

THE COLLEGIAN NORTH

CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN

SITE PLAN

OWNER

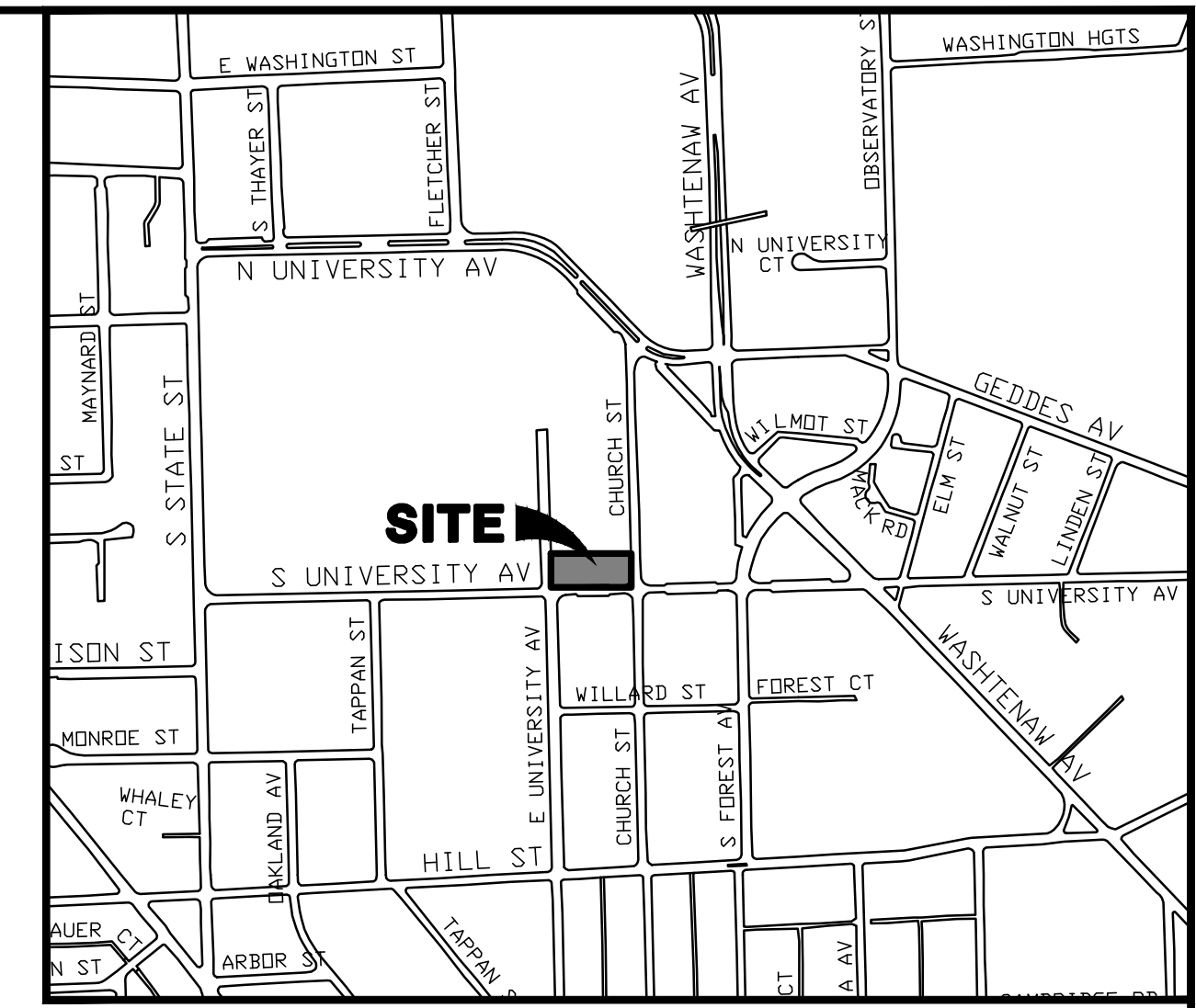
SOUTH UNIVERSITY - NORTH LLC.
30100 TELEGRAPH ROAD, SUITE 220
BINGHAM FARMS, MI 48025
PH. (248) 647-2600
ATTN: SEAN T. HAVERA

SURVEYOR/CIVIL ENGINEER/ LANDSCAPE ARCHITECT

MIDWESTERN CONSULTING, LLC
3815 PLAZA DR.
ANN ARBOR, MI 48108
PH. (734) 995-0200
ATTN: TOM COVERT, RLA, AICP, LEED AP
TINA FIX, RLA, LEED AP

ARCHITECT

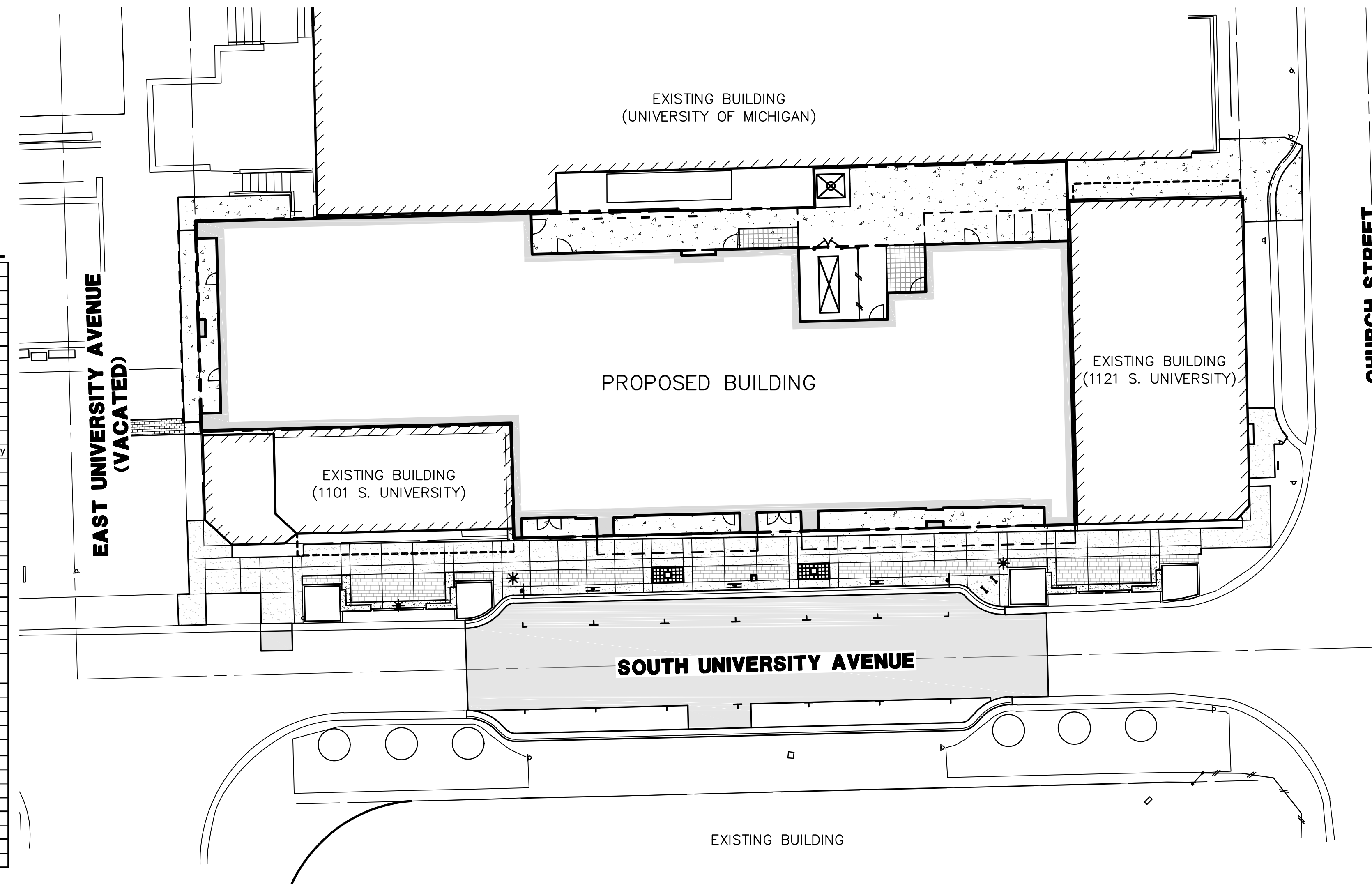
HOBBS & BLACK
100 N. STATE STREET
ANN ARBOR, MI 48104
PH. (734) 663-4189
ATTN: TOM DILLENBECK



VICINITY MAP
NOT TO SCALE

SITE DATA COMPARISON CHART

	Required / Permitted	Proposed
Site Area:	None	0.38 ac/16,561.82 sf
Lot Width:	None	S University St.: 142.85 ft
Zoning:	D1	D1
Character District:	South University	South University
Street Frontage Type:	Primary (both)	Primary (both)
Land Use:	Apartments/Commercial	Apartments/Commercial
		97,346sf residential; 18,206 sf Commercial
		55 Units, 145 dua
		243 bedrooms total / 640 bra
		1 bldg; basement;
		underground storm detention
		ground level: commercial, trash, mail, access
		level 2: commercial, residential, residential amenity
		10 levels apartments above;
		fully fire suppressed
Proposed Building		
Usable Floor Area:	115,933 / 700%	115,552 sf / 698%
Floor Area Ratio:	66,247 sf / 400%	97,346sf residential; 18,206 sf Commercial
Residential Premiums	49,685 sf max. / 300%	49,305 sf / 298%
Streetwall Height	2 stories min., 3 stories max.	2 stories
Offset at Top of Streetwall	5 ft average	6.5' average
Massing articulation	45 ft max	43 ft max. See architectural plans
Unit Types/No.s:		See chart on architectural plans
Vehicular Parking:	1 per 1000sf premium	
	49,305 sf residential premium	
	50 spaces	
		No vehicular parking proposed
		(propose using one of the
		in lieu of parking options)
Total Vehicular Parking	50 spaces	
Bicycle Parking:		
Residential @ 1:2,500 sf	39 Class A	40 Class A
Retail @ 1:10,000 sf	2 Class C	0 Class B
		12 Class C
Total Required	39 Class A, 2 Class C	52 spaces; 0.94 per unit
Setbacks:	Front (south): 0 ft min, 1 ft max.	Front (south): 0 ft min
	Side (east): 0 ft	Side (east): 0 ft
	Side (west): 0 ft	Side (west): 0 ft
	Rear (north): 0 ft	Rear (north): 0 ft min.
Building Height:	25-28 ft existing	
	150 ft max. permitted	149'-9" maximum
Impervious Surface	16,563 sf existing / 100%	16,563 sf existing / 100%
Pervious Surface	0 sf / 0%	0 sf / 0%



OVERALL SITE
1" = 20'

UNIT TABULATION

UNIT NAME	UNIT TYPE	NET AREA(SF)	UNIT COUNT	BEDS	PERCENTAGE	RENTABLE AREA	PERCENTAGE
2 Bed(ADA)	2br/2ba	872	1	2	1.82%	872	1.17%
3 Bed-1	3br/3ba	954	10	30	18.18%	9,540	12.75%
3 Bed-2	3br/3ba	959	1	3	1.82%	959	1.28%
3 Bed-3	3br/3ba	970	1	3	1.82%	970	1.30%
3 Bed-4(ADA)	3br/3ba	1,139	1	3	1.82%	1,197	1.60%
4 Bed-1	4br/4ba	1,182	7	28	12.73%	1,139	1.52%
4 Bed-2	4br/4ba	1,193	7	28	12.73%	8,274	11.06%
4 Bed-3	4br/4ba	1,197	1	4	1.82%	8,351	11.16%
4 Bed-4	4br/4ba	1,244	1	4	1.82%	1,244	1.66%
4 Bed-5	4br/4ba	1,257	1	4	1.82%	1,257	1.68%
5 Bed	5br/5ba	1,386	10	50	18.18%	13,860	18.53%
6 Bed-1	6br/6ba	1,755	7	42	12.73%	12,285	16.42%
6 Bed-2	6br/6ba	2,123	7	42	12.73%	14,861	19.87%
TOTALS			55	243	100.00%	74,809	100.00%

UNIT AVERAGE NET SF: 1,360.2 SF

PROJECT SUMMARY

THE PROPOSED DEVELOPMENT INCLUDES THE DEMOLITION OF FOUR EXISTING BUILDINGS AND CONSTRUCTION OF A 12 STORY MIXED-USE BUILDING INCLUDING COMMERCIAL AND STUDENT FOCUSED RESIDENTIAL. STORMWATER DETENTION IS PROPOSED IN AN UNDERGROUND DETENTION CHAMBER. NO VEHICULAR PARKING IS PROPOSED WITH THE DEVELOPMENT. BIKE PARKING IS PROVIDED IN LOCKABLE SPACES ON THE FIRST FLOOR OF THE BUILDING AND IN THE ALLEY NORTH OF THE BUILDING. TOTAL NEW FLOOR AREA WILL BE 115,552 SF WITH 698% FLOOR AREA RATIO.

GENERAL NOTES:

PER CHAPTER 49, SECTION 4-58 OF THE CITY CODE, "ALL SIDEWALKS ARE TO BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME." PRIOR TO ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.

"THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCE."

"THE OMISSION OF ANY STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS."

THE PROPOSED DOWNTOWN DEVELOPMENT AUTHORITY (DDA) SOUTH UNIVERSITY STREETSCAPE IMPROVEMENTS SHALL BE CONSTRUCTED PER THE STREETSCAPE IMPROVEMENT PLANS AS APPROVED BY THE CITY OF ANN ARBOR.

SHEET INDEX

SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	PROJECT DATA AND GENERAL INFORMATION
3	SOIL BORINGS
4	EXISTING CONDITIONS
5	REMOVAL PLAN
6	DIMENSIONAL SITE PLAN
7	GRADING AND SOIL EROSION CONTROL PLAN
8	UTILITY PLAN
9	STORM WATER MANAGEMENT PLAN
10	STORM WATER MANAGEMENT CALCS
11	MISCELLANEOUS SITE DETAILS
11.1	DDA STREETSCAPE DETAILS
12	FIRE PROTECTION PLAN
A-100	BASEMENT FLOOR PLAN
A-101	GROUND FLOOR PLAN
A-102	SECOND FLOOR PLAN
A-103	THIRD-NINTH FLOOR PLANS
A-104	TENTH FLOOR PLAN
A-105	ELEVENTH FLOOR PLAN
A-106	TWELFTH FLOOR PLAN
A-107	ROOF PLAN
A-200	SOUTH ELEVATION
A-201	NORTH ELEVATION
A-202	WEST ELEVATION
A-203	EAST ELEVATION
A-300	BUILDING SECTION

THE COLLEGIAN NORTH

JOB No. 15006	DATE: 10/28/16	1	
REVISIONS:	SHEET 1 OF 26		
1. REV. PER CITY REVIEW	12/05/16		CADD: DAG
2. REV. PER CITY REVIEW	1/05/17		ENG: SGF
3. REV. PER OWNER & CITY REVIEW	1/31/17	PM: TJC	
4. REV. PER CITY REVIEW	3/02/17	TECH: TJC	
	SITE: 15006CV1.DWG		
	TBA		

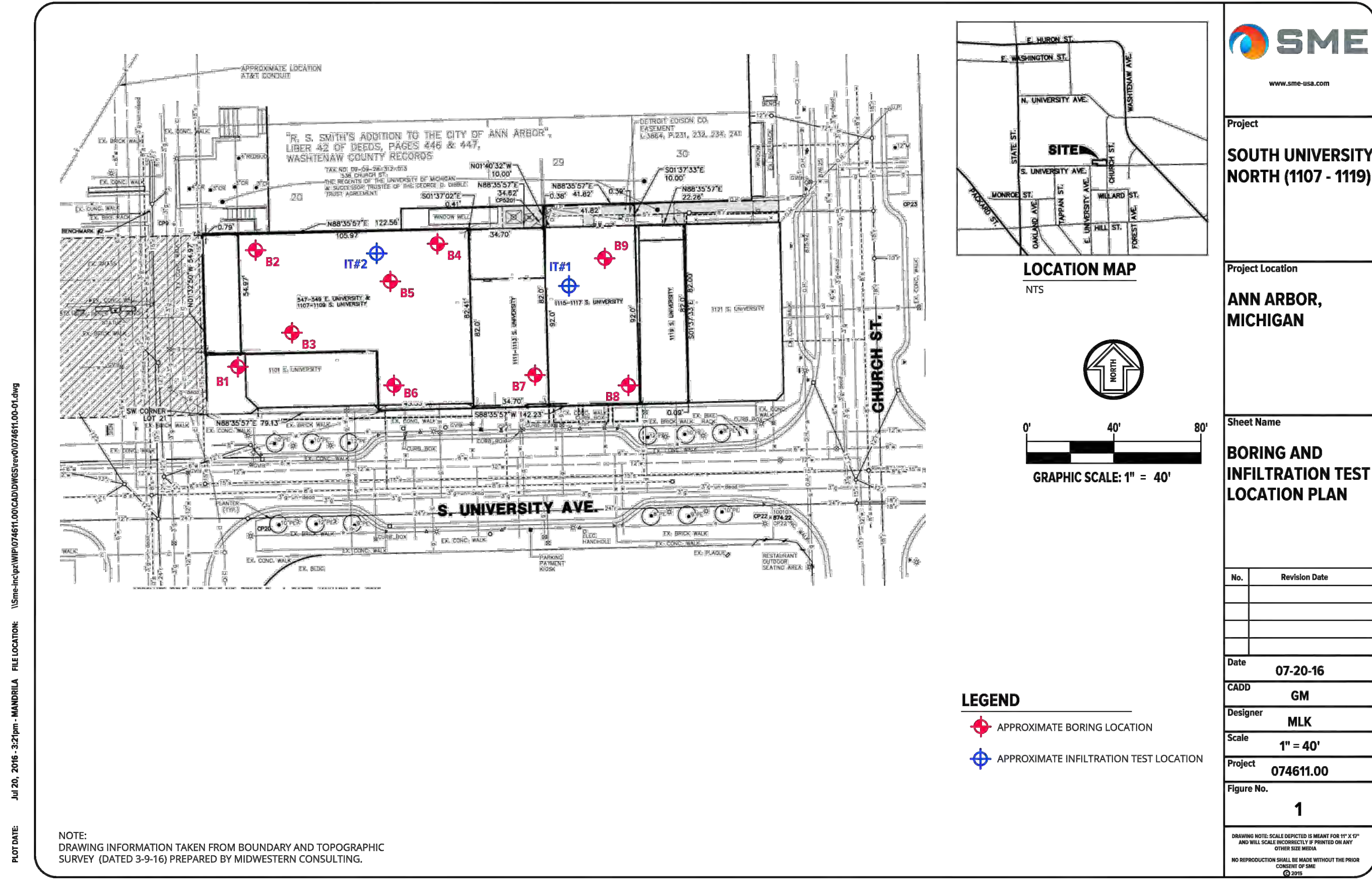


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(734) 995-0200 • www.midwesternconsulting.com
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RELEASED FOR: DATE:

RELEASED FOR:	DATE:

SCOTT G. FISHER
P.E. #58473



SME
www.sme-usa.com

Project
SOUTH UNIVERSITY NORTH (1107 - 1119)

