COLLEGE ROAD APARTMENTS

TAX PARCEL # 2-05-06700-02-5300, -5400, -5500, & -5600

PRELIMINARY SITE PLANS

CITY OF DOVER, KENT COUNTY, DELAWARE

INITIAL SUBMISSION: JANUARY 23, 2023

PREPARED FOR:

OWNER/DEVELOPER

PATEL COLLEGE PROPERTIES, LLC &
PATEL EXCESS COLLEGE ROAD, LLC

1640 POWDERHORN DRIVE

NEWTOWN, PENNSYLVANIA 18940

GENERAL SITE CONSTRUCTION SPECIFICATIONS

BITUMINOUS PAVING

GENERAL

1. THE CONTRACTOR SHALL CONSULT THESE SECTIONS IN DETAIL, AS HE WILL BE RESPONSIBLE FOR WORK INDICATED AND GOVERNED BY CONDITIONS SET FORTH THERE IN.

QUALITY ASSURANCE

1. PERFORM WORK IN ACCORDANCE WITH APPLICABLE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
2. MIXING PLANT: DELAWARE DEPARTMENT OF TRANSPORTATION APPROVED FACILITY.
3. OBTAIN MATERIALS FROM SAME SOURCE THROUGHOUT.

ENVIRONMENTAL REQUIREMENTS

1. DO NOT PLACE BITUMINOUS WHEN AMBIENT AIR OR COARSE STONE BASE COURSE SURFACE TEMPERATURE IS LESS THAN 40 DEGREES F, NOR WHEN SURFACE IS WET OR FROZEN.

MATERIALS

1. BINDER COURSE: DELDOT TYPE B
2. WEARING COURSE: DELDOT TYPE C
3. TACK COAT: EMULSIFIED ASPHALT
4. FORMS: WOOD FORM MATERIAL, PROFILED TO SUIT CONDITIONS.
5. PAVEMENT MARKINGS IN ACCORDANCE WITH DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

EXECUTION

1. VERIFY THAT COMPACTED SUBBASE IS DRY AND READY TO SUPPORT PAVING AND IMPOSED LOADS, SEE STRUCTURAL FILL SECTION.
2. VERIFY GRADIENTS AND ELEVATIONS OF BASE ARE CORRECT.
3. APPLY TACK COAT TO VERTICAL CONTACT SURFACES OF EXISTING CURBS, PAVEMENTS, AND STRUCTURES.
4. COAT SURFACES OF MANHOLE OR INLET FRAMES WITH OIL TO PREVENT BOND WITH BITUMINOUS CONCRETE PAVEMENT. DO NOT TACK COAT THESE SURFACES.
5. PLACE BITUMINOUS MIXTURE WHEN TEMPERATURE IS NOT MORE THAN 15 F DEGREES FROM THE TEMPERATURE OF THE COMPLETED MIXTURE AT THE PLANT.
6. PLACE WEARING COURSE WITHIN TWO HOURS OF PLACING AND COMPACTING BINDER COURSE. IF NOT PLACED WITHIN TWO HOURS, APPLY TACK COAT OVER BINDER COURSE TO ASSURE ADHESION.
7. COMPACT PAVEMENT BY ROLLING WITH MINIMUM 10 TON ROLLER. DO NOT DISPLACE OR EXTRUDE PAVEMENT FROM POSITION. HAND COMPACT IN AREAS INACCESSIBLE TO ROLLING EQUIPMENT WITH HOT IRON TAMPERS, WEIGHING NOT LESS THAN 25 LBS.
8. PERFORM ROLLING WITH CONSECUTIVE PASSES TO ACHIEVE EVEN AND SMOOTH FINISH, WITHOUT ROLLER MARKS.
9. LONGITUDINAL JOINT IN ONE LAYER SHALL OFFSET THE PREVIOUS JOINT IN THE LAYER IMMEDIATELY BELOW BY APPROXIMATELY 6 INCHES. WHERE ABUTTING PAVING IS NOT PLACED THE SAME DAY OR THE ABUTTING JOINT IS DISTORTED, THE JOINT SHALL BE TRIMMED TO A TRUE SURFACE AND PAINTED WITH A TACK COAT.
10. TRANSVERSE JOINTS SHALL BE STRAIGHT-EDGED TO ASSURE SMOOTHNESS, AND THE JOINT FACE SHALL BE PAINTED WITH A TACK COAT. CROSS ROLL, TO OBTAIN THOROUGH COMPACTION OF JOINT.
11. IMMEDIATELY AFTER PLACEMENT, PROTECT PAVEMENT FROM MECHANICAL INJURY UNTIL ADEQUATE STABILITY AND ADHESION HAVE BEEN OBTAINED AND THE MATERIAL HAS COOLED SUFFICIENTLY TO PREVENT DISTORTION OR LOSS OF FINES.
12. NO VEHICULAR TRAFFIC SHALL BE PERMITTED ON THE NEW SURFACE IN LESS THAN SIX (6) HOURS AFTER THE SURFACE HAS BEEN FINISHED.

PAVEMENT MARKINGS

GENERAL

1. THE CONTRACTOR SHALL CONSULT THESE SECTIONS IN DETAIL, AS HE WILL BE RESPONSIBLE FOR WORK INDICATED AND GOVERNED BY CONDITIONS SET FORTH THERE IN.
2. THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING OF PAVEMENT MARKINGS TO VARIOUS SURFACES AT LOCATIONS AND PATTERNS AS SPECIFIED IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE ENGINEER/ARCHITECT. THIS INCLUDES DURABLE AND NONDURABLE LINE MARKINGS (STRIPING), LEGENDS (LETTERS AND NUMBERS), AND SYMBOLS.

MATERIALS

1. MATERIALS SHALL MEET THE REQUIREMENTS OF THE DELAWARE DEPT. OF TRANSPORTATION AND AS INDICATED ON THE DRAWINGS.

EXECUTION

1. INSTALLATION SHALL BE IN ACCORDANCE WITH THE DELAWARE DEPT. OF TRANSPORTATION AND AS INDICATED ON THE DRAWINGS.
2. MAINTAIN THE STRIPING AND PAVEMENT MARKINGS, EXISTING OR CONSTRUCTED BY THIS CONTRACTOR, IN "LIKE NEW" CONDITION FOR THE DURATION OF THE CONTRACT. REPAIR OR REPLACE UNSUITABLE PAVEMENT MARKINGS WITH NEW PAVEMENT MARKINGS MEETING THE REQUIREMENTS OF THIS SPECIFICATION.

EARTHWORK

QUALITY INSURANCE

1. FILLS SHOULD BE PLACED IN LAYERS NOT EXCEEDING 8 INCHES COMPACTED MEASURE. THIS CRITERION MIGHT BE ADJUSTED BY THE GEOTECHNICAL ENGINEER IN THE FILED DEPENDING ON THE CONDITIONS PRESENT AT THE TIME OF CONSTRUCTION, ON THE COMPACTION EQUIPMENT USED, AND ON FILL MATERIAL SELECTED. FILLS FOR SUPPORT OF PAVEMENTS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE LABORATORY DETERMINED DRY DENSITY, ASTM D-698, WHEN SMALL, HAND-OPERATED COMPACTION EQUIPMENT US USED, AND TO AT LEAST 95 PERCENT OF THE LABORATORY DETERMINED DRY DENSITY, ASTM D-1557, WHEN SELF-PROPELLED, HEAVY DUTY CONSTRUCTION EQUIPMENT IS USED.
2. UNDER PAVEMENTS, PREPARED SUBGRADES SHOULD BE THOROUGHLY PROOF ROLLED USING A MINIMUM 10-TON VIBRATORY ROLLER OPERATED IN STATIC MODE OR A FULLY LOADED DUMP TRUCK IN AN ATTEMPT TO IDENTIFY UNSTABLE (SOFT, YIELDING, ETC.) SURFACE AREAS. DURING PROOFROLLING ANY UNSTABLE AREA FOUND SHOULD BE STABILIZED BY EXCAVATING AND REPLACING THOSE SOILS WITH SUITABLE SOILS.
3. A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN, PAID FOR BY THE OWNER, SHALL MONITOR ALL SITE PREPARING, GRADING, AND FILL CONSTRUCTION. THE ENGINEER/ TECHNICIAN SHOULD OBSERVE AND DOCUMENT THE SITE PREPARATION, EXISTING FILL MATERIAL REMOVAL, AND FILL/BACKFILL CONSTRUCTION WORK, AND MAKE APPROPRIATE FILED TESTS, AS NECESSARY, TO VERIFY THAT ACCEPTABLE FILL MATERIALS ARE BEING USED AND THAT CONSTRUCTION IS BEING PERFORMED IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATIONS AND ACCEPTABLE CONSTRUCTION PRACTICES.

STRUCTURAL BACKFILL

1. STRUCTURAL FILL SHOULD BE INCLUDED IN THE CONTRACT DOCUMENTS. GRANULAR FILL SHOULD CONSIST OF WELL-GRADED MATERIAL WITH MAXIMUM PARTICLE SIZE LESS THAN 3 INCHES, MOT MORE THAN 20 PERCENT PASSING THE NO. 200 SIEVE AND HAVE A PLASTICITY INDEX (PI) NOT GREATER THAN 8 PERCENT.
2. IMPORTED STRUCTURAL FILL SHOULD BE APPROVED AND SAMPLED BY TESTING AGENCY PRIOR BACKFILL OPERATIONS.
3. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 3 PERCENT OF OPTIMUM MOISTURE CONTENT
4. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.

FIELD QUALITY CONTROL

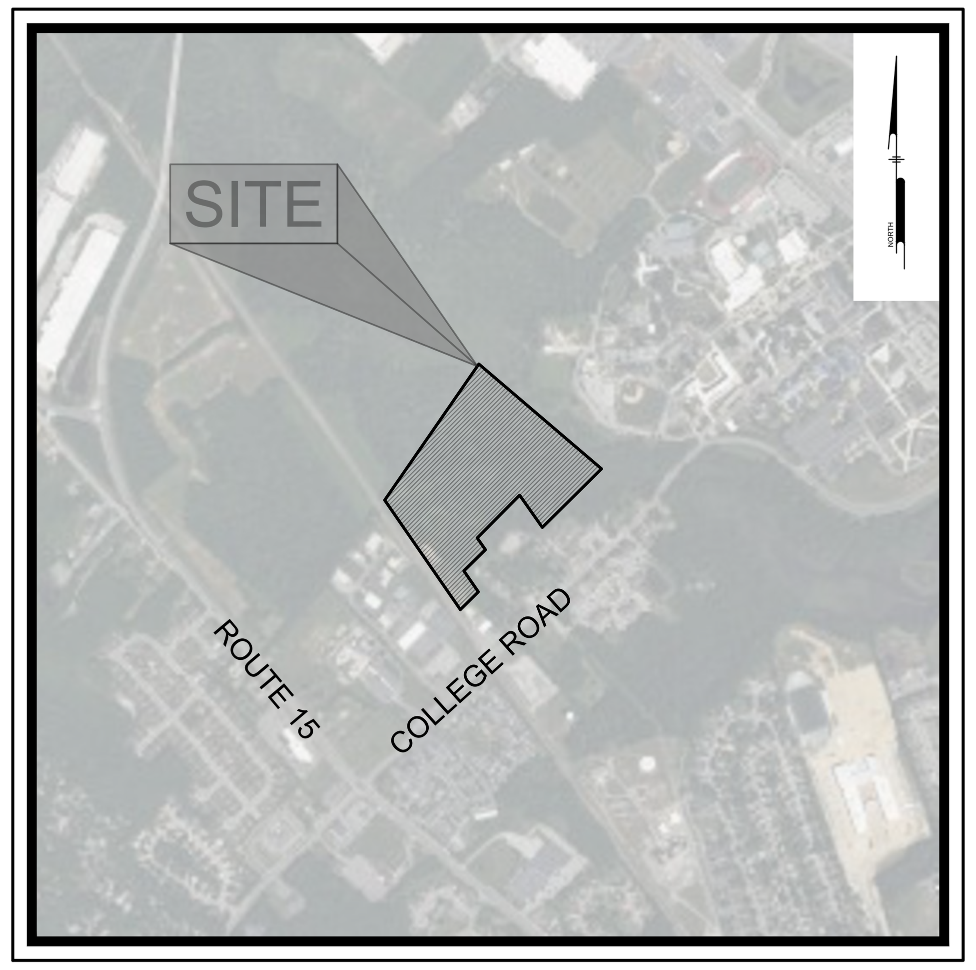
1. TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLIES WITH REQUIREMENTS.
2. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE.
3. TEST PAVED AREA SUBGRADES AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST FOR EVERY 2000 SQUARE FEET, BUT NO FEWER THAN 3 TESTS.
4. WHEN TESTING AGENCY REPORTS SUBGRADE, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

