

**GENERAL STORM SEWER NOTES:**

SITE CONTRACTOR TO END STORM CONNECTION 5' FROM BUILDING WITH A TEMPORARY CAP. COORDINATE CONNECTION WITH BUILDING PLUMBING CONTRACTOR.

STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PER ASTM C76 CLASS III WALL B. JOINTS SHALL BE RUBBER O-RING PER ASTM C443.

STORM SEWER PIPE FOR ROOF DRAIN CONNECTIONS OR WHERE INDICATED TO BE PVC SHALL MEET THE REQUIREMENTS OF ASTM D3034, SDR26. JOINTS TO BE ELASTOMERIC SEALS IN ACCORDANCE WITH ASTM F477.

MATERIALS, INSTALLATION, AND TESTING OF THE STORM SEWER SYSTEM SHALL CONFORM TO OCWRC STANDARDS.

**GENERAL NOTES:**

REFER TO ARCHITECTURAL FOUNDATION PLAN FOR DETAILING OF BUILDING AND EXACT BUILDING DIMENSIONS.

REFER TO LANDSCAPE PLAN FOR RESTORATION OF ALL NON PAVED SURFACES.

OWNER HAS SUBMITTED FOR AND IS IN THE PROCESS OF OBTAINING THE FOLLOWING SITE RELATED PERMITS:

AGENCY	PERMIT #
GEORGETOWN TOWNSHIP	SITE PLAN APPROVAL
OCWRC	STORM WATER DEVELOPMENT
OCWRC	SOIL EROSION

UPON AWARD OF CONTRACT, CONTRACTOR WILL BE RESPONSIBLE TO CHECK WITH ENGINEER AND JURISDICTION ON STATUS OF THE PERMITS LISTED ABOVE.

CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL SITE RELATED PERMITS NOT BEING OBTAINED BY THE OWNER. CONTRACTOR IS REQUIRED TO COMPLETE THE APPLICATION AND SUBMIT NECESSARY DRAWINGS, FEES, ETC. TO THE APPROPRIATE JURISDICTION. CONTRACTOR SHALL PAY ALL FEES RELATED TO PERMITS(S) AND SECURE PERMITS(S) IN HIS NAME.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL SITE UTILITY CONNECTIONS AND INSPECTIONS WITH THE PROPER JURISDICTION AND PAY ALL ASSOCIATED FEES.

THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING WATER, SANITARY SEWER, AND STORM SEWER CROSSINGS AND CONNECTION POINTS PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITH ANY DISCREPANCIES.

ALL PAVEMENT MARKINGS SHALL BE 4" WIDE. STANDARD PARKING SPACES SHALL BE MARKED IN YELLOW AND BARRIER FREE SPACES IN BLUE. EACH BARRIER FREE SPACE SHALL BE PROVIDED WITH A PAINTED PAVEMENT SYMBOL, A PRECAST CONCRETE BUMPER BLOCK, AND A SIGN PER THE MANUAL OF UNIFORM TRAFFIC CONTROLS.

REFERENCE SOILS REPORT FOR BORING LOGS AND PREPARATION AND CONSTRUCTION PROCEDURES FOR SUBBASE AND DESIGN SECTION OF ALL PAVED AREAS.

ALL MDOT REFERENCES ARE TO THE 2012 EDITION.

ANY CHANGES TO SIGNS WILL BE PERMITTED IN ACCORDANCE WITH THE SIGN ORDINANCE.

WATER AND SEWER SERVICE OF PROPOSED BUILDING ADDITION TO BE TIED INTO EXISTING BUILDING SERVICE. REFER TO PLUMBING DRAWINGS ON LOCATIONS OF SERVICE.

**LEGAL DESCRIPTION:**

LOT 23, GEORGETOWN INDUSTRIAL CENTER NO. 2, LOT 9, GEORGETOWN INDUSTRIAL CENTER

CONTAINS APPROXIMATELY 3.28 ACRES.

**SURVEY PROVIDED BY:**

BOUNDARY SURVEY PROVIDED BY SUMMIT SURVEYING ON A DRAWING TITLED ELENBAAS BOUNDARY, DATED JANUARY 2018.

TOPOGRAPHIC SURVEY PERFORMED BY PARADIGM DESIGN, INC. ON JANUARY 2018.

**BENCHMARKS:**

BM #1: TOP OF UPPER FLANGE BOLT LOCATED UNDER THE "TR" IN TRAVERSE CITY, LOCATED 9 FEET SOUTH OF SOUTHWEST PROPERTY CORNER - 0.7 FEET ABOVE GROUND LEVEL. ELEVATION: 621.45 (NAVD83 GEOD 12A)

BM #2: TOP OF SIGN BOLT ON CONCRETE LIGHT POLE BASE, LOCATED 103 FEET EAST OF AND 8 FEET NORTH OF NORTHWEST PROPERTY CORNER - 3.0 FEET ABOVE GROUND LEVEL. ELEVATION: 619.04 (NAVD83 GEOD 12A)

**FLOODPLAIN DATA:**

THE ENTIRE SITE IS DESIGNATED "ZONE X, AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN" ACCORDING TO FEMA FLOOD INSURANCE RATE MAP NUMBER 26139C024E, EFFECTIVE DATE: 12/16/2011.

