

LIVONIA PUBLIC SCHOOLS

CHURCHILL HIGH SCHOOL
POOL FILTRATION PROJECT

LIVONIA, MICHIGAN

PROJECT NO. 2025-042.1

01/08/2026

BIDS



FRENCH

LIST OF DRAWINGS

ARCHITECTURAL

- A0.01 ARCHITECTURAL REFERENCE SHEET
- A0.02 COMPOSITE CODE PLAN

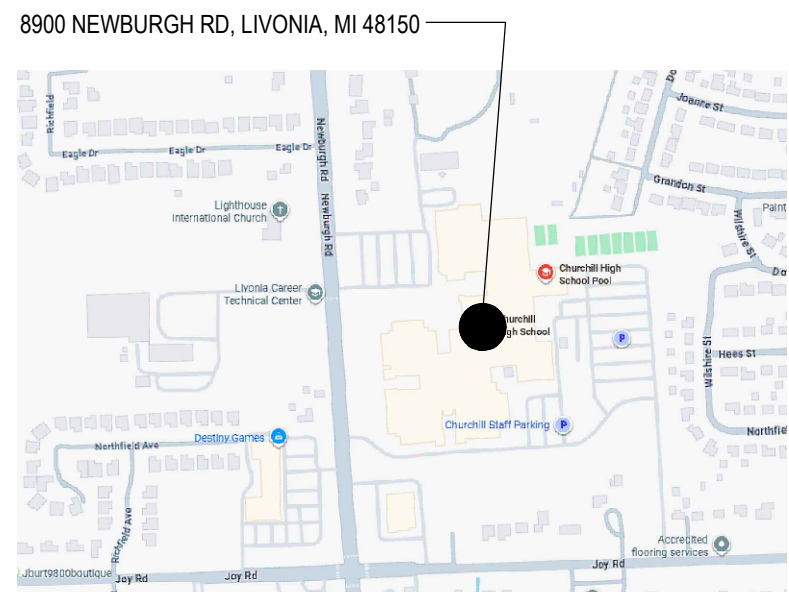
POOL

- AQ0.0 POOL REFERENCE PLAN
- AQ0.0.1 UNIT Q POOL MECHANICAL ROOM DEMOLITION PLANS
- AQ0.0.2 UNIT Q POOL MECHANICAL ROOM EXISTING CONDITIONS
- AQ0.0.3 UNIT Q POOL MECHANICAL ROOM EXISTING CONDITIONS
- AQ1.0 POOL MECHANICAL & CHEMICAL ROOM PLANS & SECTION
- AQ1.1 POOL MECHANICAL DETAILS
- AQ1.2 POOL MECHANICAL DETAILS
- AQ1.3 POOL MECHANICAL DETAILS
- AQ2.0 POOL SYSTEMS DETAILS

ELECTRICAL

- E0.00 ELECTRICAL GENERAL INFORMATION
- EP02.00Q ELECTRICAL POWER DEMOLITION TUNNEL PLAN - UNIT Q
- EP02.10Q ELECTRICAL POWER DEMOLITION FIRST FLOOR PLAN - UNIT Q
- EP2.00Q ELECTRICAL POWER NEW WORK TUNNEL PLAN - UNIT Q
- EP2.10Q ELECTRICAL POWER NEW WORK FIRST FLOOR PLAN - UNIT Q
- EP5.00 ELECTRICAL DETAILS AND PANEL SCHEDULES

REFERENCE LOCATION MAP



© GOOGLE

	SOIL
	ASPHALT AGGREGATE
	GRANULAR FILL
	STONE/GRAVEL
	CONCRETE
	CONCRETE MASONRY UNIT
	BRICK
	GLAZED HOLLOW CMU
	STRUCTURAL GLAZED TILE
	LIMESTONE
	MARBLE
	FINISH WOOD
	COMPOSITION/PLYWOOD
	CONTINUOUS WOOD BLOCKING
	BLOCKING OR SHIMS
	BATT INSULATION
	RIGID INSULATION
	PREMOLDED EXPANSION JOINT/ COMPRESSIBLE FILLER STRIP
	PLASTER OR GYPSUM BOARD
	CERAMIC OR QUARRY TILE
	TERRAZZO
	ACOUSTICAL PANEL OR ACOUSTICAL TILE
	EXISTING MATERIAL (IN SECTION)
	EXISTING MATERIAL (IN PLAN)
	DEMOLITION - TO BE REMOVED

C	AIR CONDITIONING	L	LENGTH
ACOUST	ACOUSTICAL	LAM	LAMINATE(D)
ACT	ACOUSTICAL CEILING TILE	LAV	LAVATORY
ADA	AMERICANS WITH DISABILITIES ACT	LB#	POUND
ADJ	ADJUSTABLE	LG	LIGHT GAUGE FRAMING
AFF	ABOVE FINISHED FLOOR	LIN	LINOLEUM
AGG	AGGREGATE	LKR	LOCKER
ALT	ALTERNATE	LLH	LONG LEG HORIZONTAL
ALUM/ALUM	ALUMINUM	LLV	LONG LEG VERTICAL
AND	AND/IZED	LMC	LINEAR METAL CEILING
APC	ARCHITECTURAL PRECAST LINTEL	LOC	LOCATION
APPROX	APPROXIMATE	LP	LOW POINT
ARCH	ARCHITECT(URAL)		
ASPH	ASPHALT	MANUF	MANUFACTURER
AV	AUDIO/VISUAL	MAR	MARBLE THRESHOLD
L	ANGLE	MB	MARKER BOARD
		MAS	MASONRY
B CMU	BURNISHED CMU	MAT	MATERIAL/MAT
BIT	BITUMINOUS	MAU	MAKE UP AIR UNIT
BD	BOARD	MAZ	MAXIMUM
BF	BARRIER FREE	MECH	MECHANICAL
BLDG	BUILDING	MEZZ	MEZZARINE
BLK	BLOCK	MIN	MINIMUM/MINUTE
BLKG	BLOCKING	MISC	MISCELLANEOUS
BM	BENCH MARK/BEAM	ML	MASONRY LINTEL
BOT	BOTTOM	MP	METAL PANEL
BRG	BEARING	MWP	METAL WALL PANEL
BUR	BUILT-UP ROOF	MO	MASONRY OPENING
		MT/MTL	METAL
CAB	CABINET	MSF	METAL STUD FRAMING
CUH	CABINET UNIT HEATER	MT	METAL THRESHOLD
CB	CHALKBOARD/CATCH BASIN		
CEM	CEMENT	NIC	NOT IN CONTRACT
CER	CERAMIC	NO#	NUMBER
CFM	CUBIC FEET PER MINUTE	NOM	NOMINAL
CJ	CONTROL JOINT	NSF	NON-SLIP FINISH
CL	CENTERLINE	NTS	NOT TO SCALE
CLG	CEILING		
CLR	CLEAR	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OD	OUTSIDE DIAMETER
COL	COLUMN	OH	OVERHEAD DOOR
COMP	COMPACTED	OPNG	OPENING
CONC	CONCRETE	OPP	OPPOSITE
CONST	CONSTRUCTION	OS	OVERFLOW SUMP
CONT	CONTINUOUS/CONTINUE		
CONTR	CONTRACTOR	PART	PARTICLE
CORR	CORRUGATED	PARTN	MOVABLE PARTITION
CPL	CEMENT PLASTER	PC	PRECAST CONCRETE
CPT	CARPET	PL	PLATE/PROPERTY LINE
CT	CERAMIC TILE	PLAS	PLASTER
CU	CONDENSING UNIT	PLAM	PLASTIC LAMINATE
CUSP	CUSPIDOR	PLYWD	PLYWOOD
CWF	CURTAINWALL FRAMING	PREFAB	PREFABRICATED
		PREFIN	PREFINISHED
D	DEPTH/DEEP	PSF	POUNDS PER SQUARE FOOT
D -	DEGREE	PSI	POUNDS PER SQUARE INCH
DC	DISPLAY CASE	PTD	PAINTED
DEMO	DEMOLISH/DEMOLITION	PVC	POLYVINYL CHLORIDE
DFT	DETAIL		
DF	DRINKING FOUNTAIN	Q	QUARRY TILE
DIA/Ø	DIAMETER		
DIM	DIMENSION	R	RISER/RADIUM
DIV	DIVISION	RB	RESILIENT WALL BASE/RUBBER BASE
DS	DOWNSPOUT	RF	RUBBER FLOORING
DWG	DRAWING	RC	RAIN CONDUCTOR
		RES	RESILIENT
EA	EACH	RS	ROOF SUMP
EJ	EXPANSION JOINT	REF	REFERENCE
EL	ELEVATION	REFR	REFRIGERATOR
ELEC	ELECTRICAL	REINF	REINFORCING
ELEV	ELEVATOR	REQD	REQUIRED
EQ	EQUAL	REV	REVISION(S)
EQUIP	EQUIPMENT	RF	ROOF EXHAUST FAN
EIFS	EXTERIOR INSULATION FINISH	RM	REMOVABLE MULLION/ROOM
EW	ELECTRIC WATER COOLER	RO	ROUGH OPENING
EXH	EXHAUST	RT	RIGHT OF WAY
EX/EXIST	EXISTING	RTU	ROOF TOP UNIT
EXP	EXPANSION	RV	ROOF VENT
EXT	EXTERIOR		
		S	SINK
FD	FLOOR DRAIN	SAAC	SPRAY APPLIED ACOUSTICAL COATING
DEC	FIRE EXTINGUISHER CABINET	SCHED	SCHEDULE
FE	FORCED FLOW CABINET HEATER	SEC	CONCRETE SEALER
FHC	FIRE HOSE CABINET	SEAL	SECTION
FIN	FINISH	SFF	STOREFRONT FRAMING
FIN FL	FINISH FLOOR	SHT	SHEET
FLR	FLOOR	SIM	SIMILAR
FOUND	FOUNDATION	SPC(S)	SPECIFICATIONS
FTT	FEET	SPLT	SPLIT FACE CMU
FTG	FOOTING	SPI	SPORTS IMPACT FLOORING
FRP	FIBERGLASS REINFORCED POLYESTER	SPKR	SPEAKER
		SS	SQUARE
GA	GAUGE	SS	SERVICE SINK/STAINLESS STEEL
GALV	GALVANIZE(D)	SSM	SOLID SURFACE MATERIAL
GB	GRAB BARS	STD	STANDARD
GHT	GLAZED HOLLOW TILE	STL	STEEL
GL	GLASS	STRUCT	STRUCTURAL
GLCMU	GLAZED CMU	SUSP	SUSPENDED
GLZD	GLAZED	SVT	SOLID VINYL TILE
GYP	GYPSUM	SV	SHEET VINYL
		T	TREAD
H/HT	HEIGHT	T&B	TOP AND BOTTOM
HB	HOSE BIB	TB	TACK BOARD
HM	HOLLOW METAL	TC	TOP OF CURB
HORIZ	HORIZONTAL	TEMP	TEMPERATURE
HP	HIGH POINT	TER	TERRAZZO
HR	HOOR	TOC	TOP OF CONCRETE
HVAC	HEATING/VENTILATING/AIR CONDITIONING	TOF	TOP OF FOOTING
		TOM	TOP OF MASONRY
		TOS	TOP OF STEEL
ID	INSIDE DIAMETER	TS	TUBE STEEL
IN"	INCH	TV	TELEVISION
INCL	INCLUDE(D),(ING)	TYP	TYPICAL
INSUL	INSULATION/INSULATE(D)		
INT	INTERIOR	UNO	UNLESS NOTED OTHERWISE
		UV	UNIT VENTILATOR
JST	JOIST	VCT	VINYL COMPOSITION TILE
JT	JOINT	VCG	VINYL COVERED GYPSUM BOARD
KIT	KITCHEN	VERT	VERTICAL
		VIF	VERIFY IN FIELD
		VUV	VERTICAL UNIT VENTILATOR
		W/	WITH
		W/O	WITHOUT
		WC	WATER CLOSET
		WD	WOOD
		WDSC	

