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C:\newt\Project\172\UNCW\Parking Deck II.M17_julian@GHEE24

LEGEND

GENERAL

(PROJECT MAY NOT USE ALL SYMBOLS / ABBREVIATIONS)

<div>#</div>	CONSTRUCTION NOTE IDENTIFICATION
<div>XXX</div>	ROOM NUMBER IDENTIFICATION
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALUM	ALUMINUM
ARCH	ARCHITECTURAL
DIA	DIAMETER
DWG	DRAWING
EX	EXISTING
EXR	EXISTING TO REMAIN
GA	GAUGE
GALV	GALVANIZED
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
RBJ	RUN THRU JOISTS
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
<div>— D —</div>	CONDENSATE DRAIN LINE

GENERAL NOTES AND LEGENDS

1. ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL YIELD COMPLETE OPERATIONAL SYSTEMS THAT CONFORM TO THE REQUIREMENTS OF THE APPLICABLE LOCAL ORDINANCES AND CODES INCLUDING BUT NOT LIMITED TO THE 2018 NORTH CAROLINA BUILDING CODE, THE 2018 NORTH CAROLINA MECHANICAL CODE, AND UNDERWRITERS LABORATORIES (OR ETL).

2. THE CONTRACT DOCUMENTS ARE BASED ON EQUIPMENT OF SPECIFIC MANUFACTURERS. IF THE CONTRACTOR SUBMITS OR PROPOSES TO USE EQUIPMENT OTHER THAN THAT USED ON THE CONTRACT DOCUMENTS THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DESIGN AND INSTALLATION REVISIONS AT NO ADDITIONAL COST TO THE PROJECT. REVISIONS INCLUDE BUT ARE NOT LIMITED TO, CHANGES IN EQUIPMENT DIMENSIONS OR WEIGHT, ACCESS REQUIREMENTS, ORIENTATION AND CONNECTIONS, AND ELECTRICAL REQUIREMENTS.

3. DO NOT SCALE DRAWINGS. DRAWINGS ARE DIAGRAMMATIC.

4. SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ARCHITECT BEFORE ANY MECHANICAL EQUIPMENT IS ORDERED, PURCHASED, RELEASED, OR FABRICATED. SHOP DRAWINGS AND SUBMITTALS SHALL INCLUDE PRODUCT INFORMATION FOR ALL EQUIPMENT SPECIFIED OR SCHEDULED ON THE DRAWINGS.

5. ALL MECHANICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS USING MANUFACTURER RECOMMENDED ACCESSORIES AND ASSOCIATED MATERIALS.

6. ALL EQUIPMENT AND MATERIALS INSTALLED IN AIR PLENUMS SHALL BE COMPLIANT WITH THE REQUIREMENTS FOR PLENUM INSTALLATIONS.

7. ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF TWELVE MONTHS AFTER ACCEPTANCE BY OWNER.

8. AT SUBSTANTIAL COMPLETION ALL FILTERS IN ALL MECHANICAL EQUIPMENT SHALL BE NEW AND CLEAN AND AN EXTRA NEW SET SHALL BE PROVIDED TO THE OWNER.

9. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, ETC., TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.

10. LOCATE ALL EQUIPMENT TO PRODUCE UNOBSTRUCTED ACCESS TO EQUIPMENT ACCESS PANELS, CONTROLS.

11. PRIOR TO INSTALLATION, THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES THE LOCATIONS OF AIR CONDITIONING EQUIPMENT INSTALLED OUTDOORS.

12. AIR CONDITIONING EQUIPMENT INSTALLED OUTDOORS AT GRADE SHALL BE INSTALLED LEVEL ON 4-INCHES TALL 4-INCH THICK REINFORCED CONCRETE PADS THAT EXTEND 6-INCHES BEYOND THE PERIMETER OF THE EQUIPMENT.

ELECTRICAL COORDINATION

13. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH THE ELECTRICAL DRAWINGS AND ELECTRICAL CONTRACTOR BEFORE ANY PRODUCT INFORMATION OR SHOP DRAWINGS ARE SUBMITTED AND BEFORE ANY EQUIPMENT IS ORDERED. THE ELECTRICAL CHARACTERISTICS (VOLTAGE, PHASE, OVERLOAD PROTECTION, ETC.) OF THE EQUIPMENT FURNISHED SHALL BE COMPATIBLE WITH THE ELECTRICAL CHARACTERISTICS SHOWN ON THE DRAWINGS. ON SHOP DRAWING SUBMITTALS THE MECHANICAL CONTRACTOR SHALL STATE THAT THE ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL CONTRACT DOCUMENTS AND THE ELECTRICAL CONTRACTOR.
14. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AND STARTERS WHETHER THEY ARE AN INTEGRAL COMPONENT OF THE MANUFACTURER'S EQUIPMENT OR NOT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS, ELECTRICAL DRAWINGS, AND ELECTRICAL CONTRACTOR.

15. ALL REQUIRED CONTROL WIRING FOR HVAC AND PLUMBING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, ACTUATORS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING, INCLUDING THAT IN HVAC PLENUM SPACES, SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.

16. UNLESS NOTED OTHERWISE, STARTERS, TRANSFORMERS, CONTROLS, AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. SEE ELECTRICAL SPECIFICATIONS FOR WIRING REQUIREMENTS.