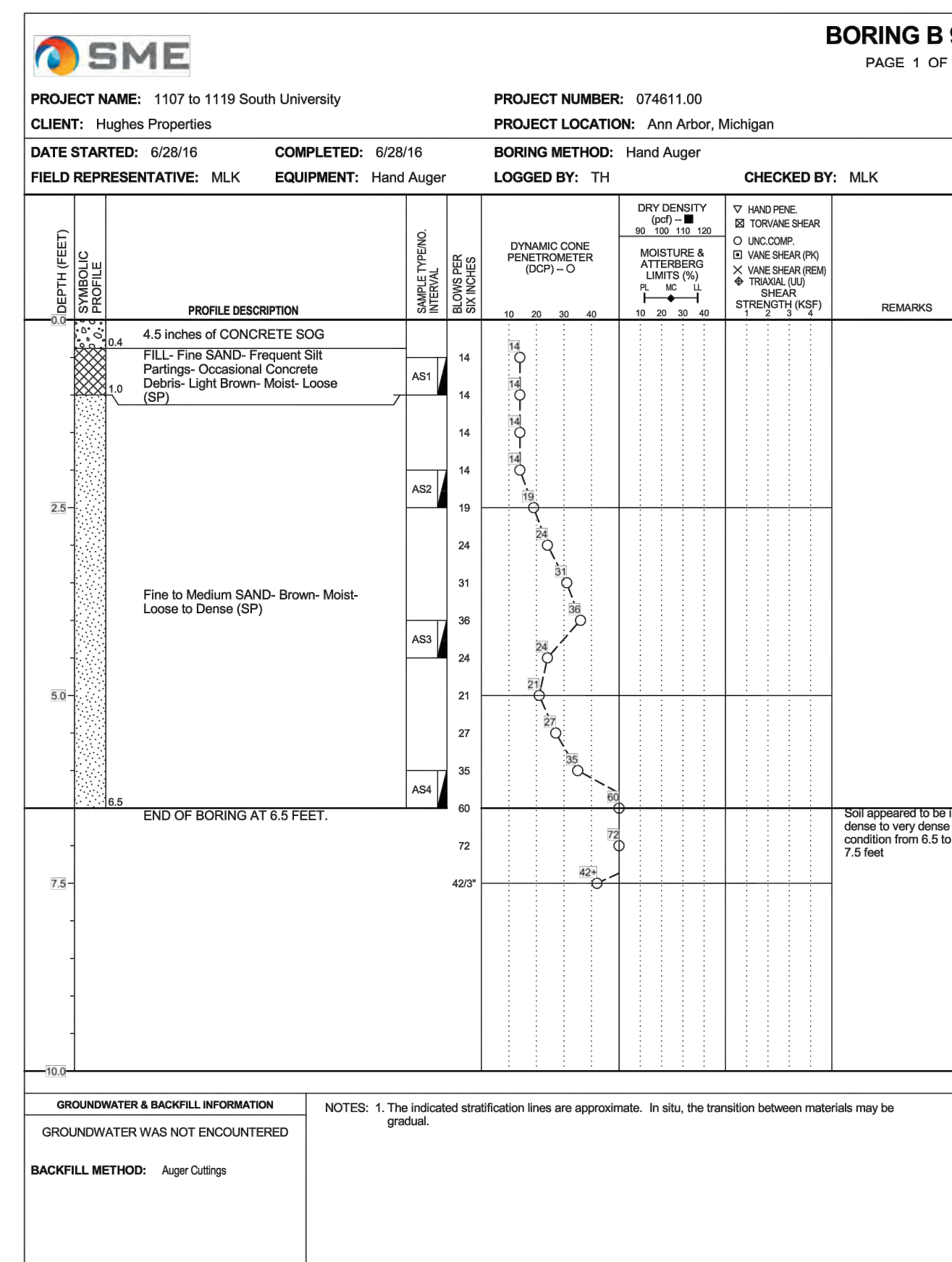
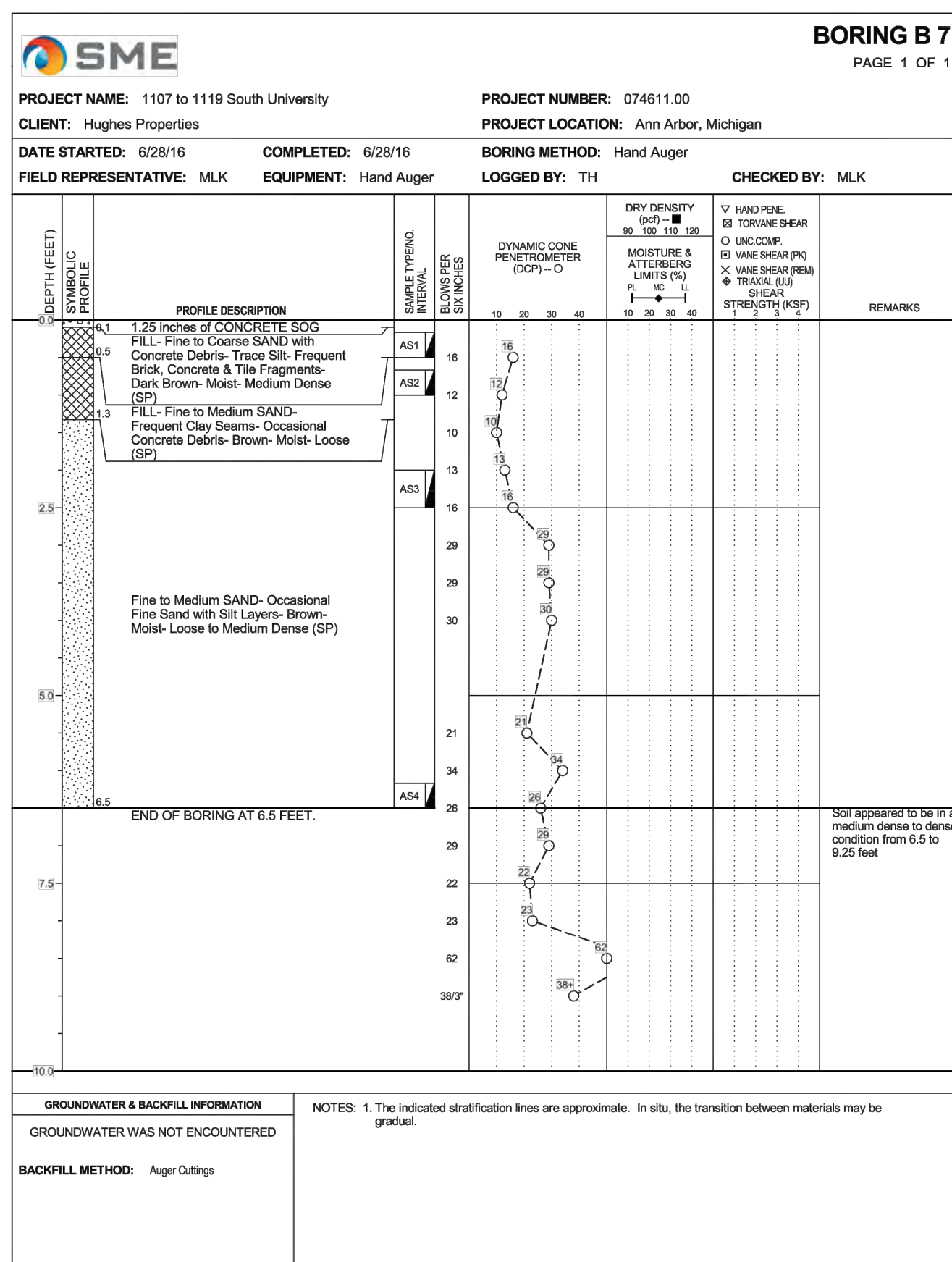
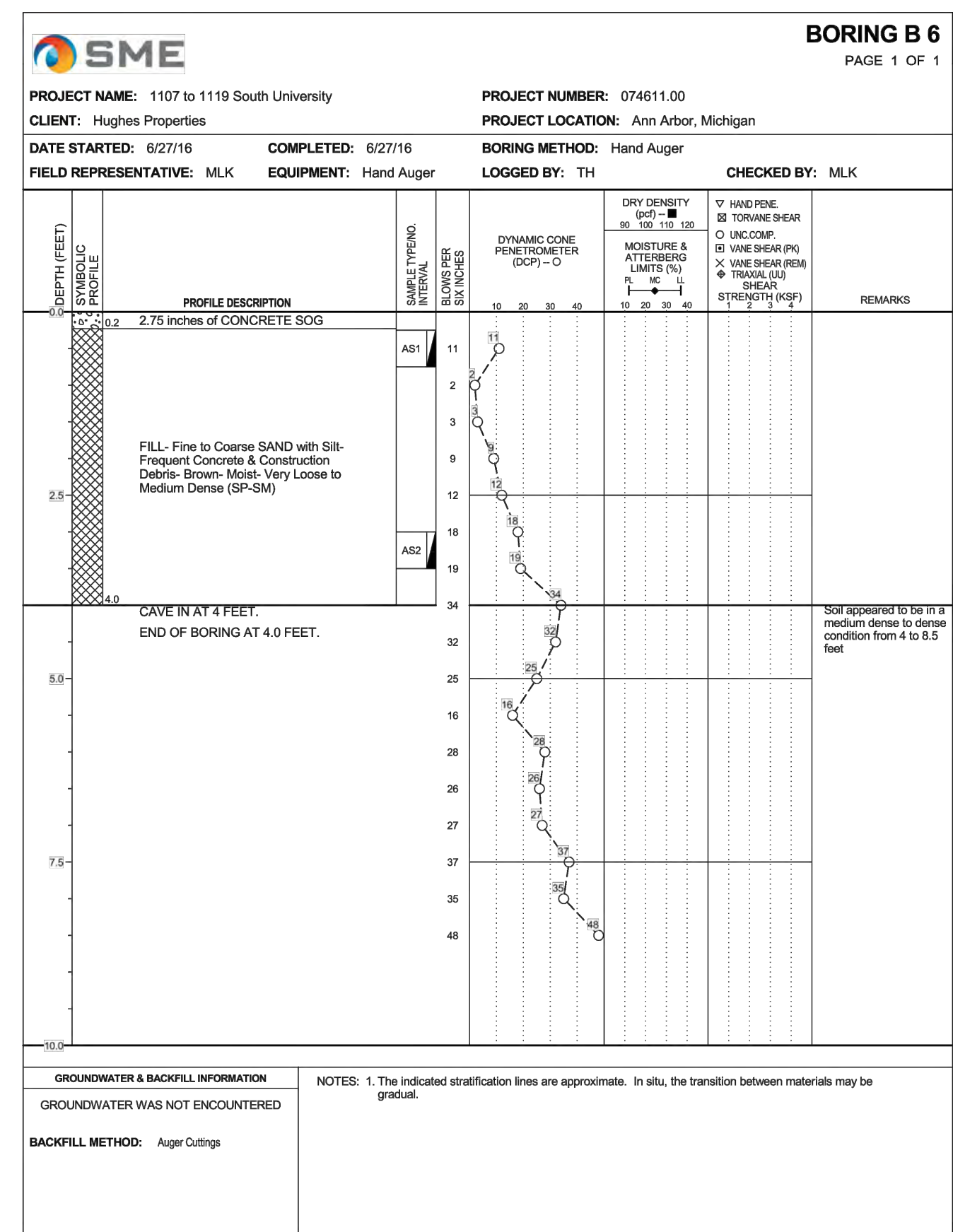
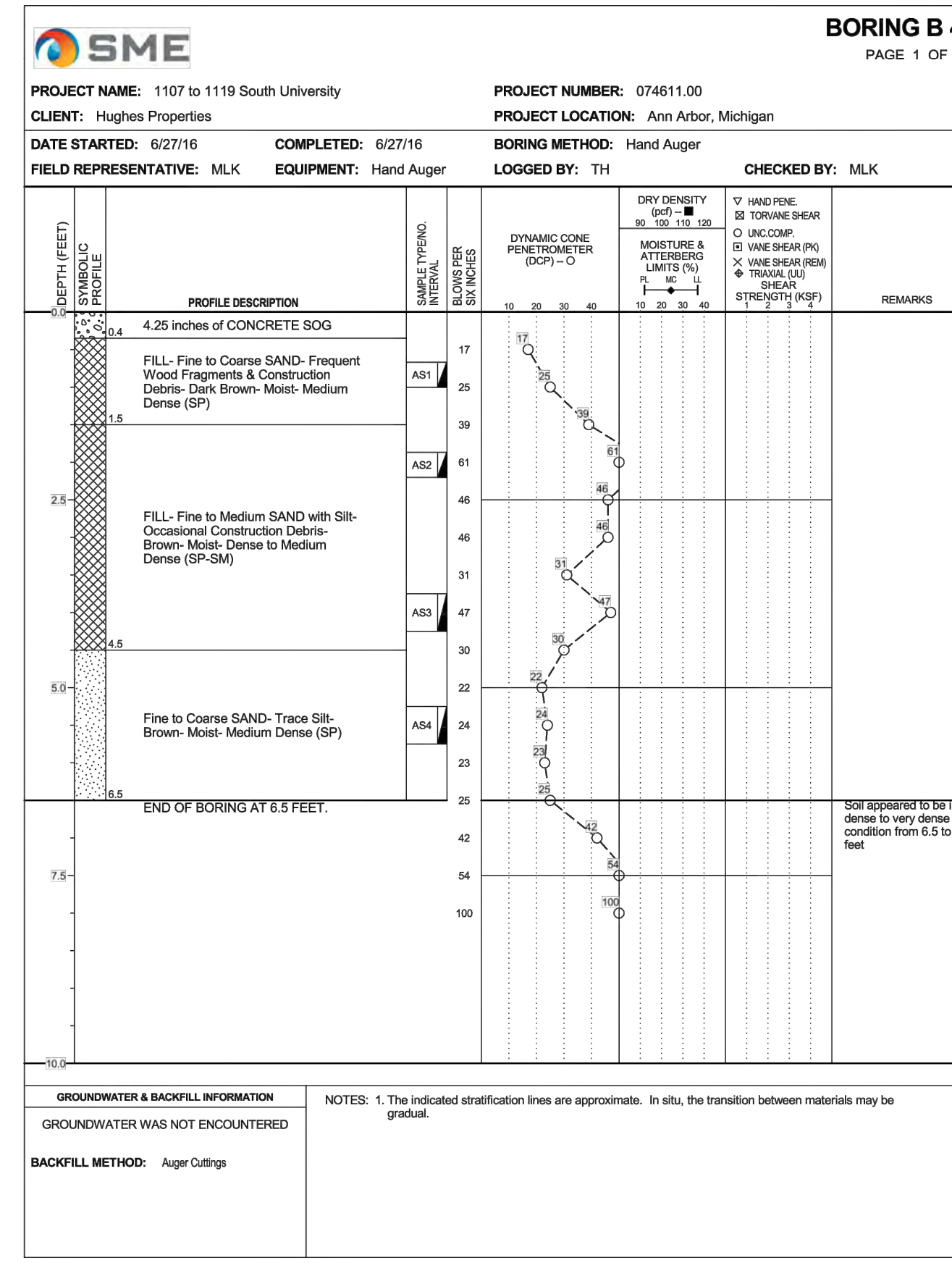
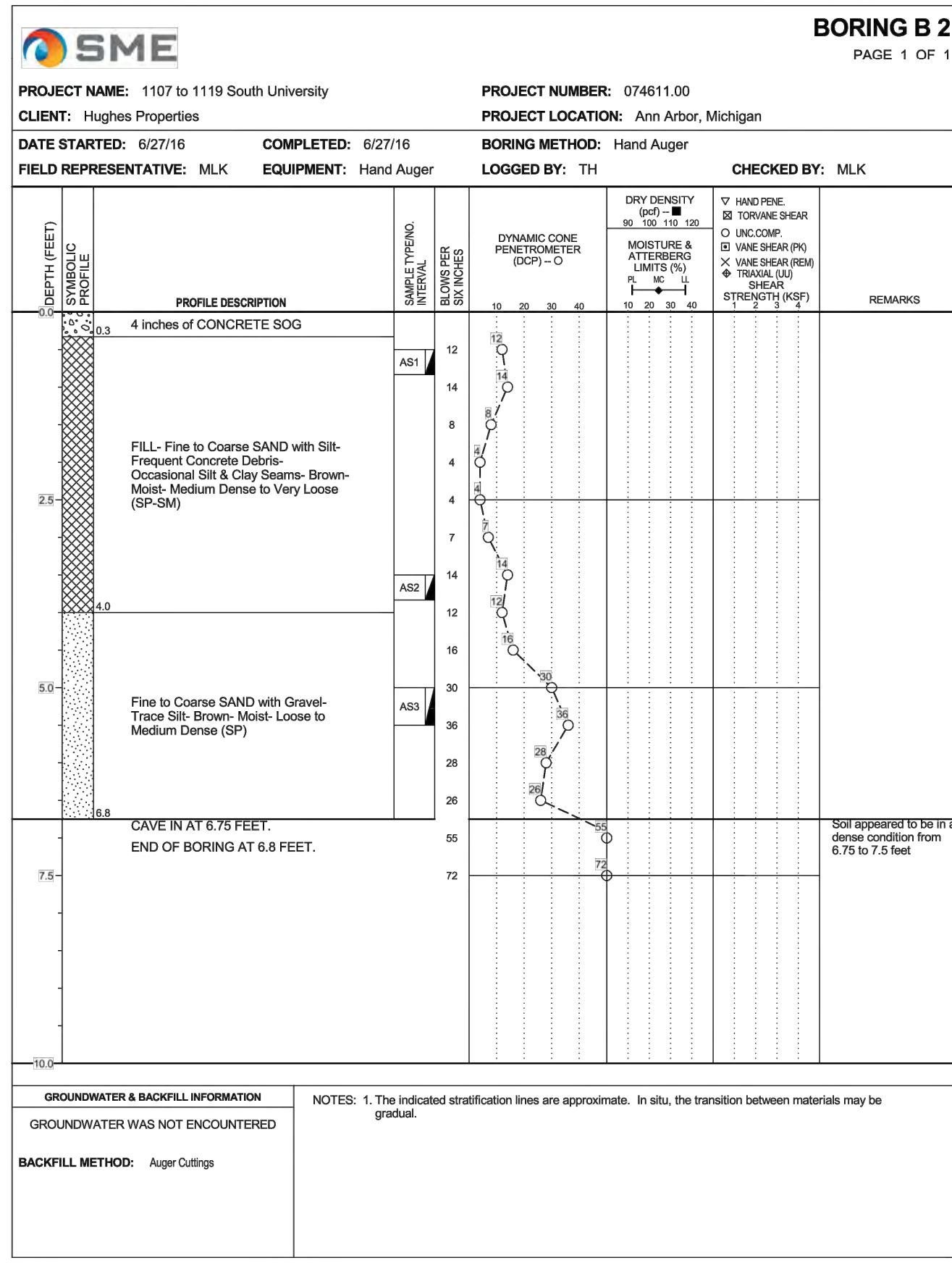
Project Location
ANN ARBOR, MICHIGAN

Sheet Name
BORING AND INFILTRATION TEST LOCATION PLAN

No.	Revision Date

Date 07-20-16
CADD GM
Designer MLK
Scale 1" = 40'
Project 074611.00
Figure No. 1

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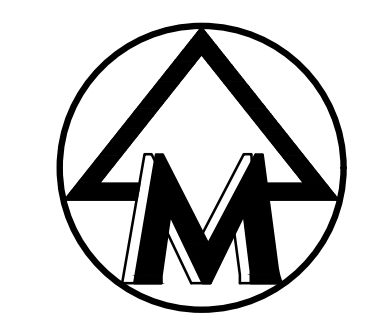
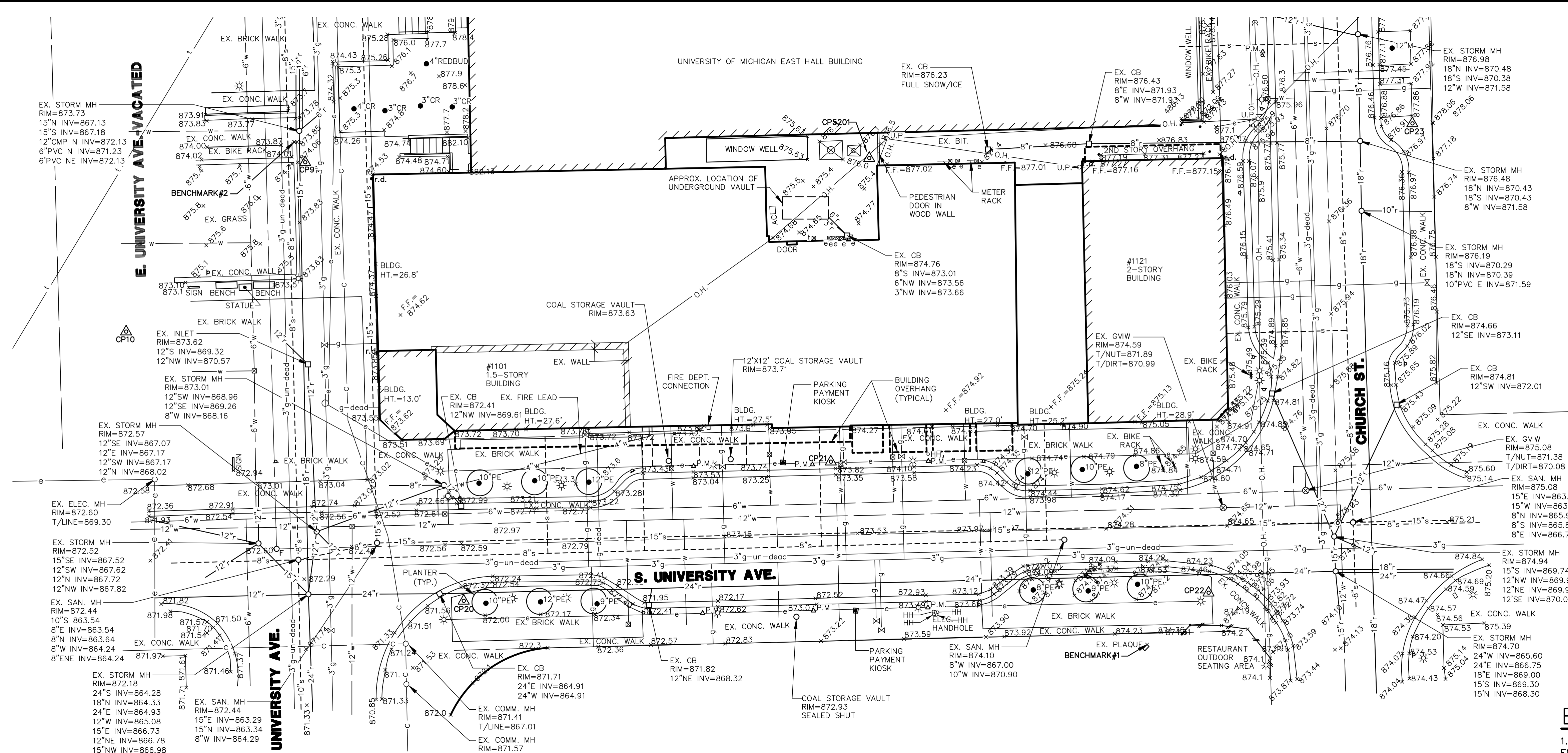
THE COLLEGEAN NORTH
 SITE PLAN
 SOIL BORINGS

3

DATE:	10/28/16
SHEET:	3 OF 26
REV. DATE:	
CADD:	DAG
ENG.:	SOF
PLN.:	TJC
TECH.:	TJC
FILE:	15006C01.dwg

JOB No. 15006

MA:\Civ\132_Pro\15006_Site Plan\15006E1.dwg, 2/1/2017 11:10 AM, Scott G. Finher, None
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SCALE: 1" = 20'
0 20 40 60



LEGEND

- × B36.2 EXIST. SPOT ELEVATION
- o- U.P. EXIST. UTILITY POLE
- O.H.- EXIST. OVERHEAD UTILITY LINE
- * EXIST. LIGHT POLE
- e- EXIST. ELECTRIC LINE
- g- EXIST. GAS LINE
- c- EXIST. COMMUNICATION LINE
- w- EXIST. WATER MAIN
- ⊕ EXIST. HYDRANT
- ⊗ EXIST. GATE VALVE IN BOX
- ⊘ EXIST. GATE VALVE IN WELL
- ⊙ EXIST. CURB STOP & BOX
- ⊚ EXIST. STORM SEWER
- s-o- EXIST. STORM SEWER
- s- EXIST. SANITARY SEWER
- ⊙ SIGN
- ⊙ P.M. PARKING METER
- ⊙ ELECTRIC METER
- ⊙ POST
- f- FENCE
- ⊙ SINGLE TREE (PE = PEAR)
- ⊙ FOUND MONUMENT
- ⊙ CONTROL PT.

BENCHMARKS

- 1.) SET BM-TOP/NORTH CORNER ON PLAQUE IN SIDEWALK AT ENTRANCE TO "GOOD TIME CHARLIES". ELEVATION=874.33 NAVD 88.
- 2.) SET BM-TOP/WALL END 10 FEET NORTH AND 23 FEET WEST OF NW BUILDING CORNER OF 1101 SOUTH UNIVERSITY AVENUE. ELEVATION=876.39 NAVD 88.

NOTES

1. ASCE 38-02 QUALITY LEVEL SURVEY INVOLVES SURVEYING VISIBLE ABOVE GROUND UTILITY FACILITIES SUCH AS MANHOLES, VALVE BOXES, POSTS, ETC., AND CORRELATING THIS INFORMATION WITH EXISTING UTILITY RECORDS. WHEN USING THIS INFORMATION, IT IS NOT UNUSUAL TO FIND THAT MANY UNDERGROUND UTILITIES HAVE BEEN EITHER OMITTED OR ERRONEOUSLY PLOTTED.
2. ALL EXISTING ON-SITE EASEMENTS ARE TO BE VACATED OR RELOCATED AS NECESSARY PER THE PROPOSED DEVELOPMENT PLANS.
3. SEE SHEET 2 FOR EXISTING PROPERTY LEGAL DESCRIPTIONS.
4. THE EXISTING 10 FOOT WIDE COMMON RIGHT-OF-WAY NORTH OF 1119 AND 1121 S. UNIVERSITY IS TO BE ADDED TO THOSE RESPECTIVE PROPERTIES WITH A NEW ACCESS EASEMENT CREATED TO MAINTAIN ACCESS TO THE ENTIRE EXISTING ALLEY.

GENERAL SOILS DESCRIPTION

SOURCE: SOIL SURVEY OF WASHTENAW COUNTY
USDA SOIL CONSERVATION SERVICE, 1977

FOX SERIES:
Well drained, nearly level to steep soils formed in loamy textured and sandy textured gravelly sand. These soils are on outwash plains, kames, valley trains, terraces, and moraines. Available water capacity and permeability is moderate.

FoA- FOX SANDY LOAM, 0 TO 2 PERCENT SLOPES; CLASS B
This soil is slightly droughty and runoff is slow. Depth to seasonal high water table is >5 feet.

To: South University - North LLC, and Absolute Title Inc.:

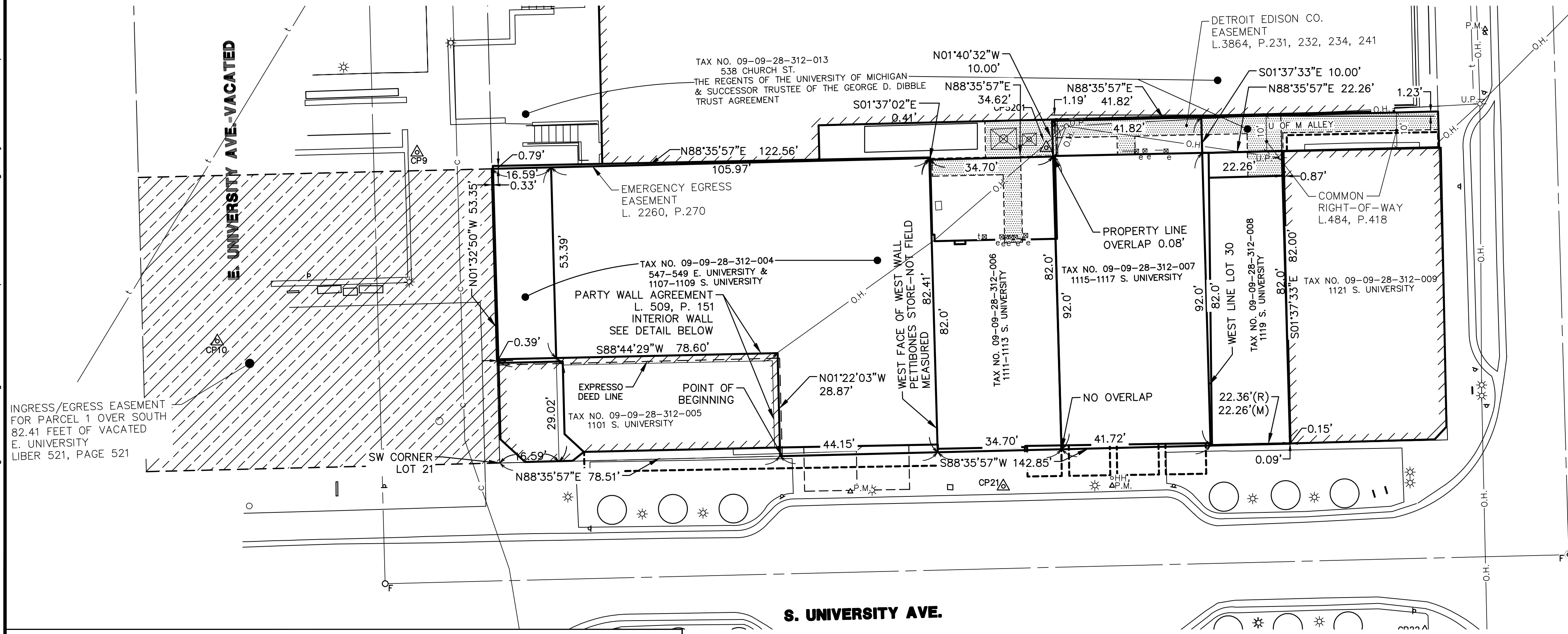
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 7A, 8, 9, 10, 11 and 13 of Table A thereof. The field work was completed on February 2, 2015.

MIDWESTERN CONSULTING, LLC

By: Patrick L. Hastings, P.S. No. 37274

Date: 10/28/16

EXISTING CONDITIONS PLAN



EXISTING BOUNDARY PLAN

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

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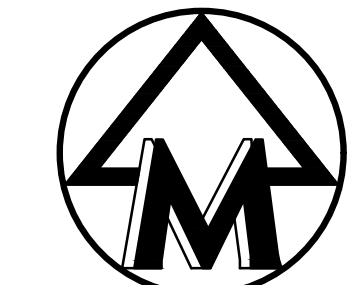
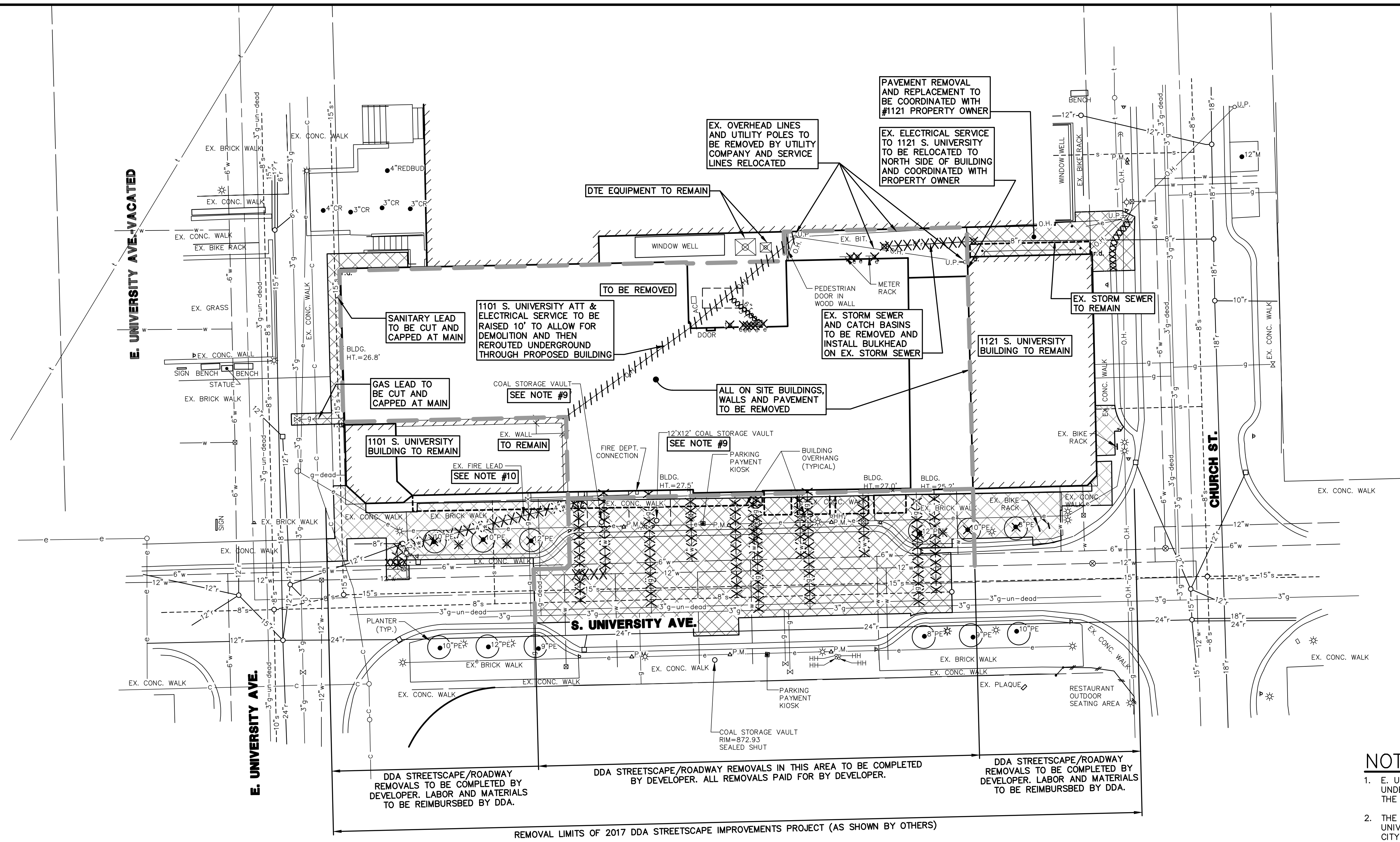
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THE COLLEGIAN NORTH
SITE PLAN
EXISTING CONDITIONS

4

DATE: 10/28/16	SHEET 4 OF 26
REV. DATE: 12/05/16	CADD: DAG
ENG: SGF	PLM: TJC
TECH: JAW	DATE PLOTTED: 12/05/16

JOB No. **15006**



SCALE: 1" = 20'
 0 20 40 60



LEGEND

U.P.	EXIST. UTILITY POLE
O.H.	EXIST. OVERHEAD UTILITY LINE
*	EXIST. LIGHT POLE
e	EXIST. ELECTRIC LINE
g	EXIST. GAS LINE
c	EXIST. COMMUNICATION LINE
w	EXIST. WATER MAIN
h	EXIST. HYDRANT
g	EXIST. GATE VALVE IN BOX
g	EXIST. GATE VALVE IN WELL
r	EXIST. CURB STOP & BOX
s	EXIST. STORM SEWER
s	EXIST. CATCH BASIN OR INLET
s	EXIST. SANITARY SEWER
SIGN	
Δ P.M.	PARKING METER
⊕	ELECTRIC METER
•	POST
—	FENCE
●	SINGLE TREE
⊙	FOUND MONUMENT
⊙	CONTROL PT.
⊙	TRAFFIC SIGNAL CONTROL BOX
⊙	EXIST. GAS SHUT OFF
⊙	PAVEMENT REMOVALS (INCLUDED IN CONTRACT)
×	REMOVALS

NOTES

- E. UNIVERSITY STREET, S. UNIVERSITY AVENUE AND CHURCH STREET ARE UNDER THE JURISDICTION OF THE CITY OF ANN ARBOR. ALL WORK WITHIN THE RIGHTS-OF-WAY IS SUBJECT TO A PERMIT FROM THE CITY.
- THE ACTIVE EXISTING SANITARY SERVICE LEADS IN E. UNIVERSITY AND S. UNIVERSITY AVENUE ARE TO BE CUT AND CAPPED BY THE CONTRACTOR OR CITY PERSONNEL PER CITY OF ANN ARBOR STANDARDS. THE EXISTING WATER SERVICE LEADS IN S. UNIVERSITY AVENUE ARE TO BE CUT AND CAPPED AT THE MAIN BY THE CONTRACTOR PER CITY OF ANN ARBOR STANDARDS. THE CONTRACTOR AND CITY ARE TO VERIFY WHICH WATER SERVICE LEADS HAVE ALREADY BEEN CUT AND CAPPED AT THE MAIN.
- ALL FRANCHISE UTILITIES ARE TO BE REMOVED BY OR PER THE PARTY HAVING JURISDICTION. THE EXISTING GAS SERVICE LINES IN S. UNIVERSITY AVENUE ARE TO BE CUT AND CAPPED AT THE MAIN BY THE UTILITY COMPANY.
- STREET TREES TO BE REMOVED ALONG S. UNIVERSITY AVENUE AS PART OF THE S. UNIVERSITY AVENUE STREETScape PROJECT WILL BE REMOVED DURING CONSTRUCTION OF THIS PROJECT PER THE DDA SOUTH UNIVERSITY STREETScape PLAN.
- ALL SITE WORK IS TO COMPLY WITH THE CITY OF ANN ARBOR STANDARD SPECIFICATIONS AVAILABLE ON LINE. [www.a2gov.org/departments/engineering/Documents/Table of Contents.pdf](http://www.a2gov.org/departments/engineering/Documents/Table%20of%20Contents.pdf)
- ALL EXISTING ON-SITE IMPROVEMENTS ARE TO BE REMOVED.
- DURING DEMOLITION OF THE EXISTING STRUCTURES, THE CONTRACTOR WILL BE RESPONSIBLE FOR IDENTIFYING ANY EXISTING FOOTING DRAINS THAT ARE CONNECTED TO THE SANITARY SEWER. THESE ARE TO BE VERIFIED ON SITE BY THE CITY PRIOR TO REMOVAL. IF FOOTING DRAINS FOR THE EXISTING BUILDINGS ARE CONNECTED TO THE SANITARY SEWER SYSTEM, DISCONNECTION WILL BE REQUIRED IN ACCORDANCE WITH CURRENT CITY SPECIFICATIONS. TO SCHEDULE INSPECTION, CALL THE CITY OF ANN ARBOR PROJECT MANAGEMENT SERVICES UNIT AT (734) 794-6410. DISCONNECTION OF EXISTING FOOTING DRAINS MAY BE TAKEN AS A CREDIT AGAINST REQUIRED SANITARY SEWER FLOW MITIGATION.
- EXISTING SERVICE LEADS WILL NOT BE REUSED.
- EXISTING COAL STORAGE VAULTS LOCATED OUTSIDE OF THE EXISTING BUILDING(S) SHALL HAVE THE BOTTOM SLAB, IF ONE EXISTS, BROKEN AND PENETRATED TO ALLOW FOR DRAINAGE AND BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 95% MAXIMUM DENSITY. OTHER UNDERGROUND VAULTS SHALL BE REMOVED AND BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 95% MAXIMUM DENSITY.
- EXISTING WATER SERVICE LEAD SHALL BE CUT AND CAPPED AT MAIN PER NOTE #2, ABOVE, AND EXISTING PIPE SHALL BE ABANDONED IN PLACE.