DETAIL IDENTIFICATION

A
A2 20
A2 20

DETAIL TITLE
SCALE: 1" = 1'-0"

FOR CROSS-REFERENCING:
SHEETS WHERE DETAIL IS CUT

DRAWING SYMBOL

DETAIL IDENTIFICATION

SHEET WHERE DETAIL IS DRAWN

DETAIL LOCATOR

INTERIOR ELEVATION IDENTIFICATION

EXTERIOR ELEVATION IDENTIFICATION

SHEET WHERE ELEVATION IS DRAWN

SHEET WHERE ELEVATION IS DRAWN

ELEVATION SYMBOL

BUILDING SECTION IDENTIFICATION

SHEET WHERE BUILDING SECTION IS DRAWN

BUILDING SECTION LOCATOR

PLAN OR DETAIL IDENTIFICATION

SHEET WHERE DETAIL IS DRAWN

PLAN OR DETAIL BLOW-UP

EXISTING

NEW

COLUMN GRID

NAME
A101

ROOM
FLOOR
BUILDING/UNIT

ROOM NAME AND NUMBER

BUILDING/UNIT
FLOOR
ROOM

DOOR IF MORE THAN ONE DOOR PER ROOM

NEW DOOR

EXISTING DOOR

DOOR NUMBER AND SYMBOLS

X-X12

PARTITION TYPE

2

EQUIPMENT TYPE

2

CONSTRUCTION / DEMO NOTE

ADDENDUM (ADD), CONSTRUCTION CHANGE DIRECTIVE (CCD), OR ARCHITECT'S SUPPLEMENTAL INSTRUCTIONS (ASI)

ITEM NUMBER

AREA OF CURRENT CHANGE

AREA OF PREVIOUS CHANGE

MISCELLANEOUS SYMBOLS

CONVENIENCE CONTROLS AND OUTLETS

ELEVATORS

SHOWER UNIT

BARRIER FREE URINAL

BARRIER FREE WATER CLOSET

STALL LAYOUT

BARRIER FREE LAVATORIES AND MIRRORS

RAMP HANDRAIL

STAIR HANDRAIL

FIRE EXTINGUISHER EQUIPMENT

DRINKING FOUNTAINS/ ELECTRIC WATER COOLER WITH OPTIONAL BOTTLE FILLER

TOILET ROOM ACCESSORIES

TOILET ROOM SIGNAGE

TACK BOARDS AND MARKER BOARDS

INTERACTIVE PANEL MOUNTING

[illegible]

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Livonia Public Schools
Churchill High School
Pool Filtration Project

1 SHEET

PROJECT NUMBER

A0.01

- 1) Design Codes
 - a) 2021 MICHIGAN REHABILITATION CODE (EXISTING BUILDING)
 - b) 2016 SCHOOL FIRE SAFETY RULES
 - c) NFPA 101 LIFE SAFETY CODE 2012 EDITION
 - d) 2021 MICHIGAN PLUMBING CODE
 - e) 2021 MICHIGAN MECHANICAL CODE
 - f) 2021 MICHIGAN UNIFORM ENERGY CODE
 - g) 2021 MICHIGAN ELECTRICAL CODE RULES, PART 8
 - h) 2022 NATIONAL ELECTRICAL CODE (NFPA 70)
 - i) 2017 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS & FACILITIES
- 2) DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (100.6)
 - a) REPRESENTATIVE OF FRENCH ASSOCIATES WILL BE THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
- 3) EXISTING BUILDING INFORMATION
 - a) TOTAL BUILDING = 358,395 SQUARE FEET (NO CHANGE).
 - b) TOTAL BUILDING IS PARTIALLY SPRINKLED - PERFORMING ARTS STAGE ONLY.
 - c) TYPE OF CONSTRUCTION IS III (I=000 FROM SCHOOL FIRE SAFETY RULES)
 - d) USE GROUP IS OCCUPANCY E (EDUCATION)
- 4) COMPLIANCE METHOD (CHAPTER 3)
 - a) WORK AREA COMPLIANCE METHOD (301.1.2) - THE WORK SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF CHAPTERS 5 THROUGH 11.
- 5) CLASSIFICATION OF WORK (CHAPTER 5)
 - a) AS DEFINED BY THE MICHIGAN REHABILITATION CODE, THE WORK INCLUDES LEVEL 1 ALTERATIONS AND LEVEL 2 ALTERATIONS. THE WORK AREA DOES NOT EXCEED 50% OF THE BUILDING AREA.
 - b) THERE IS NO CHANGE OF OCCUPANCY.
 - c) THERE IS NO ADDITION.
 - d) UNDER THE SCHOOL FIRE SAFETY RULES, THE SCOPE OF WORK IN THE LEVEL 1 ALTERATIONS IS THE REPLACEMENT OF EXISTING POOL AND RELATED ELECTRICAL SYSTEMS. AS A RESULT, THE LEVEL 1 ALTERATION AREAS DO NOT QUALIFY AS REMODELING.
- 6) CHAPTER 7- ALTERATIONS- LEVEL 1
 - a) SECTION 702.1- NEW INTERIOR FINISHES WILL COMPLY WITH CHAPTER 8 OF THE MICHIGAN BUILDING CODE.
 - b) FROM TABLE 803.9- CORRIDORS ARE CLASS B FINISHES, ROOMS ARE CLASS C FINISHES
 - c) INTERIOR FLOOR FINISHES SHALL COMPLY WITH SECTION 804 OF MBC.