17. ALL PIPE PENETRATIONS OF FIRE-, SMOKE-, OR FIRE- AND SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO PRODUCE A RATED ASSEMBLY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY 3M CO., HILTI INC., OR OTHER APPROVED MANUFACTURER. ACCEPTABLE PRODUCTS ARE HILTI FS-ONE, CP 606, CP648 WRAP STRIP, OR CP680 CAST-IN DEVICE SYSTEMS, OR AS RECOMMENDED BY THE MANUFACTURER FOR A PARTICULAR APPLICATION OR AN EQUIVALENT SYSTEM AS APPROVED BY LOCAL CODE OFFICIALS.

18. PIPING SHALL NOT BE SUPPORTED FROM ANY FIRE RATED WALL.

COOLING COIL CONDENSATE

19. CONDENSATE FROM ALL AIR CONDITIONING EQUIPMENT SHALL BE TRAPPED AND ROUTED TO THE NEAREST FLOOR DRAIN, WHERE INDICATED TO BE PUMPED CONDENSATE MAY BE PUMPED WITH CONTROLS INCLUDED AS REQUIRED BY CODE. DRAIN LINES SHALL BE ROUTED TO AVOID INTERFERENCE WITH PASSAGEWAYS AND MAINTENANCE AND TO AVOID CREATING TRIPPING HAZARDS.

20. THE MINIMUM PIPE SIZE FOR CONDENSATE DRAIN LINES SHALL BE 3/4-INCHES.

21. THE CONDENSATE COIL DRAIN LINES SHALL BE MADE OF COOPER WITH 1/2 INCH THICK FLEXIBLE ELASTOMERIC WITH 30 MIL WHITE PVC JACKET OVER INSULATION.

REFRIGERANT PIPING

22. WHEN THE ACCUMULATED EQUIVALENT LENGTH OF REFRIGERANT LINES BETWEEN PIECES OF EQUIPMENT EXCEEDS THE MANUFACTURER'S RECOMMENDED LENGTHS FOR STANDARD DIAMETER SIZED LINES THEN PURCHASE AND INSTALL A MANUFACTURER'S APPROVED REFRIGERANT PIPING DIAGRAM FOR TYPICAL SYSTEMS SHOWING RECOMMENDED PIPE SIZES AND COMPONENTS SUCH AS SUCTION LINE ACCUMULATORS WHEN REQUIRED AND INSTALL REFRIGERANT PIPING AS RECOMMENDED BY THE MANUFACTURER.

23. ALL PIPING ABOVE GRADE SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR THE CEILING SUPPORT STRUCTURE. PIPING HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORDS OF THE JOISTS.

SPLIT SYSTEM SCHEDULE

SPLIT SYSTEM SCHEDULE																	
INDOOR UNIT DATA									OUTDOOR UNIT DATA								
MARK	SERVES	NOM CFM	EAT DBWB	COOLING BTU/HR	HEATING @ 47 BTU/HR	HEATING @ 17 BTU/HR	BASIS OF DESIGN		MARK	COOLING BTU/HR	COOLING SEER	HEATING @ 47 BTU/HR	HEATING @ 17 BTU/HR	REFRIGERANT	BASIS OF DESIGN		REMARKS
							MANUF	MODEL							MANUF	MODEL	
AC-1	REFER DRAWINGS	335	60/67	12,000	-	-	DAIKIN	PKA-A12HA6	CU-1	12,000	15.2	-	-	R410A	DAIKIN	PUY-A12NH46-BS	1,2,3,4,5,6,7,8
AC-2	REFER DRAWINGS	385	80/67	18,000	-	-	DAIKIN	PKA-A18NH44	CU-2	18,000	15.3	-	-	R410A	DAIKIN	PUY-A18NH44-BS	1,2,3,4,5,6,7,8
ACHP-1	REFER DRAWINGS	705	80/67	12,000	14,000	9,200	DAIKIN	PKA-A12HA7	HP-1	12,000	20.8	14,000	9,200	R410A	DAIKIN	PUZ-A12NK47-BS	1,2,3,4,5,6,7,8
1. DISCONNECT SWITCH FOR INDOOR UNIT AND DISCONNECT SWITCH FOR OUTDOOR UNIT.						4. LOW AMBIENT OPERATION KIT FOR OPERATION TO RUN TO 0 ° F						7. INSULATED REFRIGERANT LINE PROVIDED BY MANUFACTURER.					
2. CONDENSATE PUMP.						5. INDOOR AIR HANDLER POWERED BY OUTDOOR CONDENSING UNIT						8. SEA COAST MODEL FOR OUTDOOR UNIT.					
3. WALL MOUNTED T-STAT						6. SYSTEM CONTROL BY FACTORY PROVIDED CONTROLS						9. PROVIDE MANUFACTURER WALL BRACKET.					
												10. PROVIDE BACNET INTERFACE CARD.					

