

PONTIAC PLANNING COMMISSION

Wednesday, October 2, 2024 6:00 PM CITY HALL – 2^{ND} FLOOR – COUNCIL CHAMBERS 47450 WOODWARD AVENUE – PONTIAC, MICHIGAN

Public Hearing Format

- I. Opening of Case
- II. Staff Presentation
- III. Commission Questions for Staff
- IV. Applicant's Presentation
- V. Commission Questions for Applicant
- VI. Citizen Questions, Concerns, and Comments (Time Limit Set By Chair)
- VII. Final Questions from the Commission
- VIII. Closing of Hearing
- IX. Commission Deliberations
- X. Decision (Approve, Approve with Conditions, Table, Deny)

Agenda

- 1. CALL TO ORDER:
- 2. ROLL CALL:
- 3. OFFICIAL COMMUNICATIONS:
- 4. AMENDMENTS TO & APPROVAL OF THE AGENDA:
- 5. MINUTES FOR REVIEW: August 7th
- 6. PUBLIC HEARINGS:

A. Application #: SEP24 - 009
Applicant: Matthew Ferris
Application: Special Exception
Address: 1345 Baldwin Ave.

Request: Establishment of Pawn Shop

- 6. PUBLIC COMMENT
- 7. OLD BUSINESS:
- 8. NEW BUSINESS:

A. Application #: SPR24-034
Applicant: Matthew Ferris
Application: Preliminary Site Plan
Address: 1345 Baldwin Ave.

Request: Establishment of Pawn Shop

B. Application #: SPR 24-024

Applicant: Nathan Stephenson

Application: Preliminary Site Plan Review

Address: 148 E. Howard St.

Request: Construct a Multi-Tenant Construction Meeting

C. Application #: SPR 24-035

Applicant: Tamer Ishak, Presbyterian Villages of Michigan

Application: Preliminary Site Plan (INFORMATION SESSION ONLY)

Address: 420 S. Opdyke Dr.

Request: Construction of 40-Unit Apartment Building and 44 Independent Living

Homes

D. Application #:

Applicant: SPR 24-020

Application: Bernard Grant, Stantec, on behalf of HOPE Shelters
Address: Preliminary Site Plan (INFORMATION SESSION ONLY)

Request: 283 Baldwin Ave.

Construct a 3-Story Shelter Building

9. STAFF COMMUNICATIONS:

A. Planning Commission updates from City Council

B. Master Plan Updates

Upcoming Meetings

Community Engagement Session #2
 Thursday, October 3, 6-8pm, Bowens Senior Center (52 Bagley

2. Community Engagement Session #3
Wednesday, October 16, 6-8pm, Crofoot (1 S. Saginaw)

C. Next Regularly Scheduled Meeting – Wednesday, November 6, 6 pm

10. ADJOURNMENT:

CITY OF PONTIAC, MI

PLANNING COMMISSION MINUTES

Wednesday, September 4, 2024 – 6:00 P.M. City of Pontiac City Council Chambers

1. CALL TO ORDER: (6:10 PM)

Planning Commissioners Present: Mona Parlove, Chair

Sam Henley, Vice Chair

Sue Sinclair Tim Shepard

Michael McGuinness

Staff Present: Mark Yandrick, Planning Manager

Corey Christensen, Senior Planner

2. ROLL CALL

Four members were present at the time of the roll call. Commissioner Henley arrived at 7:31 pm.

Commissioner McGuinness made a motion to excuse Commissioner Northcross and Commissioner Duvall. Commissioner Sinclair seconded the motion.

Yes 4

No 0

Motion passed.

3. OFFICIAL COMMUNICATIONS

There were no official communications.

4. AMENDMENTS TO & APPROVAL OF THE AGENDA

The motion was made by Commissioner McGuinness and seconded by Commissioner Shepard to adopt the September 4th meeting agenda as presented.

Yes: 4

No: 0

Motion passed.

5. MEETING MINUTES FOR REVIEW

Commissioner McGuinness moves to table the meeting minutes until printed copies are available. Commissioner Sinclair supported.

Yes: 4 No: 0

Motion passed.

6. PUBLIC HEARINGS

Application #: ZMA 24-004

Applicant: Charles Corkum - Paddock Vehicle Storage

Application: Zoning Map Amendment

Address: 339 S Paddock St./212 Osmun St.

Request: R-1 to M-1

Planner Christensen gave a presentation providing information on the applicant's request. The presentation included a description of the site and the proposed use as an indoor vehicle storage facility, the zoning map, neighborhood characteristics, existing conditions, the proposed rezoning, standards of approval, staff analysis, and a recommendation to recommend denial.

The commission asked questions to staff clarifying the reason they recommended denial of the rezoning, historical rezonings in the area, the zoning of the adjacent railroad right of way, and the impact of truck traffic in the area.

The commission asked questions to the applicant concerning the historic use of the subject parcel, the environmental remediation the applicant expects will be required, the proposed use of the site, the type and frequency of trucks they project to generate, and the outreach the applicant has done to the neighborhood.

The public hearing was opened at 6:36 pm.

Chuck Johnson spoke as a property owner along S Paddock St and Elm Street. He knows the developer and Mr. Johnson believes the developer's existing property is an asset to the community. He shared the history of the property and commended the developer for his effort but he is concerned about converting too much residential property to industrial. He believes this will disincentivize needed residential development. He believes this property is well-suited for residential development. For this reason, he opposes the rezoning.

Everett Seay spoke about the history of the property. He elaborated for support for redevelopment for the project but shared his concern for the M-1 permanent zoning designation while he is impressed with the applicant's existing development.

Bryan Killian-Bey spoke as a property owner and resident of the neighborhood. He commends the applicant for his existing development, but he is concerned about converting residential land to

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industrial. He believes this stops the city from growing. He wants the commission to think about the residents.

Darlene Clark spoke regarding the need to focus on the residents. She does not blame investors for wanting to invest in the City, but she believes it has to be done in a way that is compatible with the existing residents.

Commissioner Shepard, with support from Commissioner Sinclair, made a motion to recommend approval of the proposed rezoning of 339 S Paddock from R-1 to M-1 based on the findings of fact outlined in the staff report and with the following condition supplied by the applicant:

1. The property shall not be utilized for any purpose other than indoor vehicle storage.

Yes: 4

No: 0

Motion Passed.

7. PUBLIC COMMENT

Public comment was opened by Commissioner Parlove at 7:07 pm.

Jen Burke spoke regarding the upcoming agenda item concerning 239 Voorheis. She wanted to make the Commission aware this address has been discussed at four or five district two meetings over the last year. This property has caused concern regarding parking. There is often an overflow of parking into the neighborhood.

Everett Seay asked if the City has done a comprehensive housing study. He believes incoming developers should fit their projects to the City's existing plans.

5. MEETING MINUTES FOR REVIEW

Commissioner McGuiness, with support from Commissioner Sinclair, made a motion to approve the minutes with multiple corrections regarding spelling and vote totals.

Yes: 4 No: 0

Motion Passed.

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8. **NEW BUSINESS**

Application #: PZC 24-038
Applicant: Charvez Miles

Application: Parking Reduction Request

Address: 239 Voorheis

Request: Waiver of five (5) parking spaces

Planner Corey Christensen gave a presentation that went over the applicant's request, the draft site plan, the zoning implications, the enforcement history relevant to this request, existing neighborhood conditions and sample motions.

The Commission asked staff questions regarding the relevant zoning standards for approval, historical requests that are similar, the use history of the property, the applicant's proposed use of the site, the role of the Fire Department in approving places of assembly, and how maximum occupancy is calculated.

Commissioner Henley arrived at 7:31 pm.

The Commission asked the applicant questions regarding the proposed use of the site, the square footage of each proposed use, the impact of rear door egress on the proposed parking plan, the feasibility of placing parking on the adjacent property, the history of enforcement actions, how the applicant plans to address overflow parking situations, and the applicant's outreach to the neighborhood.

Commissioner Sinclair made a motion to deny the requested parking reduction of five (5) spaces at 239 Voorheis based on the fact that there is inadequate overflow parking spaces. The motion was supported by Commissioner Henley.

Yes: 4 (Commissioner Shepard, Sinclair, Henley, and Parlove)

No: 1 (Commissioner McGuinness)

Motion passed.

Application #: SPR 24-030
Applicant: James Pappas

Application: Preliminary Site Plan Review

Address: 25 S. Sanford St.

Request: New Build Multifamily Residential

Planner Corey Christensen gave a presentation that went over the applicant's request, the proposed site plan, the zoning implications, neighborhood conditions, zoning compliance concerns, and recommended conditions of approval, and the applicant's request for a parking waiver.

The commission asked staff questions regarding the difference between a patio and a porch, the applicant's proposed decorative lighting, the applicant's requested parking waiver, the zoning

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compliance concerns, and staff's conditions.

The commission asked the applicant questions concerning their ability to comply with staff's recommended conditions, the proposed recreation area, the future plans for the extra land on the parcel, the landscaping proposed for the detention pond, and the timeline for the project.

Commissioner McGuinness, with support from Commissioner Shepard, moved to approve the requested site plan for a multifamily residential facility at 25 S Sanford based on the findings of fact identified in the staff report and with the following seven (7) conditions:

- 1. One building entrance shall be provided on each street-facing façade, or a variance secured from the Zoning Board of Appeals.
- 2. The Patio area shall be renamed per Common Yard Frontage standards.
- 3. The applicant must designate 'Outdoor recreation' and it must be provided in the amount of at least 5% of the site before issuance of the Final Site Plan.
- 4. The Planning Commission waives the 73 parking space minimum to allow for no less than 56 parking spaces.
- 5. The plans shall be revised to indicate how many bicycle parking spaces are provided to meet the minimum requirements of the code.
- 6. The plans shall be revised to indicate what color the parking lot will be striped in.
- 7. The decorative uplighting in the form of "lumenfacade logs" is approved by the Planning Commission.

Yes: 5 No: 0

Motion passes.

Training/Best Practices about Planning Commission Deliberation

Attorney McAtamney gave the Planning Commission a brief training on best practices regarding deliberation and motions.

9. STAFF COMMUNICATIONS

Planning Manager Mark Yandrick gave an update on cases going before City Council, progress with the Master Plan, and upcoming cases.

10. ADJOURNMENT

Commissioner Shepard made a motion to adjourn. Commissioner Sinclair supported.

The meeting ended at 9:19 pm



COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Mark Yandrick, Planning Manager

Corey Christensen, Senior Planner

DATE: September 23, 2024

RE: Special Exception, Pawn Shop, 1345 Baldwin Ave.

Executive Summary

The applicant, Matthew Ferris, has applied for a Special Exception Permit (SEP 24-009) to allow for a Pawn Shop in Local Business (C-1) district. Pawn shops require a special exception permit in the C-1 zoning district and are subject to an approval process outlined in section 6.303 of the Pontiac Zoning Ordinance.

Staff is recommending DENIAL of the application.

Quick Facts			
Zoning	Local Business C-1		
Request	Special Exception for Pawn Shop (Use Same Building)		
Proposed Use	Pawn Shop		
Parcel Size	9,713 Sq. Ft.		

Overview

The proposed site for the pawn shop is on the west side of Baldwin Ave and two blocks south of the Canadian National Railroad. While the character of the area is commercial and industrial, there are residential properties to the west. The parcel directly to the west is zoned R-1 One Family Dwelling. Properties to the north and south are zoned C-3 Commercial Corridor, and the property across Baldwin Avenue to the east is zoned C-1 Local Business. Figure 1: View from Baldwin Avenue



Definition (Pontiac Zoning Code, Section 7.202)

P. Pawn Shops. A person, corporation, or member or members of a co-partnership or firm, who loans money on deposit, or pledge of personal property, or other valuable thing, other than securities or printed evidence of indebtedness, or who deals in the purchasing of personal property or other valuable thing on condition of selling the same back again at a stipulated price.

Proposal

The applicant is proposing to reuse the existing single-story brick structure on site. The footprint of the building is 3,573 square feet with parking to the south of the structure. The site is legally conforming regarding setbacks, building dimensions, lot size, and frontage requirements. The parking lot to the south will be configured for 12 parking spaces and the applicant is proposing to add street trees and a dumpster.

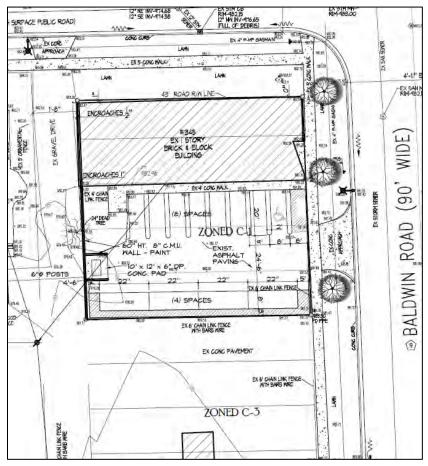


Figure 2: Proposed Site Plan

The zoning code requires Pawn Shops to comply with the development standards outlined for pawn shops in section 2.513. Section 2.513 specifically requires a 1,000 foot buffer distance between all pawn shops within the City. There are currently no existing pawn shops within 1,000 feet of the subject parcel. Section 2.513 also requires the parcel have at least 60 feet of frontage on an A or B street. This parcel is at least 60 feet wide and fronts along an A street.

Customers will access the shop by parking in the lot to the south and walking along the sidewalk to the entrance fronting along Baldwin Ave.

The generation of customer traffic may be a nuisance to adjacent residential properties;

however, this site has previously operated as a retail facility since the 1950s. The property was previously used as Mc Nabb's Saw Services. The structure was built in 1950.

Standards of Approval (Section 6.303) and Analysis

1. The proposed use shall be harmonious with the city of Pontiac Master Plan

According to the most recent Master Plan, the subject site is located in a district that is intended for neighborhood commercial development. It is staff's opinion that, a pawn shop in this location may undermine the Neighborhood Economic Development Strategy from the Master Plan as pawn shops tend to disincentivize economic growth and may potentially stunt that growth by preventing other community incentivized businesses and jobs within this neighborhood corridor¹.

2. The proposed use and appearance of the site shall be harmonious with the existing and intended character of the general vicinity.

Though the Baldwin Road Corridor is categorized as a commercial district, the surrounding area is residential in nature. Historically, the site was utilized as a retail facility that served the surrounding residences. It is staff's opinion that the proposed use of the site as a pawn shop is not similarly harmonious with the character of the general vicinity as pawn shops are considered a regulated use pursuant to the Pontiac Zoning Ordinance and can "tend to create a 'skid-row' atmosphere²" that is not consistent with the intended character of this general vicinity.

3. The proposed use shall not change the essential character of the area or adversely affect the development of the surrounding neighborhood.

As stated above, the Baldwin Road Corridor is categorized as a commercial district but the surrounding neighborhood is residential in nature. It is staff's opinion that the proposed use would adversely affect the development of the surrounding area as pawn shops are a regulated use that may have a chilling effect on economic growth in the area.

4. The proposed use shall not be hazardous or disturbing to existing or future uses in the same general vicinity and will be a substantial improvement to the community as a whole.

The proposed use does not involve hazardous substances or require stormwater pre-treatment. However, the City concludes a pawn shop may be disturbing to surrounding properties along Baldwin and residential neighborhoods as an undesired land use for the surrounding area that may not incentivize desired land uses in the Baldwin corridor in the future on surrounding properties that activate and engage development on this corridor.

5. Be served adequately by essential public facilities and services, such as highways, streets, police, fire protection, drainage structures, refuse disposal water and sewage facilities and schools.

¹ Pawn shops are a form of lending institution similar to payday loan organizations. The use of pawn shops is often considered an indicator of the state of the economy. It is commonly acknowledged that the use of pawn shops is an indicator of a down economy. Carter, Susan Payne and Skiba, Paige Marta, *Pawnshops, Behavioral Economics, and Self-Regulation*, Vol. 32 Review of Banking & Financial Law, 193 (2012); Villagran, Lauren, *Pawn Shops Know Something about the US Economy that Biden Doesn't: Times are Still Tough*, USA Today (March 24, 2024).

² See Section 2.513(B) of the Pontiac Zoning Ordinance.

The proposed use will not be a burden on essential public facilities and services. The site is accessible from Baldwin Avenue. The site plans have been reviewed by the Fire Department and the City Engineer to insure the building and proposed use are appropriate for the location and will not present a fire hazard or an undue burden on utility services.

6. Not involve uses, activities, processes, materials, and equipment or conditions of operation that will be detrimental to any person, property or general welfare as a result of producing excess traffic, noise, smoke, fumes, glare, or odors out of proportion to that normally prevailing in the particular district.

Pawn shops generally do not generate noise, glare, odors, or airborne emissions. The proposed facility is entirely enclosed within one building. This use however could affect the general welfare of this corridor and neighboring residential units based on the perceived predatory lending component of the pawn shop.

7. Maintain all proposed structures, equipment, or materials in a readily accessible manner for police and fire protection.

The site plans have been reviewed and approved by the Fire Department. The structure will be readily accessible to police and fire protection.

Summary

The property is zoned C-1 and the existing building is 9,713 square feet. While the site plan meets the requirements, staff expresses concerns in the analysis of the standards of how this approval of the pawn shops could disincentivize future desired businesses in this corridor. The applicant is proposing to repurpose the existing one-story structure. The site is appropriately designed to reduce off-site impacts by conducting all operations entirely indoors. Staff is concerned that the use will adversely affect the development of the surrounding residential properties and other commercial parcels in the area.

Staff Recommendation

Based on the findings from the Standards of Approval Analysis, Staff recommends DENIAL of the Special Exception application.

If Planning Commission were to find support for the Special Exception request, staff recommends approval with the following two (2) conditions:

- 1. This pawn shop shall comply with all other applicable federal, state, and local laws and regulations, including those contained in Chapter 26 of the Pontiac Code of Ordinances.
- 2. All the conditions of the associated site plan approval are honored.

SAMPLE MOTION TO APPROVE:

I move to APPROVE the requested special exception permit for a pawn shop at 1345 Baldwin Ave based on the findings of fact identified in the staff report and with the two (2) conditions outlined in the staff report.

SAMPLE MOTION TO DENY:

I move to DENY the requested special exception permit for a pawn shop at 1345 Baldwin Ave based on the following findings of fact:

1. It does not meet standard ____ based on the fact that...

SAMPLE MOTION TO POSTPONE

I move to POSTPONE the requested special exception permit for a pawn shop at 1345 Baldwin Ave to the regularly scheduled November 6, 2024 Planning Commission meeting.



ELECTIONS Elections Add Topic

Pawn shops know something about the US economy that Biden doesn't: Times are still tough



Published 5:00 a.m. ET March 24, 2024 | Updated 1:09 p.m. ET March 28, 2024

EL PASO, Texas – Clay Baron has everything in his pawn shop from gold rings and pearl necklaces to vintage cowboy boots, silver belt buckles, stereos and ticking clocks.

The only thing he's short on is space. "Right now we have a glut of inventory," Baron said, "which tells me that our clientele doesn't necessarily have money."

Accumulating pawnshop inventory means fewer buyers than sellers – a sign that for the lowest-income Americans, times remain tough.

President Joe Biden is trying to persuade Americans that the economy is on the upswing, and he has been touting economic indicators that he says prove it: easing inflation, rising job growth and wages, unemployment near record lows, a surging stock market.

But the president's rosy economic picture hasn't reached everyone.

Sign-up for Your Vote: Text with the USA TODAY elections team.

Two years of steep inflation has hit working families hard, especially those living paycheck to paycheck.

Baron's store – called Dave's – is an icon of downtown El Paso. Outside, an Elvis statue stands with a permanently cocked hip and a guitar in hand, while the King's hits blast onto the street.

The shop, which his family has owned for four generations, sits at an economic borderline.

One block north, in the heart of a revitalized downtown, tourists and locals can pay \$200 a night to stay at one of El Paso's fanciest hotels, smoke a \$45 cigar and drink craft cocktails at a bar covered by an original Tiffany stained-glass dome.

One block south, shoppers wheeling metal carts flock to buy made-in-China knockoff purses, discount lingerie and sportswear, and other items both retail and wholesale.

It's an urban metaphor for the U.S. economy's uneven recovery.

Some Americans – people with retirement plans, savings and stock holdings – may gripe about inflation and the economy, but they're doing all right.

Others are surviving pawn to pawn.

'American households do not have \$1,000'

The pawnshop, for those who don't have a credit card or a bank account, acts like a sort of rainy day fund.

Pawnshop owners like Baron lend money to customers, secured by the item pawned. They hold the merchandise in safekeeping during the term of the loan, and sometimes a grace period, until the customer pays back the loan plus interest and fees.

Loans typically last 30 to 90 days. But right now, customers are pawning and not coming back to reclaim their rings or belt buckles.

"Pawn balances have risen across the country in the past two years, said Laura Wasileski, spokeswoman for the National Pawnbrokers Association.

The reasons, she said, include "cost-of-living increases, the lack of access to credit, short-term emergencies, and the fact that 50% of American households do not have \$1,000 in savings to cover those emergencies."

Nearly 6 million, or 4.5%, of households in the U.S. had no bank account in 2021, according to the latest survey data available from the Federal Deposit Insurance Corp., the agency that insures the banking system.

People of color, those with less education, lower incomes, disabilities and single-mother households were more likely to lack bank access, according to the FDIC.

A fifth of survey respondents said they didn't keep a bank account because they didn't have enough money to meet the minimum balance requirements – often \$100 to a few hundred dollars.

A repeat customer tries to beat inflation

At Baron's shop one recent afternoon, Arturo Washington was less worried about minimum balance requirements than he was about filling his gas tank.

Washington, 74, leaned into the pawn counter and asked what he could get for putting up an electric guitar. Over his head a neon sign glowed in Spanish with the words "I buy gold and silver."

The retired repairman knew the pawnshop clerk by name. He had been a customer at Baron's shop for nearly 20 years. The clerk offered him \$300 for the guitar. A gentle negotiation ensued.

"Could you give me \$350 today?" Washington asked.

He had to make an hour's drive for some appliance parts, he told her, and needed a full tank of gas, plus money for the parts. Sweetly, the pawnshop clerk said she couldn't give him that much, but she'd bump him to \$325. Washington thanked her and walked out with his cash.

"Sometimes I get stuck, economically speaking," he said in Spanish. "So I come and pawn things, and that's how I make ends meet."

Big pawnshop companies see inventory rise

What Baron sees from the counter of his family-owned store tracks with national trends.

"When times are good and people have money, there's going to be more money coming in. People will be buying the stuff," Baron said. "When people need money, there's going to be more money going out of the store, which is what's happening now."

Two of the largest, publicly traded pawnshop corporations in the U.S. – which between them own roughly 1,700 pawnshops nationwide – are also reporting growing inventory and increased demand for short-term loans.

FirstCash Holdings Inc. operates nearly 1,200 pawnshops under the FirstCash and Cash America brands in 29 states and the District of Columbia. The company reported "record

pawn receivables" in its most recent year-end earnings report and a 10% increase in inventory at its U.S. stores.

EZCORP Inc. also owns 530 pawnshops in the U.S. and reported an 8% increase in inventory at U.S. stores in the company's latest earnings report. The "challenging macro-economic backdrop" continued to fuel demand for short-term cash loans, the company said.

The price of gold – which investors turn to as a hedge against inflation – has helped drive up pawn inventory, too, as consumers of varying income levels pawn gold items to cash in on the favorable market price. An ounce of gold hit an all-time record – over \$2,200 per troy ounce – this week.

Lime prices a sign of sour economy

Washington, the El Paso customer, blames Biden for his financial constraints. High inflation has hurt people like him on a fixed income, he said.

"For those of us who are retired, the economy is going very badly," Washington said.

"The cost of basic foods is very, very, very expensive," he said. "And every day they raise prices more on basic foods. A lime, a small one, is 35 cents. It's not right."

Despite trending downward over the past year, consumer price increases accelerated in January and February, according to the Bureau of Labor Statistics, raising concerns that the inflation fight isn't over yet.

More: Social Security benefits could give you an extra \$900 per month. Are you eligible?

Baron, the shop's owner, tried to pinpoint the moment the economy soured for his customers.

"Definitely since COVID, but even before COVID," he said, "I don't want to get political, but even during the Trump administration beginning, people seemed like they were a little dry."

Lauren Villagran can be reached at lvillagran@usatoday.com.

PAWNSHOPS, BEHAVIORAL ECONOMICS, AND SELF-REGULATION

SUSAN PAYNE CARTER* AND PAIGE MARTA SKIBA**

I. Introduction

Pawnbroking is the oldest source of credit.¹ There is growing public interest in day-to-day pawnbroking operations, as evidenced by the popularity of reality shows such as "Pawn Stars" and "Hardcore Pawn."² Television viewers' curiosity about an old credit institution may be due to the fact that 7% of all U.S. households have used pawn credit.³ Although pawnshops predate biblical times, researchers know surprisingly little about this ancient form of banking and its customers.⁴ We fill this gap by documenting detailed information on pawnshop loan repayment and default, and by discussing how pawnshop borrowers' behavior is consistent with various behavioral economics phenomena.

Pawnshop loans are small, short-term, collateralized loans typically used by low-income consumers. The borrower leaves a possession, or "pledge," as collateral in exchange for a loan, typically of \$75–\$100.⁵ Interest rates vary by state and range from 2

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We would like to thank Margaret Blair, Anna Skiba-Crafts and Kip Viscusi for valuable feedback.

¹ John P. Caskey, Fringe Banking: Check Cashing Outlets, Pawnshops, and the Poor 13 (1994).

² Pawn Stars, THE HISTORY CHANNEL, http://www.history.com/shows/pawn-stars (last visited Nov. 19, 2012); *Hardcore Pawn*, TRUTV, http://www.trutv.com/shows/hardcore-pawn/index.html (last visited Nov. 19, 2012).

³ Marieke Bos, Susan Payne Carter & Paige Marta Skiba, *The Pawn Industry and its Customers: The United States and Europe* 1 (Vanderbilt Univ. Law and Econ. Research Paper Series, Paper No. 12–26, 2012), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2149575.

⁵ Customers can also sell items outright to the pawnshop, a practice we do not study here.

to 25%.⁶ If the borrower does not return to repay the principal plus interest after the maturation date (typically loans last 30–90 days), the pledge is forfeited and resold by the pawnbroker. Just about anyone can borrow on a pawn loan. No bank account, job, or credit check is required—just the collateral and a valid photo ID.

We are able to study pawnshop-borrowing behavior in depth using a unique transaction dataset from a lender in Texas with 103 stores in 37 different cities across the state. Our dataset comes from "pawnslips," which are filled out by the pawnbroker at the time of the transaction and include information on the collateral or "pledge," start date and due date, repayment outcomes, and borrower demographic characteristics. We study the nature of the collateralized pledge separately, distinguishing items that might have intrinsic value to the owner that goes beyond the dollar value of the item, i.e., sentimental value. We find that borrowers are more likely to return to repay their pawnshop loan when they have pawned a sentimental item, such as a piece of jewelry. We discuss potential behavioral economic explanations and rational economic reasons for this behavior below.

These issues have gone unexplored in the sparse literature on pawnshop lending. The growing body of work on other forms of what is often referred to as "fringe banking" makes the persistent lack of literature on pawnshops especially surprising. Numerous papers study consumer borrowing behavior and test the consequences of various other types of subprime credit, including payday loans, subprime mortgages, subprime auto loans, and autotitle loans. Perhaps researchers have overlooked pawnshop lending

⁶ Our Table 1 shows these interest rates. For a state-level analysis of pawnbroking as well as payday loans, see generally Susan Payne Carter, Payday Loan and Pawnshop Usage: The Impact of Allowing Payday Loan Rollovers (Jan. 15. 2012) (unpublished Ph.D. dissertation, Vanderbilt Univ.), *available at* https://my.vanderbilt.edu/susancarter/files/2011/07/ Carter_Susan_JMP_website2.pdf.

⁷ For a nice exception that studies pawnbroking (rather than customer behavior per se) see CASKEY, *supra* note 1. For works that study pawnshop customers directly, see Bos, Carter & Skiba, *supra* note 3; Sumit Agarwal, Paige Marta Skiba & Jeremy Tobacman, *Payday Loans and Credit Cards:* New Liquidity and Credit Scoring Puzzles?, 99 AM. ECON. REV. 412 (2009). ⁸ On payday loans see generally Agarwal, Skiba & Tobacman, *supra* note 7, at 412; Neil Bhutta, Paige Marta Skiba & Jeremy Tobacman, *Payday Loan Choices and Consequences* 1–23 (Vanderbilt Univ. Law and Econ. Research Paper Series, Paper No. 12–30, 2012), *available at*

because the loans made are small (the average loan size in our data is \$79). Despite their small principal, however, pawnshop loans are an important tool that many consumers use to manage their monthly finances during financial shortfalls.

Our results documenting differential repayment rates on pawn contracts are consistent with both (1) a model of decision-making where consumers are aware of their own self-control problems and (2) a rational model of economic decision-making where "affect" or sentimentality toward an object plays a role in utility maximization. As explained *infra*, loss aversion, the extra loss in utility due to the feeling of loss relative to a reference point, ⁹ may also play a role.

Because of self-awareness about self-control problems, borrowers may seek commitment mechanisms to give themselves a greater incentive to act optimally. In the context of pawnshops, these

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2160947; Carter, supra note 6; Susan Payne Carter, Paige Marta Skiba & Jeremy Tobacman, Pecuniary Mistakes? Payday Borrowing by Credit Union Members, in FINANCIAL LITERACY: IMPLICATIONS FOR RETIREMENT SECURITY AND THE FINANCIAL MARKETPLACE 145, 147 (Olivia S. Mitchell ed., 2011); Will Dobbie & Paige Marta Skiba, Information Asymmetries in Consumer Credit Markets: Evidence from Payday Lending 1-41 (Vanderbilt Univ. Law and Econ. Research Paper Series, Paper No. 11-05, Sept. 15, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1742564##; Ronald J. Mann & Jim Hawkins, Just Until Payday, 54 UCLA L. REV. 855, 857 (2007); Brian T. Melzer, The Real Costs of Credit Access: Evidence from the Payday Lending Market, 126 Q. J. of Econ. 517, 518 (2011); Paige Marta Skiba & Jeremy Tobacman, Do Payday Loans Cause Bankruptcy? 1 (Vanderbilt Univ. Law and Econ. Research Paper Series, Paper No. 11-13, Feb. 23, 2011). On mortgages, see generally J. Michael Collins, Exploring the Design of Financial Counseling for Mortgage Borrowers in Default, 28 J. FAM. ECON. ISSUES 207 (2007); J. Michael Collins, Ken Lam & Chris State Mortgage Foreclosure Policies and Counseling Interventions: Impacts on Borrower Behavior in Default, 30 J. OF POL'Y ANALYSIS & MGMT. 216 (2011). On subprime auto loans, see generally William Adams, Liran Einav & Jonathan Levin, Liquidity Constraints and Imperfect Information in Subprime Lending, 99 AMER. ECON. REV. 49 (2009). On auto-title lending, see generally Jim Hawkins, Credit on Wheels, 69 WASH & LEE L. REV. 535 (2012).

⁹ Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler, *Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias*, 5 J. OF ECON. PERSPECTIVES 193, 194 (1991).

types of borrowers, called "hyperbolic discounters" by behavioral economists, may use sentimental items (such as wedding rings) rather than less sentimental items (such as electronics) to encourage themselves to return to repay the loan. Indeed, pawnshops accept almost anything of at least a couple dollars in value as a pledge, but many borrowers choose to pledge something of great importance to them.

A growing body of work in behavioral economics documents real-world evidence of hyperbolic discounting. To our knowledge, ours is the first work to add pawnshops to the ongoing discussion of intertemporal choice in markets.¹¹

¹⁰ Ted O'Donoghue & Matthew Rabin, *Choice and Procrastination*, 116 Q. J. OF ECON. 121, 125 n.5 (2001) (explaining that the term "hyperbolic discounting" is often used to describe how "a person's relative preference for well-being at an earlier date over a later date gets stronger as the earlier date gets closer," i.e., how people seek immediate gratification).

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¹¹ Professors DellaVigna and Malmendier document self-control problems in exercising. See Stefano DellaVigna & Ulrike Malmendier, Paying Not to Go to the Gym, 96 Am. ECON. REV. 694, 695-96 (2006). For more recent work documenting self-control problems, see generally Heather Royer, Mark Stehr & Justin Sydnor, Using Incentives and Commitments to Overcome Self-Control Problems: Evidence from a Workplace Field Experiment (Oct. 28, 2011) (unpublished manuscript), available at http://experiments.cob.calpoly.edu/seminars/Royer.pdf. For work on selfcontrol problems in credit markets, see generally David Laibson, Andrea Repetto & Jeremy Tobacman, Estimating Discount Functions with Consumption Choices over the Lifecycle (Nat'l Bureau of Econ. Research, Working Paper No. 13314, Aug. 2007), available http://www.nber.org/papers/w13314. On credit cards, see generally Haiyan Shui & Lawrence M. Ausubel, Time Inconsistency in the Credit Card Market (Jan. 30, 2005) (unpublished manuscript), available at http://www.ausubel.com/creditcard-papers/time-inconsistency-credit-cardmarket.pdf. On payday loans, see generally Paige Marta Skiba & Jeremy Tobacman, Paydays Loans, Uncertainty and Discounting: Explaining Patterns of Borrowing, Repayment, and Default (Vanderbilt Law and Econ. Research Paper Series, Paper No. 08-33, Aug. 21, 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1319751.

II. Regulation

Pawnshops are popularly considered to have usurious interest rates, but their fees are often low relative to those associated with alternatives such as payday loans, 12 tax refund anticipation loans, 13 and rent-to-own agreements. 14 All states allow pawnshops, and most *do* restrict the fees that can be charged through usury laws or laws regulating small loans. 15 Table 1 provides a list of laws governing pawnshop interest rates by state. Beyond regulating fees, states can also force pawnshops to return any excess proceeds to the customer once they resell an item. 16 In Texas, where our data are from, maximum interest rates are 20% per thirty days for loans up to \$150 and 15% per thirty days for loans larger than \$200.17

¹² Skiba & Tobacman, *supra* note 11, at 20 (documenting annualized interest rates for two-week-long payday loans of 468%).

¹³ Gregory Elliehausen, *Consumer Use of Tax Refund Anticipation Loans* 2 (Georgetown Univ. McDonough Sch. of Bus. Credit Research Center, Monograph No. 37, Apr. 2005) (illustrating annualized interest rates for ten day loans as high as 162.43%).

¹⁴ Michael H. Anderson & Sanjiv Jaggia, *Rent-to-Own Agreements: Customer Characteristics and Contract Outcomes*, 61 J. OF ECON. & BUS. 51, 52 (2009) (referencing interest rates on such loans higher than 100%).

¹⁵Joshua D. Shackman & Glen Tenney, *The Effects of Gov't Regulations on the Supply of Pawn Loans: Evidence from 51 Jurisdictions in the U.S.*, 30 J. of Fin. Serv. Research 69, 81 (2006); Nancy Pindus, Daniel Kuehn & Rachel Brash, Urban Inst., State Restrictions on Small-Dollar Loans and Fin. Servs. 2004–2009: Summary, Documentation, and Data 1 (Urban Inst., Oct. 2010), *available at* http://www.urban.org/publications/412305.html (showing that forty states set interest rate caps on pawnshop loans).

¹⁶ This process rarely happens in practice. *But see* Shackman & Tenney, *supra* note 15, at 81 (listing states that have enacted such requirements).

Texas Pawnshop Rate Chart, Tex. Office of Consumer Credit Comm'r, http://www.occc.state.tx.us/pages/int_rates/pRate13.pdf (last visited November 20, 2012) (listing maximum legal rates from July 1, 2012 to June 30, 2013).

Table 1Pawnshop Interest Rate Regulations

State	Interest Rates Per Month
Alabama	25% / mo
Alaska	20% / mo
Arizona	8% / mo
Arkansas	none
California	2.5% / mo
Colorado	local rules
Connecticut	3% / mo
DC	5% / mo
Delaware	3% / mo
Florida	25% / mo
Georgia	25% / mo
Hawaii	20% / mo
Idaho	none
Illinois	3% / mo
Indiana	3% / mo
Iowa	none
Kansas	10% / mo
Kentucky	2% / mo
Louisiana	10% / mo
Maine	25% / mo
Maryland	none
Massachusetts	3% / mo
Michigan	3% / mo
Minnesota	3% / mo
Mississippi	25% / mo
Missouri	2% / mo
Montana	25% / mo
Nebraska	none
Nevada	10% / mo
New Hampshire	none

New Jersey	4% / mo
New Mexico	max{7.50, 10%}
New York	4% / mo
North Carolina	2% / mo
North Dakota	reg. by municipalities
Ohio	5% / mo
Oklahoma	20% / mo
Oregon	3% / mo
Pennsylvania	2.5% / mo
Rhode Island	5% / mo
South Carolina	\$22.50/\$100 / mo
South Dakota	none
Tennessee	2% / mo
Texas	\$20 / mo
Utah	10% / mo
Vermont	3% / mo
Virginia	5% / mo
Washington	3% / mo
West Virginia	none
Wisconsin	3% / mo
Wyoming	20% / mo
Table 1 chouse naunchon	lawe by state as of 2011

Table 1 shows pawnshop laws by state as of 2011. The state laws on pawn shops come from individual state regulating insitutions.

Beyond these fairly standard regulations, however, pawnshops have received little attention from regulators in recent years. This is in stark contrast to other forms of prime and subprime credit such as credit cards, student loans, and payday loans, which have been explicitly identified by the new Consumer Financial Protection Bureau ("CFPB") as areas of interest. 18 Pawnshops, however, do not seem to be on the CFPB's radar. 19

¹⁸ See Know Before You Owe: Credit Cards, Consumer Fin. Protection BUREAU, http://www.consumerfinance.gov/credit-cards/knowbeforeyouowe

The relative lack of regulatory attention given to pawnshops may be due to the phenomenon we document in this paper: consumers seem to avoid making big financial mistakes when using pawnshops. Something about the use of personal items (and particularly sentimental personal items) as collateral may distinguish these loans from credit cards, payday loans, and the like in terms of borrowers' repayment and default behavior.

III. Data

We use administrative records from a large, national pawnshop lender in the United States. Our data consist of 398,722 pawnslips from stores that operated in Texas from 1997–2002. From these slips, we can observe the size of the loan, whether the loan was defaulted on or repaid, and the nature of the pledge. The store categorizes the items into the following groups: Jewelry, TVs/Electronics, Tools/Equipment, Household Items, Sporting Equipment, Guns, Instruments, and Cameras/Equipment. While our dataset is large and very detailed, one drawback is that it comes from Texas alone. Fortunately, we are able to rely on previous work documenting the surprisingly similar characteristics of pawnshop use across the United States as well as Sweden. Figure 1 and Table 2 provide basic summary statistics from our data. The typical loan is for \$79 and lasts for 109 days.

(last visited Nov. 25, 2012); *Know Before You Owe: Student Loans*, CONSUMER FIN. PROTECTION BUREAU, http://www.consumerfinance.gov/students/knowbeforeyouowe (last visited Nov. 25, 2012); Zixta Q. Martinez, *Share Your Input on Payday Loans for the Official Record*, CONSUMER FIN. PROTECTION BUREAU (Mar. 23, 2012), http://www.consumerfinance.gov/blog/category/payday-loans/.

¹⁹ There is no mention of "pawnshops" on the CFPB website. *See* Consumer Fin. Protection Bureau, http://www.consumerfinance.gov/ (last visited Nov. 25, 2012).

²⁰ Pawnshops and other lenders now commonly offer "title loans," with an automobile as a pledge. We do not have automobiles as pledges in our data. For more on title lending, see generally Hawkins, *supra* note 8; Nathalie Martin & Ozymandias Adams, *Grand Theft Auto Loans: Repossession and Demographic Realities in Title Lending*, 77 Mo. L. REV. 41 (2012) (discussing demographic trends in auto-title lending).

²¹ Bos, Carter & Skiba, *supra* note 3, at 2.

Table 2: Summary Statistics

All Loans

Percent Female	59.59%
Average Loan Duration	109 (140.2)
Average Loan Amount	79.5 (90.8)

Table 2 shows the percent of pawn loans taken out by females, the average and standard deviation (in parentheses) of the loan duration and loan amount. The sample of observations is from a pawnshop lender in Texas between 1997 and 2002.

Forty-nine percent of the pawnshop loans in the dataset are collateralized with jewelry, with over half of the items in the jewelry category consisting of rings, including both men's and women's class and wedding rings. The next most popular category of pledges is televisions and electronics, including satellite dishes, stereos, and CD players. Individuals also commonly pawn tools, household items such as small appliances, sporting equipment, guns, musical instruments, and camera equipment.

The value of collateral has a wide distribution: Guns have the highest average value, \$146, with instruments (\$117) and jewelry (\$96) coming in second and third, respectively. Statistics for all categories are shown in Table 3.

Table 3: Collateral by Category

Category	Number of Observations	Percentage of Observations	Average Loan Amount	Standard Deviation
Jewelry	199,288	49.98%	\$96.28	105.02
TVs / Electronics	126,297	31.68%	\$58.80	62.34
Tools / Equipment	31,600	7.93%	\$50.18	60.67
Household Items	10552	2.65%	\$42.92	44.7
Missing	7,833	1.96%	\$63.75	72.54
Guns	7,734	1.94%	\$146.97	98.75
Instruments	7,700	1.93%	\$116.92	104.66
Camera / Equipment	4,052	1.02%	\$75.85	77.87
Misc.	3,666	0.92%	\$51.50	62.46

Table 3 reports the number of loans for each collateral category, the percentage of observations, and the average amount and standard deviation of the items pawned for each category. All amounts are in 2002 dollars. The sample of observations is from a pawnshop lender in Texas between 1997 and 2002.

The items pawned differ somewhat by the gender of the borrower. Jewelry is the most popular pledge for women, making up over 60% of the items pawned by women. Meanwhile, less than 35% of the items pawned by men are jewelry; men are more likely than women to pawn electronics and tools.

IV. Default

The probability of repayment varies by the type of collateral, the gender of the borrower, and the value of the item. Figure 2 depicts the probability of repayment and default by the category of collateral. Instruments, guns, and jewelry are associated with the highest probability of repayment and lowest probability of default. The pawning of tools, household items, and miscellaneous items

(including clothes and medical equipment) leads to the highest probability of default and lowest probability of repayment.²²

We explore default dynamics more precisely using an ordinary least squares regression, measuring the probability of default as shown in the following linear probability model:

Default_i =
$$c + \beta Y_i + \gamma X_i + t + \epsilon_i$$

(Equation 1)

where $Default_i$ is an indicator variable that takes values 0 (repay) or 1 (default). Y is a vector of collateral categories (the category of camera equipment is omitted), X is a vector of demographic categories, c is a constant term, t represents month and year dummies, and ϵ_i is the error term. We cluster the standard errors at the individual level and then in other regressions, at the store level where appropriate. Results are shown in Table 4.

²² Here, as we cannot directly test for it, we abstract from any adverse selection in this market, such as borrowers having more information about their own default risks than the lender has. But we do not doubt asymmetries in information could be important here, as has been documented in the payday loan and subprime auto lending market. *See* Adams, Einav & Levin, *supra* note 8, at 75 (finding that adverse selection arises from asymmetric information about default risk in auto loan markets); Dobbie & Skiba, *supra* note 8, at 2 (finding "economically and statistically significant adverse selection into payday loans").

Table 4

	(1)	(2)	(3)	(4)
Dependent Variable:	Default			
Electronics	0.021	0.0060	0.021	0.0060
	(0.0135)	(0.0132)	(0.0139)	(0.0131)
Guns	-0.041**	-0.0058	-0.041**	-0.0058
	(0.0161)	(0.0158)	(0.0159)	(0.0159)
Household Items	0.055***	0.041***	0.055***	0.041***
	(0.0160)	(0.0154)	(0.0160)	(0.0155)
Instruments	-	-0.038**	-	-0.038**
	0.055*** (0.0172)	(0.0177)	0.055*** (0.0186)	(0.0166)
Jewelry	-0.028**	-0.046***	-0.028*	-0.046***
	(0.0136)	(0.0136)	(0.0146)	(0.0132)
Tools	0.031**	0.036**	0.031**	0.036**
	(0.0147)	(0.0151)	(0.0156)	(0.0144)
Female		0.054***		0.054***
		(0.0054)		(0.0044)
White		-0.033		-0.033
		(0.0237)		(0.0223)
Black		0.00053		0.00053
		(0.0240)		(0.0220)
Hispanic		0.015		0.015
		(0.0230)		(0.0221)
Loan Amount		0.00023***		0.00023**
		(0.0000)		(0.0000)
Month x Year Effects		X		X
Cluster at Individual	X			X
Cluster at Store		X	X	
N	387,223	387,223	387,223	387,223
adj. R-sq	0.0032	0.0169	0.0032	0.0169

The category of camera equipment is omitted in the regressions, meaning results are interpreted as differences in other categories of collateral relative to camera equipment. As the results show, even after controlling for demographic characteristics (gender and race) and the loan size, borrowers pawning jewelry and instruments are the least likely to default. The pawning of household items or tools is more likely to result in default than pawning camera equipment. The coefficients on the merchandise categories are all statistically significantly different from each other at the 1% level, except for the coefficients on jewelry and instruments, which are statistically different at the 5% level. An interesting fact that we are not able to explore further here is that, controlling for loan characteristics, female borrowers are 5.4 percentage points more likely to default on their loans than male borrowers are.

Our findings show that when borrowers use items like jewelry or instruments—which may have intrinsic value greater than the market price—as collateral for a loan, they are more likely to repay the loan.²³ This is true even controlling for characteristics of the loan and borrower, and the value of the item. To investigate this result further, we narrow the field of jewelry down further to include only items that are the most likely to hold sentimental value: class rings, wedding rings, and engagement rings.

Borrowers may choose to pawn these types of items as a commitment mechanism to encourage themselves to repay the loan, as we discuss further in the section on theoretical underpinnings below. Alternatively, these items might be the only pledge available to the borrower at the time they want to borrow, but given that pawnshops accept nearly any type of collateral, we find this explanation unlikely. We examine the probability of repayment for "sentimental" and "non-sentimental" items, counting wedding rings,

²³ Interestingly, in the context of default on credit in Mexico, Professor Vissing-Jorgenson finds that when borrowers are using credit to *buy* luxury items, they are more likely to default on their loans. Annette Vissing-Jorgenson, Consumer Credit: Learning Your Customer's Default Risk from What (S)he Buys 27 (Apr. 13, 2011) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2023238 ("I showed that high loss products tend to be luxuries and that consumers who tend to spend a lot on luxuries given their income on average are higher risk."). This result indicates that credit providers may want to modify payments, interest rates, or both based on the items borrowers have purchased previously and the corresponding implications such items have about their credit risk.

class rings, engagement rings, and "mother's" rings as sentimental items. As shown in Figure 3, when borrowers pawn sentimental items, they are less likely to default and are more likely to repay their loans.²⁴

We test the effects of sentimentality using regression analysis. Here, we regress the probability of default on the amount loaned, an indicator for each merchandise category, and month-year dummies (as in Equation 1). The results from this regression are presented in Table 5. Even when controlling for merchandise categories, gender, race, and loan amount, pawning a sentimental item decreases the probability of default by a significant amount: 6.2 percentage points. The statistical significance on the collateral categories and gender remain the same and the coefficients are similar. Pledging a specific item, for example a sentimental ring, further reduces the probability that the borrower defaults on the loan. In the next section, we discuss the economic theory behind our results.

²⁴ Of course, pawnshops are popularly considered fences for stolen items and we cannot be certain of each pledge's ownership. Some evidence suggests that only a small fraction of pawned items are repossessed by law enforcement because they were stolen. *See* CASKEY, *supra* note 1, at 37–38. However, Professor Miles finds evidence suggesting pawnshops do sometimes function as fences for stolen goods. Thomas J. Miles, Markets for Stolen Property: Pawnshops and Crime 6 (Jan. 24, 2008) (unpublished manuscript presented at the University of Michigan Law School Law and Economics Workshop), *available at* http://www.law.umich.edu/

centersandprograms/lawandeconomics/workshops/Documents/Winter2008/miles.pdf. Further, because pawnshop borrowers must show a valid photo ID that is recorded with the pawnslip (and serial number of the pledge where possible), and pawnshops are required to regularly send all pawnslips to local police (usually every week), we feel confident that the vast majority of items pawned are pawned by their rightful owner. John P. Caskey, *Pawnbroking in America: The Economics of a Forgotten Credit Market*, 23 J. OF MONEY, CREDIT & BANKING 85, 89 n.6 (1991) ("Given the police report requirement, they also say it would not be in the interest of a thief to pawn a stolen good.").

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Table 5
(1) (2) (3) (4)

Dependent Variable: Default

Sentimental	-0.090***	-0.062***	-	-0.062***
			0.090***	
	(0.0045)	(0.0046)	(0.0044)	(0.0044)
Electronics		0.0064		0.0064
		(0.0131)		(0.0132)
Guns		-0.0067		-0.0067
		(0.0159)		(0.0158)
Household Items		0.041***		0.041***
		(0.0155)		(0.0154)
Instruments		-0.038**		-0.038**
		(0.0166)		(0.0177)
Jewelry		-0.038***		-0.038***
		(0.0132)		(0.0136)
Tools		0.036**		0.036**
		(0.0144)		(0.0151)
Female		0.053***		0.053***
		(0.0044)		(0.0054)
White		-0.030		-0.030
		(0.0223)		(0.0238)
Black		0.0010		0.0010
		(0.0220)		(0.0241)
Hispanic		0.015		0.015
		(0.0221)		(0.0231)
Loan Amount		-0.00023***		-
				0.00023** *
		(0.0000)		(0.0000)
Month x Year		X		X
Fixed Effects Cluster at	X	X		
Customer	11	11		
Cluster at Store Level			X	X
N	395,032	387,223	395,032	387,223
adj. R-sq	0.0021	0.0178	0.0021	0.0178

V. The Rational Economics and Behavioral Economics of Pawnbroking

In this section, we first evaluate our results relative to the standard rational framework used in economics to study choice involving decision-making over time.²⁵ We then step away from the standard assumptions of this classical rational model to explore behavioral economics models of decision-making, models which strive to be more realistic and more representative of human behavior. We evaluate all of these models relative to our evidence above on common drivers of default in the pawnshop market.

A. Rational Model with Exponential Discounting

The canonical model of rational choice in economics, the exponential discounting model, assumes that individuals act to maximize a utility function. 26 This utility function reflects levels of happiness coming from different potential choices at each point (or instant) in time. The utility at time t is represented as u_t . Time can be measured in years, months, days or even at an instant. For our purposes, days are a natural way to think about time units. We can represent any day's utility in this way, for an indefinite number of periods t. Individuals make choices by trading off these utilities over time. For example, an individual decides when to do her homework by comparing the utility of doing it today (time t) with the utility of doing it on any possible future date (so long as it meets certain constraints, like completing the homework assignment before the due date). Certain time periods may come with an extra cost: Doing homework on Friday night may come with extra disutility of missing a night out on the town with friends. These choices regarding how

²⁵ For a nice review of both the historical and more recent theory in psychology and economics on intertemporal choice, see generally Shane Frederick, George Loewenstein & Ted O'Donoghue, *Time Discounting and Time Preference: A Critical Review*, 40 J. OF ECON. LITERATURE 351 (2002).

²⁶ For the original foundations of this model see Paul Samuelson, *A Note on Measurement of Utility*, 4 REV. OF ECON. STUDIES 155, 156 (1937) ("During any specified period of time, the individual behaves so as to maximise the sum of all future utilities, they being reduced to comparable magnitudes by suitable time discounting."). For a review of work on discounted utility theory since then, see Frederick et al., *supra* note 25, at 356–360.

utility is traded off depend not just on such opportunity costs, but also in part on the extent to which borrowers discount future utilities.

A feature of this type of discounting is that it assumes borrowers correctly predict their future discounting, that is, that they are *time consistent*—meaning they know the choices that will give them the highest utility in terms of today, and when tomorrow comes they make those same choices. A drawback of exponential discounting, however, is that this strong assumption of individuals exhibiting time consistency is often at odds with the way people make choices in reality.²⁷ The exponential model assumes a consumer's discount rate between any two periods is constant, whether those two periods are today and tomorrow or 365 days and 365-plus-one days from now,²⁸ and, further, assumes that consumers know the rate at which they will discount any of these periods.²⁹ Time consistency precludes *any* procrastination or self-control problem.

A second drawback is how quickly utility gets discounted very heavily. Even for high values of the discount rate, typically denoted "delta" (indicating a very patient person), say 0.99, if one examines discounting at the daily level (which would be a reasonable way to consider the choices we explore here in credit markets), the borrower would care almost nothing about utility in one year. That utility would be discounted by 0.99³⁶⁵ which equals approximately 0.02, implying that borrowers care about utility in one year fifty times *less* than utility today!³⁰ For example, this consumer would be indifferent between receiving \$10 today and \$500 in a year. So exponential discounting may work well in theory (the time consistency aspect makes calculating the tradeoffs that consumers face very tractable) and in some contexts, but not well when shorter time frames are concerned.

In light of these drawbacks, one wonders about the propriety of using such a model. Recall that this model, or a close cousin,

²⁷ See O'Donoghue & Rabin, supra note 10, at 125–26 ("[P]eople have self-control problems caused by a tendency to pursue immediate gratification in a way that their 'long-run selves' do not appreciate.").

²⁸ Frederick et al., *supra* note 25, at 358 ("Constant discounting implies that a person's intertemporal preferences . . . confirm earlier preferences."). ²⁹ *Id.* at 367.

 $^{^{30}}$ This is because 1/.02 = 50.

underlies just about all models of rational choice in economics.³¹ Like all models, exponential discounting is a simplification of the real world, and, though not always realistic in its predictions about behavior, it can be a nice starting point for thinking about choices over time.³² There is, however, overwhelming evidence refuting the exponential model.³³ Even Paul Samuelson himself, writing the canonical paper that works through the exponential discounting model, was forthcoming about its drawbacks and unrealistic predictions for behavior.³⁴ However, economists both of his time and today appreciate it as an excellent starting place to begin to think

³¹ See Stefano DellaVigna, *Psychology and Economics: Evidence from the Field*, 47 J. of ECON. LITERATURE 315, 315 (2009).

³² For reviews of the empirical evidence on time inconsistency, see *id.*; Stephan Meier & Charles D. Sprenger, Stability of Time Preferences 1-41 (Institute for the Study of Labor (IZA), Discussion Paper No. 4756, 2010); Rabin, supra note 31, at 11-46; Frederick et al., supra note 25, and references therein. See also Jacob Goldin, Making Decisions About the Future: The Discounted-Utility Model, 2 MIND MATTERS: WESLEYAN JOURNAL OF PSYCHOLOGY 49, 49–56 (2007) ("The many disparate factors that can affect one's willingness to trade off between current and future satisfaction—e.g., patience or impatience, imagination of the future, anticipation, and memory—are summarized by a single number in the DU model—the discount rate[;] . . . however, factors that promote simplicity may be detrimental to the model's accuracy."). Exponential discounting can include very high discount rates where consumers care very little about the future, but consumers' exhibiting different short-run and long-run time preferences cannot be accounted for with an exponential discount rate alone. See David Laibson, Golden Eggs and Hyperbolic Discounting, 112 Q.J. OF ECON. 443, 445 (1997) ("Hyperbolic discount functions are characterized by a relatively high discount rate over short horizons and a relatively low discount rate over long horizons. This discount structure sets up a conflict between today's preferences, and the preferences that will be held in the future.").

³³ See DellaVigna, supra note 31, at 316–341 ("In the laboratory, individuals are time-inconsistent, show a concern for the welfare of others, and exhibit an attitude toward risk that depends on framing and reference point. They violate rational expectations, for example, by overestimating their own skills and overprojecting from the current state. They use heuristics to solve complex problems and are affected by transient emotions in their decisions.").

³⁴ See Samuelson, supra note 26, at 155–61 ("Serious limitations of the . . . analysis . . . almost certainly vitiate it even from a theoretical point of view.").

about tradeoffs over time. Recent alternatives do a good job of capturing more realistic factors that affect individuals' tradeoffs over time, such as self-control problems, procrastination, and a combination of long-run patience with short-run impatience. None of these factors fit neatly into exponential discounting.

Returning to the pawnshop context, what does exponential discounting imply given our data? To fit into the rational choice model, a borrower must experience additional disutility from having pawned an item of sentimental value, as the sentimental value increases the utility the borrower garners from having the item in her possession. The borrower is then more likely to repay the loan in order to prevent this additional disutility from extending longer—and even becoming permanent—if she defaults on the loan. Given this additional disutility, it is not clear why the borrower would then choose to pawn an item with sentimental value, assuming the borrower has other alternatives. Using a sentimental item as a commitment mechanism to repay the loan (as we discuss next), therefore, may be a better explanation for why borrowers pawn items with sentimental value and are more likely to repay them.

B. Self-control Model

The simplest and most popular alternative to the classic exponential discounting model of choice over time shares most of the original model's features. It merely relaxes the assumption about how individuals discount future periods. This simple permutation allows the model to capture elements such as procrastination, self-control, and even addiction. This model is known as quasi-hyperbolic discounting and adds an additional discount factor, β , to capture short-run time preferences. Having two discount rates in the model (beta and delta) reflects the idea that people have higher discount rates between two periods in the short-run (say, today and tomorrow) than between two periods in the long run (two consecutive days next year). Large amounts of evidence support the

³⁵ For an analysis of addiction, hyperbolic discounting, and smokers, see generally Jonathan Gruber & Botond Kőszegi, *Is Addiction "Rational"? Theory and Evidence*, 116 Q.J. of ECON. 1261 (2001).

³⁶ Note that "quasi" here refers to the fact that we are not using continuous time as in pure hyperbolic discounting, but discrete time units—a more plausible and tractable way to capture decisions over periods such as hours or days. *See* Laibson, *supra* note 32, at 450.

theoretical validity of hyperbolic discounting in consumer finance as well as other fields. Behaviors like simultaneously saving for retirement and borrowing on credit cards are accurately captured by this model.³⁷

Hyperbolic discounters can be either *naive* or *sophisticated* about their self-control problems.³⁸ "Naïfs" fail to realize that they will have different discount rates in the short and long-runs and expect to be more patient in the future than they end up being (demonstrating a form of irrational behavior: time inconsistency). "Sophisticates," on the other hand, realize they will have differing discount rates in the short-run and long-run and may seek commitment devices to combat their procrastination.³⁹

³⁷ See, e.g., Bhutta, Skiba & Tobacman, supra note 8, at 14 (finding hyperbolic discounting present in payday loan context); Kristopher Gerardi et al., Financial Literacy and Subprime Mortgage Delinquency 14 (Apr. 2010) (unpublished manuscript) (on file with Federal Reserve Bank of Atlanta), available at http://ssrn.com/abstract=1600905 (applying a discount factor to measure time and risk preferences among subprime mortgage borrowers); David Laibson, Andrea Repetto & Jeremy Tobacman, A Debt Puzzle 3-4 (Nat'l Bureau of Econ. Research, Working Paper No. 7879, 2000); Sera Linardi & Tomomi Tanaka, Competition as a Savings Incentive: A Field Experiment at a Homeless Shelter 10-11 (U. of Pittsburgh, Dep't of Econ., Working Paper No. 484, 2012) (demonstrating how time discounting affects saving habits of individuals staying at a homeless shelter); Stephan Meier & Charles Sprenger, Present-Biased Preferences and Credit Card Borrowing, 2 Am. Econ. J. Applied Econ. 193, 193 (2010). See generally DellaVigna, supra note 32. Of course, hyperbolic discounting, while it improves on the realism of exponential discounting, is also a very stylized theory of decision-making and can fail to capture many critical factors of decision making.

³⁸ See O'Donoghue & Rabin, *supra* note 10, at 126 ("Two extreme assumptions have appeared in the literature: *sophisticated* people are fully aware of their future self-control problems and therefore correctly predict how their future selves will behave, and *naïve* people are fully *un*aware of their future self-control problems and therefore believe their future selves will behave exactly as they currently would like them to behave.") (emphasis in original).

³⁹ The classic example of a commitment device was when, in Homer's *Odyssey*, Odysseus asked his crew to tie him to the mast of his ship to help himself avoid jumping into the dangerous waters when he was tempted by the call of beautiful sirens ashore. *See* JOHN MALCOLM DOWLING &YAP CHIN-FANG, MODERN DEVELOPMENTS IN BEHAVORIAL ECONOMICS 90 (2007) ("Tying oneself to the mast such as Ulysses is an example of

Turning back to our analysis of pawnshop borrowers, our results appear to be consistent with sophisticated hyperbolic discounting. The differing repayment rates for sentimental items and non-sentimental items with a similar objective value do not seem to fit into a model of exponential discounting, which would assume that the simple cost of replacing a collateralized item (be it a TV or wedding ring) should in large part determine repayment rates. However, were borrowers to have especially high affection or sentimentality for a particular item, they may also be more likely to redeem that item, regardless of the item's replacement cost and relative consumption value (that is, how much utility they receive from using it).

Classically, under exponential discounting, a loan collateralized with a \$100 TV and a loan collateralized with a \$100 wedding ring would not necessarily have different repayment rates. Sentimental items (like the wedding ring) seem to work as a natural commitment device: the idea of losing an important item helps motivate the borrower to repay. Our results, which show that borrowers are more likely to make good on pawnshop loans that are secured by sentimental items, are consistent with the idea that borrowers are sophisticated about their future discounting and choose pledges to help them repay their loan, just like Odysseus tying himself to the mast.⁴⁰

Here, we cannot precisely determine whether borrowers' discount rates and predictions about those rates, or, alternatively, a

external commitment "). More recently, websites like stickK.com offer commitment devices, as does "Clocky" (an alarm clock on wheels). See STICKK, http://www.stickk.com (last visited Nov. 14, 2012); Clocky, NANDA HOME, http://www.nandahome.com/products/clocky/ (last visited Nov. 14, 2012). Naïfs (and sophisticates) can of course be partially or fully naive. For simplicity, we limit our analysis to the extreme cases here. But see O'Donoghue & Rabin, supra note 10, at 122 ("Economists have been predisposed to focus on complete sophistication; but since our results show that any degree of naïveté can yield different predictions than complete sophistication, our analysis suggests that restricting attention to complete sophistication could be a methodological and empirical mistake even if people are mostly sophisticated." (emphasis in original)). For a review of the evidence on commitment devices, see DellaVigna, supra note 32, at 318–24.

⁴⁰ See DowLing & Chin-Fang, supra note 39, at 90.

rational form of sentimentality or affect,⁴¹ is driving the pattern we see in repayment behavior. Further, heterogeneity among borrowers is impossible for us to parse out with our existing data. Borrowers may be a mix of naïfs, sophisticates, and rational actors, and each type of borrower may choose to pawn different items.

C. Loss Aversion

Alternatively, or in addition, loss aversion, 42 another popular and robust behavioral anomaly, may be responsible for high repayment rates when sentimental items are involved. A model that

⁴¹ Note that, classically, feelings like sentimentality and affection are outside a rational model. But modern models of choice do often allow for choice involving some emotional component. For more on adding affect into decision making, see Mark J. Browne, Christian Knoller & Andreas Richter, *Behavorial Bias, Market Intermediaries and the Demand for Bicycle and Flood Insurance* 18 (Munich Risk and Ins. Ctr., Working Paper No. 10, 2012) ("[P]eople are more willing to purchase insurance for an object, the more affection they have for the object.").

⁴² Loss aversion has been documented extensively and popularly in the class mugs experiment, Daniel Kahneman et al., Experimental Tests of the Endowment Effect and the Coase Theorem, 98 J. of Pol. Econ. 1325, 1342 (1990) (finding that "the value that an individual assigns to such objects as mugs, pens, binoculars, and chocolate bars appears to increase substantially as soon as that individual is given the object"), although there has been considerable work on the topic since then. We do not actually have many people pawning mugs in our data. More recently, loss aversion has been documented outside the lab among cab drivers. See Colin Camerer et al., Labor Supply of New York City Cabdrivers: One Day at a Time, 112 Q.J. OF ECON. 407, 408 (1997) (finding negative wage elasticities reflecting that "drivers tend to quit early on high wage days and to drive longer hours on low wage days"); accord Ernst Fehr & Lorenz Goette, Do Workers Work More if Wages are High? Evidence from a Randomized Field Experiement, 97 Am. Econ. R. 298, 300 (2007) (documenting loss aversion among bike messengers). For a helpful review of this empirical literature, see generally Lorenz Goette et al., Loss Aversion and Labour Supply, 2 J. OF THE EUR. ECON. Ass'N 216 (2004). For modeling specifics, see David Bowman, Deborah Minehart & Matthew Rabin, Loss Aversion in a Consumption-Savings Model, 38 J. OF ECON. BEHAV. & ORG. 155, 156-64 (1999) and Botond Kőszegi & Matthew Rabin, A Model of Reference-Dependent Preferences, 121 O.J. of Econ. 1133, 1137–1155 (2006). See Della Vigna, supra note 32, 325–30; and Bowman, supra, at 164–67, for a review of the literature.

includes loss aversion (or the "endowment effect," ⁴³ a closely related concept) typically focuses on a decision at one point in time and abstracts from discounting over time, as with the models above. ⁴⁴ Also, as in the other models, borrowers maximize a utility function but with loss aversion affecting choices. Loss aversion is the effect whereby losses (relative to some reference point) "loom larger" ⁴⁵ than gains. For example, the utility loss associated with losing \$10 is larger than the utility gain of winning \$10. Typically, this gap is measured to be about two, meaning losing \$10 feels about twice as bad as winning \$10 feels good. ⁴⁶

Recent evidence suggests different types of items are more likely to be subject to loss aversion than others. ⁴⁷ Given this existing empirical evidence, we would predict that sentimental items are subject to loss aversion to a greater extent than items with pure consumption value (that is, those items providing utility solely based on the use derived from it, like watching a TV or printing documents with a printer). Therefore, in our context, a model of loss aversion in decision-making with respect to pawn contracts implies higher repayment rates for items that people feel loss averse towards. Reclaiming an item allows the borrower to avoid that *extra* negative utility associated with losing an item (beyond the normal utility loss associated with forgoing the consumption value of the item). Loss aversion is an intuitive and likely important component of borrower behavior in the pawnshop context.

