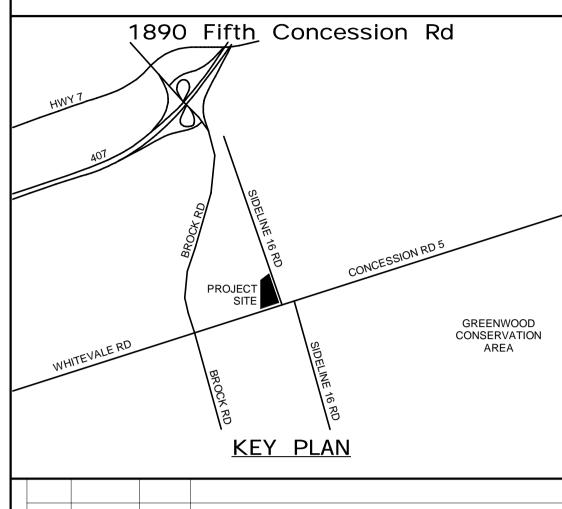


SHEET LIST							
No.	NAME	REV. NO.	CURRENT REVISION	DATE			
	- PHASE 1		LOCUED FOR CONSTRUCTION	00/44/0000			
A-000	COVER PAGE - PHASE 1	3	ISSUED FOR CONSTRUCTION	03/14/2022			
GEOTHER	MAI						
GEOTHER G-101	GROUND HEAT EXCHANGER LAYOUT	3	ISSUED FOR CONSTRUCTION	03/14/2022			
G-101 G-102	GROUND HEAT EXCHANGER DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
G-102 G-103	GROUND HEAT EXCHANGER DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
0 100	ONOGINE HEAT EXCHANGEN BETAILE	0	ISSEE FOR SOMETHOUTIEN	00/14/2022			
CIVIL							
C-101	EROSION & SEDIMENT CONTROL	3	ISSUED FOR CONSTRUCTION	03/14/2022			
C-102	SITE SERVICING PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022			
C-103	SITE GRADING PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022			
C-104	DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
C-105	DRAINAGE AREAS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
		•					
LANDSCA	PE						
L-100	LANDSCAPE SITE PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022			
L-101	LANDSCAPE SITE PLAN ENLARGMENTS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
L-102	LAYOUT PLAN AND DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
L-103	LANDSCAPE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
L-104	LANDSCAPE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
L-105	LANDSCAPE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
4 DOLUTEO	ATURAL BUAGE 4						
	TURAL - PHASE 1		LOCUED FOR CONCERNATION	00/44/0000			
A-001	GENERAL NOTES	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-002	OBC MATRIX & LIFE SAFETY PLAN - PHASE 1	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-003	DOOR SCHEDULE GLAZING SCHEDULE	4	ISSUED FOR CONSTRUCTION ISSUED FOR CONSTRUCTION	03/14/2022			
A-004 A-005	GLAZING SCHEDULE	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-100	SITE PLAN - PHASE 1	5	ISSUED FOR CONSTRUCTION	03/14/2022			
A-100 A-101	SITE DETAILS	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-101 A-102	SIGNAGE DETAIL	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-103	GARBAGE ENCLOSURE PLANS AND DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-200	FOUNDATION PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-201	FLOOR PLAN - PHASE 1	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-202	WASHROOM FLOOR PLANS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-203	WASHROOM FLOOR PLANS	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-204	WASHROOM DETAILS	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-300	REFLECTED CEILING PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-400	ROOF PLAN - PHASE 1	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-401	ROOF PLAN DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-500	EXTERIOR ELEVATIONS - PHASE 1	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-501	EXTERIOR ELEVATIONS - PHASE 1	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-502	BRICK PORTAL PLANS AND DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-600	BUILDING SECTIONS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-601	BUILDING SECTIONS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-700	WALL SECTIONS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-701	WALL SECTIONS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-702	WALL SECTIONS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-703	WALL SECTIONS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-800	SECTION DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-801	SECTION DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-802	SECTION DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-803	SECTION DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-804	PLAN DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-900	INTERIOR FINISHES - PHASE 1	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-902	FURNITURE AND EQUIPMENT PLAN - PHASE 1	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-920 A-921	INTERIOR ELEVATIONS AND MILLWORK INTERIOR ELEVATIONS AND MILLWORK	3	ISSUED FOR CONSTRUCTION ISSUED FOR CONSTRUCTION	03/14/2022			
A-921 A-922	INTERIOR ELEVATIONS AND MILLWORK INTERIOR ELEVATIONS AND TILE LAYOUT	3	ISSUED FOR CONSTRUCTION	03/14/2022			
A-922 A-923	INTERIOR ELEVATIONS AND TILE LAYOUT	4	ISSUED FOR CONSTRUCTION	03/14/2022			
A-923 A-924	INTERIOR ELEVATIONS AND TILE LATOUT	3	ISSUED FOR CONSTRUCTION	03/14/2022			
		1.0	HOUDED I ON CONSTRUCTION	1 UJ/ 14/ ZUZZ			

No.	NAME	REV. NO.	CURRENT REVISION	DATE
NO.	INAMIE	NO.	CORRENT REVISION	DAIL
STRUCTU	JRAL - PHASE 1			
S-100	GENERAL NOTES AND LOADING - SHEET 1 OF 2	2	RESPONSE TO CITY COMMENTS	10/18/21
S-101	GENERAL NOTES AND LOADING - SHEET 2 OF 2	3	ADDENDUM #1	10/18/21
S-102	DETAILS SHEET 1 OF 7	2	RESPONSE TO CITY COMMENTS	10/18/21
S-103	DETAILS SHEET 2 OF 7	2	RESPONSE TO CITY COMMENTS	10/18/21
S-104	DETAILS SHEET 3 OF 7	2	RESPONSE TO CITY COMMENTS	10/18/21
S-105	DETAILS SHEET 4 OF 7	2	RESPONSE TO CITY COMMENTS	10/18/21
S-106	DETAILS SHEET 5 OF 7	2	RESPONSE TO CITY COMMENTS	10/18/21
S-107	DETAILS SHEET 6 OF 7	2	RESPONSE TO CITY COMMENTS	10/18/21
S-108	DETAILS SHEET 7 OF 7	3	ADDENDUM #3	12/09/21
S-200	FOUNDATION PLAN	3	ADDENDUM #3	12/09/21
S-201	FLOOR SLAB PLAN	2	RESPONSE TO CITY COMMENTS	10/18/21
S-202	MASONRY LINTEL PLAN	2	RESPONSE TO CITY COMMENTS	10/18/21
S-203	ROOF FRAMING PLAN - OFFICE	2	RESPONSE TO CITY COMMENTS	10/18/21
S-204	ROOF FRAMING PLAN - VEHICLE BAY	2	RESPONSE TO CITY COMMENTS	10/18/21
S-401	FRAMING ELEVATIONS	2	RESPONSE TO CITY COMMENTS	10/18/21
S-500	SECTIONS SHEET 1 OF 6	2	RESPONSE TO CITY COMMENTS	10/18/21
S-501	SECTIONS SHEET 2 OF 6	2	RESPONSE TO CITY COMMENTS	10/18/21
S-502	SECTIONS SHEET 3 OF 6	2	RESPONSE TO CITY COMMENTS	10/18/21
S-503	SECTIONS SHEET 4 OF 6	2	RESPONSE TO CITY COMMENTS	10/18/21
S-504	SECTIONS SHEET 5 OF 6	2	RESPONSE TO CITY COMMENTS	10/18/21
S-505	SECTIONS SHEET 6 OF 6	2	RESPONSE TO CITY COMMENTS	10/18/21
MECHAN	ICAL			
M-000	MECHANICAL LEGENDS AND DRAWING LIST	2	ISSUED FOR CONSTRUCTION	03/14/22
M-001	MECHANICAL SITE PLAN	2	ISSUED FOR CONSTRUCTION	03/14/22
M-100	UNDERSLAB PLAN - DRAINAGE	2	ISSUED FOR CONSTRUCTION	03/14/22
M-101	FLOOR PLAN - DRAINAGE	2	ISSUED FOR CONSTRUCTION	03/14/22
M-200	FLOOR PLAN - PLUMBING & FIRE PROTECTION	2	ISSUED FOR CONSTRUCTION	03/14/22
M-300	FIRST FLOOR PLAN - HVAC	3	ISSUED FOR CONSTRUCTION	03/14/22
M-301	FLOOR PLAN - HYDRONIC HEATING & COOLING	2	ISSUED FOR CONSTRUCTION	03/14/22
M-400	ROOF PLAN - MECHANICAL	2	ISSUED FOR CONSTRUCTION	03/14/22
M-500	MECHANICAL ROOM ENLARGED PLAN-1	2	ISSUED FOR CONSTRUCTION	03/14/22
M-501	MECHANICAL ROOM ENLARGED PLAN-2	2	ISSUED FOR CONSTRUCTION	03/14/22
M-502	WASHROOM ENLARGED PLAN	2	ISSUED FOR CONSTRUCTION	03/14/22
M-503	MECHANICAL ENLARGED SECTION	2	ISSUED FOR CONSTRUCTION	03/14/22
M-504	MECHANICAL ISOMETRIC VIEWS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-505	MECHANICAL ISOMETRIC VIEWS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-600	MECHANICAL SCHEMATICS I	2	ISSUED FOR CONSTRUCTION	03/14/22
M-601	MECHANICAL SCHEMATICS II	2	ISSUED FOR CONSTRUCTION	03/14/22
M-602	MECHANICAL SCHEMATICS III	2	ISSUED FOR CONSTRUCTION	03/14/22
M-700	MECHANICAL SCHEDULES	2	ISSUED FOR CONSTRUCTION	03/14/22
M-701	MECHANICAL SCHEDULES	2	ISSUED FOR CONSTRUCTION	03/14/22
M-702	MECHANICAL SCHEDULES	2	ISSUED FOR CONSTRUCTION	03/14/22
M-703	MECHANICAL SCHEDULES	2	ISSUED FOR CONSTRUCTION	03/14/22
M-704	MECHANICAL SCHEDULES	2	ISSUED FOR CONSTRUCTION	03/14/22
M-800	MECHANICAL STANDARD DETAILS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-801	MECHANICAL STANDARD DETAILS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-802	MECHANICAL STANDARD DETAILS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-803	MECHANICAL STANDARD DETAILS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-804	MECHANICAL STANDARD DETAILS	2	ISSUED FOR CONSTRUCTION	03/14/22
M-805	MECHANICAL STANDARD DETAILS	2	ISSUED FOR CONSTRUCTION	03/14/22

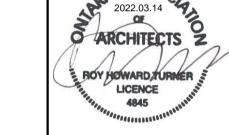
No.	NAME	REV. NO.	CURRENT REVISION	DATE
	CAL - PHASE 1	1101	JOHN ENT NEWSON	
E-001	ELECTRICAL LEGEND AND GENERAL NOTES 1 OF 2	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-002	ELECTRICAL LEGEND AND GENERAL NOTES 2 OF 2	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-101	SITE LIGHTING PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-102	SITE POWER PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-103	ENLARGE SITE POWER PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-104	ELECTRICAL SITE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-105	ELECTRICAL SITE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-106	ELECTRICAL SITE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-107	ELECTRICAL SITE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-108	ELECTRICAL SITE DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-201	OVERALL LIGHTING PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-202	ENLARGED PARTIAL LIGHTING PLAN SHEET 1 OF 2	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-203	ENLARGED PARTIAL LIGHTING PLAN SHEET 2 OF 2	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-301	POWER PLAN	4	ISSUED FOR CONSTRUCTION	03/14/2022
E-302	MECHANICAL POWER PLAN	4	ISSUED FOR CONSTRUCTION	03/14/2022
E-303	ROOF POWER PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-304	ENLARGED PLANS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-401	SECURITY AND SYSTEMS PLAN	4	ISSUED FOR CONSTRUCTION	03/14/2022
E-501	FIRE ALARM PLAN	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-502	FIRE ALARM ZONE PLAN, RISER DIAGRAM AND DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-601	SINGLE LINE DIAGRAM	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-602	ELECTRICAL DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-603	ELECTRICAL DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-604	ELECTRICAL DETAILS	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-701	ELECTRICAL SCHEDULES	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-702	ELECTRICAL SCHEDULES	3	ISSUED FOR CONSTRUCTION	03/14/2022
E-703	ELECTRICAL PHASE 1 & 2 SCHEDULES	4	ISSUED FOR CONSTRUCTION	03/14/2022
E-704	ELECTRICAL PHASE 1 & 2 SCHEDULES	3	ISSUED FOR CONSTRUCTION	03/14/2022



PRIME CONSULTANT

NO. DATE. NAME

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



REVISIONS

SUB CONSULTANT

www.aecom.com

DESIGN BY: JC / GG	SCALE:
DRAWN BY: TH / MR	DATE: 10/06/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

| SNO | SING | S



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING COVER PAGE - PHASE 1

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	A- 000	

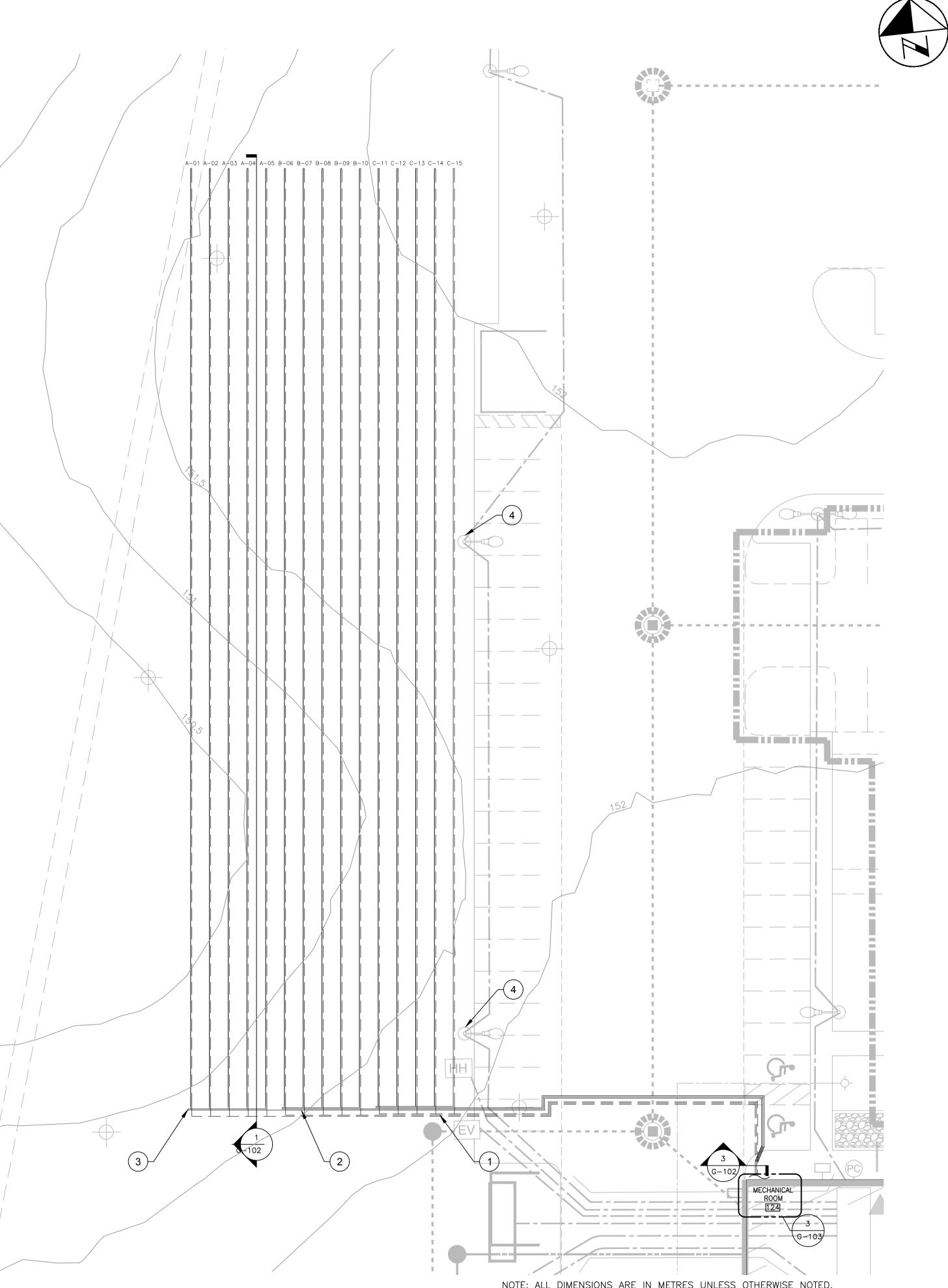
GENERAL NOTES:

- 1. EARTH ENERGY SYSTEM HAS BEEN DESIGN AS PER CSA STANDARD C448-13. CONTRACTOR SHALL TAKE CARE TO ENSURE ALL INSTALLATION PROCEDURES CONFORM WITH THIS STANDARD.
- 2. THE GROUND HEAT EXCHANGER (GHX) CONSISTS OF 30 HORIZONTALLY DRILLED BOREHOLES AND 15 CIRCUITS. EACH BOREHOLE TO BE 76.2m [250'] IN LENGTH AND CIRCUIT TO BE 152.4m [500] IN LENGTH AND HAVE FOUR PASSES, WITH 32mm [1.25"] HDPE SDR11 PE4710 PIPE FOR A TOTAL OF 4,572m [15,000'] OF PIPING. CIRCUITS ARE CONNECTED BY THREE PAIRS OF 75mm [3"] Ø HDPE SDR11 RUNOUT PIPES, WITH 5 CIRCUITS PER RUNOUT 16. PIPE, AND MAINTAIN A MINIMUM OF 1.5m [5'] ON CENTRE SPACING, UNLESS OTHERWISE NOTED. ADJACENT BOREHOLES ARE TO BE DRILLED TO ALTERNATING DEPTHS AT 144.5m [474.1'] OBV. AND 141.45m [464.1'] OBV. RESPECTIVELY AND COMBINED TO MAKE EACH CIRCUIT.
- BOREHOLE LABELING SCHEME IS: RUNOUT LETTER -CIRCUIT #.
- AVOID SHARP BENDS IN PIPING. MINIMUM BEND RADIUS IS 25 TIMES THE OUTER DIAMETER FOR ANY PIPE CURVATURE. USE ELBOWS FOR ALL SMALLER
- ALL TRENCHES AND PIPING TO BE A MINIMUM OF 1.5m [5'] FROM PROPERTY LINES AND BUILDING STRUCTURES.
- 6. NO PETROLEUM BASED PRODUCTS ARE TO BE IN CONTACT WITH HDPE PIPE.
- 7. ALL PIPES AND FITTINGS ARE TO BE PE 4710 RESIN.
- SOCKET FUSION (NOT GREATER THAN 51mm (2")), BUTT FUSION, OR ELECTROFUSION, AS PER MANUFACTURERS INSTRUCTIONS, ARE THE ONLY ACCEPTABLE METHODS OF JOINING HDPE PIPE.
- 9. FUSIONS ARE TO BE PERFORMED BY ACCREDITED FUSION INSTALLERS.
- 10. ALL INDIVIDUAL CIRCUITS TO BE CAPPED WITH PERMANENT PLUGS IMMEDIATELY AFTER INSTALL TO PREVENT DEBRIS FROM ENTERING.
- 11. BEFORE BACKFILL ALL PIPING MUST BE PRESSURE TESTED TO 690 kPa [100 psig] FOR 48 HOURS. PRESSURE TESTING START AND FINISH PRESSURES AND TIMES TO BE WITNESSED BY CONSULTANT OR DESIGNATED REPRESENTATIVE.
- 12. A FIELD INSPECTION OF THE GHX MUST BE PERFORMED BY THE CONSULTANT PRIOR TO BACKFILL.