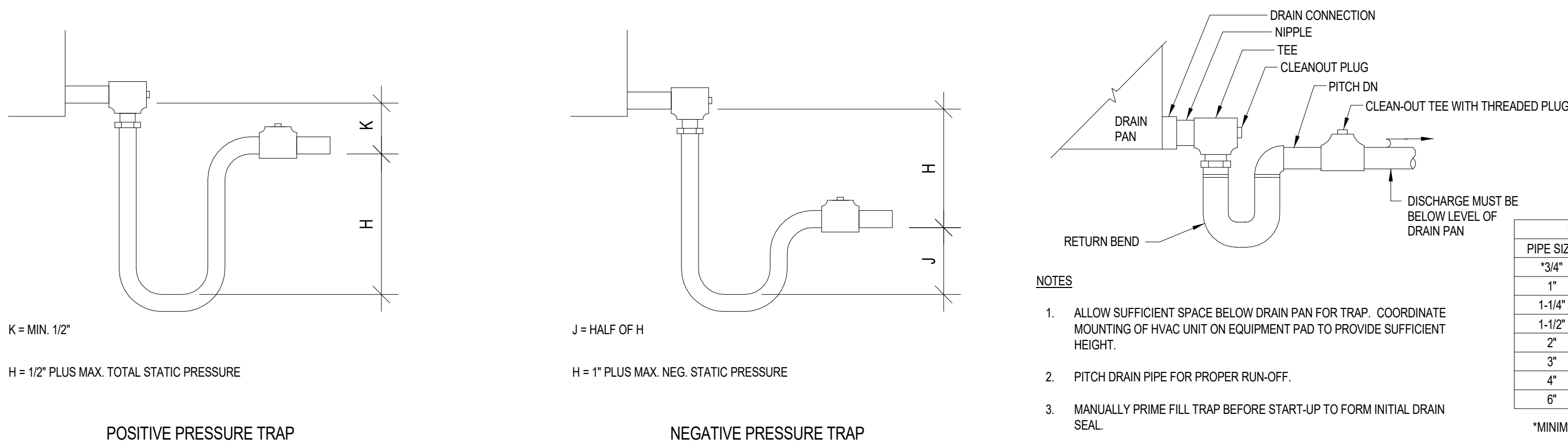
ELECTRIC UNIT HEATER SCHEDULE

MARK	LOCATION	TYPE	HEAT CAPACITY (KW)	AIRFLOW (CFM)	BASIS OF DESIGN	
					MANUFACTURER	MODEL NO
UH-1	REFER TO DWG.	UNIT HEATER	5.0	400	MARKEL	F2F5105N

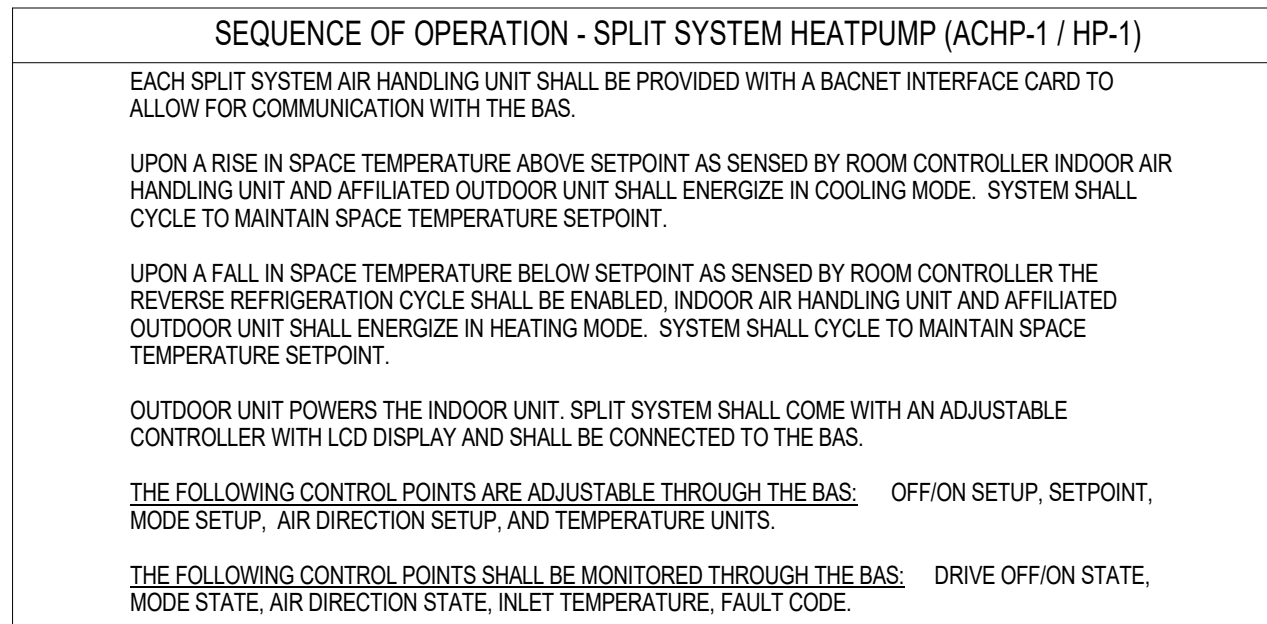
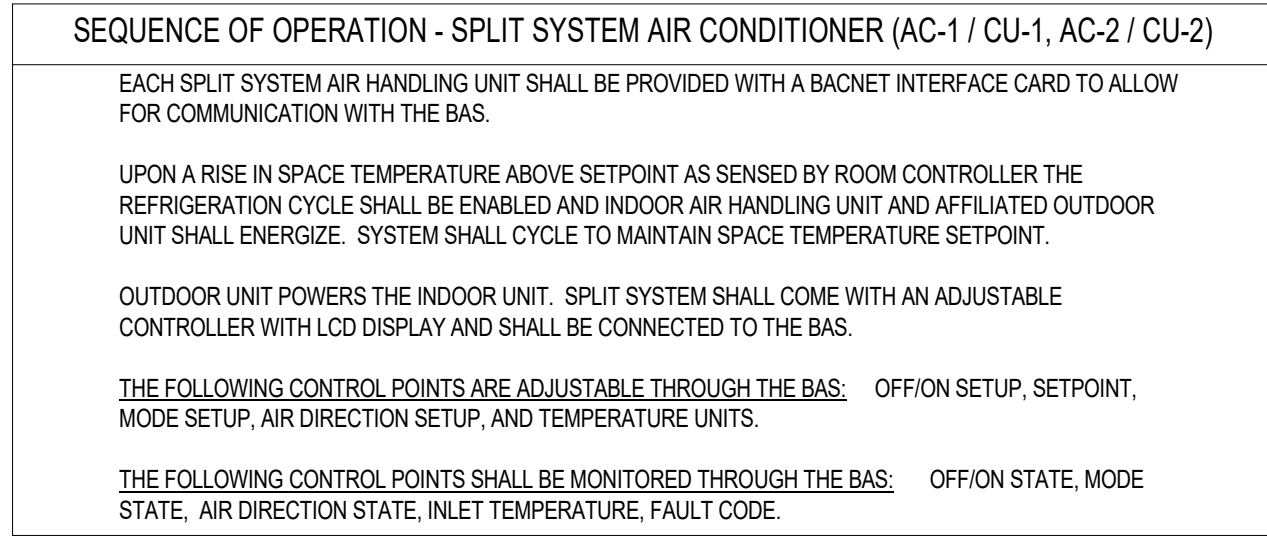
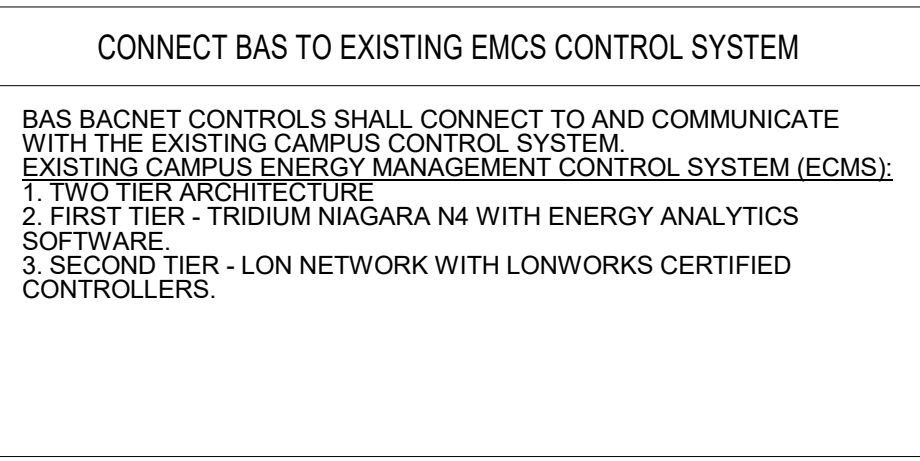
NOTES:

