CITY COUNCIL AGENDA

CITY OF NOVI
Regular City Council Meeting
September 14, 2026 | 7:00 PM
Council Chambers | Novi Civic Center | 45175 Ten Mile Road
(248) 347-0460

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL – Mayor Fischer, Mayor Pro Tem Casey, Council Members Gurumurthy, Heintz, Martinez, Smith, Staudt

APPROVAL OF AGENDA

PUBLIC HEARINGS

PRESENTATIONS

REPORTS

1. Manager/Staff

2. Attorney

AUDIENCE COMMENT – In order to hear all citizen comments at a reasonable hour, the City Council requests that speakers respect the three-minute time limit. This is not a question-answer session. However, it is an opportunity to voice your thoughts with City Council. Speakers wishing to display visual materials through the City's audiovisual system must provide the materials to the City Clerk's Office no later than 12:00 P.M. the day of the meeting. The materials cannot be changed before the meeting.

CONSENT AGENDA REMOVALS AND APPROVALS – All items listed under Consent Agenda are considered routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member so requests, in which event the item will be removed from the Consent Agenda and considered at the end of the normal Agenda.

MATTERS FOR COUNCIL ACTION

1. Approval of resolution to authorize Budget Amendment #2027-2.

2. Consideration of approval of assessment payment to Oakland County for the Caddell Drain Rehabilitation project at the intersection of 9 Mile and Drake Roads, in the amount of $220,134.

3. Consideration of approval to award the Southwest Water Main Loop project contract to Bidigare Contractors, Inc., the qualified low bidder, in the amount of $4,039,390.

CONSENT AGENDA REMOVALS FOR COUNCIL ACTION – Consent Agenda items which have been removed for discussion and/or action.

AUDIENCE COMMENT – In order to hear all citizen comments at a reasonable hour, the City Council requests that speakers respect the three-minute time limit. This is not a question-answer session. However, it is an opportunity to voice your thoughts with City Council. Speakers wishing to display visual materials through the City's audiovisual system must provide the materials to the City Clerk's Office no later than 12:00 P.M. the day of the meeting. The materials cannot be changed before the meeting.

COMMITTEE REPORTS

MAYOR AND COUNCIL ISSUES

COMMUNICATIONS

CONSENT AGENDA – Background information for Consent Agenda items is available for review at the City Clerk's Office.

A. Approve Minutes of:
August 31, 2026 - Regular Meeting

B. Approval to amend Council Organization Rules and Order of Business.

C. Approval of a Resolution amending the membership of the City Council Cultural Arts Committee.

D. Approval of the request of Sri Venkateswara Temple for an Addendum to the Basilian Fathers PRO Agreement, for property located near 11 Mile and Taft Roads.

E. Consideration to Approve a Purchase Agreement to Sell a Portion of Parcel 22-23-151-029 to Novi Industrial, LLC for $68,000 for Placement of a Storage Tower.

F. Approval of a Resolution to close the intersection of Ten Mile and Taft Roads for the 2026 Novi High School Homecoming Parade from 4:30 PM to 6:00 PM on Friday, October 9, 2026.

G. Approval of a request from Gratus, LLC for a variance from Section 5.6.4 (B)(7) of the Engineering Design Manual to have a pumped stormwater outlet for their underground detention system.

H. Approval of temporary Traffic Control Order 26-11(T) to establish no parking on Olde Orchard St. and one-way southbound traffic from Grand River Avenue to Ten Mile Road throughout the duration of the road maintenance project.

I. Approval of a Storm Drainage Facility Maintenance Easement Agreement for Orsa Credit Union as part of the Orsa Credit Union site plan, located on the north side of Grand River Avenue east of Crescent Boulevard (parcel 50-22-15-476-061).

J. Approval of a Storm Drainage Facility Maintenance Easement Agreement for Novi Holding, LLC as part of the Sheetz site plan, located on the south side of 12 Mile Road west of Haggerty Road (parcel 50-22-13-200-016).

K. Approval of a sidewalk easement from Novi Holding, LLC as part of the Sheetz site plan, located on the south side of 12 Mile Road west of Haggerty Road (parcel 50-22-13-200-016).

L. Approval of claims and warrants – Warrant 1209

ADJOURNMENT

SCHEDULED MEETINGS – All Regular Council meetings are held in the Council Chambers unless otherwise noted. For a complete listing of scheduled meetings, please visit the Event Calendar at cityofnovi.org.

NOTICE: People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk (248) 347-0456 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of resolution to authorize Budget Amendment #2027-2.

SUBMITTING DEPARTMENT: Finance

KEY HIGHLIGHTS:

- The proposed amendment is for all funds with unspent capital and contractual items (no general operating items are included in rollover)
- Majority of this encumbrance is projects for Roads , Water and Sewer projects and the new Public Safety Building.
- The proposed amendment impacts multiple capital outlay accounts within each fund, the overall financial impact is summarized in the detail attached.

BACKGROUND INFORMATION: Annually the finance department brings forward a "encumbrance rollover budget amendment" to "rebudget" capital items budgeted in the previous fiscal year where the actual expenditure will not be incurred until the next fiscal year. Most of the items represent construction projects where work began in the spring of 2027 (FY 26/27) and will be completed in 2027(FY 26/27). In addition, there are also capital related items that have been impacted by supply chain issues where noncancelable orders have been placed but the item was not received by 6/30/26 (such as fire trucks and other large DPW trucks). The proposed amendment has no net impact on fund balance as this is just a timing issue between the two fiscal years.

RECOMMENDED ACTION: Approval of resolution to authorize Budget Amendment #2027-2.

RESOLUTION

NOW, THEREFORE BE IT RESOLVED that the following Budget Amendment# 2026-2 is authorized:

	INCREASE (DECREASE)
GENERAL FUND	
REVENUES	
	$ -
TOTAL REVENUES	**$ -**
APPROPRIATIONS	
City Council	
Contractual Services	186,128
City Manager	
Capital Outlay	5,000
City Clerk	
Capital Outlay	30,000
Assessing	
Capital Outlay	3,500
TOTAL APPROPRIATIONS	**$ 224,628**
Net Increase (Decrease) to Fund Balance	**$ (224,628)**
Ending Fund Balance	**$14,405,723**
Fund Balance as a % of total annual expenditures	**31%**
MAJOR STREET FUND	
REVENUES	
TOTAL REVENUES	**$ -**
APPROPRIATIONS	
Contractual Services	6,295
Capital Outlay	5,940,513
TOTAL APPROPRIATIONS	**$ 5,946,808**
Net Increase (Decrease) to Fund Balance	**$ (5,946,808)**
Ending Fund Balance	**$3,091,448**
Fund Balance as a % of total annual expenditures	**23%**
LOCAL STREET FUND	
REVENUES	
State Sources	$ -
TOTAL REVENUES	**$ -**
APPROPRIATIONS	
Contractual Services	32,289
Capital Outlay	5,222,639
TOTAL APPROPRIATIONS	**$ 5,254,928**

	INCREASE (DECREASE)
Net Increase (Decrease) to Fund Balance	**$ (5,254,928)**
Ending Fund Balance	**$1,103,784**
Fund Balance as a % of total annual expenditures	**11%**

MUNICIPAL STREET FUND		
APPROPRIATIONS		
Contractual Services	$	40,965
Capital Outlay		2,474,280
TOTAL APPROPRIATIONS	**$**	**2,515,245**
Net Increase (Decrease) to Fund Balance	**$**	**(2,515,245)**
Ending Fund Balance		**$1,559,512**
Fund Balance as a % of total annual expenditures		**9%**

PARKS, RECREATION, & CULTURAL SERVICES FUND		
APPROPRIATIONS		
Contractual Services	$	33,520
Capital Outlay	$	22,722
TOTAL APPROPRIATIONS	**$**	**56,242**
Net Increase (Decrease) to Fund Balance	**$**	**(56,242)**
Ending Fund Balance		**$1,377,993**
Fund Balance as a % of total annual expenditures		**33%**

DRAIN FUND		
REVENUES		
TOTAL REVENUES	**$**	**-**
APPROPRIATIONS		
Capital Outlay		2,525,727
TOTAL APPROPRIATIONS	**$**	**2,525,727**
Net Increase (Decrease) to Fund Balance	**$**	**(2,525,727)**

CAPITAL IMPROVEMENT PROGRAM (CIP) FUND		
REVENUES		
TOTAL REVENUES	**$**	**-**
APPROPRIATIONS		
Capital Outlay	$	1,324,170
TOTAL APPROPRIATIONS	**$**	**1,324,170**
Net Increase (Decrease) to Fund Balance	**$**	**(1,324,170)**

PUBLIC IMPROVEMENT FUND

		INCREASE (DECREASE)
APPROPRIATIONS		
Capital Outlay	$	669,899
TOTAL APPROPRIATIONS	**$**	**669,899**
Net increase (Decrease) to Fund Balance	**$**	**(669,899)**

PUBLIC SAFETY BUILDING		
APPROPRIATIONS		
Capital Outlay	$	31,017,550
TOTAL APPROPRIATIONS	**$**	**31,017,550**
Net Increase (Decrease) to Fund Balance	**$**	**(31,017,550)**

ICE ARENA		
APPROPRIATIONS		
Capital Outlay	$	360,500
TOTAL APPROPRIATIONS	**$**	**360,500**
Net Increase (Decrease) to Fund Balance	**$**	**(360,500)**

SENIOR HOUSING FUND		
APPROPRIATIONS		
Capital outlay	$	64,000
TOTAL APPROPRIATIONS	**$**	**64,000**
Net Increase (Decrease) to Fund Balance	**$**	**(64,000)**

WATER & SEWER FUND		
REVENUES		
APPROPRIATIONS		
Capital Outlay		9,817,924
TOTAL APPROPRIATIONS	**$**	**9,817,924**
Net Increase (Decrease) to Fund Balance	**$**	**(9,817,924)**

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi at a regular meeting held on September 14, 2026

Cortney Hanson
City Clerk

Budget Amendment# 2026-2 Encumbrance Rollover September 14, 2026

GL #	Project/Item Description	Budget Category	Amount
General Fund 101			
Revenues			-
			$ -
Expenditures			
101-101.00-963.003	Council Study Project	Contractual Services	75,000
101-101.00-963.005	Miscellaneous-special projects Novi 2050	Contractual Services	111,128
101-172.00-816.002	Entryway Signage Grant	Capital Outlay	5,000
101-215.00-816.062	SIP053 Recodification- City Clerk	Capital Outlay	30,000
101-257.00-976.000	Building Improvements	Capital Outlay	3,500
			$ 224,628
		Net Increase (decrease) to fund balance	**$ (224,628)**
	Ending Fund Balance	**$14,405,723**	
	Fund Balance as a % of total annual expenditures	**31%**	
Major Street Fund 202			
Revenues			
			$ -
Expenditures			
202-449.20-805.000	Engineering consulting	Contractual Services	$ 6,295
202-449.20-975.152	ENG093 West Park Drive (12 Mile-Pnt Trl)	Capital Outlay	975,980
202-449.20-975.153	ENG016 13 Mile Rd (M5-Haggerty)	Capital Outlay	198,487
202-449.20-975.201	Strm Sewer/Rd Impv - Meadowbrk (9-10 Mi)	Capital Outlay	57,109
202-449.20-975.206	ENG109 11 Mile/Taft Roundabout Const	Capital Outlay	261,393
202-449.20-975.226	162-07 Beck Rd Widen(11Mi-Prov Dr/CP Bv)	Capital Outlay	1,790,017
202-449.20-975.227	ENG075 Mdwbrk Rd Rehab (10 Mi-11 Mi)	Capital Outlay	186,419
202-449.20-975.229	ENG078 9 Mile Rd Rehab (Mdwbrk-Haggerty)	Capital Outlay	149,368
202-449.20-975.231	ENG074 Novi Rd Rehab (13-14 Mile)	Capital Outlay	153,184
202-449.20-975.239	10 Mile & Taft Intersection Upgrades	Capital Outlay	150,000
202-449.20-975.274	11 Mile Rehab (Wixom-Beck) & 11/Beck RAB	Capital Outlay	174,303
202-449.20-975.275	Main Street Rehabilitation	Capital Outlay	1,844,252
			$ 5,946,808
		Net Increase (decrease) to fund balance	**$ (5,946,808)**
	Ending Fund Balance	**$3,091,448**	
	Fund Balance as a % of total annual expenditures	**23%**	
Local Street Fund 203			
Revenues			
			$ -
Expenditures			
203-449.30-805.000	Engineering consulting	Contractual Services	$ 32,289
203-449.30-974.251	102-01 NRP 2024 - Concrete (FY 2024-25)	Capital Outlay	1,598
203-449.30-974.261	102-01 NRP 2025 - Concrete (FY 2025-26)	Capital Outlay	10,874
203-449.30-974.263	102-01 NRP 2025 - Asphalt (FY 2025-26)	Capital Outlay	13,027
203-449.30-974.270	102-01 NRP 2026 - Design (FY 2026-27)	Capital Outlay	15,925
203-449.30-974.280	102-01 NRP 2027 - Design (FY 2027-28)	Capital Outlay	15,925
203-449.30-974.282	2027 NRP Concrete	Capital Outlay	3,926,055
203-449.30-975.155	ENG081 Village Wood(Crnbrk-Hggrty)&Sec25	Capital Outlay	1,239,236
			$ 5,254,928
		Net Increase (decrease) to fund balance	**$ (5,254,928)**
	Ending Fund Balance	**$1,103,784**	

GL #	Project/Item Description	Budget Category	Amount
	Fund Balance as a % of total annual expenditures	**11%**	
	Municipal Street Fund 204		
Expenditures			
204-446.00-805.000	Engineering consulting	Contractual Services	$ 40,965
204-446.00-975.028	ENG068 NSP 2026 (FY 2026-27)	Capital Outlay	950,341
204-446.00-975.034	162-01 12 Mile Rd Widen (Beck - Cabaret)	Capital Outlay	877,729
204-446.00-975.242	ENG100 12 Mi Rehab Novi to Haggerty Rd	Capital Outlay	150,000
204-446.00-976.222	Bosco-ITC Connector Pathway	Capital Outlay	496,209
			-
			$ 2,515,245
		Net Increase (decrease) to fund balance	**$ (2,515,245)**
	Ending Fund Balance	**$1,559,512**	
	Fund Balance as a % of total annual expenditures	**9%**	
	Parks, Recreation, and Cultural Services Fund 208		
Expenditures			
208-752.00-740.205	Villa Barr Property Operating Costs	Contractual Services	$ 33,520
208-752.00-977.091	Villa Barr Pathway	Capital Outlay	22,722
			$ 56,241
		Net Increase (decrease) to fund balance	**$ (56,241)**
	Ending Fund Balance	**$1,377,993**	
	Fund Balance as a % of total annual expenditures	**33%**	
	Drain Fund 211		
Revenues			
			$ -
Expenditures			
211-445.00-975.126	ENG081 Village Wood Rd(Crnbrk-Hggrty)	Capital Outlay	$ 229,351
211-445.00-975.135	Stream Mitigation-12/Crescent/ Lee Begol	Capital Outlay	1,180,019
211-445.00-975.159	ENG097 Ashbury Bridge Rehab Drain	Capital Outlay	82,000
211-445.00-975.201	Strm Sewer/Rd Impv - Meadowbrk (9-10 Mi)	Capital Outlay	17,759
211-445.00-975.209	Drain Impov Novi Rd (12 to 13)	Capital Outlay	804,610
211-445.00-975.210	Foxton Dr -Storm sewer rehab-'25 NRP Con	Capital Outlay	1,955
211-445.00-975.269	ENG051 BasinClean-LvnwrthRg(S GR; E Tft)	Capital Outlay	152,564
211-445.00-975.270	11 Mile (Wixom to Beck) & 11/ Beck RAB	Capital Outlay	37,468
			$ 2,505,727
		Net Increase (decrease) to fund balance	**$ (2,505,727)**
	Capital Improvement Program 401		
Revenues			
			$ -
Expenditures			
401-336.00-979.006	FIR029 Engine (replace 322)	Capital Outlay	1,324,170
			$ 1,324,170
		Net Increase (decrease) to fund balance	**$ (1,324,170)**
	Public Improvement Fund- Capital Fund 445		
Expenditures			
445-441-30.984.034	FLT007 Sign Truck (replace 635)	Capital Outlay	80,960

GL #	Project/Item Description	Budget Category		Amount
445-725-00-982.077	COR040 Wayfinding & Park Sign Replace	Capital Outlay		30,000
445-301-00-983.100	POL Vehicle-new install	Capital Outlay		284,938
445-265-00-977-043	ITC-Building Generator &GenTrack	Capital Outlay	$	64,266
445-441-00-984.040	FLT017 RDS Truck w/scrap &plow (602)	Capital Outlay	$	209,735
			$	669,899
		Net Increase (decrease) to fund balance	**$**	**(669,899)**
		Public Safety Building 464		
Expenditures				
464-309.00-977.044	Public Safety Building	Capital Outlay	$	27,066,783
464-336.00-975.954	Fire Station 2 - W. 13 Mi Rd	Capital Outlay		1,956,489
464-336.00-975.955	Fire Station 3 - Venture Drive	Capital Outlay		1,951,152
464-446.00-975.952	LeeBeGole Road Project	Capital Outlay		43125
			$	31,017,550
		Net Increase (decrease) to fund balance	**$**	**(31,017,550)**
		Ice Arena 570		
Expenditures				
570-000.00-934.028	ICE031 Interior Painting of Facility	Capital Outlay	$	36,000
570-000.00-976.155	ICE014 Hot Wtr &Ht Blrs Replace (2)	Capital Outlay		24,500
570-000.00-981.011	ICE016 Parking Lot Improvements	Capital Outlay		300,000
			$	360,500
		Net Increase (decrease) to fund balance	**$**	**(360,500)**
		Senior Housing Fund 574		
Expenditures				
574-000.00-976.171	COR006 Elevator Cab Replace(2	Capital Outlay	$	64,000
			$	64,000
		Net Increase (decrease) to fund balance	**$**	**(64,000)**
		Water & Sewer Fund 592		
Expenditures				
592-536.00-816.053	Water Master Plan & AWIA Compliance	Capital Outlay	$	56,280
592-536.00-936.010	Sanitary Maintenance (incl. CMOM)	Capital Outlay		18,680
592-536.00-936.025	Water line maintenance	Capital Outlay		1,880
592-536.00-936.040	Water Main Valve Maint Program	Capital Outlay		161,230
592-536.00-976.195	WTS031 Generator Replace - Hudson Pump	Capital Outlay		105,410
592-536.00-976.198	WTS036 Asb-Cement (AC) Wtr Main Rep-PH3	Capital Outlay		147,800
592-536.00-976.214	WTS045 Water Main Loop Conn - Southwest	Capital Outlay		6,667,998
592-536.00-976.220	Bellagio SS PumpStation	Capital Outlay		853,620
592-536.00-976.242	Cedar Springs Sub Water Main Lining	Capital Outlay		1,690,847
592-536.00-976.259	12 MILE WIDENING (BECK-NOVI) WATER MAIN	Capital Outlay		26,400
592-536.00-983.098	LDV057 LDV w/plow & SB (701)	Capital Outlay		87,778
			$	9,817,924
		Net Increase (decrease) to fund balance	**$**	**(9,817,924)**

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Consideration of approval of assessment payment to Oakland County for the Caddell Drain Rehabilitation project at the intersection of 9 Mile and Drake Roads, in the amount of $220,134.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- Project includes rehabilitation of the Caddell Drain's four-barrel crossing at the intersection of 9 Mile and Drake Roads in Farmington Hills.
- The Caddell Drain is an Intracounty Drainage District (Chapter 20).
- The City of Novi is responsible for $220,134 of the $6M project's total costs.
- The Oakland County Water Resources Commissioner's Office (OCWRC) is managing the project.

FINANCIAL IMPACT

	FY 2026/27
EXPENDITURE REQUIRED	**$ 220,134.00**
BUDGET **Drain Fund 211-445.00-936.151**	**$ 220,134.00**
APPROPRIATION REQUIRED	**$ 0**
FUND BALANCE IMPACT	**$ 0**

BACKGROUND INFORMATION:

The Caddell Drain is an Intracounty Drainage District (Chapter 20) located in the cities of Farmington and Farmington Hills. It was first constructed in several phases in the 1980s to provide controlled drainage of several hundred acres of land in Farmington, Farmington Hills, and Novi (see attached map depicting the Caddell Drain's drainage district, including the 105 acres in the Village Oaks/Stonehenge area of Section 25 in the City of Novi).

Maintenance and construction projects related to stormwater management in this drainage district are funded through assessments that are apportioned based on tributary area and runoff amongst the following public entities:

CITY OF FARMINGTON, Oakland County, Michigan For benefits to public health	11.90 %
CITY OF FARMINGTON HILLS, Oakland County, Michigan For benefits to public health	60.50 %
CITY OF NOVI, Oakland County, Michigan For benefits to public health	3.8 %
OAKLAND COUNTY, Michigan For benefits to county roads	5.60 %
MICHIGAN DEPARTMENT OF TRANSPORTATION For benefits to state highways	18.20 %

The Caddell Drain crosses the intersection of 9 Mile and Drake Roads in Farmington Hills through four large culvert barrels. A 2022 inspection rated the barrels in poor to severe condition, documenting corrosion, section loss, perforations, and localized deformation.

The project will rehabilitate each barrel using a custom-shaped slip liner designed to fit the existing pipe-arch geometry. New concrete headwalls will also be installed at the upstream and downstream ends. This approach extends the structure's useful life while limiting excavation and disruption associated with full replacement.

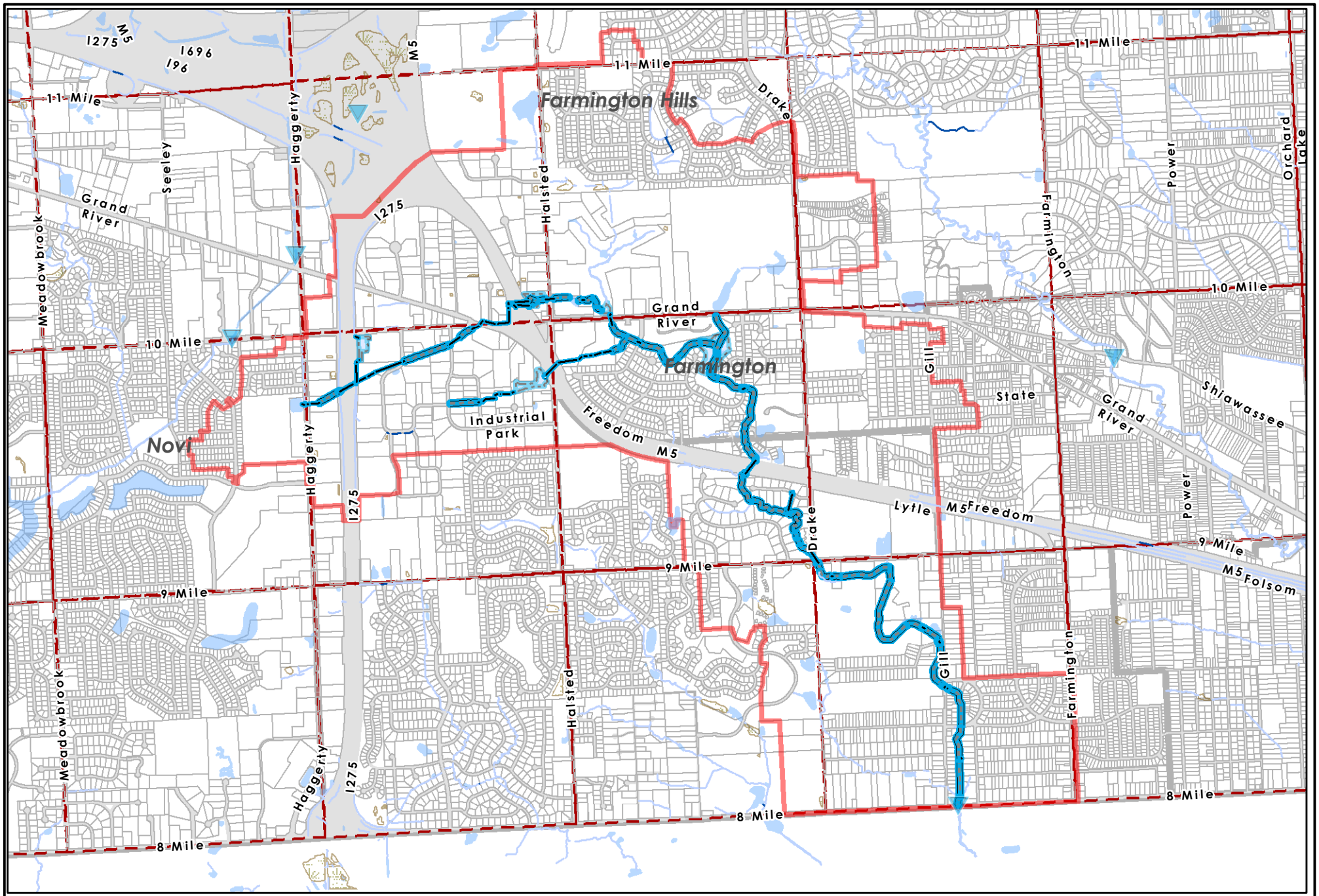
In 2024 and 2025, the Cities of Farmington and Farmington Hills petitioned the Chapter 20 Drainage Board for these improvements. The project was bid out this summer and awarded to D.V.M. Utilities, Inc in July. The City of Novi is responsible for $220,134 of the $6M project's total costs. The Oakland County Water Resources Commissioner's Office (OCWRC) is coordinating and managing the project.

Project benefits include:

- Addresses documented deterioration in all four culvert barrels.
- Extends service life through a structurally fitted rehabilitation system.
- Provides durable new upstream and downstream concrete headwalls.
- Protects drainage performance beneath a major local intersection.

Construction is anticipated from fall 2026 through spring 2027.

RECOMMENDED ACTION: Approval of assessment payment to Oakland County for the Caddell Drain Rehabilitation project at the intersection of 9 Mile and Drake Roads, in the amount of $220,134.



Legend

- Lower Terminus
- Storm Pipe / Culvert
- Private / Maintained by Others
- NON WRC Culvert
- Siphon
- Force Main
- Private / Maintained by Others
- Channel
- Spillway
- Stream / River
- Swamp / Marsh
- Drain Detention / Retention Pond
- Lake / Pond or Stream / River / Channel
- Assessment District
- Tax Parcel
- Section Lines
- Municipal District

CADDELL DRAIN
DRAIN ASSESSMENT DISTRICT
CITY OF FARMINGTON HILLS
CITY OF FARMINGTON
CITY OF NOVI

N

0.5 0.25 0 0.5 Miles

WRC
WATER RESOURCES COMMISSIONER

Disclaimer: The information provided in this system has been compiled from recorded deeds, plats, tax maps, surveys and other public records and data. It is not a legally recorded map or survey and is not intended to be used as one. Users of this data are hereby notified that the information sources mentioned above should be consulted for verification of the information.

Map Printed June 6, 2011
J:\Drain\Mapping\Unit\DRAINS\Caddell\20110606 Caddell Drain for Apportionment 8\Ex11 District Map.mxd

WRC
WATER RESOURCES COMMISSIONER
Jim Nash

FARMINGTON HILLS, MICHIGAN

Caddell Drain 9 Mile and Drake Rehabilitation

Four-barrel crossing at 9 Mile Road and Drake Road

PROJECT COST	CONSTRUCTION SCHEDULE	REHABILITATION TECHNIQUE
$6,092,000	**Fall 2026 - Spring 2027**	**Custom Slip Lining**



EXISTING FOUR-BARREL CROSSING
Inspection photograph, June 2022



INTERIOR PIPE CONDITION
Inspection photograph, June 2022

PROJECT OVERVIEW

The Caddell Drain crossing consists of four corrugated-metal pipe arches, each approximately 300 feet long, beneath the 9 Mile Road and Drake Road intersection. A 2022 inspection rated the barrels in poor to severe condition, documenting corrosion, section loss, perforations and localized deformation.

REHABILITATION APPROACH

The project will rehabilitate each barrel using a custom-shaped slip liner designed to fit the existing pipe-arch geometry. New concrete headwalls will also be installed at the upstream and downstream ends. This approach extends the structure's useful life while limiting excavation and disruption associated with full replacement.

PROJECT BENEFITS

- Addresses documented deterioration in all four culvert barrels.
- Extends service life through a structurally fitted rehabilitation system.
- Provides durable new upstream and downstream concrete headwalls.
- Protects drainage performance beneath a major local intersection.

CURRENT PROJECT STATUS

The project has been bid, with construction anticipated from fall 2026 through spring 2027.

QUESTIONS?

Contact our office at 248-858-0958.

One Public Works Drive • Building 95 West • Waterford, MI 48328-1907
Phone: 248.858.0958 • Fax: 248.858.1066 • www.oakgov.com/water

Caddell Drain - 9 Mile & Drake
7/28/2026

		Project Costs
1)	**Facility Acquisition**	
a	Construction Cost	$ 4,538,080
	Subtotal Facility Acquisition	**$ 4,538,080**
2)	**Engineering Consultants**	
a	Prelim. Engineering (Study) and Design Phase Services	$ 179,000
b	Construction Phase Services Incl. Materials Testing	$ 332,535
c	Scheduling Consultant	$ -
d	Additional Special Services - Observation	$ 291,016
	Subtotal Engineering Consultants	**$ 803,000**
3)	**Project Financing & Legal**	
a	Project Insurance	**$ -**
b	Bond Issuance (Legal)	**$ -**
c	Bond Issuance (Financial Consultant)	**$ -**
d	Wetland Mitigation	**$ -**
	Subtotal Project Financing & Legal	**$ -**
3)	**Right of Way**	
a	Easement Fees	$ 20,000
b	Legal Fees	$ 8,000
c	Permits	$ -
d	County Services	$ 18,030
	Subtotal Right of Way	**$ 46,000**
4)	**Exclusive County Services**	
a	Administration	$ 27,586
b	Engineering	$ 113,195
c	Inspection	$ -
d	Survey	$ 7,801
e	O&M Startup	$ 2,258
	Subtotal Exclusive County Services	**$ 151,000**
8)	**Project Subtotal**	**$ 5,538,000**
9)	**Project Contingency (10%)**	**$ 554,000**
10)	**Total Project Cost**	**$ 6,092,000**

I hereby certify the period of usefulness of these facilities to be 50 years and upwards.

By: David R Wirth

David Wirth, P.E.
Project Engineer

By: _____

Joel Brown, P.E.
Chief Engineer

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
PROJECT ASSESSMENT RECOMMENDATION FOR THE CADDELL DRAIN

PROJECT: Caddell Drain-Nine Mile and Drake (PRJ-17877)

TOTAL PROJECT COST: $6,092,000.00

PREVIOUS ASSESSMENTS: $299,000.00
Construction fund FND84600

AMOUNT TO BE ASSESSED: $5,793,000.00

Public Corporation	***Percentage of Apportionment**	**Total Amount of Assessment**
City of Farmington Hills	60.500%	$ 3,504,765.00
City of Farmington	11.900%	$ 689,367.00
City of Novi	3.800%	$ 220,134.00
State of Michigan	18.200%	$ 1,054,326.00
Oakland County on account of drinage to county highways	5.600%	$ 324,408.00
Total	**100.000%**	**$ 5,793,000.00**

*Apportionment based on Final Order of Apportionment dated 01/26/1983.

Assessment Payment Due Date: 08/31/2026

I hereby certify that the forgoing Special Assessment Roll was prepared in accordance with the directions of the Drainage Board for the Caddell Drain and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Caddell Drain

The foregoing Special Assessment Roll was approved for the Caddell Drain on _____

Jim Nash
Chairman of the Drainage Board for the Caddell Drain

07812

Ben

INVOICE

Oakland County
WRC Special Assessments
1200 N Telegraph
Pontiac, MI 48341

Customer ID:	CU000477
Invoice Number:	CI082670
Invoice Date:	08/26/2026
Due Date:	09/25/2026
Amount Due:	USD 220,134.00

Bill To:

CITY OF NOVI
ACCOUNTS PAYABLE
45175 W 10 MILE RD
NOVI, MI 48375-3024

For billing questions, please call: Kimberly E Smith at 248-858-1541
Email: smithke@oakgov.com
Payments made easy. Visit https://mi.oakgov.com/form/general-billing to pay your Oakland County invoice

Description - Goods and Services	Quantity	UOM	Unit Price	Amount
CADDELL DRAIN - NINE MILE and DRAKE PROJECT (PRJ-17877) ASSESSMENT DRAIN BOARD APPROVAL ON 07/28/26	1	Each	220,134.00	220,134.00

Sub Total	**220,134.00**
Tax	**0.00**
Invoice Total	**220,134.00**

PLEASE INCLUDE YOUR INVOICE NUMBER WHEN SUBMITTING PAYMENT.

SCANNED
AUG 3 1 2026
CITY OF NOVI
FINANCE

Please Remit Payments to:

Oakland County
Treasurers-Cash Acctg Bldg 12 E
1200 N Telegraph
Pontiac, MI 48341
United States of America

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Consideration of approval to award the Southwest Water Main Loop project contract to Bidigare Contractors, Inc., the qualified low bidder, in the amount of $4,039,390.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- Scope includes 15,200 feet of 14-inch high density polyethylene (HDPE) and 12-inch ductile iron water main along portions of 8 Mile, Napier and Beck.
- Water main will be installed through the ITC Sports park, providing public water access to the park facilities.

FINANCIAL IMPACT

	FY 2026/27
EXPENDITURE REQUIRED	**$ 4,039,390.00 Construction** **$ 370.520.96 Engineering Services** **$ 4,409,910.96 TOTAL**
BUDGET **Water & Sewer Fund 592-536.00-976.214**	 **$ 6,632,567.00** ***Part of the FY 2025-26 Budget Rollover**
APPROPRIATION REQUIRED	**$ 0**
FUND BALANCE IMPACT	**$ 0**
Budget includes current estimated total project costs for construction (construction engineering, crew days, material testing, contingency, etc.), which is $4.9M.	

BACKGROUND INFORMATION:

Water system improvements to the southwest area of the city were identified in the 2020 Water Master Plan Update to improve water flow and fire protection in the Intermediate pressure district, including the installation of a looped water main connection in this area. This project would involve constructing this looped system consisting of approximately 15,200 feet of 14-inch high-density polyethylene (HDPE) and 12-inch ductile iron water main along portions of 8 Mile, Napier and Beck, including a segment through ITC Sports Park. The majority of the water main will be installed via horizontal directional drilling, a trenchless method that minimizes impact to affected properties and reduces the need for restoration.

This project will improve flows and fire protection in this area of the city and will provide the opportunity for additional improvements including a potential elevated water storage tank, and the possibility of expanding the Island Lake Pressure District. These additional improvements have been studied and will be discussed in the upcoming Water Master Plan Update expected in October.

City engineering consultant, OHM Advisors, assisted City staff with design of the Southwest Water Main Loop project. The project was advertised for public bids on August 12, 2026. Eleven (11) bids were received and opened on September 2, 2026, following the solicitation period. A summary of the five lowest bids is below.

Contractor	**Total Bid***
Bidigare Contractors, Inc.	$ 4,151,390.00
DVM Utilities, Inc.	$ 4,283,733.20
Inner City Contracting, LLC	$ 4,331,834.00
Pamar Enterprises, Inc.	$ 4,352,796.00
Anglin Civil, LLC	$ 4,594,363.36

Crew Days are included to compare bids but not included in the award. See bid tabulation for all bids received.

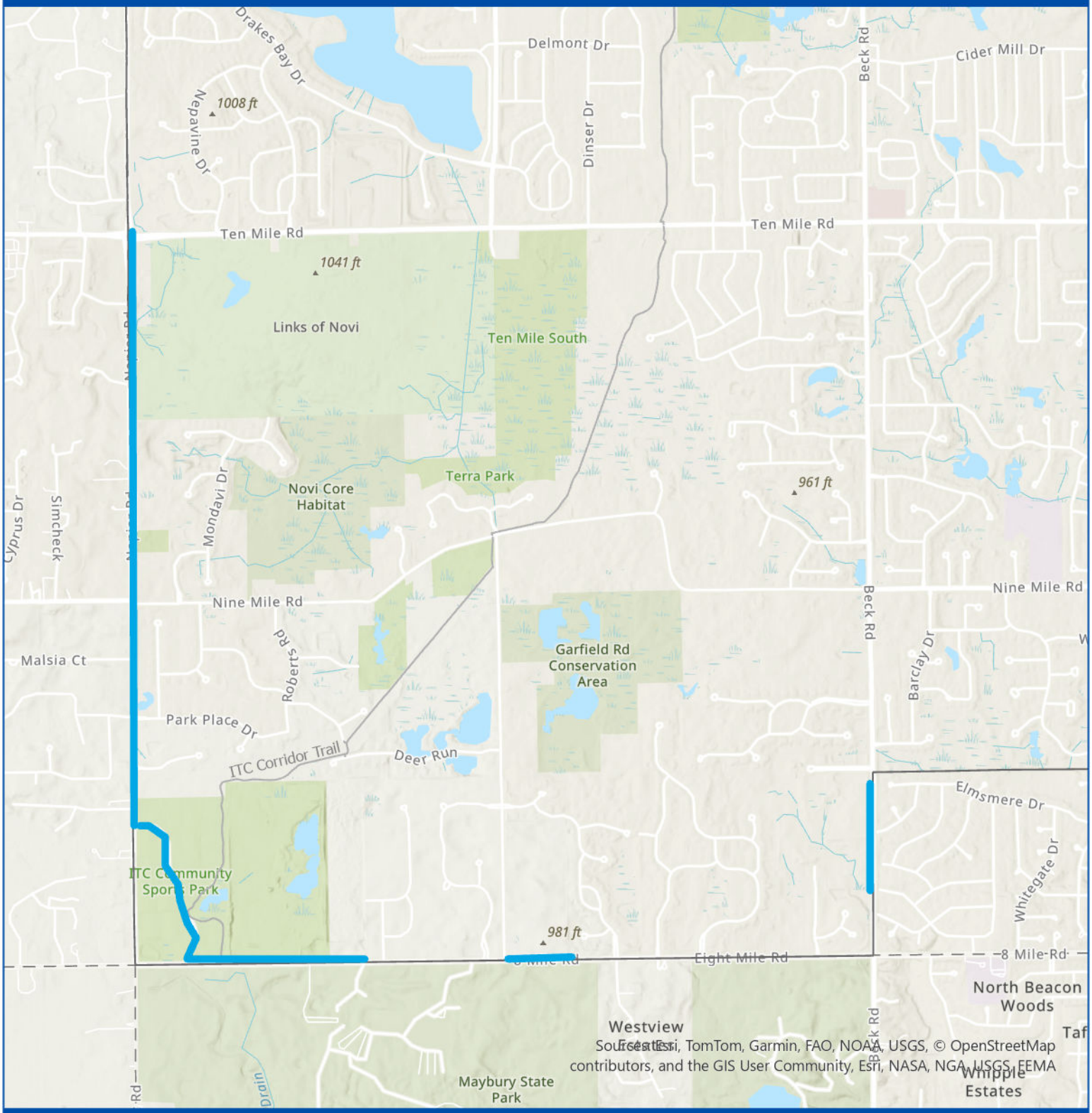
The contract administration and geotechnical engineering services related to this project will be awarded to the following pre-qualified firms using the fee percentages in the Agreements for Professional Engineering Services and Geotechnical Engineering Services for Public Projects.

OHM	Contract Administration	4.5% of the construction award	$ 181,772.55
	Crew Days	$800 daily inspection fee x 140 days	$ 112,000.00
G2	Material testing services	1.9% of the construction award	$ 76,748.41
		TOTAL	**$ 370,520.96**

Construction is expected to start in October and continue through summer 2027.

RECOMMENDED ACTION: Approval to award the Southwest Water Main Loop project contract to Bidigare Contractors, Inc., the qualified low bidder in the amount of $4,039,390.

Southwest Water Main Loop Project



Proposed Water Main

Feet

0 550 1,100 2,200

Map Author: Runkel

Map Print Date: September 4, 2026

September 8, 2026

Ben Croy, P.E.
City Engineer
26300 Lee BeGole Dr
Novi, Mi 48375

Regarding: Bid Results Southwest Water Main Loop

Dear Mr. Croy:

Sealed bids for the Southwest Water Main Loop project were received and publicly read aloud at 2:00 pm on Wednesday, September 2, 2026, at the City of Novi City Hall. Eleven (11) proposals were received with as-read bid prices ranging from $4,151,390.00 to $5,950,400.00 The detailed bid tabulation is attached.

Contractor	Total Bid	Contract Items less Crew Days
Bidigare Contractors	$4,151,390.00	$4,039,390.00
DVM Utilities	$4,283,733.20	$4,123,733.20
Inner City Contracting	$4,331,834.00	$4,211,834.00
PAMAR Enterprises	$4,352,796.00	$4,236,796.00

The lowest bidder, Bidigare Contractors, prepared a bid with the amount of $4,151,390.00 All required information, including bond surety, statement of qualifications, and subcontractors listing, has been provided.

Bidigare Contractors, out of Plymouth, Michigan, has extensive experience in the Detroit Metro area performing horizontal directional drilling and open cut water main projects. They have successfully completed several utility projects for the City of Novi in the past. Based upon our previous experience and their qualifications, **we would recommend award of this contract to Bidigare Contractors, Inc., in the amount of $4,039,390 per their unit prices listed on the bid.** The amount listed for crew days ($112,000) is not included in the recommended award amount as these are not part of the payments made to the contractor, but these amounts are included in the total for determining the lowest bid.

Should there be any questions, please contact this office at (248) 751-3103.

Sincerely,
OHM Advisors

Andrew Cousino, P.E.

CC: Aaron Staup, Construction Manager
Paul Wilkerson, OHM Advisors
Tim Juidici, OHM Advisors

OHM Advisors
34000 PLYMOUTH ROAD
LIVONIA, MICHIGAN 48150
T 734.522.6711
F 734.522.6427
OHM-Advisors.com

Tabulation for Bids Received on September 2, 2026 at 2 p.m.
Southwest Water Main Loop
City of Novi
County of Oakland, State of Michigan
OHM Job Number: 0163-23-0080

Item	Description	Estimated Quantity		Bidigare Contractors 939 S. Mill St. Plymouth. MI 48170 248-735-1113		DVM Utilities 6045 Sims, Dr #2 Sterling Heights, MI 48313 586-979-0402		Inner City Contracting 18715 Grand River Ave Detroit, MI 48223 810-625-3501		Pamar Enterprises 31604 Pamar Court New Haven, MI 48048 586-749-8839		Anglin Civil 1300 Newburgh Rd Livonia, MI 48150 989-621-2175		Murphy Pipeline Contractors 4086 MichiganAvenue Detroit, MI 48210 734-368-2375		Diponio Contracting 51251 Simone Industrial Dr Shelby Township, MI 48316 586-997-4150		ZITO Construction 8033 Fenton Rd Grand Blanc, MI 48439 810-695-9025		Bricco Excavating 21201 Meyers Rd Oak Park MI 48237 248-547-6963		All Seasons Underground 5687 PawsnRd Tipton MI 48287 517-431-7047		LGC Global 7310 Woodward Ave, Ste 500 Detroit, MI 48202 313-875-2732	
				Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
Division	**SW Watermain Loop**																										
1	Audio Video Route Survey	1	LSUM	$6,500.00	$6,500.00	$14,300.00	$14,300.00	$6,700.00	$6,700.00	$4,000.00	$4,000.00	$6,500.00	$6,500.00	$6,500.00	$6,500.00	$6,500.00	$6,500.00	$7,000.00	$7,000.00	$25,000.00	$25,000.00	$15,000.00	$15,000.00	$23,623.00	$23,623.00
2	Mobilization, Max 5%	1	LSUM	$100,000.00	$100,000.00	$200,000.00	$200,000.00	$188,000.00	$188,000.00	$200,000.00	$200,000.00	$218,132.23	$218,132.23	$244,150.00	$244,150.00	$240,000.00	$240,000.00	$265,849.60	$265,849.60	$272,000.00	$272,000.00	$100,000.00	$100,000.00	$274,887.00	$274,887.00
3	Permits and Inspection Fee Allowance	1	Dlr	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00
4	Clearing	1	Acre	$10,000.00	$5,000.00	$23,100.00	$11,550.00	$35,000.00	$17,500.00	$16,000.00	$8,000.00	$17,244.00	$8,622.00	$20,403.00	$10,201.50	$22,124.00	$11,062.00	$16,000.00	$8,000.00	$10,000.00	$5,000.00	$10,000.00	$5,000.00	$42,284.00	$21,142.00
5	Curb and Gutter, Rem	789	Ft	$12.00	$9,468.00	$8.80	$6,943.20	$12.50	$9,862.50	$10.00	$7,890.00	$12.25	$9,665.25	$18.00	$14,202.00	$7.00	$5,523.00	$11.80	$9,310.20	$15.00	$11,835.00	$15.00	$11,835.00	$13.00	$10,257.00
6	Sidewalk, Rem	180	Syd	$13.00	$2,340.00	$6.60	$1,188.00	$26.60	$4,788.00	$18.00	$3,240.00	$10.35	$1,863.00	$18.00	$3,240.00	$20.00	$3,600.00	$12.30	$2,214.00	$20.00	$3,600.00	$15.00	$2,700.00	$11.00	$1,980.00
7	Pavt, Rem, Modified	6,990	Syd	$5.00	$34,950.00	$5.50	$38,445.00	$11.35	$79,336.50	$10.00	$69,900.00	$5.11	$35,718.90	$20.00	$139,800.00	$5.00	$34,950.00	$27.30	$190,827.00	$18.00	$125,820.00	$8.00	$55,920.00	$31.00	$216,690.00
8	8" Aggregate Base	3,700	Syd	$10.00	$37,000.00	$20.90	$77,330.00	$25.28	$93,536.00	$20.00	$74,000.00	$28.51	$105,487.00	$45.00	$166,500.00	$20.00	$74,000.00	$28.20	$104,340.00	$39.00	$144,300.00	$24.00	$88,800.00	$54.00	$199,800.00
9	Maintenance Aggregate	200	Tons	$1.00	$200.00	$33.00	$6,600.00	$36.41	$7,282.00	$55.00	$11,000.00	$76.98	$15,396.00	$25.00	$5,000.00	$45.00	$9,000.00	$51.75	$10,350.00	$85.00	$17,000.00	$100.00	$20,000.00	$37.00	$7,400.00
10	Utility Structure Cover, Adj, Case 1	10	Ea	$327.00	$3,270.00	$1,265.00	$12,650.00	$1,669.90	$16,699.00	$650.00	$6,500.00	$1,506.42	$15,064.20	$510.00	$5,100.00	$350.00	$3,500.00	$738.50	$7,385.00	$1,600.00	$16,000.00	$500.00	$5,000.00	$805.00	$8,050.00
11	Utility Structure Cover, Adj, Case 2	10	Ea	$380.00	$3,800.00	$1,045.00	$10,450.00	$1,536.15	$15,361.50	$550.00	$5,500.00	$385.71	$3,857.10	$1,552.00	$15,520.00	$500.00	$5,000.00	$197.20	$1,972.00	$2,300.00	$23,000.00	$500.00	$5,000.00	$805.00	$8,050.00
12	Utility Structure Cover, Adj, Case 3	10	Ea	$627.00	$6,270.00	$1,730.30	$17,303.00	$1,536.15	$15,361.50	$990.00	$9,900.00	$2,988.11	$29,881.10	$621.00	$6,210.00	$1,500.00	$15,000.00	$943.50	$9,435.00	$2,300.00	$23,000.00	$500.00	$5,000.00	$805.00	$8,050.00
13	HMA, 4EML	1,020	Ton	$137.00	$139,740.00	$156.20	$159,324.00	$142.50	$145,350.00	$128.00	$130,560.00	$133.33	$135,996.60	$143.00	$145,860.00	$123.30	$125,766.00	$145.00	$147,900.00	$124.00	$126,480.00	$141.00	$143,820.00	$365.00	$372,300.00
14	HMA, 5EML	635	Ton	$137.00	$86,995.00	$154.00	$97,790.00	$143.00	$90,805.00	$128.00	$81,280.00	$158.11	$100,399.85	$155.00	$98,425.00	$127.50	$80,962.50	$145.00	$92,075.00	$128.00	$81,280.00	$173.00	$109,855.00	$365.00	$231,775.00
15	HMA Approach	28	Ton	$269.00	$7,532.00	$324.50	$9,086.00	$270.50	$7,574.00	$330.00	$9,240.00	$239.81	$6,714.68	$380.00	$10,640.00	$225.00	$6,300.00	$250.00	$7,000.00	$225.00	$6,300.00	$417.00	$11,676.00	$365.00	$10,220.00
16	Conc Pavt, Misc, Nonrein, 6 inch	60	Syd	$79.00	$4,740.00	$53.90	$3,234.00	$125.00	$7,500.00	$150.00	$9,000.00	$88.66	$5,319.60	$81.00	$4,860.00	$75.00	$4,500.00	$85.00	$5,100.00	$110.00	$6,600.00	$90.00	$5,400.00	$118.00	$7,080.00
17	Curb and Gutter, Det F4	850	Ft	$37.00	$31,450.00	$38.50	$32,725.00	$63.00	$53,550.00	$32.00	$27,200.00	$37.16	$31,586.00	$40.00	$34,000.00	$32.00	$27,200.00	$40.00	$34,000.00	$40.00	$34,000.00	$95.00	$80,750.00	$91.00	$77,350.00
18	Sidewalk, Conc, 4 inch	1,431	Sft	$7.00	$10,017.00	$22.00	$31,482.00	$10.00	$14,310.00	$11.00	$15,741.00	$7.41	$10,603.71	$7.50	$10,732.50	$10.00	$14,310.00	$10.00	$14,310.00	$10.00	$14,310.00	$9.00	$12,879.00	$10.00	$14,310.00
19	Curb Ramp, Conc, 6 inch	260	Ea	$16.00	$4,160.00	$30.80	$8,008.00	$16.00	$4,160.00	$24.00	$6,240.00	$10.39	$2,701.40	$35.00	$9,100.00	$15.00	$3,900.00	$16.00	$4,160.00	$13.00	$3,380.00	$15.00	$3,900.00	$21.00	$5,460.00
20	12 inch Water Main, Cl 54 DI, Open Cut	2,700	Ft	$140.00	$378,000.00	$205.70	$555,390.00	$201.59	$544,293.00	$206.00	$556,200.00	$267.65	$722,655.00	$250.00	$675,000.00	$208.00	$561,600.00	$205.20	$554,040.00	$270.00	$729,000.00	$250.00	$675,000.00	$270.00	$729,000.00
21	14 inch Water Main, HDPE, Directional Drill	14,600	Ft	$140.00	$2,044,000.00	$126.50	$1,846,900.00	$133.61	$1,950,706.00	$121.00	$1,766,600.00	$124.06	$1,811,276.00	$150.00	$2,190,000.00	$211.00	$3,080,600.00	$200.80	$2,931,680.00	$170.00	$2,482,000.00	$240.00	$3,504,000.00	$146.00	$2,131,600.00
22	8 inch Water Main, Cl 54 DI, Open Cut	130	Ft	$149.00	$19,370.00	$163.90	$21,307.00	$262.00	$34,060.00	$150.00	$19,500.00	$200.51	$26,066.30	$125.00	$16,250.00	$185.00	$24,050.00	$181.80	$23,634.00	$207.00	$26,910.00	$175.00	$22,750.00	$335.00	$43,550.00
23	6 inch Water Main, Cl 54 DI, Open Cut	380	Ft	$114.00	$43,320.00	$128.70	$48,906.00	$193.00	$73,340.00	$135.00	$51,300.00	$153.40	$58,292.00	$100.00	$38,000.00	$145.00	$55,100.00	$139.60	$53,048.00	$190.00	$72,200.00	$150.00	$57,000.00	$212.00	$80,560.00
24	Water Service, 1 inch	106	Ft	$111.00	$11,766.00	$57.20	$6,063.20	$71.00	$7,526.00	$55.00	$5,830.00	$85.25	$9,036.50	$126.00	$13,356.00	$56.00	$5,936.00	$70.40	$7,462.40	$67.00	$7,102.00	$75.00	$7,950.00	$203.00	$21,518.00
25	Water Service, 1.5 inch	169	Ft	$135.00	$22,815.00	$62.70	$10,596.30	$104.00	$17,576.00	$65.00	$10,985.00	$92.66	$15,659.54	$172.00	$29,068.00	$68.00	$11,492.00	$76.90	$12,996.10	$82.00	$13,858.00	$105.00	$17,745.00	$119.00	$20,111.00
26	Connect to Existing Water Main	7	Ea	$9,320.00	$65,240.00	$10,835.00	$75,845.00	$4,795.00	$33,565.00	$12,500.00	$87,500.00	$9,844.37	$68,910.59	$9,896.00	$69,272.00	$7,000.00	$49,000.00	$7,269.60	$50,887.20	$20,000.00	$140,000.00	$7,500.00	$52,500.00	$11,790.00	$82,530.00
27	Curb Stop and Box, 1 inch	3	Ea	$634.00	$1,902.00	$880.00	$2,640.00	$554.00	$1,662.00	$880.00	$2,640.00	$2,030.26	$6,090.78	$337.00	$1,011.00	$1,100.00	$3,300.00	$459.20	$1,377.60	$1,650.00	$4,950.00	$550.00	$1,650.00	$1,222.00	$3,666.00
28	Curb Stop and Box, 1.5 inch	5	Ea	$897.00	$4,485.00	$1,210.00	$6,050.00	$850.00	$4,250.00	$1,090.00	$5,450.00	$2,306.92	$11,534.60	$654.00	$3,270.00	$1,600.00	$8,000.00	$789.10	$3,945.50	$2,600.00	$13,000.00	$750.00	$3,750.00	$1,557.00	$7,785.00
29	Fire Hydrant Assembly	33	Ea	$11,790.00	$389,070.00	$10,257.50	$338,497.50	$8,600.00	$283,800.00	$16,500.00	$544,500.00	$10,403.80	$343,325.40	$12,000.00	$396,000.00	$8,000.00	$264,000.00	$9,261.30	$305,622.90	$10,500.00	$346,500.00	$8,000.00	$264,000.00	$15,648.00	$516,384.00
30	Gate Valve and Well, 12 inch	20	Ea	$14,540.00	$290,800.00	$13,172.50	$263,450.00	$17,875.00	$357,500.00	$17,650.00	$353,000.00	$12,390.12	$247,802.40	$16,750.00	$335,000.00	$9,500.00	$190,000.00	$15,528.10	$310,562.00	$16,000.00	$320,000.00	$11,000.00	$220,000.00	$22,053.00	$441,060.00
31	Gate Valve and Well, 8 inch	4	Ea	$10,570.00	$42,280.00	$10,450.00	$41,800.00	$1,270.00	$5,080.00	$9,900.00	$39,600.00	$9,157.60	$36,630.40	$8,200.00	$32,800.00	$7,000.00	$28,000.00	$11,984.50	$47,938.00	$14,000.00	$56,000.00	$10,000.00	$40,000.00	$21,164.00	$84,656.00
32	Turf Restoration and Irrigation System Repair	1	LSUM	$218,340.00	$218,340.00	$122,100.00	$122,100.00	$98,000.00	$98,000.00	$55,000.00	$55,000.00	$120,000.00	$120,000.00	$42,250.00	$42,250.00	$60,000.00	$60,000.00	$50,000.00	$50,000.00	$400,000.00	$400,000.00	$31,500.00	$31,500.00	$51,541.00	$51,541.00
33	Traffic Maintenance and Control	1	LSUM	$8,110.00	$8,110.00	$22,000.00	$22,000.00	$6,000.00	$6,000.00	$48,000.00	$48,000.00	$81,500.00	$81,500.00	$5,750.00	$5,750.00	$40,000.00	$40,000.00	$186,000.00	$186,000.00	$50,000.00	$50,000.00	$10,000.00	$10,000.00	$45,097.00	$45,097.00
34	Soil Erosion and Sedimentation Control	1	LSUM	$1,460.00	$1,460.00	$18,780.00	$18,780.00	$11,800.00	$11,800.00	$6,500.00	$6,500.00	$87,075.23	$87,075.23	$9,023.00	$9,023.00	$10,000.00	$10,000.00	$10,000.00	$10,000.00	$40,000.00	$40,000.00	$10,500.00	$10,500.00	$27,918.00	$27,918.00
35	Crew Days	800	Days	140.00	$112,000.00	200.00	$160,000.00	150.00	$120,000.00	145.00	$116,000.00	250.00	$200,000.00	115.00	$92,000.00	105.00	$84,000.00	135.00	$108,000.00	150.00	$120,000.00	252.00	$201,600.00	200.00	$160,000.00
	Sub-Total Base Bid (ITEMS 1-35 incl.):				**$4,151,390.00**		**$4,283,733.20**		**$4,331,834.00**		**$4,352,796.00**		**$4,594,363.36**		**$4,883,091.00**		**$5,151,151.50**		**$5,583,421.50**		**$5,765,425.00**		**$5,807,480.00**		**$5,950,400.00**
Alternate	**Alternate Item**																										
Alt	Ductile Iron WM, CL54, Directional Drill, 12 inch	13,100	Ft	$225.00	$2,947,500.00	$312.70	$4,096,370.00	$237.00	$3,104,700.00	$233.00	$3,052,300.00	$217.62	$2,850,822.00	$281.27	$3,684,637.00	$286.00	$3,746,600.00	$291.80	$3,822,580.00	$200.00	$2,620,000.00	$380.00	$4,978,000.00	$276.00	$3,615,600.00

BID
for
Southwest Water Main Loop

Bid of BIDIGARE CONTRACTORS, INC. hereinafter called Bidder, organized and existing under the laws of or a resident of the State of Michigan, doing business as A CORPORATION*.

Insert as applicable: "a corporation", "a partnership" or "an individual".

TO THE CITY OF NOVI, MICHIGAN, hereinafter called OWNER:

The undersigned as Bidder hereby declares: that this Bid is made in good faith without fraud or collusion with any person or persons bidding on the same Contract; that the Bidder has read and examined the Advertisement for Bids, Instructions to Bidders, Bid, General Conditions, Supplementary Conditions, Agreement, Forms of Bond, Specifications and Drawings, as prepared by the ENGINEER, and understands all of the same; that the Bidder of its representative has made personal investigation at the site and has become fully familiar with regard to the conditions to be met in the execution of this Contract, and the undersigned proposes to furnish all labor, materials, tools, power, transportation, and construction equipment necessary for the construction of the Project and performing related work in full accordance with the aforesaid Contract Documents, including any and all Addenda officially issued, their receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
1	8-24-26
2	8-27-26

The Contract will be awarded to the lowest responsive, responsible Bidder based on the unit prices for all Work specified.

The Bidder agrees to complete the Project for the following unit prices:

Item	Description	QTY	Unit		Unit Price		Total Amount
	SW Watermain Loop						
1	Audio Video Route Survey	1	LSUM	$	6,500.00	$	6,500.00
2	Mobilization, Max 5%	1	LSUM	$	100,000.00	$	100,000.00
3	Permits and Inspection Fee Allowance	1	Dlr	$	5,000	$	5,000
4	Clearing	0.5	Acre	$	10,000.00	$	5,000.00
5	Curb and Gutter, Rem	789	Ft	$	12.00	$	9,468.00
6	Sidewalk, Rem	180	Syd	$	13.00	$	2,340.00
7	Pavt, Rem, Modified	6,990	Syd	$	5.00	$	34,950.00
8	8" Aggregate Base	3,700	Syd	$	10.00	$	37,000.00
9	Maintenance Aggregate	200	Tons	$	1.00	$	200.00
10	Utility Structure Cover, Adj, Case 1	10	Ea	$	327.00	$	3,270.00
11	Utility Structure Cover, Adj, Case 2	10	~~Ea~~ VFT	$	380.00	$	3,800.00
12	Utility Structure Cover, Adj, Case 3	10	Ea	$	627.00	$	6,270.00
13	HMA, 4EML	1,020	Ton	$	137.00	$	139,740.00
14	HMA, 5EML	635	Ton	$	137.00	$	86,995.00
15	HMA Approach	28	Ton	$	269.00	$	7,532.00
16	Conc Pavt, Misc, Nonreinf, 6 inch	60	Syd	$	79.00	$	4,740.00
17	Curb and Gutter, Det F4	850	Ft	$	37.00	$	31,450.00
18	Sidewalk, Conc, 4 inch	1431	Sft	$	7.00	$	10,017.00
19	Curb Ramp, Conc, 6 inch	260	Sft	$	16.00	$	4,160.00
20	12 inch Water Main, Cl 54 DI, Open Cut	2,700	Ft	$	140.00	$	378,000.00
21	14 inch Water Main, HDPE, Directional Drill	14,600	Ft	$	140.00	$	2,044,000.00
22	8 inch Water Main, Cl 54 DI, Open Cut	130	Ft	$	149.00	$	19,370.00
23	6 inch Water Main, Cl 54 DI, Open Cut	380	Ft	$	114.00	$	43,320.00
24	Water Service, 1 inch	106	Ft	$	111.00	$	11,766.00
25	Water Service, 1.5 inch	169	Ft	$	135.00	$	22,815.00
26	Connect to Existing Water Main	7	Ea	$	9,320.00	$	65,240.00
27	Curb Stop and Box, 1 inch	3	Ea	$	634.00	$	1,902.00
28	Curb Stop and Box, 1.5 inch	5	Ea	$	897.00	$	4,485.00
29	Fire Hydrant Assembly	33	Ea	$	11,790.00	$	389,070.00
30	Gate Valve and Well, 12 inch	20	Ea	$	14,540.00	$	290,800.00
31	Gate Valve and Well, 8 inch	4	Ea	$	10,570.00	$	42,280.00
32	Turf Restoration and Irrigation System Repair	1	LSUM	$	218,340.00	$	218,340.00
33	Traffic Maintenance and Control	1	LSUM	$	8,110.00	$	8,110.00
34	Soil Erosion and Sedimentation Control	1	LSUM	$	1,460.00	$	1,460.00
35	Crew Days	140	Days		800	$	112,000.00
	SUBTOTAL FOR ALL (Items 1-~~32~~ 35)			$			4,151,390.00
	Alternate Item:						
	Ductile Iron WM, CL54, Directional Drill , 12 inch	13,100	Ft	$	225.00	$	2,947,500.00

If the foregoing Bid shall be accepted by the OWNER, the undersigned agrees to enter into the attached form of Agreement within ten (10) days after receiving notice of such acceptance, will furnish the OWNER satisfactory bonds and certificates of insurance coverage, and will complete the Project, at the price and within the time stated in this Bid.

The undersigned further agrees that if the foregoing Bid shall be accepted, work will commence in accordance with the contract dates after the Contract has been awarded, the Agreement executed, and a Notice to Proceed received. **The substantial completion for all project work is October 30, 2027, with a final completion of November 30, 2027. All work to take place within the boundaries of ITC Sports Park cannot begin before October 15, 2026, and must be substantially complete by May 1, 2027.**

The undersigned attaches hereto its Bid security, as required by the Advertisement for Bids and Instructions to Bidders. The undersigned agrees that in case it shall fail to fulfill its obligations under the foregoing Bid, and/or shall fail to furnish bonds, as specified, the OWNER may, at its option determine that the undersigned has abandoned its rights and interests in such Contract and that its Bid security accompanying its Bid; has been forfeited to the said OWNER, but otherwise the Bid security shall be returned to the undersigned upon the execution of the Contract and the acceptance of the bonds.

The undersigned also agrees that for each and every calendar day that he may be in default of Substantial Completion of the Work, within the time specified in this Bid, the OWNER will suffer a damage of $1500 per day, and said OWNER shall be compensated therefore at the rate as liquidated damages in accordance with the Agreement.

In submitting this Bid, it is understood that the right is reserved by the OWNER to accept any bid, to reject any or all Bids, and to waive irregularities in bidding in the interest of the OWNER.

SUBMITTED on 9-2-26
Date*

939 S. Mill St.
Street*

Plymouth, MI 48170
City, State, ZIP*

248-735-1113
Telephone Number*

248-735-1114
Facsimile Number*

BY: Bidigare Contractors, Inc.
Name of Bidder*

Signature

John Bidigare, Vice President
Name and Title of Signatory*

*Typed or printed in ink.

REGULAR MEETING OF THE COUNCIL OF THE CITY OF NOVI
MONDAY, AUGUST 31, 2026, AT 7:00 P.M.

Mayor Fischer called the meeting to order at 7:00 P.M.

PLEDGE OF ALLEGIANCE

ROLL CALL: Mayor Fischer, Mayor Pro Tem Casey, Council Members Gurumurthy, Heintz, Martinez, Smith, Staudt

ALSO PRESENT: Victor Cardenas, City Manager
Danielle Mahoney, Assistant City Manager
Tom Schultz, City Attorney

APPROVAL OF AGENDA:

Member Staudt added a Mayor/Council issue: City of Novi Property Maintenance Program.

CM 26-08-103 **Moved by Martinez, seconded by Casey; MOTION CARRIED: 7-0**

To approve the agenda as amended.

Roll call vote on CM 26-08-103 **Yeas: Casey, Gurumurthy, Heintz, Martinez, Smith, Staudt, Fischer**
Nays: None

PUBLIC HEARINGS: None

PRESENTATIONS: **None**

CITY MANAGER REPORT:

City Manager Cardenas said as one of Council's goals, they brought back the community survey. He said invitations to about 4,000 random households were sent out today. They'll get more information on the website about that. They're moving forward with that project and looking forward to having that all wrapped up later this fall.

ATTORNEY REPORT: None

AUDIENCE COMMENTS:

Venkata Reddy Thalla said in pursuit of making all of their village people, native village people in Jannalagadda, Guntur Rural Mandalum, to work together without fighting for silly things like where they host their chief guest for the grand opening of a high school. That was in 1995 while they were trying to celebrate his firstborn son's second birthday. They were dedicating their first earnings that they had saved here in Michigan to a high school building. They didn't have a high school, so they got it upgraded from 7th to 10th grade. He used to walk or go for four miles or maybe less than that every day for five years. He said in the pursuit of finding the perfect village charter, after 40 years or so,

suddenly, he realized it's already there. He said he had been living in that for 27+ years. He said there are eight bullet points. Sometime back, he shared seven suggestions with the City to make little improvements. He told Council they are authorized to do that. He said there is no need to go for big proposals or anything. He said it says what he's just not and what he is trying to be and help and then make them all more perfect in planning and more perfect in execution. He said they are all very perfect in his eyes, a perfect charter. The closest to the dreams that he had for his village.

Gerry Bissi, 23415 Duchess Court, said he came to speak about the Flock mass surveillance camera system. He said this is becoming a big thing around the country, and he thinks that the City of Novi should be aware that they could be canceling the contract like Westland and 100 other cities have done. They've covered up the cameras and told Flock to remove them. He said it very simply violates the citizens' Fourth Amendment right to privacy. There are senators and congressmen in Washington that are introducing legislation to put reins in on it. He just can't believe that people in City Council and the police department don't understand how much of a violation this is of the citizens' right to privacy. He said if the police wanted to put a tracker on his car, they'd have to go to a judge and get a warrant, and the judge would have to say there was good reason for doing it. He said that is not true with the Flock mass surveillance system. They just have to enter vehicle investigation, and they can check any car anywhere in the country. By the way, he said Flock is a private company, and all of their data is stored with them. They can keep it as long as they want. There is no guidance, no guardrails. He said he'd give them a couple of examples. A woman in Texas crossed the state line to get an abortion. When she got back to Texas, they arrested her. A US congressman last month was followed to his driveway because he had an expired license plate. A guy in Wisconsin crossed the border into the Upper Peninsula into Menominee, Michigan to get medical marijuana gummies for his back pain. When he crossed back into Wisconsin, he was arrested due to the license plate reading system. He thinks these are stupid, frivolous things that are going on and they need to stop that. He's just amazed that the City of Novi would spend $100,000 and have 10 cameras around the city following everything that they do. He thinks it's wrong. He asked Council what audits have been done. The Georgia Bureau of Investigation is conducting audits now and they've already arrested several policemen for following their exes, their girlfriends, and their enemies. Thousands of times, they have abused the system. Individual policemen. He said it's the basic principle of their country that they have the right to privacy. He said right now, they don't have the right to privacy. He said every time he passes by the camera by Best Buy on Eight Mile and Haggerty Road, it takes a picture of his car and tells somebody where he is. He asked if people think hackers will get into the Flock system sometime because he believes they will.

Michelle Duprey said she was there to talk about the proliferation of e-bikes, e-scooters and e-motos. She said some of them might recall her letter to Council as of August 18, 2026, with her concerns of the use of these motorized vehicles. She said she should note that currently, e-bikes are treated as bicycles under Michigan law and that e-bikes have a speed range of 2 - 28 mph for a Class 3 e-bike. She said she is aware that City Council is working to address this dangerous situation. Her goal was to encourage City Council to expedite these conversations with the goal of implementing laws that keep both the

vulnerable pedestrians and the operators of these motorized vehicles safe on their trails, sidewalks, parks and streets. Almost every day, she reads about severe injuries, even deaths, attributed to the use of e-bikes or e-scooters. Her own experience has been frightening. As she walks, she has experienced many near misses with these machines. Her neighbors have related similar stories of their experiences as well. The simple etiquette of bicyclists warning, "On your left" is no longer announced. She said the drivers of these electronic devices, many of them appear to be youthful, do not understand the gravity of their actions. They are not yet eligible to drive a car, but they operate an e-bike without a care in the world. Many do not understand fundamental physics which is simply mass times speed or velocity equals momentum. Imagine getting hit from behind by a bike traveling 20 mph. It is a very scary and dangerous situation. She said she has noticed that the operators of the motorized bikes have trouble stopping on short notice. For example, if she is in front of them, they have trouble stopping. The operators of e-machines don't seem to care or have a concern about the vulnerable pedestrians that they share a walkway with. What used to be an enjoyment of the trails and sidewalks has her on high alert for e-bikes, e-scooters and pedal-driven bicycles. The hospitals in Michigan are recording a record number of accidents and injuries related to the proliferation of e-bikes and e-scooters. Berkeley City Council acted a few weeks ago, banning e-bikes and scooters on their sidewalks and in the parks. Under the new rule, e-bike riders must use the streets designated by bike riders. She said she'd like to offer a few suggestions for City Council when they're considering laws for the operation of e-bikes and e-scooters and e-motos. Require helmets for specified age groups, primarily to the youth. She said they should have repercussions for leaving the scene of an accident. They could require parental culpability and an education class. Require that e-bikes and e-scooters be registered by the City. Require licensing for operators of e-bikes, especially Classes 2 and 3. Require a minimum age for operators. Enforce a speed limit on e-bike usage. Lastly, how will these things be enforced? She said they are all affected by e-bikes and e-scooters whether on the sidewalks, on the trails, in the parks, or even on our roadways. She said we should get an ordinance in place sooner rather than later to ensure a safe place for walkers as well as for the operators of these e-machines.

Mary Campbell said she was applying to become a member of the Novi Arts Council. She said she has been a resident of Novi for 35 years and a member of the Holy Family Church for 30 years. She has also been a member of the Novi Choralaires since 2009. She was a Girl Scout leader for seven years. She has been a member of the Sports Club of Novi or Novi Athletic Club for 28 years. Both of her children attended Novi schools from community preschool all the way through high school. Her daughter, Sarah, graduated with Amber. She volunteered in the classroom as they were growing up. Her son was part of the Novi Youth Council. Her daughter was very active in the children's youth theater that used to be held at the Novi Civic Center. She said she hoped Council would consider her application.

CONSENT AGENDA REMOVALS AND APPROVALS:

CM 26-08-104 Moved by Casey, seconded by Gurumurthy; MOTION CARRIED: 7-0

To approve the Consent Agenda as presented.

A. Approve Minutes of:
August 10, 2026 - Regular Meeting

B. Approval of the 2026 MERS Delegate Certification Form appointing Kamry Smith as the Employee Delegate and Katie McConnachie as the Officer Delegate to attend the 2026 Annual Municipal Employees Retirement System (MERS) Conference.

C. Acceptance of a Conservation Easement associated with Michigan CAT, for property located east of Novi Road, north of Catherine Drive.

D. Acceptance of a Pedestrian Plaza Easement associated with Michigan CAT, for property located east of Novi Road, north of Ten Mile Road.

E. Approval of a Maintenance and Access Agreement from UPH Novi Property LLC as part of Culver's site plan, located on the west side of Novi Road north of West Oaks Drive (parcel 50-22-15-200-115).

F. Approval of proposed park shelter rental rate increase to begin on January 1, 2027.

G. Consideration of the 2027 City Council Meeting Calendar.

H. Approval of claims and warrants – Warrant 1208

Roll call vote on CM 26-08-104 **Yeas: Gurumurthy, Heintz, Martinez, Smith, Staudt, Fischer, Casey**
Nays: None

MATTERS FOR COUNCIL ACTION:

1. Approval of request for Pyrotechnics Display Permit by Brightmoor Christian Church to be operated by James Herr on September 19, 2026.

CM 26-08-105 **Moved by Casey, seconded by Martinez: MOTION CARRIED 7-0**

Approval of request for Pyrotechnics Display Permit by Brightmoor Christian Church to be operated by James Herr on September 19, 2026.

Roll call vote on CM 26-08-105 **Yeas: Heintz, Martinez, Smith, Staudt, Fischer, Casey, Gurumurthy**
Nays: None

2. Consideration of approval to pay Oakland County Water Resource Commissioner for emergency sanitary sewer repairs completed, in the amount of $155,324.

CM 26-08-106 **Moved by Smith, seconded by Heintz: MOTION CARRIED 7-0**

Approval to pay Oakland County Water Resource Commissioner for emergency sanitary sewer repairs completed, in the amount of $155,324.13.

Roll call vote on CM 26-08-106 **Yeas: Martinez, Smith, Staudt, Fischer, Casey, Gurumurthy, Heintz**
Nays: None

3. Consideration of approval to award condition assessment services to Xylem for PCCP water main condition assessment and Acoustic Fiber Optic installation in the amount of $1,091,368.

City Manager Cardenas said the City has about 5.8 miles of this pre-stressed concrete cylinder pipe, AKA PCCP, which has been known to fail in some GLWA pipes around the area. They're looking at some additional monitoring capabilities with a pipe diver and some fiber optic cables to help them detect any issues with these pipes if they start deteriorating faster than they should.

CM 26-08-107 **Moved by Smith, seconded by Casey: MOTION CARRIED 7-0**

Approval to award condition assessment services to Xylem for inspection of PCCP water main and installation of the Acoustic Fiber Optic system, including the first year of monitoring, in the amount of $1,091,368.00, with final lease agreement to be approved by City Attorney.

Member Heintz asked if this is laid out to be a 10-year plan with just monitoring each year. He was wondering if there's monitoring effort in three years or whatever the length would be, will there be the opportunity to assess if it's needed to be done every year or is it simply if there's no sign of deterioration after three years in a row, is there the opportunity to say they could skip a year or is it the consensus 10 years straight in a row without skipping a year in between. City Manager Cardenas said he believes in most of their contracts, they have the ability to end that at any time or with some kind of notice. If they feel at some point that everything is going smoothly and there have been no issues, he believes they can cancel it with notice to the company, whether it be six months or what period of time outlined in the contract. Member Heintz clarified that it may not be a request for a cancellation of the contract, but maybe just simply pausing the membership, like skipping a year and then continuing the following year or something like that. City Attorney Schultz said that's not how the contract is set up. He doesn't know if they could negotiate that in the future with the contractor, but it is every year the way it is written now. Member Heintz said it's fine to approve this now, but his request is to look into that sometime between now and 10 years from now to see if there would be a benefit to having a little bit of cost savings to the City if there's not a need to do that monitoring every year. City Attorney Schultz said that conversation would not be prohibited, but it would take some agreement by the contractor.

Member Martinez said in the memo that they received from the City Attorney's Office, there were a few item changes that were being proposed. He asked if those changes had been integrated into the contract yet. City Attorney Schultz said yes. Member Martinez asked if they were being asked to vote to subject to approval or anything of that nature. City Attorney Schultz said no.

Member Smith said he thinks this is a great use of technology for something that really has been a problem for the City. Anybody who lives up in the north end where the similar pipe that Great Lakes Water owns has failed repeatedly, it's expensive to fix on an emergency basis. He said it's inconvenient. Apparently what you can do is when you start noticing that the steel bands in the pipe are pinging and starting to break, you can reduce pressure. You can plan your replacement and fix it without tearing up everything and leaving people without water for longer than they need to be. He is totally in support of this, and he wouldn't consider canceling it. It's a year-on-year thing that the failure starts to build up over years and you may cancel it in a year where it spikes and you'd be in trouble at that point. He was in support of this.

Member Gurumurthy said she is happy to see the proactive measure. In terms of the whole cancellation and penalties idea, she said the penalties are around $1.6 million and it goes over $1 million every year. They don't have anything in terms of the termination or anything performance-related. She said she doesn't think they will cancel. She said she thinks they'll all move forward with this, but she thinks there should be some kind of a clause in terms of regarding performance. She said she would look into if they can add something like that or say any misses in terms of wire breaks or something, some kind of performance-related measure. Say there is an issue, even though maybe it doesn't get detected or there is no uptime, then there is no way they can get out of the 10-year term, right? The other thing is technology. She knows they will be using the same technology for 10 years. She asked what happens if other technologies come in. Will they be stuck with this technology for 10 years or it's $1.5 million in penalties if they cancel? She would like to look into putting in a protective clause, if possible. City Attorney Schultz said there are the general requirements of any contract that the performance has to be satisfactory or they'd have an issue with a potential breach of contract. He's not sure they need to add more to that. The penalty provision is substantial. He said he understands that, but in part, he thinks that's because there is so much investment upfront by the contractor. He said, generally, what you have is a contract that is enforceable and requires professional and competent performance on their part. So, if they miss performance, then the City has their usual contractual authority to say, "You've breached the contract and here's the remedy we want for that." He said he doesn't know that they need to add more to it. Member Gurumurthy asked if there is a performance issue, the City can terminate without a penalty? City Attorney Schultz said it's not so much termination as it is addressing the breach of contract. He said the long duration and the difficulty of getting out of it is so that they will spend the money to put the infrastructure in place. They need to be compensated and they need to know that the contract will be there for the amount of time they're expected to upgrade and update and do what they need to do to perform. He said he believes they're very intentionally making it difficult to just terminate. That's the proposal that has been made. Member Gurumurthy said as long as

the City can address the performance issues and somewhere it is listed in the contract, maybe it's not the penalty cancellation or something, but she just wants to make sure that's listed somewhere and that there's a consequence as well. She asked what the consequence is if they miss the performance. City Attorney Schultz said the whole concept of the breach of contract generally, one of the main remedies may be termination that's not in the contract but may be part of contract law. There's not going to be an early right of termination. They're not going to negotiate. This is the proposal that they've given Council, but they have all the remedies that they normally have for a failure to perform on their part.

Roll call vote on CM 26-08-107 **Yeas: Smith, Staudt, Fischer, Casey, Gurumurthy, Heintz, Martinez**
Nays: None

4. Consideration to Adopt a Resolution Authorizing Prepayment to the Oakland County Water Resources Commissioner (WRC) for Capital Improvements at the Walled Lake-Novi Wastewater Treatment Plant.

CM 26-08-108 **Moved by Martinez, seconded by Smith: MOTION CARRIED 7-0**

Adoption of a Resolution Authorizing Prepayment to the Oakland County Water Resources Commissioner (WRC) for Capital Improvements at the Walled Lake-Novi Wastewater Treatment Plant.

Roll call vote on CM 26-08-108 **Yeas: Staudt, Fischer, Casey, Gurumurthy, Heintz, Martinez, Smith**
Nays: None

CONSENT AGENDA REMOVALS: None

AUDIENCE COMMENT: None

COMMITTEE REPORTS:

1. Public Utilities & Technology Committee - Councilmember Gurumurthy

Member Gurumurthy said they have four pillars they always go through. They talked a lot about the DTE power outages that happened in the last few months to understand the root cause. They approached DTE for responses, but they were not very satisfied with the responses. They are going to send exact information about which particular outages were not weather-related and ask for more specific information in terms of the root cause and what the plan is. Regarding Priority Waste, it's so good to see that there have been no delayed pickups and they've been reporting it. They are still monitoring the dashboard when they meet. Regarding GLWA, she said they heard about the investment, so they talked about it. They want GLWA to come back and talk about what the plan with the investment is. The last item was fiber. The map is getting really colorful now thanks to Rob Petty and his team. They're updating the map in terms of all the

providers across Novi so they could see all the gaps now. Their next step is literally, they are looking at the map and finding out if a particular provider is in one area. Then, they're trying to find out the closest area where there is still a gap so they can reach out and have a one-on-one discussion with different providers taking that proposal to them. That's the next step they want to take with the fiber discussions.

2. Long-Range Strategic Planning Committee - Mayor Pro Tem Casey

Mayor Pro Tem Casey said they are getting to the home stretch of this project. She said they held their third and final public workshop a couple of weeks ago. They got some great input from residents about what they've identified as their six themes and some of the ideas and strategies for how they're going to be able to work to address some of the issues identified in the themes. She said Assistant City Manager Mahoney gave them a presentation, so they understood what the themes are and they saw some of the ideas of what the strategies are. In their final public workshop was a couple of weeks ago, so they are starting to build out the plan. Their schedule is starting to look like later this fall, probably towards the end of October perhaps, they'll come back to Council for a first reading and then they'll give Council a chance to digest. Then they'll come back for final approval. They'll get a little tighter with those dates as they continue to draft out the plan.

3. Finance & Administration Committee - Mayor Fischer

Mayor Fischer said the Finance and Administration Committee had met that evening to review another draft of the facilities use policy which has undergone some clean-up with some legal items and consistency in all the different parks and facilities in the use policy. That has been recommended to come before City Council at their next meeting.

4. Corridor Improvement Authority - Mayor Fischer

Mayor Fischer said they met last week to continue their discussion on Main Street, and get an update from the City Manager there, where a Special Assessment District is continuing to be pursued with the stakeholders in that area. He said they've given the City the direction to continue the work that they're doing to update the lights and the streetscapes and also RFP the roads. He said they're still trying to figure out if the CIA or if they should push back and have the road funds fund some of the improvements there. A lot of good work is being done. They also reviewed a draft version of the budget from the city manager. In general, they were all fine with the direction and how the numbers were shaking out. They just asked for a little change in formatting to make it a little clearer and transparent for everyone who sees it.

MAYOR AND COUNCIL ISSUES:

Member Staudt said the Property Maintenance Program was launched in its current form in roughly 2022 to work with the community to improve the appearance and safety of Novi's residential and business properties. The pilot programs back then were very successful and well received by the community. They use citations in the legal system as

a very last recourse for compliance and enforcement. In recent years, there has been a marked escalation in using the threat of court action and citations in the event of non-compliance. They're also receiving a significant amount of community pushback from that. He said he was asking his colleagues to consider pausing their current program the way it is and bringing it back to Council for review. That way, they can take a good look at whether what they are currently offering is something that matches the initial intent of that program.

Mayor Fischer said he thinks they've all received a couple of different emails. He thinks it's a good idea to bring this forward. He said what he'd like to see is the Finance and Administration Committee take a quick look at this, have some data presented from the city manager on how this program has evolved over time. He'd encourage his colleagues to go back and look at the 2022-2023 budget when they approved the additional position to bring this program back. He thinks Member Staudt hit the nail on the head that the intent was always to be a very community-oriented program, helping people to make sure their properties were taken care of and protect all of our property values in doing so. He said he thinks they have strayed away from that, so he would push for a motion to refer this to the Finance and Administration Committee before next year's program is kicked off.

CM 26-08-109 **Moved by Fischer, seconded by Casey: MOTION CARRIED 7-0**

To refer the Property Maintenance Program to the Finance and Administration Committee for review.

Roll call vote on CM 26-08-109 **Yeas: Fischer, Casey, Gurumurthy, Heintz, Martinez, Smith, Staudt**
Nays: None

COMMUNICATIONS: None

ADJOURNMENT – There being no further business to come before Council, the meeting was adjourned at 7:34 P.M.

_____
Cortney Hanson, City Clerk

_____
Justin Fischer, Mayor

_____
Transcribed by Diana Charles
Customer Service Representative

Date approved: September 14, 2026

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval to amend Council Organization Rules and Order of Business.

SUBMITTING DEPARTMENT: City Clerk

KEY HIGHLIGHTS:

- Updating the number of members on the City Council Cultural Arts Committee from 5 to 7.

BACKGROUND INFORMATION:

This request is being brought forward outside of the Council Rules Committee's typical meeting and formal recommendation process. The City Administration believes that, based upon the general discussion at the time of the creation of this body, the proposed amendment is consistent with the intentions of the Rules Committee and Council, and this proposed amendment is being presented without having first been formally submitted to the Committee.

RECOMMENDED ACTION: Approval to amend Council Organization Rules and Order of Business.



COUNCIL ORGANIZATION RULES AND ORDER OF BUSINESS

ADOPTED: December 15, 1997
AMENDED: ~~January 26,~~ ~~2026~~September 14, 2026

CITY OF NOVI
COUNCIL ORGANIZATION RULES
AND ORDER OF BUSINESS

PROLOGUE

The City Council of the City of Novi consists of seven members, including the Mayor, elected at large in a non-partisan election. These Rules shall serve as guidelines for the organization and the conduct of the Council so that the City is governed and conducts its business in an orderly fashion. This document shall be reviewed every two years, following the Regular City Election. The Rules are subject to compliance with the City of Novi Charter, ordinances, and State Statutes.

1. ORGANIZATION

A regular meeting of the Council shall be held on the Monday following each Regular City Election (Charter, Sec. 6.1), or following secular day, if there is a holiday. The Mayor shall, at the first regular meeting of the Council after the election of the Mayor, appoint another member of the Council to serve as Mayor Pro Tem, who, during the absence or inability of the Mayor to perform his duties shall act in the name and stead of the Mayor and shall, during the time of such absence or inability, exercise all the duties and possess all the powers of the Mayor. (Charter, Sec. 4.5a) In the absence of both the Mayor and the Mayor Pro Tem, the most senior member of Council shall preside. The seniority shall be determined by the length of the concurrent terms as listed below. In those instances where concurrent terms are of equal length, seniority shall be determined by the number of votes received in the most recent election of the members with such equal terms:

Mayor Fischer – Re-Elected November, 2025 (elected 2019)
Mayor Pro Tem Casey – Re-Elected November 2023(elected 2011)
Council member Staudt – Re-Elected November 2023 (elected 2007)
Council member Smith – Re-Elected November 2025 (elected 2021)
Council member Heintz – Elected November 2023
Council member Gurumurthy – (Appointed December 2023) Elected November 2025
Council member Martinez – Elected November 2025

2. REGULAR MEETINGS

The Council shall hold two Regular Meetings per month in accordance with the Schedule of Regular Meetings to be established by the City Council by the end of November of the preceding year. These public business meetings shall be held at 7:00 P.M. in the Council Chambers of the Novi Civic Center and shall begin promptly at the appointed time.

In addition to the regular meetings above, the Council shall hold a regular meeting the

Monday following certification of the Regular City Election or following secular day, if there is a holiday. This meeting is intended to include an organizational meeting of the Council. The Council shall request staff to organize and present orientations as described in Section 19 herein, voluntary for new Council members and open to returning Council members as they deem necessary.

The Council will have as a goal to conclude all meetings no later than 10:00 P.M.
If the Council meets at a place other than its regular meeting place, then public notice to such effect shall be published in a newspaper circulated in the City. (Charter, Sec. 6.1)

Minutes of regular meetings will be kept in the English language by the Clerk and shall be signed by the City Clerk upon approval by City Council.

3. SPECIAL MEETINGS

Special Meetings of the Council may be called by the Clerk upon the written request of the Mayor or by any two members of the Council. There shall be at least twenty-four (24) hours' written notice to the public and each member of the Council designating the time, place, and purpose of a special meeting and served personally on, or left at, the usual place of residence of each of the Council members. Any special meeting of the Council at which all members of the Council are present or have in writing waived the requirements that the required notice be given, and at which a quorum of the Council is present, shall be a legal meeting. (Charter, Sec. 6.2) It is the preference of Council that special meetings are held on Mondays.

Minutes of special meetings will be kept in the English language by the Clerk and shall be signed by the City Clerk upon approval by City Council.

4. JOINT MEETINGS

The City Council may hold Joint Meetings with School Boards, Boards, Commissions, Committees, and municipal governments who share a community of interest with the City of Novi. Such meetings shall be scheduled for a specific purpose or goal, agreed to by the Council and other entity or entities before the meeting.

Minutes of joint meetings will be kept in the English language by the Clerk and shall be signed by the City Clerk upon approval by City Council.

5. EXECUTIVE SESSIONS

A two-thirds (2/3) roll call vote of members elected or appointed and serving shall be required to call a closed session, except for those circumstances where the Open Meetings Act, 1976 PA 267 permits the calling of an executive session by a lesser vote. Those circumstances not requiring a two-thirds (2/3) vote are sessions:

To consider the dismissal, suspension, or disciplining of, or to hear complaints or charges brought against, a public officer, employee, staff member, or individual agent, when the named person requests a closed hearing.

For strategy and negotiation sessions connected with the negotiation of a collective bargaining agreement when either negotiating party requests a closed hearing.

The purpose of the meeting will be stated in the motion to call the closed session and shall be in accordance with the Open Meetings Act.

A separate set of minutes shall be taken by the Clerk or the designated secretary at the executive session. These minutes will be retained by the Clerk for the period of time required by the Open Meetings Act and shall not be available to the public and shall be disclosed only if required by a civil action. Minutes of executive session meetings may be distributed to Council for review at an executive session and may be approved, in Council's discretion, and returned to the Clerk.

City Council Members shall not divulge to any unauthorized person confidential information discussed in an executive session in advance of the time prescribed for its authorized release to the public by the City Council. Council members shall honor the confidentiality of the debate and discussion occurring in executive session, and be aware of the potential liability and/or other harm to the City by premature disclosure

6. AGENDA - REGULAR MEETINGS

The City Manager and the City Clerk, with consultation and concurrence of the Mayor, shall prepare an agenda of business to be considered at each regular Council Meeting. Items of business must generally be submitted by 12 noon of the Monday preceding the next regular meeting, subject to the discretion of the City Manager. The Mayor and Administration will strive to have agendas resulting in consistent length of meetings.

City Council Members shall have the use, for City business and for City Council meetings, of a City-issued electronic device. Agenda materials will primarily be provided to Council members by electronic delivery method and the member shall be responsible for installing the materials on the electronic device. "Paper" copies of agenda materials will be provided only where the materials are likely to be retained for regular review (bound documents such as the Master Plan for Land Use, or the Budget), or where a paper copy is required or appropriate to completely convey the information contained in the materials.

The Meetings will be held in the Council Chambers UNLESS OTHERWISE NOTED ON THE AGENDA. No items will be added to the published agenda unless approved by a majority vote of the City Council. The Agenda of Regular Meetings of the City Council

shall be prepared generally in accordance with the following format; provided that the Mayor and City Administration can alter the format or the order of agenda items in circumstances deemed appropriate:

A. Call to order
B. Pledge of Allegiance
C. Roll Call
D. Approval of Agenda
E. Public Hearings
F. Presentations
   This is reserved for and limited to presentations by or on behalf of the City itself to the City Council that do not require or anticipate Council action (e.g., presentation of the results of the national survey the City has conducted). It is not intended to be used by third parties.
G. Reports:
   1. Manager/Staff
   2. Attorney
H. Audience Comment
I. Consent Agenda – Removals and Approvals (Items removed from Consent Agenda will be discussed under Item O).
   Only the following kinds of items may be included on the Consent Agenda:
   1. Personnel matters requiring Council action, not including reviews of employee grievances or appointments and terminations
   2. Routine financial management actions, such as approval of warrants, transfer of funds, approval to advertise for bids
   3. Approval of licenses
   4. Setting dates of Public Hearings
   5. Ordinances at second reading and/or resolutions which do not require public hearings prior to adoption
   6. Approval of minutes
   7. Approval of contracts and agreements not to exceed $100,000
   8. Referral to committees
   9. Approval of easements
   10. Additional items which administration feels could be included on Consent Agenda for final approval
J. Matters for Council Action
   1. Proposed Zoning Ordinance Map Amendments
   2. Other Ordinances - First Reading (Introduction)
   3. Action on Special Reports
   4. Appointments to Boards and Commissions
   5. Other matters to be acted upon by Council
K. Consent Agenda Removals for Council Action
   In order to limit the number of items removed from the Consent Agenda, all members of Council will make an effort to contact the administration before the meeting to have questions answered. Unless a member of the Council specifically

requests that an item listed on the Consent Agenda be removed therefrom and action be taken separately on said item, those items listed on the Consent Agenda shall be approved, accepted, etc. by motion and unanimous roll call vote of the Council. Those items so approved under the heading "Consent Agenda" shall appear in the Council minutes in the proper form.

L. Audience Comment

M. Committee Reports

N. Mayor and Council Issues

This portion of the agenda shall be limited to matters as to which a Council member is seeking to receive comments or other reaction from other Council members, or to gain a consensus for giving direction to City staff. Council members may request that an item (each member is limited to one(1) such item) be placed on the printed agenda by notifying the Mayor, City Manager, and City Clerk no later than 3:00 P.M. on the third business day preceding the meeting and provide the language for the item in writing or verbally. Each Council member present at a meeting may also request placement of one (1) additional item on the agenda under Mayor and Council issues for that meeting. With respect to any such issue placed on the agenda, if a Council member is requesting information from City staff as part of the item, the Council member shall have first contacted the City Manager by noon the day of the meeting and requested such information prior to the meeting, and shall so state at the time of placement of the item on the agenda. Motions may be made and voted upon in connection with matters added under this section.

P Adjournment

While there is no set space on the agenda for proclamations or recognitions relating to things like civic celebrations or to commemorate state or national events, or to acknowledge significant milestones, achievements, or contributions to the Novi community, such items can be added at the time of preparing an agenda as provided for in these Rules under the title "Recognitions," to occur after Presentations. The inclusion on the agenda of such items is a courtesy, not a right. Matters of public or political controversy, conflict, or strife, or matters that are discriminatory or exclusionary will not be added to any agenda. This space is not available for use by third parties. The Mayor may also issue recognitions and/or proclamations on such items on his or her own behalf.

7. **AGENDA - SPECIAL MEETINGS**

No business shall be transacted at any special meeting of the Council unless the same has been stated in the notice of such meeting. However, other than the enactment of an ordinance, any business which may lawfully come before a regular meeting may be transacted at a special meeting, if all the members of the Council present consent thereto and all the members absent file their written consent. (Charter Section 6.3). The notice of such meeting, setting forth the time, place and purpose, together with the agenda shall be served in accordance with the City Charter upon each member of the Council.

8. **AUDIENCE PARTICIPATION RULES**

A. No person shall interrupt Council members or staff while they are speaking during a meeting or otherwise disrupt a Council meeting.

B. All members of the Audience addressing the meeting (hereinafter speaker) shall direct their remarks to the Mayor.

C. No speaker shall address the meeting unless recognized by the Mayor for that purpose.

D. Remarks should pertain to matters before the Council, to City business or policy, or to issues of community concern or interest. While comment upon the action, inaction, or performance of the Council and the City of Novi commissions, boards, employees and consultants is allowed, speakers are requested to refrain from inappropriate, profane, vulgar or abusive language and personal attacks. Additionally, City Council prohibits the use of any obscene, defamatory, or similarly disruptive language that substantially interrupts, delays, or disturbs the peace and good order of the proceedings of the City Council meeting or constitutes an imminent threat to the person or property of an individual or individuals.

E. No speaker shall continue to address the meeting after being advised by the Mayor that the speaker's time for addressing the meeting has expired.

F. Speakers shall use their time only for voice comment. There shall be no audible comment by the members of the audience other than the speaker, and there shall be no audible indication of approval or disapproval of any remarks of the speaker or member(s) of the public body (i.e., no clapping or hooting or similar activity). The purpose of this rule is to make sure that each speaker can address City Council without interference or intimidation.

G. Each speaker may address the meeting for 3 minutes. The Mayor has the authority to grant additional time, if requested by a speaker, for good cause.

H. Speakers wishing to display visual materials through the City's audiovisual system must provide the materials to City staff for screening no later than 12:00 P.M. the day of the meeting. The materials submitted will be reviewed by the City Clerk (or designee) to ensure that (1) the materials are in a format capable of broadcast or presentation over the City's audiovisual system; (2) the materials relate to a permitted purpose under Paragraph C above; and (3) the material is legally appropriate for broadcast over the audiovisual system and/or cable system. Visual materials include any visual or textual items that are to be displayed through the audiovisual system irrespective of their specific format or media. This includes, without limitation, photographs, audio and video presentations, charts, computer presentations, computer screen images, posters and fliers, whether in physical or electronic format. Once the materials have been submitted for review, they cannot be changed before the meeting. Notwithstanding the foregoing, the Mayor may allow a speaker to utilize the City's audiovisual system to display a limited number (no more than three) of non-electronic, physical documents (e.g., photographs of potholes), provided that the documents are presented to the Clerk for review under Paragraph G above, before the documents are displayed.

I. Speakers using visual materials are subject to the same time limitation set forth in

Paragraph F above.

J. Taped or recorded audio presentations not presented through the City's audiovisual system (i.e., with sound only, not displaying visual materials) shall also be submitted for review as described in Paragraph G above. The use of microphones, speakers, megaphones, amplification systems, or sound or noise distraction devices, except those provided by the City, is prohibited.

K. Council Members or the Mayor shall not respond to general Audience Comment. The Mayor or Council members can bring up a point of order in regard to false information and direct it to the parliamentarian for a response. The Mayor may direct the administration to respond to the speaker, if appropriate, during or outside of the meeting. The Mayor may also respond with an indication of the appropriate action to be taken.

L. Committee Reports will not be accepted during Audience Comment. An Applicant or Representative may present proposals for a period of time at the discretion of the Mayor.

9. CABLE TV VIDEO AND AUDIO TAPES POLICY

A. All Regular, Special, and Joint Council meetings shall be held in the Council Chambers and will be cablecast/video streamed, except interview meetings unless Council Chambers are unavailable or otherwise specified.

B. Meetings will be cablecast/video streamed live. City Council Meeting videos will be archived on the City website for 90 days. The video archive is not the official record of the meeting.

C. Only City Council, Parks Recreation & Cultural Services, Planning Commission, Library Board and Zoning Board of Appeals Meetings will be cablecast/video streamed live, whenever possible.

D. Audio tapes will be retained by the City Clerk until the approval of the minutes.

10. RECONSIDER/RESCIND/REPEAL A QUESTION

When a question has been taken, it shall be in order for any member who was on the prevailing side in the original action to move for reconsideration thereof at the same or next regular meeting. If a matter is to be brought for reconsideration at a succeeding meeting, the Councilmember making the request must notify the City Manager or City Clerk in writing by the Wednesday prior to the meeting who shall place the matter of reconsideration of the matter on the agenda.

A motion to rescind or repeal some previous action may be made at any time at any regular or special meeting of the Council, provided, such matter has been formally placed on the agenda for consideration and it is in order.

11. VOTING

A Roll Call vote shall be required on all ordinances and the "Yes" or "No" vote shall be

entered upon the records opposite the name of the Councilmember. Whenever the vote is unanimous, it shall only be necessary to so state.

No member of the Council shall vote on any question in which he/she has a financial interest other than the common public interest or on any question concerning his own conduct.

12. QUORUM

Four members of the Council shall be a quorum for the transaction of business at all meetings of the Council, but in the absence of a quorum, the Mayor or any two members may adjourn any regular or special meeting to a later date. (Charter, Sec. 6.5)

13. COMMITTEES

Council Committee assignments will be established by the 2nd regular meeting following the Election.

Standing Citizen Boards, Commissions, and Committees: The descriptions provided within this section stating the purposes, functions and membership of Boards, Commissions and Committees are for informational purposes. The provisions of the Charter, the Novi Code of Ordinances and the resolutions establishing such bodies shall define the purposes, functions and membership of such bodies.

Economic Development Corporation, Library Board and Planning Commission are Mayoral appointments with consent of a majority of Council.

Council will be provided with the attendance record of all applicants for reappointment at the time of interview.

Annual schedule for Board, Commission, and Committee Presentations and Appointments

Name	Terms expire on	Approximate # of vacancies per year
Beautification Commission	January 1	2 to 3
Board of Review	January 1	1 to 2
Building Authority	March 1	1 to 2
Construction Board of Appeals	January 1	1 to 2
Corridor Improvement Authority	January 1	2 to 3
Cultural Arts Committee	January 1	~~1 to 2~~3 to 4
Economic Development Corporation	March 1	1 to 3
Election Commission	January 1	0 to 1
Historical Commission	January 1	2 to 3

Library Board	March 1	2 to 3
Parks, Recreation & Cultural Services Commission	January 1	2 to 3
Planning Commission	January 1	2 to 3
Public Utilities and Technology Committee	January 1	0 to 1
Zoning Board of Appeals	January 1	2 to 3

Applications will be considered current for twelve months from the date of application. Council may schedule other interview sessions for newly created committees on an as-needed basis. Applications may also be made up until the start of the City Council meeting at which presentations are made. The City Clerk shall be responsible for providing information as to such application(s) to the Council at or before the meeting.

Presentations by applicants for boards, commissions, and committees will be made to the Council at a regular meeting in November. Applicants will be given two minutes to explain why they are interested and qualified. Questioning by Council Members will not generally be contemplated, but as the Chair of the meeting, the Mayor may (but is not obligated to) entertain questions from other Council Members.

Applicants will be informed that a presentation is mandatory. Notwithstanding anything to the contrary in this section, however, appointments may be made and/or approved without candidate presentation if the Mayor and/or Council deem it to be appropriate under the circumstances.

If a Committee has members of City Council as well as other members who are not Councilmembers, the Chairperson shall be a Councilmember, unless all Councilmembers decline to be chair. In instances where the Mayor appoints the committee and Council approval is not required, the Mayor shall also, at the time of making such appointments, designate a chair.

Council action on appointments (including appointing newly-created committees):

Any *new* committee adopted by Council shall have in its resolution language to the effect of the following:

> That the position will be publicized for applications within ten days of the adoption of the resolution creating the committee.
>
> That Council will hold presentation sessions within three weeks of adoption of the resolution.
>
> That Council will make appointments at the Regular Meeting following the presentation meeting.

Appointments to Standing Committees:

The following standing committees of the Council shall be composed of at least three members who shall be appointed from time-to-time by the Mayor. (Charter, Sec. 6.7(e))

1. Finance and Administration Committee - Three Council representatives. This Committee is responsible for reviewing administrative recommendations for the budget; retirement and OPEB investment strategy; staff recruiting, retention, turnover, employment trends, and compensation strategy; bonding and/or millage recommendations; and large scale capital or other programs or projects. It also provides an initial review of the required annual Capital Improvement Plan (CIP) prepared adopted by the Planning Commission, and shall meet at least twice annually the Planning Commission's designates in order to finalize the CIP for presentation to the Commission. This committee also

   reviews multi-year contracts for professional services (e.g., engineering or environmental consultants) and contracts for professional services of any length where the consultant deals directly with the City Council in a significant way (e.g., attorney services, auditors, or the like).

2. Rules Committee - The Mayor and two members of Council to begin their review of the Council Rules immediately following the first meeting following the November Election. This Committee is responsible for regular or occasional review of these Rules as contemplated in the Prologue Section above.

3. Ordinance Review Committee - The Mayor and two members of Council. This Committee is responsible for discussion and review of amendments to the Code of Ordinances. It is intended to review those ordinances that are substantive in nature and that would benefit from review by the Committee before submission to the Council as a whole. Matters may be referred to the Committee by the Council; additional items may be placed on the Committee's agenda for its consideration with the approval of the Mayor.

4. Mobility Committee. Three members of Council, plus 2 members of the Planning Commission, and 2 members of the Parks, Recreation & Cultural Services Commission. This Committee studies and makes recommendations on road improvements, public transit, non-motorized transportation, and ADA compliance. It replaces the Walkable Novi Committee.

5. Public Utilities and Technology. 3 members of Council, and 2 members appointed from the public at large, with an emphasis on members from the public who have a background and skill set relating to the subject matter of the Committee. This Committee studies and makes recommendations regarding all non-city public utilities (e.g., gas, electric, cable) and broadband expansion opportunities.

Council representation on regional bodies/inter-governmental bodies:

1. SEMCOG - One Delegate (Elected Official) and one Alternate (Elected or Appointed) appointed by the Council for a two-year term.

Where service on a regional or intergovernmental body involves the Council member having to cast a vote on behalf of the City, the member shall, to the extent practicable, inform the Council of the expected vote sufficiently in advance to allow City Council input if deemed appropriate by the Council.

Advisory/implementation and current *ad hoc* committees established by Council:

1. City Council Cultural Arts Committee. ~~Five~~ Seven members, with an emphasis on members from the arts community (educators, artists). This Committee will make recommendations regarding public art, music, theater, and dance opportunities and ways to broaden cultural art and music opportunities in Novi.

2. Long-Range Strategic Planning Committee. This Committee will work on a strategic plan to determine what Novi wants and expects to be in the year 2050, and to identify actions and options for getting there. Initially three members of Council, who will evaluate the options for the structure of a larger committee with additional community members and stakeholders with diverse backgrounds and expertise.

3. Environmental Sustainability Committee. This Committee will study and advise Council on environmental issues affecting the City, including the protection and enhancement of natural resources, recycling/composting, energy production, etc. Initially three members of Council, who will evaluate the options for the structure of a larger committee with additional community members and stakeholders with diverse backgrounds and expertise.

Council Advisory Committees will not establish any separate *Ad Hoc* Committee without the approval of the Council. This does not prevent a committee from appointing subcommittees of their members.

Boards and Commissions established by Charter or Ordinance:

1. Beautification Advisory Commission - Seven members appointed to three-year terms by the Council. Terms expire January 1st (Sec. 2-171 City Code).

2. Board of Review - Three, six, or nine members and up to three alternate members - appointed to two-year terms by the Council. Terms expire January 1st of each odd year (Sec. 9.6 City Charter).

3. Construction Board of Appeals - Five members and two alternate members - Appointed to four-year terms by the City Council. Terms Expire March 1st. (Sec. 7-19 City Code)

4. Corridor Improvement Authority – Nine member, made up of the Mayor and eight member appointed by the Mayor subject to Council approval. Terms expire December 31st. (Resolution 12/04/2017)

5. Economic Development Corporation -Nine members - Appointed to five-year terms by the Mayor subject to Council approval. Terms Expire March 1st (EDC Articles of Incorporation)

6. Election Commission - Three members, including the City Clerk – Appointed to three-year terms by the Council. Terms expire January 1st (Sec.3.4 City Charter)

7. Historical Commission - Seven members - Appointed to three-year terms by the Council. Terms expire January 1st. (Sec. 17-18 City Code)

8. Library Board - Seven members - appointed to three-year terms by the Mayor subject to Council approval l. Terms expire March 1st. (Sec.19-21 City Code)

9. Parks and Recreation Commission - Seven members - Appointed to three-year terms by the Council. Terms expire June 30th (Sec. 25-37 City Code)

10. Planning Commission - Seven members - Appointed to three-year terms by the Mayor subject to Council approval. Terms expire June 30th (Sec. 27-18 City Code)

11. Street Name Review Committee -Representatives of the Department of Community Development, Police Department, Fire Department and Building Department. (Sec. 31-51 City Code).

12. Zoning Board of Appeals - Seven members and one alternate member appointed to three-year terms by the Council. Terms expire January 1st (Sec. 3100 Zoning Ordinance)

Generally applicable rules for Council standing or advisory boards and committees

Board and Commission meetings shall be open to the public and a notice of the date, time and location of each meeting shall be posted within the lobby of the City Hall no less than 18 hours before the meeting.

Minutes of the proceedings shall be taken and available to the City Clerk of all Board and Commission meetings. Board and Commissions shall endeavor to hold their meetings in the City Council Chambers for consistent public access.

Except as expressly authorized by its enabling resolution or these rules, or some other applicable law or resolution, no standing committee of the City Council or advisory board or committee of the Council shall have the authority to enter into contracts or agreements on behalf of the City, or to authorize or approve the expenditure of funds to support its activities, including the retention of experts or consultants to assist it. Such board or committee may request approval of such expenditures or retention by city Council. No standing committee of the City Council or advisory board or committee of the Council shall have the authority to apply for or accept grants or awards, or request or accept any sort of outside assistance or services without approval of City Council, unless expressly authorized by its enabling resolution or these rules, or some other applicable law or resolution.

The City Council expects all standing committees and advisory boards or committees to be staffed in some manner by City employees, unless its enabling resolution or these rules, or some other applicable law or resolution provides otherwise. The staff members or liaisons are expected to perform the work of preparing agendas, assembling packet materials, coordinating attendees and speakers, and the like, rather than the board/committee members, whose primary task is the provision of guidance and/or recommendations in the process of carrying out the board/committee's charge by Council.

14. STANDARDS OF CONDUCT FOR CITY COUNCIL MEMBERS

A. General Rules. City Council members will be governed by the Standards of Conduct of Novi Officers, Employees, and Consultants, as adopted and amended from time to time by City Council Resolution. Those standards generally include (but are not limited to) the following:

1. Confidential Information and information with limited distribution to City Council. A Council member shall not divulge to an unauthorized person, confidential information acquired in the course of the Council member's duties in advance of the time prescribed for its authorized release to the public. A Council member shall also not share information that involves unusual or sensitive topics such as ongoing (or past) public safety events or actions (such as police activity, fire or water/sewer or traffic emergency events) where the City's official channel of communication to the public is through the City Manager's office or the Community Relations Department for purposes of assuring a continuity of information and coordination of an ongoing City response or message to the public. Information that the Council members receive as to such matters is to be considered confidential or restricted until shared with the public by the Administration. City Administration is the body responsible for communicating directly with

the public on such matters. The requirement to keep confidential information confidential survives the activity or event to which it relates.