DRAWING NOTES:

- 1. FINAL GRADE IS ESTIMATED AT 152.0m MAINTAIN MINIMUM DEPTH OF GHX RUNOUT PIPES. CONFIRM FINAL GRADE ON-SITE.
- 2. FINAL GRADE IS ESTIMATED AT 151.5m MAINTAIN MINIMUM DEPTH OF GHX RUNOUT PIPES. CONFIRM FINAL GRADE
- 3. FINAL GRADE IS ESTIMATED AT 151.0m MAINTAIN MINIMUM DEPTH OF GHX RUNOUT PIPES. CONFIRM FINAL GRADE ON-SITE.
- 4. HORIZONTAL DRILLED BOREHOLE CIRCUIT PIPE TO BE A MINIMUM 3m BELOW FINISH GRADE AT THIS LOCATION. COORDINATE AS-BUILT ELEVATION WITH ELECTRICAL TO ENSURE THAT THE BOTTOM OF THE LIGHT POLE FOOTING IS TO BE INSTALLED A MINIMUM OF 500 MM ABOVE THE TOP OF HORIZONTAL BOREHOLE CIRCUIT PIPE.

- 13. A METALLIC TRACER WIRE, CAPABLE OF BEING FOUND BY CONVENTIONAL TRACING EQUIPMENT MUST BE INSTALLED WITH ALL RUNOUT PIPING, HEADERS AND OUTSIDE CIRCUITS. WARNING TAPE TO BE BURIED 460mm [1.5'] ABOVE ALL TRENCHED PIPE.
- 14. ALL TRENCHES TO BE BACKFILLED USING EXCAVATED SPOILS OR OTHER NATIVE SOIL IF SUITABLE FOR BACKFILL.
- CONTRACTOR RESPONSIBLE FOR ON-SITE CLEANLINESS, AND DISPOSING OF ANY EXCESS WATER.
- CONTRACTOR SHALL CARRY AN ENVIRONMENTAL COMPLIANCE APPROVAL (ECA) RELATING TO THE CONSTRUCTION OF A CLOSED LOOP GROUND SOURCE HEAT EXCHANGER AS DEFINED IN THE O.REG. 98/12 MADE UNDER THE ENVIRONMENTAL PROTECTION ACT (EPA). CONTRACTOR IS RESPONSIBLE FOR ALL COSTS RELATED TO MAINTAINING THE WORK PLAN, INCLUDING DELAYS OF UP TO 24 HOURS DUE TO VENTING OF ANY NATURAL GAS FOUND ON-SITE DURING DRILLING.
- 17. INSTALLATION OF GHX SYSTEM SHALL BE COORDINATED WITH SERVICES ON-SITE. SERVICES SHOWN ON DRAWING ARE FOR GENERAL LOCATION PURPOSES AND EXACT LOCATIONS OF SERVICES ARE TO BE DETERMINED ON-SITE. PROVIDE A MINIMUM OF 305mm [1'] SEPARATION FROM GHX RUNOUTS AND ALL OTHER SERVICES ON-SITE.
- 18. A MINIMUM FLOW RATE OF 2.5 L/S [40 USGPM] AT 99 KPA [33 FT OF HEAD] FOR EACH 75mm [3"] Ø RUNOUT IS REQUIRED FOR OPERATION.
- A MINIMUM FLOW RATE OF 3.3 L/S [53 USGPM] AT 114 KPA [38 FT OF HEAD] FOR EACH 75mm [3"] Ø RUNOUT IS REQUIRED FOR FLUSHING AND PURGING OF THE HORIZONTAL GHX BEFORE COMMISSIONING.
- 20. IT IS ESTIMATED THAT BOTH THE NORTH GHX AND EAST GHX WILL HAVE A TOTAL VOLUME OF 6,814 L (1,800 US GALLONS) OF FLUID, VOLUME CALCULATION IS INTENDED AS A GUIDE ONLY. CONTRACTOR IS RESPONSIBLE TO ADD ADDITIONAL FLUID AS REQUIRED TO MAINTAIN SYSTEM PRESSURE AFTER STARTUP AND THROUGHOUT WARRANTY PERIOD, INCLUDING COMPLIANCE WITH ALL SPECIFIED FLUID PARAMETERS.
- HEAT TRANSFER FLUID TO BE USED IS 25% BY VOLUME PROPYLENE GLYCOL, PREMIXED WITH SUITABLE CORROSION INHIBITORS BY MANUFACTURER. MIXTURE TO HAVE A FREEZE PROTECTION TO -10°C [14°F].



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

KEY PLAN

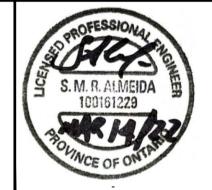
SN					
REVISIONS					
REV					
Ä	4	21-06-15	GFR	Issued for 100%	
CONSULTANT	3	21-03-31	GFR	90% SUBMISSION	
SNS	2	20-12-24	GFR	60% SUBMISSION	
ၓ	1	20-11-26	GFR	30% SUBMISSION	
	NO.	DATE	NAME		REVISIONS

PRIME CONSULTANT

SUB-CONSULTANT



www.geoxergy.com



D	DESIGN BY: GFR					SCALE 1:200	
DRAWN BY: AT						DATE: 2020-11-25	
CHECKED BY: —						CONSULTANT PROJECT NO.	20031
APPROVED BY: —							
SIONS							
10							

REVISIONS DATE NAME NO.



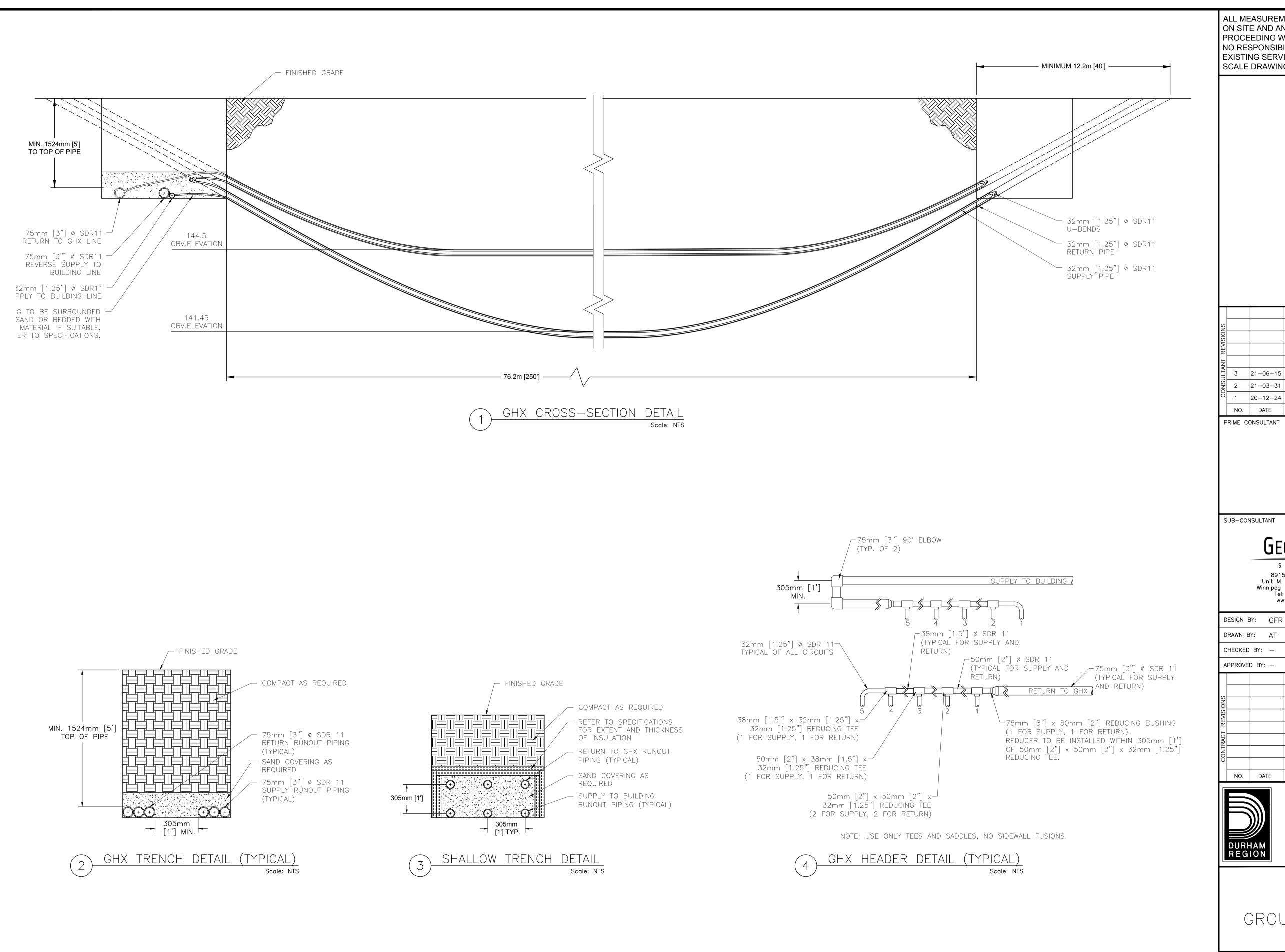
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

SEATON EMS

GROUND HEAT EXCHANGER LAYOUT

ROPERTY NO.	FACILITY CODE XXX-XXX-XXX	FACILITIES PROJECT NO.
NTRACT NO.	DRAWING NO.	SHEET NO.
-XXXX-20XX	G-101	1 OF 3



<u>key plan</u>

SN				
REVISIONS				
REV				
TANT				
	3	21-06-15	GFR	Issued for 100%
CONSUL	2	21-03-31	GFR	90% SUBMISSION
ö	1	20-12-24	GFR	60% SUBMISSION
	NO.	DATE	NAME	REVISIONS

PRIME CONSULTANT

SUB-CONSULTANT



8915156 Canada Inc. Unit M — 675 Berry Street Winnipeg MB, Canada R3H 1A7 Tel: 204 255 5959 www.geoxergy.com

	S. M. R. ALMEIDA 100161229
SCALE N	TS
DATE: 20	20-12-21
CONSULTAN	NT PROJECT NO. 20031

DRAWN BY: AT CHECKED BY: -APPROVED BY: -

REVISIONS NO. DATE NAME



THE REGIONAL MUNICIPALITY OF DURHAM

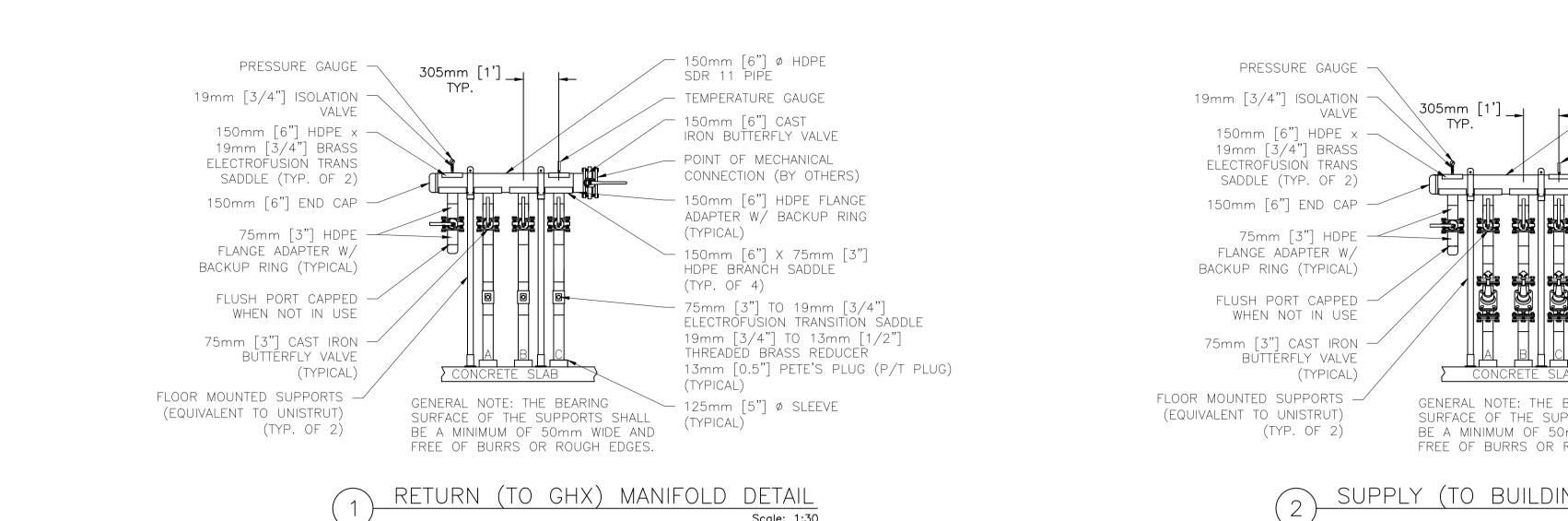
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

SEATON EMS

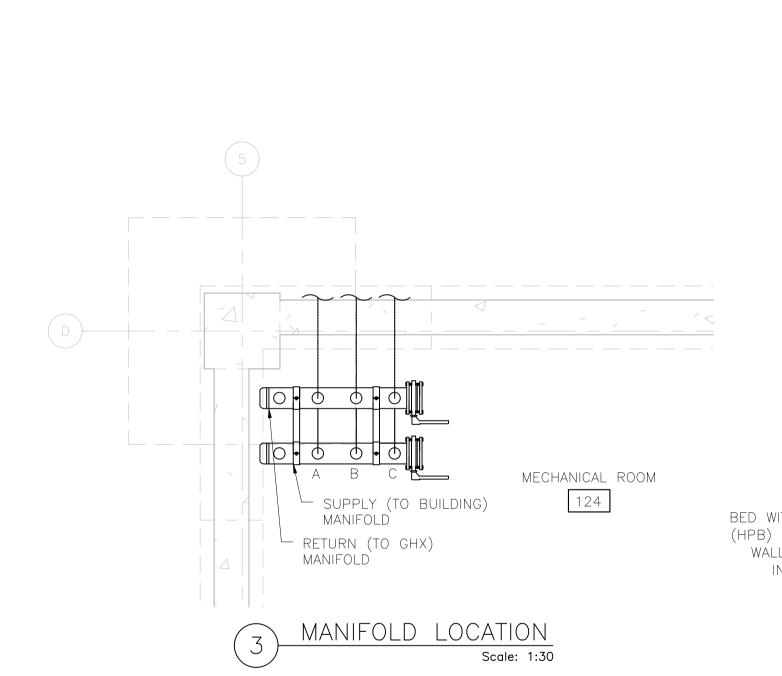
GROUND HEAT EXCHANGER DETAILS

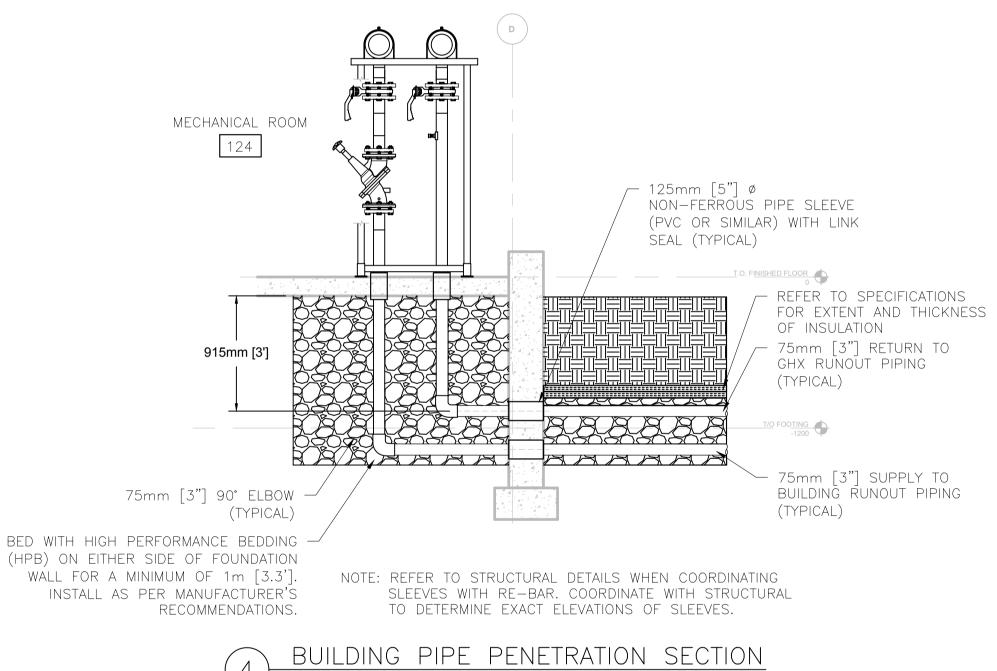
PROPERTY NO.	FACILITY CODE XXX-XXX-XXX	FACILITIES PROJECT NO.
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-XXXX-20XX	G-102	2 OF 3



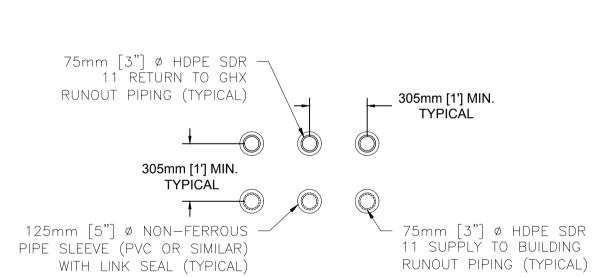
150mm [6"] Ø HDPE SDR 11 PIPE TEMPERATURE GAUGE — 150mm [6"] CAST IRON BUTTERFLY VALVE POINT OF MECHANICAL CONNECTION (BY OTHERS) - 150mm [6"] HDPE FLANGE ADAPTER W/ BACKUP RING (TYPICAL) 150mm [6"] X 75mm [3"] HDPE BRANCH SADDLE (TYP. OF 4) - 75mm [3"] CAST IRON BALANCING VALVE WITH P/T PORTS (TYPICAL) - 125mm [5"] Ø SLEEVE (TYPICAL) GENERAL NOTE: THE BEARING SURFACE OF THE SUPPORTS SHALL BE A MINIMUM OF 50mm WIDE AND FREE OF BURRS OR ROUGH EDGES.

