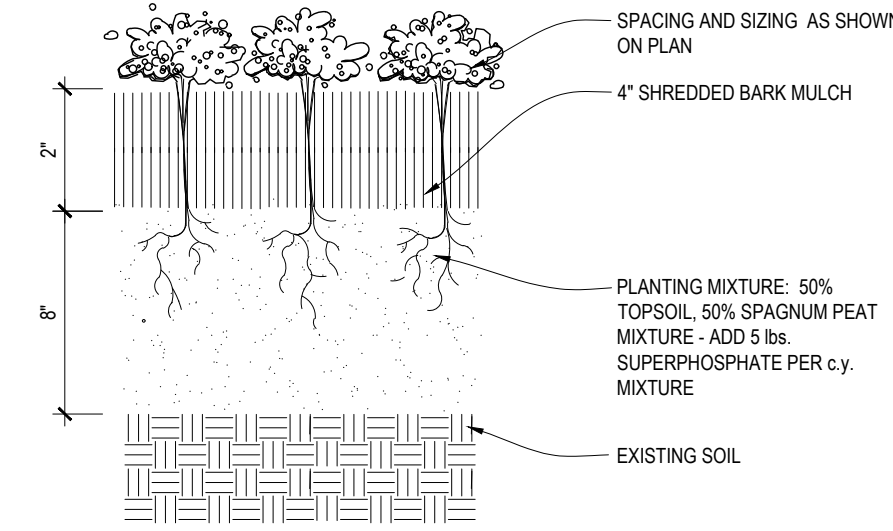
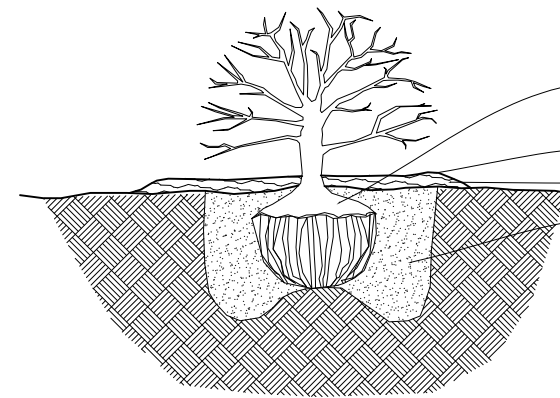


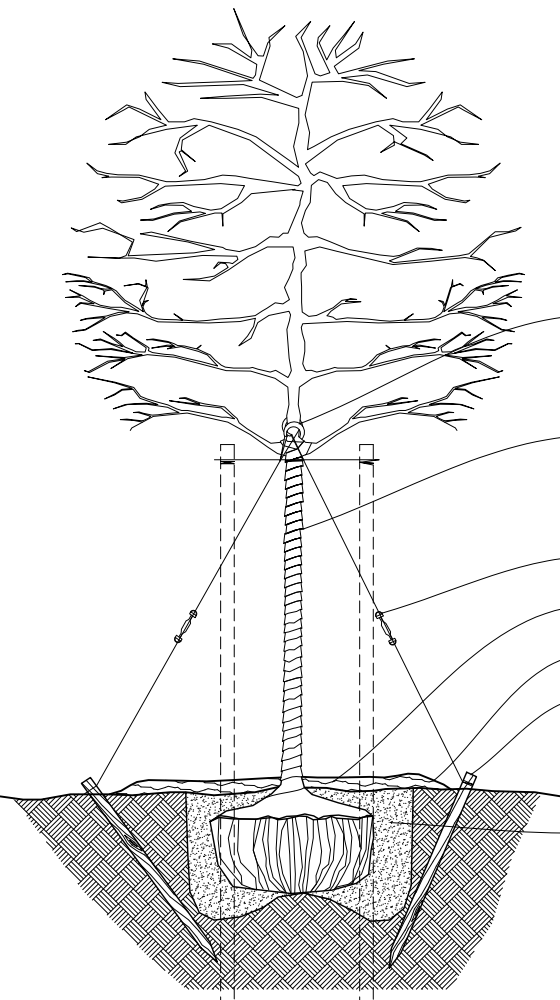
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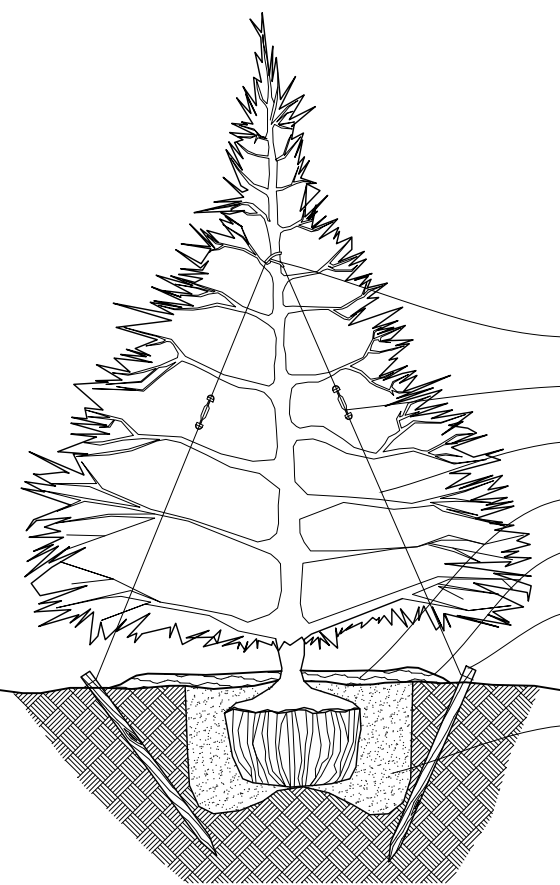
05 PERENNIAL PLANTING DETAIL
L-101 / NOT TO SCALE



04 SHRUB PLANTING DETAIL
L-101 / NOT TO SCALE



03 DECIDUOUS PLANTING DETAIL
L-101 / NOT TO SCALE



02 EVERGREEN PLANTING DETAIL
L-101 / NOT TO SCALE

PROPOSED PLANTING SCHEDULE

SYMBOL	COMMON NAME	SCIENTIFIC NAME	COUNT	SIZE	UNIT COST	TOTAL COST	%
AL	ALLEGHENY SERVICEBERRY	AMELANCHIER LAEVIS	29	3" CAL	\$325.00	\$9,425.00	4.22%
AS	SUGAR MAPLE	ACER SACCHARUM 'GREEN MOUNTAIN'	21	3" CAL	\$350.00	\$7,350.00	3.05%
BN	PAPERBARK BIRCH	BETULA NIGRA	12	3" CAL	\$350.00	\$4,200.00	1.74%
CA	FEATHER REED GRASS	CALAMAGROSTIS X ACUTIFLORA 'OVERDAM'	272	1 GAL	\$50.00	\$13,600.00	39.53%
CO	KOUSA DOGWOOD	CORNUS KOUSA	14	3" CAL	\$325.00	\$4,550.00	2.03%
EA	DWARF BURNING BUSH	EUONYMUS ALATUS 'COMPACTUS'	34	12" BAB	\$100.00	\$3,400.00	4.94%
GB	MAIDENHAIR TREE	GINKGO BILOBA	6	3" CAL	\$350.00	\$2,100.00	0.87%
GT	THORNLESS HONEY LOCUST	GLEDTISIA TRICANTHOS INERMIS 'THORNLESS HONEYLOCUST'	37	3" CAL	\$350.00	\$12,950.00	5.38%
HS	STELLA D'ORO DAYLILY	HEMEROCALLIS 'STELLA D'ORO'	1,545	1 GAL	\$15.00	\$10,275.00	
JS	SKYROCKET JUNIPER	JUNIPERUS SCOPULORUM 'SKYROCKET'	48	6" BAB	\$325.00	\$15,600.00	6.98%
LM	BIG BLUE LILY TURF	LIRIOPE MUSCARI 'BIG BLUE'	6,465	1 GAL	\$25.00	\$71,675.00	
MS	SARGENT CRABAPPLE	MALUS SARGENTII	19	12 GAL	\$200.00	\$3,800.00	2.76%
QR	COLUMNAR ENGLISH OAK	QUERCUS ROBUR 'FASTIGIATA'	32	3" CAL	\$350.00	\$11,200.00	4.65%
SP	MISS KIM LILAC	SYRINGA PATULA 'MISS KIM'	31	5 GAL	\$100.00	\$3,100.00	4.51%
TM	WARDII YEW	TAXUS X MEDIA 'WARDII'	96	12" BAB	\$50.00	\$4,800.00	13.95%
TT	SILVER LINDEN	TILIA TOMENTOSA	25	3" CAL	\$350.00	\$8,750.00	3.63%
TOTAL # OF PROPOSED TREES (REPLACEMENT)			195			\$186,975.00	
TOTAL DIAMETER AT BREAST HEIGHT (REPLACEMENT)			565	INCHES		\$120,000.00	

LANDSCAPE SCREENING REQUIREMENTS

PROPERTY LINE	LENGTH	BUFFER TYPE	DECIDUOUS TREES				ORNAMENTAL TREES			
			REQUIRED 2.5 PER 100 FT (D) 1 PER 33 FT (R.O.W.)	EXISTING	PROPOSED	PROVIDED	REQUIRED 1.5 PER 100 FT (D) 1 PER 60 FT (R.O.W.)	EXISTING	PROPOSED	PROVIDED
WEST	1,284 FT	D	32 TREES	45 TREES	19 TREES	63 TREES	19 TREES	1 TREES	19 TREES	19 TREES
NORTH	185 FT	D	5 TREES	5 TREES	4 TREES	9 TREES	3 TREES	0 TREES	3 TREES	3 TREES
EAST	1,528 FT	RIGHT OF WAY	44 TREES	39 TREES	7 TREES	46 TREES	25 TREES	0 TREES	26 TREES	26 TREES

PARKING LOT LANDSCAPING

PARKING LOT	PARKING LOT VEHICLE AREA	LANDSCAPING AREA		DECIDUOUS TREES	
		REQUIRED (%)	PROVIDED	REQUIRED	PROVIDED
PARKING AREA 'A'	52,688 SF	2,634 SF	2,759 SF	18 TREES	16 TREES
PARKING AREA 'B'	20,565 SF	1,028 SF	5,235 SF	7 TREES	9 TREES
PARKING AREA 'C'	12,477 SF	824 SF	5,236 SF	4 TREES	10 TREES
PARKING AREA 'D'	43,140 SF	2,157 SF	3,376 SF	14 TREES	17 TREES
PARKING AREA 'E'	20,236 SF	1,012 SF	2,901 SF	7 TREES	10 TREES
TOTAL	149,106 SF	7,455 SF	15,507 SF	50 TREES	62 TREES

LANDSCAPE NOTES

- ALL PLANT MATERIALS SHALL CONFORM TO "AMERICAN STANDARDS FOR NURSERY STOCK," LATEST EDITION.
- ALL PLANT MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
- ALL TREES SHALL BE GUYED AND STAKED.
- ALL PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
- ALL PLANTING AREAS SHALL HAVE A DEPTH OF 12" TO 18" OF CLEAN FILL AND SHALL BE CROWNED TO A HEIGHT OF 6" ABOVE ADJACENT CURBS, WALKS, AND GRADES WITH 4" TO 6" OF TOP SOIL.
- AREAS OF EXISTING PAVEMENT OR GRAVEL TO BE CONVERTED TO LANDSCAPE AREAS SHALL BE EXCAVATED TO REMOVE ALL PAVEMENT, GRAVEL, AND COMPACTED EARTH. REPLACE EXCAVATED MATERIAL WITH CLEAN FILL TO CROWN 2" MIN. ABOVE ADJOINING GRADE. ADD 4" TO 6" OF TOP SOIL.
- BERMS SHALL BE CONSTRUCTED OF LIGHT ORGANIC SOILS. GRADES WILL BE NO STEEPER THAN 3 TO 1.
- ALL PLANTING BEDS SHALL RECEIVE A MIN. OF 4" SHREDED BARK MULCH.
- ALL PLANTING BEDS NOT BORDERED BY WALKS, WALLS, OR PAVING SHALL BE EGGED.
- TOP SOIL SHALL BE STRIPPED AND STOCK PILED ON SITE FOR USE IN LANDSCAPE AREAS WITH EXCESS TOP SOIL TO BE REMOVED FROM THE SITE.
- ALL DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED UNTIL A LAWN IS ESTABLISHED.
- THE WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIALS, LABOR, EQUIPMENT, TOOLS, AND SUPERVISION REQUIRED FOR THE COMPLETION AS SHOWN ON THESE DRAWINGS.
- THE PLANT MATERIALS SHALL BE NURSERY GROWN AND INSPECTED BY THE OWNERS REPRESENTATIVE BEFORE PLANTING. THE OWNERS REP. RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL AT ANY TIME.
- PLANTS DESIGNATED "B&B" SHALL BE BALLED AND BURLAPPED, WITH FIRM BALLS OFF EARTH.
- THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE CORRECT GRADES AND SPACING. THE PLANTS SHALL BE ORIENTED TO GIVE THE BEST APPEARANCE.
- WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED WITH A TOPSOIL MIXTURE, GRADUALLY FILLING, PATTING AND SETTLING WITH WATER.
- ALL PLANT MATERIAL 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 TRANSPANTING. CUTS SHOULD BE FLUSH, LEAVING NO RUBS. CUTS OVER 1" SHALL BE PAINTED WITH TREE PAINT.
- TOPSOIL SHALL BE FRABLE, FERTILE TOPSOIL OF CLAY LOAM CHARACTER CONTAIN 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.
- SEED MIX SHALL CONSIST OF THE FOLLOWING TYPES AND PROPORTIONS:

