

RENOVATION OF 3945 S. STATE ST.

3945, 3949, 3953, AND 3957 S. STATE ST, ANN ARBOR, WASHTENAW COUNTY

SITE PLANS

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 OF THE 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.



LOCATION MAP
NOT TO SCALE

OWNER:
JAG BRIARWOOD LLC
4779 COLLINS AVE
SUITE 4301
MIAMI BEACH, FL 33140
CONTACT: JACK SCHWARCZ

ARCHITECT:
J BRADLEY MOORE &
ASSOCIATES ARCHITECTS, INC.
4844 JACKSON RD., SUITE 150
ANN ARBOR, MI 48103
PHONE: 734-930-1500
CONTACT: BRAD MOORE

APPLICANT:
SCL, INC.
26140 RAINE ST.
OAK PARK, MI 48237
CONTACT: JACK SCHWARCZ

SURVEYOR/ENGINEER:
ALPINE ENGINEERING, INC.
46892 WEST ROAD, SUITE 109
NOVI, MI 48377
PHONE: (248) 926-3701
FAX: (248) 926-3765
CONTACT: SHILOH DAHLIN

LANDSCAPE ARCHITECT:
ALLEN DESIGN
557 CARPENTER
NORTHVILLE, MI 48167
PHONE: (248) 467-4668
CONTACT: JIM ALLEN

PROJECT TYPE:
RENOVATION OF AN EXISTING COMMERCIAL BUILDING TO ADD A DRIVE-THRU.

SITE DATA COMPARISON CHART:

ITEM	EXISTING	REQUIRED	MAXIMUM	PROPOSED
SITE AREA				
GROSS	±1.00 ACRES			±1.00 ACRES
STATE STREET RIGHT-OF-WAY	±0.09 ACRES	6,000 SF		±0.09 ACRES
NET	±0.91 ACRES (39,428 SF)			±0.91 ACRES (39,428 SF)
ZONING	C3			C3
PROPOSED USE	COMMERCIAL (RESTAURANT/RETAIL)			COMMERCIAL (RESTAURANT/RETAIL) PROPOSED DRIVE-THRU FOR BUILDING #2
TOTAL AREA OF BUILDINGS				
BUILDING #1 FOOTPRINT (3945 S. STATE ST.)	1,900 SF			1,900 SF
BUILDING #2 FOOTPRINT (3949, 3953, & 3957 S. STATE ST.)	5,695 SF			4,311 SF
TOTALS	7,595 SF			6,211 SF
FLOOR AREA RATIO	$= (7,595 / 39,428) \times 100 = 19.3\%$		200%	$= (6,211 / 39,428) \times 100 = 15.8\%$
OPEN SPACE	5,046 SF	NONE		4,660 SF
HEIGHT OF BUILDINGS				
BUILDING #1 HEIGHT (3945 S. STATE ST.)	25 FT - 8 INCHES		55 FT (4 STORIES)	NO CHANGE PROPOSED
BUILDING #2 HEIGHT (3949, 3953, & 3957 S. STATE ST.)	39 FT - 5 1/2 INCHES		55 FT (4 STORIES)	NO CHANGE PROPOSED
SETBACKS				
BUILDING #1 (3945 S. STATE ST.)				
FRONT	22 FT	10 FT	25 FT	NO CHANGE PROPOSED
SIDE	13 FT (NORTH) / 45 FT (SOUTH)	NONE	NONE	NO CHANGE PROPOSED
REAR	374 FT	NONE	NONE	NO CHANGE PROPOSED
BUILDING #2 (3949, 3953, & 3957 S. STATE ST.)				
FRONT	232 FT	10 FT	25 FT	NO CHANGE PROPOSED
SIDE	5 FT (NORTH) / 44 FT (SOUTH)	NONE	NONE	13 FT (NORTH) / NO CHANGE PROPOSED FOR SOUTH SIDE
REAR	73 FT	NONE	NONE	NO CHANGE PROPOSED
PARKING REQUIRED (AUTOMOTIVE)				
RESTAURANT	19 SPACES	1 FOR EACH 100 SF OF FLOOR AREA = 19 SPACES	1 FOR EACH 100 SF OF FLOOR AREA = 19 SPACES	19 SPACES
RETAIL	20 SPACES	1 FOR EACH 310 SF OF FLOOR AREA = 14 SPACES	1 FOR EACH 265 SF OF FLOOR AREA = 16 SPACES	17 SPACES
TOTAL PARKING REQUIRED		32 SPACES	34 SPACES	
TOTAL PARKING PROVIDED	39 SPACES			36 SPACES [INCLUDING 2 ADA AND 8 ELECTRIC VEHICLES (4 EV-INSTALLED AND 4 EV-CAPABLE)]
PARKING REQUIRED (BICYCLE)				
RESTAURANT	3 SPACES	1 FOR EACH 750 SF = 3 SPACES		3 SPACES
RETAIL	1 SPACE	1 FOR EACH 3,000 SF = 1 SPACE		1 SPACE
TOTAL BICYCLE PARKING REQUIRED	4 SPACES			4 SPACES
BICYCLE PARKING PROVIDED	6 SPACES			6 SPACES

STATEMENT OF INTEREST IN LAND:

THE APPLICANT IS THE OWNER OF THE LAND.

LEGAL DESCRIPTION:

COMMENCING AT A POINT IN THE SOUTHWEST 1/4 OF SECTION 9, TOWN 3 SOUTH, RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN, WHICH POINT IS DISTANT NORTH 247.5 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 9, RUNNING THENCE EAST 528.00 FEET; THENCE NORTH 82.5 FEET; THENCE WEST 528.00 FEET; THENCE SOUTH 82.5 FEET TO THE PLACE OF BEGINNING, EXCEPTING AND RESERVING THE USE OF THE WEST 83.00 FEET AND THE EAST 30.00 FEET THEREOF FOR HIGHWAY AND PUBLIC UTILITY PURPOSES, ALSO KNOWN AS PARCEL 4 OF THE JOHN LAWRENCE FARM.

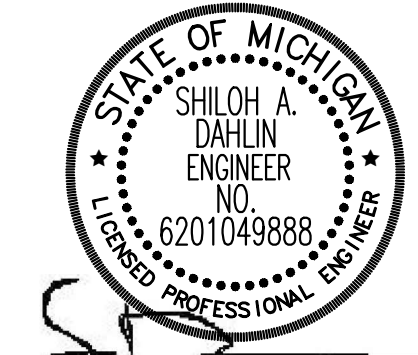
TOTAL ACREAGE: ±1.00 ACRES

REQUIRED STATEMENTS FOR SITE PLAN REVIEW:

- APPLICATION IDENTIFICATION
- i- SPECIAL EXCEPTION USE IS REQUIRED FOR THE ADDITION OF THE DRIVE-THRU.
 - ii- IDENTIFICATION OF ASSOCIATED APPLICATIONS:
 - a) REZONING FROM RE TO O (MAY 2003)(ETRAKIT PROJECT #1209361.2)
 - b) REZONING FROM O TO C3 (JUNE 2013)(ETRAKIT PROJECT #213-003)
 - c) SITE PLAN APPROVED (JUNE 2013)(ETRAKIT PROJECT #SP12-027)
 - d) SITE PLAN APPROVED (OCTOBER 2014)(ETRAKIT PROJECT #SP14-045)
 - e) SITE PLAN APPROVED (JUNE 2017)(ETRAKIT PROJECT #SP16-118)
- PROPOSED DEVELOPMENT
- i- PROPOSED LAND USE: COMMERCIAL
 - ii- PROPOSED IMPROVEMENTS: EXISTING BUILDING IS PROPOSED TO BE RECONSTRUCTED TO ALLOW SPACE FOR A DRIVE-THRU. ADA PARKING WILL BE RELOCATED. PARKING AND SITE ACCESS TO REMAIN.
 - iii- CONSTRUCTION IS PROPOSED IN ONE PHASE.
 - iv- ESTIMATED CONSTRUCTION COSTS: \$69,000 (CIVIL SITE WORK)
- COMMUNITY ANALYSIS
- i- IMPACT ON SCHOOLS: NO IMPACT ON PUBLIC SCHOOLS IS ANTICIPATED.
 - ii- RELATIONSHIP OF INTENDED USE TO NEIGHBORING USES: SURROUNDING USES ARE OF SIMILAR NATURE.
 - iii- IMPACT OF ADJACENT USES ON PROPOSED DEVELOPMENT: NONE ARE ANTICIPATED.
 - iv- IMPACT OF PROPOSED DEVELOPMENT ON THE AIR AND WATER QUALITY AND ON EXISTING NATURAL FEATURES OF THE SITE AND NEIGHBORING SITES: NONE ARE ANTICIPATED.
 - v- IMPACT OF THE PROPOSED USE ON HISTORIC SITES OR STRUCTURES WHICH ARE LOCATED WITHIN A HISTORIC DISTRICT OR LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES: NONE ARE ANTICIPATED.
 - vi- TRAFFIC STATEMENT: THE NUMBER OF VEHICLE TRIPS PER UNIT PER PEAK HOUR AND SUPPORTING DOCUMENTATION FROM THE ITE MANUAL: REFER TO THE TRAFFIC IMPACT STATEMENT PROVIDED WITH THIS SITE PLAN SUBMITTAL PACKAGE. (RECEIVED MARCH 2022 AND PREPARED BY MIDWESTERN CONSULTING).
 - vii- PUBLIC SIDEWALK MAINTENANCE STATEMENT: THE PUBLIC SIDEWALK IS EXISTING. REFER TO NOTE #5 ON SHEET C-3.
 - viii- ADDITIONAL INFORMATION FOR SITE PLANS: THE SITE IS CURRENTLY DEVELOPED. PAVING CONSISTS OF PERMEABLE PAVERS WITH LANDSCAPED PARKING ISLANDS. NEW CONSTRUCTION WILL INCLUDE PERMEABLE PAVERS. LANDSCAPE ISLANDS TO REMAIN AS INDICATED ON THE LANDSCAPE PLAN.

SHEET INDEX:

ALPINE ENGINEERING, INC.	C-1	COVER SHEET
	C-2	ALTA/NPS LAND TITLE SURVEY AND DEMOLITION PLAN
	C-3	DIMENSIONAL LAYOUT PLAN
	C-4	PRELIMINARY ENGINEERING PLAN
	C-5	PRELIMINARY STORM WATER MANAGEMENT PLAN
	C-6A	TRUCK CIRCULATION PLAN - GARBAGE TRUCK
	C-6B	TRUCK CIRCULATION PLAN - FIRE TRUCK
ALLEN DESIGN	L-1	LANDSCAPE PLAN
GASSER BUSH	P-1	PHOTOMETRICS PLAN



ALPINE ENGINEERING, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 46892 WEST ROAD
 SUITE 109
 NOVI, MICHIGAN 48377
 (248) 926-3701 (BUS)
 (248) 926-3765 (FAX)
 WWW.ALPINE-INC.NET



CLIENT: JACK SCHWARCZ
COVER SHEET
 RENOVATION OF 3945 S. STATE STREET
 TOWNSHIP: 3 S
 ANN ARBOR
 WASHTENAW COUNTY
 MICHIGAN
 SECTION: 9
 RANGE: 6 E

REVISED

05-16-2023	SUBMITTAL
04-25-2023	SUBMITTAL
02-16-2023	SUBMITTAL
08-17-2022	SUBMITTAL
05-04-2022	SUBMITTAL
04-19-2022	SUBMITTAL
03-25-2022	SUBMITTAL

DATE: 11-17-2021

DRAWN BY: SD

CHECKED BY: TG

FBK: 384

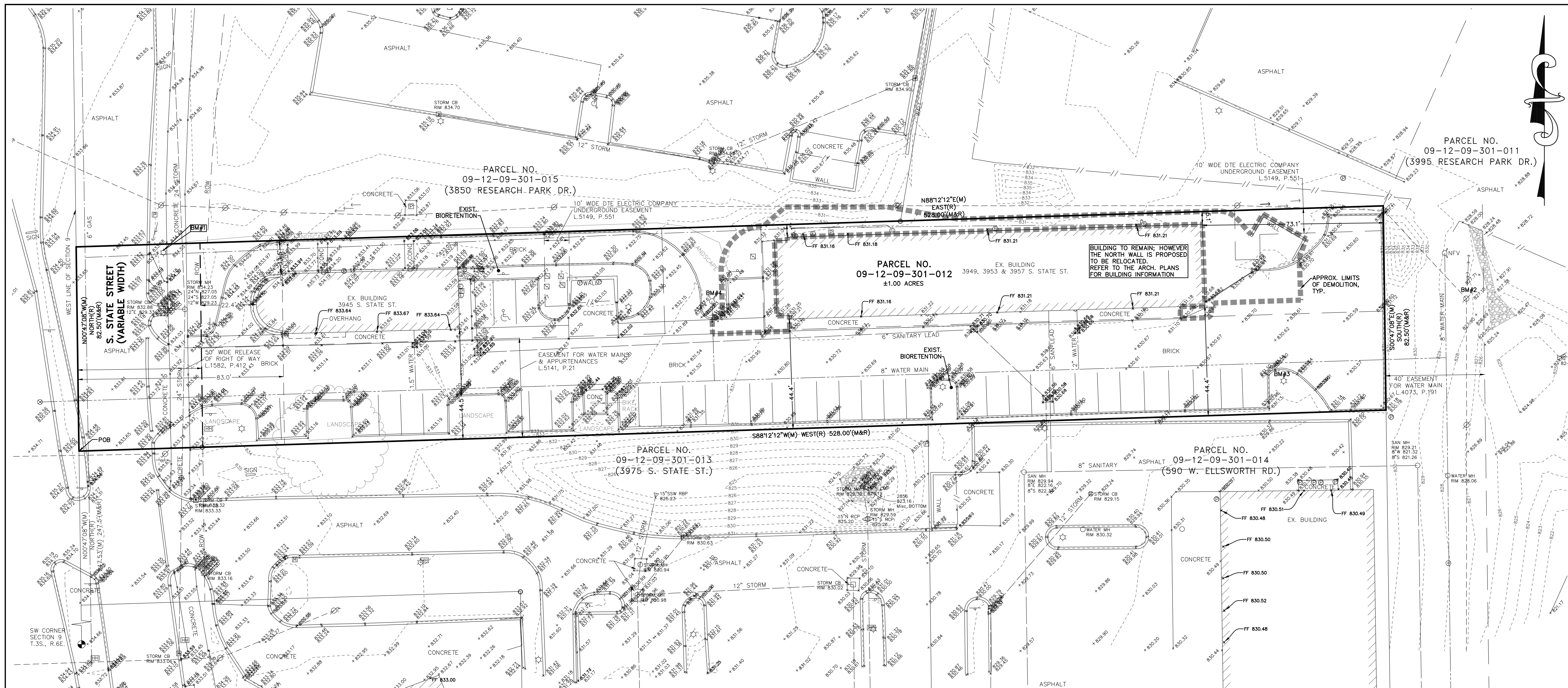
CHF: RDF

SCALE: HOR 1" = 20 FT. VER 1" = 10 FT.