DEWATERING

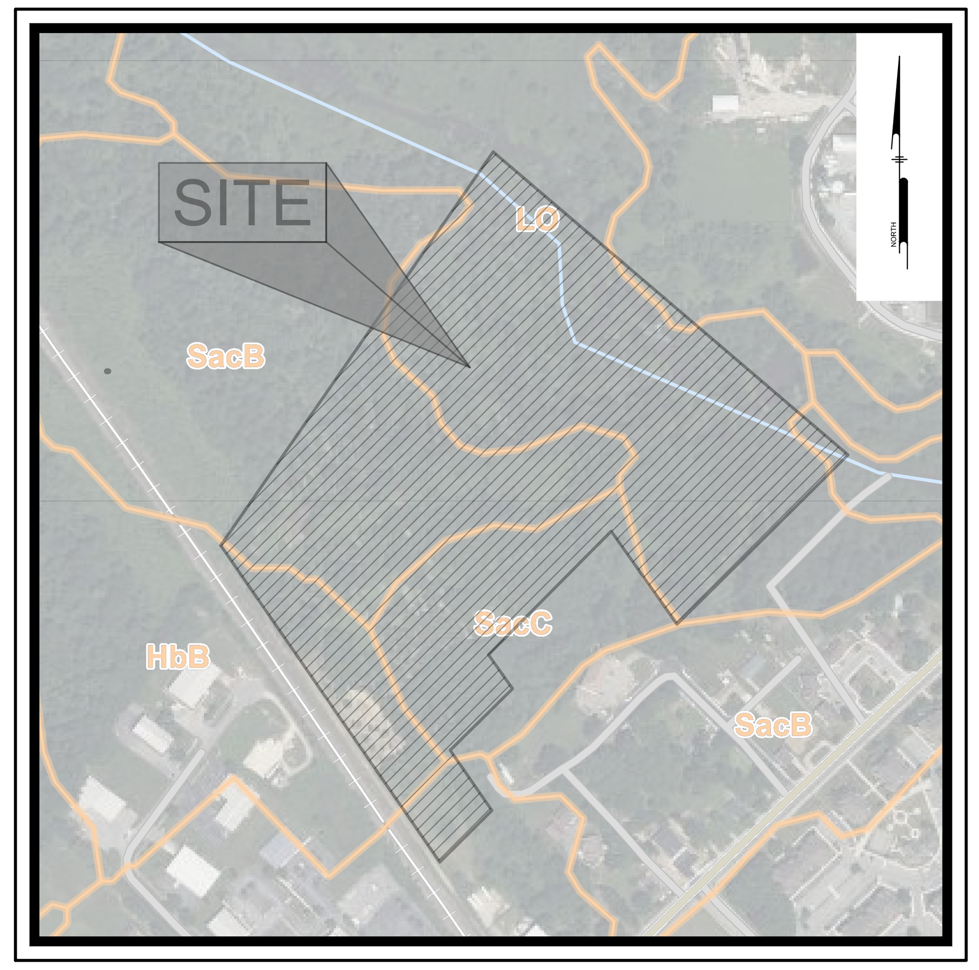
1. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREAS. THE BIDDER IS RESPONSIBLE FOR COMPLETE DEWATERING FOR ALL SITE WORK INCLUDING STORMWATER MANAGEMENT AND EROSION CONTROL FACILITIES. ALL DEWATERING METHODS MUST BE APPROVED BY DNREC AND MUST BE PER THE DNREC ESC HANDBOOK, LATEST VERSION EFFECTIVE FEBRUARY, 2019.
2. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN AND EATER ACCUMULATION. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. WHERE PONDING DOES OCCUR, THE WATER SHOULD BE PUMPED IMMEDIATELY, AND GRADES SHOULD THEN BE ESTABLISHED TO PREVENT FURTHER PONDING.

CALL BEFORE YOU DIG
Call Miss Utility of Delmarva
800-282-8555
Ticket Number(s): ----

LOCATION MAP
Scale: 1" = 400'



LOCATION MAP
Scale: 1" = 1200'



SOILS MAP
Scale: 1" = 400'

OWNER'S CERTIFICATION:
I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO ME BY ACT AND DESIRE THE PLAN TO BE DEVELOPED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

DATE

PATEL EXCESS COLLEGE ROAD, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

OWNER'S CERTIFICATION:
I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO ME BY ACT AND DESIRE THE PLAN TO BE DEVELOPED AS SHOWN IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

DATE

PATEL COLLEGE PROPERTIES, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

PROFESSIONAL CERTIFICATION:
I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HERON HAS BEEN PREPARED UNDER MY SUPERVISION AND THE THE BEST OF MY KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

STEVEN ANDERSON JR., PE (DE PE# 13187) DATE
PENNONI ASSOCIATES INC.
121 CONTINENTAL DRIVE, SUITE 207
NEWARK, DE 19713-4310 PHONE: (302) 351-5227 FAX: (302) 654-2895

PROPERTY SUMMARY

TAX PARCEL NUMBERS	2-05-06700-02-5600-00001 - 26.13 Acres 2-05-06700-02-5500-00001 - 1.42 Acres 2-05-06700-02-5400-00001 - 1.72 Acres 2-05-06700-02-5300-00001 - 2.81 Acres
OWNERS	PATEL COLLEGE PROPERTIES, LLC PATEL EXCESS COLLEGE ROAD, LLC 1640 POWDERHORN DRIVE
LOT SIZE GROSS (CONSOLIDATED)	31.08 ACRES (1,353,974 SQ. FT.)
LOT SIZE NET (CONSOLIDATED)	30.50 ACRES (1,328,578 SQ. FT.)
DEED REFERENCE	D 6009/140
SURVEYED BY	PENNONI ASSOCIATES INC MAY 2031 & MARCH. 2022
DATUM	NAVD 88, NAD 83
ZONING	RG-5
GEOGRAPHIC LOCATION	N:429958.27 E:618299.47
EXISTING USE	VACANT LOT
PROPOSED USE	MID-RISE APARTMENTS

PREPARED BY:

PENNONI ASSOCIATES INC.

Christiana Executive Campus
121 Continental Drive, Suite 207
Newark, DE 19713-4310
T 302.655.4451
F 302.654.2895

LEGEND

Symbol	Description
	EXISTING BUILDING
	RIGHT-OF-WAY / PROPERTY LINE
	CURB
	SIDEWALK
	PAVEMENT
	SIGN
	UTILITY POLE AND LIGHT
FH	HYDRANT
5	MAJOR CONTOUR
4	MINOR CONTOUR
W	WATER LINE
UG	UNDERGROUND GAS LINE
UST	UNDERGROUND STEAM LINE
S	SANITARY SEWER
S	COMBINED SEWER
OE	OVERHEAD ELECTRIC LINE
UE	UNDERGROUND ELECTRIC LINE
UT	UNDERGROUND TELECOMM LINE
UC	UNDERGROUND COMMUNICATIONS LINE
T S D U W G ST	MANHOLES
WV G	VALVES
	INLET
	TREE
	PROPOSED BUILDING
	PROPOSED PROPERTY LINE
	PROPOSED CONCRETE CURB
	PROPOSED HEAVY DUTY CONCRETE
	PROPOSED LIGHT DUTY CONCRETE
	PROPOSED HEAVY DUTY ASPHALT
	PROPOSED LIGHT DUTY ASPHALT
	PROPOSED MILL/OVERLAY PAVING
	PROPOSED WILDFLOWER PLANTING
5	PROPOSED MAJOR CONTOUR
4	PROPOSED MINOR CONTOUR
TB	TOP OF BANK ELEVATION
BS	BOTTOM OF SWALE ELEVATION
EP	EDGE OF PAVEMENT ELEVATION
EC	EDGE OF CONCRETE ELEVATION
TC/BC	TOP/BOTTOM OF CURB ELEVATION
S	PROPOSED SANITARY SEWER
W	PROPOSED WATER MAIN
UE	PROPOSED UNDERGROUND ELECTRIC
UC	PROPOSED UNDERGROUND COMMUNICATIONS
UG	PROPOSED UNDERGROUND NATURAL GAS
D	PROPOSED STORM SEWER ≤ 12"
	PROPOSED STORM SEWER > 12"
	PROPOSED SITE LIGHTING

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS AND DEMOLITION PLAN
3	OVERALL SITE PLAN
4	SITE PLAN
5	GRADING PLAN
6	UTILITY PLAN
7	LANDSCAPE PLAN
8	LANDSCAPE PLAN
9	LIGHTING PLAN
10	ACTIVE RECREATION PLAN

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

COLLEGE ROAD APARTMENTS
RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

COVER SHEET

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

DATE	NO.	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATE; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	NTS
DRAWN BY	ALS
APPROVED BY	GBR

CS0001

u:\Accounts\PLAWX\plawx19001 - dsu student housing\DESIGN_SHEETS\CS0001.dwg PLOTTED: 1/23/2023 12:55 PM, BY: Andrew Shields PLOTSTYLE: Pennoni NCS.stb PROJECT STATUS: ----

NOTES:

1. THE SUBJECT PROPERTIES ARE REFERENCED AS TAX MAP:
   2-05-06700-02-5600-00001
   2-05-06700-02-5500-00001
   2-05-06700-02-5400-00001
   2-05-06700-02-5300-00001

TOPOGRAPHIC INFORMATION WAS TAKEN FROM FIELD SURVEYS PERFORMED BY PENNONI ASSOCIATES, INC

2. MISS UTILITY SHALL BE NOTIFIED THREE (3) CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
3. ALL SIGNING FOR MAINTENANCE OF TRAFFIC IS THE CONTRACTORS RESPONSIBILITY, AND SHALL FOLLOW THE GUIDELINES SHOWN IN LATEST EDITION OF "DELAWARE TRAFFIC CONTROLS FOR STREETS AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND EMERGENCY OPERATIONS."
4. UNLESS SPECIFICALLY STATED OR SHOWN HEREON TO THE CONTRARY, THIS SURVEY IS MADE SUBJECT TO AND DOES NOT LOCATE OR DELINEATE:
   - 4.1. RIGHTS OR INTEREST OF THE UNITED STATES OF AMERICA OR STATE OF DELAWARE OVER LANDS NOW OR FORMERLY FLOWED BY TIDEWATER, BUT NO LONGER VISIBLE OR PHYSICALLY EVIDENT, OR LANDS CONTAINING ANY ANIMAL, MARINE OR BOTANICAL SPECIES REGULATED BY OR UNDER THE JURISDICTION OR ANY FEDERAL, STATE, OR LOCAL AGENCY.
   - 4.2. BUILDING SETBACK LINES, ZONING REGULATIONS OR LINES ESTABLISHED BY ANY FEDERAL, STATE OR LOCAL AGENCY WHICH MAY AFFECT THE BUILDING OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
   - 4.3. ANY SUBSURFACE OR SUBTERRANEAN CONDITION, EASEMENTS OR RIGHTS, INCLUDING, BUT NOT LIMITED TO MINERAL OR MINING RIGHTS, OR THE LOCATION OF OR RIGHTS TO ANY SUBSURFACE STRUCTURES, CONTAINERS OR FACILITIES OR ANY OTHER NATURAL OR MAN-MADE SUBSURFACE CONDITION WHICH MAY OR MAY NOT AFFECT THE USE OR DEVELOPMENT POTENTIAL OF THE SUBJECT PROPERTY.
5. UTILITY NOTES:
   - 5.1. THE LOCATION OF THE EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN TAKEN FROM EXISTING UTILITY RECORDS AVAILABLE AT THE TIME THESE PLANS WERE PREPARED AND FROM SURFACE OBSERVATION OF THE SITE. LOCATIONS OF UTILITIES AS SHOWN AND MAY OR MAY NOT BE COMPLETE. THE NATURE AND EXACT LOCATION OF EXISTING UTILITIES SHOULD BE VERIFIED PRIOR TO INITIATING ANY ACTIVITY THAT MAY AFFECT THEIR USE OR LOCATION.
   - 5.2. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES IS NOT GUARANTEED.
   - 5.3. THE CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE THE START OF WORK.
   - 5.4. IF CONFLICTS ARE FOUND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND DESIGN ENGINEER FOR INSTRUCTION BEFORE PROCEEDING WITH WORK.
6. THIS SITE IS ZONED RG-5 (GENERAL RESIDENCE ZONE FOR MID-RISE APARTMENTS)