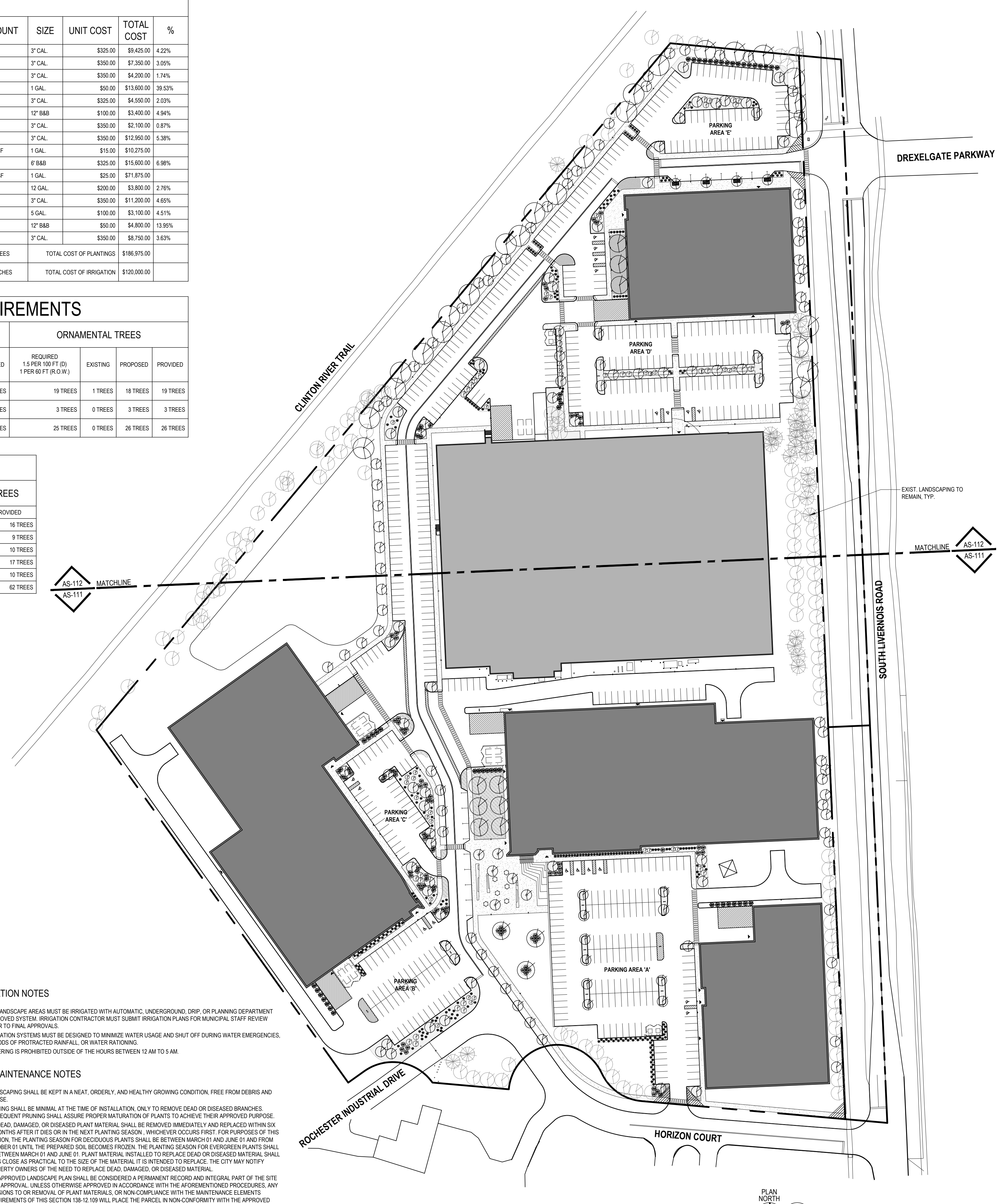
KENTUCKY BLUE GRASS 'BARONCHER/IDEALPH'	60%
CHEWING FESCUE	15%
CREeping REED FESCUE	15%
PERENNIAL RYE GRASS	10%
WEED CONTENT SHALL NOT EXCEED 1%	
- SOD SHALL BE TWO YEAR OLD 'BARONCHER/IDEALPH' KENTUCKY BLUE GRASS GROWN IN A SOD NURSERY ON LAM SOIL.
- CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTINGS PRIOR TO THE RELEASE OF PERFORMANCE BOND.
- PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC RIGHT-OF-WAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC ROAD. TREES MUST BE PLANTED AT LEAST 15' AWAY FROM CURB OR ROAD EDGE WHERE THE SPEED LIMIT IS MORE THAN 35 MPH. SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY LINES AT A DISTANCE ALONG EACH LINE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE AT LEAST 15' AWAY FROM THE NEAREST OVERHEAD WIRE. TREES MUST BE PLANTED A MINIMUM OF 5' FROM AN UNDERGROUND UTILITY, UNLESS THE CITY'S LANDSCAPE ARCHITECT REQUIRES A GREATER DISTANCE. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS FORESTRY UNIT NEEDS TO INSPECT ALL TREES, EXISTING OR PLANTED, TO IDENTIFY ANY THAT POSE A HAZARD TO THE SAFE USE OF THE PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES. THE ABOVE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.

IRRIGATION NOTES

- ALL LANDSCAPE AREAS MUST BE IRRIGATED WITH AUTOMATIC, UNDERGROUND, DRIP, OR PLANNING DEPARTMENT APPROVED SYSTEM. IRRIGATION CONTRACTOR MUST SUBMIT IRRIGATION PLANS FOR MUNICIPAL STAFF REVIEW PRIOR TO FINAL APPROVALS.
- IRRIGATION SYSTEMS MUST BE DESIGNED TO MINIMIZE WATER USAGE AND SHUT OFF DURING WATER EMERGENCIES. PERIODS OF PROTRACTED RAINFALL, OR WATER RATIONING.
- WATERING IS PROHIBITED OUTSIDE OF THE HOURS BETWEEN 12 AM TO 5 AM.

SITE MAINTENANCE NOTES

- LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY, AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.
- PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.
- ALL DEAD, DAMAGED, OR DISEASED PLANT MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN SIX (6) MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON, WHICHEVER OCCURS FIRST. FOR PURPOSES OF THIS SECTION, THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 01 AND JUNE 01 AND FROM OCTOBER 01 UNTIL THE PREPARED SOIL BECOMES FROZEN. THE PLANTING SEASON FOR EVERGREEN PLANTS SHALL BE BETWEEN MARCH 01 AND JUNE 01. PLANT MATERIAL, INSTALLED TO REPLACE DEAD OR DISEASED MATERIAL, SHALL BE AS CLOSE AS PRACTICAL TO THE SIZE OF THE MATERIAL IT IS INTENDED TO REPLACE. THE CITY MAY NOTIFY PROPERTY OWNERS OF THE NEED TO REPLACE DEAD, DAMAGED, OR DISEASED MATERIAL.
- THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL. UNLESS OTHERWISE APPROVED IN ACCORDANCE WITH THE AFOREMENTIONED PROCEDURES, ANY REVISIONS TO OR REMOVAL OF PLANT MATERIALS, OR NON-COMPLIANCE WITH THE MAINTENANCE ELEMENTS REQUIREMENTS OF THIS SECTION 138-12-105 WILL PLACE THE PARCEL IN NON-COMFORMITY WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF THIS ORDINANCE.
- IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH-BY-INCH BASIS AT A MONETARY RATE AS DEFINED BY THE FORESTRY DEPARTMENT.



PLAN NORTH
01 OVERALL SITE LANDSCAPE PLAN
L-101 1" = 80.00'

STAMPS

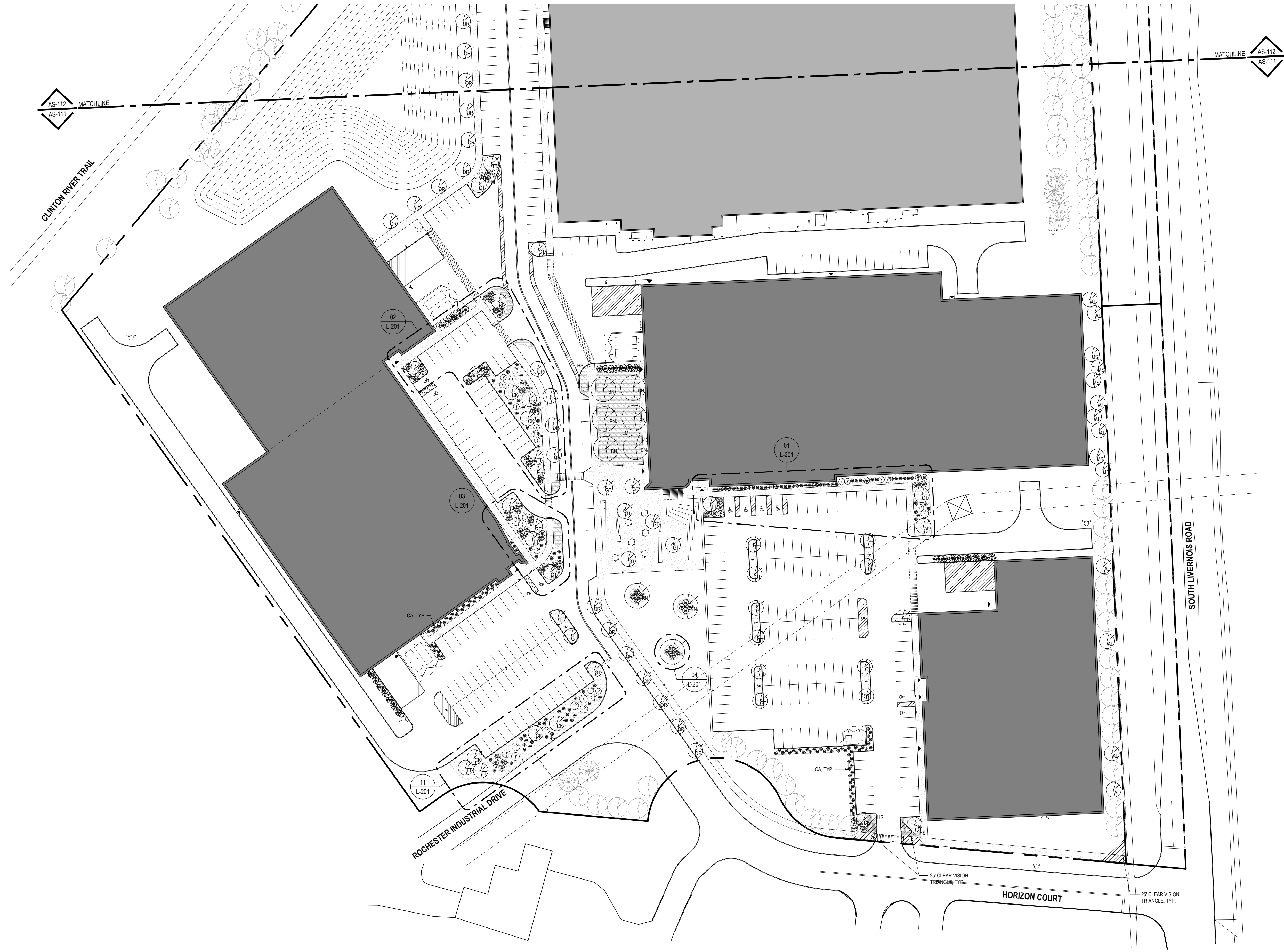
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DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

ISSUANCE: DATE: DRAWN: CHECKED: CONSULTANT: EX EX EX EX
SITE PLAN RESPONSE #10: 04.23.2021 EX EX
SITE PLAN RESPONSE #12: 07.22.2021 EX EX

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255 E. HENRIE AVE., SUITE 102B
NORTHVILLE, MI 48977

SHEET TITLE: OVERALL SITE LANDSCAPE PLAN
PROJECT NO.: 2814.00
SHEET NO.: L-101

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PLAN NORTH
 01 ENLARGED LANDSCAPE PLAN
 L-111 1" = 50.00'

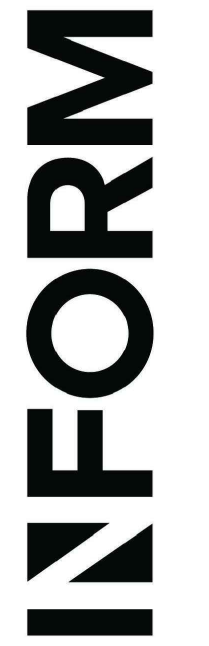
ISSUANCE

ISSUANCE	DATE	DRAWN	CHECKED	CONSULTANT
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SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK	EK	EK

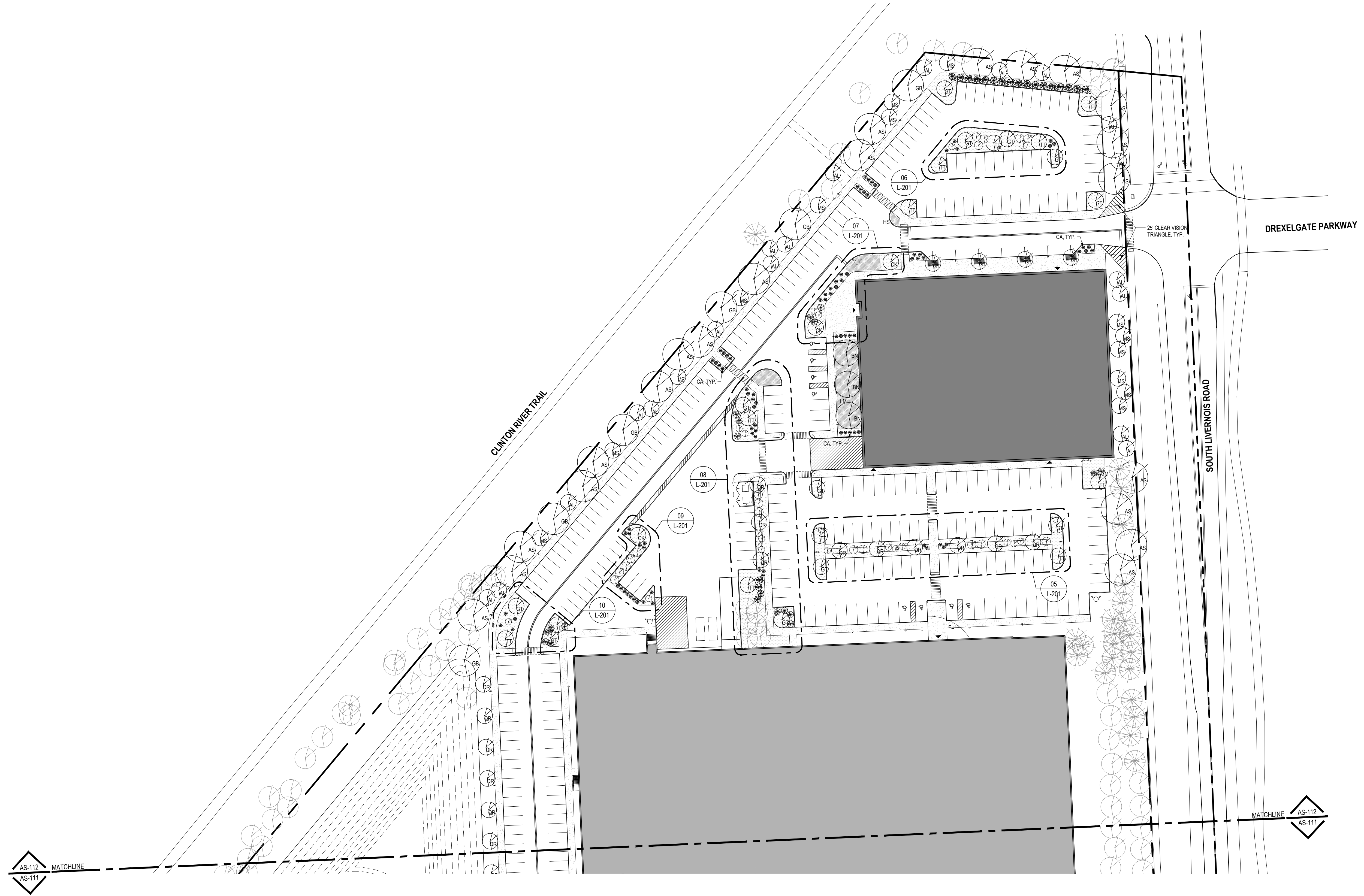
PROJECT
**ROCHESTER HILLS
 RESEARCH PARK**
 DEREK GENTILE
 1400 SOUTH LIVERNOIS
 ROCHESTER HILLS, MI 48307

SHEET TITLE
**ENLARGED
 LANDSCAPE PLAN**

STAMPS
 PROJECT NO. 2814.00
 SHEET NO. **L-111**



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PLAN NORTH
 01 ENLARGED LANDSCAPE PLAN
 L-112 1" = 50.00'

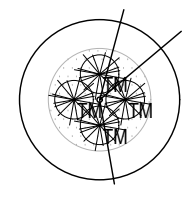
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SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK	EK	

PROJECT
**ROCHESTER HILLS
 RESEARCH PARK**
 DEREK GENTILE
 1400 SOUTH LIVERNOIS
 ROCHESTER HILLS, MI 48307

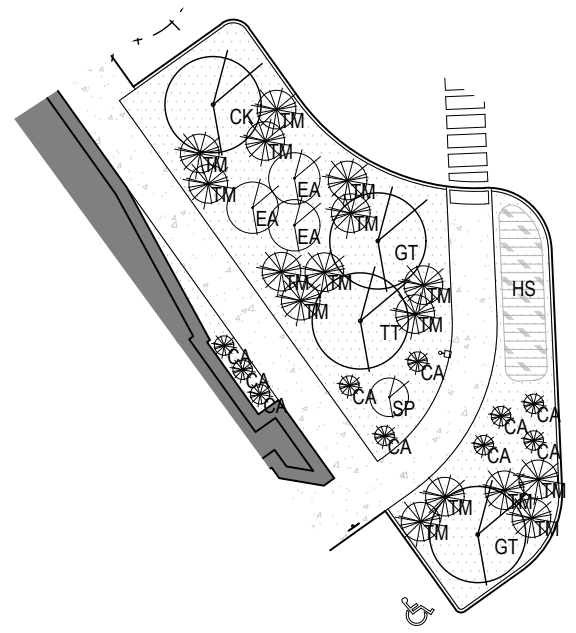
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**ENLARGED
 LANDSCAPE PLAN**

STAMPS
 PROJECT NO. 2814.00
L-112
 SHEET NO.