1. DISCONNECT SWITCH

2. INTEGRAL TAMPER RESISTANT THERMOSTAT



CONNECT BAS TO EXISTING EMCS CONTROL SYSTEM



SPLIT SYSTEM AIR CONDITIONER & HEAT PUMP CONTROL DIAGRAM

NO SCALE



UNIVERSITY of NORTH CAROLINA WILMINGTON
601 S COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403
PARKING DECK II AND SURFACE
PARKING (DESIGN-BUILD)
SOUTH CAMPUS - 4965 RIEGEL ROAD

SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301

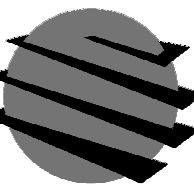
CONTRACTOR
Balfour Beatty
Construction

DESIGNER

CLARK NEXSEN

1523 ELIZABETH AVENUE, SUITE 300
CHARLOTTE, NORTH CAROLINA 28204
704 377 8800

CLARK NEXSEN LICENSE NUMBER: C-1028



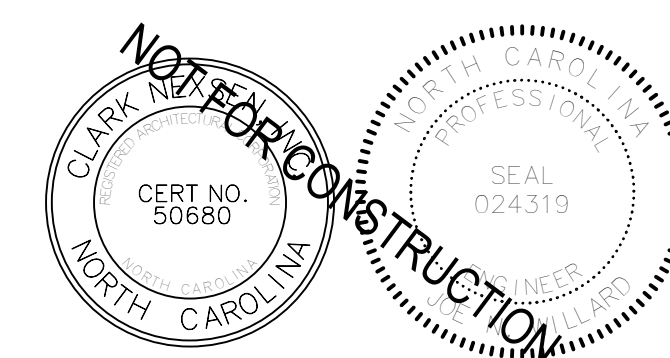
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PROFESSIONAL SEAL



