

# H.H.S. 2018-2019 Improvements to the Pool Town of Hamden, Hamden BOE

2040 Dixwell Ave.  
Hamden, Connecticut 06514

Issued For Bid



## Drawing List

- CS COVER SHEET
  
- A1 POOL FLOOR PLAN
- A2 REFLECTED CEILING PLAN
- A3 INTERIOR ELEVATIONS
- A4 INTERIOR ELEVATIONS & POOL SECTIONS
- A5 DETAILS & PHOTOS
  
- S1 PARTIAL ROOF FRAMING PLAN, DETAILS, NOTES
  
- M0 MECHANICAL LEGEND, SCHEDULES & NOTES
- M1 POOL MECHANICAL ROOF PLAN
- M2 POOL MECHANICAL DETAILS
- MD1 POOL MECHANICAL ROOF DEMOLITION PLAN
  
- P1 PLUMBING COVER SHEET
- P2 POOL PUMP ROOM DEMOLITION & RENOVATION PLANS
- P3 EXISTING POOL PUMP ROOM SCHEMATIC PLAN
- P4 RENOVATED PARTIAL POOL PUMP ROOM SCHEMATIC PLAN
  
- E1 SYMBOLS, NOTES, ABBREV., SCHEDULES & DETAILS - ELECTRICAL
- E2 LOWER LEVEL DEMO. PLAN (POOL) - ELECTRICAL
- E3 LOWER LEVEL PLAN (POOL) - ELECTRICAL
- E4 THIRD FLOOR/ROOF DEMOLITION PLAN (POOL) - ELECTRICAL
- E5 THIRD FLOOR/ROOF PLAN (POOL) - ELECTRICAL



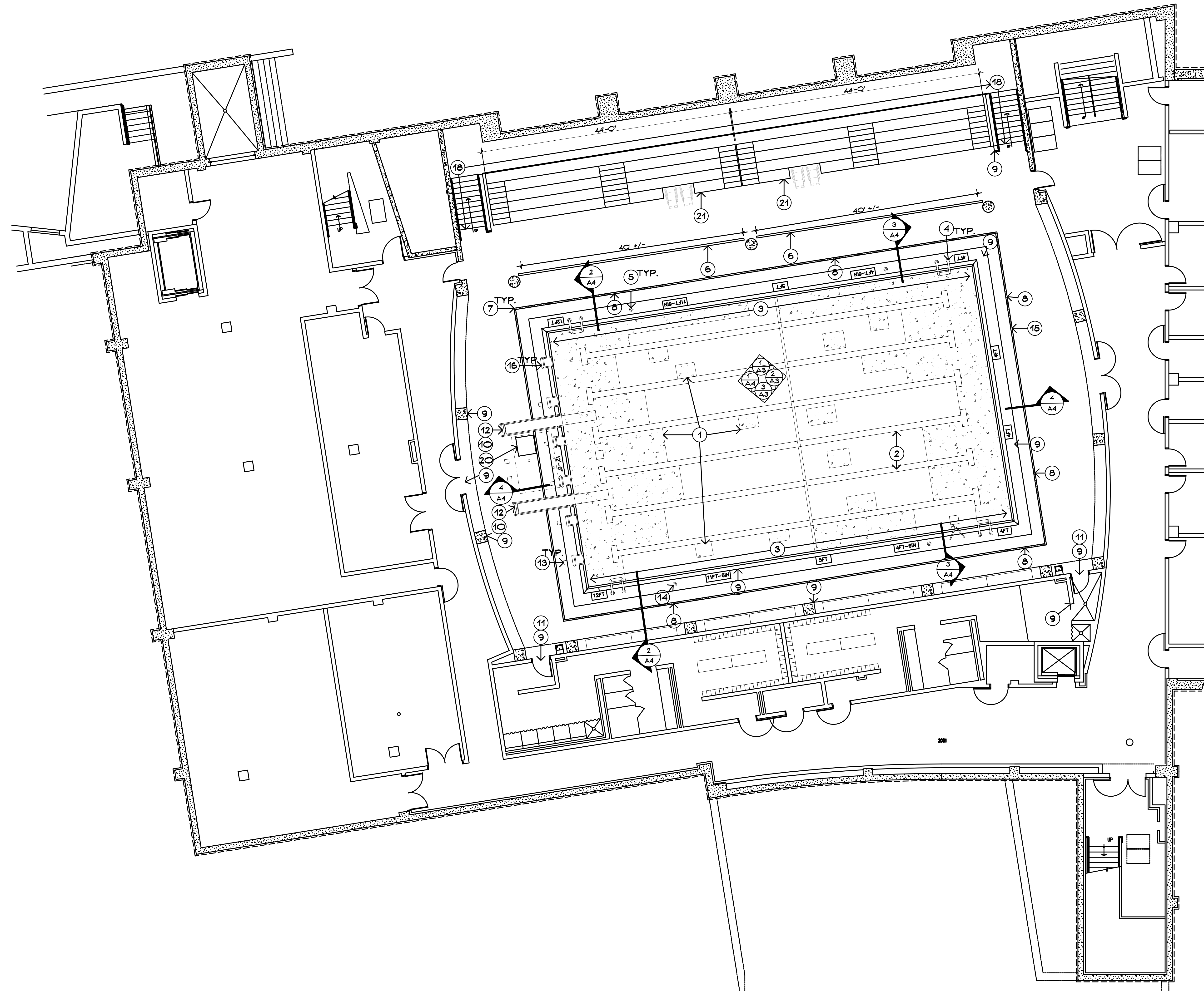
SILVER / PETRUCELLI + ASSOCIATES  
*Architects / Engineers / Interior Designers*

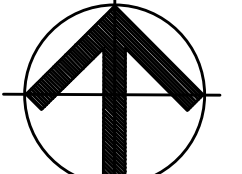
3190 Whitney Avenue, Hamden, CT 06518-2340  
Tel. 203 230 9007 Fax. 203 230 8247  
[silverpetrucelli.com](http://silverpetrucelli.com)

January 14th, 2019

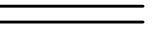








CS






**POOL FLOOR PLAN**  
 SCALE: 1/8"=1'-0"  
 1 / A1

**SYMBOL LEGEND**

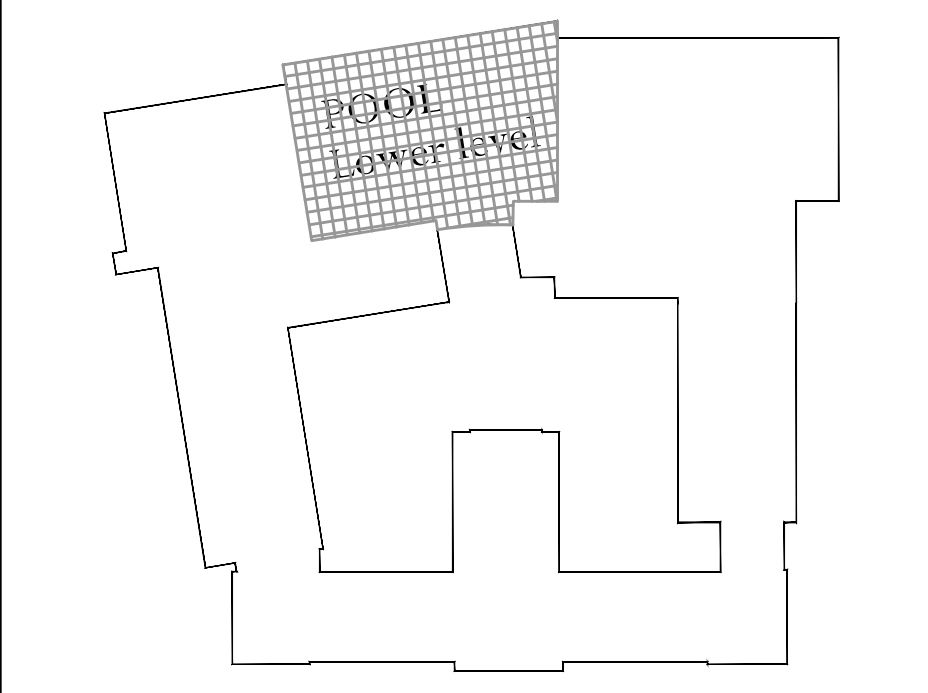
-  EXISTING WALLS TO REMAIN
-  EXISTING DOOR
-  ROOM NUMBER - SEE ROOM FINISH
-  CONSTRUCTION NOTE
-  SECTION NUMBER
-  SHEET NUMBER
-  ELEVATION NUMBER
-  SHEET NUMBER
-  REVISION TAG

**GENERAL NOTES**

1. CONTRACTORS SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS.
2. PATCH TO MATCH ALL EXISTING WALLS AFFECTED BY NEW WORK.
3. OWNER HAS 1/2" TIC STOCK OF TILE FOR THE CONTRACTOR TO INVENTORY FOR USE IN PROJECT.
4. ALL EXISTING AND NEW CONDUIT, ELECTRICAL BOXES, PLATES, AND SPRINKLER PIPES TO BE PAINTED TO MATCH ADJACENT WALL COLOR. REFER TO ELEVATIONS AND PROJECT MANUAL.
5. CONTRACTOR IS TO PROVIDE SUMP PUMP AND HOSES TO DISCHARGE GROUND WATER FROM BASIN AT THE BOTTOM OF A HATCH APPROXIMATELY 10 FEET OUTSIDE THE POOL. DISCHARGE WATER INTO NEAREST STORM BASIN. THIS PUMP SHOULD REMAIN ACTIVE DURING THE ENTIRE DURATION WHEN THE POOL IS EMPTY AND SHOULD BE MONITORED AND MAINTAINED BY THE CONTRACTOR. THE BASIN AND PROCESS OF DE-WATERING WAS PROVIDED DURING CONSTRUCTION OF THE POOL, WITH HIGH GROUND WATER IN THIS LOCATION.

**CONSTRUCTION NOTES (#)**

1. POOL IS MARKED IN BLUE CRAYON TO SHOW COMPLETE PLASTER REMOVAL IN THESE AREAS. RED CRAYON IS CONCRETE REPAIR DRAWING IS APPROXIMATE. FIELD VALIDATE EXIST. SEE ALTERNATE #2. REMOVE ALL PLASTER TO CONCRETE. ONCE REPAIRS ARE COMPLETE, PREPARE AND RE-PLASTER ENTIRE SURFACE WITH PRIMER, BASE AND TOP COATS. CLEAN AND REINSTALL ALL DRAIN/FILTER COVERS.
2. 2" SQUARE BLACK TILES. REPLACE TO MATCH EXISTING IF REQUIRED FOR POOL REFINISHING. RE-GROUT ALL OPEN AND LOOSE GROUT LINES, TYPICAL OF ENTIRE POOL.
3. REMOVE AND REPLACE WITH NEW ALL WALKWAY SLAT GRATES 48" WIDE X 48" LONG, BY BOTH SIDES, LENGTH OF POOL. CLEAN AND REFINISH THE OVERFLOW TRENCH DRAIN BELOW ON 3 SIDES AND TOP ON BOTH SIDES BY THE LENGTH OF POOL.
4. CHEM WASH ALL POOL LADDER AND COMPONENTS AND TIGHTEN ALL SET SCREWS. REMOVE RUST STAIN FROM SURROUNDING AREA ON TILES. TYP. FOR ALL LADDERS.
5. CHEM WASH ALL CUP ANCHORS (20), LANE HOOKS (16) AND ANCHOR POSTS (6). REPLACE ANY DAMAGED COMPONENTS.
6. REMOVE AND REPLACE WITH NEW METAL GUARD RAIL. MATCH EXISTING STYLE, LOCATION AND SPACING. REFER TO ELEVATION TAGS FOR MORE INFORMATION.
7. PROVIDE CORNER DECK DRAIN COVER AT ALL CORNER (4). CLEAN AREA PRIOR TO INSTALLATION.
8. REMOVE COMPLETE SECTION OF LINEAR DECK DRAIN COVER, SHOWN HATCHED AND REPLACE WITH NEW. REMOVE EXISTING SURROUNDING TAPES AND RESIN. SEE PROJ. MAN.
9. RE-POINT AND RE-GROUT ALL EXISTING 1'X1' OR 2'X2' TILE. REMOVE ALL BROKEN PIECES. MATCH EXISTING COLOR AND PATTERN. COLOR GROUT TO MATCH EXISTING THROUGH OUT ENTIRE POOL DECK AND WALL BASE.
10. 1'X1' OR 2'X2' TILE REPAIR FOR ALL FOUR TILED DIVING BOARD STANDS/BOX/TOWER, FOUR (4) TOTAL. RESTORE ELEC. GROUNDING. MATCH EXISTING COLOR AND PATTERN.
11. REPAIR RUSTED DOOR AND FRAME. REFER TO DETAIL 3/A5.
12. REMOVE EXISTING AND PROVIDE TWO (2) NEW DIVING BOARDS AND ALL ASSOCIATED COMPONENTS, INCLUDING TWO SETS OF SHORT STANDS. SEE SPECIFICATION SECTION 13/165.
13. REMOVE EXISTING TIMER SYSTEM & FLOOR BOX. INFILL FLOOR AT SIX (6) LOCATIONS WITH CONCRETE & TILE TO MATCH EXISTING COLOR AND PATTERN.
14. RE-CAST LOOSE CUP/SLEEVE ANCHORS.
15. REMOVE SEALANT, TAPE ETC. ALONG BOTH SIDES OF DECK DRAIN AND REPLACE WITH NEW.
16. REMOVE AND REPLACE ALL SIX (6) STARTING BLOCKS. RE-GROUT EXT'G FLOOR/DECK ANCHOR SLEEVES. REMOVE ALL RUST STAINS ON SURROUNDING TILES.
17. REMOVE AND REPLACE WITH NEW SEALANT CENTER EXPANSION JOINT AT BOTTOM AND WALLS OF THE POOL.
18. REMOVE BENCHES, SCRAPE, CLEAN, FILL CONCRETE CRACKS, SEAL STAIR TREAD JOINTS, PRIME AND PAINT STAIR AND UPPER GALLERY DECK.
19. REMOVE ALL BENCHES, FLOOR, DECK COVERS AND CHEMICALLY WASH ALL FLOOR AND WALL TILE TO REMOVE STAINS AND ANODIZED ALUMN. REPLACE TILE TO MATCH, SCRAPE, GROUT OUT WHERE LOOSE AND FILL WITH NEW COLORED GROUT.
20. CLEAN, REMOVE GROUT AND INSTALL GROUT AROUND FLOOR ACCESS DOOR FOR SMOOTH BEVEL TRANSITION.
21. NEW TELESCOPING BLEACHER STANDS. SEE ALTERNATE #1. TWO BANKS, FIVE TERS. MANUAL OPERATION. NOTE THE EXISTING RECESS IS 6" +/- DEEP. INCLUDE GALV. UNDERSTRUCTURE TO SUPPORT BLEACHERS.




**KEY PLAN**  
 NTS  
 NORTH

Project Title:  
 H.H.S. 2018 - 2019 Improvements to the Pool  
 Town of Hamden, Hamden Board of Education  
 Hamden High School  
 2040 Dixwell Avenue  
 Hamden, CT 06514



**SILVER / PETRUCCELLI + ASSOCIATES**  
 Architects / Engineers / Interior Designers  
 3190 Whitney Avenue, Hamden, CT 06518-2340  
 Tel. 203 230 9007 Fax. 203 230 8247  
 silverpetrucci.com

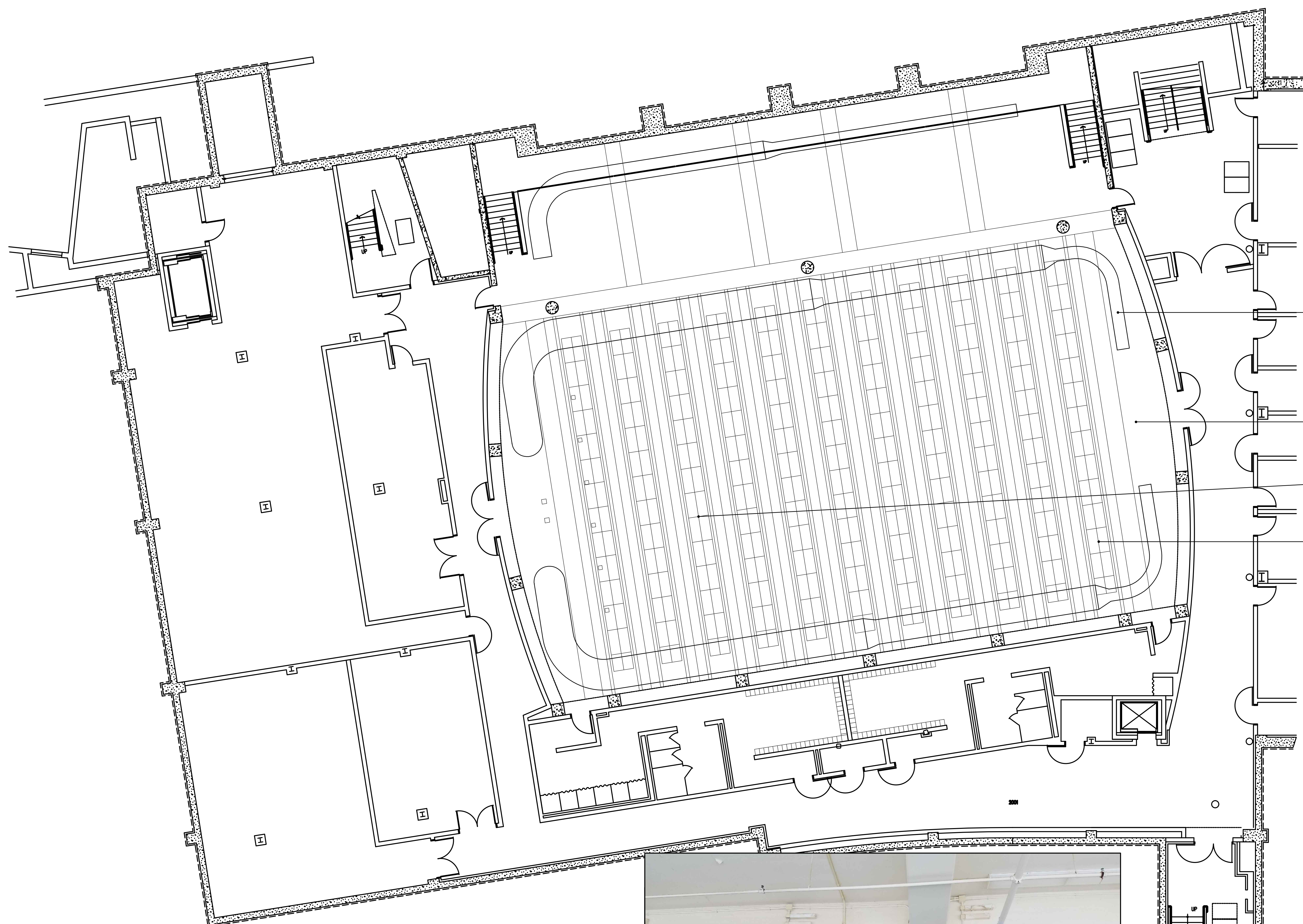
Revision	Description	Date	Revised By

Drawing Title:  
**Pool Floor Plan**

Date:  
 JANUARY 14, 2019  
 Scale:  
 AS NOTED  
 Drawn By:  
 JBI  
 Project Number:  
 18.048

A1





**SYMBOL LEGEND**

- EXISTING WALLS TO REMAIN
- ⌋ EXISTING DOOR
- (A102) ROOM NUMBER - SEE ROOM FINISH
- ② CONSTRUCTION NOTE
- 1/400 SECTION NUMBER SHEET NUMBER
- 2/1000 ELEVATION NUMBER SHEET NUMBER
- ⚠ REVISION TAG

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**CONSTRUCTION NOTES #**

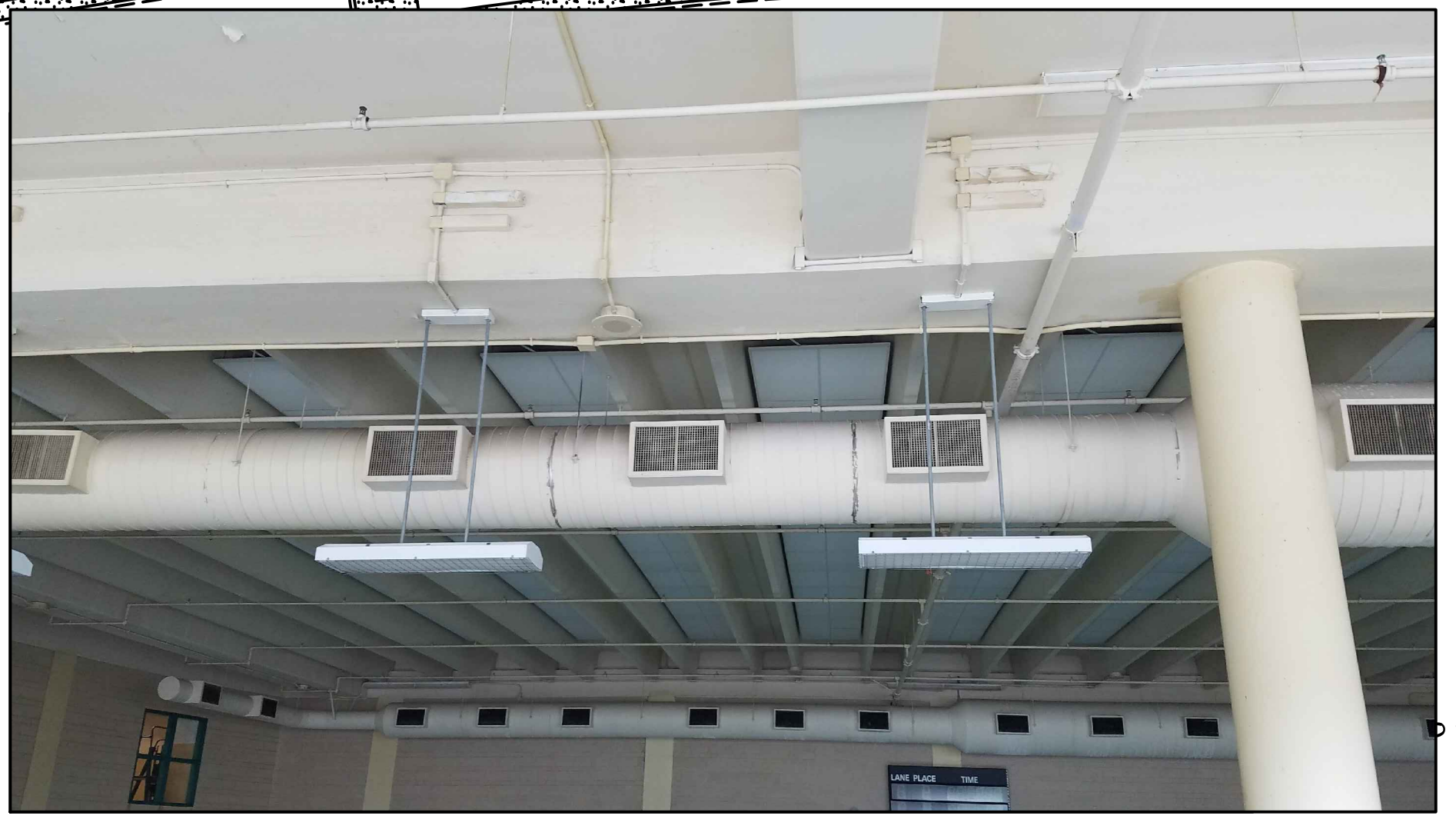
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9. RE-POINT AND RE-GROUT ALL EXISTING 1/2" X 1/2" TILE. REMOVE ALL BROKEN PIECES. MATCH EXISTING COLOR AND PATTERN. COLOR GROUT TO MATCH EXISTING THROUGH OUT ENTIRE POOL DECK AND WALL BASE.
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EXISTING MECHANICAL DUCT WORK TO BE PAINTED PT-2. TYPICAL FOR ALL (3) SECTIONS OF EXPOSED DUCTWORK (INCLUDING TAPS). ALL GRILLES TO BE CLEANED AND PAINTED PT-1

ALL CEILINGS WITHIN POOL ROOM SHALL BE SCRAPED, PREPARED AND PAINTED, PT-2. THIS INCLUDES ALL STRUCTURAL ELEMENTS.

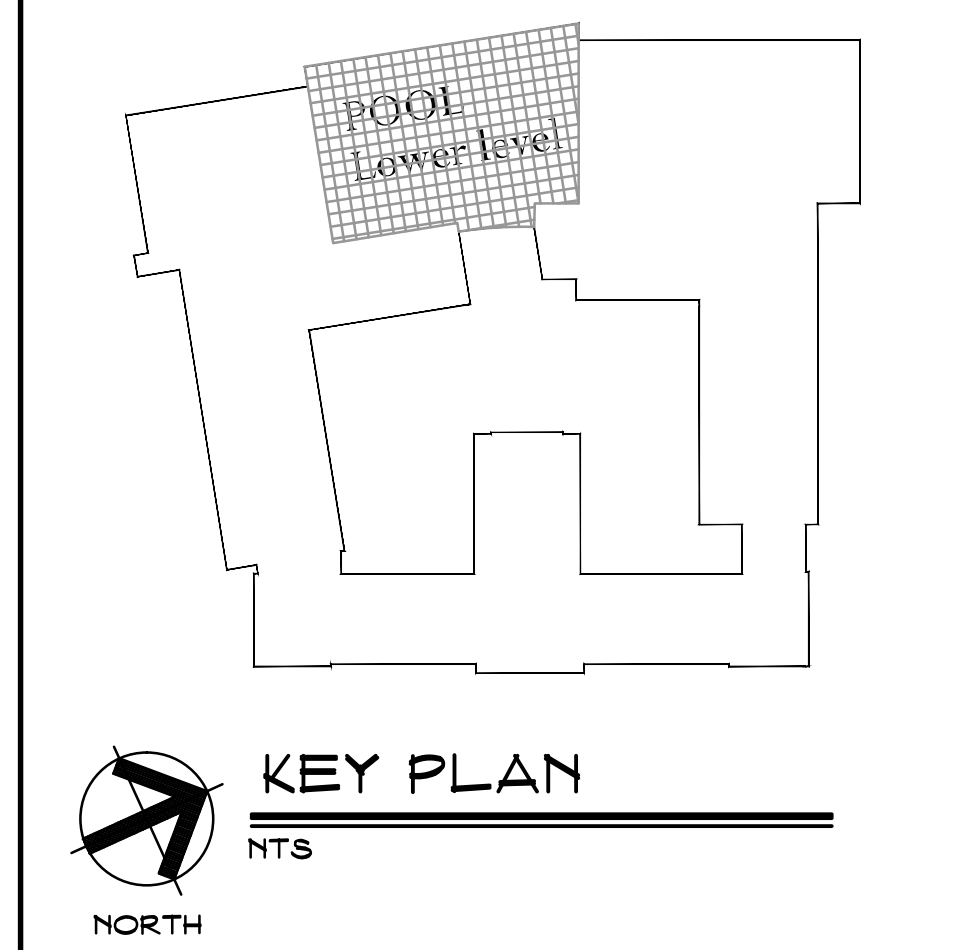
EXISTING SOUND PANELS TO BE REPLACED. GRID TO BE REPLACED WHERE DAMAGED.

EXISTING SOUND PANELS TO BE COVERED AND MASKED WHEN PAINTING CEILING. PAINT A MINIMUM OF 2' BEYOND OPEN END OF PANEL TO ENSURE ALL VISIBLE PORTIONS OF CEILING ARE COVERED. REFER TO PHOTO 2/A2.



**POOL CEILING PHOTO** ②  
SCALE: NONE

**POOL REFLECTED CEILING PLAN** ①  
SCALE: 1/8"=1'-0"  
PROJECT NORTH

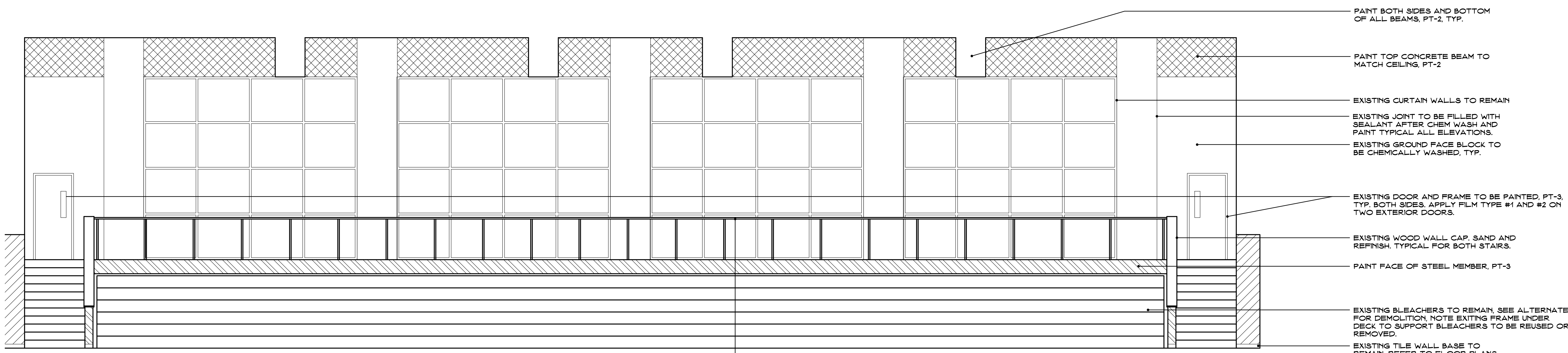


**KEY PLAN**  
NTS  
NORTH

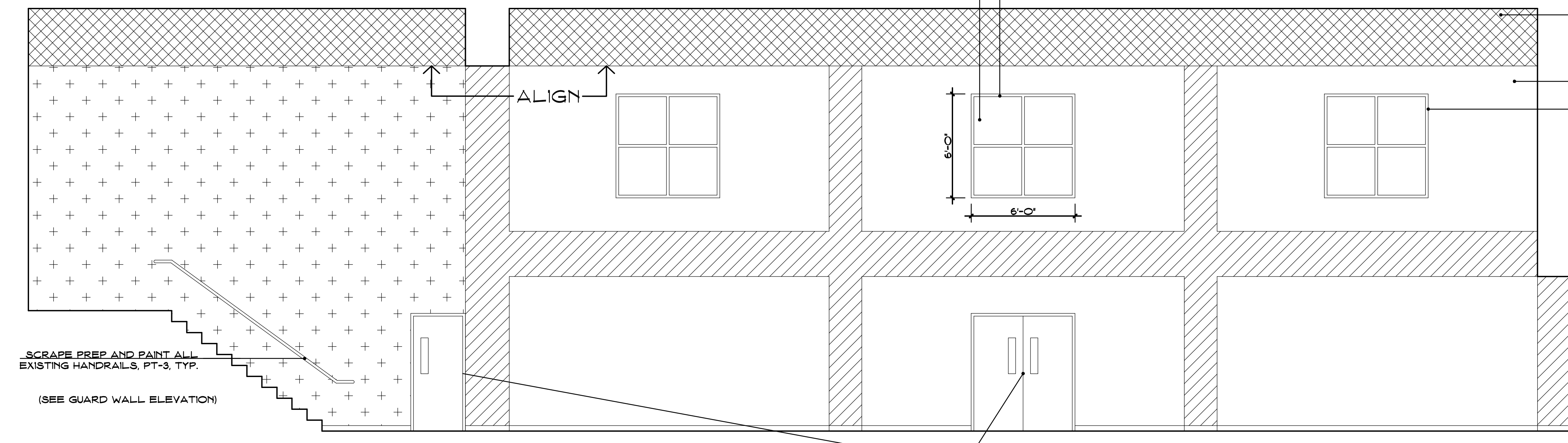


Revision	Description	Date	Revised By

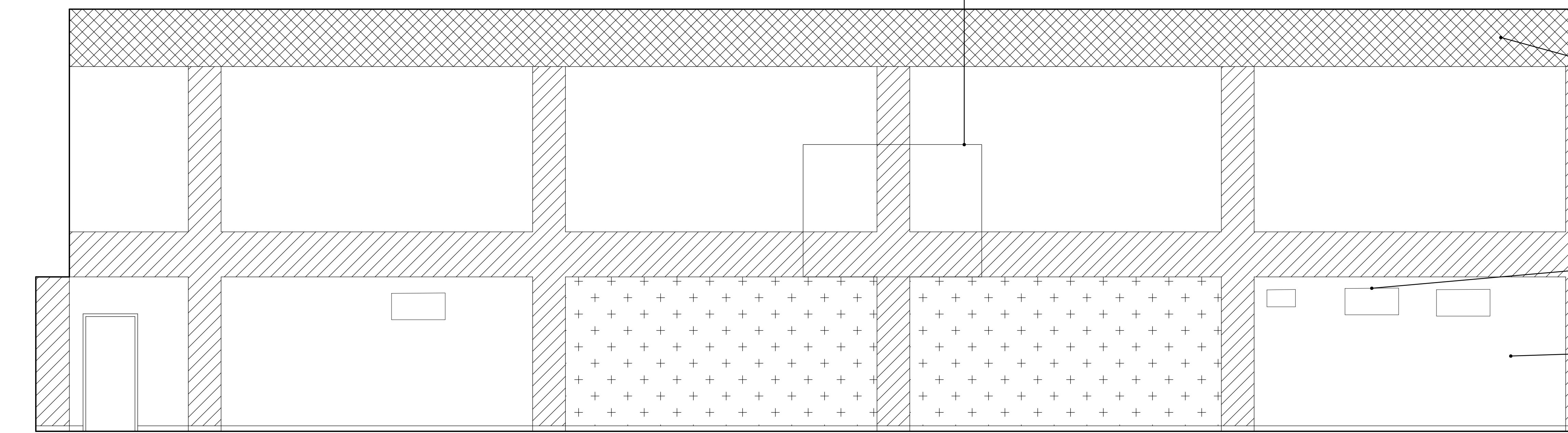




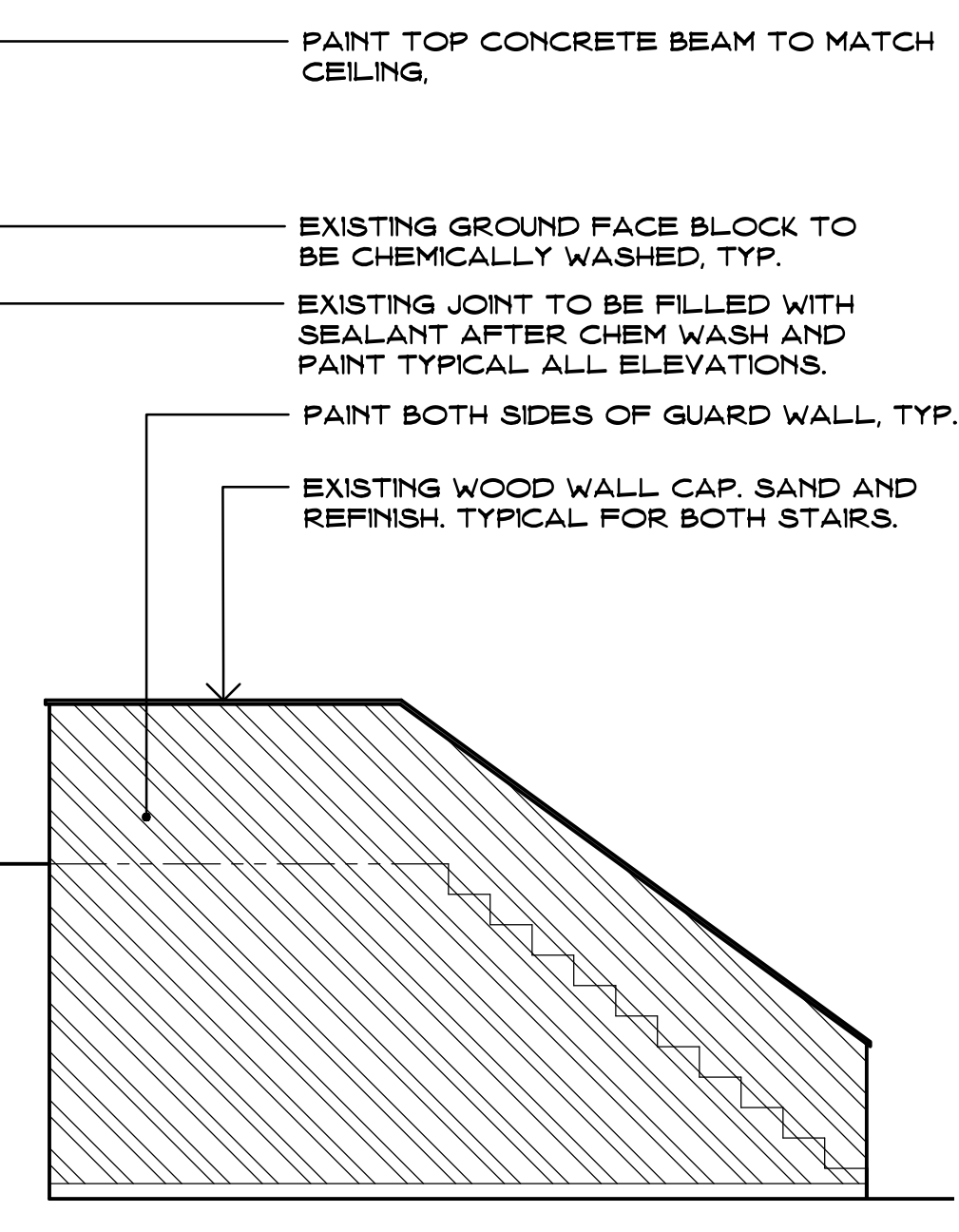
**POOL ELEVATION NORTH WALL**  
SCALE: 1/4"=1'-0"  
1  
A3



