

PLANNING COMMISSION SPECIAL MEETING

TUESDAY, OCTOBER 27, 2020 Electronic Meeting - 6:30 P.M. 201 West Ash Street, Mason MI

AGENDA

- 1. CALL TO ORDER
- 2. ROLL CALL
- 3. PUBLIC COMMENT
- 4. APPROVAL OF MINUTES
 - A. Approve Minutes of Regular Planning Commission Meeting October 13, 2020

5. UNFINISHED BUSINESS

- A. City Council Resolution 2020-27 recognizing the Mason Planning Commission's 75th Anniversary
- B. Masterplan and CIP update from staff

6. NEW BUSINESS

- A. Resolution 2020-07: Scott Bell, AICP, Lapham Associates on behalf of Paul Davis Corporation, has requested an amendment to a previously approved Final Site Plan for new construction of a building to reduce the footprint to 22,000 sq. ft. from the originally proposed 27,000 sq. ft. The building is located at 1155 Temple St., parcel 33-19-10-09-400-012, City of Mason, Ingham Co.
- B. Electronic Meetings New procedures adopted by City Council October 19, 2020

7. LIAISON REPORT

- A. City Manager's Report
- 8. ADJOURN



PLANNING COMMISSION ELECTRONIC MEETING INFORMATION

PLEASE TAKE NOTICE that the meeting of the City of Mason Planning Commission scheduled for **October 27**, **2020**, **starting at 6:30 p.m.**, will be conducted virtually (online and/or by phone) due to health concerns surrounding Coronavirus/COVID-19.

The City of Mason will be using Zoom to host this meeting. A free account is required to use Zoom. Please take the time to download and set-up Zoom prior to the meeting. Zoom may be accessed here: https://zoom.us/

MEETING INFORMATION:

Topic: Planning Commission Meeting

Time: October 27, 2020 at 6:30 p.m. Eastern Time

Meeting ID: 895 5206 9050 Passcode: MASON2020

Video Conference Information: Link to join online:

https://us02web.zoom.us/j/89552069050?pwd=NGo0QkpgaGVUbTRjdIRYOVFRODJXUT09

- You may also join a meeting without the link by going to join.zoom.us on any browser and entering the Meeting ID identified above.
- Phone Information:

Dial (312) 626 6799 (Enter meeting ID when prompted.)

To comply with the **Americans with Disabilities Act (ADA)**, any citizen requesting accommodation to attend this meeting, and/or to obtain this notice in alternate formats, please contact Michigan Relay at https://hamiltonrelay.com/michigan/index.html.

Resources: More Questions? Please Contact our Customer Service Desk at 517.676.9155.

Note on Public Comments:

If you would like to provide comments beforehand, please send those comments in an email by 3:00 pm on the day of the meeting to marciah@mason.mi.us. They will be read aloud by Chair.

If you would like to speak during the meeting, you can send your name and address to marciah@mason.mi.us by 3:00 pm on the day of the meeting. You can still speak at the meeting if you do not notify us in advance.



General Procedures Related to Electronic Meetings

As required under Public Act 228 of 2020, the following procedures outline the accommodation of meetings held, in whole or in part, electronically by City Council or a City Board or City Commission. Additional procedures will be adopted at a later date, by the Council, to accommodate members that are eligible and cannot attend in person for meetings held on or after January 1, 2021.

Electronic Meeting Procedures for City Council, City Board or City Commission Members

- All attendees including City Council, City Board or City Commission Members will enter the meeting with a muted microphone.
- The meeting Chair's microphone will be unmuted to call the meeting to order.
- During initial roll call, each member will announce the physical location they are participating from by stating
 the county, city, township, or village and state which they are attending the meeting from.
- The meeting Chair will call for a motion and members will signify making a motion by either voice or the "Raise Hand" feature. The same process will be followed for a second to a motion. The meeting Chair will then acknowledge which member made the motion and which member seconded the motion.
- The meeting Chair will then ask if there is any discussion on the motion. Members will indicate a desire to discuss by either voice or the "Raise Hand" feature. The meeting Chair will then acknowledge the particular member granted the floor for discussion by name.
- Votes shall be taken by roll call.

Electronic Meeting Procedures for Public

- All public participants entering the meeting will automatically be muted upon entering.
- All public participants should either turn off or leave off their video camera. Only City Council, City Board or
 City Commission Members will be allowed to have their video cameras on. Your video camera will be turned
 off for you if you do not turn it off yourself.
- Public rules are displayed in the "Chat" Feature; however, the chat feature will not be turned on to allow for chat comments to be added.
- Public comment:
 - o Public only will be allowed to address the members during Public Comments
 - o Public is allowed three (3) minutes to speak.
 - o Public must state the name and address slowly and clearly before they start to address the Council.
 - o Public comments will be addressed in the following order:
 - 1. Those provided the day of the meeting and sent to the designated person in the meeting instructions by a certain time will be read during the meeting.
 - Those using the Video Conference Portion (not calling on a telephone) will be asked to use the "Raise Your Hand" Feature in Zoom. The meeting Chair will call on individuals to speak and they will be unmuted at that time.
 - 3. Participants that are available only by phone, after the meeting Chair requests.
- Inappropriate or disruptive participants will not be allowed or tolerated and will be removed from the meeting.
- Due to the electronic nature of this type of meeting the meeting Chair, at his discretion, may adjourn the
 meeting with or without notice for any reason. Every attempt will be made to remain connected to the
 meeting, however two examples of abrupt adjournment may be computer connectivity issues or lack of
 appropriate participation.

ADDITIONAL ZOOM INSTRUCTIONS FOR PARTICIPANTS:

PHONE INSTRUCTIONS - to join the conference by phone

- 1. On your phone, dial the teleconferencing number provided above.
- 2. Enter the **Meeting ID number** (provide with agenda) when prompted using your touch- tone (DTMF) keypad.

VIDEOCONFERENCE INSTRUCTIONS – to watch and speak, but not to be seen

Before a videoconference:

- 1. You will need a computer, tablet, or smartphone with speaker or headphones. You will have the opportunity to check your audio immediately upon joining a meeting.
- 2. Details, phone numbers, and links to videoconference or conference call is provided above. The details include a link to "Join via computer" as well as phone numbers for a conference call option. It will also include the 9-digit Meeting ID.

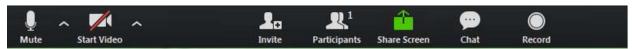
To join the videoconference:

- 1. At the start time of your meeting, enter the link to join via computer. You may be instructed to download the Zoom application.
- 2. You have an opportunity to test your audio at this point by clicking on "Test Computer Audio." Once you are satisfied that your audio works, click on "Join audio by computer."

If you are having trouble hearing the meeting, you can join via telephone while remaining on the video conference:

- 1. On your phone, dial the teleconferencing number provided above.
- 2. Enter the **Meeting ID number** when prompted using your touch- tone (DTMF) keypad.
- 3. If you have already joined the meeting via computer, you will have the option to enter your 2- digit participant ID to be associated with your computer.

Participant controls in the lower left corner of the Zoom screen:



Using the icons in the lower left corner of the Zoom screen, you can:

- Mute/Unmute your microphone (far left)
- Turn on/off camera ("Start/Stop Video")
- Invite other participants
- View Participant list opens a pop-out screen that includes a "Raise Hand" icon that you may use to raise a virtual hand during Call to the Public
- Change your screen name that is seen in the participant list and video window

Somewhere (usually upper right corner on your computer screen) on your Zoom screen you will also see a choice to toggle between "speaker" and "gallery" view. "Speaker view" shows the active speaker. "Gallery view" tiles all of the meeting participants.

CITY OF MASON PLANNING COMMISSION MEETING MINUTES OF OCTOBER 13, 2020 DRAFT

Sabbadin called the meeting to order at 6:30 p.m. in the 1st floor Sycamore Room at 201 West Ash Street, Mason, MI.

Present: Barna, Howe, Perrault, Sabbadin, Vercher, Waxman, Wren

Absent: Droscha (notice given), Shattuck (notice given)

Also Present: Elizabeth A. Hude, AICP, Community Development Director, Deb Stuart, City Manager

Sabbadin turned the meeting over to Vice-Chair Waxman to lead.

PUBLIC COMMENT

None.

APPROVAL OF MINUTES

MOTION by Vercher second by Barna, to approve the Planning Commission meeting minutes from September 15, 2020.

Yes (7) Barna, Howe, Perrault, Sabbadin, Vercher, Waxman, Wren No (0)
Absent (2) Droscha, Shattuck

MOTION PASSED

UNFINISHED BUSINESS

A. October is National Planning month and the Mason Planning Commission's 75th Anniversary

Director Hude was able to retrieve some of the ordinances that mention the 1945 Planning Commission and she is working on a draft Resolution for City Council to recognize the Planning Commission. She also noted that through the upcoming Masterplan process the 75 years of the Planning Commission can be mentioned.

Waxman noted that he contacted State Senator Curtis Hertel and was told to send some language to their office. Waxman said to copy the Resolution provided to City Council over to Senator Hertel's office and he will do a Resolution in the Senate.

NEW BUSINESS

A. Resolution 2020-02: Capital Improvement Plan – Recommendation to City Council

Waxman referenced the draft copy of the Capital Improvement Plan in the packet with changes due to COVID.

Director Hude acknowledged City Manager Deb Stuart's presence to answer any questions that may come

up. Hude reiterated the change in the Masterplan budget from phasing in three years to two years. The first two phases would meld together and be \$125,000 and the second year would be the zoning updates and include the Cedar St. and Kipp Rd. corridor studies.

City Manager Stuart stated there was one error that needed to be corrected before it was recommended to Council under Building, Property, and Equipment. Item 2019-B18 IT Connectivity to City Facilities, which is located on page 61 of the packet, was moved to a contract service so it will be removed in the CIP.

MOTION by Vercher second by Howe, to amend the CIP to remove Project 2018-B19

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Yes (7) Barna, Howe, Perrault, Sabbadin, Vercher, Waxman, Wren
No (0)
Absent (2) Droscha, Shattuck
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MOTION PASSED

MOTION by Barna second by Vercher, to approve Resolution 2020-02.

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Yes (7) Barna, Howe, Perrault, Sabbadin, Vercher, Waxman, Wren
No (0)
Absent (2) Droscha, Shattuck
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MOTION PASSED

B. Special Meeting Request – 1155 Temple Street, Paul Davis, Site Plan Amendment. *Staff to discuss*.

Director Hude reminded the Commissioners that Paul Davis applied for an extension of their Site Plan and Special Use Permit at the last meeting. They were working on an amendment to reduce the size of their building and the Planning Commission needs to review. Hude would like to schedule a special meeting to accommodate their request. Waxman asked if fourteen days to give notice was necessary. Hude said that since the Special Use Permit was extended a Public Hearing would not be required. The Commissioners agreed to a Special Meeting held Tuesday, October 27, at 6:30pm via Zoom.

LIAISON REPORT

City Manager Stuart stated that the City is constantly adapting to challenges related to COVID and that creates its own unique situation with regards to staffing levels. They are doing their best to keep sustained Customer Service time and Elizabeth and her team are working tirelessly to keep permits and requests moving as well as putting out fires along the way but City staff is restricted just like others are during this time. Waxman acknowledged the fantastic job in leadership that City Manager Stuart has provided throughout the COVID situation.

ADJOURN

The meeting adjourned at approximately 6:43 p.m.

Introduced: Schaffer Second: Vogel

CITY OF MASON

CITY COUNCIL RESOLUTION NO. 2020-27

HONORING CITY OF MASON PLANNING COMMISSION DURING NATIONAL PLANNING MONTH IN OCTOBER AND THE COMMISSION'S 75TH ANNIVERSARY

OCTOBER 19, 2020

WHEREAS, in 1945 the Michigan County Planning Act and the Michigan Regional Planning Commission Act was signed into law; and

WHEREAS, the City of Mason Planning Commission was first established by Ordinance No. 38, adopted November 5, 1945; and

WHEREAS, City of Mason Planning Commission carries out their duties under Part 2, Chapter 50 of the City of Mason Ordinance to plan for and promote the comfort, convenience and welfare of the City of Mason; and

WHEREAS, the residents of Mason value the dedicated and hardworking men and women who deliver valuable government service to the City; and

WHEREAS, City of Mason Planning Commission deserve our thanks and appreciation throughout the year.

BE IT HEREBY RESOLVED, that the Mason City Council, on behalf of the residents of the City of Mason, expresses deep gratitude for the commitment shown by the City of Mason Planning Commission and honors Planning Commissioners as part of National Planning Month in October and for 75 years of service in 2020.

YES: (7) Brown, Droscha, Ferris, Madden, Schaffer, Vogel, Whipple

NO: (0) ABSENT: (0)

CLERK'S CERTIFICATION: I hereby certify that the foregoing is a true and accurate copy of a resolution adopted by the City Council at its regular meeting held Monday, October 19, 2020, the original of which is part of the meeting minutes.

Sarah J. Jarvis, City Clerk

City of Mason

Ingham County, Michigan



City of Mason Planning Commission

Staff Report

TO: Planning Commission

FROM: Elizabeth A. Hude, AICP, Community Development Director SUBJECT: Amendment to Final Site Plan – Paul Davis Corporation

DATE: October 22, 2020

Scott E. Bell, AICP, Lapham Associates, on behalf of Paul Davis Corporation, has submitted a request for approval of an amendment to a previously approved Special Use Permit and Final Site Plan for new construction of a building to reduce the footprint to 22,000 sq. ft. (-5,000 sq. ft.) from the originally proposed 27,000 sq. ft. The building will contain offices and storage related to their business of home damage restoration services, on five acres of property located at 1155 Temple St, the northeast corner of Temple Street and Kipp Road, parcel 33-19-10-09-400-012, City of Mason, Ingham Co.

This is shown on the following plans and documents:

- Application with letter received September 30, 2020
- Schedule and Cost Letter dated October 13, 2020
- Ingham County Road Department Permit
- Sheets C-1-13, prepared by Paul Davis Corporation, dated September 13, 2019, and last revised September 15, 2020.
- Sheets A-1-2, prepared by Seidell Architects, LLC, dated August 7, 2020.

CONSTRUCTION SCHEDULE

The project was originally expected to begin in the fall of 2019. The revised schedule is to begin now in the fall of 2020, see attached.

LAND USE AND ZONING

The development is proposed on a parcel purchased from the City of Mason and zoned M-1: Light Manufacturing District. Section 94-222 states that any use permitted in this district requires site plan review and Section 94-141(7) states that any use permitted in the district involving one or more structures that occupy, either individually or collectively, more than 15,000 square feet of gross floor area requires a Special Use Permit. Section 94-191(e) states that a preliminary site plan must be submitted with the application for a Special Use Permit.

Resolution 2019-10 for a preliminary site plan was approved with conditions on September 10, 2019, and Resolution 2019-14 for a Special Use Permit and Final Site Plan and was approved with conditions on October 15, 2019. Resolution 2020-06 for a six-month extension of the Special Use Permit and a twelve-month extension of the final site plan was approved on September 15, 2020.

Staff believes the amended Final Site Plan represents a material change and hereby refers the matter to the Planning Commission in accordance with Sec. 94-228(b) which states that an amendment which, in the opinion

of the zoning official, represents a material change shall be referred to the planning commission for review and approval if the planning commission exercised original approval authority, or may be referred to the planning commission at the sole discretion of the zoning official.

If approved, the amended Final Site Plan will become part of the previously approved Special Use Permit per Sec. 94-191(b)(3) ... any subsequent authorized modification to the site plan shall become part of the special use permit and shall be enforceable as such.

The surrounding land uses and zoning are as follows:

	Current Land Use	Zoning	Future Land Use
North	Agriculture	M-1: Light Manufacturing District	Mixed Use
East	Agriculture	M-1: Light Manufacturing District	Mixed Use
South	Commercial	B-2 (Highway Service District)	Mixed Use
West	Agriculture	M-1: Light Manufacturing District	Mixed Use

REVIEW OF SUBMITTAL

All applications for final site plan review and approval shall comply with the basic required submittal standards of subsection 94-225(d)(1). The additional required submittal standards of subsection 94-226 shall be satisfied by any application for final site plan review and approval.

The proposed amendment to the Final Site Plan offers detailed information to help staff determine if the city's ordinances have been met. The vision for future development in this area is discussed in several sections of the City's Master Plan, including but not limited to, page 2-6 Industrial Development, and page 3-7 item 3-Airport.

During Preliminary Site Plan Review, several concerns were noted. In reviewing the current submittal, it appears that all conditions have been addressed and that the Amended Final Site Plan meets the necessary requirements as noted below.

Dept/Agency	Previous Comment	Resolved?
Police	No concerns	NA
Fire	Move the Fire Department Connection (FDC) to the west side of the building	YES
	behind the parking bump-out to ensure access is not obstructed by a parked car.	
	Fire hydrant locations are ok.	
Building	Building permit required. Per the Michigan Building Code, the Architect is	YES - BUILDING
	responsible for identifying all required Special Inspections from Chapter 17 and	PERMIT
	submitting them along with the credentials of the testing agency for the Building	CURRENTLY IN
	Official to approve.	REVIEW
City Engineer	Sidewalk at curb of Kipp/Temple should face west; no specific action requested,	YES
	but concern regarding steep grade at southeast corner of parking area and if that	
	will impact soil erosion or snow storage.	
	Future deferred parking spaces overlap dumpster area; consider revising on future	
	site plan amendment if spaces are to be constructed.	
	Question – has the applicant considered switching the vestibule (100) with office	
	(121) so that the entrance is closer to the parking spaces on Temple Street? No	
	requirement to do so, observation only.	

Water	Supports City Engineer comments.	YES
		SEE UPDATE – MEMO DATED OCT 21-20 AND
		TAP-IN FEE ESTIMATE
Ingham	No new comments received since those sent during Preliminary SPR, letter dated	YES - SOIL
County Drain	September 9, 1019.	EROSION PERMIT
Commissioner		IN REVIEW
Ingham	E-mail received October 4, 2019, attached.	ROW PERMIT
County Road		ISSUED
Commission		

Table 1: Submittal Standards

Ordinance	Status	Note
§94-225(d)(1) Basic required submittal standards	M/R	94-225 (d)(1)h9: Signage - See Ch 58 for requirements, separate sign permits will be required.
§94-225(d)(2) Additional required submittal standards	М	A detailed cost estimate has been provided.
§94-225(d)(3) Supplemental analysis and information.	TBD	
M = Meets requirements; I =	Informatio	on Needed; R = Recommendation

§94-227. Standards for site plan review and approval. In reviewing an application for site plan review and approval the following standards shall apply:

STATUS/NOTE	REQUIREMENT			
*M = Meets requirements; I = Information Needed; R = Recommendation				
M	(1) The site shall be developed so that all elements shall be harmoniously and efficiently			
	organized in relation to the size, shape, type and topography of the site and surrounding			
	property.			
M	(2) The site shall be developed so as not to impede the normal and orderly development,			
	improvement, and use of surrounding property for uses permitted in this chapter.			
M	(3) All buildings or groups of buildings shall be arranged to permit emergency vehicle access			
	by some practical means to all sites.			
M – Access on	(4) Every structure or dwelling unit shall have direct access to a public street or indirect access			
Temple St., a public	to a public street via an approved dedicated private street.			
street.				
M	(5) Appropriate measures shall be taken to ensure that the addition or removal of surface			
	waters will not adversely affect neighboring properties, that controls are in place to minimize			
	sedimentation and erosion, and that topographic alterations are minimized to accommodate			
	storm water management.			
M	(6) Provisions shall be made for the construction of storm sewer facilities including grading,			
	gutters, piping, on-site storage, and treatment of turf as required to handle stormwater and			
	prevent erosion.			
M	(7) Secondary containment for above ground areas where hazardous substances are stored or			

used shall be provided as required by the city fire chief.			
(8) Exterior lighting shall be designed and located so that the source of illumination is directed			
away from adjacent properties, the intensity of lighting is the minimum necessary, and the			
direction of lighting is downward as much as is possible and appropriate for the project.			
(9) All loading and unloading areas, outside storage areas, and refuse receptacles shall be			
screened from casual view from the public rights-of-way and adjoining land uses.			
(10) Site plans shall meet the driveway, traffic safety, and parking standards of the city in such			
manner as necessary to address the following:			
a. Safe and efficient vehicular and non-vehicular circulation, including parking areas, non-			
motorized linkages to abutting parcels, uses, sidewalks, and trails.			
b. Shared driveways and service drives.			
c. Adequate and properly located utilities.			
(11) Provisions shall be made for proposed common areas and public features to be			
reasonably maintained.			
(12) The site plan submittal shall demonstrate compliance with all applicable requirements of			
this chapter, chapters 58 and 74, the building code, and county, state, and federal law.			

Comments:

94-225 (d)(1)h9: Signage - See Ch 58 for requirements, separate sign permits will be required.

94-292: Off-Street Parking:

74 spaces are required, three (3) of which are to meet the requirements of the Americans with Disabilities Act (ADA). The applicant is proposing to build 54 spaces now, deferring 20 spaces which are indicated as future deferred on the north of the property. The applicant was previously granted a waiver to reduce parking space size – where more than 40 spaces required, 20% can be 180 sq. ft.; and to defer parking for future. The plan shows 15 of the required 74 spaces at the reduced size, which is 20%.

94-241: Landscaping Standards

The landscape plan has been revised and appears to meet the requirements of this section entirely and no waivers have been requested.

STAFF RECOMMENDATION:

Staff finds that the proposed site plan amendments appear to meet the requirements for approval and offers the following motion for consideration:

MOTION

Motion to approve Resolution 2020-07.

Attachments:

- 1. Resolution 2020-07
- 2. Application
- 3. Plans

Introduced: Second:

CITY OF MASON PLANNING COMMISSION RESOLUTION No. 2020-07

A RESOLUTION GRANTING APPROVAL OF AN AMENDMENT TO A FINAL SITE PLAN FOR NEW CONSTRUCTION OF A 22,000 SQ. FT. BUILDING TO INCLUDE OFFICES AND STORAGE RELATED TO THE BUSINESS OF HOME DAMAGE RESTORATION SERVICES, ON FIVE ACRES OF PROPERTY LOCATED AT 1155 TEMPLE STREET, THE NORTHEAST CORNER OF TEMPLE STREET AND KIPP ROAD, PARCEL 33-19-10-09-400-012.

October 27, 2020

WHEREAS, a request has been received from Scott E. Bell, AICP, Lapham Associates, on behalf of Paul Davis Corporation, for approval of an amendment to a previously approved Final Site Plan for new construction of a 22,000 sq. ft. building to include offices and storage related to their business of home damage restoration services; and,

WHEREAS, the subject property contains five acres of land located at 1155 Temple Street, the northeast corner of Temple Street and Kipp Road, parcel 33-19-10-09-400-012; and,

WHEREAS, the proposal was shown on plans dated August 9, 2019, and last revised September 15, 2020; and

WHEREAS, the parcel is zoned M-1: Light Manufacturing District; and

WHEREAS, a site plan was previously approved in Resolution 2019-14 on October 15, 2019 and extended in Resolution 2020-06 for twelve-months on September 15, 2020; and

WHEREAS, Sec. 94-228(b) states that an amendment to a site plan which, in the opinion of the zoning official, represents a material change shall be referred to the planning commission for review and approval if the planning commission exercised original approval; and

WHEREAS, the amended Final Site Plan will become part of the previously approved Special Use Permit per Sec. 94-191(b)(3); and

WHEREAS, the Planning Commission has received, reviewed and accepts the staff report dated October 22, 2020 as findings of fact that, with the conditions listed herein, the plans will comply with the Final Site Plan Review Standards listed in Section 94-227; and

WHEREAS the Planning Commission further makes the following findings of fact:

- The Planning Commission finds parking in a front yard to be a critical component to the safety of operations on the site and approves parking in the front yard as shown on the plan; and
- The Planning finds that the applicant has demonstrated that the required amount of parking is excessive and waives the parking requirement to allow for a smaller parking area with an area dedicated to future parking spaces as shown on the plan; and

 The Planning Commission finds that the proposed parking meets the minimum requirement for spaces, the minimum requirement is greater than 40 spaces, making the site eligible to allow 20% of the parking spaces to measure 180 s.f. each.

NOW THEREFORE BE IT RESOLVED, that the City of Mason Planning Commission does hereby grant approval of an amendment to a previously approved Final Site Plan for new construction of a 22,000 sq. ft. building to include offices and storage related to their business of home damage restoration services on five acres of land located at 1155 Temple Street, the northeast corner of Temple Street and Kipp Road, parcel 33-19-10-09-400-012.

Yes () No (0) Absent (0)

CLERK'S CERTIFICATION: I hereby certify that the foregoing is a true and accurate copy of a resolution adopted by the City of Mason Planning Commission at a Special Meeting held Tuesday, October 27, 2020, the original of which is part of the City of Mason Planning Commission minutes.

Sarah J. Jarvis, Clerk City of Mason Ingham County, Michigan

Memorandum

To: Elizabeth Hude, Community Development Director

From: Michael Olson, Assistant City Manager/Director of Public Works

Subject: 1155 Temple – Plan Review

Date: October 21st, 2020



After reviewing the latest plans for 1155 Temple – Paul Davis, the water and stormwater items identified earlier in the review process have been address and we have no standing issues. The City of Mason Department of Public Works approve the components of the plans that pertain to the department's area of review as is.

Any deviations to the plans that have been approved by this memorandum will require additional review before proceeding.

CALCULATIONS FOR NEW WATER/SEWER SERVICE

PROPERTY ADDRESS: 1155 Temple

Water

3/4" 1,200.00 3/4 to 1.5" 3 3,600.00

Meter/yoke cost 620.69 Materials 18.00

New account fee 40.00 Meter Install 100.00

Sewer 2,300.00 Addl Reu's 0.00

Total Due 7,878.69



PERMIT APPLICATION

ZONING

	DEPARTMENT USE ONLY
Preliminary Site Plan Review	Application Received:
Final Site Plan Review	
Special Use Permit*	Tax ID:
Administrative Review	Fee:
cludes Preliminary Site Plan Review	Receipt #:
Applicant Information:	
Name:	
Organization:	
Address:	
	Facsimile Number:
	quest must be accompanied by a signed letter of authorization
from the owner.	, , , , , , , , , , , , , , , , , , , ,
Property Information:	
	Telephone Number:
Property Address:	
Legal Description: If in a subdivision: Subdivision N	Name: Lot Number:
If Metes and Bounds (can be provided on separate	e sheet):
APPLICA	ANT CERTIFICATION
y execution of this application, the person signing	represents that the information provided and the accompanying
ocumentation is, to the best of his/her knowledge, t	true and accurate. In addition, the person signing represents that
, -	of entry to City officials for the purpose of inspecting the premises
nd uses thereon to verify compliance with the te	erms and conditions of any Special Use Permit and/or Site Plan
oproval issued as a result of this application.	Date:

Requested Description:

Written Description: Ple	ease use this section	on to describ	e the use or uses proposed. Attach additional pages, if
necessary.			
Available Services			
Public Water ☐ Yes	□ No		Paved Road (Asphalt or Concrete) ☐ Yes ☐ No
Public Sanitary Sewer	l Yes □ No		Public Storm Sewer ☐ Yes ☐ No
Estimate the Following			
Traffic Generated			Total Employees
Population Increase			Employees in Peak Shift
House of Operation			Total Bldg. Area Proposed
	Day through		Parking Spaces Provided
Project Phasing			
	oleted in:	One Phase	□ Multiple Phases – Total No. of Phases:
			cts must be shown on the site plan
Review, Final Site Plan R 94 of the Mason Code fo the requirements of Sect Completed applica 2 copies of full sca Plans submitted o Legal description Proof of ownershi Construction sche Construction calcu	eview, and Special r a complete listing tion 94-226(d) of the ation form alle site plan drawing n CD or PDF (email p/owner authorizadule for proposed plations for utilities	Use Permits. To f application The Zoning Ord The Zo	t be submitted with applications for Preliminary Site Plan Applicants should review Articles VI and VII of Chapter on requirements. All site plan drawings must comply with dinance. Incomplete applications will not be processed.
Application Fee			
			ed by the City Council. The fee schedule for Preliminary
Administrative R		inu speciai Us	se Permits is as follows (As of October 16, 2006): \$70.00
Preliminary Site			\$200.00
Final Site Plan Re			\$100.00
Special Use Pern	nits (includes prelin		
	201 \	Nest Ash Street: N	Mason, MI 48854-0370

Engineering Review \$220.00*

*Two—hour minimum fee for projects increasing demand on public utilities. Actual fees incurred are billed to applicant upon completion of review.

Application Deadlines

Preliminary Site Plan/Special Use Permit Review

Applications for Preliminary Site Plan Review may be submitted at any time. Complete applications must be received a minimum four (4) weeks prior to a Planning Commission meeting to be placed on the agenda. Upon receipt of a complete application, a public hearing will be scheduled for the next regularly scheduled meeting (for Special Use Permits only). The Planning Commission has the final authority to approve, approve with conditions or deny an application for Preliminary Site Plan/Special Use Permit Review. The Planning Department staff will issue a letter to the applicant advising of any changes or revisions that may be necessary prior to making application for Final Site Plan Review.

Final Site Plan Review

Complete applications must be received a minimum of four (4) weeks prior to a Planning Commission meeting to be placed on an agenda. The Planning Commission has the final authority to approve, approve with conditions or deny an application for Final Site Plan Review. Planning Commission meetings are held on the second Tuesday after the first Monday of every month, unless the Tuesday is a Township recognized holiday, in which case the meeting is held on the following day (Wednesday).

Staff Report

The Planning Department Staff will prepare a report to the Planning Commission regarding an application for Preliminary Site Plan Review, Final Site Plan Review or Special Use Permit. The report will explain the request and review whether it complies with the zoning standards of the Mason Code. Staff will present the findings of that report during the Planning Commission meeting. An applicant who wishes to obtain one (1) copy of that report, at no cost, prior to the meeting must provide a written request to the Planning Department. The report is generally complete on the Friday before the meeting and can be mailed to the applicant or picked up by the applicant in the Planning Department.

Resources: More questions? Please contact our Customer Service Desk at 517.676.9155.

Revised 7.2.2018 (Community Development)



September 28, 2020

City of Mason Community Development Attn.: Elizabeth Hude, AICP 201 West Ash Street, Mason, MI 48854

RE: Paul Davis Site Plan – Temple Street, Mason, MI

Ms. Hude,

In response to your email in regards to the amendments that we are proposing for the Paul Davis Site Plan that was approved at the city's October 15, 2019 Planning Commission meeting I have summarized the following list of changes:

- The parcel is the same and no changes to the property boundaries or existing conditions have been made from our prior submittal. I do not believe that any zoning changes, use changes or construction has happened on the property or adjacent properties.
- The zoning setbacks remain unchanged except for the dimension on the north side of the building as the building is proposed to be shorter. The density is less as the building is proposed to be smaller. There are no changes to the heights on this amendment.
- There are still two loading areas at the overhead doors in the rear of the building.
- The intended use of the proposed development is unchanged and the building will still house the same functions as before. The building length has been reduced by 50 feet (5,000sft) which has been removed from the open warehouse area.
- Similarly to the reduction of the building size, the parking lot area has been reduced and
 the required number of parking spaces has also been reduced. The parking space size
 was kept as previously approved with the 180 sft spaces in front and the rear spaces at
 200 sft. Additionally, with only 74 proposed spaces we only are required 2 B.F. spaces
 which we have left at the front entrance which is where the general public will enter the
 building.
 - Prior development required 91 Spaces and the plans had included 62 spaces to be constructed and 28 deferred spaces shown.
 - The new development requires 74 Spaces and the plans had included 54 spaces to be constructed and 20 deferred spaces shown.
- The site grading will be similar to the prior development just adjusted for the slightly smaller footprint. The driveway entrance and parking areas has been moved to the south to accommodate the smaller footprint. The site has been lowered about 1 foot as we are having to discharge the stormwater to the manhole in Temple Street rather than the shallow curb inlet originally proposed. This was to accommodate the small basin for pretreatment prior to discharge to the City's system.



- Stormwater Management is changed to accommodate the requirements for pretreatment by the County Drain Commissioner's office. The storm sewer has only slightly changed but mostly in the below ground in the piping and catch basins have been slightly shifted to meet site grading and avoid conflicts with other utilities etc. These plans do include a small pretreatment basin that will infiltrate the first storm surge prior to discharging to the City's storm sewer on Temple Street.
- The proposed watermain has changed to be more direct as the building no longer requires the deflection to go around the north side of the building, but the hydrant in the rear of the building is still proposed. The FDC will be located in the front of the building as directed by the fire marshal's comments. Watermain construction plans and EGLE Act 399 permit have been submitted to the City for sending into the EGLE for approval.
- The landscaping plan will be adjusted for the new building size and development footprint. This is being handled now by the landscape architects and the revised plan will be available shortly.
- The site lighting and photometrics have minimal changes again to accommodate the smaller footprint, but there are no changes that cause for any encroachment of site lighting onto adjacent properties. A revised photometrics plan has been included.
- No significant changes that may impact the special use permit are proposed and therefore other than possibly an extension to the SUP to allow us time to get all the construction permits and award the project to start construction. I presume that the SUP is valid for one year and I suspect that we may still need more time than that to start construction if the site plan amendment is approved. As this project is less of an impact than what the approved SUP I would suspect that the SUP can be carried over for this amendment with Planning Commission's consent.

Sincerely yours,

LAPHAM ASSOCIATES

Scott E. Bell, AICP Project Manager

P:\Engineer\P190259 FED Paul Davis\L 092820 Site Plan Amendment submital.doc



October 13, 2020

City of Mason Community Development Attn.: Elizabeth Hude, AICP 201 West Ash Street, Mason, MI 48854

RE: Paul Davis Site Plan – Temple Street, Mason, MI

Ms. Hude,

In response to our teleconference and the site plan application requirements we have compiled the following construction schedule for the project:

10/12/2020	Miss Dig
10/23/2020	Building Layout/site survey
10/26-12/15	Begin stripping topsoil, rough grading establish base for parking areas, water main,
	sanitary sewer and storm, Prep foundation
11/15-12/1	Concrete footings and foundation
11/23/2020	Underground lighting
12/15/2020	Backfill foundation
12/15-1/1	Underground utilities (power, gas, water, plumbing)
1/4-1/8	Metal building delivery and layout
1/11-3/31	PEMB erection
3/15-3/26	Exterior doors and windows
4/5-4/30	Slab on grade prep
	Concrete Slabs
	Saw cutting
	Lighting concrete bases, curb and gutter/site concrete
5/3-5/21	Polish Concrete Slabs
5/10-5/28	Partition wall framing
5/24-7/12	Rough-Ins: Electrical, Plumbing, HVAC, Gas and fire suppression pipes and risers & fire
	alarm
6/15-6/30	Finish Grading
7/5-7/17	Paving
7/12-7/14	Insulation installation
7/14-7/21	Inspections
7/21-8/11	Drywall
8/12-8/26	Finishes: door frames, hardware, finish trim, kitchen, tops
8/30-9/17	Painting
9/20-9/29	All electrical switches and devices - all ductwork, diffusers, grills
9/29-10/8	acoustical ceiling
	Sprinkler drops
	Fire alarm
10/18/2021	Landscaping



Additionally, attached is a construction cost estimate for the proposed project for your use. I believe that this gives you the remaining items to complete the site plan application per our discussion from our teleconference on October 7th. We have not heard back from the City's engineer on the EGLE watermain construction permit to se if it has been submitted, but all other permits are in process.

