

2018 APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2 FAMILY DWELLINGS AND TOWNHOUSES)

NAME OF PROJECT: T & L COATS BUILDING #2 (TENANT SPACES 2 & 3)
ADDRESS: HIGHWAY 27 COATS ZIP CODE: 27527
OWNER/AUTHORIZED AGENT: ROBERT BAREFOOT PHONE #:(910) 890-3256 EMAIL: WRBAREFOOT@YAHOO.COM
OWNED BY: CITY/COUNTY PRIVATE STATE
CODE ENFORCEMENT JURISDICTION: CITY COUNTY HARNETT STATE

LEAD DESIGN PROFESSIONAL: CRUSE & ASSOCIATES, P.A.

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE NO.	E-MAIL
ARCHITECTURAL	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
BUILDING	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
CIVIL	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
ELECTRICAL	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
FIRE ALARM	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
PLUMBING	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
MECHANICAL	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
SPRINKLER-STANDPIPE	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
STRUCTURAL (FOUNDATION)	CRUSE & ASSOCIATES, P.A.	RANDY CRUSE, PE	18909	910-892-4429	RCRUSE@CRUSEASSOCIATES.COM
RETAINING WALLS >5' HIGH					
OTHER					

(*OTHER* SHOULD INCLUDE FIRMS AND INDIVIDUALS SUCH AS TRUSS, PRECAST, PRE-ENGINEERED, INTERIOR DESIGNERS, ETC.)

2018 EDITION NC BUILDING CODE: NEW BUILDING ADDITION RENOVATION
 1ST TIME INTERIOR COMPLETIONS
 SHELL/CORE-CONTACT THE LEAD INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES & REQUIREMENTS
 PHASED CONSTRUCTION-SHELL/CORE-CONTACT THE LEAD INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES & REQUIREMENTS

2018 NC EXISTING BUILDING CODE: PRESCRIPTIVE REPAIR CHAPTER 14
ALTERATION: LEVEL I LEVEL II LEVEL III
 HISTORIC PROPERTY CHANGE OF USE

CONSTRUCTED: (DATE) _____ CURRENT OCCUPANCY(S): (CH. 3) _____
RENOVATED: (DATE) _____ PROPOSED OCCUPANCY(S): (CH. 3) _____
OCCUPANCY CATEGORY (TABLE 1604.5): CURRENT: I II III IV
PROPOSED: I II III IV

BASIC BUILDING DATA:
CONSTRUCTION TYPE: I-A II-A III-A IV V-A
 I-B II-B III-B V-B
SPRINKLERS: NO PARTIAL YES NFPA 13 NFPA 13R NFPA 13D
STANDPIPES: NO YES CLASS I II III WET DRY
PRIMARY FIRE DISTRICT: NO YES FLOOD HAZARD AREA: NO YES
SPECIAL INSPECTIONS REQUIRED: NO YES (CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES & REQUIREMENTS)

GROSS BUILDING AREA:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3RD FLOOR			
2ND FLOOR			
MEZZANINE			
1ST FLOOR	7,000	3500 UP-FIT	
BASEMENT			
TOTAL GROSS AREA:			7,000

TOTAL BUILDING = 7,000 SQ. FT.
EXISTING TENANT 1 = 1,750 SQ. FT.
TENANT 2 = 1,750 SQ. FT.
TENANT 3 = 1,750 SQ. FT.
EXISTING TENANT 4 = 1,750 SQ. FT.

ALLOWABLE AREA

PRIMARY OCCUPANCY CLASSIFICATION(S):
ASSEMBLY A-1 A-2 A-3 A-4 A-5
BUSINESS
EDUCATIONAL
FACTORY F-1 MODERATE F-2 LOW
HAZARDOUS H-1 DETONATE H-2 DEFLAGRATE H-3 COMBUST H-4 HEALTH H-5 HPM
INSTITUTIONAL I-1 CONDITION 1 2
 I-2 CONDITION 1 2
 I-3 CONDITION 1 2 3 4 5
 I-4
MERCANTILE
RESIDENTIAL R-1 R-2 R-3 R-4
STORAGE S-1 MODERATE S-2 LOW HIGH-PILED
 PARKING GARAGE OPEN ENCLOSED REPAIR GARAGE
 UTILITY AND MISCELLANEOUS

ACCESSORY OCCUPANCY CLASSIFICATION(S): _____
INCIDENTAL USES (TABLE 509): _____
SPECIAL USES (CHAPTER 4-LIST CODE SECTIONS): _____
SPECIAL PROVISIONS (CHAPTER 5-LIST CODE SECTIONS): _____
MIXED OCCUPANCY: NO YES SEPARATION: _____ HR. EXCEPTION: _____

NON-SEPARATED USE (508.3) THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION, SO DETERMINED, SHALL APPLY TO THE ENTIRE BUILDING.
 SEPARATED USE (508.4) SEE BELOW FOR AREA CALCULATIONS FOR EACH STORY. THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1.

ACTUAL AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B
ALLOWABLE AREA OF OCCUPANCY A + ALLOWABLE AREA OF OCCUPANCY B ≤ 1
_____ + _____ = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3}
1	A3	7,000	23,000	-	23,000

¹FRONTAGE AREA INCREASES FROM SECTION 506.2 ARE COMPUTED THUS:
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = _____(F)
B. TOTAL BUILDING PERIMETER = _____(P)
C. RATIO (F/P) = _____(F/P)
D. W = MINIMUM WIDTH OF PUBLIC WAY = _____(W)
E. PERCENT OF FRONTAGE INCREASE $\frac{1}{2}$ = $100[F/P - 0.25] \times W/30$ = _____(%)

²UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTION 507.

³MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING x d (MAXIMUM 3 STORIES) (506.2).

⁴THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH 406.5.4.

⁵FRONTAGE INCREASE IS BASED ON THE UNSPRINKLERED AREA VALUE IN TABLE 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE ¹
BUILDING HEIGHT IN FEET (TABLE 504.3) ²	FEET 55	23'-8"	
BUILDING HEIGHT IN STORIES (TABLE 504.4) ³	STORIES 3	STORIES 1	

1. PROVIDE CODE REFERENCE IF THE "SHOWN ON PLANS" QUANTITY IS NOT BASED ON TABLE 504.3 OR 504.4.
2. THE MAXIMUM HEIGHT OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.3.1.
3. THE MAXIMUM HEIGHT OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D (W/REDUCTION)	RATING PROVIDED	DETAIL AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	-	0	-	-	-	-	-
BEARING WALLS	-	-	-	-	-	-	-
EXTERIOR	-	-	-	-	-	-	-
NORTH	0	-	-	-	-	-	-
EAST	0	-	-	-	-	-	-
WEST	0	-	-	-	-	-	-
SOUTH	0	-	-	-	-	-	-
INTERIOR	-	-	-	-	-	-	-
NONBEARING WALLS & PARTITIONS	-	-	-	-	-	-	-
EXTERIOR	-	-	-	-	-	-	-
NORTH	0	-	-	-	-	-	-
EAST	0	-	-	-	-	-	-
WEST	0	-	-	-	-	-	-
SOUTH	0	-	-	-	-	-	-
INTERIOR	-	-	-	-	-	-	-
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	-	0	-	-	-	-	-
FLOOR CEILING ASSEMBLY	-	-	-	-	-	-	-
COLUMNS SUPPORTING FLOORS	-	-	-	-	-	-	-
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	-	0	-	-	-	-	-
ROOF CEILING ASSEMBLY	-	-	-	-	-	-	-
COLUMNS SUPPORTING ROOF	-	-	-	-	-	-	-
SHAFT ENCLOSURES-EXIT	-	-	-	-	-	-	-
SHAFT ENCLOSURES-OTHER	-	-	-	-	-	-	-
CORRIDOR SEPARATION	-	0	-	-	-	-	-
OCCUPANCY SEPARATION	-	-	-	-	-	-	-
PARTY/FIRE WALL SEPARATION	-	-	-	-	-	-	-
SMOKE BARRIER SEPARATION	-	-	-	-	-	-	-
TENANT/DWELLING UNIT SLEEPING UNIT SEPARATION	-	-	-	-	-	-	-
INCIDENTAL USE SEPARATION	-	-	-	-	-	-	-

*INDICATE SECTION NUMBER PERMITTING REDUCTION

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.6)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
82'	UP; NS	NO LIMIT	42%

LIFE SAFETY SYSTEM REQUIREMENTS:

EMERGENCY LIGHTING: NO YES
EXIT SIGNS: NO YES
FIRE ALARM: NO YES
SMOKE DETECTION SYSTEMS: NO YES PARTIAL _____
CARBON MONOXIDE DETECTION: NO YES

LIFE SAFETY PLAN REQUIREMENTS:

LIFE SAFETY PLAN SHEET #, IF PROVIDED: LS-1 OF 1

ACCESSIBLE DWELLING UNITS N/A (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING-SEE SITE PLAN-SEE SITE PLAN (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	8' ACCESS AISLE	
	24	37	2			2

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES		SERVICE SINK	DRINKING FOUNTAINS		
	MALE	FEMALE	UNISEX		MALE	FEMALE		UNISEX	REGULAR	ACCESSIBLE
TENANT 2 & 3 BUSINESS	REQUIRED	-	-	2	-	-	2	1	1	1
	PROVIDED	-	-	2	-	-	2	1	1	1

*NCSBC 2902.6

SPECIAL APPROVALS

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)

DESIGN LOADS: STRUCTURAL DESIGN-EXISTING BUILDING

SNOW (I_s) _____
SEISMIC (I_e) _____
LIVE LOADS: ROOF _____ PSF
MEZZANINE _____ PSF
FLOOR _____ PSF
GROUND SNOW LOAD: _____ PSF
WIND LOAD: BASIC WIND SPEED _____ MPH (ASCE-7)
EXPOSURE CATEGORY _____

SEISMIC DESIGN CATEGORY A B C D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
OCCUPANCY CATEGORY (TABLE 1604.5) I II III IV
SPECTRAL RESPONSE ACCELERATION S_s _____ % S₁ _____ %
SITE CLASSIFICATION (ASCE 7): A B C D E F
DATA SOURCE: FIELD TEST PRESUMPTIVE HISTORICAL DATA
BASIC STRUCTURAL SYSTEM (CHECK ONE)
 BEARING WALL DUAL W/SPECIAL MOMENT FRAME
 BUILDING FRAME DUAL W/INTERMEDIATE R/C OR SPECIAL STEEL
 MOMENT FRAME INVERTED PENDULUM

ANALYSIS PROCEDURE SIMPLIFIED EQUIVALENT LATERAL FORCE DYNAMIC
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? YES NO

LATERAL DESIGN CONTROL: EARTHQUAKE WIND

SOIL BEARING CAPACITIES:
FIELD TEST (PROVIDE COPY OF TEST REPORT) _____ PSF
PRESUMPTIVE BEARING CAPACITY _____ PSF
PILE SIZE, TYPE, AND CAPACITY _____

ENERGY REQUIREMENTS:

THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF PERFORMANCE METHOD, STATE THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS THE ANNUAL ENERGY COST FOR THE PROPOSED DESIGN.

EXISTING BUILDING ENVELOPE COMPLIES WITH CODE: NO YES (THE REMAINDER OF THIS SECTION IS NOT APPLICABLE)

EXEMPT BUILDING NO YES PROVIDE CODE OR STATUTORY REFERENCE: _____

CLIMATE ZONE: 3A 4A 5A

METHOD OF COMPLIANCE: ENERGY CODE PERFORMANCE ASHRAE 90.1 PERFORMANCE PRESCRIPTIVE PRESCRIPTIVE

OTHER: PERFORMANCE (SPECIFY SOURCE) _____

THERMAL ENVELOPE (PRESCRIPTIVE METHOD ONLY)

ROOF/CEILING ASSEMBLY (EACH ASSEMBLY):
DESCRIPTION OF ASSEMBLY: R-19 + R-11 LS WITH R-3 THERMAL BLOCKS
U-VALUE OF TOTAL ASSEMBLY: N/A
R-VALUE OF INSULATION: N/A
SKYLIGHTS IN EACH ASSEMBLY: N/A
U-VALUE OF SKYLIGHT: N/A
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY: N/A

EXTERIOR WALLS (EACH ASSEMBLY):
DESCRIPTION OF ASSEMBLY: R-0+R-15.8 CL WITH BRICK VENEER
U-VALUE OF TOTAL ASSEMBLY: _____
R-VALUE OF INSULATION: N/A
OPENINGS (WINDOWS OR DOORS WITH GLAZING) DOUBLE PANE, HM FRAME
U-VALUE OF ASSEMBLY: 0.45 SOLAR HEAT GAIN COEFFICIENT: N/A
PROJECTION FACTOR: N/A DOOR R-VALUES: 1.3

WALLS BELOW GRADE (EACH ASSEMBLY):
DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY: N/A R-VALUE OF INSULATION: N/A

FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY):
DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY: N/A R-VALUE OF INSULATION: N/A

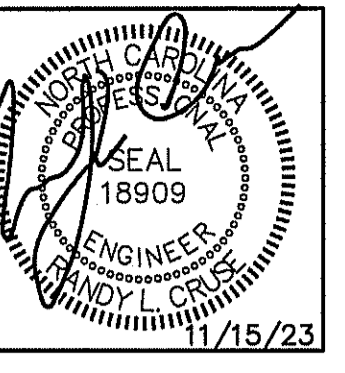
FLOOR SLAB ON GRADE:
DESCRIPTION OF ASSEMBLY: SLAB-ON-GRADE
R-VALUE OF INSULATION: R-15 TO BOTTOM OF FOOTING
U-VALUE OF TOTAL ASSEMBLY: _____
HORIZONTAL / VERTICAL REQUIREMENT: _____
SLAB HEATED? _____ NO

Summary:

ENERGY CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: ENERGY CONSERVATION CODE
BUILDING CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: BUILDING CODE
MECHANICAL CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: MECHANICAL CODE
PLUMBING CODE: 2018 NORTH CAROLINA STATE BUILDING CODE: PLUMBING CODE
ELECTRICAL CODE: 2020 NATIONAL ELECTRIC CODE
ACCESSIBILITY CODE: ICC/ANSI 117.1-2009 AMERICAN NATIONAL STANDARD ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
CONSTRUCTION: II-B
OCCUPANCY: A-3

SHEET INDEX

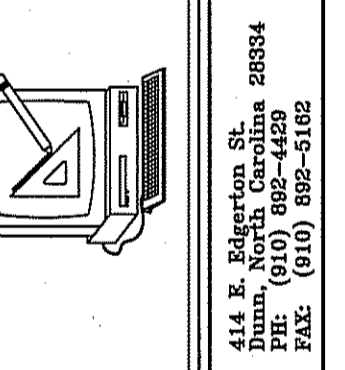
BD-1 OF 1 APPENDIX B
F-1 OF 2 FLOOR PLAN
F-2 OF 2 FOUNDATION PLAN
P-1 OF 2 PLUMBING SUPPLY PLAN
P-2 OF 2 PLUMBING WASTE & VENT PIPING PLAN RISER DIAGRAM/NOTES
M-1 OF 2 MECHANICAL HVAC PLAN
M-2 OF 2 MECHANICAL SCHEDULES & DETAILS
E-1 OF 3 ELECTRICAL LIGHTING PLAN
E-2 OF 3 ELECTRICAL POWER PLAN
E-3 OF 3 ELECTRICAL PANEL SCHEDULES, NOTES & RISER DIAGRAM



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS

NO.	DESCRIPTION



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LICENSE NO.: C-1721

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SHEET NO.
BD-1 OF 1

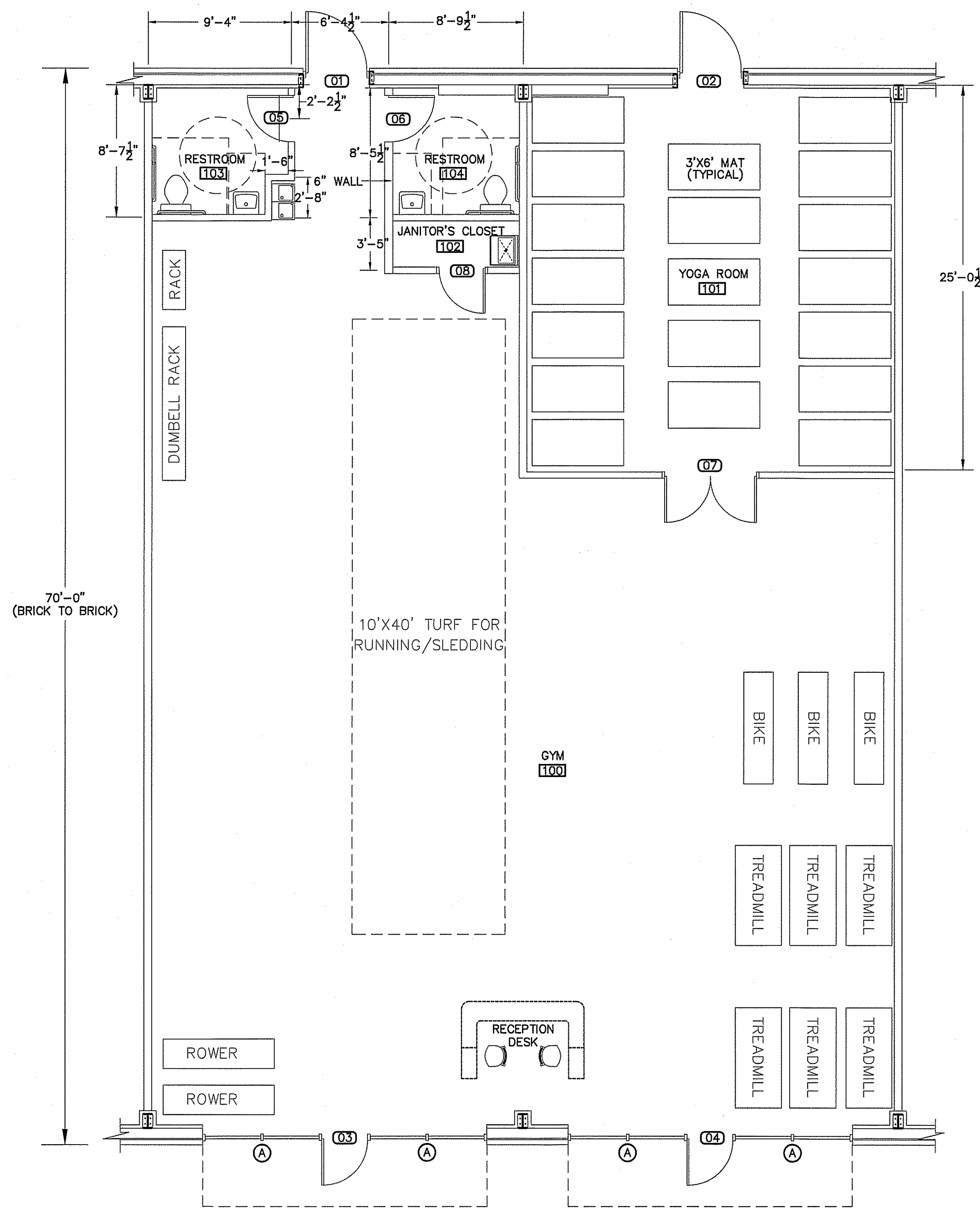
DOOR SCHEDULE				
DOOR NO.	DOOR SIZE			REMARKS
	WIDE	HIGH	THICK.	
01	4'-0"	7'-0"	1 3/4"	EXISTING EXTERIOR METAL DOOR WITH HM FRAME
02	4'-0"	7'-0"	1 3/4"	EXISTING EXTERIOR METAL DOOR WITH HM FRAME
03	3'-0"	7'-0"	1 3/4"	EXISTING STOREFRONT EXT. GLASS DOOR WITH 2'-8" TRANSOME
04	3'-0"	7'-0"	1 3/4"	EXISTING STOREFRONT EXT. GLASS DOOR WITH 2'-8" TRANSOME
05	3'-0"	7'-0"	1 3/4"	NEW INTERIOR WOOD DOOR/HM FRAME
06	3'-0"	7'-0"	1 3/4"	NEW INTERIOR WOOD DOOR/HM FRAME
07	3'-0"	7'-0"	1 3/4"	DOUBLE INTERIOR WOOD DOORS W/VIEW GLASS; HM FRAME
08	3'-0"	7'-0"	1 3/4"	NEW INTERIOR WOOD DOOR/HM FRAME

