





19. FUELING SYSTEMS EMERGENCY SHUT DOWN BUTTON (RED).  
MOUNT ON OUTSIDE FACE OF PUMP HOUSE, A MINIMUM OF 6M FROM  
THE NEAREST DISPENSER AND AT 1500 ABOVE GRADE.  
APPLY IDENTIFICATION SIGNAGE, MINIMUM 75MM CHARACTERS, UV  
RESISTANT VINYL ON ALUMINUM BACKGROUND, STATING:  
"EMERGENCY SHUT-DOWN FOR GASOLINE AND DIESEL FUELING  
SYSTEMS"  
NOTE SIMILAR SHUT DOWN BUTTON TO ALSO BE PROVIDED AT THE  
INTERIOR SERVICE LANES WHERE BUSES ARE FUELED, AS INDICATED  
ON DWG 10-D-102.



**00-D-102**





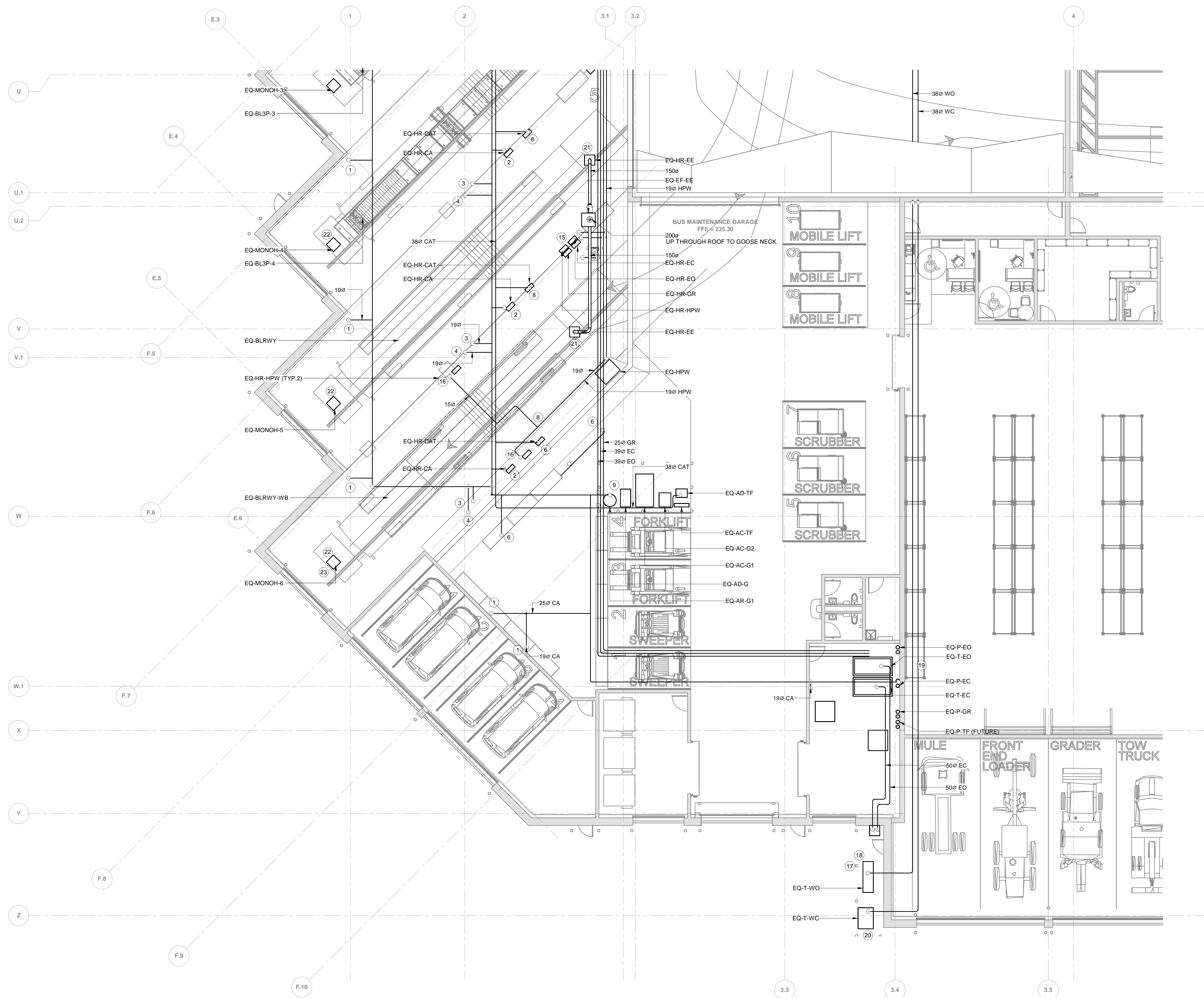












<b>1</b>	<b>COMPRESSED AIR AND SERVICE PIPING ENLARGED PLAN-REPAIR GARAGE</b>
30-D-102	1 : 100

1. COMPRESSED AIR (C-A) 680 KPA (100 PSI) 19MM DROP FROM ISOLATION VALVE, FILTER, PRESSURE GAUGE, DRIP LEG WITH CAP ON CHAIN.

2. COMPRESSED AIR 680 KPA (100 PSI) SPRING RETURN HOSE REEL, ROOF STRUCTURE MOUNTED AT 5M AFF, WITH 13MM DRIP LEG, DRIP LEG, FLEXIBLE CONNECTION AND ISOLATION VALVE. COORDINATE LOCATION WITH END USERS.

3. PROVIDE 19IDA UNDERLOOR 680 KPA COMPRESSED AIR SUPPLY BRANCH INTO EACH BUS LIFT CONTROL CONSOLE. PROVIDE BRANCH TO EACH CONTROL CONSOLE. REFER TO HOIST AND HOIST MANUFACTURER FOR COMPRESSED AIR FROM CONSOLE TO LIFT VIA UNDERGROUND CONDUIT.

4. PROVIDE 680 KPA COMPRESSED AIR GENERAL USE STATION AT 1050 AFF ADJACENT TO BUS LIFT CONTROL STATION. INSTALL ON 190MM DIA. 19MM DRIP LEG. PROVIDE 19MM DRIP LEG WITH 13MM DRIP LEG, FLEXIBLE CONNECTION, ISOLATION VALVE AND STANDARD QUICK DISCONNECT. COORDINATE LOCATIONS WITH ARCHITECTURAL FINISHES.

5. PROVIDE 25MM 680 KPA COMPRESSED AIR DROP FROM MAINS WITH BRANCHES TO ALL LIQUID DISTRIBUTION PUMPS. REFER TO COMPRESSED AIR AND LIQUID DISTRIBUTION SCHEMATIC DRAWINGS.

6. PROVIDE 19IDA UNDERLOOR 680 KPA COMPRESSED AIR SUPPLY FROM EACH CONTROL CONSOLE TO EACH HOIST STATION. PROVIDE BRANCH ISOLATION VALVE AT EACH BENCH. INSTALL CITY STANDARD QUICK DISCONNECT. COORDINATE LOCATIONS WITH ARCHITECTURAL FINISHES.

7. COMPRESSED AIR SUPPLY DROP TO UNDERLOOR BRANCH SERVING ALL AIRBARKSCHES AND BUS LIFT CONTROL CABINETS.

8. COMPRESSED AIR TIRE FILL 845 KPA (100 PSI) SPRING RETURN HOSE REEL, ROOF STRUCTURE MOUNTED AT 5M AFF, WITH 13MM DRIP LEG, FLEXIBLE CONNECTION AND ISOLATION VALVE. COORDINATE LOCATION WITH END USERS.

9. 100 NOMINAL SCHEDULE 40 X 300MM HOIST STEEL PIPE BOLLARDS TO BE INSTALLED ALL AROUND COMPRESSED AIR AREA. BASE PLATE MOUNTED WITH MINIMUM 4 OF 13MM ANCHOR BOLTS.

10. WASTE OIL TRANSFER STATION. INSTALL BASINS AND PUMP ON HSS FRAME SHARED WITH WC STATION. RUN PIPING VERTICALLY UP TO 3000 AFF. PROVIDE 19MM DRIP LEG SUPPORT FROM HSS FRAME UP TO 3600 AFF. REFER TO SCHEMATIC DRAWING AND DETAILS.

11. PROVIDE SIGN: "WASTE OIL ONLY. ACTIVATE TRANSFER PUMP TO START DUMPING OF OIL INTO SYSTEM, AND FOR A MINIMUM OF 1 MINUTE AFTER."

12. WASTE COOLANT TRANSFER STATION. INSTALL ON HSS FRAME SHARED WITH WC STATION. RUN PIPING VERTICALLY UP TO STRUCTURE. PROVIDE VERTICAL PIPE SUPPORT FROM HSS FRAME UP TO 3600 AFF. REFER TO SCHEMATIC DRAWING AND DETAILS.

13. PROVIDE SIGN: "WASTE COOLANT ONLY. ACTIVATE TRANSFER PUMP USING SWITCH PRIOR TO DUMPING OF OIL INTO SYSTEM, AND FOR A MINIMUM OF 1 MINUTE AFTER."

14. SHARED HOSE REEL STATIONS MOUNTED OVERHEAD. CONFIRM FINAL LOCATION WITH END USERS AND TEST WITH BUS. BOTTOM OF HOSE REEL TO BE AS REQUIRED TO SUIT HOIST AND HOIST CONNECTIONS AND ISOLATION VALVES.

15. HIGH PRESSURE WASHING HOSE REEL MOUNTED AT 5M AFF. COMPLETE WITH MOTORIZED RETURN. REFER TO SCHEMATIC DRAWINGS AND DETAILS.

17. ENGINE OIL (EO) AND COOLANT (EC) FILL SPILL BOX (MINIMUM 50L) WITH TWO OIL OUTLETS, LIQUID COVER.

18. EO AND EC FILL PIPING, THROUGH WALL AT SPILL BOX LEVEL TO MINIMUM 3M AFF ALONG WALL AND TO TANK CONNECTION. COMPLETE WITH VENT WHISTLE, MECHANICAL OVERFLOW AND FILL ALARM AT SPILL BOX.

19. EO AND EC TANKS, COMPLETE WITH REMOTE LEVEL MONITORING, MECHANICAL OVERFILL VALVE, AND OVERFILL SHUTOFF SOLENOID VALVE.

20. WASTE OIL AND WASTE COOLANT TANK. COMPLETE WITH REMOTE LEVEL MONITORING. MECHANICAL OVERFILL VALVE, AND OVERFILL SHUTOFF SOLENOID VALVE.