**POOL ELEVATION EAST WALL**  
SCALE: 1/4"=1'-0"  
2  
A3



**POOL ELEVATION SOUTH WALL**  
SCALE: 1/4"=1'-0"  
3  
A3



**GUARD WALL AT STAIR**  
SCALE: 1/4"=1'-0"

**PAINT SCHEDULE**

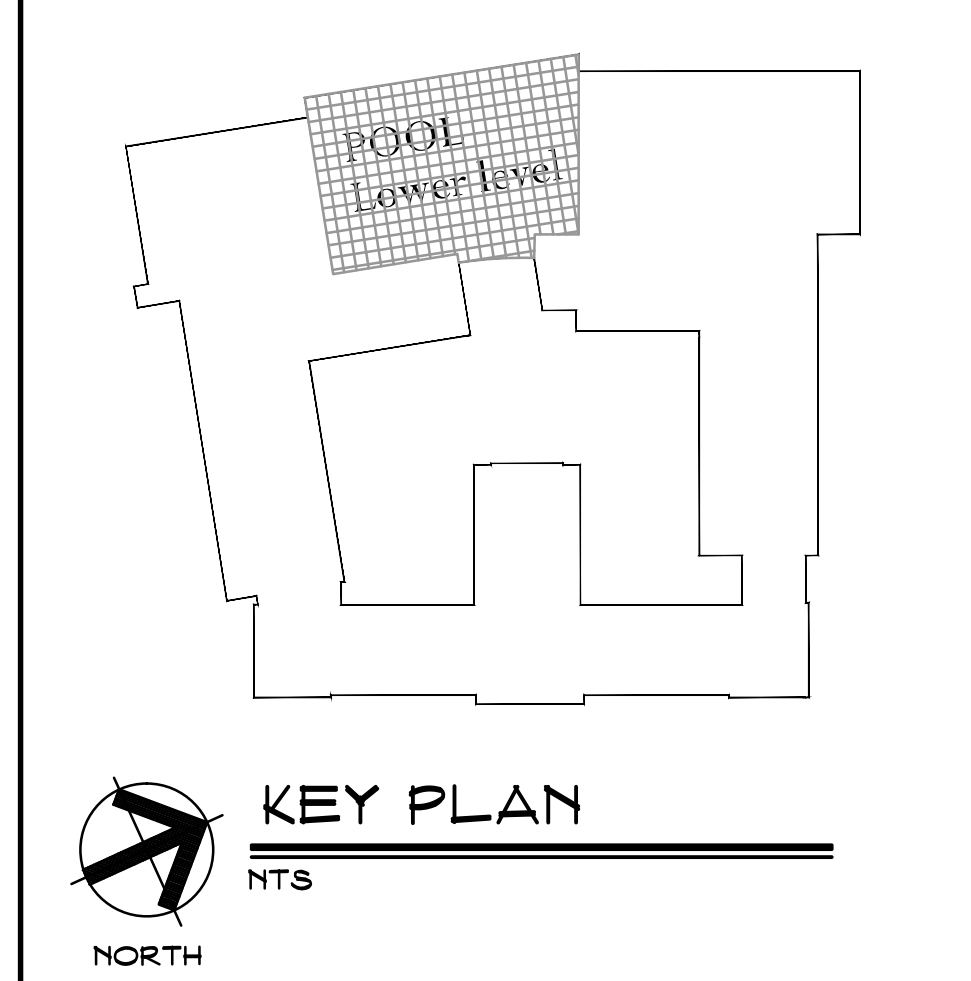
	PT-1		PT-2
	PT-3		PT-4

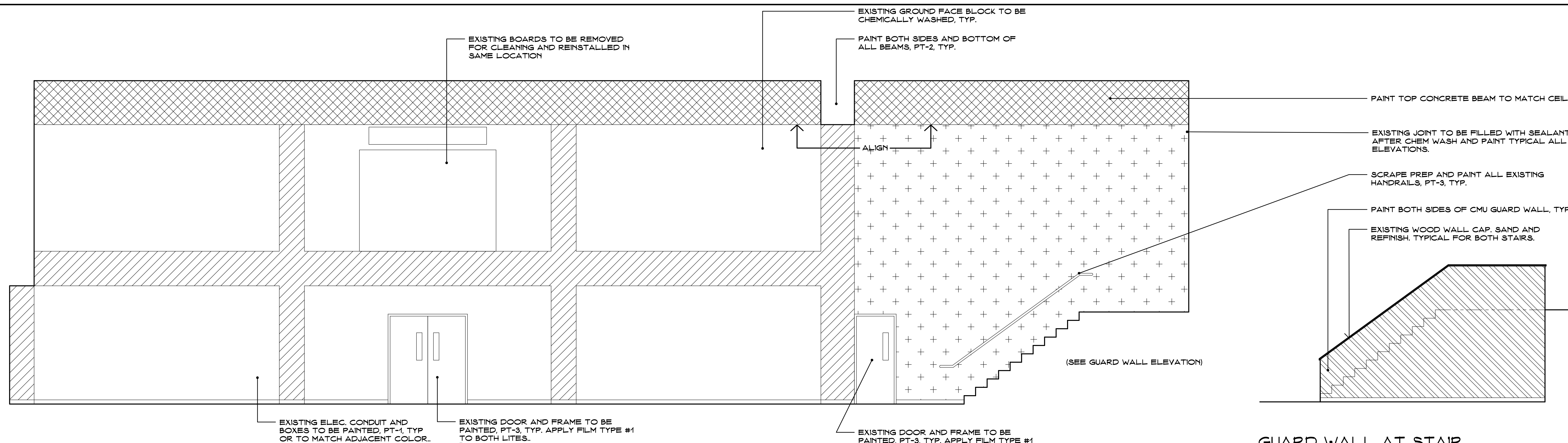
**SYMBOL LEGEND**

	EXISTING WALLS TO REMAIN
	EXISTING DOOR
	ROOM NUMBER - SEE ROOM FINISH
	CONSTRUCTION NOTE
	SECTION NUMBER SHEET NUMBER
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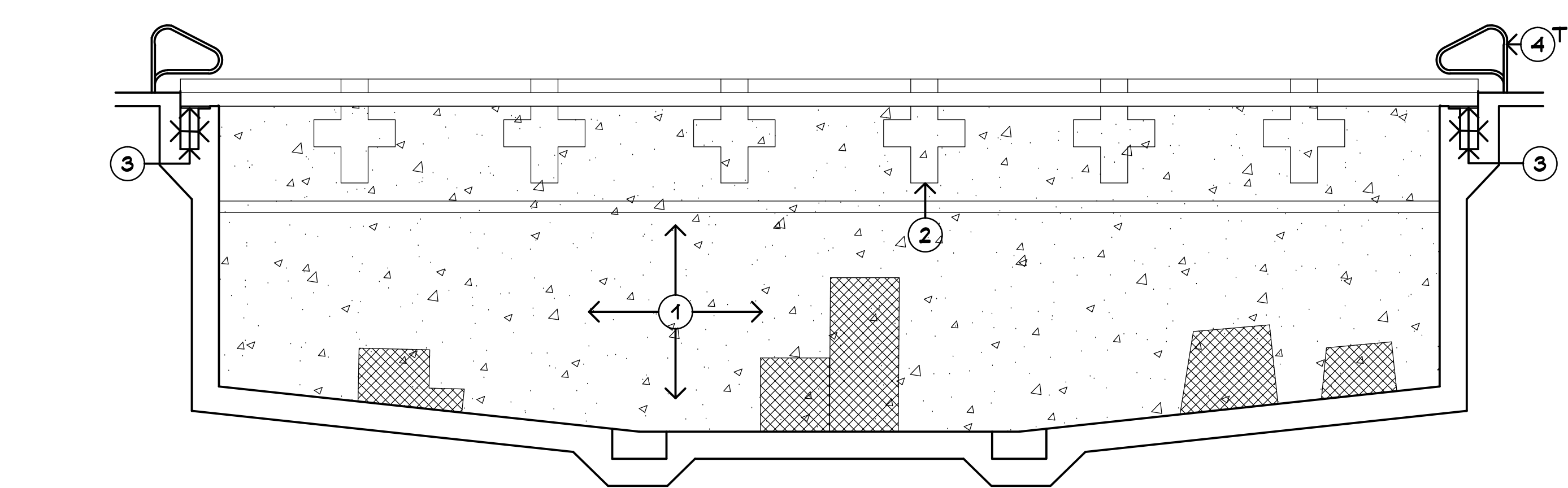
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  - REMOVE EXISTING TIMER SYSTEM & FLOOR BOX, IN FLOOR AT SIX (6) LOCATIONS WITH CONCRETE & TILE TO MATCH EXISTING COLOR AND PATTERN.
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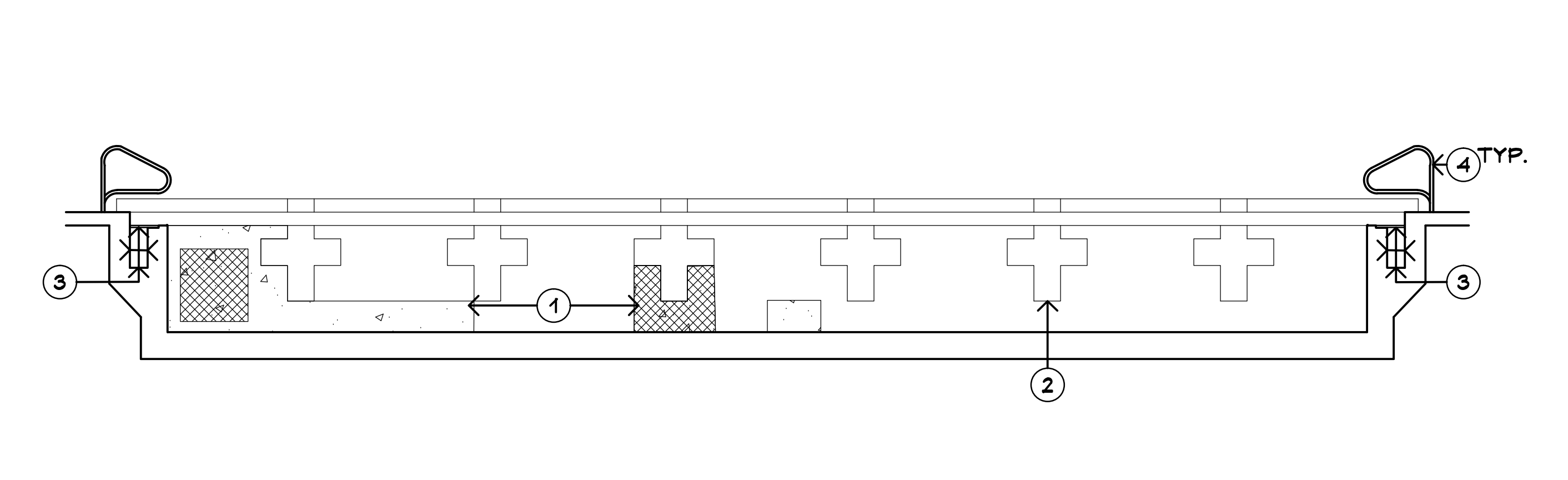


**POOL ELEVATION WEST WALL**  
SCALE: 1/4"=1'-0"

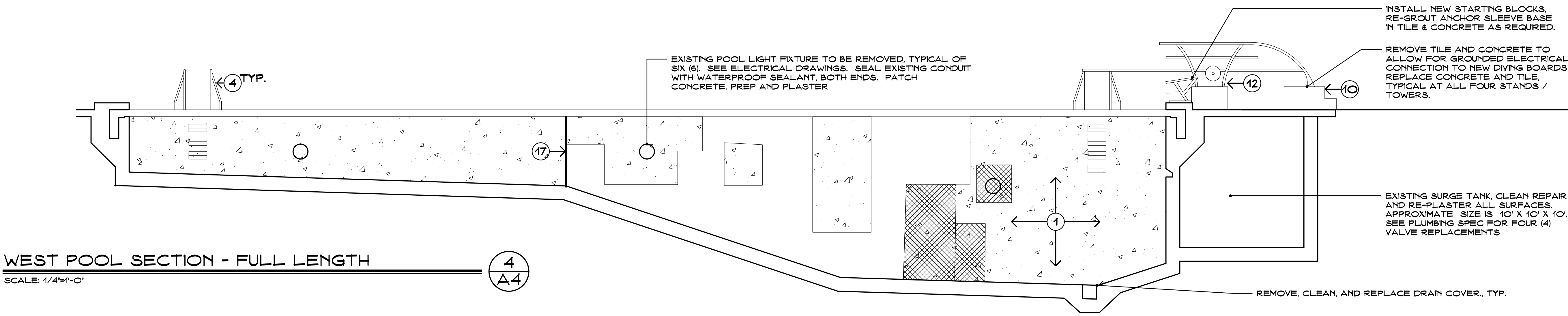
**GUARD WALL AT STAIR**  
SCALE: 1/4"=1'-0"



**POOL SECTION - DEEP END**  
SCALE: 1/4"=1'-0"



**POOL SECTION - SHALLOW END**  
SCALE: 1/4"=1'-0"



**WEST POOL SECTION - FULL LENGTH**  
SCALE: 1/4"=1'-0"

**EAST POOL SECTION - FULL LENGTH**  
SCALE: 1/4"=1'-0"

**PLASTER / CONC. LEGEND**

	COMPLETE PLASTER REMOVAL AND REPLACEMENT TO CONCRETE STRUCTURE.
	CONCRETE REPAIR, REMOVE TO CLEAN AND NON-RUSTED RE-BAR, REPAIR RE-BAR AND REPLACE CONCRETE BEFORE PLASTER REPAIR.

**PAINT SCHEDULE**

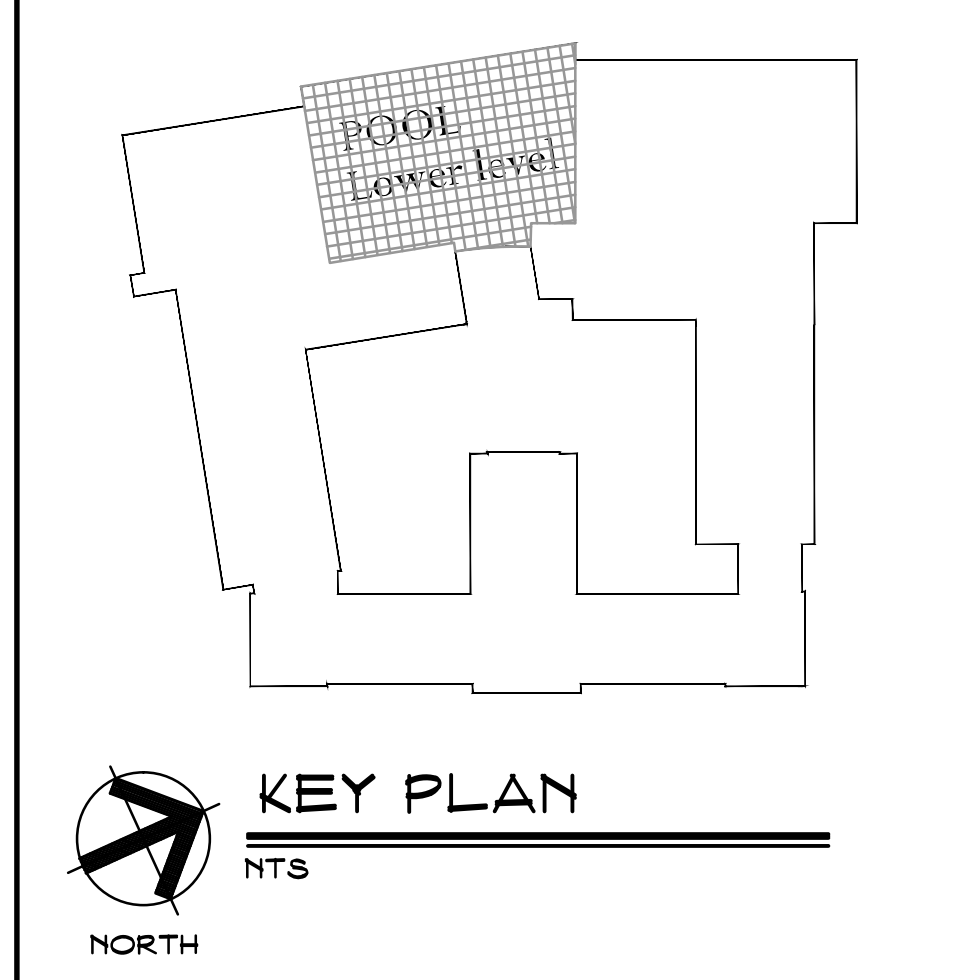
	PT-1		PT-2
	PT-3		PT-4

**SYMBOL LEGEND**

	EXISTING WALLS TO REMAIN
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  - CONTRACTOR IS TO PROVIDE SUMP PUMP AND HOSES TO DISCHARGE GROUND WATER FROM BASIN AT THE BOTTOM OF A MANHOLE APPROXIMATELY 1' CHEST OUTSIDE THE POOL. DISCHARGE WATER INTO NEAREST STORM BASIN. THIS PUMP SHOULD REMAIN ACTIVE DURING THE ENTIRE DURATION WHEN THE POOL IS EMPTY AND SHOULD BE MONITORED AND MAINTAINED BY THE CONTRACTOR. THE BASIN AND PROCESS OF DE-WATERING WAS PROVIDED DURING CONSTRUCTION OF THE POOL WITH HIGH GROUND WATER IN THIS LOCATION.

- CONSTRUCTION NOTES**
- POOL IS MARKED IN BLUE CRAYON TO SHOW COMPLETE PLASTER REMOVAL IN THESE AREAS. RED CRAYON IS CONCRETE REPAIR DRAWING IS APPROXIMATE. FIELD VALIDATE EXISTING TILE LOCATION AND SPACING. REFER TO ELEVATION 1/A5 FOR MORE INFORMATION.
  - 2" SQUARE BLACK TILES, REPLACE TO MATCH EXISTING IF REQUIRED FOR POOL REFINISHING. RE-GROUT ALL OPEN AND LOOSE GROUT LINES, TYPICAL, OF ENTIRE POOL.
  - REMOVE AND REPLACE (WITH NEW) ALL WALKWAY SLAT GRATES 6" WIDE X 40" LONG, BY BOTH SIDES, LENGTH OF POOL. CLEAN AND REFINISH THE OVERFLOW TRENCH DRAIN BELOW ON 3 SIDES AND TOP ON BOTH SIDES BY THE LENGTH OF POOL.
  - CHEM WASH ALL POOL LADDER AND COMPONENTS AND TIGHTEN ALL SET SCREWS, REMOVE RUST STAIN FROM SURROUNDING AREA ON TILES, TYP. FOR ALL LADDERS.
  - CHEM WASH ALL CUP ANCHORS (20), LANE HOOKS (18) AND ANCHOR POSTS (8). REPLACE ANY DAMAGED COMPONENTS.
  - REMOVE AND REPLACE WITH NEW METAL GUARD RAIL. MATCH EXISTING STYLE, LOCATION AND SPACING. REFER TO ELEVATION 1/A5 FOR MORE INFORMATION.
  - PROVIDE CORNER DECK DRAIN COVER AT ALL CORNER (4). CLEAN AREA PRIOR TO INSTALLATION.
  - REMOVE COMPLETE SECTION OF LINEAR DECK DRAIN COVER, SHOW HATCHED AND REPLACE WITH NEW. REMOVE EXISTING SURROUNDING TAPE AND RESIDUE. SEE PROJ. MAN.
  - RE-POINT AND RE-GROUT ALL EXISTING 1X1" OR 2X2" TILE. REMOVE ALL BROKEN PIECES, MATCH EXISTING COLOR AND PATTERN. COLOR GROUT TO MATCH EXISTING THROUGH OUT ENTIRE POOL DECK AND WALL BASE.
  - 1X1" OR 2X2" TILE REPAIR FOR ALL FOUR TILED DIVING BOARD STANDS/BOX/TOWER, FOUR (4) TOTAL. RESTORE ELEC. GROUNDING, MATCH EXISTING COLOR AND PATTERN.
  - REPAIR RUSTED DOOR AND FRAME. REFER TO DETAIL 3/A5
  - REMOVE EXISTING AND PROVIDE TWO (2) NEW DIVING BOARDS AND ALL ASSOCIATED COMPONENTS, INCLUDING TWO SETS OF SHORT STANDS. SEE SPECIFICATION SECTION 151155.
  - REMOVE EXISTING TRIM SYSTEM & FLOOR BOX, IN-FILL FLOOR AT SIX (6) LOCATIONS WITH CONCRETE & TILE TO MATCH EXISTING COLOR AND PATTERN.
  - RE-CAST LOOSE CUP/SLEEVE ANCHORS.
  - REMOVE SEALANT, TAPE ETC. ALONG BOTH SIDES OF DECK DRAIN AND REPLACE WITH NEW.
  - REMOVE AND REPLACE ALL SIX (6) STARTING BLOCKS. RE-GROUT EXT'G FLOOR/DECK ANCHOR SLEEVES. REMOVE ALL RUST STAINS ON SURROUNDING TILES.
  - REMOVE AND REPLACE WITH NEW SEALANT CENTER EXPANSION JOINT AT BOTTOM AND WALLS OF THE POOL.
  - REMOVE BENCHES, SCRAPE, CLEAN, FILL CONCRETE CRACKS, SEAL STAIR TREAD JOINTS, PRIME AND PAINT STAIR AND UPPER GALLERY DECK.
  - REMOVE ALL BENCHES, FLOOR, DECK COVERS AND CHEMICALLY WASH ALL FLOOR AND WALL TILES TO REMOVE STAINS AND ANODIZED ALUMN. REPLACE TILE TO MATCH. SCRAPE, GROUT OUT WHERE LOOSE AND FILL WITH NEW COLORED GROUT.
  - CLEAN, REMOVE GROUT AND INSTALL GROUT AROUND POOL ACCESS DOOR FOR SMOOTH BEVEL TRANSITION.
  - NEW TELESCOPING BLEACHER STANDS. SEE ALTERNATE #1, TWO BANKS, FIVE TERS, MANUAL OPERATION. NOTE THE EXISTING RECESS IS 8' +/- DEEP. INCLUDE GALV. UNDERSTRUCTURE TO SUPPORT BLEACHERS.



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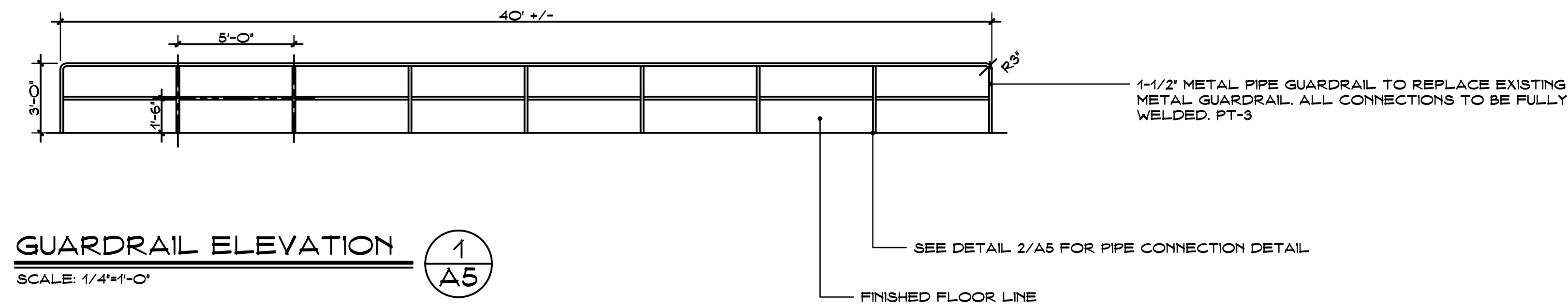
Revision	Description	Date	Revised By

Drawing Title:  
**Interior Elevations & Pool Sections**

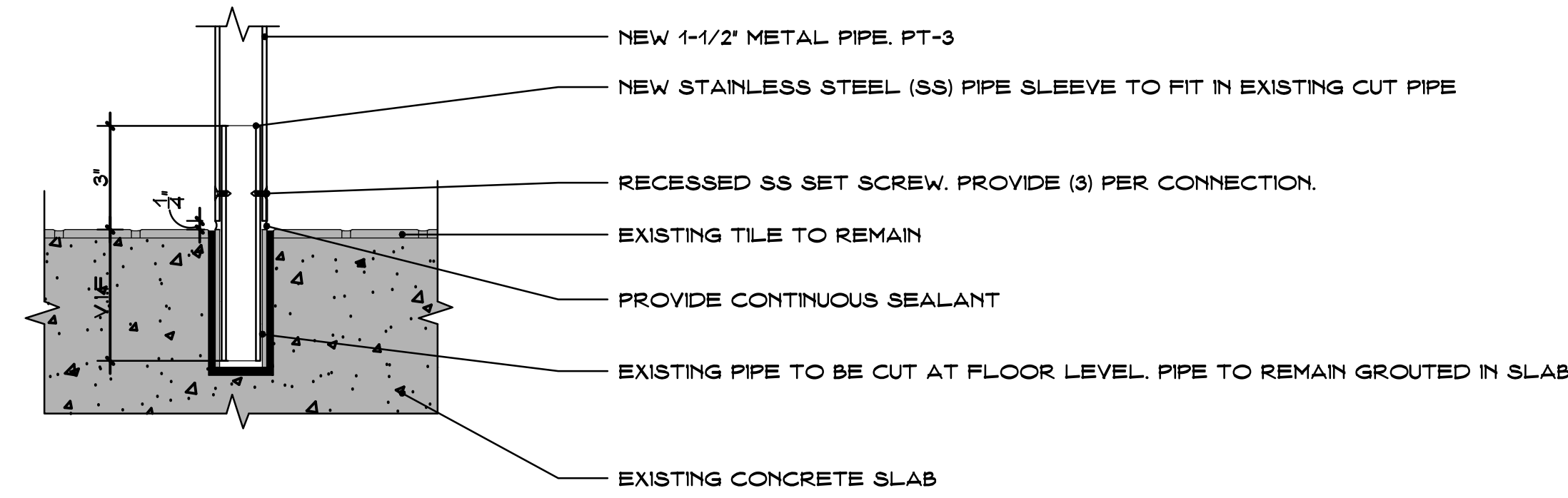
Date:  
JANUARY 14, 2019  
Scale:  
AS NOTED  
Drawn By:  
RCG  
Project Number:  
18.048

**A4**

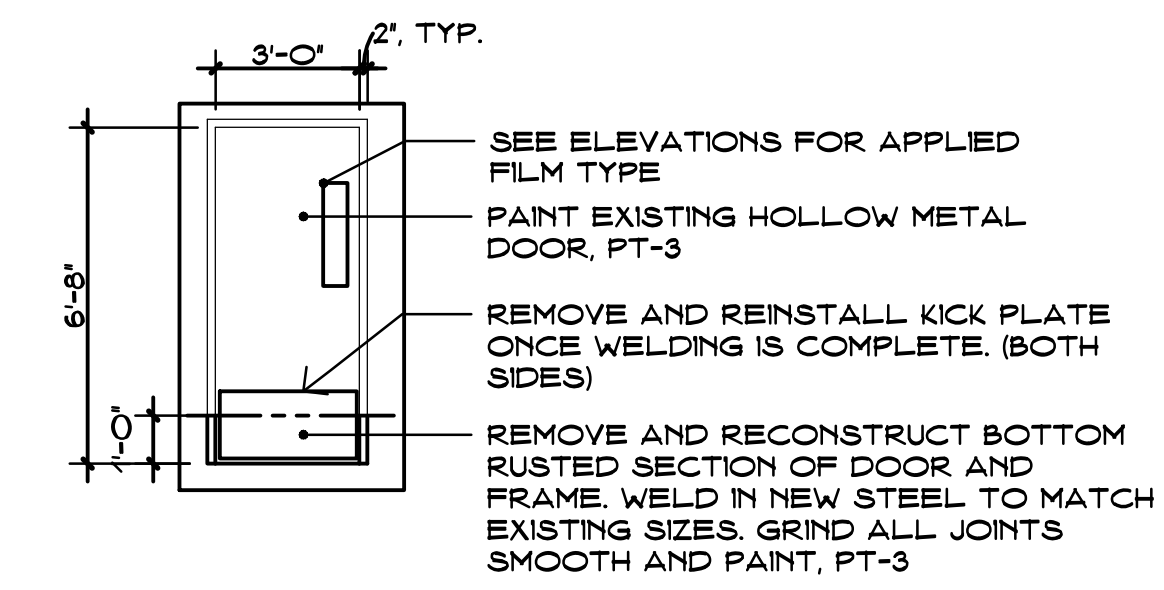




**GUARDRAIL ELEVATION** (1/A5)  
SCALE: 1/4"=1'-0"



**GUARDRAIL DETAIL** (2/A5)  
SCALE: 3/4"=1'-0"



**DOOR/FRAME ELEVATION** (3/A5)  
SCALE: 1/4"=1'-0"



**POOL PHOTO #1** (4/A5)  
SCALE: NONE



**POOL PHOTO #2** (5/A5)  
SCALE: NONE

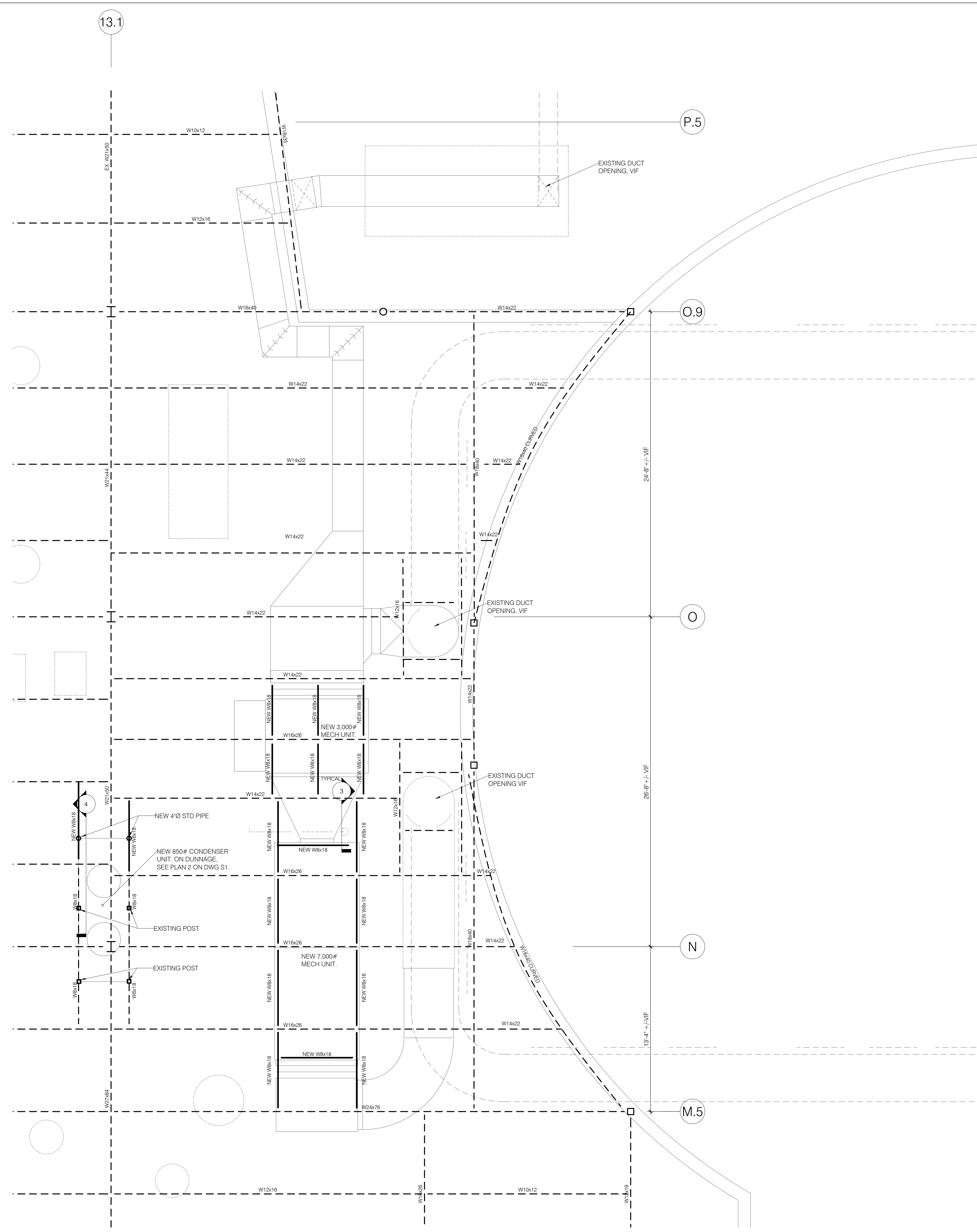


**POOL PHOTO #3** (6/A5)  
SCALE: NONE



**POOL PHOTO #4** (7/A5)  
SCALE: NONE





**GENERAL NOTES**

**GENERAL**

GOVERNING CODE: 2016 CONNECTICUT STATE BUILDING CODE, (2012 INTERNATIONAL BUILDING CODE).