2. Representations. A Council member shall not represent his or her personal opinion, or position on any specific issue, whether before City Council or not, as that of the City or the City Council. A Council member shall not misrepresent the position of the City or another Council member on any issue.

3. City resources. A Council member shall use personnel resources, property, and funds under the Council member's official care and control judiciously and solely in accordance with prescribed constitutional, statutory, and regulatory procedures and not for personal gain or benefit.

4. Gifts. A Council member shall not solicit or accept a gift or loan of money, goods, services, or other thing of substantial value for the benefit of a person or organization, other than the City, which tends to influence the manner in which the Council member performs official duties. It shall be presumed that a non-monetary gift having a value of less than fifty dollars ($50.00) does not evidence a violation of the above paragraph. "Non-monetary gifts" do not include gift certificates, vouchers, or any other item which is readily used in place of cash.

5. Profit from Position. A Council member shall not engage in a business transaction in which the Council member may receive a substantial profit from his or her official position or authority or a substantial financial benefit from confidential information which the Council member has obtained or may obtain by reason of that position or authority. A Council member shall not use, or attempt to use, his or her official position to unreasonably secure, request or grant, any privileges, exemptions, advantages, contracts, or preferential treatment for themselves or others.

B. Financial Interest in Contract, Purchase, or Employment

1. No Council member shall vote on any question in which the member has a financial interest other than the common public interest or on any question concerning his or her own conduct. (Charter, Sec. 6.7)

2. Except as otherwise provided by State law (including all disclosure requirements), a Council member shall not engage in or accept employment or render services for a private or public interest when that employment or service is incompatible or in conflict with the discharge of the Council member's official duties, or when that employment may tend

to impair his or her independence of judgment or action in the performance of official duties. If such employment or services for a private or public interest (except the City of Novi) requires the appearance, directly or indirectly, by a Council member before any employee, agency or body of the City of Novi, it shall be conclusively presumed that such appearance is incompatible and in conflict with the Council member's official duties. Except as otherwise provided by State law (including all disclosure requirements), a Council member shall not participate in the negotiation or execution of contracts, making of loans, granting of subsidies, fixing of rates, issuance of permits or certificates, or other regulation or supervision relating directly to a business entity in which the Council member has a financial or personal interest.

3. No Council member shall be a party, directly or indirectly, to any contract between himself and the City, except as provided by state law and City Charter.

4. Members of the City Council shall disclose, upon a form provided by the City Clerk, the following information: Any interest in any property within the City of Novi held by the member, the member's spouse, any child of the member, a trust for the member, any corporation in which the member is an officer, director, or shareholder, or by any partnership, limited partnership, or co-partnership in which the member has an interest The disclosure shall be submitted by City Council members upon taking the oath of office, and annually thereafter.

15. DEBATE AND DECORUM

Where these rules or the City Charter are silent, "Roberts Rules of Order Newly Revised" shall, to the extent reasonably feasible, govern the proceedings of the Council. The City Attorney shall act as Parliamentarian. In addition, the following general rules of debate shall apply:

A. The maker of a motion is entitled to speak first.
B. A Council member must obtain the floor by being recognized by the Mayor.
C. No Council member is entitled to speak a second time on the same motion while any other Council members wish to make their first speech.
D. A Council member may not speak against his/her own motion, but may vote against it.
E. Remarks must be confined to the merits of the pending question.
F. Questions and remarks must be addressed through the Mayor. Council members are not to speak directly to each other.

G. A courteous tone must be maintained. Interjecting personal notes or attacking another member's motives is prohibited.
H. Use of a Council member's name is to be avoided, if at all possible; for example, you should refer to "the maker of the motion" or "the previous speaker" whenever possible.
I. Reading from books, reports, etc. is only allowed with general consent of the Council by vote or general consent, that is, if there are no objections.
J. No Council member may comment adversely on any prior act of the Council that is not pending.

16. USE OF COMMUNICATION DEVICES DURING MEETINGS

A Council member shall refrain from the use of electronic or wireless communication devices during meetings to communicate with other Council members or with members of the public, regardless of whether the device is provided by the City. This prohibition shall not apply to communications with family members, employees, or co-workers, or others with whom the member communicates on a matter unrelated to an agenda item for Council action; such communications shall be infrequent and shall not disrupt, disturb, or otherwise adversely affect the conduct of the meeting.

17. USE OF CITY-ISSUED ELECTRONIC DEVICES

City-issued electronic devices are intended to be used for City business and City-related purposes. Personal use is discouraged and should occur infrequently and shall be incidental to the intended use of the electronic device. The following rules shall apply to Council members' use of City-issued electronic devices:

A. The City shall supply the electronic device and all associated hardware and software. Council members shall not install any hardware or software on the electronic device without prior approval through the City's Chief Information Officer.
B. Council members shall have the use of the electronic device during the member's term of office, and such right shall terminate at the same time as the member's term of office ends, at which time the electronic device and all associated equipment shall be returned to the City.
C. Council members shall be responsible for maintaining the electronic device in good condition, and to reasonably protect it from theft, loss, or damage. City policies applicable to City staff with regard to damaged or lost equipment shall apply.
D. Council members may not use the electronic device in connection with election or re-election efforts or campaigning, either for the member or any other candidate for public office.
E. Council members shall not use the electronic device, or the internet access

or e-mail provided with it, for any commercial, illegal, or illicit purpose or activity, or for financial gain. Council members shall not use the electronic device to download or store inappropriate or obscene material. Council members shall not knowingly violate copyright laws or site guidelines in connection with internet access. Council members shall not knowingly use the electronic device, or the internet access or e-mail provided with it, to propagate any virus, worm, "Trojan horse," "trap door," or back door" program code or to knowingly disable, disrupt, or overload the computer system or network, or to circumvent any system designed to protect the privacy or security of another user, computer system, communications network, or organization.

F. Council members should recognize that many, and perhaps most, of the documents that exist on the electronic device or that are created during internet usage or while using the e-mail function may be subject to the Freedom of Information Act, MCL 15.231 *et seq*., or other means of discovery, and should govern their use accordingly.

G. Council members shall not use the electronic device for any purpose that violates the Open Meetings Act, MCL 15.261, *et seq*.

H. The electronic device shall at all times remain City property, and therefore subject to return to the City upon request, for inspection, repair, installation of additional hardware or software or other applications, and the like, or to ensure compliance with these rules.

I. The Council member to whom an electronic device is issued is responsible to insure the proper use of the electronic device in accordance with these rules.

18. COUNCIL APPROVAL OF INDIVIDUAL COUNCIL MEMBER NON-ROUTINE REQUESTS FOR INFORMATION OR INVESTIGATIONS BY CITY STAFF

Prior to any individual Council members request to City staff for reports or other information, other than routine (requests that can be answered within 5-10 minutes), the requests must be raised at the Council table and approved.

19. NEW COUNCIL MEMBER ORIENTATION; IN-SERVICE PROGRAMS; OFF-SITE TRAINING/CONFERENCES

Each new member of Council shall, upon taking the oath of office, be given the following materials unless the member has or has access to a current copy of:

- Charter and Code of Ordinances
- Master Plan for Land Use
- Current year Budget
- Council Rules
- City of Novi Internet Usage and E-Mail Usage Policies

- City of Novi rules regarding damaged or lost equipment (e.g., for City-issued electronic device)

Each new member of Council shall, upon taking the oath of office, be offered an opportunity by the City Manager to tour the various City facilities (i.e., City Hall, DPW, Police/Fire stations, and the like).

After each City election at which a new member of Council is elected, the City staff shall arrange a series of presentations or programs, conducted during the first year of their term following a City election, to inform new members of the operations of City government. Generally, and subject to member availability, these shall occur before City Council meetings, and shall cover basic subjects such as land use and planning, finance/taxation/assessing, police/fire, and infrastructure maintenance and construction. The programs shall be open to all members of the City Council as in-service educational opportunities.

Council members are strongly encouraged to attend training sessions and conferences to develop their understanding of their role and responsibilities as public officials, including by way of example by the Michigan Municipal League (such as the Newly-Elected Officials' Training) and the Michigan State University Extension Service Citizen Planner sessions. Council will annually establish a budget during budget discussions, to be used to offset the cost of such activities. City Administration shall regularly provide Council with a list of conferences for organizations that the City belongs to. Reimbursement of expenses incurred in connection with such sessions or events shall also follow the rules established for City employees.

20. SUSPENSION AND AMENDMENT OF RULES

These rules may be suspended or amended at any time, in accordance with the Charter of the City of Novi by a vote of the majority of the Council elected and serving.

21. ENFORCEMENT OF RULES

These rules are subject to enforcement by the City Council as it determines appropriate under applicable provisions of State law, the City Charter, and Roberts' Rules of Order (which have been adopted above to the extent reasonably practicable), and any penalty for violation hereof shall be in accordance with said provisions.

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of a Resolution amending the membership of the City Council Cultural Arts Committee.

SUBMITTING DEPARTMENT: City Clerk

KEY HIGHLIGHTS:

- This resolution supports the change to Council Rules to update the membership from 5 members to 7 members.
- The two additional members appointed to expand the Committee shall initially serve terms expiring December 31, 2027, and December 31, 2027, respectively.

BACKGROUND INFORMATION:

The City Administration believes that, based upon the general discussion at the time of the creation of this body, the proposed amendment to change the Council Rules to increase the membership of the City Council Cultural Arts Committee from five (5) to seven (7) members is consistent with the intentions of the Rules Committee and Council, and this proposed amendment is being presented without having first been formally submitted to the Committee. The two additional members appointed to expand the Committee shall initially serve terms expiring December 31, 2027, and December 31, 2027, respectively. The existing terms of current members shall remain unchanged.

RECOMMENDED ACTION: Approval of a Resolution amending the membership of the City Council Cultural Arts Committee.

CITY OF NOVI

COUNTY OF OAKLAND, MICHIGAN

RESOLUTION AMENDING THE MEMBERSHIP OF THE CITY COUNCIL CULTURAL ARTS ADVISORY COMMITTEE

Minutes of a Meeting of the City Council of the City of Novi, County of Oakland, Michigan, held in the City Hall of said City on September 14, 2026, at 7 o'clock P.M. Prevailing Eastern Time.

PRESENT:

ABSENT:

The following preamble and Resolution were offered by Councilmember _____ and supported by Councilmember _____.

RECITALS:

WHEREAS, the City Council established a City Council Cultural Arts Advisory Committee on May 6, 2024; and,

WHEREAS, the City Council Cultural Arts Advisory Committee consists of five (5) members, appointed by the Mayor with the approval of City Council; and,

WHEREAS, the Council believes that the Advisory Board has over the years provided great insight and information to the PRCS Commission and Department, but that the City Council could benefit from similar services, advice, and assistance directly to the City Council.

NOW, THEREFORE, BE IT RESOLVED that the Committee shall have seven (7) members, appointed by the Mayor with the approval of City Council. Membership is unrestricted; however, an attempt will be to identify residents with art backgrounds (e.g.,

art educators or artists) in order to better support the mission of the Committee. To establish and maintain staggered terms, the two additional members appointed to expand the Committee from five (5) to seven (7) members shall initially serve terms expiring December 31, 2027, and December 31, 2027, respectively. The existing terms of the five (5) current members shall remain unchanged. Thereafter, all appointments shall be for two-year terms.

AYES:

NAYS:

RESOLUTION DECLARED ADOPTED.

_____
Cortney Hanson, City Clerk

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi, County of Oakland, and State of Michigan, at a regular meeting held this 14th day of September, 2026, and that public notice of said meeting was given pursuant to and in full compliance with Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting have been kept and made available to the public as required by said Act.

_____
Cortney Hanson, City Clerk
City of Novi

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of the request of Sri Venkateswara Temple for an Addendum to the Basilian Fathers PRO Agreement, for property located near 11 Mile and Taft Roads.

SUBMITTING DEPARTMENT: Community Development Department - Planning

BACKGROUND INFORMATION:

The applicant is requesting a minor revision to the PRO Agreement as it relates to the number of residents permitted. The PRO Agreement states a maximum occupancy of 14 residents; the applicant seeks to have up to 17 residents.

In 2007, the Basilian Fathers of Milford, Michigan submitted a Planned Rezoning Overlay request to accommodate the development of a 20,000 square foot residence for their priests. The multiple family zoning classification was found to be appropriate in the context of the proposed plan and use, and it was approved by City Council in 2008 (Liber 4036 Page 488).

Under the terms of the PRO Agreement, the development was restricted to "an approximately 20,000 square foot residential building to be used as a residence for a religious order including 14 individual sleeping quarters with communal kitchen, dining and living areas, and a chapel for the Basilian Fathers."

The residence is no longer needed by the Basilian Fathers, and they intend to sell the property to a new owner. The adjacent Sri Venkateswara Temple is interested in purchasing the site to use as a residence for their religious order. As the Temple's priests can be married, some reconfiguration of the interior of the building is required to change eight of the 1-bedroom units into four 2-bedroom units to accommodate the priests and their families. The proposed addendum would raise the maximum number of permanent residents from 14 persons to 17 persons. All other terms of the original PRO Agreement would remain in effect for the new owner beyond those described in the addendum.

The minor increase by 3 persons does not impact the available parking on the site, utilities, traffic, or other City services. The purchase of the property by another religious order for the same use maintains the character of the use and represents the best

possible outcome of the property changing hands. Staff has no objections to the proposed addendum.

RECOMMENDED ACTION: Approval of the request of Sri Venkateswara Temple for an Addendum to the Basilian Fathers PRO Agreement, with any final minor alterations required in the determination of the City Manager and City Attorney to be incorporated by the City Attorney's office prior to the execution of the final addendum.

This motion is made because the change does not materially affect the pro agreement.

MAPS

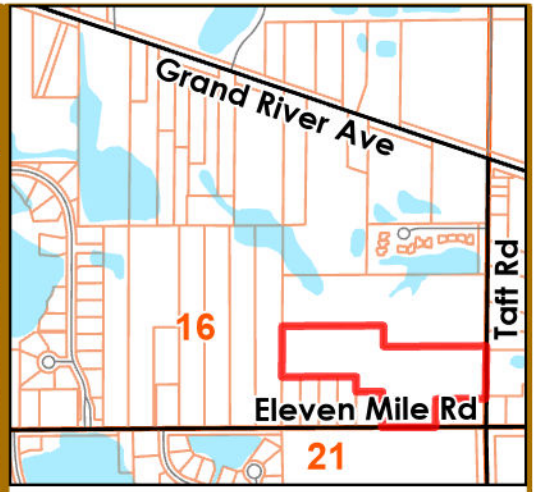
Location Map

Zoning Map

JZ26-36 Amendment of Basilian PRO for SV Temple

LOCATION





City of Novi
Dept. of Community Development
Novi City Hall
45175 Ten Mile Rd
Novi, MI 48375
cityofnovi.org

0 75 150 300 Feet
1 inch = 225.8 feet

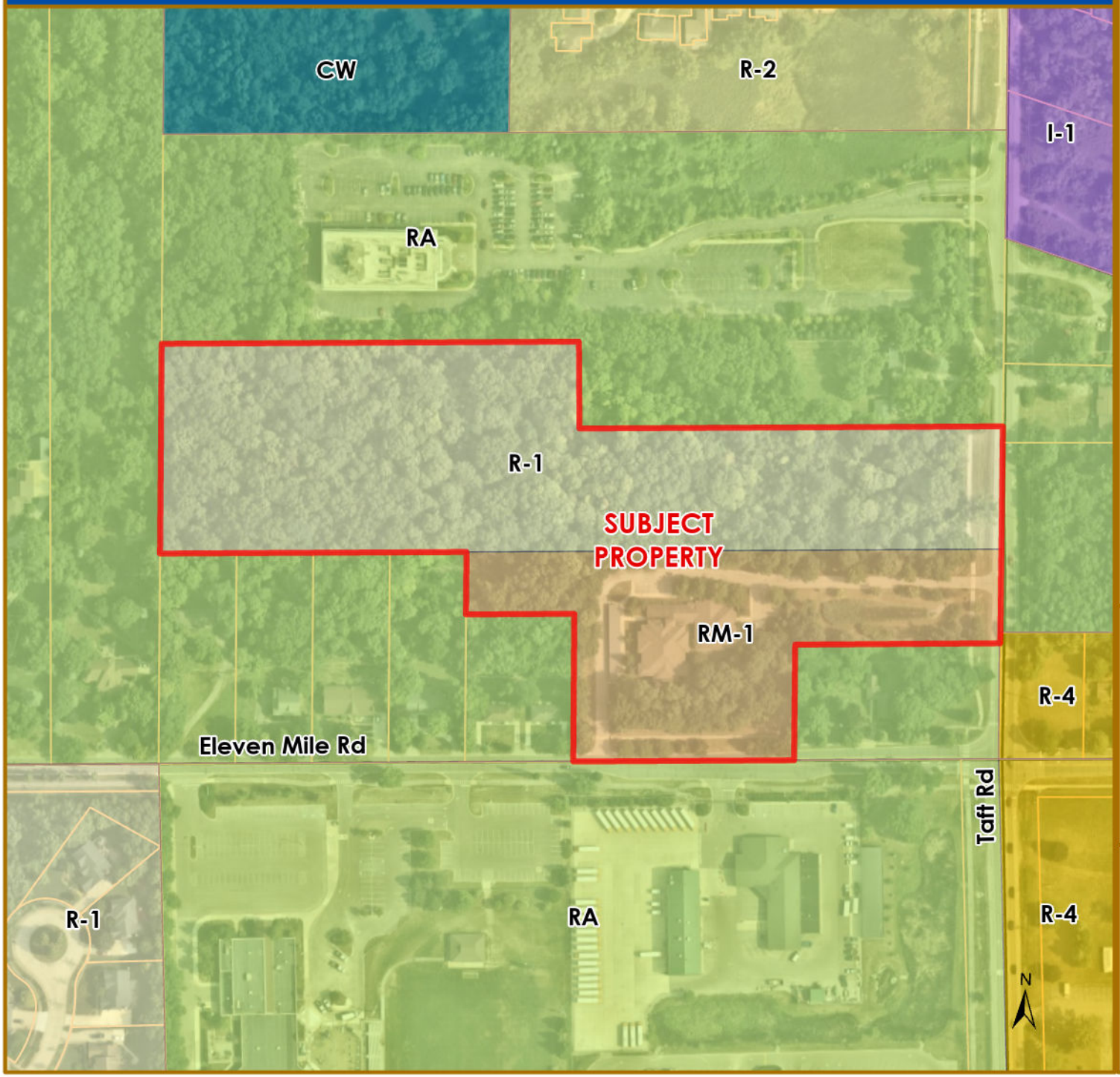
Map Author: Lindsay Bell
Date: 9/9/26
Project: Basilian Fathers PRO Addendum
Version #: 1

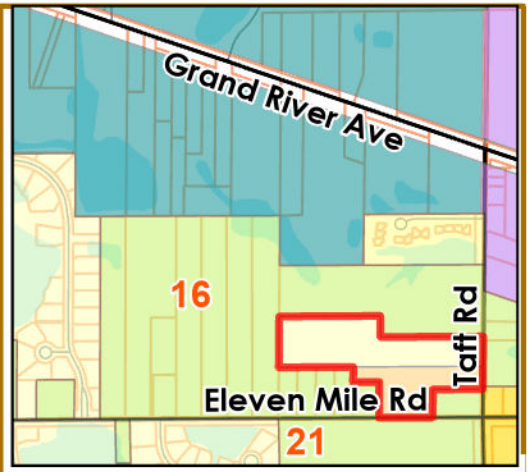
N

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

JZ26-36 Amendment of Basilian PRO for SV Temple

ZONING





Zoning District

- CW: City West
- I-1: Light Industrial
- R-1: One-Family Residential
- R-2: One-Family Residential
- R-4: One-Family Residential
- RA: Residential Acreage
- RM-1: Low-Density Multiple-Family

City of Novi
Dept. of Community Development
Novi City Hall
45175 Ten Mile Rd
Novi, MI 48375
cityofnovi.org

0 75 150 300 Feet
1 inch = 225.8 feet

Map Author: Lindsay Bell
Date: 9/9/26
Project: Basilian Fathers PRO Addendum
Version #: 1

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DRAFT PRO ADDENDUM

ADDENDUM TO PLANNED REZONING OVERLAY (PRO) AGREEMENT FOR THE BASILIAN FATHERS' RESIDENCE, RECORDED IN LIBER 40536 PAGE 488 OAKLAND COUNTY RECORDS

This Addendum to Planned Rezoning Overlay (PRO) Agreement ("PRO Agreement") is by and between the Sri Venkateswara Temple & Cultural Center, Inc. 26233 Taft Road, Novi, Michigan 48374, as successor and under the Agreement (herein "Assignee") and the City of Novi, 45175 West Ten Mile Road, Novi, Michigan 48375-3024 (herein "City").

RECITATIONS

I. In July of 2008, the PRO Agreement was executed by and between the Basilian Fathers of Milford, Michigan (referred to therein as "Developer") and the City that was recorded at Liber 40536 Page 488 of the Oakland County Records.

II. The PRO Agreement provided approval for the improvement and use of certain real property (hereinafter the "Property") in the City of Novi for an approximately 20,000 square foot residential building for the religious order known as the Basilian Fathers, including individual sleeping quarters for a maximum of 14 persons.

III. The Basilian Fathers now wish to sell the Property to Assignee for use by the Assignee as residential use for the religious order of Assignee.

IV. Because some of the Assignee's religious priests are married, Assignee has requested that the maximum number of residents allowed by the PRO Agreement be increased from 14 to 17.

DRAFT

V. Other than the alteration of the interior of the residential building on the Property, converting eight one-bedroom units to four two-bedroom units, no additional changes would be made to the interior of the residential building on the Property.

VI. There will be no changes to the exterior of the residential building or to the Property or site from that which was approved in the PRO.

VII. Assignee agrees to be bound by all of the conditions, obligations, Undertakings, and forbearances of Developer in the PRO Agreement, with the only exception being that the maximum number of permanent residents be increased from 14 persons to 17 persons.

VIII. Because the changes do not have any substantive impact on use on the Property, and do result in any visible changes to the approved use of the Property, the City has no objection to the adjustment requested by Assignee.

NOW THEREFORE, as an integral part of the approval of this Addendum to PRO, and in consideration of Assignee accepting and agreeing to be bound by all of the mutual covenants in the PRO except as set forth in this addendum, IT IS HEREBY AGREED AS FOLLOWS:

1. The City hereby acknowledges the assignment of the PRO by the Basilian Fathers (Developer) to Sri Venkateswara Temple & Cultural Center, Inc. (Assignee).

2. All of the provisions of the PRO, including, but not limited to, all conditions, obligations, Undertakings, forbearances and approvals will remain binding on the Assignee and in full force and effect unchanged as initially approved except as follows:

    a. The maximum number of residents set forth in the PRO, shall be increased from 14 to 17 permanent residents.

3. Assignee remains obligated to obtain all necessary permits for the alteration to the interior of the residential building.

4. This Addendum may be signed in counterparts.

[signatures on following page]

DRAFT

OWNERS:

SRI VENKATESWARA TEMPLE
& CULTURAL CENTER, INC.

_____
By:
Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

On this ____ day of _____, 2026, before me appeared _____, on behalf of the Sri Venkateswara Temple & Cultural Center, Inc., who stated that they had signed this document of their own free will duly authorized on behalf of the company.

_____
Notary Public
_____ County, Michigan
Acting in the County of _____
My commission expires: _____

[additional signatures on following page]

DRAFT

CITY OF NOVI

By: _____
Justin P. Fischer
Its: Mayor

By: _____
Cortney Hanson
Its: Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

On this ____ day of _____, 2026, before me appeared _____ and _____ who stated that they had signed this document of their own free will on behalf of the City of Novi in their respective official capacities, as stated above.

_____
Notary Public
_____ County, Michigan
Acting in the County of _____
My commission expires: _____

DRAFT

APPLICANT REQUEST AND EXHIBITS

LAW OFFICES
LANDRY, MAZZEO, DEMBINSKI & STEVENS, P.C.
37000 GRAND RIVER AVENUE, SUITE 200
FARMINGTON HILLS, MICHIGAN 48335
www.lmdlaw.com

D. B. LANDRY
dlandry@lmdlaw.com

Office: (248) 476-6900
Direct: (248) 919-3783
Fax: (248) 476-6564

July 21, 2026

City of Novi Community Development Dept.
ATTN: Ms. Lindsay Bell
45175 West 10 Mile Road
Novi, MI 48375

Via: e-mail
lbell@cityofnovi.org

RE: Request for Adendum to PRO for Basilian Fathers Residence
26095 Taft Road, Novi, MI
PIN# 22-16-451-080

Dear Ms. Bell:

I represent the Sri Venkateswara Temple and Cultural Center, Inc. In 2008 the City of Novi approved a PRO for the Basilian Fathers residence building on the northwest corner of Taft Rd and Eleven Mile Rd. I have attached a copy of that PRO. The building was constructed and has been used as a residence for members of the Basilian Fathers religious order (priests) who teach at Novi Catholic Central High School. The Basilian Fathers have signed a Purchase Agreement to sell the property and residence to the Sri Venkateswara Temple (SVT), located next door and SVT wishes to utilize the building for the exact same purpose as the Basilian Fathers, as a residence for the Temple priests.

SVT has no intention of altering the exterior of the building or the site itself. The only change requested is to change the interior of the building from 12 one-bedroom apartments to 4 one-bedroom apartments and 4 two-bedroom apartments. I have attached copies of plans for such a change.

The change is required because some of the temple priests are married with a small child and thus a 2 bedroom unit would be required.

This is a very minimal change. The use would remain exactly the same, a residence for members of a religious order. However, as the PRO specifies that the premises would be "limited to a residential use for a religious order, for a maximum of 14 permanent residents" the PRO must be amended to allow for the requested use by SVT. Withe 4 one-bedroom units and 4 two-bedroom units the number of permanent residents may exceed 14 people if any of the 2-bedroom units are occupied by a temple priest who is married and has children. SVT requests that this be accomplished with a simple Addendum to the PRO to allow the premises to be used by a maximum of 17 residents.

We are hoping that in light of the fact that the nature of the use is not changing, the parking and room count still qualifies under the RM-1 zoning and the only change in the PRO is an increase of 3 additional residents for a maximum of 17 residents that an Adendum to the PRO could be approved by the City. Again, no exterior changes to the site are being requested and the nature of the use would remain as approved in the PRO.

I am providing along with this narrative letter an email with a Dropbox link containing the following:

Exhibit A	2008 PRO Agreement
Exhibit B	Plans for conversion of 8 one-bedroom units to 4-two bedroom units (8.5" X 11" format)
Exhibit C	A copy of portions of the 2008 Overall Site Plan (8.5 X 11" format)
Exhibit D	Draft PRO Addendum

Thank you.

Respectfully

LANDRY, MAZZEO, DEMBINSKI
& STEVENS PC

David B. Landry

David B. Landry

Cc: Ravindranath Gullapalli
Via e-mail

LIBER40536 PG488

154268
LIBER 40536 PAGE 488
$37.00 MISC RECORDING
$4.00 REMONUMENTATION
08/19/2008 12:01:58 P.M. RECEIPT# 72151

PAID RECORDED - OAKLAND COUNTY
RUTH JOHNSON, CLERK/REGISTER OF DEEDS

RECEIVED
AUG 15 2008
Ruth Johnson Register of Deeds
Oakland County, MI

PLANNED REZONING OVERLAY (PRO) AGREEMENT FOR THE BASILIAN FATHERS' RESIDENCE

AGREEMENT, by and among the Basilian Fathers of Milford, Michigan whose address is 28724 Five Mile Rd., Livonia, MI 48154 (referred to as "**Developer**"); and the City of Novi, 45175 West Ten Mile Road, Novi, MI 48375-3024 ("**City**").

RECITATIONS:

I. Developer is the owner of all legal and equitable title to the "Land" described on **Exhibit A**, attached and incorporated herein, and is the developer of a proposed Planned Rezoning Overlay ("PRO") encompassing the Land known as the Basilian Fathers' Residence.

II. Developer, for purposes of improving and using the Land for an approximately 20,000 square foot, residential building for the religious order known as the Basilian Fathers, including individual sleeping quarters for a maximum of 14 person, with communal kitchen, dining and living areas and a chapel, has petitioned the City for an amendment of the Zoning Ordinance, as amended, so as to reclassify the Land from R-1, One-Family Residential District, to RM-I, Low Density, Low Rise Multiple Family Residential District. The R-1 classification shall be referred to as the "**Existing Classification**" and RM-1 shall be referred to as the "**Proposed Classification.**"

III. The Proposed Classification would provide the Developer with certain material development options not available under the Existing Classification, and would be a distinct and material benefit and advantage to the Developer.

IV. At its meeting on January 23, 2008, the City Planning Commission reviewed and recommended approval to the City Council of the Developer's petition to amend the zoning district classification of the Land from the Existing Classification to the Proposed Classification under the terms of the Planned Rezoning Overlay (PRO) provisions of the City's Zoning Ordinance.

IV. At its meeting on February 4, 2008, the Council granted tentative approval of the Rezoning with Planned Rezoning Overlay, finding that the proposed use as a

O.K. - LG

residence for a religious order was appropriate even though it was near single-family for the following reasons:

A. The proposed use most closely resembles those uses permitted in the RM-1 District; in particular, independent and congregate elderly living facilities.

B. The proposed residence would be compatible with the existing uses in the area and can be designed to incorporate both the residential elements of the nearby single-family homes and the institutional elements of the nearby church and schools.

Further, the proposed use is appropriate because it is proposed to be limited to a set number of permanent residents, with individual sleeping quarters but otherwise communal living areas. Further, Council has reviewed the Developer's proposed PRO Plan, attached hereto and incorporated herein as **Exhibit B** (the "PRO Plan"), which is a conceptual or illustrative plan for the potential development of the Land under the Proposed Classification, and not an approval to construct the proposed improvements as shown; subject to certain proposed PRO conditions offered or accepted by the Developer. City Council granted tentative approval of the Rezoning with Planning Rezoning Overlay, subject to certain conditions, as set forth in the official minutes of said meeting.

V. In proposing the Proposed Classification to the City, Developer has expressed a firm and unalterable intent that Developer will develop and use the Land in conformance with the following undertakings by Developer, as well as the following forbearances by the Developer (each and every one of such undertakings and forbearances shall together be referred to as the "Undertakings"):

A. Developer shall develop and use the Land solely for an approximately 20,000 square foot residential building to be used as a residence for a religious order including 14 individual sleeping quarters with communal kitchen, dining and living areas, and a chapel for the Basilian Fathers (with appropriate parking and site improvements). In accordance with the PRO Plan, Developer shall forbear from developing and/or using the Land in any manner other than as authorized and/or limited by this Agreement.

B. Developer shall develop the Land in accordance with all applicable laws and regulations, and with all applicable ordinances, including all applicable height, area, and bulk requirements of the Zoning Ordinance as relates to the Proposed Classification, except as expressly authorized herein. The PRO Plan is acknowledged by both the City and Developer to be a conceptual plan for the purpose of depicting the general area contemplated for development. Certain minor deviations from the provisions of the City's ordinances, rules, or regulations that are depicted

in the PRO Plan are approved by virtue of this Agreement; however, except as to such specific deviations enumerated herein, the Developer's right to develop the residential building under the requirements of the Proposed Classification shall be subject to and in accordance with all applications, reviews, approvals, permits, and authorizations required under applicable laws, ordinances, and regulations, including, but not limited to, site plan approval, storm water management plan approval, woodlands and wetlands permits, façade approval, landscape approval, and engineering plan approval, except as expressly provided in this Agreement. The building layout shall be substantially similar (as determined by the City) to that submitted as part of the Developer's final approval request, as depicted in **Exhibit B**.

C. In addition to any other ordinance requirements, Developer shall seek, obtain approval for, and use best management practices and efforts with respect to all storm water and soil erosion requirements and measures throughout the site during the design and construction phases, and subsequent use, of the development contemplated in the Proposed Classification.

D. The following deviations from the standards of the zoning ordinance are hereby authorized pursuant to §3402.D.1.c of the City's zoning ordinance.

1. A 9-foot parking setback deviation (75 feet required, 66 feet provided).

2. A 9-foot deviation for front yard accessory structure setback (75 feet required, 66 feet provided).

3. A 20-foot deviation for side yard accessory structure setback (75 feet required, 55 feet provided).

E. The following PRO Conditions shall apply to the Land and/or be undertaken by Developer:

1. The permitted use on the land shall be limited to a residential use for a religious order, for a maximum of 14 permanent residents, with individual sleeping quarters, and communal kitchen, dining and living areas, and a chapel in accordance with this Agreement and the PRO conditions offered by the Developer.

2. Developer shall extend the 5-foot wide public sidewalk along Eleven Mile Road, and the 8-foot wide public sidewalk along Taft Road, as shown on the PRO plan.

3. Developer shall dedicate to the City of Novi road right-of-way along Eleven Mile Road (ten feet) and Taft Road (27 feet).

4. Developer will grant the City a Conservation Easement over certain undeveloped portions of the Land in an effort to preserve the mature tree stand, identified as the "Existing Wooded Area" on the attached Exhibit B.

VII. For the purpose of confirming the rights and obligations in connection with the improvements and other obligations to be undertaken in connection with the development of the Land, the parties have entered into this PRO Agreement.

NOW THEREFORE, as an integral part of the grant of rezoning of the Land, and as an integral part of the approval of the PRO, and inconsideration of the mutual covenants contained herein, *IT IS HEREBY AGREED AS FOLLOWS:*

1. The Land shall be developed only in accordance with: (i) this PRO Agreement, including a Conservation Easement over the Existing Wooded Area identified on the attached Exhibit B; (ii) the PRO Plan; (iii) the terms and conditions listed in the minutes of the January 23, 2008, Planning Commission meeting; (iv) the terms and conditions listed in the minutes of the February 4, 2008, City Council meeting; and (v) the terms and conditions listed in the minutes of the May 12, 2008, City Council meeting. Furthermore, all development of the Land shall be subject to and in accordance with all applicable City ordinances and any City approvals of a final site plan for the Land, and unless expressly stated otherwise in this Agreement, shall also be subject to all other approvals and permits required under applicable City ordinances and State laws.

2. The permitted land use shall be as described on the PRO Plan, to wit, an approximately 20,000 square foot, residential building for housing 14 priests, including individual sleeping quarters, with communal kitchen, dining and living areas, and a chapel. In the event Developer attempts to or proceeds with actions to complete improvement of the Land in any manner other than as shown on **Exhibit B**, the City shall be authorized to revoke all outstanding building permits and certificates of occupancy issued for such building and use.

3. Upon the Proposed Classification becoming final following entry into this Agreement:

   A. The Undertakings shall be carried out by Developer on and for the Land;

   B. Developer shall act in conformance with the Undertakings;

   C. Developer shall forbear from acting in a manner inconsistent with the Undertakings; and

D. The Developer shall commence and complete all actions necessary to carry out all of the PRO Conditions.

4. Developer acknowledges and agrees that the City has not required the Undertakings. The Undertakings have been voluntarily offered by Developer in order to provide an enhanced use and value of the Land, to protect the public safety and welfare, and to induce the City to rezone the Land to the Proposed Classification so as to provide material advantages and development options for the Developer.

5. All of the Undertakings represent actions, improvements, and/or forbearances that are directly beneficial to the Land and/or to the development of and/or marketing of the office or retail building on the Land. The burden of the Undertakings on the Developer is roughly proportionate to the burdens being created by the development, and to the benefit which will accrue to the Land as a result of the requirements represented in the Undertakings.

6. In addition to the provisions in Paragraph 2, above, in the event the Developer, or its respective successors, assigns, and/or transferees proceed with a proposal for, or other pursuit of, development of the Land in a manner which is in material violation of the Undertakings, the City shall, following notice and a reasonable opportunity to cure, have the right and option to take action using the procedure prescribed by law for the amendment of the Master Plan and Zoning Ordinance applicable to the Land to amend the Master Plan and zoning classifications of the Land to a reasonable classification determined appropriate by the City, and neither the Developer nor its respective successors, assigns, and/or transferees, shall have any vested rights in the Proposed Classification and/or use of the Land as permitted under the Proposed Classification, and Developer shall be estopped from objecting to the rezoning and reclassification to such reasonable classifications based upon the argument that such action represents a "downzoning" or based upon any other argument relating to the approval of the Proposed Classification and use of the Land; provided, this provision shall not preclude Developer from otherwise challenging the reasonableness of such rezoning as applied to the Land.

7. By execution of this Agreement, Developer acknowledges that it has acted in consideration of the City approving the Proposed Classification on the Land, and Developer agrees to be bound by the provisions of this Agreement.

8. After consulting with an attorney, the Developer understands and agrees that this Agreement is authorized by and consistent with all applicable state and federal laws and Constitutions, that the terms of this Agreement are reasonable, that it shall be estopped from taking a contrary position in the future, and, that the City shall be entitled to injunctive relief to prohibit any actions by the Developer inconsistent with the terms of this Agreement.

9. This Agreement shall be binding upon and inure to the benefit of the parties to this Agreement and their respective heirs, successors, assigns and transferees, and an affidavit providing notice of this Agreement may be recorded by either party with the office of the Oakland County Register of Deeds.

10. The Zoning Board of Appeals (ZBA) shall have no jurisdiction over the Property or the application of this Agreement until after site plan approval and construction of the development as approved therein.

10. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided by law.

11. This Agreement shall be governed by the laws of the State of Michigan, both as to interpretation and performance. Any and all suits for any and every breach of this Agreement may be instituted and maintained in any court of competent jurisdiction in the County of Oakland, State of Michigan.

12. This Agreement may be signed in counterparts.

WITNESSES:

Gregory G. Kreutzer

GREGORY G. KREUTZER
Print Name:

Print Name:

OWNERS:
BASILIAN FATHERS OF
MILFORD, MICHIGAN

J. O'Neill C.S.B.

By:
Its: Superior
Owner

STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

On this 2nd day of July, 2008, before me appeared James O'Neill, C.S.B. on behalf of the Basilian Fathers of Milford, Michigan, who states that he has signed this document of his own free will duly authorized on behalf of the company.

MICHAEL D. WILSON
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Oct 15, 2014
ACTING IN COUNTY OF Oakland, MI

Michael D. Wilson

, Notary Public
Oakland County, MI
Acting in Oakland County
My Commission Expires: 10-15-2014

WITNESSES:

Print Name: MARILYN S. TROUTMAN

Print Name:

Print Name: Cortney Brennan

Print Name:

CITY OF NOVI

By: _____
David B. Landry, Mayor

By: _____
Maryanne Cornelius, Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

On this 16th day of JULY, 2008, before me appeared David B. Landry and Maryanne Cornelius, who stated that they had signed this document of her own free will on behalf of the City of Novi in their respective official capacities, as stated above.

_____, Notary Public
OAKLAND County
Acting in Oakland County
My Commission Expires: OCT. 13, 2011

MARILYN S. TROUTMAN
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Oct 13, 2011
ACTING IN COUNTY OF OAKLAND

Drafted by:
Kristin Bricker Kolb
30903 Northwestern Highway
Farmington Hills, MI 48334

When recorded return to:

Maryanne Cornelius, Clerk
City of Novi
45175 West Ten Mile Road
Novi, MI 48375-3024

1067783_1

EXHIBIT "A"

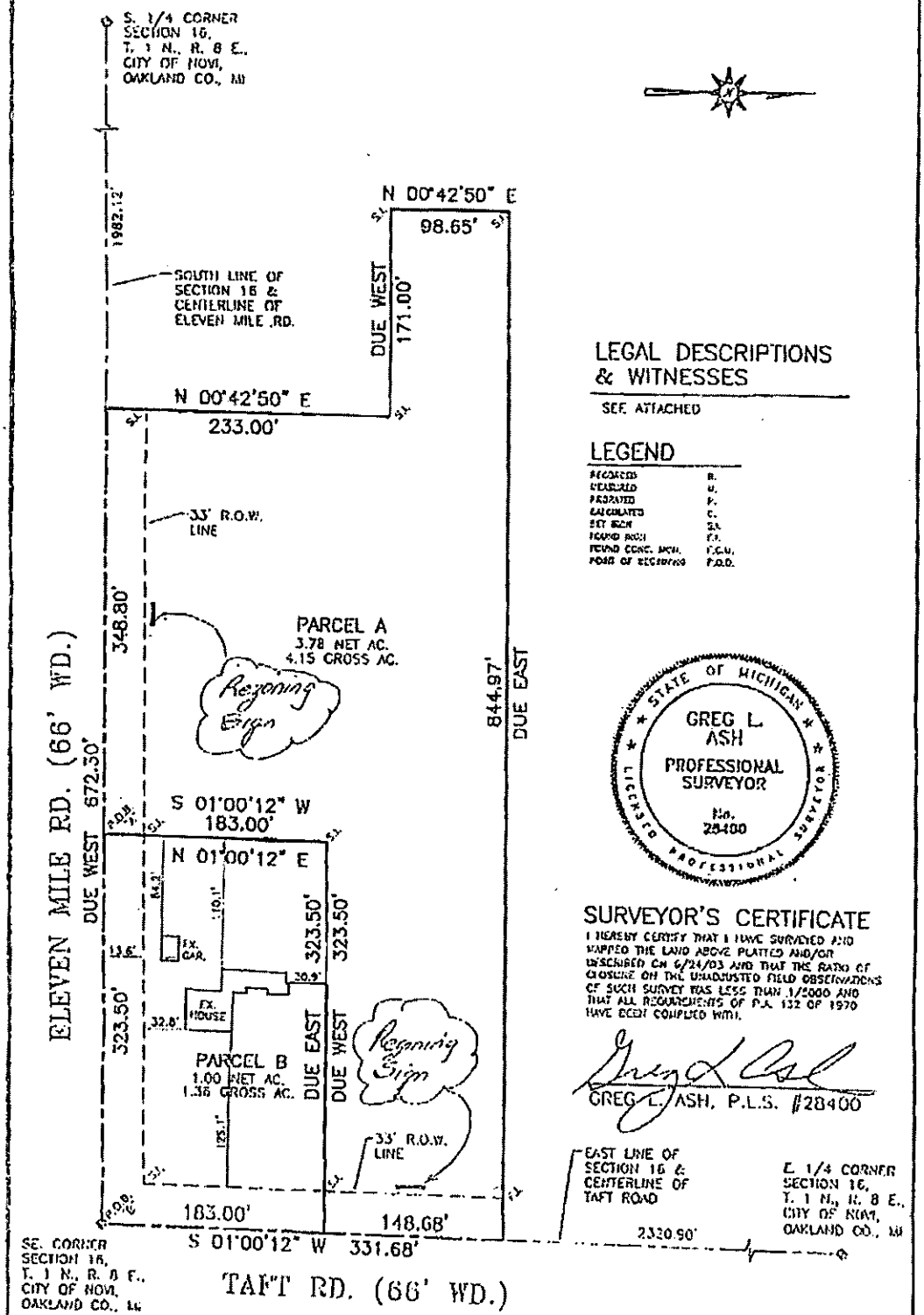
New Legal Descriptions
Parcel A

A parcel of land in the Southeast ¼ of Section 16, T. 1 N., R. 8 E., City of Novi, Oakland County, Michigan, described as:

Commencing at the Southeast corner of said Section 16; thence Due West 323:50 feet along the South line of said Section 16, said line also being the centerline of Eleven Mile Road (66 feet wide) to the POINT OF BEGINNING; thence continuing along said South line of Section 16 Due West 348.80 feet; thence N. 00° 42' 50" E. 233.00 feet; thence Due West 171.00 feet; thence N. 00° 42' 50" E. 98.65 feet; thence Due East 844.97 feet to a point on the East line of said Section 16; thence S. 01° 00' 12" W. 148.68 feet along said East line of Section 16, said line also being the centerline of Taft Road (66 feet wide); thence Due West 323.50 feet; and thence S. 01° 00' 12" W. 183.00 feet to the POINT OF BEGINNING. Containing 4.15 gross acres of land (3.78 net acres), more or less. Subject to the rights of the public over the South 33 feet for Eleven Mile Road (66 feet wide) and the East 33 feet for Taft Road (66 feet wide). Also subject to any and all easements or rights of way of record, if any.

22-16-451-076

CERTIFICATE OF SURVEY



LEGAL DESCRIPTIONS & WITNESSES

SEE ATTACHED

LEGEND

RECORDED	R.
MEASURED	M.
PRORATED	P.
CALCULATED	C.
SET IRON	S.I.
FOUND IRON	F.I.
FOUND CONC. MON.	F.C.M.
POINT OF BEGINNING	P.O.B.

STATE OF MICHIGAN
GREG L. ASH
PROFESSIONAL SURVEYOR
No. 28400
LICENSED PROFESSIONAL SURVEYOR

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON 6/24/03 AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS LESS THAN 1/5000 AND THAT ALL REQUIREMENTS OF P.A. 132 OF 1970 HAVE BEEN COMPLIED WITH.

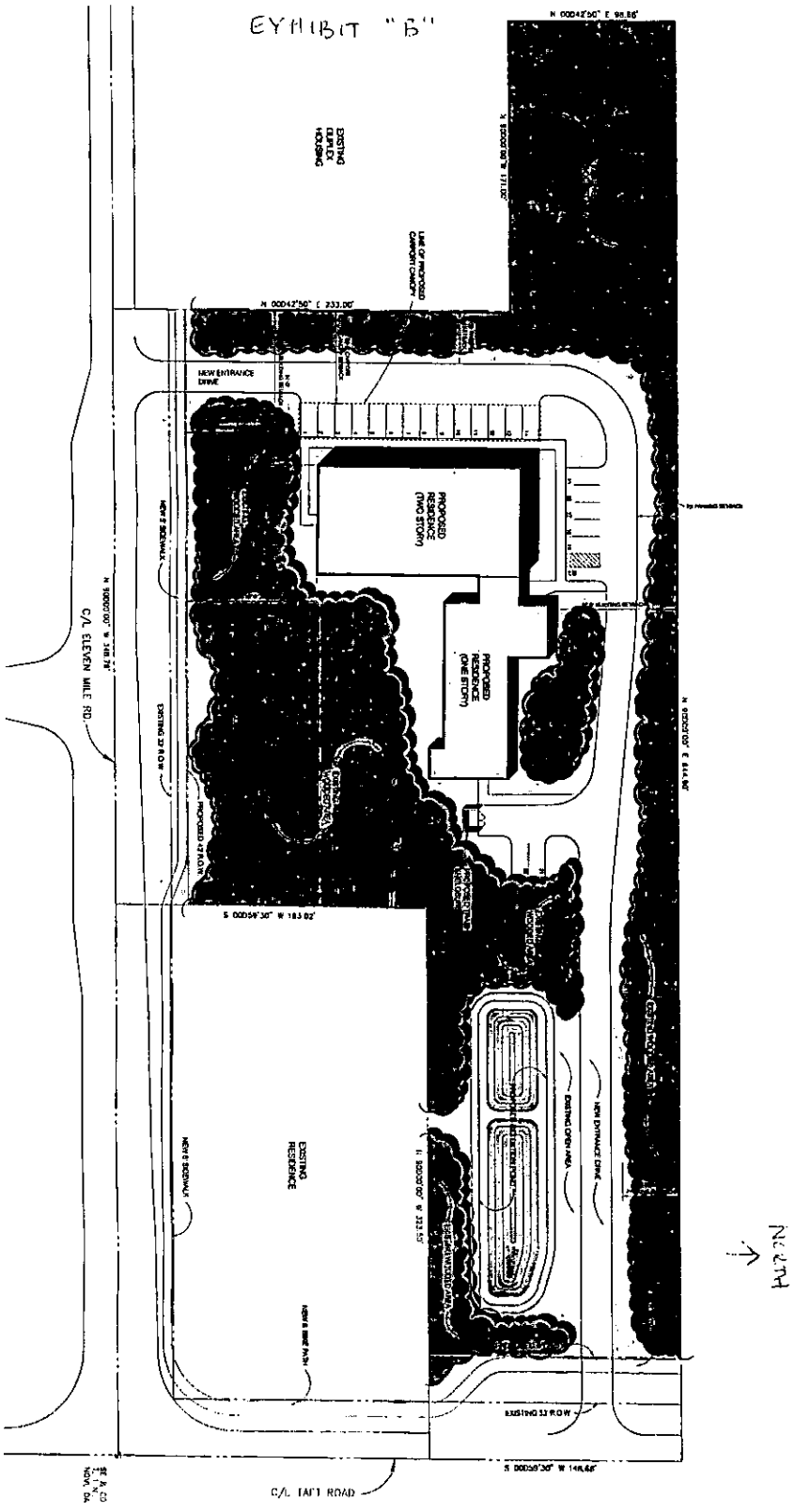
GREG L. ASH, P.L.S. #28400

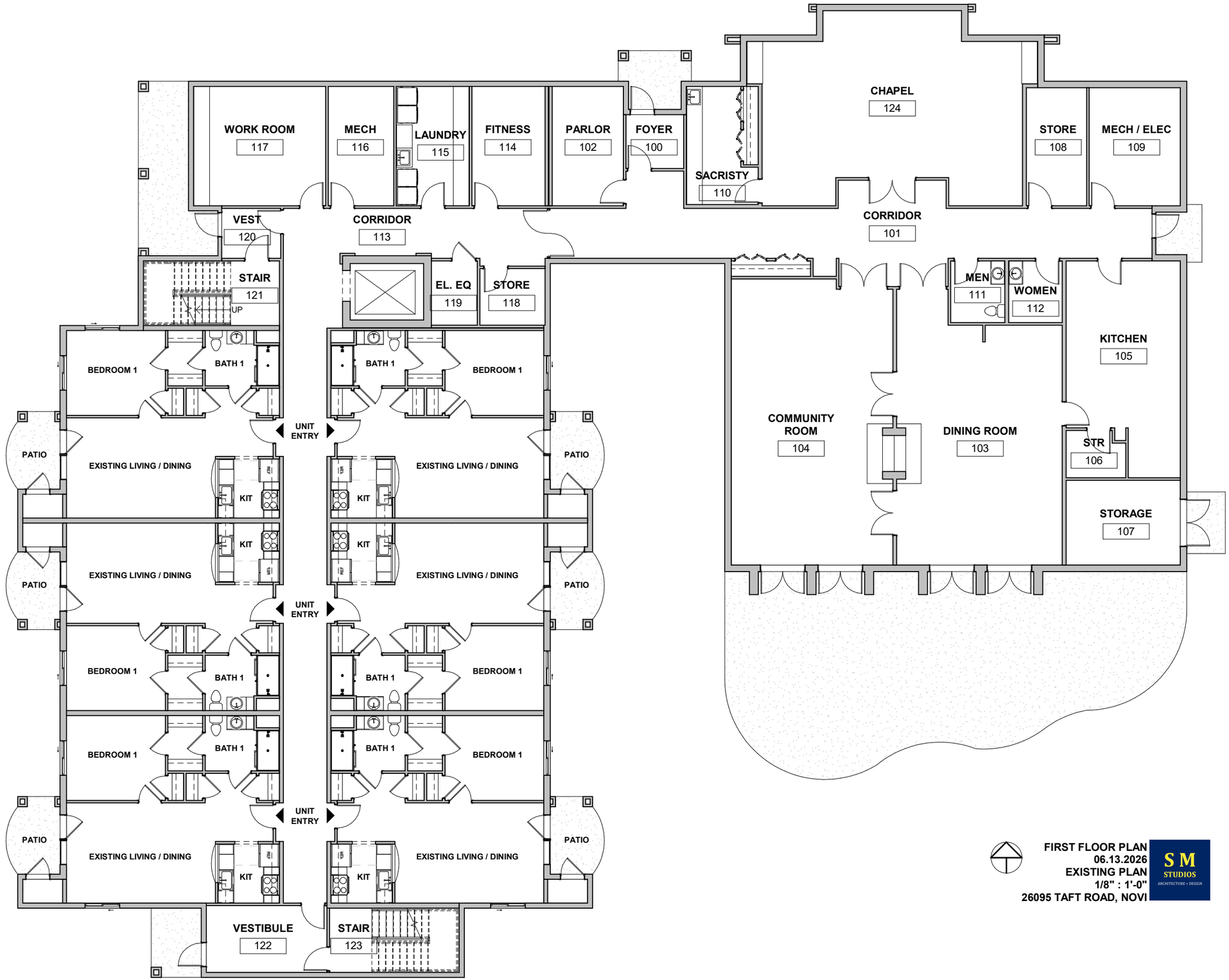
GL SURVEYORS & ENGINEERS
6134 COTTREDSON RD.
PLYMOUTH, MI 48170
PHONE: (734) 416-9650
FAX: (734) 416-9657
www.glsurveyor.com

CLIENT:
DAVID & KAREN KURTZ
45870 ELEVEN MILE RD.
NOVI, MI 48374

DATE:	JOB NO.	SCALE:	SHEET:	DRAWN BY:
07/30/03	278-004	1" = 100' (0, 100, 200)	1 OF 3	SAS2

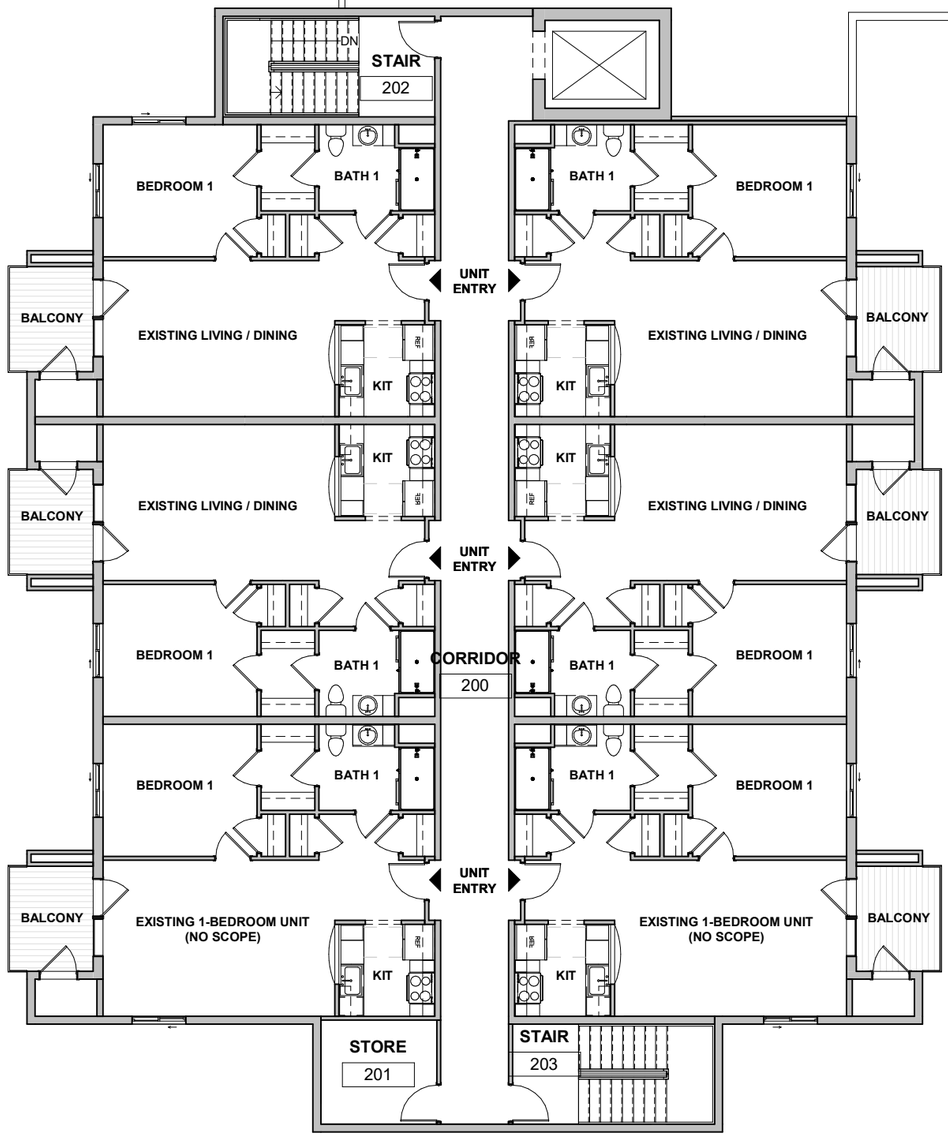
EXHIBIT "B"

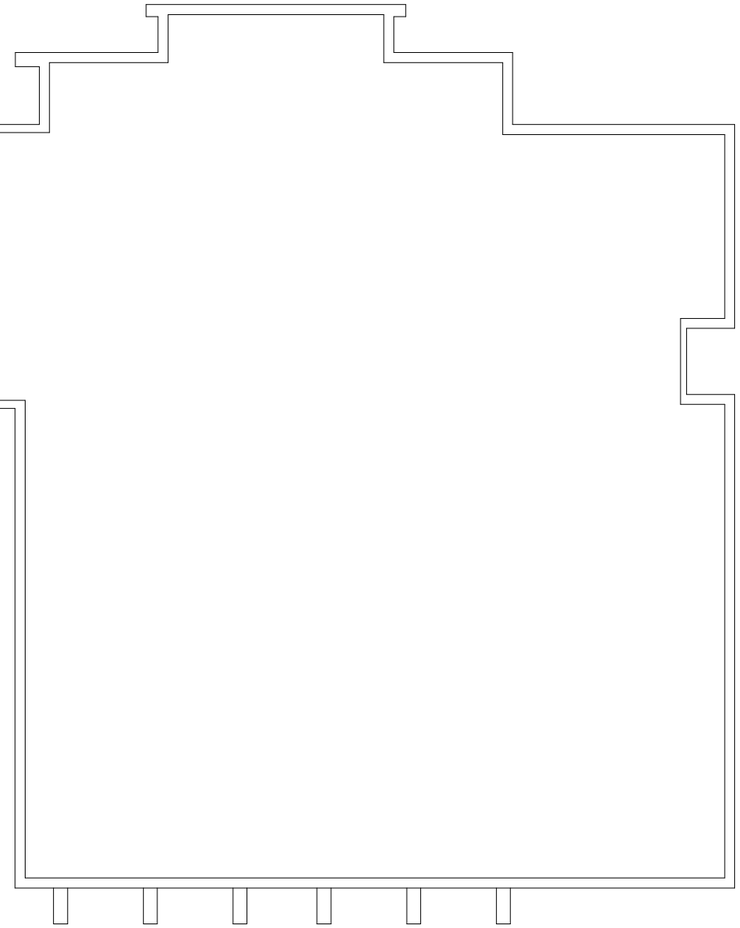

EXISTING OFFICE HOUSING
N 00°42'50" E 233.00'
NEW ENTRANCE DRIVE
PROPOSED RESIDENCE (TWO STORY)
PROPOSED RESIDENCE (ONE STORY)
C/L ELEVEN MILE RD
EXISTING 33' R.O.W.
PROPOSED 33' R.O.W.
S 00°59'30" W 183.02'
EXISTING RESIDENCE
NEW 6' SIDEWALK
NEW 8' BIKE PATH
EXISTING OPEN AREA
NEW ENTRANCE DRIVE
EXISTING 33' R.O.W.
S 00°59'30" W 148.66'
C/L TAFT ROAD
NORTH



FIRST FLOOR PLAN
06.13.2026
EXISTING PLAN
1/8" : 1'-0"
26095 TAFT ROAD, NOVI

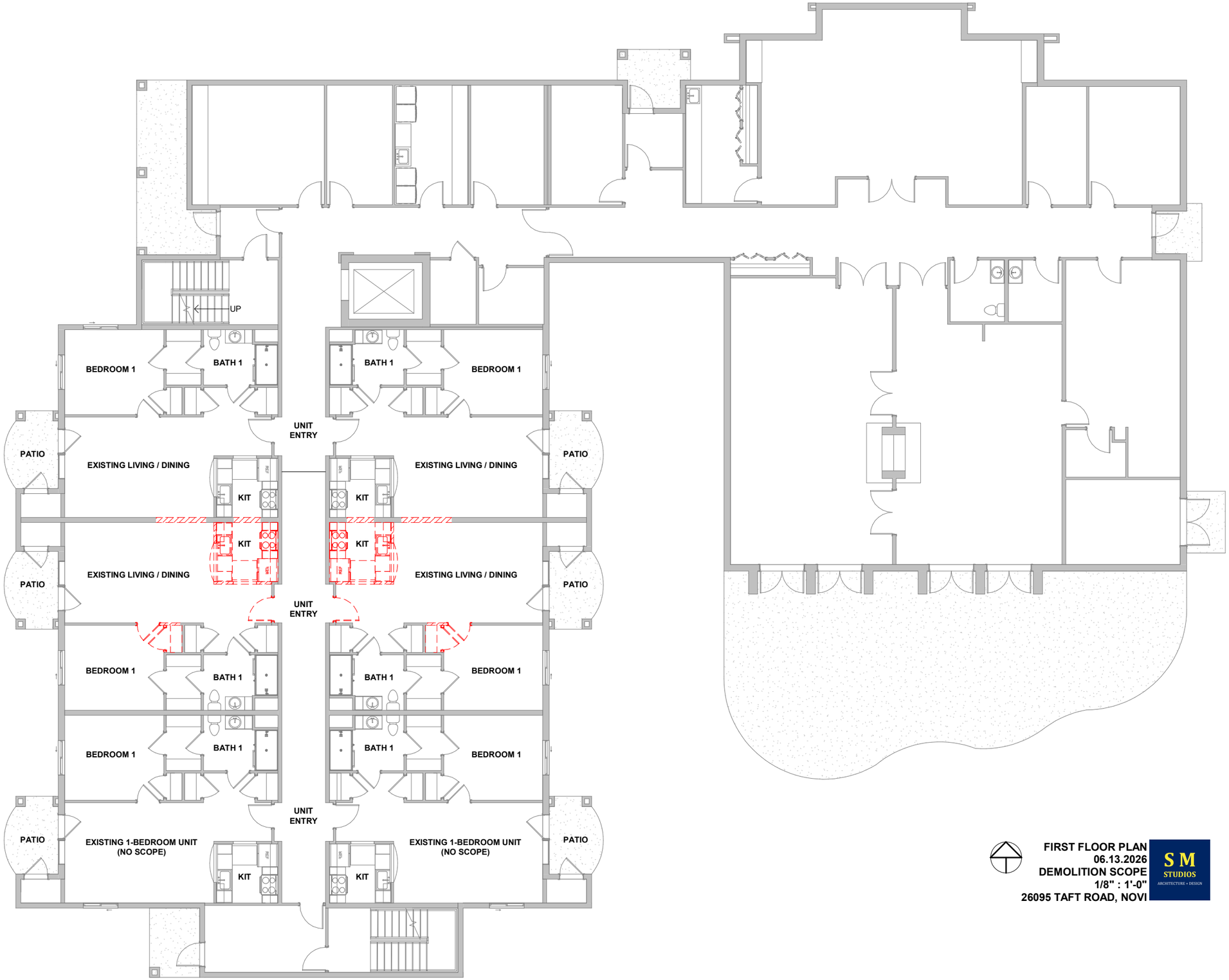
SM STUDIOS
ARCHITECTURE + DESIGN





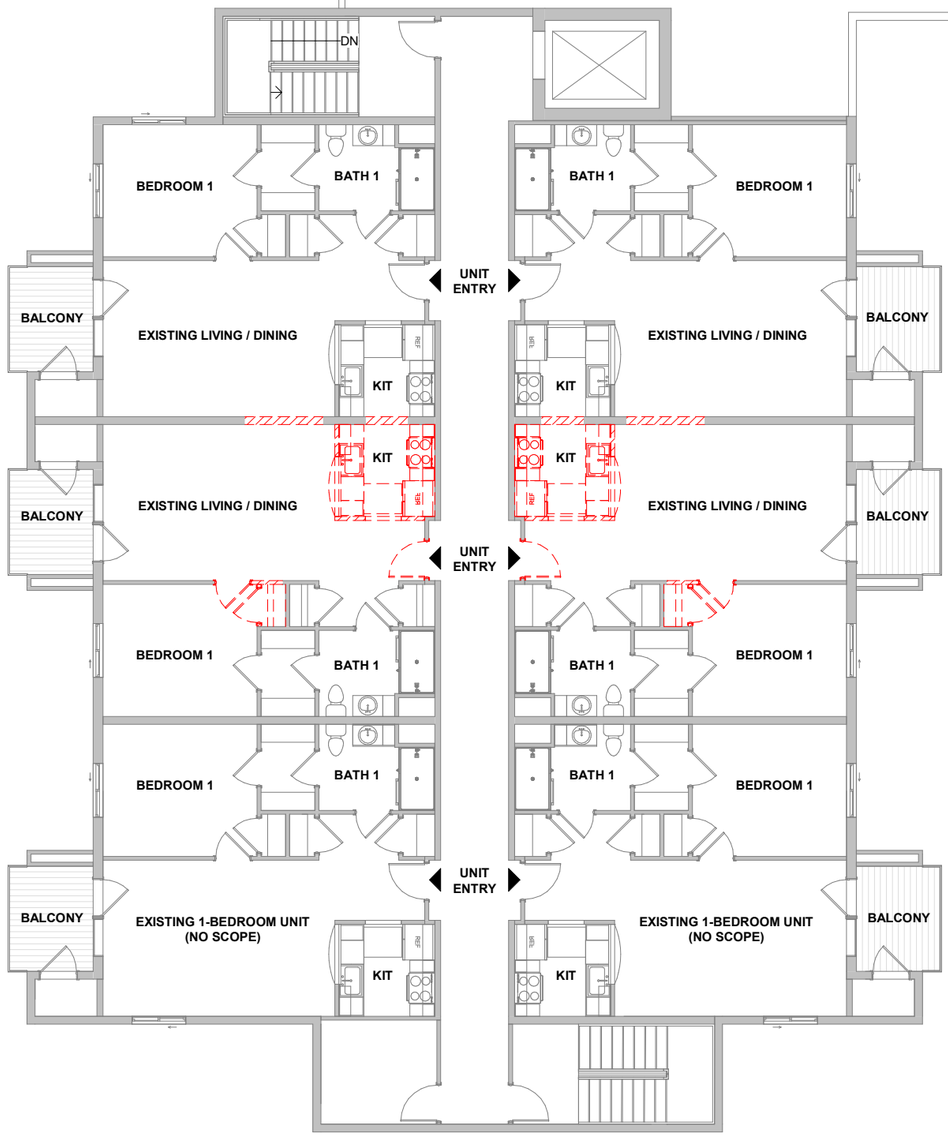
SECOND FLOOR PLAN
06.13.2026
EXISTING PLAN
1/8" : 1'-0"
26095 TAFT ROAD, NOVI

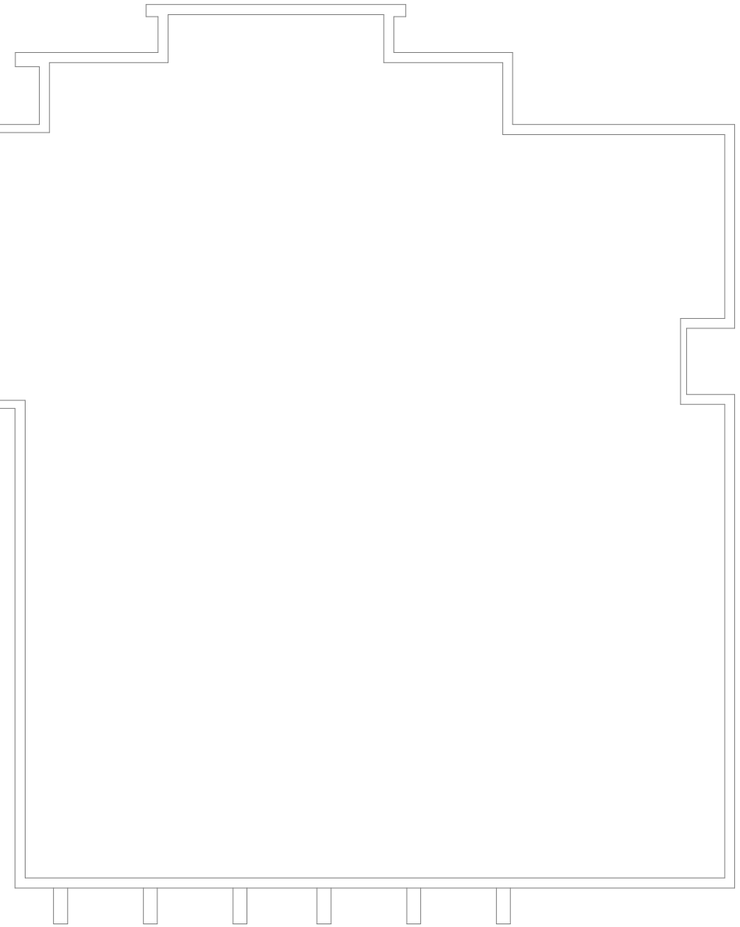
SM STUDIOS
ARCHITECTURE • DESIGN



FIRST FLOOR PLAN
06.13.2026
DEMOLITION SCOPE
1/8" : 1'-0"
26095 TAFT ROAD, NOVI

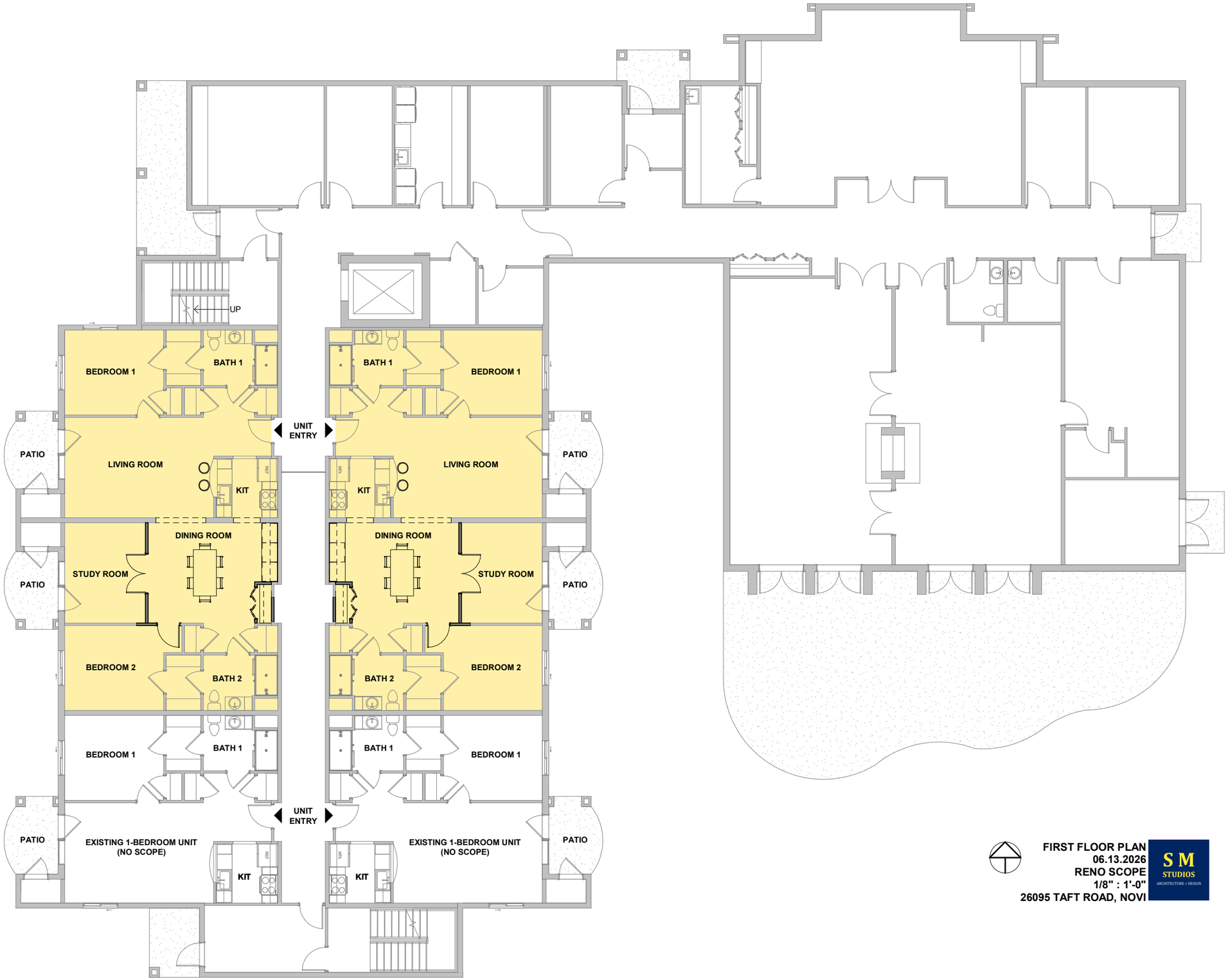
SM STUDIOS
ARCHITECTURE + DESIGN





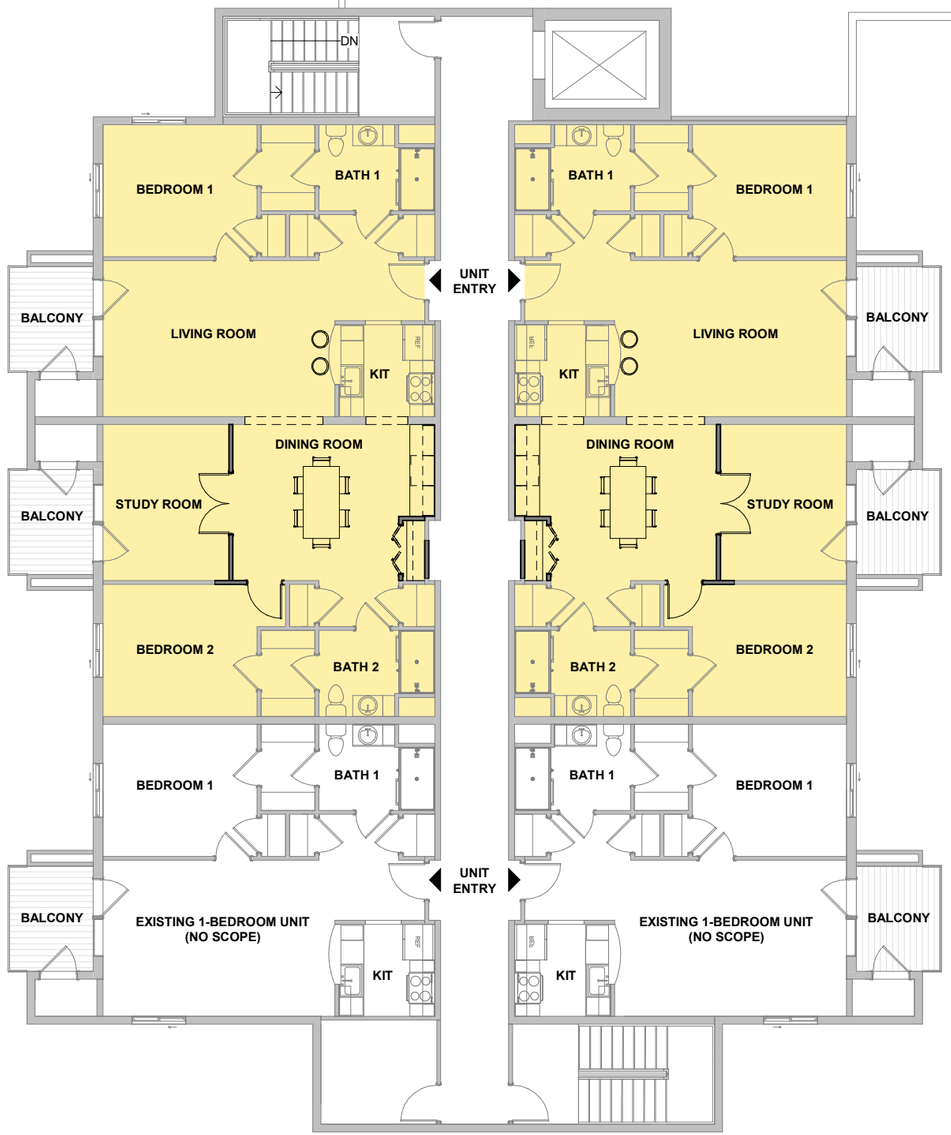
SECOND FLOOR PLAN
06.13.2026
DEMOLITION SCOPE
1/8" : 1'-0"
26095 TAFT ROAD, NOVI

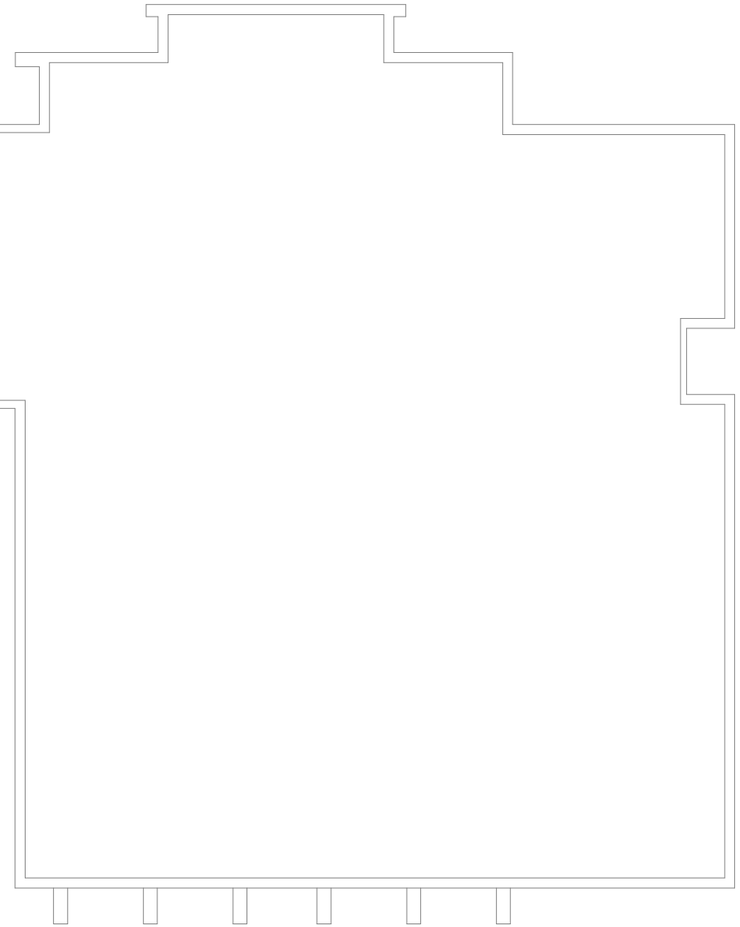
SM STUDIOS
ARCHITECTURE • DESIGN



FIRST FLOOR PLAN
06.13.2026
RENO SCOPE
1/8" : 1'-0"
26095 TAFT ROAD, NOVI

SM STUDIOS
ARCHITECTURE • DESIGN





SECOND FLOOR PLAN
06.13.2026
RENO SCOPE
1/8" : 1'-0"
26095 TAFT ROAD, NOVI

SM STUDIOS
ARCHITECTURE • DESIGN

NEW BASILIAN FATHERS RESIDENCE

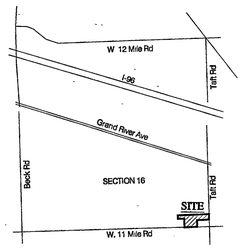
26095 TAFT ROAD

NOVI, MICHIGAN

BID PACKAGE NO. 2

BUILDING CONTRACT

LOCATION MAP



LOCATION MAP
SCALE: 1"=2000'

BUILDING DATA

BUILDING HEIGHT	USE GROUP "R-2" 24'-1"	USE GROUP "A-3" 15'-10"
GROSS SQUARE FOOT AREAS		
FIRST FLOOR	6,816 SQ. FT.	4,892 SQ FT.
SECOND FLOOR	5,651 SQ. FT.	
TOTAL FLOOR AREAS	12,467 SQ. FT.	4,892 SQ. FT.
TOTAL GROSS BUILDING AREA	17,359 SQ. FT.	
UNIT GROSS AREA	719 SQ. FT. (W/O FURNACE CLOSET)	
ONE BEDROOM/ONE BATHROOM	12 TOTAL UNITS	
BUILDING CODE DATA:		
BUILDING CODE	2006 MICHIGAN BUILDING CODE	
USE GROUPS	"R-2"/"A-3"	
CONSTRUCTION TYPE	5B FIRE SUPPRESSED "R-2" NFPA 13R SYSTEM "A-3" NFPA 13 SYSTEM	

DRAWING INDEX

DWG NO	DRAWING TITLE
G-0.01	COVER SHEET AND PROJECT STANDARDS
	CIVIL
S-1.01	BOUNDARY SURVEY (FOR REFERENCE ONLY)
C-1.01	OVERALL SITE PLAN (FOR RFERENCE ONLY)
C-1.02	TAFT ROAD SANITARY SEWER (FOR REFERENCE ONLY)
C-1.03	GRADING AND SOIL EROSION (FOR RERFERENCE ONLY)
C-1.04	DETENTION PLAN (FOR REFERENCE ONLY)
C-1.05	STORMWATER MANAGEMENT (FOR REFERENCE ONLY)
C-1.06	UTILITY PROFILES (FOR REFERENCE ONLY)
C-1.07	UTILITY PROFILES (FOR REFERENCE ONLY)
C-1.08	SOIL EROSION PLAN AND DETAILS (FOR REFERENCE ONLY)
C-1.09	VORTECHNICS DETAILS (FOR REFERENCE ONLY)
L-1.1	LANDSCAPE PLAN (FOR REFERENCE ONLY)
L-1.2	LANDSCAPE PLAN (FOR REFERENCE ONLY)
L-1.3	LANDSCAPE PLAN (FOR REFERENCE ONLY)
N-1.1	NATURAL FEATURES IMPACT (FOR REFERENCE ONLY)
N-1.1	NATURAL FEATURES IMPACT (FOR REFERENCE ONLY)
	CITY OF NOVI STANDARD DETAILS
D-1.1	WATER MAIN DETAILS (FOR REFERENCE ONLY)
D-1.2	WATER MAIN DETAILS (FOR REFERENCE ONLY)
D-1.3	SANITARY SEWER DETAILS (FOR REFERENCE ONLY)
D-1.4	O C D.P W SANITARY SEWER DETAILS (FOR REFERENCE ONLY)
D-1.5	STORM SEWER DETAILS (FOR REFERENCE ONLY)
D-1.6	PAVEMENT DETAILS FOR CITY OF NOVI ROADWAYS (FOR REFERENCE ONLY)
	ARCHITECTURAL
A-1	BUILDING FOUNDATION PLAN
A-2	BUILDING FIRST FLOOR PLAN
A-3	BUILDING SECOND FLOOR PLAN
A-4	BUILDING ROOF PLAN
A-5	BUILDING ELEVATIONS
A-6	BUILDING ELEVATIONS
A-7	BUILDING ELEVATION DETAILS
A-8	COMMONS AREA FLOOR PLAN
A-9	COMMONS AREA FLOOR PLAN
A-10	UNIT FLOOR PLANS AND WALL TYPES
A-11	SCHEDULES
A-12	BUILDING SECTION AND DETAILS
A-13	BUILDING SECTION AND DETAILS
A-14	WALL SECTIONS
A-15	WALL SECTIONS
A-16	STRUCTURAL FRAMING PLAN
A-17	STRUCTURAL FRAMING PLAN
A-18	REFLECTED CEILING FIRST FLOOR PLAN
A-19	REFLECTED CEILING SECOND FLOOR PLAN
A-20	INTERIOR ELEVATIONS AND DETAILS
A-21	TRASH ENCLOSURE, MONUMENT SIGN AND CARPORT DETAILS
	FOOD SERVICE
FSE-1	BUILDING FOUNDATION PLAN
FSE-2	BUILDING FIRST FLOOR PLAN
FSE-3	BUILDING SECOND FLOOR PLAN
FSE-4	BUILDING ROOF PLAN
FSE-5	BUILDING ELEVATIONS
	MECHANICAL
M-1	FIRST FLOOR PLAN - SANITARY
M-2	FIRST FLOOR PLAN - WATER
M-3	FIRST FLOOR PLAN - HVAC
M-4	SECOND FLOOR PLAN - HVAC
M-5	UNIT FLOOR PLANS - HVAC
M-6	RISERS DETAILS AND SCHEDULES
M-7	FIRST FLOOR PARTIAL PLANS - SANITARY AND WATER
M-8	MECHANICAL SCHEDULES
	ELECTRICAL
E-1	ELECTRICAL FLOOR PLANS
E-2	ELECTRICAL LIGHTING FLOOR PLANS
E-3	PARTIAL ELECTRICAL FLOOR PLANS AND SCHEDULES
E-4	ELECTRICAL RISERS, PANEL SCHEDULES AND DETAILS

cdpa architects
26600 Telegraph Rd. Suite 450
Southfield, Michigan 48033
T (248) 354-2441 F (248) 354-4214
E-mail: cdpa@cdpa-architects.com
www.cdpaarchitects.com

Key Plan: NO SCALE

N

Project Name and Client:
NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
09-29-08	BID PACK NO. 1
10/22/08	BID PACK NO. 2

Drawn: SJF
Checked: SJF
Approved: JPA

Sheet Title:
COVER SHEET DRAWING INDEX AND LOCATION MAP

Project Number.
07-140

Sheet Number:
G-0.01

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F:\Basilian Residence\Current\General\G-0.01 COVER SHEET.dwg, 10/24/2008 10:31:15 AM, sflickema

NOTES:

1. SUBJECT SITE DOES NOT FALL WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD AREA PER THE NATIONAL FLOOD INSURANCE PROGRAM, FLOODWAY MAP COMMUNITY PANEL No. 26125C0626F WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006.

   THE ABOVE FLOOD PLAIN STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING.

2. TERMS AND CONDITIONS EVIDENCED IN TEMPORARY CONSTRUCTION AS RECORDED IN L. 12752, P. 605 MAY HAVE BEEN TERMINATED.

3. THE PARCEL DESCRIBED IN THE "AS SURVEYED" LEGAL DESCRIPTION IS THE SAME PARCEL AS DESCRIBED IN THE TITLE SEARCH PROVIDED.

N
W E
S
SCALE: 1" = 30'
0 15 30 60

LEGAL DESCRIPTION (PER TITLE POLICY)

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF SECTION 16, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY MICHIGAN DESCRIBED AS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 16; THENCE DUE WEST 323.50 FEET ALONG THE SOUTH LINE OF SAID SECTION 16; THENCE WEST 348.80 FEET; THENCE N. 00°42'50" E. 233.00 FEET; THENCE WEST 171.00 FEET; THENCE N. 00°42'50" E. 98.68 FEET (RECORDED 98.65 FEET MEASURED); THENCE EAST 844.97 FEET; THENCE S. 01°00'12" W. 148.68 FEET; THENCE WEST 323.60 FEET; THENCE S. 01°00'12" W. 183.00 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION (AS SURVEYED)

A PARCEL OF LAND LOCATED IN PART OF THE SOUTHEAST 1/4 OF SECTION 16, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 16 AND PROCEEDING ALONG THE SOUTH LINE OF SECTION 16, SAID LINE ALSO BEING THE CENTERLINE OF ELEVEN MILE ROAD (33 FEET WIDE. 1/2 WIDTH) DUE WEST 323.50 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID SOUTH LINE AND CENTERLINE DUE WEST 348.80 FEET; THENCE N. 00°42'50" E. 233.00 FEET; THENCE DUE WEST 171.00 FEET; THENCE N. 00°42'50" E. 98.65 FEET; THENCE DUE EAST 844.97 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 16, ALSO BEING THE CENTERLINE OF TAFT ROAD (33 FEET WIDE, 1/2 WIDTH); THENCE ALONG SAID SECTION LINE AND CENTERLINE S. 01°00'12" W. 148.68 FEET; THENCE DUE WEST 323.50 FEET; THENCE S. 01°00'12" W. 183.00 FEET TO THE POINT OF BEGINNING. CONTAINING 4.15 ACRES MORE OR LESS AND BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

LEGEND

- BOUNDARY LINE
- PARCEL LINE
- SECTION LINE
- OVERHEAD WIRES
- UTILITY POLE
- GUY ANCHOR
- SIGN
- SECTION CORNER
- FCI, FIP
- FCI FOUND CAPPED IRON
- FIP FOUND IRON PIPE
- ℄ CENTERLINE
- R.O.W. RIGHT OF WAY
- ( ) STATE PLANE COORDINATES AND BEARINGS
- (G-06) STATE PLANE COORDINATES SECTION / 1/4 CORNER IDENTIFICATION CODE

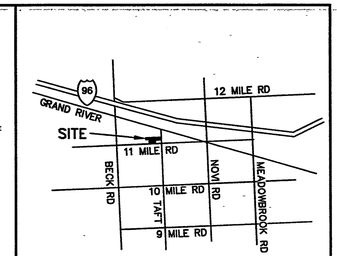
CERTIFICATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2005. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF MICHIGAN, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

DATE:

RICHARD HOFSESS
PROFESSIONAL SURVEYOR No. 47955

ZEIMET/WOZNIAK & ASSOCIATES
40024 GRAND RIVER AVE, SUITE 100
NOVI, MI 48375 PH: (248) 442-1101
FAX: (248) 442-1241



LOCATION MAP
NOT TO SCALE

(G-06)
E. 1/4 CORNER
SECTION 16
T. 2 N., R. 8 E.
CITY OF NOVI
OAKLAND CO., MI.
FD REMON DISC
#24598 IN
GRAVEL ROAD
(N 361,185.4622
E 13,358,270.54)

22-164-51-034
ZONED R-1
DUE EAST 844.97'

FD 1/2" IRON PIPE
N 00°42'50" E 98.65'
FD 1/2" IRON PIPE
FD 1/2" IRON PIPE
DUE WEST 171.00'
FD 1/2" IRON PIPE
22-164-51-023
22-164-51-076
ZONED R-1
22-164-51-024
ZONED R-A
N 00°42'50" E 233.00'
FD 1/2" IRON PIPE
DUE WEST 323.50'
AT&T FLAG
FD 1/2" IRON PIPE
PROPOSED 60' R.O.W. LINE
33' R.O.W. LINE
S 01°00'12" W 148.68'
S 01°00'12" W 2652.68'
(N 01°42'29" W 2652.39')
℄ TAFT RD. (33' WIDE 1/2 WIDTH) PUBLIC
(ASPHALT PAVING W/NO CURBS)
EAST LINE SEC. 16
22-164-51-077
ZONED R-A
S 01°00'12" W 183.00'
FD 1/2" IRON PIPE
10' TEMPORARY CONSTRUCTION EASEMENT
PROPOSED 43' R.O.W. LINE
33' R.O.W. LINE
GAS FLAG
FD 1/2" IRON PIPE
DUE WEST 348.80'
DUE WEST 323.50'
SOUTH LINE SEC. 16
℄ ELEVEN MILE RD. (33' WIDE 1/2 WIDTH) PUBLIC
(ASPHALT PAVING W/CONCRETE CURBS)
33' R.O.W. LINE
DUE WEST 2654.54'
(S 87°17'09" W 2654.11')
POINT OF BEGINNING
ZONED R-A

(F-07)
S. 1/4 CORNER
SECTION 16
T. 2 N., R. 8 E.
CITY OF NOVI
OAKLAND CO., MI.
FD REMON DISC
#24598 IN MON BOX
(N 358,408.5764
E 13,355,698.47)

(G-07)
S.E. CORNER
SECTION 16
T. 2 N., R. 8 E.
CITY OF NOVI
OAKLAND CO., MI.
FD REMON DISC
#24598 IN MON BOX
(N 358,534.2521
E 13,358,349.60)

FOR REFERENCE ONLY

TOP PRODUCER TITLE, LLC, COMMITMENT NO. PR35668, DATED JUNE 11, 2007.

REVISIONS	DATE	BY	REVISIONS	DATE	BY	REVISIONS	DATE	BY	REVISIONS	DATE	BY
PRELIM. SITE PLAN APPROVAL	5-28-08										
ENGINEERING SUBMITTAL	7-22-08										
STAMPING SET	9-8-08										
BID PACK #1	9-29-08										

ZEIMET WOZNIAK & ASSOCIATES
Civil Engineers & Land Surveyors
40024 GRAND RIVER AVE, SUITE 100
NOVI, MICHIGAN 48375
P: (248) 442-1101 F: (248) 442-1241 www.zeimetwozniak.com

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27225 WIXOM ROAD
NOVI, MI. 48374

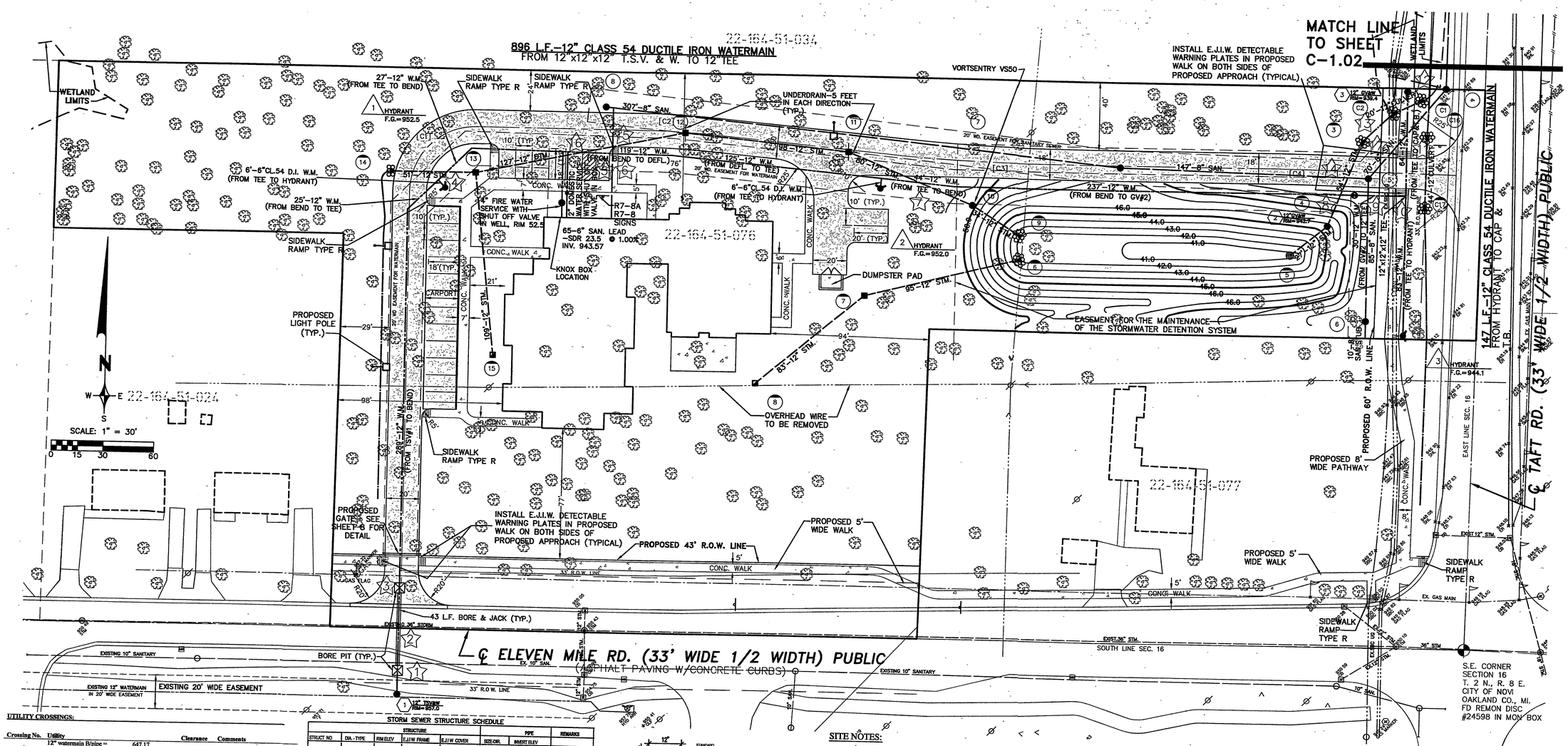
BOUNDARY SURVEY
BASILIAN RESIDENCE
CITY OF NOVI, SECTION 16 OAKLAND COUNTY MICHIGAN

FIELD BOOK 1420

DATE 2-15-08	SCALE HOR: 1" = 30' VER: 1" =
DESIGNED BY TRP	JOB NO. 07142
DRAWN BY PTG	SHEET S-1.01

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H:\Projects\07142\dwg\07142 BDY.dwg, BOUNDARY -SITE PLAN, 10/1/2008 10:46:41 AM, JHiggins



UTILITY CROSSINGS:

Crossing No.	Utility		Clearance	Comments
1	12" watermain B/pipe =	647.17		
	Ex 10" sanitary T/pipe =	941.67 (calc)	5.50'	
2	Ex 36" storm sewer B/pipe =	949 87 (calc)		
	12" watermain T/pipe =	948 37	1.50'	
3	Ex 6" gas main B/pipe =	952.5±		
	12" watermain T/pipe =	948.37	4.13'	
4	12" storm sewer B/pipe =	947.46		
	12" watermain T/pipe =	945.96	1.50'	lower watermain
5	12" storm sewer B/pipe =	946 00		
	12" watermain T/pipe =	944.50	1.50'	lower watermain
6	12" watermain B/pipe =	945.25		
	6" sanitary lead T/pipe =	943.75	1.50'	
7	12" storm sewer B/pipe =	942.70		
	12" watermain T/pipe =	941.20	1.50'	lower watermain
8	12" storm sewer B/pipe =	939.50		
	12" watermain T/pipe =	935.30	4.20'	
9	12" watermain B/pipe =	934.10		
	8" sanitary T/pipe =	932.21	1.89'	
10	Ex SBC underground bottom =	937±		
	12" watermain T/pipe =	933.30	1.70'	
11	12" watermain B/pipe =	932.79		
	8" sanitary T/pipe =	931.29	1.50'	
12	12" storm sewer B/pipe =	937.90		
	12" watermain T/pipe =	933 60	4.30'	
13	12" storm sewer B/pipe =	938 00		
	Ex SBC underground top =	936 5±	1.50'	
14	12" storm sewer B/pipe =	939.42		
	8" sanitary T/pipe =	932.23	7.19'	
15	12" storm sewer B/pipe =	945.83		
	6" sanitary lead T/pipe =	943.75	2.08'	
16	12" storm sewer B/pipe =	946.04		
	4"ø 2" water lead T/pipe =	944.54	1.50'	
17	Ex SBC underground bottom =	936.2±		
	8" sanitary T/pipe =	931.35	4.85'	
18	Ex SBC underground bottom =	932 5±		
	8" sanitary T/pipe =	926 20	6.2'	
19	Ex SBC underground bottom =	931.30		
	8" sanitary T/pipe =	926.40	4.9'	
20	Ex gas main bottom =	938.8±		
	8" sanitary T/pipe =	929.90	8.9'	
21	Ex 24" culvert B/pipe =	936.47		
	8" sanitary T/pipe =	930.97	5.5'	

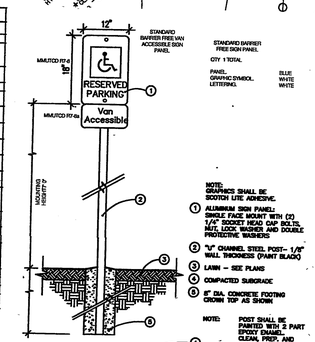
STORM SEWER STRUCTURE SCHEDULE

STRUCT. NO	STRUCTURE: DIA - TYPE	RIM ELEV	EJ I.W. FRAME	EJ I.W. COVER	PIPE: SIZE-DIR.	PIPE: INVERT ELEV	REMARKS
C1	12' E.S.	-	-	-	12" SW	938.00	
C2	12' E.S.	-	-	-	12" NE	938.20	
3	12' E.S.	-	-	-	12" SW	939.50	
4	4' M.H.	946.00		BAR GRATE	12" N	939.70	
					12" S	939.76	
5	36" STANDPIPE 48" STANDPIPE	945.00		BAR GRATE	12" E	939.90	INNER OUTER
6	12' E.S.	942.00	-	-	12" W	942.00	
7	4' M.H.	951 0	1040	TYPE N	12" E	942.26	4' SUMP
					12" W	945.66	
8	2' Inl.	950.5	1040	TYPE N	12" E	945.33	2' SUMP
9	12' E.S.	-	-	-	12" NW	942.00	
10	VORTSENTRY VS50	950 0	-	TYPE A	12" NW	942.34	
					12" SE	942.24	
11	4' C.B.	951.00	1040	TYPE M2	12" W	945.27	2' SUMP
					12" SE	945.90	
12	4' C.B.	950 00	1040	TYPE M2	12" W	945.71	2' SUMP
					12" E	945.71	
13	4' C.B.	952.00	1040	TYPE N	12" S	946.72	2' SUMP
					12" S	946.72	
					12" N	945.00	
14	12' E.S	949.50	-	-	12" E	949.50	
15	2' IN.	952.00	1040Z	TYPE N	12" N	948.35	
C16	12' E.S	—	-	-	12" S	939.50	
C17	12' E.S.	940 00	-	-	12" N	940.50	

QUANTITIES:

SANITARY SEWER (ON-SITE)	
8" SDR-26	619 L.F.
6" LEAD SDR 23.5	65 L.F.
4' MANHOLE	5 EA.
SANITARY SEWER (OFF-SITE)	
8" SDR-26	865 L.F.
4' MANHOLE	3 EA.
CONNECT TO EXISTING MANHOLE	1 EA.
RESTORATION	865 L.F.
SILT FENCE	900 L.F.
DRIVEWAY REMOVAL & REPAIR	2 EA.
WATER MAIN	
12" DUCTILE IRON CLASS – 54	1,043 L.F.
6" DUCTILE IRON CLASS – 54	12 L.F.
4" DUCTILE IRON CLASS – 54	38 L.F.
2" TYPE "K" COPPER	38 L.F.
HYDRANT ASSEMBLY	3 EA.
12" X 12"TAPPING SLEEVE VALVE & WELL	1 EA.
12" GATE VALVE & WELL	2 EA.
BORE ELEVEN MILE ROAD	43 L.F.
STORM SEWER	
12" C76-CLASS IV	823 L.F.
6" UNDERDRAIN	160 L.F.
4' MANHOLE	2 EA.
4' CATCH BASIN	4 EA.
2' INLET	2 EA.
OUTLET STRUCTURE	1 EA.
12" END SECTION W/ RIP – RAP	8 EA.
VORTSENTRY VS50	1 EA.
DITCHING	370 L.F.
SIGNS	
R7-8 (RESERVED PARKING)	1 EA.
R7-8A (VAN ACCESSIBLE)	1 EA.

SIGN NOTE:
ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.



TYPICAL SIGNAGE DETAIL
NOT TO SCALE

SITE NOTES:

1. THE SITE IS ZONED RM-1.
2. THE SITE CONTAINS 4.15 ACRES. (180,774.0 SQ. FT.±)
3. ALL DRIVES ARE PRIVATE.
4. ALL WATER MAINS AND FIRE HYDRANTS ARE TO BE INSTALLED AND BE IN SERVICE PRIOR TO CONSTRUCTION ABOVE THE FOUNDATION.
5. THE BUILDING ADDRESS IS TO BE POSTED FACING THE STREET THROUGHOUT CONSTRUCTION. THE ADDRESS IS TO BE A LEAST 3 INCHES HIGH ON A CONTRASTING BACKGROUND.
6. WATER MAIN SHALL BE PUBLIC, PLACED IN A 20' WIDE EASEMENT. ALL WATER SERVICE LEADS SHALL BE PRIVATE.
7. SANITARY SEWER SHALL BE PUBLIC, PLACED IN A 20' WIDE EASEMENT. ALL SANITARY SERVICE LEADS SHALL BE PRIVATE.
8. ALL STORM SEWER SHALL BE PRIVATE.
9. ALL WORK SHALL CONFORM TO CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
10. A STORMWATER TREATMENT UNIT VORTSENTRY VS50 SHALL BE USED IN LIEU OF A FOREBAY.
11. PAVEMENT AREA: 22840 S.F. ON SITE

NUMBER OF PARKING SPACES REQUIRED
ONE PARKING SPACE FOR EACH UNIT IS REQUIRED
14 UNITS x 1 = 14 SPACES
20 SPACES ARE PROVIDED WITH ON VAN ACCESSIBLE SPACE

LEGEND

EXISTING		PROPOSED	
MANHOLE		MANHOLE	
CATCH BASIN		CATCH BASIN	
INLET		INLET	
CLEANOUT		CLEANOUT	
END SECTION		END SECTION	
ROOF DRAIN		ROOF DRAIN	
GATE VALVE		GATE VALVE	
HYDRANT		HYDRANT	
WATER SHUT-OFF		WATER SHUT-OFF	
UTILITY POLE		TREE REMOVAL	
GUY ANCHOR		SANITARY SEWER	
LIGHT POLE		STORM SEWER	
SIGN		WATER MAIN	
TREE		℄ DITCH	
TREE LINE		CONTOUR MAJOR	
SANITARY SEWER		CONTOUR MINOR	
STORM SEWER		x99.0 PROPOSED GRADE	
WATER MAIN		UTILITY CROSSING	
GAS MAIN			
ELECTRIC CABLE			
CONTOUR MAJOR			
CONTOUR MINOR			
+100.00 SPOT ELEVATION			

NOTE:

1. PROPOSED 8" SANITARY LEAD SHALL HAVE MINIMUM 5 FEET (5') OF COVER.
2. IF DEWATERING IS REQUIRED, A DEWATERING PLAN MUST BE SUBMITTED TO THE CITY.
3. IT IS THE DEVELOPER'S RESPONSIBILITY TO GRADE AND STABILIZE DISTURBED AREAS DUE TO INSTALLATION OF PUBLIC UTILITIES.
4. THE STORM WATER BASIN SHALL BE STABILIZED PRIOR TO STORM FLOW TO THE BASIN.
5. STREET SWEEPING AND DUST CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. VEGETATION SHALL BE ESTABLISHED WITHIN 5 DAYS OF FINAL GRADE OR WHENEVER DISTURBED AREAS WILL REMAIN UNCHANGED FOR 30 DAYS OR GREATER. 3–4" OF TOPSOIL WILL BE USED WHERE VEGETATION IS REQUIRED.
7. DIVERSION BERMS OR TERRACING SHALL BE IMPLEMENTED WHERE NECESSARY.
8. ALL DRAINAGE DITCHES SHALL BE STABILIZED WITH EROSION CONTROL BLANKET AND AND SHALL UTILIZE CHECK DAMS AS NECESSARY. DRAINAGE DITCHES STEEPER THAN 3% SHALL BE SODDED.
9. SLOPES STEEPER THAN 1V:6H (16%) SHALL BE STABILIZED WITH EROSION CONTROL BLANKET.

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD
C1	61.26	39.00	90°00'00"	S45°00'00"W	55.15
C2	44.74	499.00	5°08'12"	N87°25'54"W	44.72
C3	89.65	1000.00	5°08'12"	S87°25'54"E	89.62
C4	17.51	1000.00	1°00'11"	N89°29'54"W	17.51

C.S.B. NOTES:
C.S.B. DENOTES SAND BACKFILL COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM UNIT WEIGHT.
C.S.B. REQUIRED UNDER OR WITHIN A 1 ON 1 SLOPE OF EXISTING OR PROPOSED PAVEMENT AND AT ALL UTILITY CROSSINGS.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OFTHE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
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.

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www.deakplanningdesign.com

Project Name
BASILIAN RESIDENCE SECTION 16
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
7-22-08	ENGINEERING SUBMITTAL
8-25-08	PER CITY REVIEW
9-8-08	STAMPING SET
9-29-08	BID PACK #1
10/22/08	BID PACK NO. 2

Drawn: JH/JMB
Checked:
Approved:

Sheet Title:
OVERALL SITE PLAN

Project Number: ZWA 07142

Sheet Number: C1.01

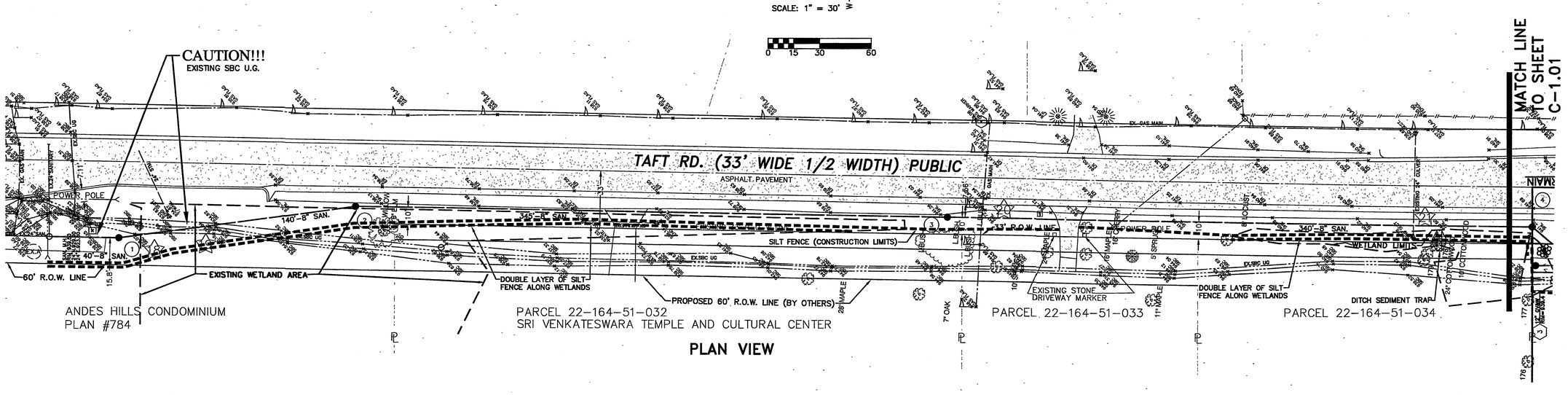
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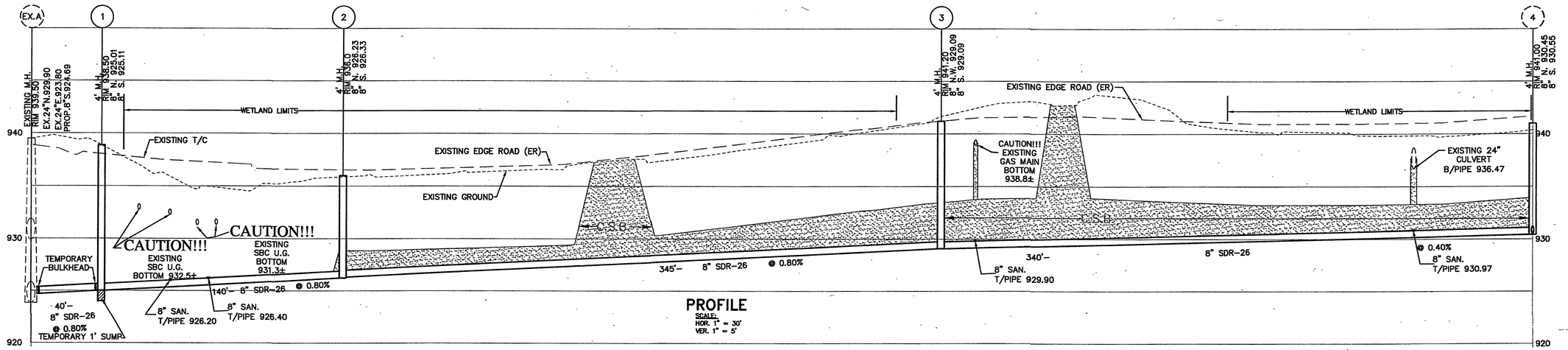
NOTE:
RESTORE ALL DISTURBED AREAS TO PRE CONSTRUCTION CONDITIONS OF BETTER

SCALE: 1" = 30'

0 15 30 60



PLAN VIEW



PROFILE

SCALE:
HOR. 1" = 30'
VER. 1" = 5'

NOTE:

1. IF DEWATERING IS REQUIRED, A DEWATERING PLAN MUST BE SUBMITTED TO THE CITY.
2. ANY DAMAGE TO TAFT ROAD PAVEMENT CAUSED BY CONSTRUCTION SHALL BE REPAIRED PER CITY STANDARDS AND SPECIFICATIONS.