WINDOW SCHEDULE				
MARK	WINDOW SIZE		REMARKS	HEADERS
	WIDE	HIGH		
A	VARIES	10'-0"	EXISTING STOREFRONT DOUBLE PANE WINDOW W/TEMPERED GLASS	

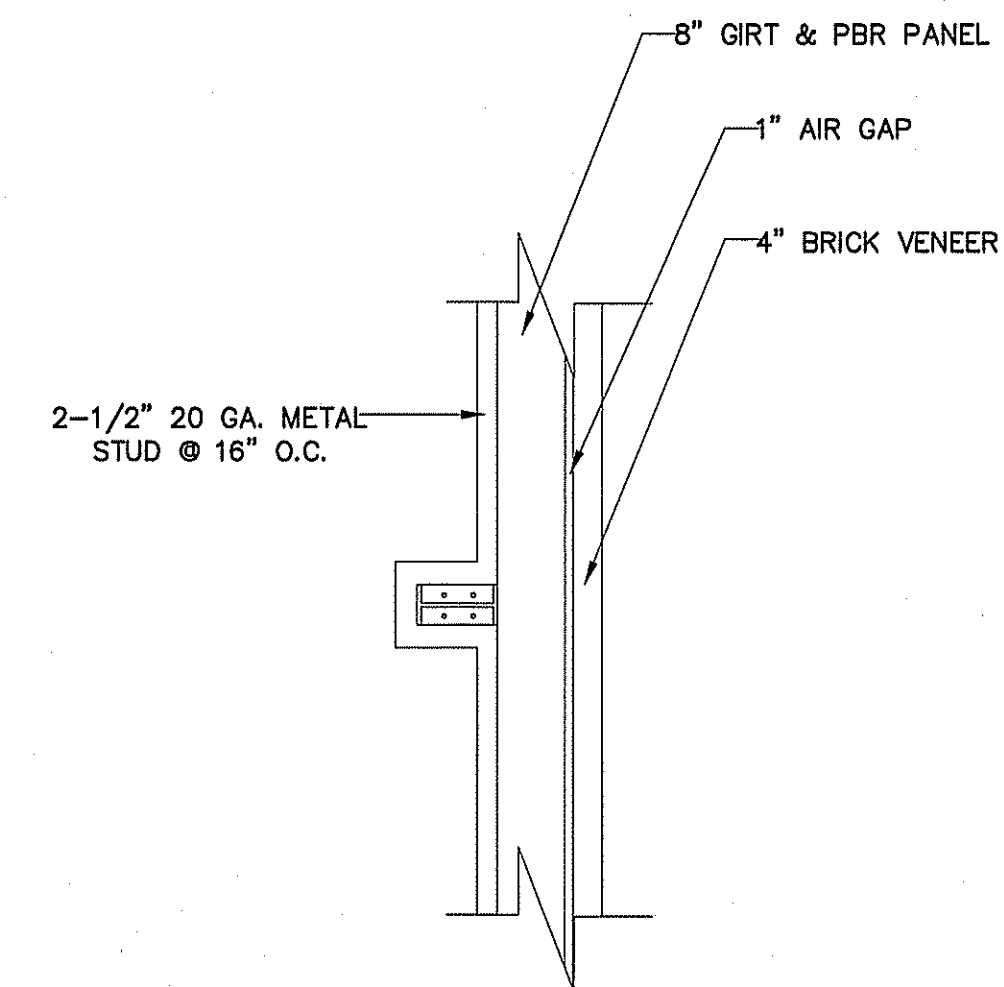
VERIFY WINDOW SIZES, TYPES, AND COLORS WITH OWNER BEFORE BEGINNING CONSTRUCTION

ROOM NO.	ROOM NAME	FLOOR										BASE	WALLS	CEL. HT.	CLG.	REMARKS		
		CONCRETE	CARPET*	TILE	VT	LVT	WOOD	CERAMIC TILE	RUBBER BASE	NONE	CMU (REPAIR)						CERAMIC TILE	FRP
100	GYM	X										X			20'-8"	X		
101	YOGA ROOM	X									X	X	X		10'-0"	X		
102	JANITOR'S CLOSET	X									X	X	X		10'-0"	X		
103	RESTROOM	X									X	X	X		10'-0"	X		
104	RESTROOM	X									X	X	X		10'-0"	X		

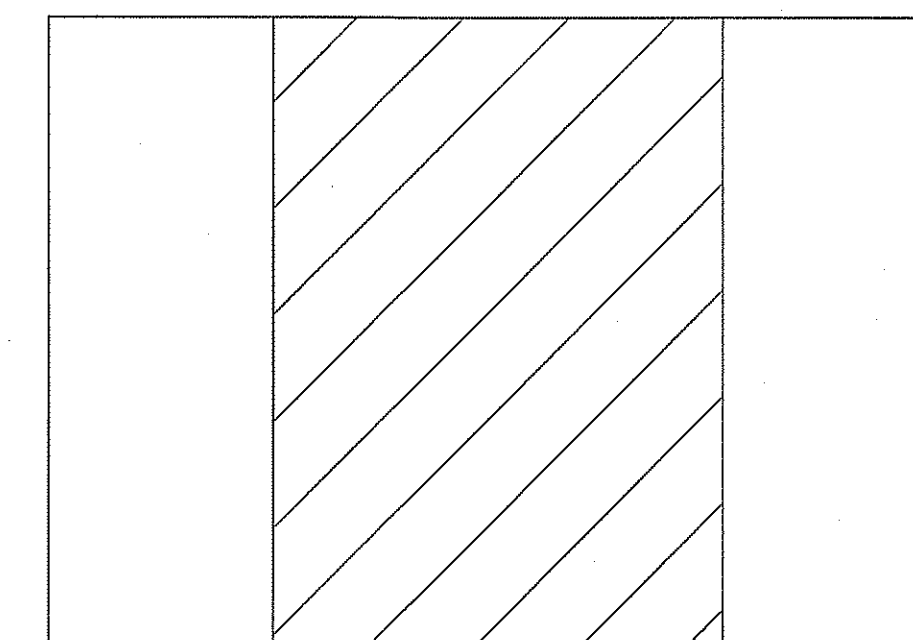
OWNER TO VERIFY ALL COLORS AND FINISHES BEFORE ORDERING MATERIALS



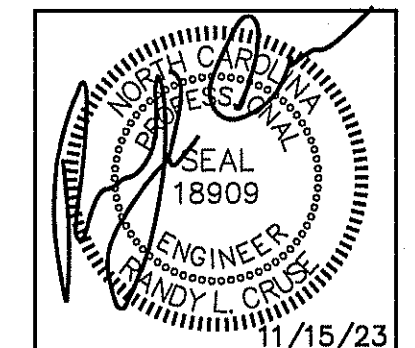
PROPOSED FLOOR PLAN
SCALE: 3/16" = 1'-0"



PROPOSED WALL DETAIL
SCALE: NOT TO SCALE

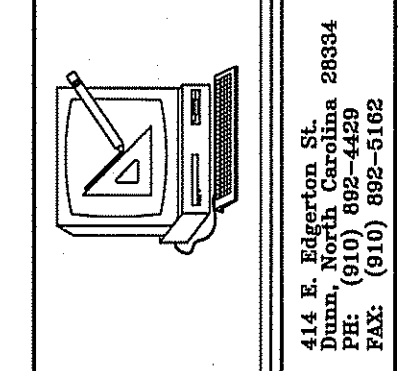


KEY PLAN



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
NO.	



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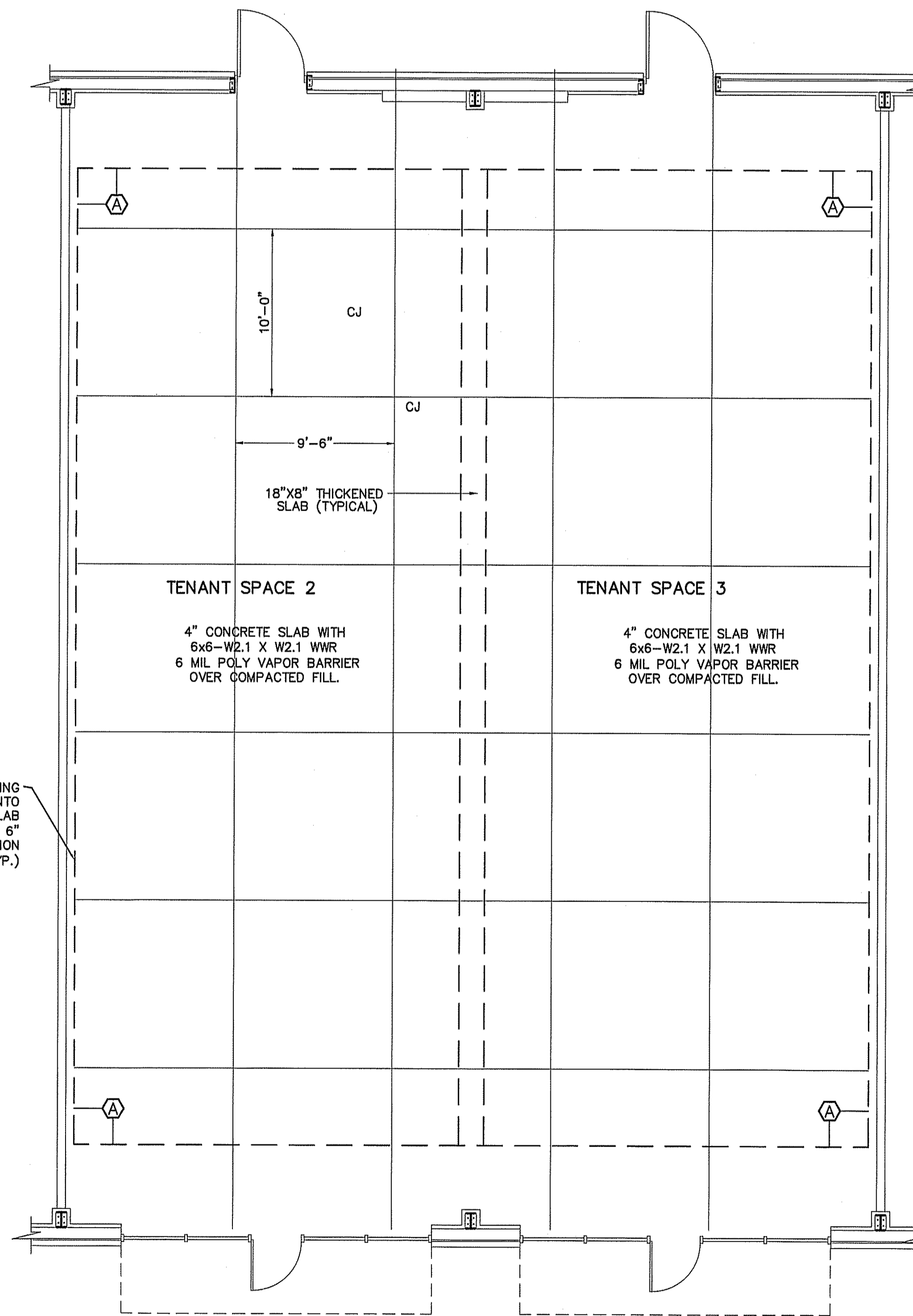
SHEET NO.
F-1 OF 2

FOUNDATION NOTES:

- FIELD VERIFY THE SIZE, LOCATIONS, ELEVATIONS, AND DETAILS OF ALL EXISTING CONSTRUCTION AND CONDITIONS THAT AFFECT THE WORK AND INFORM THE ENGINEER OF ANY DISCREPANCIES IN DIMENSION SIZES, LOCATIONS AND CONDITIONS BEFORE PROCEEDING WITH THE WORK.
- PROVIDE ALL SHORING, SHEETING, UNDERPINNING, AND OTHER MEANS REQUIRED TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY, AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION THAT MAY BE AFFECTED BY THE WORK.
- CONCRETE SHALL DEVELOP COMPRESSIVE STRENGTHS (F'C) AT 28 DAYS AS FOLLOWS: FOUNDATIONS, WALLS, FOOTING, ETC. 3000 PSI
SLABS ON GRADE 3000 PSI
- ALL BUILDING FOOTINGS AND FOUNDATIONS ARE DESIGNED BASED UPON A MINIMUM ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF. IF SUITABLE SOIL CAPABLE OF SUSTAINING THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, THE ENGINEER SHALL BE NOTIFIED AND THE FOUNDATIONS SHALL BE CHANGED IN ELEVATION AND/OR SIZE AS DETERMINED BY THE ENGINEER.
- CONCRETE BAR REINFORCEMENT SHALL BE NEW BILLET STEEL CONFORMING TO THE STANDARD SPECIFICATION FOR DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT ASTM A-615, GRADE 60.
- ALL STRUCTURAL FILL INSIDE THE BUILDING SHALL BE SELECTED FILL COMPACTED TO 96% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT (ASTM D-698)
- ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI-315-80).
- PROVIDE CORNER BARS AT ALL FOOTING CORNERS AND STEPS UNLESS OTHERWISE NOTED. BARS SHALL BE A MINIMUM OF 4'-0" LONG AND HAVE THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND A-82.
- CONTINUOUS REINFORCING BARS SHALL BE LAPPED 48 BAR DIAMETERS AT ALL SPLICES UNLESS OTHERWISE NOTED.
- STANDARD CONSTRUCTION JOINTS AND EXPANSION JOINTS SHALL BE LOCATED AS SHOWN ON THE PLANS.
- ALL CONCRETE SHALL BE PROTECTED AGAINST FREEZING FOR SEVEN DAYS AFTER POURING.
- FLOOR SLAB TO BE POURED ON 6 MIL POLYETHYLENE FILM OVER 4" THICK DRAINAGE FILL, COMPACTED FILL, OR OVER EXISTING CONCRETE SLAB.
- REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND ARCHITECTURAL DRAWINGS AND CONSULT ALL AFFECTED SUBCONTRACTORS FOR LOCATIONS AND SIZES OF REQUIRED OPENINGS AND CAST-IN-ITEMS IN CONCRETE WORK. ALL OPENINGS ON THE STRUCTURAL DRAWINGS SHALL BE SHOWN ON SHOP DRAWINGS FOR APPROVAL.

KEY NOTES:

- ⓐ PERIMETER OF NEW CONCRETE SLAB, DOWEL INTO EXISTING SLAB.



FOUNDATION PLAN

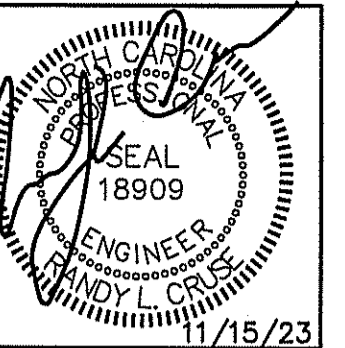
SCALE: 3/16" = 1'-0"

NOTES:

- ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF TO VERIFIED BY CONTRACTOR.
- CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- CONTROL JOINTS TO BE PLACED AS SHOWN ON PLAN.
- SEE METAL BUILDING DRAWINGS FOR ACTUAL COLUMN LOCATIONS.

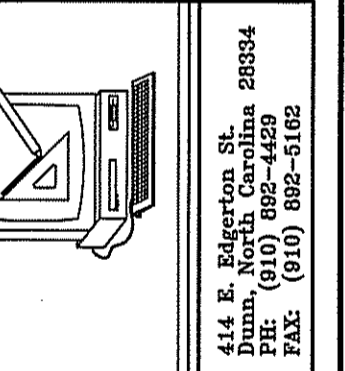
NOTES:

- G.C. TO VERIFY ALL EQUIPMENT SIZES, ELECTRICAL, PLUMBING AND GAS REQUIREMENTS BEFORE BEGINNING CONSTRUCTION.



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
NO.	

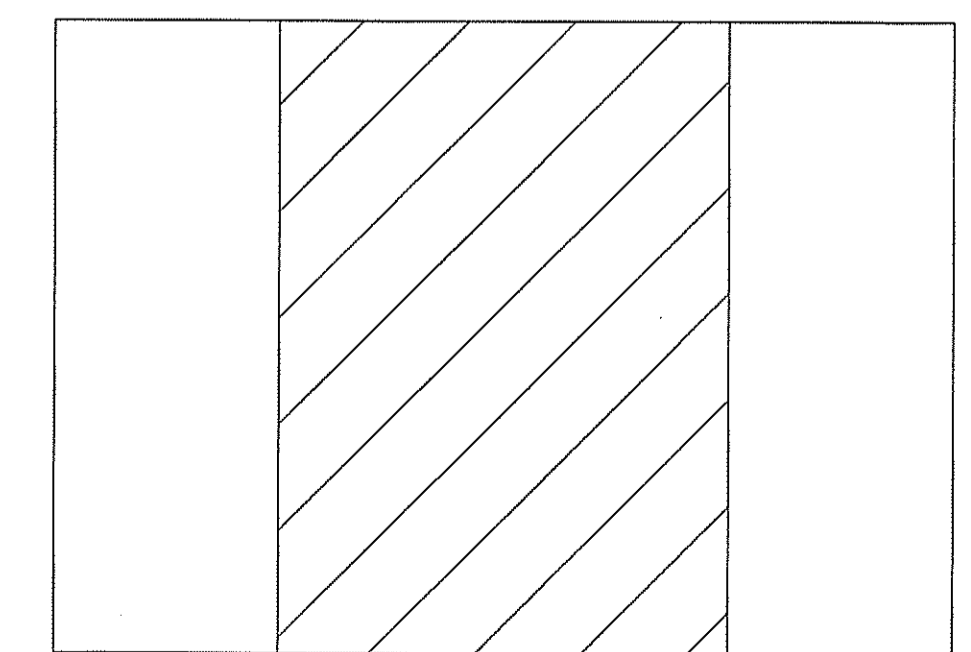


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SHEET NO.
F-2 OF 2



KEY PLAN

PLUMBING CONNECTION SCHEDULE

FIXTURE	C.W.	H.W.	WASTE	VENT
FLUSH TANK WATER CLOSET	1/2"	-	3"	2"
LAVATORY	1/2"	1/2"	2"	1 1/2"
ELEC. WATER COOLER	1/2"	-	2"	1 1/2"
FLOOR DRAIN			3"	2"
MOP SINK	1/2"	1/2"	3"	2"

PLUMBING CALCULATIONS

ITEM	# OF	FIXTURE UNITS (EACH)			FIXTURE UNITS (TOTAL)			FIXTURE UNITS (WASTE)
		COLD	HOT	TOTAL	COLD	HOT	TOTAL	
FLUSH TANK WATER CLOSET	2	5.0	-	5.0	10.0	-	10.0	4/8
LAVATORY	2	1.5	1.5	2	3.0	3.0	4.0	1/2
DRINKING FOUNTAIN	2	.25	-	.25	.50	-	.50	0.5/1.0
MOP SINK	1	2.25	2.25	3.0	2.25	2.25	3.0	2/2
TOTAL					15.75	5.25	17.50	13.0

TOTAL 18.6 GPM
WATER SUPPLY PIPE SIZE: MINIMUM 1"