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THE COLLEGEIAN NORTH
 SITE PLAN
 REMOVAL PLAN

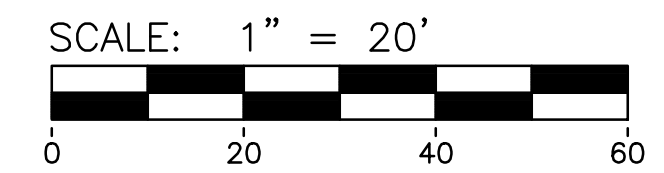
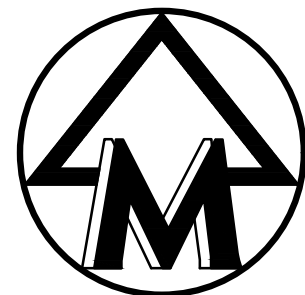
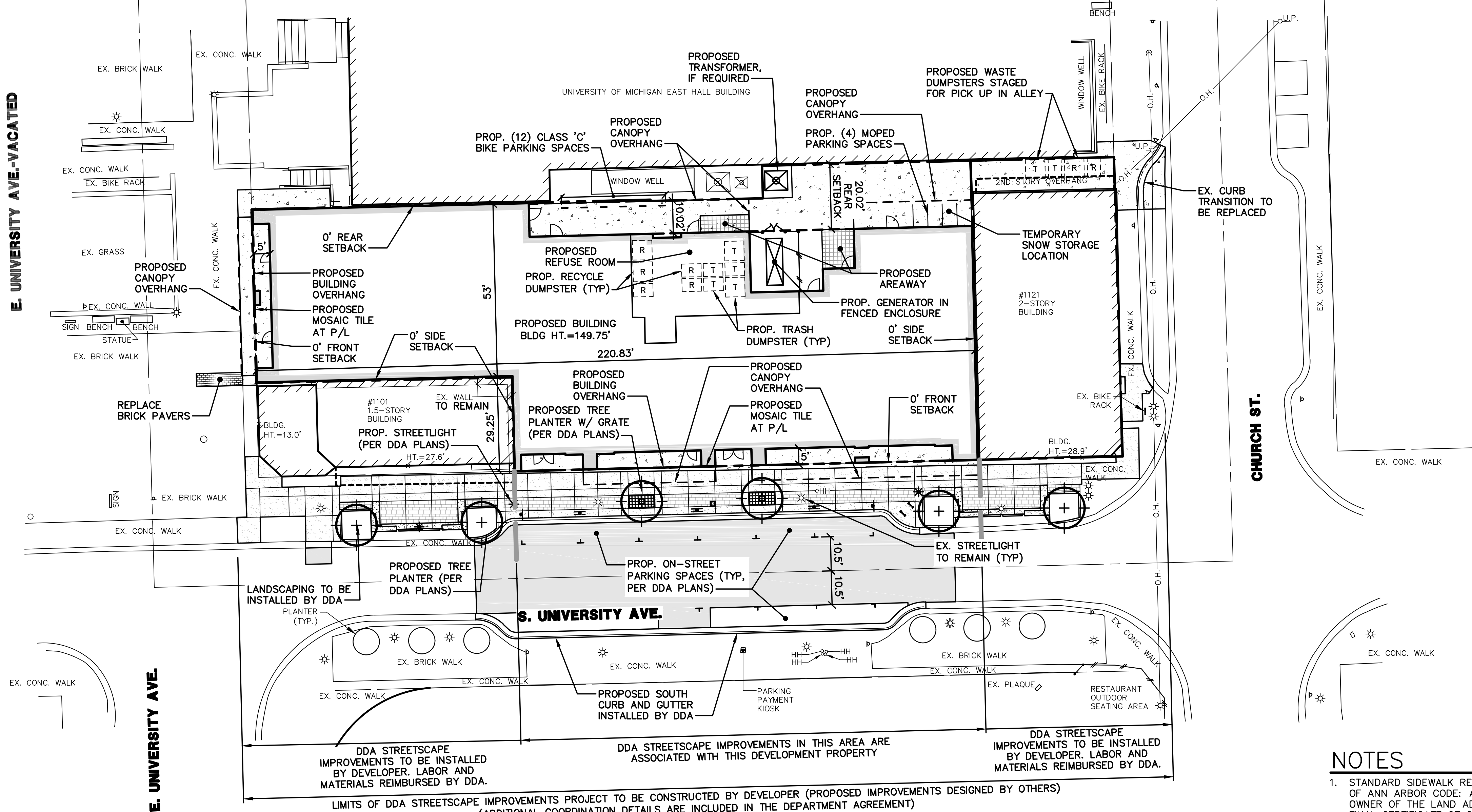
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JOB No.	15006
DATE	10/28/16
SHEET	5 OF 26
REV. DATE	12/05/16
1-REV. PER CITY REVIEW	
2-REV. PER OWNER & CITY REVIEW	
CADD: DAG	
ENG: SGF	
PH: TJC	
TECH: TJC	
PLT: TJC	

M:\Civ\134_Pro\15006_Site Plan\15006_Site Plan.dwg, 2/1/2017 11:11 AM, Sheet 6 of 26, Midwestern Consulting L.L.C. All rights reserved. No part of this drawing may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior permission of Midwestern Consulting L.L.C.

E. UNIVERSITY AVE.-VACATED

E. UNIVERSITY AVE.



LEGEND

- SIGN
- PARKING METER
- RAMP
- EXIST. CURB & GUTTER
- PROP. CURB & GUTTER
- EXIST. STREET LIGHT
- PROPOSED/RELOCATED STREET LIGHT
- PROPOSED PROJECT BOUNDARY
- PROP. BITUMINOUS PAVEMENT
- PROP. CONCRETE PAVEMENT
- PROP. DDA STREET TREE

NOTES

1. STANDARD SIDEWALK REPAIR AND MAINTENANCE NOTE PER CHAPTER 49, SECTION 4:58 OF CITY OF ANN ARBOR CODE: ALL SIDEWALKS ARE TO 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.
2. ALL SIDEWALKS SHALL MEET REQUIREMENTS AND GUIDELINES AS SET FORTH IN THE ADA STANDARDS FOR ACCESSIBLE DESIGN.
3. SOUTH UNIVERSITY STREETScape DESIGN IS DRAWN PER SOUTH UNIVERSITY IMPROVEMENTS PLANS PROVIDED BY SMITHGROUP JJR DATED DECEMBER 5, 2016 AND AMENDED ON DECEMBER 21, 2016 AND JANUARY 6, 2017. PROPOSED SOUTH UNIVERSITY STREETScape INCLUDES A CONCRETE SIDEWALK, CURBED LANDSCAPE BED AT STREET TREES, TREE GRATES, BIKE RACK, BRICK PAVERS AND PROPOSED PEDESTRIAN LIGHTS. THE ANN ARBOR DOWNTOWN DEVELOPMENT AUTHORITY (DDA) IS PREPARING STREETScape PLANS FOR THE CORRIDOR, AND WORK ALONG THIS BUILDING SHALL MATCH THE DDA'S DESIGN. REFER TO PLANS PREPARED BY SMITHGROUP JJR FOR ALL DIMENSIONS AND DETAILS OF PROPOSED STREETScape IMPROVEMENTS.
4. THE DEVELOPER WILL COMPLETE THE STREETScape RENOVATIONS ON THE NORTH SIDE OF SOUTH UNIVERSITY BETWEEN EAST UNIVERSITY AND CHURCH STREET WITH THE EXCEPTION OF LANDSCAPING AS DIMENSIONED ON THE DIMENSIONAL SITE PLAN. THE DEVELOPER WILL FURNISH ALL LABOR AND MATERIAL NECESSARY TO COMPLETE THE RENOVATIONS WITH THE EXCEPTION OF THE FOLLOWING:
 - THE DDA WILL FURNISH THE GRATES, PAVERS, BIKE HOOPS, BENCHES, LIGHT GLOBES, AND PLANTER CURB MATERIALS FOR THE ENTIRE BLOCK
 - THE DDA WILL REIMBURSE THE DEVELOPER FOR THE LABOR AND MATERIAL COSTS ASSOCIATED WITH THE WORK FRONTING 1101 AND 1121 SOUTH UNIVERSITY.
 - THE DDA WILL INSTALL ALL LANDSCAPING. THE DEVELOPER WILL BE RESPONSIBLE TO REIMBURSE THE DDA FOR THE COST OF THE LANDSCAPING FRONTING THE DEVELOPMENT PROPERTY.
4. THERE ARE NO PROPOSED FIREWALLS IN THE BUILDING.
5. THE FOUNDATION SYSTEM WILL BE FULLY DESIGNED DURING PREPARATION OF THE CONSTRUCTION PLANS. IF TEMPORARY TIE-BACKS ARE REQUIRED IN THE RIGHT-OF-WAY FOR CONSTRUCTION PURPOSES, A TEMPORARY LICENSING AGREEMENT WILL BE PROVIDED. BUILDING FOOTINGS WILL NOT BE LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY.
6. TRASH MANAGEMENT SYSTEMS: TRASH WILL BE COLLECTED IN THE BUILDING, AND ROLLED OUT ON TRASH DAY TO THE ALLEYWAY FOR PICKUP AT THE CURB.
7. PROPOSED GENERATOR IS TO BE LOCATED INSIDE THE BUILDING FOOTPRINT WITH OUTSIDE ACCESS FROM THE ALLEY. AN ADDITIONAL TRANSFORMER IS TO BE LOCATED ADJACENT TO EXISTING TRANSFORMER AND ELECTRICAL EQUIPMENT OUTSIDE ALONG THE NORTH SIDE OF THE ALLEY. OPERATION AND MAINTENANCE, INCLUDING REGULAR TESTING OF SUCH EQUIPMENT, IS SUBJECT TO CHAPTER 119 NOISE CONTROL.
8. PROPOSED MOSAIC TILES ARE TO BE INSTALLED IN THE PROPOSED SIDEWALK ADJACENT TO AND INSIDE OF THE WEST AND SOUTH PROPERTY LINES. NO TILES WILL BE INSTALLED WITHIN THE RIGHT-OF-WAY.
9. THE PROPOSED BUILDING OVERHANGS ALONG S. UNIVERSITY AND E. UNIVERSITY ARE A MINIMUM OF 12'-0" ABOVE THE PROPOSED SIDEWALK GRADE.

PROPOSED LEGAL DESCRIPTION

LEGAL DESCRIPTION OF A 0.380 ACRE PARCEL OF LAND LOCATED IN SECTION 28, T2S, R6E, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN

Commencing at the SW Corner of Lot 21 of "R.S. Smith's Addition to the City of Ann Arbor", as recorded in Liber 42 of Deeds, Pages 446 & 447, Washtenaw County Records, thence N 88°35'57" E 78.51 feet along the South line of said Lot 21 and the North right-of-way line of South University Avenue (variable width) to the Point of Beginning;

thence N 01°22'03" W 28.87 feet along the East face of an existing wall and in the Southerly extension of the wall;

thence S 88°44'29" W 78.60 feet along the North face of an existing wall and its extension West;

thence N 01°32'50" W 53.35 feet along the West line of Lot's 21 and 22 of said "R.S. Smith's Addition to the City of Ann Arbor";

thence N 88°35'57" E 122.56 feet parallel to South University Avenue;

thence S 01°37'02" E 0.41 feet along a line which is the continuation Northerly of the West face of the West wall of Pettibone's Store;

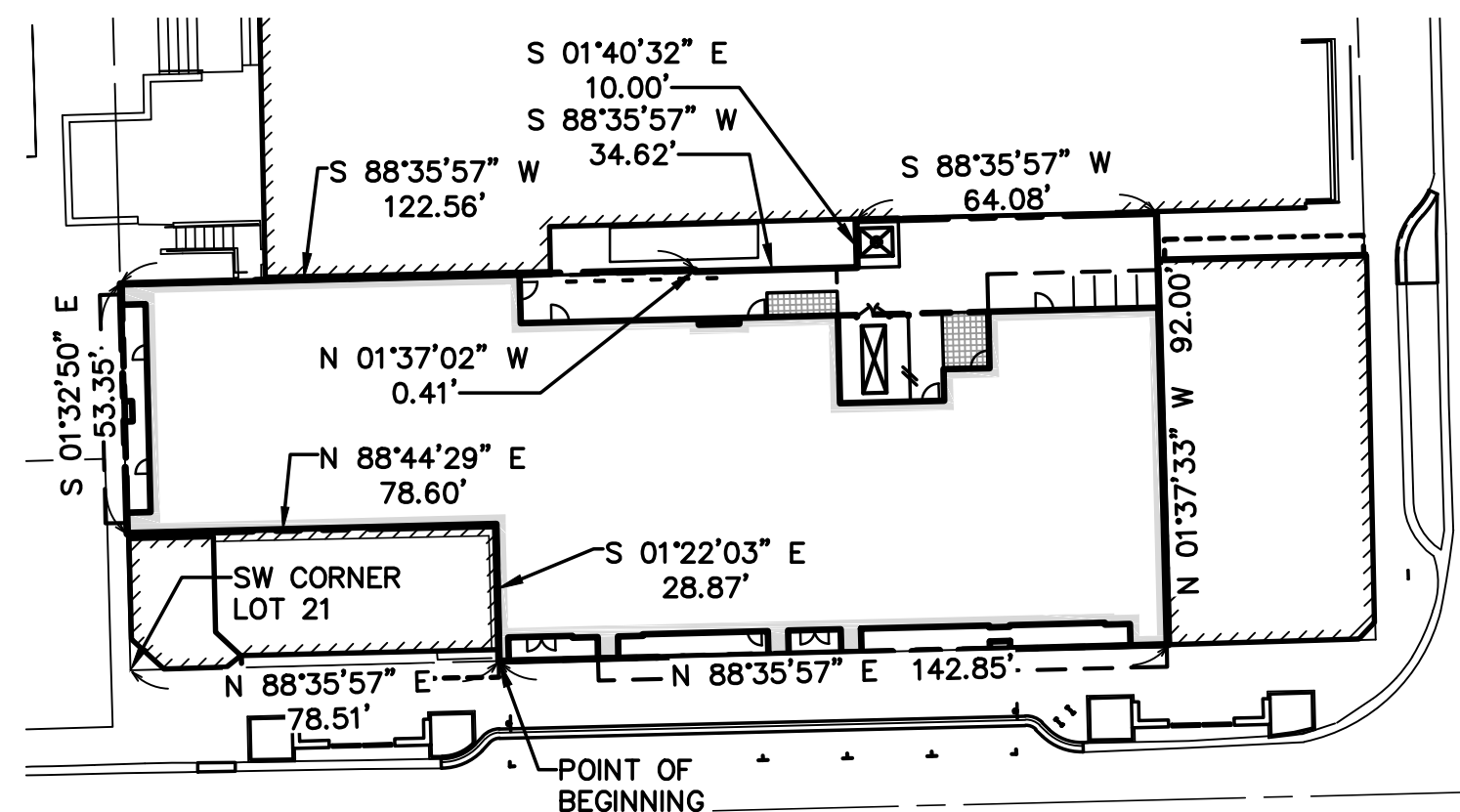
thence N 88°35'57" E 34.62 feet parallel to South University Avenue;

thence N 01°40'32" W 10.00 feet;

thence N 88°35'57" E 64.08 feet parallel to South University Avenue;

thence S 01°37'33" E 92.00 feet parallel to the West line of Lot 30 of said "R.S. Smith's Addition to the City of Ann Arbor";

thence S 88°35'57" W 142.85 feet along the North line of South University Avenue and along the South line of said Lots 21, 29, and 30 of said "R.S. Smith's Addition to the City of Ann Arbor" to the Point of Beginning. Being a part of the E 1/2 of the SW 1/4 of Section 28, T2S, R6E, City of Ann Arbor, Washtenaw County, Michigan and containing 0.3803 acres of land, more or less. Being subject to easements and restrictions of record, if any.



PROPOSED PARCEL SKETCH
1" = 40'

LANDSCAPE REQUIREMENTS

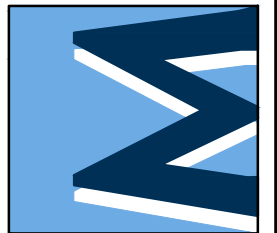
1. STREET TREE CANOPY LOSS: NOT APPLICABLE - STREET TREE CANOPY LOSS IS ASSOCIATED WITH DDA STREETScape IMPROVEMENT PROJECT TREES TO BE REMOVED: 10", 10", 12", 12", 10", 8" PEAR = TOTAL 62" DBH REPLACEMENT TREES: SIX 3" CALIPER TREES TOTAL CALIPER INCHES OF REPLACEMENT TREES - 18"
2. STREET TREE ESCROW: S. UNIVERSITY STREET FRONTAGE = 143 LF 143 LF X \$1.30 = \$185.90 OR EQUIVALENT STREET TREE ESCROW OF \$185.90 WILL BE PROVIDED PRIOR TO ISSUING BUILDING PERMITS AND WILL BE REFUNDED AFTER CITY STAFF INSPECTION SHOWS LONG TERM SURVIVAL OF THE PROPOSED STREET TREES.
3. LANDMARK TREE REPLACEMENT: NONE REQUIRED
4. 5:602 VEHICULAR USE AREA LANDSCAPING AND SCREENING: RIGHT-OF-WAY SCREENING: NOT APPLICABLE INTERIOR LANDSCAPE ISLANDS: NOT APPLICABLE
5. 5:603 CONFLICTING LAND USE BUFFERS: NOT APPLICABLE

PARKS CONTRIBUTION

PER CITY OF ANN ARBOR DEVELOPER CONTRIBUTIONS FOR PARKS AND OPEN SPACE GUIDANCE, THE DEVELOPMENT WILL INCLUDE A CONTRIBUTION IN LIEU OF LAND TO THE CITY OF ANN ARBOR PARKS AND RECREATION AT A RATE OF 0.0124 ACRES PER RESIDENTIAL UNIT.

55 UNITS X 0.0124 ACRES = 0.682 X \$50,000 = \$34,100.00

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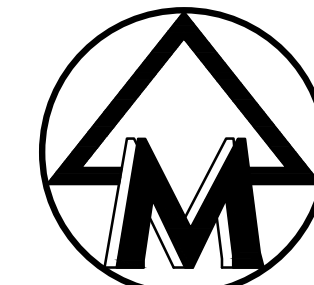
CLIENT
SOUTH UNIVERSITY - NORTH LLC.
30100 TELEGRAPH ROAD, SUITE 220
BINGHAM FARMS, MI 48205
SEAN T. HAVERA
(248) 647-2600

THE COLLEGIAN NORTH
SITE PLAN
DIMENSIONAL SITE PLAN

6

JOB No.	15006
DATE:	10/28/16
SHEET:	6 OF 26
REV. DATE	12/05/16
1-ADD PROP. PARCEL SKETCH & LEGAL	1/04/17
2-REV. PROP. OWNER & CITY REVIEW	1/31/17
TECH:	TSB/STW/ldg
DRW:	TSB

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SCALE: 1" = 20'



Know what's below.
Call before you dig.

LEGEND

- ×878.2 EXIST. SPOT ELEVATION
- 878.20 PROP. SPOT ELEVATION
- o- U.P. EXIST. UTILITY POLE
- o- U.P. EXIST. UTILITY POLE W/ TRANS.
- o- GUY WIRE
- ⊠ ELEC. TRANSFORMER
- OH EXIST. OVERHEAD UTILITY LINE
- * EXIST. LIGHT POLE
- * PROP. LIGHT POLE
- t- EXIST. TELEPHONE LINE
- t- PROP. TELEPHONE LINE
- e- EXIST. ELECTRIC LINE
- e- PROP. ELECTRIC LINE
- g- EXIST. GAS LINE
- g- PROP. GAS LINE
- g- EXIST. GAS VALVE
- f.o- EXIST. FIBER OPTIC LINE
- f.o- PROP. FIBER OPTIC LINE
- w- EXIST. WATER MAIN
- w- PROP. WATER MAIN
- H- EXIST. HYDRANT
- H- PROP. HYDRANT
- B- EXIST. GATE VALVE IN BOX
- B- PROP. GATE VALVE IN BOX
- B- EXIST. GATE VALVE IN WELL
- B- PROP. GATE VALVE IN WELL
- X- EXIST. CURB STOP & BOX
- X- PROP. CURB STOP & BOX
- R- EXIST. REDUCER
- R- PROP. REDUCER
- B.O- EXIST. BLOW-OFF
- B.O- PROP. BLOW-OFF
- P.I.V- POST INDICATOR VALVE
- T.B- THRUST BLOCK
- K.B- PROP. KNOXBOX
- R.S- EXIST. STORM SEWER
- R.S- PROP. STORM SEWER
- C.B- EXIST. CATCH BASIN OR INLET
- C.B- PROP. CATCH BASIN OR INLET
- D.S- EXIST. DOWNSPOUT
- D.S- PROP. DOWNSPOUT
- S.S- EXIST. SANITARY SEWER
- S.S- PROP. SANITARY SEWER
- >- DRAINAGE DIRECTION
- b- SIGN
- P.M- PARKING METER
- M- MAILBOX
- C.T.V- TELEPHONE RISER
- E.M- CABLE TELEVISION RISER
- W.M- ELECTRIC METER
- G.M- WATER METER
- G.M- GAS METER
- F.O.M- FIBER OPTIC MARKER
- P- POST
- L.D- LIMITS OF DISTURBANCE
- F.F- FINISH FLOOR ELEVATION

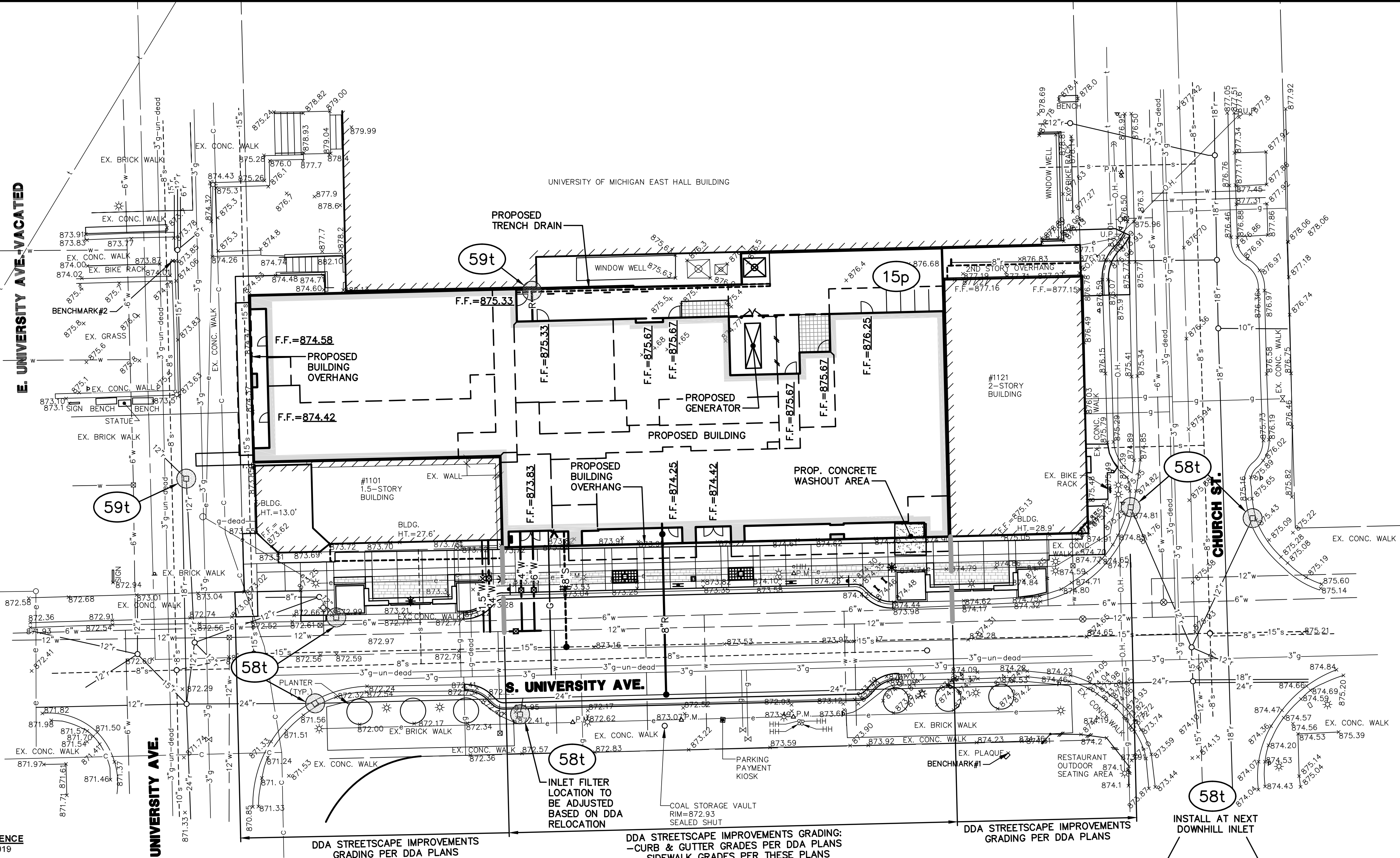
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(248) 647-2600