C-1

21-409

NOT FOR CONSTRUCTION



DEMOLITION NOTES:

- DEMOLITION PLAN IS FOR GENERAL INFORMATION PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND COORDINATING WITH OWNER TO DETERMINE DETAILED DEMOLITION REQUIREMENTS.
- CONTRACTOR TO COORDINATE WITH FRANCHISE UTILITY COMPANIES AND/OR CITY AND COUNTY DEPARTMENTS FOR REMOVAL AND/OR RELOCATION OF METER BOXES, UTILITY POLES, UNDERGROUND LINES, ABOVE GROUND LINES, ETC., AS NECESSARY.
- REMOVE EXISTING BUILDING WALLS, FLOOR SLABS, AND FOUNDATION AS DIRECTED BY THE GEOTECHNICAL ENGINEER. BACKFILL THE OPENING WITH SUITABLE MATERIAL TO CARRY BUILDING/PARKING LOT LOADS.
- REMOVE OR GROUT IN PLACE, AS DIRECTED BY THE FIELD INSPECTOR, EX. SEWERS AND/OR MAINS TO BE ABANDONED AS NECESSARY.
- CONTACT OWNER FOR ENVIRONMENTAL REPORT FOR ANY ENVIRONMENTAL CONCERNS.
- CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.
- CONTRACTOR TO PROTECT EX. WALKS, POSTS, CONDUITS, PAVEMENT, CURBS, GUTTER, WALLS, BUILDINGS, FENCES, LANDSCAPING, TREES, ETC. TO REMAIN DURING CONSTRUCTION. CONTRACTOR TO COORDINATE REPLACEMENT OF LANDSCAPING, ETC. WITH THE OWNER.
- PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EX. UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR ON THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND THE REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.
- CONTRACTOR TO COORDINATE WITH THE ADJACENT LAND OWNERS AS REQUIRED.
- FIELD VERIFY EXISTING PAVEMENT AND CURB ELEVATIONS WHERE PROPOSED PAVEMENT AND CURB MEETS EXISTING PAVEMENT AND CURB. PAVING CONTRACTOR SHALL TAKE EXTRA CARE TO ENSURE PAVEMENT SLOPES AWAY FROM BUILDINGS. THE PARKING LOT IS DESIGNED AS PERMEABLE PAVEMENT. CONTRACTOR TO FOLLOW BEST PRACTICES TO ENSURE THE PERMEABLE PAVEMENT FUNCTIONS AS DESIGNED.
- CONTRACTOR TO ESTABLISH NEW BENCHMARKS, IF NECESSARY PRIOR TO DEMOLITION WORK.
- CONTRACTOR TO COORDINATE OBTAINING RIGHT-OF-WAY PERMITS FOR WORK WITHIN THE ROW AS NECESSARY.

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EXCEPTIONS:

- PER ATA NATIONAL TITLE GROUP FILE NO. 81-21788504-SCM, DATED JUNE 22, 2021.
- MORTGAGE EXECUTED BY JAG BRIARWOOD, L.L.C., A MICHIGAN LIMITED LIABILITY COMPANY TO INDEPENDENT BANK DATED MAY 17, 2017 AND RECORDED JUNE 20, 2017 IN LIBER 5211, PAGE 444, WASHTENAW COUNTY RECORDS. **AFFECTS, NOTHING TO PLOT**
 - ASSIGNMENT OF LEASES AND RENTS EXECUTED BY JAG BRIARWOOD, L.L.C., A MICHIGAN LIMITED LIABILITY COMPANY TO INDEPENDENT BANK DATED MAY 17, 2017 AND RECORDED JUNE 20, 2017 IN LIBER 5211, PAGE 445, WASHTENAW COUNTY RECORDS. **AFFECTS, NOTHING TO PLOT**
 - MORTGAGE EXECUTED BY JAG BRIARWOOD, L.L.C., A MICHIGAN LIMITED LIABILITY COMPANY TO INDEPENDENT BANK DATED JUNE 24, 2019 AND RECORDED JULY 2, 2019 IN LIBER 5309, PAGE 758, WASHTENAW COUNTY RECORDS. **AFFECTS, NOTHING TO PLOT**
 - ASSIGNMENT OF LEASES AND RENTS EXECUTED BY JAG BRIARWOOD, L.L.C., A MICHIGAN LIMITED LIABILITY COMPANY TO INDEPENDENT BANK DATED JUNE 24, 2019 AND RECORDED JULY 2, 2019 IN LIBER 5309, PAGE 759, WASHTENAW COUNTY RECORDS. **AFFECTS, NOTHING TO PLOT**
 - HIGHWAY EASEMENT RELEASE TO MICHIGAN STATE HIGHWAY DEPARTMENT RECORDED IN LIBER 609, PAGE 489, WASHTENAW COUNTY RECORDS. **DOES NOT AFFECT**
 - RELEASE OF RIGHT OF WAY TO THE BOARD OF COUNTY ROAD COMMISSIONERS RECORDED IN LIBER 1582, PAGE 412, WASHTENAW COUNTY RECORDS. **AS SHOWN HEREON**
 - EASEMENT FOR WATER MAINS AND APPURTENANCES PURPOSES VESTED IN CITY OF ANN ARBOR BY INSTRUMENT RECORDED IN LIBER 5141, PAGE 21, WASHTENAW COUNTY RECORDS. **AS SHOWN HEREON**
 - DTE ELECTRIC COMPANY UNDERGROUND EASEMENT RECORDED IN LIBER 5149, PAGE 551, WASHTENAW COUNTY RECORDS. **AS SHOWN HEREON**

NOTES:

- ALL WORK TO CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF CITY, COUNTY, AND STATE.
- CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
- BEARINGS BASED ON MICHIGAN STATE PLANE COORDINATES, NAD83 MICHIGAN SOUTH ZONE.

LEGEND:

□	EX. CATCH BASIN	---	EX. WATER MAIN
○	EX. MANHOLE	---	EX. ELECTRIC CABLE
◇	EX. END SECTION	---	EX. COMMUNICATION
⊕	EX. OVERFLOW STRUCTURE	---	EX. GAS LINE
⊖	EX. DOWNSPOUT/ROOF DRAIN	---	EX. OVERHEAD LINE
⊙	EX. CLEANOUT	⊙	EX. SIGN
⊗	EX. WATER GATE VALVE	⊕	EX. POST/BOLLARD
⊘	EX. HYDRANT	⊖	EX. FLAGPOLE
⊙	EX. WATER VALVE	⊗	EX. SATELLITE DISH
⊘	EX. WATER SHUTOFF	⊘	EX. BOULDER
⊙	EX. FIRE DEPT. CONNECTION	⊙	EX. TREE STUMP
⊗	EX. GAS SHUTOFF	⊗	EX. PARKING METER
⊘	EX. GAS VENT	⊘	EX. UTILITY MARKER
⊙	EX. ELECTRIC/GAS METER	⊙	EX. SOIL BORING
⊗	EX. HANDHOLE	⊗	EX. MAILBOX
⊘	EX. PEDESTAL	⊘	EX. GENERATOR
⊙	EX. TRANSFORMER	⊙	EX. MONITOR WELL
⊗	EX. LIGHTPOLE	⊗	EX. AIR CONDITIONER
⊘	EX. UTILITY POLE	⊘	EX. TRAFFIC SIGNAL
⊙	EX. GUY ANCHOR	⊙	EX. FENCE
⊗	EX. TREE	F.F.	FINISH FLOOR ELEVATION
⊘	EX. TREE TAG & NUMBER	NFV	NOT FIELD VERIFIED
⊙	EX. TREE LINE	---	APPROX. LIMITS OF DEMOLITION. CONTRACTOR TO COORDINATE WITH THE OWNER AND ADJACENT PROPERTY OWNER(S) AS NECESSARY
⊗	EX. SANITARY SEWER		
⊘	EX. STORM SEWER		



BENCHMARKS:

- BM#1 - ARROW ON LIGHT POLE ON EAST SIDE OF STATE ST. NORTHERN PROPERTY LINE OF SUBJECT PARCEL. ELEVATION - 834.87 NAVD88
- BM#2 - SPIKE IN POWERPOLE ~33 FT. EAST OF EAST PROPERTY OF SUBJECT PARCEL. ELEVATION - 829.60 NAVD88
- BM#3 - CHISELED "X" ON NORTH SIDE LIGHT POLE BASE NEAR SOUTHEAST CORNER OF SITE. ELEVATION - 832.14 NAVD88
- BM#4 - ARROW ON HYDRANT IN CURB ISLAND JUST EAST OF DRIVE THRU ENTRANCE BETWEEN BUILDINGS. ELEVATION - 834.25 NAVD88

CERTIFICATION:

TO: JAG BRIARWOOD, L.L.C. & ATA NATIONAL TITLE GROUP, L.L.C.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS. THE FIELD WORK WAS COMPLETED ON 7-22-2021.

JOHN D. HEIKINEN DATE
PROFESSIONAL SURVEYOR NO. 4001047952
EMAIL: JOHN@ALPINE-INC.NET

COMMERCIAL
SITE PLANNING
SITE ENGINEERING
INDUSTRIAL & MULTI-UNIT
LAND SURVEYING
CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS
BOUNDARY SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPLITS

RESIDENTIAL
SUBDIVISIONS
SITE CONDOMINIUM
MULTI-FAMILY
LOT PLANS
CONSTRUCTION LAYOUT

ALPINE ENGINEERING INC.
CIVIL ENGINEERS & LAND SURVEYORS

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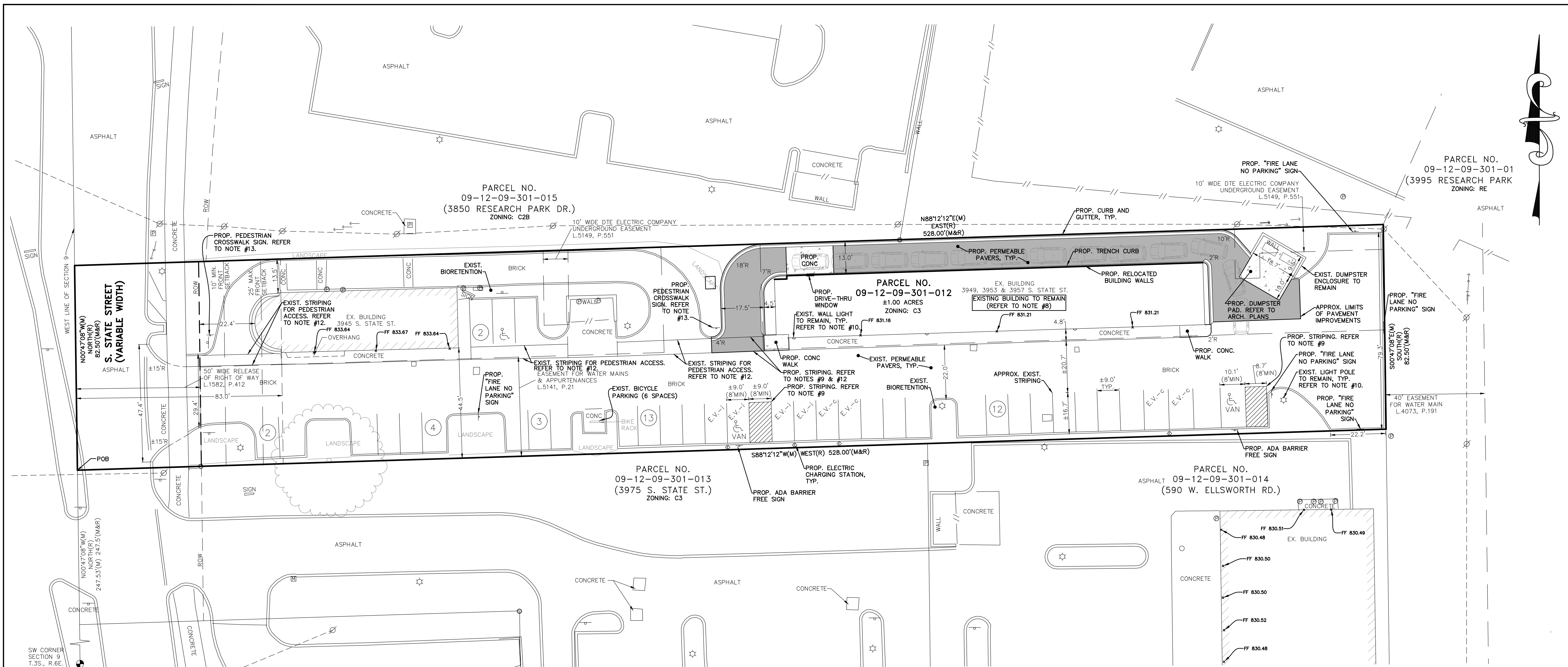
811
Know what's below
Call before you dig.