DESIGN LOADS: TOWN OF HAMDEN

**ROOF LOAD:**

ROOF SNOW LOAD CRITERIA:  $P_g = 30$  PSF,  $C_e = 0.9$  AND  $I_s = 1.1$ ,  $C_t = 1.0$  WITH INCREASES FOR SNOW DRIFTING, UNBALANCES AND SLIDING PER SECTION 1608 (2012 IBC).

MINIMUM ROOF LIVE LOAD = 30 PSF

ROOF DEAD LOAD = 10 PSF

WIND LOAD CRITERIA: SECTION 1609 (2012 IBC)

ULTIMATE WIND SPEED  $V_U = 135$  MPH

NOMINAL DESIGN WIND  $V_{ASD} = 105$  MPH

RISK CATEGORY III,  $w = 1.0$

EXPOSURE CLASSIFICATION "B"

MINIMUM WIND LOAD ON PRIMARY STRUCTURE = 15 PSF

WIND LOADS ON SECONDARY ELEMENTS SHALL CONFORM WITH ASCE 7-10.

SEISMIC LOAD CRITERIA: AS PER SECTION 1613 (2012 IBC) WITH:

SEISMIC IMPORTANCE FACTOR,  $I_e = 1.25$

SEISMIC RISK CATEGORY = III

$S_s = 0.185g$ ,  $S_1 = 0.063g$

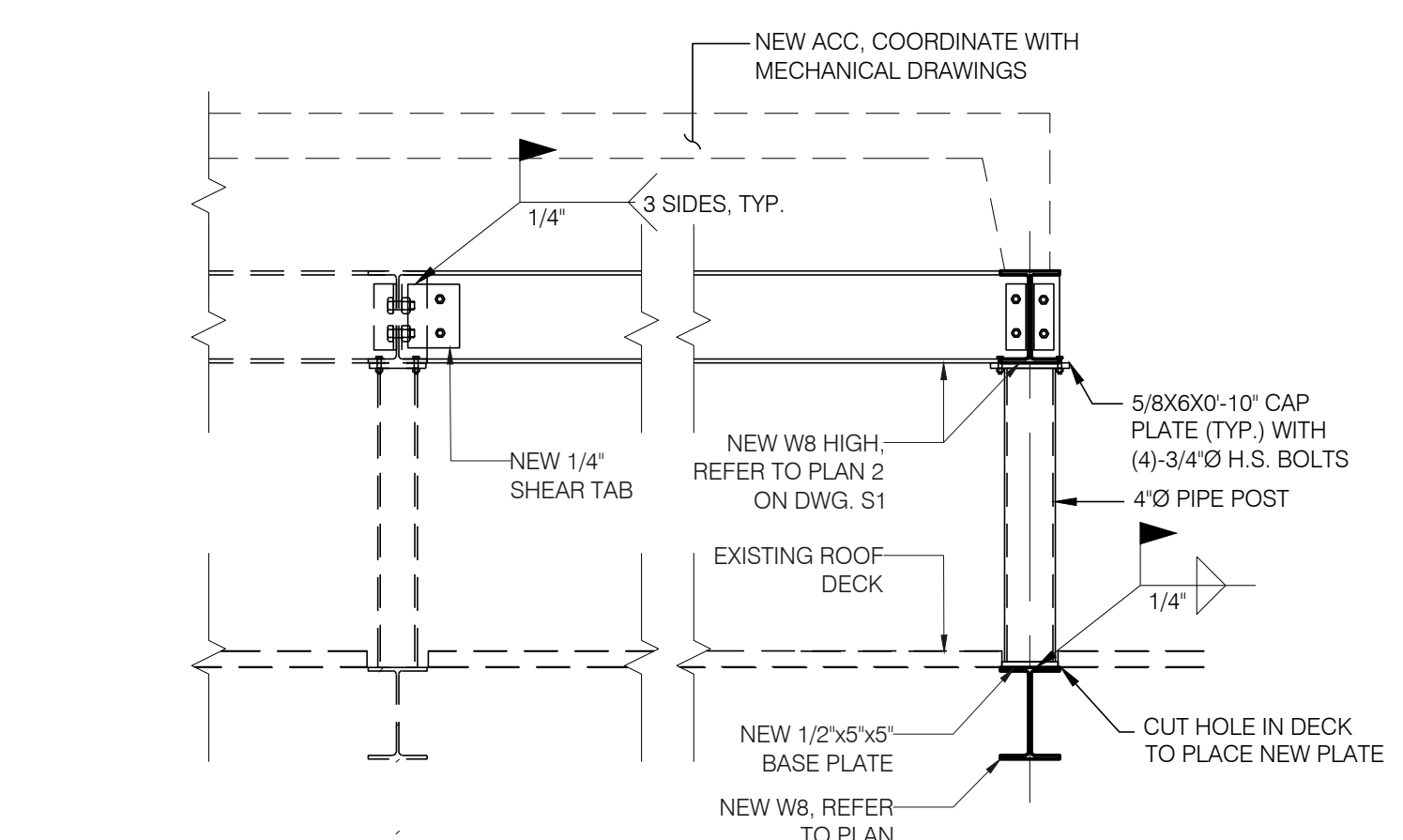
SOIL SITE CLASS = D

SPECTRAL RESPONSE COEFFICIENTS,  $S_{ds} = 0.197g$ ,  $S_{d1} = 0.101g$

SEISMIC DESIGN CATEGORY, B

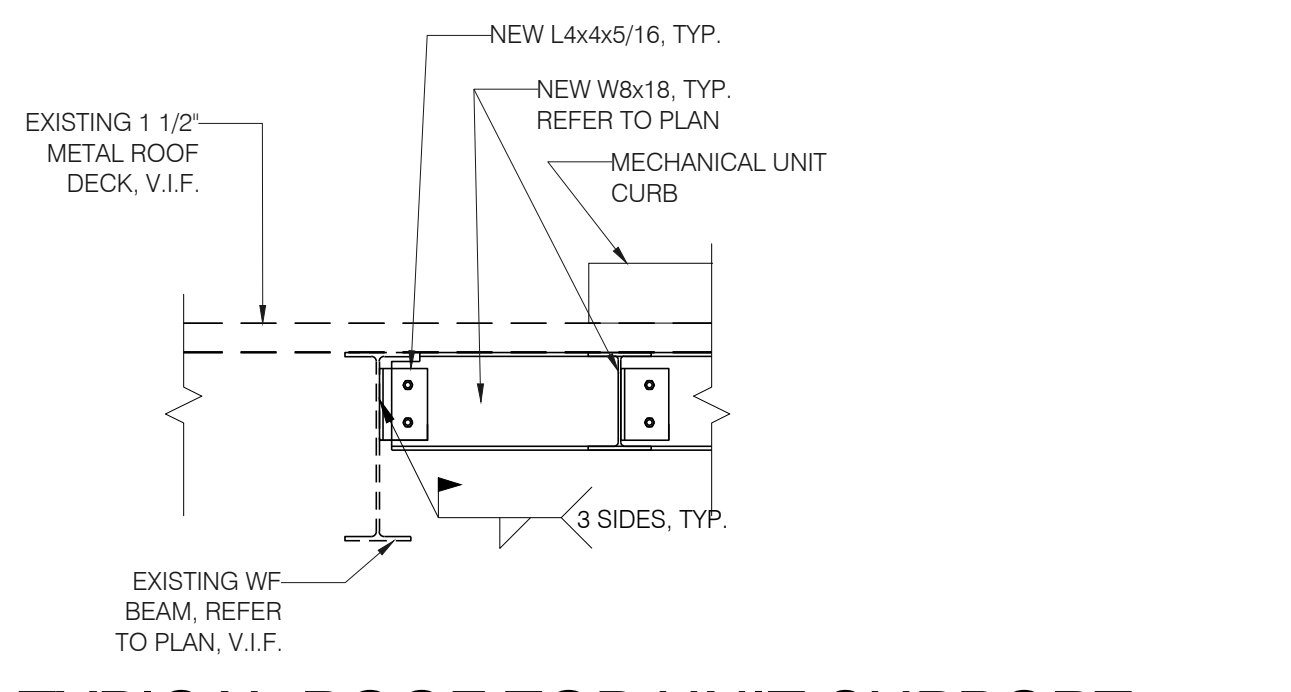
- SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE STRICTEST PROVISION SHALL GOVERN.
- LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO REQUIREMENTS OF OTHER (NON-STRUCTURAL) DISCIPLINES ARE SHOWN FOR BIDDING PURPOSES ONLY. THE CONTRACTOR SHALL OBTAIN FROM THE HEATING AND VENTILATING, ELECTRICAL, PLUMBING AND OTHER SUBCONTRACTORS THE FINAL APPROVED SIZE AND LOCATION OF ALL OPENINGS AND WORK TO BE PROVIDED FOR THEIR TRADE IN ROOFS, FLOORS AND WALLS, WHETHER SHOWN OR NOT SHOWN ON STRUCTURAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSMISSION OF REQUIREMENTS, LOCATIONS AND DETAILS TO STRUCTURAL SUBCONTRACTORS. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS ARE NOT TO BE BORNE BY THE OWNER.
- MECHANICAL EQUIPMENT WEIGHTS USED IN DESIGN OF SUPPORTING ELEMENTS HAVE BEEN INDICATED ON THE DRAWINGS. CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO INSTALLATION IF ACTUAL WEIGHT EXCEEDS WEIGHT SHOWN ON DRAWINGS.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- SHOP DRAWINGS ARE TO BE CHECKED BY THE CONTRACTOR AND SUBCONTRACTOR AND BEAR CHECKERS INITIALS BEFORE BEING SUBMITTED TO THE ARCHITECT FOR APPROVAL.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY WORK.

- STRUCTURAL STEEL**
- MATERIALS:**
- STRUCTURAL STEEL: ASTM A 99
- ALL W SHAPES: ASTM A 992, GR 50
- BOLTS: ASTM A 325
- WELDING ELECTRODE: ASTM E 70
- DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO CURRENT AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION.
  - WELDING SHALL CONFORM TO THE CODE FOR 'ARC AND GAS WELDING IN BUILDING CONSTRUCTION' OF THE AMERICAN WELDING SOCIETY.
  - ALL WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS.
  - CONNECTIONS:
- CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC 'MANUAL OF STEEL CONSTRUCTION'. CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONSTRUCTION UNLESS OTHERWISE DETAILED.
- MINIMUM CONNECTION ANGLE THICKNESS SHALL BE 5/16". USE DOUBLE FRAMING ANGLE CONNECTIONS.
- CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER ASTM A325 BOLTS (SNUG TIGHT OR SLIP CRITICAL) OR WELDS, UNLESS NOTED OTHERWISE. IF TENSION CONTROL BOLTS ARE USED, CONNECTIONS SHALL BE DESIGNED FOR SLIP CRITICAL BOLT ALLOWABLE LOAD VALUES.
- USE LARGER OF 1/4" FILLET WELDS OR MINIMUM SIZE PER AISC REQUIREMENTS WHERE NO WELD SIZE IS SHOWN ON DRAWINGS.
- ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
  - EXISTING STEEL SURFACES TO RECEIVE FIELD WELDS SHALL BE THOROUGHLY CLEANED UNTIL FREE FROM PAINT, RUST, GREASE, ETC.



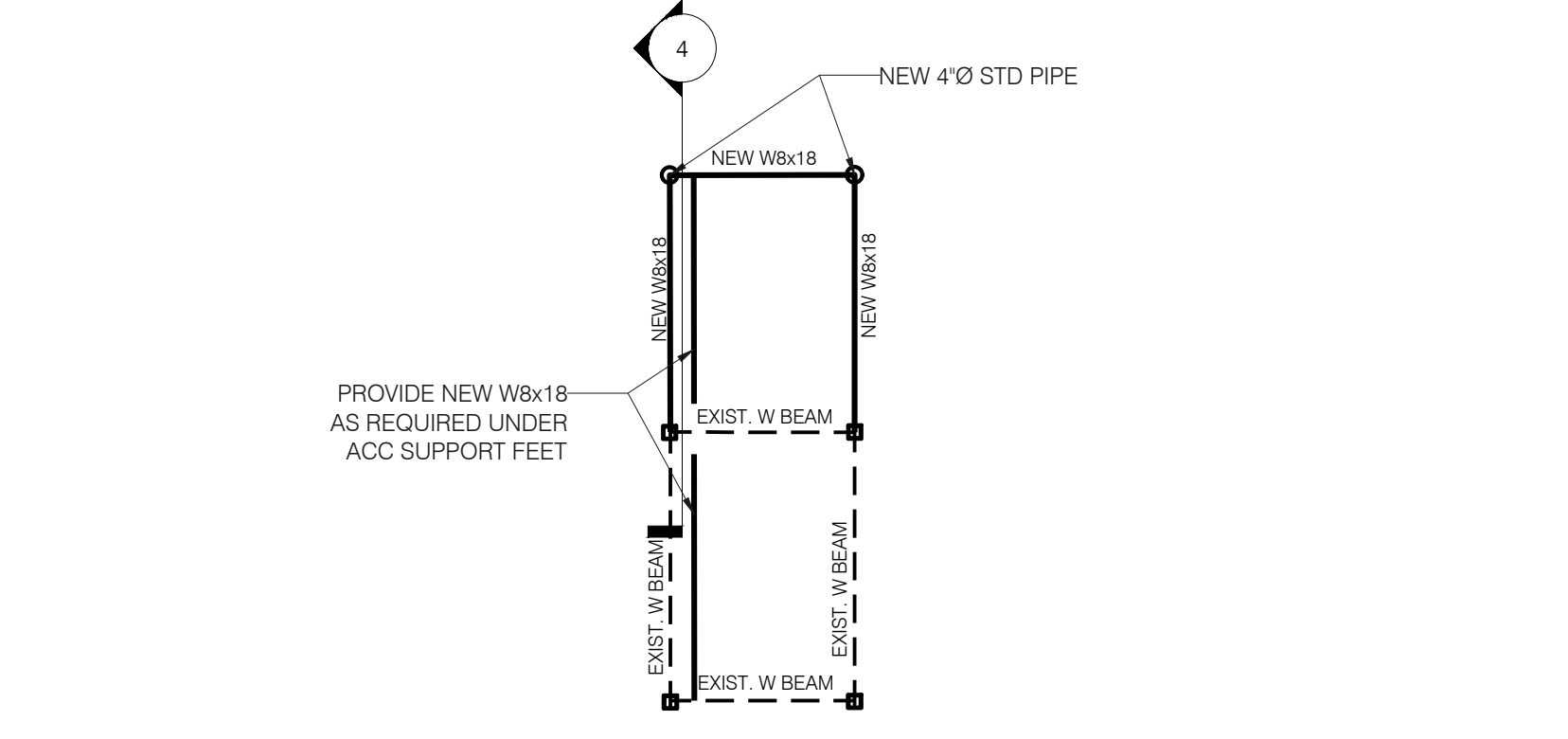
**4 TYPICAL CONDENSER DUNNAGE DETAIL**  
Scale: 3/4"=1'-0"

- REFER TO ARCH'L AND MECH'L DWG FOR FLASHING DETAILS.
- COORDINATE ALL ROOF TOP UNIT DIMENSIONS AND LOCATIONS WITH MECH'L DWGS.



**3 TYPICAL ROOF TOP UNIT SUPPORT**  
Scale: 3/4"=1'-0"

- TYPICAL SUPPORT DETAIL UNDER ALL MECHANICAL ROOF TOP UNIT CURBS AND AT ALL NEW STEEL.
- MECHANICAL UNIT CURB SHALL BE FASTENED THROUGH DECKING TO STEEL FRAMING BELOW AT 8" O.C.
- ALL NEW STEEL TIGHT TO UNDERSIDE OF EXISTING DECK.
- IF EXISTING W8 BEAM EXISTS DIRECTLY BELOW NEW CURB, NEW W8x18 IS NOT REQUIRED.
- COORDINATE ALL ROOF TOP UNIT DIMENSIONS AND LOCATIONS WITH MECH'L DWGS.



**2 CONDENSER DUNNAGE FRAMING PLAN (HIGH)**  
Scale: 1/4"=1'-0"

**1 PARTIAL ROOF FRAMING PLAN**  
Scale: 1/4"=1'-0"

- PROVIDE SUPPORT UNDERNEATH ALL NEW ROOF TOP MECHANICAL UNITS PER TYPICAL DETAIL 2 ON THIS DRAWING.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, LOCATIONS, SIZES OF EXISTING STRUCTURAL FRAMING.
- CONTRACTOR TO COORDINATE LOCATIONS OF MECHANICAL UNITS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

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Revision	Description	Date	Revised By

Drawing Title:  
**PARTIAL ROOF FRAMING PLAN, DETAILS, NOTES**

Date: **JANUARY 14, 2019**  
 Scale: **AS NOTED**  
 Drawn By: **CH**  
 Project Number: **18.046**  
 Drawing Number: **S1**

## AIR DUCT CLEANING AND PAINTING NOTES

1. PROVIDE CLEANING OF INTERIOR AND EXTERIOR OF DUCTWORK AS INDICATED ON DRAWING M1.
2. DUCT INTERIOR SHALL BE CLEANED IN ACCORDANCE WITH NATIONAL AIR DUCT CLEANERS ASSOCIATION (NADCA) STANDARD ACR 2013. WORK SHALL BE PERFORMED BY CONTRACTOR CERTIFIED IN DUCT CLEANING BY NADCA OR OTHER NATIONALLY RECOGNIZED INDUSTRY ORGANIZATION.
3. DUCT EXTERIOR, INCLUDING REGISTERS AND GRILLES, SHALL BE CLEANED, PREPARED FOR PAINTING, AND PAINTED IN ACCORDANCE WITH SPECIFICATION SECTION 099123. REMOVE AND REINSTALL REGISTERS, GRILLES AND DUCT SMOKE DETECTORS AS REQUIRED TO PERFORM WORK.
4. PROVIDE DUCT OPENINGS AS REQUIRED TO PERFORM DUCT CLEANING. CLOSE AND SEAL OPENINGS UPON COMPLETION OF WORK.

## COMMISSIONING NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO SUPPORT THE COMMISSIONING AGENT IN THE COMMISSIONING OF HVAC SYSTEMS INSTALLED OR MODIFIED AS WORK OF THIS CONTRACT.
2. THE CONTRACTOR SHALL DEMONSTRATE THAT EACH SYSTEM IS INSTALLED, OPERATIONAL AND CONTROLLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND AS OUTLINED BY THE COMMISSIONING PLAN, TO BE PROVIDED BY THE COMMISSIONING AGENT.
3. SYSTEMS TO BE COMMISSIONING SHALL INCLUDE ALL NEW HVAC SYSTEMS INSTALLED OR MODIFIED AS WORK OF THIS CONTRACT.
4. FOR COMMISSIONING REQUIREMENTS, REFER TO SPECIFICATION SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS, AND SECTION 230800 - COMMISSIONING OF HVAC SYSTEMS.

### AUTOMATIC TEMPERATURE CONTROLS

REFER TO SPECIFICATION SECTIONS 230900 FOR SYSTEM REQUIREMENTS.

THE BUILDING IS SERVED BY A HONEYWELL NIAGARA BUILDING ENERGY MANAGEMENT SYSTEM (BMS). PROVIDE BACNET CONTROL INTERFACE WITH NEW POOL DEHUMIDIFICATION SYSTEM.

PROVIDE NEW JACE AS REQUIRED FOR INTEGRATION OF DH-1, HEATING SECTION AND AIR COOLED CONDENSER INTO EXISTING BMS.

INSTALL TWO TEMPERATURE SENSORS AND TWO CO2 SENSORS IN NATATORIUM FOR CONTROL OF NEW DEHUMIDIFICATION SYSTEM. INSTALL ONE OF EACH SENSOR ON INTERIOR WALL NEAR WOMEN'S TOILET ROOM AND ONE EACH ON WALL ADJACENT TO SPECTATOR AREA.

HVAC EQUIPMENT INSTALLED AS WORK OF THIS PROJECT SHALL BE ADDRESSABLE THROUGH THE EXISTING BMS.

THE SCOPE OF WORK SHALL INCLUDE ALL DEVICES, LOW AND LINE VOLTAGE WIRING, TRANSFORMERS, CONDUIT, RELAYS AND PROGRAMMING REQUIRED FOR BMS CONTROL INTERFACE WITH NEW POOL DEHUMIDIFICATION SYSTEM.

## GENERAL NOTES - MECH/ELEC

1. DRAWINGS, SPECIFICATIONS, GENERAL CONDITIONS AND SUPPLEMENTAL CONDITIONS OF THE CONTRACT ARE INTEGRAL PARTS OF THE CONTRACT DOCUMENTS.
2. DRAWINGS ARE SCHEMATIC IN NATURE AND INDICATE APPROXIMATE LOCATIONS AND POSSIBLE ARRANGEMENTS OF NEW AND EXISTING SYSTEM COMPONENTS. VERIFY ACTUAL LOCATIONS AND ARRANGEMENTS IN FIELD.
3. REMOVE, MODIFY, REPLACE AND RELOCATE EXISTING SYSTEMS AS REQUIRED FOR INSTALLATION OF NEW HVAC SYSTEMS. MODIFICATIONS PERFORMED SHALL NOT ADVERSELY AFFECT PERFORMANCE OF EXISTING SYSTEMS.
4. ALL WORK AND ACTION DEPICTED AND DESCRIBED IN CONTRACT DOCUMENTS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
5. REFERENCE TO SPECIFIC SUB-CONTRACTORS SUCH AS "MECHANICAL", "PLUMBING", ETC. ARE INTENDED TO SUGGEST POSSIBLE DIVISION OF RESPONSIBILITY. PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND EXECUTION OF ALL WORK.
6. PROVIDE SUPPORT/BRACING OF EQUIPMENT AND BUILDING SERVICES FOR SEISMIC RESTRAINT AS REQUIRED BY THE BUILDING CODE.
7. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
8. ALL EQUIPMENT, MATERIALS, AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.
9. REPAIR AND REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.
10. READ THE PROJECT MANUAL.
11. VISIT THE PROJECT SITE TO BECOME FAMILIAR WITH, AND TO DETERMINE THE CONSTRUCTION IMPACT OF EXISTING FACILITY CONDITIONS PRIOR TO SUBMITTING BID. SUCH EXISTING FACILITY CONDITIONS IMPACT SHALL BE INCLUDED AS PART OF ALL BIDS.
12. STUDY AND COORDINATE WITH DRAWINGS OF OTHER DISCIPLINES INCLUDING ARCHITECTURAL, CIVIL, STRUCTURAL & ELECTRICAL.
13. SLEEVE, PATCH AND SEAL ALL FLOOR AND WALL OPENINGS REQUIRED FOR PIPE AND DUCT INSTALLATION. PROVIDE FIRE SAFING AT PENETRATIONS THROUGH WALLS.
14. INSTALL COMPLETE OPERATING SYSTEMS. PROVIDE ALL COMPONENTS, DEVICES, CONTROLS, RELAYS, TRANSFORMERS, ETC., WHETHER INDICATED OR NOT, FOR COMPLETE SYSTEMS AS INTENDED BY THE CONSTRUCTION DOCUMENTS.
15. ALL PENETRATIONS THRU RATED WALLS & CEILINGS SHALL BE SEALED USING U.L. LISTED METHODS APPROPRIATE FOR INDICATED RATING.
16. ALL ROOFING WORK TO BE PERFORMED BY A JOHNS-MANVILLE APPROVED CONTRACTOR WITH APPROVED MATERIALS COMPATIBLE WITH EXISTING ROOFING.

## GENERAL DEMOLITION NOTES

1. PHASE WORK TO MAINTAIN SYSTEMS AND BUILDING SERVICES AS REQUIRED DURING CONSTRUCTION. COORDINATE PHASING WITH OWNER/ARCHITECT.
2. PATCH, REPAIR AND SEAL ALL WALL AND ROOF OPENINGS RESULTING FROM MECHANICAL/ELECTRICAL DEMOLITION. RESTORE FINISHES WITH MATERIALS MATCHING EXISTING. PROVIDE PROTECTION FROM WEATHER DURING CONSTRUCTION.
3. ALL ROOFING WORK TO BE PERFORMED BY A JOHNS-MANVILLE APPROVED CONTRACTOR.
4. ENSURE THAT POWER IS SECURED OFF PRIOR TO COMMENCING EQUIPMENT REMOVAL. SECURE POWER BACK TO PANEL FOR EQUIPMENT BEING REMOVED.
5. PROVIDE TEMPORARY CAPS OR COVERS FOR ALL OPENED PIPE, DUCT AND CONDUIT TO PREVENT INTRODUCTION OF FOREIGN MATERIAL.
6. ALL WASTE MATERIALS AND EQUIPMENT SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF BY THE CONTRACTOR.
7. RECLAIM ALL REFRIGERANT FROM AIR CONDITIONING SYSTEMS BEING REMOVED IN A MANNER COMPLYING WITH LOCAL, STATE AND FEDERAL REGULATIONS.
8. SHUT OFF GAS SUPPLY AND PURGE GAS PIPING WITH INERT GAS PRIOR TO COMMENCING WORK ON GAS PIPING SYSTEM.

## PHASING NOTES

1. WORK SHALL BE PHASED TO ALLOW OWNER TO CONTINUE BUSINESS OPERATIONS DURING THE CONSTRUCTION PERIOD. COORDINATE SCHEDULING WITH OWNER, GENERAL CONTRACTOR AND AFFECTED TENANTS PRIOR TO COMMENCING WORK IN AREAS AFFECTED BY DEMOLITION OR NEW CONSTRUCTION.
2. WORK REQUIRING INTERRUPTION OF ESSENTIAL BUILDING SERVICES SHALL BE PERFORMED DURING UNOCCUPIED PERIODS (AFTER BUSINESS HOURS). ESSENTIAL SERVICES SHALL INCLUDE BUT NOT LIMITED TO VENTILATION, WATER AND SEWER SERVICE, POWER, AND TELECOMMUNICATIONS. HEATING AND AIR CONDITIONING SHALL BE CONSIDERED TO BE ESSENTIAL WHEN CONDITIONS WILL CAUSE TEMPERATURES IN THE BUILDING TO FALL BELOW 68°F OR EXCEED 75°F.

MECHANICAL LEGEND			
	RECTANGULAR, FLAT OVAL OR ROUND AIR DUCT (PLAN VIEW)		PIPE ELBOW UP
	DUCTWORK WITH ACOUSTIC LINING		PIPE ELBOW DOWN
	SUPPLY OR OUTSIDE AIR DUCT UP		TAKEOFF FROM TOP OF MAIN PIPE
	SUPPLY OR OUTSIDE AIR DUCT DOWN		TAKEOFF FROM BOTTOM OF MAIN PIPE
	RETURN OR EXHAUST DUCT UP		GATE VALVE OR BALL VALVE
	RETURN OR EXHAUST DUCT DOWN		BALL VALVE
	CEILING RETURN OR EXHAUST GRILLE		PIPE UNION
	MOTORIZED DAMPER		SUPPLY DIFFUSER WITH FLEXIBLE DUCT (4-WAY AIR PATTERN)
	FIRE DAMPER W/ ACCESS DOOR		DIRECTION OF SUPPLY OR OUTSIDE AIR
	SMOKE/FIRE DAMPER W/ ACCESS DOOR		DIRECTION OF RETURN OR EXHAUST AIR
	VOLUME DAMPER		FLEXIBLE CONNECTION DUCTWORK TO EQUIPMENT
	SQUARE ELBOW WITH TURNING VANES		NEW DUCTWORK
	SQUARE TO ROUND TRANSITION		HIDDEN DUCTWORK OR EQUIPMENT
	PITCH DUCT UP		THERMOSTAT OR TEMPERATURE SENSOR
	PITCH DUCT DOWN		TEMPERATURE SENSOR
			DUCT SMOKE DETECTOR - FURNISHED UNDER DIV 16, INSTALLED BY MECHANICAL CONTRACTOR
			DUCT STATIC PRESSURE SENSOR
ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	LPS	LOW PRESSURE STEAM
APD	AIR PRESSURE DROP (IN WG)	LPR	LOW PRESSURE CONDENSATE RETURN
BOD	BOTTOM OF DUCT DIMENSION ABOVE FINISHED FLOOR	LX	MAXIMUM
CD	CEILING DIFFUSER	MBH	BTU PER HOUR (THOUSAND)
CO	CLEANOUT	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
C.M.	CONSTRUCTION MANAGER	OA	OUTSIDE AIR
CW	DOMESTIC COLD WATER	PD	PRESSURE DROP
EF	EXHAUST FAN	POC	POINT OF CONNECTION - NEW TO EXISTING
EG	EXHAUST GRILLE	PRESS	PRESSURE
ENT	ENTERING	RA	RETURN AIR
ENT	ENTERING WATER TEMPERATURE	RG	RETURN GRILLE
ESP	EXTERNAL STATIC PRESSURE ( IN. WG. )	REF	RELIEF EXHAUST FAN
FD	FIRE DAMPER	RPM	REVOLUTIONS PER MINUTE
FF	FOULING FACTOR	SA	SUPPLY AIR
G	NATURAL GAS	SAN	SANITARY DRAIN
G.C.	GENERAL CONTRACTOR	SF	SQUARE FEET
GIV	GRAVITY INTAKE VENT	SG	SUPPLY GRILLE
GRV	GRAVITY RELIEF VENT	SPEC	SPECIFICATION
GPH	GALLONS PER HOUR	TYP	TYPICAL
GPM	GALLONS PER MINUTE	VAV	VARIABLE AIR VOLUME
HP	HORSEPOWER	V	VOLT
HW	DOMESTIC HOT WATER	VD	VOLUME DAMPER
HWS	HOT WATER SUPPLY	WCO	WALL CLEANOUT
LWT	LEAVING WATER TEMPERATURE	WG	WATER GAUGE
		WPD	WATER PRESSURE DROP (FT HD)
		W/	WITH

POOL DEHUMIDIFICATION UNIT																																			
SYMBOL	SUPPLY AIR FAN				EXHAUST AIR FAN				OUTSIDE AIR CFM	UNIT CAPACITY @ 82°Fdb/71.4°Fwb ENT AIR			DIRECT EXPANSION COILS				HOT GAS REHEAT COIL				AIR FILTRATION				ELECTRICAL		OPER WEIGHT (LBS)	MANUFACTURER AND MODEL	NOTES						
	CFM	ESP (IN WG)	TSP (IN WG)	MOTOR HP	CFM	ESP (IN WG)	TSP (IN WG)	MOTOR HP		TOTAL MBH	SENSIBLE MBH	MOISTURE REMOVAL CAPACITY (LBS/HR)	CAPACITY MBH	EAT °F	MAX DB/WB	MIN FINS/FT	MIN ROWS	MINIMUM CAPACITY MBH	EAT (°F)	LAT (°F)	MAX APD (IN WG)	TYPE	VELOCITY (FPM)	INITIAL APD (IN WG)	FINAL APD (IN WG)	TYPE				INITIAL VELOCITY (FPM)	FINAL VELOCITY (IN WG)	VOLTS/Ø	MCA	MOCP	
																																			MERV 8
DH-1	13,800	1.8	3.0	20.0	6900	0.35	1.86	7.5	6400	383	201.6	171.8	383	201.6	82.0/71.4	120	8	480	52.3	84.4	0.2	MERV 8	500	0.33	1.0	MERV 8	500	0.33	1.0	460/3	95	110	7000	DESERT-AIRE MODEL SA30EE4CCX	

- NOTES:
1. PROVIDE STAINLESS STEEL CONDENSATE DRAIN PAN AND 4" FILTER RACK FOR SUPPLY AND EXHAUST.
  2. FAN ESP REQUIREMENTS INCLUDE 0.5 IN. WG. ALLOWANCE FOR DIRTY FILTERS.
  3. PROVIDE MANUFACTURER'S ROOF CURB.
  4. FURNISH WITH NON-FUSED DISCONNECT SWITCH AND UN-POWERED OFCI SERVICE RECEPTACLE. REFER TO ELECTRICAL DRAWINGS FOR 120V POWER TO RECEPTACLE.
  5. SUPPLY & EXHAUST FANS, MOTORS & DRIVES SHALL BE MOUNTED ON SPRING ISOLATORS.
  6. FURNISH WITH CM3510 CONTROLLER WITH USER INTERFACE AND ALL REQUIRED DEVICES FOR INTERFACE WITH BMS. COORDINATE REQUIREMENTS WITH BMS CONTRACTOR.
  7. FURNISH SUPPLY FAN WITH VFD. PROVIDE VARIABLE SPEED EXHAUST FAN(S) WITH ECM MOTORS.
  8. PROVIDE LEFT SIDE SERVICE ACCESS.

