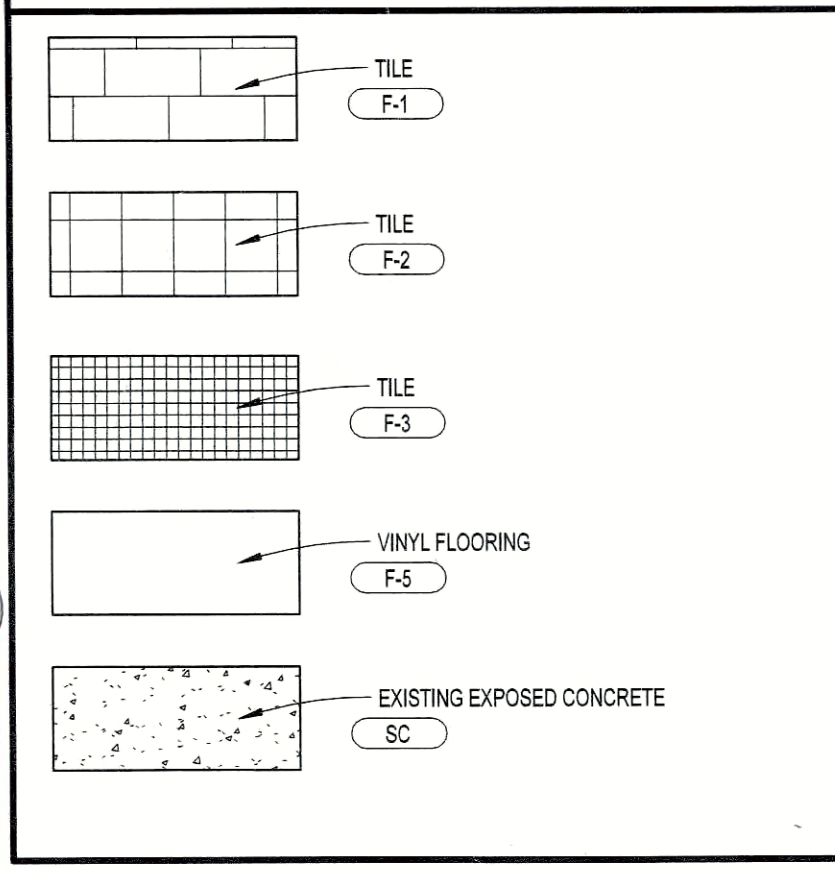


1 FINISH FLOOR PLAN  
SCALE: 1/4" = 1'-0"

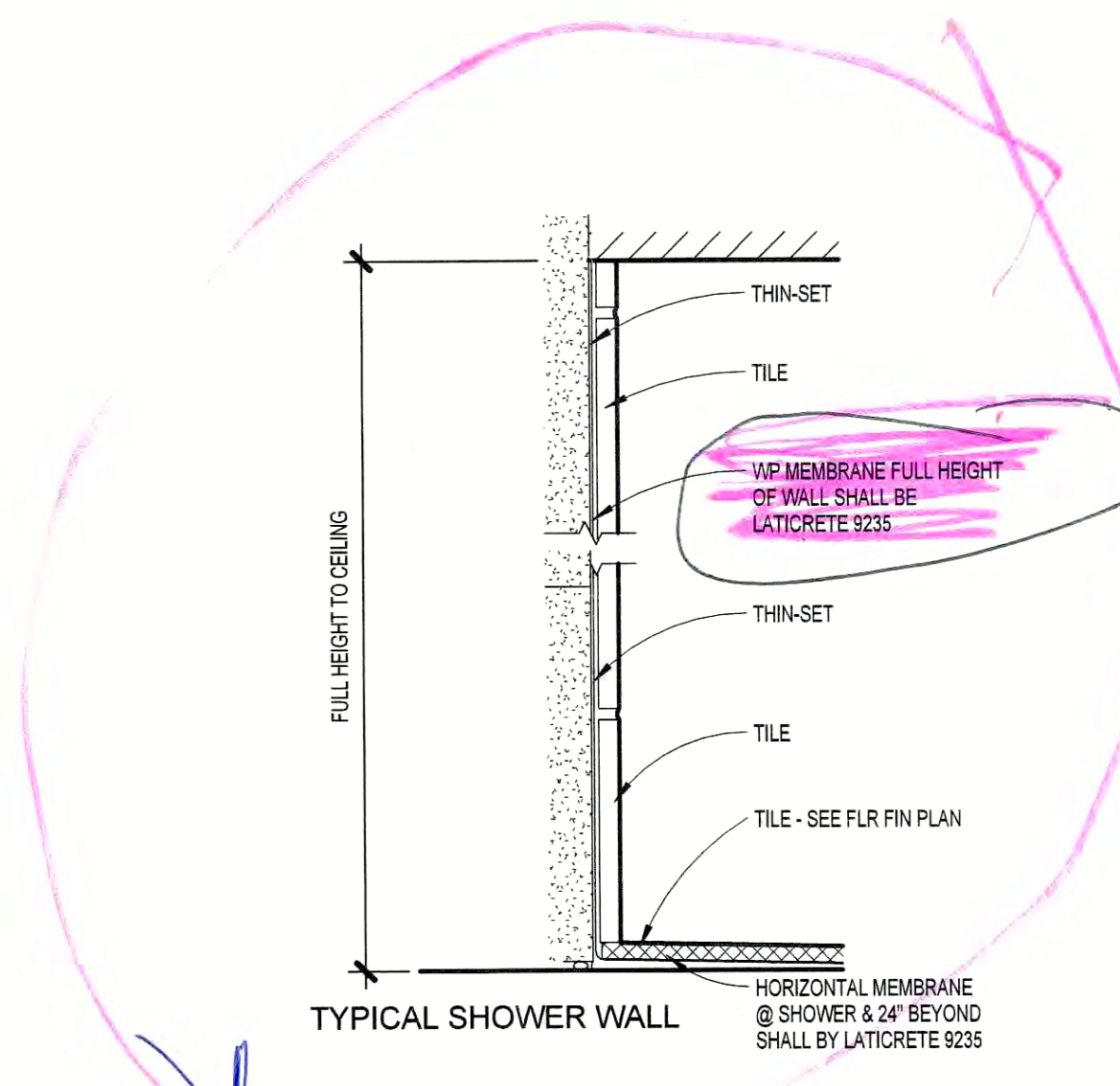
FLOOR FINISH LEGEND



GENERAL NOTES:

1. TENANT CONTRACTOR MUST MAINTAIN ACCESS TO ALL IN-FLOOR CLEAN-OUTS.
2. ENSURE PROPER LEVEL FLOOR PRIOR TO INSTALLATION OF VINYL TILE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
3. REFER TO FINISH SCHEDULE ON SHEET A601 FOR TRANSITION DETAILS & ADDITIONAL INFORMATION.
4. TRANSITIONS TO BE AT CENTERLINE OF DOOR.
5. WATERPROOF MEMBRANE MUST BE INSPECTED & APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF FINISHES.
6. 1/8" GROUT LINES AT ALL TILE.

