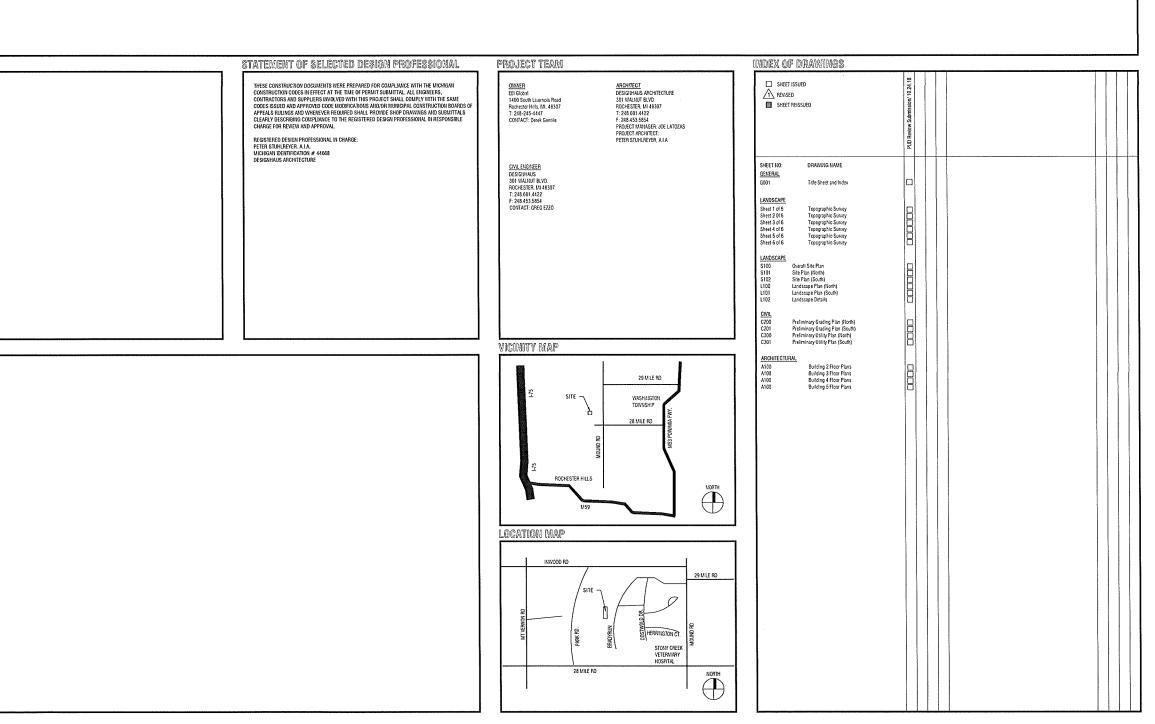
# Rochester Hills Research Park

1400 S. Livernois Rochester Hills, MI 48307

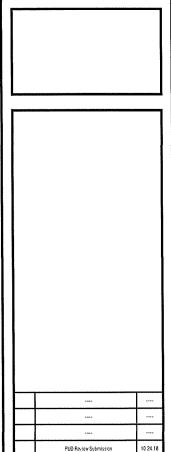




301 WALNUT BOULEVARD

T:248.601.4422 F:248.453.5854

W W W . D E S I G N H A U S . C O M I N F O @ D E S I G N H A U S . C O M



Rochester Hills Research Park

Title Sheet and Index

G001

# SITE HORIZON CT.-VICINITY MAP

PARCEL AREA

1,090,802± SQUARE FEET = 25.041± ACRES

BENCHMARK

SITE BENCHMARK #1 ARROW ON HYDRANT APPROXIMATELY 102 FEET EAST OF HELICOPTER PAD. ELEVATION = 782.46" (NAVD 88 DATUM).

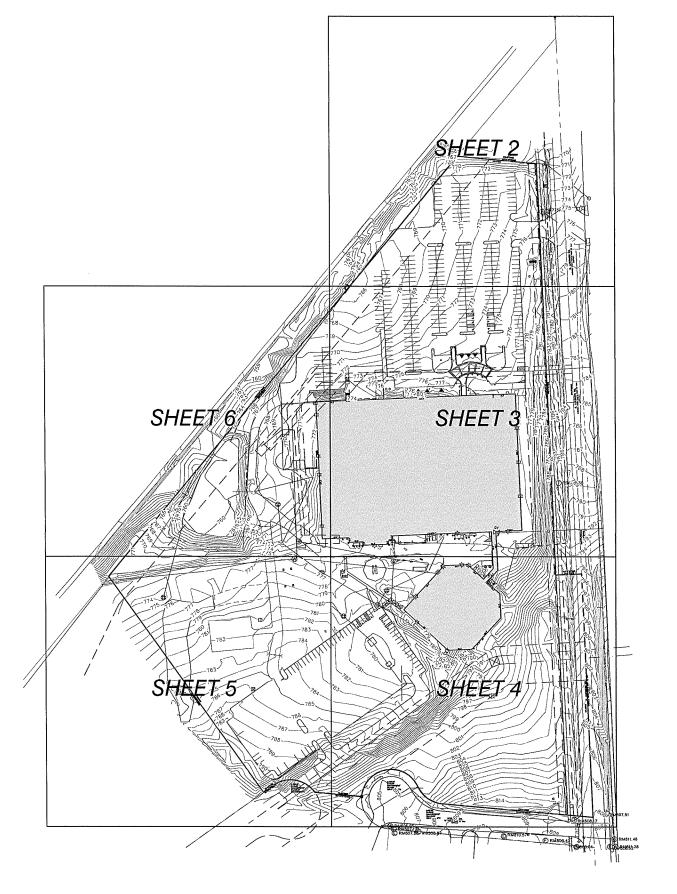
SITE BENCHMARK #2
TOP OF NUT ON HYDRANT APPROXIMATELY 42 FEET SOUTHEAST OF SOUTHEAST CORNER OF BUILDING.
ELEVATION = 785.69' (NAVD 88 DATUM).

3. APPROXIMATE LOCATION OF EASEMENTS PER PREVIOUS SURVEY.

# TREE SCHEDULE

	VENTORY for: EEI Global, Inc., 1400 S	outh Livernois Rond, Roch	ester Hills, M	ichigan	
Tree f d.b	.h. Botanical Name	Common Name	Candition	Comments	(N) Not Regulated (s
1161	6 Ailanthus altissima	Tree of Heaven	fair	- Bent/crooked leader	
1162	23 Ulmus spp	Em	fair	- 1-sided crown	
1163	30 Ulmus spp.	Elm	good		
1164	17 Finus nigra	Austrian Pine	fair	- Thinning canopy	
1165	16 / 11 Pinus nigra	Austrian Pine	poor	- 90% or more dead	N (c)
1166	7 Picea pungens	Colorado Spruce	fair	Partially girdled trunk	
1167	19 Pinus nigra	Austrian Pine	fair	- Thinning canopy	
1168	18 / 11 Pinus nigra	Austrian Pine	fair	- Thinning canopy	
1169	19 Pinus nigra	Austrian Pine	fair	- Dead/dying branch(es)	
1170	18 Pinus nigra	Austrian Pine	good		
1171	15 Pinus rūgra	Austrian Pine	good		
1172	10 Picea pungens	Colorado Spruce	fair	- Pitch on trunk	
1173	14 Picea pungens	Colorado Spruce	fair	- Thinning canopy	
1174	9 Picea pungens	Colorado Spruce	fair	- Pitch on trunk	
1175	17 Pinus nigra	Austrian Pine	fair	- Thinning canopy	
1176	14 Pinus nigra	Austrian Pine	fair	- Thinning canopy	
1177	6 Picea pungens	Colorado Spruce	fair	- Pitch en trunk	
1178	11 / 8 / 7 / Pinus nigra	Austrian Pine	fair	- Poor crotch	
1179	11 / 7 / Pinus nigra	Austrian Pine	fair	- Poor crotch	
1180	6 Picea pungens	Colorado Spruce	fair	- Pitch on trunk & leaning	
1181	4 / 4 / 3 Picea pungens	Colorado Spruce	fair	- Partially girdled trunk	N (s)
1182	5 Picea pungens	Colorado Spruce	fair	- Partially girdled trunk	N (s)
1183	12 Picca pungens	Colorado Spruce	good		
1184	14 Pinus nigra	Austrian Pine	fair	- Dend/dying branch(es)	
1185	14 Pioca pungens	Colorado Spruce	fair	- Pitch on trunk	
1186	8 Picea pungens	Colorado Spruce	fair	- Pitch on trunk & missing leader	
1187	8 Picea pungens	Colorado Spruce	feir	- Pitch on trunk	
1188	7 Picea pungens	Colorado Spruce	fair	- 1-sided crown	
1189	15 Pinus rigra	Austrian Pine	fair	- Dead/dying branch(ec)	
1190	12 Pinus nigra	Austrian Pine	poor	- 75% or more dead	N (c)
1191	13 Pinus nigra	Austrian Pine	fair	- Dead/dying branch(es)	
1192	16 Pinus nigra	Austrian Pine	fair	- Thinning canopy	
1193	13 Pinus nigra	Austrian Pine	fair	- Dead/dying branch(es)	
1194	13 / 12 Pinus nigra	Austrian Pine	fair	- Thinning canopy	
1195	13 Pinus nigra	Austrian Pine	poor	- 75% or more dead	N (c)
1196	9 Piras rilgra	Austrian Pine	poor	- 75% or more dead	N (c)
1197	11 Picea Fungens	Colorado Spruce	poor	- 75% or more dead	N (c)
1198	12 Picea pungens	Colorado Spruce	fair	- Dead/dying branch(es)	
1199	13 Picea Fungens	Colorado Spruce	fair	- Dead/dying branch(es)	
1200	15 Picea pungens	Colorado Spruce	fair	- Pitch on trunk	
1201	15 Pinus nigra	Austrian Pine	fair	- Dead/dying tranch(es)	N (-)
1202	14 Pinus nigra	Austrian Pine	poor	- 75% or more dead	N (c)
1203	15 Pinus nigra	Austrian Pine	fair fair	- Dead/dying branch(es)	
1204	11 Acer saccharum	Sugar Maple		- Missing leader	
1205	12 Acer sacchanon	Sugar Maple	good		
1206	12 Acer saccharum	Sugar Maple	good		
1207	14 Aver saccharton	Sugar Maple	boog boog		
1208	13 Acer sacchanum	Sugar Maple	good		
1209	12 Acer saccharum	Sugar Maple			
1210	11 Acer saccharum 12 Acer saccharum	Sugar Maple	good good		
1211		Sugar Maple	good		
1212	13 Acer sacchanum	Sugar Maple			
1213	11 Acersacchanan	Sugar Maple	good		
1214	10 Acer saccharum	Sugar Maple	boog boog		
1215	12 Acersachanon	Sugar Maple Sugar Maple	boog		
1216 1217	11 Acer saccharum 11 Acer saccharum	Sugar Maple Sugar Maple	peog boog		
1217	11 Acer saccharum 12 Acer saccharum	Sugar Maple Sugar Maple	good		
1218	12 Acer saccharum 15 Acer saccharum	Sugar Maple	fair	- Vertical scar on trunk	
1219	10 Acer sacchanum	ought make	lini	- remediates on moun	

# TOPOGRAPHIC SURVEY







PROPERTY DESCRIPTION LAND SITUATED IN THE CITY OR ROCHESTER HILLS, COUNTY OF STATE OF MICHIGAN, DESCRIBED AS:

TAN, RIE, SEC 21 PART OF NE 1/4 BEG AT PT DIST N 02-27-24 W 358.71 FT FROM E 1/4 COR, TH 84-53-32 W 353.30 FT, TH ALG CURVE TO RIGHT, RAD 70 FT, CHORD BEARS N 54-53-32 W 70 FT, DIST OF 73.30 FT, TH ALG CURVE TO LETT, RAD 70 FT, CHORD BEARS S 50-06-30 H 352.32 FT, DIST OF 73.30 FT, RAD 70 FT, CHORD BEARS S 50-06-30 H 352.32 FT, DIST OF 73.30 FT, RAD 70 FT, CHORD BEARS FT, DIST OF 73.30 FT, RAD 70 FT, CHORD BEARS FT, DIST OF 109.05 FT, TH RAD 70 FT, CHORD BEARS N 80-25-11 W 95.99 FT, DIST OF 109.96 FT, TH S 54-34-50 W 28.48 FT, TH N 35-28-25 W 621.73 FT, TH N 35-54-26 I 1284.08 FT, TH S 84-31-31 E 245.99 FT, TH S 02-27-24 E 1527.57 FT TO BEG EXC E 60 FT OF N 955.49 FT 25.04 A

# MANHOLE SCHEDULE

STORM DRAIN MANHOLE (SDM#15012) RIM=807.96\* 12"CONC, E, 799.86' INV. 12"CONC, NW, 799.81' INV.