EXISTING BUILDING AREA: 358,385 SQUARE FEET

STUDENT POPULATION IS NOT CHANGING

WORK AREA COMPLIANCE METHOD: LEVEL 1 ALTERATIONS

NO CHANGE OF USE

EXISTING BUILDING IS NOT SPRINKLED (EXCEPT PERFORMING ARTS AREA).

ALTERATION LEVEL 4 DESCRIPTION:

- REPLACEMENT AND UPGRADING OF EXISTING POOL EQUIPMENT SYSTEMS (INCLUDING RELATED ELECTRICAL).

[illegible]

PROJECT

Livonia,
Michigan

COMPOSITE
CODE PL

2025-042.1

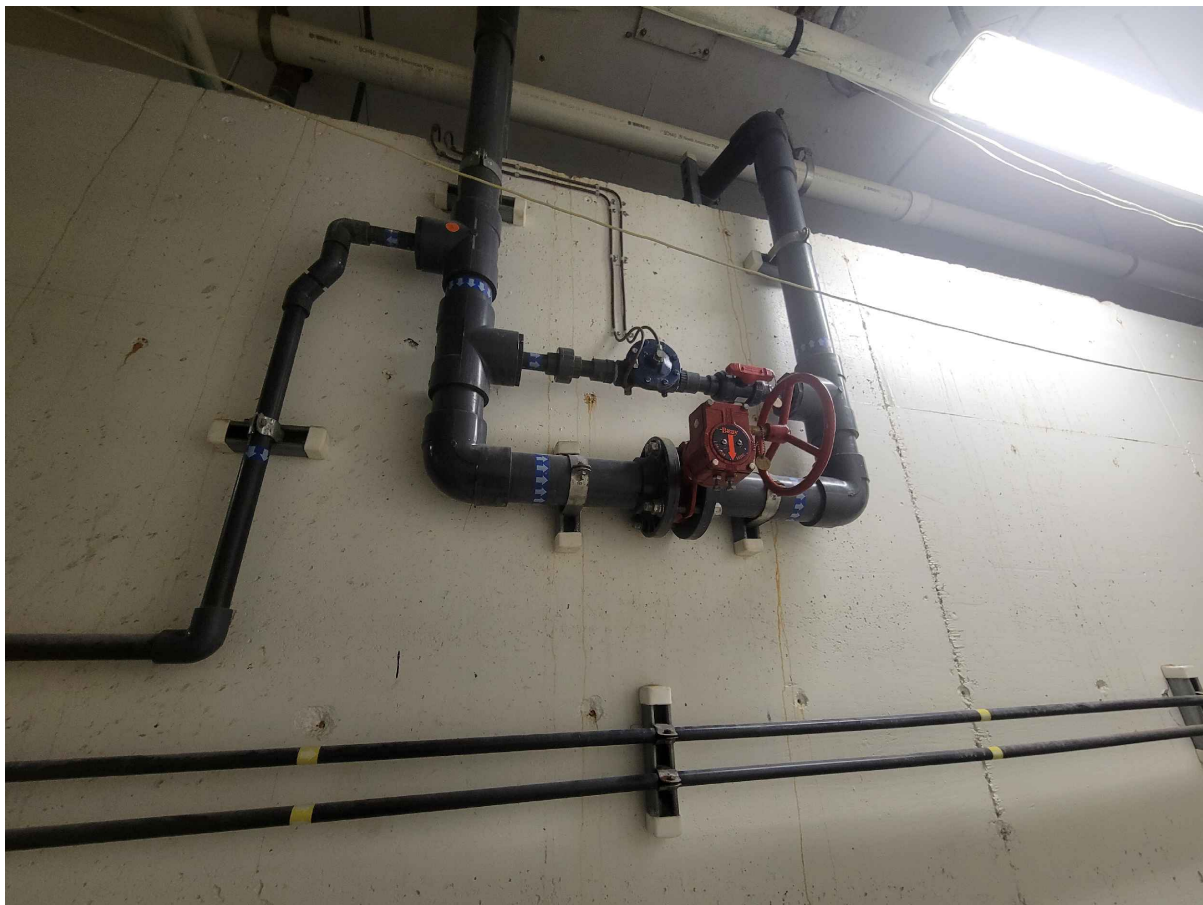
A0.02







9
AQ0.2
EXISTING GUTTER FISHER VALVE
NTS



6
AQ0.2
EXISTING DOMESTIC WATER SUPPLY
NTS



3
AQ0.2
EXISTING SAND FILTERS
NTS



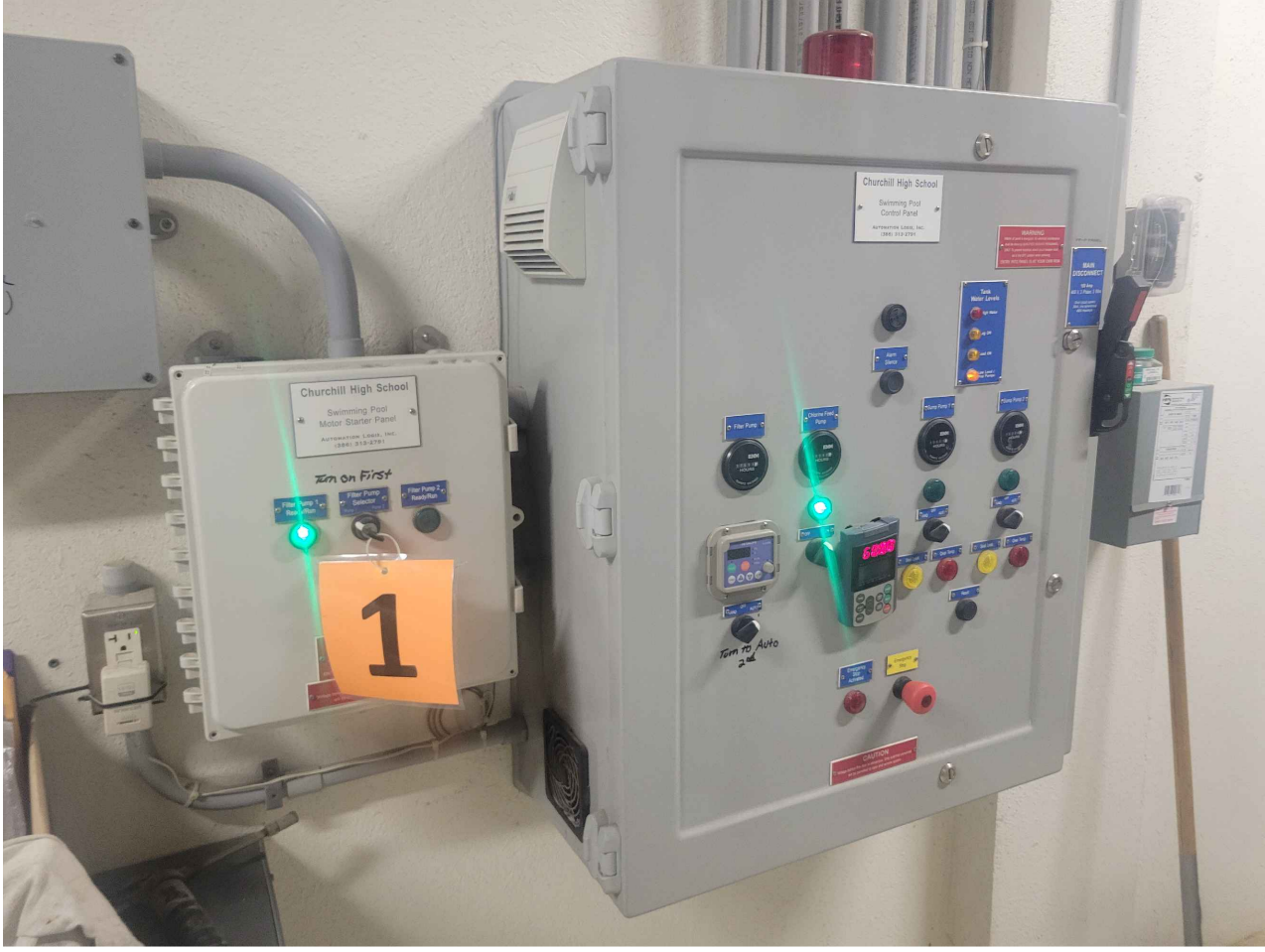
1
AQ0.2
OVERALL MECHANICAL ROOM (LEVEL BELOW)
NTS