Sincerely yours,

LAPHAM ASSOCIATES

Scott E. Bell, AICP Project Manager

P:\Engineer\P190259 FED Paul Davis\2020 Site Plan Amendment\L 101320 Schedule & cost estimate.doc

Paul Davis Restoration

Client: PDR of Mid Michgain Home: (517) 719-5058

Property: 881 Hull Rd.,

Mason, MI 48854

Operator: LANS

Estimator: Jerry Rehm Cellular: (517) 719-5058

Position: Project Manager E-mail: jerry.rehm@pauldavis.com

Company: Paul Davis of Mid Michigan

Business: 881 Hull Rd., #100 Mason, MI 48854

Reference:

Company: Structure

Type of Estimate: <NONE>

Date Entered: 10/1/2020 Date Assigned: 10/1/2020

Date Est. Completed: Date Job Completed: 10/12/2020

Price List: MILA8X_NOV19

Labor Efficiency: Restoration/Service/Remodel
Estimate: PAULDAVISBUILDING

PAULDAVISBUILDING Miscellaneous

Miscellaneous

DESCRIPTION	QTY	UNIT PRICE	TOTAL
1. METAL STRUCTURES & COMPONENTS	1.00 EA @	400,000.00 =	400,000.00
2. Concrete footings	1.00 EA @	36,789.00 =	36,789.00
3. Overhead door & hardware	1.00 EA @	8,760.00 =	8,760.00
4. Concrete flat work and curbs	1.00 EA @	144,639.00 =	144,639.00
5. Excavation	1.00 EA @	218,361.00 =	218,361.00
6. Landscaping	1.00 EA @	9,880.00 =	9,880.00
7. Windows - Aluminum	1.00 EA @	17,560.00 =	17,560.00
8. Taxes, insurance, permits & fees (Bid Item)	1.00 EA @	25,600.00 =	25,600.00
includes survey and staking			

Miscellaneous 2

Kitchen

DESCRIPTION	QTY	UNIT PRICE	TOTAL
9. Electrical (Bid Item)	1.00 EA @	147,720.00 =	147,720.00
10. Plumbing (Bid Item)	1.00 EA @	36,660.00 =	36,660.00
11. HVAC Technician	1.00 EA @	117,100.00 =	117,100.00
12. fire suppression system	1.00 EA @	27,800.00 =	27,800.00
13. Asphalt paving - 2 1/2 - 3" with 6" base - Commercial	1.00 EA @	47,600.00 =	47,600.00

Main Level

				8
Subroom: Room6 (13)				Height: 8'
Subroom: Room7 (12)				Height: 8'
DESCRIPTION		QTY	UNIT PRICE	TOTAL
14. 5/8" drywall - hung, taped, floated, ready for paint	1,387.62	SF @	1.20 =	1,665.14
15. Seal the walls w/PVA primer - one coat	981.92	SF@	0.46 =	451.68
16. Paint the walls - two coats	981.92	SF@	0.76 =	746.26
17. Door knob - interior - High grade	1.00	EA@	33.00 =	33.00
18. Baseboard - 5 1/4"	122.74	LF@	2.01 =	246.71
19. Paint baseboard - two coats	122.74	LF@	1.12 =	137.47
20. Interior door unit - Premium grade	1.00	EA@	125.90 =	125.90
21. Batt insulation - 6" - R19 - paper faced	490.96	SF@	0.75 =	368.22
22. Cabinetry - lower (base) units	1.00	EA@	2,500.00 =	2,500.00
23. Countertop - solid surface	1.00	SF@	2,500.00 =	2,500.00
PAULDAVISBUILDING			10/12/2020	Page: 2

Height: 8'

CONTINUED - Kitchen

DESCRIPTION	QTY	UNIT PRICE	TOTAL
24. Non-slip aluminum oxide finish	405.70 SF @	0.50 =	202.85

Main			Height: 8'
DESCRIPTION	QTY	UNIT PRICE	TOTAL
25. Seal the walls w/PVA primer - one coat	2,376.00 SF @	0.46 =	1,092.96
26. Paint the walls - two coats	2,376.00 SF @	0.76 =	1,805.76
27. Door knob - interior - High grade	6.00 EA @	33.00 =	198.00
28. Baseboard - 5 1/4"	297.00 LF @	2.01 =	596.97
29. Paint baseboard - two coats	297.00 LF @	1.12 =	332.64
30. Interior door unit - Premium grade	6.00 EA @	125.90 =	755.40
31. 5/8" drywall - hung, taped, floated, ready for paint	6,560.78 SF @	1.20 =	7,872.94
32. Batt insulation - 6" - R19 - paper faced	1,188.00 SF @	0.75 =	891.00
33. Non-slip aluminum oxide finish	4,184.79 SF @	0.50 =	2,092.40

Learning			Height: 8'
DESCRIPTION	QTY	UNIT PRICE	TOTAL
34. Suspended ceiling system - Premium grade - 2' x 2'	1,774.77 SF @	3.00 =	5,324.31
35. Seal the walls w/PVA primer - one coat	1,382.43 SF @	0.46 =	635.92
36. Paint the walls - two coats	1,382.43 SF @	0.76 =	1,050.65
37. Door knob - interior - High grade	1.00 EA @	33.00 =	33.00
38. Baseboard - 5 1/4"	172.80 LF @	2.01 =	347.33
39. Paint baseboard - two coats	172.80 LF @	1.12 =	193.54
40. Interior door unit - Premium grade	1.00 EA @	125.90 =	125.90
41. 5/8" drywall - hung, taped, floated, ready for paint	1,382.43 SF @	1.20 =	1,658.92
42. Batt insulation - 6" - R19 - paper faced	691.22 SF @	0.75 =	518.42
43. Non-slip aluminum oxide finish	1,774.77 SF @	0.50 =	887.39

Womens			Height: 8'
DESCRIPTION	QTY	UNIT PRICE	TOTAL
PALIE DA LUGDIM DDAG			

PAULDAVISBUILDING 10/12/2020 Page: 3

CONTINUED - Womens

DESCRIPTION	QTY	UNIT PRICE	TOTAL
44. Seal the walls w/PVA primer - one coat	349.80 SF @	0.46 =	160.91
45. Paint the walls - two coats	349.80 SF@	0.76 =	265.85
46. Door knob - interior - High grade	1.00 EA @	33.00 =	33.00
47. Baseboard - 5 1/4"	43.73 LF @	2.01 =	87.90
48. Paint baseboard - two coats	43.73 LF @	1.12 =	48.98
49. Interior door unit - Premium grade	1.00 EA @	125.90 =	125.90
50. 5/8" drywall - hung, taped, floated, ready for paint	469.26 SF@	1.20 =	563.11
51. Batt insulation - 6" - R19 - paper faced	174.90 SF @	0.75 =	131.18
52. toilet partition -	1.00 EA @	1,900.00 =	1,900.00
53. Non-slip aluminum oxide finish	119.46 SF @	0.50 =	59.73

Mens			Height: 8'
DESCRIPTION	QTY	UNIT PRICE	TOTAL
54. Seal the walls w/PVA primer - one coat	424.47 SF @	0.46 =	195.26
55. Paint the walls - two coats	424.47 SF @	0.76 =	322.60
56. Door knob - interior - High grade	1.00 EA @	33.00 =	33.00
57. Baseboard - 5 1/4"	53.06 LF @	2.01 =	106.65
58. Paint baseboard - two coats	53.06 LF @	1.12 =	59.43
59. Interior door unit - Premium grade	1.00 EA @	125.90 =	125.90
60. 5/8" drywall - hung, taped, floated, ready for paint	595.79 SF @	1.20 =	714.95
61. Batt insulation - 6" - R19 - paper faced	212.23 SF @	0.75 =	159.17
62. Non-slip aluminum oxide finish	1.00 SF @	0.50 =	0.50
63. toilet partition -	1.00 EA @	1,900.00 =	1,900.00
64. Non-slip aluminum oxide finish	171.32 SF @	0.50 =	85.66

Office 10	Height: 8'
Subroom: Office 4 (5)	Height: 8'
Subroom: Office 11 (11)	Height: 8'
Subroom: Office 7 (8)	Height: 8'
Subroom: Office 6 (7)	Height: 8'
Subroom: Office 5 (6)	Height: 8'

PAULDAVISBUILDING 10/12/2020 Page: 4

Paul Davis Restoration

Subroom: Office 3 (4)			Height: 8'
Subroom: Office 2 (3)			Height: 8'
Subroom: Office 1 (2)			Height: 8'
Subroom: Office 9 (10)			Height: 8'
Subroom: Ofice 8 (9)			Height: 8'
Subroom: Spare (1)			Height: 8'
DESCRIPTION	QTY	UNIT PRICE	TOTAL
65. Seal the walls w/PVA primer - one coat	4,528.46 SF @	0.46 =	2,083.09
66. Paint the walls - two coats	4,528.46 SF @	0.76 =	3,441.63
67. Suspended ceiling system - Premium grade - 2' x 2'	1,655.32 SF @	3.00 =	4,965.96
68. Door knob - interior - High grade	12.00 EA @	33.00 =	396.00
69. Baseboard - 5 1/4"	566.06 LF @	2.01 =	1,137.78
70. Paint baseboard - two coats	566.06 LF @	1.12 =	633.99
71. Interior door unit - Premium grade	12.00 EA @	125.90 =	1,510.80
72. 5/8" drywall - hung, taped, floated, ready for paint	4,528.46 SF @	1.20 =	5,434.15
73. Non-slip aluminum oxide finish	1,655.32 SF @	0.50 =	827.66

jeff			Height: 8'
DESCRIPTION	QTY	UNIT PRICE	TOTAL
74. Seal the walls w/PVA primer - one coat	654.67 SF @	0.46 =	301.15
75. Paint the walls - two coats	654.67 SF @	0.76 =	497.55
76. Door knob - interior - High grade	1.00 EA @	33.00 =	33.00
77. Baseboard - 5 1/4"	81.83 LF@	2.01 =	164.48
78. Paint baseboard - two coats	81.83 LF@	1.12 =	91.65
79. Interior door unit - Premium grade	1.00 EA @	125.90 =	125.90
80. 5/8" drywall - hung, taped, floated, ready for paint	1,053.33 SF @	1.20 =	1,264.00
81. Batt insulation - 6" - R19 - paper faced	327.33 SF @	0.75 =	245.50
82. Non-slip aluminum oxide finish	398.67 SF @	0.50 =	199.34

Deena				Height: 8'
DESCRIPTION		QTY	UNIT PRICE	TOTAL
83. Seal the walls w/PVA primer - one coat	657.21	SF @	0.46 =	302.32
84. Paint the walls - two coats	657.21	SF@	0.76 =	499.48
85. Door knob - interior - High grade	1.00	EA@	33.00 =	33.00
86. Baseboard - 5 1/4"	82.15	LF@	2.01 =	165.12
87. Paint baseboard - two coats	82.15	LF@	1.12 =	92.01
88. Interior door unit - Premium grade	1.00	EA@	125.90 =	125.90
PAULDAVISBUILDING			10/12/2020	Page: 5

CONTINUED - Deena

DESCRIPTION		QTY	UNIT PRICE	TOTAL
89. 5/8" drywall - hung, taped, floated, ready for paint	995.06	SF @	1.20 =	1,194.07
90. Batt insulation - 6" - R19 - paper faced	328.60	SF@	0.75 =	246.45
91. Non-slip aluminum oxide finish	337.85	SF @	0.50 =	168.93

Foyer/Entry Height: 8'

DESCRIPTION		QTY	UNIT PRICE	TOTAL
92. Seal the walls w/PVA primer - one coat	366.62	SF @	0.46 =	168.65
93. Paint the walls - two coats	366.62	SF@	0.76 =	278.63
94. Door knob - interior - High grade	1.00	EA@	33.00 =	33.00
95. Baseboard - 5 1/4"	45.83	LF@	2.01 =	92.12
96. Paint baseboard - two coats	45.83	LF@	1.12 =	51.33
97. 5/8" drywall - hung, taped, floated, ready for paint	496.80	SF@	1.20 =	596.16
98. Batt insulation - 6" - R19 - paper faced	183.31	SF@	0.75 =	137.48
99. Non-slip aluminum oxide finish	130.17	SF@	0.50 =	65.09

Grand Total Areas:

12,817.80	SF Walls	9,543.14	SF Ceiling	22,360.94	SF Walls and Ceiling
9,543.14	SF Floor	1,060.35	SY Flooring	1,602.22	LF Floor Perimeter
0.00	SF Long Wall	0.00	SF Short Wall	1,602.22	LF Ceil. Perimeter
9,543.14	Floor Area	9,889.45	Total Area	12,817.80	Interior Wall Area
4,151.90	Exterior Wall Area	460.99	Exterior Perimeter of		
			Walls		
0.00	Surface Area	0.00	Number of Squares	0.00	Total Perimeter Length
0.00	Total Ridge Length	0.00	Total Hip Length		

PAULDAVISBUILDING 10/12/2020 Page: 6

Summary

PAULDAVISBUILDING 10/12/2020 Page: 7

Ingham County Road Department 301 Bush Street P.O. Box 38

Mason. MI 48854-0000 Phone: 517-676-9722 Fax: 517-676-5914

APPLICATION AND PERMIT TO CONSTRUCT, OPERATE, USE AND/OR MAINTAIN WITHIN THE RIGHT-OF-WAY; OR TO CLOSE A COUNTY ROAD. If a contractor is to perform the construction entailed in this application and permit, and is supplying the deposit, and bond, he will fill out the information block provided, and thereby assumes responsibility, along with the applicant,

Application No. 234998 Permit No. 2020-000666 Date 10/13/2020

ior a	by provisions of this application and per	mit which apply to him	n.			
A P	Temple Street LLC 881 Hull Rd Mason, MI 48854-0000		C O N			•
P L C	Phone(s): 517-719-5052		TS RI AT CE			
A N	Signature		T O	Signature		
Т	Title	Date	R	Title		Date
	Receipt No. To Be Billed Letter/Credit Work Order No. icant and/or Contractor request a Perwing location:	rmit for the purpose	ATTACHMENTS	Insurance Plans Retainer Letter Attachments Job PAUL DAVIS Bond No. Bond Amt. cated in the attach	Yes No No	3 WORKING DAYS BEFORE YOU DIG - DIAL (MISS DIG) (TOLL FREE) (800-482-7171)
	Township Vevay	Project Developme	nt, S	idewalk, , ,		

Roadside Name of Road Kipp Rd

and Dexter Trail **Between**

For a Period Beginning 10/13/2020 and Ending 10/13/2021 and Agrees to the terms of this permit.

Permitted activities include installation of 5 foot minimum width sidewalk in the Right of Way along Kipp Road, East of temple Street. Work is permitted according to Lapham Associates plans datedSept 15, 2020. Maintain Traffic in accordance with the MMUTCD. All traffic control devices shall be removed from the right of way within 48 hours of the completion of the work. Failure to meet these deadlines will result in the ICRD removing the devices at the applicant's expense. Right of way shall be restored in kind.

Recommended For Issuance:		Board of County Road Commissioners Ingham County, Michigan
	10/13/2020	ingham county, Michigan
(Investigator)	Date	
	10/13/2020	Ву
(Project/Traffic Engineer)	Date	County Highway கொழுக்கு சூர

Page 1 of 1

RIGHT-OF-WAY PERMIT RULES AND REGULATIONS

- SPECIFICATIONS: All work performed under this permit must be in accordance with the approved plans, specifications, maps, and statements filed
 with the Road Commission. The work must comply with the Road Commission's current requirements and specifications and applicable MDOT
 specifications.
- 2. FEES & COSTS: The permit applicant shall be responsible for all fees and costs incurred by the Road Commission in connection with this permit and shall deposit estimated fees and costs, as determined by the Road Commission, at the time the permit is issued.
- 3. CASH BOND: The permit applicant shall provide a cash deposit, certified check, cashier's check, money order, or irrevocable letter of credit drawn on a solvent bank for an amount acceptable to the Road Commission at the time the permit is issued.
- 4. INSURANCE: The permit applicant shall furnish proof of liability and property damage insurance in the amount stated below naming the Road Commission as an insured:

General liability – each occurrence\$500,000.00Automobile liability – each accident\$1,000,000.00Property Damage liability – each accident\$1,000,000.00Single Limit policy\$1,000,000.00

Said insurance shall be effect for a period not less than the term of this permit and shall provide evidence that it cannot be cancelled without ten (10) days advanced written notice by certified mail with return receipt required to the Road Commission.

- 5. INDEMNIFICATION: The Permit Holder shall hold harmless and indemnify, and keep indemnified, the Road Commission, its officers and employees from all claims, suits, and judgments to which the Road Commission, its officers and employees may be subject. The Permit Holder shall also hold harmless and indemnify, and keep indemnified, the Road Commission, it officers and employees for all costs and actual attorney fees which may be incurred on account of injury to persons or damage to property, including property of the Road Commission, whether due to negligence of the Permit Holder or the joint negligence of the Permit Holder and the Road Commission, arising out of the work under this permit, or in connection with the work not authorized by this permit, or resulting from failure to comply with the terms of this permit, or arising out of the continued existence of the work product which is the subject of this permit.
- 6. MISS DIG: The Permit Holder must comply with the requirements of Act 53 of Public Acts of 1974, as amended. CALL MISS DIG AT (800) 482-7171 AT LEAST TWO (2) FULL WORKING DAYS, BUT NOT MORE THAN TWENTY ONE (21) CALENDAR DAYS BEFORE THE START OF WORK. The Permit Holder assumes all responsibility for damages to or interruption of underground utilities.
- 7. NOTIFICATION OF START OF WORK AND COMPLETION OF WORK: The Permit Holder must notify the Road Commission at least 48 hours before starting work and must notify the Road Commission when work is completed.
- 8. TIME RESTRICTIONS: All permitted work must be performed Mondays through Fridays between 8:00 AM and 5:00 PM unless written approval is obtained from the Road Commission to work outside of those hours. The permitted work shall be performed during the period of time described on the permit unless an extension is granted by the Road Commission. Additional permit fees may be required to consider a time extension.
- 9. SAFETY: The Permit Holder agrees to work under this permit in a safe manner and to keep the road right-of-way affected by this permitted activity in a safe condition until the work is completed and accepted by the Road Commission. All work zone signing and flagging operations shall comply with the Michigan Manual of Uniform Traffic Control Devices and Road Commission standards.
- 10. RESTORATION AND REPAIR OF ROAD: The Permit Holder agrees to restore the road and right-of-way to a condition equal to or better, as determined by the Road Commission, than its condition before the work began. The Permit Holder further agrees to repair any subsequent damage, as determined by the Road Commission, to the road and right-of-way which is caused by the facility, or its maintenance, installed under this permit.
- 11. LIMITATION OF PERMIT: This permit does not relieve the Permit Holder from complying with regulations of other agencies or applicable laws. The Permit Holder is responsible for obtaining additional permits or releases which may be required in connection with this work from governmental agencies, public utilities, corporations, and individuals, including property owners. Permission may be required from adjoining property owners.
- 12. VIOLATION AND REVOCATION OF PERMIT: Permits are automatically invalidated by the violation of any of the conditions specified by the terms of the permit or by false information given on the application. Failure to comply with the conditions of this permit may be just cause for the immediate suspension or revocation of any or all permits and cause for the Road Commission to use bond money to restore the road and right-of-way to its satisfaction. This permit may be suspended or revoked at will. The Road Commission may require the Permit Holder to surrender this permit and alter or relocate its facilities within the right-of-way, or remove its facilities from the road right-of-way, at the permit holder's expense. The Road Commission reserves the right to remove facilities from the road right-of-way and recoup its costs from the Permit Holder.
- 13. ASSIGNABILITY: This permit may not be assigned without the prior written approval of the Road Commission. If approval is granted, the assignor shall remain liable and the assignee shall be bound by all the terms and conditions of the permit.
- 14. This permit is subject to supplemental specifications, on file with the Road Commission, and Act 200 of Public Acts of 1969, as amended.



Building Development
Prepared For

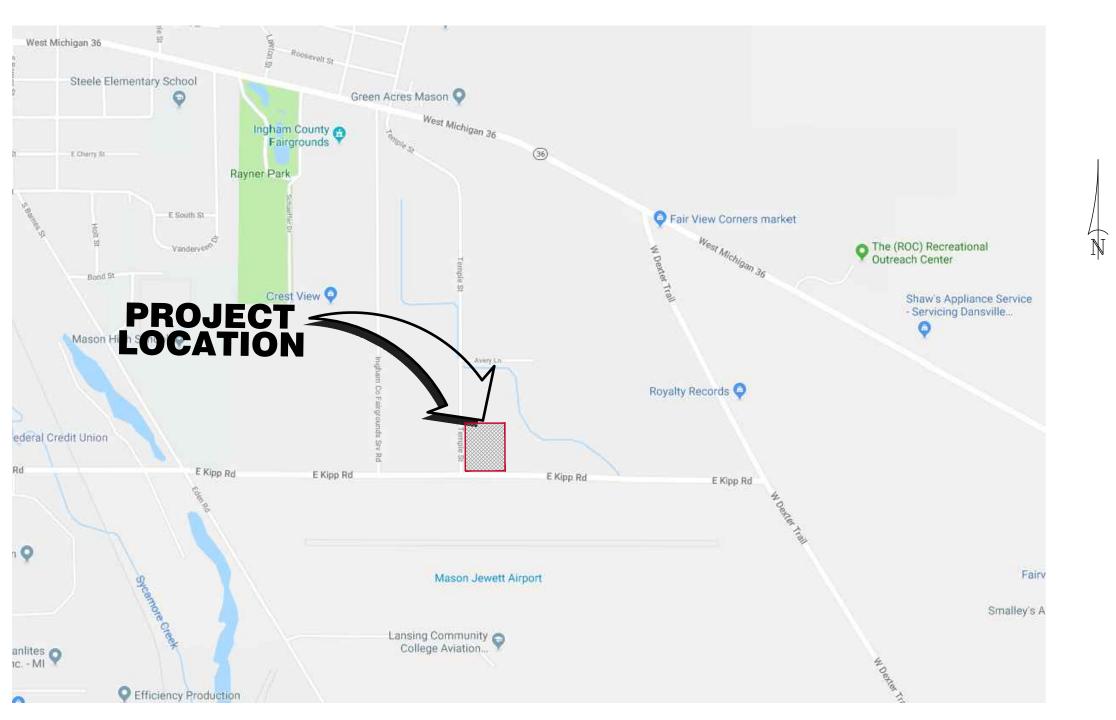
Paul Davis

Section 9, T.2N., R.1W., City of Mason, Ingham County, Michigan

SITE ADDRESS: 1155 Temple Street, Mason, MI. 48854

Property Description:

Part of the Southeast 1/4 of Section 9, T2N, R1W, City of Mason, Ingham County, Michigan, described as: Beginning at the Southeast Corner of said Section 9; thence N89°58'20"W, along the South Section line, 425.00 feet; thence N00°01'45"W, parallel with the East Section line, 512.47 feet; thence S89°58'20"E, parallel with the South Section line, 425.00 feet; thence S00°01'45"E, along the East Section line, 512.47 feet to the Point of Beginning. Containing 5.0 acres, and being subject to restrictions, reservations, easements, rights-of-way, zoning, governmental regulations and matters visible, if any, upon or affecting said lands.



LOCATION SKETCH:

Sheet Index:

C-1	Cover Sheet

C-2 General Notes

C-3 Existing Topographic Survey

C-4 Demolition Plan

C-5 Site Plan

C-6 Site Details

C-7 Utility Plan

C-8 Site Lighting / Photometric Plan

C-9 Grading Plan

C-10 Storm Water Management Plan

C-11 Storm Water Management Plan

C-12 Water Main Plan & Profile

C-13 SESC Plan

C-14 SESC Key

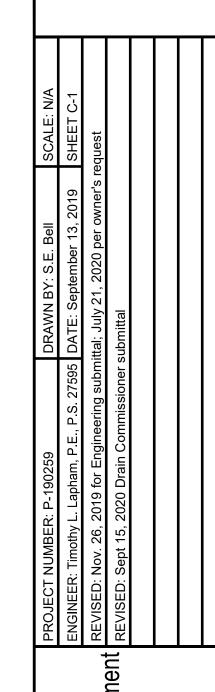
C-15 Site Specifications

C-16 Site SpecificationsL-1 Landscape plan (by others)

Submission Table:

Aug. 9, 2019	Submit initial preliminary site plans to City of Mason for their review. These plans are not to be used for construction.
Aug. 15, 2019	Revised plans to include storm water management and grading plans and to address early comments from city planner from email dated Aug. 12th. These plans are not to be used for construction.
Sept. 13, 2019	Revised plans meeting with City staff. These plans are not to be used for construction.
Nov. 26, 2019	Engineering submittal plans to City of Mason.
July 21, 2020	Revised site plan to client's request for smaller building.
Sept. 15, 2020	Submitt plans to Drain Commissioner for Stormwater Management review





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SCOVER - RECONSTRUCT - RESTORE



APPROVED USE FOR

PRELIMINARY

PERMIT/BID

CONSTRUCTION

FINAL RECORD

NOTE SHEET

- 1. EXTENSION OF PUBLIC UTILITIES: All public sanitary sewer and/or water main **SHALL** be extended to the fullest limits of the property, including corner lots, with the pipe size and material approved by the owning municipality. This is necessary for plan approval. For water service of 1" or less or a building on a corner lot, the requirements to extend the public water main and/or sanitary sewer along both property lines will be reviewed.
- 2. SOIL EROSION: The DEVELOPER shall submit a detailed Soil Erosion and Sedimentation Control plan and obtain an Act 451 Part 91, Soil Erosion and Sedimentation Control permit. This includes the payment of fees and the providing of necessary bonds. No earth changes or excavation shall be started prior to the issuance of this permit. The DEVELOPER shall protect all existing and proposed storm sewer facilities on and adjacent to the site during excavation and construction. All sediment shall be contained on site. Any silt in county drains, storm sewer, culverts, etc. as a result of this project, shall be removed by the DEVELOPER at the cost of the DEVELOPER.
- 3. FLOOD PLAIN OR WETLAND CONSTRUCTION: The DEVELOPER shall apply to the Michigan Department of Environment Great Lakes and Energy (EGLE) for a permit for the alteration and/or occupation of a flood plain or floodway, as required under PA 451. Evidence of this permit may be required prior to plan approval.
- 4. NPDES STORM WATER DISCHARGE PERMIT: The owner of the property shall obtain a NPDES Storm Water Discharge permit for construction activities from EGLE as required under Public Act 451. The notice of coverage form shall be submitted with the Soil Erosion Control permit application. All EGLE fees shall accompany the Notice of Coverage.
- 5. ROAD COMMISSION PERMIT: The DEVELOPER shall obtain a permit from the Road Commission to perform work within the county Right-of-Way. All fees for the permit, bonds and insurances are the responsibility of the developer.
- 6. MUNICIPALITY SANITARY SEWER AND WATER PERMIT: Prior to the issuance of a building permit by the local municipality, the developer may be required to obtain a sanitary sewer and/or water tap-in permit from the owning municipality.
- 7. STATE CONSTRUCTION PERMITS: The sanitary sewer and water main construction permits from the Michigan Department of Environment Great Lakes and Energy shall be submitted to the EGLE after approval local municipality. Construction shall not begin until these state permits are issued.
- 8. Utility Warning Underground locations as shown on the plans were obtained from utility owners, and were not field located. A minimum of three (3) working days prior to beginning construction, the contractor shall notify "MISS DIG" (800-482-7171) and have all underground utilities staked before any work may begin. The contractor shall be responsible for the protection and/or relocation of all utilities that may interfere with construction. Three (3) Working Days Before You DIG - Call MISS DIG (1-800-482-7171).

OTHER NOTES

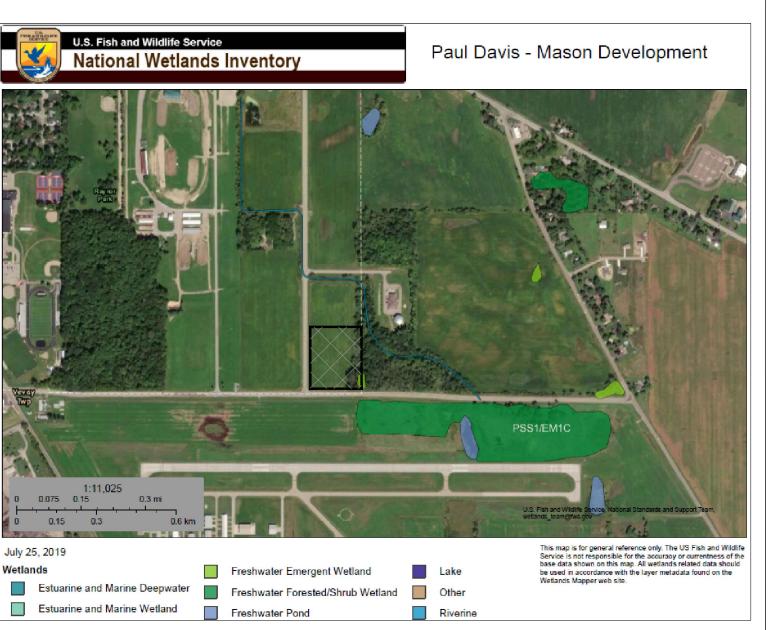
The contractor shall be responsible to review and be familiar with all portions of these plans. Any discrepancies between different portions of the plans shall be brought to the attention of the Engineer and shall be resolved prior to construction.

NRCS SOILS MAP

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnA	Aubbeenaubbee-Capac sandy loams, 0 to 3 percent slopes	0.4	8.7%
CvraaB	Conover loam, 0 to 4 percent slopes	3.4	68.4%
Gf	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	1.0	19.8%
Hn	Houghton muck, 0 to 1 percent slopes	0.2	3.1%
Totals for Area of Interest	•	5.0	100.0%



WETLAND MAP



BENCHMARKS

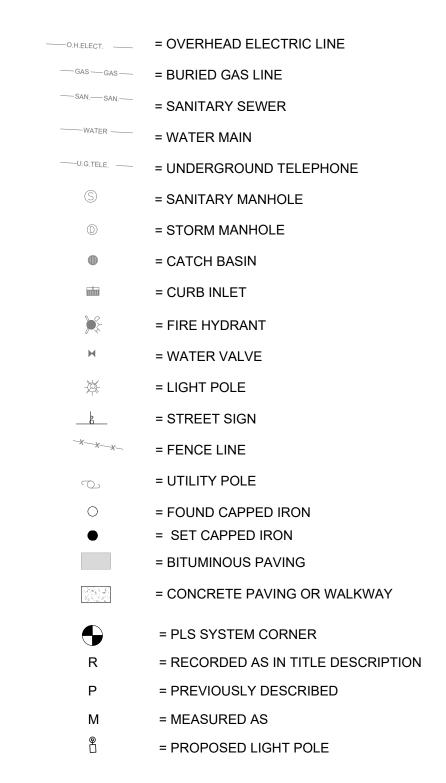
Benchmark #1

South bolt on fire hydrant flange on south side of Kipp Road at southeast of intersection of Temple Street and Kipp Road. Elev. = 910.72

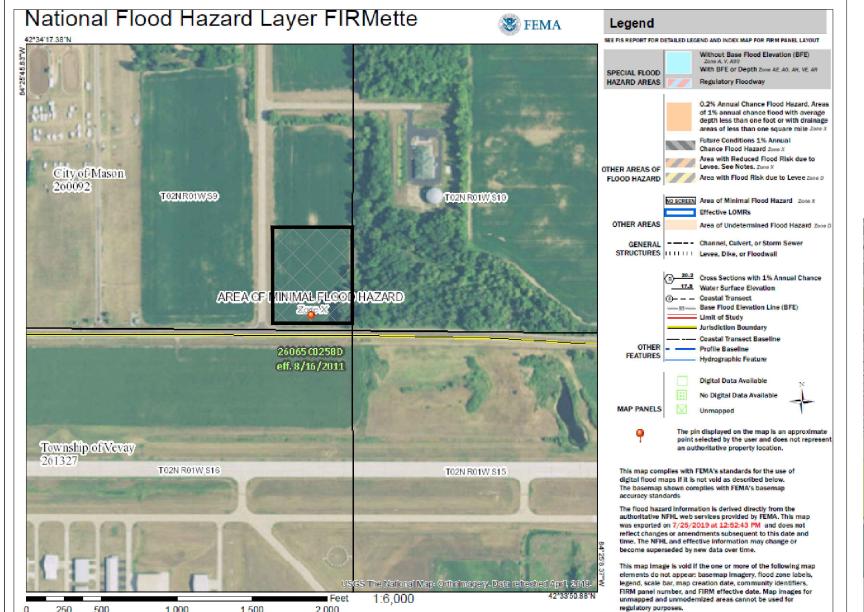
Benchmark #2

East bolt on fire hydrant flange on east side of Temple Street approximately 340 feet north of centerline of Kipp Road. Elev. = 910.81

PLAN LEGEND



FLOODZONE MAP



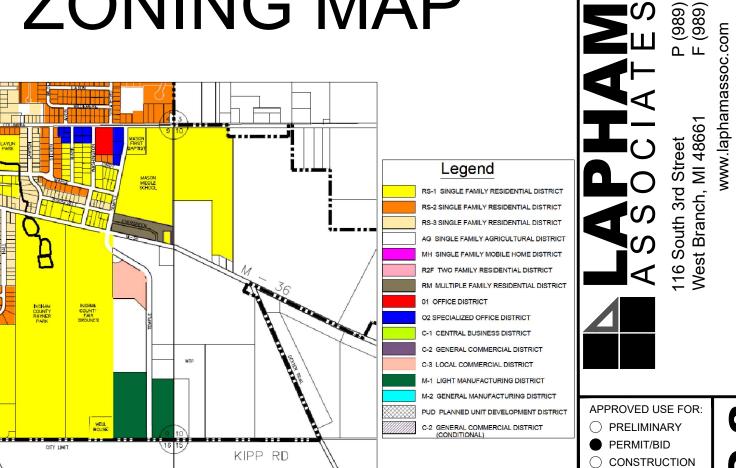
ABBREVIATIONS

Definitions

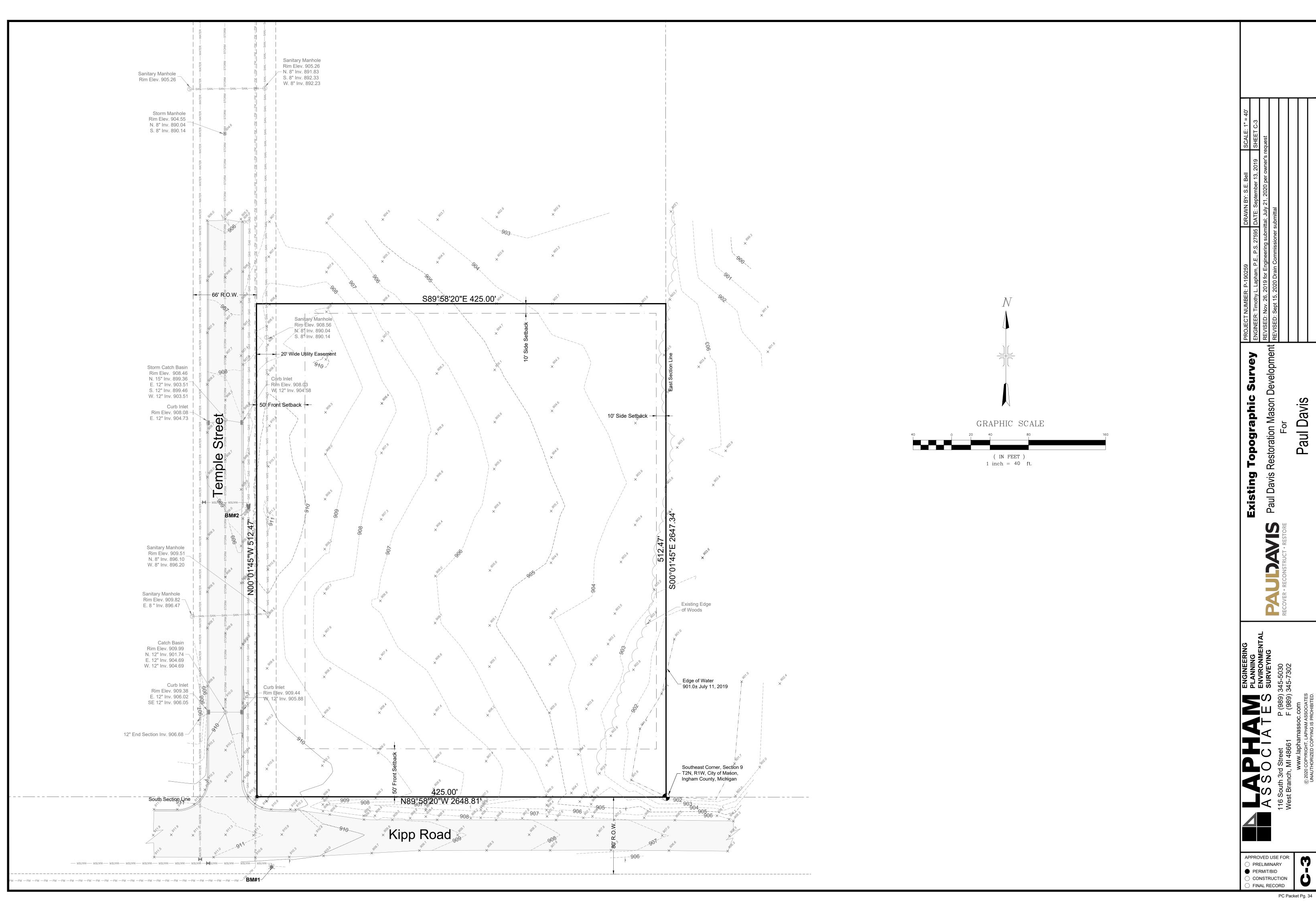
LIST OF ABBREVIATIONS

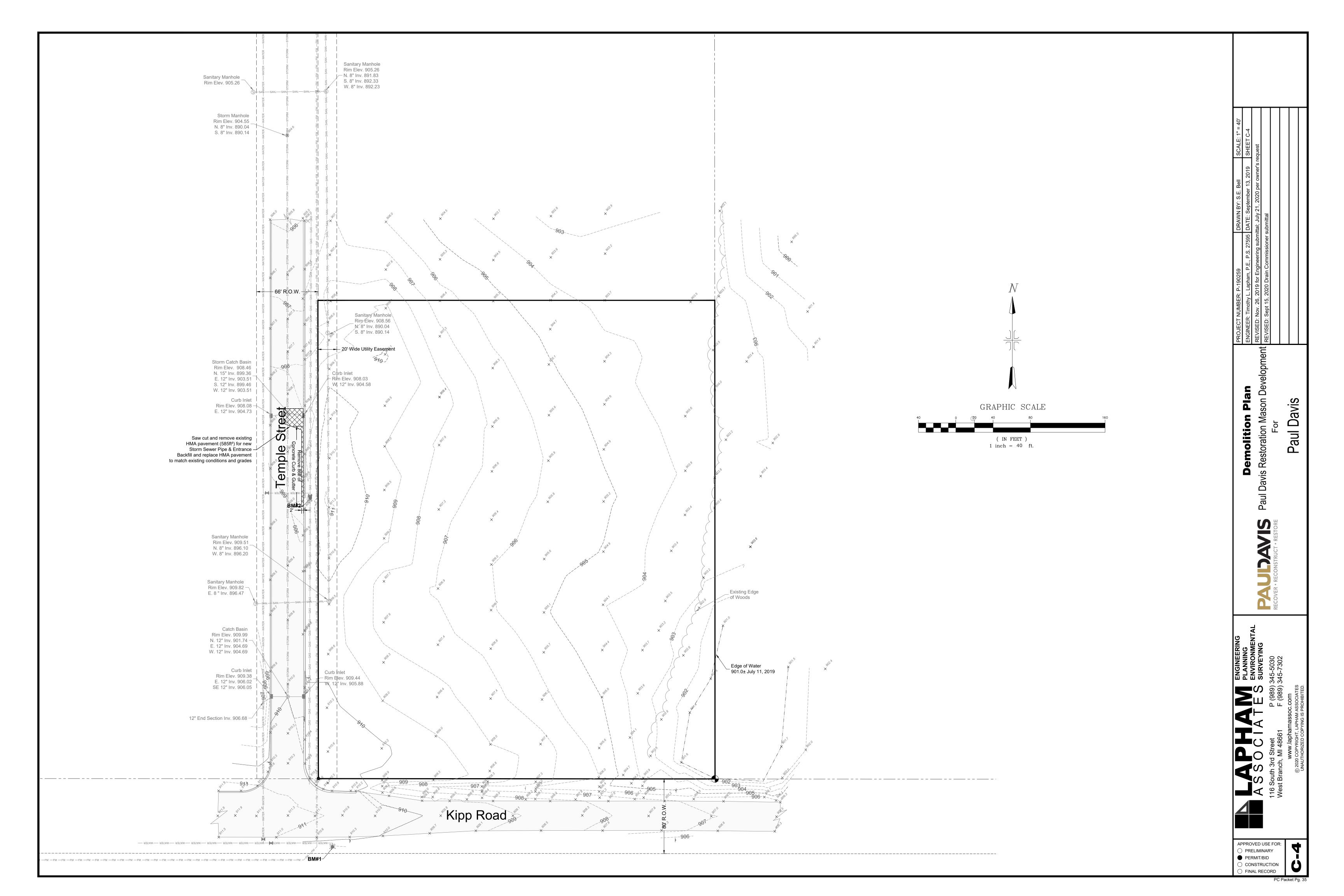
A.C.	Alternating Current
A.F.C.	Adult Foster Care
ASPH.	Asphalt Paving
ASTM	American Society of Testing Materials
AWS	American Welding Society
AWWA	American Waterworks Association
BLDG.	Building
CIP	Compacted in place
CL	Class
CONC.	Concrete
C.Yd. or CYD	Cubic Yard
DR 。	Dimension Ratio
	Degrees
EA	Each
EJ ELEV.	East Jordan Iron Works
EX	Elevation
F.F.	Existing Finish Floor
G.P.M.	Gallons Per Minute
I.Q.	Inside Diameter
Inv.	Invert
Lbs.	Pounds
LFT	Lineal Feet
L.S.	Lump Sum
Max.	Maximum
MDOT	Michigan Department of Transportation
M.H.	Manhole
Mil.	Millimeter
Min.	Minimum
MUW	Maximum Unit Weight at optimum moisture content
No.	Number
NSF	National Sanitation Foundation
OSHA	Occupational Safety Health Administration
PSIGP PVC	Pounds per square inch gauge
R.O.W. or R/W	Polyvinyl Chloride Right-of-Way
RAD.	Radius
SDR	Standard Dimension Ratio
SYD	Square Yard
T.D.H.	Total Dynamic Head
V.L.F.	Vertical Lineal Feet
•	Minutes of angles or Feet
"	Seconds of angles or Inches
%	Percent
#	Pounds

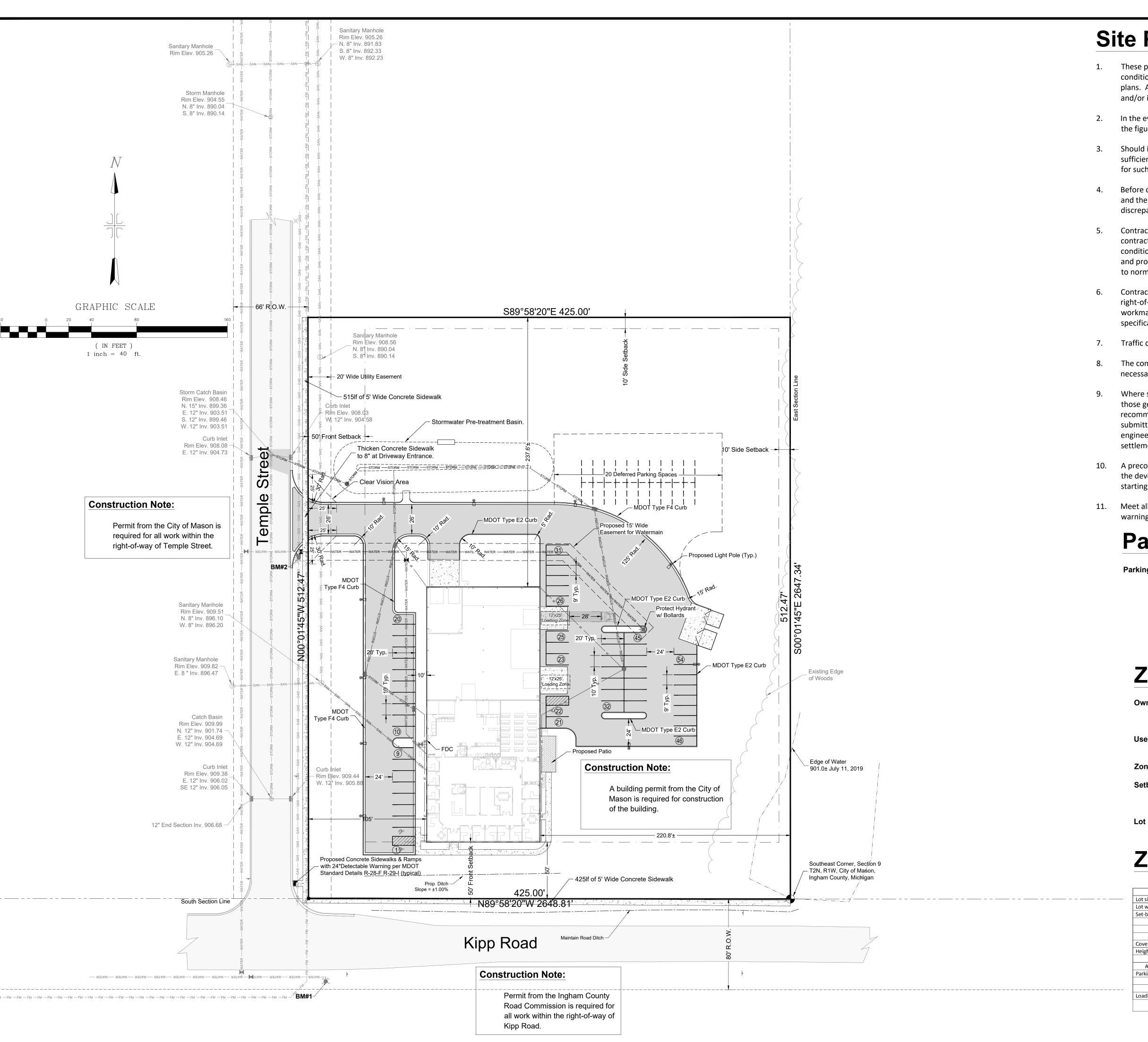
ZONING MAP



FINAL RECORD







Site Plan Notes:

- These plans and specifications are subject to modification during construction when conditions develop that were not apparent during the design and preparation of these plans. All modifications must be approved by local jurisdiction prior to construction and/or implementation.
- In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.
- Should it appear that the work to be done or any matter relative thereto is not sufficiently detailed or explained on these plans, the contractor shall contact the engineer for such further explanations as may be necessary.
- Before commencement of work, the contractor shall review all plans and specifications and the job site. The contractor shall notify the owner and the engineer of any discrepancies that may require modification to these plans or of any field conflicts.
- Contractor agrees that in accordance with generally accepted construction practices, the contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours.
- Contractor shall obtain all necessary permits prior to commencing construction involving right-of-ways, and for the construction, modification, or connection to facilities. All workmanship, equipment and materials shall conform to local jurisdiction standards and specifications.
- Traffic control shall be provided in accordance with local jurisdiction.
- The contractor shall provide all lights, signs, barricades, flag men, or other devices necessary to provide for public safety.
- Where soil or geologic conditions encountered in grading operations are different from those generally anticipated, or where conditions warrant changes to the recommendations contained therein, a report of soil or geologic conditions shall be submitted along with proposed changes for approval and shall be accompanied by an engineer's opinion as to the safety of the site from the possibility of land slippage, settlement and seismic activity.
- 10. A preconstruction meeting shall be scheduled with the developer, services personnel and the developer's contractor. A preconstruction meeting shall take place prior to the starting of any construction on the site.
- 11. Meet all current applicable ADA requirements for parking, signage, ramps, sidewalks, and warning notification on sidewalks approaching drives as required.