THE COLLEGE NORTH
SITE PLAN
GRADING AND SOIL EROSION CONTROL PLAN

7

JOB No. **15006**
DATE: 10/25/16
SHEET 6 OF 26
REV. DATE: 12/05/16
1-REV. PER CITY REVIEW
2-REV. PER OWNER & CITY REVIEW
CADD: DAG
ENG: SGT
1/31/17
P.M.: TJC
TECH.:
DATE: 10/25/16
SHEET 6 OF 26
REV. DATE: 12/05/16
1-REV. PER CITY REVIEW
2-REV. PER OWNER & CITY REVIEW



CONSTRUCTION SEQUENCE
8/24/2017 thru 8/16/2019

1. Inventory Site: (<1 week)
 - SESC pre-grading meeting
 - Identify construction limits and define site access
 - Install construction fencing as required to secure site
 2. Building Demolition: (4 weeks)
 - Install inlet filters
 - Environmental Asbestos Abatement
 - Demolish buildings and site amenities, including curb and gutter and pavement as required
 - Cut and temporarily cap existing utilities that will be removed to main Mass Excavation: (2 weeks)
 - Install all remaining soil erosion control measures
 - Maintain existing controls
 - Install earth retention system
 3. Foundation Construction and Utility Installation/Removal: (8 weeks)
 - Maintain existing controls; install permanent controls within five (5) days after final grading or final grade change
 - Construct detention chamber within the building foundation
 - Install sanitary sewer lead
 - Install water main leads
 - Install storm sewer lead
 - Install silt sack on any proposed inlets
 - Restore pavement within thru traffic lanes that was removed during utility installation.
 - A wet or dry standpipe shall be installed per 3311.1 of the Michigan Building Code. The standpipe can be permanent or temporary with a permanent or temporary FDC provided. Connections for hose operations shall be 2 1/2" NST.
 - Excavate for foundation/basement/storm detention chamber
 4. Building Construction: (84 weeks)
 - Maintain existing controls; install permanent controls within five (5) days after final grading or final grade change
 5. Install Sidewalk, Curb and Gutter, Alley Pavement, Final Street Paving and continue Building Construction: (3 weeks)
 - Maintain existing controls
 - Install Sidewalk, Curb and Gutter and Final Street Paving
 - Plant landscape items
 6. Follow-Up After the Site is Stabilized: (1 week)
 - Remove construction fencing
 - Remove catch basin silt sacks
 - Remove sediment from detention chambers and storm sewer system
 - Clean up debris
 7. Finalize Building Construction: (1 week)
 - Prior to the first Certificate of Occupancy, all Life Safety Systems shall be completed, tested and approved.
 - A "Knox Box" emergency responder access system shall be installed prior to the first Certificate of Occupancy. Forms for the Knox Box are available thru Fire Prevention.
 - Provide as-built certification of the storm water detention system.
- Note: Construction sequence & schedule is preliminary and subject to adjustment in response to forces beyond our control. These may include weather, material availability, labor unrest or other unforeseen circumstances.

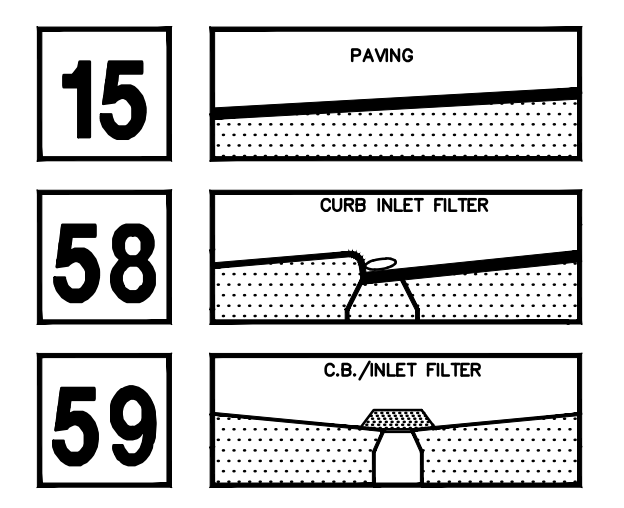
- SOIL EROSION CONTROL NOTES:**
1. All soil erosion control measures shall comply with the current City of Ann Arbor ordinances, Washtenaw County standards and specifications for soil erosion and sedimentation control, and State of Michigan "Soil Erosion and Sedimentation Control Act - P.A. 347".
 2. Prior to commencing earthmoving operations, the grading contractor shall install the temporary catch basin filter(s) shown on the plans.
 3. The removal of trapped sediment and the cleanout or replacement of clogged storm sewer may be necessary after each storm event during the project.
 4. Only upon stabilization of all disturbed areas may the temporary inlet filters be removed. All storm sewers must be also cleaned of all sediment.
 5. All inlets and catch basins will have sediment filters installed after their construction. These filters will be maintained until all areas around the structure have been stabilized.
 6. The Contractor will maintain all necessary soil erosion control devices until soil stabilization has occurred.
 7. Appropriate emergency access will be provided during construction.
 8. The estimated cost of soil erosion control measures is \$2500.
 9. The estimated cost to protect all soil surfaces from erosion should construction discontinue is \$1000.
 10. External streets will be immediately cleaned of any tracked mud following each mud-tracking occurrence.
 11. Estimated project earthwork is 400 CYD excavation and 3,000 CYD fill.
 12. Dewatering operations during construction, if necessary, must be done per City requirements including sediment control and disposal. Discharge should be to the S. University Avenue storm sewer.
 13. Final locations and dimensions of the concrete washout area are to be determined by the contractor subject to City approval.

MAINTENANCE PROGRAM FOR SOIL EROSION CONTROLS

1. The Owner shall be responsible for maintaining the permanent soil erosion control measures.

SOIL EROSION CONTROL MEASURES

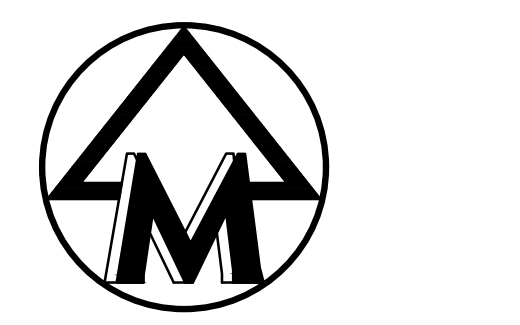
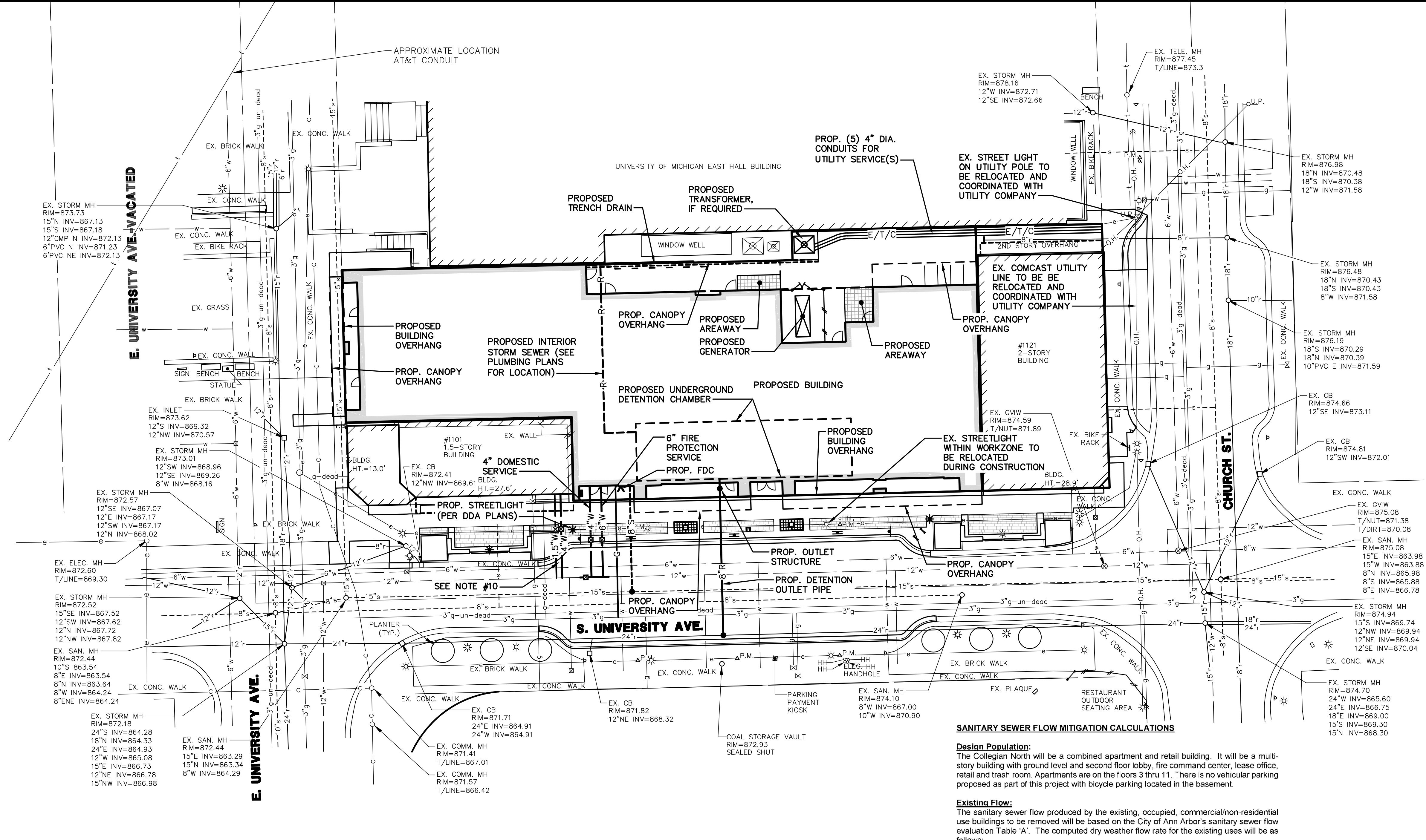
t = temporary p = permanent



PERMANENT MAINTENANCE TASKS AND SCHEDULE

Components	Components				Schedule	Annual Cost
	Storm Sewer System	Catch Basin Sumps	Detention Chamber	Outflow Control Structure		
Inspect for sediment accumulation	X	X	X	X	semi-annual	\$200
Removal of sediment accumulation	X	X	X	X	every 2 years, as needed	\$400
Inspect for floatables and debris	X	X	X	X	annually	\$100
Cleaning of floatables and debris	X	X	X	X	annually	\$400

M:\Civ\15006\Site Plan\15006.dwg, 3/1/2017 3:55 PM, Scott G. Fisher, None
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LEGEND

	EXIST. UTILITY POLE
	EXIST. UTILITY POLE W/ TRANS.
	GUY WIRE
	ELEC. TRANSFORMER
	EXIST. OVERHEAD UTILITY LINE
	EXIST. LIGHT POLE
	EXIST. TELEPHONE LINE
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	EXIST. DOWNSPOUT
	PROP. DOWNSPOUT
	EXIST. SANITARY SEWER
	PROP. SANITARY SEWER
	DRAINAGE DIRECTION
	SIGN
	PARKING METER
	MAILBOX
	TELEPHONE RISER
	CABLE TELEVISION RISER
	ELECTRIC METER
	WATER METER
	GAS METER
	FIBER OPTIC MARKER
	POST

- ### NOTES
- PROPOSED SOUTH UNIVERSITY STREETScape INCLUDES A CONCRETE SIDEWALK, CURBED LANDSCAPE BED AT STREET TREES, TREE GRATES BIKE RACK, AND PROPOSED PEDESTRIAN LIGHTS. THE ANN ARBOR DOWNTOWN DEVELOPMENT AUTHORITY (DDA) IS PREPARING STREETScape PLANS FOR THE CORRIDOR, AND WORK ALONG THIS BUILDING SHALL MATCH THE DDA'S DESIGN. REFER TO PLANS PREPARED BY SMITHGROUP JUR FOR ALL UTILITY IMPROVEMENTS AND DETAILS OF PROPOSED STREETScape IMPROVEMENTS.
 - THE DEVELOPER WILL COMPLETE THE STREETScape RENOVATIONS ON THE NORTH SIDE OF SOUTH UNIVERSITY BETWEEN EAST DIMENSION AND CHURCH STREET WITH THE EXCEPTION OF LANDSCAPING AS DIMENSIONED ON THE DIMENSIONAL SITE PLAN. THE DEVELOPER WILL FURNISH ALL LABOR AND MATERIAL NECESSARY TO COMPLETE THE RENOVATIONS WITH THE EXCEPTION OF THE FOLLOWING:
 - THE DDA WILL FURNISH THE GRATES, PAVERS, BIKE HOOPS, BENCHES, LIGHT GLOBES, AND PLANTER CURB MATERIALS FOR THE ENTIRE BLOCK
 - THE DDA WILL REIMBURSE THE DEVELOPER FOR THE LABOR AND MATERIAL COSTS ASSOCIATED WITH THE WORK FRONTING 1101 AND 1121 SOUTH UNIVERSITY.
 - THE DDA WILL INSTALL ALL LANDSCAPING. THE DEVELOPER WILL BE RESPONSIBLE TO REIMBURSE THE DDA FOR THE COST OF THE LANDSCAPING FRONTING THE DEVELOPMENT PROPERTY.
 - DURING DEMOLITION OF THE EXISTING STRUCTURES, THE CONTRACTOR WILL BE RESPONSIBLE FOR IDENTIFYING ANY EXISTING FOOTING DRAINS THAT ARE CONNECTED TO THE SANITARY SEWER. THESE ARE TO BE VERIFIED ON SITE BY THE CITY PRIOR TO REMOVAL. IF FOOTING DRAINS FOR THE EXISTING BUILDINGS ARE CONNECTED TO THE SANITARY SEWER SYSTEM, DISCONNECTION WILL BE REQUIRED IN ACCORDANCE WITH CURRENT CITY SPECIFICATIONS. TO SCHEDULE INSPECTION, CALL THE CITY OF ANN ARBOR PROJECT MANAGEMENT SERVICES UNIT ALISON HEATLEY AT (734) 794-6410 EXT. 43621. DISCONNECTION OF EXISTING FOOTING DRAINS MAY BE TAKEN AS A CREDIT AGAINST REQUIRED SANITARY SEWER FLOW MITIGATION.
 - 100-YEAR STORM WATER DETENTION IS PROVIDED IN A CHAMBER IN THE BASEMENT LEVEL OF THE BUILDING. ALL ROOF DRAINS ARE TO RUN DOWN THROUGH THE BUILDING AND ARE TO CONNECT TO THE STORM DETENTION CHAMBER. ALL SITE DRAINAGE WILL ALSO ENTER THE STORMWATER CHAMBER, ROUTING THROUGH THE BASEMENT, AS NECESSARY. THE CHAMBER WILL PRIMARILY INFILTRATE INTO THE SITE SOILS, THOUGH STORM EVENTS GREATER THAN THE FIRST FLUSH STANDARD MAY PARTIALLY FLOW INTO THE PUBLIC CITY STORM SEWER LOCATED IN SOUTH UNIVERSITY.
 - A CHECK VALVE WILL BE PROVIDED ON THE OUTLET PIPE TO PREVENT ANY POTENTIAL STORM WATER BACKUP FROM THE EXISTING CITY STORM SEWER SYSTEM. THE VALVE WILL NOT BE LOCATED WITHIN THE S. UNIVERSITY RIGHT-OF-WAY.
 - THE SANITARY SEWER LEAD WILL TAP INTO THE EXISTING SANITARY MAIN IN SOUTH UNIVERSITY STREET. SANITARY SEWER MODELING IS TO BE DONE TO DETERMINE ANY REQUIRED OFF-SITE SANITARY SEWER IMPROVEMENTS. SANITARY SEWER FLOW MITIGATION IS TO BE PROVIDED AS REQUIRED.
 - DOMESTIC WATER AND FIRE SUPPRESSION WATER SERVICES ARE TO TAP INTO THE EXISTING 12" WATER MAIN IN SOUTH UNIVERSITY. BASED UPON SAMPLING AND CALCULATIONS, IT WILL BE DETERMINED WHETHER BOOSTER PUMPS WILL BE REQUIRED FOR DOMESTIC AND FIRE WATER SERVICES.
 - BASED UPON EXISTING GROUND CONDITIONS, DEWATERING OPERATIONS DURING CONSTRUCTION ARE NOT ANTICIPATED TO BE REQUIRED. ON-SITE SOILS ARE SAND AND THE WATER TABLE IS BELOW THE DEPTH OF THE PROPOSED EXCAVATION.
 - THERE ARE NO PROPOSED FIREWALLS IN THE BUILDING.
 - PROPOSED GENERATOR IS TO BE LOCATED INSIDE THE BUILDING FOOTPRINT WITH OUTSIDE ACCESS FROM THE ALLEY. AN ADDITIONAL TRANSFORMER IS TO BE LOCATED ADJACENT TO EXISTING TRANSFORMER AND ELECTRICAL EQUIPMENT OUTSIDE ALONG THE NORTH SIDE OF THE ALLEY. OPERATION AND MAINTENANCE, INCLUDING REGULAR TESTING OF SUCH EQUIPMENT, IS SUBJECT TO CHAPTER 119 NOISE CONTROL.
 - WATER SERVICE CONNECTIONS TO 1101 S. UNIVERSITY (1.5" DOMESTIC SERVICE AND 4" FIRE PROTECTION SERVICE) ARE TO BE RELOCATED AS PART OF THIS PROJECT WITH THE WORK PERFORMED BY THE COLLEGIAN NORTH DEVELOPER.

SANITARY SEWER FLOW MITIGATION CALCULATIONS

Design Population:
The Collegian North will be a combined apartment and retail building. It will be a multi-story building with ground level and second floor lobby, fire command center, lease office, retail and trash room. Apartments are on the floors 3 thru 11. There is no vehicular parking proposed as part of this project with bicycle parking located in the basement.

Existing Flow:
The sanitary sewer flow produced by the existing, occupied, commercial/non-residential use buildings to be removed will be based on the City of Ann Arbor's sanitary sewer flow evaluation Table 'A'. The computed dry weather flow rate for the existing uses will be as follows:

547/549 E University Street & 1107/1109/1111 S. University Avenue:	
9,227 sf Dry Store Retail @ 0.03 gpd/sf	= 276.81 gpd
9,227 sf Non Medical Office Space @ 0.06 gpd/sf	= 553.62 gpd
Subtotal	= 830.43 gpd
1113 S. University Avenue:	
13 seat cafe @ 30 gpd/seat	= 390.00 gpd
Subtotal	= 390.00 gpd
1115/1117 S. University Avenue:	
3,453 sf Dry Store Retail @ 0.03 gpd/sf	= 103.59 gpd
2,918 sf Non Medical Office Space @ 0.06 gpd/sf	= 175.08 gpd
835 sf Retail - Wet Store No Food @ 0.10 gpd/sf	= 83.50 gpd
Subtotal	= 344.17 gpd
1119 S. University Avenue:	
1,614 sf Dry Store Retail @ 0.03 gpd/sf	= 48.42 gpd
1,614 sf Non Medical Office Space @ 0.06 gpd/sf	= 96.84 gpd
Subtotal	= 145.26 gpd
Total credit for existing flows:	= 1,719.86 gpd
Proposed Flow:	
Based on the City of Ann Arbor's sanitary sewer flow evaluation Table 'A', the design dry weather flow rate for the development will be:	
a. 243 beds University Housing @ 75 gpd/capita	= 18,225.00 gpd
b. Toilet rooms (10" floor and 11" floor) @ 210 gpd/room (Assumes 60 flushes per day per toilet)	= 420.00 gpd
c. 1,278 sf Non Medical Office Space @ 0.06 gpd/sf	= 76.68 gpd
d. 45 seat Restaurant w/ dishwasher @ 30 gpd/seat	= 1,350.00 gpd
e. 8,227 sf Dry Store Retail @ 0.03 gpd/sf	= 246.81 gpd
Total Design average flow	= 20,318.49 gpd
Mitigation Flow:	
Mitigation flow = Design average flow - Existing average flow	
Mitigation flow = 20,318.49 gpd - 1,719.86 gpd = 18,598.63 gpd	
Mitigation peak flow = 18,598.63 gpd x 4(peaking) x 1.1 (recovery)	
= 81,833.97 gpd or 56.8 gpm	
Mitigation will be required for a flow of 57 gallons per minute, or equivalent alternate mitigation to equate to the additional peak flow produced from the site.	

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 SEAN T. HAVERA
 (248) 647-2600

JOB No. 15006

DATE: 10/26/16

SHEET 8 OF 26

REV. DATE

1. REV. PER CITY REVIEW 12/05/16

2. REV. PER CITY REVIEW 1/05/17

3. REV. PER OWNER & CITY REVIEW 7/25/17

4. REV. PER CITY REVIEW 3/02/17

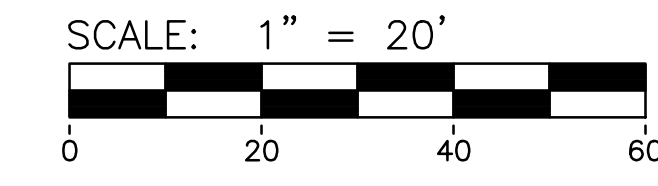
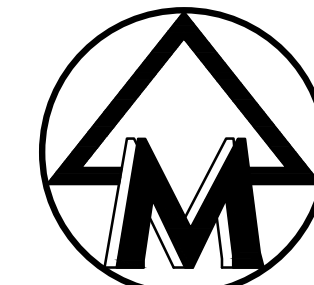
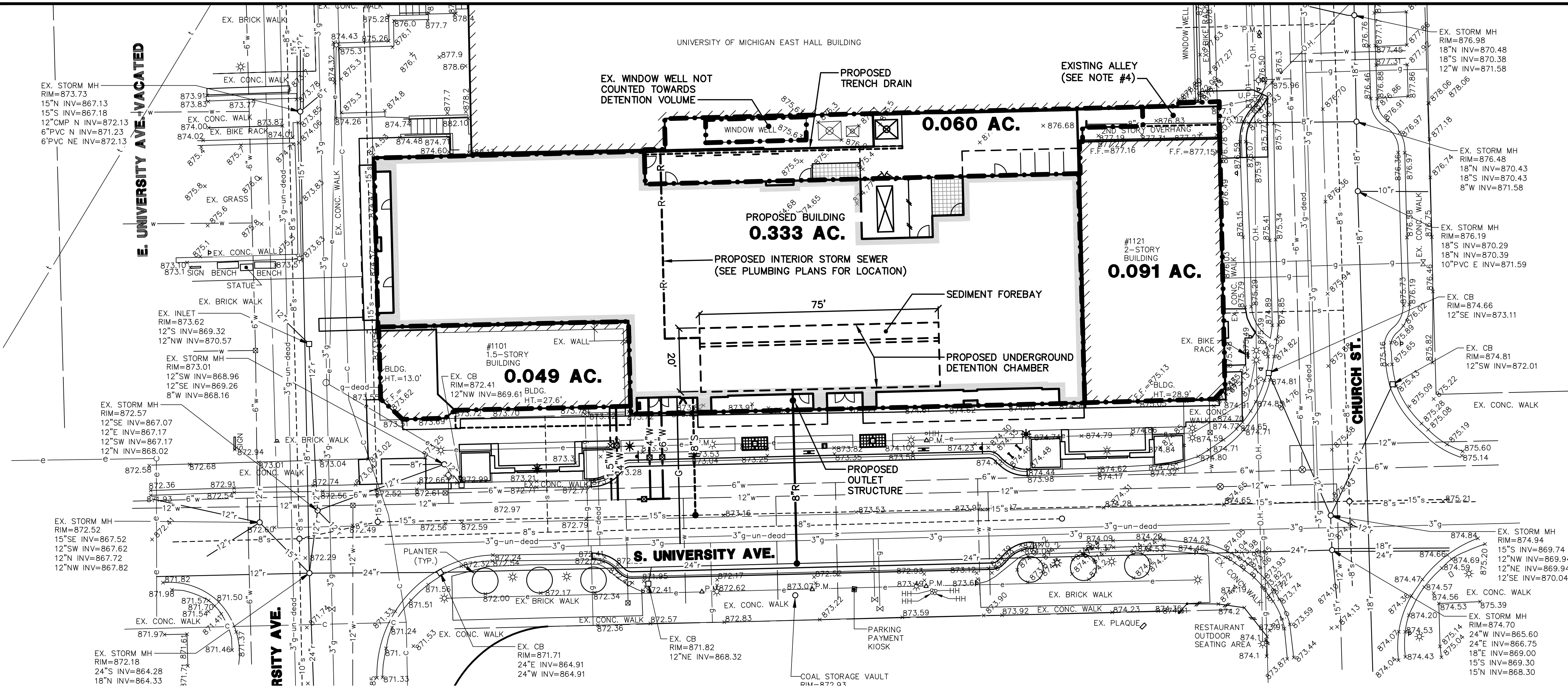
THE COLLEGIAN NORTH

SITE PLAN

UTILITY PLAN

8

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- ⊛ PROP. TELEPHONE LINE
- ⊛ EXIST. ELECTRIC LINE
- ⊛ PROP. ELECTRIC LINE
- ⊛ EXIST. GAS LINE
- ⊛ PROP. GAS LINE
- ⊛ EXIST. GAS VALVE
- f.o. EXIST. FIBER OPTIC LINE
- F.O. PROP. FIBER OPTIC LINE
- ⊛ EXIST. WATER MAIN
- ⊛ PROP. WATER MAIN
- ⊛ EXIST. HYDRANT
- ⊛ PROP. HYDRANT
- ⊛ EXIST. GATE VALVE IN BOX
- ⊛ PROP. GATE VALVE IN BOX
- ⊛ EXIST. GATE VALVE IN WELL
- ⊛ PROP. GATE VALVE IN WELL
- ⊛ EXIST. CURB STOP & BOX
- ⊛ PROP. CURB STOP & BOX
- ⊛ EXIST. KNOXBOX
- ⊛ EXIST. STORM SEWER
- ⊛ PROP. STORM SEWER
- ⊛ EXIST. CATCH BASIN OR INLET
- ⊛ PROP. CATCH BASIN OR INLET
- ⊛ EXIST. DOWNSPOUT
- ⊛ PROP. DOWNSPOUT
- - - - - PROP. SANITARY SEWER
- - - - - PROP. SANITARY SEWER DRAINAGE DIRECTION
- ⊛ SIGN
- ⊛ P.M. PARKING METER
- ⊛ MAILBOX
- ⊛ TELEPHONE RISER
- ⊛ CABLE TELEVISION RISER
- ⊛ ELECTRIC METER
- ⊛ WATER METER
- ⊛ GAS METER
- ⊛ FIBER OPTIC MARKER
- ⊛ POST
- - - - - DRAINAGE AREA BOUNDARY