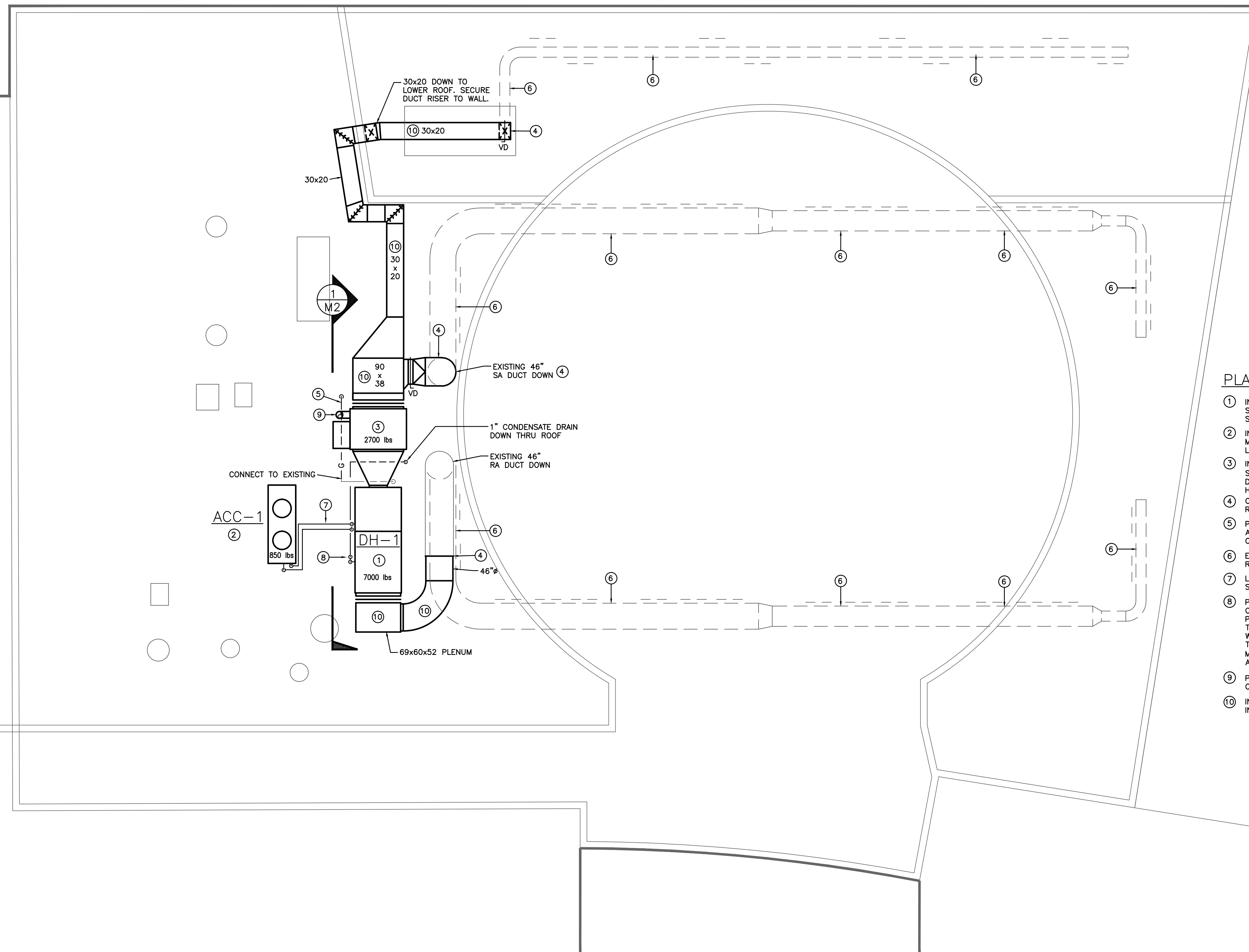
### REMOTE AIR COOLED CONDENSER

SYMBOL	TOTAL HEAT REJECTION (BTUH)	FANS		ELECTRICAL		OPER WEIGHT (LBS)	MANUFACTURER AND MODEL	NOTES	
		QNTY	CFM	VOLTS/Ø	MCA				MOCP
ACC-1	546,000	2	22,752	460/3	9	13	850	DESERT-AIRE RC8S015C	

- NOTES:
1. FURNISH UNIT WITH DISCONNECT SWITCH AND REQUIRED MOTOR STARTERS.
  2. PROVIDE REQUIRED CONTROL INTERFACE BETWEEN DH-1 AND CONDENSER.

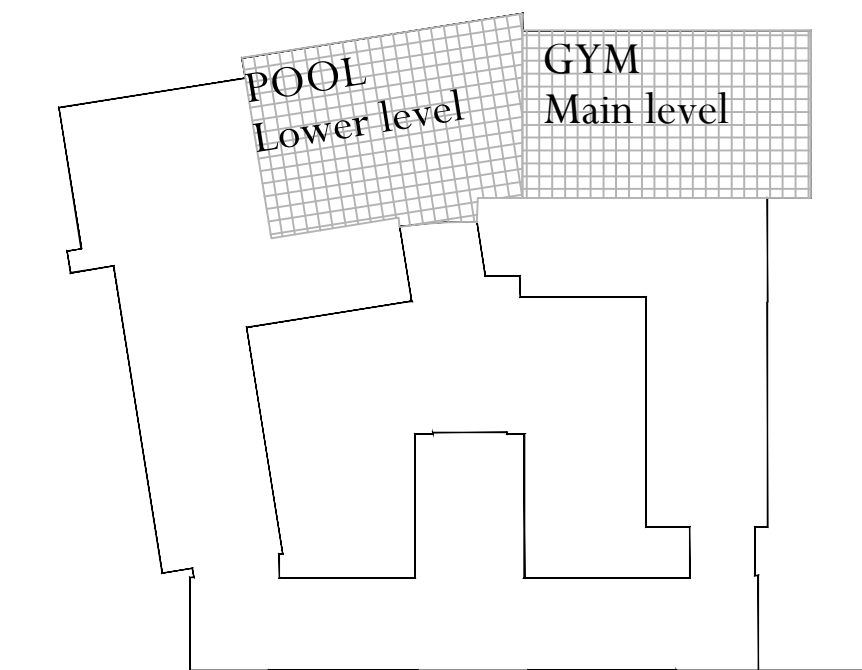






**PLAN NOTES**

- 1 INSTALL NEW DEHUMIDIFICATION UNIT (DH-1) ON ROOF CURB. REFER TO STRUCTURAL DRAWING S1. PROVIDE DUCTWORK FOR CONNECTION TO EXISTING SUPPLY AND RETURN DUCTS AND FROM DH-1 TO HEATING SECTION.
- 2 INSTALL NEW AIR COOLED CONDENSER (ACC-1) ON SUPPORT FRAMING. MODIFY EXISTING FRAMING AS REQUIRED. REFER TO DRAWING S1. PROVIDE LIQUID AND HOT GAS LINES FROM ACC-1 TO DH-1.
- 3 INSTALL GAS FIRED HEATING SECTION SUPPLIED BY OWNER (CURRENTLY STORED ON ROOF) ON ROOF SUPPORTS. REFER TO DRAWING S1. PROVIDE DUCT TRANSITION FROM DH-1 DISCHARGE TO INLET, AND TRANSITION FROM HEATING SECTION DISCHARGE TO 90x38 SUPPLY DUCT.
- 4 CONNECT NEW DUCTWORK TO EXISTING. PROVIDE TRANSITION AS REQUIRED. REFER TO ROOF DUCT PENETRATION DETAIL, DRAWING M2.
- 5 PROVIDE 2" GAS SUPPLY FROM EXISTING WITH NEW PRESSURE REGULATOR, AND SHUT-OFF VALVE. PROVIDE GAS VENT FROM REGULATOR TO EXTERIOR OF ENCLOSURE.
- 6 EXISTING DUCTWORK IN NATATORIUM BELOW TO BE CLEANED AND PAINTED. REFER TO CLEANING & PAINTING NOTES, DRAWING M0.
- 7 LIQUID AND HOT GAS PIPING FROM DH-1 TO ACC-1. PROVIDE PIPE SUPPORTS PER SPECIFICATIONS.
- 8 PROVIDE 1" COPPER CONDENSATE TRAP AND DRAIN, PITCHED 1/4" PER FT. CONNECT TO EXISTING CONDENSATE DRAIN PIPING IN CEILING SPACE BELOW. PROVIDE RAYCHEM 5XL1 SELF REGULATING HEAT TRACE FOR ALL DH-1 TRAP AND DRAIN PIPING ABOVE ROOF. PROVIDE C910-485 CONTROLLER WITH OUTDOOR SENSOR TO ENERGIZE HEAT TRACE WHEN OUTSIDE TEMPERATURE DROPS TO 32°F. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE 2" THICK PIPE INSULATION AND ALUMINUM JACKET FOR CONDENSATE PIPING ABOVE ROOF.
- 9 PROVIDE NEW 12" VENT PIPE. TERMINATE 4" ABOVE TOP OF UNIT WITH RAIN CAP. PROVIDE SUPPORT.
- 10 INSTALL DUCTWORK ON NEW SUPPORTS. REFER TO OUTDOOR DUCT INSULATION AND SUPPORT DETAIL, AND DUCT FITTING DETAIL, DRAWING M2.



**POOL MECHANICAL ROOF PLAN**

SCALE: 1/8" = 1'-0"

1  
M1



**KEY PLAN**

HTS

Project Title:  
**H.H.S. 2018 - 2019 Improvements to the Pool**  
 Town of Hamden, Hamden Board of Education  
 Hamden High School  
 2040 Dixwell Avenue  
 Hamden, CT 06514



**SILVER / PETRUCCELLI + ASSOCIATES**  
 Architects / Engineers / Interior Designers

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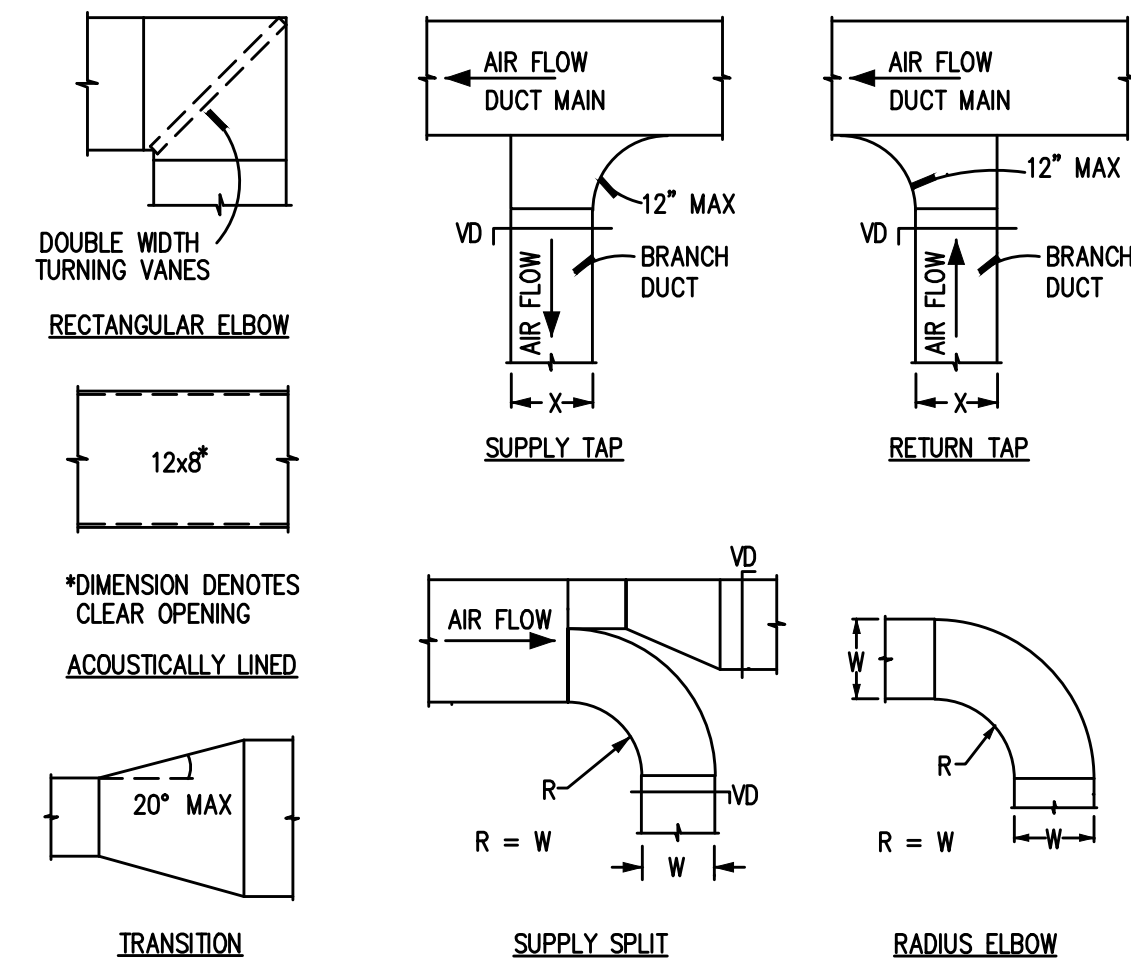
Revision	Description	Date	Revised By

Drawing Title:  
**Pool Mechanical  
 Roof Plan**

Date:  
**JANUARY 14, 2019**  
 Scale:  
**AS NOTED**  
 Drawn By:  
**JP**  
 Project Number:  
**18.048**

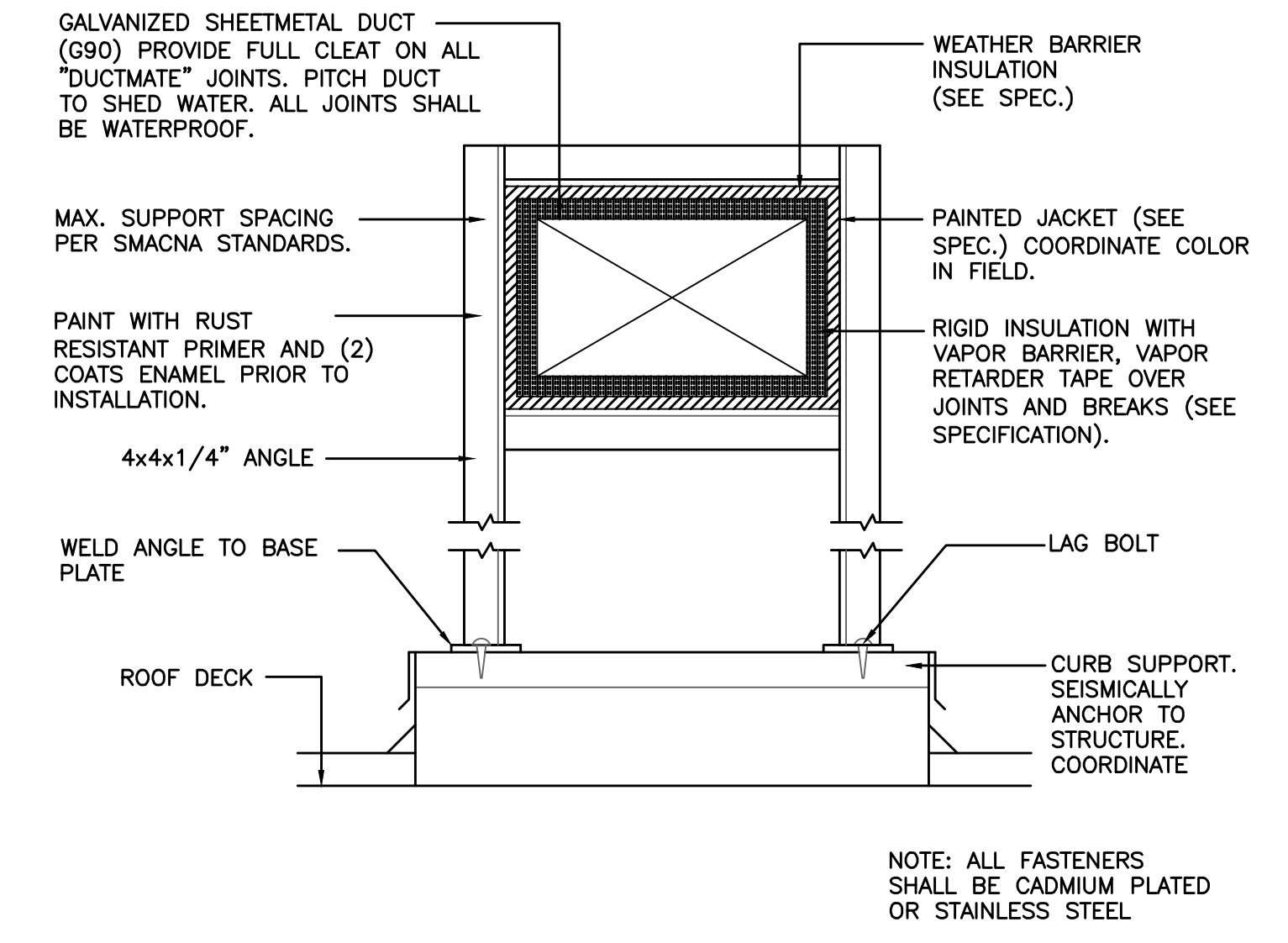
**M1**





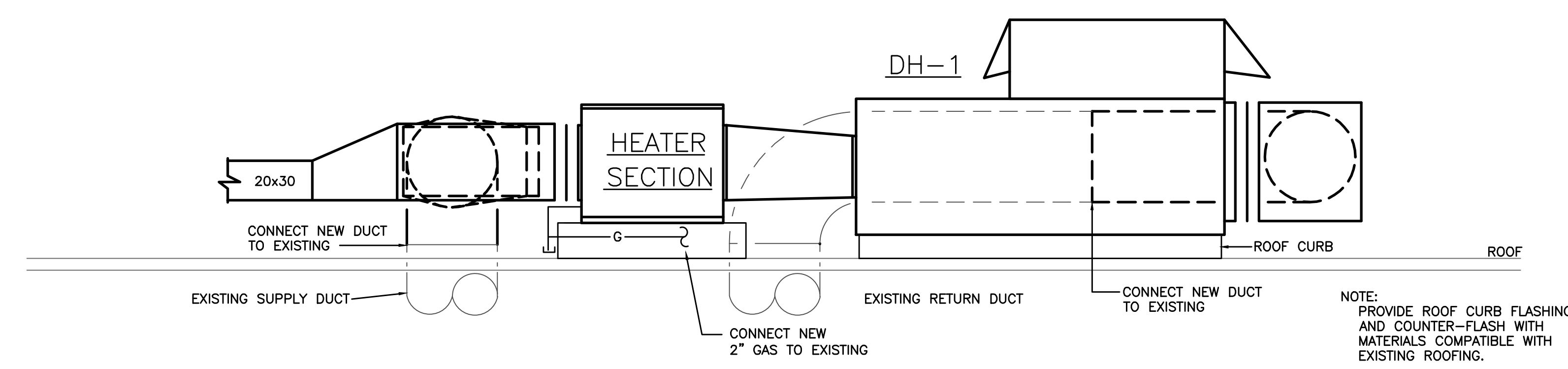
NOTES:  
 1. PROVIDE VOLUME DAMPER WITH INDICATING LOCKING QUADRANT AT ALL BRANCH DUCTS AND DUCT SPLITS.  
 2. PROVIDE DOUBLE WIDTH TURNING VANES AT ALL RECTANGULAR ELBOWS.

**DUCT FITTING DETAIL**  
 NOT TO SCALE



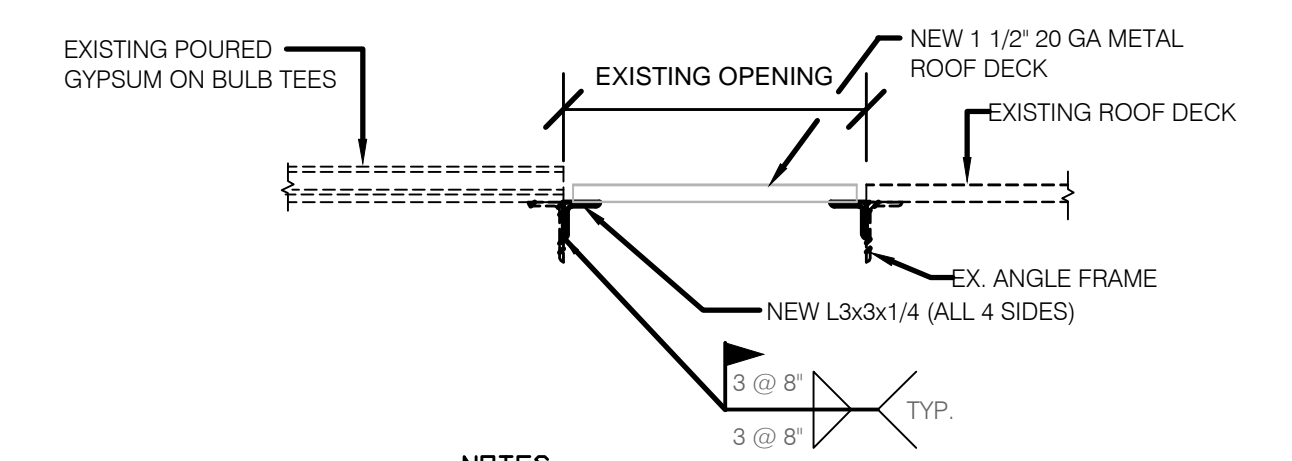
NOTE: ALL FASTENERS SHALL BE CADMIUM PLATED OR STAINLESS STEEL

**OUTDOOR RECTANGULAR DUCT INSULATION AND SUPPORT**  
 NOT TO SCALE



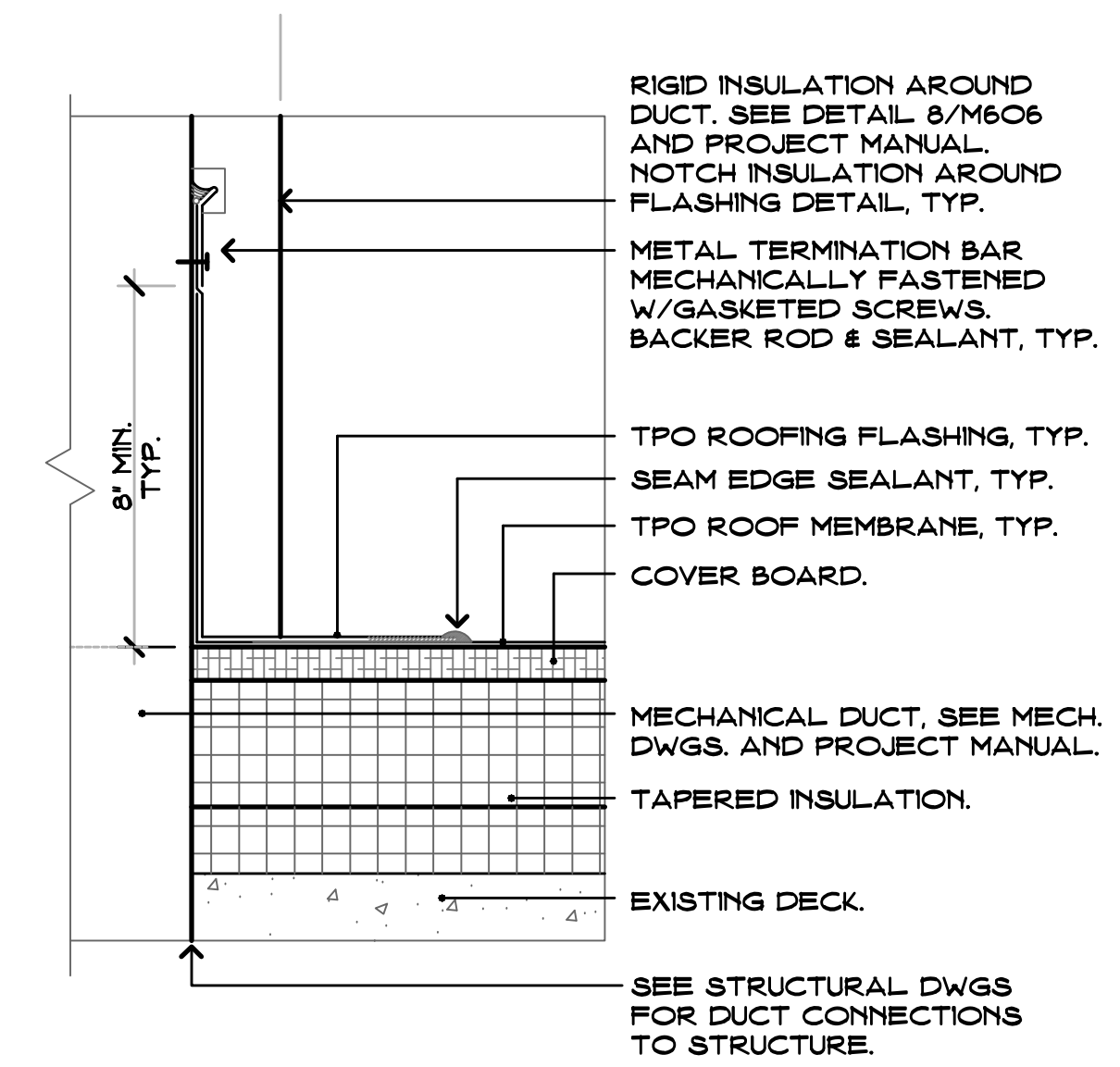
NOTE: PROVIDE ROOF CURB FLASHING AND COUNTER-FLASH WITH MATERIALS COMPATIBLE WITH EXISTING ROOFING.

**SECTION 1**  
 SCALE: 1/4" = 1'-0"



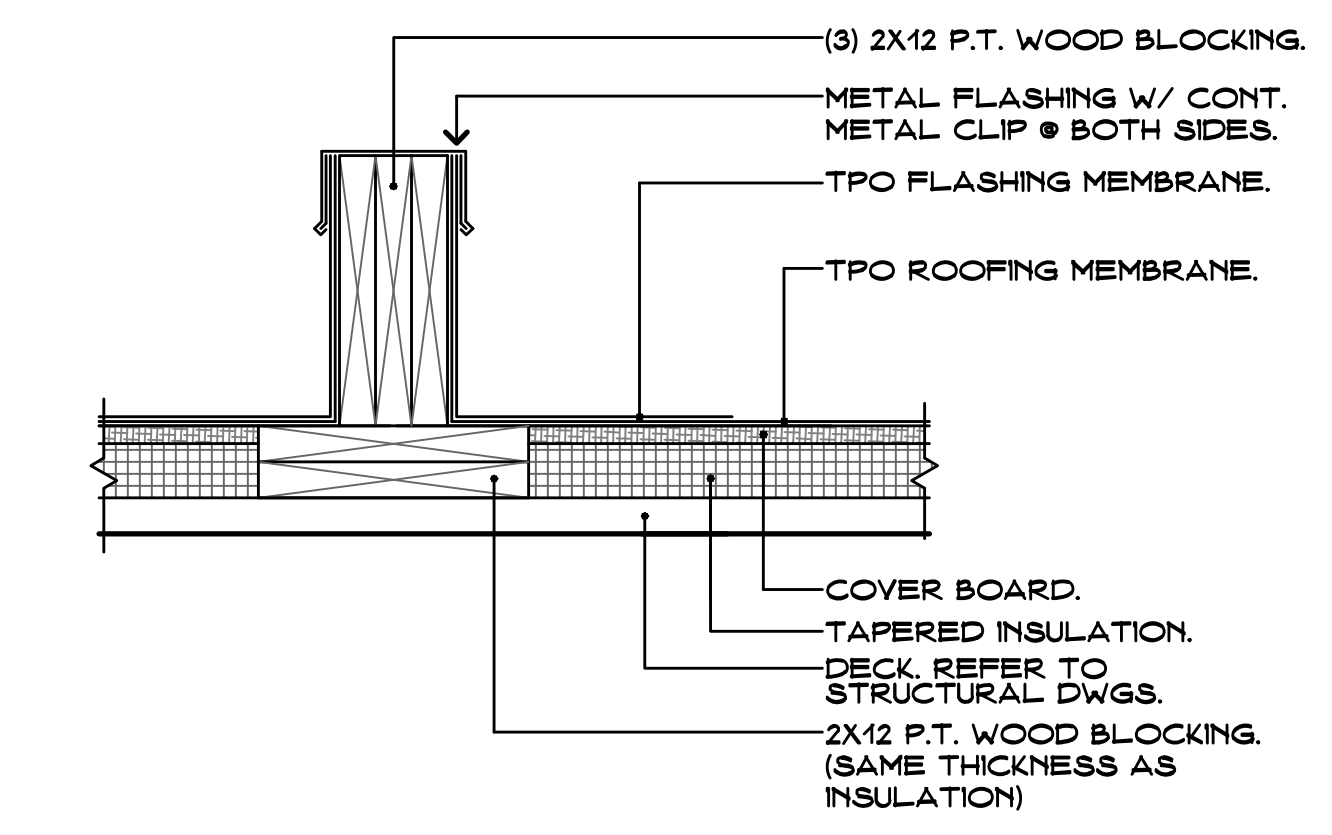
NOTES:  
 1. IF NO EXISTING FRAME IS PRESENT AT EXISTING ROOF OPENING, PROVIDE NEW FRAME SIMILAR TO TYPICAL OPENING DETAIL.  
 2. PATCH ROOFING WITH MATERIALS COMPATIBLE WITH EXISTING OF SAME THICKNESS.