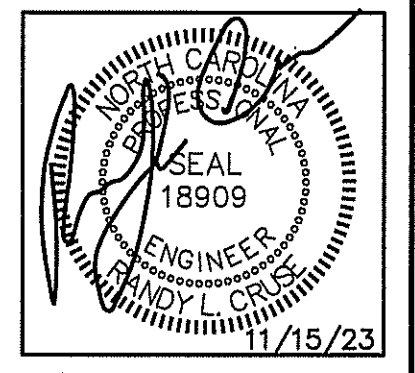
PLUMBING FIXTURE SCHEDULE

MARK	MAKE	MODEL	DESCRIPTION	NOTES
P-1	AMERICAN STANDARD	CADET 2377.100	EL 1.6/PA 16.5"HC ELONGATED WATER CLOSET HC ACCESSIBLE, TANK TYPE	WHITE 5311.012 SEAT
P-2	AMERICAN STANDARD	REGALYN 4869.008	WALL HUNG ENAMELED CAST IRON LAVATORY RIM @ 31" A.F.F.	1340.227 FAUCET, PROVIDE W/BASKET DRAIN WITH ADA APPROVED PROTECTION FOR PIPING UNDERNEATH
P-3	OASIS	PGBACSL	SPLIT LEVEL ELECTRIC WATER COOLER	BARRIER - FREE
P-4	EEMAX	SPEX55	5.5 KW POINT OF USE WATER HEATER	240V
P-5	FIAT	SERV-A-SINK L-1	23" SINGLE BASIN FREE STANDING MOP SINK	
P-6	WOODFORD	MOD-65	HOSE BIB FREEZE PROOF	ANTI-SIPHONING WITH VACUUM BREAKER, SELF DRAINING.
P-7	EEMAX	SPEX3512	3.5 KW POINT OF USE WATER HEATER	120V

* VERIFY ALL FIXTURES WITH OWNER BEFORE PURCHASE OR INSTALLATION

PLUMBING LEGEND

DESCRIPTION	SYMBOL
COLD WATER	— CW
HOT WATER	— HW
COLD WATER (FILTERED)	— L
RECIRCULATED WATER	— HWR
VENT PIPING	--- V
WASTE PIPING	— NEW — EXISTING — W
CLEAN OUT IN GRADE	□ C.O.I.G.
FLOOR CLEAN OUT	○ F.C.O.
NON FREEZE HOSE BIBB	— NFHB
FLOOR DRAIN	○ F.D.
CHECK VALVE	—
BALL VALVE	—
GATE VALVE	—
SHUT-OFF VALVE	—
DOUBLE CHECK VALVE	—
FIXTURE DESIGNATION	P--
MOUNTING HEIGHT	MH
POINT OF CONNECTION NEW TO EXISTING	—
FLOOR SINK	—
SHOCK ABSORBER W/BALL VALVE SHUT-OFF	— SA
CHANGE IN PIPE SIZE	—



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS

NO.	DESCRIPTION

Cruse And Associates, P.A.
414 E. Edgerton St.
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LICENSE NO.: C-1721

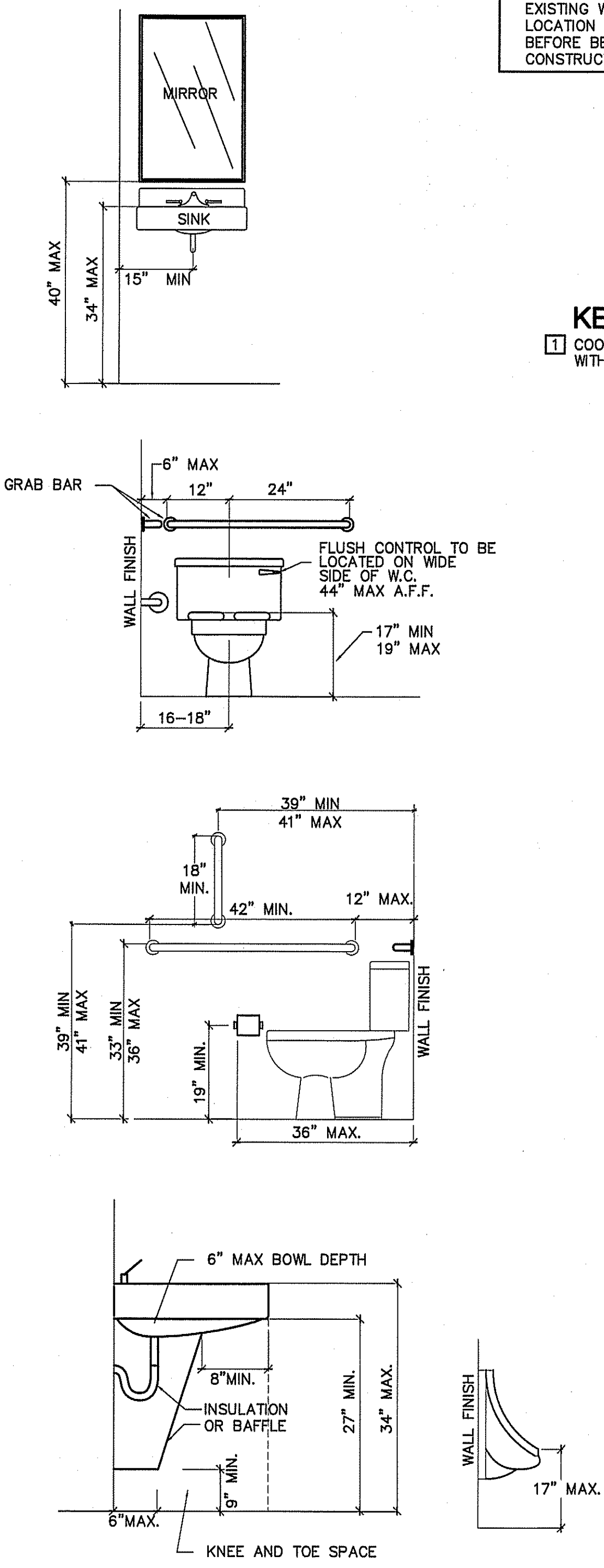
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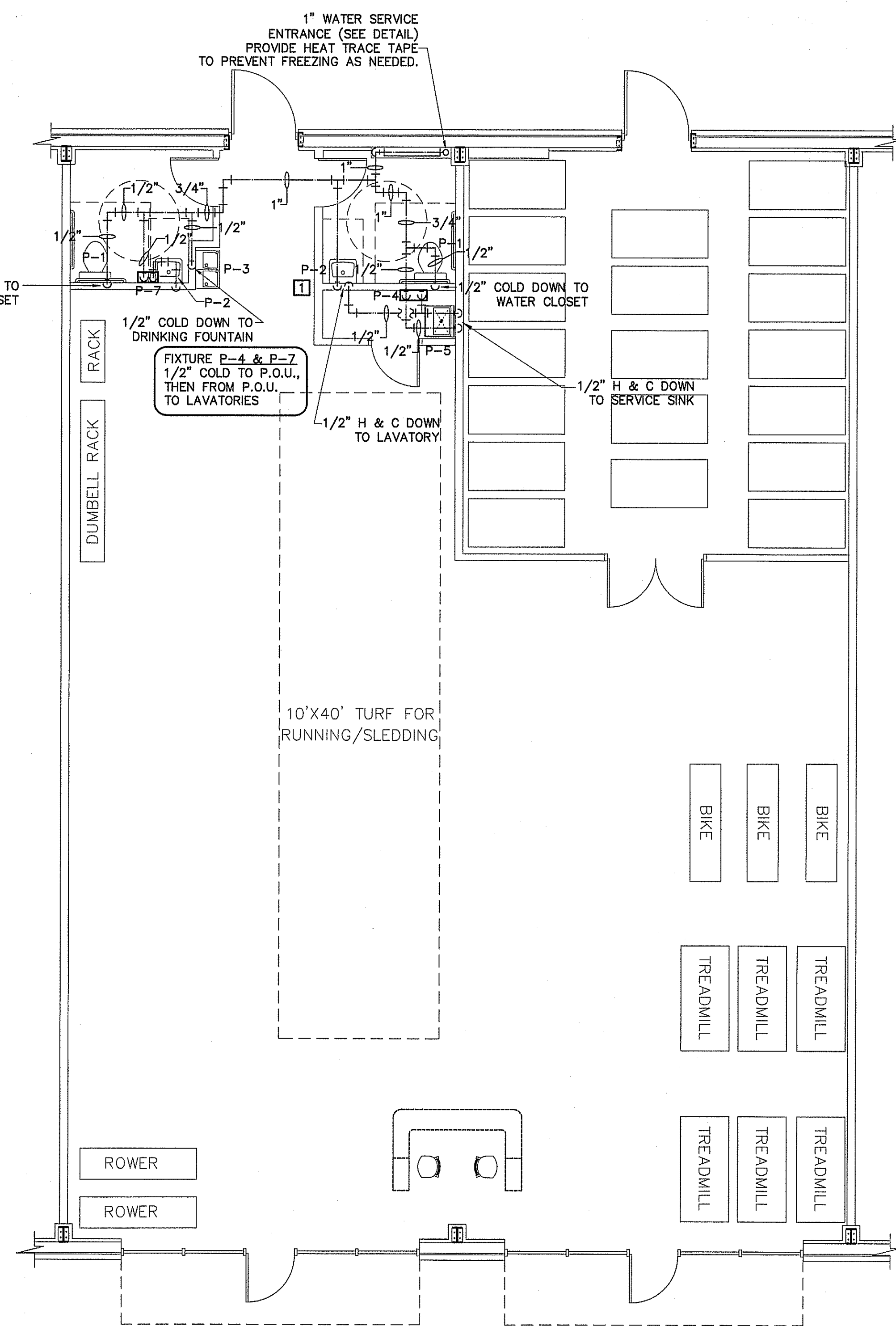
SHEET NO.
P-1 OF 2

NOTE: P.C. TO VERIFY EXISTING WATER LINE LOCATION AND ROUTING BEFORE BEGINNING CONSTRUCTION.

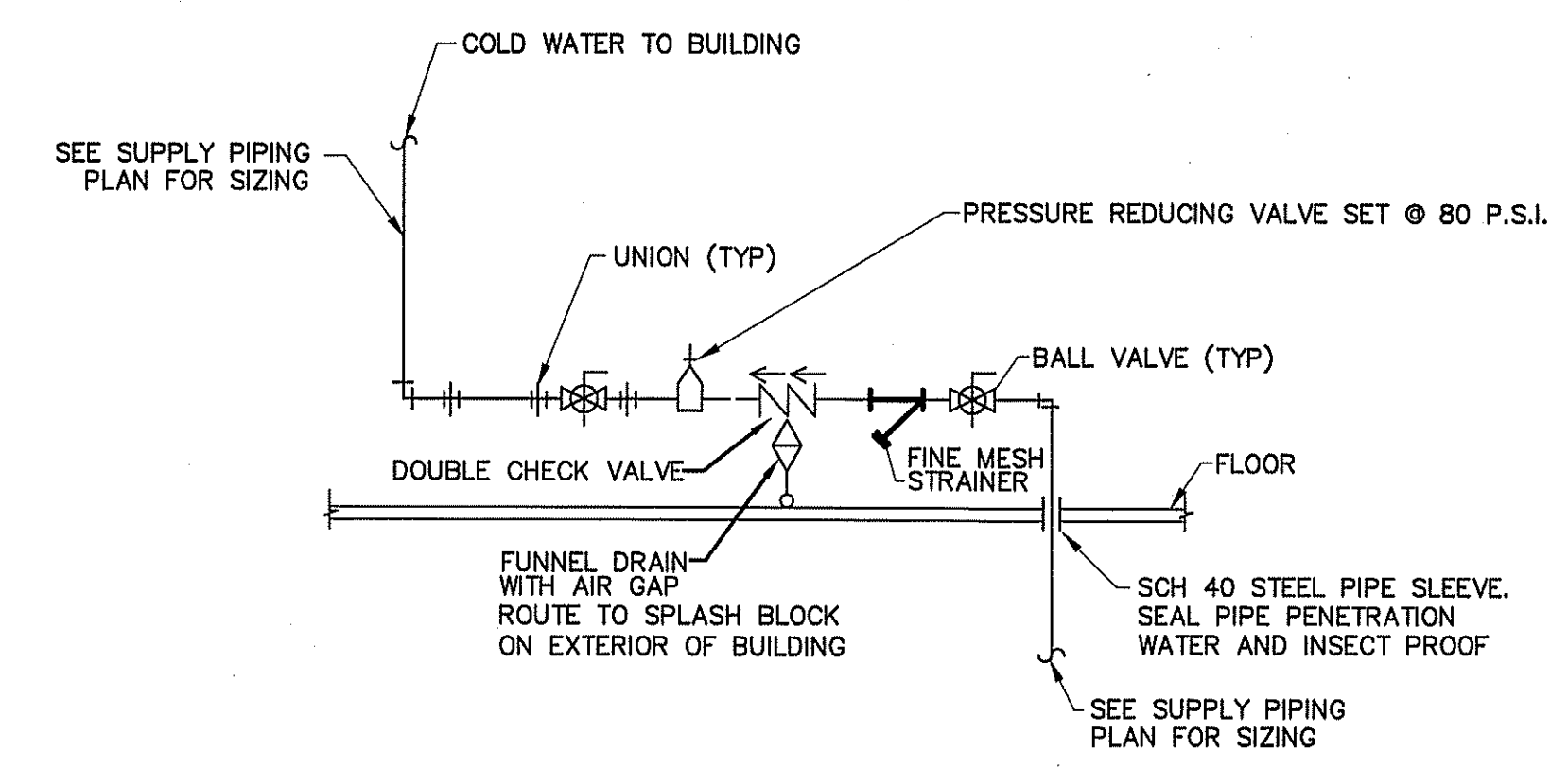
KEYNOTE
1 COORDINATE LOCATION OF SUPPLY PIPING WITH LOCATION OF ELECTRICAL PANEL.



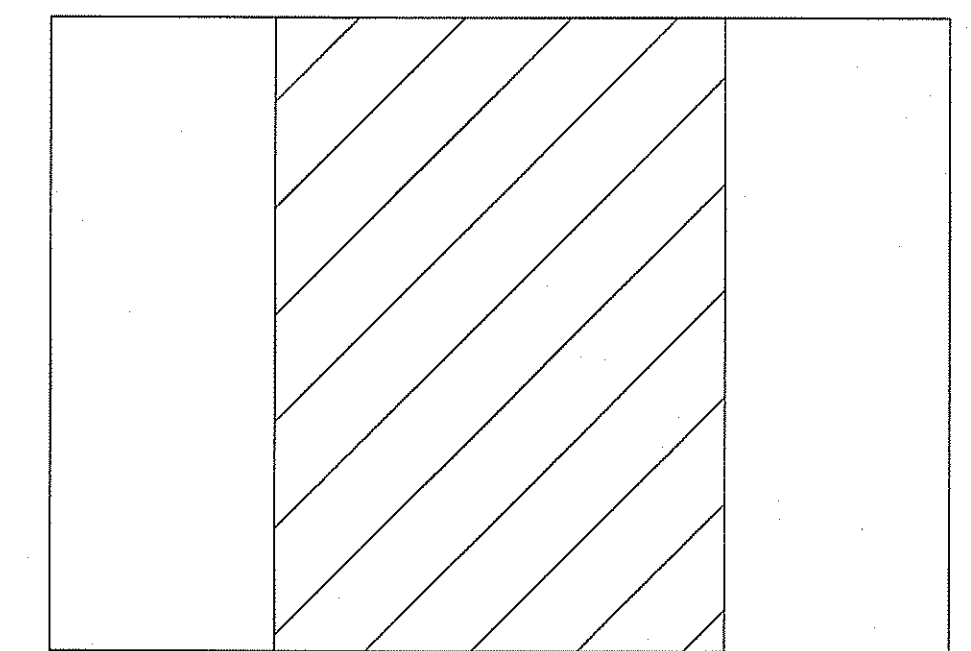
RESTROOM ACCESSIBILITY DETAILS
SCALE: 1/2" = 1'-0"



PLUMBING SUPPLY PIPING PLAN
SCALE: 3/16" = 1'-0"



DETAIL-WATER SERVICE ENTRANCE AS REQUIRED
NOT TO SCALE



KEY PLAN

PLUMBING CONNECTION SCHEDULE				
FIXTURE	C.W.	H.W.	WASTE	VENT
FLUSH TANK WATER CLOSET	1/2"	-	3"	2"
LAVATORY	1/2"	1/2"	2"	1 1/2"
ELEC. WATER COOLER	1/2"	-	2"	1 1/2"
FLOOR DRAIN			3"	2"
MOP SINK	1/2"	1/2"	3"	2"

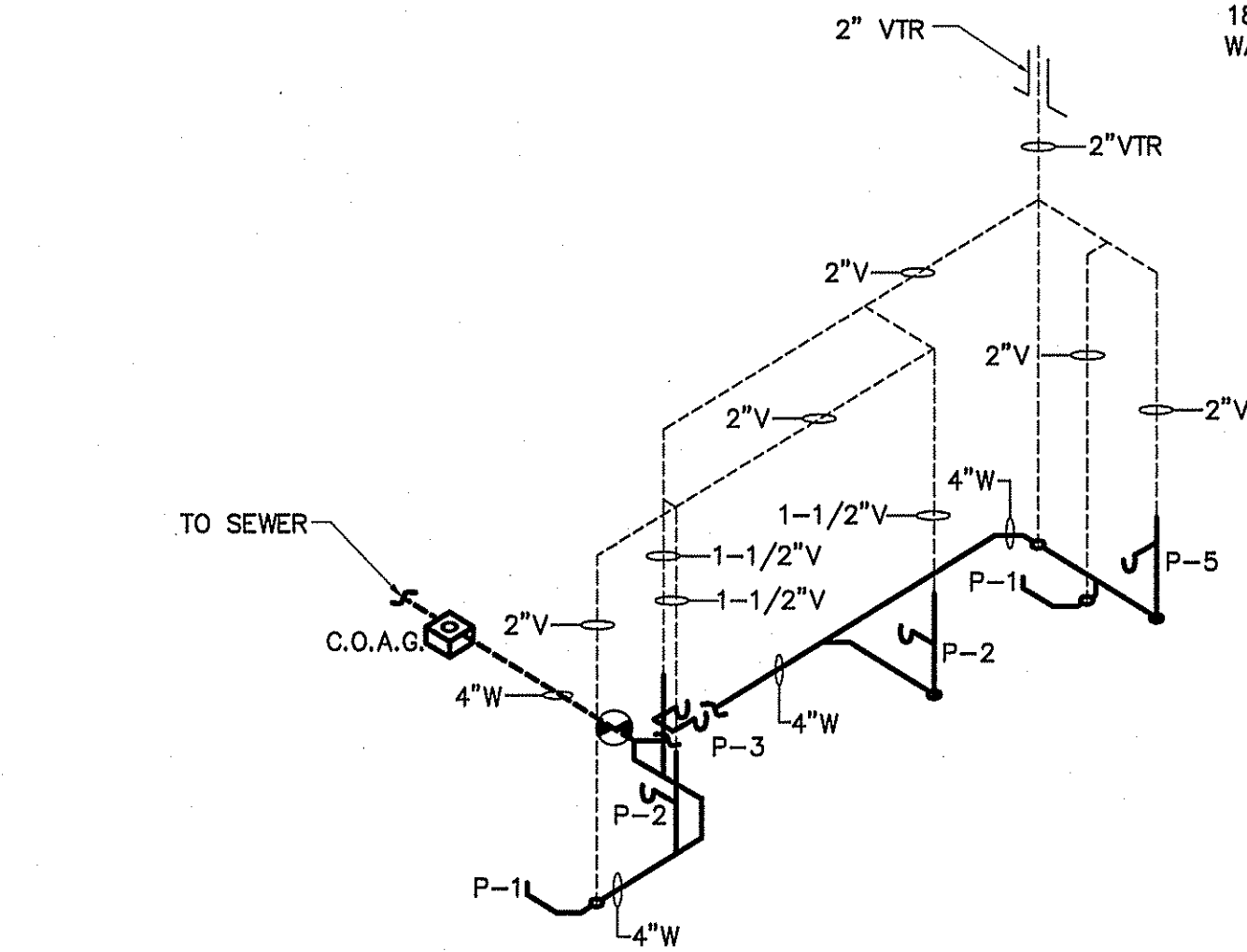
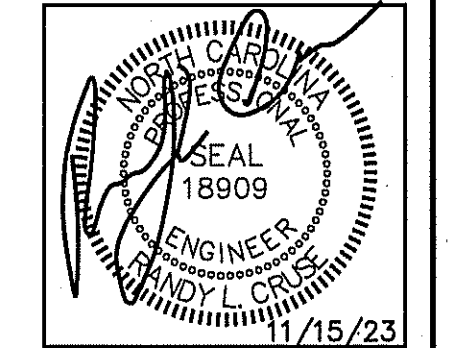
PLUMBING CALCULATIONS								
ITEM	# OF	FIXTURE UNITS (EACH)			FIXTURE UNITS (TOTAL)			FIXTURE UNITS (WASTE)
		COLD	HOT	TOTAL	COLD	HOT	TOTAL	
FLUSH TANK WATER CLOSET	2	5.0	-	5.0	10.0	-	10.0	4/8
LAVATORY	2	1.5	1.5	2	3.0	3.0	4.0	1/2
DRINKING FOUNTAIN	2	.25	-	.25	.50	-	.50	0.5/1.0
MOP SINK	1	2.25	2.25	3.0	2.25	2.25	3.0	2/2
TOTAL		-	-	-	15.75	5.25	17.50	13.0