STORM DRAIN MANHOLE (SDM#15025) 12"CONC, SE, 798.65' INV. 12"CONC, S, 803.30' INV. 12"CONC, W, 799.00' INV.

STORM DRAIN MANHOLE (SDM#15028) RIM=808.20' 12"CONC, E, 798.35' INV. 12"CONC, NW, 798.45' INV.

STORM DRAIN MANHOLE (SDM#15574) RIM=780.72' 6"CPP, N, 776.22' INV. 6"CPP, E, 776.22' INV. 6"CPP, S, 776.22' INV. 12"CONC, NW, 775.82' INV.

STORM DRAIN MANHOLE (SDM#16067)

ROUND CATCH BASIN (CB#10029) RM=777.07'
4"PVC, W, 775.07' INV.
4"METAL INVERTED PIPE, N,
T/PIPE=774.72'

ROUND CATCH BASIN (CB#10079) RIM=786.31 12"CONC, SW, 779.36' INV.

BEEHIVE CATCH BASIN (CB#10)82) RIM=779.74'

STORM DRAIN MANHOLE (SDM#10284) RIM=777.35'

SQUARE CATCH BASIN (CB#10329) RIM=777.37' FULL OF DEBRIS

ROUND CATCH BASIN (CB#10381) RIM=776.07

RM=773.45' E/W PIPE, T/VALVE=766.75' T/PIPE W=765.87', T/PIPE E=765.91'

ROUND CATCH BASIN (CB#10516) RIM=766.77\* 12°CONC, NE, 760.72\* INV. 15°CONC, E, 762.57\* INV. 12°CONC, SE, 761.02\* INV. 18°CONC, W, 760.17\* INV.

SQUARE CATCH BASIN (CB#15024) RIM=807.70' 12"CONC, N, 803.50' INV. 12"CONC, S, 803.60' INV.

12"CONC, N, 803.36" INV.

# SURVEYOR'S CERTIFICATION

SANITARY MANHOLE (SWH#15164) RIM=807.44' 12"CONC, N. 792.44' INV. 12"CONC, S. 792.49' INV.

STORM DRAIN MANHOLE (SDM#15336) RM=808.64\* 48°CONC, N, 791.94\* INV. 48°CONC, S, 791.64\* INV. 12°CONC, W, 795.84\* INV. T/WATER=792.24\*

ROUND CATCH BASIN (CB#15370) RIM=777.98' 12"CONC, SW, 772.93' INV. 12"CONC, W, 772.83' INV.

ROUND CATCH BASIN (CB#15412) RIM=792.37' 12"CONC, NW, 786.72' INV.

BEEHIVE CATCH BASIN (CB#15725) RIM=780.48' 12"CONC, NE, 770.48' INV. 12"CONC, SE, 770.53' INV. 12"CONC, NW, 770.33' INV.

SQUARE CATCH BAS'N (CB≱15851) RIM=779.53' 12°CONC, SE, 774.58' INV. 12°CONC, NW, 774.53' INV.

ROUND CATCH BASIN (CB#15895) RIM=779.54' 12"CONC, SE, 774.69" INV. 12"CONC, NW, 774.49' INV.

RIM=779.74" 12"CONC, SE, 772.99" INV. 12"CONC, NW, 773.04" INV.

ROUND CATCH BASIN (CB#10217) RM=775.49

WATER GATE VALVE MANHOLE (WMH#10461)

BEEHIVE CATCH BASIN (CB#10523) RIM=768.18' 12"CONC, SE, 762.78' INV. 12"CONC, NW, 772.58' INV.

ROUND CATCH BASIN (CB#10553) RIM=772.31' RIM=772.31'
12"CONC, N, 767.41' INV.
12"CONC, SSW, 767.51' INV.
15"CONC, SW, 767.31' INV.

SQUARE CATCH BASIN (CB#1500B) RIM=804.31' 6'CPP, E. 800.66' INV. 12'CONC, SE, 799.91' INV. 12'CONC, SW, 800.01' INV.

SQUARE CATCH BASIN (CB#15054) RIM=807.71'

SQUARE CATCH BASIN (CB#15109) RIM=804.55' 12"CONC, NE, 800.30' INV.

GLOBAL 1 LIVERNOIS ROAD 3 NORTH, RANGE 1 HILLS, STATE OF N EEI GI SOUTH LI TOWN 3 N IESTER HIL NOI PO

ASSOCIATES

REFORMS - PROFESSIONAL ENGINEERS

REFERENCIAL MICHIGAN 4021

00)295-7722 - FAX (586)772-4048

·**f**<

N/S PIPE T/PIPE=773.90', T/VALVE=775.16'

SQUARE CATCH BASIN (CB#15859)

BEEHIVE CATCH BASIN (CB#15998) RIM=775.90' 12"CONC, SW, 771.80' INV.

12"CONC, SE, 775.36' INV. 12"CONC, NW, 775.41' INV.

STORM DRAIN MANHOLE (SDM#16067) RIM=778.17' 12"CONC, N, 769.17" INV. 12"CONC, W, 769.32" INV.

ROUND CATCH BASIN (CB#16108) RIM=779.39' 12"CONC, SE, 774.04' INV. 12"CONC, NW, 774.04' INV.

ROUND CATCH BASIN (CB#16174) RIM=774.45' 1 12°CONC, NW, 764.05' INV. 12°CONC, NE, 766.15' INV. 12°CONC, SW CWP, W

SANITARY MANHOLE (SMH#16175) RM=777.23' 10°CONC, SE, 773.28' INV. 10°CONC, SW, 773.23' INV.

WATER GATE VALVE MANHOLE (WMH#16176) RIM=777.19' E/W PIPE T/PIPE=771.32', T/VALVE=773.78'

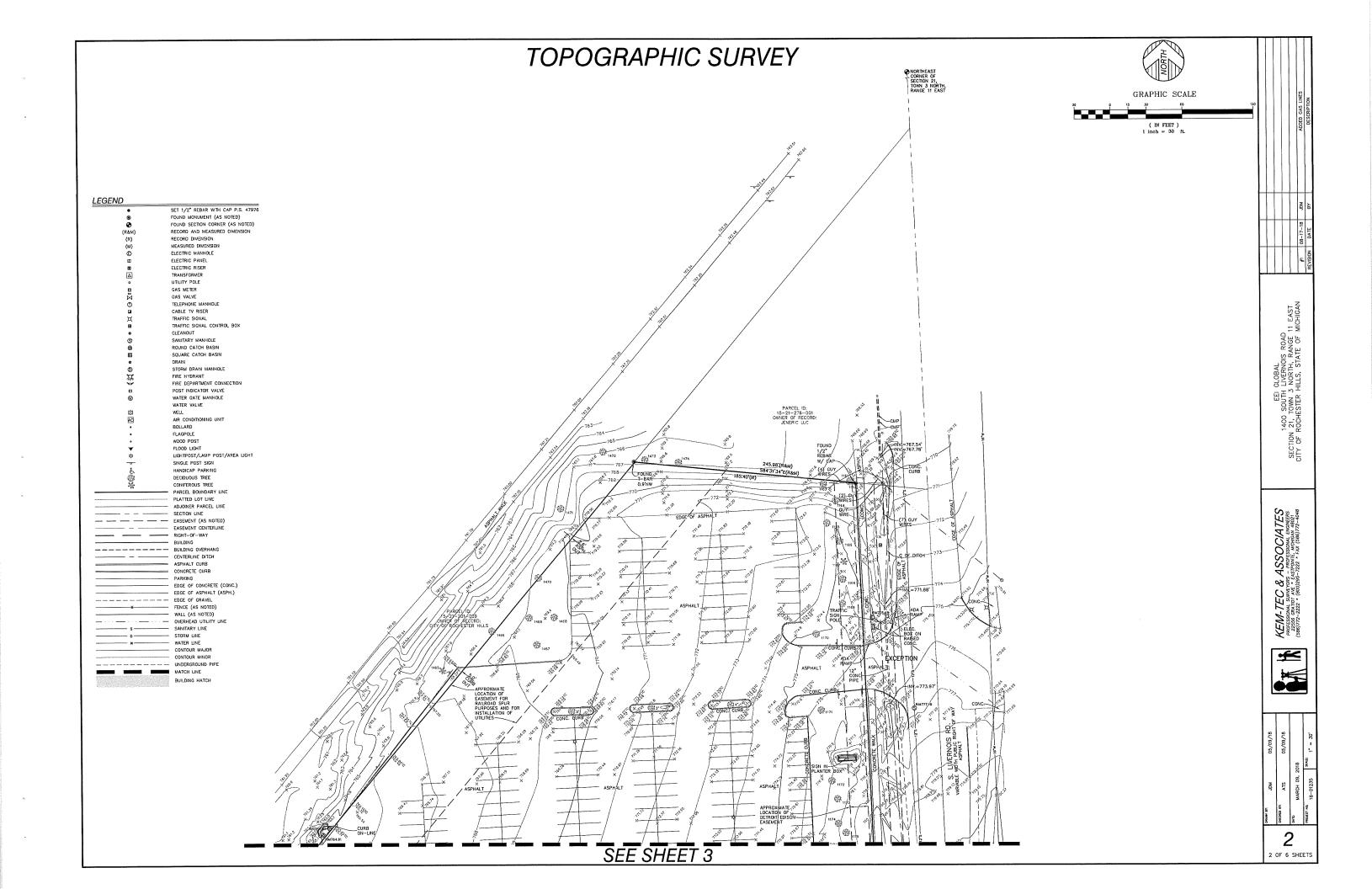
SANITARY MANHOLE (SMH#16177) RIM=777 12' 12"CONC, SE, 773.42' INV. 12"CONC, NW, 773.32' INV.