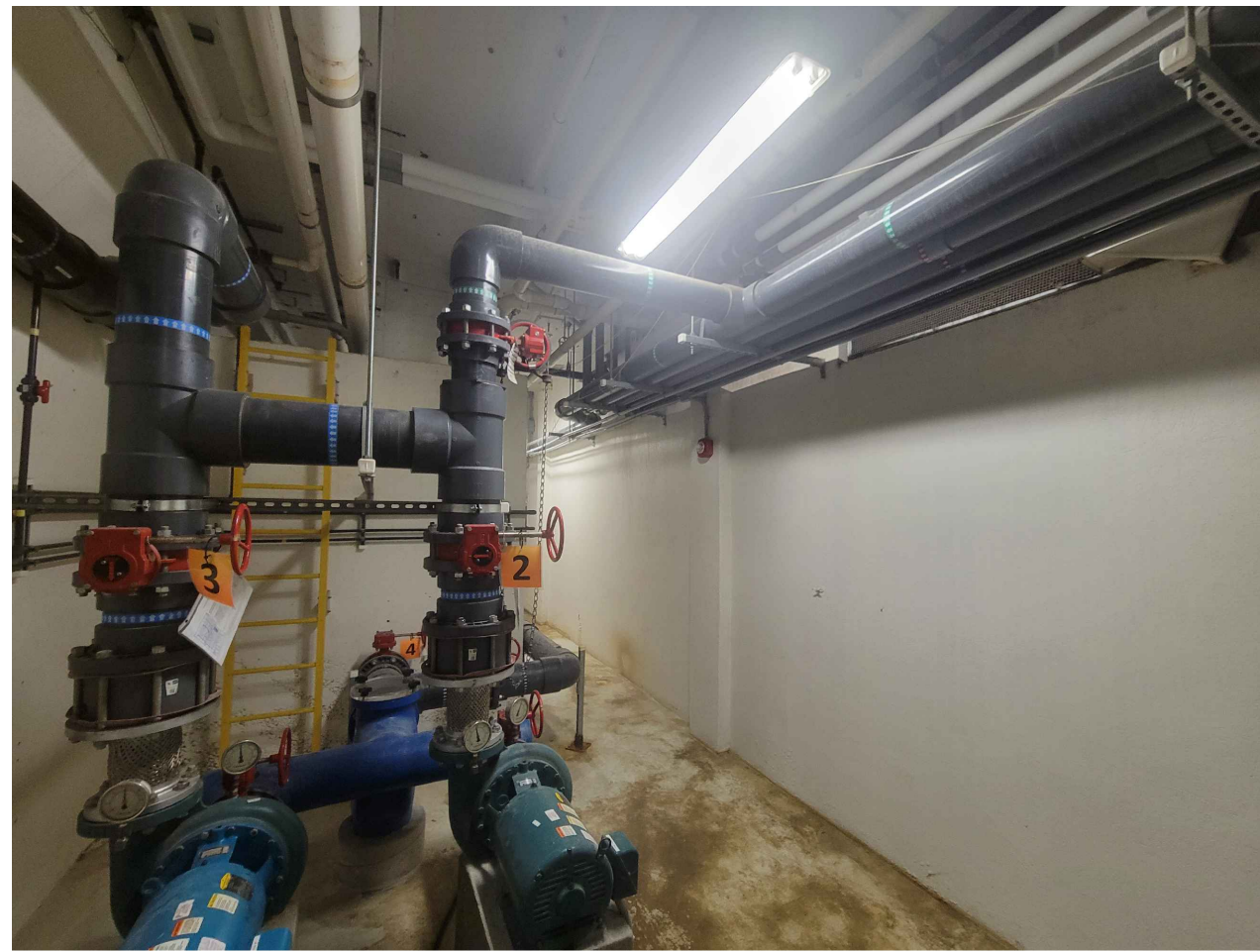
10
AQ0.2
EXISTING CHEMICAL INJECTIONS
NTS



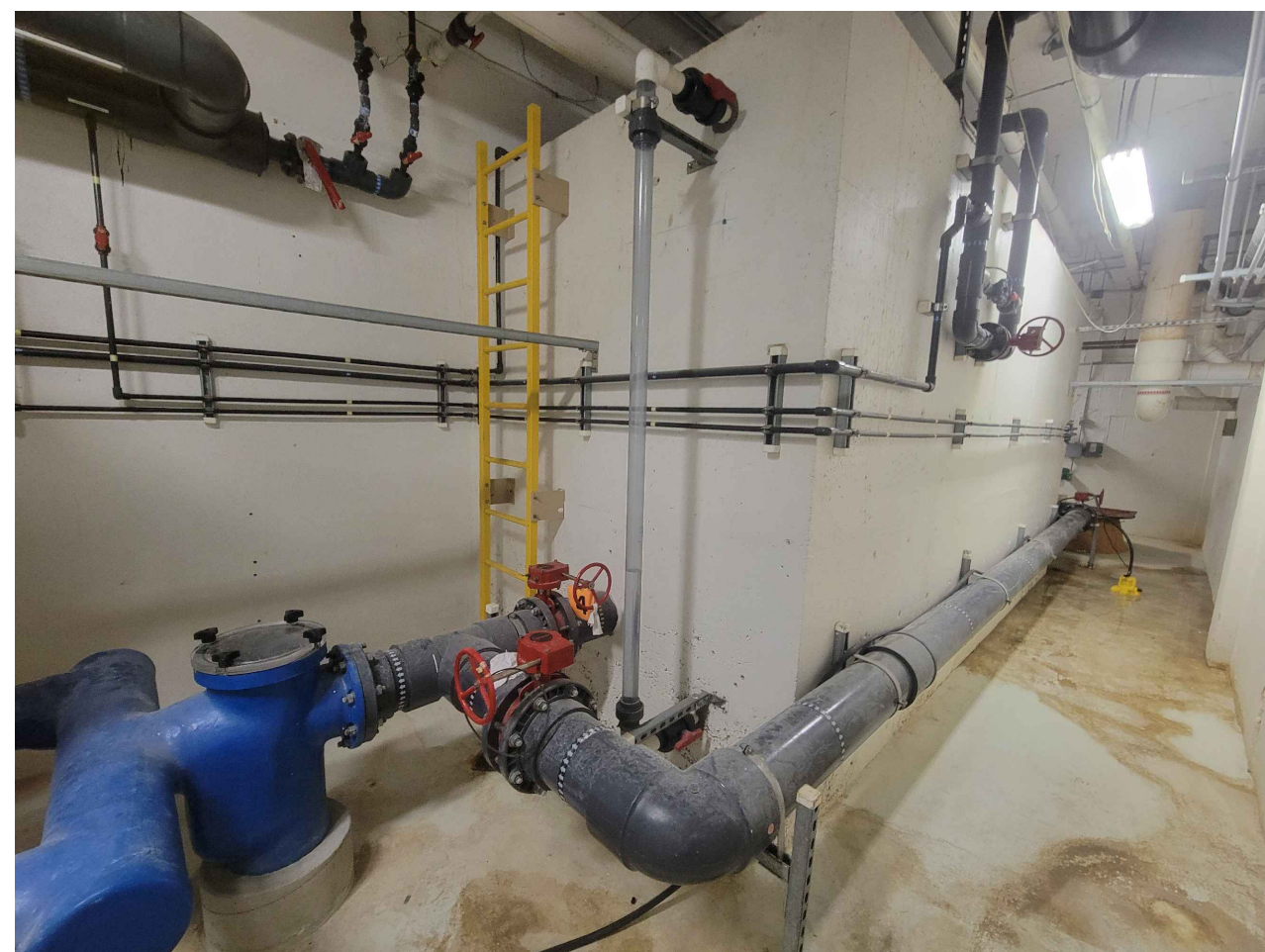
7
AQ0.2
EXISTING UV CHAMBER & CABINET
NTS