NC CORPORATE ENGINEERING LICENSE #C-1028

SUBMITTAL

03/29/2019

CONSTRUCTION DOCUMENTS
SUBMITTAL 01

REVISIONS

KEY PLAN

SHEET

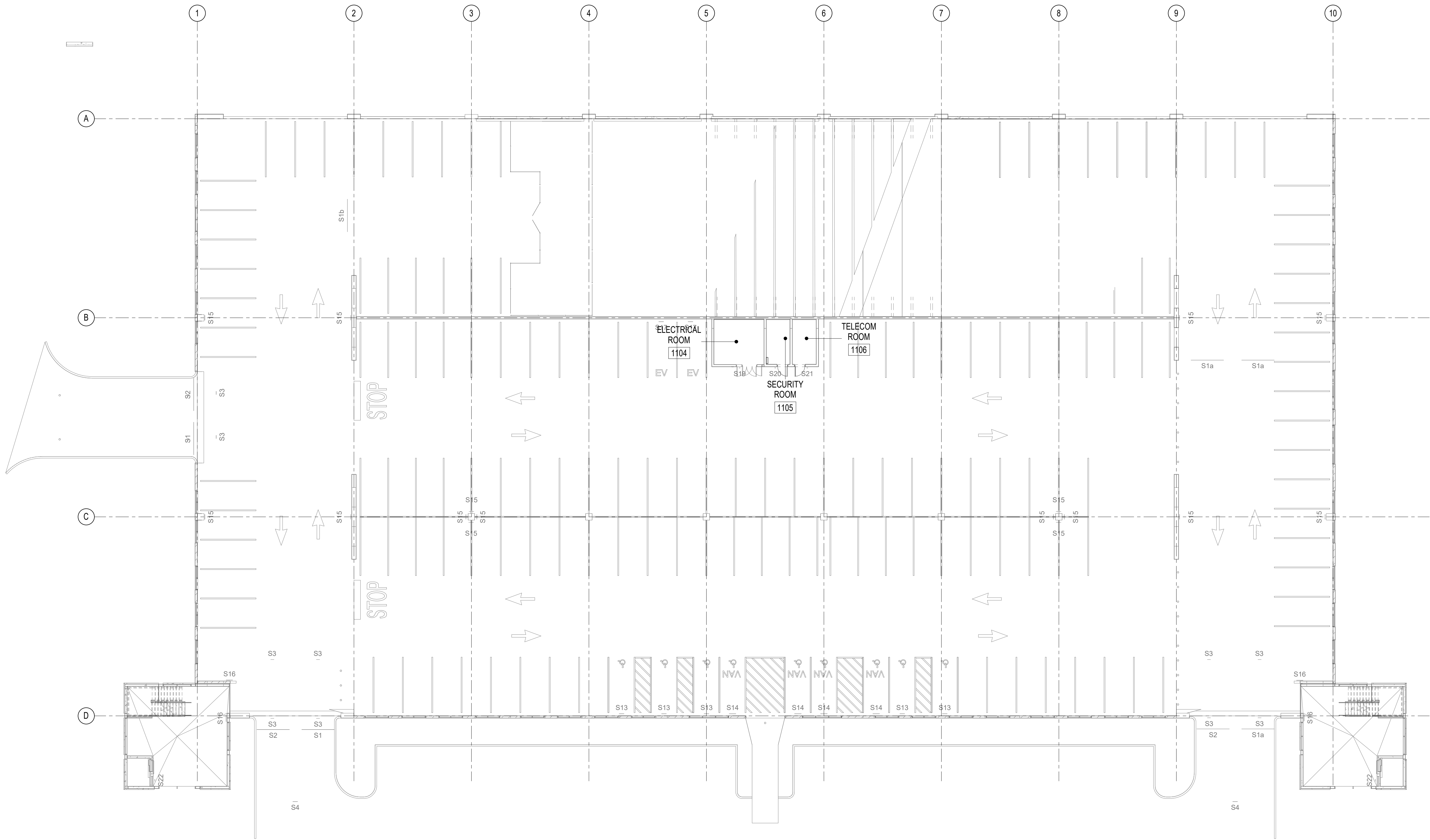
GENERAL NOTES, LEGEND,
CONTROLS, AND SCHEDULE

M-001

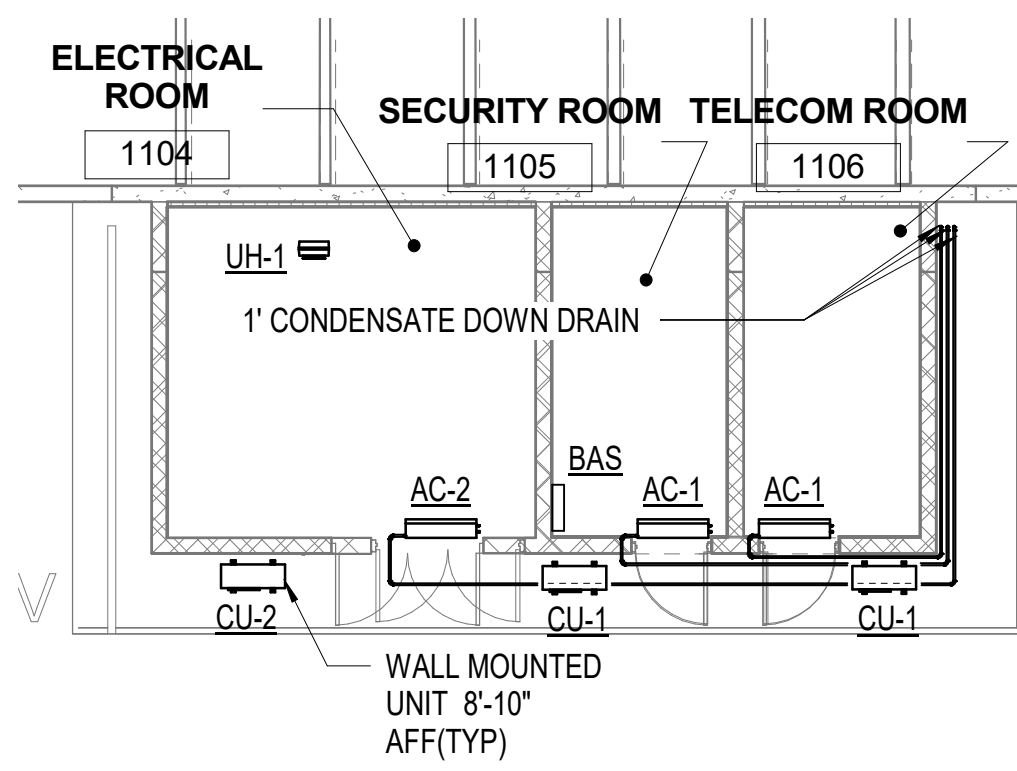
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REVIEW: JNW