Table 1: 4 & 6 Inch Double Ring Infiltrometer Test

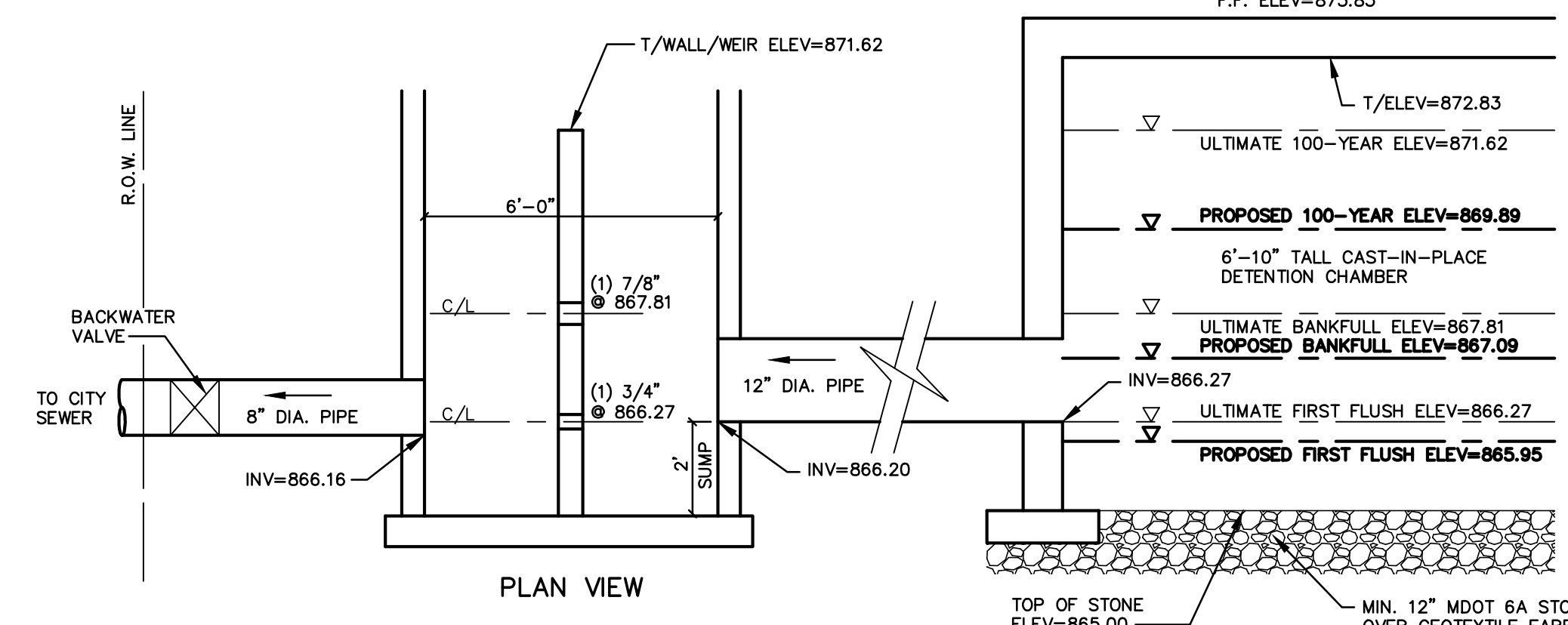
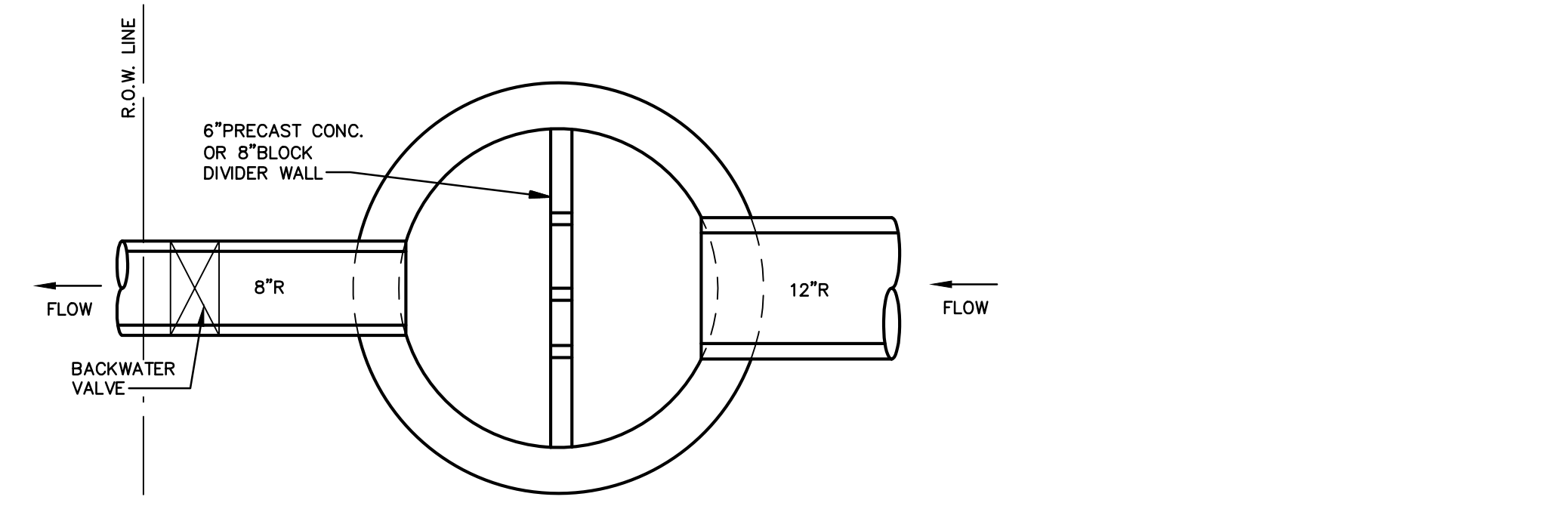
Project Name:		South University - North (1107-1119)		Constants		Area (in ²)		Pipe Lengths (ft)		Pipe Length at Start Test (ft)		Penetration Depth of Rings (ft)	
Project Number:		74611.00		Inner Ring		12.6		5.23		4.98		0.35	
Test Location:		IT#1/Quick 1		Tested By:		MLK/TH		Annular		15.7		4.52	
Surface Elev. ft:		N/A		G.W. Elev. ft:		None		Water level maintained by: Hose and Buckets					
Test Elev. ft:		N/A		Test Depth, ft:		1							
Trial #	Start / End	Date	Time (PM) (Hrs:Min:Sec)	Inner Ring Reading, ft	Annular Infiltrated Water, ft	Annular Space Reading, ft	Annular Space Infiltrated Water, ft	Inner Infiltration, inches/hour	Annular Infiltration, inches/hour	Remarks			
1	Start Test	6/28/2016	4:25:00	0.92	0.72	0.15	0.10	108.0	72.0	Indoors-basement.			
	End Test	6/28/2016	4:26:00	0.77	0.62	0.15	0.50	108.0	86.4				
2	Start Test	6/28/2016	4:26:00	0.77	0.62	0.15	0.50	108.0	86.4				
	End Test	6/28/2016	4:27:00	0.62	0.50	0.12	0.12	108.0	86.4				
3	Start Test	6/28/2016	4:27:00	0.62	0.50	0.12	0.12	108.0	86.4				
	End Test	6/28/2016	4:28:00	0.49	0.13	0.40	0.10	93.6	72.0				
4	Start Test	6/28/2016	4:28:00	0.49	0.40	0.10	0.28	100.8	86.4				
	End Test	6/28/2016	4:29:00	0.35	0.28	0.09	0.07	64.8	50.4				
5	Start Test	6/28/2016	4:30:00	0.28	0.21	0.08	0.08	64.8	50.4				
	End Test	6/28/2016	4:31:00	0.17	0.13	0.04	0.04	72.0	64.8				
6	Start Test	6/28/2016	4:31:00	0.17	0.13	0.04	0.04	72.0	64.8				
	End Test	6/28/2016	4:32:00	0.07	0.04	0.04	0.04	57.1	32.6				
7	Start Test	6/28/2016	4:32:00	0.07	0.04	0.04	0.04	57.1	32.6				
	End Test	6/28/2016	4:32:53	0.00	0.00	0.04	0.04	57.1	32.6				

NOTES: The infiltration rates after the initial presoaked and the first two test intervals were greater than 72 inches per hour, i.e., 12 inches of water could be maintained in the 10 minute test interval period. SME therefore performed the above "quick test" method to gather additional preliminary infiltration rate information.

Table 4: 4 & 6 Inch Double Ring Infiltrometer Test

Project Name:		South University - North (1107-1119)		Constants		Area (in ²)		Pipe Lengths (ft)		Pipe Length at Start Test (ft)		Penetration Depth of Rings (ft)	
Project Number:		74611.00		Inner Ring		12.6		4.99		4.71		0.28	
Test Location:		IT#2/Quick 1-5		Tested By:		MLK/TH		Annular		15.7		4.52	
Surface Elev. ft:		N/A		G.W. Elev. ft:		None		Water level maintained by: Hose and Buckets					
Test Elev. ft:		N/A		Test Depth, ft:		2							
Trial #	Start / End	Date	Time (PM) (Hrs:Min:Sec)	Inner Ring Reading, ft	Annular Infiltrated Water, ft	Annular Space Reading, ft	Annular Space Infiltrated Water, ft	Inner Infiltration, inches/hour	Annular Infiltration, inches/hour	Remarks			
1	Start Test	6/28/2016	17:15:00	0.71	0.52	0.15	0.50	403.2	360.0	Indoors-basement.			
	End Test	6/28/2016	17:16:00	0.15	0.02	0.02	0.02	324.0	NA				
2	Start Test	6/28/2016	17:16:00	0.15	0.02	0.02	0.02	324.0	NA				
	End Test	6/28/2016	17:16:20	0.00	0.00	0.15	NA	324.0	NA				
3	Start Test	6/28/2016	17:20:00	0.78	0.63	0.15	0.46	374.4	331.2				
	End Test	6/28/2016	17:21:00	0.26	0.17	0.11	0.22	224.6	146.9				
4	Start Test	6/28/2016	17:21:00	0.26	0.17	0.11	0.22	224.6	146.9				
	End Test	6/28/2016	17:21:50	0.00	0.00	0.26	0.03	224.6	146.9				
5	Start Test	6/28/2016	17:25:00	0.93	0.58	0.35	0.29	295.2	194.4				
	End Test	6/28/2016	17:26:00	0.52	0.29	0.24	0.26	223.2	187.2				
6	Start Test	6/28/2016	17:27:00	0.21	0.03	0.18	0.03	210.9	NA				
	End Test	6/28/2016	17:27:43	0.00	0.00	0.21	NA	210.9	NA				
7	Start Test	6/28/2016	17:34:00	0.83	0.68	0.15	0.40	324.0	288.0				
	End Test	6/28/2016	17:35:00	0.38	0.28	0.05	0.38	288.0	288.0				
8	Start Test	6/29/2016	17:35:00	0.38	0.28	0.05	0.38	288.0	288.0				
	End Test	6/30/2016	17:36:00	0.11	0.03	0.27	0.03	194.4	180.0				
9	Start Test	7/1/2016	17:36:00	0.11	0.03	0.27	0.03	180.0	158.4				
	End Test	7/2/2016	17:36:32	0.00	0.00	0.11	NA	148.5	NA				
10	Start Test	7/2/2016	17:40:00	0.87	0.72	0.15	0.40	280.8	280.8				
	End Test	7/4/2016	17:41:00	0.33	0.27	0.04	0.20	180.0	158.4				
11	Start Test	7/5/2016	17:41:00	0.33	0.27	0.04	0.20	180.0	158.4				
	End Test	7/6/2016	17:42:00	0.08	0.05	0.22	0.05	138.2	86.4				
12	Start Test	7/8/2016	17:42:00	0.08	0.05	0.22	0.05	138.2	86.4				
	End Test	7/8/2016	17:42:25	0.00	0.00	0.05	0.05	138.2	86.4				

NOTES: The infiltration rates after the initial presoaked and the first two test intervals were greater than 72 inches per hour, i.e., 12 inches of water could be maintained in the 10 minute test interval period. SME therefore performed the above "quick test" method to gather additional preliminary infiltration rate information.



CONTROL STRUCTURE MANHOLE DETAIL

NOT TO SCALE

NOTES

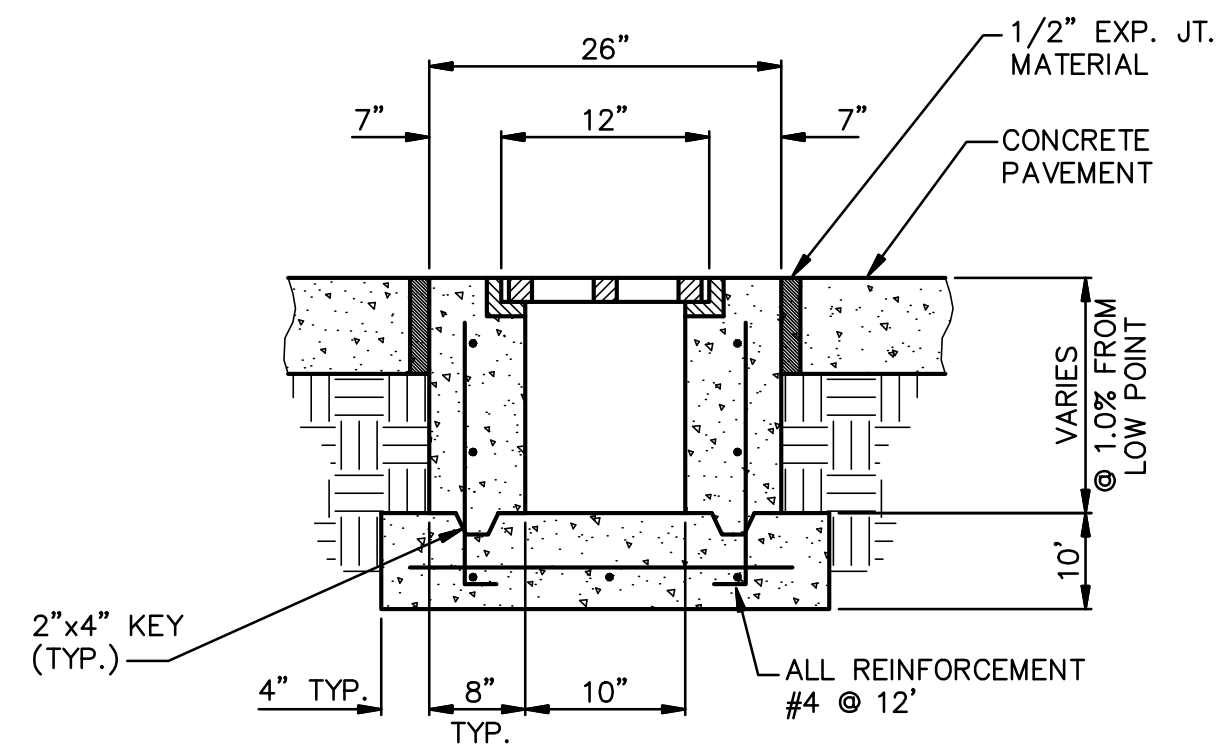
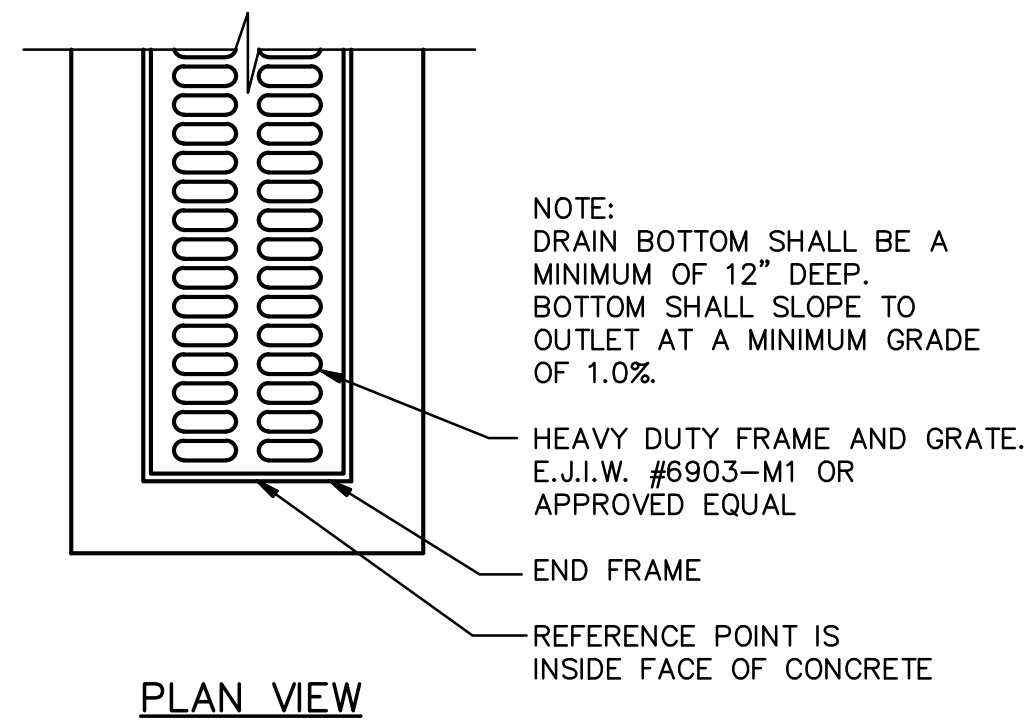
- STORM WATER NARRATIVE: THE PROPOSED BUILDING ROOF DRAINAGE WILL BE ROUTED TO THE DETENTION CHAMBER LOCATED IN THE BASEMENT LEVEL OF THE BUILDING. ROOF DRAINAGE FROM THE 1101 S. UNIVERSITY BUILDING TO THE WEST AND THE 1121 S. UNIVERSITY BUILDING TO THE EAST WILL NOT BE CONNECTED TO THE PROPOSED DETENTION CHAMBER AT THIS TIME. THE DETENTION CHAMBER WILL BE SIZED FOLLOWING THE 2016 STANDARDS TO INCLUDE ENOUGH VOLUME FOR THIS RUNOFF IF/WHEN THOSE PROPERTIES ARE REDEVELOPED/CONNECTED TO THE DETENTION CHAMBER IN THE FUTURE. RUNOFF FROM THE ALLEY LOCATED BETWEEN THE PROPOSED BUILDING AND THE EXISTING BUILDING TO THE NORTH WILL BE SPLIT BETWEEN DRAINING INTO THE EXISTING STORM SEWER SYSTEM THAT DRAINS INTO THE CHURCH STREET SEWER SYSTEM, AND DRAINING TO NEW STORM SEWER THAT WILL BE ROUTED INTERIOR TO THE BUILDING AND CONNECTED TO THE DETENTION CHAMBER. THE DETENTION SYSTEM HAS BEEN SIZED TO PROVIDE FIRST FLUSH, BANKFULL, AND 100-YEAR STORM DETENTION VOLUMES, AND HAS BEEN DESIGNED TO INFILTRATE THE ENTIRE FIRST FLUSH.
- THE DETENTION CHAMBER WILL HAVE A PARTIAL OPEN BOTTOM TO PERMIT INFILTRATION INTO THE SANDY SOIL. A SEDIMENT FOREBAY WILL BE PROVIDED TO MAINTAIN THE INFILTRATION CAPABILITIES OF THE BOTTOM OF THE DETENTION CHAMBER.
- THE STORM WATER STORAGE VOLUME WILL BE DETAINED AND DISCHARGED AT A CONTROLLED RATE THROUGH AN OUTLET STRUCTURE LOCATED OUTSIDE OF THE BUILDING. THE OUTFLOW WILL BE BY GRAVITY TO THE EXISTING STORM SEWER SYSTEM. THE OUTLET STRUCTURE WILL ALSO SERVE AS THE EMERGENCY OVERFLOW OF THE SYSTEM WITH AN OPEN GRATE.
- THE LONG TERM MAINTENANCE PLAN AND ESTIMATED COSTS ARE SHOWN ON SHEET 7.
- THE SITE WITHIN THE DRAINAGE BOUNDARY DRAINS THROUGH EXISTING AND PROPOSED ROADS THROUGH THE PROPOSED PLUMBING SYSTEM INTO THE DETENTION CHAMBERS.
- EXISTING ALLEY ADJACENT TO 1121 S. UNIVERSITY HAS BEEN INCLUDED IN DETENTION CALCULATIONS THOUGH ALLEY WILL NOT BE DRAINED INTO DETENTION SYSTEM.

MIDWESTERN CONSULTING
 385 Plaza Drive Ann Arbor, Michigan 48108
 (734) 995-0200 • www.midwesternconsulting.com
 Land Development • Land Survey • Institutional • Municipal
 Wireless Communications • Transportation • Landfill Services

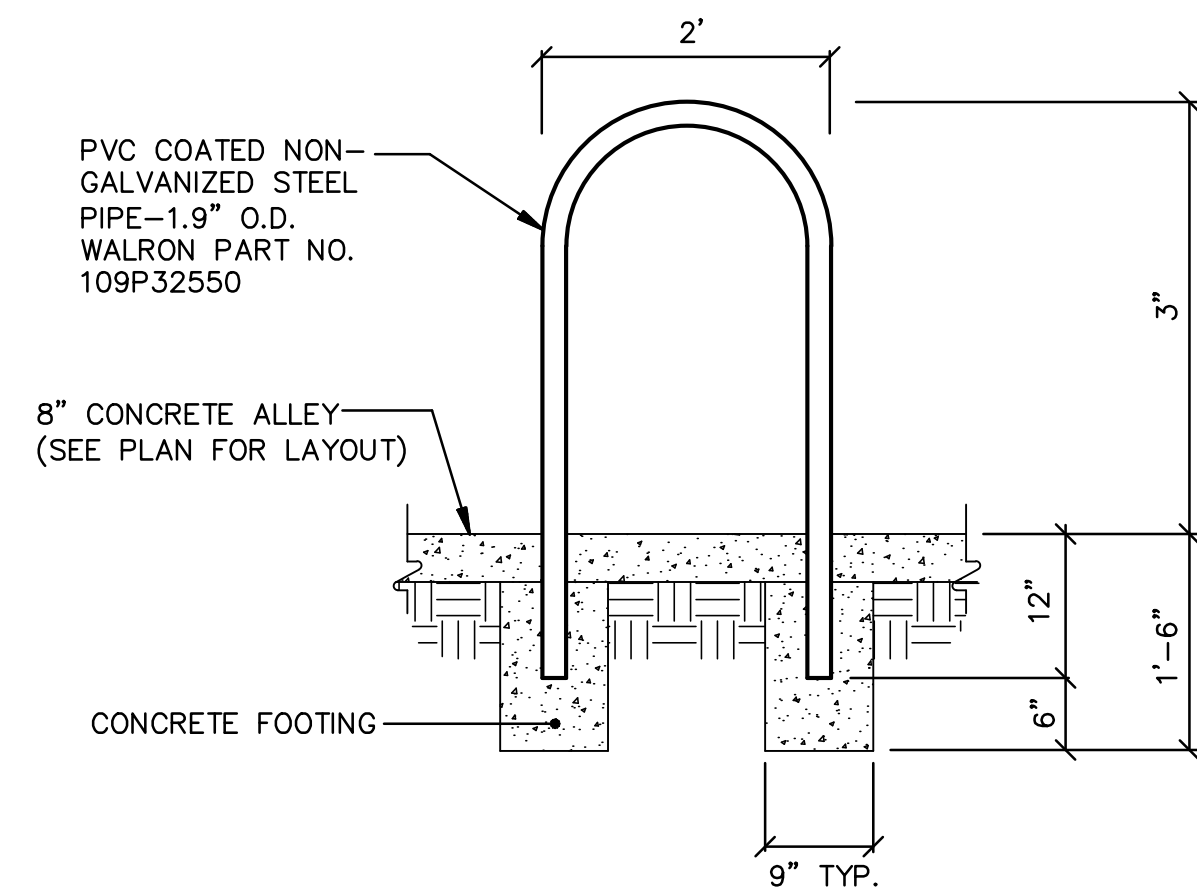
THE COLLEGEAN NORTH
 SITE PLAN
 STORM WATER MANAGEMENT PLAN

JOB No.	15006
DATE:	10/28/16
SHEET:	9 OF 26
REV. DATE	12/05/16
1. REV. DATE	1/05/17
2. REV. DATE	1/31/17
3. REV. DATE	1/31/17
4. REV. DATE	1/31/17
5. REV. DATE	1/31/17
6. REV. DATE	1/31/17
7. REV. DATE	1/31/17
8. REV. DATE	1/31/17
9. REV. DATE	1/31/17
10. REV. DATE	1/31/17
11. REV. DATE	1/31/17
12. REV. DATE	1/31/17
13. REV. DATE	1/31/17
14. REV. DATE	1/31/17
15. REV. DATE	1/31/17
16. REV. DATE	1/31/17
17. REV. DATE	1/31/17
18. REV. DATE	1/31/17
19. REV. DATE	1/31/17
20. REV. DATE	1/31/17