WETLANDS 1 TABLE

LINE #	BEARING	DISTANCE
WLF1-1	S 74°58'11" E	8.79'
WLF1-2	N 77°24'26" E	19.90'
WLF1-3	N 89°58'11" E	28.36'
WLF1-4	N 44°51'32" E	67.47'
WLF1-5	N 27°04'30" E	56.44'
WLF1-6	N 12°34'42" E	34.45'
WLF1-7	S 72°47'11" E	48.08'
WLF1-8	S 30°46'51" W	52.21'
WLF1-9	S 16°03'48" W	102.90'
WLF1-10	S 26°30'19" W	67.02'
WLF1-11	S 11°48'17" W	70.82'
WLF1-12	S 17°09'52" E	26.93'
WLF1-13	S 73°28'00" W	33.60'
WLF1-14	S 27°04'08" E	54.26'
WLF1-15	S 51°25'46" E	63.66'
WLF1-16	S 89°32'43" E	121.35'
WLF1-17	N 78°29'09" E	77.06'
WLF1-18	N 70°21'07" E	40.76'
WLF1-19	N 29°25'16" E	24.64'
WLF1-20	N 59°36'34" E	12.41'

WETLANDS 1 TABLE

LINE #	BEARING	DISTANCE
WLF1-21	N 62°23'54" E	30.48'
WLF1-22	N 57°14'45" E	62.21'
WLF1-23	S 14°21'43" W	31.34'
WLF1-24	S 36°07'12" W	96.00'
WLF1-25	S 22°36'54" E	27.60'
WLF1-26	S 58°14'59" E	59.80'
WLF1-27	S 77°33'46" E	36.79'
WLF1-28	N 85°57'49" E	80.48'
WLF1-29	N 69°59'41" E	66.34'
WLF1-30	N 56°43'31" E	33.05'
WLF1-31	N 80°17'34" E	170.62'
WLF1-32	S 75°58'22" E	118.11'
WLF1-33	S 67°54'00" E	47.63'
WLF1-34	S 62°14'59" E	72.45'
WLF1-35	S 75°31'25" E	14.57'
WLF1-36	S 66°01'35" E	80.47'
WLF1-37	S 48°26'03" E	13.29'
WLF1-38	S 38°18'14" W	48.84'
WLF1-39	S 21°35'21" W	39.30'

WETLANDS 2 TABLE

LINE #	BEARING	DISTANCE
WLF2-60	N 48°50'27" E	10.55'
WLF2-61	N 64°04'56" E	50.15'
WLF2-62	N 69°00'46" E	54.62'
WLF2-63	S 64°32'21" E	69.91'
WLF2-64	N 65°59'42" E	42.35'

WETLANDS 2 TABLE

LINE #	BEARING	DISTANCE
WLF2-40	S 76°02'54" E	60.33'
WLF2-41	S 80°27'50" E	12.08'
WLF2-42	S 09°25'33" E	44.72'
WLF2-43	S 38°18'33" W	61.98'
WLF2-44	S 26°11'58" W	66.18'
WLF2-45	S 00°06'31" E	46.26'
WLF2-46	S 30°06'31" E	47.62'
WLF2-47	S 52°39'14" W	51.84'
WLF2-48	S 37°01'39" W	51.98'
WLF2-49	S 79°37'47" W	60.53'
WLF2-50	N 61°54'48" W	48.04'
WLF2-51	N 64°23'48" E	28.71'
WLF2-52	N 39°12'38" E	28.87'
WLF2-53	N 25°40'15" E	48.87'
WLF2-54	N 46°54'58" W	48.37'
WLF2-55	S 69°57'15" W	59.59'
WLF2-56	N 33°20'11" W	77.56'
WLF2-57	N 27°29'48" W	58.02'
WLF2-58	N 12°20'14" W	39.78'
WLF2-59	N 08°32'22" E	33.80'

WETLANDS 3 TABLE

LINE #	BEARING	DISTANCE
WLF3-65	N 05°22'03" W	12.74'
WLF3-66	N 39°08'51" W	14.08'
WLF3-67	S 65°11'39" W	24.28'
WLF3-68	N 77°39'05" W	53.69'
WLF3-69	N 68°12'04" W	27.28'
WLF3-70	N 83°09'45" W	110.84'
WLF3-71	S 50°28'50" W	0.67'
WLF3-72	S 10°45'24" W	114.99'
WLF3-73	S 65°03'33" E	85.70'
WLF3-74	N 77°45'02" E	35.96'
WLF3-75	N 75°22'35" E	41.05'
WLF3-76	N 55°29'58" E	45.75'
WLF3-77	N 00°18'12" E	26.42'
WLF3-78	N 58°58'30" E	60.11'

WETLANDS 4 TABLE

LINE #	BEARING	DISTANCE
WLF4-79	S 74°05'45" E	28.85'
WLF4-80	S 19°55'40" E	34.63'
WLF4-81	S 22°46'45" E	20.10'
WLF4-82	S 48°18'04" E	38.45'
WLF4-83	S 42°49'04" W	16.60'
WLF4-84	N 32°57'44" W	41.28'
WLF4-85	S 75°42'54" W	20.10'
WLF4-86	S 14°31'23" W	28.06'
WLF4-87	N 82°18'17" W	17.12'
WLF4-88	N 21°21'08" E	28.46'
WLF4-89	N 36°55'39" W	15.56'
WLF4-90	S 71°47'42" W	43.96'
WLF4-91	S 81°30'30" W	48.31'
WLF4-92	N 17°43'08" E	20.09'
WLF4-93	N 39°10'33" E	32.32'
WLF4-94	N 40°59'45" E	35.71'
WLF4-95	N 88°18'41" E	13.76'
WLF4-96	N 84°54'02" E	26.10'

Pennoni
PENNONI ASSOCIATES INC.
Christiana Executive Campus
121 Continental Drive, Suite 207
Newark, DE 19713-4310
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ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

COLLEGE ROAD APARTMENTS

RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

EXISTING CONDITIONS AND DEMOLITION PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

DATE	NO.	REVISIONS	BY

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PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	1"= 80'
DRAWN BY	ALS
APPROVED BY	GBR

CS0201

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SITE CONSTRUCTION NOTES:

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE STATE, FEDERAL AND LOCAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY OWNER. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY AND PROTECTION.
2. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS THEY DISCOVER IN THE PLAN.
3. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER OR HIS REPRESENTATIVE OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE REJECTED.
4. ALL MATERIALS SHALL BE NEW AND SHALL BE ASBESTOS AND VERMICULITE FREE. ALL MATERIALS SHALL BE STORED SO AS TO ASSURE THE PRESERVATION OF THEIR QUALITY AND FITNESS FOR THE INTENDED WORK.
5. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO BE PERFORMED. IT MUST BE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
6. PRIOR TO CONSTRUCTION, CONTRACTOR TO FIELD LOCATE AND RECORD AND DAMAGE TO EXISTING PAVING, SIDEWALK, CURB OR STRUCTURES NOT TO BE REMOVED OR REPLACED, ENGINEER TO VERIFY LOCATION AND EXTENT OF DAMAGE.
7. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD.
8. THE CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH OR ACCESS PITS WHICH CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKING DAY. STEEL PLATES SHALL BE USED ON ANY TRENCH OR ACCESS PITS WHICH MUST REMAIN OPEN OVERNIGHT. THIS REQUIREMENT DOES NOT APPLY TO AREAS COMPLETELY CLOSED AND SECURE FROM VEHICULAR OR PEDESTRIAN TRAFFIC.
9. DAMAGE TO EXISTING PAVING, SIDEWALK, CURB OR STRUCTURES NOT TO BE REPLACED OR REMOVED DURING CONSTRUCTION SHALL BE IMMEDIATELY REPORTED TO ENGINEER, CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGED WORK WITHOUT CHARGE TO THE OWNER.
10. MISS UTILITY SHALL BE NOTIFIED THREE (3) DAYS PRIOR TO EXCAVATION.
11. ALL DISTURBED AREAS WITHIN THE LIMIT OF DISTURBANCE, BUT NOT IN PAVEMENT, SHALL BE TOP-SOILED (6" MINIMUM), SEEDED AND MULCHED. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH RE-ESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.
12. ALL SIGNING FOR MAINTENANCE OF TRAFFIC IS THE CONTRACTORS RESPONSIBILITY, AND SHALL FOLLOW THE GUIDELINES SHOWN IN LATEST EDITION OF "DELAWARE TRAFFIC CONTROLS FOR STREETS AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND EMERGENCY OPERATIONS."
13. DESIGN, FABRICATION AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE AS OUTLINED IN THE LATEST VERSION OF THE DE MUTCD.
14. DESIGN AND INSTALLATION OF ALL PAVEMENT MARKINGS AND STRIPING SHALL BE AS OUTLINED IN THE LATEST VERSION OF THE DE MUTCD. FOR FINAL PERMANENT PAVEMENT MARKINGS:
    a) EPOXY RESIN PAINT SHALL BE REQUIRED FOR LONG LINE STRIPING.
    b) THERMO PLASTIC (EXTRUDED OR PREFORMED MATERIAL) WILL BE REQUIRED ON ASPHALT SURFACES, FOR SHORT LINE STRIPING, I.E. SYMBOLS/LEGENDS.
    c) PERMANENT PAVEMENT MARKING TAPE (PER DELDOT APPROVED MATERIALS LIST) WILL BE REQUIRED ON CONCRETE SURFACES, FOR SHORT LINE STRIPING, I.E. SYMBOLS/LEGENDS.
15. BREAKAWAY POSTS SHALL BE USED WHEN INSTALLING ALL SIGNS. REFERENCE DELDOT STANDARD CONSTRUCTION DETAIL T-15.
16. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING, TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION:
    16.1. THE OWNER, KENT CONSERVATION DISTRICT, & SITE ENGINEER
17. THE CONTRACTOR SHALL MAINTAIN PUBLIC ROADS AND STREETS IN A BROOM SWEPT CONDITION AT ALL TIMES.
18. THE CONTRACTOR SHALL REMOVE AND IMMEDIATELY REPLACE, RELOCATE, RESET OR RECONSTRUCT ALL OBSTRUCTIONS IN THE WORK AREA, INCLUDING, BUT NOT LIMITED TO, MAILBOXES, SIGNS, LANDSCAPING, LIGHTING, PLANTERS, CULVERTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, FENCES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS. TRAFFIC CONTROL REGULATORY, WARNING AND INFORMATION SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES, WITH THEIR RELOCATION KEPT TO A MINIMUM DISTANCE.
19. TRANSITIONS FROM PROPOSED SIDEWALK AND CURB TO EXISTING SHALL BE MADE AT THE NEAREST EXISTING JOINT.

PURPOSE NOTE

THE PURPOSE OF THIS PLAN IS TO SHOW THE CONSOLIDATION OF 4 EXISTING TAX PARCELS INTO ONE PARCEL AND TO PROPOSE TWO MID-RISE, MULTI-FAMILY RESIDENTIAL APARTMENT BUILDINGS WITH PARKING, ACTIVE RECREATIONAL AREAS, AND ASSOCIATED APPURTENANCES.