The extent to which loss aversion is relevant in pawnbroking, however, turns on the relevant reference point, which we are unfortunately unable to determine in our data. Reference points are some neutral point around which choices are framed by the decision maker. A natural reference point and the one that is most often assumed in behavioral economic models is the status quo, i.e.,

⁴⁵ See Dan Ariely, Joel Huber & Klaus Wertenbroch, When Do Losses Loom Larger than Gains?, 42 J. OF MARKETING RES. 134, 134–138 (2005).

⁴³ See Kahneman et al., supra note 42, at 1326 ("[T]he increased value of a good to an individual when the good becomes part of the individual's endowment [is] the 'endowment effect.'").

⁴⁴ See id.

⁴⁶ See Camerer et al., *supra* note 42, at 411–12, for a review of the evidence on the coefficient of loss aversion.

⁴⁷ For more on what people are loss averse about and when, see generally George F. Loewenstein, Christopher K. Hsee, Elke U. Weber & Ned Welch, *Risk as Feelings*, 127 PSYCHOL. BULL. 267 (2001); Sarah F. Brosnan et al., *Endowment Effects in Chimpanzees*, 17 CURRENT BIOLOGY 1704 (2007).

whatever situation you are currently in: You currently either own a mug, or you do not own a mug. Other possibilities for reference points are (a) goals (I want to run a marathon under four hours.); (b) past experiences (I ran a marathon in under four hours when I was 25.); (c) social comparisons (My brother ran a sub-four marathon and I'd like to beat him.); and (d) expectations (I can probably finish the marathon in four hours.). In a model that includes loss aversion, changes relative to the reference point result in a change in utility. For example, if you ran a marathon in 4:05 with a goal of breaking four hours, you would feel loss averse because you were below your reference point. However, if you ran a marathon in 4:05 with a goal of 4:15, you would not feel this extra disutility. The same outcome (a 4:05 marathon) comes with different utilities depending on the reference point. Where pawnshop borrowers' reference points are calibrated such that they expect to lose their pledge, borrowers will not feel this extra disutility when they default. If their reference point is owning and using their pledge, however, they would feel this extra utility loss if they default.

The most robust model of loss-averse behavior is found in Professors Kőszegi and Rabin's article entitled *A Model of Reference-Dependent Preferences*. Kőszegi and Rabin identify a specific reference point around which people feel loss averse. Their reference point is defined to take into account individuals' expectations as well as a number of other factors. The model then predicts how individuals will make choices by maximizing a utility function that consists of two parts: a traditional, rational part; and the less conventional loss-averse component derived from utility gains or losses due to ending up above or below the reference point. Determining the reference point in pawnbroking could be a fruitful area for future research, but for now, we cannot directly test the extent to which people are loss averse without more direct evidence on the reference point.

D. Discussion

Using only our loan records data, we cannot fully determine whether pawnshop users are hyperbolic discounters, loss averse, fully rational, or some combination of these factors. Nevertheless, our results comport with the type of discounting shown among

⁴⁸ Kőszegi & Rabin, *supra* note 42, at 1137.

sophisticated hyperbolic discounters. The data do suggest that people choose to pawn sentimental items. Since almost anything is accepted by pawnbrokers, why pawn your wedding ring? We view such behavior as suggestive evidence that borrowers exploit sentimental items to combat their (accurate) prediction that they may not have the self-control to pay back their loans and may be tempted to default. A sentimental item will be harder to replace (Try explaining to your wife what happened to your wedding ring!) and thus provides a better commitment device than a similarly valued but fungible item, such as tools or a TV. Additional research, perhaps experimental in nature, is needed on this topic to fully disentangle which kind of borrowers pawnshop users are.

VI. Conclusion

In this paper, we use transaction data to study the behavior of customers patronizing pawnshops. We present new evidence on the dynamics of repayment and default for loans secured by different types of collateral at pawnshops. We are the first, to our knowledge, to study borrower activity in the world of pawnbroking from a behavioral economics perspective.

We view pawnshops as a potentially attractive alternative to other forms of high interest credit. Pawnshops offer simple transactions in which anyone can participate. No credit is needed and no credit check is conducted. Interest rates on pawnshop loans are lower than those associated with many other types of credit, even mainstream credit. The combination of the existing regulations on interest rates and what appears to be consumers' self-governing repayment behavior or "self-regulation" seems to work well in this market.

While we cannot say for sure what behavioral factors are at play, repayment rates on pawnshop loans, particularly those secured by sentimental items, are high. Some combination of sentimentality, loss aversion, and discounting seems to help borrowers make good on their pledges. A deeper welfare analysis is difficult for us to

⁴⁹ A main alternative is payday loans. For an overview of payday loans and their consequences, see generally Melzer, *supra* note 8; Adair Morse, *Payday Lenders: Heroes or Villans?*, 102 J. OF FINANCIAL ECON. 28 (2011); Skiba & Tobacman, *supra* note 8. Craigslist is a natural alternative to pawnshops, but we know of no research on this market.

⁵⁰ See Caskey, supra note 24, at 90

conduct without additional data, but we are convinced that pawnshops can be a good alternative source of credit.⁵¹ Further research on pawnbroking and its customers will give policymakers, consumers, and academics a better grasp of this ancient and yet still popular and important institution.

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Figure 1: Collateral by Category, Number of Observations

Figure 1 shows the number of loans taken out using each category of collateral between 1997 and 2002 in a sample of observations from a pawnshop lender in Texas.

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⁵¹ See Bos, Carter & Skiba, *supra* note 3, at 1 ("[P]eople who are excluded from the credit supplied through the regular banking system have to rely on alternative financial services like those supplied by the pawnbroking industry.").

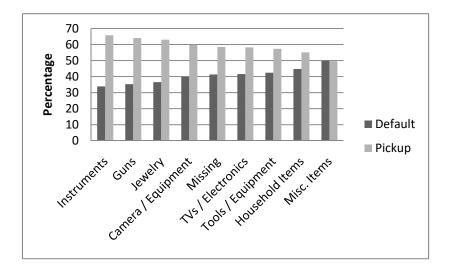


Figure 2: Probability of Default by Collateral Category

Figure 2 shows the percentage of loans in each collateral category where the borrowers defaulted or picked up the loan. The sample of observations is from a pawnshop lender in Texas between 1997 and 2002.

Figure 3: Default Rates on Sentimental Items

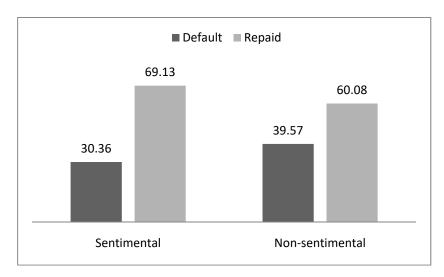


Figure 3 depicts the fraction of pawnshop loans that borrowers default on when the loans are collateralized with items that are sentimental and when they are collateralized with items that are non-sentimental. Sentimental items include wedding rings, engagement rings, class rings, and "mother's rings." The sample of observations is from a pawnshop lender in Texas between 1997 and 2002.



Application for Special Exception Permit

City of Pontiac

Office of Land Use and Strategic Planning

47450 Woodward Ave, Pontiac, MI 48342 T: 248.758.2800 F: 248.758.2827

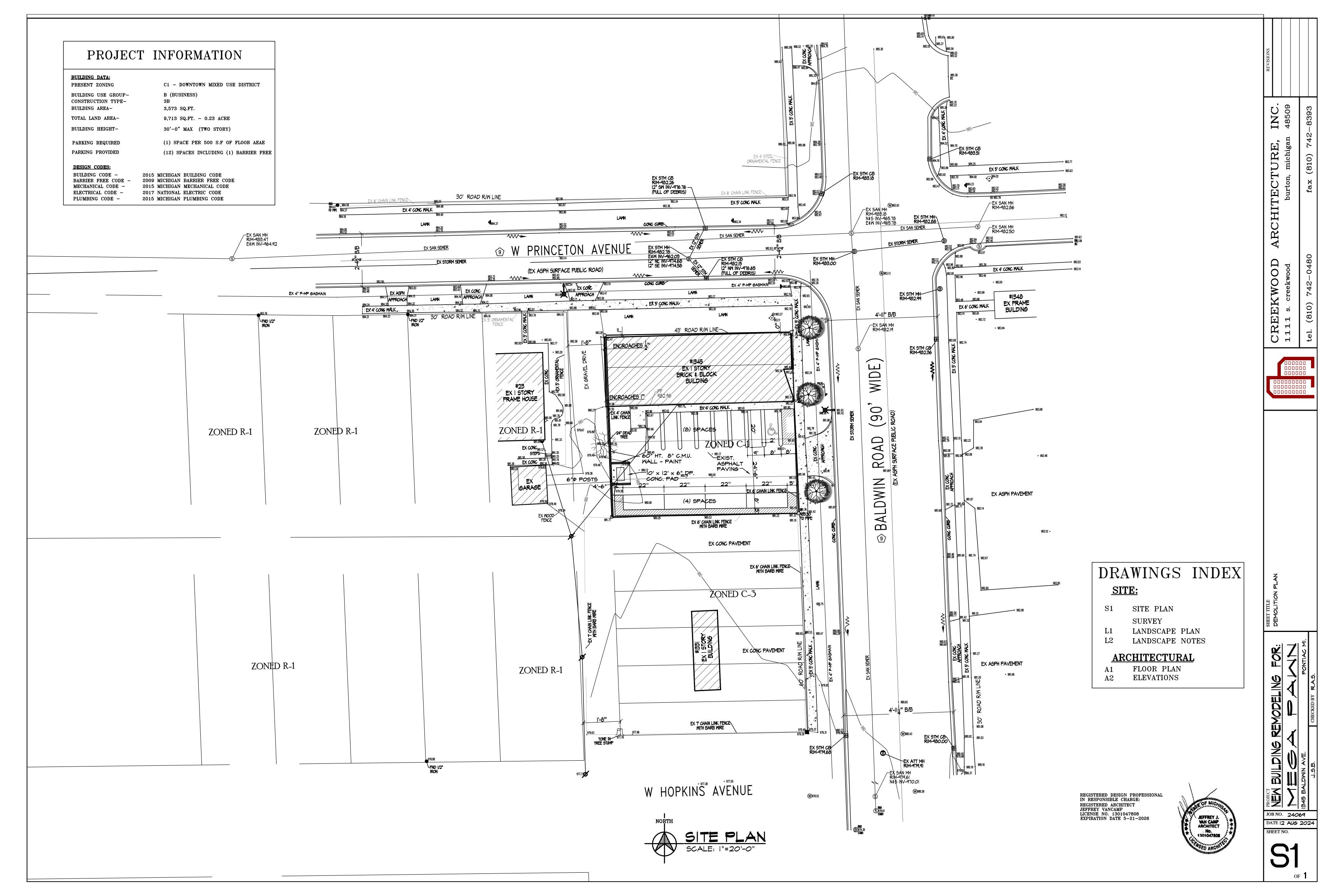
Planning at le with supportin applications w	Completed application with appropriate fee shall be submitted to the Office of Land Use and Strate ast 30 days prior to the scheduled Planning Commission Meeting. Application must complete in all response documents such as site plan, property survey, detailed description of the proposed use, etc. Incompile ill delay the review process.		
	please print or type)		
Name Address	Matthew Ferris		
2280 1837	3825 Corunna Rd.		
City	Flint		
State	MI		
ZIP Code	48532		
Telephone	Main: (810) 845-7200 Cell: (810) 845-7200 Fax: (810) 235-2734		
E-Mail	MFerris 317@gmail.com		
Name of Pr	property Information oposed Development: Mega Pawn of Pontiac property is location at 1345 Baldwin Ave on the N/S/E/W side of Baldwin Ave Princeton Ave and whopkins Ave		

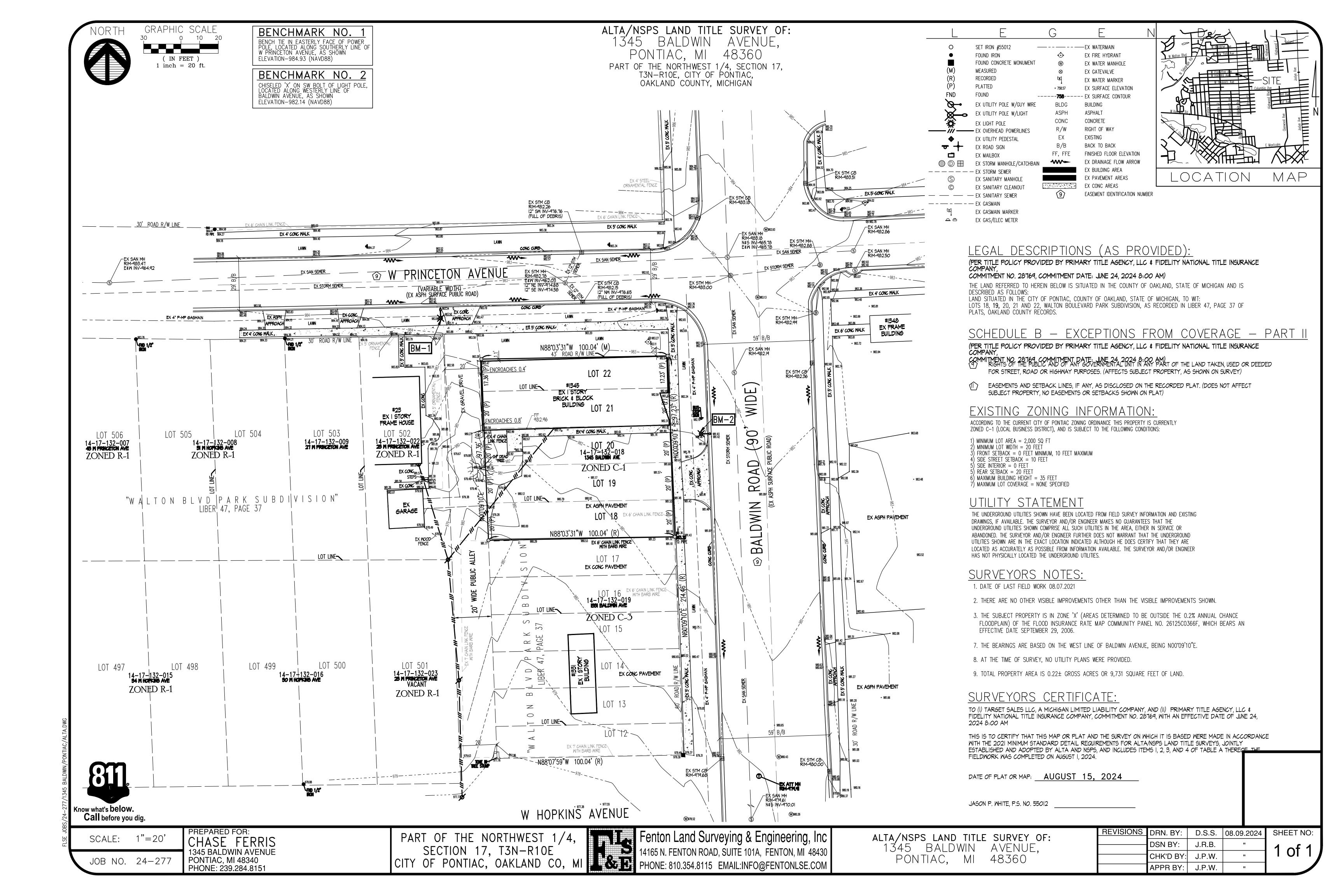
	Matthew Ferris				
Address	3825 Corunna Rd.				
City	Flint				
State	MI				
ZIP Code	48532				
Telephone	Main: (810) 845-7200	Cell: (810) 845-7200	Fax: (8/0) 235-2734		
E-Mail	(8/0/0//	(810/8/3 / 1100	(810) & 55 - 2757		
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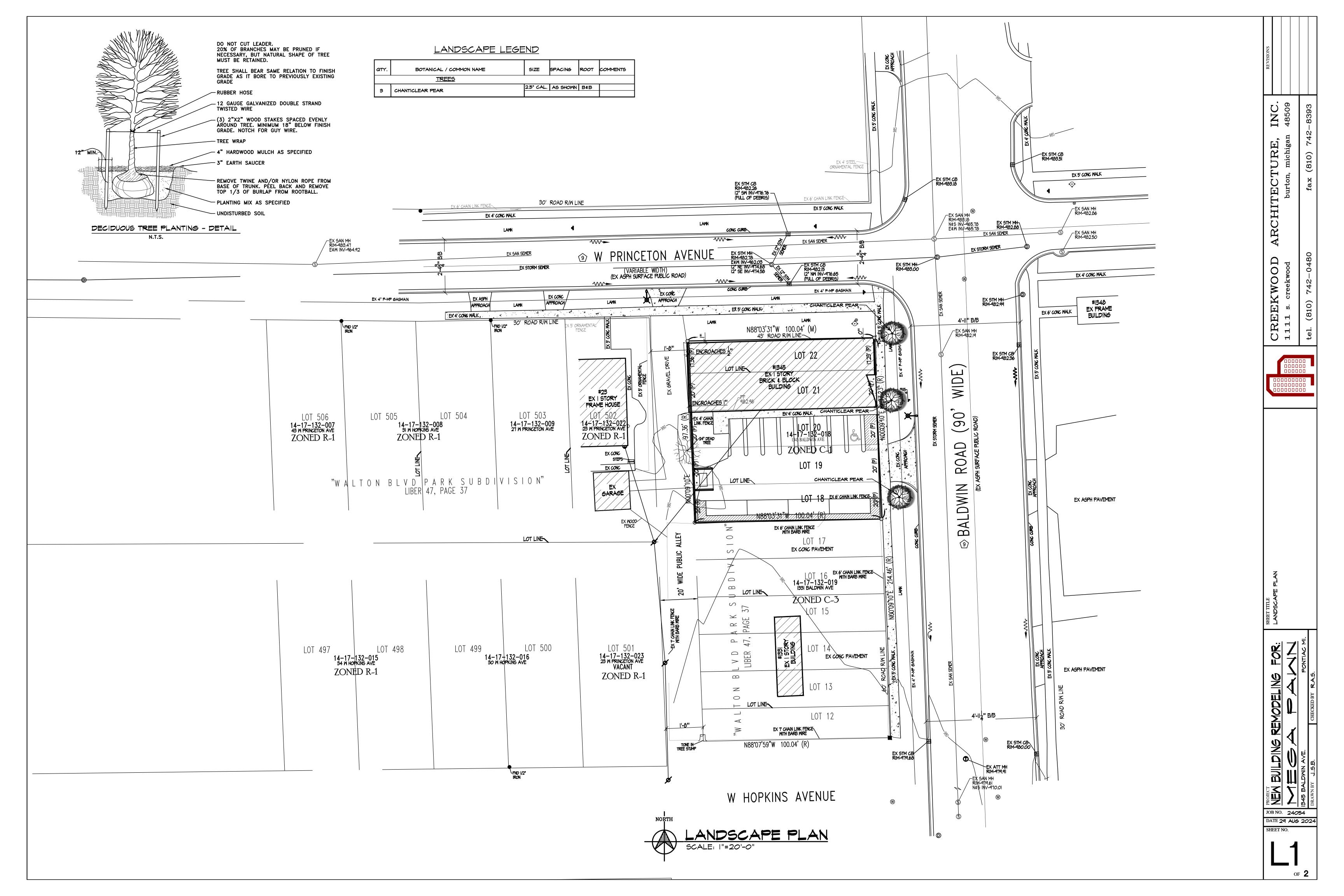
State of Michigan County of Oakland

On this 30 day of August, A.D., 20 24, before me personally appeared the above named person, who being duly sworn, stated he/she has read the foregoing application, by him/her signed, and know the contents thereof, and that the same is true of his/her own knowledge, except as to the matters therein stated to be upon information and belief and so as to those matters he/she believes it to be true.

Notary Public, Oakland County, Michigan My Commission Expires: 1-31-29







HYDRO-SEEDING SPECIFICATIONS:

- I) THE CONTRACTOR SHALL REMOVE ALL WEEDS, STONES OVER I" IN DIAMETER, ROOTS, BRUSH, STAKES, BUILDING MATERIAL AND OTHER DEBRIS.
- 2) AREAS INDICATED "TURF" SHALL BE HYDRO-SEEDED WITH A PUMP RATED AND OPERATED AT NO LESS THAN 100 GPM AND NO LESS THAN 100 PSI, WITH A MECHANICAL AGITATOR THAT WILL ENSURE UNIFORM SUSPENSION OF SEED AND FERTILIZER IN WATER. EACH 1000 GALLONS OF SLURRY MIX SHALL CONTAIN 1500 lbs. OF APPROVED CELLULOSE FIBER, 200 lbs. OF THE SPECIFIED SEED MIXTURE AND 500 lbs. OF AN APPROVED 12/12/12 COMMERCIAL FERTILIZER.

APPLY SEED AND FERTILIZER AT A RATE OF NOT LESS THAN 1000 GALLONS OF SLURRY PER ACRE.

- 3) FINISH GRADING AFTER CLEAN UP AND PRIOR TO TOP SOILING. THE CONTRACTOR SHALL FINE GRADE WITH MECHANICAL EQUIPMENT AND HAND RAKING IF REQUIRED TO BRING ALL AREAS TO THE DESIGN GRADES INDICATED O THE SITE PLAN AND NECESSARY TO MAINTAIN POSITIVE DRAINING.
- 4) TOPSOIL SHALL BE UNIFORMLY SPREAD TO SUPPORT SEED GERMINATION AND PROCEDURE TURF. TOPSOIL SAMPLE MAY BE REQUIRED BY THE LANDSCAPE ARCHITECT AND THE SOURCE DESIGNATION BY THE CONTRACTOR.
- 5) SEED MIXTURE
 - A. 40% KENTUCKY BLUEGRASS
 - B. 30% "PENNLAWN" RED FESCUE
 - C. 30% "PENNFINE" PERENNIAL REGRESS
- 6) SEED AND FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE MANUFACTURER'S ORIGINAL SEALED CONTAINERS, STATING MIXTURE COMPONENTS AND PERCENTAGES. SEED AND FERTILIZER OTHERWISE DELIVERED WILL NOT BE ACCEPTED.
- 7) WATERING

THE CONTRACTOR HAS THE RESPONSIBILITY OF IRRIGATING THE SEED BED.

8) GUARANTEE

THE CONTRACTOR SHALL OVERSEED ALL AREAS THAT HAVE BARE SPOTS IN EXCESS OF ONE SQ. FT. IN SIZE

9) INSPECTION

THE LANDSCAPE ARCHITECT SHALL BE THE OWNER'S AGENT FOR THIS WORK AND WILL DETERMINE COMPLETION AND ACCEPTANCE OF WORK PERFORMED, AND WILL MAKE CASUAL INSPECTION DURING SEEDING OPERATIONS. PROMPT CLEAN-UP OF THE SITE UPON COMPLETION WILL BE REQUIRED. WALKS AND DRIVES SHALL BE KEPT CLEAN AND PASSABLE.

SITE CONDITIONS:

THE LANDSCAPE CONTRACTOR SHALL NOT OBSTRUCT ROADS, PARKING AREAS OR WALKS WITH MATERIALS, EQUIPMENT OR DEBRIS. THE ENTIRE PARKING AREA MUST BE AVAILABLE FOR CAPACITY USE DURING WORKING HOURS. SPECIAL ARRANGEMENTS WILL BE MADE TO ISOLATE SPECIFIC AREAS REQUIRED FOR CONSTRUCTION. THESE AREAS WILL BE PRE-ARRANGED WITH HIGH ADMINISTRATION BY THE LANDSCAPE ARCHITECT.

GENERAL NOTES:

- I) ALL PLANTING AREAS TO RECEIVE 3" WASHED STONE (3/4"-1'-1 1/2" DIA.) W/ DE-WIT FABRIC WEED BARRIER UNDERLAYMENT. UNLESS OTHERWISE NOTED
- 2) LAWN EDGING TO BE COMMERCIAL GRADE BLACK PLASTIC
- 3) GROUND COVER PLANTS TO BE PLANTED IN SOIL MIX (NO STONE AROUND.)

NOTE:

ALL LAWN AND LANDSCAPED AREAS ARE TO BE FULLY IRRIGATED. - SUPPLIER TO PROVIDE SHOP DRAWINGS

GENERAL NOTES

ALL LANDSCAPE AREAS ADJACENT TO DRIVES OR PARKING AREAS ARE TO BE

- ALL LANDSCAPING IS TO BE CONTINUOUSLY MAINTAINED.
- ALL SITE IMPROVEMENTS DETAILED ON THIS PLAN ARE TO BE COMPLETED PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.
- ALL RIGHT OF WAY AREAS ARE TO BE SEEDED OR SODDED.
- SYSTEM.

ALL PLANT MATERIAL SHALL BE TRUE TO NAME, FREE FROM PHYSICAL DAMAGE AND WIND BURN. PLANTS SHALL BE FULL, WELL-BRANCHED. AND IN HEALTHY VIGOROUS GROWING CONDITION.

PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.

ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) FULL YEAR FOLLOWING PLANTING.

ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

PROVIDE CLEAN BACK FILL SOIL, USING MATERIAL STOCKPILED ON SITE. SOIL SHALL BE SCREENED AND FREE OF ANY DEBRIS, FOREIGN MATERIAL, AND STONE. "AGRIFORM" TABS OR SIMILAR SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANTING PITS BEFORE BEING

ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A MINIMUM DEPTH OF 4". MULCH IS TO BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND SHALL CONTAIN NO PIECES OF INCONSISTENT SIZE.

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN ON THE LANDSCAPE DRAWINGS AND SPECIFICATIONS.

NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.

THE LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS, IF REQUESTED BY OWNER.

QUANTITIES ON DRAWINGS AND PLANT LIST ARE THE SAME. IN THE EVENT OF A DISCREPANCY, THE QUANTITIES ON THE PLANS SHALL PREVAIL.

CONSTRUCTION, THROUGHOUT THE DEVELOPMENT.

A PRE-EMERGENT WEED CONTROL AGENT, "PREEN" OR EQUAL, SHALL BE APPLIED UNIFORMLY TO ALL PLANTING BEDS PRIOR TO MULCHING.

CURBED WITH A MINIMUM 6" CONCRETE CURBING.

- ALL PLANTING BEDS ARE TO BE EDGED.

- ALL LANDSCAPE AREAS ARE TO BE IRRIGATED WITH AN UNDERGROUND IRRIGATION

LANDSCAPE NOTES

BACKFILLED.

INSTALLATION.

CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING PLANT QUANTITIES TO ENSURE

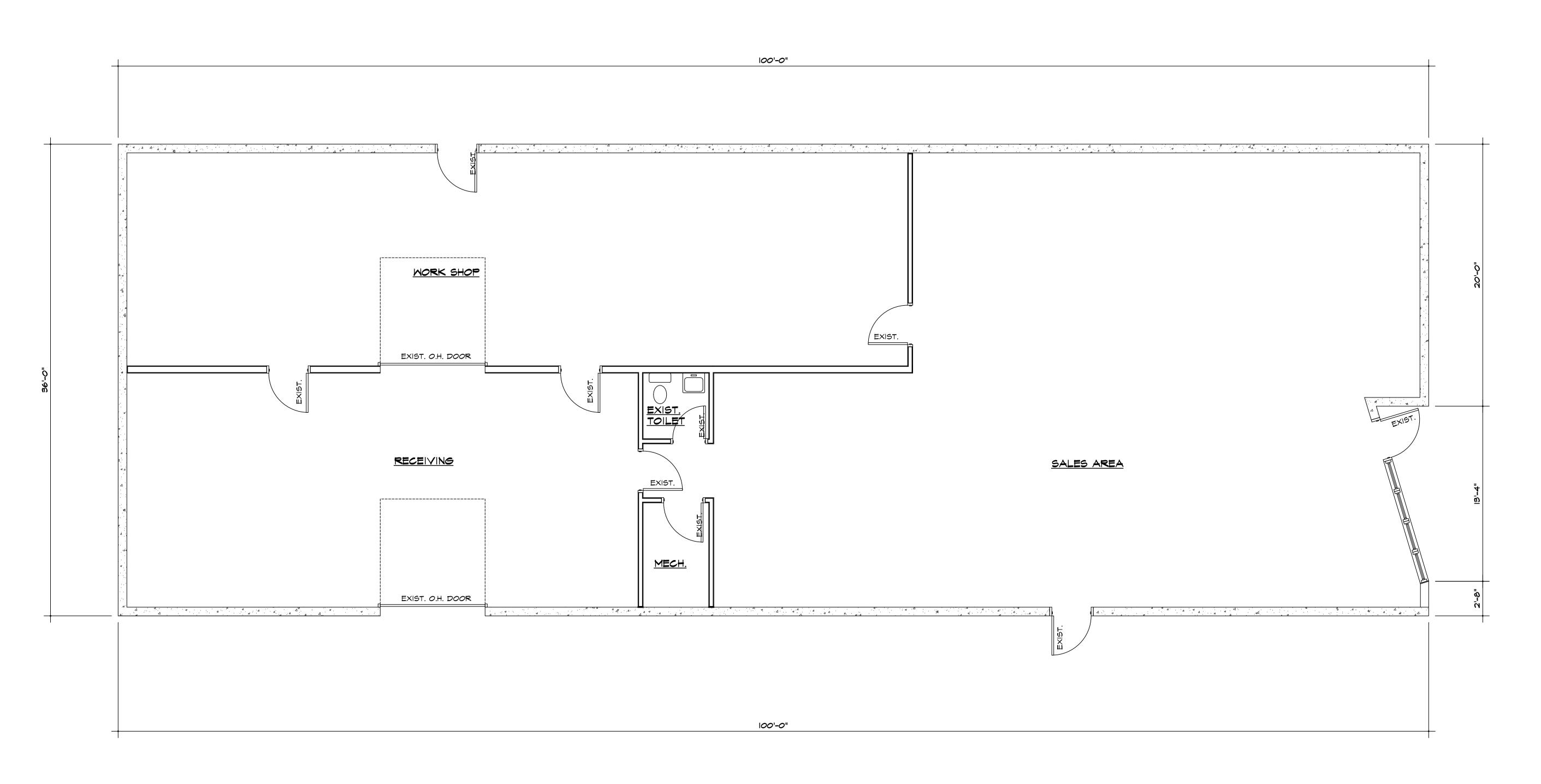
THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH ALL AREAS DISTURBED DURING

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JOB NO. 24054 DATE 29 AUG 2024







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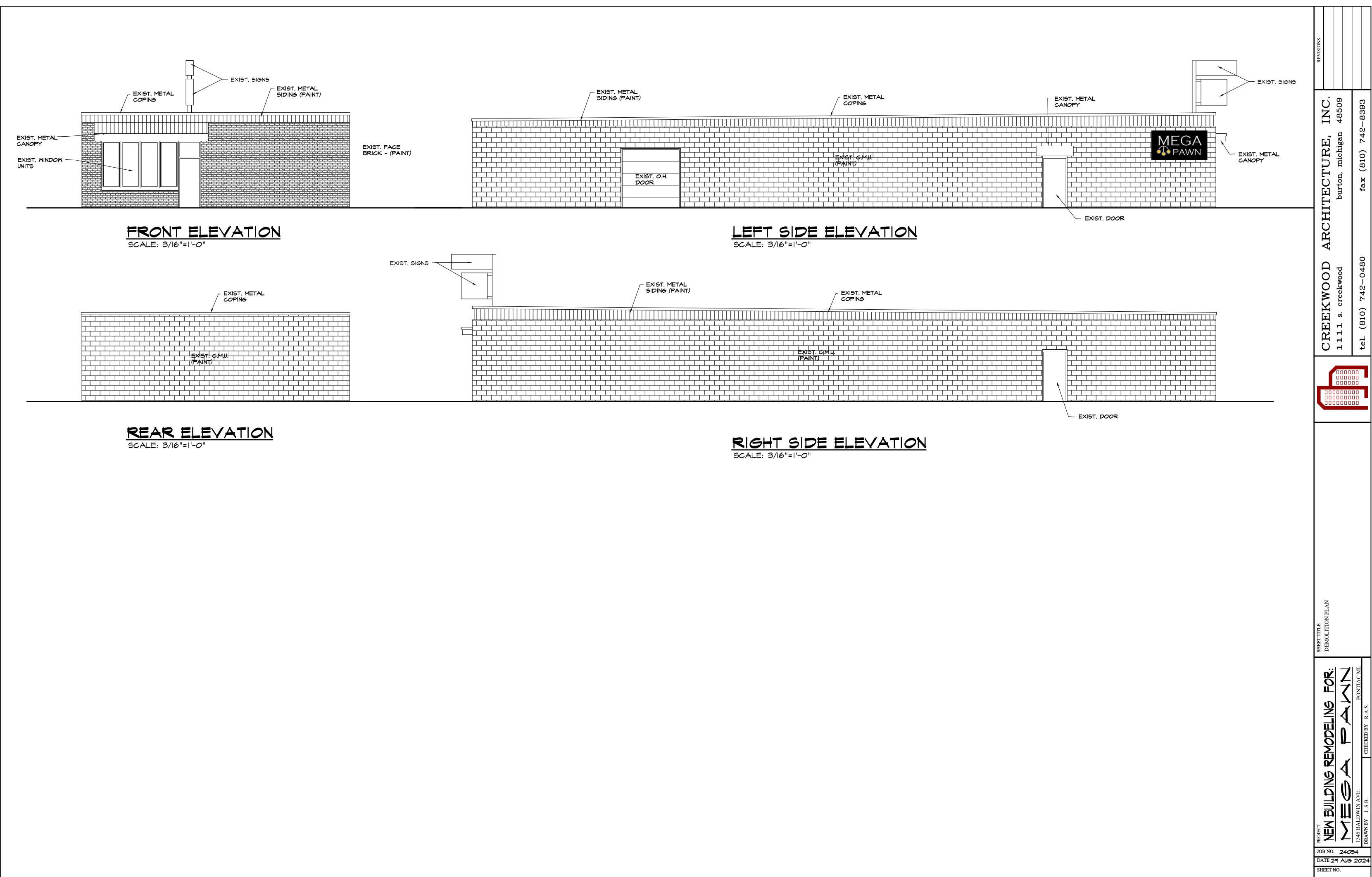
1345 BALDWIN AVE.

DRAWN BY J..S.B.

CHECKED BY R.A.S.

CHECKED BY R.A.S.

SHEET NO.



A2
of 2



COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Corey Christensen, Senior Planner

DATE: September 23, 2024

RE: Preliminary Site Plan: Pawn Shop, 1345 Baldwin Ave.

Executive Summary

SPR 24-034 is a request for site plan approval by Matthew Ferris to allow for a Pawn Shop at 1345 Baldwin Ave. The building is existing and the applicant is not proposing any alterations to the footprint. The applicant is proposing to utilize the building as a pawn shop, which is a special regulated use in our ordinance.

Staff recommends the proposed site plan be APPROVED with

five (5) conditions. This Site Plan requires a public hearing for a Special Exception at the same meeting, and staff recommended DENIAL of the Special Exception application.



Figure 1: Aerial of the Existing Site

Proposal

Zoning

Request

Proposed

Parcel Size

Use

The applicant is proposing to reuse the existing single-story brick structure on site. The footprint of the building is 3,573 square feet with parking to the south of the structure. The site is legally conforming regarding setbacks, building dimensions, lot size, and frontage requirements. The parking lot to the south will be configured for 12 parking spaces and the applicant is proposing to add street trees and a dumpster.

Quick Facts

Local Business C-1

Site Plan Approval

Pawn Shop

9,713 Sq. Ft.

Background

The structure was built in 1950. The property was most recently utilized by Mc Nabb Saw Services as a retail facility. However, it's been vacant for

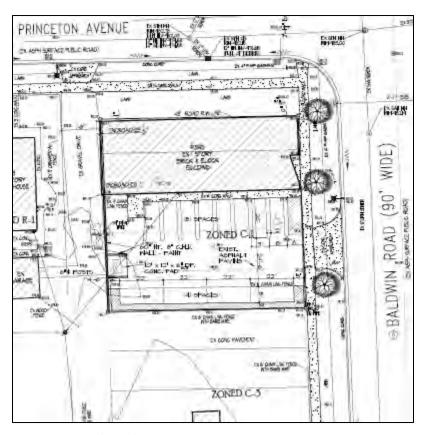
several years.

The parcel directly to the south is zoned C-3 Corridor Commercial, the parcel across the alley to the west is zoned R-1 One Family Dwelling, the parcel across W Princeton Ave to the north is zoned C-3 Commercial Corridor, and the parcel across Baldwin to the east is zoned C-1 Local Business.

Staff Review

Staff conducted a review of the site plans on September 23, 2024 and provided feedback on lighting, landscaping, and parking to the applicant.

Items identified in **bold** below are the deficiencies in the site plan that must be addressed prior to issuing any approval.

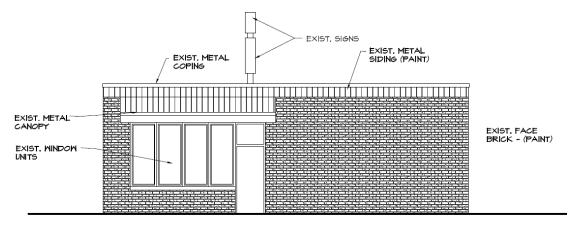


Dimension and Development Standards – Article 2 Chapter 3 2.308 C-1 LOCAL **BUSINESS/RESIDENTIAL MIXED** USE DISTRICT – The applicant is proposing to reuse the existing structure which sits on the north side of the property with parking provided on the south side of the building. The existing structure is in compliance with the dimensional requirements for the C-1 district. The building is setback zero feet from the front lot line, zero feet from the north lot line, 24 feet six (6) inches from the south lot line, and zero feet from the rear lot line. It is unclear from the plans how tall the existing structure is. The plans should be revised to include this information.

Figure 2: Proposed Site Plan

Private Frontage Design Standards – Article 2 Chapter 4

2.408 STREETFRONT – The existing structure contains a horizontal cornice along the roofline in compliance with the design standards for street front structures. The front façade does not appear to meet the transparency requirement of 65% for nonresidential buildings. Existing structures do not need to meet the frontage design standards, however, this is at the discretion of the reviewing authority. In this case, the Planning Commission has the authority to waive the 65% transparency requirement, grant a lesser requirement or require the full 65% transparency.



FRONT ELEVATION

SCALE: 3/16"=1'-0"

Figure 3: Existing and Proposed Frontage Design

Development Standards for Specific Uses – Article 2 Chapter 5

2.513 PAWN SHOPS – The proposed location complies with the lot frontage requirement of 60 feet and there are no pawn shops within 1000 feet of the subject parcel.

Generally - Article 4 Chapter 2

4.202 ACCESS MANAGEMENT – The existing approach is grandfathered.

Parking - Article 4 Chapter 3

4.302(D) LANDSCAPING – Please provide eight (8) feet of landscape between the ROW and the parking area.

4.305(D) BARRIER FREE PARKING SPACES – The proposed barrier-free parking space must have a 96" wide access aisle adjacent to be van accessible.

4.305(F) STRIPING REQUIREMENTS – The ordinance requires parking lots to be striped in white or yellow paint. The site plans should be revised to indicate this requirement will be complied with. 4.306 SURFACING – Will the parking lot be resurfaced?

Landscaping and Buffering – Article 4 Chapter 4

4.405(C) WALL AND BERM STANDARDS – Please provide details on the proposed dumpster screening walls.

4.406(B) PARKING LOTS ADJACENT TO PUBLIC RIGHTS-OF-WAY – Please provide at least eight (8) feet of landscaping where the parking lot is adjacent to the ROW.

Exterior Lighting - Article 4 Chapter 5

Details on the existing exterior lighting were not provided. It is unclear if the site meets the

requirements for shielding, light intensity, and type of fixture, however, the lighting as it exists is grandfathered.

Low Impact Development Standards – Article 4 Chapter 6

There are no natural features on site that need to be protected and according to FEMA there are no protected wetlands or floodplains that impact development on the site.

Standards for Approval

In reviewing an application for any type of site plan, the planning commission shall find the proposed development complies with the general standards in the zoning ordinance. The following are staff's comments on each standard:

- 1. **Circulation** The site would appear to be sufficient for traffic and pedestrian circulation. There is one approach off Baldwin Ave, and the existing parking lot provides 24 feet of maneuvering lane. There are four parallel spaces to the south and eight spaces to the north. The parking lot will need to be adjusted to provide a van-accessible space for the barrier-free parking space. This may reduce the overall parking count by one, but since the plans exceed the required number of parking spaces by six (6) there should be no issue.
- 2. **Buildings** The existing building would not appear to present any adverse impacts on adjacent properties. The use of the site as a pawn shop is unlikely to have negative impacts on adjacent properties.
- 3. **Natural Features** There are no existing natural features on site in need of preservation or buffering.
- 4. **Site Layout and Screening** The plans as proposed provide adequate screening and an appropriate layout for the site.
- 5. **Compliance with the Zoning Ordinance** The following revisions must be made to the proposed site plans.
 - a. The site plans must provide the building height on the site plans.
 - b. The site plans must provide 65% transparency, or the amount of transparency required by the Planning Commission.
 - c. The site plans must provide eight (8) feet of landscaped space between the ROW and the parking area.
 - d. One (1) van accessible barrier free parking space with a 96" wide access aisle must be provided.
 - e. The site plans must provide the proposed striping color.
 - f. The site plans must provide details on the proposed dumpster screening walls.
 - g. Please provide details on exterior lighting.

Summary

The structure and layout of the site appear to be suitable for the proposed use and there are no major risks to the public health, safety and welfare. However, there are some issues that need to be addressed. Furthermore, the Planning Commission will need to determine whether 65% transparency is reasonable for the first floor façade or if the applicant should be granted relief.

Staff Recommendation

Staff recommends **APPROVAL** of the preliminary site plan with the following four (4) conditions:

- 1. The site plans shall be revised to provide the building height, proposed striping color, and details on the proposed dumpster screening wall and exterior lights.
- 2. The planning commission waives the required 65% transparency on the first floor and requires 40% instead on Baldwin Avenue and W. Princeton Avenue.
- 3. The site plans must provide eight (8) feet of landscaped space between the ROW and the parking area.
- 4. One (1) van accessible barrier free parking space with a 96" wide access aisle must be provided.
- 5. Any conditions of the Special Exception approval must be honored.

SAMPLE MOTION TO APPROVE:

I move to APPROVE the requested site plan for a pawn shop at 1345 Baldwin Ave based on the findings of fact identified in the staff report and with the four (4) conditions outlined in the staff report.

SAMPLE MOTION TO DENY:

I move to DENY the requested site plan for a pawn shop at 1345 Baldwin Ave based on the following findings of fact:

1. It does not meet standard ____ based on the fact that...

SAMPLE MOTION TO POSTPONE

I move to POSTPONE the requested site plan for a pawn shop at 1345 Baldwin Ave until the regularly scheduled November 6, 2024 Planning Commission meeting.



Application for Site Plan Review

City of Pontiac

Office of Land Use and Strategic Planning

47450 Woodward Ave, Pontiac, MI 48342

T: 248.758.2800

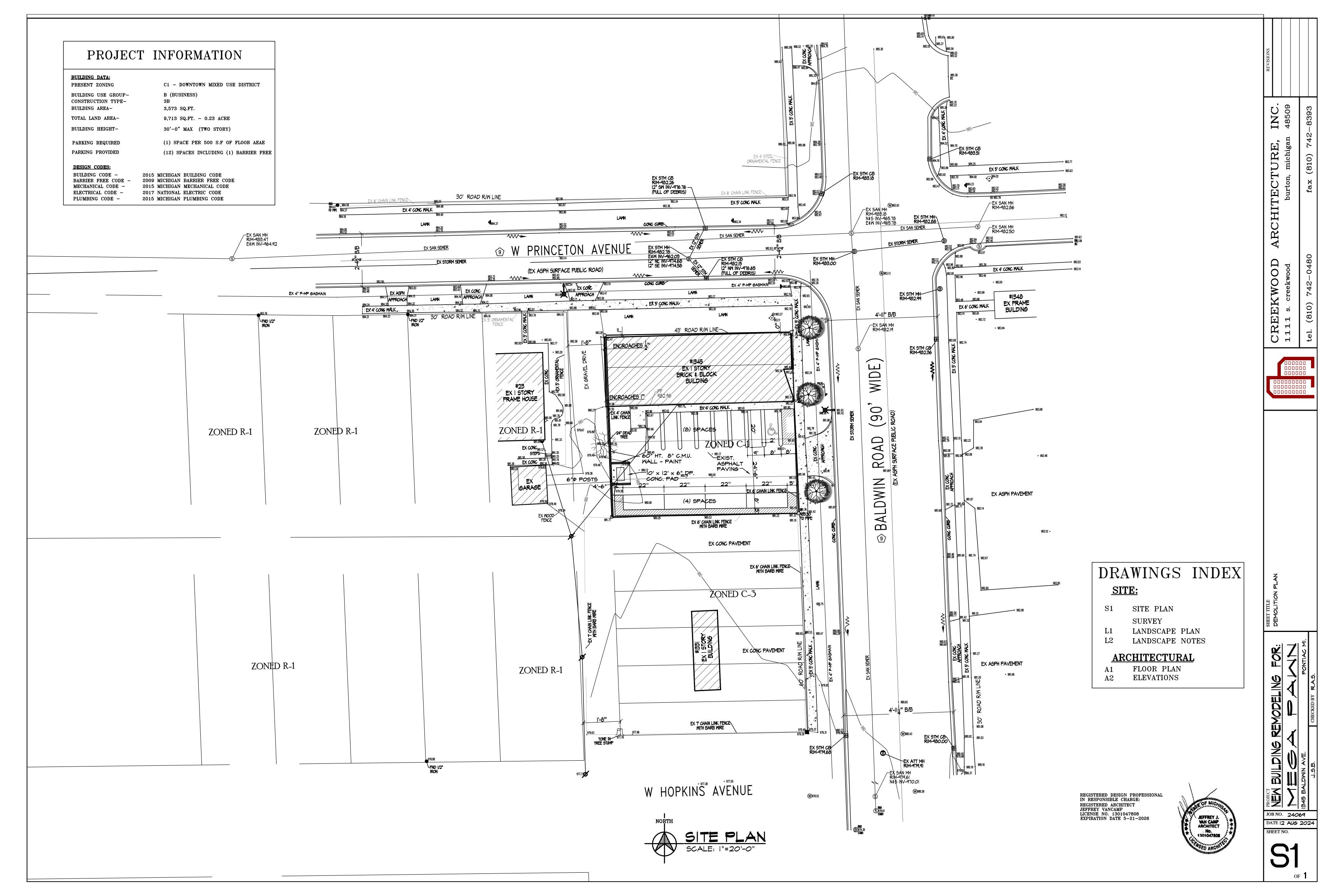
F: 248.758.2827

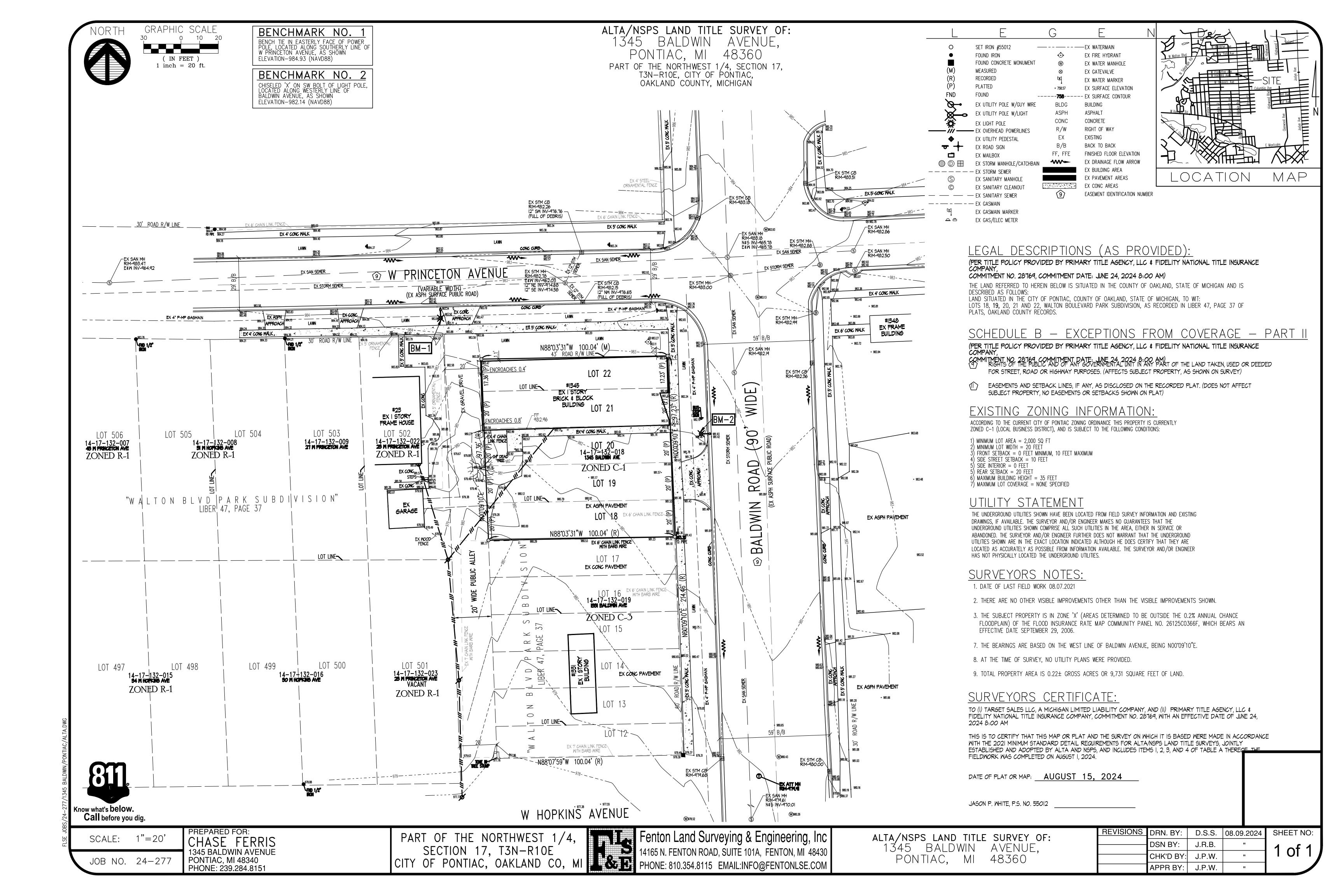
Property/Proje	ct Address: 1345 Baldwin Ave	Office Us	e Only		
Sidwell Numbe	r: 64-14-17-132-018	PF Numbe			
Date: _ 8 - 30	0-24				
and Strategic Planr sets of complete Sit	ications for Site plan Review along with the appropri ning at least 30 days before the regularly scheduled te Plan drawings package including an electronic copy	Planning Com	mission meeting. Please provide four		
Applicant (pleas	se print or type)				
Name	Matthew Ferris				
	3825 Corunna Rd.				
O11	Flint				
State	MI				
	18532				
Telephone Ma	ain: (810) 845 - 7200 Cell: (810) 845-	7200	Fax: (810) 235-2734		
14 171 14	MFerris 317@gnail.com				
Name of Propo	perty Information sed Development: Mega Pawn of poerty is location at 1345 Baldwin Ave		/E/W side of BaldwinAve		
between W Pci	nceton Ave and My Hopkins Ave .		A STATE OF THE STA		
The property is	s zoned: <u>C-1</u>		_		
It is proposed t	hat the property will be used as: <u>Pawn</u>	shop			
	pperty is legally described as follows (inclu				
T3N, R10E, S	SECTTWALTONBLYDPARKSUBLOTS	STOZZI	NCL TAXID#:64-14-17-132-		
The property h	as frontage of <u>97.23</u> feet, and a dep	th of	0.04 feet.		
The total property is (square feet/acres).					

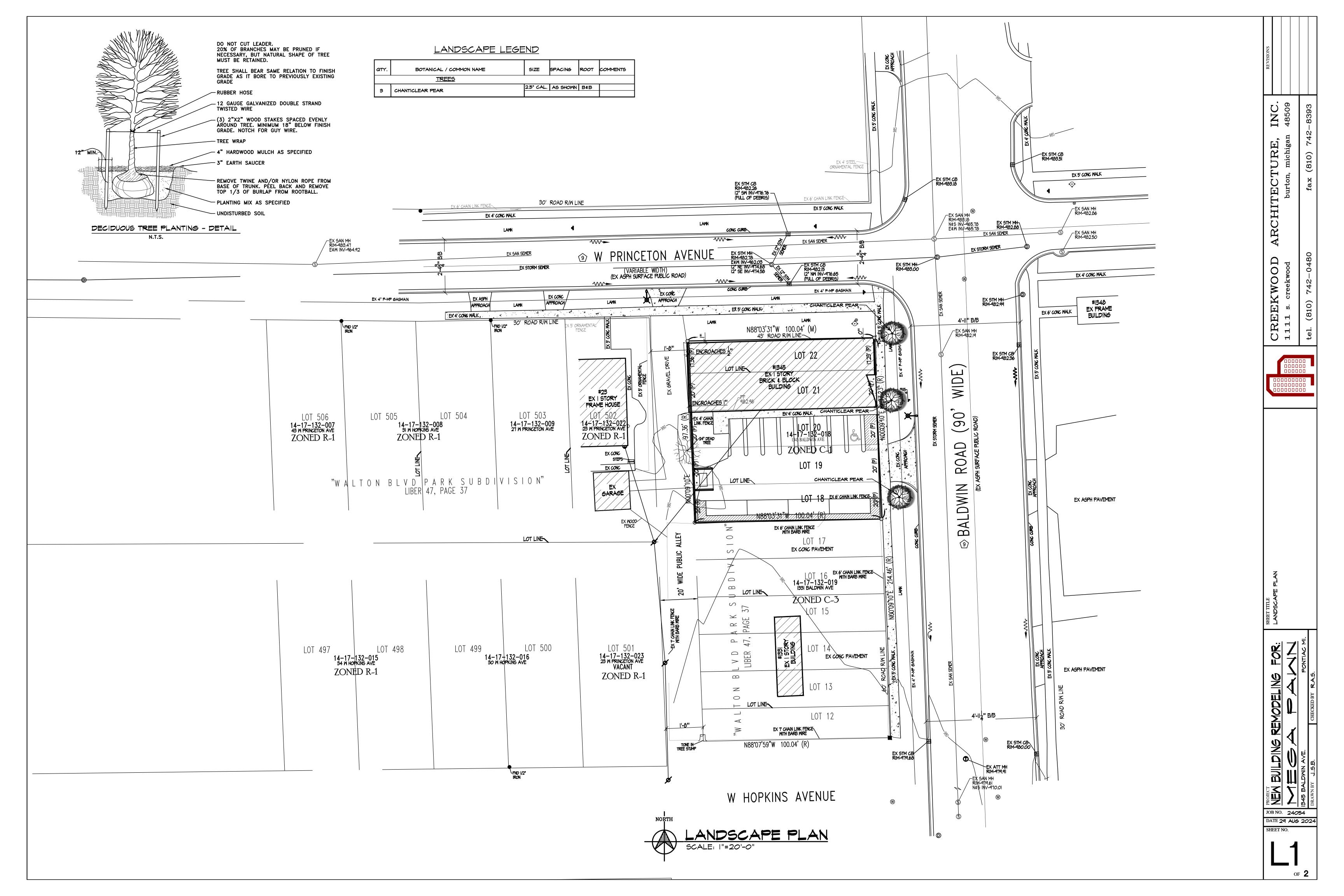
and a	ory. The floor areas wi	tions limprovements. The building ill consist of a back storage area	
una a	sales Showroom.		
Value of Co	<u>nstruction</u>		
Estimated cost of acquisition and construction -		\$400,000	
Estimated Employment -		5-10	
Estimated start and completion dates -		As soon as approved / Approx. 6 months	
Property O	wner Information	To complete	
Name	Matthew Ferris		
Address	3825 Corunna Rd.		
City	Flint		
State	MI		
ZIP Code	48532		
Telephone	Main: (810) 845-7200 Cell:	(810) 845-7200 Fax: (810) 235-2734	
E-Mail	MFerris 317 @ amail	.com	
State why i	of substantial property rights, an fare, nor the property of other per Property is carrently vo	his Site Plan is necessary for the preservation and ad why such a plan will not be detrimental to the rsons located in the vicinity thereof: a cant. The Planned improvements a safe establishment to conduct	
This p for the busines building a Either a tro presented	s and also add value to and Parking to the are putting to be survey, prepared pursuant to b	the Surrounding Properties, Existing the site back in use. Pontiac's Woodland Preservation ordinance is certify that no trees with a trunk (stem)	

On this 30 day of August, A.D., 20 24, before me personally appeared the above named person, who being duly sworn, stated he/she has read the foregoing application, by him/her signed, and know the contents thereof, and that the same is true of his/her own knowledge, except as to the matters therein stated to be upon information and belief and so as to those matters he/she believes it to be true.

Notary Public, Oakland County, Michigan My Commission Expires: 1-31-29







HYDRO-SEEDING SPECIFICATIONS:

- I) THE CONTRACTOR SHALL REMOVE ALL WEEDS, STONES OVER I" IN DIAMETER, ROOTS, BRUSH, STAKES, BUILDING MATERIAL AND OTHER DEBRIS.
- 2) AREAS INDICATED "TURF" SHALL BE HYDRO-SEEDED WITH A PUMP RATED AND OPERATED AT NO LESS THAN 100 GPM AND NO LESS THAN 100 PSI, WITH A MECHANICAL AGITATOR THAT WILL ENSURE UNIFORM SUSPENSION OF SEED AND FERTILIZER IN WATER. EACH 1000 GALLONS OF SLURRY MIX SHALL CONTAIN 1500 lbs. OF APPROVED CELLULOSE FIBER, 200 lbs. OF THE SPECIFIED SEED MIXTURE AND 500 lbs. OF AN APPROVED 12/12/12 COMMERCIAL FERTILIZER.

APPLY SEED AND FERTILIZER AT A RATE OF NOT LESS THAN 1000 GALLONS OF SLURRY PER ACRE.

- 3) FINISH GRADING AFTER CLEAN UP AND PRIOR TO TOP SOILING. THE CONTRACTOR SHALL FINE GRADE WITH MECHANICAL EQUIPMENT AND HAND RAKING IF REQUIRED TO BRING ALL AREAS TO THE DESIGN GRADES INDICATED O THE SITE PLAN AND NECESSARY TO MAINTAIN POSITIVE DRAINING.
- 4) TOPSOIL SHALL BE UNIFORMLY SPREAD TO SUPPORT SEED GERMINATION AND PROCEDURE TURF. TOPSOIL SAMPLE MAY BE REQUIRED BY THE LANDSCAPE ARCHITECT AND THE SOURCE DESIGNATION BY THE CONTRACTOR.
- 5) SEED MIXTURE
 - A. 40% KENTUCKY BLUEGRASS
 - B. 30% "PENNLAWN" RED FESCUE
 - C. 30% "PENNFINE" PERENNIAL REGRESS
- 6) SEED AND FERTILIZER SHALL BE DELIVERED TO THE SITE IN THE MANUFACTURER'S ORIGINAL SEALED CONTAINERS, STATING MIXTURE COMPONENTS AND PERCENTAGES. SEED AND FERTILIZER OTHERWISE DELIVERED WILL NOT BE ACCEPTED.
- 7) WATERING

THE CONTRACTOR HAS THE RESPONSIBILITY OF IRRIGATING THE SEED BED.

8) GUARANTEE

THE CONTRACTOR SHALL OVERSEED ALL AREAS THAT HAVE BARE SPOTS IN EXCESS OF ONE SQ. FT. IN SIZE

9) INSPECTION

THE LANDSCAPE ARCHITECT SHALL BE THE OWNER'S AGENT FOR THIS WORK AND WILL DETERMINE COMPLETION AND ACCEPTANCE OF WORK PERFORMED, AND WILL MAKE CASUAL INSPECTION DURING SEEDING OPERATIONS. PROMPT CLEAN-UP OF THE SITE UPON COMPLETION WILL BE REQUIRED. WALKS AND DRIVES SHALL BE KEPT CLEAN AND PASSABLE.

SITE CONDITIONS:

THE LANDSCAPE CONTRACTOR SHALL NOT OBSTRUCT ROADS, PARKING AREAS OR WALKS WITH MATERIALS, EQUIPMENT OR DEBRIS. THE ENTIRE PARKING AREA MUST BE AVAILABLE FOR CAPACITY USE DURING WORKING HOURS. SPECIAL ARRANGEMENTS WILL BE MADE TO ISOLATE SPECIFIC AREAS REQUIRED FOR CONSTRUCTION. THESE AREAS WILL BE PRE-ARRANGED WITH HIGH ADMINISTRATION BY THE LANDSCAPE ARCHITECT.

GENERAL NOTES:

- I) ALL PLANTING AREAS TO RECEIVE 3" WASHED STONE (3/4"-1'-1 1/2" DIA.) W/ DE-WIT FABRIC WEED BARRIER UNDERLAYMENT. UNLESS OTHERWISE NOTED
- 2) LAWN EDGING TO BE COMMERCIAL GRADE BLACK PLASTIC
- 3) GROUND COVER PLANTS TO BE PLANTED IN SOIL MIX (NO STONE AROUND.)

NOTE:

ALL LAWN AND LANDSCAPED AREAS ARE TO BE FULLY IRRIGATED. - SUPPLIER TO PROVIDE SHOP DRAWINGS

GENERAL NOTES

ALL LANDSCAPE AREAS ADJACENT TO DRIVES OR PARKING AREAS ARE TO BE

- ALL LANDSCAPING IS TO BE CONTINUOUSLY MAINTAINED.
- ALL SITE IMPROVEMENTS DETAILED ON THIS PLAN ARE TO BE COMPLETED PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.
- ALL RIGHT OF WAY AREAS ARE TO BE SEEDED OR SODDED.
- SYSTEM.

ALL PLANT MATERIAL SHALL BE TRUE TO NAME, FREE FROM PHYSICAL DAMAGE AND WIND BURN. PLANTS SHALL BE FULL, WELL-BRANCHED. AND IN HEALTHY VIGOROUS GROWING CONDITION.

PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.

ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) FULL YEAR FOLLOWING PLANTING.

ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

PROVIDE CLEAN BACK FILL SOIL, USING MATERIAL STOCKPILED ON SITE. SOIL SHALL BE SCREENED AND FREE OF ANY DEBRIS, FOREIGN MATERIAL, AND STONE. "AGRIFORM" TABS OR SIMILAR SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANTING PITS BEFORE BEING

ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A MINIMUM DEPTH OF 4". MULCH IS TO BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND SHALL CONTAIN NO PIECES OF INCONSISTENT SIZE.

LANDSCAPE DRAWINGS AND SPECIFICATIONS.

NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.

THE LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE

CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING PLANT QUANTITIES TO ENSURE QUANTITIES ON DRAWINGS AND PLANT LIST ARE THE SAME. IN THE EVENT OF A

THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH ALL AREAS DISTURBED DURING CONSTRUCTION, THROUGHOUT THE DEVELOPMENT.

A PRE-EMERGENT WEED CONTROL AGENT, "PREEN" OR EQUAL, SHALL BE APPLIED UNIFORMLY

CURBED WITH A MINIMUM 6" CONCRETE CURBING.

- ALL PLANTING BEDS ARE TO BE EDGED.

- ALL LANDSCAPE AREAS ARE TO BE IRRIGATED WITH AN UNDERGROUND IRRIGATION

LANDSCAPE NOTES

BACKFILLED.

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN ON THE

INSTALLATION.

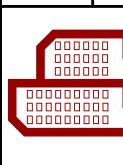
PLANS AND SPECIFICATIONS, IF REQUESTED BY OWNER.

DISCREPANCY, THE QUANTITIES ON THE PLANS SHALL PREVAIL.

TO ALL PLANTING BEDS PRIOR TO MULCHING.