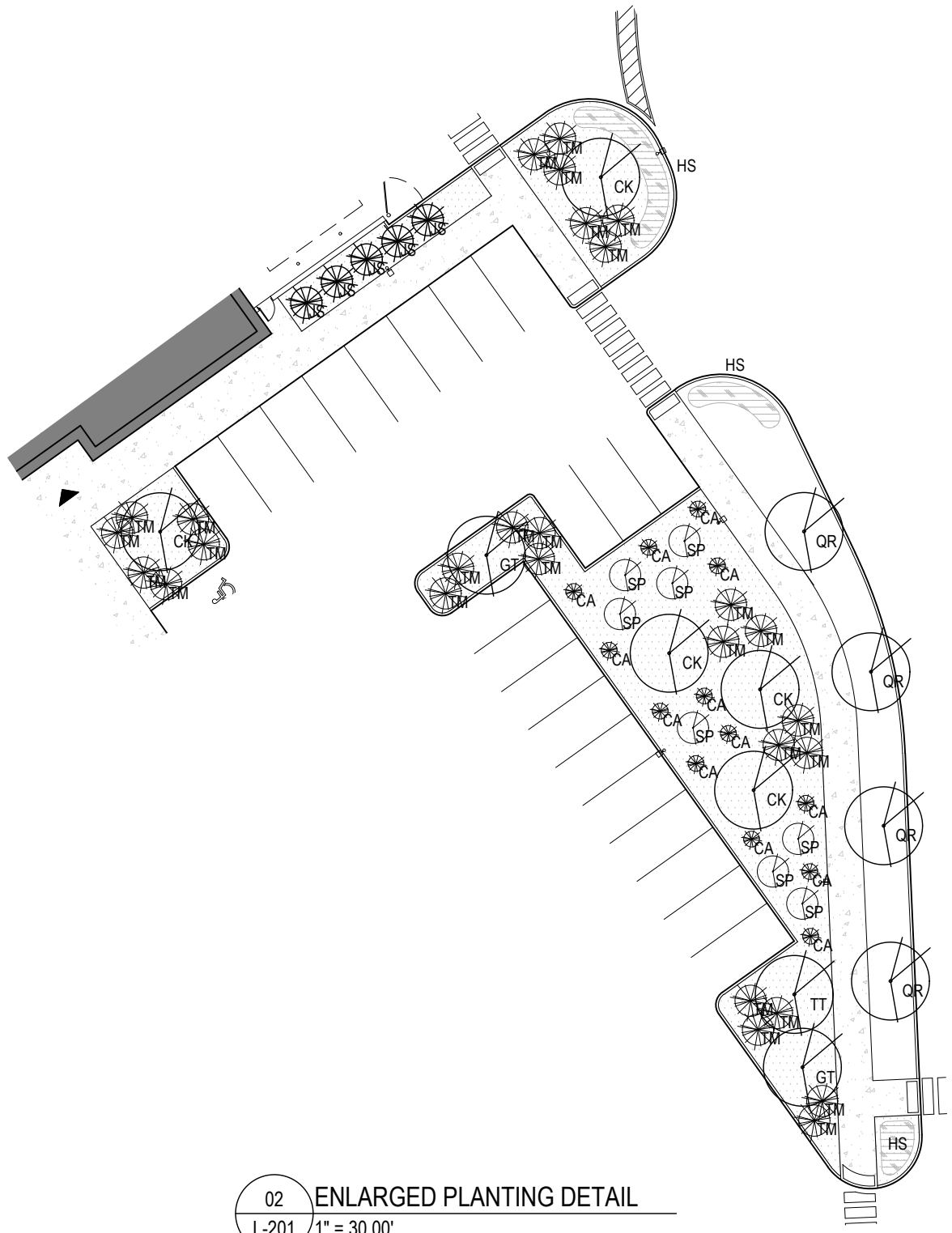
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L-201 1" = 30.00'



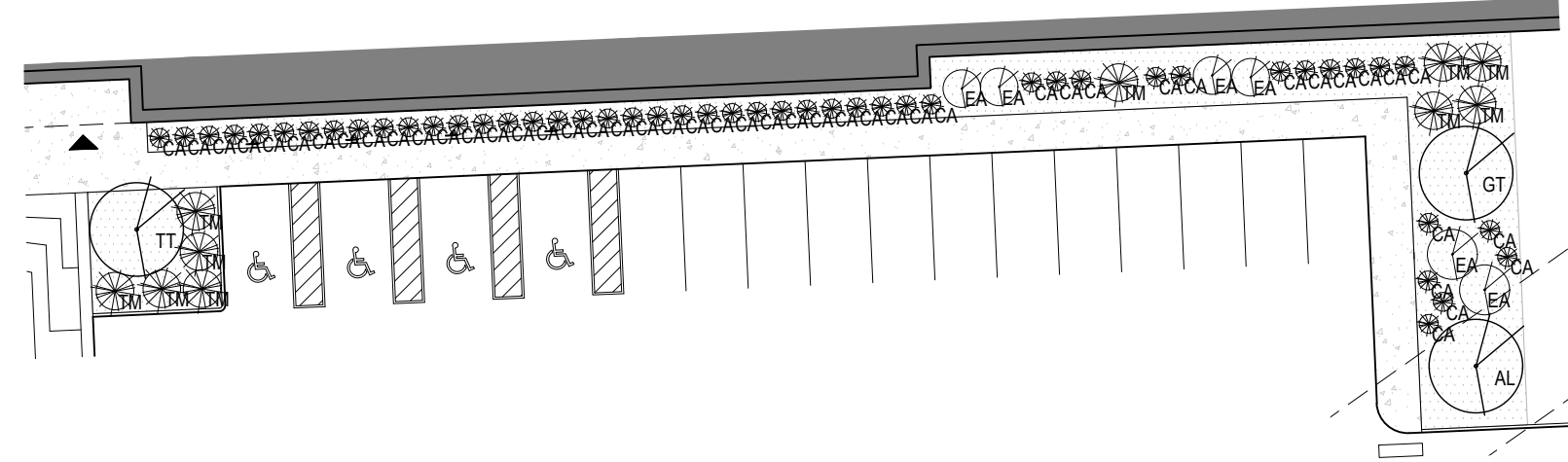
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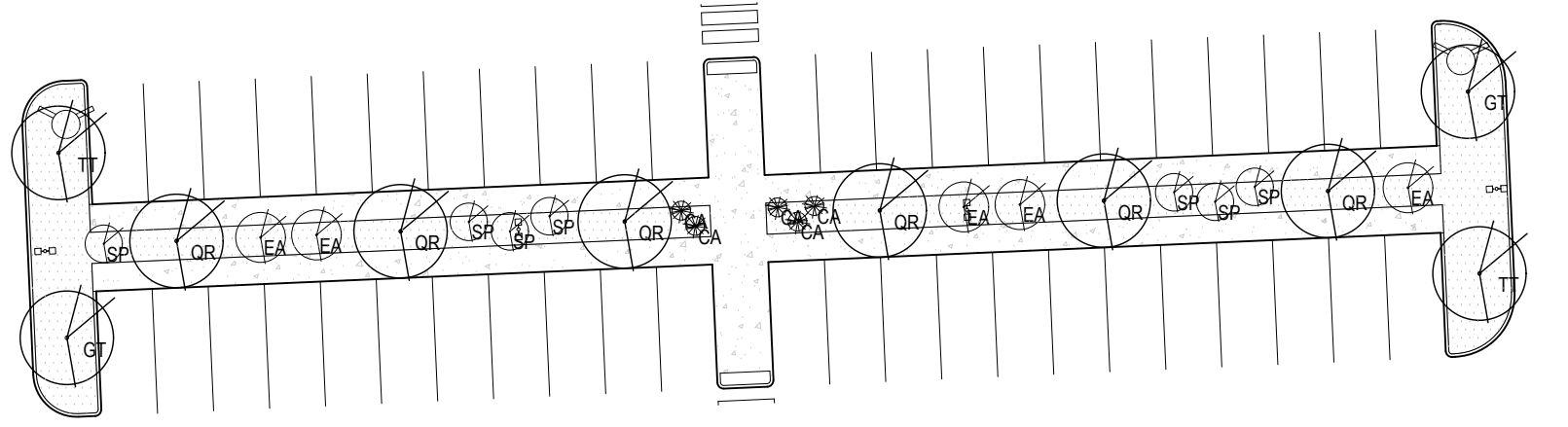
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L-201 1" = 30.00'



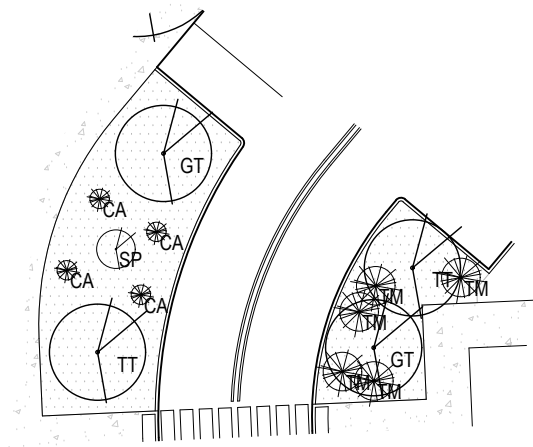
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L-201 1" = 30.00'



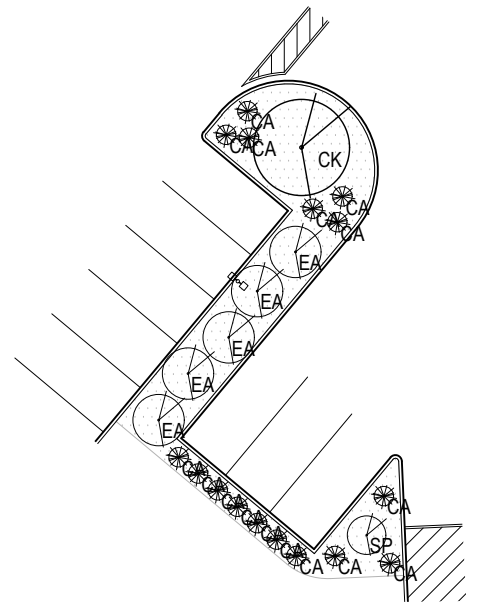
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L-201 1" = 30.00'



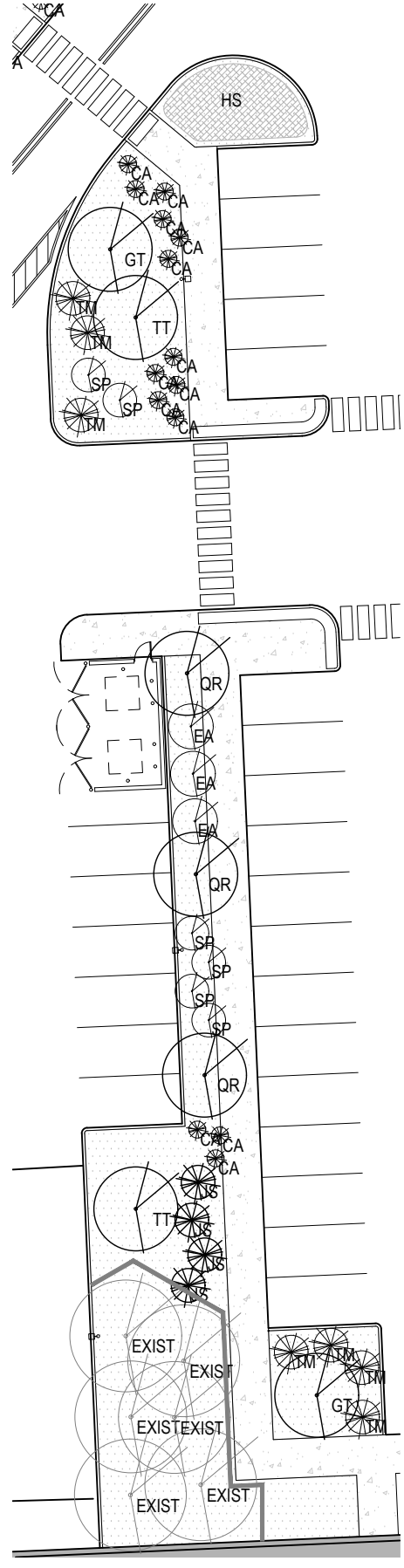
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L-201 1" = 30.00'



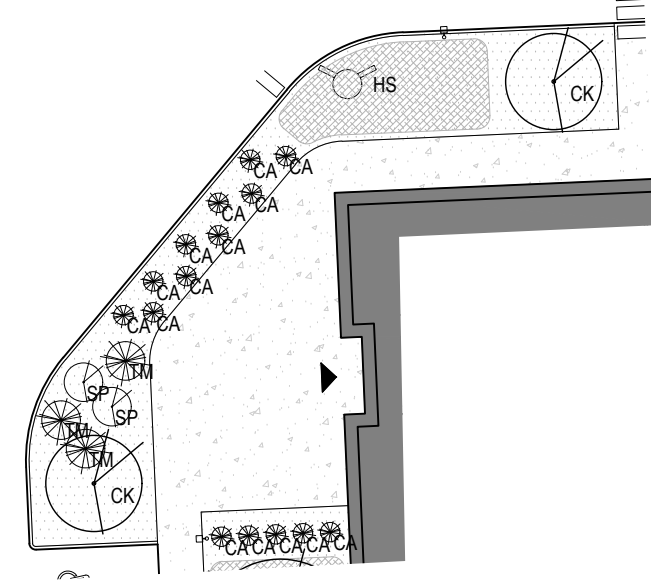
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L-201 1" = 30.00'