21. BUS ENGINE EXHAUST EXTRACTION HOSE REEL MOUNTED WITH TEST BUS OF ALL SIZES.

22. MONORAIL HOIST, COMPLETE WITH SEPARATE C-RACK TYPE FEEDSTONING SYSTEM. COORDINATE WITH STRUCTURAL AND ALL OTHER DRAWINGS.

23. PROVIDE GALVANIZED SHEET METAL GARAGE AT END OF MONORAIL TO PROTECT HOIST AND TRILLEY FROM WASHBAY ACTIVITIES. GARAGE TO INCLUDE RUBBER OR EQUIVALENT FLOOR TO PROTECT HOIST FROM WASHBAY ACTIVITIES. PROVIDE GARAGE CONFIGURATION. CONSUMER PREFERRED END WITH CLIENT.

## ISSUE/REVISION

O	02/19/2025	ISSUED FOR TENDER
C	12/06/2024	ISSUED FOR 66% DESIGN RESUBMISSION
B	08/12/2024	ISSUED FOR 66% DESIGN
A	03/28/2024	ISSUED FOR SCHEMATIC
I/R	DATE	DESCRIPTION

PROJECT NUMBER

**SHEET TITLE**

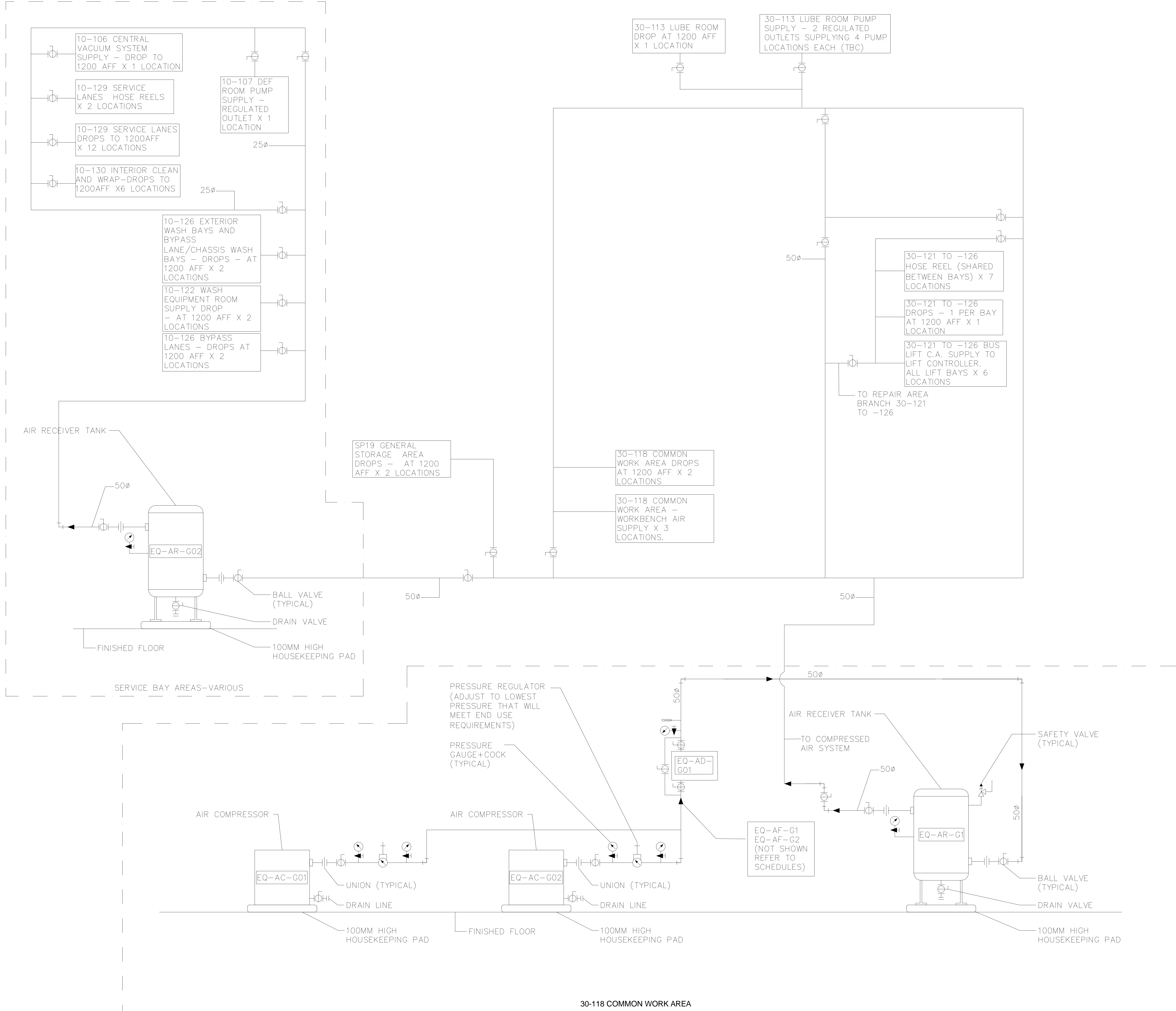
**COMPRESSED AIR AND SERVICE  
PIPING ENLARGED PLAN-REPAIR  
GARAGE 2 OF 2**

**SHEET NUMBER**

**30-D-102**







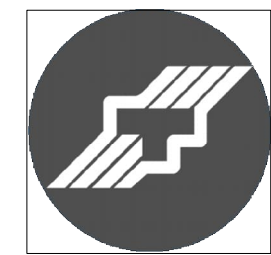
**1 COMPRESSED AIR SYSTEM 690 kPa (100 psig) SCHEMATIC**  
 50-D-602 NTS



**PROJECT**  
**WINNIPEG NORTH GARAGE REPLACEMENT**  
 100 Oak Point Hwy, Winnipeg, MB R2R 1V1



City of Winnipeg  
 510 Main St.  
 Winnipeg, MB R3B 1B9  
 1.877.311.4974



Winnipeg Transit  
 B-414 Osborne St.  
 Winnipeg, MB R3L 2A1

**CONSULTANT**  
 AECOM CANADA ULC  
 99 Commerce Dr,  
 Winnipeg, MB R3P 0Y7

**REGISTRATION**

**ISSUE/REVISION**

REV	DATE	DESCRIPTION
0	02/19/2025	ISSUED FOR TENDER
C	12/06/2024	ISSUED FOR 66% DESIGN RESUBMISSION
B	08/12/2024	ISSUED FOR 66% DESIGN
A	03/28/2024	ISSUED FOR SCHEMATIC
VR	DATE	DESCRIPTION