> SUPPLY (TO BUILDING) MANIFOLD DETAIL Scale: 1:30





Scale: 1:30



NOTE: REFER TO STRUCTURAL DETAILS WHEN COORDINATING SLEEVES WITH RE-BAR. COORDINATE WITH STRUCTURAL TO DETERMINE EXACT LOCATIONS OF SLEEVES.

BUILDING PIPE PENETRATION DETAIL Scale: NTS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

KEY PLAN

SN					
REVISIONS					
REV					
Ä					
CONSULTANT	3	21-06-15	GFR	Issued for 100%	
SNS	2	21-03-31	GFR	90% SUBMISSION	
ၓ	1	20-12-24	GFR	60% SUBMISSION	
	NO.	DATE	NAME	REVISIONS	

PRIME CONSULTANT

SUB-CONSULTANT



www.geoxergy.com



DESIGN BY: GFR	SCALE AS NOTED
DRAWN BY: AT	DATE: 2020-12-21
CHECKED BY: —	CONSULTANT PROJECT NO. 20031
APPROVED BY: —	



T-XXXX-20XX

THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

3 OF 3

REVISIONS

SEATON EMS

GROUND HEAT EXCHANGER

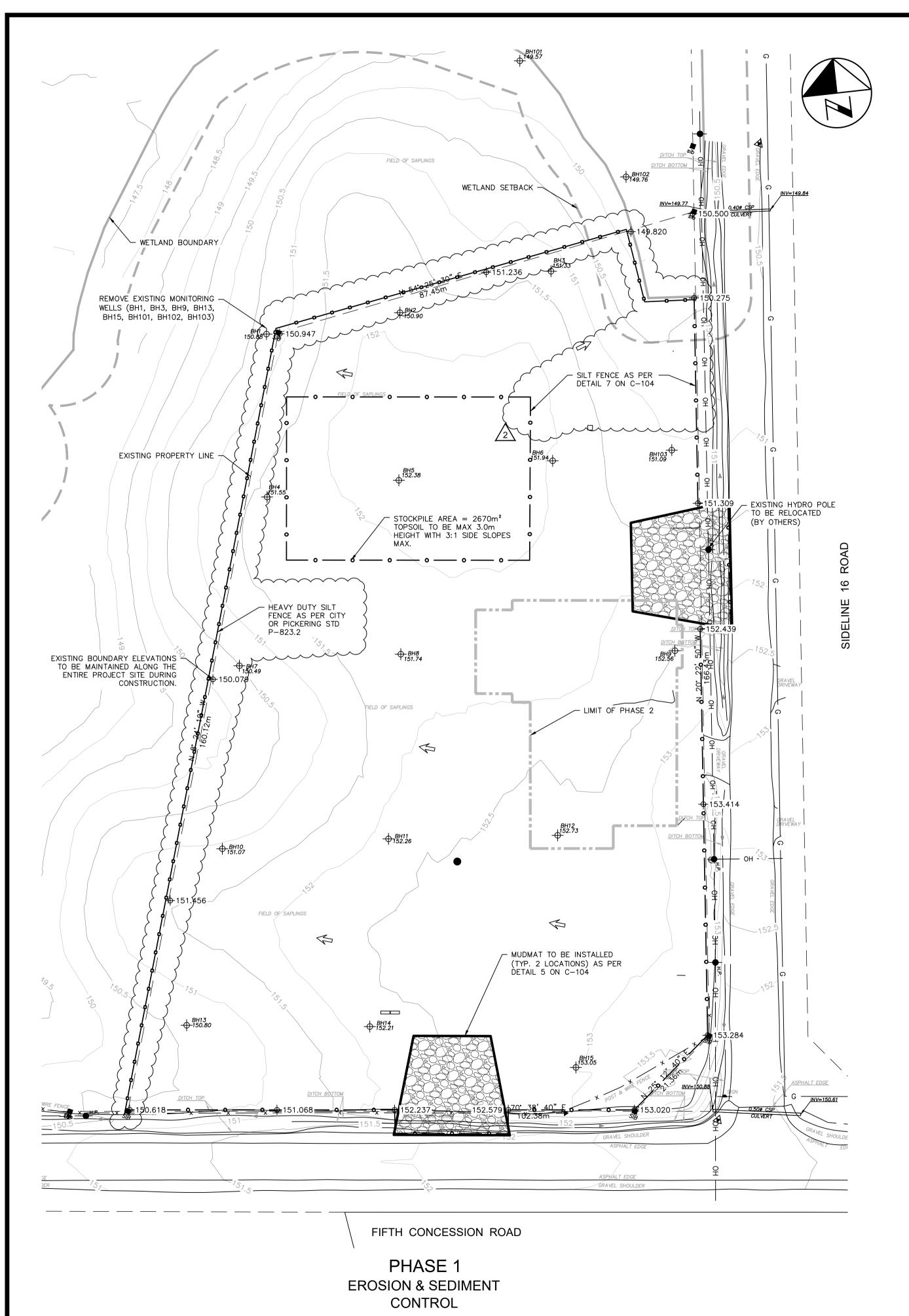
DETAILS FACILITIES PROJECT NO. FACILITY CODE XXX-X-XXXXXX-XXX-XXXX XXXX-XX-XXCONTRACT NO. DRAWING NO. SHEET NO.

G - 103

EXTERIOR INTERIOR 125mm [5"] ø NON-FERROUS PIPE SLEEVE (PVC OR SIMILAR) - ELASTOMERIC SEAL 75mm [3"] Ø HDPE SDR 11 RUNOUT PIPE



NO. DATE NAME



EROSION & SEDIMENT CONTROL GENERAL NOTES

- 1. PRIOR TO COMMENCEMENT OF ANY ON-SITE WORK/TOPSOIL STRIPPING, EROSION AND SEDIMENT CONTROL (ESC) MEASURES, AS PER APPROVED EROSION & SEDIMENT CONTROL PLAN, MUST BE INSTALLED TO PREVENT SURFACE RUNOFF FROM LEAVING THE SITE "UNTREATED". ALL ESC MEASURES ARE TO BE MAINTAINED UNTIL THE SITE HAS BEEN STABILIZED.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION, AS DIRECTED BY THE ENGINEER OR THE CITY OF PICKERING.
- 3. SEDIMENT CONTROL FENCE TO USE GEOTEXTILE WITH WEAVE DENSITY OF 270R TERRAFIX OR EQUIVALENT.
- H. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED AS DIRECTED BY THE ENGINEER OR CITY OF PICKERING. 5. CHECK DAMS ARE TO BE USED IN ANY TEMPORARY DRAINAGE SWALES REQUIRED DURING THE CONSTRUCTION PERIOD.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AND SHALL BE DETERMINED BY THE ENGINEER OR THE CITY OF PICKERING.
 ALL SWALES ARE TO BE STABILIZED PRIOR TO USE.
- 8. INSPECTION OF THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES WILL OCCUR ON A WEEKLY BASIS, AFTER RAINFALL EVENTS EXCEEDING 10mm OR AFTER RAPID SNOW MELT EVENTS AND DAILY DURING EXTENDED RAIN OR SNOW MELT PERIODS. THE SILT CONTROL FENCE MUST BE INSPECTED FOR RIPS OR TEARS, BROKEN STAKES, BLOW OUTS AND ACCUMULATION OF SEDIMENT. THE SILT CONTROL FENCE MUST BE FIXED AND/OR REPLACED IMMEDIATELY WHEN DAMAGED. ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE SILT CONTROL FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
- 9. ROCK CHECK DAMS ARE TO BE CLEANED OF ALL ACCUMULATED SEDIMENT AS SOON AS SEDIMENT HAS ACCUMULATED TO A DEPTH GREATER THAN 50% OF ALL THE UPSTREAM CHECK DAMS.

 10. CLEANING AND REPAIR OF MUD MATS AND ANY OTHER TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE DONE AS NECESSARY THROUGH REGULAR INSPECTION
- OR AS DIRECTED BY THE ENGINEER OR CITY OF PICKERING. ALL DAMAGED ESC MEASURES SHALL BE REPAIRED AND/OR REPLACED WITHIN 48 HOURS OF THE INSPECTION.
- 11. MATERIALS TO REPAIR DAMAGED ESC MEASURES MUST BE KEPT ON-SITE AT ALL TIMES.

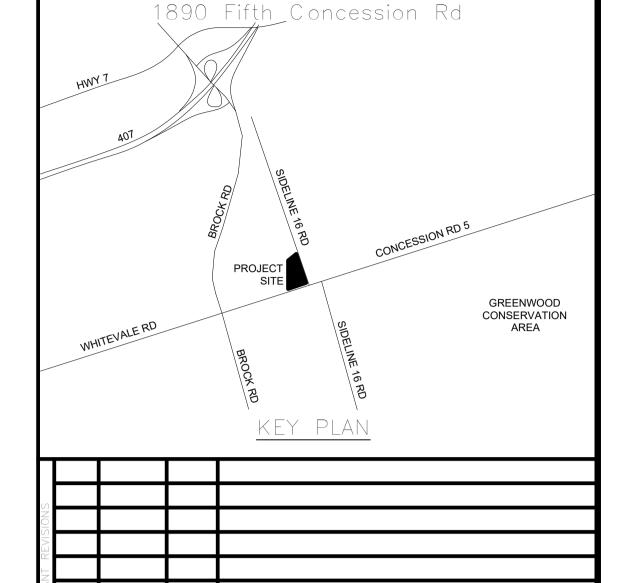
 12. THE ESC STRATEGIES ON THESE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT
- RELEASES. FAILED ESC MEASURE MUST BE REPAIRED IMMEDIATELY.

 13. NO CONSTRUCTION ACTIVITY OR MACHINERY SHALL INTRUDE BEYOND THE SILT CONTROL FENCE OR LIMIT OR DEVELOPMENT. ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS. ALL MATERIALS AND EQUIPMENT SHALL BE STORED ON SITE IN A DESIGNATED AREA. NO MATERIALS OR EQUIPMENT SHALL BE STORE ON THE MUNICIPAL RIGHT OF WAY. NO CONSTRUCTION VEHICLES WILL PARK ON MUNICIPAL ROADS.
- 14. SERVICING OF CONSTRUCTION EQUIPMENT ON SITE IS PROHIBITED.
 15. THE CONTRACTOR MUST CLEAN ADJACENT ROADS ON A REGULAR BASIS. THE ROAD SHALL BE, AT A MINIMUM SCRAPED DAILY AND FLUSHED (IF NECESSARY) ON
- FRIDAY EVENINGS OR SATURDAY MORNINGS.

 16 DUST CONTROL TO BE PEVIEWED DAILY WATER TRUCK OR CALCIUM CHLORIDE IS TO BE PROVIDED ON SITE AND HALL ROADS (WORKING AREAS ARE TO BE TREAT).
- 16. DUST CONTROL TO BE REVIEWED DAILY. WATER TRUCK OR CALCIUM CHLORIDE IS TO BE PROVIDED ON—SITE AND HAUL ROADS/WORKING AREAS ARE TO BE TREATED AS REQUIRED TO ENSURE THAT DUST IS CONTROLLED ON—SITE.
- 17. AT THE END OF CONSTRUCTION PERIOD, ACCUMULATED SEDIMENT IS TO BE REMOVED OFF SITE PRIOR TO THE REMOVAL OF THE SILT FENCE.

 18. ALL LITTER AND DEBRIS SHALL BE MONITORED AND DISPOSED OF DAILY OR AS NECESSARY THROUGH REGULAR INSPECTION.
- 19. ALL TOPSOIL STOCKPILES SHALL BE SURROUNDED WITH SEDIMENT CONTROL FENCE AND STABILIZED WITH SEED MIX AS PER THIS DRAWING.
 20. DISTURBED AREAS ARE TO BE MINIMIZED TO THE EXTENT POSSIBLE AND STABILIZED AS THE WORK PROGRESSES. ANY AREA EXPOSED FOR MORE THAN 30 DAYS WILL BE STABILIZED.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



SURVEY & BENCHMARK
SURVEY COMPLETED BY IBW SURVEYORS JULY 2018.

AVING A GEODETIC ELEVATION OF 151.957m.

ALL ELEVATIONS ARE IN METERS. DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99986.

ELEVATIONS ARE GEODETIC AND REFERRED TO CITY OF PICKING BENCHMARK 4-031 AND

DESIGN BY: SM

DRAWN BY: MB

DATE: 22 September, 2021

CHECKED BY: SM

CONSULTANT PROJECT NO. 60698928

APPROVED BY: —

CLIENT FILE No.: 811/20

3 03/14/22 RW ISSUED FOR CONSTRUCTION



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
EROSION & SEDIMENT CONTROL
CONSTRUCTION MANAGEMENT PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. T-1160-2021	C - 101	SHEET NO.