SANITARY SEWER DESIGN FOR FUTURE DEVELOPMENT

AREA OF LAND ZONED RA IS 13.5 ACRES
AREA OF LAND ZONED R1 IS 12.1 ACRES

No. OF UNITS
13.5 ACRES @ 0.8 UNITS PER ACRE = 11 UNITS
12.1 ACRES @ 1.65 UNITS PER ACRE = 20 UNITS
TOTAL UNITS = 31 UNITS

31 REU x 3.5 PEOPLE/UNIT = 108.5 PEOPLE

AVERAGE DAILY FLOW
108.5 PEOPLE x 100 G.P.C.P.D. = 10,850 G.P.D.
10,850 GPD/(7.5x24x3600) = 0.017 CFS

PEAK DAILY FLOW
108.5 PEOPLE x 400 G.P.C.P.D. = 43,400 G.P.D.
43,400 GPD/(7.5x24x3600) = 0.07 CFS

SANITARY SEWER DESIGN FOR THE PROPOSED DEVELOPMENT:

12 BEDROOMS WITH A UNIT FACTOR OF
1 UNIT + 0.25 UNITS PER BEDROOM = 4.0 REU

4.0 REU x 3.5 PEOPLE PER REU = 14 PEOPLE

AVERAGE DAILY FLOW =
14 PEOPLE x 100 G.P.C.P.D. = 1400 G.P.D.
1400 G.P.D./(7.5 x 24 x 3,600) = 0.002 C.F.S.

PEAK DAILY FLOW =
14 PEOPLE x 400 G.P.C.P.D. = 5600 G.P.D.

5600 G.P.D. =
(7.5)(24)(3600) = 0.009 C.F.S.

AN 8" DIAMETER SANITARY SEWER AT 0.40% (MIN.)
HAS A CAPACITY OF 0.70 C.F.S.

C.S.B. NOTES:

C.S.B. DENOTES SAND BACKFILL COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM UNIT WEIGHT.

C.S.B. REQUIRED UNDER OR WITHIN A 1 ON 1 SLOPE OF EXISTING OR PROPOSED PAVEMENT AND AT ALL UTILITY CROSSINGS.

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28000 wheat road, suite 120
southfield, michigan 48034
ph 248.357.7788 ph 248.436.3301
www.deakplanningdesign.com

Project Name
BASILIAN RESIDENCE
SECTION 16
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
7-22-08	ENGINEERING SUBMITTAL
8-25-08	PER CITY REVIEW
9-8-08	STAMPING SET
9-17-08	REVISE PER SOIL EROSION AND SEDIMENTATION CONTROL REVIEW
9-29-08	BID PACK #1
10/22/08	BID PACK NO. 2

Drawn: JH/JMB
Checked:
Approved:

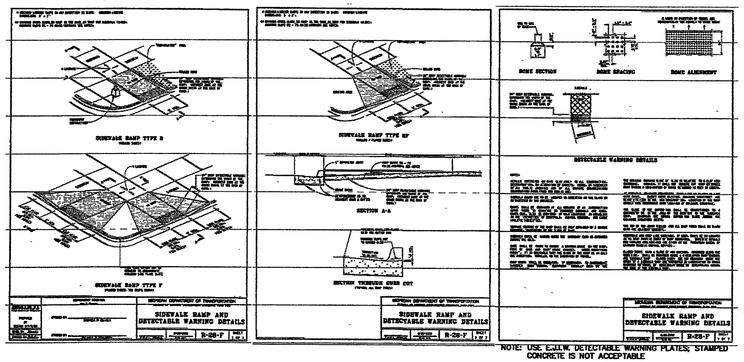
Sheet Title:
TAFT ROAD SANITARY SEWER

Project Number: ZWA 07142

Sheet Number:
C1.02

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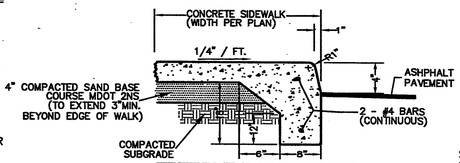
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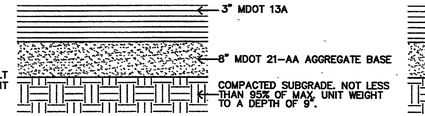
NOTE: USE E.J.I.W. DETECTABLE WARNING PLATES; STAMPED CONCRETE IS NOT ACCEPTABLE

EROSION CONTROL LEGEND

- GEOTEXTILE SILT FENCE
- ORANGE TREE FENCE
- GRAVEL MUD TRACKING MAT
- "SILT–SACK" INLET FILTER
- "STREAMGUARD EXERT II" OR "VERTI–PRO" INLET FILTER
- GRADING BUFFER
- SEED AND STAKED STRAW MULCH BLANKET
- SEDIMENT BASIN OUTLET FILTER

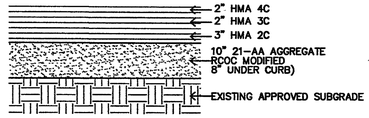


THICKENED EDGE SIDEWALK DETAIL
NOT TO SCALE



ONSITE ASPHALT SECTION
NOT TO SCALE

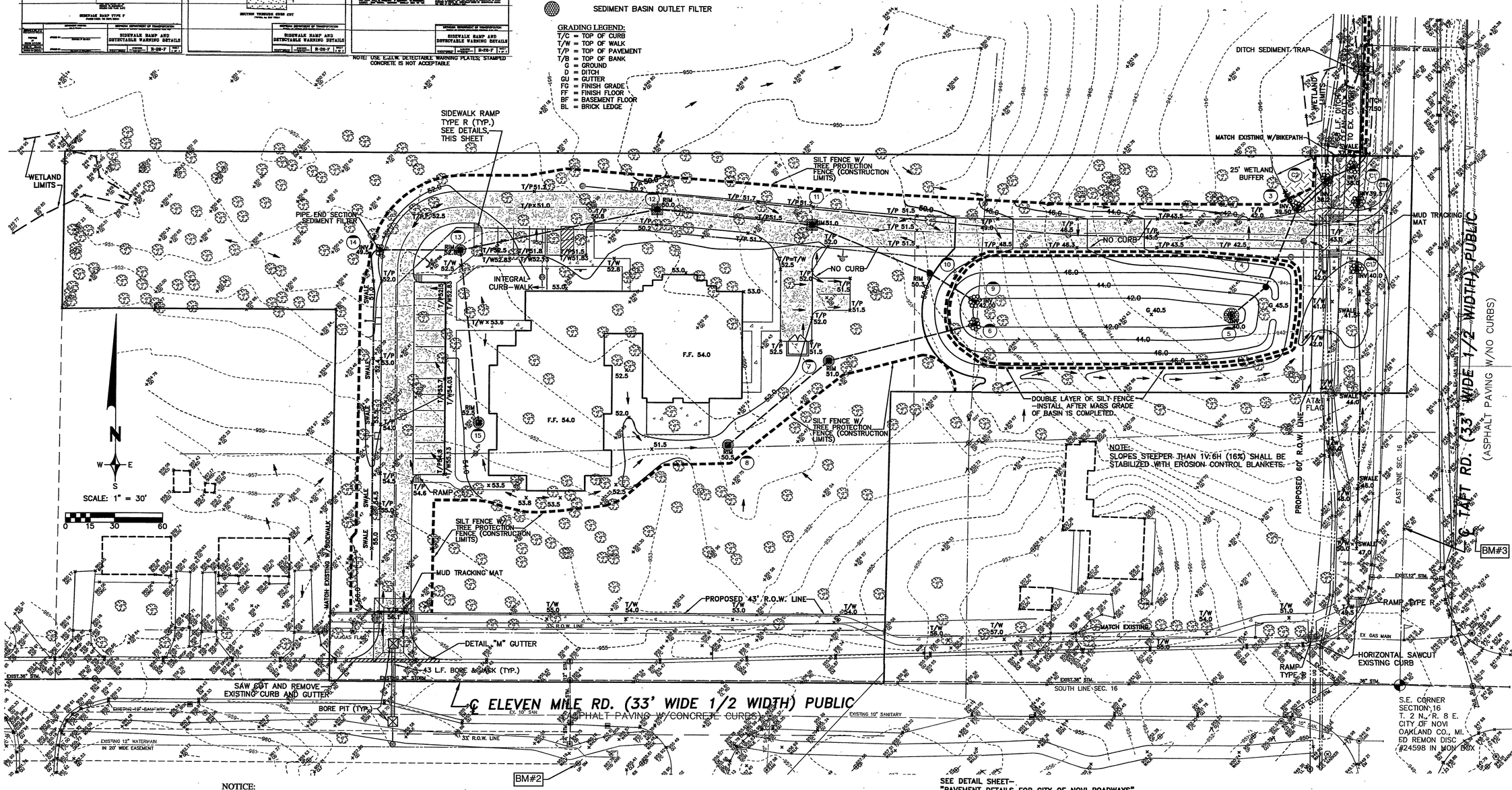
SEE DETAIL SHEET–
"PAVEMENT DETAILS FOR CITY OF NOVI ROADWAYS"



APPROACH ASPHALT SECTION
(TAFT ROAD AND 11 MILE)
NOT TO SCALE

GRADING LEGEND:

T/C = TOP OF CURB
T/W = TOP OF WALK
T/P = TOP OF PAVEMENT
T/B = TOP OF BANK
G = GROUND
D = DITCH
GU = GUTTER
FG = FINISH GRADE
FF = FINISH FLOOR
BF = BASEMENT FLOOR
BL = BRICK LEDGE



BENCHMARKS:

BM#2 MAG NAIL IN NORTH SIDE OF UTILITY POLE LOCATED ON SOUTH SIDE OF 11 MILE ROAD, 513' +/– WEST OF CENTERLINE OF TAFT ROAD
ELEVATION: 956.55
U.S.G.S. DATUM

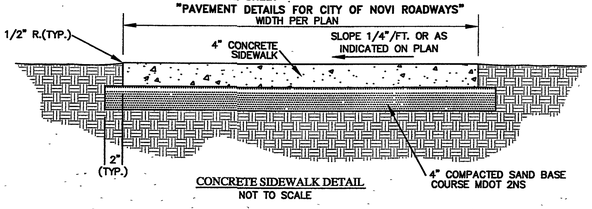
BM#3 MAG NAIL IN WEST SIDE OF UTILITY POLE LOCATED ON EAST SIDE OF TAFT ROAD, 98' +/– NORTH OF CENTERLINE OF 11 MILE ROAD
ELEVATION: 948.58
U.S.G.S. DATUM

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CONCRETE SIDEWALK DETAIL
NOT TO SCALE

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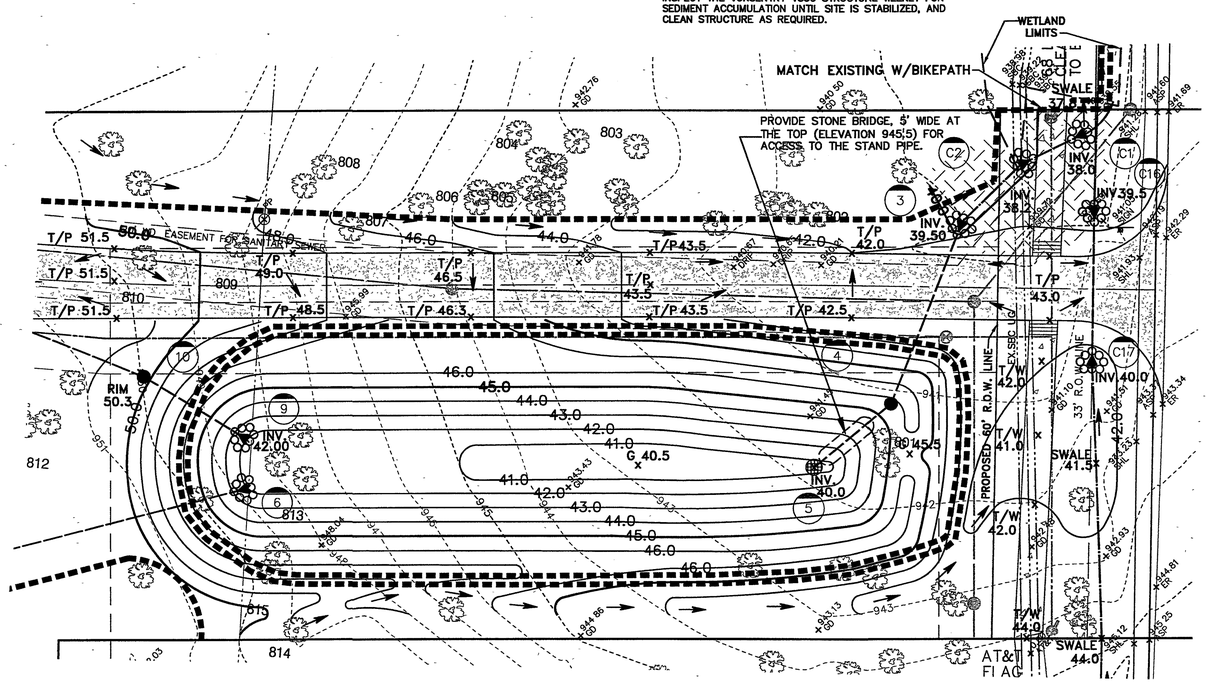
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Approved:

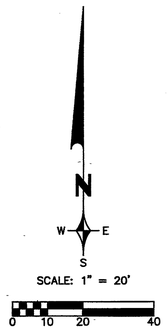
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GRADING & SOIL EROSION

Project Number: ZWA 07142

Sheet Number: C1.03

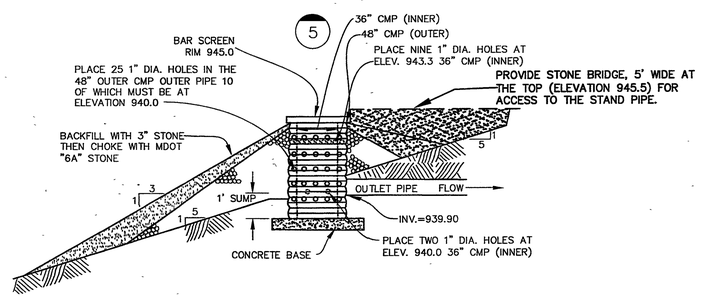
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NOTES:

1. OVER EXCAVATE THE DETENTION AREA BY TWO FEET (2') TO ALLOW FOR SEDIMENTATION TO SETTLE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. AFTER CONSTRUCTION ON THE SITE IS NEARLY COMPLETE AND REVEGETATION OF THE DISTURBED AREAS IS UNDERWAY THE DETENTION AREA SHALL BE REGRADED TO FOUR INCHES (4") BELOW THE PROPOSED GRADES, THEN FOUR INCHES (4") OF TOP SOIL CAN BE PLACED ON THE DETENTION AREA PRIOR TO SEEDING AND MULCHING.
2. THE BANKS OF THE DETENTION AREA SHALL BE STABILIZED PRIOR TO DIRECTING FLOW TO THE BASIN.



STANDPIPE DETAIL
N.T.S.

RUNOFF COEFFICIENT CALCULATION:

Roof	0.4	Acres	@	0.95	=	0.38
Pavement	0.6	Acres	@	0.95	=	0.57
Grass	0.8	Acres	@	0.35	=	0.28
Woodland	1.2	Acres	@	0.15	=	0.18
	3.0	Acres				1.41

C = 1.41 / 3.0 = 0.47

Detention Calculations

100-Year

Q_A = 3.0 x 0.15 = 0.45 cfs
Q_O = 0.57 / (3.0 ac x 0.47) = 0.3191 cfs / Ac-imperv
T = -25 √ (10,312.5 + Q_O) = 154.75 min
V_S = [16,500 T ÷ (T + 25)– 40 T Q_O = 12,230 cf / Ac-imperv
V_T = 12,230 x 3.0 ac x 0.47 = 17,343 cf

Bankfull

5,160 x 3.0 ac x 0.47 = 7,275 cf

DETENTION BASIN

ELEV.	Area (s.f.)		Average Area (s.f.)		Depth (ft.)		Total Volume (c.f.)		Accumulated Volume (c.f.)
946.0									
945.0	7702								
		>	6842	x	1.0		6,842	=	17,805
944.0	5982								
		>	5175	x	1.0		5,175	=	10,963
943.0	4367								
		>	3616	x	1.0		3,616	=	5,788
942.0	2865								
		>	1877	x	1.0		1,876	=	2,172
941.0	888								
		>	296	x	1.0		296	=	296
940.0	0								

OUTLET DESIGN

Bank Full

The bank full elevation is 943.3

Q_{BF} = 7275 cf / (24 hr.)(3600 sec) = 0.08 cfs
$H_{2/3}$ = 2/3 (943.3 – 940.0) = 2.2
A = 0.08 / (0.62 [√2g (2.2)]) = 0.0108 sf

A 1-inch diameter hole has an area of 0.0055 sf

0.0108 sf / 0.0055 sf = 1.97

Therefore, place two 1" hole in the standpipe at elevation 940.0

100-Year

The 100-year elevation is at 945.0

Q_{BF} at elevation 945.0 is

Q_{BF} = 0.062 (2) (0.0055) x[√2g (5)]) = 0.12 cfs
Q = Q_A – Q_{BF} = 0.45 cfs – 0.12 cfs = 0.33 cfs
A = 0.033 cfs / (0.62 [√2g (945 – 943.3)]) = 0.0509sf

0.0509 sf / 0.0055 sf = 9.24

Therefore, place nine 1" hole in the standpipe at elevation 943.3

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Drawn: JH
Checked:
Approved.

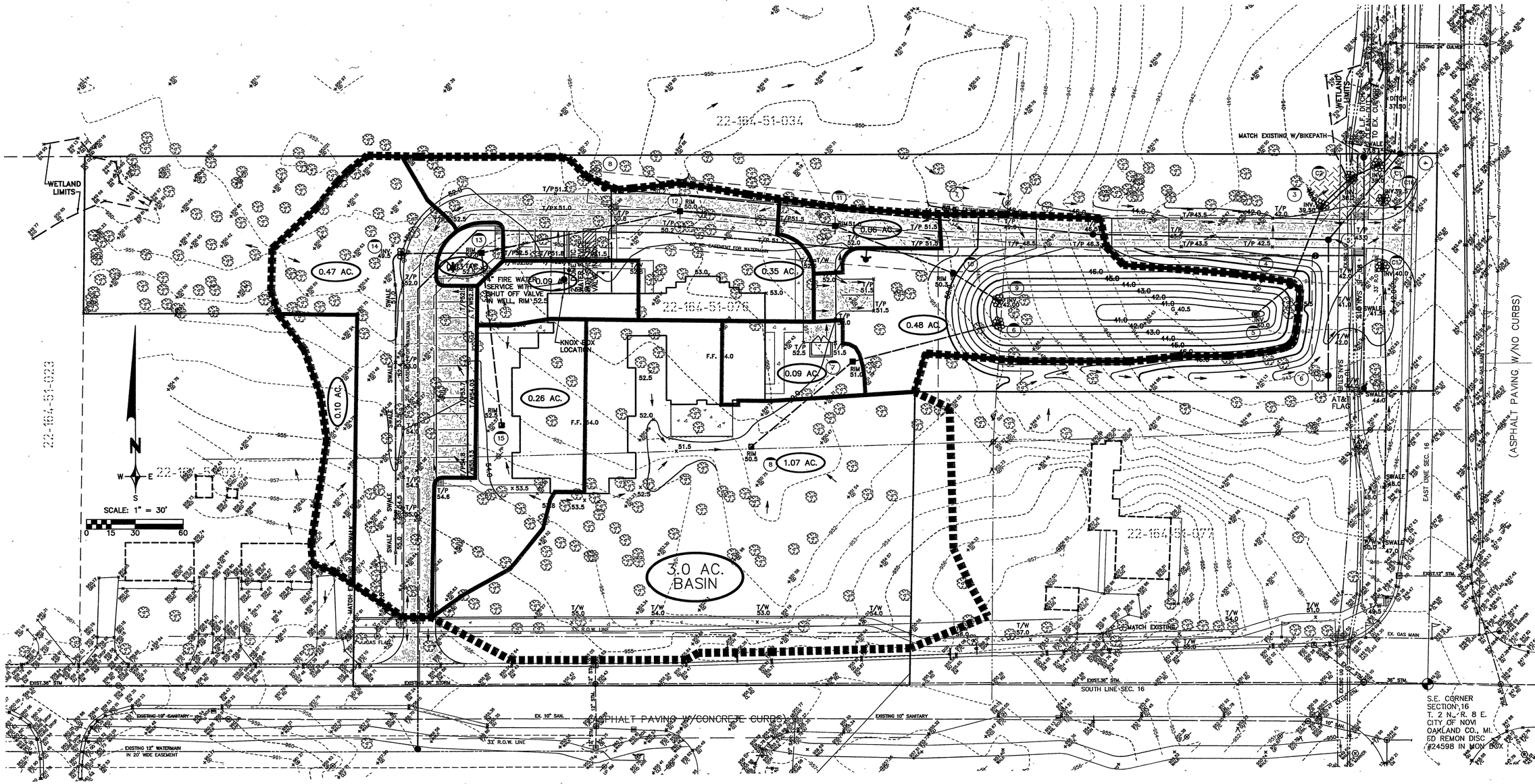
Sheet Title:
DETENTION PLAN

Project Number: ZWA 07142

Sheet Number:
C1.04

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ZEIMET\WOZNIAK																
I =	175/(T+25)	C=	0.47	T=	20	MIN.			SHEET	1	OF	1		April 11, 2008		
	10-year storm															
PROJECT:	Taft & Eleven Mile				JOB NO.	07142		COMMUNITY:		Novi			COUNTY:	Oakland		
FROM MH INPUT	TO MH	INCRE-MENT ACRES (A)	C	EQUIV. AREA 100% ACRES CA	TOTAL AREA 100% ACRES SUM CA	T TIME (MIN.)	I (IN PER HOUR)	Q=CIA C.F.S. FLOW	CAPAC-ITY OF SEWER (C.F.S.)	DIAM. OF PIPE (IN.)	LENGTH OF PIPE (FT.)	SLOPE OF PIPE (%)	SLOPE OF HG (%)	VEL. FLOW FULL (FT./ SEC.)	TIME OF FLOW (MIN.)	H.G. ELEV. UPPER END
14	13	0.57	0.47	0.27	0.27	20.00	3.89	1.04	8.4	12	51	5.50	5.50	10 6	0.1	
13	12	0.12	0.47	0.06	0.45	20.10	3.88	1.73	3.2	12	127	0.80	0.80	4.1	0.5	
12	11	0.35	0.47	0.16	0.61	20.60	3.84	2.34	2.4	12	98	0.45	0.45	3.0	0.5	
11	10	0.06	0.47	0.03	0.64	21.10	3.80	2.43	5.0	12	80	2.00	2.00	6.4	0.2	
10	9	0.00	0.47	0.00	0.64	21.30	3.78	2.43	3.0	12	34	0.70	0.70	3.8	0.1	
15	13	0.26	0.47	0.12	0.12	20.00	3.89	0.48	4.4	12	109	1.50	1.50	5.6	0.3	
8	7	1.14	0.35	0.40	0.40	20.00	3.89	1.55	2.0	12	83	0.32	0.32	2.6	0.5	
7	6	0.00	0.00	0.00	0.40	20.50	3.85	1.55	3.6	12	95	1.00	1.00	4.5	0.3	

NOTE:
THIS IS A DRAINAGE DISTRIBUTION PLAN. IT IS FOR REVIEW PURPOSES ONLY. IT SHALL NOT BE USED FOR CONSTRUCTION OR FIELD WORK.

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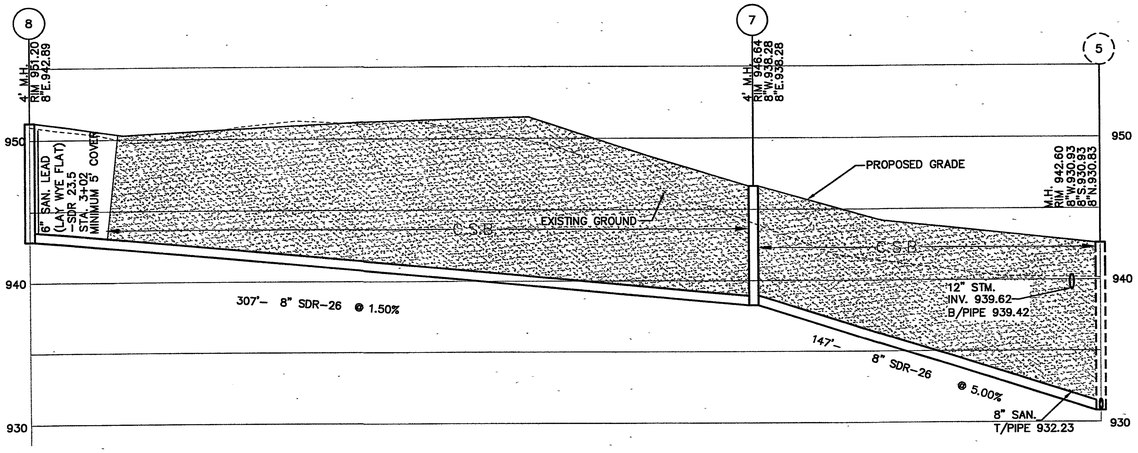
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STORMWATER MANAGEMENT

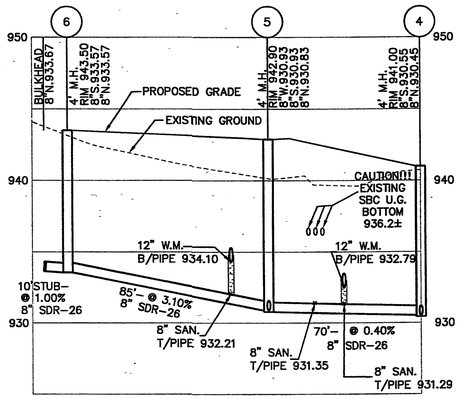
Project Number: ZWA 07142

Sheet Number:
C1.05

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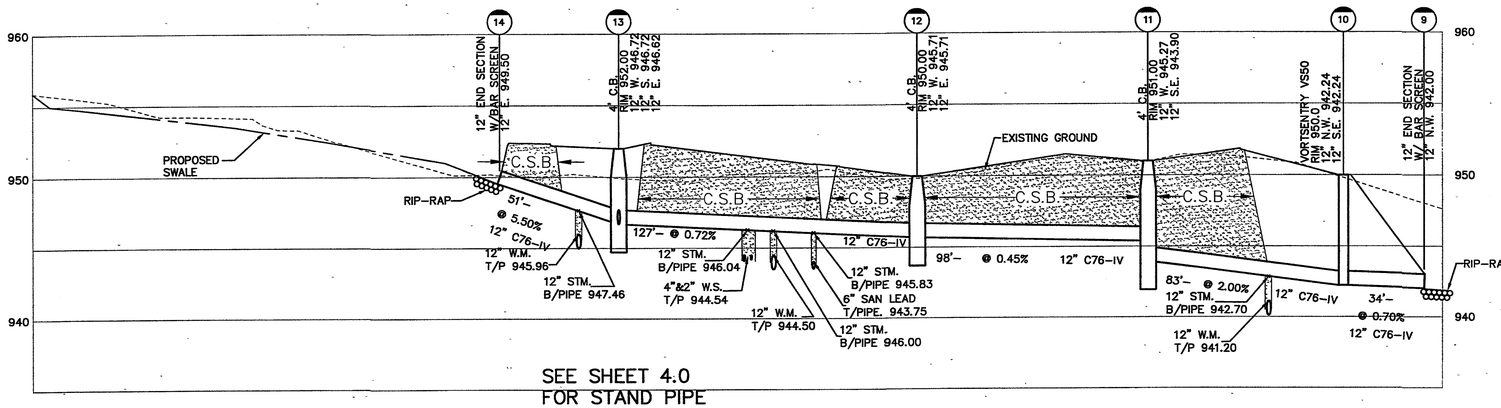
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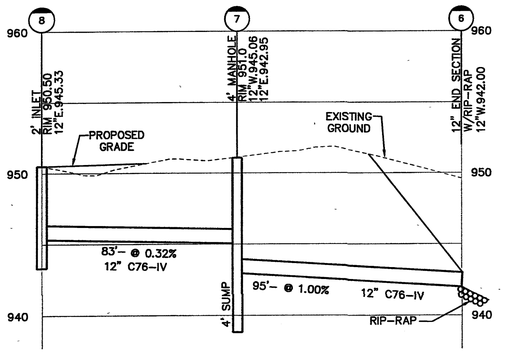


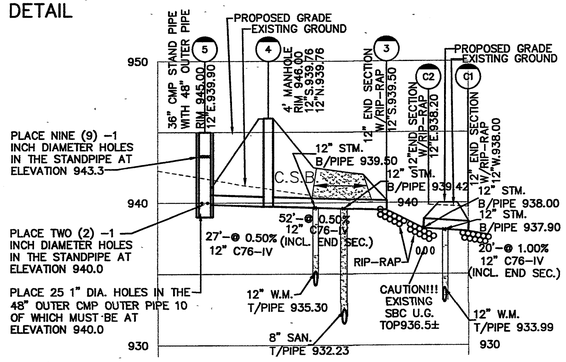
SANITARY SEWER

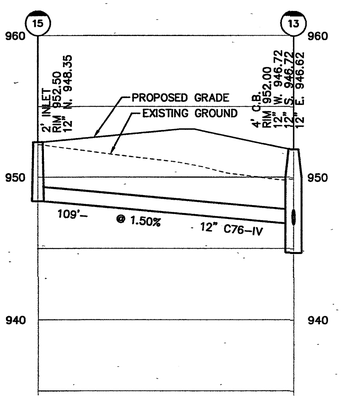
SCALE:
HOR. 1" = 30'
VER. 1" = 5'

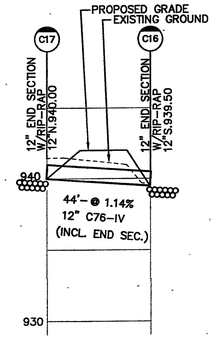


SEE SHEET 4.0
FOR STAND PIPE
DETAIL









NOTE:

1. THE 10–YEAR HGL FOR THE PROPOSED STORM SEWER SYSTEM IS WITHIN THE PIPES.

STORM SEWER

SCALE:
HOR. 1" = 30'
VER. 1" = 5'

ONE YEAR FLOW RATE

I = 1.6 inches/hour
Ac. = 0.61
Q = 1.6 x 0.61 = 0.97 c.f.s.

Therefore use VS 50 VortSentry

VortSentry Model	Water Quality Flow Rate cfs	l/s	Sediment Storage yd³	m³
VS30	0 - 0.3	0 – 7	0.8	0.6
VS40	0.3 – 0.6	7 - 15	1.4	1.1
VS50	0.6 – 1.1	15 - 30	2.2	1.7
VS60	1.1 – 1.8	30 - 50	3.1	2.4
VS70	1.8 – 2.7	50 - 75	4.3	3.3
VS80	2.7 – 3.9	75 – 110	5.6	4.3

C.S.B. NOTES:

C.S.B. DENOTES SAND BACKFILL COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM UNIT WEIGHT.

C.S.B. REQUIRED UNDER OR WITHIN A 1 ON 1 SLOPE OF EXISTING OR PROPOSED PAVEMENT AND AT ALL UTILITY CROSSINGS.

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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.

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PLANNING + DESIGN, LLC
29000 inkster road, suite 120
southfield, michigan 48034
ph 248.357.1111 f/ 248.442.2344
www.deakplanningdesign.com

Project Name
BASILIAN
RESIDENCE
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC
CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
7-22-08	ENGINEERING SUBMITTAL
8-25-08	PER CITY REVIEW
9-8-08	STAMPING SET
9-29-08	BID PACK #1
10/22/08	BID PACK NO. 2

Drawn: JH
Checked:
Approved.

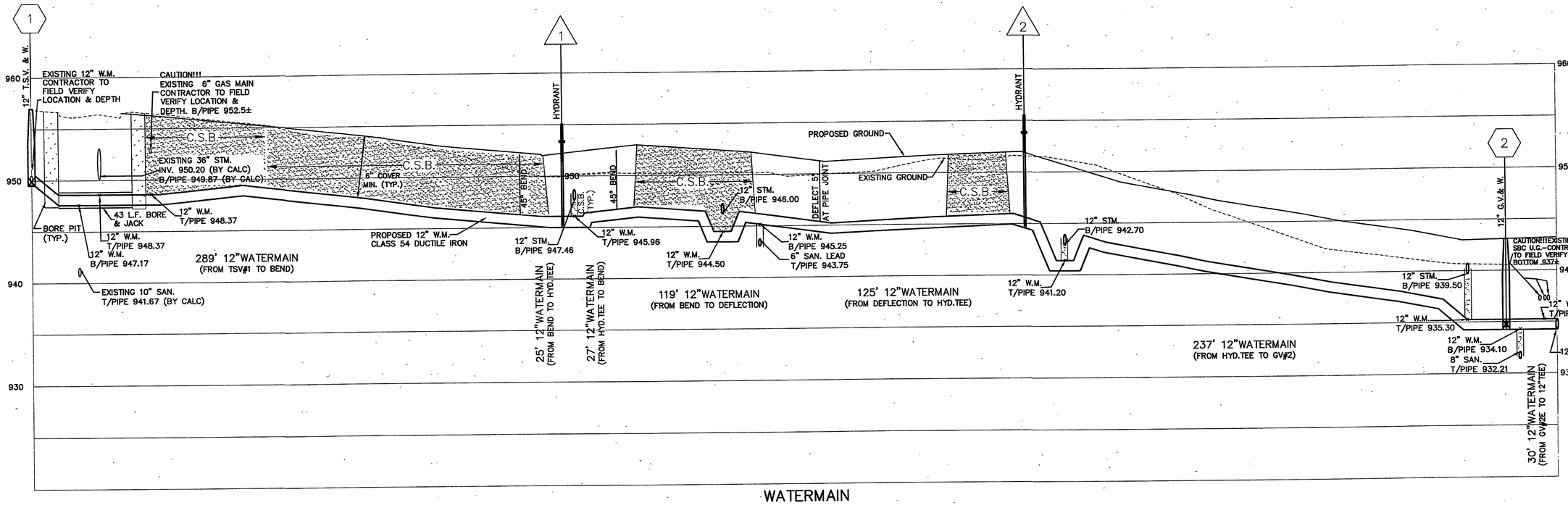
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UTILITY PROFILES

Project Number: ZWA 07142

Sheet Number:
C1.06

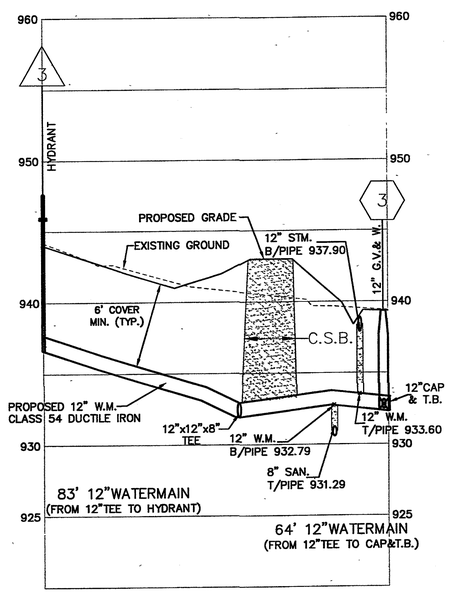
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WATERMAIN

SCALE:
HOR. 1" = 30'
VER. 1" = 5'



WATERMAIN

SCALE:
HOR. 1" = 30'
VER. 1" = 5'

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C.S.B. NOTES:

C.S.B. DENOTES SAND BACKFILL COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM UNIT WEIGHT.

C.S.B. REQUIRED UNDER OR WITHIN A 1 ON 1 SLOPE OF EXISTING OR PROPOSED PAVEMENT AND AT ALL UTILITY CROSSINGS.

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Project Name
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NOVI, MICHIGAN

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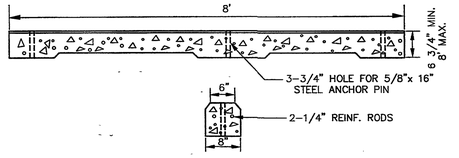
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Approved:

Sheet Title:
UTILITY PROFILES

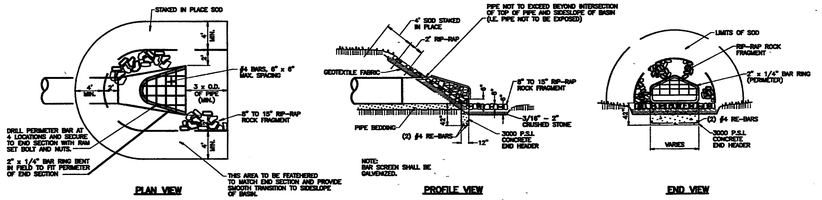
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C1.07

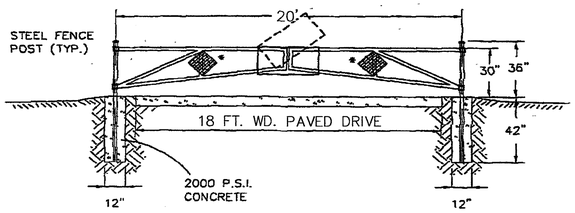
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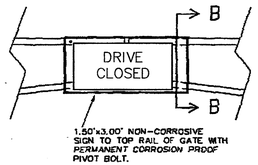
BUMPER BLOCK DETAIL
NOT TO SCALE



END SECTION AND BAR SCREEN DETAIL
NO SCALE



* AT EACH LOCATION, 2-12"x12" RED REFLECTORIZED DIAMOND PANELS, PLACED BACK TO BACK.

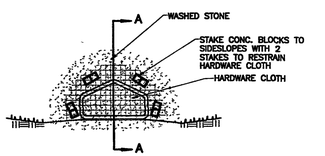


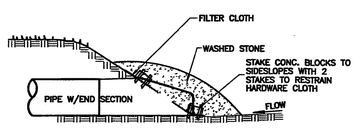
NOTE: IF A LOCKED GATE IS DESIRED (OPTIONAL) LOCKING MECHANISMS SHALL BE FURNISHED BY THE CITY.

GATE BARRICADE DETAIL
NO SCALE

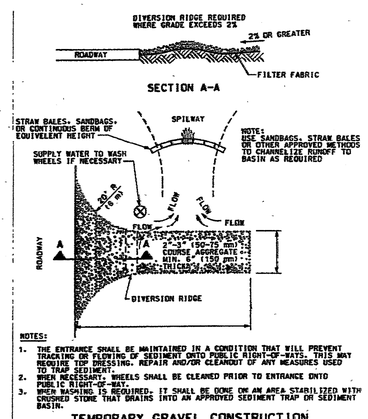


SECTION B-B





PIPE END SECTION SEDIMENT FILTER
NO SCALE



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE / EXIT

SILTSACK®
SPECIFICATIONS

NOTED THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

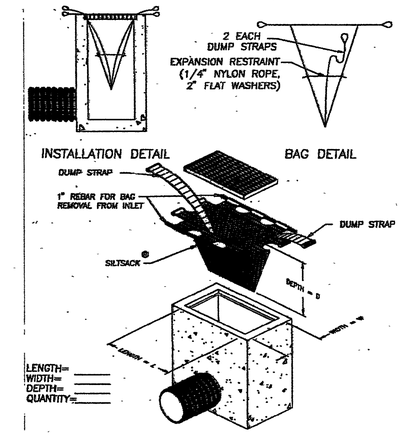
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	200 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	300 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.53 SEC -1

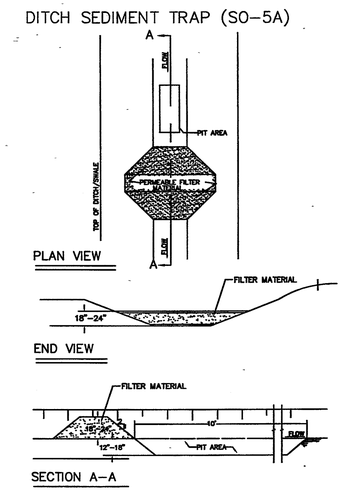
HI-FLOW SILTSACK®
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

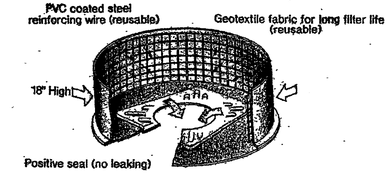
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	85 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	250 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

OIL-ABSORBANT SILTSACK®
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

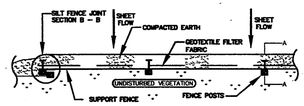
DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK® CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACK® WITH A WOVEN PILLOW INSERT.

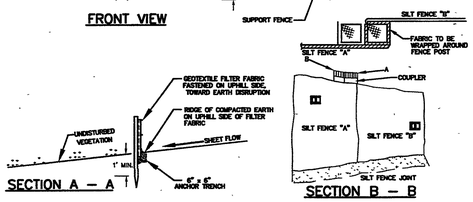




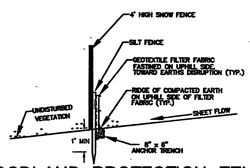


StreamGuard EX ERT II
FOR REAR YARD INLET PROTECTION





SILT FENCE



WOODLAND PROTECTION FENCING WITH SILT FENCE

SOIL EROSION NOTES:

1. The developer is responsible to grade and stabilize disturbances due to the installation of public utilities.
2. The banks of the storm water basin will be stabilized prior to directing flow to the basin.
3. Street sweeping and dust control shall be the responsibility of the contractor.
4. Vegetation shall be established within 5 days of final grade, or whenever disturbed areas will remain unchanged for 30 days or greater. 3-4" of topsoil will be used where vegetation is required..
5. Diversion berms or terracing shall be implemented where necessary.
6. All drainage ditches shall be stabilized with erosion control blankets and shall utilize check dams as necessary. Drainage ditches steeper than 3% shall be sodded.
7. Slopes steeper than 1v:6h (16%) shall be stabilized with erosion control blankets.
8. The silt fencing and tree protection fencing shall not occur prior to the initial City pre-construction meeting.

SOIL EROSION CONTROL SEQUENCE

1. Install woodland protection fence, perimeter silt fence, gravel ditch sediment trap in the Taft Road ditch and gravel mud tracking mat at the construction entrance.
2. Mass grade the site including the detention area. Install underground utilities including sanitary sewer, storm sewer, and watermain. Immediately after installation of the storm sewer, provide inlet filters on all inlets to the storm sewer and a pipe end section sediment filter on End Section 14.
3. Install aggregate base course for pavement. Repair or replace inlet filters disturbed during construction.
4. Construct building.
5. Install pavement. Repair or replace inlet filters as required.
6. Complete building construction. Upon completion of building construction, landscape site. Remove temporary erosion controls when site is stabilized. See landscape plans for details of permanent stabilization of landscaped areas.
7. Upon completion of construction, clean storm sewer and detention basin of any accumulated sediment and debris. The detention basin will be converted from a temporary sedimentation basin to a detention basin.
8. Additional soil erosion control measures may be required as determined in the field.

MAINTENANCE TASKS AND SCHEDULE DURING CONSTRUCTION
FOR THE STORMWATER MANAGEMENT AND EROSION CONTROL FACILITIES

TASKS:	COMPONENTS: Storm Sewer System	Catch Basin Sumps	Catch Basin and Inlet Castings	Outflow Control Structures	Rip-Rap	Storm Detention Basin	Vertiserty VS 50	SCHEDULE:
Inspect for sediment accumulation		X	X	X	X		X	X	Weekly prior to turnover Quarterly after turnover
Removal of sediment accumulation		X	X	X	X		X	X	As needed* & prior to turnover
Inspect for floatables and debris		X	X	X	X		X	X	Quarterly
Cleaning of floatables and debris		X	X	X	X		X	X	Quarterly and at turnover
Inspection for erosion					X	X	X		Weekly
Re-establish permanent vegetation on eroded slopes				X	X		X		As needed and prior to turnover
Replacement of gravel jackets					X				As needed
Mowing							X		0 to 2 times per year
Inspect structural elements of facilities		X	X	X	X	X	X	X	Annually and at turnover
Make adjustments repairs and or replacements as determined by pre-turnover inspection		X	X	X	X	X	X	X	As required

* "As needed" means when sediment has accumulated to a maximum of one foot depth in structures and to within 6" of the permanent water elevation in the detention basins.

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9-8-08	STAMPING SET
9-17-08 -	REVISE PER SOIL EROSION AND SEDIMENTATION CONTROL REVIEW
9-29-08	BID PACK #1
10/22/08	BID PACK NO. 2

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Approved:

Sheet Title:
SOIL EROSION DETAILS & DETAILS

Project Number: ZWA 07142

Sheet Number:
C1.08

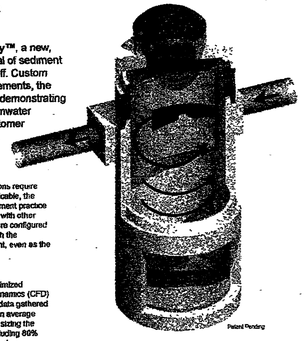
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Vortechnics knows that no two stormwater projects are alike.

That's why we are introducing VortSentry™, a new, engineered solution for the effective removal of sediment and free-floating pollutants from urban runoff. Custom designed to meet specific regulatory requirements, the VortSentry™ is another way Vortechnics is demonstrating its commitment to provide site-specific stormwater solutions backed by the industry's best customer service and unparalleled technical support.


Patent Pending

Effective Best Management Practice
Ideally suited for applications where stormwater regulations require that pollutants are reduced to the maximum extent practicable, the VortSentry™ can be used as a standalone best management practice (BMP) or as a pre-treatment system used in conjunction with other stormwater treatment devices. All VortSentry™ models are configured with a flow partition to ensure that the rate of flow through the treatment chamber will not cause pollutant re-entrainment, even as the total flow rate through the system increases.

New Lab-Tested Technology
The sizing and performance of the VortSentry™ was optimized through a combination of rigorous computational fluid dynamics (CFD) modeling and full-scale laboratory testing. Performance data gathered through testing of a silica-based sediment sample with an average particle size of 110 microns provides a solid baseline for sizing the VortSentry™ to meet specific regional requirements, including 80% total suspended solids (TSS) removal on a net annual basis.

Easy to Install & Maintain
The VortSentry™ features a round concrete manhole structure for easy installation (often without the use of a crane) and unobstructed maintenance access. With its small footprint, the VortSentry™ is ideal for tight sites and retrofits.

Learn More!

Call us at 877.907.8676 or visit us at www.vortechnics.com to find out if the VortSentry™ is right for your next stormwater project.

Committed to Clean Water®

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VortSentry™ at a Glance

- Round, lightweight, pre-manufactured concrete structure for easy installation (often without the use of a crane)
- Available in sizes ranging from 4 to 12 feet in diameter
- Designed to treat flow rates ranging from 0.5 to 8.0 cfs
- Capable of treating high flow rates while minimizing pollutant washout
- Provides unobstructed access for removal of pollutants using vacuum equipment



The VortSentry™ effectively captures pollutants from stormwater runoff.

1. Inlet
Stormwater runoff is conveyed into the unit through the inlet pipe

2. Inlet Aperture
At low flow rates, all runoff is directed through the inlet aperture where it enters the treatment chamber tangentially.

3. Treatment Chamber
Gravitational separation of floating and sinking pollutants is enhanced by the gentle swirling motion in the treatment chamber, which causes the settleable solids to slide and form a conical pile in the storage sump.

4. Treatment Chamber Baffle
Trash, hydrocarbons and other floating debris are retained in the treatment chamber by the baffle wall, which extends below the resting water surface elevation.


Patent Pending

5. Flow Partition
At higher flow rates, a portion of the runoff will be diverted over the flow partition and around the treatment chamber, while settleable solids are directed into the treatment chamber

6. Outlet Flow Control
Flow rates through the treatment chamber are limited by the outlet flow control orifice.

7. Head Equalizing Baffle
The head equalizing baffle allows operating rates in the treatment chamber to remain relatively constant even as flow rates in the inlet chamber increase substantially, which minimizes washout potential.

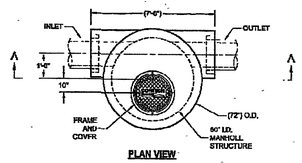
VortSentry™ Models & Dimensions

Model	Diameter		Depth (below invert)		Typical Inlet Pipe Size*	
	ft	mm	ft	m	in	mm
VS30	4	1,200	6.5	2.0	12	300
VS40						
VS50	6	1,800	8.3	2.5	18	450
VS70						
VS80	8	2,400	10.1	3.0	24	600

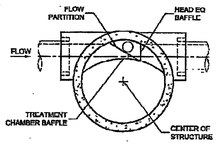
*Note: To ensure that the most appropriate VortSentry™ model size is selected, please contact a Vortechnics representative.

Committed to Clean Water®

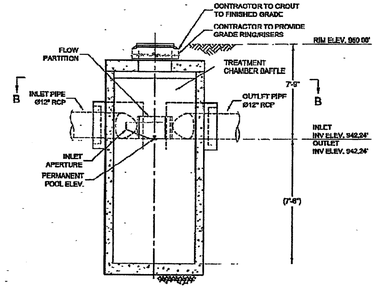
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PLAN VIEW



SECTION B-B



SECTION A-A

SUBMITTAL

VortSentry®

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MATERIALS LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	INTERNAL ALUM. COMPONENTS	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	Ø26" X 4" FRAME AND COVER	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	1.1 cfs
PEAK FLOW RATE	2.42 cfs
RETURN PERIOD OF PEAK FLOW	10 yrs

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH STORMWATER SOLUTIONS REPRESENTATIVE. www.contechstormwater.com
4. VORTSENTRY WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE AND CASTINGS SHALL MEET AASHTO H20 LOAD RATING.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTSENTRY MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLY STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 13,000 LBS

DRAWING NO.	VS50-SHELVING
SCALE:	NONE
DESIGNED	DRAWN
RJR	NJH
DATE	
03/04/08	

VORTSENTRY MODEL VS50 - 35809-01
BASILIAN RESIDENCE
NOVI, MI
SITE DESIGNATION: VS50

CONTECH STORMWATER SOLUTIONS
www.contechstormwater.com

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Project Name
BASILIAN RESIDENCE
SECTION 16
NOVI, MICHIGAN

VortSentry® Net Annual TSS Removal Efficiency Estimate

CONTECH STORMWATER SOLUTIONS

Basilian Residence
Novi, MI
Model VS50
System VS50

Design Ratio[1] = 1.36 acres x 0.47 / 98 ft3 = 0.007

Rainfall Intensity "/hr	Flow Rate cfs	Operating Rate[2] cfs/ft²	% Total Rainfall Depth[3]	Rmvl. Effcy[4] (%)	Rel. Effcy (%)
0.08	0.05	0.00052	34.4%	98.0%	33.7%
0.16	0.10	0.00104	18.2%	96.9%	17.6%
0.24	0.15	0.00156	9.4%	95.8%	9.0%
0.32	0.20	0.00208	5.7%	94.7%	5.4%
0.40	0.26	0.00260	3.3%	93.6%	3.0%
0.48	0.31	0.00313	3.1%	92.5%	2.9%
0.56	0.36	0.00365	2.2%	91.4%	2.0%
0.64	0.41	0.00417	3.1%	91.4%	2.9%
0.72	0.46	0.00469	2.1%	89.6%	1.8%
0.80	0.51	0.00521	1.6%	87.7%	1.4%
0.88	0.56	0.00573	2.0%	85.9%	1.6%
0.96	0.61	0.00625	1.0%	84.0%	0.9%
1.04	0.66	0.00677	1.5%	84.0%	1.3%
1.12	0.72	0.00729	1.2%	83.2%	1.0%
1.20	0.77	0.00781	1.3%	83.2%	1.1%
1.28	0.82	0.00833	1.1%	82.4%	0.9%
1.36	0.87	0.00885	1.0%	82.4%	0.8%
1.44	0.92	0.00938	0.8%	81.6%	0.6%
1.52	0.97	0.00990	0.8%	81.6%	0.7%
1.60	1.02	0.01042	0.3%	80.8%	0.2%
				Net Annual TSS Removal Efficiency =	91%

1 - Design Ratio = (Total Drainage Area x Runoff Coefficient) / VortSentry Treatment Volume
= The Total Drainage Area and Runoff Coefficient are specified by the site engineer.
2 - Operating Rate (cfs/ft²) = Rainfall Intensity ("/hr) x Design Ratio
3 - Based on 5.5 years of 15 minute precipitation data form NCDC station 2102 at Detroit City Airport in Detroit, MI
4 - Removal efficiencies are based on Vortechnics laboratory verified removal of OK-110, a commercially available silica gradation with a mean particle size of 110 microns, containing particles ranging from 53-150 microns

Calculated by: RJR Date: 09/04/08 Checked by: Date:

35809 ADS VS50 9/4/2008

VortSentry® Stage Discharge Calculations

CONTECH STORMWATER SOLUTIONS

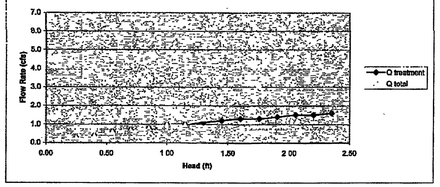
Basilian Residence
Novi, MI
Model VS50
System VS50

Treatment Chamber Outlet Orifice		Flow Partition Weir	
Orifice Area (ft²) =	0.299	Crest El. (ft) =	1.08
Discharge Coefficient =	0.56	Weir Crest Length (ft) =	1.11
		Discharge Coefficient =	3.33

Head (ft)	Elevation (ft)	Treatment Flow (cfs)	Bypass Flow Rate (cfs)	Total Flow Rate (cfs)
0.25	942.49	0.3	0	0.3
0.40	942.64	0.4	0	0.4
0.55	942.79	0.6	0	0.6
0.70	942.94	0.7	0	0.7
0.85	943.09	0.8	0	0.8
1.00	943.24	1	0	1
1.15	943.39	1	0	1
1.30	943.54	1.1	0.2	1.3
1.45	943.69	1.2	0.6	1.8
1.60	943.84	1.3	1.1	2.4
1.75	943.99	1.3	1.8	3.1
1.90	944.14	1.4	2.4	3.8
2.05	944.29	1.5	3.2	4.7
2.20	944.44	1.5	4	5.5
2.35	944.59	1.6	4.9	6.5

Calculated by: RJR Date: 9/4/2008 Checked By: Date:

Stage Discharge



35809 ADS VS50 9/4/2008

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
9-8-08	STAMPING SET
9-29-08	BID PACK #1
10/22/08	BID PACK NO. 2

Drawn: JH
Checked:
Approved:

Sheet Title:
VORTECHNICS DETAILS

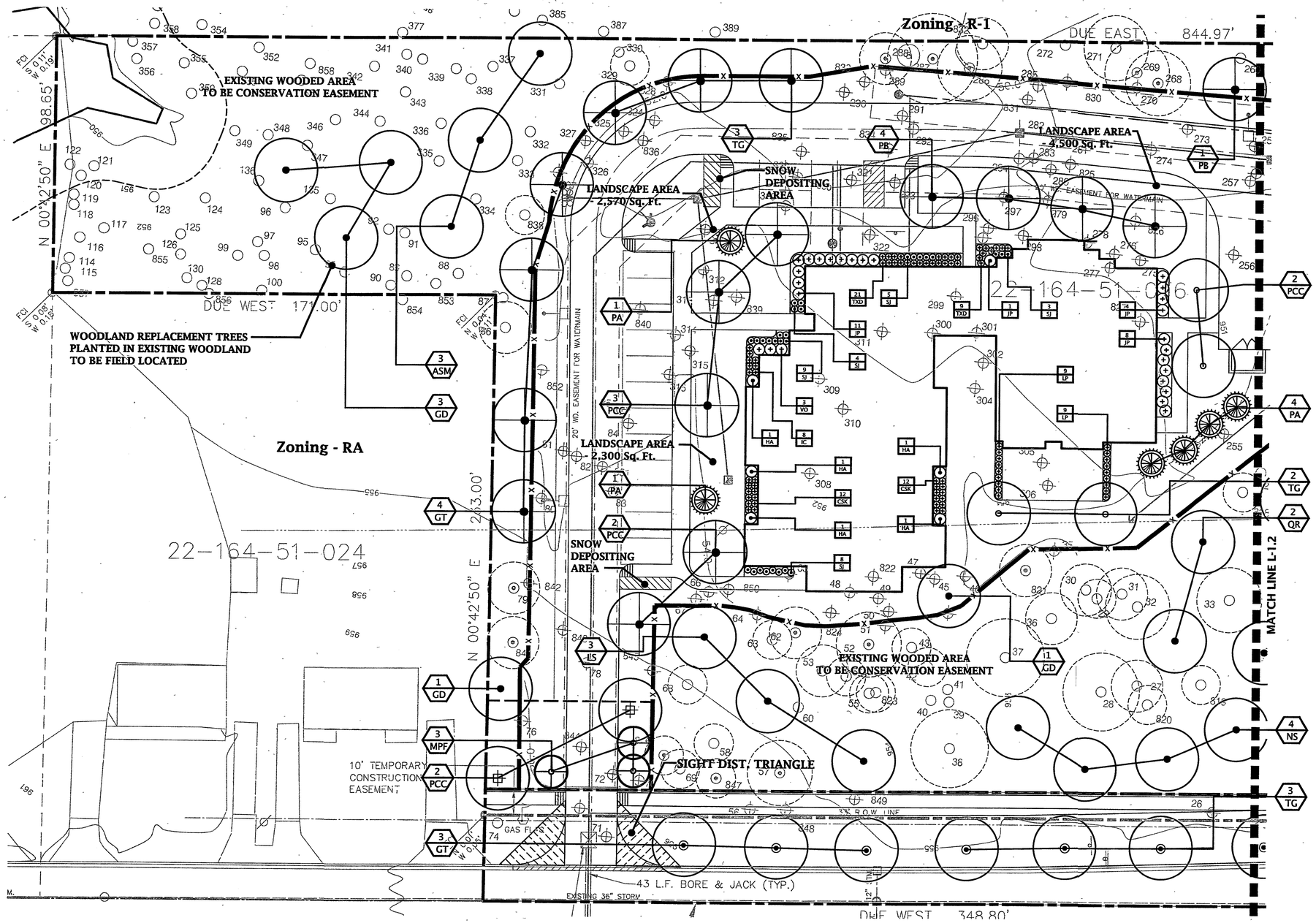
Project Number: ZWA 07142

Sheet Number:
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FOR REFERENCE ONLY

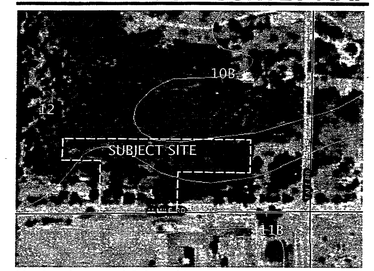
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SITE DATA

R.O.W. FRONTAGE	
Eleven Mile Road Frontage:	349 ln. ft.
Taft Road Frontage:	149 ln. ft.
Total Frontage:	**498'**
Trees Required (One Tree/ 35 ln. ft.):	11 Trees
Trees Provided:	**11 Trees**
Green Belt	
Eleven Mile	
Required Canopy Trees	2 Trees
Provided Canopy Trees	**2 Trees**
Required Subcanopy Trees	3 Trees
Provided Subcanopy Trees	**3 Trees**
Taft Road	
Required Canopy Trees	4 Trees
Provided Canopy Trees	**4 Trees**
Required Subcanopy Trees	6 Trees
Provided Subcanopy Trees	**6 Trees**
WOODLAND REPLACEMENT TREES	
Regulated Woodland Trees on Site:	416 Trees
Woodland Trees Removed:	119 Trees
Dead or Diseased Trees Removed:	42 Trees
Woodland Trees Impacted/Saved:	38 Trees
Woodland Replacement Trees Req.:	172 Trees
Woodland Replacement Trees Provided:	**25 Trees**
Woodland Replacement Credits Needed:	**147 Trees**
Woodland Replacement Tree Fund Donation:	**$58,800**
BUILDING LANDSCAPE REQUIREMENTS	
Required Landscaping (perimeter x 8):	5,728 Sq. Ft.
(716 Ln. Ft. Building Perimeter)	
Provided Landscaping:	**9,370 Sq. Ft.**
Required Landscape Trees (3 trees/unit):	18 Trees
(6 First Floor Dwelling Units)	
Provided Landscape Trees:	**18 Trees**
Frontage Foundation Coverage Required	60%
Frontage Foundation Coverage Proposed	**60.5%**
Drive Trees	
Required Drive Trees (One Tree/ 35 ln. ft.):	25 Trees
(887 Ln. Ft. interior Roads)	
Provided Drive Trees:	**25 Trees**
Retention Basin Landscaping	
Required Basin Rim Coverage:	70%
Provided Basin Rim Coverage:	**70%**
TOTAL TREES REQUIREMENTS	
Total Trees Required:	239 Trees
Total Trees Provided:	**103 Trees**

SOIL SURVEY MAP



12 – Brookston and Colwood Loams
11B – Capac Sandy Loam 0–4% Slopes
10B – Marlette Sandy Loam 1–6% Slopes

PLANT LIST

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
WOODLAND REPLACEMENT TREES									
ASM	3	Acer saccharum 'Majesty'	Sugar Maple	2.5"	as shown	B&B		$400.00	$ 1,200.00
GD	5	Gymnocladus dioica	Kentucky coffee tree	2.5"	as shown	B&B		$400.00	$ 2,000.00
LS	3	Liquidambar styraciflua	Sweet Gum	2.5"	as shown	B&B		$400.00	$ 1,200.00
NS	4	Nyssa Sylvatica	Sour Gum	2.5"	as shown	B&B		$400.00	$ 1,600.00
QR	2	Quercus rubra	Red Oak	2.5"	as shown	B&B		$400.00	$ 800.00
	4	4" Bark Mulch - 4' dia. Around Trunk	26 Trees: 4 c.y. required- units in cubic yards)					$ 20.00	$ 80.00
								Total	$ 6,880.00

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
SHADE TREES									
PCC	9	Pyrus calleryana 'Cleveland Select'	Cleveland pear	3" cal	as shown	B&B		$ 400.00	$ 3,600.00
GT	7	Gleditsia triacanthos 'Trueshade'	Trueshade honeylocust	3" cal.	as shown	B&B		$ 400.00	$ 2,800.00
PR	5	Platanus x a. 'Bloodgood'	Bloodgood London Plane tree	3" cal	as shown	B&B		$ 400.00	$ 2,000.00
TG	8	Tilia cordata 'Greenspire'	Greenspire linden	3" cal	as shown	B&B		$ 400.00	$ 3,200.00
EVERGREEN TREES									
PA	6	Picea abies	Norway spruce		as shown	B&B	7'	$ 325.00	$ 1,950.00
ORNAMENTAL TREES									
MPF	3	Malus 'Prairiefire'	Prairiefire crabapple	2 5" cal	as shown	B&B		$ 250.00	$ 750.00
SHRUBS - EVERGREEN									
JP	24	Juniperus ch Pfitzerana 'Compacta'	Compact pfitzer juniper		6' O.C.	B&B	36"	$ 50.00	$ 1,200.00
TXD	30	Taxus x.m. 'Densiformis'	Dense yew		4' O C.	B&B	30"	$ 50.00	$ 1,500.00
LARGE SHRUBS - DECIDUOUS									
HA	5	Hydrangea a. 'Annaelle'	Annabelle hydrangea		4' O C	B&B	30"	$ 50.00	$ 250.00
VO	3	Viburnum o. 'Compactum'	Compact European cranberrybush		4' O C.	B&B	36"	$ 50.00	$ 150.00
LP	18	Ligustrum Vulgare 'Lodense'	Lodense Privet		4' O.C.	B&B	36"	$ 50.00	$ 900.00
SMALL SHRUBS - DECIDUOUS									
CSK	24	Cornus s 'Kelseyi'	Kelseydwarf dogwood		4' O C	B&B	24"	$ 50.00	$ 1,200.00
IC	8	Ilex crenata 'Green Luster'	Green luster holly		2- 3' O C	B&B	18"	$ 50.00	$ 400.00
SJ	29	Spiraea j 'Little Princess'	Little Princess spiraea		2- 3' O C	B&B	30"	$ 50.00	$ 1,450.00
OTHER									
IRRIGATION									$ 10,000.00
SHREDDED HARDWOOD BARK MULCH- 18 C Y									$ 720.00
SEED- 26,000 Sq Ft.									$ 2,600.00
								Total	$ 32,070.00

NOTES

ESTIMATED PLANTING TIME
All plant material shall be installed from April 1st through November 15th startng in the first year the project is approved and grading/building permits have been issued.
NOTE: All plant material shall be grown in northern climate nurseryes
NOTE: All plant material shall be installed in accordance with ordinance #97-18.133 section 2509.
NOTE: All plant material shall be No. 1 grade trees and guaranteed for two(2) years from date of installation.
NOTE: Woodland protection signs indicating areas of protected woodlands shall be placed and maintained on the site at locations approved by the city.



LEGEND

- INTERIOR ROAD TREES
- GREEN BELT TREES
- STREET TREES
- BUILDING LANDSCAPING TREES
- WOODLAND REPLACEMENT TREES
- SUB-CANOPY ORNIMENTAL TREES
- BUILDING LANDSCAPING EVERGREEN TREES
- SHRUBS

FOR REFERENCE ONLY

0 5 10 20 40 80
scale: 1" = 20'

north

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King & MacGregor Environmental Inc.
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Phone: (734) 354-0094
Fax: (734) 354-0095

Project Name
BASILIAN
RESIDENCE
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
RVSD. PER. ENG	5/28/08
Rvsd Per Cmnts	7/21/08
STAMPING SETS	9/8/08
Bid Pack #1	9/29/08
10/22/08	BID PACK NO. 2

Drawn: KD
Checked:
Approved:

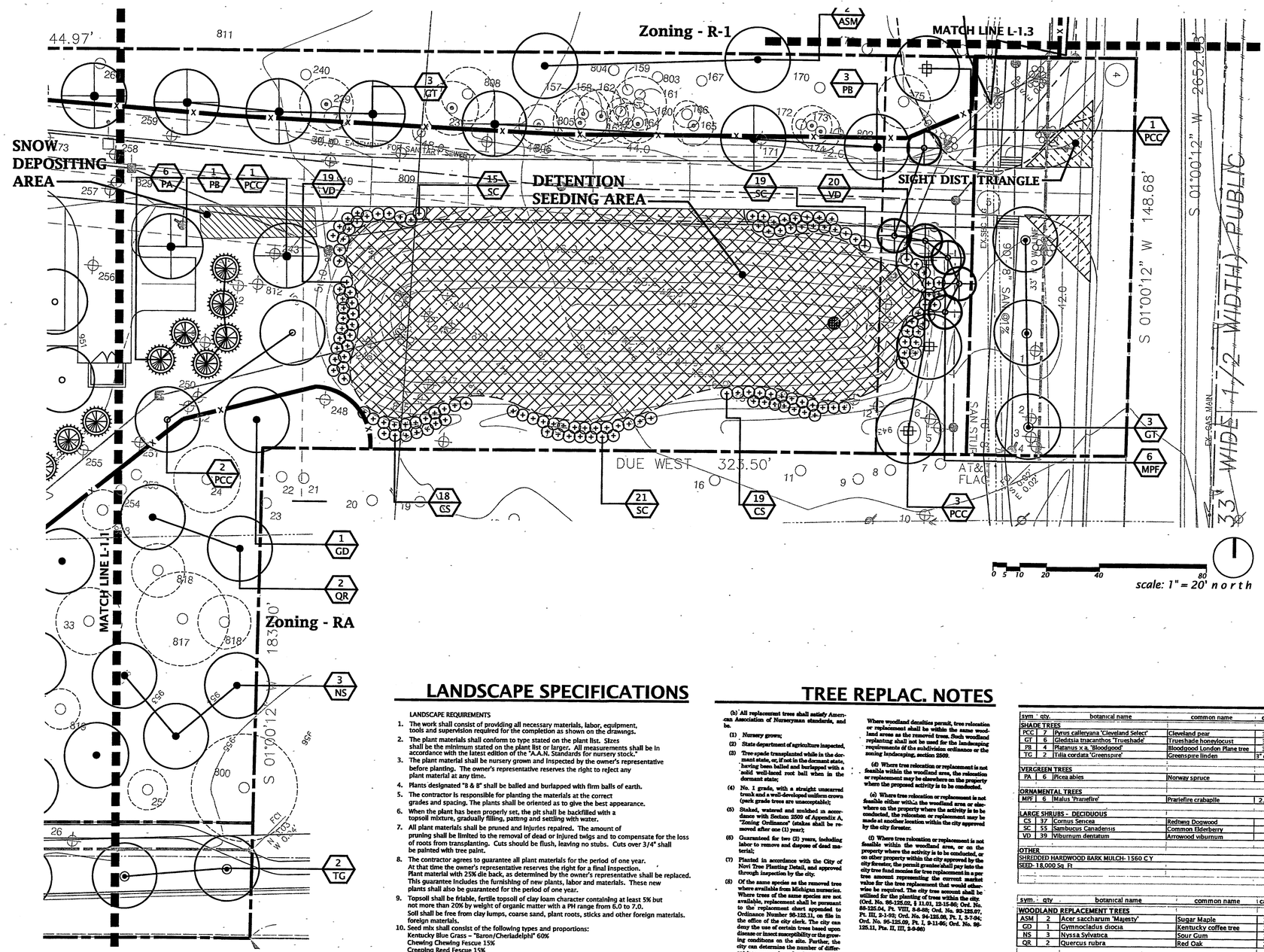
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LANDSCAPE PLAN

Project Number: DPD - 30819

Sheet Number:
L-1.1

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LANDSCAPE SPECIFICATIONS

LANDSCAPE REQUIREMENTS

1. The work shall consist of providing all necessary materials, labor, equipment, tools and supervision required for the completion as shown on the drawings.
2. The plant materials shall conform to 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 "A.A.N. 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. The contractor is responsible for planting the materials at the correct grades and spacing. The plants shall be oriented as to give the best appearance.
6. When the plant has been properly set, the pit shall be backfilled with a topsoil mixture, gradually filling, patting and settling with water.
7. All plant materials shall be pruned and injuries repaired. The amount of pruning shall be limited to the removal of dead or injured twigs and to compensate for the loss of roots from transplanting. Cuts should be flush, leaving no stubs. Cuts over 3/4" shall be painted with tree paint.
8. The contractor agrees to guarantee all plant materials for the period of one year. At that time the owner's representative reserves the right for a final inspection. Plant material with 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 the period of one year.
9. Topsoil shall be friable, fertile topsoil of clay loam character containing at least 5% but not more than 20% by weight of organic matter with a PH range from 6.0 to 7.0. Soil shall be free from clay lumps, coarse sand, plant roots, sticks and other foreign materials. foreign materials.
10. Seed mix shall consist of the following types and proportions:
    Kentucky Blue Grass – "Baron/Cheriadelphi" 60%
    Chewing Chewing Fescue 15%
    Creeping Reed Fescue 15%
    Perennial Rye Grass 10%
    Weed content shall not exceed 1%.
    The mix shall be applied at a rate of 200 lbs./acre
11. Sod shall be two year old "Baron/Cheriadelphi" Kentucky Blue Grass grown in a sod nursery on loam soil.

TREE REPLAC. NOTES

(b) All replacement trees shall satisfy American Association of Nurserymen standards, and be.

(1) Nursery grown;

(2) State department of agriculture inspected,

(3) Tree spade transplanted while in the dormant state, or, if not in the dormant state, having been balled and burlapped with a solid well-laced root ball when in the dormant state;

(4) No. 1 grade, with a straight unscarred trunk and a well-developed uniform crown (park grade trees are unacceptable);

(5) Staked, watered and mulched in accordance with Section 2509 of Appendix A, "Zoning Ordinance" (stakes shall be removed after one (1) year);

(6) Guaranteed for two (2) years, including labor to remove and dispose of dead material;

(7) Planted in accordance with the City of Novi Tree Planting Detail, and approved through inspection by the city;

(8) Of the same species as the removed tree where available from Michigan nurseries. Where trees of the same species are not available, replacement shall be pursuant to the replacement chart appended to Ordinance Number 98-125.11, on file in the office of the city clerk. The city can deny the use of certain trees based upon disease or insect susceptibility or the growing conditions on the site. Further, the city can determine the number of different tree species in a planting.

(c) The location of replacement trees shall be subject to the approval of the city and shall be such as to provide the optimum enhancement, preservation and protection of woodland areas

Where woodland densities permit, tree relocation or replacement shall be within the same woodland areas as the removed trees. Such woodland replanting shall not be used for the landscaping requirements of the subdivision ordinance or the zoning landscaping, section 2509.

(d) Where tree relocation or replacement is not feasible within the woodland area, the relocation or replacement may be elsewhere on the property where the proposed activity is to be conducted.

(e) Where tree relocation or replacement is not feasible either within the woodland area or elsewhere on the property where the activity is to be conducted, the relocation or replacement may be made at another location within the city approved by the city forester.

(f) Where tree relocation or replacement is not feasible within the woodland area, or on the property where the activity is to be conducted, or on other property within the city approved by the city forester, the permit grantee shall pay into the city tree fund monies for tree replacement in a per tree amount representing the current market value for the tree replacement that would otherwise be required. The city tree account shall be utilized for the planting of trees within the city (Ord. No. 96-125.05, § 11.01, 12-15-96; Ord. No. 98-125.04, Pt. VIII, 5-4-98; Ord. No. 98-125.07, Pt. III, 2-1-99; Ord. No. 94-125.08, Pt. I, 5-7-94; Ord. No. 96-125.09, Pt. I, 9-11-96; Ord. No. 98-125.11, Pts. II, III, 2-8-98)

PLANT LIST

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
SHADE TREES									
PCC	7	Pyrus calleryana 'Cleveland Select'	Cleveland pear	3" cal	as shown	B&B		$ 400.00	$ 2,800.00
GT	6	Gleditsia tracanthos 'Trueshade'	Trueshade honeylocust	3" cal.	as shown	B&B		$ 400.00	$ 2,400.00
PB	4	Platanus x a. 'Bloodgood'	Bloodgood London Plane tree	3" cal.	as shown	B&B		$ 400.00	$ 1,600.00
TG	2	Tilia cordata 'Greenspire'	Greenspire linden	3" cal	as shown	B&B		$ 400.00	$ 800.00
EVERGREEN TREES									
PA	6	Picea abies	Norway spruce		as shown	B&B	7'	$ 325.00	$ 1,950.00
ORNAMENTAL TREES									
MPF	6	Malus 'Prairefire'	Prairiefire crabapple	2.5" cal	as shown	B&B		$ 250.00	$ 1,500.00
LARGE SHRUBS - DECIDUOUS									
CS	37	Cornus Sericea	Redtwig Dogwood		6' O.C	B&B	30"	$ 50.00	$ 1,850.00
SC	55	Sambucus Canadensis	Common Elderberry		4' O.C	B&B	36"	$ 50.00	$ 2,750.00
VD	39	Viburnum dentatum	Arrowood viburnum		6' O.C	B&B	36"	$ 50.00	$ 1,950.00
OTHER									
SHREDDED HARDWOOD BARK MULCH- 1560 C.Y									$ 600.00
SEED- 18,000 Sq. Ft									$ 1,800.00
								Total	$ 18,200.00

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
WOODLAND REPLACEMENT TREES									
ASM	2	Acer saccharum 'Majesty'	Sugar Maple	2.5"	as shown	B&B		$400.00	$ 800.00
CD	1	Gymnocladus dioca	Kentucky coffee tree	2.5"	as shown	B&B		$400.00	$ 400.00
NS	3	Nyssa Sylvatica	Sour Gum	2.5"	as shown	B&B		$400.00	$ 1,200.00
QR	2	Quercus rubra	Red Oak	2.5"	as shown	B&B		$400.00	$ 800.00
	4	4" Bark Mulch - 4" dia. Around Trunk	25 Trees · 4 c.y. required- units in cubic yards)					$ 20.00	$ 80.00
								Total	$ 3,280.00

NOTES

ESTIMATED PLANTING TIME
All plant material shall be installed from April 1st through November 15th starting
In the first year the project is approved and grading/building permits have been issued.
NOTE: All plant material shall be grown in northern climate nurserys
NOTE: All plant material shall be installed in accordance with ordinance #97-18.133 section 2509.
NOTE: All plant material shall be No. 1 grade trees and guaranteed for two(2) years from date of installation.
NOTE: Woodland protection signs indicating areas of protected woodlands shall be placed and maintained on the site at locations approved by the city.

FOR REFERENCE ONLY



DETENTION SEED MIX

6. Detention Basin Seed Mix

Recommended Seed Rate 10-12 lb/acre

Designed for runoff retention basins that will retain water for one to two days. Soil moisture condition will vary from dry to saturated. This mix has been designed with a combination of plants that are adapted to a wide range of conditions. They are adapted to periodic inundation (flooding), but also tolerate dry conditions. The mix will contain at least twelve (12) of the following flower species and three (3) of the grass.

#Common Name	Scientific Name	Color	Bloom Time
Wild flowers			
New England Aster	*Aster novae-angliae*	Pr	JUL-OCT
Pale Indian Plantain	*Cacalia amplifolia*	W	JUL-SEPT
Boneset	*Eupatorium perfoliatum*	W	JUL-SEPT
Ox Eye Sunflower	*Heliopsis helianthoides*	Y	JUN-SEPT
Dense Blazingstar	*Liatris spicata*	Pr	JUL-SEPT
Great Blue Lobelia	*Lobelia siphilitica*	B	JUL-SEPT
Cardinal Flower	*Lobelia cardinalis*	R	JUL-SEPT
Bergamot (Beebalm)	*Monarda fistulosa*	P,L	JUL-AUG
Yellow Coneflower	*Rudbida pinnata*	Y	JUL-SEPT
Green-headed Coneflower	*Rudbeckia laciniata*	Y	JUL-SEPT
Black-eyed Susan	*Rudbeckia hirta*	Y	JUN-SEPT
Cupplant	*Silphium perfoliatum*	Y	JUL-SEPT
Ohio Goldenrod	*Solidago ohiensis*	Y	JUL-SEPT
Blue Vervain	*Verbena hastata*	B	JUL-SEPT
Culver's Root	*Veronicastrum virginicum*	W	JUL-SEPT
Ironweed	*Vernonia altissima*	Pr	SEPT-OCT
Grasses:			
Big Bluestem	*Andropogon gerardii*		
Canada Wild Rye	*Elymus canadensis*		
Dark Green Bulrush	*Scirpus atrovirens*		
Indian Grass	*Sorghastrum nutans*		
Prairie Cord Grass	*Spartina pectnata*		

R – Red P – Pink Pr – Purple W – White Ro – Rose
O – Orange B – Blue Y – Yellow L – Lavender

SEED MIX NOTES

SEED MIX AREA: 14,046 Sq. Ft. – .32 Ac.

SEED MIX REQUIRED: 4 lbs.
TOTAL COST: $208

1. Seed mixes shall be applied at the specified rates for each mix.
2. Must be installed to manufacturer specfications and requirements.

Manufacturer: Nativescape, LLC
P.O. Box 122
Manchester, Michigan 48158
www.nativescapes.net

CDPA ARCHITECTS
CDPA ARCHITECTS, INC.
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40024 GRAND RIVER AVE, SUITE 100
NOVI, MICHIGAN 48375
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DEAK PLANNING & DESIGN, LLC
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King & MacGregor Environmental Inc.
45995 Koppernick Road
Canton, Michigan 48187
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Fax: (734) 354-0693

Project Name
BASILIAN RESIDENCE
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
RSVD. PER ENG.	5/28/08
Rvsd Per Cmnts	7/21/08
STAMPING SETS	8/8/08
Bid Pack 1	9/29/08
10/22/08	BID PACK NO. 2

Drawn: KD
Checked:
Approved:

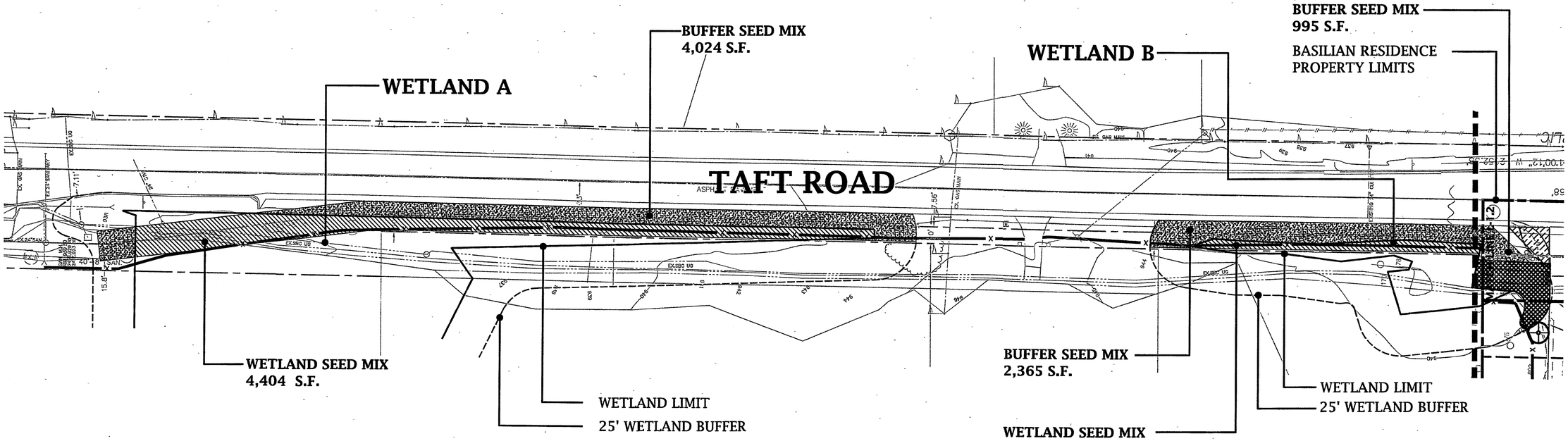
Sheet Title:
LANDSCAPE PLAN

Project Number: DPD 30819

Sheet Number:
L-1.2

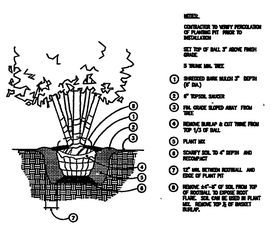
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scale: 1"= 30' north

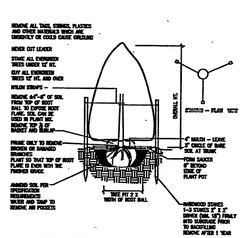
PLANT DETAILS



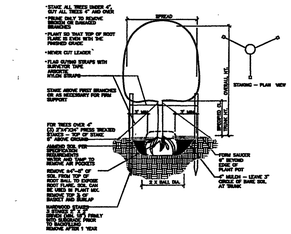
3 MULTISTEM TREE PLANTING DETAIL
NOT TO SCALE



4 SHRUB PLANTING
DETAIL - NOT TO SCALE



1 EVERGREEN TREE PLANTING
DETAIL - NOT TO SCALE

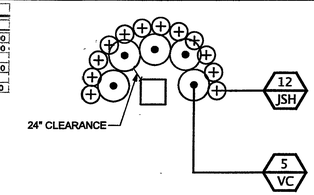


2 DECIDUOUS TREE PLANTING
SCALE: N.T.S.

TRANSFORMER TYP.

PLANT LIST: TRANSFORMER TYP.

sym	qty	botanical name	common name	caliber	spacing	root	height	price	total
VC	5	Viburnum carlesii	Korean Spice Viburnum		6' O.C.	B&B	36"	$ 45.00	$ 225.00
JSH	12	Juniperus sq "Holger"	Holger Juniper		4' O.C.	B&B	24"	$ 45.00	$ 540.00
	2	4" Bark Mulch	(2 c.y. required- units in cubic yards)					$ 20.00	$ 40.00
								Total	$ 765.00



BUFFER SEED MIX

Nativescape LLC
10380 Clinton Rd., Manchester, MI 48158
Phone 517-456-9696
Fax: 517-456-7245
info@nativescape.net

Dry Prairie Mix

This mix will contain at least (16) of the wildflower species (6) of the native grasses and sedges and (2) of the temporary grasses.

Common Name	Scientific Name	#'s / Acre
Temporary Grasses	50%	15
Seed Oats	*Avena sativa*	
Indian Tobacco	*Lobelia inflata*	
Annual Rye	*Lolium multiflorum*	
Native Grasses and Sedges	30%	9
Thickstyle Wheatgrass	*Agropyron dasystachyum*	
Sideoats Grama	*Bouteloua curtipendula*	
Prairie Oval Sedge	*Carex bicknellii*	
Plains Oval Sedge	*Carex brevior*	
Sand Bracted Sedge	*Carex muhlenbergii*	
Junegrass	*Koleria macrantha*	
Little Bluestem	*Schizachyrium scoparium*	
Indian Grass	*Sorghastrum nutans*	
Sand Dropseed	*Sporobolus cryptandrus*	
Prairie Dropseed	*Sporobolus heterolepis*	
Native Wildflowers	20%	6
Lead Plant	*Amorpha canescens*	
Thimbleweed	*Anemone virginiana*	
Butterfly Weed	*Asclepias tuberosa*	
Smooth Aster	*Aster laevis*	
Aztec-Lleaved Aster	*Aster sagittifolius*	
White False Indigo	*Baptisia leucantha*	
Wild Indigo	*Baptisia tinctoria*	
Lanceleaf Coreopsis	*Coreopsis lanceolata*	
Tall Coreopsis	*Coreopsis tripteris*	
Prairie Tick Trefoil	*Desmodium illinoense*	
Flowering Spurge	*Euphorbia corollata*	
Roundhead Bushclover	*Lespedeza capitata*	
Rough Blazing Star	*Liatris aspera*	
Lupine	*Lupinus perennis*	
Bergamot, Bee Balm	*Monarda fistulosa*	
Horse Mint	*Monarda punctata*	
Evening Primrose	*Oenothera berenis*	
Black-eyed Susan	*Rudbeckia hirta*	
Yellow Coneflower	*Ratibida pinnata*	
Rosinweed	*Silphium integrifolium*	
Compass Plant	*Silphium laciniatum*	
Prairie Dock	*Silphium terebinthinaceum*	
Tall Goldenrod	*Solidago altissima*	
Stiff Goldenrod	*Solidago rigida*	
Showy Goldenrod	*Solidago speciosa*	
Hoary Vervain	*Verbena stricta*	
American Vetch	*Vicia americana*	
Total Pounds Per Acre		30 lbs

WETLAND SEED MIX

Nativescape LLC
10380 Clinton Rd , Manchester, MI 48158
Phone 517-456-9696
Fax: 517-456-7245
info@nativescape.net

Wetland Drain Mix

This mix will contain at least (7) of the wildflowers (5) of the native grasses and sedge and (2) of the temporary grasses

Common Name	Scientific Name	#'s / Acre
Temporary Grasses	70%	21.0
Seed Oats	*Avena sativa*	
American Slough Grass	*Beckmannia syzigachne*	
Annual Rye	*Lolium multiflorum*	
Native Grasses and Sedges	25%	7.5
Big Bluestem Grass	*Andropogon gerardi*	
Lurid Sedge	*Carex lurida*	
Fox Sedge	*Carex vulpinoidea*	
Canada Wild Rye	*Elymus canadensis*	
Switch Grass	*Panicum virgatum*	
Wool Grass	*Scirpus cyperinus*	
Indian Grass	*Sorghastrum nutans*	
Prairie Cord Grass	*Spartina pectinata*	
Native Wildflowers -	5%	1.5
New England Aster	*Aster novae-angliae*	
Boneset	*Eupatorium perfoliatum*	
Joeeye Weed	*Eupatorium maculatum*	
Dense Blazing Star	*Liatris spicata*	
Yellow Coneflower	*Rietbida pinnata*	
Black-eyed Susan	*Rudbeckia hirta*	
Green-headed Coneflower	*Rudbeckia laciniata*	
Cup Plant	*Silphium perfoliatum*	
Blue Vervain	*Verbena hastata*	
Total Pounds Per Acre		30 lbs.

SEED MIX AMOUNT & COST

DRY PRAIRIE MIX BUFFER IMPACT)

TOTAL AREA (S.F.)	7,384
TOTAL AREA (Ac.)	.17
MIX AMOUNT (LBS.)	5.0
SEEDING COST ($52/LBS)	$260.00

WETLAND DRAIN MIX

TOTAL AREA (S.F.)	5,295
TOTAL AREA (Ac.)	.12
MIX AMOUNT (LBS.)	4
SEEDING COST ($52/LBS)	$208.00
TOTAL SEEDING COST	$468.00

WETLAND & BUFFER RESTORATION NOTES

1. Wetland plantings within detention & water quality basins shall be installed after the following steps:
   A. Only plant after sedimentation from the construction process is removed according to engineering plans and specifications.
   B. The planting areas within these areas shall be under cut 6" and lined with organic soil to meet final elevations shown on the grading plans.
2. The vegetation proposed provides a variety of wetland species. Normal colonization is expected and other species may compete with the proposed species.
3. Temporary wetland and buffer impacts shall be restored with existing organic soils from utility installation.

SEED MIX NOTES

1. Seed mixes shall be applied at the specified rates for each mix.
2. Must be installed to manufacturer specfications and requirements.

Manufacturer: **Nativescape, LLC**
P.O. Box 122
Manchester, Michigan 48158
www.nativescapes.net

FOR REFERENCE ONLY

CDPA
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FAX: (248) 354-4214
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Civil Engineers & Land Surveyors
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NOVI, MICHIGAN 48375
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www.zeimetwozniak.com

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www.dealplanningdesign.com

King & MacGregor Environmental Inc.
45566 Kappernick Road
Canton, Michigan 48187
Phone: (734) 354-0094
Fax: (734) 354-0093

Project Name
BASILIAN RESIDENCE
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
RSVD. PER ENG.	5/28/08
Rvsd Per Cmnts	7/21/08
STAMPING SET	9/8/08
Bid Pack 1	9/29/08
10/22/08	BID PACK NO. 2

Drawn: KD
Checked:
Approved:

Sheet Title:
LANDSCAPE PLAN

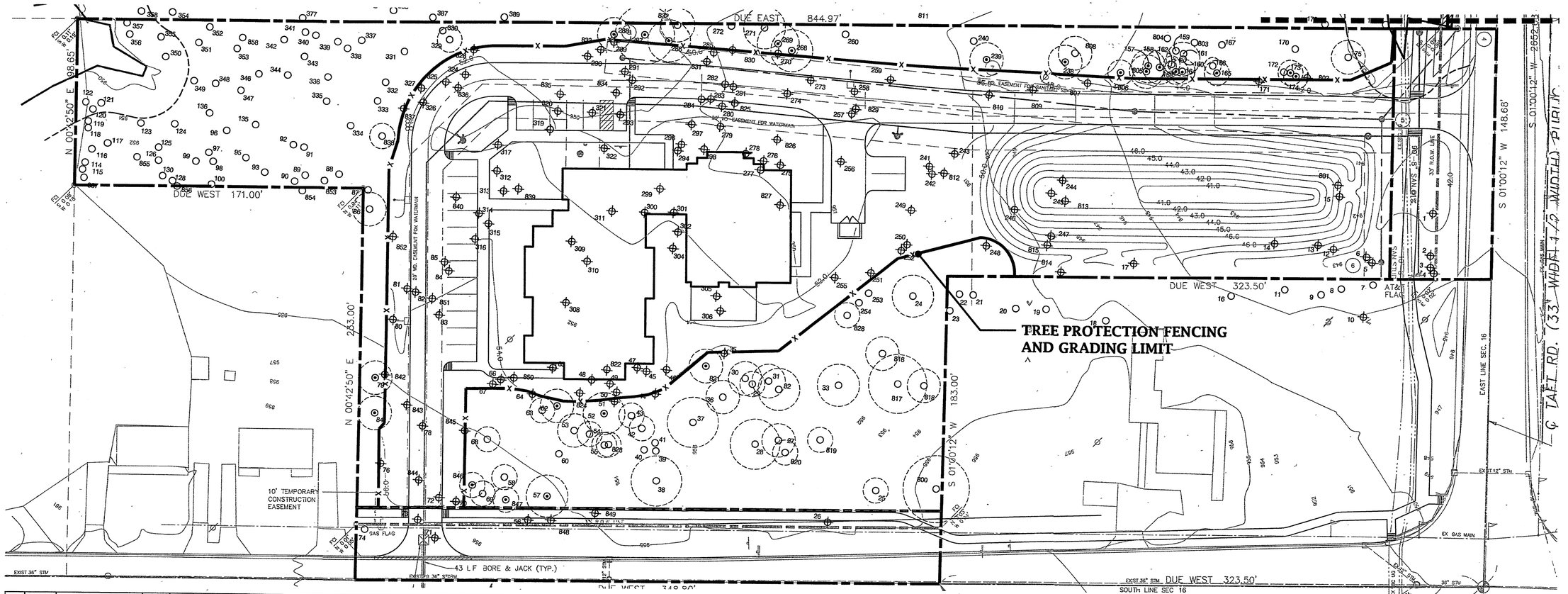
Project Number: DPD 30819

Sheet Number:
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T:\DPD Projects\Detroit Wozniak\30819 Basilian Site Plan\30819 Landscape Plan\30819 9-04-08 Natural Features dwg, 9/21/2008 10:11:11 PM, Adobe PDF.pdf3



Tree ID #	Diameter	Species Name (Common - Scientific)	Health Condition*	Crown Spread*	Status	Save / Remove	Required Replacements
1	13	Black Locust - *Robinia pseudoacacia*	Good	20		Remove	2
2	12	Black Locust - *Robinia pseudoacacia*	Fair	20		Remove	2
3	11	Black Locust - *Robinia pseudoacacia*	Fair	15		Remove	1
4	8	Black Locust - *Robinia pseudoacacia*	Poor	15		Remove	1
6	9	Black Locust - *Robinia pseudoacacia*	Poor	15		Remove	1
11	11	American Elm - *Ulmus americana*	Dead	20	Dead	Remove	0
12	14	Black Locust - *Robinia pseudoacacia*	Poor	20		Remove	2
13	21	Black Locust - *Robinia pseudoacacia*	Fair	30		Remove	3
14	14	Colorado Blue Spruce - *Picea pungens*	Excellent	15		Remove	2
15	10	Colorado Blue Spruce - *Picea pungens*	Good	10		Remove	1
17	23	Black Locust - *Robinia pseudoacacia*	Good	35		Remove	3
23	9	American Elm - *Ulmus americana*	Dead	5	Dead		0
24	11.0	Sugar Maple - *Acer saccharum*	Good	20			
25	10	Balsam Fir - *Abies balsamea*	Good	10			
26	21	American Elm - *Ulmus americana*	Good	30		Remove	3
27	13	Black Locust - *Robinia pseudoacacia*	Good	15			
28	11	American Elm - *Ulmus americana*	Fair	25			
29	8	Black Locust - *Robinia pseudoacacia*	Fair	10			
30	11	Black Locust - *Robinia pseudoacacia*	Fair	15			
31	10	Black Locust - *Robinia pseudoacacia*	Fair	15			
32	11	Black Locust - *Robinia pseudoacacia*	Good	20			
33	10	American Elm - *Ulmus americana*	Good	20			
35	9	Black Locust - *Robinia pseudoacacia*	Poor	10		Remove	1
36	13	Sugar Maple - *Acer saccharum*	Excellent	15			
37	19	Black Locust - *Robinia pseudoacacia*	Fair	25			
38	12,11	Black Locust - *Robinia pseudoacacia*	Poor	25			
39	13	American Elm - *Ulmus americana*	Dead	30	Dead		0
40	13	American Elm - *Ulmus americana*	Dead	30	Dead		0
41	9	American Elm - *Ulmus americana*	Dead	15	Dead		0
42	9	Black Locust - *Robinia pseudoacacia*	Fair	10			
43	9	Black Locust - *Robinia pseudoacacia*	Poor	10			
44	10	Black Locust - *Robinia pseudoacacia*	Fair	20		Remove	1
45	9	American Elm - *Ulmus americana*	Good	20		Remove	1
46	10	Black Locust - *Robinia pseudoacacia*	Fair	15		Remove	1
47	10	Black Locust - *Robinia pseudoacacia*	Fair	15		Remove	1
48	9	Black Locust - *Robinia pseudoacacia*	Fair	10		Remove	1
49	9	Black Locust - *Robinia pseudoacacia*	Poor	15		Remove	1
50	9	Black Locust - *Robinia pseudoacacia*	Poor	10		Remove	1
51	10	Sugar Maple - *Acer saccharum*	Good	15		Remove	1
52	14	Black Locust - *Robinia pseudoacacia*	Fair	20		Remove	2
53	10	Black Locust - *Robinia pseudoacacia*	Fair	15			
54	9	Black Locust - *Robinia pseudoacacia*	Poor	10			
55	9	Black Locust - *Robinia pseudoacacia*	Fair	10			
56	10	Sugar Maple - *Acer saccharum*	Good	15		Remove	1
57	13,12	Black Locust - *Robinia pseudoacacia*	Fair	20		Remove	4
58	10	Black Locust - *Robinia pseudoacacia*	Poor	10			
60	8	American Elm - *Ulmus americana*	Dead	10	Dead		0
62	10	Black Locust - *Robinia pseudoacacia*	Fair	15		Remove	1
63	10	Black Locust - *Robinia pseudoacacia*	Fair	10			
64	14	Sugar Maple - *Acer saccharum*	Good	20		Remove	2
65	8	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
66	8	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
67	10	American Elm - *Ulmus americana*	Dead	15	Dead	Remove	0
68	8	American Elm - *Ulmus americana*	Dead	10	Dead		0
69	10	Black Locust - *Robinia pseudoacacia*	Fair	10			
70	9	Black Locust - *Robinia pseudoacacia*	Poor	10		Remove	1
71	16,10	Black Walnut - *Juglans nigra*	Good	25		Remove	3
72	10	Black Locust - *Robinia pseudoacacia*	Good	15		Remove	1
73	10	Black Walnut - *Juglans nigra*	Fair	15		Remove	1
74	18	Black Locust - *Robinia pseudoacacia*	Good	20			
76	10	American Elm - *Ulmus americana*	Poor	20		Remove	3
78	10	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
79	9	Black Walnut - *Juglans nigra*	Good	20		Remove	1
80	13,12	Sugar Maple - *Acer saccharum*	Good	20		Remove	4
81	11	American Elm - *Ulmus americana*	Poor	20		Remove	1
82	12	Sugar Maple - *Acer saccharum*	Poor	20		Remove	2
83	17	American Elm - *Ulmus americana*	Good	30		Remove	3
84	10	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
85	10	Cottonwood - *Populus deltoides*	Dead	15		Remove	1
86	12	Sugar Maple - *Acer saccharum*	Good	20			
87	13,8	White Mulberry - *Morus alba*	Dead	30	Dead		0
88	16	Black Locust - *Robinia pseudoacacia*	Fair	20			
89	15	Red Elm - *Ulmus rubra*	Dead	20	Dead		0
90	11	Black Walnut - *Juglans nigra*	Poor	20			
91	12	American Elm - *Ulmus americana*	Poor	25			
92	14,11	Black Walnut - *Juglans nigra*	Good	25			
93	12	Black Walnut - *Juglans nigra*	Fair	15			
95	12	American Elm - *Ulmus americana*	Poor	25			
96	9	Red Elm - *Ulmus rubra*	Poor	10			
97	12	Black Walnut - *Juglans nigra*	Poor	20			

Tree ID #	Diameter	Species Name (Common - Scientific)	Health Condition*	Crown Spread*	Status	Save / Remove	Required Replacements
98	17	White Ash - *Fraxinus americana*	Dead	15	Dead		0
99	9	American Elm - *Ulmus americana*	Fair	15			
100	9	Black Walnut - *Juglans nigra*	Very Poor	10	Damaged		0
114	16	White Ash - *Fraxinus americana*	Dead	10	Dead		0
115	12	Sugar Maple - *Acer saccharum*	Poor	15			
116	10	Sugar Maple - *Acer saccharum*	Poor	15			
117	12	White Ash - *Fraxinus americana*	Dead	10	Dead		0
118	8	Sugar Maple - *Acer saccharum*	Poor	15			
119	9	Sugar Maple - *Acer saccharum*	Poor	15			
120	9	Sugar Maple - *Acer saccharum*	Poor	15			
121	9	Sugar Maple - *Acer saccharum*	Poor	15			
122	19	White Ash - *Fraxinus americana*	Dead	25	Dead		0
123	10	Sugar Maple - *Acer saccharum*	Excellent	15			
124	10	Black Walnut - *Juglans nigra*	Fair	15			
125	12	Black Walnut - *Juglans nigra*	Good	20			
126	8	Sugar Maple - *Acer saccharum*	Dead	5	Dead		0
128	8	White Ash - *Fraxinus americana*	Dead	5	Dead		0
130	10	Black Walnut - *Juglans nigra*	Fair	10			
135	11	Black Walnut - *Juglans nigra*	Fair	10			
136	9,8	Black Walnut - *Juglans nigra*	Very Poor	10	Damaged		0
157	10	Aspen - *Populus spp*	Fair	15		Impctd/Save	1
158	12	Aspen - *Populus spp.*	Good	15		Impctd/Save	1
159	9	Aspen - *Populus spp*	Fair	10			
160	11	Sugar Maple - *Acer saccharum*	Good	15			
161	9	Aspen - *Populus spp.*	Fair	10		NOT IMPACTED	
162	8	Colorado Blue Spruce - *Picea pungens*	Poor	5		Impctd/Save	1
163	10	Colorado Blue Spruce - *Picea pungens*	Poor	10		Impctd/Save	1
164	10	Colorado Blue Spruce - *Picea pungens*	Poor	10		Impctd/Save	1
165	14	Colorado Blue Spruce - *Picea pungens*	Fair	10		Impctd/Save	2
166	12	Colorado Blue Spruce - *Picea pungens*	Poor	10			
167	9	White Ash - *Fraxinus americana*	Very Poor	15	Diseased		0
170	9	Aspen - *Populus spp*	Poor	10			
171	14	Colorado Blue Spruce - *Picea pungens*	Fair	10		Remove	2
172	9	Colorado Blue Spruce - *Picea pungens*	Very Poor	10	Damaged	Impctd/Save	0
173	8	Colorado Blue Spruce - *Picea pungens*	Poor	10		Impctd/Save	1
174	13	Colorado Blue Spruce - *Picea pungens*	Poor	10		Impctd/Save	2
175	10	White Mulberry - *Morus alba*	Poor	15			
176	16	American Elm - *Ulmus americana*	Dead	20	Dead		0
177	15	American Elm - *Ulmus americana*	Good	30			
238	11	Black Cherry - *Prunus serotina*	Poor	15		Impctd/Save	2
239	9	Sugar Maple - *Acer saccharum*	Good	15		Impctd/Save	1
240	11,8	American Elm - *Ulmus americana*	Good	25			
241	13	American Elm - *Ulmus americana*	Dead	20	Dead	Remove	0
242	8	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
243	9	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
244	9	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
245	14	Siberian Elm - *Ulmus pumila*	Very Poor	15	Damaged	Remove	0
246	13	American Elm - *Ulmus americana*	Dead	20	Dead	Remove	0
247	10	Black Locust - *Robinia pseudoacacia*	Poor	15		Remove	1
248	8	White Mulberry - *Morus alba*	Fair	15		Remove	1
249	12,8	Sugar Maple - *Acer saccharum*	Excellent	25		Remove	3
250	10	American Elm - *Ulmus americana*	Dead	15	Dead	Remove	0
251	18,13	Black Locust - *Robinia pseudoacacia*	Good	30		Remove	4
252	8	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
253	10	American Elm - *Ulmus americana*	Dead	15	Dead	Remove	0
254	8	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
255	9	American Elm - *Ulmus americana*	Dead	15	Dead	Remove	0
256	12	American Elm - *Ulmus americana*	Good	20		Remove	3
257	10	Swamp White Oak - *Quercus bicolor*	Fair	15		Remove	1
258	11	Sugar Maple - *Acer saccharum*	Excellent	20		Remove	3
259	9	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
260	8	White Ash - *Fraxinus americana*	Very Poor	15	Diseased		0
268	14	Black Cherry - *Prunus serotina*	Good	20		Impctd/Save	3
269	9	Red Elm - *Ulmus rubra*	Fair	20		Impctd/Save	1
270	10	American Elm - *Ulmus americana*	Good	20		Remove	1
271	13	Black Cherry - *Prunus serotina*	Fair	20			
272	8	American Elm - *Ulmus americana*	Dead	10	Dead		0
273	15	Black Cherry - *Prunus serotina*	Good	25		Remove	3
274	12	Black Cherry - *Prunus serotina*	Good	20		Remove	2
275	10	American Elm - *Ulmus americana*	Dead	15	Dead	Remove	0
276	16	White Ash - *Fraxinus americana*	Dead	20	Dead	Remove	0
277	17	White Ash - *Fraxinus americana*	Dead	25	Dead	Remove	0
278	11	White Ash - *Fraxinus americana*	Dead	15	Dead	Remove	0
279	9	White Ash - *Fraxinus americana*	Dead	10	Dead	Remove	0
280	13	White Ash - *Fraxinus americana*	Dead	15	Dead	Remove	0
281	13	White Ash - *Fraxinus americana*	Dead	15	Dead	Remove	0
282	9	American Elm - *Ulmus americana*	Poor	15		Remove	1
283	8	Cottonwood - *Populus deltoides*	Very Poor	10	Damaged	Remove	0
284	18	Cottonwood - *Populus deltoides*	Good	20		Remove	2
285	11	American Elm - *Ulmus americana*	Very Poor	25	Diseased	Remove	0

Tree ID #	Diameter	Species Name (Common - Scientific)	Health Condition*	Crown Spread*	Status	Save / Remove	Required Replacements
286	11	Sugar Maple - *Acer saccharum*	Good	20		Impctd/Save	3
287	13	Sugar Maple - *Acer saccharum*	Excellent	30		Impctd/Save	2
288	9	Sugar Maple - *Acer saccharum*	Good	15		Impctd/Save	1
289	8	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
290	14	Black Cherry - *Prunus serotina*	Good	30		Remove	2
291	10	Black Cherry - *Prunus serotina*	Fair	10		Remove	1
292	12	American Elm - *Ulmus americana*	Fair	20		Remove	2
293	24	Cottonwood - *Populus deltoides*	Good	35		Remove	3
294	8	White Ash - *Fraxinus americana*	Dead	5	Dead	Remove	0
296	11	White Ash - *Fraxinus americana*	Dead	15	Dead	Remove	0
297	20	Cottonwood - *Populus deltoides*	Good	30		Remove	3
298	11	American Elm - *Ulmus americana*	Fair	20		Remove	2
299	11,10	White Ash - *Fraxinus americana*	Dead	15	Dead	Remove	0
300	11	Black Cherry - *Prunus serotina*	Good	20		Remove	1
301	10	American Elm - *Ulmus americana*	Good	15		Remove	1
302	9	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
304	9	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
305	11	American Elm - *Ulmus americana*	Very Poor	30	Damaged	Remove	0
306	11	Sugar Maple - *Acer saccharum*	Good	20		Remove	1
308	12,8	Black Cherry - *Prunus serotina*	Good	20		Remove	1
309	10	American Elm - *Ulmus americana*	Dead	15	Dead	Remove	0
310	9	American Elm - *Ulmus americana*	Dead	10	Dead	Remove	0
311	13	Cottonwood - *Populus deltoides*	Good	15		Remove	2
312	15	Black Locust - *Robinia pseudoacacia*	Good	20		Remove	2
313	17	Basswood - *Tilia americana*	Good	30		Remove	2
314	13	Cottonwood - *Populus deltoides*	Good	15		Remove	2
315	11,8	Red Maple - *Acer rubrum*	Fair	20		Remove	2
316	10	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
317	8	White Ash - *Fraxinus americana*	Dead	10	Dead	Remove	0
319	17	Black Cherry - *Prunus serotina*	Fair	25		Remove	2
320	13	White Ash - *Fraxinus americana*	Dead	10	Dead	Remove	0
321	8	White Ash - *Fraxinus americana*	Dead	5	Dead	Remove	0
322	8	White Ash - *Fraxinus americana*	Dead	10	Dead	Remove	0
324	16	Cottonwood - *Populus deltoides*	Good	20		Remove	2
325	14	Black Cherry - *Prunus serotina*	Fair	20		Remove	2
326	10	White Ash - *Fraxinus americana*	Dead	10	Dead	Remove	0
327	9	White Ash - *Fraxinus americana*	Dead	10	Dead	Remove	0
328	10	American Elm - *Ulmus americana*	Dead	5	Dead	Remove	0
329	9	Black Cherry - *Prunus serotina*	Poor	10			
330	10	Sugar Maple - *Acer saccharum*	Good	15			
331	19,13	Black Cherry - *Prunus serotina*	Fair	30			
332	13	Black Cherry - *Prunus serotina*	Fair	20			
333	11	Black Locust - *Robinia pseudoacacia*	Good	15			
334	10	Black Locust - *Robinia pseudoacacia*	Poor	15			
335	11	Bitternut Hickory - *Carya cordiformis*	Fair	15			
336	9	Bitternut Hickory - *Carya cordiformis*	Fair	15			
337	12	American Elm - *Ulmus americana*	Fair	20			
338	15,8	Sugar Maple - *Acer saccharum*	Fair	20			
339	15	Sugar Maple - *Acer saccharum*	Good	20			
340	9	White Ash - *Fraxinus americana*	Dead	5	Dead		0
341	13	White Ash - *Fraxinus americana*	Dead	10	Dead		0
342	12	Black Walnut - *Juglans nigra*	Good	20			
343	13	Black Walnut - *Juglans nigra*	Fair	20			
344	10	Black Walnut - *Juglans nigra*	Poor	10			
345	13	Black Walnut - *Juglans nigra*	Fair	20			
347	11	American Elm - *Ulmus americana*	Fair	20			
348	10,9	White Ash - *Fraxinus americana*	Dead	10	Dead		0
349	12	Red Elm - *Ulmus rubra*	Good	25			
350	10	Red Elm - *Ulmus rubra*	Dead	5	Dead		0
351	10	Red Elm - *Ulmus rubra*	Dead	5	Dead		0
352	11	White Ash - *Fraxinus americana*	Dead	10	Dead		0
353	11	White Ash - *Fraxinus americana*	Dead	10	Dead		0
354	9	Red Elm - *Ulmus rubra*	Dead	5	Dead		0
355	8	White Ash - *Fraxinus americana*	Dead	10	Dead		0
356	16	Basswood - *Tilia americana*	Poor	20			
357	40	Black Walnut - *Juglans nigra*	Good	45			
800	17	American Elm - *Ulmus pumila*	Good	35			
801	8	Colorado Blue Spruce - *Picea pungens*	Good	10		Remove	1
802	8	Black Walnut - *Juglans nigra*	Good	10		Remove	1
803	8	Black Cherry - *Prunus serotina*	Very Poor	15	Damaged		0
804	8	Aspen - *Populus spp.*	Fair	10			
805	8	Aspen - *Populus spp.*	Poor	15		Impctd/Save	1
806	8	Aspen - *Populus spp.*	Good	10		Impctd/Save	1
807	8	White Mulberry - *Morus alba*	Fair	15		Remove	1
808	8	Sugar Maple - *Acer saccharum*	Good	15			
809	9	White Ash - *Fraxinus americana*	Poor	20		Remove	1
810	8	White Mulberry - *Morus alba*	Fair	15		Remove	1
811	9	Sugar Maple - *Acer saccharum*	Very Poor	25	Damaged	Remove	0
812	9	Sugar Maple - *Acer saccharum*	Good	15		Remove	1
813	8	Colorado Blue Spruce - *Picea pungens*	Good	10		Remove	1

Tree ID #	Diameter	Species Name (Common - Scientific)	Health Condition*	Crown Spread*	Status	Save / Remove	Required Replacements
814	8	Colorado Blue Spruce - *Picea pungens*	Excellent	10		Remove	1
815	10	Black Locust - *Robinia pseudoacacia*	Poor	15		Remove	1
816	13.9	White Mulberry - *Morus alba*	Fair	30			
817	9	White Mulberry - *Morus alba*	Fair	30			
818	9	American Elm - *Ulmus americana*	Good	15			
819	8	American Elm - *Ulmus americana*	Good	10			
820	8	American Elm - *Ulmus americana*	Fair	10			
821	8	Sugar Maple - *Acer saccharum*	Fair	15		Impctd/Save	1
822	8	American Elm - *Ulmus americana*	Fair	15		Remove	1
823	9	Black Locust - *Robinia pseudoacacia*	Poor	10			
824	8	Black Locust - *Robinia pseudoacacia*	Fair	10		Remove	1
826	8	American Elm - *Ulmus americana*	Poor	25			
827	9	White Ash - *Fraxinus americana*	Fair	20		Remove	1
827	8	Eastern Red Cedar - *Juniperus virginiana*	Fair	10		Remove	1
828	9	Black Locust - *Robinia pseudoacacia*	Fair	10			
829	9	Black Cherry - *Prunus serotina*	Fair	15		Remove	1
830	10	Apple - *Malus spp.*	Poor	10		Remove	1
831	8	American Elm - *Ulmus americana*	Very Poor	10	Diseased	Remove	0
832	8	American Elm - *Ulmus americana*	Fair	15			
833	8	Sugar Maple - *Acer saccharum*	Good	15		Remove	1
834	9	Black Cherry - *Prunus serotina*	Fair	15		Remove	1
835	8	American Elm - *Ulmus americana*	Good	15		Remove	1
836	8	Sugar Maple - *Acer saccharum*	Fair	15		Remove	1
837	9	Sugar Maple - *Acer saccharum*	Fair	10		Impctd/Save	1
838	8	Black Locust - *Robinia pseudoacacia*	Good	10			
839	8	Black Cherry - *Prunus serotina*	Poor	15		Remove	1
840	9	White Mulberry - *Morus alba*	Fair	15		Remove	1
841	8	American Elm - *Ulmus americana*	Good	15		Impctd/Save	1
842	9	American Elm - *Ulmus americana*	Poor	15		Impctd/Save	1
843	9	American Elm - *Ulmus americana*	Good	15		Remove	1
844	8	Black Locust - *Robinia pseudoacacia*	Fair	10		Remove	1
845	8	White Mulberry - *Morus alba*	Poor	15		Remove	1
846	8	Black Locust - *Robinia pseudoacacia*	Fair	10		Impctd/Save	1
847	8	Sugar Maple - *Acer saccharum*	Good	10		Impctd/Save	1
848	8	Sugar Maple - *Acer saccharum*	Good	15		Remove	1
849	8	Sugar Maple - *Acer saccharum*	Excellent	15		Remove	1
850	8	Sugar Maple - *Acer saccharum*	Fair	10		Remove	1
851	8	American Elm - *Ulmus americana*	Poor	15		Remove	1
852	8	American Elm - *Ulmus americana*	Good	10		Remove	1
853	8	American Elm - *Ulmus americana*	Fair	10			
854	8	American Elm - *Ulmus americana*	Fair	10			
855	8	Sugar Maple - *Acer saccharum*	Good	10			
856	8	American Elm - *Ulmus americana*	Poor	15			
857	9	Basswood - *Tilia americana*	Fair	15			
858	9	Black Cherry - *Prunus serotina*	Poor	10			
							172

NOTES

1. TREES MARKED AS "Impctd/Save" IN EXISTING WOODLAND TREE LIST ARE THOSE WHO'S DRIP-LINE ARE IMPACTED BY NEW UTILITIES OR GRADING. THESE TREES ARE ACCOUNTED FOR IN THE TOTAL REPLACEMENT TREES REQUIRED BUT ARE TO BE PRESERVED DURING DEVELOPMENT.