Parking Calculations:

Parking Spaces Required:

0.33 Spaces per 100ft² per Table 100.5 for Industrial use 22,500ft² x 0.33 / 100ft² = 74 Spaces

Typical Parking Space 10' x 20' (200ft²) allowable reduction per Sec.94-292 (j) (3) of up to 20% of the spaces to 180ft². With 74 spaces 20% allows 15 spaces at 180ft². We have provided (9) 180ft² spaces on the far easterly end of the parking lot, and (6) 180ft² spaces at the northeast corner of the building.

Zoning Notes:

Paul Davis Restoration

881 Hull Road Mason, MI 48854

Warehouse & light manufacturing permitted use by right per

Sec. 94-151(b)

M1 Light Manufacturing

Front Setback Side Setback

Rear Setback

Lot Coverage: 50% maximum allowed

Zoning Compliance Matrix:

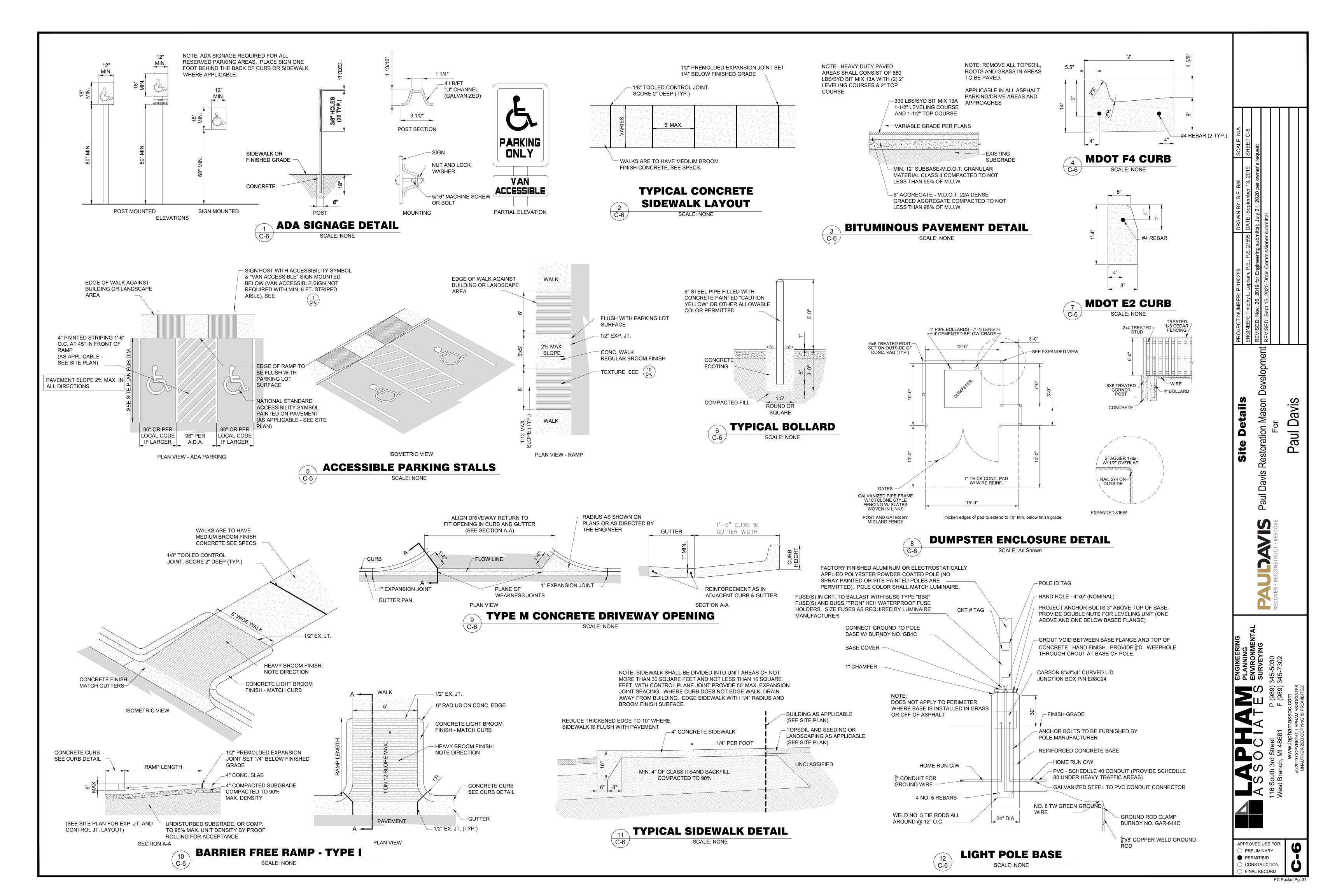
	Required	Existing	Proposed
Lot size	60,000 ft ²	N/A	217,912 ft ²
Lot width	200′	N/A	512.47'
Set-backs			
Front	50′	N/A	50'
Side	10'	N/A	151'
Rear	20′	N/A	N/A
Coverage	50%	0%	12.6%
Height			
Principal Structure	40'	N/A	32'
Accessory Structure	40'	N/A	20' Light Poles
Parking			
Industrial use	74 spaces	0 spaces	74 spaces
Dimensions	10' x 20'	N/A	10' x 20' (15 @ 9'x20')
Loading Area	2 loading spaces		2 loading spaces

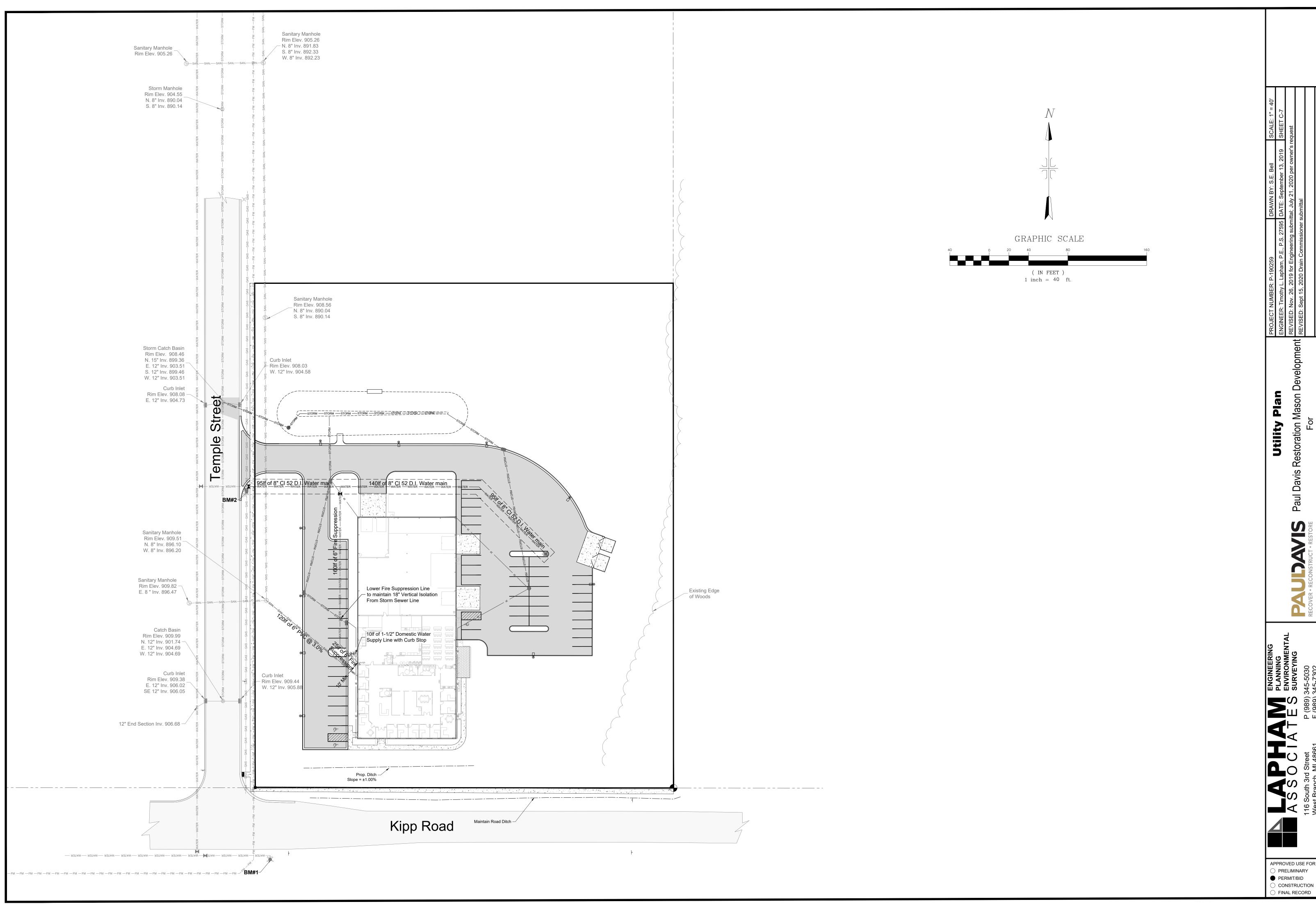
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Site

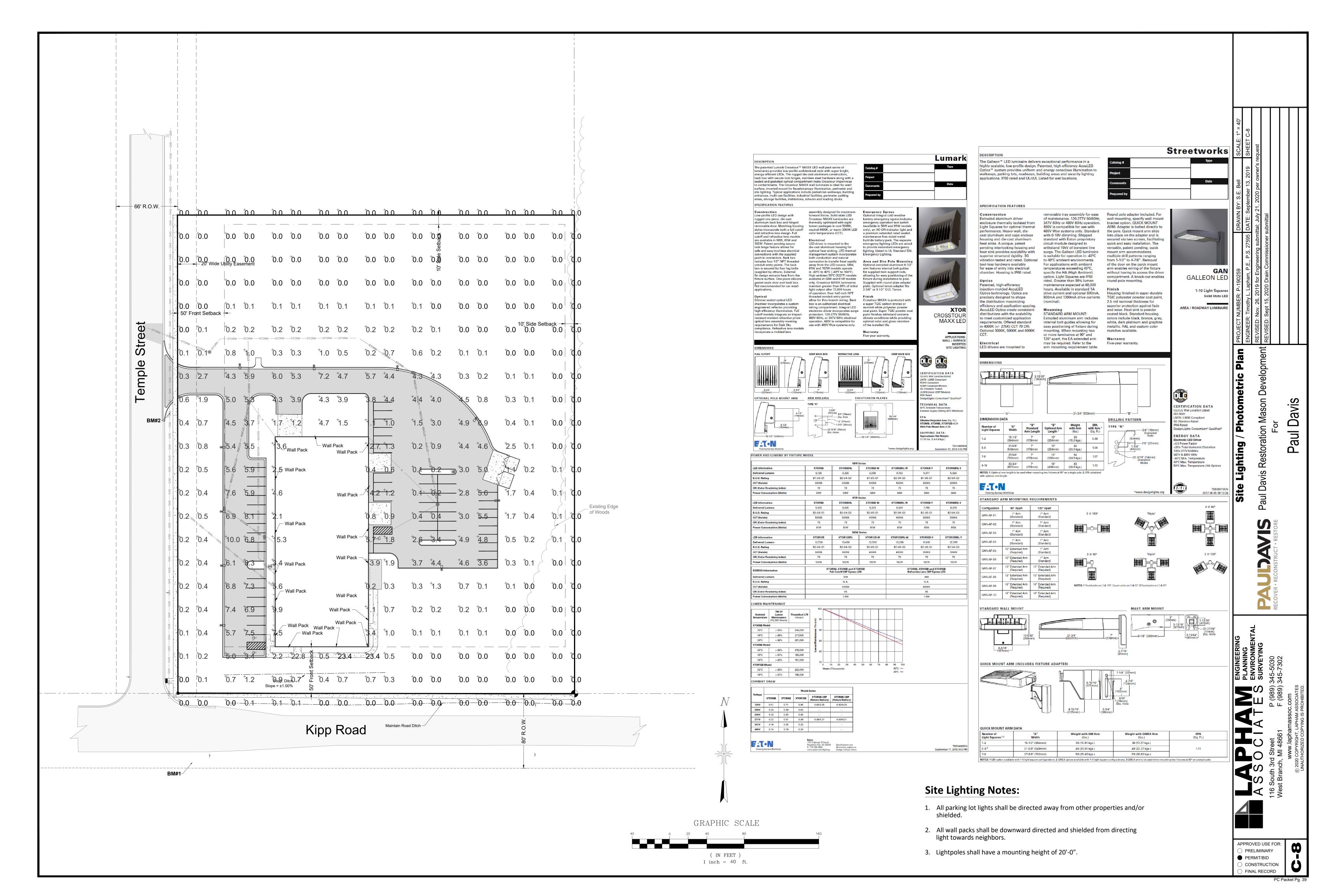


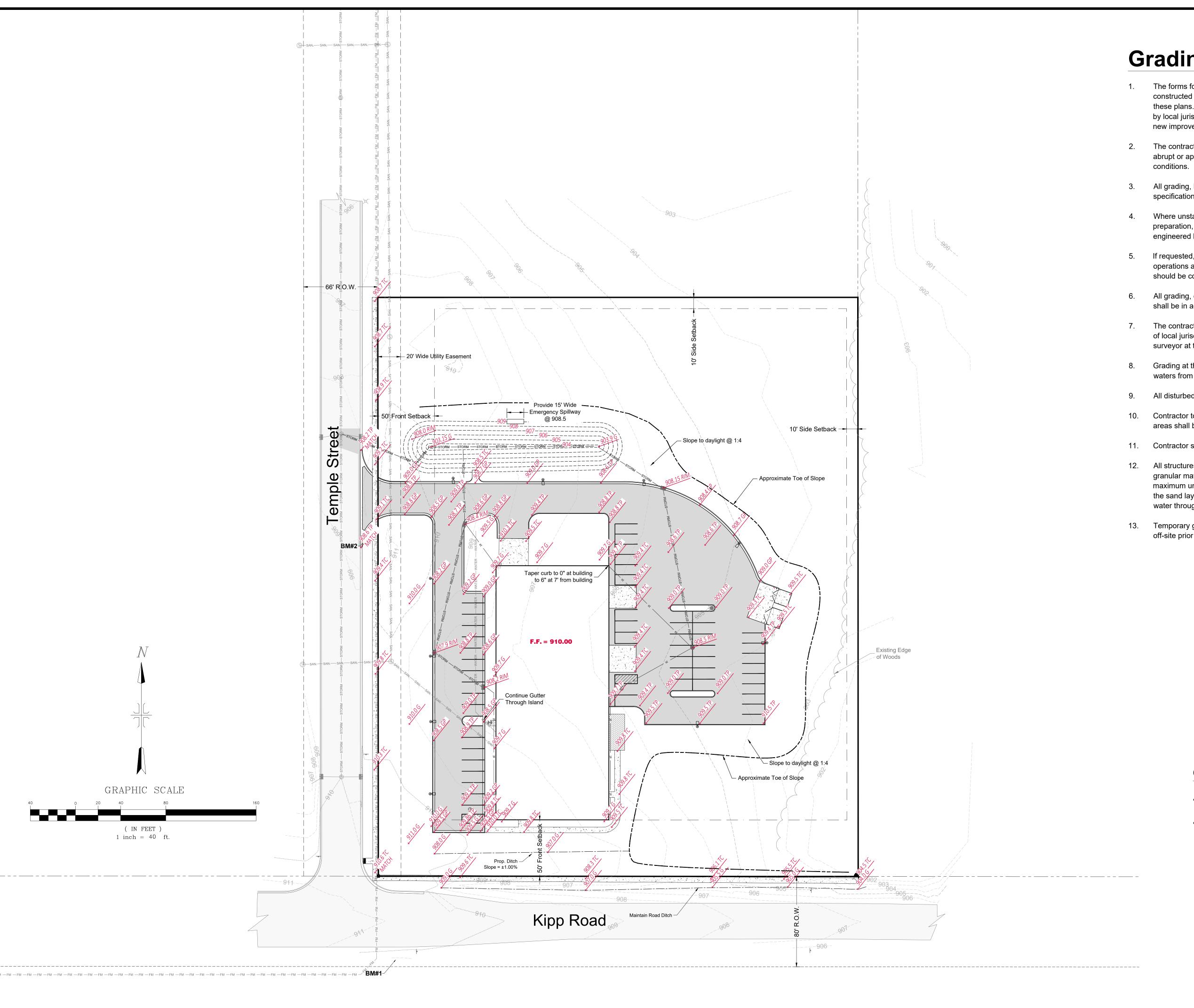
APPROVED USE FOR: PRELIMINARY PERMIT/BID CONSTRUCTION FINAL RECORD





Paul Davis





Grading Notes:

- 1. The forms for concrete sidewalks, curbs, gutters, and driveways that are to be constructed to conform to existing roads shall be installed to the grades shown on these plans. Prior to placing concrete, the forms shall be inspected and approved by local jurisdiction for conformance to existing road improvements. Grades of new improvements are subject to field adjustment to fit conditions.
- The contractor shall be responsible for matching existing facilities to avoid any abrupt or apparent changes in grades or cross slopes, low spots, or hazardous conditions.
- 3. All grading, back filling, excavation, etc., shall be in accordance with the specification or normal practice if not specified.
- 4. Where unstable or unsuitable materials are encountered during subgrade preparation, the area in question shall be over excavated and replaced with engineered backfill material.
- 5. If requested, a representative of the engineer shall be on the site during grading operations and shall observe the construction and identify any conditions that should be corrected and recommend corrective measures to the contractor.
- 6. All grading, erosion, and sediment control and related work undertaken on this site shall be in accordance with local jurisdiction.
- 7. The contractor shall not disturb any permanent survey points without the consent of local jurisdiction. Any points destroyed shall be replaced by a licensed surveyor at the contractor's expense.
- 8. Grading at the boundaries shall be done so as not to obstruct the runoff of storm waters from adjacent properties.
- 9. All disturbed areas shall be topsoiled, seeded, fertilized and mulched.
- 10. Contractor to maintain all soil erosion control measures. Surrounding paved areas shall be power broomed as necessary to remove mud tracking from the site.
- 11. Contractor shall obtain soil erosion permit prior to any construction.
- 12. All structures, sidewalks, curbs and asphalt shall have a minimum of 12" of clean granular material (MDOT Class II) as a sub-base and compacted to 95% maximum unit density. If pumping or yielding is caused by the compactive efforts, the sand layer shall be increased until density can be obtained without pumping water through the subgrade.
- 13. Temporary grading easements form property owners shall be obtained for grading off-site prior to working on adjacent properties.

Grading & Storm Water Notes:

- Roof Drains shall be connected to drain tiles and either discharge to swales or catch basins.
- All Grades subject to field adjustment.

LEGEND:

- P TOP OF PAVEMENT
 C TOP OF CONCRETE
 C BACK OF CURB
- BACK OF CURB
 GUTTER PAN
 FINISH FLOOR
- G GROUND

 IIM RIM ELEVATION

 IV INVERT ELEVATION

- ELEVATION AT LOCATION

- DIRECTION OF SURFACE FLOW

APPROVED USE FOR:

PRELIMINARY

PERMIT/BID

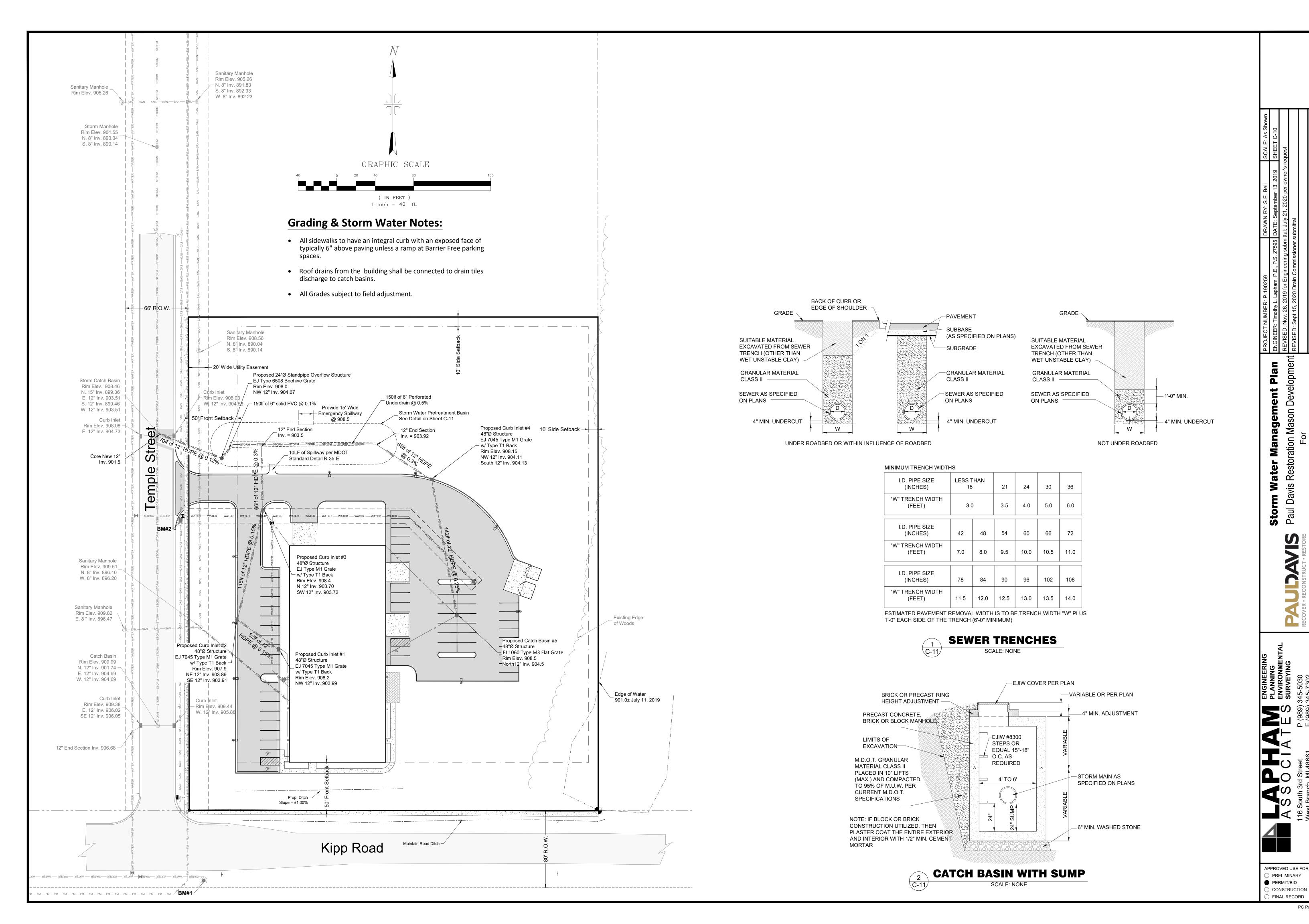
CONSTRUCTION

FINAL RECORD

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PC Packet Pg. 40

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STORAGE CALCULATIONS:

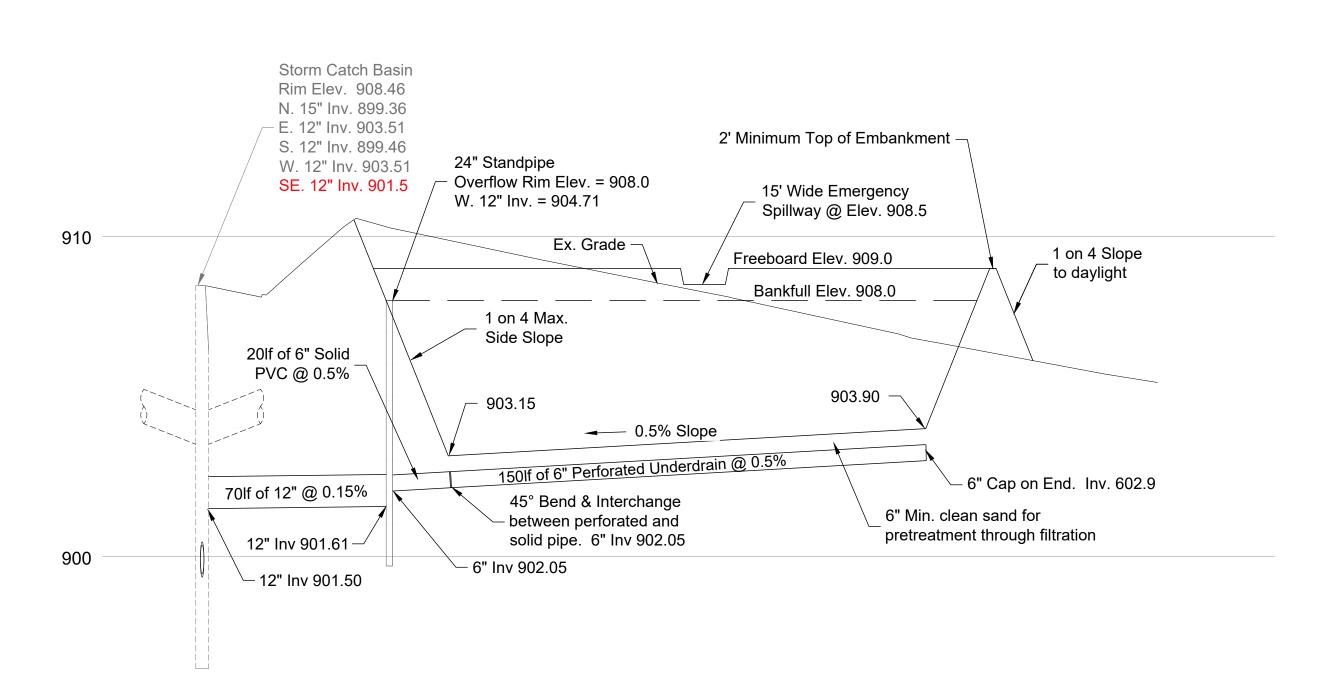
NOTE: The subdivision was designed and built to accommodate detention storage for the entire development when it is fully developed. Therefore pretreatment of the first flush volume is the total storage. This volume will be stored in the sediment bay and filtered through sand to an underdrain. Any volume above the first flush volume will overtop the 24" standpipe and flow through the 12" pipe to the previously developed storm sewer network to the detention pond. First flush volume is the first 1" of

STORAGE VOLUME:

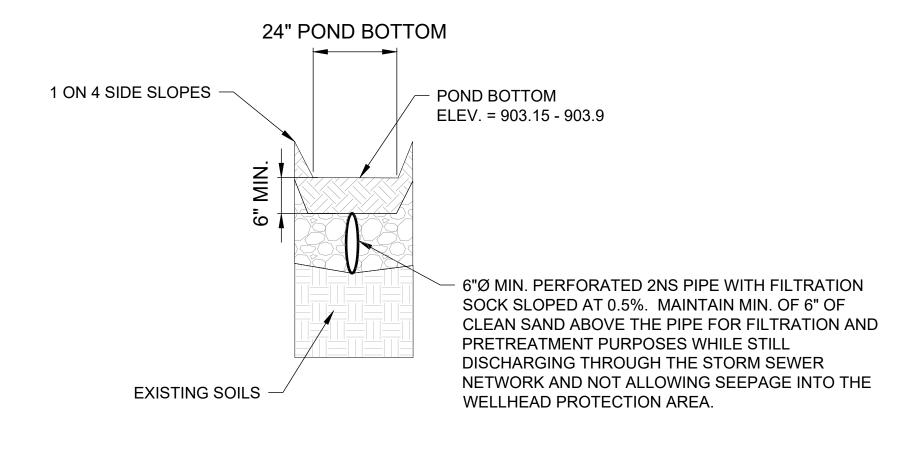
First Flush Volume (First 1" of Runoff): Per Ingham County Drain Commission Design Standards, the volume of first flush is calculated as the acreage multiplied by 3,630 (1 inch x 1/12 foot x 43,560 sq. feet/acre) Total Disturbed Area (per SESC Plans) = 3.30 Acres

V = 3.30 acres x 3,630 cf/acre = 11,979 cf

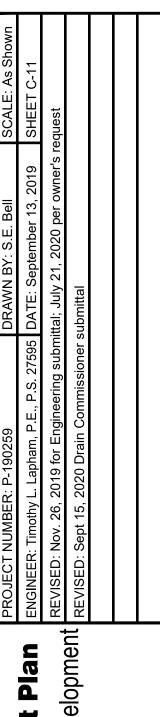
	BASIN STA	AGE ST	ORAGE TAB	LE
ELEV	AREA (sq. ft.)	DEPT H (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)
903.75	12.31	N/A	N/A	0.00
904	614	0.25	78	78
905	1913	1	1264	1342
906	3313	1	2613	3955
907	4813	1	4063	8017
908	6413	1	5613	13630











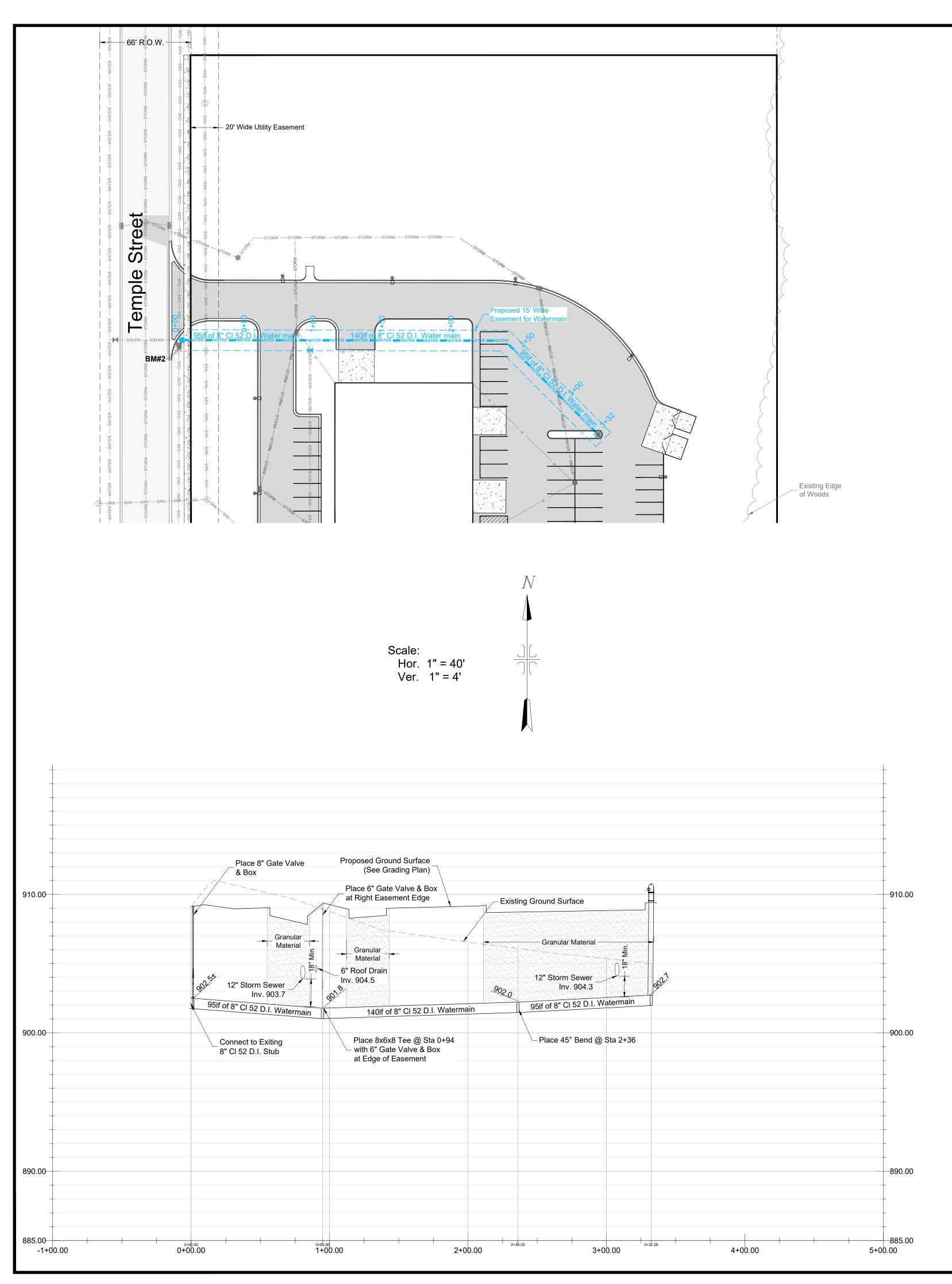
r Management Plan coration Mason Development Davis Paul

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APPROVED USE FOR: PRELIMINARY PERMIT/BID CONSTRUCTION



WATER MAIN NOTES:

- 1. All water main work Shall Comply With Current City of Mason's Design Standards and Standard Details & Specifications.
- 2. Water main shall be placed at a minimum depth of 5.5' and a maximum depth of 7.5' from finish grade and shall include tracer wire.
- 3. Water main shall be in a 15' wide public easement centered on the main dedicated to City of Mason.
- 4. All water mains shall be pressure tested prior to disinfecting and bacterialogical testing in accordance with the City of Mason's requirements prior to being accepted and placed into service.
- 5. Check valves must be installed within the building in the mechanical room on both Domestic and Fire service lines.
- 6. All pipe joints and fittings shall be restrained with mechanical joint restraint systems. Joints shall be all series manufactured by EBAA Iron, Inc., or approved equal. Material specifications shall be submitted to the engineer and be approved by the City prior to installation. All mechanical joints shall complying with the following:
 - The restraint shall be manufactured of ductile iron conforming to ASTM A536.
- The restraint devices shall be coated with MEGA-BOND.
- The combination of the restraint(s) and fasteners shall have a pressure rating to the full pressure rating of the pipe.
- The restraint shall have a two to one safety factor.