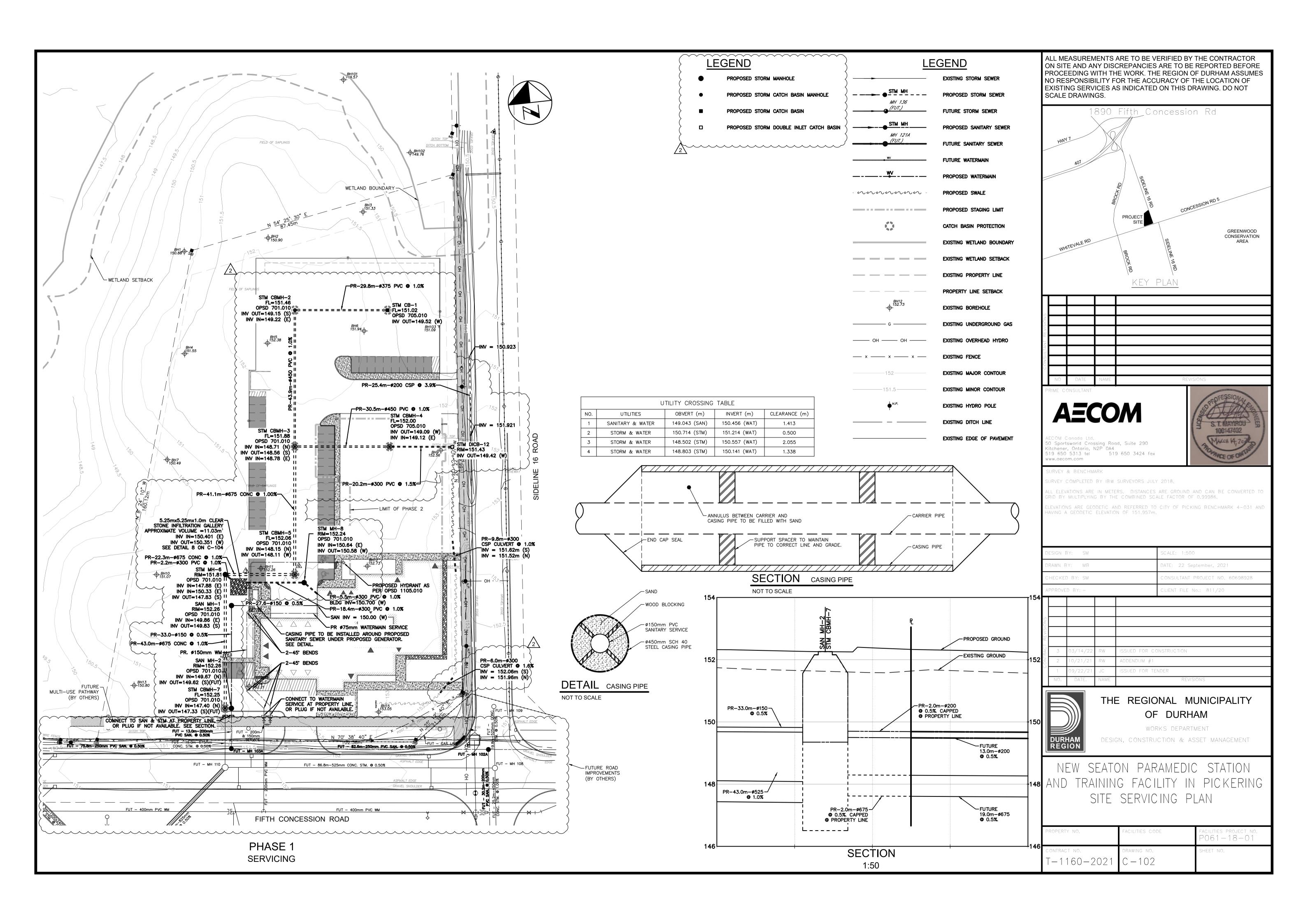
LEGEND

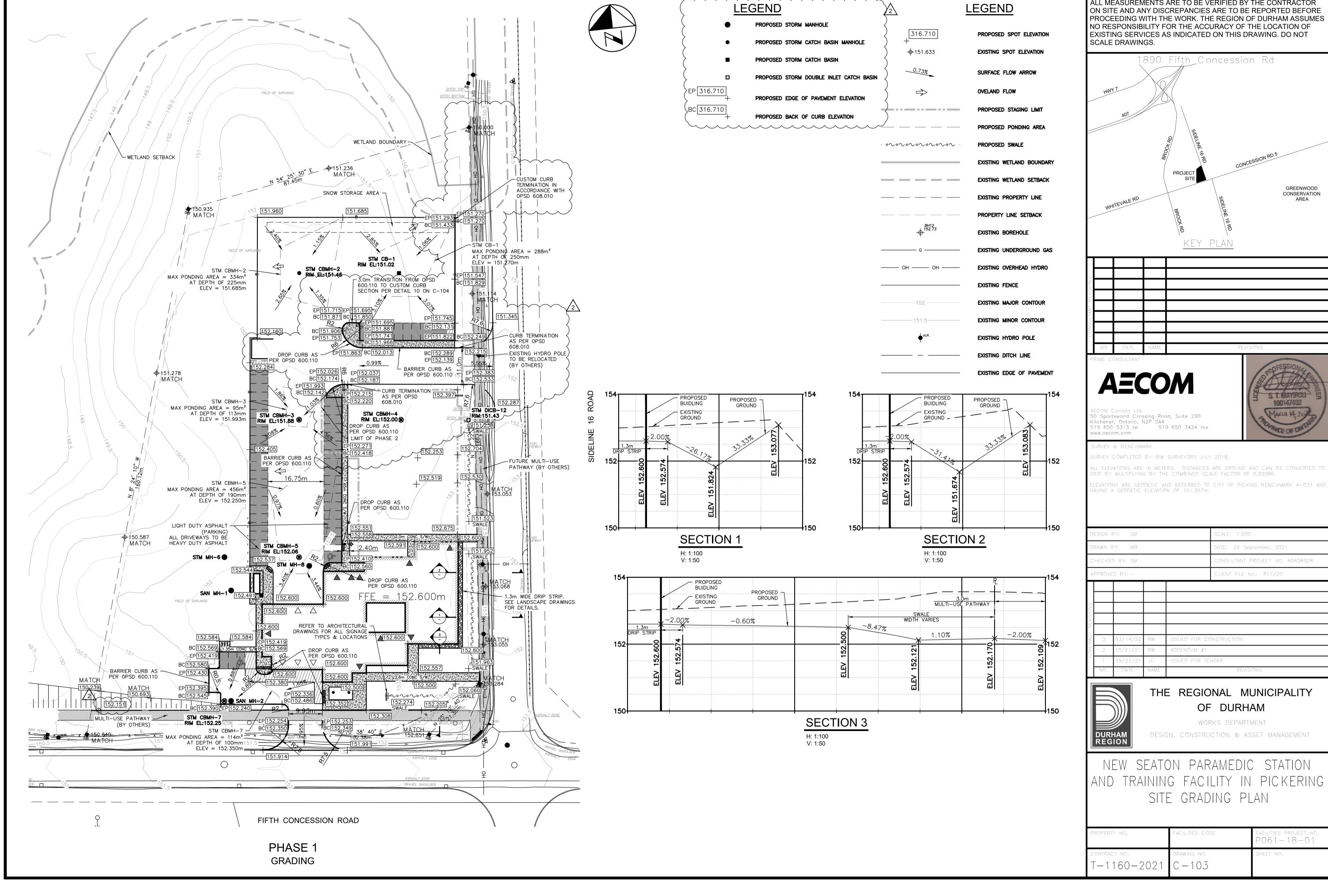
PROPOSED SILT FENCE AS PER DETAIL 7 ON C-104

HEAVY DUTY SILT FENCE AS PER STD P-823.2

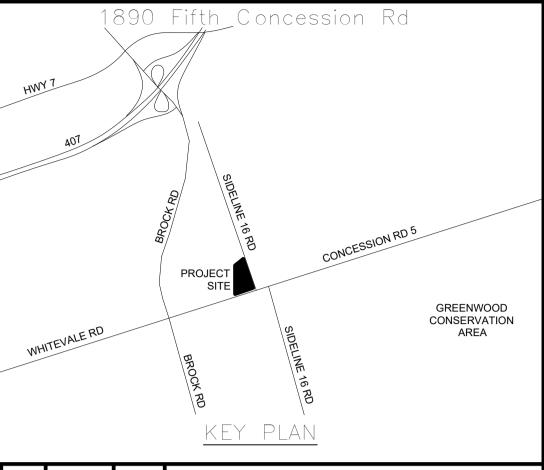
PROPOSED STAGING LIMIT

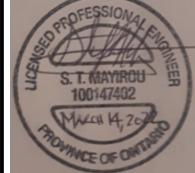
	PROPOSED MUDMAT
	EXISTING WETLAND BOUNDARY
	EXISTING WETLAND SETBACK
	EXISTING PROPERTY LINE
BH12 152.73	EXISTING BOREHOLE
G	EXISTING UNDERGROUND GAS
—— он ——	EXISTING OVERHEAD HYDRO
x x x	EXISTING FENCE
152	EXISTING MAJOR CONTOUR
151.5	EXISTING MINOR CONTOUR
ф ^{н.р.}	EXISTING HYDRO POLE
	EXISTING DITCH LINE
	EXISTING EDGE OF PAVEMENT
1	OVER AND ELOW





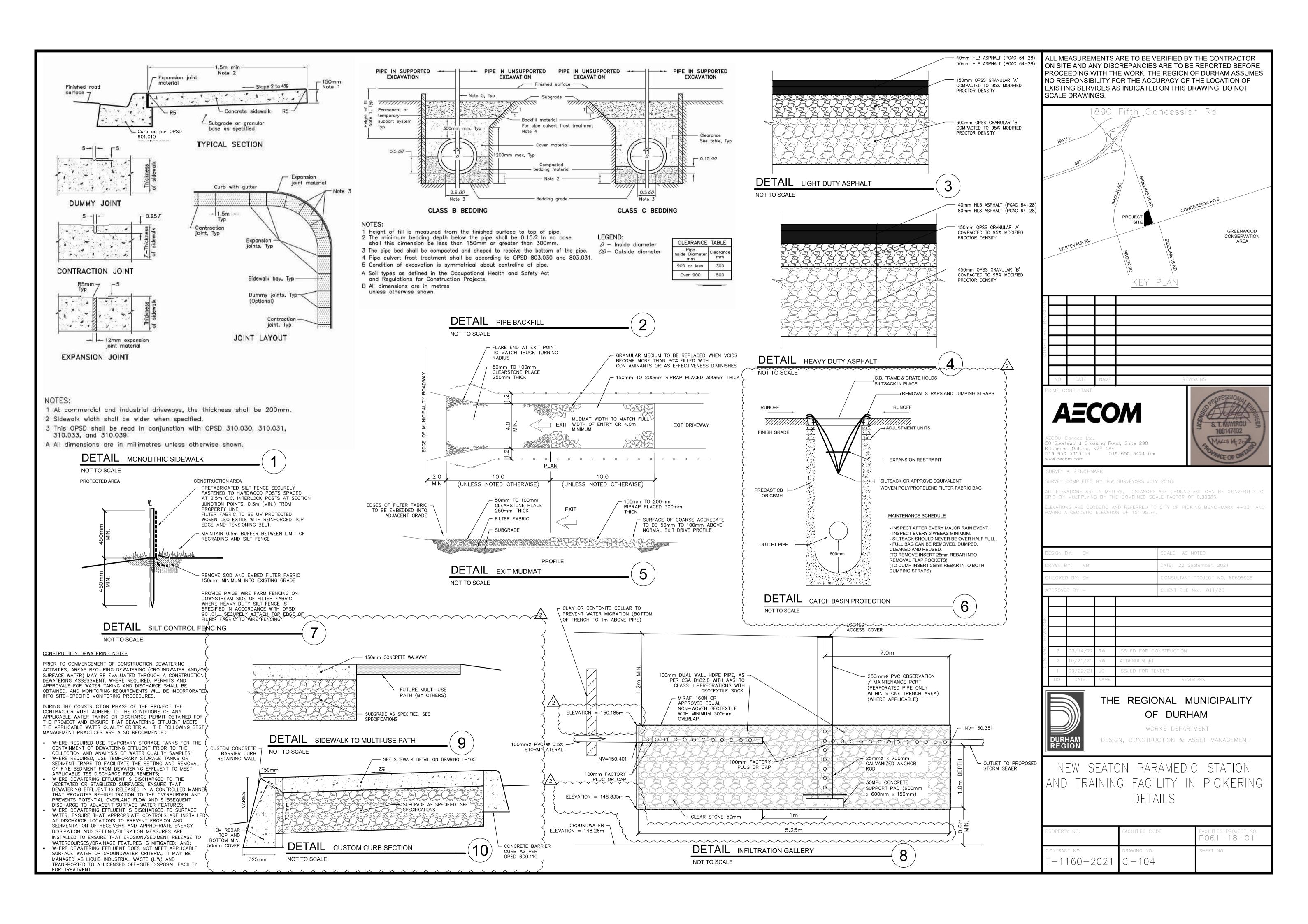
ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR

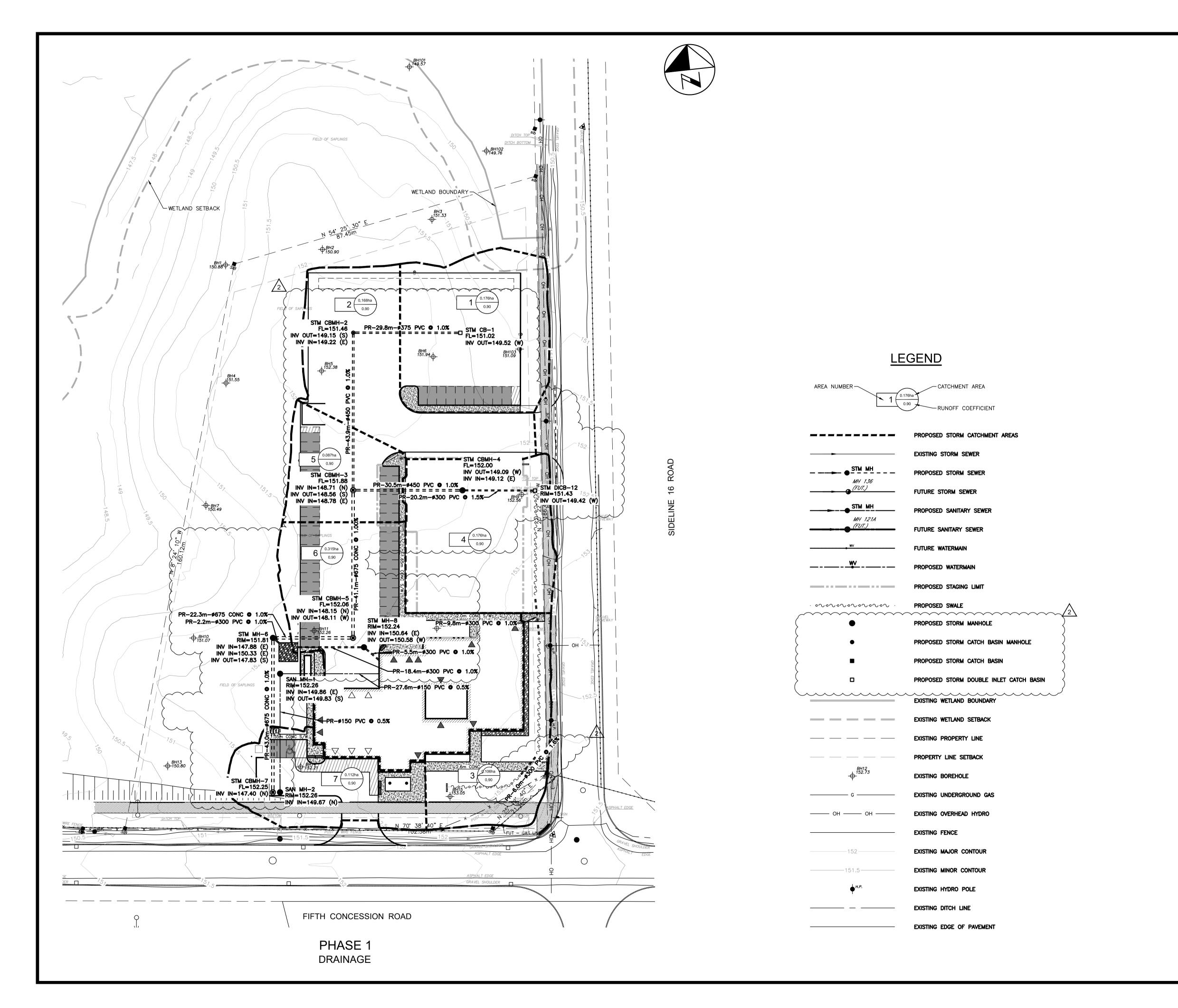




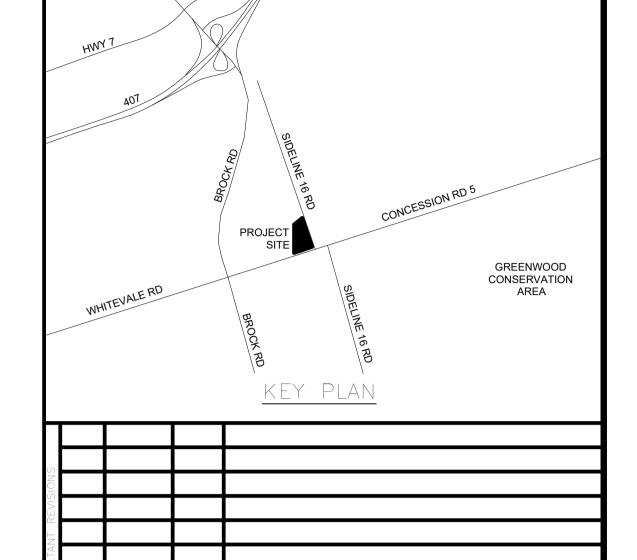
D	esign e	BY: SM			SCALE: 1:500
D	rawn e	BY: MB			DATE: 22 September, 2021
С	HECKE	D BY: SM			CONSULTANT PROJECT NO. 60698928
А	PPROVE	D BY: -			CLIENT FILE No.: 811/20
ONS					
-VISI					
Ÿ					
KAC	3	03/14/22	RW	ISSUED FOR CO	DNSTRUCTION
	2	10/21/21	RW	ADDENDUM #1	
J	1	09/22/21	JC	ISSUED FOR TE	NDER
	NO	DATE	NAME		PEVISIONS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	C — 103	





1890 Fifth_Concession Rd



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4



SURVEY & BENCHMARK
SURVEY COMPLETED BY IBW SURVEYORS JULY 2018.

19 650 5313 tel 519 650 3424 fax

L ELEVATIONS ARE IN METERS. DISTANCES ARE GROUND AND CAN BE CONVERTED TO PID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99986.

ELEVATIONS ARE GEODETIC AND REFERRED TO CITY OF PICKING BENCHMARK 4-031 AND HAVING A GEODETIC ELEVATION OF 151.957m.