TOTAL
18.6 GPM
WATER SUPPLY PIPE SIZE: MINIMUM 1"

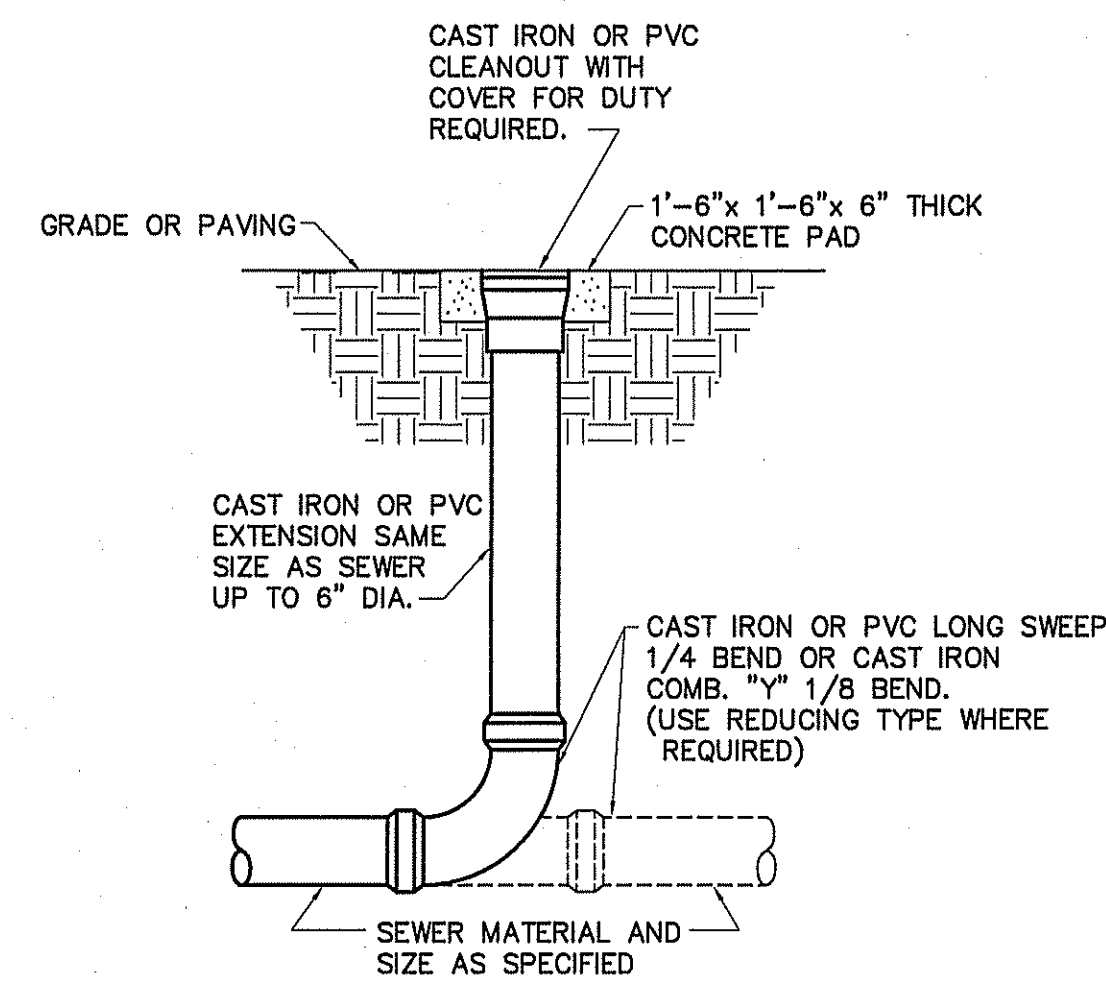
PLUMBING FIXTURE SCHEDULE					
MARK	MAKE	MODEL	DESCRIPTION	NOTES	
P-1	AMERICAN STANDARD	CADET 2377.100	EL. 1.6/PA 16.5" HC ELONGATED WATER CLOSET HC ACCESSIBLE, TANK TYPE	WHITE 5311.012 SEAT	
P-2	AMERICAN STANDARD	REGALYN 4869.008	WALL HUNG ENAMELED CAST IRON LAVATORY RIM @ 31" A.F.F.	1340.227 FAUCET. PROVIDE W/BASKET DRAIN WITH ADA APPROVED PROTECTION FOR PIPING UNDERNEATH	
P-3	OASIS	PG8ACSL	SPLIT LEVEL ELECTRIC WATER COOLER	BARRIER - FREE	
P-4	EEMAX	SPEX55	5.5 KW POINT OF USE WATER HEATER	240V	
P-5	FIAT	SERV-A-SINK L-1	23" SINGLE BASIN FREE STANDING MOP SINK		
P-6	WOODFORD	MOD-65	HOSE BIB FREEZE PROOF	ANTI-SIPHONING WITH VACUUM BREAKER, SELF DRAINING.	
P-7	EEMAX	SPEX3512	3.5 KW POINT OF USE WATER HEATER	120V	

* VERIFY ALL FIXTURES WITH OWNER BEFORE PURCHASE OR INSTALLATION

PLUMBING LEGEND		
DESCRIPTION	SYMBOL	
COLD WATER	---	CW
HOT WATER	---	HW
COLD WATER (FILTERED)	---	
RECIRCULATED WATER	---	HWR
VENT PIPING	---	V
WASTE PIPING	---	W
CLEAN OUT IN GRADE	⊠	C.O.I.G.
FLOOR CLEAN OUT	○	F.C.O.
NON FREEZE HOSE BIBB	⊥	NFHB
FLOOR DRAIN	○	F.D.
CHECK VALVE	⊥	
BALL VALVE	⊠	
GATE VALVE	⊠	
SHUT-OFF VALVE	⊠	
DOUBLE CHECK VALVE	⊥	
FIXTURE DESIGNATION	P--	
MOUNTING HEIGHT	MH	
POINT OF CONNECTION NEW TO EXISTING	⊠	
FLOOR SINK	⊠	
SHOCK ABSORBER W/BALL VALVE SHUT-OFF	⊠	SA SIZE PER MANUF. RECOMMENDATIONS
CHANGE IN PIPE SIZE	---	

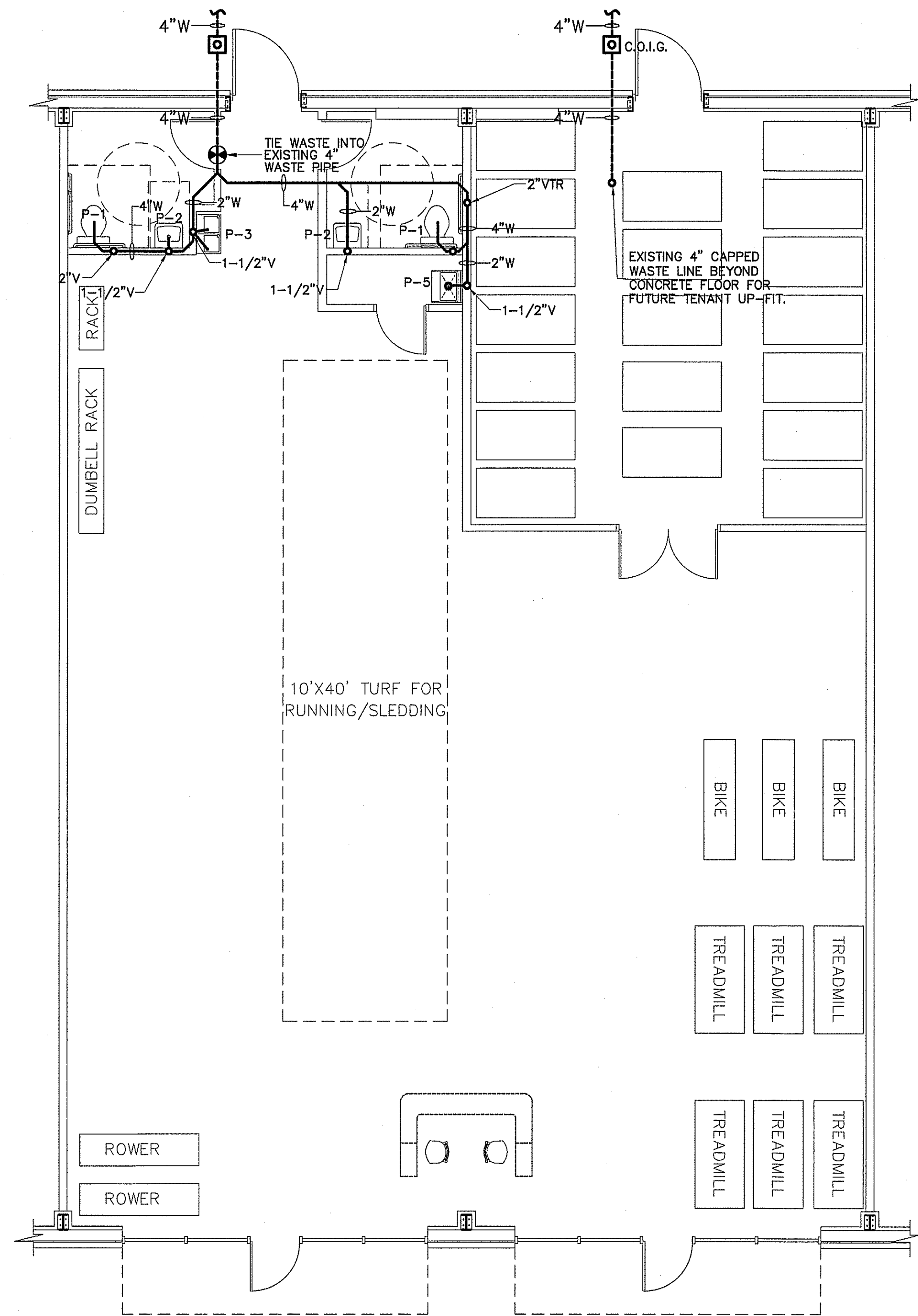


WASTE & VENT RISER DIAGRAM
NOT TO SCALE

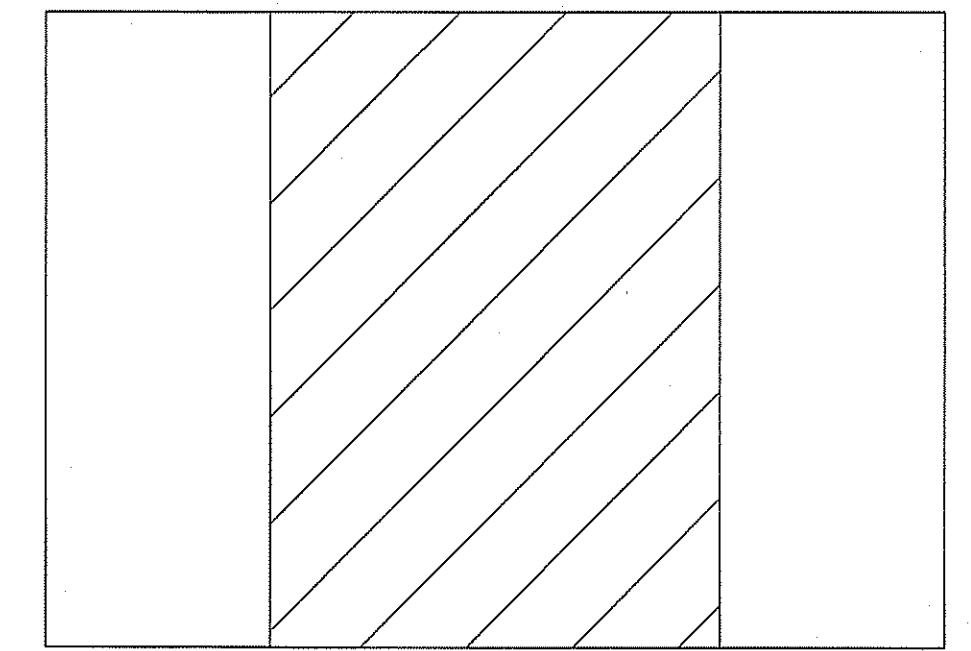


DETAIL-CLEAN OUT AT GRADE
NOT TO SCALE

- GENERAL PLUMBING NOTES**
- ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE LOCAL, STATE, AND NATIONAL CODES.
 - CONTRACTORS SHALL COORDINATE PIPING WITH ALL OTHER TRADES.
 - CONTRACTOR SHALL REFER TO ARCHITECTURAL/STRUCTURAL DRAWINGS FOR DIMENSIONS.
 - CONTRACTOR SHALL FURNISH AND INSTALL DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR METALS.
 - CONTRACTOR SHALL FURNISH AND INSTALL ESCUTCHEONS AND COVER PLATES AT ALL FINISHED WALLS, CEILINGS AND FLOOR OPENINGS.
 - PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH STATE AND LOCAL CODE. (REFER TO SPECIFICATIONS.)
 - ALL PIPING SHALL BE TESTED FOR LEAKS. IF ANY LEAKS ARE DETECTED THE PIPING SHALL BE REPAIRED, RESOLDERED OR REPLACED AND RETESTED.
 - ALL SOLDER SHALL BE OF THE LEAD FREE TYPE.
 - WATER HEATER SHALL BE SUPPLIED WITH FACTORY INSTALLED T&P VALVES AND SHALL HAVE UNIONS AND ISOLATION VALVES.
 - DOMESTIC WATER SUPPLY PIPING SHALL BE COPPER OR CPVC. PEX IS ALLOWED WHERE PERMITTED BY CODE.
 - WASTE AND VENT PIPING SHALL BE SCH. 40 PVC OR HEAVY DUTY CAST IRON UNDER TRAFFIC AREAS.
 - INSTALL THERMOSTATICALLY CONTROLLED MIXING VALVES AS NEEDED TO ENSURE HOT WATER TEMPERATURE TO ALL HAND WASHING LOCATIONS DOES NOT EXCEED 110°F.
 - ALL FLOOR DRAINS & HUB DRAINS SHALL BE PROVIDED WITH TRAP PRIMER EXCEPT FLOOR DRAINS IN TOILETS WHERE HOSE BIBS ARE PROVIDED.
 - HOT WATER PIPING SHALL BE INSULATED WITH 1" THICK FIBROUS GLASS INSULATION. COLD WATER PIPING SHALL BE INSULATED WITH 1/2" FIBROUS GLASS INSULATION. VAPOR BARRIER SHALL BE APPLIED TO EACH.



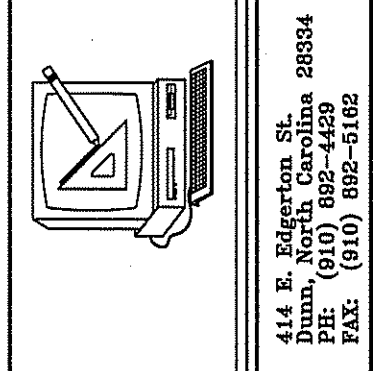
PLUMBING WASTE & VENT PIPING PLAN
SCALE: 3/16" = 1'-0"



KEY PLAN

UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
NO.	



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SHEET NO.
P-2 OF 2

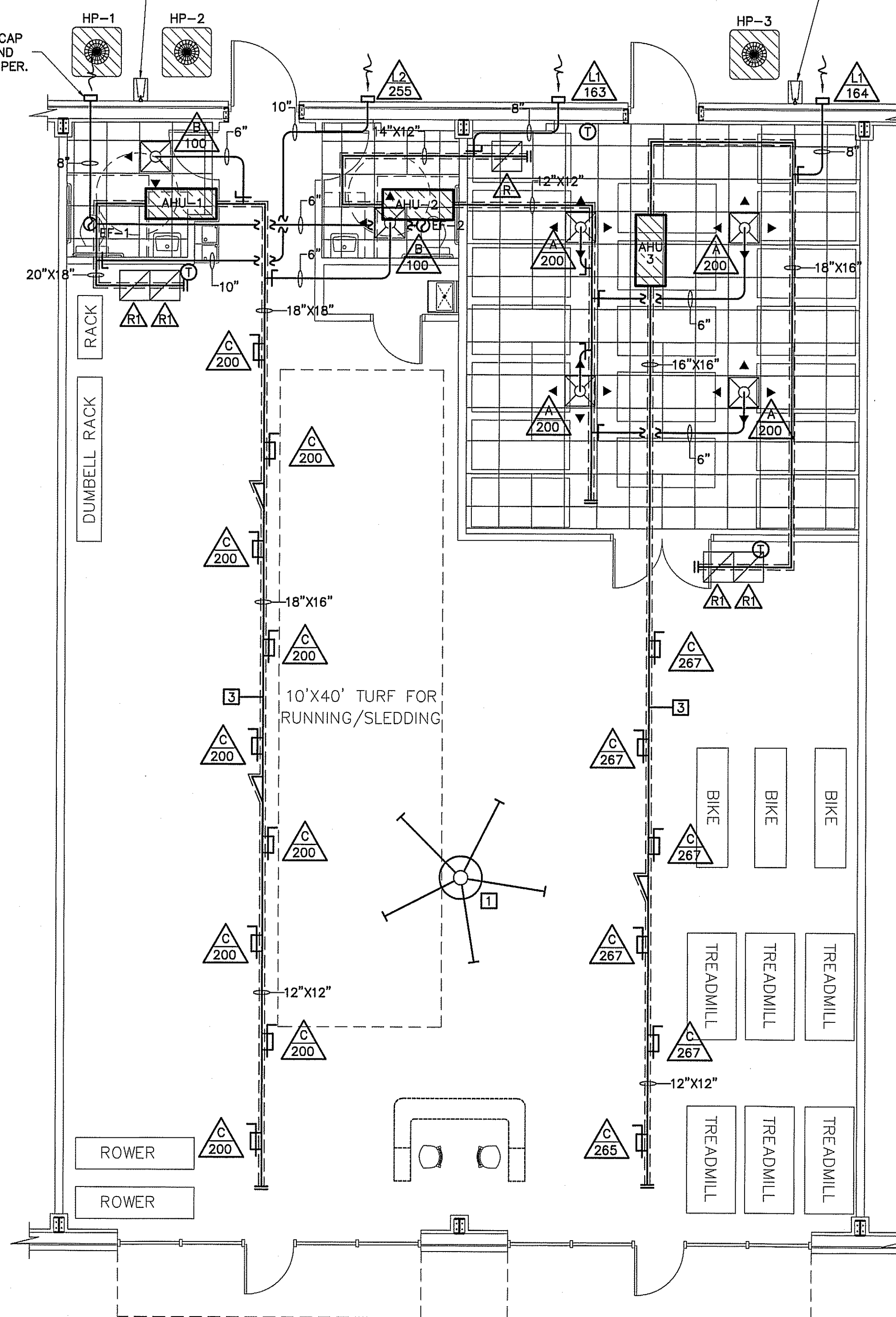
MECHANICAL SYMBOL LEGEND

SINGLE LINE	DOUBLE LINE	DESCRIPTION
		TAKE OFF TO SUPPLY AIR REGISTER WITH EXT. INSUL. DUCTWORK
		END CAP DUCT SMOKE DETECTOR
		ACCESS DOOR DOOR SIZE DUCT HEIGHT 8X8 10" 10X10 12" 12X12 14" & LARGER
		CEILING DIFFUSER FLEXIBLE DUCTWORK (14' MAX.) ONE SIDED REDUCING TRANSITION
		F.D.=FIRE DAMPER (1-1/2)=RATED FOR 1-1/2 HRS. RETURN AIR OR EXHAUST GRILLE
		SUPPLY AIR CEILING DIFFUSER, ARROW INDICATES DIRECTION OF BLOW & ACTIVE DIFFUSER SIDES (1)CUSHION HEAD @ BRANCH OR DIFFUSER RUNOUT (2)CUSHION HEAD IS EQUAL TO 1-1/2 WIDTH OF THE BRANCH DUCT OR DIFFUSER RUNOUT
		R.A. OR EXHAUST DUCT TURNS DOWN @ 90 DEGS. MANUAL VOLUME CONTROL DAMPER W/ QUADRANT LOCKING DEVICE
		TWO SIDED TRANSITION ELECT. DUCT INSERT HEATER WITH CONTROL PANEL
		AHU W/FLEXIBLE CONNECTION AT SUPPLY AND RETURN DUCT KEY NOTE
		MARK XXX - CFM-DIFFUSER, REGISTER OR GRILLE (SEE SCHEDULE) EXHAUST FAN

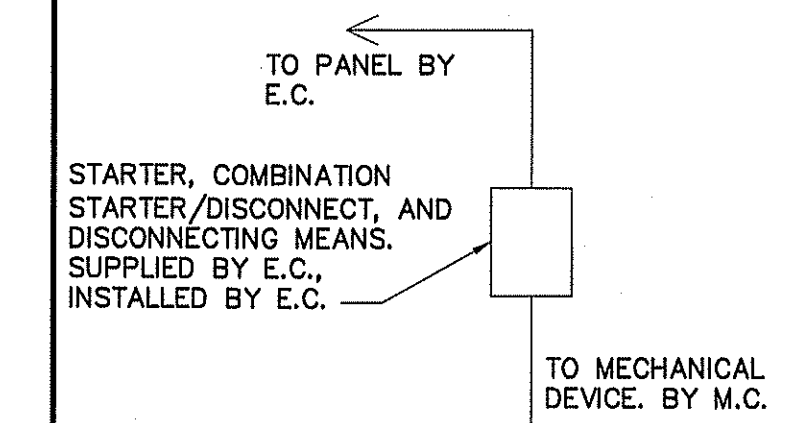
3/4" COND. DRAIN LINE FROM AHU-2 TO 1-1/2"
COND. DRAIN LINE AT AHU-1, THEN 1-1/2"
COND. DRAIN LINE DOWN TO SPLASH BLOCK

GREENHECK WC-8 WALL CAP
WITH BIRD/INSECT SCREEN AND
BACKDRAFT DAMPER.