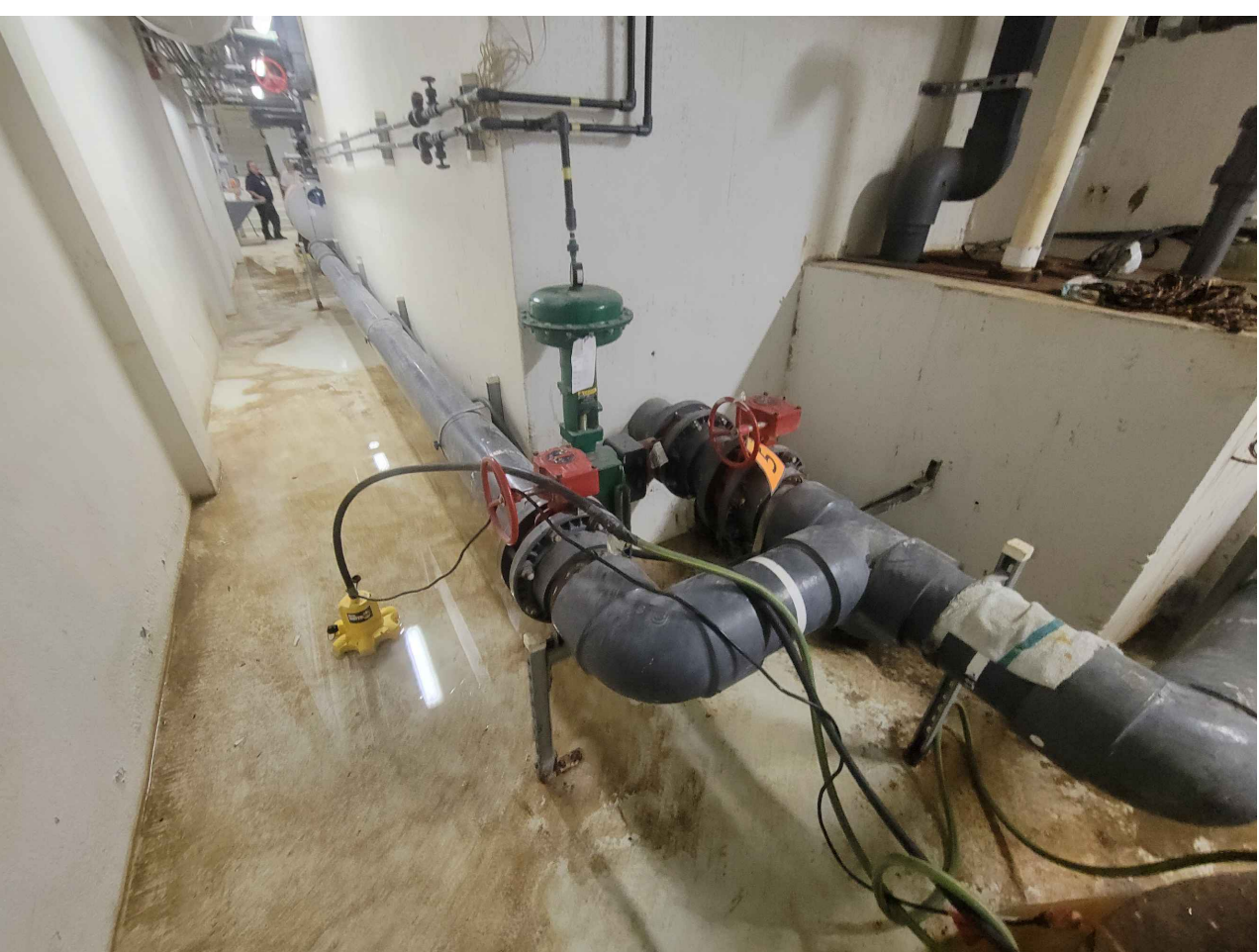
4
AQ0.2
EXISTING PUMP MOTOR STARTER TO REMAIN
NTS



2
AQ0.2
EXISTING RECIRCULATION PUMPS & STRAINER
NTS



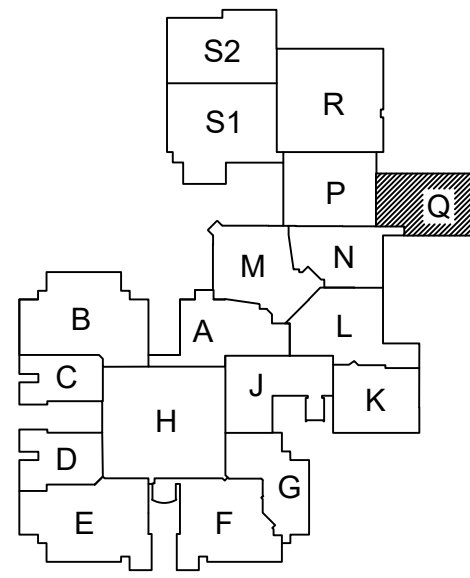
11
AQ0.2
EXISTING WATER LEVEL PIPE FOR NEW SENSORS
NTS



8
AQ0.2
EXISTING MAIN DRAIN FISHER VALVE
NTS

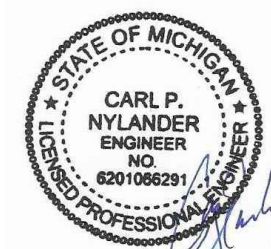


5
AQ0.2
EXISTING HEATER & UV TEES
NTS



ISSUE DATE
1/8/2026

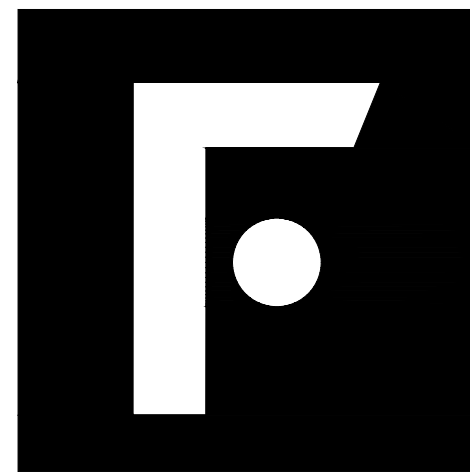
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BIDS



DRAWN
ZRW

CHECKED
MJM

APPROVED
CPN



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PROJECT

Livonia Public Schools
Churchill High School
Pool Filtration Project

Livonia,
Michigan

SHEET

Unit Q
POOL MECHANICAL
ROOM EXISTING
CONDITIONS

PROJECT NUMBER

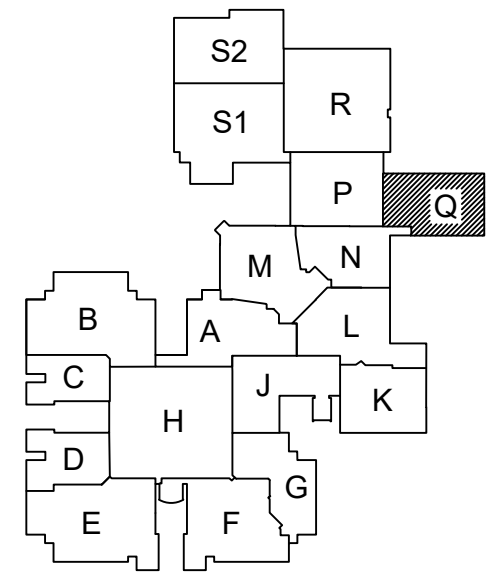
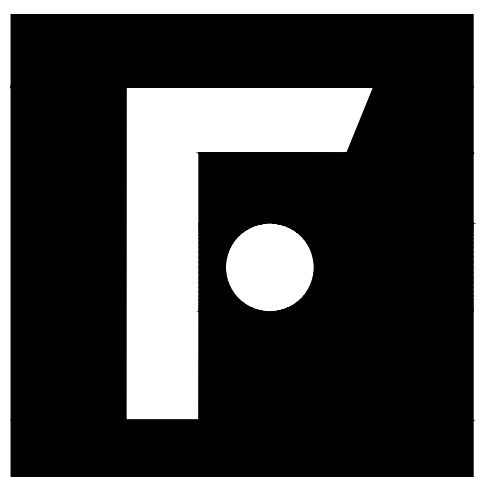
2025-042.1