AWN BY: MB				DATE: 22 September, 2021		
ECKED BY: SM				CONSULTANT PROJECT NO. 60698928		
PROVED BY: -			CLIENT FILE No.: 811/20			
3	03/14/22	RW	ISSUED FOR CO	ISSUED FOR CONSTRUCTION		
2	10/21/21	RW	ADDENDUM #1			
1	09/22/21	JC	ISSUED FOR TENDER			
NO.	DATE.	NAME	REVISIONS			

SCALE: 1:500



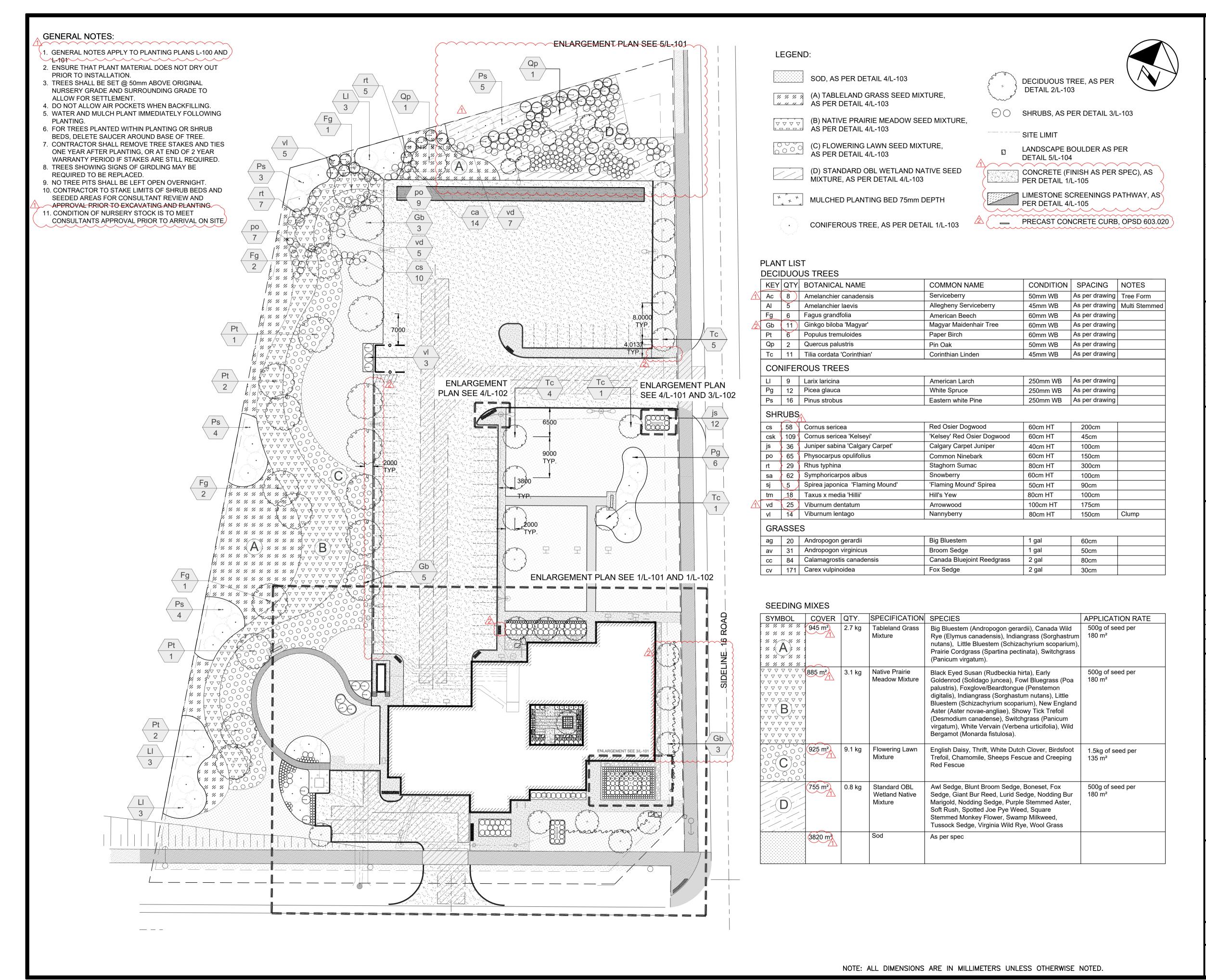
THE REGIONAL MUNICIPALITY OF DURHAM

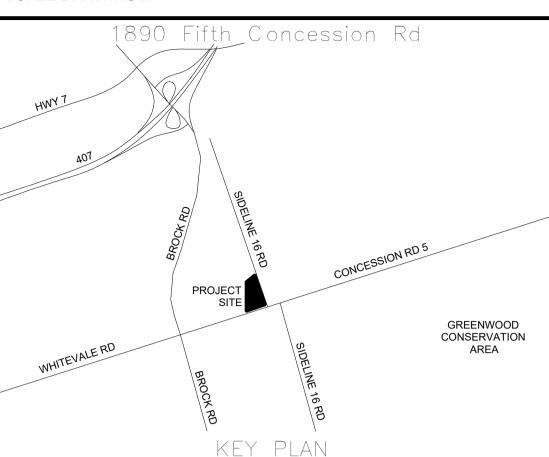
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
DRAINAGE AREAS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. T-1160-2021	C - 105	SHEET NO.





NO DATE NAME REVISIONS

AECOM

AECOM Canada Ltd.

O Sportsworld Crossing Road, Suite 290

(itchener, Ontario, N2P 0A4

19 650 5313 tel 519 650 3424 fax



SCALE: 1:400

PRAWN BY: KB

DATE: 22 September, 2021

CONSULTANT PROJECT NO. 60698928

PPROVED BY: DW

CLIENT FILE No.: 811/20

6 03/14/22 JS ISSUED FOR CONSTRUCTION
5 02/04/22 JS RE-ISSUED FOR SPA
4 12/17/21 MK RE-ISSUED FOR TRCA
3 10/18/21 JS ISSUED FOR ADDENDUM 1
2 10/18/21 JS RESPONSE TO CITY COMMENTS
1 09/22/21 KB ISSUED FOR TENDER
NO. DATE. NAME REVISIONS



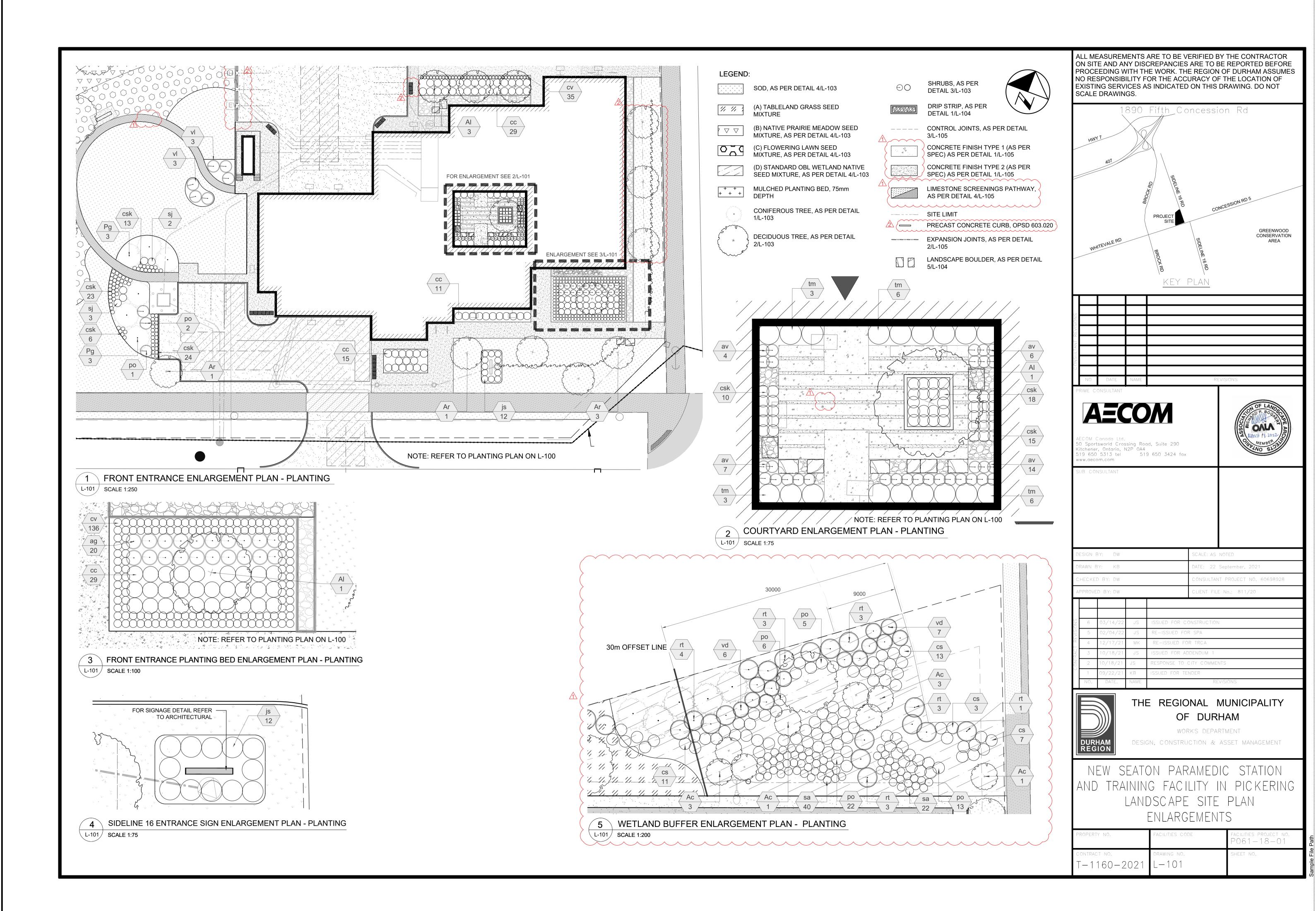
THE REGIONAL MUNICIPALITY OF DURHAM

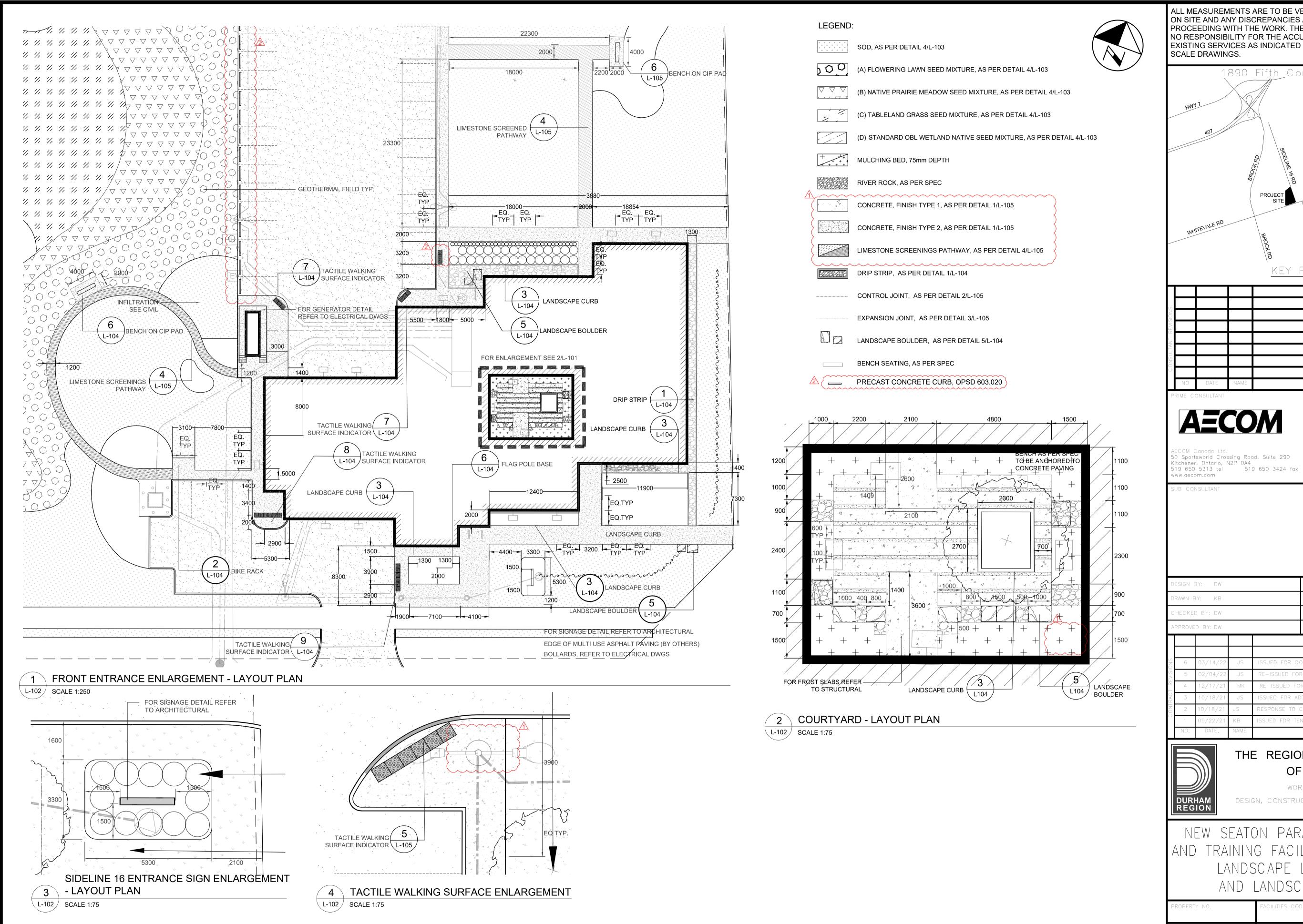
WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION

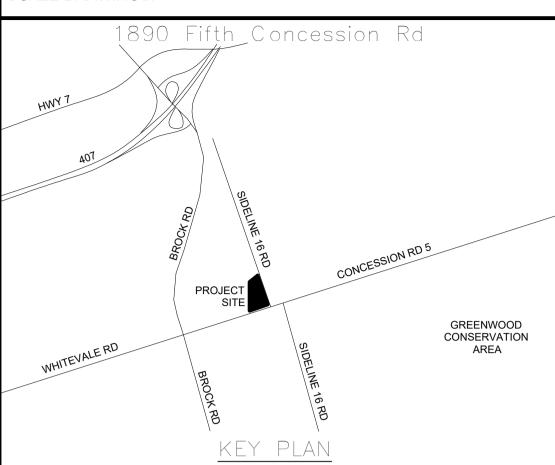
AND TRAINING FACILITY IN PICKERING LANDSCAPE SITE PLAN

ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
-1160-2021	DRAWING NO. L-100	SHEET NO.





ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



AECOM

SIGN BY: DW CALE: AS NOTED AWN BY: KB ATE: 22 September, 202 HECKED BY: DW

LIENT FILE No.: 811/20

CINC	6	03/14/22	JS	ISSUED FOR CONSTRUCTION
- VI	5	02/04/22	JS	RE-ISSUED FOR SPA
	4	12/17/21	MK	RE-ISSUED FOR TRCA
777	3	10/18/21	JS	ISSUED FOR ADDENDUM 1
ON	2	10/18/21	JS	RESPONSE TO CITY COMMENTS
,	1	09/22/21	KB	ISSUED FOR TENDER
	NO.	DATE.	NAME	REVISIONS



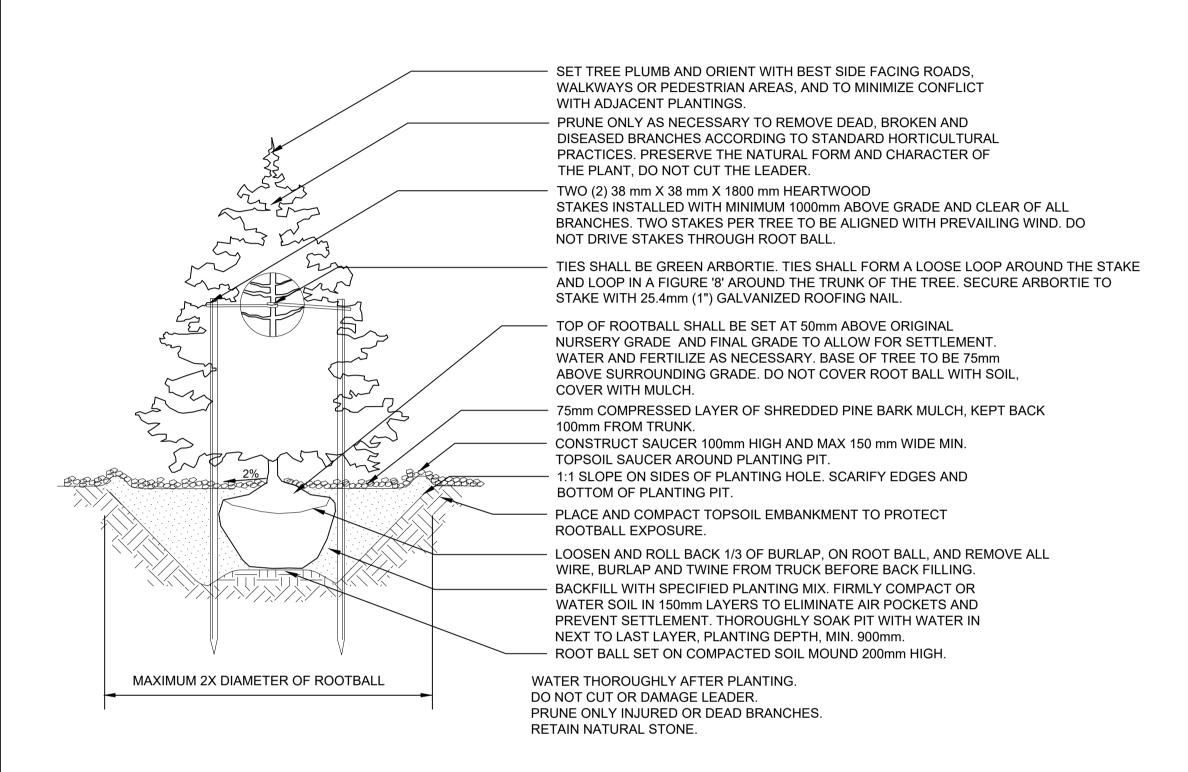
THE REGIONAL MUNICIPALITY OF DURHAM

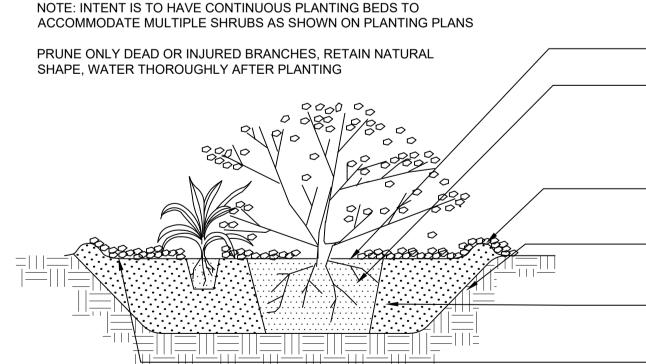
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING LANDSCAPE LAYOUT PLAN AND LANDSCAPE DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
T-1160-2021	DRAWING NO. L-102	SHEET NO.	- -