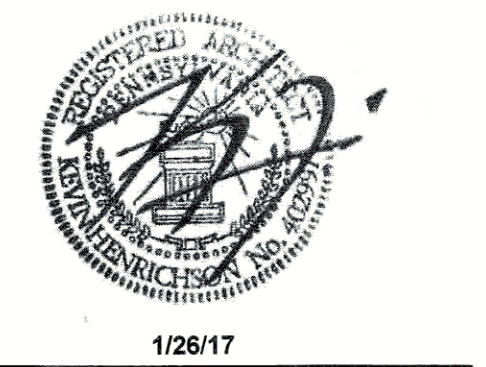
2 WATERPROOFING DETAIL  
SCALE: 3" = 1'-0"



MATERIAL / FINISH SCHEDULE	
FINISH	DESCRIPTION
B BASES	
B-1	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM MANUFACTURER: BOPE PRODUCT: 4" COVE BASE - 700 SERIES COLOR: CHARCOAL #123
CEILINGS / GYP / WALL COVERING	
ACT-1	2x2 ACOUSTIC SUSPENDED CEILING GRID: STANDARD 15/16" STEEL - WHITE FINISH TILES: ARMSTRONG FINE FISSURED REGULAR (OR APPROVED EQUAL) - WHITE FINISH: CENTER GRID IN SPACE OR AS SHOWN.
ACT-2	2x2 ACOUSTIC SUSPENDED CEILING GRID: STANDARD 15/16" STEEL - WHITE FINISH TILES: ARMSTRONG ULTIMA HEALTH ZONE SQUARE LAY IN (OR APPROVED EQUAL) - WHITE FINISH. CENTER GRID IN SPACE OR AS SHOWN.
ACT-3	2x2 ACOUSTIC SUSPENDED CEILING GRID: STANDARD 15/16" STEEL - BLACK FINISH TILES: ARMSTRONG FINE FISSURED (OR APPROVED EQUAL) - BLACK FINISH. CENTER GRID IN SPACE. PAINT ALL MECHANICAL EQUIPMENT / DIFFUSERS BLACK.
GYP-1	PAINTED GYPSUM BOARD CEILING COLOR: SW7007 CEILING BRIGHT WHITE TEXTURE: ORANGE PEEL
GYP-2	PAINTED GYPSUM BOARD CEILING (USG AQUA TUFF OR EQUAL) COLOR: SW7007 CEILING BRIGHT WHITE TEXTURE: ORANGE PEEL
WC-1	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM ACOUSTIC WALL COVERING STYLE NUMBER: 80017 STYLE NAME: CYCLERS COLOR NUMBER: 00504 COLOR NAME: PEDAL
SLAT-1	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM ALUMINUM SLAT WALL WITH FRENCH CLEAT MANUFACTURER: COLOR BRITE FINISH: SATIN SLAT SIZE: 4"Wx4"H
L LAMINATE	
L-1	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM MANUFACTURER: ATI DECORATIVE LAMINATES PRODUCT: MIRRORFLEX 4X8 SHEETS PATTERN: GOBI FINISH: ARGENT SILVER
L-2	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM MANUFACTURER: ARPA COLOR: 0591, ROSSO DEVIL (RED), HIGH GLOSS PRODUCT: HIGH DENSITY LAMINATE SPECIFICALLY FOR FURNITURE FABRICATION
L-3	MANUFACTURER: FORMICA COLOR: 949 WHITE PRODUCT: PLASTIC LAMINATE
L-4	MANUFACTURER: NEVAMAR COLOR: 560546 TEXTURED, WROUGHT IRON PRODUCT: PLASTIC LAMINATE
F FLOOR FINISHES / TILE	
F-1	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM PRODUCT: 12"x24" FLOOR TILE NOTE: SALES / CHECK IN LOBBY COLOR: FLOW GRAY INSTALLATION: 1/3 RUNNING BOND IN DIRECTION SHOWN ON PLANS GROUT: TEC COLOR #908 DOVE GRAY. GROUT NOTE: USE GROUT BOOST STAIN RESISTANT GROUT ADDITIVE (MIXED WITH CEMENT BASED GROUT) IN PLACE OF WATER.
F-2	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM PRODUCT: 13"x13" FLOOR TILE NOTE: RESTROOM AND CHANGING ROOM COLOR: FLOW GRAY INSTALLATION: STACKED GROUT: TEC COLOR #908 DOVE GRAY. GROUT NOTE: USE GROUT BOOST STAIN RESISTANT GROUT ADDITIVE (MIXED WITH CEMENT BASED GROUT) IN PLACE OF WATER. ALL GROUT IN SHOWER AREAS TO BE EPOXY BASED WATERPROOF GROUT.
F-3	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM PRODUCT: 12"x12" MESH MOUNTED MOSAIC TILE NOTE: SHOWER FLOOR TILE COLOR: GORGE DARK GREY GROUT: SPECTRALOCK COLOR: 45 RAVEN GROUT NOTE: USE GROUT BOOST STAIN RESISTANT GROUT ADDITIVE (MIXED WITH CEMENT BASED GROUT) IN PLACE OF WATER.
F-4	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM PRODUCT: WALL TILE 4"x16" NOTE: SHOWER WALL TILE COLOR: DORIAN (MATTED) FINISH INSTALLATION: STACKED PATTERN GROUT: TEC COLOR #908 DOVE GRAY. COLOR: 45 RAVEN GROUT NOTE: USE GROUT BOOST STAIN RESISTANT GROUT ADDITIVE (MIXED WITH CEMENT BASED GROUT) IN PLACE OF WATER.
F-5	DISTRIBUTOR: NATIONAL CUSTOM INC. CONTACT: DANIEL ILE (770)441-1860 EXT. 211 EMAIL: DILE@NATLCUSTOM.COM MANUFACTURER: LONSEAL (VINYL FLOORING) NOTE: COMMUNITY ROOM & THEATER PRODUCT: LONPEARL 8x60" ROLL W/ HD PLUS SEALER COLOR: 715 BALEEN GRAY
P PAINT & STAIN	
P-1	MANUFACTURER: SHERWIN WILLIAMS COLOR / FINISH: SW7005 PURE WHITE - EGGSHELL NOTE: ALL WALLS TO BE PAINTED P-1 UNLESS NOTED OTHERWISE
P-2	MANUFACTURER: SHERWIN WILLIAMS COLOR / FINISH: SW7074 PEPPER CORN - EGGSHELL
P-3	MANUFACTURER: SHERWIN WILLIAMS COLOR / FINISH: SW6888 REAL RED - EGGSHELL NOTE: PAINT AT MARKERBOARD: BASE COAT (2 COATS) - SHERWIN WILLIAMS. TOP COAT: IDEA PAINT, CLEAR INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS
P-4	MANUFACTURER: SHERWIN WILLIAMS COLOR / FINISH: SW7046 FIRST STAR - WATER BASED EPOXY
P-5	MANUFACTURER: SHERWIN WILLIAMS COLOR / FINISH: SW6888 REAL RED - EGGSHELL



14801 Quorum Drive  
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Dallas, Texas 75254  
Ph: (972) 239-8884  
Fax: (972) 239-5054



**CYCLEBAR**  
TENANT FINISHOUT  
THE SHOPS AT ENGLISH VILLAGE  
1460 BETHLEHEM PIKE  
SUITE 150  
NORTH WALES, PA 19454



DO NOT SCALE DRAWINGS  
CONTRACTOR TO VERIFY  
ALL EXISTING CONDITIONS AND  
DIMENSIONS-NOTIFY ARCHITECT  
OF ANY DISCREPANCIES PRIOR  
TO BEGINNING CONSTRUCTION