0

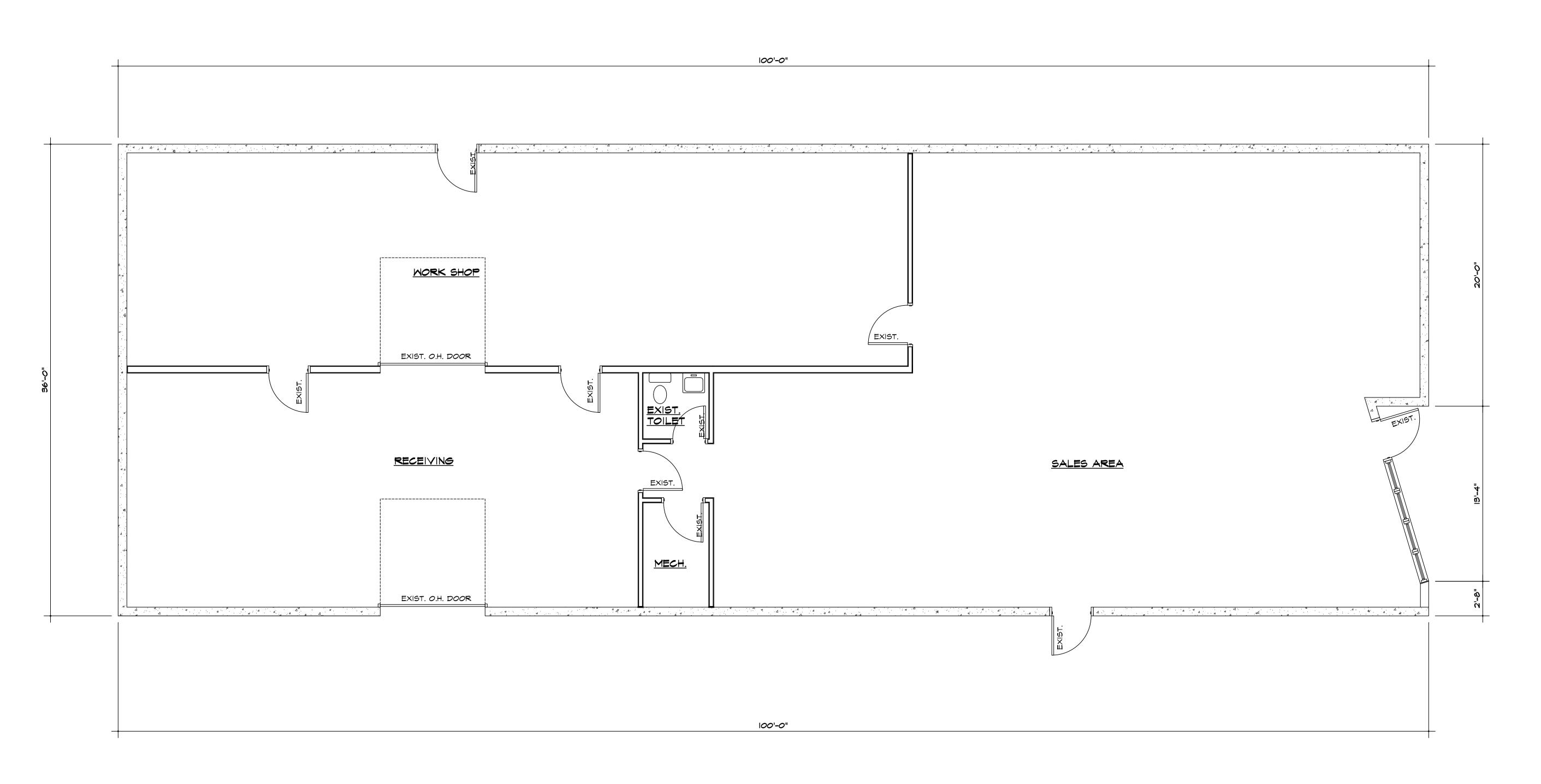
Ej ⊢



JOB NO. 24054 DATE 29 AUG 2024



Of **2**





in 48509 42-8393

ECIORE, II ourton, michigan 46

OOD ARCHITE

SHEET TITLE FLOOR PLAN

PROJECT NEW BUILDING REMODELING FOR:

NEW BUILDING REMODELING FOR:

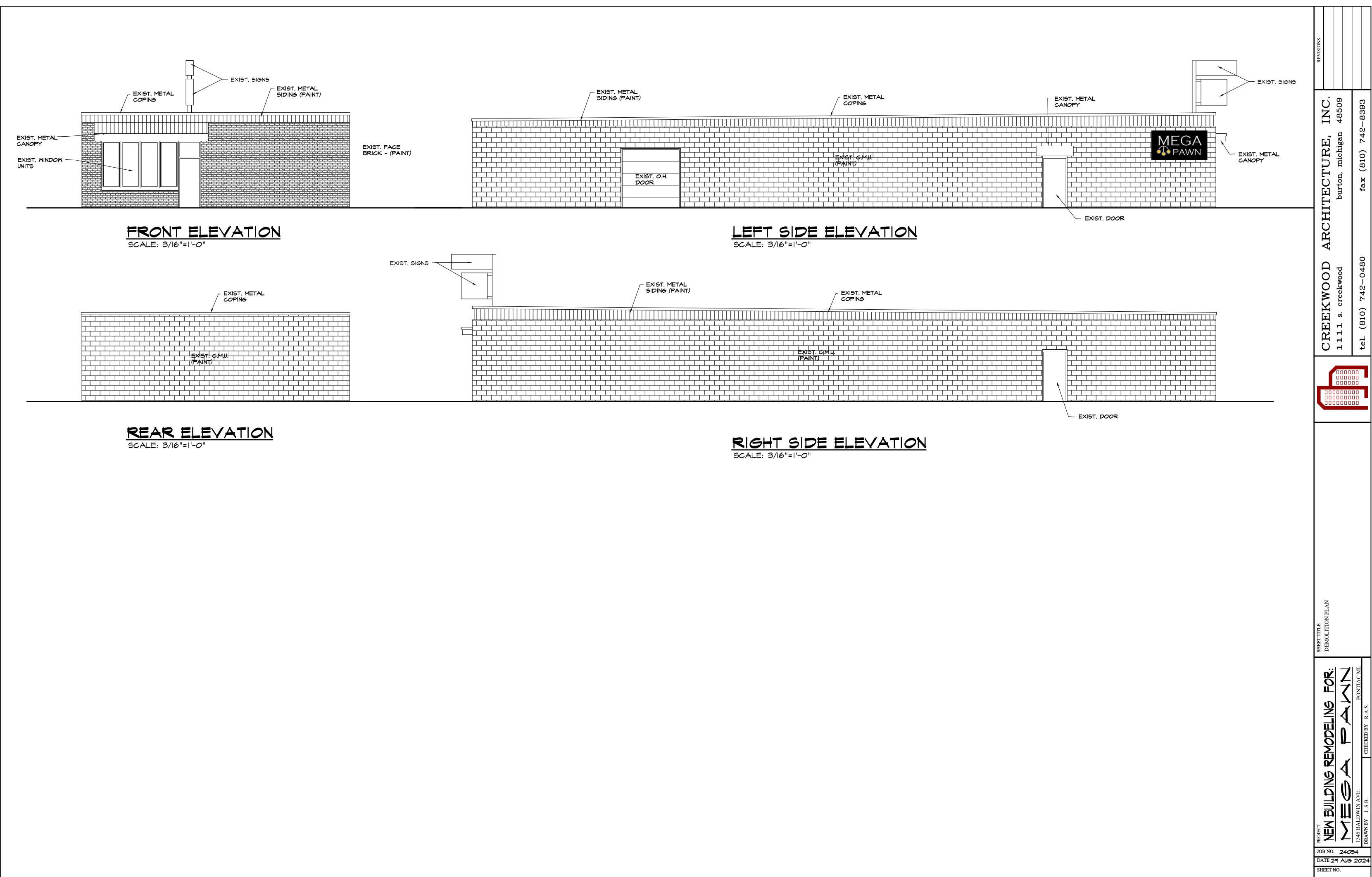
1345 BALDWIN AVE.

DRAWN BY J..S.B.

CHECKED BY R.A.S.

CHECKED BY R.A.S.

SHEET NO.



A2
of 2



COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Corey Christensen, Senior Planner

DATE: September 24, 2024

RE: Preliminary Site Plan: Personal Service Establishment/Retail, 148 E Howard St.

Executive Summary

SPR 24-024 is a request for site plan approval Nathan Stephenson to construct for a multi-tenant commercial building and site at 148 E Howard St. The previous structure on site suffered a fire and was ticketed as a "Dangerous building" by the City of Pontiac Code Enforcement team in June of 2023. The applicant subsequently applied for and received a rezoning to C-1 Local Business to allow for redevelopment of the site. The applicant is now proposing a single structure with three tenant spaces.

Quick Facts				
Zoning	Local Business C-1 (P-1 Parking Area)			
Request	Preliminary Site Plan Approval			
Proposed Use	Personal Service Establishment/Retail			
Parcel Size	24,829 Sq. Ft.			

Staff recommends the Planning Commission approve the preliminary site plans with four (4) conditions.



Figure 1: Aerial of the Existing Site

Proposal

The applicant is proposing a new single story retail building. The footprint of the building is 4,900 square feet with some parking to the east and the rest of the parking proposed for across E Howard St. The structure will have three tenant spaces that are currently proposed to be used as a barber shop, laundromat, and banquet space for less than 50 persons.

Background

Code enforcement first identified a dangerous building on site on June 26, 2023. The owner was notified and encouraged to begin the process of acquiring all the permits and approvals necessary to bring the structure and property into operational and code-compliant condition. The applicant was informed he would need to rezone the property and receive site plan approval for the new building.

The subject properties was rezoned on January 3, 2024, by the Pontiac City Council. The two parcels south of E Howard Street, 14-28-104-009 and 14-29-239-018, were rezoned from R-2 to C-1 Local Business while the two parcels north of E Howard Street, 14-28-103-017 and 14-28-103-016, were rezoned from R-2 to P-1 Parking. The applicant submitted their site plan application on June 18, 2024.

Planning Commission reviewed this item in an Informational Session at the August 7 Planning Commission meeting.

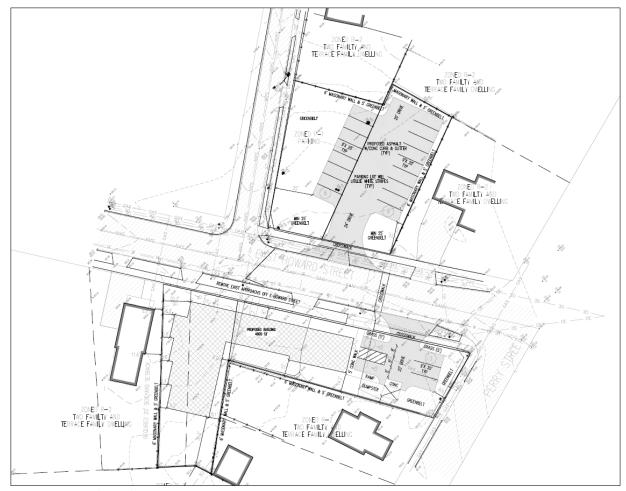


Figure 2: Proposed Site Plan

Staff Review

Staff conducted a review of the site plans on September 24, 2024, and provided feedback on lighting, landscaping, and parking to the applicant. Items identified below are the deficiencies in the site plan that must be addressed prior to issuing any approval.

Items identified in **bold** below are the deficiencies in the site plan that must be addressed prior to issuing any approval.

Dimension and Development Standards – Article 2 Chapter 3

2.308 C-1 LOCAL BUSINESS/RESIDENTIAL MIXED USE DISTRICT — The applicant is a new structure on two parcels and an associated parking lot to the north of E Howard St. The proposed structure complies with all dimensional requirements as long as the associated parcels are combined. This should be a condition of approval.

2.304 – 2.314 DISTRICT SPECIFIC REQUIREMENTS – The P-1 Parking district requires a 25 foot setback and a Type B buffer wherever the parking lot is adjacent to residentially zoned or used land. The site plans comply with this requirement.

Private Frontage Design Standards – Article 2 Chapter 4

2.405 FRONT PARKING – The applicant is proposing a façade primarily composed of brick and fiber-cement siding. It is unclear from the plans what the proposed transparency is, however, it appears to be far less than 40%. The applicant will need to revise the plans to provide at least 40% transparency.

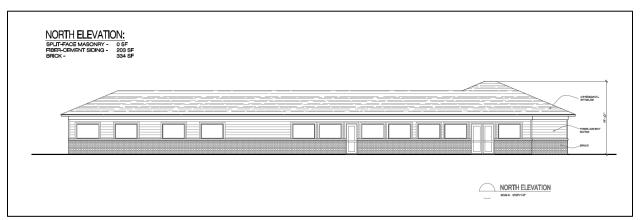


Figure 3: Proposed Front Facade

Generally – Article 4 Chapter 2

4.202 ACCESS MANAGEMENT – The existing second approach off E Howard is proposed to be removed.

Parking – Article 4 Chapter 3

4.305(C) PEDESTRIAN CIRCULATION – Planning staff defers to the City Engineer regarding the best location of the crosswalk. It should be a condition of approval that the applicant will work with the City Engineer to place the crosswalk appropriately as part of Final Site Plan Review.

Landscaping and Buffering – Article 4 Chapter 4

4.405 BUFFER REQUIREMENTS – The applicant is proposing the appropriate buffers, however, more information is needed. **Please provide details on the proposed masonry walls.**

Exterior Lighting - Article 4 Chapter 5

The applicant is proposing three downward-directed and fully shielded lights for the parking area. The applicant has provided photometrics demonstrating there will not be light pollution impacting nearby residences.

Low Impact Development Standards – Article 4 Chapter 6

There are no natural features on site that need to be protected and according to FEMA there are no protected wetlands or floodplains that impact development on the site.

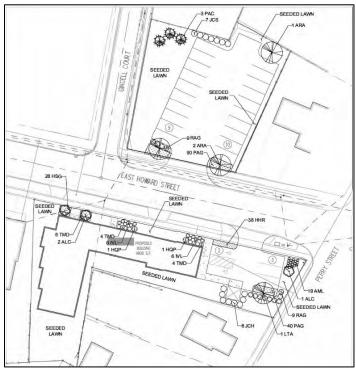


Figure 4: Proposed Landscaping Plan

Standards for Approval

In reviewing an application for any type of site plan, the planning commission shall find the proposed development complies with the general standards in the zoning ordinance. The following are staff's comments on each standard:

- a. **Circulation**. The proposed site has adequate traffic circulation and pedestrian access for barrier-free spaces. The City Engineer will need to review the crosswalk location and determine if it should be moved.
- b. **Buildings**. The buildings and structures proposed to be located upon the premises are so situated as to minimize adverse effects upon owners and occupants of adjacent properties.
- c. **Natural Features**. There are no existing natural features in need of protection.
- d. **Site Layout and Screening**. The applicant has met the ordinance requirements for proper buffering of the retail structure and the associated parking lot.
- e. **Compliance with the Zoning Ordinance**. Site Plans must be revised to provide additional information as part of the Final Site Plan review.

Summary

The structure and layout of the site appear to be suitable for the proposed use and there are no major risks to the public health, safety, and welfare. However, there are some ordinance compliance deficiencies that need to be addressed prior to bringing this forward to the Planning Commission for a formal decision.

Staff Recommendation

Staff recommends **APPROVAL** of the preliminary site plan with the following four (4) conditions:

- 1. The subject parcels shall be combined before the Final Site Plan is approved.
- 2. The front façade shall be revised to provide at least 40% transparency.
- 3. The applicant shall amend the plans to seek approval from the City Engineer on these two items.
 - a. The Curb Aprons on E. Howard must be reduced to comply with City Standards
 - b. The crosswalk on E. Howard St. and Sidewalk Ramps must be relocated to the intersection of E. Howard St. and Gingell Ct.
- 4. The applicant shall provide Further details on the proposed masonry walls to comply with the zoning ordinance.

SAMPLE MOTION TO APPROVE:

I move to APPROVE the requested site plan for a barbershop, laundromat, and place of assembly at 148 E Howard based on the findings of fact identified in the staff report.

SAMPLE MOTION TO DENY:

I move to DENY the requested site plan for a barbershop, laundromat, and place of assembly at 148 E Howard based on the following findings of fact:

1. It does not meet standard ____ based on the fact that...

SAMPLE MOTION TO POSTPONE

I move to POSTPONE the requested site plan for a barbershop, laundromat, and place of assembly at 148 E Howard until the regularly scheduled November 6, 2024 Planning Commission meeting.



Application for Site Plan Review

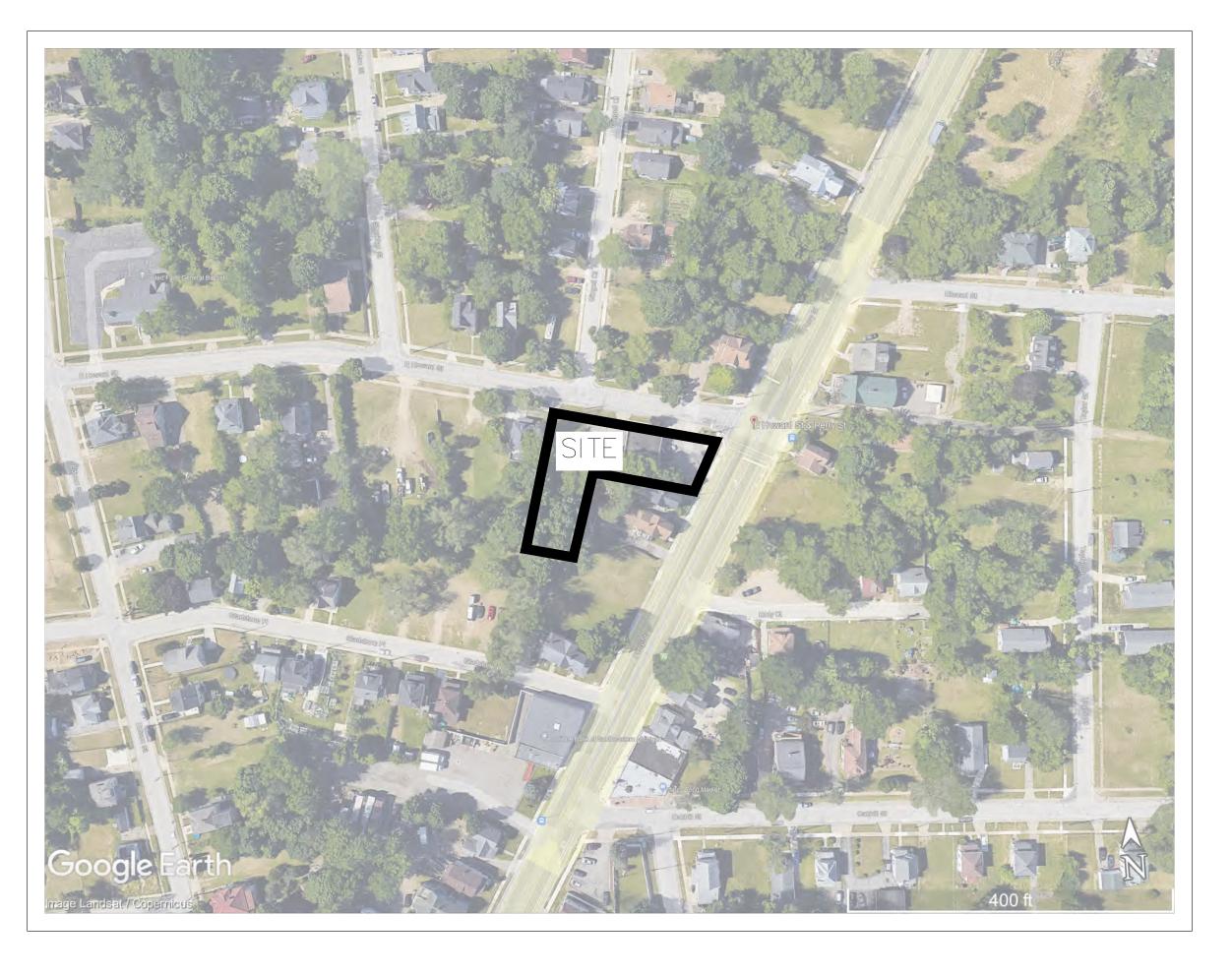
City of Pontiac
Office of Land Use and Strategic Planning
47450 Woodward Ave, Pontiac, MI 48342

T: 248.758.2800

F: 248.758,2827

Date: 6	Applications for Site plan Review along with the appropriate fee shall be submitted to the Office of Land Use Planning at least 30 days before the regularly scheduled Planning Commission meeting. Please provide four
sets of complet	te Site Plan drawings package including an electronic copy of all drawings where possible.
Name	NATHAN STEPHENSON
Address	290 L:BERTY APT #9
City	PONTIAC
State	MT
ZIP Code	46341
Telephone	Main: 648) 894-3365 Cell:> Fax: AAEXPEDETING @ YALOO. COM
E-Mail	AASXPSATTING @ VALOO. COM
Name of Property The subject betweent The property is proporty.	roposed Development: BARBER SALOW to property is location at 148 & Howard on the N/S/E/W side of P and GLAD STOWE rty is zoned: C-1 sed that the property will be used as: BARBER Shop/SALOW ct property is legally described as follows (include sidwell numbers):
see	site plans.
	property is $\frac{24.31}{9.77}$ feet, and a depth of $\frac{132.48}{132.48}$ feet.

SITE PLAN **FOR** PROPOSED ONE STORY COMMERCIAL BUILDING





DESIGN MDM

SHEET INDEX

C-1 COVER SHEET C-2 EXISTING CONDITIONS C-3 PROPOSED SITE PLAN LP-1 LANDSCAPE PLANTING PLAN LIGHTING PLAN SHEET 1 OF 1

A-100 PROPOSED FLOOR PLAN

FEMA NOTE: SUBJECT PARCELS LIE IN ZONE X - AREAS OF MINIMAL FLOOD HAZARD FIRM PANEL 26125C0368F, EFFECTIVE DATE 09/29/2006

CLIENT

NATE STEVENSON 148 EAST HOWARD STREET, PONTIAC, MI48342

FAIRWAY ENGINEERING LLC

28525 BECK ROAD, SUITE 114 WIXOM, MICHIGAN 48393 0:(248) 938-4902 CONTACT: MR. MARK MAHAJAN P:(248) 214-5913

148 EAST HOWARD STREET, PONTIAC, MI 48342

14-28-104-009 14-28-233-018 14-28-103-016 4-28-103-017

C 1 - LOCAL BUSINESS/RESIDENTIAL MIXED USE DISTRICT

BASIS OF BEARINGS

BEARINGS HEREON BASED ON THE MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83(2011) SOUTH ZONE, ALL DISTANCES FIELD MEASURED.

DESCRIPTION

14-28-104-009

LOTS 15 AND 16, "ASSESSOR'S PLAT 25", PARTS OF THE NW 1/4 SEC. 28 AND NE 1/4 SEC. 29, T3N, R10E, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN. RECORDED IN LIBER 1 OF ASSESSOR'S PLATS, PAGE 25, OAKLAND COUNTY RECORDS. 7733 SQ.FT. / 0.1775 AC \pm AS SURVEYED

14-28-233-018

LOT 14, "ASSESSOR'S PLAT 25", PARTS OF THE NW 1/4 SEC. 28 AND NE 1/4 SEC. 29, T3N, R10E, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN. RECORDED IN LIBER 1 OF ASSESSOR'S PLATS, PAGE 25, OAKLAND COUNTY RECORDS. 5974 SQ.FT / 0.1371 AC \pm AS SURVEYED

14-28-103-016

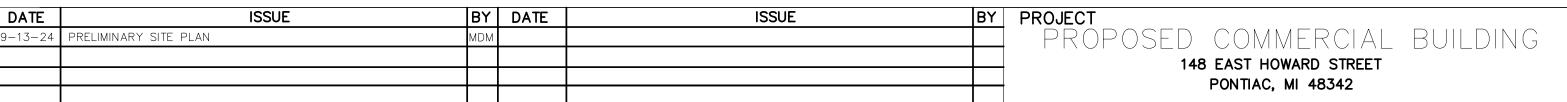
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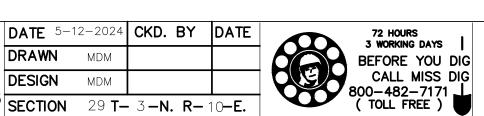
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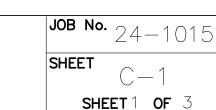












PROPERTY DESCRIPTIONS:

14-28-104-009

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4-28-103-017

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LINETYPE LEGEND

	WATERMAIN
	SANITARY SEWER
	STORM SEWER
——— GAS ———— GAS ————	GAS MAIN
	UG TELCOMM
	UG ELECTRIC
699	MINOR CONTOUR
700	MAJOR CONTOUR
X X	FENCE LINE

BASIS OF BEARINGS:

BEARINGS HEREON BASED ON THE MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83(2011) SOUTH ZONE, ALL DISTANCES FIELD MEASURED.

FEMA NOTE:

SUBJECT PARCELS LIE IN ZONE X - AREAS OF MINIMAL FLOOD HAZARD FIRM PANEL 26125C0368F, EFFECTIVE DATE 09/29/2006

UNDERGROUND UTILITY INFORMATION AS SHOWN WAS GATHERED IN PART FROM FIELD OBSERVATION AND IN PART FROM RECORDS OF THE VARIOUS UTILITY COMPANIES AND/OR MUNICIPAL RECORDS. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE ACCURACY AND/OR COMPLETENESS THEREOF.

CALL MISS-DIG (800) 482-7171 OR 811 AT LEAST 72 HOURS BEFORE COMMENCING ANY EXCAVATION

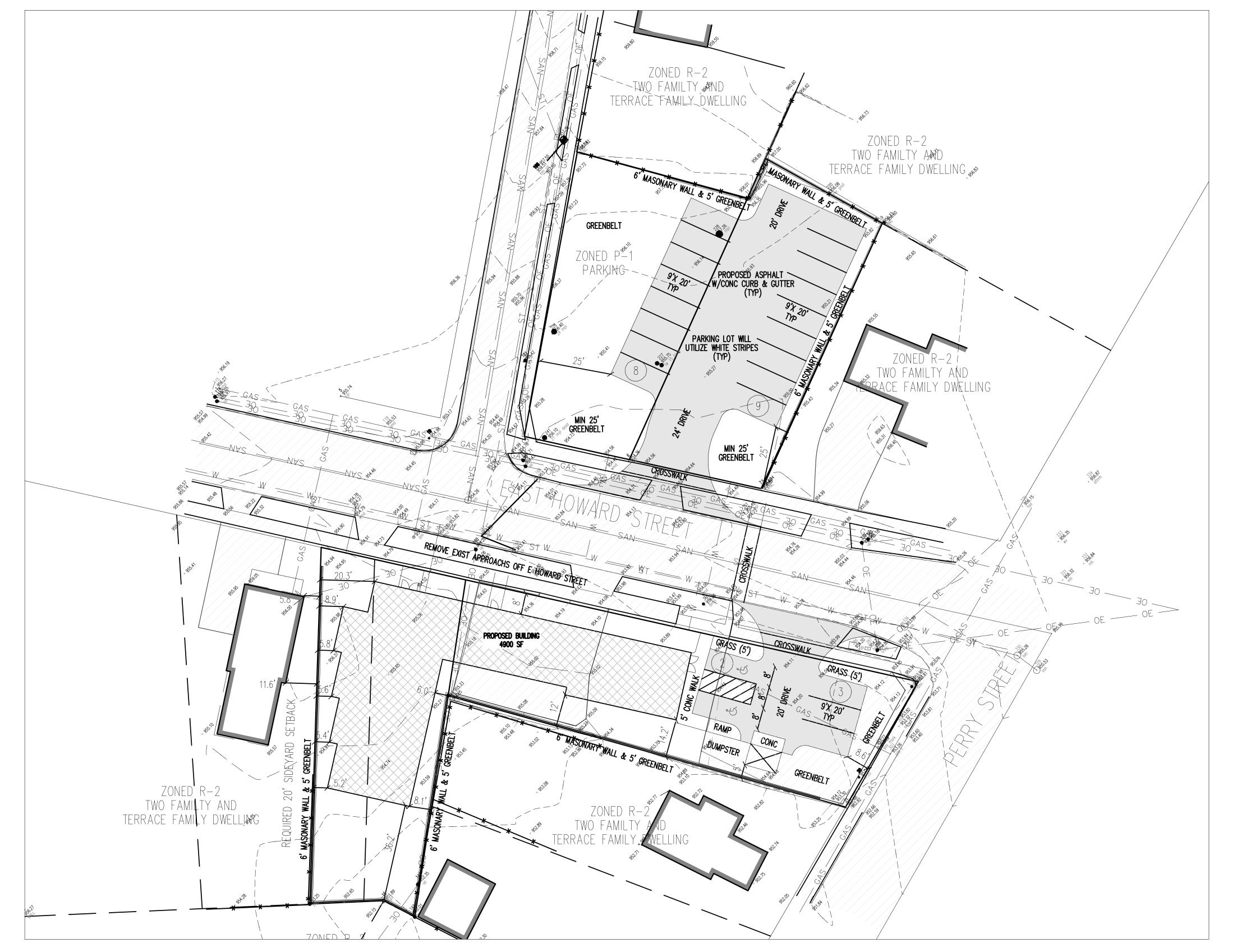
SCALE: 1 INCH = 20 FEET



N 4444 ~ ~ ~ ~ ~ O #####

TOPOGRAPHIC OAKLAND CO. TAX ID

SHEET 1 OF 1



SITE PLAN SCALE: 1"=20'

4"-BITUMINOUS PAVEMENT 1-1/2" 5E1 2-1/2" 4E1 WITH 0.05 gal / sq yd. BOND COAT BETWEEN LIFTS

8" - MDOT 21AA CRUSHED LIMESTONE BASE COURSE COMPACTED TO 95%MAX. DRY UNIT WEIGHT PER ASTM D-1557

PROPOSED ASPHALT PAVEMENT SECTION

ISSUE BY DATE ISSUE PROPOSED COMMERCIAL BUILDING PRELIMINARY SITE PLAN 148 EAST HOWARD STREET PONTIAC, MI 48342

FAIRWAY ENGINEERING LLC LAND DEVELOPMENT - STRUCTURAL - GEOTECH 28525 BECK ROAD, SUITE 114 WIXOM, MI 48393-4743 P: (248) 214-5913 SECTION 29 T- 3-N. R-10-E.

DATE 5-12-24 **CKD. BY DATE** DRAWN MDM **DESIGN** MDM

72 HOURS 3 WORKING DAYS 72 HOURS 3 WORKING DAYS | BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

NORTH

1 inch = 20 ft.

GRAPHIC SCALE

(IN FEET)

PROPERTY LINE RIGHT OF WAY SETBACK LINES

EXIST STORM SEWER EXIST STORM SEWER STRUCTURE

EXIST GRAVITY SEWER LINE

EXIST SANITARY SEWER MANHOLE

EXIST HYDFRANT ---- OE ---- OE ---- EXIST OVERHEAD WIRES

> EXIST UTILITY POLE BENCH MARK EXISTING GROUND ELEVATION

> > PROP. PARKING

PROP. PAVEMENT PROP. BUILDING



TAX ID NUMBERS: 4-28-104-009 14-28-233-018 14-28-103-016 4-28-103-017

LEGEND

CLEAN OUT

ZONING: R-2 TWO FAMILY AND TERRACE FAMILY DWELLING PROPOSED: C-O COMMERCIAL/OFFICE BUILDING P-1 PARKING ACROSS THE STREET ON SEPARATE PARCEL PARCEL AREA: BUILDING SITE: 0.31 AC PARKING SITE: 0.26 AC

TOTAL: 0.57 AC AREA OF DEVELOPMENT: 0.57 AC BUILDING AREA/COVERAGE: 4900 sq ft AREA OF PAVEMENT: 8338 SF (0.19 AC)

PARKING PROVIDED - 21 SPACES (INCL 2 HANDICAP)

PROVIDED REQUIRED FOR C-1 FRONT 8 FT FRONT 8 FT

SIDE 6' FT (VARIANCE IS REQUIRED) SIDE 10 FT REAR 20 FT REAR 36 FT

LEGAL DESCRIPTION

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BENCHMARK

BENCH MARK IN U.P. 959.51 (NAVD88)

C-3

SHEET 3 **OF** 3

SITE PLAN

LANDSCAPE DEVELOPMENT NOTES:

PLANTING

- 1. Installation of all plant material shall be in accordance with the latest edition of the American Association of Nurserymen Standards for Nursery Stock and with the specifications set forth by the City of Pontiac, Michigan.
- 2. The plant materials shall conform to the type stated on the plant list. Sizes shall be the minimum stated on the plant list or larger. All measurements shall be in accordance with the latest edition of the American Association of Nurserymen Standards for Nursery Stock.
- 3. The plant material shall be nursery grown and inspected by the Owner's representative before planting. The Owner's representative reserves the right to reject any plant material at any time.
- 4. Plants designated "B&B" shall be balled and burlapped with firm balls of earth. 5. Dig shrub pits one foot (1') larger than the shrub rootball, tree pits three (3) times the width of the tree rootball and backfill with one (1) part topsoil and one (1) part soil from excavated pit. Plant trees and shrubs at the same grade level at which they were planted at the nursery. If wet, clay soils are evident, plant trees and shrubs slightly higher
- 6. The Contractor is responsible for planting the materials at the correct grades and spacing. The plants shall be oriented to give the best appearance.
- 7. When the plant has been properly set, the pit shall be backfilled with the topsoil
- mixture, gradually filling, patting, and settling with water. 8. Trees in lawn areas to have a four foot (4') circle of mulch, four inches (4') deep, and three inches (3") away from the trunk. Shrub beds are to be mulched with
- shredded hardwood bark mulch will be accepted. 9. Remove all twine, wire, and burlap from the top one third (1/3) of tree and shrub root balls and from tree trunks. Remove all non-biodegradable material such as plastic or nylon completely from branches and stems.

shredded bark mulch to a minimum depth of four inches (4"). Only natural color

- 10.All plant materials shall be pruned and injuries repaired. The amount of pruning shall be limited to the removal of dead or injured limbs and to compensate for the loss of roots from transplanting. Cuts should be flush, leaving no stubs. DO NOT apply tree paint to freshly cut wounds. Shrubs along the site perimeter shall be allowed to grow together in a natural form.
- 11.Organic, friable topsoil shall be evenly distributed and fine graded over all areas to receive lawns at uniform depth of four inches (4") after settlement.
- 12.All lawn areas shall be seeded with a Grade A Kentucky Blue Grass blend over the topsoil. Existing lawn in generally good condition but with bare, sparse, or weedy areas must be renovated by filling in low areas, raking, overseeding, and top dressing all sparse and bare spots and continuing with a weed and feed
- 13.All plantings shall be completed within three (3) months, and no later than November 30, from the date of issuance of a certificate of occupancy if such certificate is issued during the April1 thru September 30 period; if the certificate is issued during the October 1 thru March 31 period, the planting shall be completed no later than the ensuing May 31; plantings shall thereafter be reasonably maintained, including permanence and health of plant materials to provide a screen to abutting properties and including the absence of weeds and
- 14.Backfill directly behind all curbs and along sidewalks and compact to the top of curbs or walk to support vehicle and pedestrian weight without settling.
- 15.All landscape areas, especially parking lot islands and landscape beds next to buildings shall be excavated of all building materials and poor soils to a depth of twelve inches to eighteen inches (12"-18") and backfilled with good, medium-textured planting soil (loam or light yellow clay loam). Add four inches to six inches (4"-6") of topsoil over the fill material and crown a minimum of six inches (6") above the top of curbs and/or walks after earth settling unless otherwise noted on the landscape plan.
- 16.Conversion of all asphalt and gravel areas to landscape planting beds shall be done in the following manner: a. Remove all asphalt, gravel, and compacted earth to a depth of six inches to eighteen inches (6"-18") depending on the depth of the sub base and dispose of off site; b. Call the City for an inspection prior to backfilling; c. Replace excavated material with good, medium-textured planting soil (loam or light yellow clay loam) to a minimum of two inches (2") above the top of the curb and sidewalk, add four inches to six inches (4"-6") of topsoil and crown to a minimum of six inches (6") above the adjacent curb and walk after earth settling, unless otherwise noted on the landscape plan. If conversion from asphalt to landscape occurs in or between an existing landscape area(s), replace excavated material from four inches to six inches (4"-6") below adjacent existing grade with good, medium-textured planting soil (loam or light yellow clay loam) and add four inches to six inches (4"-6") of topsoil

to meet existing grades after earth settling. 17. Edging shall consist of Ryerson Steel edging or approved equivalent. 18. Elevate the rootballs of Yew shrubs to allow for better drainage.

PLANTING DETAILS

MATERIAL

- 1. Required landscape material shall satisfy the criteria of the *American* Association of Nurserymen Standards for Nursery Stock and be: a. Nursery grown; b. State Department of Agriculture inspected; c. No. 1 grade material with a straight, unscarred trunk, and well-developed uniform crown (park grade trees will not be accepted); d. Staked, wrapped, watered, and mulched according to the details provided; and e. Guaranteed for one (1)
- 2. Topsoil shall be friable, fertile soil of clayloam character containing at least five percent (5%) but not more than twenty percent (20%) by weight of organic matter with a pH range between 6.0 and 7.0. The topsoil shall be free from clay lumps, coarse sand, plant roots, sticks, and other foreign
- 3. The seed mixture shall consist of the following types and proportions: Kentucky Blue Grass blend "Baron/Sheri/Adelphi" @ sixty percent (60%), Chewing Fescue @ twenty-five percent (25%), Creeping Red Fescue @ ten percent (10%), and Perennial Rye Grass @ five percent (5%). Weed content shall not exceed one percent (1%). The mix shall be applied at a rate of 200 pounds per acre.
- 4. Sod shall be two (2) year old "Baron/Sheri/Adelphi" Kentucky Blue Grass blend grown in a sod nursery on loam soil.
- 5. Proposed perennials shall be full, well-rooted plants. 6. Callery Pear (*Pyrus calleryana*) and Norway Maple (*Acer platanoides*) shall not be substituted for any tree species in the plant list. Contact the Landscape Architect for acceptable plant substitutions.

GENERAL

- 1. Do not plant deciduous or evergreen trees directly over utility lines or under overhead wires. Maintain a six foot (6') distance from the centerline of utilities and twenty feet (20') from the centerline of overhead wires for planting holes. Call MISS DIG forty-eight (48) hours prior to landscape construction for field location of utility lines.
- 2. The Contractor agrees to guarantee all plant material for a period of one (1) year. At that time, the Owner's representative reserves the right for a final inspection. Plant material with twenty-five percent (25%) die back, as determined by the Owner's representative shall be replaced. This guarantee includes the furnishing of new plants, labor, and materials. These new plants shall also be guaranteed for a period of one (1) year.
- 3. The work shall consist of providing all necessary materials, labor, equipment, tools, and supervision required for the completion as indicated on the
- 4. All landscape areas including parking lot islands shall be irrigated by an automatic underground irrigation system. Lawns and shrub/landscape areas shall be watered by separate zones to minimize overwatering.
- 5. All written dimensions override scale dimensions on the plans.
- 6. Report all changes, substitutions, or deletions to the Owner's representative. 7. All bidders must inspect the site and report any discrepancies to the Owner's representative.
- 8. All specifications are subject to change due to existing conditions.
- 9. The Owner's representative reserves the right to approve all plant material. 10. All ground mounted mechanical units shall be screened on three (3) sides with living plant material.

MAINTENANCE OF GENERAL LANDSCAPE AREAS

- 1. The Owner of the landscaping shall perpetually maintain such landscaping in good condition so as to present a healthy, neat, and orderly appearance, free from refuse and debris.
- 2. The Owner shall conduct a seasonal landscape maintenance program including regular lawn cutting (at least once per week during the growing season), pruning at appropriate times, watering, and snow removal during
- 3. The Contractor is responsible for watering and maintenance of all seed areas until a minimum of ninety percent (90%) coverage, as determined by the Owner's representative.
- 4. All diseased and/or dead material shall be removed within sixty (60) days
- notification and shall be replaced within the next appropriate planting season or within one (1) year, whichever comes first.
- 5. Any debris such as lawn clippings, fallen leaves, fallen limbs, and litter shall be removed from the site on a weekly basis at the appropriate season.
- 6. All planting beds shall be maintained by removing weeds, fertilizing, and replenishing mulch as needed.
- 7. Perennial beds shall be kept free of weeds and mulched with fine textured shredded bark as needed. Cut spent flower stalks from perennial plants at

EVERGREEN TREE

NOTES:

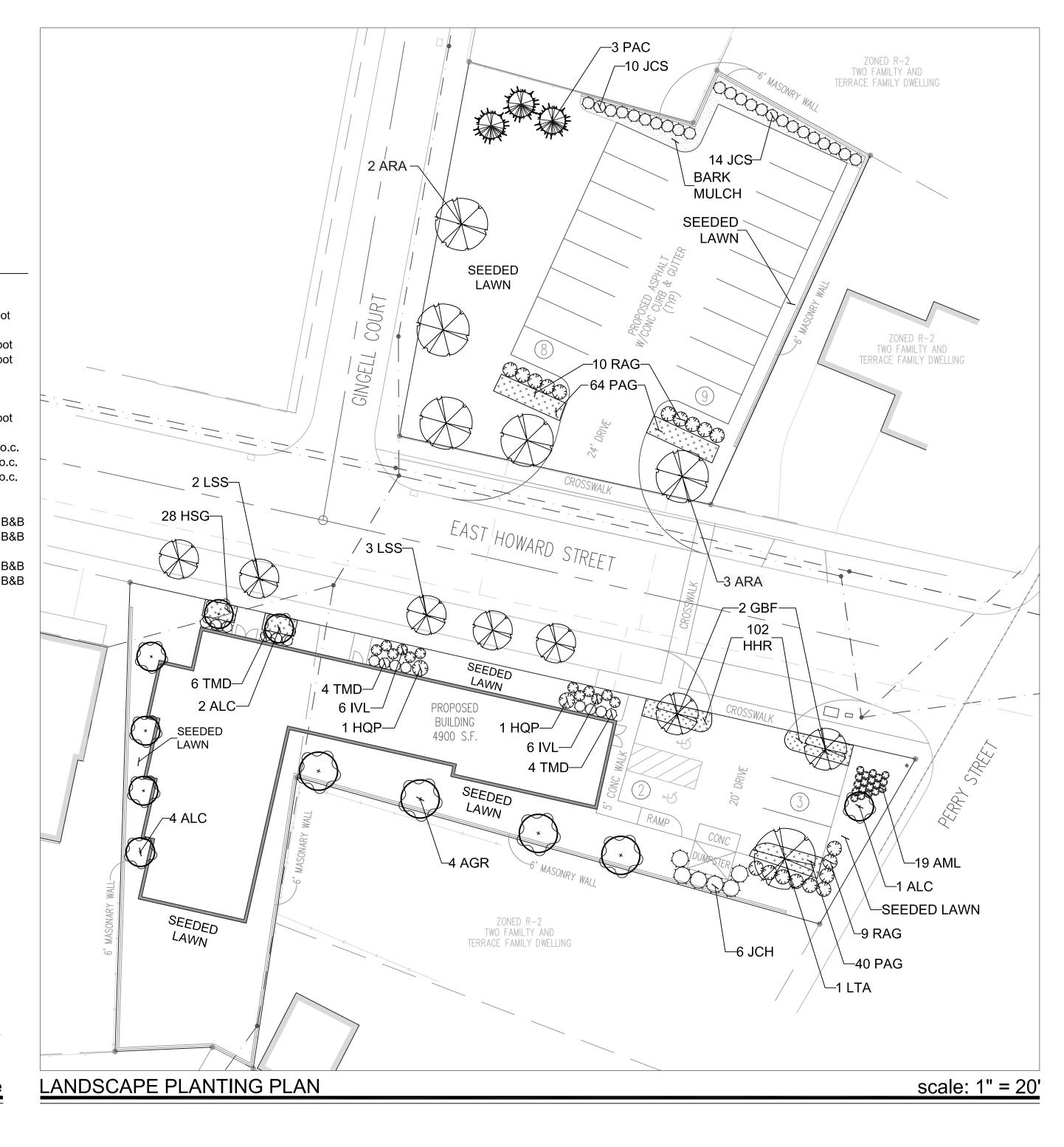
PLANT LIST **KEYQTY. BOTANICAL NAME COMMON NAME** SIZE **GENERAL SITE PLANTINGS** AML 19 Aronia melanocarpa 'Lowscape Mound' Lowscape Mound Chokeberry 24" ht., 3 gal. pot 2" cal. B&B ALC 2 Amelanchier laevis 'Cumulus' Cumulus Serviceberry Pee Wee Oakleaf Hydrangea 24" ht., 3 gal. pot HQP 2 Hydrangea quercifolia 'Pee Wee' 24" ht., 3 gal. pot IVL 12 Itea virginica 'Little Henry' Little Henry Sweetspire Hetz Columnar Upright Juniper 4' ht. B&B JCH 8 *Juniperus chinensis* 'Hetz Columnaris' 4' ht. B&B JCS 24 Juniperus chinensis 'Spartan' Spartan Upright Juniper PAC 2 Picea abies 'Cupressina' Cupressina Norway Spruce 6' ht. B&B RAG 19 Rhus aromatica 'Gro-Low' **Gro-Low Fragrant Sumac** 24" ht., 3 gal. pot TMD 14 *Taxus* x *media* 'Densiformis' Densiformis Yew 24" ht. B&B HHR 102 Hemerocallis sp. 'Happy Returns' Happy Returns Daylily 1 gal. pot, 24" o.c. **Guacamole Hosta** 1 gal. pot, 30" o.c. HSG 28 Hosta sp. 'Guacamole' PAG 98 Pennisetum alopecuroides 'Ginger Love' Ginger Love Fountain Grass 1 gal. pot, 30" o.c. STREET TREE PLANTINGS Cumulus Serviceberry 2" cal. B&B ALC 1 Amelanchier laevis 'Cumulus' 5 Acer rubrum 'Armstrong Gold' Armstrong Gold Red Maple 2" - 2-1/2" cal. B&B 2" - 2-1/2" cal. B&B GBF 2 Gingko biloba 'Fastigiata' Fastigiate Maidenhair Tree Slender Silhouette LSS 5 Liquidambar syraciflua 2" - 2-1/2" cal. B&B 'Slender Silhouette' American Sweetgum 2" - 2-1/2" cal. B&B LTA 1 *Liriodendron tulipifera* 'Arnold' Fastigiate Tuliptree 6' ht. B&B PAC 1 Picea abies 'Cupressina' Cupressina Norway Spruce PLANTINGS FOR SCREENING RESIDENTIAL 2" cal. B&B AGR 4 Amelanchier x grandiflora 'Robin Hill' Robin Hill Serviceberry ALC 4 Amelanchier laevis 'Cumulus' Cumulus Allegheny Serviceberry 2" cal. B&B PERENNIALS-SHREDDED BARK TO THREE INCH (3") DEPTH MOUND TO EIGHT INCH (8") HEIGHT

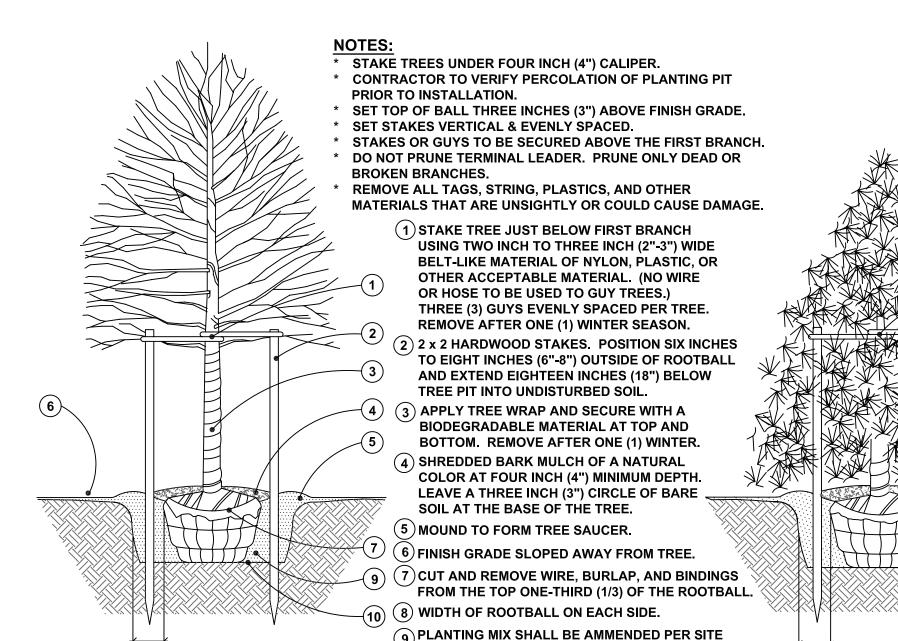
BACKFILL WITH CLEAN TOPSOIL.

* DO NOT CUT CENTRAL LEADER.

GENTLY TAMP IF NEEDED.

PARKING LOT ISLAND DETAIL





DECIDUOUS TREE 16 SCARIFY BOTTOM AND SIDES OF PLANTING

CONDITIONS AND PLANT REQUIREMENTS.

PIT TO FOUR INCH (4") DEPTH.

* STAKE ALL EVERGREEN TREES UNDER TWELVE FEET (12') HIGH. GUY ALL EVERGREEN TREES TWELVE FEET (12') HIGH AND OVER. CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION. NEVER CUT CENTRAL LEADER. PRUNE ONLY TO REMOVE DEAD OR BROKEN BRANCHES.

SET STAKES VERTICAL AND EVENLY SPACED.

REMOVE ALL TAGS, STRING, PLASTICS, AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING. (1)STAKE TREE AS INDICATED USING TWO INCH TO THREE INCH (2"-3") WIDE BELT-LIKE MATERIAL OF NYLON, PLASTIC, OR OTHER ACCEPTABLE MATERIAL. (NO WIRE OR HOSE TO BE USED TO GUY TREES.) THREE (3) GUYS **EVENLY SPACED PER TREE. REMOVE AFTER** ONE (1) WINTER SEASON. (2) 2 x 2 HARDWOOD STAKES. POSITION SIX INCHES

TO EIGHT INCHES (6"-8") OUTSIDE OF ROOTBALL AND EXTEND EIGHTEEN INCHES (18") BELOW TREE PIT INTO UNDISTURBED SOIL.

) SHREDDED BARK MULCH OF A NATURAL COLOR AT FOUR INCH (4") MINIMUM DEPTH. LEAVE A THREE INCH (3") CIRCLE OF BARE **SOIL AT THE BASE OF THE TREE.** (4) MOUND TO FORM TREE SAUCER.

5) FINISH GRADE SLOPED AWAY FROM TREE. 6) CUT AND REMOVE WIRE, BURLAP, AND

BINDINGS FROM THE TOP ONE-THIRD (1/3) OF THE ROOTBALL. 7) PLANTING MIX SHALL BE AMENDED PER SITE CONDITIONS AND PLANT REQUIREMENTS.

(8) WIDTH OF ROOTBALL ON EACH SIDE. (9) SCARIFY BOTTOM AND SIDES OF PLANTING

PIT TO FOUR INCH (4") DEPTH.

* CONTRACTOR TO VERIFY PERCOLATION OF PLANTING PIT PRIOR TO INSTALLATION. (1) SHREDDED BARK MULCH AT FOUR NCH (4") MINIMUM DEPTH. MULCH SHALL BE NATURAL IN COLOR. (2) FORM A SAUCER WITH MULCH AND SOIL AROUND SHRUB BED. 3 CUT AND REMOVE BURLAP AND SINDINGS FROM THE TOP ONE-THIRD (1/3) OF THE ROOTBALL. (4) 3/16" x 4" ALUMINUM EDGING (OR APPROVED EQUIVALENT) OR SPADED EDGE. 5 EXCAVATE PLANTING HOLE AND **BACKFILL WITH PREPARED PLANTING MIX.** 6) UNDISTURBED SUBGRADE. (7) LAWN. 8 SCARIFY SUBGRADE. SHRUB ANNUAL / PERENNIAL / GROUNDCOVER

GENERAL NOTES FOR ALL PLANTINGS:

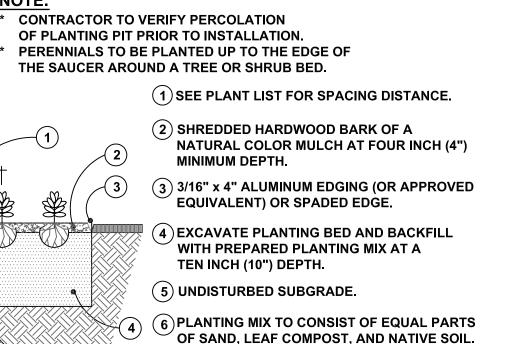
* REMOVE ALL TAGS, STRINGS,PLASTICS, AND ANY OTHER NON-BIODEGRADABLE MATERIALS (EXCEPT LABEL

not to scale

FOR PLANT NAME) FROM PLANT STEMS OR CROWN WHICH ARE UNSIGHTLY OR COULD CAUSE GIRDLING. * PLANTS SHALL BEAR THE SAME RELATION TO FINISH GRADE AS IT BORE TO THE PREVIOUS GRADE IN THE

NURSERY. SET THE BASE OF THE PLANT SLIGHTLY HIGHER THAN EXISTING GRADE IF PLANTING IN CLAY SOILS. st CENTER THE ROOTBALL IN THE PLANTING HOLE. LEAVE THE BOTTOM OF THE PLANTING HOLE FIRM. USE WATER TO SETTLE THE PLANTING MIX AND REMOVE ANY AIR POCKETS AND FIRMLY SET THE TREE OR SHRUB.

not to scale



date: June 20, 2024

09-12-2024 Revise for site plan changes & City review ltr. dated August 1, 2024.

Wixom, Michigan 48393

LANDSCAPE PLAN FOR: Fairway Engineering, L.L.C. 28525 Beck Road, Suite 124

(248) 938-4902 LANDSCAPE PLAN BY: Nagy Devlin Land Design, L.L.C. 31736 West Chicago Avenue

Livonia, Michigan 48150 (734) 634-9208

PROJECT LOCATION: Retail Building East Howard Street & Perry Street Pontiac, Michigan

Know what's **below**. **Call** before you dig.



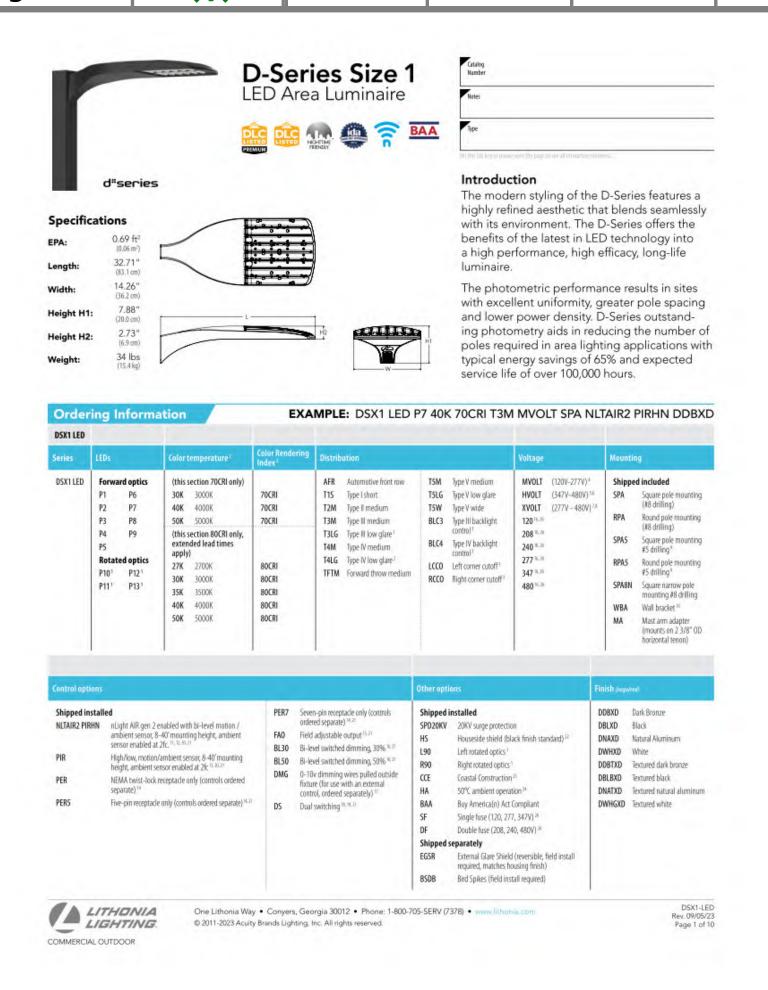
LP - 1: LANDSCAPE PLANTING PLAN

scale: 1" = 20

* Base data provided by Fairway Engineering, L.L.C.

Schedul	е							
Symbol	Label	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power
	P1	1	Lithonia Lighting	DSX1 LED P3 40K 80CRI T4LG EGS	D-Series Size 1 Area Luminaire P3 Performance Package 4000K CCT 80 CRI Type 4 Low G Rating External Glare Shield	11060	0.9	102.17
	P2	1	Lithonia Lighting	DSX1 LED P2 40K 80CRI BLC3	D-Series Size 1 Area Luminaire P2 Performance Package 4000K CCT 80 CRI Type 3 Extreme Backlight Control	6516	0.9	67.79
	Р3	1	Lithonia Lighting	DSX1 LED P2 40K 80CRI TFTM	D-Series Size 1 Area Luminaire P2 Performance Package 4000K CCT 80 CRI Forward Throw	9154	0.9	67.79

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Lot Across The Street	Ж	1.8 fc	4.7 fc	0.4 fc	11.8:1	4.5:1
Overall/Grade	+	0.3 fc	9.8 fc	0.0 fc	N/A	N/A
Building Parking	Ж	4.0 fc	9.8 fc	0.7 fc	14.0:1	5.7:1



General Note

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.

ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

- SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
 CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: GRADE
- THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN

ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS

INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

Alternates Note

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Ordering Note

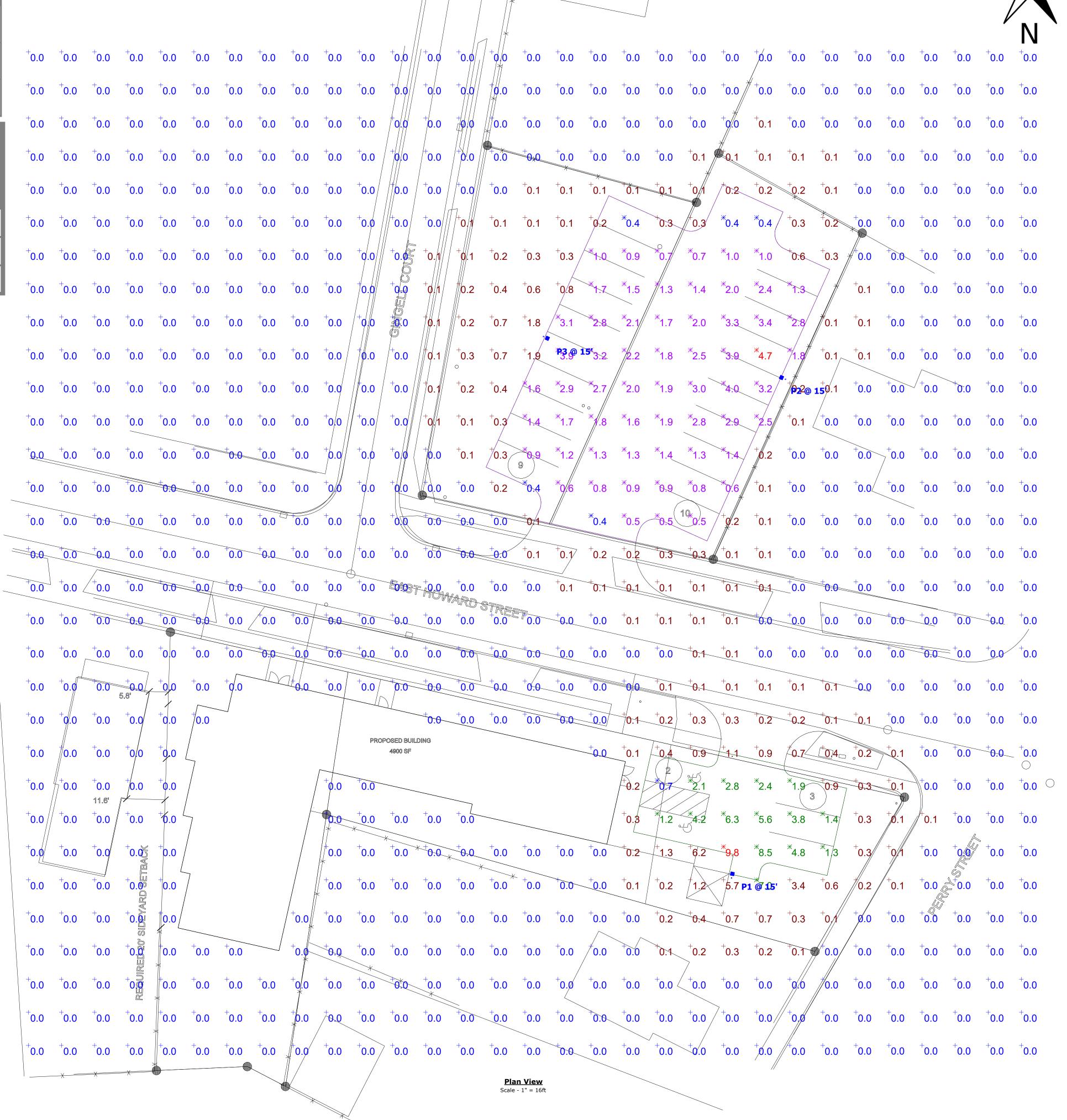
FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

Drawing Note

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

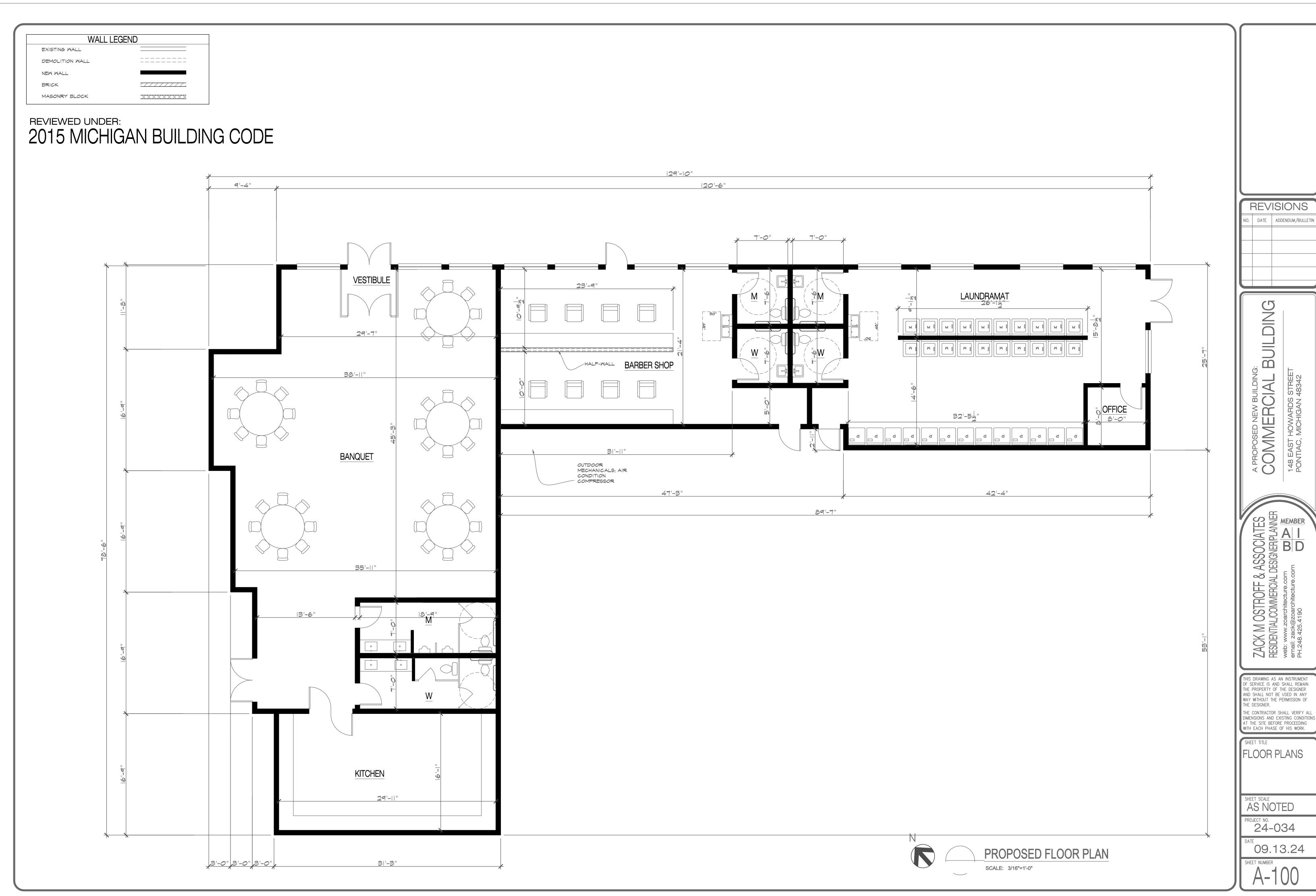
Mounting Height Note

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.