**TYPICAL ROOF INFILL DETAIL** 4  
 SCALE: 3/4" = 1'-0" M2



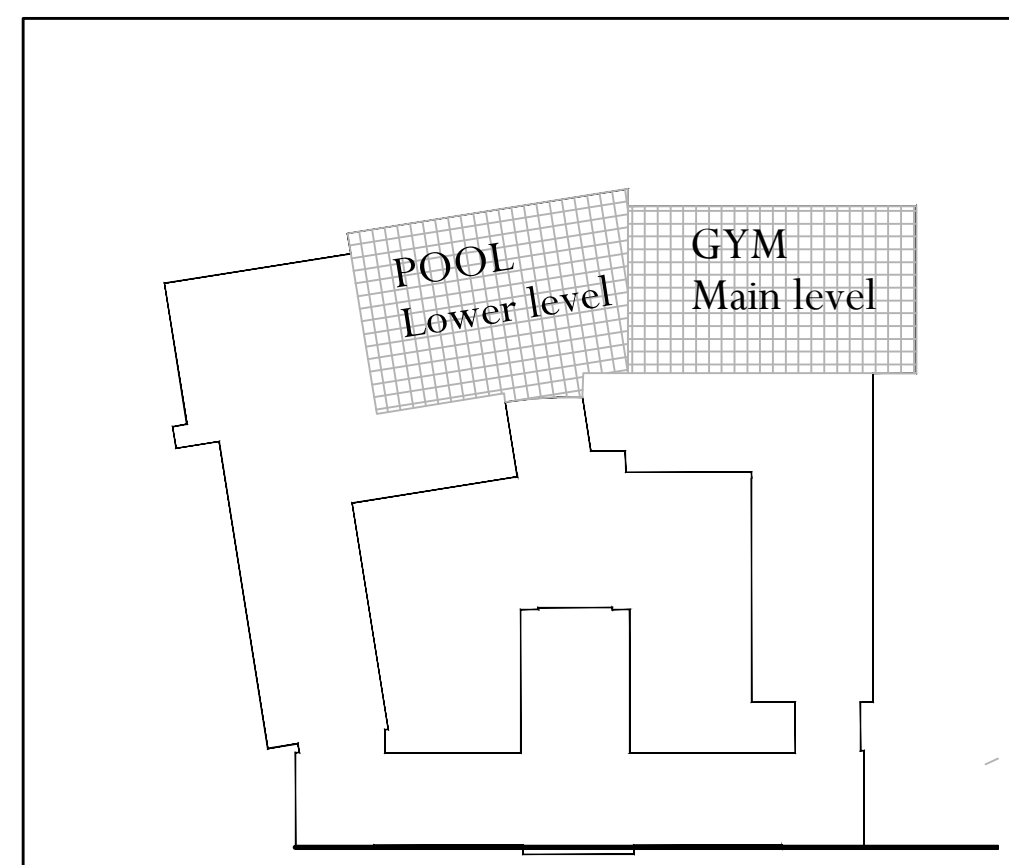
RIGID INSULATION AROUND DUCT. SEE DETAIL 8/M606 AND PROJECT MANUAL. NOTCH INSULATION AROUND FLASHING DETAIL, TYP.  
 METAL TERMINATION BAR MECHANICALLY FASTENED W/GASKETED SCREWS, BACKER ROD & SEALANT, TYP.  
 TPO ROOFING FLASHING, TYP.  
 SEAM EDGE SEALANT, TYP.  
 TPO ROOF MEMBRANE, TYP.  
 COVER BOARD.  
 MECHANICAL DUCT, SEE MECH. DWGS. AND PROJECT MANUAL.  
 TAPERED INSULATION.  
 EXISTING DECK.  
 SEE STRUCTURAL DWGS FOR DUCT CONNECTIONS TO STRUCTURE.

**DUCT WORK PENETRATION DETAIL** 3  
 SCALE: 3" = 1'-0" M2



NOTE: EXIST. MECHANICAL UNIT TO BE REMOVED & REPLACED AS REQUIRED FOR NEW CURB & ROOFING OPERATIONS. EXTEND ALL ELECTRICAL WIRING & DUCTWORK AS REQUIRED.

**EQ. SUPPORT CURB DETAIL** 2  
 SCALE: 1/2" = 1'-0" M2

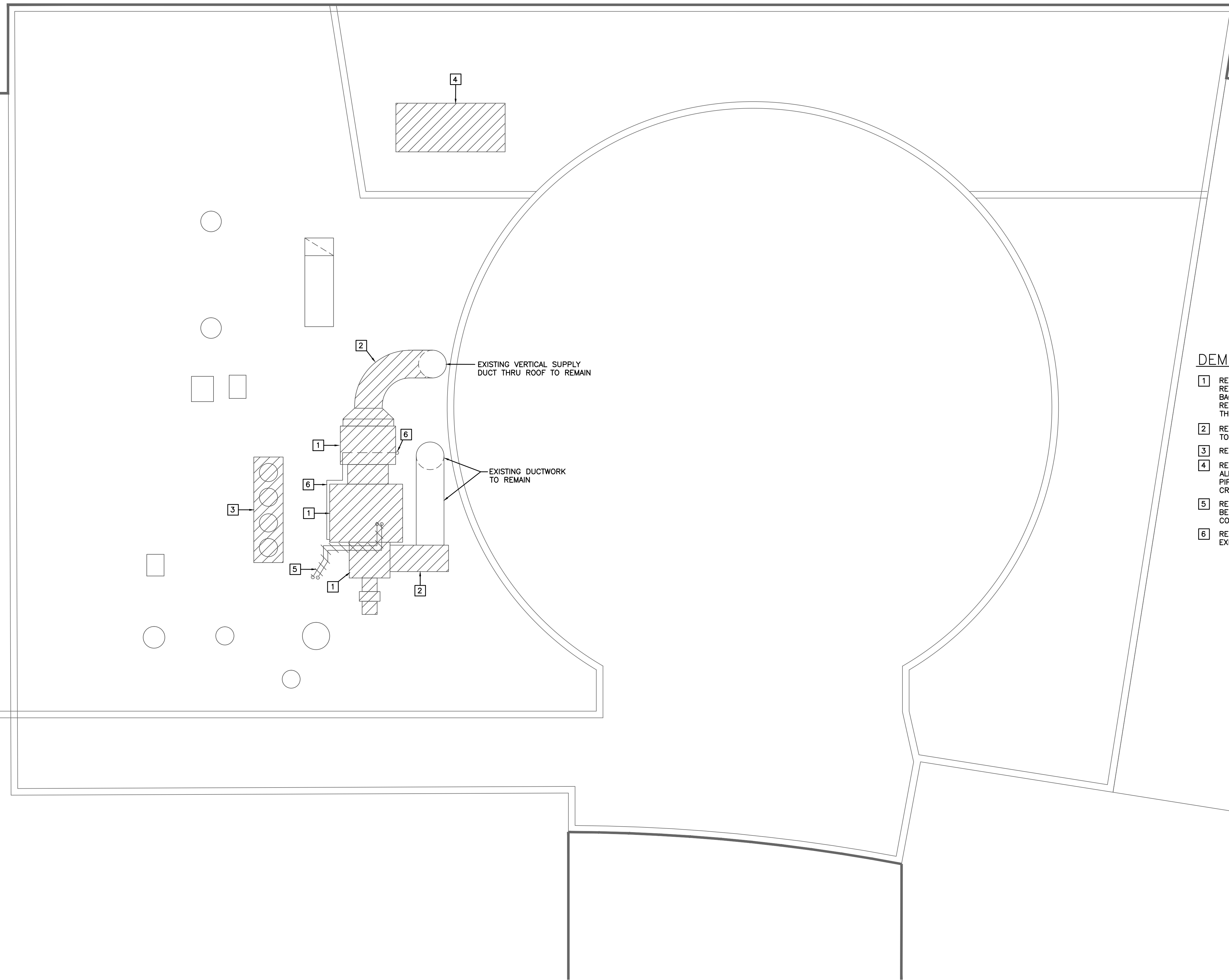


**KEY PLAN**  
 HTS  
 NORTH



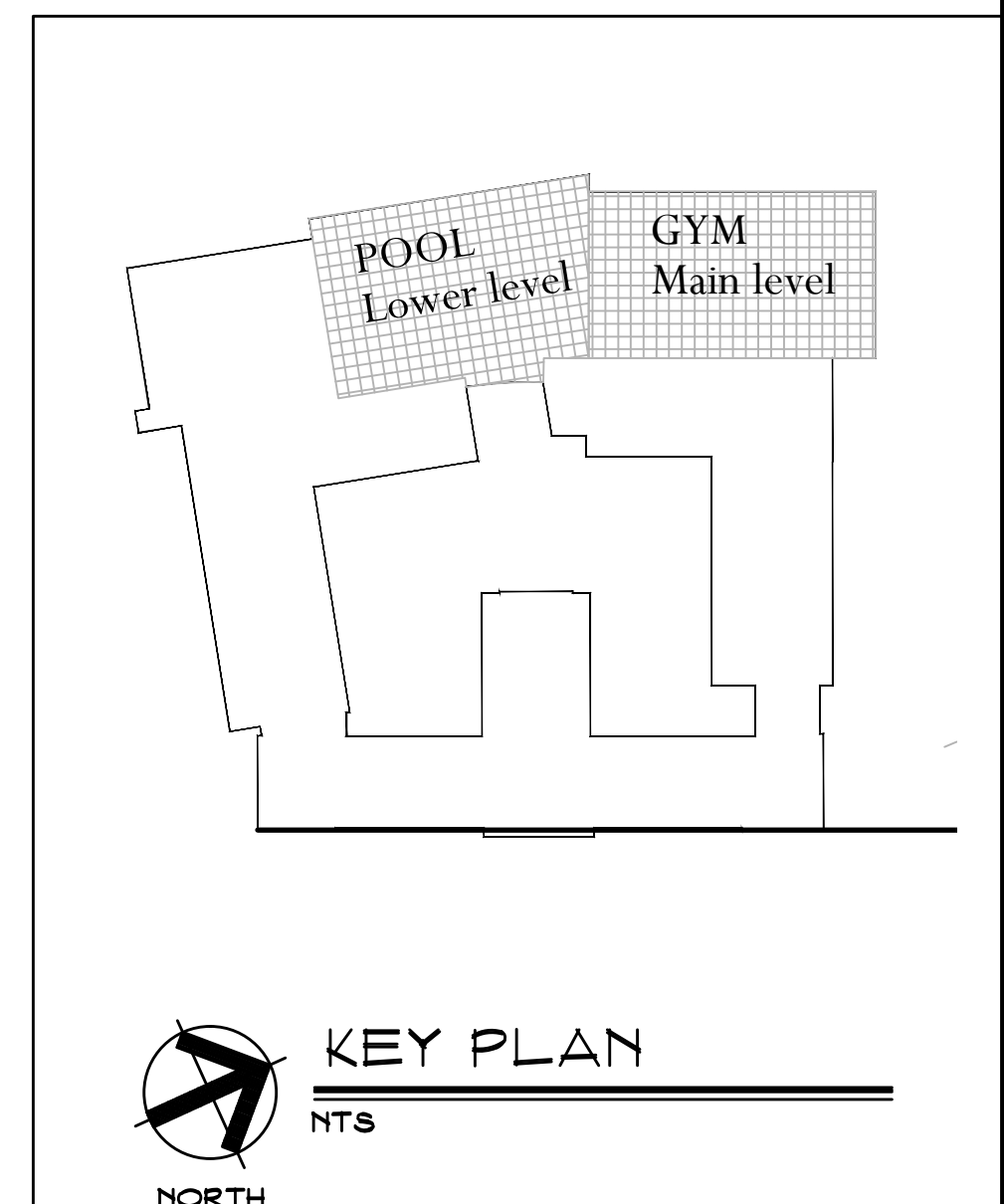
Revision	Description	Date	Revised By





**DEMOLITION PLAN NOTES**

- 1 REMOVE EXISTING DEHUMIDIFICATION UNIT, HEATING SECTION, EXHAUST FAN, REFRIGERANT PIPING, INLET PLENUM, CONTROLS AND APPURTENANCES. CUT BACK GAS PIPING AND ALLOW FOR CONNECTION TO NEW HEATING SECTION. REMOVE ROOF SUPPORTS AND PATCH ROOF OPENING WITH MATERIALS AND THICKNESS TO MATCH EXISTING. REFER TO ROOF INFILL DETAIL, DRAWING M2.
- 2 REMOVE EXISTING DUCTWORK FROM UNIT CONNECTIONS TO EXISTING DUCT TO REMAIN. ALLOW FOR CONNECTION OF NEW DUCTWORK TO EXISTING.
- 3 REMOVE EXISTING AIR COOLED CONDENSER AND REFRIGERANT PIPING.
- 4 REMOVE EXISTING MAKE-UP AIR UNIT, CONTROLS AND APPURTENANCES. ALLOW FOR CONNECTION TO EXISTING SUPPLY DUCT. REMOVE GAS SUPPLY PIPE AND CAP AT MAIN. PROVIDE CURB CAP AND SEAL WEATHER-TIGHT. CROSS-BREAK CURB CAP TO PROVIDE DRAINAGE.
- 5 REMOVE EXISTING SUPPLY AND RETURN PIPING AND CAP IN CEILING SPACE BELOW. PATCH AND REPAIR ROOF PENETRATIONS WITH MATERIALS COMPATIBLE WITH EXISTING ROOFING.
- 6 REMOVE EXISTING CONDENSATE DRAIN LINE. ALLOW FOR CONNECTION TO EXISTING IN CEILING SPACE BELOW.



**POOL ROOF MECHANICAL DEMOLITION PLAN**  
SCALE: 1/8"=1'-0"

1  
MD1

Project Title:  
H.H.S. 2018 - 2019 Improvements to the Pool  
Town of Hamden, Hamden Board of Education  
Hamden High School  
2040 Dixwell Avenue  
Hamden, CT 06514



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Revision	Description	Date	Revised By

Drawing Title:  
**Pool Roof  
Mechanical  
Demolition Plan**

Date: **JANUARY 14, 2019**  
Scale: **AS NOTED**  
Drawn By: **JP**  
Project Number: **18.048**  
Drawing Number: **MD1**



PLUMBING GENERAL NOTES

**GENERAL**

THE INTENT OF THESE CONTRACT DOCUMENTS (SPECIFICATIONS AND DRAWINGS) IS FOR THE CONTRACTOR TO FURNISH AND INSTALL COMPLETE PLUMBING SYSTEMS. ALL SYSTEMS SHALL BE COMPLETE IN ALL RESPECTS: OPERATING, TESTED, ADJUSTED, APPROVED BY THE AUTHORITIES HAVING JURISDICTION AND READY FOR GENERAL USE BY THE OWNER.

WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.

ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.

WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS, PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTS, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

ALL EQUIPMENT, MATERIALS AND RELATED SYSTEMS COMPONENTS SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE.

STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

THIS CONTRACTOR SHALL COORDINATE ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM WITH ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR INSTALLATION. COORDINATE REQUIREMENTS.

REPAIR AND/OR REPLACE AT NO COST TO OWNER ALL EQUIPMENT AND MATERIALS DAMAGED DURING CONSTRUCTION.

**ALTERATION WORK AND DEMOLITION**

ALL EQUIPMENT, FIXTURES, PIPING, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, FIXTURES, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.

UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.

NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.

EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.

ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.

ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.

RE-ROUTE OR REMOVE ALL EXISTING PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.

**COORDINATION**

THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING PROJECT MANUAL, PLANS AND SPECIFICATIONS OF ALL TRADES BEFORE SUBMITTING BID. REFER TO SPECIFICATIONS, PROJECT MANUAL, AND PLANS, INCLUDING ALL EQUIPMENT SCHEDULES FOR INFORMATION. CONTRACTOR SHALL WALK THROUGH BUILDING PRIOR TO SUBMITTING BID WHEN AVAILABLE.

ALL OF THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO FORM A TOTAL DESIGN PACKAGE. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER TO DETERMINE WHICH TRADE CONTRACTOR IS RESPONSIBLE FOR VARIOUS PORTIONS OF THE WORK.

ALL WORK AND ACTION DEPICTED AND DESCRIBED SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.

THE CONTRACTOR SHALL VERIFY THESE DRAWINGS WITH EXISTING FIELD CONDITIONS AND SHALL COORDINATE LOCATIONS OF SERVICE LINES BEFORE PROCEEDING WITH CONSTRUCTION.

CONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL OWNER-FURNISHED EQUIPMENT, INCLUDING REQUIRED SERVICE CONNECTIONS, RECEPTACLES, ETC. BEFORE INSTALLATION.

THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF EQUIPMENT WITH ALL TRADES BEFORE STARTING CONSTRUCTION. ANY MODIFICATIONS TO THE EQUIPMENT LAYOUT REQUIRED FOR INSTALLATION ARE TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ALL PIPING AND CONDUITS LEAVING THE BUILDING WITH THE SITE CONTRACTOR BEFORE INSTALLATION.

DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

SUBMIT FINAL SIGNED COORDINATION DRAWINGS TO ENGINEER FOR REVIEW AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.

ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.

EACH CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.

THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.

**SHOP DRAWINGS**

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE APPROVED, REVISED, OR RESUBMITTED AS PER THE ENGINEER'S COMMENTS, PRIOR TO CONSTRUCTION.

**AS-BUILT DRAWINGS**

PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEER'S COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) VERSION. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

PROVIDE AS-BUILT DRAWINGS INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:

INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.

APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.

SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

**HANGERS AND SUPPORT**

PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT PIPING, EQUIPMENT AND TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC. ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SLOWLY ADJUSTMENT AFTER PIPING IS ERECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.

PROVIDE ADDITIONAL SUPPORT FOR PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING. BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2 INCHES, FOR PIPING 2-1/2 INCHES AND LARGER 1 BEAM CLAMPS SHALL BE FORGED STEEL. 'C' CLAMPS ARE NOT TO BE USED.

BAND IRON, TIE WIRE, METAL STRAPPING OR WIRE STRAPPING SHALL NOT BE PERMITTED TO SUPPORT PIPING OR EQUIPMENT.

**PIPE SEALS**

SEAL ALL PIPING PASSING THROUGH ALL FIRE AND/OR SMOKE RATED PARTITIONS AND WALLS WITH A UL LISTED, APPROVED AND TESTED FIRE AND/OR SMOKE SEALING MATERIAL INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

ALL PIPING PENETRATING A SLAB ON GRADE OR FOUNDATION WALL BELOW GRADE AND IN CONTACT WITH EARTH SHALL BE PROVIDED WITH A PURCHASED SCHEDULE 80 GALVANIZED STEEL WATER TIGHT SLEEVE WITH INTEGRAL WATER STOP AND SEAL EQUAL TO LINK SEAL.

FURNISH AND SET STEEL PIPE SLEEVES OF SCHEDULE 40 BLACK STEEL FOR ALL LOCATIONS OF INTERIOR PARTITIONS, WALLS AND FLOORS PROVIDING AT LEAST 1/2 CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE OR PIPE AND SLEEVE. WALL SLEEVES SHALL BE SMOOTH CUT AND SET FLUSH WITH FINISHED WALLS. FLOOR SLEEVES SHALL EXTENDED 2" ABOVE THE FINISHED FLOOR.

ALL PIPING THROUGH WALLS, FLOORS OR CEILINGS SHALL HAVE SLEEVES AND ESCUTCHEONS. PROVIDE A TWO PIECE CHROME ESCUTCHEON WHERE PIPING PASSES THROUGH WALLS OR FLOORS OF FINISHED SPACES.

**MISCELLANEOUS SPECIALTIES**

ALL EQUIPMENT, VALVES, STRAINERS, UNIONS, TRAPS, FLANGES AND OTHER APPURTENANCES REQUIRING ACCESS SHALL BE LOCATED IN ACCESSIBLE LOCATIONS. WHEN A PIECE OF EQUIPMENT MUST BE LOCATED ABOVE AN INACCESSIBLE CEILING OR WALL, THEN THE APPROPRIATE ACCESS DOOR SHALL BE PROVIDED. SUCH EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO CLEANOUTS, WATER HAMMER ARRESTORS AND VALVES. THESE SHALL BE COORDINATED WITH THE ARCHITECT. ACCESS DOORS SHALL BE RIGID CONSTRUCTION WITH TWO HINGES AND A LATCH. IN PLENUM CEILINGS, PROVIDE FELT BETWEEN THE DOOR AND FRAME TO MAKE AN AIR TIGHT SEAL. ACCESS DOORS SHALL BE RATED TO THE SAME OR GREATER RATING OF THE PARTITION IN WHICH THEY ARE INSTALLED. ACCESS DOORS SHALL BE FLUSH MOUNTED, PRIME COATED WITH RUST INHIBITIVE PAINT, CONCEALED FRAME, FLUSH SCREW DRIVER OPERATED LOCKS WITH METAL CAMS AND ANCHORS AS REQUIRED.

**PIPING GENERAL**

ALL PIPING SHALL BE RUN PERPENDICULAR AND/OR PARALLEL TO FLOORS, INTERIOR WALLS, ETC. PIPING AND VALVES SHALL BE GROUPED NEATLY AND SHALL BE RUN AS TO MAXIMIZE HEADROOM OR PASSAGE CLEARANCE. ALL VALVES, CONTROLS AND ACCESSORIES CONCEALED IN FURRED SPACES AND REQUIRING ACCESS FOR OPERATION AND MAINTENANCE SHALL BE ARRANGED TO ASSURE THE USE OF A MINIMUM NUMBER OF ACCESS DOORS.

ALL PIPE LINES MADE WITH SCREWED FITTINGS MUST BE PROVIDED WITH A SUFFICIENT NUMBER OF FLANGES AND/OR UNIONS TO ALLOW FOR EASY AND CONVENIENT DISMANTLING OF THE SYSTEM WITHOUT BREAKING FITTINGS.

CAP ALL PIPE AND EQUIPMENT OUTLETS DURING CONSTRUCTION AND KEEP LINES AND INSIDE OF EQUIPMENT FREE OF FOREIGN MATERIALS.

THIS CONTRACTOR SHALL INFORM HIMSELF FROM THE GENERAL CONSTRUCTION SPECIFICATIONS AND PLANS OF THE EXACT DIMENSION OF FINISHED WORK AND OF THE HEIGHT OF FINISHED CEILINGS IN ALL ROOMS WHERE EQUIPMENT OR PIPES ARE TO BE PLACED AND ARRANGE HIS WORK IN ACCORDANCE WITH THE SCHEDULE OF INTERIOR FINISHES AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BY-PASSES AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.

WHEREVER DISSIMILAR METALS ARE JOINED TOGETHER AN APPROVED DIELECTRIC FITTING SHALL BE USED. THE DIELECTRIC FITTING SHALL BE A LISTED ASSEMBLY.

PLUMBING DRAWING INDEX

SHEET	DESCRIPTION
P1	PLUMBING COVER SHEET
P2	POOL PUMP ROOM DEMOLITION & RENOVATION PLANS
P3	EXISTING POOL PUMP ROOM SCHEMATIC PLAN
P4	RENOVATED PARTIAL POOL PUMP ROOM SCHEMATIC PLAN

Project Title:  
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 Architects / Engineers / Interior Designers

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Revision	Description	Date	Revised By

Drawing Title:  
**Plumbing Cover Sheet**

Date:  
**JANUARY 14, 2019**

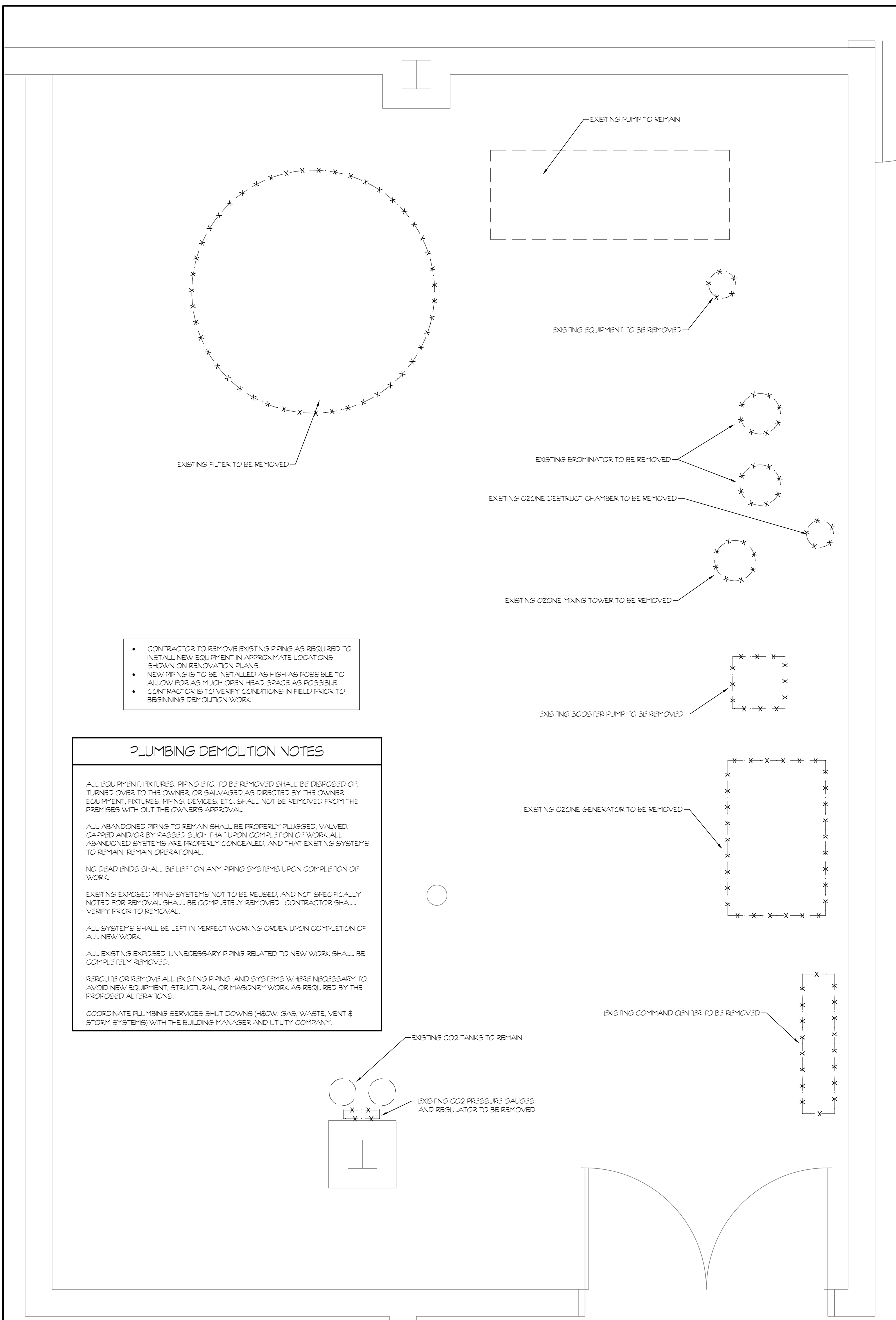
Scale:  
**NOT TO SCALE**

Drawn By:  
**SAM**

Project Number:  
**18048**

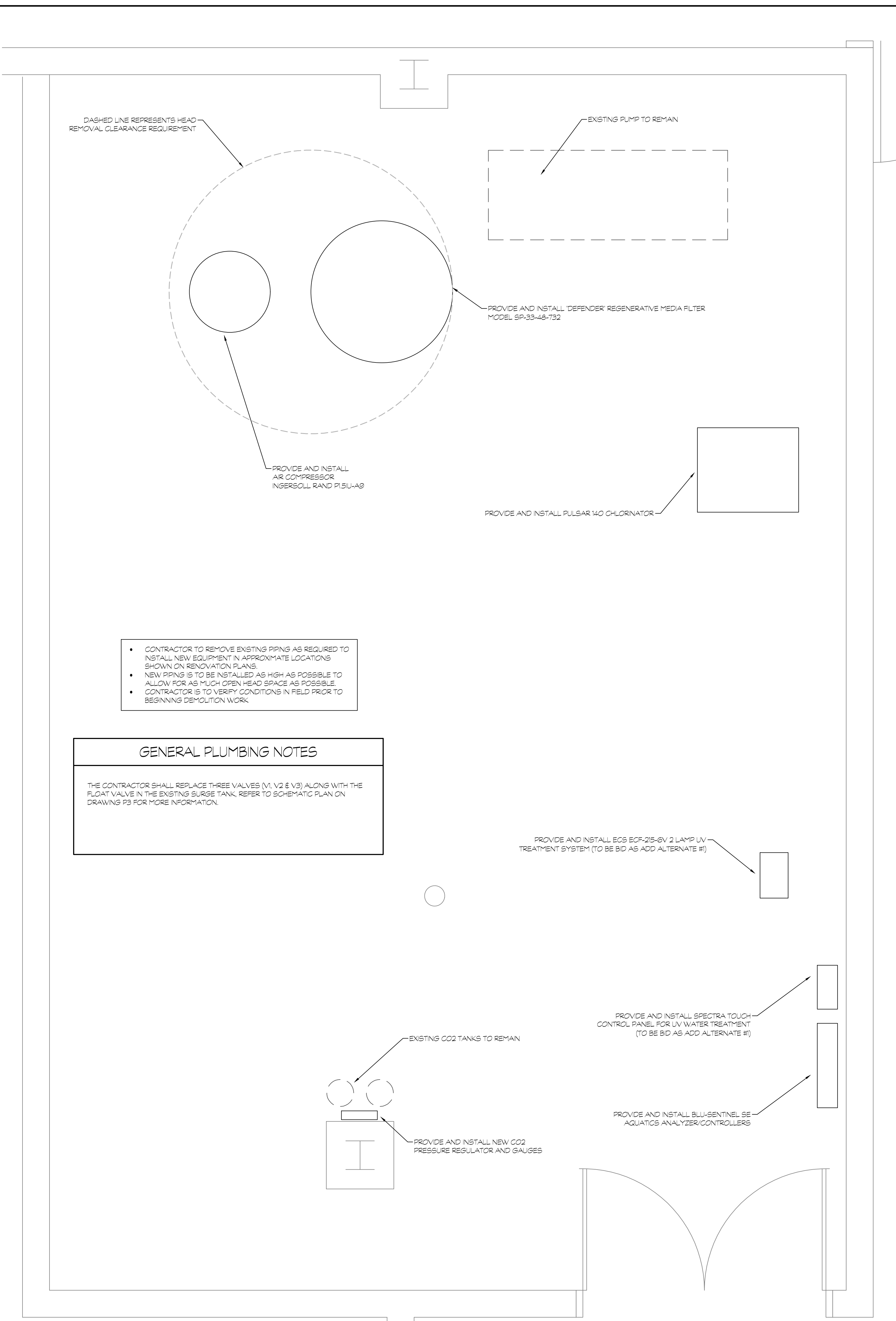
Drawing Number:  
**P1**





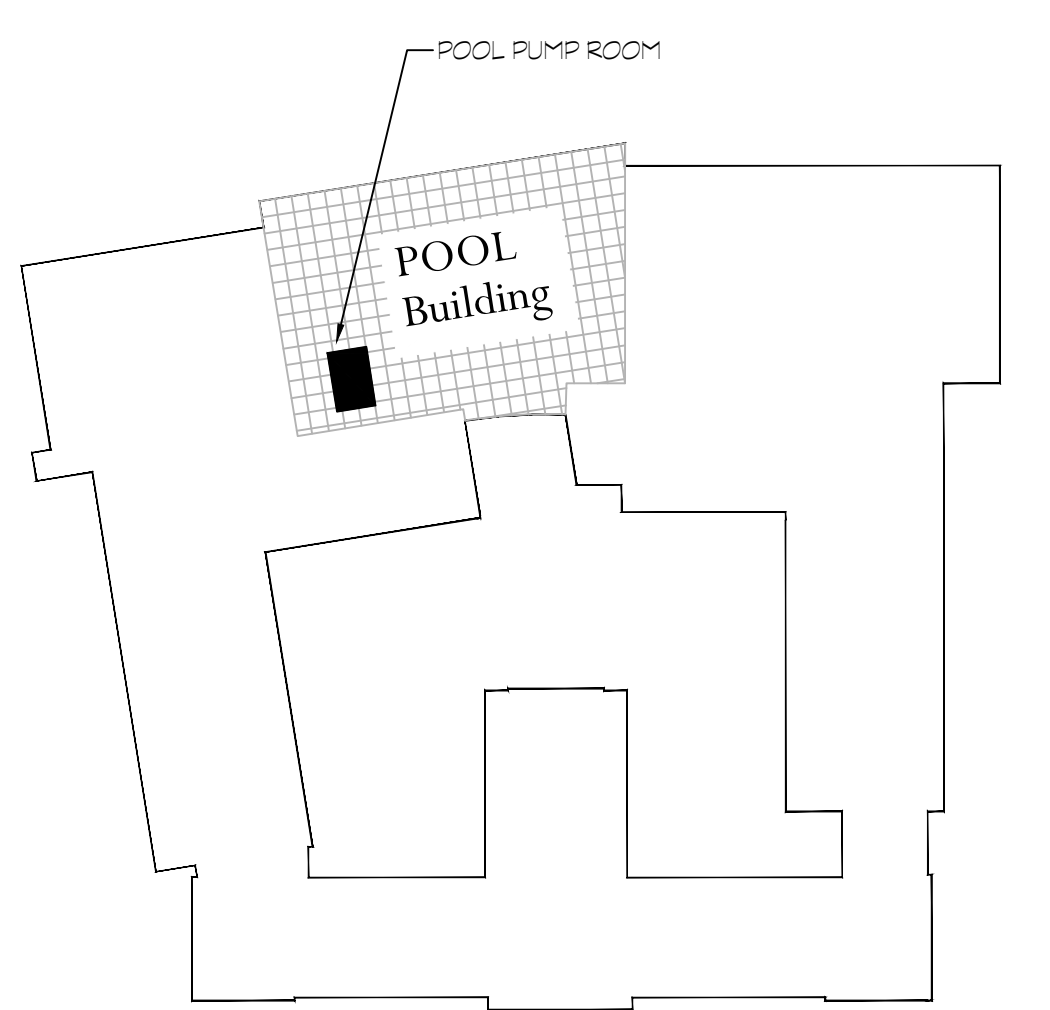
**PLUMBING DEMOLITION NOTES**

- CONTRACTOR TO REMOVE EXISTING PIPING AS REQUIRED TO INSTALL NEW EQUIPMENT IN APPROXIMATE LOCATIONS SHOWN ON RENOVATION PLANS.
  - NEW PIPING IS TO BE INSTALLED AS HIGH AS POSSIBLE TO ALLOW FOR AS MUCH OPEN HEAD SPACE AS POSSIBLE.
  - CONTRACTOR IS TO VERIFY CONDITIONS IN FIELD PRIOR TO BEGINNING DEMOLITION WORK.
- ALL EQUIPMENT, FIXTURES, PIPING ETC. TO BE REMOVED SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, FIXTURES, PIPING, DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.
- ALL ABANDONED PIPING TO REMAIN SHALL BE PROPERLY PLUGGED, VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL ABANDONED SYSTEMS ARE PROPERLY CONCEALED, AND THAT EXISTING SYSTEMS TO REMAIN, REMAIN OPERATIONAL.
- NO DEAD ENDS SHALL BE LEFT ON ANY PIPING SYSTEMS UPON COMPLETION OF WORK.
- EXISTING EXPOSED PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED. CONTRACTOR SHALL VERIFY PRIOR TO REMOVAL.
- ALL SYSTEMS SHALL BE LEFT IN PERFECT WORKING ORDER UPON COMPLETION OF ALL NEW WORK.
- ALL EXISTING EXPOSED, UNNECESSARY PIPING RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.
- REROUTE OR REMOVE ALL EXISTING PIPING, AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.
- COORDINATE PLUMBING SERVICES SHUT DOWNS (HEW, GAS, WASTE, VENT & STORY SYSTEMS) WITH THE BUILDING MANAGER AND UTILITY COMPANY.