PROPERTY SUMMARY

TAX PARCEL NUMBERS	2-05-06700-02-5600-00001 - 26.13 Acres 2-05-06700-02-5500-00001 - 1.42 Acres 2-05-06700-02-5400-00001 - 1.72 Acres 2-05-06700-02-5300-00001 - 1.81 Acres
OWNER	PATEL COLLEGE PROPERTIES, LLC PATEL EXCESS COLLEGE ROAD, LLC
LOT SIZE GROSS (CONSOLIDATED)	31.08 ACRES (1,353,974 SQ. FT.)
LOT SIZE NET (CONSOLIDATED)	30.50 ACRES (1,328,578 SQ. FT.)
ZONING	RG-5
PROPOSED USE	MID-RISE APARTMENTS

ZONING (RG-5) REQUIREMENTS

	ALLOWED / REQUIRED	PROPOSED
MINIMUM LOT AREA (MAX DENSITY)	900 SF / DU (1,476 DU)	385 DU (3,451 SF/DU)
MINIMUM LOT WIDTH	100 FEET	172 ± FEET
MINIMUM LOT DEPTH	125 FEET	1,015 ± FEET
MINIMUM FRONT YARD	25 FEET	25 FEET
MINIMUM SIDE YARD	25 FEET	25 FEET
MINIMUM REAR YARD	25 FEET	>25 FEET (VARIES)
MAXIMUM BUILDING HEIGHT	70 FEET OR 6 STORIES	6 STORIES < 70 FEET
MINIMUM OPEN SPACE	25% LOT AREA (7.73 AC.)	>= 21.21 ACRES (69.5%)
MINIMUM ACTIVE RECREATION	10% of GROSS DEVELOPMENT AREA(16.18*10%=1.61 ACRES)	72,771 SF (1.67 ACRES)
REQUIRED PARKING (APARTMENTS)	2.25 PER DU(2.25X385UNITS = 867)	
PROPOSED PARKING (APARTMENTS) WAIVER REQUIRED*	1.5 PER STUDIO (233) 1.5 PER 1 BEDROOM(263) 2 PER 2 BEDROOM(110) 1 PER 5 UNITS(77) 683 MIN. SPACES REQUIRED	179- GARAGE (INT.) 42 - GARAGE (EXT.) 462 - SURFACE 683 PROPOSED
ADA SPACES	2% OF TOTAL PROPOSED(15)	16 PROPOSED
REQUIRED BIKE PARKING	1 PER 20 PARKING SPACE 683 SPACES/20= 34 REQUIRED	36 PROPOSED BIKE SPACES
WETLAND PAVING SETBACK	100 FEET OR 50 FEET W/ PROPOSED RIPARIAN BUFFER PLANTINGS	50 FEET
PARKING SETBACKS	NOT ALLOWED IN FRONT YARD MIN. 3' OTHER YARDS	COMPLIES (25' MIN.) 5 FEET
DUMPSTERS REQUIRED	15	15

(1 PER FIRST 48 DU, 1 FOR EACH ADDITIONAL 24 DU)

DWELLING UNIT TYPE BREAKDOWN

	PROPOSED
2 BEDROOM APARTMENT	55 UNITS (15% OF TOTAL)
1 BEDROOM APARTMENT	175 UNITS
STUDIO APARTMENT	155 UNITS
TOTAL	385 UNITS

WAIVERS OR VARIANCES REQUIRED

A WAIVER IS REQUESTED FROM ARTICLE VI, SECTION 3, WHICH REQUIRES 2.25 PARKING SPACES PER DWELLING UNIT TO PERMIT 1.78 SPACES PER DWELLING UNIT USING RATIOS AS FOLLOWS:

1.5 SPACES PER STUDIO
1.5 SPACES PER 1-BEDROOM APARTMENT
2.0 SPACES PER 2-BEDROOM APARTMENT
1.0 SPACE PER 5 UNITS FOR VISITOR OVERFLOW PARKING

FIRE MARSHAL NOTES:

1. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.
2. THE FOLLOWING WATER FOR FIRE PROTECTION REQUIREMENTS APPLY: MAIN SIZES: 6" MINIMUM. MINIMUM CAPACITY: 1,000 GPM @ 20 PSI RESIDUAL FOR 1 HOUR DURATION. HYDRANT SPACING: 800' ON CENTER (DSFPR REGULATION 702, CHAPTER 6, SECTION 3).
3. LOCK BOX WILL BE REQUIRED. CONTACT LOCAL FIRE CHIEF FOR ORDERING INFORMATION AND LOCATION OF BOX ON THE BUILDING.
4. THE PROPOSED BUILDING SHALL BE SIX STORY (70 FT MAX.)
5. AUTOMATIC FIRE SPRINKLERS ARE PROPOSED FOR THIS STRUCTURE AND SHALL BE MONITORED BY AN APPROVED FIRE ALARM SYSTEM.
6. FIRE DEPT. CONNECTION SHALL BE WITHIN 50 FEET OF MAIN ENTRANCE. ACCESS TO THE FIRE DEPT. CONNECTION SHALL BE CLEAR AND UNOBSTRUCTED AS DEFINED BY THE STATE FIRE REGULATIONS. FIRE DEPT. CONNECTION SHALL BE WITHIN 300 FEET OF A FIRE HYDRANT, MEASURED AS HOSE WOULD OFF THE FIRE EQUIPMENT.
7. ADDRESS NUMBERS OF AT LEAST 12 INCHES IN HEIGHT MUST BE PLACED ON THE STREET SIDE OF THE BUILDING AND VISIBLE FROM THE STREET.

CITY OF DOVER GENERAL NOTES:

1. OWNERSHIP OF THE PROPOSED ACTIVE RECREATION AREA SHALL BE RETAINED BY THE DEVELOPER OR A DESIGNATED HOMEOWNER'S / MAINTENANCE ASSOCIATION. THE ASSOCIATION SHALL BE RESPONSIBLE FOR THE MAINTENANCE, INSURANCE AND TAXES ON THE RECREATION AREA.
2. SANITATION SERVICES SHALL BE PROVIDED BY A PRIVATE SANITATION HAULER.

PROPOSED LAND USE SUMMARY

BUILDINGS	79,493 SF (6.0%) INCLUDES GARAGES
OTHER IMPERVIOUS SURFACE	325,178 SF (24.5%)
OVERALL IMPERVIOUS COVERAGE	404,671 SF (30.5%)
OPEN SPACE	923,907 SF (69.5%)
TOTAL	1,328,578 SF

0 80' 160'

Pennoni
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RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

OVERALL SITE PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
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PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	1"= 80'
DRAWN BY	ALS
APPROVED BY	GBR

CS1001.1

SHEET 3 OF 10

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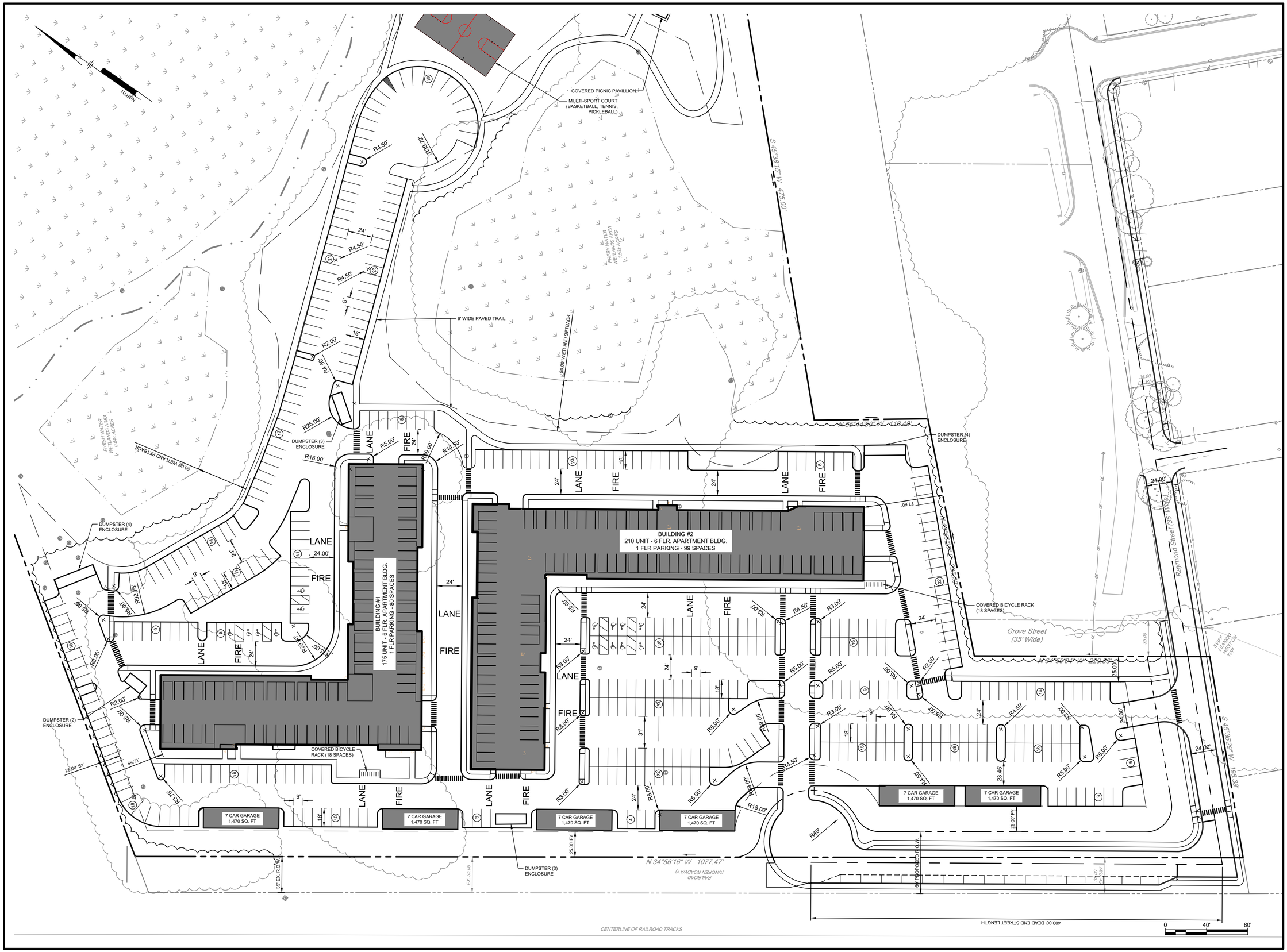

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SITE PLAN

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PROJECT	PLAWX19001
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DRAWN BY	ALS
APPROVED BY	GBR

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SHEET 4 OF 10

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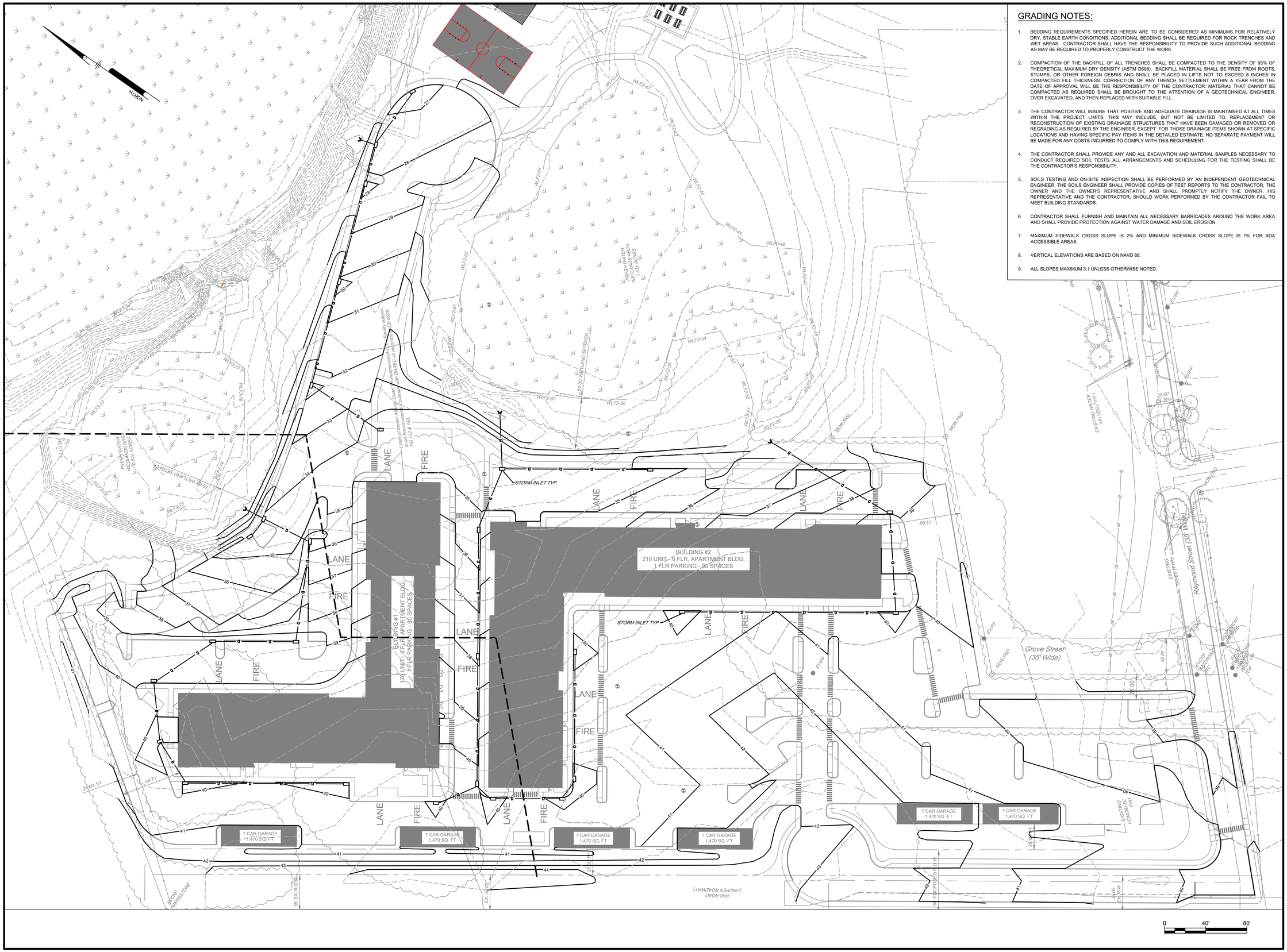

GRADING NOTES:

1. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREAS. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK.

2. COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THEORETICAL MAXIMUM DRY DENSITY (ASTM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES IN COMPACTED FILL THICKNESS. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. MATERIAL THAT CANNOT BE COMPACTED AS REQUIRED SHALL BE BROUGHT TO THE ATTENTION OF A GEOTECHNICAL ENGINEER, OVER EXCAVATED, AND THEN REPLACED WITH SUITABLE FILL.

3. THE CONTRACTOR WILL INSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR REGRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.

4. THE CONTRACTOR SHALL PROVIDE ANY AND ALL EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOIL TESTS. ALL ARRANGEMENTS AND SCHEDULING FOR THE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

5. SOILS TESTING AND ON-SITE INSPECTION SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER. THE SOILS ENGINEER SHALL PROVIDE COPIES OF TEST REPORTS TO THE CONTRACTOR, THE OWNER AND THE OWNER'S REPRESENTATIVE AND SHALL PROMPTLY NOTIFY THE OWNER, HIS REPRESENTATIVE AND THE CONTRACTOR, SHOULD WORK PERFORMED BY THE CONTRACTOR FAIL TO MEET BUILDING STANDARDS.

6. CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AREA AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.

7. MAXIMUM SIDEWALK CROSS SLOPE IS 2% AND MINIMUM SIDEWALK CROSS SLOPE IS 1% FOR ADA ACCESSIBLE AREAS.

8. VERTICAL ELEVATIONS ARE BASED ON NAVD 88.

9. ALL SLOPES MAXIMUM 3:1 UNLESS OTHERWISE NOTED.

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DATE	2023-01-23
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DRAWN BY	ALS
APPROVED BY	GBR

CS1501

SHEET 5 OF 10

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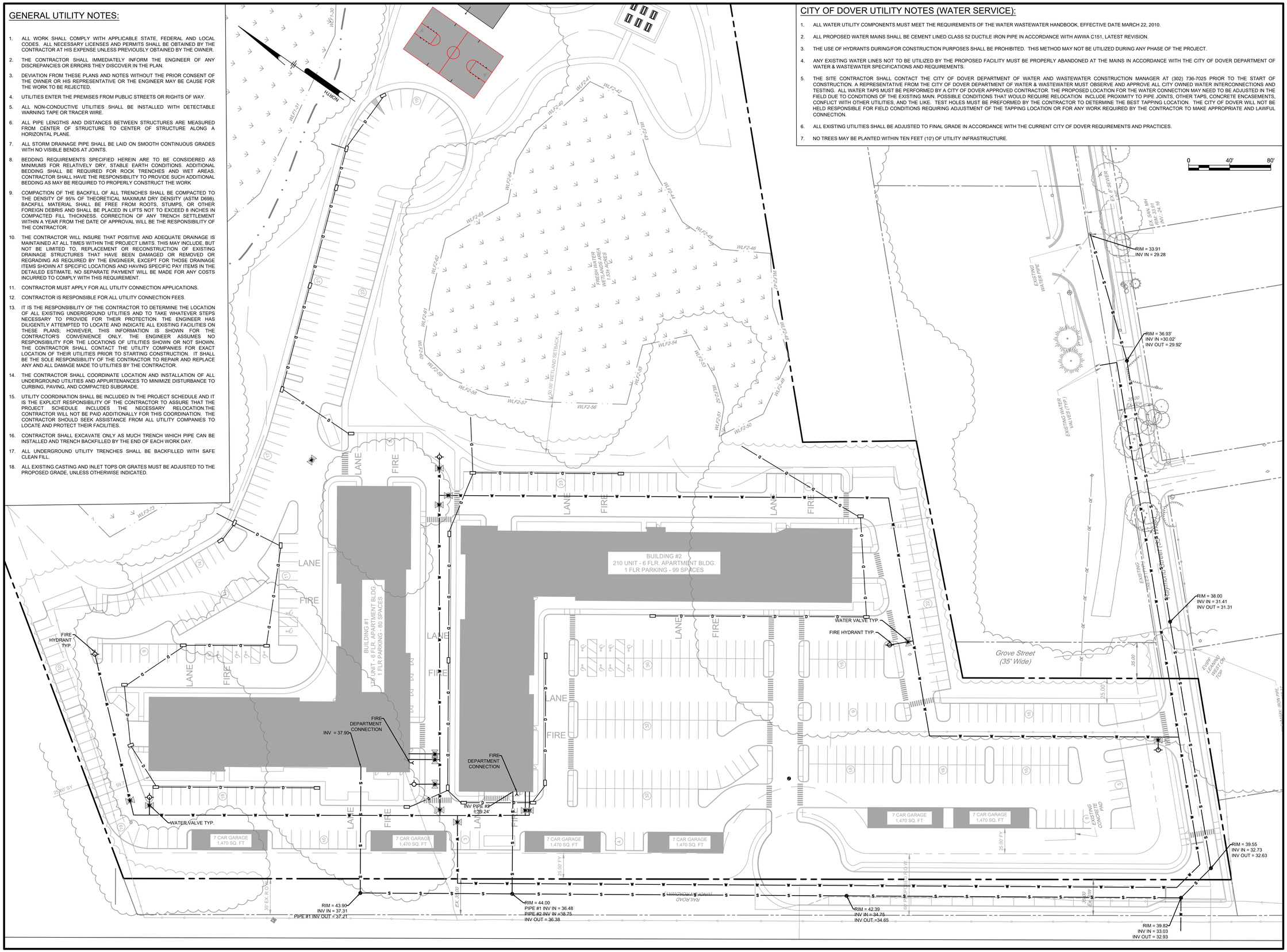
GENERAL UTILITY NOTES:

1. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL AND LOCAL CODES. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.
2. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER OF ANY DISCREPANCIES OR ERRORS THEY DISCOVER IN THE PLAN.
3. DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER OR HIS REPRESENTATIVE OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE REJECTED.
4. UTILITIES ENTER THE PREMISES FROM PUBLIC STREETS OR RIGHTS OF WAY.
5. ALL NON-CONDUCTIVE UTILITIES SHALL BE INSTALLED WITH DETECTABLE WARNING TAPE OR TRACER WIRE.
6. ALL PIPE LENGTHS AND DISTANCES BETWEEN STRUCTURES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE ALONG A HORIZONTAL PLANE.
7. ALL STORM DRAINAGE PIPE SHALL BE LAID ON SMOOTH CONTINUOUS GRADES WITH NO VISIBLE BENDS AT JOINTS.
8. BEDDING REQUIREMENTS SPECIFIED HEREIN ARE TO BE CONSIDERED AS MINIMUMS FOR RELATIVELY DRY, STABLE EARTH CONDITIONS. ADDITIONAL BEDDING SHALL BE REQUIRED FOR ROCK TRENCHES AND WET AREAS. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO PROVIDE SUCH ADDITIONAL BEDDING AS MAY BE REQUIRED TO PROPERLY CONSTRUCT THE WORK
9. COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THEORETICAL MAXIMUM DRY DENSITY (ASTM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES IN COMPACTED FILL THICKNESS. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. THE CONTRACTOR WILL INSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT BE LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR REGRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
11. CONTRACTOR MUST APPLY FOR ALL UTILITY CONNECTION APPLICATIONS.
12. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONNECTION FEES.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND TO TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION. THE ENGINEER HAS DILIGENTLY ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING FACILITIES ON THESE PLANS; HOWEVER, THIS INFORMATION IS SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES FOR EXACT LOCATION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL UNDERGROUND UTILITIES AND APPURTENANCES TO MINIMIZE DISTURBANCE TO CURBING, PAVING, AND COMPACTED SUBGRADE.
15. UTILITY COORDINATION SHALL BE INCLUDED IN THE PROJECT SCHEDULE AND IT IS THE EXPLICIT RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT THE PROJECT SCHEDULE INCLUDES THE NECESSARY RELOCATION.THE CONTRACTOR WILL NOT BE PAID ADDITIONALLY FOR THIS COORDINATION. THE CONTRACTOR SHOULD SEEK ASSISTANCE FROM ALL UTILITY COMPANIES TO LOCATE AND PROTECT THEIR FACILITIES.
16. CONTRACTOR SHALL EXCAVATE ONLY AS MUCH TRENCH WHICH PIPE CAN BE INSTALLED AND TRENCH BACKFILLED BY THE END OF EACH WORK DAY.
17. ALL UNDERGROUND UTILITY TRENCHES SHALL BE BACKFILLED WITH SAFE CLEAN FILL.
18. ALL EXISTING CASTING AND INLET TOPS OR GRATES MUST BE ADJUSTED TO THE PROPOSED GRADE, UNLESS OTHERWISE INDICATED.

CITY OF DOVER UTILITY NOTES (WATER SERVICE):

1. ALL WATER UTILITY COMPONENTS MUST MEET THE REQUIREMENTS OF THE WATER WASTEWATER HANDBOOK, EFFECTIVE DATE MARCH 22, 2010.
2. ALL PROPOSED WATER MAINS SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE IN ACCORDANCE WITH AWWA C151, LATEST REVISION.
3. THE USE OF HYDRANTS DURING/FOR CONSTRUCTION PURPOSES SHALL BE PROHIBITED. THIS METHOD MAY NOT BE UTILIZED DURING ANY PHASE OF THE PROJECT.
4. ANY EXISTING WATER LINES NOT TO BE UTILIZED BY THE PROPOSED FACILITY MUST BE PROPERLY ABANDONED AT THE MAINS IN ACCORDANCE WITH THE CITY OF DOVER DEPARTMENT OF WATER & WASTEWATER SPECIFICATIONS AND REQUIREMENTS.
5. THE SITE CONTRACTOR SHALL CONTACT THE CITY OF DOVER DEPARTMENT OF WATER AND WASTEWATER CONSTRUCTION MANAGER AT (302) 736-7025 PRIOR TO THE START OF CONSTRUCTION. A REPRESENTATIVE FROM THE CITY OF DOVER DEPARTMENT OF WATER & WASTEWATER MUST OBSERVE AND APPROVE ALL CITY OWNED WATER INTERCONNECTIONS AND TESTING. ALL WATER TAPS MUST BE PERFORMED BY A CITY OF DOVER APPROVED CONTRACTOR. THE PROPOSED LOCATION FOR THE WATER CONNECTION MAY NEED TO BE ADJUSTED IN THE FIELD DUE TO CONDITIONS OF THE EXISTING MAIN. POSSIBLE CONDITIONS THAT WOULD REQUIRE RELOCATION INCLUDE PROXIMITY TO PIPE JOINTS, OTHER TAPS, CONCRETE ENCASEMENTS, CONFLICT WITH OTHER UTILITIES, AND THE LIKE. TEST HOLES MUST BE PREFORMED BY THE CONTRACTOR TO DETERMINE THE BEST TAPPING LOCATION. THE CITY OF DOVER WILL NOT BE HELD RESPONSIBLE FOR FIELD CONDITIONS REQUIRING ADJUSTMENT OF THE TAPPING LOCATION OR FOR ANY WORK REQUIRED BY THE CONTRACTOR TO MAKE APPROPRIATE AND LAWFUL CONNECTION.
6. ALL EXISTING UTILITIES SHALL BE ADJUSTED TO FINAL GRADE IN ACCORDANCE WITH THE CURRENT CITY OF DOVER REQUIREMENTS AND PRACTICES.
7. NO TREES MAY BE PLANTED WITHIN TEN FEET (10') OF UTILITY INFRASTRUCTURE.



ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

PENNONI ASSOCIATES INC.
Christiana Executive Campus
121 Continental Drive, Suite 207
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T 302.655.4451 F 302.654.2895

COLLEGE ROAD APARTMENTS

RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

UTILITY PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

DATE	NO.	REVISIONS	BY

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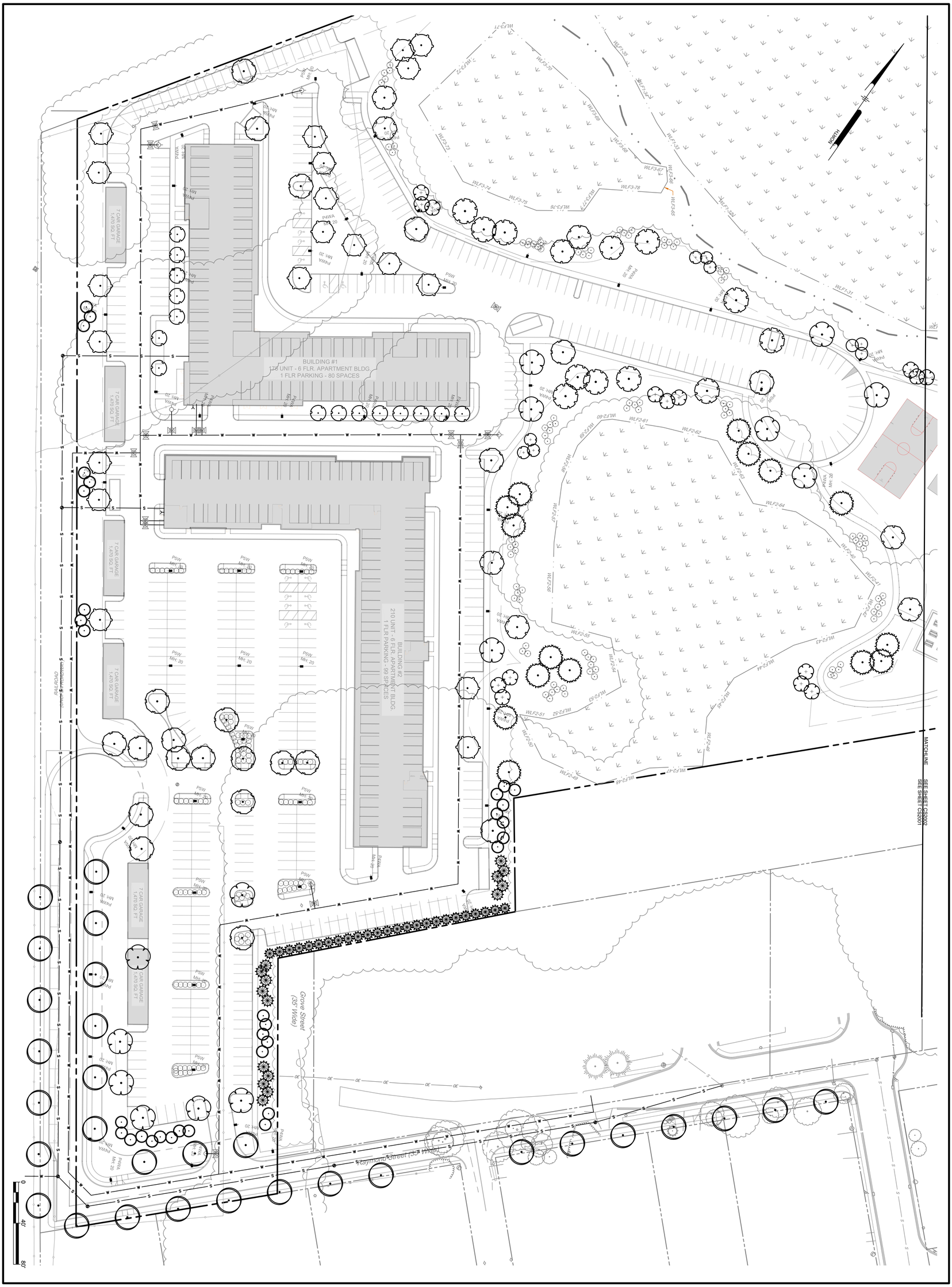
PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	1"= 40'
DRAWN BY	ALS
APPROVED BY	GBR

CS1701

SHEET 6 OF 10

u:\Accounts\PLAWX\dave19001 - dsu student housing\DESIGN_SHEETS\CS1701.dwg PLOTTED: 1/23/2023 12:59 PM, BY: Andrew Shields PLOTSTYLE: Pennoni NCS.ctb PROJECT STATUS: ---



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DATE	NO.	REVISIONS	BY

COLLEGE ROAD APARTMENTS

RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

LANDSCAPE PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC

1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

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PROJECT PLAWX19001
DATE 2022-01-23
DRAWING SCALE 1"= 40'
DRAWN BY ALS
APPROVED BY GBR

CS2001

PLANT SCHEDULE

CANOPY TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	
	AB	15	ACER RUBRUM 'BOWHALL'	BOWHALL RED MAPLE	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	BN	16	BETULA NIGRA	RIVER BIRCH	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	GB	14	GINKGO BILOBA 'AUTUMN GOLD' TM	AUTUMN GOLD MAIDENHAIR TREE	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	GI	22	GLEDITSIA TRIACANTHOS INERMIS	THORNLESS HONEY LOCUST	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	NS	20	NYSSA SYLVATICA 'DAVID ODOM' TM	AFTERBURNER TUPELO	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	QB	12	QUERCUS BICOLOR	SWAMP WHITE OAK	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	TD	15	TAXODIUM DISTICHUM	BALD CYPRESS	2" CAL.	B&B	STRAIGHT SINGLE LEADER
	TG	30	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2" CAL.	B&B	STRAIGHT SINGLE LEADER

EVERGREEN TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	
	IO	33	ILEX OPACA	AMERICAN HOLLY	6` HT.	B&B	FULL FORM TO GROUND
	PG	15	PICEA GLAUCA	WHITE SPRUCE	6` HT.	B&B	FULL FORM TO GROUND
	TP	25	THUJA PLICATA	WESTERN RED CEDAR	6` HT.	B&B	FULL FORM TO GROUND

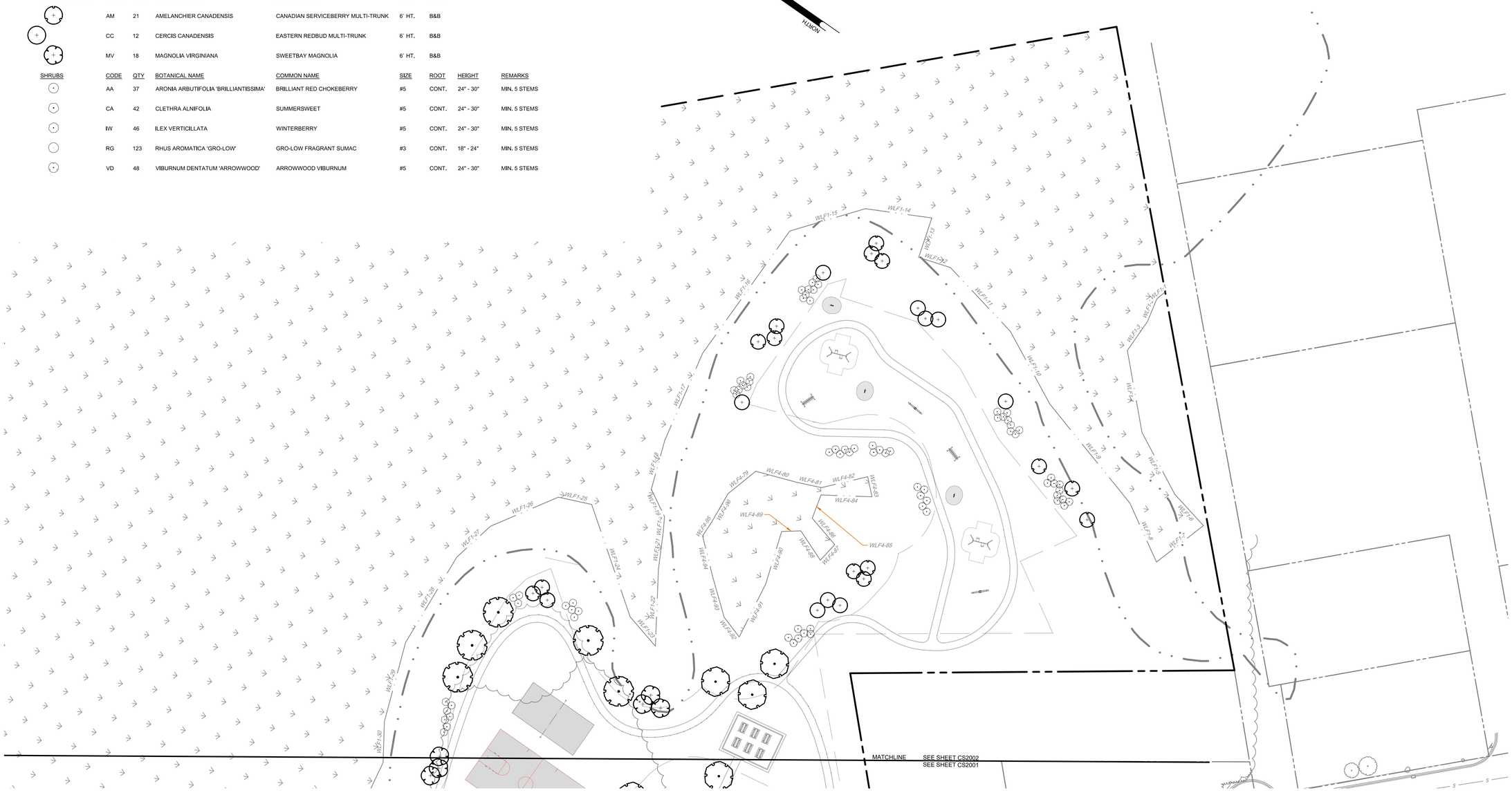
FLOWERING TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
	AM	21	AMELANCHIER CANADENSIS	CANADIAN SERVICEBERRY MULTI-TRUNK	6` HT.	B&B
	CC	12	CERCIS CANADENSIS	EASTERN REDBUD MULTI-TRUNK	6` HT.	B&B
	MV	18	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	6` HT.	B&B

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	HEIGHT	REMARKS
	AA	37	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	BRILLIANT RED CHOKEBERRY	#5	CONT.	24" - 30"	MIN. 5 STEMS
	CA	42	CLETHRA ALNIFOLIA	SUMMERSWEET	#5	CONT.	24" - 30"	MIN. 5 STEMS
	IW	46	ILEX VERTICILLATA	WINTERBERRY	#5	CONT.	24" - 30"	MIN. 5 STEMS
	RG	123	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#3	CONT.	18" - 24"	MIN. 5 STEMS
	VD	48	VIBURNUM DENTATUM 'ARROWWOOD'	ARROWWOOD VIBURNUM	#5	CONT.	24" - 30"	MIN. 5 STEMS

TREE DENSITY WORKSHEET	
TOTAL LOT AREA:	30.50 AC.
TOTAL AREA OF WOODLANDS ON SITE:	23.14 AC.
TOTAL AREA OF WOODLANDS TO BE PRESERVED (MUST BE >= 50%):	19.65 AC. (84.9%)
NON-WOODLAND AREA (SITE AREA MINUS AREA OF PRESERVED WOODLAND):	10.85 AC. (472,626 SF)
NEW TREE PLANTINGS REQUIRED (1 TREE PER 3,000 SQUARE FEET OF NON-WOODLAND AREA ON SITE):	158
TREE PLANTINGS PROPOSED:	268

GENERAL LANDSCAPE NOTES:

1. ALL NEW TREES SHALL HAVE A ONE YEAR REPLACEMENT GUARANTEE.
2. ONLY PRUNE OR REMOVE EXISTING TREES WHERE REQUIRED TO CONSTRUCT IMPROVEMENTS.
3. NO PLANTINGS SHALL BE PLANTED CLOSER THAN TEN FEET (10') TO UTILITIES.