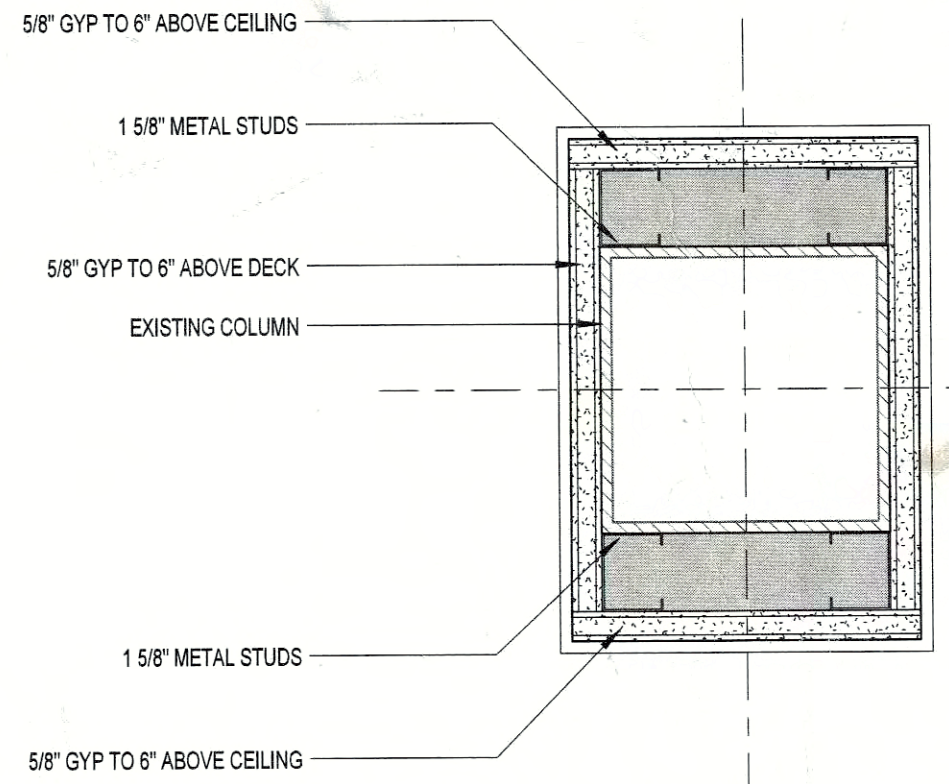
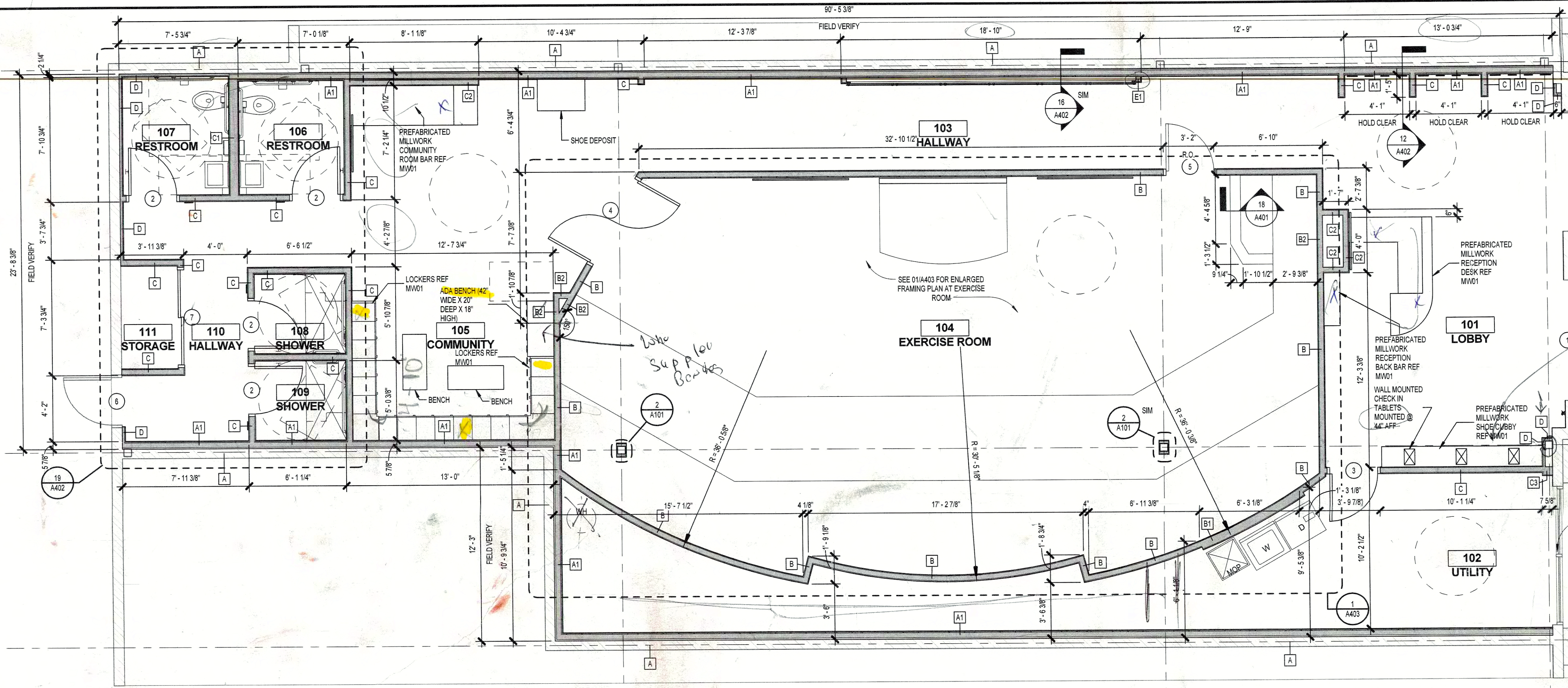
NO REVISION

ISSUE

PROJECT NUMBER  
**C160490**

SHEET NUMBER  
**A111**





TYPE	DESCRIPTION
A	EXIST 1HR RATED DEMISING WALL PER UL-0419
A1	3 5/8" 18 GA METAL STUDS FROM FLOOR TO DECK @ 16" O.C. WITH TWO (2) LAYERS OF 5/8" GYPSUM ON TENANT SIDE & 1" AIR GAP ON OPPOSITE SIDE. 3" MINERAL WOOL OR FIBER INSULATION. SOUND TAPE JOINTS, SOUND CAULK OPENINGS AT DECK. REF DTL 08/A402.
B	3 5/8" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM BOTH SIDES TO DECK WITH BATT INS FULL DEPTH OF STUD.
B1	6" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM BOTH SIDES TO DECK WITH BATT INS FULL DEPTH OF STUD.
B2	3 5/8" METAL STUDS @ 16" O.C. TO DECK WITH 5/8" GYPSUM ON ONE SIDE WITH BATT INS FULL DEPTH OF STUD.
C	3 5/8" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING ON BOTH SIDES.
C1	6" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING ON BOTH SIDES.
C2	3 5/8" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING ON ONE SIDE.
C3	6" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING ON ONE SIDE.
D	1 5/8" METAL FURRING STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING ON ONE SIDE.
E	(2) 3 5/8" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING BOTH SIDES. REF DTL 16/A402.
E1	3 5/8" METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING BOTH SIDES. REF DTL 16/A402.
F	2" METAL FURRING CHANNELS @ 16" O.C. WITH 5/8" GYPSUM TO 6" ABOVE CEILING ON ONE SIDE.
L	LOW WALL CONST 3 5/8" METALS STUDS @ 8" O.C. WITH 5/8" GYPSUM BOTH SIDES. REF DTL 19/A402.

- WALL TYPE NOTES:**
- ALL WALLS EXTENDING TO DECK UTILIZE A SLIP TRACK TO ALLOW FOR A MINIMUM OF 3/4" VERTICAL MOVEMENT.
  - AT ALL WALL TYPES, PROVIDE TILE BACKER BOARD WHERE WET WALLS OCCUR. BACKER BOARD SHALL BE HEIGHT OF TILE FINISH SHOWN ON ELEVATIONS.
  - ALL WALLS RECEIVING GRAPHICS, AS SHOWN ON A112, SHALL RECEIVE LEVEL 5 FINISH. ALL OTHER WALLS SHOULD RECEIVE LEVEL 4 SMOOTH FINISH, TO BE DETERMINED IN FIELD BY CM.
  - ALL WALLS EXTENDING ABOVE 13'-0" SHALL BE FRAMED WITH 18 GA METAL FRAMING.
  - ALL WALLS RECEIVING GRAPHICS, AS SHOWN ON A112, SHALL RECEIVE LEVEL 5 FINISH. ALL OTHER WALLS SHOULD RECEIVE LEVEL 4 SMOOTH FINISH, TO BE DETERMINED IN FIELD BY CM.