Profile 8

Paul Davis

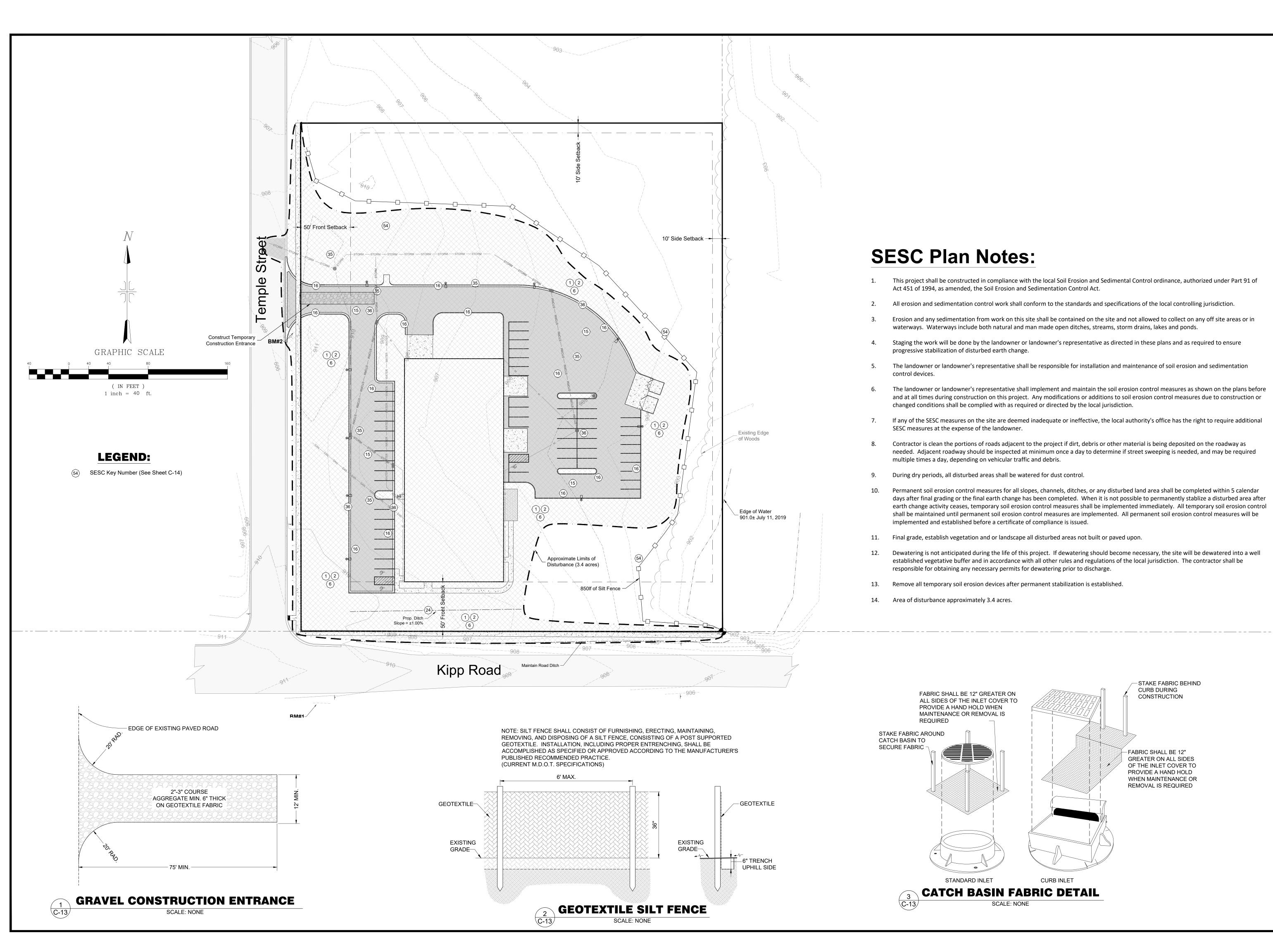
Main Plan Water





) PRELIMINARY PERMIT/BID

CONSTRUCTION



APPROVED USE FOR: PRELIMINARY PERMIT/BID CONSTRUCTION

FINAL RECORD

MICHIGAN



SEEDING ZONES

RATE OF AP	PLICATION	N (ALL ZONE
TYPE OF SEED	PER/1000 SF	PER ACRE
SPRING OATS/BARLEY C	0.1.00	3 BU 20-25 LBS
SUDANGRASS	1 LB	30-40 LBS
RYE OR PERENNIAL RYE	3 LBS 1/2 LB	2-3 BU 20-25 LBS
WHEAT	3 LBS	2-3 BU
	ı	1

		TY OF A SPECIFIC CONTROL MEASURE HE SEVEN PROBLEM AREAS	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGE WAYS	ENCLOSED DRAINAG (Inlet & Outfall Cont	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADJACENT PROPERTIES
KEY	DETAIL	CHARACTERISTICS	A	В	C	D	E	F	G
1	STRIPPING & STOCKPILING TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION. STOCKPILE SHOULD BE TEMPORARILY SEEDED.							
2	ELECTIVE GRADING & SHAPING	WATER CAN BE DIVERTED TO MINIMIZE EROSION. FLATTER SLOPES EASE EROSION PROBLEMS.							
3	GRUBBING OMITTED	SAVES COST OF GRUBBING, PROVIDES NEW SPROUTS, RETAINS EXISTING ROOT MAT SYSTEM, REDUCES WIND FALL AT NEW FOREST EDGE, DISCOURAGES EQUIPMENT ENTRANCE							
4	VEGETATIVE STABILIZATION	MAY UTILIZE A VARIETY OF PLANT MATERIAL STABILIZES SOIL SLOWS RUNOFF VELOCITY FILTERS SEDIMENT FROM RUNOFF							
5	SEEDING	INEXPENSIVE AND VERY EFFECTIVE STABILIZES SOIL, THUS MINIMIZING EROSION PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME SHOULD INCLUDE PREPARED TOPSOIL BED							
6	SEEDING WITH MULCH AND/OR MATTING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER EFFECTIVE FOR DRAINAGEWAYS WITH LOW VELOCITY EASILY PLACED IN SMALL QUANTITIES BY INEXPERIENCED PERSONNEL SHOULD INCLUDE PREPARED TOPSOIL BED							
7	HYDRO-SEEDING	EFFECTIVE ON LARGE AREAS MULCH TACKING AGENT USED TO PROVIDE IMMEDIATE PROTECTION UNTIL GRASS IS ROOTED SHOULD INCLUDE PREPARED TOPSOIL BED							
8	SODDING	PROVIDES IMMEDIATE PROTECTION CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH EASY TO PLACE; MAY BE REPAIRED IF DAMAGED SHOULD INCLUDE PREPARED TOPSOIL BED							
9	VEGETATIVE BUFFER STRIP WENEYE	SLOWS RUNOFF VELOCITY FILTERS SEDIMENT FROM RUNOFF REDUCES VOLUME OF RUNOFF ON SLOPES							
10	MULCHING	USED ALONE TO PROTECT EXPOSED AREAS FOR SHORT PERIODS PROTECTS SOIL FROM IMPACT OF FALLING RAIN PRESERVES SOIL MOISTURE AND PROTECTS GERMINATING SEED FROM TEMPERATURE EXTREMES							
11	ROUGHENED SURFACE	REDUCES VELOCITY AND INCREASES INFILTRATION RATES COLLECTS SEDIMENT HOLDS WATER, SEED, AND MULCH BETTER THAN SMOOTH SURFACES							
12	COMPACTION	HELPS HOLD SOIL IN PLACE, MAKING EXPOSED AREAS LESS VULNERABLE TO EROSION							
13	RIPRAP, RUBBLE, GABIONS	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS PERMITS RUNOFF TO INFILTRATE SOIL DISSIPATES ENERGY FLOW AT SYSTEM OUTLETS							
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS							
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VOLUME AND VELOCITY IRREGULAR SURFACE WILL HELP SLOW VELOCITY							
16	CURB & GUTTER	KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGEWAY							
17	BENCHES	REDUCES RUNOFF VELOCITY BY REDUCING EFFECTIVE SLOPE LENGTH COLLECTS SEDIMENT PROVIDES ACCESS TO SLOPES FOR SEEDING, MULCHING AND MAINTENANCE							
	DIVERSION BERM							п	

/ERTS WATER FROM VULNERABLE AREAS

LLECTS AND DIRECTS WATER TO PREPARED DRAINAGEWAYS

AY BE PLACED AS PART OF NORMAL CONSTRUCTION OPERATION

PERMANENT SEEDING GUIDE IRRIGATED AND/OR MULCH WITHOUT IRRIGATION OR MULCH IRRIGATED AND/OR MULCHED WITHOUT IRRIGATION OR MULCH

IRRIGATED AND/OR MULCHED WITHOUT IRRIGATION OR MULCH

	ZONE 1						
TYPE OF SEED	APR	MAY	JUN	JUL	AUG	SEP	0
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS					15TH		
SUDANGRASS							
RYE OR PERENNIAL RYE							
WHEAT							
	ZONE 2					1 1222	*//
TYPE OF SEED	APR	MAY	JUN	JUL	AUG	SEP	0
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS							
SUDANGRASS							
RYE OR PERENNIAL RYE							
WHEAT					17.0		
	ZONE 3					V 7 7 7	
TYPE OF SEED	APR	MAY	JUN	JUL	AUG	SEP	0
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS							
SUDANGRASS							
RYE OR PERENNIAL RYE							
WHEAT							

INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE

CHARACTERISTICS

DIVERTS WATER TO A PREPARED DRAINAGEWAY MAY BE USED AT INTERVALS ACROSS SLOPE FACE TO REDUCE

CONSTRUCTED OF GRAVEL OR STONE

SLOWS RUNOFF AND COLLECTS SEDIMENT

AST EXPENSIVE FORM OF DRAINAGEWAY

OF MINIMUM EROSION POTENTIAL

O EDGE OF SLOPE AREA

O EDGE OF SLOPE AREA

EDGE OF SLOPE AREA

REMOVES SEDIMENT AND TURBIDITY

IMPLE TO CONSTRUCT

CAN BE VISUAL AMENITIES

SES SLASH AND LOGS FROM CLEARING OPERATIONS CAN BE COVERED AND SEEDED RATHER THAN REMOVED

IMINATES NEED FOR BURNING OR REMOVAL OF MATERIAL FROM SITE

AY BE USED ONLY WHERE GRADIENT IS VERY LOW AND WITH SOILS

JCH MORE STABLE FORM OF DRAINAGEWAY THAN BARE CHANNEL GRASS TENDS TO SLOW RUNOFF AND FILTER OUT SEDIMENT SED WHERE BARE CHANNEL WOULD BE ERODED

AN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES

USUALLY PERMANENT
CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES

AN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES

LOWS VELOCITY OF FLOW, REDUCING EROSIVE CAPACITY

MAY BE PART OF PERMANENT EROSION CONTROL PLAN

OWS RUNOFF VELOCITY TO NON-EROSIVE LEVEL ERMITS SEDIMENT COLLECTION FROM RUNOFF

RAPS SEDIMENT AND REDUCES VELOCITY OF FLOW AN BE CLEANED AND EXPANDED AS NEEDED

OLLECTS HIGH VELOCITY CONCENTRATED RUNOFF

MAY USE FILTER CLOTH OVER INLET

RELEASES RUNOFF AT NON-EROSIVE RATES ONTROLS RUNOFF AT SYSTEM OUTLETS

IVERTS COLLECTED CHANNEL OR PIPE FLOW BACK TO SHEET FLOW VOIDS CHANNEL EASEMENTS AND CONSTRUCTION OFF PROJECT SITE

STEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS, CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF ONDUCTS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED JTFALL LOCATION, USE CATCH BASINS TO COLLECT SEDIMENT

VENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED

/ENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED

TO ONE OR MORE OF THE SEVEN PROBLEM AREAS

SOIL EROSION & SEDIMENTATION **CONTROL PLAN**

SESC GENERAL NOTES: MICHIGAN UNIFIED KEYING SYSTEM

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY AND PERMANENT CONTROL MEASURES UNTIL VEGETATION HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS. MAINTENANCE SHALL INCLUDE: PERIODIC INSPECTIONS, REMOVING ACCUMULATED SEDIMENT AND REPAIRING OR REPLACING DAMAGED CONTROL MEASURES. INSPECTIONS SHALL BE PERFORMED DAILY DURING THE CONSTRUCTION PROCESS. FOLLOWING CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ON A WEEKLY BASIS AND AFTER EVERY SIGNIFICANT RAIN EVENT UNTIL VEGETATION HAS BEEN ESTABLISHED.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF TEMPORARY CONTROL MEASURES AFTER ALL DISTURBED AREAS HAVE BEEN RESTORED AND VEGETATION HAS BEEN ESTABLISHED. INSTALL FILTER FABRIC UNDER ALL CATCH BASIN GRATES UNTIL PERMANENT SOIL EROSION MEASURES HAVE TAKEN EFFECT. INSTALL SILT FENCES PRIOR TO ANY SITE WORK.

3. THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF PERMANENT CONTROL MEASURES AFTER THE ESTABLISHMENT OF VEGETATION ON DISTURBED AREAS. THE OWNER SHALL MAKE PERIODIC INSPECTIONS, AND REPLACE OR REPAIR DAMAGED PERMANENT CONTROL MEASURES AS REQUIRED.

4. TIMING SEQUENCE AND CONSTRUCTION SCHEDULE:

PHASE ONE - EARTH GRADE CHANGE. CONSTRUCT DITCHES, UTILITIES, PARKING LOT SUBGRADE. PLACE AND MAINTAIN TEMPORARY CONTROL MEASURES DURING THIS CONSTRUCTION PHASE. - COVER CATCH BASINS

- GEOTEXTILE SILT FENCE AND/OR STRAW BALES.

5. ANTICIPATED START CONSTRUCTION DATES: To Be Determined - 2020 Construction Start Planned Construct driveway entrance

Start excavation

Start foundation

Start underground utilities

Start parking lot and retention pond

Pave parking lot Start landscaping

Contractor to supply dates after selection and prior to commencing construction.

6. PERMANENT CONTROL MEASURES SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL EARTH CH

7. TEMPORARY SEEDING, OR DORMANT SEEDING SHALL BE UTILIZED FOR "WINTER STABILIZATION".

		TY OF A SPECIFIC CONTROL MEASURE IE SEVEN PROBLEM AREAS	SLOPES	STREAMS AND WATERWAYS	SURFACE DRAINAGEWAYS	ENCLOSED DRAINA((Inlet & Outfall Con	LARGE FLAT SURFACE AREAS	BORROW AND STOCKPILE AREAS	ADJACENT PROPERTIES
KEY	DETAIL	CHARACTERISTICS		В	C	D	E	F	G
37	SOD FILTER	INEXPENSIVE AND EASY TO CONSTRUCT PROVIDES IMMEDIATE PROTECTION PROTECTS AREAS AROUND INLETS FROM EROSION							
38	STRAW BALE FILTER	INEXPENSIVE AND EASY TO CONSTRUCT CAN BE LOCATED AS NECESSARY TO COLLECT SEDIMENT MAY BE USED IN CONJUNCTION WITH SNOW FENCE FOR ADDED STABILITY							
39	ROCK FILTER	CAN UTILIZE MATERIAL FOUND ON SITE EASY TO CONSTRUCT FILTERS SEDIMENT FROM RUNOFF							
40	INLET SEDIMENT TRAP	EASY TO SHAPE COLLECTS SEDIMENT MAY BE CLEANED AND EXPANDED AS NEEDED							
41	STONE AND ROCK CROSSING	MAY BE ROCK OR CLEAN RUBBLE MINIMIZES STREAM TURBIDITY INEXPENSIVE MAY ALSO SERVE AS DITCH CHECK OR SEDIMENT TRAP							
42	TEMPORARY CULVERT	ELIMINATES STREAM TURBULENCE AND TURBIDITY PROVIDES UNOBSTRUCTED PASSAGE FOR FISH AND OTHER WATER LIFE CAPACITY FOR NORMAL FLOW CAN BE PROVIDED WITH STORM WATER FLOWING OVER ROADWAY							
43	CULVERT SEDIMENT TRAP	EASY TO INSTALL AT INLET KEEPS CULVERT CLEAN AND FREE FLOWING MAY BE CONSTRUCTED OF LUMBER OR LOGS							
44	CULVERT SEDIMENT TRAP	DEFLECTS CURRENTS AWAY FROM STREAMBANK AREAS							
45	TEMP. STREAM CHANNEL CHANGE	NEW CHANNEL KEEPS NORMAL FLOWS AWAY FROM CONSTRUCTION REQUIRES STATE PERMIT							
46	SHEET PILINGS	PROTECTS ERODIBLE BANK AREAS FROM STREAM CURRENTS DURING CONSTRUCTION MINIMAL DISRUPTION WHEN REMOVED							
47	COFFERDAM	WORK CAN BE CONTINUED DURING MOST ANTICIPATED STREAM CONDITIONS CLEAR WATER CAN BE PUMPED DIRECTLY BACK INTO STREAM							
48	CONSTRUCTION DAM	PERMITS WORK TO CONTINUE DURING NORMAL STREAM STAGES CONTROLLED FLOODING CAN BE ACCOMPLISHED DURING PERIODS OF INACTIVITY							
49	CHECK DAMS	REDUCES FLOW VELOCITY CATCHES SEDIMENT CAN BE CONSTRUCTED OF LOGS, STRAW, HAY, ROCK, LUMBER, MASONRY, OR SAND BAGS							
50	WEIR	CONTROLS SEDIMENTATION IN LARGE STREAMS CAUSES MINIMAL TURBIDITY							
51	RETAINING WALL	REDUCES GRADIENT WHERE SLOPES ARE EXTREMELY STEEP PERMITS RETENTION OF EXISTING VEGETATION, KEEPING SOIL STABLE IN CRITICAL AREAS MINIMIZES MAINTENANCE							
52	SEEPAGE CONTROL	PREVENTS PIPING AND SOIL SLIPPAGE ON CUT SLOPES							
53	WINDBREAK	MINIMIZES WIND EROSION MAY BE SNOW FENCE							
54	SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.							

APPROVED USE FOR: PRELIMINARY PERMIT/BID CONSTRUCTION

FINAL RECORD

1.01 Scope:

A. Provide, install and remove all concrete formwork and accessories necessary for concrete construction as indicated on the drawings and specified herein.

1.02 Related Work Specified Elsewhere:

A. Concrete Reinforcement -DIVISION 03 20 00 B. Cast-in-place Concrete -DIVISION 03 30 00

1.03 Referenced Standards:

- A. ACI, "ACI Manual of Concrete Practice"
- B. American Plywood Association, "Plywood for Concrete Forming"
- C. American Institute of Timber Construction, "Timber Construction Manual" D. National Forest Products Association, "Design of Wood Formwork for Concrete Structures"

1.04 Design:

A. The Design and Engineering of Concrete Formwork shall be the responsibility of the

PART 2 PRODUCTS

2.01 Form Materials:

A. Forms shall be either metal free of irregularities, dents, and/or sags; or plywood made specifically for concrete form use complying with APA "Plywood for Concrete Forming."

2.02 Coatings and Release Agents:

A. Steel Forms: Colorless mineral oil which will not stain concrete.

2.03 Accessories:

A. Form ties and spreaders shall be removable or snap-off commercially manufactured metal with cone ends leaving no metal exposed within 1" of finished face of concrete and causing no surface disfiguration greater that 3/4" in diameter.

PART 3 EXECUTION

3.01 General Requirements:

A. Design, install, and remove Concrete Formwork specified herein in strict accordance with the Referenced Standards.

3.03 Supplemental Requirements:

- A. Attach, as required elsewhere in the Construction Documents or as required to properly interface Concrete Work with the Work of other trades, all required accessories, anchor bolts, hangers, sleeves, slots and/or inserts.
- B. Unless indicated otherwise on the Drawings, provide 3/4" chamfer strips at all outside corners of exposed Cast-in-Place Concrete.
- C. Earth cuts may be used as forms where concrete is not to be exposed or to receive waterproofing.
- D. Formwork shall be constructed to the shape, line, and dimension as required by the plans. Do not scale off plans. Construction is to be according to written dimensions. E. Forms shall be sufficiently tight to prevent leakage of concrete and shall be properly
- braced and tied together to maintain position and shape during concrete placement.

END OF SECTION

CONCRETE REINFORCEMENT DIVISION 03 20 00

PART 1 GENERAL

1.01 Scope:

A. Provide and install all concrete reinforcement and accessories, complete, as indicated on the drawings and specified herein.

1.02 Related Work Specified Elsewhere:

A. Concrete Forming -DIVISION 03 10 00 -DIVISION 03 30 00 B. Cast-in-Place Concrete

1.03 Referenced Standards:

- A. ACE "ACI Manual of Concrete Practice"
- B. ASTM A185, "Welded Steel Wire Fabric for Concrete Reinforcement" C. ASTM A615, "Specifications for Pre formed and Plain Built-Steel Bars for Concrete Reinforcement"

1.04 Storage of Materials:

A. Materials shall be stored so as not to deteriorate due to excessive rusting or become contaminated by foreign substances.

PART 2 PRODUCTS

2.10 Bar Reinforcement:

A. Shall comply with ASTM A615, grade 60 billet steel deformed bars, uncoated finish.

2.02 Welded Wire Fabric:

A. Shall conform to ASTM A185, plain type.

2.03 Accessories:

- A. Tie Wire: Annealed steel, 16-gauge minimum.
- B. Reinforcement Supports: Galvanized steel bolster, chairs and supports with plastic coating where in contact with formwork.

PART 3 EXECUTION

3.01 General Requirements:

A. Design, fabricate and place Concrete Reinforcement specified herein in strict accordance with Referenced Standards.

3.02 Supplemental Requirements:

A. Unless indicated otherwise on the Drawings, maintain a minimum 3" clearance between all reinforcement specified and the outside face of the concrete enclosing the reinforcement through the use of concrete bricks and galvanized reinforcement bars anchored into adjacent earth where earth cut forms are utilized and through the use of prefabricated chairs and spreaders with vinyl coated feet where concrete formwork

END OF SECTION

CAST-IN-PLACE CONCRETE DIVISION 03 30 00

PART 1 GENERAL

1.01 Scope:

A. Provide, place, patch, cure and finish all concrete as indicated on the Drawings and

1.02 Related Work Specified Elsewhere:

A. Concrete Forming -DIVISION 03 10 00 B. Concrete Reinforcement -DIVISION 03 20 00

1.03 Submittals:

- A. Concrete test results.
- B. Concrete design mix proposed to comply with Specifications.
- C. Provide Specification indicating materials to actually be utilized under this Section if choice permitted.
- D. Concrete Truck batch ticket indicating presence of specified admixture and amount

1.04 Referenced Standards:

- A. ACI, "Manual of Concrete Practice"
- B. ASTM C31, "Practice for Making and Curing Concrete Test Specimens in the field"
- C. ASTM C33, "Specification for Concrete Aggregates"
- D. ASTM C39, "Test Method of Compressive Strength of Cylindrical Concrete Specimens"
- E. ASTM C94, "Specification for Ready-Mixed Concrete
- F. ASTM C143, "Test Method for Slump of Hydraulic Cement Concrete"
- G. ASTM C150, "Specification for Portland Cement"
- H. ASTM C172, "Method of Sampling Freshly Mixed Concrete: I. ASTM C231, "Test Method of Air Content of Freshly Mixed Concrete By the Pressure
- J. ASTM C260, "Specification for Air-Entraining Admixtures for Concrete"

1.05 Testing:

- A. Testing of concrete as specified in this section shall be arranged by the Contractor.
- B. Concrete shall be sampled, handled and tested in strict accordance with the following
- Referenced Standards for the procedure indicated.
- 1) Sampling fresh Concrete: ASTM C172 2) Slump Determination: ASTM C143
- 3) Making, curing, protecting and transporting concrete test specimens: ASTM C31
- 4) Testing Compressive Strength: ASTM C39 5) Testing Air Content: ASTM C231
- C. The following information shall be recorded concerning each sampling by the Testing Technician:
- 1) Name of Technician taking sample.
- 2) Date and time of sampling.
- 3) Air temperature and weather condition at time of sampling. 4) Design compressive strength of Concrete being sampled.
- 5) Source of Concrete, Truck Number and Ticket Number if batched offsite.
- 6) List of Admixtures indicated to be present in Concrete on batch ticket. 7) List of Admixtures and/or water added to the Concrete mix on site, whether added before or after sampling taken by Testing Technician and quantity of item
- 8) Specific location in structure in which the concrete is placed after sampling. D. Tests shall be performed for each Concrete Sampling to determine the following:
 - 1) Concrete temperature at time of sampling.
 - 2) Concrete Slump.
 - 3) Concrete Air Content, if air entrainment specified, at the time of sampling.
 - 4) Compressive Strength of Test Cylinders in the following quantities at the following increments from the date of sampling:
 - a) One test at 7 days
- b) Two tests at 28 days
- c) One specimen shall be retained in reserve for later testing if required. The Testing Laboratory shall prepare a report recording the information required in items C. and D. above and mail the report directly to the Owner, Engineer and
- Contractor the day of the compressive tests. F. Four cylinders shall be made for each test. Perform a minimum of one test for each 100 cubic yards per class of concrete placed, but in no case shall there be less than one test for each day's concreting per class of concrete.
- G. Concrete to be tested shall be randomly selected by the Testing Technician without direction from the Contractor or material supplier

PART 2 PRODUCTS

2.01 Concrete:

- A. Concrete shall be composed of Portland Cement in conformance with ASTM C150, aggregates in conformance with ASTM C33 and water in conformance with ASTM C94, proportioned to achieve a compressive strength of 3,500 psi at 28 days unless noted otherwise in the specifications or on the drawings. Unless noted otherwise the maximum allowable slump shall be 4".
- B. Unless noted otherwise the water-cement ration shall not exceed .5 by weight.
- C. Air-entraining Admixture, where specified, shall conform with Referenced Standard ASTM C260. Provide air entraining admixture for all concrete exposed to freeze-thaw cycling. Air content shall be 7% +- 1%.

2.02 Additives:

- A. Admixtures containing thyocyanates or calcium chloride are not permitted.
- B. Water reducing chemical admixtures shall conform to ASTM C494 Type A.

C. Unless specified herein, additives or admixtures shall not be used without written approval from the Engineer.

2.03 Curing Compound:

A. "Ellis Clear Acrylic cure 309" as manufactured by Ellis Construction Accessories, or equal meeting ASTM C309. Curing compound shall be an acrylic formula designed and certified to be compatible with resilient flooring adhesives.

2.04 Non-Shrink Grout:

"Masterflow 713" by Master Building Co.; "Sonogrout" by Sonnebrone Building Products; "Crystex", as manufactured by L&M Construction Chemicals, Inc., or

2.05 Vapor Barrier:

approved equal; with a minimum compressive strength of 5 psi at 28 days.

A. 6 mil. polyethylene film.

PART 3 EXECUTION

3.01 General Requirements:

- A. Mix, transport, test, place, finish and cure all Cast-In-Place Concrete and other products specified herein in strict accordance with Referenced Standards and manufacturer's written specifications.
- B. Notify Testing Laboratory 24 hours prior to placement of all concrete.

3.02 Supplemental Requirements:

- A. Grind smooth surface projections, remove loose concrete and patch with Non-shrink grout, in strict accordance with manufacturer's written specifications, all surface honeycombs, wall tie holes and other vertical wall surface deformations on concrete walls to be exposed or to receive waterproofing assembly.
- Provide light broom finish on sidewalks unless noted otherwise.
- Apply curing Compound to all slab concrete in strict accordance with manufacturer's written specifications. Apply in sufficient quantity and reapply if necessary depending on weather conditions to protect concrete from premature drying. Apply additional coat of Curing Compound to slab concrete immediately after final cleaning of floor.
- D. Perform Cold Weather Concreting operations in strict accordance with the requirements of ACI 306R. E. Perform Hot Weather Concreting operations in strict accordance with the
- requirements of ACI 305R. Secure and install items to be embedded in Cast-In-Place Concrete in strict accordance with the manufacturer's written specifications, Referenced Standards and/or as indicated in the Drawings and Specifications.

3.03 Defective Concrete:

- A. Modify or replace concrete not conforming to required strength, levels, lines, details,
- B. Repair or replace concrete not properly placed or not of the specified type or finish.

END OF SECTION

SITE CLEARING **SECTION 31 10 00**

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

The extent of site preparation work expected to be minimal. This work includes, but is not limited to furnishing all labor, material, equipment, tools, incidentals, and services necessary for:

Temporary silt fencing

Related work as required

Protection of existing trees and vegetation

.02 SOIL EROSION AND SEDIMENTATION CONTROL A. Purpose - The purpose of this section is to minimize soil erosion and control sedimentation as required by the Soil Erosion and Sedimentation Control Act, Part 91,

- PA 451 of 1994 of the State of Michigan as amended. B. Permit - It is anticipated that a Soil Erosion and Sedimentation Control Permit will be required for this project. If a permit is required it shall be obtained prior to construction
- and shall be the responsibility of the contractor. C. Implementation - It shall be the responsibility of the Contractor to implement the Soil Erosion and Sedimentation Control Plan for this project in strict accordance with the permit, if required to be obtained. Unless specified within other sections of the specifications, all work under this section shall be in strict accordance with the construction methods as prescribed by the State of Michigan Department of Natural Resources for the implementation of this legislation. Refer to Michigan Guidebook for Soil Erosion and Sedimentation Control, prepared for and distributed by the Water

1.03 JOB CONDITIONS A. Protection of Existing Improvements - Provide barricades, coverings or other types of protection necessary to prevent damage to existing improvements indicated to remain in place. Protect improvements on adjoining properties and on the Owner's property. Restore any improvements damaged by this work to the original condition as acceptable

Resources Commission of the Department of Natural Resources, State of Michigan.

PART 2 - PRODUCTS

(770-944-4569), or approved equal.

- 2.01 PREASSEMBLED SILT FENCE A. Geotextile fabric - Polypropylene woven fabric, 2.3 oz./sq.yd., UV resistance 80% Propex® 2127, as mfd by Amoco Fabrics and Fibers Company, Austell, GA
- (770-944-4569), or approved equal. B. Silt Fence posts - As mfd by Amoco Fabrics and Fibers Company, Austell, GA

to the Owner and other parties or authorities having jurisdiction.

PART 3 - EXECUTION

Call Miss Dig (1-800-482-7171) 72 hours prior to start of clearing and excavation work. Work shall not begin on site until after the project site has been marked by all utility companies.

3.02 PREASSEMBLED SILT FENCE

Install silt fencing where shown on drawings and prior to beginning site clearing and grubbing work. Unroll, stretch, and drive fence posts plumb. Posts shall be installed on the downward side of the fencing. The bottom of the fabric shall be placed under 6" of compacted soil to prevent sediment from flowing underneath the fence.

3.03 SITE CLEARING AND GRUBBING

Remove vegetation, improvements or obstruction interfering with the installation of new construction. Clear the project site of trees, shrubs and other vegetation - except for those indicated to be left standing. Removal includes new and old stumps of trees and their roots. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction. Completely remove stumps, roots and other debris protruding through the ground surface. Use only hand methods for grubbing inside the drip line of trees indicated to be left standing. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated. Place fill material in horizontal layers not exceeding 0.5' loose depth, and thoroughly compact to a density equal to adjacent original ground.

3.04 DISPOSAL OF WASTE MATERIALS

Burning of combustible cleared and grubbed materials is not permitted on the Owner's property. Remove from the Owner's property and legally dispose of all waste materials and unsuitable or

3.05 TOPSOIL REMOVAL

Topsoil is defined as friable clay loam surface soil found in a depth of not less than 0.4' or greater depth as indicated on the drawings. Satisfactory topsoil is reasonably free of subsoil, clay lumps, stones and other objects over 2.0" in diameter, and without weeds, roots and foreign materials. Strip topsoil from within the areas to be occupied by the construction and from other areas within the grading limits to be cut, filled or re-graded. Strip topsoil to whatever depth encountered in a manner to prevent intermingling with the underlying subsoil or objectionable material. Remove heavy growth of grass from areas before stripping. Where trees are indicated to be left standing, stop topsoil stripping at a sufficient distance to prevent damage to the main root system. Stockpile topsoil as indicated and where it will not interfere with construction operations or site work. Locate topsoil storage piles in areas shown or where otherwise directed. Construct storage piles to freely drain surface water and cover if required to prevent windblown dust. If soil or weather conditions are unsuitable, the Contractor shall cease topsoil removal operations and resume only when directed to do so by the owner or engineer. Dispose of excess topsoil the same as waste material, herein specified.

3.06 SILT FENCE REMOVAL

Upon completion of all work, remove the silt control fence and legally dispose off project site. Rake and smooth soil along location of silt fence, and seed as required.

END OF SECTION

EARTH MOVING SECTION 31 20 00

PART 1 - GENERAL

The extent of Earthwork required is shown on the drawings. This work includes, but is not limited to furnishing all labor, material, equipment, tools, incidentals, and services necessary for:

Site grading Placement of fill materials

1.02 QUALITY ASSURANCE

Related work as required

1.01 DESCRIPTION OF WORK

- A. Codes and Standards Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.
- B. Lines and Grades The Contractor shall provide all instrumental surveying required to lay out and construct this work in conformance with the drawings.

1.03 JOB CONDITIONS

- A. Site Information The Contractor shall make his or her own investigation, as he or she deems necessary prior to the bid opening. Data on surface or subsurface conditions is not intended as representations or warranties of accuracy or continuity of actual site conditions. It is expressly understood that the Owner and project consultants employed as representatives of the work will not be responsible for interpretations or conclusions drawn therefrom by the Contractor. Data made available is for the convenience of the
- B. Existing Utilities Call MISS DIG prior to beginning work on the site. Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility owner immediately for directions. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner. Do not interrupt existing utilities serving facilities occupied and used by the Owner or others, except when permitted in writing by the owner or engineer, and then only after acceptable temporary utility services have
- D. Protection of Persons and Property Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washouts and other hazards created by earthwork operations.

been provided.

C. Explosives - The use of explosives is not permitted.

PART 2 - PRODUCTS

2.01 DEFINITIONS

- A. Standards Satisfactory soil materials are defined as those complying with American Association of State Highway and Transportation Officials (AASHTO) M145, soil classification Groups A-1, A-2-4, A-2-5 and A-3. Unsatisfactory soil materials are those defined in AASHTO M145 Soil Classification Groups A-2-6, A-2-7, A-4, A-6 and A-7. Also listed as unsatisfactory are peat and other highly organic soils. Cohesion-less soil materials include gravel, sand gravel mixture and gravely sands. Cohesive soil materials include clay and silty gravel, sand clay mixtures, gravel silt mixtures, clay and
- B. Subbase Material Subbase material shall be properly graded mixtures of natural or crushed gravel, crushed stone, crushed slag, or natural or processed sand that will readily compact to the required density complying with AASHTO M147, Grade A, unless otherwise indicated or acceptable to the owner or engineer.

C. Topsoil - Topsoil shall be fertile, friable organic soil, characteristic of the soils in the

project area that will produce heavy growths of vegetation. Topsoil shall be capable of

silty sands, sand silt mixtures, clays, silts and very fine sands.

supporting a healthy and vigorous stand of turf (lawn) grass.

3.01 EXCAVATION

PART 3 - EXECUTION

A. Excavation consists of removal and disposal of material encountered when establishing required grade elevations. Earth excavation includes removal and disposal of pavements and other obstructions visible on the ground surface, underground structures and utilities indicated to be demolished and removed, material of any classification indicated in data on subsurface conditions, and other materials encountered that are not classified as rock excavation or unauthorized excavation. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of the owner or engineer. Unauthorized excavation, as well as remedial work directed by the owner or engineer, shall be at the expense of the Contractor.

- B. Dewatering Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding project site and surrounding area. Convey water removed from excavations and rainwater to collecting or runoff areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.
- C. Materials Storage Stockpile satisfactory excavated materials where directed, until required for fill. Place grade and shape stockpiles for proper drainage. Locate and retain soil materials away from the edge of excavations. Cover stockpile, or provide temporary vegetative cover as may be required to comply with the Soil Erosion and Sedimentation Act. Dispose of excess soil material and waste materials as directed.

3.03 COMPACTION

Control soil compaction during construction providing minimum percentages of density specified for each area classification. Compact soil to not less than the following percentages of maximum dry density for soils that exhibit a well-defined moisture density relationship determined in accordance with ASTM D 1557.

3.04 BACKFILL AND FILL

Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below:

- A. Placement and Compaction Place fill materials in layers not more than 1.0 foot in loose depth for material compaction by heavy construction equipment and not more than 0.5 foot in loose depth for material compacted by hand operated
- B. At Existing Trees to Remain Remove vegetation within dripline and fill with a single layer of uncomplicated topsoil. Hand grade to attain required finish grade.

3.05 DISTRIBUTION OF TOPSOIL

Prior to topsoil placement, the subgrade shall be prepared to uniform levels and slope between points where elevations are shown. Abrupt changes in slope are to be rounded off. Loosen subgrade to a minimum depth of 0.4 foot. Remove stones over 1.0" in any dimension and sticks roots, rubbish and other extraneous matter. Fine rake by York Rake\, Viking Roller Blade\, or approved equal or by hand to produce a smooth even surface that conforms to the grades established on the drawings. Any irregularities shall be corrected in order to prevent the formation of depressions or water pockets. Topsoil shall be uniformly distributed to a minimum depth of 0.4 foot after firming, unless otherwise indicated. Topsoil in planting bed areas, if applicable, shall be placed to a minimum depth of 1.0 foot. Topsoil shall be spread in such a manner that finish grading, seeding or sodding, and landscape planting operations can proceed with a minimum of additional soil preparation. Place approximately 50% of the total amount of the topsoil required, work into top of loosened subgrade to create a transition layer, and then place remainder of topsoil. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet or in a condition that may otherwise be detrimental to proper grading. Irregularities in the surface resulting from topsoil spreading or other operations shall be corrected in order to prevent the formation of depressions or water pockets. Provide additional clean topsoil - subject to approval of the owner or engineer - as may be required to complete work. Remove any excess topsoil from the site, or distribute it and grade it as directed by engineer on site if approved by Owner.

3.06 MAINTENANCE

- A. Protection of Graded Areas Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and reestablish grades in settled, eroded and rutted
- areas to specified tolerances. B. Reconditioning of Compacted Areas - Where completed compacted areas are disturbed by subsequent construction operation or adverse weather, scarify surface, reshape and

compact to required density prior to further construction.

of such off the property, except as otherwise specifically noted.

3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS Remove excess excavated material, soil, trash, debris and waste materials and legally dispose

END OF SECTION BASES, BALLASTS AND PAVING

PART 1 GENERAL

DIVISION 32 10 00

1.01 Scope: A. Provide sub-base, base and bituminous paving for driveways walkway, sidewalk, and

concrete pads, as indicated on the drawings, as specified herein, and as needed for a

1.02 Referenced Standards:

PART 2 PRODUCTS

2.01 Materials

A. MDOT 22A Agregate (Base)

A. MDOT Standard Specifications

complete and proper installation.

B. MDOT Class II Granular Material (Subbase) C. MDOT 13A HMA (Pavement)

D. Seed, Mulch and Fertilizer (See Seeding Section 32 92 00)

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APPROVED USE FOR: PRELIMINARY PERMIT/BID CONSTRUCTION FINAL RECORD

3.01 General Requirements

- Subgrade Preparation for Subbase The subgrade shall be smoothed and trimmed to the required line, graded and cross sectioned to receive the sub base course with no topsoil, organic material, sticks, roots or other deleterious
- materials and shall be compacted to not less then 90 percent (90%) M.U.W. 2. Subbase Preparation for Base - the subbase shall be smoothed and trimmed to the required line, grade, and cross section to receive the base course and shall
- be compacted to not less than 95 percent (95%) of M.U.W. The subbase thus formed shall be maintained in a smooth and compacted condition until the base course has been placed.
- 4. No base course shall be placed on the subbase until it has been approved in writing by the Engineer or owner.
- a. Placing Base aggregate base shall not be placed when there are indications that the mixture may become frozen before the M.U.W. is attained and in no case shall the base be placed on a frozen subbase or subgrade.
- The subbase shall be shaped to the specified crown and grade and maintained in a smooth condition. If hauling equipment should cause ruts in the subbase, such equipment will not be permitted on the subbase but shall be operated on
- The aggregate shall be placed in uniform layers to such a depth that when compacted the course will have the thickness shown on the plans. The
- aggregate shall be compacted to not less than 98% of M.U.W. 7. The finished surface shall be shaped to the crown and grade within a tolerance of ¾ inch, more or less. The surface shall be continuously maintained in a
- Should the subbase or aggregate base become damaged due to the Contractor's operation, the subgrade, subbase or base shall be restored to the conditions required by these specifications at the Contractor's expense.
- If the subbase or subgrade at any time prior to acceptance of the work becomes soft or unstable to the extent that it is forced up through or prevents compaction of the aggregate, such subbase or subgrade material and aggregate shall be immediately removed and disposed of and new material shall be placed and compacted as required by these documents.
- 10. A certification that the base material is in compliance with MDOT Specifications for Aggregate Base under Bituminous 22A shall be furnished to the Owner prior to payment or test slips shall be provided.
- B. Bituminous Paving
- 1. All materials and placement shall meet the requirements specified he MDOT Specifications, current Edition.
- 2. A certification that the bituminous material is in compliance with MDOT Specifications shall be furnished to the Owner prior to payment for the material.
- C. Foundation Preparation Before placing the bituminous mixture, the surface of the foundation shall be
- swept clean and all foreign material removed. 2. The finished aggregate base surface shall be shaped to the crown and grade within a tolerance of plus or minus ¾ inch, and compacted to at least 98% of M.U.W. before placing bituminous material.
- Catch basins, manhole covers, and water valve covers shall be adjusted to the proper elevation by removing the castings and setting them to the required elevation by supporting them on a concrete collar or on masonry so constructed as to hold them firmly in place and not allow settlement around them.
- Self-propelled steel tandem rollers weighing not less than eight tons each will be required unless rollers of other types are specifically permitted. Rollers shall be equipped with wheel sprinklers and scrapers.
- E. Placing Bituminous Paving
- 1. Bituminous mixture shall be placed with an approved mechanical paver. Bituminous material thickness shall not exceed 2-1/2 inches per application. Placing, rolling and other requirements or restrictions shall be governed by the MDOT Specifications, current Edition.
- No bituminous material shall be placed without written permission from the Engineer.

END OF SECTION

TURF & GRASSES SECTION 32 92 00

PART 1 - GENERAL

1.01 SCOPE

The extent of seeding work required for this project is shown on the drawings. The work of this section includes, but is not limited to furnishing all labor, materials, tools, incidentals, equipment and service for:

Seeding of all turf. Related work as required

1.03 DELIVERY, STORAGE AND HANDLING

Seed and fertilizer materials shall be in original unopened containers and shall indicate weight, analysis, germination rate, name, and date code of the manufacturer. Materials shall be stored in an orderly manner, at a location acceptable to the Engineer, in a manner to prevent wetting and/or deterioration.