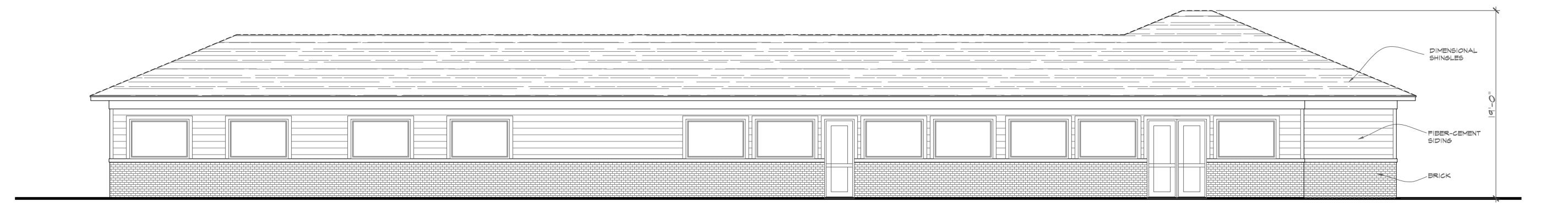
148 EAST HOWARD ST.
INTERIOR PHOTOMETRIC PLA
GASSER BUSH ASSOCIATES
WWW.GASSERBUSH.COM

Designer
BK
Date
08/06/2024
Scale
Not to Scale
Drawing No.
#24-32264



NORTH ELEVATION:

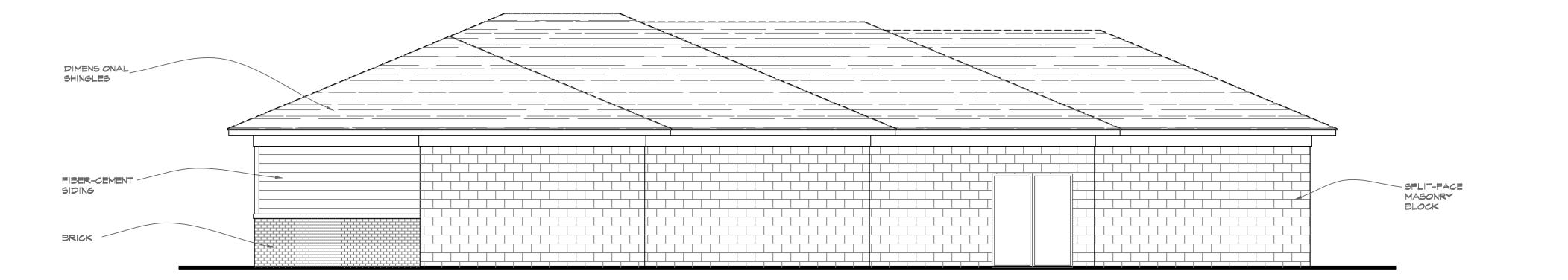
SPLIT-FACE MASONRY - 0 SF FIBER-CEMENT SIDING - 203 SF BRICK - 334 SF





WEST ELEVATION:

SPLIT-FACE MASONRY - 382 SF FIBER-CEMENT SIDING - 45 SF BRICK - 36 SF





REVISIONS

NO. DATE ADDENDUM/BULLETIN

A PROPOSED NEW BUILDING:

COMMERCIAL BUILDING

148 EAST HOWARDS STREET
PONTIAC, MICHIGAN 48342

ZACK M OSTROFF & ASSOCIATES

RESIDENTIAL/COMMERCIAL DESIGNER/PLANNER

web: www.zoarchitecture.com
email: zack@zoarchitecture.com
DH.248.425.4190
D - BA

THIS DRAWING AS AN INSTRUMENT
OF SERVICE IS AND SHALL REMAIN
THE PROPERTY OF THE DESIGNER
AND SHALL NOT BE USED IN ANY
WAY WITHOUT THE PERMISSION OF
THE DESIGNER.
THE CONTRACTOR SHALL VERIFY ALL
DIMENSIONS AND EXISTING CONDITIONS
AT THE SITE BEFORE PROCEEDING
WITH EACH PHASE OF HIS WORK.

SHEET TITLE

EXTERIOR

ELEVATIONS

SHEET SCALE
AS NOTED

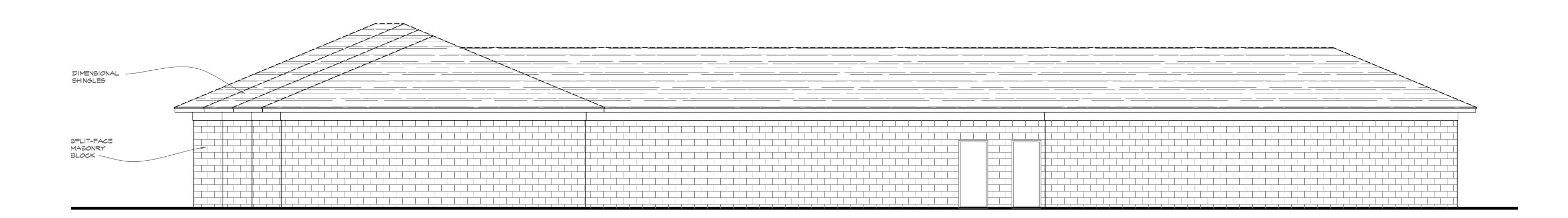
PROJECT NO. 24-034

DATE 09.13.24

A-10

SOUTH ELEVATION:

SPLIT-FACE MASONRY - 816 SF FIBER-CEMENT SIDING - 0 SF BRICK -





EAST ELEVATION:

SPLIT-FACE MASONRY -348 SF FIBER-CEMENT SIDING -55 SF 59 SF BRICK -

SHEET SCALE
AS NOTED

PROJECT NO. 24-034 09.13.24

NO. DATE ADDENDUM/BULLETIN

A PROPOSED NEW BUILDING
COMMERCIAL

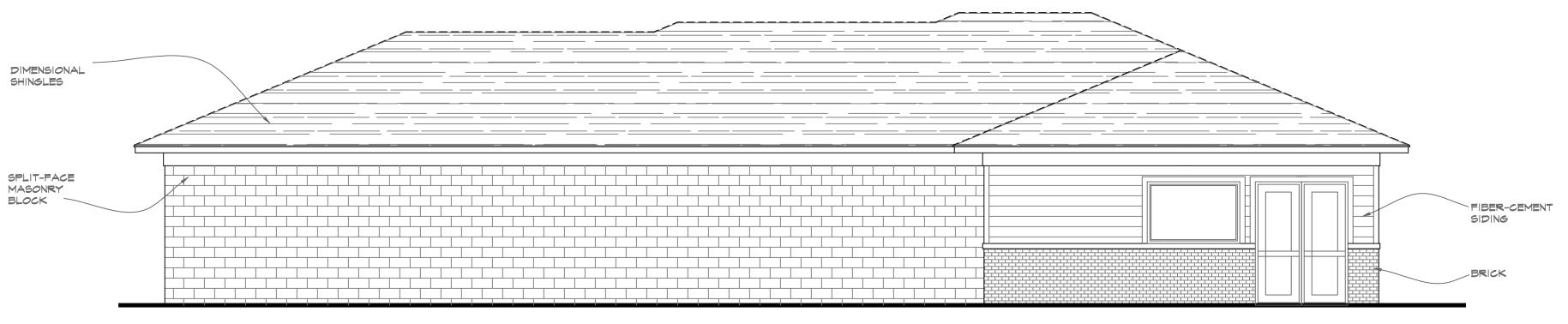
ZACK M OSTROFF & ASSOCIATES
RESIDENTIAL/COMMERCIAL DESIGNER/PLANNER
web: www.zoarchitecture.com
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EXTERIOR

ELEVATIONS





COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Corey Christensen, Senior Planner

DATE: September 24, 2024

RE: Preliminary Site Plan: Multifamily Apartment and Townhouse (Senior Housing),

420 S Opdyke Rd.

Executive Summary

SPR 24-035 is a request for site plan approval by Tamer Ishak on behalf of Presbyterian Villages of Michigan to allow for a multifamily apartment building and townhome style units at 420 S Opdyke Rd. The applicant is proposing to remove the existing wooded area and expand the existing residential development along Kirkman and Peterson Roads. The plans call for a 40-unit structure for nursing/assisted care with parking on four sides and 44 townhome units.

	Quick Facts
Zoning	R-3 Multiple Family Dwelling
Request	Site Plan Approval
Proposed Use	40 Unit Nursing/Assisted Care and 44 Independent Living Townhome Units
Parcel Size	34 Acres

Staff recommends the Planning Commission review the proposed site plans and provide feedback to the applicant. Revised plans must be submitted by **October** 11th to be considered on the November 6th Planning Commission agenda.



Figure 1: Aerial of Subject Parcel

Background

City records indicate the parcels in question have no records of development requests or enforcement actions. Historic aerials indicate the site has been wooded since at least the 1950s, and was possibly farmland prior to this. Presbyterian Villages of Michigan currently owns the Village of Oakland Woods retirement community and is seeking to expand.

Proposal

The applicant is proposing to remove the existing wooded area and replace it with a new 36,250 square foot one-story residential facility. The proposed building has 40 residential units and 2000 square feet of office area. Additionally, they are proposing 44 Independent Living Single-Story residents along the extension of Kirkman. 51 parking spaces are provided on all four sides of the building. It is unclear from the plans whether the applicant is proposing to create a new right-of-way or private street to extend Kirkman Rd. to Peterson Dr. If so, new parcel lines will need to be drawn and the setback compliance analysis will need to be done again. If a new right-of-way is not proposed then the parcels will need to be combined or an easement issued to provide road access to the parcels without road access.

Additionally, the applicant is proposing 44 Independent Living Single-Story residents along the extension of Kirkman Rd.

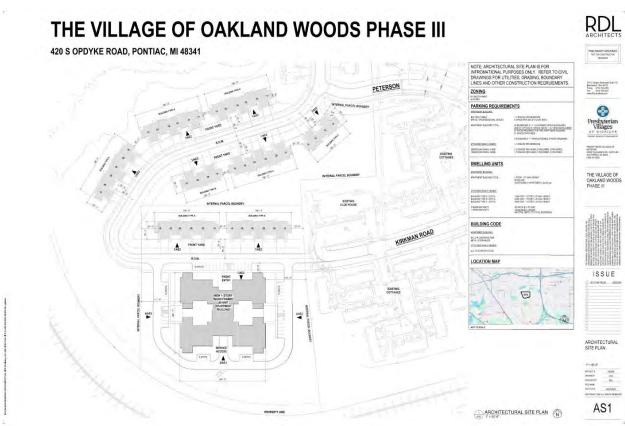


Figure 2: Proposed Site Plan

Staff Review

Staff conducted a review of the site plans on September 24, 2024 and provided feedback on lighting, landscaping, and parking to the applicant. The following items need to be addressed prior to resubmission.

- 1. Clarity on the ownership of the proposed roads needs to be provided. Will they be private or public.
- 2. If the roads are proposed to be private, then the parcels must be combined or an easement enacted to provide the two subject parcels with road access.
- 3. It is unclear from the plans if any recreation area is provided. The zoning ordinance requires multifamily apartments to provide a recreation area.
- 4. There do not appear to be any bicycle spaces proposed. Parking areas with more than 40 spaces are required to provide a bike rack.
- 5. It is unclear from the plans what the width of the maneuvering lanes and drives will be.
- 6. It is unclear from the plans what the dimensions of the parking spaces are proposed to be and what color they will be striped in.
- 7. It is unclear from the plans how the internal roads and parking areas will be surfaced.
- 8. It is unclear if any exterior lighting is proposed. If so, please provide schematics and photometrics.
- Please provide a tree survey in compliance with the Woodland Preservation ordinance (section 4.602 of the zoning ordinance). This is needed to verify an adequate number of replacement trees are proposed.



Figure 3: Proposed Multifamily Façade



Figure 4: Independent Living/Attached Homes

Standards for Approval

In reviewing an application for any type of site plan, the planning commission shall find the proposed development complies with the general standards in the zoning ordinance. The following are staff's comments on each standard:

- 1. Circulation There is a proper relationship between the existing streets and highways within the vicinity and proposed acceleration and/or deceleration lanes, service drives, entrance and exit driveways, and parking areas to ensure the safety and convenience of pedestrian and vehicular traffic. The Planning Commission may request, at their discretion, that a traffic study be conducted by an independent source and paid for by the developer, and the results submitted to the Planning Commission prior to final site approval.
- 2. **Buildings** The buildings and structures proposed to be located upon the premises are so situated as to minimize adverse effects upon owners and occupants of adjacent properties.
- 3. **Natural Features** As many natural features of the landscape shall be retained as possible where they furnish a barrier screen, or buffer between the project and adjoining properties used for dissimilar purposes and where they assist in preserving the general appearance of the neighborhood.
- 4. **Site Layout and Screening** Any adverse effects of the proposed development and activities emanating therefrom that affect adjoining residents or owners shall be minimized by appropriate screening, fencing, landscaping, setback, and location of buildings, structures, and entryways.
- 5. **Compliance with the Zoning Ordinance** *Site plans must comply with all current provisions and*

standards of the zoning ordinance and the subdivision control ordinance.

Summary

The structure and layout of the site appear to be suitable for the proposed use and there are no major risks to the public health, safety, and welfare. However, there are some zoning compliance issues that need to be addressed pertaining to lot lines, parking, lighting, and woodland preservation.

Staff Recommendation

Staff recommends the Planning Commission review the proposed site plans and provide feedback to the applicant. Revised plans must be submitted by **October 11th** to be considered on the November 6th Planning Commission agenda.



Consulting Civil Engineers

55800 Grand River Avenue, Suite 100 New Hudson, Michigan 48165-9318 248.437.5099 · 248.437.5222 fax www.zeimetwozniak.com

August 29, 2024

Mr. Mark Yandrick, Planning Manager City of Pontiac Planning and Zoning Division 47450 Woodward Avenue Pontiac, MI 48342

Re:

Preliminary Site Plan for

The Village of Oakland Woods Phase III

420 Opdyke Road

Dear Mr. Yandrick:

Thank you to you for meeting with us on June 10, 2024, to discuss this project. Based on our discussions, we have prepared preliminary site plan drawings and are submitting them herein for your formal consideration.

Attached please accept the following:

- A completed "Application for Site Plan Review".
- A completed "Site Plan Review Requirements Checklist".
- One set of Site Plan drawings dated August 22, 2024.
- A thumb drive with the above drawings in PDF format.

Once you have computed the review fees, please inform us and we shall have the Owner submit payment to you.

If you have any questions or need further clarification, please contact the undersigned.

Very truly yours,

Julian J. Wargo, Jr., PE

President

Jason D. Sutton, PE

Engineer

Encl.

J:24108.Letter1



PRELIMINARY OR ADMINISTRATIVE SITE PLAN APPLICATION

APPLICATION CHECKLIST

	Completed and Signed Application.
	Application Fee. TO BE PAID ONCE IT IS CALCULATED BY CITY
	Preapplication Meeting Required. Prior to accepting any applications, a preapplication meeting between the applicant and City Planning Staff is required. o Preapplication meeting date: בסבל נוס, בסבל
	Site Plans. We require one 24" by 36" hard copy and one digital copy.
T	Site Plan Elements. Site plans should have the following elements: Each page should be signed and sealed by a registered architect or engineer North Arrow Scale Name and contact of the developer Name and contact of the architect or engineer Landscaping Parking Schedule
ď	Project Narrative. This should describe the proposed use and/or the proposed alterations to the site.
	Completed Application Checklist.



Application for Site Plan Review

City of Pontiac

Office of Land Use and Strategic Planning
47450 Woodward Ave, Pontiac, MI 48342

T: 248.758.2800

F: 248.758.2827

Property/Pr	oject Address: <u>420 S. OPOYLE</u>	Office Use Only		
Sidwell Nun	nber: 14 - 34 - 202 - 007 - 006	PF Number:		
Date: 8/22/24				
and Strategic P sets of complete	Applications for Site plan Review along with the approprial lanning at least 30 days before the regularly scheduled Fe Site Plan drawings package including an electronic copy lease print or type)	Planning Commission meeting. Please provide four		
Name	PRESBYTERIAN VILLAGES OF MIC	HIGAN ATH: TAMER ISHAK		
Address	25200 TELEGRAPH 20., STE 40	00		
City	SOUTHFIEW			
State	MI			
ZIP Code	48033			
Telephone	Main: 248 - 281 - 2020 Cell: 248 - 847	- 5656 Fax:		
E-Mail	TISHAK @ PYM. ORG			
Name of Pro	property Information posed Development: THE VILLAGE OF OR property is location at 420 S. OPDYRE OBURH OVE and SOUTH BLVO			
• •	y is zoned: R-3 MOUTIPUS PAMILY (
The subject	property is legally described as follows (includ			
	y has frontage of 122 feet, and a depth	of 12.2. feet.		
The total pro	operty is <u>34.00 ec.</u> (square f	eet/acres).		

It is proposed that the following building(s) will be constructed (indicate number of buildings, stories, floor areas, dwelling units):

40 CHUS 0 200 IN ALL 282 TOTAL CLIPS 350 QL11 30 THE GAT 18 9 1 - BFD200M 44 27 NAX 18 - TOTAL STORE! BEOLOOM, 1331 OSF GOCH; PREMIED ROLEH HOMES. PRILTMENT BUILDING:

Value of Construction

Estimated cost of acquisition and construction -			
Estimated Employment -			
Estimated start and completion dates -	START	שנשער מסמור, 2025	5202

Property Owner Information

Name	PRESBYTERIAN VILLEGES OF MICHIGAN ATTH: TAMER ISHAK	Supported of	MICHIGEN	- LIND	TAMER	ISHEK
Address	25240 TELEGLAPH R.R., STE 400	20.) STE	400			
City	SOUTHPIED					
State	M1					
ZIP Code	48033					
Telephone	Main: 248 - 281 - 2020 Cell: 248 - 847 - 5656 Fax:	Cell: 2-4-8	-847-5656	Fax:		
E-Mail	TISHOK @ DVM. ORG	200				

State why in your opinion, the approval of this Site Plan is necessary for the preservation and enjoyment of substantial property rights, and why such a plan will not be detrimental to the public welfare, nor the property of other persons located in the vicinity thereof: Other. Agent/rep. of the owner Owner. Are you the

STOLLO PONTING CARE PROVIDING 011 CH ITS BXISTIMG COMPUS OR RESIDENTIAL COMMITTED TO S1 MICHIGAL SEMIORS A PULL SPECTEUM PAPOROPEUR AND INCOME -BOSED OF PRESYBERTIEN VILLEGES MICHICAN

Either a tree survey, prepared pursuant to Pontiac's Woodland Preservation ordinance is presented with this application OR I hereby certify that no trees with a trunk (stem) caliper/diameter of 6" or more exist on the site.

TO BE PROVIDED

Signature of Owner

tamer Ishak

Signature of Applicant

State of Michigan County of Oakland On this day of , A.D., 20 , before me personally appeared the above named person, who being duly sworn, stated he/she has read the foregoing application, by him/her signed, and know the contents thereby, and that the same is true of his/her own knowledge, except as to the matters the/she believes it to be true.

Notary Public, Oakland County, Michigan My Commission Expires:

SITE PLAN NOTES:

- 1. IF THERE IS TO BE ANY CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE LOCAL TELEPHONE COMPANY, DETROIT EDISON COMPANY, LOCAL GAS COMPANY AND LOCAL MUNICIPALITY TO VERIFY THE LOCATION AND/OR EXISTENCE OF ANY UNDERGROUND UTILITIES WHICH MAY AFFECT
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOCAL MUNICIPALITY, DRAIN COMMISSION, AND MICHIGAN DEPARTMENT OF TRANSPORTATION.
- ALL ELEVATIONS OF THESE PLANS ARE LOCAL DATUM. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT AFFECT THE
- JOB PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL ITEMS OF WORK NOT SPECIFICALLY INDICATED AS PAY ITEMS IN THE PROPOSED SHALL BE CONSIDERED INCIDENTAL ITEMS.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, WISE DISTURBED DUE TO CONSTRUCTION SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY CONTRACTOR
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ON-SITE TREES, BRUSH, STUMP, ROCKS, STONES, FENCE, WIRE, TRASH, OR OTHER UNWANTED DEBRIS AT THE DEVELOPER'S DIRECTION RESULTING FROM THE CONSTRUCTION AND SHALL BE AN INCIDENTAL ITEM.
- CONTRACTOR TO CONTACT LOCAL MUNICIPALITY 48 HOURS PRIOR TO CONSTRUCTION SUCH THAT THE PROPER INSPECTIONS CAN BE SCHEDULED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CHECKING ELEVATIONS OF INVERTS PRIOR TO CONSTRUCTION.
- 10. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CHECK BENCHMARK RELATIVE TO SITE GRADE

OWNER:

PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH ROAD, SUITE 400 SOUTHFIELD, MICHIGAN 48033 Mr. Tamer Ishak Project Manager (248) 847-5656

CONSTRUCTION MANAGER: CIVIL ENGINEER:

FIRST CONTRACTING, INC. 701 SOUTH MAIN STREET OVID, MICHIGAN 48866 Mr. Brian Fleming President (989) 834-1500

PRELIMINARY SIFE PLAN FOR

THE WILLAGE OF OAKLAND WOODS

PHASE III

420 S. OPDYKE ROAD

PONTIAC, MICHIGAN

PART OF SECTION 34, T. 3 N., R. 10 E.

ZEIMET WOZNIAK AND ASSOCIATES, INC. 55800 GRAND RIVER, SUITE 100 NEW HUDSON, MICHIGAN 48165 Mr. Jason Sutton, PE Project Engineer (248) 437-5099

ARCHITECT:

Mr. Vince Sassano, R.A.

Project Engineer (216) 352-0347

RDL ARCHITECTS, INC.

BEACHWOOD, OHIO 44122

MANNIK SMITH GROUP 1160 DUBLIN RD., SUITE 100 21111 CHAGRIN BLVD., SUITE 110 COLUMBUS, OHIO 43215 Mr. Nick Fawver Landscape Designer

AUBURN AVE SOUTH BLVD LOCATION MAP NOT TO SCALE

LANDSCAPE ARCHITECT:

(614) 441-4222

SITE PLAN NARRATIVE

Development Program

As one of Oakland County's premiere senior living communities, The Village of Oakland Woods currently offers independent living, with two-bedroom cottages and garden-style apartments laid out on a scenic 80 plus acre campus.

Master planned in 2002, Presbyterian Villages of Michigan now proposes to develop Phase III:

- A new garden-style building to be a one story, wood framed apartment building for seniors. The new apartment building contains 40 studio apartments with onsite food service, dining, community space, and offices for staff and visiting medical professionals.

- 44 new attached ranch style homes for seniors, clustered in groups of 3, 4 and 6 units. The ranch style homes contain a mix of one-bedroom and two-bedroom units and will be wood framed construction. The ranch style homes are deigned to blend in with the existing homes built during the previous Phase II expansion at Oakland Woods.

The parcel is commonly known as "Units 6 and 7 of Presbyterian Village North Condominium" which shall be revised to accommodate the new site layout. The property is currently zoned R-3, Multiple Family Dwelling District; the current zoning will support the proposed use without re-zoning.

Natural Features

The site is steeply sloped with a ground elevation of 918 on the south to a ground elevation of 890 to the south. The site ultimately drains to an existing wetland that abuts an existing stream commonly referred to as the "Bartlett Drain", which is under the jurisdiction of the Oakland County Water Resources Commission.

The EGLE Wetland Map and record plans for "The Village of Oakland Woods" prepared by Giffels Webster indicate the existence of

The Bartlett Drain has an associated floodplain. However, this site is within a Zone X Flood Area (Area of Minimal Flooding), with only a 0.2 percent chance of annual flooding. Therefore, there will not be any flood zone restrictions for this development.

The site is heavily wooded.

According to the USDA-SCS Soils Mapper, the existing soils on the site are classified as:

- 11B Capac sandy loam, 0 to 4 percent slopes • 13C - Oshtemo-Boyer loamy sands, 6 to 12 percent slopes
- 17A Wasepi sandy loam, 0 to 3 percent slopes 20B - Glynwood loam, 2 to 6 percent slopes
- 54A Matherton sandy loam, 0 to 3 percent slopes

The site is accessed via Kirkman Road, a private road, that runs to Opdyke Road, a public road. Opdyke Road lies approximately 1,170-feet to the east. No new construction activity is anticipated within the Opdyke Road right-of-way as a part of this

Storm Water Management and Availability

Currently, the site drains to the north towards a large wetland system to the north of this site. The site is part of an overall development "Villages of Oakland Woods" and, as such, would be included in the storm drainage system. The existing onsite storm drainage system is private and subject to routine maintenance by Presbyterian Villages of Michigan.

The City of Pontiac has adopted regulations similar to the Oakland County Water Resource Commission's storm water management ordinance. This project will be provide detention for the 100-year event and water quality treatment. It is anticipated that storm water management will be provided by an underground storm sewer collection system that will discharge to a proposed sedimentation and detention pond and then ultimately discharged offsite under the existing railroad viaduct.

Public Sanitary Sewer and Water Mian Availability

There is an existing 8" public sanitary sewer in Kirkman Road that flows to the north and ultimately to an existing 18" public sanitary sewer in Opdyke Road. This 8" sanitary sewer will be extended to serve the proposed development. The connection to the sanitary sewer system would be under the jurisdiction of the Oakland County Water Resource Commission. A permit for the construction will also be required from Michigan EGLE.

There is an existing 8" public water main located in Kirkman Road. This water main will be extended and looped to serve the proposed development. The connection to the water main system would be under the jurisdiction of the Oakland County Water Resource Commission. A permit for the construction will also be required from Michigan EGLE.

Franchised Utilities Availability

According to plans obtained from the City of Pontiac:

- Electric service is provided by Detroit Edison Company. Gas service is provided by Consumers Energy.
- Telephone service is provided by Ameritech. Cable television service is provided by Comcast.

NOTES:

- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN
- ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENT OF ALL STRUCTURES, KNOWN OR UNKNOWN, SHOWN OR UNSHOWN, LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IF ANY SUCH STRUCTURES ARE IDENTIFIED. ALL COSTS ASSOCIATED WITH LOCATING AND ADJUSTING THESE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- DESIGN PROFESSIONAL AND CLIENT WARRANT THAT IN TRANSMITTING INSTRUMENTS OF SERVICE, OR ANY OTHER INFORMATION. THE TRANSMITTING PARTY IS THE COPYRIGHT OWNER OF SUCH INFORMATION OR HAS PERMISSION FROM THE COPYRIGHT OWNER TO TRANSIT SUCH INFORMATION FOR ITS USE OF THE PROJECT. IF THE CLIENT AND DESIGN PROFESSIONAL INTEND TO TRANSMIT INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION OR DOCUMENTATION IN DIGITAL FORM, THEY SHALL ENDEAVOR TO ESTABLISH NECESSARY PROTOCOLS GOVERNING SUCH TRANSMISSIONS.



AERIAL IMAGE

COVER

SITE PLAN

SHEET INDEX:

ARCHITECTUAL SITE PLAN AS1

3/5 SURVEY/SITE PLAN (FOR REFERENCE ONLY) 5/5 TOPOGRAPHY/FLOODPLAN PLAN (FOR REFERENCE ONLY)

FSP-1A FACILITY ENGINEERING SITE PLAN FSP-1B FACILITY ENGINEERING SITE PLAN FSP-2 FACILITY ENGINEERING PLAN NOTES

FSP-3 STORMWATER MANGEMENT ANALYSIS FSP-4 STORMWATER CALCULATIONS

LANDSCAPING

L100 LANDSCAPE PLAN LANDSCAPE PLAN L101

L102 LANDSCAPE NOTES AND DETAILS

ARCHITECTURE

APARTMENT FLOOR PLAN RANCH HOME FLOOR PLANS

EXTERIOR ELEVATIONS - APARTMENT EXTERIOR ELEVATIONS - RANCH HOMES

NEW UNIT 6 LEGAL DESCRIPTION

PART OF LOT 1 AND 7 AND THAT PORTION OF VACATED REED ROAD (86 FEET WIDE) WHICH IS CONTIGUOUS WITH LOTS 1 AND 7 OF "ASSESSOR'S PLAT NO. 141", A SUBDIVISION OF PART OF SECTION 34, T. 3 N., R. 10 E., CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, LIBER 54A, PAGE 99 AND 99A OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE INTERSECTION OF THE SOUTH RIGHT OF WAY LINE OF AUBURN ROAD AND THE WEST RIGHT OF WAY LINE OF OPDYKE ROAD AS RECORDED IN SAID PLAT; THENCE S. 02°18'40" E. 895.00 FEET ALONG THE WEST OF SAID OPDYKE ROAD; THENCE S. 70°32'35" W. 1,290.50 FEET TO THE POINT OF BEGINNING; THENCE S. 03°04'18" E. 1108.30 FEET; THENCE S. 86°02'33" E. 280.12 FEET; THENCE S. 02°18'40" E. 191.58 FEET; THENCE S. 87°41'20" W. 217.81 FEET; THENCE S. 03°33'00" E. 75.21 FEET; THENCE N. 90°00'00" W. 457.73 FEET; THENCE S. 34°03'39" W. 325.05 FEET; THE FOLLOWING TWO (2) COURSES ALONG THE NORTHERLY RIGHT OF WAY LINE OF THE GRAND TRUNK WESTERN RAILROAD (ABANDONED), 1) 148.30 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, RADIUS 683.69 FEET, CENTRAL ANGLE 12°25'41" AND A CHORD THAT BEARS N. 25°09'15" W. 148.01 FEET AND 2) N. 18°56'20" W. 1259.6 FEET; THENCE N. 70°32'35" E. 1037.07 FEET TO THE POINT OF BEGINNING, CONTAINING 26.75 ACRES OF LAND MORE OR

NEW UNIT 7 LEGAL DESCRIPTION

PART OF LOT 1 AND 7 AND THAT PORTION OF VACATED REED ROAD (86 FEET WIDE) WHICH IS CONTIGUOUS WITH LOTS 1 AND 7 OF "ASSESSOR'S PLAT NO. 141", A SUBDIVISION OF PART OF SECTION 34, T. 3 N., R. 10 E., CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, LIBER 54A, PAGE 99 AND 99A OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE INTERSECTION OF THE SOUTH RIGHT OF WAY LINE OF AUBURN ROAD AND THE WEST RIGHT OF WAY LINE OF OPDYKE ROAD AS RECORDED IN SAID PLAT; THENCE S. 02°18'40" E. 3,025.45 FEET ALONG THE WEST OF SAID OPDYKE ROAD; THENCE THE FOLLOWING TWO (2) COURSES ALONG THE NORTHERLY RIGHT OF WAY LINE OF THE GRAND TRUNK WESTERN RAILROAD (ABANDONED), 1) S. 75°14'05" W. 1086.80 FEET AND 2) 65.00 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, RADIUS 683.69 FEET, CENTRAL ANGLE 05°26'49" AND A CHORD THAT BEARS S. 77°57'30" W. 64.97 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID RIGHT OF WAY 810.82 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, RADIUS 683.69 FEET, CENTRAL ANGLE 67°5659 AND A CHORD THAT BEARS N. 65°20'35" E. 764.13 FEET; THENCE N. 34°03'39" E. 325.05 FEET; THENCE S. 90°00'00" E. 457.73 FEET; THENCE S. 03°33'00" E. 205.79 FEET; THENCE S. 06°15'11" E. 384.98 FEET TO THE POINT OF BEGINNING, CONTAINING 7.25 ACRES OF LAND MORE OR LESS.

ISSUED FOR ISSUED FOR ISSUED FOR DATE ISSUED FOR DATE ISSUED FOR SITE PLAN PRELIM

Consulting Civil Engineers 55800 GRAND RIVER AVE SHITE 100

NEW HUDSON, MICHIGAN 48165

P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

THREE FILL. WORKING DAYS BEFORE YOU DIG MISS DIG SYSTEM, INC. CALL THE MISS 1-800-482-7171

PROJECT SPONSOR: PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400 SOUTHFIELD, MI 48033

PVM VILLAGE OAKLAND WOODS PH. III

COVER SHEET CITY OF PONTIAC OAKLAND COUNTY MICHIGAN

DATE 8-22-24 SCALE HOR: 1" = VER: 1" = JOB NO. 24108 DRAWN BY PTG

THE VILLAGE OF OAKLAND WOODS PHASE III



PRELIMINARY DRAWINGS NOT FOR CONSTRUCTION 08/22/2024

Beachwood, Ohio 44122 Phone: (216) 752-4300 Fax: (216) 752 4301 www.RDLarchitects.com



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SOUTHFIELD, MI 48033

MICHIGAN

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THE VILLAGE OF OAKLAND WOODS PHASE III

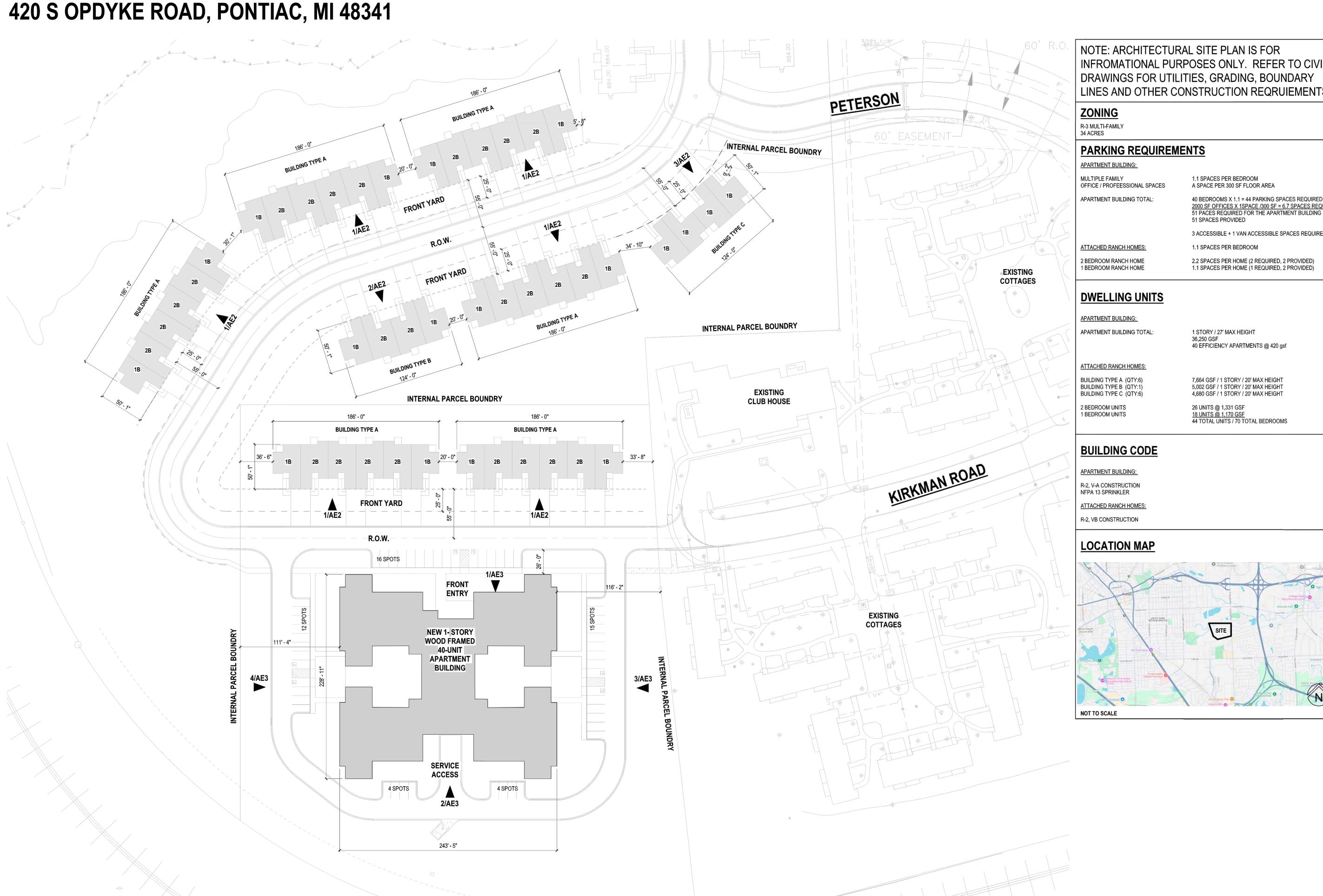
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SITE PLAN PRELIM 08/22/2024

ARCHITECTURAL SITE PLAN

1" = 50'-0"

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PROPERTY LINE

INFROMATIONAL PURPOSES ONLY. REFER TO CIVIL DRAWINGS FOR UTILITIES, GRADING, BOUNDARY LINES AND OTHER CONSTRUCTION REQRUIEMENTS.

2000 SF OFFICES X 1SPACE /300 SF = 6.7 SPACES REQUIRED 51 PACES REQUIRED FOR THE APARTMENT BUILDING

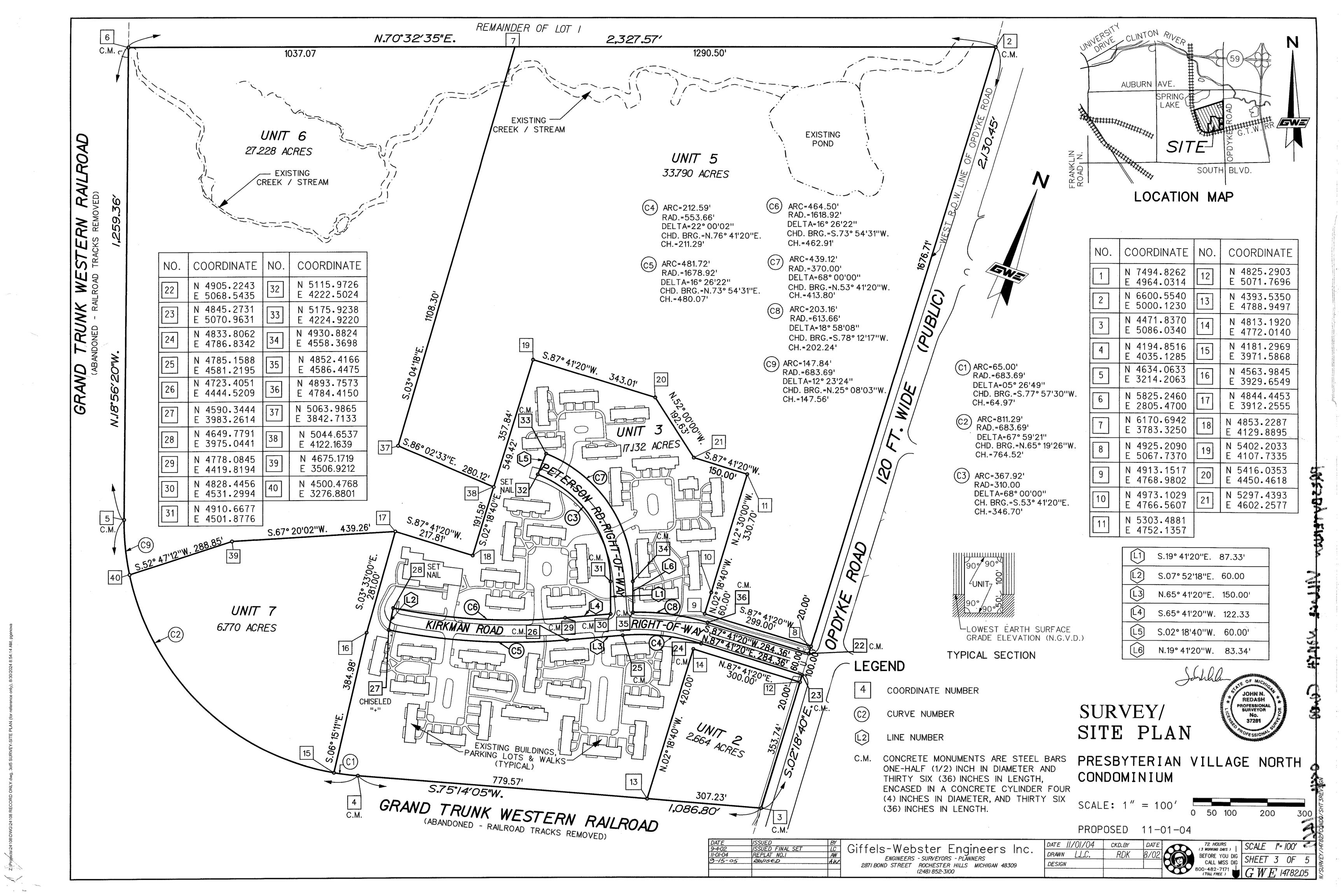
3 ACCESSIBLE + 1 VAN ACCESSIBLE SPACES REQUIRED

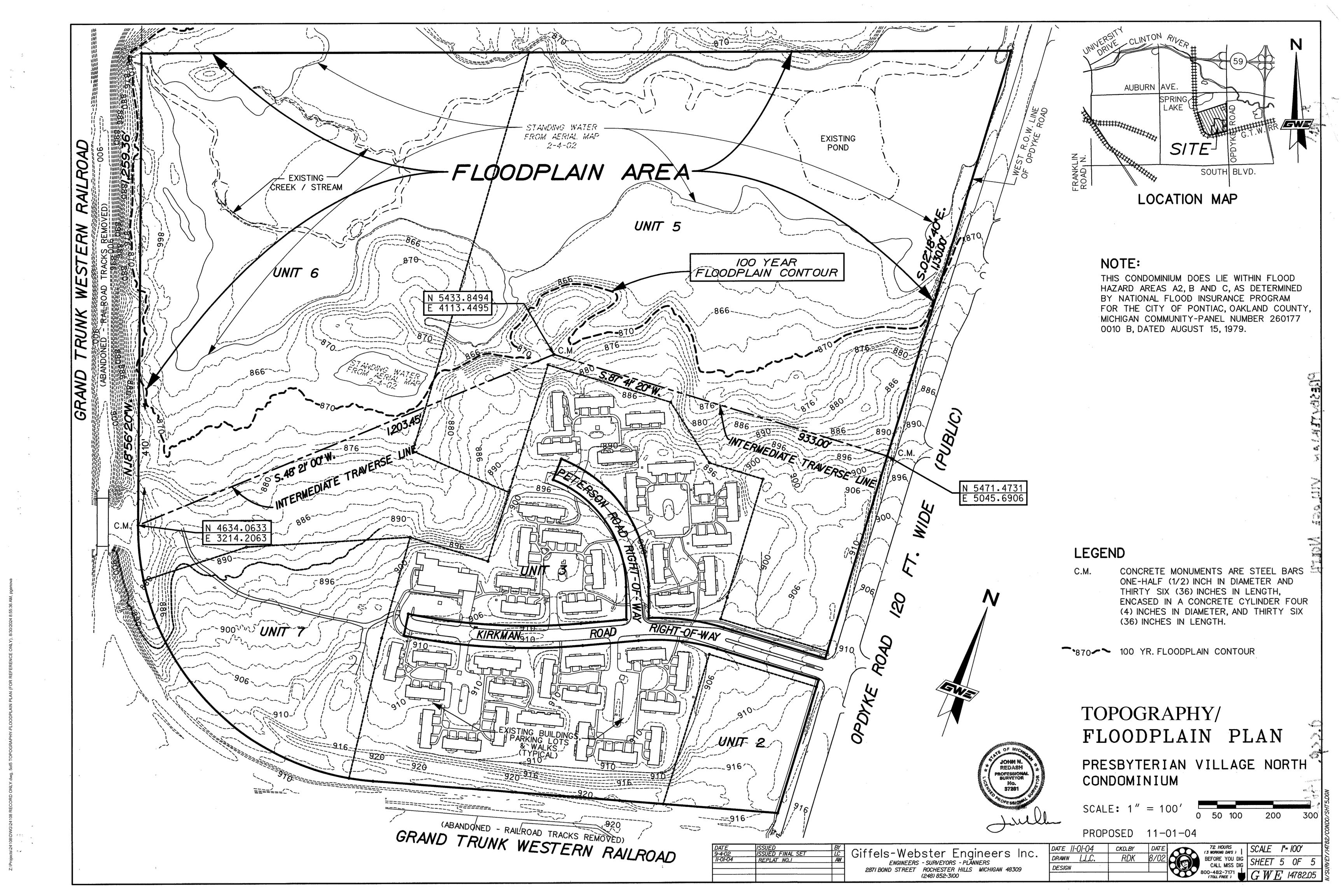
1.1 SPACES PER HOME (1 REQUIRED, 2 PROVIDED)

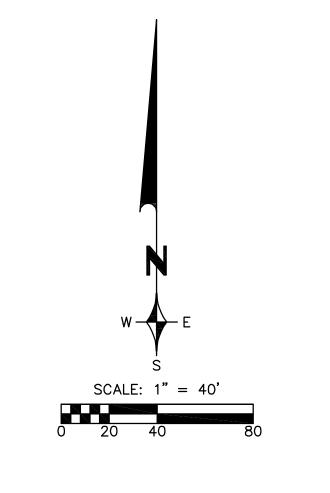
40 EFFICIENCY APARTMENTS @ 420 gsf

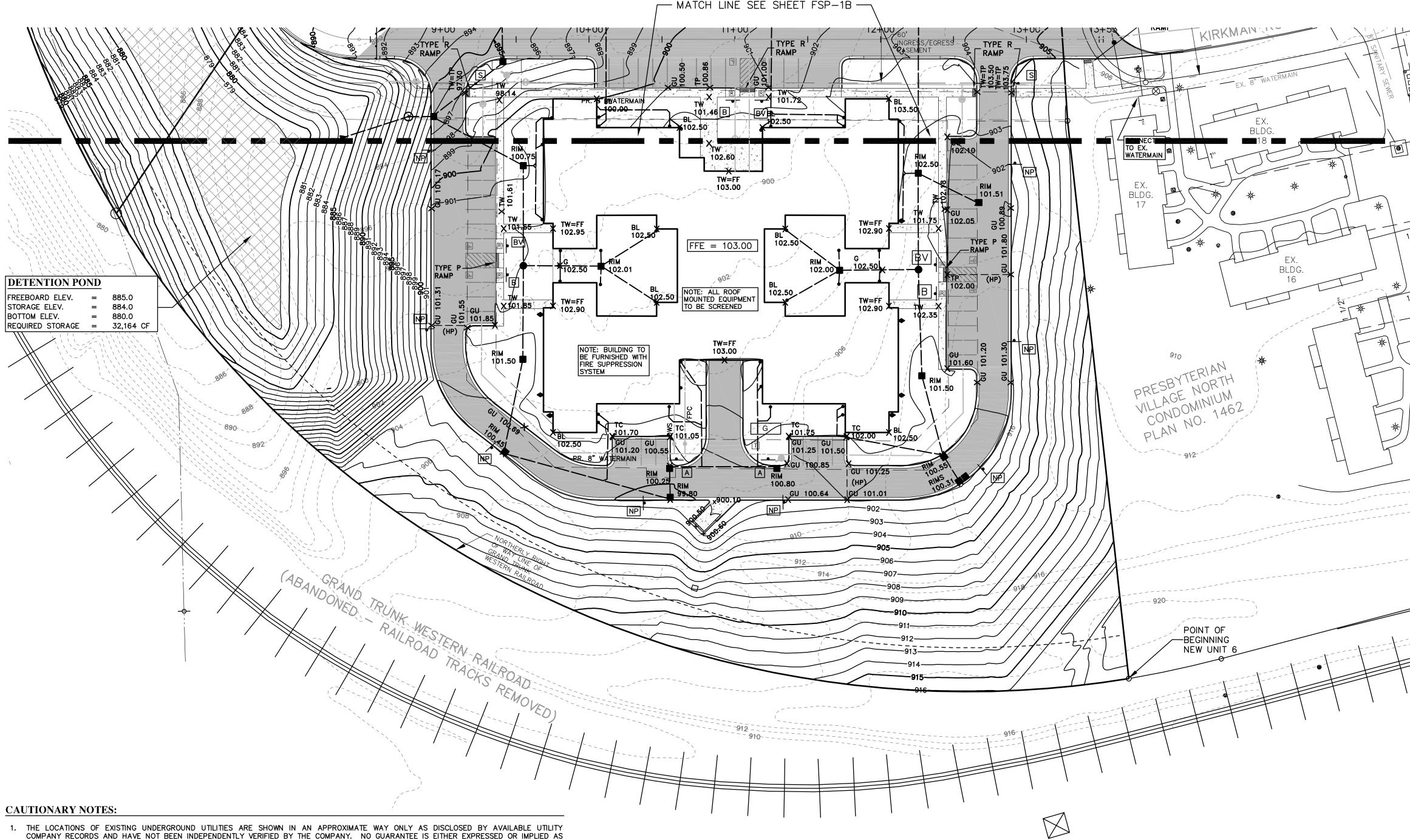


1 ARCHITECTURAL SITE PLAN N









PAVEMENT SPECIFICATIONS:

REGULAR DUTY ASPHALT DRIVE: 1.5" MDOT HMA 5E1 WEARING COURSE ON 2.5" MDOT HMA 3C LEVELING COURSE ON 8.0" MDOT 21AA AGGREGATE BASE COMPACTED TO 95% MAX. UNIT WEIGHT ON PREPARED SUBGRADE.

PLACE TACK COAT SS-1h AT RATE OF 0.10 GAL./SY BETWEEN PAVEMENT LIFTS.



HEAVY DUTY ASPHALT DRIVE: 1.5" MDOT HMA 5E1 WEARING COURSE ON 2.5" MDOT HMA 3C LEVELING COURSE ON 10.0" MDOT 21AA AGGREGATE BASE COMPACTED TO 95% MAX. UNIT WEIGHT ON PREPARED SUBGRADE.

PLACE TACK COAT SS-1h AT RATE OF 0.10 GAL./SY BETWEEN PAVEMENT LIFTS.



CONCRETE SIDEWALK: 4.0" UNIFORM P.C. CONCRETE, 4000 PSI (6.0" THROUGH DRIVES AND DRIVEWAYS) ON 4.0" MDOT 21AA AGGREGATE BASE ON PREPARED SUBGRADE

NOTE: ALL CONCRETE SHALL MEET THE MIN. PSI AT 28 DAYS

DETECTABLE SIDEWALK WARNING

TRAFFIC CONTROL SIGN LEGEND:

BARRIER FREE

BARRIER FREE VAN

AUTHORIZED VEHICLE ONLY

NO PARKING - FIRE LANE

GENERAL NOTES:

- 1. ALL DIMENSIONS OF PROPOSED PAVEMENT SHALL BE FROM BACK OF CURB TO BACK OF CURB UNLESS OTHERWISE NOTED.
- ALL PROPOSED COMMUNITY WALK SHALL BE 5' WIDE WITH ALL PROPOSED BUILDING WALKS 4' WIDE. ALL PROPOSED CURB AND GUTTER SHALL BE 24" WIDE X 4" HIGH MOUNTABLE EXCEPT AT THE PROPOSED ENTRANCE FROM OPDYKE ROAD WHICH SHALL BE 24" WIDE X 6" HIGH STANDARD CURB AND
- REFER TO ARCHITECTURAL PLANS FOR ALL PROPOSED BUILDING LAYOUTS AND ELEVATIONS. PERMITS WILL BE REQUIRED FOR ALL WORK WITHIN THE WETLAND AND 100-YR FLOODPLAIN, INCLUDING
- ALL DISCHARGES INTO THE WETLAND. PROPOSED SIGNAGE SHALL INCLUDE ADDRESS PLATES FOR EACH UNIT AND LANDSCAPED ENTRANCE
- SIGNS, REFER TO LANDSCAPE PLANS FOR PROPOSED LAYOUT. STORM WATER MANAGEMENT WILL BE PERFORMED BY AN UNDERGROUND PIPE COLLECTION SYSTEM DISCHARGING INTO THE PROPOSED SEDIMENTATION AND DETENTION BASINS AND THEN ULTIMATELY
- DISCHARGED INTO THE WETLANDS LOCATED ON THE NORTH SIDE OF THE SITE. SANITARY SEWER SERVICE WILL BE EXTENDED FROM THE EXISTING SANITARY MAIN ON THE EAST END
- OF THE SITE AND THEN ROUTED THROUGHOUT THE SITE WITH ADDITIONAL MANHOLES AND TAPS, EACH BUILDING WILL BE PROVIDED WITH ONE 6" SANITARY CONNECTION. WATER SERVICE WILL BE LOOPED THROUGHOUT THE SITE WITH A TIE IN AT OPDYKE ROAD ON THE EAST
- END OF THE SITE, PETERSON ROAD IN THE MIDDLE OF THE SITE AND KIRKMAN ROAD ALONG THE SOUTH END OF THE SITE. EACH BUILDING WILL BE PROVIDED A SEPARATE WATER SERVICE LEAD AND
- 10. SITE LIGHTING WILL BE PROVIDED VIA POLE MOUNTED LIGHTS SPECIFIED AND LOCATED PER CUT OF PONTIAC AND MSHDA STANDARDS.
- 11. ANY UTILITY, PAVING, AND/OR GRADING IN THE RIGHT-OF-WAY OF OPDYKE ROAD WILL REQUIRE
- APPLICABLE PERMITS FROM THE CITY OF PONTIAC AND OAKLAND COUNTY. 12. LOCATION AND FREQUENCY PF HYDRANTS AND GATE VALVES SHALL BE PER CITY OF PONTIAC AND/OR OAKLAND COUNTY REQUIREMENTS.
- 13. PRIVATE UTILITIES SUCH AS GAS, ELECTRIC, TELEPHONE, AND CABLE, SHALL BE UNDERGROUND WITH THE EXCEPTION OF ANY NECESSARY TRANSFORMERS AND COMMUNICATION BOXES. ALL WORK SHALL BE COORDINATED WITH THE PROPOSED PUBLIC UTILITIES TO PREVENT ANY INTERFERENCES.
- 14. A DRAINAGE PLAN TO CONTROL STORM WATER RUN-OFF AND SOIL EROSION PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE CITY ENGINEERING DIVISION.
- 15. ANY ENCROACHMENT INTO THE WETLANDS AREA SHALL BE SUBJECT TO APPROVAL BY THE MICHIGAN
- 16. AT LEAST 1TREE (MIN 2" CALIPER) FOR EVERY 50 LINEAR FEET SHALL BE PLANTED WITH THE
- RIGHT-OF-WAY OF ALL INTERNAL STREETS IN ACCORDANCE WITH THE SUBDIVISION CODE. 17. TRASH PICKUP SHALL BE PROVIDED AT THE SERVICE ENTRANCE BY A PRIVATE CONTRACTOR.
- 18. LANDSCAPE AREAS SHALL BE PROTECTED FROM VEHICULAR INTRUSION BY PROVISION OF CONTINUOUS CURBING, OR OTHER PERMANENT MEANS PER SECTION 9.28 OF THE ZONING ORDINANCE. LANDSCAPE
- MATERIAL SHALL BE PLACED SO AS NOT TO OBSTRUCT TRAFFIC VISIBILITY AT THE ENTRANCEWAY. 19. ALL PLANT MATERIAL SHALL BE MAINTAINED BY THE OWNER/TENANT SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE. ALL DEAD PLANT MATERIAL SHALL BE REPLACED BY THE
- OWNER/TENANT WITHIN SIX (6) MONTHS PER SECTION 9.35 OF THE ZONING ORDINANCE. 20. OUTDOOR STORAGE OF ANY RUBBISH, GARBAGE, JUNK, MATERIALS, VEHICLES OR EQUIPMENT IS STRICTLY PROHIBITED.
- 21. THE BUILDING AND SITE SHALL CONFORM WITH THE REQUIREMENTS OF THE CITY FIRE MARSHALL. 22. ALL SIGNAGE SHALL CONFORM WITH THE APPLICABLE PROVISIONS OF ARTICLE 18 OF THE ZONING
- ORDINANCE. 23. PRIOR TO OCCUPANCY, THE OWNER/TENANT OF THIS PROPERTY SHALL SATISFY THE REQUIREMENTS AND STANDARDS OF THE CITY ENGINEERING DIVISION WITH RESPECT TO THE CONDITION, LOCATION, AND DESIGN OF ALL SIDEWALKS, DRIVE APPROACHES, STORM AND SANITARY SEWER STRUCTURES AND APPURTENANCES, LANDSCAPE AND PAVING MATERIALS, AS WELL AS CURBS AND CURB DROPS LOCATED WITHIN THE ADJACENT PUBLIC RIGHTS-OF-WAY BETWEEN THE ROADWAY AND SUBJECT PROPERTY
- 24. REFER TO ARCH PLANS FOR DUMPSTER ENCLOSURE DETAILS, MAILBOX LAYOUT, CONFIGURATION DETAILS, AND LOCATION.

SITE DATA UNIT 6 = 7.25 AC UNIT 7 = 26.75 AC TOTAL LAND AREA = 34.00AC

TOTAL LAND ANCEA	01100710		
<u>BUILDINGS</u>			
APARTMENT BUILDING =		36,250 GSF	
ATTACHED RANCH HOMES BUILDING TYPE A =		45,984 GSF	
BUILDING TYPE B =		5,002 GSF	
BUILDING TYPE C =		28,080 GSF	
50,25,,,,,		79,066 GSF	
TOTAL BUILDING AREA =	36,250 + 79,066 = 115	5,316 GSF (2.65 AC)	
COVERAGE			
2.65 / 34.00 = 7.8%			
- OU ITY - ENIONIES	EDINIO OLTE		DATE

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50% REVIEW	5-17-24		07.12	100020 1 010	DATE	100010 1 010		100020 1 010	D/(12
CONCEPT PLAN REVIEW	5-28-24								
SITE PLAN PRELIM	8-22-24								

TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENT OF ALL STRUCTURES, KNOWN OR UNKNOWN, SHOWN OR UNSHOWN, LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IF ANY SUCH STRUCTURES ARE IDENTIFIED. ALL COSTS ASSOCIATED WITH LOCATING AND ADJUSTING THESE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE

3. DESIGN PROFESSIONAL AND CLIENT WARRANT THAT IN TRANSMITTING INSTRUMENTS OF SERVICE, OR ANY OTHER INFORMATION, THE TRANSMITTING PARTY IS THE COPYRIGHT OWNER OF SUCH INFORMATION OR HAS PERMISSION FROM THE COPYRIGHT OWNER TO TRANSIT SUCH INFORMATION FOR ITS USE OF THE PROJECT. IF THE CLIENT AND DESIGN PROFESSIONAL INTEND TO TRANSMIT INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION OR DOCUMENTATION IN DIGITAL FORM, THEY SHALL ENDEAVOR TO ESTABLISH NECESSARY PROTOCOLS GOVERNING

DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

SUCH TRANSMISSIONS.

Consulting Civil Engineers

55800 GRAND RIVER AVE. SUITE 100 NEW HUDSON MICHIGAN 48165

P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

THREE FULL WORKING DAYS MISS DIG SYSTEM, INC, CALL THE MISS BEFORE YOU DIG 1-800-482-7171

PROJECT SPONSOR: PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400 SOUTHFIELD, MI 48033

FACILITY ENGINEERING SITE PLAN PVM VILLAGE OAKLAND WOODS PH. III CITY OF PONTIAC OAKLAND COUNTY MICHIGAN

SCALE HOR: 1" = 40' 8-22-24 VER: 1" = ----DESIGNED BY 24108 JOB NO. JJW DRAWN BY SHEET FSP-1A PTG

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PVM VILLAGE OAKLAND WOODS PH. III

CITY OF PONTIAC OAKLAND COUNTY MICHIGAN

- SIGNS SHALL BE MOUNTED ON 2" SQUARE GALVANIZED STEEL POST, WALL, OR FENCE AS NOTED ON THE PLANS
- 3. STRIPING FOR HANDICAPPED (BARRIER FREE) PARKING SPACES SHALL BE BLUE AND MARKINGS FOR NON-HANDICAPPED (STANDARD) PARKING SPACES SHALL BE WHITE. WHERE A HANDICAPPED PARKING SPACE ABUTS A NON-HANDICAPPED PARKING SPACE, THE TWO SPACES SHALL BE SEPARATED BY ABUTTING BLUE AND WHITE STRIPES.
- EACH INTERNATIONAL SYMBOL OF ACCESSIBILITY (WHEELCHAIR) TO BE PAINTED ON THE PAVEMENT SHALL BE WHITE.

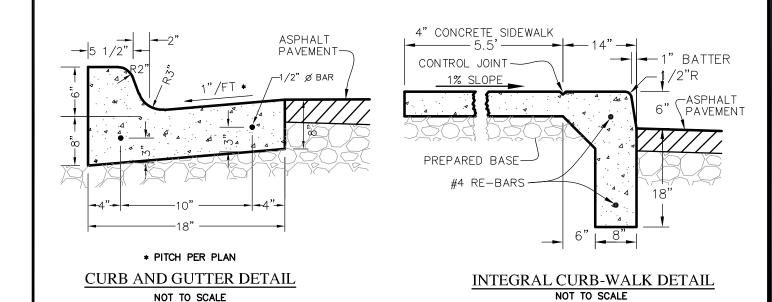
CONTRACTOR'S RESPONSIBILITIES:

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SURVEY INFORMATION INCLUDING UTILITY SYSTEMS BEFORE ANY DEMOLITION OR CONSTRUCTION WORK OCCURS. ANY DISCREPANCIES WITH THE SURVEY INFORMATION SHALL BE REPORTED TO THE CITY'S REPRESENTATIVE IMMEDIATELY.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- 3. ALL EXISTING CONDITIONS DESIGNATED TO REMAIN WITHIN THE NEW CONSTRUCTION AREA (INCLUDING MAILBOXES) SHALL BE PROPERLY AND ADEQUATELY PROTECTED FROM DAMAGE DURING DEMOLITION OPERATIONS AND THROUGHOUT CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO THE ORIGINAL CONDITION ANY OF THESE EXISTING ITEMS THAT ARE DAMAGED OR DISTURBED IN
- 4. CONTRACTOR SHALL LIMIT ALL WORK AND DISTURBANCE TO WITHIN DESIGNATED PROJECT AREAS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO THE ORIGINAL CONDITION ANY DAMAGE OR DISTURBANCE OUTSIDE THESE LIMITS.
- 5. STREETS, SIDEWALKS AND ADJACENT PROPERTY SHALL BE PROTECTED THROUGHOUT THE WORK AS REQUIRED BY LOCAL CODES AND REGULATIONS AND APPROVED BY THE CITY.
- 6. ALL MATERIAL SPECIFIED TO BE REMOVED BECOMES THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF-SITE PER APPLICABLE CODES AND REGULATIONS EXCEPT THAT PRIOR TO DISPOSAL OF ANY CASTINGS, SIGNS, OR POSTS THEY SHALL BE MADE AVAILABLE TO THE CITY OF DEARBORN FOR THE CITY'S SALVAGE YARD.
- 7. DURING DEMOLITION OPERATIONS EVERY EFFORT SHALL BE MADE TO CONTROL DUST, PER CITY REQUIREMENTS.
- 8. DURING CONSTRUCTION THE CONTRACTOR SHALL PROVIDE WATCHMEN AND FLAGMEN AS MAY BE REQUIRED FOR THE SAFETY AND CONVENIENCE OF THE PUBLIC AND SHALL FURNISH ALL BARRICADES, SIGNS, AND LIGHTS NECESSARY TO PROTECT THE PUBLIC. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE AUTHORIZED BY THE CITY OF DEARBORN. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MICHIGAN MANUAL OF TRAFFIC CONTROL DEVICES, CURRENT EDITION BY THE MICHIGAN DEPARTMENT OF

GRADING AND EARTHWORK NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

- 1. MATCH PROPOSED GRADES TO EXISTING GRADES AT THE LIMIT OF WORK, AS INDICATED AT EACH PROPOSED CONTOUR, AND AS INDICATED SPECIFICALLY ON THE PLAN.
- 2. THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE SITE BOUNDARIES, ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE SITE BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF THE CONTRACTOR.
- 3. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE CITY OF LIVONIA AND WAYNE COUNTY.
- 4. ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS INVESTIGATION REPORT, UNLESS OTHERWISE NOTED ON THESE PLANS.
- 5. REFER TO SESC PLANS FOR ALL SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES AND NOTES.
- ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE SESC PLANS.
- 7. THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE GEO-TECHNICAL ENGINEER, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
- 8. THIS IS NOT A BALANCED GRADING PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.
- 9. THE CONTRACTOR IS RESPONSIBLE TO IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES FOUND BETWEEN DESIGN ELEVATIONS, INVERTS AND AS-BUILT FIELD CONDITIONS.
- 10. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FROM THE APPLICABLE AGENCIES PRIOR
- TO THE ONSET OF CONSTRUCTION. 11. ADD "700.00" TO ALL PROPOSED GRADES TO OBTAIN SITE PLAN DATUM.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.