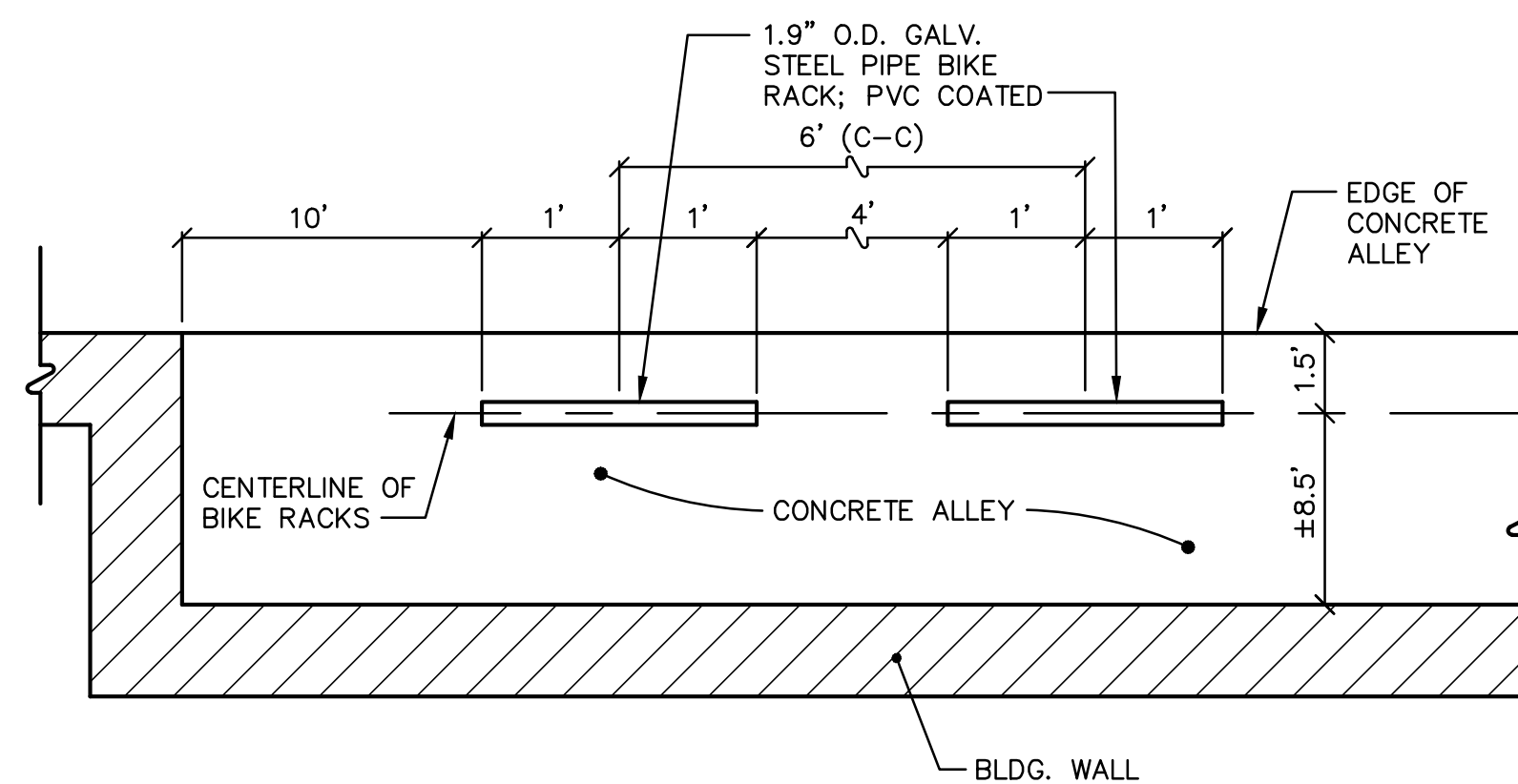
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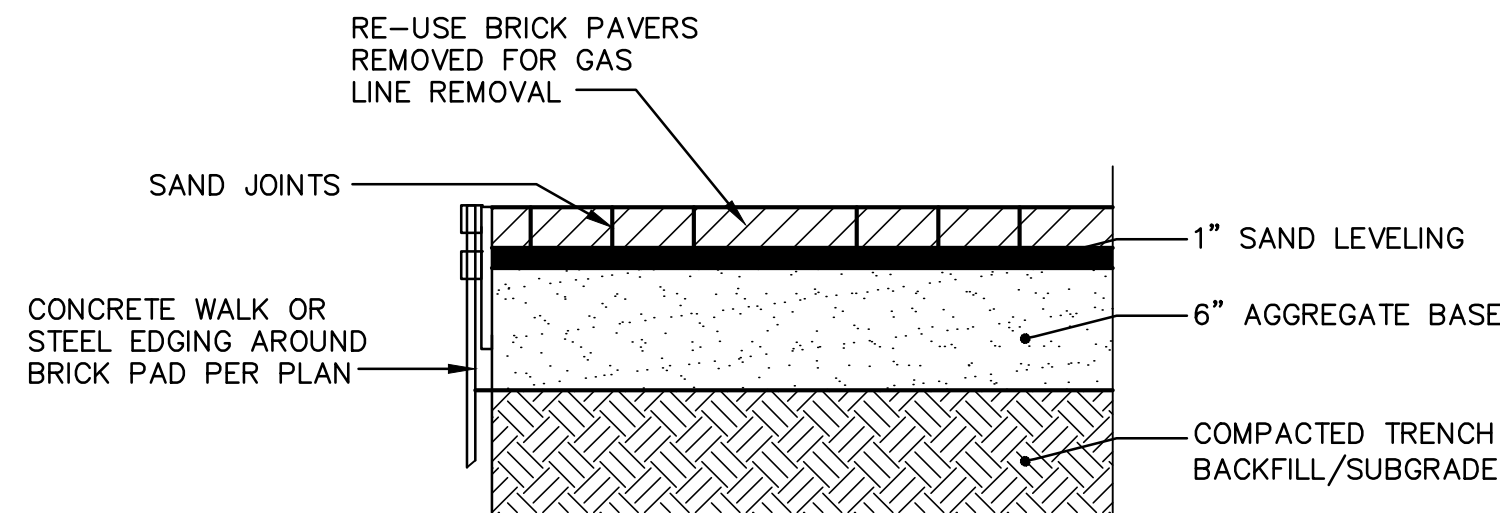
TRENCH DRAIN DETAIL
NO SCALE



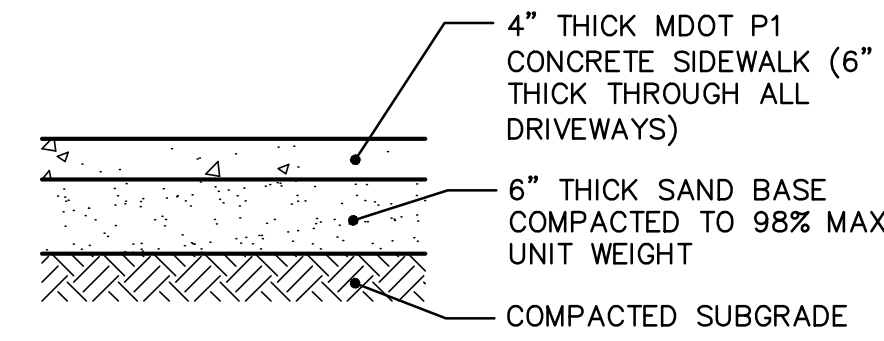
LOOP BIKE RACK (PROFILE)
NOT TO SCALE



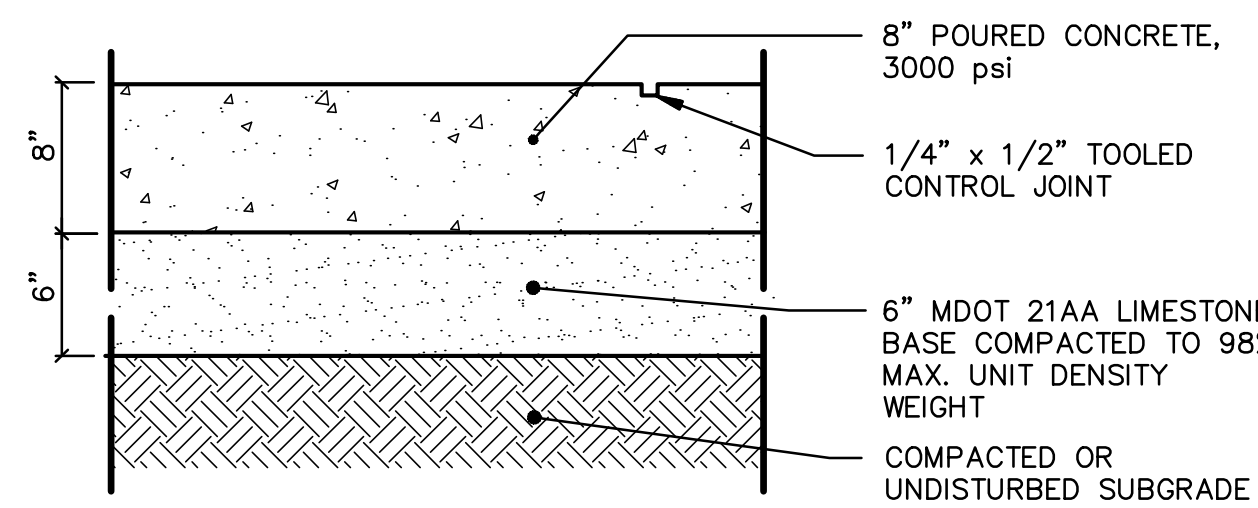
LOOP BIKE RACK (PLAN)
NOT TO SCALE



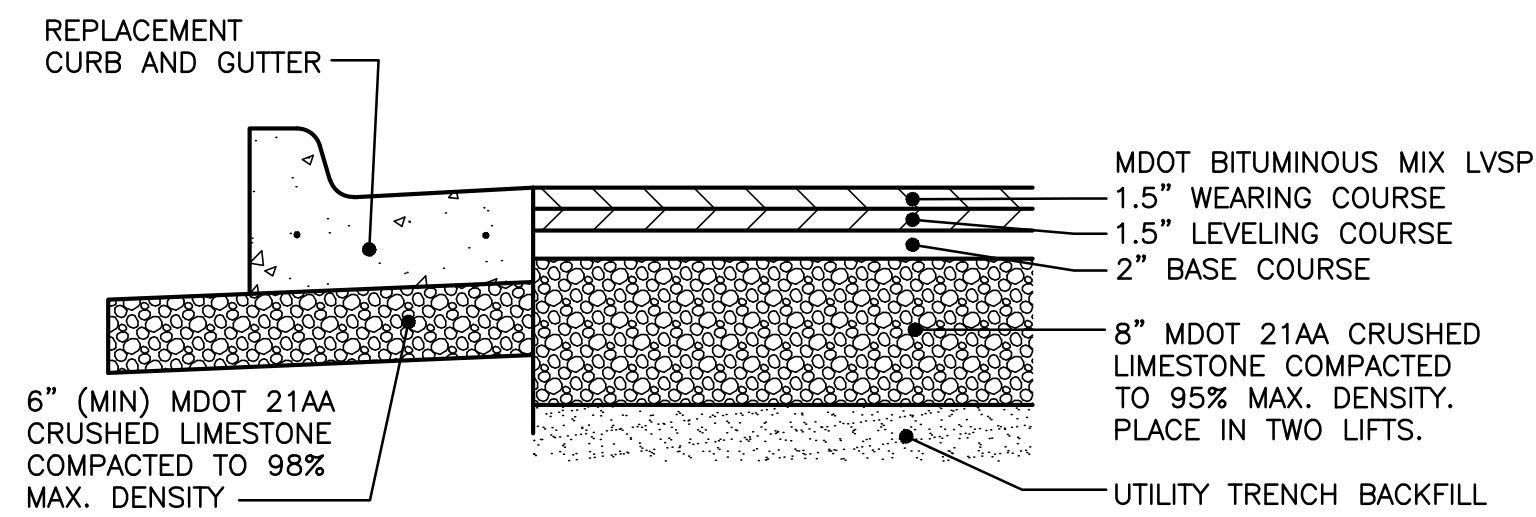
BRICK PAVER SECTION (ALONG EAST UNIVERSITY)
NOT TO SCALE



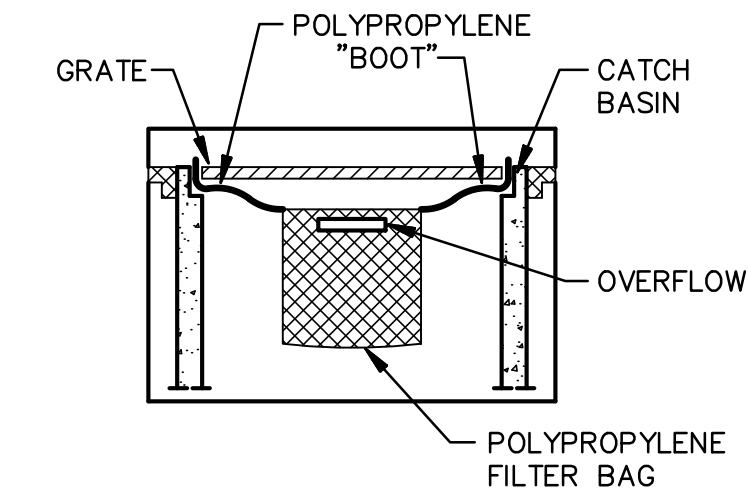
CONCRETE SIDEWALK SECTION (ALONG EAST UNIVERSITY)
NOT TO SCALE



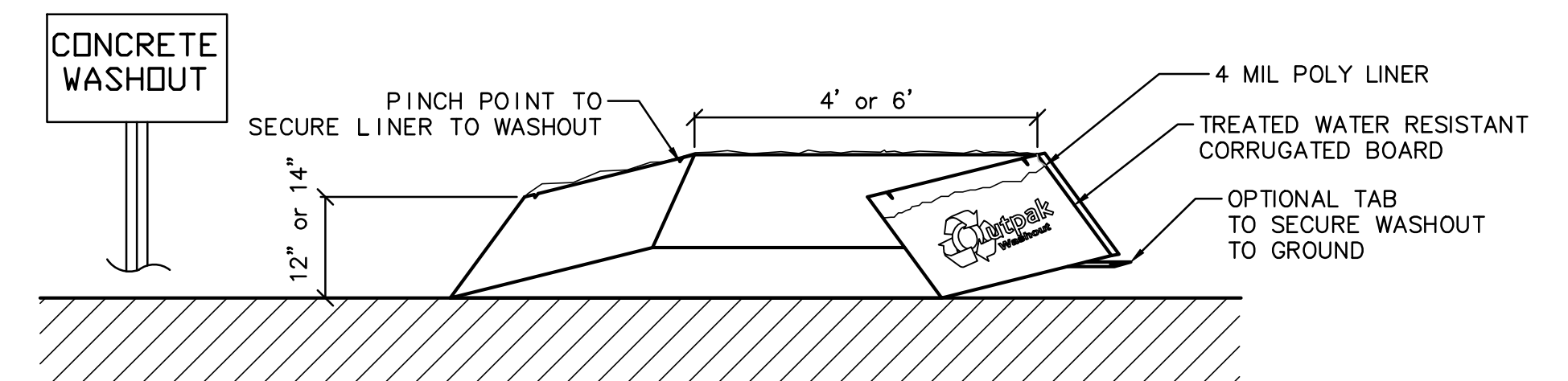
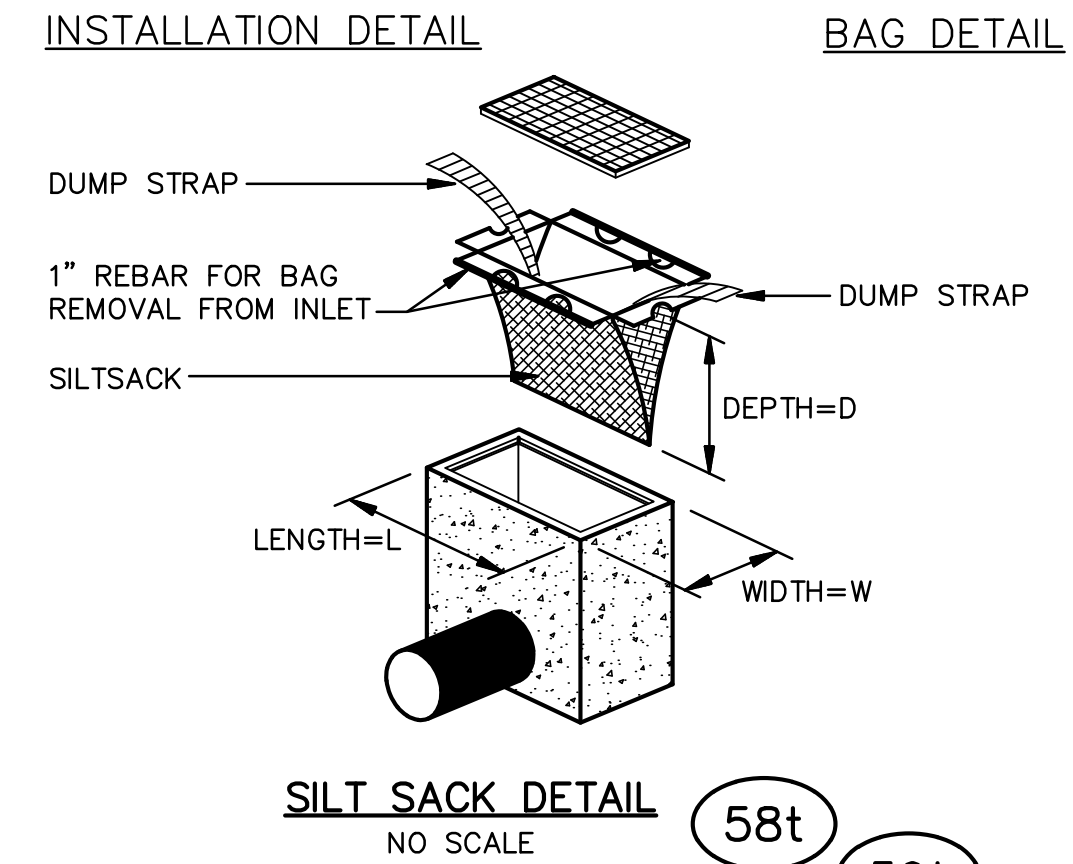
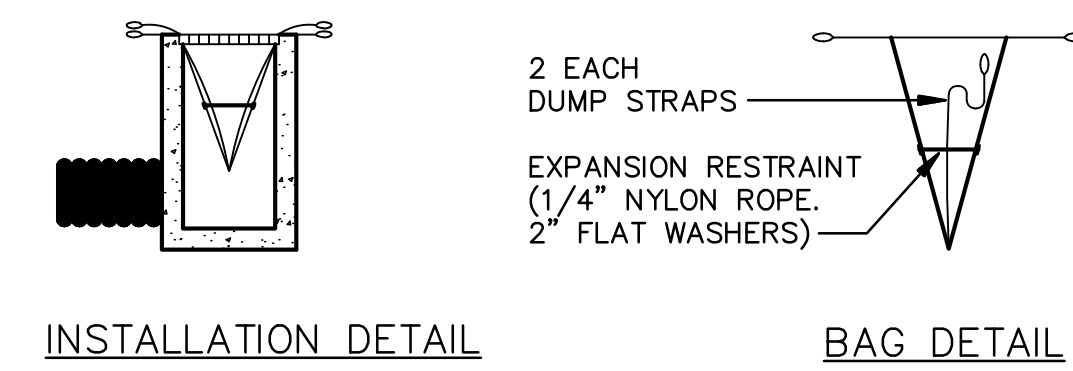
CONCRETE ALLEY DETAIL
NOT TO SCALE



S. UNIVERSITY PAVEMENT DETAIL
NOT TO SCALE



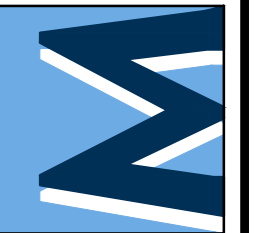
NOTE:
TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. INLET FILTER TO BE SIMILAR TO "STREAMGUARD" AS MANUFACTURED BY STORMWATER SERVICES CORPORATION (206-767-0441) OR "SILTSACK" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC.; (800-448-3636). CLEAN FILTER AS NEEDED.



NOTES:

1. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON THIS PROJECT.
2. SIGNS SHALL BE PLACED AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT.
3. THE CONCRETE WASHOUT AREA WILL BE REPLACED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTE CONCRETE AND OTHER LIQUID WASTE.
4. WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
5. DO NOT MIX EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE.
6. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
7. AVOID DUMPING EXCESS CONCRETE IN NON-DESIGNATED DUMPING AREAS.
8. LOCATE WASHOUT AREA AT LEAST 50' (15 METERS) FROM STORM DRAINS, OPEN DITCHES, OR WATERBODIES.
9. WASH OUT WASTES INTO THE OUTPACK WASHOUT AS SHOWN WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.

OR APPROVED EQUAL
CONCRETE WASHOUT SYSTEM
NOT TO SCALE



JOB No.	15006
DATE	10/28/16
SHEET	11 OF 26
REV. DATE	12/05/16
1-REV. PER CITY REVIEW	CADD: DAG
2-REV. PER OWNER & CITY REVIEW	ENG: SGF
	1/31/17
	PK: TJC
	TECH: JAW
	DRW: JAW

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BICYCLE HOOP NOTES:

- TO BE USED ONLY FOR DDA CONCRETE SIDEWALK SURFACES
- LOCATE AND GROUP BICYCLE HOOPS IN THE AMENITY ZONE.
- BIKE HOOPS TO BE MINIMUM OF 2'-10" FROM BACK OF CURB WHEN PERPENDICULAR TO CURB, AND 2'-0" WHEN PARALLEL.
- REFER TO ANN ARBOR DOWNTOWN STREET DESIGN MANUAL FOR ADDITIONAL LAYOUT GUIDELINES.

CITY OF ANN ARBOR PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR, MI 48107-8647
734-794-6410
www.a2gov.org

REV. NO.	DATE	DRAWN BY	CHECKED BY
DR. SGJR	CH. CEC	DRAWING NO.	
SCALE N.T.S.	DATE 10/28/15	DDA BIKE HOOP - SURFACE MOUNTED	
			SD-DDA-9

NOTES:

- DRY LAID PAVERS MUST BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS
- A MOCK-UP OF PAVERS SHALL BE BUILT TO ESTABLISH THE ACTUAL WIDTH OF PAVEMENT BAND TO AVOID SLIVERS OF PAVERS; APPROVAL BY DDA
- ALL PAVERS SHALL BE RATED FOR HEAVY VEHICULAR TRAFFIC

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DR. SGJR	CH. CEC	DRAWING NO.	
SCALE N.T.S.	DATE 10/28/15	DDA SIDEWALK PAVERS	
			SD-DDA-3

GENERAL NOTES:

- DESIGN MAY UTILIZE TOOLED OR SAW-CUT CONTRACTION JOINT. PLANS MUST INDICATE SELECTION OF JOINT TYPE. PROJECT MUST HAVE EITHER JOINT TYPE, BUT NOT BOTH.
- CONTRACTOR TO PROVIDE MOCK UP OF PAVING FINISH, COLOR AND JOINTING FOR CITY APPROVAL, PRIOR TO INSTALLING SIDEWALKS

TOOLED CONTRACTION JOINT

SAW-CUT CONTRACTION JOINT

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REV. NO.	DATE	DRAWN BY	CHECKED BY
DR. SGJR	CH. CEC	DRAWING NO.	
SCALE N.T.S.	DATE 10/28/15	DDA SIDEWALK - CONTRACTION JOINT	
			SD-DDA-6

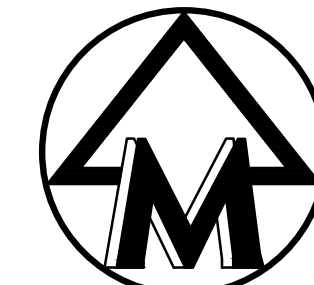
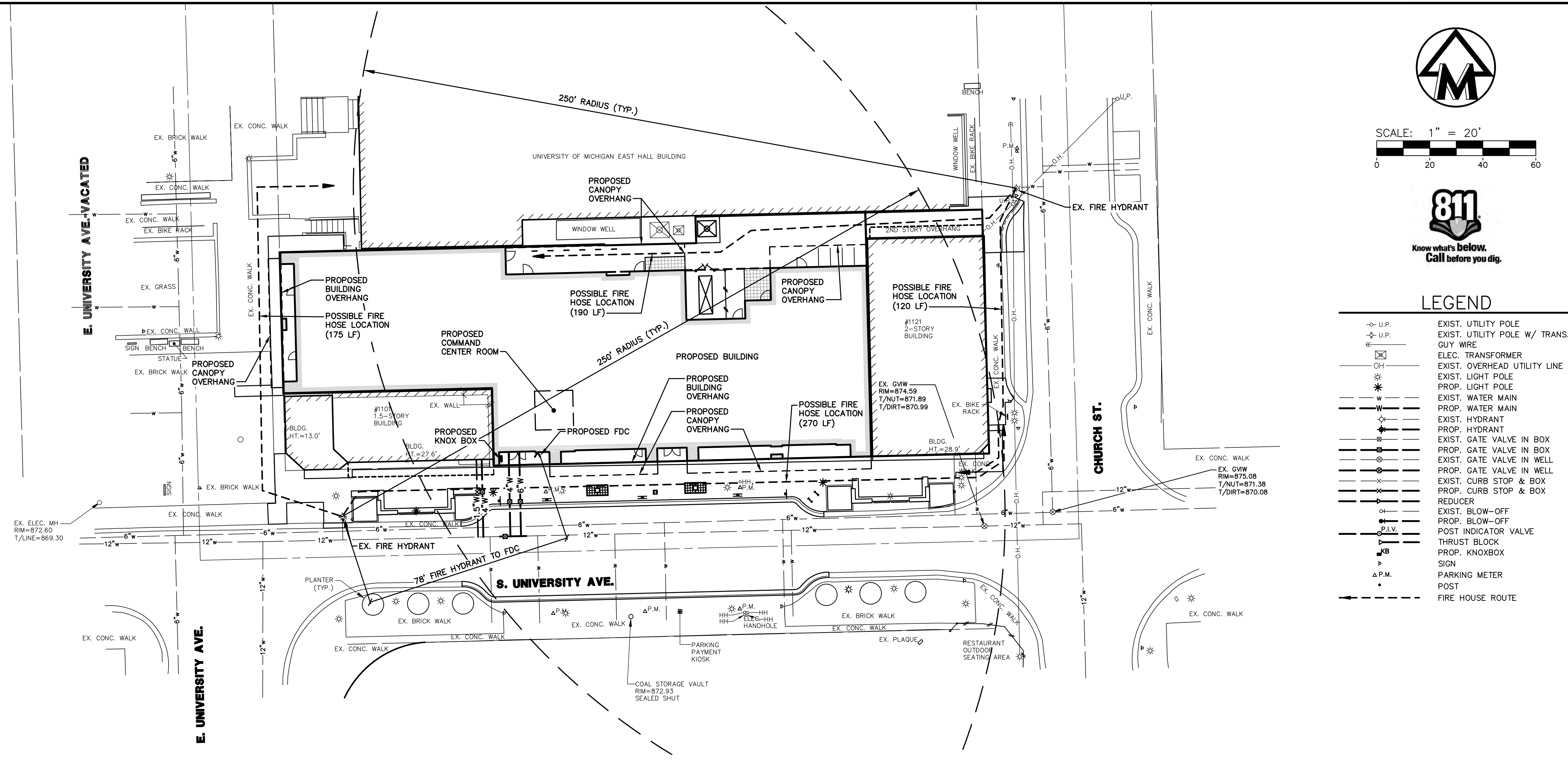
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REV. NO.	DATE	DRAWN BY	CHECKED BY
DR. SGJR	CH. CEC	DRAWING NO.	
SCALE N.T.S.	DATE 10/28/15	DDA SIDEWALK - SEALED EXPANSION JOINT	
			SD-DDA-7

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REV. NO.	DATE	DRAWN BY	CHECKED BY
DR. SGJR	CH. CEC	DRAWING NO.	
SCALE N.T.S.	DATE 10/28/15	DDA CONCRETE SIDEWALK	
			SD-DDA-2

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SCALE: 1" = 20'



LEGEND

	EXIST. UTILITY POLE
	EXIST. UTILITY POLE W/ TRANS.
	GUY WIRE
	ELEC. TRANSFORMER
	EXIST. OVERHEAD UTILITY LINE
	EXIST. LIGHT POLE
	PROP. LIGHT POLE
	EXIST. WATER MAIN
	PROP. WATER MAIN
	EXIST. HYDRANT
	PROP. HYDRANT
	EXIST. GATE VALVE IN BOX
	PROP. GATE VALVE IN BOX
	EXIST. GATE VALVE IN WELL
	PROP. GATE VALVE IN WELL
	EXIST. CURB STOP & BOX
	PROP. CURB STOP & BOX
	REDUCER
	EXIST. BLOW-OFF
	PROP. BLOW-OFF
	POST INDICATOR VALVE
	THRUST BLOCK
	PROP. KNOXBOX
	SIGN
	PARKING METER
	POST
	FIRE HOUSE ROUTE