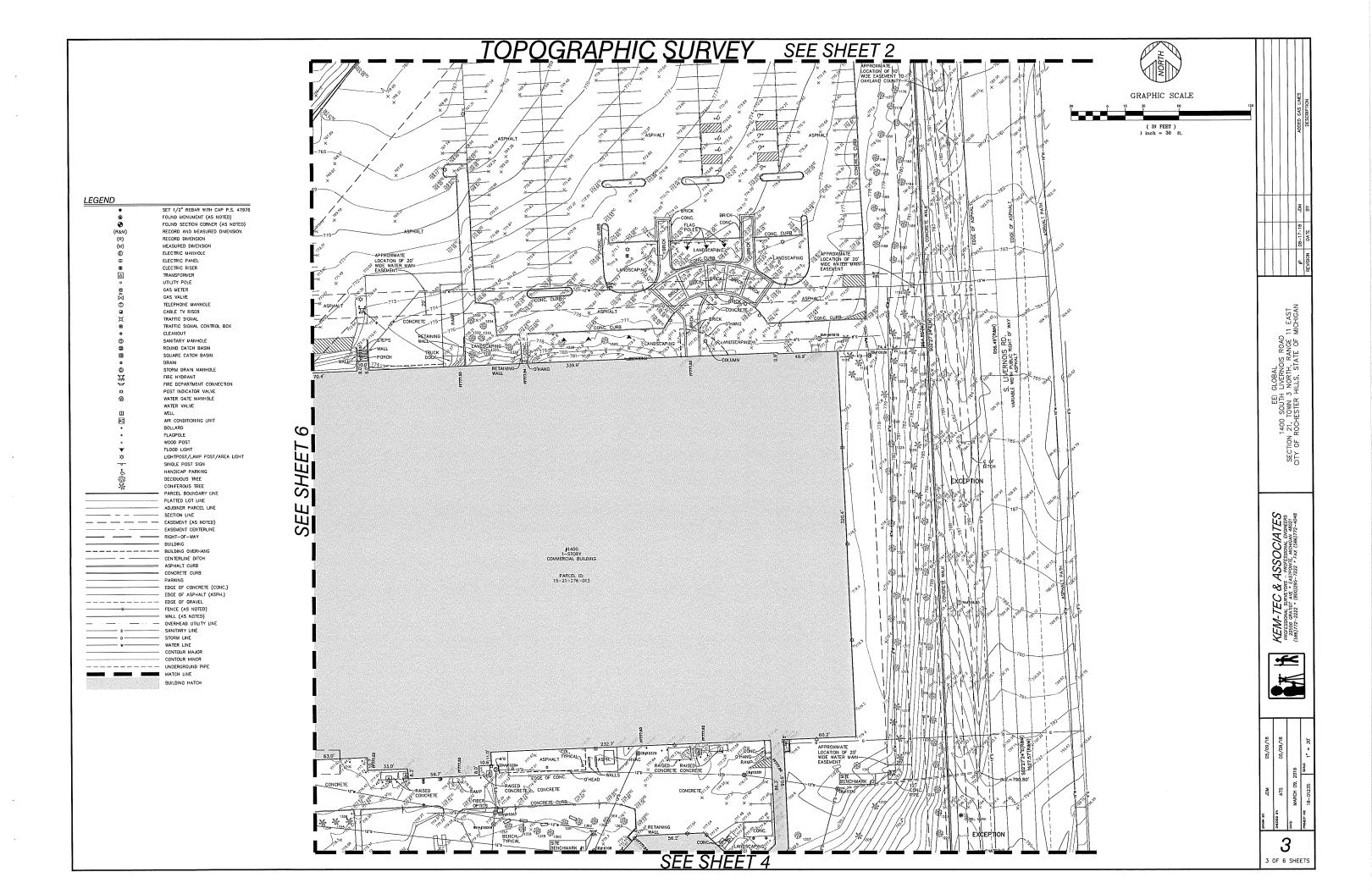
BEEHIVE CATCH BASIN (CB#16179) RIM=776.64' 12 CONC, SE, 768.64 INV. 12 CONC, NW, 768.39 INV. BEEHIVE CATCH BASIN (CB#16225) RIM=773,15'

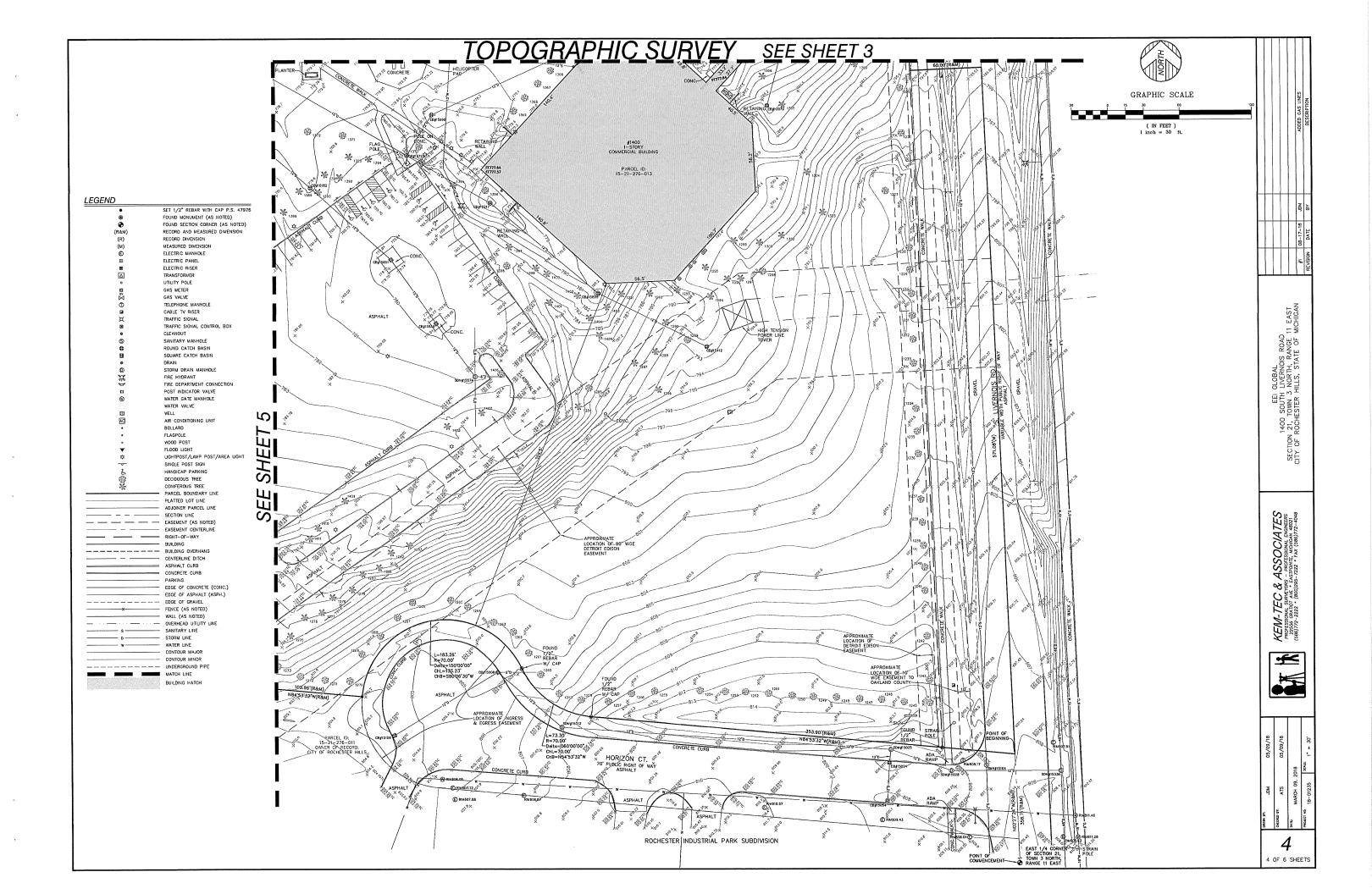
12"CONC, NE SANITARY MANHOLE (SMH#16333) RIM=777.55' 12"CONC, E, 772.55' INV. 12"CONC, W, 772.55' INV.

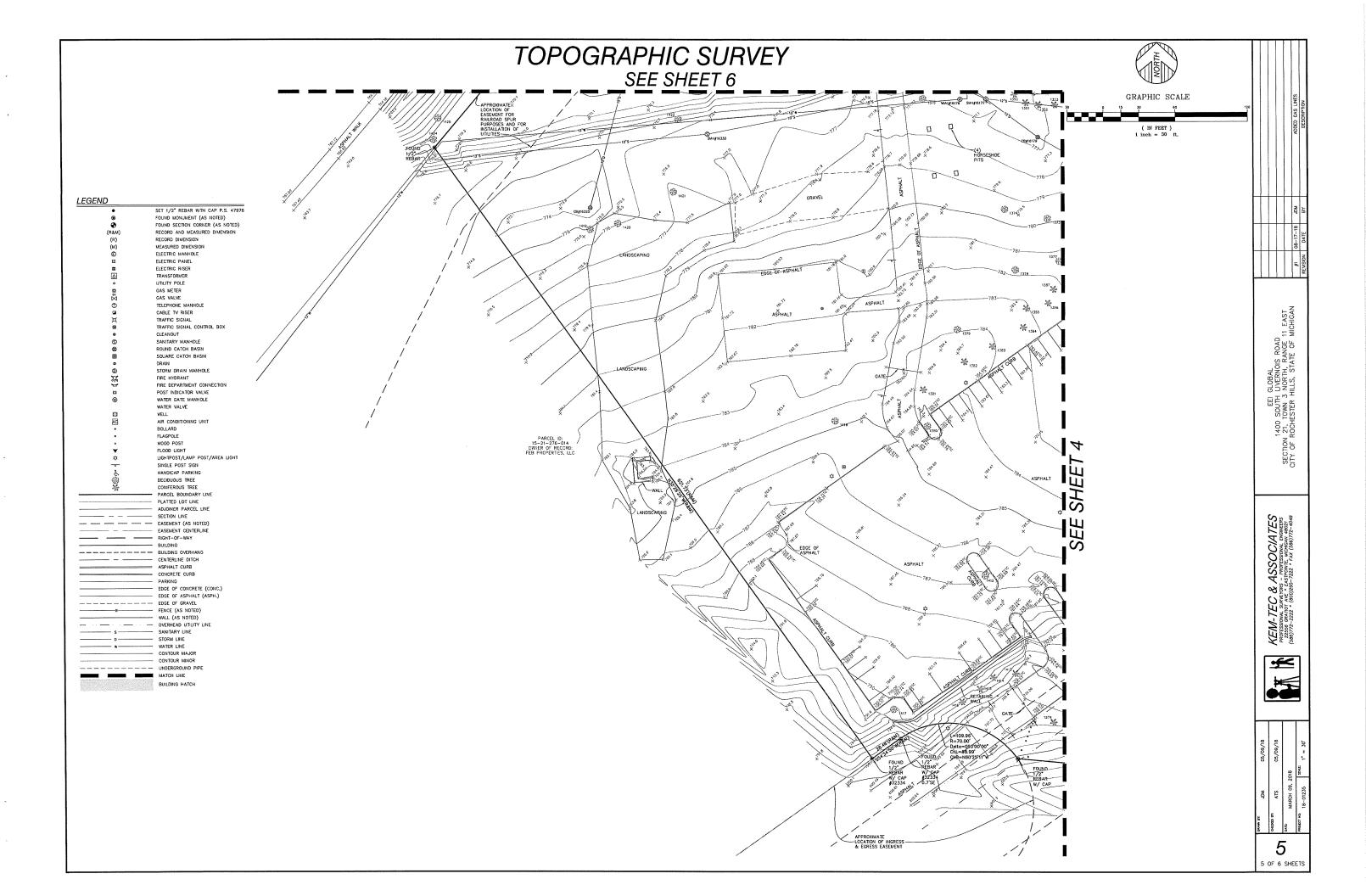
SANITARY MANHOLE (SWH#60818) RIM=778.09 RIM=778.09' 8"CONC, E, 771.67' INV. 8"CONC, W, 771.65' INV.