- 1.04 PROJECT CONDITIONS
- A. Seed Blend Submit proposed seed blend to the owner or Engineer for approval. B. Seeding - Perform seeding work only after other work affecting ground surface has been
- C. Watering Provide adequate hose and watering equipment as required.
- D. Germination Within thirty (30) days after seeding, it is expected that 60-80% of the seed will have germinated and grown.

1.05 SITE CONDITIONS

All unsatisfactory topsoil quantities or qualities or other unsatisfactory conditions detrimental to seeding shall be reported in writing to the Engineer or Owner. Seeding shall not continue prior to correction of, or written acceptance of the encountered conditions by the Owner.

1.06 WARRANTY

The Contractor shall provide a uniform stand of grass and shall provide watering, mowing and maintenance of all seeded areas prior to final acceptance by the Owner. The Contractor shall reseed all areas, with specified materials, which fail to provide a uniform stand of grass until the Owner accepts all affected areas.

PART 2 - PRODUCTS

2.01 TURF SEED

A. Turf Supplier: All turf seed shall be as supplied from Michigan State Seed Company, 717 Clinton St., Grand Ledge, MI (Ph. 800-647-8873) or approved alternate source. B. Permanent cover (& Dormant Cover): shall be a consistent mixture of the following varieties for the Area Designated:

Grade A Mixture

Seed %/Wt. Germination Kentucky Bluegrass (Mix.) 40% 85% Fine Fescue 40% 85%

Note: On highly erodable slopes, contractor may have to add other varieties to the seed mix such as cereal grass.

2.02 FERTILIZER

Fertilizer for turf areas shall have a chemical analysis of at least 12% available nitrogen, 12% readily available phosphoric acid and 12% total available potash (12-12-12).

2.03 HYDRO-SEED MULCH

Nu-Wool® HydroGreen Plus™ 50/50 Hydroseeding Mulch, prepared for use in a tank of a hydro-mulching machine, as mfd by Nu-Wool, Inc., Jenison, MI, (Ph. 800-748-0128), or approved equal. Mulch shall be made from recycled paper material and be green in color. Mulch may be made from 50% virgin wood fiber and 50% recycled paper where approved by the Engineer.

2.04 STRAW MULCH

Mulch shall be straw or other approved organic material commonly used by the industry for the purpose of the mulching of seeded areas, and approved by the Engineer. Mulch shall be held in place with an approved seal/binder agent and Nu-Wool® HydroGreen Plus™ 50/50 Hydroseeding Mulch.

2.05 STRAW BINDER/ SEALER

Terra-Mulch Tacking Agent III, a water emulsified acrylic resin, Seal, as manufactured by Profile Products, Buffalo Grove, IL, (Ph. 800-508-8681), or approved equal.

2.06 WATER

Water shall be potable water, free of substance harmful to seed growth or other foreign mater. The Contractor shall furnish hoses and other methods of water transportation and application.

PART 3 - EXECUTION

3.01 TURF AREA SURFACE PREPARATION

Topsoil shall be fine raked to produce a smooth even surface that conforms to established grades. All stones, roots, clods 1.0" and larger in diameter, and all foreign matter shall be removed from the surface of areas to be seeded. The area shall be made smooth and uniform and parallel to the finished grade. The tops and bottoms of all slopes shall be rounded to blend into the natural ground or adjacent slopes by vertical curves. Seeded areas will be allowed a

tolerance of 0.1 foot. Slope for drainage over turf areas shall have a minimum grade of 0.5%. 3.02 TURF - HYDRO-SEEDING METHOD

A. This method shall be used for permanent seeding unless otherwise authorized in

writing by the Engineer. The mixture of the seed, fertilizer, mulch and a tackifier used

shall be as follows (2 parts water to one part mulch): Grade A Seed Mixture: 4-5# /1,000 sq. ft. (175-220#/acre)

Fertilizer: 3.5# /1,000 sq. ft. Hydro-Seed Mulch:

On slopes up to 3/1: (38) 40# bags / acre

On slopes from 3:1 to 2:1: (50) 40# bags / acre

Greater than 2:1 slopes: (62.5) 40# bags / acre. Tackifier: 20# /acre (or more based on slope and mfr's recommendations)

- B. Slopes 2:1 and greater shall also be straw mulched after being hydroseeded. Apply straw, and then apply Terra-Mulch Seal and Nu-Wool® HydroGreen Plus™ 50/50
- with a hydroseeder at the rate as recommended by mfr. C. Protect surfaces and areas from overspray which are not indicated to be hydroseeded, including shrub bed, walks, light poles, etc. Immediately remove and clean hydroseed material from all such areas, which may accidentally have been
- D. Provide barriers as required to keep traffic off the seeded areas after they are completed. Contractor shall remove all barriers he installed when turf is established, and before acceptance by Owner.
- E. For dormant cover areas, mulching must also be used on the hydro-seeded areas. The rate of application shall be 3 tons per acre of prepared seed bed.

3.09 TURF - MULCHING

Spread straw at the rate of one bale per 1000 square feet (43.5 bales /acre). Straw shall be mechanically crimped, and a sealer/binder shall be applied by hydro-seeder at the rate of 30# to 1,000 gallons of water along with 150# cellulose fiber per acre.

3.12 WATERING

To the point of acceptance, the Contractor shall be responsible for providing adequate water and application to assure the establishment of a dense, permanent turf. Provide adequate water during germination and after to continually keep the seed bed moist (without puddling).

END OF SECTION



Davis

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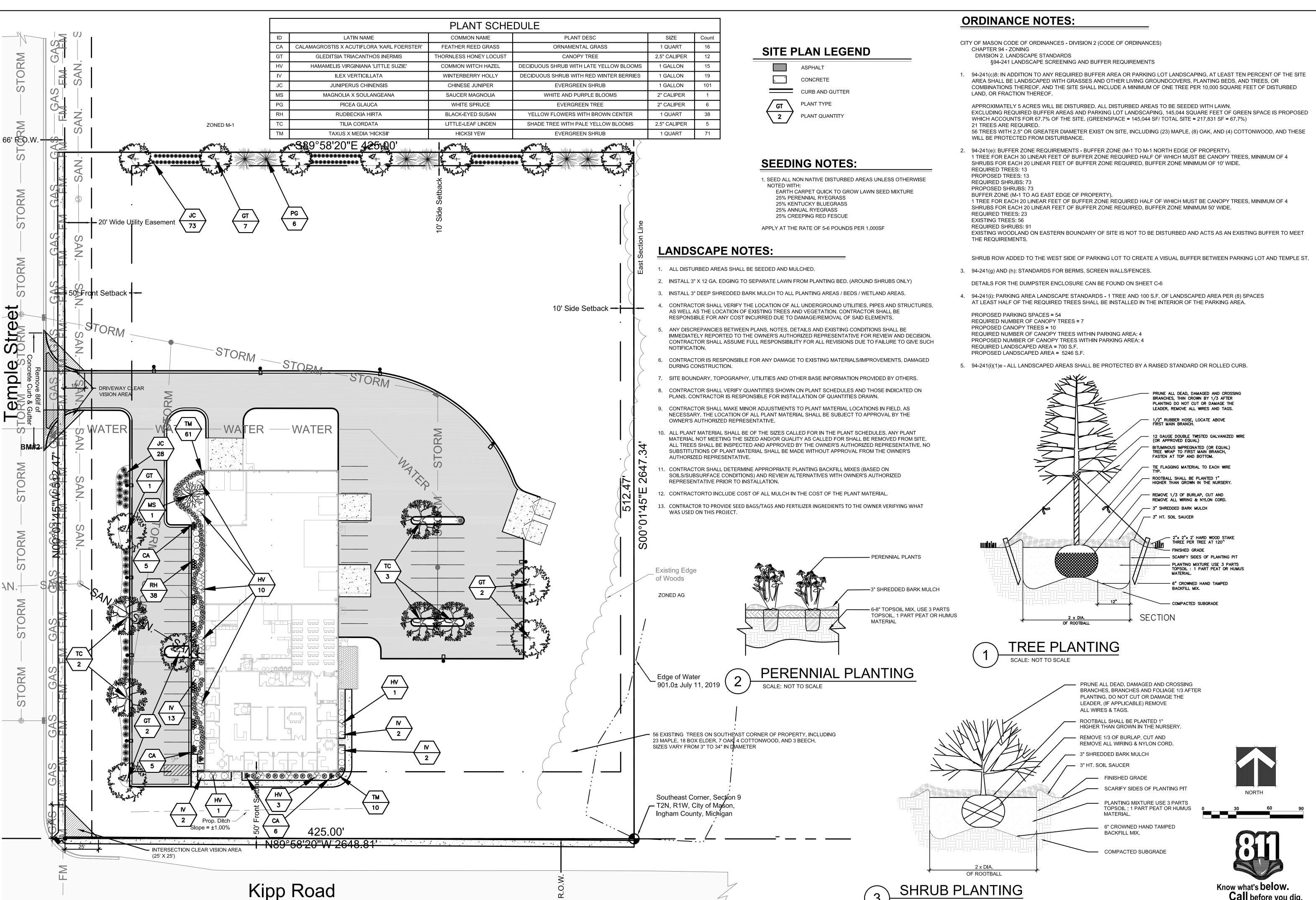
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APPROVED USE FOR: PRELIMINARY PERMIT/BID CONSTRUCTION

FINAL RECORD

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Plot Date: 8/14/2020 2:31 PM

Landscape Planners, Inc

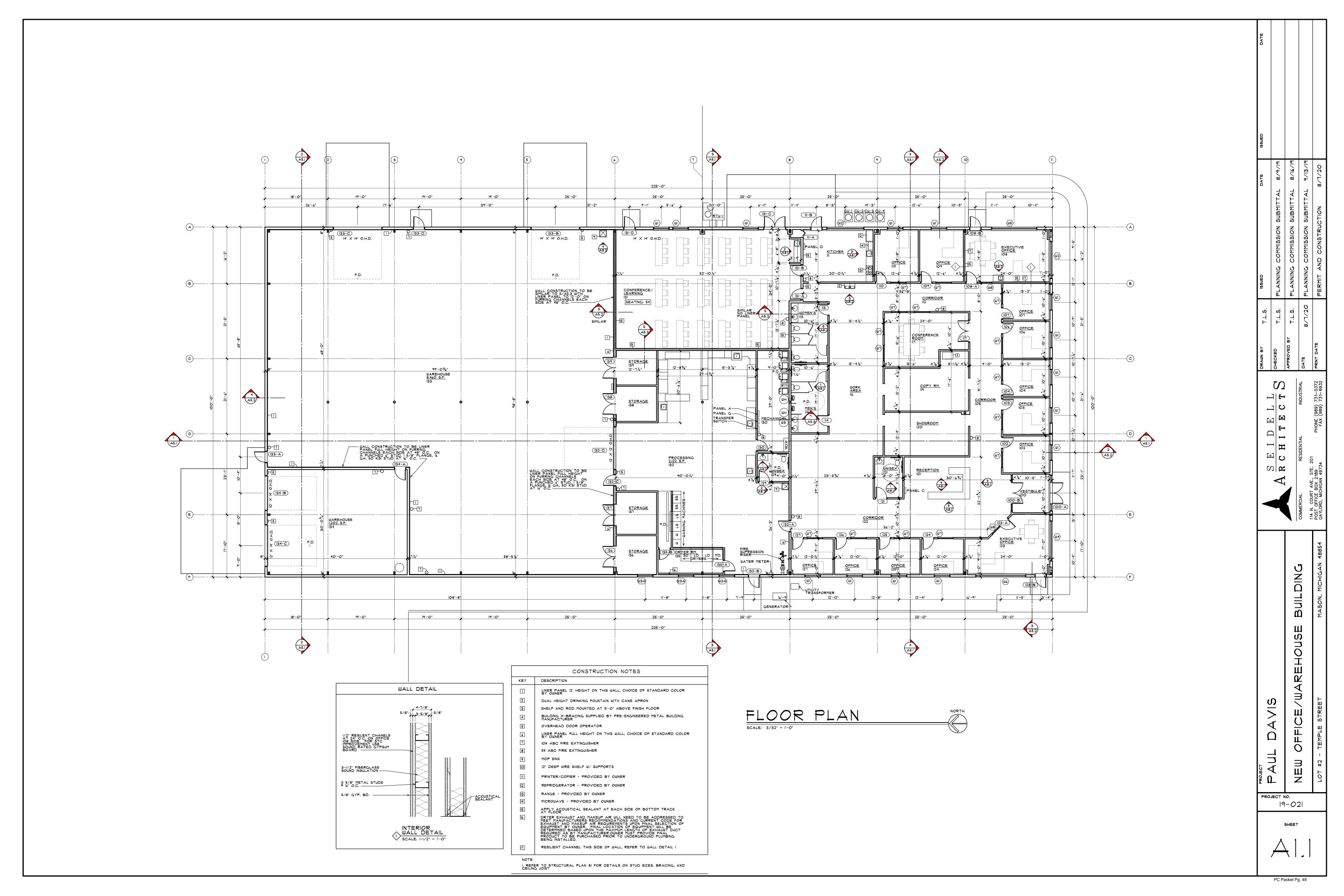
OAKLAND CENTER 809 CENTER STREET SUITE ONE LANSING, MI 48906 P: (517) 485-5500 F: (517) 485-5576 info@lapinc.net

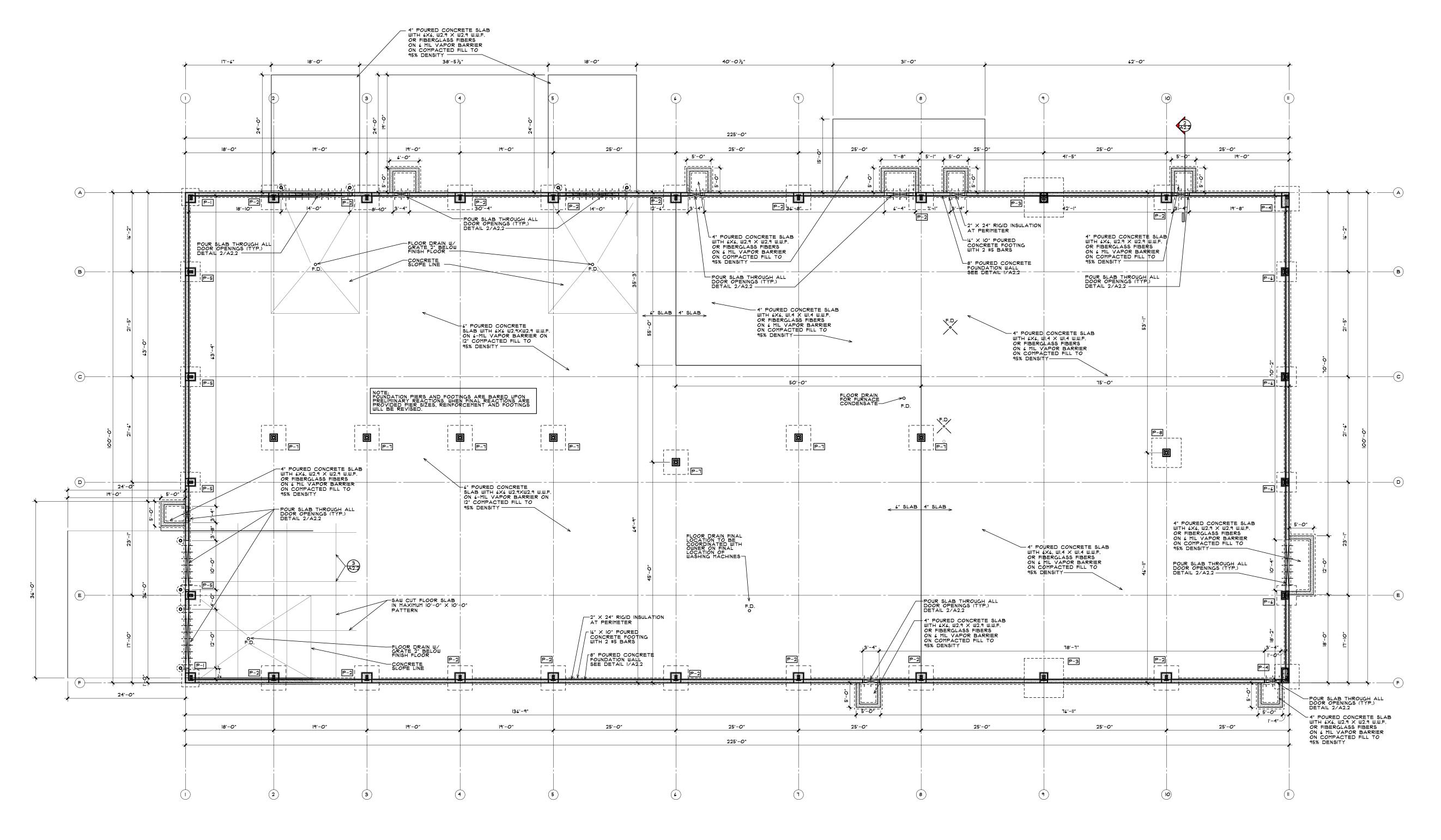
LAPHAM

SHEET

Call before you dig.

SCALE: NOT TO SCALE





CONCRETE NOTES;

- ALL READY MIX CONCRETE SHALL CONFORM TO A.S.T.M. C 94.
- 2. MEASURING, MIXING, TRANSPORTING, AND PLACING OF ALL CONCRETE SHALL COMPLY W/ ACI 304R-003. ALL REINFORCING BARS, DOWELS, ANCHOR BOLTS AND ANY INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING OF CONCRETE.
- 4. AIR ENTRAINED CONCRETE SHALL BE USED FOR ALL SIDEWALKS. PAVING, PLATFORMS, CURBS, AND ALL CONCRETE ELEMENTS EXPOSED TO THE WEATHER.
- 5. ALL CONCRETE SHALL DEVELOP THE FOLLOWING COMPRESSIVE STRENGTHS AT 28 DAYS (U.N.O.)
- INTERIOR CONCRETE SLABS EXTERIOR CONCRETE SLABS FOOTINGS AND FOUNDATION WALLS
- LOCATE ALL SLEEVES, OPENINGS, EMBEDDED ITEMS, ETC., WHICH ARE INDICATED ON ALL DESIGN DRAWINGS. CHECK WITH ALL TRADES TO VERIFY THAT ALL SLEEVES, OPENINGS, AND EMBEDDED ITEMS ARE IN PLACE AND LOCATED CORRECTLY PRIOR TO PLACING THE ADJACENT CONCRETE.
- . THE SURFACE OF ALL CONSTRUCTION JOINTS SHALL BE CLEANED TO REMOVE ALL DUST, CHIPS, OR OTHER FOREIGN MATTER PRIOR TO PLACING THE ADJACENT CONCRETE.
- 8. ALL SLABS SHALL BE CURED AND SEALED TO MINIMIZE SHRINKAGE CRACKING.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, OR ACCESSORIES REQUIRED TO BE CAST IN CONCRETE, AND FOR LOCATIONS OF FLOOR FINISHES AND SLAB DEPRESSIONS. IO. PIPE MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN. SLEEVES SHALL BE WRAPPED WITH EXPANSION JOINT FILLER MATERIAL TO ALLOW CONCRETE TO CURE WITHOUT RESTRAINT. PIPES OR CONDUITS EXCEEDING ONE THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. SEE MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR LOCATIONS OF SLEEVES, ACCESSORIES, ETC.
- I. SLAB SURFACES SHALL BE SMOOTH AND LEVEL, OR SHALL HAVE SMOOTH EVEN SLOPE. CONCRETE FINISH SHALL BE SMOOTH FOR INTERIOR FLOOR SLABS AND BROOMED FOR EXTERIOR WALKS.
- 13. DURING WARM WEATHER MONTHS, ALL CONCRETE SHALL COMPLY W/ ACI COLD WEATHER CONCRETING, ACI 305R-99

VERIFY ALL ANCHOR BOLT SIZES AND LOCATIONS WITH BUILDING MANUFACTURERS ANCHOR BOLT PLAN PRIOR TO PLACEMENT. BUILDING MANUFACTURER'S ANCHOR BOLT PLAN IS TO TAKE PRECEDENCE OVER ALL OTHER PLANS.

2. FASTENERS AND CONNECTORS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE TREATED WOOD SHALL BE OF HOT-DIPPED, ZINC COATED GLAVANIZED STEEL

3. CONTINUOUS HORIZONTAL REROD LAP TO BE A MINIMUM OF 24"

SOIL BEARING CAPACITY: ASSUMED 2000 PSF
IF MATERIAL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS
INDICATED, FOOTINGS SHALL BE ENLARGED OR LOWERED AT THE
DIRECTION OF THE ENGINEER

- 1 1/2" ANCHOR BOLT LENGTH 2'-3" + 3" HOOK
- I" ANCHOR BOLT LENGTH 2'-O" + 3" HOOK 3/4" ANCHOR BOLT LENGTH 1'-9" + 3" HOOK
- 5/8" ANCHOR BOLT LENGTH I'-O" + 3" HOOK
- 1/2" ANCHOR BOLT LENGTH 1'-0" + 3" HOOK

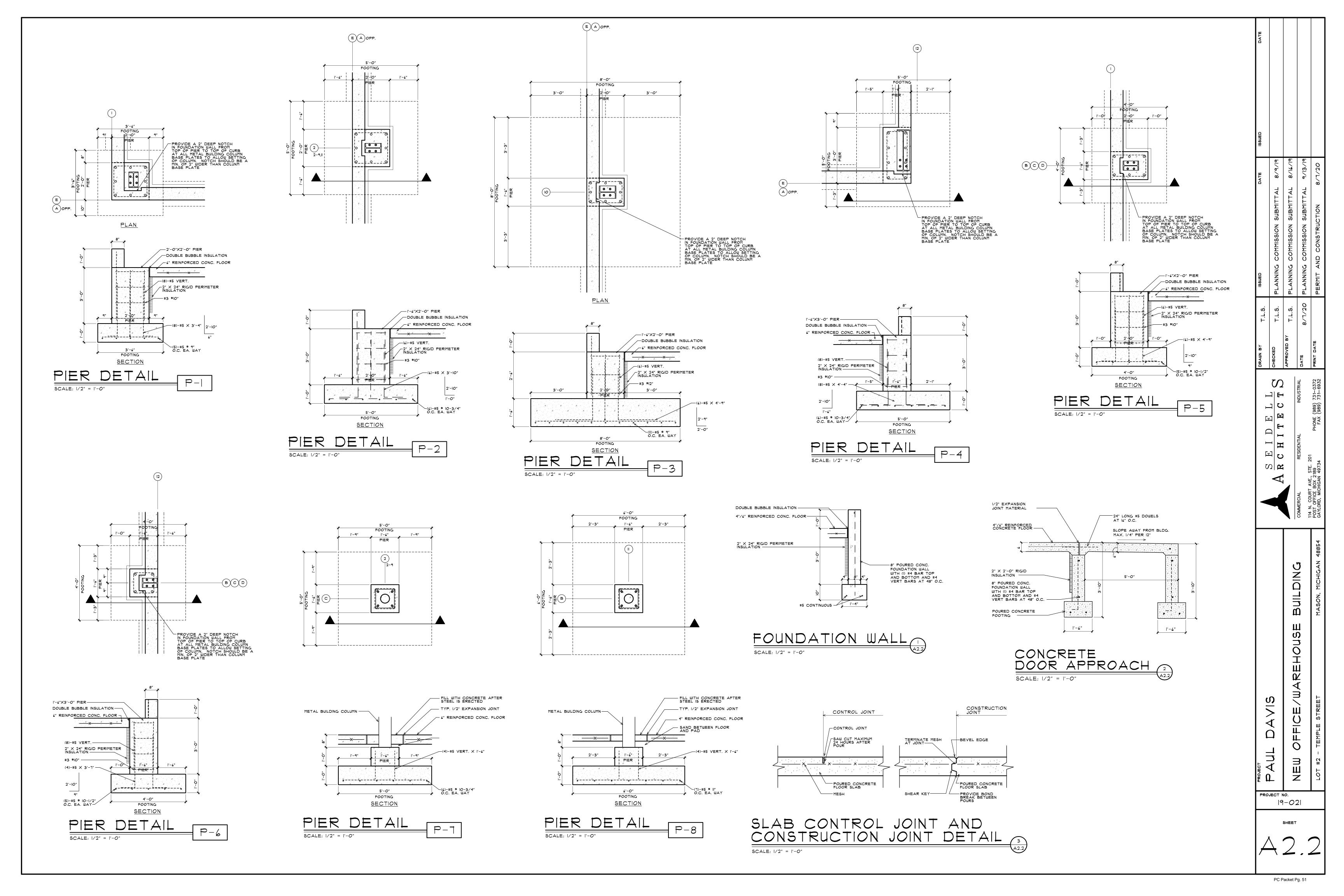
NOTE: FOUNDATION PIERS AND FOOTINGS ARE BARED UPON PRELIMINARY REACTIONS, WHEN FINAL REACTIONS ARE PROVIDED PIER SIZES, REINFORCEMENT AND FOOTINGS WILL BE REVISED.

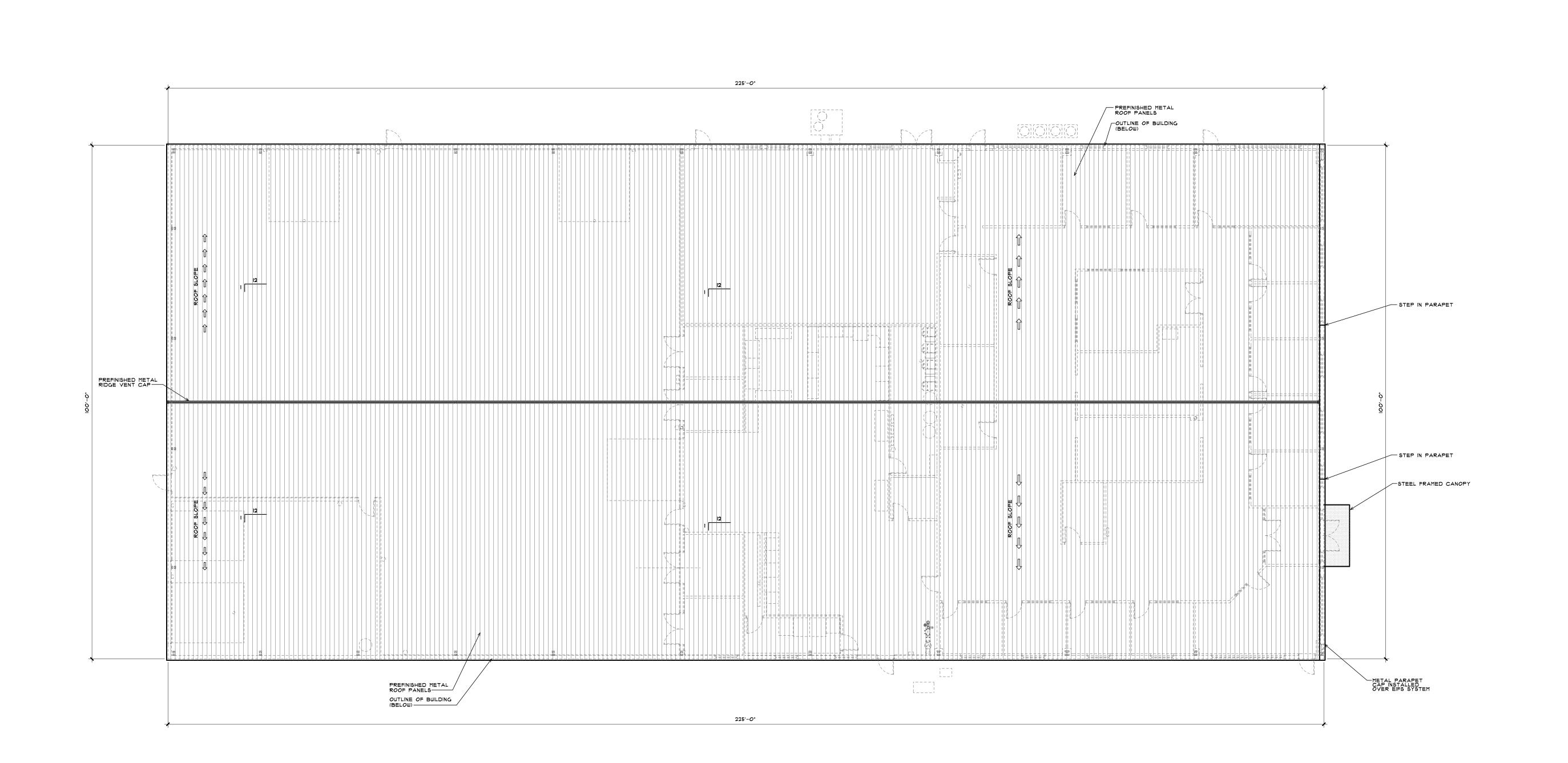


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COMMERCIAL RESIDENTIAL INDUSTRIAL INDUSTRIAL INDUSTRIAL PHONE (989) 731-0372 GAYLORD, MICHIGAN 49734 FAX (989) 731-6932

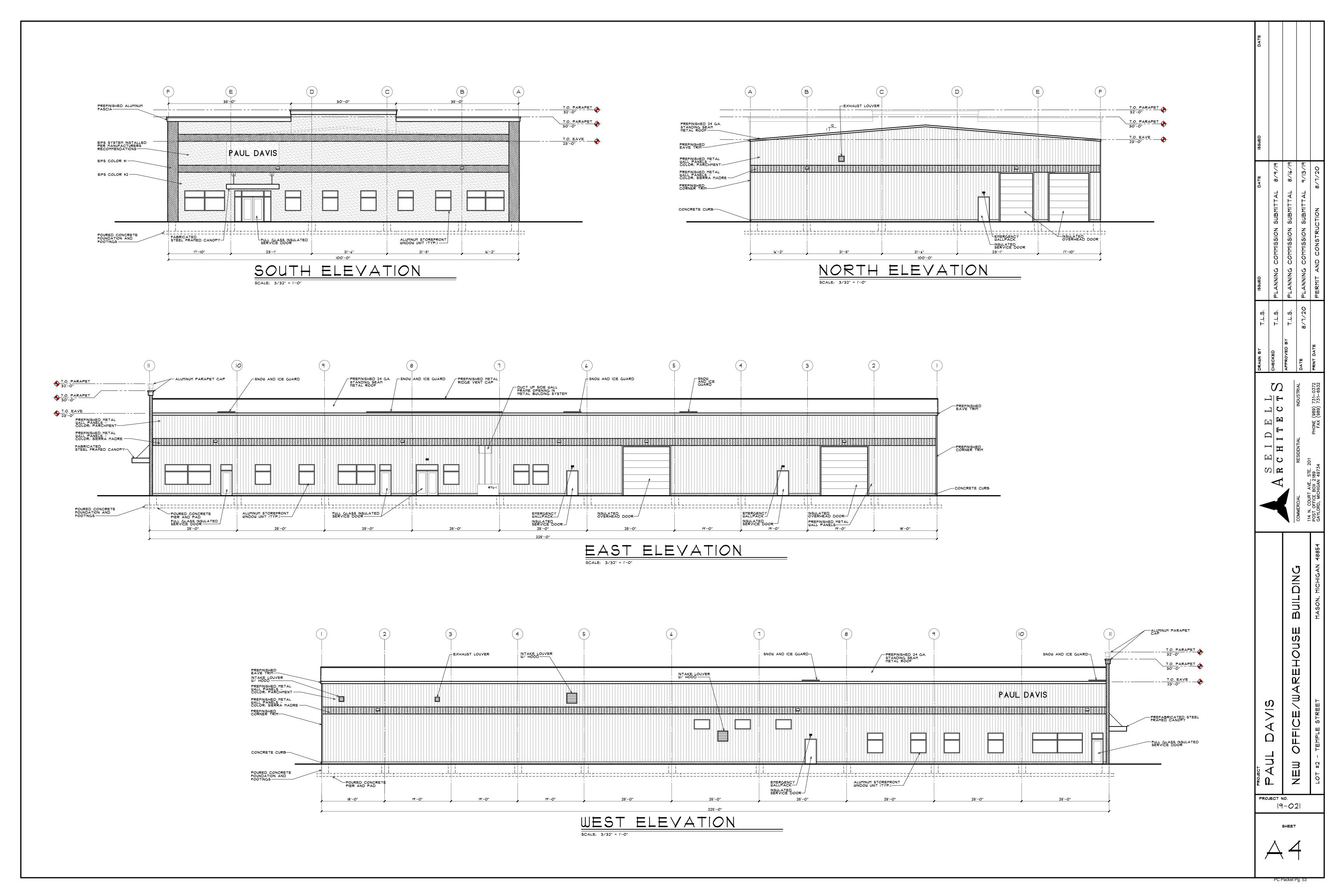
EHOUSE BUILDING

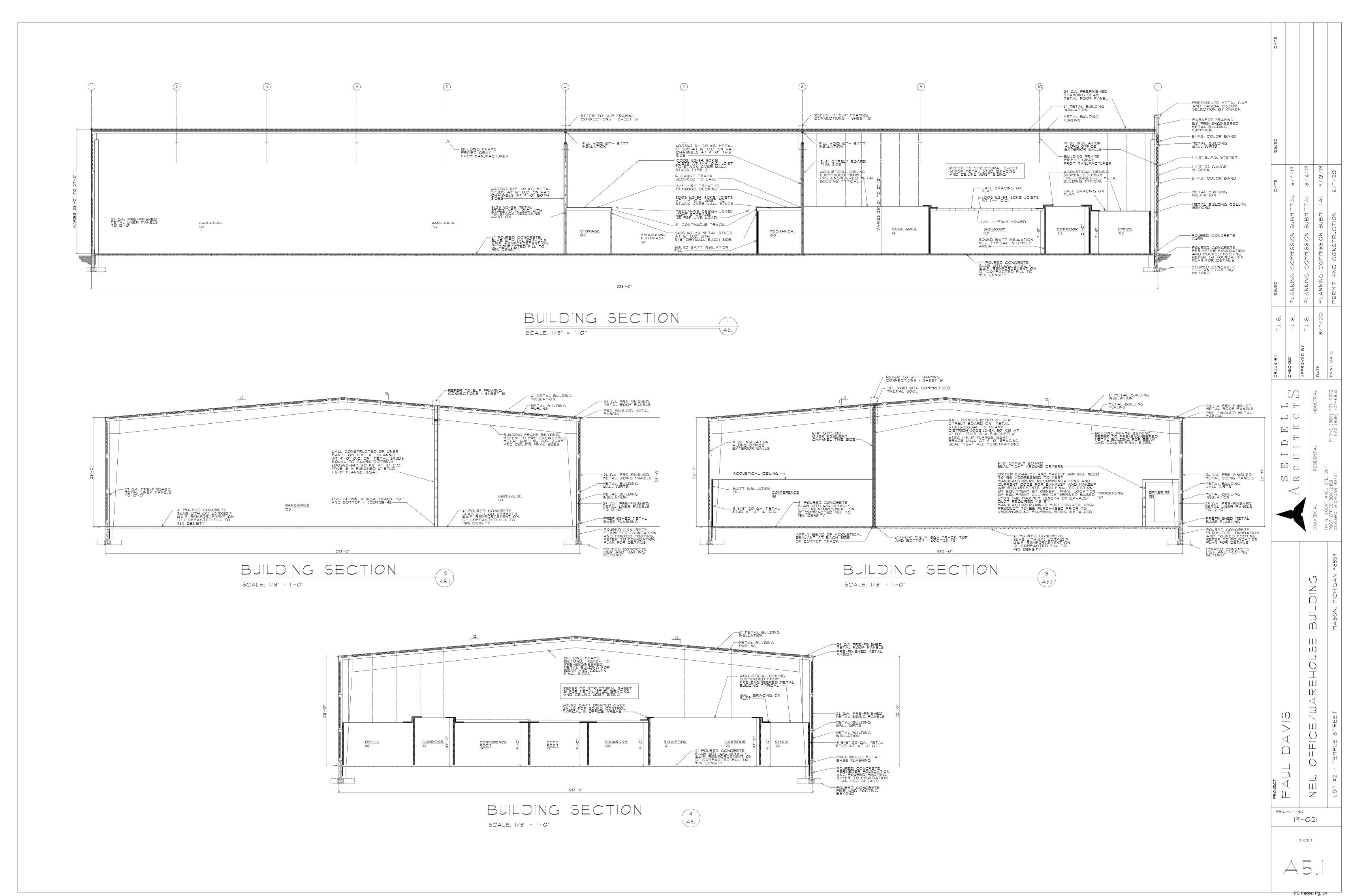
PAUL DAVIS
NEW OFFICE/WAREHOUSE

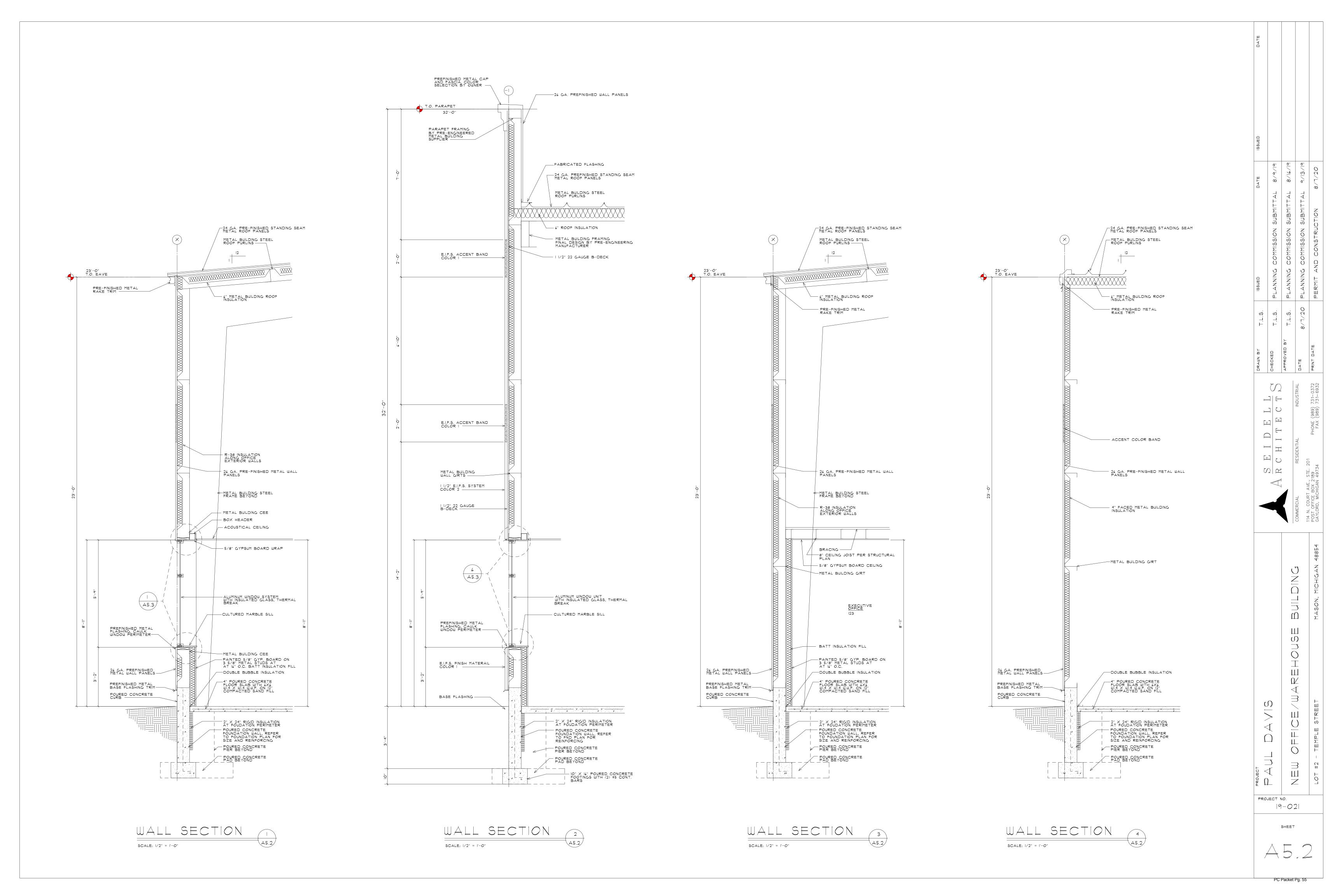
PROJECT NO. |9-02|

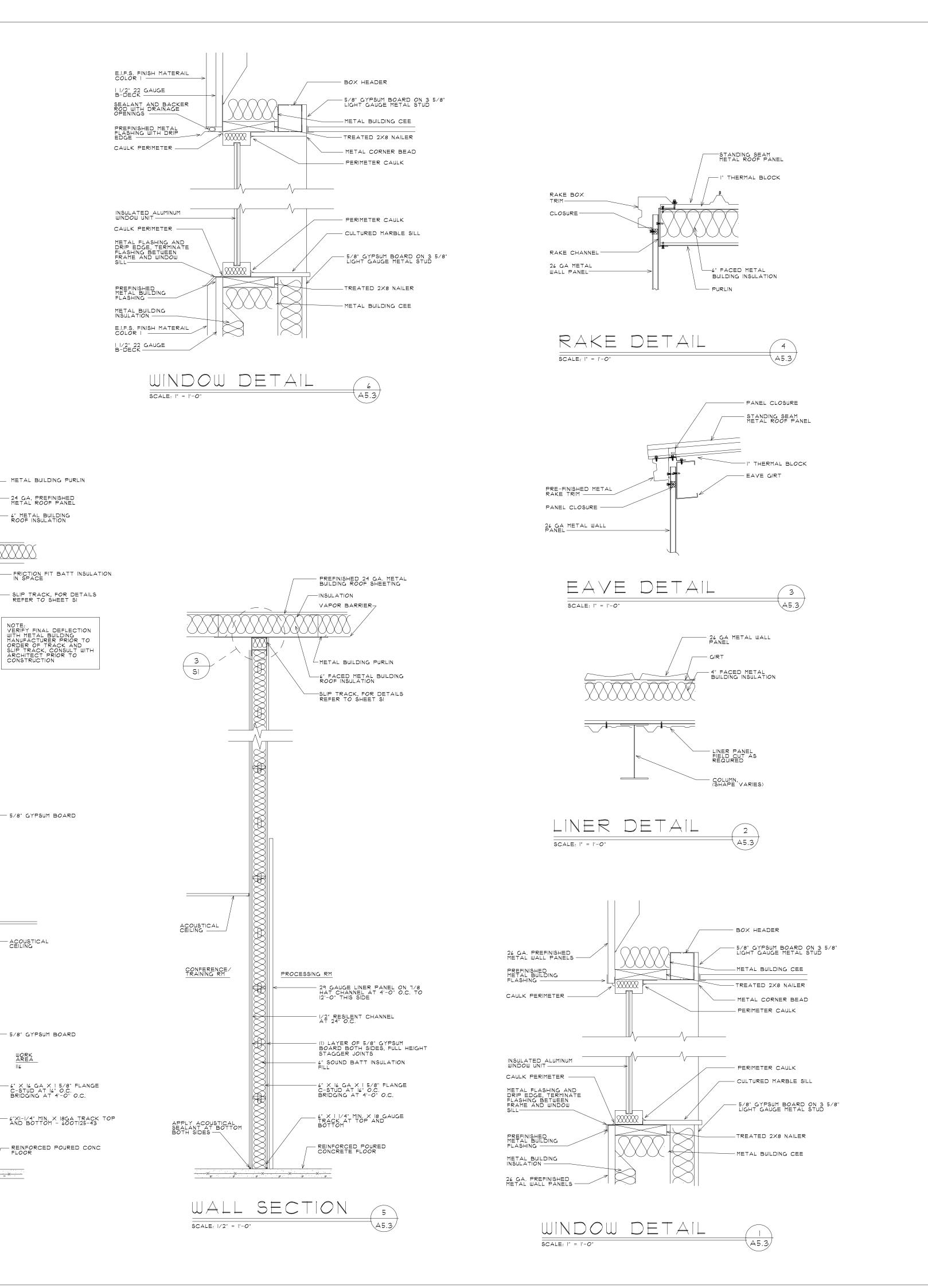
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29 GAUGE LINER PANEL ON 7/8 HAT CHANNEL AT 4'-O" O.C., THIS SIDE ON 6" METAL STUDS —

7 A5.3

WORK AREA

MECHANICAL 130

_ 3/4" NON-COMBUSTIBLE PLYWOOD

- 29 GAUGE LINER PANEL ON 7/8 HAT CHANNEL AT 4'-0" O.C.