FIRE PROTECTION PLAN NOTES

- WATER SERVICES ARE TO BE SEPARATE DOMESTIC AND FIRE LINES.
- ADDRESSING: NUMERICS SHALL BE A MINIMUM OF 4 INCHES IN HEIGHT AND CLEARLY VISIBLE WHEN APPROACHING THE BUILDING.
- FLOW REQUIREMENTS: FLOW SHALL COMPLY WITH NFPA 13 STANDARDS AND SHALL MEET 2009 INTERNATIONAL FIRE CODE (IFC) STANDARDS FOUND IN APPENDIX B, TABLE B 105.1 OF THE CODE. (IBC), TYPE OF CONSTRUCTION IS BASED ON THE INTERNATIONAL BUILDING CODE (IBC).
 PURSUANT TO 2009 IFC, A REDUCTION IN REQUIRED FIRE-FLOW OF UP TO 75% IS ALLOWED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM, BUT SHALL NOT BE LESS THAN 1,500 GPM FOR THE PRESCRIBED DURATION AS SPECIFIED IN TABLE B105.1 SHOULD A FIRE PUMP BE INSTALLED DUE TO INSUFFICIENT WATER FLOW AND PRESSURE TO SUPPORT THE FIRE PROTECTION SYSTEM, THE FOLLOWING SHALL BE MET:
 IFC 2009, SECTION 914.3.1.2 - REQUIRED FIRE PUMP SHALL BE SUPPLIED BY CONNECTIONS TO A MINIMUM OF TWO WATER MAINS LOCATED IN DIFFERENT STREETS. SEPARATE SUPPLY PIPING SHALL BE PROVIDED BETWEEN EACH CONNECTION TO THE WATER MAIN AND THE PUMPS. EACH CONNECTION AND THE SUPPLY PIPING BETWEEN THE CONNECTION AND THE PUMPS SHALL BE SIZED TO SUPPLY THE FLOW AND PRESSURE REQUIRED FOR THE PUMPS TO OPERATE. EXCEPTION: TWO CONNECTIONS TO THE SAME MAIN SHALL BE PERMITTED PROVIDED THE MAIN IS VALUED SUCH THAT AN INTERRUPTION CAN BE ISOLATED SO THAT THE WATER SUPPLY WILL CONTINUE WITHOUT INTERRUPTION THROUGH AT LEAST ONE OF THE CONNECTIONS.
- FIRE DEPARTMENT CONNECTIONS (FDC'S) SHALL BE WITHIN 100 FEET OF A FIRE HYDRANT.
- FIRE DEPARTMENT CONNECTION (FDC) LOCATION: HOOK-UP LOCATION IS SUBJECT TO FIRE MARSHAL'S APPROVAL.
- FDC'S SHALL BE (2) 2 1/2 INCH NST CONNECTIONS. FDC SHALL HAVE LOCKING KNOX CAPS ON THE FIRE HOSE INLET CONNECTIONS.
- FDC ACCESS SHALL COMPLY WITH IFC 912.3.
- FDC SIGNAGE SHALL BE PROVIDED AND SHALL COMPLY WITH IFC 912.4.
- FIRE PROTECTION ALARM AND DETECTION SYSTEM SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES ADOPTED BY THE CITY OF ANN ARBOR, INCLUDING NFPA 72, 2007 EDITION AND ALL OTHER REFERENCED STANDARDS.
 - A HORN STROBE DEVICE SHALL BE INSTALLED ABOVE THE FDC AND SHALL ACTIVATE UPON SPRINKLER WATER FLOW.
 - EMERGENCY RESPONDER RADIO COVERAGE SHALL COMPLY WITH 2009 IFC SECTION 510.
 - EMERGENCY VOICE/ALARM COMMUNICATIONS SYSTEM SHALL COMPLY WITH 2009 IFC SECTION 907.6.2.2.
 - OCCUPANT NOTIFICATION APPLIANCES SHALL ACTIVATE THROUGHOUT THE NOTIFICATION ZONES UPON SPRINKLER WATER FLOW.
 - PLACE SIGNAGE ON FIRE SUPPRESSION SYSTEM CONTROL ROOM DOOR (IFC 2009 SECTION 509.1) IF APPLICABLE.
- FIRE COMMAND CENTER: BUILDING MEETS HIGH-RISE CLASSIFICATION AND SHALL BE EQUIPPED WITH A GROUND FLOOR FIRE COMMAND CENTER THAT COMPLIES WITH 2009 IFC SECTION 508 AND 2012 MBC SECTION 911. THE FIRE COMMAND CENTER IS TO BE ACCESSED FROM A HALLWAY CONNECTED TO SOUTH UNIVERSITY AVENUE.
- KNOX BOX EMERGENCY ACCESS SYSTEM WITH KEYS TO ACCESS THE BUILDING, THE FIRE SUPPRESSION SYSTEM CONTROL ROOM (IF APPLICABLE), AN ELEVATOR KEY, AND ANY OTHER KEYS TO AREAS THAT MAY BE RELEVANT DURING EMERGENCIES WILL BE REQUIRED. KNOX BOX WITH PROPER KEYS SHALL BE IN PLACE PRIOR TO ISSUANCE OF CERTIFICATES OF OCCUPANCY FOR THE BUILDINGS.
- THE KNOX BOX SHALL BE MOUNTED ON AN EXTERIOR LOCATION NO HIGHER THAN 6 FEET FROM GRADE IN AN APPROVED LOCATION ON THE EXTERIOR FOR EMERGENCY ACCESS TO THE BUILDING AS WELL AS ACCESS TO THE FIRE SUPPRESSION SYSTEM CONTROL ROOMS IF APPLICABLE.
- CONSTRUCTION SEQUENCING
 - FIRE HYDRANTS MUST BE IN SERVICE AND APPROVED DURING CONSTRUCTION.
 - FIRE HYDRANTS PROVIDING PROTECTION COVERAGE FOR THE BUILDING MUST BE IN SERVICE AND APPROVED BY BOTH PLANNING AND FIRE DEPARTMENTS BEFORE THE FIRE DEPARTMENT WILL SUPPORT PERMIT ISSUANCE FOR NEW CONSTRUCTION PHASE AND BEFORE COMBUSTIBLE MATERIALS ARE PLACED ON THE JOB SITE.
 - STORAGE AREAS FOR CONSTRUCTION MATERIALS MUST BE APPROVED SO AS NOT TO INTERFERE WITH FIRE/EMERGENCY SITE ACCESS.
 - IF SITE ACCESS IS TO BE RESTRICTED DURING CONSTRUCTION, KNOX BOX LOCKS FOR GATES ARE TO BE PROVIDED.
- NO FIREWALLS WILL BE CONSTRUCTED WITHIN THE BUILDING.
- IF BOOSTER PUMPS ARE REQUIRED, THEY ARE TO BE PROVIDED ON THE DOMESTIC WATER SERVICE AND THE FIRE SUPPRESSION WATER SERVICE LEADS. THE PUMPS SHALL MEET 2009 IFC STANDARDS, SECTION 914.3.1.2.
- NO SEPARATE FIRE SUPPRESSION SYSTEM CONTROL ROOM IS REQUIRED.

The underground utilities shown have been located from field survey information and existing records. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Although the surveyor does certify that they are located as accurately as possible from the information available.

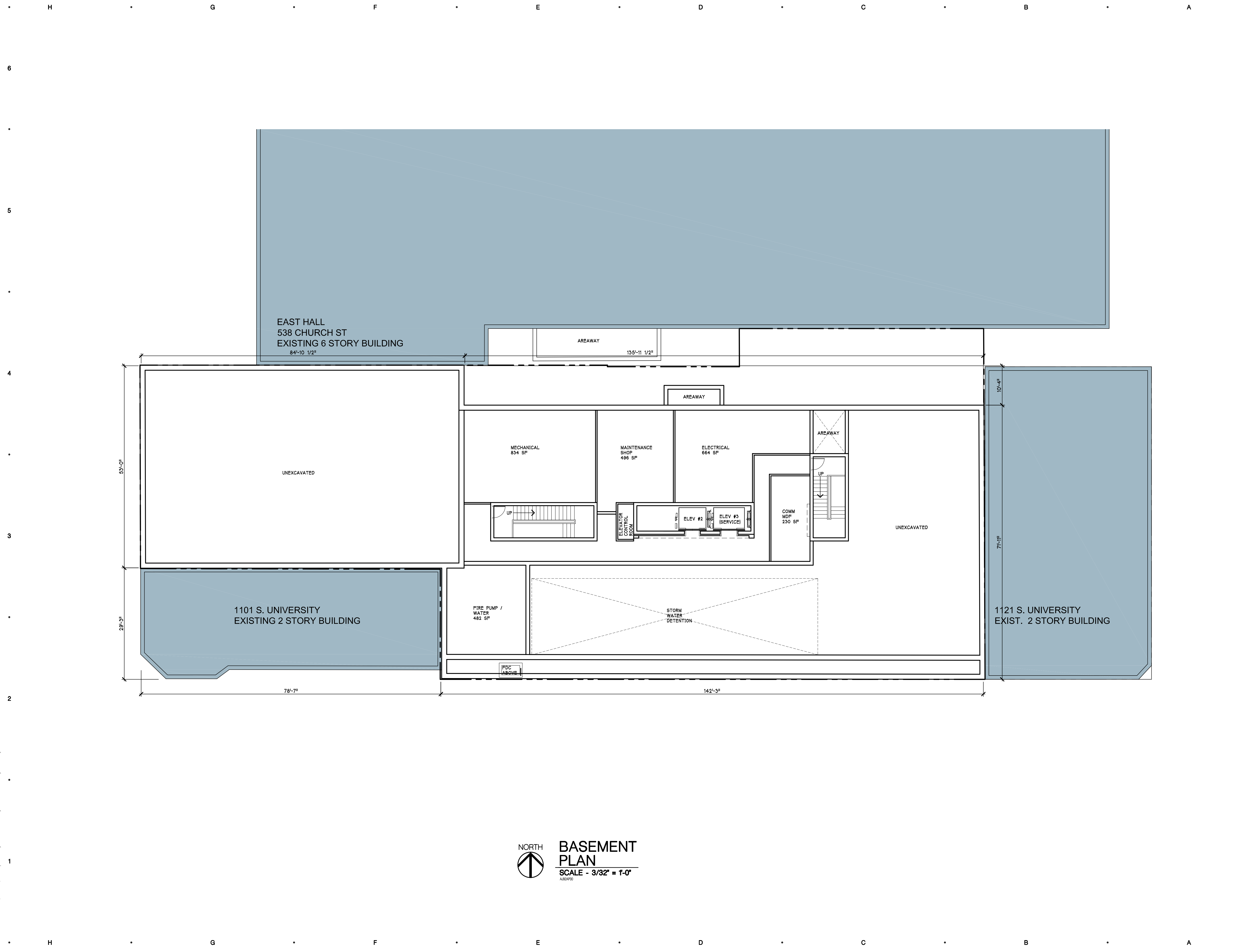
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 BINGHAM FARMS, MI 48205
 SEAN T. HAVERA
 (248) 647-2600

THE COLLEGIAN NORTH
 SITE PLAN
 FIRE PROTECTION PLAN

12

JOB No.	15006
DATE:	10/28/16
SHEET:	13 OF 26
REV. DATE:	12/05/16
REV. BY:	ENG. DAG
REV. FOR:	ENG. SGT
REV. BY:	PM. JIC
REV. FOR:	TECH. JIC
REV. BY:	DRG. JIC
REV. FOR:	DRG. JIC



NORTH
BASEMENT PLAN
 SCALE - 3/32" = 1'-0"
ASBAP00

SITE PLAN RESUBMITTAL	1/20/2017
SITE PLAN RESUBMITTAL	12/2/2016
SITE PLAN APPROVAL	10/28/2016
DATE ISSUED	
DRAWN BY	
CHECKED BY	

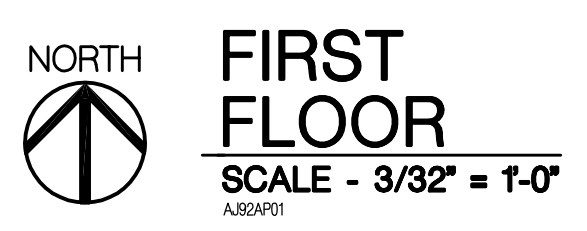
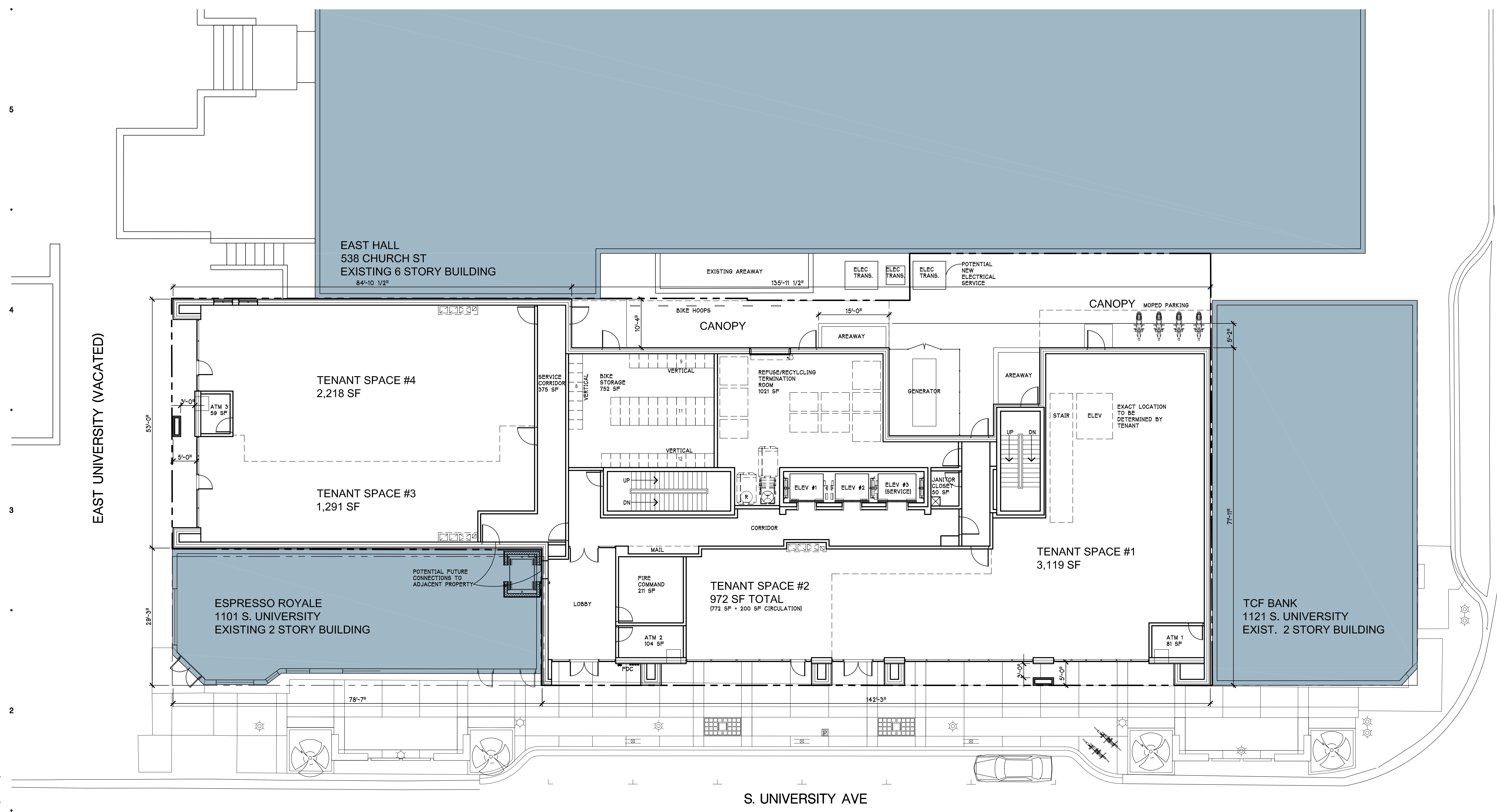
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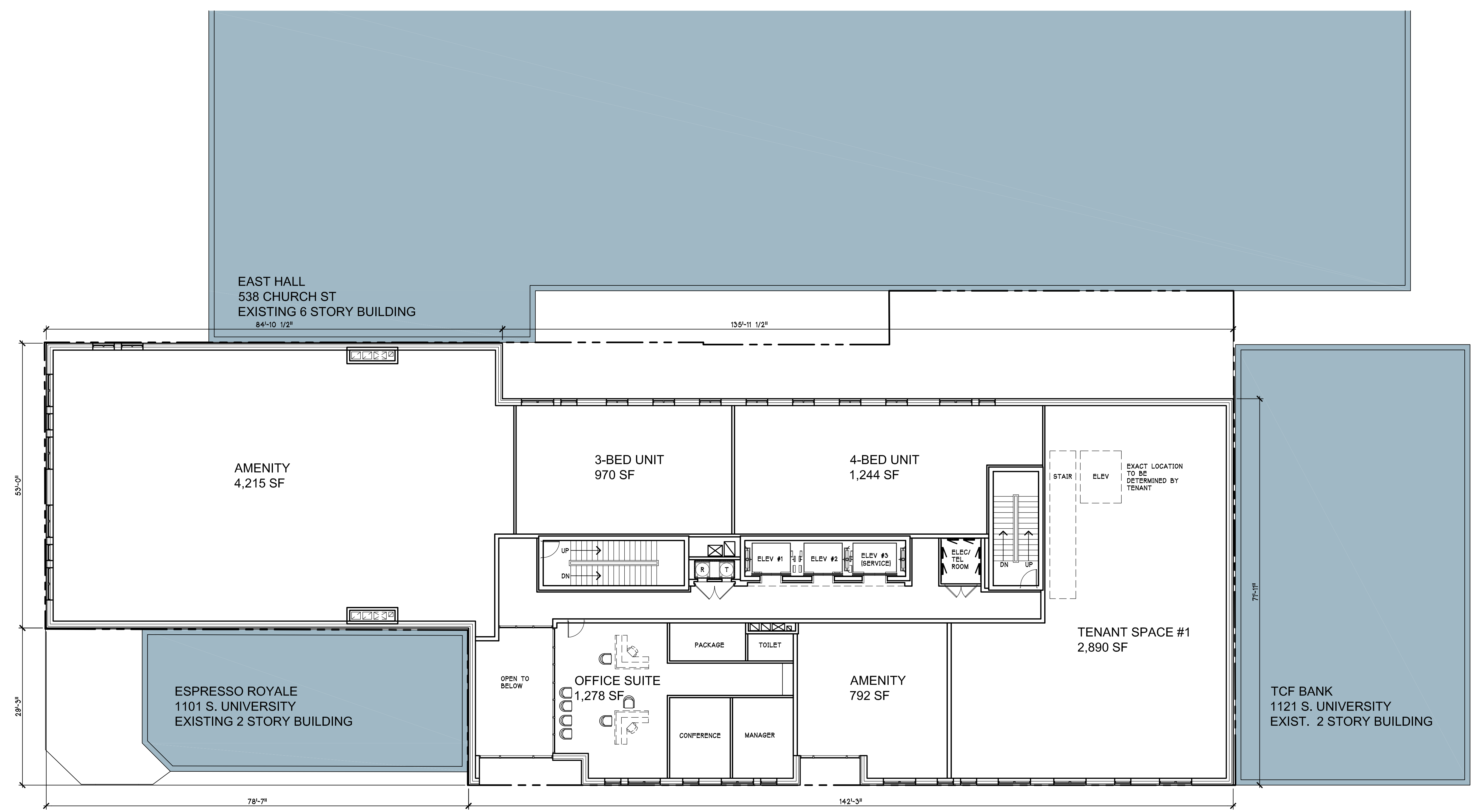
PROJECT
 CONSULTANT

BASEMENT FLOOR PLAN
 SHEET TITLE
16-003
 PROJECT NUMBER
A-100
 SHEET NUMBER

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 Date: Jan 15, 2017, 2:38pm
 Layout: 24x36-Layout
 Plotted by: dmentye



Drawing: PA201601600301dwg(C:\Users\CD\OneDrive\Projects\16-003\16-003-01.dwg) Plotted by: dmcntyre
Date: Jan 15, 2017, 2:41 pm Layout: 24x36-Layout



SITE PLAN RESUBMITTAL	1/20/2017
SITE PLAN RESUBMITTAL	12/2/2016
SITE PLAN APPROVAL	10/28/2016
DATE ISSUED	
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PROJECT

CONSULTANT

SECOND FLOOR PLAN

SHEET TITLE

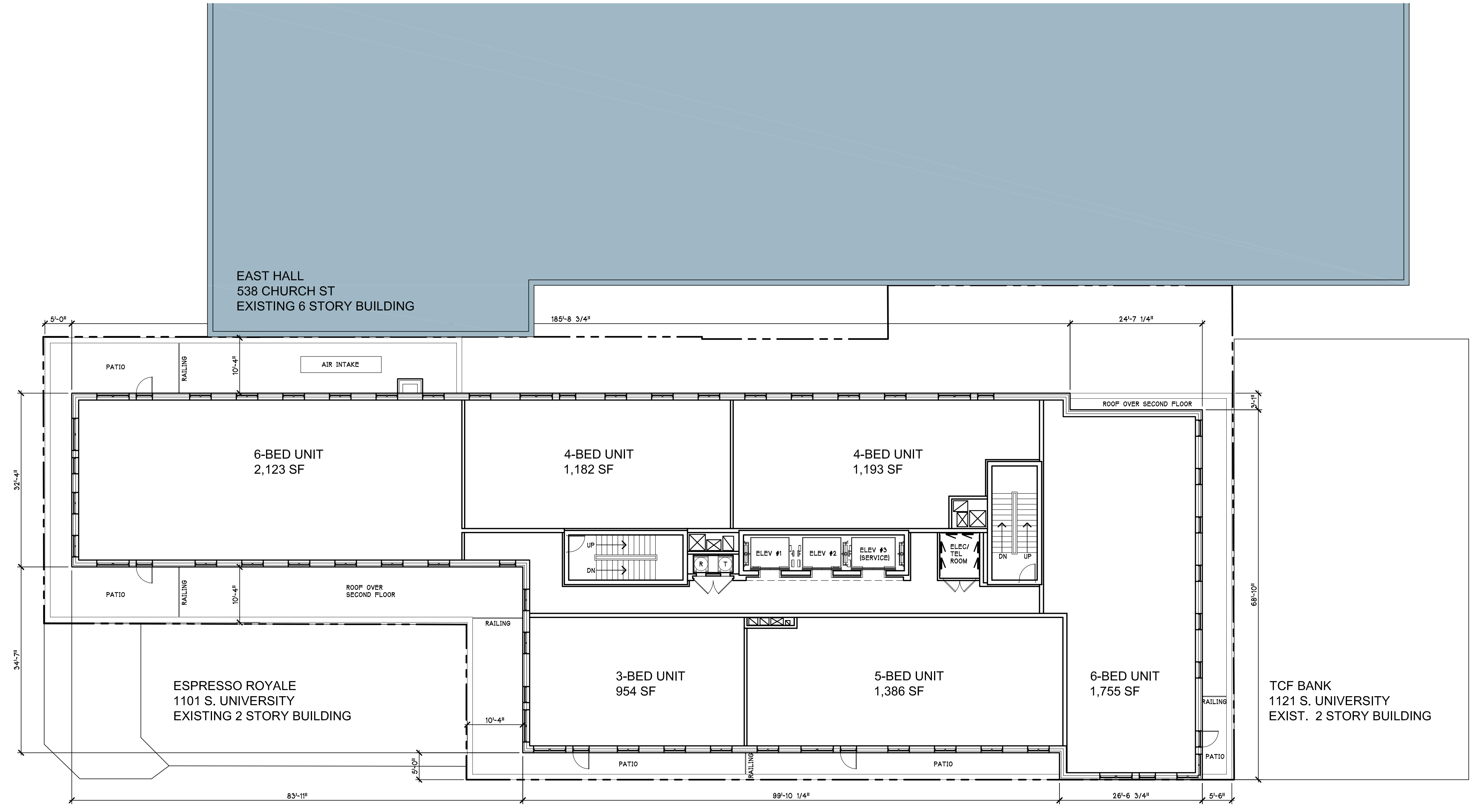
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PROJECT NUMBER

A-102

SHEET NUMBER

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 Date: Jan 15, 2017, 2:46pm
 Layout: 24x36-Layout
 Plotted by: dmentyie



THIRD - NINTH
FLOORS
SCALE - 3/32" = 1'-0"
ASAP03

Drawing: P:\2016\16003\16003\16003\CD\Arch\16003\16003.dwg
Date: Jan 15, 2017, 4:40pm
Layout: 24x36-Layout
Plotted by: dmentye

6

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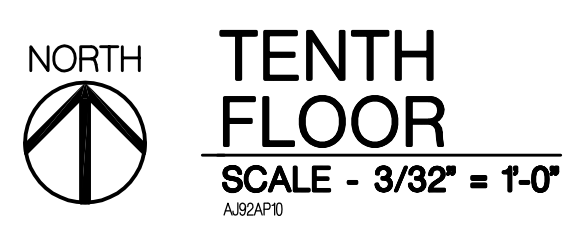
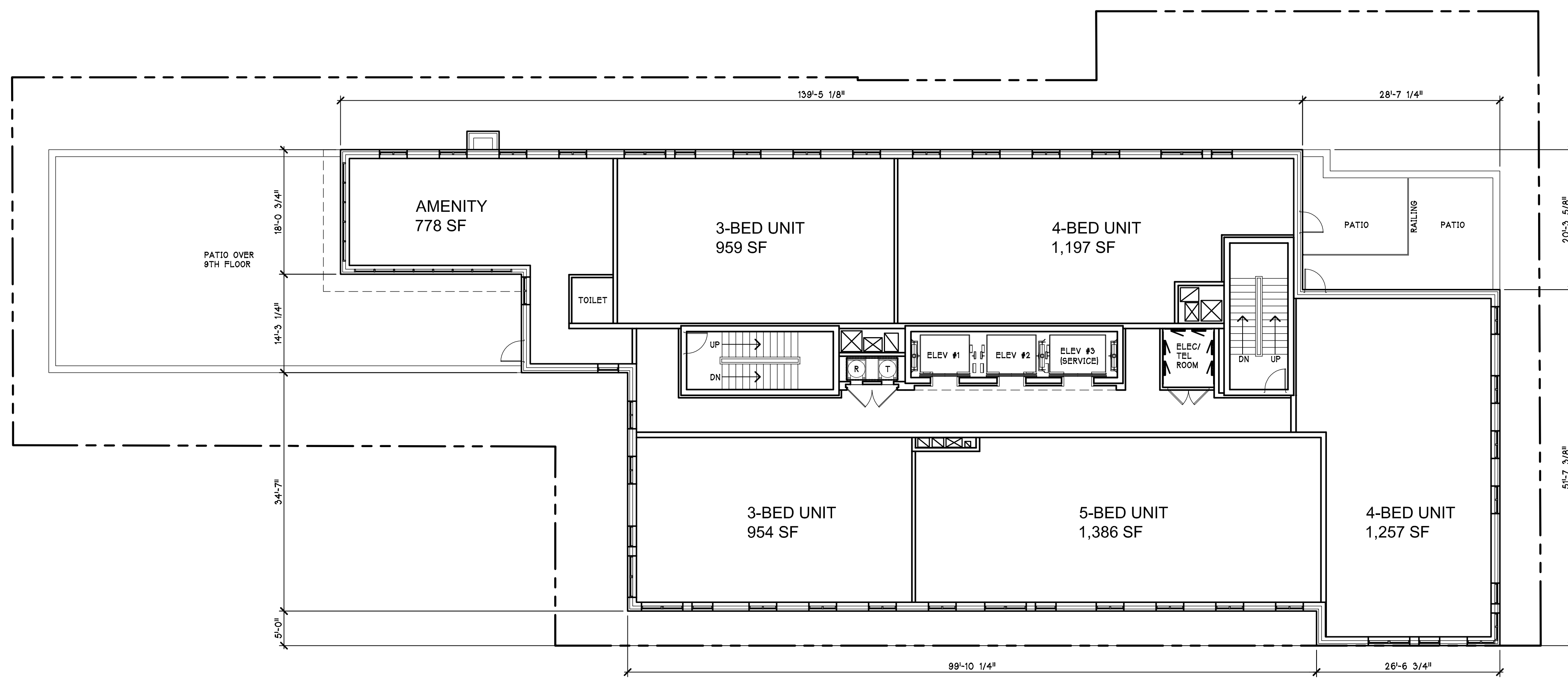
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SITE PLAN RESUBMITTAL 12/2/2016
SITE PLAN APPROVAL 10/28/2016