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PRIVATE ROAD CONSTRUCTION NOTES:

- ALL WORK WITHIN THE PRIVATE ROADS R.O.W. SHALL BE TO CURRENT CITY OF PONTIAC STANDARDS AND SPECIFICATIONS.
- TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE CITY OF PONTIAC
- PRIOR TO ANY WORK WITHIN THE PUBLIC R.O.W. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ADJACENT PROPERTY

OWNERS TO THIS PROJECT TO MINIMIZE INTERFERENCE AND INCONVENIENCES TO

- RESTORE ALL DISTURBED NON-PAVED AREAS WITH A MINIMUM 3" TOPSOIL, SEED
- AND MULCH. VEGETATION MUST BE ACCEPTABLY ESTABLISHED PRIOR TO FINAL RELEASE OF THE
- CONSTRUCTION GUARANTEE BY THE CITY OF PONTIAC. MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ALONG PUBLIC ROADS.
- 8. CONTRACTOR SHALL NOT POUR CURBS AND GUTTERS UNTIL FORMS ARE CHECKED AND APPROVED BY THE CITY OF PONTIAC INSPECTOR.
- ALL MUD AND DIRT TRACKED ONTO EXISTING CITY ROADS FROM THIS SITE DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. 10. CALL CITY INSPECTOR OR PERMIT SUPERVISOR BEFORE BEGINNING ANY WORK IN
- RIGHT-OF-WAY
- "PROPER SIGNING" IS REQUIRED BEFORE ANY WORK IN RIGHT-OF-WAY IS STARTED.
- 12. LANE CLOSURES RESTRICTED TO 9 AM TO 3 PM, MONDAY TO FRIDAY. 13. FIXED OBJECTS SHALL BE A MINIMUM 6 FEET FROM THE BACK OF THE FINISHED
- CURB LINE. REMOVE OR RELOCATE ALL FIXED OBJECTS PRIOR TO EXCAVATION. 14. ANY PEDESTRIAN FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES. SIDEWALK SHALL BE NO NEARER THAN 5 FEET FROM THE BACK OF CURB, OR 12 FEET FROM THE LANE
- 15. EXCAVATIONS WITHIN A 1:1 INFLUENCE OF THE ROADWAY WILL REQUIRE MDOT CLASS
- II BACKFILL COMPACTED TO 95% MAXIMUM DENSITY. 16. MATCH AND TIE PROPOSED CURB TO EXISTING CURB. EPOXY COATED #4 REBAR REQUIRED.

GENERAL UTILITY NOTES:

- 1. A MINIMUM OF 1.5' VERTICAL CLEARANCE BETWEEN WATER MAIN AND SEWERS MUST BE MAINTAINED.
- 2. "C.S.B." DENOTES "COMPACTED SAND BACKFILL". COMPACTED SAND BACKFILL CONSISTS OF M.D.O.T. CLASS II GRANULAR MATERIAL COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM UNIT DENSITY.
- COMPACTED SAND BACKFILL IS REQUIRED FOR ALL UTILITY TRENCHES UNDER THE EXISTING OR PROPOSED PAVEMENT AND WITHIN THE AREA BETWEEN LINES PROJECTED DOWN FROM THE TOP OF BACK OF CURB ON A 1 ON 1 SLOPE AWAY FROM THE EXISTING OR PROPOSED CURBS.
- 4. BACKFILL FOR ALL UTILITY TRENCHES OUTSIDE THE LIMITS DESCRIBED IN NOTE 3 (ABOVE) BUT WITHIN THE ROAD RIGHT-OF-WAY AND 5 FEET OUTSIDE THE RIGHT-OF-WAY SHALL BE SELECT EXCAVATED MATERIAL PLACED IN 6" LAYERS AND
- COMPACTED TO 95% OF MAXIMUM UNIT DENSITY. 5. BACKFILL FOR ALL UTILITY TRENCHES OUTSIDE THE LIMITS DESCRIBED IN NOTES 3 AND 4 (ABOVE) SHALL BE SELECT EXCAVATED MATERIAL PLACED IN 12" LAYERS AND
- 6. STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE CLASS 3 OR 4 WITH PREMIUM JOINT OR BETTER.
- 7. SANITARY SEWER SHALL BE 8" DIAMETER PVC SDR 26 PIPE AND HAVE RUBBER
- 8. WATERMAIN SHALL BE 8" DIAMETER CLASS 54 DUCTILE IRON PIPE WITH "SUPER
- 9. WATER SERVICES SHALL BE TYPE K-COPPER WITH SHUT-OFF AT MAIN.

COMPACTED TO 90% OF MAXIMUM UNIT DENSITY.

GASKET PUSH-ON TYPE JOINTS.

BELL-TITE" OR "TYTON" JOINTS.

- 10. A MINIMUM OF 3' FLAT AREA IS REQUIRED BEHIND STREET CURBS. A MAXIMUM 1 ON 4 SLOPE TO EXISTING GROUND IS REQUIRED (BEYOND SAID 3' FLAT AREA).
- 11. ALL HYDRANTS SHALL BE A MINIMUM OF 5' FROM THE BACK OF CURB.
- 12. WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- 13. EXACT GRADES AND DEPTHS OF UTILITIES ARE TO BE CHECKED CLOSELY PRIOR TO INSTALLATION.

PAVEMENT CONSTRUCTION NOTES:

PAVEMENT LAYERS.

- 1. IN GENERAL, ALL EARTHWORK AND PAVEMENT CONSTRUCTION SHOULD BE PERFORMED IN ACCORDANCE WITH THE CURRENT M.DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE FOLLOWING ITEMS.
- CONSTRUCTION SHOULD TAKE PLACE DURING THE SUMMER MONTHS OF JUNE THROUGH SEPTEMBER. DRIER WEATHER CONDITIONS ARE PREFERRED TO ALLOW FOR MORE EFFICIENT PREPARATION OF THE SUBGRADE SOILS AND INSTALLATION OF THE
- REMOVE THE EXISTING PAVEMENT STRUCTURE, EXISTING TOPSOIL, ORGANIC SOILS, UNSUITABLE FILL, VEGETATION, TREES, AND OTHER DELETERIOUS MATERIALS TO EXPOSE THE SUBGRADE SOIL. TREE ROOTS SHOULD BE COMPLETELY REMOVED. EXISTING STRUCTURES SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL A MINIMUM OF 3 FEET BELOW THE PROPOSED PAVEMENT LAYER TO PROVIDE A UNIFORM SUBGRADE.
- 4. EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
- 5. PERFORM TEST PITS AS DIRECTED BY THE OWNER'S REPRESENTATIVE ALONG THE NORTH SLOPE OF THE DETENTION BASIN TO DELINEATE PEAT SOILS. UNDERCUT AND BACKFILL
- ENCOUNTERED PEAT SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE. THE TOP 12 INCHES OF THE EXPOSED SUBGRADE AS WELL AS INDIVIDUAL FILL LAYERS SHOULD BE COMPACTED TO ACHIEVE A MINIMUM OF 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY. MANIPULATE THE MOISTURE CONTENT TO WITHIN 2 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE
- 7. THE FINAL SUBGRADE SHOULD BE THOROUGHLY PROOF ROLLED USING A LOADED TANDEM AXLE TRUCK UNDER THE OBSERVATION OF THE GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CAN NOT BE MECHANICALLY STABILIZED SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY THE FILED CONDITIONS.
- 8. THE AGGREGATE BASE SHOULD BE COMPACTED TO ACHIEVE A MINIMUM OF 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY. THE BASE AND SUBGRADE COMPACTION SHOULD EXTEND A MINIMUM OF 12 INCHES BEYOND THE PAVED EDGE OF BACK OF CURB.
- 9. FINAL PAVEMENT ELEVATIONS SHOULD PROVIDE POSITIVE SURFACE DRAINAGE AND NOT RESULT IN ANY "BIRD PATHS". 10. STRIPE PARKING LOT IN ACCORDANCE WITH CURRENT CITY OF PONTIAC STANDARDS.
- 11. SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL SECTIONS OR BELOW SUBGRADE IN CUT SECTIONS, WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
- 12. SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED WITH SAND OR OTHER SIMILAR APPROVED MATERIAL. BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM UNIT WEIGHT (PER ASTM D-1557) UNLESS OTHERWISE SPECIFIED.
- 13. ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

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STANDARD CONSTRUCTION NOTES:

- 1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF PONTIAC. 2. CALL MISS DIG (1-800-647-7344 / 1-800-MISS DIG) A MINIMUM OF 72 HOURS PRIOR TO THE START
- OF CONSTRUCTION.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UNDERGROUND UTILITIES CAUSED BY HIS OPERATIONS.

4. TRENCHES UNDER OR WITHIN 3 FT. OF EXISTING OR PROPOSED PAVEMENTS, DRIVEWAYS,

- AND/OR SIDEWALKS SHALL BE BACKFILLED AND COMPACTED WITH MDOT CLASS II SAND. WHERE UTILITIES CROSS, PROVIDE POROUS BACKFILL TAMPED IN 12" LAYERS TO THE UNDERSIDE OF THE HIGHER UTILITY. A 6" MIN. SAND CUSHION SHALL BE PROVIDED BETWEEN UTILITIES.
- ALL SEWER CONSTRUCTION SHALL HAVE MDOT CLASS II BEDDING UNLESS OTHERWISE SPECIFIED ON THE PROFILES.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.G.S. DATUM.
- 8. ALL DISTURBED AREAS BE PROMPTLY RESTORED BY THE CONTRACTOR
- 9. ALL DRIVEWAYS, DRAIN TILE, CULVERTS AND OTHER FACILITIES REMOVED, DESTROYED, DAMAGED OR OTHERWISE DISTURBED BY THE WORK SHALL BE REPLACED AND/OR RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR.
- 10. ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON SITE. 11. THE CONSTRUCTION MUST MAINTAIN ALL TRAFFIC AT ALL TIMES AS REQUIRED BY THE CURRENT
- MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTC), OAKLAND COUNTY, AND/OR MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT).
- 12. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE EMERGENCY ACCESS TO PROPERTY FOR THE POLICE, FIRE DEPARTMENT, AMBULANCES OR OTHER EMERGENCY VEHICLES TO PROTECT LIFE,
- HEALTH AND PROPERTY. 13. PAVED STREET AND DRIVEWAYS MUST BE MAINTAINED IN A REASONABLE STATE OF CLEANLINESS AND THE CONTRACTOR SHALL REMOVE ACCUMULATIONS OF DEBRIS CAUSED BY
- CONSTRUCTION OPERATIONS. 14. THE CONTRACTOR SHALL HAVE AN OPERATING SWEEPER BROOM AND CLEAN THE EXISTING PAVEMENT AT THE CLOSE OF EACH DAYS OPERATION AND AS OFTEN AS NECESSARY, FAILURE TO COMPLY SHALL CAUSE TO STOP CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH THE STATE AIR POLLUTION CONTROL REGULATIONS AND OAKLAND COUNTY SOIL EROSION AND SEDIMENTATION CONTROL (SESC).
- CONTRACTOR MUST PROVIDE ALL NECESSARY SHEETING, SHORING, DEWATERING, BRACING, TRENCH BOXES, ETC. TO PERFORM WORK SAFELY AND PROTECT EXISTING UTILITIES AND IMPROVEMENTS IN ACCORDANCE TO MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MIOSHA).

RESTORATION REQUIREMENTS:

- ALL DISTURBED LAWN AREAS SHALL BE RESTORED AS FOLLOWS IF NOT STABILIZED WITHIN 15 DAYS OF FINAL GRADING:
- 2. PLACE 3" THICKNESS CLEAN TOPSOIL TO ATTAIN THE FINISHED GRADE. TOPSOIL MUST NOT BE CONTAMINATED AND MAY NOT BE A MIXTURE OF NATURAL UNDERLYING SOILS, SUBBASE MATERIALS, OR OTHER MATERIALS. IT MUST CONSIST OF NATURAL LOAM, SANDY LOAM, SILTY LOAM, OR CLAY LOAM HUMUS-BEARING SOIL ADAPTED TO THE SUSTENANCE OF PLANT LIFE. TOPSOIL MUST NEITHER BE EXCESSIVELY ACIDIC OR EXCESSIVELY ALKALINE. IT MUST BE OF MINERAL ORIGIN, EXCLUSIVE OF ANY PEAT OR MUCK.
- APPLY SEED AND FERTILIZER. FERTILIZER TO CONFORM TO M.DOT REQUIREMENTS FOR SEEDING AND SODDING FERTILIZERS, CLASS A AND SHALL BE APPLIED PER THE MANUFACTURER'S RECOMMENDATIONS.
- 4. APPLY FRESH STRAW OR MARSH HAY MULCH IN AN AIR-DRY CONDITION TO ALL SEEDED AREAS OVER THE SURFACE TO A UNIFORM THICKNESS AT 2 TONS PER ACRE.
- MULCH SHALL BE ANCHORED IN PLACE WITH A BIO-DEGRADABLE NETTING NOT LARGER THAN 1.5" BY 2" OR SMALLER THAN 0.5" BY 0.5".
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THE GROWTH OF ALL SEEDED AREAS -INCLUDING WATERING - AND SHALL RE-SEED AS NECESSARY TO ACCOMPLISH THIS.

TRAFFIC CONTROL AND BARRICADING NOTES:

CONTRACTOR TO INSTALL AND MAINTAIN ALL TEMPORARY ROAD CLOSURE, TRAFFIC CONTROL, AND PEDESTRIAN ACCESS SIGNAGE AND BARRICADES IN ACCORDANCE WITH CURRENT M.M.U.T.C.D. STANDARDS.

STRUCTURE COVER NOTE:

STRUCTURE COVERS FOR PRIVATE UTILITIES SHALL NOT CONTAIN THE CITY OF PONTIAC LOGO OR NAME, ONLY PUBLIC UTILITY STRUCTURE COVERS SHALL.

STANDARD SOIL EROSION AND SEDIMENTATION CONTROL MAINTENANCE SCHEDULE AND NOTES:

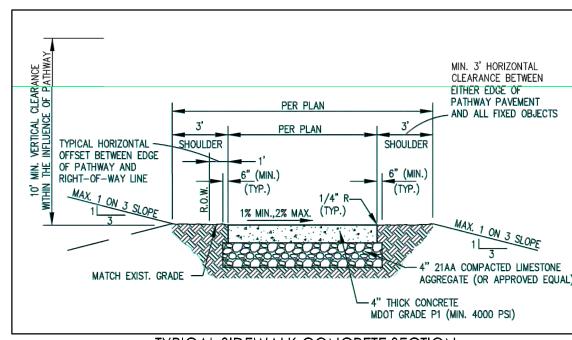
ALL MUD, DIRT AND/OR DEBRIS TRACKED OR SPILLED ONTO ANY PAVED AREAS SHALL BE REMOVED/CLEANED DAILY IN A PROMPT MANNER BY THE CONTRACTOR BY SCRAPING. STREET SWEEPING IS REQUIRED WEEKLY.

2. SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT UP SEDIMENT WHEN THE

- SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO ½ OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR REBACKFILL THE SILTATION FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION. SILT SACKS MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED
- SEDIMENTATION OR OTHER DEBRIS. THE REMOVAL OF SEDIMENTATION SHOULD BE WITH THE USE OF A STIFF BRISTLE BOOM OR SQUARE POINT SHOVEL. IF SILT SACKS CANNOT BE CLEANED OR ARE DAMAGED, THEN THEY MUST BE REPLACED. 4. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR
- ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGE HAS BEEN COMPLETED, OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASED, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED WITHIN 5 CALENDAR DAYS. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND/OR ESTABLISHED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED. ALL DRAIN BANKS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITHIN 5 CALENDAR DAYS
- AND SOD PEGGED IN PLACE. PARTICULAR CARE SHOULD BE TAKEN WHEN WORKING ALONG THE PERIMETER OF THE SITE. IN NO EVENT SHALL WORK AREA EXTEND BEYOND THE LIMITS INDICATED ON THE PLANS. 6. ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE
- STANDARDS AND SPECIFICATIONS OF OAKLAND COUNTY AND THE CITY OF PONTIAC 7. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE EFFECTIVENESS OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- SOIL EROSION AND SEDIMENTATION FROM THE WORK SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES
- 9. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE. 10. THE CONTRACTOR SHALL APPLY TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL
- MEASURES AS REQUIRED AND AS DIRECTED ON THESE PLANS. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED AND APPROVED BY THE CITY OF PONTIAC ENGINEERING DIVISION. 11. DEBRIS FROM THE PROJECT SITE WILL BE LEFT ON THE SITE BY DELIVERY OR CONSTRUCTION
- VEHICLES THROUGH THE USE OF CLEAN STONE EXIST(S). IF THE STONE BECOMES LESS EFFECTIVE AND/OR EFFICIENT IT MUST BE REPLACED. ALL CONSTRUCTION TRAFFIC MUST USE THE CLEAN STONE EXIST(S)
- 12. DUST CONTROL WILL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE DEVELOPER AND/OR THE CONTRACTOR(S). SPRINKLING TANK TRUCKS MUST BE AVAILABLE AT ALL TIMES TO BE USED ON HAUL ROUTES OR OTHER PLACES WHERE DUST BECOMES A PROBLEM. 13. EARTH EMBANKMENT BRIDGES PLACED OVER NEW PAVEMENT SHALL BE LOCATED ONLY AT

PAVEMENT HIGH-POINTS AND SHALL HAVE STRAW BALES PLACED ALONG EACH SIDE OF THE

BRIDGE FOR THE WIDTH OF PAVEMENT. 14. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW OR HAY, SPREAD UNIFORMLY AT THE RATE OF 1-1/2 TONS TO 2 TONS PER ACRE OR 100 POUNDS PER 1000 SQUARE FEET. ANCHOR MULCH WITH DISC-TYPE ANCHORING TOOL OR OTHER MEANS APPROVED BY THE CITY OF PONTIAC ENGINEERING DIVISION.



TYPICAL SIDEWALK CONCRETE SECTION

SIDEWALK JOINTS NOTES

CONSTRUCT TRANSVERSE AND LONGITUDINAL EXPANSION AND PLANE OF WEAKNESS JOINTS AT INTERVALS AND LOCATIONS SHOWN ON THE PLANS. ALIGN TRANSVERSE JOINTS WITH LIKE JOINTS IN ANY ADJACENT SLAB.

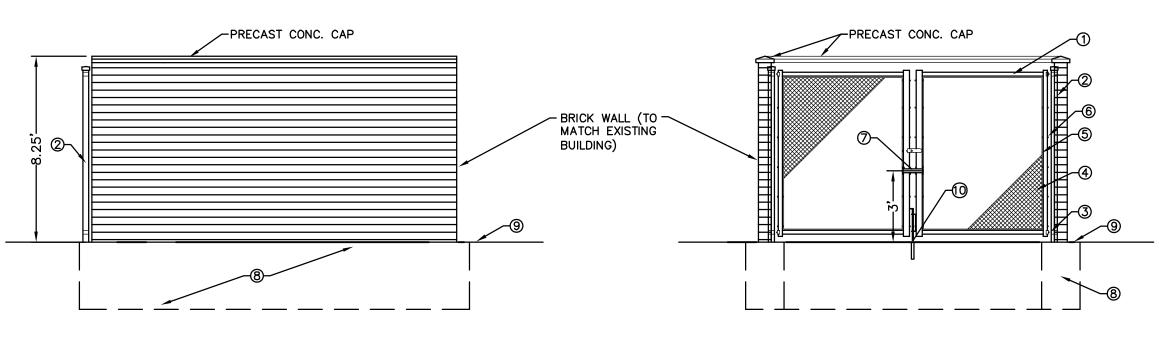
2. CONSTRUCT JOINTS WITH FACES PERPENDICULAR TO THE SIDEWALK SURFACE.

- 3. PLACE CONTRACTION JOINTS AT 5' MINIMUM AND 7' MAXIMUM INTERVALS, JOINTS ARE TO BE FULL WIDTH OF THE WALK AND MINIMUM 1/4 SLAB THICKNESS DEEP AND 1/8 INCH TO 1/4 INCH WIDE. PATHWAY (MATERIAL AS SPECIFIED)
- 4. PLACE 1/2" FIBER EXPANSION JOINT FILLERS AT MAX. 50' INTERVALS. EXTEND EXPANSION JOINT FILLER THE FULL DEPTH OF THE JOINT WITH THE TOP SLIGHTLY BELOW THE FINISHED SURFACE OF THE SIDEWALK. 5. PLACE 1/2" FIBER EXPANSION JOINT FILLERS AT EACH SIDE OF DRIVE.

6. PROVIDE 1" FIBER EXPANSION JOINT FILLERS AT CURB AND BUILDING OR

SIDEWALK STANDARD NOTES SIDEWALK RAMPS. CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS SHOWN ON

- THE PLAN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.
- SIDEWALK AND PATHWAY RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. HANDICAP RAMPS SHALL MEET CURRENT MOOTSTANDARDS AND A.D.A. BARRIER FREE REQUIREMENTS.
- RAMPS SHALL BE PROVIDED AT CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB
- 4. SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE O THE SLOPE OF RAMP. SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.
- CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN
- ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL. IF POSSIBLE DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS EXCEPT WHERE
- EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED IN THE NEW CONSTRUCTION. LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURE.
- THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT
- 10. CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN
- MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". 11. DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP.



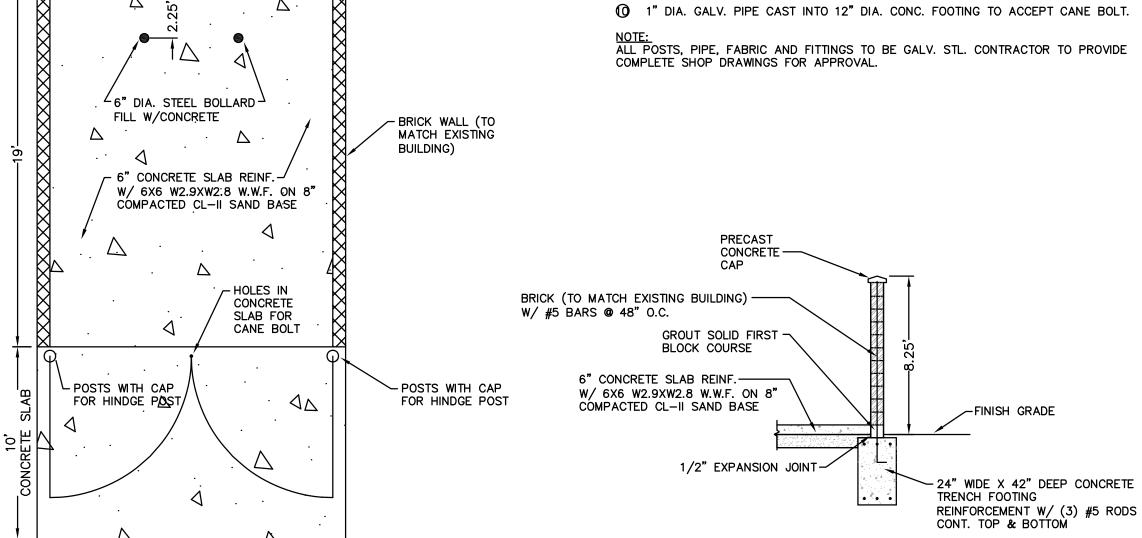
DUMPSTER ENCLOSURE SIDE ELEVATION NOT TO SCALE

ELEVATION NOT TO SCALE

DUMPSTER ENCLOSURE FRONT

- TRAME WITH 2" O.D. PIPE. ALL JOINTS ARE WELDED TO MAKE A RIGID FRAME.
- (2) 3" O.D. POSTS WITH CAP TYP. FOR HINDGE POST.
- (3) HINGE, TYP.
- (4) WIRE FABRIC WITH VINYL SLATS (5) TENSION BAR, TYP.
- (6) TENSION CLIPS, 15" O.C. TYP.
- (7) LATCH WITH PROVISIONS FOR PADLOCK. 8 24" WIDE X 42" DEEP CONCRETE TRENCH FOOTING REINFORCEMENT W/ (3) 5 RODS CONT. TOP & BOTTOM
- (9) FINISH GRADE, SEE PLANS.
- 1" DIA. GALV. PIPE CAST INTO 12" DIA. CONC. FOOTING TO ACCEPT CANE BOLT.

NOTE:
ALL POSTS, PIPE, FABRIC AND FITTINGS TO BE GALV. STL. CONTRACTOR TO PROVIDE COMPLETE SHOP DRAWINGS FOR APPROVAL.



DUMPSTER ENCLOSURE PLAN VIEW NOT TO SCALE

> FACILITY ENGINEERING PLAN NOTES PVM VILLAGE OAKLAND WOODS PH. III CITY OF PONTIAC OAKLAND COUNTY MICHIGAN

SCALE 8-22-24 VER: 1" = ----DESIGNED BY 24108 JOB NO. JJW DRAWN BY SHEET FSP-2 PTG

DUMPSTER ENCLOSURE/SCREEN

WALL SECTION

NOT TO SCALE

5-17-24 50% REVIEW CONCEPT PLAN REVIEW 5-28-24 SITE PLAN PRELIM 8-22-24

DATE

ISSUED FOR

ISSUED FOR

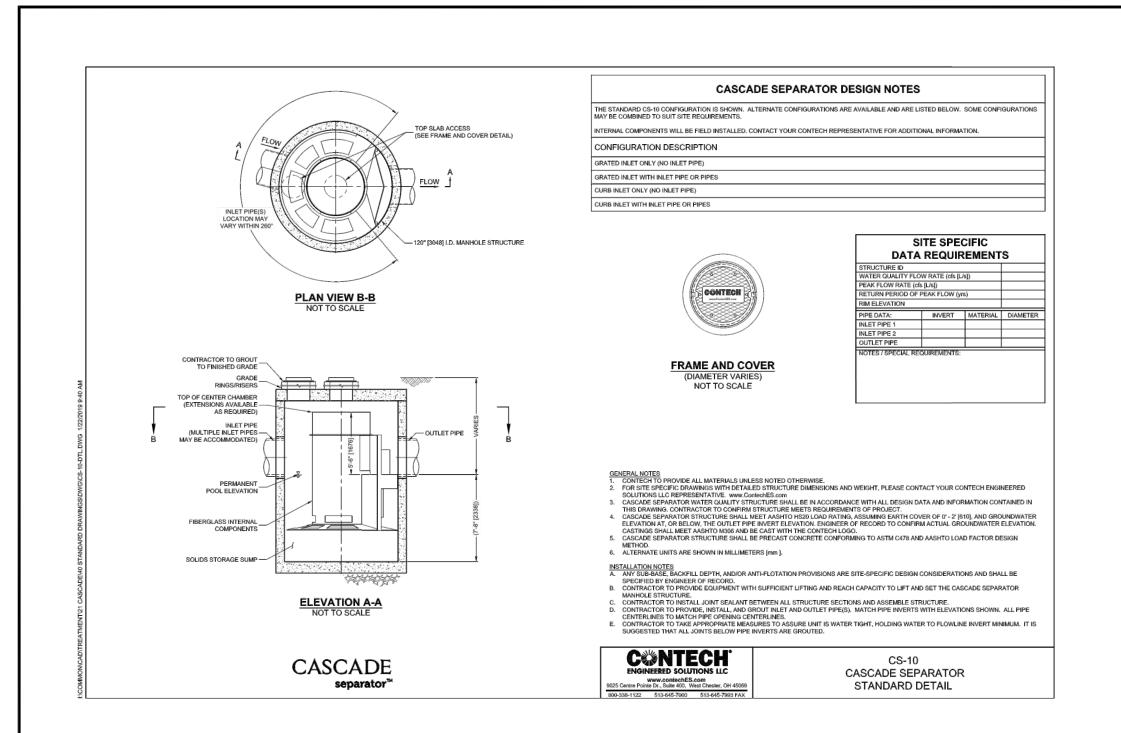
Consulting Civil Engineers

THREE FILL WORKING DAYS BEFORE YOU DIG MISS DIG SYSTEM, INC. CALL THE MISS

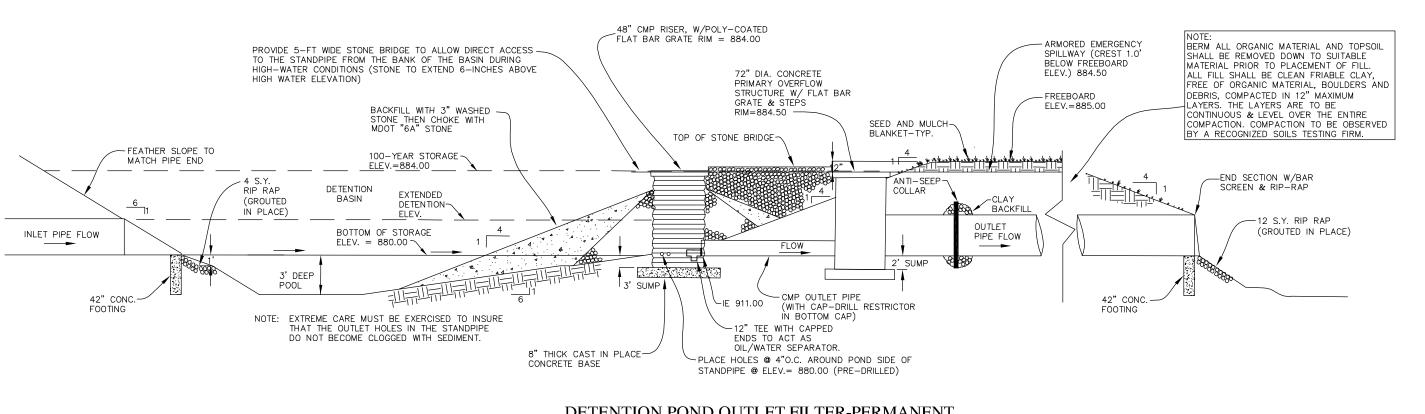
PROJECT SPONSOR: SOUTHFIELD, MI 48033

PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400

55800 GRAND RIVER AVE SHITE 100 NEW HUDSON, MICHIGAN 48165 1-800-482-7171 P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com







DETENTION POND OUTLET FILTER-PERMANENT

AN OUTLET CONTROL STRUCTURE WILL BE PROVIDED TO RESTRICT THE DISCHARGE RATE FROM THE STORMWATER MANAGEMENT SYSTEM.
WATER CHALLEY CONTROL

OUTLET DESIGN

DRAINAGE ANALYSIS: ORIGINAL SITE (2005): (OAKLAND COUNTY 10-YEAR DESIGN) SITE AREA (PH 2,2A,2B &3)=

EXISTING DETENTION ANAYLSIS:

TOTAL EX. BASIN (10 YR) = 26.00 100.00%

(OAKLAND COUNTY 100YEAR

100-YEAR PEAK INTENSITY

100 - YEAR PEAK INFLOW

VARIABLE RELEASE RATE

STORAGE CURVE FACTOR

100 - YEAR STORAGE VOLUME

EXTENDED DETENTION RELEASE RATE

INFILTRATION BMP CALCULATIONS

AVERAGE INFILTRATION AREA

SURFACE STORAGE VOLUME

SUBSURFACE STORAGE VOLUME

BIORETENTION TOTAL STORAGE VOLUME

(OAKLAND COUNTY 100YEAR

100-YEAR PEAK INTENSITY

100 - YEAR PEAK INFLOW

VARIABLE RELEASE RATE

STORAGE CURVE FACTOR

100 - YEAR STORAGE VOLUME

EXTENDED DETENTION RELEASE RATE

INFILTRATION BMP CALCULATIONS

AVERAGE INFILTRATION AREA

SURFACE STORAGE VOLUME

SUBSURFACE STORAGE VOLUME

BIORETENTION TOTAL STORAGE VOLUME

VOID RATIO (e) =

INFILTRATION STORAGE

K_{SAT} SAFETY FACTOR =

DEPTH (H) =

100 - YEAR RUNOFF

CHANNEL PROTECTION VOLUME

PROPOSED SITE: (DRAINING TO PROPOSED POND)

10.00 MIN.

100 YEAR 7.60 IN/HR

CHANNEL PROTECTION RATE CONTROL: EXTENDED DETENTION

32,164 CF

VOID RATIO (e) = DEPTH (H) =

INFILTRATION STORAGE

K_{SAT} SAFETY FACTOR =

 $V_{TBR} =$

SITE AREA =

USE T_C =

100 - YEAR RUNOFF

CHANNEL PROTECTION VOLUME

PROPOSED SITE: (DRAINING TO EXISTING POND)

CHANNEL PROTECTION RATE CONTROL: EXTENDED DETENTION

90,183 CF

-64,520 CF

0.73 CFS

CREDIT FOR CHANNEL PROTECTION VOLUME HAS NOT BEEN INCLUDED DUE TO POOR SOILS ON SITE

ASSUMED INFILTRATION RATE IS ASSUMED TO NOT HAVE AN EFFECT DUE TO THE SOILS

PHASE 1 =

PHASE 2A = PHASE 2B = PHASE 3 WETLANDS =

USE T_C =

Q_{100P} =

V_{REQD} =

125 MIN 132,860 CF 141,507 CF

ON ANAYLSIS:

AREA (AC) % OF BASIN

19.36 0.00% 0.00

2.66 10.23% 14477.25

8.45 32.50% 45989.78

8.12 31.23% 44193.72

6.77 26.04% 36846.25

44.45 0.00% 0.00

89.81

WATER QUALITY CONTROL

ASSUMED INFILTRATION RATE BASED UPON 3 INFILTRATION TESTS

A MANUFACTURED STORMWATER TREATMENT SYSTEM SHALL BE SELECTED IN LIEU OF A

Q₁ = 2.76 X 0.50 X 2.76 = 9.34 CFS

SELECT A CASCADE SEPARATOR MODEL CS-10 FROM CONTECH WHICH CAN TREAT A MAXIMUM FLOW OF 11.30 CFS.

CREDIT FOR CHANNEL PROTECTION VOLUME HAS NOT BEEN INCLUDED DUE TO POOR SOILS ON SITE

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	_
SITE PLAN PRELIM	8-22-24									

ZEIMET W& ZNIAK ASSOCIATES Consulting Civil Engineers 55800 GRAND RIVER AVE., SUITE 100 NEW HUDSON, MICHIGAN 48165

P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

THREE FULL WORKING DAYS MISS DIG SYSTEM, INC. BEFORE YOU DIG, CALL THE MISS 1-800-482-7171

PROJECT SPONSOR: PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400 SOUTHFIELD, MI 48033

STORMWATER MANGEMENT ANALYSIS PVM VILLAGE OAKLAND WOODS PH. III CITY OF PONTIAC OAKLAND COUNTY MICHIGAN

DATE 8-22-24 SCALE HOR: 1" = 100' VER: 1" = ----DESIGNED BY JJW JOB NO. 24108 DRAWN BY PTG SHEET FSP-3

ANAGEMENT SYSTEM.

SEDIMENT FOREBAY.

CALCULATIONS FOR

STORM WATER 10 YEAR DETENTION

REFER TO OVERALL DRAINAGE PLAN BELOW FOR CORRESPONDING AREAS

1. DRAINAGE AREAS

TOTAL SITE AREA = 89.81 ACRES

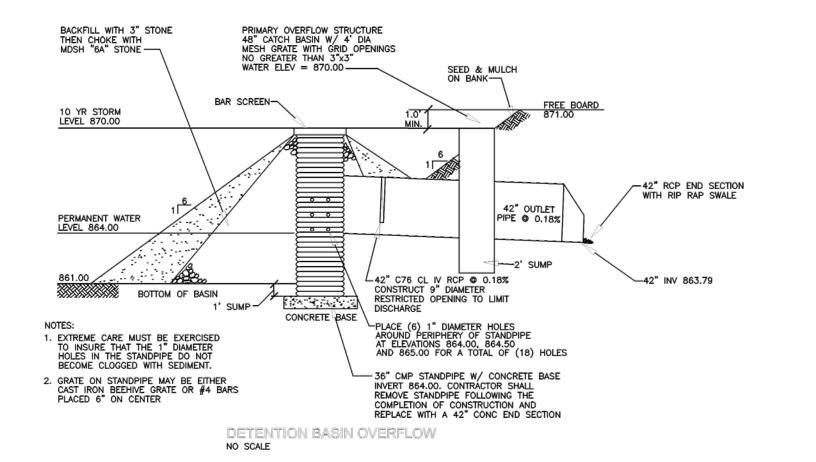
2) UNIT 2 PARCEL (FUTURE) = 2.66

(1) PHASE I DEVELOPMENT (EXISTING) = 19.36 ACRES

10 Year Storm Sewer System Design - Villas of Oakland Woods

Line ID	Length	Incr	Total	Runoff	Incr	Total CxA	Inlet	Tc	Rain	Total	Addnl Q	Total	Capac. Full	Veloc	Pipe Size	Pipe	Inv Elev	Inv Elev			Gr/Rim EI	Olification
	/ f t)	Area	Area	Coeff	CxA	CXA	Time (min)	Syst	(l)	Runoff		Flow (cfs)		(ft/c)		Slope (%)	Up (#)	Dn /ft)	Up (#)	Dn (ft)	(ft)	(ft)
ES1-MH10	(ft) 271.00	(ac)	(ac)	(C)	0.00	12.29	(min)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs) 42.78	(ft/s)	(in)	(%)	(ft) 864.88	(ft) 864.39	(ft)	(ft) 867.91	(ft) 877.00	(ft)
		0.00	26.01	0.00	0.00		0.00	32.90	3.00	37.13	0.00	37.13		3.88	42.00	0.18			868.25		ļ	977.0
MH10-CB15	97.00	1.05	11.89	0.39	0.41	7.12	20.00	32.10	3.10	21.82	0.00	21.82	23.10	3.09	36.00	0.12	865.09	864.97	868.59	868.49	874.82	877.0
CB15-CB14	29.00	0.86	10.49	0.66	0.57	6.57	20.00	31.80	3.10	20.23	0.00	20.23	21.46	2.86	36.00	0.12	865.12	865.09	868.84	868.82	874.82	874.8
CB14-MH9	68.00	0.00	9.63	0.00	0.00	6.00	0.00	31.30	3.10	18.66	0.00	18.66	20.01	3.80	30.00	0.24	865.28	865.12	869.16	869.03	875.85	874.8
MH9-MH8	209.00	0.00	9.63	0.00	0.00	6.00	0.00	29.60	3.20	19.25	0.00	19.25	20.06	3.92	30.00	0.24	865.78	865.28	869.73	869.26	877.95	875.8
MH8-MH7	88.00	0.00	8.51	0.00	0.00	5.52	0.00	28.80	3.30	17.94	0.00	17.94	20.03	3.66	30.00	0.24	866.99	866.78	870.13	869.96	878.90	877.9
MH7-MH6	154.00	0.00	8.51	0.00	0.00	5.52	0.00	27.60	3.30	18.38	0.00	18.38	27.70	5.97	24.00	1.50	869.30	866.99	871.13	870.23	881.85	878.9
MH6-MH5	207.00	0.00	7.77	0.00	0.00	5.09	0.00	25.80	3.40	17.52	0.00	17.52	27.72	8.18	24.00	1.50	878.46	875.35	879.94	876.50	888.65	881.8
MH5-MH4	34.00	0.00	6.52	0.00	0.00	4.60	0.00	25.60	3.50	15.93	0.00	15.93	16.00	5.76	24.00	0.50	882.58	882.41	884.22	884.06	889.15	888.6
MH4-MH3	117.00	0.00	5.95	0.00	0.00	4.24	0.00	24.60	3.50	14.98	0.00	14.98	14.93	4.77	24.00	0.44	883.09	882.58	885.25	884.74	890.85	889.15 890.85
MH3-CB5	38.00	0.15	4.80	0.50	0.08	3.76	20.00	24.30	3.60	13.35	0.00	13.35	13.73	4.94	24.00	0.38	884.23	884.09	885.83	885.70	890.17	890.1
CB5-MH2	21.00	0.00	4.65		0.00	3.68	0.00	24.10	3.60	13.13	0.00	13.13	16.68	7.78	18.00	2.52	885.26	884.73	886.62	886.10	891.05	afammarana ana ana ana ana ana
MH2-MH1	255.00	0.00	3.66	0.00	0.00	3.03	0.00	22.00	3.70	11.31	0.00	11.31	16.60	6.70	18.00	2.50	891.63	885.26	892.92	887.04	899.10	891.0
MH1-CB2 CB2-CB1	8.00	0.50	1.00	0.64	0.32	0.64	20.00	20.20	3.90	2.48	0.00	2.48	2.52	3.62	12.00	0.50	893.27	893.23	894.08	894.04	898.91	899.1 898.9
MH2-CB4	29.00	0.50	0.50	0.64	0.32	0.32	20.00	20.00	3.90	1.24	0.00	1.24	2.01	2.66	12.00	0.32	894.67	894.58	895.25	895.16	898.91 890.75	
	8.00	0.51	0.99	0.63	0.32	0.65	20.00	20.20	3.90	2.51	0.00	2.51	2.52	3.19	12.00	0.50	885.40	885.36	887.08	887.04		891.0
CB4-CB3	29.00	0.48	0.48	0.68	0.33	0.33	20.00	20.00	3.90	1.27	0.00	1.27	2.01	2.65	12.00	0.32	886.83	886.74	887.41	887.33	890.75	890.7
MH3-CB6	81.00 44.00	0.12 0.12	1.15 0.12	0.56	0.07	0.49	20.00	20.60	3.80	1.87	0.00	1.87	2.01	2.38	12.00 12.00	0.32	884.35	884.09	885.83 885.97	885.61 885.96	891.10 889.80	890.8 891.1
CB6-CB7				0.55	0.07		20.00	20.00	3.90	0.26	0.00	0.26		0.33	and the second second second second second second second	0.32	884.49	884.35				e di mengangan pamanan pada paga negar
CB6-YB3 MH4-CB9	76.00	0.91	0.91	0.39	0.35	0.35	20.00	20.00	3.90	1.38	0.00	1.38	2.01	1.76	12.00 12.00	0.32	884.69 883.29	884.45 883.27	886.08 884.75	885.96	892.50 888.63	891.10
CB9-CB8	7.00 29.00	0.48	0.57	0.63 0.60	0.30	0.36 0.05	20.00	20.20	3.90 3.90	1.38 0.21	0.00	1.38 0.21	2.01	1.76 0.27	12.00	0.32	883.38	883.29	884.78	884.74 884.77	888.63	889.18 888.63
MH5-YB2A	102.00	0.09	1.25	0.60	0.05	0.05			3.70	1.83	0.00	1.83	3.67	1.49	15.00	0.32	879.08	878.75	880.79	880.71	889.00	888.6
YB2A-MH5A	53.00	0.07	1.23	0.40	0.03	0.49	20.00 0.00	21.70 21.30	3.80	1.72	0.00	1.72	3.66	1.49	15.00	0.32	879.25	879.08	880.84	880.81	890.50	889.00
MH5A-YB1				0.35							0.00					0.32	879.75	879.08	880.90	880.87	885.00	890.50
MH6-CB10	156.00 12.00	0.36 0.25	0.36	0.63	0.13 0.16	0.13	20.00	20.00	3.90	0.49 1.67	0.00	0.49 1.67	2.01	0.62 2.92	12.00 12.00	0.32	876.35	876.31	877.03	877.00	881.69	881.8
CB10-CB11	A STATE OF THE PARTY OF THE PAR	0.49	0.74	0.56	0.10	0.43	20.00	20.20	3.90	1.07	0.00	1.07	2.01	1.71	12.00	0.32	876.44	1			881.69	4
MH8-CB12				0.56	-													872.48	873.12	873.09	877.55	877.95
CB15-YB4	5.00	0.31	1.12	0.39	0.21	0.48	20.00	20.20	3.90	1.87	0.00	1.87	2.76	3.72 0.68	12.00	0.60	872.51	866.50	868.84	868.82	880.30	874.82
MH10-MH11	98.00 101.00	0.35	0.35	0.00	0.14	0.14 5.17	20.00	20.00 30.10	3.90 3.20	0.53	0.00	0.53 16.41	2.01 19.99	4.51	12.00 30.00	0.32	866.81 869.18	868.94	870.91	870.68	880.90	877.00
MH11-MH12	106.00	0.00	14.12 13.52	0.00	0.00	4.75	0.00	29.20	3.20	16.41 15.33	0.00	15.33	16.42	3.70	30.00	0.24	869.35	869.18	871.31	871.15	882.40	880.90
MH12-CB18	30.00			0.53	0.00	4.75	20.00	29.00	3.20				16.75	3.68	30.00		869.40	869.35	871.39	871.34	882.50	882.40
CB18-CB19	29.00	0.15 0.33	13.52 13.37	0.35	0.08	4.75	20.00		3.30	15.40 15.21	0.00	15.40 15.21	17.03	3.42	30.00	0.16	869.45	869.40	871.57	871.53	882.50	882.50
CB10-CB19 CB19-CB20	75.00	0.33	13.04	0.54	0.12	4.56	20.00	28.80 28.10	3.30	15.21	0.00	15.21	16.40	3.25	30.00	0.16 0.16	869.57	869.45	871.78	871.70	882.22	882.50
CB19-CB20 CB20-MH13	32.00	0.00	12.77	0.00	0.00	4.41	0.00	27.90	3.30	14.60	0.00	14.60	14.96	4.65	24.00	0.16	869.71	869.57	872.00	871.86	883.40	882.22
MH13-MH14	137.00	0.00	12.77	0.00	0.00	4.41	0.00	26.70	3.40	14.93	0.00	14.93	14.97	4.75	24.00	0.44	870.31	869.71	872.85	872.25	880.80	883.40
MH14-MH15	245.00	0.00	11.93	0.00	0.00	3.91	0.00	24.70	3.50	13.77	0.00	13.77	15.02	4.73	24.00	0.44	871.39	870.31	874.05	873.14	878.00	880.80
MH15-MH16	24.00	0.00	10.01	0.00	0.00	2.72	0.00	24.70	3.50	9.62	0.00	9.62	15.31	3.06	24.00	0.44	871.50	871.39	874.39	874.35	878.00	878.00
MH16-MH17	61.00	0.00	1.98	0.00	0.00	0.76	0.00	22.10	3.70	2.82	0.00	2.82	3.20	2.30	15.00	0.46	872.54	872.39	874.66	874.54	878.60	878.00
MH17-MH18	102.00	0.00	1.98	0.00	0.00	0.76	0.00	21.30	3.80	2.87	0.00	2.87	3.13	2.34	15.00	0.24	873.28	873.04	874.90	874.69	879.60	878.60
MH18-MH19	90.00	0.00	1.46	0.00	0.00	0.75	0.00	20.50	3.80	1.74	0.00	1.74	3.67	2.80	15.00	0.32	874.58	874.29	875.18	874.96	880.95	879.60
MH19-CB27	34.00	0.73	1.46	0.00	0.00	0.45	20.00	20.20	3.90	1.75	0.00	1.74	2.01	2.90	12.00	0.32	875.69	875.58	876.41	876.30	881.13	880.9
CB27-CB28	29.00	0.73	0.73	0.31	0.23	0.43	20.00	20.20	3.90	0.88	0.00	0.88	2.01	1.45	12.00	0.32	875.88	875.79	876.57	876.55	881.13	881.13
MH18-CB25	11.00	0.73	0.73	0.59	0.23	0.23	20.00	20.00	3.90	1.19	0.00	1.19	2.15	1.51	12.00	0.32	873.79	873.75	874.97	874.96	879.13	879.6
CB25-CB26	29.00	0.20	0.32	0.59	0.12	0.31	20.00	20.20	3.90	0.73	0.00	0.73	2.13	2.31	12.00	0.30	875.10	875.01	875.52	875.44	879.13	879.1
YB7-YB7A	6.00	2.54	2.54	0.39	0.19	0.19	20.00	20.00	3.90	2.26	0.00	2.26	7.27	1.28	18.00	0.32	873.20	873.17	875.00	874.97	878.20	878.2
MH16-YB7	96.00	2.54	8.03	0.23	1.17	1.96	20.00	23.70	3.60	7.05	0.00	7.05	7.27	3.99	18.00	0.48	873.17	872.71	874.97	874.54	878.20	878.0
YB7-YB6	213.00	1.83	2.95	0.25	0.46	0.79	20.00	21.90	3.70	2.96	0.00	2.96	2.98	3.77	12.00	0.70	874.66	873.17	876.76	875.28	880.20	878.2
YB6-MH20	177.00	0.00	1.12	0.23	0.00	0.79	0.00	20.40	3.90	1.29	0.00	1.29	2.90	1.73	12.00	0.70	876.23	875.66	877.08	876.87	889.00	880.2
MH20-YB5	52.00	1.12	1.12	0.30	0.00	0.34	20.00	20.40	3.90	1.31	0.00	1.29	2.01	2.73	12.00	0.32	879.40	879.23	879.98	879.82	885.20	889.0
MH15-CB23	8.00	0.83	1.12	0.59	0.49	1.19	20.00	20.00	3.90	4.59	0.00	4.59	6.07	3.71	18.00	0.32	873.45	873.42	874.44	874.42	887.20	878.0
CB23-CB24	29.00	1.09	1.09	0.59	0.49	0.70	20.00	20.20	3.90	2.71	0.00	2.71	3.66	3.51	12.00	1.06	873.76	873.45	874.69	874.55	877.20	877.2
MH14-CB21	11.00	0.51	0.84	0.67	0.70	0.70	20.00	20.00	3.90	1.95	0.00	1.95	2.80	3.88	12.00	0.62	874.76	874.69	875.37	875.30	880.09	880.8
CB21-CB22	29.00	0.33	0.84	0.67	0.34	0.50	20.00	20.20	3.90	0.63	0.00	0.63	2.00	1.03	12.00	0.82	874.85	874.76	875.54	875.53	880.09	880.0
																		874.26	874.89	874.84	879.91	880.9
MH11-CB16	15.00	0.27	0.60	0.79 0.62	0.21	0.42	20.00	20.20	3.90 3.90	1.62 0.80	0.00	1.62 0.80	3.73 3.60	2.91	15.00	0.32	874.31	Leanning and the second	875.04	875.03	879.91	879.9
CB16-CB17	29.00	0.33	0.33	0.62	2.39	2.39	20.00	20.00	3.90	9.31	0.00	9.31	16.61	1.17	15.00	0.32	874.40	874.31	_	894.44	906.75	899.1
MH1-MH1A	235.00	2.66	2.66											7.95	18.00	2.50	899.51	893.63	900.67			
CB12-CB13	MATERIAL PROPERTY AND ADDRESS OF THE PARTY AND	0.81	0.81	0.34	0.28	0.28	20.00	20.00	3.90	1.07	0.00	1.07	2.01	1.87	12.00	0.32	872.60	872.51	873.26	873.23	877.55	877.5
MH5A-YB2	20.00	0.82	0.82	0.40	0.33	0.33	20.00	20.00	3.90	1.28	0.00	1.28	2.01	2.60	12.00	0.32	885.31	885.25	885.91	885.85	895.50	890.5

Intensity = 175 / (Tc + 25) ^ 1 (in/hr) Return period = 10 Yrs.



FOR REFERENCE ONLY

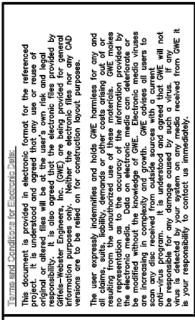
ISSUE:	PERMIT REVIEW	OCDC STORM APPROVAL	PERMIT APPROVAL	MSHDA CLOSING	10.19.05 FINAL PERMIT APPROVAL	CONSTRUCTION SET	
DATE:	08.04.05	09.16.05	09.16.05	09.20.05	10.19.05	11.03.05	

|--|

PRINCIPAL:	K.M.	
MANAGER:	P.M.	
DESIGN:	M.K.	
DRAWN:	G.S.	
IND. REVIEW:	XX	
SECTION:	34	
T-3-N	R-10-E	

THE DAMONE GROUP SO STEPHENSON HWY., SUITE 200 TROY, MI 48083 (248)583-6020





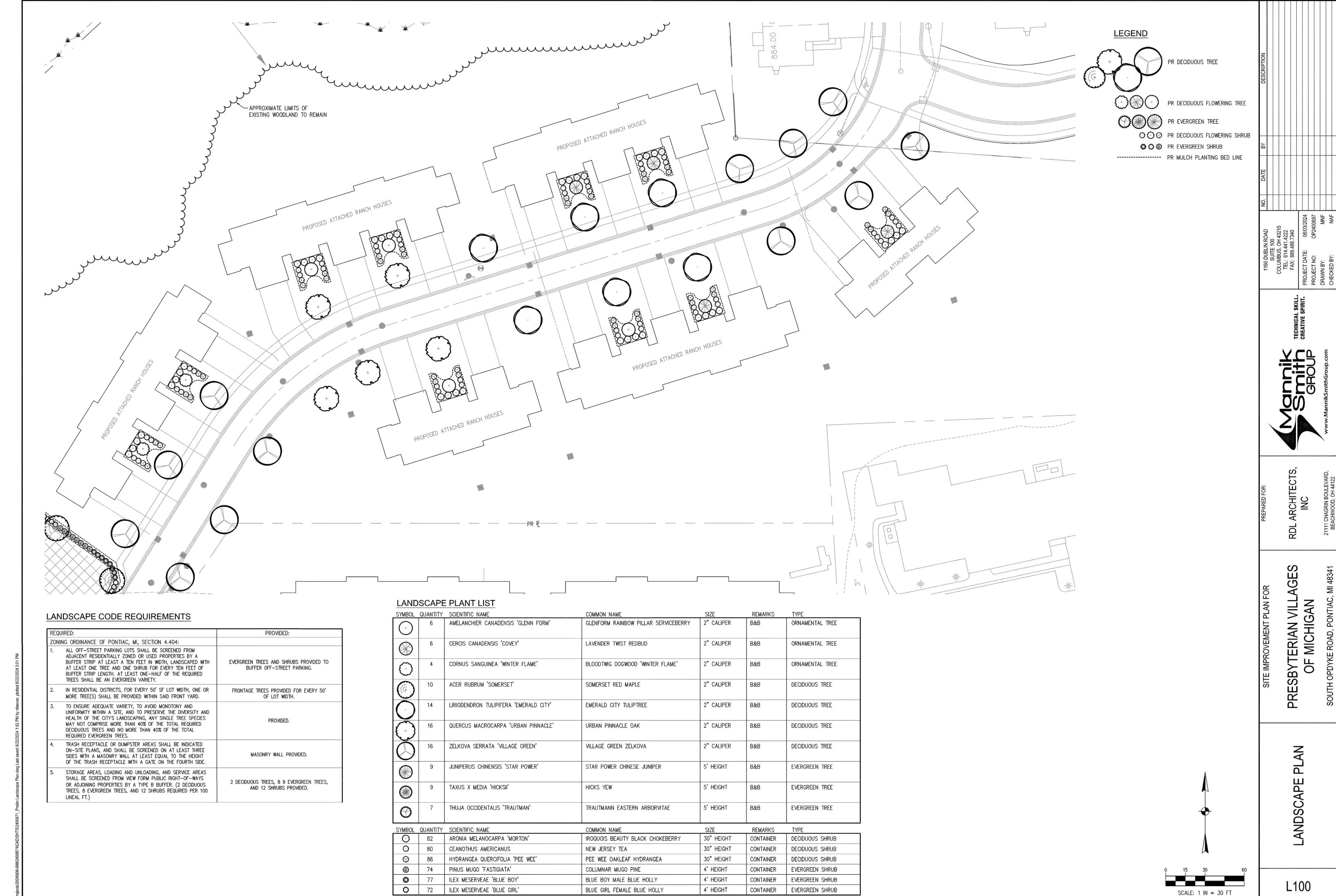


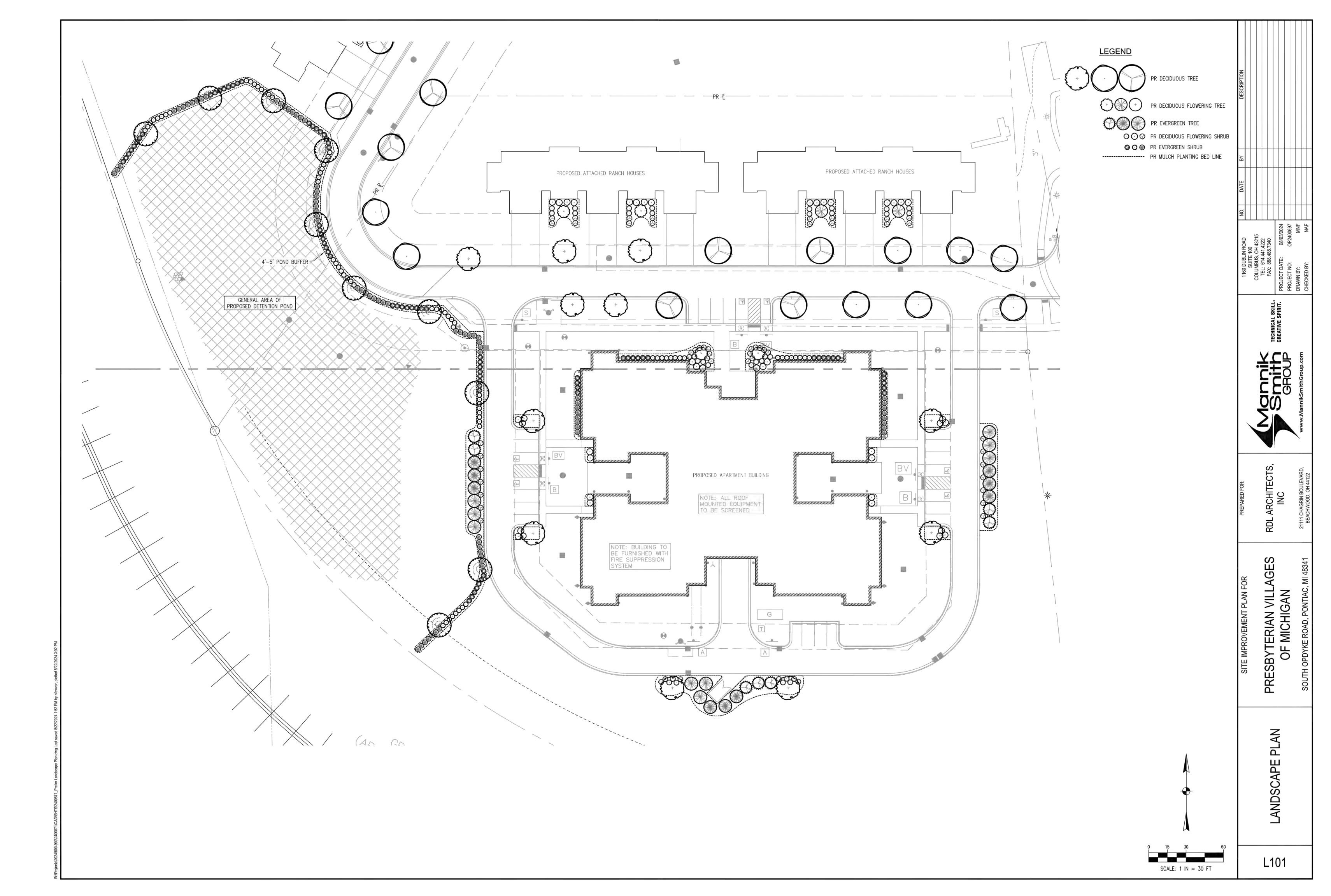
DATE: 07.20.05

SCALE: AS NOTED

SHEET: FSP-4

JOB: 14782.10





24108\DWG\24108 LANDSCAPE PLANS.dwg, L101 LANDSCAPE PLAN, 8/30/2024 9:17:25

LANDSCAPE PLANTING NOTES

1. THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL PLANTS AND VEGETATION PROPOSED ON THE LANDSCAPING PLAN. ANY TREES, SHRUBS, GROUND COVER OR OTHER VEGETATION PLANTED AS PART OF THIS PROJECT THAT DO NOT SURVIVE ONE YEAR FROM PLANTING SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES THREE WORKING DAYS IN ADVANCE OF ANY DIGGING. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF ANY UTILITIES.

3. REFER TO THE LANDSCAPE PLAN FOR ADDITIONAL NOTES. LANDSCAPE IMPROVEMENTS SHALL CONFORM TO THE LATEST EDITION OF MOOT CONSTRUCTION SPECIFICATIONS (2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION)

4. ALL PLANTING MATERIALS: SHALL BE PLANTED PER MDOT SPECIFICATIONS. EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE BROKEN, LOW HANGING AND OTHER UNDESIRABLE GROWTH TO ENSURE HEALTHY AND SYMMETRICAL NEW GROWTH.

5. PLANTING BEDS. ONE MONTH BEFORE CULTIVATION AND AFTER DAYTIME TEMPERATURES HAVE WARMED TO 60° CONSISTENTLY. TREAT ALL PLANTING BEDS THAT ARE TO BE DEVELOPED IN AREAS OF EXISTING TURF WITH PRE-EMERGENT AND POST-EMERGENT TYPE HERBICIDES. USE A STATE-LICENSED PESTICIDE APPLICATOR TO APPLY THE HERBICIDE. REPEAT HERBICIDE APPLICATION TWO WEEKS LATER AND UNTIL ALL HERBACEOUS MATERIALS HAVE BEEN KILLED. BEFORE PLANTING. TOP DRESS ALL PLANTING BEDS WITH A MINIMUM OF 6 INCHES OF BACKFILL MIX, THEN CULTIVATE PLANTING AREA TO A DEPTH OF 6 INCHES USING A PLOW, DISC, OR ROTO-TILLER.

6. BACKFILL MIX. FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:

- A. ONE PART EXCAVATED SOIL.
- B. ONE PART TOPSOIL.
- C. ONE PART EPA RATED CLASS IV COMPOST.

D. A SLOW RELEASE COMMERCIAL FERTILIZER (0-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD TO THE BACKFILL MIX. E. IF SOIL AREAS ARE OF HIGH PH (GREATER THAN 6.5), APPLY 1.25 POUNDS OF ELEMENTAL SULFUR PER CUBIC YARD OF BACKFILL MIX.

NOTE: CONTRACTOR SHALL SUPPLY A DETAILED SOIL ANALYSIS PRIOR TO ALL PLANT BED PREPARATION. ANALYSIS SHALL INDICATE SOIL PH, TEXTURE, MAJOR NUTRIENTS, SALTS, ETC. SOIL ANALYSIS SHALL BE FROM A REPUTABLE, INDEPENDENT LAB. SOIL AMENDMENTS SHALL BE INCORPORATED INTO BACKFILL/PLANT MIX AS RECOMMENDED BY THE INDEPENDENT LAB.

7. MULCH. SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH ALL PLANTING AREAS WITH A LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE & SIZE. PLANTS GROUPED IN MASSES SHALL HAVE THE ENTIRE CONTIGUOUS PLANTING BED OR ISLAND MULCHED. USE SHREDDED HARDWOOD BARK AGED MIN. ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS, MULCH TO A DEPTH OF 3 INCHES. AFTER MULCHING AND BEFORE WATERING, ADD A SLOW RELEASE COMMERCIAL FERTILIZER (12-12-12 OR EQUAL), IN GRANULAR FORM, TO THE TOP OF THE MULCH AT A RATE OF 5 POUNDS PER 1000 SQUARE FEET. DO NOT ALLOW FERTILIZER TO CONTACT THE STEMS, BRANCHES, ROOTS OR LEAVES.

8. PERIOD OF ESTABLISHMENT. BEFORE FINAL INSPECTION, PLACE ALL PLANTS, SEED ALL LAWNS, AND CARE FOR THEM FOR A PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT BEGINS IMMEDIATELY UPON COMPLETION OF THE PLANTING OPERATIONS AND CONTINUES UNTIL OCTOBER 1. THE MINIMUM PERIOD OF ESTABLISHMENT IS ONE GROWING SEASON, JUNE 1 THROUGH OCTOBER 1. DURING THE PERIOD OF ESTABLISHMENT, FOLLOW STANDARD HORTICULTURAL PRACTICES TO ENSURE THE VIGOR AND GROWTH OF THE TRANSPLANTED MATERIAL. WATER, REMULCH, RESTAKE, GUY, AND CULTIVATE AS NECESSARY. PERFORM AT LEAST TWO WEEDING AND MOWING PROGRAMS (AROUND TREES, GUY STAKES, SHRUBS, AND BED EDGES) OF SUCH INTENSITY AS TO COMPLETELY RID THE PLANTED AND MULCHED AREAS OF WEEDS AND GRASSES. BEGIN THE FIRST PROGRAM ON OR ABOUT JUNE 15 AND THE SECOND APPROXIMATELY 8 WEEKS LATER. ON OR ABOUT AUGUST 15, THE ENGINEER WILL INSPECT THE PLANTING AND SUPPLY THE CONTRACTOR WITH A LIST OF MISSING AND DEAD PLANTS AND THOSE THAT HAVE DIED BACK BEYOND NORMAL PRUNING LINES. REPLANT AS REQUIRED ACCORDING TO THE SPECIFICATIONS OF THE ORIGINAL MATERIAL. REPLACEMENT PLANTS ARE SUBJECT TO A NEW PERIOD OF ESTABLISHMENT. IMMEDIATELY REPLACE PLANTS PLANTED INITIALLY IN THE FALL THAT HAVE DIED BEFORE THE SPRING PLANTING SEASON. CARE FOR THE REPLACEMENT PLANTS DURING THE NEW ESTABLISHMENT PERIOD.

9. RESTORATION OF DISTURBED AREAS FOR NEW LAWN:

ALL DISTURBED AREAS NOT COVERED BY BUILDING, PAVEMENT OR LANDSCAPE PLANTING BEDS SHALL BE PREPARED FOR GRASS SEED AND SEEDED. LOOSEN RUTS AND WORK THE SOIL AREAS TO A MINIMUM OF 6" DEEP PRIOR TO FINE GRADING AND SEEDING WORK. AREAS TO RECEIVE GRASS SEED SHALL HAVE A MIN. 4" TOPSOIL PLACED, SEEDED AND A STRAW/MULCH BLANKET COVER PLACED OVER THE SEEDED AREAS PER MDOT SPECIFICATIONS. FERTILIZE WITH ONE POUND OF ACTUAL NITROGEN PER 1000 SQUARE FEET WITH A SLOW RELEASE COMMERCIAL STARTER FERTILIZER (LESCO 18-24-12 OR EQUAL).