JACK SCHWARZC
ALTA/NSPS LAND TITLE SURVEY AND DEMOLITION PLAN
SECTION: 9
TOWNSHIP: 3 S
RANGE: 6 E
PITTSFIELD TOWNSHIP
WASHTENAW COUNTY
MICHIGAN

CLIENT: REVISED

08-17-2022	SUBMITTAL
04-19-2022	SUBMITTAL
03-25-2022	SUBMITTAL
DATE:	11-17-2021
DRAWN BY:	TJP
CHECKED BY:	JDH
SCALE:	HOR 1" = 20 FT. VER 1" = 10 FT.
FBK:	384
CHF:	RDF
21-409	C-2

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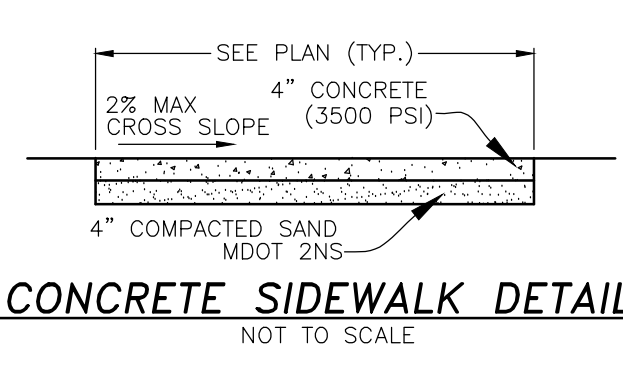
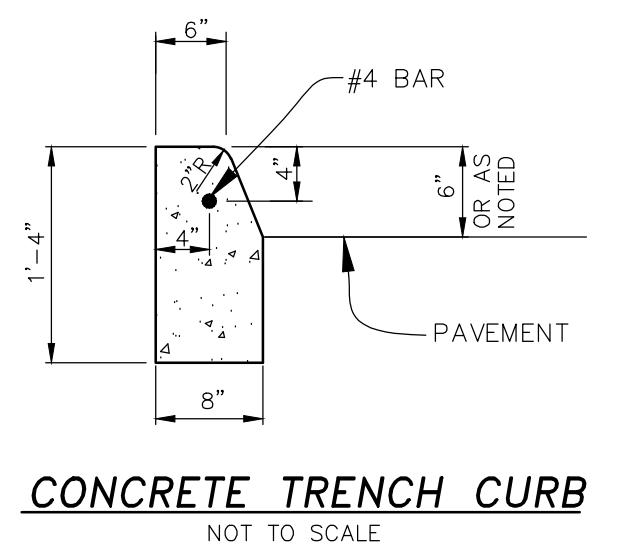
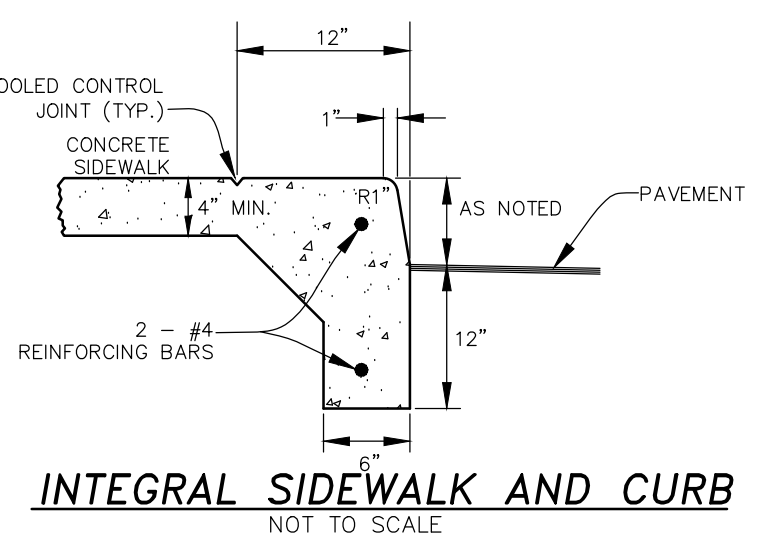
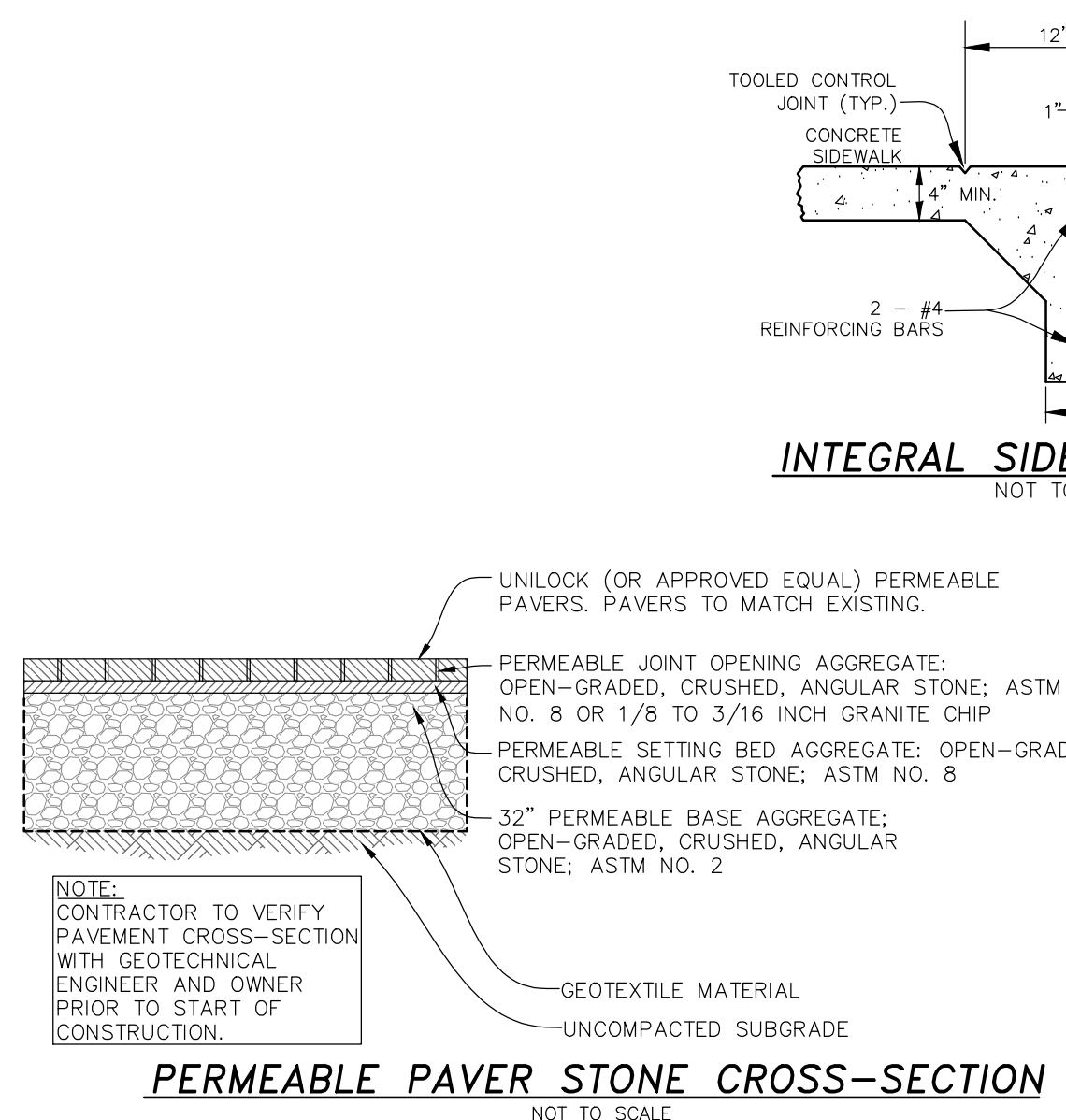
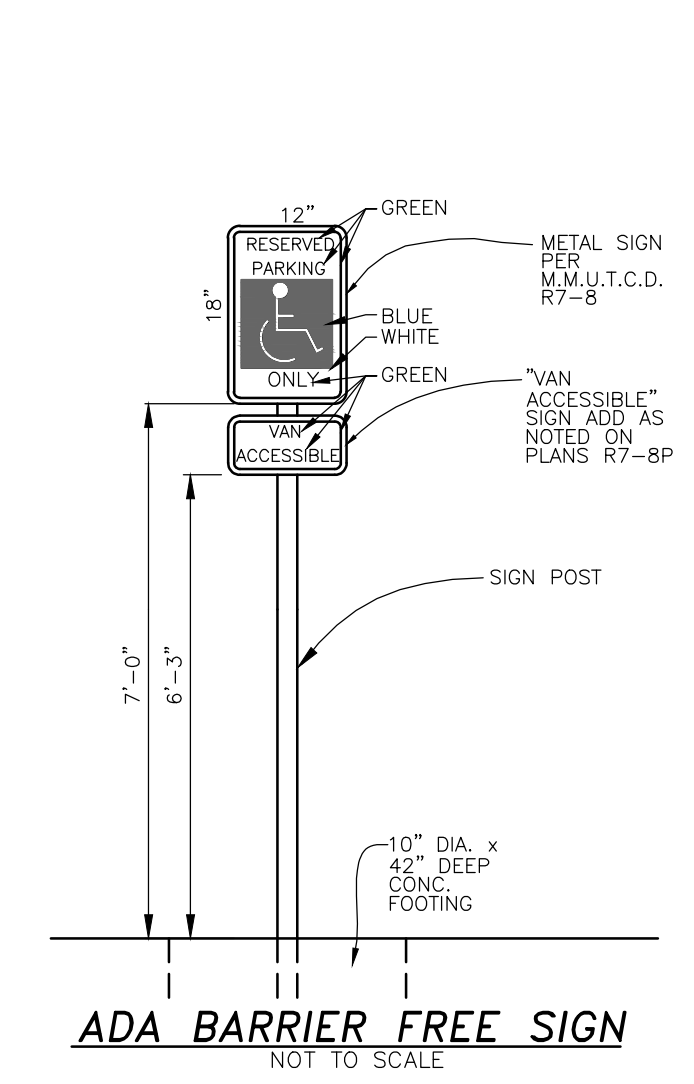
PARCEL NO.
09-12-09-301-01
(3995 RESEARCH PARK
ZONING: R)

PARCEL NO.
09-12-09-301-015
(3850 RESEARCH PARK DR.)
ZONING: C2B

PARCEL NO.
09-12-09-301-012
±1.00 ACRES
ZONING: C3

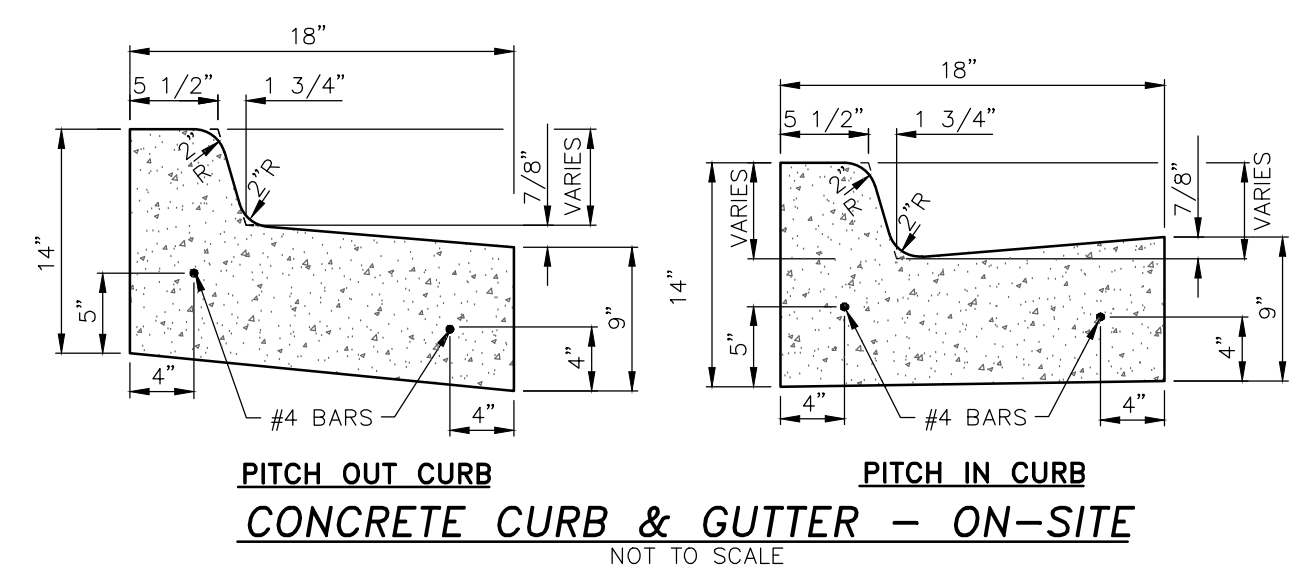
PARCEL NO.
09-12-09-301-013
(3975 S. STATE ST.)
ZONING: C3

PARCEL NO.
09-12-09-301-014
(590 W. ELLSWORTH RD.)