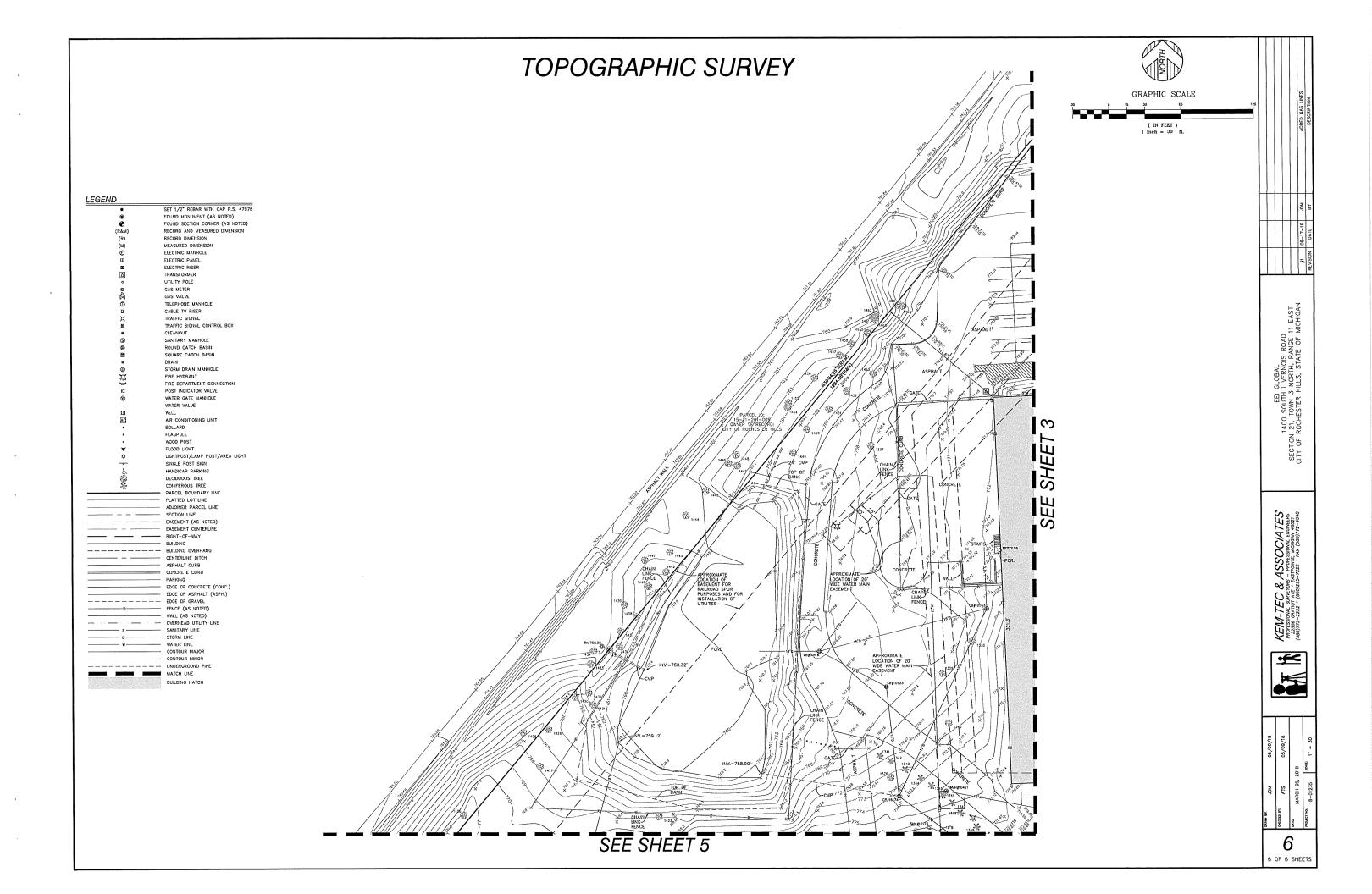
OF 6 SHEETS











# SITE DATA

Regulation	Information
Parcel I.D.	15-21-276-013
Address	1400 South Livernois Road, Rochester Hills, MI
Zoning	Regional Employment Center Workplace District (REC-W)
Parcel Area	25.04 Acres (1,090,802 Sq. Ft.)

## ZONING SCHEDULE OF REGULATIONS (REC-W)

Regulation	Required	Provided
<u>Setbacks</u>		
Minimum Front Yard Setback	10.0 '	39.3
Minimum Side Yard Setback	25.0 '	33.1 '
Minimum Rear Yard Setback	30.0 '	39.7 '
Minimum Front Parking Setback	10.0 '	28.1 '
Minimum Building Parking Setback	5.0 '	7.0 '
Maximum Building Height	42.0 '	60.0 ' Max.
Building Coverage	N/A	26.2% (285,791 SF)
Green Space Coverage	N/A	31.5% (343,827 SF)
Impervious Coverage	N/A	42.3% (461,184 SF)

Parking Detail		
REC-W	Proposed PUD	Provided
Warehouse	Warehouse	
1 Space per 1,700 SF (warehouse)	1 Space per 2,500 SF	
(148,760 Gross SF) (1 / 1,700 SF) = 88 Spaces	(148,760 Gross SF) (1 / 2,500 SF) = 60 Spaces	
Office	Office	
1 Space per 350 SF	1 Space per 475 SF	
(270,440 Gross SF) (1 / 350 SF) = 773 Spaces	(270,440 Gross SF) (1 / 475 SF) = 570 Spaces	
Total Required: 861 Spaces	Total Required: 630 Spaces	Total Provided: 630 Spaces
90° Parking	10 ' x 18 ' w/ 24 ' Aisle Min.	10 ' x 18 ' w/ 24 ' Aisle Min.
10 ' x 18 ' w/ 24 ' Aisle		
Parallel Parking	8 ' x 22 ' w/ 12 ' Aisle Min.	8 'x 22 ' w/ 12 ' Aisle Min.
8 ' x 22 ' w/ 12 ' Aisle		

# **BUILDING DATA**

Building	Height	Use	Gross Sq. Ft.	
4	60'	Office	129,410 Sq. Ft.	
1	90.	Warehouse	88,000 Sq. Ft.	
,	60'	Office	41,400 Sq. Ft.	
2	60	Warehouse	29,830 Sq. Ft.	
0	60 '	Office	36,040 Sq. Ft.	
3	60	Warehouse	16,480 Sq. Ft.	
4	4 60' Pro		16,000 Sq. Ft.	
5	60 '	Office	47,590 Sq. Ft.	
٥	60.	Warehouse	14,450 Sq. Ft.	
		Professional Office	16,000 Sq. Ft.	
<u>Total C</u>	Office Area:	Warehouse Office	254,440 Sq. Ft.	
		Total Office Area	270,440 Sq. Ft.	
Total War	rehouse Area:	148,760 Sq. Ft.		
Total Bu	uilding Area:	419,200 Sq. Ft.		

Fire lanes shall be designated by the Fire Code Official, and shall be conspicuously posted to both sides of the fire lane, with fire lane signs, spaced not more than 100 feet apart. Fire lane signs shall read "No Stopping, Standing, Parking, Fire Lane", and shall conform to the Michigan Manual of Uniform Traffic Control Devices.

A Knox key system shall be installed, in a location approved by the Fire Code

Official for each building. Ordering information is available from the Knox Compan

- Construction sites shall be safeguarded in accordance with IFC 2006 Chapter 14.
- Minimum Fire Lane Width = 26.0 '

FIRE DEPARTMENT NOTES

at knoxbox.com

- Open burning is not permitted including the burning of trash, debris, or land clearing materials. Open burning for warming of sand and/or water for the preparation of mortar shall be within the City of Rochester Hills Burn Permit
  - FIRE PREVENTION ORDINANCE chapter 58, Sec. 307.6.2 & 307.6.2.3

FIRE PREVENTION ORDINANCE Chapter 58, Sec. 503

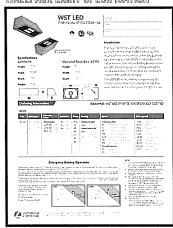
BUILDING 5

### NOTES

- All signs to meet Section 138-8.603 and Chapter 134 of City Code of Ordinances and be approved by Bullding Department.

  Use MDOT R-28 series, sidewalk ramp and detectable warning details for sidewal
- rams and detectable warning strips.
- Maintain 10-foot horizontal separation between all underground utilities throughout Livernois Road is under the Jurisdiction of RCOC Jurisdiction.

# WALLPACK LIGHT SPECIFICATION



# LIGHT POLE SPECIFICATION



SEE SHEETS S101 AND S102 FOR ENLARGED SITE PLAN.