1" COND. LINE DOWN TO SPLASH BLOCK



CONNECTION SCHEDULE



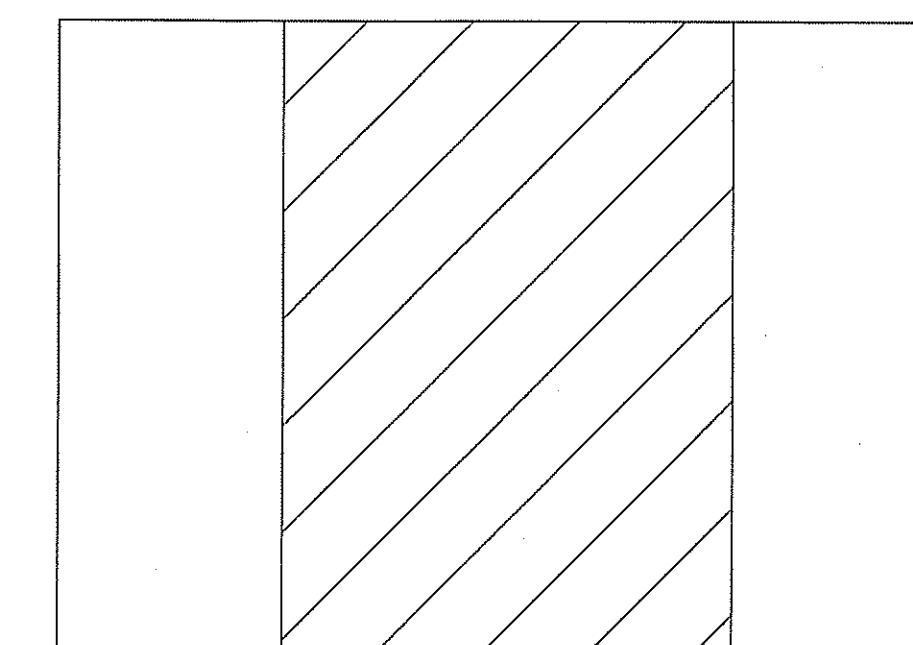
ALL STARTERS, COMBINATION STARTER/DISCONNECTS, AND DISCONNECTING MEANS, SUPPLIED BY E.C. FOR MECHANICAL EQUIPMENT AS REQUIRED BY NEC AND MECHANICAL EQUIPMENT MANUFACTURER'S REQUIREMENTS.

NOTES:

- COORDINATE LIGHT FIXTURE HEIGHT & LOCATION WITH LOCATION & HEIGHT OF DUCTWORK.
- LIGHT FIXTURE MOUNTED @ 12' A.F.F. & BELOW DUCTWORK IN AREA WITH OPEN CEILING.

KEYNOTE:

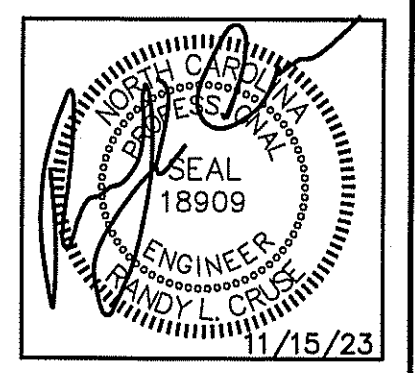
- FAN SELECTED BY OWNER/CONTRACTOR
- LIGHT FIXTURE MOUNTED @ 12' A.F.F. & BELOW DUCTWORK IN AREA WITH OPEN CEILING.
- SHIFT TRUNK DUCT AS REQUIRED TO MISS ROW OF LIGHTS BELOW. SEE SHEET E-1 OF 3.



KEY PLAN

HVAC MECHANICAL PLAN

SCALE: 3/16" = 1'-0"



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
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Cruse
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SHEET NO.
M-1 OF 2

AIR HANDLER UNIT														SPLIT SYSTEM HEAT PUMP UNITS													
AHU NO.	MANUFACTURER	MODEL	VOLTAGE	E.S.P.	CFM	UNIT FLA	REF LINES		SEER	HTR KW (240)	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		HSPF	MIN. CIRC. AMPACITY	M.O.C.P.	MARK	MANUF.	MODEL	VOLTAGE	# COMP.	MIN. CIRC. AMPACITY	M.O.C.P.	UNIT FLA.	ACCESSORIES	
							GAS	LIQ.			TOTAL	SENS.	HIGH	LOW													
AHU-2	TRANE	TEM40B24S21	240/1/60	.46	N/A	800	32.0	3/4	3/8	15.2	7.68	23.8	17.4	23.0	15.0	8.5	42	45	HP-2	TRANE	4TR5024N1000A	240/1/60	1	13	25	10.7	EXCLUDE 8,18
AHU-3	TRANE	TEM40C48S41	240/1/60	.46	N/A	1600	32.0	7/8	3/8	15.2	7.68	46.6	34.6	44.4	29.1	8.5	48	50	HP-3	TRANE	4TR5048N1000A	240/1/60	1	24	40	19.4	EXCLUDE 8,18
AHU-1	TRANE	TEM40C61M51	240/1/60	.46	N/A	2000	32.0	1-1/8	3/8	15.2	7.7	57.3	42.6	54.9	36.2	8.5	48	50	HP-1	TRANE	4TR5060N1000A	240/1/60	1	28	50	22.9	EXCLUDE 8,18

** PROVIDE OUTDOOR THERMOSTAT TO LOCK OUT SUPPLEMENTAL ELECTRIC HEAT AT OUTDOOR TEMPERATURES ABOVE 40F.

ACCESSORIES

- | | | |
|-------------------------------|---|--|
| 1 TIME-DELAY RELAY | 7 LIQUID SOLENOID VALVE | 13 DISCHARGE LINE MUFFLER |
| 2 CYCLE PROTECTOR | 8 LOW-AMBIENT CONTROLLER | 14 SUCTION AND LIQUID LINE SHUT OFF VALVES |
| 3 EVAPORATOR FREEZE PROTECTOR | 9 FILTER DRIER (LIQUID LINE) | 15 THERMOSTAT (SEE NOTE) |
| 4 ISOLATION RELAY | 10 OUTDOOR T-STAT TO LOCK OUT AUX. HT. (SET @ 40° F ADJ.) | 16 SUPPORT FEET |
| 5 TXV | 11 LOW PRESSURE CONTROL | 17 COIL GUARDS |
| 6 HIGH PRESSURE SWITCH | 12 CRANKCASE HEATER | 18 HUMIDISTAT |

COOLING CAPACITY @ 80 DEG. F DB/67 DEG. WB AIR ENTERING INDOOR UNIT & 95 DEG. F DB AIR ENTERING OUTDOOR UNIT
 HEATING CAPACITY: HIGH TEMP = 70 DEG. F DB INDOOR EAT & 47 DEG. F DB/43 DEG. F WB AIR ENTERING OUTDOOR UNIT
 LOW TEMP = 70 DEG. F DB INDOOR EAT & 17 DEG. F DB/15 DEG. F WB ENTERING OUTDOOR UNIT
 T-STAT: THE NUMBER OF STAGES OF HEATING/COOLING SHALL MATCH THE NUMBER OF STAGES OF HEAT AVAILABLE IN THE HPU
 OR THE NUMBER OF STAGES OF COOLING AVAILABLE IN THE HPOU. PROVIDE WITH T-STAT; 7 DAY PROGRAMMABLE, DIGITAL.

REGISTER, GRILLE, & DIFFUSER SCHEDULE*

MARK	DESCRIPTION	MAX. NC	NECK	BORDER TYPE	MATERIAL	FINISH	MANUFACTURER	MODEL NUMBER	ACCESSORIES / NOTES
A	DIFFUSER-4-WAY	30	9"X9"	LAY-IN	STEEL	WHITE	TITUS	TDC 9X9 3 26 4	SQ-TO-RND
B	DIFFUSER-2-WAY	30	6"X6"	LAY-IN	STEEL	WHITE	TITUS	TDC 6X6 3 26 2	SQ-TO-RND
C	SIDEWALL DIFFUSER	30	12"X6"	SURFACE	STEEL	WHITE	TITUS	12IRS	SQ-TO-RND
R	RETURN GRILLE	30	20"X20"	LAY-IN	STEEL	WHITE	TITUS	23RFL 24X24 3 26	SQ-TO-RND
R1	RETURN GRILLE	30	12"X12"	SURFACE	STEEL	WHITE	TITUS	23RFL 24X24 1 26	SQ-TO-RND

* VERIFY CEILING TYPE BEFORE ORDERING, NARROW TEE REQUIREMENTS, PLASTER FRAMES ETC. TO BE INCLUDED WITH DIFFUSERS AT NO ADDITIONAL COST TO OWNER

EXHAUST FAN SCHEDULE

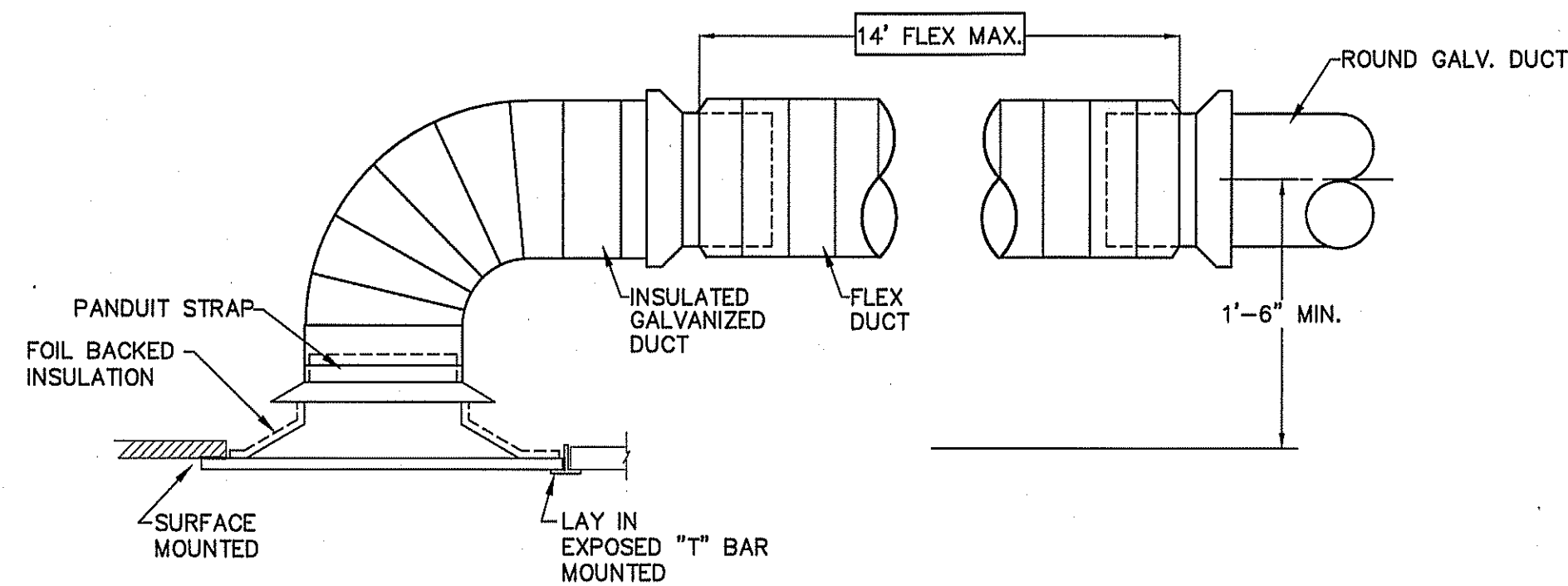
MARK	MAKE	MODEL	TYPE	CFM	EXTERNAL S.P. IN (W.G.)	AMPS	ELECTRICAL			NOTES
							VOLT	PH	HZ	
EF-1,2	GREENHECK	SP-A90	CEILING FAN	70	.125	.34	115	1Ø	60	WC-8 WALL CAP

LOUVER SCHEDULE

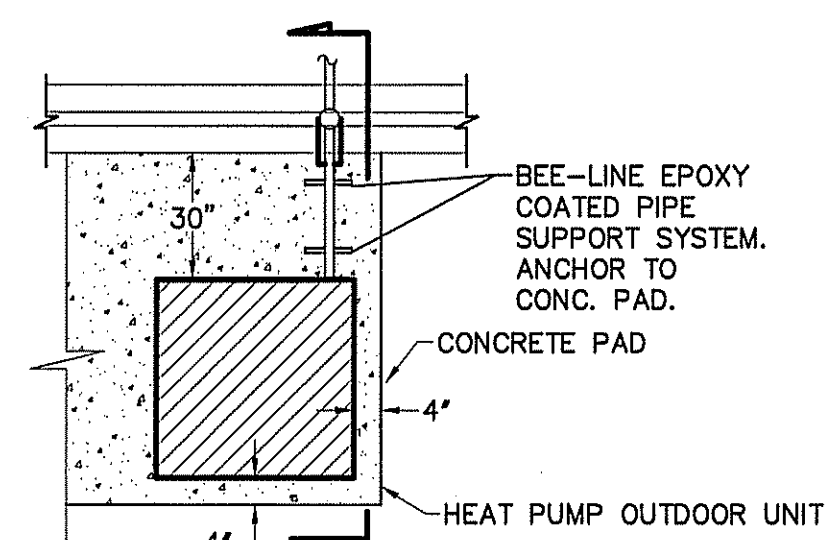
MARK	DESCRIPTION	SERVES	CFM	APPROXIMATE OUTSIDE DIMENSIONS (W X H)	MODEL
L1	OUTSIDE AIR LOUVER	AHU-2&3	164	12"X12"	HART & COOLEY 1530ZF 12X12 W/ INSECT SCREEN
L2	OUTSIDE AIR LOUVER	AHU-1	255	12"X18"	HART & COOLEY 1530ZF 12X18 W/ INSECT SCREEN

MECHANICAL NOTES (GENERAL)

- DUCTWORK LAYOUTS ARE SCHEMATIC. ALL RISES, DROPS, OFFSETS, AND TRANSITIONS REQUIRED BUT ARE NOT SHOWN SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- DUCTWORK SHALL BE GALVANIZED STEEL AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH SMACNA STANDARDS FOR LOW VELOCITY DUCTWORK. DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. FLEXIBLE RUNOUTS SHALL NOT EXCEED 15' AND SHALL NOT BE USED TO FORM ELBOWS. CONNECTIONS FROM RECTANGULAR TO ROUND DUCT SHALL BE MADE WITH MANUFACTURED 45 DEG. LATERAL TAPS.
- ALL DUCTWORK SHALL BE SEALED AIR TIGHT WITH SEALING COMPOUND.
- ALL ELBOWS IN DUCTWORK SHALL BE RADIUS ELBOWS, UNLESS NOTED OTHERWISE. WHERE SQUARE ELBOWS ARE SHOWN, INSTALL TURNING VANES. DUCT SIZES SHOWN ARE NET INTERIOR DIMENSIONS.
- THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER TRADES PRIOR TO INSTALLATION OF ANY OF HIS PIPING, DUCTWORK, OR EQUIPMENT.
- THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE ENGINEER.
- IT WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER HIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE AND INTENT MEANING OF THE PLANS AND SPECIFICATIONS. HE SHALL PROVIDE THE ENGINEER SCALED DRAWINGS OF ALL MECHANICAL DRAWINGS.
- ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE.
- PROVIDE FACTORY OR FIELD INSTALLED DRAIN PANS UNDER ALL COOLING COIL UNITS. INSTALL DRAIN PAN FLOAT TO SHUT DOWN UNIT FAN IN EVENT THAT CONDENSATE BEGINS TO FILL EMERGENCY DRAIN PAN. RUN ALL CONDENSATE DRAIN LINES TO APPROPRIATE DRAIN.