DATE ISSUED

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CONSULTANT

TENTH
FLOOR PLAN

SHEET TITLE

16-003

PROJECT NUMBER

A-104

SHEET NUMBER

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Plotted by: dmentyve

H G F E D C B A

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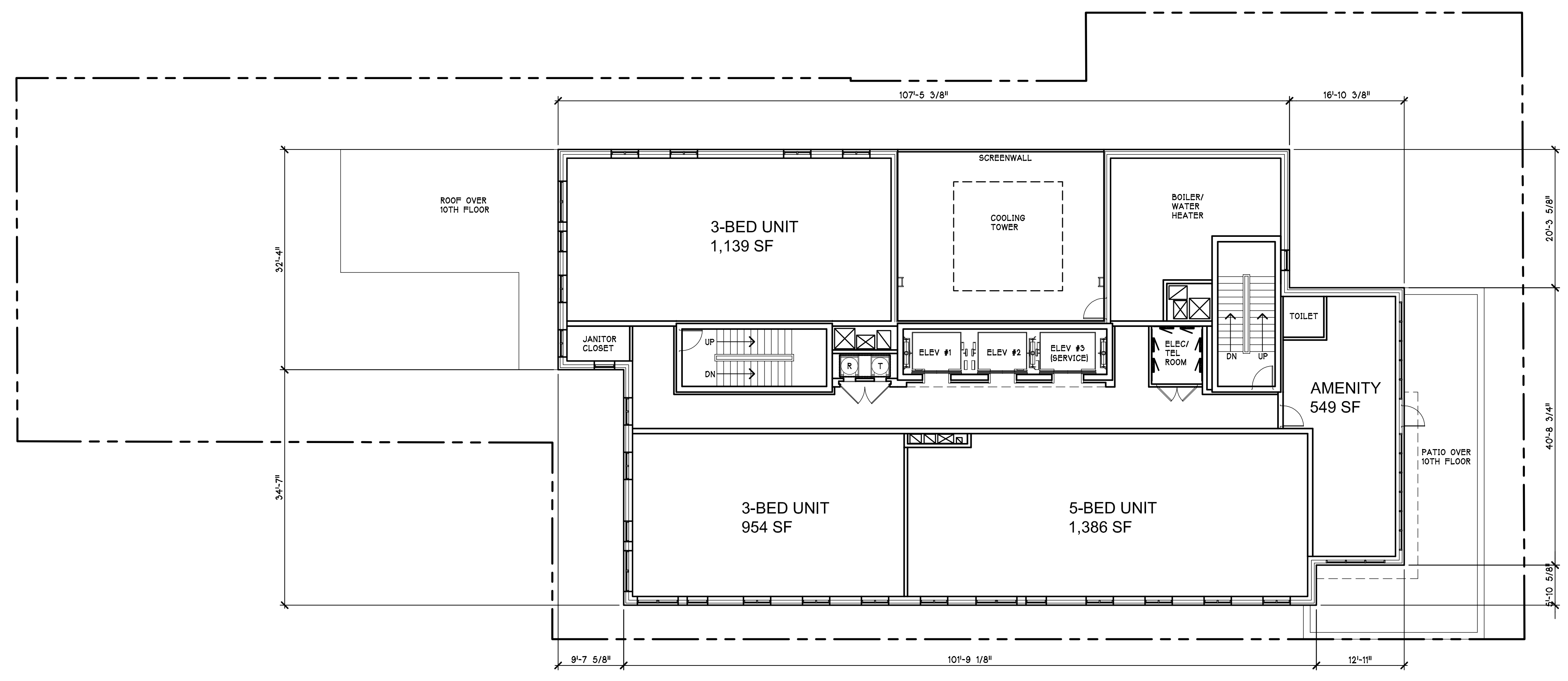
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PROJECT

CONSULTANT

ELEVENTH FLOOR PLAN

SHEET TITLE

16-003

PROJECT NUMBER

A-105

SHEET NUMBER

H G F E D C B A

6

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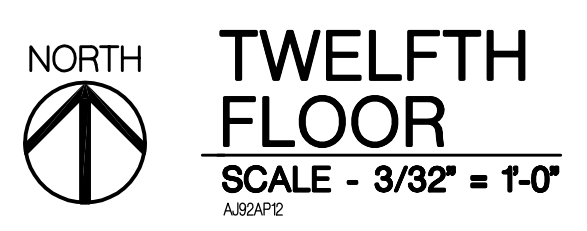
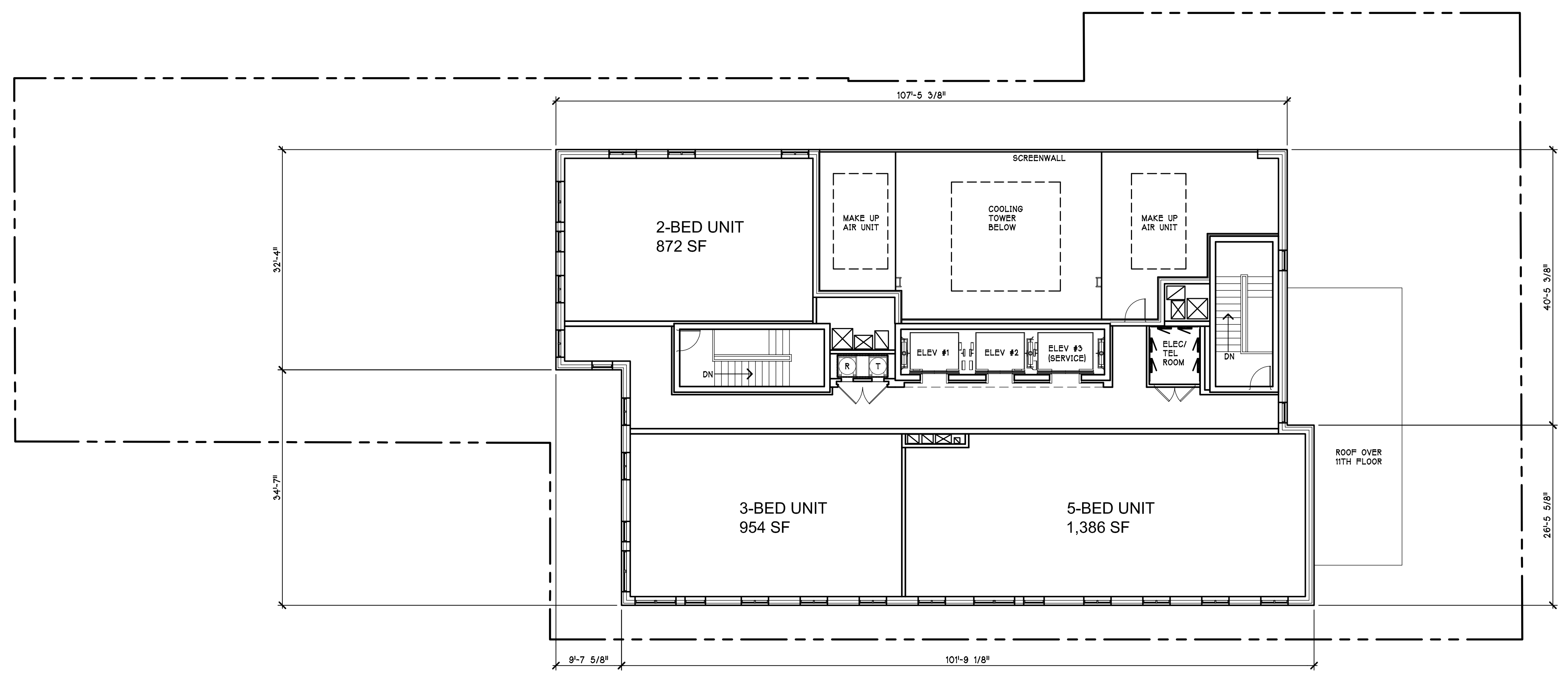
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CONSULTANT

TWELFTH FLOOR PLAN

SHEET TITLE

16-003
 PROJECT NUMBER

A-106
 SHEET NUMBER

H G F E D C B A

H G F E D C B A

6

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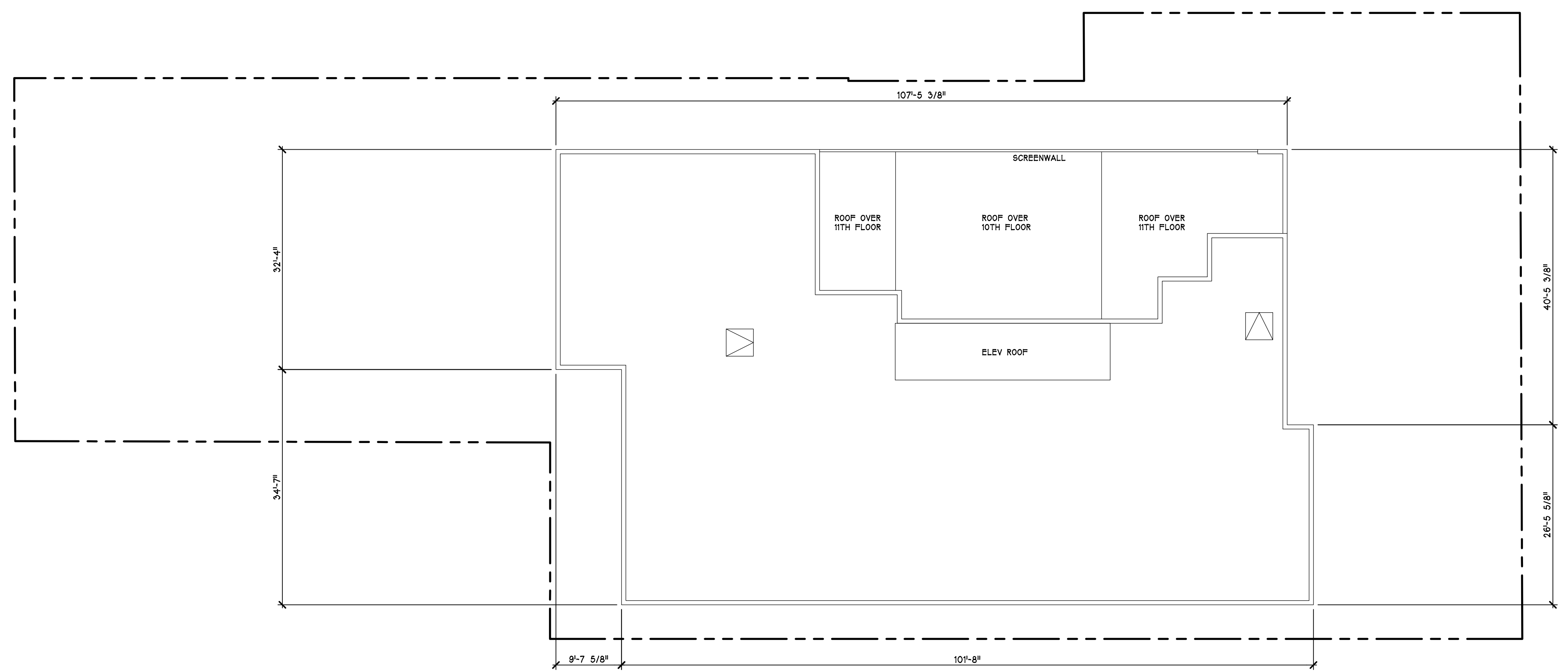
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Date: Jan 15, 2017, 3:01 pm
Layout: 24x36-Layout
Plotted by: dmentyie



NORTH

ROOF PLAN
 SCALE - 3/32" = 1'-0"
A829901

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ROOF PLAN

SHEET TITLE

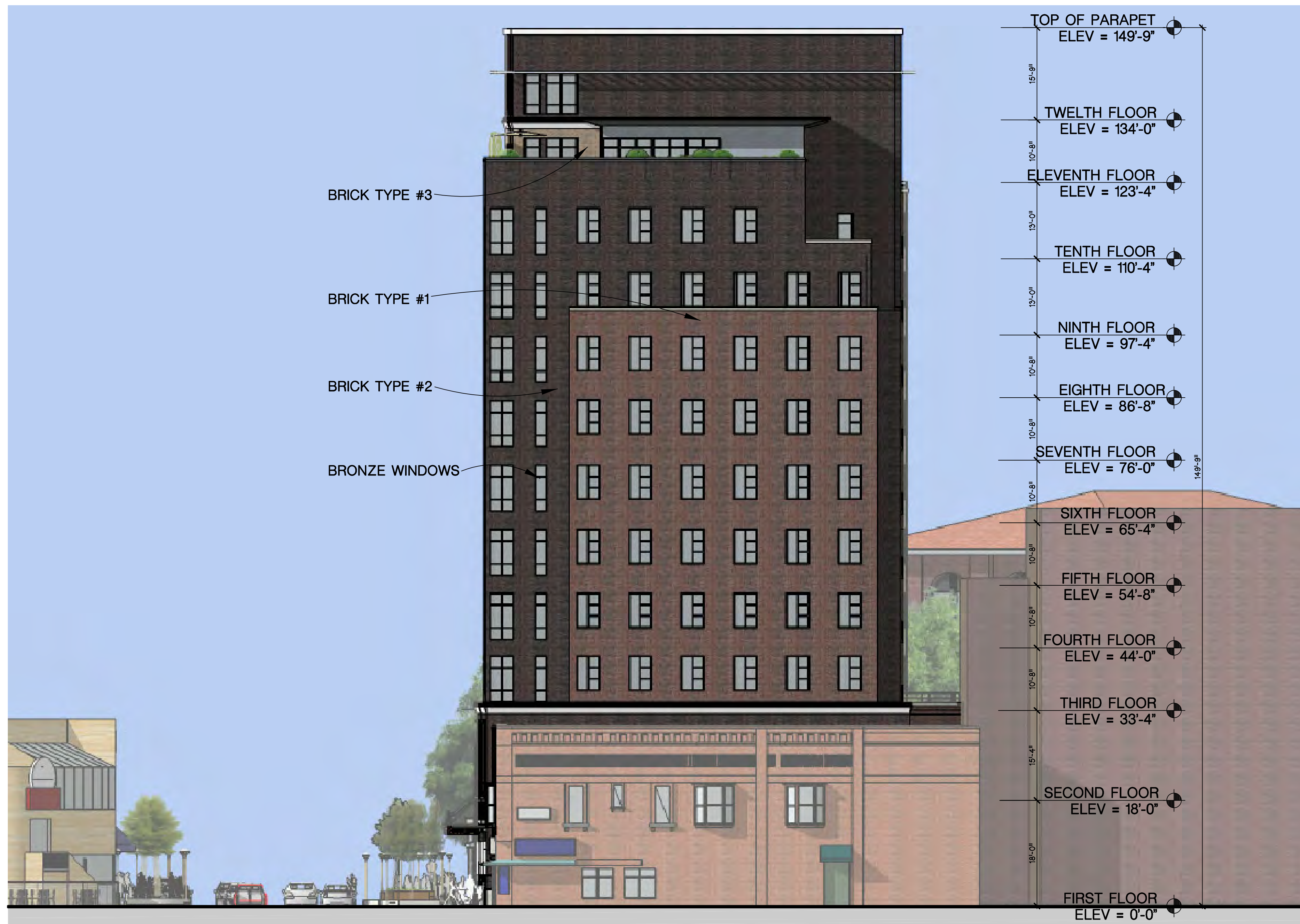
16-003

PROJECT NUMBER

A-107

SHEET NUMBER

H G F E D C B A



**EAST
ELEVATION**
 SCALE - 3/32" = 1'-0"
 201606 - SUN ELEV0

Drawing: P:\2016\16003\16003.dwg (SUN ELEV) 161205 - SUN Elev 10.dwg
 Date: Jan 27, 2017, 2:24pm Layout: 2436 - EAST Plotted by: jstano

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 SITE PLAN RESUBMITTAL 12/2/2016
 SITE PLAN APPROVAL 10/28/2016

DATE ISSUED
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**EAST
ELEVATION**
 SHEET TITLE
16-003
 PROJECT NUMBER
A-203
 SHEET NUMBER

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 SITE PLAN RESUBMITTAL 12/2/2016
 SITE PLAN APPROVAL 10/28/2016
 DATE ISSUED

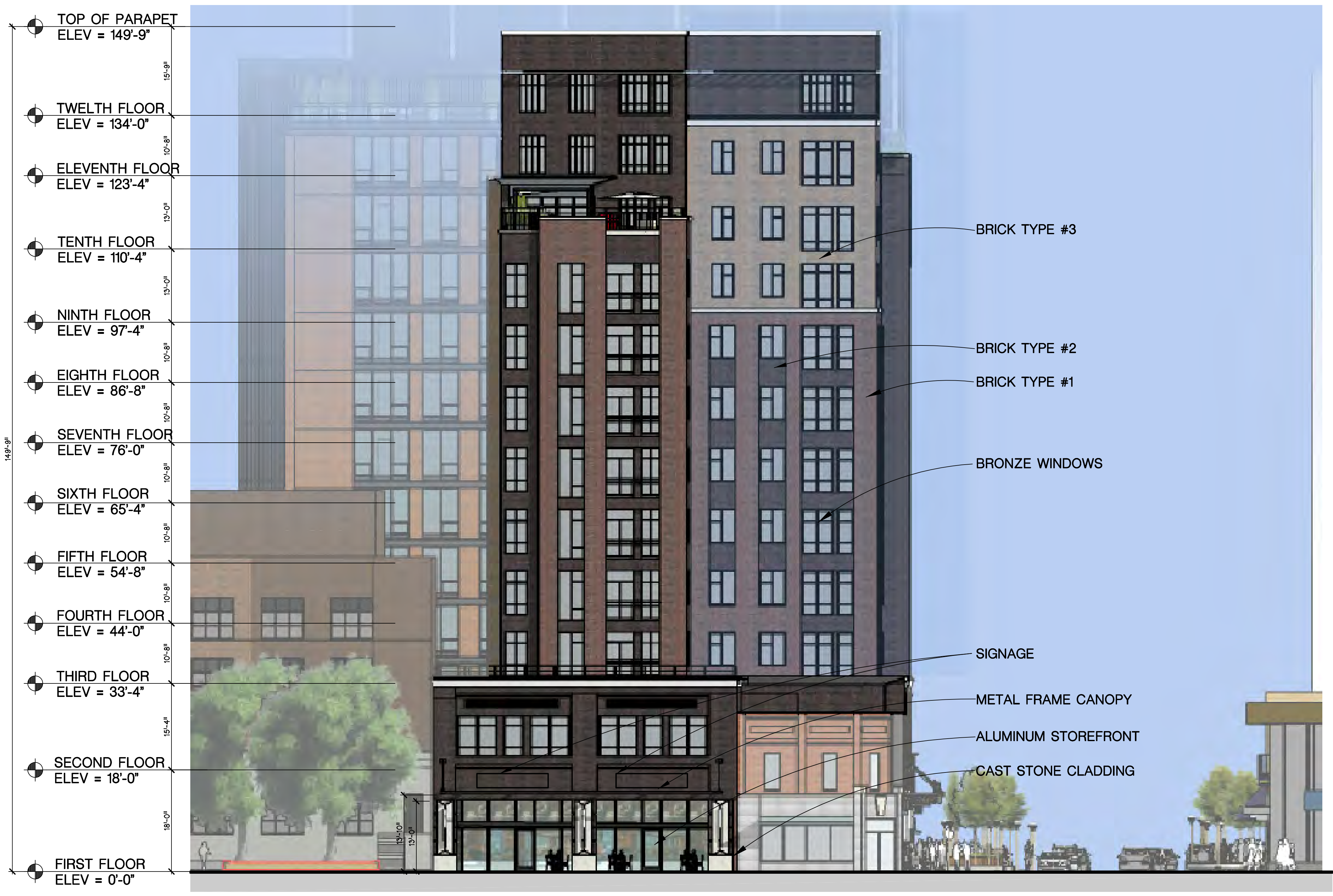
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WEST ELEVATION
 SHEET TITLE
16-003
 PROJECT NUMBER
A-202
 SHEET NUMBER



WEST ELEVATION
 SCALE - 3/32" = 1'-0"
 2016 - 3/1/16

Drawing: P:\2016\16003\16003.dwg 170127 - SUN Elev 10.dwg
 Date: Jan 27, 2017, 3:55pm Layout: 2436 - WEST Plotted by: jpanko



TOP OF PARAPET
ELEV = 149'-9"

15'-9"

TWELTH FLOOR
ELEV = 134'-0"

10'-8"

ELEVENTH FLOOR
ELEV = 123'-4"

13'-0"

TENTH FLOOR
ELEV = 110'-4"

13'-0"

NINTH FLOOR
ELEV = 97'-4"

10'-8"

EIGHTH FLOOR
ELEV = 86'-8"

10'-9"

SEVENTH FLOOR
ELEV = 76'-0"

10'-8"

SIXTH FLOOR
ELEV = 65'-4"

10'-9"

FIFTH FLOOR
ELEV = 54'-8"

10'-8"

FOURTH FLOOR
ELEV = 44'-0"

10'-8"

THIRD FLOOR
ELEV = 33'-4"

15'-4"

SECOND FLOOR
ELEV = 18'-0"

18'-0"

FIRST FLOOR
ELEV = 0'-0"

BRICK TYPE #3

BRICK TYPE #2

BRICK TYPE #1

BRONZE WINDOWS

EAST HALL IN FOREGROUND

ADJACENT PROPERTY

ADJACENT PROPERTY IN FOREGROUND

BRICK TYPE #2

NORTH ELEVATION
 SCALE - 3/32" = 1'-0"
 201610 - SUN ELEV

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 SITE PLAN RESUBMITTAL 12/2/2016
 SITE PLAN APPROVAL 10/28/2016
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NORTH ELEVATION

SHEET TITLE

16-003

PROJECT NUMBER

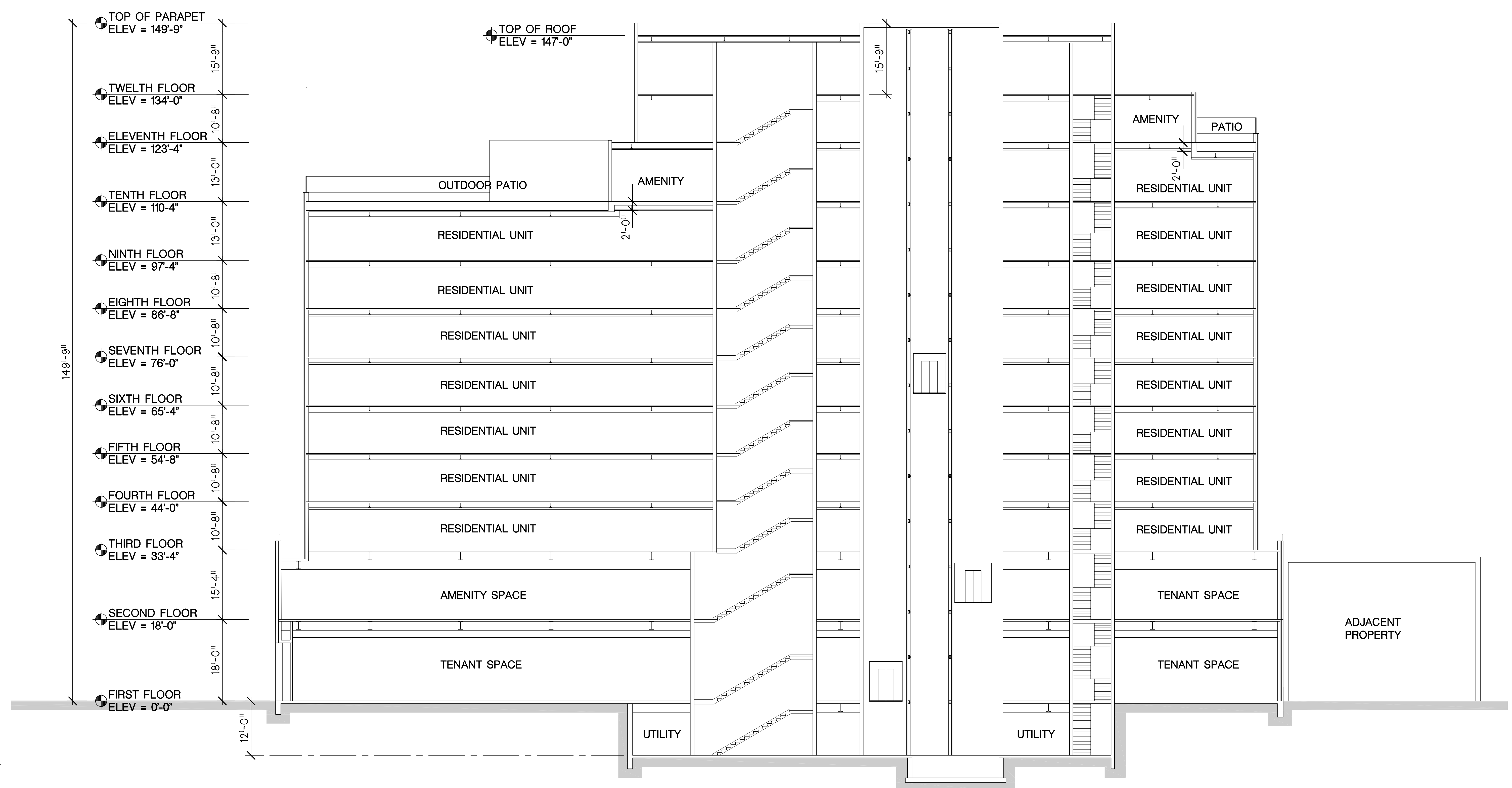
A-201

SHEET NUMBER



**SOUTH
 ELEVATION**
 SCALE - 3/32" = 1'-0"
 201608 - SUN.ELEV10

Drawing: P:\2016\16003\16003.dwg
 Date: Jan 27, 2017, 2:20pm
 Layout: 2436-SOUTH
 Plotted by: jstahlo



Drawing: P:\2016\16003\DWG\CD\Arch20170116 5:04 Building Section.dwg
 Date: Jan 15, 2017, 4:55pm Layout: 2436_SECTION Plotted by: dmcntyre

BUILDING SECTION
 SCALE - 3/32" = 1'-0"
2016 - SUN ELEV

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 SITE PLAN RESUBMITTAL 12/2/2016
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BUILDING SECTION
 SHEET TITLE
16-003
 PROJECT NUMBER
A-300
 SHEET NUMBER