10. LANDSCAPE TREES, SHRUBS AND PERENNIAL WATERING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, DELIVERING, APPLYING, MEASURING AND SCHEDULING A SUFFICIENT AMOUNT OF WATER NECESSARY TO KEEP EACH PLANT IN A HEALTHY GROWING CONDITION THROUGHOUT THE PERIOD OF ESTABLISHMENT. THE CONTRACTOR SHALL APPLY 1" OF WATER PER WEEK TO ALL NEW PLANTS. THE CONTRACTOR SHALL INSTALL & MAINTAIN SUPPLEMENTAL DRIP WATERING TREE BAGS (SUCH AS 20 GALLON TREE GATOR WATER BAG) TO PROVIDE ADEQUATE, SLOW RELEASE OF WATER. WATER BAGS SHALL BE REMOVED AT THE END OF THE SECOND GROWING SEASON.

11. TURF GROUNDCOVER (SODDING, SEEDING AND SEED MULCHING):

20%

40%

ALL SEEDING INSTALLATION SHALL CONFORM TO MDOT SPECIFICATIONS AND NOTE 9 ABOVE. SEED AT 5 LBS/1000 SF (220 LB/AC) WITH THE FOLLOWING SEED

MIXTURE (CSI GEOTURF SUN & SHADE MIX): KENTUCKY BLUEGRASS 20%

20% HARD FESCUE

CHEWING FESCUE PERENNIAL RYEGRASS

12. IRRIGATION:

NO IRRIGATION PROPOSED AT THIS TIME.

GENERAL MAINTENANCE PLAN

FERTILIZATION PROGRAM

FERTILIZE LAWNS UP TO 6 TIMES PER YEAR USING THE STANDARD RECOMMENDED FERTILIZER FOR THAT TIME OF YEAR. THE FOLLOWING PROGRAM IS A GUIDE:

EARLY SPRING - PRE-EMERGENT CRABGRASS CONTROL AND BALANCED FERTILIZER

SPRING - BROADLEAF WEED CONTROL AND BALANCED FERTILIZER EARLY SUMMER — SLOW RELEASE SUMMER FERTILIZER

MID SUMMER - SLOW RELEASE TURF BUILDING FERTILIZER

FALL — BROADLEAF WEED CONTROL AND BALANCED FERTILIZER

LATE FALL - LATE FALL/WINTER BLEND FERTILIZER

NEWLY SEEDED LAWNS NEED TO BE KEPT MOIST AND SEED GERMINATION CAN TAKE FROM 2-4 WEEKS. NO WEED CONTROL OR PRE-EMERGENT SHOULD BE USED UNTIL THE LAWN HAS BEEN MOWED FOR 2 MONTHS TO ENSURE ALL OF THE SEED HAS GERMINATED AND HAS HAD TIME TO HARDEN OFF

MOWING SHOULD NOT REMOVE MORE THAN 1/3 THE TOTAL LEAD SURFACE GRASS BLADE AT ANY ONE MOWING. THIS MAY REQUIRE MOWING TWICE PER WEEK IN THE SPRING AND FALL DUE TO INCREASED GROWTH, AND NORMALLY ONCE PER WEEK THROUGH THE SUMMER. REMOVING MORE THAN 1/3 OF THE LEAF SURFACE CAN SEVERELY SHOCK THE GRASS PLANT. IT IS RECOMMENDED TO BAG CLIPPINGS FOR THE FIRST FEW MOWINGS.

BED CARE

IT IS IMPORTANT TO MAINTAIN ADEQUATE MULCH COVER, USUALLY TO A MINIMUM DEPTH OF 2" AN ORGANIC DOUBLE OR TRIPLE PROCESSED MULCH IS SUGGESTED. MULCH COVER ASSISTS IN MAINTAINING AND RETAINING MOISTURE FOR EXTENDED PERIODS OF TIME AND INSULATING THE ROOT ZONES FROM EXTREME HEAT AND COLD. ADDITIONALLY, A GOOD MULCH COVER WILL HELP TO DETER THE GERMINATION OF WEEDS.

MULCHING IS NOT REQUIRED YEARLY, A THIN COAT, PURELY TO ADD COLOR MAY BE APPLIED YEARLY TO KEEP UP APPEARANCES AS DESIRED. SHOULD THE MULCH DEPTH EXCEED 4". TURN THE MULCH OVER TO PROMOTE THE MULCH BREAKING DOWN. TOO MUCH MULCH CAN BE DETRIMENTAL TO THE HEALTH OF PLANTS.

TO MAINTAIN BED LINES, EDGE THEM PERIODICALLY. EDGING BEDS LIGHTLY 2-3 TIMES PER YEAR WILL PREVENT THE LAWN FROM INVADING THE BEDS WHICH GIVES A JAGGED APPEARANCE TO THE EDGE. THIS IS BEST DONE USING A ROUND POINT SHOVEL AND DIGGING A SHALLOW TRENCH ALONG THE BED LINE.

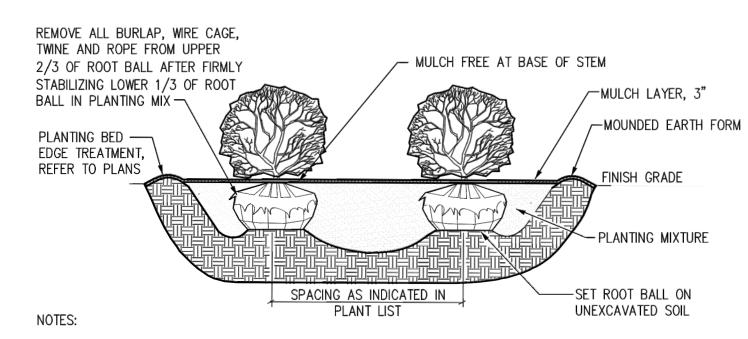
PRUNING TIMES FOR TREES AND SHRUBS VERY DEPENDING ON WHEN THEY FLOWER.

SHRUBS AND TREES THAT DEVELOP BLOSSOMS ON NEW GROWTH IN LATE SPRING OR SUMMER SHOULD BE PRUNED IN EITHER EARLY SPRING, OR THE LAST FEW WEEKS OF WINTER

SHRUBS AND TREES THAT BEAR BLOSSOMS ON LAST YEAR'S WOOD SHOULD BE PRUNED SOON AFTER BLOOMING. FLOWER BUDS, IN THIS GROUP, ARE FORMED LATE IN THE PREVIOUS GROWING SEASON. HEAVY PRUNING IN THE WINTER OR EARLY SPRING WILL DRAMATICALLY LESSEN THEIR FLOWERING POTENTIAL IN THE SPRING.

MOST TREES CAN BE PRUNED AT ANY TIME DURING THE GROWING SEASON. IF PRUNING IS TO BE SEVERS, TRY TO SPREAD THE PRUNING OUT OVER MULTIPLE GROWING SEASONS TO LIMIT STRESS ON THE TREES.

FOR MOST PERENNIALS, THE VEGETATION DRIES AND DIES IN THE FALL AND SHOULD BE REMOVED IN THE LATE AUTUMN OR WINTER MONTHS TO PREPARE FOR THE NEXT GROWING SEASON. THIS INCLUDES BULBS WHICH SHOULD BE CUT BACK WHEN THE FOLIAGE BEGINS TO DISCOLOR. USE EXTRA CARE WITH SEMI-EVERGREEN PERENNIALS SO AS TO NOT DAMAGE THE PLANT.

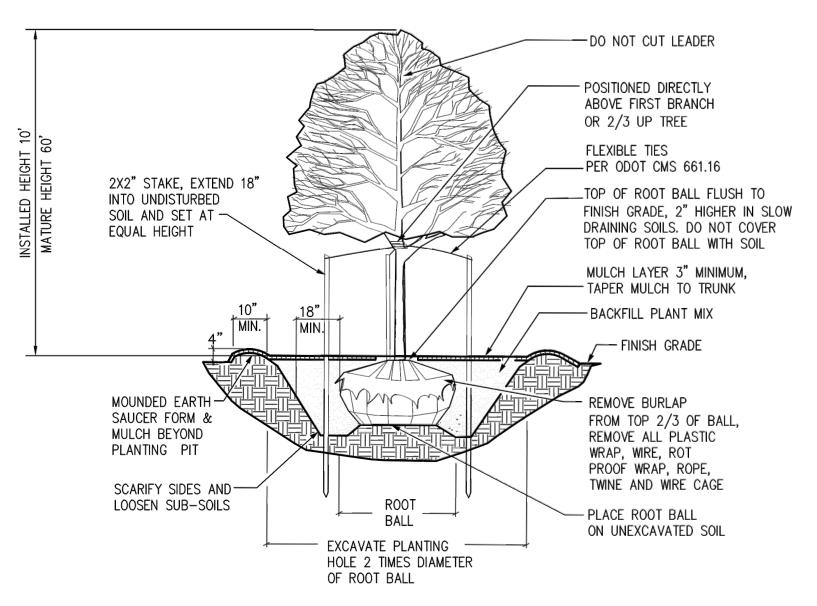


ALL SHRUBS PLANTED IN ROWS OR MASSES SHALL BE MATCHED IN SIZE AND FORM.

SHRUBS SHALL BEAR SAME RELATION TO FINISH GRADE AS THEY BORE TO EXISTING GRADE IN THE PREVIOUSLY PLANTED CONDITION.

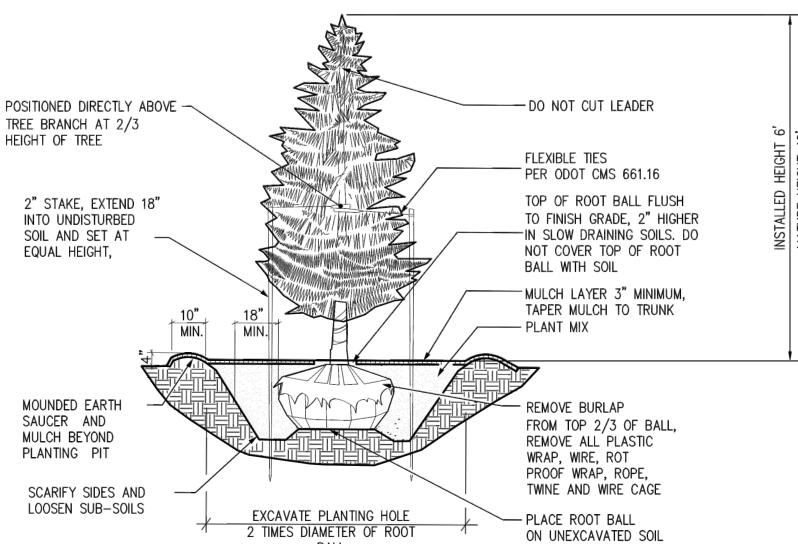
MASS SHRUB PLANTING DETAIL (B&B OR CONTAINER)

NO SCALE



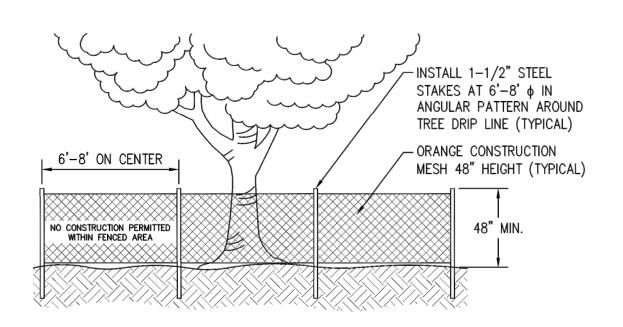
DECIDUOUS TREE PLANTING DETAIL

NO SCALE



EVERGREEN TREE PLANTING DETAIL

NO SCALE



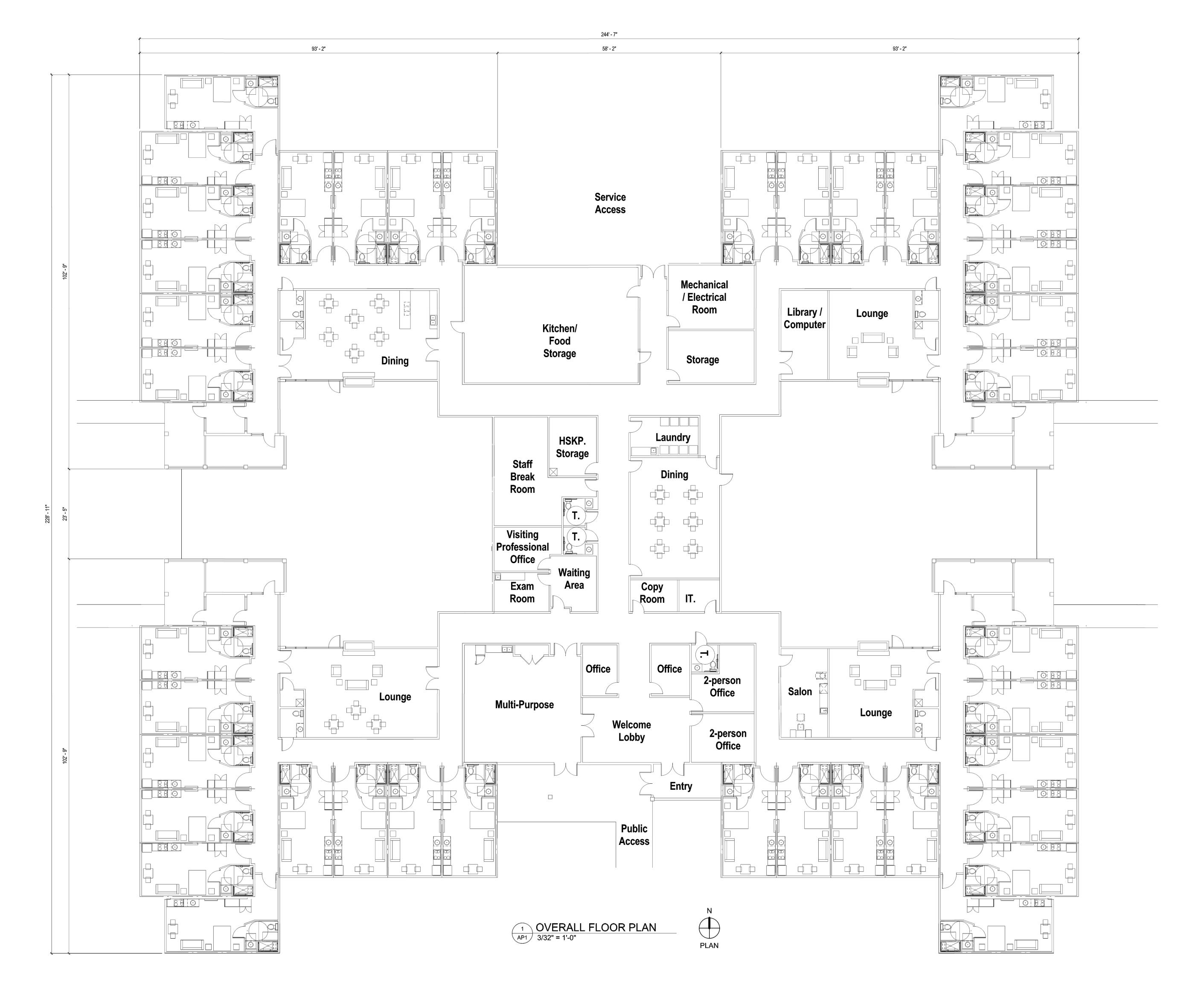
TREE PROTECTION DETAIL NOT TO SCALE

TREE PROTECTION NOTES

- 1. TREE PROTECTION MEASURES SHALL BE INSTALLED PER THIS PLAN SHEET AT THE CRITICAL ROOT ZONE OF TREES TO BE PRESERVED PRIOR TO THE START OF ANY CLEARING, GRADING OR OTHER CONSTRUCTION ACTIVITY.
- 2. NO STORAGE OF ANY KIND IS PERMITTED WITHIN THE TREE PROTECTION ZONE. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH TOPSOIL WITHIN THE SAME DAY.
- 3. ALL VEGETATION THAT IS NOT DESIGNATED ON THE PLANS TO BE REMOVED SHALL BE PROTECTED FROM DAMAGE. TREES THAT ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

H E ĭ P P $\mathbf{\Omega}$

CAPI DET/





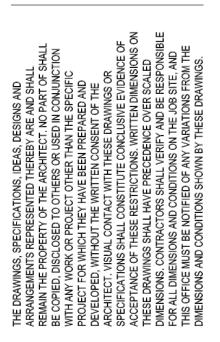
PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION
08/22/2024

21111 Chagrin Boulevard, Suite 110 Beachwood, Ohio 44122 Phone: (216) 752-4300 Fax: (216) 752 4301 www.RDLarchitects.com



PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400 SOUTHFIELD, MI 48033 (248) 281-2020

THE VILLAGE OF OAKLAND WOODS PHASE III



ISSUE

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$\langle \rangle$	HUD 202	07/08/2024
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APARTMENT FLOOR PLAN

3/32" = 1'-0"

PROJECT # 24039S

DRAWN BY Floor Plan

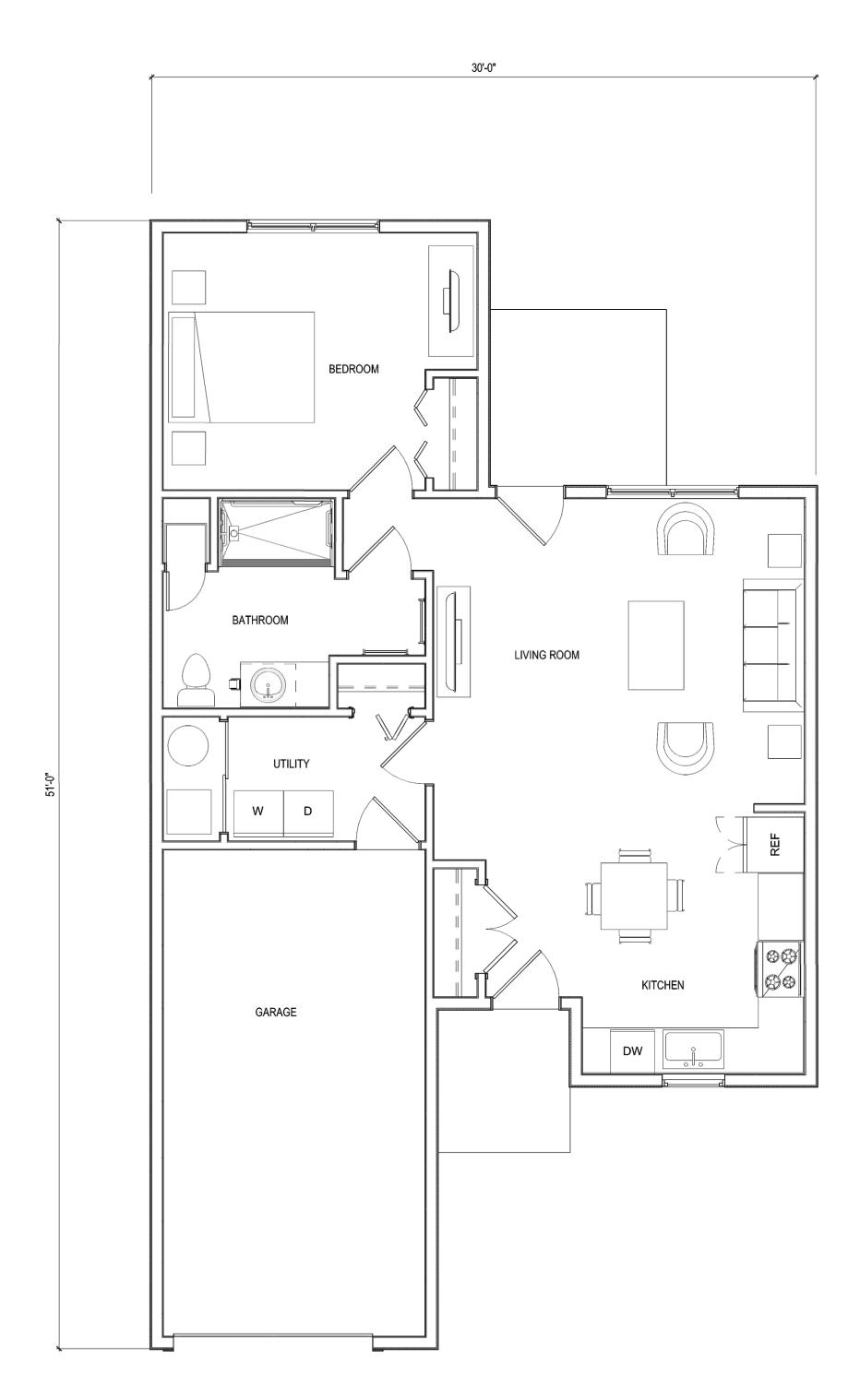
CHECKED BY VCS

FILE NAME RDL

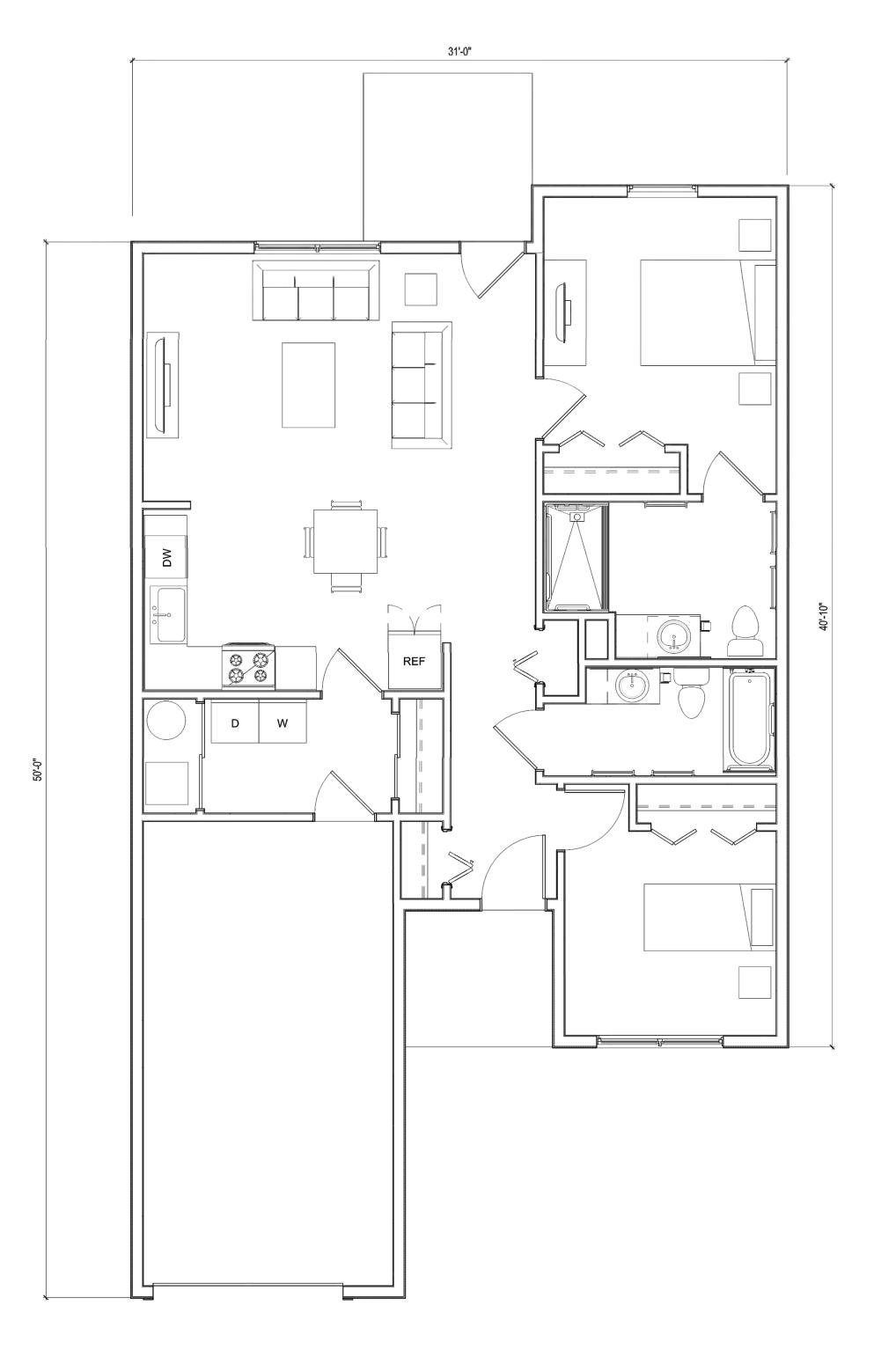
PLOT DATE 08/22/2024

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AP1



1 BEDROOM FLOOR PLAN
1/4" = 1'-0"



2 BEDROOM FLOOR PLAN
1/4" = 1'-0"



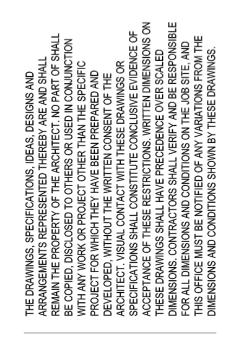
PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION
08/22/2024

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PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400 SOUTHFIELD, MI 48033 (248) 281-2020

THE VILLAGE OF OAKLAND WOODS PHASE III



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RANCH HOME FLOOR PLANS

1/4" = 1'-0"

PROJECT # 24039S

DRAWN BY VCS

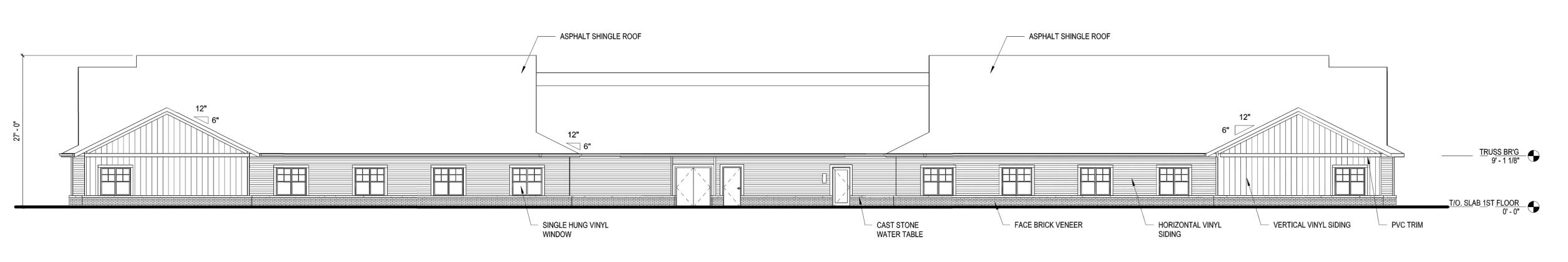
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PLOT DATE 08/22/2024

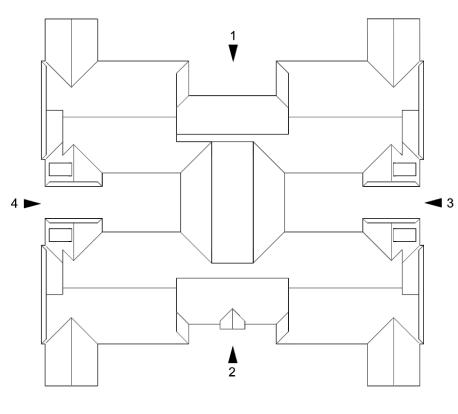
COPYRIGHT 2024 ALL RIGHTS RESERVE

AP2

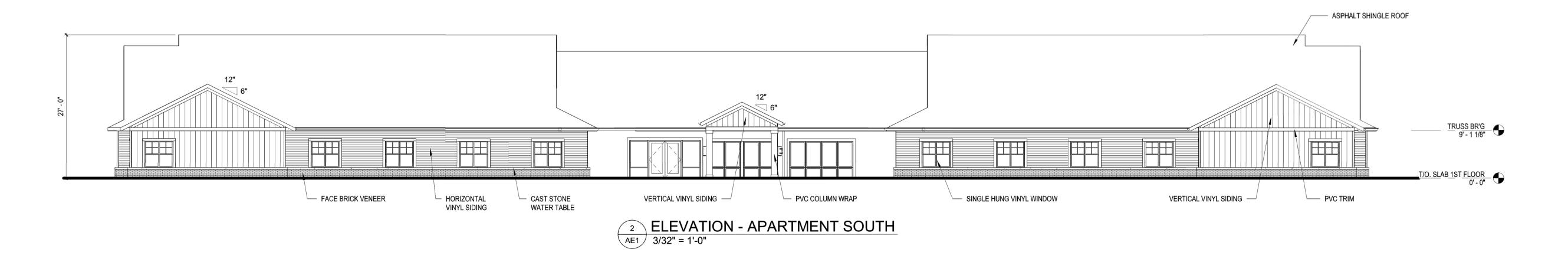


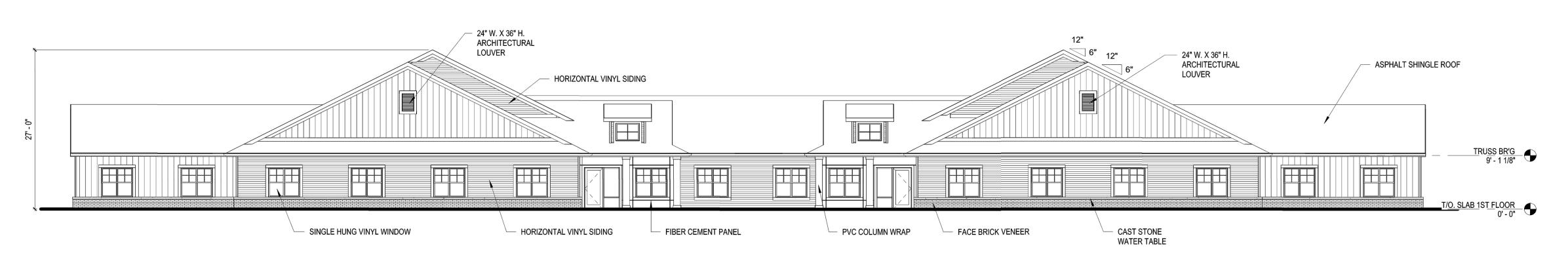
1 ELEVATION - APARTMENT NORTH

AE1 3/32" = 1'-0"

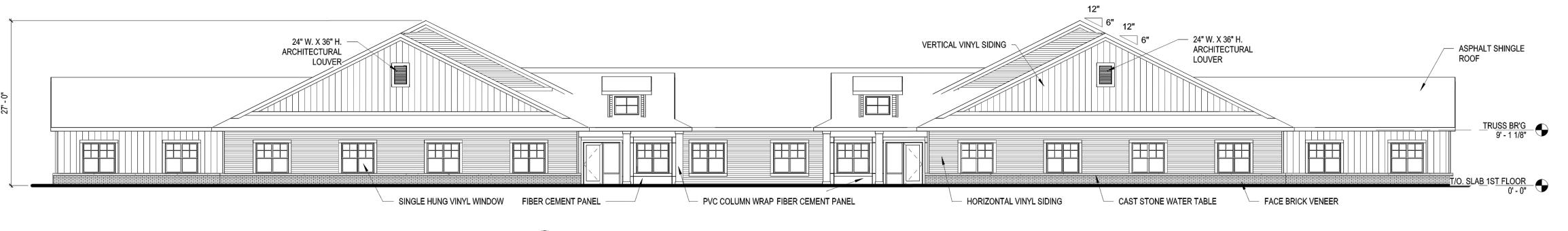








3 ELEVATION - APARTMENT EAST
AE1 3/32" = 1'-0"



4 ELEVATION - APARTMENT WEST
AE1 3/32" = 1'-0"

HULARCHITECTS

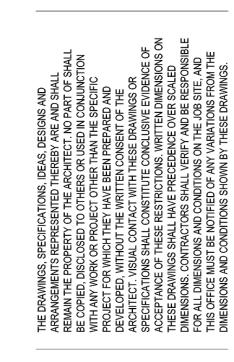
PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION
08/22/2024

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THE VILLAGE OF OAKLAND WOODS PHASE III



ISSUE

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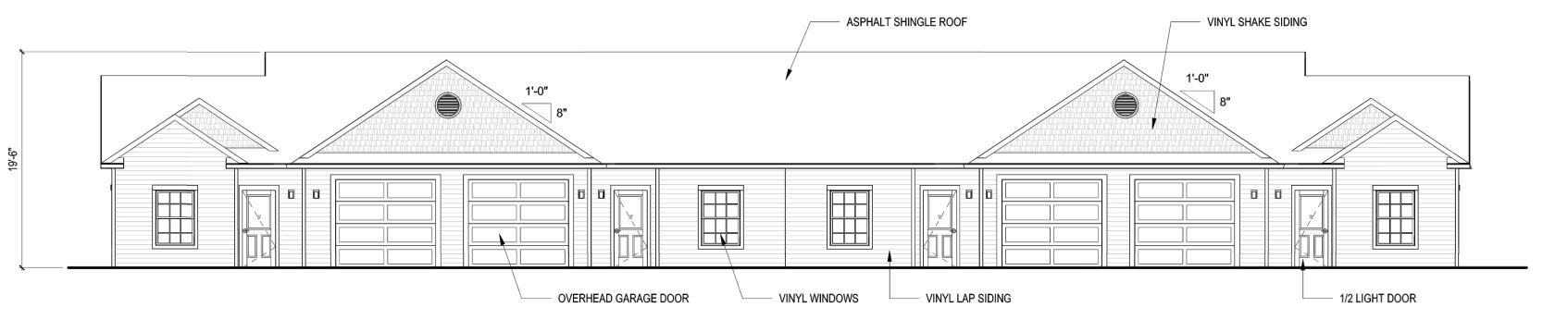
EXTERIOR ELEVATIONS -APRTMENT

As indicated

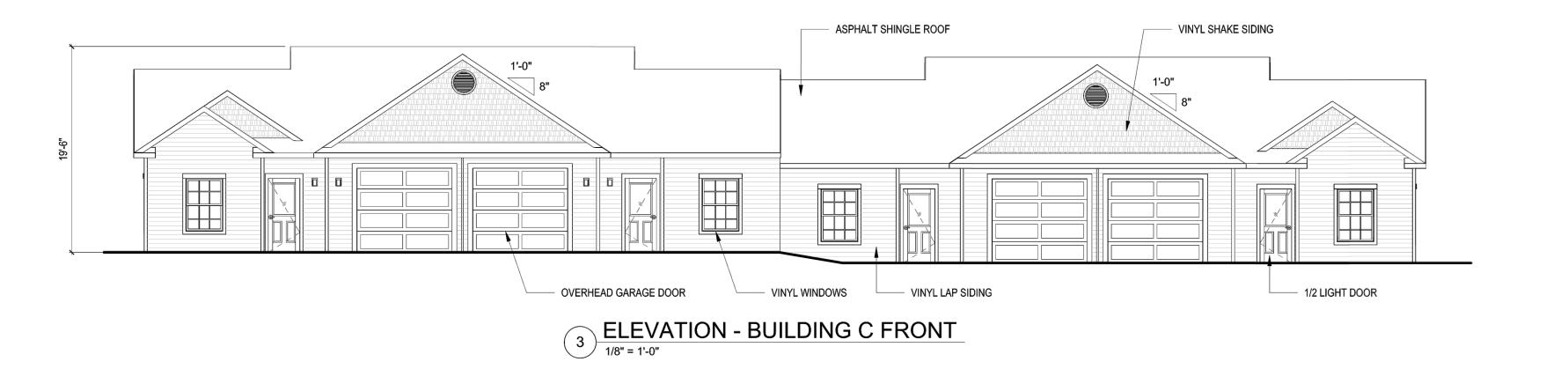
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CHECK	ED BY	RDL
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PLOT [ATE	08/22/2024

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AF1



2 ELEVATION - BUILDING B FRONT
1/8" = 1'-0"





PRELIMINARY DRAWINGS
NOT FOR CONSTRUCTION
08/22/2024

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PRESBYTERIAN VILLAGES OF MICHIGAN 25200 TELEGRAPH RD., SUITE 400 SOUTHFIELD, MI 48033 (248) 281-2020

THE VILLAGE OF OAKLAND WOODS PHASE III

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EXTERIOR ELEVATIONS -RANCH HOMES

PROJECT#	24039S
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FILE NAME	
PLOT DATE	08/22/2024

AE2



HUD 202 Architect Narrative Village of Oakland Woods Phase III June 27, 2024

RDLA #24039s

Item 1: Physical Design and Livability

Issued as separate document

Item 2: Schematic Design Package

Schematic plans included as a separate document.

Item 3: Tab K Narratives

A. Description of Climate Hazard Risks and Mitigation

The site is in a "relatively high" risk area per the FEMA (NRI) report.

- Expected Annual Loss from All natural hazards is Relatively High
 - Social Vulnerability is Very Low
 - Community Resilience is Very High

The hazards are as follows:

- Cold Wave: Very High = 99.2
- Heat Wave: Relatively High = 98.8
- Ice Storm: Very High = 99.8
- Lightning: Relatively High = 94.2
- Strong Wind: Relatively High = 99.3
- Tornado: Very High = 99.7

The proposed design will defend against the high-risk factors above by achieving high level green certification standards. Temperature swings and thermal transmission will be reduced by specifying higher R-value insulation, energy efficient windows exceeding energy code minimums, and HVAC systems capable of operating effectively in low temperatures, such as VRF with supplemental electric heating.

Exterior materials will be durable and long lasting, specified to be installed in accordance with structural code requirements for the snow and wind loads appropriate for the area. Landscaping will be appropriate for the native environment and seek opportunities to provide natural shading for the building and occupants.

Critical life safety elements will be protected with an on-site emergency generator, maintaining power heating, lighting, cooking and refrigeration for an extended period of time during loss of

power. Other life safety features include a fully automatic NFPA 13 sprinkler system installed throughout the building, a defend in place strategy with compartmentalized zones for interior evacuation, fire rated structural elements, and internal areas of shelter away from exterior windows and doors. The building is well above the floodplain so floodproofing is not a concern at this location.

B. Assessing Renewable Energy

The Architect has retained the services SOL Design and Consulting who specialize in sustainability consulting, green certification, and building energy modeling. With their expertise, the design team will analyze all viable forms of energy conservation to achieve a Net Zero energy project meeting or exceeding NGBS Silver + Net Zero or LEED Zero Energy. As part of the analysis, we believe solar energy could play a viable role in reducing the project's overall energy consumption by as much as 25%. The ongoing project development will examine all energy sources of the building cohesively and analyze what features or equipment will make the largest improvements over baseline energy standards, weighing the performance and cost savings against the cost of implementation and installation.

C. Innovative Design Elements

Oakland Woods Phase III takes inspiration from the "Small House" concept of senior living where residents live in a communal home-like environment. The building will be on a single story with fully accessible entries and circulation throughout. The building is divided into four resident wings of 10 units. Each wing has its own front exterior entrance and is connected to an internal shared service and support core. The individual entries contribute to the residential experience and provide a sense of identification and privacy that can be lost in large scale projects with long corridors and a common entrance. The core contains resident amenities and activity spaces as well as offices for staff and visiting medical professionals. There is a full-service commercial kitchen preparing 3 meals a day for all residents. Each wing has its own small gathering and dining area. The communal space encourages social interaction among residents and promotes daily activity and stimulation with views to the exterior to promote a connection to nature and sense of wellbeing.

Each resident unit has a full barrier free bathroom with grab bars at toilet and showers, night lighting to easily identify the toilet and exit during the night, handwashing, and lockable medicine cabinets for staff. Ceiling lifts may be installed to provide resident assistance in getting out of bed if needed. Flooring will be selected with appropriate finishes to reduce slip hazards and handrails shall be installed along all corridors and circulation routes.

By providing a barrier free design in a smaller environment, residents can safely and comfortably live independently while having access to the care and support needed as they age in place. Limiting travel distances promotes safe access to dining and activities and the individual entries give residents and visitors an easier method of wayfinding and sense of personal space. These features paired with the sustainable vision of the green certification strive to achieve a project that is not only comfortable and safe for residents but provides a low impact on the environment and protects against the harsh climate swings know to this region, truly allowing both the occupants and the building itself to age in place.

Item 4: Green Building Standard Letter

The Green building standard letter is included as a separate document.

Item 5: Tab R: Climate Change Narratives

A. Carbon Reduction

The project will reduce carbon emissions, energy, and water consumption through a variety of strategies, ultimately meeting or exceeding the requirements of NGBS Silver + Net Zero (or equal or greater green standard). Power consumption will be reduced by using energy efficient VRF heating and cooling units, which can improve over ASHRAE 90.1 /IECC standards by as much as 50%. The lighting design will utilize low wattage LED fixtures with occupancy sensors and ample natural lighting will reduce dependence on artificial lighting requirements. Plumbing fixtures will be high efficiency types or water sense labeled as applicable. To the extent possible, materials for this project will be recycled and /or recyclable, specified from nearby manufactures and from companies that follow good sustainable practices to reduce the carbon footprint beyond just the scope of this site. Appliances will be energy star rated and the building envelope will be designed to exceed minimum values in ASHRAE and IECC. Energy modeling throughout the design process will show how the various building components each contribute to reducing emission and energy consumption and demonstrate how the overall building substantially improves on the established baseline. This will be a critical tool in allowing the design team and owner to make decisions to ultimately achieve a building that is both energy and economically efficient.

B. Climate Adaptation and Resilience

As identified in Tab K, wind and temperature swings pose the highest level of climate change risk. The design improves climate adaptation and resilience by incorporating high levels of insulation and energy efficient windows to minimize the impact of high temperature swings. In addition, HVAC systems will be chosen which perform effectively and efficiently in both low and high temperature environments. The site is located well above the FEMA flood limit, and durable weather resilient siding and roofing materials will be selected to minimize risks associated with heavy rains or winds. Additional safety measures such as full sprinkler protection and emergency generator power will also be installed throughout to ensure occupant safety during endangering events.

<u>Item 6: Climate Resilience Design Considerations</u>

- a. Water storage space will be incorporated into the project for both bottled drinking water and a storage tank.
- b. This building and site on which it sits is not within a FEMA floodplain. There is a nearby area with a BFE of 869'. The building is proposed to be constructed at an elevation of 900' a minimum distance of 600' away from the floodplain boundary.

Item 7: Other Required Information

- a. Anticipated completion of plans and specs is November 2024
- b. 0 elevators
- c. 6.77 acre site

d. Building Size: 36,250 GSF Unit Size Gross: 420 GSF Unit Size Net: 385 NSF Wall thickness: 2x6

e. Number of parking spots: 24

f. Unusual Features

Cuts: yes Fills: yes Erosion: no

Poor Drainage: TBD Retaining Walls: no Rock foundations: no High Water Table: TBD



COMMUNITY DEVELOPMENT DEPARTMENT

TO: Planning Commission

FROM: Corey Christensen, Senior Planner

DATE: September 23, 2024

RE: Preliminary Site Plan: Community Service Facility, 283 Baldwin Ave. (Informational)

Executive Summary

SPR 24-033 is a request for site plan approval by Stantec Architecture, on behalf of HOPE Hospitality & Warming Center, to allow for a community service facility at 283 Baldwin Ave. The site is currently vacant and the applicant is proposing a new building with a footprint of 20,395 square feet. The applicant is proposing to utilize the building as a shelter, office, and medical facility. Community service facilities are classified as a special exception use in our ordinance.

Quick Facts				
Zoning	Local Business C-1			
Request	Site Plan Approval			
Proposed Community Service				
Use	Facility			
Parcel Size	1.34 Acres			

Staff recommends the Planning Commission review the proposed site plans and provide feedback to the applicant. Revised plans must be submitted by **October 11**th to be considered on the November 6th



Figure 1: Aerial of Subject Parcel

Planning Commission agenda.

Proposal

The applicant is proposing to build a new three story structure on site. The proposed building is 52,000 square feet and will have frontage along Baldwin Avenue with parking in the rear. The site is legally conforming regarding building dimensions, lot size, and frontage requirements. However, the structure will need to be moved closer to Baldwin Avenue to comply with the setback requirements. The applicant is proposing 30

parking spaces while the ordinance requires 39. The applicant is requesting a waiver of nine (9) parking spaces based on the proposed use of the structure and the projected need for parking due to its use as a shelter.

Facades for community, education and institutional uses are not required to comply with the design requirement of the zoning ordinance due to the unique nature of these uses. Despite this, the façade proposed by the applicant would meet most the required design standards. The proposed façade will include a limestone veneer entryway, brick, Hardie siding, and aluminum coping. Mechanical units will be screened and the front façade features staggered setbacks to add architectural interest.



Figure 2: Front Facade

Staff Review

Staff conducted a review of the site plans on September 23, 2024 and provided feedback on lighting, landscaping, and parking to the applicant.

- 1. Front setbacks in the C-1 district must be 10 feet or less.
- 2. A waiver or variance of nine (9) spaces must be received.
- 3. Please verify there will be a curb stop in each parking spot to limit overhang.
- 4. Please verify what color the parking lot will be striped in.
- 5. Please provide schematics for each exterior light proposed.

Standards for Approval (Site Plan Only)

In reviewing an application for any type of site plan, the planning commission shall find the proposed development complies with the general standards in the zoning ordinance. The following are staff's comments on each standard:

- 1. Circulation There is a proper relationship between the existing streets and highways within the vicinity and proposed acceleration and/or deceleration lanes, service drives, entrance and exit driveways, and parking areas to ensure the safety and convenience of pedestrian and vehicular traffic. The Planning Commission may request, at their discretion, that a traffic study be conducted by an independent source and paid for by the developer, and the results submitted to the Planning Commission prior to final site approval.
- 2. **Buildings** The buildings and structures proposed to be located upon the premises are so situated as to minimize adverse effects upon owners and occupants of adjacent properties.
- 3. Natural Features As many natural features of the landscape shall be retained as possible

where they furnish a barrier screen, or buffer between the project and adjoining properties used for dissimilar purposes and where they assist in preserving the general appearance of the neighborhood.

- 4. **Site Layout and Screening** Any adverse effects of the proposed development and activities emanating therefrom that affect adjoining residents or owners shall be minimized by appropriate screening, fencing, landscaping, setback, and location of buildings, structures, and entryways.
- 5. **Compliance with the Zoning Ordinance** *Site plans must comply with all current provisions and standards of the zoning ordinance and the subdivision control ordinance.*

Summary

In terms of a site plan, the structure and layout of the site appear to be suitable for the proposed use and there are no major risks to the public health, safety and welfare. However, there are some issues that need to be addressed. Furthermore, the Planning Commission will need to determine whether a nine (9) space parking waiver is reasonable.

Staff will be providing a separate staff report on a Special Exception application including the standards of approval, analysis, and recommendation. Some of the items for the Planning Commission should consider and share at the Information Session:

- o Is this use appropriate for the area?
- Is there land use or design elements that could limit any negative impacts to surrounding properties?
- o Is the layout with the rear parking lot and courtyard the best layout for this use?

Staff Recommendation

Staff recommends the Planning Commission review the proposed site plans and provide feedback to the applicant. Revised plans must be submitted by **October 11**th to be considered on the November 6th Planning Commission agenda



PRELIMINARY OR ADMINISTRATIVE SITE PLAN APPLICATION

APPLIC	ATION CHECKLIST
A	Completed and Signed Application.
×	Application Fee. \$1,080
×	Preapplication Meeting Required. Prior to accepting any applications, a preapplication meeting between the applicant and City Planning Staff is required. o Preapplication meeting date: 8/13/2014
M	Site Plans. We require one 24" by 36" hard copy and one digital copy.
×	Site Plan Elements. Site plans should have the following elements: o Each page should be signed and sealed by a registered architect or engineer. o North Arrow o Scale o Name and contact of the developer o Name and contact of the architect or engineer o Landscaping o Parking Schedule
×	Project Narrative. This should describe the proposed use and/or the proposed alterations to the site.
×	Completed Application Checklist.
-	



Application for Site Plan Review

City of Pontiac

Office of Land Use and Strategic Planning

47450 Woodward Ave, Pontiac, MI 48342

T: 248.758.2800

F: 248.758.2827

Property/Pr	roject Address: 283 Baldwin Avenue, Pontiac MI 48342	Office Use Only
Sidwell Number: Tax ID Number 14-20-334-035		PF Number:
Date: 8/30/2	2024	Say December
and Strategic sets of comple	Applications for Site plan Review along with the appropriate Planning at least 30 days before the regularly schedule ste Site Plan drawings package including an electronic coplease print or type)	led Planning Commission meeting. Please provide for
Name	Stantec Architecture	College at Anademics At The College State of the Co
Address	2338 Coolidge Highway	
City	Berkley	CONTRACTOR STANFALL WATER AND A
State	Michigan	College by a Relief of the College
ZIP Code	48072	Well-Vide I in
Telephone	Main: 248-336-4705 Cell: 248-794-71	123 Fax:
E-Mail	bernard.grant@stantec,com	the true to company to to writing the
Name of Portion of Por	rty is zoned: C-1, R-2 sed that the property will be used as: Non Contact property is legally described as follows (inc	clude sidwell numbers):
-	0 FRUIT RIDGE ADDITION LOT 1, ALSO ASSESSOR'S PLAT NO. 6 E 196.3	
The proper	rty has frontage of 220.60 feet, and a d	lepth of 280.05 feet.
The total p	property is 58,368.11SF / 1.34 Acres (squa	are feet/acres).

a = 51,342 sf ave a total of 103 guest rooms. ruction of acquisition and construction - oyment - and completion dates - er Information IOPE Shelter 49 Baldwin Ave. Pontiac Aichigan 8342	15,000,000 12 on Day Shift Spring 2025 - Fall 2026	
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Main: 040 400 4004 Cel	100	ME PATER LA
Main: 248-482-4394 Cel	^{1:} 248-221-1867	Fax:
3Wright@HopeShelter.org	11-12-17-18-18-18-18-18-18-18-18-18-18-18-18-18-	Turke, Shakin, 1987
e, nor the property of other pe liter will provide a new Non-Congregant she	ersons located in the elter for the community's hom	e vicinity thereof: neless population.
h this application OR I hereb	y certify that no tree site.	ature of Applicant
	rour opinion, the approval of a substantial property rights, as e, nor the property of other per etter will provide a new Non-Congregant she re the existing vacant brown field site through new ance the architectural character of the neight survey, prepared pursuant to the this application OR I hereb	Owner Agent/rep. of the owner our opinion, the approval of this Site Plan is necessubstantial property rights, and why such a plan is nor the property of other persons located in the later will provide a new Non-Congregant shelter for the community's home the existing vacant brown field site through new site improvements such as land ance the architectural character of the neighborhood through the use of resurvey, prepared pursuant to Pontiac's Woodland the this application OR I hereby certify that no treater of 6" or more exist on the site.



Adult Shelter

249 Baldwin Ave Pontiac, MI 48342 248-499-7345

Admin: 248-481-4394

Recuperative Shelter

1416 Joslyn Avenue Pontiac, MI 48340 248-499-6437

Contact@HopeShelters.org

08/26/2024

Pontiac Planning Commission 47450 Woodward Ave Pontiac, MI 48342

Dear Commissioners,

HOPE Shelters is proud to present our Non-Congregant Shelter Project. This is an opportunity for us to serve the community more effectively and set new standards addressing our mission.

Since 1998, HOPE began serving the community in response to the hypothermic death of a homeless person in downtown Pontiac. Ever since, we have served as the only low-barrier homeless shelter in Oakland County. In 2015 we added the Recuperative Shelter to serve people exiting a hospitalization while experiencing homelessness.

Each year, more than 200 guests exit the shelter to a place they can call home. We are proud of that statistic because it is 30% stronger than the average shelter in Michigan while working with complex clients that typically get screened out of other shelters. Our recidivism rate is also 30% better.

Despite these stellar statistics, HOPE also serve another 200 unique individuals who repeatedly enter the shelter throughout the year but exit without developing a plan to resolve homelessness. Why do they leave early? The noise, chaos, and lack of privacy drive out people who have more complex behavioral health needs. A non-congregant shelter should resolve this. For the first time, we will have space to offer a more dignified, less traumatic shelter experience. The number of individuals experiencing chronic homelessness should decline more dramatically using this new shelter.

In addition, expanding capacity to 100 shelter guests will help eliminate a line of unserved people.

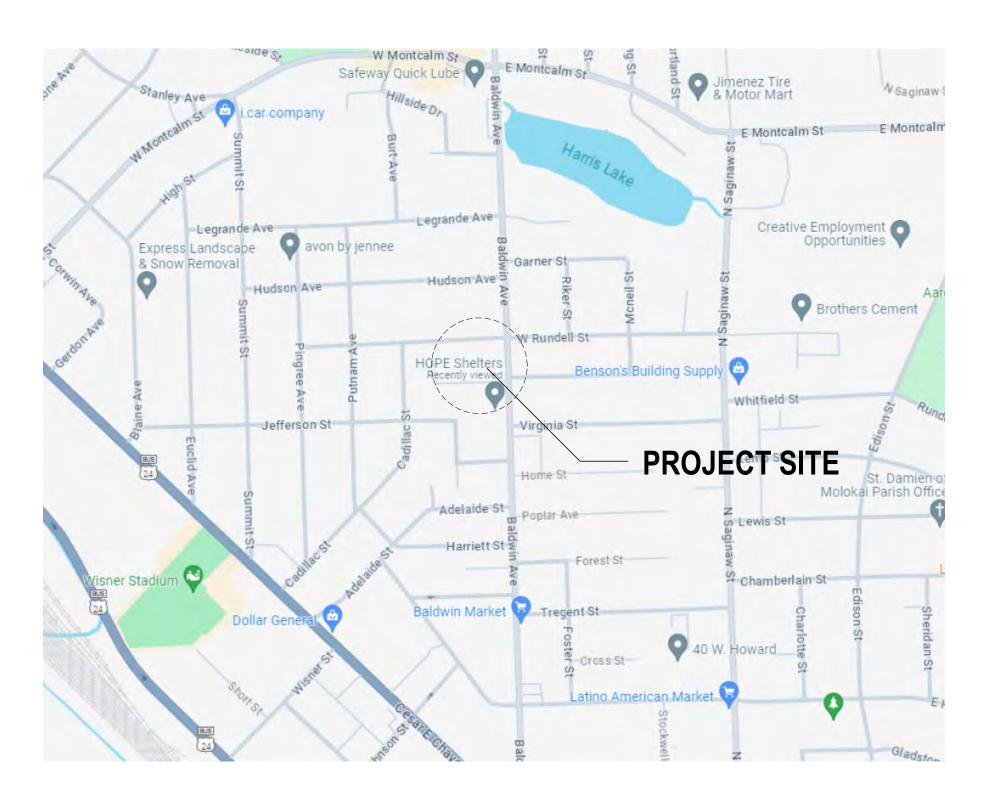
We hope that you will support this new project in every way you can. Lives matter.

Sincerely

Brian Wright, Executive Director







LOCATION MAP



VIEW OF EXISTING CAMPUS AND ADJACENT PROJECT SITE

NEW SHELTER, FACILITY

249 BALDWIN AVE, PONTIAC, MI 48342

DRAWING INDEX		
NO.	DRAWING NAME	
ENERAL		
001	PROJECT COVER SHEET	
100	CODE INFORMATION	
101	FIRST LEVEL LIFE SAFETY PLAN	
102	SECOND LEVEL LIFE SAFETY PLAN	
103	THIRD LEVEL LIFE SAFETY PLAN	

DRAWING INDEX		
NO.	DRAWING NAME	
CIVIL		
SP00	COVER SHEET	
SP01	BOUNDARY, TOPOGRAPHIC, TREE SURVEY	
SP02	SITE PLAN	
SP03	GARBAGE - DELIVERY VEHICLE ACCESS PLAN	
SP04	PAVING AND GRADING PLAN	
SP05	NOTES AND DETAILS	
SP05.1	NOTES AND DETAILS	
LANDSCAPE		
L1	TREE REMOVAL PLAN	
2	LANDSCAPE PLAN	

DRAWING INDEX		
NO.	DRAWING NAME	
ARCHITECTURE		
A101	FIRST LEVEL - COMPOSITE PLAN	
A102	SECOND LEVEL - COMPOSITE PLAN	
A103	THIRD LEVEL - COMPOSITE PLAN	
A301	COMPOSITE EXTERIOR ELEVATIONS	
A302	COMPOSITE EXTERIOR ELEVATIONS	
A321	BUILDING SECTIONS	
ELECTRICAL		
ES02	ELECTRICAL SITE PHOTOMETRIC PLAN	



Stantec Project Number: 214100638

FIRE RESISTANCE RATINGS OF STR	UCTURE ELEMENTS	
	MICHIGAN BUILDING CODE - 7	TYPE VB
	CODE DATA	SECTION
1. PRIMARY STRUCTURAL FRAME INCLUDING COLUMN, BEAMS, GIRDERS, TRUSSES - SUPPORTING 1 FLOOR ONLY - SUPPORTING A ROOF ONLY	0 HOUR	MBC TABLE 601
2. EXTERIOR BEARING WALLS - SUPPORTING 1 FLOOR ONLY - SUPPORTING A ROOF ONLY	0 HOUR	MBC TABLE 601
3. EXTERIOR NON-BEARING WALLS & PARTITIONS - Distance (D) LESS THAN 5 FT - 5 FT LESS THAN / EQUAL D LESS THAN 10 FT - 10 FT LESS THAN / EQUAL D LESS THAN 30 FT - D GREATER THAN / EQUAL 30 FT	1 HOUR 1 HOUR 0 HOUR 0 HOUR	MBC TABLE 602
4. INTERIOR BEARING WALLS - SUPPORTING 1 FLOOR ONLY - SUPPORTING A ROOF ONLY	0 HOUR	MBC TABLE 601
5. INTERIOR NON-BEARING WALLS & PARTITIONS	0 HOURS	MBC TABLE 601
6. FLOOR CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS	0 HOURS	MBC TABLE 601
7. ROOF CONSTRUCTION & ASSOCIATED SECONDARY MEMBERS - LESS THAN 20 FT - 20 FT OR MORE	0 HOURS 0 HOUR	MBC TABLE 601
8. FIRE SEPARATION ASSEMBLIES - MIXED USE SEPARATION - STORAGE (OVER 100 SQ FT)	NA SMOKE RESISTANT (W/ SPRINKLER SYSTEM)	MBC 508.2.4
9. FIRE PARTITIONS - EXIT ACCESS CORRIDORS	0 HOUR (W/ SPRINKLER SYSTEM)	MBC TABLE 1018.1
EXTERIOR WALL - VERTICAL & LATERAL FLAME PROPAGA	TION	
COMBUSTIBLE WATER-RESISTIVE BARRIER TEST IN ACCORDANCE TO NFPA 285 - LESS THAN 40 FT IN HEIGHT	NOT REQUIRED	MBC 1403.4 MBC 1403.5
- GREATER THAN 40 FT IN HEIGHT	NOT REQUIRED	MBC 1403.5 Exc 1

BUILDING GROSS SF AREA		
19288.04 SF		
19288.04 SF		
Level 2		
15795.27 SF		
15795.27 SF		
Level 3		
16259.11 SF		
16259.11 SF		
51342.41 SF		

EXISTING DISTRICT CLASSIFICATION - C-1 SMALL PORTION DESIGNATED AS R-2 (REFER TO CIVIL DRAWINGS)

PROPOSED USE:
- COMMUNITY SERVICE FACILITY (NON STATE LICENSED FACILITY)
- MEDICAL OFFICE
- BUSINESS OFFICE

		WIICH IICAN DOILL		ODE (MBC)
	ITEM		SE	CTION
PRIMARY OCCUPANCY CLASSIFICATION SEPARATED MIXED USE	GROUP R1/R4: I GROUP A2: AS: GROUP B: BUSI	SEMBLY	MB	C 310 C 303/420 C 304
ACCESSORY OCCUPANCIES	GROUP S-1: ST	ORAGE	MB	C 311
BUILDING CONSTRUCTION CLASSIFICATION	TYPE VB		MB	C 602.2
AUTOMATIC FIRE PROTECTION	YES - MBC 420.	5 /903.2.8		
FIRE ALARM SYSTEM	YES - MBC 420.6	6		
STANDPIPE SYSTEM			-	
ALLOWABLE BUILDING HEIGHT	3 STORIES / 60	FT	MB	C TBL 504.3 & 5
ACTUAL BUILDING HEIGHT	3 STORIES / TO	P OF PARAPET =	= 38'	
AREA MODIFICATION				
TABULAR AREA	R1/R4: 21,000 SI	F	MB	C TBL 506.2
	A2: 18,000 SF			
	B: 27,000 SF			
ALLOWABLE AREA SPRINKLER INCREASE	NOT NEEDED			
ALLOWABLE AREA OPEN FRONTAGE INCREASE	ALLOWABLE ARE	EA MIXED USE C	ALCUL	ATION
TOTAL PERCENTAGE FACTOR INCREASE	L1: 4,835/27,000 +	+ 1,676/27,000+ 3,	,190718	,000+8,898SF/21
ALLOWABLE CALCULATED TABULAR AREA	= .84<1			
ACTUAL FLOOR AREA				
FIRST LEVEL GROSS SF:	19,289 SF = 4,	835 SF B I 1,676 S	S I 3190	0 A2 I 8,898 R4
SECOND LEVEL GROSS SF:	15,795 SF			
THIRD LEVEL GROSS SF:	F: 16,260 SF			
TOTAL GROSS SF:	51,343 SF			
OCCUPANT LOAD CALCULATION				
		MICHIGAN BUILE	OING C	ODE (MBC)
	FLOOR AREA / S	SF		
GROUP B - BUSINESS	100 SF GROSS		MB	C TBL 1004.1.2
GROUP A-2 - ASSEMBLY (UNCONCENTRATED)	15 SF NET		MB	C TBL 1004.1.2
GROUP S-1 - STORAGE + MECH / EQUIP RMS	300 SF GROSS		MB	C TBL 1004.1.2
GROUP R-1 - RESIDENTIAL	200 SF GROSS/	1 PER UNIT	MB	C TBL 1004.1.2
TABULAR OCCUPANT LOAD:				
GROUP B - BUSINESS	37	2		2
GROUP A-2 - ASSEMBLY (UNCONCENTRATED)	76 (NONCONCU	RRENT WITH R4	 /R1 UN	IITS OCC)
GROUP A-2 - ASSEMBLY (KITCHEN)	5			
GROUP S-1 - STORAGE + MECH / EQUIP RMS	12			43
GROUP R-1 - RESIDENTIAL	0.0	41		
GROUP R-4 - RESIDENTIAL	21			
	0.0			
TOTAL OCCUPANT LOAD PER LEVEL:	151	43		45
	163			

	MICHIGAN BUILDING CODE (MBC)		
	ITEM	SECTION	
MAXIMUM EXIT ACCESS TRAVEL (W/ SPRINKLER)	300 FT B & S 250 FT A & R	MBC TBL 1017.2	
MAXIMUM COMMON PATH OF EGRESS (W/ SPRINKLER)	100 FT B & S 75 FT A & R-1 125FT R-4	MBC TBL 1006.2.1	
MAXIMUM DEAD END CORRIDOR (W/ SPRINKLER)	50 FT LENGTH < 2 x WIDTH	MBC 1020.4 Exc 2 MBC 1020.4 Exc 3	
FIRE EXTINGUISHER DISTRIBUTION CLASS A FIRE HAZARD	75 FT MAX DISTANCE 11,250 SF MAX FLR AREA	MBC TBL 906.3 (1)	
EGRESS COMPONENT CAPACITY (INCH / OCC)			
EXIT ACCESS CORRIDORS	0.2 INCHES 44 INCHES MINIMUM	MBC 1005.3.2 MBC TBL 1020.2	
STAIRWAYS	0.3 INCHES 44 INCHES MINIMUM	MBC 1005.3.1 MBC 1011.2	
RAMPS	0.2 INCHES 44 INCHES MINIMUM	MBC 1005.3.2 MBC 1012.5.1	
DOORS	0.2 INCHES 32 IN MIN & 48 IN MAX	MBC 1005.3.2 MBC 1010.1.1	
EGRESS COMPONENT FIRE RESISTANCE RATING			
EXIT ACCESS CORRIDORS	SMOKE RESISTANT	MBC TBL 1020.1	
EXIT PASSAGEWAY	2 HOUR	MBC TBL 707.3.10	
EXITING THRU ADJOINING SPACES	PERMITTED < / = HAZARD	MBC 1016.2	
STAIRWAY ENCLOSURE	1 HOUR < 4 STORIES	MBC 713.4	
ELEVATOR ENCLOSURE	1 HOUR < 4 STORIES	MBC 713.4	
VERTICAL SHAFTS	1 HOUR < 4 STORIES	MBC 713.4	
SEPARATED MIXED USE OCCUPANCIES	1 HOUR BTWN A-3 & B 1 HOUR BTWN A-3 & S-1	MBC TBL 508.4	
INCIDENTAL USE OCCUPANCIES	0 HOUR IF < 10% OF BLDG	MBC 509.3	
MECH RM W/ EQUIP OVER 400,000 Btu / HOUR	1 HOUR OR SPRINKLED	MBC TBL 509	
LAUNDRY ROOMS OVER 100 SF	1 HOUR OR SPRINKLED	MBC TBL 509	