CONIFEROUS TREE ON GRADE

\ L-103

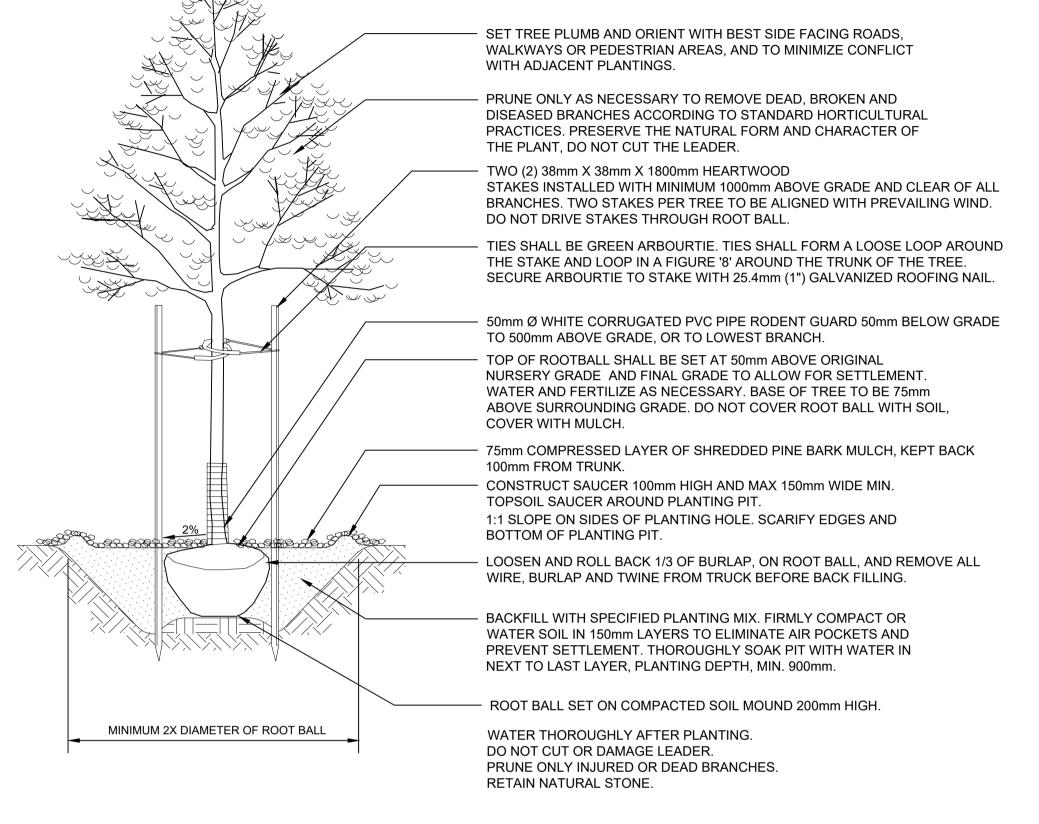
75mm COMPRESSED LAYER OF SHREDDED PINE BARK MULCH, CONTINUOUS THROUGHOUT PLANTING BED, KEPT BACK 100mm FROM STEMS OF SHRUBS
 CUT AND REMOVE ALL TWINE, ROPE AND BURLAP FROM TOP HALF OF ROOTBALL. REMOVE PLASTIC CONTAINERS, REMOVE TOP LIP OF ORGANIC CONTAINER AND CUT SEVERAL SLITS INTO ORGANIC CONTAINER TO FACILITATE ROOT PENETRATION, IF REMOVED FROM POT, LOOSEN ROOT MASS IN SEVERAL LOCATIONS AROUND THE ROOTBALL TO FACILITATE BALANCED ROOT GROWTH IN GROWING MEDIUM. PRUNE ANY DRY OR BROKEN ROOTS PRIOR TO PLANTING
 CONSTRUCT 100mm HIGH AND MAX. 150mm WIDE TOPSOIL SAUCER AROUND SHRUB, ELIMINATE TOPSOIL SAUCER IF SHRUBS ARE PLANTED IN A CONTINUOUS BED

 1:1 SLOPE ON SIDES OF PLANTING HOLE. SCARIFY EDGES OF PLANTING PIT. FIRMLY COMPACT OR WATER TOPSOIL IN 150mm LAYERS TO ELIMINATE AIR POCKETS AND PREVENT SETTLEMENT

 THOROUGHLY SOAK PIT WITH WATER IN NEXT TO LAST 150mm LAYER OF COMPACTED TOPSOIL. REMOVE ALL FOREIGN MATERIAL FROM EXISTING SOIL. BACKFILL WITH SPECIFIED PLANTING MIX. PIT DEPTH, MINIMUM 450mm
 FINISHED GRADE OF SHRUB BED TO MATCH FINISHED GRADE OF ADJACENT

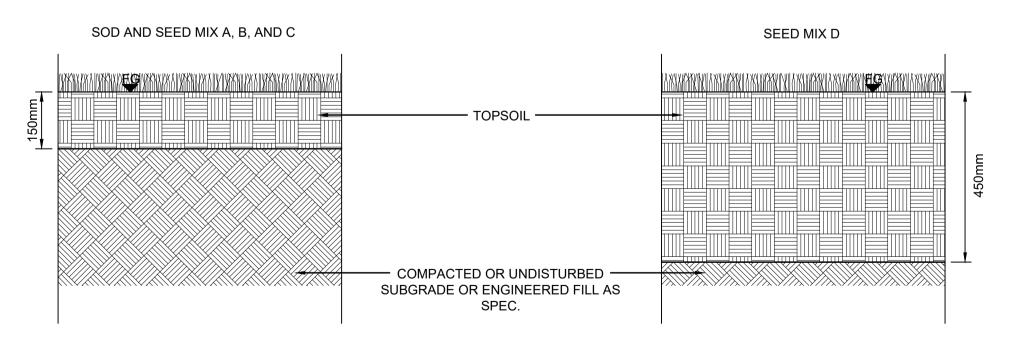
FINISHED GRADE OF SHRUB BED TO MATCH FIN FINISHED GRADE

3 CONTINUOUS SHRUB BED



DECIDUOUS TREE ON GRADE

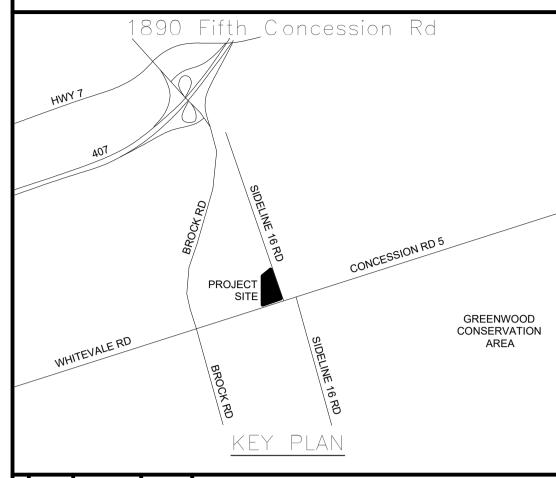
L-103 SCALE 1:20



4 SOD/SEED ON GRADE

L-103 SCALE 1:10

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO DATE NAME REVISIONS

AECOM

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax

ww.aecom.com



DESIGN BY: DW SCALE: AS NOTED

DRAWN BY: KB DATE: 22 September, 2021

CHECKED BY: DW CONSULTANT PROJECT NO. 60698928

APPROVED BY: DW CLIENT FILE No.: 811/20

SNO	6	03/14/22	JS	ISSUED FOR CONSTRUCTION
[VISI	5	02/04/22	JS	RE-ISSUED FOR SPA
T RE	4	12/17/21	MK	RE-ISSUED FOR TRCA
RAC	3	10/18/21	JS	ISSUED FOR ADDENDUM 1
NO:	2	10/18/21	JS	RESPONSE TO CITY COMMENTS
	1	09/22/21	KB	ISSUED FOR TENDER
	NO.	DATE.	NAME	REVISIONS



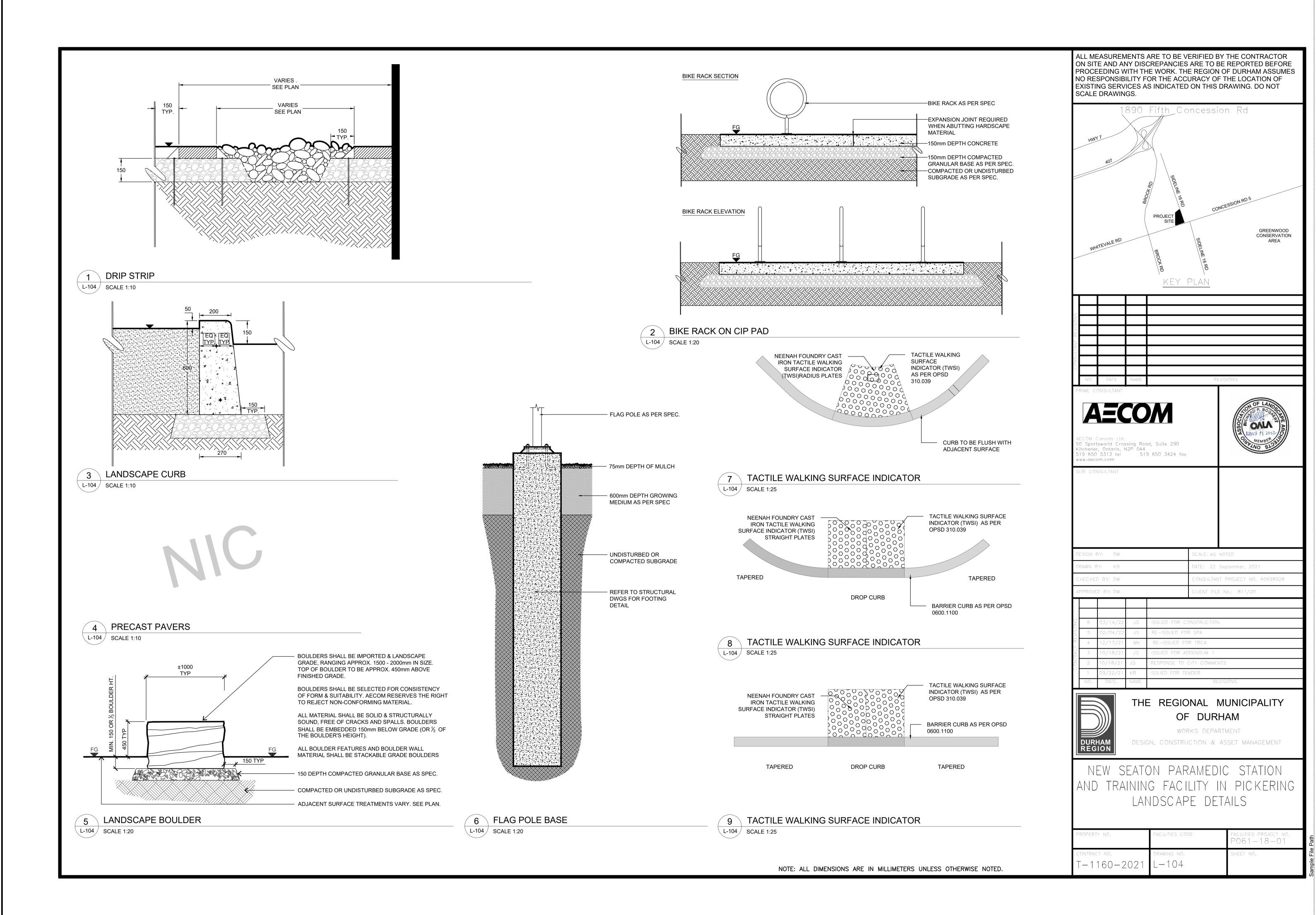
THE REGIONAL MUNICIPALITY
OF DURHAM

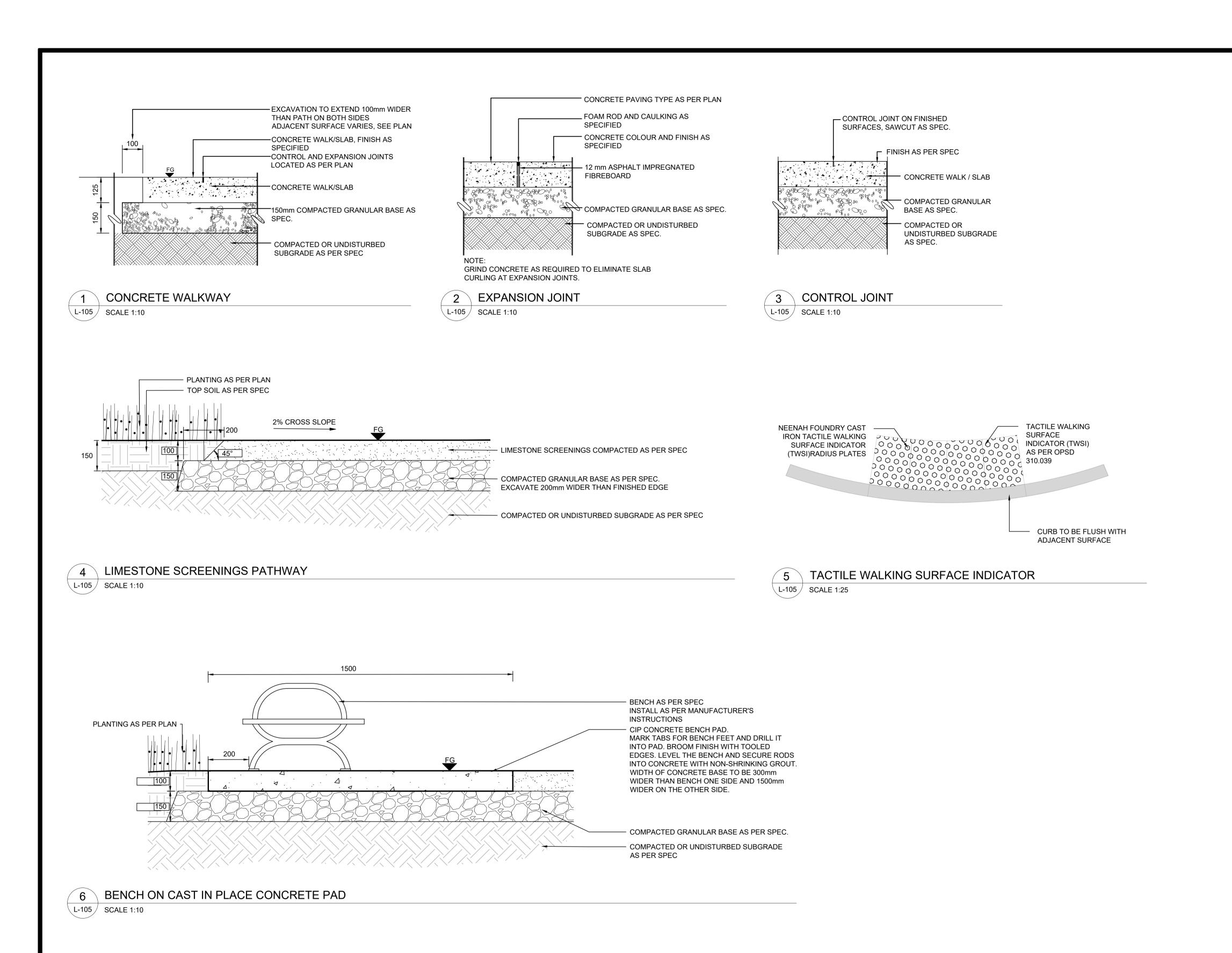
WORKS DEPARTMENT

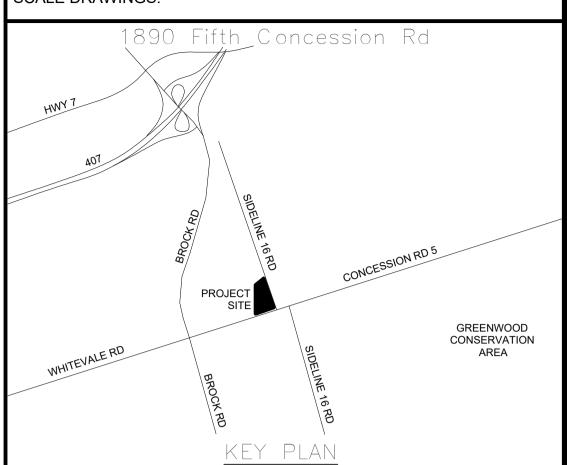
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
LANDSCAPE DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	L-103	







NO DATE NAME REVISIONS

AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: DW SCALE: AS NOTED

DRAWN BY: KB DATE: 22 September, 2021

CHECKED BY: DW CONSULTANT PROJECT NO. 60698928

APPROVED BY: DW CLIENT FILE No.: 811/20

ONS	6 03/14/22 JS		JS	ISSUED FOR CONSTRUCTION
MSI	5	02/04/22	JS	RE-ISSUED FOR SPA
T RE	4 12/17/2		MK	RE-ISSUED FOR TRCA
RAC	3	10/18/21	JS	ISSUED FOR ADDENDUM 1
INO :	2	10/18/21	JS	RESPONSE TO CITY COMMENTS
	1	09/22/21	KB	ISSUED FOR TENDER
	NO.	DATE.	NAME	REVISIONS