PERMEABLE PAVEMENT INSTALLATION AND MAINTENANCE

- INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.
- PERMEABLE PAVEMENTS REQUIRE REGULAR AND EFFECTIVE MAINTENANCE TO ENSURE PROLONGED FUNCTIONING.
 - ADJACENT AREAS THAT DRAIN TO THE PERMEABLE PAVEMENT AREA SHOULD BE PERMANENTLY STABILIZED AND MAINTAINED TO LIMIT THE SEDIMENT LOAD TO THE SYSTEM.
 - ANY USE OF SALT OR SAND FOR DE-ICING AND TRACTION IN THE WINTER SHOULD BE MINIMIZED.
 - VACUUM SWEEPING SHOULD BE TYPICALLY PERFORMED A MINIMUM OF TWICE A YEAR. ADJUST THE FREQUENCY IF NEEDED.



- NOTES:**
- ALL WORK TO CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF CITY, COUNTY, AND STATE.
 - CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
 - BUILDINGS TO UTILIZE EXISTING LEADS.
 - CONTRACTOR TO PLACE BOLLARDS PER ARCHITECTURAL DRAWINGS, IF ANY PROPOSED. CONTRACTOR TO VERIFY THAT ADA ACCESS IS NOT IMPACTED BY THE BOLLARDS.
 - ALL SIDEWALKS SHALL BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME. PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.
 - THE MAXIMUM LONGITUDINAL SLOPE ALONG THE ADA ACCESS ROUTE IS 5%. THE MAXIMUM CROSS-SLOPE OF THE ADA ACCESS ROUTE IS 2%.
 - ALL DIMENSIONS FROM BACK OF CURB TO BACK OF CURB UNLESS OTHERWISE NOTED.
 - EXISTING BUILDING TO REMAIN; HOWEVER THE NORTHERN BUILDING WALL TO BE RELOCATED 8' SOUTH TO ACCOMMODATE THE PROPOSED DRIVE-THRU. CONTRACTOR TO VERIFY DIMENSIONS OF ALL IMPROVEMENTS (WALLS, WINDOWS, DRIVE-THRU WINDOWS, DOORS, ETC.) WITH THE ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION.
 - EXISTING STRIPING IS ACCOMPLISHED WITH DIFFERENT COLOR PAWING STONES. CONTRACTOR TO ADJUST BRICKS AND/OR PAINT AS REQUIRED BY THE CITY INSPECTOR. CONTRACTOR TO VERIFY THE ADA PARKING SPACE/ACCESS AISLE MEET ADA DIMENSION REQUIREMENTS.
 - REFER TO THE PHOTOMETRICS PLAN PREPARED BY OTHERS.
 - REMOVAL AND RESTORATION OF THE EXISTING BIORETENTION AREAS, LIGHT POLES, AND PERMEABLE BRICK PAVERS LOCATED WITHIN THE PUBLIC UTILITY EASEMENT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER IN THE EVENT OF UTILITY MAIN MAINTENANCE, REPAIR, AND/OR REPLACEMENT.
 - CONTRACTOR TO APPLY HIGH VISIBILITY TRAFFIC STRIPING PAINT (RUST-OLEUM PROFESSIONAL TRAFFIC STRIPING PAINT (COLOR: TRAFFIC WHITE) OR SIMILAR) ON THE PAVERS CURRENTLY DEMARCATING THE PEDESTRIAN PATH AND THE PROPOSED PEDESTRIAN PATH. CONTRACTOR TO VERIFY THE PEDESTRIAN PATH (EXISTING/PROPOSED) MEETS ADA REQUIREMENTS.
 - CONTRACTOR TO PROVIDE PEDESTRIAN CROSSWALK SIGNS. R1-5b OR APPROVED EQUAL.

LEGEND:

	EX. HYDRANT
	EX. PEDESTAL
	EX. TRANSFORMER
	EX. LIGHTPOLE
	EX. UTILITY POLE
	EX. GUY ANCHOR
	EX. OVERHEAD LINE
	EX. SIGN
	EX. POST/BOLLARD
	EX. FLAGPOLE
	EX. MAILBOX
	EX. GENERATOR
	EX. MONITOR WELL
	EX. AIR CONDITIONER
	EX. TRAFFIC SIGNAL
	EX. FENCE
	FINISH FLOOR ELEV.
	PROP. CURB & GUTTER
	PROP. PERMEABLE PAVEMENT
	PROP. CONCRETE
	PROP. ELECTRIC CHARGING STATION
	PROP. PARKING SPACE FOR ELECTRIC VEHICLE
	EV-1: ELECTRIC VEHICLE INSTALLED
	EV-2: ELECTRIC VEHICLE READY
	EV-3: ELECTRIC VEHICLE CAPABLE

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 OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:
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DIMENSIONAL LAYOUT PLAN

RENOVATION OF 3945 S. STATE STREET
SECTION: 9
TOWNSHIP: 3 S
RANGE: 6 E
ANN ARBOR
WASHTENAW COUNTY
MICHIGAN

REVISED

05-16-2023	SUBMITTAL
04-25-2023	SUBMITTAL
02-16-2023	SUBMITTAL
08-17-2022	SUBMITTAL
04-19-2022	SUBMITTAL
03-25-2022	SUBMITTAL

DATE: 11-17-2021

DRAWN BY: SD

CHECKED BY: TG

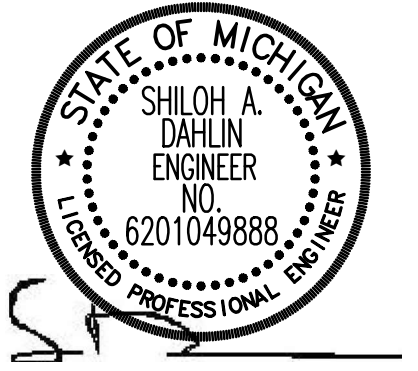
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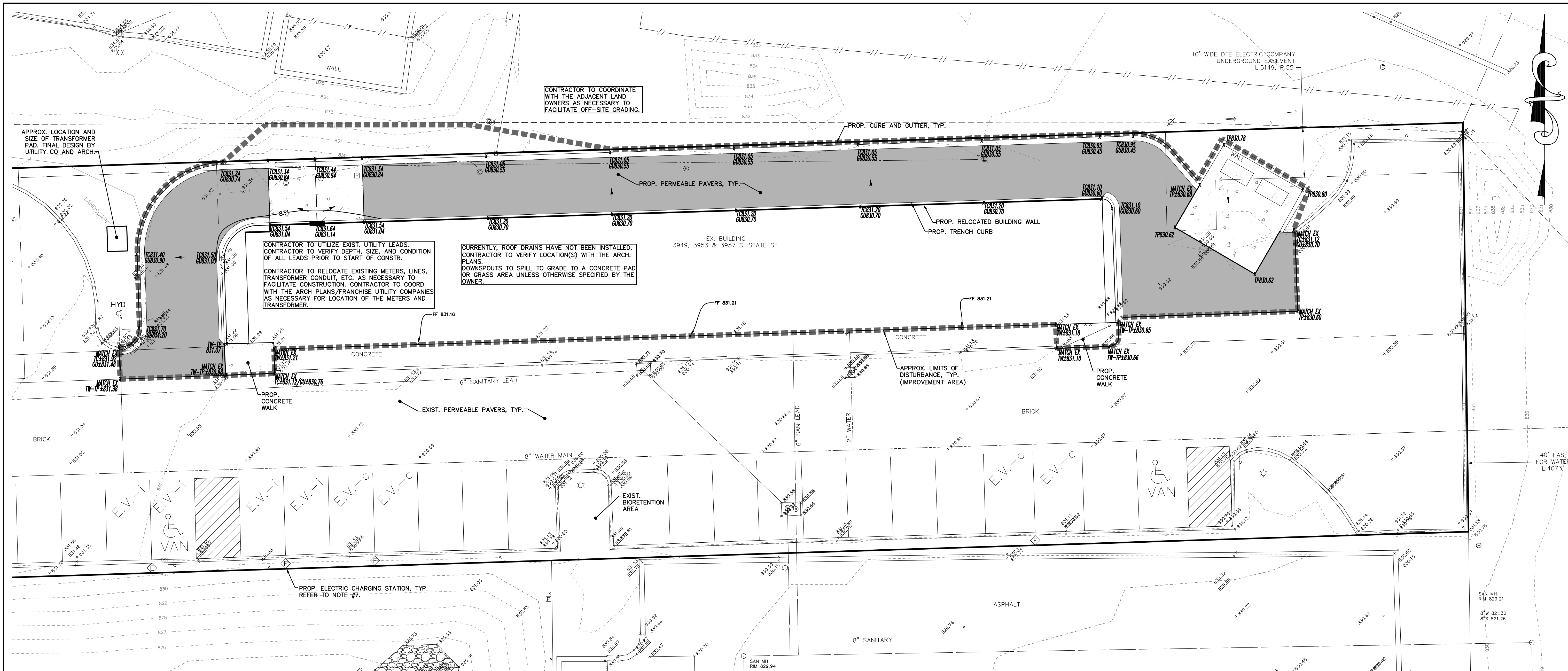
SCALE: HOR 1"=20 FT.
VER 1"=

C-3

21-409



NOT FOR CONSTRUCTION



- NOTES:**
- ALL WORK TO CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF CITY, COUNTY, AND STATE.
 - CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
 - CONTRACTOR TO PLACE BOLLARDS PER ARCHITECTURAL DRAWINGS, IF ANY PROPOSED. CONTRACTOR TO VERIFY THAT ADA ACCESS IS NOT IMPACTED BY THE BOLLARDS.
 - PER CHAPTER 49 OF THE CITY CODE, ALL SIDEWALKS SHALL BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME. PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.
 - THE MAXIMUM LONGITUDINAL SLOPE ALONG THE ADA ACCESS ROUTE IS 5%. THE MAXIMUM CROSS-SLOPE OF THE ADA ACCESS ROUTE IS 2%.
 - NO FIREWALLS EXIST OR ARE PROPOSED.
 - REMOVE AND REPLACE CURB/BRICK PAVERS/ETC AS NECESSARY TO FACILITATE UTILITY CONNECTION TO THE ELECTRIC CHARGING STATION. CROSS-SECTIONS TO MATCH EXISTING.

LEGEND:

○	EX. CATCH BASIN	○	EX. FLAGPOLE
○	EX. MANHOLE	○	EX. WATER WELL
○	EX. END SECTION	○	EX. SOIL BORING
○	EX. OVERFLOW STRUCTURE	○	EX. MAILBOX
○	EX. CLEANOUT	○	EX. GENERATOR
○	EX. WATER GATE VALVE	○	EX. MONITOR WELL
○	EX. HYDRANT	○	EX. AIR CONDITIONER
○	EX. WATER VALVE	○	EX. TRAFFIC SIGNAL
○	EX. WATER SHUTOFF	○	EX. FENCE
○	EX. FIRE DEPT. CONN.	○	F.F.
○	EX. GAS SHUTOFF	○	EXIST. FINISH FLOOR ELEV.
○	EX. GAS VENT	○	PROP. TOP OF CURB ELEV.
○	EX. ELECTRIC/GAS METER	○	PROP. TOP OF WALK ELEV.
○	EX. HANDHOLE	○	PROP. TOP OF PAVEMENT ELEV.
○	EX. PEDESTAL	○	PROP. SPOT ELEV.
○	EX. TRANSFORMER	○	PROP. DRAINAGE ARROW
○	EX. LIGHTPOLE	○	PROP. SILT FENCE
○	EX. UTILITY POLE	○	PROP. PERMEABLE PAVEMENT
○	EX. QUY ANCHOR	○	PROP. CONCRETE
○	EX. SANITARY SEWER	○	PROP. ELECTRIC CHARGING STATION
○	EX. STORM SEWER	○	PROP. PARKING SPACE FOR ELECTRIC VEHICLE CHARGING
○	EX. WATER MAIN	○	EV-I/ EV-II/ EV-C
○	EX. ELECTRIC CABLE	○	EV-I: ELECTRIC VEHICLE INSTALLED
○	EX. COMMUNICATION	○	EV-II: ELECTRIC VEHICLE READY
○	EX. GAS LINE	○	EV-C: ELECTRIC VEHICLE CAPABLE
○	EX. OVERHEAD LINE		
○	EX. SIGN		
○	EX. POST/BOLLARD		

- SOIL EROSION CONTROL NOTES**
- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY/COUNTY/STATE.
 - ALL TEMPORARY AND PERMANENT (POST CONSTRUCTION) SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM TO THE CITY/COUNTY/STATE.
 - THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
 - EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
 - EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
 - PERMANENT SOIL EROSION CONTROL MEASURES FOR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED.
 - ALL MUD/DIRT TRACKED ONTO EXISTING CITY/STATE ROADS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR/BUILDER.
 - CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. HE SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED.
 - STAGING THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
 - ESTIMATED COST OF THE SOIL EROSION AND SEDIMENTATION CONTROL METHODS IS \$3,000.

- MAINTENANCE REQUIREMENTS**
- INSPECTION & MAINTENANCE OF SOIL EROSION CONTROL MEASURES TO BE CONDUCTED ON A WEEKLY BASIS OR AS INDICATED BELOW, WHICHEVER IS SOONER.
- PERMEABLE PAVEMENT**
PERMEABLE PAVEMENT SHOULD BE SWEEP WEEKLY AND VACUUMED IMMEDIATELY AFTER THE SITE IS STABILIZED.
- SEEDING, SODDING & MULCHING**
SEED, SODDED OR MULCHED AREAS SHOULD BE CHECKED FOLLOWING EACH RAIN TO ENSURE THE MATERIAL IS STAYING IN PLACE. ADDITIONAL TACKLING MATERIALS OR NETTING MAY NEED TO BE APPLIED TO HOLD THE AFOREMENTIONED MATERIALS IN PLACE. MAINTENANCE PROCEDURES SHOULD ALSO BE FOLLOWED FOR THE BMP'S WHICH WERE IMPLEMENTED TO KEEP ERODED SOIL OR CONCENTRATED RUNOFF AWAY FROM THESE TARGET AREAS.