APPLICABLE CODES AI	ND STANDARDS FOR DESIGN A	ND CONSTRUCTION - FIRE PROTECTION PORTIONS	T
STD. NO.	ED. DATE, ABBREV.	TITLE	COMMENTS
R408.30401	2015 ed. MBC	MICHIGAN BUILDING CODE AS ADOPTED AND AMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION; INCORPORATES THE 2015 INTERNATIONAL BUILDING CODE; EFFECTIVE 04/20/2017	BASIC CONSTRUCTION, INCLUDES HANDICAP REQUIREMENTS
R408.30901a	2021 ed. MMC	MICHIGAN MECHANICAL CODE AS ADOPTED AND AMMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION CODES; EFFECTIVE 03/12/2024	
MUEC PART 10a	2015 ed.	MICHIGAN UNIFORM ENERGY CODE (ASHRAE 90.1 - 2013 ADOPTED BY REFERNECE) AS ADOPTED AND AMMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION CODES; EFFECTIVE 09/20/2017	
ASHRAE 90.1	2016 ed.	ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL, ASHRAE STANDARD 90.1, AS REFERENCED BY THE 2021 MICHIGAN MECHANICAL CODE; EFFECTIVE 03/12/2024	
R408.30701	2021 ed. MPC	MICHIGAN PLUMBING CODE AS ADOPTED AND AMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION CODES; EFFECTIVE 03/12/2024	
R408.30901	2023 ed. NEC	MICHIGAN ELECTRICAL CODE PART 8 ELECTRICAL CODE RULES AND ADOPTED NATIONAL ELECTRIC CODE, AS ADOPTED AND AMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION CODES; EFFECTIVE 03/12/2024	
R408.30801	2023 ed. NEC	NATIONAL ELECTRICAL CODE BY THE NATIONAL FIRE PREVENTION ASSOCIATION (NFPA 70), AS ADOPTED AND AMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION CODES; EFFECTIVE 03/12/2024	
	TENTH ed. IESNA	ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA	
	2015 ed. IFC	INTERNATIONAL FIRE CODE WITH APPENDICES; EFFECTIVE 05/11/2016	MINIMUM FIRE REGULATIONS FOR FIRE PREVENTION
R408.7001 ASME A17.1	2016 ESC	SAFETY CODE FOR ELEVATORS AND ESCALATORS ASME A17.1, BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, AS ADOPTED AND AMENDED BY THE STATE OF MICHIGAN, BUREAU OF CONSTRUCTION CODES; EFFECTIVE 06/27/2023	ELEVATOR SAFETY CODES
ICC / ANSI A117.1	2009 ed. HAC	ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES BY THE INTERNATIONAL CODE COUNCIL AS REFERENCED BY THE 2015 MICHIGAN BUILDING CODE; EFFECTIVE 04/20/2017	HANDICAP DETAILS
28 CFR PART 36	1990 ADA 2010 - APPENDIX B	AMERICANS WITH DISABILITIES ACT, TITLE III - PUBLIC ACCOMODATIONS AND GUIDELINES, BY THE U.S. DEPARTMENT OF JUSTICE	HANDICAP ACCESSIBILITY LAW & GUIDELINES
ASHRAE 62.1	2019 ed.	VENTILATION FOR ACCEPTABLE INDOOR AIR QUAILITY, ASHRAE STANDARD 62.1, AS REFERENCED BY THE 2021 MICHIGAN MECHANICAL CODE; EFFECTIVE 03/12/2024	
ACGIH	25TH ed.	INDUSTRIAL VENTILATION: A MANUAL OF RECOMMENDED PRACTICES	
SMACNA	3RD ed.	SMACNA, HVAC DUCT CONSTRUCTION STANDARDS	
VOL. 1 TO VOL. 12		NATIONAL FIRE CODES AS APPLICABLE BY THE NATIONAL FIRE PROTECTION ASSOCIATION AS REFERENCED BY MBC INCLUDING BUT NOT LIMITED TO:	VARIOUS F.P. SUBJECTS
	2013 ed. 2016 ed. 2016 ed. 2016 ed. 2015 ed.	- NFPA 10: PORTABLE FIRE EXTINGUISHERS - NFPA 13: INSTALLATION OF SPRINKLER SYSTEMS - NFPA 14: STANDPIPES, PRIVATE HYDRANTS AND HOSE SYSTEMS - NFPA 20: INSTALLATION OF STATIONARY FIRE PUMPS - NFPA 30: FLAMMABLE & COMBUSTIBLE LIQUIDS CODE	
	2015 ed. 2016 ed. 2015 ed. 2015 ed.	 NFPA 70E: STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE NFPA 72: NATIONAL FIRE ALARM CODE NFPA 90A: STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATION SYSTEMS NFPA 91: STANDARD FOR EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS, AND NONCOMBUSTIBLE PARTICULATE SOLIDS 	

USE GROUP	TOTAL OCCUPANT	WATER C	CLOSETS	LAVAT	ORIES	DRINKING FOUNTAINS	SECTION
		MALE	FEMALE	MALE	FEMALE		
ASSEMBLY A-2 (UNCONCENTRATED)		1/75	1/75	1	/200	1/500	MPC 2015 TABLE 403.1
	76/2 =47	0.376	0.376	0.235	0.235	0.094	
BUSINESS		1/25 TO 50 & 1	I/50 AFTER	1/40 TO 50 &	1/80 AFTER	1/100	
	37/2=19	0.76	0.76	0.475	0.475	0.19	
0700105 (115011/51507 00010		1/	100	1	/100	1/1000	
STORAGE / MECH / ELECT ROOMS	12/2=6	0.6	0.6	0.6	0.6	0.006	
D 4 AND D 4 CLEEDING LIMITS	1 PER UNIT —				>		
R-1 AND R-4 SLEEPING UNITS	TT EIX ONT						
FIXTURE REQUIREMENTS							
		WATER C	CLOSETS	LAVAT	ORIES	DRINKING FOUNTAINS	REMARKS
		MALE	FEMALE	MALE	FEMALE		
	CALC TOTALS:	1.736	1.736	1.31	1.31	.20	
	TOTAL REQUIRED:	2	2	2	2	1	
	TOTAL PROVIDED:	2	2	2	2	1	
	TOTAL TROVIDED.	_	_	_	_	•	



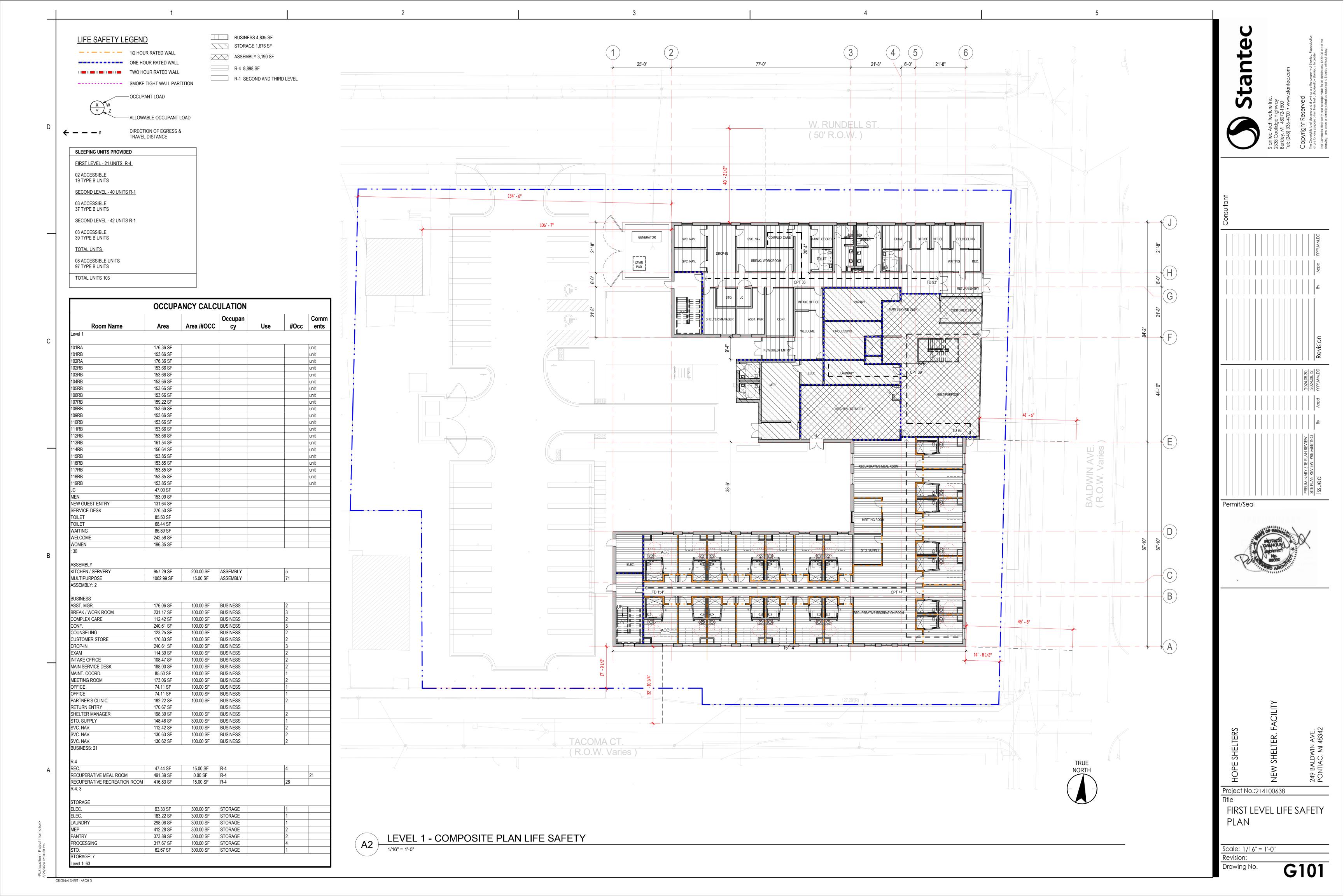
Project No.:214100638

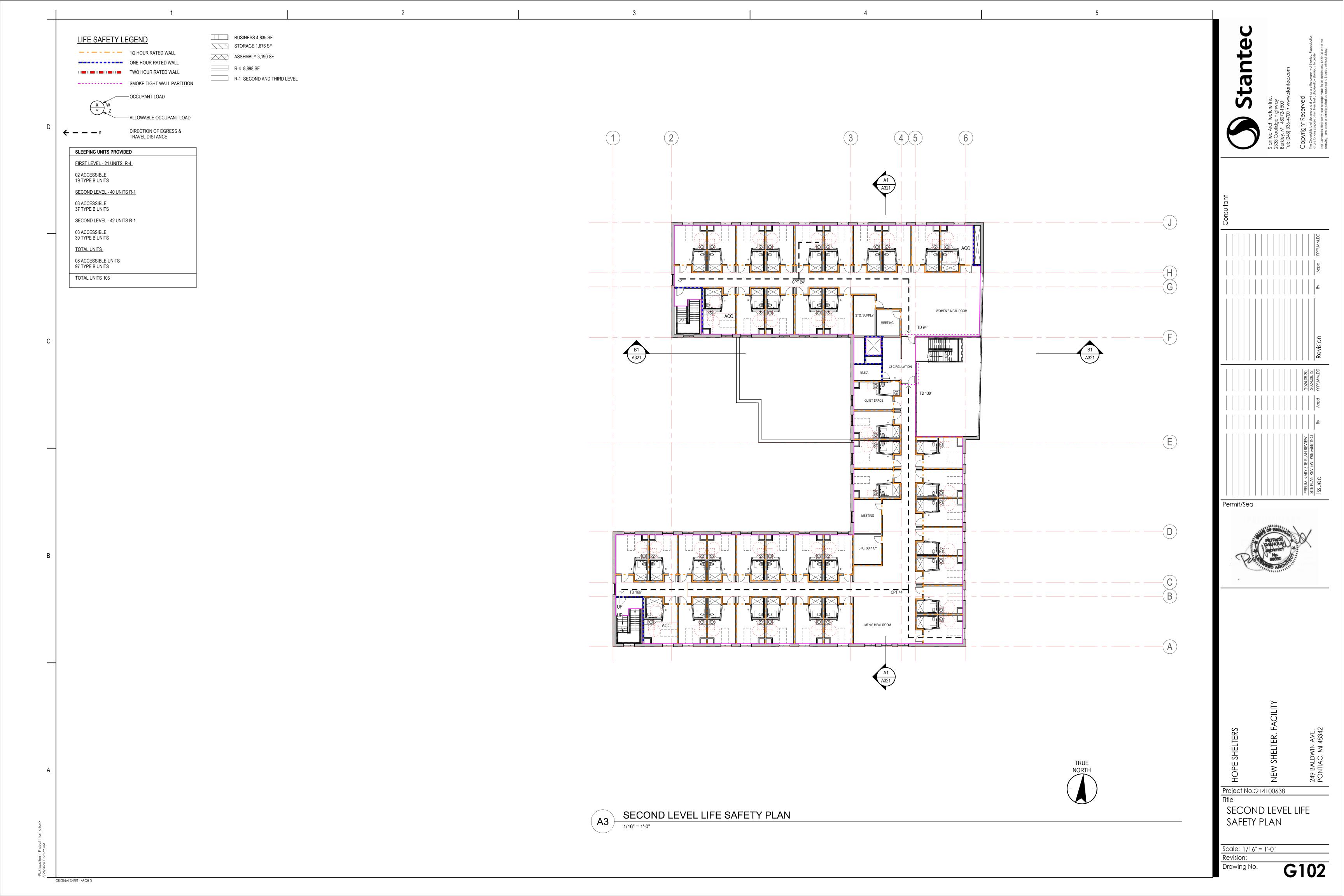
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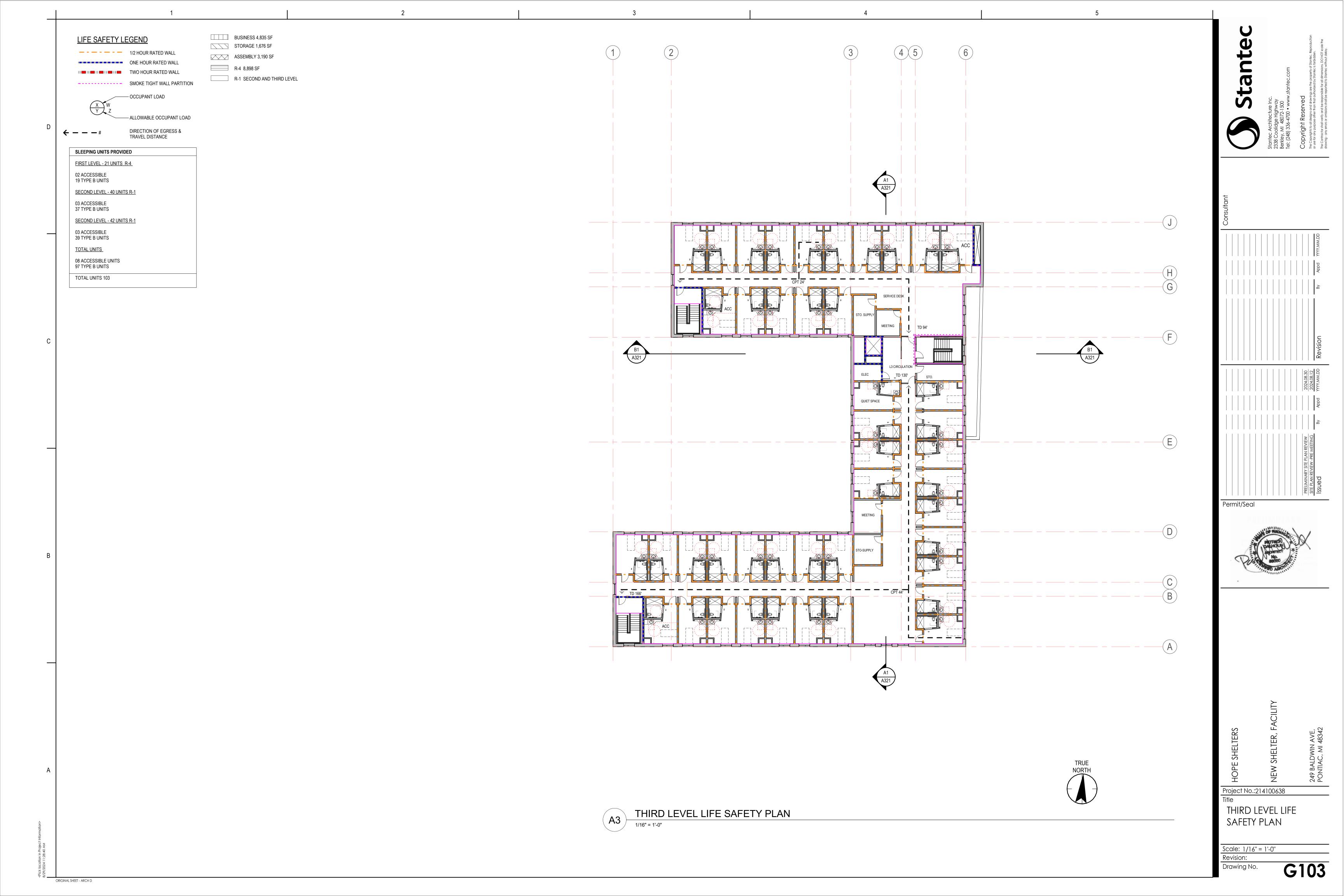
CODE INFORMATION

Scale: 1/4" = 1'-0"
Revision:
Drawing No.

ORIGINAL SHEET - ARCH D







Owner / Developer

HOPE Shelters 46777 Woodward Ave. Pontiac, MI 48342-5032 Tel. (248) 481-4394

CONTACT: Brian Wright

Architect

STANTEC ARCHITECTURE INC. 2338 Coolidge Highway Berkley, MI 48072-1500 Tel. (248) 336-4700

Civil Engineer

NOWAK & FRAUS ENGINEERS 46777 Woodward Ave. Pontiac, MI 48342-5032 Tel. (248) 332-7931 Fax. (248) 332-8257

CONTACT: Brad W. Brickel, P.E.

Landscape Architect

NOWAK & FRAUS ENGINEERS 46777 Woodward Ave. Pontiac, MI 48342-5032 Tel. (248) 332-7931 Fax. (248) 332-8257

CONTACT: George A. Ostrowski, PLA, LEED AP

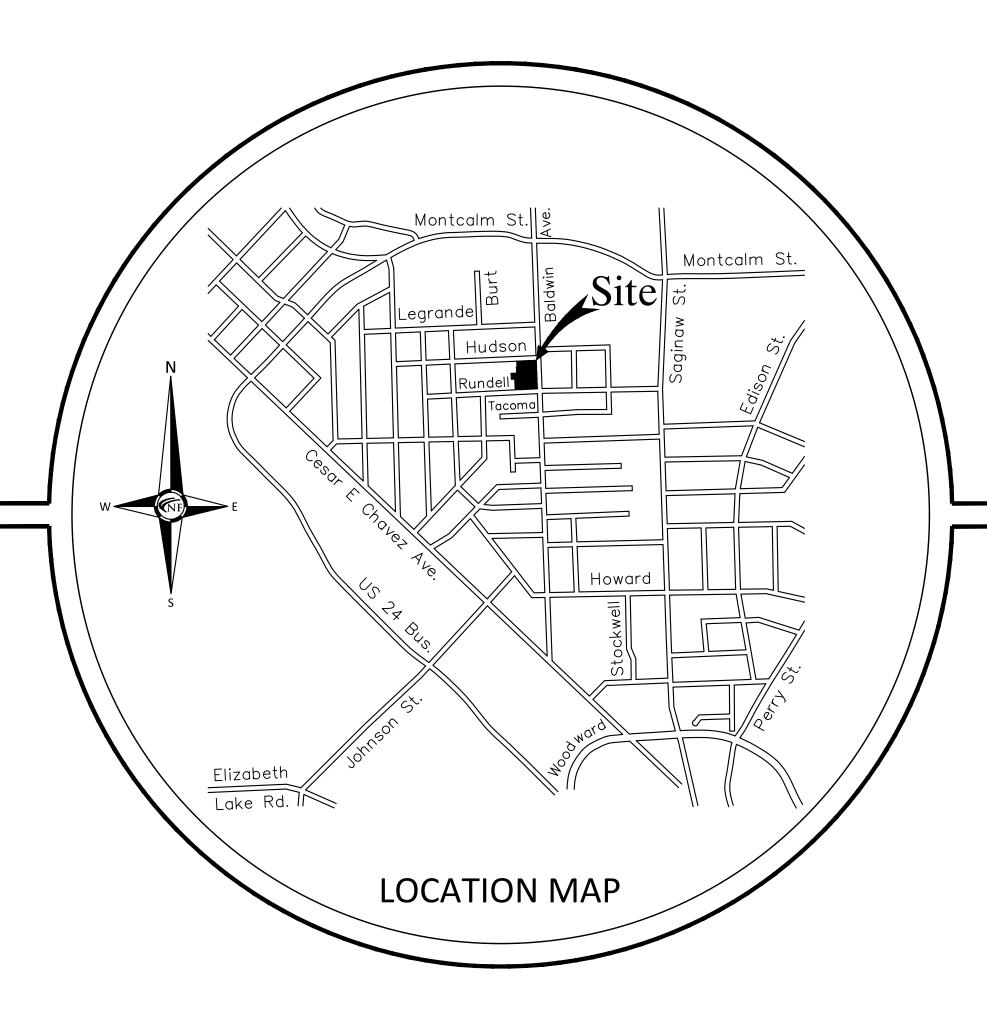
LEGAL DESCRIPTION - PER TAX RECORD

T3N, R10E, SEC 20 FRUIT RIDGE ADDITION LOT 1, ALSO ASSESSOR'S PLAT NO. 6 E 196.3 FT OF LOT 1, ALSO LOT 9, ALSO TACOMA COURT LOTS 1, 2 & 3.

TAX ID NUMBER: 14-20-334-035

ADDRESS: 283 BALDWIN AVE., PONTIAC, MI 48342

City of Pontiac,
Oakland County, Michigan
SITE PLAN DOCUMENTS
Prepared For
HOPE Shelters



Project Name

HOPE Shelters 283 Baldwin Ave.

SHEET INDEX

SP00 Cover Sheet
SP01 Boundary, Topographic, Tree Survey
SP02 Site Plan
SP03 Garbage - Delivery Vehicle Access Plan

SP04 Paving and Grading Plan SP05 Notes and Details SP05.1 Notes and Details

L1 Tree Removal Plan L2 Landscape Plan

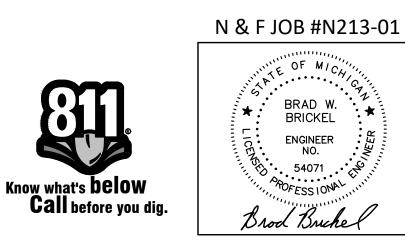
CITY OF PONTIAC NOTE

ALL WORK SHALL CONFORM TO THE CITY OF PONTIAC'S CURRENT STANDARDS AND SPECIFICATIONS

EVISIONS:

08-12-24 SITE PLAN REVIEW - PRE-MEETING 08-30-24 PRLEIMINARY SITE PLAN REVIEW

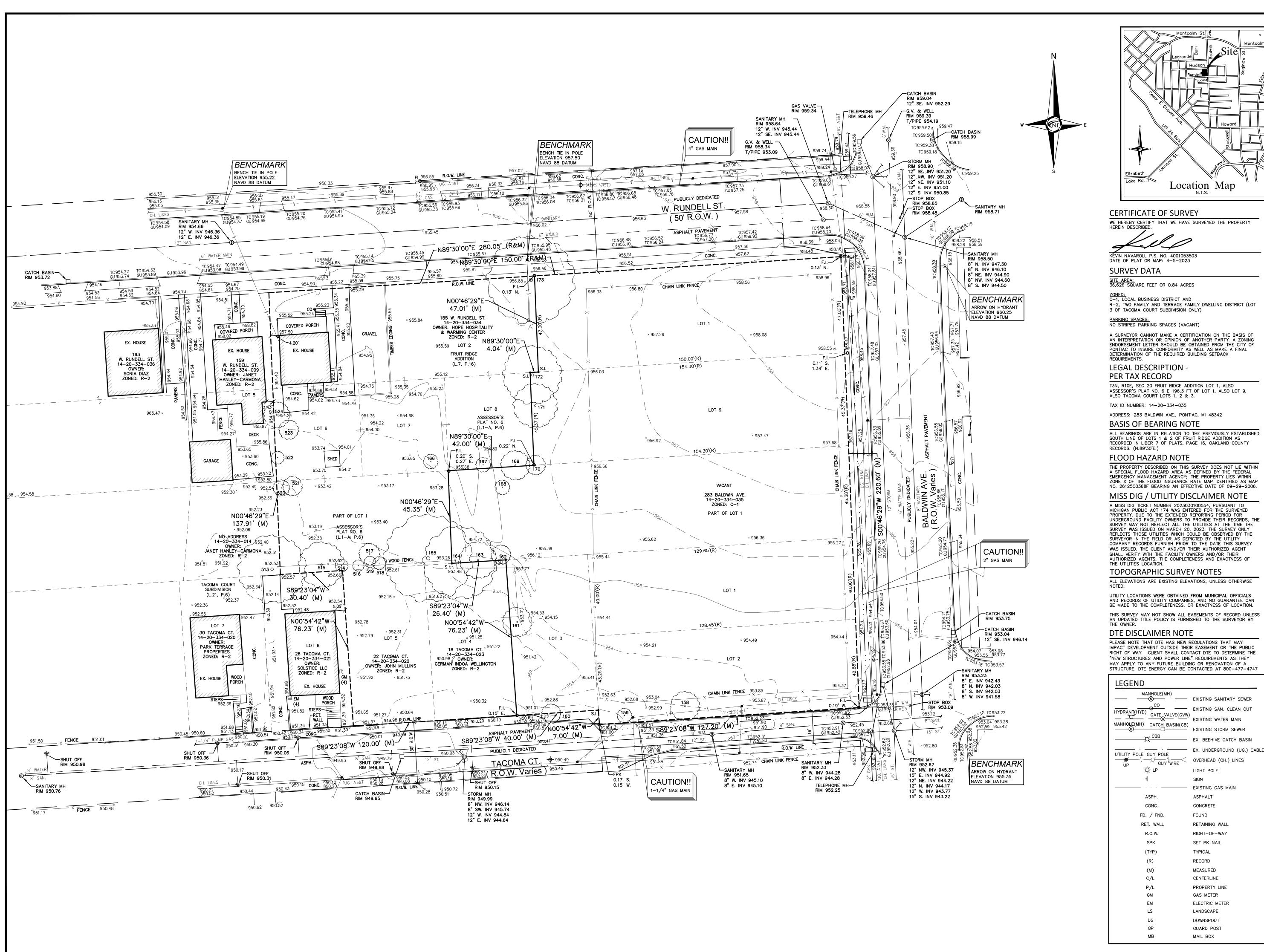


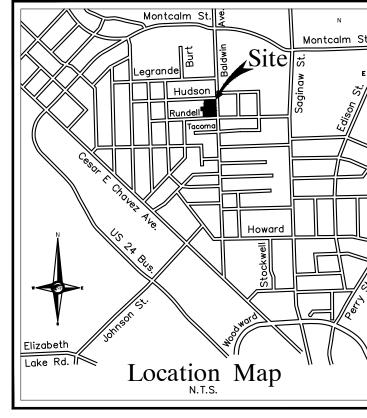


LAND PLANNERS

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46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

WWW.NFE-ENGR.COM





CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS NOWAK & FRAUS ENGINEERS

46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM

ENGINEERS

SEAL



PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT

HOPE Shelters

Contact: Brian Wright, Executive Director / CEO Phone: 248.481.4394 Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac,

Oakland County, Michigan

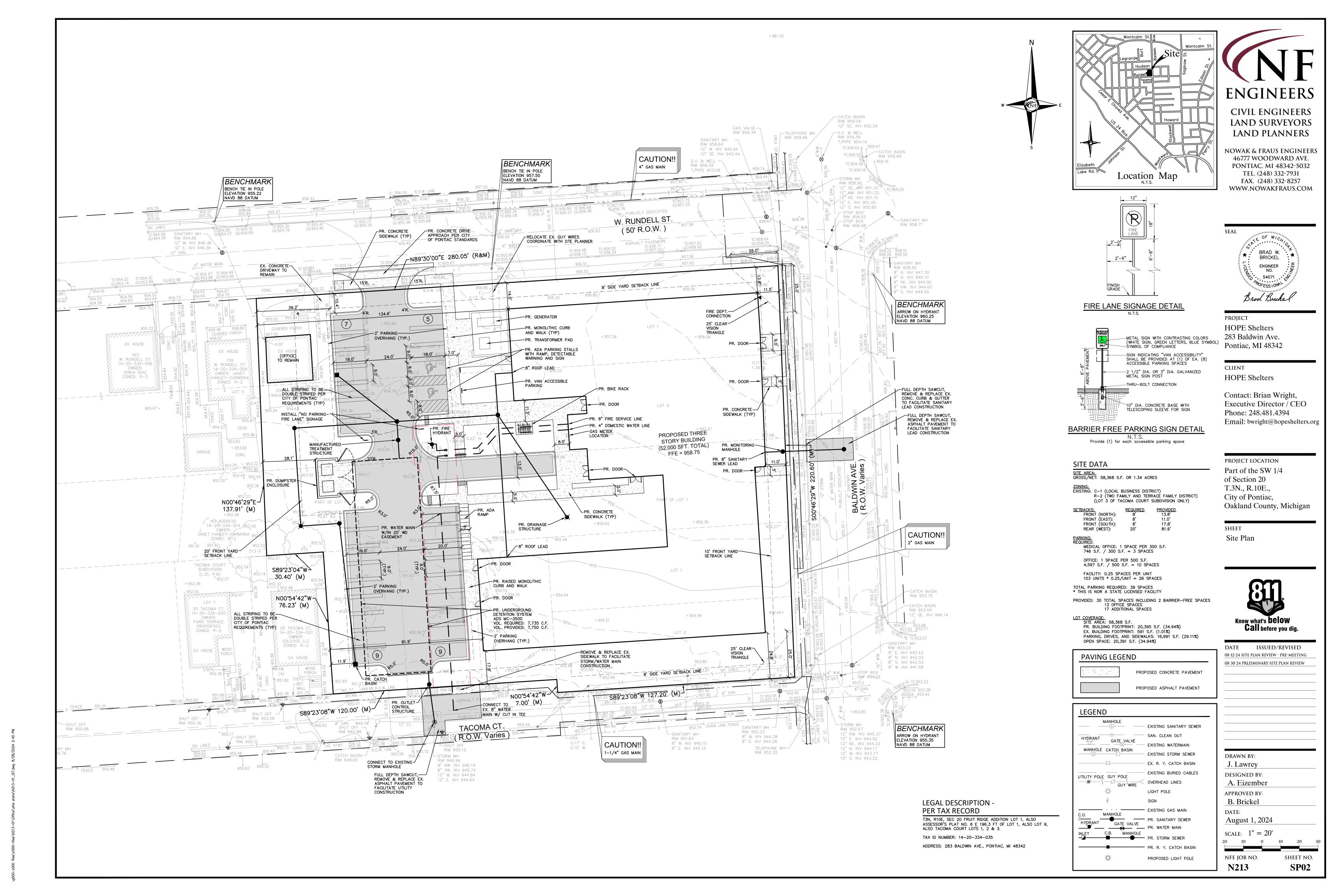
SHEET

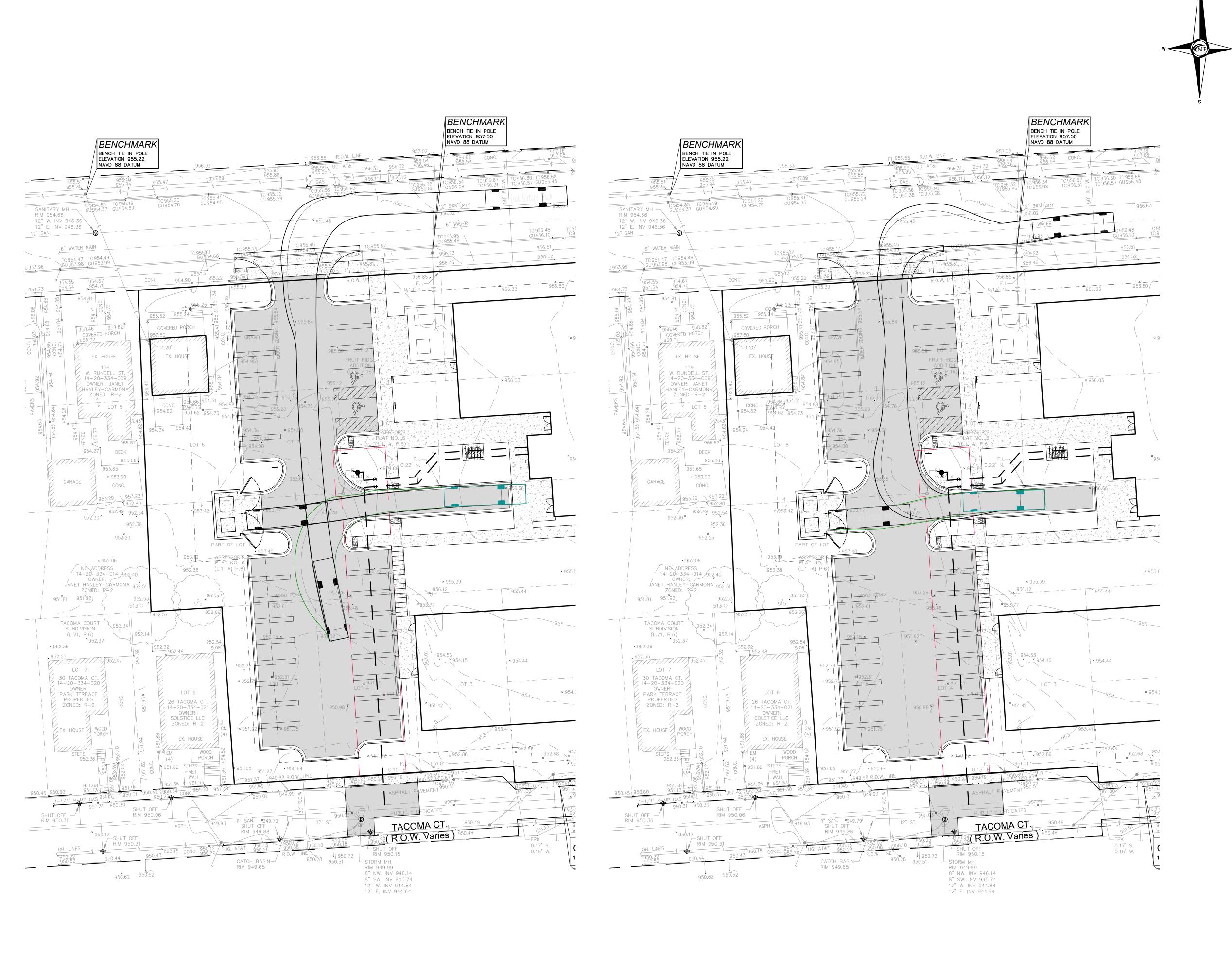
Boundary, Topographic, Tree Survey

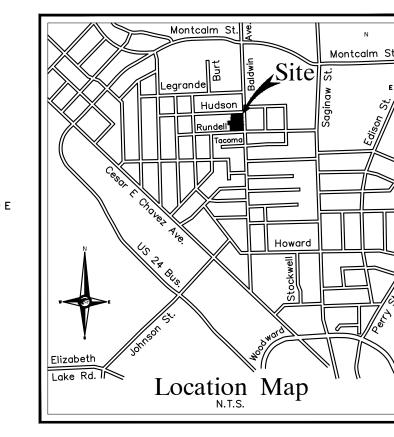


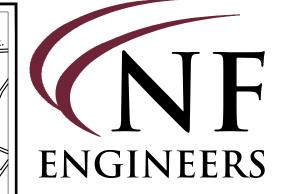
SHEET NO. **SP01**

	DATE ISSUED/REVISED 08-12-24 SITE PLAN REVIEW - PRE-MEETING
	08-30-24 PRLEIMINARY SITE PLAN REVIEW
E	
	DRAWN BY:
	M. Carnaghi
	DESIGNED BY:
	APPROVED BY:
	K. Navaroli
	DATE:
	August 1, 2024



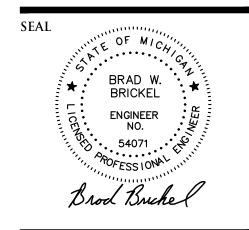






CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM



PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT **HOPE Shelters**

Contact: Brian Wright, Executive Director / CEO Phone: 248.481.4394 Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac, Oakland County, Michigan

Garbage - Delivery Vehicle Access Plan



		DATE	ISSUED/REVISED
PAVING LEGE	ND	08-12-24 SIT	E PLAN REVIEW - PRE-MEETING
17WING ELGEND		08-30-24 PD	LEIMINARY SITE PLAN REVIEW
	PROPOSED CONCRETE PAVEMENT	00 30 24 1 K	LLIMINARI SITETLAN REVIEW
4 4			
	PROPOSED ASPHALT PAVEMENT		

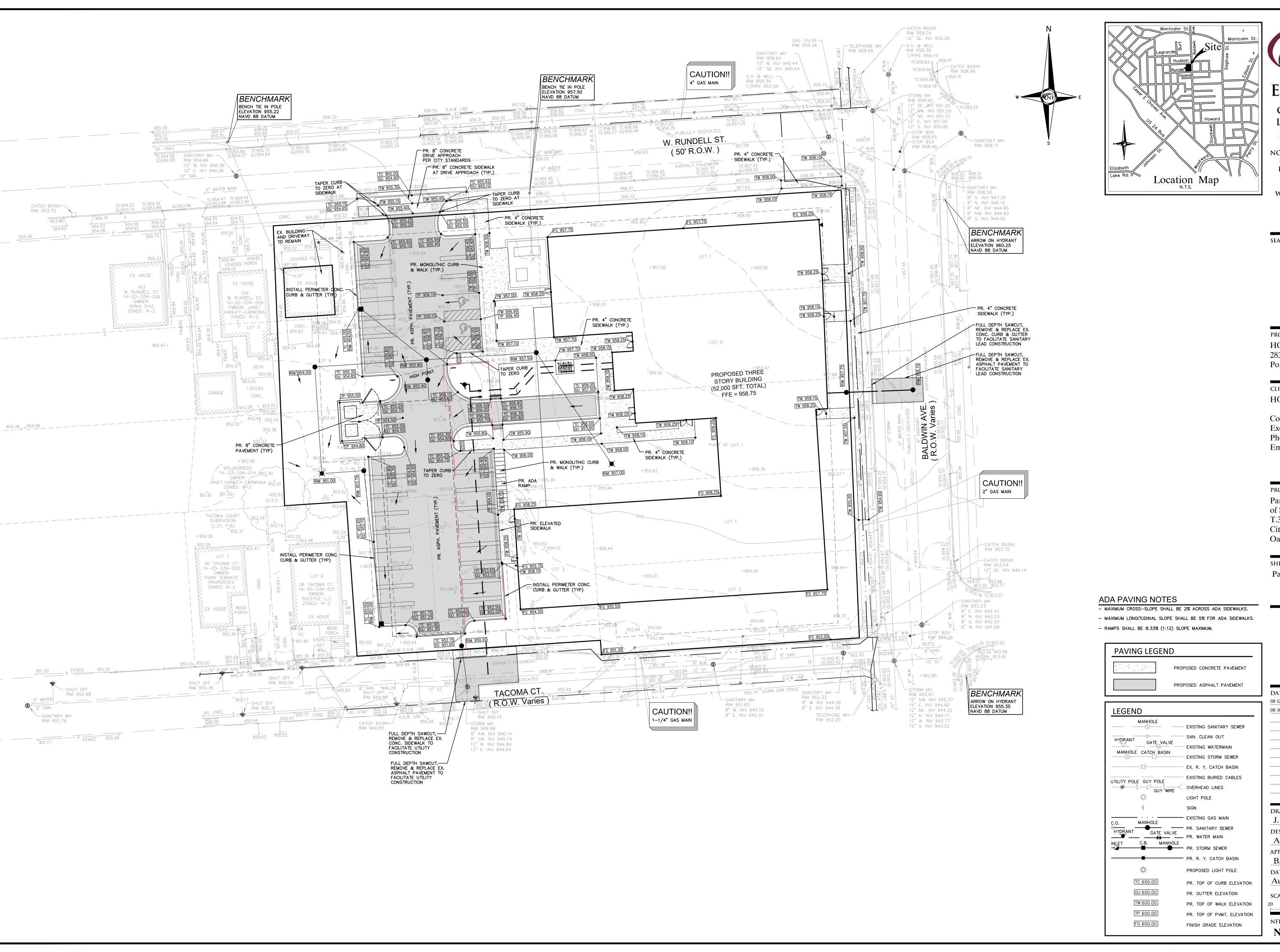
LEGEND	
MANHOLES	EXISTING SANITARY SEWER
HYDRANT GATE VALVE	SAN. CLEAN OUT
MANHOLE CATCH BASIN	EXISTING WATERMAINEXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
UTILITY POLE GUY POLE GUY WRF	EXISTING BURIED CABLES OVERHEAD LINES
**	LIGHT POLE
٩	SIGN
C.O. MANHOLE OHYDRANT GATE VALVE	- EXISTING GAS MAIN - PR. SANITARY SEWER - PR. WATER MAIN
INLET C.B. MANHOLE	- PR. STORM SEWER

PROPOSED LIGHT POLE

Rear-Load Garbage Truck Overall Length Overall Width Overall Body Height Min Body Ground Clearance Track Width Lock-to-lock time Curb to Curb Turning Radius

DRAWN BY: J. Lawrey **DESIGNED BY:** A. Eizember APPROVED BY: B. Brickel DATE: August 1, 2024

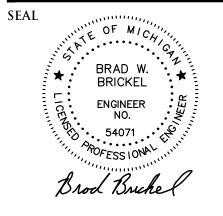
SHEET NO. NFE JOB NO. N213 **SP03**



ENGINEERS

CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM



PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT

HOPE Shelters

Contact: Brian Wright, Executive Director / CEO Phone: 248.481.4394 Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac, Oakland County, Michigan

Paving and Grading Plan

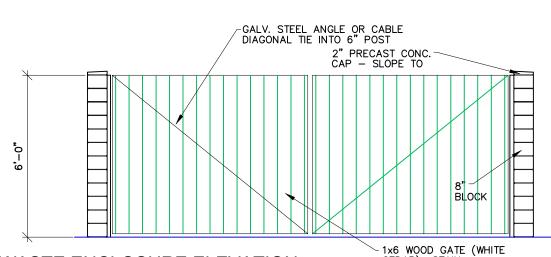
Know what's **below Call** before you dig.

ISSUED/REVISED

		DATE ISSUED/REVISED
		08-12-24 SITE PLAN REVIEW - PRE-MEETING
GEND		08-30-24 PRLEIMINARY SITE PLAN REVIEW
MANHOLE		
S	EXISTING SANITARY SEWER	
RANT O.T.	SAN. CLEAN OUT	
GATE VALVE	EXISTING WATERMAIN	
NHOLE CATCH BASIN	EXISTING STORM SEWER	
<u> </u>	EX. R. Y. CATCH BASIN	
Y POLE GUY POLE	EXISTING BURIED CABLES	
GUY WIRE	OVERHEAD LINES	
*	LIGHT POLE	
٩	SIGN	DRAWN BY:
MANHOLE	EXISTING GAS MAIN	J. Lawrey
RANT GATE VALVE	PR. SANITARY SEWER	DESIGNED BY:
C.B. MANHOLE	PR. WATER MAIN	A. Eizember
	PR. STORM SEWER	APPROVED BY:
	PR. R. Y. CATCH BASIN	B. Brickel
*	PROPOSED LIGHT POLE	DATE:
TC 600.00	PR. TOP OF CURB ELEVATION	August 1, 2024
GU 600.00	PR. GUTTER ELEVATION	SCALE: 1" = 20'
TW 600.00	PR. TOP OF WALK ELEVATION	20 10 0 10 20

DRAWN BY:
J. Lawrey
DESIGNED BY:
A. Eizember
APPROVED BY:
D. Duioleol

1'' = 20'SHEET NO. **SP04**



2" PRECAST CONC.

CAP - SLOPE TO THE OUTSIDE

8" SPLIT-FACED CONC

BLOCK ABOVE GRADE

GROUT SOLID

#6 RODS @ 24" O.C. -

ELOW GRADE - PROVIDE

WATERPROOFING TO 4"

8" STANDARD CONC. BLOCK B-

BELOW FINISH GRADE ON CMU

ALL CMU BELOW GRADE TO-BE GROUTED SOLID

6" CONC. SLAB REINF. W/

#6 VERT. REINF. ROD 24" -

14" WIDE x 42" DEEP CONC. TRENCH FOOTING REINF. W/

(2) #5 RODS CONT. T & B

WASTE ENCLOSURE SECTION

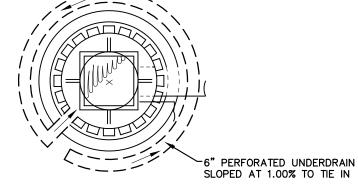
ËACH WAY @ 24" O.C. -

GROUT BLOCKS SOLID

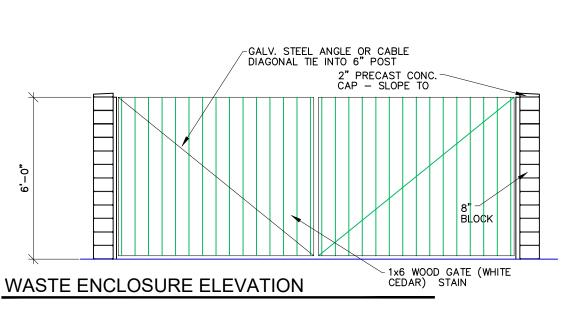
6x6x2.9x2.9 W.W.F. ON 4"

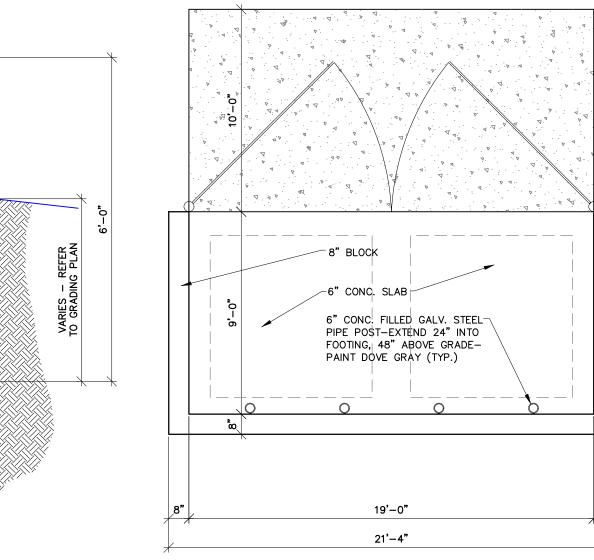
COMP. SAND BASE

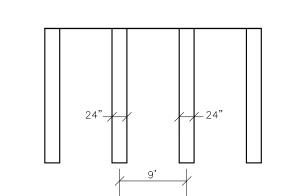
½" EXP. JOINT



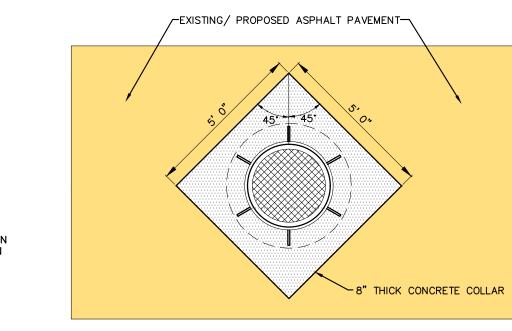
PROVIDE 6" PERFORATED UNDERDRAIN AROUND STRUCTURE AT 2FT. BELOW RIM UNDERDRAIN DETAIL







STANDARD PARKING STRIPE DETAIL



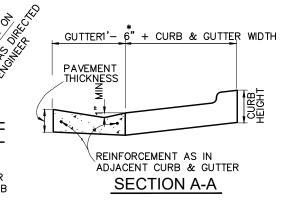
DRAINAGE STRUCTURE BOXOUT DETAIL I

100 Year Post-Development Detention Volume	
Name of Project:	HOPE Center
Location of Project:	Pontiac, MI
NFE Project No.:	N213-01
Contributing Acreage "A":	1.35 ac
Weighted Runoff Coefficient "C":	0.67
Time of Concentration "Tc":	10.00 min
1. Calculate Required Water Quality Volume (Vwq) (1" Rainfall Event)	
Vwq = 3630(C)(A)	3,283 cft
2. Calculate Required Water Quality Rate (Qwq)	
Qwq = (C)(A)30.20/(Tc+9.17)^.81	2.50 cfs
3. Calculate Required Channel Protection Volume (Vcp-r) (1.3" Rainfall Event)	
Vcp-r = 4719(C)(A)	4,268 cft
4. Calculate Required Extended Detention Volume (Ved) (1.9" Rainfall Event)	
Ved = 6897(C)(A)	6,238 cft
5. Calculate Extended Detention Outlet Rate (Qed) (48 hour discharge)	
Qed = Ved / [(48 hr)(60 min)(60 sec)] = Ved/172800	0.04 cfs
6. Calculate 100-year Rainfall Intensity (I100)	
1100 = 83.3/(Tc+9.17)^0.81))	7.62 in/hr
7. Calculate 100-year Storm Inlet Rate (Q100-in)	
Q100-in = $(C)(1100)(A)$	6.89 cfs
8. Determine the Variable Release Rate (Qvrr)	
Qvrr =	1.00 cfs/a
Restricted Outlet rate per local municipality	N/A cfs/a
9. Calculate Allowable 100-year Storm Outlet Rate (Q100P)	
Q100p = (Qvrr)(A)	1.35 cfs
10. Calculate Storage Curve Factor (R)	
R = 0.206-(0.15)(LN(Q100P/Q100-in))	0.450
11. Calculate Required 100-year Storm Volume In (V100R)	
V100R = 18,985(C)(A)	17,172 cft
12. Calculate 100-year Storm Detention Storage Volume (V100D)	
V100D = (V100R)(R)	7,735 cft
Vcp(credit)	0 cft
TOTAL DETENTION VOLUME DECLURED	7 725 -6

OPENING IN CURB & GUTTER A- PLANE OF WEAKNESS JOINTS 1" EXPANSION JOINT * TO EDGE OF GUTTER OR FACE OF INTEGRAL CURB

ALIGN DRIVEWAY RETURN TO FIT

MONOLITHIC CURB AND WALK DETAIL



1/2" EXPANSION

UTILITIES

AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MISS DIG AND THE LOCAL COMMUNITY (WHERE APPLICABLE) TO STAKE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING UTILITIES FOR LOCATION, SIZE, DEPTH, MATERIAL AND CONFIGURATION PRIOR TO CONSTRUCTION. COSTS FOR EXPLORATORY EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE

MATCH THE PLANS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. ANY FIELD CHANGES OF THE PROPOSED UTILITIES SHALL BE APPROVED BY THE OWNER AND ENGINEER BEFORE THE

THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. ANY SERVICE OR UTILITY DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR, IN CONFORMANCE WITH THE REQUIREMENTS OF THE

DAMAGE TO PRIVATE PROPERTY

ALL SIDEWALKS, DRIVEWAYS, LAWNS, FENCING, TREES, SHRUBS, SPRINKLERS, LANDSCAPING, ETC., THAT ARE DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED, IN KIND DUE TO THE CONTRACTOR'S WORK ARE TO BE INCLUDED IN THE CONTRACT PRICE(S) AND SHALL NOT BE AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM ADJACENT PROPERTY OWNERS PRIOR TO ENTERING UPON ANY ADJOINING PROPERTIES, UNLESS OFFSITE PERMITS HAVE ALREADY BEEN OBTAINED BY THE OWNER AND ARE PART OF THE CONTRACT DOCUMENTS.

IF NOT SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION DESIGN DOCUMENTS, THE DESIGN OR QUALITATIVE ANALYSIS OF GROUND WATER DEWATERING SYSTEMS IS BEYOND THE SCOPE OF DESIGN FOR THESE DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND PROVIDING APPROPRIATE EXCAVATION DEWATERING SYSTEMS FOR USE DURING

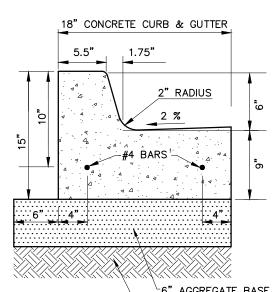
THE DEWATERING METHOD SELECTED BY THE CONTRACTOR WILL NOT ADVERSELY AFFECT ADJACENT PAVEMENTS OR STRUCTURES PRIOR TO BEGINNING DEWATERING CONDITIONS. MEANS AND METHODS OF DEWATERING ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF DEWATERING WILL BE CONSIDERED INCLUDED IN THE WORK OF CONSTRUCTING THE UNDERGROUND UTILITIES UNLESS SPECIFICALLY INDICATED OTHERWISE.

FROM TIME TO TIME IT MAY BE NECESSARY FOR THE CONTRACTOR TO BY-PASS PUMP TO COMPLETE THE WORK INDICATED ON THE PLANS. THE COST OF BY-PASS PUMPING, THE METHODS, EQUIPMENT AND MEANS OF PROVIDING THAT WORK ARE THE RESPONSIBILITY OF THE

MEANS AND METHODS FOR PIPE CONSTRUCTION

CONSTRUCTING THE UNDERGROUND PIPE SYSTEMS PROPOSED ON THE PLANS, INCLUDING BUT NOT LIMITED TO THE NEED FOR SHORING/BRACING OF TRENCHES, DEWATERING OF TRENCHES, SCHEDULING THE WORK AT OFF PEAK HOURS, AND/OR MAINTAINING EXISTING FLOWS THAT MAY BE ENCOUNTERED VIA PUMPING, BY-PASS PIPING OR OTHER MEANS. THE CONTRACTOR SHALL NOT BE PAID ANY ADDITIONAL COMPENSATION TO IMPLEMENT ANY MEANS AND METHODS TO SATISFACTORILY COMPLETE THE CONSTRUCTION.

REMOVAL. PAVEMENT CORE SAMPLES ARE FOR INFORMATIONAL PURPOSES ONLY AS TO THE THICKNESS OF THE PAVEMENT AT THE LOCATION OF THE SAMPLE. THE OWNER AND ENGINEER



6" AGGREGATE BASE, 21AA -APPROVED SUBGRADE CONCRETE CURB DETAIL 'A'

 $^{f L}$ PROPOSED/ EXISTING 4"

CONCRETE SIDEWALK (TYP)

- ADDITIONAL WIDTH REQUIRED

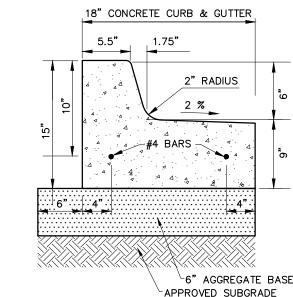
COMMERCIAL CONCRETE SIDEWALK DETAIL

MAINTENANCE OF TRAFFIC

GOVERNMENTAL AGENCIES.

IRRIGATION

DRIVEWAYS (TYP)



¹6" AGGREGATE BASE, 21AA APPROVED SUBGRADE CONCRETE CURB DETAIL 'B'

PLACE OF WEAKNESS

JOINTS (TYP)

RESIDENTIAL APPROACH-6" THICK (TYP)

WALK WIDTH AS CALLED FOR ON PLANS

1/4" PER FOOT TOWARD STREET

CONCRETE SIDEWALK SECTION

DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL ACCOMMODATE BOTH

VEHICULAR AND PEDESTRIAN TRAFFIC IN THE ROAD RIGHTS OF WAY. THE CONTRACTOR'S EQUIPMENT AND OPERATIONS ON PUBLIC STREETS SHALL BE GOVERNED BY ALL APPLICABLE

LOCAL, COUNTY AND STATE ORDINANCES, REGULATIONS AND LAWS. THE CONTRACTOR SHALL

REQUIRED BY MDOT, THE COUNTY, OR THE COMMUNITY HAVING JURISDICTION OF THE ROAD

COMPENSATION FOR TRAFFIC CONTROL SHALL BE CONSIDERED INCLUDED IN THE CONTRACT

PRICE(S) UNLESS SPECIFIC TRAFFIC CONTROL ITEMS ARE INCLUDED IN THE ACCEPTED BID

LOCATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL TAKE ALL NECESSARY

CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC IRRIGATION SYSTEM

INFORMATIONAL PURPOSES ONLY. THIS INFORMATION IS NOT OFFERED AS EVIDENCE OF GROUND CONDITIONS THROUGHOUT THE PROJECT AND ONLY REFLECT THE GROUND CONDITIONS

THE ACCURACY AND RELIABILITY OF THE SOIL LOGS AND REPORT ARE NOT WARRANTED OR GUARANTEED IN ANY WAY BY THE OWNER OR ENGINEER AS TO THE SUB-SOIL CONDITIONS FOUND ON THE SITE. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION AND

SUB-SOIL INVESTIGATION AND SECURE OTHER SUCH INFORMATION AS THE CONTRACTOR

SUBGRADE UNDERCUTTING AND PREPARTION

TO PROVIDE A SUBGRADE IN CONFORMANCE WITH THE PROJECT PLANS AND/OR

CONSIDERS NECESSARY TO DO THE WORK PROPOSED AND IN PREPARATION OF THEIR BID.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY AND ALL SOILS WHICH DO

NOT CONFORM TO THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE

SPECIFICATIONS. THE MEANS AND METHODS USED TO ACHIEVE THE REQUIRÉD RESULT SHALL

ANY AREAS OF UNDERCUTTING THAT RESULT IN ADDITIONAL OR EXTRA WORK BECAUSE THEY

COULD NOT BE IDENTIFIED BY THE CONTRACTOR'S PRE-BID SITE OBSERVATION OR ARE NOT

THE OWNER AND ENGINEER BEFORE ANY EXTRA WORK IS PERFORMED. THE CONTRACTOR SHALL MAKE A REQUEST FOR ANY ADDITIONAL COMPENSATION FOR THE UNDERCUTTING IN WRITING

SET FORTH IN THE PLANS AND SPECIFICATIONS. SHALL BE BROUGHT TO THE ATTENTION OF

AND THE REQUEST SHALL CONFORM TO THE CONTRACT'S CHANGE ORDER PROVISIONS.

STRUCTURAL BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PROJECT PLANS,

TRENCH BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PLANS AND/OR

THE CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHETHER THE SITE

SOIL EROSION / SEDIMENTATION CONTROL

SPECIFICATIONS OR AS REQUIRED BY THE COMMUNITY, GOVERNMENT AGENCY OR UTILITY THAT

SPECIFICATIONS. TRENCH BACKFILL SHALL ALSO BE INSTALLED IN CONFORMANCE WITH THE

COMMUNITY REQUIREMENTS OR AGENCY/UTILITY GOVERNING SAID TRENCH CONSTRUCTION. IN

EARTHWORK BALANCES OR NOT. ANY EXCESS CUT MATERIAL SHALL BE DISPOSED OF BY THE

CONTRACTOR. IN A LIKE MANNER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT

STANDARDS. THE ENGINEER AND OWNER MAKE NO REPRESENTATION AS TO THE QUANTITIES

THAT MAY BE NEEDED TO CREATE A BALANCED EARTHWORK CONDITION OR THAT THE SITE

THE CONTRACTOR SHALL OBTAIN THE REQUIRED SOIL EROSION PERMIT AND SATISFY ALL REGULATORY REQUIREMENTS FOR CONTROLLING SOIL EROSION AND SEDIMENT TRANSPORT. THE

CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR INSPECTION OR APPROVAL OF THE CONTRACTOR'S WORK IN CONNECTION WITH SATISFYING THE SOIL EROSION PERMIT REQUIREMENTS UNLESS SPECIFICALLY STATED IN

APPROVED FILL MATERIAL AND PLACE IT AS REQUIRED TO ATTAIN THE SITE GRADE AND COMPACTION REQUIREMENTS PER THE ENGINEER'S PLAN AND ALL APPLICABLE GOVERNMENTAL

MEASURES TO PROTECT THE IRRIGATION SYSTEM DURING CONSTRUCTION ACTIVITIES. COMPENSATION FOR MAINTAINING OR REPAIRING EXISTING IRRIGATIONS SYSTEMS SHALL BE

ANY SOIL BORING PROVIDED BY THE OWNER AND/OR ENGINEER IS PROVIDED FOR

REPAIR ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

AT THE LOCATION OF THE BORING ON THE DATE THEY WERE TAKEN.

SUB-SOIL CONDITIONS

REST SOLELY WITH THE CONTRACTOR.

STRUCTURE BACKFILL

EARTH BALANCE / GRADING

HAS JURISDICTION OVER THE WORK.

TRENCH BACKFILL

EARTHWORK IS BALANCED.

THE CONTRACT DOCUMENTS.

AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL MAINTAIN OR REPAIR ANY EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT AREA UNLESS THE DRAWINGS CALL FOR THE IRRIGATION SYSTEM TO BE REMOVED. THE OWNER AND NFE MAKE NO REPRESENTATIONS, WARRANTY OR GUARANTY AS TO THE

OBTAIN AND SATISFY ANY AND ALL PERMIT REQUIREMENTS BY THE LOCAL, COUNTY AND STATE

IN ADDITION, WHERE THE WORK REQUIRES THE CLOSURE OF ONE OR MORE LANES OR IS WITHIN THE INFLUENCE OF THE ROAD OR PEDESTRIAN RIGHT OF WAY, THE CONTRACTOR SHALL PROVIDE ALL SIGNS, BARRICADES, FLAG PERSONS AND OTHER TRAFFIC CONTROL MEASURES AS

PROOF-ROLLED SUB BASE

COMMERCIAL APPROACH-8" THICK (TYP)



SEAL BRAD W. BRICKEL ENGINEER NO. 54071 Brod Bricke

FAX. (248) 332-8257

WWW.NOWAKFRAUS.COM

PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT **HOPE Shelters**

- CLASS A CONCRETE (3500 PSI MIN.)

- M.D.O.T. CLASS II

Contact: Brian Wright. Executive Director / CEO Phone: 248.481.4394 Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac,

Oakland County, Michigan

SHEET

Notes and Details



DATE	ISSUED/REVISED
08-12-24 SIT	E PLAN REVIEW - PRE-MEETING
08-30-24 PRI	LEIMINARY SITE PLAN REVIEW

DRAWN BY: J. Lawrey

DESIGNED BY: A. Eizember APPROVED BY:

B. Brickel

August 1, 2024 SCALE: N.T.S.

NFE JOB NO.

SHEET NO.

WASTE ENCLOSURE PLAN

Chamber Model:	MC-3500	System Volume an	d Bed Size
Outlet Control Structure:	Yes	Installed Storage Volume:	7791.70 cubic ft.
Project Name:	HOPE Center	J	
Engineer:	Allen Eizember	Storage Volume Per Chamber:	109.90 cubic ft.
	NA:-b:	Number Of Chambers Required:	69
Project Location:	Michigan	Number Of End Caps Required:	14
Measurement Type:	Imperial	Chamber Rows:	7
Required Storage Volume:	7750 cubic ft.		
Stone Porosity:	0%	Maximum Length:	81.55 ft.
•		Maximum Width:	50.52 ft.
Stone Foundation Depth:	9 in.	Approx. Bed Size Required:	3995.43 square ft.
Stone Above Chambers:	12 in.		·
Design Constraint Dimensions:	(65 ft. x 85 ft.)	Average Cover Over Chambers:	N/A.

TOTAL DETENTION VOLUME REQUIRED:

<u>User Inputs</u>

<u>system Compon</u>	<u>ents</u>
Amount Of Stone Required:	526 cubic yards
Volume Of Excavation (Not Including	914 cubic vards

Total Non-woven Geotextile Required:1260 square yards **Woven Geotextile Required (excluding**117 square yards Isolator Row):

EMBECMENT STONE SHALL BE A CLEAN, CRUSHED AND ANGULAR STONE WITH AN AASHTO M43 DESIGNATION BETWEEN #3 AND #4" CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F278 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", PERIMETER STONE _____ (450 mm) MIN* (2.4 m) MAX DEPTH OF STONE TO BE DETERMINED BY SITE DESIGN ENGINEER 9" (230 mm) MIN 6" (150 mm) MIN -(150 mm) MIN - 77"(1950 mm) - 12"(300 mm) TYP SITE DESIGN ENGINEER IS RESPONSIBLE FOR ENSURING THE REQUIRED BEARING CAPACITY OF SOIL!

"MINIMUM COVER TO BOTTOM OF FLBGBLE PAYEMENT. FOR UNPAYED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 24"

System Components

7,735 cft

Volume Of Excavation (Not Including 814 cubic yards

Woven Geotextile Required (Isolator 88 square yards **Total Woven Geotextile Required:** 205 square yards

Impervious Liner Required: 0 square yards

#4 BARS

MDOT DRIVEWAY OPENING DETAIL 'M' N.T.S.

CONCRETE PAVEMENT (3500 PSI MIN.)

COMPACTED SAND BASE

PROOF-ROLLED SUB BASE

6" CONCRETE SECTION

/ 2.5" M.D.O.T. HMA 4E ML

ASPHALT PAVEMENT SECTION

(DRIVE AND PARKING)

PER PLAN

SLOPE 1/4" PER FT.

 ackslash 6"x6" #10/#10 WWF WIRE

MESH KEINFORCEMENT

[└]6" AGGREGATE BASE, 21AA

APPROVED SUBGRADE

_BOND COAT - SS IH 0.10 GAL/SQ. YD.