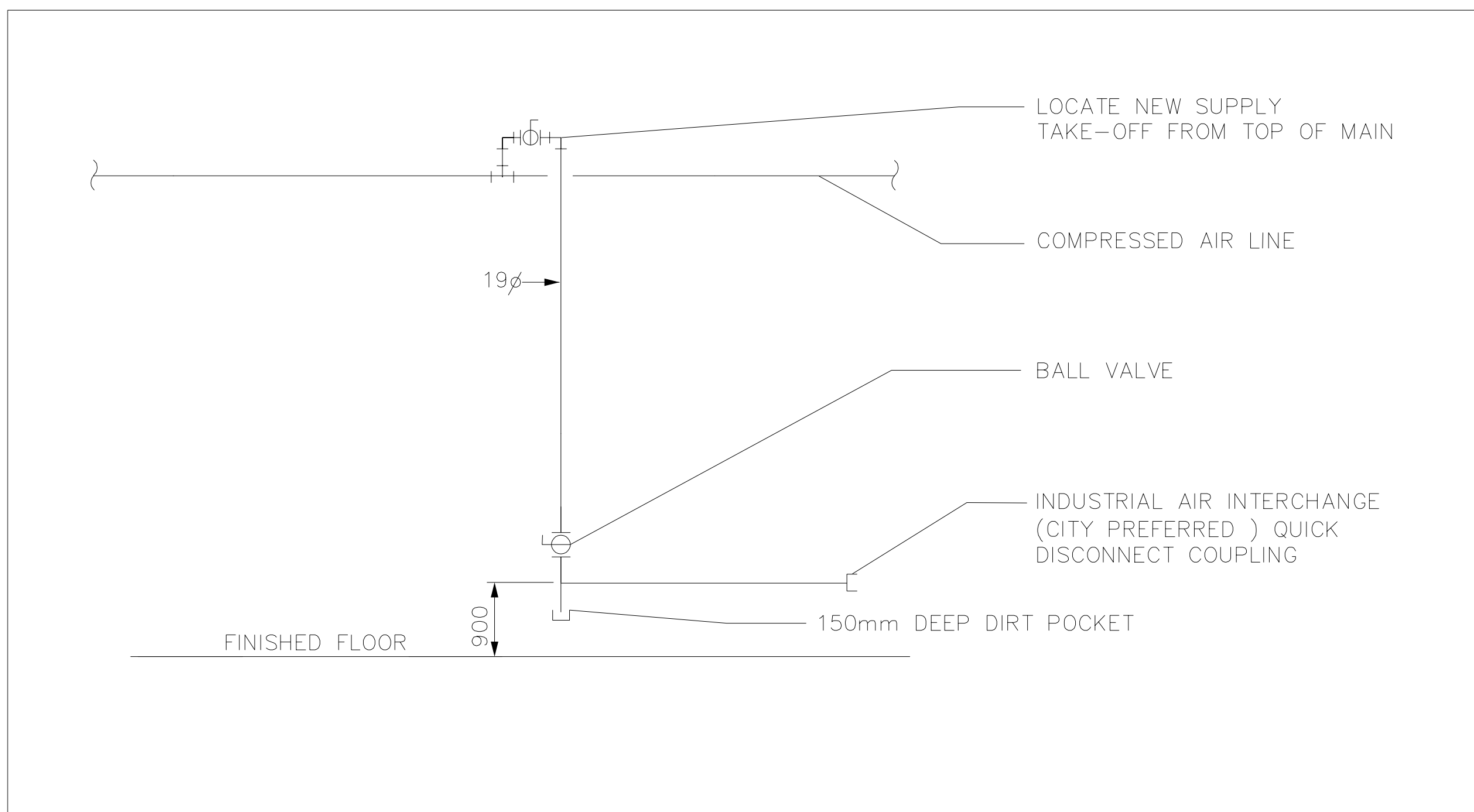
**PROJECT NUMBER**  
 60721079

**SHEET TITLE**  
 COMPRESSED AIR SCHEMATIC-  
 GENERAL SHOP AIR 690 kPa (100 PSIG)

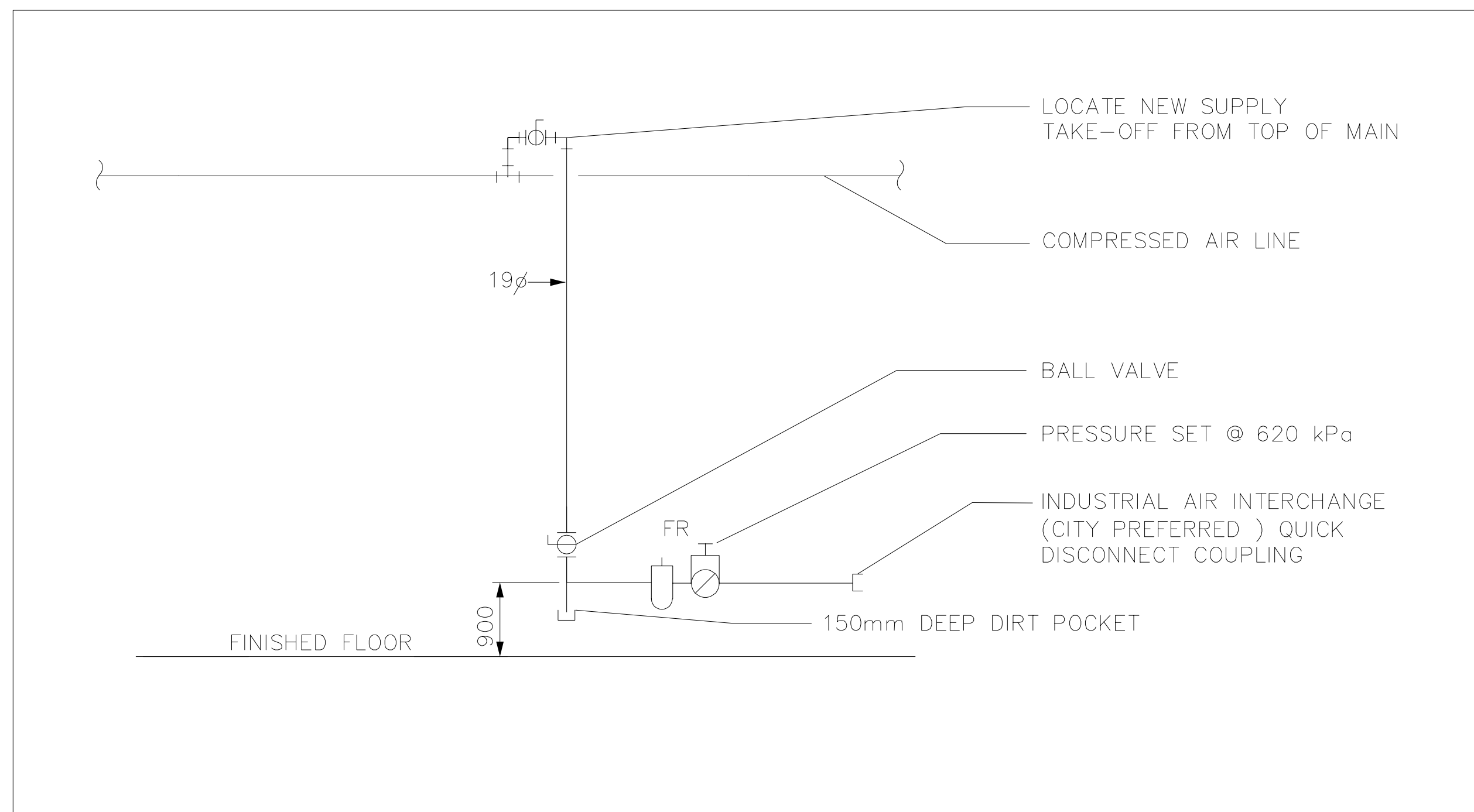
**SHEET NUMBER**

**50-D-602**





<b>1</b>	<b>TYPICAL COMPRESSED AIR DROP</b>
50-D-603	NTS



<b>2</b>	<b>AIR REGULATOR STATION</b>
50-D-603	NTS

<b>3</b>	<b>COMPRESSED AIR SYSTEMS 865 kPa (130 psig) - TIRE FILL SCHEMATIC</b>
50-D-603	NTS



## PROJECT

**WINNIPEG NORTH GARAGE REPLACEMENT**  
100 Oak Point Hwy, Winnipeg, MB R2R 1V

**CLIENT**



City of Winnipeg  
510 Main St.  
Winnipeg, MB R3B 1B9  
1.877.311.4974



Winnipeg Transit  
B-414 Osborne St.  
Winnipeg, MB R3L 2A1

## CONSULTANT

AECOM CANADA ULC  
99 Commerce Dr,  
Winnipeg, MB R3P 0Y7

## REGISTRATION

**ISSUE/REVISION**

O	02/19/2025	ISSUED FOR TENDER
C	12/06/2024	ISSUED FOR 66% DESIGN RESUBMISSION
B	08/12/2024	ISSUED FOR 66% DESIGN
A	03/28/2024	ISSUED FOR SCHEMATIC
I/R	DATE	DESCRIPTION