- SEQUENCE OF CONSTRUCTION**
- INSTALL CATCH BASIN INLET FILTERS ON EXISTING DRAINAGE STRUCTURES. INSTALL SILT FENCE. (SUMMER 2023)
 - DEMOLISH A PORTION OF THE EXISTING BUILDING (REFER TO THE ARCHITECTURAL PLANS)/CURB/PARKING LOT. (SUMMER 2023)
 - COMMENCE LAND BALANCE AND MASS GRADING OPERATIONS. STOCKPILES SHOULD BE LOCATED AWAY FROM EXISTING DRAINAGE FACILITIES INCLUDING THE PERMEABLE PAVEMENT. (SUMMER 2023)
 - INSTALL CURB & GUTTER AND PAVING INCLUDING THE PERMEABLE PAVEMENT SYSTEM. CONTRACTOR TO STABILIZE ANY AREAS DRAINING TO THE PROPOSED PERMEABLE PAVEMENT AREA PRIOR TO THE INSTALLATION OF THE PERMEABLE PAVERS. CONTRACTOR TO REFER TO THE MAINTENANCE REQUIREMENTS ABOVE AND THE DETAIL ON SHEET C-3 FOR ADDITIONAL INFORMATION. CURBING AND PAVERS SHALL BE IN PLACE PRIOR TO ANY VERTICAL CONSTRUCTION (SUMMER 2023)
 - BEGIN BUILDING RENOVATION. (SUMMER 2023)
 - INSTALL LANDSCAPING MATERIALS. SEED & MULCH OR SOD ALL DISTURBED AREAS. (FALL 2023)
 - REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT MEASURES ARE ESTABLISHED. (FALL 2023)

SANITARY SEWER FLOW MITIGATION CALCULATIONS:
CALCULATIONS PREVIOUSLY APPROVED BY THE S111-118 SITE PLAN (SHOWN BELOW) REFER TO THE PLANS PREPARED BY ATELIER ARCHITECTS, LLC AND REVISED PER MIDWESTERN CONSULTING LLC ON 2-14-2017 FOR ADDITIONAL INFORMATION.

SANITARY SEWER FLOW DATA AND CALCULATIONS:
PREVIOUSLY APPROVED

MAIN PIPE 8" PVC SDR 26

RETAIL BUILDING AREA + 5,635 SQFT
FLOW = 0.000000614 + 342 GPD (TABLE A)
RESTAURANT + 41 seats
FLOW = 4000 + 800 GPD (TABLE A)
TOTAL FLOW = 34200 + 1162 GPD

PEAK FLOW = 1162 GPD x 4 (PEAKING FACTOR) x 11 (SYSTEM RECOVERY FACTOR) = 513 GPD
PEAK FLOW = 513 GPD x 0.000000614 = 315 GALL/MIN

AVAILABLE CAPACITY OF 8" PIPE @ 0.6% SLOPE = 123 CFS @ PEAK FLOW 0.000000614 CFS

FOR PEAK FLOW = 315 GALL/MIN
USING 4 GPM/HOUR FOOTING DRAIN FLOW (VALUE BASED ON BMP FLOW MONITORING)
FOOTING DRAIN TO DISCONNECT = 180/4 = 0.99 x 100%
THE DEVELOPMENT WOULD REQUIRE TO DISCONNECT 1 (ONE) FOOTING DRAIN FROM THE SANITARY SEWER SYSTEM

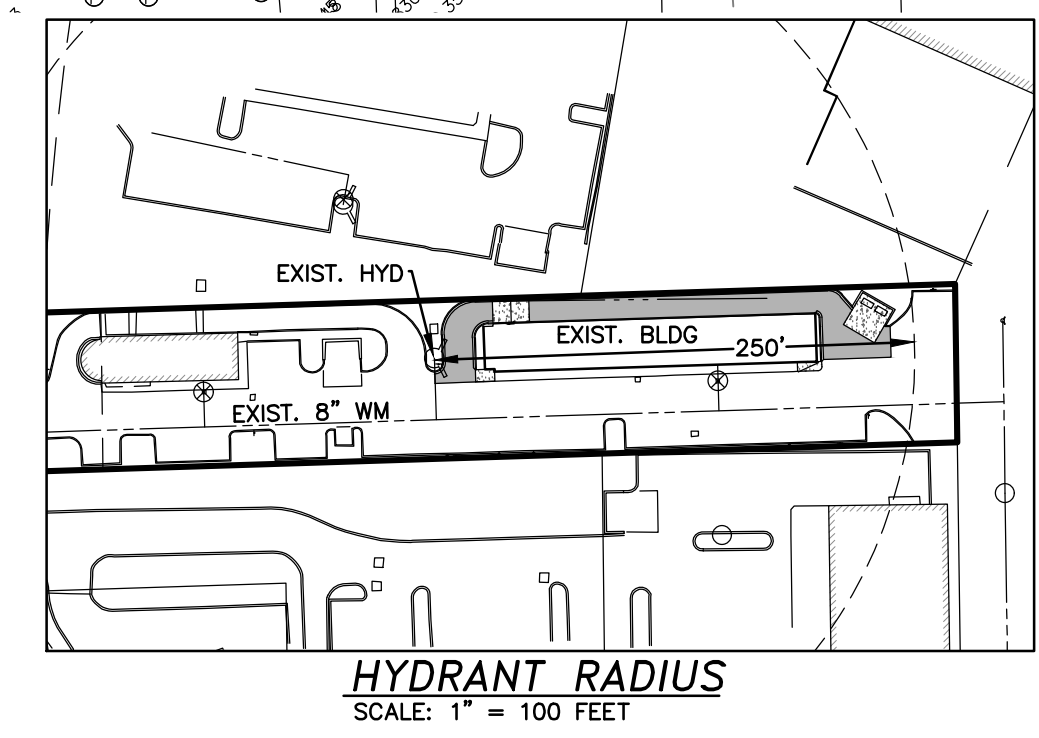
PROPOSED FLOWS:

BUILDING #1	Floor Area	1900	sf
3945 S. STATE ST. (JIMMY JOHN'S RESTAURANT)	Est. Number of Seats	41	seats
	Fast Food Restaurants and Coffee Shops	20	gpd/seat*
		= 41 seats x 20 gpd/seat =	820
			gpd
BUILDING #2	Floor Area	1322	sf
3949 S. STATE ST. (ASSUME NON-MEDICAL OFFICE SPACE)	Non-Medical Office Space	0.06	gpd/sf of gross floor area*
		= sf x 0.06 gpd/sf =	79
			gpd
3953 S. STATE ST. (ASSUME NON-MEDICAL OFFICE SPACE)	Floor Area	1383	sf
	Non-Medical Office Space	0.06	gpd/sf of gross floor area*
		= sf x 0.06 gpd/sf =	83
			gpd
3957 S. STATE ST. (ASSUME NON-MEDICAL OFFICE SPACE)	Floor Area	1220	sf
	Non-Medical Office Space	0.06	gpd/sf of gross floor area*
		= sf x 0.06 gpd/sf =	73
			gpd
	Total Proposed Design Flow =	1055	gpd
	Total Proposed Peak Flow =	4642	gpd
	= Total Designed Flow x 4.0 (peaking factor) x 1.1 (system recovery factor)		
	= 1 day/24 hours x 1 hour/60 minutes =	3.2	gpm

COMPARISON OF PREVIOUSLY APPROVED AND PROPOSED SANITARY SEWER PEAK FLOWS

Previously Approved:	3.6	gpm
Proposed:	3.2	gpm
	= 0.4	gpm

Reduction in estimated flow due to the proposed reduction in building #2's floor area.
No mitigation is required as part of this site plan.
*Table A from the "Sanitary Flow Offset Mitigation For Development" (Dated February 12, 2019)



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ESTIMATED EXCAVATION/FILL QUANTITIES
(SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATIONS FOR CUT AND FILL REQUIREMENTS. REFER TO NOTE #6 ON THE ALTA LAND SURVEY AND DEMOLITION PLAN)

EXCAVATION	FILL	NET
±19 CU. YD.	±0 CU. YD.	±19 CU. YD. (CUT)

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SURVEYING
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PRELIMINARY ENGINEERING PLAN

JACK SCHWARZ

3945 S. STATE STREET
ANN ARBOR
WASHTENAW COUNTY
MICHIGAN

SECTION: 9

TOWNSHIP: 3 S
RANGE: 6 E

CLIENT: _____

REVISED

02-16-2023 SUBMITTAL

08-17-2022 SUBMITTAL

04-19-2022 SUBMITTAL

03-25-2022 SUBMITTAL

DATE: 11-17-2021

DRAWN BY: SD

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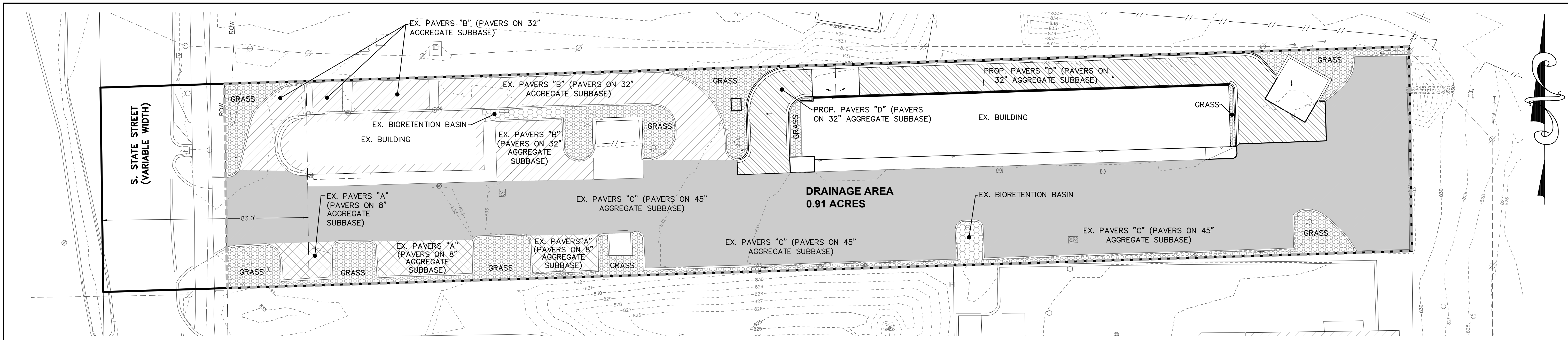
SCALE: HOR 1"=10 FT.
VER 1"=10 FT.

STATE OF MICHIGAN
SHILOH A. DAHLIN
ENGINEER
NO. 6201049888
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

C-4

21-409



STORM WATER MANAGEMENT NARRATIVE

THE SITE'S STORM WATER MANAGEMENT WAS PREVIOUSLY APPROVED [PLANS PREPARED BY ATELIER ARCHITECT, INC. AND REVISED PER MIDWESTERN CONSULTING LLC ON 2-14-2017]. A PORTION OF THE EXISTING BUILDING IS PROPOSED TO BE REMOVED TO CONSTRUCT THE DRIVE-THRU LANE. THE DRIVE-THRU LANE IS PROPOSED TO BE CONSTRUCTED WITH A PERVIOUS PAVEMENT CROSS-SECTION SIMILAR TO THE EXISTING PARKING LOT.

DETENTION REQUIREMENTS

W1
DETERMINING POST-DEVELOPMENT COVER TYPES, AREAS, CURVE NUMBERS, AND RUNOFF COEFFICIENTS

Total Site Area: 39.428 ac
Total Drainage area of AREA #1: 0.91 ac

Cover Type	Soil Type	Area (sf)	Area (ac)	Runoff Coefficient (c)	(c)(Area)
bldg/pvmt	n/a	10,249	0.24	0.95	0.22
perm. pvm	group B	24,510	0.56	0.85	0.48
grass	group B	4,669	0.11	0.25	0.03
Total:					0.91
Total - Σ(C)(Area) =					0.73
Total - Σac or Σsf =					0.91
Weighted C - Σ(C)(Area) / Σac or Σsf =					0.80

Pervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(c)(Area)
grass	Group B	4,669	0.11	61	6.71
Total:					0.11
Total - Σ(C)(Area) =					6.71
Total - Σac or Σsf =					0.11
Weighted C - Σ(C)(Area) / Σac or Σsf =					61

Impervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(c)(Area)
bldg/pvmt	n/a	10,249	0.24	98	23.52
perm. pvm	n/a	24,510	0.56	98	54.88
Total:					0.80
Total - Σ(C)(Area) =					78.40
Total - Σac or Σsf =					0.80
Weighted C - Σ(C)(Area) / Σac or Σsf =					98

W2
FIRST FLUSH - RATIONAL METHOD

First Flush Runoff Calculations (V_{ff})
V_{ff} = (1")² / (12")² (43560 ft² / 1ac) * A * C
V_{ff} = 2,629 cf

W3
STANDARD METHOD RUNOFF VOLUME CALCS - Pre-Development Bankfull Runoff Calculations (V_{bf-pre})

- A. 2 year/24 hour storm event, P P= 2.35 in
- B. The pre-development land cover will be Good Cover Woods or Meadow. Determine the associated soil hydrologic group for the entire site and choose the curve number. CN= 58
- C. S = (1000/CN) - 10 = 7.24
- D. Q = (P - 0.2")S² / (P + 0.8")S = 0.10
- E. Drainage area excluding "Self-Crediting" BMPs = 39,428 sf
- F. V_{bf-pre} = Q*(1 / 12)*Area = 328 cf

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SOIL INFORMATION:
REFER TO THE "REPORT ON SOI INVESTIGATION" PREPARED BY A&M CONSULTANTS AND DATED DECEMBER 5, 2011.