**GENERAL PLUMBING NOTES**

- CONTRACTOR TO REMOVE EXISTING PIPING AS REQUIRED TO INSTALL NEW EQUIPMENT IN APPROXIMATE LOCATIONS SHOWN ON RENOVATION PLANS.
  - NEW PIPING IS TO BE INSTALLED AS HIGH AS POSSIBLE TO ALLOW FOR AS MUCH OPEN HEAD SPACE AS POSSIBLE.
  - CONTRACTOR IS TO VERIFY CONDITIONS IN FIELD PRIOR TO BEGINNING DEMOLITION WORK.
- THE CONTRACTOR SHALL REPLACE THREE VALVES (V1, V2 & V3) ALONG WITH THE FLOAT VALVE IN THE EXISTING SURGE TANK. REFER TO SCHEMATIC PLAN ON DRAWING P3 FOR MORE INFORMATION.



**POOL PUMP ROOM DEMOLITION PLAN** 1  
SCALE: 1/8"=1'-0" P2

**POOL PUMP ROOM RENOVATION PLAN** 2  
SCALE: 1/8"=1'-0" P2

**KEY PLAN**  
NTS

Project Title:  
H.H.S. 2018 - 2019 Improvements to the Pool  
Town of Hamden, Hamden Board of Education  
Hamden High School  
2040 Dixwell Avenue  
Hamden, CT 06514



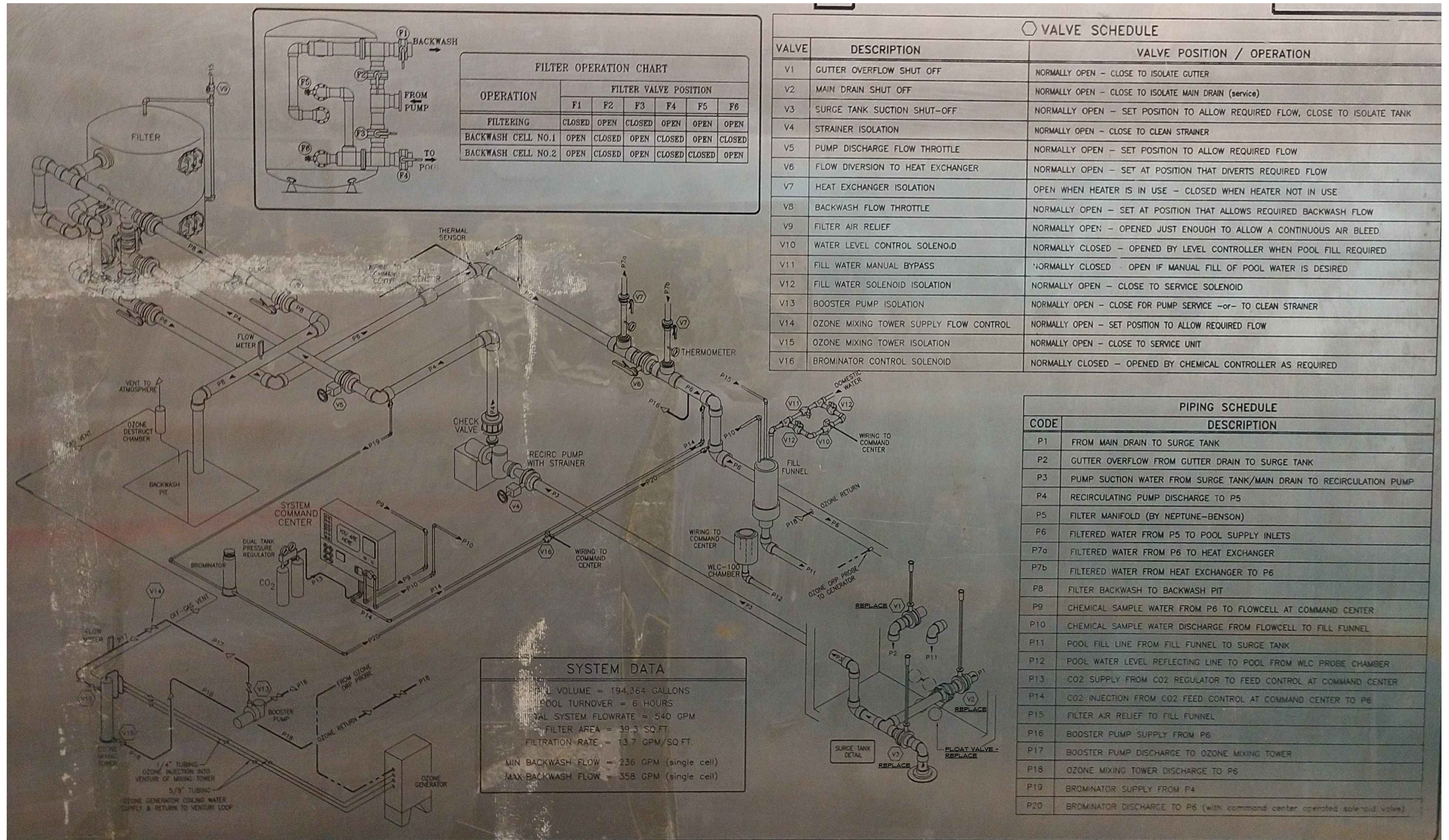
**SILVER / PETRUCELLI + ASSOCIATES**  
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Revision	Description	Date	Revised By

Drawing Title:  
**Pool Pump Room  
Demolition &  
Renovation Plans**

Date: JANUARY 14, 2019  
Scale: AS NOTED  
Drawn By: SAM  
Project Number: 18-048  
Drawing Number: P2





FILTER OPERATION CHART						
OPERATION	FILTER VALVE POSITION					
	F1	F2	F3	F4	F5	F6
FILTERING	CLOSED	OPEN	CLOSED	OPEN	OPEN	OPEN
BACKWASH CELL NO.1	OPEN	CLOSED	OPEN	CLOSED	OPEN	CLOSED
BACKWASH CELL NO.2	OPEN	CLOSED	OPEN	CLOSED	CLOSED	OPEN

VALVE SCHEDULE		
VALVE	DESCRIPTION	VALVE POSITION / OPERATION
V1	GUTTER OVERFLOW SHUT OFF	NORMALLY OPEN - CLOSE TO ISOLATE GUTTER
V2	MAIN DRAIN SHUT OFF	NORMALLY OPEN - CLOSE TO ISOLATE MAIN DRAIN (service)
V3	SURGE TANK SUCTION SHUT-OFF	NORMALLY OPEN - SET POSITION TO ALLOW REQUIRED FLOW, CLOSE TO ISOLATE TANK
V4	STRAINER ISOLATION	NORMALLY OPEN - CLOSE TO CLEAN STRAINER
V5	PUMP DISCHARGE FLOW THROTTLE	NORMALLY OPEN - SET POSITION TO ALLOW REQUIRED FLOW
V6	FLOW DIVERSION TO HEAT EXCHANGER	NORMALLY OPEN - SET AT POSITION THAT DIVERTS REQUIRED FLOW
V7	HEAT EXCHANGER ISOLATION	OPEN WHEN HEATER IS IN USE - CLOSED WHEN HEATER NOT IN USE
V8	BACKWASH FLOW THROTTLE	NORMALLY OPEN - SET AT POSITION THAT ALLOWS REQUIRED BACKWASH FLOW
V9	FILTER AIR RELIEF	NORMALLY OPEN - OPENED JUST ENOUGH TO ALLOW A CONTINUOUS AIR BLEED
V10	WATER LEVEL CONTROL SOLENOID	NORMALLY CLOSED - OPENED BY LEVEL CONTROLLER WHEN POOL FILL REQUIRED
V11	FILL WATER MANUAL BYPASS	NORMALLY CLOSED - OPEN IF MANUAL FILL OF POOL WATER IS DESIRED
V12	FILL WATER SOLENOID ISOLATION	NORMALLY OPEN - CLOSE TO SERVICE SOLENOID
V13	BOOSTER PUMP ISOLATION	NORMALLY OPEN - CLOSE FOR PUMP SERVICE -or- TO CLEAN STRAINER
V14	OZONE MIXING TOWER SUPPLY FLOW CONTROL	NORMALLY OPEN - SET POSITION TO ALLOW REQUIRED FLOW
V15	OZONE MIXING TOWER ISOLATION	NORMALLY OPEN - CLOSE TO SERVICE UNIT
V16	BROMINATOR CONTROL SOLENOID	NORMALLY CLOSED - OPENED BY CHEMICAL CONTROLLER AS REQUIRED

PIPING SCHEDULE	
CODE	DESCRIPTION
P1	FROM MAIN DRAIN TO SURGE TANK
P2	GUTTER OVERFLOW FROM GUTTER DRAIN TO SURGE TANK
P3	PUMP SUCTION WATER FROM SURGE TANK/MAIN DRAIN TO RECIRCULATION PUMP
P4	RECIRCULATING PUMP DISCHARGE TO P5
P5	FILTER MANIFOLD (BY NEPTUNE-BENSON)
P6	FILTERED WATER FROM P5 TO POOL SUPPLY INLETS
P7a	FILTERED WATER FROM P6 TO HEAT EXCHANGER
P7b	FILTERED WATER FROM HEAT EXCHANGER TO P6
P8	FILTER BACKWASH TO BACKWASH PIT
P9	CHEMICAL SAMPLE WATER FROM P6 TO FLOWCELL AT COMMAND CENTER
P10	CHEMICAL SAMPLE WATER DISCHARGE FROM FLOWCELL TO FILL FUNNEL
P11	POOL FILL LINE FROM FILL FUNNEL TO SURGE TANK
P12	POOL WATER LEVEL REFLECTING LINE TO POOL FROM WLC PROBE CHAMBER
P13	CO2 SUPPLY FROM CO2 REGULATOR TO FEED CONTROL AT COMMAND CENTER
P14	CO2 INJECTION FROM CO2 FEED CONTROL AT COMMAND CENTER TO P6
P15	FILTER AIR RELIEF TO FILL FUNNEL
P16	BOOSTER PUMP SUPPLY FROM P6
P17	BOOSTER PUMP DISCHARGE TO OZONE MIXING TOWER
P18	OZONE MIXING TOWER DISCHARGE TO P6
P19	BROMINATOR SUPPLY FROM P4
P20	BROMINATOR DISCHARGE TO P6 (with command center operated solenoid valve)

SYSTEM DATA	
TOTAL VOLUME	= 194,364 GALLONS
POOL TURNOVER	= 6 HOURS
TOTAL SYSTEM FLOWRATE	= 540 GPM
FILTER AREA	= 39.3 SQ. FT.
FILTRATION RATE	= 13.7 GPM/SQ. FT.
MIN BACKWASH FLOW	= 236 GPM (single cell)
MAX BACKWASH FLOW	= 358 GPM (single cell)

**EXISTING POOL PUMP ROOM SCHEMATIC PLAN** 1  
 SCALE: 1/8"=1'-0" P3

Project Title:  
 H.H.S. 2018 - 2019 Improvements to the Pool  
 Town of Hamden, Hamden Board of Education  
 Hamden High School  
 2040 Dixwell Avenue  
 Hamden, CT 06514

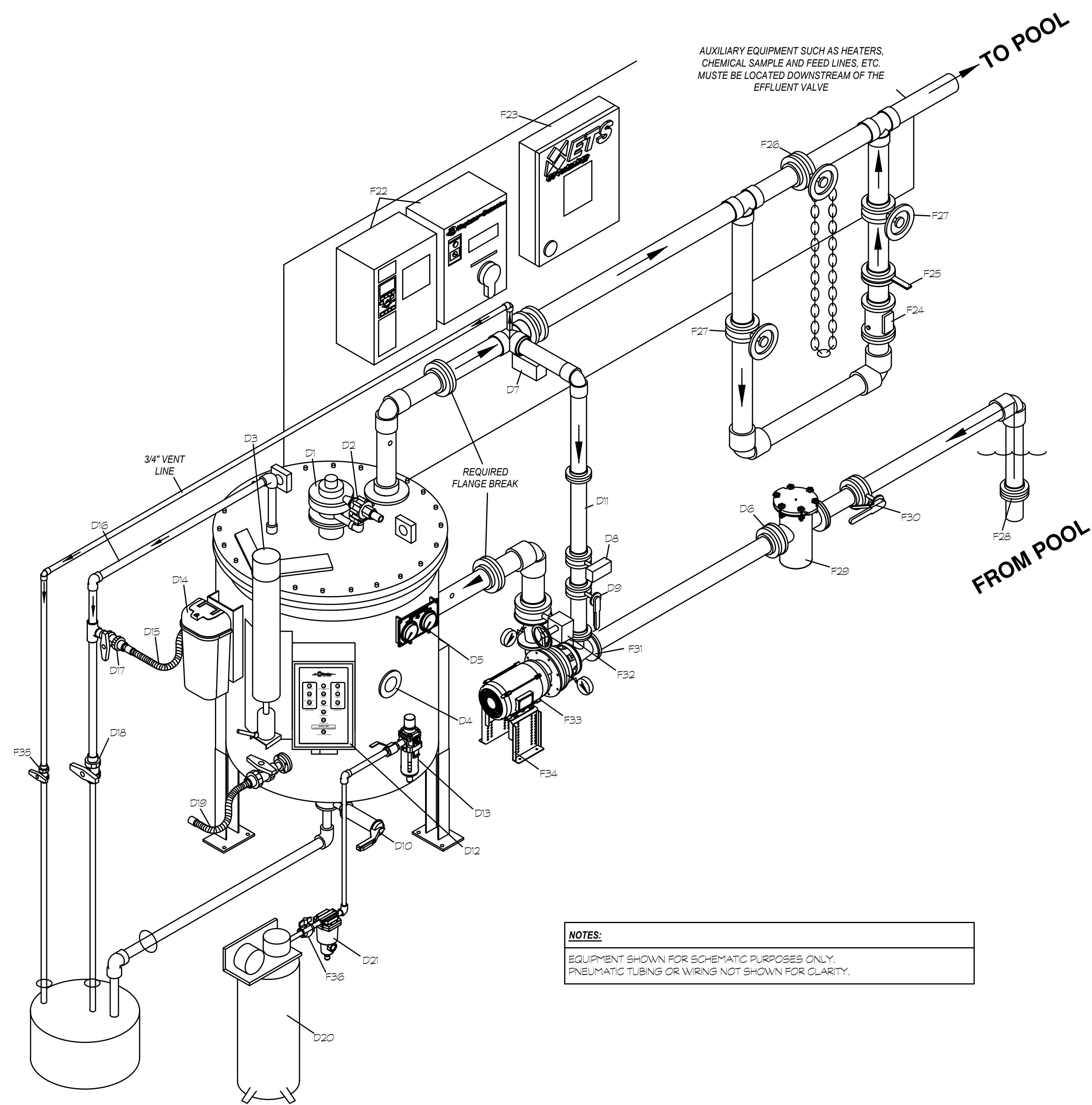
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Revision	Description	Date	Revised By

Drawing Title:  
**Existing Pool Pump Room Schematic Plan**  
 Date:  
 JANUARY 14, 2019  
 Scale:  
 NOT TO SCALE  
 Drawn By:  
 SAM  
 Project Number:  
 18048

P3





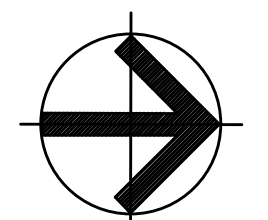
**NOTES:**  
EQUIPMENT SHOWN FOR SCHEMATIC PURPOSES ONLY.  
PNEUMATIC TUBING OR WIRING NOT SHOWN FOR CLARITY.

**DEFENDER FILTER COMPONENTS - INCLUDED IN DEFENDER PACKAGE**

MARK	REFERENCE	NOTES
D1	PNEUMATIC BUMPING ASSEMBLY	
D2	QUICK EXHAUST VALVE	
D3	LIFTING DAVIT	NONE
D4	VIEWING WINDOW	
D5	GAUGE PANEL	
D6	INFLUENT CHECK VALVE	
D7	EFFLUENT VALVE	AIR OPERATED BUTTERFLY VALVE, NORMALLY OPEN. INSTALL EFFLUENT VALVE DIRECTLY ON PRECOAT TEE. LOCATE ACTUATOR WHERE VALVE CAN BE VIEWED FROM FLOOR.
D8	PRECOAT VALVE	AIR OPERATED BUTTERFLY VALVE, NORMALLY CLOSED. INSTALL PRECOAT VALVE AS CLOSE AS POSSIBLE TO THE PUMP SUCTION PIPING. PRECOAT LINE 2 PIPE DIAMETERS SMALLER THAN EFFLUENT PIPE DIAMETER (NO LESS THAN 2").
D9	SYSTEM FILL	MANUALLY OPERATED BUTTERFLY VALVE, NORMALLY OPEN.
D10	DRAIN VALVE	MANUALLY OPERATED BUTTERFLY VALVE, NORMALLY CLOSED. WITH EXTENSION BOLTED DIRECTLY TO TANK BOTTOM (MEDIA DUMP / RINSE) DRAIN LINE MUST BE PLUMBED INDEPENDENTLY TO WASTE.
D11	IN-LINE SIGHT GLASS	INSTALL IN-LINE SIGHT GLASS ON THE PRECOAT LINE SO THAT IT CAN BE VIEWED WHILE STANDING AT THE FILTER CONTROL PANEL.
D12	RPM CONTROL PANEL	
D13	FILTER REGULATOR	
D14	VACUUM TRANSFER UNIT	NONE
D15	VACUUM TRANSFER HOSE	
D16	VACUUM TRANSFER PIPING & FITTINGS	SCH 80 PVC FITTINGS & PIPE 1/2"
D17	VACUUM TRANSFER VALVE	BALL VALVE 1/2" TRUE UNION, NORMALLY CLOSED.
D18	VACUUM VENT VALVE	BALL VALVE 1/2" TRUE UNION, NORMALLY CLOSED. VACUUM DRAIN LINE MUST BE PLUMBED INDEPENDENTLY TO WASTE.
D19	VACUUM HOSE VALVE WITH HOSE	BALL VALVE 1/2" TRUE UNION, NORMALLY CLOSED.
D20	AIR COMPRESSOR	
D21	WATER SEPARATOR	

**FILTER ACCESSORY COMPONENTS - AVAILABLE UPON REQUEST**

MARK	REFERENCE	NOTES
F22	GREEN DRIVE VFD	NONE
F23	ETS LV TREATMENT SYSTEM CONTROLLER	(TO BE BID AS ADD ALTERNATE #1)
F24	ETS LV TREATMENT SYSTEM	(TO BE BID AS ADD ALTERNATE #1)
F25	ETS LV STRAINER	
F26	ETS LV BYPASS	GEAR OPERATED BUTTERFLY VALVE, NORMALLY CLOSED. (TO BE BID AS ADD ALTERNATE #1)
F27	ETS LV ISOLATION	BUTTERFLY VALVE, NORMALLY OPEN. (2) REQUIRED. (TO BE BID AS ADD ALTERNATE #1)
F28	CHECK VALVE	FOR SELF PRIMING PUMPS, CHECK VALVE MUST BE INSTALLED ON SUCTION PIPE BELOW WATER LEVEL.
F29	GUARDIAN STRAINER	NONE
F30	STRAINER ISOLATION	LEVER OR GEAR OPERATED BUTTERFLY VALVE, NORMALLY OPEN.
F31	PRECOAT REDUCING TEE	NONE
F32	PUMP THROTTLE VALVE	GEAR OPERATED BUTTERFLY VALVE, NORMALLY OPEN.
F33	RECIRCULATING PUMP	NONE
F34	PUMP BASE	NONE
F35	PRECOAT LINE VENT VALVE	NORMALLY CLOSED, PRECOAT LINE MUST BE PLUMBED INDEPENDENTLY TO WASTE.
F36	SHUT OFF VALVE	NONE



**RENOVATED PARTIAL POOL PUMP ROOM SCHEMATIC PLAN**  
SCALE: 1/8"=1'-0"

1  
P4

Project Title:  
H.H.S. 2018 - 2019 Improvements to the Pool  
Town of Hamden, Hamden Board of Education  
Hamden High School  
2040 Dixwell Avenue  
Hamden, CT 06514



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Revision	Description	Date	Revised By

Drawing Title:  
**Renovated Partial Pool  
Pump Room Schematic  
Plan**

Date:  
JANUARY 14, 2019  
Scale:  
NOT TO SCALE  
Drawn By:  
SAM  
Project Number:  
18048

P4

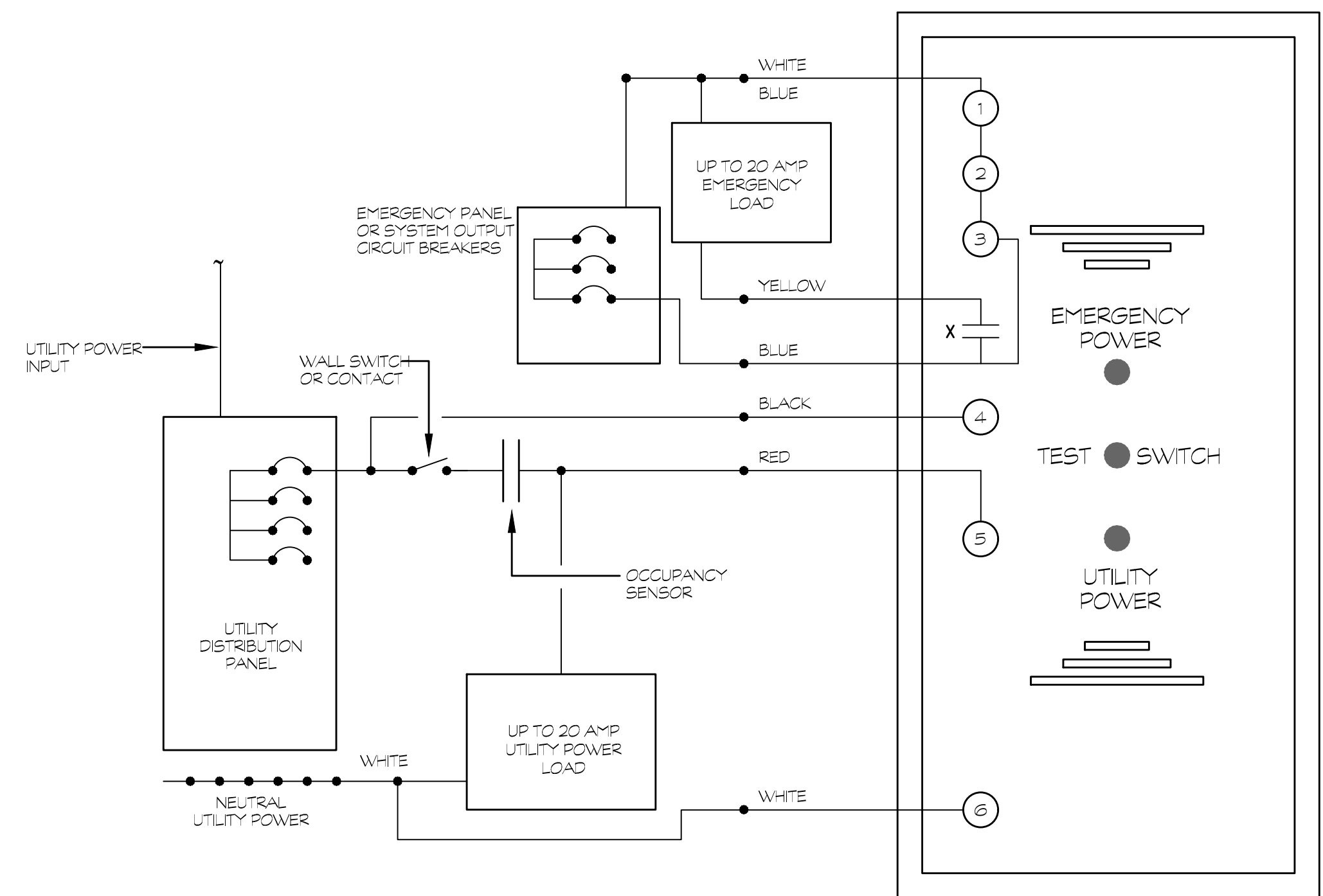


ABBREVIATIONS	
A	AMPERES
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
C/B	CIRCUIT BREAKER
CFW	COLD FOOD WELL
CAT	CIRCUIT
CR	CASH REGISTER
DA	DIAMETER
EG	ELECTRICAL CONTRACTOR
EWV	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
ETR	EXISTING TO REMAIN
REH	EXISTING TO BE REMOVED
HFW	HOT FOOD WELL
HT	HEAT TRACE
JB	JUNCTION BOX
M/B	MAIN BREAKER
M/O	MAN U/LG ONLY
M/D	MOUNTED
O/D	OVER-HEAD DOOR
PL	PANELBOARD
RELCC	RELOCATE/RELOCATED AT THE SAME HEIGHT (PER NEC REQUIREMENTS)
SG	SNEEZE GUARD
UCR	UNDER COUNTER REFRIGERATOR
U/N	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF

ELECTRICAL LEGEND	
(NOT ALL SYMBOLS ARE USED)	
[Symbol]	DISTRIBUTION PANEL, 480/277 VOLT
[Symbol]	ELECTRICAL PANEL, 480/277 VOLT
[Symbol]	ELECTRICAL PANEL, 120/208 VOLT
[Symbol]	PANELBOARD FLUSH MOUNTED
[Symbol]	PANELBOARD SURFACE MOUNTED
[Symbol]	NON-FUSED DISCONNECT SWITCH
[Symbol]	FUSED DISCONNECT SWITCH
[Symbol]	WALL MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
[Symbol]	CBLING MOUNTED JUNCTION BOX, ACCORDING TO NEC REQUIREMENTS
[Symbol]	MOTOR STARTER, COORDINATE EXACT REQUIREMENTS WITH MOTOR FURNISHED
[Symbol]	TYPICAL PENDANT/SURFACE MOUNTED LIGHT FIXTURE, LETTER INDICATES FIXTURE TYPE
[Symbol]	LIGHT FIXTURE W/RED TO EMERGENCY BATTERY INVERTER
[Symbol]	WALL MOUNTED LIGHT FIXTURE
[Symbol]	SINGLE FACE EXIT SIGN
[Symbol]	SINGLE POLE SWITCH MOUNT AT 48" AFF
[Symbol]	3-WAY SWITCH MOUNT AT 48" AFF
[Symbol]	KEYED SINGLE POLE OR 3-WAY SWITCH MOUNT AT 48" AFF
[Symbol]	DUPLEX RECEPTACLE MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
[Symbol]	GROUND FAULT INTERRUPTING DUPLEX RECEPTACLE MOUNT AT 18" AFF UNLESS OTHERWISE SPECIFIED
[Symbol]	RECEPTACLE WITH OUTDOOR RATED COVER PLATE, PROVIDE FLUSH MOUNTED BOX
[Symbol]	DUPLEX RECEPTACLE MOUNT AT 48" AFF UNLESS OTHERWISE SPECIFIED
[Symbol]	BRANCH CIRCUIT HOMERUN, VOLTAGE, BRANCH CIRCUIT POLES
[Symbol]	ROUND CEILING SPEAKER
[Symbol]	SQUARE CEILING SPEAKER
[Symbol]	MICROPHONE OUTLET
[Symbol]	120V CONNECTION TO GFI RECEPTACLE FURNISHED WITH MECHANICAL UNIT W/RED BY E.C.
[Symbol]	HIGH CEILING MOUNTED OCCUPANCY SENSOR (25 FEET MINIMUM) WITH 360° COVERAGE AND A MINIMUM 25 X 25 COVERAGE PATTERN.

DEMOLITION AND REMOVALS	
1.	THE EXISTING FACILITY WILL BE OCCUPIED AND IN OPERATION DURING THE PERFORMANCE OF THE WORK.
2.	WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY EXISTING FEEDER OR BRANCH CIRCUIT SUPPLYING OCCUPIED FACILITIES, CONFER WITH THE OWNER AND SCHEDULE A MUTUALLY AGREASIBLE PERIOD OF INTERRUPTION.
3.	WHERE REPLACEMENT, RELOCATION OR MODIFICATION OF EXISTING EQUIPMENT IS INDICATED, PROVIDE AND MAINTAIN ALL TEMPORARY FEEDERS, CONNECTIONS, CIRCUIT PROTECTION, AND ANY OTHER MATERIALS AND APPURTENANCES REQUIRED TO MAINTAIN SERVICES TO OCCUPIED AREAS.
4.	NO WORK SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNERS PRIOR WRITTEN PERMISSION.
5.	THE OWNER RESERVES THE RIGHT TO OPERATE ALL EXISTING ELECTRICAL AND MECHANICAL EQUIPMENT NOT INCLUDED IN THIS WORK, AND TO PERFORM ALL REQUIRED SERVICES AND REPAIRS TO SAME, AT ALL TIMES.
6.	IT IS REQUIRED THAT THE WORK INDICATED AND/OR SPECIFIED SHALL BE CARRIED OUT WITH A MINIMUM OF INTERFERENCE TO THE ESTABLISHED OPERATIONS OF THE BUILDING.
7.	REMOVE, ABANDON, REROUTE OR RELOCATE ANY CONDUIT, WIRING, LIGHTING FIXTURES, OUTLETS, AND OTHER ELECTRICAL ITEMS WHICH ARE AND BASED IN THE COURSE OF, OR INTERFERE WITH THE ALTERATIONS. REMOVE ALL EXPOSED OUTLETS, CONDUIT, AND BRANCH CIRCUIT WORK, WHICH INTERFERE WITH THE ALTERATIONS.
8.	IT IS THE INTENTION OF THESE SPECIFICATIONS TO PROVIDE FOR THE CONTINUANCE OF ALL ELECTRICAL SERVICES PRESENTLY INSTALLED IN THE UNALTERED AREAS. PROVIDE ALL CONDUIT, WIRING, AND DEVICES NECESSARY TO MAINTAIN SERVICES TO THESE AREAS.
9.	COMPARE THE PLANS WITH THE EXISTING CONDITIONS TO DETERMINE THE AMOUNT OF WORK AFFECTED. REMOVE ALL UNUSED EXPOSED CIRCUIT WORK, OUTLETS, FIXTURES AND THE LIKE NOT REQUIRED BY THE ALTERATIONS.
10.	ALL MATERIALS REQUIRED TO BE REMOVED AND NOT INSTALLED UNDER THIS DIVISION OF THE WORK, UNLESS OTHERWISE INDICATED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
11.	WHERE FEEDERS AND BRANCH CIRCUITS OR DEVICES AND EQUIPMENT ARE INDICATED TO BE REMOVED, CONDUITORS AND CABLES SHALL BE COMPLETELY REMOVED BACK TO THEIR SOURCE EXPOSED OR ACCESSIBLE CONDUITS SHALL BE REMOVED COMPLETELY. CONDUITS EMBEDDED IN CONCRETE OR MASONRY SHALL BE CUT OFF FLUSH AND THE SURFACE PATCHED SMOOTH AND LEVEL.
12.	REMOVE MATERIALS SHALL BE DISPOSED OF USING LICENSED CARTING SERVICE.
13.	CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT IN OR ON WALLS THAT ARE TO BE REMOVED. MAINTAIN CONTINUITY OF ALL EXISTING BRANCH CIRCUITS TO EXISTING ROOMS NOT BEING RENOVATED. REWIRE ALL EXISTING BRANCH CIRCUITS (THAT ARE TO REMAIN) AS REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR WALLS BEING REMOVED - REFER TO CONSTRUCTION SCHEDULE FOR THE DELAY.
14.	CONDUIT IN EXISTING OR NEW CEILING THAT IS NOT INTENDED FOR REUSE SHALL BE REMOVED BACK TO THE PANEL FROM WHICH IT ORIGINATES.
15.	CONDUITORS THAT ARE NOT DESIGNATED RE-USEABLE SHALL BE REMOVED BACK TO THE NEAREST JUNCTION BOX WHERE THE ENTIRE CIRCUIT IS TO BE REMOVED. THE CONDUITORS SHALL BE REMOVED BACK TO THE PANELBOARD FROM WHICH THEY ORIGINATE.
16.	OUTAGES OF EXISTING ELECTRICAL (LIGHTING, POWER AND SIGNAL) SYSTEMS NECESSITATED BY WORK OF ALL TRADES SHALL BE IN ACCORDANCE WITH FIELD SCHEDULES BY THE GENERAL CONTRACTOR AND OWNER. INCLUDE ALL ELECTRIC WORK OVERTIME AND SUPERVISION TO COMPLY. CONTRACTOR SHALL OBTAIN OWNERS GENERAL CONTRACTORS APPROVAL, PRIOR TO INTERRUPTING OF EXISTING ELECTRICAL SYSTEMS.
17.	CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING ELECTRICAL (POWER, LIGHTING, AND SIGNAL) SYSTEMS EQUIPMENT FEEDERS AND BRANCH CIRCUITS ON FLOORS OR AREAS THAT ARE NOT AFFECTED BY DEMOLITION OR NEW CONSTRUCTION - REFER TO CONSTRUCTION SCHEDULE FOR ADDITIONAL INFORMATION.
18.	CONTRACTOR TO MAINTAIN CONTINUITY AND ACCESSIBILITY OF ALL EXISTING ELECTRICAL (POWER, LIGHTING, AND SIGNAL) SYSTEMS EQUIPMENT FEEDERS AND BRANCH CIRCUITS ON FLOORS OR AREAS THAT ARE NOT AFFECTED BY DEMOLITION OR NEW CONSTRUCTION - REFER TO CONSTRUCTION SCHEDULE FOR ADDITIONAL INFORMATION.
19.	ANY EXISTING ELECTRICAL WORK WHICH IS PULLED OUT OR CUT AWAY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE GENERAL CONTRACTOR AND THE OWNER.
20.	EXISTING ELECTRICAL EQUIPMENT WHICH IS NOT TO BE REUSE SHALL BE REMOVED FROM DRYWALL PARTITIONS. ANY OPENING IN EXISTING PARTITIONS LEFT BY REMOVAL OF EXISTING ELECTRICAL EQUIPMENT SHALL BE PATCHED BY THE CONTRACTOR WITH MATERIALS TO MATCH EXISTING.
21.	CONTRACTOR TO EXAMINE ALL CONTRACT DOCUMENTS AND PERFORM ALL DEMOLITION BOTH FOR AREAS BEING RENOVATED AND FOR AREAS WHICH MUST BE REMOVED TO PERMIT THE INSTALLATION OF WORK BY THE VARIOUS TRADES.
22.	CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE EXTENT OF DEMOLITION AND REMOVALS PRIOR TO THE SUBMISSION OF BIDS. NO CONSIDERATION SHALL BE GIVEN FOR FAILURE TO VISIT THE SITE.
23.	CONTRACTOR SHALL UTILIZE ALL THE BREAKERS IN THE EXISTING PANELS THAT BECOME AVAILABLE WHEN BRANCH CIRCUITS ASSOCIATED WITH THEM ARE DISCONNECTED AND REMOVED DUE TO DEMOLITION OF THE ELECTRICAL WORK.