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COLLEGE ROAD APARTMENTS

RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

LANDSCAPE PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
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DATE	NO.	REVISIONS	BY

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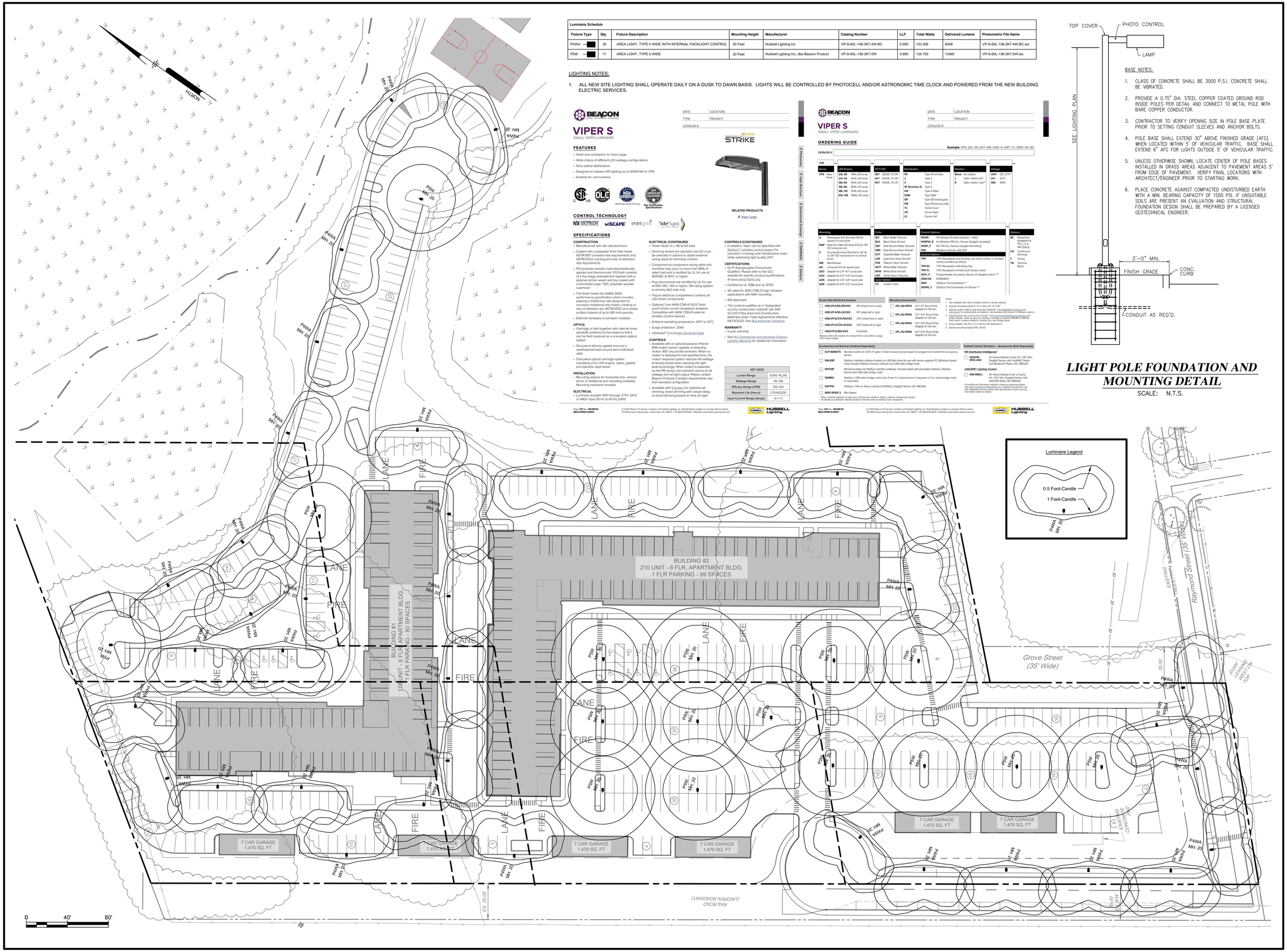
PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	1"= 40'
DRAWN BY	ALS
APPROVED BY	GBR

CS2002

SHEET 8 OF 10

u:\Accounts\PLAW\Wallaw19001 - dsu student housing\DESIGN_SHEETS\CS2002.dwg PLOTTED: 1/23/2023 12:59 PM, BY: Andrew Shields PLOTSTYLE: Pennoni MCS.ctb PROJECT STATUS: ---



Luminaire Schedule									
Fixture Type	Qty	Fixture Description	Mounting Height	Manufacturer	Catalog Number	LLF	Total Watts	Delivered Lumens	Photometric File Name
P4WA	35	AREA LIGHT, TYPE 4 WIDE WITH INTERNAL PACKLIGHT CONTROL	20 Feet	Hubbell Lighting Inc	VP-S-60L-136-3K7-4W-BC	0.900	133.506	8498	VP-S-60L-136-3K7-4W-BC.ies
P5W	17	AREA LIGHT, TYPE 5 WIDE	20 Feet	Hubbell Lighting Inc, dba Beacon Product	VP-S-60L-136-3K7-5W	0.900	134.793	13495	VP-S-60L-136-3K7-5W.ies

LIGHTING NOTES:

1. ALL NEW SITE LIGHTING SHALL OPERATE DAILY ON A DUSK TO DAWN BASIS. LIGHTS WILL BE CONTROLLED BY PHOTOCELL AND/OR ASTRONOMIC TIME CLOCK AND POWERED FROM THE NEW BUILDING ELECTRIC SERVICES.

BEACON
SMALL WIDE AREA LIGHTING

VIPER S
SMALL VIPER LUMINAIRE

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

FEATURES

- Small size companion to Viper Large
- Wide choice of different LED wattage configurations
- Nine optical distributions
- Designed to replace HID lighting up to 400W MH or HPS
- Suitable for wet locations

1000K and below CCTs only

Buy American Specifications

CONTROL TECHNOLOGY

NX WIRELESS · WiSCAPE · energent · SiteSync

SPECIFICATIONS

CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IP5 polyester powder-coat electrostatically applied and thermocured. IP5 finish consists of a five stage prereatrment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resistant cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

INSTALLATION

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included

ELECTRICAL

- Luminaire accepts 100V through 277V, 347V or 480V input 50 Hz to 60 Hz (UNV)

ELECTRICAL (CONTINUED)

- Power factor is ≥ .90 at full load
- Dimming drivers are standard, but CD must be selected in options to obtain external wiring leads for dimming controls
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher; 15A rating applies to primary (AC) side only
- Fixture electrical compartment contains all LED driver components
- Optional 7-pin ANSI C136.41-2013 Twist-Lock® photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices
- Ambient operating temperature -40°C to 25°C
- Surge protection: 20kA
- Lifeshield™ Circuit (see Electrical Data)

CONTROLS

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration
- Available with Energent for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night

CONTROLS (CONTINUED)

- In addition, Viper can be specified with SiteSync™ wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7

CERTIFICATIONS

- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Certified to UL 1598 and UL 8750
- 3G rated for ANSI C136.31 high vibration applications with MAF mounting
- IDA approved
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions.

WARRANTY

- 5 year warranty
- See HLI Commercial and Industrial Outdoor Lighting Warranty for additional information

KEY DATA	
Lumen Range	4,045–16,216
Wattage Range	39–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>60,000
Input Current Range (Amps)	0.1–11

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BSA-VP08-S-PIC

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HUBBELL Lighting

BEACON
SMALL WIDE AREA LIGHTING

VIPER S
SMALL VIPER LUMINAIRE

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

ORDERING GUIDE

CATALOG # _____

Example: VP5–24L–55–4K7–4W–UNV–A–DBT–TL–GEN–04–BC

VP5															
Series	**LED Engine**	**CCT/CRI**	**Distribution**		**Rotation**		**Voltage**								
VP5 Viper Small	24L 20W LED array	3K7 3000K, 70 CRI	FB Type 5F/cnt flow		None: No rotation		UNV 120–277V								
	24L-55 55W LED array	4K7 4000K, 70 CRI	2 Type 2		L Optic rotation left*		347 347V								
	36L-55 55W LED array	5K7 5000K, 70 CRI	3 Type 3		R Optic rotation right*		480 480V								
	36L-80 80W LED array		4F (formerly 4) Type 4												
	48L-80 80W LED array		4W Type 4 Wide												
	60L-136 136W LED array		SQM Type SQM												
			SR Type SR (rectangular)												
			SW Type SW (round wide)												
			TC Tennis Court												
			CR Corner Right												
			CL Corner Left												

Mounting	Color	Control Options	Options
A Rectangular Arm (formerly 9A) for square or round pole	BLT Black Matte Textured	NXWE NX Wireless Enabled (module + radio)	BC Backwired (available for 24L, 36L, 48L Optics)
MAF Mast Arm Fitter (formerly 9F2) for 2⅜" OD horizontal arm	BLS Black Gloss Smooth	NXSPW_R NX Wireless, PR Occ. Sensor, Daylight Harvesting*	CD Continuous Dimming
K Kuroot (formerly PK2) limit to 30" tilt + 24" OD horizontal arm or vertical tenon	DBT Dark Bronze Matte Textured	NXSP_F NX, PR Occ. Sensor, Daylight Harvesting*	F Fusing
WB Wall Bracket	DBS Dark Bronze Gloss Smooth	WR Wireless Controls, wiSCAPE	TB Terminal Block
AD Universal Arm for square pole	GTT Graphite Matte Textured	**Control Options**	
AD3 Adapter for 2.4"–4.5" round pole	GLS Light Grey Gloss Smooth	TPR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)	
AD4 Adapter for 4.2"–5.3" round pole	PSS Platinum Silver Smooth	7PR-SC 7-Pin Receptacle w/Shorting Cap	
AD5 Adapter for 5.5"–5.9" round pole	WHT White Matte Textured	7PR-TL 7-Pin Receptacle w/Twist-Lock® photo control	
AD6 Adapter for 6.0"–6.5" round pole	WHS White Gloss Smooth	SCPI_F Programmable Occupancy Sensor w/ daylight control*,†,‡	
	VGT Verde Green Textured	GEN-XX ENERGENT	
	Custom Option	SWP SiteSync Pre-Commission*,†	
	CC Custom Color	SWPM_F SiteSync Pre-Commission* w/ Sensor*,†,‡	

Notes:
1. Not available with other wireless control or sensor options
2. Specify mounting height; 8 = 8' or less, 40 = 9' to 40'
3. Specify routine setting code (example GEN-04). See ENERGENT brochure and Beacon Ordering Guide for more information on Energent and other SiteSync options
4. Specify group and zone at time of order. See www.hubbellbeacon.com/siteSync for further details. Order at least one SiteSync interface accessory SW-USB or SW-TAB. Each option creates interface, license, SLC, and Bridge Node
5. Only available with P4, 2, 3, 4, 4W and 4F distributions
6. Specify mounting height; 8=8', 30=30

House Side Shield Accessories	
HSS/VP-S/90-PB/XXX	90° shield front or back
HSS/VP-S/90-LR/XXX	90° shield left or right
HSS/VP-S/270-HS/XXX	270° shield front or back
HSS/VP-S/270-LR/XXX	270° shield left or right
HSS/VP-S/360/XXX	Full shield

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

Mounting Accessories	
VPL-AD-RPA3	2.4"–4.0" Round Pole Adapter for AD arm
VPL-AD-RPA4	4.2"–5.3" Round Pole Adapter for AD arm
VPL-AD-RPA5	5.5"–5.9" Round Pole Adapter for AD arm
VPL-AD-RPA6	6.0"–6.5" Round Pole Adapter for AD arm

Accessories and Services (Ordered Separately)	
SCP-REMOTE	Remote Control for SCPI_F option. Order at least one per project to program and control the occupancy sensor
SWUSB*	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
SWTAB*	Windows tablet and SiteSync interface software. Includes tablet with preinstalled software, SiteSync license and USB radio bridge node
SWBRG	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested
SWTPR†	SiteSync 7-Pin on fixture module On/Off/Dim, Daylight Sensor 120–480VAC
BRD-SPKE-3	Bird Spikes

*Requires SiteSync license. Purchase of these two interface options must be ordered per project.
†Available as a SiteSync retrofit solution for fixtures with an existing 7-pin receptacle.

Hubbell Control Solutions — Accessories (Sold Separately)	
NX Distributed Intelligence*	
NXOPM-SFD-DNV	On-fixture Module (3 pin); On / Off / Dim, Daylight Sensor with HubbNet1 Radio and Bluetooth® Radio, 120–480VAC
wiSCAPE® Lighting Control	
WR-RMLL	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110–480VAC

For additional information and to view accessory guides visit www.hubbellcontrols.com. Refer to Beacon Ordering Guide for ordering information. Review sales specification sheet ordering information table for details.