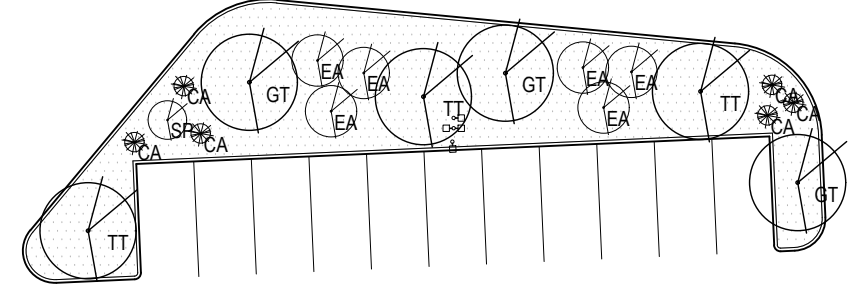
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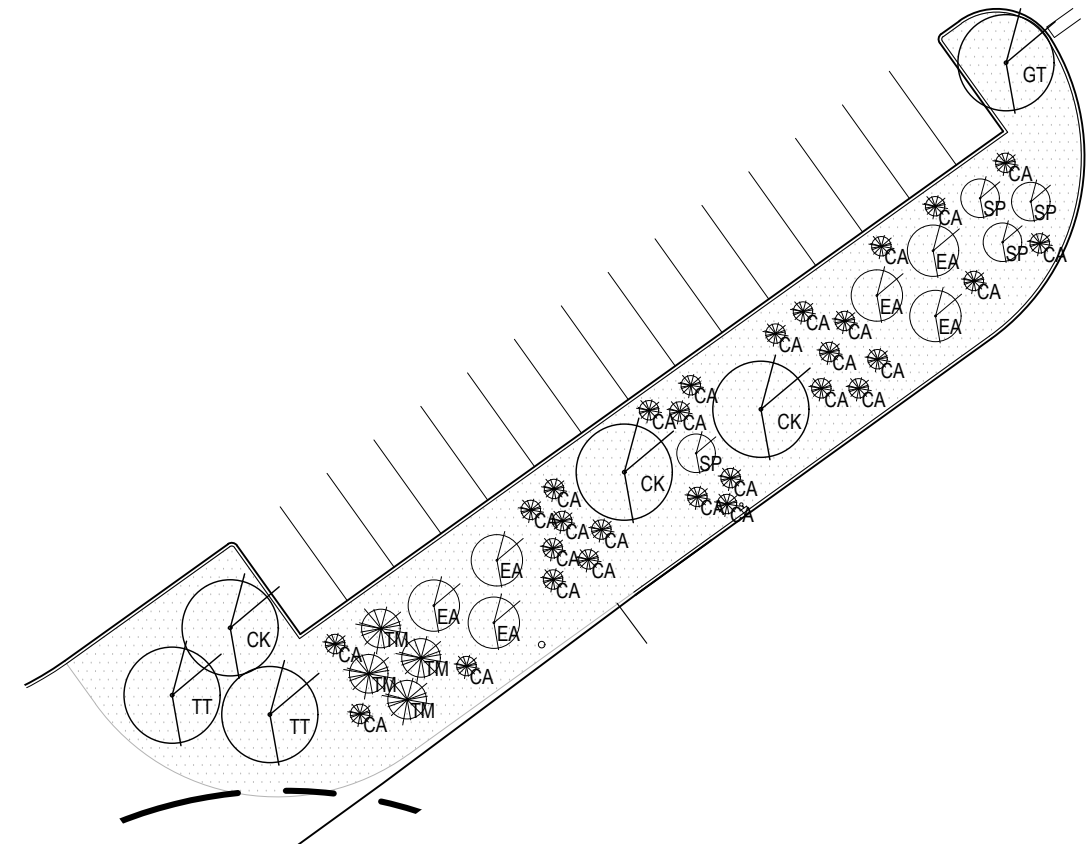
07 ENLARGED PLANTING DETAIL
L-201 1" = 30.00'



06 ENLARGED PLANTING DETAIL
L-201 1" = 30.00'



11 ENLARGED PLANTING DETAIL
L-201 1" = 30.00'



STAMPS

PROJECT NO. 2814.00
SHEET NO.

L-201

SHEET TITLE
ENLARGED
LANDSCAPE
PLANTING DETAILS

PROJECT
ROCHESTER HILLS
RESEARCH PARK
DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

ISSUANCE

DATE	DRAWN	CHECKED	CONSULTANT
04.23.2021	EK	EK	
07.22.2021	EK	EK	

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LIGHTING FIXTURE SCHEDULE

MARK	LIGHTING TYPE	MANUFACTURER	CATALOG NUMBER	VOLTAGE	WATTAGE	MOUNTING	REMARKS
S1	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T3M MVOLT	UNV	102	POLE	LED AREA FIXTURE, TYPE 3M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S2	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T3M MVOLT	UNV	204	POLE	LED DUAL HEAD AREA FIXTURE, TYPE 3M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S3	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T4M MVOLT	UNV	102	POLE	LED AREA FIXTURE, TYPE 4M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S4	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T5M MVOLT	UNV	102	POLE	LED AREA FIXTURE, TYPE 5M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S5	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T4M MVOLT	UNV	204	POLE	LED DUAL HEAD AREA FIXTURE, TYPE 4M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
BUILDING 1 & 2 PARKING	X	2.0 f	3.7 f	0.7 f	5.3:1	2.9:1
BUILDING 1 & 4 PARKING	X	2.4 f	6.6 f	0.5 f	13.2:1	4.8:1
BUILDING 1 & 4 PARKING	X	2.6 f	5.7 f	0.7 f	8:1	3.7:1
BUILDING 1 PARKING (WEST)	X	2.3 f	3.3 f	1.3 f	2.5:1	1.8:1
BUILDING 2 & 3 PARKING	X	2.1 f	7.3 f	0.0 f	N/A	N/A
BUILDING 4 PARKING (NORTH WEST)	X	2.4 f	3.9 f	0.8 f	4.9:1	3.0:1
BUILDING 4 PARKING (NORTH)	X	1.7 f	3.8 f	0.5 f	7.6:1	3.4:1
BUILDING 4 PARKING (WEST)	X	2.2 f	3.1 f	1.3 f	2.4:1	1.7:1
BUILDING 5 PARKING (EAST)	X	2.2 f	4.1 f	0.9 f	4.6:1	2.4:1
BUILDING 5 PARKING (SOUTH)	X	2.2 f	7.1 f	0.5 f	14.2:1	4.4:1
PLAZA SEATING	X	1.9 f	4.1 f	0.2 f	20.5:1	9.5:1
PROPERTY LINE - ROW	+	0.1 f	0.5 f	0.0 f	N/A	N/A
PROPERTY LINE - NON-ROW	+	0.2 f	0.5 f	0.0 f	N/A	N/A
SITE	+	1.3 f	7.3 f	0.0 f	N/A	N/A

GENERAL ELECTRICAL NOTES

- COORDINATE ALL EQUIPMENT LOCATIONS, MOUNTING HEIGHTS, POWER REQUIREMENTS, ETC. WITH OWNER AND ARCHITECTURE DRAWINGS PRIOR TO ROUGH-IN.
- WIRING, RECEPTACLES, AND EQUIPMENT LOCATIONS ARE DIAGRAMMATIC. COORDINATE ALL EQUIPMENT LOCATIONS, MOUNTING HEIGHTS, POWER REQUIREMENTS, ETC. WITH OWNER AND ARCHITECTURE DRAWINGS PRIOR TO ROUGH-IN.



MATCHLINE ES-102

1 SITE PLAN - LIGHTING
1" = 50'-0"

ISSUANCE	DATE	DRAWN	CHECKED	CONSULTANT
SITE PLAN REVIEW RESPONSE #01	04.23.2021	SMK	SRK	

PROJECT
ROCHESTER HILLS RESEARCH PARK
DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

SHEET TITLE
LIGHTING PLAN (NORTH)

STAMPS
PROJECT NO. 2814.00
SHEET NO. **ES-101**

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MARK	LIGHTING TYPE	MANUFACTURER	CATALOG NUMBER	VOLTAGE	WATTAGE	MOUNTING	REMARKS
S1	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T3M MVOLT	UNV	102	POLE	LED AREA FIXTURE, TYPE 3M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S2	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T3M MVOLT	UNV	204	POLE	LED DUAL HEAD AREA FIXTURE, TYPE 3M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S3	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T4M MVOLT	UNV	102	POLE	LED AREA FIXTURE, TYPE 4M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S4	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T5M MVOLT	UNV	102	POLE	LED AREA FIXTURE, TYPE 5M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE
S5	LED	LITHONIA LIGHTING	DSX1 LED P3 30K T4M MVOLT	UNV	204	POLE	LED DUAL HEAD AREA FIXTURE, TYPE 4M DISTRIBUTION; MOUNT FIXTURE HEAD AT 20'-0" FROM FINISHED GRADE

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
BUILDING 1 & 2 PARKING	X	2.0 fc	3.7 fc	0.7 fc	5.3:1	2.9:1
BUILDING 1 & 4 PARKING	X	2.4 fc	6.6 fc	0.5 fc	13.2:1	4.8:1
BUILDING 1 & 4 PARKING (WEST)	X	2.6 fc	5.7 fc	0.7 fc	8.1:1	3.7:1
BUILDING 1 PARKING (WEST)	X	2.3 fc	3.3 fc	1.3 fc	2.5:1	1.8:1
BUILDING 2 & 3 PARKING	X	2.1 fc	7.3 fc	0.0 fc	N/A	N/A
BUILDING 4 PARKING (NORTH WEST)	X	2.4 fc	3.9 fc	0.8 fc	4.9:1	3.0:1
BUILDING 4 PARKING (NORTH)	X	1.7 fc	3.8 fc	0.5 fc	7.6:1	3.4:1
BUILDING 4 PARKING (WEST)	X	2.2 fc	3.1 fc	1.3 fc	2.4:1	1.7:1
BUILDING 5 PARKING (EAST)	X	2.2 fc	4.1 fc	0.9 fc	4.6:1	2.4:1
BUILDING 5 PARKING (SOUTH)	X	2.2 fc	7.1 fc	0.5 fc	14.2:1	4.4:1
PLAZA SEATING	X	1.9 fc	4.1 fc	0.2 fc	20.5:1	9.5:1
PROPERTY LINE - ROW	+	0.1 fc	0.5 fc	0.0 fc	N/A	N/A
PROPERTY LINE - NON-ROW	+	0.2 fc	0.5 fc	0.0 fc	N/A	N/A
SITE	+	1.3 fc	7.3 fc	0.0 fc	N/A	N/A

GENERAL ELECTRICAL NOTES

- COORDINATE ALL EQUIPMENT LOCATIONS, MOUNTING HEIGHTS, POWER REQUIREMENTS, ETC. WITH OWNER AND ARCHITECTURE DRAWINGS, PRIOR TO ROUGH-IN.
- WIRING, RECEPTACLES, AND EQUIPMENT LOCATIONS ARE DIAGRAMMATIC. COORDINATE ALL EQUIPMENT LOCATIONS, MOUNTING HEIGHTS, POWER REQUIREMENTS, ETC. WITH OWNER AND ARCHITECTURE DRAWINGS PRIOR TO ROUGH-IN.

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1 SITE PLAN - LIGHTING
1" = 50'-0"

PROJECT: **ROCHESTER HILLS RESEARCH PARK**
 PROJECT NO.: 2814_00
 SHEET TITLE: **LIGHTING PLAN (SOUTH)**
 SHEET NO.: ES-102
 ISSUANCE: **ROCHESTER HILLS RESEARCH PARK**
 DATE: 04/23/2021
 DRAWN: **DEREK GENTILE**
 CHECKED: **DEREK GENTILE**
 CONSULTANT: **INFORM STUDIO**

STAMPS: PROJECT NO. 2814_00
 SHEET NO. ES-102

BUILDING 05

APPLICABLE CODES:

- 2015 MICHIGAN BUILDING CODE
- 2009 ICC ANSI 117.1
- 2015 MICHIGAN MECHANICAL CODE
- 2015 MICHIGAN PLUMBING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2015 NATIONAL FIRE CODE
- 2015 MICHIGAN ENERGY CODE
- 2013 NFPA 13
- 2013 NFPA 72

CHAPTER 03 - USE AND OCCUPANCY

- MIXED-USE: NON-SEPARATED OCCUPANCIES
- B : BUSINESS
- F-1 : MODERATE-HAZARD FACTORY INDUSTRIAL
- S-1 : MODERATE-HAZARD STORAGE

CHAPTER 05 - BUILDING HEIGHTS AND AREAS

* BUILDINGS ON THE SAME LOT ARE PROPOSED AS SEPARATE BUILDINGS

	ALLOWED / REQUIRED	PROPOSED	
BUILDING HEIGHT (FT)	85 FT	39 FT	
BUILDING HEIGHT (STORIES)	5 STORIES	1 STORY W/ MEZZANINE	
BUILDING AREA			
TABULAR AREA	100,000 SF		
FRONTAGE INCREASE	18,750 SF		
TOTAL (PER FLOOR)	118,750 SF	1ST FLOOR	86,898 SF
		MEZZANINE*	8,000 SF
		TOTAL	86,898 SF

* MEZZANINE DOES NOT CONTRIBUTE TO BUILDING AREA (MBC 505.2)

CHAPTER 06 - TYPES OF CONSTRUCTION

PROPOSED CONSTRUCTION: TYPE IIA

	1 HRS	1 HRS
PRIMARY STRUCTURAL FRAME	1 HRS	1 HRS
BEARING WALLS		
EXTERIOR	1 HRS	1 HRS
INTERIOR	1 HRS	1 HRS
NON-BEARING WALLS		
EXTERIOR (PER TABLE 602)	0 HRS	0 HRS
INTERIOR	0 HRS	0 HRS
FLOOR	1 HRS	1 HRS
ROOF	1 HRS	1 HRS

CHAPTER 09 - FIRE PROTECTION SYSTEMS

BUILDING EQUIPPED THROUGHOUT W/ AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

BUILDING 04

APPLICABLE CODES:

- 2015 MICHIGAN BUILDING CODE
- 2009 ICC ANSI 117.1
- 2015 MICHIGAN MECHANICAL CODE
- 2015 MICHIGAN PLUMBING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2015 NATIONAL FIRE CODE
- 2015 MICHIGAN ENERGY CODE
- 2013 NFPA 13
- 2013 NFPA 72

CHAPTER 03 - USE AND OCCUPANCY

- MIXED-USE: NON-SEPARATED OCCUPANCIES
- B : BUSINESS
- F-1 : MODERATE-HAZARD FACTORY INDUSTRIAL
- S-1 : MODERATE-HAZARD STORAGE