- GENERAL NOTES:**
- PROVIDE (1) ONE FIRE EXTINGUISHER PER 3,000 SF. VERIFY WITH LOCAL FIRE MARSHAL FOR TYPE AND FINAL LOCATIONS PRIOR TO INSTALLATION.
  - REFER TO KEY PLANS FOR INTERIOR ELEVATION KEYS ON INTERIOR ELEVATION SHEETS.
  - ALL WOOD BLOCKING TO BE FIRE RETARDANT TREATED TYPICAL.
  - INTERIOR FRAMING TO BE MIN 22 GA METAL FRAMING AT 16" OC UNLESS NOTED OTHERWISE. ALL FRAMING TO BE 3 5/8" METAL FRAMING UNLESS NOTED OTHERWISE. IF APPLICABLE, REFER TO STRUCTURAL NOTES FOR ADDITIONAL FRAMING INFORMATION.
  - GC TO INSULATE BEHIND ALL PLUMBING IN EXTERIOR WALLS TYPICAL.
  - ALL DIMENSIONS TO FACE OF FINISH UNLESS NOTED OTHERWISE.
  - INTERIOR "HOLD" OR "CLEAR" DIMENSIONS ARE FINISH DIMENSIONS.
  - REFER TO ELECTRICAL DRAWINGS FOR OUTLET HEIGHTS. USE G.F.I. OUTLETS WHERE REQUIRED BY CODE.
  - REFER TO OWNER'S VENDOR FOR INTERIOR SIGNAGE SCOPE.
  - ALL INTERIOR DOOR FRAMES SHALL BE SET AT 4" FROM ADJACENT PERPENDICULAR PARTITION UNLESS NOTED OTHERWISE OR DIMENSIONED.
  - CONTRACTOR SHALL PERFORM SITE VISIT & VERIFY ALL EXISTING CONDITIONS BEFORE PROVIDING PRICING & PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING SITE CONDITIONS IMMEDIATELY UPON DISCOVERY AND SHALL OBTAIN WRITTEN DIRECTION BEFORE COMMENCING CONSTRUCTION OF ANY ITEMS IN QUESTION.
  - GC TO ENSURE 2% SLOPE TO DRAIN AT ALL SHOWERS.

**LEGEND:**

REFER TO A001 FOR SYMBOLS KEY & LEGEND

	NEW WALL PARTITION
	LOW WALL REF. TO DETAIL
	EXISTING WALLS TO REMAIN



## KEY NOTES BY SYMBOL '△'

- 1 NEW RTU ON INSULATED ROOF CURB LOCATED ON ROOF ABOVE. REFER TO MEP1.0 FOR ROOF PLAN.
- 2 PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT, HONEYWELL VISION PRO 8000 WITH REMOTE SENSOR, AND AUTO CHANGEOVER AND RELATED WIRING TO CONTROL EACH UNIT. MOUNT T-STAT AT 48" AFF, SENSOR AT 96" AFF.
- 3 HVAC CONTRACTOR TO FURNISH AND INSTALL DUCT SMOKE DETECTOR IN RETURN AIR DUCT TO MEET LOCAL CODE REQUIREMENTS IF NOT PRESENT. BASE BID SHALL ASSUME DETECTORS ARE INSTALLED IN EXISTING UNITS GREATER THAN OR EQUAL TO 2000 CFM.
- 4 4" DRYER VENT LINE ROUTED AS SHOWN TO EXTERIOR WALL. TERMINATE WITH DRYER VENT CAP. FURROUT WALL IF NECESSARY TO KEEP VENT WITHIN WALL. DRYER MUST BE ABLE TO HANDLE A DEVELOPED DRYER DUCT LENGTH OF +/- 35'. WALL SHALL BE THICK ENOUGH TO ACCOMMODATE A 4" DRYER DUCT.
- 5 DISCHARGE 1" PRIMARY CONDENSATE VIA INDIRECT WASTE (MINIMUM 3" AIR GAP) TO MOP SINK, OR TAIL PIECE OF NEAREST HAND SINK. SLOPE 1/4" PER FOOT.
- 6 CONTRACTOR SHALL ENSURE THAT ALL FRESH AIR INTAKES ARE AT LEAST 10'-0" AWAY FROM EXHAUST SOURCES (PLUMBING VENTS, EXHAUST FANS, COMBUSTION EXHAUST, ETC.). PROVIDE OFFSETS AND ADJUST/RELOCATE EQUIPMENT AS NEEDED.
- 7 ROUTE 14" Ø EXHAUST DUCT UP THROUGH ROOF TO NEW ROOF MOUNTED EXHAUST FAN. PROVIDE WITH GRAVITY BACK DRAFT DAMPER. REFER TO MEP1.0 FOR ROOF PLAN.
- 8 EXTERNALLY WRAP INTERNALLY LINED DUCTWORK WITH NOISE-INSULATING WRAP FOR TRANSFER AIR DUCT FROM CYCLE THEATRE. INSTALL AT LEAST TWO 90 DEGREE BENDS IN THE DUCT.
- 9 WATER HEATER FLUE AND AIR INTAKE PIPES UP THROUGH ROOF. FLASH AND COLLAR ROOF PENETRATION. REFER TO MEP1.0 FOR ROOF PLAN. ADJUST CONFIGURATION TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT HEATER USED ON THIS JOB.
- 10 REUSE EXISTING ROOF CURB, WHERE SUITABLE FOR REUSE.
- 11 REUSE EXISTING RTU ROOF PENETRATION.

## HVAC SEQUENCE OF OPERATION

## OCCUPIED MODE

RTU-3 &amp; RTU-2 (PEAK UNIT) SEQUENCE:

COOLING MODE: STAGE 1 - COMMAND FROM TEMP SENSOR (RTU-3 SET AT 68°F, ADJUSTABLE) CALLS FOR COOLING. THE OSA DAMPER SHALL BE OPEN TO MIN POSITION. SUPPLY FAN SHALL ENERGIZE AND THE UNIT SHALL CYCLE COMPRESSOR ONE (CIRCUIT ONE) ON AS NEEDED TO MAINTAIN SPACE TEMPERATURE SET POINT.

STAGE 2 - WITH STAGE 1 IN OPERATION AND SPACE TEMPERATURE CLIMBS TO 70°F, ADJUSTABLE, RTU-3 SHALL CYCLE COMPRESSOR TWO (CIRCUIT TWO) ON AS NEEDED TO MAINTAIN SPACE TEMPERATURE SET POINT.

STAGE 3 - WITH STAGES 1 & 2 (RTU-3) IN OPERATION AND SPACE TEMPERATURE CLIMBS TO 72°F, ADJUSTABLE, RTU-2 SHALL CYCLE COMPRESSOR ON AS NEEDED TO MAINTAIN SPACE TEMPERATURE SET POINT.

AS COOLING LOADS IN THE SPACE LESSENS, THE STAGES OF COOLING CAN CYCLE OFF IN REVERSE ORDER TO MAINTAIN SPACE TEMPERATURE SET POINTS.

## RTU-1 SEQUENCE:

COOLING MODE: COMMAND FROM TEMP SENSOR (RTU-1 SET AT 72°F, ADJUSTABLE) CALLS FOR COOLING. THE OSA DAMPER SHALL BE OPEN TO MIN POSITION. SUPPLY FAN SHALL ENERGIZE AND THE UNIT SHALL CYCLE COMPRESSOR ON AS NEEDED TO MAINTAIN SPACE TEMPERATURE SET POINT.

HEATING MODE: COMMAND FROM TEMP SENSORS RTU-1/RTU-3 CALLS FOR HEATING. THE OSA DAMPER SHALL BE OPEN TO MIN POSITION. RA DAMPER SHALL OPEN TO MAX POSITION. SUPPLY FAN SHALL ENERGIZE AND THE GAS FURNACE SHALL ENERGIZE AS NEEDED TO MAINTAIN SPACE TEMPERATURE SET POINT. RTU-1 WILL RUN INDEPENDENT OF RTU-3. RTU-2 WILL BE OFF.