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FIRST LEVEL PLAN
1/16" = 1'-0"



1 COMMUNICATION AND ELECTRICAL ENLARGED PLANS
1/8" = 1'-0"

COOLING SET POINT TO BE NO COOLER
THAN 80 F. SUPPLY AIR FROM INDOOR
UNIT TO BE DIRECTED AWAY FROM
EQUIPMENT AND ALL HARD SURFACES.



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601 SOUTH COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403

PARKING DECK II - SOUTH CAMPUS
RIEGEL ROAD

SCO ID NUMBER: 19226
CODE: 441828
ITEM: 301

CONTRACTOR

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Construction

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CONSTRUCTION DOCUMENTS
SUBMITTAL 01

REVISIONS

NO.	DESCRIPTION	DATE

KEY PLAN

SHEET
FIRST LEVEL PLAN

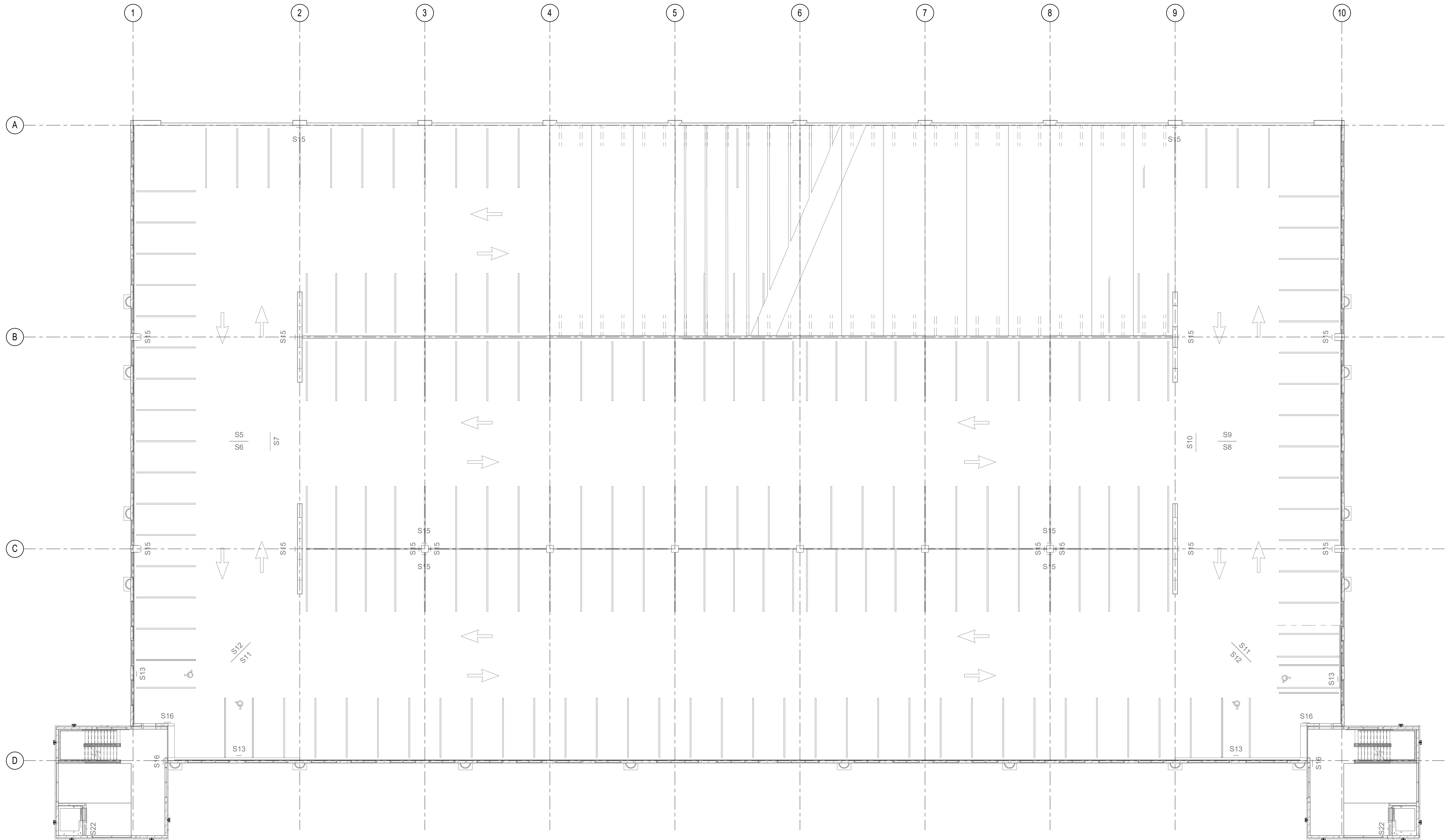
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REVIEW: JNW

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1
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5
6
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C
B
A