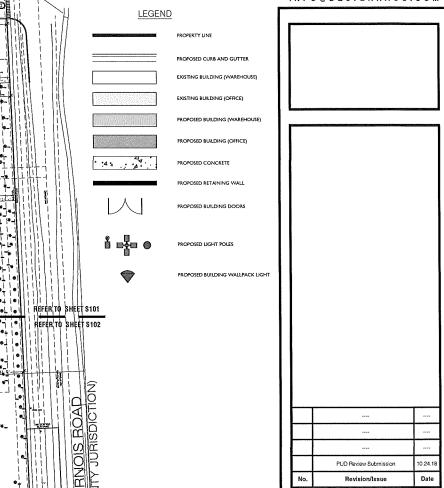
**ARCHITECTURE** 

DESIGNHAUS

301 WALNUT BOULEVARD ROCHESTER, MI 48307

T:248.601.4422 F:248.453.5854

W W W . D E S I G N H A U S . C O M I N F O @ D E S I G N H A U S . C O M



Overall Site Plan

**BUILDING 1** 

E WHATHATA

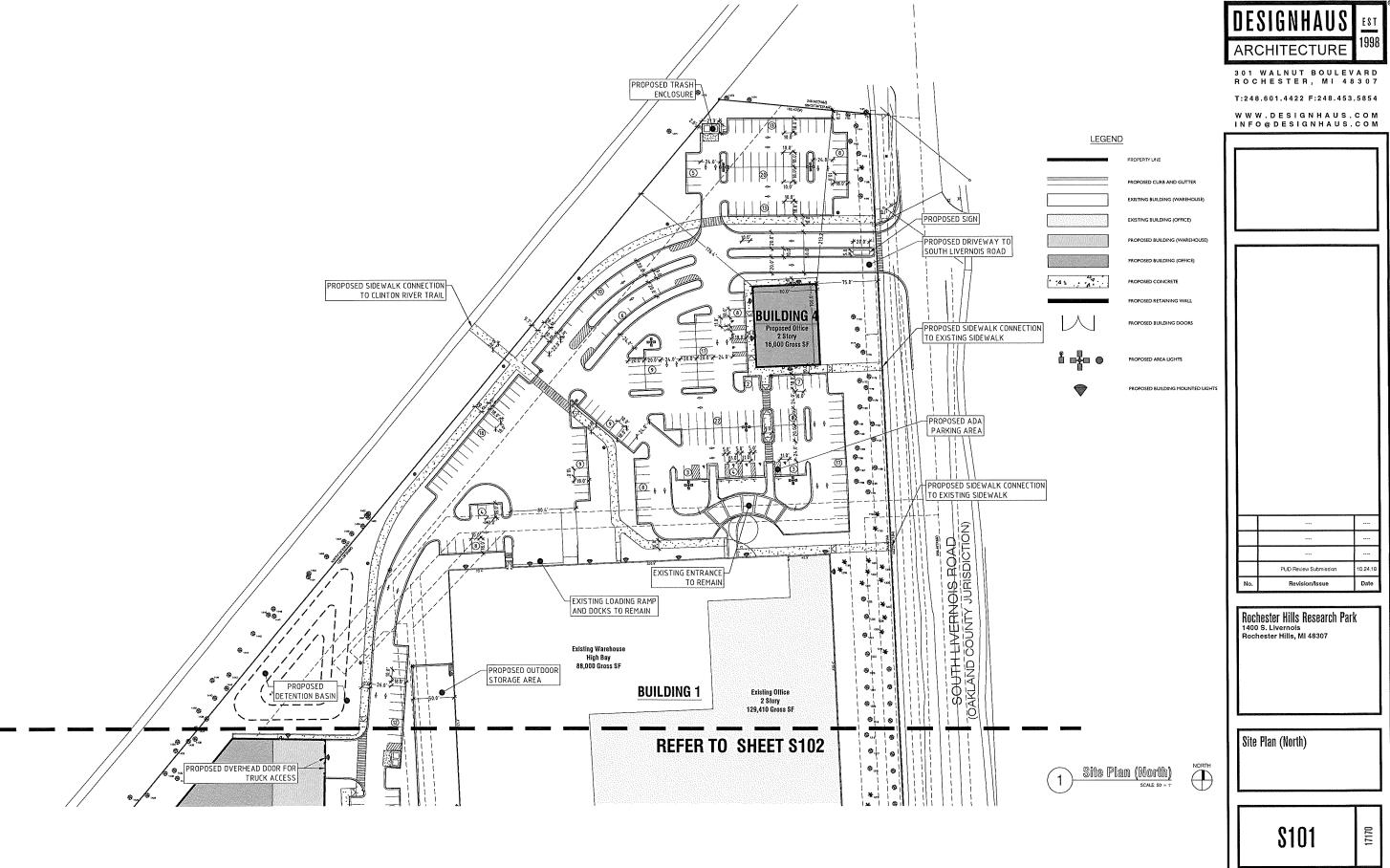
BUILDING 3

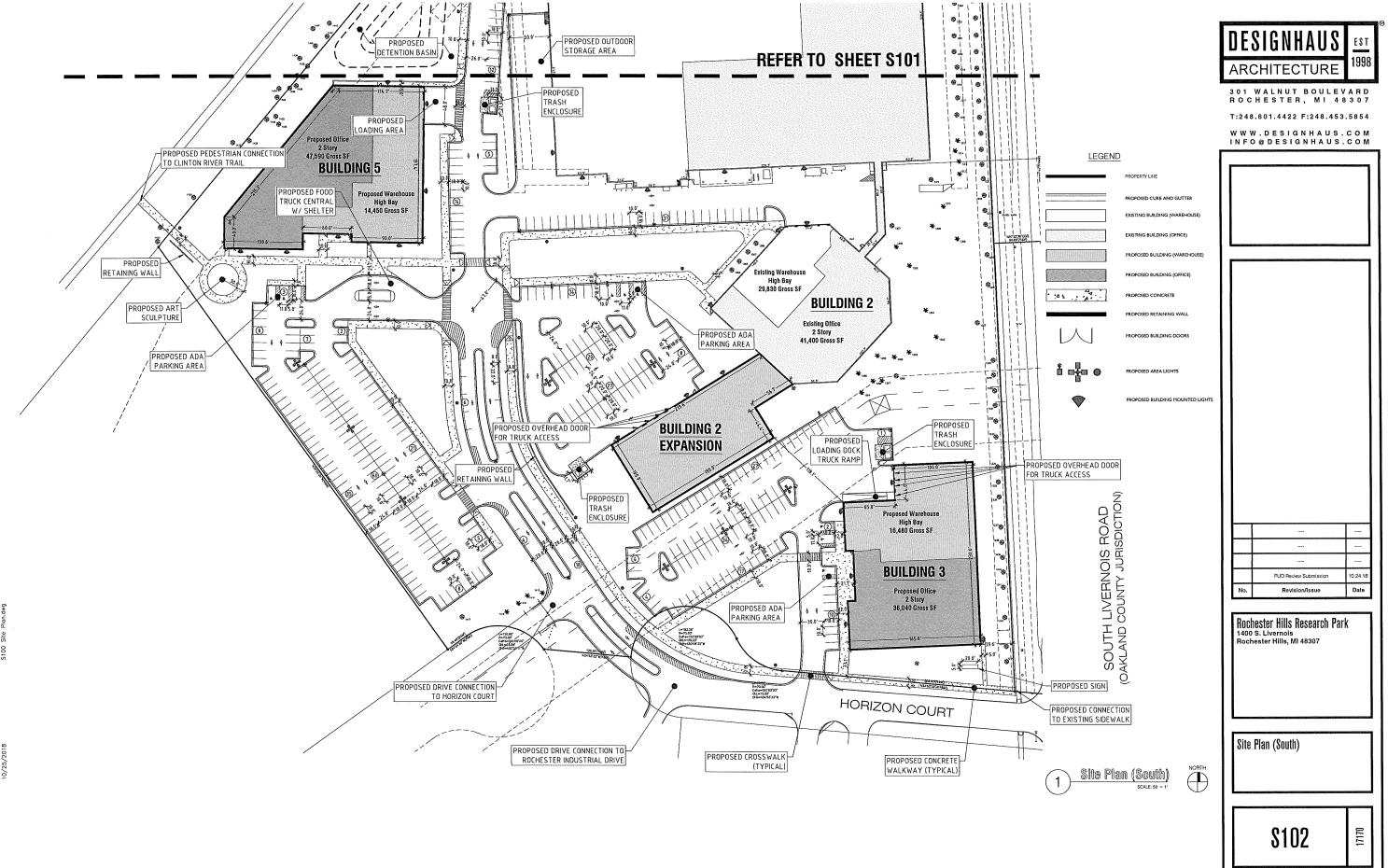
HORIZON COURT

Rochester Hills Research Park 1400 S. Livernois Rochester Hills, MI 48307

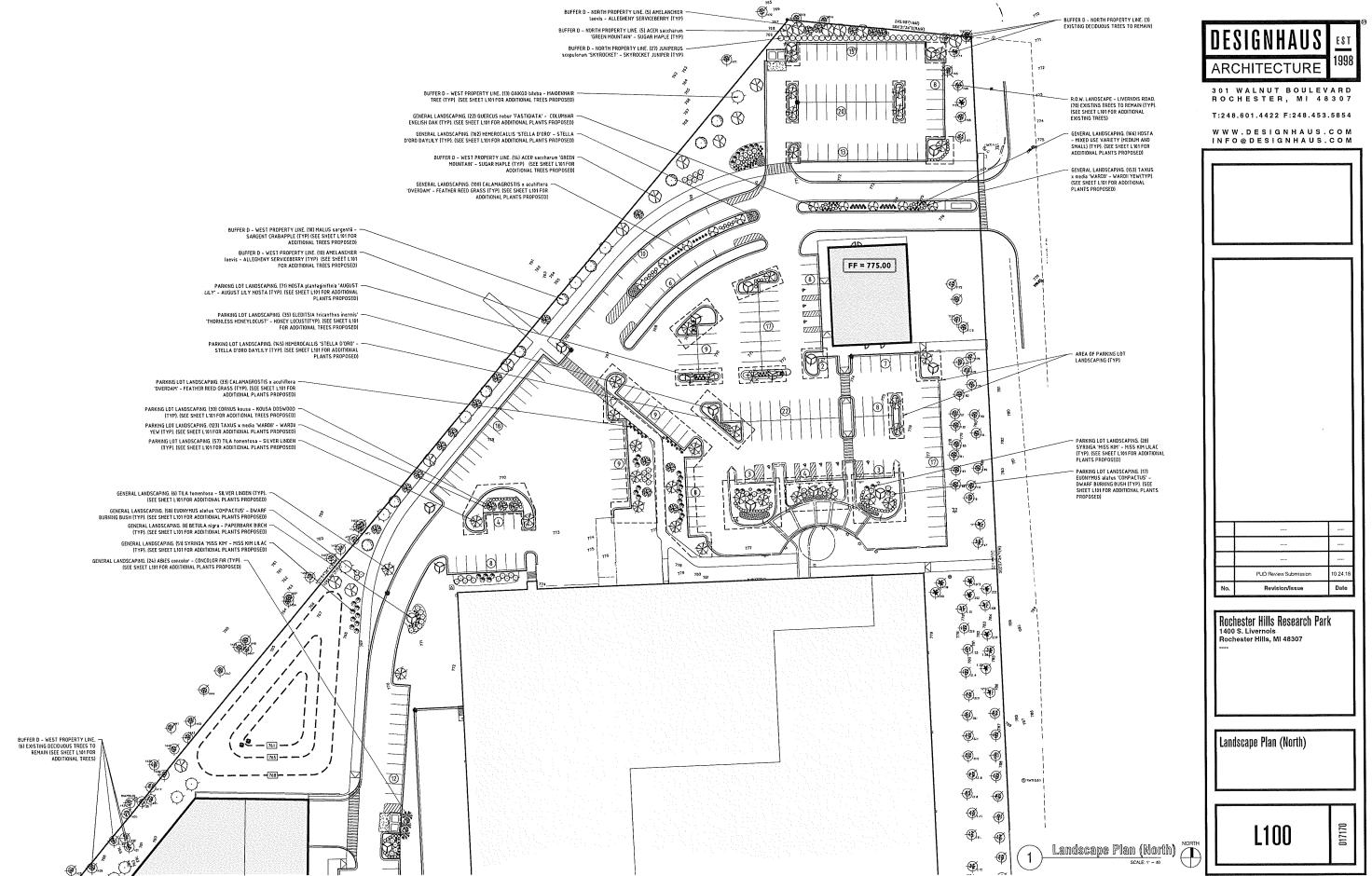
Overall Site Plan

\$100



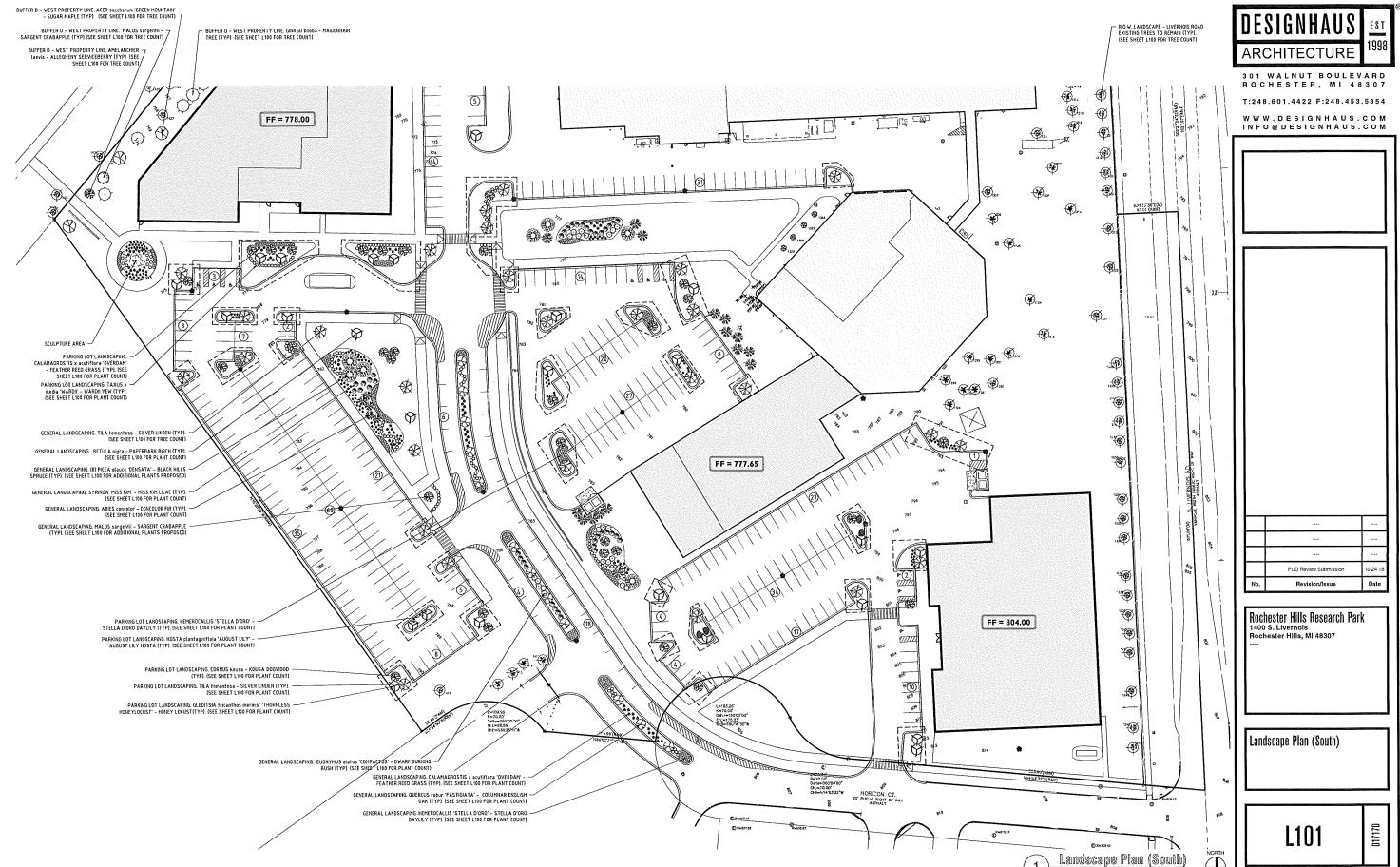


09-SWH

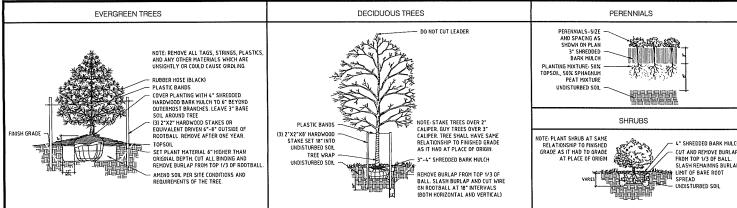


10/25/2018

HWS--60



# PLANTING DETAILS



## GENERAL NOTES FOR LANDSCAPE DEVELOPMENT

- 1. LANDSCAPE CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE
- OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
  2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNERS REPRESENTATIVE PRIOR TO COMMENCING.
  3. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY
- STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1 GRADE.
- 4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- 5. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- 6. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
  7. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- 8. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
  9. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO
- INSTALLATION OF THE PLANT MATERIAL 10. CONCERNING GROUND COVER, ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH, SEE SPECIFICATIONS. ALL OTHER
- DISTURBED AREAS SHALL BE SODDED. 11. LANDSCAPING SHALL BE MAINTAINED IN A GOOD CONDITION TO PRESENT A HEALTHY, NEAT, AND ORDERLY APPEARANCE FREE FROM REFUSE AND
- DEBRIS. ALL UNHEALTHY AND DEAD MATERIAL SHALL BE REPLACED WITHIN ONE (1) YEAR OF THE NEXT APPROPRIATE PLANTING PERIOD.
- 12. OWNER TO ESTABLISH MAINTENANCE PROGRAM TO ENSURE GROUNDS AND LANDSCAPING TO REMAIN HEALTHY AND WELL GROOMED.

  13. RECOMMENDED PLANTING DATES ARE MARCH 1ST TO MAY 15TH FOR ALL MATERIALS, AND OCTOBER 15TH TO DECEMBER 15TH FOR DECIDIOUS
- MATERIALS. PLANTINGS OUTSIDE THESE DATES SHALL HAVE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT.
- 14. UNDERGROUND IRRIGATION SYSTEM TO BE DESIGNED AND INSTALLED BY CONTRACTOR. 15. TURF GRASS TO BE COMMON TO OAKLAND COUNTY, MI.

#	BOTANICAL NAME / COMMON NAME	SIZE/ROOT	REQUIRED PER CODE	UNIT/TOTAL COS
BUF	FER D - NORTH (246')	I	<del></del>	
5 5 27	ACER saccharum 'GREEN MOUNTAIN', SUGAR MAPLE AMELANCHIER laevis/ ALLEGHENY SERVICEBERRY JUNIPERUS scopulorum 'SKYROCKET' /SKYROCKET JUNIPER THREE (3) EXISTING DECIDUOUS TREES TO REMAIN	3° CAL 3° CAL. 6-7' B&B	5/8 DECIDUOUS 5/5 ORNAMENTAL GREEN WALL	\$350/\$1,750 \$325/\$1,625 \$325/\$8,775