GENERAL NOTES			
<b>GENERAL</b>			
1.	WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.		
<b>WIRING &amp; RACEWAY:</b>			
1.	THE DRAWINGS SHOW THE GENERAL LAYOUT AND TYPICAL DETAILS. PROVIDE COMPLETE SYSTEMS. DRAWINGS ARE BASED ON THE SPECIFIED EQUIPMENT, RACEWAY LAYOUTS, BOXES, AND WIRING OF THE SYSTEMS ARE SUBJECT TO APPROVED SHOP DRAWINGS.		
2.	ENSURE THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS. INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHARES OF EQUIPMENT THAT FINAL INSTALLATION SHALL SATISFY THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.		
3.	LOCATIONS OF OUTLETS, SWITCHES, APPLIANCES, ETC. AS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS AND DETAILS, AND WITH JOB CONDITIONS. INSTALL SWITCHES WITH OFF POSITION DOWN. INSTALL RECEPTABLES WITH GROUNDING POLE IN THE UP POSITION FOR VERTICAL MOUNTING AND AT RIGHT FOR HORIZONTAL MOUNTING.		
4.	LOCATE AND INSTALL ELECTRICAL EQUIPMENT, JUNCTION AND PULL BOXES, PANELBOARDS, SWITCHES, CONTROLS, AND OTHER APPARATUS REQUIRING MAINTENANCE, INSPECTION, AND OPERATION SO AS TO BE READILY ACCESSIBLE.		
<b>RACEWAY INSTALLATION</b>			
1.	IN ALL ARCHITECTURALLY FINISHED SPACES, CONDUITS AND CABLES SHALL BE RUN CONCEALED IN HUNG OR FURRED CEILINGS, SLABS, MASONRY, AND PARTITIONS UNLESS OTHERWISE INDICATED. SAW CUTTING AND FINISHED PATCHING SHALL BE REQUIRED IN EXISTING SLABS AND MASONRY WALLS. IN UNFINISHED SPACES, RACEWAYS MAY BE RUN EXPOSED.		
2.	UNLESS OTHERWISE INDICATED, EXACT ROUTING OF RACEWAYS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT PROJECT REQUIREMENTS AND FIELD CONDITIONS.		
3.	PROVIDE SEPARATE RACEWAYS, JUNCTION BOXES, PULL BOXES AND WIRERAYS FOR ALL EMERGENCY SYSTEM WIRING.		
<b>WIRING INSTALLATION</b>			
1.	DO NOT USE WIRE SMALLER THAN NO. 12 AWG FOR ANY POWER OR LIGHTING CIRCUIT. USE LARGER SIZES WHERE INDICATED, AS REQUIRED BY CODES, AND AS FOLLOWS: 30 AMPERE CIRCUIT: NO. 10 40 AMPERE CIRCUIT: NO. 8 60 AMPERE CIRCUIT: NO. 6		
A.	MINIMUM HOMERUN AND BRANCH CIRCUIT WIRING SIZES AND MAXIMUM HOMERUN CONDUIT FILL FOR 120 VOLT, 20 AMPERE CIRCUITS SHALL BE AS FOLLOWS:		
LENGTH	CIRCUIT WIRE SIZE	HOMERUN WIRE SIZE	CONDUIT SIZE (Ø W/IRING/CONDUIT)
0 TO 30'	#12	#10	3/4"
31 TO 200'	#12	#10	3/4"
201 TO 2000'	#10	#8	1"
GREATER THAN 200'	- REQUEST DIRECTION FROM ARCHITECT.		
NOTE: PROVIDE DERATING PER CODE WHEN INSTALLING MORE THAN 3 CURRENT CARRYING CONDUCTORS IN CONDUIT.			
2.	DO NOT USE WIRE SMALLER THAN NO. 14 AWG FOR CONTROL CIRCUITS UNLESS OTHERWISE RECOMMENDED BY THE EQUIPMENT OR SYSTEM MANUFACTURER ON WIRING SHOP DRAWINGS, AND SO APPROVED BY THE ARCHITECT.		
3.	WHERE GREATER THAN THREE (3) CURRENT-CARRYING CONDUCTORS ARE INSTALLED IN ANY ONE CONDUIT OR CABLE, CONDUCTORS MUST BE DERATED AND SIZES INCREASED, IF NEEDED, TO ACCOMMODATE CONDUCTOR DERATINGS AS REQUIRED BY NEC ARTICLE 310.		
4.	CONDUCTORS SHALL BE COMPLETELY INSTALLED AND CONNECTED, PROVIDE ALL TERMINALS, LUGS, AND CONNECTORS TO SUIT THE APPLICATION, AND IN COMPLIANCE WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS.		
5.	UNDER NO CIRCUMSTANCES SHALL ANY SWITCH OR CIRCUIT BREAKER BREAK A NEUTRAL CONDUCTOR.		
6.	THE CIRCUIT NUMBERS INDICATED ON THE DRAWINGS ARE INTENDED AS A GUIDE FOR PROPER CONNECTION OF CIRCUITS AT PANELS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE FINAL GROUNDING WORK FULFILLS THE FOLLOWING CONDITIONS: A. LOADS ON PANEL BUSSES SHALL BE PHASE-BALANCED AS EVENLY AS POSSIBLE.		
<b>GROUNDING INSTALLATION</b>			
1.	EQUIPMENT GROUNDING		
A.	INSTALL AN INSULATED GROUND CONDUCTOR, RUN IN THE RACEWAY WITH THE PHASE CONDUCTORS, FOR EACH FEEDER SERVING PANELBOARDS, LIGHTING DIMMER BOARDS, MOTOR CONTROL CENTERS, MOTORS, EQUIPMENT AND APPLIANCES UNLESS OTHERWISE NOTED.		
B.	INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL CONDUIT RUNS CONTAINING SECTIONS OF FLEXIBLE CONDUIT UNLESS OTHERWISE NOTED.		
C.	INCLUDE AN INSULATED GROUND CONDUCTOR IN ALL BRANCH CIRCUIT RACEWAYS OR CABLES UNLESS OTHERWISE NOTED.		
<b>MECHANICAL EQUIPMENT WIRING</b>			
1.	UNLESS OTHERWISE INDICATED OR SPECIFIED HEREIN, ALL MOTORS, MOTOR STARTERS, MOTOR CONTROLS, VARIABLE FREQUENCY DRIVES, AND ASSOCIATED CONTROL DEVICES ARE FURNISHED AND INSTALLED UNDER DIVISION 23 AND WIRED BY DIVISION 26. COORDINATE INSTALLATION AND LOCATIONS WITH OTHER DIVISION CONTRACTORS.		
2.	POWER WIRING FROM THE INDICATED SOURCE TO THE STARTER, CONTROLLER, DRIVE UNIT, AND FROM THE STARTER/CONTROLLER/DRIVE UNIT TO THE MOTOR, INCLUDING ANY LOCAL DISCONNECT SWITCHES PROVIDED AND INSTALLED BY THIS DIVISION, AND ALL ASSOCIATED LUGS, TERMINALS, AND CONNECTIONS, IS THE WORK OF THIS DIVISION.		
3.	CONTROL CIRCUIT WIRING IS GENERALLY FURNISHED AND INSTALLED UNDER OTHER DIVISIONS, EXCEPT THAT ANY SUCH WIRING SHOWN ON ELECTRICAL DRAWINGS IS WORK OF THIS DIVISION.		
4.	PROVIDE 120 VOLT POWER TO ALL TEMPERATURE CONTROL PANELS (TCPs) SUPPLIED AND INSTALLED BY HVAC CONTRACTOR. USE EMERGENCY POWER SOURCES WHEN AVAILABLE. COORDINATE ALL POWER REQUIREMENTS AND PANEL LOCATIONS WITH TEMPERATURE CONTROLS CONTRACTOR.		
5.	COOPERATE AND COORDINATE WITH THE OTHER TRADES IN THE INSTALLATION, CONNECTION, AND TESTING OF MECHANICAL EQUIPMENT. PERFORM WORK OF THIS SECTION IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS INSTRUCTIONS.		
<b>COORDINATION DRAWINGS</b>			
1.	DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.		
A.	SHEET METAL, PIPING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER REVISED OR FURNISH AS CORRECTED PER THE RETURNED AS BASIS FOR COORDINATION DRAWINGS.		
B.	AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK: -MECHANICAL SHEET METAL -MECHANICAL PIPING -ELECTRICAL WORK		
2.	AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWINGS IS RESPONSIBILITY OF OMITTED CONTRACTORS AND CONTRACTORS IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.		
3.	THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.		
4.	SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. BEFORE INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.		
5.	ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.		
6.	EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.		
7.	THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.		
<b>AS-BUILT DRAWINGS</b>			
1.	PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSISTENT SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AUTO-CAD) VERSION AS REQUIRED BY THE OWNER. VERSION, NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.		
2.	PROVIDE AS-BUILT DRAWINGS INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK, INDICATE THE FOLLOWING INSTALLED CONDITIONS: A. INCLUDE ALL CHANGES AND AN ACCURATE RECORD, ON REPRODUCTIONS OF THE CONTRACT DRAWINGS OR APPROPRIATE SHOP B. DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED. C. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES. D. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED. E. CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED. F. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS. G. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.		



CONTRACTOR SHALL CONFIRM LOAD SERVED BY RELAY (DIMMING VS. SWITCHED) AND FURNISH THE APPROPRIATE RELAY

### BY-PASS RELAY NOTES

1. CIRCUIT #0000 MONITOR THE 24 HOUR EMERGENCY PANEL. POWER ANY INTERRUPTION OF THE EMERGENCY POWER WILL GENERATE AN AUDIBLE ALARM AT THE BPC DEVICE (BY LVS).
2. CIRCUIT #000 MONITORS UTILITY POWER AND PROVIDES POWER TO THE AUDIBLE DEVICE. ANY INTERRUPTION WILL CLOSE CONTACT X.
3. CIRCUIT #00 SENSES WHEN ROOM SWITCH IS ON AND THEN CLOSES CONTACT X PROVIDING POWER TO THE EMERGENCY LOAD.

### 1 UL-924 BY-PASS RELAY WIRING DIAGRAM

### LIGHTING FIXTURE SCHEDULE

DESIGNATION	DESCRIPTION	MANUFACTURER/ MODEL NUMBER	LAMP			ELECTRICAL			NOTES
			TYPE	COLOR TEMP	NO	DRIVER	VOLTAGE	WATTS	
A1	WALL MTD 9" DIA FULLY ADJUSTABLE LED LIGHT FIXTURE (INDIRECT) WITH CUT-OFF SHIELD AND WHITE NATATORIUM FINISH (37,620 LUMEN PACKAGE)	SR LIGHTING BFW2060-1380W-PT02-120-277V-4000K-GS	LED	4000K		DIMMING	277	360	
A2	PENDANT MTD 9" DIA FULLY ADJUSTABLE LED LIGHT FIXTURE (INDIRECT) WITH CUT-OFF SHIELD AND WHITE NATATORIUM FINISH (37,620 LUMEN PACKAGE)	SR LIGHTING BFW2062-1380W-PT02-120-277V-4000K-GS-OAH	LED	4000K		DIMMING	277	360	
A3	PENDANT MTD 3.5" DIA FULLY ADJUSTABLE LED LIGHT FIXTURE (INDIRECT) WITH CUT-OFF SHIELD AND WHITE NATATORIUM FINISH (12,873 LUMEN PACKAGE)	SR LIGHTING BFW2063-127W-PT02-120-277V-4000K-GS-OAH	LED	4000K		DIMMING	277	127	
B	PENDANT MTD 3.5" DIA, 8FT LONG FULLY ADJUSTABLE LED WALL WASH LIGHT FIXTURE WITH CUT-OFF SHIELD AND WHITE NATATORIUM FINISH (8,830 LUMEN PACKAGE)	SR LIGHTING BFW1938-118W-PT02-120-277V-4000K-STM-GS	LED	4000K		DIMMING	277	118	
C	SURFACE MTD 7" X 4" VANDAL RESISTANT LED FIXT. WITH .180" THICK OPAL POLYCARBONATE LENS, ALUMINUM HOUSING W/ NATATORIUM FINISH, COLOR BY ARCH. (5477 LUMEN PACK)	LUMINARE LED VFP 64-80W-4000K-120-277-OP-WHT-DM	LED	4000K		DIMMING	277	54	

#### LIGHT FIXTURE NOTES

1. ALL ELECTRONIC DRIVERS SHALL HAVE A MAXIMUM TOTAL HARMONIC DISTORTION OF TEN PERCENT (10%).
2. COLOR OF ALL LAMPS SHALL BE 4000K UNLESS OTHERWISE NOTED.
3. FURNISH ALL ADDITIONAL MATERIALS AND ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION TO BE FULLY OPERATIONAL.
4. ALL ALTERNATE/EQUAL LIGHT FIXTURES AND LIGHTING CONTROLS MUST BE APPROVED BY THE ENGINEER PRIOR TO BID. A POINT BY POINT LIGHTING CALCULATION OF THE POOL MUST BE PROVIDED ALONG WITH CORRESPONDING IES FILES, ALSO WIRING DIAGRAMS, AND SEQUENCE

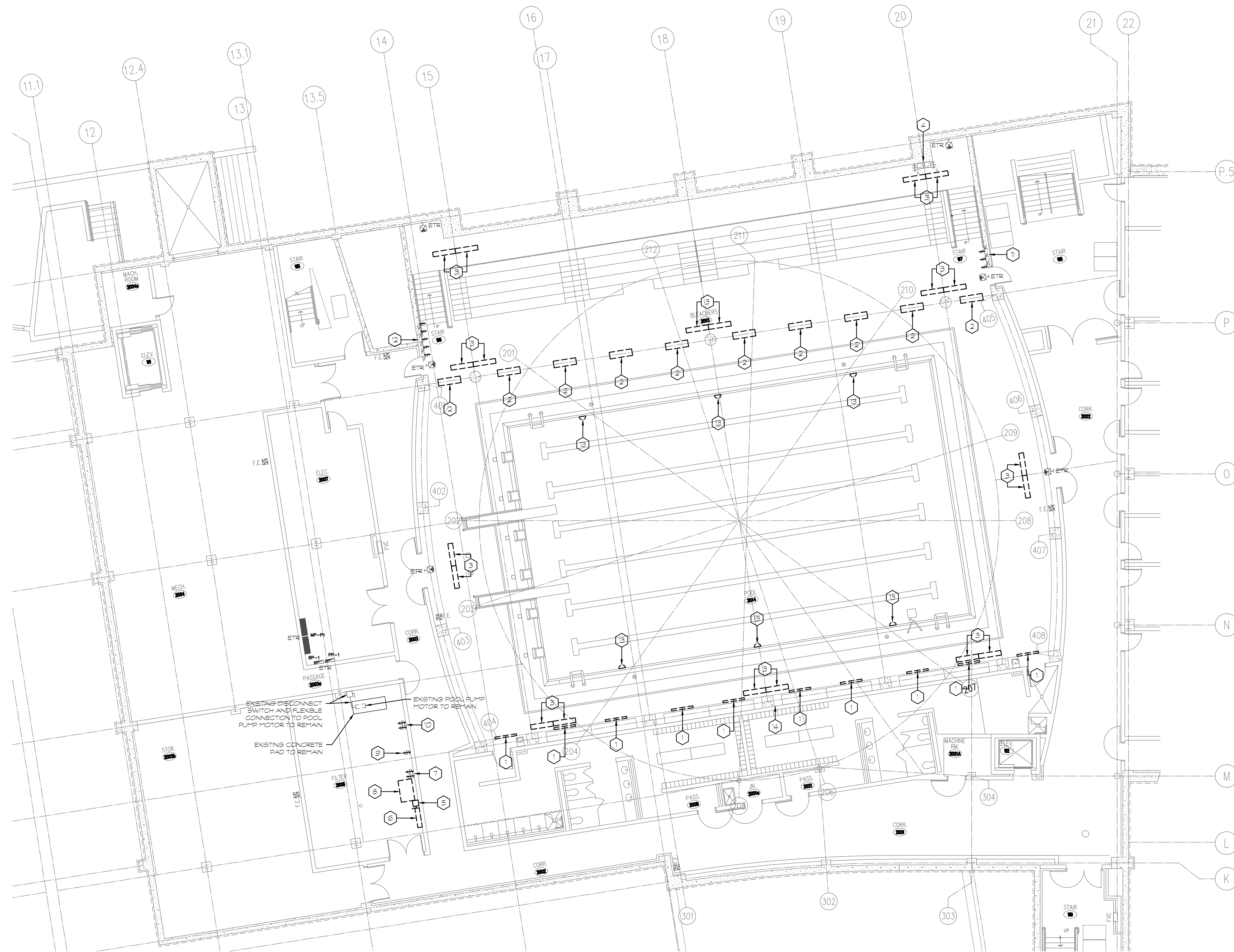
OF OPERATION FOR THE LIGHTING CONTROLS NEED TO BE SUBMITTED. PROVIDE A WRITTEN DESCRIPTION OF WHERE THE ALTERNATE SYSTEM MATCHES THE SPECIFIED SYSTEM AND WHERE IT DIFFERS. ALTERNATE SYSTEMS ENERGY DEMAND MUST BE EQUAL TO OR BETTER THAN THE SPECIFIED SYSTEM TO BE CONSIDERED.

### ELECTRICAL DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
E1	SYMBOLS, NOTES, ABBREVIATIONS, SCHEDULES & DETAILS - ELECTRICAL
E2	LOWER LEVEL DEMOLITION PLAN (POOL) - ELECTRICAL
E3	LOWER LEVEL PLAN (POOL) - ELECTRICAL
E4	THIRD FLOOR ROOF DEMOLITION PLAN (POOL) - ELECTRICAL
E5	THIRD FLOOR ROOF PLAN (POOL) - ELECTRICAL

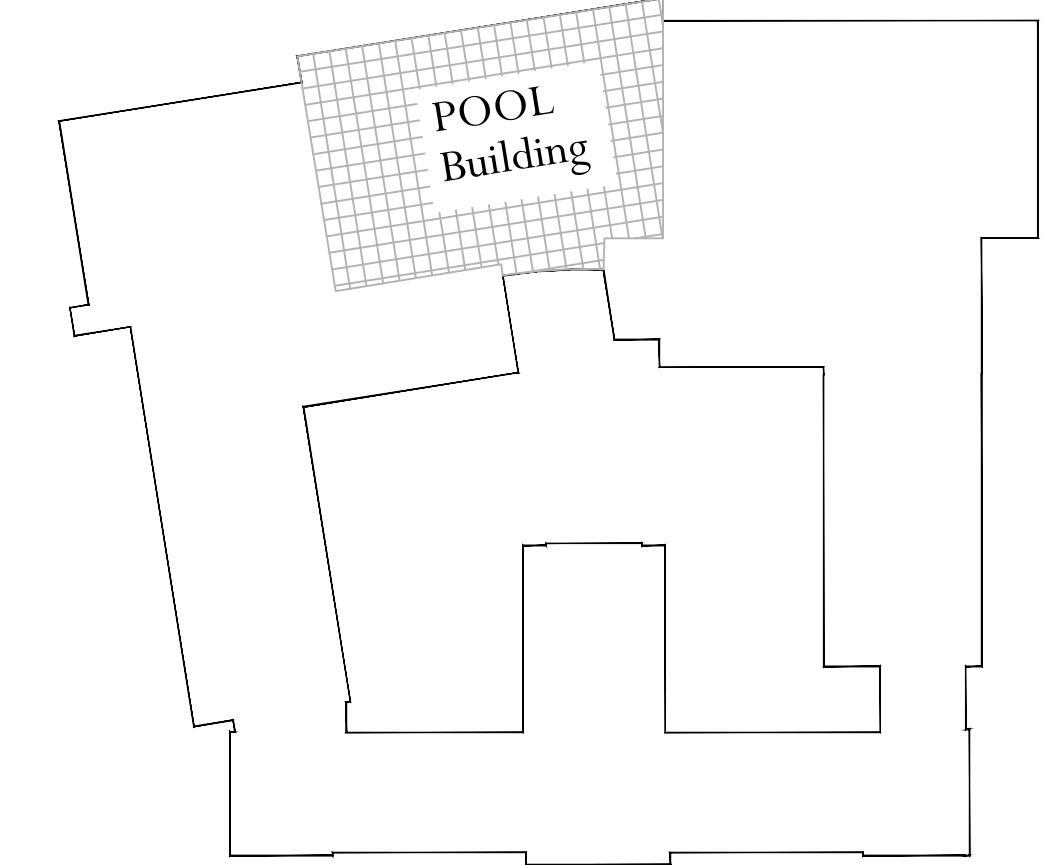






- ### DEMOLITION KEY NOTES
- 1 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING WALL MOUNTED HIGH OUTPUT FLUORESCENT 2x4 FIXTURE AND MAKE SAFE BRANCH CIRCUIT AND LIGHTING CONTROL WIRING TO BE REUSED TO FEED NEW LED LIGHT FIXTURES IN THIS AREA.
  - 2 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING PENDANT MOUNTED HIGH OUTPUT FLUORESCENT 2x4 FIXTURE AND MAKE SAFE BRANCH CIRCUIT AND LIGHTING CONTROL WIRING TO BE REUSED TO FEED NEW LED LIGHT FIXTURES IN THIS AREA.
  - 3 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING SURFACE MOUNTED FLUORESCENT W/RAILROUND FIXTURE AND MAKE SAFE BRANCH CIRCUIT AND LIGHTING CONTROL WIRING TO BE REUSED TO FEED NEW LED LIGHT FIXTURES IN THE POOL AREA.
  - 4 CONTRACTOR SHALL DISCONNECT AND REMOVE (2) EXISTING BACK BOXES AND COVER PLATES FOR KEY SWITCH SHADE CONTROLS. WIRING SHALL BE MADE SAFE TO BE REUSED TO FEED NEW SWITCHES. SWITCHES SHALL BE SAVED AND REUSED ALSO.
  - 5 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING NON-FUSED DISCONNECT SWITCH CURRENTLY FEEDING THE POOL SYSTEM CONTROL PANEL. THE EXISTING BRANCH CIRCUIT (PP-1/8/10/12) SHALL BE REDIRECTED TO CONTINUE TO SERVE THE POOL PUMP. THERE IS ALSO A 200V BRANCH CIRCUIT SERVING THE OZONE BOOSTER PUMP AND CONTROL PANEL IN THE SAME CONDUIT AS THE POOL PUMP CIRCUIT. SEE DEMO NOTE #7 & 8.
  - 6 CONTRACTOR SHALL DISCONNECT AND REMOVE THE EXISTING ELECTRICAL CONNECTION TO THE POOL SYSTEM CONTROL PANEL AND ALL ASSOCIATED CONDUIT AND WIRING IN THIS ROOM NOT INDICATED TO BE REUSED.
  - 7 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING 2-GANG BOX WITH TWO TOGGLE TYPE DISCONNECT SWITCHES SERVING THE OZONE BOOSTER PUMP AND ASSOCIATED NEPTUNE CONTROL PANEL. EXISTING BRANCH CIRCUIT (PP-1/3) SHALL BE MADE SAFE (NEAR WHERE CIRCUIT ENTERS THE ROOM) TO BE USED TO FEED NEW POOL EQUIPMENT IN THIS ROOM. ALL OTHER CONDUIT AND WIRING SHALL BE REMOVED.
  - 8 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION TO OZONE BOOSTER PUMP CONTROL PANEL. EXISTING BRANCH CIRCUIT (PP-1/3) SHALL BE MADE SAFE (NEAR WHERE CIRCUIT ENTERS THE ROOM) TO BE USED TO FEED NEW POOL EQUIPMENT IN THIS ROOM. ALL OTHER CONDUIT AND WIRING SHALL BE REMOVED.
  - 9 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING 2-GANG BOX WITH SINGLE TOGGLE TYPE DISCONNECT SWITCH SERVING THE OZONE BOOSTER PUMP MOTOR. EXISTING BRANCH CIRCUIT (PP-1/3) SHALL BE MADE SAFE (NEAR WHERE CIRCUIT ENTERS THE ROOM) TO BE USED TO FEED NEW POOL EQUIPMENT IN THIS ROOM. ALL OTHER CONDUIT AND WIRING SHALL BE REMOVED.
  - 10 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING 2-GANG BOX WITH TWO TOGGLE TYPE DISCONNECT SWITCHES SERVING THE BROMINE SYSTEM AND WATER FILL. EXISTING BRANCH CIRCUIT (PP-1/3) SHALL BE MADE SAFE (NEAR WHERE CIRCUIT ENTERS THE ROOM) TO BE USED TO FEED NEW POOL EQUIPMENT IN THIS ROOM. ALL OTHER CONDUIT AND WIRING SHALL BE REMOVED.
  - 11 CONTRACTOR SHALL DISCONNECT AND REMOVE THREE EXISTING KEY SWITCHES IN THIS LOCATION AND REMOVE ASSOCIATED BRANCH CIRCUIT AND CONTROL WIRING TO NEAREST ACCESSIBLE JUNCTION BOX. BACK BOX, CONDUIT AND BRANCH CIRCUIT WIRING SERVING MOTORIZED SHADES ARE TO REMAIN. PORTION OF BACK BOX SERVING THE KEY SWITCHES IS TO REMAIN TO BE REUSED TO FEED NEW DIMMING SYSTEM TOUCH SCREEN PANEL.
  - 12 CONTRACTOR SHALL DISCONNECT AND REMOVE FIVE EXISTING KEY SWITCHES IN THIS LOCATION AND REMOVE ASSOCIATED BRANCH CIRCUIT AND CONTROL WIRING BACK TO NEAREST ACCESSIBLE JUNCTION BOX. BACK BOX AND CONDUIT TO REMAIN TO FEED NEW ENTRY STATION SWITCH. PROVIDE BLANK PLATE FOR ANY PORTION OF THE BACK BOX NOT TO BE REUSED.
  - 13 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING 800V PARAGON RECESSED INCANDESCENT TUBULI LIGHT FIXTURE. BACK BOX/NICHE AND CABLE FROM LIGHT TO ADJACENT JUNCTION BOX ABOVE POOL DECK AT COLUMN. JUNCTION BOX AND CONDUIT TO REMAIN. CONTRACTOR SHALL SEAL BOTH ENDS OF CONDUIT FROM FIXTURE WATERTIGHT.
  - 14 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING DUPLEX RECEPTACLE, BACK BOX, WEATHERPROOF COVER AND CONDUIT AND WIRING BACK TO JUNCTION BOX BELOW RECEPTACLE. MAKE SAFE BRANCH CIRCUIT WIRING IN JUNCTION BOX TO REFEED SCOREBOARD RECEPTABLES. ALSO DISCONNECT AND REMOVE EXISTING CORP & PLUS, PVC CONDUIT WALL MOUNTED ABOVE RECEPTACLE COMPLETE TO EXISTING DUPLEX & QUAD RECEPTACLE MOUNTED TO SIDE OF SCOREBOARD.