3 5/8" 20 GA DWS AT 16" O.C.

€ 5/8" GYPSUM BOARD

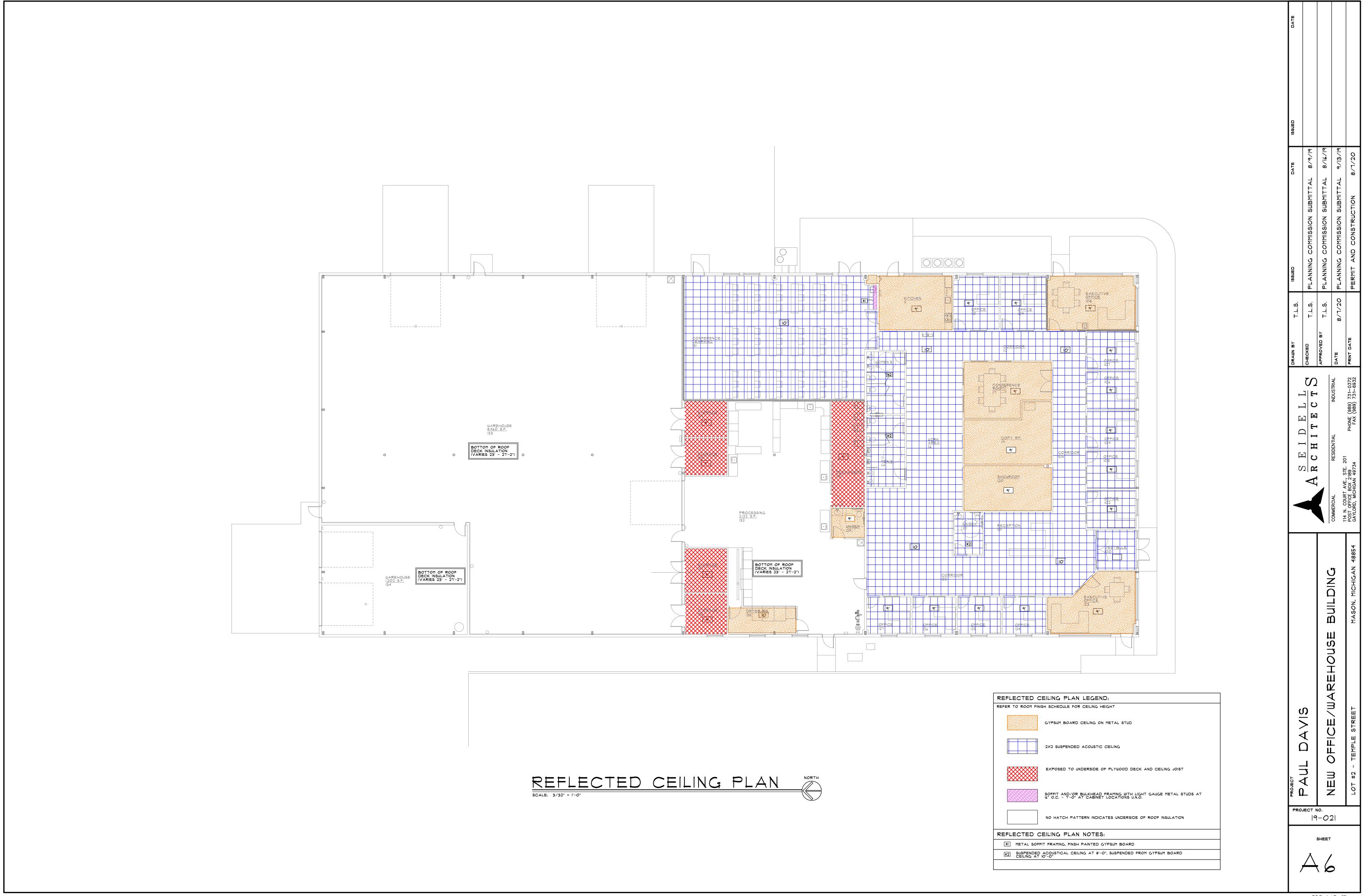
WALL SECTION

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

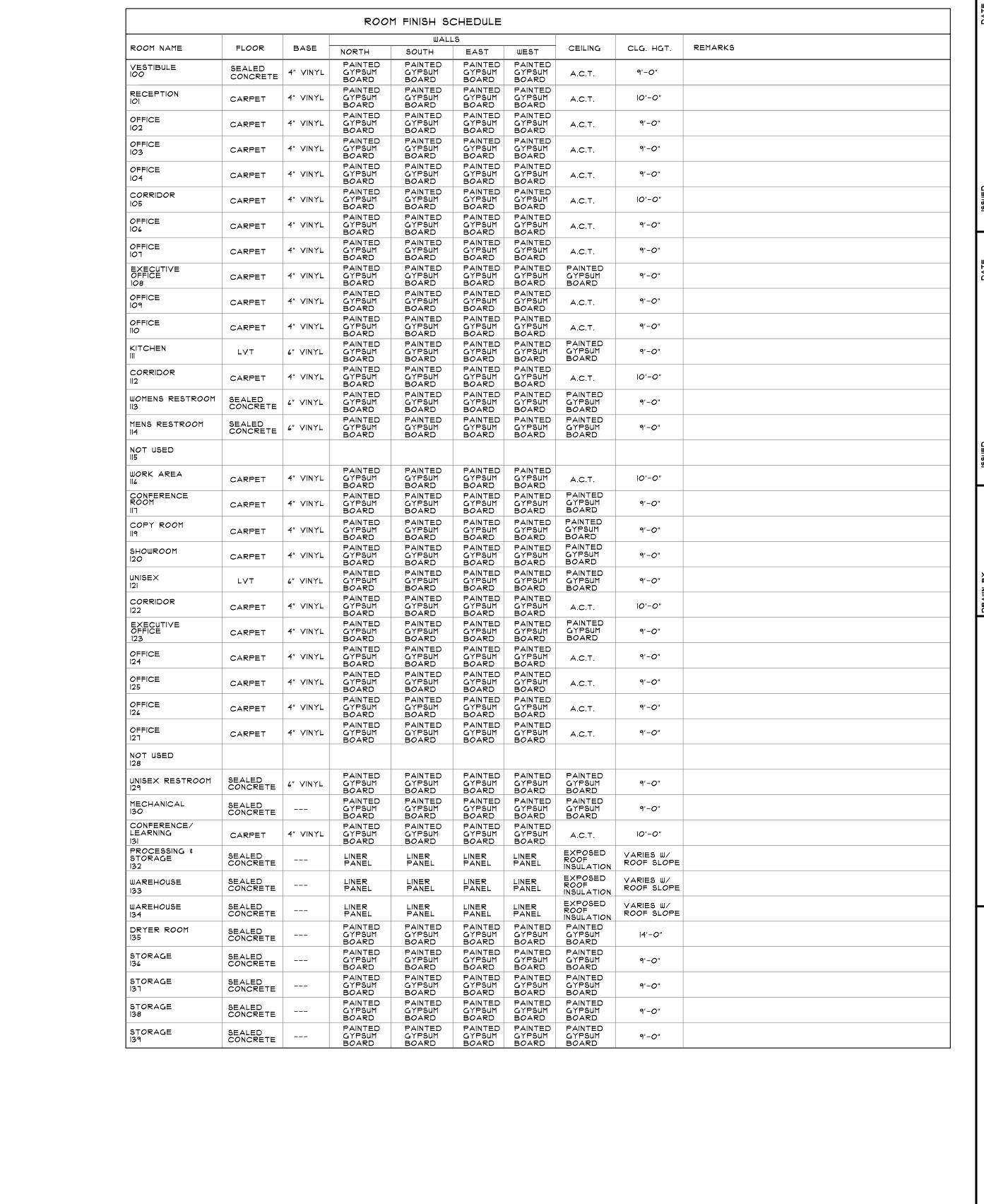
PROCESSING 132

8" METAL STUDS At 16" O.C., Stack on Wall Studs

PLANNING COMMISSION SUBMITTAL 8/9/19
PLANNING COMMISSION SUBMITTAL 8/16/19
PLANNING COMMISSION SUBMITTAL 9/13/19
PERMIT AND CONSTRUCTION 8/1/20 $- | \, \vdash$ BULDING \exists ZPROJECT NO. 19-021 SHEET A5.3



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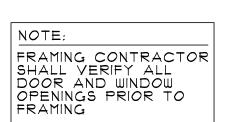
PROJECT NO. 19-021

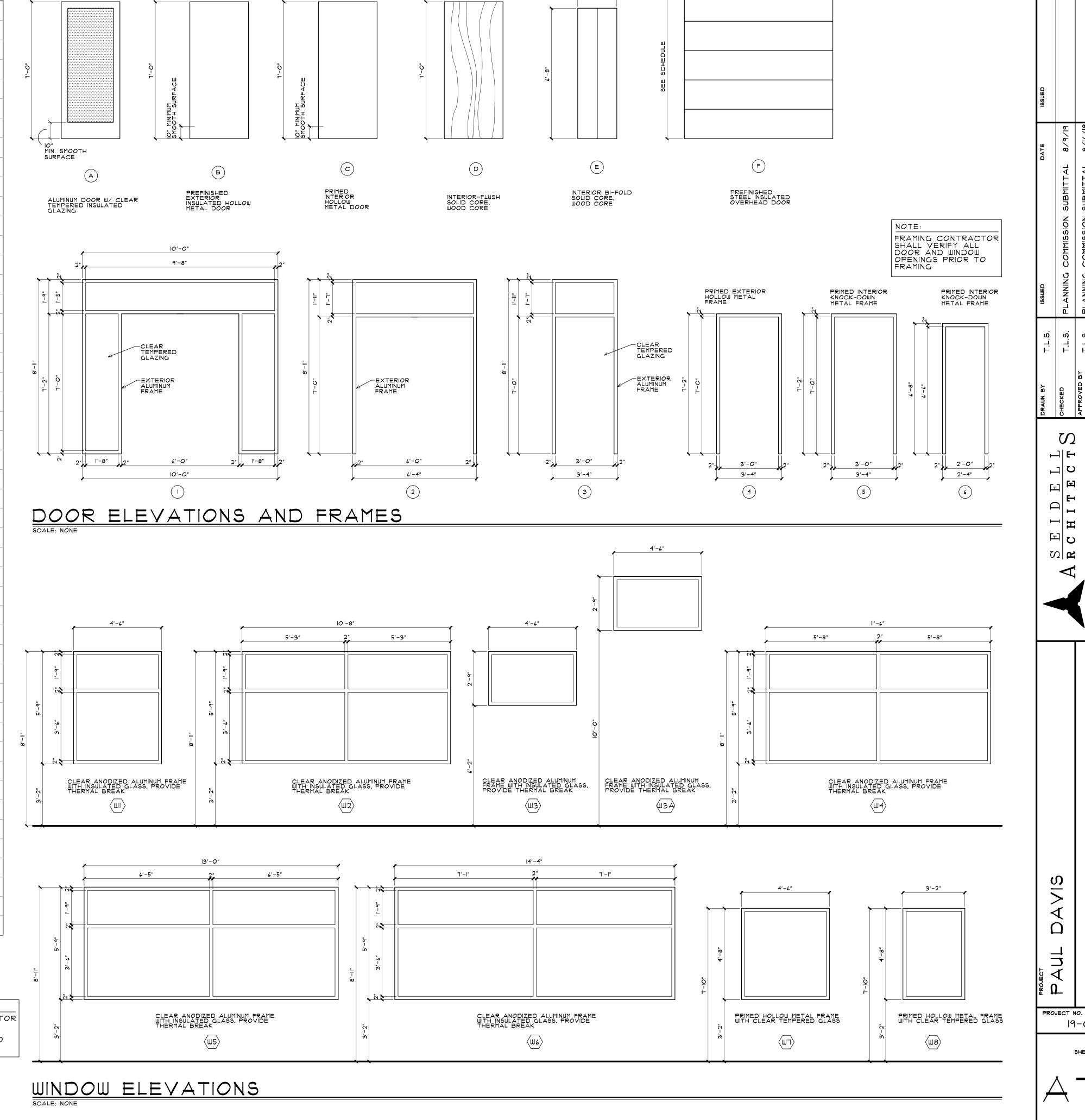
			DOOR	SCHEE	DULE
DOOR NO.	DOOR SIZE	DOOR	FRAME	RATING	HARDWARE
IOO-A VESTIBULE (EXT)	(2) 3'-O" × 7'-O"	A	I	NA	PUSH/PULL CLOSER, B.B. HINGES WEATHERSTRIP, THRESHOLD, LOCK SET, PANIC HARDWARE
IOO-B /ESTIBULE	(2) 3'-O" X 7'-O"	A	2	NA	PANIC HARDWARE, CLOSER, HINGES AND DOOR STOP
102	3'-0" × 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
IO3	3'-0" × 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
IO4	3'-0" × 1'-0"	а	5	NA	LOCK SET, HINGES AND DOOR STOP
IO6	3'-0" × T'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
DFFICE IOT	3'-0" × T'-0"	ם	5	NA	LOCK SET, HINGES AND DOOR STOP
IO8-A	3'-0" × T'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
OFFICE 108-B OFFICE (EXT)	3'-0" × 7'-0"	A	3	NA	LOCKSET, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
IO9 DFFICE	3'-0" × 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
IIO OFFICE	3'-0" X T'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
III-A KITCHEN CLOSET	BI-FOLD 2'-0" × 4'-8"	E	6	NA	BI-FOLD HARDWARE
III-B KITCHEN (EXT)	3'-0" × 7'-0"	A	3	NA	LOCKSET, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
II3 WOMENS RESTROOM	3'-0" X 7'-0"	D	5	NA	PUSH/PULL, SELF CLOSING HINGES, WALL STOP, KICK PLATE
II4 MENS RESTROOM	3'-0" X 7'-0"	D	5	NA	PUSH/PULL, SELF CLOSING HINGES, WALL STOP, KICK PLATE
II5 NOT USED					
IIT CONFERENCE ROOM	(2) 3'-O" × 7'-O"	а	5	NA	PASSAGE SET AND DOOR STOP
121 UNISEX	3'-0" × 7'-0"	D	5	NA	PRIVACY SET, CLOSER, AND DOOR STOP
123-A OFFICE	3'-0" X T'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
123-B OFFICE (EXT)	3'-0" × 7'-0"	А	3	NA	LOCKSET, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
124 OFFICE	3'-0" X 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
25 OFFICE	3'-0" X 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
126 OFFICE	3'-0" X 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
127 OFFICE	3'-0" × 7'-0"	D	5	NA	LOCK SET, HINGES AND DOOR STOP
128 NOT USED					
129 UNISEX RESTROOM	3'-0" X 7'-0"	D	5	NA	PRIVACY SET, CLOSER, AND DOOR STOP
130 MECHANICAL	3'-0" X T'-0"	D	5	NA	LOCK SET, CLOSER, AND DOOR STOP
131-A CONF/LEARNING	3'-0" X 7'-0"	D	5	NA	PANIC HARDWARE, CLOSER, AND DOOR STOP
131-B CONF/LEARNING	3'-0" X 7'-0"	a	5	NA	LOCK SET, CLOSER, AND DOOR STOP
131-C CONF/LEARN (EXT)	(2) 3'-O" × 7'-O"	А	2	NA	PANIC HARDWARE, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
131-D CONF/LEARN (EXT)	3'-0" X T'-0"	А	3	NA	PANIC HARDWARE, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
132-A PROCESSING	3'-0" × 7'-0"	С	4	NA	LOCK SET, CLOSER, AND DOOR STOP
132-B PROCESSING (EXT)	3'-0" × 7'-0"	В	4	NA	LOCK SET, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
132-C PROCESSING	3'-0" × 7'-0"	С	4	NA	PASSAGE SET, CLOSER, AND DOOR STOP
132-D PROCESSING (INT)	12'-0" × 12'-0"	F	NA	NA	HIGH LIFT TRACK, 3 BUTTON OPENER
133-A WAREHOUSE (EXT)	3'-0" × 7'-0"	В	4	NA	LOCK SET, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
133-B WAREHOUSE (EXT)	14'-0" × 14'-0"	F	NA	NA	HIGH LIFT TRACK, 3 BUTTON OPENER
133-C WAREHOUSE (EXT)	14'-0" × 14'-0"	F	NA	NA	HIGH LIFT TRACK, 3 BUTTON OPENER
133-D WAREHOUSE (EXT)	3'-0" × 7'-0"	В	4	NA	LOCK SET, CLOSER, WEATHERSTRIPPING, B.B. HINGES AND THRESHOLD
134-A WAREHOUSE	3'-0" X 7'-0"	В	5	NA	LOCK SET, CLOSER AND DOOR STOP
134-B WAREHOUSE (EXT)	10'-0" × 14'-0"	F	NA	NA	HIGH LIFT TRACK, ELECTRIC OPENER
134-C WAREHOUSE (EXT)	12'-0" × 14'-0"	F	NA	NA	HIGH LIFT TRACK, ELECTRIC OPENER
135-A DRYER ROOM	3'-0" X 7'-0"	С	5	NA	LOCK SET, CLOSER, AND DOOR STOP
135-B DRYER ROOM	3'-O" X 7'-O"	С	5	NA	LOCK SET, CLOSER, AND DOOR STOP
134 STORAGE	(2) 3'-O" × T'-O"	С		NA	LOCK SET, CLOSER, AND DOOR STOP
137 STORAGE	(2) 3'-0" × T'-0"	С		NA	LOCK SET, CLOSER, AND DOOR STOP
138 STORAGE	(2) 3'-0" × T'-0"	С		NA	LOCK SET, CLOSER, AND DOOR STOP
139 STORAGE	(2) 3'-0" × 7'-0"	С		NA	LOCK SET, CLOSER, AND DOOR STOP

NOTE: ALL DOOR HARDWARE SHALL BE A.D.A. COMPLIANT. THIS INCLUDES ALL LEVER HANDLES, LOCKSETS, CLOSERS AND THRESHOLDS, ETC.

DOOR HARDWARE GRADE | OR EQUAL

B.B. = BALL BEARING





SEE SCHEDULE

BUILDING

/WAREHOUSE

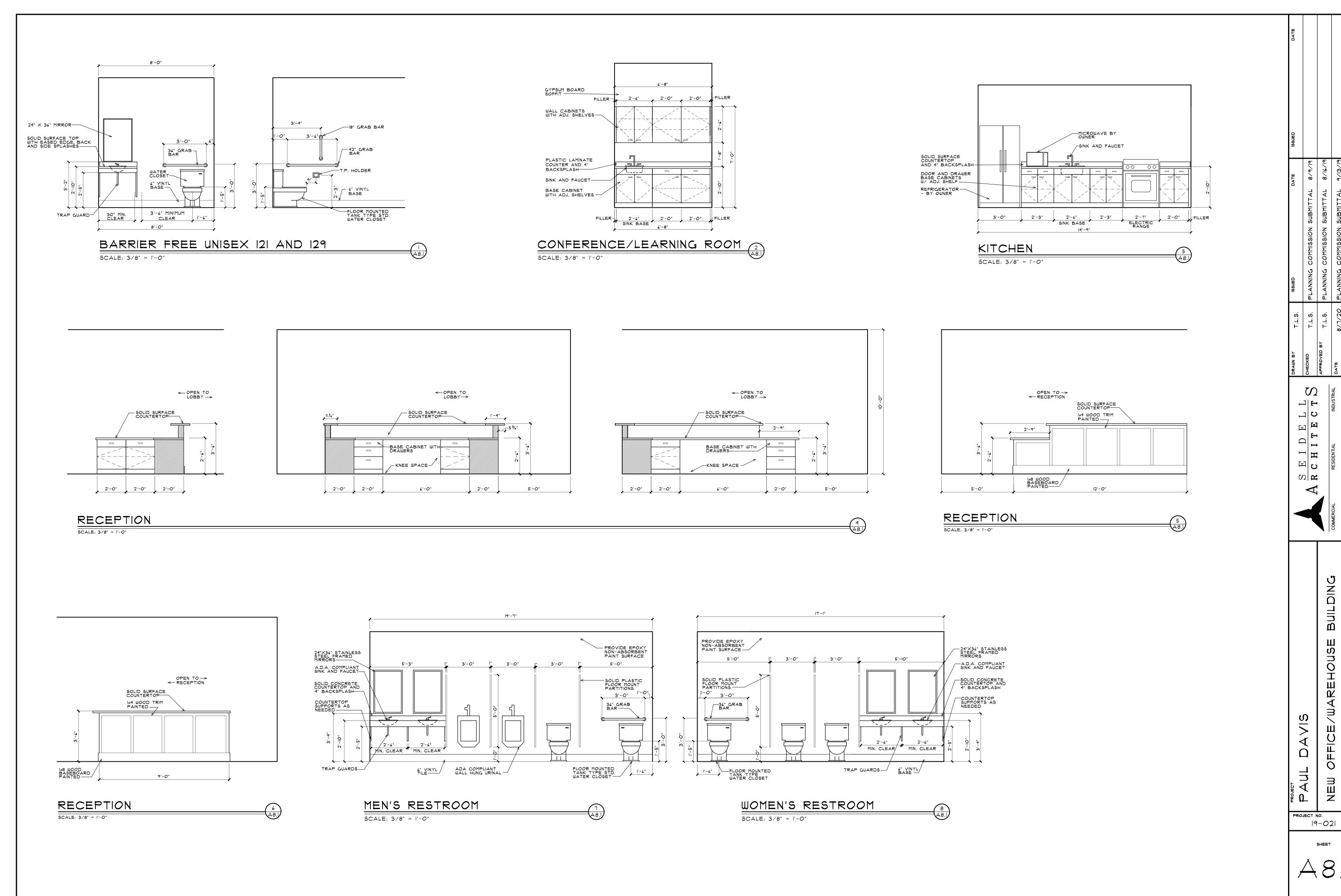
OFFICE

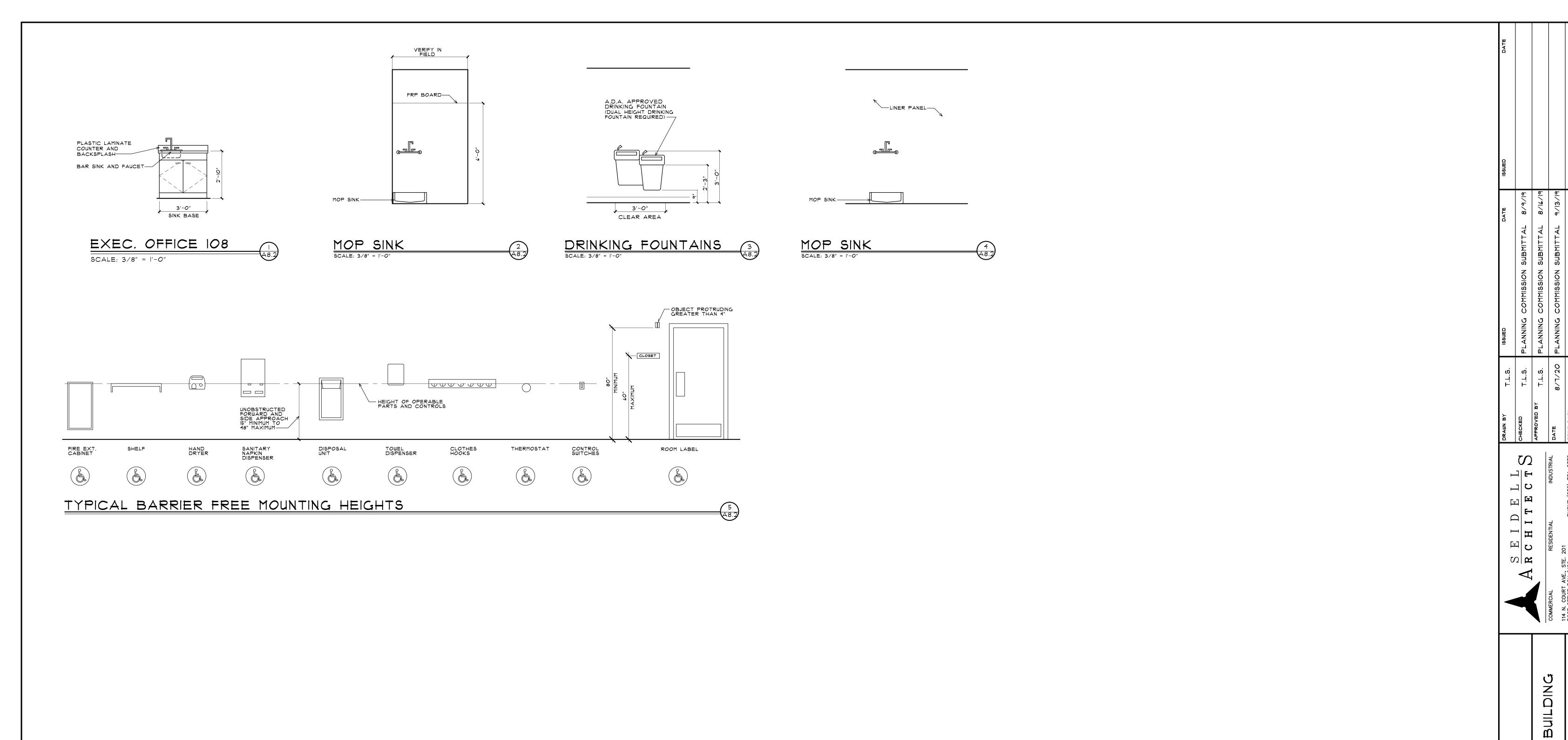
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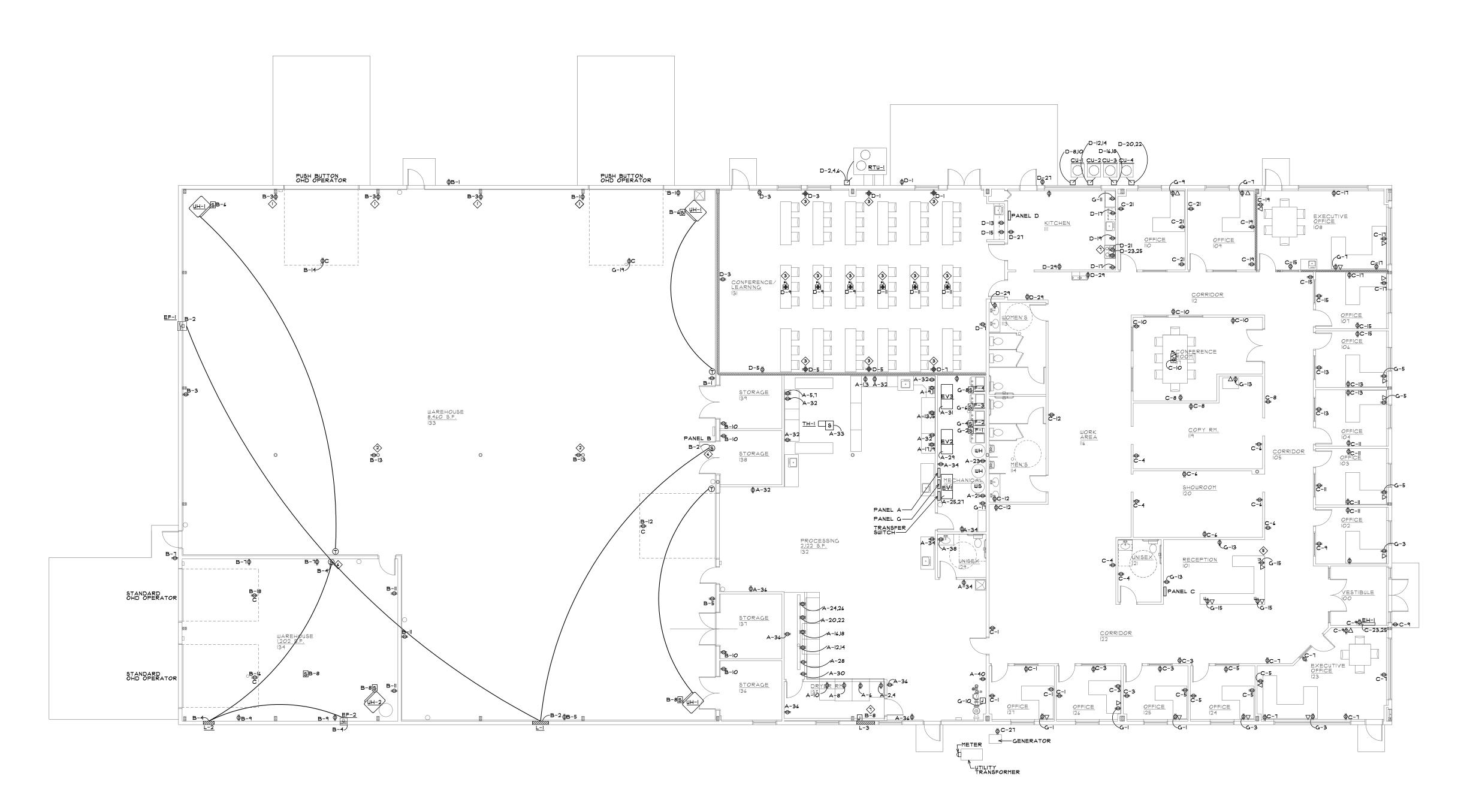


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PROJECT NO. 19-02

NEM OFFICE/WAREHOUSE

LOT #2 - TEMPLE STREET



	PLAN NOTES
\Diamond	INSTALL WEATHER TIGHT FITTINGS IN BOXES FOR POTENTIAL OVERSPRAY WHILE CLEANING VEHICLES.
2>	INSTALL RECEPTACLES 48" AFF ON COLUMNS
3>	INSTALL (2) DUPLEX RECEPTACLES. (1) DUPLEX RECEPTACLE TO HAVE (2) 4 AMP HIGH SPEED USB CHARGING PORTS.

- FLIGHTING CAN NOT BE CEILING MOUNTED DUE TO DUCTWORK, THEN INSTALL ON WALL BELOW DUCTWORK.

 SPUNER (1) FOR DATA) UNDERFLOOR FROM WALL TO FLOOR AREA BELOW COUNTER TOP. VERIFY LOCATION WITH GC.C.
- FROM WALL TO FLOOR AREA BELOW COUNTER TOP. VERIFY LOCATION WITH G.C.

 INSTALL NORMAL POWER A GENERATOR POWER IN SEPERATE BOXES
- VERIFY CONTROL WIRING WITH MECHANICAL EQUIPMENT SUPPLIER.