CHAPTER 05 - BUILDING HEIGHTS AND AREAS

* BUILDINGS ON THE SAME LOT ARE PROPOSED AS SEPARATE BUILDINGS

	ALLOWED / REQUIRED	PROPOSED	
BUILDING HEIGHT (FT)	75FT	30 FT	
BUILDING HEIGHT (STORIES)	3 STORIES	2 STORIES	
BUILDING AREA			
TABULAR AREA	36,000 SF		
FRONTAGE INCREASE	9,000 SF		
TOTAL (PER FLOOR)	45,000 SF	1ST FLOOR	43,200 SF
		2ND FLOOR	5,000 SF
		TOTAL	48,200 SF

CHAPTER 06 - TYPES OF CONSTRUCTION

PROPOSED CONSTRUCTION: TYPE IIIB

	0 HRS	0 HRS
PRIMARY STRUCTURAL FRAME	0 HRS	0 HRS
BEARING WALLS		
EXTERIOR	2 HRS	2 HRS
INTERIOR	0 HRS	0 HRS
NON-BEARING WALLS		
EXTERIOR (PER TABLE 602)	0 HRS	0 HRS
INTERIOR	0 HRS	0 HRS
FLOOR	0 HRS	0 HRS
ROOF	0 HRS	0 HRS

CHAPTER 09 - FIRE PROTECTION SYSTEMS

BUILDING EQUIPPED THROUGHOUT W/ AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

BUILDING 03

APPLICABLE CODES:

- 2015 MICHIGAN BUILDING CODE
- 2009 ICC ANSI 117.1
- 2015 MICHIGAN MECHANICAL CODE
- 2015 MICHIGAN PLUMBING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2015 NATIONAL FIRE CODE
- 2015 MICHIGAN ENERGY CODE
- 2013 NFPA 13
- 2013 NFPA 72

CHAPTER 03 - USE AND OCCUPANCY

- MIXED-USE: NON-SEPARATED OCCUPANCIES
- B : BUSINESS
- F-1 : MODERATE-HAZARD FACTORY INDUSTRIAL
- S-1 : MODERATE-HAZARD STORAGE

CHAPTER 05 - BUILDING HEIGHTS AND AREAS

* BUILDINGS ON THE SAME LOT ARE PROPOSED AS SEPARATE BUILDINGS

	ALLOWED / REQUIRED	PROPOSED	
BUILDING HEIGHT (FT)	75 FT	31 FT	
BUILDING HEIGHT (STORIES)	3 STORIES	2 STORIES	
BUILDING AREA			
TABULAR AREA	36,000 SF		
FRONTAGE INCREASE	9,000 SF		
TOTAL (PER FLOOR)	45,000 SF	1ST FLOOR	42,500 SF
		2ND FLOOR	5,000 SF
		TOTAL	47,500 SF

CHAPTER 06 - TYPES OF CONSTRUCTION

PROPOSED CONSTRUCTION: TYPE IIIB

	0 HRS	0 HRS
PRIMARY STRUCTURAL FRAME	0 HRS	0 HRS
BEARING WALLS		
EXTERIOR	2 HRS	2 HRS
INTERIOR	0 HRS	0 HRS
NON-BEARING WALLS		
EXTERIOR (PER TABLE 602)	0 HRS	0 HRS
INTERIOR	0 HRS	0 HRS
FLOOR	0 HRS	0 HRS
ROOF	0 HRS	0 HRS

CHAPTER 09 - FIRE PROTECTION SYSTEMS

BUILDING EQUIPPED THROUGHOUT W/ AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

BUILDING 02

APPLICABLE CODES:

- 2015 MICHIGAN BUILDING CODE
- 2009 ICC ANSI 117.1
- 2015 MICHIGAN MECHANICAL CODE
- 2015 MICHIGAN PLUMBING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2015 NATIONAL FIRE CODE
- 2015 MICHIGAN ENERGY CODE
- 2013 NFPA 13
- 2013 NFPA 72

CHAPTER 03 - USE AND OCCUPANCY

- MIXED-USE: NON-SEPARATED OCCUPANCIES
- B : BUSINESS
- F-1 : MODERATE-HAZARD FACTORY INDUSTRIAL
- S-1 : MODERATE-HAZARD STORAGE

CHAPTER 05 - BUILDING HEIGHTS AND AREAS

* BUILDINGS ON THE SAME LOT ARE PROPOSED AS SEPARATE BUILDINGS

	ALLOWED / REQUIRED	PROPOSED	
BUILDING HEIGHT (FT)	85 FT	42 FT	
BUILDING HEIGHT (STORIES)	5 STORIES	1 STORY W/ MEZZANINE	
BUILDING AREA			
TABULAR AREA	100,000 SF		
FRONTAGE INCREASE	18,750 SF		
TOTAL (PER FLOOR)	118,750 SF	1ST FLOOR	86,593 SF
		MEZZANINE*	10,000 SF
		TOTAL	86,593 SF

* MEZZANINE DOES NOT CONTRIBUTE TO BUILDING AREA (MBC 505.2)

CHAPTER 06 - TYPES OF CONSTRUCTION

PROPOSED CONSTRUCTION: TYPE IIA

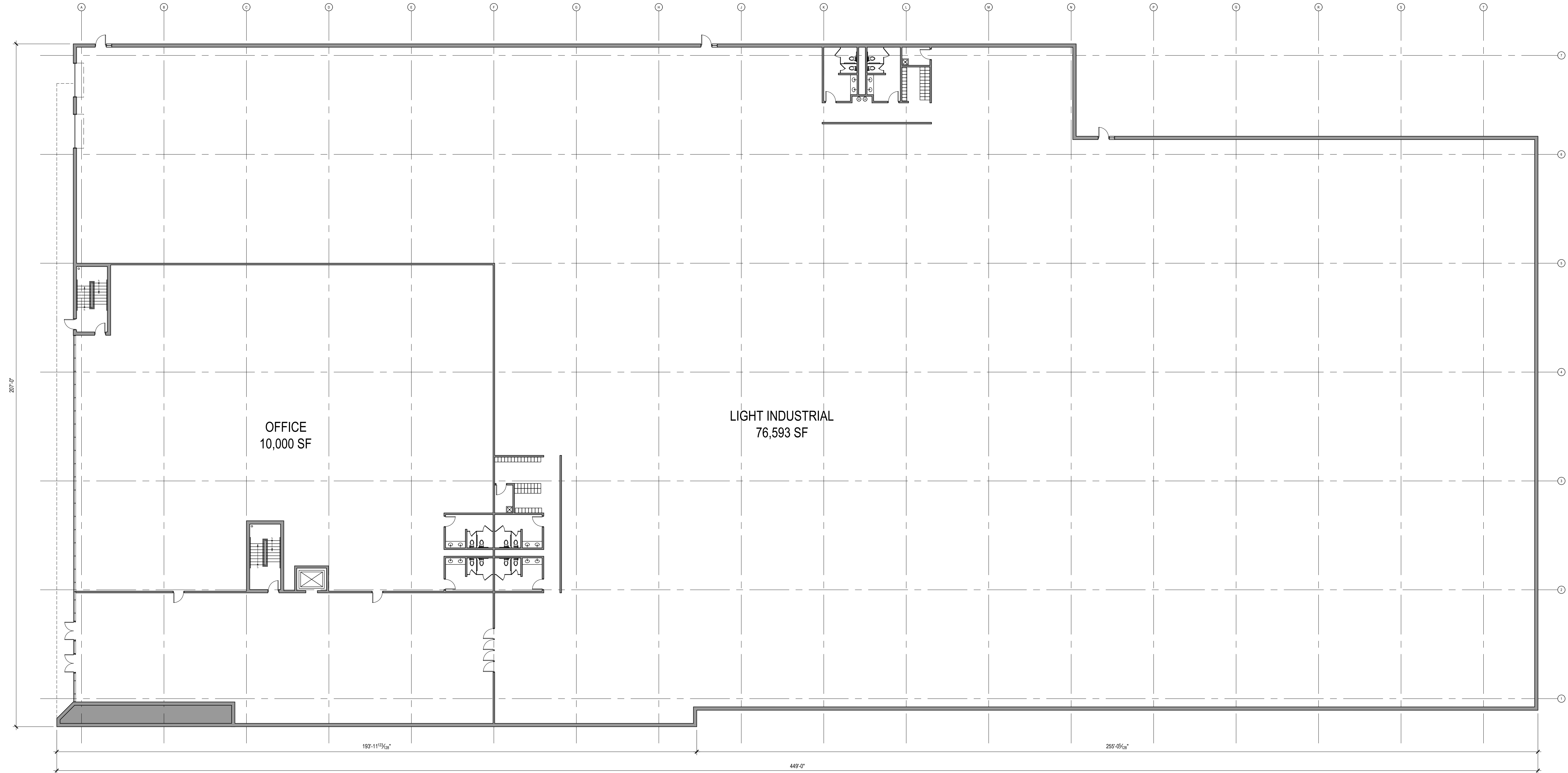
	1 HRS	1 HRS
PRIMARY STRUCTURAL FRAME	1 HRS	1 HRS
BEARING WALLS		
EXTERIOR	1 HRS	1 HRS
INTERIOR	1 HRS	1 HRS
NON-BEARING WALLS		
EXTERIOR (PER TABLE 602)	0 HRS	0 HRS
INTERIOR	0 HRS	0 HRS
FLOOR	1 HRS	1 HRS
ROOF	1 HRS	1 HRS

CHAPTER 09 - FIRE PROTECTION SYSTEMS

BUILDING EQUIPPED THROUGHOUT W/ AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

NOTE:
 1. NO CHANGES ARE PROPOSED TO BUILDING 01
 2. THE EXISTING ENGINEERING BUILDING LOCATED GENERALLY INSIDE THE FOOTPRINT OF BUILDING 02 IS PROPOSED TO BE COMPLETELY DEMOLISHED TO ACCOMMODATE BUILDING 02 AS PROPOSED.

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PLAN NORTH

01 FIRST FLOOR PLAN
A101 1/16" = 1'-0"

STAMPS

PROJECT NO. 2814.00

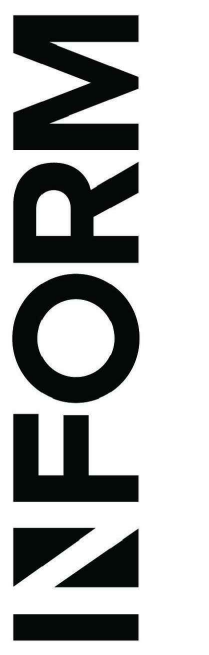
SHEET NO. A-101

SHEET TITLE
**FIRST FLOOR PLAN
BUILDING #2**

PROJECT
**ROCHESTER HILLS
RESEARCH PARK**
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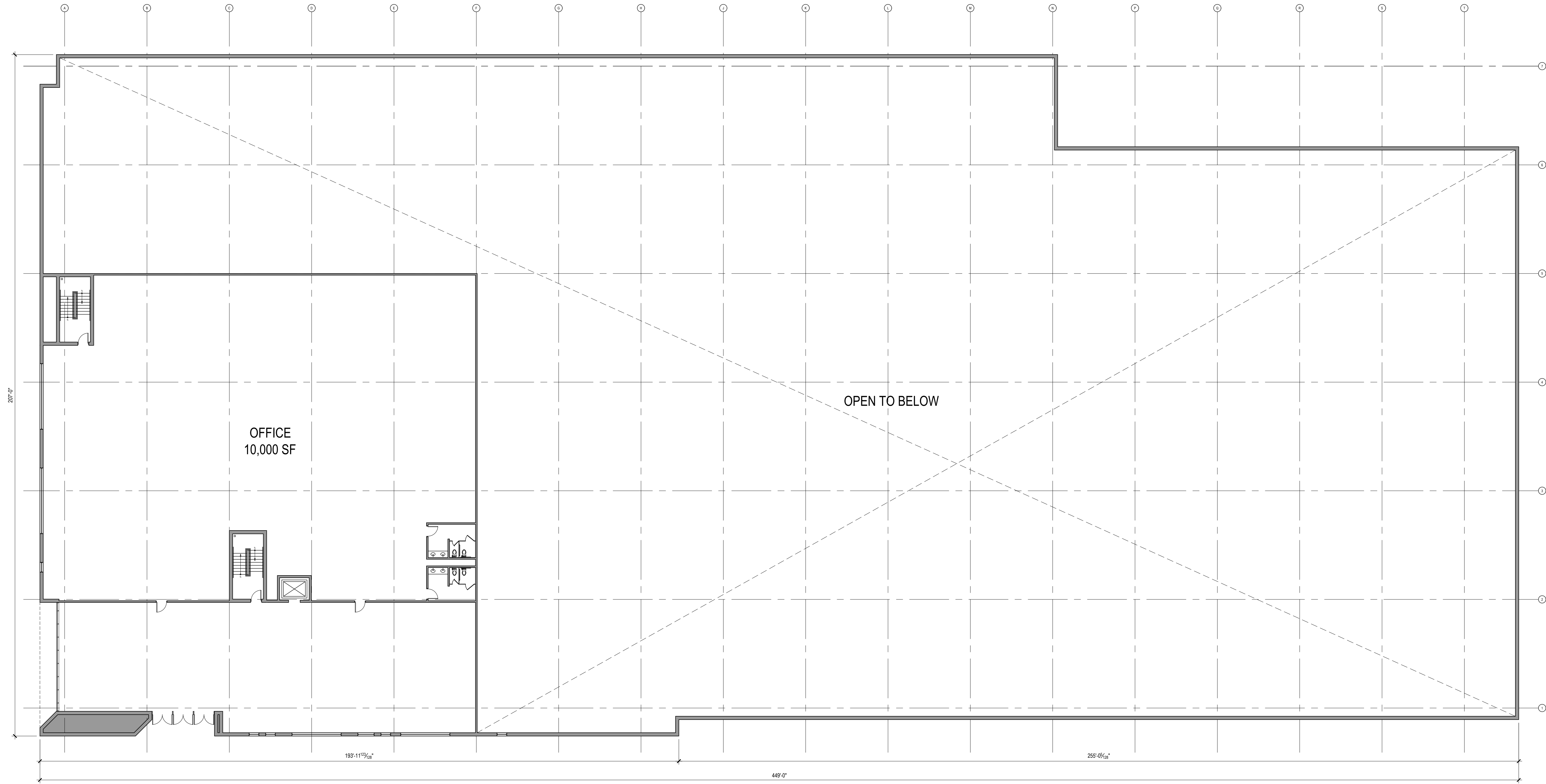
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ISSUANCE	DATE	DRAWN	CHECKED	CONSULTANT
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SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK	EK	