**LOWER LEVEL PLAN (POOL)**  
 SCALE: 1/8"=1'-0"  
1  
E2



**KEY PLAN**  
 NTS

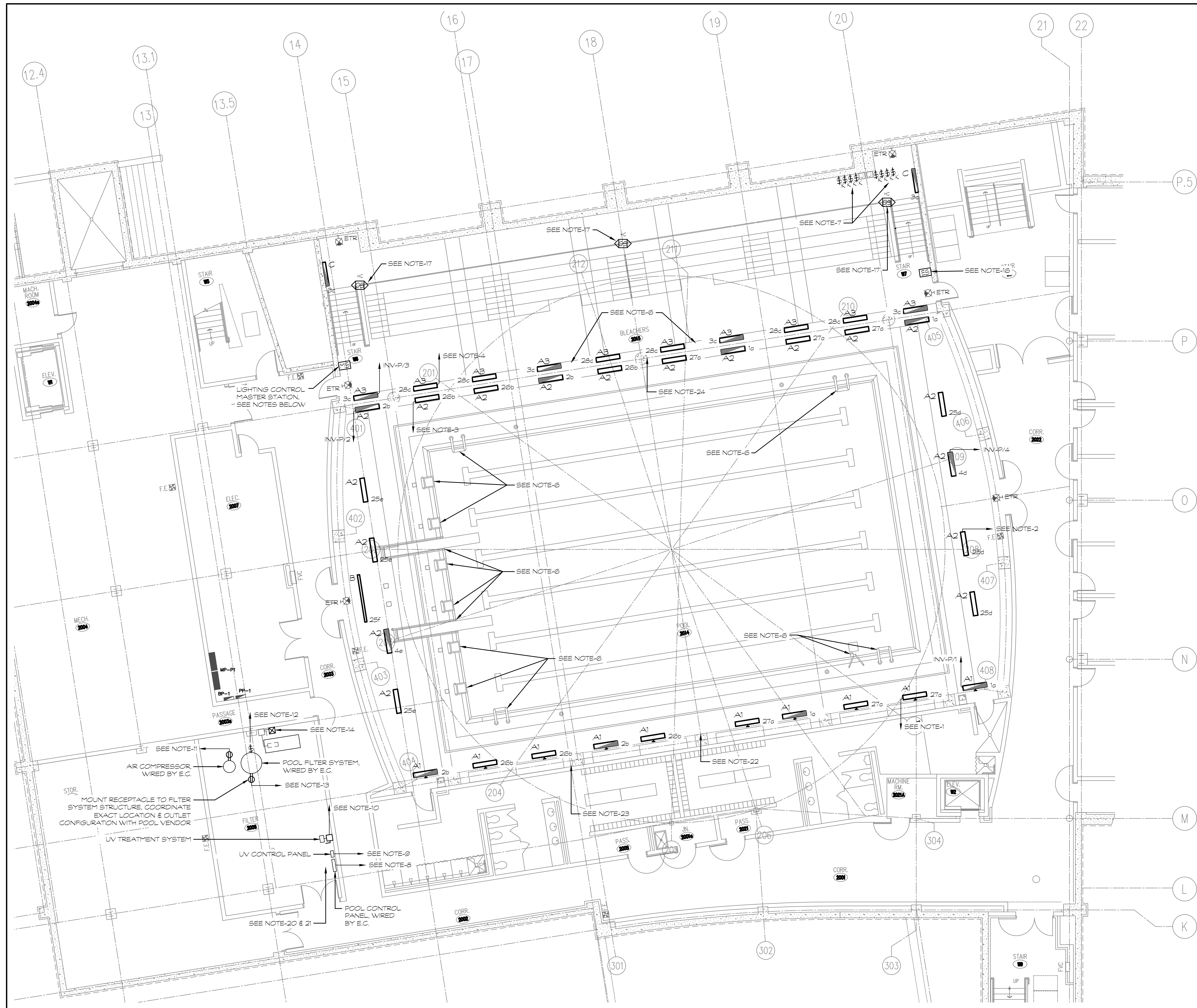
Project Title:  
**H.H.S. 2018 - 2019 Improvements to the Pool**  
 Town of Hamden, Hamden Board of Education  
 Hamden High School  
 2040 Dixwell Avenue  
 Hamden, CT 06514

**SILVER / PETRUCCELLI + ASSOCIATES**  
 Architects / Engineers / Interior Designers  
 3190 Whitney Avenue, Hamden, CT 06518-2340  
 Tel. 203 230 9007 Fax. 203 230 8247  
 silverpetrucci.com

Revision:	Description:	Date:	Revised By:

Drawing Title:  
**Lower Level Demo.**  
**Plan (Pool) - Electrical**  
 Date: **JANUARY 14, 2019**  
 Scale: **1/8" = 1'-0"**  
 Drawn By: **SEC**  
 Project Number: **18048**  
E2

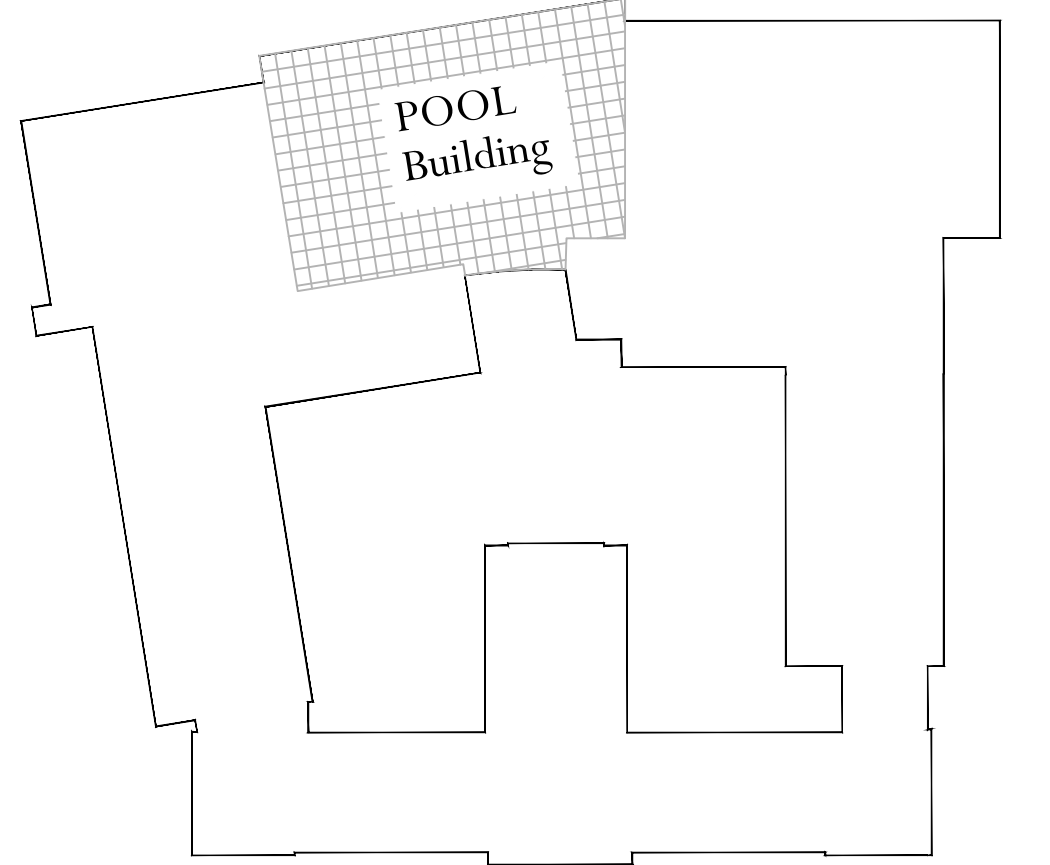
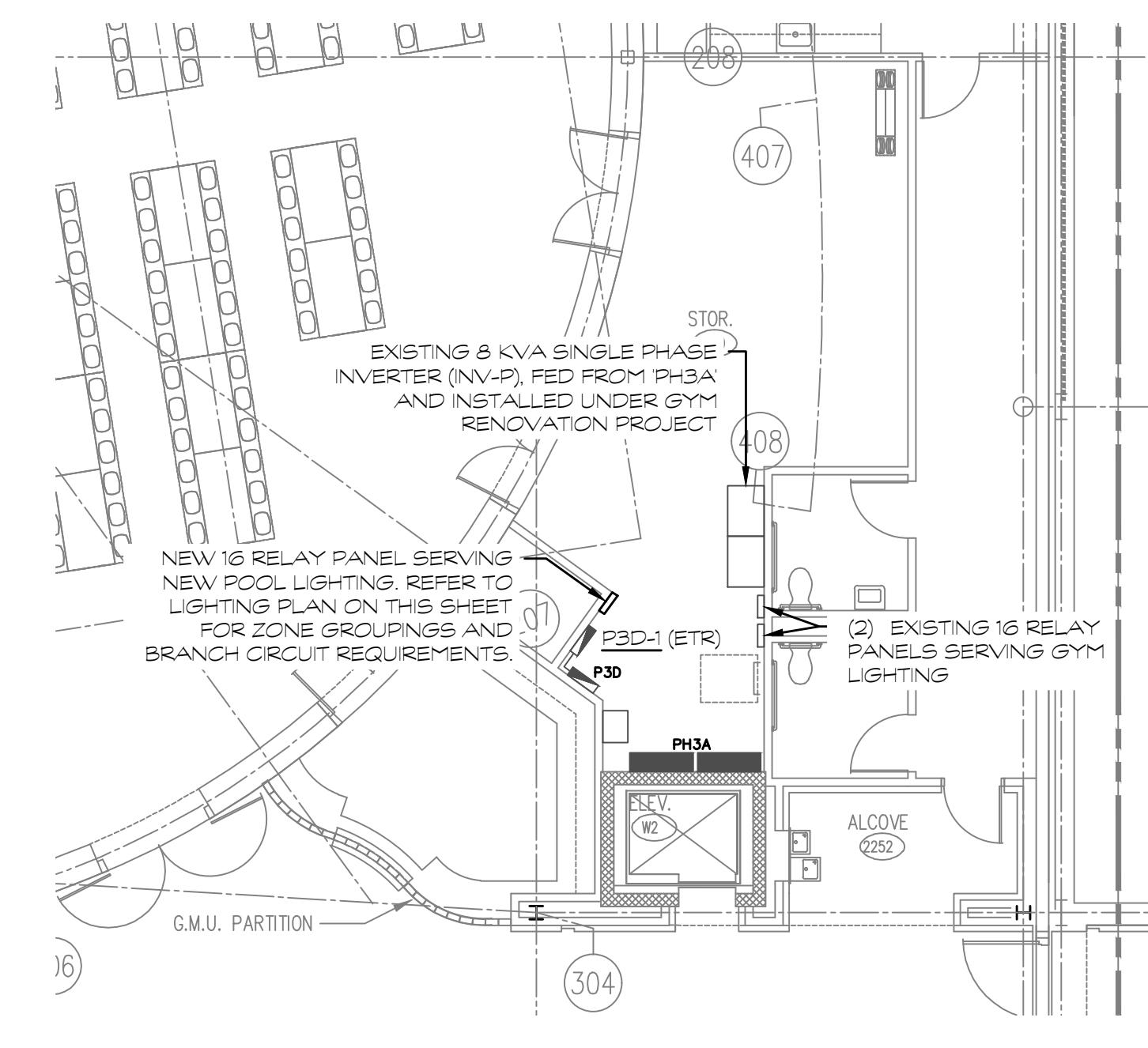




- ### GENERAL NOTES
- CONTRACTOR SHALL WIRE NEW LIGHT FIXTURES FROM EXISTING BRANCH CIRCUIT (PH3A/27) PREVIOUSLY SERVING WALL MOUNTED LIGHTS IN THIS AREA. CONTRACTOR SHALL CONFIRM THE ACTUAL PANEL AND CIRCUIT NUMBER IN THE FIELD.
  - CONTRACTOR SHALL WIRE NEW LIGHT FIXTURES FROM EXISTING BRANCH CIRCUIT (PH3A/28) PREVIOUSLY SERVING PENDANT MOUNTED LIGHTS IN THIS AREA. CONTRACTOR SHALL CONFIRM THE ACTUAL PANEL AND CIRCUIT NUMBER IN THE FIELD.
  - CONTRACTOR SHALL WIRE NEW LIGHT FIXTURES FROM EXISTING BRANCH CIRCUIT (PH3A/28) PREVIOUSLY SERVING PENDANT MOUNTED LIGHTS IN THIS AREA. CONTRACTOR SHALL CONFIRM THE ACTUAL PANEL AND CIRCUIT NUMBER IN THE FIELD.
  - CONTRACTOR SHALL WIRE NEW LIGHT FIXTURES FROM EXISTING BRANCH CIRCUIT (PH3A/28) PREVIOUSLY SERVING PENDANT MOUNTED LIGHTS AT THE NORTH END OF THIS BEAN. CONTRACTOR SHALL CONFIRM THE ACTUAL PANEL AND CIRCUIT NUMBER IN THE FIELD.
  - CONTRACTOR SHALL MOUNT THE BOTTOM OF ALL TYPE 'A1', 'A2' & 'A3' FIXTURES 15'-6" ABOVE THE POOL DECK. ALL FIXTURES WILL NEED TO HAVE FINAL AIMING/ADJUSTMENTS MADE WITH OWNER AND ARCHITECT AFTER HOURS WHEN THERE IS NO OUTSIDE LIGHT CONTRIBUTION.
  - CONTRACTOR SHALL HIRE A CERTIFIED TESTING COMPANY (NORTHEAST TESTING OR EQUAL) TO TEST ALL THE EXPOSED METAL COMPONENTS (LADDERS, STARTING BLOCKS, DIVING BOARDS, RAILINGS, BASKETBALL HOOP SUPPORTS, ETC.) TO DETERMINE THAT THEY MEET THE GROUNDING REQUIREMENTS AT THE TIME THE POOL WAS PERMITTED. CONTRACTOR SHALL PROVIDE A LIST OF ITEMS THAT DO NOT MEET THE GROUNDING REQUIREMENTS TO THE OWNER, SO THEY CAN DETERMINE IF THE EQUIPMENT IS TO BE MODIFIED TO MEET THE REQUIREMENT OR BE REMOVED FROM SERVICE.
  - CONTRACTOR SHALL FURNISH AND INSTALL A NEW 4-GANG BOX (PVC) TO INSTALL THREE NEW KEY SWITCHES AND REINSTALL ONE EXISTING KEY SWITCH. CONTRACTOR SHALL WIRE EACH SHADE MOTOR RELAY TO AN INDIVIDUAL KEY SWITCH, SO AS EACH KEY SWITCH ONLY CONTROLS ONE SHADE. ALSO CONTRACTOR SHALL CONFIRM ALL RELAYS ARE WORKING PROPERLY AND MAKE SURE THEY ARE PROPERLY MOUNTED WITHIN THE JUNCTION BOX (LOCATED BELOW SWITCHES).
  - CONTRACTOR SHALL CONNECT EXISTING BRANCH CIRCUIT (PP-1/13) REMOVED DURING THE DEMOLITION PHASE AND LEFT IN THIS AREA TO NEW POOL CONTROL PANEL.
  - CONTRACTOR SHALL INSTALL A NEW 20A/1P CIRCUIT BREAKER IN PANEL BP-1 TO SERVE NEW LV CONTROL PANEL. RUN 3 #12 FROM PANEL BP-1 TO CONTROL PANEL IN 1/2" CONDUIT. COORDINATE EXACT LOCATION OF PANEL WITH POOL CONTRACTOR.
  - CONTRACTOR SHALL INSTALL A NEW 20A/3P CIRCUIT BREAKER IN PANEL MP-1 (LEFT SIDE) TO SERVE NEW LV IN-JUNCTION LAMP SYSTEM. RUN 4 #12 + #12G IN 1/2" C. FROM PANEL MP-1 TO LV DEVICE. COORDINATE EXACT LOCATION OF LAMP WITH POOL CONTRACTOR.
  - CONTRACTOR SHALL INSTALL A NEW 20A/1P CIRCUIT BREAKER IN EXISTING SPACE IN PANEL PP-1 (#16) TO SERVE NEW POOL SYSTEM AIR COMPRESSOR. COORDINATE EXACT LOCATION AND ELECTRICAL CONFIGURATION (RECEPTACLE VS. HARDWARE) WITH APPROVED POOL MANUFACTURER SUBMITTAL.
  - CONTRACTOR SHALL INSTALL A NEW 20A/1P CIRCUIT BREAKER IN EXISTING SPACE IN PANEL PP-1 (#23) TO SERVE NEW POOL FILTER SYSTEM CONTROLLER. THE CONTROLLER IS INTEGRAL TO THE FILTER. COORDINATE EXACT LOCATION WITH POOL VENDOR AND APPROVED SUBMITTAL.
  - CONTRACTOR SHALL INSTALL A NEW 20A/1P CIRCUIT BREAKER IN EXISTING SPACE IN PANEL PP-1 (#24) TO SERVE NEW VACUUM SYSTEM MOUNTED TO FILTER SYSTEM. COORDINATE EXACT LOCATION WITH POOL VENDOR AND APPROVED SUBMITTAL.
  - CONTRACTOR SHALL INTERCEPT THE EXISTING BRANCH CIRCUIT (MP-1/8/10/12) CURRENTLY FEEDING POOL PUMP MOTOR IN FRONT OF EXISTING DISCONNECT SWITCH AND FURNISH AND INSTALL A NEW SIZE 2 STARTER. INSTALL CONTROL WIRING FROM STARTER TO NEW POOL CONTROLLER. COORDINATE WIRING REQUIREMENTS WITH POOL VENDOR AND APPROVED SUBMITTAL.
  - CONTRACTOR SHALL FURNISH AND INSTALL A UL 924 BY-PASS RELAY ON EACH CONTROL CIRCUIT THAT HAS BOTH NORMAL AND EMERGENCY CIRCUITS ON IT (4 REQUIRED). SWITCH LEGS a, b, c & d. COORDINATE LOCATION OF RELAYS WITH OWNER TO ALLOW FOR RELAYS TO BE EASILY TESTED.
  - LIGHTING CONTROL REMOTE ENTRY STATION SWITCH. REFER TO LIGHTING CONTROL NOTES BELOW.
  - CONTRACTOR SHALL FURNISH AND INSTALL CEILING MOUNTED OCCUPANCY SENSORS TO CONTROL THE LIGHTS SERVING THE BLEACHER/VIEWING AREA (SWITCH LEG 'c'). THE SENSORS WILL PROVIDE NORMAL ON-OFF CONTROL WITH THE KEY SWITCH PROVIDING A LOCAL MANUAL OFF DEVICE.
  - CONTRACTOR SHALL UPDATE ALL PANEL BOARD DIRECTORIES (TYPED OUT) EFFECTED AS PART OF THIS PROJECT.
  - ALL NEW EXPOSED CONDUIT AND FITTINGS INSTALLED IN THE POOL ROOM AND FILTER ROOMS SHOULD BE PPSB PAINTED TO MATCH WALLS/CEILING. ALL OTHER CONDUIT REQUIREMENTS, REFER TO SPECIFICATIONS.
  - CONTRACTOR SHALL FURNISH AND INSTALL A NETWORK CONNECTION (CAT 5e/6) FROM LOCAL IT CLOSET (FIRST FLOOR WEST BLDG.) ROOM #208 ACROSS FROM ASSISTANT PRINCIPAL ROOM #205. APPROXIMATELY 200 FEET. CONTRACTOR TO CONFIRM ROUTE DOES NOT EXCEED 300 FEET. IF SO CONTRACTOR SHALL FURNISH AND INSTALL A FIBER OPTIC CONNECTION IN LIEU OF CAT 5e/6. TERMINATE IN CONTROL PANEL(S). COORDINATE WITH APPROVED MANUFACTURER.
  - CONTRACTOR SHALL CONFIRM ALL ELECTRICAL CONNECTIONS WITH APPROVED POOL EQUIPMENT AND MAKE ALL NECESSARY CHANGES AT NO COST TO OWNER.
  - CONTRACTOR SHALL PERMANENTLY MOUNT THE DUPLEX AND QUAD RECEPTACLES CURRENTLY TIE WRAPPED TO THE WALL OR UNSTRUT. THEN INSTALL NEW PVC CONDUIT FROM THE EXISTING JUNCTION/PULL BOX ADJACENT TO THE COLUMN UP TO THE TWO RECEPTACLES. ALSO INSTALL A TOGGLE SWITCH WITH WEATHERPROOF IN-USE COVER (MATCH THE CLOCK SWITCHES) TO CONTROL POWER TO RECEPTACLES. MOUNT TOP OF SWITCH BOX AT 48" AFF AND EXTEND EXISTING BRANCH CIRCUIT WIRING IN JUNCTION/PULL BOX UP TO RECEPTACLES.
  - CONTRACTOR SHALL RECONNECT/REPAIR EXISTING PVC CONDUIT ADJACENT TO JUNCTION/PULL BOX EXPOSING BRANCH CIRCUIT WIRING.
  - CONTRACTOR SHALL RECONNECT/REPAIR EXISTING PVC CONDUIT ADJACENT TO JUNCTION/PULL BOX EXPOSING BRANCH CIRCUIT WIRING AND PERMANENTLY MOUNT JUNCTION/PULL BOX TO COLUMN.

### POOL LIGHTING CONTROL REQUIREMENTS

CONTRACTOR SHALL INSTALL A COMPLETE DIMMING SYSTEM. SYSTEM SHALL INCLUDE THE FOLLOWING: ONE ON/OFF ENTRY STATION (ABL-LIGHT INROOM 15B W/ OR EQUAL) LOCATED AT THE NORTH SIDE CORRIDOR ENTRANCE WHERE THE OLD KEY SWITCHES WERE INSTALLED. ONE 16 ZONE RELAY PANEL, NORMAL & EMERGENCY (ABL-LIGHT HARP INTENSIO NLT 16SPR INVOUT 2V8 50 SC) LOCATED IN THE STORAGE CLOSET OFF THE CAFETERIA OPPOSITE THE INVERTER INSTALLED UNDER THE GYM PROJECT. ONE 7 TOUCH SCREEN MASTER CONTROLLER (ABL-FRESCO HFC5 TTSN DBL OR EQUAL) LOCATED AT THE SOUTH CORRIDOR ENTRANCE WHERE THE OLD KEY SWITCHES WERE INSTALLED AND A PROGRAMMING TOOL (ABL-LIGHT INCOMKIT OR EQUAL) WITH SYSTEM STARTUP FROM MANUFACTURER. ALSO ALL CEILING MOUNTED OCCUPANCY SENSOR NEED TO BE COMPATIBLE WITH THE DIMMING SYSTEM (ABL-LIGHT INCH 16 RLS OR EQUAL). CONTRACTOR SHALL FURNISH AND INSTALL A GASKETED LOCKABLE CABINET FOR THE ENTRY STATION AND THE MASTER CONTROLLER. THE COVERS/CABINETS SHALL BE LESS THAN 4" DEEP TO MEET ADA. IF CABINETS ARE DEEPER THAN 4", CONTRACTOR SHALL BEHIND-RECESS THEM IN THE EXISTING BLOCK WALL. CABINETS SHALL BE PAINTED TO MATCH THE WALLS.



**LOWER LEVEL PLAN (POOL)**  
SCALE: 1/8"=1'-0"  
PROJECT NORTH

Project Title:  
**H.H.S. 2018 - 2019 Improvements to the Pool**  
Town of Hamden, Hamden Board of Education  
Hamden High School  
2040 Dixwell Avenue  
Hamden, CT 06514



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Revision	Description	Date	Revised By

Drawing Title:  
**Lower Level Plan (Pool) - Electrical**

Date:  
**JANUARY 14, 2019**

Scale:  
**1/8" = 1'-0"**

Drawn By:  
**SEC**

Project Number:  
**18048**

Drawing Number:  
**E3**

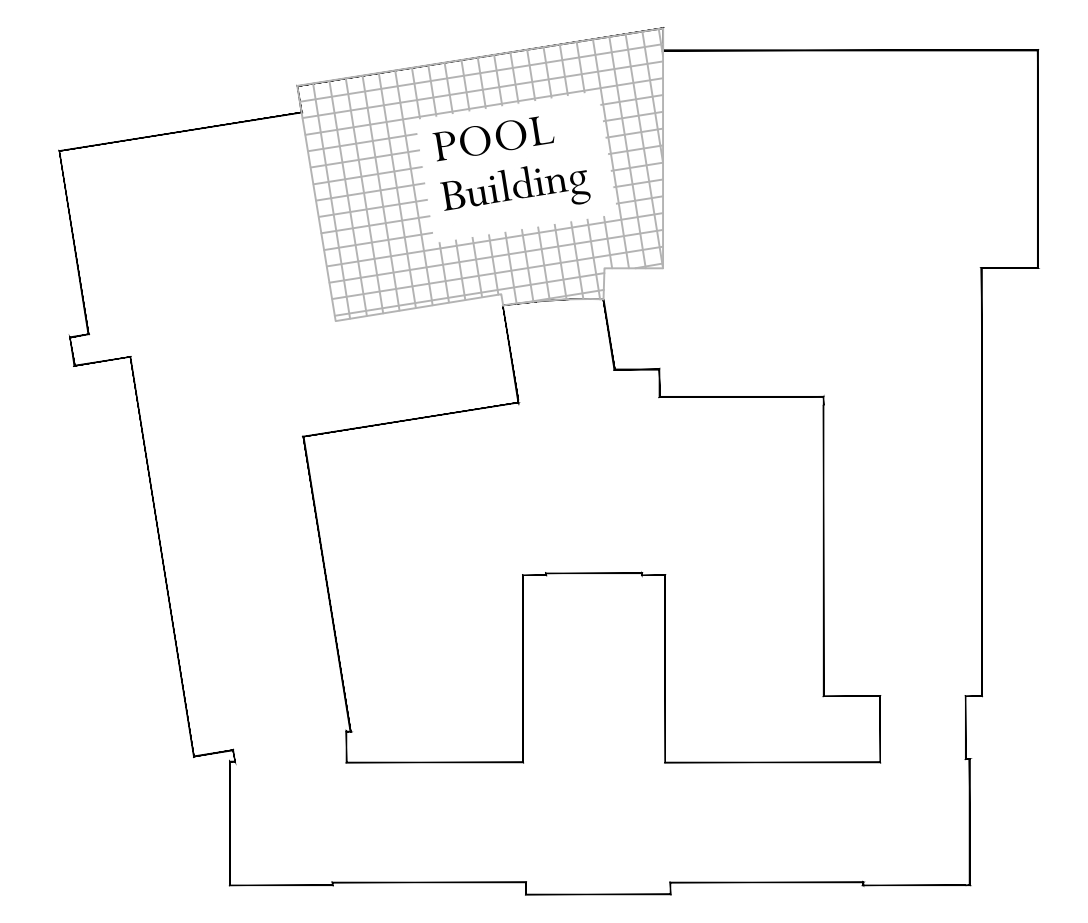
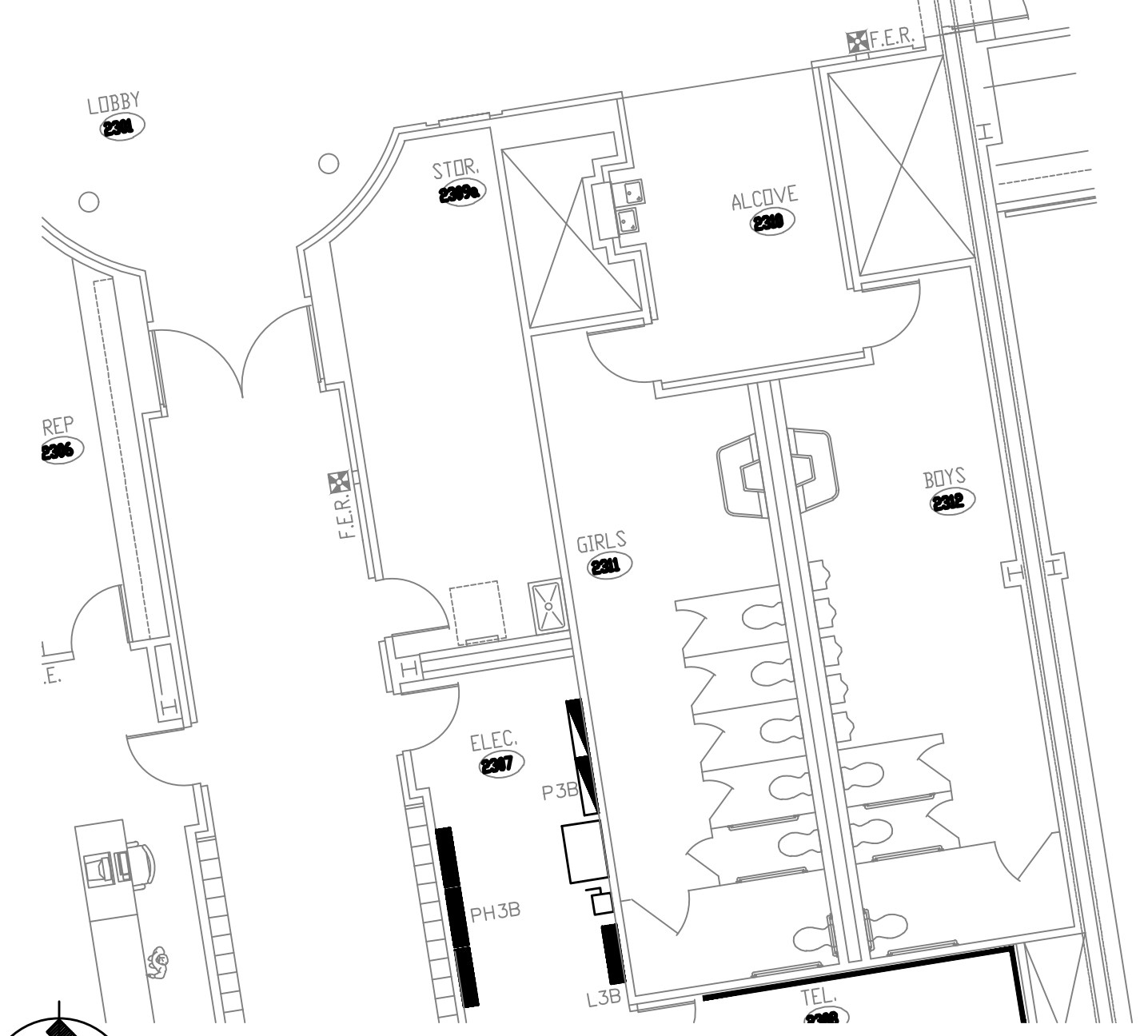


DEMOLITION KEY NOTES

1. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING WEATHERPROOF DISCONNECT SWITCH AND EXPOSED CONDUIT AND WIRING TO BELOW ROOF. CONTRACTOR SHALL MAKE SAFE THE EXISTING BRANCH CIRCUIT TO BE REUSED TO FEED NEW MECHANICAL EQUIPMENT ON THE UPPER ROOF.
2. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING WEATHERPROOF DISCONNECT SWITCH AND CONDUIT AND WIRING BACK TO PANEL (PH3A) IN THIRD FLOOR ELECTRIC CLOSET. BREAKER SHALL BE RELABELLED AS SPARE IN PANEL DIRECTORY.
3. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING WEATHERPROOF DISCONNECT SWITCH AND EXPOSED CONDUIT AND WIRING TO BELOW ROOF. CONTRACTOR SHALL MAKE SAFE THE EXISTING BRANCH CIRCUIT TO BE REUSED TO FEED NEW MECHANICAL EQUIPMENT IN THIS AREA.
4. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING WEATHERPROOF WIREWAY AND ASSOCIATED CONDUIT AND WIRING NOT INDICATED TO BE REUSED IN NOTES ABOVE.

GENERAL NOTES

1. CONTRACTOR SHALL PATCH ALL EXISTING ROOF PENETRATIONS NOT TO BE REUSED WATER TIGHT.



PROJECT NORTH

THIRD FLOOR/ROOF PLAN (POOL)

SCALE: 1/8"=1'-0"

1  
E4

KEY PLAN

NORTH

NTS

Project Title:  
 H.H.S. 2018 - 2019 Improvements to the Pool  
 Town of Hamden, Hamden Board of Education  
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Revision	Description	Date	Revised By

Drawing Title:  
**Third Floor/Roof  
 Demolition Plan (Pool)  
 - Electrical**

Date:  
 JANUARY 14, 2019

Scale:  
 1/8" = 1'-0"

Drawn By:  
 SEC

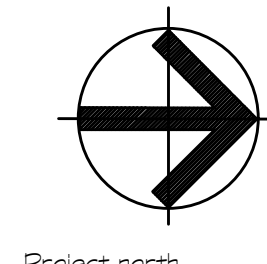
Project Number:  
 18048

Drawing Number:  
**E4**



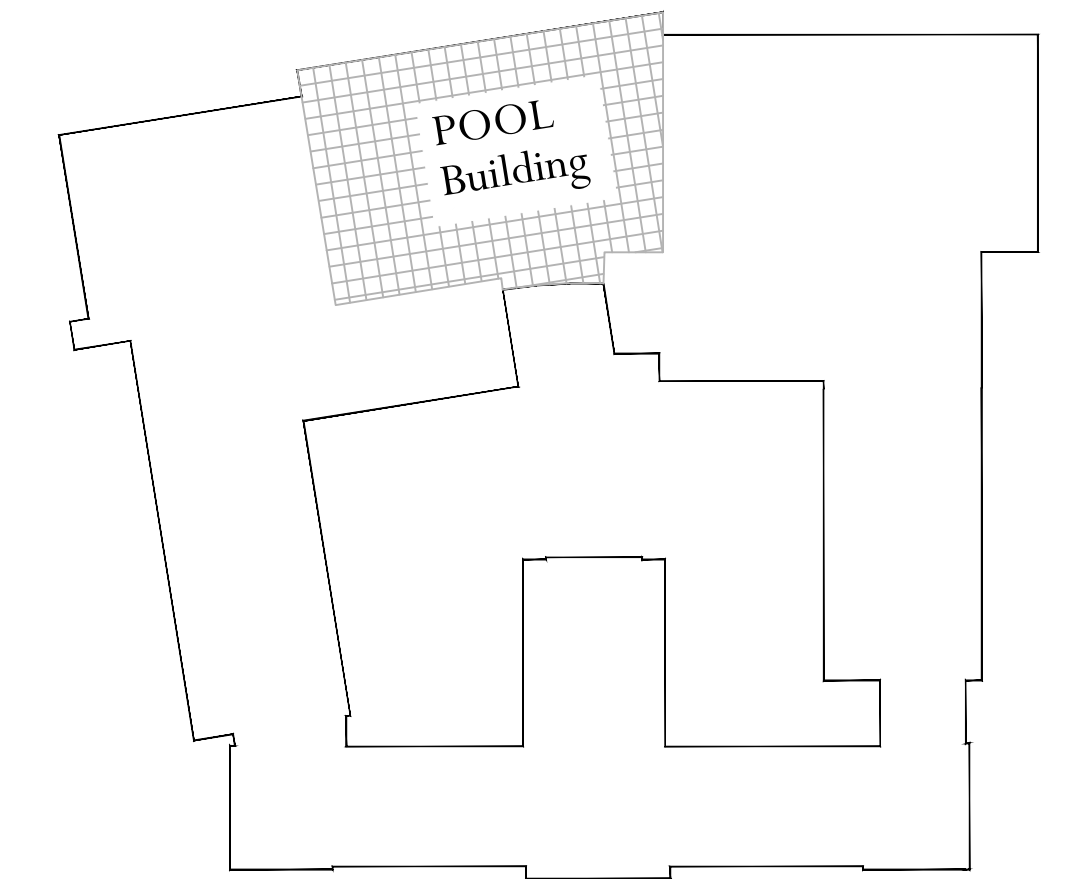
**GENERAL NOTES**

1. CONTRACTOR SHALL WIRE NEW CONDENSING UNIT (ACC-1) FROM EXISTING BRANCH CIRCUIT (PH3B/2 - 20A/3P) PREVIOUSLY SERVING RTU-9 ON LOWER ROOF AREA WITH 3 #8 + #8G IN T.C.
2. CONTRACTOR SHALL EXTEND EXISTING BRANCH CIRCUIT (PH3B/12) PREVIOUSLY SERVING POOL HUMIDIFICATION UNIT (DH-1) IN THIS AREA TO SERVE NEW UNIT (DH-1). CONTRACTOR SHALL REPLACE THE EXISTING 175 AMP TRIP MODULE IN THE BREAKER WITH A NEW 100 AMP MODULE (SEE #SRPF250A10) IN PANEL PH3B. NEW WIRING SHALL MATCH SIZE OF EXISTING ALONG WITH CONDUIT TO EXTEND EXISTING BRANCH CIRCUIT TO NEW DISCONNECT SWITCH.
3. CONTRACTOR SHALL WIRE NEW FURNACE SECTION OF POOL HUMIDIFICATION UNIT (DH-1) FROM NEW 20AMP CIRCUIT BREAKER (P3B/XX) WITH 2 #8 + #8G IN 3/4" C.
4. CONTRACTOR SHALL WIRE DUPLEX GFI RECEPTACLE SUPPLIED WITH MECHANICAL UNIT TO NEW 20A-1P CIRCUIT BREAKER IN PANEL P3B WITH 2 #8 + #8G IN 3/4" C.
5. CONTRACTOR SHALL FURNISH AND INSTALL A JUNCTION BOX WITH A GFCI MODULE WIRED TO SAME BRANCH CIRCUIT THAT FEEDS GAS FURNACE SECTION OF DH1 (SEE NOTE #3 ABOVE). THIS SERVES THE HEAT TRACE ON THE CONDENSATE LINE OF DH1 ON THE ROOF. CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR EXACT REQUIREMENTS WITH APPROVED HEAT TRACE SUBMITTAL.



**PARTIAL SECOND FLOOR PLAN (POOL)**  
SCALE 1/8"=1'-0"

2  
E5



key plan

Date: JANUARY 14, 2019  
Scale: 1/8" = 1'-0"  
Drawn By: SEC  
Project Number: 18048

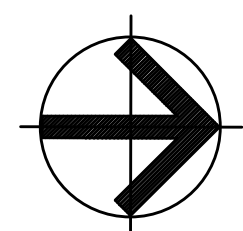
E5

**Third Floor/Roof Plan (Pool) - Electrical**

Revision	Description	Date	Revised By



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**THIRD FLOOR/ROOF PLAN (POOL)**  
SCALE 1/8"=1'-0"

1  
E5

Project Title:  
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