2. TREES #75, #77 #318 #303 #307 NO LONGER ON SITE ACCORDING TO JOHN P. MOSES REGISTERED FORESTER. TREES ARE THEREFORE, REMOVED FROM PLANS.

LEGEND

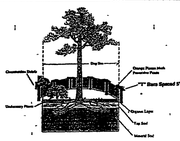
IMPACTED/SAVED TREES

PRESERVED TREES

REMOVED TREES

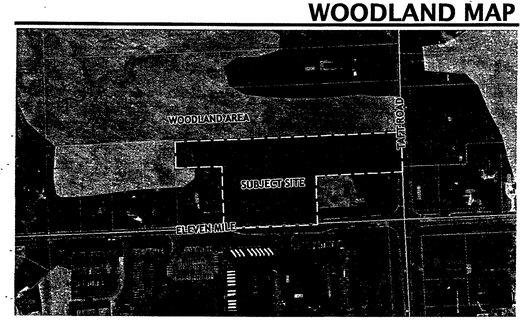
FOR REFERENCE ONLY

WOODLAND PROTECTION DETAIL



1. Approved tree protection shall be erected prior to start of construction activities, and shall remain in place until construction is complete. The City shall be notified after tree protection is in place, prior to construction activities, including delivery of materials.
2. No person may conduct any activity within the drip line of any tree designated to be saved. including, but not limited to, placing solvents, building materials, equipment, or soil deposits
3. Grade changes may not occur within the the drip line of protected trees.
4. During construction, no person shall attach any device or wire to any remaining trees
5. All utility services requests must include notification to the installer that protected trees must be avoid All trenching shall occur outside of protective fencing
6. Swales shall be hand dug and routed to avoid the areas within the drip lines of protected trees.
7. If tree protection cannot be maintained for a tree throughout the construction period, replacement of that tree may be required prior to issuance of the Certificate of Occupancy.
8. Regulated trees located on adjacent property that may be affected by construction activities must be protected.

WOODLAND MAP



0 5 10 20 40 80
scale: 1" = 20' north

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Project Name
BASILIAN
RESIDENCE
NOVI, MICHIGAN

Client:
BASILIAN FATHERS -CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM RD
NOVI, MI
(248) 596-3810

Seal:

Date	Issued For
RSVD. PER ENG.	5/28/08
Resd Per Cmnts	7/21/08
STAMPING SET	9/8/08
Bid Pack # 1	9/29/08
10/22/08	BID PACK NO. 2

Drawn: KD
Checked:
Approved:

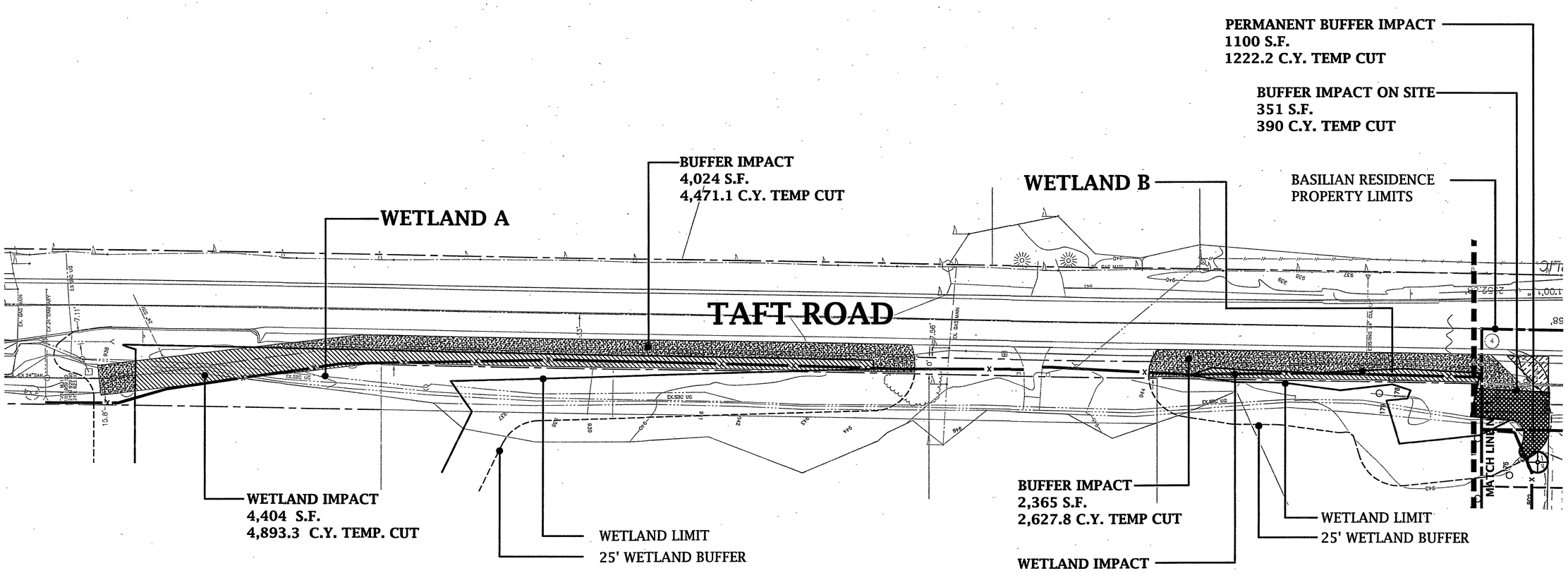
Sheet Title:
NATURAL FEATURES IMPACT PLAN

Project Number: DPD 30819

Sheet Number:
N-1.1

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WETLAND/ BUFFER IMPACTS

REGULATED/ESSENTIAL (Novi) WETLANDS				
WETLAND	TEMPERARY WETLAND IMPACT		TEMPERARY BUFFER IMPACT	
	Size	TEMP CUT FOR UTILITY	Size	TEMP CUT FOR UTILITY
OFF SITE				
A.	4,404 s.f.	4,893.3 c.y.	4,024 s.f.	4,471.1 c.y.
B.	891 s.f	990 c.y.	2,365 s.f.	2,627.8 c.y.
ON SITE				
B			351 s.f.	390 c.y.
TOTALS:				
OFF SITE	5,295 s.f.	5,883.3 c.y.	6,389 s.f.	7,098.9 c.y.
ON SITE			351 s.f.	390 c.y.

REGULATED/ESSENTIAL (Novi) WETLANDS				
WETLAND	PERMANENT WETLAND IMPACT		PERMANENT BUFFER IMPACT	
	Size	TEMP CUT FOR UTILITY	Size	TEMP CUT FOR UTILITY
ON SITE				
B			1100 s.f.	1222.2 c.y.
TOTALS:				
ON SITE			1100 s.f.	1222.2 c.y.

NOTE:
TOPSOIL LAYER EXCAVATED FROM THE TAFT ROAD WETLANDS FOR THE PURPOSE OF SANITARY SEWER INSTALLATION SHALL BE STRIPPED, STOCKPILED AND REPLACED FOLLOWING INSTALLATION AND BACKFILL OF THE PROPOSED SANITARY SEWER CONNECTION

LEGEND

WETLAND IMPACT

WETLAND BUFFER IMPACT

PERMANENT BUFFER IMPACT

0 7.5 15 30 60 120
scale: 1" = 30'
north

FOR REFERENCE ONLY

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Project Name
BASILIAN
RESIDENCE
NOVI, MICHIGAN

Client:
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CENTRAL HIGH SCHOOL
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RSVD. PER ENG.	5/28/08
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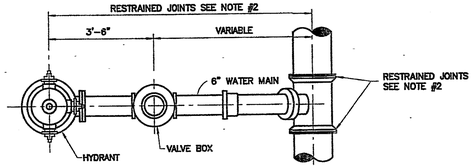
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Sheet Title:
NATURAL FEATURES
MITIGATION

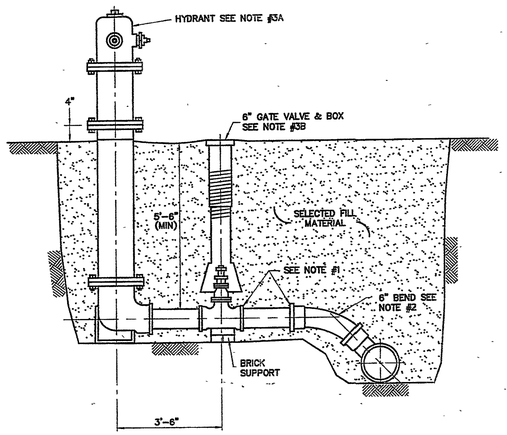
Project Number: DPD 30819

Sheet Number:
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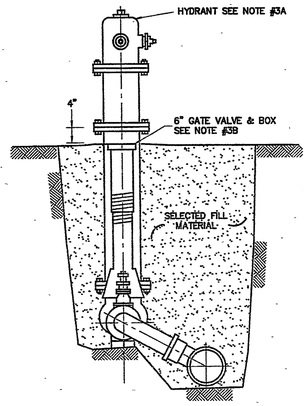


PLAN

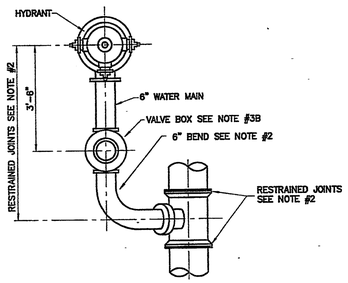


SECTION

TYPICAL HYDRANT SETTINGS

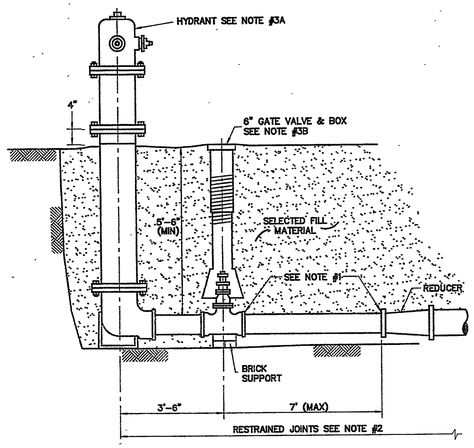


SECTION



PLAN

TYPICAL 90° HYDRANT SETTING



TYPICAL HYDRANT VALVE & BOX CONNECTION AT END OF WATER MAIN

1. TYPE OF JOINT SHALL BE APPROVED BY MUNICIPAL ENGINEER. (TYTON, SUPER BELL-TITE OR MECHANICAL, IN ACCORDANCE WITH ANSI A 21.11) OR APPROVED EQUIVALENT.
2. RESTRAINED JOINTS ARE REQUIRED IN LIEU OF THRUST BLOCKS. RESTRAINED JOINTS FOR PIPE SIZES UP TO 16" SHALL BE FAST GRIP GASKETS, MEGA LUG OR APPROVED EQUAL. RESTRAINED JOINTS FOR PIPE SIZES OVER 16" SHALL BE AMERICAN DUCTILE IRON FLEX-RING JOINT PIPE OR APPROVED EQUAL BOLTLESS SYSTEM.

   THRUST RESTRAINT DESIGN SHALL BE PER THE DUCTILE IRON PIPE RESEARCH ASSOCIATION MANUAL; THRUST RESTRAINT DESIGN FOR DUCTILE PIPE, CURRENT EDITION.
3. A. HYDRANTS SHALL BE EAST JORDAN MODEL TYPE 6BR.

   B. VALVE BOXES SHALL BE EAST JORDAN E-3002, OR APPROVED EQUIVALENT.
4. UNLESS OTHERWISE NOTED OR DIMENSIONED, HYDRANTS SHALL BE:

   A. MAXIMUM 15', MINIMUM 7' BEHIND EXISTING CURB.

   B. 30'± 1' FROM R.O.W. CENTERLINE IN STREETS WITH DITCHES.
5. HYDRANT DRAIN OPENING SHALL BE SECURELY PLUGGED.
6. PRIOR TO ACCEPTANCE:

   A. HYDRANT SHALL BE PLUMBED.

   B. VALVE BOXES SHALL BE PLUMBED AND IN LINE WITH THE VALVE.

   C. STEAMER CONNECTION OF THE HYDRANT SHALL FACE THE STREET CENTERLINE, OR AS DIRECTED BY THE FIRE MARSHALL.

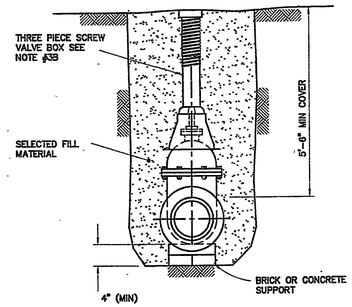
   D. HYDRANTS SHALL BE CLEANED AND PAINTED TO FIRE MARSHALL'S COLOR CODE. RUSTOLEUM FIRE HYDRANT RED, OR APPROVED EQUIVALENT.

   E. HYDRANTS SHALL BE CHARGED TO BE TESTED FOR LEAKAGE AND ANY LEAKS ARE TO BE REPAIRED.

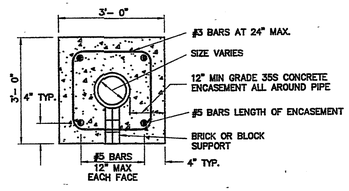
   F. HYDRANTS AND VALVE BOXES SHALL BE SET TO FINAL FINISHED GRADES.

   G. EXTENSION STEMS AND STEM GUIDES AS MANUFACTURED BY TRAVERSE CITY IRON WORKS, OR APPROVED EQUIVALENT SHALL BE PROVIDED IN EACH GATE WELL WHERE THE VALVE OPERATING NUT IS FURTHER THAN 5' BELOW THE TOP OF THE GATE WELL COVER OR VALVE BOX COVER. EXTENSION STEM SHALL EXTEND TO WITHIN 5' OF THE TOP OF COVER FINAL ELEVATION. EXTENSION STEMS WILL BE SECURED IN PLACE WITH BRACKETS ATTATCHED TO THE RISER SECTIONS.

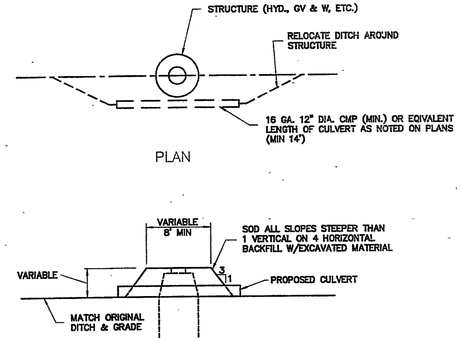
   H. ALL WATER MAINS ARE TO BE PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH ANSI/AWWA C600-93 AND C651-92 STANDARDS.



VALVE BOX DETAIL



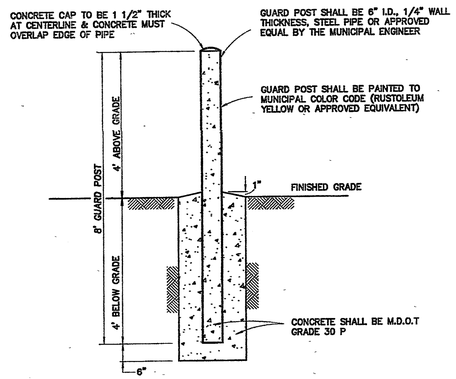
STANDARD ENCASEMENT FOR 12" & SMALLER WATER MAIN



PLAN

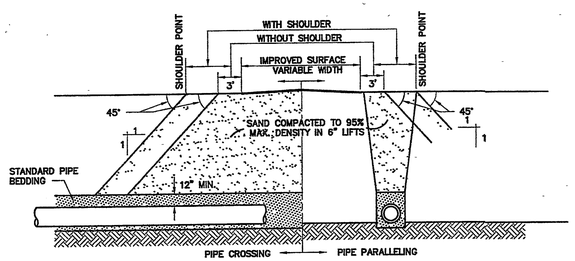
SECTION

DITCH RELOCATION & ENCLOSURE AROUND STRUCTURES



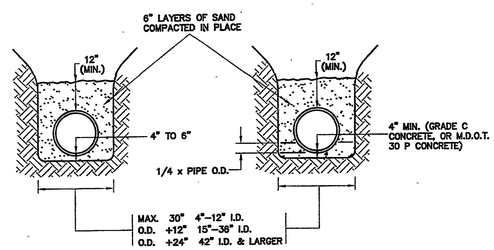
GUARD POST DETAIL

GUARD POST SHALL BE PLACED 4' FROM CENTERLINE OF HYDRANT OR AS PER PLAN



BACKFILLING IN THE AREAS OF STREETS, ALLEYS, SIDEWALKS, DRIVES & PARKING AREA

SEE NOTE # 2



CLASS "B" BEDDING CLASS "A" BEDDING

BEDDING & TRENCH WIDTH REQUIREMENT

FOR REFERENCE ONLY

JCK & ASSOCIATES, INC.
45650 GRAND RIVER AVENUE
NOVI, MICHIGAN 48376
PHONE: (248) 348-2680
FAX (248) 348-2777

WATER MAIN DETAILS

CITY OF NOVI

Revisions

Drawn
Designed
Checked

Scale: NO SCALE

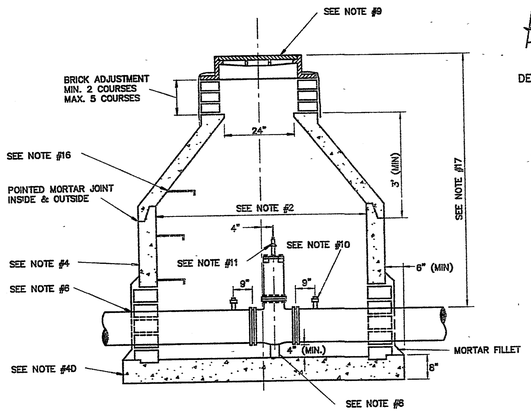
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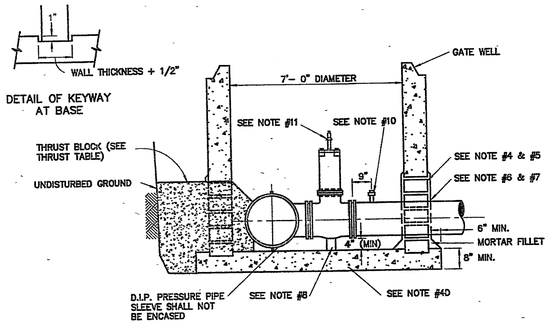
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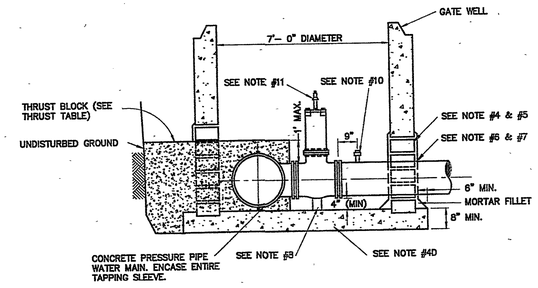
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DETAIL OF PRECAST CONCRETE GATE WELL



DETAIL FOR D.I.P.
TAPPING SLEEVE VALVE & WELL



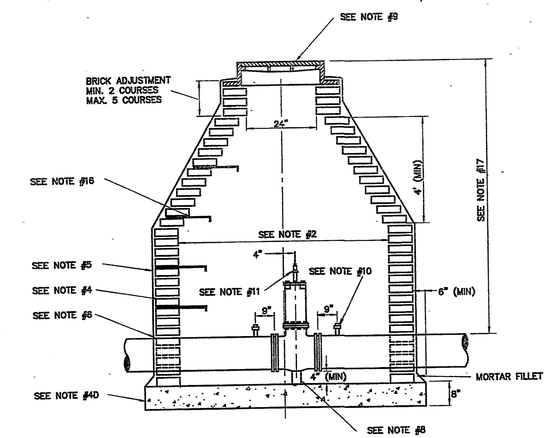
DETAIL FOR CONCRETE PIPE
TAPPING SLEEVE VALVE & WELL

THRUST TABLE	
MAIN SIZE	TEES
6"	4,250
8"	7,540
12"	16,970
16"	30,160
20"	47,120
24"	67,880
36"	152,680

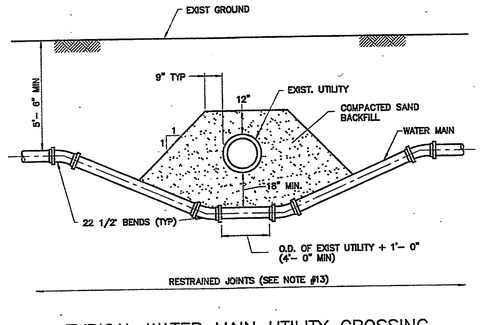
SOIL BEARING LOADS – HORIZONTAL THRUST	
TYPE OF SOIL	S.B.L. LBS/SQ. FT.
MUCK, PEAT, etc.	0
SOFT CLAY	1000
SAND	2000
SAND AND GRAVEL	3000
SAND AND GRAVEL CEMENTED W/CLAY	4000
HARD COMPACTED CLAY	5000

NOTE:
1. ALL THRUST BLOCKS SHALL EXTEND TO UNDISTURBED GROUND
2. CONCRETE SHALL BE M.D.O.T. GRADE 30P
3. THRUST TABLE DIVIDED BY SOIL BEARING LOADS EQUALS THRUST BLOCK SQUARED.

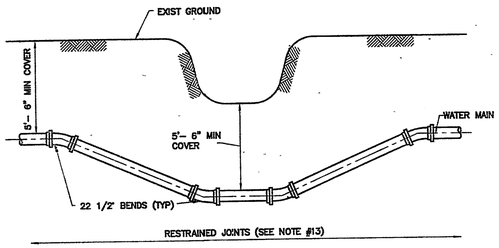
THRUST BLOCK TABLES
(FOR TAPPING SLEEVE VALVE & WELL ONLY)



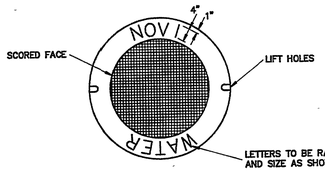
DETAIL OF BRICK GATE WELL



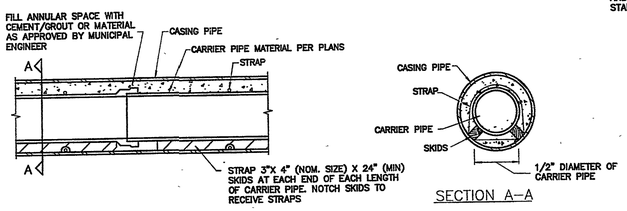
TYPICAL WATER MAIN UTILITY CROSSING
SEE NOTE # 12



DITCH AND STREAM CROSSING



COVER LETTERING DETAIL
(TYPICAL FOR ALL CASTINGS)
TYPE "A" COVER



CARRIER PIPE WITH CASING PIPE
SEE NOTE #14

DETAILED CONSTRUCTION NOTES

1. ALL GATE WELL STRUCTURES SHALL BE CONCENTRIC CONE TYPE UNLESS OTHERWISE APPROVED BY THE MUNICIPAL ENGINEER.
2. GATEWELLS SHALL BE BRICK, BLOCK OR PRECAST REINFORCED CONCRETE SIZED AS FOLLOWS:
   A. 6" THROUGH 10" PIPE SHALL BE 5' INSIDE DIAMETER.
   B. OVER 10" PIPE SHALL BE 6' INSIDE DIAMETER.
3. TAPPING WELLS SHALL BE BRICK, BLOCK OR PRECAST REINFORCED CONCRETE.
4. A. BRICK SHALL BE GRADE U–1 CONFORMING TO ASTM C–55.
   B. BLOCK SHALL BE GRADE N–1 CONFORMING TO ASTM C–139.
   C. PRECAST REINFORCED CONCRETE SECTIONS SHALL CONFORM TO ASTM C–478. LIFT HOLES SHALL BE POINTED INSIDE AND OUTSIDE AT THE TIME STRUCTURE IS ASSEMBLED.
   D. CONCRETE BASE SHALL BE MDOT GRADE 30P (MINIMUM).
5. BRICK OR BLOCK SHALL BE PLASTERED ON THE OUTSIDE WITH A MINIMUM OF 1/2" OF MORTAR.
6. THE PIPE OPENINGS SHALL BE WRAPPED WITH CADDILLOC WRAP, #30 MASTIC, OR APPROVED EQUIVALENT WITHIN THE WALL OF THE TAPPING SLEEVE AND VALVE WELL.
7. MORTAR FOR LAYING BRICK OR BLOCK, POINTING JOINTS AND PLASTERING OUTSIDE OF STRUCTURES SHALL BE COMPOSED OF 1 PART MASONRY CEMENT (TYPE II) AND 2 1/2 PARTS MASONRY SAND.
8. GATE VALVES SHALL BE E.J.I.W. IRON BODY, FULLY BRONZE–MOUNTED, DOUBLE DISC, PARALLEL SEAT TYPE, NONRISING STEM, OPENING COUNTERCLOCKWISE AND CONFORMING TO AWWA STANDARDS, OR RESILIENT SEATED GATE VALVES CONFORMING TO AWWA C–509. GATE VALVES AND FITTINGS SHALL BE SUPPORTED BY FORMED CONCRETE OR MORTARED BRICK BEARING ON THE FLOOR. (MINIMUM 4" CLEARANCE FROM FLOOR TO BOTTOM OF VALVE.)
9. EAST JORDON IRON WORKS #1040 AND TYPE A COVER (WITH LETTER AS PER DETAIL THIS SHEET) OR APPROVED EQUIVALENT PLACED ON A BED OF MORTAR. MORTAR SHALL EXTEND OVER BASE FLANGE.
10. CORPORATION STOPS
    A. 1–INCH MUELLER #H–15000, CLOW F–1280 OR APPROVED BY THE MUNICIPAL ENGINEER.
    B. ALL CORPORATION STOPS INSTALLED OUTSIDE OF GATEWELLS SHALL BE MADE WITH BRONZE DOUBLE–STRAP TAPPING SADDLE (CLOW F–1280 OR APPROVED BY THE MUNICIPAL ENGINEER).
11. EXTENSION STEM AND STEM GUIDE AS MANUFACTURED BY TRAVERSE CITY IRON WORKS OR APPROVED EQUIVALENT, SHALL BE PROVIDED IN EACH GATE WELL OR VALVE BOX WHERE THE VALVE OPERATING NUT IS MORE THAN 5 FEET BELOW THE TOP OF THE GATE WELL COVER (FINAL ELEVATION). EXTENSION STEMS AND GUIDES SHALL EXTEND VALVE OPERATING NUT TO WITHIN 5 FEET OF THE TOP OF COVER (FINAL ELEVATION). EXTENSION STEMS SHALL BE SECURED IN PLACE WITH BRACKETS ATTACHED TO THE RISER SECTIONS.
12. A. WHENEVER A WATER MAIN IS INSTALLED UNDER ANY EXISTING UTILITY LINE, PROVISIONS SHALL BE MADE TO PROPERLY SUPPORT OR DISTRIBUTE ANY CONCENTRATED LOADS TO AVOID ANY SETTLEMENT AND ALL POSSIBLE FAILURE OF THE LOWER MAIN. A VERTICAL SEPERATION OF AT LEAST 18 INCHES BETWEEN THE SEWER AND THE WATER MAIN SHALL BE PROVIDED (MEASURED BARREL TO BARREL).
    B. COMPACTED SAND BACKFILL SHALL EXTEND FOR 9 INCHES EACH SIDE OF EXISTING PIPE, AT 12 INCHES ABOVE EXISTING PIPE AND SHALL SLOPE AT A ONE ON ONE SLOPE TO THE BOTTOM OF THE TRENCH.
13. RESTRAINED JOINTS ARE REQUIRED IN LIEU OF THRUST BLOCKS. RESTRAINED JOINTS FOR PIPE SIZES UP TO 16" SHALL BE FAST GRIP GASKETS, MEGA LUG OR APPROVED EQUAL. RESTRAINED JOINTS FOR PIPE SIZES OVER 16" SHALL BE AMERICAN DUCTILE IRON FLEX JOINT PIPE OR APPROVED EQUAL BOLTLESS SYSTEM.

    THRUST RESTRAINT DESIGN SHALL BE PER THE DUCTILE IRON PIPE RESEARCH ASSOCIATION MANUAL; THRUST RESTRAINT DESIGN FOR DUCTILE PIPE, CURRENT EDITION.
14. CARRIER PIPE WITH CASING PIPE
    A. INSIDE DIAMETER OF CASING SHALL BE EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE BELL PLUS 8 INCHES, UNLESS OTHERWISE NOTED ON CONTRACT DRAWINGS.
    B. UNLESS OTHERWISE SPECIFIED, CASING PIPE SHALL BE ASTM C–76 CLASS V R.C.P. OR ASTM A139 GRADE B WITH MINIMUM WALL THICKNESS OF 0.250 INCHES.
    C. ALTERNATE METHODS OF SUPPORTING AND MAINTAINING THE POSITION OF THE CARRIER PIPE WITH RESPECT TO THE CASING PIPE (IN LIEU OF THE USE OF TIMBERS) WILL BE CONSIDERED. THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH ALTERNATE METHODS FOR APPROVAL BY THE MUNICIPAL ENGINEER.
    D. THE ENDS OF THE CASING PIPE SHALL BE CLOSED WITH A MASONRY BULKHEAD.
15. A. WHERE A CONCRETE ENCASEMENT IS SPECIFIED, A 12 INCH MINIMUM LAYER OF MECHANICALLY COMPACTED SAND SHALL BE MAINTAINED BETWEEN EXISTING UTILITY AND TOP OF CONCRETE ENCASEMENT.
16. GATE WELL STEPS SHALL BE STEEL, ENCASED WITH POLYPROPYLENE PLASTIC, EQUIVALENT TO M.A. INDUSTRIES, INC., PS–1 FOR PRE–CAST WELLS OR PS–1B FOR BLOCK/BRICK WELLS OR APPROVED EQUIVALENT.
17. MINIMUM COVER
    A. 5'– 6" INCLUDING CROSSINGS THROUGH DITCH SECTIONS. WHEN INSTALLED PARALLEL TO A DITCH, MAINS SHALL HAVE 5'– 6" OF COVER MINIMUM, AS MEASURED FROM THE NEAREST POINT IN THE DITCH CROSS SECTION.
    B. 6'– 0" UNDER STREETS, ROADS, ALLEYS AND OTHER PAVED OR TRAVELED AREAS.
18. PRIOR TO ACCEPTANCE ALL WATER MAINS ARE TO BE PRESSURE TESTED AND AND DISINFECTED IN ACCORDANCE WITH ANSI/AWWA C600–93 AND C651–92 STANDARDS.

FOR REFERENCE ONLY

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CITY OF NOVI

WATER MAIN DETAILS

Revisions

Drawn
Designed
Checked

Scale
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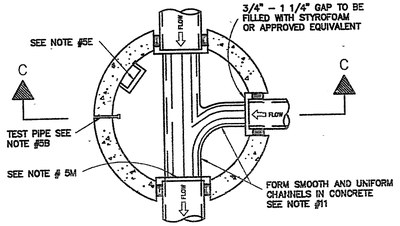
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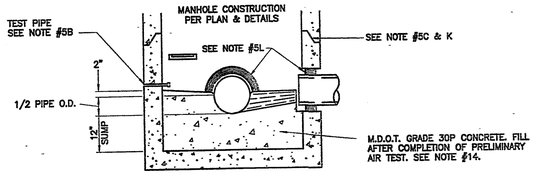
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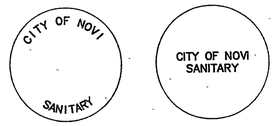
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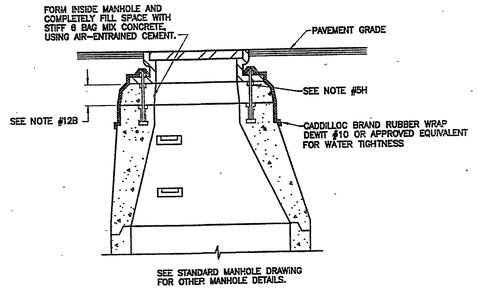
SECTION C–C

STANDARD SANITARY MANHOLE CHANNEL W/SUMP DETAIL

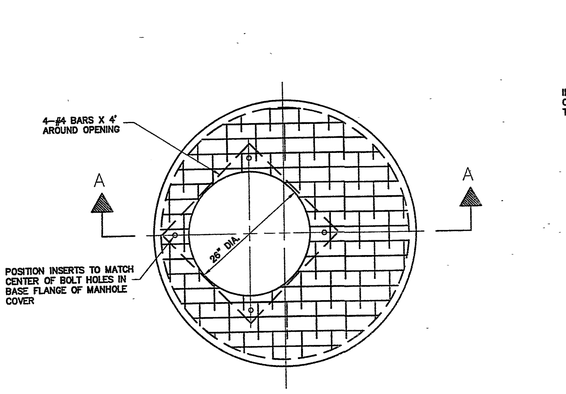


ALTERNATE LETTERING LAYOUT FOR MANHOLE COVERS

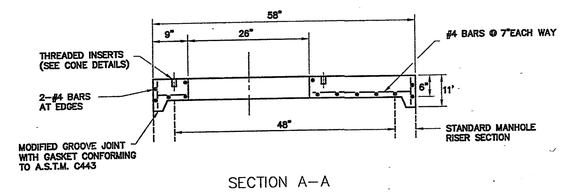
SEE NOTE #5J



CONSTRUCTION DETAILS FOR SANITARY MANHOLE TOPS WITHIN PAVEMENT AREAS

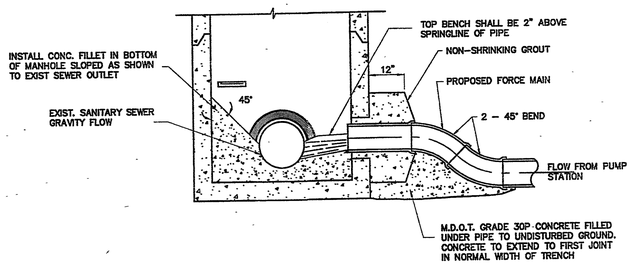


PLAN

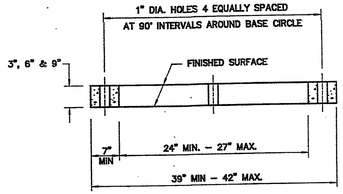


SECTION A–A

FLAT SLAB MANHOLE TOP



FORCEMAIN DISCHARGE TO EXISTING MANHOLE



ADJUSTMENT RING DETAIL

SEE NOTE #12A

DETAILED CONSTRUCTION NOTES

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL TELEPHONE MISS DIG (800–482–7171) FOR THE LOCATION OF UNDERGROUND PIPELINE AND CABLE FACILITIES AND SHALL NOTIFY REPRESENTATIVES OF OTHER UTILITIES LOCATED IN THE VICINITY OF THE WORK.

2. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOCAL MUNICIPALITY AND THE OAKLAND COUNTY DRAIN COMMISSIONER (OCDC). ALL SANITARY SEWER CONSTRUCTION SHALL HAVE FULL–TIME INSPECTION SUPERVISED BY A PROFESSIONAL ENGINEER PROVIDED BY, OR CAUSED TO BE PROVIDED BY, THE LOCAL MUNICIPALITY. THE CONTRACTOR SHALL NOTIFY THE LOCAL MUNICIPALITY FOR INSPECTION 48 HOURS PRIOR TO THE START OF CONSTRUCTION (248–348–9005).

3. AT ALL CONNECTIONS TO OCDC SEWERS OR EXTENSIONS, AND BEFORE START OF CONSTRUCTION, THE CONTRACTOR MUST OBTAIN A SEWER INSPECTION PERMIT ISSUED BY OCDC. GRAVITY SEWER PERMIT CHARGES ARE $250 FOR EACH CONNECTION PLUS $25 FOR EACH MANHOLE CONSTRUCTED. PRESSURE SEWER PERMIT CHARGES ARE $250 PER 2460 L.F. OF FORCE MAIN WITH A MINIMUM PERMIT FEE OF $250. FAILURE TO PASS ANY TEST SEGMENT WILL RESULT IN AN ADDITIONAL CHARGE TO THE CONTRACTOR FOR EACH RETEST, IN ACCORDANCE WITH THE ABOVE PRICE SCHEDULE. THE CONTRACTOR SHALL ALSO HAVE POSTED WITH OCDC A $5,000 SURETY BOND AND $500 CASH DEPOSIT. THE CONTRACTOR SHALL NOTIFY THE LOCAL UNIT OF GOVERNMENT AND THE OCDC 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. FINAL AIR TESTS MUST BE WITNESSED BY COUNTY PERSONAL AND MUST BE SCHEDULED IN ADVANCED.

4. NO SEWER INSTALLATION SHALL HAVE AN INFILTRATION EXCEEDING 200 GALLONS PER INCH DIAMETER PER MILE OF PIPE IN A 24 HOUR PERIOD, AND NO SINGLE RUN OF SEWER BETWEEN MANHOLES SHALL EXCEED 250 GALLONS PER INCH DIAMETER PER MILE. AIR TESTS IN LIEU OF INFILTRATION TESTS SHALL BE AS SPECIFIED IN OCDPW "ACCEPTANCE TESTS", DATED SEPTEMBER 1972. ONLY MODIFIED GROOVE TONGUE, ASTM C–425, ASTM C–443, O–RING, UNILOC, AMVIT, NOBEL RING–TITE, FLUID–TITE OR EQUAL, AS APPROVED BY THE OAKLAND COUNTY DEPARTMENT OF PUBLIC WORKS MAY BE USED FOR SEWER JOINTS. ALL JOINTS SHALL MEET REQUIREMENTS OF ASTM C–425 OR C–443.

5. CONSTRUCTION OF MANHOLES

   ALL MATERIALS FURNISHED AND DELIVERED UNDER THIS SPECIFICATION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 5.14.02 MICHIGAN DEPARTMENT OF TRANSPORTATION (M.D.O.T.) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND OAKLAND COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS FOR SANITARY SEWER CONSTRUCTION, EXCEPT AS OTHERWISE SPECIFIED HEREIN.

   A. PRECAST REINFORCED CONCRETE SECTIONS SHALL CONFORM TO ASTM C–478.

   B. THE MANUFACTURER SHALL INSTALL 1/2" DIAMETER STEEL PIPE AND CAP AT ELEVATION EQUAL TO THE CROWN OF THE SEWER, FLUSH WITH OUTSIDE WALL, AND EXTENDING 3 INCHES INTO MANHOLE FOR TESTING PURPOSES. CONTRACTOR TO SEAL AFTER COMPLETION OF TESTS.

   C. JOINTS BETWEEN PRECAST SECTIONS SHALL BE MODIFIED TONGUE AND GROOVE TYPE WITH RUBBER O–RING GASKET.

   D. RUBBER O–RING GASKETS SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM C–443, EXCEPT THAT THE GASKETS SHALL BE SYNTHETIC RUBBER ONLY. NATURAL RUBBER GASKETS ARE NOT ACCEPTABLE.

   E. MANHOLE STEPS SHALL BE STEEL, ENCASED WITH POLYPROPYLENE PLASTIC, EQUIVALENT TO M.A. INDUSTRIAL, INC., PS–1 OR PS–1B, AS APPROPRIATE.

   F. RESILIENT WATERTIGHT CONNECTORS BETWEEN MANHOLE AND PIPE SHALL CONFORM TO ASTM C–443 AND ASTM C–923, EXCEPT THAT ONLY SYNTHETIC RUBBER GASKETS SHALL BE PERMITTED. NATURAL RUBBER WILL NOT BE ACCEPTABLE.

   G. ANCHOR BOLTS SHALL BE INSTALLED IN FOUR THREADED INSERTS AT 90 DEGREES (NO. F–5 5/8 INCH "SURE GRIP" OR EQUIVALENT) IN PRECAST SECTION. INSERT TO BE PLACED WHEN CASTING OF CONE SECTION, NOT DRILLED AND GROUTED IN PLACE AFTER CURING.

   H. BOLTS SHALL BE FOUR CADMIUM–COATED 5/8 INCH THREAD STUDS, EACH WITH 3/4" X 2" X 1/16" NEOPRENE FLAT WASHER, 3/4" X 2" X 1/8" STEEL FLAT WASHER AND NUT.

   I. MANHOLE COVER SHALL BE A BOLTED, WATERTIGHT COVER AND EQUIVALENT TO EAST JORDAN IRON WORKS 1040–ZPT, WITH ANCHOR BASE FLANGE HOLES.

   J. NEW MANHOLES CONSTRUCTED DIRECTLY ON OAKLAND COUNTY DEPARTMENT OF PUBLIC WORKS SEWERS SHALL BE PROVIDED WITH COVERS READING "OAKLAND COUNTY–SANITARY" IN RAISED LETTERS. NEW MANHOLES BUILT OVER AN EXISTING SANITARY SEWERS SHALL HAVE MONOLITHIC POURED BOTTOMS.

   K. MORTAR FOR LAYING BRICK AND BLOCK, POINTING OF JOINTS, LIFT HOLES AND PLASTERING OUTSIDE AND INSIDE OF STRUCTURES SHALL BE COMPOSED OF 1 PART MASONRY CEMENT (TYPE II) AND 2 1/2 PARTS MASONRY SAND. NO LIME SHALL BE ADDED TO THE MORTAR.

   L. MANHOLES FOR PIPE SIZES 36 INCH DIAMETER AND SMALLER SHALL BE MANUFACTURED AND CONSTRUCTED AS "PRECAST FLEXIBLE–JOINT SEWER MANHOLES", UNLESS OTHERWISE DIRECTED BY THE MUNICIPAL ENGINEER.

   M. PIPE SHALL NOT EXTEND INTO A MANHOLE BEYOND THE INSIDE FACE OF THE MANHOLE WALL AS MEASURED AT THE SPRINGLINE OF THE PIPE. FIELD CUTTING OF PIPE TO BE USED AT MANHOLES SHALL BE PERFORMED IN A NEAT WORKMAN–LIKE MANNER, USING METHODS APPROVED BY THE MUNICIPAL ENGINEER. EXPOSED ENDS OF REINFORCING STEEL SHALL BE CUT FLUSH WITH THE PIPE END.

   N. MANHOLE STRUCTURES WHICH ARE TO BE LEFT OPEN OVERNIGHT SHALL BE SECURELY ENCLOSED WITH SUITABLE FENCING AND HAVE ADEQUATE LIGHTED BARRICADES, UNLESS OTHERWISE APPROVED BY THE MUNICIPAL ENGINEER.

6. DROP MANHOLES & TAPPING EXISTING MANHOLES:

   A. DROP MANHOLES SHALL BE OF THE SAME DESIGN AS STANDARD MANHOLES. DROP MANHOLES SHALL BE USED WHERE THERE IS AN 18 INCH DIFFERENCE IN PIPE INVERT ELEVATIONS. PIPE TO BE A MINIMUM 8 INCHES INSIDE DIAMETER UNLESS OTHERWISE DIRECTED. OMIT THE TEE AND USE AN APPROVED STOPPER IN THE RISER PIPE WHEN PLACING A BLIND DROP CONNECTION FOR FUTURE USE

   B. TAPS TO EXISTING MANHOLES SHALL BE MADE BY CORING. THE CONTRACTOR SHALL PLACE A KOR–N–SEAL BOOT OR APPROVED EQUAL AFTER CORING IS COMPLETED. BLIND DRILLING WILL NOT BE PERMITTED IN LIEU OF CORING.

7. WYES, RISERS AND BUILDING LEADS

   A. BUILDING LEAD RISERS SHALL BE INSTALLED ON DEEP SEWERS TO A DEPTH OF 10 FEET BELOW THE FINISHED SURFACE ELEVATION UNLESS OTHERWISE AUTHORIZED BY THE MUNICIPALITY. ALL RISERS THAT ARE INSTALLED WITHOUT BUILDING LEADS SHALL INCLUDE AN APPROVED STOPPER.

   B. ALL BUILDING LEADS AND RISERS SHALL BE 6 INCH SDR 23.5 ABS PIPE WITH CHEMICALLY FUSED JOINTS OR AN APPROVED EQUAL PIPE AND JOINT. BUILDING LEADS SHALL TERMINATE (WITH AN APPROVED STOPPER) AT THE PROPERTY LINE OR EASEMENT LINE, UNLESS OTHERWISE NOTED, AT A NOMINAL DEPTH OF 10 FEET.

   C. EACH RISER AND/OR BUILDING LEAD SHALL BE MARKED WITH A 2 INCH X 2 INCH X 12 FOOT LONG HARDWOOD MARKER, PLACED VERTICALLY AT THE END OF THE PIPE AND PAINTED WITH FLUORESCENT–TYPE PAINT.

   D. MONITORING MANHOLES ARE REQUIRED ON ALL NONDOMESTIC BUILDING LEADS IN EASEMENTS OR PUBLIC RIGHT–OF–WAY.

8. REPAIR FOR RISERS, WYES AND MAINLINE

   FERNCO–FLEXIBLE COUPLING, WATER MAIN REPAIR CLAMPS, SMITH–BLAIR, BAKER, FORD (ALL STAINLESS STEEL) OR EQUIVALENT SHALL BE USED WHEN MAKING TIE–IN TO TEE OR WYE, THESE FITTINGS SHALL BE USED IF PIPE ADAPTERS OR SADDLE TAPS ARE NOT AVAILABLE.

9. HOUSE LEAD CONNECTIONS TO MAIN SEWER

   WYE OPENING TO BE MADE BY PLACING APPROPRIATE SADDLE TAP OPENING PER MANUFACTURES SPECIFICATIONS.

10. CONNECTIONS

    A. WHEN CONNECTIONS ARE MADE WITH SEWERS OR DRAINS CARRYING FLUIDS, SPECIAL CARE MUST BE TAKEN THAT NO PART OF THE WORK IS BUILT UNDER WATER. A FLUME OR DAM MUST BE INSTALLED AND PUMPING MAINTAINED, IF NECESSARY, AND THE NEW WORK KEPT DRY UNTIL COMPLETED AND ANY CONCRETE OR MORTAR HAS SET UP.

    B. THE CONTRACTOR SHALL INSTALL A SUITABLE BULKHEAD TO PREVENT CONSTRUCTION WATER, SAND, SILT, ETC. FROM ENTERING THE EXISTING SEWER SYSTEM. SUCH BULKHEAD SHALL BE LEFT IN PLACE UNTIL SUCH TIME AS THE OAKLAND COUNTY DEPARTMENT OF PUBLIC WORKS AUTHORIZES THE CONTRACTOR TO REMOVE IT.

    C. NO GROUND WATER, STORM WATER, CONSTRUCTION WATER, DOWNSPOUT DRAINAGE OR WEEP TILE DRAINAGE SHALL BE ALLOWED TO ENTER ANY SANITARY SEWER INSTALLATION.

11. CHANNELING

    A PROPER CHANNEL SHALL BE CONSTRUCTED WITHIN THE EXISTING MANHOLE OR OTHER STRUCTURE AT WHICH THE CONNECTION IS TO BE MADE TO DIRECT THE FLOW TO THE EXISTING OUTLET IN A MANOR WHICH WILL TEND TO CREATE THE LEAST AMOUNT OF TURBULENCE. ANY PORTION OF THE EXISTING STRUCTURE WHICH WOULD INTERFERE WITH SUCH CONSTRUCTION SHALL BE REMOVED. CONCRETE CHANNELS FORMED INSIDE PRECAST FLEXIBLE–JOINT MANHOLES SHALL BE PLACED SO AS NOT TO INTERFERE IN ANY WAY WITH THE FLEXIBILITY OF THE JOINT. THE CHANNEL SHALL BE CONSTRUCTED THE SAME SIZE AS THE INSIDE DIAMETER OF THE EXISTING PIPE.

12. CASTING ADJUSTMENTS

    A. ADJUSTMENT TO MANHOLE CASTING SHALL BE ACCOMPLISHED BY USING RUBBER O–RING AND PRECAST CONCRETE ADJUSTMENT RING BOLTED TO THE CONCRETE SECTION WITH A MAXIMUM ADJUSTMENT OF TWO ADJUSTMENT RINGS NOT EXCEEDING 15 INCHES.

    B. MANHOLE CASTINGS LOCATED WITHIN PAVEMENT AREAS SHALL BE ADJUSTED A MAXIMUM OF 15 INCHES USING FOUR CADMIUM COATED 5/8 INCH DIAMETER THREADED STUDS WITH ADJUSTMENT SUPPORT NUTS FOR SETTING FRAME TO CORRECTED GRADE AS DETAILED ON THE CONTRACT DRAWINGS. THE VOID BETWEEN CASTING AND TOP OF CONE SECTION SHALL BE COMPLETLY FILLED WITH STIFF M.D.O.T. 30M OR 30P CONCRETE MIX. A CADDILLOC BRAND RUBBER WRAP FOR WATERTIGHTNESS SHALL BE APPLIED TO THE EXTERIOR OF THE ADJUSTMENT AFTER THE CONCRETE HAS TAKEN ITS INITIAL SET AND IS RESISTANT TO DAMAGE OR OTHERWISE SPECIFIED BY THE MUNICIPAL ENGINEER.

13. BORED AND JACKED CASING

    A. INSIDE DIAMETER OF CASING SHALL BE EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE BELL PLUS 8 INCHES, UNLESS OTHERWISE NOTED ON CONTRACT DRAWINGS.

    B. UNLESS OTHERWISE SPECIFIED, CASING PIPE SHALL BE ASTM C–76 CLASS V R.C.P. OR ASTM A139 GRADE B WITH MINIMUM WALL THICKNESS OF 0.250 INCHES.

    C. ALTERNATE METHODS OF SUPPORTING AND MAINTAINING THE POSITION OF THE CARRIER PIPE WITH RESPECT TO THE CASING PIPE (IN LIEU OF THE USE OF TIMBERS) WILL BE CONSIDERED. THE CONTRACTOR SHALL SUBMIT DETAILS OF SUCH ALTERNATE METHODS FOR APPROVAL BY THE MUNICIPAL ENGINEER.

    D. THE ENDS OF THE CASING PIPE SHALL BE CLOSED WITH A MASONRY BULKHEAD.

14. TESTING

    ALL SANITARY SEWER SYSTEMS WILL HAVE PRELIMINARY AIR TESTS WITNESSED BY THE ENGINEER'S REPRESENTATIVE PRIOR TO A FINAL AIR TEST AND ACCEPTANCE BY THE OAKLAND COUNTY DEPARTMENT OF PUBLIC WORKS. ALSO, ALL STRUCTURES WILL BE COMPLETE AND IN SATISFACTORY CONDITION PRIOR TO FINAL ACCEPTANCE. ALL TESTING WILL BE IN ACCORDANCE WITH THE OAKLAND COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS. TELEVISING OF ALL SANITARY SEWER LINES WITH VIDEO TAPE WILL BE REQUIRED PRIOR TO SETTING UP THE FINAL AIR TEST. MANDRELLING MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.

15. AT ALL CONNECTIONS TO AN EXISTING OCDC SEWER, OR EXTENSION THERETO, A WATERTIGHT BULKHEAD WITH A CAPPED ONE INCH DIAMETER PIPE TO PERMIT MEASURING INFILTRATION SHALL BE PROVIDED. A TEMPORARY 12–INCH DEEP SUMP SHALL ALSO BE PROVIDED IN THE FIRST MANHOLE ABOVE THE CONNECTION WHICH WILL BE FILLED IN AFTER SUCCESSFUL COMPLETION OF ANY ACCEPTANCE TEST UP TO THE STANDARD FILLET PROVIDED FOR THE FLOW CHANNEL.

FOR REFERENCE ONLY

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SANITARY SEWER DETAILS

CITY OF NOVI

Revisions

Drawn
Designed
Checked

Scale
NO SCALE

Date
6/15/98

Job No.

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SPECIFICATIONS FOR POLYVINAL CHLORIDE (PVC) PIPE SANITARY SEWERS

MATERIALS AND CERTIFICATIONS

PVC PIPE AND FITTINGS SHALL BE AS DESCRIBED UNDER ASTM DESIGNATION D-3034-81, STANDARD SPECIFICATIONS FOR POLYVINYL CHLORIDE SEWER PIPE AND FITTINGS. MINIMUM WALL THICKNESS SHALL BE SDR 35.

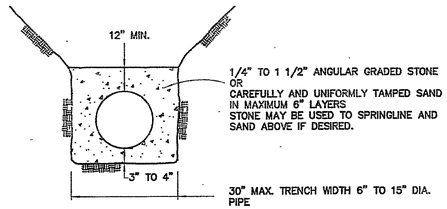
ALL PIPE SHALL BE CERTIFIED BY THE MANUFACTURER TO MEET THE APPLICABLE ASTM SPECIFICATION REQUIREMENTS. CERTIFICATION FORMS TOGETHER WITH A REPORT OF THE TEST RESULTS SHALL BE PROVIDED THE CONSTRUCTION INSPECTOR WITH PIPE DELIVERIES AND COPIES SHALL BE FORWARDED TO THE ENGINEER OR THE OWNER. CERTIFICATION FORMS SHALL INCLUDE PROJECT NAME, LOCATION, CONTRACTOR AND TEST LOT NUMBER. LOT SIZES SHALL BE ACCEPTABLE TO THE ENGINEER.

ALL PIPE AND FITTINGS SHALL BE SUITABLY MARKED TO PROVIDE MANUFACTURER'S NAME OR TRADEMARK, LOT OR PRODUCTION NUMBER, ASTM DESIGNATION, PVC CELL CLASIFICATION, SDR NUMBER, AND NOMINAL DIAMETER. FITTINGS, HOWEVER, NEED NOT CONTAIN LOT NUMBER, CELL CLASIFICATIONS, OR SDR NUMBER. PIPE SHALL HAVE A "HOME" MARK.

BEDDING

BEDDING FOR PVC PIPE SHALL BE IN ACCORDANCE WITH ASTM D 2321-74, EXCEPT (1) ONLY CLASS I AND CLASS II MATERIALS HAVING A MAXIMUM PARTICLE SIZE OF 1 1/2" MAY BE USED, (2) EMBEDMENT SHALL EXTEND TO MINIMUM 12" ABOVE TOP OF PIPE, AND (3) FLOODING OR PUDDLING SHALL NOT BE USED. IT IS ESSENTIAL THAT IT BE RECOGNIZED THAT THE SUCCESSFUL USE OF FLEXIBLE PIPE REQUIRES BEDDING THAT PROVIDES UNYIELDING SIDE SUPPORT AND COMPLETE BEDDING CONTACT UNDER PIPE HAUNCHES. BEDDING MATERIAL MUST BE PROPERLY PLACED AND COMPACTED TO PROVIDE LATERAL RESTRAINT AGAINST DEFLECTION IN THE PIPE DIAMETER. PIPE MUST BE BEDDED TO TRUE LINE AND GRADE THROUGHOUT ITS LENGTH. BELL HOLES SHALL BE PROVIDED WHERE REQUIRED.

PVC PIPE BEDDING DETAIL



WHERE UNSTABLE BOTTOMS ARE ENCOUNTERED, THE CONTRACTOR SHALL PROVIDE A FOUNDATION CONSISTING OF AN APPROVED GRADED PROCESSED ANGULAR STONE OR GRAVEL TO ACT AS AN IMPERVIOUS MAT TO PREVENT MIGRATION OR VERTICAL MOVEMENT OF UNSTABLE SOILS OR BEDDING METERIALS. WHERE TRENCH SHEETING, PLATES, OR A TRENCH BOX ARE USED DUE TO SEVERE GROUND CONDITIONS, ALL VOIDS TO THE SIDE AND BELOW THE TOP OF THE PIPE CAUSED BY THE SHEETING, PLATES, OR BOX WITHDRAWAL SHALL BE COMPLETELY FILLED OR THE SUPPORTS LEFT IN PLACE BELOW THE TOP OF THE PIPE.

CONCRETE CRADLE BEDDING SHALL NOT BE USED WHERE ALLOWABLE TRENCH WIDTHS ARE EXCEEDED. IN LIEU OF CONCRETE CRADLE BEDDING, STANDARD PIPE BEDDING SHOWN SHALL BE PROVIDED TO THE FULL WIDTH BETWEEN UNDISTURBED TRENCH WALLS OR AT LEAST TO 2.5 PIPE DIAMETERS ON BOTH SIDES OF THE PIPE.

DUE TO POTENTIAL DAMAGE TO EXTERIOR WALLS OF PLASTIC PIPE, PARTICULARLY UNDER COLD WEATHER CONDITIONS, IF ROCKS, FROZEN MATERIAL OR LARGE OBJECTS STRIKE THE PIPE, THE CONTRACTOR SHALL CAREFULLY AVOID DUMPING ANY MATERIALS OTHER THAN APPROVED BEDDING SAND OR STONE ON THE PIPE UNTILL 12" COVER IS PLACED ON IT. PIPE WALLS AND JOINTS SHALL ALSO BE PROTECTED FROM ABRASION AND DAMAGE DURING HANDLING, AND SHALL BE FULLY INSPECTED JUST PRIOR TO PLACING IN THE TRENCH.

CARE SHALL BE TAKEN DURING BEDDING COMPACTION TO AVOID DISTORTING THE SHAPE OF THE PIPE OR DAMAGING ITS WALL. MOBILE EQUIPMENT SHALL NOT BE USED OVER THE PIPE TRENCH UNTILL 48" OF COVER HAS BEEN PLACED.

HOUSE CONNECTIONS SHALL BE MADE TO WYE OR TEE FITTINGS. BEDDING FOR HOUSE CONNECTION SEWERS SHALL BE EQUAL TO THAT OF THE MAIN SEWER BEDDING. RISERS IN DEEP AND UNSTABLE TRENCHES SHOULD BE BEDDED IN CLASS I ANGULAR STONE TO AVOID SETTLEMENT. CONCRETE SHALL NOT BE USED FOR BEDDING. END CAPS OR PLUGS SHALL BE BRACED OR ANCHORED TO WITHSTAND AIR TEST PRESSURES. CAPS OR PLUGS SHALL NOT BE CHEMICALLY WELDED IN PLACE.

JOINTS

JOINTS FOR PIPE AND FITTINGS SHALL BE OF THE ELASTOMERIC GASKET PUSH-ON TYPE. SUCH JOINTS SHALL CONFORM TO ASTM DESIGNATION D 3212-81 AND THE PIPE MANUFACTURER SHALL FILE WITH THE OAKLAND COUNTY D.P.W. A COPY OF CERTIFIED TEST RESULTS OF ITS JOINTING SYSTEM PRIOR TO USE. GASKET JOINTS SHALL BE INSTALLED IN ACCORDANCE WITH PROCEDURES SPECIFIED BY THE PIPE MANUFACTURER. CARE SHALL BE TAKEN TO INSURE ALL JOINTS BEING PUSHED TO THE FULL "HOME" POSITION AND HELD TIGHTLY IN THE "HOME" POSITION DURING ANY GRADE OR LINE ADJUSTMENTS.

CUTTING AND HANDLING

CUTTING OF PIPE LENGTHS, WHERE REQUIRED, SHALL BE PERFORMED BY THE USE OF TOOLS OR EQUIPMENT THAT WILL PROVIDE A NEAT, PERPENDICULAR CUT WITHOUT DAMAGE TO THE PLASTIC. ALL BURRS SHALL BE REMOVED BY THE USE OF A FILE, KNIFE, OR ABRASIVE PAPER. SPIGOT ENDS ON CUT PIPE SHALL BE BEVELED SIMILAR TO FACTORY BEVELING TO OREVENT GASKET DAMAGE.

BOWING OR WARPING OF PLASTIC PIPE CAN OCCUR WITH TEMPERATURE FLUCTUATIONS. THE CONTRACTOR SHALL STORE AND PROTECT THE PIPE TO MINIMIZE BOWING. NOMINAL PIPE LENGTHS OF 10', 12'-6", OR 20' HAVING DEVIATIONS FROM STRAIGHT GREATER THAN 1" SHALL NOT BE USED.

SPECIAL CONDITIONS

THE COMPLETED INSTALLATION SHALL AT NO POINT HAVE OUT-OF-ROUND PIPE DEFLECTIONS GREATER THAN 7 1/2%. THE ENGINEER SHALL HAVE THE OPTION OF REQUIRING DEFLECTOMETER OR GO/NO-GO GAUGING TESTS RUN PRIOR TO ACCEPTANCE ON PIPELINES WHERE HIGH DEFLECTIONS ARE SUSPECTED.

ALL STANDARD OAKLAND COUNTY D.P.W. SPECIFICATIONS AND DETAILS SHALL APPLY TO THIS WORK EXCEPT WHERE COVERED OTHERWISE BY THESE SUPPLEMENTAL SPECIFICATIONS. OAKLAND COUNTY D.P.W. AIR TEST REQUIREMENTS SHALL BE MET. D.P.W. APPROVED FLEXIBLE MANHOLE JOINTS SHALL BE USED. TO MAINTAIN THE FLEXIBILITY OF THE PIPE MATERIALS, CONCRETE ENGASEMENT OF DROP CONNECTIONS SHALL NOT BE USED. WHERE ADAPTERS TO OTHER MATERIALS ARE REQUIRED, ONLY APPROVED ADAPTERS AND JOINTS MAY BE USED. WHERE CONNECTIONS ARE MADE TO EXISTING MANHOLES, A RUBBER WATERSTOP SHALL BE USED AROUND THE PIPE.

AS-BUILT PLANS SHALL BE PROVIDED THE OAKLAND COUNTY D.P.W. BY THE ENGINEER OR THE LOCAL UNIT OF GOVERNMENT AND AS-BUILT PLANS SHALL SPECIFICALLY DESIGNATE WHERE PVC SEWER PIPE WAS INSTALLED.

OCDPW 4/82

SPECIFICATIONS FOR TRUSS PIPE SANITARY SEWERS

MATERIALS AND CERTIFICATIONS

ARMCO TRUSS PIPE AND FITTINGS SHALL BE AS DESCRIBED UNDER ASTM DESIGNATION D2680-80, STANDARD SPECIFICATIONS FOR ACRYLONITRILE-BUTADIENE-STYRENE (ABS). COMPOSITE SEWER PIPINE. APPENDIX XI OF SAID SPECIFICATIONS SHALL BE AS MODIFIED BY THE BEDDING REQUIREMENTS OUTLINED BELOW.

SOLID WALL ABS PIPE FOR 6" HOUSE CONNECTION SEWERS SHALL BE SDR 35 OR SDR 23.5, CONFORMING TO ASTM DESIGNATION D 2751-80 STANDARD SPECIFICATION FOR ACRYLONITRILE-BUTADIENE-STYRENE (ABS) SEWER PIPE AND FITTINGS. SOLID WALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH BEDDING REQUIREMENTS OUTLINED BELOW.

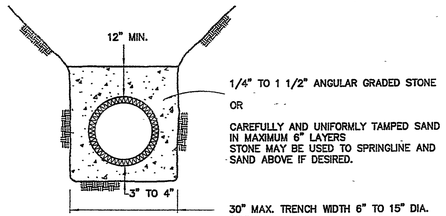
ALL PIPE SHALL BE CERTIFIED BY THE MANUFACTURER TO MEET THE APPLICABLE ASTM SPECIFICATION REQUIREMENTS. CERTIFICATION FORMS, TOGETHER WITH A REPORT OF THE TEST RESULTS, SHALL BE PROVIDED THE INSPECTOR WITH PIPE DELIVERIES AND COPIES SHALL BE FORWARDED TO THE ENGINEER OR THE OWNER. CERTIFICATION FORMS SHALL INCLUDE PROJECT NAME, LOCATION, CONTRACTOR, AND TEST LOT NUMBER. LOT SIZES SHALL BE ACCEPTABLE TO THE ENGINEER.

ALL PIPE AND FITTINGS SHALL BE SUITABLY MARKED TO PROVIDE MANUFACTURER'S NAME, LOT OR PRODUCTION NUMBER, ASTM DESIGNATION, ABS, NOMINAL DIAMETER, AND SDR NUMBER, WHERE APPLICABLE. FITTINGS, HOWEVER, NEED NOT CONTAIN LOT OR PRODUCTION NUMBER. PIPE SHALL HAVE A "HOME" MARK. TRUSS PIPE WITH AN ABSENCE OF FILLER MATERIAL AT THE ENDS GREATER THAN 1/4" DEEP SHALL BE SUBJECT TO REJECTION OR ACCEPTABLE REPAIR.

BEDDING

BEDDING FOR TRUSS PIPE AND ABS SOLID WALL PIPE SHALL BE IN ACCORDANCE WITH ASTM D2321-74 EXCEPT, (1) ONLY CLASS I AND CLASS II MATERIALS MAY BE USED, (2) EMBEDMENT SHALL EXTEND TO MINIMUM 12" ABOVE TOP OF PIPE, AND (3) FLOODING OR PUDDLING SHALL NOT BE USED. IT IS ESSENTIAL THAT IT BE RECOGNIZED THAT THE SUCCESSFUL USE OF FLEXIBLE AND SEMI-FLEXIBLE PIPE REQUIRES BEDDING THAT PROVIDES UNYIELDING SIDE SUPPORT AND COMPLETE BEDDING CONTACT UNDER PIPE HAUNCHES.

TRUSS AND SOLID WALL PIPE BEDDING MATERIAL



WHERE UNSTABLE BOTTOMS ARE ENCOUNTERED, THE CONTRACTOR SHALL PROVIDE A FOUNDATION CONSISTING OF AN APPROVED GRADED AND PROCESSED ANGULAR STONE OR GRAVEL TO ACT AS AN IMPERVIOUS MAT TO PREVENT MIGRATION OR VERTICAL MOVEMENT OF UNSTABLE SOILS OR BEDDING MATERIALS. WHERE TRENCH SHEETING, PLATES, OR A TRENCH BOX ARE USED DUE TO SEVERE GROUND CONDITIONS, ALL VOIDS TO THE SIDE AND BELOW THE TOP OF THE PIPE CAUSED BY THE SHEETING, PLATES, OR BOX WITHDRAWAL SHALL BE COMPLETELY FILLED OR THE SUPPORTS LEFT IN PLACE BELOW THE TOP OF THE PIPE.

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CARE SHALL BE TAKEN DURING BEDDING COMPACTION TO AVOID DISTORTING THE SHAPE OF THE PIPE OR DAMAGING ITS EXTERIOR WALL. MOBILE EQUIPMENT SHALL NOT BE USED OVER THE PIPE TRENCH UNTILL 48" OF COVER HAS BEEN PLACED.

HOUSE CONNECTIONS SHALL BE MADE TO WYE OR TEE FITTINGS. BEDDING FOR HOUSE CONNECTION SEWERS SHALL BE EQUAL TO THAT OF THE MAIN SEWER BEDDING. RISERS IN DEEP AND UNSTABLE TRENCHES SHOULD BE BEDDED IN CLASS I ANGULAR STONE TO AVOID SETTLEMENT. CONCRETE SHALL NOT BE USED FOR BEDDING. END CAPS OR PLUGS SHALL BE BRACED OR ANCHORED TO WITHSTAND AIR TEST PRESSURES. CAPS OR PLUGS SHALL NOT BE CHEMICALLY WELDED IN PLACE.

JOINTS

JOINTS SHALL BE CHEMICALLY WELDED IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATION. ADDITIONALLY, ALL EXPOSED ENDS OF TRUSS PIPE SHALL BE FULLY AND THOROUGHLY COATED WITH PLASTIC JOINTING CEMENT PRIOR TO MAKING JOINTS SO AS TO SEAL ENDS TO ELIMINATE THE POSSIBILITY OF FALSE LOW PRESSURE AIR TESTS. CARE SHALL BE TAKEN TO INSURE ALL JOINTS BEING PUSHED TO THE FULL "HOME" POSITION AND HELD TIGHTLY IN THE "HOME" POSITION DURING ANY GRADE OR LINE ADJUSTMENTS. PIPE SHALL BE ROTATED DURING JOINT INSERTION TO INSURE A COMPLETE SPREAD OF JOINTING CEMENT. ABS PLASTIC CEMENT PRIMER AND ABS PLASTIC PIPE CEMENT SHALL ARRIVE AT THE JOB SITE IN SEALED AND LABELED CONTAINERS. "JOHNNY MOPS" OR SIMILAR SWAB TYPE APPLICATORS SHALL BE USED TO APPLY PRIMER AND CEMENT. OPENED CONTAINERS IN THE TRENCH SHALL BE PROTECTED FROM DIRT, WATER, AND OTHER CONTAMINANTS.

CUTTING AND HANDLING

CUTTING OF PIPE LENGTHS, WHERE REQUIRED, SHALL BE PERFORMED BY THE USE OF TOOLS OR EQUIPMENT THAT WILL PROVIDE A NEAT, PERPENDICULAR CUT WITHOUT DAMAGE TO THE PLASTIC OR THE FILLER MATERIAL. BOWING OR WARPING OF ABS PIPE CAN OCCUR WITH TEMPERATURE FLUCTUATIONS. THE CONTRACTOR SHALL STORE AND PROTECT THE PIPE TO MINIMIZE BOWING. NOMINAL 12'-6" PIPE LENGTHS HAVING DEVIATIONS FROM STRAIGHT GREATER THAN 1" SHALL NOT BE USED.

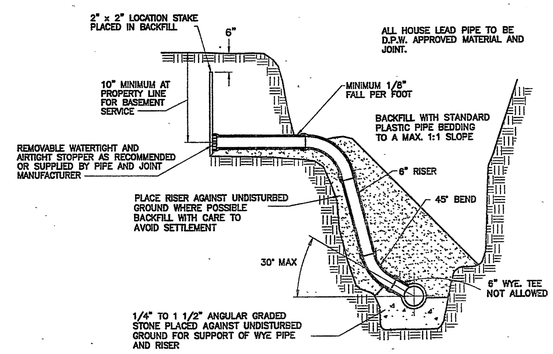
SPECIAL CONDITIONS

THE COMPLETED INSTALLATION SHALL AT NO POINT HAVE OUT-OF-ROUND PIPE DEFLECTIONS GREATER THAN 5%. THE ENGINEER SHALL HAVE THE OPTION OF REQUIRING DEFLECTOMETER OR GO/NO-GO GAUGING TESTS RUN PRIOR TO ACCEPTANCE ON PIPELINES WHERE HIGH DEFLECTIONS ARE SUSPECTED.

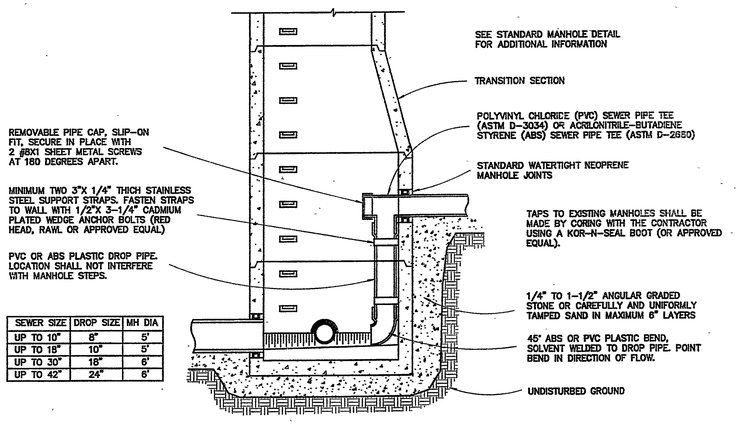
ALL STANDARD OAKLAND COUNTY D.P.W. SPECIFICATIONS AND DETAILS SHALL APPLY TO THIS WORK EXCEPT WHERE COVERED OTHERWISE BY THESE SUPPLEMENTAL SPECIFICATIONS. OAKLAND COUNTY D.P.W. AIR TEST REQUIREMENTS SHALL BE MET. D.P.W. APPROVED FLEXIBLE MANHOLE JOINTS SHALL BE USED. TO MAINTAIN THE FLEXIBILITY OF THE PIPE MATERIALS, CONCRETE ENCASEMENT OF DROP CONNECTIONS SHALL NOT BE USED. WHERE ADAPTERS TO OTHER MATERIALS ARE REQUIRED, ONLY APPROVED ADAPTERS AND JOINTS MAY BE USED. WHERE CONNECTIONS ARE MADE TO EXISTING MANHOLES, A RUBBER WATERSTOP SHALL BE USED AROUND THE PIPE.

AS-BUILT PLANS SHALL BE PROVIDED THE OAKLAND COUNTY D.P.W. BY THE ENGINEER OR THE LOCAL UNIT OF GOVERNMENT AND AS-BUILT PLANS SHALL SPECIFICALLY DESIGNATE WHERE ABS SEWER PIPE WAS INSTALLED.

OCDPW 4/82



HOUSE LEAD DETAIL
FOR
PLASTIC LEADS INSTALLED MORE THAN 16 FEET DEEP
(TO A MAXIMUM OF 35 FEET DEEP)



SEWER SIZE	DROP SIZE	MH DIA
UP TO 10"	8"	5'
UP TO 18"	10"	5'
UP TO 30"	18"	6'
UP TO 42"	24"	6'

DROP CONNECTION INSIDE LARGE DIAMETER MANHOLE
FOR DROP CONNECTIONS GREATER THAN 20 FEET DEEP

FOR REFERENCE ONLY

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JCK

O.C.D.P.W. SANITARY SEWER DETAILS

CITY OF NOVI

Revisions

Drawn
Designed
Checked

Scale
NO SCALE

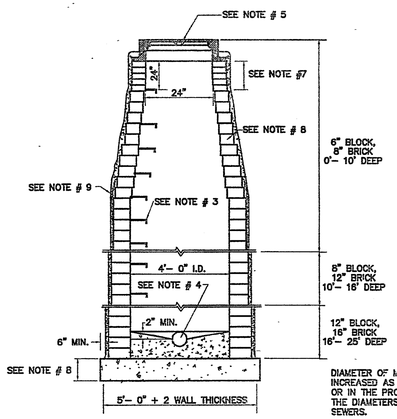
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6/15/98

Job No.

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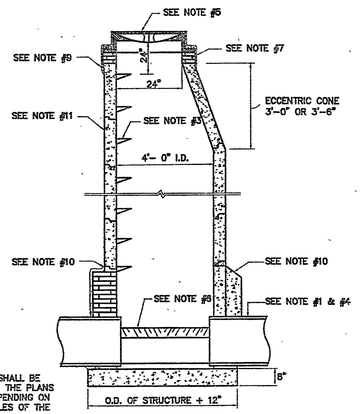
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DIAMETER OF MANHOLES SHALL BE INCREASED AS SHOWN ON THE PLANS OR IN THE PROPOSAL DEPENDING ON THE DIAMETERS AND ANGLES OF THE SEWERS.

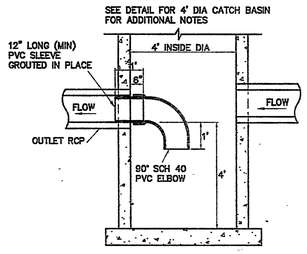
STANDARD MANHOLE BRICK OR BLOCK FOR PIPES 36" & SMALLER

SEE NOTE #12



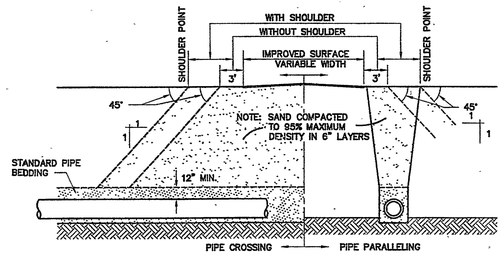
STANDARD MANHOLE PRECAST FOR PIPES 36" & SMALLER

SEE NOTE #12



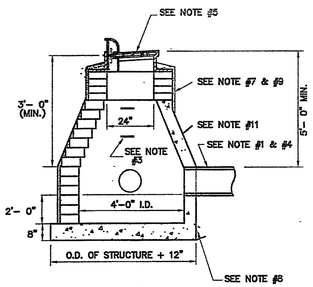
OIL/GAS SEPARATOR

FOR OUTLET PIPE DIAMETERS SMALLER THAN 18"



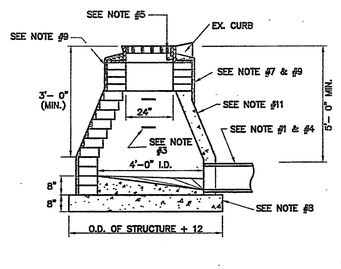
BACKFILLING IN THE AREAS OF STREETS, ALLEYS, SIDEWALKS, DRIVES & PARKING AREA

SEE NOTE # 2



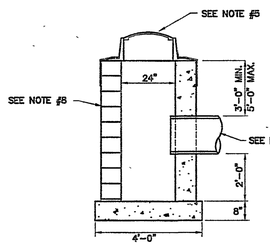
4' DIA. BRICK OR PRECAST CATCH BASIN

SEE NOTE #12



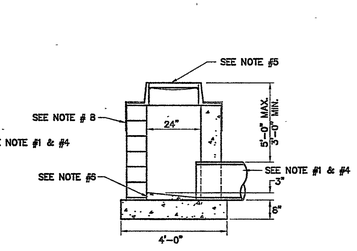
4' DIA. BRICK OR PRECAST INLET

SEE NOTE #12



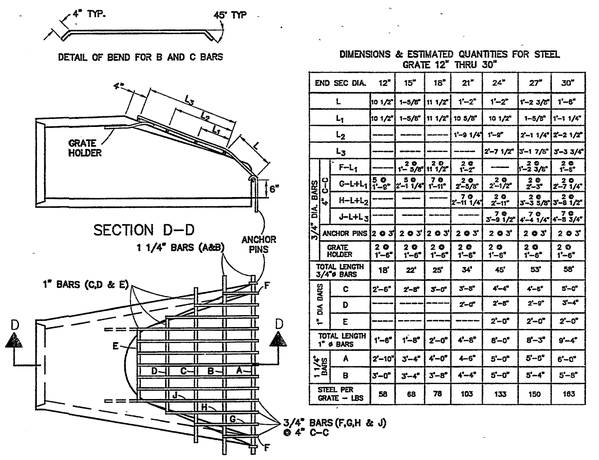
2' DIAMETER YARD BASIN & CATCH BASIN

SEE NOTE #12



2' DIAMETER INLET

SEE NOTE #12



STEEL GRATE FOR PRECAST CONCRETE END SECTION

DIMENSIONS & ESTIMATED QUANTITIES FOR STEEL GRATE 12" THRU 30"

END SEC DIA.		12"	15"	18"	21"	24"	27"	30"
L		10 1/2"	1–3/8"	11 1/2"	1'–2"	1'–2"	1'–2 3/8"	1'–6"
L_1		10 1/2"	1–3/8"	11 1/2"	10 5/8"	10 1/2"	1–3/8"	1'–1 1/4"
L_2		———	———	———	1'–9 1/4"	1'–6"	2'–1 1/4"	2'–2 1/2"
L_3		———	———	———	———	2'–7 1/2"	3'–1 7/8"	3'–3 3/4"
3/4" DIA. BARS 4" C–C	F–L_1	2 0 1'– 5/8"	2 0 1'– 1 1/4"	2 0 1'– 1 7/8"	2 0 2'– 1/2"	——	2 0 1'–3 3/8"	2 0 1'–5 1/4"
	G–L_1+L_2	5 0 1'– 5/8"	5 0 2'– 1 1/4"	7 0 2'– 1 7/8"	2 0 2'– 5 1/2"	2 0 2'– 1/2"	2 0 2'– 5 1/2"	2 0 2'–3 1/4"
	H–L_1+L_2	———	———	———	7 0 2'– 11 1/4"	2 0 2'– 11"	3 0 3'–3 3/8"	3 0 3'–3 1/2"
	J–L_1+L_2	———	———	———	———	7 0 3'–3 1/2"	7 0 4'– 1 1/4"	7 0 4'–5 3/4"
	ANCHOR PINS	2 0 3'	2 0 3'	2 0 3'	2 0 3'	2 0 3'	2 0 3'	2 0 3'
	GRATE HOLDER	2 0 1'– 5"	2 0 1'– 0"	2 0 1'– 5"	2 0 1'– 5"	2 0 1'– 5"	2 0 1'– 0"	2 0 1'– 5"
TOTAL LENGTH 3/4"ø BARS		18'	22'	25'	34'	45'	53'	58'
1" DIA BARS	C	2'–6"	2'–8"	3'–0"	3'–8"	4'–4"	4'–8"	5'–0"
	D	———	———	———	2'–0"	2'–8"	2'–9"	3'–4"
	E	———	———	———	———	2'–0"	2'–0"	2'–0"
TOTAL LENGTH 1" ø BARS		1'–8"	1'–8"	2'–0"	4'–8"	8'–0"	8'–3"	9'–4"
1/4" BARS	A	2'–10"	3'–4"	4'–0"	4–6"	5'–0"	5'–5"	6'–0"
	B	3'–0"	3'–4"	3'–8"	4'–4"	5'–0"	5'–4"	5'–8"
STEEL PER GRATE – LBS		58	68	78	103	133	150	163

"STORM SEWER CONSTRUCTION NOTES"

1. PIPE TYPES AND PIPE JOINTS:

   A. REINFORCED CONCRETE: PIPE SHALL CONFORM TO ASTM C–76. JOINTS SHALL CONFORM TO ASTM C–443.

   B. ALL CATCH BASIN LINES AND INLET LINES SHALL CONFORM TO ASTM C–76, AND SHALL BE OF CLASS IV CONCRETE PIPE.

   C. FOR SUMP MAIN(S) AND LEAD(S) A HEAVY WALL SCHEDULE 40 (CONFORM TO ASTM D3034) PREMIUM JOINTS PVC, ARMCO TRUSS PIPE OR PVC CORRUGATED WITH SMOOTH INTERIOR, MEETING THE REQUIREMENTS OF ASTM F–949. ALL PIPE MATERIALS SHALL BE PLACED IN CLASS "B" BEDDING (OR APPROVED EQUIVALENT).

   D. THE INSIDE JOINTS OF PIPE SIZES OVER 27" DIAMETER SHALL BE POINTED UP WITH MORTAR UPON COMPLETION OF BACKFILLING OPERATIONS.

2. PIPE BEDDING AND BACKFILLING:

   A. BEDDING SHALL BE OF CLASS "B" MATERIAL UNLESS OTHERWISE NOTED ON CONSTRUCTION DRAWING AND SHALL BE A MINIMUM OF 4" BELOW PIPE TO CENTERLINE OF THE PIPE. BEDDING SHALL BE UNIFORM IN GRADE.

   B. BACKFILL SHALL BE OF CLASS "B" MATERIAL COMPACTED TO 1' ABOVE PIPE OR AS INDICATED ON CONSTRUCTION DRAWINGS. TRENCH BACKFILL SHALL BE OF A SUITABLE MATERIAL AND SHALL BE FREE OF ANY ORGANIC MATERIALS AND LARGE ROCKS. BACKFILL SHALL BE RAMPED INTO TRENCH AND COMPACTED WITH A SMALL DOZER OR OTHER APPROVED METHODS. WHERE TRENCH IS WITHIN 3' OF STREET, ALLEY'S, SIDEWALKS, DRIVEWAYS AND PARKING AREAS, BACKFILL SHALL BE GRANULAR MATERIAL MDOT CLASS II COMPACTED IN 9" LAYERS TO A DENSITY OF 95% AS DETERMINED BY AASHTO T99. ALL BACKFILL PLACED WITHIN 3' OF STRUCTURES SHALL BE APPROVED SAND, PLACED IN 1' LAYERS AND COMPACTED. NO FROZEN MATERIAL SHALL BE BURIED MORE THAN 4' BELOW THE FINAL ELEVATION OF THE GROUND.

   C. TRENCHES WHICH ARE TO BE LEFT OPEN OVERNIGHT SHALL BE ENCLOSED WITH SUITABLE FENCING AND LIGHTED BARRICADES, UNLESS OTHERWISE APPROVED BY MUNICIPAL ENGINEER.

   D. TRENCH COMPACTION REQUIREMENTS FOR PVC CORRUGATED WITH SMOOTH INTERIOR (ASTM F–949) ARE PER MANUFACTURES SPECIFICATIONS AND MUST BE STRICTLY ADHERED TO.

3. A. MANHOLE STEPS SHALL BE STEEL, ENCASED WITH POLYPROPYLENE PLASTIC OR APPROVED EQUIVALENT TO M.A. INDUSTRIES, INC., PS–1 FOR BRICK, OR PS–1B FOR BLOCK, EAST JORDAN IRON WORKS 8503 (OR APPROVED EQUAL).

   B. CATCH BASIN AND INLET STEPS SHALL BE EQUAL TO EAST JORDAN IRON WORKS 8503 PLASTIC COATED (OR APPROVED EQUAL).

4. PIPE SHALL BE FLUSH WITH THE INSIDE WALL OF STRUCTURE AND NOT TO EXCEED 1" INSIDE THE STRUCTURE. PIPE SHALL BE POINTED UP WITH A SMOOTH FINISH.

5. A. MANHOLE FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS 1040, TYPE "B" COVER OR AS PER CONSTRUCTION DRAWINGS.

   B. CATCH BASIN AND INLET FRAME AND COVER SHALL BE:

   1. EAST JORDAN IRON WORKS 7045, TYPE "K" COVER WITH STRAIGHT FACE AND GUTTER (OR AS APPROVED EQUAL).

   2. EAST JORDAN IRON WORKS 7065 TYPE "C–4" COVER WITH MOUNTABLE CURB AND GUTTER AND INTEGRAL CURB AND GUTTER (OR AS APPROVED EQUAL).

   3. EAST JORDAN IRON WORKS 1040, TYPE "02" COVER FOR 4' DIA. STRUCTURES AND EAST JORDAN IRON WORKS 1030, TYPE "01" COVER FOR 2' DIA. STRUCTURES TO BE USED ON OPEN DITCHES AND SWALES, REAR YARD CATCH BASINS (OR APPROVED EQUAL).

   4. EAST JORDAN IRON WORKS 1030, TYPE "A" COVER TO BE USED ON ALL 2' DIA. CLEANOUT (OR APPROVED EQUAL).

   5. COVERS FOR THE 2' DIA. SUMP PUMP CLEAN–OUT LINES SHALL BE EAST JORDAN IRON WORKS 1030 OR 1070, TYPE A COVER (OR APPROVED EQUAL).

   C. FRAMES SHALL BE SET IN FULL BED OF MORTAR AND THE SIDE SHALL BE OVERLAPPED TO PREVENT LEAKAGE.

6. A PROPER CHANNEL SHALL BE CONSTRUCTED WITHIN THE EXISTING MANHOLE OR OTHER STRUCTURE AT WHICH THE CONNECTION IS TO BE MADE TO DIRECT THE FLOW TO THE EXISTING OUTLET IN A MANNER WHICH WILL TEND TO CREATE THE LEAST AMOUNT OF TURBULENCE. THE CHANNEL SHALL BE CONSTRUCTED TO THE SAME SIZE AS THE INSIDE DIAMETER OF THE EXISTING PIPES, AND SHALL BE BUILT TO HEIGHT OF 1/3 THE EXISTING PIPE DIAMETER WITH A MINIMUM OF 2% SLOPE ON THE BENCHES.

7. STANDARD BRICK ADJUSTMENT: MINIMUM – 6", MAXIMUM – 18"

8. A. BLOCK USED FOR STANDARD CATCH BASIN, INLET, AND MANHOLE SHALL BE 6" AND BRICK SHALL BE 8", OR AS PER CONSTRUCTION DRAWINGS.

   B. BLOCK SHALL BE GRADE U–1 CONFORMING TO ASTM C–139

   C. BRICK SHALL BE GRADE N–1 CONFORMING TO ASTM C–55

   D. PRECAST REINFORCED CONCRETE SECTION AS MINIMUM CONFORM TO ASTM C–478

   E. CONCRETE BASE FOR MANHOLE, CATCH BASIN, AND INLET SHALL BE M.D.O.T. GRADE 30P (MIN.), 8" THICK, 3000 PSI.

9. PLASTER ALL OUTSIDE MASONRY SURFACES WITH 1:2 1/2 MASONRY CEMENT (TYPE 11) 1/2" THICK.

10. WHEN TAPPING INTO AN EXISTING STRUCTURE A BRICK COLLAR SHALL BE PLACED 12" THICK AROUND THE PIPE AND EXTENDED 12" BEYOND THE OPENING.

11. ALL PRECAST RISER(S) SHALL BE PLACED IN A FULL BED OF MORTAR. ALL JOINTS SHALL BE POINTED UP WITH MORTAR ON THE OUTSIDE AND INSIDE.

12. A. ALL STRUCTURE(S) SHALL BE 4' IN DIAMETER UNLESS INDICATED ON CONSTRUCTION DRAWINGS. 2' DIAMETER CATCH BASIN, AND INLET SHALL BE USED WHEN INDICATED ON CONSTRUCTION DRAWING.

    B. A PERMANENT 4' DEEP SUMP IS REQUIRED FOR THE LAST STORM WATER STRUCTURE THAT IS MAINTENANCE ACCESSIBLE PRIOR TO RELEASE OFF–SITE TO A SEDEMENTATION OR STORM WATER HOLDING BASIN.

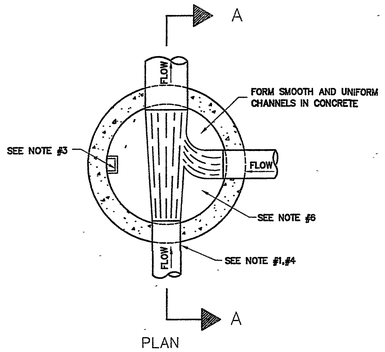
    C. 4' DIA MANHOLES SHALL BE CONSTRUCTED WITH OIL AND GAS SEPERATORS AT THE LAST STRUCTURE PRIOR TO DISCHARGE INTO A DETENTION BASIN OR OPEN DRAINAGE COURSE AS DIRECTED BY THE MUNICIPAL ENGINEER.

13. INLET BAR SCREEN

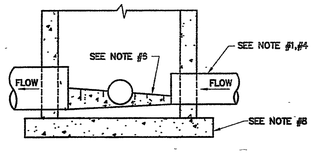
    A. ALL BARS SHALL BE WELDED TO THE RING AND TO THE HORIZONTAL BARS.

    B. THE BAR SCREEN SHALL BE GALVANIZED.

14. END SECTION TREATMENT SHALL INCLUDE FIELD STONE OR BROKEN CONCRETE OF 4" MINIMUM THICKNESS AND A 8 SQUARE FOOT MINIMUM AREA AND SHALL BE MORTERED TO FORM A MONOLITHIC SLAB WITH A MINIMUM THICKNESS OF 6" AND SHALL BE PLACED ON GEOTEXTILE FABRIC.

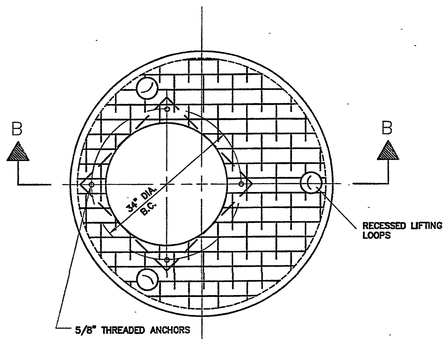


PLAN

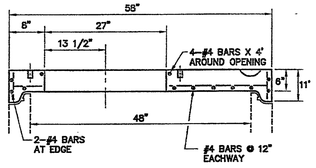


SECTION A–A

CHANNEL DETAIL

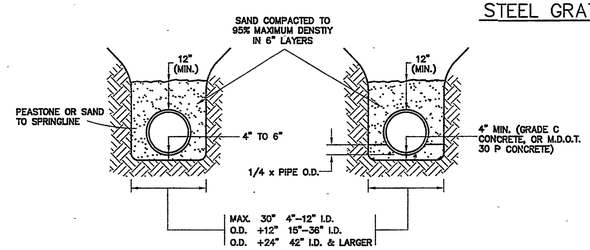


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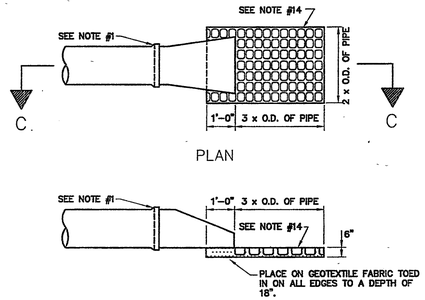
SECTION B–B

FLAT SLAB MANHOLE TOP



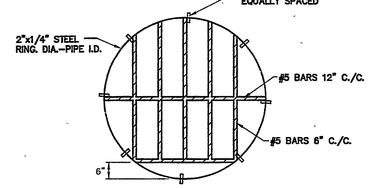
CLASS "B" BEDDING CLASS "A" BEDDING

BEDDING & TRENCH WIDTH REQUIREMENT



SECTION C–C

GROUTED RIP–RAP



INLET BAR SCREEN DETAIL 18"–36"

SEE NOTE #13

M.D.O.T. GRADE OF CONCRETE	M.D.O.T. REFERENCE SECTION NUMBER (1990 VERSION)	CLASS OF COARSE AGGREGATE	CEMENT TYPE	CEMENT CONTENT LBS. PER CU. YD.	CEMENT CONTENT SACKS (94 LB)CU. YD.	AIR ENTR. %	COMPRESSIVE PSI
40 S	5.03	6A	1A,1S–A	611	6.5	6± 1	4000
35 S	5.03 6.09 6.11 6.17	6AA 6A	1A 1S–A	564	6.0	6± 1	3500
30 P	4.25 4.50	6A	1A,1S–A	517	5.5	6± 1	3000
30 M	5.14 6.03 6.11 6.12	6A	1A 1S–A	517	5.5	6± 1	3000

CONCRETE MIXTURES

FOR REFERENCE ONLY

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STORM SEWER DETAILS

CITY OF NOVI

Revisions

Drawn

Designed

Checked

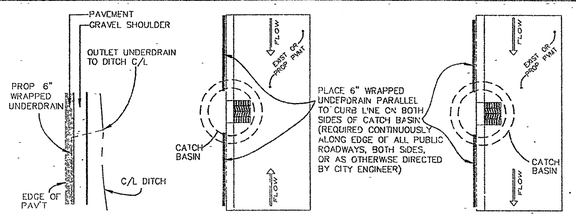
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Date 6/15/98

Job No.

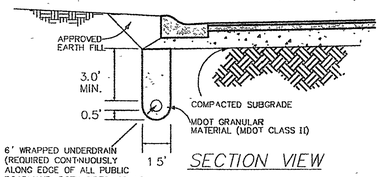
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DITCH OUTLET — LOW POINT — MID GRADE

PLAN VIEWS

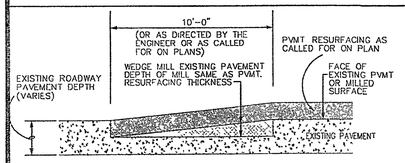


SECTION VIEW

NOTES
1) POLYETHYLENE PIPE SHALL CONFORM TO AASHTO #M-252. POLYVINYL CHLORIDE (PVC) PIPE SHALL CONFORM TO ASTM #F-800 ALL CONNECTIONS, END CAPS, TEES AND FITTINGS SHALL BE SIMILAR PIPE MATERIAL. 6" DIAMETER PIPE REQUIRED THE GEOTEXTILE WRAP SHALL CONFORM TO AASHTO #M-288
2) IF CONCRETE PAVEMENT ON CLAY GRADE IS PROPOSED, THE MDOT GRANULAR MATERIAL SHALL BE CONTINUED TO THE BOTTOM OF THE PAVEMENT OR CURB
3) IF SHOULDER IS PROPOSED, THE UNDERDRAIN SHALL BE PLACED DIRECTLY UNDER THE EDGE OF PAVEMENT

UNDERDRAIN DETAILS

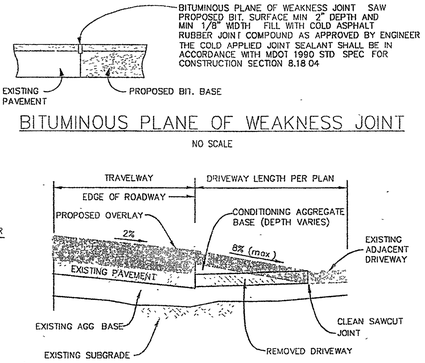
NO SCALE



NOTE
THE "MILLED JOINT" DETAIL SHALL APPLY TO ALL AREAS WHERE THE PROPOSED RESURFACING MEETS EXISTING STREETS AND ROADWAYS, OR AS CALLED FOR ON THE PLANS.

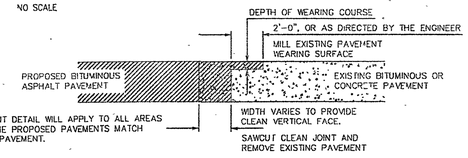
TRANSVERSE MILLED JOINT DETAIL

NO SCALE



BITUMINOUS PLANE OF WEAKNESS JOINT

NO SCALE



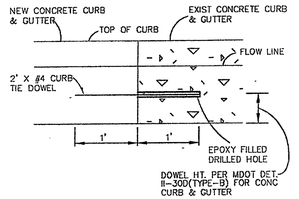
NOTE
BUTT JOINT DETAIL WILL APPLY TO ALL AREAS WHERE THE PROPOSED PAVEMENTS MATCH EXISTING PAVEMENT.

PAVEMENT BUTT JOINT

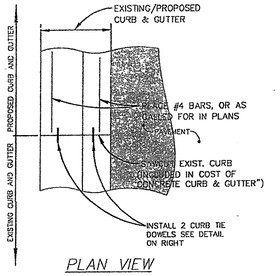
NO SCALE

DRIVEWAY TRANSITION DETAIL

NO SCALE



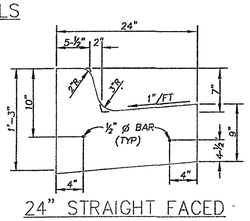
SECTION VIEW



PLAN VIEW

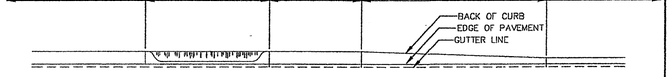
CURB TIE DOWELS

NO SCALE

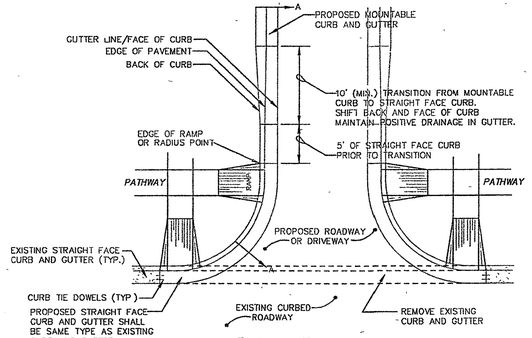


24" STRAIGHT FACED CONCRETE CURB & GUTTER (MDOT DETAIL C-4)

NO SCALE



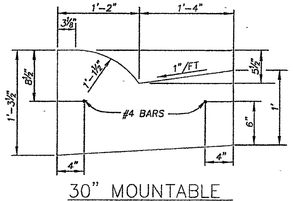
PROFILE VIEW A-A



PLAN VIEW

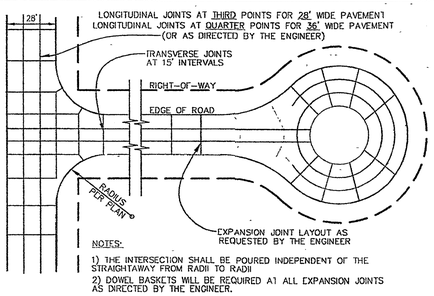
PROPOSED MOUNTABLE CURB AND GUTTER TO EXISTING STRAIGHT FACE CURB AND GUTTER TRANSITION

NO SCALE



30" MOUNTABLE CONCRETE CURB & GUTTER (MDOT DETAIL B-2, MODIFIED)

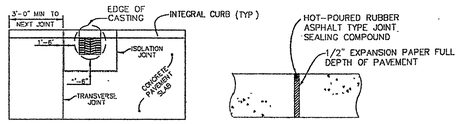
NO SCALE



NOTES:
1) THE INTERSECTION SHALL BE POURED INDEPENDENT OF THE STRAIGHTAWAY FROM RADII TO RADII
2) DOWEL BASKETS WILL BE REQUIRED AT ALL EXPANSION JOINTS AS DIRECTED BY THE ENGINEER.

TYP. CUL-DE-SAC/INTERSECTION JOINTING

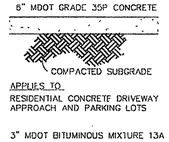
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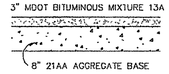
PLAN VIEW — CROSS SECTION VIEW

CATCH BASIN ISOLATION JOINTS

NO SCALE



APPLIES TO
RESIDENTIAL CONCRETE DRIVEWAY APPROACH AND PARKING LOTS



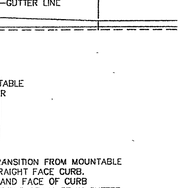
APPLIES TO
RESIDENTIAL BITUMINOUS DRIVEWAY APPROACH AND PARKING LOTS

NOTES:
1) COMMERCIAL DRIVE APPROACHES WITHIN PUBLIC R O W SHALL BE THE SAME MATERIAL AND THICKNESS AS INTERSECTING ROADWAY
2) FOR COMMERCIAL DRIVEWAY OPENINGS, AN MDOT DET M GUTTER SHALL BE USED AS REQUIRED FOR DRAINAGE PURPOSES
3) FOR RESIDENTIAL DRIVEWAY OPENINGS, AN MDOT DET. L GUTTER SHALL BE USED IF THE DRIVEWAY IS ADJACENT TO STRAIGHT FACE CURB AND GUTTER

DRIVEWAYS & PARKING LOT PAVEMENT THICKNESSES AND DRIVEWAY OPENINGS

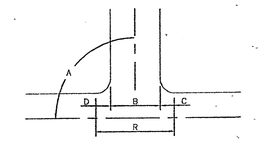
NO SCALE

CONCRETE PAVEMENT JOINT NOTES:
1) TRANSVERSE PAVEMENT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MDOT R-39 SERIES, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER
2) LOAD TRANSFER ASSEMBLIES FOR TRANSVERSE PAVEMENT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MDOT R-40 SERIES, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
3) LONGITUDINAL PAVEMENT JOINTS FOR CONCRETE PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MDOT R-41 SERIES, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
4) CONCRETE PAVEMENT REPAIR SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MDOT R-44 SERIES, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.