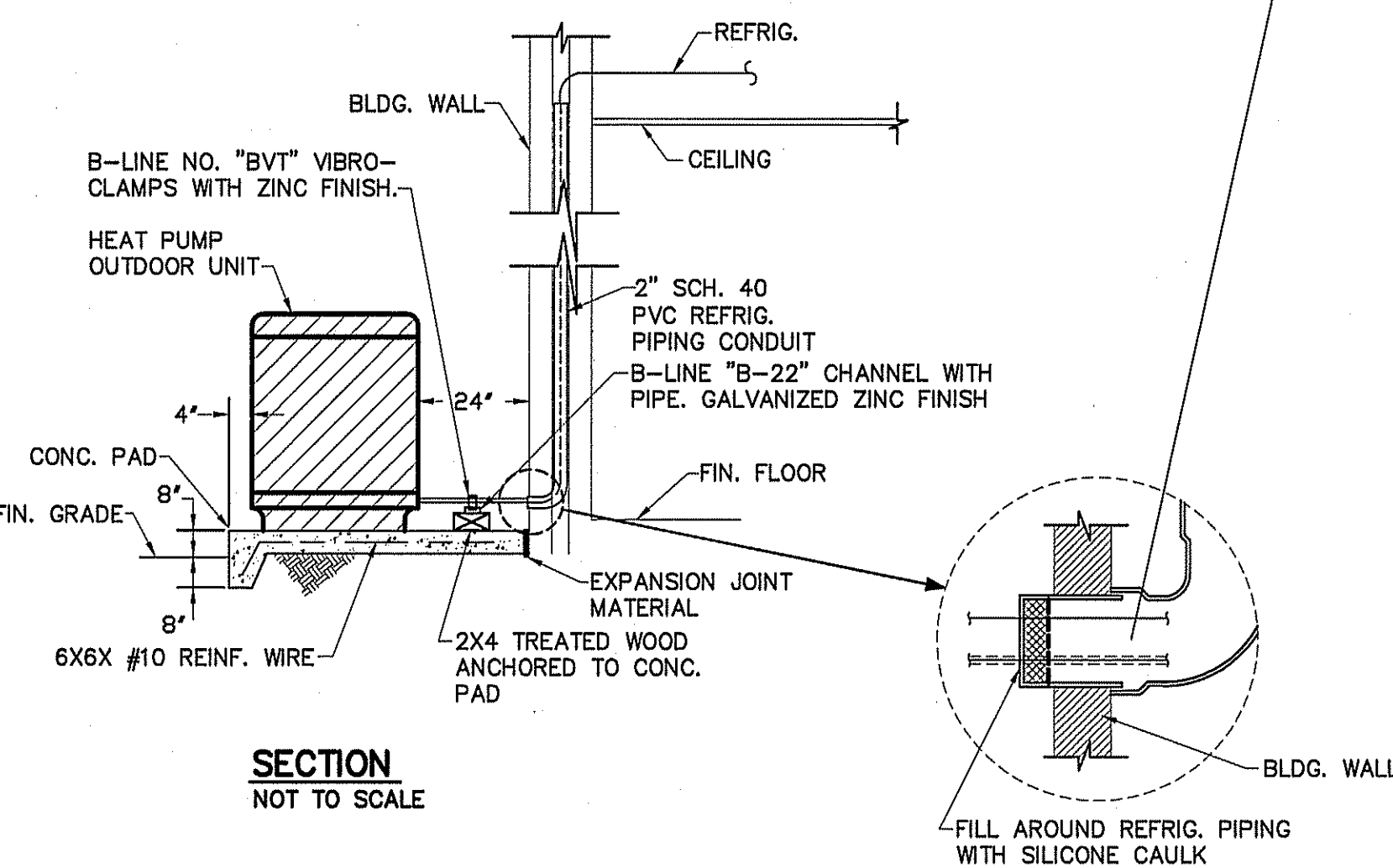


DETAIL-CEILING DIFFUSER CONNECTION
NOT TO SCALE

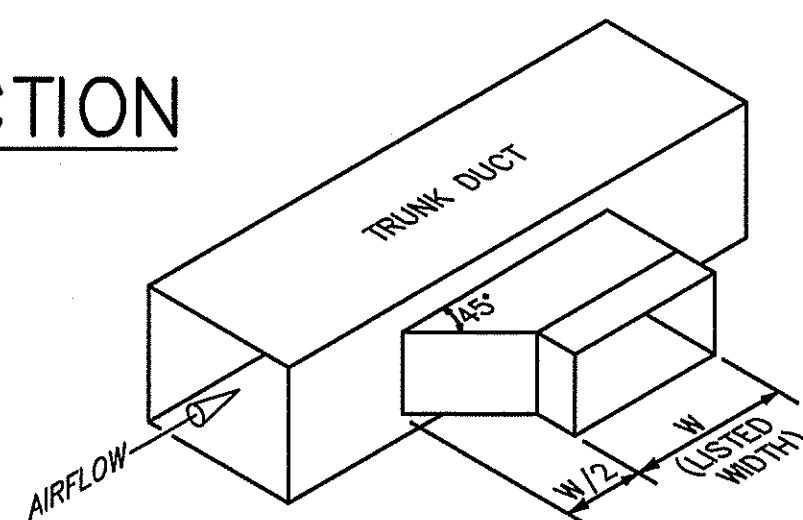


PLAN VIEW
NOT TO SCALE

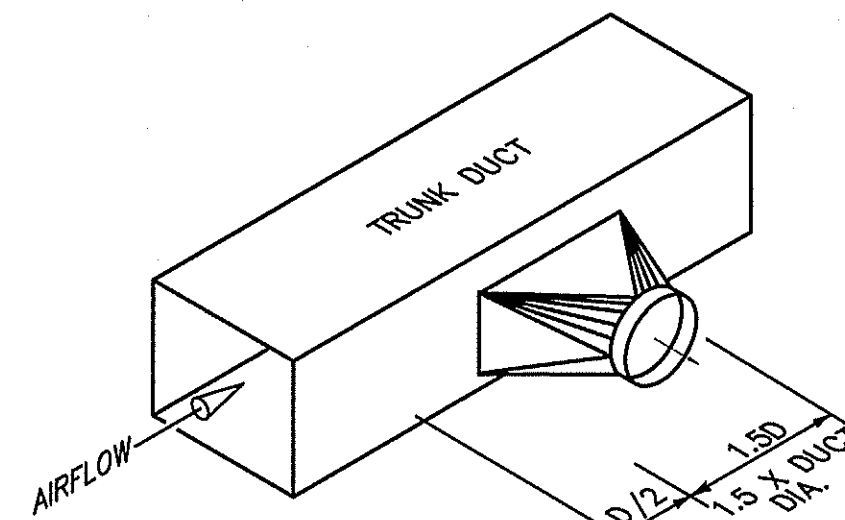
LEAVE A 1/4" SPACE AT CONDUIT FACE & FILL WITH CLOSED CELL NEOPRENE FOAM INSULATION TO PROVIDE BACKING FOR SILICONE CAULKING



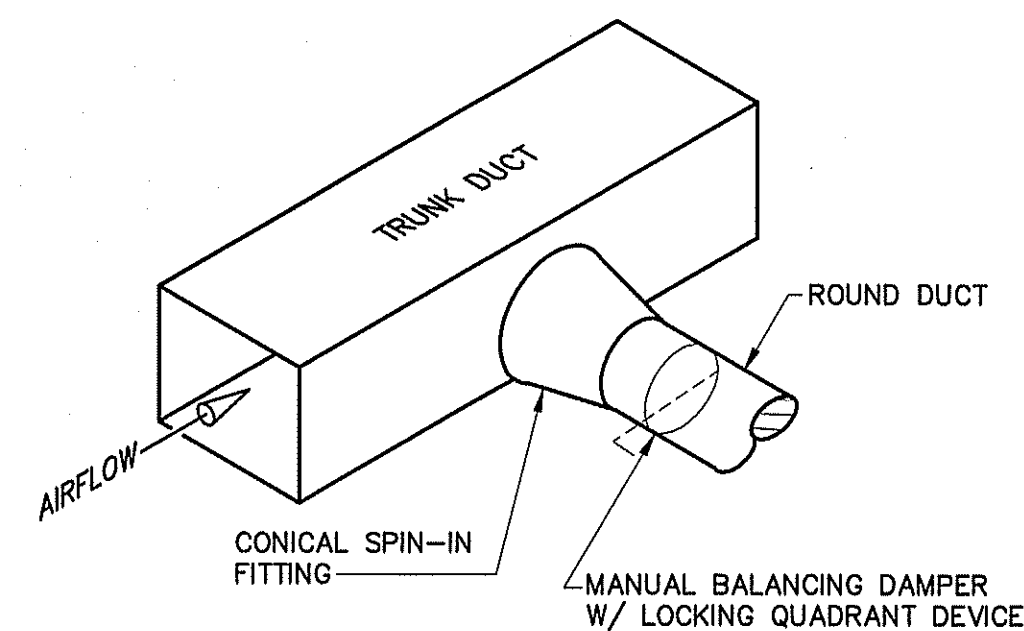
SECTION
NOT TO SCALE



RECTANGULAR



ROUND



DIFFUSER

TYPICAL LATERAL TO REGISTER OR BRANCH DUCT
NOT TO SCALE

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
THERMAL ZONE 4A - HARNETT COUNTY, NC
EXTERIOR DESIGN CONDITIONS

WINTER DRY BULB 16 DEG. F.
SUMMER DRY BULB 93 DEG. F.

INTERIOR DESIGN CONDITIONS

WINTER DRY BULB 59 DEG. F.
SUMMER DRY BULB 78 DEG. F.
RELATIVE HUMIDITY 55%

BUILDING HEATING LOAD 63.5 MBH

BUILDING COOLING LOAD 11 TONS

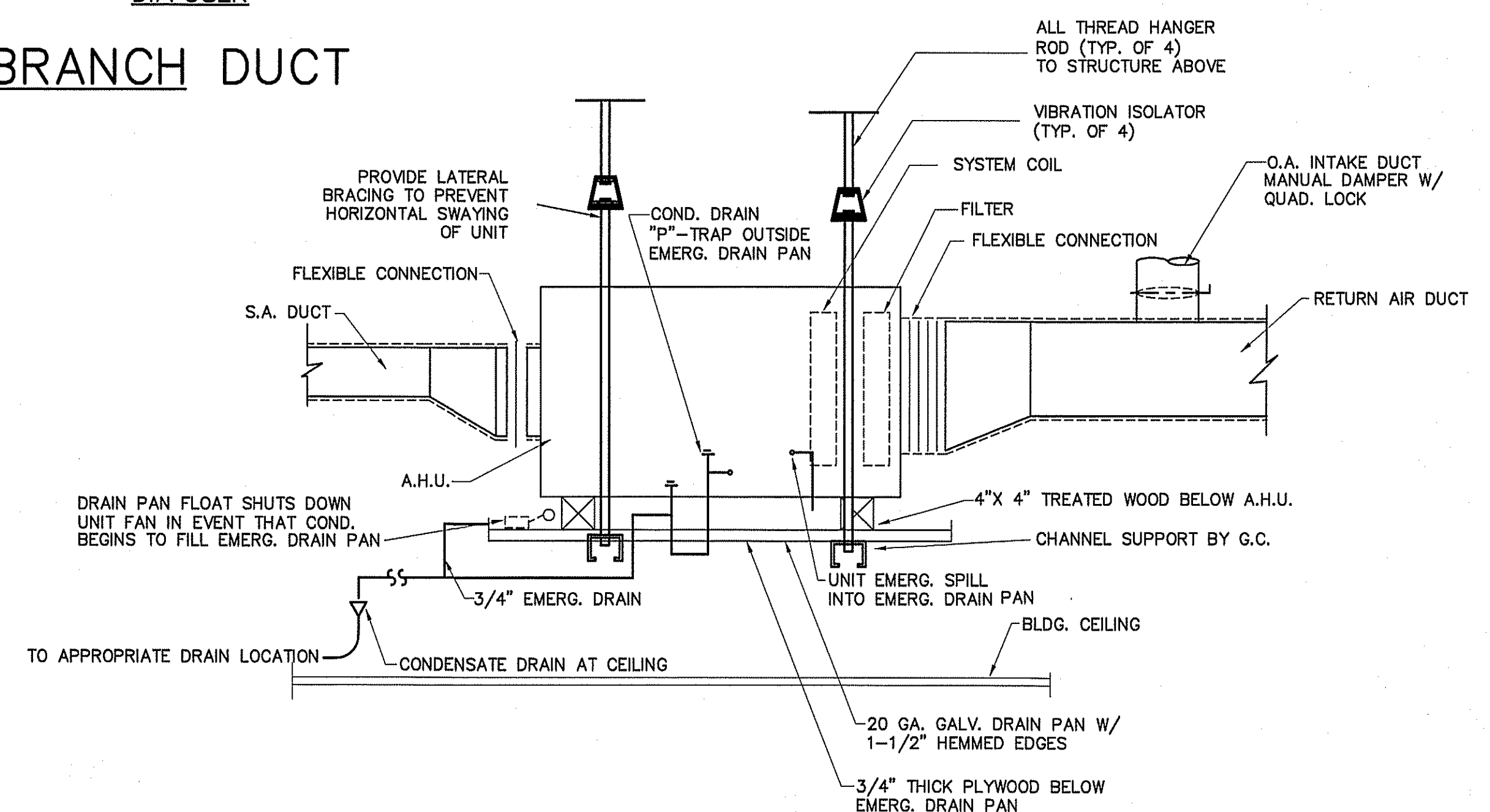
MECHANICAL SPACE CONDITIONING SYSTEM

UNITARY
DESCRIPTION OF UNIT - HEAT PUMP
HEATING EFFICIENCY - 8.5 HSPF
COOLING EFFICIENCY - 15.2 SEER
SIZE CATEGORY OF UNIT - < 65,000 BTUH

BOILER
SIZE CATEGORY. IF OVERSIZED, STATE REASON: N/A

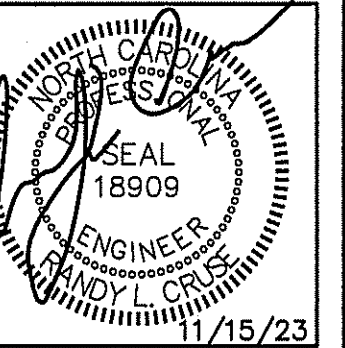
CHILLER
SIZE CATEGORY. IF OVERSIZED, STATE REASON: N/A

LIST EQUIPMENT EFFICIENCIES SEE SCHEDULE



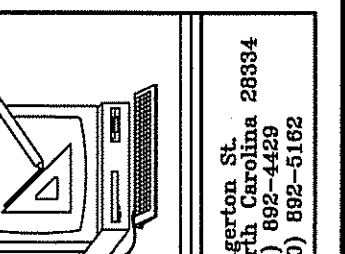
TYPICAL DETAIL AT AIR HANDLING UNITS
NOT TO SCALE

DETAIL-TYPICAL HEAT PUMP
OUTDOOR UNIT
NOT TO SCALE



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
NO.	



14 E. Main St.
Durham, North Carolina 28834
TEL: (919) 486-4429
FAX: (919) 486-5028

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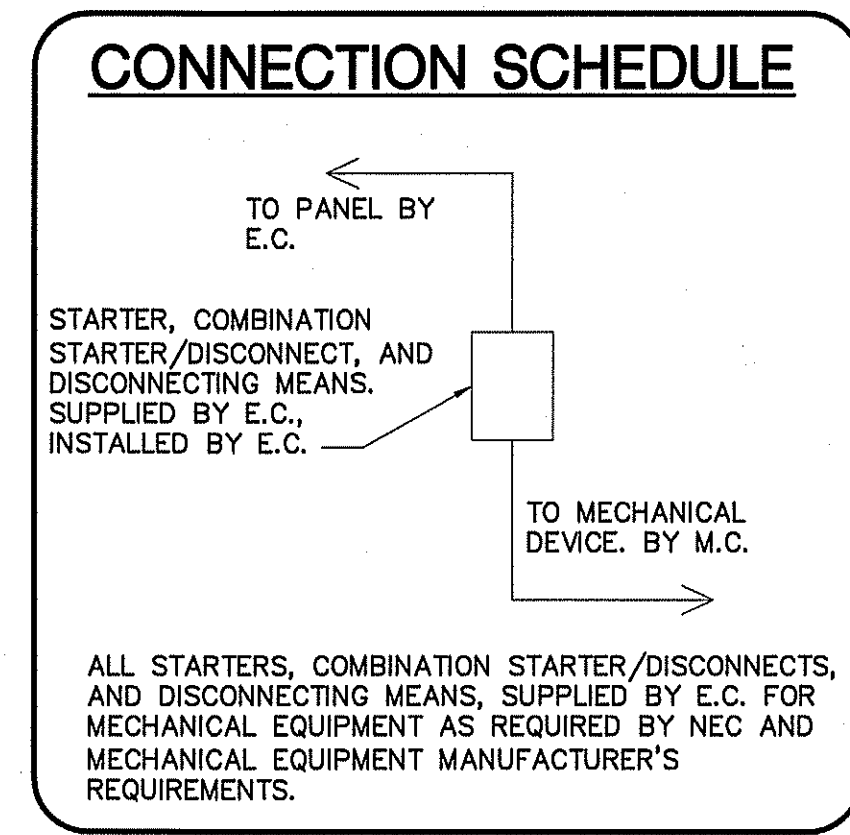
SHEET NO.
M-2 OF 2

ELECTRICAL LEGEND	
MARK	DESCRIPTION
⊕ WP	"GFI" DUPLEX WITH WEATHERPROOF COVER
⊕ GFI	GROUND FAULT INTERRUPTING RECEPTACLE
⊕ IG	208V OR 240 V RECEPTACLE
◀	TELEPHONE/DATA OUTLET
⊠	JUNCTION BOX
⊠	FUSED DISCONNECT SWITCH
⊠	"STEEL CITY" FLOOR BOX WITH CAT 5E CABLE FOR DATA
↔	SWITCHED BRANCH CIRCUIT
↔	UNSWITCHED BRANCH CIRCUIT
↔	120/208 VOLT CIRCUIT
⊕	CEILING OR ATTIC MOUNTED DUPLEX RECEPTACLE
⊕	LIGHT FIXTURE (WALL/CEIL.)
⊕	FLUORESCENT FIXTURE
⊕ N/L	UNSWITCHED FIXTURE
⊕	"EXIT" LIGHT FIXTURE, TYPE "EX"
⊕	BATTERY OPERATED EMERG. LT. (2-HEAD, WALL MTD.)
⊕	SINGLE-POLE SWITCH
⊕ ₃₍₄₎	3-WAY SWITCH (4-WAY SWITCH)
⊕	DUPLEX RECEPTACLE
⊕	CEILING MOUNTED RECEPTACLE
⊕	EMERGENCY LIGHT REMOTE WEATHERHEAD(S)
⊕ ₀	WALL MOUNTED OCCUPANCY SENSOR WITH SWITCH
⊕ ₀	CEILING MOUNTED OCCUPANCY SENSOR

LIGHT FIXTURE SCHEDULE							
MARK	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMPS	BALLASTS	WATTAGE	REMARKS
A	2X4 LED FLAT PANEL LAY-IN	LITHONIA	CPANL 2X4 40/50/60LM 35K-40LM-60LM	LED		42.0	INCLUDE WSX D DIMMING OCCUPANCY WALL SWITCH
B	2X4 LED FLAT PANEL LAY-IN	LITHONIA	CPANL 2X4 40/50/60LM 35K-40LM-60LM	LED		32.0	4000 LUMEN
C	2X4 LED FLAT PANEL	LITHONIA	CPANL 2X4 40/50/60LM 35K-40LM-60LM**	LED		42.0	INCLUDE WSX D DIMMING OCCUPANCY WALL SWITCH
C1	1X4 LED FLAT PANEL LAY-IN	LITHONIA	CPXTW 1X4 TUWH PROR 4000LM 80CRI SWL MVOLT NLT	LED		35.2	
D	LED WALL EXTERIOR LIGHT SELECTED BY OWNER			LED		25	
EM	EMERGENCY LIGHT WITH BATTERY BACKUP	SURE-LITES	CCBMR21425M				
EX	LED TYPE EXIT LIGHT WITH BATTERY BACKUP	SURE-LITES	LPX 70 RWH 120/277				
EM2	EMERGENCY LIGHT REMOTE WEATHERHEAD(S)	SURE-LITES	12T-12-WWH OR 12T-12-DWWH OR EQUAL				

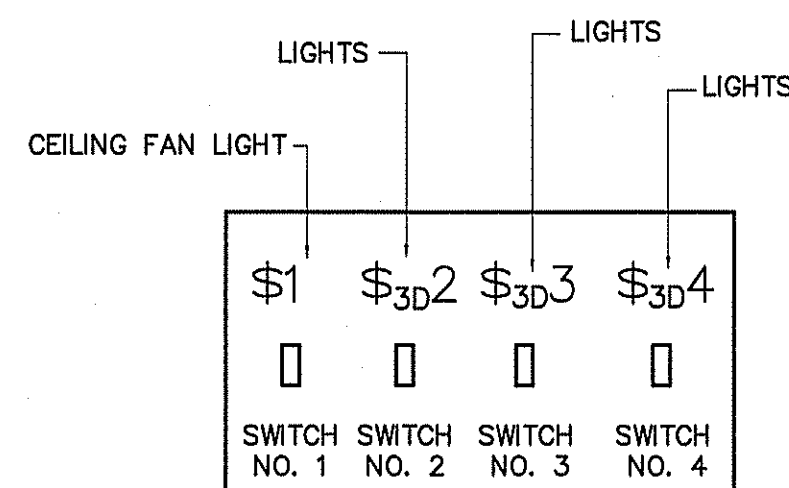
FIXTURES SELECTED BY OWNER AND PURCHASED BY CONTRACTOR
 * BEFORE PURCHASING, VERIFY EXTERIOR FIXTURES MEET ZONING ORDINANCE
 ** INCLUDE HANGERS FOR FIXTURES IN FITNESS AREA TO BE HUNG APPROXIMATELY 12' & BELOW THE DUCT WORK.