## UNOCCUPIED MODE

RTU SEQUENCE: OSA DAMPER SHALL BE CLOSED. RETURN AIR DAMPER SHALL BE FULLY OPEN. RTU-1 AND RTU-3 FANS WILL CYCLE ON AS NEEDED TO MAINTAIN AS NEEDED UNOCCUPIED SPACE TEMP SET POINTS. THE UNIT WILL CYCLE HEAT OR COOLING AS NEEDED. RTU-2 WILL BE OFF.

## ECONOMIZER MODE

OUTSIDE AIR CONDITIONS ARE 50 TO 60 DEGREE F (ADJUSTABLE)

RTU SEQUENCE: COMMAND FROM TEMP SENSOR CALLS FOR COOLING. THE DIFFERENTIAL ENTHALPY SENSOR INDICATES COOL DRY OUTSIDE AIR CONDITIONS / FREE COOLING IS AVAILABLE. THE OSA DAMPER SHALL BE FULLY OPEN. SUPPLY FAN SHALL ENERGIZE TO MAINTAIN SPACE TEMPERATURE SET POINT. HEATER AND COMPRESSORS ARE OFF.

## ROOF-TOP UNIT SCHEDULE - 480V

MARK	MANUFACTURER MODEL	NOMINAL TONS	CFM	O/A CFM	E.S.P. (IN. W.C.)	SEER	COOLING CAP. (MBH)			HEATING GAS INPUT (MBH)	ELECTRICAL (VOLTS/PH/Hz)	UNIT MCA	UNIT MOCP	UNIT WEIGHT (LBS)	NOTES
							TOTAL	SENSIBLE	DRY BULB / WET BULB						
RTU-2 (NEW)	CARRIER 50TCD06	5.0	2000	250	0.75"	13.0	59	44.5	80/67	72	480/3/60	14	20	773	1,2,3,4,5,8,9,10,11
RTU-1 (NEW)	CARRIER 48TCD08	7.5	3000	400	0.75"	11.0	83	68.1	80/67	180	480/3/60	20	25	1110	1,2,3,4,5,6,8,9,10,11
RTU-3 (NEW)	CARRIER 48TCD09	8.5	3400	500	0.75"	11.0	97	112	80/67	180	480/3/60	20	25	1205	1,2,3,4,5,6,8,9,10,11

## NOTES:

- LABEL EACH RTU AND EXHAUST FAN WITH "CYCLE BAR" AND SUITE NUMBER.
- COOLING CAPACITY IS BASED ON 80°F EDB AND 67°F EWB CONDITIONS.
- PROVIDE PROGRAMMABLE ROOM THERMOSTAT, HONEYWELL TH8000 SERIES.
- PROVIDE UNWIRED CONVENIENCE OUTLET (ELECTRICIAN SHALL FIELD WIRE TO 208V PANEL) AND 14" ROOF CURB.
- VERIFY VOLTAGE AVAILABLE ON SITE PRIOR TO ORDERING NEW UNITS. OBTAIN STRUCTURAL APPROVAL PRIOR TO PLACING UNIT.
- UNIT PROVIDED WITH DUAL COMPRESSORS/2-STAGE COOLING.
- PROVIDE FACTORY ELECTROFIN OR EQUAL ANTI-CORROSION COATING ON OUTDOOR COILS.
- WEIGHTS INCLUDE ACCESSORIES.
- ORDER WITH ACCESSORIES INCLUDING: CURB, ECONOMIZER, HAIL GUARD, 2-POSITION DAMPER, DUAL ENTHALPY SENSORS, DUCT DETECTORS, ETC.
- MCA BASED ON MEDIUM STATIC FAN.
- LANDLORD TO FULLY SERVICE AND WARRANTY FOR ONE(1) YEAR.
- BRING EXISTING UNIT TO LIKE NEW OPERATING AND PERFORMANCE CONDITIONS. COMB OUT FINS, CHANGE BELTS, BRING TO FACTORY SPEC REFRIGERANT LEVELS.

CB, HORSHAM, PA: CONTRACTOR SHALL PROVIDE ONE ADDITIONAL OCCUPANCY SENSOR AND CO2 SENSOR IN CYCLE THEATRE. THE CO2 SENSOR SHALL CONTROL THE OUTSIDE AIR DAMPER POSITION TO OPEN DAMPER TO MINIMUM SETPOINT WHEN CO2 SENSOR SENSES MORE THAN 1100 PPM (ADJUSTABLE) DURING OCCUPIED HOURS, AND SHALL CLOSE WHEN CYCLE THEATRE OCCUPANCY SENSORS GOES 30-MINUTES WITHOUT AN OCCUPANT. THE CYCLE ROOM IS TYPICALLY OCCUPIED FOR CLASSES IN THE MORNING AND CLASSES IN THE EVENINGS. THE CYCLE THEATRE ROOM RTU SHALL BE SET TO PREHEAT THE ROOM 30 MINUTES BEFORE OCCUPANCY.

## CONDENSATE LINE SIZES:

3/4"	UP TO 2 TONS CONNECTED.
1"	UP TO 5 TONS CONNECTED.
1-1/4"	UP TO 25 TONS CONNECTED.
1-1/2"	UP TO 50 TONS CONNECTED.
2"	UP TO 170 TONS CONNECTED.

## HVAC DROP LOCATIONS ARE DIAGRAMATIC.

CONTRACTOR SHALL FIELD-VERIFY EXACT DROP CONFIGURATION ON BOTTOM OF RTU, AND EXISTING BEAM, COLUMN AND JOIST LOCATIONS AND MODIFY DUCT LAYOUT NEAR RTU AS FIELD CONDITIONS REQUIRE. MAINTAIN CROSS SECTIONAL AREA AS INDICATED.

## AIR DEVICE NECK CHART

8" Ø	0 TO 180 CFM
10" Ø	185 TO 350 CFM
12" Ø	355 TO 550 CFM
14" Ø	555 TO 850 CFM
16" Ø	855 TO 1350 CFM
18" Ø	1360 TO 1750 CFM

\*\*USE ABOVE SIZES UNLESS OTHERWISE INDICATED.

## CONTRACTOR NOTES:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT, LANDLORD OR TENANT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.

BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE BASE BID SHALL REFLECT MODIFICATIONS TO SYSTEMS AND DEVICES AS REQUIRED BY STATE AND LOCAL CODES WHETHER INDICATED OR NOT ON CONTRACT DOCUMENTS. THE SUBMISSIONS OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION AND COMPLIANCE WITH GOVERNING CODES / REQUIREMENTS HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN, HAD AN EXAMINATION AND CODE REVIEW BEEN MADE, WILL NOT BE ALLOWED.

REFER ALSO TO SHEET MEP1.0 FOR MORE MECHANICAL NOTES

## HVAC SUMMARY:

3,032 SQ FT.

21.0 TONS

144.4 SF/TON

## DRYER VENT CALCULATION

2'-0"	HORIZONTAL LENGTH
12'-0"	VERTICAL LENGTH
0	45 DEGREE ELBOWS (2'-8")
1	90 DEGREE ELBOWS (5'-0")
19'-0"	TOTAL DEVELOPED DUCT LENGTH

MANDATORY TEST AND BALANCE REPORT BY LICENSED 3RD PARTY TO BE PROVIDED TO OWNER AND ARCHITECT UPON COMPLETION OF HVAC WORK.

## MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
①	THERMOSTAT @ 48" AFF
②	DUCT MOUNTED SMOKE DETECTOR
③	REMOTE ROOM TEMPERATURE SENSOR AT 96" AFF
—	VOLUME DAMPER
Ⓜ	MOTORIZED DAMPER WITH ACTUATOR
AHU	AIR HANDLING UNIT
EF	EXHAUST FAN
ⓑ	BAROMETRIC FLAP DAMPER

## AIR DEVICE SCHEDULE

SYMBOL	TAG	MANUF.	CATALOG #	PICTURE DESCRIPTION	NECK SIZE	REMARKS
ⓧ	A	TITUS	TMS	24x24 SUPPLY GRILLE/ 12x12 SUPPLY GRILLE	SEE PLAN	ALUMINUM, BORDER TYPE 1 IN GYP. BD. CLG. PAINTED BLACK TO MATCH CEILING WHERE CEILING IS NOT WHITE, REF ARCH. SHEETS.
ⓧ	B	NAILOR	51EC	12x24 RETURN GRILLE	SEE PLAN	EGGCRATE, BORDER TYPE 1
ⓧ	C	NAILOR	51EC	24x24 RETURN GRILLE/ 12x12 RETURN GRILLE	SEE PLAN	EGGCRATE, BORDER TYPE 1
—	D	NAILOR	61DV-0	SIDEWALL SUPPLY, 1/2" WIDTH, WHITE.	—	SURFACE MOUNT, EACH SHALL HAVE NECK VOLUME DAMPER.
ⓧ	E	TITUS	TMRS	26" ROUND CEILING DIFFUSER	SEE PLAN	ORDER TRIM FOR GYPSUM BOARD CEILINGS AND/OR TECTUM PANELS.
ⓧ	F	PRICE	RECC	24" ROUND CEILING RETURN EGG CRATE	SEE PLAN	ORDER TRIM FOR GYPSUM BOARD CEILINGS AND/OR TECTUM PANELS.

## NOTE:

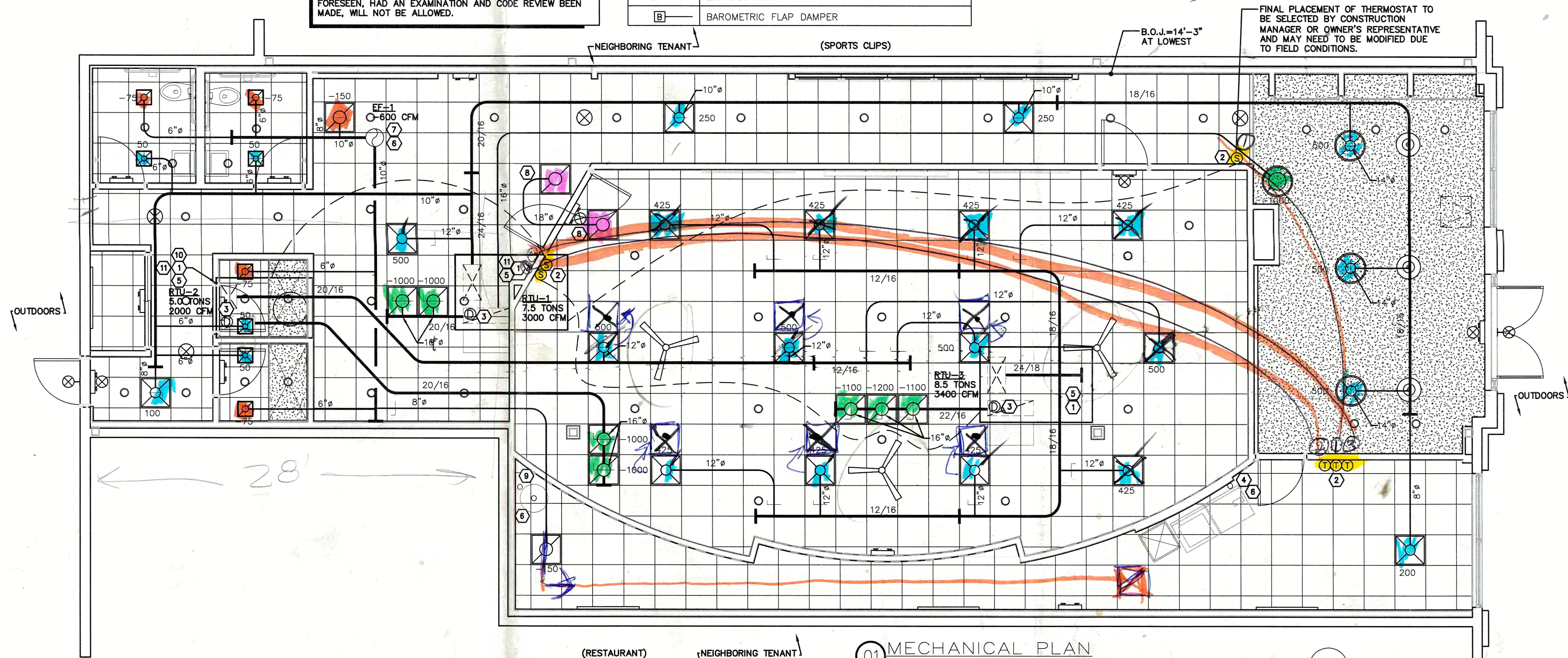
- ALL GRILLES IN GYP BOARD CEILING SHALL BE ORDERED WITH INTEGRAL BALANCING DAMPERS.
- PROVIDE RECTANGULAR TO ROUND ADAPTERS WHEREVER NECESSARY.
- NOT ALL DEVICES USED ON ALL JOBS.

## IECC 2015 MECHANICAL COMMISSIONING NOTES:

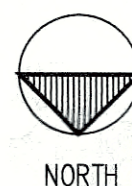
WHERE 40-TONS OR MORE OF HVAC EQUIPMENT WILL BE INSTALLED IN A TENANT SPACE, COMMISSIONING IS REQUIRED. MECHANICAL COMMISSIONING SHALL COMPLY WITH SECTION C408.2 (MECHANICAL SYSTEMS) OF IECC 2015.

## IECC 2016 HVAC NOTES:

- ECONOMIZERS ARE REQUIRED AND SHALL HAVE FAULT DETECTION AND DIAGNOSIS, PER IECC 403.2.4.7. CONTRACTORS SHALL ENSURE AT THE TIME OF ORDERING EQUIPMENT THAT THE ECONOMIZERS ARE COMPLIANT WITH IECC 2015.
- HVAC DUCT AND PLENUM INSULATION AND SEALING SHALL MEET THE REQUIREMENTS OF C403.2.9. THESE INCLUDE, BUT ARE NOT LIMITED TO R-6 INSULATION WITHIN BUILDING (DUCT ROUTED IN UNCONDITIONED AREAS) OR HIGHER R-VALUES OUTSIDE OF THE BUILDING ENVELOPE. DUCTS TO BE SEALED PER SECTION 603.9 OF THE I.M.C.
- THE GENERAL CONTRACTOR TO PROVIDE OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT REQUIRING REGULAR MAINTENANCE. THESE SHALL BE CONSOLIDATED IN A 2" THREE-RING BINDER, OR EQUAL EQUIPMENT BEING SERVICED SHALL HAVE THE NAME AND PHONE NUMBER OF A COMPANY TRAINED IN SERVICING SAID EQUIPMENT.
- T-STAT SHALL BE SET FOR AN AUTOMATIC NIGHT SETBACK OF 55F (HEAT) AND 85F (COOL) WITH 7-DAY CLOCK, 2-HOUR OVERRIDE AND 10 HOUR BACKUP.
- PROVIDE A 3RD PARTY TEST AND BALANCE REPORT.
- A MINIMUM OF 25% OF DUCTWORK SHALL BE TESTED FOR MAXIMUM DUCT LEAKAGE COMPLIANCE



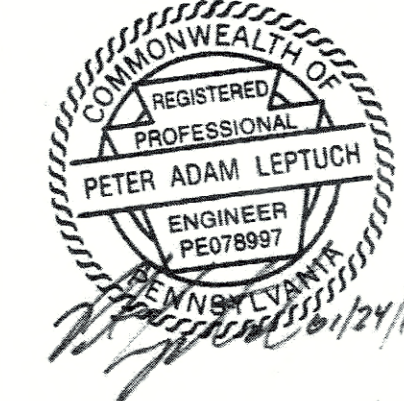
01 MECHANICAL PLAN  
SCALE: 1/4"=1'-0"