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.

NOTE:
1. INFORMATION REGARDING THE PAVEMENT CROSS-SECTIONS TAKEN FROM THE PREVIOUSLY APPROVED [PLANS PREPARED BY ATELIER ARCHITECT, INC. AND REVISED PER MIDWESTERN CONSULTING LLC ON 2-14-2017].

W4
STANDARD METHOD RUNOFF VOLUME CALCS - Post-Development Bankfull Runoff Calculations - Pervious (V_{bf-pervious-post})

- A. 2 year/24 hour storm event, P P= 2.35 in
- B. Pervious Cover CN from Worksheet 1 CN= 61
- C. S = (1000/CN) - 10 = 6.39
- D. Q = (P - 0.2")S² / (P + 0.8")S = 0.15
- E. Pervious Cover Area from Worksheet 1 = 4,669 sf
- F. V_{bf-perv-post} = Q*(1 / 12)*Area = 58 cf

W5
STANDARD METHOD RUNOFF VOLUME CALCS - Post-Development Bankfull Runoff Calculations - Impervious (V_{bf-imp-post})

- A. 2 year/24 hour storm event, P P= 2.35 in
- B. Impervious Cover CN from Worksheet 1 CN= 98
- C. S = (1000/CN) - 10 = 0.20
- D. Q = (P - 0.2")S² / (P + 0.8")S = 2.13
- E. Impervious Cover Area from Worksheet 1 = 34,759 sf
- F. V_{bf-imp-post} = Q*(1 / 12)*Area = 6,170 cf

W6
STANDARD METHOD RUNOFF VOLUME CALCS - Post-Development 100-Year Storm Runoff Calculations - Pervious (V_{100-pervious-post})

- A. 100 year/24 hour storm event, P P= 5.11 in
- B. Pervious Cover CN from Worksheet 1 CN= 61
- C. S = (1000/CN) - 10 = 6.39
- D. Q_{100-yr} = (P - 0.2")S² / (P + 0.8")S = 1.44
- E. Pervious Cover Area from Worksheet 1 = 4,669 sf
- F. V_{100-perv-post} = Q*(1 / 12)*Area = 560 cf

W7
STANDARD METHOD RUNOFF VOLUME CALCS - Post-Development 100-Year Storm Runoff Calculations - Impervious (V_{100-imp-post})

- A. 100 year/24 hour storm event, P P= 5.11 in
- B. Impervious Cover CN from Worksheet 1 CN= 98
- C. S = (1000/CN) - 10 = 0.20
- D. Q_{100-yr} = (P - 0.2")S² / (P + 0.8")S = 4.88
- E. Impervious Cover Area from Worksheet 1 = 34,759 sf
- F. V_{100-imp-post} = Q*(1 / 12)*Area = 14,135 cf

W8
Time of Concentration (T_{c-hrs})
Assume the time of concentration = 0.16 hours = 10 minutes

W9
Runoff Summary and On-site Infiltration Requirement

Runoff Summary from Previous Worksheets	Volume (cf)
First Flush Volume (V _{ff}) =	2,629 cf
Pre-Development Bankfull Runoff Volume (V _{bf-pre}) =	328 cf
Pervious Post-Development Bankfull Runoff Volume (V _{bf-perv-post}) =	58 cf
Impervious Post-Development Bankfull Runoff Volume (V _{bf-imp-post}) =	14,135 cf
Total BF Volume (V _{bf-post})(cf):	14,193
Pervious Post-Development 100-year Runoff Volume (V _{100-perv-post}) =	560 cf
Impervious Post-Development 100-year Runoff Volume (V _{100-imp-post}) =	14,135 cf
Total 100-Year Volume (V _{100-post})(cf):	14,695

W10
Detention / Retention Requirements

Detention	Volume (cf)
Peak of the Unit Hydrograph =	1072 cfs
Q _{0.5} = 238.6 * T _c ^{-0.82} =	
Drainage Area (ac) excluding "Self-Crediting" BMPs =	0.91 ac
Q ₁₀₀ = Q _{100-perv} + Q _{100-imp} =	6.32 in
Peak Flow (PF) = Q _{0.5} (cfs/in-mi) ² * Q ₁₀₀ (in) * Area(ac) =	9.58 cf
640 =	
Δ = PF(cfs) - 0.15 * Area(ac) =	9.45 cfs
V _{det} = Δ(cfs) * V ₁₀₀ (cf) =	14,487 cf
PF(cfs) =	
V_{det} Required:	14,487 cf

W11
Determine Applicable BMPs and Associated Volume Credits

Proposed BMP ^a	Area (ft ²)	Storage Volume ^b (ft ³)	Avg. Design Infiltration Rate ^c (in/hr)	Infiltration Volume during Storm ^d (ft ³)	Total Volume Reduction ^e (ft ³)
Pervious Pavement with Infiltration Bed	24,510	16,193	0.86	10,588	26,781
Infiltration Basin					
Subsurface Infiltration Bed					
Rain Garden/Bioretention					
Dry Well					
Bioswale					
Vegetated Filter Strip					
Green Roof					

^a Complete checklist from Chapter VI for each Structural BMP type
^b Storage volume as designed in individual BMP write-ups
^c REFER TO THE PERVIOUS PAVEMENT CALCULATIONS ON THIS SHEET
^d The Geotechnical Investigation Report indicates that the site's soils have an infiltration rate as follows: 0.86 in/hr
^e Approximated as the average design infiltration rate over 6 hours multiplied by the BMP area.
Infiltration Rate x 6 hours x BMP area X Unit Conversions = Infiltration Volume (ft³)
REFER TO THE PERVIOUS PAVEMENT CALCULATIONS ON THIS SHEET
^f Total Volume Reduction Credit is the sum of the Storage Volume and the Infiltration Volume During Storm

W12 - NOT USED
W13
Site Summary of Infiltration & Detention

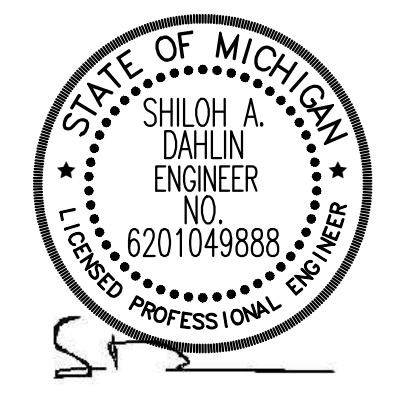
Stormwater Management Summary	Volume (cf)
Minimum Onsite Infiltration Requirement (V _{inf}) =	13,865 cf
Designed/Provided Infiltration Volume =	10,588 cf
% Minimum Required Infiltration Provided =	76 %
Total Calculated Detention Volume (V _{det}) =	14,487 cf
Net Required Detention Volume (V _{net} - Designed/Provided Infiltration Volume) =	3,899 cf
Determine volume increase for sites where the required infiltration volume cannot be achieved	
% Required Infiltration NOT provided =	24 %
Net % Penalty (20% x % Required Infiltration NOT provided) =	4.73 %
TOTAL REQUIRED DETENTION VOLUME, INCLUDING PENALTY	4,093 cf
(100%-Net % Penalty) x Net Required Detention Volume	
TOTAL REQUIRED DETENTION VOLUME, INCLUDING PENALTY AND INFILTRATION	14,671 cf

PERVIOUS PAVERS

Description	Aggregate Depth (in)	Aggregate Depth (ft)	Area (sq. ft.)	Volume (cu. ft.)	Void Space (%)	Storage Volume (cu. ft.)
Paver Area "A"	8	0.67	1,223	819	20	164
Paver Area "B"	32	2.67	3,536	9,441	20	1,888
Paver Area "C"	45	3.75	16,639	62,396	20	12,479
Paver Area "D"	32	2.67	3,112	8,309	20	1,662
Total Pervious Paver Area (sq. ft.)	24,510					16,193

Infiltration Volume
* INFILTRATION VOLUME (CF) = INFILTRATION AREA (SF) X INFILTRATION (IN/HR) X INFILTRATION PERIOD (HR) X (1/12)

Parameter	Value
INFILTRATION AREA	24,510 SQ. FT.
INFILTRATION DESIGN RATE	0.0012 FT/MIN*
INFILTRATION PERIOD	0.0720 FT/HR
INFILTRATION RATE PER THE "REPORT ON SOIL INVESTIGATION" PREPARED BY A&M CONSULTANTS AND DATED DECEMBER 5, 2011.	0.86 IN/HR
INFILTRATION PERIOD	6 HOURS
INFILTRATION VOLUME	10,588 CU. FT.



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(248) 926-3765 (FAX)
WWW.ALPINE-INC.NET

RESIDENTIAL SUBDIVISIONS
SITE CONDOMINIUM MULTI-FAMILY LOT PLANS CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS BOUNDARY SURVEYS TOPOGRAPHIC SURVEYS PARCEL SPLITS CONSTRUCTION LAYOUT

COMMERCIAL
SITE PLANNING SITE ENGINEERING INDUSTRIAL & MULTI-UNIT LAND SURVEYING CONSTRUCTION LAYOUT



JACK SCHWARCZ
PRELIMINARY STORM WATER MANAGEMENT PLAN
SECTION: 9
3945 S. STATE STREET
ANN ARBOR MICHIGAN
TOWNSHIP: 3 S
RANGE: 6 E
WASHTENAW COUNTY

REVISED

08-17-2022 SUBMITTAL
04-19-2022 SUBMITTAL
03-25-2022 SUBMITTAL

DATE: 11-17-2021

DRAWN BY: SD
CHECKED BY: TG

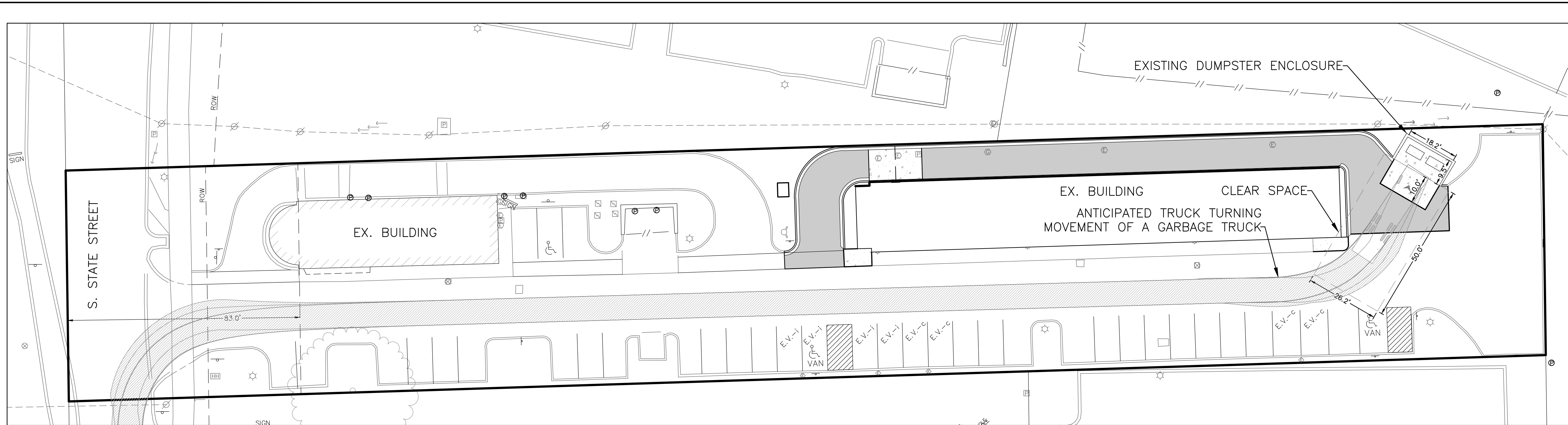
FBK: 384
CHF: RDF

SCALE: HOR 1" = 20 FT.
VER 1" = 10 FT.