## PROJECT NUMBER

60721079

**SHEET TITLE**

### COMPRESSED AIR SCHEMATIC-TIRE FILL 895 kPa (130 psig) AND DETAILS

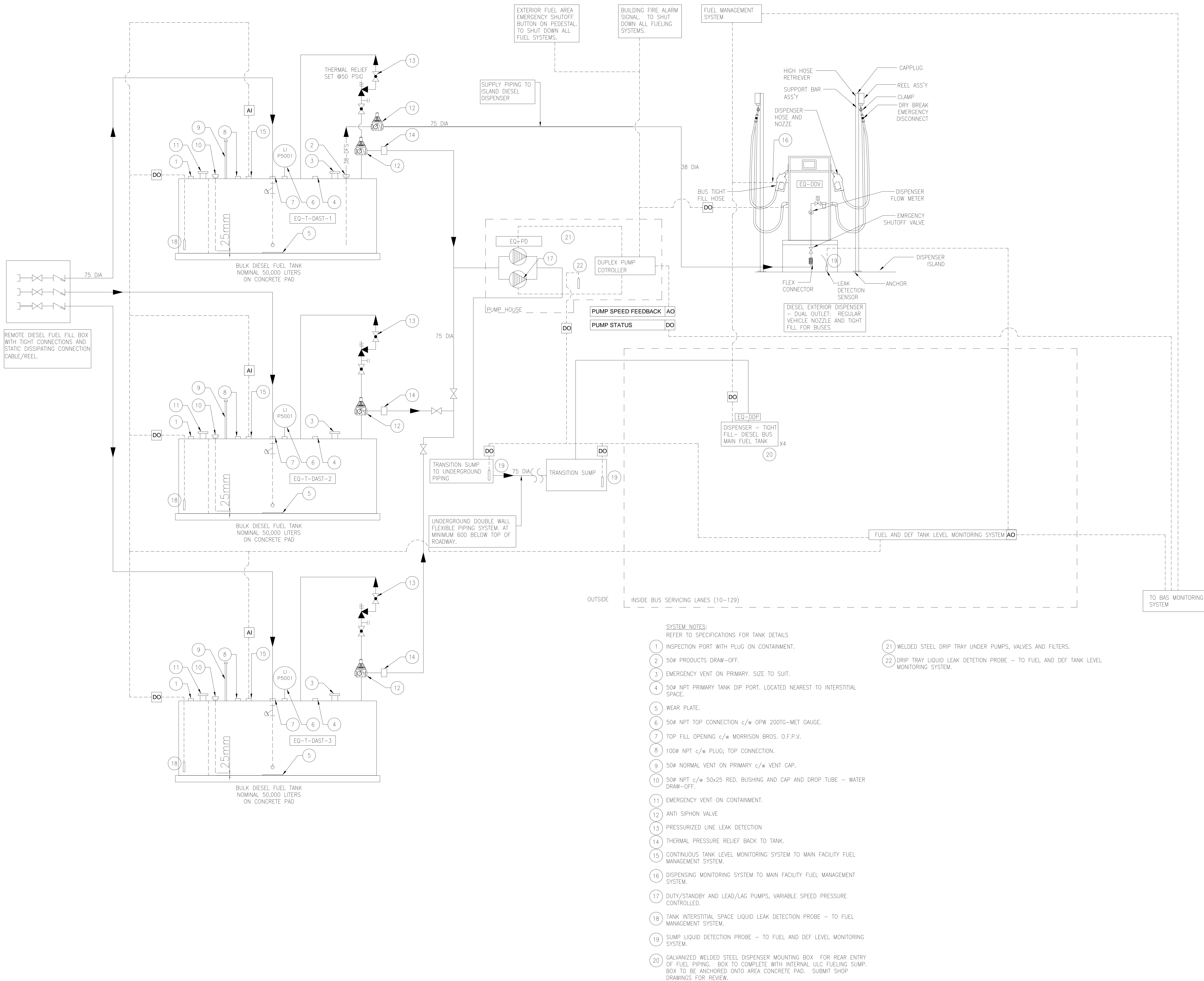
**SHEET NUMBER**

**50-D-603**





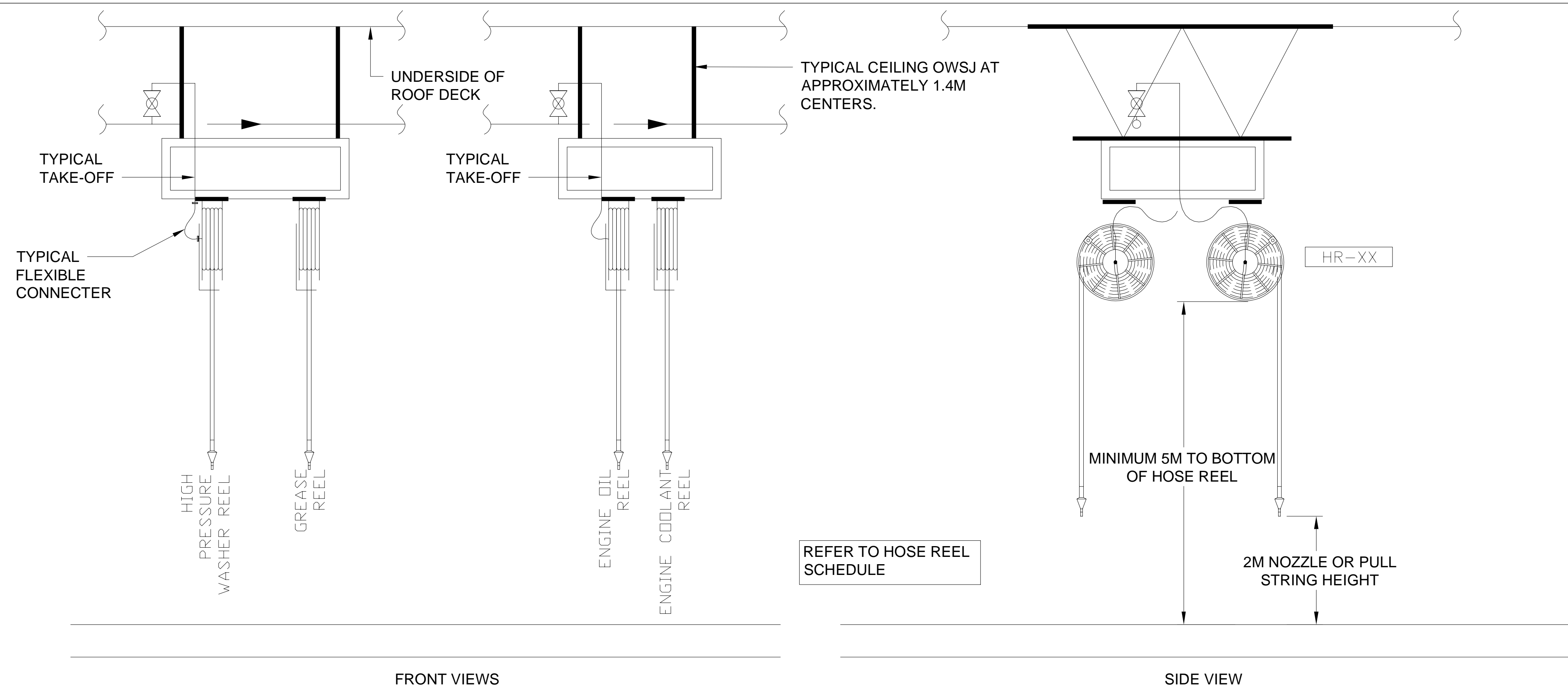




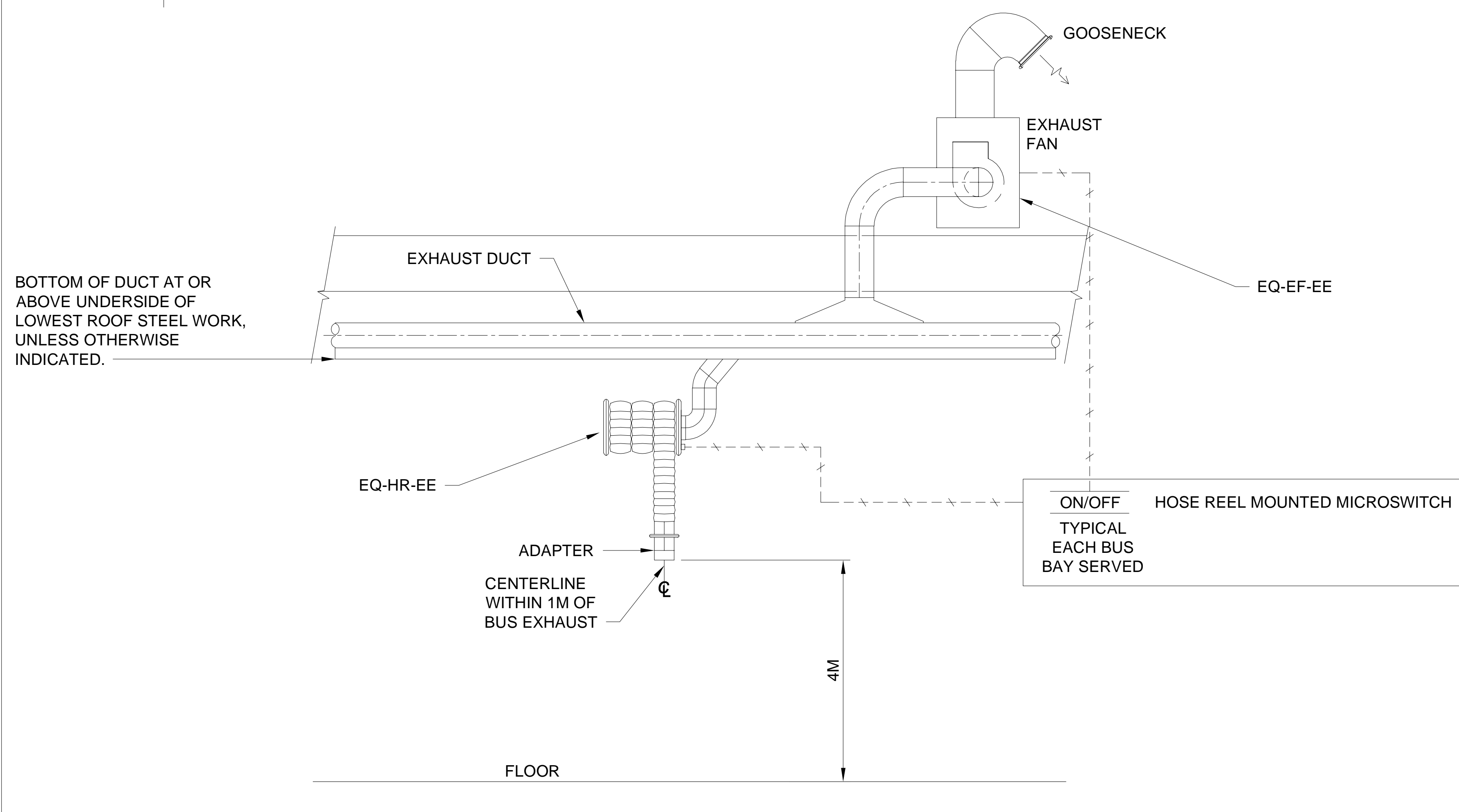




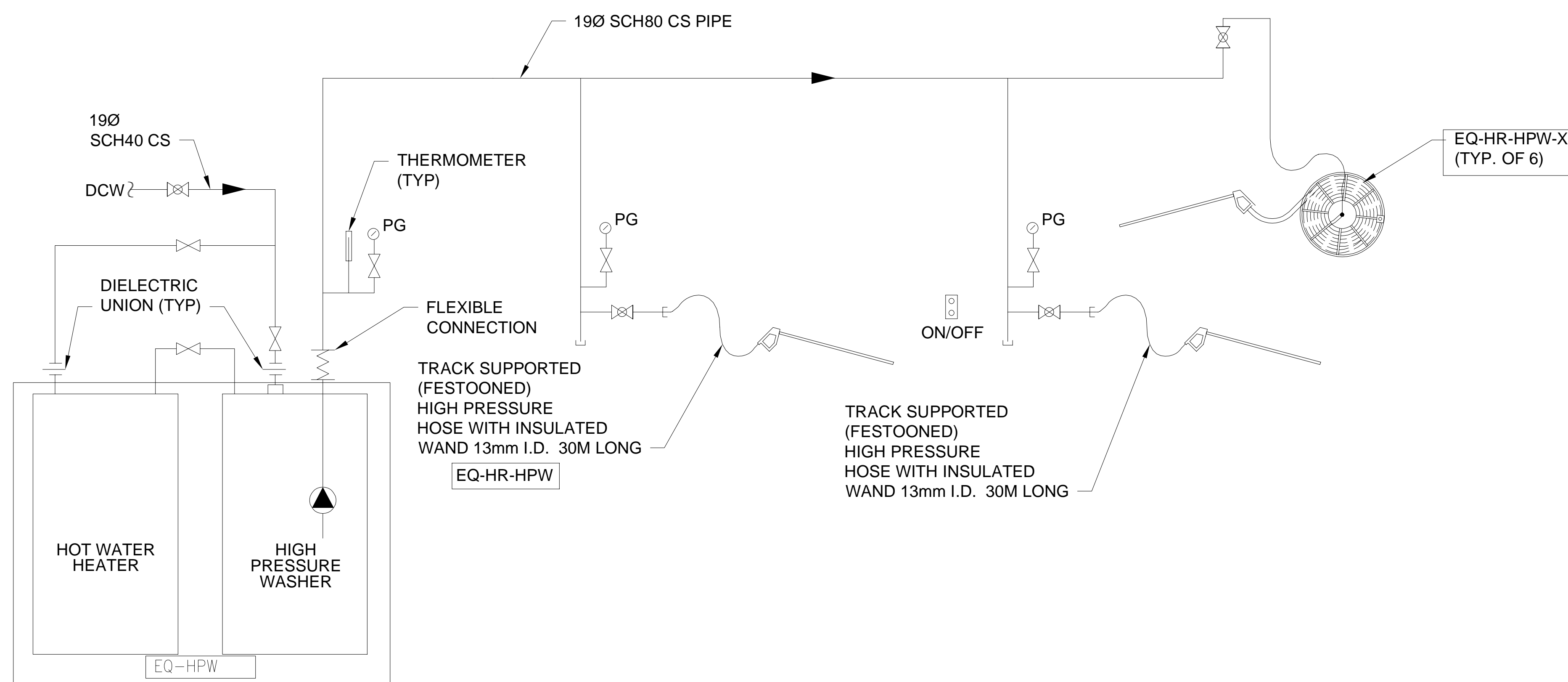




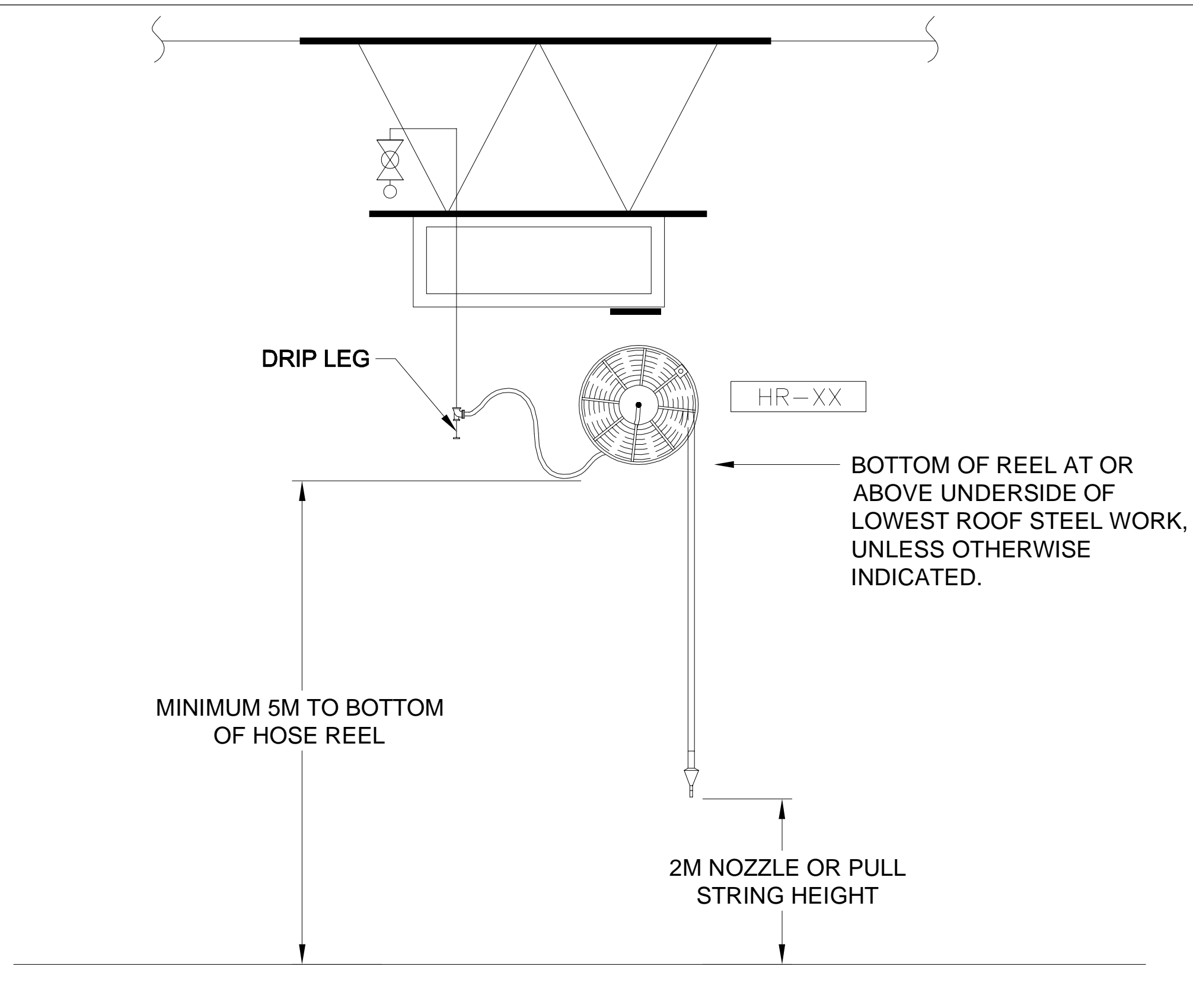
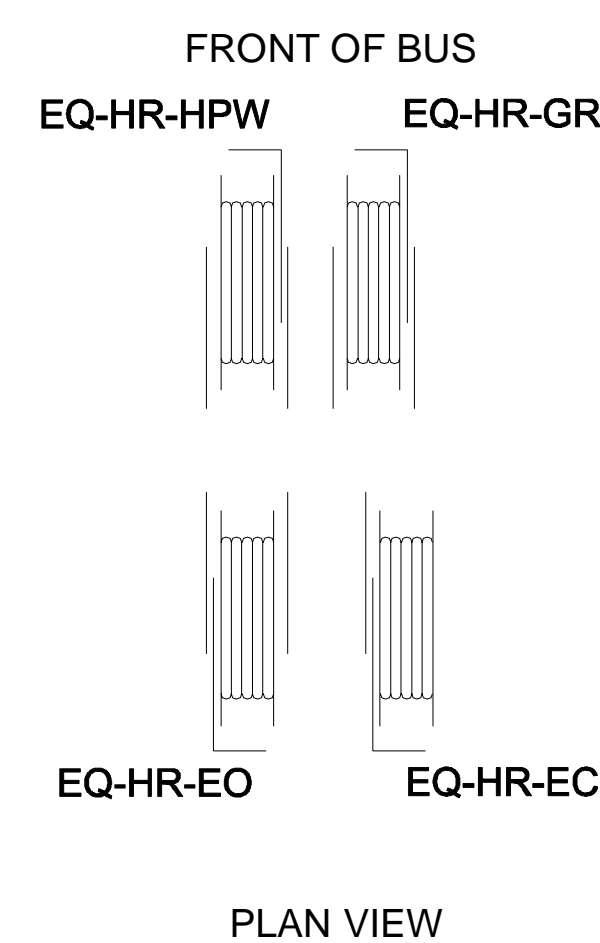