STORM WATER SPILLWAY

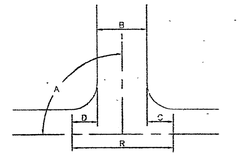
NO SCALE



DESIGN FEATURES		STANDARD	RANGE
INTERSECTING ANGLE	A	90°	70° to 110°
WIDTH (DRIVEWAY)	B	16'	12' to 35'
ENTERING RADIUS	C	10'	5' to 35'
EXITING RADIUS	D	10'	5' to 35'
TOTAL OPENING (B+C+D)	R	36'	22' to 105'

FIELD ENTRANCE AND UTILITY STRUCTURE DRIVEWAY

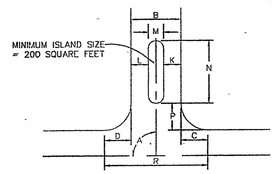
NO SCALE



DESIGN FEATURES		STANDARD	RANGE
INTERSECTING ANGLE	A	90°	90°
WIDTH *DRIVEWAY	B	30'	20' to 40'
*INDUSTRIAL STREET DRIVEWAY		36'	32' to 40'
*LOCAL STREET		28'	28' to 40'
ENTERING RADIUS *DRIVEWAY	C	20'	15' to 35'
*INDUSTRIAL STREET DRIVEWAY		35'	25' to 50'
*LOCAL STREET		25'	25' to 35'
EXITING RADIUS *DRIVEWAY	D	20'	15' to 35'
*INDUSTRIAL STREET DRIVEWAY		35'	25' to 50'
*LOCAL STREET		25'	25' to 35'
TOTAL OPENING (B+C+D) *DRIVEWAY	R	70'	50' to 110'
*INDUSTRIAL STREET DRIVEWAY		106'	82' to 140'
*LOCAL STREET		78'	78' to 110'

TWO-WAY DRIVEWAYS AND LOCAL STREETS

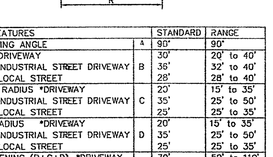
NO SCALE



DESIGN FEATURES		STANDARD	RANGE
INTERSECTING ANGLE	A	90°	
WIDTH (DRIVEWAY)	B	58'	56' to 78'
WIDTH (LOCAL STREET)		58'	56' to 78'
ENTERING RADIUS (DRIVE)	C	20'	20' to 35'
ENTERING RADIUS (LOCAL STREET)		25'	25' to 35'
EXITING RADIUS (DRIVE)	D	20'	20' to 35'
EXITING RADIUS (LOCAL STREET)		25'	25' to 35'
ENTRANCE DRIVE (DRIVE)	K	24'	22' to 27'
ENTRANCE DRIVE (LOCAL STREET)		24'	22' to 27'
EXIT DRIVE WIDTH	L	24'	22' to 27'
LOCAL STREET WIDTH		24'	22' to 27'
ISLAND WIDTH	M	10'	8' to 24'
NOSE OFFSET	P	12'	6' to 18'
ISLAND LENGTH	N	35'	30' to 100'
TOTAL OPENING (B+C+D) (DRIVE)	R	98'	90' to 148'
TOTAL OPENING (B+C+D) (LOCAL STREET)		108'	106' to 148'

DIVIDED COMMERCIAL DRIVEWAYS AND LOCAL STREETS

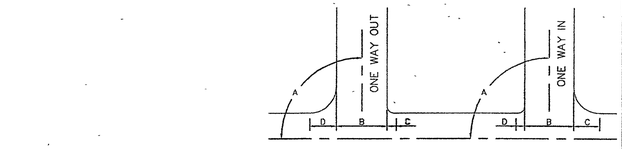
NO SCALE



DESIGN FEATURES		STANDARD	RANGE
INTERSECTING ANGLE	A	90°	70° to 110°
WIDTH (DRIVEWAY)	B	16'	10 to 25
ENTERING TAPER WIDTH	C	3'	2' to 15'
EXITING TAPER WIDTH	D	3'	2' to 15'
TAPER DEPTH	Q	10'	10' to 15'
TOTAL OPENING (B+C+D)	R	22'	14' to 55'

RESIDENTIAL DRIVES

NO SCALE

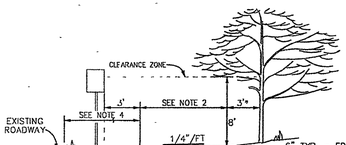


DESIGN FEATURES		STANDARD	RANGE
INTERSECTING ANGLE		A	90°	45° to 120°
DRIVEWAY WIDTH		B	15'	15' to 20'
ONE-WAY IN	ENTERING RADIUS	C	20'	20' to 35'
	EXITING RADIUS	D	5'	5' to 10'
ONE-WAY OUT	ENTERING RADIUS	C	5'	5' to 10'
	EXITING RADIUS	D	20'	20' to 35'

DRIVEWAY AND LOCAL STREET NOTES
1) THE STANDARD DIMENSION SHALL BE USED UNLESS THE CITY SPECIFIES, OR THE APPLICANT SHOWS CAUSE FOR, A DIFFERENT DESIGN VALUE. THE RANGE IN DIMENSIONS INDICATES THE WORKING VALUES FOR EACH DESIGN FEATURE
2) ALL DIMENSIONS ARE MEASURED BACK TO BACK OF CURB.
3) LOCAL STREETS INTERSECTING WITH ARTERIAL STREETS SHALL PROVIDE A 35' ENTERING AND EXITING RADIUS

ONE-WAY COMMERCIAL DRIVES

NO SCALE



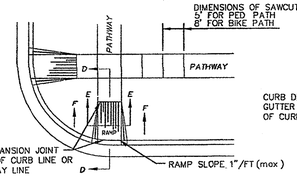
MINIMUM CLEARANCE
HORIZONTAL CLEARANCE = 3 FEET*
VERTICAL CLEARANCE = 8 FEET

NOTES:
1) PATHWAY MATERIAL: MDOT 35S CONCRETE, 4" THICK OVER COMPACTED SUBGRADE (TYPICAL)
2) PATHWAY WIDTH 8 FEET (TYPICAL), AND 6 FEET AT ROADWAY INTERSECTIONS FOR BICYCLE PATHS 5 FEET (TYPICAL) FOR PEDESTRIAN SAFETY PATHS.
3) DRIVE CROSSING DIMENSIONS RESIDENTIAL = 6 FEET WIDE x 6 INCHES THICK (BICYCLE PATHS ONLY) INDUSTRIAL = 8 FEET WIDE x 8 INCHES THICK
4) MINIMUM OFFSET FROM ROADWAY: UNCURBED = 12 FEET FROM EDGE OF TRAVELED WAY CURBED = 5 FEET FROM BACK OF CURB
5) MAXIMUM LONGITUDINAL SLOPE SHALL BE 8.3% FOR A MAXIMUM LENGTH OF 100 FEET.
6) THE CONCRETE FORMS MUST BE INSPECTED BY THE CITY PRIOR TO POURING CONCRETE.
7) JOINTS IN THE CONCRETE BICYCLE PATHS SHALL BE SAWCUT, JOINTS IN PED. SAFETY PATHS SHALL BE TOOLED. JOINT SPACING SHALL EQUAL THE WIDTH OF THE PATHWAY.
8) PREPARATION OF BASE, MIXING OF MATERIALS, PLACING AND FINISHING OF CONCRETE PAVING IS TO BE DONE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AS DETAILED IN THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR CONSTRUCTION PUBLISHED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

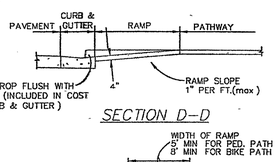
*WHERE PATHWAYS ARE BUILT OR REBUILT IN AN AREA THAT CONTAINS TREES GREATER THAN 6" IN DIAMETER, A SEPARATION OF 4' FROM SAID TREES SHALL BE PROVIDED WHEREVER FEASIBLE. WHERE THE PATH MUST BE CLOSER TO SUCH A TREE, A PHYSICAL BARRIER OR HERBICIDE IMPREGNATED BARRIER CLOTH MUST BE PLACED UNDER THE PATH TO PREVENT THE TREE ROOTS FROM HEAVING THE PATH.

STANDARD PLAN FOR PATHWAYS

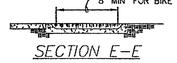
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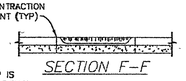
PLAN VIEW



SECTION D-D



SECTION E-E



SECTION F-F

NOTE: CONSTRUCTION OF PATHWAY RAMP IS INCLUDED IN THE COST OF CONCRETE SIDEWALK AND/OR CONCRETE BIKE PATH.

PATHWAY RAMP DETAIL (MDOT TYPE 4)

NO SCALE

FOR REFERENCE ONLY

CITY OF NOVI

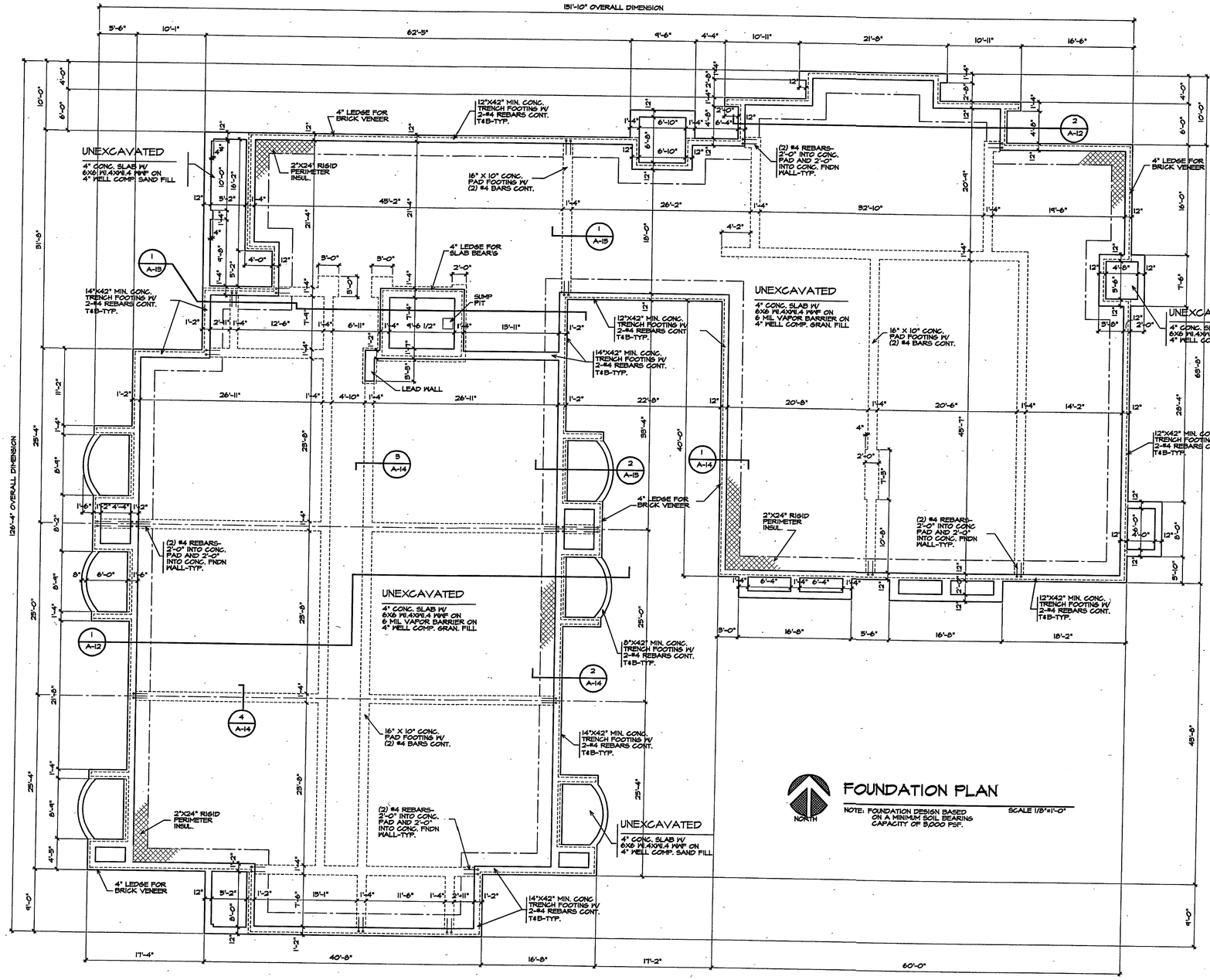
PAVEMENT DETAILS FOR CITY OF NOVI ROADWAYS

REVISION	DATE	REVISION	DATE

Drawn:
Designed:
Checked:

Scale: NO SCALE
Date: 12-15-00
Job No.:
Sht. No.: D - 1.6

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Key Plan: NO SCALE

Project Name and Client:

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NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
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Approved:	JPA

Sheet Title:
BUILDING FOUNDATION PLAN

Project Number: 07-140

Sheet Number: A-1

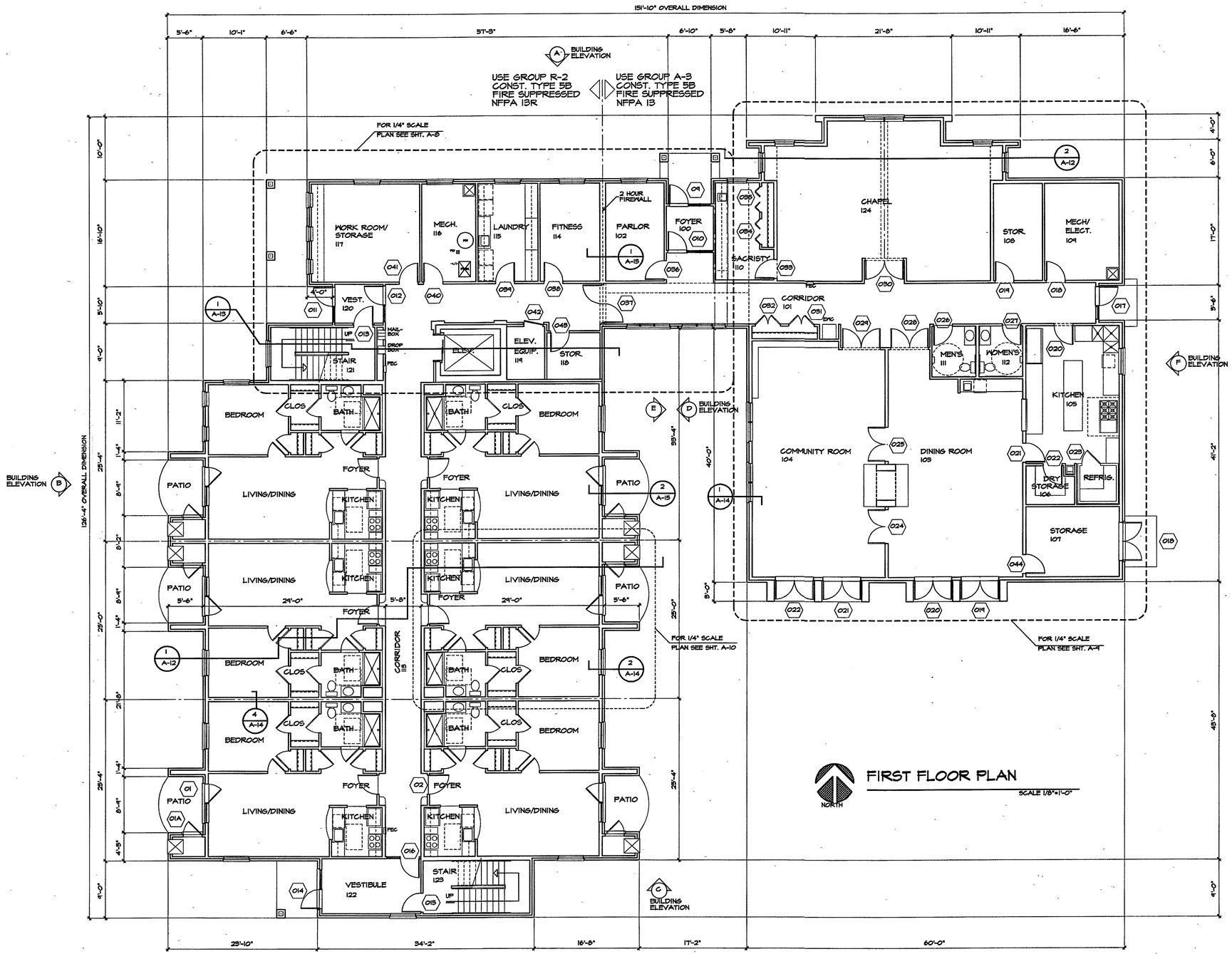
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NORTH

FIRST FLOOR PLAN

SCALE 1/8"=1'-0"

BASILIAN FATHERS
NOVI, MICHIGAN

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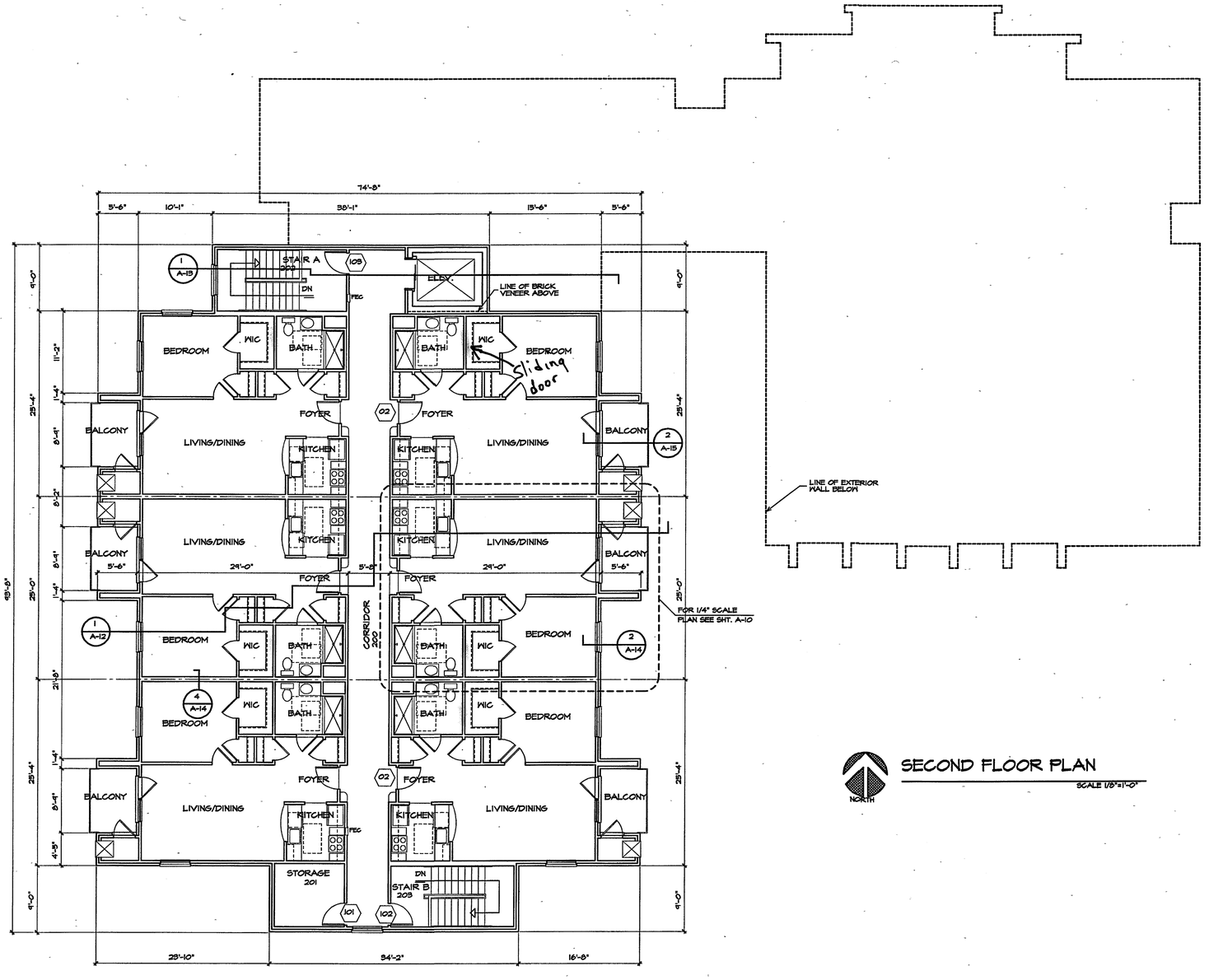
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BUILDING FIRST FLOOR PLAN

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Sheet Number: A-2

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NORTH

SECOND FLOOR PLAN

SCALE 1/8"=1'-0"

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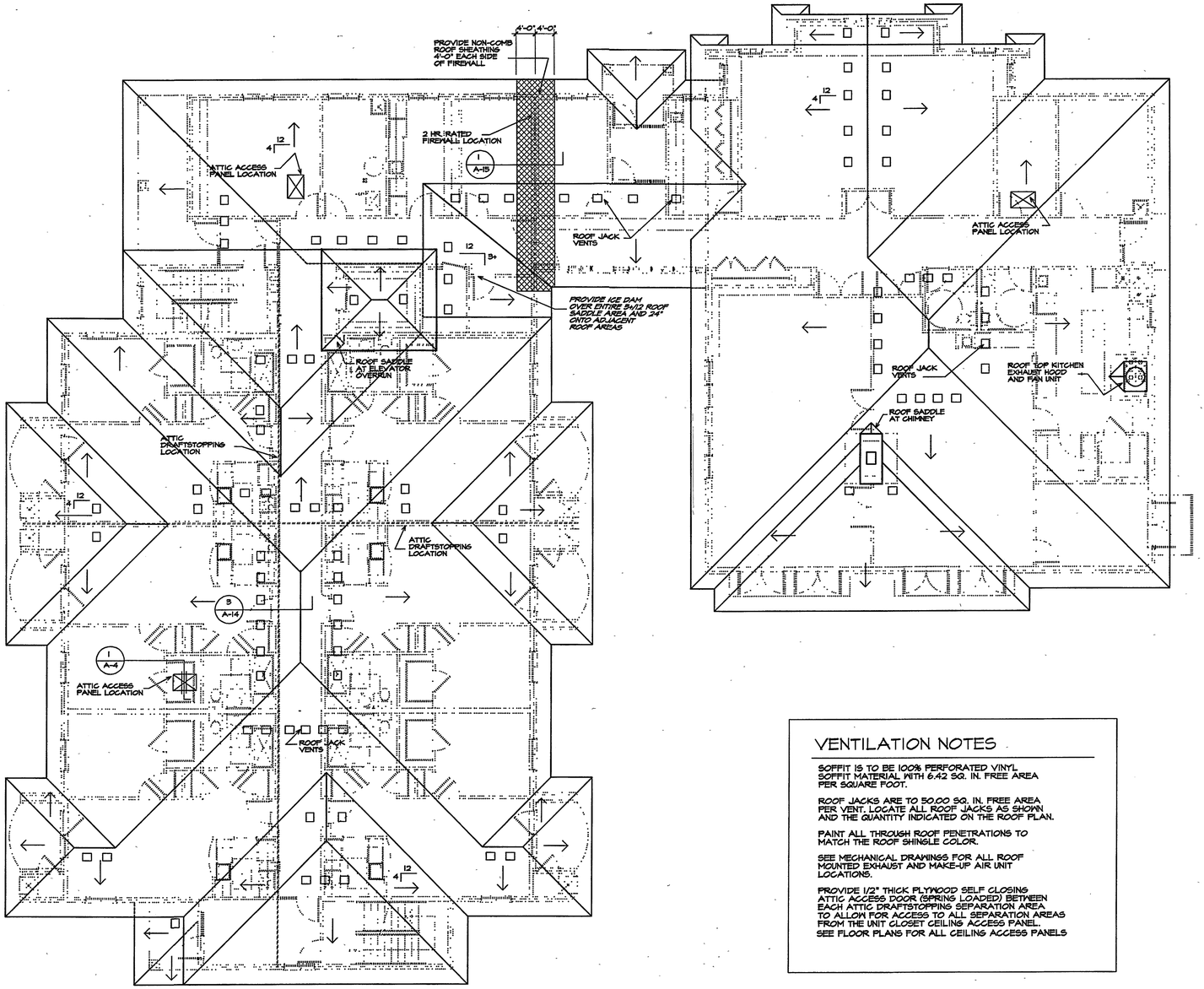
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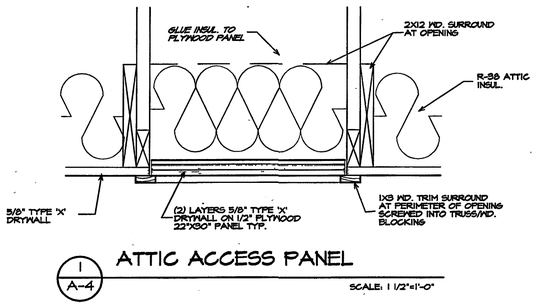
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1 A-4 ATTIC ACCESS PANEL

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

VENTILATION NOTES

SOFFIT IS TO BE 100% PERFORATED VINYL SOFFIT MATERIAL WITH 6.42 SQ. IN. FREE AREA PER SQUARE FOOT.

ROOF JACKS ARE TO 50.00 SQ. IN. FREE AREA PER VENT. LOCATE ALL ROOF JACKS AS SHOWN AND THE QUANTITY INDICATED ON THE ROOF PLAN.

PAINT ALL THROUGH ROOF PENETRATIONS TO MATCH THE ROOF SHINGLE COLOR.

SEE MECHANICAL DRAWINGS FOR ALL ROOF MOUNTED EXHAUST AND MAKE-UP AIR UNIT LOCATIONS.

PROVIDE 1/2" THICK PLYWOOD SELF CLOSING ATTIC ACCESS DOOR (SPRING LOADED) BETWEEN EACH ATTIC DRAFTSTOPPING SEPARATION AREA TO ALLOW FOR ACCESS TO ALL SEPARATION AREAS FROM THE UNIT CLOSET CEILING ACCESS PANEL. SEE FLOOR PLANS FOR ALL CEILING ACCESS PANELS

NORTH

ROOF PLAN

W/ ATTIC VENTILATION

SCALE 1/8"=1'-0"

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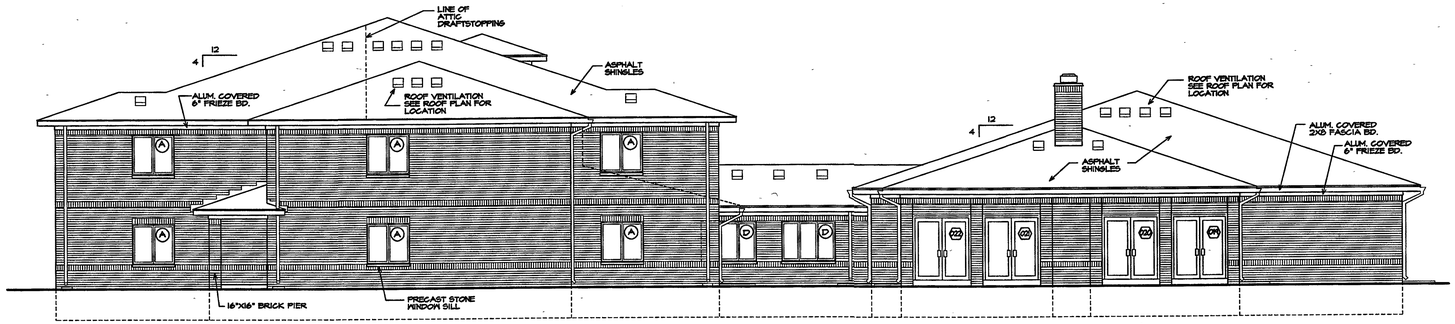
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BUILDING ROOF PLAN

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07-140

Sheet Number:
A-4

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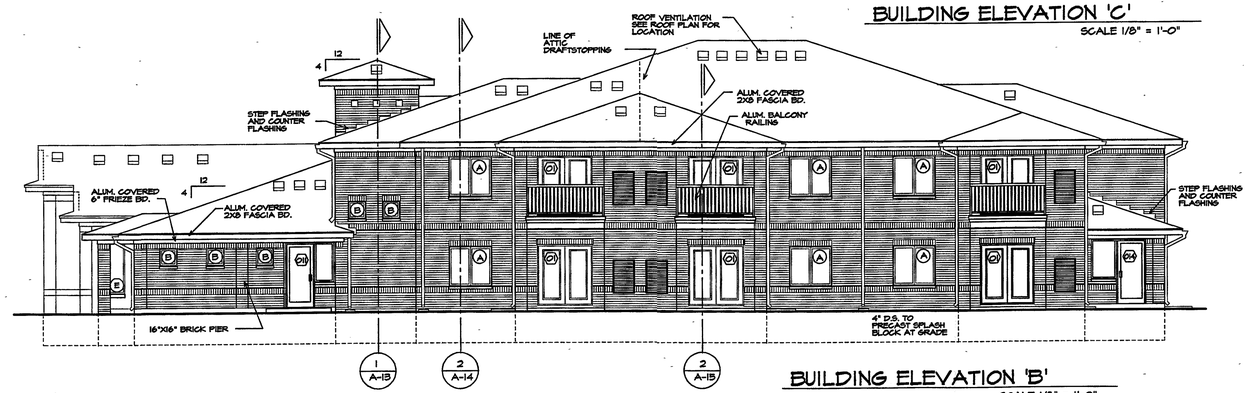
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looking N

BUILDING ELEVATION 'C'

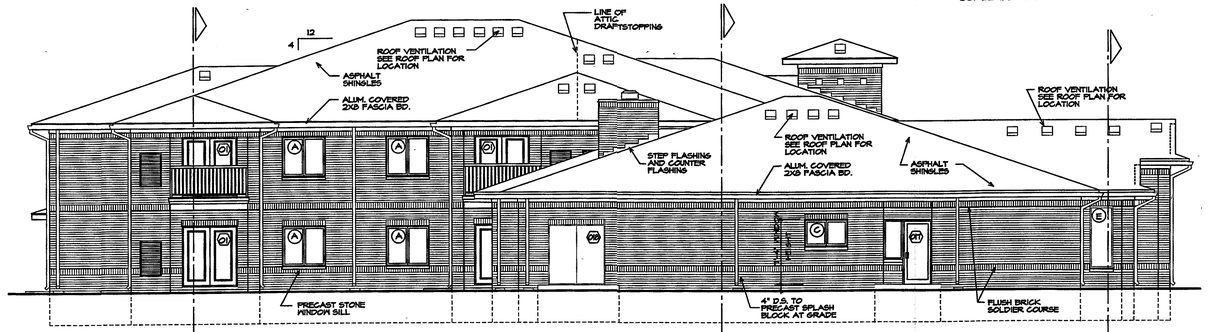
SCALE 1/8" = 1'-0"



looking E

BUILDING ELEVATION 'B'

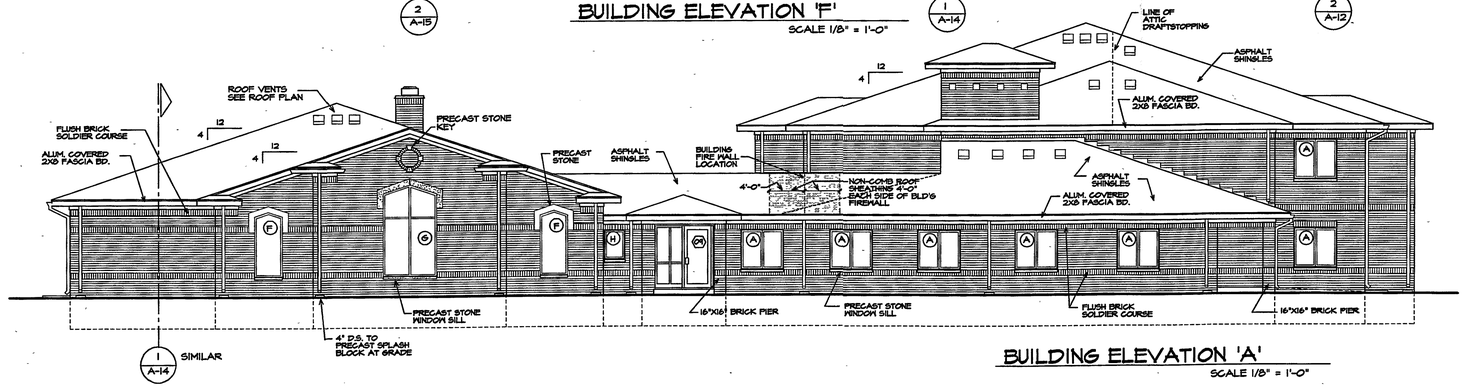
SCALE 1/8" = 1'-0"



looking W

BUILDING ELEVATION 'F'

SCALE 1/8" = 1'-0"



looking S

BUILDING ELEVATION 'A'

SCALE 1/8" = 1'-0"

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Project Name and Client:

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BUILDING ELEVATIONS

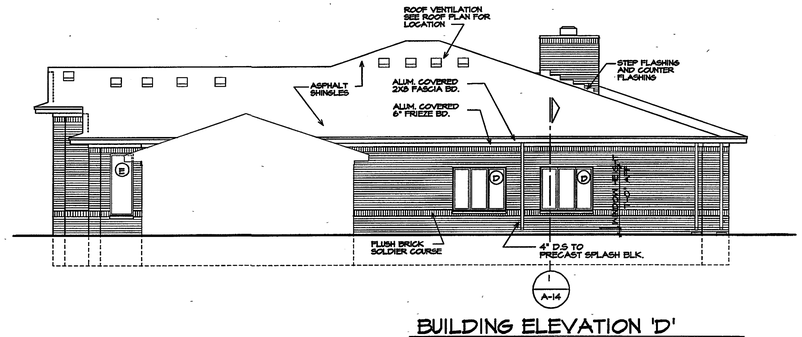
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07-140

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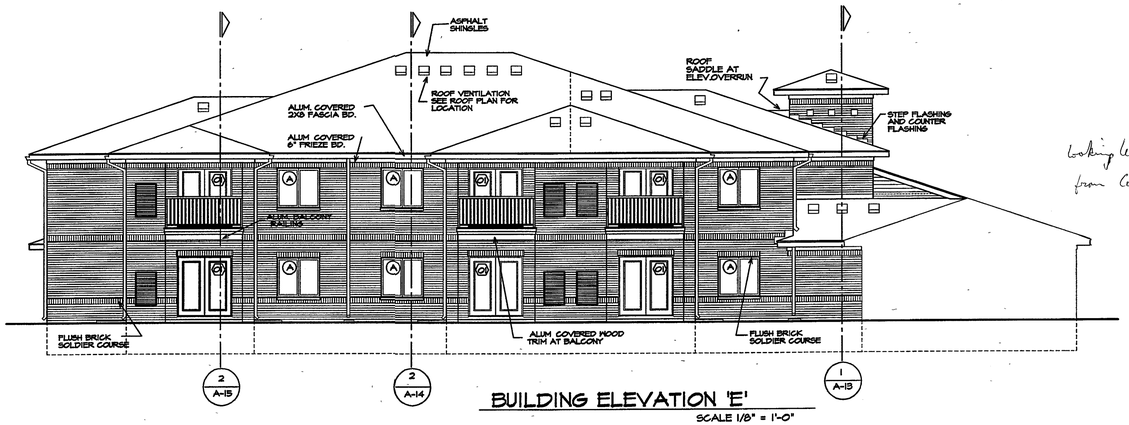
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BUILDING ELEVATION 'D'
SCALE 1/8" = 1'-0"



BUILDING ELEVATION 'E'
SCALE 1/8" = 1'-0"

looking W from Community Dr.

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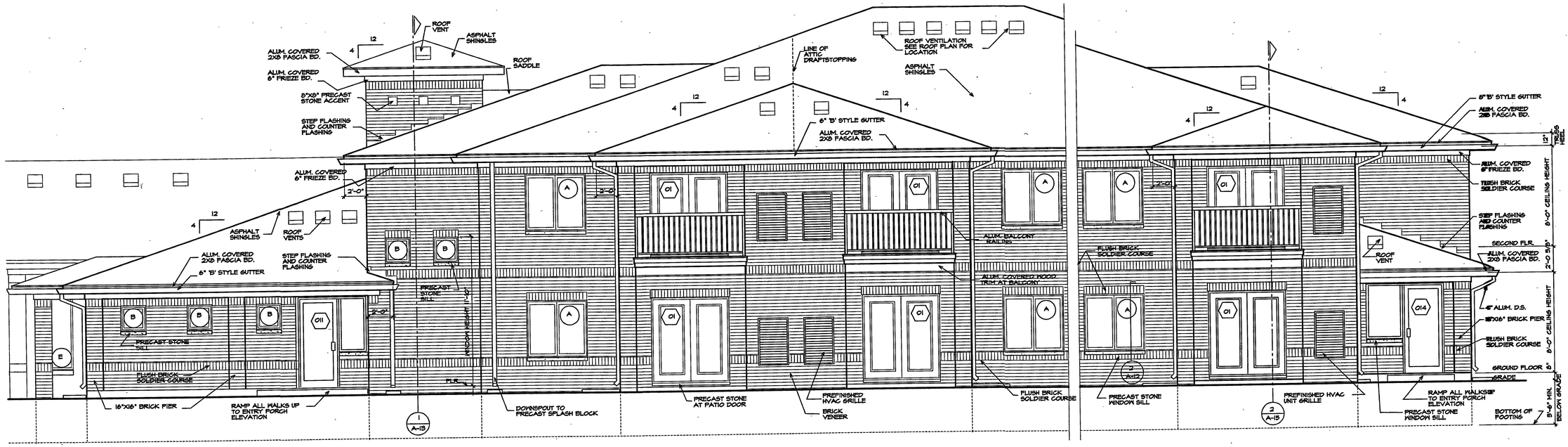
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BUILDING ELEVATIONS

Project Number: 07-140

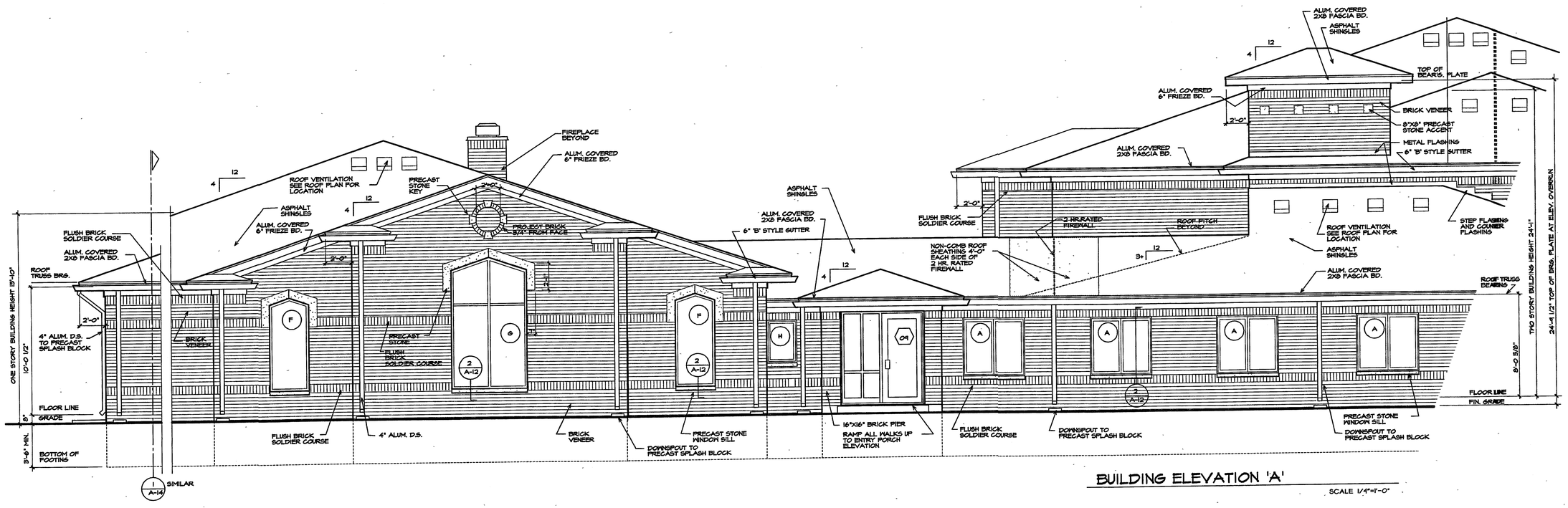
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BUILDING ELEVATION 'B'

SCALE 1/4"=1'-0"



BUILDING ELEVATION 'A'

SCALE 1/4"=1'-0"

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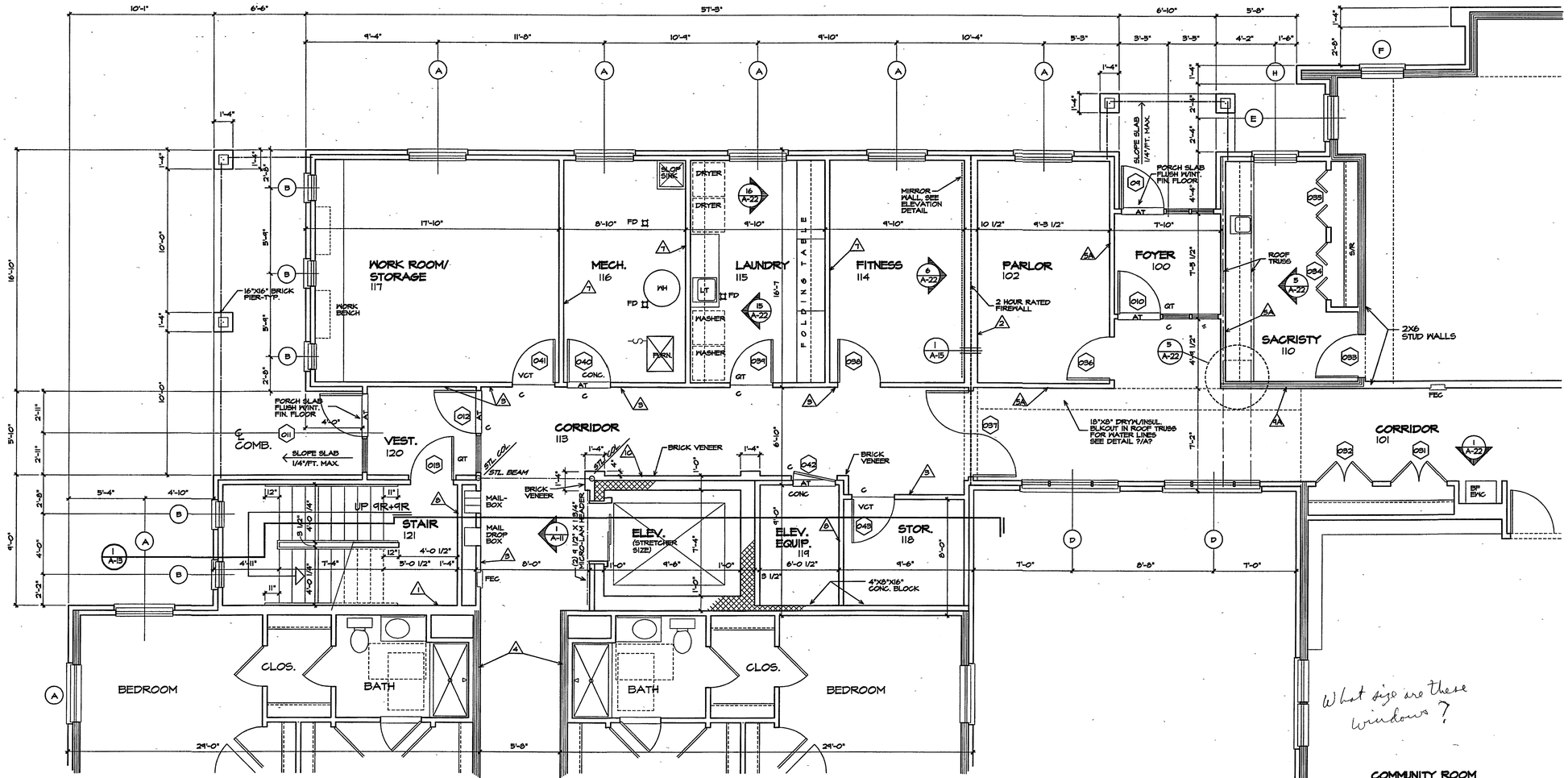
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BUILDING ELEVATION DETAILS

Project Number: 07-140

Sheet Number: A-7

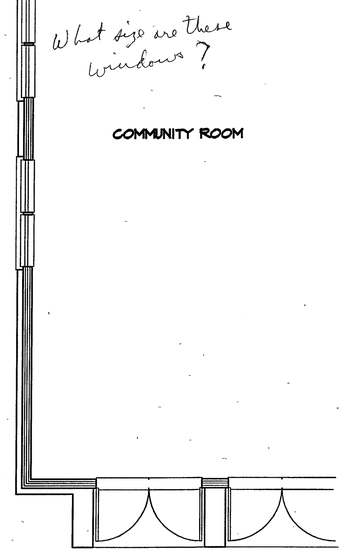
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PARTIAL
FIRST FLOOR PLAN

SCALE 1/4"=1'-0"



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Key Plan: NO SCALE

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NOVI, MICHIGAN

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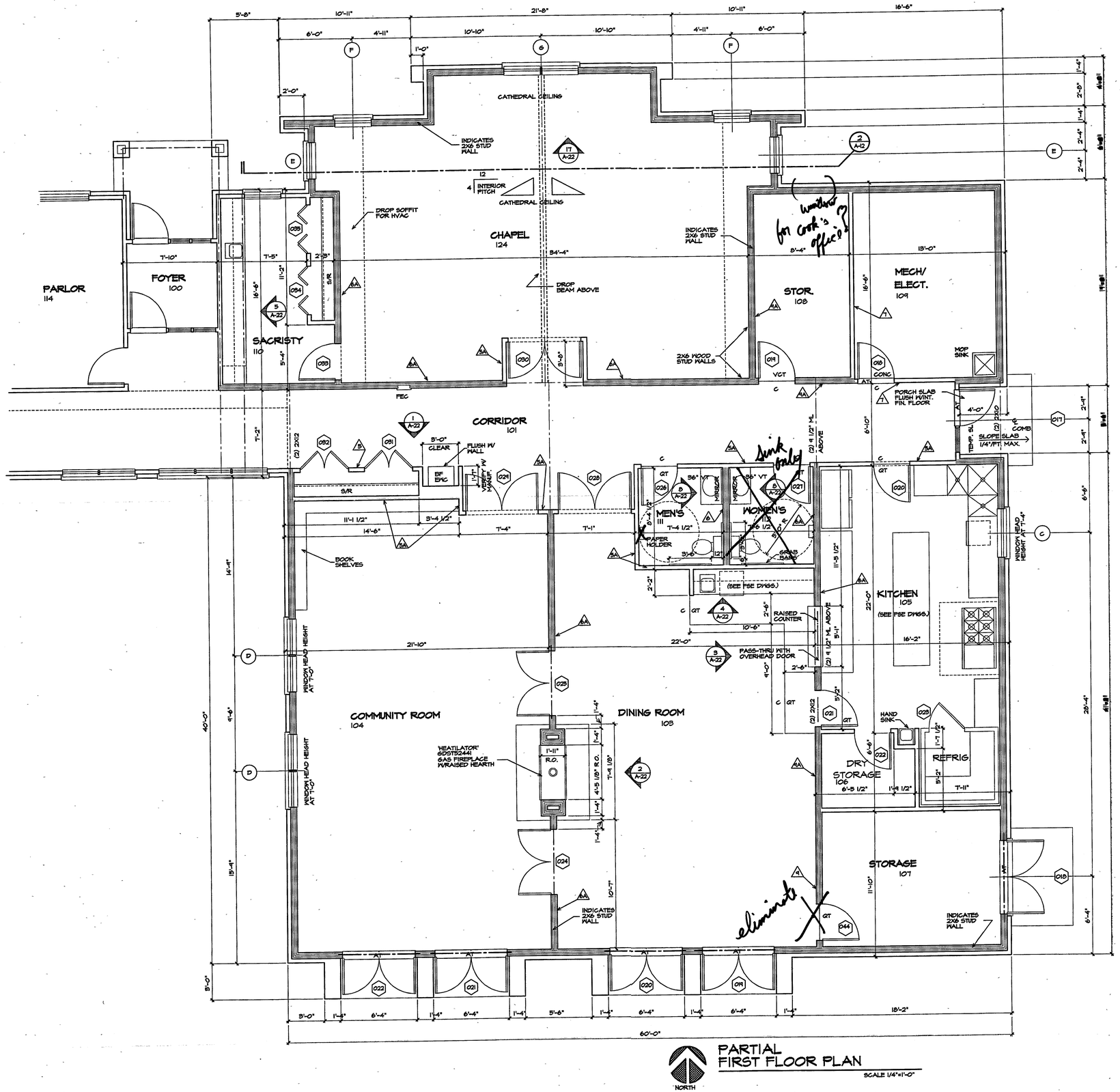
Sheet Title:
COMMONS AREA FLOOR PLAN

Project Number: 07-140

Sheet Number: A-8

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F:\Basilian Residence\Current\Architectural\A-8 COMMONS AREA FLOOR... 10:04:38 AM, sflickema



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Key Plan: NO SCALE

Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
10/22/08	BID PACK NO. 2

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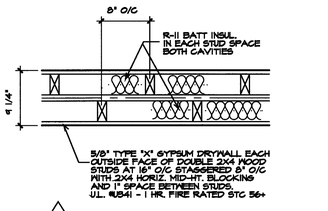
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COMMONS AREA FLOOR PLAN

Project Number: 07-140

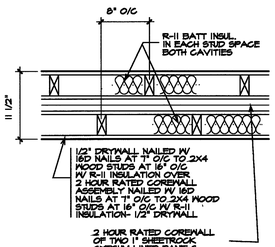
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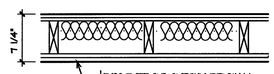
1 PARTYWALL PARTITION



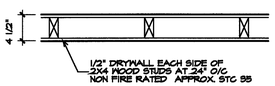
2 FIREWALL PARTITION



3 CORRIDOR WALL

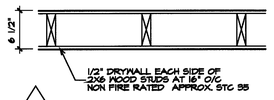


4 CORRIDOR WALL



5 INTERIOR PARTITION

5A W/R-11 INSULATION

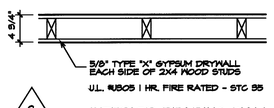


6 INTERIOR PARTITION

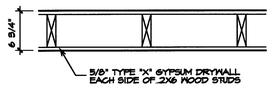
6A W/R-11 INSULATION



7 MECHANICAL ROOM PARTITION

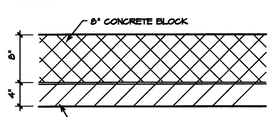


8 INTERIOR BEARING WALL



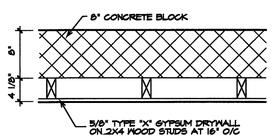
9 INTERIOR BEARING WALL

9A W/R-11 INSULATION



10 TWO HOUR ASSEMBLY-ELEVATOR

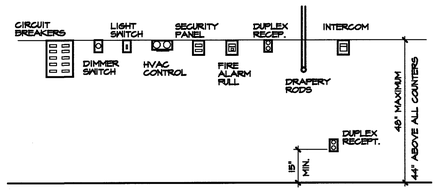
MICHIGAN MASONRY COUNCIL NOMINAL 8", 60% SOLID SINGLE WYTHE CONCRETE MASONRY PER ASTM C-90 OR C-145



11 TWO HOUR ASSEMBLY-ELEVATOR

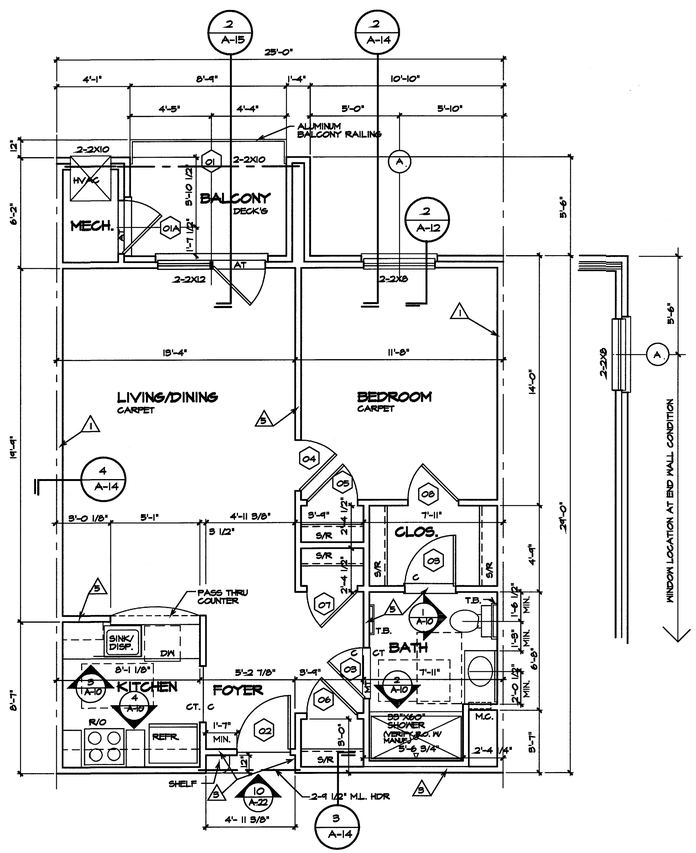
MICHIGAN MASONRY COUNCIL NOMINAL 8", 60% SOLID SINGLE WYTHE CONCRETE MASONRY PER ASTM C-90 OR C-145

PARTITION WALL TYPES



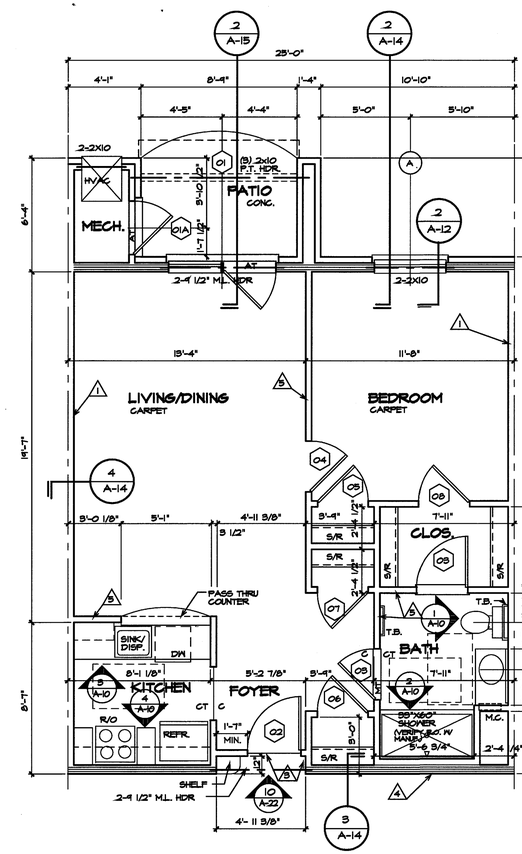
CONTROL MOUNTING HEIGHTS

MECHANICAL / ELECTRICAL CONTROLS



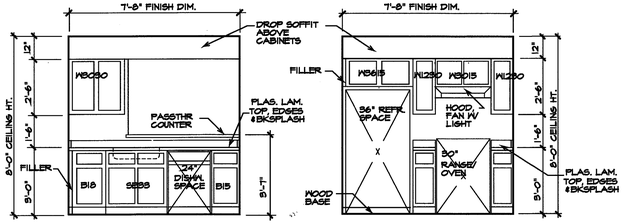
SECOND FLOOR PLAN

SCALE 1/4"=1'-0"



FIRST FLOOR PLAN

SCALE 1/4"=1'-0"

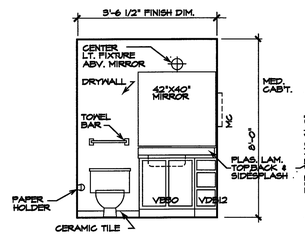


3 A-10 KITCHEN ELEVATIONS

3/8"=1'-0"

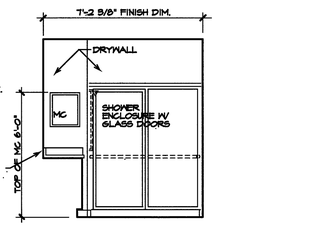
4 A-10 KITCHEN ELEVATIONS

3/8"=1'-0"



1 A-10 BATH ELEVATIONS

3/8"=1'-0"



2 A-10 BATH ELEVATIONS

3/8"=1'-0"

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Sheet Title:
UNIT FLOOR PLANS AND WALL TYPES

Project Number: 07-140

Sheet Number: A-10

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WINDOW SCHEDULE

SYMB.	SIZE	TYPE	MATERIAL	GLASS	NOTES
A	4'-8"X 4'-8"	CASEMENT	WOOD VINYL CLAD	INSULATED	EGRESS WINDOW HARDWARE REQ'D.
B	2'-0"X 2'-0"	AWNING	WOOD VINYL CLAD	INSULATED	
C	4'-0"X 3'-0"	CASEMENT	WOOD VINYL CLAD	INSULATED	
D	6'-0"X 5'-0"	CASEMENT	WOOD VINYL CLAD	INSULATED	
E	SEE ELEVN.	FIXED SASH	WOOD VINYL CLAD	INSULATED	CUSTOM SASH DESIGN
F	SEE ELEVN.	FIXED SASH	WOOD VINYL CLAD	INSULATED	CUSTOM SASH DESIGN
G	SEE ELEVN.	FIXED SASH	WOOD VINYL CLAD	INSULATED	CUSTOM SASH DESIGN

ABBREVIATIONS

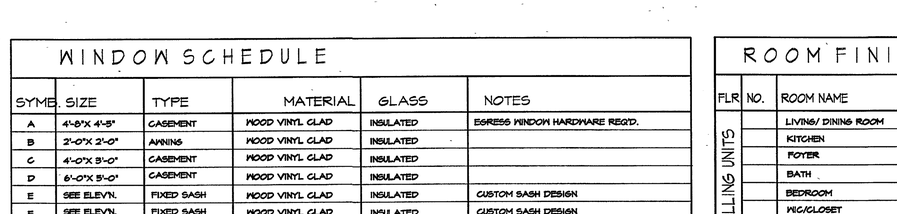
ACT	ABOVE COUNTER TOP
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
AP	ACCESS PANEL
AT	ACOUSTIC TILE
BS	BOTH SIDES
BRK	BRICK
C	CARPET
CLG	CEILING
CLO	CLOSET
COMP	COMPACTED
CONC	CONCRETE
CONT	CONTINUOUS
CT	CERAMIC TILE
DW	DRYWALL
DN	DOWN
DO	DITTO
D	DRYWALL
EF	EXHAUST FAN
ELECT	ELECTRICAL
ELEV	ELEVATION
EP	EPOXY PAINT
EXIST'G	EXISTING
EXT	EXTERIOR
FD	FLOOR DRAIN
FP	FLAT PAINT
FLR	FLOOR
FRP	FIBERGLASS REINFORCED PANELS
HDR	HEADER
HGT	HEIGHT
FURN	FURNACE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HVAC	HEATING VENTILN & AIR CONDITIONING
INSUL	INSULATION
LIN	LINEN
LW CONC	LIGHT WEIGHT CONC
MC	MEDICINE CABINET
MECH	MECHANICAL
MET	METAL
MIN	MINIMUM
MT	METAL THESHOLD
MTRK	METAL TRACK
OC	ON CENTER
PERIM	PERIMETER
PH	PHYSICALLY HANDICAPPED
PLAS LAM	PLASTIC LAMINATE
P.R	POWDER ROOM
QT	QUARRY TILE
REF	REFRIGERATOR
RS	ROUGH SAWN
SAF	SPRAYED ACOUSTIC FINISH
SGP	SEMI-GLOSS PAINT
SP	SATIN PAINT
STL	STEEL
SV	SHEET VINYL
T&G	TONGUE & GROOVE
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VWC	VINYL WALL COVERING
W	WITH
WC	WATER CLOSET
W/D	WASHER-DRYER
WH	WATER HEATER

ROOM FINISH SCHEDULE

FLR	NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING MAT'L.	CEILING HGT.	PAINT WALL	PAINT CLG.	DETAIL SPECIFICATIONS
DWELLING UNITS		LIVING/ DINING ROOM	CARPET	WOOD	D	D	8'-0"	FP	SAF	
		KITCHEN	C.T.	WOOD	D	D	8'-0"	SGP	SAF	
		FOYER	CARPET	WOOD	D	D	8'-0"	FP	SAF	
		BATH	C.T.	C.T.	D	D	8'-0"	SGP	SGP	
		BEDROOM	CARPET	WOOD	D	D	8'-0"	FP	SAF	
		MIC/CLOSET	CARPET	WOOD	D	D	8'-0"	FP	SAF	
FIRST FLOOR AREAS	100	FOYER	QT	QT	D	D	8'-0"	FP	SAF	
	101	CORRIDOR	CARPET	WOOD	D	D	8'-0"	FP	SAF	
	102	PARLOR	CARPET	WOOD	D	D	8'-0"	FP	SAF	
	103	DINING ROOM	CARPET	WOOD	D	D	10'-0"	FP	SAF	
	104	COMMUNITY ROOM	CARPET	WOOD	D	D	10'-0"	FP	SAF	
	105	KITCHEN	QT	QT	D	AT	9'-0"	EP	—	WASHABLE CEILING TILES
	106	DRY STORAGE	QT	QT	D	AT	9'-0"	FP	—	
	107	STORAGE	VCT	WOOD	D	D	10'-0"	FP	SAF	
	108	STORAGE	VCT	WOOD	D	D	10'-0"	FP	SAF	
	109	MECH/ELECTRICAL RM.	EP	WOOD	D	D	10'-0"	FP	SAF	
	110	SACRISTY	CARPET	WOOD	D	D	8'-0"	FP	SAF	
	111	MEN'S LAVATORY	QT	QT	D	D	8'-0"	SGP	SGP	
	112	WOMEN'S LAVATORY	QT	QT	D	D	8'-0"	SGP	SGP	
	113	CORRIDOR	CARPET	WOOD	D	AT	7'-6"	FP	—	
	114	FITNESS ROOM	CARPET	WOOD	D	D	8'-0"	FP	SAF	
	115	LAUNDRY ROOM	QT	QT	D	D	8'-0"	FP	SAF	
	116	MECHANICAL ROOM	EP	WOOD	D	D	8'-0"	FP	SAF	
	117	WORK ROOM	VCT	WOOD	D	D	8'-0"	FP	SAF	
	118	STORAGE ROOM	VCT	WOOD	D	D	8'-0"	FP	SAF	
	119	ELEVATOR EQUIP. RM.	EP	WOOD	D	D	8'-0"	FP	SAF	
	120	VESTEBULE	QT	QT	D	D	8'-0"	FP	SAF	
	121	STAIR	CARPET	WOOD	D	D	VARIES	FP	SAF	
	122	VESTIBULE	QT	QT	D	D	8'-0"	FP	SAF	
	123	STAIR	CARPET	WOOD	D	D	VARIES	FP	SAF	
	124	CHAPEL	CARPET	WOOD	D	D	VARIES	FP	SAF	
SECOND FLR.	200	CORRIDOR	CARPET	WOOD	D	AT	7'-6"	FP	AT	
	201	STORAGE	VCT	WOOD	D	D	8'-0"	FP	SAF	
	202	STAIR	CARPET	WOOD	D	D	VARIES	FP	SAF	
	203	STAIR	CARPET	WOOD	D	D	VARIES	FP	SAF	

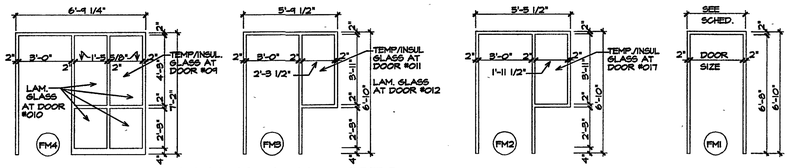
DOOR SCHEDULE

NO.	DOOR SIZE	DOOR: ELEVATION TYPE	Door Materials: Metal, insulated core (1)	Aluminum w/ Temp/insul Glass (2)	Solid Core Wood (3)	Wood Composition Panel (4)	Solid Core Wd. w/Wire Gl. (5)	Solid Core Wd. w/Temp. Gl. (6)	Wood/vinyl w/ temp. insul Gl. (7)	FRAME: Material/Finish: Aluminum Store-Front (1)	Wood Painted (2)	Hollow Metal Painted (3)	Weather Strip (4)	Frame by door manufr (5)	FRAME ELEVATION TYPE	Threshold: Aluminum (1)	Floor Tile Threshold (2)	Hardware Set	Fire Label Designation	GENERAL NOTES
01	3'-0"X6'-8"X1 3/4"	D-1							7					5	FM1	1				
01A	3'-0"X6'-8"X1 3/4"	B	1												FM1	1				
02	3'-0"X6'-8"X1 3/4"	C			3						2				FM1			20MIN.		RATED UNIT ENTRY DOOR
03	2'-10"X6'-8"X1 3/8"	A				4					2				FM1		2			
04	2'-10"X6'-8"X1 3/8"	A				4					2				FM1					
05	2'-10"X6'-8"X1 3/8"	A				4					2				FM1					
06	2'-10"X6'-8"X1 3/8"	A				4					2				FM1					
07	2'-10"X6'-8"X1 3/8"	A				4					2				FM1					
08	2'-10"X6'-8"X1 3/8"	A				4					2				FM1					
09	3'-0"XT'-0"X1 3/4"	E		2						1					FM4	1				
010	3'-0"XT'-0"X1 3/4"	E		2						1					FM4	1				
011	3'-0"XT'-0"X1 3/4"	E		2						1					FM3	1				
012	3'-0"XT'-0"X1 3/4"	E		2						1					FM3	1				
013	3'-0"X6'-8"X1 3/4"	F					5				2				FM3	1		1.5 HR.		B LABEL
014	3'-0"XT'-0"X1 3/4"	E		2						1					FM1	1				
015	3'-0"X6'-8"X1 3/4"	F					5				2				FM1	1		1.5 HR.		B LABEL
016	3'-0"XT'-0"X1 3/4"	E		2						1					FM2	1				
017	3'-0"XT'-0"X1 3/4"	E		2						1					FM2	1				
018	3'-0"X6'-8"X1 3/4"	C			3						2				FM1	1		1.5 HR.		B LABEL
019	(2) 3'-0"XT'-0"X1 3/4"	E		2						1					FM1	1		45 MIN.		C LABEL
020	(2) 3'-0"XT'-0"X1 3/4"	E		2						1					FM1	1				
021	(2) 3'-0"XT'-0"X1 3/4"	E		2						1					FM1	1				
022	(2) 3'-0"XT'-0"X1 3/4"	E		2						1					FM1					
023	3'-0"X6'-8"X1 3/4"	B	1										3		FM1					DOOR BY COOLER MANUFR.
024	(2) 3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
025	3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
026	3'-0"X6'-8"X1 3/4"	C			3						2				FM1		2			
027	3'-0"X6'-8"X1 3/4"	C			3						2				FM1		2			
028	(2) 3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
029	(2) 3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
030	(2) 3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
031	(2) 2'-0"X6'-8"X1 3/8"	C			3						2				FM1					
032	(2) 2'-0"X6'-8"X1 3/8"	C			3						2				FM1					
033	3'-0"X6'-8"X1 3/4"	C			3						2				FM1					
034	4'-0"X6'-8"X1 3/8"	H				4								5						
035	4'-0"X6'-8"X1 3/8"	H				4								5						
036	3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
037	(2) 3'-0"X6'-8"X1 3/4"	C			3						2				FM1			1.5 HR.		B LABEL
038	3'-0"X6'-8"X1 3/4"	D						6			2				FM1					
039	3'-0"X6'-8"X1 3/4"	D						6			2				FM1	1		45 MIN.		C LABEL
040	3'-0"X6'-8"X1 3/4"	C			3						2				FM1	1		1.5 HR.		B LABEL
041	3'-0"X6'-8"X1 3/4"	F					5				2				FM1	1		1.5 HR.		B LABEL
042	3'-0"X6'-8"X1 3/4"	C			3						2				FM1	1		1.5 HR.		B LABEL
043	3'-0"X6'-8"X1 3/4"	C			3						2				FM1	1		45 MIN.		C LABEL
044	3'-0"X6'-8"X1 3/4"	C			3						2				FM1	1		1.5 HR.		B LABEL
SECOND FLOOR DOORS																				
101	3'-0"X6'-8"X1 3/4"	C			3						2				FM1	1		1.5 HR.		B LABEL
102	3'-0"X6'-8"X1 3/4"	F					5				2				FM1	1		1.5 HR.		B LABEL
103	3'-0"X6'-8"X1 3/4"	F					5				2				FM1	1		1.5 HR.		B LABEL

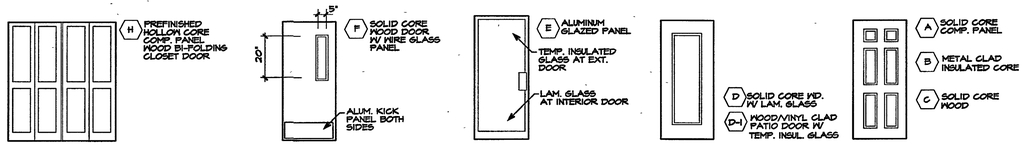


WINDOW ELEVATION TYPES

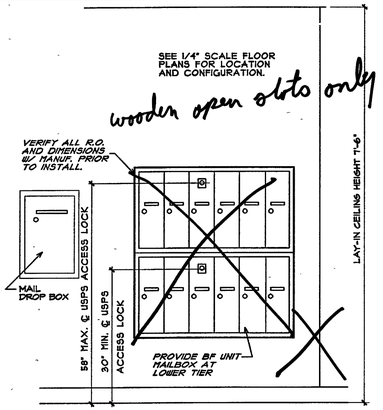
VINYL CLAD WOOD WINDOW SASH UNITS



DOOR FRAME ELEVATION TYPES

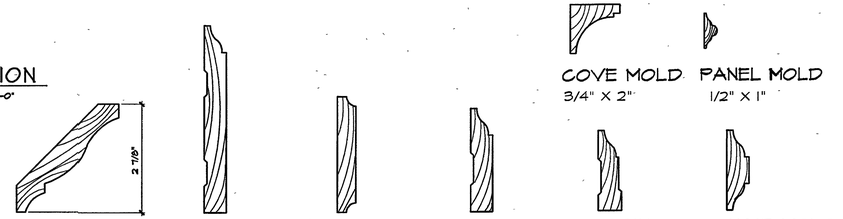


DOOR ELEVATION TYPES



1 / A-11 MAIL STATION ELEVATION

SCALE 3/4" = 1'-0"



WOOD TRIM

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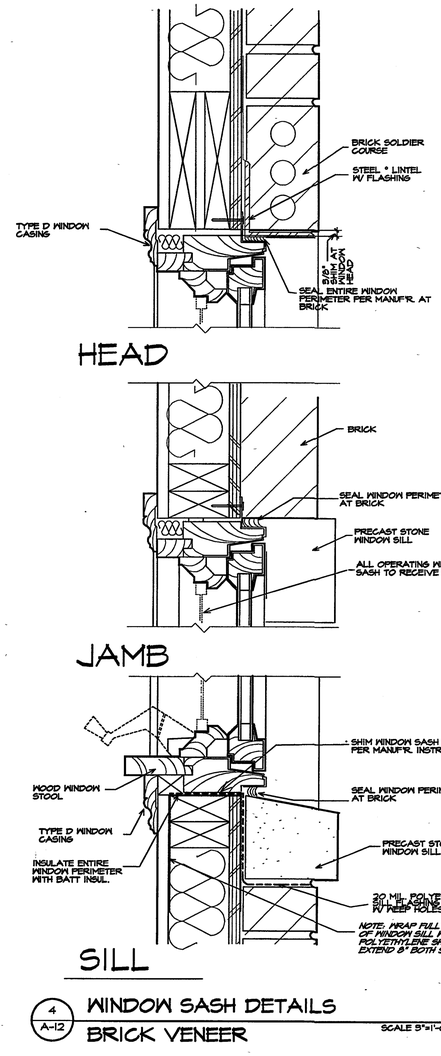
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Project Number
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Sheet Number:
A-11

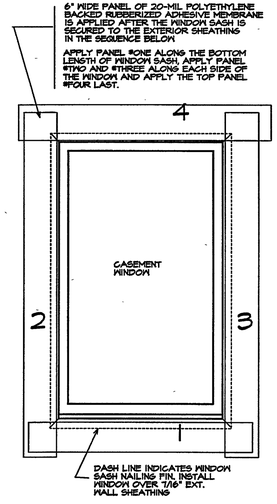
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4 / A-12 WINDOW SASH DETAILS BRICK VENEER

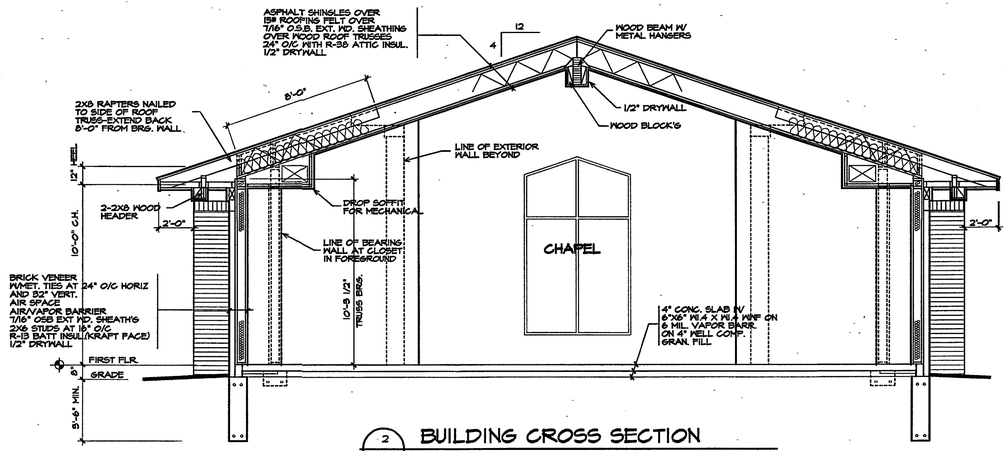
SCALE 3"=1'-0"



PLACE 6 MIL POLYETHYLENE SHEET MEMBRANE OVER WINDOW SILL PRIOR TO INSTALLING WINDOW UNIT IN FRAME WALL

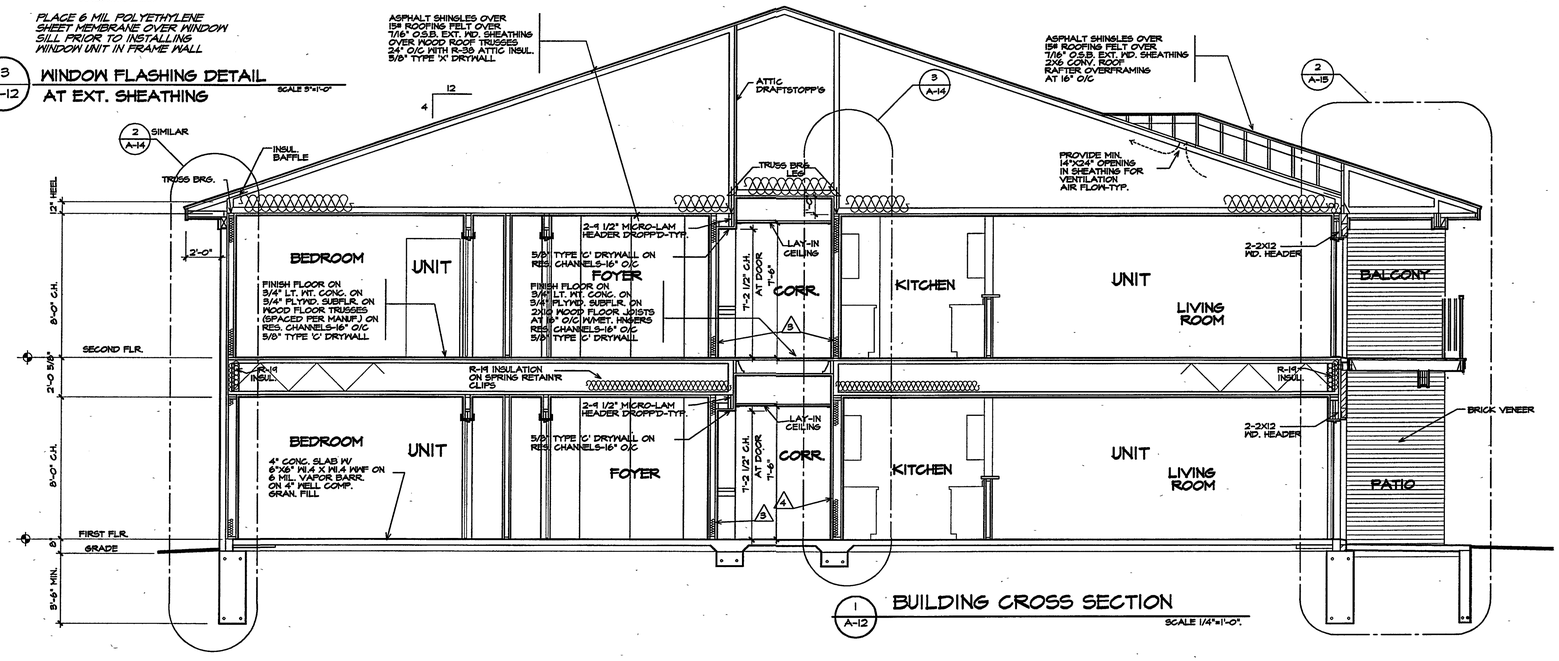
3 / A-12 WINDOW FLASHING DETAIL AT EXT. SHEATHING

SCALE 3"=1'-0"



2 / A-12 BUILDING CROSS SECTION

SCALE 1/4"=1'-0"



1 / A-12 BUILDING CROSS SECTION

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

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Key Plan: NO SCALE

Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE

NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal.

Date	Issued For
10/22/08	BID PACK NO. 2

Drawn:	WC
Checked:	SJF
Approved:	JPA

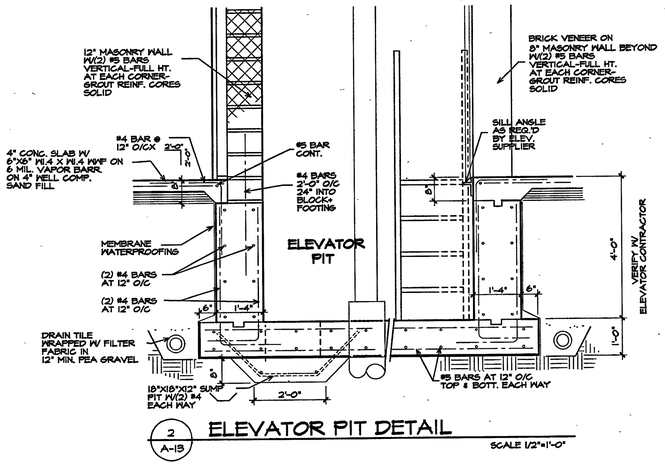
Sheet Title.
BUILDING SECTION AND DETAILS

Project Number: 07-140

Sheet Number: A-12

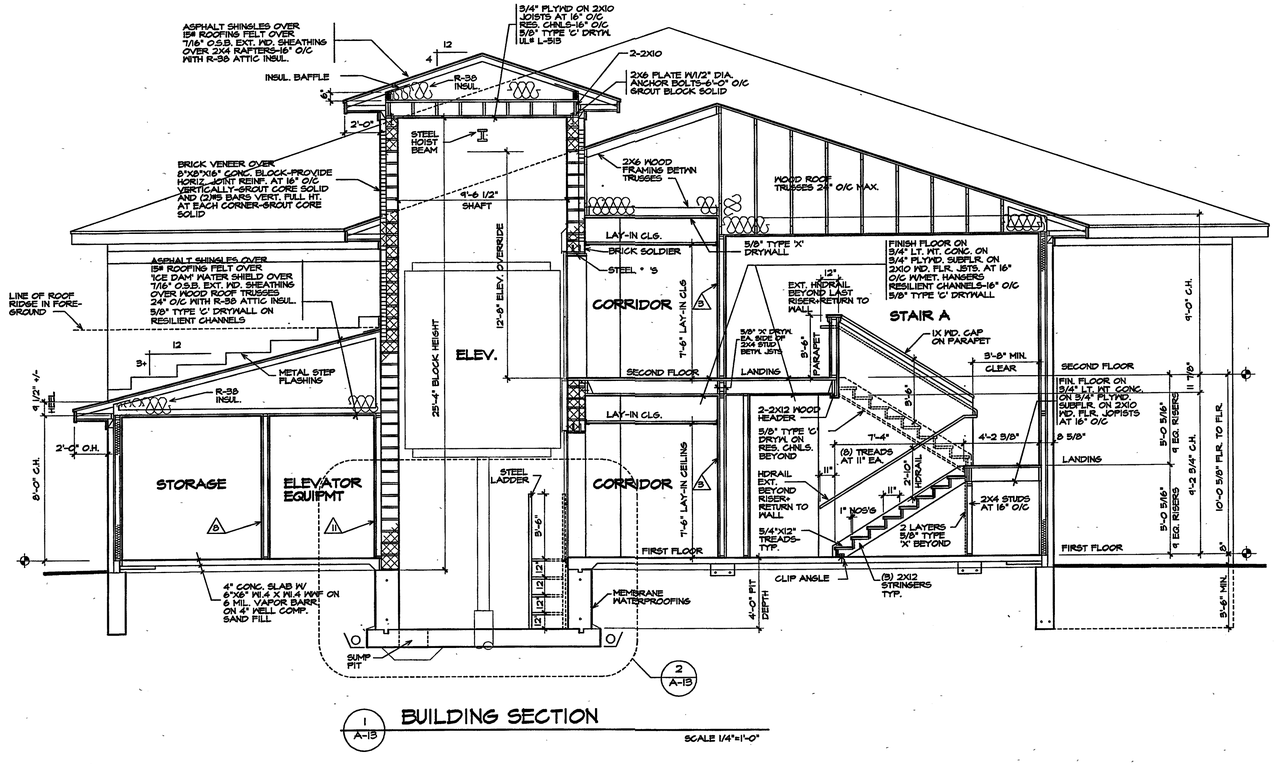
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2 A-13 ELEVATOR PIT DETAIL

SCALE 1/2"=1'-0"



1 A-13 BUILDING SECTION

SCALE 1/4"=1'-0"

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Approved.	JPA

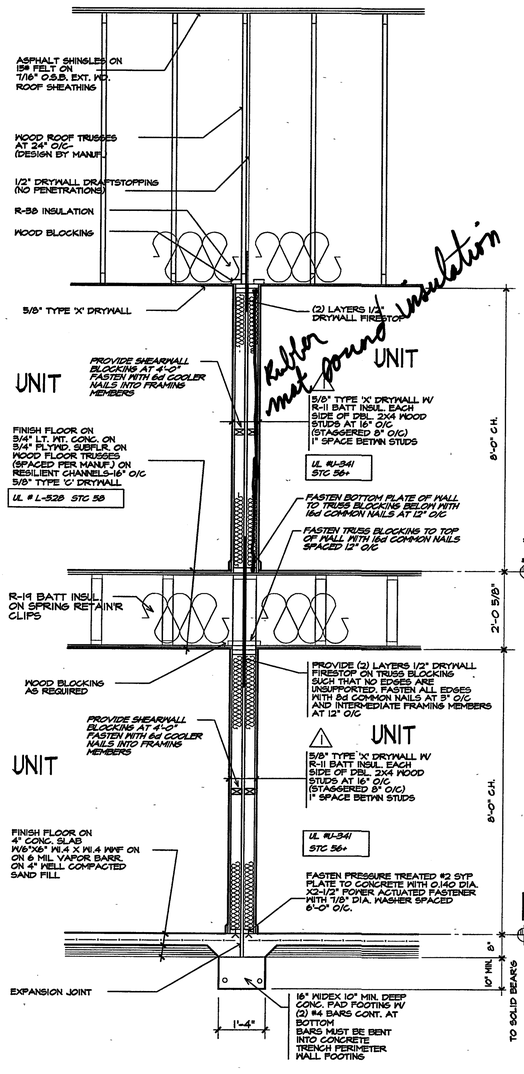
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ELEVATOR SECTION AND DETAILS

Project Number.
07-140

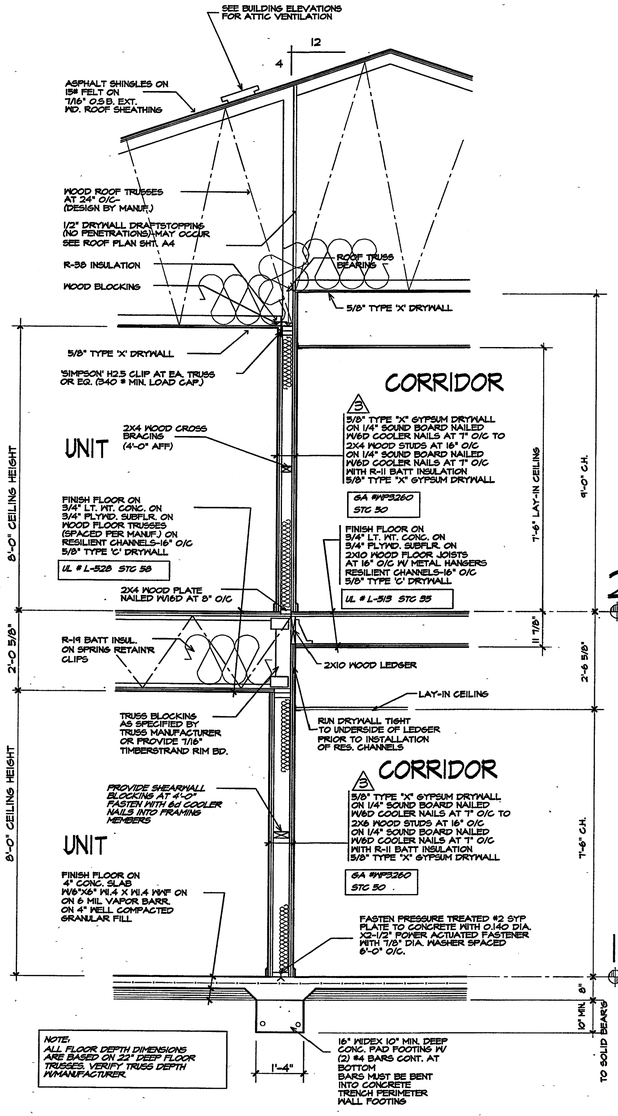
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A-13

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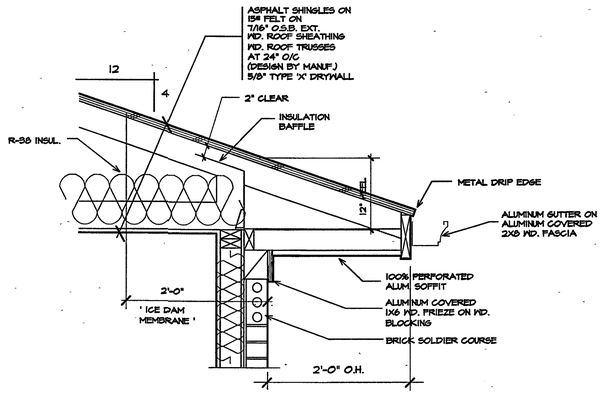
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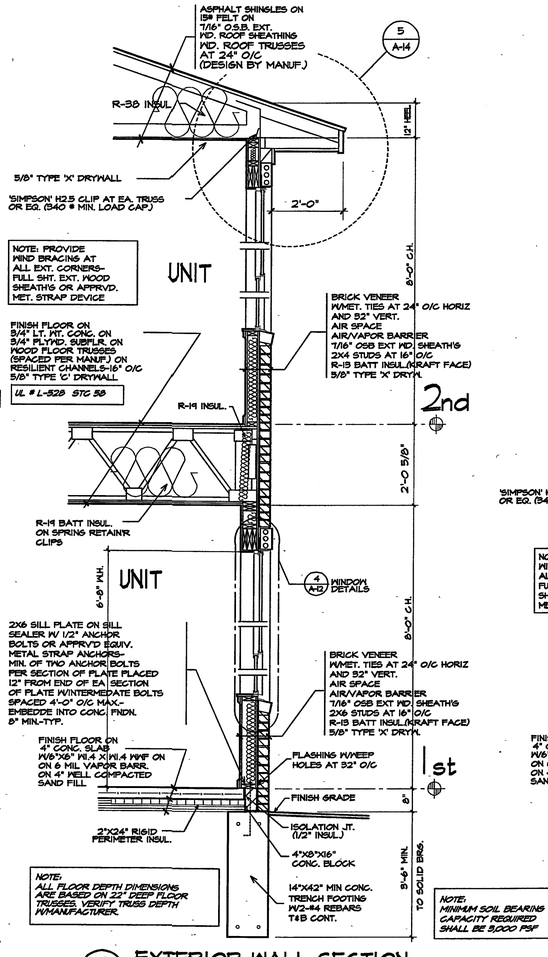
4 / A-14 FIRE PARTITION WALL
NON-BEARING WALL
SCALE 1/2"=1'-0"



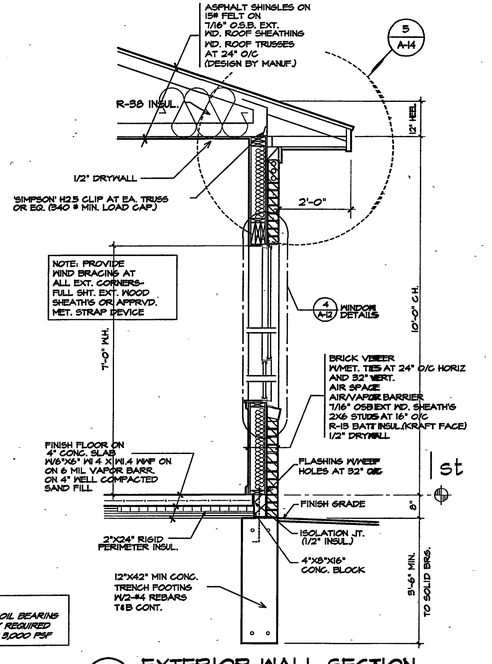
3 / A-14 FIRE PARTITION WALL
BEARING WALL AT CORRIDOR
SCALE 1/2"=1'-0"



5 / A-14 EAVE DETAIL
SCALE 1"=1'-0"



2 / A-14 EXTERIOR WALL SECTION
SCALE 1/2"=1'-0"



1 / A-14 EXTERIOR WALL SECTION
SCALE 1/2"=1'-0"

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Key Plan: NO SCALE

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NOVI, MICHIGAN

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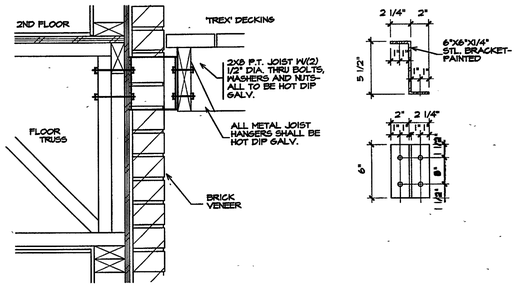
Sheet Title:
WALL SECTIONS

Project Number: 07-140

Sheet Number: A-14

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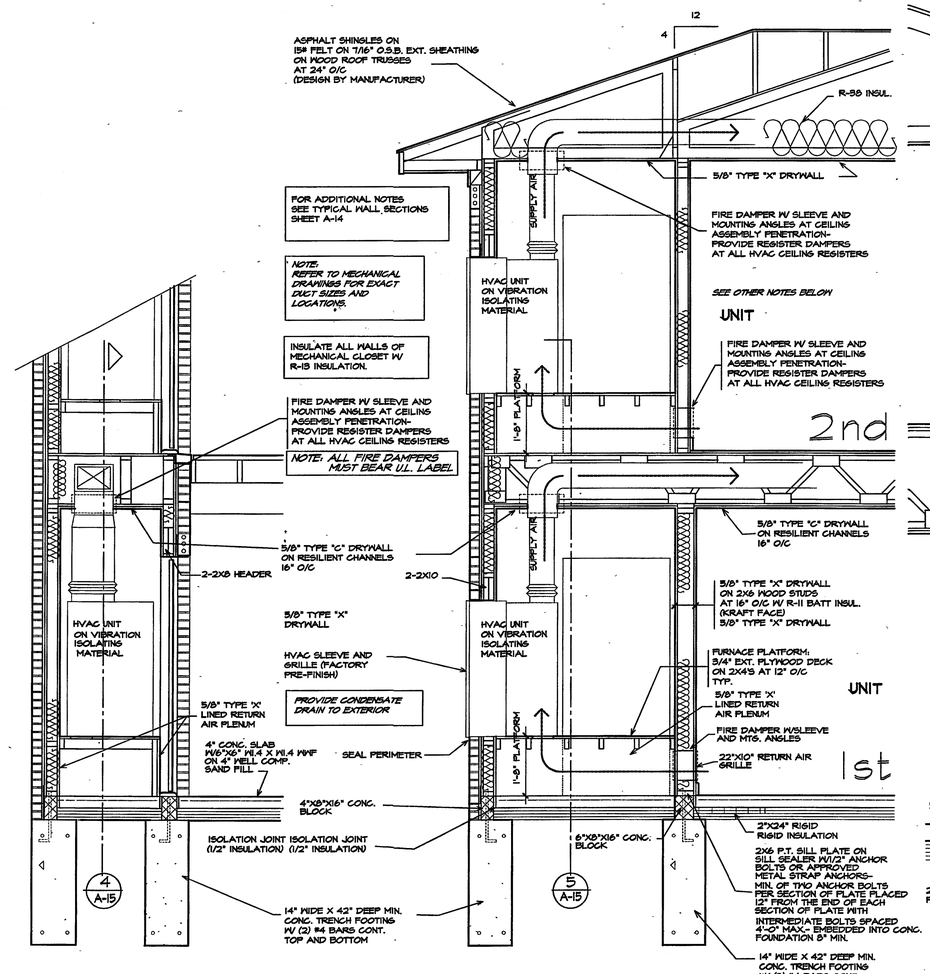
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3 / A-15 BALCONY BRACKET DETAILS

PROVIDE BRACKET AT EACH FLOOR TRUSS LOCATION.

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

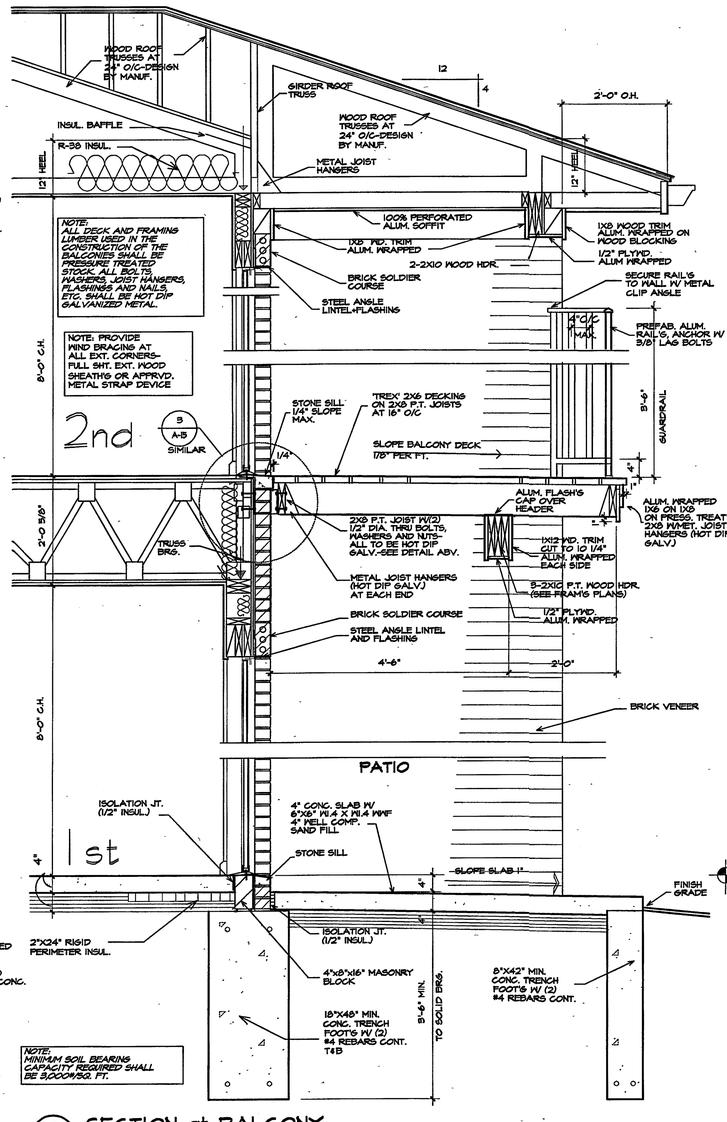


5 / A-15 HVAC CLOSET DETAIL

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

4 / A-15 SECTION at HVAC CLOSET

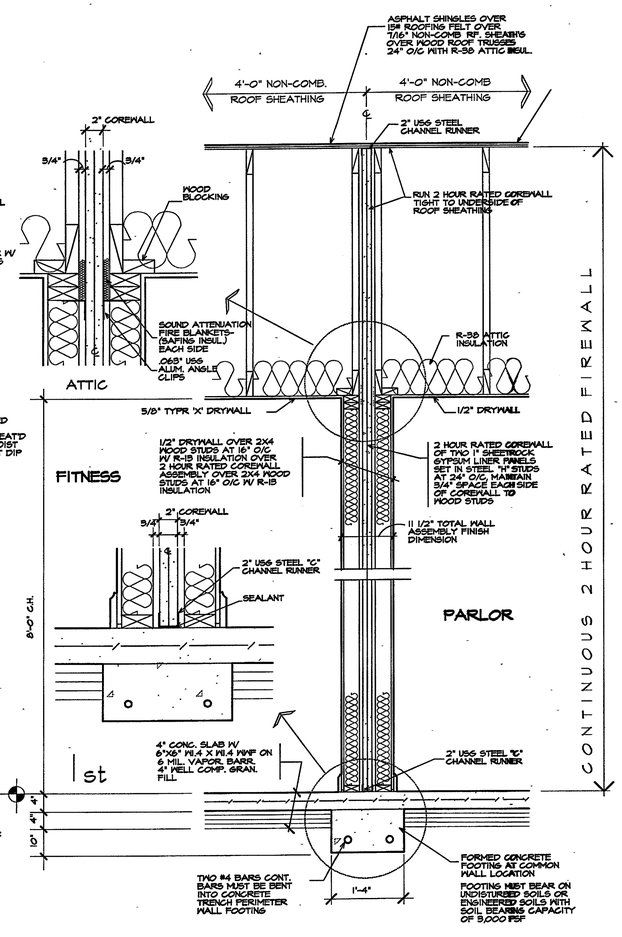
SCALE: 1/2"=1'-0"



2 / A-15 SECTION at BALCONY

FOR ADDITIONAL NOTES AND DIMENSIONS SEE SECTIONS SHEET A-14

SCALE 3/4"=1'-0"



1 / A-15 FIREWALL SECTION

FIRE RATING 2 HOUR - UL U-336

3/4"=1'-0"

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NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

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NOVI, MICHIGAN

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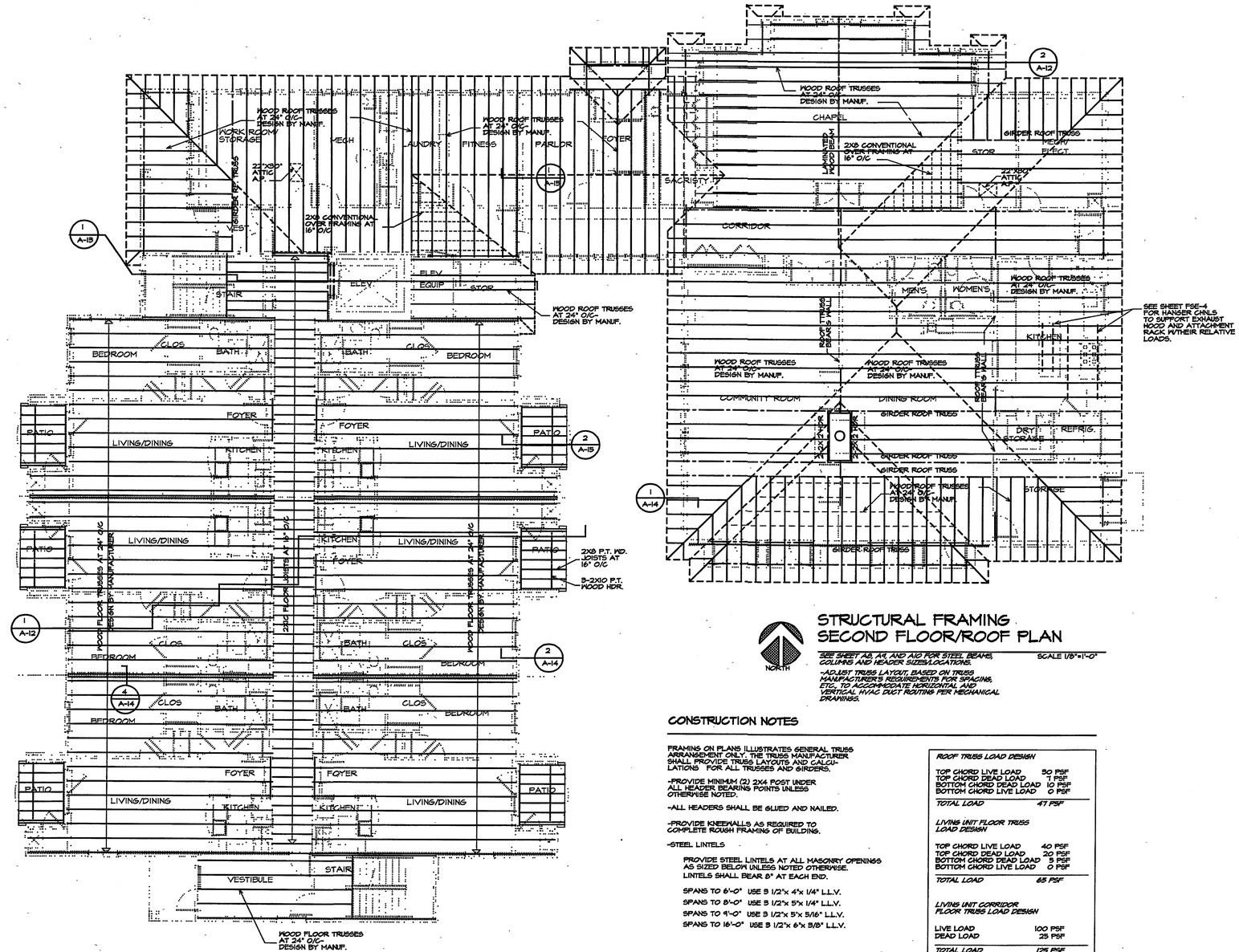
Sheet Title:
WALL SECTIONS

Project Number: 07-140

Sheet Number. A-15

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NORTH

STRUCTURAL FRAMING SECOND FLOOR/ROOF PLAN

SEE SHEET A8, A9, AND A10 FOR STEEL BEAMS, COLUMNS AND HEADER SIZES/LOCATIONS.

-ADJUST TRUSS LAYOUT, BASED ON TRUSS MANUFACTURER'S REQUIREMENTS FOR SPACING, ETC., TO ACCOMMODATE HORIZONTAL AND VERTICAL HVAC DUCT ROUTING PER MECHANICAL DRAWINGS.

SCALE 1/8"=1'-0"

CONSTRUCTION NOTES

FRAMING ON PLANS ILLUSTRATES GENERAL TRUSS ARRANGEMENT ONLY. THE TRUSS MANUFACTURER SHALL PROVIDE TRUSS LAYOUTS AND CALCULATIONS FOR ALL TRUSSES AND GIRDERS.

-PROVIDE MINIMUM (2) 2X4 POST UNDER ALL HEADER BEARING POINTS UNLESS OTHERWISE NOTED.

-ALL HEADERS SHALL BE GLUED AND NAILED.

-PROVIDE KNEEWALLS AS REQUIRED TO COMPLETE ROUGH FRAMING OF BUILDING.

-STEEL LINTELS

PROVIDE STEEL LINTELS AT ALL MASONRY OPENINGS AS SIZED BELOW UNLESS NOTED OTHERWISE. LINTELS SHALL BEAR 8" AT EACH END.

SPANS TO 6'-0" USE 3 1/2"x 4"x 1/4" L.L.V.
SPANS TO 8'-0" USE 3 1/2"x 5"x 1/4" L.L.V.
SPANS TO 9'-0" USE 3 1/2"x 5"x 5/16" L.L.V.
SPANS TO 16'-0" USE 3 1/2"x 6"x 5/8" L.L.V.

ROOF TRUSS LOAD DESIGN

TOP CHORD LIVE LOAD	30 PSF
TOP CHORD DEAD LOAD	7 PSF
BOTTOM CHORD DEAD LOAD	10 PSF
BOTTOM CHORD LIVE LOAD	0 PSF
TOTAL LOAD	*47 PSF*

LIVING UNIT FLOOR TRUSS LOAD DESIGN

TOP CHORD LIVE LOAD	40 PSF
TOP CHORD DEAD LOAD	20 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
BOTTOM CHORD LIVE LOAD	0 PSF
TOTAL LOAD	*65 PSF*

LIVING UNIT CORRIDOR FLOOR TRUSS LOAD DESIGN

LIVE LOAD	100 PSF
DEAD LOAD	25 PSF
TOTAL LOAD	*125 PSF*

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Key Plan: NO SCALE

Project Name and Client.
NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
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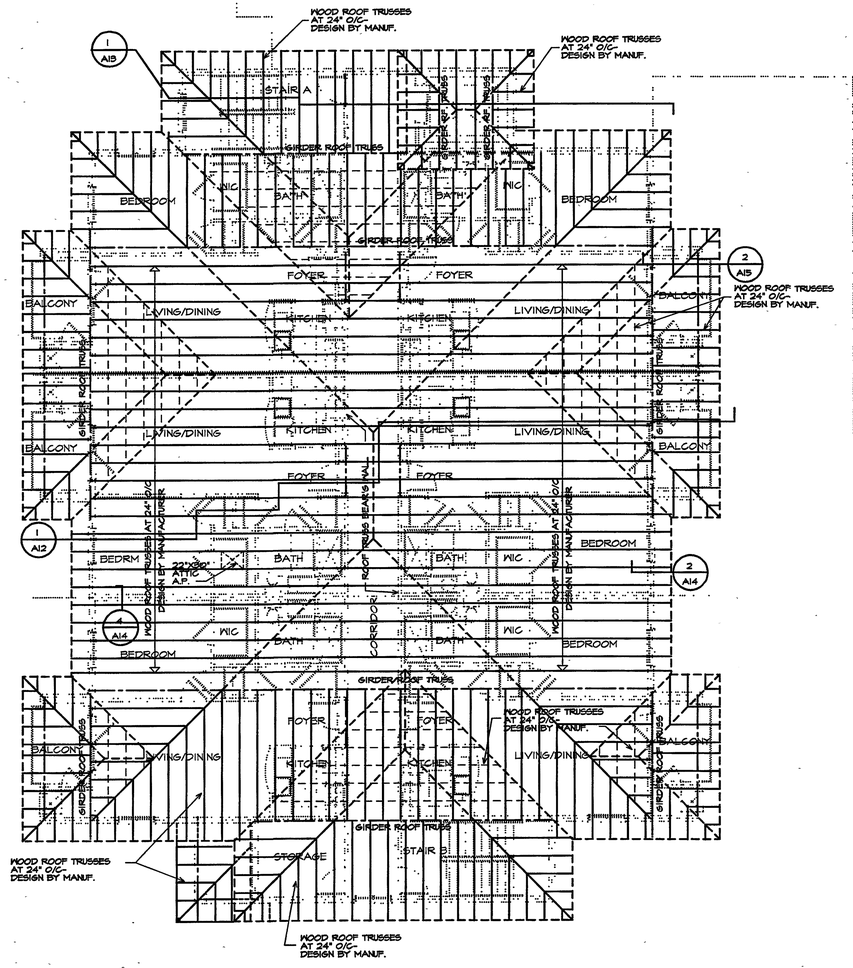
Sheet Title.
STRUCTURAL FRAMING SECOND FLOOR AND LOW ROOF PLAN

Project Number: 07-140

Sheet Number. A-16

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NORTH

STRUCTURAL FRAMING SECOND FLOOR ROOF PLAN

SEE SHEET A6, A9, AND A10 FOR STEEL BEAMS, COLUMNS AND HEADER SIZES/LOCATIONS.

SCALE 1/8"=1'-0"

-ADJUST TRUSS LAYOUT, BASED ON TRUSS MANUFACTURERS REQUIREMENTS FOR SPACING, ETC., TO ACCOMMODATE HORIZONTAL AND VERTICAL HVAC DUCT ROUTING PER MECHANICAL DRAWINGS.

CONSTRUCTION NOTES

FRAMING ON PLANS ILLUSTRATES GENERAL TRUSS ARRANGEMENT ONLY. THE TRUSS MANUFACTURER SHALL PROVIDE TRUSS LAYOUTS AND CALCULATIONS FOR ALL TRUSSES AND GIRDERS.

-PROVIDE MINIMUM (2) 2X4 POST UNDER ALL HEADER BEARING POINTS UNLESS OTHERWISE NOTED.

-ALL HEADERS SHALL BE GLUED AND NAILED.

-PROVIDE KNEEWALLS AS REQUIRED TO COMPLETE ROUGH FRAMING OF BUILDING.