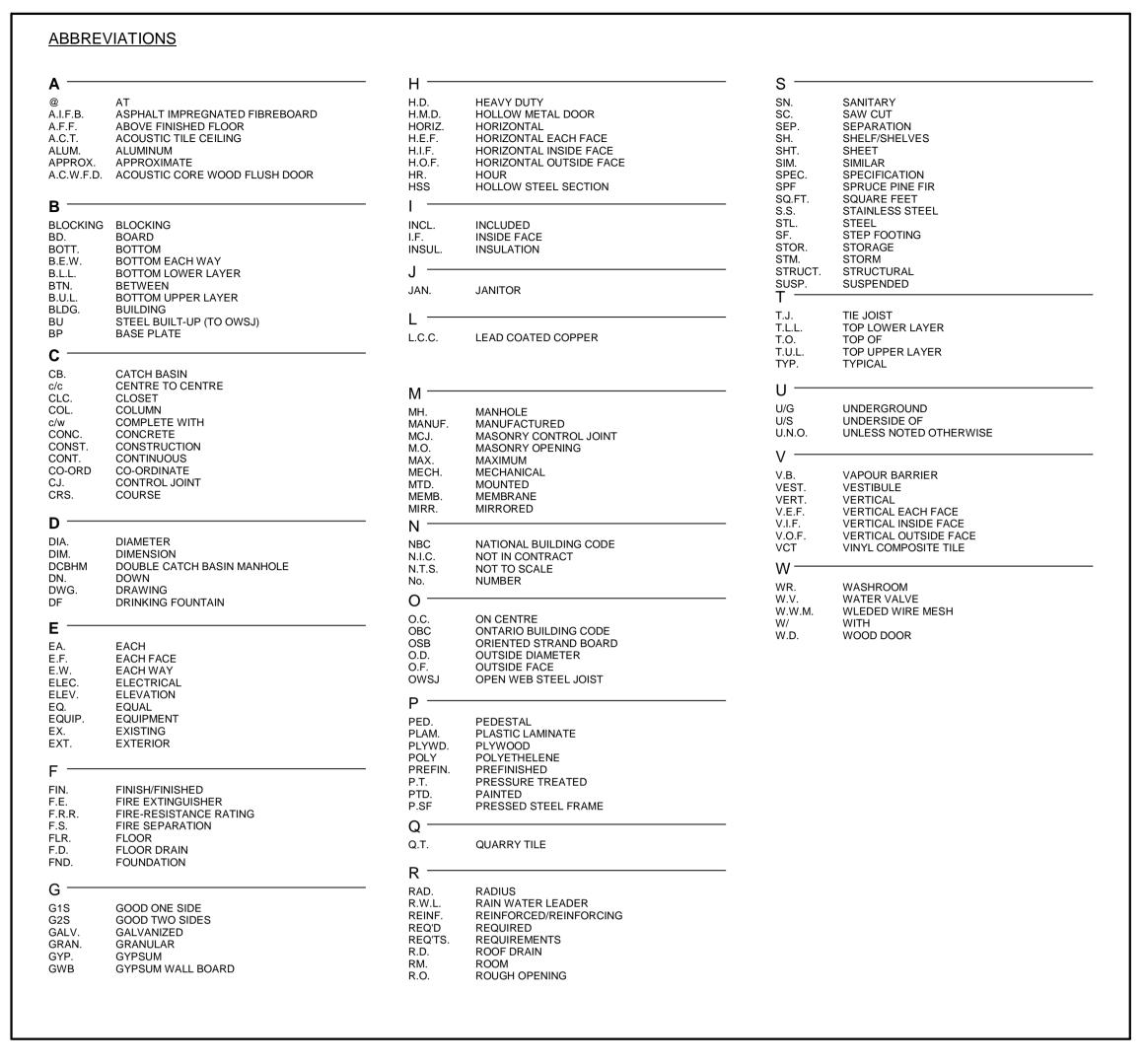


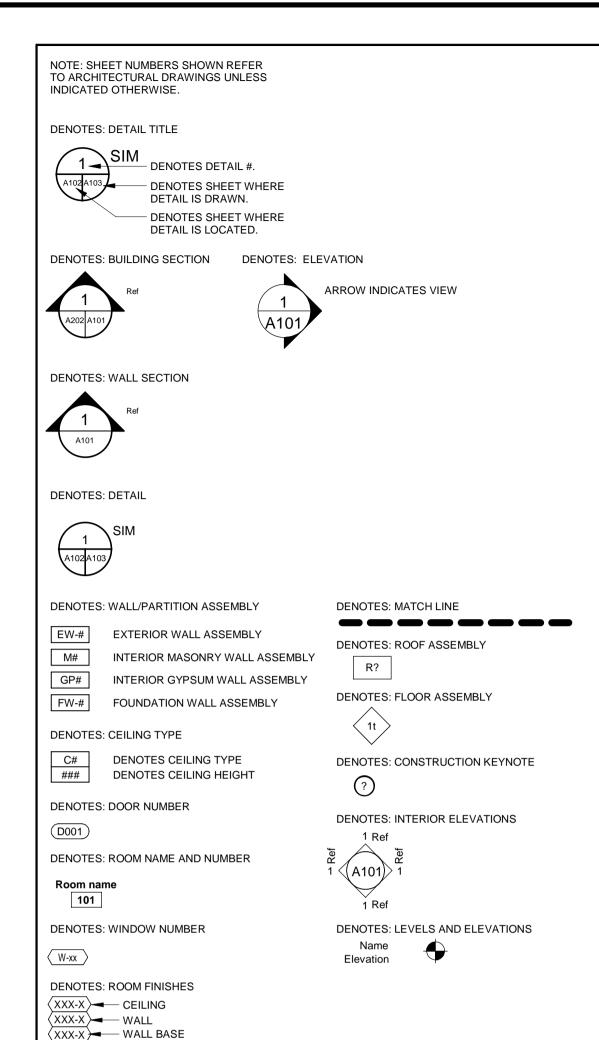
THE REGIONAL MUNICIPALITY
OF DURHAM

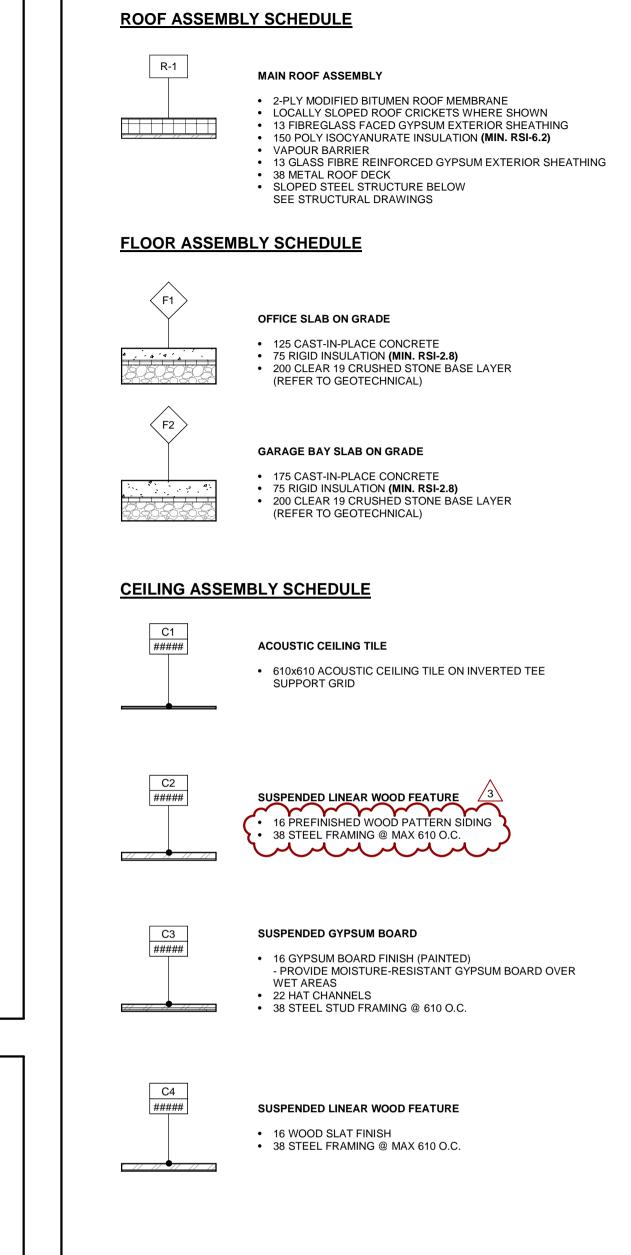
WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
LANDSCAPE DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	L-105	







NO. DATE. NAME REVISIONS

AECOM

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4

519 650 3424 fax

www.aecom.com

PRIME CONSULTANT

519 650 5313 tel

SUB CONSULTANT

ARCHITECTS Z

BOY HOWARD TURNER
LICENCE
4845

DESIGN BY: JC / GG SCALE: As Indicated

DRAWN BY: TH / MR DATE: 10/08/20

CHECKED BY: JC CONSULTANT PROJECT NO. 60611569

APPROVED BY: RT CLIENT FILE No.: 811/20



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
GENERAL NOTES

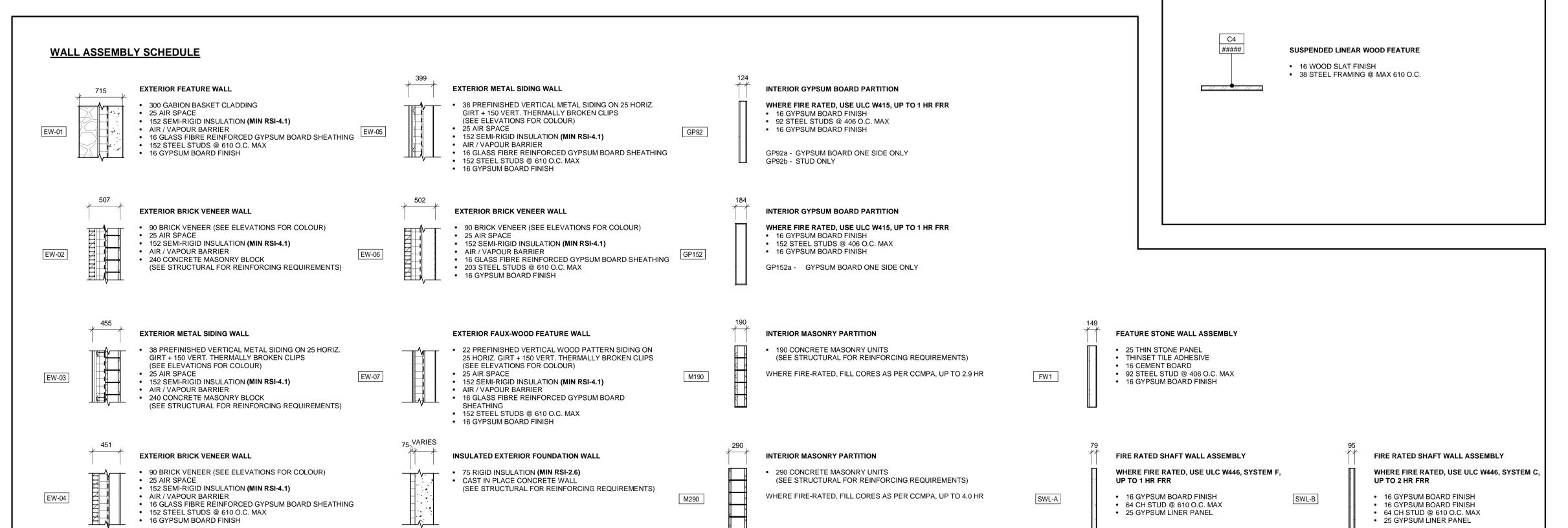
PROPERTY NO.

FACILITIES CODE

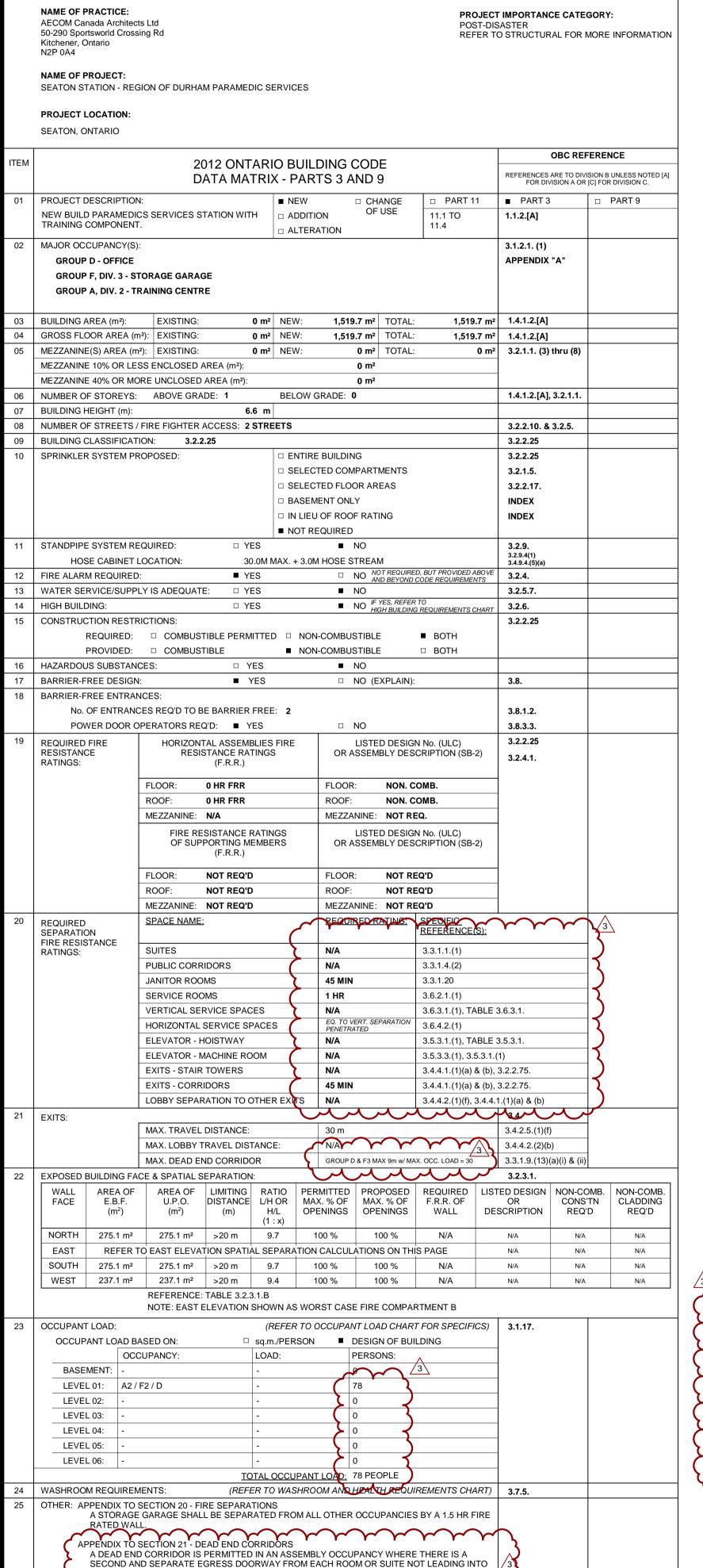
FACILITIES PROJECT NO.
PO61-18-01

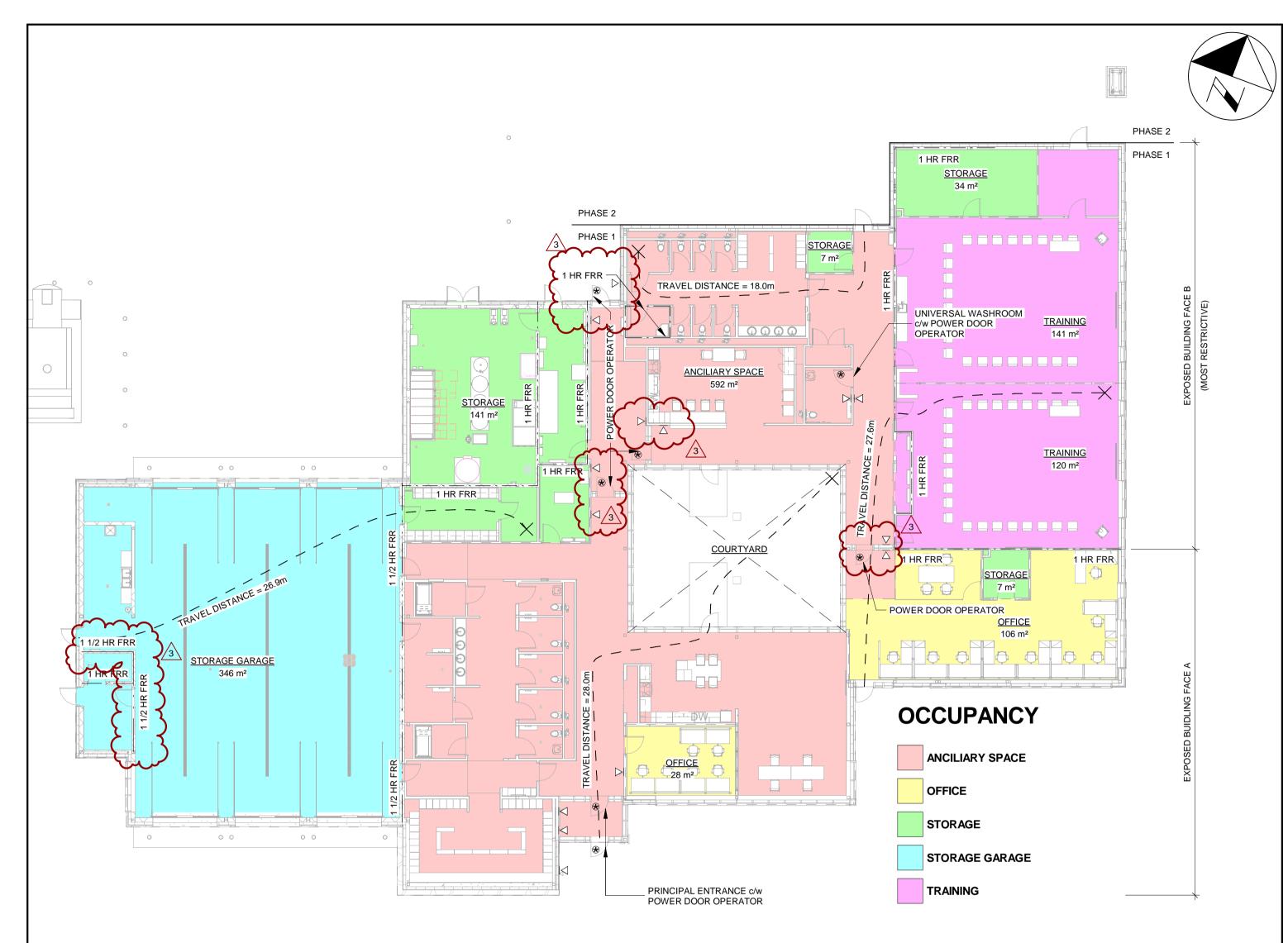
CONTRACT NO.
T-1160-2021 A-001

FACILITIES PROJECT NO.
SHEET NO.