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BSA-VP08-S-PIC

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HUBBELL Lighting

BASE NOTES:

1. CLASS OF CONCRETE SHALL BE 3000 P.S.I. CONCRETE SHALL BE VIBRATED.
2. PROVIDE A 0.75" DIA. STEEL COPPER COATED GROUND ROD INSIDE POLES PER DETAIL AND CONNECT TO METAL POLE WITH BARE COPPER CONDUCTOR.
3. CONTRACTOR TO VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES AND ANCHOR BOLTS.
4. POLE BASE SHALL EXTEND 30" ABOVE FINISHED GRADE (AFG) WHEN LOCATED WITHIN 5' OF VEHICULAR TRAFFIC. BASE SHALL EXTEND 6" AFG FOR LIGHTS OUTSIDE 5' OF VEHICULAR TRAFFIC.
5. UNLESS OTHERWISE SHOWN, LOCATE CENTER OF POLE BASES INSTALLED IN GRASS AREAS ADJACENT TO PAVEMENT AREAS 5' FROM EDGE OF PAVEMENT. VERIFY FINAL LOCATIONS WITH ARCHITECT/ENGINEER PRIOR TO STARTING WORK.
6. PLACE CONCRETE AGAINST COMPACTED UNDISTURBED EARTH WITH A MIN. BEARING CAPACITY OF 1500 PSI. IF UNSUITABLE SOILS ARE PRESENT AN EVALUATION AND STRUCTURAL FOUNDATION DESIGN SHALL BE PREPARED BY A LICENSED GEOTECHNICAL ENGINEER.

LIGHT POLE FOUNDATION AND MOUNTING DETAIL

SCALE: N.T.S.

Pennoni
PENNONI ASSOCIATES INC.
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Newark, DE 19713-4310
T 302.655.4451 F 302.654.2895

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COLLEGE ROAD APARTMENTS
RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

LIGHTING PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

NO.	DATE	REVISIONS	BY
2	9/3/21	PER TOWN ENGINEER COMMENTS	GBR
1	7/27/21	REVISED PER TOWN COMMENTS	BRD

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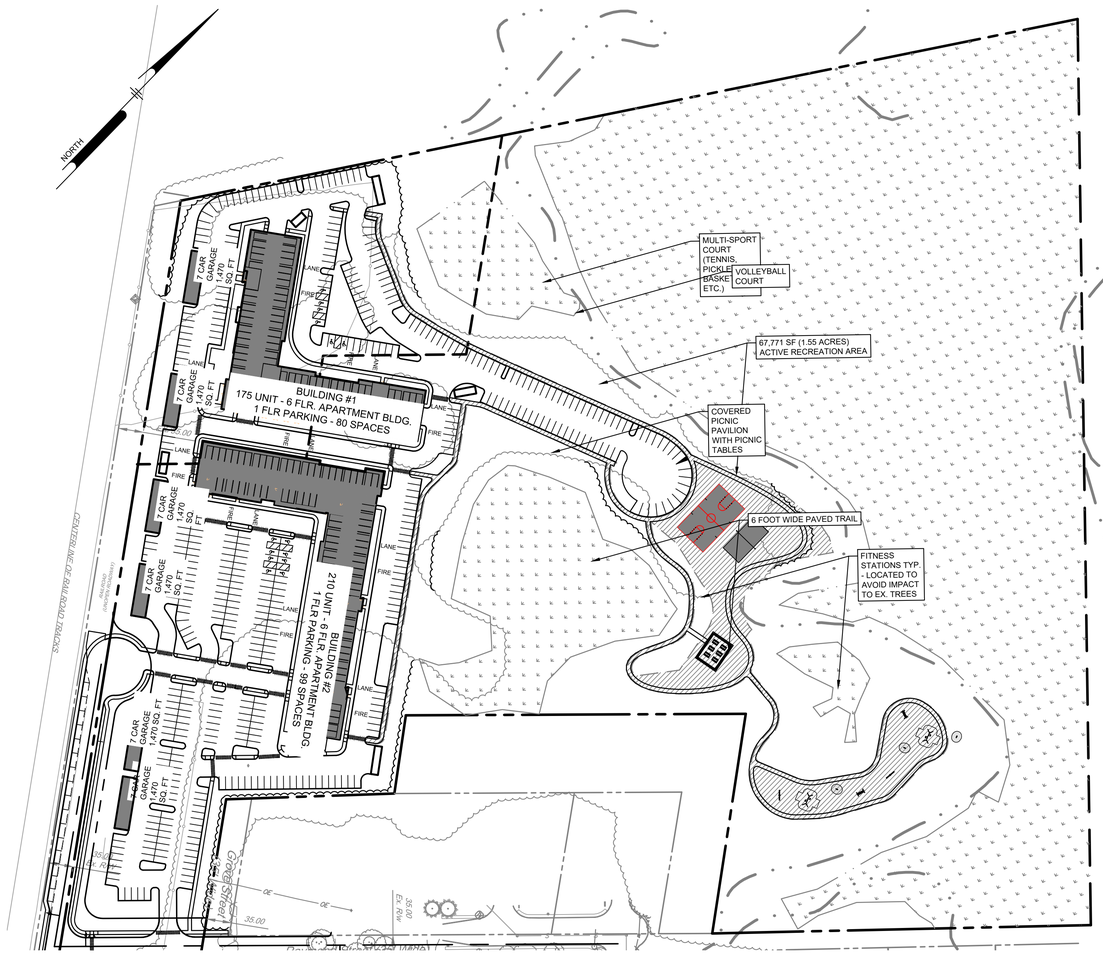
PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	1"= 60'
DRAWN BY	ALS
APPROVED BY	GBR

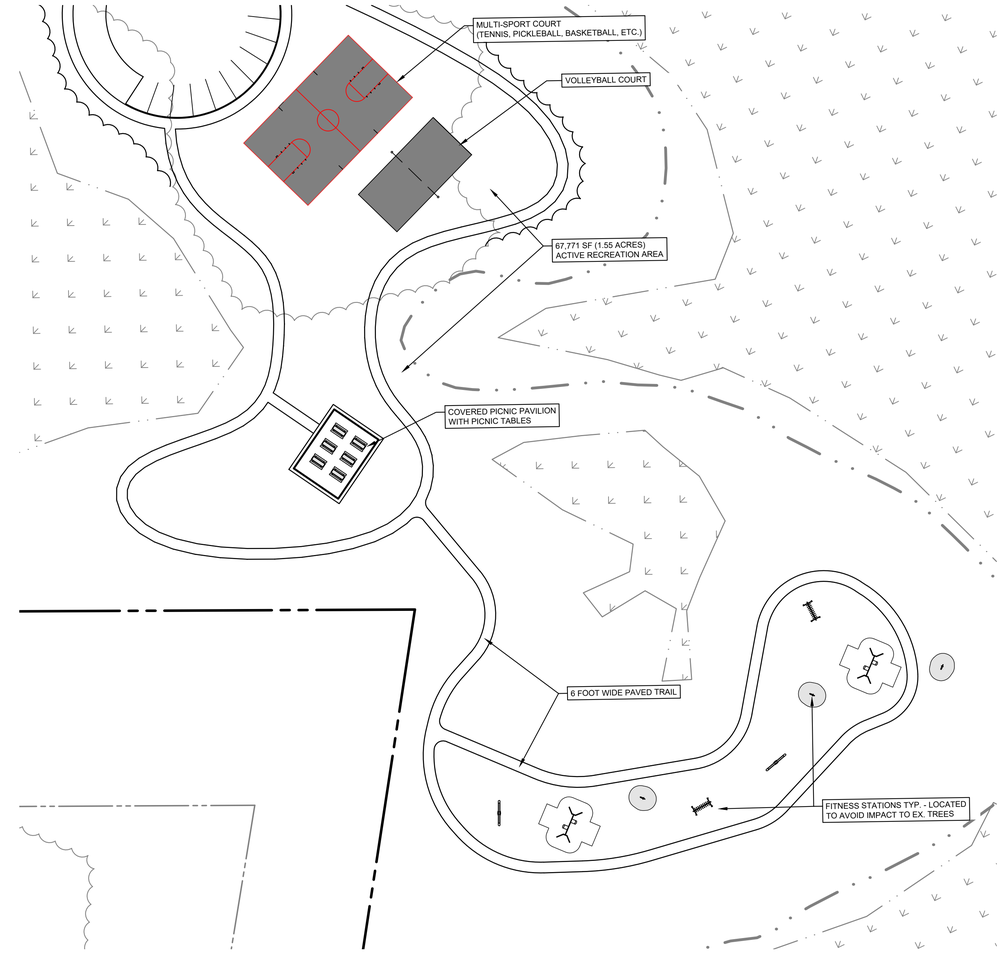
CS2201

SHEET 9 OF 10

u:\Accounts\PLAWX\dlaw19001 - dlp student housing\DESIGN_SHEETS\CS2201.dwg PLOTTED: 12/12/2023 12:26 PM, BY: Andrew Shields PLOTSTYLE: Pennoni NCS.ctb PROJECT STATUS: ---



OVERALL SITE RECREATION PLAN
SCALE: 1" = 100'



ACTIVE RECREATION AREA ENLARGEMENT
SCALE: 1" = 40'

PROPERTY SUMMARY

TAX PARCEL NUMBERS:	2-05-06700-02-5600-00001 - 26.13 Acres 2-05-06700-02-5500-00001 - 1.42 Acres 2-05-06700-02-5400-00001 - 1.72 Acres 2-05-06700-02-5300-00001 - 1.81 Acres
OWNERS:	PATEL COLLEGE PROPERTIES, LLC PATEL EXCESS COLLEGE ROAD, LLC
LOT SIZE GROSS (CONSOLIDATED):	31.08 ACRES (1,353,974 SQ. FT.)
LOT SIZE NET (CONSOLIDATED):	30.50 ACRES (1,328,578 SQ. FT.)
ZONING:	RG-5
PROPOSED USE:	MID-RISE APARTMENTS

ACTIVE RECREATION AREA CALCULATION:

AREA REQUIREMENTS PER CITY OF DOVER CODE, ARTICLE V, SECTION 10.16:

- 275 SQ. FT. PER DWELLING UNIT OR ½ ACRE MIN. (WHICHEVER IS GREATER)

  385 DWELLING UNITS * 275 SQ. FT. = 105,875 SQ. FT. (2.43 ACRES)

- IN NO CASE SHALL THE COMMISSION REQUIRE MORE THAN 10% OF THE DEVELOPMENT AREA BE PROPOSED AS ACTIVE RECREATION.

  DEVELOPMENT AREA = NET LOT AREA (30.50 ACRES) MINUS WETLAND AREAS (14.32 ACRES) = 16.18 ACRES

  10% OF DEVELOPABLE PORTION OF SITE = 1.61 ACRES (MIN. REQUIRED ACTIVE RECREATION AREA)

PROPOSED ACTIVE RECREATION AREA:

- INTERIOR BUILDING = 5,000 SF - RECREATION / FITNESS ROOMS (500 SF / FLOOR OR 2,500 SF PER BLDG.)
- EXTERIOR = 67,771 SF - PAVED WALKING TRAIL, SPORTS COURTS, PICNIC AREAS, FITNESS ACTIVITY STATIONS
- TOTAL ACTIVE RECREATION AREA = 72,771 SQ. FT. (1.67 ACRES)

MULTI-SPORT COURT (BASKETBALL, TENNIS, PICKLEBALL)

OUTDOOR FITNESS STATIONS

PICNIC PAVILLION

SAND VOLLEYBALL COURT

COVERED BICYCLE RACK

ADA COMPLIANT PICNIC TABLE

Pennoni

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ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

COLLEGE ROAD APARTMENTS

RAILROAD AVENUE & GROVE STREET
CITY OF DOVER, KENT COUNTY, DELAWARE

ACTIVE RECREATION PLAN

PATEL COLLEGE PROPERTIES, LLC & PATEL EXCESS COLLEGE ROAD, LLC
1640 POWDERHORN DRIVE
NEWTOWN, PENNSYLVANIA 18940

DATE	NO.	REVISIONS	BY

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PROJECT	PLAWX19001
DATE	2023-01-23
DRAWING SCALE	1"= 40'
DRAWN BY	ALS
APPROVED BY	GBR

CS1002

SHEET 10 OF 10

u:\Accounts\PLAWX\plaw19001 - dsu student housing\DESIGN_SHEETS\CS1002.dwg PLOTTED: 12/2/2022 12:56 PM, BY: Andrew Shields PLOT\STYLE: Pennoni MCS.ctb PROJECT STATUS: ---