GH A

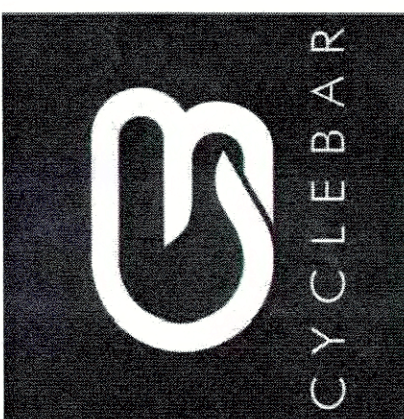
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CYCLEBAR

TENANT FINISHOUT  
HORSHAM TOWNSHIP  
1460 BETHLEHEM PIKE  
SPACE E  
NORTH WALES, PA 19454

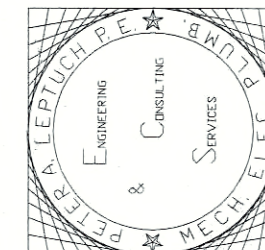


DO NOT SCALE DRAWINGS  
CONTRACTOR TO VERIFY  
ALL EXISTING CONDITIONS AND  
DIMENSIONS-NOTIFY ARCHITECT  
OF ANY DISCREPANCIES PRIOR  
TO BEGINNING CONSTRUCTION

NO REVISION

ISSUE

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PROJECT NUMBER  
C160490

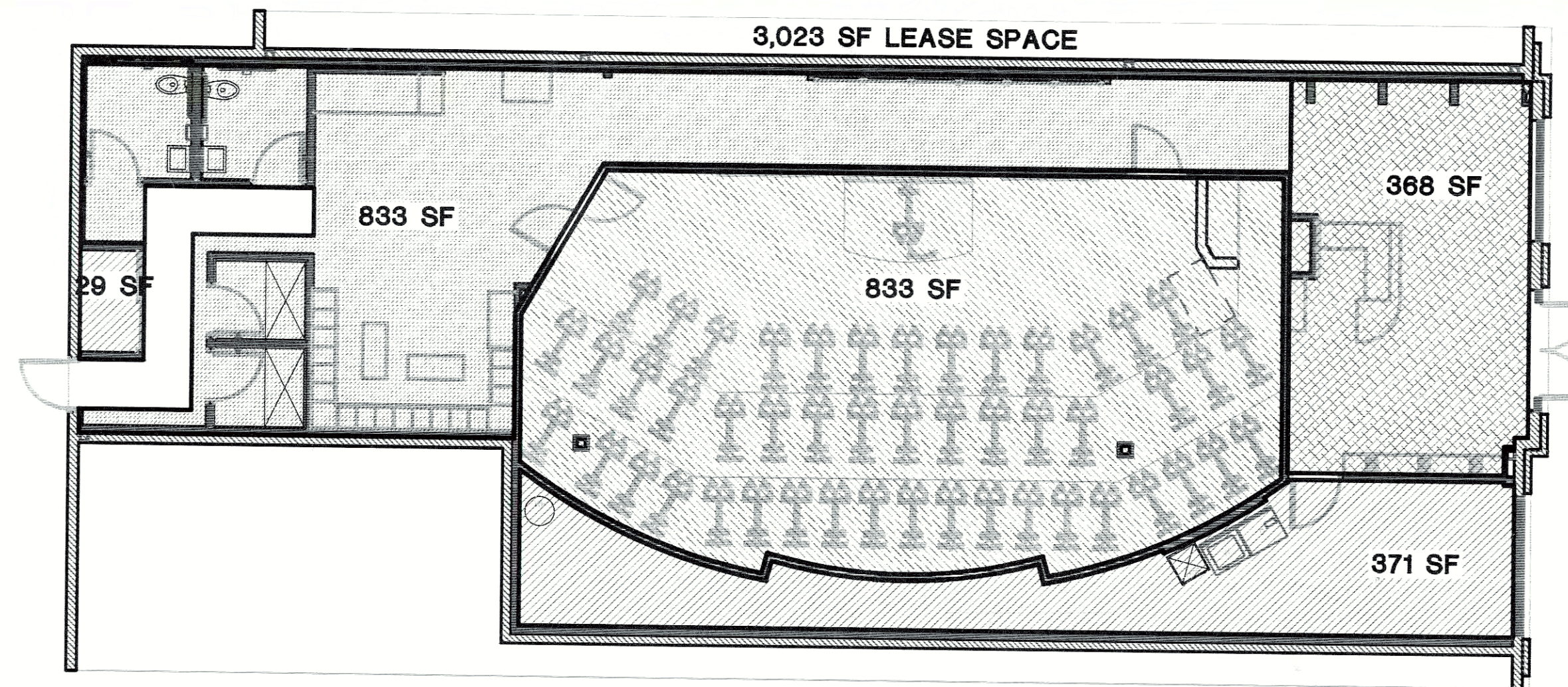
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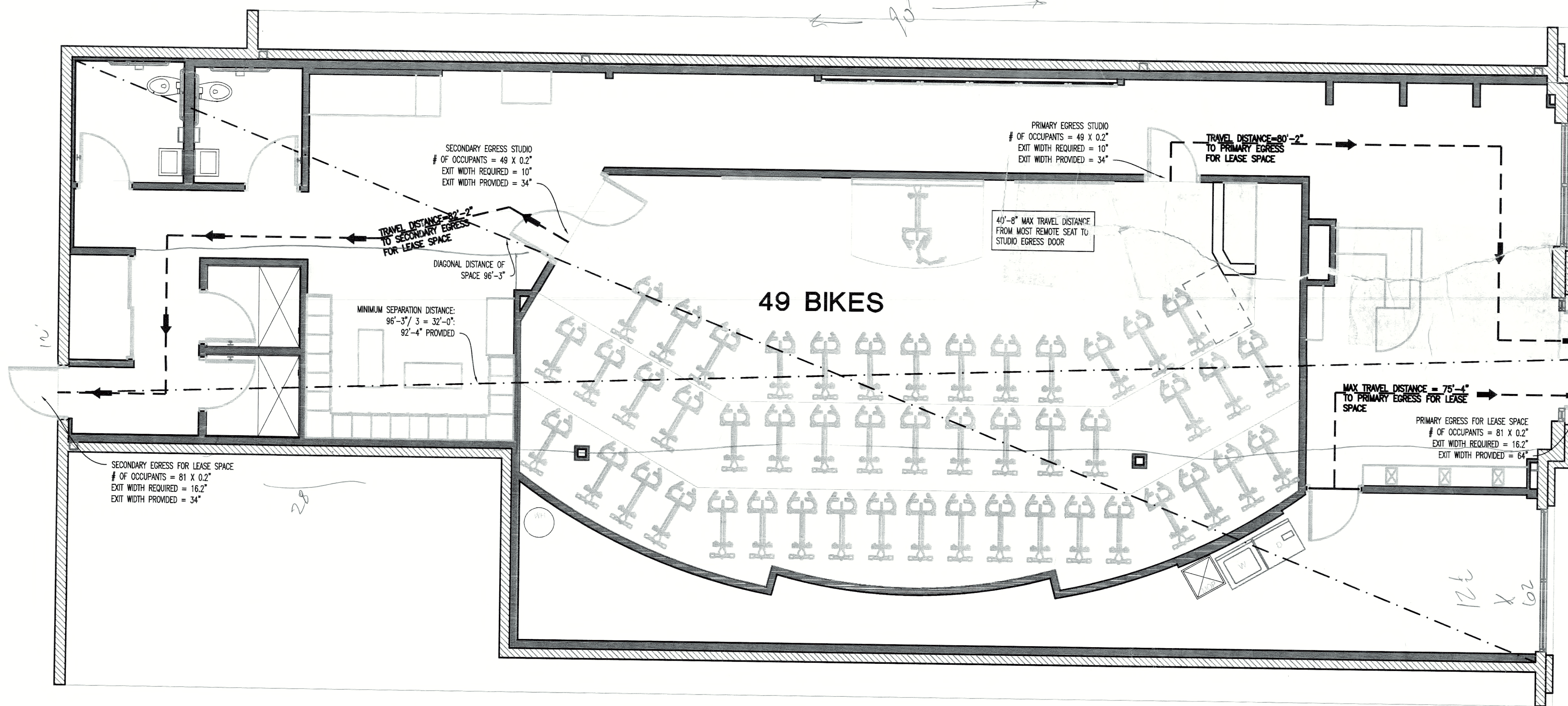
MECHANICAL PLAN