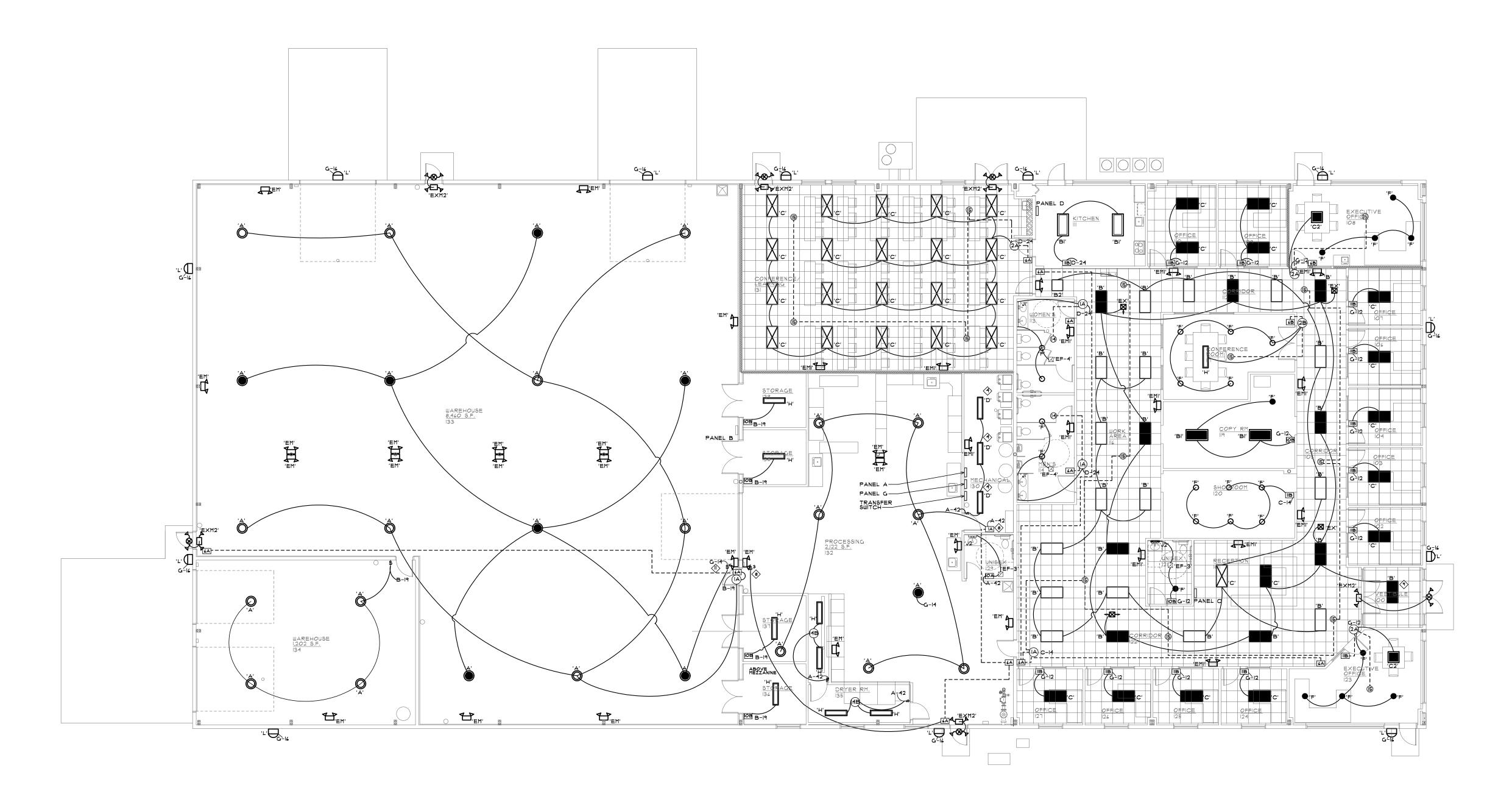
 HAYE ROOM CONTROLLER SWEEP AUTO OFF AT MIDNIGHT
- WALL MOUNT 1'8" AFF
- M INSTALL FACTORY OCC SENSOR
- KNIFE SWITCH IS FOR MAINTENANCE (LEAVE IN ON POSITION) INSTALL SWITCHES IN SEPERATE BOXES

		ELECTRICAL LEGEN	D	
K	ΕΥ	DESCRIPTION	KEY	DESCRIPTION
A		LED HIGH BAY 22' ABOVE FINISHED FLOOR	G 🗖	2' LED SURFACE MOUNT
A		LED HIGH BAY 22' ABOVE FINISHED FLOOR ON GENERATOR	H	4' LED SURFACE MOUNT
в		LED FLAT PANEL TRANSFER	J <u>000</u>	VANITY LIGHT
в		LED FLAT PANEL TRANSFER ON GENERATOR	- □	WALL PACKS
ві [LED FLAT PANEL TRANSFER/ SURFACE MOUNT KIT		
c [\boxtimes	LED CENTER BASKET STYLE		
c		LED CENTER BASKET STYLE ON GENERATOR	\$K	KNIFE SWITCH
C2		LED CENTER BASKET STYLE	\$ #	WALL SWITCH
C2		LED CENTER BASKET STYLE ON GENERATOR	Ψ	DUPLEX RECEPTACLE
> [LED STRIP LIGHT	₩	QUAD
ΕX	×	EXIT LIGHT	Ψ _c	CEILING MOUNT
EXM	4 <u>8</u> 2	COMBINATION EXIT/EMERGENCY	Φ _u Δ	UNDER COUNTER DUPLEX RECEPTACLE PHONE /DATA JACK
			•	220 RECEPTACLE
EXM:	4&4 4\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	COMBINATION EXIT/EMERGENCY/EXTERIOR EMERGENCY	₩ sΦ	FURNACE DISCONNECTION AND DUPLEX RECEPTICAL
ΕM	44	2-HEAD LED EMERGENCY LIGHT MOUNT 18' AFF	ı —	JUNCTION BOX
EMI		2-HEAD LED EMERGENCY LIGHT MOUNT WITHIN 12" OF CEILING	Q	DISCONNECT, DO NOT PLACE CONDENSING UNIT IN FRONT OF DISCONNECT
EML	4&b	EXTERIOR REMOTE EGRESS LIGHT	$\triangle \Phi$	FLOOR MOUNT
F	0	RECESSED CAN		
F		RECESSED CAN ON GENERATOR		

ELECTRICAL POWER PLAN

SCALE: 3/32" = 1'-0"

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	PLAN NOTES
	INSTALL WEATHER TIGHT FITTINGS IN BOXES FOR POTENTIAL OVERSPRAY WHILE CLEANING VEHICLES.
2	INSTALL RECEPTACLES 48" AFF ON COLUMNS
3	INSTALL (2) DUPLEX RECEPTACLES. (1) DUPLEX RECEPTACLE TO HAVE (2) 4 AMP HIGH SPEED USB CHARGING FOR
4	IF LIGHTING CAN NOT BE CEILING MOUNTED DUE TO DUCTWORK, THEN INSTALL ON WALL BELOW DUCTWORK,
\$	RUN (2) 1/2" CONDUITS ((1) FOR 120V POWER (1) FOR DATA) UNDERFLOOR FROM WALL TO FLOOR AREA BELOW COUNTER TOP. VERIFY LOCATION WIT G.C.
②	INSTALL NORMAL POWER A GENERATO POWER IN SEPERATE BOXES
♦	VERIFY CONTROL WIRING WITH MECHANICAL EQUIPMENT SUPPLIER.
8	HAVE ROOM CONTROLLER SWEEP AUT OFF AT MIDNIGHT
•	WALL MOUNT T'8" AFF
(b)	INSTALL FACTORY OCC SENSOR
ು	KNIFE SWITCH IS FOR MAINTENANCE (LEAVE IN ON POSITION) INSTALL SWITCHES IN SEPERATE BOXES

	ELECTRICAL LEGEN	D	
KEY	DESCRIPTION	KEY	DESCRIPTION
<i>'</i>	LED HIGH BAY 22' ABOVE FINISHED FLOOR	G \square	2' LED SURFACE MOUNT
	LED HIGH BAY 22' ABOVE FINISHED FLOOR ON GENERATOR	н 🗀	4' LED SURFACE MOUNT
3 🔲	LED FLAT PANEL TRANSFER	, 200	VANITY LIGHT
3	LED FLAT PANEL TRANSFER ON GENERATOR	- 🗀	WALL PACKS
31	LED FLAT PANEL TRANSFER/ SURFACE MOUNT KIT		
	LED CENTER BASKET STYLE		
	LED CENTER BASKET STYLE ON GENERATOR	\$K	KNIFE SWITCH
C2 🔯	LED CENTER BASKET STYLE	 \$ ф	WALL SWITCH
C2	LED CENTER BASKET STYLE ON GENERATOR		DUPLEX RECEPTACLE QUAD
	LED STRIP LIGHT	" Ф _с	CEILING MOUNT
× 🛮	EXIT LIGHT	φ _u	UNDER COUNTER DUPLEX RECEPTACLE
E×M 4⊠	COMBINATION EXIT/EMERGENCY	₩u Δ	PHONE /DATA JACK
≣XM2 ዺ ┎╻		Φ	220 RECEPTACLE
4⊗£	COMBINATION EXIT/EMERGENCY/EXTERIOR EMERGENCY	s Ф	FURNACE DISCONNECTION AND DUPLEX RECEPTICAL
	2-HEAD LED EMERGENCY LIGHT MOUNT 18' AFF	Ū	JUNCTION BOX
EMI 🖰	2-HEAD LED EMERGENCY LIGHT MOUNT WITHIN 12" OF CEILING	Q	DISCONNECT. DO NOT PLACE CONDENSING UNIT
EWr 4⊗ ≯	EXTERIOR REMOTE EGRESS LIGHT		FLOOR MOUNT
• 0	RECESSED CAN		
•	RECESSED CAN ON GENERATOR		

SYMBOLS	DESCRIPTION	CATALOG #	MOUNTING	NOTES
IA	SINGLE RELAY ROOM CONTROLLER	LEGRAND - LMRC 101	J-BOX	A & B
2A	DIMMING SINGLE RELAY ROOM CONTROLLER	LEGRAND - LMRC III	J-BOX	A & B
2B	DIMMING DUAL RELAY ROOM CONTROLLER	LEGRAND LMRC II2	J-BOX	A ŧ B
6A	ONE BUTTON WALL SWITCH	LEGRAND - LMSW - IOI	WALL GANG	ΑŧΙ
4B	TWO BUTTON WALL SWITCH	LEGRAND - LMSW - 102	WALL I GANG	ΑŧΙ
IOA	PIR WALL SWITCH-OCC/VACANCY SENSOR	LEGRAND - PW - 100	WALL I GANG	BŧJ
10B	PIR WALL SWITCH-OCC/VACANCY SENSOR	LEGRAND - PW - 100	WALL I GANG	BŧI
	SENSOR			
IIB	DUAL TECH WALL SWITCH O-10 VOLT DIMMABLE - OCC/VACAN	CACUITY - WSX D	WALL I GANG	BŧI
	SENSOR WITH INTEGRATED PHOTOCELL AND (ADH)			
14	DUAL TECH OCC SENSOR	LEGRAND - LMDC - 100	CEILING	A
14B	DUAL TECH OCC SENSOR	LEGRAND - DT - 355	CEILING	В
15	PIR OCC SENSOR	LEGRAND - LMPC - 100	CEILING	Α
NOTES				
A	USE CAT 5E CABLE (PLUG INTO OTHER COMPONETS)			
В	120 V WIRING			
	CET TO MANUAL ON / AUTO OFF			

B 120 V WIRING
I SET TO MANUAL ON / AUTO OFF
J SET TO AUTO ON / AUTO OFF

GENERAL NOTE: VERIFY DEVICE COLOR WITH GC.

ELECTRICAL LIGHTING PLAN NORTH SCALE: 3/32" = 1'-0"

BUILDING

OFFICE/WAREHOUSE

M Ⅲ N

19-021

PROJECT PAUL

PROJECT NO.

GENERAL ELECTRICAL SPECIFICATIONS FOR COMMERCIAL FACILITIES 1. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH CURRENTSTATE AND LOCAL ELECTRICAL /ENERGY CODES. 2. WIRING METHODS USED SHALL BE SUITABLE FOR THE INSTALLATION AND USE OF EQUIPMENT IN CONFORMANCE WITH THE LISTED PROVISIONS OF THE N.E.C. LABELED EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING AND LABELING. LL EQUIPMENT SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH IT IS ALLED. RECEPTACLES INSTALLED IN A WET ENVIRONMENT OR OUTDOORS SHALL LOCATED IN A WEATHERPROOF ENCLOSURE. WEATHERPROOF INTEGRITY SHALL BE AFFECTED WHEN THE RECEPTACLE IS IN USE. 4. ALL WIRING SHALL BE EXPOSED, EXEPT FOR THRU WALL/ROOF PENETRATIONS UNLESS OTHERWISE NOTED ON THE PLANS. CONDUIT SHALL BE EMT. CONDUITS SHALL BE RUN IN A WORKMAN LIKE MANOR. 5.ALL CONDUCTORS SHALL BE COPPER, #1 4 OR LARGER, UNLESS OTHERWISE NOTED ON PLANS. 6. ALL CONDUCTORS SHALL HAVE TYPE THHN INSULATION. UNLESS OTHERWISE NOTED. 7. E.C. SHALL COORDINATE INSTALLATIONS OF WIRING AND LOCATION OF LIGHTS, DEVICES, ETC. WITH OTHER TRADES. SUCH RELOCATIONS SHALL NOT CONSTITUTE A CHANGE ORDER. 8. ALL EXIT LIGHTS SHALL BE SUPPLIED BY THE GENERATOR. EMERGENCY LIGHTING SHALL BE FED FROM THE SOURCE THAT SUPPLIES LIGHTING POWER TO THE AREA. 9. INSTALL SEPARATE NEUTRALS ON ALL LIGHTING RUNS. VERIFY IF WALL OCCUPANCY AND VACANCY SENSORS REQUIRE A NUETRAL CONDUCTOR AT THE DEVICE. 10. ALL BREAKERS CONTROLLING HEATING EQUIPMENT SHALL BE H.A.C.R.-RATED. II. GROUND FAULT CIRCUIT INTERRUPTER IS REQUIRED ON ALL 125 VOLT, 15 AND 20 AMP RECEPTACLES IN REST ROOMS, ROOF TOPS, KITCHENS, GARAGES, WAREHOUSE, PROCCESSING AREA AND EXTERIOR, EXCEPT WHERE NOTED ON THE DRAWINGS FOR SPECIFIC USE AND LOCATION. 12. GENERAL RECEPTACLES AND SWITCHES SHALL BE 20 AMP SPEC GRADE UNLESS OTHERWISE NOTED.
UNLESS OTHERWISE NOTED ON PLANS METALIC DEVICE PLATES SHALL BE USED. 13. RECEPTACLES AND SWITCHES LOCATED ON THE EXTERIOR OF THE BUILDING SHALL COMPLY WITH N.E.C. ARTICLES 406.9, 4 04.4 € 312. 14. E.C. SHALL PROVIDE 4" SQUARE WALL BOX WITH SINGLE GANG PLASTER RING AND 3/4" CONDUIT TO CEILING CAVITY WITH AN INSULATED BUSHING FOR ALL TELEPHONE, INTERCOMB, DATA, FIRE ALARM, AND LOW VOLTAGE TEMPERATURE CONTROL WIRING, LOW VOLTAGE SYSTEMS SHALL BE SUPPLIED AND INSTALLED BY OTHERS 15. E.C. SHALL VERIFY ALL CONNECTION POINTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN. 16. ALL PENETRATIONS THROUGH FIRE WALLS SHALL BE SEALED AND FIRE CAULKED. 18. ELECTRICAL CONTRACTOR (E.C.) SHALL PROVIDE ALL PERMITS AND SCHEDULE ALL INSPECTIONS. 24. PROJECT CLOSE OUT: FINAL ACCEPTANCE AND PAYMENT WILL ONLY BE MADE AFTER FINAL PUNCH LIST COMPLETION AND RECEIPT BY THE ARCHITECT/ENGINEER ALL OF THE FOLLOWING:
A. PROVIDE ALL GUARANTEES AND WARRANTIES
B. PROVIDE (4) SETS OF OPERATING AND MAINTENANCE MANUALS
C. PROVIDE (1) SET OF AS-BUILDS DRAWINGS. (RED LINED)D. PROVIDE CERTIFICATES OF INSPECTION.
E. PROVIDE ALL TEST REPORTS 25. PROVIDE PANEL LABELS ON ALL NEW EQUIPMENT. 26. MAXIMUM VOLTAGE DROP SHALL BE 2% ON FEEDERS AND 3% ON BRANCH CIRCUITS. 27. ALL PANELS SHALL BE LABELED (TYPED) 28. E.C. CONTRACTOR TO SUBMIT FIXTURE CUT SHEETS AND SERVICE GEAR SUBMITTALS FOR APPROVAL PRIOR TO PURCHASE. 29. SOME OF THE REQUIREMENTS SPECIFIED MAY EXCEED MINIMUM CODE AND SHALL BE PART OF THE CONTRACT.

SYMBOLS	DESCRIPTION	CATALOG #	MOUNTING	NOTES
IA	SINGLE RELAY ROOM CONTROLLER	LEGRAND - LMRC IOI	J-BOX	A & B
2A	DIMMING SINGLE RELAY ROOM CONTROLLER	LEGRAND - LMRC III	J-BOX	A & B
2B	DIMMING DUAL RELAY ROOM CONTROLLER	LEGRAND LMRC II2	J-BOX	A & B
6A	ONE BUTTON WALL SWITCH	LEGRAND - LMSW - 101	WALL I GANG	ΑŧΙ
4B	TWO BUTTON WALL SWITCH	LEGRAND - LMSW - 102	WALL I GANG	ΑŧΙ
10A	PIR WALL SWITCH-OCC/VACANCY SENSOR	LEGRAND - PW - 100	WALL I GANG	BŧJ
10B	PIR WALL SWITCH-OCC/VACANCY SENSOR	LEGRAND - PW - 100	WALL I GANG	₽ŧI
	SENSOR			
liB	DUAL TECH WALL SWITCH O-10 VOLT DIMMABLE - OCC/VACAN	CACUITY - WSX D	WALL I GANG	BŧI
	SENSOR WITH INTEGRATED PHOTOCELL AND (ADH)			
14	DUAL TECH OCC SENSOR	LEGRAND - LMDC - 100	CEILING	Α
14B	DUAL TECH OCC SENSOR	LEGRAND - DT - 355	CEILING	В
15	PIR OCC SENSOR	LEGRAND - LMPC - 100	CEILING	Α

USE CAT 5E CABLE (PLUG INTO OTHER COMPONETS) 120 V WIRING SET TO MANUAL ON / AUTO OFF

SET TO AUTO ON / AUTO OFF GENERAL NOTE: VERIFY DEVICE COLOR WITH GC.

LIGHT	FIXTURE SCHEDULE: PAUL DAVIS PRELIM	IINARY II-13-19				
TYPES	DESCRIPTION	MOUNTING	LAMP5	MANUFACTURER- CATALOG #	NOTES	USE/LOCATIONS
Α	LED HIGH BAY	SUSPENDED CEILING	LED 19,770 LUMENS 134 WATTS	JEBL I8LM MVOLT 50K		WAREHOUSE-PROCESSING
В	2' X 4' LED FLAT PANEL	RECESSED	LED 4990 LUMEN 38.8 WATT 3500K	LITHONIA EPANL 2X4 4800LM 80CRI 35K	ı	CORRIDORS-OFFICE-COMMON SPACE
ВІ	2' X 4' LED FLAT PANEL	RECESSED	LED 4990 LUMEN 38.8 WATT 3500K	LITHONIA EPANL 2X4 4800LM 80CRI 35K/SURFACE MOUNT KIT	I	KITCHEN - COPY ROOM
B2	2' X 2' LED FLAT PANEL	RECESSED	LED 3285 LUMEN 31.3 WATT 3500K	LITHONIA EPANL 2X2 34L 80CRI 35K	I	CORRIDORS-OFFICE-COMMON SPACE
C	2X4 INDIRECT/DIRECT	RECESSED	LED 4906 LUMEN 38 WATT 3500K	LITHONIA 2BLT4 46L ADP EZI LP835	1	CORRIDORS-OFFICE-COMMON SPACE
CI	2X2 INDIRECT/DIRECT	RECESSED	LED 3332 LUMEN 26 WATT 3500K	LITHONIA 2BLT2 33L ADP EZI LP835 LITHONIA 2BLT2 33L ADP EZI LP835 / SURFACE MOUNT KIT-	1	OFFICE
C2	2X2 INDIRECT/DIRECT	SURFACE MOUNT	LED 4010 LUMEN 33.1 WATT 3500K	SMK22	I	OFFICE
D	4' COMMERCIAL STRIP LIGHT / LENSE	CEILING-WALL	LED 4000 LUMEN 28 WATT 4000K	LITHONIA CLXL48 4000LM SEF FDL MVOLT GZIO40K80CRIWH		MECH RM, MEZZ, PROCESS RM OVER SINK
EX	EXIT LIGHT, SINGLE / DOUBLE FACED	CEILING-WALL	LED .98 WATTS	LITHONIA LQMSW3R 120/217ELN		EM-EGRESS
EXM	EXIT LIGHT - REMOTE HEADS	CEILING-WALL	LED 3.98 WATTS	LITHONIA LHQMLED-R		EM-EGRESS
EXM2	EXIT LIGHT - REMOTE HEADS	CEILING-WALL	LED 3.98 WATTS	LITHONIA - LHQMLED-R-ELA T QWP LO309		EM-EGRESS
EM	2 HEAD EM LIGHT/BATTERY BACKUP	CEILING-WALL	LED 640 LUMENS 6.6 WATTS	LITHONIA ELM4L		EM-EGRESS
EMI	2 HEAD EM LIGHT/BATTERY BACKUP	CEILING-WALL	LED 220 LUMENS 2.4 WATTS	LITHONIA ELM2L		EM-EGRESS
F	6" RECESSED CAN WITH WHITE TRIM	RECESSED IC RATED	LED 825 LUMEN 12 WATTS 3500K	LITHONIA 45BEMW LED 35K 90CRI M6 /WITH IC22 HOUSING	I	OFFICE, BATH, CONFERENCE & SHOWROOM
H	LED PENDANT	SUSPENDED CEILING	LED 3303 LUMENS 25 WATTS 3500K	LITHONIA- GRD4FT35K80OLMF20/80MINIO		CONFERENCE ROOM
JI	LED 36" VANITY STRIP LIGHT	WALL-SURFACE	LED 1922 LUMENS 825WATTS 3000K	LITHONIA FMVCSL 34IN MVOLT 30K 90CRI BN		BATHROOM VANITY
J2	LED 24" VANITY STRIP LIGHT	WALL-SURFACE	LED 1304 LUMENS 18 WATTS 3000K	LITHONIA FMVCSL 24IN MVOLT 30K 90CRI BN		BATHROOM VANITY
K	LED WALL SCONCE-EXTERIOR	WALL-SURFACE	LED 441 LUMENS 8.9 WATTS 4000K	LITONIA - OLCS 8 DB		EXTERIOR ENTRY
L	EXTERIOR WALL PACK	WALL-SURFACE				EXTERIOR BUILDING PERIMITER
М	SITE LIGHTING	20' POLE MOUNT	LED II,480 LUMENS IO2 WATTS	LITHONIA DSXI-LED-P3-50K-T3M-MYOLT SPA PIRH DDBXD	l £ 2	SITE / PARKING LOT LIGHTING
		l .	1			

NOTE I: O-IO VOLT DIMMING NOTE 2: INSTALL WITH HOUSESIDE SHEILDS AS INDICATED NOTE: ANY QUESTIONS REGARDING THE FIXTURE SCHEDULE CALL STEVE FERRIER (GASSER BUSH) 989-511-0051

	BREAKE					- MAIN LUG - SURFACE MOUNT - LOAD		REAKE	
CKT	AMP	P	DESCRIPTION	WATTS	WATTS	DESCRIPTION	P	AMPS	
1	30	2	D D	4348	2496	MEDIUM DRYER	2	20	2
3									4
5	30	2	IONOIZED DRYER	4368	1656	LARGE DRYER	I	20	6
7					1545	LARGE DRYER	1	20	8
9	20	2	GEN CART	2912	1920	SMALL DRYER	1	20	10
11					2080	LARGE SILVER WASHER	2	20	12
13	20	2	APC	3536					14
15					2080	LARGE SILVER WASHER	2	20	16
П	20	2	APW	3534					18
19					1456	SMALL SILVER DRYER	2	15	20
21	15	1	WATER SOFTNER	180					22
23	15	1	WATER HEATERS	230	1456	SMALL SILVER DRYER	2	15	24
25	15	2	ERV #I	811					26
27					II76	FRONT LOAD WASH MACHINE	1	20	28
29	15	1	ERV #2	396	II76	FRONT LOAD WASH MACHINE	1	20	30
31	15	1	ERV #3	396	900	GENERAL RECEPTACLES	1	20	32
33	15	1	TH-I INFRARED HEATER	54	120	GENERAL RECEPTACLES	1	20	34
35	20	1	SPARE	0	900	GENERAL RECEPTACLES	1	20	36
37			SPACE		340	BATHROOM RECEPTACLES	1	20	38
39			SPACE		874	FIRE SUPPRESSION AIR COMPRESSOR	ı	20	40
41	+		SPACE		ורוו	GENERAL LIGHTING	ı	20	42

	BREAK	ER					E	BREAKE	R
CKT	AMP	P	DESCRIPTION	WATTS	WATTS	DESCRIPTION	P	AMPS	CKT
I			TRAINING ROOM GENERAL RECEPTACLES	120	5300	RTU - I	3	40	2
3			TRAINING ROOM GENERAL RECEPTACLES	120					4
5			TRAINING ROOM GENERAL RECEPTACLES	900					6
1			TRAINING ROOM GENERAL RECEPTACLES	540	5405	cu - I	2	30	8
9			TRAINING ROOM GENERAL RECEPTACLES	1080					Ю
II			TRAINING ROOM GENERAL RECEPTACLES	1080	3818	Cu - 2	2	20	12
13			TRAINING ROOM COUNTER RECEPTACLES	180					14
15			TRAINING ROOM COUNTER RECEPTACLES	180	5405	Cu - 3	2	30	16
П			KITCHEN COUNTER RECEPTACLES	1500					18
19			KITCHEN COUNTER RECEPTACLES	1500	4163	Cu - 4	2	25	20
21	15		KITCHEN RANGE HOOD	230					22
23	50		KITCHEN RANGE	8000	824	GENERAL LIGHTING	1	15	24
25						SPACE			26
27	20		KITCHEN GENERAL RECEPTACLES	360		SPACE			28
29	20		KITCHEN / BATH RECEPTACLES & D.F.	822		SPACE			30

BASE LOAD 42,121 VA / (208 X 1.132) V = 119 AMPS

	BREA	KER					ŧ	BREAKE	R
CKT	AMP	P	DESCRIPTION	WATTS	WATTS		P	AMPS	СКТ
1	20	ı	GENERAL WAREHOUSE RECEPTACLES	120	828	EF - I	1	15	2
3	20	1	GENERAL WAREHOUSE RECEPTACLES	120	231	EF - 2	1	15	4
5	20	1	GENERAL WAREHOUSE RECEPTACLES	540	II74	UNIT HEATERS	1	20	6
٦	20	1	GENERAL WAREHOUSE RECEPTACLES	540	1462	UNIT HEATERS	1	20	8
9	20	1	GENERAL WAREHOUSE RECEPTACLES	360	120	STORAGE ROOMS 134, 131, 138, 139	1	20	ю
11	20	ı	GENERAL WAREHOUSE RECEPTACLES	540	1587	OH DOOR 132 D	1	20	12
13	20	1	GENERAL WAREHOUSE RECEPTACLES	360	1587	OH DOOR 133B	1	20	14
15	20	1	SITE LIGHTING	1122	828	OH DOOR 134B	1	20	16
П	20	ı	SITE SIGNAGE	250	828	OH DOOR 134C	1	15	18
19	20	ı	WAREHOUSE STORAGE/LIGHTS	1364	0	SPARE	1	20	20
21	20	1	SPACE	0	0	SPARE	1	20	22
23			SPACE			SPACE			24
25			SPACE			SPACE			26
27			SPACE			SPACE			28
29			SPACE			SPACE			30

BASE LOAD 15,767 VA / 208 V = 76 AMPS

DI	REAKE	K					E	BREAKE	
CKT	AMP	P	DESCRIPTION	WATTS	WATTS	DESCRIPTION	P	AMPS	CKT
1	20	1	OFFICE RECEPTACLES	540	1308	FURNACE #I	1	20	:
3	20	1	OFFICE RECEPTACLES	540	1308	FURNACE #2	1	20	
5	20	1	OFFICE RECEPTACLES	540	1308	FURNACE #3	1	20	
7	20	ı	OFFICE RECEPTACLES	120	1308	FURNACE #4	1	20	
9	20	1	OFFICE RECEPTACLES	540	118	FIRE SUPPRESSION CONTROLS	1	15	IC
11	20	1	KITCHEN RECEPTACLES	960	1302	OFFICE LIGHTING	1	20	12
13	20	1	COPY MACHINE / RECEPTION AREA RECEPTACLES	540	1088	WAREHOUSE / PROCESSING LIGHTING	1	20	14
15	20	1	RECEPTION DESK RECEPTACLES	540	414	WALL PACKS	1	15	16
П	15	1	PHONE BOARD	360		SPACE			18
19	20	ı	OH DOOR 133-C	1587		SPACE			2
21	20	1	SPARE	0		SPACE			2:
23	20	1	SPARE	0		SPACE			2
25	15	1	SPARE	0		SPACE			2
27			SPACE			SPACE			2
29			SPACE			SPACE			3

BASE LOAD 15,081 VA / 208 V = 13 AMPS * DENOTES A DUAL PURPOSE GFCI / AFCI CIRCUIT BREAKER TO BE INSTALLED

BR	EAKER						f	BREAKE	£R
CKT	AMP	P	DESCRIPTION	WATTS	WATTS	DESCRIPTION	P	AMPS	СКТ
1	20	1	OFFICE / CORRIDOR RECEPTACLES	900	0	SPARE	1	20	2
3	20	1	OFFICE / CORRIDOR RECEPTACLES	900	720	CORRIDOR / BATH / SHOWROOM RECEPTACLES		20	4
5	20	1	OFFICE / CORRIDOR RECEPTACLES	900	900	SHOWROOM / COPY / CORRIDOR RECEPTACLES	1	20	6
٦	20	1	OFFICE RECEPTACLES	900	540	COPY / CONFERENCE ROOM RECEPT.	1	20	8
9	20	1	OFFICE / VESTIBULE RECEPTACLES	900	120	CORRIDOR / CONFERENCE ROOM RECEPTACLES	1	20	10
11	20	1	OFFICE RECEPTACLES	900	540	BATH / CORRIDOR RECEPTACLES	_	20	12
13	20	1	OFFICE RECEPTACLES	120	889	OFFICE LIGHTING		15	14
15	20	1	OFFICE / CORRIDOR RECEPTACLES	900	0	SPARE		20	16
П	15	1	OFFICE RECEPTACLES	120		SPACE			18
19	20	1	OFFICE RECEPTACLES	540		SPACE			20
21	20	1	OFFICE RECEPTACLES	120		SPACE			22
23	20	2	EH - I	1991		SPACE			24
25						SPACE			26
27	20	1	GENERATOR RECEPTACLE	180		SPACE			28
29	20	1	SPARE	0		SPACE			30

BASE LOAD 15,480 VA / 208 V = 14 AMPS

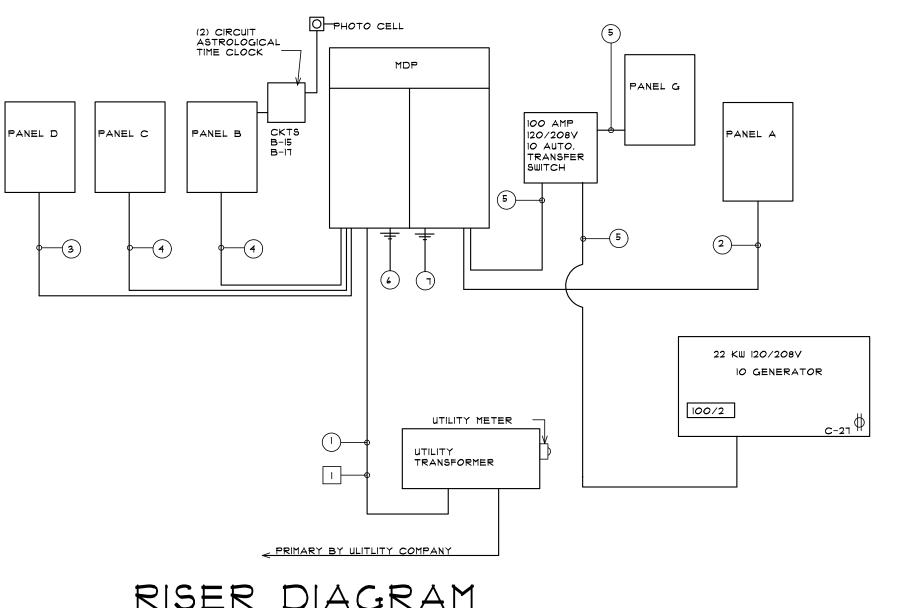
PANE	L MDP: ED- SURI	400 FACE	AMP-120/208 V- THREE PHASE- (4) WIRE- E MOUNT 1- LINE PANELBOARD	- MAIN LI	JG- (6) S	PACE- SERVICE			
СКТ	AMP	P	DESCRIPTION	WATTS	WATTS	DESCRIPTION	D.	AMP	СКТ
1	200	3	PANEL D	42,727	15,081	PANEL G	2	100	2
3	150	2	PANEL B	15,747	42,175	PANEL A	3	150	4
5	150	2	PANEL C	15,480		SPARE SPACE	3		6

BASE LOAD 131,830 VA / (208 X 1.732)V = 366 AMPS SERVICE SIZED AT 500 AMPS

RISER DIAGRAM	CONDUCTOR TYPE	OC DEVICE	PIPE AND WIRE SIZE	FEED TO PANELS
KEY	(THHN UNLESS NOTED)	RATING (AMP)		TRANSFER SWITCHES
I	ALLUMINUM	600/3	(2) 4" C/W (4) # 500 KCMIL & (I) # 2/0 GROUND EACH	MDP
2	ALLUMINUM	200/3	(I) 3° C/W (4) # 250 KCMIL ¢ (I) # 4 GROUND	A
3	ALLUMINUM	150/3	(I) 2.5" C/W (4) # 3/O t (I) # 4 GROUND	D
4	ALLUMINUM	150/2	(I) 2.5" C/W (3) # 3/O t (I) # 4 GROUND	B↓C
5	ALLUMINUM	100/2	(1) 2" C/W (3) # £ (1) # 4 GROUND	TS ŧ G
6	COPPER	GROUND/BOND	(I) # 2/0 TO WATER . BOND ALL ELECTRODES PER N.E.C. ARTICLE 250	
T	COPPER	GROUND/BOND	#6 TO (2) 8' X 5/8" GROUND RODS	

NOTE ! BONDING TO UNDERGROUND METAL WATER PIPING, CONCRETE ENCASED ELECTRODES AND BUILDING STEEL SHALL BE A MINIMUM #4 COPPER

NOTE 2: ELECTRICAL CONTRATOR SHALL INSTALL CONCRETE ENCASED ELECTRODE



RISER DIAGRAM SCALE: NONE

PC Packet Pg. 64

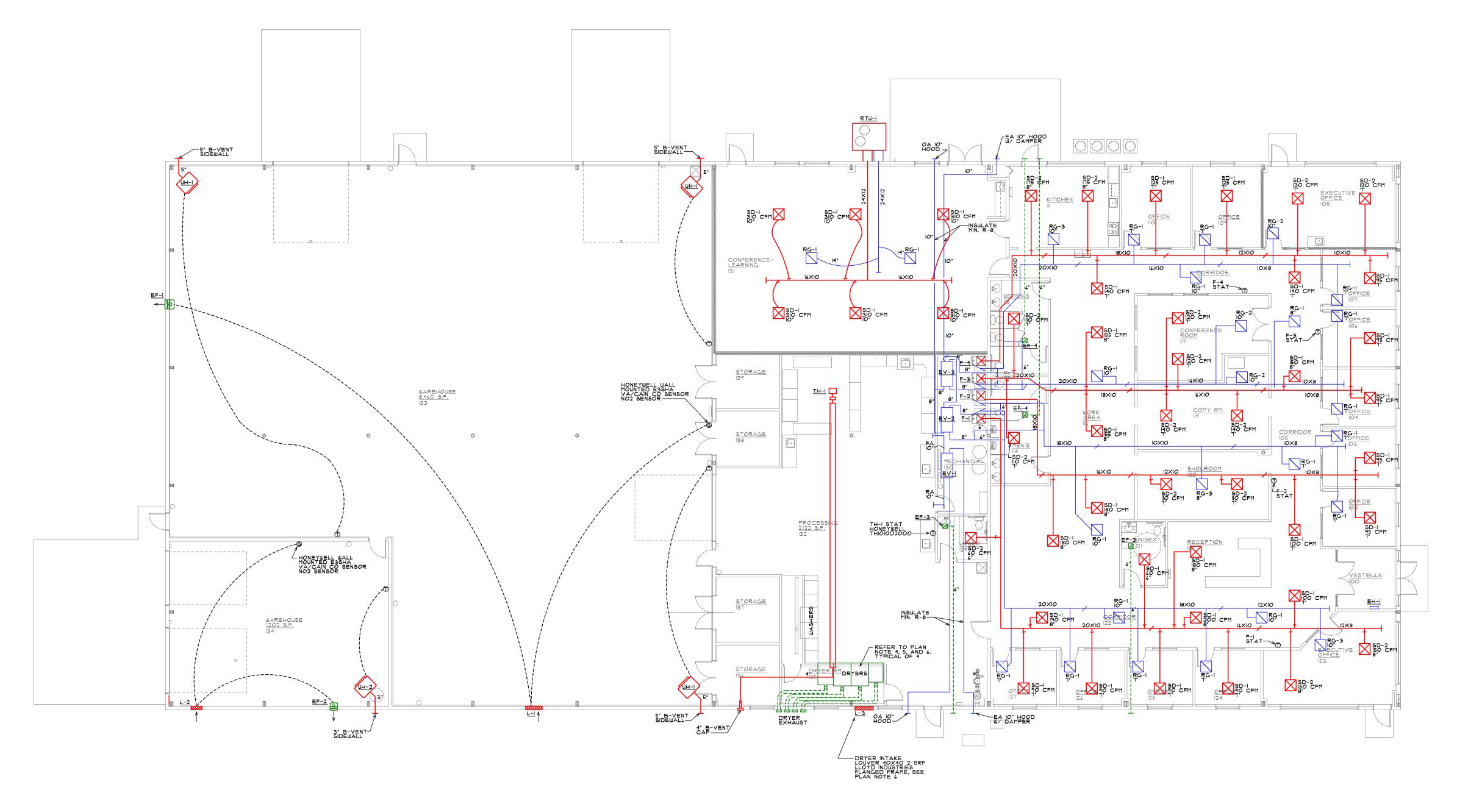
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3 PROJECT NO.

19-021 SHEET





MECHANICAL LEGEND

EXHAUST FAN

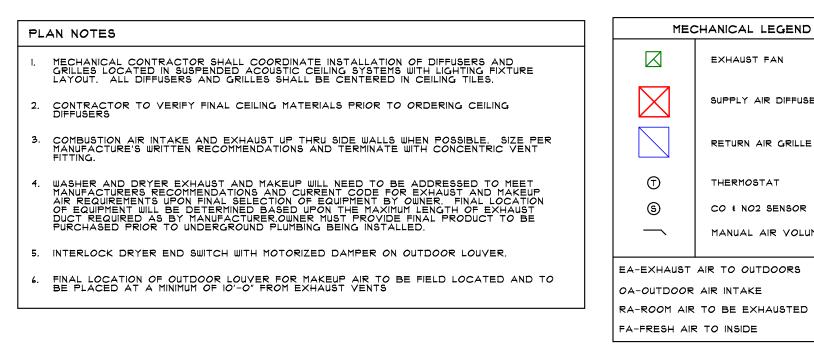
SUPPLY AIR DIFFUSER

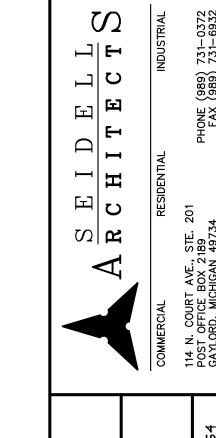
RETURN AIR GRILLE

CO # NO2 SENSOR

MANUAL AIR VOLUME DAMPER

THERMOSTAT

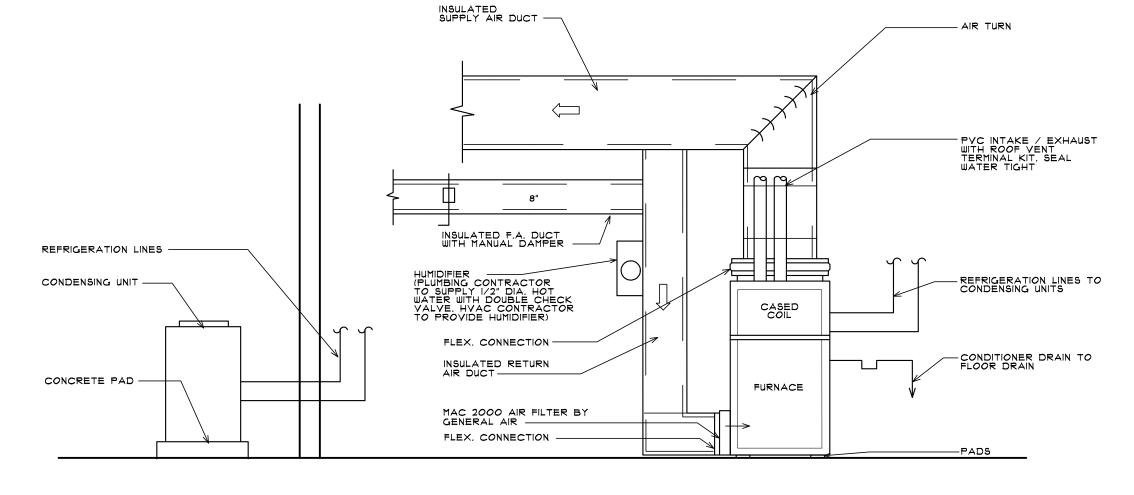




BUILDING FFICE/WAREHOUSE

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PROJECT NO. 19-021



UNDER 5 TON MECHANICAL EQUIPMENT DETAIL

SCALE: NONE

				FURNAC	ES				
MARK	MANUF.	MODEL NUMBER	EVAPORATOR COIL	VOLTS/ PHASE/ AMPS	MIN. O.A. CFM	S.A. CFM			
F-I	ΗЩIL	G96VTN0601714	60,000	96%	2	END4X42LIT	115/1	166	1390
F-2	HEIL	G96VTN0601714	60,000	96%	2	END4X36LIT	115/1	111	930
F-3	HEIL	G96VTN0601714	60,000	96%	2	END4X42LIT	115/1	158	1390
F-4	HEIL	G96VTN0601714	60,000	96%	2	END4×42LI7	115/1	146	1235

NOTE: ALL EQUIPMENT MANUFACTURES ARE AS LISTED OR APPROVED EQUAL

MECHANICAL NOTES:

I. FURNACES, EVAPORATOR COILS, AN CONDENSING UNITS BASED ON "HEIL".

2. DUCT SIZES ARE INSIDE DIMENSIONS. 3. SEAL DUCT PER CODE.

4. PROVIDE FOR ALL FURNACES UV LGHT EQUAL TO SECOND WIND 2018, MOUNT IN SUPPLY AIR PLENUM.

5. PROVIDE ALL FURNACES WITH GENERALAIR FILTER MAX2000.

4. THERMOSTATS TO BE EQUAL TO HONEYWELL 2-STAGE HEAT AND 2-STAGE COL, MODEL TH5220DI029.

								_		_
FURNACE	TO	BE	ON	CORK	PADS,	MINIMUM	OF	3′	× 3′.	

		GRILLE	AND DI	FFUSER SCH	HEDULE			
MARK	MANUFACTURER	TYPE	SIZE	CONSTRUCTION	MODEL	DAMPER	DEFLECTION	COLOF
SD-I	HART & COOLEY	CEILING DROP IN	24 × 24	STEEL	FPD3	3800	4 WAY	WHITE
SD-2	HART & COOLEY	CEILING	12 × 12	STEEL	SRE	SR-1	4 WAY	WHITE
RG-I	HART & COOLEY	CEILING DROP IN	24 × 24	ALLUMINIUM	REST	NO DAMPER		
RG-2	HART & COOLEY	CEILING	12 × 12	ALLUMINIUM	RES	NO DAMPER		
RG-3	HART & COOLEY	CEILING	16 × 16	ALLUMINIUM	RES	NO DAMPER		

ALL MODEL NUMBERS BASED ON HART AND COOLEY UNLESS OTHERWISE NOTED.