<b>1</b>	<b>BUS MAINTENANCE BAY FLUIDS STATION ARRANGEMENT ONE STATION SHARED BETWEEN 2 BAYS (TYPICAL OF 3)</b>
50-D-607	NTS



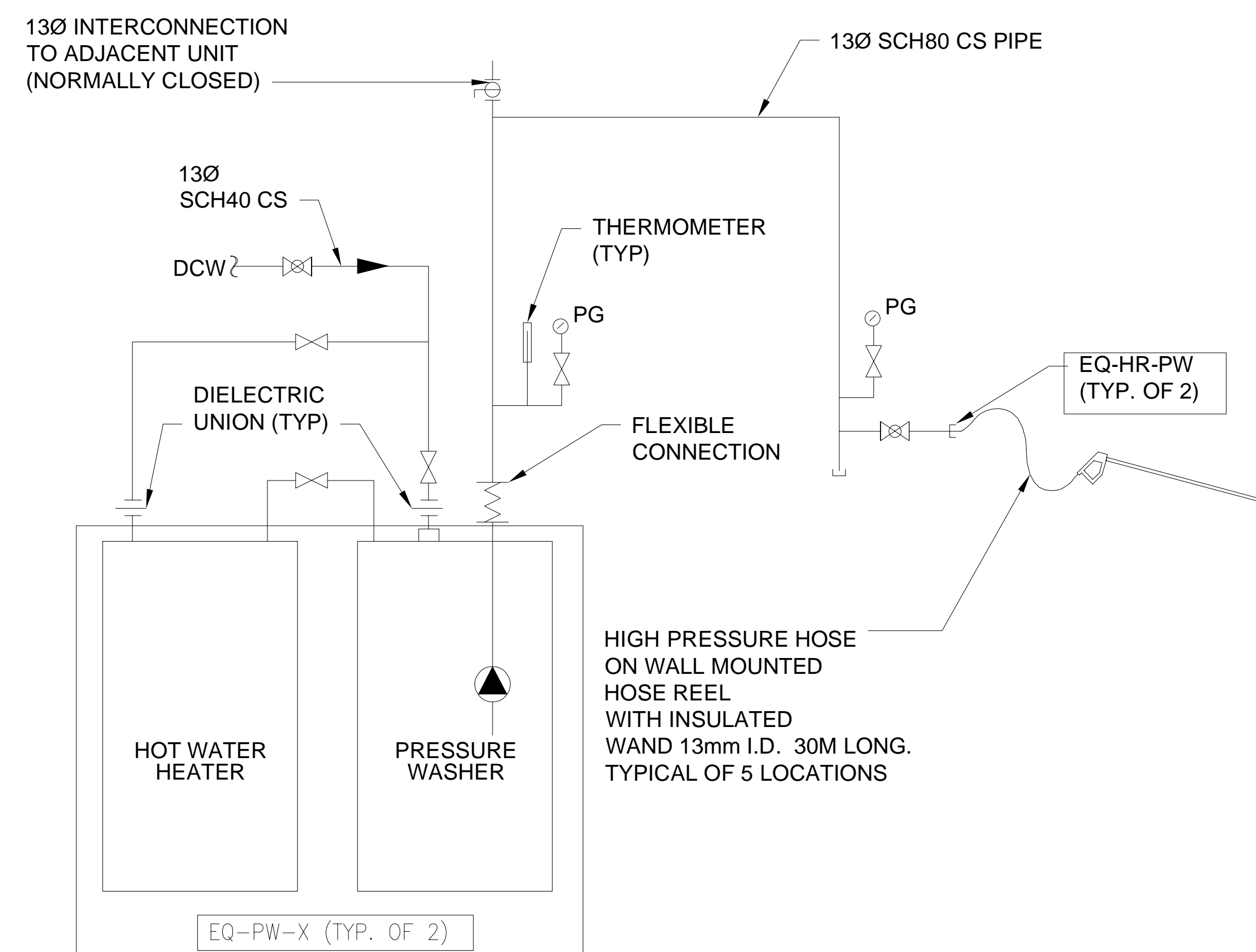
<b>3</b>	<b>TYPICAL ENGINE EXHAUST FIXED STATION</b>
50-D-607	NTS



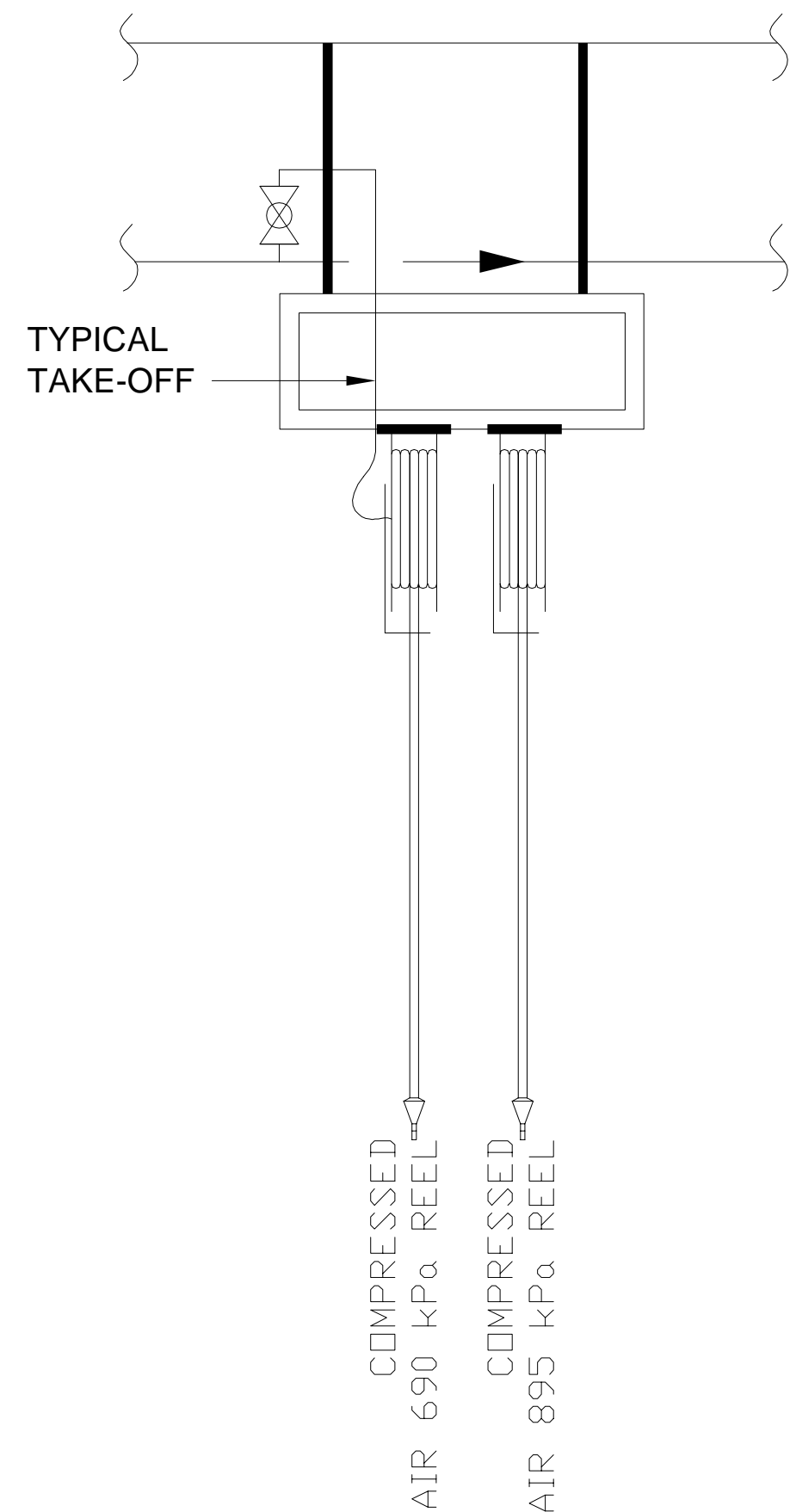
5	<b>HOT WATER HIGH PRESSURE WASHER SYSTEM-REPAIR GARAGE-STEAM BAY AND REPAIR BAYS</b>
50-D-607	NTS