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PLAN NORTH

01 SECOND FLOOR PLAN
A102 1/16" = 1'-0"

STAMPS

PROJECT NO. 2814.00

SHEET NO. A-102

SHEET TITLE
**SECOND FLOOR PLAN
BUILDING #2**

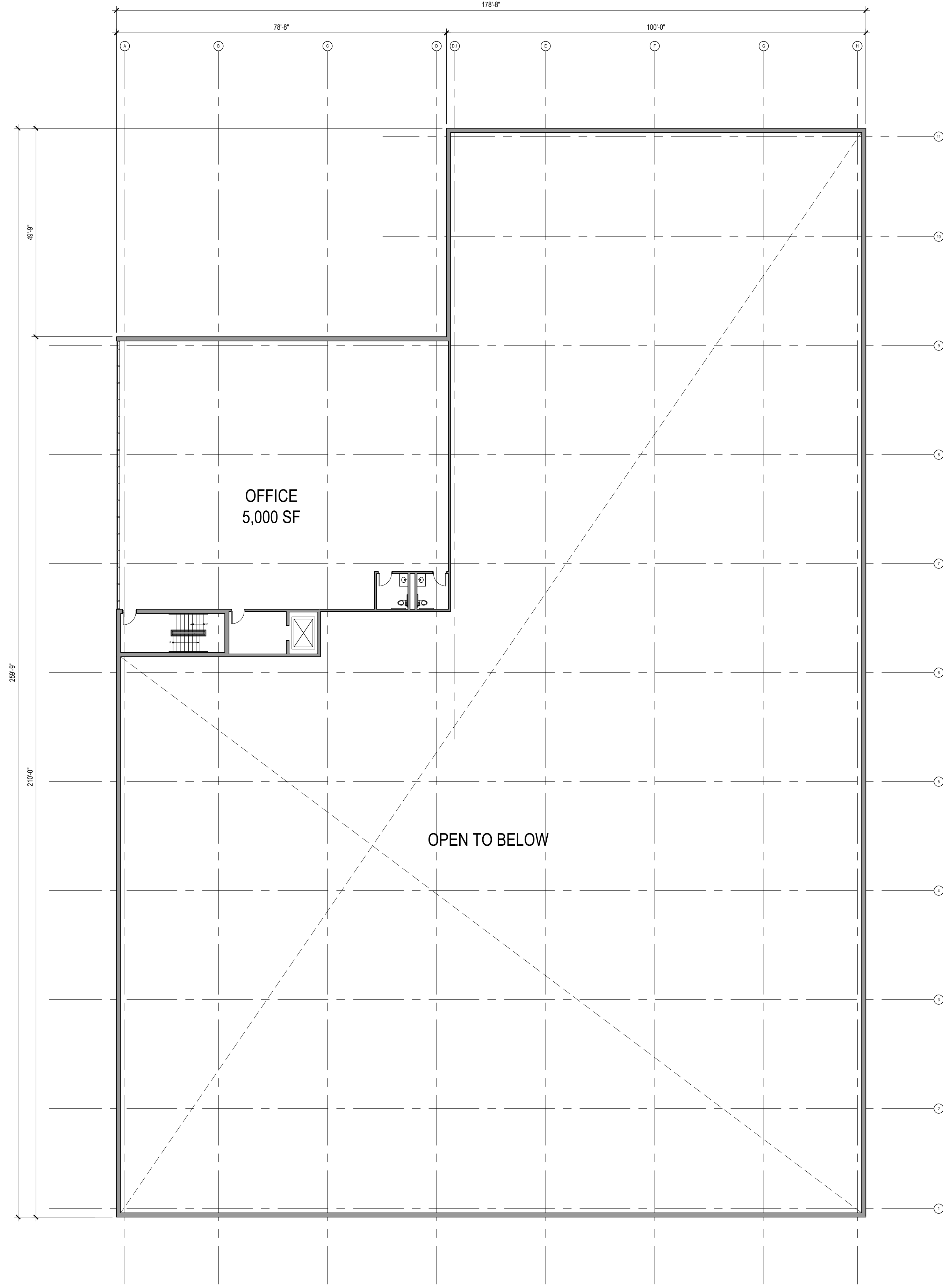
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RESEARCH PARK**
DEREK GENTILE
1400 SOUTH LIVERNOIS
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ISSUANCE

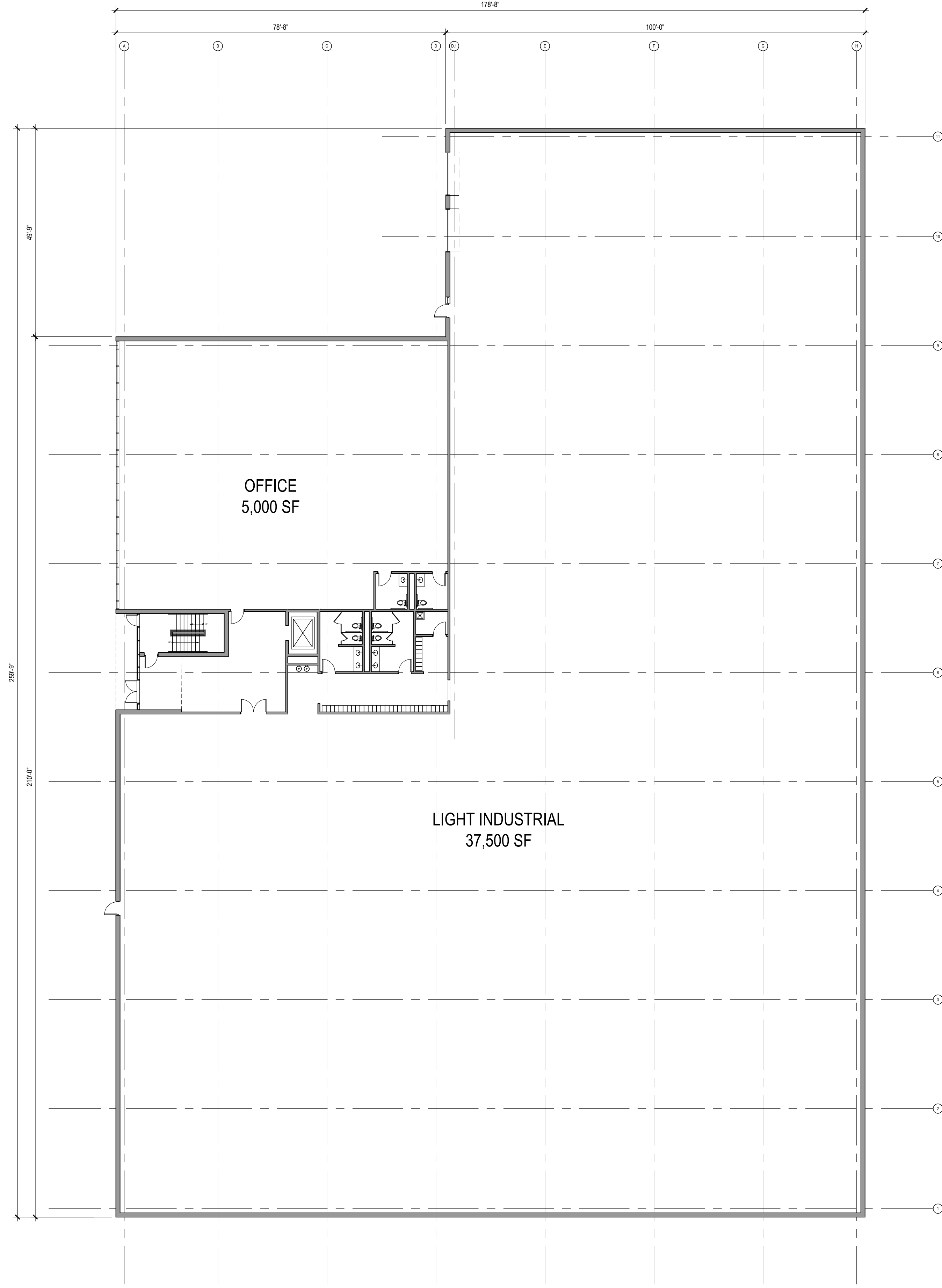
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PLAN NORTH
02 SECOND FLOOR PLAN
A103 1/16" = 1'-0"



PLAN NORTH
01 FIRST FLOOR PLAN
A103 1/16" = 1'-0"

SHEET TITLE
**FLOOR PLANS
BUILDING #3**

PROJECT
**ROCHESTER HILLS
RESEARCH PARK**
DEREK GENTILE
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ROCHESTER HILLS, MI 48307

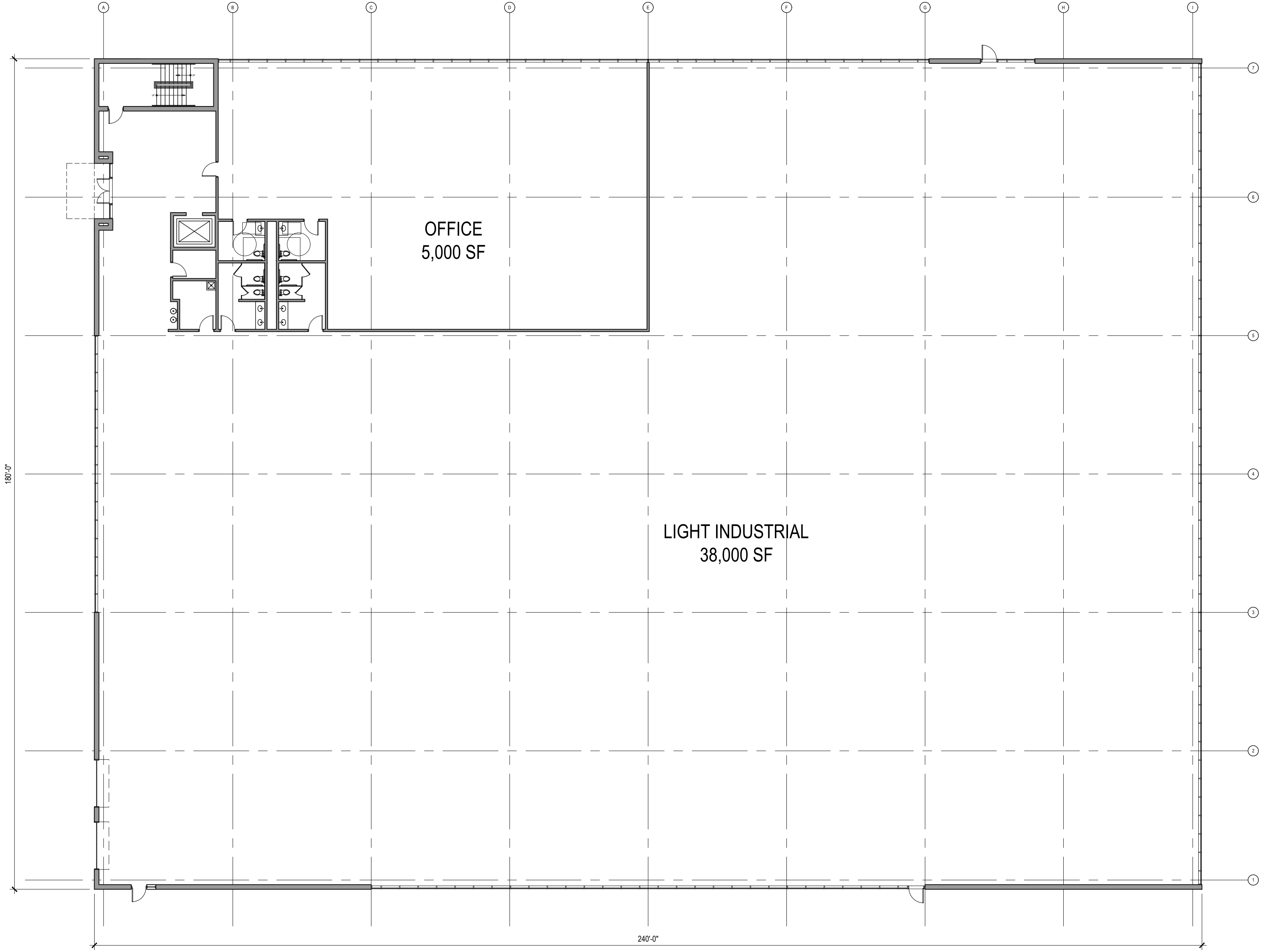
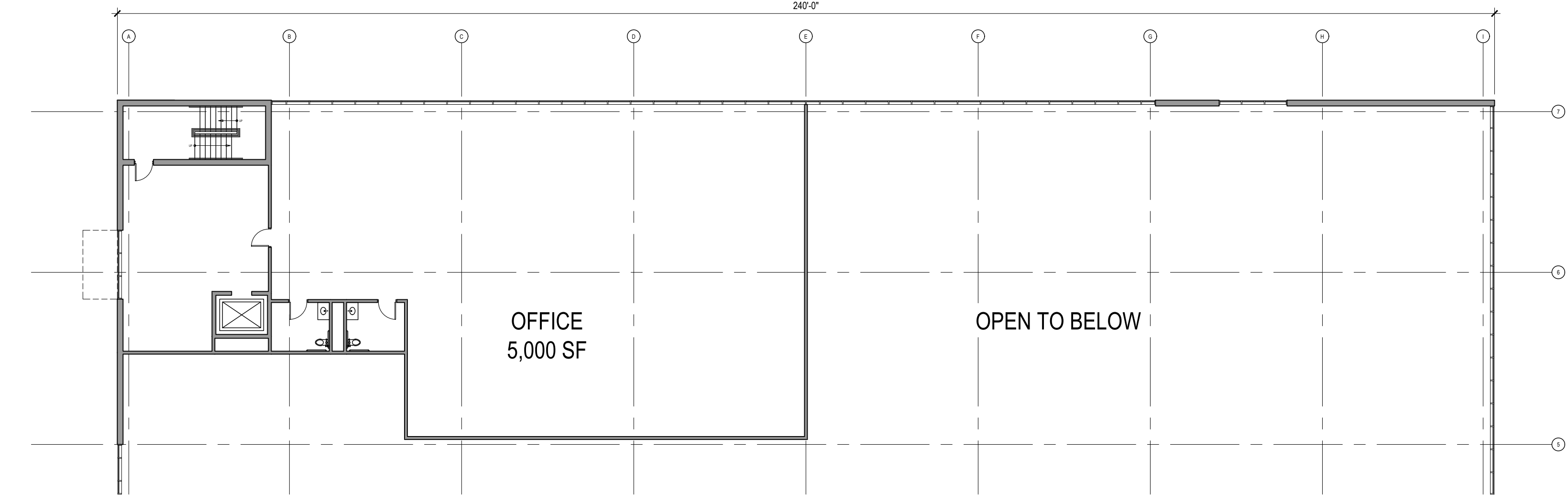
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SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK	EK	



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SHEET NO. **A-103**



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SITE PLAN REVIEW RESPONSE #02	07.23.2021	EK	EK