	ROOF TOP UNITS										
MARK	MANUF.	MODEL NUMBER	GAS BTU'S	STAGES	COOLING CAPACITY	VOLTAGE/ PHASE	CURB	90.I ECONOMIZER	MCA	MIN. O.A. CFM	S.A. CFM
RTU-I	HEIL	RGV040 DAOAAA	40,000	1	2500	208/230-3-60	GROUND	YES	28	366	1840

	AIR CONDITIONING UNITS								
MARK	MANUF.	MODEL NUMBER	COOLING BTU'S	EFFICIENCY	VOLTS/PHASE	REFRIGERANT	MCA/MOCF		
Cu-I	HEIL	N4A342AK	42,000	13	230/1	410-A	23.5		
CU-2	HEIL	N4A33OKK	30,000	13	230/1	410-A	16.6		
CU-3	HEIL	N4A342AK	42,000	13	230/1	410-A	23.5		
CU-4	HEIL	N4A336AK	34,000	13	230/1	410-A	18.1		

NOTE: ALL EQUIPMENT MANUFACTURES ARE AS LISTED OR APPROVED EQUAL

	WALL HEATERS						
MARK	MANUFACTURER	MODEL	вти	WATT	YOLT/PH	TYPE	AMP MAX
EH-I	BERK <i>O</i>	FRC4020F	6,824-13,649	4000/2000	208	RECESSED	9.6

NOTE: ALL EQUIPMENT MANUFACTURERS ARE AS LISTED OR APPROVED EQUAL

EXHAUST FANS						
TAG	MODEL	MANUF.	CFM	VOLT	VENT SIZE	AMP
EF-I	CSTR-20	SŧP	4750/1665	115	20	3.5
EF-2	CSTR-16	SŧP	1995/700	115	16	1.0
EF-3	AE80	BROAN	80	120	6	.3
EF-4	L15 <i>0</i>	BROAN	150	120	6	1.3

I. INSULATE WITH MIN. R-8 IN UNCONDITIONED SPACE 2. USE GALVANIZED PIPE

		uì	NIT HEAT	ERS			
UNIT	MANUF.	MODEL	BTU	EFFICIENCY	STAGES	VENT	VOLT/PHASE
uH-I	MODINE	PDP200	200,000	80	1	5"	115/1
uH-2	MODINE	HD-75	75,000	80	1	3"	115/1

NOTE: ALL EQUIPMENT MANUFACTURES ARE AS LISTED OR APPROVED EQUAL NOTE: MINIMUM 14'-0" MOUNTING HEIGHT

	LOUVER SCHEDULE						
MARK	MANUF.	MODEL	SIZE	VOLT			
L-T	LLOYD	ACC-18	T /2" × T /2"	120			
L-2	LLOYD	ACL-36	35" × 35"	120			
L-3	LLOYD	2-SRF	40" × 40"	120	WITH MOTORIZED DAMPER		

NOTE: ALL EQUIPMENT MANUFACTURES ARE AS LISTED OR APPROVED EQUAL

INFRARED HEATER						
ARK MANUFACTURER	MODEL	вти	VOLT/PH	AMPS	EFFICIENCY	REMARKS
H-I SUPERIOR RADIANT PRODUCT	TXI2N 50'	120,000	120/1	1	90%	USE EXTERIOR HOOD
TH-I SUPERIOR RADIANT PRODUCTS TXI2N 50' 120,000 120/I I 90% USE EXTERIOR H						

NOTE: ALL EQUIPMENT MANUFACTURERS ARE AS LISTED OR APPROVED EQUAL

NOTE: GAS SUPPLY, NATURAL, 5" W.C.

ENERGY RECOVERY VENTILATION						
MARK	MANUF.	MODEL NUMBER	VOLTS/PHASE	MCOP	MCA	H.P.
EV-I	RENEWAIRE	EV450	208/230/	4.9	4.9	.6
EV-2	RENEWAIRE	EV300	120/1	15	3.3	.2
EV-3	RENEWAIRE	EV300	120/1	15	3.3	.2

NOTE: ERV'S BASED UPON RENEWAIRE OR EQUAL

I. FRESH AIR TO RETURN DUCT MATCHING FURNACE NUMBER

2. PROVIDE ROUND TRANSITION KIT FROM RENEWAIRE MODEL 45EVTIO

3. PROVIDE DRAIN PAN IN LOCATIONS REQUIRED PER CODE

		EVAPORATOR CO	OILS		
MARK	MANUFACTURER	MODEL NUMBER	TONS	REFRIGERANT	
EC-I	HEIL	ENH4X3 <i>O</i> LI7	2 1/2	410A	
EC-2	HEIL	ENH4×36LIT	3	4104	
OTE: ALL EQUIPMENT MANUFACTURES ARE AS LISTED OR APPROVED EQUAL					

INSULATION SCHEDULE MIN. "R" INSULATION THICKNESS REMARKS ITEM VALUE AND MODEL NO. TYPE BARRIER INTEGRAL 3.7/IN. ARMAFLEX AP, OR EQUAL. REFRIGERANT SUCTION CLOSED CELL FOAM CERTAINTEED STANDARD DUCT WRAP, OR EQUAL. OUTDOOR AIR FIBERGLASS WRAP 3.6/IN. CERTAINTEED ULTRALITE, OR EQUAL. SUPPLY AIR - IST 15'-O" FROM FURNACE R.A. RETURN AIR - IST 15'-O" FROM FURNACE CERTAINTEED ULTRALITE, OR EQUAL. DUCT LINER S.A. (CONDITIONED) SUPPLY AIR FSK CERTAINTEED STANDARD DUCT WRAP, OR EQUAL. FIBERGLASS WRAP CERTAINTEED STANDARD DUCT WRAP, OR EQUAL. S.A. (UNCONDITIONED) SUPPLY AIR FIBERGLASS WRAP RETURN AIR FIBERGLASS WRAP CERTAINTEED STANDARD DUCT WRAP, OR EQUAL. R.A. (UNCONDITIONED) CERTAINTEED STANDARD DUCT WRAP, OR EQUAL. FSK E.A. (UNCONDITIONED) EXHAUST AIR FIBERGLASS WRAP

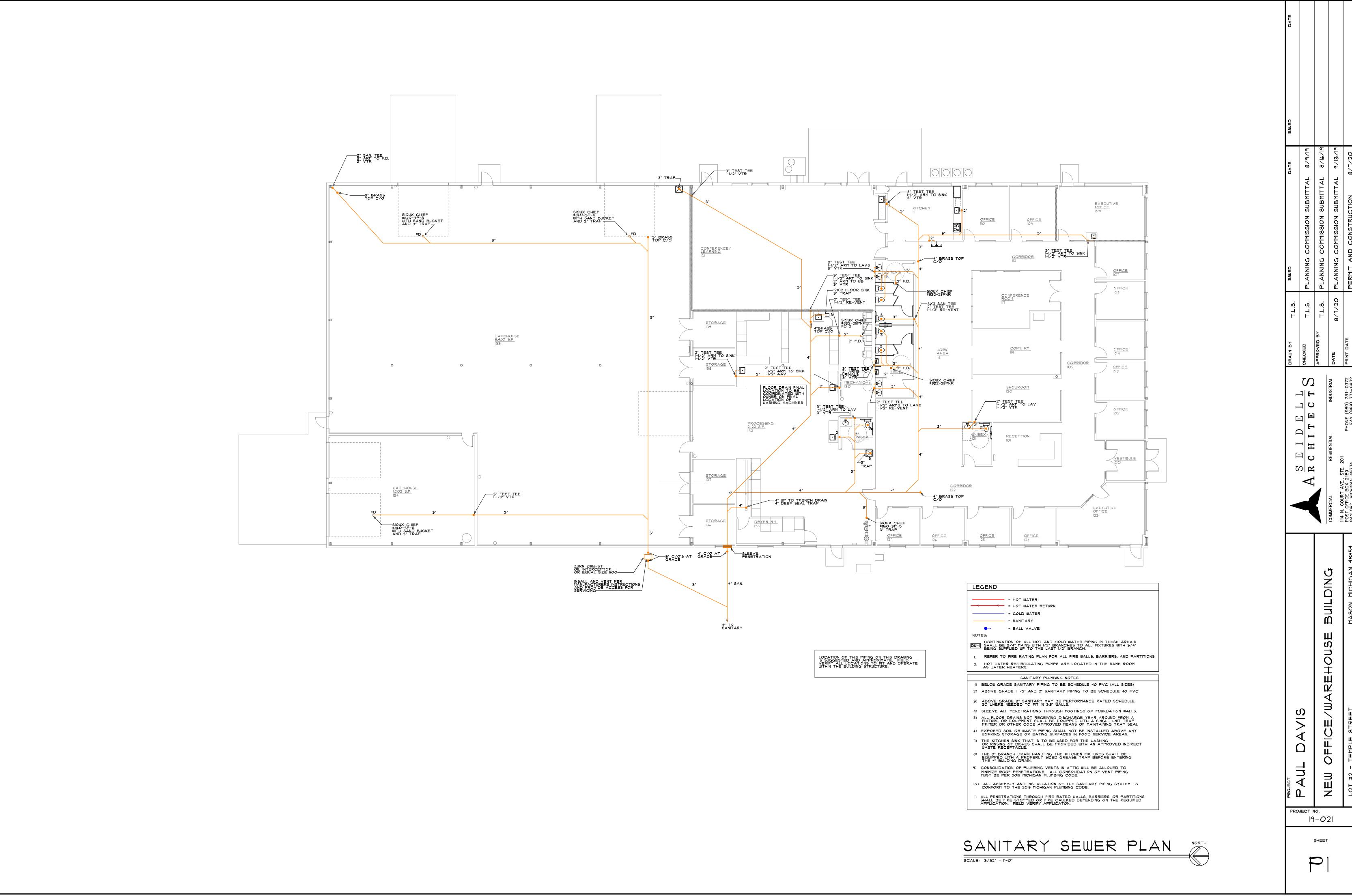
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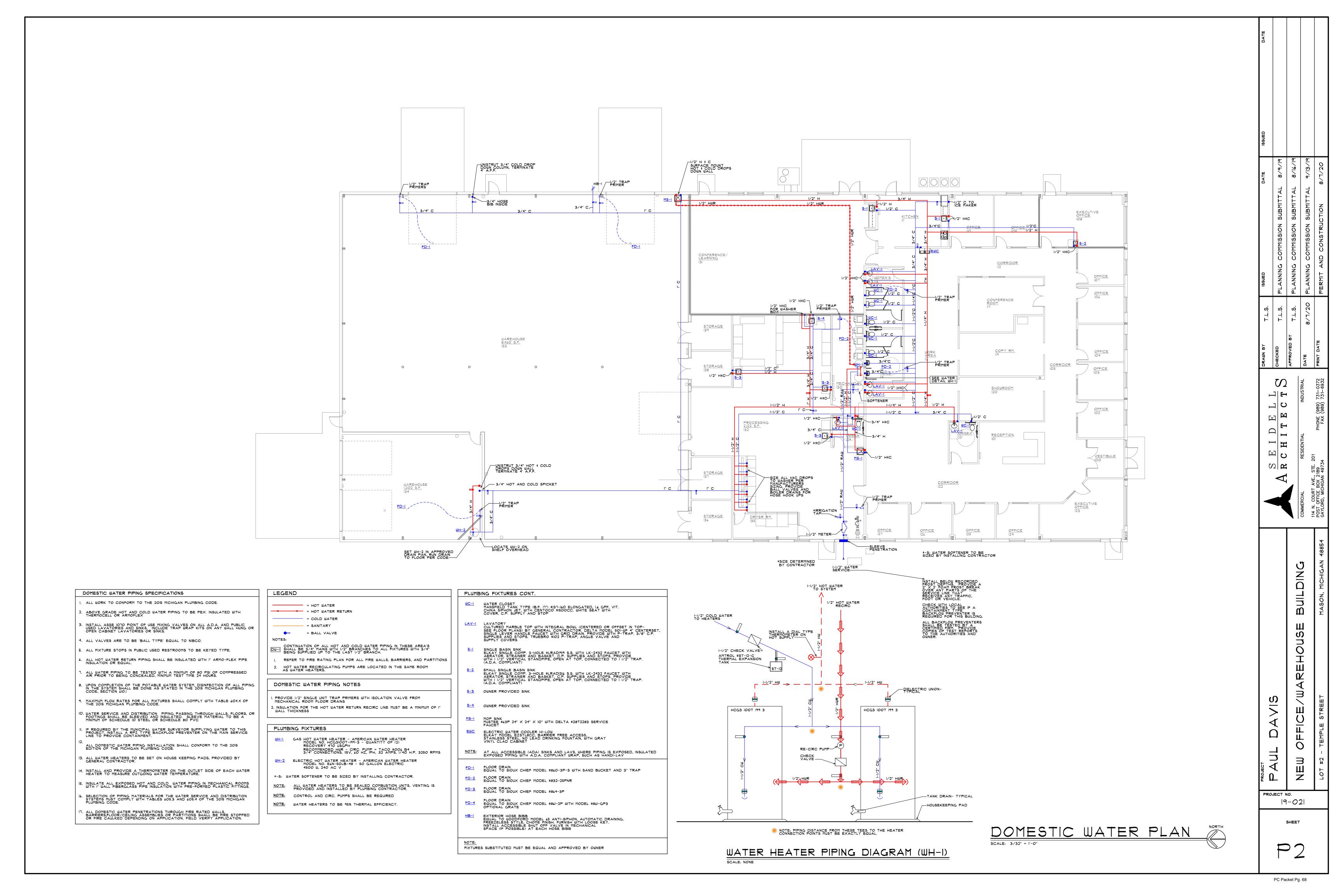
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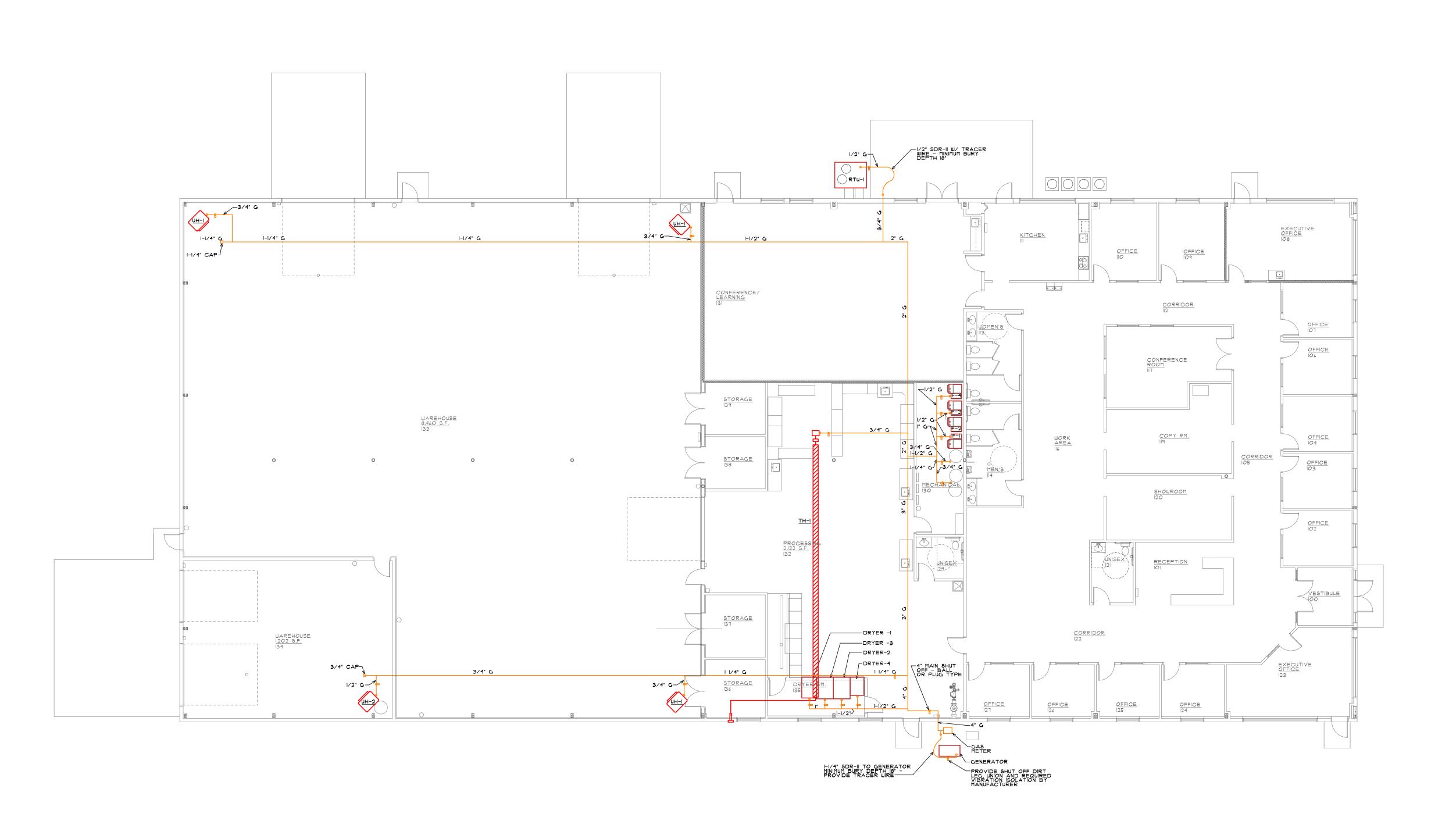
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19-021

PROJECT NO.







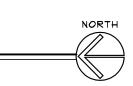
GAS FIRED EQUIPMENT					
UNIT	BTU'S				
FURNACE F-I	60,000				
FURNACE F-2	60,000				
FURNACE F-3	60,000				
FURNACE F-4	60,000				
RTU-I	60,000				
UH-I (3)	600,000				
uH-2	75,000				
WATER HEATER #1 (a)	199,000				
WATER HEATER #1 (b)	199,000				
TH-I	125,000				
DRYER -I	190,000				
DRYER-2	145,000				
DRYER -3	165,000				
DRYER-4	190,000				
EMERGENCY GENERATOR 22KW	380,000 FULL LOAD				

GAS LOAD = 2,588,000 BTU

NATURAL GAS PIPING NOTES

- TOTAL GAS LOAD FOR THE BUILDING: 2,263,000 BTU'S 2. PIPING IS BASED ON THE USE OF SCHEDULE 40 BLACK STEEL PIPE. 3. 2" PIPE AND UNDER TO BE STANDARD THREADED JOINTS.
- 4. 2 1/2" AND ABOVE TO BE BUTT WELDED JOINTS.
- 5. THREAD-0-LETS WILL BE ALLOWED FOR BRANCHES
- $\stackrel{\cdot}{\text{PROVIDE}}$ a main shutoff valve at the entrance to the building (ball or plug type only). PROVIDE A BALL TYPE GAS SHUTOFF VALVE AGA APPROVED AT EVERY APPLIANCE.
- 8. PROVIDE A UNION AND DIRT LEG AT EVERY APPLIANCE BETWEEN SHUTOFF VALVE AND THE APPLIANCE.
- 9. NATURAL GAS PIPING TO BE SUPPORTED WITH A MINIMUM OF 3/8" THREADED ROD WITH CLEVIS OR GALVANIZED TEAR DROP HANGERS.
- IO. ALL GAS PIPING SHALL BE TESTED BY A CODE APPROVED MEANS PRIOR TO ACTIVATION, PROVIDE TEST REPORT TO INSPECTING AGENCY.
- SLEEVE AND FIRE PROTECT ALL WALL PENETRATIONS PER CODE. 12. PROPERLY SUPPORT VERTICAL DROPS TO APPLIANCES, DO NOT ALLOW THE WEIGHT OF THE PIPING TO BE ON THE APPLIANCE CONTROL VALVE.
- 13. LABEL ALL NATURAL GAS PIPING FOR EASY IDENTIFICATION MARK ANY CEILING TILE WHERE VALVES MAY BE LOCATED. 14. COORDINATE ANY NECESSARY GAS SHUT DOWNS WITH BUILDING SUPERVISORS AND THE GAS PROVIDER.
- 15. ALL PENETRATIONS THROUGH FIRE RATED WALLS, BARRIERS, OR PARTITIONS SHALL BE FIRE STOPPED OR FIRE CAULKED DEPENDING ON THE REQUIRED APPLICATION. FIELD VERIFY APPLICATION.

GAS PIPING PLAN SCALE: 3/32" = 1'-0"



PROJECT NO. 19-021

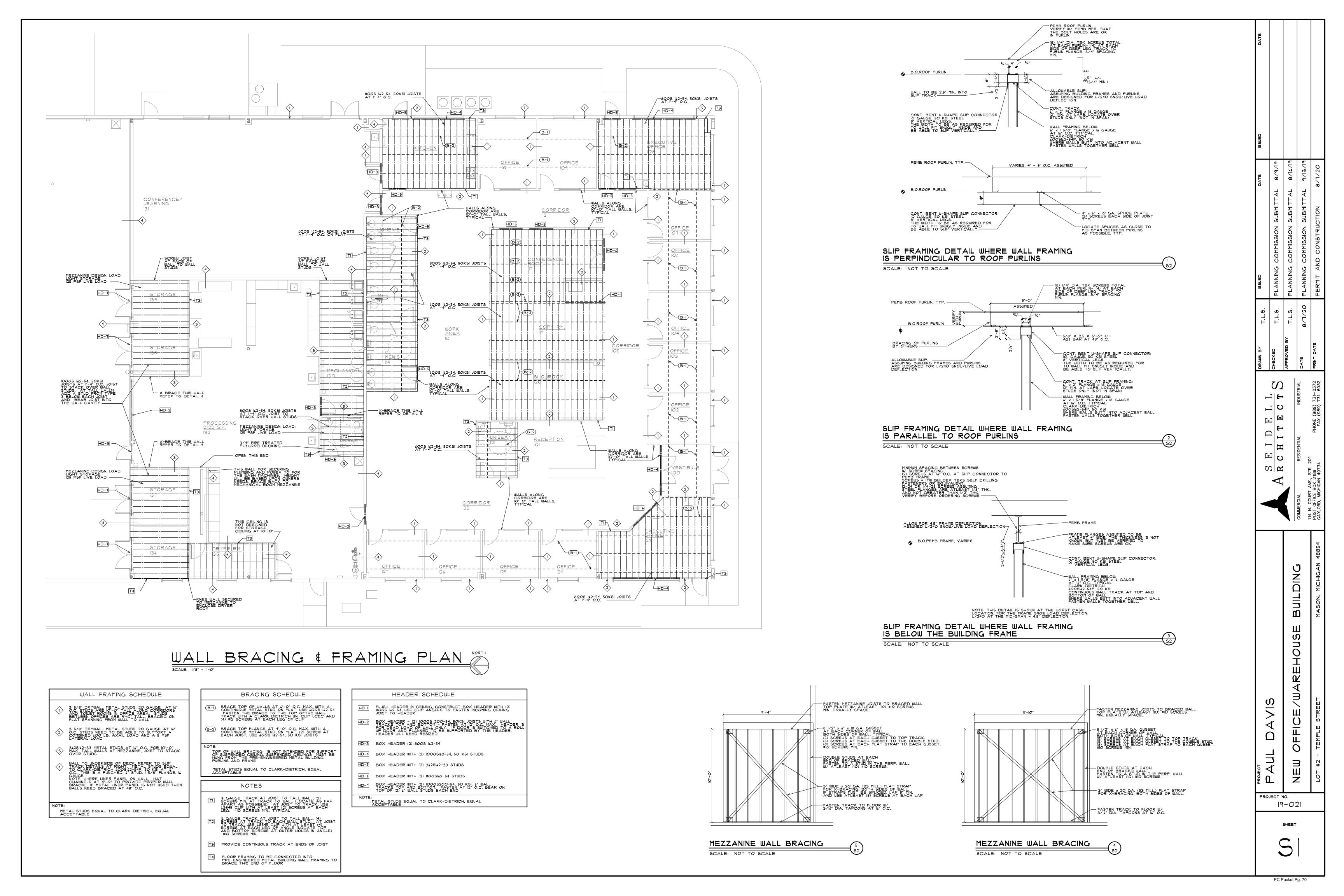
AUL

BUILDING

/WAREHOUSE

OFFICE,

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General Procedures Related to Electronic Meetings

As required under Public Act 228 of 2020, the following procedures outline the accommodation of meetings held, in whole or in part, electronically by City Council or a City Board or City Commission. Additional procedures will be adopted at a later date, by the Council, to accommodate members that are eligible and cannot attend in person for meetings held on or after January 1, 2021.

Electronic Meeting Procedures for City Council, City Board or City Commission Members

- All attendees including City Council, City Board or City Commission Members will enter the meeting with a muted microphone.
- The meeting Chair's microphone will be unmuted to call the meeting to order.
- During initial roll call, each member will announce the physical location they are participating from by stating
 the county, city, township, or village and state which they are attending the meeting from.
- The meeting Chair will call for a motion and members will signify making a motion by either voice or the "Raise Hand" feature. The same process will be followed for a second to a motion. The meeting Chair will then acknowledge which member made the motion and which member seconded the motion.
- The meeting Chair will then ask if there is any discussion on the motion. Members will indicate a desire to discuss by either voice or the "Raise Hand" feature. The meeting Chair will then acknowledge the particular member granted the floor for discussion by name.
- Votes shall be taken by roll call.

Electronic Meeting Procedures for Public

- All public participants entering the meeting will automatically be muted upon entering.
- All public participants should either turn off or leave off their video camera. Only City Council, City Board or
 City Commission Members will be allowed to have their video cameras on. Your video camera will be turned
 off for you if you do not turn it off yourself.
- Public rules are displayed in the "Chat" Feature; however, the chat feature will not be turned on to allow for chat comments to be added.
- Public comment:
 - o Public only will be allowed to address the members during Public Comments
 - o Public is allowed three (3) minutes to speak.
 - o Public must state the name and address slowly and clearly before they start to address the Council.
 - Public comments will be addressed in the following order:
 - 1. Those provided the day of the meeting and sent to the designated person in the meeting instructions by a certain time will be read during the meeting.
 - 2. Those using the Video Conference Portion (not calling on a telephone) will be asked to use the "Raise Your Hand" Feature in Zoom. The meeting Chair will call on individuals to speak and they will be unmuted at that time.
 - 3. Participants that are available only by phone, after the meeting Chair requests.
- Inappropriate or disruptive participants will not be allowed or tolerated and will be removed from the meeting.
- Due to the electronic nature of this type of meeting the meeting Chair, at his discretion, may adjourn the
 meeting with or without notice for any reason. Every attempt will be made to remain connected to the
 meeting, however two examples of abrupt adjournment may be computer connectivity issues or lack of
 appropriate participation.

201 West Ash Street; Mason, MI 48854-0370 Office: 517.676.9155; Website: www.mason.mi.us

ADDITIONAL ZOOM INSTRUCTIONS FOR PARTICIPANTS:

PHONE INSTRUCTIONS - to join the conference by phone

- 1. On your phone, dial the teleconferencing number provided above.
- 2. Enter the **Meeting ID number** (provide with agenda) when prompted using your touch- tone (DTMF) keypad.

VIDEOCONFERENCE INSTRUCTIONS – to watch and speak, but not to be seen

Before a videoconference:

- 1. You will need a computer, tablet, or smartphone with speaker or headphones. You will have the opportunity to check your audio immediately upon joining a meeting.
- 2. Details, phone numbers, and links to videoconference or conference call is provided above. The details include a link to "Join via computer" as well as phone numbers for a conference call option. It will also include the 9-digit Meeting ID.

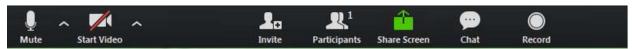
To join the videoconference:

- 1. At the start time of your meeting, enter the link to join via computer. You may be instructed to download the Zoom application.
- 2. You have an opportunity to test your audio at this point by clicking on "Test Computer Audio." Once you are satisfied that your audio works, click on "Join audio by computer."

If you are having trouble hearing the meeting, you can join via telephone while remaining on the video conference:

- 1. On your phone, dial the teleconferencing number provided above.
- 2. Enter the **Meeting ID number** when prompted using your touch- tone (DTMF) keypad.
- 3. If you have already joined the meeting via computer, you will have the option to enter your 2- digit participant ID to be associated with your computer.

Participant controls in the lower left corner of the Zoom screen:



Using the icons in the lower left corner of the Zoom screen, you can:

- Mute/Unmute your microphone (far left)
- Turn on/off camera ("Start/Stop Video")
- Invite other participants
- View Participant list opens a pop-out screen that includes a "Raise Hand" icon that you may use to raise a virtual hand during Call to the Public
- Change your screen name that is seen in the participant list and video window

Somewhere (usually upper right corner on your computer screen) on your Zoom screen you will also see a choice to toggle between "speaker" and "gallery" view. "Speaker view" shows the active speaker. "Gallery view" tiles all of the meeting participants.

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City Manager's Report: October 15, 2020

COVID-19 UPDATES:

- City Hall is open to the public Monday- Thursday 9 a.m. 3 p.m. Residents are encouraged to make contactless payments, for all payments, including tax payments, by mail, online, or placing in our drive up drop-box in the City Hall parking lot. We are asking residents to limit the use of cash and prepare checks before you enter City Hall. If a receipt is requested, please provide an email address or enclose a self-addressed, stamped envelope.
- Please see the Continuity of Operations document, as of October 15, 2020, available on the City's website: here.
- Please see the COVID-19 Preparedness and Response Plan, as of October 15, 2020 available on the City's website: here.
- Majority of the Emergency Ordinances passed by the City Council due to the pandemic will expire in the next
 month due to the Governor's Executive Orders no longer being in place. Staff will provide a summary at the
 next City Council meeting for City Council to consider whether they would like to continue any emergency
 ordinances.

ACTIVE PROJECTS STATUS UPDATES (PROJECTS NOT COORDINATED BY THE CITY)

Project Name	Status
BUILDING PERMITS – COMMERCIAL PR	OJECTS UNDER CITY REVIEW
118 W. Oak St. – Arcade/Nail Salon PENDING	Two permits pending. 1. Change of Occupancy permit has been filed for Nail Tech in small office space. 2. Change of Occupancy permit has been filed to proceed with opening of the Arcade on the first floor only.
205 S. Cedar - DSN PENDING	Two building permits pending for this address. Both filed after code enforcement violations were noted. 1. Sign permit. 2. Installing door on front of building.
440 S. Jefferson – Bad Brewing PENDING	Building permit is in review to set up two tents over current patio.
600 Buhl – Ingham Animal Control PENDING	Building permit is in review to construct a 14' x 24' pre-fabricated mini-barn.
110 W. Oak – Mason Energy Group ACTIVE	Building permit active for siding, fascia, and soffit work.
117 & 119 E. Maple – Fiedler ACTIVE	Building permit is active for replacement storm doors, replacement windows, exterior painting, and brick exterior re-pointing.
124-136 W. Ash St. ACTIVE	Building permit active for 2 nd story interior renovations and replacement of all 2 nd story windows.
125 E. Kipp Rd – Dollar Tree ACTIVE	Building permit is active for a 5,460 sq. ft. addition to accommodate up to four new retailers.
213 N. East St. – ServiceMaster ACTIVE	Building permit active to add overhead door, open doorways to meet ADA code and build necessary ramps.
230 Temple St. – Sparrow ACTIVE	Building permit is active for tear off and re-roof of building.
301 Bush – Ingham County ACTIVE	Building permit active for tear off and re-roof of building.
610 N. Cedar – Rite Aid ACTIVE	Building permit is active for removal and installation of new signs on business walls.
700 Buhl – Ingham County Justice Complex ACTIVE	Building permit is active for interior remodeling of existing storage facility to accommodate relocation of vehicle maintenance function. Includes new interior mechanical, plumbing, and electrical work. This work is part of a phased construction project for the new Ingham County Justice Complex.

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700 Buhl – Ingham 911 ACTIVE	Building permit is active for installation of antennas, microwave dishes and associated mounts on existing tower. Install unmanned equipment shelter.
801 N. Cedar St City Limits ACTIVE	Final building inspection approved for a 4,828 sq. ft. addition along with additional parking. Certificate of Occupancy will be issued pending zoning approval for final site inspection.
1133 S. Cedar – MSU Federal CU ACTIVE	Building permit is active for interior renovations.
1154 S. Jefferson – (former Hart Well Drilling) ACTIVE	Building permit is active for demolition of building, removal of debris, and restoration of disturbed areas. The property owner does not have plans for the site at this time.
525 N. Cedar- Timeless Treasures TEMPORARY OCCUPANCY PERMIT	Remaining work includes the installation of landscaping, repairs to parking lot lighting, and a site plan revision if they intend to include the outdoor flea market.
549 W. Ash- Dog Groomer TEMPORARY OCCUPANCY PERMIT	Staff is working with owner on a revised parking plan to address safety requirements and pre-existing, non-conforming layout. <i>Parking updates have been delayed until spring.</i>
132 S. Cedar– Peak Performance COMPLETED	Ste. 500- Final inspection approved and Certificate of Occupancy issued.
352 W. Columbia St. – Michigan Barn Wood and Salvage COMPLETED	Final inspection approved for application of spray foam over 2 sections of roof.
BUILDING PERMITS – DANGEROUS BUI	LDINGS/FIRE RESTORATION
665 Hull Rd. – Cleanlites Recycling PENDING	Building permit is pending after fire.
Private Residence – Park St. PENDING	Building permit is pending after fire.
111 Mason St. – Mason Depot ACTIVE	Building permit is active for reconstruction after fire.
Private Residence – Center St. COMPLETED	Final inspection approved for demolition of garage.
OTHER	
840 E. Columbia St. – Masonic Lodge PENDING	Administrative Site Plan Application is being reviewed for changes to the parking lot for one-way traffic, and the addition of a new driveway to accommodate dropoff at the entrance to building where a new elevator is to be installed for ADA access.
1155 Temple St. – Paul Davis Restoration PENDING	Application to amend previously approved Site Plan to reduce building square footage, modify parking and driveway. The application is scheduled for review at a Special Meeting of the Planning Commission to be held Tuesday, October 27.

OPERATIONS

- As of October 12, 2020, we have issued 2,816 Absentee Ballots for the November 3, 2020 Election and received 1,368 back. You may request an absentee ballot to be sent by mail up to Friday, October 30, 2020 by 5:00 p.m. or in person up to 4:00 p.m. on Monday, November 2, 2020. However, any ballot requested in person on Monday, November 2, 2020 must be voted at City Hall and cannot be taken with the voter.
- Council Members and many staff participated in the Michigan Municipal League's (MML) annual conference virtually on September 28 through October 2, 2020.
- Elizabeth Hude, Community Development Director and Steering Committee Member of the Arts Council of Greater Lansing, participated in the annual Creative Placemaking Summit 6 on October 14, 2020.
- Administrative approval has been given to the Mason Area Chamber of Commerce for a Hocus Pole-Cus Contest, October 15 through November 2, 2020. This event allows businesses to adopt and decorate a light pole to help celebrate the fall season.
- Administrative approval has been given to the Capital Area District Library Mason Branch for a Holiday Reindeer Event, December 10, 2020. This event will be a drive-through Rayner Park to view live reindeer.
- A grant funded through a partnership between Michigan State Police and Evenflo has allowed the City of Mason to obtain
 fourteen child car seats to give away to those in need. This is possible, due to Officer Flores' formal training and
 credentials as a Car Seat Technician.

• Leaf collection program is to start Monday October 19. Detailed information is attached and also available on the website: here.

Staffing Updates:

- Open Positions Seasonal Crossing Guard position posted with applications due by Friday, October 23, 2020.
- Additional part-time positions will be posted soon. There is still a hiring freeze on any full-time positions.

LARGE CITY PROJECTS

FY 2019-2020				
Project	Project Name/Description	Status	Completed	
STREETS, SIDEWALKS, BRIDGES (S)				
2017-S11/ 2017-U19/ 2018-P3	Kerns Road- Cedar Street to Howell Rd./ Hayhoe Riverwalk Trail Extension	Final Restoration completed. Pond restoration work is in progress.		
UTILITIES: SANITARY SEWER, STORM WATER, AND WATER DISTRIBUTION (U)				
2017-U11	Turbine Aeration Blower at POTW	Blower is in the manufacturing phase with an estimated time of arrival of April 2021.		
2017-U24	Study of Sewer Flow on Mason St.	Staff working with Wolverine Engineering to move monitoring equipment to a new area. Staff waiting for next weather event to televise Devon Hills area to identify cause of inflow and infiltration.		

		FY 2020-2021		
Project	Project Name/Description	Status	Completed	
STREETS, SIDEWALKS, BRIDGES (S)				
2017-S17	Center Street- Walnut Street to N. Bush Street	Final asphalt layer was laid on October 13, 2020.	October	
2017-S18	Brookdale Street- W. South St to Willow Street	Completed	August	
2017-S19	Cherry- McRoberts Street to Henderson Street	Final asphalt layer was laid on October 13, 2020.	October	
2017-S21	Eaton Drive- All	Completed	June	
2017-S22	W. Elm Street- McRoberts Street to Lansing Street	Final asphalt layer was laid on October 13, 2020.	October	
2019-S9a	E. Maple– S. Jefferson to S. Barnes	Completed	June	
2019-S9b	Signal at E. Maple & S. Jefferson	Delayed traffic study due to COVID-19.		
2019-S5a	Henderson Street – Entire length	Final asphalt layer was laid on October 13, 2020.	October	
2019-S5b	Alley- W. Columbia Street to W. Sycamore Street	Final asphalt layer was laid on October 8, 2020.	October	
BUILDING, PROPERTY, EQUIPMENT (B)				
2019-B16b	Clerk: Election Tabulator Machines	Tabulator has been received. The City received State funding for half of the tabulator (not including the shipping). Total came to \$3405.80 and the Council had originally approved \$5675.00 so \$2269.20 less than we planned.	October	

NOTE: After Capital Improvement Program Plan is adopted, the table will be updated to include all projects.



LEAF COLLECTION PROGRAM

LEAF COLLECTION:

The Leaf Collection Program is a limited service designed to supplement yard waste collection provided by Granger. Removing the fallen leaves helps to prevent ponding, flooding, and road icing as a result of blocked drainage paths and catch basins. As a service to our residents, City staff collect leaves in the right of way during this specific time.

You can help the City clear the autumn leaves by raking leaves that have accumulated in your front yard out to the right of way, no more than a few days before your street's collection day; see the Zone Map below. Please do not rake leaves onto sidewalks, roadways, on top of catch basins, or obstruct water flow in any way. Improperly placed leaves may cause them to be missed during the pick-up day and can create dangerous conditions for pedestrians, cyclists, motorists, and may create flooding conditions. All other leaves (like those from side and back yards) should be placed in either disposable paper bags or in trash cans, 30-gallon or smaller, and placed at the curb on Fridays. Granger will accept up to 5 bags or cans weekly from each residence **until November 20, 2020**, as part of their service with the City.

LEAF COLLECTION SCHEDULE AND ZONE MAP: Collections will be mid to late October through November 20, 2020.

Pick-up days are coordinated by the Zone in which you live. If you see City staff in your area a few days earlier or later than scheduled, they are just getting an early start or making a final collection pass in your area. Please understand that

snow accumulation and other weather-related events may impact the City's ability to run the program.

Zone 1 - Mondays

South of W. Ash, West of S. Jefferson

Zone 2- Tuesdays

North of W. Ash, West of N. Jefferson

Zone 3- Wednesdays

South of E Maple, East of S. Jefferson

Zone 4- Thursdays

North of E. Maple, East of N. Jefferson

* Fridays are catch-up days (as needed)

COMPOST CENTER:

The Compost Center is available for anyone who would like to pick-up compost or drop off leaves; brush and limbs are not accepted. It is located at 862 Mason St. and will be open Saturday, October 24, 2020 through Saturday, November 21,

W Columbia St.

2020; Monday – Friday 8:00 a.m. to 3:00 p.m. and Saturday 8:00 a.m. to 12:00 p.m.; closed on Holidays.

RESOURCES:

More Questions? Please contact our Customer Service Desk at 517.676.9155