<b>2</b>	<b>TYPICAL STATION SCHEMATIC</b>
50-D-607	NTS



<b>4</b>	<b>HOT WATER PRESSURE WASHER SYSTEM-SERVICE LANES-INTERIOR CLEANING LANE</b>
50-D-607	NTS



<b>6</b>	<b>COMPRESSED AIR STATION ARRANGEMENT - TYPICAL OF 6. ONE STATION SHARED BETWEEN 2 BAYS.</b>
50-D-607	NTS

ABBREVIATION	DESCRIPTION
CA	COMPRESSED AIR-SHOP 690 KPA
CAT	COMPRESSED AIR - TIRE FILL 865 KPA
GR	CHASSIS GREASE
D	DIESEL FUEL
DC	DE-IONIZED COOLANT
DEF	DIESEL EXHAUST FLUID
EC	ENGINE COOLANT
EO	ENGINE OIL
G	GASOLINE
HPW	HIGH PRESSURE WASH/ RINSE WATER
PW	PRESSURE WASHER WATER
SW	SERVICE WATER
TF	TRANSMISSION FLUID
WC	WASTE COOLANTS
WO	WASTE OILS
WWF	WINDSHIELD WASHER FLUID











SCHEDULE - INDUSTRIAL BUS CLEANING AND WASHING SYSTEMS - SEE HOSE REEL SCHEDULES FOR PRESSURE WASHER HOSE REELS.															
ITEM	DESCRIPTION, LOCATION OR AREA SERVED	Amount	MAKE	MODEL	CAPACITY		Rated Heating Input or Cooling Output	Rated Heating Output or Cooling Output	MOTOR		ELECTRICAL LOAD				
					FLOW (lpm)	PRESSURE (KPA)			GAS (kW)	ELECT (kW)	HP	kW	kW	Volts	
EQ-CV	CENTRAL VACUUM - CLEANING BAYS	1	EUROVAC	TRANSIT SERIES-S-30HP-40E-0 7503030	380	N/A	N/A	N/A	30.00	22.38	22.38	575	3	TBC	CYCLONIC PRESEPARATOR AND 99% 1 MICRON FILTRATION, 210 LITRE COLLECTOR DRUM, 4 ACTIVE DROPS WITH DUTY AND STANDBY POWER UNITS.
EQ-HR-CV	CENTRAL VACUUM - HOSE REEL	4	EUROVAC	HRPI 25-00	N/A	N/A	N/A	N/A	0.50	0.37	0.37	120	1	TBC	MOTORIZED REEL WITH 50MM DIA HOSE AND ATTACHMENTS.
EQ-HPW	PRESSURE WASHER - MANUAL - STEAM BAY	1	EASYKLEEN	EH430E72A	30	20.7 Mpa	N/A	72	15.00	11.19	83.19	575	3	84	FOR USE WITH DUAL HOSES AND HANDS. PRESSURE CONTROLLED VARIABLE SPEED PUMPING.
EQ-PW-X	PRESSURE WASHER - MANUAL - INTERIOR CLEANING	2	EASYKLEEN	EH411E48A	16	10.4 MPa	N/A	48	5.00	3.73	51.73	575	3	50	REDUCED PRESSURE FOR INTERIOR BUS SURFACE WASHING.
EQ-BW-X	BUS WASH - BUS EXTERIOR & UNDERCARRIAGE - WASH BAYS	2	WESMATIC	CUSTOM	VARIABLES	VARIABLES	N/A	N/A	VARIABLES	VARIABLES	225.00	575	3	TBC	CONFIRM ELECTRICAL AND WATER REQUIREMENTS WITH SUPPLIER.
EQ-BWU-X	BUS WASH UNDERCARRIAGE ONLY - SERVICE LANE ENTRANCE	2	WESMATIC	CUSTOM	VARIABLES	VARIABLES	N/A	N/A	VARIABLES	VARIABLES	40	575	3	TBC	CONFIRM ELECTRICAL AND WATER REQUIREMENTS WITH SUPPLIER.

SCHEDULE - INDUSTRIAL FUELING AND DEF SYSTEMS																
ITEM	DESCRIPTION, LOCATION OR AREA SERVED				PERFORMANCE DATA					MOTOR		ELECTRICAL LOAD				
					Amount	MAKE	MODEL	FLOW (LPM)	CAPACITY (L)	PRESSURE (KPA)	HOSE DIA (MM)	HOSE LENGTH (M)	HP	KW	KW	Volts
EQ-T-DAST	TANK-DIESEL FUEL STORAGE	3	QUALITY ASSURED MANUFACTURING	50K AST	N/A	50000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DOUBLE WALL ULC-S601
EQ-T-GAST	TANK - GASOLINE STORAGE	1	QUALITY ASSURED MANUFACTURING	5K AST	N/A	5000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DOUBLE WALL ULC-S601
EQ-T-DEF	TANK - DEF - INTERIOR	1	BLUE1 ENERGY	COMMERCIAL EASY-TANK	N/A	5700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	REINFORCED HDPE - VERTICAL CYLINDRICAL TANK.
EQ-DDP	DISPENSER - DIESEL - INTERIOR TO BUS - TIGHT FILL CONNECTION	4			WAYNE	SELECT S1	TBD	N/A	N/A	25	6	N/A	N/A	N/A	N/A	N/A
EQ-DDV	DISPENSER - DIESEL - EXTERIOR - VARIOUS VEHICLES - NOZZLE AND TIGHT FILL	1	WAYNE	SELECT	TBD	N/A	N/A	25	6	N/A	N/A	N/A	N/A	N/A	N/A	DUAL HOSE, TIGHT FILL - WHEATON POSILOK 105 AND AUTO SHUTOFF NOZZLE INTEGRAL PUMP. TO CSA B436-M, CSA/ULC 620
EQ-DGV	DISPENSER - GASOLINE - EXTERIOR - NOZZLE	1	WAYNE	SELECT	TBD	N/A	N/A	25	6	N/A	N/A	N/A	N/A	N/A	N/A	INTEGRAL PUMP IN CABINET DISPENSER. TO CSA B436-M, CSA/ULC 620 WITH INLINE FILTER
EQ-DEF	DISPENSER - DEF - INTERIOR- DEF TO BUS - NOZZLE TYPE	4	WAYNE	SELECT S1	TBD	N/A	N/A	TBC	6	N/A	N/A	N/A	N/A	N/A	N/A	WITH IN-LINE FILTER
EQ-DEFN	DISPENSER - DEF - EXTERIOR - NOZZLE TYPE	1	BLUE1 ENERGY	NARROW SIDE DISPENSE SD-PLT-COM-S1	TBD	1800	N/A	TBC	6	0.5	0.38	3.5	575	3	20	INTEGRATED STORAGE AND DISPENSING SYSTEM - EXTERIOR ISLAND MOUNTED. 1850L TANK, 6M DISPENSING HOSE. INTERNAL POWER PANEL ESTIMATED SUPPLY SHOWN.
EQ-PD	PUMP- BUS DIESEL FUELING SYSTEM- PUMP HOUSE	2	ALBANY	PODUP-G BS-300 SERIES WITH DUCON-VFD CONTROLLER	300	N/A	345	N/A	N/A	2 X 10	7.5	7.5	575	3	TBC	DUPLEX PUMPS WITH VFDs, OPERATING DUTY/STANDBY AND LEAD/LAG CONTROLLER - WITH FILTRATION - SKID MOUNTED
EQ-FIL-DEF	FILTER - DIESEL FUEL - PUMPHOUSE	2	CIMTEK	VIKING 1F 40187	450	N/A	1,035	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	DUPLEX ARRANGEMENT. BOTH NORMALLY ON-LINE. PUMP SKID MOUNTED
EQ-PDEF	PUMP - DEF DISPENSING SYSTEM	2	GRACO	QUANTUM I30	90	N/A	310	N/A	N/A	0.5	0.38	0.5	120	1	12	ELECTRIC DIAPHRAGM PUMP WITH LEAD/LAG CONTROLLER CONTROLLER.
EQ-LQD-LVL	FUEL AND LIQUIDS TANK AND SUMP FUEL MONITORING SYSTEM	1	OPW/TOKEN/HEIM	PROGAUGE SERIES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120	1	15	REFER TO SPECIFICATIONS
EQ-FUEL-MGMT	FUEL AND DEF DISPENSING MANAGEMENT SYSTEM	1	OPW	PETROVEND SERIES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120	1	15	REFER TO SPECIFICATIONS

Schedule - Industrial Equipment - Engine Exhaust Extraction															
Item	Description, Location or Area Served	Performance Data				Hose		Motor		Electrical Load				Comments	
		Amount	Make	Model	Flow (LPS)	Pressure (Pa)	Dia (mm)	Length (M)	HP	kW	kW	Volts	Phase		Amps
EQ-EFE	EXHAUST FAN - ENGINE EMISSIONS	3	NEEDERMAN	N29	250/500	1500	N/A	N/A	3	2.2	2.2	575	3	3.2	SHARED FOR 2 BAYS, MINIMUM 2 SPEED. SPEED CONTROLLED ACCORDING TO NUMBER OF HOSES DEPLOYED.
EQ-HR-EE	ENGINE EXHAUST HOSE REEL - REPAIR BAYS	6	NEEDERMAN	865	250	N/A	150	7.5	0.4	0.3	0.3	120	1	5	MOTORIZED HOSE REEL. SUITABLE FOR DIESEL EXHAUST EXTRACTION.