**WETLAND DATA:**

THERE ARE NO WETLANDS ON THE SUBJECT PROPERTY BASED ON MAPPING PUBLISHED BY THE U.S. FISH & WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY MAPS.

**DEVELOPMENT REFERENCE:**

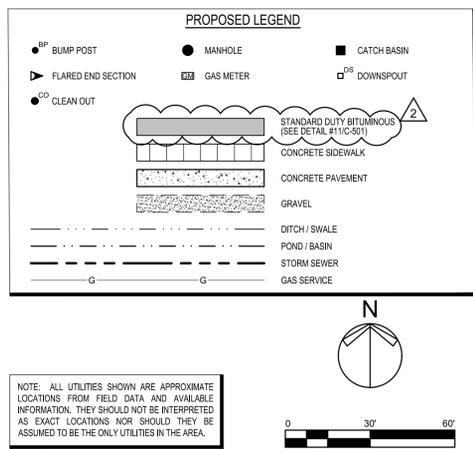
CONTRACTOR:	WOLVERINE BUILDING GROUP 4045 BARDEN SE GRAND RAPIDS, MI 49512	CIVIL ENGINEER:	PARADIGM DESIGN 555 3 MILE ROAD N.W., SUITE B GRAND RAPIDS, MI 49544 (616) 785-5656
ARCHITECT:	PARADIGM DESIGN 550 3 MILE ROAD N.W., SUITE B GRAND RAPIDS, MI 49544 (616) 785-5656	SURVEYOR:	SUMMIT SURVEYING INC. PO BOX 410 ALLEDALE, MI 49401
PROPERTY OWNER:	ELENBAAS WOOD PRODUCTS 2363 PORT SHELDON COURT JENISON, MI 49428		

**SITE DATA:**

SITE:	APPROXIMATELY 3.28 ACRES
ZONED:	INDUSTRIAL
USE:	INDUSTRIAL
MINIMUM LOT AREA:	40,000 SFT
MINIMUM LOT WIDTH:	150'
MAXIMUM BUILDING HEIGHT:	45'
MAXIMUM LOT COVERAGE:	40%
FRONT BUILDING SETBACK:	45'
SIDE BUILDING SETBACK:	20'
REAR BUILDING SETBACK:	20'
BUILDING COVERAGE:	38%
<b>PARKING DATA:</b>	
REQUIRED PARKING: 47 SPACES	
2,000 SFT OFFICE AT 1 SPACE PER 300 SFT	= 7 SPACES
1,000 SFT WHOLESALE AT 1 SPACE PER 200 SFT	= 5 SPACES
10,000 INDUSTRIAL AT 1 SPACE PER 750 SFT	= 14 SPACES
41,673 SFT WAREHOUSE AT 1 SPACE PER 2000 SFT	= 21 SPACES
PROPOSED PARKING: 47 SPACES (INCLUDES 2 BARRIER FREE SPACES)	
PARKING SPACE:	9' x 20'
DRIVE AISLE:	24'

**PROPOSED STORM SEWER STRUCTURE TABLE**

STRUCTURE NUMBER	SIZE	RIM ELEV.	CASTING TYPE	INVERT
CB-2	4' Ø	RIM = 617.17 EJ #1040-N	8" (W) = 615.01 12" (S) = 615.01	
CB-4	4' Ø	RIM = 616.42 EJ #1040-N	12" (W) = 614.02 12" (S) = 614.02	
ST-3	4' Ø	RIM = 618.42 EJ #1040-B	12" (N) = 614.34 6" (W) = 614.84 12" (E) = 614.34	
ST-5	4' Ø	RIM = 617.13 EJ #1040-B	12" (N) = 613.64 6" (W) = 615.33 12" (S) = 613.64	
ST-6	4' Ø	RIM = 617.20 EJ #1040-B	12" (N) = 613.12 12" (SE) = 613.12	



**PARADIGM DESIGN**  
ARCHITECTS | ENGINEERS

GRAND RAPIDS: 550 3 Mile NW Suite B, Grand Rapids, MI 49544, (616) 785-5656  
TRAVERSE CITY: 333 E. State Street, Traverse City, MI 49684, (231) 346-3030

www.paradigmiae.com

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**PROJECT**

**ELENBAAS HARDWOOD POLE BUILDING ADDITION**

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**CONTRACTOR**

**WOLVERINE BUILDING GROUP**

616-949-3360  
4045 BARDEN SE  
GRAND RAPIDS, MI 49512

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**RELEASE DATE**

DATE	DESCRIPTION
07-02-18	SPA SUBMISSION
07-10-18	SPA RESUBMISSION
07-25-18	SPA RESUBMISSION
08-06-18	REVISED POLE BUILDING
08-14-18	SPA REVISION
09-11-18	WATER/SEWER ADDED
09-21-18	POLE BUILDING PERMIT
10-08-18	REVISION 1
10-12-18	PERMIT
04-11-19	REVISION 2

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**PROJECT**

**1801011**

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**SHEET**

**CIVIL LAYOUT AND UTILITY PLAN**

**C-102**