LIGHTING DATA FOR ENERGY CODE (CENTER TENANT)					
AREA USE	AREA FT ²	WATTS PER FT ² ALLOWED	TOTAL WATTS ALLOWED	TOTAL WATTS USED	TOTAL WATTS LEFT OVER
GYM	3500	1.7	5950	1754	4196
TOTAL	3500		5950	1754	4196

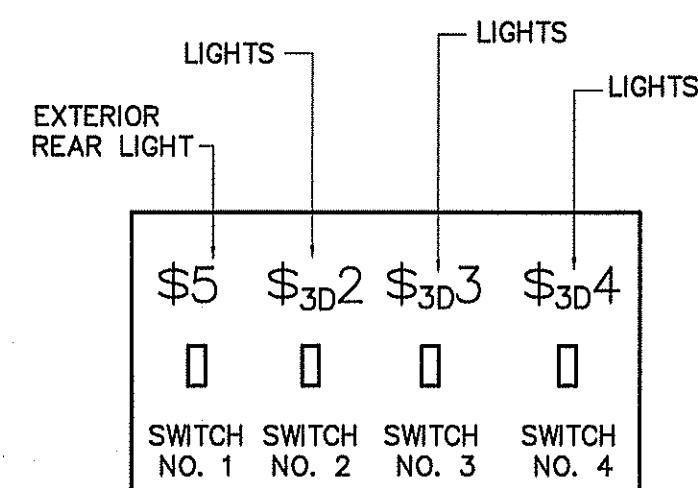


NOTE:
 COORDINATE LIGHT FIXTURE HEIGHT & LOCATION WITH LOCATION & HEIGHT OF DUCTWORK.

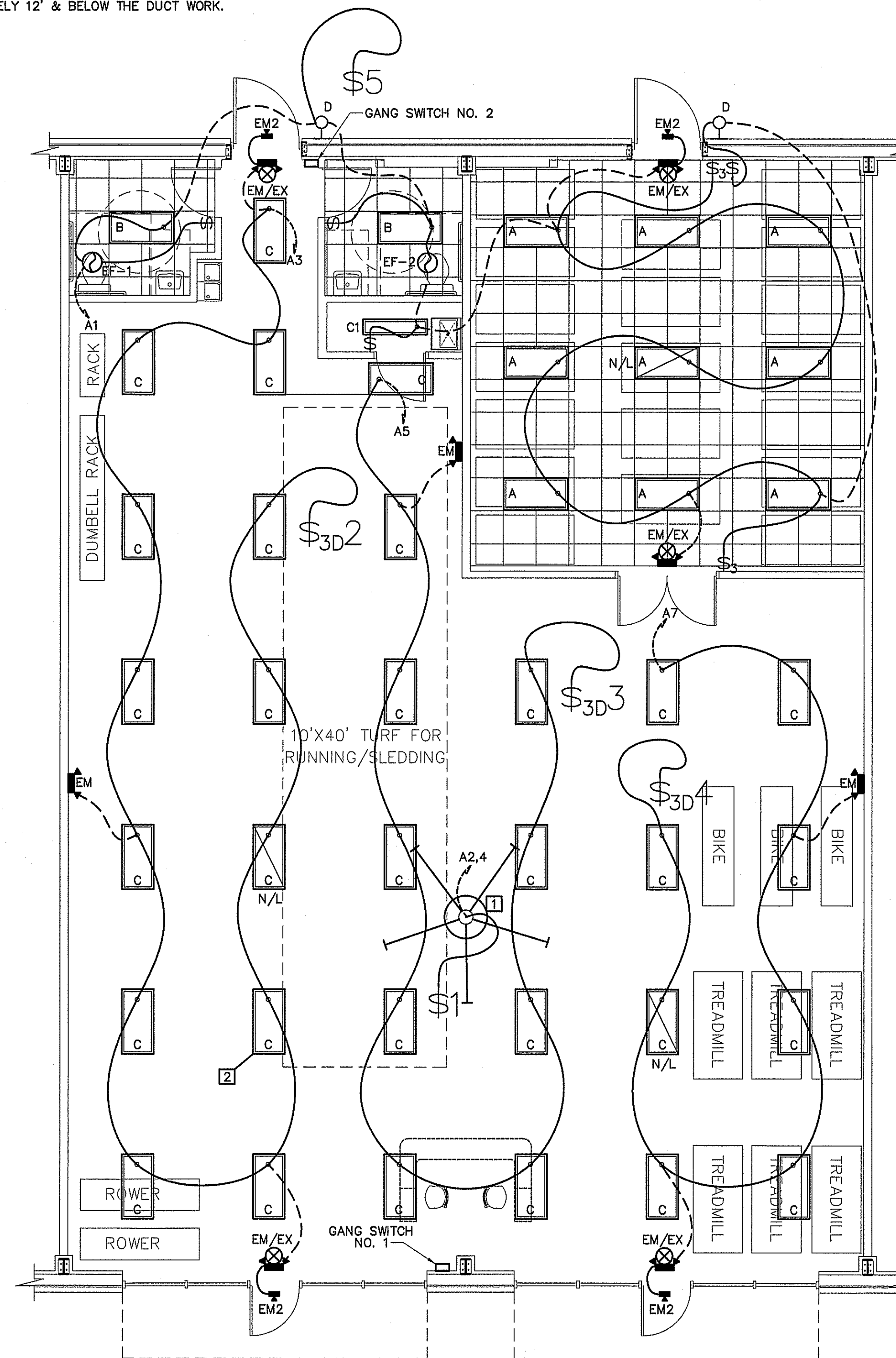
- KEYNOTES:**
- 1 FAN SELECTED BY OWNER/CONTRACTOR
 - 2 LIGHT FIXTURE MOUNTED @ 12' A.F.F. & BELOW DUCTWORK IN AREA WITH OPEN CEILING.



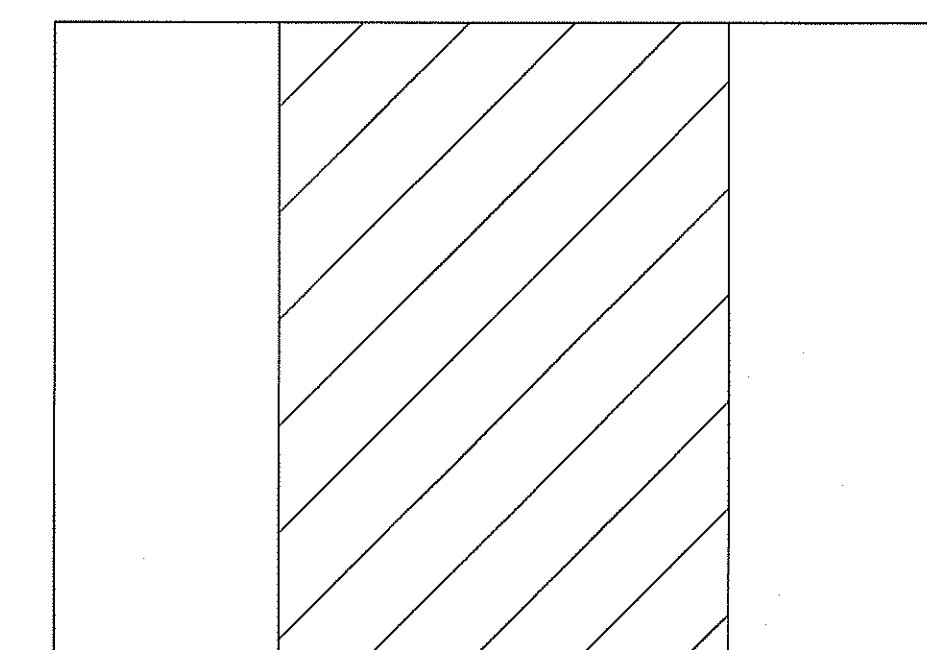
DETAIL-GANG SWITCH NO. 1
 NOT TO SCALE



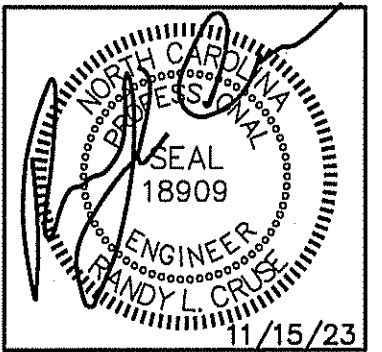
DETAIL-GANG SWITCH NO. 2
 NOT TO SCALE



ELECTRICAL LIGHTING PLAN
 SCALE: 3/16" = 1'-0"



KEY PLAN



UP-FIT PLANS FOR:
 T&L COATS
 BUILDING #2
 COATS, NORTH CAROLINA

REVISIONS	
NO.	

414 E. Robertson St.
 Durham, North Carolina 28834
 PHONE: (919) 892-5128
 FAX: (919) 892-5128

Cruse And Associates, P.A.

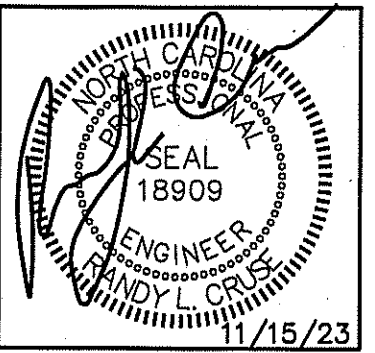
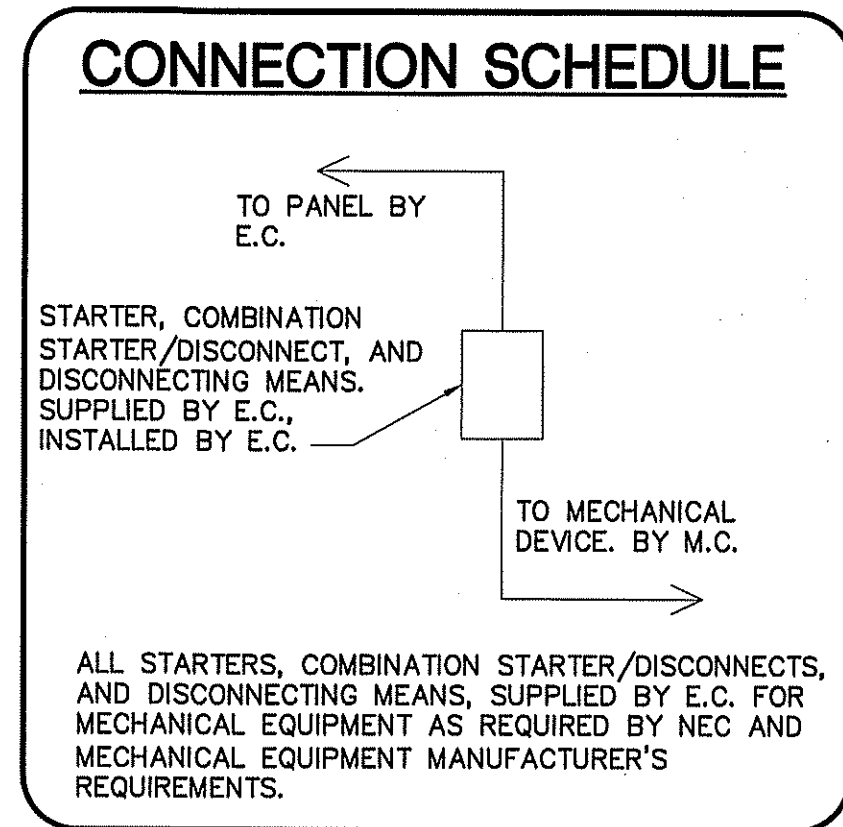
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 JOB NO. 23-31

SHEET NO.
E-1 OF 3

ELECTRICAL LEGEND	
MARK	DESCRIPTION
⊕ WP	'GFI' DUPLEX WITH WEATHERPROOF COVER
⊕ GFI	GROUND FAULT INTERRUPTING RECEPTACLE
⊕ IG	208V OR 240 V RECEPTACLE
◀	TELEPHONE/DATA OUTLET
⊠	JUNCTION BOX
⊠	FUSED DISCONNECT SWITCH
⊠	"STEEL CITY" FLOOR BOX WITH CAT 5E CABLE FOR DATA
↔	SWITCHED BRANCH CIRCUIT
↔	UNSWITCHED BRANCH CIRCUIT
↔	120/208 VOLT CIRCUIT
⊕	CEILING OR ATTIC MOUNTED DUPLEX RECEPTACLE
⊕	LIGHT FIXTURE (WALL/CEIL.)
⊕	FLUORESCENT FIXTURE
⊕ N/L	UNSWITCHED FIXTURE
⊕	'EXIT' LIGHT FIXTURE, TYPE 'EX'
⊕	BATTERY OPERATED EMERG. LT. (2-HEAD, WALL MTD.)
⊕	SINGLE-POLE SWITCH
⊕ ₍₄₎	3-WAY SWITCH (4-WAY SWITCH)
⊕	DUPLEX RECEPTACLE
⊕	CEILING MOUNTED RECEPTACLE
⊕	EMERGENCY LIGHT REMOTE WEATHERHEAD(S)
⊕	WALL MOUNTED OCCUPANCY SENSOR WITH SWITCH
⊠	FLOOR BOX WITH (2) DUPLEX OUTLETS

NOTE:
VERIFY LOCATION OF RECEPTACLES FOR TREADMILLS BEFORE BEGINNING CONSTRUCTION.



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
NO.	

Cruse And Associates, P.A.

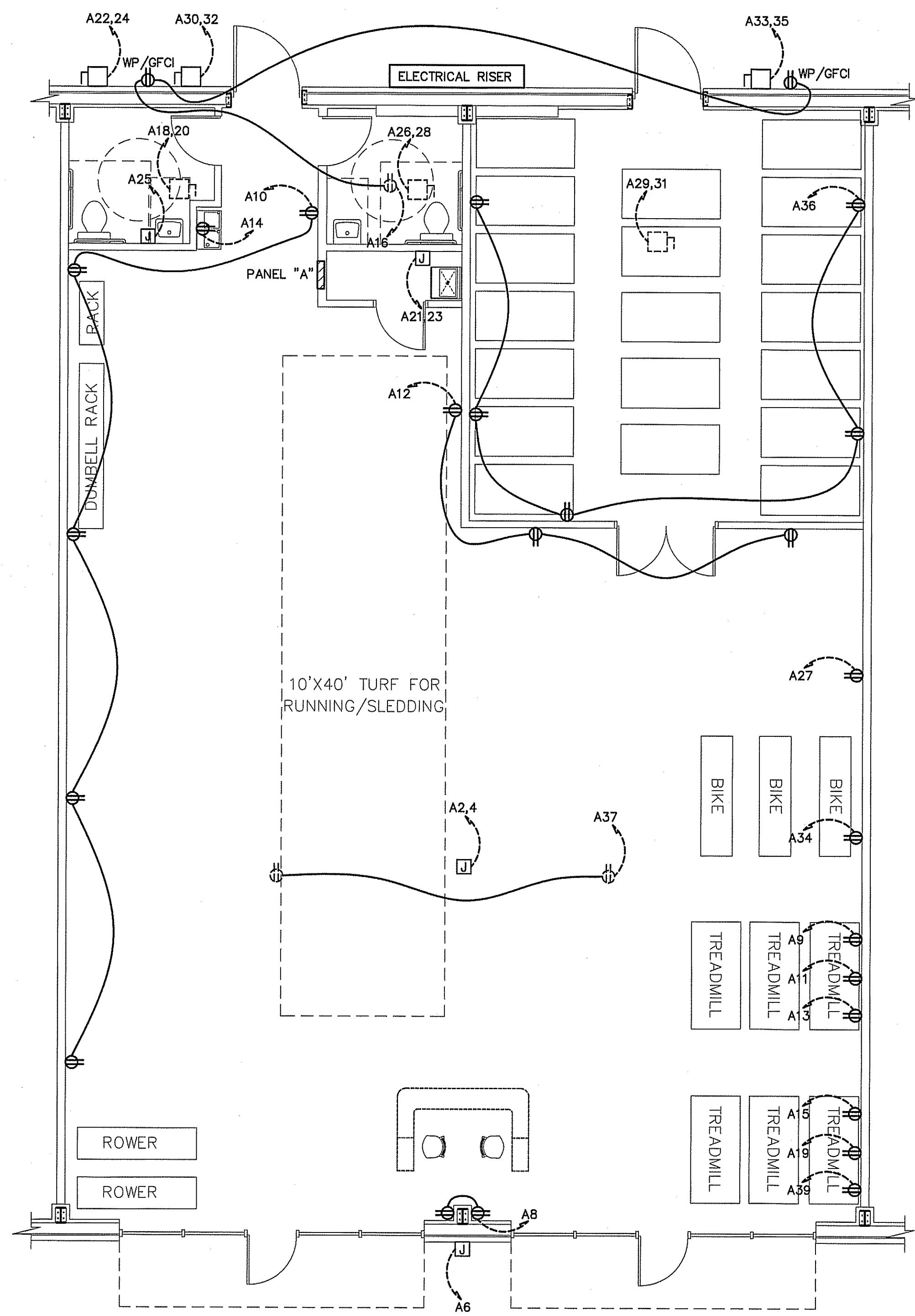
414 E. Blagden St.
Raleigh, NC 27601
PHONE: (919) 802-4489
FAX: (919) 892-5182

LICENSE NO.: C-17921

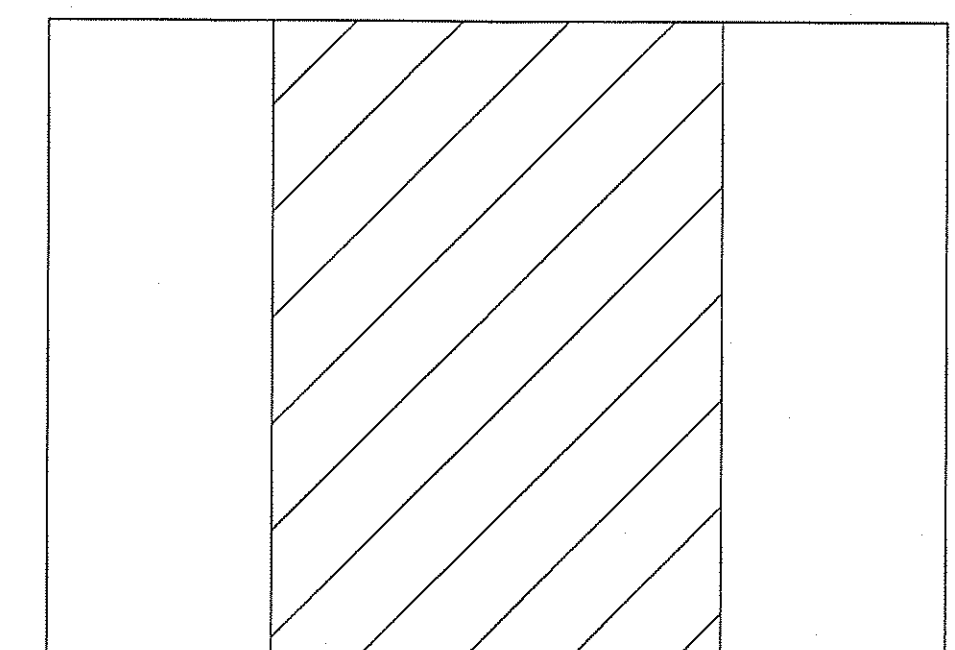
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E-2 OF 3

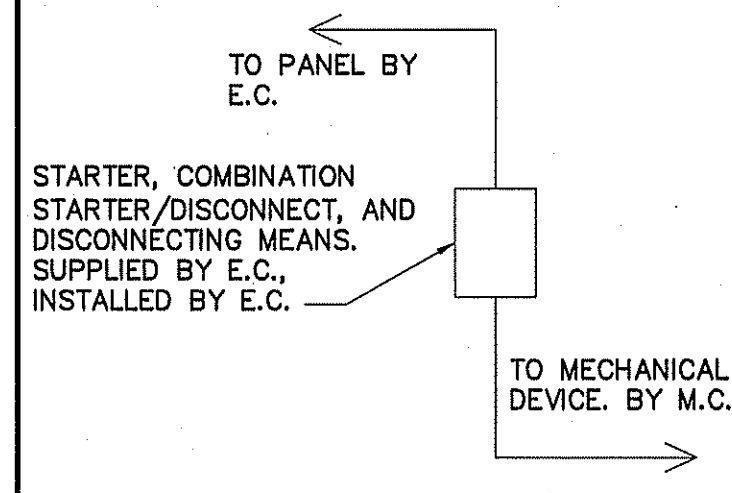


ELECTRICAL POWER PLAN
SCALE: 3/16" = 1'-0"



KEY PLAN

CONNECTION SCHEDULE



ALL STARTERS, COMBINATION STARTER/DISCONNECTS, AND DISCONNECTING MEANS, SUPPLIED BY E.C. FOR MECHANICAL EQUIPMENT AS REQUIRED BY NEC AND MECHANICAL EQUIPMENT MANUFACTURER'S REQUIREMENTS.