SCHEDULE - INDUSTRIAL - PIPING, VALVES AND FITTINGS - FLUID SYSTEMS DISTRIBUTION																								
				FLUID CLASSIFICATION	OPERATING ENVIRONMENT	REGISTRATION REQUIREMENTS	SIZE			PIPE			FITTINGS			VALVES				FLEXIBLE HOSE (4)		TEST (1)		
ITEM	AREA SERVED	DWG ID	APPLICATION	MANITOBA FIRE CODE APPLIES?	MINIMUM / MAXIMUM OPERATING TEMPERATURES ( C )	PROVINCIAL REGISTRATION (YES / NO)	DIAMETER (MM)	NPS	SCHEDULE OR WEIGHT	MATERIAL	GRADE	MAXIMUM WORKING PRESSURE AT 65c (KPa)	JOINT TYPE	CLASS	REFERENCE STANDARD	TYPE	END	ACTUATOR	MINIMUM PRESSURE RATING AT 65c (KPa)	REFERENCE STANDARD	MINIMUM PRESSURE RATING (KPa) (6)	SYSTEM TEST PRESSURE (KPa)	TEST MEDIUM	COMMENTS
PIPING SYSTEMS	SERVICE LANES	TBC	CENTRAL VACUUM	N/A	10 / 40	NO	50	2	10	SS	304	-VE	CLAMP	TBD	TBD	PROPRIETARY	CLAMP	PNEUMATIC	-VE	TBC	TBC	TBC	AIR	
	REPAIR BAYS, SERVICE LANES...	TBC	COMPRESSED AIR - GENERAL	N/A	10 / 40	YES	13 TO 50	1/2 TO 2	40	STEEL	ASTM A53	865	THREADED	150	ASTM B16.3	BALL	THREADED	LEVER	1035	SAE 100Rx (4)	1035	950	AIR OR WATER	(2), (3)
	CLEANING LANE	TBC	PRESSURE WASHER	N/A	10 / 40	YES	13 TO 25	1/2 TO 1	40	STEEL	ASTM A53	10.4 MPa	THREADED		ASTM B16.3	BALL	THREADED	LEVER	10.4 MPa	SAE 100Rx (4)	N/A	TBC	WATER	
	REPAIR BAYS	TBC	HIGH PRESSURE WASHER	N/A	10 / 40	YES	13 TO 25	1/2 TO 1	40	STEEL	ASTM A53	20.7 Mpa	THREADED		ASTM B16.3	BALL	THREADED	LEVER	20.7 Mpa	SAE 100Rx (4)	N/A	TBC	WATER	
	SERVICE LANES	TBC	WINDSHIELD WASHER FLUID	YES	10 / 40	N	13 TO 50	1 TO 2	40	STEEL	ASTM A53	690	THREADED	150	ASTM B16.3	BALL	THREADED	LEVER	690	SAE 100Rx (4)	N/A	950	WATER	
	REPAIR BAYS	TBC	COMPRESSED AIR ...	N/A	10 / 40	YES	13 TO 50	1/2 TO 2	40	STEEL	ASTM A53	865	THREADED	150	ASTM B16.3	BALL	THREADED	LEVER	1035	SAE 100Rx (4)	1035	950	AIR OR...	(2), (3)
	SERVICE LANES	TBC	DEF	NO	10 / 40	TBC	13 TO 50	1 TO 2	10	SS304	ASTM A312	690	BUTT WELDED	150	ASTM A403	BALL	FLANGED	LEVER	690	DEF	TBC	TBC	WATER	
	EXTERIOR - UNDERGROUND	TBC	DIESEL FUEL	YES	-40 / 40	FUEL	75	3	N/A	DOUBLE WALL THERMOPLASTIC - KYNAR P.V.D.F. (OPW FLEXWORKS)	CAN ULC S660	510	TO SUIT SYSTEM	N/A	N/A	N/A	N/A	N/A	510	N/A	N/A	MANUFACTURER RECOMMENDATIONS	MANUFACTURER RECOMMENDATIONS	(2), (3)
	EXTERIOR ...	TBC	DIESEL FUEL	YES	-40 / 40	FUEL	25 TO 50	1 TO 2	40	STEEL	ASTM A5...	510	WELDED	150	N/A	BALL	FLANGED	N/A	510	N/A	N/A	TBC	TBC	(2), (3)
	INTERIOR ...	TBC	DIESEL FUEL	YES	10 / 40	FUEL	25 TO 75	1 TO 3	40	STEEL	ASTM A53	510	THREADED	150	ASTM B16.3	BALL	FLANGED	LEVER	510	N/A	N/A	TBC	TBC	
	EXTERIOR ...	TBC	GASOLINE	YES	-40 / 40	FUEL	25	1	40	STEEL	ASTM A5...	510	TO SUIT...	150	ASTM B16.3	BALL	WELDED	FLANGED	510	N/A	N/A	TBC	TBC	(2), (3)
	REPAIR BAYS	TBC	ENGINE OIL	N/A	10 / 40	TBC	20 TO 50	3/4 TO 2	40	STEEL	ASTM A5...	3100	THREADED	300	ASTM B16.3	BALL	THREADED	LEVER	1035	SAE 100Rx (4)	3100	TBC	TBC	(2), (3)
REPAIR BAYS	TBC	GREASE	N/A	10 / 40	TBC	20 to 32	3/4 to...	160	STEEL	ASTM...	31 MPa	THREADED...	6000	ASME B16.11	BALL	WELDED	LEVER	31 MPa	SAE 100Rx (4)	31 MPa	TBC	TBC	(2), (3)	
REPAIR BAYS	TBC	ENGINE COOLANT	N/A	10 / 40	TBC	20 to 50	3/4 to 2	40	STEEL	ASTM A53 or A106 B	3100	THREADED	300	ASTM B16.3	BALL	THREADED	LEVER	1035	SAE 100Rx (4)	3100	TBC	TBC	(2), (3)	
REPAIR BAYS	TBC	WASTE OIL	N/A	10 / 40	TBC	25 TO 50	1 to 2	40	STEEL	ASTM A53 or A106 B	510	THREADED	150	ASTM B16.3	BALL	THREADED	LEVER	1035	SAE 100Rx (4)	510	TBC	TBC	(2), (3), (5)	
REPAIR BAYS	TBC	WASTE COOLANT	N/A	10 / 40	TBC	25 TO 50	1 to 2	40	STEEL	ASTM A53 or A106 B	510	THREADED	150	ASTM B16.3	BALL	THREADED	LEVER	1035	SAE 100Rx (4)	510	TBC	TBC	(2), (3)	
(1) PRIOR TO TESTING, ISOLATE ALL EQUIPMENT NOT RATED FOR TEST PRESSURE LISTED.																								
(2) ALL PIPING, MATERIAL AND INSTALLATION WORK IS SUBJECT TO PROVINCE OF MANITOBA INSPECTION AND APPROVAL. REFER TO SPECIFICATION SECTION.																								
(3) LIST DESIGN / REGISTRATION NUMBER AS PART OF AS-BUILT INFORMATION.																								
(4) TO THE REQUIREMENTS OF THE ASSOCIATION FOR RUBBER PRODUCTS MANUFACTURERS (ARPM/RMA) INDUSTRIAL COMPRESSED AIR HOSE, RMA CLASS A OIL RESISTANCE, AND THE SPECIFICATIONS.																								
(5) GASOLINE VEHICLES THIS WASTE OIL SUBJECT TO RECLASSIFICATION AS COMBUSTIBLE/FLAMMABLE																								

SCHEDULE - MONORAIL HOISTS														
ITEM	DESCRIPTION, LOCATION OR AREA SERVED	AMOUNT	BEAM CAPACITY (TONNES)	MAKE	MODEL	HW / FEM	HOIST CAPACITY (TONNES)	LIFTING SPEED (M / MINUTE)	TROLLEY TRAVEL SPEED (M / MINUTE)	HP (HOIST / TROLLEY)	Kw (HOIST / TROLLEY)	Volts	Phase	COMMENTS
EQ-MONOH-1, 5	HOIST AND TROLLEY - CHAIN TYPE - REPAIR BAY MONORAILS	6	1	KITO	ER2-M1010 IL -TSC	H3 / 1Am	1	1 / 4.3	24 / 4	1.2 / 0.5	1.0 / 0.37	575	3	MOTORIZED HOIST AND TROLLEY. SEPARATE C-FESTOON TRACK. RADIO REMOTE CONTROLLED. CONFIRM INTERLOCK REQUIREMENTS WITH ANY FALL PROTECTION SYSTEMS.