SECOND LEVEL PLAN

1/16" = 1'-0"



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601 SOUTH COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403

PARKING DECK II - SOUTH CAMPUS
RIEGEL ROAD

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CODE: 441828
ITEM: 301

CONTRACTOR

Balfour Beatty
Construction

DESIGNER

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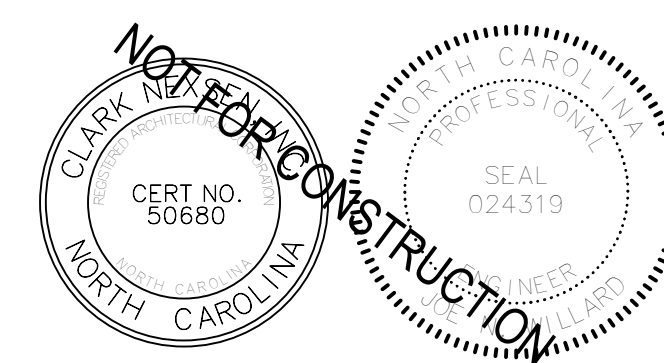
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SECOND LEVEL PLAN

MH102


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REVIEW: JNW

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ITEM: 301

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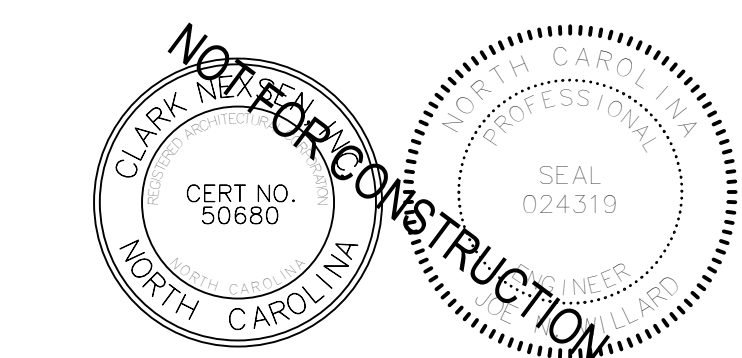
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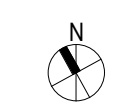
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03/29/2019
CONSTRUCTION DOCUMENTS
SUBMITTAL 01

REVISIONS

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KEY PLAN



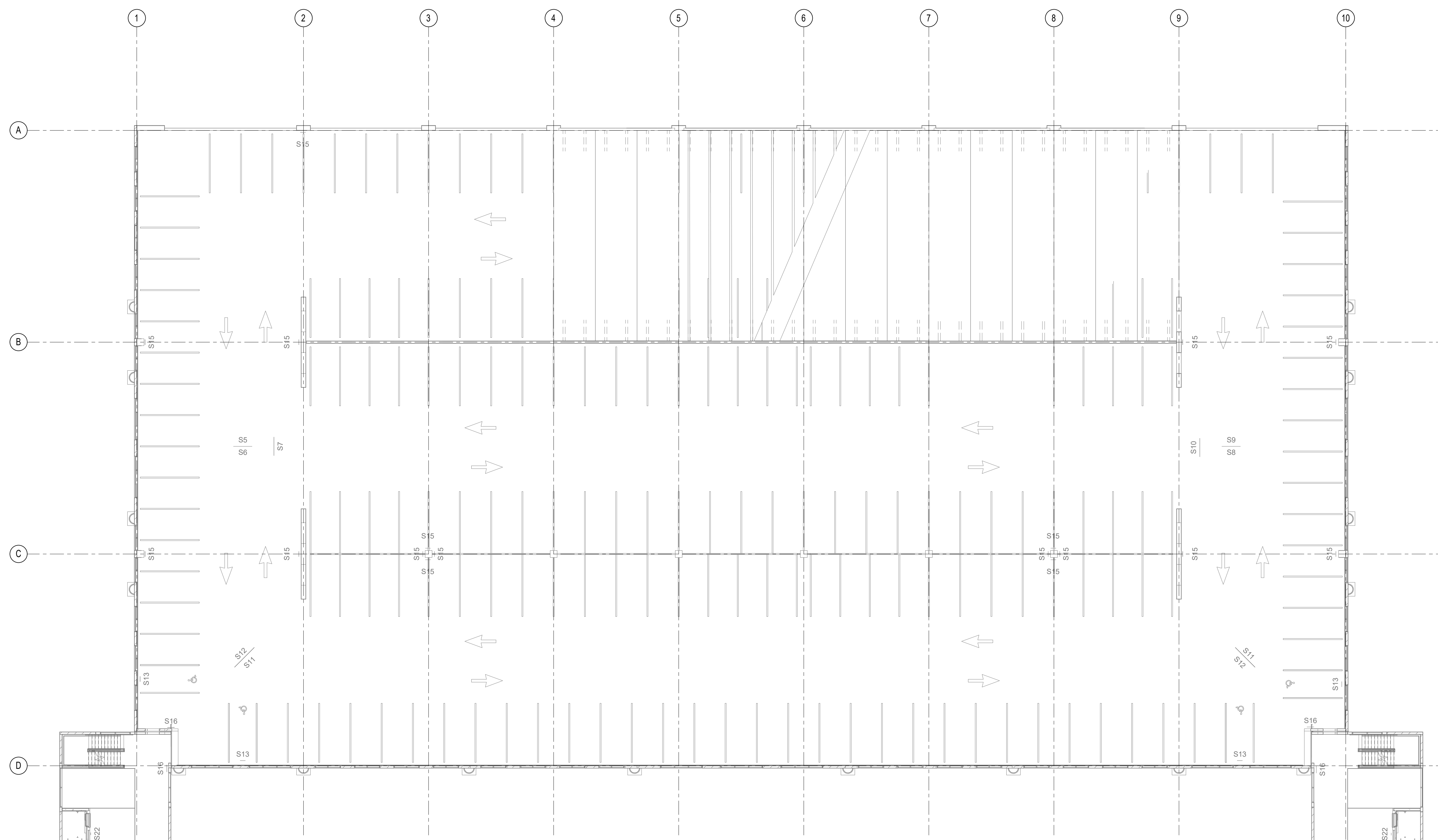
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THIRD LEVEL PLAN