-STEEL LINTELS

PROVIDE STEEL LINTELS AT ALL MASONRY OPENINGS AS SIZED BELOW UNLESS NOTED OTHERWISE. LINTELS SHALL BEAR 8" AT EACH END.

SPANS TO 6'-0" USE 3 1/2"x 4"x 1/4" L.L.V.
SPANS TO 8'-0" USE 3 1/2"x 5"x 1/4" L.L.V.
SPANS TO 9'-0" USE 3 1/2"x 5"x 5/16" L.L.V.
SPANS TO 16'-0" USE 3 1/2"x 6"x 5/8" L.L.V.

ROOF TRUSS LOAD DESIGN	
TOP CHORD LIVE LOAD	50 PSF
TOP CHORD DEAD LOAD	7 PSF
BOTTOM CHORD DEAD LOAD	10 PSF
BOTTOM CHORD LIVE LOAD	0 PSF
TOTAL LOAD	*67 PSF*

LIVING UNIT FLOOR TRUSS LOAD DESIGN	
TOP CHORD LIVE LOAD	40 PSF
TOP CHORD DEAD LOAD	20 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
BOTTOM CHORD LIVE LOAD	0 PSF
TOTAL LOAD	*65 PSF*

LIVING UNIT CORRIDOR FLOOR TRUSS LOAD DESIGN	
LIVE LOAD	100 PSF
DEAD LOAD	25 PSF
TOTAL LOAD	*125 PSF*

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Key Plan: NO SCALE

Project Name and Client:
NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

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Date	Issued For
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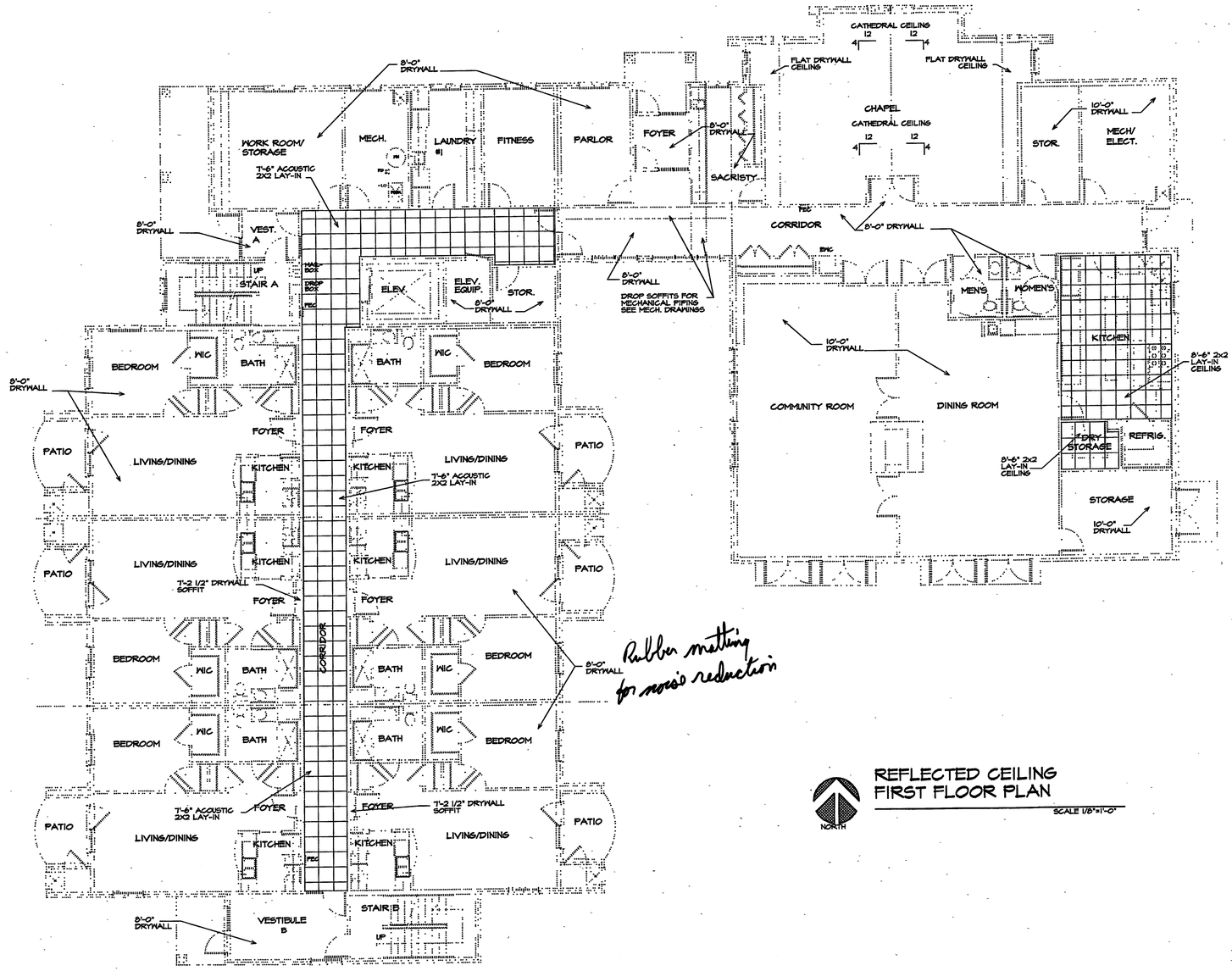
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STRUCTURAL FRAMING SECOND FLOOR ROOF PLAN

Project Number: 07-140

Sheet Number: A-17

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NORTH

REFLECTED CEILING FIRST FLOOR PLAN

SCALE 1/8"=1'-0"

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Project Name and Client.

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NOVI, MICHIGAN

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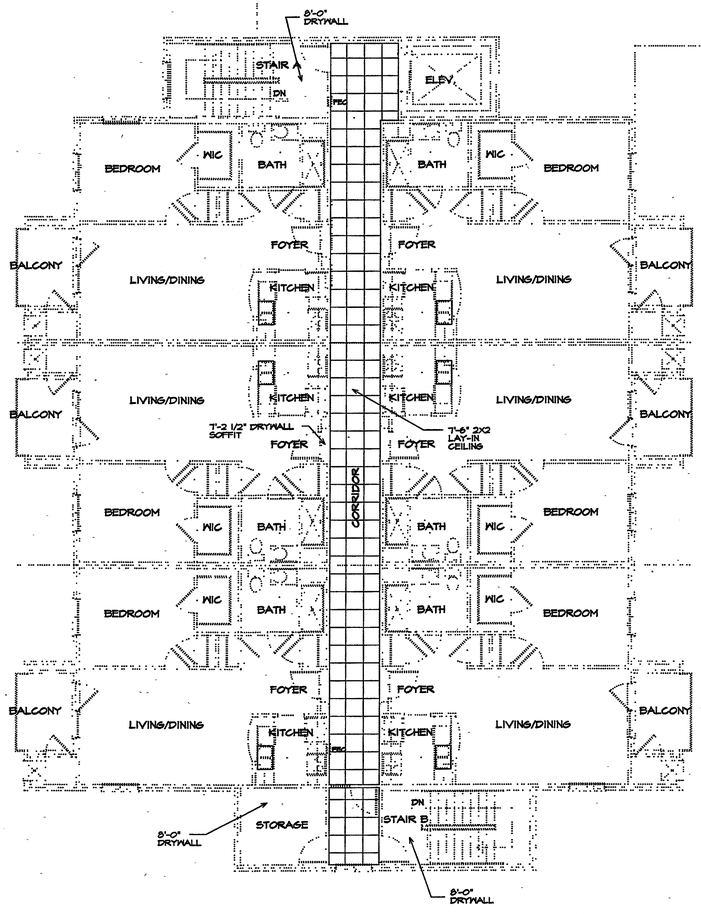
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Project Number: 07-140

Sheet Number: A-18

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NORTH

REFLECTED CEILING SECOND FLOOR PLAN

SCALE 1/8"=1'-0"

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Key Plan: NO SCALE

N

Project Name and Client.

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
10/22/08	BID PACK NO. 2

Drawn:	WC
Checked.	SJF
Approved:	JPA

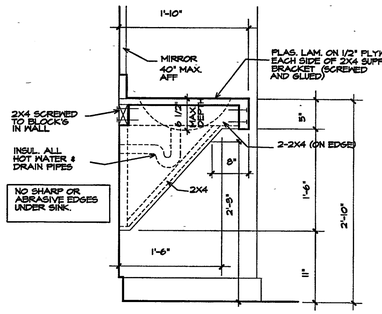
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Project Number.
07-140

Sheet Number:
A-19

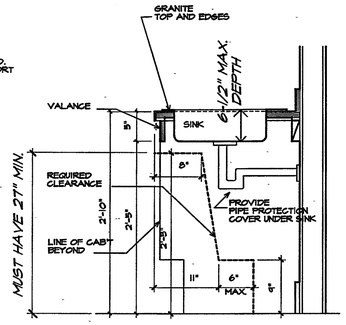
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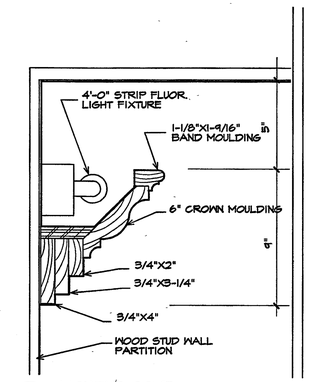
14 A-20 SECTION AT LAV. TOP

SCALE 1"=1'-0"



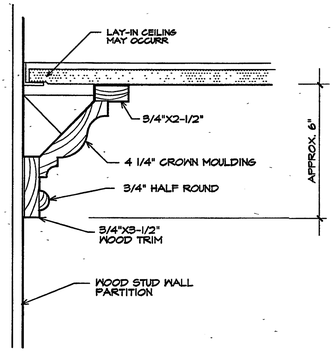
13 A-20 OPEN SPACE AT SINK DETAIL

SCALE:1"=1'-0"



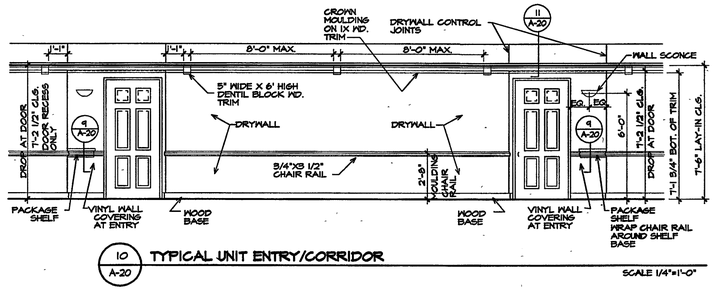
12 A-20 LIGHTING COVE DETAIL

SCALE 3"=1'-0"



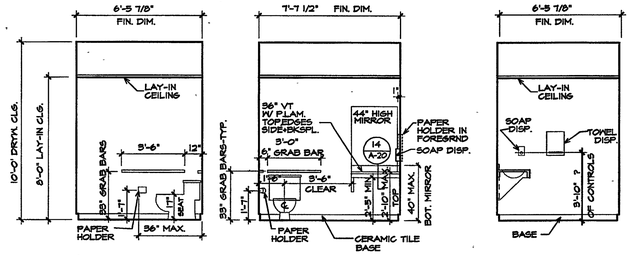
11 A-20 CEILING COVE TRIM DETAIL

SCALE 3"=1'-0"



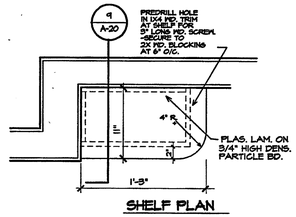
10 A-20 TYPICAL UNIT ENTRY/CORRIDOR

SCALE 1/4"=1'-0"

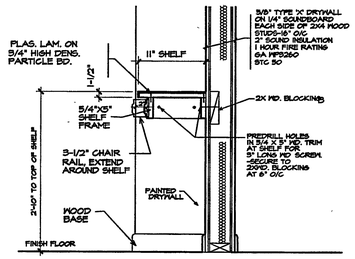


8 A-20 MEN'S / WOMEN'S LAVATORY BARRIER FREE

SCALE 1/4"=1'-0"

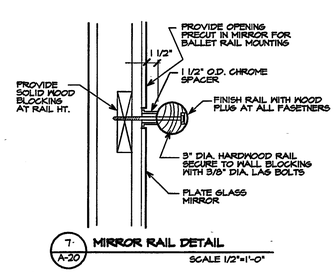


SHELF PLAN



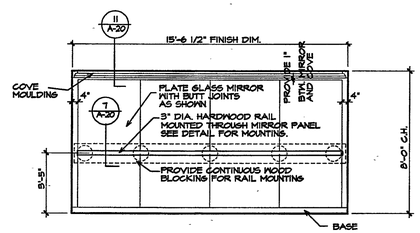
9 A-20 SECTION THRU PACKAGE SHELF AT UNIT ENTRY DOOR

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



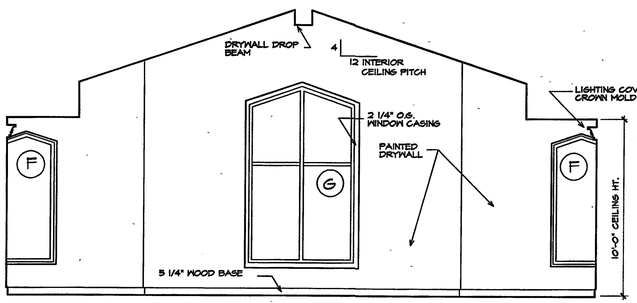
7 A-20 MIRROR RAIL DETAIL

SCALE 1/2"=1'-0"



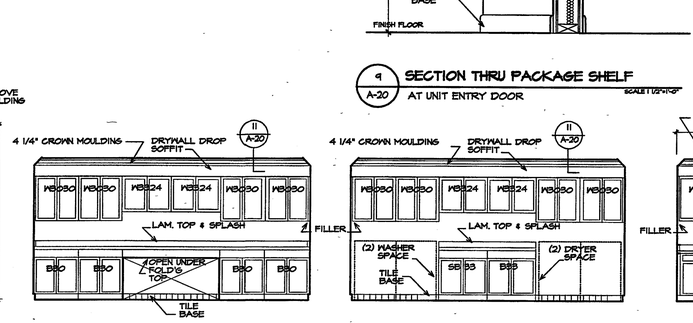
6 A-20 FITNESS ROOM ELEVATION

1/4"=1'-0"



17 A-20 CHAPEL ELEVATION

1/4"=1'-0"

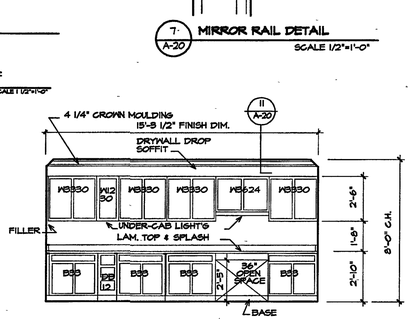


16 A-20 LAUNDRY ROOM ELEVATION

1/4"=1'-0"

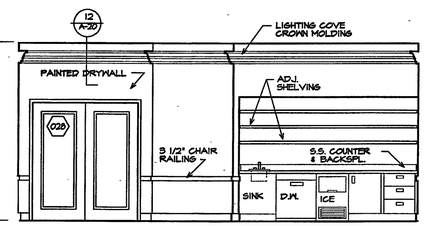
15 A-20 LAUNDRY ROOM ELEVATION

1/4"=1'-0"



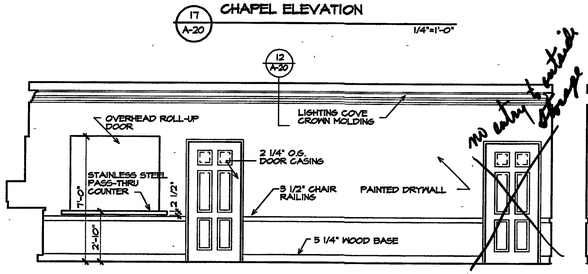
5 A-20 SACRISTY ELEVATION

1/4"=1'-0"



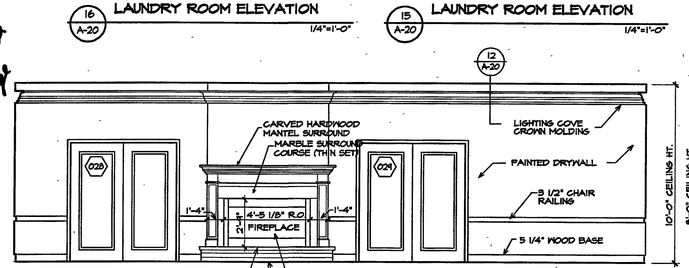
4 A-20 DINING ROOM SERVING ELEVATION

1/4"=1'-0"



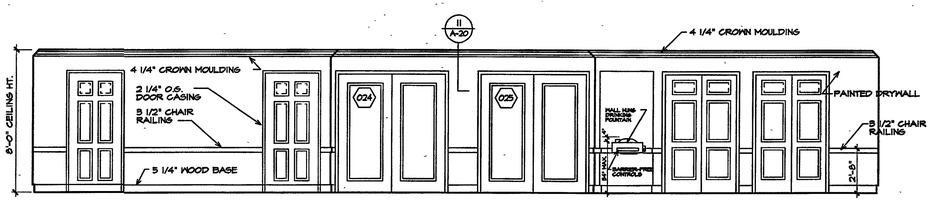
3 A-20 DINING ROOM ELEVATION

1/4"=1'-0"



2 A-20 DINING ROOM ELEVATION

1/4"=1'-0"



1 A-20 CORRIDOR ELEVATION

1/4"=1'-0"

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Key Plan: NO SCALE

Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
10/22/08	BID PACK NO. 2

Drawn: WC
Checked: SJF
Approved: JPA

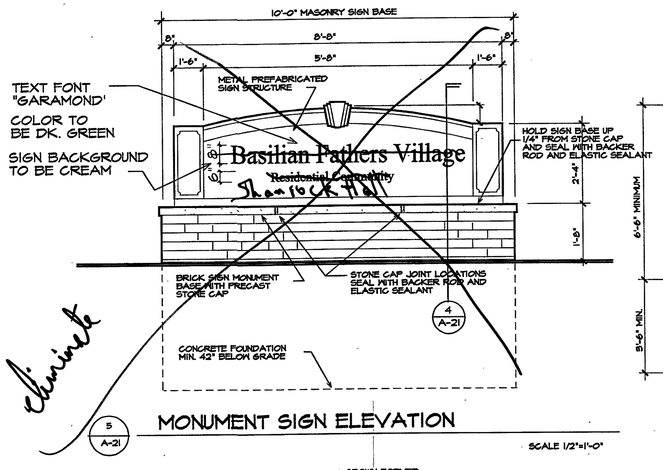
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INTERIOR ELEVATIONS AND DETAILS

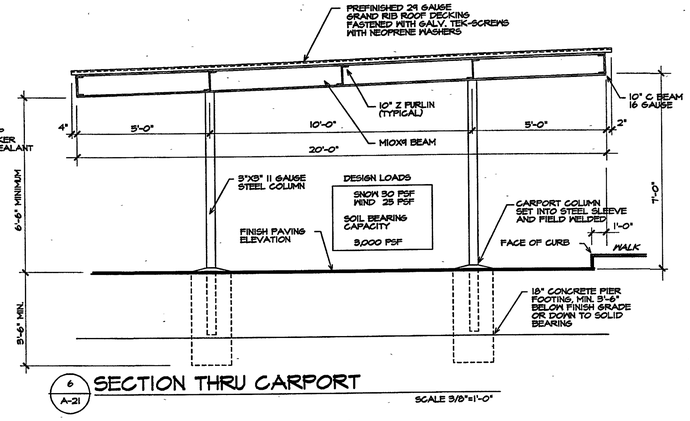
Project Number: 07-140

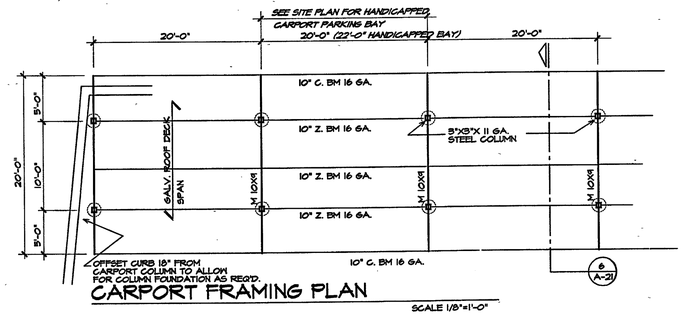
Sheet Number: A-20

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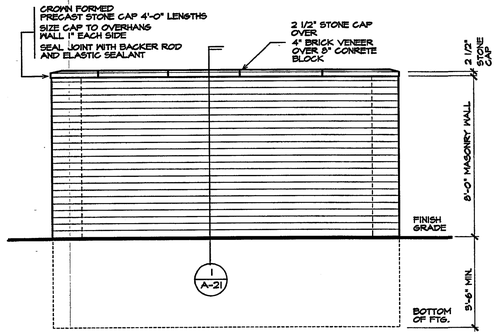






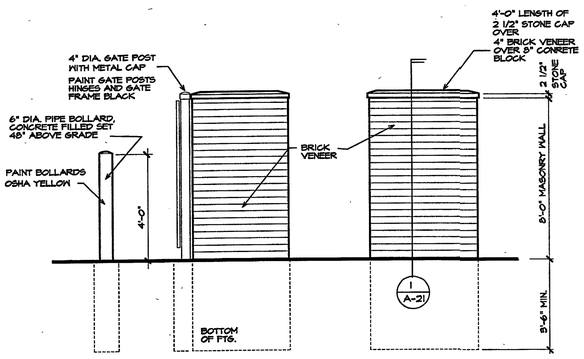
5 A-21 CARPORT STRUCTURE DETAILS

PREFABRICATED CARPORT STRUCTURE ASSEMBLED IN FIELD BY CARPORT STRUCTURES CORP. OR APPROVED EQUAL.



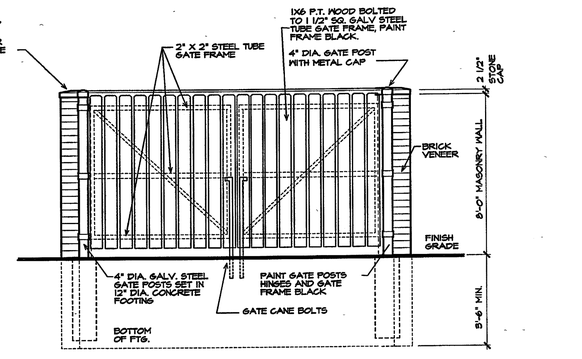
REFUSE ENCLOSURE REAR ELEVATION

SCALE 3/8" = 1'-0"



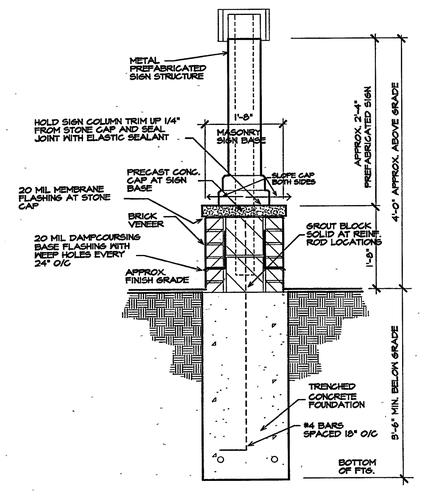
REFUSE ENCLOSURE SIDE ELEVATION

SCALE 3/8" = 1'-0"

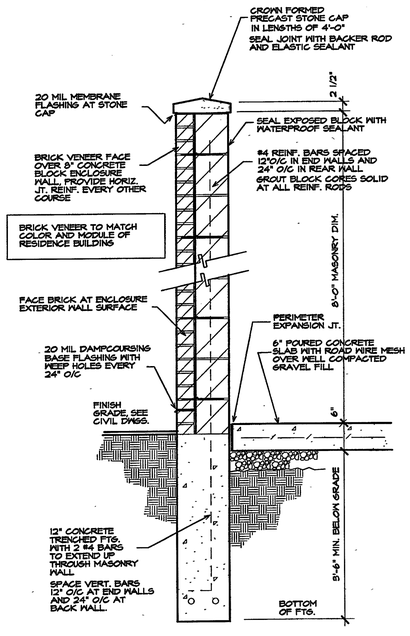


REFUSE ENCLOSURE FRONT ELEVATION

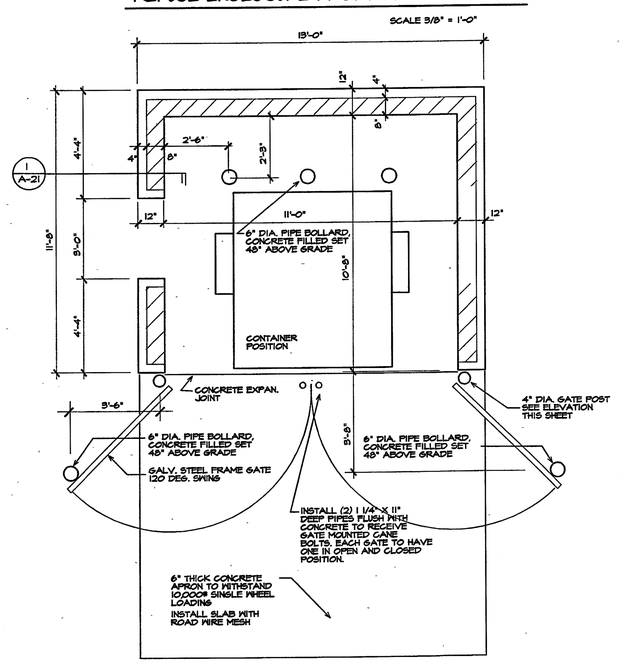
SCALE 3/8" = 1'-0"



4 A-21 SECTION THRU MONUMENT SIGN



1 A-21 SECTION THRU ENCLOSURE WALL



REFUSE CONTAINER ENCLOSURE PLAN

SCALE 3/8" = 1'-0"

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Key Plan: NO SCALE

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Project Name and Client.

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NOVI, MICHIGAN

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NOVI, MICHIGAN

Seal:

Date	Issued For
10/22/08	BID PACK NO. 2

Drawn:	WC
Checked:	SJF
Approved:	JPA

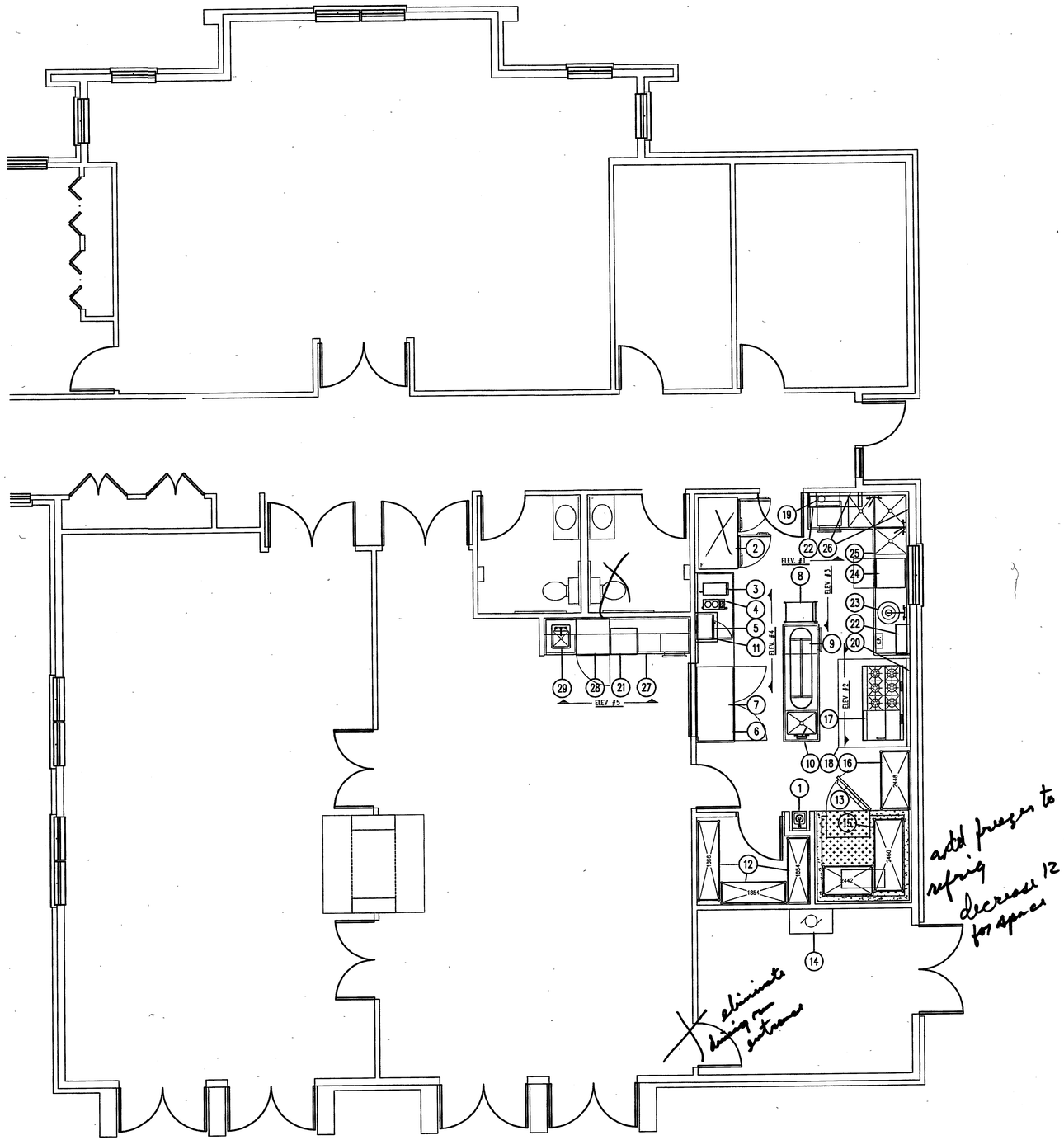
Sheet Title:
TRASH ENCLOSURE MONUMENT SIGN AND CARPORT DETAILS

Project Number: 07-140

Sheet Number: **A-21**

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ITEM	QTY	DESCRIPTION	DESCRIPTION
1	1	ST. ST. HAND SINK	ADVANCE TABCO
2	1	TWO SECTION REACH-IN FREEZER	VICTORY
3	1	ICED TEA MAKER	BY OPERATOR "NIC"
4	1	COFFEE MAKER	BY OPERATOR "NIC"
5	1	MICROWAVE OVEN	PANASONIC
6	1	ST. ST. WORK COUNTER	ST. ST. FABRICATOR
7	1	UNDERCOUNTER REFRIGERATOR	TRUE
8	1	PORTABLE THREE TIER CART	LAKESIDE
9	1	CEILING-HUNG UTENSIL RACK	ADVANCE TABCO
10	1	ST. ST. WORK TABLE W/ SINK	ST. ST. FABRICATOR
11	1	ST. ST. MICROWAVE SHELF	ADVANCE TABCO
12	1 LOT	DRY STORAGE SHELVING	METRO
13	1	WALK-IN REFRIGERATOR	KOLPAK
14	1	REFRIGERATION SYSTEM	KOLPAK
15	1 LOT	PORTABLE REFRIGERATOR SHELVING	METRO
16	1 LOT	STORAGE SHELVING	METRO
17	1	SIX BURNER/GRIDDLE W/ OVEN	SOUTHBEND
18	1 LOT	ST. ST. EXHAUST HOOD W/ SIDE PANELS	VENT TECH/ACCUREX
19	1 SYS	FIRE SYSTEM	ANSUL
20	1 LOT	ST. ST. WALL PANELING	ST. ST. FABRICATOR
21	1	UNDERCOUNTER ICE MAKER	MANITOWOC
22	1 LOT	WIRE WALL SHELVING	METRO
23	1	3 H.P. DISPOSER W/ PRE-RINSE	ISE
24	1	UNDERCOUNTER DISHWASHER	HOBART
25	1	ST. ST. THREE COMPARTMENT SINKS & TABLE	ST. ST. FABRICATOR
26	1 LOT	ST. ST. WALL PANELING	ST. ST. FABRICATOR
27	1	MILLWORK SERVICE COUNTER & SHELVES	MILLWORK FABRICATOR
28	1	UNDERCOUNTER REFRIGERATOR	TRUE
29	1	ST. ST. DROP-IN SINK	ELKAY
30	1 LOT	FIELD ERECTION LABOR	FSEC

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Key Plan: NO SCALE

Project Name and Client:
NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
10/22/08	BID PACK NO. 2

Drawn: EFW
Checked: SJF
Approved: JPA

Sheet Title:
FOOD SERVICE EQUIPMENT LAYOUT AND SCHEDULE

Project Number.
07-140

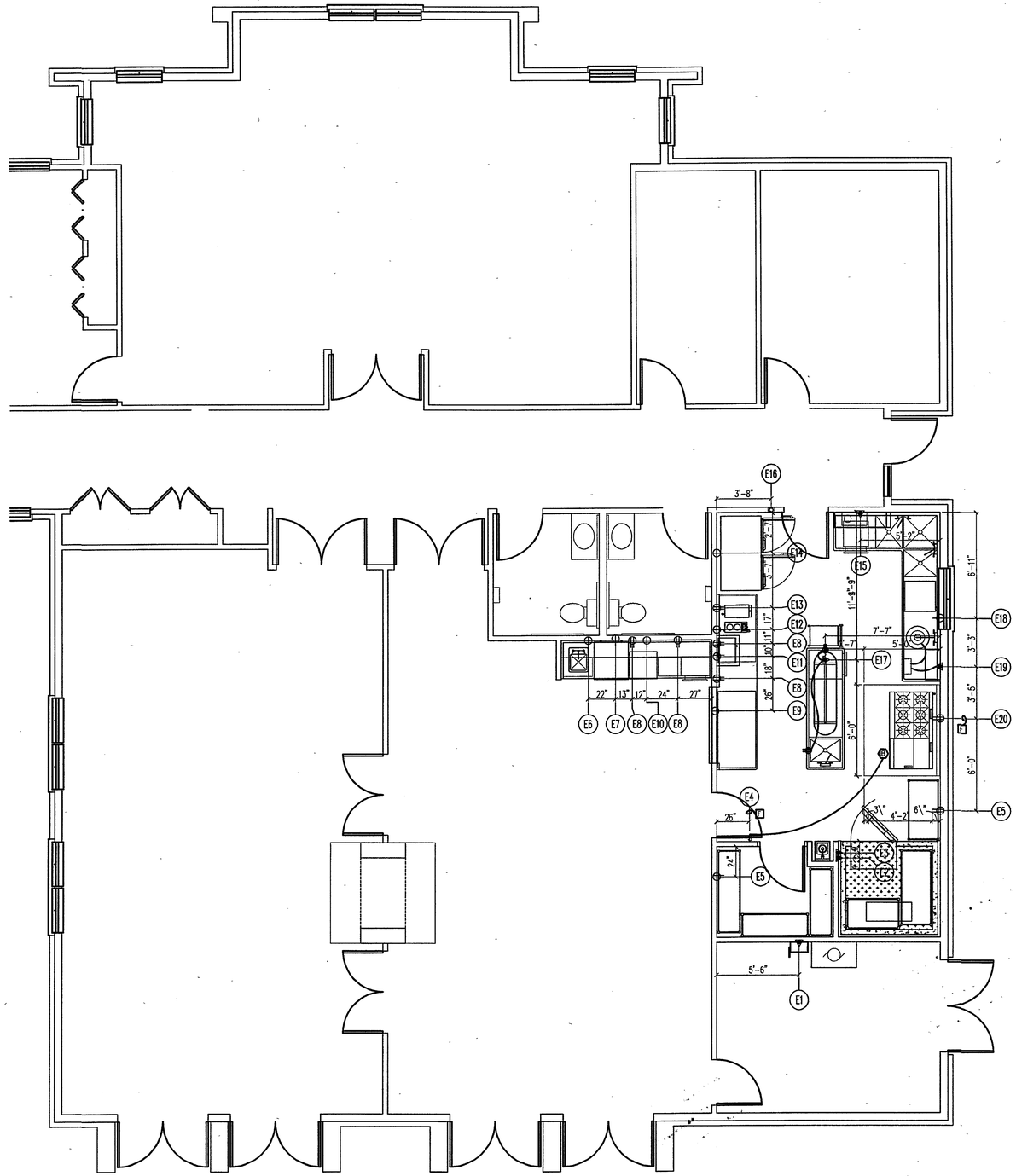
Sheet Number:
FSE-1

E. F. WHITNEY, INC.
Design Consultants of Food Service Facilities

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F:\Basilian Residence\Current\Food Service\FSE-2 FOOD SERVICE EQUIPMENT ELECTRICAL ROUGH-IN PLAN.dwg, 10/20/2008 3:57:12 PM, sflickema



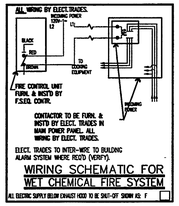
GENERAL NOTES for ROUGH-IN PLAN

FOOD SERVICE EQUIP. CONTR. IS TO ASSIST ELECTRICAL TRADES DURING PERIOD WHILE FINAL ROUGH-IN CONNECTIONS ARE BEING MADE. F.S.EQ. CONTR. SHALL FURNISH ALL NECESSARY WIRING DETAILS AS REQUIRED. F.S.EQ. CONTR. ALSO TO HAVE FIELD SUPERVISOR ON JOBSITE AT TIME OF FINAL CONN'S.

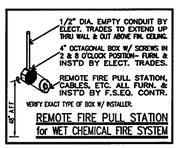
FOOD SERVICE EQUIP. CONTR. SHALL CONTACT ELECTRICAL ENGINEER BEFORE DRAWING ROUGH-IN PLAN TO VERIFY EXACT VOLTAGES AVAILABLE ON JOBSITE. THIS CHECK MUST BE MADE TO INSURE PROPER VOLTAGES TO ALL EQUIPMENT.

ELECTRICAL ROUGH-IN CODE

○	J.B.	JUNCTION BOX
▲	E.C.C.	ELECTRICAL CONDUIT CONNECTION
	H.P.	HORSE-POWER
	KW.	KILOWATT
	W.	WATT
	V.	VOLT
	1ph.	SINGLE PHASE
	3ph.	THREE PHASE
⇔	D.R.	DUPLEX RECEPTACLE
⇔	S.R.	SINGLE RECEPTACLE
⊖	D.F.R.	DUPLEX FLOOR RECEPTACLE
⊖	S.F.R.	SINGLE FLOOR RECEPTACLE
	F.D.S.	FUSED DISCONNECT SWITCH
	SW	SWITCH
	S.U.	STUB-UP
	D.F.A.	DOWN FROM ABOVE
	A.F.F.	ABOVE FINISH FLOOR
	B.T.C.	BRANCH TO CONNECTION
	E.T.	ELECTRICAL TRADES
	FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR

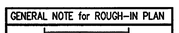


WIRING SCHEMATIC FOR WET CHEMICAL FIRE SYSTEM



REMOTE FIRE PULL STATION for WET CHEMICAL FIRE SYSTEM

GENERAL NOTE for ROUGH-IN PLAN



ALL SERVICES SHOWN WITH SYMBOLS CENTERED ON WALL SHOULD BE BROUGHT TO THAT POINT CONCEALED IN WALL & STUBBED-OUT AT HEIGHT SHOWN ON THIS DIMENSIONED ROUGH-IN PLAN. DO NOT STUB OUT OF FLOOR & RUN EXPOSED ON WALL.

ELECTRICAL NOTES

(E1) 3/4 H.P. 208V-3ph. E.C.C. S.U. +9'-0" A.F.F.- B.T.C. @ REFRIGERATOR COMPRESSOR.

(E2) 20 AMP (CIRCUIT) 120V-1ph. E.C.C. +8'-6" A.F.F.- B.T.C. @ WALK-IN. LIGHTS, SWITCHES & DOOR HEATERS PRE-WIRED BY FSEC TO J.B. ON TOP w/ FINAL CONN. BY E.T.

(E3) 20 AMP (CIRCUIT) 120V-1ph. E.C.C. +8'-6" A.F.F.- B.T.C. @ WALK-IN. BLOWER COIL (TO RUN CONTINUOUSLY) PRE-WIRED BY FSEC TO J.B. ON TOP w/ FINAL CONN. BY E.T.

(E4) 200 WATT 120V-1ph. SW. BY E.T. +48" A.F.F. FOR HOOD LIGHTS. LIGHTS PRE-WIRED BY FSEC TO J.B. ON TOP w/ FINAL CONN. BY E.T.

(E5) 120V-1ph. D.R. +18" A.F.F. FOR GENERAL USE.

(E6) SPARE - NOT USED

(E7) 1/4 H.P. 120V-1ph. S.R. RECESSED (CLOCK-TYPE) +18" A.F.F. FOR UNDERCOUNTER REFRIG.

(E8) 20 AMP (CIRCUIT) 120V-1ph. D.R. +50" A.F.F. FOR EQUIPMENT USE.

(E9) 1/2 H.P. 120V-1ph. S.R. RECESSED (CLOCK-TYPE) +18" A.F.F. FOR UNDERCOUNTER REFRIG.

(E10) 1/4 H.P. 120V-1ph. S.R. +18" A.F.F. FOR ICE MAKER.

(E11) 20 AMP (CIRCUIT) 120V-1ph. S.R. +72" A.F.F. FOR MICROWAVE OVEN.

(E12) 6.3 KW. 120/208V-1ph. S.R. +50" A.F.F. FOR COFFEE MAKER.

(E13) 20 AMP (CIRCUIT) 120V-1ph. D.R. +50" A.F.F. FOR ICED TEA MAKER.

(E14) 12 AMP (LOAD) 120/208V-1ph. S.R. +7'-3" A.F.F. FOR FREEZER.

(E15) 8.0 AMP (LOAD) 120V-1ph. E.C.C. +9'-0" A.F.F.- B.T.C. @ FIRE SYSTEM SHUT-OFF. ALL INTER-WIRING BY E.T. SEE DETAIL THIS SHEET.

(E16) 4" OCTAGON BOX BY E.T. +48" A.F.F. w/ SCREWS IN 2 & 8 O'CLOCK POSITION & 1/2" E.C.C. UP THRU WALL- OUT ABOVE FIN. CEILING FOR REMOTE PULL STATION BY FSEC. SEE DETAIL THIS SHEET.

(E17) 20 AMP (CIRCUIT) 120V-1ph. E.C.C. S.U. +6" A.F.F.- B.T.C. @ COUNTER D.R.'s (2). RECEPTACLES PRE-WIRED BY FSEC TO J.B. IN BASE w/ FINAL CONN. BY E.T.

(E18) 37.7 AMP (LOAD) 120/208V-1ph. S.R. +18" A.F.F. FOR DISHWASHER.

(E19) 3 H.P. 208V-3ph. E.C.C. +18" A.F.F.- B.T.C. @ DISPOSER. E.T. TO INTER-WIRE TO CONTROL PANEL & DISPOSER.

(E20) 20 AMP (CIRCUIT) 120V-1ph. D.R. +18" A.F.F. FOR RANGE.

NOTE...

ALL ADDITIONAL RECEPTACLES, CONN.'s, WIRING, ETC. TO BE SHOWN BY ELECT. ENGINEER.

ALL RECEPTACLES WITHIN KITCHEN AREAS MUST BE GFCI PROTECTED BY ELECT. TRADES.

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Key Plan: NO SCALE

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Project Name and Client:
NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal.

Date	Issued For
10/22/08	BID PACK NO. 2

Drawn:	EFW
Checked	SJF
Approved:	JPA

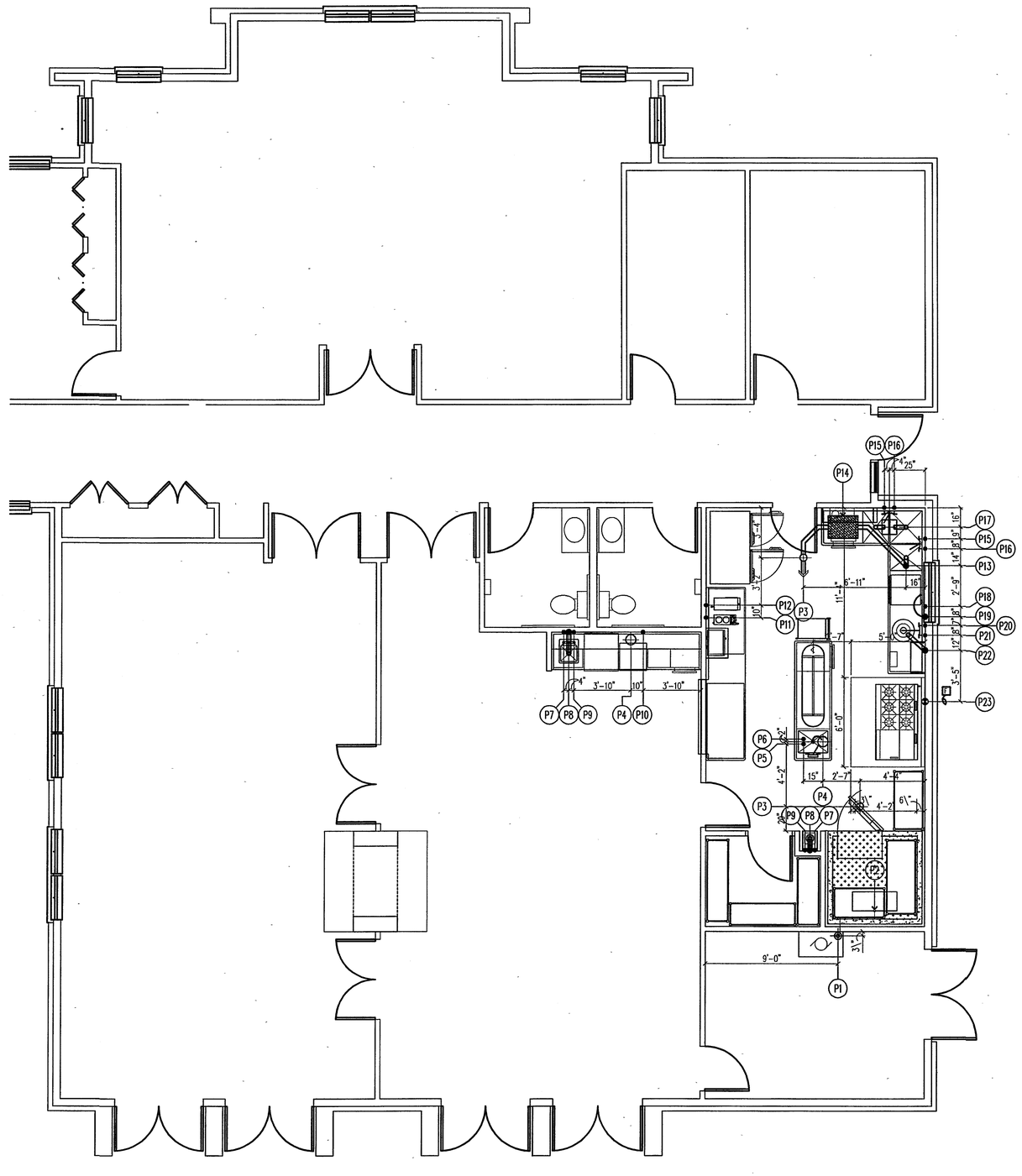
Sheet Title:
FOOD SERVICE EQUIPMENT ELECTRICAL ROUGH-IN PLAN

Project Number: 07-140

Sheet Number. FSE-2

E. F. WHITNEY, INC.
Design Consultants of Food Service Facilities

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GENERAL NOTES for ROUGH-IN PLAN

FOOD SERVICE EQUIP. CONTR. IS TO ASSIST PLUMBING TRADES DURING PERIOD WHILE FINAL ROUGH-IN CONNECTIONS ARE BEING MADE. F.S.EQ. CONTR. SHALL FURNISH ALL NECESSARY PIPING DETAILS AS REQUIRED. F.S.EQ. CONTR. ALSO TO HAVE FIELD SUPERVISOR ON JOBSITE AT TIME OF FINAL CONN'S.

FOOD SERVICE EQUIP. CONTR. SHALL CONTACT PLUMB. ENGINEER BEFORE DRAWING ROUGH-IN PLAN TO VERIFY TYPE OF GAS ON JOBSITE. WHEN STEAM IS AVAILABLE, PRESSURE IS TO BE VERIFIED AND ALL EQUIPMENT TO BE FURNISHED ACCORDINGLY.

PLUMBING ROUGH-IN CODE

H.W.	HOT WATER
C.W.	COLD WATER
W.	WASTE
I.W.	INDIRECT WASTE
F.D.	FLOOR DRAIN
F.T.F.D.	FUNNEL-TYPE FLOOR DRAIN
F.S.	FLOOR SINK
G.	GAS (NATURAL)
A.F.F.	ABOVE FINISH FLOOR
S.U.	STUB-UP
D.F.A.	DOWN FROM ABOVE
P.T.	PLUMBING TRADES
FSEC	FOOD SERVICE EQUIPMENT CONTR.
A.T.	ARCH. TRADES / GEN. CONTR.

SYMBOL DENOTES DRAIN/WASTE/CONDENSATE LINE OF VARIOUS SIZE, TO BE FURNISHED & INSTALLED BY P.T.- RUN FROM EQUIPMENT TO NEAREST F.D./F.S./I.W./H.O. VERIFY EXACT SIZE WITH FSEC FINAL BUY-OUT BOOKLET.

GENERAL NOTE for ROUGH-IN PLAN

ALL SERVICES SHOWN WITH SYMBOLS CENTERED ON WALL SHOULD BE BROUGHT TO THAT POINT CONCEALED IN WALL & STUBBED-OUT AT HEIGHT SHOWN ON THIS PLAN. DO NOT STUB OUT OF FLOOR & RUN EXPOSED ON WALL.

GENERAL NOTE for FIRE SYSTEM

12"

PLUMB. TRADES TO FURN. & INSTALL REMOVABLE 12" SECTION OF PIPE IN MAIN GAS SUPPLY LINE (TO KITCHEN COOKING EQUIP. ONLY) LOCATED IN AN ACCESSIBLE AREA, AS CLOSE AS POSSIBLE TO COOKING EQUIP., FOR MECHANICAL-TYPE GAS SHUT-OFF VALVE. VALVE TO BE FURNISHED BY F.S.EQ. CONTR. & INST'D BY PLUMB. TRADES. F.S.EQ. CONTR. TO VERIFY GAS SUPPLY LINE ON JOBSITE AND FURNISH VALVE TO FIT ACCORDINGLY.

ALL GAS SUPPLY BELOW CHANGE HOOD TO BE SHUT-OFF SHOWN AS F

FLOOR DRAIN SCHEDULE

ALL BY P.T.- TYPICAL SIZES SHOWN.

TYPE #1: 6" DIA. W/ FULL NICKLE-BRONZE STRAINER. FLUSH W/ FINISH FLOOR.

TYPE #2: 6" DIA. W/ FULL NICKLE-BRONZE STRAINER & 4" HIGH NICKLE-BRONZE FUNNEL. FLUSH W/ FINISH FLOOR.

TYPE #3: 12" x 12" x 8 1/2" DEEP W/ FULL NICKLE-BRONZE GRATE TOP, ACID RESISTANT INTERIOR & PERFORATED REMOVABLE ENAMELED BASKET. FLUSH W/ FINISH FLOOR.

TYPE #4: 12" x 12" x 10" DEEP W/ FULL ST. ST. REMOVABLE GRATE TOP & REMOVABLE ST. ST. PERFORATED BASKET. FLUSH W/ FINISH FLOOR.

INDIRECT WASTE SCHEDULE

ALL BY P.T.- TYPICAL SIZES SHOWN.

TYPE #5: 6" DIA. W/ FULL NICKLE-BRONZE STRAINER & 4" HIGH NICKLE-BRONZE FUNNEL.

TYPE #6: 8 1/2" DIA. W/ WHITE PORCELIN INTERIOR & NICKLE-BRONZE INTERIOR DOME STRAINER.

TYPE #7: 12" x 12" x 10" DEEP NO GRATE TOP W/ ACID RESISTANT INTERIOR & NICKLE-BRONZE INTERIOR DOME STRAINER.

TYPE #8: 12" x 12" x 10" DEEP W/ 1/4 CUT-OUT NICKLE-BRONZE GRATE TOP, ACID RESISTANT INTERIOR & NICKLE-BRONZE INTERIOR DOME STRAINER.

WATER REQUIREMENTS for LISTED EQUIPMENT

TOTAL DISSOLVED SOLIDS:	LESS THAN 40 PPM
TOTAL ALKALINITY:	LESS THAN 20 PPM
SILICA:	LESS THAN 13 PPM
pH FACTOR:	7.0 TO 9.0
CHLORINE:	LESS THAN 30 PPM

PLUMBING NOTES

(P1) 6" DIA. I.W.- TYPE #5. SEE SCHEDULE THIS SHEET.

(P2) FSEC TO RUN DRAIN LINE FROM BLOWER COIL TO I.W.

(P3) 6" DIA. F.D.- TYPE #1. SEE SCHEDULE THIS SHEET. FLUSH w/ FIN. FLOOR.

(P4) 8 1/2" DIA. I.W.- TYPE #6. SEE SCHEDULE THIS SHEET.

(P5) 1/2" H.W. S.U. +6" A.F.F.- B.T.C. @ COUNTER FAUCET.

(P6) 1/2" C.W. S.U. +6" A.F.F.- B.T.C. @ COUNTER FAUCET.

(P7) 1/2" H.W. +21" A.F.F.- B.T.C. @ HAND SINK.

(P8) 1 1/2" W. +18" A.F.F.- B.T.C. @ HAND SINK.

(P9) 1/2" C.W. +21" A.F.F.- B.T.C. @ HAND SINK.

(P10) 1/2" C.W. +16" A.F.F.- B.T.C. @ ICE MAKER w/ FILTER SYSTEM FURN. BY FSEC & INST'D BY P.T.

(P11) 1/2" C.W. +50" A.F.F.- B.T.C. @ COFFEE MAKER.

(P12) 1/2" C.W. +50" A.F.F.- B.T.C. @ ICED TEA MAKER.

(P13) 2" W. S.U. +6" A.F.F.- B.T.C. @ (1) ONE SINK- RUN TO G.T.

(P14) G.T. BY P.T.- FLUSH W/ FIN. FLOOR & SIZED FOR (1) ONE 21" x 26" x 14" DP. SINK w/ F.D. TIED INTO DOWN-SIDE PER CODE.

(P15) 3/4" H.W. (140 deg.) +12" A.F.F.- B.T.C. @ POT SINK FAUCET.

(P16) 3/4" C.W. +12" A.F.F.- B.T.C. @ POT SINK FAUCET.

(P17) 12" x 12" I.W.- TYPE #7. SEE SCHEDULE THIS SHEET.

(P18) 1" H.W. (140 deg.) +16" A.F.F.- B.T.C. @ DISHWASHER. (53.0 GAL./HR. MAX @ 20 PSI).

(P19) 2" W. +10" A.F.F.- B.T.C. @ DISHWASHER. (10.0 GPM MAX).

(P20) 1/2" H.W. +16" A.F.F. — B.T.C. @ DISP., CONE, V.B.,

(P21) 1/2" C.W. +16" A.F.F. — C.P., SOLENOID & PRE-RINSE.

(P22) 3" W. +10" A.F.F.- B.T.C. @ DISPOSER. 1/4"/FT. MIN. SLOPE REQ'D.

(P23) 1 1/4" G. (352,000 BTU) +24" A.F.F.- B.T.C. @ RANGE w/ FLEX PIPE FURN. BY FSEC & INST'D w/ SHUT-OFF VALVE BY P.T.

NOTE...

PLUMB. TRADES TO RUN ALL DRAIN/WASTE/CONDENSATE LINES FROM EQUIPMENT TO NEAREST F.D./F.S./I.W./H.O.

ALL ADDITIONAL PIPING, DRAINS, F.D.'s, ETC. TO BE SHOWN BY MECH. ENGINEER.

ALL ADDITIONAL P.R.V.s, ATMOSPHERIC V.B.s, V.B.s, SHUT-OFF VALVES, SHOCK-STOPS, ETC., TO BE FURN. & INST'D BY PLUMB. TRADES.

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Key Plan: NO SCALE

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Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

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Approved:	JPA

Sheet Title:
FOOD SERVICE EQUIPMENT PLUMBING ROUGH-IN PLAN

Project Number: 07-140

Sheet Number: FSE-3

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Design Consultants of Food Service Facilities

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GENERAL NOTES for ROUGH-IN PLAN

ALL HVAC GRILLES SHOWN ARE IN SUGGESTED LOCATIONS ONLY. HVAC TRADES TO ENGINEER & VERIFY ALL LOCATIONS REQUIRED.

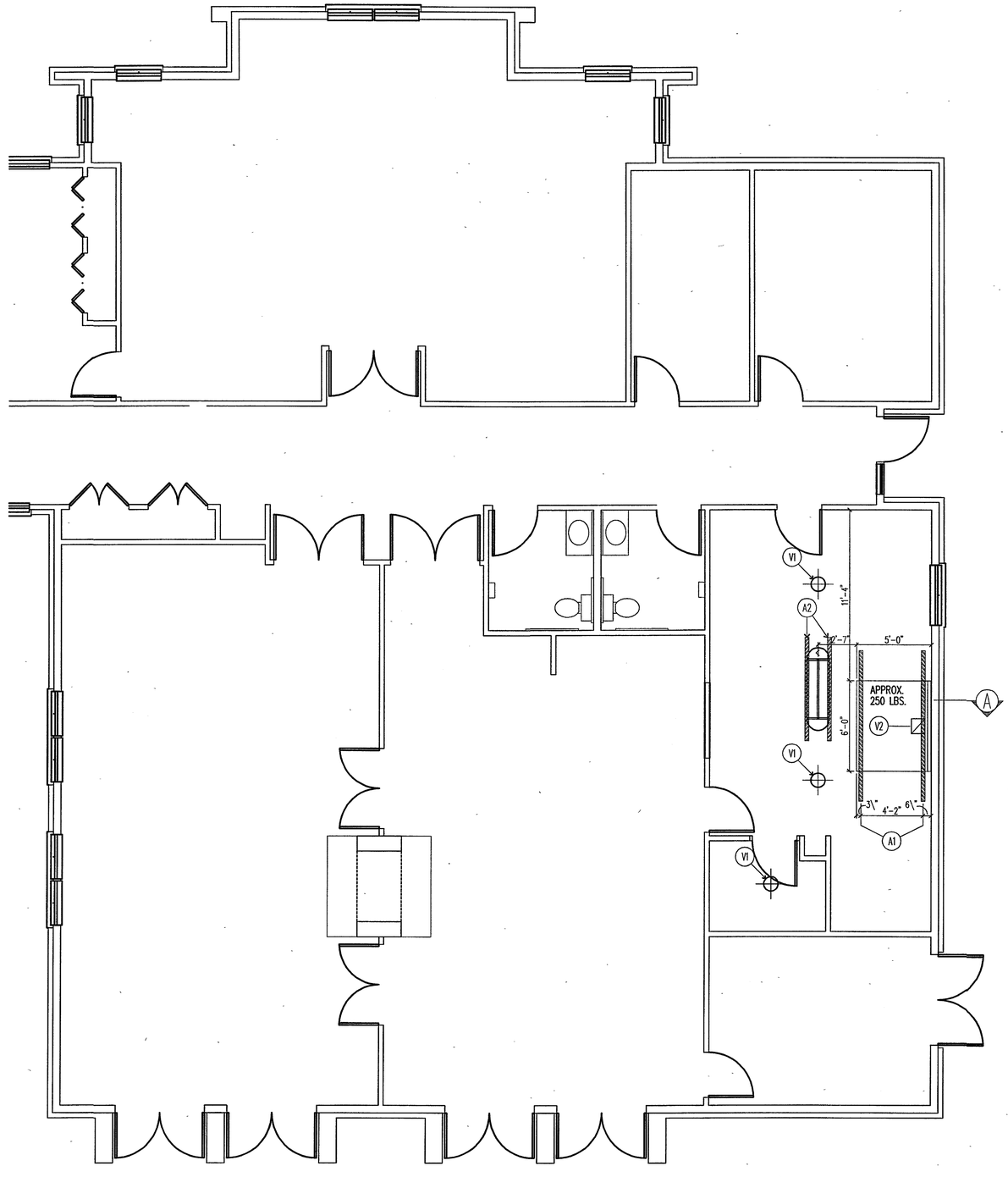
EXHAUST AIR QUANTITIES SHOWN ARE FOR COOKING EQUIPMENT EXHAUST HOODS ONLY. ADDITIONAL VENTILATION REQUIRED FOR KITCHEN AREAS TO BE ENGINEERED BY HVAC TRADES.

HVAC TRADES TO INTER-LOCK EXHAUST FANS W/ KITCHEN SUPPLY FANS.

HVAC ENGINEER TO WRITE HVAC SYSTEM SPEC FOR HVAC TRADES, TO CHECK & BALANCE KITCHEN VENTILATION. HVAC ENGINEER TO FILL-OUT & SUBMIT HEALTH DEPT. BALANCE REPORT. HVAC TRADES TO BE RESPONSIBLE FOR ADJUSTING AIR QUANTITIES TO EXACTLY AS SHOWN. HVAC TRADES TO BE A CERTIFIED TESTING CO.

VENTILATION ROUGH-IN CODE

D.F.A.	DOWN FROM ABOVE
A.F.F.	ABOVE FIN. FLOOR
B.I.C.	BRANCH TO CONNECTION
HVAC	HEATING/VENTILATING/ AIR-CONDITIONING TRADES
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR



VENTILATION NOTES

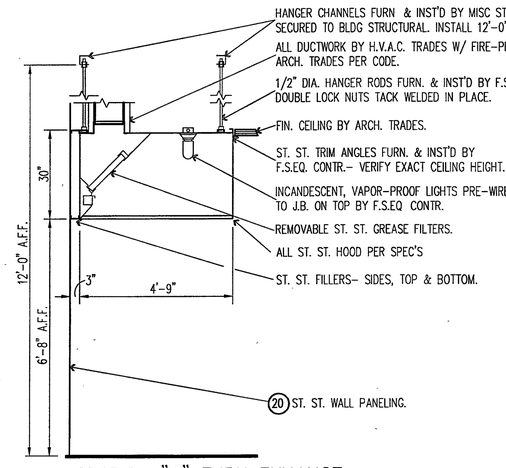
(V1) HVAC TRADES TO FURN. & INSTALL FLUSH, CEILING MT'D EXHAUST AND/OR SUPPLY GRILLES TO VENTILATE ALL ROOMS PER CODES (LOCATIONS ARE TYPICAL).

(V2) 12" x 11" EXHAUST DUCT- 1500 CFM (MIN.) TOTAL @ 0.578" S.P. AT DUCT COLLAR. NOTE... DUCTWORK STATIC MUST BE ADDED.

ARCHITECTURAL NOTES

(A1) (2) TWO HANGER CHANNELS FURN. & INST'D BY ARCH. TRADES- SECURED TO BUILDING STRUCTURAL TO SUPPORT EXHAUST HOOD (WEIGHT AS SHOWN) F.S.EQ. CONTR. TO VERIFY ALL SIZES & LOCATIONS. MOUNT 12'-0" A.F.F. (MAX.)

(A2) (2) TWO HANGER CHANNELS FURN. & INST'D BY ARCH. TRADES- SECURED TO BUILDING STRUCTURAL TO SUPPORT ATTACHMENT RACK SEE DETAILS ON SHEET FSE-5



SECTION "A" THRU EXHAUST HOOD - ITEM NO. 18
SCALE 1/2"=1'-0"

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NOVI, MICHIGAN

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NOVI, MICHIGAN

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Sheet Title:
FOOD SERVICE EQUIPMENT VENTILATION ROUGH-IN PLAN

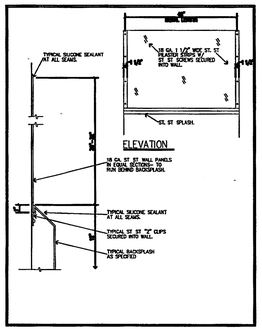
Project Number: 07-140

Sheet Number: FSE-4

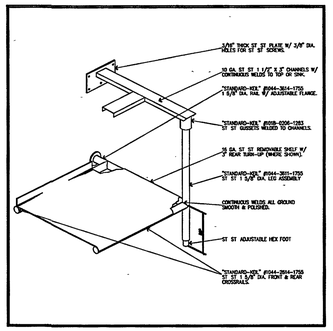
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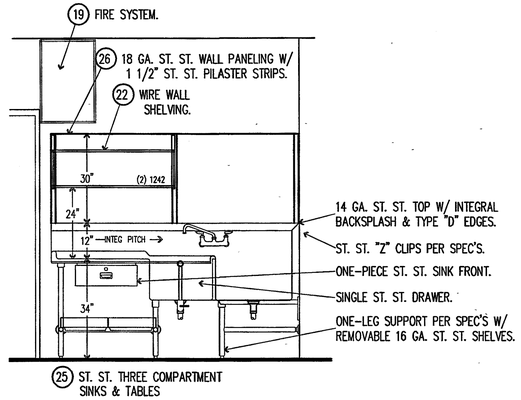
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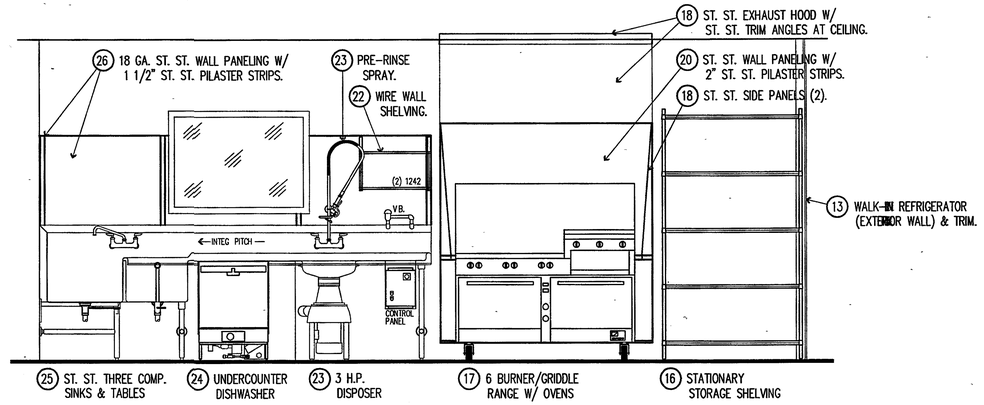
WALL PANELING DETAIL
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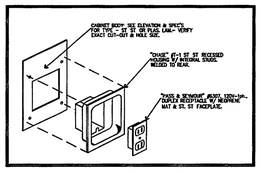
ONE-LEG SUPPORT DETAIL
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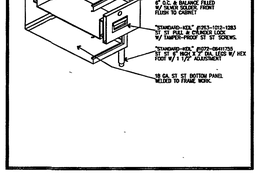
ELEVATION NO. 1
SCALE 1/2"=1'-0"



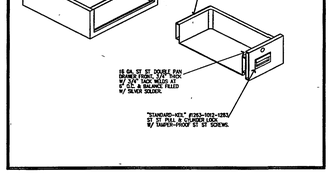
ELEVATION NO. 2
SCALE 1/2"=1'-0"



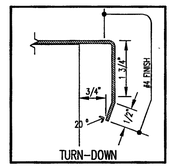
RECESSED DUPLEX RECEPTACLE DETAIL
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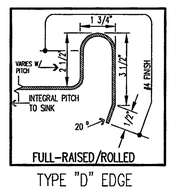
TIER of THREE DRAWERS DETAIL
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SINGLE DRAWER DETAIL
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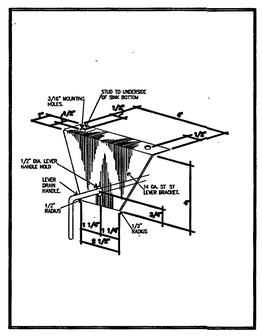


TYPE "A" EDGE

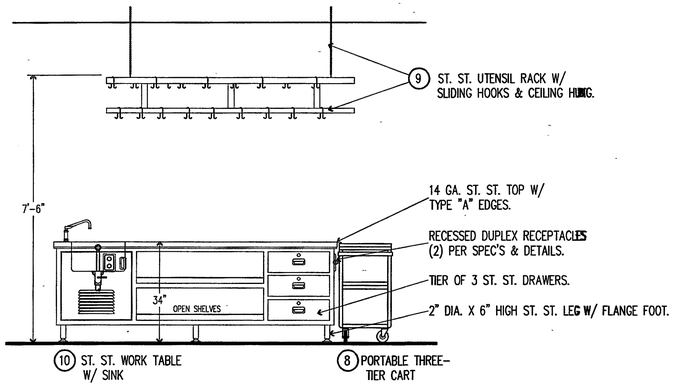


TYPE "D" EDGE

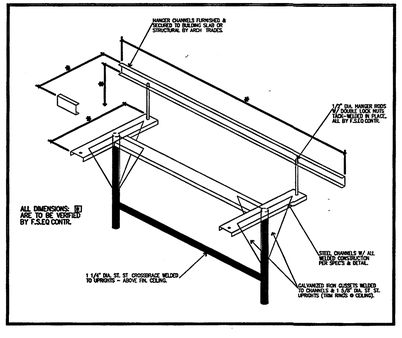
STANDARD EDGE DETAILS
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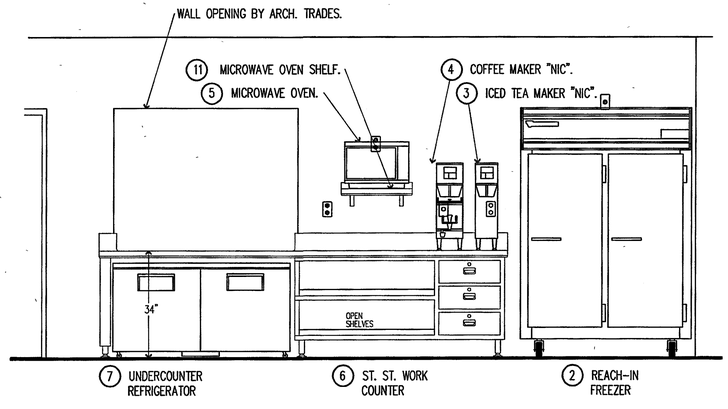
LEVER HANDLE DETAIL
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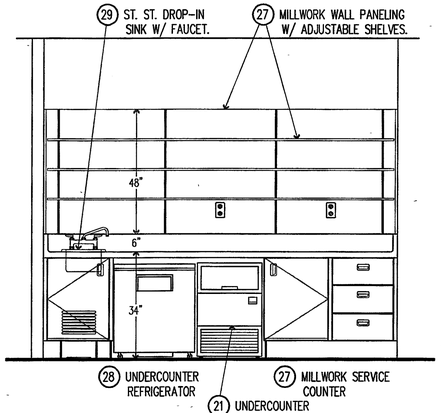
ELEVATION NO. 3
SCALE 1/2"=1'-0"



CEILING MT'D ATTACHMENT RACK DETAIL
NO SCALE



ELEVATION NO. 4
SCALE 1/2"=1'-0"



ELEVATION NO. 5
SCALE 1/2"=1'-0"

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NOVI, MICHIGAN

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NOVI, MICHIGAN

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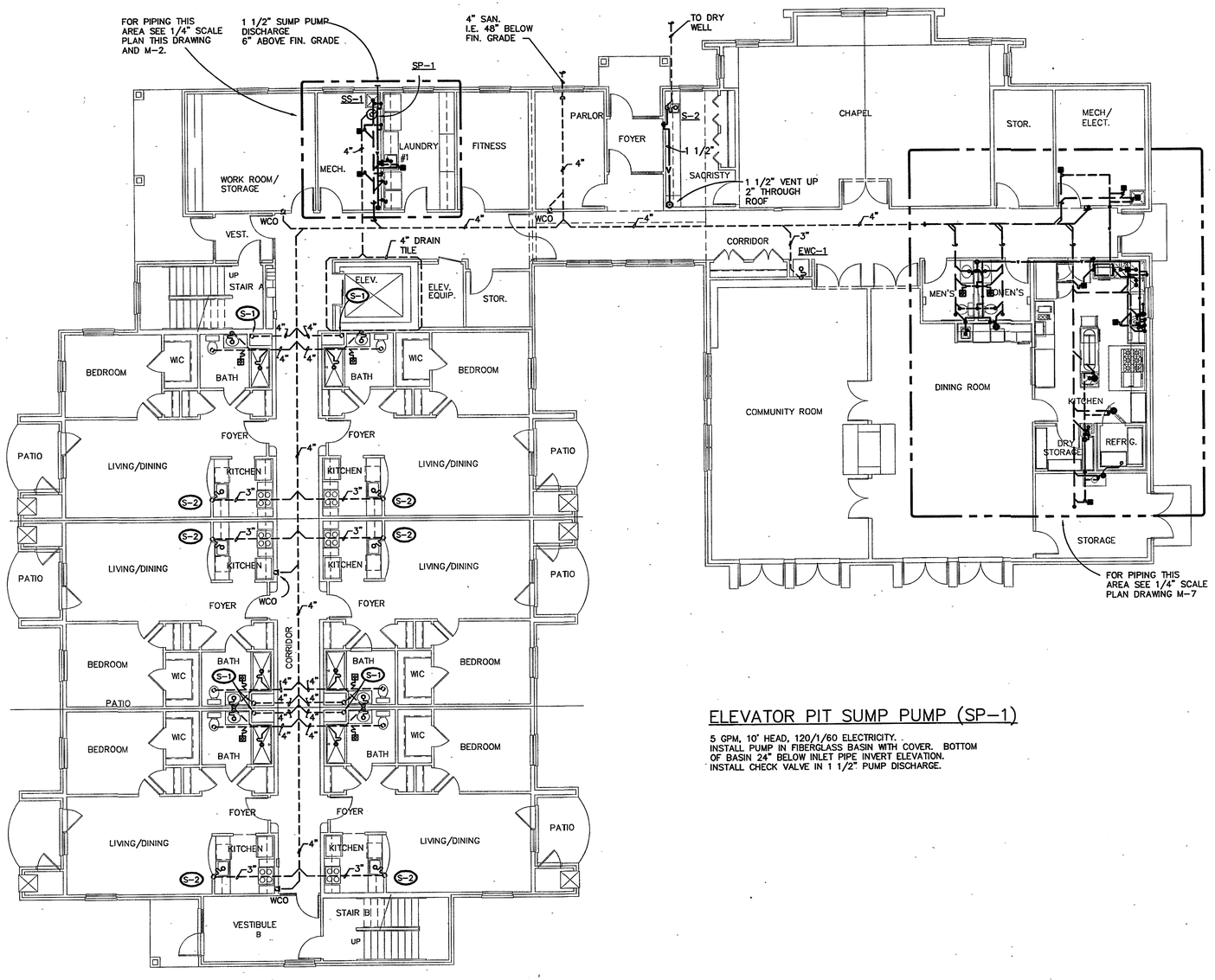
Sheet Title:
FOOD SERVICE EQUIPMENT ELEVATION DETAILS

Project Number: 07-140
Sheet Number: **FSE-5**

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ELEVATOR PIT SUMP PUMP (SP-1)

5 GPM, 10' HEAD, 120/1/60 ELECTRICITY.
INSTALL PUMP IN FIBERGLASS BASIN WITH COVER. BOTTOM OF BASIN 24" BELOW INLET PIPE INVERT ELEVATION.
INSTALL CHECK VALVE IN 1 1/2" PUMP DISCHARGE.

FIRST FLOOR PLAN-SANITARY

SCALE 1/8"=1'-0"

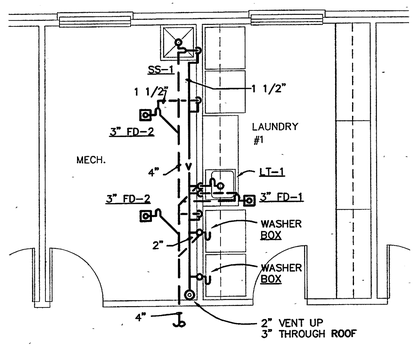
PLUMBING FIXTURE SCHEDULE		
FIXTURE	WASTE	VENT
WC-1	4"	2"
LAV-1	1 1/2"	1 1/2"
EWC-1	1 1/2"	1 1/2"
SS-1	1 1/2"	1 1/2"
SHR-1	2"	1 1/2"
S-1, S-2	1 1/2"	1 1/2"

NOTES

1. ALL HORIZONTAL VENT PIPES ARE ABOVE FINISHED CEILING UNLESS SHOWN OTHERWISE.
2. INSTALL TRAP SEAL PRIMER FOR ALL FLOOR DRAINS CONFORMING TO ASSE 1018.
3. SANITARY PIPES 3" AND LARGER SHALL BE SLOPED AT 1/8" PER FT. SANITARY PIPES 2 1/2" AND SMALLER SHALL BE SLOPED 1/4" PER FT.
4. INSTALL PIPE SLEEVES WHERE SANITARY PIPES CROSSES THE FOOTINGS.
5. FOR SANITARY PIPE RISER DIAGRAM SEE M-6.

GENERAL NOTES:

1. ALL PLUMBING AND HVAC SYSTEM INSTALLATION SHALL BE IN FULL CONFORMITY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CONSTRUCTION LAWS.
2. APPLY UL LISTED FIRE SEAL AROUND ALL PIPES PASSING THROUGH RATED WALLS AND RATED FLOORS. FIRE SEAL SHALL BE 3M OR FIBERFRAX (FIRE PUTTY).



PARTIAL FLOOR PLAN-SANITARY

SCALE 1/4"=1'-0"

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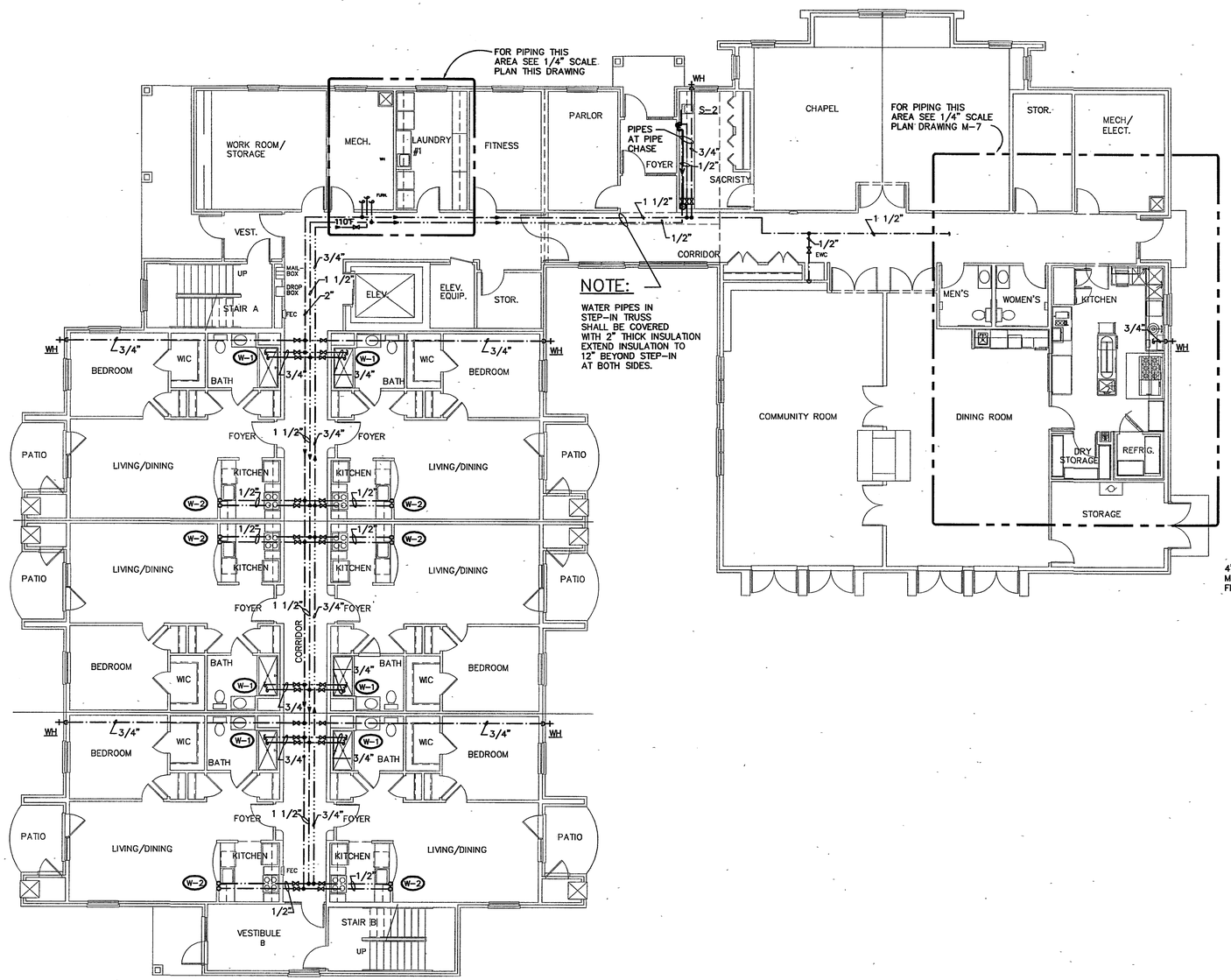
Sheet Title.
FIRST FLOOR PLAN - SANITARY

Project Number.
07-140

Sheet Number:
M-1

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NOTE:

WATER PIPES IN STEP-IN TRUSS SHALL BE COVERED WITH 2" THICK INSULATION EXTEND INSULATION TO 12" BEYOND STEP-IN AT BOTH SIDES.

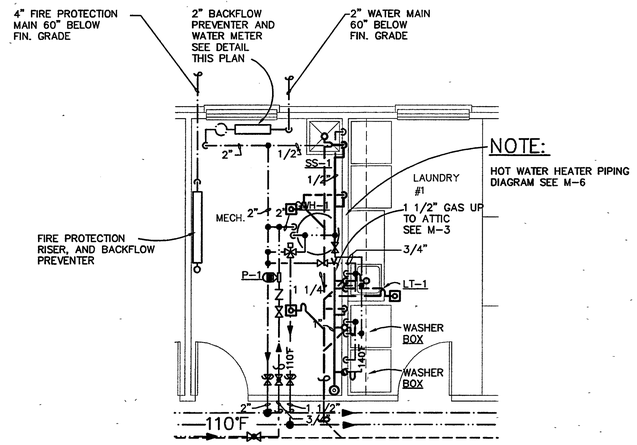
FIRST FLOOR PLAN-WATER

SCALE 1/8"=1'-0"

PLUMBING FIXTURE SCHEDULE		
FIXTURE	COLD WATER	HOT WATER
WC-1	1/2"	–
LAV-1	1/2"	1/2"
S-1, S-2	1/2"	1/2"
EWC-1	1/2"	–
SS-1	1/2"	1/2"
SHR-1	1/2"	1/2"

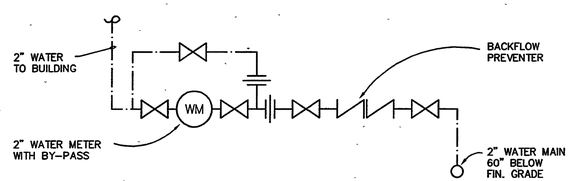
NOTES:

1. ALL HORIZONTAL HW, CW PIPES ARE ABOVE FIRST FLOOR FINISHED CEILING UNLESS NOTED OTHERWISE.
2. INSTALL SERVICE VALVES FOR ALL PLUMBIMG FIXTURES.
3. INSTALL WATER HAMMER ARRESTOR AT POINTS OF CONNECTIONS TO THE PLUMBING FIXTURES.
4. FOR WATER PIPE RISER DIAGRAM SEE M-6
5. FOR CONTINUATION OF CW, HW, PIPES SERVING TYPICAL UNITS SEE DRAWING M-5
6. WALL HYDRANT (WH) SHALL BE NON-FREEZE TYPE WITH VACUUM BREAKER, ZURN MODEL Z-1300.



PARTIAL FLOOR PLAN-WATER

SCALE 1/4"=1'-0"



WATER METER AND BACKFLOW PREVENTER DETAIL

NOT TO SCALE

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NOVI, MICHIGAN

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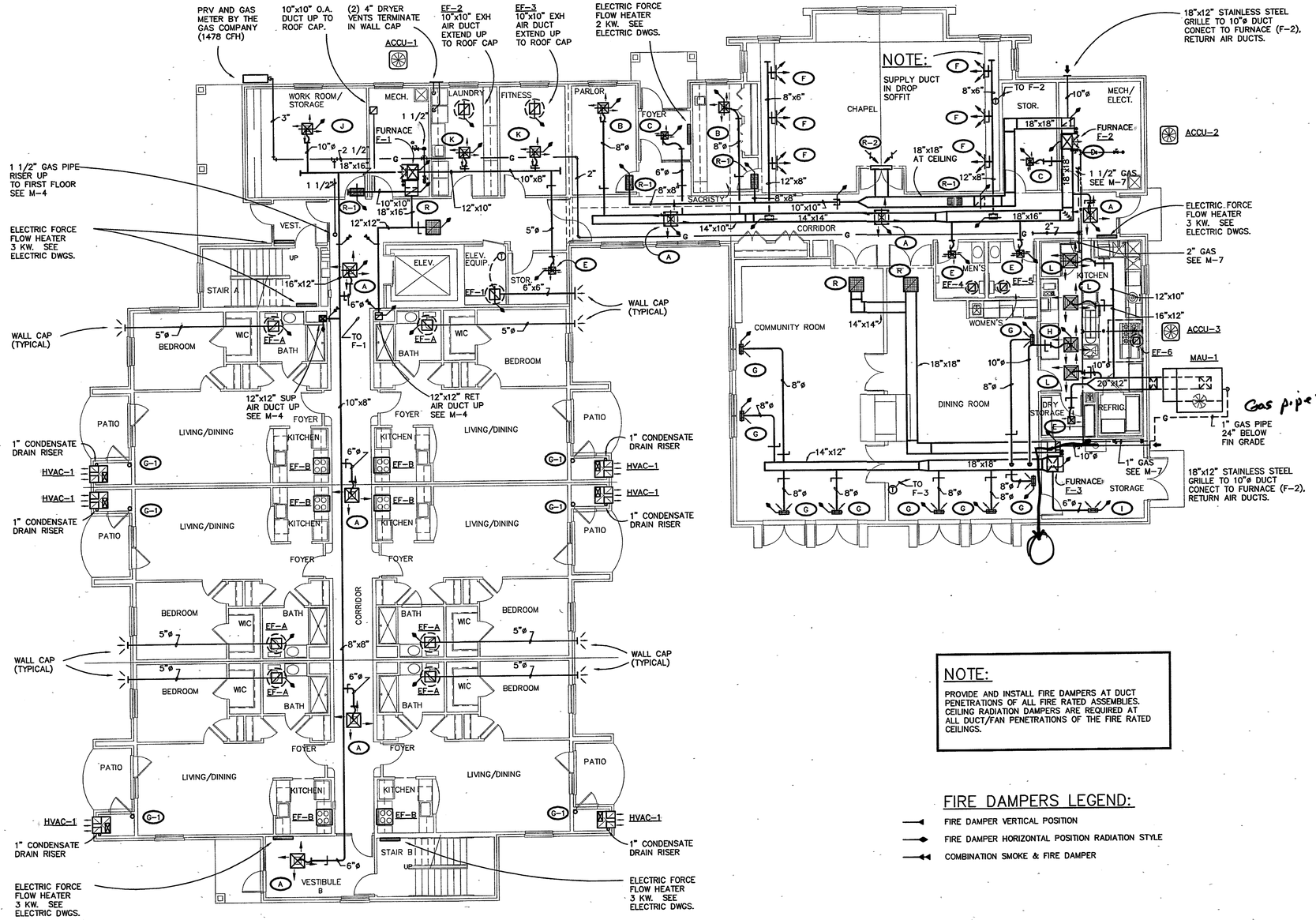
Sheet Title:
FIRST FLOOR PLAN - WATER

Project Number: 07-140

Sheet Number. M-2

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FIRST FLOOR PLAN-HVAC

SCALE 1/8"=1'-0"

NOTE:

PROVIDE AND INSTALL FIRE DAMPERS AT DUCT PENETRATIONS OF ALL FIRE RATED ASSEMBLIES. CEILING RADIATION DAMPERS ARE REQUIRED AT ALL DUCT/FAN PENETRATIONS OF THE FIRE RATED CEILINGS.

FIRE DAMPERS LEGEND:

- FIRE DAMPER VERTICAL POSITION
- FIRE DAMPER HORIZONTAL POSITION RADIATION STYLE
- COMBINATION SMOKE & FIRE DAMPER

NOTES:

1. FOR TYPICAL UNIT HVAC PLAN SEE M-5.
2. HORIZONTAL GAS PIPES ARE IN ATTIC.
3. SUPPLY AIR DUCTS SERVING COMMUNITY-DINING ROOMS ARE IN ATTIC. INSULATE WITH 2" THICK INSULATION AND VAPOR BARRIER.
4. INSTALL 1" CONDENSATE DRAIN RISER FOR HVAC UNITS, TERMINATE 6" ABOVE FIN. GRADE.

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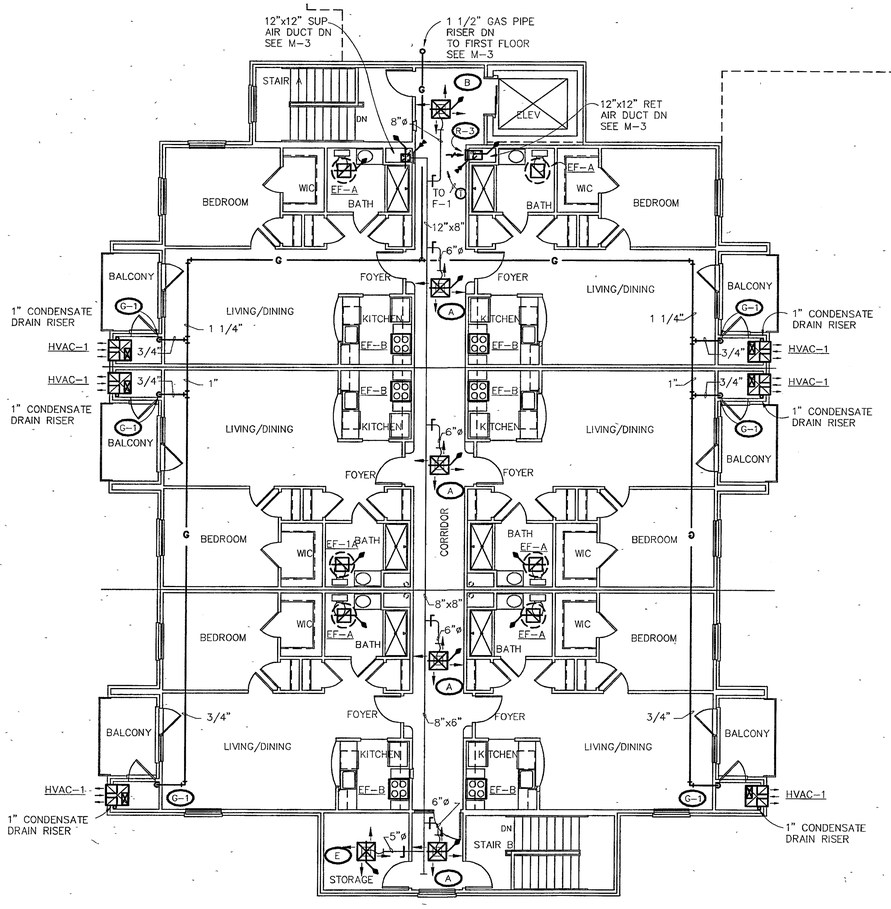
Sheet Title.
FIRST FLOOR PLAN - HVAC

Project Number: 07-140

Sheet Number. M-3

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\Basilian Residence\Current\Mechanical\M-3 FIRST FLOOR PLAN - HVAC.dwg, 10/20/2008 10:09:47 AM, sflickema



SECOND FLOOR PLAN-HVAC

SCALE 1/8"=1'-0"

NOTES:

1 ALL HORIZONTAL SUPPLY AIR DUCTS ARE IN ATTIC

2 FOR TYPICAL UNIT HVAC PLAN SEE M-5

3 HORIZONTAL GAS PIPES ARE IN ATTIC.

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Key Plan: NO SCALE

Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

Seal:

Date	Issued For
10/22/08	BID PACK NO. 2

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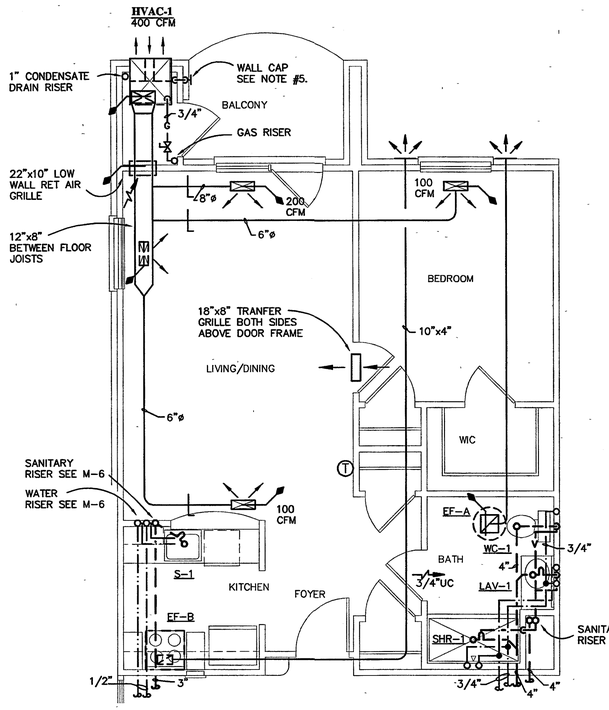
Sheet Title:
SECOND FLOOR PLAN - HVAC

Project Number: 07-140

Sheet Number: M-4

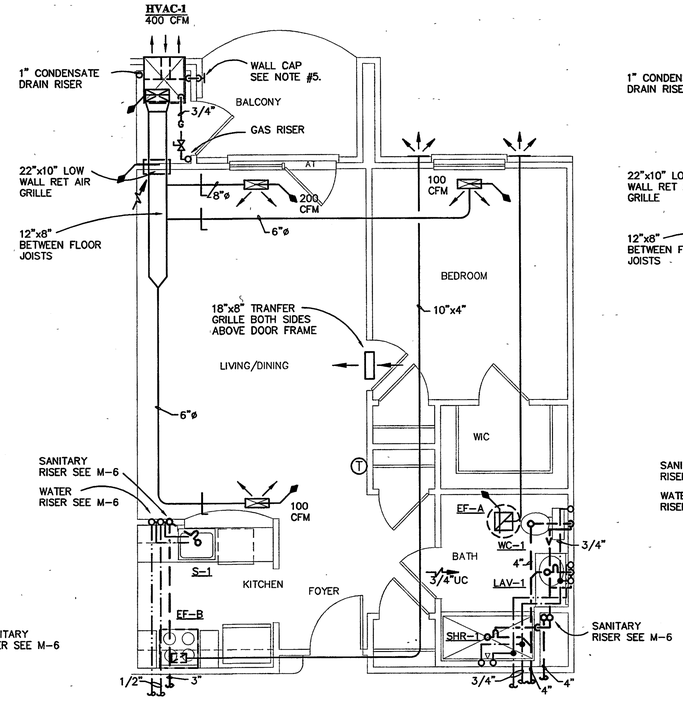
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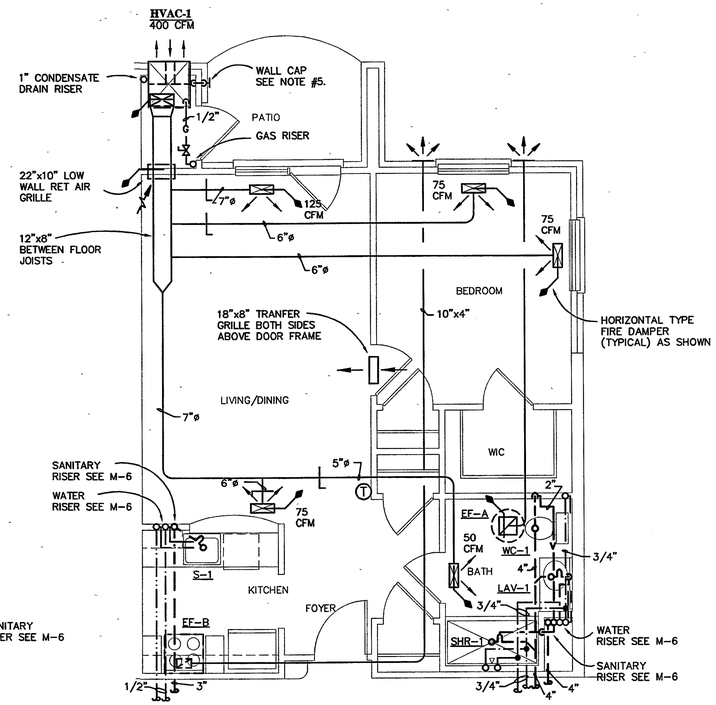
FIRST FLOOR PLAN - END UNIT

SCALE 1/4"=1'-0"



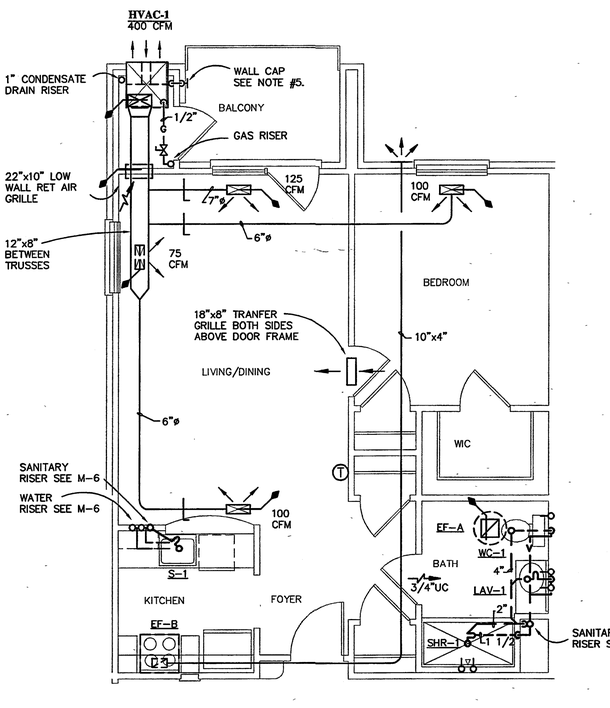
FIRST FLOOR PLAN

SCALE 1/4"=1'-0"



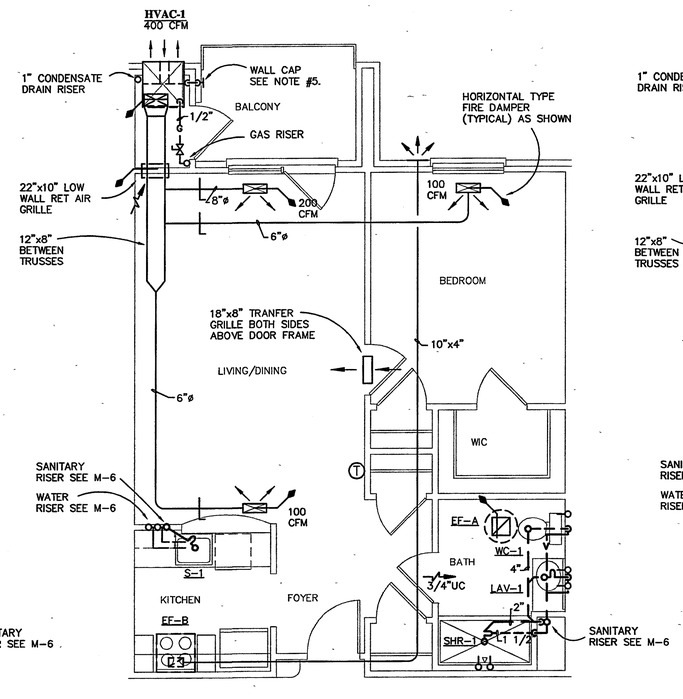
FIRST FLOOR PLAN - END UNIT

SCALE 1/4"=1'-0"



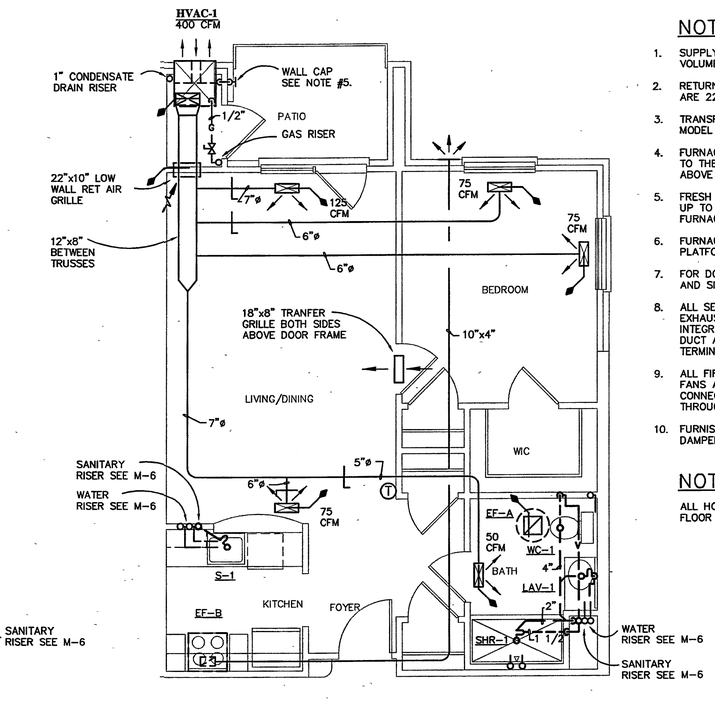
SECOND FLOOR PLAN - END UNIT

SCALE 1/4"=1'-0"



SECOND FLOOR PLAN

SCALE 1/4"=1'-0"



SECOND FLOOR PLAN - END UNIT

SCALE 1/4"=1'-0"

NOTES:

1. SUPPLY AIR REGISTERS ARE 10"x4". FURNISH WITH VOLUME CONTROL DAMPER. TITUS MODEL 272.
2. RETURN AIR GRILLES TO THE FURNACE UNITS ARE 22"x10" TITUS MODEL 23RL.
3. TRANSFER AIR GRILLES ARE 18"x8" TITUS MODEL 23 RL.
4. FURNACE 1" CONDENSATE DRAINS TO BE CONNECTED TO THE DRAIN PIPE RISER AND DISCHARGING 6" ABOVE FIN. GRADE.
5. FRESH AIR WALL CAP 24" AFTER FIN. FLOOR, 4" PIPE UP TO NEAR CEILING, THEN DOWN TO CONNECT TO THE FURNACE RETURN AIR PLENUM.
6. FURNACE UNITS TO BE INSTALLED ON 12" RAISED PLATFORM. PLENUM IS USED FOR THE RETURN AIR.
7. FOR DOMESTIC CW, HW MAIN PIPES LOCATION AND SIZES SEE M2
8. ALL SECOND FLOOR TOILET ROOMS EXHAUST FANS ARE CEILING TYPE WITH INTEGRAL GRILLE. CONNECT TO EXHAUST DUCT AND EXTEND THROUGH THE ROOF AND TERMINATE IN ROOF CAP.
9. ALL FIRST FLOOR TOILET ROOMS EXHAUST FANS ARE CEILING TYPE WITH INTEGRAL GRILLE. CONNECT TO EXHAUST DUCT AND EXTEND THROUGH THE WALL. TERMINATE IN WALL CAP.
10. FURNISH BATH EXHAUST FANS WITH RADIATION FIRE DAMPERS.

NOTE:

ALL HORIZONTAL SANITARY PIPES SHOWN ON SECOND FLOOR PLANS ARE AT FIRST FLOOR CEILING

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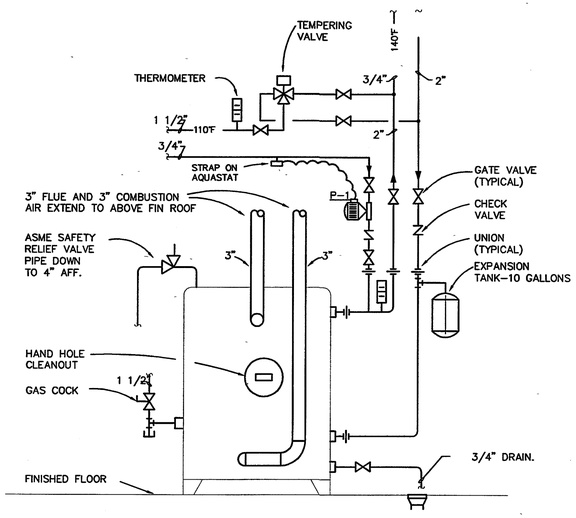
Sheet Title:
UNIT FLOOR PLANS - HVAC

Project Number: 07-140

Sheet Number: M-5

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GAS WATER HEATER (GWH-1) PIPING DETAIL

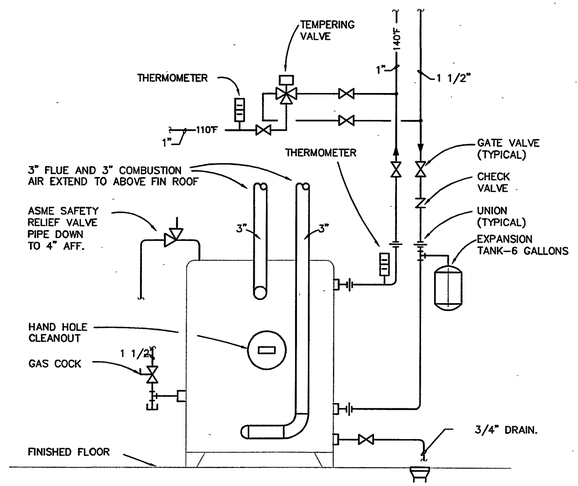
NO SCALE

GAS WATER HEATER (GWH-1)

GAS WATER HEATER SHALL BE SEALED COMBUSTION DESIGN. UP TO 98% THERMAL EFFICIENCY.
GLASS LINED TANK, 250000 BTUH INPUT, 297 GALLONS PER HOUR AT 100°F RISE, 100 GALLONS STORAGE TANK, FURNISH WITH ASME TEMPERATURE AND PRESSURE RELIEF VALVE.
LOCHINVAR TURBOCHARGER TNR 250-100.
INSTALL COMBUSTION AIR AND EXHAUST FLUE. TERMINATR ABOVE FIN ROOF.

CIRCULATING PUMP (P-1)

ALL BRONZE CONSTRUCTION, 7 GPM, 8 FT HEAD, 120/1/60.
INSTALL AQUASTAT TO CYCLE PUMP ON-OFF.

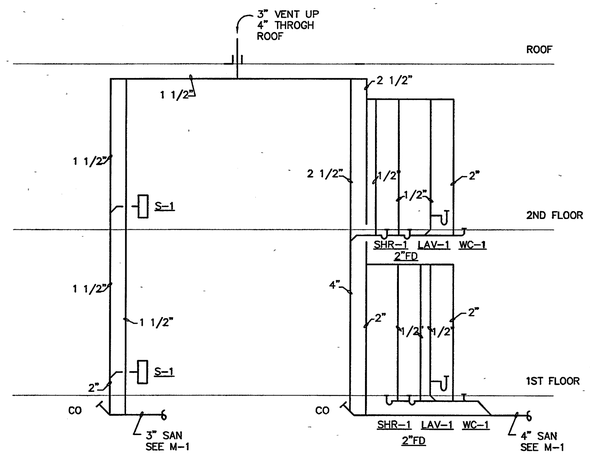


GAS WATER HEATER (GWH-2) PIPING DETAIL

NO SCALE

GAS WATER HEATER (GWH-2)

GAS WATER HEATER SHALL BE SEALED COMBUSTION DESIGN. UP TO 98% THERMAL EFFICIENCY.
GLASS LINED TANK, 150000 BTUH INPUT, 178 GALLONS PER HOUR AT 100°F RISE, 60 GALLONS STORAGE TANK, FURNISH WITH ASME TEMPERATURE AND PRESSURE RELIEF VALVE.
LOCHINVAR TURBOCHARGER TNR 150-060.
INSTALL COMBUSTION AIR AND EXHAUST FLUE. TERMINATR ABOVE FIN ROOF.



S-2 S-1

SANITARY RISERS

NO SCALE

PLUMBING FIXTURE SCHEDULE

Low-flow toilet high pressure.

WC-1 AMERICAN STANDARD, "CADET" #2168.100 WATER SAVER, VITREOUS CHINA, ELONGATED BOWL, SIPHON ACTION, CLOSED COUPLE FLUSHOMETER TANK, 1.6 GALLON FLUSH WITH 17-1/4" RIM HEIGHT. PROVIDE WITH OLSONITE CLOSED FRONT ELONGATED SEAT WITH COVER. NEW WATER CLOSET CENTER LINE OF OUTLET SHALL MATCH EXISTING FIXTURE OUTLET. CLOSET SEAT IN PUBLIC TOILET ROOM.

NOTE : PROVIDE OLSONITE #10 CC ELONGATED OPEN FRONT SEAT LESS COVER ON WATER

LAV-1 LAVATORY CRANE #1-287-V, SELF RIMMING WHITE CHINA WITH POP-UP DRAIN, P-TRAP WATTS 501 666PB, BRASSCRAFT 1/2" FIP x3/8" OD. ANGLE SUPPLIES WITH STOPS, DELTA 520 MPU SINGLE LEVER SUPPLY FITTING. WITH 2 GPM FLOW. INSTALL HOT WATER TEMPERING VALVE SET AT 110°. PROVIDE LAV GUARD UNDERSINK PROTECTIVE PIPE COVER FOR ALL EXPOSED WATER AND DRAIN PIPES. INSTALL 1 GPM AREATOR.