PROJECT

**ROCHESTER HILLS
RESEARCH PARK**
DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

SHEET TITLE

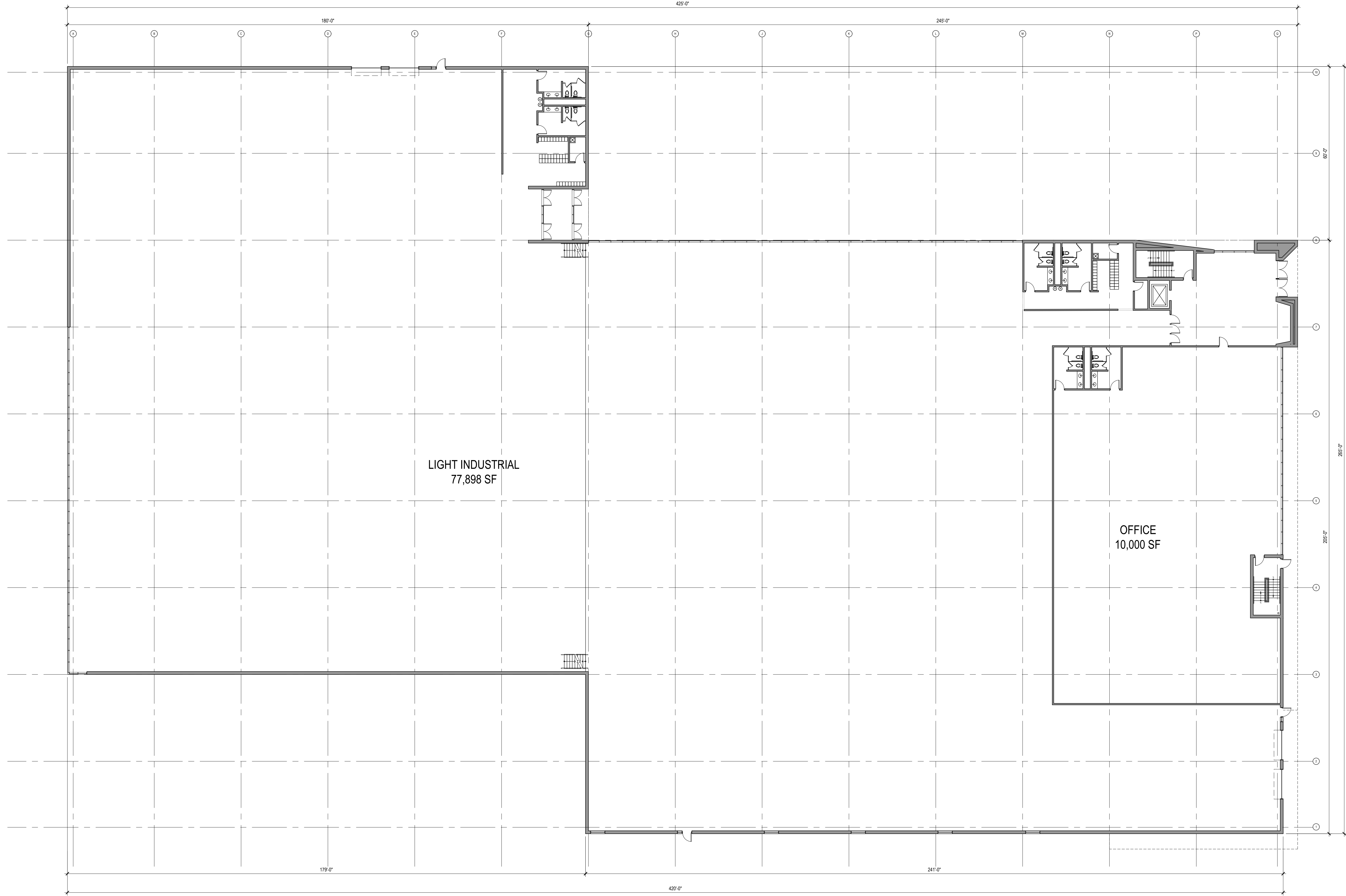
**FLOOR PLANS
BUILDING #4**

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SHEET NO.

A-104

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PLAN NORTH
 01 FIRST FLOOR PLAN
 A105 1/16" = 1'-0"

STAMPS

PROJECT NO. 2814.00

SHEET NO. A-105

SHEET TITLE
**FIRST FLOOR PLAN
 BUILDING #5**

PROJECT
**ROCHESTER HILLS
 RESEARCH PARK**
 DEREK GENTILE
 1400 SOUTH LIVERNOIS
 ROCHESTER HILLS, MI 48307

ISSUANCE

DATE	DRAWN	CHECKED	CONSULTANT
04.23.2021	EK	EK	
07.22.2021	EK	EK	

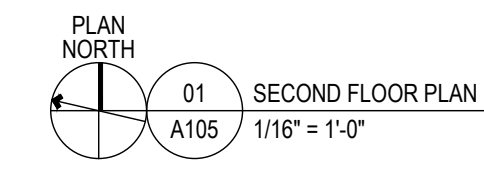
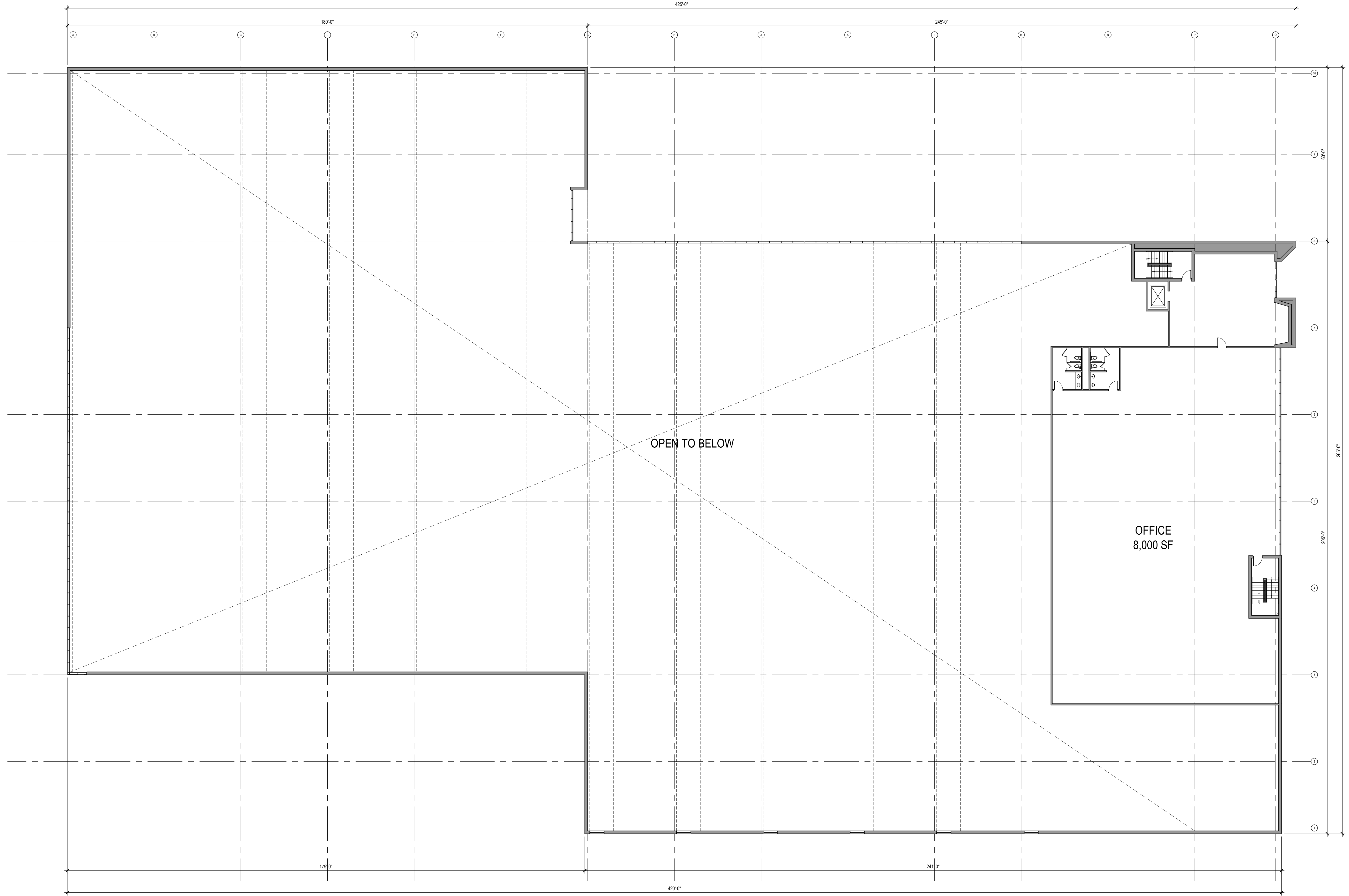
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STAMPS

PROJECT NO. 2814.00

SHEET NO. A-106

SHEET TITLE
**SECOND FLOOR PLAN
BUILDING #5**

PROJECT
**ROCHESTER HILLS
RESEARCH PARK**
DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

ISSUANCE

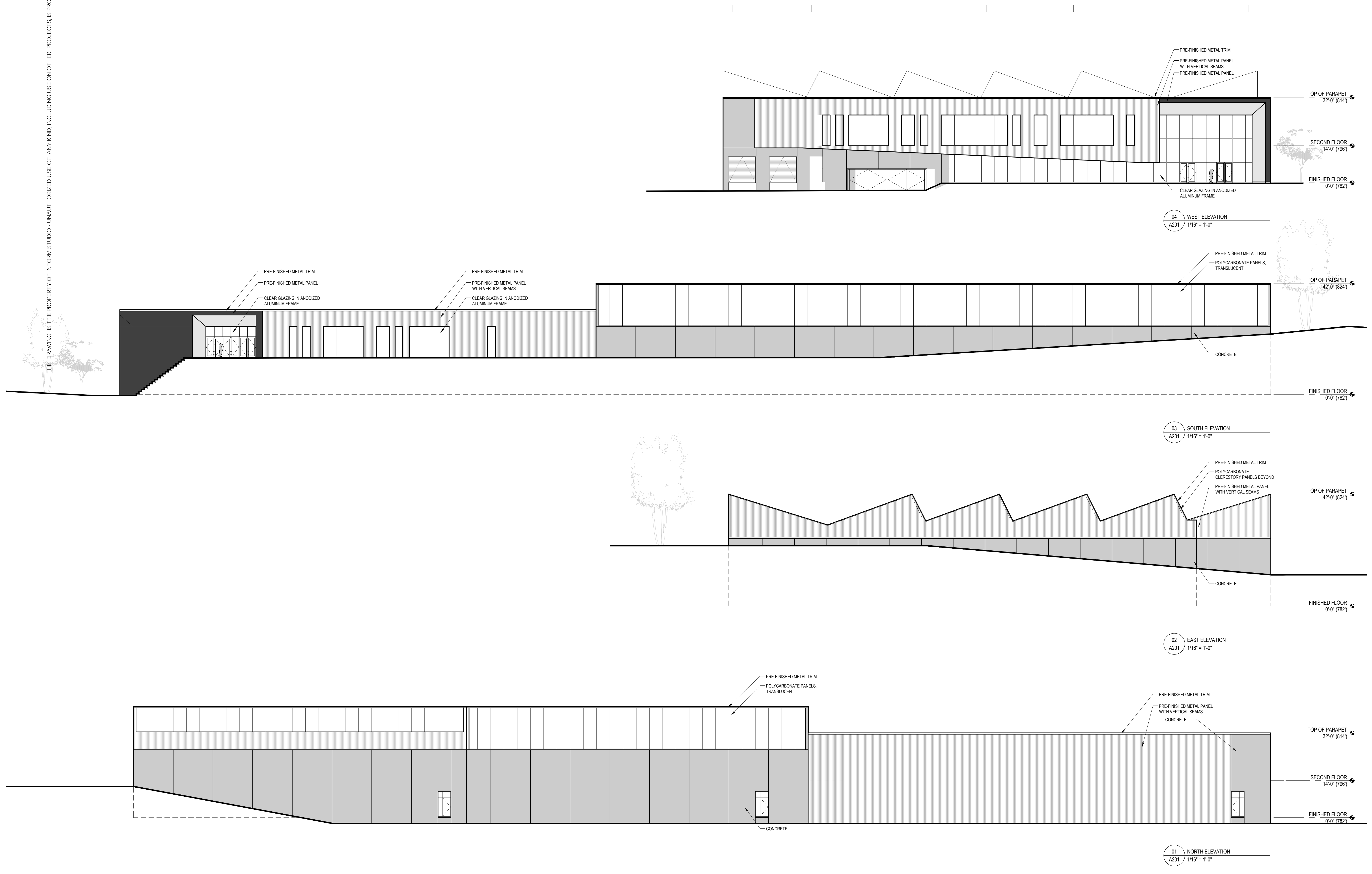
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04 WEST ELEVATION
A201 1/16" = 1'-0"

03 SOUTH ELEVATION
A201 1/16" = 1'-0"

02 EAST ELEVATION
A201 1/16" = 1'-0"

01 NORTH ELEVATION
A201 1/16" = 1'-0"

STAMPS

PROJECT NO. 2814.00

SHEET NO. A-201

ISSUANCE

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07.22.2021	EK	EK

PROJECT

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RESEARCH PARK
DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