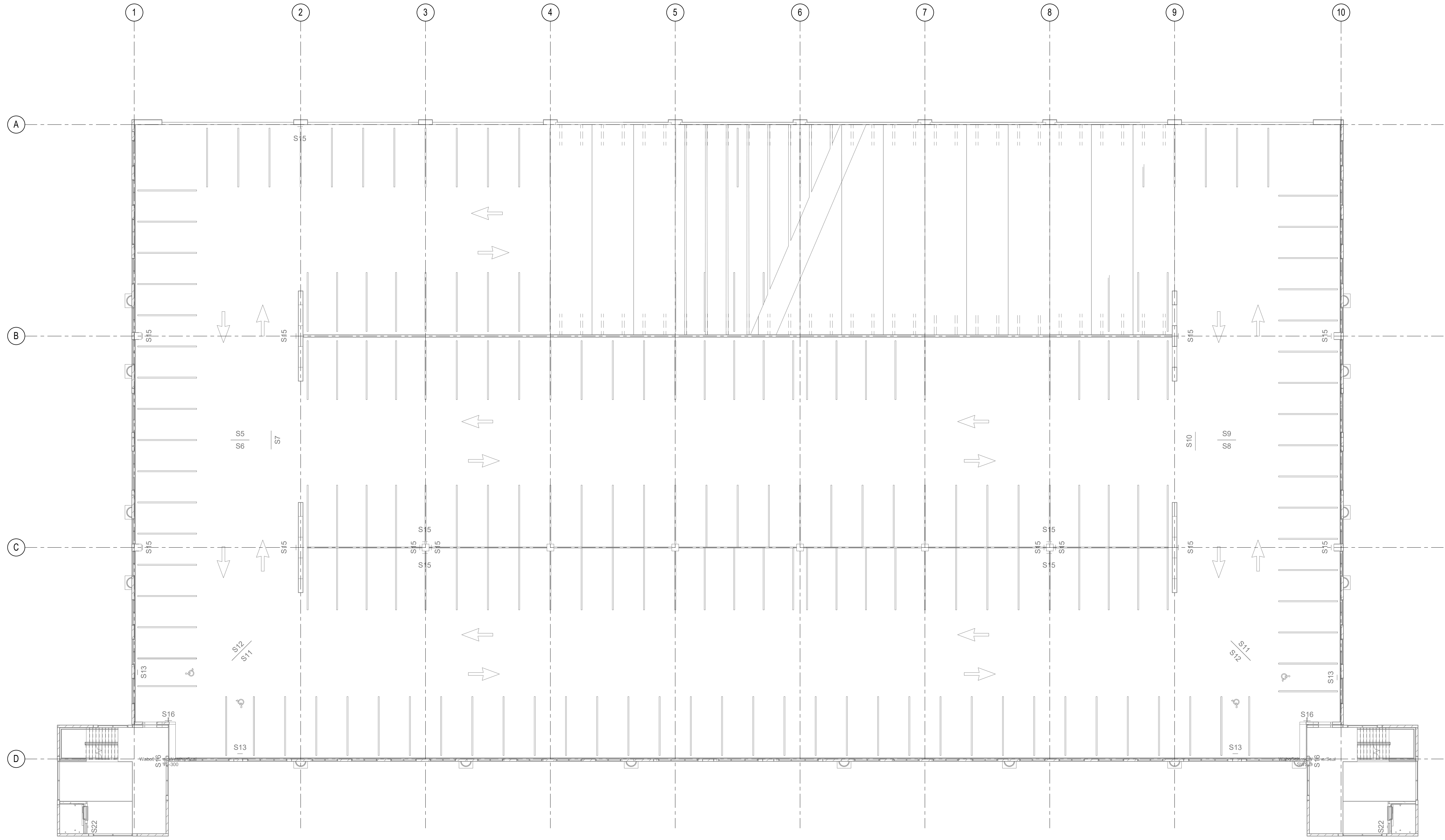
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THIRD LEVEL PLAN



FOURTH LEVEL PLAN
1/16" = 1'-0"



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WILMINGTON, NORTH CAROLINA 28403

PARKING DECK II - SOUTH CAMPUS
RIEGEL ROAD

SCO ID NUMBER: 19226
CODE: 441828
ITEM: 301

CONTRACTOR
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704-377-8800
CLARK NEXSEN LICENSE NUMBER: C-1028



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CERT. NO. 50680
NORTH CAROLINA

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03/29/2019
CONSTRUCTION DOCUMENTS
SUBMITTAL 01

REVISIONS

NO.	DESCRIPTION	DATE

KEY PLAN

SHEET
FOURTH LEVEL PLAN

MH104

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DRAWN: JRS
REVIEW: JNW

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