current zoning ordinance standards. The applicant is not proposing any site changes.

- **Special Land Use Considerations:** Since a retail use (pharmacy) is considered a special land use in the Residential Corridor District, the Planning Commission and City Council have some discretion in determining if the site layout (as-is) meets the intent of the Zoning Ordinance and Master Plan. Given that the site was recently developed and provides greenspace and complies with lighting standards, no additional site updates are recommended by staff.
- **Parking Requirements:** The site was originally envisioned with professional and medical office tenants in mind and was parked per the parking standards in the previous Zoning Ordinance. This would be considered part of the non-conformities of the site. Since retail use is proposed (which is a special land use) and the site was not previously considered a retail site in terms of parking, parking requirements for retail use would apply and can be considered. The current Zoning Ordinance includes parking standards for general retail (which would be used for pharmacy) and office uses. The parking standards for general retail are less than what is required for office uses and the standard for office uses in general has been decreased when compared to the previous Zoning Ordinance requirements. Adequate parking is provided to accommodate this use.

Cc: Kim Anderson, Zoning Administrator