[−]6" AGGREGATE BASE, 21AA

/ 1.5" M.D.O.T. HMA 5E ML

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING UTILITIES WHICH DO NOT

OR BETTER, BY THE CONTRACTOR. ALL STREET SIGNS, MAIL BOXES, ETC., REMOVED SHALL BE REPLACED IN KIND OR BETTER, BY THE CONTRACTOR. ALL THE REPAIRS OR REPLACEMENTS

DEWATERING OF TRENCH AND EXCAVATIONS

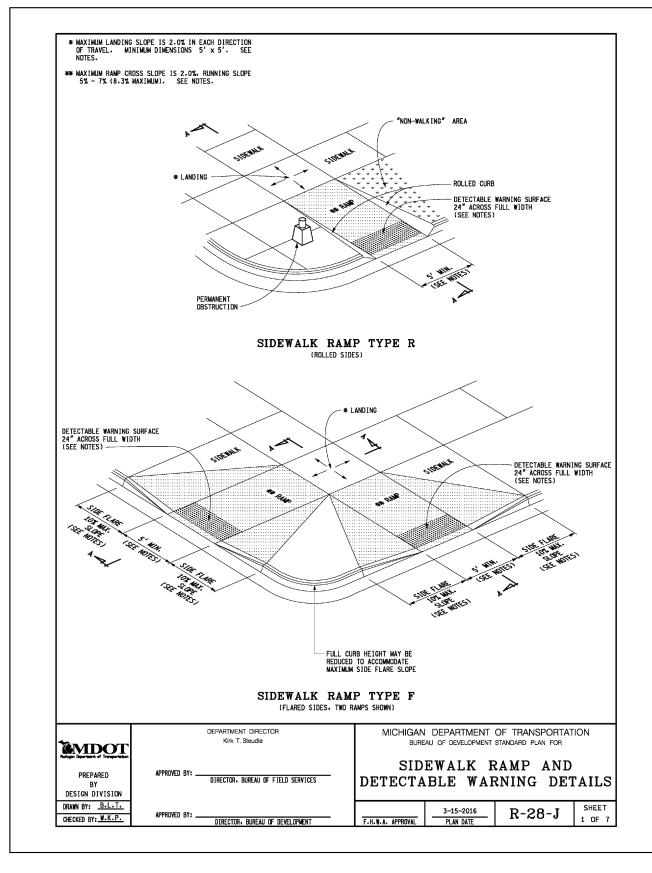
BY-PASS PUMPING

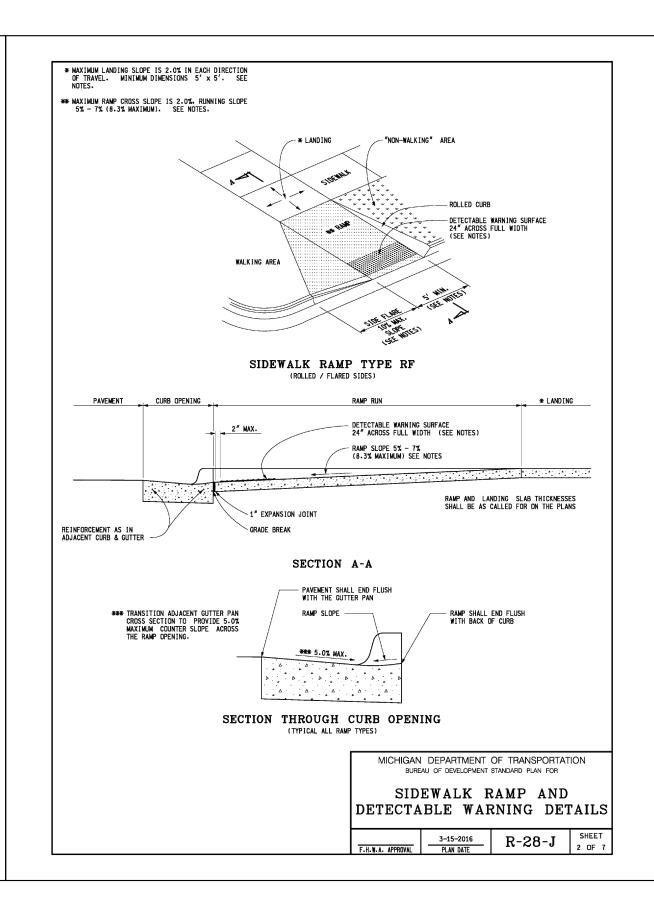
CONTRACTOR AND SHALL BE CONSIDERED PART OF THE WORK WHETHER SPECIFICALLY CALLED

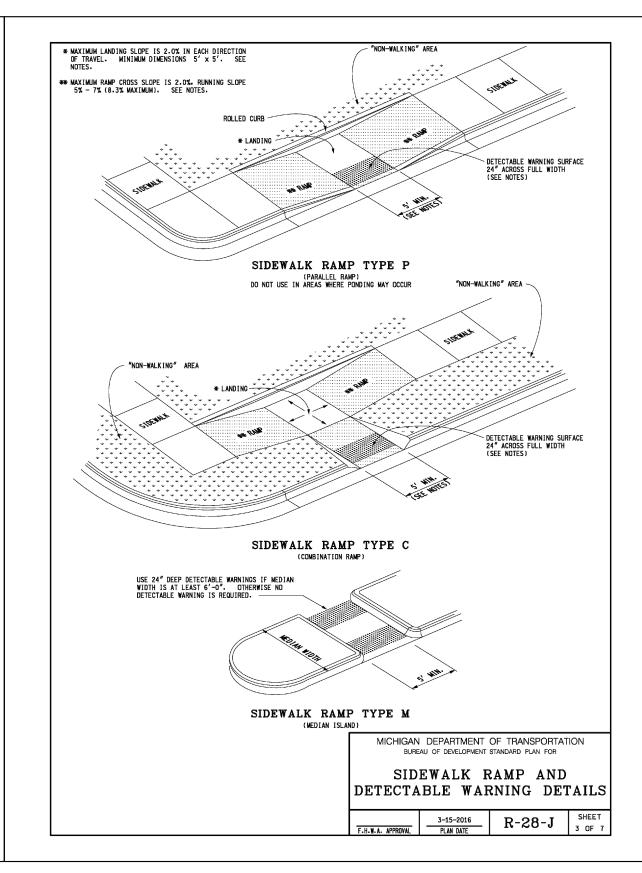
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEANS AND METHODS FOR

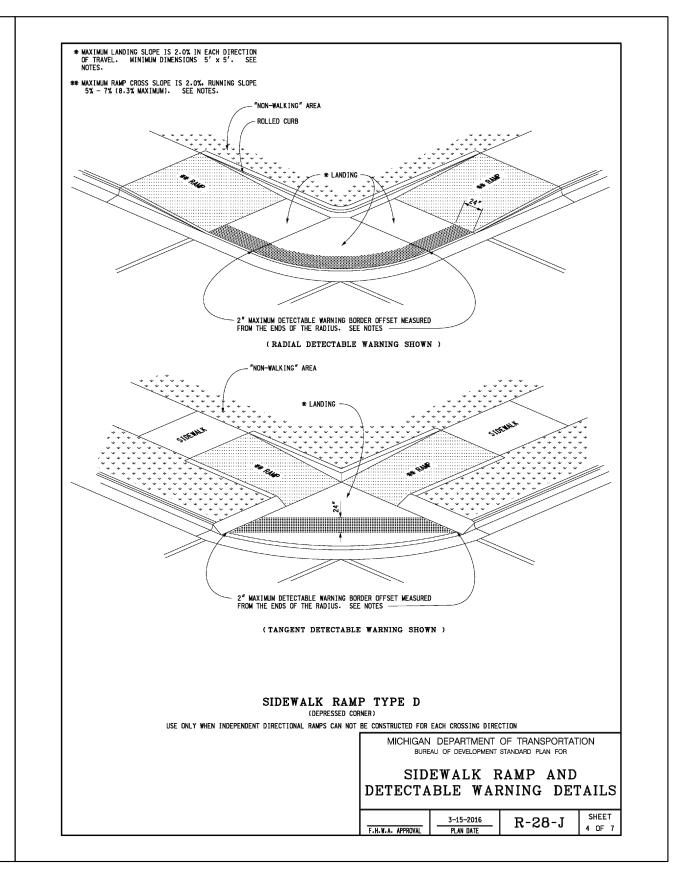
PAVEMENT REMOVAL

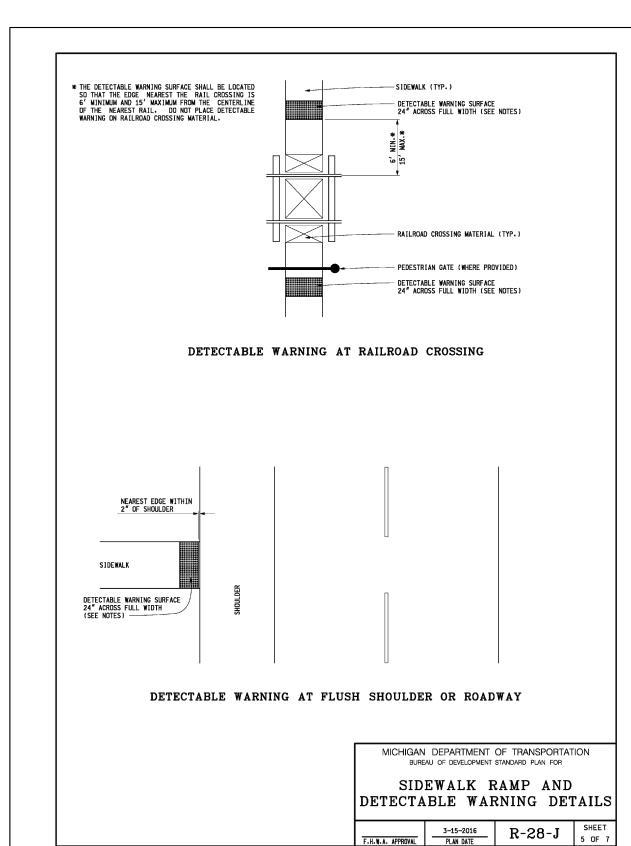
THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE THICKNESS OF THE PAVEMENT MAKE NO REPRESENTATION, WARRANTY OR GUARANTY THAT THE SAMPLES ACCURATELY REFLECT THE PAVEMENT THICKNESS ON THE PROJECT.

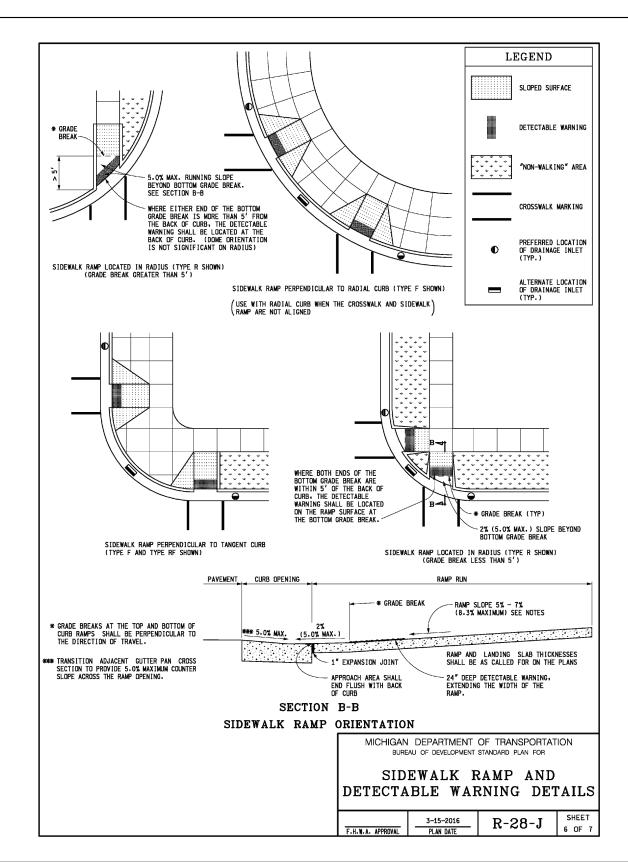


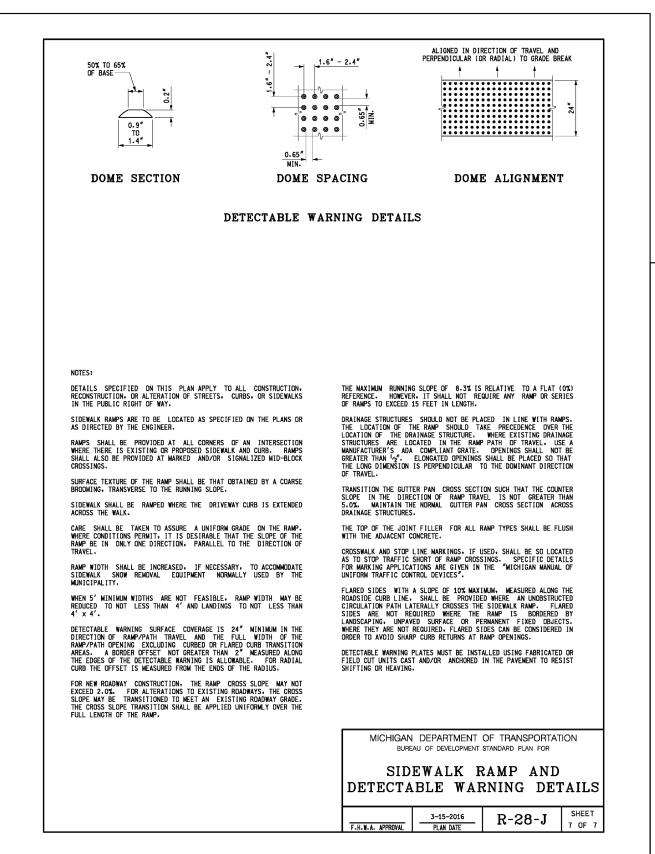


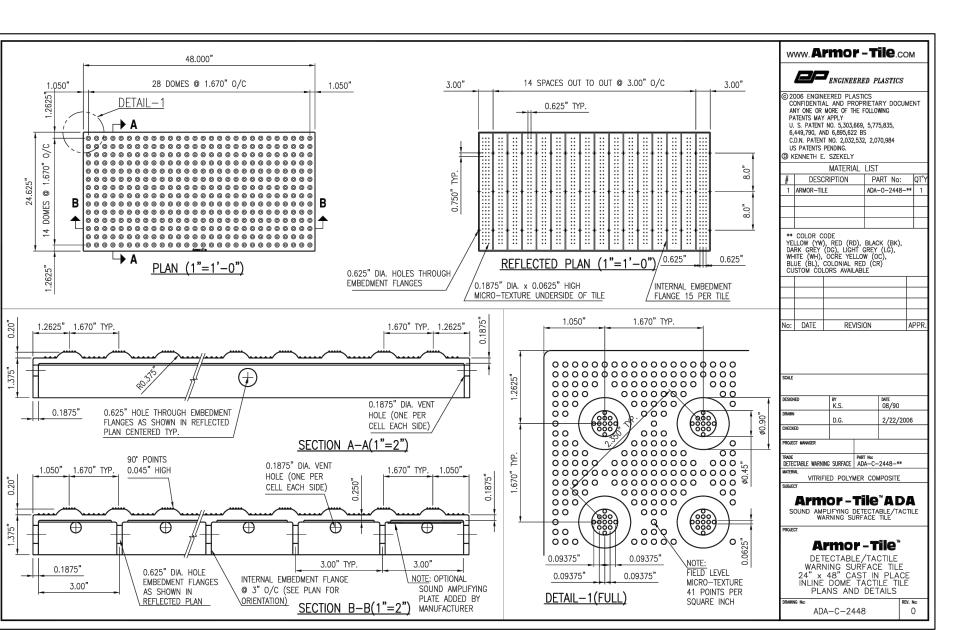








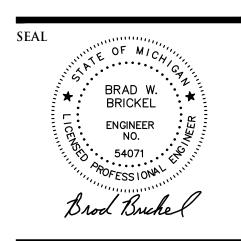




ENGINEERS

CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257 WWW.NOWAKFRAUS.COM



PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT **HOPE Shelters**

Contact: Brian Wright, Executive Director / CEO Phone: 248.481.4394 Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac, Oakland County, Michigan

SHEET Notes and Details



ISSUED/REVISED 08-12-24 SITE PLAN REVIEW - PRE-MEETING 08-30-24 PRLEIMINARY SITE PLAN REVIEW

DRAWN BY: J. Lawrey **DESIGNED BY:**

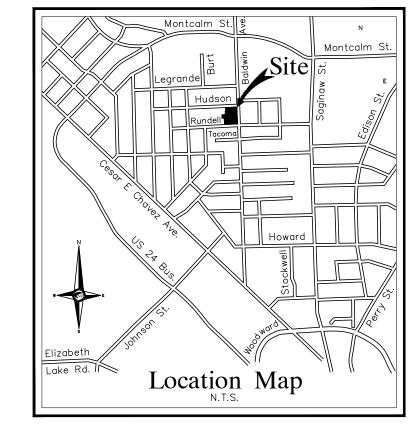
A. Eizember APPROVED BY: B. Brickel

DATE: August 1, 2024

SCALE: N.T.S.

NFE JOB NO.

SHEET NO. SP05.1



Master Tree List

N213 238 Bladwin Ave.

4/5/2023 | 8/5/2024

Common Name Dia.

Tree of Heaven

Siberian Elm

White Ash

Siberian Elm

Box Elder

American Elm

Tree of Heaven

Tree of Heaven

American Elm

American Elm

White Mulberry

Siberian Elm

Siberian Elm

Tree of Heaven

Tree of Heaven

White Mulberry 8

Siberian Elm 16 multiple 12,8,4

TREE REMOVAL SUMMARY:

TREES TO BE REMOVED

TREE PROTECTION FENCING

TREES TO REMAIN

TOTAL NUMBER OF TREES SURVEYED:

TOTAL NUMBER OF TREES TO REMAIN:

TOTAL NUMBER OF DEAD TREES:

TOTAL OFF-SITE TREES: NET TREES ON-SITE:

LEGEND:

ENGINEERS

CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257

growing into OH lines

fair too close to street

poor poor crown, vines

fair poor crown, vines

fair cracks on trunk

fair insect damage

fair insect damage

fair leaning

fair leaning

poor lean, poor trunk condition

fair leaning, trunk weeping

poor leaning into fence post, vines

fair leaning to house, insect damage

poor 45 degree lean

poor vines

poor broken limbs, poor crown



PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT **HOPE Shelters**

Contact: Brian Wright, Executive Director / CEO Phone: 248.481.4394

Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac,

Oakland County, Michigan

SHEET

Tree Removal Plan



REVISIONS
08/30/24 PRELIMINAR

RY SITE PLAN REVIEW

DRAWN BY: M. Sandberg **DESIGNED BY:**

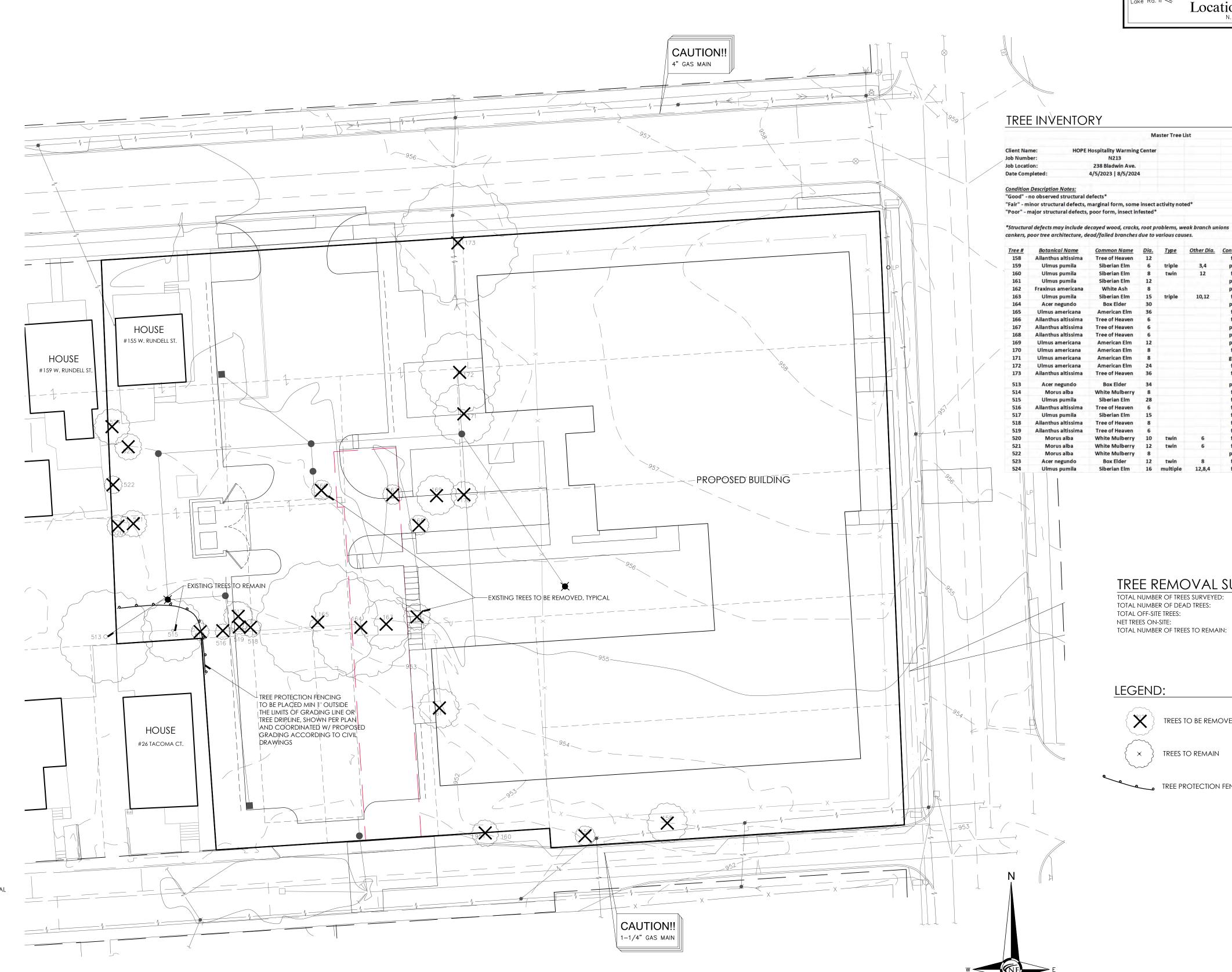
M. Sandberg APPROVED BY: G. Ostrowski DATE:

August 9, 2024

SCALE: 1'' = 20'

NFE JOB NO. N213

SHEET NO.



GENERAL TREE PROTECTION NOTES

1. APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START

OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.

2. ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED. 3. NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY

TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING

SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE. 4. WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE. 5. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE

TO ANY TREE, SCHEDULED TO REMAIN. 6. ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING. 7. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF

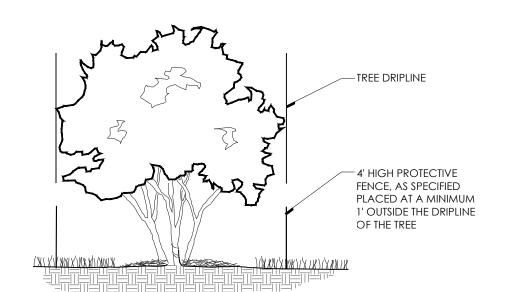
PROTECTED TREES.

8. TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED. 9. ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY

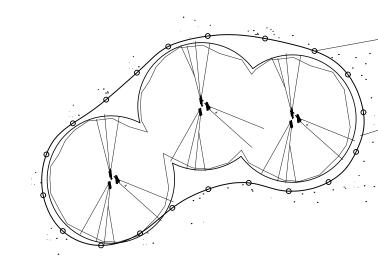
10. THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES. 1. THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.

12. ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN. 13. THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-AXE.

14. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE
GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
15. TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL, BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE.



TREE PROTECTION DETAIL-SECTION



– 5/8" X 6'8" RE-ROD, OR EQUAL, SUPPORT POSTS EVERY 10' O.C. INSTALL POSTS A MIN. 24" INTO GROUND, TYPICAL

4' HIGH FENCING, AS SPECIFIED, TO BE PLACED 1' OUTSIDE THE DRIP LINE OR LIMITS OF GRADING, AS INDICATED ON PLAN, TYPICAL

FENCING TO BE 4' HIGH ORANGE SNOW FENCE, OR APPROVED EQUAL PROTECTION FENCING TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD

TREE PROTECTION DETAIL-PLAN

PLANT SCHEDULE

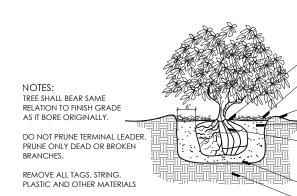
KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT
TREES						
AA	10	Acer rubrum 'Armstrong' Armstrong Red Maple	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
BN	2	Betula nigra River Birch	12' HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES
GT	5	Gleditsia triacanthos 'Northern Acclaim' Northern Acclaim Honey Locust	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
NS	5	Nyssa sylvatica 'Red Rage' Red Rage Black Tupelo	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
PG	6	Picea glauca 'Densata' Black Hills Spruce	6' HT	SEE PLAN	B&B	FULL TO GROUND
PS	6	Pinus strobus White Pine	6' HT	SEE PLAN	B&B	FULL TO GROUND
QB	1	Quercus bicolor Swamp White Oak	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
QE	8	Quercus ellipsoidalis Northern Pin Oak	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
SHRUBS						
414	0	Aronia melanocarpa	0.4" LIT	21.00	D 0 D	

IRRIGATION NOTE: ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE R.O.W. SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE

THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.

GENERAL SOD NOTE:

ALL LAWN AREAS DESIGNATED TO BE SODDED, SHALL BE SODDED WITH A BLENDED DURABLE BLUEGRASS SOD, TYPICALLY GROWN IN THE REGION. ALL TURF SHALL BE PLACED ON A MINIMUM 3" PREPARED TOPSOIL, AND WATERED DAILY UNTIL ESTABLISHMENT. IN AREAS SUBJECT TO EROSION, SODDED LAWN SHALL BE STABILIZED WHERE NECESSARY, AND LAID PERPENDICULAR TO SLOPES SOD INSTALLATION SHALL OCCUR ONLY: SPRING: APRIL1 TO JUNE1 FALL: AUGUST 15 TO OCTOBER 15



- MAINTAIN 2" CLEAR AREA FROM STEM HARDWOOD BARK MULCH. MULCH SHALL BE NATURAL IN COLOR. - EARTH SAUCER AROUND SHRUB PLANTING MIX, AS SPECIFIED - REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBALL. FOLD DOWN ALL BURLAP FROM TOP 1/3 OF ROOTBALL SCARIFY SUBGRADE

SHRUB PLANTING DETAIL

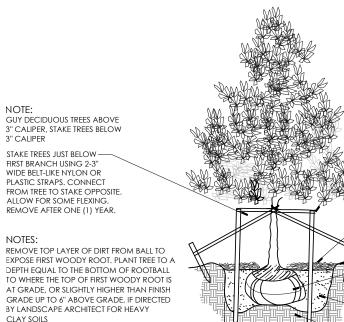
DECIDUOUS SHRUB

REMOVE ALL TAGS, STRING,

PLASTIC AND OTHER MATERIALS

GUY EVERGREEN TREES ABOVE PER TREE, 36" ABOVE GROUND FOR UPRIGHT, 18" IF ANGLED. 12' IN HEIGHT DRIVE STAKES INTO UNDISTURBED SOIL 6-8" OUTSIDE ROOTBALL TO A DEPTH OF 18" BELOW STAKE TREES APPROXIMATELY MID-TRUNK USING 2-3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS. CONNECT FROM TREE TREE PIT. REMOVE AFTER ONE (1) YEAR. WIRE OR ROPE THROUGH A HOSE SHALL NOT BE ALLOWED. TO STAKE OPPOSITE, ALLOW FOR SOME FLEXING. REMOVE AFTER ONE (1) YEAR. -MULCH 3" DEPTH WITH SHREDDED HARDWOOD BARK. MULCH SHALL BE NATURAL IN COLOR. LEAVE 3" CLEAR AROUND BASE OF TREE. REMOVE TOP LAYER OF DIRT FROM BALL TO - MOUND TO FORM 3" EARTH SAUCER EXPOSE FIRST WOODY ROOT PLANT TREE TO A EPTH EQUAL TO THE BOTTOM OF THE - REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD ROOTBALL TO WHERE THE TOP OF FIRST WOODY ROOT IS AT GRADE, OR SLIGHTL HIGHER THAN THE FINISH GRADE UP TO 6' DOWN ALL BURLAP FROM 1/2 OF ABOVE GRADE, IF DIRECTED BY LANDSC. ARCHITECT FOR HEAVY CLAY SOILS SITE CONDITIONS AND REQUIREMENTS DO NOT PRUNE TERMINAL LEADER. OF THE PLANT MATERIAL PRUNE ONLY DEAD OR BROKEN BRANCHES. - SCARIFY SUBGRADE AND PLANTING

EVERGREEN TREE PLANTING DETAIL



TO A DEPTH OF 18" BELOW A HOSE SHALL NOT BE ALLOWED. MULCH 3" DEPTH WITH SHREDDED NATURAL IN COLOR. LEAVE 3" CLEAR - MOUND TO FORM 3" EARTH SAUCER - REMOVE ALL MATERIALS FROM THE TOP OF DOWN ALL BURLAP FROM 1/2 OF PLANTING MIX TO BE AMENDED PER SITE CONDITIONS AND REQUIREMENTS - SCARIFY SUBGRADE AND PLANTING PIT SIDES. RECOMPACT PIT BASE TO 4" DEPTH ROOTBALL WIDTH

PIT SIDES. RECOMPACT PIT BASE TO 4" DEPTH

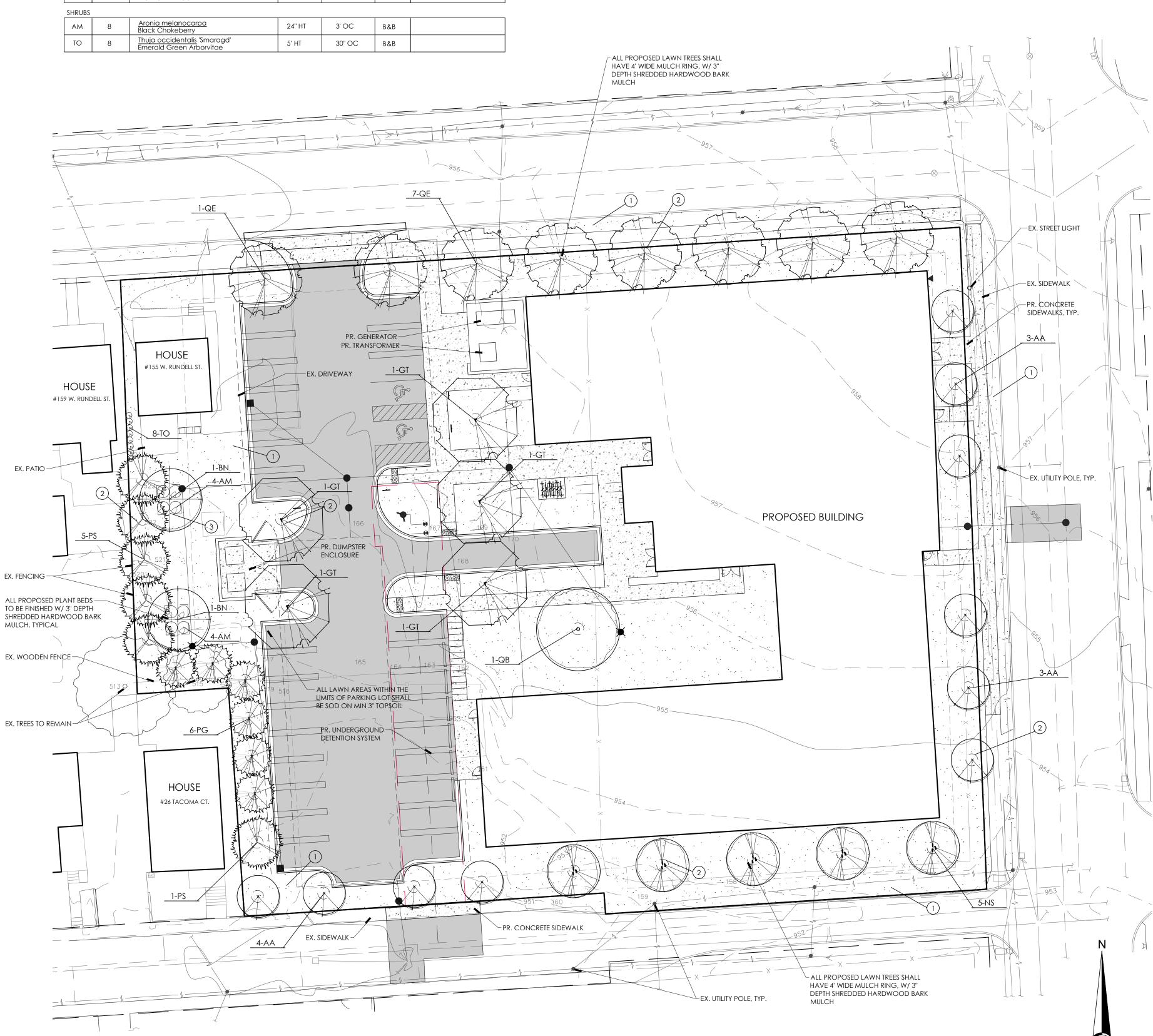
FOR UPRIGHT, 18" IF ANGLED.

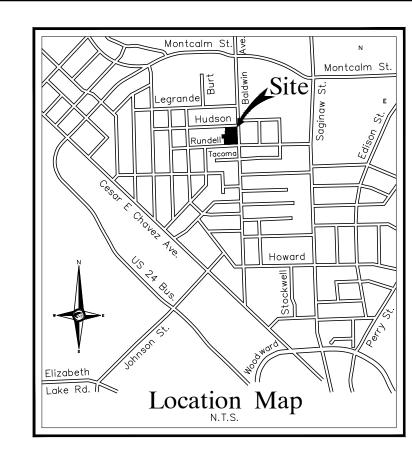
BRANCHES. REMOVE ALL TAGS, STRING,

DO NOT PRUNE TERMINAL LEADER.

PRUNE ONLY DEAD OR BROKEN

DECIDUOUS TREE PLANTING DETAIL





ENGINEERS

CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

NOWAK & FRAUS ENGINEERS 46777 WOODWARD AVE. PONTIAC, MI 48342-5032 TEL. (248) 332-7931 FAX. (248) 332-8257

GENERAL LANDSCAPE NOTES

- AND REVIEW PROPOSED PLANTING AND RELATED WORK, IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTILES, CONTACT THE LANDSCAPE ARCHITECT WITH ANY CONCEPTION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES
- PRIOR TO BEGINNING CONSTRUCTION ON HIS/HEP PHASE OF WORK. ANY DAMAGE OR INTERUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR.

 THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, AND SHALL REPORT ANY UNACCEPTACBLE SITE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT. 4. PLANTS SHALL BE FULL, WELL-BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION.
 PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
- ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE
 GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1)
 YEAR FOLLOWING PLANTING.
 ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST
- 7. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".

 8. CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS AND A DEPTH OF 3" IN ALL LAWN AREAS.

 9. PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON-SITE. SOIL SHALL BE SCREENED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND STONE.

 10. SLOW-RELEASE FERTILIZER SHALL BE ADDED TO THE PLANT PITS BEFORE

 BEING RACKFILLED APPLICATION SALL BE AT THE MANILIFEACTUREDED RECOMMENDING.
- BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURERS RECOMMENDED 11. AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/3 SCREENED TOPSOIL,
- AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/3 SCREENED TOPSOIL, 1/3 SAND, AND 1/3 "DAIRY DOO" COMPOST, MIXED WELL AND SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
 ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A DEPTH OF 3" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS, AND GROUNDCOVER PLANTINGS, MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND PIECES ON INCONSISTENT SIZE.
 NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
 THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
 THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
- MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.

 16. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS.

 7. THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH OR SOD (AS INDICATED ON PLANS) ALL AREAS DESIGNATED AS SUCH ON THE PLANS, THROUGHOUT THE CONTRACT LIMITS. FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS
- DISTURBED DURING CONSTRUCTION, NOT IN THE CONTRACT LIMITS, TO EQUAL OR GREATER CONDITION.

 18. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM PONDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.

 19. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND

LANDSCAPE REQUIREMENTS

EXISTING SITE ZONING: C-1, LOCAL BUSINESS & R-2, TWO FAMILY DWELLING

LANDSCAPE AREA 5% OF TOTAL SITE AREA SHALL BE LANDSCAPED REQUIRED: 58,368 S.F. x 5% = 2,918.40 S.F. **PROVIDED:** 20,018.60 S.F.

PERIMETER BUFFER

TYPE 'A': OPT. 1: 5' WIDE WITH 4.5' TO 6' WALL, 2 TREES PER 100 L.F. OPT. 2: 10' WIDE, 1 TREE + 6 EVERGREENS + 8 SHRUBS PER 100 L.F. REQUIRED: 197.50 L.F.* / 100 L.F. x 1 = 1.98 OR 2 TREES 197.50 L.F.* / 100 L.F. x 6 = 11.85 OR 12 EVERGREENS 197.50 L.F.* / 100 L.F. x 8 = 15.80 OR 16 SHRUBS *EXCLUDES HOUSE & FRONT YARD AT #155 W. RUNDELL ST.

PROVIDED: 2 SHADE TREES, 12 EVERGREENS, 16 SHRUBS PARKING LOT

ABUTTING PUBLIC R.O.W. 1 TREE PER 30 L.F. NORTH: 60 L.F. / 30 L.F. = 2 TREES SOUTH: 60 L.F. / 30 L.F. = 2 TREES **PROVIDED:** NORTH: 2 TREES; SOUTH: 2 TREES

INTERIOR PARKING LOT 1 TREE PER 6 PARKING SPACES TOTAL PARKING PROVIDED: 22 SPACES REQUIRED: 30 SPACES / 6 SPACES = 5 TREES **PROVIDED:** 5 TREES

STREET FRONTAGE 1 TREE PER 35 L.F. (EXCLUDING PARKING DRIVE LANES) NORTH: 217.80 L.F. / 35 L.F. = 6.22 OR 6 TREES EAST: 220.60 L.F. / 35 L.F. = 6.30 OR 6 TREES SOUTH: 247.20 L.F. / 35 L.F. = 7.06 OR 7 TREES PROVIDED: NORTH: 6 TREES; EAST: 6 TREES; SOUTH: 7 TREES

KEY LEGEND

- 1) TYPICAL SOD LAWN AREAS, SOWN ON 3" TOPSOIL
- 2) 4' DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
- (3) 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH



PROJECT **HOPE Shelters** 283 Baldwin Ave. Pontiac, MI 48342

CLIENT **HOPE Shelters**

Contact: Brian Wright, Executive Director / CEO Phone: 248.481.4394 Email: bwright@hopeshelters.org

PROJECT LOCATION Part of the SW 1/4 of Section 20 T.3N., R.10E., City of Pontiac, Oakland County, Michigan

SHEET Landscape Plan



REVISIONS

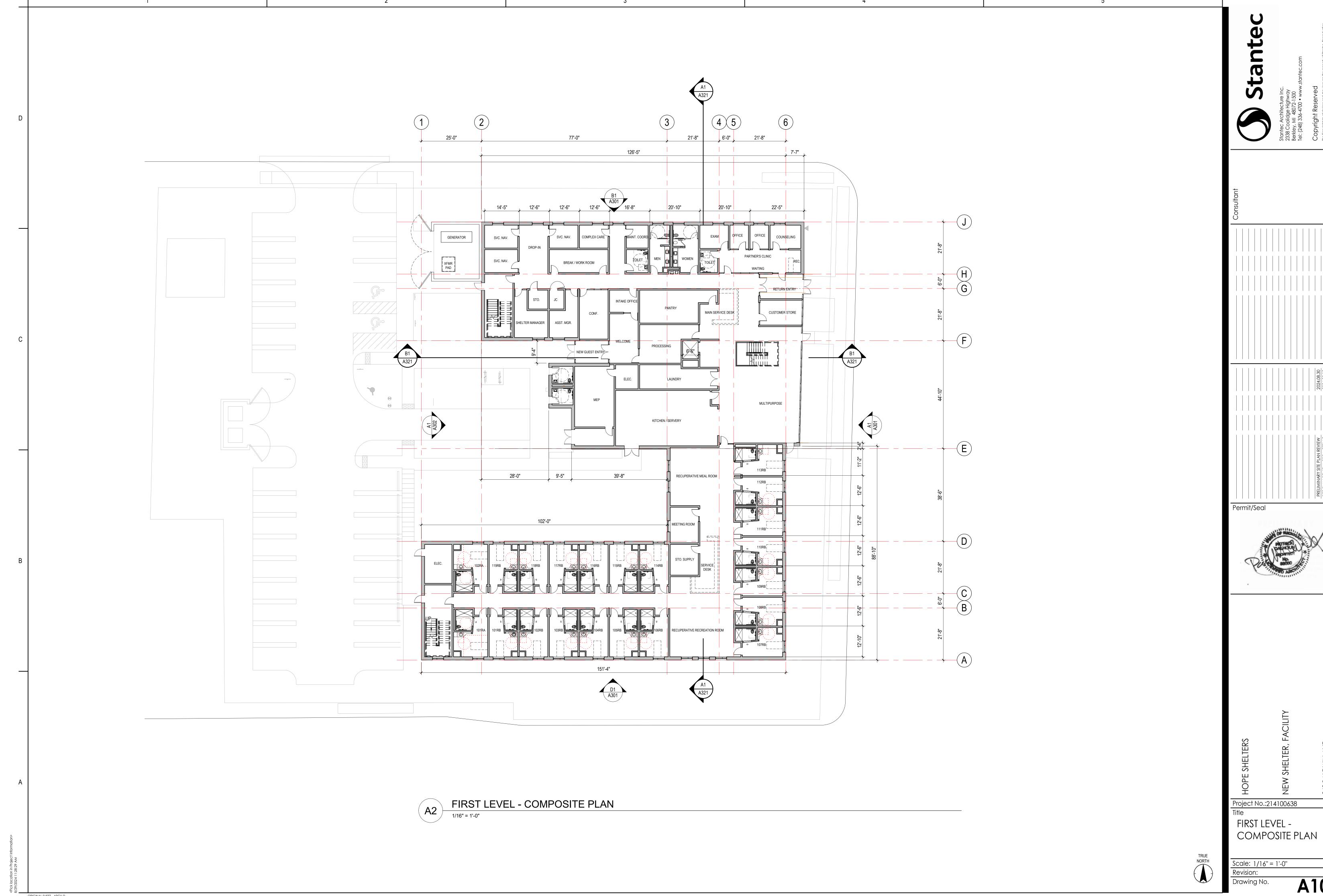
08/12/24 SITE PLAN REVIEW-PRE-MEETING 08/30/24 PRELIMINARY SITE PLAN REVIEW

DRAWN BY: M. Sandberg **DESIGNED BY:** M. Sandberg

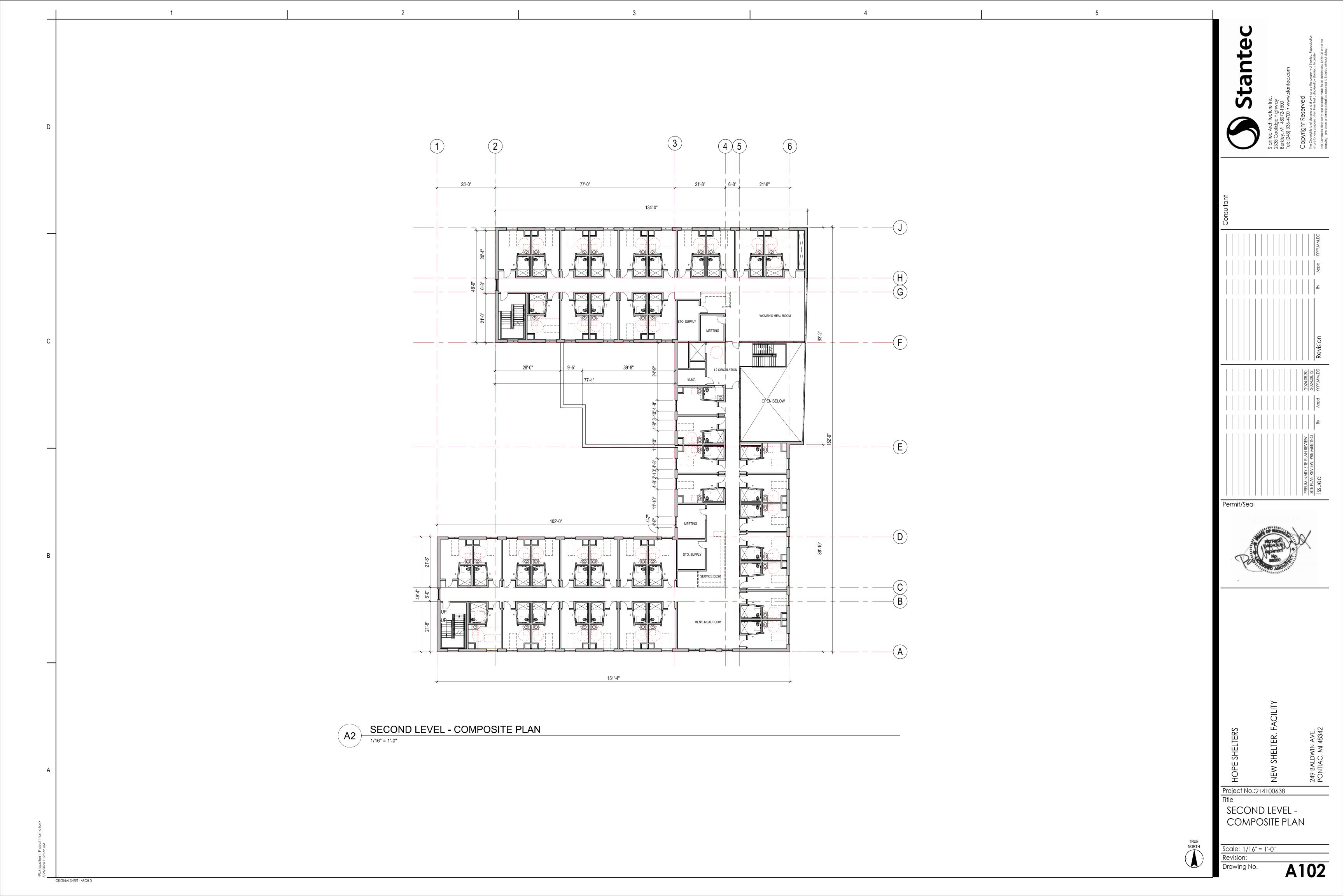
APPROVED BY: G. Ostrowski DATE: August 9, 2024

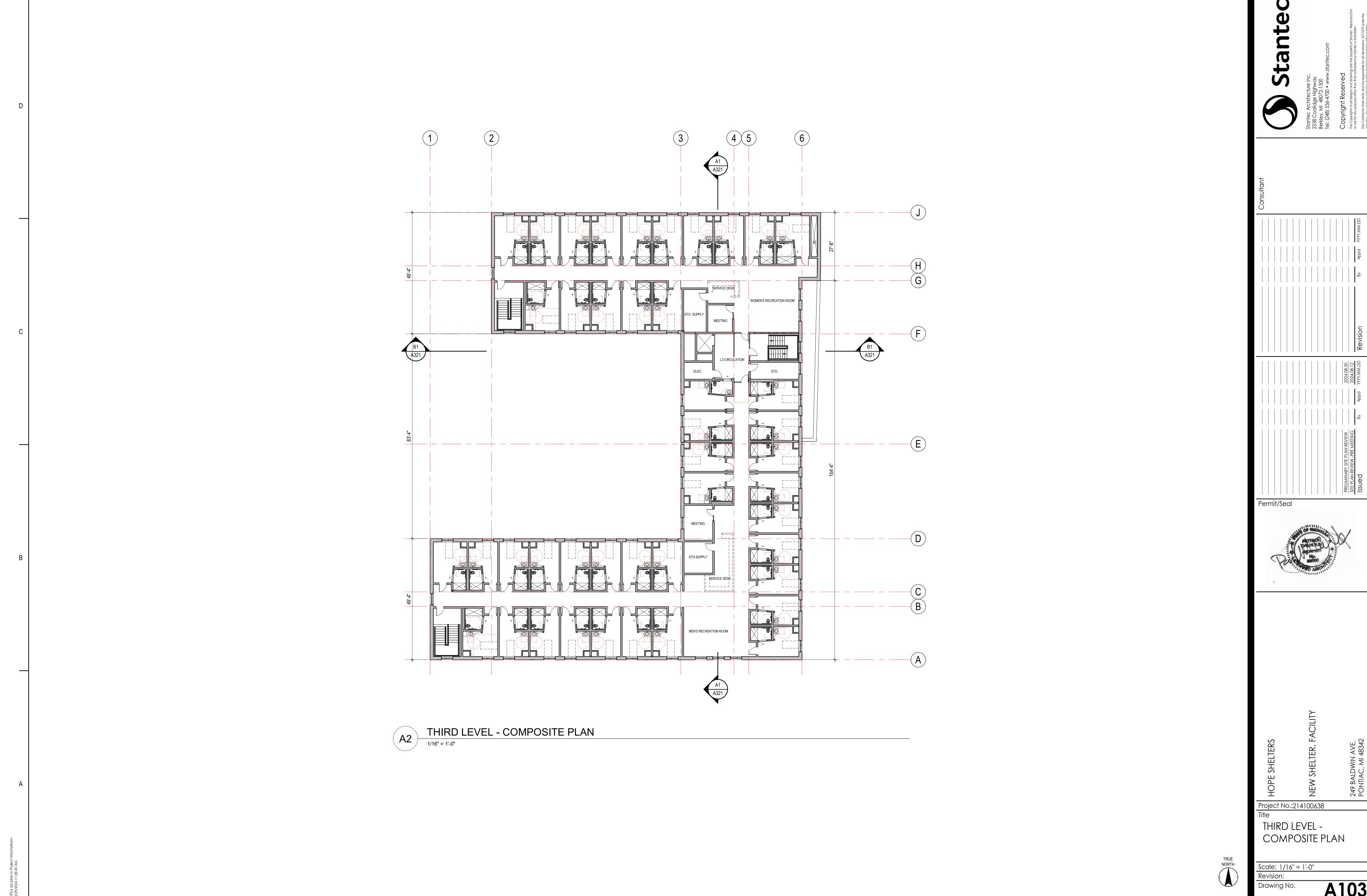
SCALE: 1'' = 20'

NFE JOB NO. SHEET NO. N213



A101

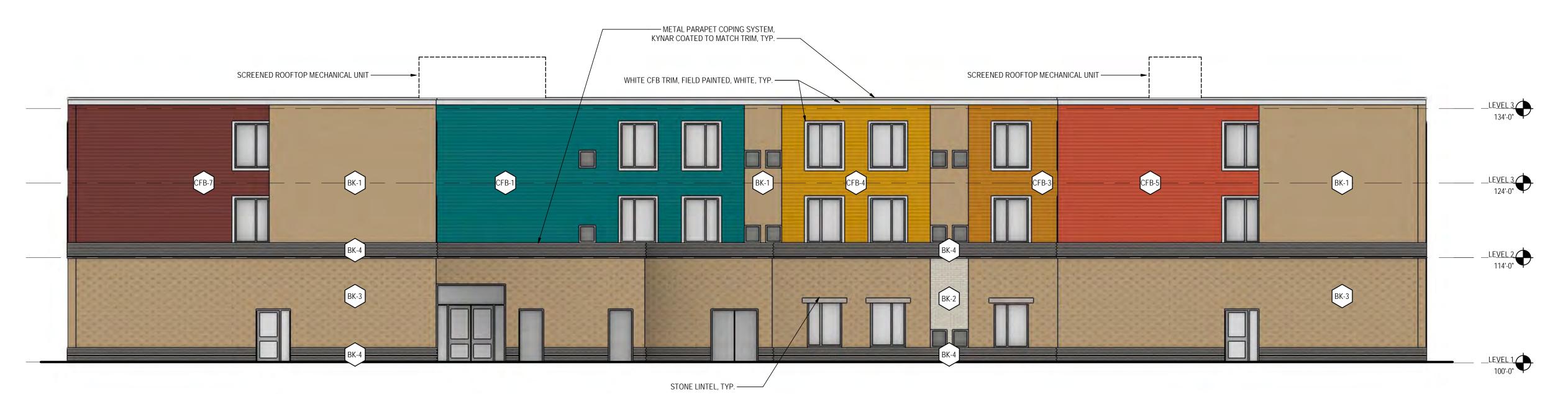




A103



B1 SOUTHEAST PERSPECTIVE



MEST ELEVATION

MASONRY: ST-1: DOLOMITIC LIMESTONE VENEER BK-1: BRICK, GOLDEN DAWN, RUNNING BOND, GLEN-GERY BK-2: BRICK, GOLDEN DAWN, ENGLISH BOND WITH ALTERNATING HEADER REVEAL, GLEN-GERY

<u>CEMENT FIBER BOARD (CFB) LAP SIDING:</u> CFB-1: HARDIE LAP SIDING, TRANQUIL TEAL, HEX#: 168888

CFB-2: HARDIE LAP SIDING, CARRIBEAN BLUE, HEX#: 79C1AO CFB-3: HARDIE LAP SIDING, MONARCH ORANGE, HEX#: E4952E CFB-4: HARDIE LAP SIDING, HOPEFUL YELLOW, HEX#:F5BO1A CFB-5: HARDIE LAP SIDING, BLOOMING RED, HEX#: EC6449 CFB-6: HARDIE LAP SIDING, LIGHT BLOOMING RED, HEX#: F6ADAO CFB-7: HARDIE LAP SIDING, MOCHA BROWN, HEX#: 8E4C46 CFB-8: HARDIE LAP SIDING, LIGHT MOCHA BROWN, HEX#: BE897E

BK-3: BRICK, CHALK WHITE, RUNNING BOND, GLEN-GERY BRICK, CHALK WHITE, RUNNING BOND WITH ALTERNATE COURSING REVEAL

MATERIAL LEGEND

GLAZING SYSTEMS:
GL-1: FIXED ALUMINUM GLAZING SYSTEM, CLEAR ANODIZED GL-2: FIXED ALUMINUM STOREFRONT SYSTE, CLEAR ANODIZED



Project No.:214100638

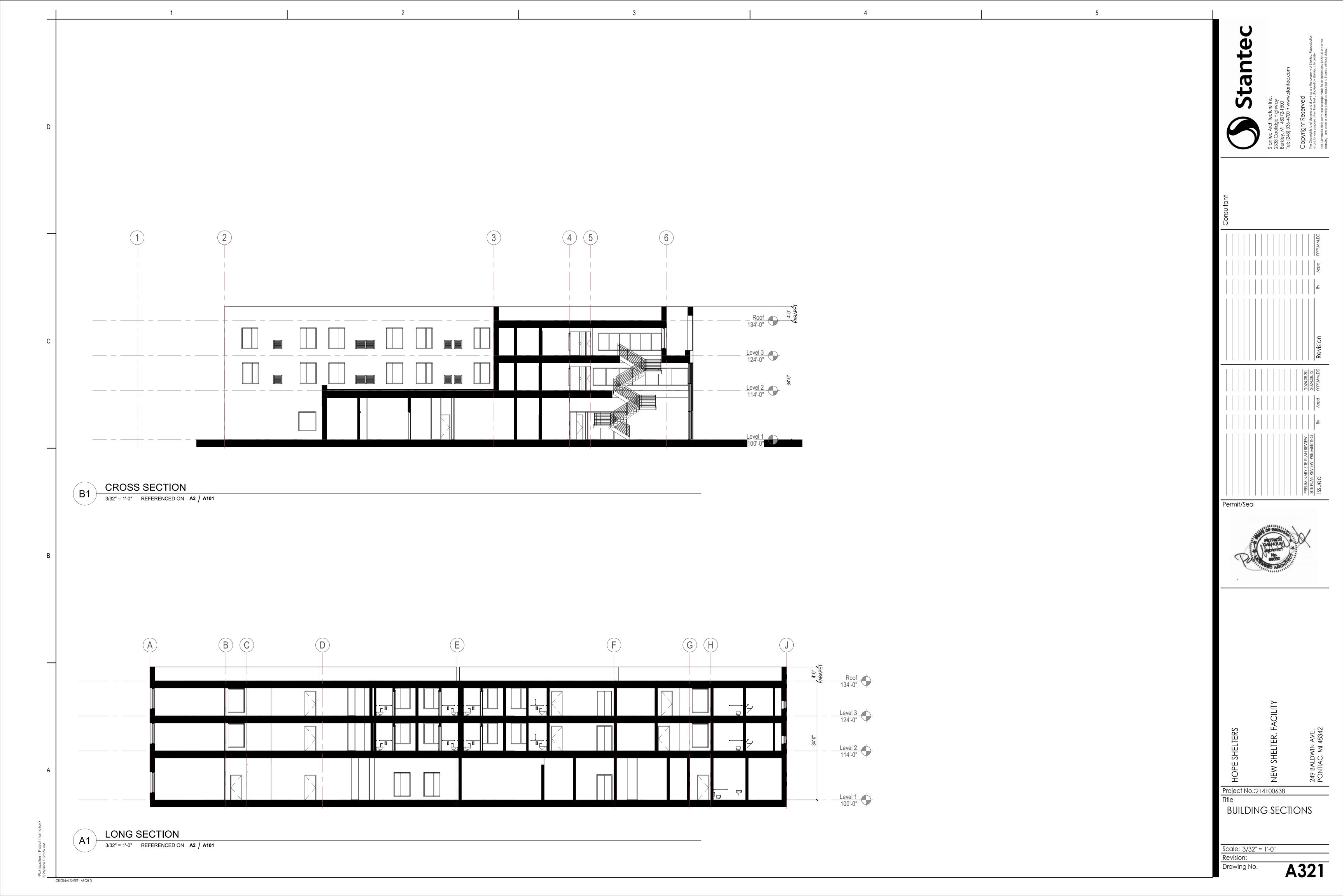
COMPOSITE EXTERIOR **ELEVATIONS**

Scale: As indicated Revision:

A302

ORIGINAL SHEET - ARCH D

Drawing No.



	LUMINAIRE SCHEDULE								
TYPE	DESCRIPTION	MOUNTING UFICUT	MANUICACTURER	CATALOGNO			INPUT		
ITPE	DESCRIPTION	MOUNTING HEIGHT	MANUFACTURER	CATALOG No.	TYPE	LUMENS	COLOR	WATTS	VOLTS
OA	EXTERIOR BUILDING MOUNTED WALL PACK	SURFACE @ 12'- 0"	COOPER LIGHTING	IST-AF-600-LED-E1-T4FT-AP	LED	4,531	3000K	34	UNV
				GLEON-SA2B-730-U-T4W-HSS					
P1	PARKING LOT POLE FIXTURE (SINGLE HEAD). 18' STEEL POLE	POLE @ 20'-6"	COOPER LIGHTING	POLE: ARP-5-L-6-18-A-AP*	LED	7,718	3000K	85	UNV
				LXS-B3-LED-D1-T4-AP-*-MS/DIM-L40W					
S1	EXTERIOR PEDESTRIAN POLE. 10' STEEL POLE	POLE @ 12'-0'	COOPER LIGHTING	POLE: ARP-5-L-3-10-A-AP*	LED	7,108	3000K	86	UNV



•0.8 •1.1 •1.5 • • •2.4 •2.5 ×2.4 •2.8 •3.2 •4.7 •4.8 •4.0 •2.3 •1.8 •1.3 •0.8 •0.5 •0.3 •0.3 •0.5 •2.6 •4.7 •7.4 • •10.0 •7.2 •4.4 •2.4 •1.6 •0.4 •0.1 •0.1 •0.4 •1.1 •2.5 •4.6 •7.4 •10.2 •10.1 •7.3 •4.5 •1.1 • •0.2 •0.1 •0.0 •0.0

HOPE SHELTER BUILDING

PHOTOMETRIC NOTES

- 1. VALUES SHOWN INDICATE INITIAL LIGHTING LEVEL IN FOOT-CANDLES AT 5FT ABOVE GRADE.
- 2. ALL EXTERIOR LIGHTING IS LED FULL CUT-OFF LIGHT DISTRIBUTION TO LIMIT LIGHT TRESPASS PER CITY OF PONTIAC LOCAL ORDINANCE.

SITE PLAN PHOTOMETRIC ANALYSIS								
Calculation Points Name	Average	Maximum	Minimum					
SITE LIGHTING	1.6 fc	15.4 fc	0.0 fc					

■ 1.8 ■ 0.3 ■ 0.1 ■ 0.1 ■ 0

●1.8 ●0.3 ●0.1 ●0

•2.8 • 1.5 •0.3 •0.1 •0.1 •0.1

•1.2 • • 1.0 •0.1 •0.1 •0.1

004 00 006 003 001 005

0.1 • 0.3 • 0.2 • 0.1 • 0.1

• 0.2 • 0.3 • 0.2 • 0.1 • 0.1

• 5.1 • 1.0 • 0.2 • 0.1 • 0.1

• 0.1 • 0.2 • 0.1 • 0.1

•1.0 •0.2 •0.1 •0.1

• 0.8 • 0.3 • 0.1 • 0.1

• 0.2 • 0. _____ 0.1

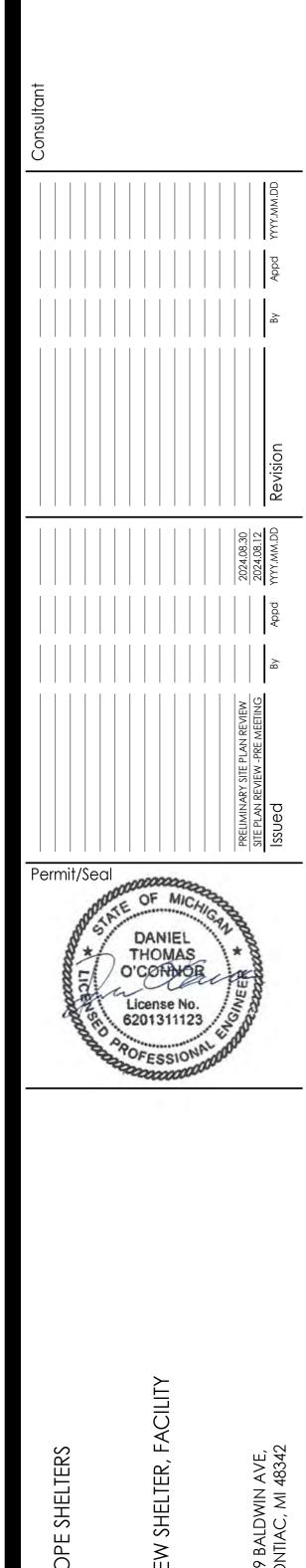
•6.0 •3.8 • •0.2 •0.1 •0.1 •0.0

•2.0 •1.9 •0.2 •0.1 •0.1 •0.0

• 0.3 • 0.4] • • 0.2 • 0.1 • 0.0 • 0.0

• 0.1 • 0.1 • 0.1 • 0.0 • 0.0

8.4 2.0 0.3



Project No.:214100638

ELECTRICAL SITE PHOTOMETRIC PLAN

Scale: As indicated Revision:

Drawing No. **ES02**

ELECTRICAL SITE PHOTOMETRIC PLAN

•0.0 •0.0 •0.0 •0.0 •0.0 •0.1 •0.7 •1.8 •1.9 •2.0 •2.4 •2.7 •: •3.2 •3.0 •3.1 •3.5 •3.8 •3.5 •3.1 •3.0 •2.7 •2.6 •4.5 •4.8

• 0.0 • 0.0 • 0.0 • 0.1 • 0.2 • 0.8 • 2.4 • 2.4 • 2.8 • 3.1 • 2.9 • : • 2.8 • 3.3 • 4.0 • 4.7 [1-4.7 • 2.9 • 3.5 • 2.9 • 1.0 • 1.0 • 1.0 • 0.9

• 0.0 • 0.0 • 0.0 • 0.1 • 0.2 • 0.8 • 2.3 • 2.4 • 2.3 • 2.8 • 2.9 • 2.7 • 1 • 2.3 • 2.4 • 2.6 • 2.8 • 3.7 • 9.3 • 11.6

•0.0 •0.0 •0.1 •0.1 •0.8 •2.3 •2.3 •2.3 •2.4 •2.5 •: •2.6 •2.9 •3.2 •3.7 •4.8 •8.9 •12.9

•0.0 •0.0 •0.0 •0.1 •0.1 •0.8 •23 •2.4 •2.3 •2.4 •2.6 •2.9 •; •3.5 •3.9 •4.5 •5.0 •4.7 •2.4 •2.5 •1.0 •0.9 •1.0 •1.4 •2.5 •4.6 •7.9 •11.8 •0.1 •0.0 •3.3

ElumTools

Default

Analysis

Global Illuminance

13