FEEDER SCHEDULE

UNIT	FEEDERS	FUSED DISCONNECT	CONDUIT
HP-2	2#12CU,1#12CU GND	30	3/4"
HP-1,3	2#10CU,1#12CU GND	60	3/4"
AHU-1,2,3	2#8CU,1#10CU GND	60	3/4"
POINT OF USE WATER HEATER	2#10CU,1#12CU GND	30	3/4"

ELECTRICAL LOAD CALCULATIONS

	VA
3500 SQUARE FEET	
NONCONTINUOUS LOADS:	
19 RECEPTACLES @ 180 VA EA.	3420
1ST 10000	0
REMAINDER @ 50%	0
TOTAL	3420
CONTINUOUS LOADS:	
GENERAL LIGHTING LOAD VA/SQ. FT.	
3500 SQ. FT. 1.7	5950
5950 X 1.25	7438
AIR HANDLER UNITS	23040
HEAT PUMPS	12720
EQUIPMENT:	20,176
25% OF LARGEST MOTOR	1464
GRAND TOTAL	68,258
284 AMPS @ 120/240V, 1ø, 60HZ	

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE:

ENERGY CODE: PRESCRIPTIVE PERFORMANCE
 ASHRAE 90.1: PRESCRIPTIVE PERFORMANCE

REFER TO DRAWINGS FOR RISER DIAGRAM AND PANEL SCHEDULES

LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE: SEE SCHEDULE

NUMBER OF LAMPS IN FIXTURE:
 BALLASTS TYPE USED IN FIXTURE:
 NUMBER OF BALLASTS IN FIXTURE:
 TOTAL WATTAGE PER FIXTURE:
 TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED:
 TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED:

ADDITIONAL PRESCRIPTIVE COMPLIANCE

- 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
- 506.2.2 REDUCED LIGHTING POWER DENSITY
- 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
- 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
- 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
- 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEMS

PANEL: A	SCHEDULE:	MANUFACTURER: SQ. D	NO. OF SPACES: 42
VOLTS: 120/240	AMPS: 400	TYPE: "NOD"	MOUNTING: FLUSH
ENCLOSURE: NEMA 1	Ø: 1	SHORT CIRCUIT RATING: 22K	
MAIN <input checked="" type="checkbox"/>	M.L.O. <input type="checkbox"/>	TOP FEED <input type="checkbox"/>	BOTTOM FEED <input type="checkbox"/>
		COPPER BUS <input checked="" type="checkbox"/>	GROUND BAR KIT <input type="checkbox"/>
		NEUTRAL BAR KIT <input checked="" type="checkbox"/>	

L1	L2	CIRCUIT	POLES	TRIP	ASSIGNMENT	PHASE	ASSIGNMENT	TRIP	POLES	CIRCUIT	L1	L2
5.1		1	1	20	REAR AREA LTS./EX. FANS	o	LARGE FAN	20	2	2	5.4	
	4.6	3	1	20	ROWS 1 & 2 LIGHTING	o						5.4
3.5		5	1	20	ROWS 3 & 4 LIGHTING	o	BUILDING SIGN	20	1	6	5.0	
	2.8	7	1	20	ROWS 5 & 6 LIGHTING	o	FRONT DESK RECEPTACLES	20	1	8		3.0
12.0		9	1	20	TREADMILL	o	CONVENIENT RECEPTACLES	20	1	10	7.5	
	12.0	11	1	20	TREADMILL	o	CONVENIENT RECEPTACLES	20	1	12		4.5
12.0		13	1	20	TREADMILL	o	DRINKING FOUNTAIN	20	1	14	5.6	
	12.0	15	1	20	TREADMILL	o	HVAC CONV. RECEPTACLES	20	1	16		4.5
X		17	1	20	SPARE	o	AIR HANDLING UNIT #1	50	2	18	32.0	
	12.0	19	1	20	TREADMILL	o				20		32.0
23.0		21	2	25	POINT OF USE WATER HEATER	o	HEAT PUMP UNIT #1	50	2	22	22.9	
	23.0	23				o				24		22.9
29.1		25	1	30	POINT OF USE WATER HEATER	o	AIR HANDLING UNIT #2	45	2	26	32.0	
	12.0	27	1	20	EQUIPMENT	o				28		32.0
32.0		29	1	50	AIR HANDLING UNIT #3	o	HEAT PUMP UNIT #2	25	1	30	10.7	
	32.0	31				o				32		10.7
19.4		33	1	40	HEAT PUMP UNIT #3	o	CONV. BIKE RECEPTACLE	20	1	34	1.5	
	19.4	35				o	YOGA ROOM RECEPTACLES	20	1	36		7.5
7.0		37	1	20	CEILING MOUNTED TELEVISIONS	o	SPARE	20	1	38	X	
	12.0	39	1	20	TREADMILL	o	SPARE	20	1	40		X
X		41	1	20	SPARE	o	SPARE	20	1	42	X	

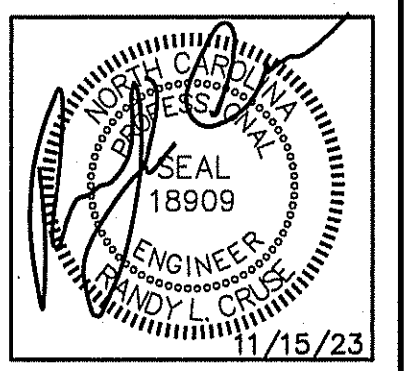
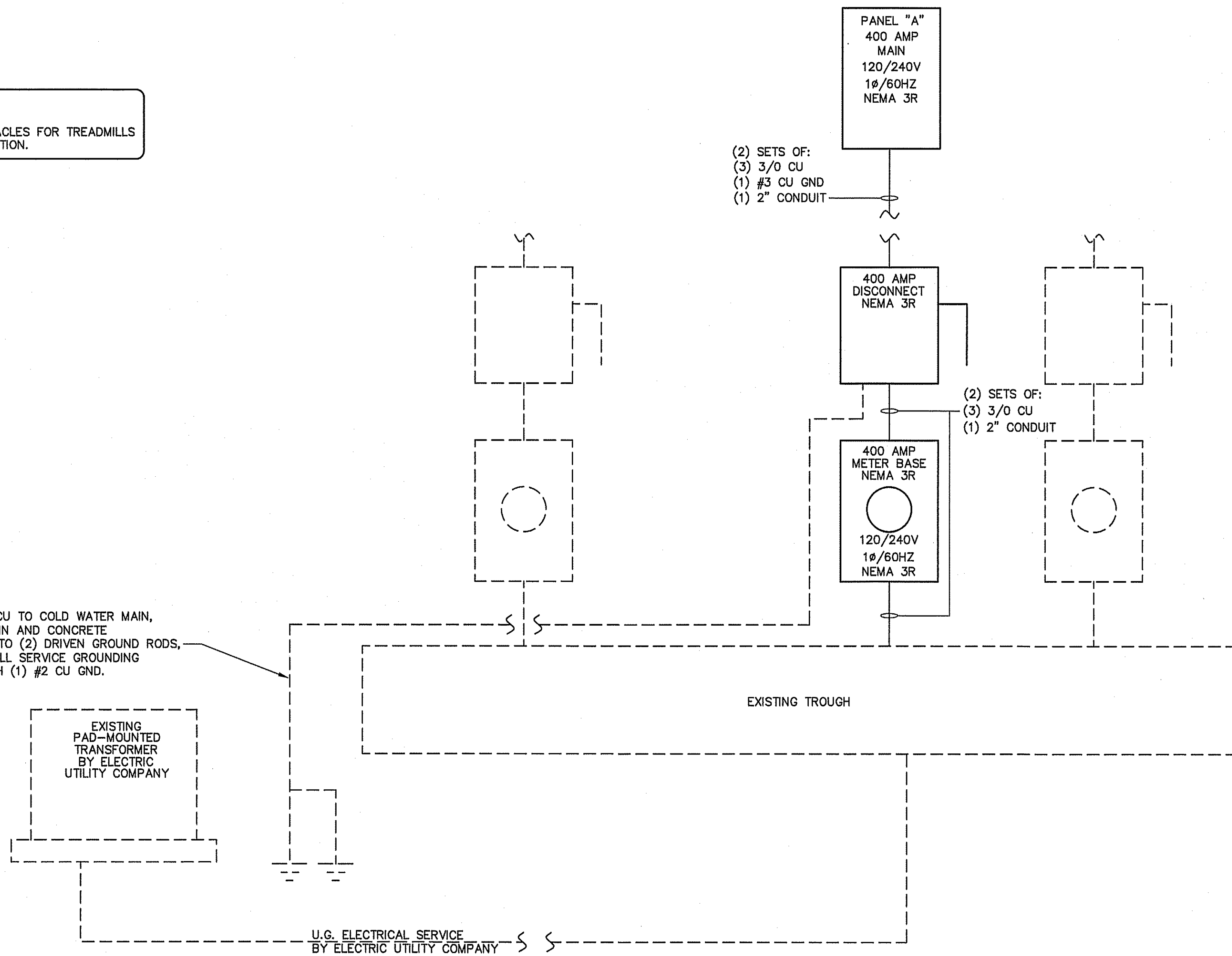
L1 = 265.7 A
 L2 = 264.3 A

ELECTRICAL NOTES (GENERAL)

1. THE ELECTRICAL INSTALLATION, EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL, AS A MINIMUM, BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), ALL APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL CODES, LAWS, AND ORDINANCES, AND RULINGS OF THE INSPECTION AUTHORITIES HAVING JURISDICTION. ALL FEES, PERMITS, ETC., ASSOCIATED WITH THE ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
2. THE DRAWINGS GENERALLY INDICATE THE WORK TO BE INSTALLED, BUT DO NOT SHOW ALL BENDS, BOXES, FITTINGS, AND SPECIALTIES WHICH MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SUCH ITEMS REQUIRED TO COMPLETE THE INSTALLATION ACCORDING TO INDUSTRY ACCEPTED PRACTICES SHALL BE INCLUDED IN THE BID.
3. ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND LISTED AND LABELED BY UNDERWRITERS LABORATORIES, INC.
4. ALL PENETRATIONS OF FIRE WALLS SHALL BE SEALED WITH APPROVED SEALING MATERIALS TO MAINTAIN THE FIRE RATING OF THE WALLS.
5. THE CONTRACTOR SHALL VERIFY WIRE AND FUSE/CIRCUIT BREAKER SIZING FOR ALL MECHANICAL EQUIPMENT PRIOR TO PURCHASING MATERIALS AND INSTALLING BRANCH CIRCUITS.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID INTERFERENCES AND CONFLICTS. APPARENT INTERFERENCES OR CONFLICTS SHALL BE REPORTED TO THE PRIME CONTRACTOR AND RESOLVED PRIOR TO PROCEEDING WITH THE WORK IN QUESTION.
7. THE ELECTRICAL CONTRACTOR SHALL CONNECT BRANCH CIRCUITS TO THE MAIN LINE TERMINALS OF EQUIPMENT FURNISHED BY OTHER CONTRACTORS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY NECESSARY SWITCHES, DISCONNECTS, OR OVERCURRENT PROTECTION AHEAD OF SUCH EQUIPMENT.
8. RACEWAYS ARE SHOWN SCHEMATICALLY AND MAY BE REROUTED IN THE FIELD. THEY SHALL BE INSTALLED AT RIGHT ANGLES TO OR PARALLEL WITH BUILDING LINES. THEY SHALL BE RUN CONCEALED WITHIN WALLS OR BUILDING STRUCTURES WHEREVER POSSIBLE.
9. ALL RACEWAYS, EQUIPMENT, ETC., ABOVE A SUSPENDED CEILING SHALL BE MOUNTED A MINIMUM OF 18" ABOVE THE CEILING SO AS NOT TO BLOCK ANY TILE OR FIXTURE ACCESS.
10. THE MINIMUM ALLOWABLE SIZE FOR ANY CONDUIT, IMC, OR EMT SHALL BE 1/2" AND MAY BE USED FOR 2#12 WIRE SWITCHLEGS ONLY. A SWITCHLEG SHALL BE DEFINED AS THE RUN OF CONDUIT FROM THE SWITCH OUTLET BOX TO THE FIRST OUTLET BEING SWITCHED.
11. FULL WEIGHT GALVANIZED RIGID STEEL CONDUIT SHALL BE USED IN THE FOLLOWING AREAS:
 - A. ON THE EXTERIOR OF THE BUILDING OR ROOF,
 - B. VERTICAL DROPS WHERE THE CONDUIT CANNOT BE ANCHORED TO WALLS OR OTHER SUPPORT STRUCTURES,
 - C. WHERE SUBJECT TO MECHANICAL DAMAGE.
12. ALL WIRE AND CABLE SHALL BE COPPER AND HAVE 600 VOLT THHN-THWN INSULATION. ALUMINUM WIRING SHALL NOT BE PERMITTED.
13. THE MINIMUM WIRE SIZE SHALL BE #12 AWG EXCEPT FOR CONTROL WIRING, WHICH MAY BE #14 AWG. CONTROL WIRING SHALL USE STRANDED CONDUCTORS UNLESS OTHERWISE NOTED.
14. ALL METAL RACEWAY SYSTEMS SHALL BE MADE ELECTRICALLY CONTINUOUS. THE RACEWAY SYSTEM SHALL NOT BE THE SOLE GROUNDING METHOD. AN INSULATED COPPER GROUNDING CONDUCTOR SHALL BE INSTALLED FOR ALL FEEDERS AND BRANCH CIRCUITS. AT RECEPTACLES, A GREEN GROUND CONDUCTOR SHALL BE CONNECTED TO THE GROUND TERMINAL OF THE RECEPTACLE.
15. THE ELECTRICAL CONTRACTOR SHALL COORDINATE FUSE AND DISCONNECT SWITCH SIZES WITH THE MECHANICAL EQUIPMENT SUPPLIER PRIOR TO PURCHASE AND INSTALLATION OF BRANCH CIRCUIT EQUIPMENT. IF EQUIPMENT SIZING CHANGES FROM DESIGN SIZES, CIRCUITS SHALL BE RESIZED ACCORDINGLY.
16. LIGHT FIXTURES FOR INSTALLATION IN A SUSPENDED CEILING SHALL BE SECURELY FASTENED TO THE CEILING SUSPENSION SYSTEM IN A MANNER TO PREVENT FIXTURES FROM FALLING. IN ADDITION, 16 GAGE WIRE HANGERS SHALL BE FASTENED TO THE FOUR CORNERS OF THE FIXTURES.
17. CONNECTIONS TO FIXTURES INSTALLED IN SUSPENDED CEILINGS SHALL BE MADE WITH FLEXIBLE METAL CONDUIT TO ALLOW THE FIXTURE TO BE LIFTED OUT OF THE GRID AND MOVED TO AN ADJACENT GRID LOCATION.
18. BREAKERS SUPPLYING HVAC OR REFRIGERATION EQUIPMENT SHALL BE HACR TYPE.
19. 3/4" CONDUIT IS MINIMUM ALLOWABLE SIZE EXCEPT AS INDICATED IN #10. CONDUIT FILL NOT TO EXCEED 40% AS PERMITTED BY THE NATIONAL ELECTRIC CODE.
20. ALL CONDUCTORS TO BE INSTALLED IN CONDUIT (EXCEPT WHERE ROMEX IS INSTALLED). EMT FITTINGS TO BE COMPRESSION TYPE, INSULATED THROAT.
21. BAPTISTRY INSTALLED PER NEC 680. PROVIDE GFCI PROTECTION FOR CIRCUITS.
22. DATA, SECURITY, THEATRICAL, AND VIDEO SYSTEMS TO BE PROVIDED BY OWNER. ROUGH-IN OF OUTLETS AND CONDUIT WILL BE BY CONTRACTOR AS SHOWN ON DRAWINGS.
23. NOT USED
24. NO. 10 AWG CONDUCTORS SHALL BE USED FOR 20 AMP BRANCH CIRCUIT HOME RUNS EXCEEDING 50 FT. TO THE JUNCTION POINT. 20 AMP BRANCH CIRCUIT WIRING SHALL BE NO. 10 AWG THROUGHOUT IF THE CIRCUIT IS LONGER THAN 100 FEET TOTAL LENGTH.
25. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET. SPLICES WILL NOT BE MADE EXCEPT WITHIN ACCESSIBLE OUTLET OR JUNCTION BOXES, TROUGHS, OR GUTTERS.
26. MAKE CONDUCTOR LENGTHS FOR PARALLEL CIRCUITS EQUAL.
27. INSTALL TELEPHONE OUTLETS WITH 3/4" EMPTY CONDUIT AND PULL CORD. STUB OUT ABOVE CEILING. PHONE SYSTEM INSTALLED BY OWNER.
28. ALL CONDUIT WITHOUT CONDUCTORS SHALL HAVE NYLON PULLCORDS INSTALLED.
29. THE CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION, AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE ENGINEER.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES FOR PERMITS AND INSPECTIONS. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR ELECTRIC UTILITY CONNECTION FEES AND LINE EXTENSION FEES.
31. ELECTRICAL CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION WHICH DEVELOPS OBJECTIONABLE NOISES SHALL BE MADE FROM THE CONDUIT SYSTEM WITH SHORT LENGTHS OF FLEXIBLE "LIQUID-TITE" CONDUIT.
32. ALL WIRE TERMINATIONS AND EQUIPMENT TO BE RATED FOR 75° C MINIMUM.
33. ELECTRICAL CONTRACTOR TO MAINTAIN 2' OF SEPARATION ON RECEPTACLES ON OPPOSITE SIDES OF ANY FIRE RATED WALL PER 2017 N.E.C. 300.21.
34. WIRING TO DISCONNECT SWITCH AND DISCONNECT SWITCH SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. WIRING FROM THE DISCONNECT TO THE EQUIPMENT SHALL BE BY THE MECHANICAL CONTRACTOR.

NOTE:
 VERIFY LOCATION OF RECEPTACLES FOR TREADMILLS BEFORE BEGINNING CONSTRUCTION.

GROUNDING PER NEC 250. #2 CU TO COLD WATER MAIN, BUILDING STEEL, SPRINKLER MAIN AND CONCRETE ENCASED ELECTRODE. #6 AWG TO (2) DRIVEN GROUND RODS, MINIMUM OF 6' APART. BOND ALL SERVICE GROUNDING ELECTRODES PER NEC 250 WITH (1) #2 CU GND.



UP-FIT PLANS FOR:
T&L COATS
BUILDING #2
COATS, NORTH CAROLINA

REVISIONS	
NO.	

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DATE **11-15-23**
 DRAWN BY **BAM**
 JOB NO. **23-31**

SHEET NO.
E-3 OF 3

ELECTRICAL RISER DIAGRAM
 NOT TO SCALE