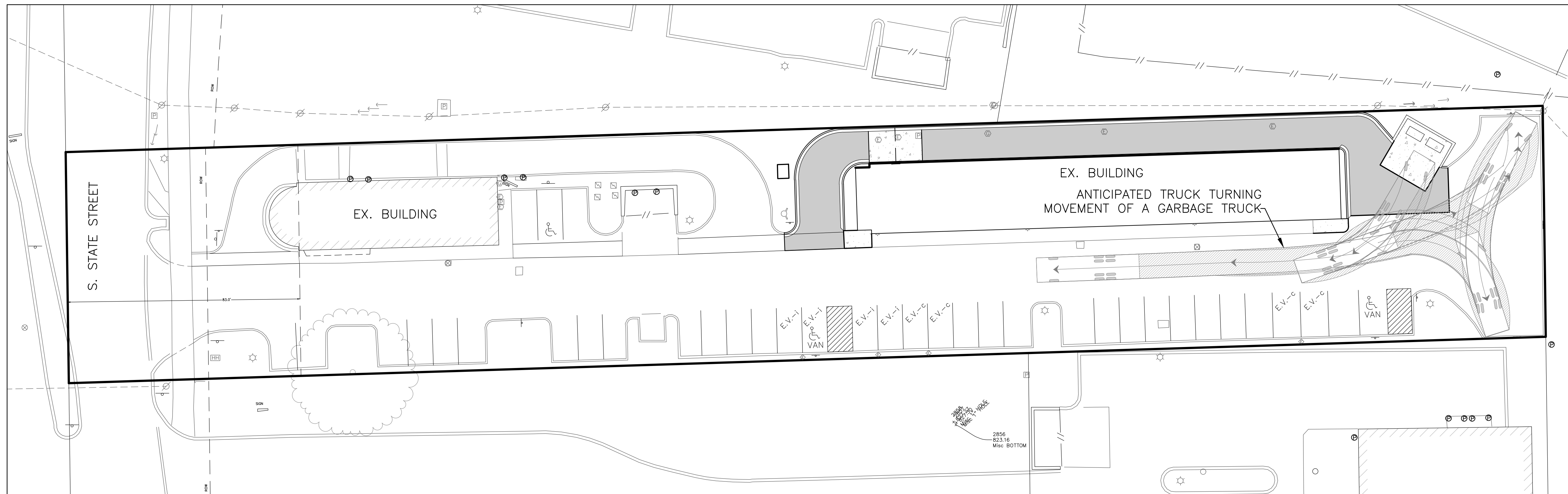
C-5

21-409

NOT FOR CONSTRUCTION



GARBAGE TRUCK CIRCULATION PLAN:
1" = 20 FEET



FIRE TRUCK CIRCULATION PLAN:
1" = 20 FEET

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 OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

NOTE:

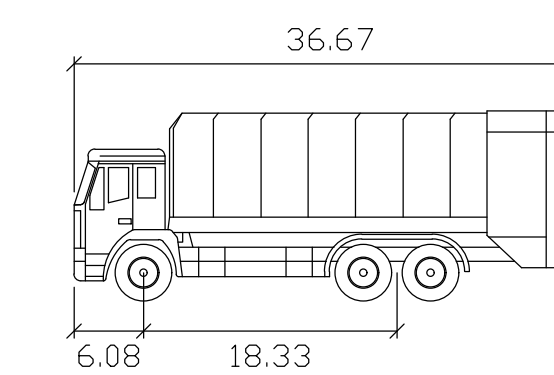
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL 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.

NOTES:

- PROPOSED CONCRETE WALK SHALL NOT IMPEDE SOLID WASTE ACCESS.
- SOLID WASTE WILL NOT BE SERVICED IF SERVICING ROUTE IS IMPEDED BY DRIVE-THRU TRAFFIC OR OTHER TRAFFIC IMPEDING INGRESS/EGRESS. THE CITY WILL NOT RETURN TO SERVICE SOLID WASTE IF PICKUP IS MISSED DUE TO THE SERVICING ROUTE BEING IMPEDED. SOLID WASTE WILL BE SERVICED AT NEXT SCHEDULED PICKUP, AND ALL SOLID WASTE GENERATED MUST BE HANDLED AND CONTAINED IN ACCORDANCE WITH ALL APPLICABLE CITY SOLID WASTE REGULATIONS AND CODES.
- GATES ON SOLID WASTE ENCLOSURE MUST BE ABLE TO BE SECURED IN BOTH OPEN (120 DEGREE MINIMUM) AND CLOSED POSITIONS. GATES WILL NOT BE CLOSED BY CITY SOLID WASTE DRIVERS AFTER SERVICING.
- GATES SHALL BE DESIGNED AND BUILT AS TO NOT DECREASE THE CLEARANCE OF THE ENCLOSURE ENTRANCE. CLEARANCE WIDTH OF 18.7' SHALL BE MAINTAINED.
- ENCLOSURE SHALL BE CLEARED OF DEBRIS AND VEGETATION, CURB IN FRONT OF DUMPSTER REMOVED, AND A CONCRETE PAD SHALL BE POURED AS SHOWN ON THE "SITE PLAN".

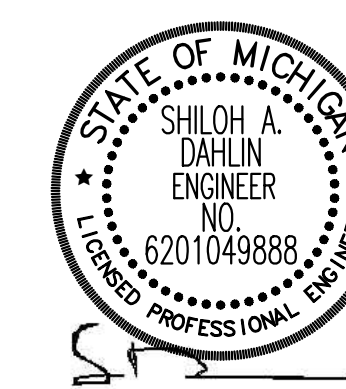
LEGEND:

	EX. HYDRANT		EX. TRAFFIC SIGNAL
	EX. PEDESTAL		EX. FENCE
	EX. TRANSFORMER		EXIST. FINISH FLOOR ELEV
	EX. LIGHTPOLE		PROP. PERMEABLE PAVEMENT
	EX. UTILITY POLE		PROP. CONCRETE
	EX. GUY ANCHOR		PROP. ELECTRIC CHARGING STATION
	EX. OVERHEAD LINE		
	EX. SIGN		
	EX. POST/BOLLARD		
	EX. FLAGPOLE		
	EX. GENERATOR		
	EX. AIR CONDITIONER		



ANN ARBOR AUTOCAR ACX 6x4

Width	: 8.75
Track	: 8.75
Lock to Lock Time	: 6.0
Steering Angle	: 32.6
Curb to Curb Turning Radius	: 34.1



TRUCK CIRCULATION PLAN NOTES:

1. TRUCK ROUTES SHOWN ON THE TRUCK CIRCULATION PLANS ARE ILLUSTRATIVE ONLY AND DOES NOT TAKE IN ACCOUNT ALL POSSIBLE TRUCK MOVEMENTS.

ADDITIONAL TRUCK MOVEMENTS MAY BE NECESSARY.

NOT FOR CONSTRUCTION

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SITE CONDOMINIUM
MULTI-FAMILY
FLOOD PLANS
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811
Know what's below
Call before you dig.

CLIENT: JACK SCHWARCZ

**TRUCK CIRCULATION PLAN
- GARBAGE TRUCK**

SECTION: 9

3945 S. STATE STREET
ANN ARBOR
WASHTENAW COUNTY
MICHIGAN

TOWNSHIP: 3 S
RANGE: 6 E

REVISED

04-25-2023 SUBMITTAL
02-16-2023 SUBMITTAL
01-26-2023 DRAFT FOR CLIENT
08-17-2022 SUBMITTAL

DATE: 11-17-2021

DRAWN BY: SD

CHECKED BY: TG

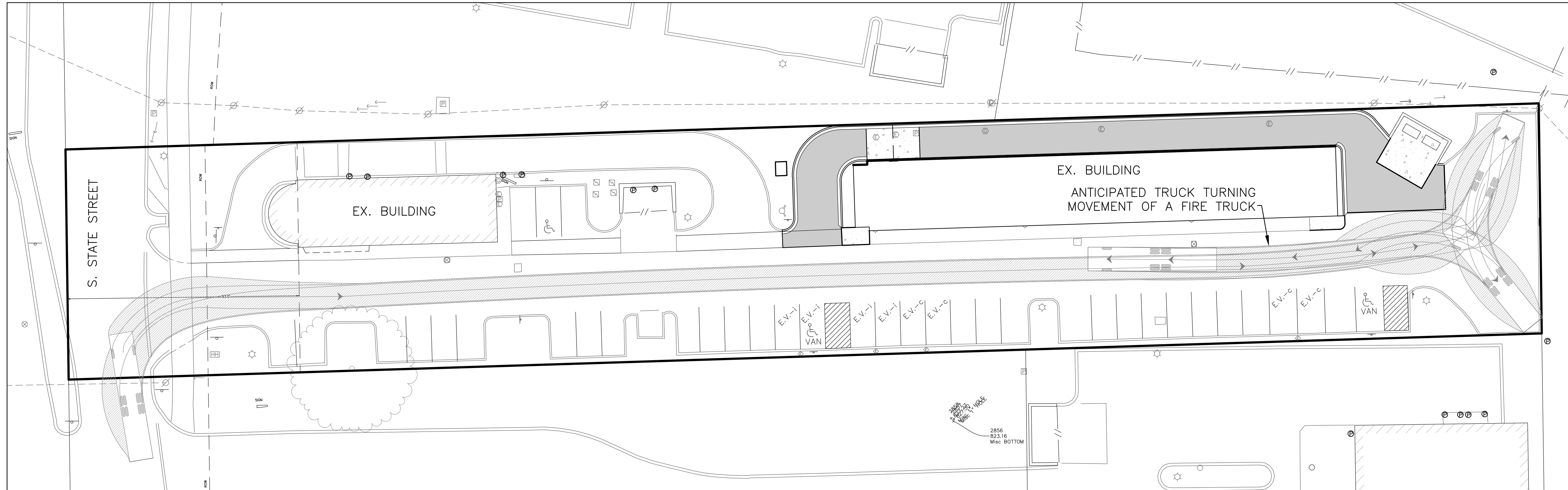
FBK: 384

CHF: RDF

C-6A

SCALE: HOR 1" = 20 FT.
VER 1" = 40 FT.

21-409



FIRE TRUCK CIRCULATION PLAN:
1" = 20 FEET

NOTICE:

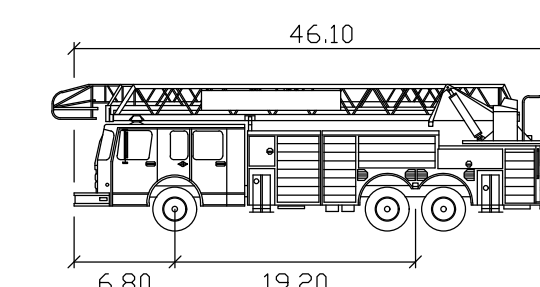
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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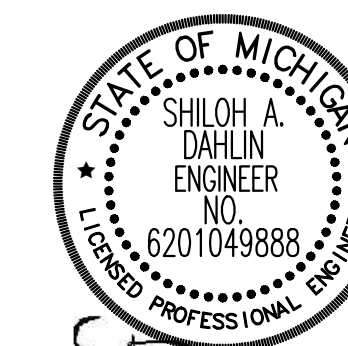
LEGEND:

	EX. HYDRANT		EX. TRAFFIC SIGNAL
	EX. PEDESTAL		EX. FENCE
	EX. TRANSFORMER		EX. FINISH FLOOR ELEV
	EX. LIGHTPOLE		PROP. PERMEABLE PAVEMENT
	EX. UTILITY POLE		PROP. CONCRETE
	EX. GUY ANCHOR		PROP. ELECTRIC CHARGING STATION
	EX. OVERHEAD LINE		
	EX. SIGN		
	EX. POST/BOLLARD		
	EX. FLAGPOLE		
	EX. GENERATOR		
	EX. AIR CONDITIONER		



ANN ARBOR SPH-100

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 5.0
Steering Angle	: 36.3



TRUCK CIRCULATION PLAN NOTES:

1. TRUCK ROUTES SHOWN ON THE TRUCK CIRCULATION PLANS ARE ILLUSTRATIVE ONLY AND DOES NOT TAKE IN ACCOUNT ALL POSSIBLE TRUCK MOVEMENTS.

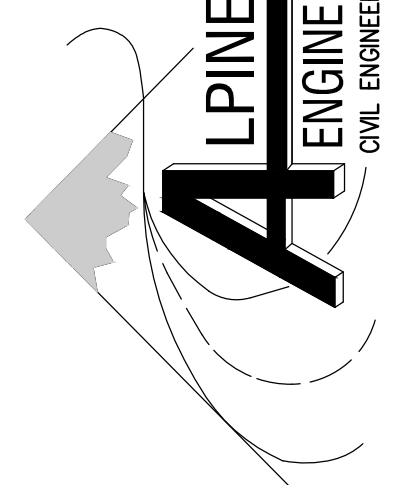
ADDITIONAL TRUCK MOVEMENTS MAY BE NECESSARY.

NOT FOR CONSTRUCTION

COMMERCIAL
SITE PLANNING
SITE ENGINEERING
INDUSTRIAL & MULTI-UNIT
LAND SURVEYING
CONSTRUCTION LAYOUT

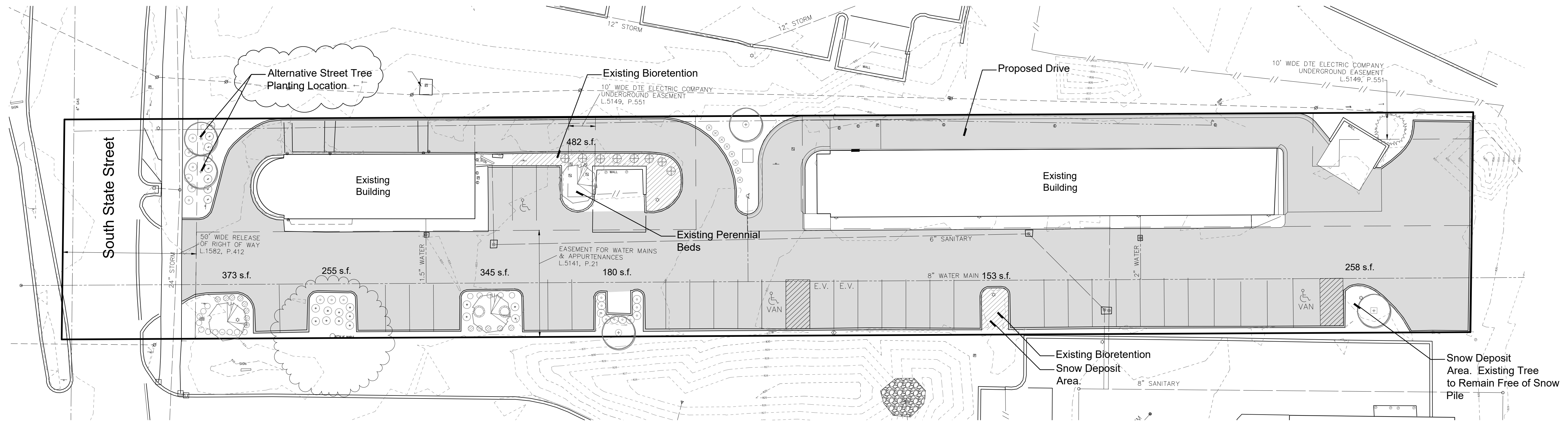
SURVEYING
ALTA SURVEYS
BOUNDARY SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPLITS

RESIDENTIAL
SUBDIVISIONS
SITE CONDOMINIUM
MULTI-FAMILY
LOT PLANS
CONSTRUCTION LAYOUT

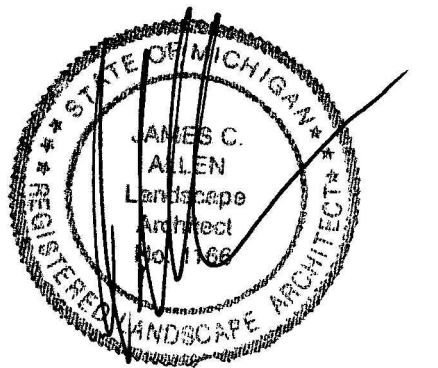


CLIENT: JACK SCHWARCZ
TRUCK CIRCULATION PLAN
- FIRE TRUCK
SECTION: 9
3945 S. STATE STREET
ANN ARBOR
WASHTENAW COUNTY
MICHIGAN
TOWNSHIP: 3 S
RANGE: 6 E

REVISED	
02-16-2023 SUBMITTAL	
08-17-2022 SUBMITTAL	
DATE: 11-17-2021	
DRAWN BY: SD	
CHECKED BY: TG	
FBK: 384	C-6B
CHF: RDF	
SCALE: HOR 1" = 20 FT. VER 1" = 40 FT.	21-409



Seal:



Title:

Landscape Plan

Project:

**3945 State Street
Ann Arbor, Michigan**

Prepared for:

Alpine Engineering
46892 West Road, Suite 109
Novi, Michigan 48337

Revision: Issued:

Review	March 25, 2022
Revised	April 19, 2022
Revised	August 18, 2022

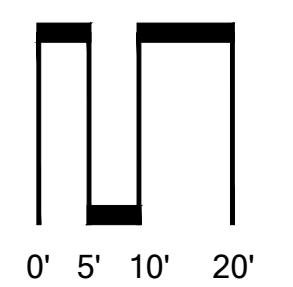
Job Number:

22-026

Drawn By: Checked By:

jca

jca



Sheet No.

L-1

Existing Shrubs - Ornamentals

	Ginkgo		Cotoneaster
	Honey Locust		Dwarf Fountain Grass
	Hornbeam		False Cypress
	Maple		Hydrangea
	Spruce		Juniper
			Spirea
			Viburnum
			Yew

Landscape Summary

Vehicular Use Area	25,423 s.f.
Use Area	1,271 s.f. (1:20)
Landscape Area Required	1,411 s.f.
Landscape Area Provided	635 s.f. (1,271 x 50%)
Bioretention Required	635 s.f.
Bioretention Provided	5 Trees (1,271 / 250 s.f.)
Trees Required	5 Trees (5 Existing)
Trees Provided	
Street Trees	
Right of Way Length	82 l.f.
Street Trees Required	1.8 Trees (82 / 45)
Street Trees Provided	0 Trees (Trees Cannot be Planted in ROW Due to Utility Conflicts. Alternative Planting Location is Shown Above.)

Note: Existing Plantings Meet Ordinance Requirements. As a Result, no New Plantings Are Proposed.

Legend

	Vehicular Use Area
	Bioretention Area as Shown on Originally Approved Plan





WDGE2 LED Architectural Wall Sconce

Specifications
 Depth: 7"
 Height: 9"
 Width: 11.5"
 Weight: 13.5 lbs (without options)

WDGE LED Family Overview

Luminaire	Standard (IM, PFC)	Cold (IM, 20°C)	Sensor	F1	F2	F3	F4	F5	F6
WDGE2 LED	4W	—	—	1,200	2,300	—	—	—	—
WDGE2 LED	10W	18W	Standalone / All light	1,200	2,300	3,000	4,500	6,000	—
WDGE2 LED	15W	18W	Standalone / All light	2,500	4,500	10,000	12,000	—	—
WDGE4 LED	—	—	Standalone / All light	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information EXAMPLE: WDGE2 LED P3 40K 80CRI VF MVOLT DDBXD

Series	Package	Color Temperature	CR	Distribution	Voltage	Mounting
WDGE2 LED	P1	27K	2700K	80CRI	120V	Surface-mounted back box
	P2	30K	3000K	90CRI	120V	Surface-mounted back box
	P3	40K	4000K	80CRI	120V	Surface-mounted back box
	P4	50K	5000K	80CRI	120V	Surface-mounted back box
	P5	50K	5000K	80CRI	120V	Surface-mounted back box

Options

Options	Finish
E48W Emergency battery backup, CEC compliant (100-170°C min)	DDBD Dark bronze
E20W Emergency battery backup, CEC compliant (100-170°C min)	DBLD Black
E20W Emergency battery backup, CEC compliant (100-170°C min)	DNAD Natural aluminum
PE Photocell, Button Type	DWWD White
DS Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)	DDSD Sandstone
DNG 0-10V dimming wires pulled outside fixture for use with an external control system (optional)	DDSDT Tinted dark bronze
ICE Bottom conductor entry for premium back box (P8WB), Total of 4 entry points	DDSDW Tinted dark bronze
SP10WV 10W spring pack	DDSDV Tinted natural aluminum
	DDSDT Tinted sandstone

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com WDGE2 LED Rev. 01/07/20



WDGE3 LED Architectural Wall Sconce

Specifications
 Depth: 8"
 Height: 9"
 Width: 11"
 Weight: 19.5 lbs (without options)

WDGE LED Family Overview

Luminaire	Standard (IM, PFC)	Cold (IM, 20°C)	Sensor	F1	F2	F3	F4	F5	F6
WDGE2 LED	4W	—	—	1,200	2,300	—	—	—	—
WDGE2 LED	10W	18W	Standalone / All light	1,200	2,300	3,000	4,500	6,000	—
WDGE2 LED	15W	18W	Standalone / All light	2,500	4,500	10,000	12,000	—	—
WDGE4 LED	—	—	Standalone / All light	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information EXAMPLE: WDGE3 LED P3 40K 70CRI R3 MVOLT DDBXD

Series	Package	Color Temperature	CR	Distribution	Voltage	Mounting
WDGE3 LED	P1	30K	3000K	70CRI	R3	Type 2
	P2	40K	4000K	80CRI	R3	Type 2
	P3	50K	5000K	80CRI	R4	Type 4
	P4	50K	5000K	80CRI	R7	Forward/Throw

Options

Options	Finish
E15WV Emergency battery backup, CEC compliant (150-170°C min)	DDBD Dark bronze
E20W Emergency battery backup, CEC compliant (100-170°C min)	DBLD Black
E20W Emergency battery backup, CEC compliant (100-170°C min)	DNAD Natural aluminum
PE Photocell, Button Type	DWWD White
DS Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)	DDSD Sandstone
DNG 0-10V dimming wires pulled outside fixture for use with an external control system (optional)	DDSDT Tinted dark bronze
ICE Bottom conductor entry for premium back box (P8WB), Total of 4 entry points	DDSDW Tinted dark bronze
SP10WV 10W spring pack	DDSDV Tinted natural aluminum
	DDSDT Tinted sandstone

Accessories
 WSGW2 DDBXD WSG2 10W back box (not available with E15WV and E20W)
 WSGP8WB DDBXD WSG2 Premium surface-mounted back box (specify finish)
 WSGWB DDBXD Surface-mounted back box (specify finish)

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com WDGE3 LED Rev. 01/07/20



D-Series Size 0 LED Area Luminaire

Specifications
 Depth: 0.95 ft
 Length: 26"
 Width: 13"
 Height: 3"
 Weight: 16 lbs (without options)

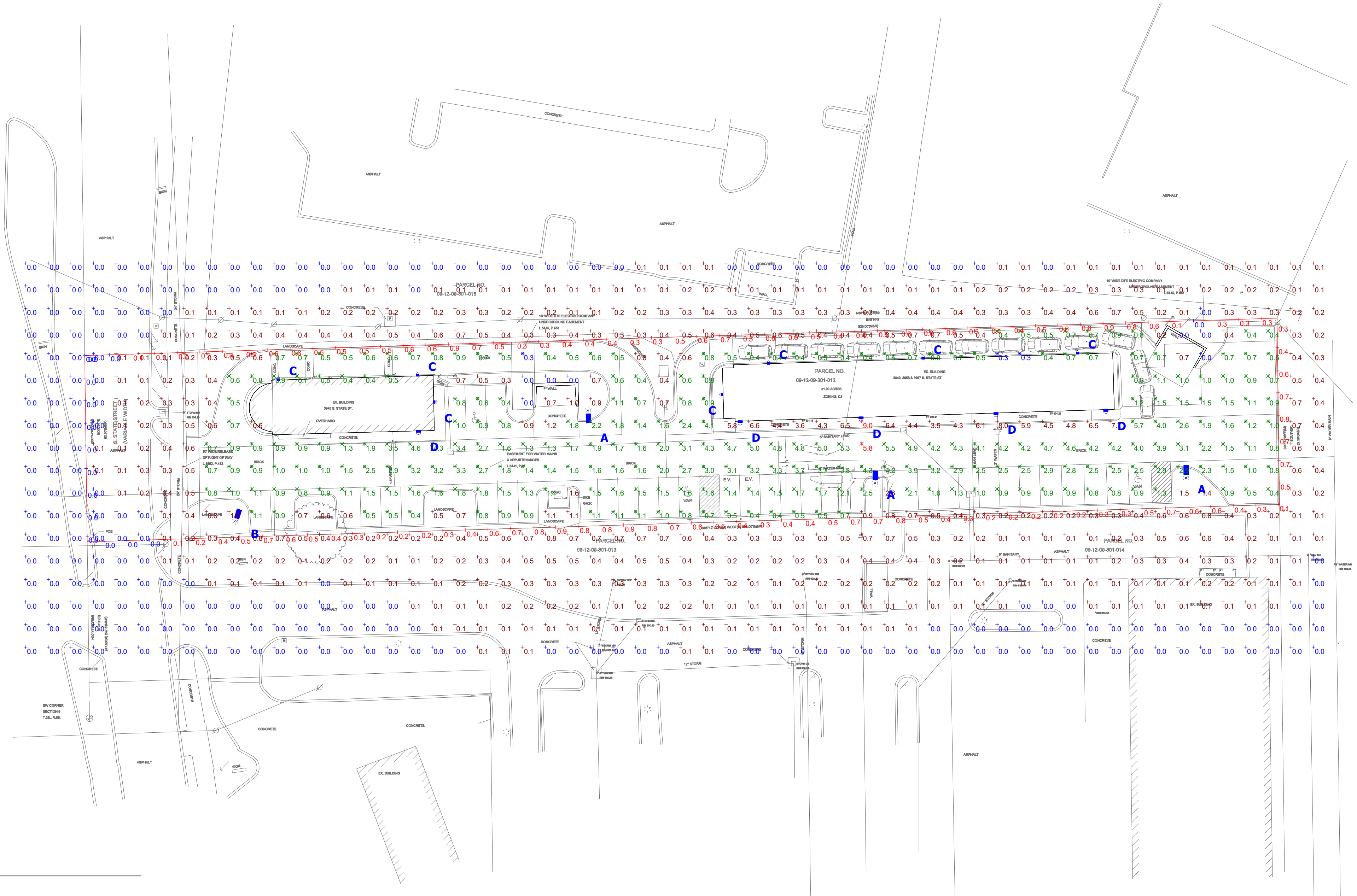
Ordering Information EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAR2 PIRHN DDBXD

Series	LEDs	Color Temperature	Distribution	Voltage	Mounting
DSX0 LED	Forward optics	30K 3000K	T35 Type II short (Automotive)	T35 Type II short	W0021**
	Reverse optics	40K 4000K	T32 Type II short	T34K Type II medium	120*
	Reverse optics	50K 5000K	T2M Type II medium	T5W Type II wide	208*
	Reverse optics	50K 5000K	T35 Type II short	BLC Backlight control	240*

Options

Options	Finish
DDBD Dark bronze	DDBD Dark bronze
DBLD Black	DBLD Black
DNAD Natural aluminum	DNAD Natural aluminum
DWWD White	DWWD White
DDSD Sandstone	DDSD Sandstone
DDSDT Tinted dark bronze	DDSDT Tinted dark bronze
DDSDW Tinted dark bronze	DDSDW Tinted dark bronze
DDSDV Tinted natural aluminum	DDSDV Tinted natural aluminum
DDSDT Tinted sandstone	DDSDT Tinted sandstone

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com DSX0 LED Rev. 02/05/20



Plan View
Scale - 1" = 30ft

Schedule

Symbol	Label	Quantity	Manufacturer	Description	Lamp	Mounting Height
A		3	Lithonia Lighting	DSX0 LED AREA LIGHT 4000K	LED	25'-0"
B		1	Lithonia Lighting	DSX0 LED P2 40K TTFM MVOLT with houseside shield	LED	25'-0"
C		7	Lithonia Lighting	WDGE2 LED WALL MOUNTED LIGHT 4000K	LED	14'-0"
D		5	Lithonia Lighting	WDGE3 LED WALL MOUNTED LIGHT 4000K	LED	14'-0"

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
PROPERTY LINE	+	0.4 fc	0.9 fc	0.0 fc	N/A	N/A	0.4:1
SITE	X	1.6 fc	5.8 fc	0.3 fc	19.3:1	5.3:1	0.3:1

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

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

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

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

General Note
1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

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

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

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JD/KB
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