SHEET NUMBER

AQ0.2



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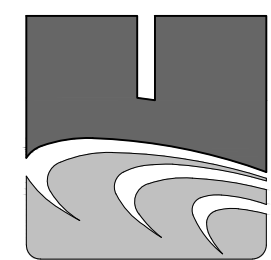
Unit Q
POOL CHEMICAL
ROOM EXISTING
CONDITIONS

PROJECT NUMBER

2025-042.1

SHEET NUMBER

AQ0.3



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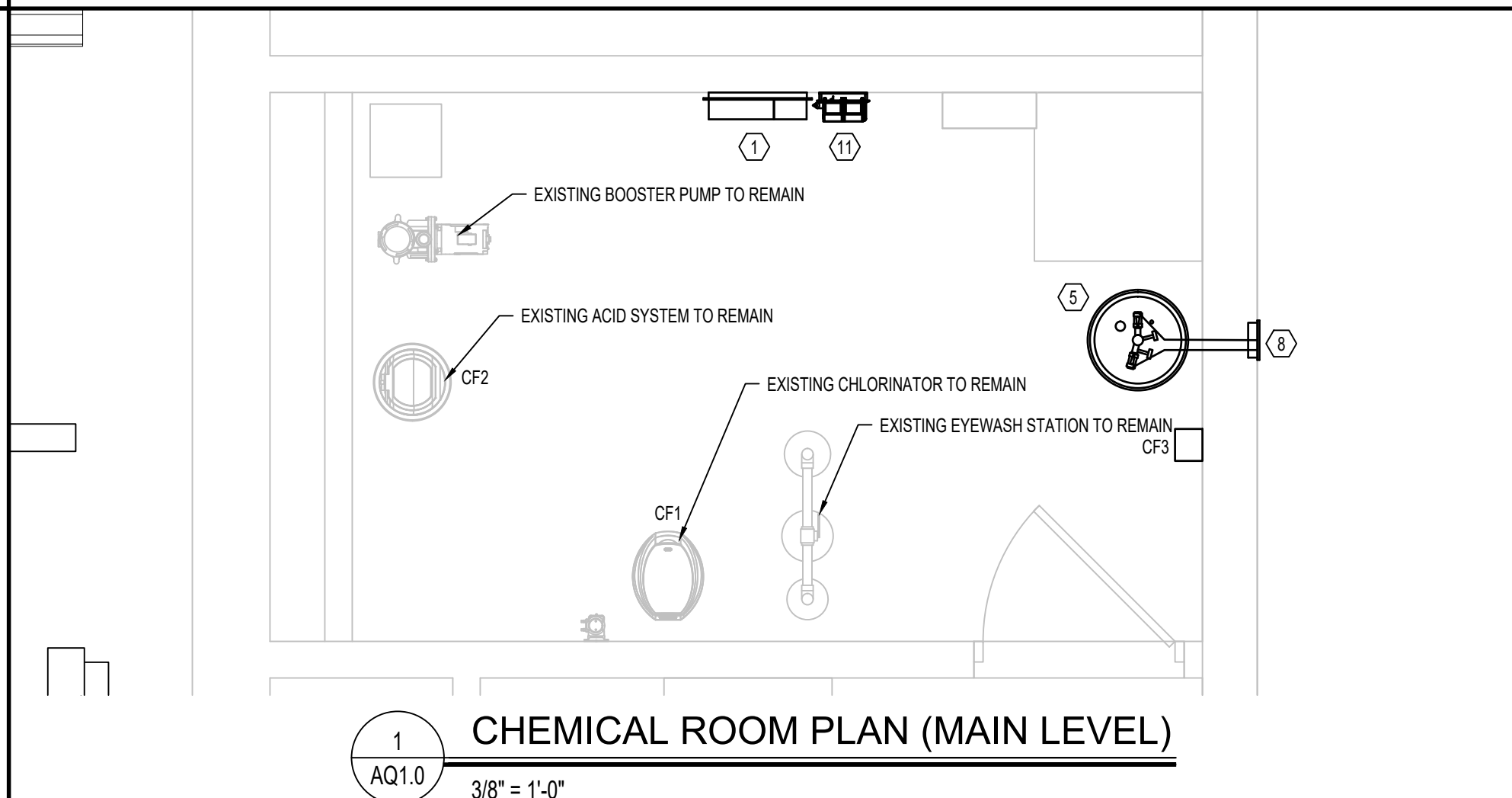


UV TREATMENT SYSTEMS SCHEDULE						
ID	POOL	MODEL NUMBER	CALCULATED 60 MJ/M2 (GPM)	LAMPS	POWER (KW)	VOLTAGE (V) WITH BREAKER SIZE (50 OR 60 HZ)
	COMPETITION	WF-215-8-N	1,012	2 @ 1.5KW	3.0	240 V (1Ø)-3ØA

NOTE:

1. THE BASIS OF DESIGN MANUFACTURER IS EVOQUA TECHNOLOGIES LTD. ALTERNATE MANUFACTURER: PROMINENT, AQUIONICS OR APPROVED EQUIAL.
2. INTERLOCK UV SYSTEM WITH CHEMICAL CONTROLLER OR RECIRCULATION PUMP.
3. REFER: 6/AQ.1.1

EQUIPMENT SCHEDULE			
ID	ITEM	ID	ITEM
1	CHEMICAL CONTROLLER REFER: 2/AQ1.1	7	ELECTRICALLY ACTUATED VALVE REFER: 8/AQ1.2
2	FLOW METER SENSOR REFER: 8/AQ1.1	8	CO2 FILLBOX REFER: 5/AQ1.1
3	IMPACT FLOW METER REFER: 9/AQ1.1	9	HEATER TEES REFER: 9/AQ1.2
4	HARD PIPE TO DRAIN	10	WATER LEVEL CONTROLLER REFER: 11/AQ1.1
5	CO2 TANK REFER: 3/AQ1.1	11	TOTAL ALKALINITY PANEL REFER: 10/AQ1.2
6	10" FLOAT VALVE REFER: 12/AQ1.2	12	CHEMICAL INJECTION REFER: 7/AQ1.1



3. CONDUIT SHALL BE ROUTED OVERHEAD OR BELOW GRADE

FILTER SCHEDULE											
ID	POOL	MANUFACTURER	FILTER MODEL	QTY.	FILTRATION TYPE	MAXIMUM FILTRATION RATE (GPM/SQ. FT.)	REQUIRED FILTRATION AREA (SQ. FT.)	DESIGN FILTRATION RATE (GPM/SQ. FT.)	DESIGN FILTRATION AREA (SQ. FT.)	FILTER BACKWASH RATE (GPM/SQ. FT.)	BACKWASH FLOW RATE PER FILTER (GPM)
F1	COMPETITION	STARK	S1-72	3	HIGH RATE PRESSURE	13.5	54.6	12.3	60.0	16.0	246
<p>NOTE:</p> <p>1. BACKWASH METHOD MUST BE MANUAL.</p> <p>2. ALL FILTER SUPPORTS MUST BE SEISMICALLY RATED FOR THE SEISMIC ZONE IN WHICH IT IS INSTALLED IN ACCORDANCE WITH LOCAL AND/OR STATE REQUIREMENTS.</p> <p>3. FILTER MANUFACTURER MUST CERTIFY FILTER MEDIA.</p> <p>4. VALVES MUST BE PROVIDED TO BACKWASH EACH FILTER VESSEL INDEPENDENTLY.</p> <p>5. THE BACKWASH PIPING MUST TERMINATE NO CLOSER THAN 6" ABOVE THE FLOOR RIM OF THE BACKWASH CATCH BASIN OR TWICE THE PIPE DIAMETER, WHICHEVER IS GREATER.</p> <p>6. FILTER TANK ASSEMBLIES MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL FOR A MAXIMUM FLOW RATE 20 GPM PER SQUARE FOOT OF FILTER MEDIA.</p> <p>7. THE BACKWASH THROTTLING VALVE(S) HANDLE MUST BE REMOVED AND TURNED OVER TO THE OWNER ONCE THE BACKWASH FLOW RATE(S) HAVE BEEN TESTED, ADJUSTED AND BALANCED.</p> <p>8. PROVIDE 1" DIAMETER, SCHEDULE 80 PIPE FROM THE AUTOMATIC AIR VENT ON EACH OF THE FILTER VESSEL TO THE NEAREST FLOOR DRAIN OR BACKWASH CATCH BASIN. THE VENT PIPE MUST BE SLOPED TO THE DRAIN.</p> <p>9. VESSEL MUST BE BACKWASHED AT NO LESS THAN 15.0 GPM/SF.</p>											