SCHEDULE - INDUSTRIAL - HOSE REELS - SEE ALSO EXHAUST SYSTEM FOR ENGINE EXHAUST HOSE REELS													
ITEM	DESCRIPTION, LOCATION OR AREA SERVED					PERFORMANCE DATA			MOTOR		POWER		
		Amount	MAKE	MODEL	HOSE DIA (MM)	HOSE LENGTH (M)	FLOW (LPM)	OPERATING PRESSURE (KPA)	HP	KW	VOLT	PHASE	
EQ-HR-DCW	HOSE REEL - DOMESTIC COLD WATER - WINDSHIELD WASH FL - SERVICE LANES	4	HANNAY	SERIES 700	13	23	N/A	10.3 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-EC	HOSE REEL - ENGINE COOLANT	3	HANNAY	SERIES 700	13	16	N/A	10.3 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-ED	HOSE REEL - ENGINE OIL	3	HANNAY	SERIES 700	13	16	N/A	10.3 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-GR	HOSE REEL - GREASE	3	HANNAY	SERIES 700	8	23	N/A	51.7 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-HPW	HOSE REEL - REPAIR GARAGE PRESSURE WASHING	5	HANNAY		13	23	N/A	12.5 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-PW	HOSE REEL - SERVICE LANES INTERIOR CLEANING PRESSURE WASHER	5	HANNAY	SERIES E1500	10	23	N/A	8.2MPa	0.50	0.38	120	1	SPRING RETURN
EQ-HR-TF	HOSE REEL - TRANSMISSION FLUID	3	HANNAY	SERIES 700	13	16	N/A	10.3 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-WWF	HOSE REEL - WINDSHIELD WASHER FLUID	4	HANNAY	SERIES 700	13	23	N/A	10.3 MPa	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-CA	HOSE REEL COMPRESSED AIR - GENERAL SHOP	7	HANNAY	SERIES 700	13	23	N/A	690	N/A	N/A	N/A	N/A	SPRING RETURN
EQ-HR-CAT	HOSE REEL COMPRESSED AIR - TIRE FILL	7	HANNAY	SERIES 700	13	23	N/A	845	N/A	N/A	N/A	N/A	SPRING RETURN

SCHEDULE - INDUSTRIAL COMPRESSED AIR SYSTEMS - SEE ALSO HOSE REEL SCHEDULE															
ITEM	DESCRIPTION, LOCATION OR AREA SERVED				PERFORMANCE DATA			MOTOR			ELECTRICAL LOAD				
		Amount	MAKE	MODEL	FLOW (LPM)	FLOW (LPS)	at PRESSURE (KPA)	VOLUME (L)	HP	kW	Volts	Phase	Amps		
EQ-AC-G1	AIR COMPRESSOR - GENERAL SHOP COMPRESSED AIR - VARIABLE SPEED	1	INGERSOLL-RAND	RS30N	5520	92	690	N/A	40	30.24	575	3	49	WITH XE70 SEQUENCING CONTROLLER	
EQ-AC-G2	AIR COMPRESSOR - GENERAL SHOP COMPRESSED AIR - FIXED SPEED	1	INGERSOLL-RAND	RS18A125	3000	50	690	N/A	25	18.9	575	3	33	SUITABLE FOR USE WITH XE70 SEQUENCING CONTROLLER	
EQ-AC-TF1	AIR COMPRESSORS/RECEIVER - TIRE FILL COMPRESSED AIR	1	INGERSOLL-RAND	2-2475ET5P	2 X 675	2 x 11.3	865		2 x 7.5	2 x 5.7	575	3	2 x 9	DUPLEX 7.5HP COMPRESSOR ON COMMON RECEIVER. DATA SHOWN FOR BOTH COMPRESSORS OPERATING. FLX 9 AMPS PER COMPRESSOR.	
EQ-AD-G	AIR DRYER - REFRIGERANT TYPE - GENERAL SHOP COMPRESSED AIR	1	INGERSOLL-RAND	NVC-200	5640	94	690	N/A	N/A	N/A	575	3	3.1	WITH AUTO-DRAIN	
EQ-AD-TF	AIR DRYER - REFRIGERANT TYPE - TIRE FILL COMPRESSED AIR	1	INGERSOLL-RAND	DABSEC	1415	24	845	N/A	N/A	N/A	120	1	8.9	WITH AUTO-DRAIN. SIZE FOR BOTH TIRE FILL COMPRESSORS OPERATING AT ONCE.	
EQ-AF-G1a	FILTER - GENERAL SHOP COMPRESSED AIR	1	INGERSOLL-RAND	F430NG-NLM-250	7050	118	690	N/A	N/A	N/A	N/A	N/A	N/A	AUTO-DRAIN	
EQ-AF-G1b	FILTER - GENERAL SHOP COMPRESSED AIR	1	INGERSOLL-RAND	FA400-H	6660	111	690	N/A	N/A	N/A	N/A	N/A	N/A	AUTO-DRAIN	
EQ-AF-TF1a	FILTER - TIRE FILL COMPRESSED AIR -	1	INGERSOLL-RAND	FA75-IG	1270	21	845	N/A	N/A	N/A	N/A	N/A	N/A	AUTO-DRAIN	
EQ-AF-TF1b	FILTER - TIRE FILL COMPRESSED AIR -	1	INGERSOLL-RAND	FA75-IH	1270	21	845	N/A	N/A	N/A	N/A	N/A	N/A	AUTO-DRAIN	
EQ-AR-G1	RECEIVER - GENERAL SHOP COMPRESSED AIR - REPAIR GARAGE		SAMUEL	V10098	N/A	N/A	1035	900	N/A	N/A	N/A	N/A	N/A	MINIMUM 1035kPA RATING. ASME WITH PRESSURE RELIEF VALVE	
EQ-AR-G2	RECEIVER - GENERAL SHOP COMPRESSED AIR - SERVICE AREAS	1	SAMUEL	V10098	N/A	N/A	1035	900	N/A	N/A	N/A	N/A	N/A	MINIMUM 1035kPA RATING. ASME WITH PRESSURE RELIEF VALVE	

SCHEDULE - INDUSTRIAL - PUMPS - BUS SERVICING FLUIDS (SEE ALSO TANKS AND COMPRESSED AIR SCHEDULE)												
ITEM	DESCRIPTION, LOCATION OR AREA SERVED	PERFORMANCE DATA			MOTOR		ELECTRICAL LOAD					
		Amount	MAKE	MODEL	FLOW (LPM)	PRESSURE (KPA)	HP	kW	Volts		Phase	Amps
EQ-P-EC	PUMP - ENGINE COOLANT	2	GRACO	HUSKY 1050 TBC	189	FREE FLOW	N/A	N/A	N/A	N/A		PNEUMATIC DIAPHRAM PUMP @ 600kPa INPUT
EQ-P-EC	PUMP - ENGINE OIL	2	GRACO	Fireball 300 - 5.1	19	2.0MPa	N/A	N/A	N/A	N/A		PNEUMATIC PISTON PUMP @ 600kPa INPUT
EQ-P-GR	PUMP - GREASE DRUMS	2	GRACO	Fireball 425 - 50.1	10.1-18 KG/Min	24.1 Mpa	N/A	N/A	N/A	N/A		PNEUMATIC PISTON PUMP PACKAGE: 10:1 @ 600kPa INPUT, WITH PUMP LIFT SYSTEM
EQ-P-WWF	PUMP - WINDSHIELD WASHER FLUID	2	GRACO	QUANTUM 130	90	310	0.50	0.37	120	1	12	ELECTRICAL DIAPHRAM PUMPS WITH LEAD/LAG PRESSURE CONTROLLER. RATED FOR FLUID TEMP TO 40C
EQ-P-WC	PUMP - WASTE COOLANT	2	GRACO	HUSKY 1050 TBC	189	FREE FLOW	N/A	N/A	N/A	N/A		PNEUMATIC DIAPHRAM PUMP @ 600kPa INPUT
EQ-P-WO	PUMP - WASTE OIL	2	GRACO	HUSKY 1050 TBC	189	FREE FLOW	N/A	N/A	N/A	N/A		PNEUMATIC DIAPHRAM PUMP @ 600kPa INPUT

SCHEDULE - INDUSTRIAL BUS LIFTING SYSTEMS											
ITEM	DESCRIPTION, LOCATION OR AREA SERVED				MINIMUM SYSTEM TOTAL CAPACITY (KG)	MOTOR		ELECTRICAL LOAD			Comments
		Amount	MAKE	MODEL		HP	kW	Volts	Phase	Amps	
EQ-BLRWY-WB	BUS LIFT - RUNWAY TYPE - REPAIR (WASH) BAY#6	1	STERTL-KONI	SKYLIFT 250-78	34,100	3 X 5	3 X 4	575	3	25	FOR WET LOCATION, INCLUDING GALVANIZED FINISH, WITH FRONT WHEEL PIVOT PADS
EQ-BLRWY	BUS LIFT - RUNWAY TYPE - REPAIR BAY #5	1	STERTL-KONI	SKYLIFT 250-78	34,100	18.7	14	575	3	18	WITH FRONT WHEEL PIVOT PADS
EQ-BL3P-X	BUS LIFT - 3 POST TYPE - REPAIR BAYS 1 THROUGH 4	4	STERTL-KONI	DIAMOND LIFT 96	43,600	18.7	14	575	3	18	1 FIXED AND 2 ADJUSTABLE LOCATIONS.

SCHEDULE - INDUSTRIAL - TANKS - BUS SERVICING FLUIDS STORAGE TANKS						
ITEM	DESCRIPTION, LOCATION OR AREA SERVED				CAPACITY (L)	Comments
		Amount	MAKE	MODEL		
EQ-T-EC	TANK - ENGINE COOLANT	1	FOREMOST	RECTANGULAR	2500	DOUBLE WALL ULC-S602
EQ-T-EO	TANK - ENGINE OIL	1	FOREMOST	RECTANGULAR	2500	DOUBLE WALL ULC-S602
EQ-T-WWF	TANK - WINDSHIELD WASHER FLUID EXTERIOR	1	QUALITY ASSURED MANUFACTURING	HORIZONTAL CYLINDRICAL	5000	DOUBLE WALL ULC-S601
EQ-T-WC	TANK - WASTE COOLANT - EXTERIOR	1	FOREMOST	HORIZONTAL CYLINDRICAL	2000	DOUBLE WALL ULC-S652 2HR FIRE RATED TANK IF INSTALLED LESS THAN 3M FROM WALL OPENING.
EQ-T-WO	TANK - WASTE OIL - EXTERIOR	1	FOREMOST	HORIZONTAL CYLINDRICAL	1360	DOUBLE WALL ULC-S652 2HR FIRE RATED TANK IF INSTALLED LESS THAN 3M FROM WALL OPENING.

**AECOM**

**PROJECT**  
**WINNIPEG NORTH GARAGE**  
**REPLACEMENT**  
100 Oak Point Hwy, Winnipeg, MB R2R 1V1

**CLIENT**



City of Winnipeg  
510 Main St.  
Winnipeg, MB R3B 1B9  
1.877.311.4974



Winnipeg Transit  
B-414 Osborne St.  
Winnipeg, MB R3L 2A1

CONSULTANT

AECOM CANADA ULC  
99 Commerce Dr,  
Winnipeg, MB R3P 0Y7

## REGISTRATION

### ISSUE/REVISION

O	02/19/2025	ISSUED FOR TENDER
C	12/06/2024	ISSUED FOR 66% DESIGN RESUBMISSION
B	08/12/2024	ISSUED FOR 66% DESIGN
A	03/28/2024	ISSUED FOR SCHEMATIC
I/R	DATE	DESCRIPTION

PROJECT NUMBER

**SHEET TITLE**

## INDUSTRIAL SCHEDULES

**SHEET NUMBER**

**50-D-610**