DATE OF THIS PRINTING - 01/24/17





**02 OCCUPANCY PLAN**  
SCALE: 1/8"=1'-0"



**01 LIFE SAFETY PLAN**  
SCALE: 1/4"=1'-0"

**OCCUPANCY CALCULATIONS**  
FROM OCCUPANCY CALCULATIONS BASED ON 2015 IBC

OCCUPANTS ARE CALCULATED IN EACH INDIVIDUAL SPACE, THEN ROUNDED UP

**ASSEMBLY AREAS**

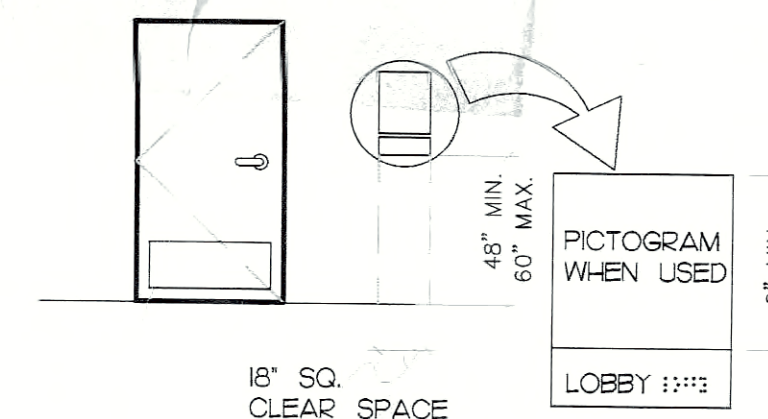
	TOTAL SQ. FT.	OCC LOAD
<b>EXERCISE ROOMS</b> 50 GROSS = 20 OCCUPANTS. INCREASED PER IBC 1004.2	939	19/49
<b>MERCANTILE</b> 30 GROSS	368	13
<b>MECH/STORAGE</b> 300 GROSS	403	2
<b>LOCKERS</b> 50 GROSS	833	17
<b>TOTAL OCCUPANTS</b>		81

**LIFE SAFETY GENERAL NOTES:**

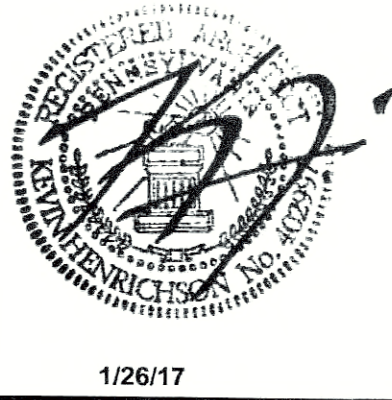
- ALL EGRESS DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
- PROVIDE SIGN ON OR NEAR THE MAIN EXIT DOOR, READING "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".

**TACTILE SIGNAGE:**

- WHEN SIGNS IDENTIFY A PERMANENT ROOM OR SPACE OF A BUILDING OR SITE, OR WHEN SIGNS DIRECT OR GIVE INFORMATION ABOUT A PERMANENT ROOM OR SPACE OF A BUILDING OR SITE, CORRESPONDING TACTILE SIGNAGE SHALL BE INSTALLED.
- WHEN SIGNS IDENTIFY, OR GIVE INFORMATION ABOUT ACCESSIBLE ELEMENTS AND FEATURE OF A BUILDING OR SITE, THEY SHALL INCLUDE THE APPROPRIATE SYMBOL OF ACCESSIBILITY OR PICTOGRAM, WITH THE EQUIVALENT VISUAL AND TACTILE DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE OUTSIDE BORDER OF THE PICTOGRAM SHALL BE MINIMUM 6" IN HEIGHT.
- VISUAL CHARACTERS SHALL BE UPPERCASE, STANDARD SANS SERIF FONT. THE HEIGHT OF VISUAL CHARACTERS SHALL BE A MINIMUM 5/8" PLUS 1/8" PER FOOT OF VIEWING DISTANCE OVER SIX FEET. CHARACTER WIDTH SHALL BE 55% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE CHARACTER. CHARACTER STROKE WIDTH OF VISUAL ONLY CHARACTERS SHALL BE A MINIMUM OF 10% OF THE CHARACTER HEIGHT, AND A MAXIMUM OF 30%. TACTILE SIGNAGE DUPLICATING THE INFORMATION SHALL BE PROVIDED, EITHER AS PART OF THE VISUAL SIGN OR A SEPARATE TACTILE SIGN PROVIDED.
- TACTILE CHARACTERS SHALL BE UPPERCASE, STANDARD SANS SERIF FONT, RAISED 1/32" OFF THE BACKGROUND. THE HEIGHT OF TACTILE CHARACTERS SHALL BE BETWEEN 5/8" AND 2". CHARACTER WIDTH SHALL BE 55% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE CHARACTER. CHARACTER STROKE WIDTH SHALL BE A MINIMUM OF 10% OF THE CHARACTER HEIGHT, AND A MAXIMUM OF 15%. CHARACTERS SHALL BE ACCOMPANIED BY GRADE 2 BRAILLE.
- GRADE 2 BRAILLE SHALL HAVE DOWNS OR ROUNDED DOTS RAISED 1/40" OFF THE BACKGROUND, WITH 2X115 SPACED 1/10" WITH-IN CELLS, AND 1/4" BETWEEN CELLS. (OR SPACED PER ANSI TABLE 703.5)
- TACTILE SIGNS SHALL BE MOUNTED 48" MINIMUM, AND 60" MAXIMUM ABOVE THE FLOOR TO THE CENTERLINE OF THE SIGN. AN 18" X 18" CLEAR SPACE IS REQUIRED IN FRONT OF THE TACTILE SIGN, BEYOND THE ARC OF ANY DOOR SWING. WHERE SIGNS ARE MOUNTED AT DOORS, THE SIGN SHALL BE ON THE LATCH SIDE OF THE DOOR. WHERE SIGNS ARE MOUNTED AT DOUBLE DOORS, OR WHERE THERE IS NO WALL SPACE, THE SIGN SHALL BE MOUNTED ON THE NEAREST ADJACENT WALL, PREFERABLY THE RIGHT SIDE.
- CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND. CHARACTERS, SYMBOLS AND BACKGROUNDS SHALL HAVE A NON-GLARE FINISH.

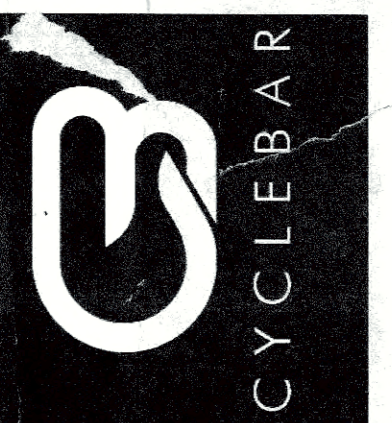


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1/26/17

**CYCLEBAR**  
TENANT FINISHOUT  
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SUITE 150  
NORTH WALES, PA 19454



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ISSUE FOR PERMIT 01/26/17

PROJECT NUMBER  
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SHEET NUMBER

**A100**

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