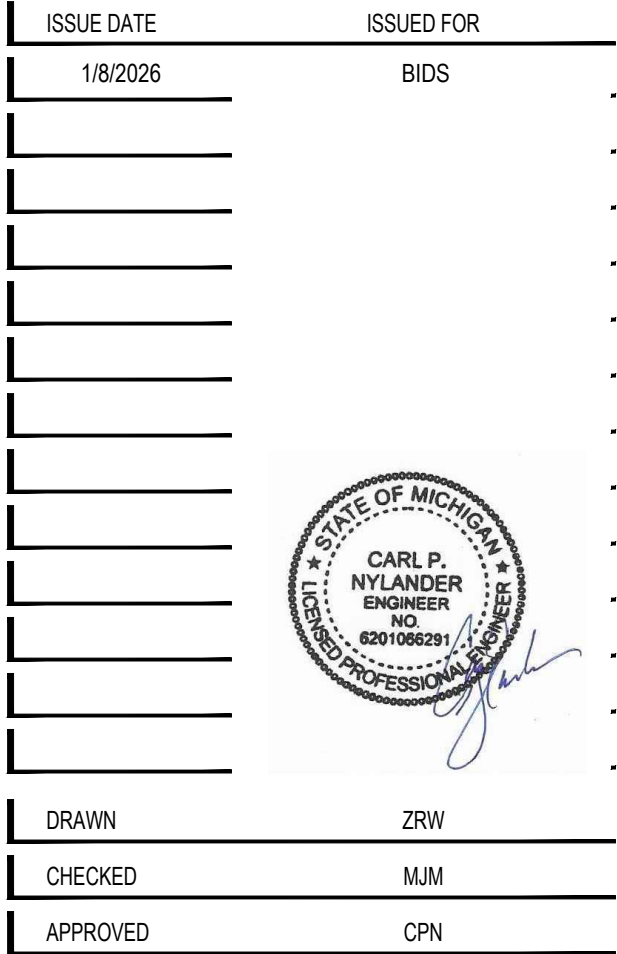
ID	DESCRIPTION	MANUFACTURER	MODEL	SIZE	GPM	TDH	HP	NPSHR	HAIR & LINT		NOTES
									MAKE	SIZE	
PP1	POOL RECIRCULATION PUMP 1 REFER: 1/AQ1.1	AURORA	3801	4"XS"X9.5	737	75	20	10.1	MER-MADE	10"X10"	1-6
PP2	POOL RECIRCULATION PUMP 2 REFER: 1/AQ1.1	AURORA	3801	4"XS"X9.5	737	75	20	10.1			1-6

NOTE:

1. THE MANUFACTURER INDICATED IS BASIS OF DESIGN. PUMP MANUFACTURERS: GRISWOLD, HERBORNOR OR PACO MUST BE CONSIDERED EQUAL PROVIDED THEY MEET SPECIFICATIONS AS INDICATED IN BID DOCUMENTS.
2. POOL PUMPS AND STRAINERS MUST BE INSTALLED ON HOUSEKEEPING PADS.
3. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-60 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-30 HG / 0-60 PSI.
4. PROVIDE WITH 480 VOLT, 3 PHASE, 60HZ, 1750 RPM MOTOR.
5. PROVIDE WITH CHECK VALVE.
6. EXISTING VARIABLE FREQUENCY DRIVE TO REMAIN AND CONNECT TO NEW RECIRCULATION PUMP.

ELECTRONIC FLOCCULATION SYSTEM SCHEDULE								
ID	POOL	MANUFACTURER	MODEL	PIPE SIZE (NOMINAL)	INPUT VOLTAGE	POWER RATING (W)	POWER CABLE LENGTH (FT)	SIGNAL CABLE LENGTH (FT)
E1	COMPETITION	CLEAR-FLOW	CF-800C	8"	100-240 VAC	5.4	15	33
NOTE: REFER: 1/AQ1.3								

PIPE SCHEDULE	
ID	DESCRIPTION
P1	10" FROM EXISTING POOL MAIN DRAINS TO SURGE TANK
P2	10" FROM P1 TO PP1 & PP2
P3	10" FROM EXISTING POOL SURGE TANK TO PP1 & PP2
P4	10" FROM EXISTING POOL GUTTER DROPOUTS TO SURGE TANK
P5	10" FROM EXISTING POOL GUTTER DROPOUTS TO SURGE TANK
P6	8" FROM PP1 & PP2 TO F1
P7	6" FROM P5 TO EXISTING POOL DRAIN PIPING
P8	6" FROM F1 TO EXISTING POOL INLETS
P9	6" FROM F1 TO BASIN



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SHEET

Unit Q

POOL MECHANICAL & CHEMICAL ROOM PLANS & SECTION

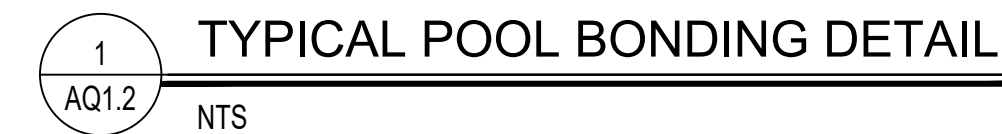
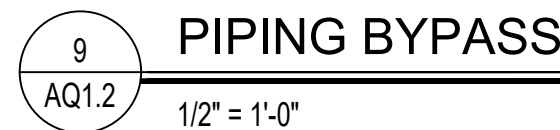
PROJECT NUMBER