		TOTAL BUF	I FER D NORTH PLANTS: \$	12,150
BUF	FFER D - WEST (1284')			
14 13	ACER saccharum 'GREEN MOUNTAIN', SUGAR MAPLE GINKGO biloba/ MAIDENHAIR TREE	3" CAL 3" CAL	12/33 DECIDUOUS 13/33 DECIDUOUS	\$350/\$4,900 \$350/\$4,550
ı	SIX (6) EXISTING DECIDUOUS TREES TO REMAIN			
10 10	AMELANCHIER laevis/ ALLEGHENY SERVICEBERRY MALUS sargentii / SARGENT CRABAPPLE	3" CAL. 12 GAL.	10/20 ORNAMENTAL 10/20 ORNAMENTAL	\$325/\$3,250 \$200/\$2,000
		TOTAL BUF	FER D WEST OF NORTH	PL: \$14,700
RIG	HT OF WAY (LIVERNOIS) (1535')			
	SEVENTY (70) EXISTING TREES TO REMAIN			
PAF	RKING LOT LANDSCAPE (REQUIRED: 5% = 12,440 SF, PROVIDED:	32,860 SF)		
30 35 57	CORNUS kousa/KOUSA DOGWOOD GLEDITSIA tricanthos inermis THORNLESS HONEYLOCUST TILIA tomentosa/SILVER LINDEN	3" CAL 3" CAL 3" CAL	30/83 DECIDUOUS 35/83 DECIDUOUS 57/83 DECIDUOUS	\$325/\$9,750 \$350/\$12,250 \$350/\$19,950
33 17 145 71 28 123	CALAMAGROSTIS x acutiflora 'OVERDAM/FEATHER REED GRASS EUONYMUS alatus 'COMPACTUS'/DWARF BURNING BUSH HEMEROCALLIS 'STELLA D'ORO/STELLA D'ORO DAYLILY HOSTA plantaginifolia 'AUGUST LILY/AUGUST LILY HOSTA SYRINGA 'MISS KIM '/ MISS KIM LILAC TAXUS x media 'WARDII/WARDII YEW	1 GAL 12-15° B&B 1 GAL 1 GAL 5 GAL 12-15' B&B		\$50/\$1,650 \$100/\$1,700 \$50/\$7,250 \$50/\$3,550 \$100/\$2,800 \$50/\$6,150
		TOTAL PAR	KING LOT LANDSCAPING	G: \$65,050
AD	DITIONAL SITE LANDSCAPING			
24 8 100 58 162 166 8 8 22 153 6 51	BETULA nigra / PAPERBARK BIRCH CALAMAGROSTIS x aculiflora 'OVERDAM/FEATHER REED GRASS EUONYMUS alatus 'COMPACTUS'/DWARF BURNING BUSH HEMEROCALLIS 'STELLA D'ORO/STELLA D'ORO DAYLILY HOSTA - MIXED VARIETIES (MEDIUM AND SMALL) MALUS sargentif / SARGENT CRABAPPLE PICEA glauca 'DENSATA/BLACK HILLS SPRUCE QUERCUS robur 'FASTIGIATA/COLUMNAR ENGLISH OAK	7-8' B&B 3' CAL 1 GAL 12-15' B&B 1 GAL 1 GAL 12 GAL 7-8' B&B 3' B&B 12-15' B&B 3' CAL 5 GAL		\$350/\$8,400 \$350/\$2,800 \$50/\$5,000 \$100/\$5,800 \$50/\$8,100 \$50/\$8,300 \$200/\$1,600 \$350/\$2,800 \$350/\$7,700 \$50/\$7,700 \$100/\$5,100
BU RIG	 FFER REQUIREMENTS: FFER D: 8' WIDTH OF SOLID GREEN WALL+ 2.5 DECIDIUOUS + 1.5 ( SHT OF WAY: 1 DECIDUOUS PER 35' +1 ORNAMENTAL PER 60' RKING LOT: 5% OF PARKING LOT + 1 DECIDUOUS PER 150 SF OF LA	DRNAMENTAL	PER 100'	11140. 404,750
AN	Y TEMPORARY IMPACTS TO BE RESTORED TO ORIGINAL GRADE WI ED MIX, WHERE POSSIBLE, PRIOR TO FINAL APPROVAL BY STAFF.			I A CITY APPROVE

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I	PUD Review Submission	10.24.18