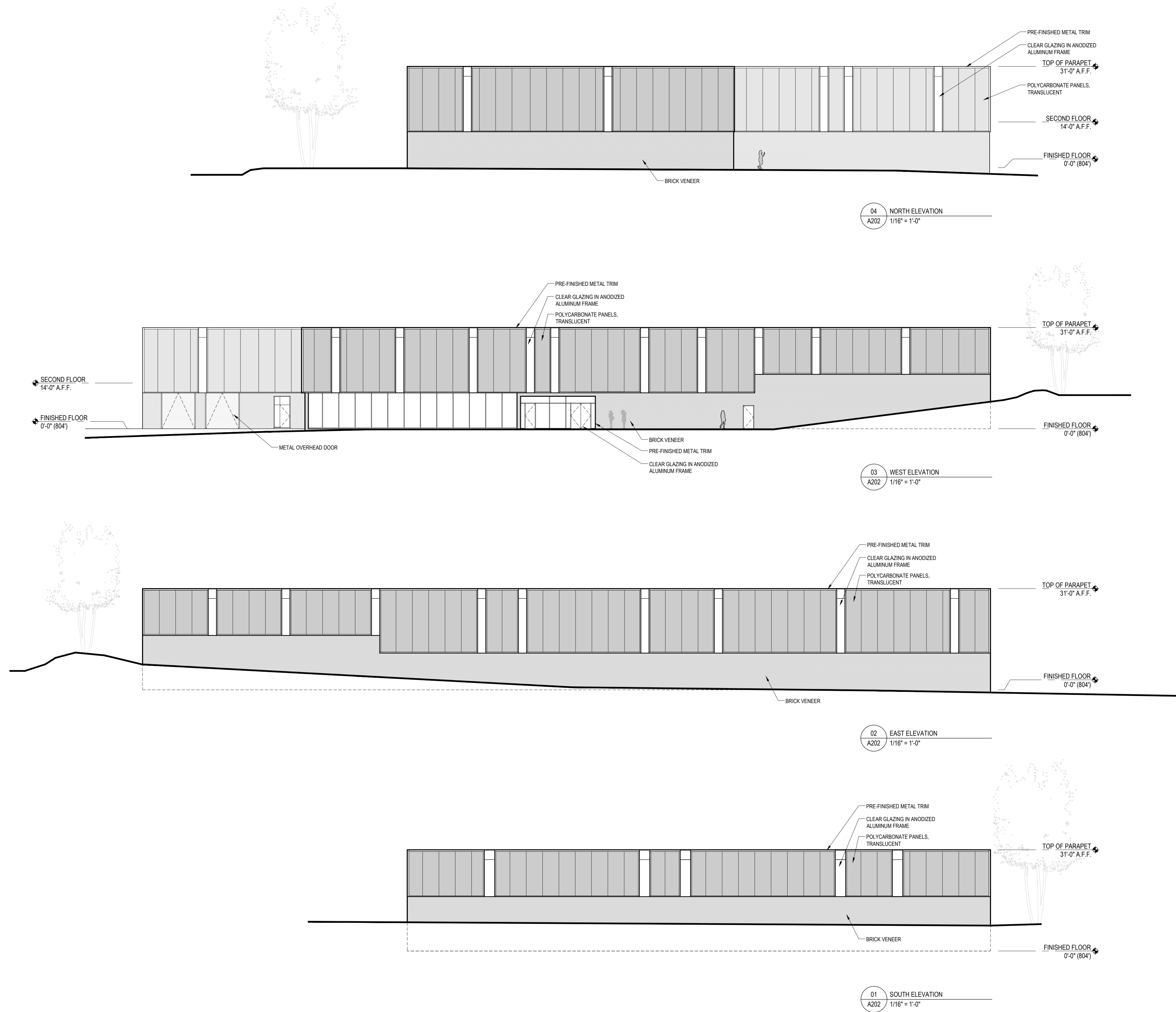
CONSULTANT

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SHEET TITLE

ELEVATIONS
BUILDING #2

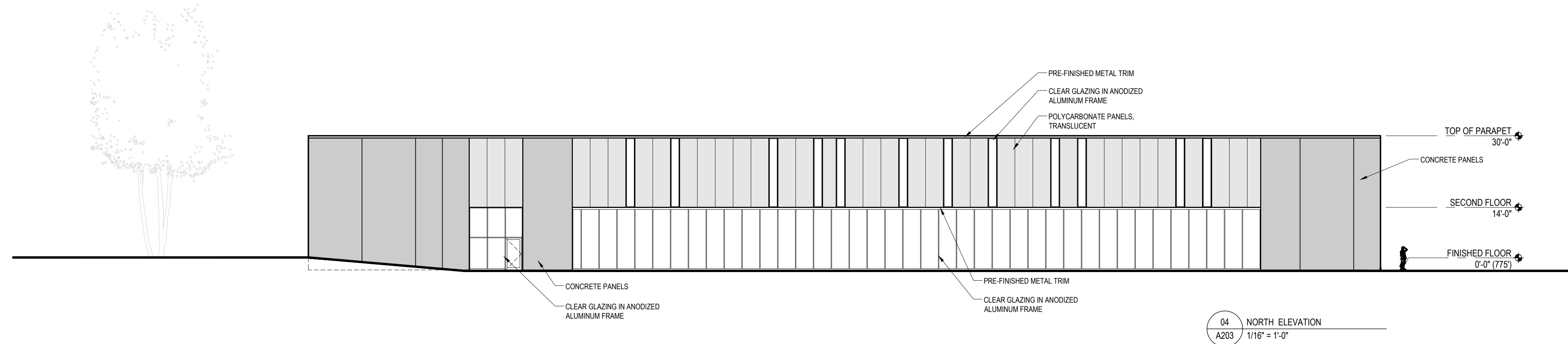


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SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK	EK	

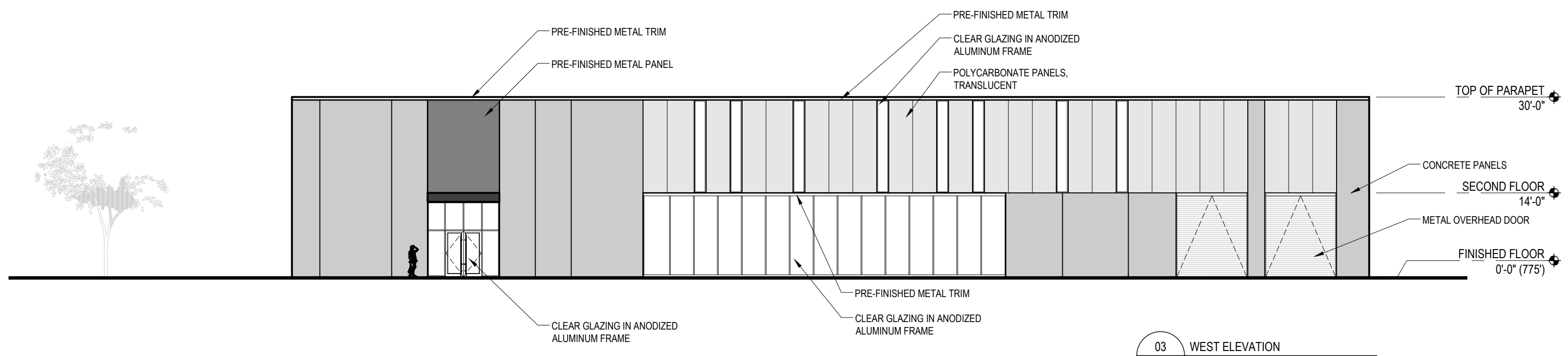
PROJECT
ROCHESTER HILLS
RESEARCH PARK
DEREK GENTILE
 1400 SOUTH LIVERNOIS
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SHEET TITLE
ELEVATIONS
BUILDING #3

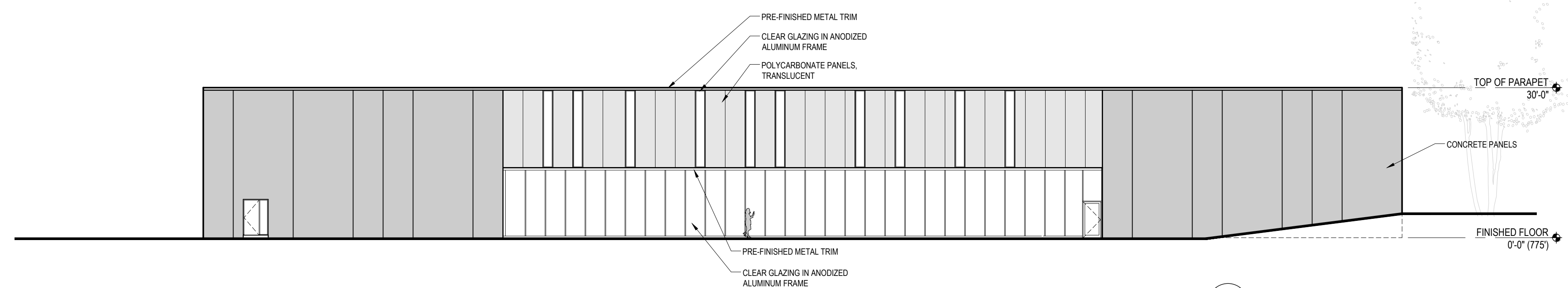
STAMPS
 PROJECT NO. 2814.00
A-202
 SHEET NO.



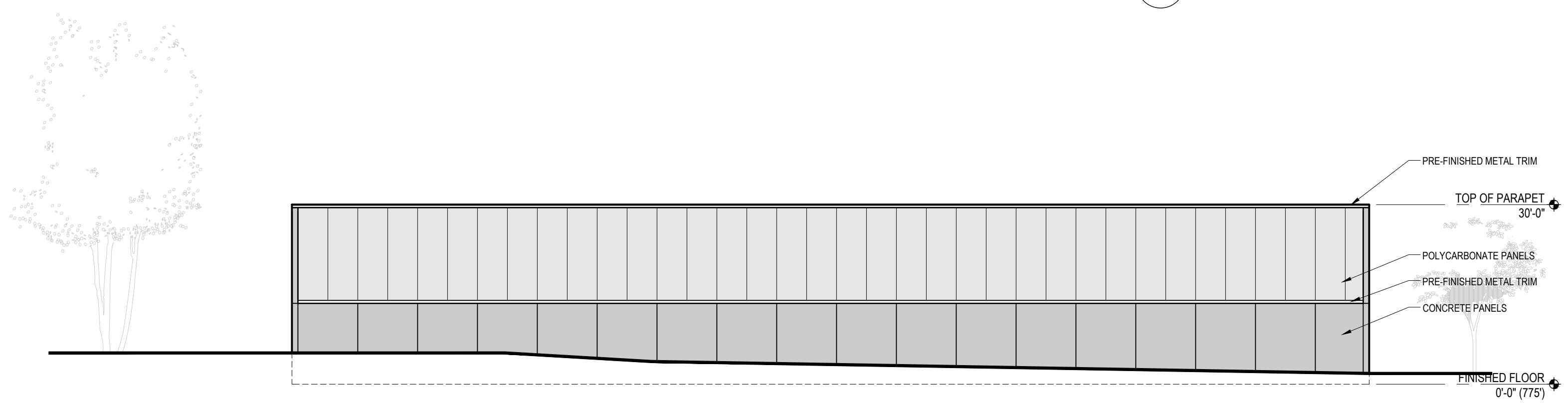
04 NORTH ELEVATION
A203 / 1/16" = 1'-0"



03 WEST ELEVATION
A203 / 1/16" = 1'-0"



02 SOUTH ELEVATION
A203 / 1/16" = 1'-0"



01 EAST ELEVATION
A203 / 1/16" = 1'-0"

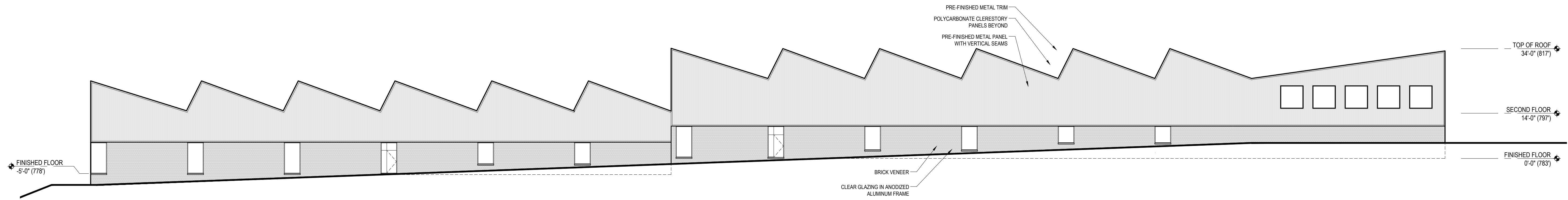
ISSUANCE	DATE	DRAWN	CHECKED	CONSULTANT
SITE PLAN REVIEW RESPONSE #01	04.23.2021	EK	EK	
SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK	EK	

PROJECT
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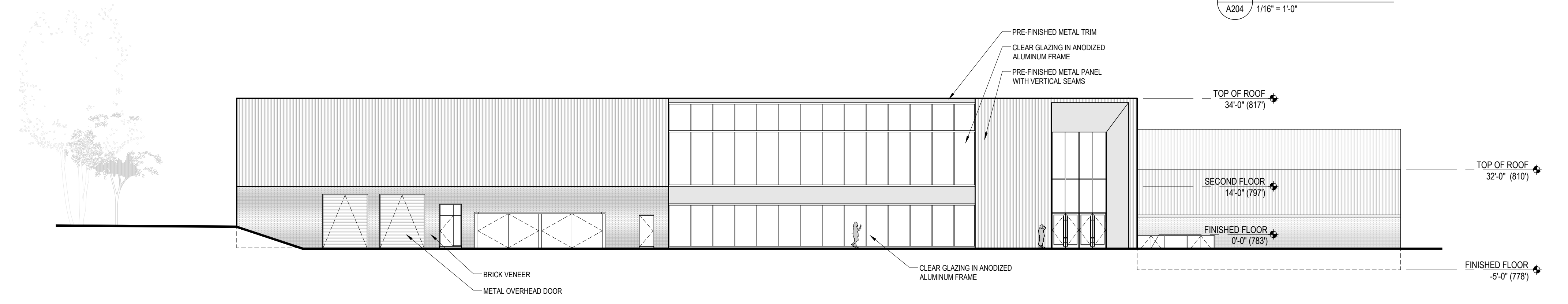
SHEET TITLE
**ELEVATIONS
BUILDING #4**

STAMPS
PROJECT NO. 2814.00
SHEET NO. **A-203**

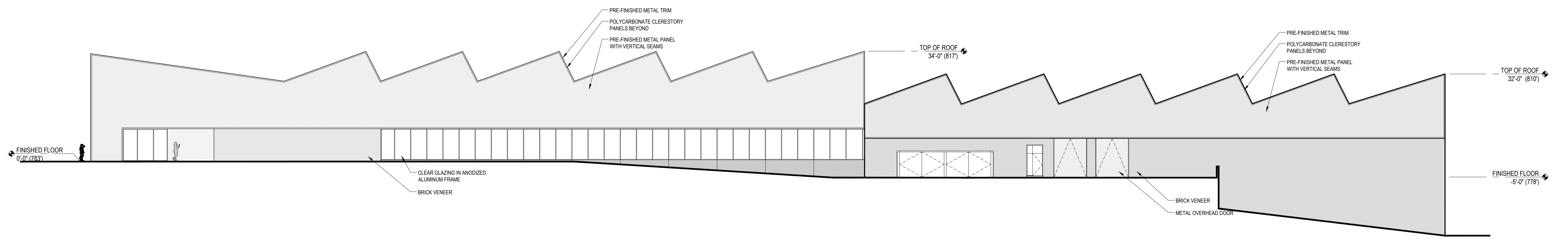
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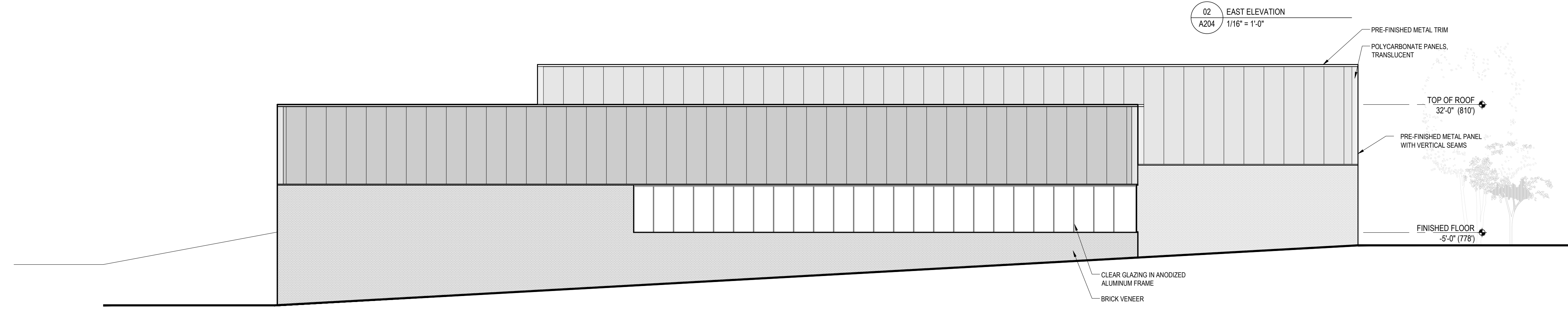
04 WEST ELEVATION
A204 1/16" = 1'-0"



03 SOUTH ELEVATION
A204 1/16" = 1'-0"



02 EAST ELEVATION
A204 1/16" = 1'-0"



01 NORTH ELEVATION
A204 1/16" = 1'-0"

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07.22.2021	EK	EK

ISSUANCE	DATE	DESCRIPTION
SITE PLAN REVIEW RESPONSE #01	04.23.2021	EK
SITE PLAN REVIEW RESPONSE #02	07.22.2021	EK

PROJECT
**ROCHESTER HILLS
RESEARCH PARK**
DEREK GENTILE
1400 SOUTH LIVERNOIS
ROCHESTER HILLS, MI 48307

SHEET TITLE
**ELEVATIONS
BUILDING #5**

STAMPS
PROJECT NO. 2814.00

A-204
SHEET NO.