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SHEET NUMBER

AQ1.0





2851 High Meadow Circle | Suite 100
Auburn Hills | MI 48326
248.656.1377

PROJECT

Livonia Public Schools
Churchill High School
Pool Filtration Project

Livonia,
Michigan

SHEET

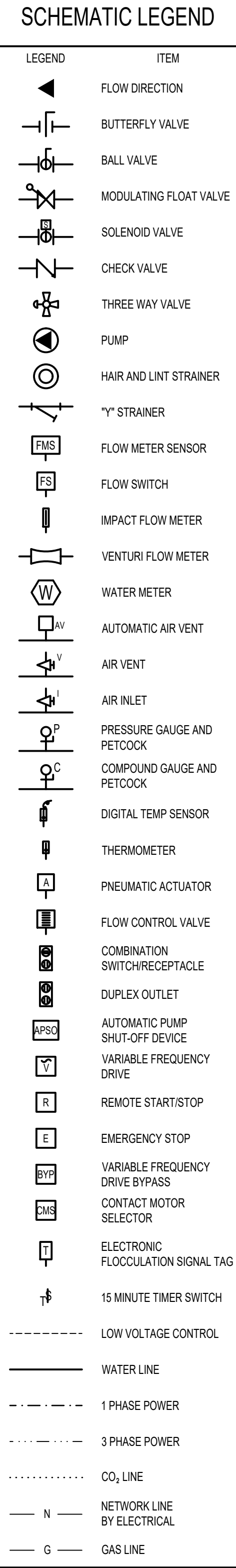
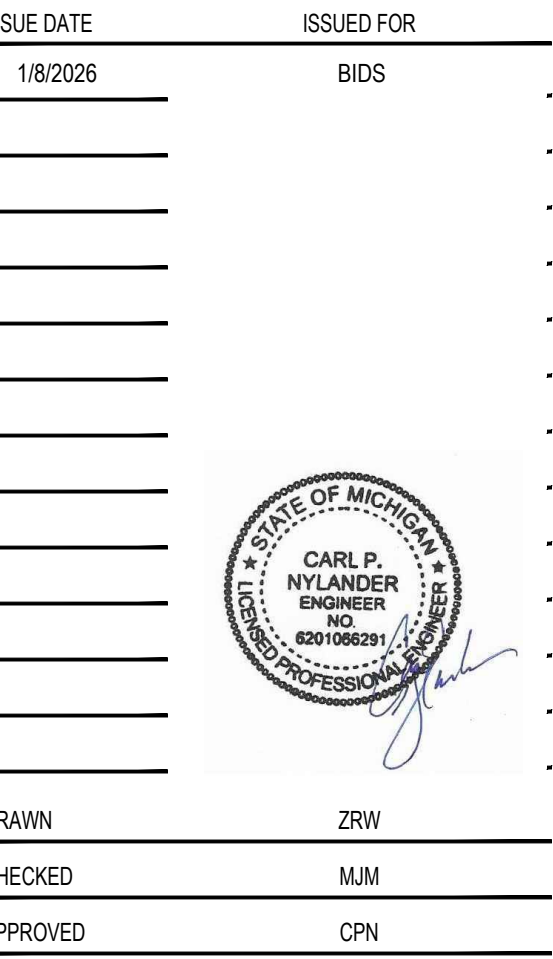
Unit Q
POOL MECHANICAL
DETAILS

PROJECT NUMBER

2025-042.1

SHEET NUMBER

AQ1.2



PROJECT

Avonia Public Schools
Murchill High School
Pool Filtration Project

ronia,
chigan

Unit Q

POOL SYSTEMS

CHEMATIC

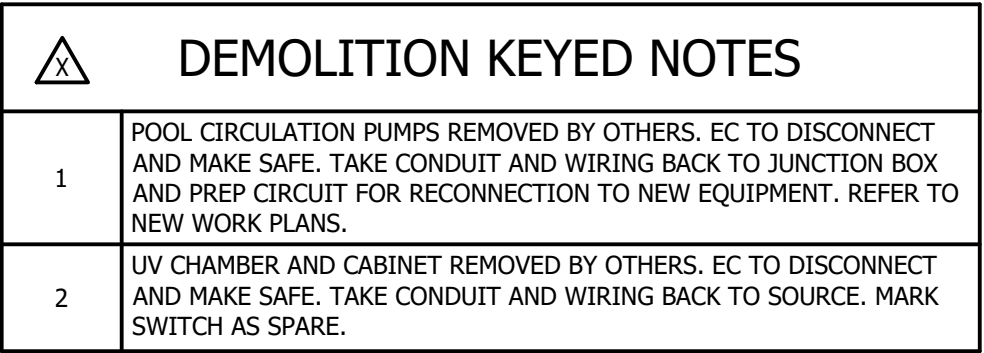
PROJECT NUMBER

025-042.1

SHEET NUMBER

AQ2.0

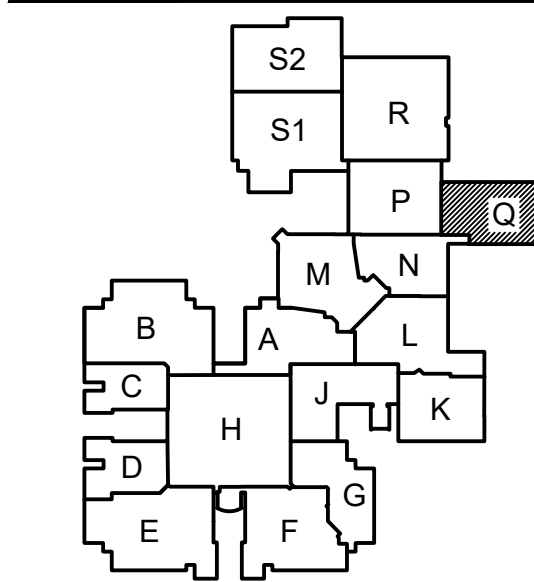




SHEET NUMBER

EPD2.00Q

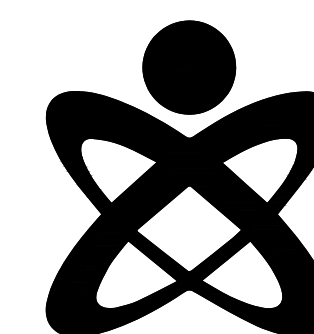
 DEMOLITION KEYED NOTES	
1	CHEMICAL CONTROLLER TO BE REMOVED BY OTHERS. EC TO DISCONNECT AND MAKE SAFE. PROTECT WIRING AND PREP CIRCUIT FOR RECONNECTION TO NEW EQUIPMENT. REFER TO NEW WORK PLANS.



ISSUE DATE	ISSUED FOR
01/08/2026	BIDS
DRAWN	RDL
CHECKED	TJO
APPROVED	MPH



FRENCH
2851 High Meadow Circle | Suite 100
Auburn Hills | MI 48326
248.656.1377



UNIFIED BUILDING
SYSTEMS ENGINEERING
69 S. GRATIOT AVE.
MT. CLEMENS, MI 48043
UBS PROJECT 029.25.12

PROJECT

Livonia Public Schools
Churchill High School
Pool Filtration Project

Livonia,
Michigan

1 SHEET

ELECTRICAL POWER
DEMOLITION FIRST
FLOOR PLAN - UNIT Q

PROJECT NUMBER

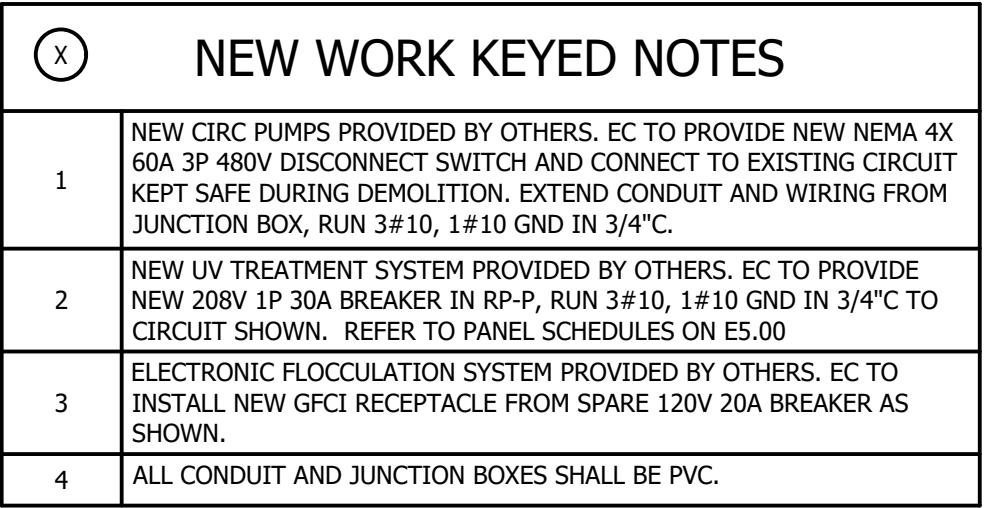
2025-042.1

SHEET NUMBER

EPD2.10Q



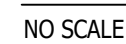
ELECTRICAL POWER DEMOLITION FIRST FLOOR PLAN - UNIT Q
SCALE: 1/8" = 1'-0"



SHEET NUMBER

EP2.00Q

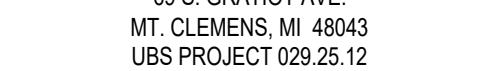
SOLID COPPER CONDUCTORS, INSULATED COVERED, OR BARE, NOT SMALLER THAN 8 AWG
RIGID METAL CONDUIT OF BRASS OR OTHER IDENTIFIED CORROSION-RESISTANT METAL

[illegible]

RDL

TJO

MPH



PROJECT

Livonia,
Michigan

ELECTRICAL DETAILS AND PANEL SCHEDULES

E5.00