Rochester Hills Research Park 1400 S. Livernois

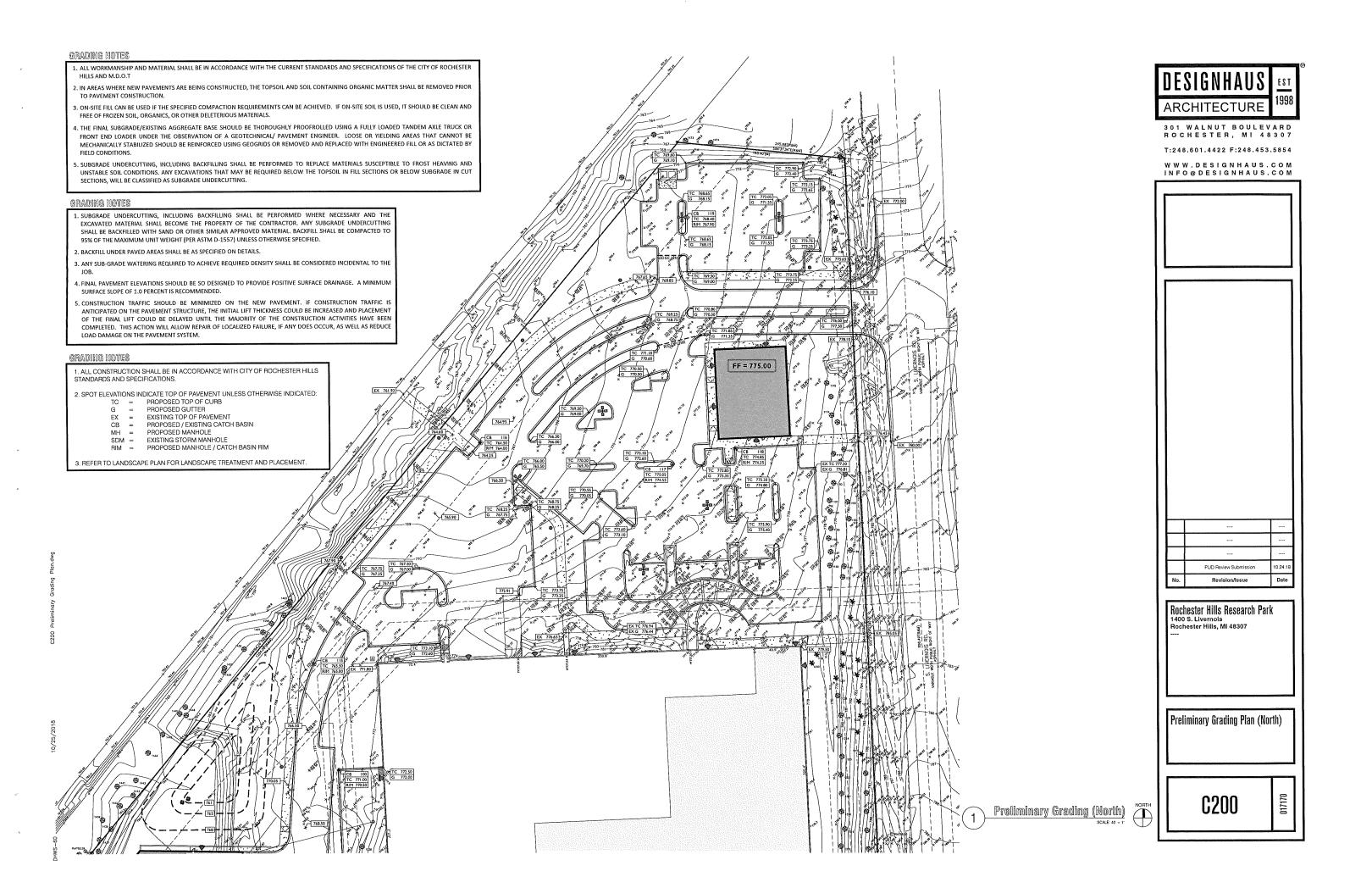
Rochester Hills, MI 48307

Landscape Details

L102

017170

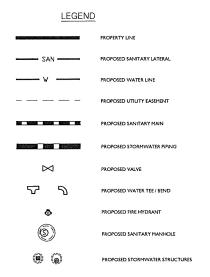
Date





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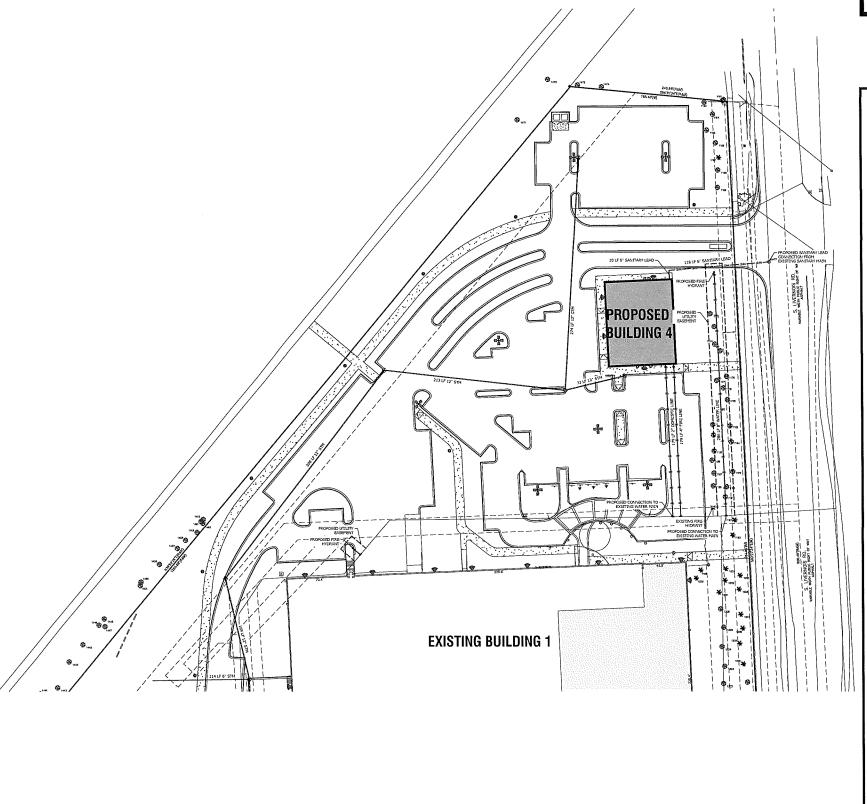


### **GENERAL NOTES**

- 1. ALL CONSTRUCTION PROCEDURES AND MATERIALS SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ROCHESTER HILLS.
- 2. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED BY THE CITY OF ROCHESTER HILLS AND HELD PRIOR TO THE START OF CONSTRUCTION.
- 3. CONTRACTOR MUST CONTACT MISS DIG (811) AT LEAST THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR UNDERGROUND UTILITY LOCATIONS. ALL UTILITIES SHALL BE STAKED BEFORE CONSTRUCTION BEGINS.
- 4. ALL WATER MAIN EASEMENTS SHALL BE PROVIDED PRIOR TO CONSTRUCTION AND ACCEPTANCE OF THE WATER DISTRIBUTION SYSTEM.
- 5. WATER MAINS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF 6 FEET BELOW FINISHED GRADES, INCLUDING OPEN DRAINAGE COURSES.
- 6. ALL TRENCHES UNDER OR WITHIN A 1:1 RATIO OF EXISTING OR PROPOSED PAVEMENT OR DRIVEWAYS, SHALL BE BACKFILLED WITH COMPACTED CLASS II SAND TO GRADE (95% MAXIMUM UNIT DENSITY).
- 7. WHERE TWO UTILITIES CROSS, PROVIDE CLASS II BACKFILL MATERIAL IN SIX (6) INCH COMPACTED LAYERS TO TOP HIGHEST UTILITY.
- 8. WHERE WATER MAINS DIP UNDER OTHER UTILITIES, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE CONSTRUCTED WITH 11-1/4° VERTICAL BENDS, 22 ½° OR 45° BENDS MUST BE RODDED AND PROPERLY ANCHORED.

### **GENERAL NOTES**

- 1. ALL PRECAST CONCRETE GATE WELL SECTIONS SHALL BE IN ACCORDANCE WITH A.S.T.M. C478, STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS. WALL THICKNESS SHALL BE AS SHOWN ON THESE DETAILS. ALL JOINTS FOR PRECAST CONCRETE GATE WELL SECTIONS SHALL BE "MODIFIED GROOVE TONGUE" WITH GASKET MANUFACTURED TO CONFORM WITH A.S.T.M. C443. STANDARD SPECIFICATION FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKETS.
- 2. CONTRACTOR SHALL INSTALL VALVES, TAPPING SLEEVES, AND GATE WELL STRUCTURES IN STRICT COMPLIANCE WITH MEASUREMENTS PROVIDED ON SHEET 1 (2'-0" BETWEEN GATE WELL WELL AND CENTERLINE OF OPERATING NUT) TO ALLOW PROPER OPERATION OF VALVE THROUGH GATE WELL OPENING.
- 3. ALL CROSS-CONNECTION CONTROL DEVICES SHALL BE INSTALLED AS REQUIRED BY THE ROCHESTER HILLS PLUMBING INSPECTOR AND IN ACCORDANCE WITH THE STANDARDS OF THE OAKLAND COUNTY DRAIN COMMISSIONER OPERATION AND MAINTENANCE DIVISION AND THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF DRINKING WATER AND RADIOLOGICAL PROTECTION.
- 4. ALL WATER SERVICE CONNECTIONS TWO (2) INCHES AND SMALLER SHALL BE MADE BY THE CITY OF ROCHESTER HILLS, DEPARTMENT OF PUBLIC SERVICES AFTER WATER MAIN ACCEPTANCE AND APPLICABLE PERMITS ARE OBTAINED.
- 5. ALL FITTINGS AND BENDS SHOULD BE BLOCKED IN ACCORDANCE WITH THRUST BLOCK DETAILS, UNLESS ALTERNATE THRUST RESTRAINT SYSTEM, AS INDICATED PLANS AND SPECIFICATIONS, IS APPROVED BY THE CITY OF ROCHESTER HILLS DEPARTMENT OF PUBLIC SERVICES.



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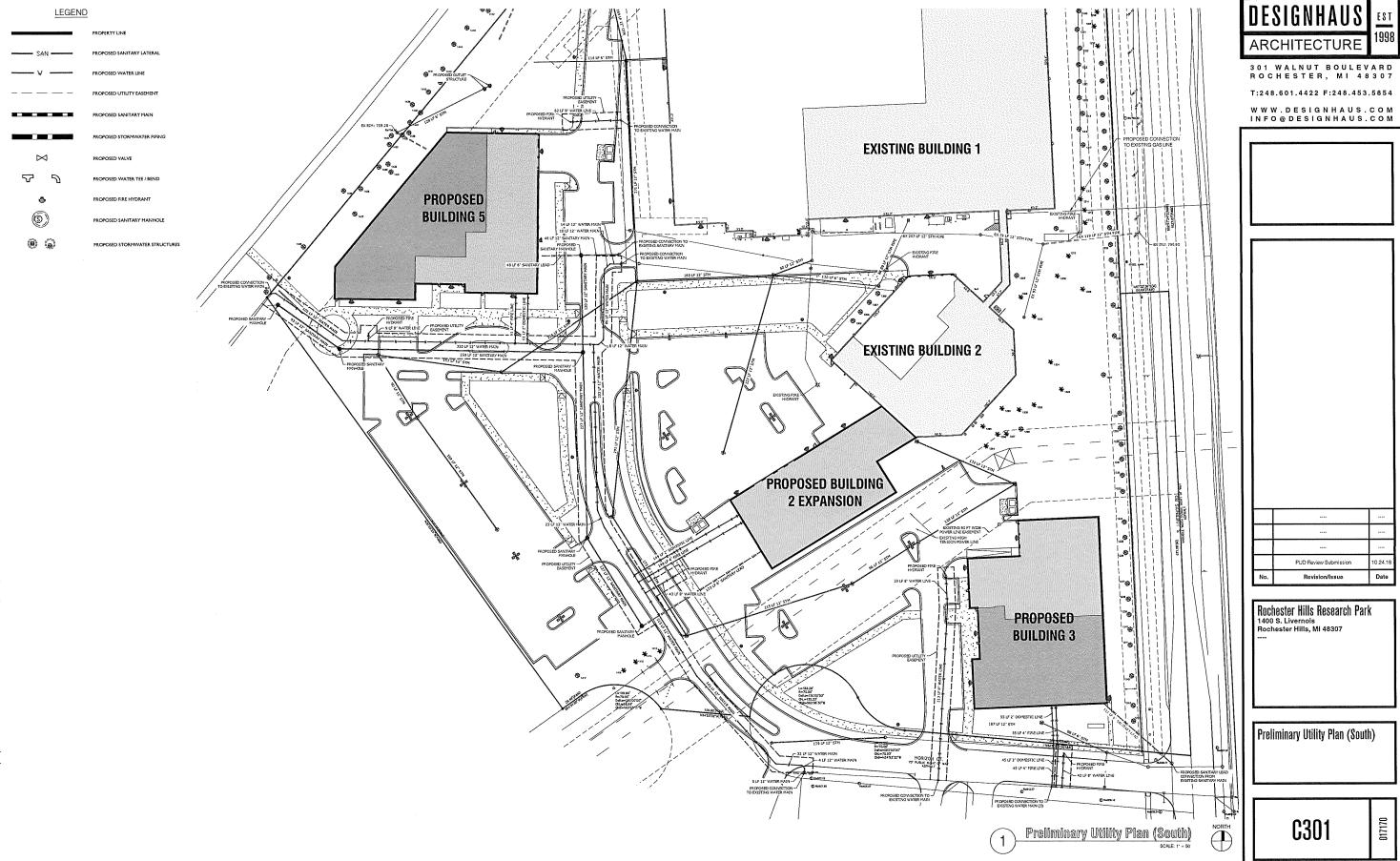
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> Rochester Hills Research Park 1400 S. Livernois Rochester Hills, MI 48307