S-1 ELKAY # LR-2522, ONE COMPARTMENT STAINLESS STEEL SINK WITH # LK-2432 HI-ARK, TWO HANDLE, FAUCET, AND SWING SPOUT.

GARBAGE DISPOSAL: IN-SINK-ERATOR "BADGER 1", 1/3 HP, 115V, 1 PH, 60HZ, WITH PRE-WIRED 3 FOOT CORD WITH GROUNDED CONNECTOR FOR STANDARD WALL RECEPTACLE. PROVIDE AT EACH KITCHEN SINK UNLESS NOTED.

S-2 ELKAY # LR-2522, ONE COMPARTMENT STAINLESS STEEL SINK WITH # LK-2432 HI-ARK, TWO HANDLE, FAUCET, AND SWING SPOUT.

LT-1 LAUNDRY SINK: MUSTEE 10C OR FIAT DL-1, WHITE MODEL DROP IN SINK WITH 20 GALLON CAPACITY, APPROX. 23" x21" x12" DEEP, SOAP DEPRESSION, A-1 CHROME PLATED FAUCET "P" TRAP DISCHARGE.

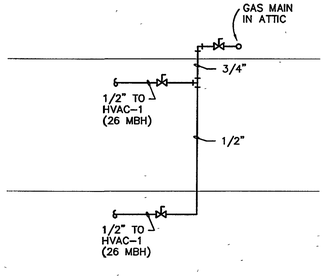
WASHER WALL BOX WASHER BOXES: OATEY OR GUY-GRAY BOX FITTING WITH 2" WASTE CONNECTION, 1/2" ANGLE SHUT-OFF VALVES WITH HOSE END AND VACUUM BREAKERS FOR HOT AND COLD WATER BOX TO FIT IN A 4" STUD SPACE.

SHR-1 SHOWER PANS SHALL BE WHITE FINISH ADA COMPLIANT FIBERGLASS WITH COLLAPSABLE THRESHOLD BEST BATH SYSTEMS MODEL APLCS6334A75B. PROVIDE WITH DELTA #1175143 PRESSURE BALANCED SHOWER VALVE (NON-SCALD) WITH 24" LONG SLIDE BAR, STOPS, 2.0 GPM HAND HELD SHOWER HEAD, HOSE HOOK, 60" HOSE, 3 GRAB BARS AND FOLDING CHAIR.

EWC-1 ELKAY #EBFA-8 BARRIER-FREE NO-LEAD SURFACE MOUNTED WATER COOLER WITH FRONT PUSH-BAR, FLEXI-GUARD BUBBLER AND STAINLESS STEEL CABINET.

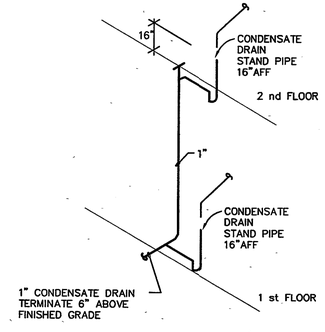
FD-1 ZN-415-6B ZURN FLOOR DRAIN WITH CAST IRON BODY, DOUBLE DRAINAGE FLANGE, WEEPHOLES AND ADJUSTABLE 6" DIAMETER NICKEL BRONZE STRAINER.

FD-2 Z-508 ZURN FLOOR DRAIN WITH CAST IRON BODY, MEMBRANE CLAMP AND 9" DIAMETER HEAVY DUTY CAST IRON LOOSE SLOTTED GRATE.



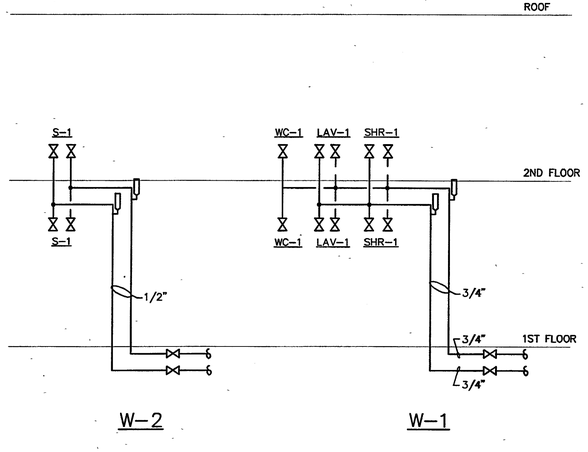
GAS RISER G-1

NO SCALE



UNIT FURNACE CONDENSATE DRAIN RISER.

NO SCALE



W-2 W-1

WATER RISERS

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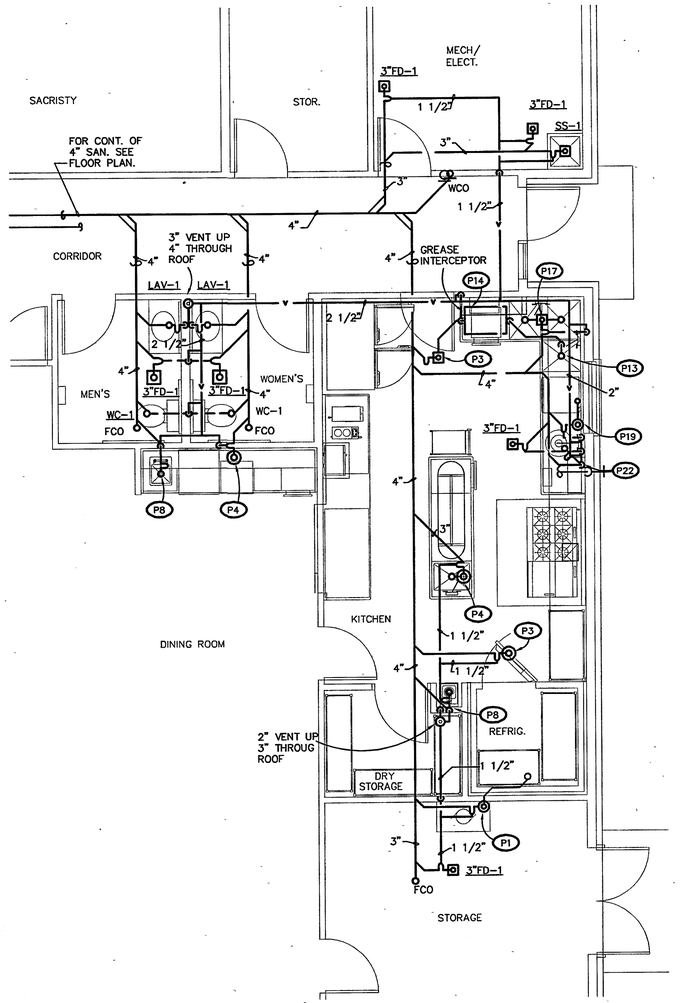
Sheet Title:
RISERS DETAILS AND SCHEDULES

Project Number: 07-140

Sheet Number: M-6

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FIRST FLOOR PARTIAL PLAN-SANITARY

SCALE 1/8"=1'-0"

KITCHEN EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	CW	HW	WASTE	VENT	GAS	NOTES
P1	6" DIA I.W.	–	–	3"	1 1/2"	–	TYPE #5
P2	COND DRAIN	–	–	–	–	–	–
P3	6" DIA F.D.	–	–	–	–	–	TYPE #1
P4	8 1/2" DIA I.W.	–	–	–	–	–	TYPE #6
P5	WORK TABLE WITH SINK	–	1/2"	–	–	–	–
P6	WORK TABLE WITH SINK	1/2"	–	–	–	–	–
P7	HAND SINK	–	1/2"	–	–	–	INSTALL HOT WATER TEMPERING VALVE
P8	HAND SINK	–	–	1/2"	1/2"	–	–
P9	HAND SINK	1/2"	–	–	–	–	–
P10	ICE MAKER	1 1/2"	–	–	–	–	–
P11	COFFEE MAKER	1 1/2"	–	–	–	–	–
P12	ICE TEA MAKER	1 1/2"	–	–	–	–	–
P13	3-COMPARTMENT SINK	–	–	2"	1"	–	TO GRAESE TRAP
P14	GRESE TRAP	–	–	3"	1 1/2"	–	TO F.D.
P15	3-COMPARTMENT SINK	–	3/4"	–	–	–	140°F
P16	3-COMPARTMENT SINK	3/4"	–	–	–	–	TYPE #7
P17	12"x12" I.W.	1/2"	–	–	–	–	140°F
P18	DISHWASHER	–	1"	–	–	–	–
P19	DISHWASHER	–	–	2"	1 1/2"	–	–
P20	DISPOSER W/ PRERINSE	–	1/2"	–	–	–	INSTALL HOT WATER TEMPERING VALVE
P21	DISPOSER W/ PRERINSE	1/2"	–	–	–	–	–
P22	DISPOSER W/ PRERINSE	–	–	3"	1 1/2"	–	–
P22	6 BURNERS GRIDDLE W/OVEN	–	–	–	–	1 1/4"	352 MBH

NOTE:

REFER TO THE FOOD SERVICE EQUIPMENT DRAWING FOR COMPLETE LIST OF THE FIXTURES AND EQUIPMENT SCHEDULE.

KITCHEN HOT WATER REQUIRMENTS

1)	HAND SINK	5 GPH	70°F	RISE
2)	3-COMPARTMENT SINK	66 GPH	100°F	RISE
3)	DISHWASHER	53 GPH	100°F	RISE
4)	PREP SINK	15 GPH	70°F	RISE
5)	PRERINSE/GARBAGE DISPOSER	23 GPH	70°F	RISE
6)	MOP SINK	10 GPH	100°F	RISE
7)	DROP-IN SINK	5 GPH	70°F	RISE
8)	(2) LAVATORY	10 GPH	70°F	RISE
	TOTAL:	134 GPH	100°F	RISE
	TOTAL:	58 GPH	70°F	RISE

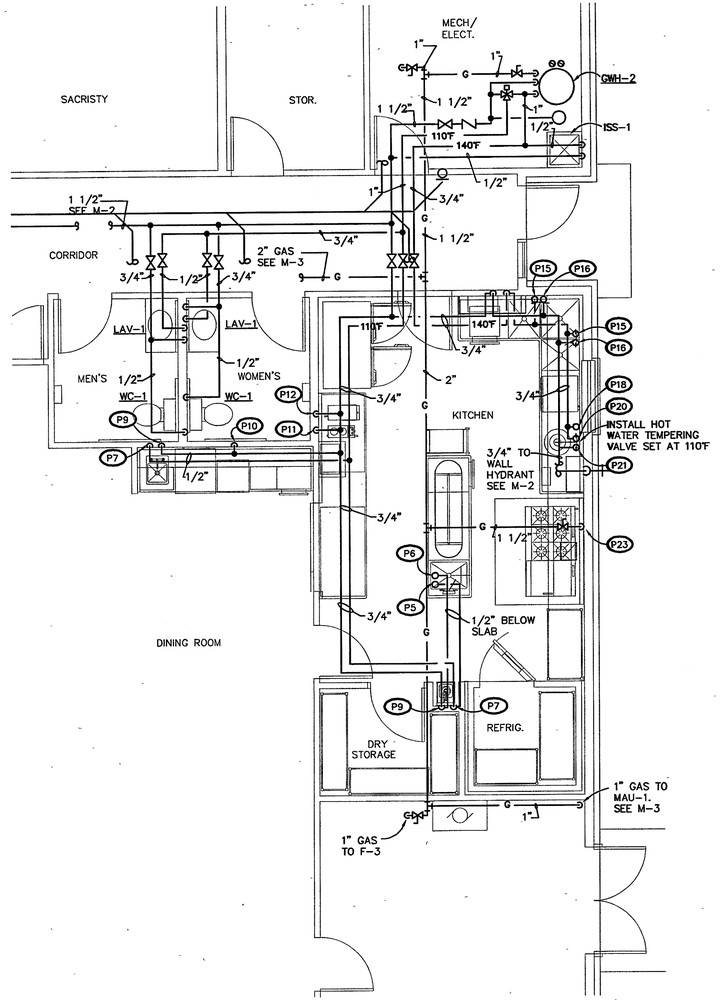
ENERGY INPUT: $\frac{(58x70°F+134x100°F)x\ 8.33}{.98\ EFFICIENCY}$ = 148400 BTUH

GREASE INTERSEPTOR

25 GPM CAPACITY WITH FLOW CONTROL VALVE. INSTALL EXTENSION COLLARS FOR COVER TO BE FLUSH WITH FLOOR. JR SMITH 8025.

NOTE:

INSTALL TRAP SEAL PRIMER FOR ALL COMMON AREAS FLOOR DRAINS, INCLUDING KITCHEN, MECHANICAL ROOMS, PUBLIC TOILET ROOMS, ETC.



FIRST FLOOR PARTIAL PLAN-WATER

SCALE 1/8"=1'-0"

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FIRST FLOOR PARTIAL PLANS - SANITARY AND WATER

Project Number: 07-140

Sheet Number: M-7

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TYPICAL UNIT FURNACE SCHEDULE (HVAC–1)

PLAN CODE	CFM	HEATING MBH		COOLING MBH	BLOWER HP	CONDENSER FAN HP	FUSE SIZE	MODEL No.
		INPUT	OUTPUT					
HVAC–1	400	26	20	12	1/3	1/8	15	26HWC124

NOTES:

1. FURNACES SHALL BE MAGIC–PAK OR APPROVED EQUAL.
2. INSTALL CONDENSATE DRAIN RISER DOWN TO LOWER LEVEL AND EXTEND THROUGH THE WALL TO OUTSIDE 6" ABOVE FIN. GRADE.
3. INSTALL 4"ø OUTSIDE AIR DUCT, 60 CFM. CONNECT TO WALL CAP WITH BIRD SCREEN AND FURNACE RETURN AIR PLENUM. SEE NOTE #5, DRAWING M–5.
4. EXTEND FLUE TO OUTSIDE PER CODE.
5. FURNACES SHALL BE INSTALLED ON RAISED RETURN AIR PLENUM.

DIFFUSERS, REGISTERS SCHEDULE

PLAN CODE	TYPE	CFM	NECK SIZE	MODULE	TITUS MODEL No.
A	DIFF	100	6"ø	24"x24"	TDCA–AA
B	DIFF	200	8"ø	18"x18"	TDCA–AA
C	DIFF	100	6"ø	12"x12"	TDCA–AA
D	REG	100	10"x4"	12"x6"	271RL
E	DIFF	50	6"ø	12"x12"	TDCA–AA
F	REG	150	24"x4"	26"x6"	CT581
G	REG	200	24"x4"	26"x6"	CT581
H	DIFF	300	8"ø	18"x18"	TMSA–AA
I	DIFF	100	4"x6"	6"x8"	271RL
J	DIFF	300	8"ø	18"x18"	TDCA–AA
K	DIFF	250	8"ø	18"x18"	TDCA–AA
L	DIFF	500	10"ø	24"x24"	TMSA–AA
R	REG	–	22"x22"	24"x24"	50F
R–1	REG	–	22"x4"	24"x6"	50F
R–2	REG	–	34"x10"	36"x12"	23RL
R–3	REG	–	16"x6"	18"x8"	23RL

NOTE:

FURNISH ALL CEILING SUPPLY REGISTERS WITH INTEGRAL DAMPER.

EXHAUST FAN SCHEDULE (EF)

EF–No.	CFM	T.S.P.	DRIVE	HP	MOUNT	ELECTRICITY	GRENNCHECK MODEL
EF–A	75	.30"	DIRECT	50 W	CEILING	120/1/60	SP–B90
EF–B	TYPICAL UNITS KITCHEN RANGE HOOD EXHAUST, SEE SPEC THIS DRAWING						
EF–1	100	.25"	DIRECT	80W	CEILING	120/1/60	SP–B110
EF–2	200	.25"	DIRECT	80W	CEILING	120/1/60	SP–A250
EF–3	200	.25"	DIRECT	80W	CEILING	120/1/60	SP–A250
EF–4	100	.25"	DIRECT	80W	CEILING	120/1/60	SP–B110
EF–5	100	.25"	DIRECT	80W	CEILING	120/1/60	SP–B110
EF–6	TYPICAL UNITS KITCHEN HOOD EXHAUST, SEE SPEC THIS DRAWING						

NOTES

1. (EF–A) IS TYPICAL FOR ALL UNITS BATH EXHAUST. INSTALL 5"ø DUCT, TERMINATE IN WALL CAP WITH BACKDRAFT DAMPER FOR FIRST FLOOR, TERMINATE IN ROOF CAP WITH BACKDRAFT DAMPER FOR SECOND FLOOR UNITS. FURNISH WITH RADIATION DAMPER.
2. FURNISH CEILING EXHAUST FANS WITH INTEGRAL GRILLE, BACHDRAFT DAMPER, DISCONNECT SWITCH AND RADIATION DAMPER.
3. ELEVATOR EXHAUST FAN (EF–1) TO BE THERMOSTATICALLY CONTROLED.

TYPICAL UNIT KITCHEN RANGE HOOD(EF–B)

RANGE HOODS SHALL BE COMPLETE WITH TWIN BLOWER DUCTED FAN, GREASE FILTER, LIGHT, TWO SPEED MOTOR. NUTONE MODEL RL6100 OR APPROVED EQUAL. COLOR TO BE SELECTED BY THE ARCHITECT, 30" WIDE.

RANGE HOODS TO BE DUCTED TO OUTSIDE

AIR DELIVERY SHALL BE 160 CFM, 120/1/60 ELECTRICITY, 2 AMPS.

KITCHEN HOOD EXHAUST FAN (EF–6)

EXHAUST FAN SHALL BE SPUN ALUMINUM, UP–BLAST, LISTED BY (UL–762) FURNISH EXHAUST FAN WITH: PITCHED ROOF CURB, AND DISCONNECT SWITCH. EXHAUST FAN SHALL HAVE CAPACITY OF 150 CFM, 1.0" STATIC PRESSURE, BELT DRIVE, 1/2 HP MOTOR.
COOK MODEL No. 165–V5B.

NOTES:

1. INTERLOCK EXHAUST FAN MOTOR STARTER WITH MAKE–UP AIR UNIT SUPPLY FAN MOTOR STARTER.
2. PROVIDE SERVICE PLATFORM WITH ASHA RAILING FOR THE EXHAUST FAN.
3. KITCHEN HOOD EXHAUST DUCT SHALL BE WELDED CONTRUCTION CONFIRMING TO SECTION 506 MICHIGAN MECHANICAL CODE.

MAKE–UP AIR UNIT

INSTALL UNIT ON 4" HIGH REINFORECED CONCRETE PAD. FURNISH UNIT COMPLETE WITH: SCROLL COMPRESSOR, HOT GAS BY–PASS, MANUAL RESET HIGH PRESSURE CUTT–OFF, RASED CURB FOR HORIZONTAL DISCHARGE, G90 GALVANIZED DOULE WALL CONSTRUCTION, SINGLE POINT POWER CONECTION, STAINLESS STEEL GAS HEAT EXCHANGER, GFI CONVINIENCE OUTLET, DISCONNECT SWITCH, SMOKE DETECTORS, PHASE–OUT PROTECTION, 2" PLEATED AIR FILTER WITH PRESSURE ALARM, CONDENSING COIL AND CONDENSING FANS.
MAKE–UP AIR UNIT SHALL HAVE CAPACITY OF:

AIR VOLUME	1550 CFM
HEATING INPUT	150000 BTUH
HEATING OUTPUT	120000 BTUH
BURNER	FULL MODULATING
COOLING	48000 BTUH
ELECTRICITY	208/3/60
MCA	27
FUSE SIZE	40
BLOWER MOTOR	2 HP

INTERLOCK MAKE–UP AIR UNIT FAN MOTOR STARTER WITH KITCHEN HOOD EXHAUST FAN MOTOR STARTER.
INSTALL 1" TRAPPED CONDENSATE DRAIN PAN.
AAON MODEL RM–04

FURNACE (F–1, F–2, F–3)

HIGH EFFICIENCY TYPE WITH SEALED COMBUSTION 88000 BTUH HEATING INPUT 83000 BTUH OUTPUT. INSTALL 60000 BTUH DX COOLING COIL IN DISCHARGE AIR PLENUM. INSTALL CONDENSATE DRAIN AND OVERFLOW DRAIN PIPES. INSTALL 10"ø OUTSIDE AIR DUCT. CONNECT TO RETURN AIR DUCT. EXTEND 10"ø DUCT TO OUTSIDE. INSTALL GAS PIPE WITH GAS VALVE AND DIRT POCKET. INSTALL COMBUSTION AIR AND EXHAUST FLUE, EXTEND TO OUTSIDE THROUGH CONCENTRIC ADAPTER FURNACE SHALL BE LENNOX MODEL G51MP–60. INSTALL REMOTE CONTROL CONSOL WITH PROGRAMMABLE THERMOSTAT. BALANCE FOR 400 CFM OUTSIDE AIR.

CONDENSING UNIT (ACCU–1, ACCU–2, ACCU–3)

INSTALL AIR COOLED CONDENSING UNIT ON 4" HIGH CONCRETE PAD. INSTALL REFRIGERANT PIPES AND CONNECT TO DX–COOLING COIL IN RESPECTIVE FURNACES. INSULATE REFRIGERANT PIPES WITH 3/4" THICK ARMAFLEX INSULATION. 5 TONS HEAT REJECTION.

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E-mail: cdpa@cdpa-architects.com
www.cdpaarchitects.com

Key Plan: NO SCALE

Project Name and Client.
NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

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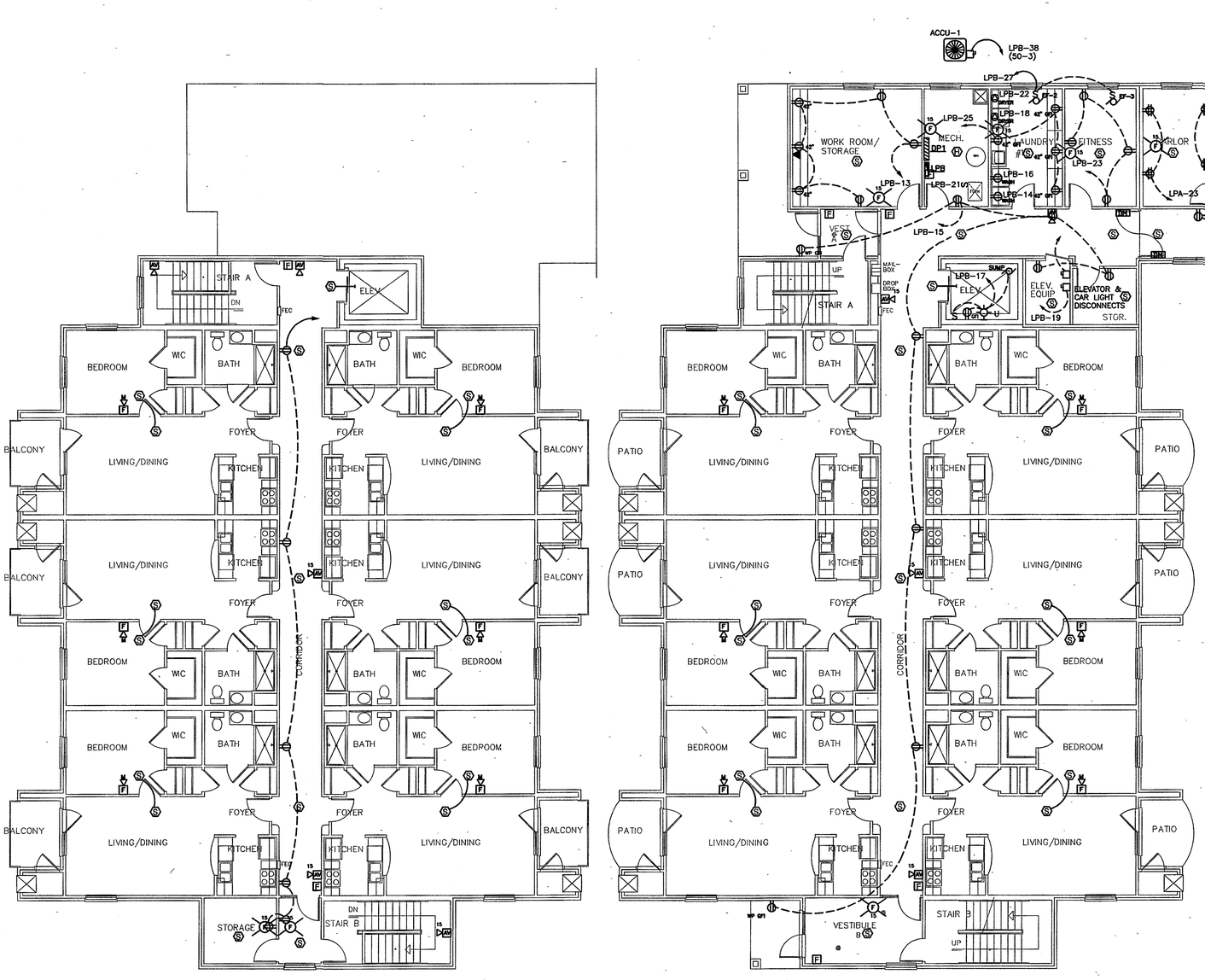
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Sheet Title:
MECHANICAL SCHEDULES

Project Number: 07-140
Sheet Number: M-8

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SECOND FLOOR ELECTRICAL PLAN

SCALE 1/8"=1'-0"

FIRST FLOOR ELECTRICAL PLAN

SCALE 1/8"=1'-0"

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Sheet Title:
ELECTRICAL FLOOR PLANS

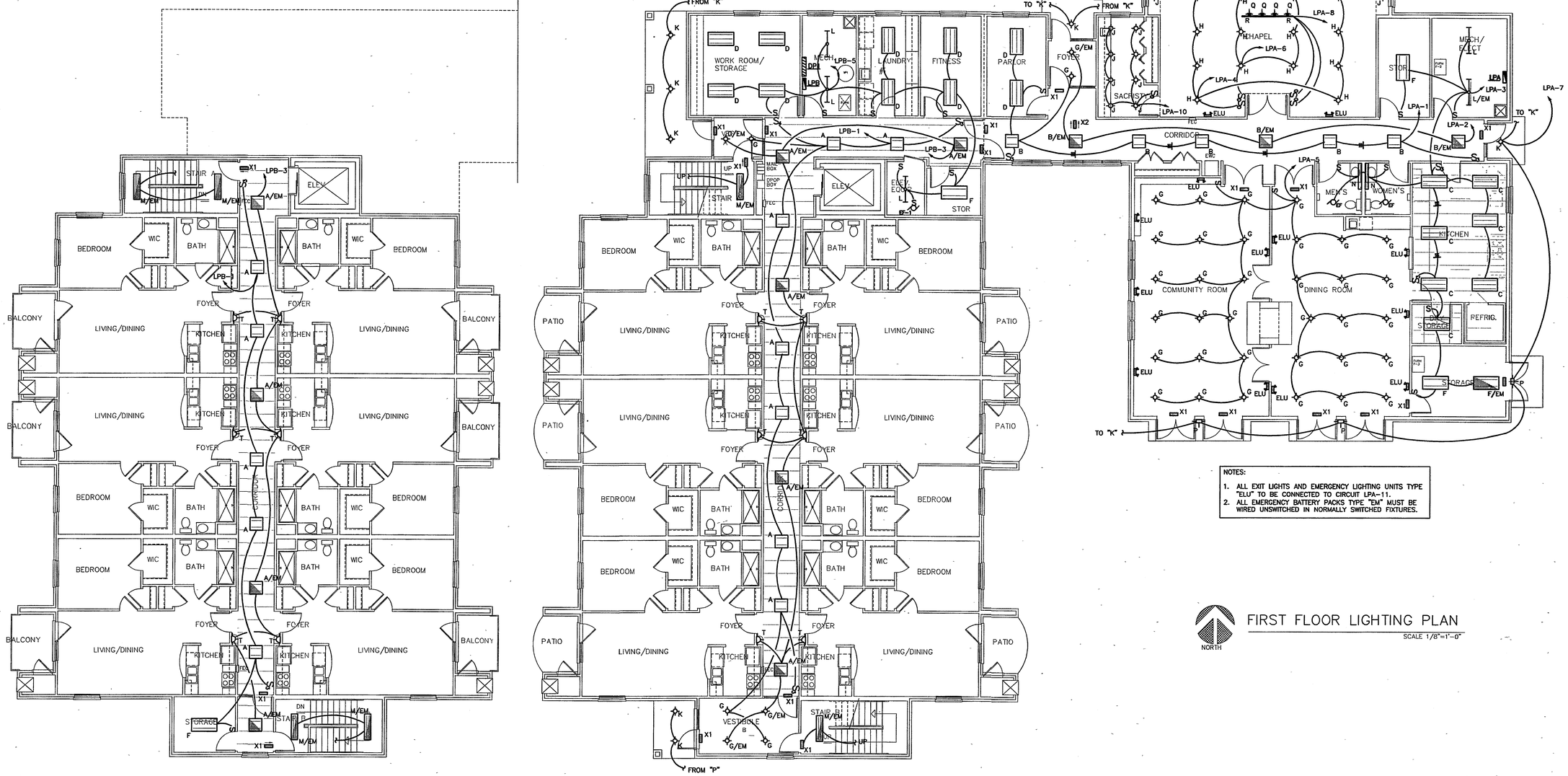
NEIL ADAMS, INC.
CONSULTING ENGINEERS • LIGHTING DESIGNERS
3258 BROAD ST.– DEXTER, MI. 48130–0430
(734) 426–0020 FAX (734) 426–9244

Project Number: 07-140

Sheet Number: E-1

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SECOND FLOOR LIGHTING PLAN

SCALE 1/8"=1'-0"

NOTES:

1. ALL EXIT LIGHTS AND EMERGENCY LIGHTING UNITS TYPE "ELU" TO BE CONNECTED TO CIRCUIT LPB-2.
2. ALL EMERGENCY BATTERY PACKS TYPE "EM" MUST BE WIRED UNSWITCHED IN NORMALLY SWITCHED FIXTURES.

FIRST FLOOR LIGHTING PLAN

SCALE 1/8"=1'-0"

NOTES:

1. ALL EXIT LIGHTS AND EMERGENCY LIGHTING UNITS TYPE "ELU" TO BE CONNECTED TO CIRCUIT LPA-11.
2. ALL EMERGENCY BATTERY PACKS TYPE "EM" MUST BE WIRED UNSWITCHED IN NORMALLY SWITCHED FIXTURES.

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Key Plan: NO SCALE

Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

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Date	Issued For
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ELECTRICAL LIGHTING FLOOR PLANS

Project Number: 07-140

Sheet Number: E-2

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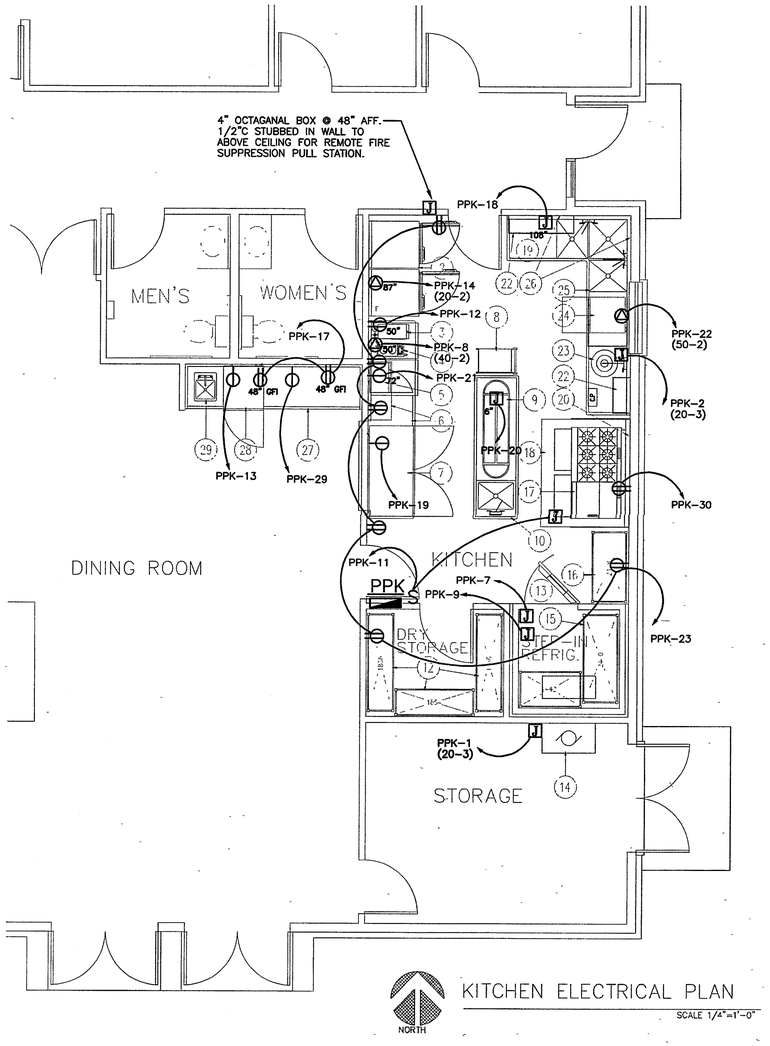
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ITEM	QTY	DESCRIPTION
1	1	ST. ST. HAND SINK
2	1	SINGLE SECTION REACH-IN FREEZER
3	1	ICED TEA MAKER
4	1	COFFEE MAKER
5	1	MICROWAVE OVEN
6	1	ST. ST. WORK COUNTER W/OVERSHELF
7	1	UNDERCOUNTER REFRIGERATOR
8	1	PORTABLE THREE TIER CART
9	1	CEILING HUNG UTENSIL RACK
10	1	ST. S.T WORK TABLE W/SINK
11	–	SPARE – NOT USED
12	1 LOT	DRY STORAGE SHELVING
13	1	WALK-IN REFRIGERATOR
14	1	REFRIGERATION SYSTEM
15	1 LOT	WALK-IN REFRIG. SHELVING
16	1 LOT	STORAGE SHELVING
17	1	SIX BURNER/GRIDDLE TOP RANGE W/OVEN BASE
18	1	ST. ST. EXHAUST HOOD
19	1	WET CHEMICAL FIRE SYSTEM
20	1 LOT	ST. ST. WALL PANELING
21	–	SPARE – NOT USED
22	1 LOT	WIRE WALL SHELVING
23	1	3 H.P. DISPOSER W/PRE-RINSE
24	1	UNDERCOUNTER DISHWASHER
25	1	ST. ST. THREE COMPARTMENT SINK
26	1 LOT	ST. ST. WALL PANELING
27	1	MILLWORK SERVICE COUNTER
28	1	UNDERCOUNTER REFRIGERATOR
29	1	ST. ST. DROP-IN SINK
30	1 LOT	FIELD ERECTION LABOR

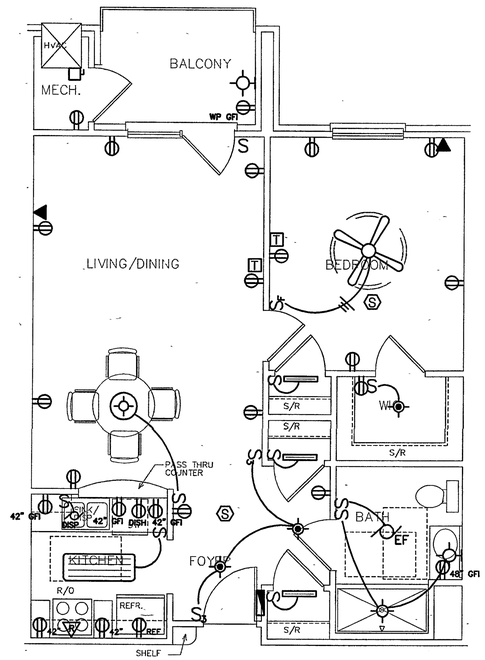
LIGHTING FIXTURE SCHEDULE

TYPE	BRIEF DESCRIPTION	LAMPS	WATTS	MANUFACTURER & CATALOG NO.	REMARKS
A	2'x2' Recessed Flourescent	2-FB032/835/6/ECO	96	Lithonia 2SP8G 2U316 A12 120 GEB	Grid
B	2'x2' Recessed Flourescent	2-FB032/835/6/ECO	64	Lithonia 2SP8F 2U316 A12 120 GEB	Flanged
C	2'x4' Recessed Fluorescent	3-FO32/835/ECO	96	Lithonia 2SP8G332-A12.125-120-GEB-GASKET	Grid
D	2'x4' Recessed Fluorescent	3-FO32/835/ECO	96	Lithonia 2SP8F332-A12-120-GEB	Flanged
ELU	Emergency Lighting Unit	-------	----	Lithonia ELM618-K0906	
EM	Fluorescent Emergency Pack	-------	---	Lithonia PS1400	
F	2'x4' Recessed Fluorescent	2-FO32/835/ECO	64	Lithonia 2SPF232-A12-120-GEB	Flanged
G	7" Compact Fluorescent Downlight	1-PL-T 32W/35/4P	32	Kurt Versen P931-R2	
G/EM	7" Compact Fluorescent Downlight	1-PL-T 32W/35/4P	32	Kurt Versen P931-R2-EM120	
H	7" Recessed A-Lamp Slope Clg Downlight	1-BC150BT15/HAL/W	150	Kurt Versen C7348-R2	
J	4" Recessed A-Lamp Downlight	1-BC100BT15/HAL/W	100	Kurt Versen C7319-R2	
K	Recessed HID Lens Downlight	1-MP50/U/MED	72	Lithonia LGH 50M 8 T73 120 GSKT	
L	4' Industrial Fluorescent	2-FO32/835/ECO	64	Lithonia LA 232 120 GEB	
M	1'x4' Surface Fluorescent	2-FO32/835/ECO	64	Lithonia AW232 120 GEB	
N	4' Wall Mtd. Fluorescent	2-FO32/835/ECO	66	Lithonia WS232 A12 120 GEB	
P	Wall Mtd. Area Light	1-MP50/U/MED	72	Lithonia WST-50M-WT-120-SF-DDBT	
Q	PAR38 Track Mtd. Lamp Holder	1-100PAR38/CAPIR/NFL25	100	Lithonia LTC PRSD PAR38 WH	
R	4' Two Ckt. Lighting Track	-----	--	Lithonia L2T4 WH	
T	Perforated Quarter Cylinder Wall Sconce	1-PL-T 32W/35/4P	32	Lithonia AVSP-1-32TRT-MDR-120	
U	Wall Mtd. Non-Metallic CF Vaporproof	1-PL-T32W/35/4P	32	Canlet GFWF 32H1G GPC	
X1	Universal LED Exit Light	-----	--	Lithonia LQM SW 3R 120/277 EL	



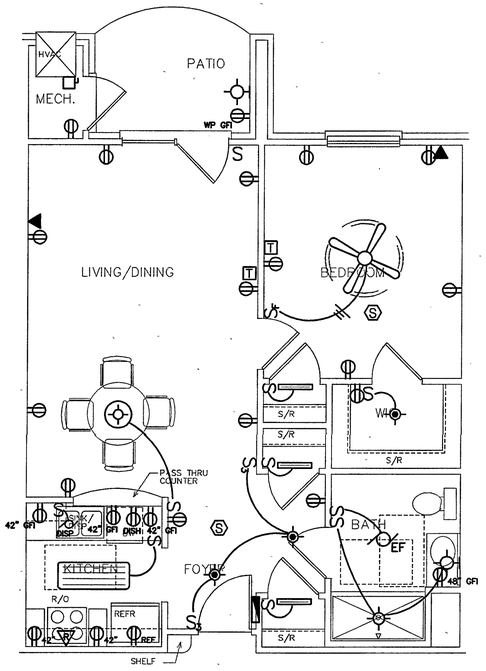
KITCHEN ELECTRICAL PLAN

SCALE 1/4"=1'-0"



TYPICAL SECOND FLOOR UNIT PLAN

SCALE 1/4"=1'-0"



TYPICAL FIRST FLOOR UNIT PLAN

SCALE 1/4"=1'-0"

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Key Plan: NO SCALE

Project Name and Client:

NEW BASILIAN FATHERS RESIDENCE
NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

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Sheet Title:

PARTIAL ELECTRICAL FLOOR PLANS AND SCHEDULE

Project Number: 07-140

Sheet Number: E-3

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RESIDENTIAL UNIT CALCULATIONS

	Unit	Bulding
		No. Units
□B		
Area	670	12
Bsm't	0	
A/C Tons	1	
Gen Ltg	2,010	24,120
Sm Appl	3,000	36,000
Laundry	0	0
Sub Tot	5,010	60,120
First 3K	3,000	3,000
Next 117K	704	19,992
Remainder	0	0
GL Total	3,704	22,992
Microwave	1,500	18,000
Dishwash	1,200	14,400
Disposal	1,176	14,112
Sump Pump	0	0
Dryer	0	0
Appl Sub	3,876	46,512
d.f.	1	1
Appl Tot	3,876	46,512
SUMMARY		
GL Total	3,704	22,992
Appl Tot	3,876	46,512
Range/Oven	8,000	27,000
Air Cond	1,900	22,800
TOTAL	17,480	119,304
Residence Amps	73	497

Optional Calculation

GL Total	60,120
Appl Tot	46,512
Dryer	0
Range	115,200
Air Cond	22,800
Furnace	0
TOTAL	244,632
d.f	0.41
Res. VA	100,299
SERVICE	100,299
Residence Amps	418

DISTRIBUTION PANEL SCHEDULE

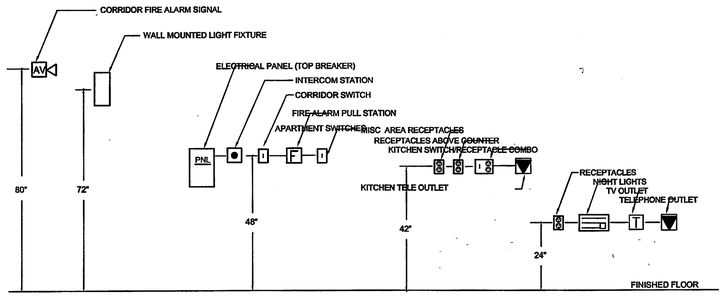
120/208V,3ph,4w — Panel MDP

ckt	Switch/fuse	Load Description	Con. KVA	Estimated Demand KVA
1	400A,3P/400FU	Panel DP1	210.0	100.8 PER DEMAND CALC.
2	200A,3P/200FU	Panel LPA	50.2	40.2
3	200A,3P/200FU	Panel LPB	37.9	30 3
4	200A,3P/200FU	Panel PPK	37.6	30.1
5	200A,3P/175FU	Elevator	43.2	34.6
6				
7				
8				
		Total	378.9	236.0
		Amperes Connected	1052.6	
		Amperes Demand		655 4

DISTRIBUTION PANEL SCHEDULE

400A M.L.O. — 120/208V,3ph,4w — Panel DP1

ckt	Switch/fuse	Load Description	Con. KVA	Estimated Demand KVA
1	100A,2P 100FU	Tenant Panel TPA	17.5	8.4
2	100A,2P 100FU	Tenant Panel TPB	17.5	8 4
3	100A,2P 100FU	Tenant Panel TPC	17.5	8.4
4	100A,2P 100FU	Tenant Panel TPD	17.5	8 4
5	100A,2P 100FU	Tenant Panel TPE	17.5	8.4
6	100A,2P 100FU	Tenant Panel TPF	17.5	8.4
7	100A,2P 100FU	Tenant Panel TPG	17.5	8.4
8	100A,2P 100FU	Tenant Panel TPH	17.5	8 4
9	100A,2P 100FU	Tenant Panel TPI	17.5	8.4
10	100A,2P 100FU	Tenant Panel TPJ	17.5	8.4
11	100A,2P 100FU	Tenant Panel TPK	17.5	8.4
12	100A,2P 100FU	Tenant Panel TPL	17.5	8.4
		Total	210.0	100 8
		Amperes Connected	583.3	
		Amperes Demand		280.0



MOUNTING HEIGHT DETAIL

DISTRIBUTION PANEL SCHEDULES

BRANCH PANEL SCHEDULE

Basilian Residence — 225A M.L.O. — 120/208V,3ph,4w — Panel LPA

Breaker A	Breaker P	DESCRIPTION	Circuit	Watt	No	Phase Loads A	B	C	Circuit No	Watt	Description	Breaker A	Breaker P
20	1	Corridor Lighting		544	1	768			2	224	Corridor Night Lights	20	1
20	1	Kitchen/Toilet/Storage Ltg		1320	3		2720		4	1400	Chapel Lighting	20	1
20	1	Community/Dining Lighting		1152	5			2352	6	1200	Chapel Lighting	20	1
20	1	Exterior Bldg Lighting		720	7	1120			8	400	Chapel Track	20	1
20	1	Exterior Site Lighting		1036	9		1836		10	800	Sacristy Lighting	20	1
20	1	Exit/Stair Lighting		300	11			300	12	0	Spare	20	1
20	1	Corridor Receptls		1400	13	2600			14	1200	EWC	20	1
20	1	Chapel Receptls		800	15		1800		16	1000	Dining/Toilet Receptls	20	1
20	1	Chapel Receptls		800	17			2000	18	1200	Community Receptls	20	1
20	1	Sacristy Receptls		600	19	1400			20	800	Storage Receptls	20	1
20	1	Parlor Receptls		800	21		1496		22	696	Furnace F-2	20	1
20	1	Parlor Receptls		800	23			1496	24	696	Furnace F-3	20	1
20	3	EFFH Wall Heater		1000	25	1000			26		Spare	20	1
"	"	" "		1000	27		1000		28		Spare	20	1
"	"	" "		1000	29			1000	30		Spare	20	1
					31	0			32		Spare	20	1
					33		0		34		Spare	20	1
					35			0	36		Spare	20	1
50	3	ACCU-2		4560	37	9120			38	4560	ACCU-3	50	3
"	"	" "		4560	39		9120		40	4560	" "	"	"
"	"	" "		4560	41			9120	42	4560	" "	"	"
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BRANCH PANEL SCHEDULE

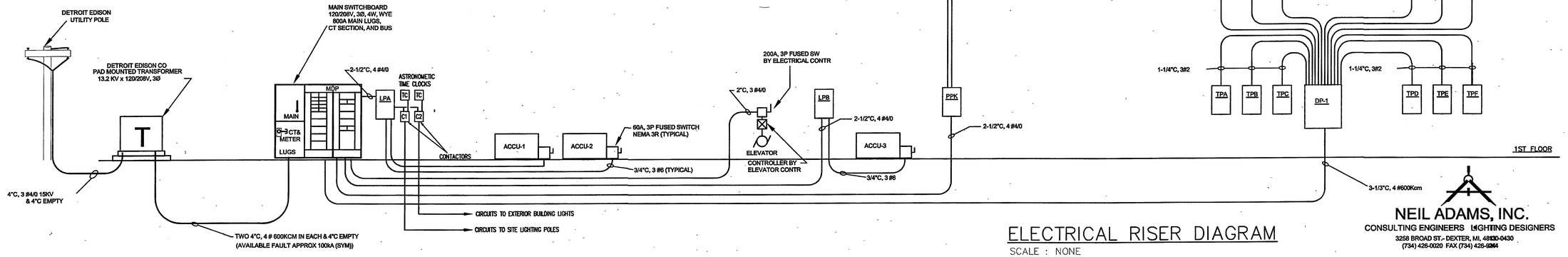
Basilian Residence — 225A M.L.O — 120/208V,3ph,4w — Panel PPK

Breaker A	Breaker P	DESCRIPTION	Circuit	Watt	No	Phase Loads A	B	C	Circuit No	Watt	Description	Breaker A	Breaker P
20	3	Refrigeration Compressor		444	1	1764			2	1320	Disposer	20	3
"	"	" "		444	3		1764		4	1320	" "	"	"
"	"	" "		444	5			1764	6	1320	" "	"	"
20	1	Walk-in Lights & Heaters		800	7	3950			8	3150	Coffee Maker	20	2
20	1	Walk-in Blower Coil		1200	9		4350		10	3150	" "	"	"
20	1	Hood Lights		200	11			1400	12	1200	Iced Tea Maker	20	1
20	1	U.C. Refrig		696	13	2136			14	1440	Freezer	20	2
20	1	Spare			15		1440		16	1440	" "	"	"
20	1	Counter Receptls		800	17			1760	18	960	Fire Suppression System	20	1
20	1	U.C. Refrig		1176	19	1976			20	800	Counter Receptls	20	1
20	1	Microwave		1200	21		1652		22	492	Dishwasher	20	1
20	1	Kitchen Receptls		1200	23			1652	24	492	" "	20	1
20	1	Spare		0	25	0			26		Spare	20	1
20	1	Spare		0	27		0		28	0	Spare	20	1
20	1	Ice Maker		696	29			1096	30	400	Range (Shunt Trip)	20	1
					31	0			32	0	Spare	20	1
					33		0		34				
20	1	Kitchen Hood Fan EF-6		1176	35			1176	36				
40	3	MUA-1		3240	37	3240			38				
"	"	" "		3240	39		3240		40				
"	"	" "		3240	41			3240	42				
						13066	12446	12088					

BRANCH PANEL SCHEDULE

Basilian Residence — 225A M.L.O. — 120/208V,3ph,4w — Panel LPB

Breaker A	Breaker P	DESCRIPTION	Circuit	Watt	No	Phase Loads A	B	C	Circuit No	Watt	Description	Breaker A	Breaker P
20	1	Corridor Lighting		928	1	1320			2	392	Exit/Stair Lighting	20	1
20	1	Corridor Night Lights		1056	3		1056		4	0	Spare	20	1
20	1	Work/Mech/Laund/Fitness Ltg		1024	5			1024	6	0	Spare	20	1
20	1	Spare		0	7	0			8	0	Spare	20	1
20	1	Spare		0	9		0		10	0	Spare	20	1
20	1	Spare		0	11			0	12	0	Spare	20	1
20	1	Work/Storage Receptls		1200	13	2700			14	1500	Washer	20	1
20	1	Corridor Receptls		1600	15		3100		16	1500	Washer	20	1
20	1	Elevator Pit		600	17			3480	18	2880	Dryer	30	2
20	1	Elevator Car Lights		200	19	3060			20	2880	" "	"	"
20	1	Furnace F-1		696	21		3576		22	2880	Dryer	30	2
20	1	Fitness Receptls		800	23			3680	24	2880	" "	"	"
20	1	Laundry Receptls		800	25	800			26				
20	1	Exhaust Fans EF-1/EF-2		400	27		400		28				
20	1	Spare		0	29			0	30				
20	1	Spare		0	31	0			32				
20	1	Spare		0	33		0		34				
					35			0	36				
					37	4560			38	4560	ACCU-1	50	3
					39		4560		40	4560	" "	"	"
					41			4560	42	4560	" "	"	"
						12460	12692	12744					



ELECTRICAL RISER DIAGRAM

SCALE : NONE

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Key Plan: NO SCALE

Project Name and Client:

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NOVI, MICHIGAN

BASILIAN FATHERS
NOVI, MICHIGAN

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Sheet Title:
ELECTRICAL RISERS PANEL SCHEDULES AND DETAILS

Project Number: 07-140

Sheet Number: E-4

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ADDENDUM TO PLANNED REZONING OVERLAY (PRO) AGREEMENT FOR THE BASILIAN FATHERS' RESIDENCE, RECORDED IN LIBER 40536 PAGE 488 OAKLAND COUNTY RECORDS

AGREEMENT, by and among Sri Venkateswara Temple & Cultural Center, Inc. 26233 Taft Road, Novi, Michigan 48374 (herein "Assignee") and the City of Novi, 45175 West Ten Mile Road, Novi, Michigan 48375-3024 (herein "City").

RECITATIONS

I. In July of 2008, a Planned Rezoning Overlay Agreement was executed by and between the Basilian Fathers of Milford, Michigan (referred to therein as "Developer") and the City of Novi (referred to therein as "City") which was recorded at Liber 40536 Page 488 of the Oakland County Records. (hereinafter "PRO")

II. The PRO provided approval for the improvement and use of certain real property in the City of Novi for an approximately 20,000 square foot residential building for the religious order known as the Basilian Fathers, including individual sleeping quarters for a maximum of 14 persons (hereinafter "Property").

III. The Basilian Fathers now wish to sell the Property to Assignee for use by the Assignee as residential use for the religious order of Assignee.

IV. Because some of the Assignee's religious priests are married, Assignee requests that the maximum number of residents allowed by the PRO be increased from 14 to 17.

V. Other than the alteration of the interior of the residential building on the Property, converting eight one-bedroom units to four two-bedroom units, no additional changes would be made to the interior of the residential building on the Property.

VI. There will be no changes to the exterior of the residential building or to the Property or site from that which was approved in the PRO.

VII. Assignee agrees to be bound by all of the conditions, obligations, Undertakings, and forbearances of Developer in the PRO, with the only exception being that the maximum number of ~~permanent~~ residents be increased from 14 persons to 17 persons.

DRAFT

NOW THEREFORE, as an integral part of the approval of this Addendum to PRO, and in consideration of Assignee accepting and agreeing to be bound by all of the mutual covenants in the PRO except as set forth in this addendum, IT IS HEREBY AGREED AS FOLLOWS:

1. The City hereby acknowledges the assignment of the PRO by the Basilian Fathers (Developer) to Sri Venkateswara Temple & Cultural Center, Inc. (Assignee).

2. All of the provisions of the PRO including all conditions, obligations, Undertakings, forbearances and approvals will remain binding on the Assignee and the City except as follows:

    a. The maximum number of ~~permanent~~ residents set forth in the PRO, ~~paragraph 2~~wherever stated, shall be increased from 14 ~~permanent residents~~ to 17 permanent residents.

3. Assignee remains obligated to obtain all necessary permits for the alteration to the interior of the residential building.

4. This Addendum may be signed in counterparts.

OWNERS:

SRI VENKATESWARA TEMPLE
& CULTURAL CENTER, INC.

_____
By:
Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

On this ____ day of _____, 2026, before me appeared _____, on behalf of the Sri Venkateswara Temple & Cultural Center, Inc., who stated that they had signed this document of their own free will duly authorized on behalf of the company.

_____
Notary Public
_____ County, Michigan
Acting in the County of _____

DRAFT

My commission expires: _____

DRAFT

CITY OF NOVI

By: _____

Its: Mayor

By: _____

Its: Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

On this ____ day of _____, 2026, before me appeared _____ and _____ who stated that they had signed this document of their own free will on behalf of the City of Novi in their respective official capacities, as stated above.

_____
Notary Public
_____ County, Michigan
Acting in the County of _____
My commission expires: _____

DRAFT

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Consideration to Approve a Purchase Agreement to Sell a Portion of Parcel 22-23-151-029 to Novi Industrial, LLC for $68,000 for Placement of a Storage Tower.

SUBMITTING DEPARTMENT: City Manager

KEY HIGHLIGHTS:

- The City would sell 0.783 acres of unused Water Tower Park property to Novi Industrial, LLC for its appraised value of $68,000. The sale excludes the developed park areas and the water tower, and City access to the tower from Trans-X Road must be maintained at all times.
- In addition to the purchase price, the buyer has agreed to reimburse the City $16,000 in attorneys' fees incurred over the past two years in preparing the transaction documents.
- Approving the sale does not approve the sand silo. The owner and Temperform must still go through site plan review, resolve the concrete pad's placement over a recorded sewer easement, and may need variances for the silo's height and setback following Planning Commission review.

BACKGROUND INFORMATION:

Novi Industrial, LLC, owner of the property at 25425 Trans-X Road, is requesting to purchase an unused portion of the City's Water Tower Park property (Parcel 22-23-151-029). Its tenant, Temperform, placed a concrete pad in this area believing it was part of the leased parcel, and the owner now seeks to acquire the land in order to place a sand silo there.

The property is located in the southeast part of Water Tower Park, at the southeast corner of Novi Road and Trans-X Road. The proposed 0.783-acre purchase area does not include the developed portions of the park or the water tower itself. If the property is transferred, access from Trans-X Road to the water tower must be maintained at all times so the City and its agents can continue to maintain the tower and nearby improvements.

After meeting with the City and exploring options for relocating the silo elsewhere on its own site, Temperform determined that doing so would require variances from the Zoning Board of Appeals. Temperform indicates that even with variances, the silo would

not fit properly on its current site. As a result, it has requested that the City sell a portion of the adjacent property to accommodate the silo.

Temperform obtained an appraisal of the City-owned portion, which is attached. The appraised value is $68,000. The appraisal was conducted by RS Thomas & Associates, a firm the City has used for various property acquisitions. Temperform and Novi Industrial have also provided an updated survey, including information requested by the Assessing Department to adjust the parcel boundaries.

The Purchase Agreement was prepared by the City Attorney's Office, with minor modifications proposed by the purchaser. Temperform requested two amendments to the agreement to extend the timeframe for environmental due diligence and is now ready to move forward. Temperform has also agreed to reimburse the City $16,000 in attorneys' fees incurred over the past two years in preparing the transaction documents.

If the property is transferred, the owner and Temperform will need to follow the City's site plan submittal and review process for any improvements on the site, including the location of the proposed sand silo. The applicant will need to resolve any concerns about the concrete pad's installation over a recorded sewer easement, and may need to request variances for the silo's height and setback following review and approval by the Planning Commission.

RECOMMENDED ACTION: Approval of a Second Amendment to Purchase Agreement to Sell a Portion of Parcel 22-23-151-029 to Novi Industrial, LLC for $68,000, for the area shown in the attached survey, and to authorize the City Manager to sign the Purchase Agreement and work with the City Attorney's Office to take all actions necessary to complete closing of the sale.

SECOND AMENDMENT TO PURCHASE AGREEMENT

THIS SECOND AMENDMENT TO PURCHASE AGREEMENT (this "Second Amendment") is made and effective as of _____,___, 2026 (the "Effective Date"), by and between the CITY OF NOVI (the "Seller"), and NOVI INDUSTRIAL LLC, a Michigan limited liability company (the "Buyer").

RECITALS

A. The parties entered into a certain Purchase Agreement dated February 5, 2025 (the "Purchase Agreement") for the sale and purchase of Property located at 25460 Trans-X Drive, Novi, Michigan;

B. The parties entered into a certain First Amendment to Purchase Agreement dated June 23, 2025 which amended the closing date for the sale of the Property (the "First Amendment");

C. The sale transaction contemplated by the Purchase Agreement and the First Amendment was scheduled to close not later than July 15, 2025;

D. Buyer identified, diligently pursued and recently completed certain due diligence and environmental investigations relating to the Property; and

E. Seller and Buyer desire and agree to extend the closing date and to amend the Purchase Agreement as described herein.

NOW, THEREFORE, in consideration of the premises and agreements set forth herein, and other good and valuable consideration as set forth herein, the receipt and sufficiency of which is hereby acknowledged, the Buyer and Seller hereby agree as follows:

1. The paragraph entitled "Closing" of the Purchase Agreement is amended as follows:

The closing deadline shall be extended to occur not later than September 30, 2026.

2. The paragraph entitled "Payment of Fees, Closing Costs, Etc." of the Purchase Agreement is amended as follows:

> Buyer shall pay all closing fees and all costs associated with recording the required Deed and any loan documents. The parties agree that the Title Company shall prepare the required Deed and closing documents necessary to complete this transaction, that the Title Company shall conduct the closing, and that the cost of same, together with any settlement, document preparation, or disbursement fee, shall be borne by Buyer. Buyer shall also pay the required transfer tax, the cost of an owner's commitment and policy of title insurance, and recording fees relative to the discharge of Seller's mortgage, if any. At closing, the parties shall execute closing statements prepared by the Title Company and all income or other tax reporting documents as required by the Title Company. Buyer shall pay at closing

$16,000.00 toward the cost of preparation and review of this Agreement and any closing documents by Seller's attorney.

3. Except as expressly modified by this Second Amendment, all terms, conditions and provisions of the Purchase Agreement and First Amendment shall remain unaltered, and the parties hereby ratify the Purchase Agreement, as amended by the First Amendment and hereby, and agree that the Purchase Agreement, as amended, shall remain in full force and effect, and that neither party currently has any claims against the other for breach of any terms under the Purchase Agreement or First Amendment.

4. This Second Amendment shall be construed as to both validity and performance and enforced in accordance with and governed by the Laws of the State of Michigan, without regard to any applicable principles of conflicts of law that might require the application of the laws of any other jurisdiction.

5. This Second Amendment may be executed in two (2) or more counterparts, in each case including by facsimile or portable document format (.pdf), each of which shall be deemed an original but all of which taken together shall constitute one and the same instrument.

6. Capitalized terms appearing in this Second Amendment that are not defined herein shall have the meaning attributed to them in the Purchase Agreement.

7. The term “Purchaser” in the First Amendment, and the term “Buyer” in the Purchase Agreement and this Second Amendment, shall both mean Novi Industrial LLC.

* * * * *

[Signatures appear on the following page(s)]

INTENDING TO BE LEGALLY BOUND, the parties have executed this Second Amendment to the Purchase Agreement as of the Effective Date.

SELLER:

CITY OF NOVI

By: _____
Name: Justin P. Fischer
Its: Mayor

By: _____
Name: Cortney Hanson
Its: Clerk

BUYER:

NOVI INDUSTRIAL LLC
a Michigan limited liability company

By: _____
Name: Matt Ryan
Its: Manager

[Signature Page to Second Amendment to Purchase Agreement]

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of a Resolution to close the intersection of Ten Mile and Taft Roads for the 2026 Novi High School Homecoming Parade from 4:30 PM to 6:00 PM on Friday, October 9, 2026.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

BACKGROUND INFORMATION:

Novi High School has planned its annual Homecoming Parade to occur on Friday, October 9, 2026, from 4:30 PM until 6:00 PM using Taft Road as the primary route, crossing Ten Mile Road. The parade route starts from Parkview Elementary School, goes east on Eleven Mile Road heading south on to Taft Road crossing Ten Mile Road and ending at Novi High School parking lot north of Addington Lane. Ten Mile Road is under RCOC jurisdiction, so City Council approval is required.

The Road Commission for Oakland County (RCOC) has issued an Annual Permit Number 64939 (that is valid through December 31, 2026) to the City allowing use of the roadways under County jurisdiction for civic events. The permit is predicated upon the adoption of an Authorizing Resolution by the Novi City Council approving the event and agreeing to the terms of the permit. Permit requirements include hold harmless and indemnity and represents the Board of Road Commissioners against any and all claims for bodily injury or property damage, or any other claim related to the Parade.

Ten Mile Road is under the jurisdiction of the RCOC. Approval of the attached resolution is required as part of RCOC Permit Number 64939.

RECOMMENDED ACTION: Approval of a Resolution to close the intersection of Ten Mile and Taft Roads for the 2026 Novi High School Homecoming Parade from 4:30 PM to 6:00 PM on Friday, October 9, 2026.

CITY OF NOVI

COUNTY OF OAKLAND, MICHIGAN

RESOLUTION AUTHORIZING 2026 NOVI HIGH SCHOOL HOMECOMING PARADE

Minutes of a Meeting of the City Council of the City of Novi, County of Oakland, Michigan, held in the City Hall of said City on September 14th, 2026, at 7'o'clock P.M. Prevailing Eastern Time.

PRESENT: Councilmembers_____

ABSENT: Councilmembers_____

The following preamble and Resolution were offered by Councilmember _____and supported by Councilmember _____.

WHEREAS; the 2026 Novi High School Homecoming Parade event, presented by the Novi School District, will take place on Friday, October 9, 2026, from 4:30 p.m. to 6:00 p.m.; and

WHEREAS; the parade route starts at Parkview Elementary School and goes east on Eleven Mile Road heading south on to Taft Road crossing Ten Mile Road and ending at the Novi High School parking lot north of Addington Lane; and

WHEREAS; the City of Novi has been issued an annual permit, that is valid through December 31, 2026, permit number 64939, by the Road Commission for Oakland County to conduct civic events on roads under the jurisdiction of RCOC; and

WHEREAS; the validity of the permit is conditioned upon adoption of an Authorizing Resolution by the Novi City Council for the event and a statement agreeing to the terms of the permit.

NOW THEREFORE, BE IT RESOLVED that the Mayor and Council of the City of Novi hereby support and authorize the 2026 Novi High School Homecoming Parade event and will fulfill all permit requirements, hold harmless, indemnify, and represent the Board of Road Commissioners against any and all claims for bodily injury or property damage, or any other claim arising out of or related to the 2026 Novi High School Homecoming Parade

AYES:

NAYS:

RESOLUTION DECLARED ADOPTED.

_____
Cortney Hanson, City Clerk

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi, County of Oakland, and State of Michigan, at a regular meeting held this 14th day of September 2026, and that public notice of said meeting was given pursuant to and in full compliance with Act No. 267, Public Acts of Michigan, 1976, and that the minutes of said meeting have been kept and made available to the public as required by said Act.

_____
Cortney Hanson, City Clerk
City of Novi

2026 Novi Homecoming Parade



Map Author: Jeff Van Curler
Date: 8/26/2025
Project: 2025 Novi Homecoming Parade
Version: 1.0

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Pleased contact the City GIS Manager to confirm source and accuracy information related to this map.

Legend

— Major Roads
— Minor Roads

City of Novi
Engineering Division
Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org

Feet
0 225 450 900 1,350
1 inch = 1,042 feet

ROAD CLOSURE PERMIT FOR BLOCK PARTIES AND PARADES

Permit No.: **PRCL26-022**
Issue Date:

Upon the request of **Sarah Moulik**, authorized representative of **Novi High School** and in accordance with the provisions of the Code of Ordinances of the City of Novi, Michigan Section 33-52, Parades and Processions in the Uniform Traffic Code, and Section 31-9, Road Closures, a permit to temporarily close **11 Mile Rd. & Taft Rd.** for the purpose of a **2026 Homecoming Parade** is granted as follows:

Closing 11 Mile Rd. & Taft Rd. for 2026 Homecoming Parade.

Reason for Closure: 2026 Homecoming Parade

Applicant: Novi High School, Sarah Moulik

Name of Street: 11 Mile Rd – from Arcadia Dr. to Taft Rd. and Taft Rd. from 11 Mile Rd. to School Entrance

Date of Closure: 10/9/2026

Time: 4:30pm to 6:00pm

If the applicant needs barricades, barrels, or cones for the event, the applicant MUST contact DPW Field Operations at 248-735-5640 at least 7 business days prior to the event to make the request and coordinate locations.

Approved by:

_____
Ben Croy, City Engineer

cc: Erick Zinser, Director of Public Safety/Chief of Police
John Martin, Fire Chief
Scott Beatens, Assistant Police Chief
Todd Seog, Assistant Fire Chief
Kristie Gruenwald, Police Commander
Robert Maner, Police Commander
Damon Parnell, Deputy Director of Communications
Matt Wiktorowski, Field Operations Manager
Aaron Staup, Construction Engineer

BOARD OF COUNTY ROAD COMMISSIONER, OAKLAND COUNTY, MICHIGAN
2420 PONTIAC LAKE ROAD - WATERFORD, MI 48328
REFER ALL INQUIRIES TO DEPARTMENT OF CUSTOMER SERVICES - PERMITS (248) 858-4835

	$	0.00
Const. Bond:	$	0.00
Permit Fee:	$	0.00
Deposit:	$	0.00
Est. Insp. Fee:	$	0.00
Paint Fee:	$	0.00
Sign Fee:	$	0.00
Signal Fee:		

Application No: 23-2040
Permit No: 64939

This permit is issued on the condition that lincesees and any persons working under the authority of this permit shall comply with the requirements of Act 53 of the P.A. of 1974.

CALL MISS DIG BEFORE YOU DIG
PHONE: (248) 647-7344

01/06/2024

Received of **NOVI, CITY OF** to be applied in accordance with the terms of below permit. **BOARD OF COUNTY ROAD COMMISSIONERS, Oakland County, Michigan**

_____ by: _____ Deputy Secretary-Clerk

Subject to the conditions on the reverse side hereof and the application on file, permission is granted by the Board of County Road Commissioners, Oakland County, Michigan hereinafter referred to as the Board, to:

NOVI, CITY OF
45175 W 10 MILE ROAD NOVI, MI 48375 248-347-0460, hereinafter referred to as the Licensee.

This is a permit to:

CONDUCT PARADES AND OTHER COMMUNITY EVENTS OR INSTALL BANNERS, AT TIMES AND LOCATIONS AS APPROVED BY LOCAL MUNICIPALITY RESOLUTION. THE LOCAL MUNICIPALITY SHALL PROVIDE FOR ALL TRAFFIC CONTROL INCLUDING SIGNS, BARRICADES AND POLICE CONTROL OF TRAFFIC. THE MUNICIPALITY SHALL NOTIFY THE ROAD COMMISSION IN ADVANCE AND PROVIDE A COPY OF RESOLUTIONS AUTHORIZING THE PARADE, COMMUNITY EVENT, OR BANNER. THE WORDING ON BANNERS SHALL BE APPROVED BY RESOLUTION OF THE LOCAL MUNICIPALITY AND SHALL NOT ADVERTISE FOR A PRIVATE BUSINESS OR BE POLITICAL IN NATURE. BANNERS SHALL BE INSTALLED AT A HEIGHT AND LOCATION THAT MEETS RCOC SPECIFICATIONS AND GUIDELINES.
THE DISTANCE BETWEEN THE BOTTOM OF THE BANNER AND THE SURFACE OF THE ROAD SHALL BE NO LESS THAN 18 FEET AND THE BANNER SHALL BE LOCATED SO THAT IT CAUSES NO VISUAL OBSTRUCTION WITH TRAFFIC SIGNALS OR OTHER TRAFFIC CONTROL DEVICES.

SUBCONTRACTORS AND ANY OTHER PARTIES WORKING ON BEHALF OF THE MUNICIPALITY SHALL BE MADE AWARE OF THE TERMS OF THE PERMIT.

ALL BILLINGS FOR INSPECTION FEES AND WORK PERFORMED BY THE RCOC AS A RESULT OF THESE ACTIVITIES SHALL BE BILLED TO THE MUNICIPALITY.

All construction shall be in accordance with the attached approved plan and application on file for:

NOVI, CITY OF
as prepared by CITY OF NOVI
and with the RCOC Supplementary Permit Specifications as follows:
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLAN AND APPLICATION ON FILE AND WITH THE ROAD COMMISSION FOR OAKLAND COUNTY PERMIT RULES, SPECIFICATIONS, AND GUIDELINES DATED MARCH 14, 2013.

This permit is granted for the period
Commencing 01/06/2024
and ending 12/31/2026

NOVI VARIOUS
BOARD OF COUNTY ROAD COMMISSIONERS, Oakland County, Michigan Department of Customer Services - Permits
By: _____

In consideration of the granting of this permit, the undersigned Licensee hereby agrees to abide by and confrom with all of the terms and conditions herein set forth or incorporated herein by reference. (SEE APPLICATION AND REVERSE SIDE FOR CONDITIONS OF PERMIT.)

By: X Matthew T. Wiktorowski

01/06/2024 NOVI, CITY OF

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of a request from Gratus, LLC for a variance from Section 5.6.4 (B)(7) of the Engineering Design Manual to have a pumped stormwater outlet for their underground detention system.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- Pumped stormwater outlets require a City Council Variance per Section 5.6.4 (B)(7) of the Engineering Design Manual.
- Site constraints, location and topography limit the ability to provide a gravity outlet to the proposed underground detention system.
- The pump station can run on the proposed backup generator in the event of a power failure.

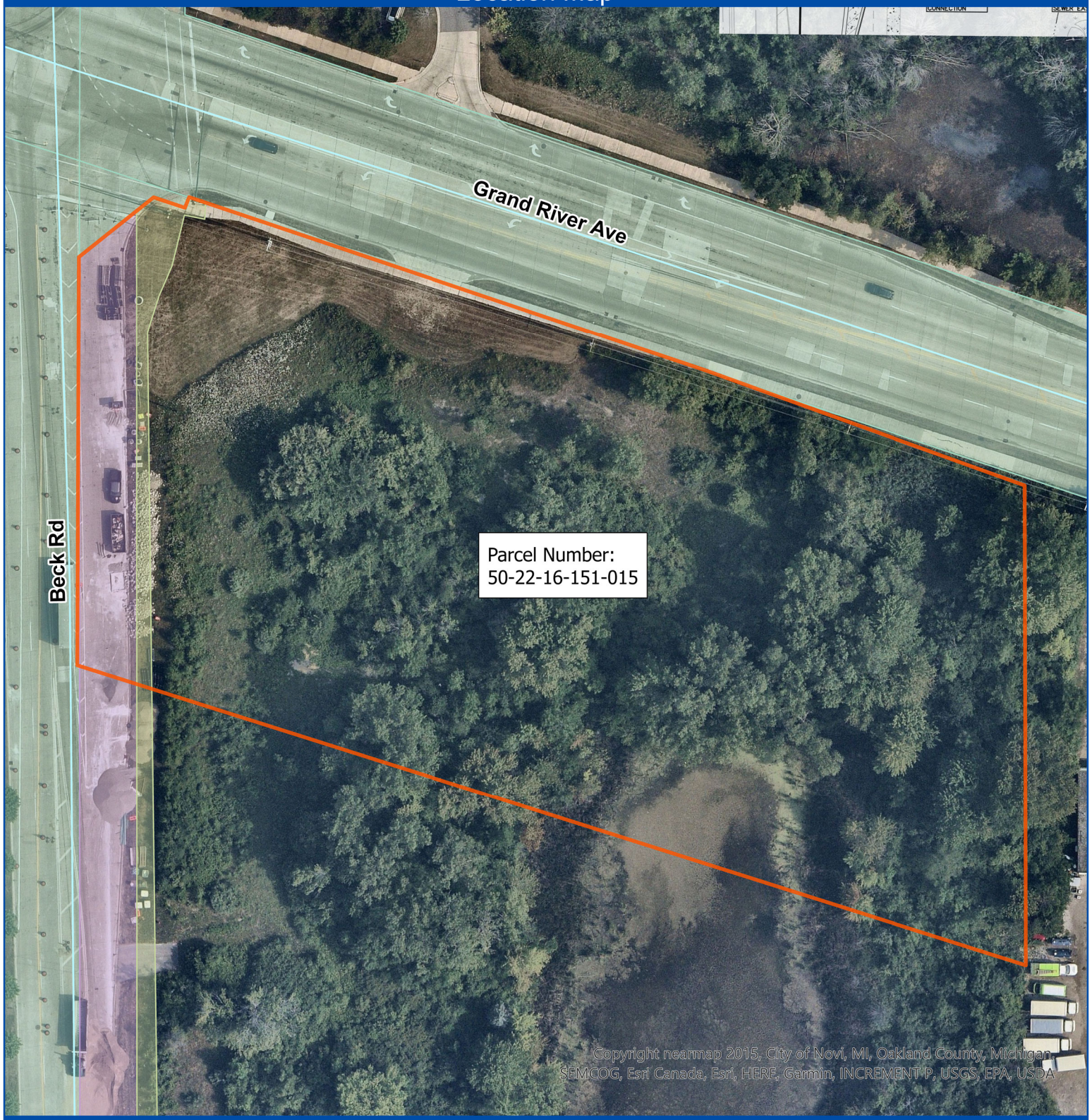
BACKGROUND INFORMATION:

Gratus LLC is requesting a variance from Section 5.6.4 (B)(7) of the Engineering Design Manual to allow a pumped stormwater outlet for their site located on the south side of Grand River Avenue east of Beck Road (parcel 50-22-16-151-015). Due to site constraints, the applicant cannot provide a gravity outlet and is requesting a variance for an underground detention system with a pumped outlet.

Engineering supports approval of the requested deviation from Section 5.6.4 (B)(7) of the Engineering Design Manual, as the pumped outlet shall not impact adjacent property owners and site constraints limit the ability to provide a gravity outlet. The applicant shall meet all requirements listed in Section 5.6.4 (B)(7), items a to f, of the Engineering Design Manual, to comply with the minimum requirements for a pumped outlet. This variance has been reviewed by the City Attorney (Beth Saarela, August 12, 2026).

RECOMMENDED ACTION: Approval of a request from Gratus, LLC for a variance from Section 5.6.4 (B)(7) of the Engineering Design Manual to have a pumped stormwater outlet for their underground detention system.

Grand Beck Development
Variance Map
Location Map



CITY OF NOVI
cityofnovi.org

Legend

- Dedicated
- Prescriptive
- Highway Easement
- Subject Parcel



N

Feet

0 35 70 140

Map Author: Humna Anjum
Map Print Date: 8/31/2026

Request for Variance
Design and Construction Standards

Applicant Information

Name: Jack Knowles

Address: 29592 Beck Road, Wixom MI 48393

Phone No: 734-564-6723

Engineer Information

Name: John Houser, PE

Address: 1849 Pond Run, Auburn Hills, MI 48326

Phone No: 248.689.9090

Applicant Status (please check one):

❑ Property Owner ❑ Developer ❑ Developer / Owner Representative

❑ Other _____

Project Name Grand-Beck Development

Project Address/Location SE Corner of Grand River and Beck Rd

Variance Request Stormwater Detention Pump

Justification (attach additional pages if necessary)

The vehicle fueling station and fully automatic car wash proposed at the southeast corner of Grand River and Beck roads require a pumped stormwater outlet due to geometric constraints imposed on the site by dual front setbacks to the North and West and the existing wetland with natural feature buffer in the SE corner of the development area. The area available for development is unable to support an aboveground pond with enough fall to discharge into the on-site wetland, requiring underground detention to be discharged via pump.

The pump station will be designed and constructed in accordance with all City standards and requirements including a natural gas fueled backup generator in the event of an electrical power outage.

INTERNAL USE

Date Submitted: _____

Code Section from which variance is sought: _____

Submittal Checklist: ❑ One (1) copy of plan on 8.5 x 11 size paper

❑ $100 Filing Fee (No fee for driveway width variance requests)

Request Status: ❑ APPROVED ❑ DENIED

Authorized By: _____

Authorization Date: _____

ELIZABETH KUDLA SAARELA
esaarela@rsjalaw.com

27555 Executive Drive, Suite 250
Farmington Hills, Michigan 48331
P 248.489.4100 | F 248.489.1726
rsjalaw.com

ROSATI | SCHULTZ
JOPPICH | AMTSBUECHLER

August 12, 2026

Kate Purpura, Project Engineer
City of Novi
45175 Ten Mile Road
Novi, MI 48375-3024

RE: Grand Beck DCS Variance

Dear Ms. Purpura:

Our office has reviewed the proposed request for a variance from the City's Design and Construction Standards as set forth in 5.6.4 (B)(7) in the Engineering Design Manual Adopted in the City of Novi Code requiring a stormwater outlet to meet Section 5.6.4 (B)(7) in the Engineering Design Manual, which states:

> 7. Pumped outlets are not permitted absent a variance from City Council, which shall require demonstration that it is **in the public interest and no feasible alternative exists**. If City Council grants a variance to allow a pumped outlet, the following documentation shall apply:
>
> a. The pump(s) shall be designed to meet the maximum discharge rate and time requirements for the 100-year and bankfull flood events. Minimum and maximum system head curves and pump curves shall be provided to verify the operating duty points of the pump(s).
> b. Pump(s) shall be of appropriate construction for conveying storm water.
> c. A redundant pump shall be provided.
> d. A generator shall be provided for the pump station. A permanent on-site generator shall be provided or a generator receptacle in combination with a portable generator shall be provided.
> e. A mechanism for determining failure of the pumps (alarm lights, water depth indicator, tele-dialer, etc.) shall be provided. The mechanism shall be of a nature that ensures the current property owner (filed with the Register of Deeds) will easily be able to identify a pump failure.
> f. An operation and maintenance plan shall be provided, and a maintenance agreement shall be in place with the current property owner
> (filed with the Register of Deeds).

.

In the event that City Council finds that the standards for a variance showing that have been met showing that the Applicant's proposal **is in the public interest and no feasible alternative exists** and standards 7(a) through 7(f) can be met, our office sees no legal impediment to granting the variance.

Should you have any questions or concerns relating to the issues set forth above, please feel free to contact me in that regard.

Very truly yours,

ROSATI SCHULTZ JOPPICH
& AMTSBUECHLER PC

Elizabeth Kudla Saarela

EKS

C: Cortney Hanson, Clerk
Charles Boulard, Community Development Director
Lindsay Bell, Director of Planning
Diana Shanahan, Planner
Stacey Choi, Planning Assistant
Brad Doane, Planner
Sarah Marchioni, Community Development Building Project Coordinator
Angie Sosnowski, Community Development Bond Coordinator
Ben Croy, City Engineer
Humna Anjum, Project Engineer
Sydney Waynick & Ted Meadows, Spalding DeDecker
Alyssa Craigie, Administrative Assistant
Thomas R. Schultz, Esquire

cityofnovi.org

CITY OF NOVI
Engineering Division

MEMORANDUM

To: Charles Boulard, Community Development Department
Ben Croy, PE; Department of Public Works
Beth Saarela, City Attorney

From: Kate Purpura; Department of Public Works

Date: 07/28/2026

Re: Variance from Design & Construction Standards
Grand Beck Development Variance Request – Pumped stormwater outlet does not meet 5.6.4 (B)(7) in the Engineering Design Manual

Attached is a request for a Variance from the Design and Construction Standards. Please review for a future City Council Agenda. In accordance with Section 11-10 of the Ordinance, the following three conditions ***must be met*** for a variance to be granted by Council:

1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant.
2) The alternative proposed by the applicant would be adequate for the intended use and would not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and,
3) The granting of the variance would not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

Following review of the variance, check the appropriate box below and provide your signature. If you have no basis for recommending either approval or denial, please check the "No Exceptions Taken" box. If you are recommending approval or denial of the request, **please also complete the matrix on the reverse of this form.** Please return to my attention by **August 11, 2026.**

ROUTING

Delivered To	Returned On	RECOMMENDED ACTION			Signature
		Approval*	Denial*	No Exceptions Taken	
Ben Croy (Public Works)					
Charles Boulard (Comm. Development)				✓	
Beth Saarela (City Attorney)	8/12			✓	

*** SEE REVERSE**

CITY OF NOVI
Engineering Division

MEMORANDUM

To: Charles Boulard, Community Development Department
Ben Croy, PE; Department of Public Works
Beth Saarela, City Attorney

From: Kate Purpura; Department of Public Works

Date: 07/28/2026

Re: Variance from Design & Construction Standards
Grand Beck Development Variance Request – Pumped stormwater outlet does not meet 5.6.4 (B)(7) in the Engineering Design Manual

Attached is a request for a Variance from the Design and Construction Standards. Please review for a future City Council Agenda. In accordance with Section 11-10 of the Ordinance, the following three conditions ***must be met*** for a variance to be granted by Council:

1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant.
2) The alternative proposed by the applicant would be adequate for the intended use and would not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and,
3) The granting of the variance would not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

Following review of the variance, check the appropriate box below and provide your signature. If you have no basis for recommending either approval or denial, please check the "No Exceptions Taken" box. If you are recommending approval or denial of the request, **please also complete the matrix on the reverse of this form.** Please return to my attention by **August 11, 2026**.

ROUTING

Delivered To	**Returned On**	**RECOMMENDED ACTION**			**Signature**
		Approval*	**Denial***	**No Exceptions Taken**	
Ben Croy (Public Works)	7/31/2026	X			Type text here
Charles Boulard (Comm. Development)					
Beth Saarela (City Attorney)					

*** SEE REVERSE**

If recommending approval or denial, please complete the following:

1. Would a literal application of the substantive requirement of the ordinance result in an exceptional, practical difficulty to the application? [X] Yes No [ ]

Explain:

The site constraints, location and topography limit the ability to provide a gravity outlet for the pond.

2. Would the alternative proposed by the applicant be adequate for the intended use and not deviate from the performance that would be obtained by strict enforcement of the standards? [X] Yes No [ ]

Explain:

The pump system should be adequate, as the pump station will have backup power in the event of a power failure.

3. Would granting the variance not be detrimental to public health, safety, or welfare, and not injurious to adjoining or neighboring property? [X] Yes No [ ]

Explain:

Adjoining property is not in the area of the pump station and therefore should not be impacted.

cityofnovi.org

CITY OF NOVI
Engineering Division

MEMORANDUM

To: Charles Boulard, Community Development Department
Ben Croy, PE; Department of Public Works
Beth Saarela, City Attorney

From: Kate Purpura; Department of Public Works

Date: 07/28/2026

Re: Variance from Design & Construction Standards
Grand Beck Development Variance Request – Pumped stormwater outlet does not meet 5.6.4 (B)(7) in the Engineering Design Manual

Attached is a request for a Variance from the Design and Construction Standards. Please review for a future City Council Agenda. In accordance with Section 11-10 of the Ordinance, the following three conditions ***must be met*** for a variance to be granted by Council:

1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant.
2) The alternative proposed by the applicant would be adequate for the intended use and would not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and,
3) The granting of the variance would not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

Following review of the variance, check the appropriate box below and provide your signature. If you have no basis for recommending either approval or denial, please check the "No Exceptions Taken" box. If you are recommending approval or denial of the request, **please also complete the matrix on the reverse of this form.** Please return to my attention by **August 11, 2026**.

ROUTING

Delivered To	Returned On	RECOMMENDED ACTION			Signature
		Approval*	Denial*	No Exceptions Taken	
Ben Croy (Public Works)					
Charles Boulard (Comm. Development)				✓	
Beth Saarela (City Attorney)					

*** SEE REVERSE**

If recommending approval or denial, please complete the following:

1. Would a literal application of the substantive requirement of the ordinance result in an exceptional, practical difficulty to the application? ☐ Yes ☐ No

Explain:

_____

_____

_____

_____

_____

2. Would the alternative proposed by the applicant be adequate for the intended use and not deviate from the performance that would be obtained by strict enforcement of the standards? ☐ Yes ☐ No

Explain:

_____

_____

_____

_____

_____

3. Would granting the variance not be detrimental to public health, safety, or welfare, and not injurious to adjoining or neighboring property? ☐ Yes ☐ No

Explain:

_____

_____

_____

_____

_____

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of temporary Traffic Control Order 26-11(T) to establish no parking on Olde Orchard St. and one-way southbound traffic from Grand River Avenue to Ten Mile Road throughout the duration of the road maintenance project.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- Olde Orchard Street is scheduled for panel replacements and concrete joint repairs starting on September 15.
- The construction requires no street parking and one-way traffic.
- The traffic control order is temporary.

BACKGROUND INFORMATION:

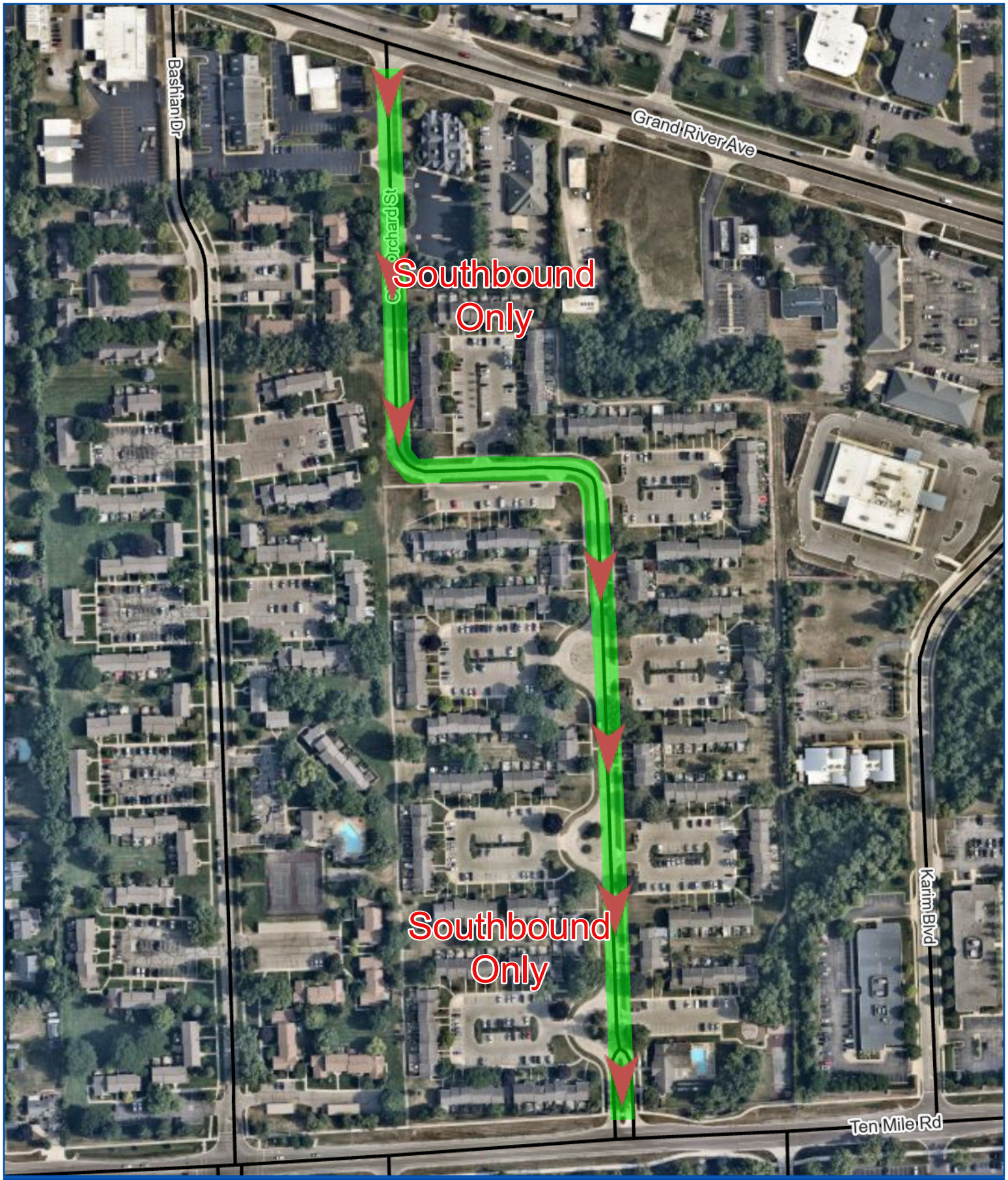
Olde Orchard Street will undergo road maintenance beginning September 15. The work will include concrete panel replacements and concrete joint repairs. Because many of the panels requiring replacement are in the center of the roadway, construction will need to be completed on one-half of the roadway at a time. This will require one-way traffic operations and a temporary restriction on street parking.

The Temporary Traffic Control Order will remain in effect until construction is completed.

Traffic control orders are required under the Uniform Traffic Code to enforce traffic control signs installed on public streets. Staff prepared the following traffic control orders for approval by City Council.

TCO No.	Description
26-11(T)	No parking on Olde Orchard Street, and one-way southbound traffic from Grand River to Ten Mile throughout the duration of the road maintenance project.

RECOMMENDED ACTION: Approval of temporary Traffic Control Order 26-11(T) to establish no parking on Olde Orchard St. and one-way southbound traffic from Grand River Avenue to Ten Mile Road throughout the duration of the road maintenance project.



Olde Orchard Temporary TCO

City of Novi
Civic Center
45175 Ten Mile Rd
Novi, MI 48375
cityofnovi.org

ft
0 90 180 360 540
1 inch = 323 feet

Date Printed: 8/31/2026
Map Author:

CITY OF NOVI
TRAFFIC CONTROL ORDER

_____ SPEED
_____ PARKING
_x_ OTHER

DATE OF ORDER: 09/14/2026

CONTROL NUMBER: 26-11(T)

PURSUANT TO CHAPTER NO. 33 OF THE CODE OF ORDINANCES OF THE CITY OF NOVI, MICHIGAN, SAME BEING THE UNIFORM TRAFFIC CODE FOR CITIES, TOWNSHIPS AND VILLAGES OF MICHIGAN AND IN THE INTEREST OF PUBLIC SAFETY AND CONVENIENCE THE FOLLOWING TRAFFIC CONTROL ORDER IS HEREBY ISSUED BY BEN CROY, CITY ENGINEER, DULY AUTHORIZED AS TRAFFIC ENGINEER, BY SEC. 33-51 OF THE AFORESAID CHAPTER.

ISSUANCE OF THIS TRAFFIC CONTROL ORDER WAS PRECEDED BY STUDY AND INVESTIGATION OF TRAFFIC CONDITIONS ON THE FOLLOWING PUBLIC ROAD OR ROADS IN THE CITY OF NOVI, MICHIGAN.

OLDE ORCHARD ST.

AND AFTER SAID INVESTIGATION, IT IS HEREBY ORDERED AND DIRECTED THAT THE DEPARTMENT OF PUBLIC WORKS ERECT AND MAINTAIN SIGNS TO ONE-WAY TRAFFIC IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS REQUIRED BY SEC. 33-51 OF THE AFORESAID CHAPTER, SAID SIGN TO GIVE NOTICE OF THE FOLLOWING DETERMINATION:

NO PARKING ON OLDE ORCHARD AND ONE-WAY SOUTHBOUND FROM GRAND RIVER TO TEN MILE THROUGHOUT THE DURATION OF THE ROAD MAINTENANCE PROJECT.

Type text here
Ben Croy - Traffic Engineer
Dated: 09/14/2026

APPROVED BY CITY COUNCIL
TRAFFIC CONTROL ORDER NUMBER 26-11(T) HAVING BEEN PRESENTED TO THE COUNCIL OF THE CITY OF NOVI, MICHIGAN FOR STUDY AND APPROVAL, IS HEREBY APPROVED AND IT IS HEREBY ORDERED AND DIRECTED THAT THIS ORDER BE FILED IN THE OFFICE OF THE CITY CLERK AND A COPY THEREOF IN THE OFFICE OF THE CHIEF OF POLICE OF SAID CITY.

IT IS FURTHER ORDERED AND DIRECTED THAT THIS ORDER SHALL BECOME EFFECTIVE UPON BEING FILED WITH THE CLERK AND UPON ERECTION OF ADEQUATE SIGNS GIVING NOTICE OF THE EXISTENCE OF THE AFORESAID SIGNS.

ADOPTED AT THE REGULAR MEETING OF CITY COUNCIL ON 09/14/2026.

By: _____
Justin Fischer, Mayor

By: _____
Cortney Hanson, City Clerk

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of a Storm Drainage Facility Maintenance Easement Agreement for Orsa Credit Union as part of the Orsa Credit Union site plan, located on the north side of Grand River Avenue east of Crescent Boulevard (parcel 50-22-15-476-061).

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- This agreement is a Storm Water Management Ordinance requirement and details the responsibilities of the property owner to properly maintain their privately-owned, on-site underground detention system.

BACKGROUND INFORMATION:

Orsa Credit Union requests approval of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA) for the storm water management system associated with Sheetz site plan. The Storme Drainage Facility Maintenance Easement Agreement (SDFMEA) is a Storm Water Management Ordinance requirement and details the responsibilities of the property owner to property maintain their on-site underground detention system.

Spalding DeDecker has inspected the on-site underground detention system. The inspection approval letter dated July 20, 2026, is attached. The enclosed agreement has been favorably reviewed by the City Attorney (Beth Saarela, July 30, 2026) and the City Engineering consultant (Spalding DeDecker, July 29, 2026) and is recommended for approval.

RECOMMENDED ACTION: Approval of a Storm Drainage Facility Maintenance Easement Agreement for Orsa Credit Union as part of the Orsa Credit Union site plan, located on the north side of Grand River Avenue east of Crescent Boulevard (parcel 50-22-15-476-061).

Orsa Credit Union SDFMEA

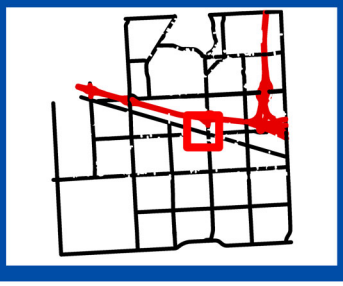
Location Map



CITY OF NOVI
cityofnovi.org

Legend

- Minor Road
- Major Road
- Dedicated
- Highway Easement
- Tax Parcels
- Subject Parcel



N

Feet

0 20 40 80

Map Author: Humna Anjum
Map Print Date: 08/26/2026

ELIZABETH KUDLA SAARELA
esaarela@rsjalaw.com

27555 Executive Drive, Suite 250
Farmington Hills, Michigan 48331
P 248.489.4100 | F 248.489.1726
rsjalaw.com

ROSATI | SCHULTZ
JOPPICH | AMTSBUECHLER

July 30, 2026

Ben Croy, City Engineer
City of Novi
Field Services Complex
26300 Lee BeGole Drive
Novi, MI 48375

Re: Community Financial Credit Union/Orsa Credit Union JSP 24-008
Storm Drainage Facility Maintenance Easement Agreement

Dear Mr. Croy:

We have received and reviewed and enclosed please find the Storm Drainage Facility Maintenance Easement Agreement for storm water drainage facilities serving the Community Financial Credit Union/Orsa Credit Union development. The Storm Drainage Facility Maintenance Easement Agreement is in the City's standard format and is acceptable as provided. Subject to the approval of the attached Exhibits by the City's Consulting Engineer, the Storm Drainage Facility Maintenance Easement Agreement may be placed on an upcoming City Council Agenda for approval. Once approved and executed by the City, the Agreement should be recorded with Oakland County Records by the City Clerk's Office. ***This is the final approval of the original documents.***

Please feel free to contact me with any questions or concerns in regard to this matter.

Very truly yours,

ROSATI SCHULTZ JOPPICH
& AMTSBUECHLER PC

Elizabeth Kudla Saarela

Enclosure

C: Cortney Hanson, Clerk
Charles Boulard, Community Development Director
Lindsay Bell, City Planner
Diana Shanahan, Planner
Stacy Choi, Planning Assistant
Sarah Marchioni, Community Development Building Project Coordinator
Angie Sosnowski, Community Development Bond Coordinator
Humna Anjum, Project Engineer
Kate Purpura, Project Engineer
Alyssa Craigie, Administrative Assistant
Sydney Waynick & Ted Meadows, Spalding DeDecker
David Lapp, Level5, LLC
Thomas R. Schultz, Esquire

STORM DRAINAGE FACILITY
MAINTENANCE EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT is made this 15 day of July, 2026, by and between ORSA CREDIT UNION, a Michigan state- chartered credit union, whose address is 500 S. Harvey Street, Plymouth, MI 48170 (hereinafter the "**Owner**"), and the City of Novi, its successors, assigns, or transferees, whose address is 45175 Ten Mile Road, Novi, MI 48375 (hereinafter the "City").

R E C I T A T I O N S:

A. Owner is the owner and developer of a certain parcel of land situated in the City of Novi, Oakland County, Michigan, described on the attached and incorporated **Exhibit A** (the "**Property**"). Owner has received final site plan approval for construction of a financial institution development on the Property.

B. The financial institution development, shall contain certain storm drainage, detention and/or retention facilities, including but not limited to, a detention/sedimentation basin, for the collection, conveyance, storage, treatment and/or discharge of storm water from the Property in accordance with all approved plans, and all applicable ordinances, laws and regulations.

NOW, THEREFORE, the Owner hereby covenants and agrees that the Owner shall, at its own expense, perpetually preserve, maintain, and repair all storm drainage, detention and retention facilities, including all wetlands which are part of the system, to insure that the same continue to function as intended. The Owner shall establish a regular and systematic program of maintenance (the "**Schedule of Maintenance**") for such facilities and areas to insure that the physical condition and intended function of such areas and facilities shall be preserved and maintained. The Schedule of Maintenance and the annual estimated costs for maintenance and repairs for the first three (3) years are described in the attached **Exhibit B**.

In the event that the Owner shall at any time fail to carry out the responsibilities specified within this agreement, and/or in the event of a failure to preserve and/or maintain the storm water drainage, detention and retention facilities in reasonable order and condition, the City may serve written notice upon the Owner setting forth the deficiencies in maintenance and/or preservation

along with a demand that the deficiencies be cured within a stated reasonable time period, and the date, time and place for a hearing before the City for the purpose of allowing Owner an opportunity to be heard as to why the City should not proceed with the correction of the deficiency or obligation which has not been undertaken or properly fulfilled. At any such hearing, the time for curing and the hearing itself may be extended and/or continued to a date certain. If, following such hearing, the person conducting the hearing shall determine that the obligation has not been fulfilled or failure corrected within the time specified in the notice, as determined by the City in its reasonable discretion, the City shall thereupon have the power and authority, but not the obligation, to enter upon the Property, or cause its agents or contractors to enter the Property through the Ingress/Egress Easement Area as described and depicted in **Exhibit C** and perform such obligation or take such corrective measures as reasonably found by the City to be appropriate or necessary with respect to the detention/sedimentation basin within the Detention/Sedimentation Basin Easement Area described and depicted in **Exhibit D**, for the purposes described above. The cost and expense of making and financing such actions by the City, including notices by the City and reasonable legal fees incurred by the City, plus an administrative fee in an amount equivalent to twenty-five (25%) percent of the total of all such costs and expenses incurred, shall be paid by Owner within thirty (30) days of a billing to the Owner. All unpaid amounts may be placed on the delinquent tax roll of the City as to the Property, and shall accrue interest and penalties, and shall be collected as, and deemed delinquent real property taxes, according to the laws made and provided for the collection of delinquent real property taxes. In the discretion of the City, such costs and expenses may be collected by suit initiated against the Owner, and, in such event, the Owner shall pay all court costs and reasonable attorney fees incurred by the City in connection with such suit.

The Owner, its agents, representatives, successors, and assigns shall defend, indemnify, and hold harmless the City and the City's, elected officials, agents and employees, from any and all costs, claims, suits, actions, losses, damages, or demands, including court costs and attorneys' fees, relating in any way to or arising out of the design, construction, use, inspection, maintenance, repair, or operation (or omissions in such regard) of the storm drainage system which is the subject of this Agreement.

The parties hereto make this Agreement on behalf of themselves, their heirs, successors, assigns and transferees, and hereby warrant that they have the authority and capacity to execute this Agreement and bind the property as described in the terms and conditions of this agreement.

Invalidation of any of these covenants or conditions by Judgment or Court Order shall in no way affect the validity of any other provision which shall remain in full force and effect.

This agreement shall run with the land and be binding upon all owners, their agents, heirs, successors, assigns and transferees.

IN WITNESS WHEREOF, Owner has executed this Agreement as of the day and year first above set forth.

OWNER:

ORSA CREDIT UNION,
a Michigan state-chartered credit union

By: Tansley Stearns, President and CEO

STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

The foregoing instrument was acknowledged before me this 15 day of July, 2026, by Tansley Stearns, as the president & CEO of orsa credit union

Notary Public
Acting in Oakland County, Michigan
My Commission Expires: 12/28/29

LAURA HALE
Notary Public, State of Michigan
County of Oakland
My Commission Expires Dec. 28, 2029
Acting in the County of Wayne

CITY OF NOVI
A Municipal Corporation

By:
Its:

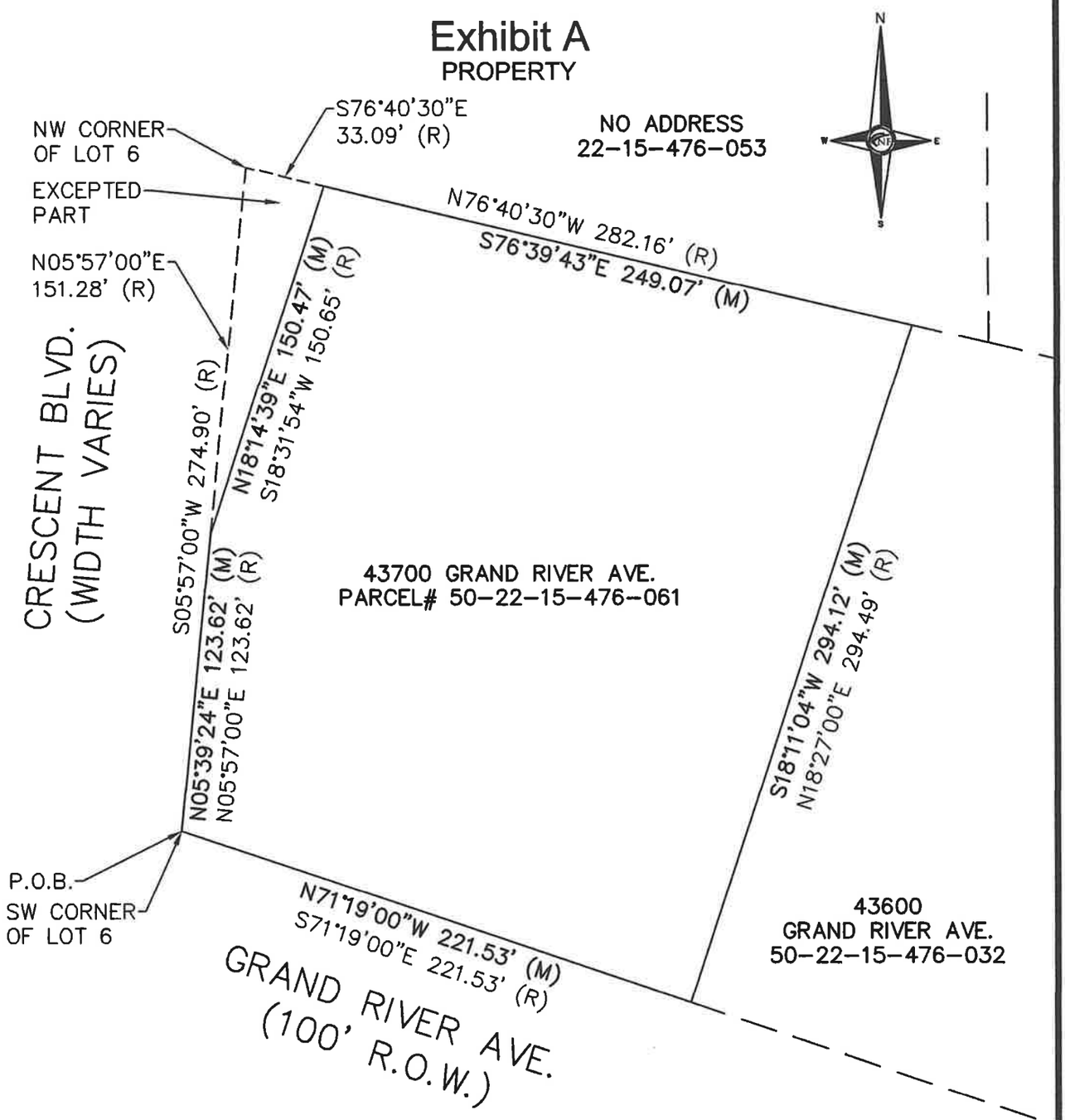
STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

The foregoing instrument was acknowledged before me on this _____day of _____ 2026, by,_____, on behalf of the City of Novi, a Municipal Corporation.

Notary Public
Acting in Oakland County, Michigan
My Commission Expires:_____

Drafted by:	And when recorded return to:
Elizabeth Kudla Saarela Johnson, Rosati, Schultz & Joppich, P.C. 27555 Executive Drive, Suite 250 Farmington Hills, MI 48331	Cortney Hanson, City Clerk City of Novi 45175 Ten Mile Rd Novi, MI 48375

Exhibit A
PROPERTY



LEGAL DESCRIPTION - PROPERTY (PER RECORD)

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF OAKLAND, CITY OF NOVI.

PART OF LOT 6, SUPERVISOR'S PLAT NO. 4, AS RECORDED IN LIBER 54A, PAGE 83 OF PLATS, OAKLAND COUNTY RECORDS, DESCRIBED AS: BEGINNING AT THE SOUTHWEST CORNER OF LOT 6; THENCE SOUTH 71° 19' 00" EAST 221.53 FEET; THENCE NORTH 18° 27' 00" EAST 294.49 FEET; THENCE NORTH 76° 40' 30" WEST 282.16 FEET ALONG THE NORTH LOT LINE TO THE NORTHWEST LOT CORNER; THENCE SOUTH 05° 57' 00" WEST 274.90 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT, SOUTHEAST QUARTER OF SECTION 15, T1N, R8E, BEGINNING AT A POINT ON THE WEST LINE OF LOT 6, LOCATED DISTANT N05°57'00"E 123.62 FEET FROM THE SOUTHWEST CORNER OF SAID LOT 6; THENCE CONTINUING N05°57'00"E 151.28 FEET TO THE NORTHWEST CORNER OF SAID LOT 6; THENCE S76°40'30"E, ALONG THE NORTH LINE OF SAID LOT 6, A DISTANCE OF 33.09 FEET; THENCE S18°31'54"W 150.65 FEET TO THE POINT OF BEGINNING, AS RECORDED IN LIBER 18891, PAGE 665.