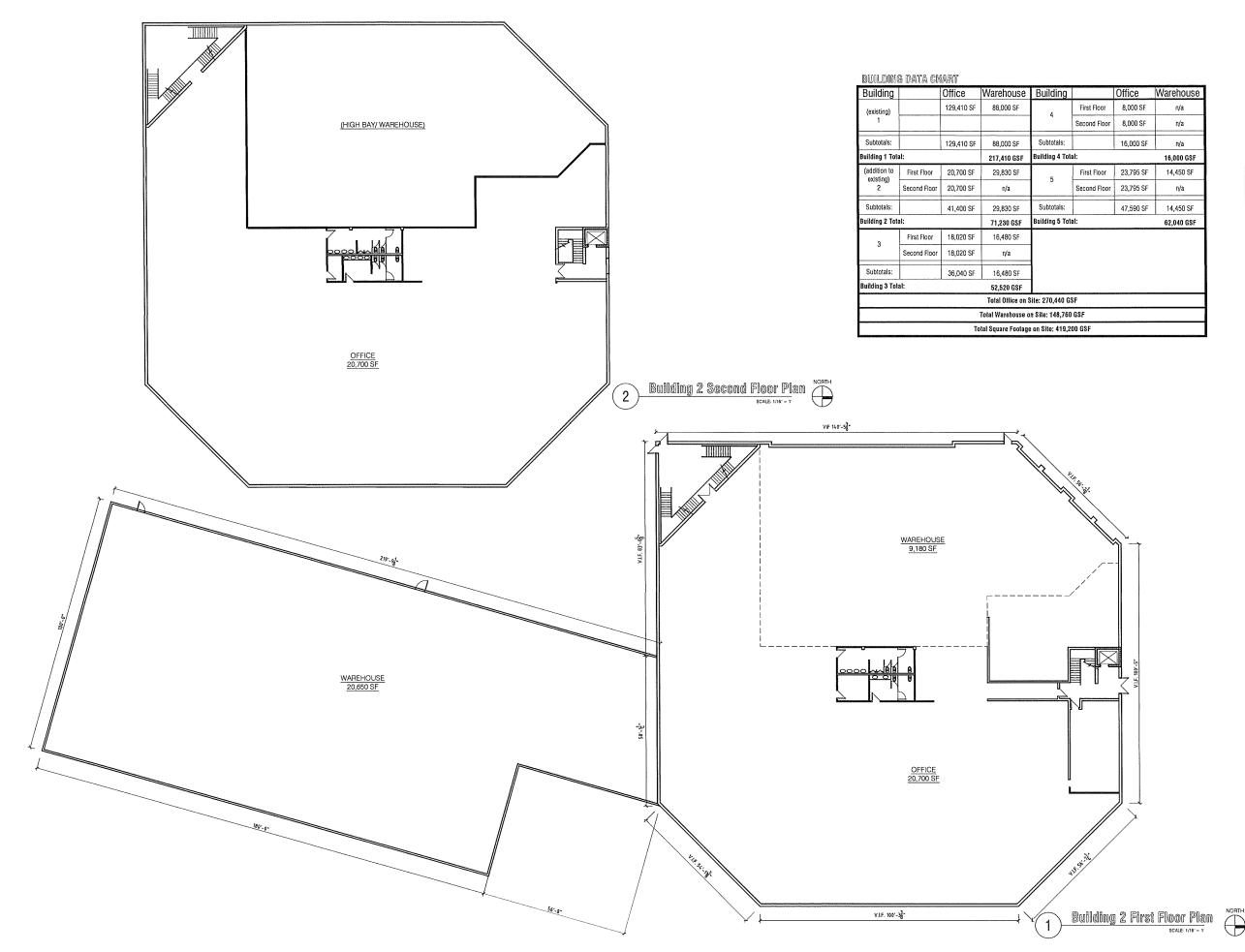
Preliminary Utility Plan (North)

C300

Preliminary Utility Plan (North)



LEGEND



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Rochester Hills Research Park 1400 S. Livernois Rochester Hills, MI 48307 ----

Revision/Issue

Building 2 Floor Plans

A100

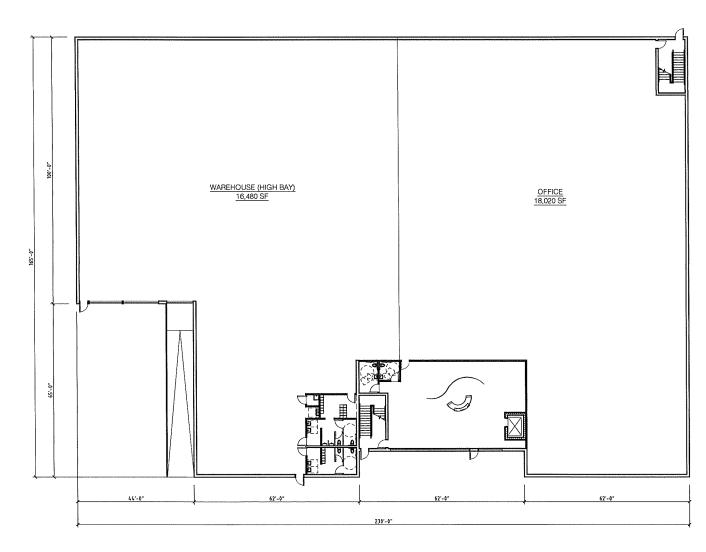
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1WS-60

124'-98"

# **BUILDING DATA CHART**

Building		Office	Warehouse	Building		Office	Warehouse	
(existing)		129,410 SF	88,000 SF	4	First Floor	8,000 SF	n/a	
1					Second Floor	8,000 SF	n/a	
Subtotals:		129,410 SF	88,000 SF	Subtotals:		16,000 SF	n/a	
Building 1 Total:			217,410 GSF	Building 4 Total:			16,000 GSF	
(addition to	First Floor	20,700 SF	29,830 SF	5	First Floor	23,795 SF	14,450 SF	
existing) 2	Second Floor	20,700 SF	r/a	5	Second Floor	23,795 SF	n/a	
Subtotals:		41,400 SF	29,830 SF	Subtotals:		47,590 SF	14,450 SF	
Building 2 Tot	al:		71,230 GSF	Building 5 Total:			62,040 GSF	
3	First Floor	18,020 SF	16,480 SF					
	Second Floor	18,020 SF	n/a					
Subtotals:		36,040 SF	16,480 SF	İ				
Building 3 Tot	al:		52,520 GSF					
			Total Office on S	Site: 270,440 G	SF			
			Total Warehouse o	n Site: 148,760	GSF			
		To	olal Square Foolage	on Site: 419,2	00 GSF			



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Building 3 Floor Plans

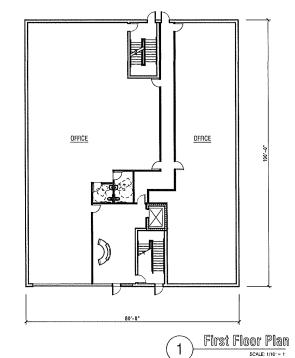
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First Floor Plan

BUILDING DATA CHART

BUILDING DATA GRARI									
Building		Office	Warehouse	Building		Office	Warehouse		
(existing)		129,410 SF	88,000 SF	4	First Floor	8,000 SF	n/a		
1				4	Second Floor	8,000 SF	n/a		
Subtotals:		129,410 SF	88,000 SF	Subtotals:		16,000 SF	n/a		
Building 1 Tota	al;		217,410 GSF	Building 4 Tolal:			16,000 GSF		
(addition to existing)	First Floor	20,700 SF	29,830 SF	5	First Floor	23,795 SF	14,450 SF		
2	Second Floor	20,700 SF	n/a		Second Floor	23,795 SF	n/a		
Subtotals:		41,400 SF	29,830 SF	Subtotals:		47,590 SF	14,450 SF		
Building 2 Tota	al:		71,230 GSF	Building 5 Total: 62,046			52,040 GSF		
3	First Floor	18,020 SF	16,480 SF						
, , , , , , , , , , , , , , , , , , ,	Second Floor	18,020 SF	n/a	]					
Subtotals:		36,040 SF	16,480 SF						
Building 3 Total:			52,520 GSF						
	Total Office on Site: 270,440 GSF								
			Total Warehouse o	n Site: 148,760	GSF				
		To	otal Square Foolage	on Site: 419,2	00 GSF		_		



OFFICE

OFFICE

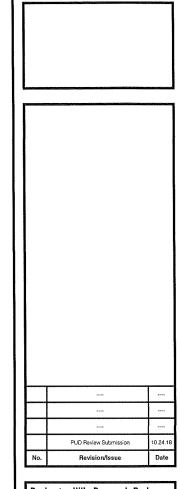
Second Floor Plan

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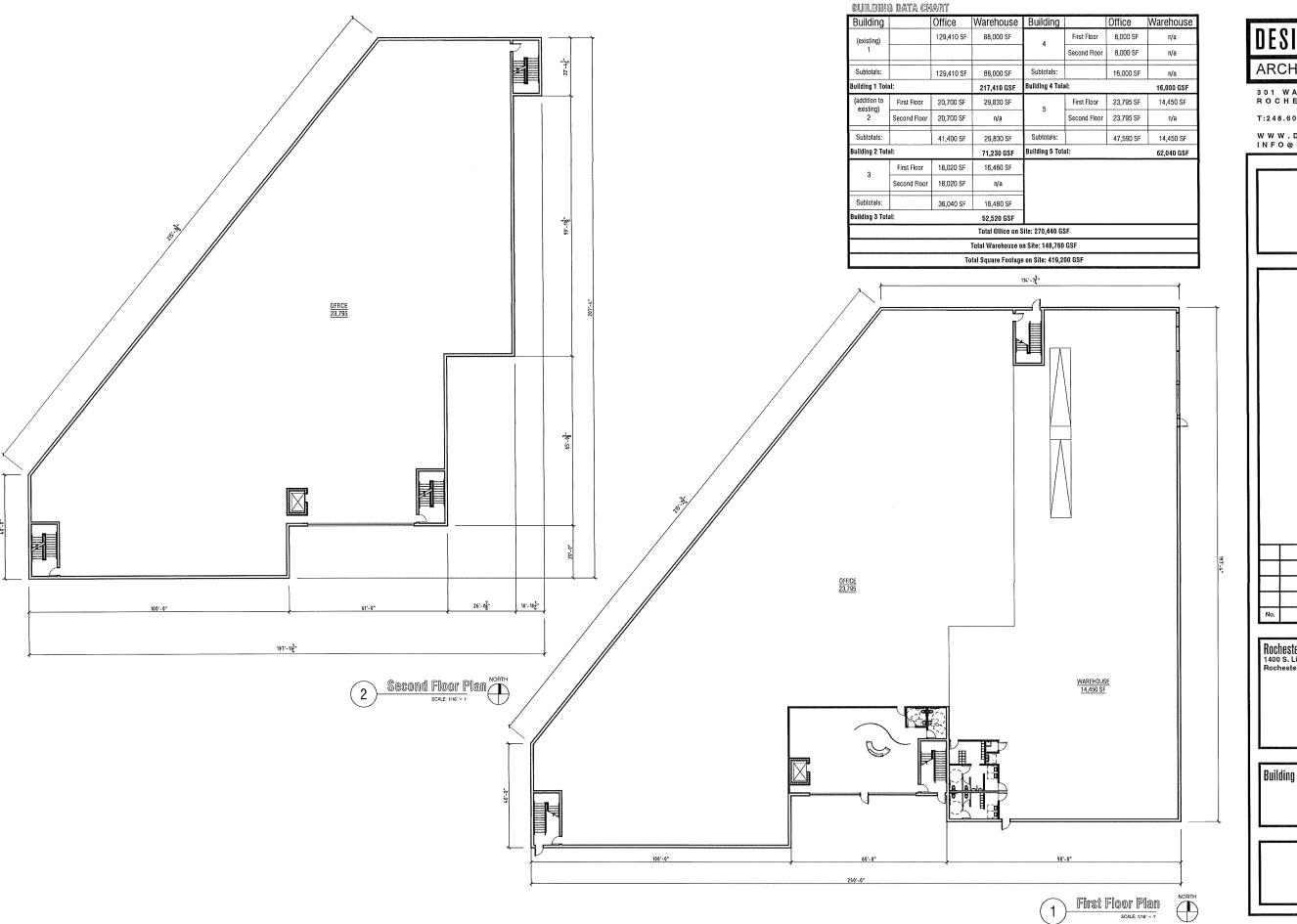


Rochester Hills Research Park 1400 S. Livernois Rochester Hills, MI 48307

Building 4 Floor Plans

A100

NORTH



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PUD Peview Submission 10 24 18
No. Revision/Issue Date

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**Building 5 Floor Plans** 

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