CONTAINING 68,531 SQUARE FEET OR 1.575 ACRES OF LAND
TAX PARCEL IDENTIFICATION NUMBER: 50-22-15-476-061

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

SCALE	DATE	DRAWN	JOB NO.	SHEET
1"=60'	02-04-2026	B.G.	N877	1 of 1

Exhibit B
SCHEDULE OF MAINTENANCE

STORMWATER MANAGEMENT PLAN MAINTENANCE TASKS AND SCHEDULE **DURING CONSTRUCTION (RESPONSIBILTY OF CONTRACTOR)** **TASKS**	**COMPONENTS** Catch Basins and Manholes	Storm Sewer Pipes	Pretreatment Structure	Underground Detention	Outlet Control Structure	**SCHEDULE**
Inspect for accumulated sediment	X	X	X		X	Weekly
Removal of accumulated sediment	X	X	X		X	As directed by Storm Water Operator Inspections, and prior to project turn over
Inspect for floatables and debris	X	X	X	X	X	Quarterly
Remove floatables and debris	X	X	X	X	X	As directed by Storm Water Operator Inspections, and prior to project turn over
Inspect for site erosion					X	Weekly
Re-establish vegetation in eroded areas					X	As directed by Storm Water Operator Inspections, and prior to project turn over
Inspect storm water system and components during wet weather and compare to plans	X	X	X		X	As required and at project turn over
Make adjustments or replacements as determined by annual wet weather inspection	X	X	X	X	X	As required
Inspect, remove, and repair or replace faulty mechanical and electrical components						As required
Keep copies of all storm water operator reports and make available to City of Novi Personnel	X	X	X	X	X	Annually
Pavement sweeping						Weekly or as required

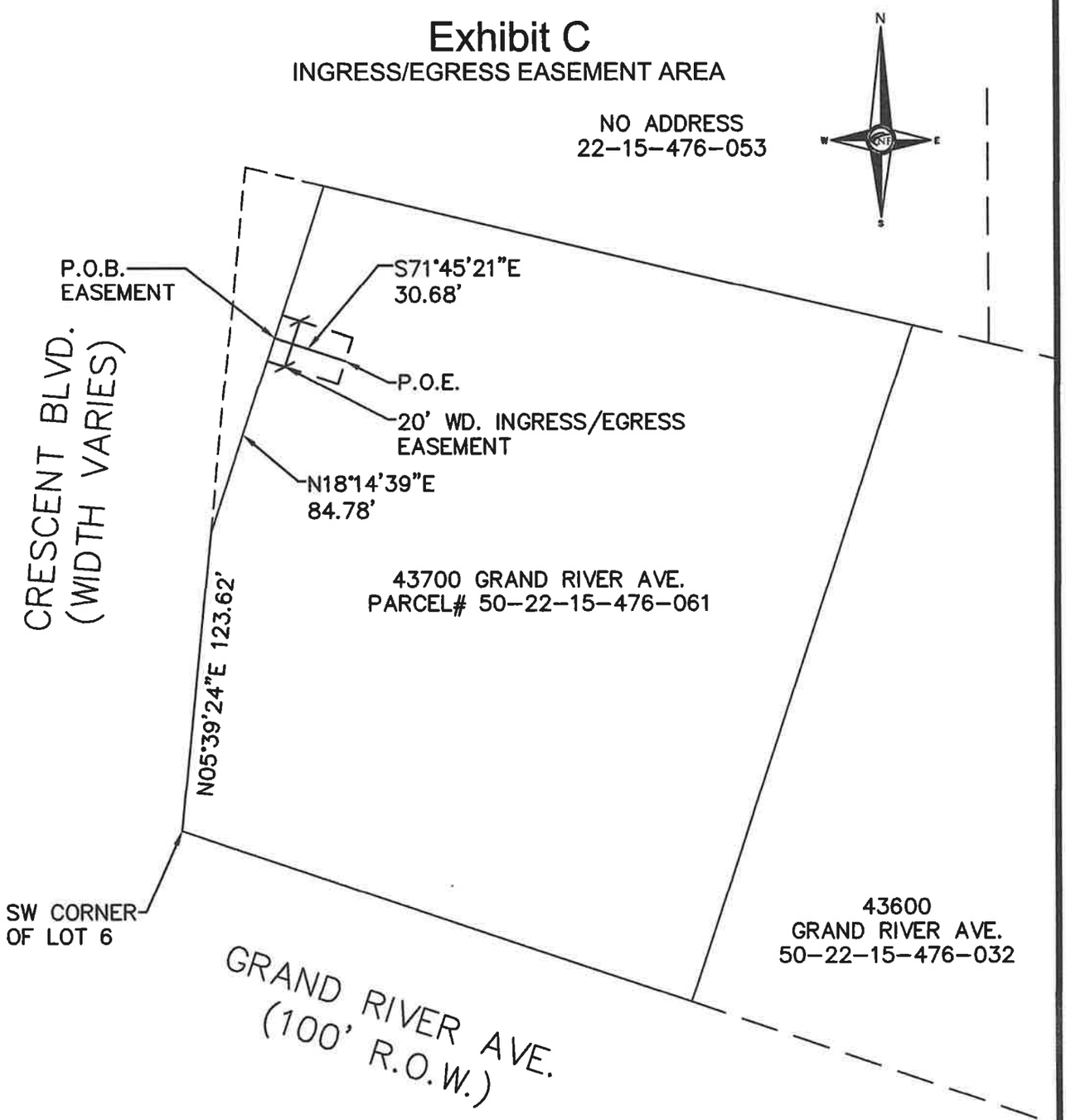
STORMWATER MANAGEMENT PLAN MAINTENANCE TASKS AND SCHEDULE **POST CONSTRUCTION (RESPONSIBILTY OF OWNER/ OWNER'S SITE MAINTENANCE PROVIDER)** **TASKS**	**COMPONENTS** Catch Basins and Manholes	Storm Sewer Pipes	Pretreatment Structure	Underground Detention	Outlet Control Structure	**SCHEDULE**	**ESTIMATED ANNUAL BUDGET** Year 1	Year 2	Year 3
Inspect for accumulated sediment	X	X	X		X	Annually	$75	$75	$75
Removal of accumulated sediment	X	X	X		X	Annually first 2 years, then as required	$500	$500	$0
Inspect for floatables and debris	X	X	X	X	X	Annually	$75	$75	$75
Remove floatables and debris	X	X	X	X	X	Annually	$100	$50	$50
Inspect for site erosion					X	Annually	$75	$75	$75
Re-establish vegetation in eroded areas					X	Annually	$400	$200	$200
Inspect storm water system and components during wet weather and compare to as-built plans (by professional engineer, reporting to maintenance financing company)	X	X	X		X	Annually	$125	$125	$125
Make adjustments or replacements as determined by annual wet weather inspection	X	X	X	X	X	As required	$150	$0	$250
Inspect, remove, and repair or replace faulty mechanical and electrical components						Annually	$150	$150	$150
Keep records of all inspections and maintenance activities and make available to City of Novi	X	X	X	X	X	Annually	$0	$0	$0
						TOTAL BUDGET:	$1,650	$1,250	$1,000

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

SCALE	DATE	DRAWN	JOB NO.	SHEET
NTS	02-04-2026	B.G.	N877	1 of 1

Exhibit C

INGRESS/EGRESS EASEMENT AREA



LEGAL DESCRIPTION - INGRESS/EGRESS EASEMENT AREA

A TWENTY (20) FOOT WIDE INGRESS/EGRESS EASEMENT BEING PART OF LOT 6, SUPERVISOR'S PLAT NO 4, AS RECORDED IN LIBER 54A, PAGE 83 OF PLATS, OAKLAND COUNTY RECORDS, ALSO BEING PART OF THE SOUTHEAST 1/4 OF SECTION 15, T.1N., R.8E. CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED ALONG ITS CENTERLINE AS:

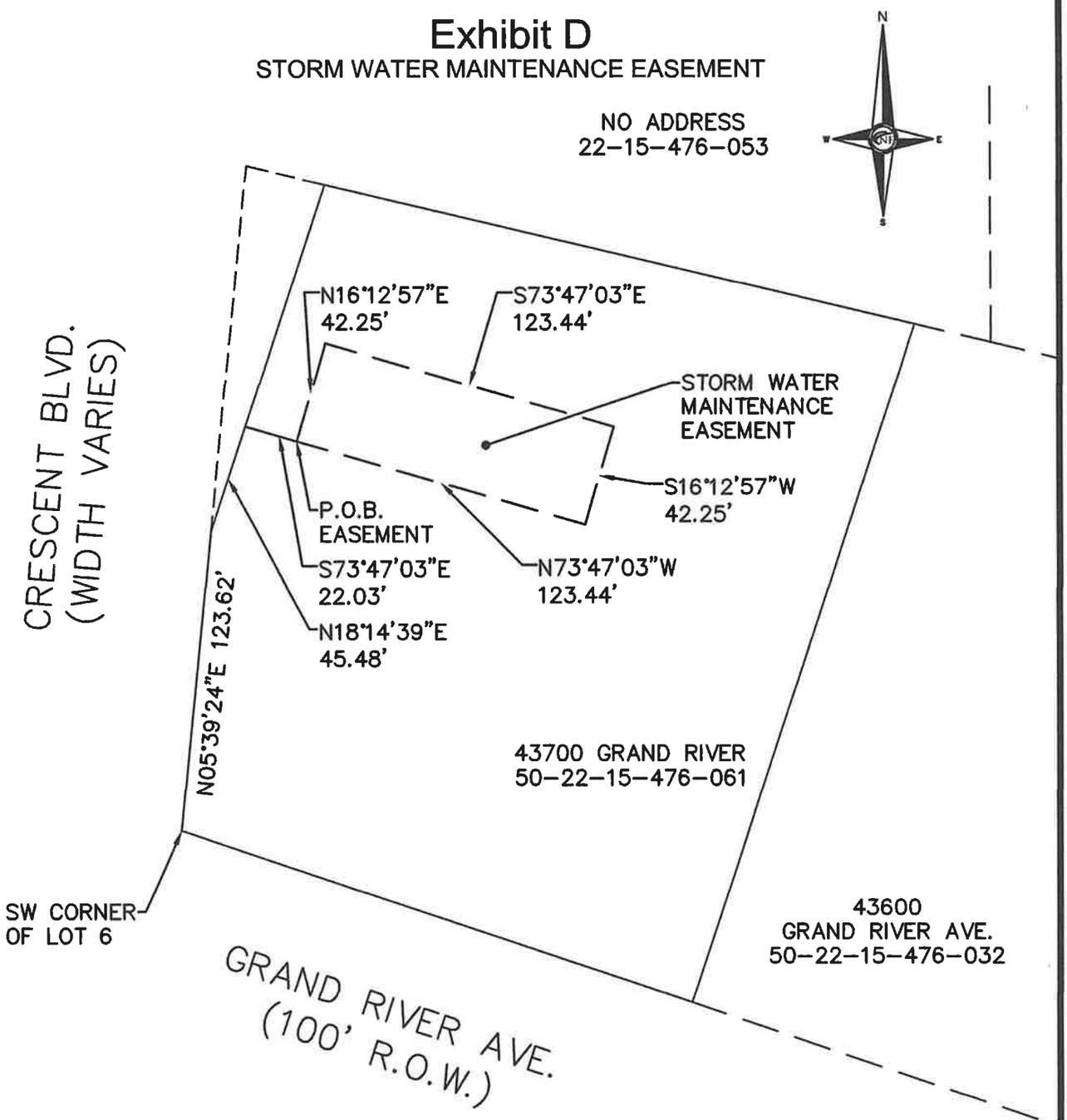
COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 6; THENCE NORTH 05° 39' 24" EAST 123.62 FEET; THENCE NORTH 18° 14' 39" EAST 84.78 TO THE EASEMENT POINT OF BEGINNING; THENCE SOUTH 71° 45' 21" EAST 30.68 FEET TO THE POINT OF ENDING.

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

SCALE	DATE	DRAWN	JOB NO.	SHEET
1"=60'	02-04-2026	B.G.	N877	1 of 1

Exhibit D

STORM WATER MAINTENANCE EASEMENT



LEGAL DESCRIPTION - STORM WATER MAINTENANCE EASEMENT

A STORM WATER MAINTENANCE EASEMENT BEING PART OF LOT 6, SUPERVISOR'S PLAT NO 4, AS RECORDED IN LIBER 54A, PAGE 83 OF PLATS, OAKLAND COUNTY RECORDS, ALSO BEING PART OF THE SOUTHEAST 1/4 OF SECTION 15, T.1N., R.8E. CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 6; THENCE NORTH 05° 39' 24" EAST 123.62 FEET; THENCE NORTH 18° 14' 39" EAST 45.48 FEET; THENCE SOUTH 73° 47' 03" EAST 22.03 FEET TO THE EASEMENT POINT OF BEGINNING; THENCE NORTH 16° 12' 57" EAST 42.25 FEET; THENCE SOUTH 73° 47' 03" EAST 123.44 FEET; THENCE SOUTH 16° 12' 57" WEST 42.25 FEET; THENCE NORTH 73° 47' 03" WEST 123.44 FEET TO THE EASEMENT POINT OF BEGINNING.

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

SCALE	DATE	DRAWN	JOB NO.	SHEET
1"=60'	02-04-2026	B.G.	N877	1 of 1

SPALDING DEDECKER
Engineering & Surveying Excellence since 1954

July 29, 2026

Ben Croy
City of Novi
26300 Lee BeGole Drive
Novi, Michigan 48375

Re: Community Financial Credit Union / Orsa Credit Union
On Site Acceptance Documents - Exhibit Review #3
Novi # JSP24-0008
SDA Job No. NV25-209
FINAL DOCUMENTS – EXHIBITS APPROVED

Dear Mr. Croy:

We have reviewed the Acceptance Document Package received by our office on 07-22-2026 against plans dated 11-08-2025. We offer the following comments:

Final Acceptance Documents:

1. **On-Site Water System Easement**
(executed 07-15-2026; exhibit dated 04-11-2025)
Exhibit A-B Approved

2. **On-Site Sanitary Sewer Manhole Access Easement**
(executed 07-15-2026; exhibit dated 01-29-2026)
Exhibit A-B Approved

3. **Storm Drainage Facility / Maintenance Easement Agreement**
(executed 07-15-2026; exhibit dated 02-04-2026)
Exhibit A-D Approved

4. **License Agreement**
(executed 07-15-2026; exhibit dated 04-23-2025)
Exhibit A Approved

5. **Bills of Sale for all public utilities**
SUPPLIED

6. **Full Unconditional Waivers of Lien from contractors installing public utilities**
SUPPLIED

7. **Sworn Statement signed by developer**
SUPPLIED

Unless otherwise stated above, the documents submitted were found to be acceptable by our office pending review by the City Attorney. Please send any revised documents to the City for further review and approval. The City Attorney's Office will retain the original documents in their files until they are approved and ready (notarized and executed properly) for the mayor's signature.

It should be noted that the Plan Review Center Report dated 05-16-2025 contains all documentation requirements.

If you have any questions regarding this matter, please contact this office at your convenience.

Sincerely,

SPALDING DEDECKER

Digitally signed by Sydney Waynick
Date: 2026.07.29 20:45:26-04'00'

Sydney Waynick
Construction Engineer

Cc (via email): Barb McBeth, City of Novi
Lindsay Bell, City of Novi
Diana Shanahan, City of Novi
Stacey Choi, City of Novi
Humna Anjum, City of Novi
Kate Purpura, City of Novi
Sarah Marchioni, City of Novi
Angie Sosnowski, City of Novi
Beth Saarela, RSJA Law
Alyssa Craigie, City of Novi
David Lapp, Level5

SPALDING DeDECKER
Engineering & Surveying Excellence since 1954

July 20, 2026

Mrs. Humna Anjum
Project Engineer
Department of Public Services
Field Services Complex – Engineering Division
26300 Lee BeGole Drive
Novi, MI 48375

Re: Community Financial Credit Union - aka Orsa
Storm Water Detention System Inspection
Novi SP No.: JSP24-0008
SDA Job No.: NV25-209

Dear Mrs. Anjum:

This letter serves to officially notify you that we have reviewed the status of the storm water detention systems including the storm sewer piping, detention system chambers, and outlet control structures for the above-referenced project. As a result of this review, we have determined the storm water detention system to be in general conformance with the approved construction plans and recommend release of this financial guarantee.

If you have any questions, please do not hesitate to contact us at our office.

Sincerely,

SPALDING DeDECKER

Digitally signed by Sydney Waynick
Date: 2026.07.21 13:09:38-04'00'

Sydney Waynick
Construction Engineer

Cc: Sarah Marchioni, City of Novi – Building Project Coordinator (e-mail)
Angela Sosnowski, City of Novi – Bond Coordinator (e-mail)
Kate Purpura, City of Novi – Project Engineer (e-mail)
David Lapp, Level5 (e-mail)

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of a Storm Drainage Facility Maintenance Easement Agreement for Novi Holding, LLC as part of the Sheetz site plan, located on the south side of 12 Mile Road west of Haggerty Road (parcel 50-22-13-200-016).

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- This agreement is a Storm Water Management Ordinance requirement and details the responsibilities of the property owner to properly maintain their privately-owned, on-site underground detention system.

BACKGROUND INFORMATION:

Novi Holdings, LLC requests approval of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA) for the storm water management system associated with Sheetz site plan. The Storme Drainage Facility Maintenance Easement Agreement (SDFMEA) is a Storm Water Management Ordinance requirement and details the responsibilities of the property owner to property maintain their on-site underground detention system.

Spalding DeDecker has inspected the on-site underground detention system. The inspection approval letter dated March 27, 2026, is attached. The enclosed agreement has been favorably reviewed by the City Attorney (Beth Saarela, March 27, 2026) and the City Engineering consultant (Spalding DeDecker, March 6, 2026) and is recommended for approval.

RECOMMENDED ACTION: Approval of a Storm Drainage Facility Maintenance Easement Agreement for Novi Holding, LLC as part of the Sheetz site plan, located on the south side of 12 Mile Road west of Haggerty Road (parcel 50-22-13-200-016).

Sheetz SDFMEA

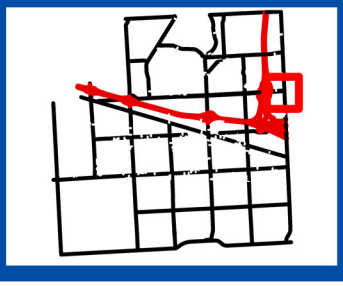
Location Map



CITY OF NOVI
cityofnovi.org

Legend

- Major Road
- Dedicated
- Prescriptive
- Tax Parcels
- Subject Parcel



N

Feet

0 30 60 120

Map Author: Humna Anjum
Map Print Date: 08/26/2026

ELIZABETH KUDLA SAARELA
esaarela@rsjalaw.com

27555 Executive Drive, Suite 250
Farmington Hills, Michigan 48331
P 248.489.4100 | F 248.489.1726
rsjalaw.com

ROSATI | SCHULTZ
JOPPICH | AMTSBUECHLER

March 27, 2026

Ben Croy, City Engineer
City of Novi
Field Services Complex
26300 Lee BeGole Drive
Novi, MI 48375

Re: Sheetz JSP 23-0033
Storm Drainage Facility Maintenance Easement Agreement

Dear Mr. Croy:

We have received and reviewed and enclosed please find the Storm Drainage Facility Maintenance Easement Agreement for storm water drainage facilities serving the Sheetz development. The Storm Drainage Facility Maintenance Easement Agreement is in the City's standard format and is acceptable as provided. Subject to the approval of the attached Exhibits by the City's Consulting Engineer, the Storm Drainage Facility Maintenance Easement Agreement may be placed on an upcoming City Council Agenda for approval. Once approved and executed by the City, the Agreement should be recorded with Oakland County Records by the City Clerk's Office. ***This is the final approval of the original documents.***

Please feel free to contact me with any questions or concerns in regard to this matter.

Very truly yours,

ROSATI SCHULTZ JOPPICH
& AMTSBUECHLER PC

Elizabeth Kudla Saarela

Enclosure

C: Cortney Hanson, Clerk
Charles Boulard, Community Development Director
Lindsay Bell, Planner
Diana Shanahan, Planner
Stacy Choi, Planning Assistant
Sarah Marchioni, Community Development Building Project Coordinator
Angie Sosnowski, Community Development Bond Coordinator
Humna Anjum, Project Engineer
Kate Purpura, Project Engineer
Alyssa Craigie, Administrative Assistant
Sydney Waynick & Ted Meadows, Spalding DeDecker
David Brucklemeyer, Sheetz
Thomas R. Schultz, Esquire

STORM DRAINAGE FACILITY
MAINTENANCE EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT is made this 16th day of February 2026, by and between Haggerty 12 Mile, LLC, an Ohio limited liability company, whose address is 4270 Morse Road, Columbus, Ohio 43230 (hereinafter the "Owner"), and the City of Novi, its successors, assigns, or transferees, whose address is 45175 Ten Mile Road, Novi, MI 48375 (hereinafter the "City").

RECITATIONS:

A. Owner is the owner and developer of a certain parcel of land situated in Section _ of the City of Novi, Oakland County, Michigan, described on the attached and incorporated **Exhibit A** (the "Property"). Owner has received final site plan approval for construction of a Sheetz development on the Property.

B. The Sheetz development, shall contain certain storm drainage, detention and/or retention facilities, including but not limited to, a detention/sedimentation basin, for the collection, conveyance, storage, treatment and/or discharge of storm water from the Property in accordance with all approved plans, and all applicable ordinances, laws and regulations.

NOW, THEREFORE, the Owner hereby covenants and agrees that the Owner shall, at its own expense, perpetually preserve, maintain, and repair all storm drainage, detention and retention facilities, including all wetlands which are part of the system, to insure that the same continue to function as intended. The Owner shall establish a regular and systematic program of maintenance (the "Schedule of Maintenance") for such facilities and areas to insure that the physical condition and intended function of such areas and facilities shall be preserved and maintained. The Schedule of Maintenance and the annual estimated costs for maintenance and repairs for the first three (3) years are described in the attached **Exhibit B**.

In the event that the Owner shall at any time fail to carry out the responsibilities specified within this agreement, and/or in the event of a failure to preserve and/or maintain the storm water drainage, detention and retention facilities in reasonable order and condition, the City may serve written notice upon the Owner setting forth the deficiencies in maintenance and/or preservation along with a

demand that the deficiencies be cured within a stated reasonable time period, and the date, time and place for a hearing before the City for the purpose of allowing Owner an opportunity to be heard as to why the City should not proceed with the correction of the deficiency or obligation which has not been undertaken or properly fulfilled. At any such hearing, the time for curing and the hearing itself may be extended and/or continued to a date certain. If, following such hearing, the person conducting the hearing shall determine that the obligation has not been fulfilled or failure corrected within the time specified in the notice, as determined by the City in its reasonable discretion, the City shall thereupon have the power and authority, but not the obligation, to enter upon the Property, or cause its agents or contractors to enter the Property through the Ingress/Egress Easement Area as described and depicted in **Exhibit C** and perform such obligation or take such corrective measures as reasonably found by the City to be appropriate or necessary with respect to the detention/sedimentation basin within the Detention/Sedimentation Basin Easement Area described and depicted in **Exhibit C**, for the purposes described above. The cost and expense of making and financing such actions by the City, including notices by the City and reasonable legal fees incurred by the City, plus an administrative fee in an amount equivalent to twenty-five (25%) percent of the total of all such costs and expenses incurred, shall be paid by Owner within thirty (30) days of a billing to the Owner. All unpaid amounts may be placed on the delinquent tax roll of the City as to the Property, and shall accrue interest and penalties, and shall be collected as, and deemed delinquent real property taxes, according to the laws made and provided for the collection of delinquent real property taxes. In the discretion of the City, such costs and expenses may be collected by suit initiated against the Owner, and, in such event, the Owner shall pay all court costs and reasonable attorney fees incurred by the City in connection with such suit.

The Owner, its agents, representatives, successors, and assigns shall defend, indemnify, and hold harmless the City and the City's, elected officials, agents and employees, from any and all costs, claims, suits, actions, losses, damages, or demands, including court costs and attorneys' fees, relating in any way to or arising out of the design, construction, use, inspection, maintenance, repair, or operation (or omissions in such regard) of the storm drainage system which is the subject of this Agreement.

The parties hereto make this Agreement on behalf of themselves, their heirs, successors, assigns and transferees, and hereby warrant that they have the authority and capacity to execute this Agreement and bind the property as described in the terms and conditions of this agreement.

Invalidation of any of these covenants or conditions by Judgment or Court Order shall in no way affect the validity of any other provision which shall remain in full force and effect.

This agreement shall run with the land and be binding upon all owners, their agents, heirs, successors, assigns and transferees.

IN WITNESS WHEREOF, Owner has executed this Agreement as of the day and year first above set forth.

OWNER
Haggerty 12 Mile, LLC
An Ohio limited liability company

By: Gerard Haberman
Its: President

STATE OF OHIO)
) ss.
COUNTY OF FRANKLIN)

The foregoing instrument was acknowledged before me this 16TH day of February, 2026, by Gerard Haberman, as the President of Haggerty 12 Mile, LLC.

COLLEEN MARCHIONDA
Notary Public, State of Ohio
Commission #: 2022-RE-852769
My Commission Expires 08-16-2027

Notary Public
Acting in Franklin County, Ohio
My Commission Expires: 8/16/2027

CITY OF NOVI
A Municipal Corporation

By:
Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF OAKLAND)

The foregoing instrument was acknowledged before me on this _____day of _____ 201___, by,_____, on behalf of the City of Novi, a Municipal Corporation.

Acting in Oakland County, Michigan
My Commission Expires:_____

Drafted by: Elizabeth Kudla Saarela Johnson, Rosati, Schultz & Joppich, P.C. 27555 Executive Drive, Suite 250 Farmington Hills, MI 48331	And when recorded return to: Cortney Hanson, City Clerk City of Novi 45175 Ten Mile Rd Novi, MI 48375

CONSENT TO EASEMENT

As the holder of a mortgagee interest in and to the property referenced in the Storm Drainage Facility Maintenance Easement Agreement, dated the 16th of February 2026, attached hereto and incorporated as Exhibit A, whereby Haggerty 12 Mile, LLC grants and conveys said easement to the City of Novi, the undersigned hereby evidences its consent to the grant, conveyance, existence and recordation of said easement, which easement is hereby acknowledged and agreed to be superior to the interest of the undersigned and shall bind the undersigned and the heirs, successors and assigns of the undersigned.

IN WITNESS WHEREOF the undersigned has caused its signature to be placed on the 9th th day of March, 2026.

Peoples Bank, an Ohio Banking Corporation

By: Justin Kidd
Justin Kidd

Its: VP / Commercial Banking

STATE OF OHIO)
) ss.
COUNTY OF FRANKLIN)

On this 9th day of March, 2026, before me, personally appeared the above named Justin Kidd, the VP of Peoples Bank, to me known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

NOTARIAL SEAL
STATE OF OHIO

KEVIN CONNORS
Notary Public, State of Ohio
My Commission Expires 10-08-2027

Notary Public
Acting in Franklin County, OH
My commission expires:

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

PER TITLE COMMITMENT NO. 7-10411, PREPARED BY NORTHWEST TITLE FAMILY OF COMPANIES, INC., AN AGENT FOR OLD REPUBLIC NATIONAL INSURANCE COMPANY, DATED NOVEMBER 8, 2022 (REVISION NUMBER: 20221212-0416 PM)

LAND IN THE CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET ALONG THE EAST LINE OF SAID SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 379.12 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 458.35 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 13; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THOSE PARTS TAKEN FOR ROAD DESCRIBED AS: BEGINNING AT THE NORTHEAST SECTION CORNER; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 60 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 243.87 FEET; THENCE NORTH 59 DEGREES 50 MINUTES 38 SECONDS WEST 184.80 FEET; THENCE SOUTH 86 DEGREES 05 MINUTES 17 SECONDS WEST 163.40 FEET;THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 115.69 FEET; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING.

EXHIBIT B

STORMWATER MANAGEMENT MEASURES

See attached.

EXHIBIT B

Permanent Maintenance Tasks and Schedule

TASKS	COMPONENTS				SCHEDULE	COST
	Storm Sewer Structure	Outflow Control Structure	Pretreatment Structure	Underground Detention		
Inspect for sediment accumulation	X	X	X	X	Annually	$500
Removal of sediment accumulation	X	X	X	X	Every year as needed	$5,000
Inspect for floatables and debris	X	X	X	X	Annually and after major storm events	$500
Cleaning of floatables and debris	X	X	X	X	Every year as needed	$5,000
Inspect stormwater system components during wet weather	X	X	X	X	Annually	$500
Make adjustments or replacements as determined	X	X	X	X	As needed	Dependent as to what is needed
Keep records of all inspections and maintenance activities	X	X	X	X	Annually	$500
Keep records of all cost inspections, maintenance, and repairs.	X	X	X	X	Annually	$500

Note: See attached maintenance guides for pretreatment structure and underground detention maintenance.

Barracuda® Max & Barracuda Maintenance Guide

EXHIBIT B

One of Barracuda's advantages is the ease of maintenance. Like any system that collects pollutants, the Barracuda must be maintained for continued effectiveness. Maintenance is a simple procedure performed using a vacuum truck or similar equipment. The systems were designed to minimize the volume of water removed during routine maintenance, reducing disposal costs.

Contractors can access the pollutants stored in the manhole through the manhole cover. This allows them to gain vacuum hose access to the bottom of the manhole to remove sediment and trash. There is no confined space entry necessary for inspection or maintenance.

The entire maintenance procedure typically takes 2 to 4 hours, depending on **the system's size**, the captured material, and the **vacuum truck's** capacity.

Local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor. Maintenance should be performed only by a qualified contractor.

Inspection and Cleaning Cycle

Periodic inspection is needed to determine the need for and frequency of maintenance. You should begin inspecting as soon as construction is complete and then on an annual basis. Typically, the system needs to be cleaned every 1-3 years.

Excessive oils, fuels or sediments may reduce the maintenance cycle. Periodic inspection is important.

Determining When to Clean

To determine the sediment depth, the maintenance contractor should lower a stadia rod into the manhole until it contacts the top of the captured sediment and mark that spot on the rod. Then push the probe through to the bottom of the sump and mark that spot to determine sediment depth.

Maintenance should occur when the sediment has reached the levels indicated in the Storage Capacity Chart.

Barracuda Storage Capacities

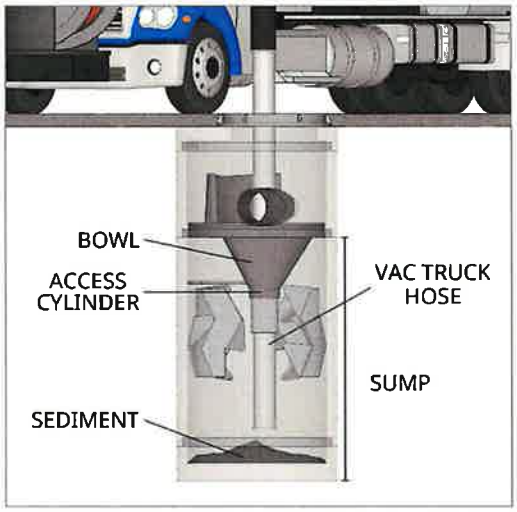
EXHIBIT B

Model	Manhole Diameter in. (mm)	Total System Volume Gallons (Liters)	Treatment Chamber Capacity Gallons (Liters)	Standard Sediment Capacity (20" depth) Yards^3 (meters^3)	NJDEP Sediment Capacity (50% of standard depth) Yards^3 (meters^3)
S3	36 (900)	264 (999)	212 (803)	0.44 (0.34)	0.22 (0.17)
S4	48 (1200)	665 (2517)	564 (2135)	0.78 (0.60)	0.39 (0.30)
S6	72 (1800)	1497 (5667)	1269 (4804)	1.75 (1.34)	0.88 (0.67)
S8	96 (2400)	4196 (15884)	3835 (14517)	3.10 (2.37)	1.55 (1.19)

Maintenance Instructions

1. Remove the manhole cover to provide access to the pollutant storage. Pollutants are stored in the sump, below the bowl assembly visible from the surface. Access this area **through the 8" (200 mm), 10" (250 mm), 15" (375 mm) or 20" (500 mm) diameter access** cylinder.
2. Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment. See figure 1.
3. Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
4. Fill the cleaned manhole with water until the level reaches the invert of the outlet pipe.
5. Replace the manhole cover.
6. Dispose of the polluted water, oils, sediment and trash at an approved facility.
   a. Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.
   b. Some localities treat the pollutants as leachate. Check with local regulators about disposal requirements.
   c. Additional local regulations may apply to the maintenance procedure.

Figure 1



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EXHIBIT B

Isolator® Row Plus
O&M Manual



ADS StormTech

The Isolator® Row Plus

EXHIBIT B

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row Plus is a technique to inexpensively enhance Total Suspended Solids (TSS), Total Phosphorus (TP), Total Petroluem Hydrocarbons (TPH) and Total Nitrogen (TN) removal with easy access for inspection and maintenance.

The Isolator Row Plus

The Isolator Row Plus is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, SC-800, MC-3500, MC-4500 or MC-7200 models, are lined with filter fabric and connected to a closely located manhole for easy access. The fabric lined chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row Plus and passes through the filter fabric. The open bottom chambers allow stormwater to flow vertically out of the chambers. Sediments are captured in the Isolator Row Plus protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS Isolator Row and Plus fabric are placed between the stone and the Isolator Row Plus chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting.

The Isolator Row Plus is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row Plus and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row Plus bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row Plus row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row Plus. After Stormwater flows through the Isolator Row Plus and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row Plus Flamp™ is a flared end ramp apparatus attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance by enhancing outflow of solid debris that would otherwise collect at the chamber's end, or more difficult to remove and require confined space entry into the chamber area. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row Plus may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row Plus to minimize maintenance requirements and maintenance costs.

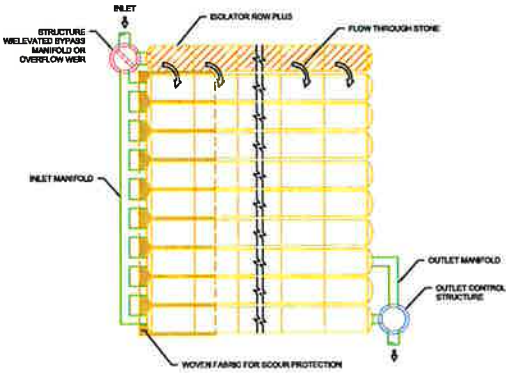
Note: *See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row Plus.*



Looking down the Isolator Row Plus from the manhole opening, ADS Plus Fabric is shown between the chamber and stone base.



StormTech Isolator Row Plus with Overflow Structure (not to scale)



Isolator Row Plus Inspection/Maintenance EXHIBIT B

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

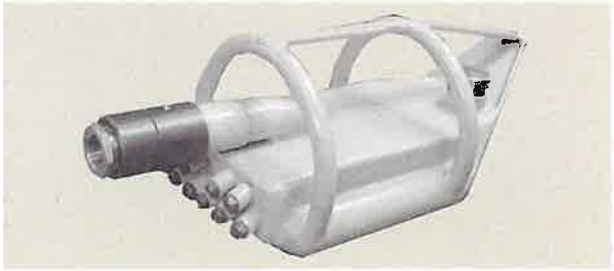
The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3" (75 mm) throughout the length of the Isolator Row Plus, clean-out should be performed.

Maintenance

The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entry.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**







StormTech Isolator Row Plus (*not to scale*)

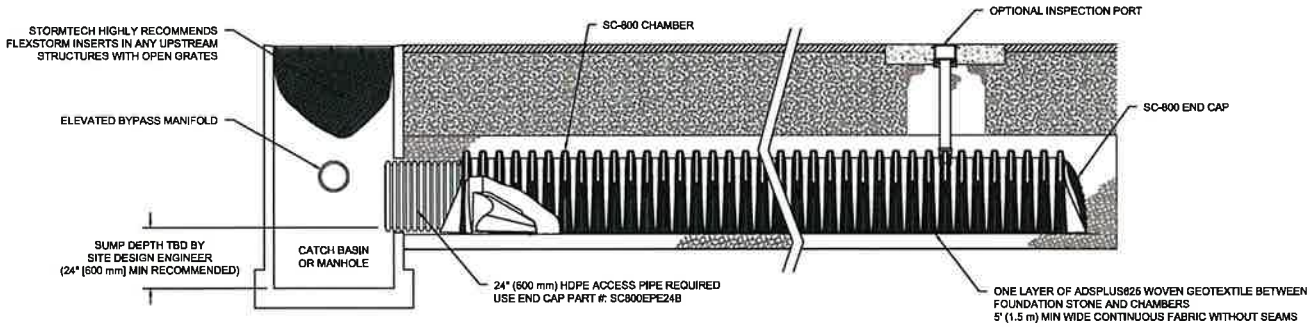


EXHIBIT B

Isolator Row Plus Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row Plus for sediment.

A) Inspection ports (if present)
- i. **Remove lid from floor box frame**
- ii. Remove cap from inspection riser
- iii. **Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.**
- iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.

B) All Isolator Row Plus
- i. Remove cover from manhole at upstream end of Isolator Row Plus
- ii. **Using a flashlight, inspect down Isolator Row Plus through outlet pipe**
  1. **Mirrors on poles or cameras may be used to avoid a confined space entry**
  2. **Follow OSHA regulations for confined space entry if entering manhole**
- iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
  If not, proceed to Step 3.

Step 2

Clean out Isolator Row Plus using the JetVac process.

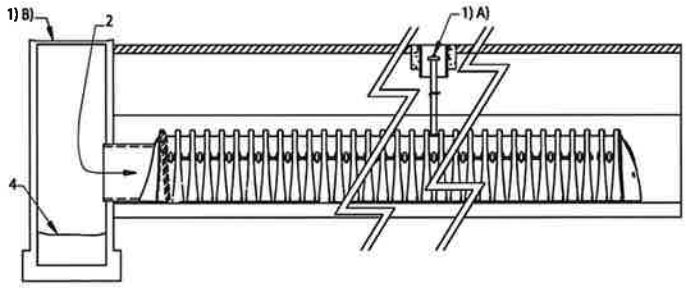
A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
B) Apply multiple passes of JetVac until backflush water is clean
C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sedi-ment Depth (1)–(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row Plus, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

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StormTech® and the Isolator® Row Plus are registered trademarks of StormTech, Inc.
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adspipe.com
800-821-6710

ADS StormTech

STORMTECH MAINTENANCE PROCEDURE

EXHIBIT B

PLEASE REFER TO THE ATTACHED STORMTECH OPERTAIONS & MAINTENANCE MANUAL FOR ADDITIONAL INFORMATION

INSPECTION

- FREQUENCY OF INSPECTION
  - The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices. At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row PLUS should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.
- INSPECTION ACCESS
  - The Isolator Row PLUS incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.
- DETERMINATION OF REQUIRED MAINTENANCE
  - If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row PLUS, clean-out should be performed.

MAINTENANCE

- MAINTNENANCE REQUIRED
  - The Isolator Row PLUS was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.
- MAINTENANCE PROCEDURE
  - Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row PLUS while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row PLUS up to 50 chambers long. ***The JetVac process shall only be performed on StormTech Isolator***

EXHIBIT B

Row PLUS that have ADS PLUS Fabric (as specified by StormTech) over their angular base stone.

- STEP BY STEP MAINTENANCE PROCEDURE

STEP 1
Inspect Isolator Row PLUS for sediment. A) Inspection ports (if present)
i. Remove lid from floor box frame
ii. Remove cap from inspection riser
iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3. B) All Isolator Row PLUS
i. Remove cover from manhole at upstream end of Isolator Row PLUS
ii. Using a flashlight, inspect down Isolator Row PLUS through outlet pipe
1. Mirrors on poles or cameras may be used to avoid a confined space entry
2. Follow OSHA regulations for confined space entry if entering manhole
iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
If not, proceed to Step 3.

STEP 2
Clean out Isolator Row PLUS using the JetVac process. A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable B) Apply multiple passes of JetVac until backflush water is clean C) Vacuum manhole sump as required

STEP 3
Replace all caps, lids and covers, record observations and actions.

STEP 4 Inspect & clean catch basins and manholes upstream of the StormTech system.

EXHIBIT B

StormTech Maintenance Log

Project Name:
Location:

StormTech
www.stormtech.com

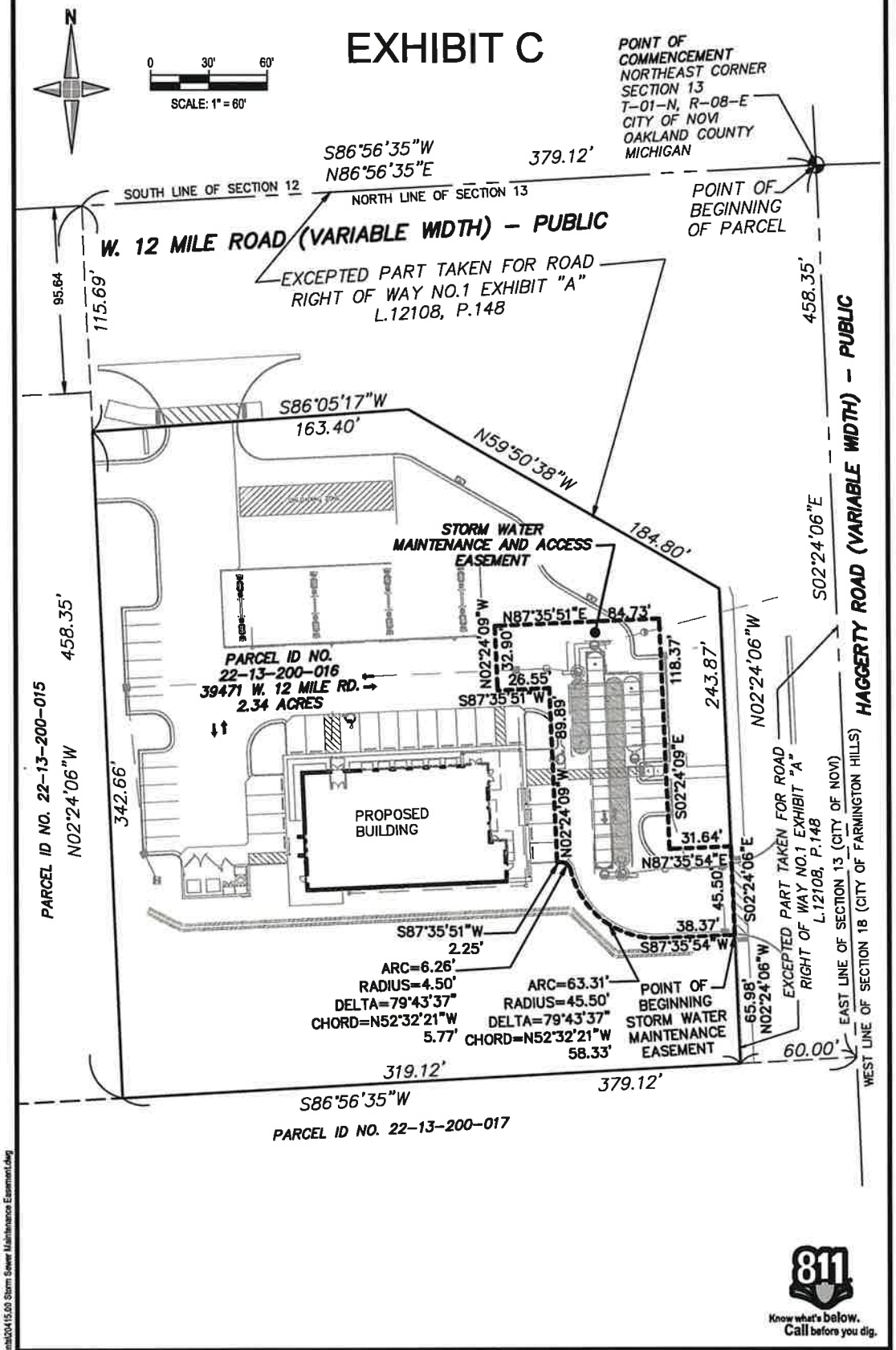
	Stadia Rod Readings				
Date	**Fixed point to chamber bottom (1)**	**Fixed point to top of sediment (2)**	**Sediment Depth (1) - (2)**	**Observations / Actions**	**Inspector**

EXHIBIT C

EASEMENT AREA

See attached.

EXHIBIT C



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PARCEL ID NO. 22-13-200-016 City of Novi, Oakland County, MICHIGAN STORM WATER MAINTENANCE AND ACCESS EASEMENT

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Landscape Architects

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Executive:	NS
Manager:	NS
Designer:	LDA
Quality Control:	ALG
Section:	13
	T-01-N R-08-E

DATE:	ISSUE:
Date	Issue

Date:	02.12.2026
Scale:	1"=60'
Sheet:	1 OF 2
Project:	20415.00

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EXHIBIT C

PROPERTY DESCRIPTION

PER TITLE COMMITMENT NO. 7-10411, PREPARED BY NORTHWEST TITLE FAMILY OF COMPANIES, INC., AN AGENT FOR OLD REPUBLIC NATIONAL INSURANCE COMPANY, DATED NOVEMBER 8, 2022 (REVISION NUMBER: 20221212-0416 PM)

LAND IN THE CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET ALONG THE EAST LINE OF SAID SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 379.12 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 458.35 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 13; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THOSE PARTS TAKEN FOR ROAD DESCRIBED AS: BEGINNING AT THE NORTHEAST SECTION CORNER; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 60 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 243.87 FEET; THENCE NORTH 59 DEGREES 50 MINUTES 38 SECONDS WEST 184.80 FEET; THENCE SOUTH 86 DEGREES 05 MINUTES 17 SECONDS WEST 163.40 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 115.69 FEET; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING.

STORM WATER MAINTENANCE AND EASEMENT DESCRIPTION

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 13; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET ALONG THE EAST LINE OF SAID SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 60.00 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 65.98 FEET TO THE POINT OF BEGINNING; THENCE THE FOLLOWING ELEVEN (11) COURSES BEING ALONG THE PERIMETER OF SAID EASEMENT; (1) SOUTH 87 DEGREES 35 MINUTES 54 SECONDS WEST, 38.37 FEET; AND (2) ALONG A BEGINNING OF A REVERSE CURVE TO THE RIGHT 63.31 FEET SAID CURVE HAVING A RADIUS OF 45.50 FEET, A CENTRAL ANGLE OF 79 DEGREES 43 MINUTES 37 SECONDS, AND A LONG CHORD BEARING OF NORTH 52 DEGREES 32 MINUTES 21 SECONDS WEST, 58.33 FEET; AND (3) ALONG A REVERSE CURVE TO THE LEFT 6.26 FEET SAID CURVE HAVING A RADIUS OF 4.50 FEET, A CENTRAL ANGLE OF 79 DEGREES 43 MINUTES 37 SECONDS, AND A LONG CHORD BEARING OF NORTH 52 DEGREES 32 MINUTES 21 SECONDS WEST, 5.77 FEET; AND (4) SOUTH 87 DEGREES 35 MINUTES 51 SECONDS WEST, 2.25 FEET; AND (5) NORTH 02 DEGREES 24 MINUTES 09 SECONDS WEST, 89.89 FEET; AND (6) SOUTH 87 DEGREES 35 MINUTES 51 SECONDS WEST, 26.55 FEET; AND (7) NORTH 02 DEGREES 24 MINUTES 09 SECONDS WEST, 32.90 FEET; AND (8) NORTH 87 DEGREES 35 MINUTES 51 SECONDS EAST, 84.73 FEET; AND (9) SOUTH 02 DEGREES 24 MINUTES 09 SECONDS EAST, 118.37 FEET; AND (10) NORTH 87 DEGREES 35 MINUTES 54 SECONDS EAST, 31.64 FEET; AND (11) SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST, 45.50 FEET TO THE POINT OF BEGINNING.

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PARCEL ID NO. 22-13-200-016 City of Novi, Oakland County, MICHIGAN STORM WATER MAINTENANCE AND ACCESS EASEMENT

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Manager:	NS
Designer:	LDA
Quality Control:	ALG
Section:	13
	T-01-N R-08-E

DATE:	ISSUE:
12.18.2025	REV DESCRIPTION

Date:	02.12.2025
Scale:	NA
Sheet:	2 OF 2
Project:	20415.00

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EXHIBIT B

Permanent Maintenance Tasks and Schedule

TASKS	COMPONENTS				SCHEDULE	COST
	Storm Sewer Structure	Outflow Control Structure	Pretreatment Structure	Underground Detention		
Inspect for sediment accumulation	X	X	X	X	Annually	$500
Removal of sediment accumulation	X	X	X	X	Every year as needed	$5,000
Inspect for floatables and debris	X	X	X	X	Annually and after major storm events	$500
Cleaning of floatables and debris	X	X	X	X	Every year as needed	$5,000
Inspect stormwater system components during wet weather	X	X	X	X	Annually	$500
Make adjustments or replacements as determined	X	X	X	X	As needed	Dependent as to what is needed
Keep records of all inspections and maintenance activities	X	X	X	X	Annually	$500
Keep records of all cost inspections, maintenance, and repairs.	X	X	X	X	Annually	$500

Note: See attached maintenance guides for pretreatment structure and underground detention maintenance.

Barracuda® Max & Barracuda Maintenance Guide

EXHIBIT B

One of Barracuda's advantages is the ease of maintenance. Like any system that collects pollutants, the Barracuda must be maintained for continued effectiveness. Maintenance is a simple procedure performed using a vacuum truck or similar equipment. The systems were designed to minimize the volume of water removed during routine maintenance, reducing disposal costs.

Contractors can access the pollutants stored in the manhole through the manhole cover. This allows them to gain vacuum hose access to the bottom of the manhole to remove sediment and trash. There is no confined space entry necessary for inspection or maintenance.

The entire maintenance procedure typically takes 2 to 4 hours, depending on the system's size, the captured material, and the vacuum truck's capacity.

Local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor. Maintenance should be performed only by a qualified contractor.

Inspection and Cleaning Cycle

Periodic inspection is needed to determine the need for and frequency of maintenance. You should begin inspecting as soon as construction is complete and then on an annual basis. Typically, the system needs to be cleaned every 1-3 years.

Excessive oils, fuels or sediments may reduce the maintenance cycle. Periodic inspection is important.

Determining When to Clean

To determine the sediment depth, the maintenance contractor should lower a stadia rod into the manhole until it contacts the top of the captured sediment and mark that spot on the rod. Then push the probe through to the bottom of the sump and mark that spot to determine sediment depth.

Maintenance should occur when the sediment has reached the levels indicated in the Storage Capacity Chart.

Barracuda Storage Capacities

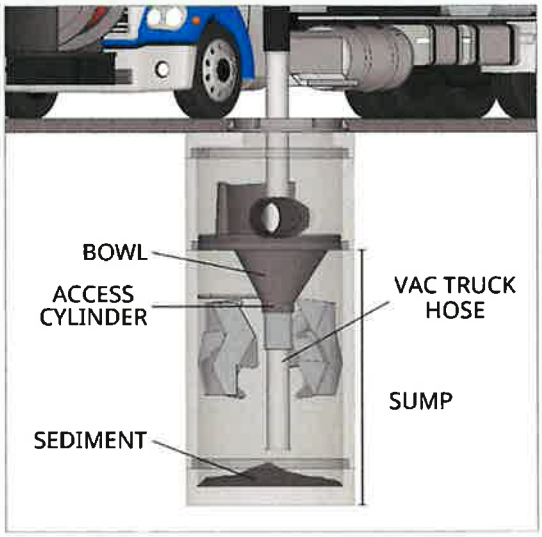
EXHIBIT B

Model	Manhole Diameter in. (mm)	Total System Volume Gallons (Liters)	Treatment Chamber Capacity Gallons (Liters)	Standard Sediment Capacity (20" depth) Yards^3 (meters^3)	NJDEP Sediment Capacity (50% of standard depth) Yards^3 (meters^3)
S3	36 (900)	264 (999)	212 (803)	0.44 (0.34)	0.22 (0.17)
S4	48 (1200)	665 (2517)	564 (2135)	0.78 (0.60)	0.39 (0.30)
S6	72 (1800)	1497 (5667)	1269 (4804)	1.75 (1.34)	0.88 (0.67)
S8	96 (2400)	4196 (15884)	3835 (14517)	3.10 (2.37)	1.55 (1.19)

Maintenance Instructions

1. Remove the manhole cover to provide access to the pollutant storage. Pollutants are stored in the sump, below the bowl assembly visible from the surface. Access this area through the 8" (200 mm), 10" (250 mm), 15" (375 mm) or 20" (500 mm) diameter access cylinder.
2. Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment. See figure 1.
3. Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
4. Fill the cleaned manhole with water until the level reaches the invert of the outlet pipe.
5. Replace the manhole cover.
6. Dispose of the polluted water, oils, sediment and trash at an approved facility.
   a. Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.
   b. Some localities treat the pollutants as leachate. Check with local regulators about disposal requirements.
   c. Additional local regulations may apply to the maintenance procedure.

Figure 1



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EXHIBIT B

Isolator® Row Plus
O&M Manual



ADS StormTech

The Isolator® Row Plus

EXHIBIT B

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row Plus is a technique to inexpensively enhance Total Suspended Solids (TSS), Total Phosphorus (TP), Total Petroluem Hydrocarbons (TPH) and Total Nitrogen (TN) removal with easy access for inspection and maintenance.

The Isolator Row Plus

The Isolator Row Plus is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, SC-800, MC-3500, MC-4500 or MC-7200 models, are lined with filter fabric and connected to a closely located manhole for easy access. The fabric lined chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row Plus and passes through the filter fabric. The open bottom chambers allow stormwater to flow vertically out of the chambers. Sediments are captured in the Isolator Row Plus protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS Isolator Row and Plus fabric are placed between the stone and the Isolator Row Plus chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting.

The Isolator Row Plus is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row Plus and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row Plus bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row Plus row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row Plus. After Stormwater flows through the Isolator Row Plus and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row Plus Flamp™ is a flared end ramp apparatus attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance by enhancing outflow of solid debris that would otherwise collect at the chamber's end, or more difficult to remove and require confined space entry into the chamber area. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row Plus may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row Plus to minimize maintenance requirements and maintenance costs.

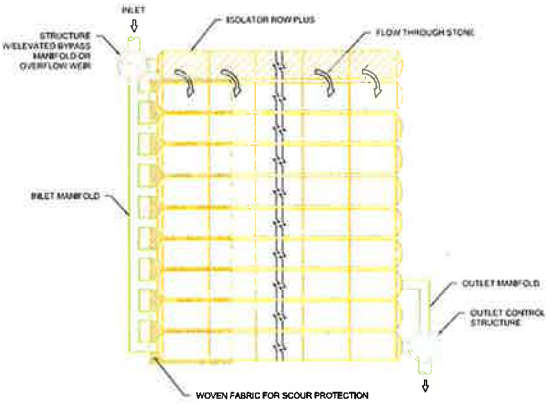
Note: *See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row Plus.*



Looking down the Isolator Row Plus from the manhole opening, ADS Plus Fabric is shown between the chamber and stone base.



StormTech Isolator Row Plus with Overflow Structure (not to scale)



Isolator Row Plus Inspection/Maintenance EXHIBIT B

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

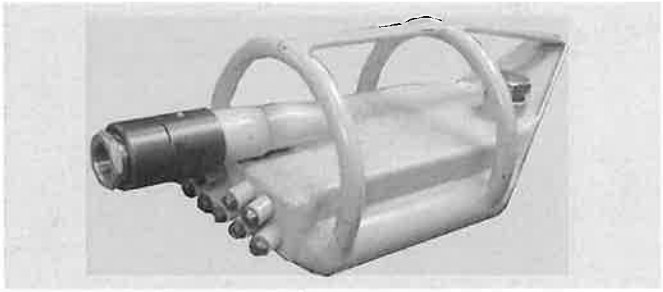
The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3" (75 mm) throughout the length of the Isolator Row Plus, clean-out should be performed.

Maintenance

The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entry.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**







StormTech Isolator Row Plus (*not to scale*)

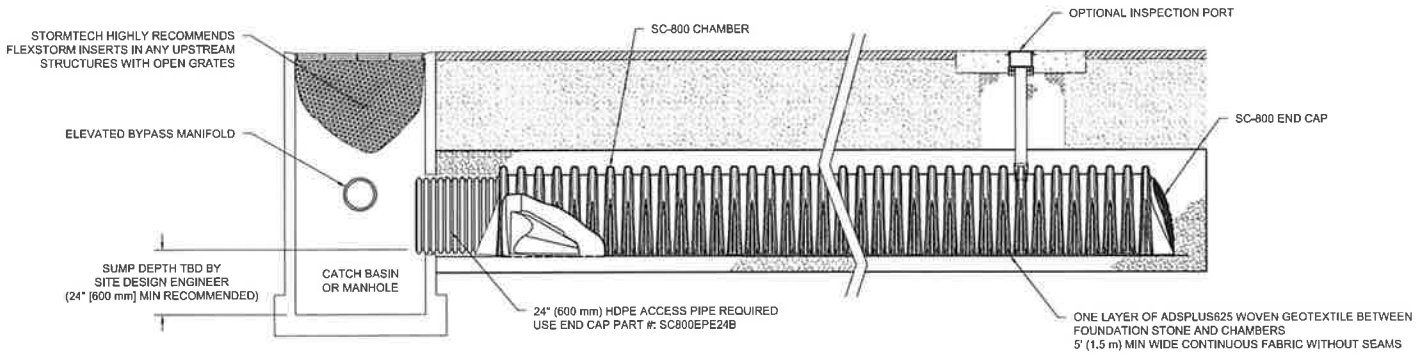


EXHIBIT B

Isolator Row Plus Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row Plus for sediment.

A) Inspection ports (if present)
   i. Remove lid from floor box frame
   ii. Remove cap from inspection riser
   iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
   iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.

B) All Isolator Row Plus
   i. Remove cover from manhole at upstream end of Isolator Row Plus
   ii. Using a flashlight, inspect down Isolator Row Plus through outlet pipe
      1. Mirrors on poles or cameras may be used to avoid a confined space entry
      2. Follow OSHA regulations for confined space entry if entering manhole
   iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
   If not, proceed to Step 3.

Step 2

Clean out Isolator Row Plus using the JetVac process.

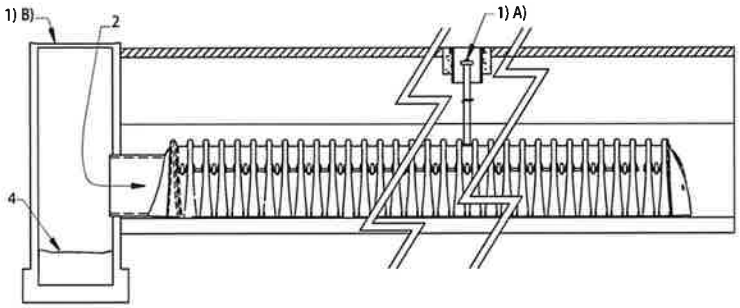
A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
B) Apply multiple passes of JetVac until backflush water is clean
C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sediment Depth (1)-(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row Plus, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

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800-821-6710

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STORMTECH MAINTENANCE PROCEDURE

EXHIBIT B

PLEASE REFER TO THE ATTACHED STORMTECH OPERTAIONS & MAINTENANCE MANUAL FOR ADDITIONAL INFORMATION

INSPECTION

- FREQUENCY OF INSPECTION
  - The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices. At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row PLUS should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.
- INSPECTION ACCESS
  - The Isolator Row PLUS incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.
- DETERMINATION OF REQUIRED MAINTENANCE
  - If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row PLUS, clean-out should be performed.

MAINTENANCE

- MAINTNENANCE REQUIRED
  - The Isolator Row PLUS was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.
- MAINTENANCE PROCEDURE
  - Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row PLUS while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row PLUS up to 50 chambers long. ***The JetVac process shall only be performed on StormTech Isolator***

Row PLUS that have ADS PLUS Fabric (as specified by StormTech) over their angular base stone.

- STEP BY STEP MAINTENANCE PROCEDURE

STEP 1
Inspect Isolator Row PLUS for sediment. A) Inspection ports (if present)
i. Remove lid from floor box frame
ii. Remove cap from inspection riser
iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3. B) All Isolator Row PLUS
i. Remove cover from manhole at upstream end of Isolator Row PLUS
ii. Using a flashlight, inspect down Isolator Row PLUS through outlet pipe
1. Mirrors on poles or cameras may be used to avoid a confined space entry
2. Follow OSHA regulations for confined space entry if entering manhole
iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
If not, proceed to Step 3.

STEP 2
Clean out Isolator Row PLUS using the JetVac process. A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable B) Apply multiple passes of JetVac until backflush water is clean C) Vacuum manhole sump as required

STEP 3
Replace all caps, lids and covers, record observations and actions.

STEP 4 Inspect & clean catch basins and manholes upstream of the StormTech system.

EXHIBIT B

StormTech Maintenance Log

Project Name:
Location:

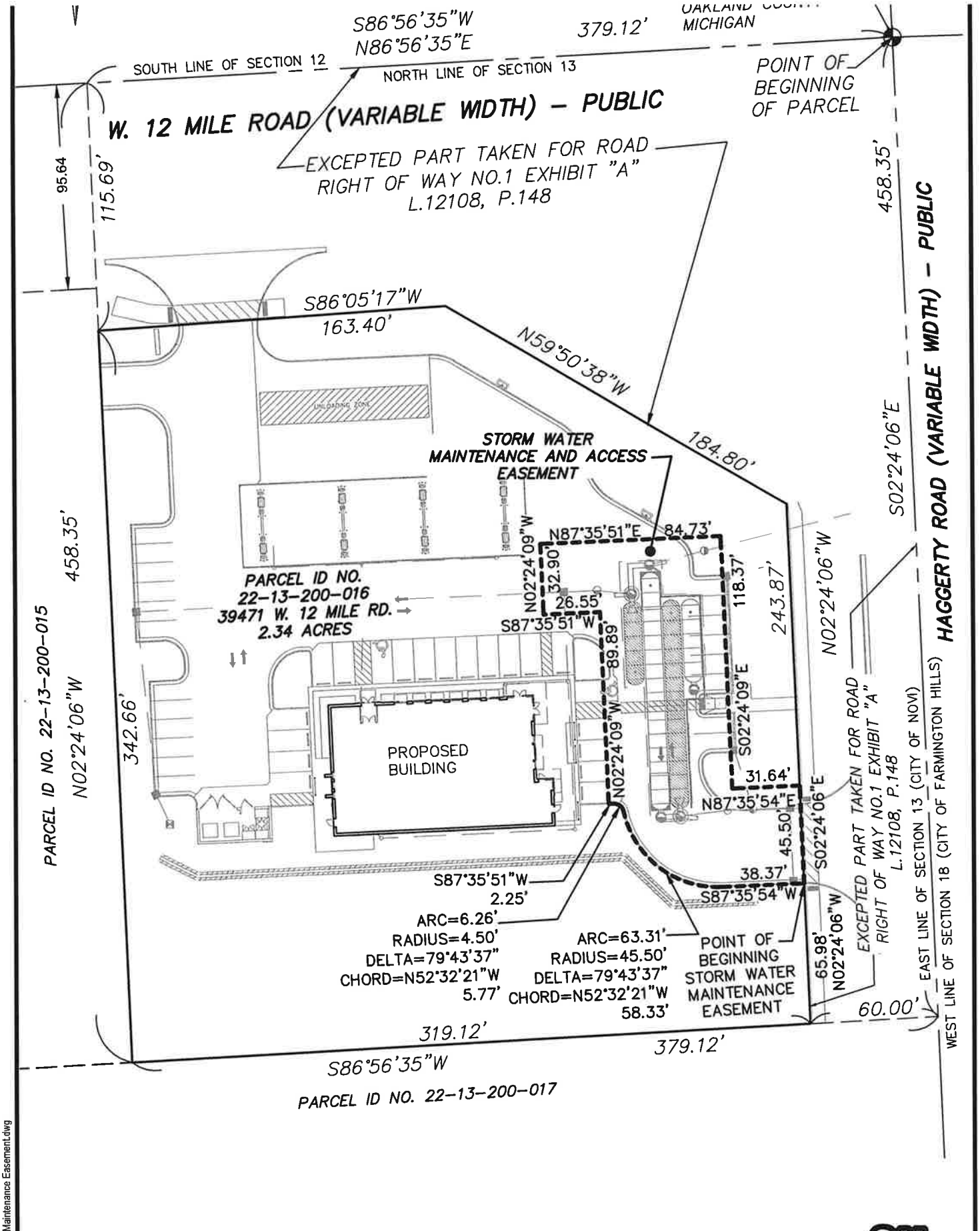
StormTech
www.stormtech.com

	Stadia Rod Readings				
Date	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)	Sediment Depth (1) - (2)	Observations / Actions	Inspector

EXHIBIT C

EASEMENT AREA

See attached.



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PARCEL ID NO. 22-13-200-016 City of Novi, Oakland County, MICHIGAN STORM WATER MAINTENANCE AND ACCESS EASEMENT

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AN AGENT FOR OLD REPUBLIC NATIONAL INSURANCE COMPANY, DATED NOVEMBER 8, 2022 (REVISION NUMBER: 20221212–0416 PM)

LAND IN THE CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET ALONG THE EAST LINE OF SAID SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 379.12 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 458.35 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 13; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THOSE PARTS TAKEN FOR ROAD DESCRIBED AS: BEGINNING AT THE NORTHEAST SECTION CORNER; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 60 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 243.87 FEET; THENCE NORTH 59 DEGREES 50 MINUTES 38 SECONDS WEST 184.80 FEET; THENCE SOUTH 86 DEGREES 05 MINUTES 17 SECONDS WEST 163.40 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 115.69 FEET; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING.

STORM WATER MAINTENANCE AND EASEMENT DESCRIPTION

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 13; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET ALONG THE EAST LINE OF SAID SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 60.00 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 65.98 FEET TO THE POINT OF BEGINNING; THENCE THE FOLLOWING ELEVEN (11) COURSES BEING ALONG THE PERIMETER OF SAID EASEMENT; (1) SOUTH 87 DEGREES 35 MINUTES 54 SECONDS WEST, 38.37 FEET; AND (2) ALONG A BEGINNING OF A REVERSE CURVE TO THE RIGHT 63.31 FEET SAID CURVE HAVING A RADIUS OF 45.50 FEET, A CENTRAL ANGLE OF 79 DEGREES 43 MINUTES 37 SECONDS, AND A LONG CHORD BEARING OF NORTH 52 DEGREES 32 MINUTES 21 SECONDS WEST, 58.33 FEET; AND (3) ALONG A REVERSE CURVE TO THE LEFT 6.26 FEET SAID CURVE HAVING A RADIUS OF 4.50 FEET, A CENTRAL ANGLE OF 79 DEGREES 43 MINUTES 37 SECONDS, AND A LONG CHORD BEARING OF NORTH 52 DEGREES 32 MINUTES 21 SECONDS WEST, 5.77 FEET; AND (4) SOUTH 87 DEGREES 35 MINUTES 51 SECONDS WEST, 2.25 FEET; AND (5) NORTH 02 DEGREES 24 MINUTES 09 SECONDS WEST, 89.89 FEET; AND (6) SOUTH 87 DEGREES 35 MINUTES 51 SECONDS WEST, 26.55 FEET; AND (7) NORTH 02 DEGREES 24 MINUTES 09 SECONDS WEST, 32.90 FEET; AND (8) NORTH 87 DEGREES 35 MINUTES 51 SECONDS EAST, 84.73 FEET; AND (9) SOUTH 02 DEGREES 24 MINUTES 09 SECONDS EAST, 118.37 FEET; AND (10) NORTH 87 DEGREES 35 MINUTES 54 SECONDS EAST, 31.64 FEET; AND (11) SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST, 45.50 FEET TO THE POINT OF BEGINNING.

811
Know what's **below.**
Call before you dig.

SPALDING DEDECKER
Engineering & Surveying Excellence since 1954

March 6, 2026

Ben Croy
City of Novi
26300 Lee BeGole Drive
Novi, Michigan 48375

Re: Sheetz - Acceptance Documents Review #2
Novi JSP23-0033
SDA NV25-206
FINAL DOCUMENTS – EXHIBITS APPROVED

Dear Mr. Croy:

We have reviewed the Acceptance Document Package received by our office on February 26, 2026 against the Final Site Plan (Stamping Set) approved on June 11, 2025. We offer the following comments:

Final Acceptance Documents
The following items must be provided prior to the issuance of a Temporary Certificate of Occupancy. All documents must be completed using blue/black ink as the County will reject them otherwise.

1. On-Site Water System Easement
(executed 02-16-2026; exhibit dated 01-13-2026)
Exhibit A Approved

2. Storm Drainage Facility / Maintenance Easement Agreement
(executed 02-16-2026; exhibits dated 12-18-2025)
Exhibits A, B, C Approved

3. License Agreement
(executed 02-16-2026; exhibit dated 12-18-2025)
Exhibit A Approved

4. Bill of Sale
(executed 02-16-2026; exhibit dated 01-13-2026)
Exhibit A Approved

5. Full Unconditional Waivers of Lien
(L&R Construction – executed 12-18-2025)
(Michigan Pipe & Valve – executed 12-22-2025)
(Lester Brothers Excavation – executed 12-18-2025)

6. Sworn Statement signed by Developer
(executed 02-23-2026)

Unless otherwise stated above, the documents as submitted were found to be acceptable by our office pending review by the City Attorney. Legal review will not occur until a current title policy is submitted to the City. For those documents which require revisions, please forward those revised documents to the City for further review and approval.

The City Attorney's Office will retain the original documents in their files until such time as they are approved and ready (notarized and executed properly) for the mayor's signature.

It should be noted that the Plan Review Center Report dated March 25, 2025 contains all documentation requirements necessary prior to construction and occupancy of the facility.

If you have any questions regarding this matter, please contact this office at your convenience.

Sincerely,

SPALDING DEDECKER

Digitally signed by Sydney Waynick

Sydney Waynick
Construction Engineer

Cc (via email): Barb McBeth, City of Novi
Lindsay Bell, City of Novi
Diana Shanahan, City of Novi
Stacey Choi, City of Novi
Humna Anjum, City of Novi
Kate Purpura, City of Novi
Beth Saarela, RSJA Law
Sarah Marchioni, City of Novi
Angie Sosnowski, City of Novi
Alyssa Craigie, City of Novi
David Bruckelmeyer, Sheetz

SPALDING DEDECKER
Engineering & Surveying Excellence since 1954

March 27, 2026

Mrs. Humna Anjum
City of Novi Engineering Division
Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375

Re: Sheetz
Storm Water Detention System Inspection
Novi SP No.: JSP23-0033
SDA Job No.: NV25-206

Dear Mrs. Anjum:

This letter serves as an official notice that we have reviewed the status of the storm water detention systems including the storm sewer piping, detention chambers, and outlet control structures for the above-referenced project. As a result of this review, we have determined the storm water detention system to be in general conformance with the approved construction plans. We recommend release of the financial guarantee.

Please contact our office with any questions or concerns.

Sincerely,

SPALDING DEDECKER
Digitally signed by Sydney Waynick
Sydney Waynick
Construction Engineer

cc: Sarah Marchioni, City of Novi – Building Project Coordinator
Angela Sosnowski, City of Novi – Bond Coordinator
Scott Roselle, City of Novi – Water and Sewer Asset Manager
Kate Purpura, City of Novi – Project Engineer
Tom Richards, L&R Construction – Site Superintendent
Brian Lance, L&R Construction – Project Manager

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of a sidewalk easement from Novi Holding, LLC as part of the Sheetz site plan, located on the south side of 12 Mile Road west of Haggerty Road (parcel 50-22-13-200-016).

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- The process is required to accept sidewalk easements where public pathways cross on to private property.

BACKGROUND INFORMATION:

Novi Holding, LLC is requesting the acceptance of a sidewalk easement to satisfy one of the conditions in the site plan approval process. The existing sidewalk on the south side of 12 Mile Road was located outside of the existing right-of-way for 12 Mile Road. Because of this a variable width sidewalk easement was requested.

The Sidewalk Easement has been approved by the City Attorney (Beth Saarela, August 26, 2026) and the City's Engineering Consultant (Spalding DeDecker, August 26, 2026). The enclosed documents have been reviewed and are recommended for acceptance.

RECOMMENDED ACTION: Approval of a sidewalk easement from Novi Holding, LLC as part of the Sheetz site plan, located on the south side of 12 Mile Road west of Haggerty Road (parcel 50-22-13-200-016).

Sheetz Sidewalk Easement

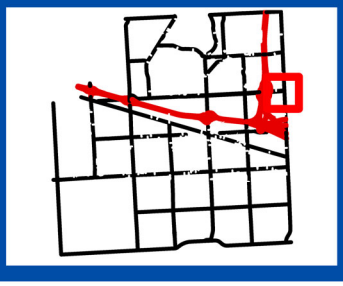
Location Map



CITY OF NOVI
cityofnovi.org

Legend

- Major Road
- Dedicated
- Prescriptive
- Tax Parcels
- Subject Parcel
- Proposed Sidewalk Easement



N

Feet

0 30 60 120

Map Author: Humna Anjum
Map Print Date: 08/26/2026

ELIZABETH KUDLA SAARELA
esaarela@rsjalaw.com

27555 Executive Drive, Suite 250
Farmington Hills, Michigan 48331
P 248.489.4100 | F 248.489.1726
rsjalaw.com

ROSATI | SCHULTZ
JOPPICH | AMTSBUECHLER

August 26, 2026

Ben Croy, City Engineer
City of Novi
Field Services Complex
26300 Lee BeGole Drive
Novi, MI 48375

RE: **Sheetz JSP 23-0033**
Sidewalk Easement

Dear Ms. Anjum:

We have received and reviewed the following original document for the Sheetz Development:

- Sidewalk Easement (***Approved***)
- Title Search

We have the following comments:

Sidewalk Easement

The Sidewalk Easement and Lender Consent are acceptable as provided. The Sidewalk Easement may be accepted by City Council and recorded with the Oakland County Register of Deeds in the usual manner.

Please feel free to contact me with any questions or concerns in regard to this matter.

Very truly yours,

ROSATI SCHULTZ JOPPICH
& AMTSBUECHLER PC

Elizabeth Kudla Saarela

Enclosure

C: (w/Enclosures)
Cortney Hanson, Clerk
Charles Boulard, Community Development Director
Lindsay Bell, Director of Planning
Diana Shanahan, Planner
Brad Doane, Planner
Sarah Marchioni, Community Development Building Project Coordinator
Angie Sosnowski, Community Development Bond Coordinator
Humna Anjum, Project Engineer
Kate Purpura, Project Engineer
Alyssa Craigie, Administrative Assistant
Sydney Waynick & Ted Meadows, Spalding DeDecker
David Bruckelmeyer and Nancy Standish, Sheetz
Thomas R. Schultz, Esquire

SIDEWALK EASEMENT

NOW ALL MEN BY THESE PRESENTS, that NOVI HOLDING, LLC, a Michigan limited liability company, whose address is 5720 Golfview, Dearborn Heights, MI 48127, for and in consideration of One ($1.00) Dollar, receipt and sufficiency of which is hereby acknowledged, hereby grants and conveys to the City of Novi, a Michigan Municipal Corporation, whose address is 45175 West Ten Mile Road, Novi, Michigan 48375, being exempt pursuant to MCLA 207.505(a), and MCLA 207.526 (a) a permanent easement for a public walkway over across and through property located in Section 13, T.1N., R.8E., City of Novi, Oakland County, State of Michigan, more particularly described as follows:

See attached and incorporated Exhibit A – Property Description Exhibit

The permanent easement for the public walkway is more particularly depicted on the attached and incorporated Exhibit B – Sidewalk Easement Area.

Grantee may enter upon sufficient land adjacent to said easement for the purpose of exercising the rights and privileges granted herein.

Grantee may install, repair, replace, improve, modify and maintain the easement area as shown in the attached and incorporated Exhibit B.

Grantor agrees not to build or to convey to others permission to build any structures or improvements on, over, across, in, through, or under the above-described easement.

This instrument shall run with the land first described above and shall be binding upon and inure to the benefit of the Grantor, Grantee, and their respective heirs, representatives, successors and assigns.

This easement shall allow public pedestrian and non-motorized traffic and shall permit maintenance, repair and replacement of the paving in the easement area.

Exempt pursuant to MCLA 207.505(a)
And MCLA 207.526(a)

This instrument shall be binding and inure to the benefit of the parties hereto, their heirs, representatives, successors and assigns.

Dated this _____ day of May, 2026.

{Signature begins on following page}

Signed by:

NOVI HOLDING, LLC,
a Michigan limited liability company

By: Ali Zreik, Sole Member

STATE OF MI)
) SS
COUNTY OF Wayne)

The foregoing instrument was acknowledged before me this 28th day of May, 2026, by Ali Zreik, Sole Member of NOVI HOLDING, LLC, a Michigan limited liability company.

TIMOTHY A. BURGESS
Notary Public, Genesee County, Michigan
My Commission Expires April 24, 2030
Acting in ~~Genesee~~ Wayne County, Michigan

Notary Public
_____ County, Michigan
My Commission Expires:

Drafted by:
Annie L. Malo, Esq.
10 St. James Ave, 11th Flr
Boston, MA 02116

When recorded return to:
City of Novi
City Clerk
45175 W. Ten Mile Road.
Novi, MI 48375

CONSENT TO SIDEWALK EASEMENT

As the holder of a mortgagee interest in and to the property referenced in the Sidewalk Easement, dated May ___, 2026, as shown in Exhibit A attached hereto and incorporated herein, pursuant to which Novi Holding, LLC, granted and conveyed a permanent easement for public walkway purposes to the City of Novi, the undersigned hereby evidences its consent to the grant, conveyance, existence and recordation of said easement, which easement is hereby acknowledged and agreed to be superior to the interest of the undersigned and shall bind the undersigned and the heirs, successors and assigns of the undersigned.

IN WITNESS WHEREOF, the undersigned has caused its signature to be placed on July 30, 2026.

DFCU Financial,
a Michigan state-chartered credit union

By: _____
Steve Terhaar, its Vice President

[acknowledgment on following page]

STATE OF MICHIGAN)
) ss.
COUNTY OF WAYNE)

The foregoing Consent to Easement was acknowledged before me on July 30, 2026, by Steve Terhaar, the Vice President of DFCU Financial, a Michigan state-chartered credit union, on behalf of the credit union.

HENRY M. WAGNER
NOTARY PUBLIC, STATE OF MI
COUNTY OF WAYNE
MY COMMISSION EXPIRES Jan 3, 2027
ACTING IN COUNTY OF WAYNE

Henry M. Wagner
HENRY M. WAGNER, Notary Public
Acting in WAYNE County, Michigan
My commission expires: 01/03/2027

Drafted by:

Robert A. Wright, III
Dawda PLC
39533 Woodward Avenue, Suite 200
Bloomfield Hills, Michigan 48304

When recorded, return to:

Stacey Choi
City of Novi
45175 Ten Mile Road
Novi, Michigan 48375

EXHIBIT A
LEGAL DESCRIPTION OF PROPERTY

PROPERTY DESCRIPTION

PER TITLE COMMITMENT NO. 7-10411, PREPARED BY NORTHWEST TITLE FAMILY OF COMPANIES, INC., AN AGENT FOR OLD REPUBLIC NATIONAL INSURANCE COMPANY, DATED NOVEMBER 8, 2022 (REVISION NUMBER: 20221212--0416 PM)

LAND IN THE CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SECTION 13, TOWN 1 NORTH, RANGE 8 EAST; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET ALONG THE EAST LINE OF SAID SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 379.12 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 458.35 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 13; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THOSE PARTS TAKEN FOR ROAD DESCRIBED AS: BEGINNING AT THE NORTHEAST SECTION CORNER; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 458.35 FEET; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST 60 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 243.87 FEET; THENCE NORTH 59 DEGREES 50 MINUTES 38 SECONDS WEST 184.80 FEET; THENCE SOUTH 86 DEGREES 05 MINUTES 17 SECONDS WEST 163.40 FEET; THENCE NORTH 02 DEGREES 24 MINUTES 06 SECONDS WEST 115.69 FEET; THENCE NORTH 86 DEGREES 56 MINUTES 35 SECONDS EAST 379.12 FEET TO THE POINT OF BEGINNING.

WALK EASEMENT DESCRIPTION

PART OF THE NORTHEAST 1/4 OF SECTION 13, TOWN 01 NORTH, RANGE 08 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 13; THENCE SOUTH 86 DEGREES 56 MINUTES 35 SECONDS WEST, 379.12 FEET ALONG THE NORTH LINE OF SAID SECTION; THENCE SOUTH 02 DEGREES 24 MINUTES 06 SECONDS EAST 115.69 FEET TO A POINT ON THE SOUTH LINE OF WEST 12 MILE ROAD (VARIABLE WIDTH); THENCE NORTH 86 DEGREES 05 MINUTES 17 SECONDS EAST, 151.20 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 86 DEGREES 05 MINUTES 17 SECONDS EAST, 12.20 FEET; THENCE SOUTH 59 DEGREES 50 MINUTES 38 SECONDS EAST, 101.20 FEET; THENCE NORTH 63 DEGREES 21 MINUTES 25 SECONDS WEST, 111.52 FEET TO THE POINT OF BEGINNING.

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

PARCEL ID NO. 22-13-200-016 | CITY OF NOVI, OAKLAND COUNTY, MICHIGAN | WALK EASEMENT

giffels webster
Engineers Surveyors Planners Landscape Architects
28 West Adams Road Suite 1200 Detroit, MI 48226
p (313) 962-4442 f (313) 962 5068
www.giffelswebster.com

Executive:	C.A.A.
Manager:	C.A.A.
Designer:	H.S.R.
Quality Control:	C.A.A.
Section:	13
	T-01-N R-08-E

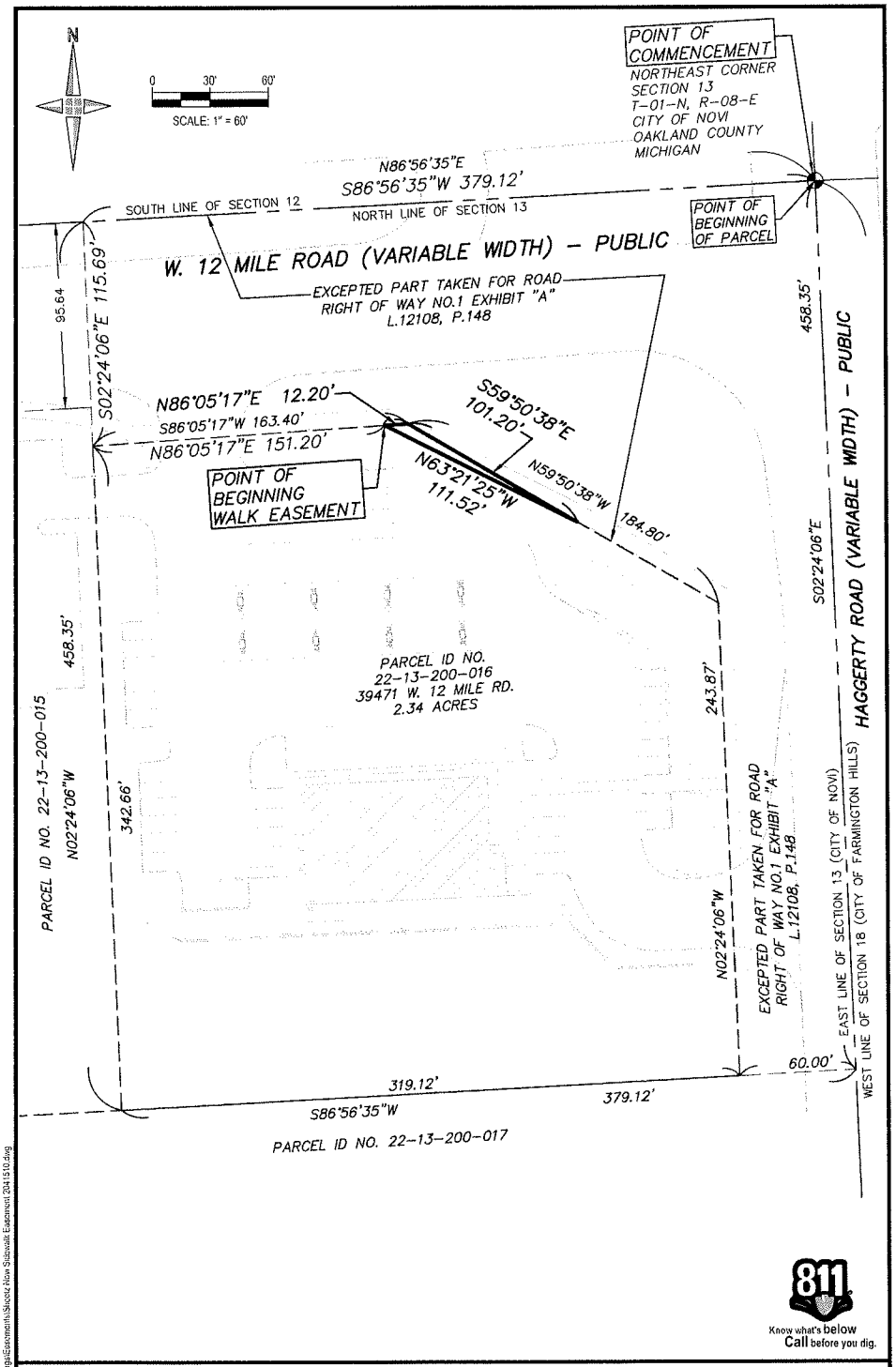
DATE	ISSUE

Date:	05.04.2026
Scale:	N/A
Sheet:	2 OF 2
Project:	20415.10

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N:\20\20400\20415.09 - Novi Stucchi\Drawings\Easements\Stucchi Novi Sidewalk Easement 20415.10.dwg

EXHIBIT B
WALK EASEMENT DEPICTION AND DESCRIPTION



811
Know what's below
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PARCEL ID NO. 22-13-200-016 | CITY OF NOVI, OAKLAND COUNTY, MICHIGAN | WALK EASEMENT

giffels webster
Engineers Surveyors Planners
Landscape Architects
28 West Adams Road
Suite 1200
Detroit, MI 48226
p (313) 962-4442
f (313) 962-5068
www.giffelswebster.com

Executive:	C.A.A.
Manager:	C.A.A.
Designer:	H.S.R.
Quality Control:	C.A.A.
Section:	13
	T-01-N R-08-E

DATE:	ISSUE:

Date:	05.04.2026
Scale:	1"=60'
Sheet	1 OF 2
Project:	20415.10

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N:\2020\20400\20413.00 - Row Shacks\Drawings\Easements\Shacks2 New Sidewalk Easement 20415.10.dwg

SPALDING DEDECKER
Engineering & Surveying Excellence since 1954

August 26, 2026

Ben Croy
City of Novi
26300 Lee BeGole Drive
Novi, Michigan 48375

Re: Sheetz: Acceptance Document Review #2 – Sidewalk Easement
Novi JSP23-0033
SDA NV25-206
EXHIBITS APPROVED

Dear Mr. Croy:

We have reviewed the Acceptance Document Package received by our office on June 9, 2026, against the Final Site Plan (Stamping Set) stamped approved on June 11, 2025. We offer the following comments:

Acceptance Documents

1. Sidewalk Easement (executed 05-28-2026; exhibits dated 05-04-2026)
   Exhibit A (Property & Easement Description) – Approved
   Exhibit B (Easement Sketch) – Approved

The exhibits as submitted were found to be acceptable by our office pending review by the City Attorney. Please send any revised or final documents to the City for further review and approval.

If you have any questions regarding this matter, please contact our office at your convenience.

Sincerely,

SPALDING DEDECKER

Digitally signed by Sydney Waynick
Date: 2026.08.26 15:04:04-04'00'

Sydney Waynick
Construction Engineer

Cc (via email): Lindsay Bell, City of Novi
Diana Shanahan, City of Novi
Stacey Choi, City of Novi
Humna Anjum, City of Novi
Kate Purpura, City of Novi
Sarah Marchioni, City of Novi
Angie Sosnowski, City of Novi
Alyssa Craigie, City of Novi
Beth Saarela, RSJA Law
David Bruckelmeyer, Sheetz

CITY OF NOVI CITY COUNCIL
SEPTEMBER 14, 2026

SUBJECT: Approval of claims and warrants – Warrant 1209

SUBMITTING DEPARTMENT: Finance

BACKGROUND INFORMATION:

Per Section 8.10 of the City's charter all funds drawn by the treasury department must be approved by City Council. This approval occurs through a warrant system and appears on all City Council's agenda. The most recent Warrant #1209 comes before City council for approval.

RECOMMENDED ACTION: Approval of claims and warrants – Warrant 1209

CITY OF NOVI
Warrant 1209
Monday, September 14, 2026

Check	Vendor Name	Description	Amount
206226	ARROW OFFICE SUPPLY CO	INVOICE 439445	622.57
206227	AT&T	ACCOUNT 248 356-6512 512 6	191.62
206228	B & H PHOTO	INVOICE 919254764	3,376.48
206229	BAY AREA NARCOTICS ENFORCEMENT TEAM	MAY 2026 OT	3,385.65
206230	CHESTERFIELD TWP POLICE DEPARTMENT	INVOICE COMET 26-JUNE	1,024.28
206231	CITY OF ROSEVILLE	INVOICE COMET 26-JUNE	332.32
206232	CITY OF ST CLAIR SHORES	INVOICE COMET 26-JUNE	755.10
206233	COMCAST BUSINESS	ACCOUNT 8529 10 249 0033015	957.04
206234	CTS/UNITEL, INC.	INVOICE CW134123	11.50
206235	ENSURITY MOBILE CORP	INVOICE 41962	1,794.43
206236	FITZGERALD WOODSHOP LLC	INVOICE 121	400.00
206237	KRESSLEIN, JACOB	REIMBURSE TRAVEL EXPENSES	1,805.45
206238	MACOMB COUNTY SHERIFF'S OFFICE	INVOICE COMET 26-JUNE	394.74
206239	OAKLAND COUNTY NARCOTIC ENFORCEMENT	2026 NET OT	21,000.00
206240	SOUTHWEST ENFORCEMENT TEAM	RENT SWET NORTH OFFICE	10,366.66
206241	TREASURER CITY OF DETROIT	INVOICE DPD072126	1,506.98
206242	MONTROSE CHARTER TOWNSHIP	MAY 2026 OT LOCAL OFFICERS	11,021.01
206243	SOUTHWEST ENFORCEMENT TEAM	JUNE 2026 OT	675.90
206244	STATE OF MICHIGAN	INVOICE 551-680133	7,006.16
206245	WEST MICHIGAN ENFORCEMENT TEAM	JUNE 2026 OT	7,329.83
206246 - 206299	DTE ENERGY	ELECTRICITY	1,077.16
206300	MICHIGAN CRISIS RESPONSE ASSOC, INC	MCRA TRAINING CONFERENCE	820.00
206301	21ST CENTURY MEDIA	ADVERTISING	496.70
206302	4 IMPRINT INC	COMMUNITY PROMOTION	1,483.70
206303	814 CRE LLC	BLDG. BOND REFUND (ESCROW)	6,000.00
206304	A AND R PLUMBING LLC	WATER LINE MAINTENANCE	4,688.92
206305	A1 MOBILE HOME SERVICES LLC	HCD	8,366.67
206306	ACCUFORM PRINTING & GRAPHICS INC	PRINTING AND PUBLISHING	2,094.36
206307	ACE CUTTING EQUIPMENT INC	OPERATING SUPPLIES	525.00
206308	AFTERMATH SERVICES LLC	BIO-HAZARD CLEANING OF JAIL CELLS	300.00
206309	AIRGAS USA, LLC	GASOLINE AND OIL	1,331.87
206310	ALLIANCE HEALTH AND LIFE	EMPLOYEE INSURANCE	18,800.00
206311	ALLIE BROTHERS INC	SUPPLIES UNIFORMS	2,483.70
206312	ALLIED BUILDING SERVICE COMPANY	BUILDING MAINTENANCE	1,700.00
206313	ALTECH DOORS LLC	BUILDING MAINTENANCE	1,397.84
206314	AMAZON	LIBRARY BOOKS LENDING	2,160.03
206315	AMERICAN GENERATORS SALES AND	LIFT STATION MAINTENANCE	2,070.00
206316	AMERICAN PRODUCERS SUPPLY CO LLC	VEHICLE MAINTENANCE	214.00
206317	AMMORI DESIGN	BLDG. BOND REFUND (ESCROW)	5,000.00
206318	AMMORI DESIGN	BLDG. BOND REFUND (ESCROW)	750.00
206319	ANGLIN CIVIL, LLC	CONSTRUCT: ORCHARD HILLS PLACE & LEAVENW	140,234.56
206320	APPLIED INNOVATION	INTERNAL TECHNOLOGY COMMUNITY RELATION	683.22
206321	ARK ELECTRICAL SOLUTIONS LLC	PARK BUILDING MAINTENANCE	2,920.41
206322	ASSOC. OF PUBLIC TREASURERS OF US	MEMBERSHIPS	249.00
206323	BALANCE FIT NOVI LLC	OLDER ADULTS FITNESS	230.40
206324	BARNHILL III, JOHN H.	ADULT SOFTBALL	328.00
206325	BEST EQUIPMENT CO., INC	VEHICLE MAINTENANCE	504.88
206326	BEYER, TODD A.	TENNIS LESSONS	5,773.36
206327	BIERI BROTHERS. LLC	BLDG. BOND REFUND (ESCROW)	500.00
206328	BOOT BARN HOLDINGS	SUPPLIES UNIFORMS	131.74
206329	BOULARD, CHARLES	REIMBURSEMENT	70.00
206330	BRIEN'S SERVICES INC	GROUNDS MAINTENANCE	3,060.00
206331	BRIGHTSOURCE LIGHTING SOLUTIONS LLC	BUILDING MAINTENANCE	1,197.30
206332	BRODART CO.	LIBRARY BOOKS LENDING	5,594.43
206333	CAMBRIDGE HOMES INC	BLDG. BOND REFUND (ESCROW)	5,000.00
206334	CANES CHICKEN FINGERS	BLDG. BOND REFUND (ESCROW)	10,411.20
206335	CANES CHICKEN FINGERS	BLDG. BOND REFUND (ESCROW)	42,966.00
206336	CASH SOD FARM	WATER LINE MAINTENANCE	555.00
206337	CAVENDISH SQUARE PUBLISHING LLC	LIBRARY BOOKS	131.45

206338	CDW GOVERNMENT LLC	INTERNAL TECHNOLOGY WATER SEWER	298.03
206339	CENTER POINT LARGE PRINT	LIBRARY BOOKS	76.17
206340	CENTERLINE ELECTRIC INC	BLDG. PAYMENT REFUND (ESCROW)	227.00
206341	CHALLENGER SPORTS TEAMWEAR, LLC	YOUTH SOCCER LEAGUE	8,984.91
206342	CHET'S RENT-ALL INC.	EQUIPMENT RENTAL/LEASE	65.18
206343	CHILTON, KIMBERLY S.	OLDER ADULTS FITNESS	2,970.00
206344	CINTAS CORP	SUPPLIES UNIFORMS	1,210.18
206345	CORELOGIC CENTRALIZED REFUNDS	2026 SUM TAX REFUND 50-22-12-352-022	33,261.75
206346	CRANDALL-WORTHINGTON INC	CUSTODIAL SUPPLIES	1,926.34
206347	CRITTER CONTROL OF S.W. OAKLAND CTY	CONTRACTUAL SERVICES	99.00
206348	CUTMYTREEDOWN.COM	FORESTRY MAINTENANCE	11,699.50
206349	DEMARCO, STEVEN	WITNESS	14.70
206350	DEWOLF & ASSOCIATES	EDUCATION AND TRAINING	595.00
206351	DPT SPORTS PERFORMANCE	SPORTS CAMPS	756.00
206352	DRAGON UNDERGOUND LLC	WATER LINE MAINTENANCE	100.00
206353 - 206356	DRN & ASSOCIATES, ARCHITECTS, PC	PROFESSIONAL SERVICES	11,125.00
206357	EJ USA, INC.	WATER LINE MAINTENANCE	2,227.56
206358	EMPIRE PRINTING, LLC	ADULT SOFTBALL	1,306.85
206359	EQUATURE	EMERGENCY COMMUNICATION SERVICE	2,000.00
206360	ETNA SUPPLY	WATER LINE MAINTENANCE	200.60
206361	EVANS, VIRGIL	WITNESS	11.80
206362	EVERON LLC	BUILDING MAINTENANCE	1,399.18
206363	EZEE FIBER TEXAS, LLC	BLDG. BOND REFUND (ESCROW)	10,000.00
206364	FARKAS, JULIE	PETTY CASH	42.71
206365	FAULKNER, BRETT	PER DIEM MICHIGAN PUBLIC SERVICE INSTITU	129.00
206366	FER-PAL CONSTRUCTION USA LLC	CONSTRUCT: CEDARSPRINGS ESTATES WATER MA	956,534.60
206367	FONSON COMPANY INC.	CONSTRUCT: VILLAGE WOOD RD (CRANDBROOKE	219,415.19
206368	FUN TIME SPORTS LLC	SPORTS CAMPS	6,180.00
206369	GABRIEL,ROEDER,SMITH & CO	PROFESSIONAL SERVICES	7,000.00
206370	GALE/CENGAGE LEARNING	LIBRARY BOOKS	156.95
206371	GRAINGER INC, W W	VEHICLE MAINTENANCE	879.42
206372	GREAT LAKES ACE	OPERATING SUPPLIES	21.72
206373	GREAT LAKES WATER AUTHORITY	IWC CHARGES	1,242,532.27
206374	GREEN OAK TIRE INC.	VEHICLE MAINTENANCE	747.50
206375	GUNNERS METERS & PARTS, INC.	WATER LINE MAINTENANCE	3,803.00
206376	HADLEY'S TOWING LLC	VEHICLE MAINTENANCE	500.00
206377	HANS AUTO ELECTRIC	VEHICLE MAINTENANCE	350.00
206378	HARRELL'S, LLC	GROUNDS MAINTENANCE	3,159.90
206379	HARTFORD, THE	EMPLOYEE INSURANCE	9,823.05
206380	HEALEY FIRE PROTECTION INC.	BUILDING MAINTENANCE	950.00
206381	HIT'S, INC	MCOLES CPE GRANT	700.00
206382	HOME DEPOT CREDIT SERVICES	MUSIC PROGRAMS	1,504.48
206383	HYDRO-CHEM SYSTEMS, INC.	OPERATING SUPPLIES	18.73
206384	IMAGAMERICA	COMMUNITY PROMOTION	2,604.04
206385	IMPERIAL BRADY	BUILDING MAINTENANCE	1,490.45
206386	INTRADO LIFE & SAFETY, INC	TELEPHONE MAINTENANCE	440.19
206387	KBC OF NC LLC	REFUND HYDRANT DEPOSIT PP26-16	1,878.80
206388	KBK LANDSCAPING, INC.	CEMETERY MAINTENANCE	27,710.00
206389	KENT COUNTY DEPT OF PUBLIC WORKS	OPERATING SUPPLIES	90.00
206390	KIMBALL MIDWEST	VEHICLE MAINTENANCE	863.71
206391	KNOX COMPANY	OUTSIDE DATA PROCESSING	438.80
206392	KOMARAGIRI, SRI RAVALI	PROFESSIONAL SERVICES	233.75
206393	KOUDA, MAJD	TUITION REIMBURSEMENT	1,500.00
206394	LABSOURCE INC	OPERATING SUPPLIES	1,161.85
206395	LAFONTAINE CHRYSLER DODGE JEEP	VEHICLE MAINTENANCE	1,200.99
206396	LECOM	BLDG. BOND REFUND (ESCROW)	1,500.00
206397	LEVEL 5 LLC	BLDG. BOND REFUND (ESCROW)	1,200.00
206398	LYON MECHANICAL CONTRACTORS, INC.	BUILDING MAINTENANCE	7,085.75
206399	M-2 AUTO PARTS, INC.	VEHICLE MAINTENANCE	836.79
206400	MAC CONCRETE DEMOLITION, INC	BLDG. BOND REFUND (ESCROW)	500.00
206401	MACQUEEN EMERGENCY	SCBA SUPPLIES	1,081.74
206402	MAJOR CONSTRUCTION GROUP, INC	CONSTRUCT: 2026 NEIGHBORHOOD SIDEWALK	267,298.70
206403	MALINOWSKI, JUDITH M.	MEDICAL SERVICES	1,500.00
206404	MALZBERG, ETHAN	OLDER ADULTS FITNESS	1,075.20
206405	MANELA, RACHEL	REIMBURSEMENT	92.62
206406	MARK'S OUTDOOR POWER EQUIPMENT	LAWN MOWER MAINTENANCE	337.81

206407	MCKENNA ASSOCIATES INC	HCD	1,942.50	
206408	MEDLINE INDUSTRIES, LP	MEDICAL SUPPLIES	890.37	
206409	METRONET	BLDG. BOND REFUND (ESCROW)	10,000.00	
206410	METRONET	BLDG. BOND REFUND (ESCROW)	10,000.00	
206411	MICHIGAN AUTOMATIC SPRINKLER INC	OPERATING COSTS FUERST	74,565.00	
206412	MICHIGAN FIRE TRAINING CONSULTANTS	RECRUITMENT TRAINING	50.00	
206413	MICHIGAN LIBRARY ASSOCIATION	CONFERENCE	50.00	
206414	MICHIGAN LINEN SERVICE, INC.	BUILDING MAINTENANCE	1,650.25	
206415	MIDWEST TAPE, LLC	VISUAL AUDIO MATERIALS	1,381.79	
206416	MISSION COMMUNICATIONS, LLC	LIFT STATION MAINTENANCE	355.00	
206417	MKT LANDSCAPING SERVICES LLC	WEED CUTTING	384.00	
206418	MORGAN, JOHN D & SHANNON L	BLDG. BOND REFUND (ESCROW)	500.00	
206419	MUNICIPAL WEB SERVICES, INC	WEB PAGE MAINTENANCE	9,196.20	
206420	MURAD, KHALID & SANDRA	2026 SUM TAX REFUND 50-22-31-402-010	6.00	
206421	MY GREEN MICHIGAN	RUBBISH MONTHLY	338.50	
206422	NATIONAL HOSE TESTING SPECIALTIES	VEHICLE MAINTENANCE	2,992.80	
206423	O'REILLY AUTO PARTS	WATER LINE MAINTENANCE	1,161.47	
206424	OAKLAND COMMUNITY COLLEGE	EDUCATION AND TRAINING	6,150.00	
206425	OAKLAND COUNTY PLANNING	FINAL PAYMENT 50-B2-NVIL-2015	89,579.39	
206426	OAKLAND COUNTY REGISTER OF DEEDS	TOWNES BIKE RACKS LICENSE AGT	30.00	
206427	OAKLAND COUNTY REGISTER OF DEEDS	TOWNES PH 3 LICENSE AGT BIKE RACKS	35.00	
206428	OAKLAND COUNTY REGISTER OF DEEDS	MI CAT WOODLAND CONSERVATION EASEMENT	30.00	
206429	OAKLAND COUNTY REGISTER OF DEEDS	MI CAT PLAZA EASEMENT	30.00	
206430	OAKLAND COUNTY REGISTER OF DEEDS	SHEETZ SIDEWALK	30.00	
206431	OAKLAND COUNTY REGISTER OF DEEDS	CONSUMERS ENERGY - LA -FENCE	30.00	
206432	OAKLAND COUNTY REGISTER OF DEEDS	CULVER'S ACCESS EASEMENT	30.00	
206433	OAKLAND COUNTY REGISTER OF DEEDS	SHEETZ SDFMEA	30.00	
206434	OAKLAND COUNTY REGISTER OF DEEDS	COM FIN SDFMEA	30.00	
206435	OAKLAND COUNTY REGISTER OF DEEDS	PARTIAL DISCHARGE OF MORTGAGE	30.00	
206436	OAKLAND COUNTY TREASURERS	PROFESSIONAL SERVICES	905,732.55	
206437	OAKLAND COUNTY TREASURERS	COST SHARE: CADDELL DRAIN-9 MILE & DRAKE	220,134.00	
206438	ODP BUSINESS SOLUTIONS, LLC	OFFICE SUPPLIES	492.80	
206439	ON DUTY GEAR, LLC	SUPPLIES UNIFORMS	1,055.00	
206440	ORCHARD, HILTZ & MC CLIMENT	PROFESSIONAL SERVICES	82,150.64	
206441	ORKIN	BUILDING MAINTENANCE	1,268.72	
206442	OVERDRIVE, INC.	ELECTRONIC MEDIA	2,669.50	
206443	OWEN TREE SERVICE INC	FORESTRY MAINTENANCE	6,228.00	
206444	PACE SYSTEMS, INC	INTERNAL TECHNOLOGY POLICE	6,380.00	
206445	PHILIPS CONSTRUCTION	BLDG. BOND REFUND (ESCROW)	500.00	
206446	POSTMASTER	FUND BRM 144-001	1,000.00	
206447	PREW, SHARON	WITNESS	6.00	
206448	PRIORITY ONE EMERGENCY	VEHICLE MAINTENANCE	300.00	
206449	PROGRESSIVE HARDWARE SUPPLIERS LLC	BUILDING MAINTENANCE	295.00	
206450	PROSCREENING, LLC	MEDICAL SERVICE	39.00	
206451	QUILL CORPORATION	OPERATING SUPPLIES	1,922.38	
206452	R & R FIRE TRUCK REPAIR INC	VEHICLE MAINTENANCE	2,972.82	
206453	RAISING CANE'S CHICKEN FINGERS	BLDG. BOND REFUND (ESCROW)	1,200.00	
206454	REHMANN	INDEPENDENT AUDIT	23,000.00	
206455	RESOURCE RECOVERY AND RECYCLING	RECYCLING CENTER	18,048.50	
206456	RKA PETROLEUM COS., INC	GASOLINE AND OIL	56,972.36	
206457	ROAD COMMISSION FOR OAKLAND COUNTY	COST SHARE: 12 MILE RD (NOVI RD TO FARMI	135,822.00	
206458	ROCK SOLID EXTERIORS	BLDG. BOND REFUND (ESCROW)	500.00	
206459	RON TURLEY ASSOCIATES, INC.	INTERNAL TECHNOLOGY DPS	2,550.00	
206460	ROSATI, SCHULTZ, JOPPICH	LEGAL FEES	13,801.40	
206461	VOID		-	V
206462	ROSS, MICHAEL	ADULT SOFTBALL	82.00	
206463	SAKURA NOVI RESIDENTIAL, LLC	BLDG. BOND REFUND (ESCROW)	1,600.00	
206464	SAKURA NOVI RESIDENTIAL, LLC	BLDG. BOND REFUND (ESCROW)	47,775.00	
206465	SALTY JAKES LLC	VEHICLE MAINTENANCE	1,946.00	
206466	SAM'S CLUB DIRECT	OFFICE SUPPLIES	526.63	
206467	SAVIN LAKE SERVICES, INC.	WALLED LAKE BOARD	7,245.58	
206468	SCHERING, COLLEEN	WITNESS	17.60	
206469	SCHNOEDEA, MEGHAN	WITNESS	21.95	
206470	SERVICE EXPRESS, INC.	OPERATING SUPPLIES	2,241.00	
206471	SHIFMAN FOURNIER, PLC	LEGAL FEES	5,642.50	
206472	SITEONE LANDSCAPE SUPPLY, LLC	GROUNDS MAINTENANCE	1,516.19	

206473	SMART BUSINESS SOURCE LLC	OFFICE SUPPLIES	335.65
206474	SPALDING DE DECKER	PROFESSIONAL SERVICES	25,383.26
206475	SQUEAKY SHINE CAR WASH	VEHCILE MAINTENANCE	500.00
206476	STANECKI, JASON	2026 SUM TAX REFUND 50-22-20-276-016	3,036.03
206477	STAPLES BUSINESS ADVANTAGE	OFFICE SUPPLIES	429.64
206478	STATE OF MICHIGAN	COST SHARE: MEADOWBROOK REHABILITATION	250,510.27
206479	STATE OF MICHIGAN	LIVESCAN	1,494.00
206480	STEIN, KEVIN B.	ADULT SOFTBALL	3,955.00
206481	SUBURBAN LANDSCAPE SUPPLY	WATER LINE MAINTENANCE	486.00
206482	SURBROOK, JR STEPHEN E	BLDG. BOND REFUND (ESCROW)	500.00
206483	SZELAP, CHRISTINE E. HEFFERNAN	KARATE	1,562.75
206484	T-MOBILE USA, INC	TELEPHONE	1,501.96
206485	TALBOT, JOHN	REIMBURSEMENT	47.00
206486	TAYLOR H2O WORX LLC	WATER METERS	1,276.00
206487	TEDDY'S LAWN & LANDSCAPE, INC	ROUTINE MAINTENANCE	9,005.00
206488	TEDDY'S LAWN AND LANDSCAPE	BLDG. BOND REFUND (ESCROW)	500.00
206489	TRUCK & TRAILER SPECIALTIES, INC.	VEHICLE MAINTENANCE	875.00
206490	UNDERGROUND CONTRACTORS INC	BLDG. BOND REFUND (ESCROW)	1,500.00
206491	UNITED STATES POSTAL	MAILING OF BALLOTS	3,275.00
206492	VARIPRO	FLEXIBLE SPENDING	7,828.23
206493	VARSITY LINCOLN, INC	VEHICLE MAINTENANCE	887.84
206494	VENTO CONCRETE	BLDG. BOND REFUND (ESCROW)	500.00
206495	VITAL RECORDS CONTROL	OUTSIDE DATA PROCESSING	279.00
206496	WEINGARTZ SUPPLY CO INC	LAWN MOWER MAINTENANCE	87.98
206497	WILBER, BRUCE S & SANDRA L	2026 SUM TAX REFUND 50-22-02-226-141	537.32
206498	WITMER PUBLIC SAFETY GROUP INC	OPERATING SUPPLIES	687.21
206499	WORLDVIEW TECHNOLOGIES GROUP	BUILDING MAINTENANCE	850.00
206500	WT COX INFORMATION SERVICES	LIBRARY PERIODICALS	18,539.26
			$5,397,755.54

GENERAL FUND	101	372,826.65
MAJOR STREET FUND	202	266,548.68
LOCAL STREET FUND	203	202,604.63
MUNICIPAL STREET FUND	204	409,146.52
PARKS, REC & CULTURAL SVCS FUND	208	40,920.55
DRAIN FUND	211	439,899.47
TREE FUND	213	115.00
RUBBISH COLLECTION FUND	226	18,387.00
LIBRARY FUND	271	52,136.71
LIBRARY CONTRIBUTION FUND	272	137.92
COMMUNITY DVLPMNT BLOCK GRANT FUND	274	10,309.17
MAIN STREET AREA STREETLIGHTING 186	288	496.70
2008 LIBRARY CONSTRUCTION DEBT FUND	371	136.00
CAPITAL IMPROVMENT PRGRM (CIP) FUND	401	271.00
SPECIAL ASSESSMENT REVOLVING FUND	418	142.00
ICE ARENA FUND	570	766.00
SENIOR HOUSING FUND	574	1,390.01
WATER AND SEWER FUND	592	3,185,984.54
SELF INSURANCE - HEALTH CARE FUND	677	18,800.00
AGENCY FUND	701	169,358.78
CURRENT TAX COLLECTION FUND	703	126,420.49
MI HIDTA	725	73,957.72
RETIREE HEALTH CARE BENEFITS FUND	737	7,000.00
		$5,397,755.54