⟨XXX-X⟩- FLOOR

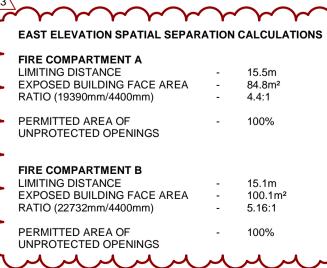




OCCUPANCY SCHEDULE - PHASE 1 REQUIREMENTS **DESIGNED** OCCUPANT WIDTH / EXIT WIDTH PERSON REQUIRED FEMALE AREA (m²) AREA (ft²) MALE ANCILIARY SPACE 591.8 m² 6.1 mm 105.9 m² 6.1 mm 6.1 mm STORAGE 6.1 mm STORAGE 1520 ft² 141.2 m² 6.1 mm 0 mm STORAGE 6.1 mm STORAGE 6.1 mm STORAGE GARAG 6.1 mm 1515 ft² 6.1 mm 1289 ft 159 mm 119.8 m² 6.1 mm 1521.7 m² 16380 ft²

AS PER TABLE 3.7.4.7. - PLUMBING FIXTURES REQUIRED FOR BUSINESS AND PERSONAL SERVICES OCCUPANCIES

FOR THE AMOUNT OF 25 TO 49 PERSONS PER SEX, 3 WATERCLOSETS ARE REQUIRED PER SEX. WE HAVE PROVIDED 12 GENDER NEUTRAL WATERCLOSETS TO BE CONSIDERED AS 6 PER SEX AS WELL AS ONE UNIVERSAL



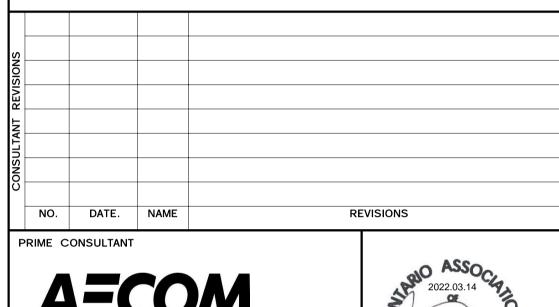
1 \ LIFE SAFETY PLAN - PHASE 1

A-003.1 A-002 1 : 175

LEGEND: NOTE: ALL EXTERIOR AND INTERIOR DIMENSIONS ARE TO THE FACE OF THE WALL ASSEMBLY UNLESS OTHERWISE NOTED. — — — — — 0 HOUR FIRE RESISTANCE RATING 45 MIN. FIRE RESISTANCE RATING 1 HOUR FIRE RESISTANCE RATING 1.5 HOUR FIRE RESISTANCE RATING 2 HOUR FIRE RESISTANCE RATING TRAVEL DISTANCE DOORS W/ AUTOMATIC DOOR OPERATORS BARRIER FREE PUSH BUTTON SEE MECHANICAL DRAWINGS FOR FIRE EXTINGUISHER LOCATIONS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



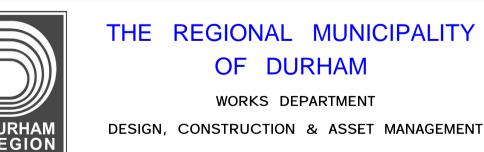
AECOM Canada Architects Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax www.aecom.com

SUB CONSULTANT

O ARCHITECTS BOY HOWARD TURNER LICENCE

DESIGN BY: JC / GG SCALE: As indicated DRAWN BY: TH / MR DATE: 10/07/20 CHECKED BY: JC CONSULTANT PROJECT NO. 60611569 APPROVED BY: RT CLIENT FILE No.: 811/20

4 03/14/20 ISSUED FOR CONSTRUCTION 3 10/18/21 ADDENDUM #1 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



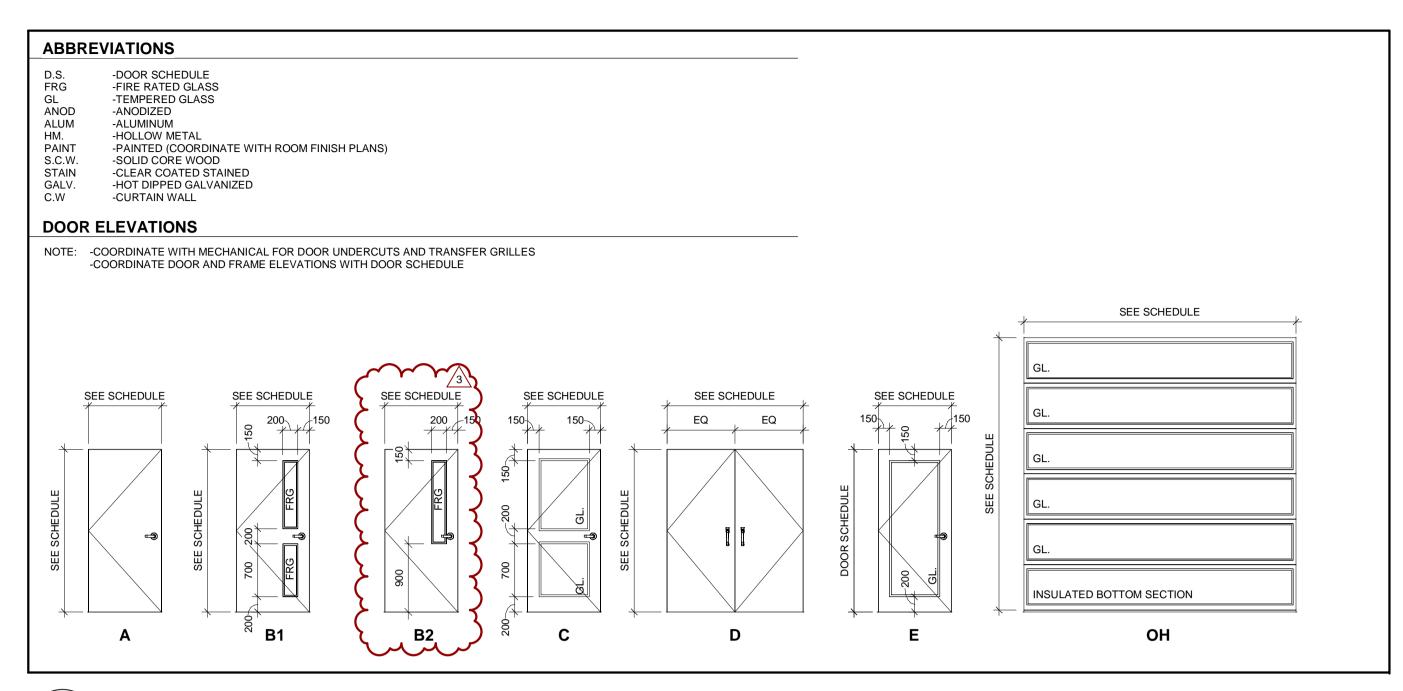
THE REGIONAL MUNICIPALITY OF DURHAM

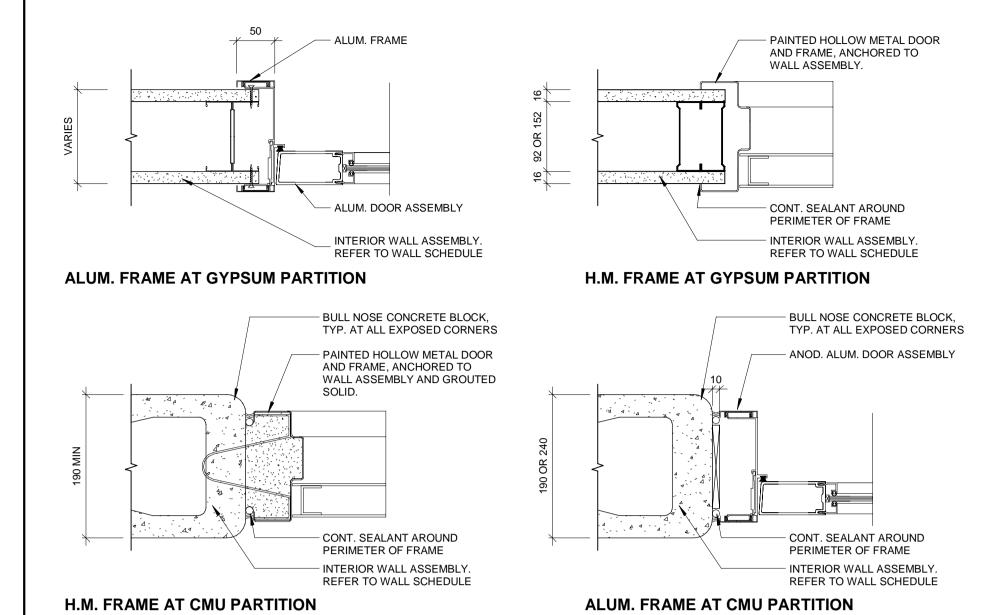
WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION

AND TRAINING FACILITY IN PICKERING OBC MATRIX & LIFE SAFETY PLAN -PHASE 1

			٥
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 002	SHEET NO.	a//·U36 # #10





DOOR LEAF ELEVATIONS

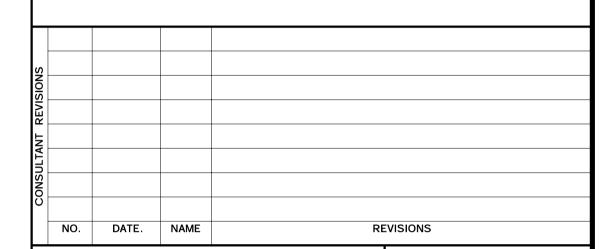
1:50

TYPICAL INTERIOR DOOR JAMB DETAILS

									<u> </u>	DOOR S	SCHED	OLE .	- PHAS	<u>SE 1</u>	
FROM ROOM TO ROOM LEAF FRAME HARDWARE															
NO.	NAME	NO. NAME	LEAF COUNT (HM, WOOD)	WIDTH	HEIGHT	MAT'L	INISH	TYPE	//AT'L	FINISH	FIRE RATING	INSULATION	TOUCHLESS OPERATOR	ACCESS CONTROL	COMMENTS
_		EXT EXTERIOR	,	965	2368	ALUM.	PAINT	E	ALUM.	PAINT		-	•	$\overline{\cdot}$	THERMALLY BROKEN DOOR
	CORRIDOR	101 VESTIBULE		965	2568	ALUM.	PAINT	E	ALUM.	PAINT		•	•		THERMALLY BROKEN DOOR
	CORRIDOR CORRIDOR	103 REPORT WRITING 125 IT	1 1	965 965	2150 2150	WOOD	STAIN STAIN	B2 Δ	HM HM	PAINT				•	
	CLOSET	102 CORRIDOR	'	1830	2150	WOOD	STAIN	A	N/A	N/A					DOUBLE-LEAF SLIDING DOOR, SEE HARDWARE SCHEDULE SPECS
	KITCHEN	106 COURTYARD		965	2540	ALUM.	PAINT	E	ALUM.	PAINT		•		•	THERMALLY BROKEN DOOR, REQUEST TO EXIT
	CORRIDOR	106 COURTYARD		965	2540	ALUM.	PAINT	Е	ALUM.	PAINT		•		•	THERMALLY BROKEN DOOR, REQUEST TO EXIT
	CORRIDOR	112 CLASSROOM	1	965	2150	WOOD	STAIN	B2	HM	PAINT	45				
-	CORRIDOR CORRIDOR	112 CLASSROOM 113 CLASSROOM	1 1	965 965	2150 2150	WOOD	STAIN STAIN	B2 B2	HM HM	PAINT	45 45				
	CORRIDOR	113 CLASSROOM	1	965	2150	WOOD	STAIN	B2	HM	PAINT	45				
	CORRIDOR	116 STORAGE	1	965	2150	WOOD	STAIN	A	HM	PAINT					
	CORRIDOR	119 UNI. W/R	1	965	2150	WOOD	STAIN	А	НМ	PAINT			•		PROVIDE UNIVERSAL WASHROOM CONTROL KIT AS PER OBC
	CORRIDOR	122 VESTIBULE		965	2570	ALUM.	PAINT	E	ALUM.	PAINT			•	•	CINCLE LEVE CLIDING DOOD, OFF HARDWARE COLIFICIAL CORECO
	CLOSET	107 CORRIDOR 107 CORRIDOR		915 1830	2150 2150	WOOD	STAIN STAIN	A	N/A N/A	N/A N/A	-				SINGLE-LEAF SLIDING DOOR, SEE HARDWARE SCHEDULE SPECS DOUBLE-LEAF SLIDING DOOR, SEE HARDWARE SCHEDULE SPECS
	OPEN OFFICE	109 BREAKOUT		965	2890	GL	- STAIN	A	GL	-					DOOR AND HARDWARE BY GLASS PARTITION MANUFACTURES. DOOR TO HAVE CONTINUOUS OPAQUE 50mm STRIP 1500mm A.F.E.
	OPEN OFFICE	110 STORAGE	1	965	2150	WOOD	STAIN	А	HM	PAINT					DOOR AND HARDWARE BY GLASS PARTITION MANUFACTURER. DOOR TO HAVE CONTINUOUS OPAQUE 50mm STRIP 1500mm A.F.F.
108	OPEN OFFICE	EXT EXTERIOR		965	2368	ALUM.	PAINT	Е	ALUM.	PAINT		•		•	THERMALLY BROKEN DOOR
	CLASSROOM	114 SIM LAB	1	965	2150	WOOD	STAIN	А	HM	PAINT					
	CLASSROOM	115 STORAGE	1	965	2150	WOOD	STAIN	A	HM	PAINT					THERMALLY PROVEN DOOR
	SIM LAB GENDER NEUTRAL W/R	EXT EXTERIOR 107 CORRIDOR	1 1	965 965	2150 2150	HM WOOD	PAINT STAIN	A	HM HM	PAINT PAINT		•		•	THERMALLY BROKEN DOOR
	GENDER NEUTRAL W/R	117 GENDER NEUTRAL W/R	1	965	2150	WOOD	STAIN	A	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
		117 GENDER NEUTRAL W/R	1	875	2150	WOOD	STAIN	A	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
026 117	GENDER NEUTRAL W/R	117 GENDER NEUTRAL W/R	1	875	2150	WOOD	STAIN	А	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
		117 GENDER NEUTRAL W/R		875	2150	WOOD	STAIN	А	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
		117 GENDER NEUTRAL W/R		875	2150	WOOD	STAIN	A	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
	GENDER NEUTRAL W/R GENDER NEUTRAL W/R			875 875	2150 2150	WOOD	STAIN STAIN	A A	HM HM	PAINT PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv) D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
		120 JAN. RM	1	965	2150	HM	PAINT	A	HM	PAINT	45				B GHALE HANDLE BOTT GIBLO, GOOD! ANOT INDIGATOR BEADBOLL, GRAVIT I TIMOLO AOT ER GBO 3.3.3.3.(1)(0)(1)
032 118	STORAGE	107 CORRIDOR	2	1800	2150	WOOD	STAIN	D	HM	PAINT					PROVIDE RIGID LEVER STYLE HANDLE ON CORRDIOR SIDE OF DOOR, NO INTERIOR HANDLE
	VESTIBULE	123 ELEC	1	965	2150	HM	PAINT	А	HM	PAINT	45			•	
	ELEC	124 MECH	1	965	2150	HM	PAINT	A	HM	PAINT	45				
		EXT EXTERIOR	1	965	2150	HM	PAINT	A	HM	PAINT		•			THERMALLY BROKEN DOOR
	MECH MED. STORAGE	EXT EXTERIOR 126 SECURED	1	1800 965	2150 2150	HM WOOD	PAINT STAIN	D A	HM HM	PAINT PAINT		•		•	KEYED REMOVABLE CENTRE MULLION, THERMALLY BROKEN DOOR
	CORRIDOR	102 CORRIDOR	1	965	2150	WOOD	STAIN	B2	HM	PAINT					
		128 GENDER NEUTRAL W/R	1	965	2150	WOOD	STAIN	A	НМ	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
	GENDER NEUTRAL W/R	128 GENDER NEUTRAL W/R		965	2150	WOOD	STAIN	А	НМ	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
	GENDER NEUTRAL W/R			965	2150	WOOD	STAIN	A	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
		128 GENDER NEUTRAL W/R128 GENDER NEUTRAL W/R		965 965	2150 2150	WOOD	STAIN STAIN	A	HM HM	PAINT PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv) D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
		128 GENDER NEUTRAL W/R		965	2150	WOOD	STAIN	A	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
	GENDER NEUTRAL W/R	128 GENDER NEUTRAL W/R		965	2150	WOOD	STAIN	A	HM	PAINT					D-SHAPE HANDLE BOTH SIDES, OCCUPANCY INDICATOR DEADBOLT, GRAVITY HINGES AS PER OBC 3.8.3.8.(1)(c)(iv)
	DECON	128 GENDER NEUTRAL W/R	1	965	2150	WOOD	STAIN	Α	НМ	PAINT					
	VEHICLE BAY	102 CORRIDOR	1	965	2150	HM	PAINT	B1	HM	PAINT	60				
		127 MED. STORAGE 102a CORRIDOR	1	965 965	2150 2150	HM HM	PAINT PAINT	B1 B1	HM HM	PAINT PAINT	60			•	
	VEHICLE BAY	130 DECON	1	965	2150	HM	PAINT	A	HM	PAINT	60	_	•		
	VEHICLE BAY	134 OXYGEN/LINEN	1	965	2150	HM	PAINT	B1	HM	PAINT	60	3			
		EXT EXTERIOR		3600	3600	ALUM.	PAINT	ОН	STEEL	PAINT	نر	•			STANDARD LIFT SECTIONAL DOOR
	_	EXT EXTERIOR		3600	3600	ALUM.	PAINT	OH	STEEL	PAINT		•			STANDARD LIFT SECTIONAL DOOR
		EXT EXTERIOR EXT EXTERIOR	1	3600	3600	ALUM. HM	PAINT	OH	STEEL	PAINT PAINT	1	•		•	STANDARD LIFT SECTIONAL DOOR THERMALLY RROKEN DOOR
	EXTERIOR	131 VEHICLE BAY	1	965 3600	2150 3600	ALUM.	PAINT	A OH	STEEL	PAINT	+	•		•	THERMALLY BROKEN DOOR STANDARD LIFT SECTIONAL DOOR
	EXTERIOR	131 VEHICLE BAY		3600	3600	ALUM.	PAINT	OH	STEEL	PAINT		•			STANDARD LIFT SECTIONAL DOOR
	EXTERIOR	131 VEHICLE BAY		3600	3600	ALUM.	PAINT	OH	STEEL	PAINT		•			STANDARD LIFT SECTIONAL DOOR
		EXT EXTERIOR		965	2368	ALUM.	PAINT	E	ALUM.	PAINT		•	•	•	THERMALLY BROKEN DOOR
		EXT EXTERIOR		965	2368	ALUM.	PAINT	E	ALUM.	PAINT		•	(3)	•	THERMALLY BROKEN DOOR
	CORRIDOR	122 VESTIBULE	4	965	2568	ALUM.	PAINT	E	ALUM.	PAINT			\ -		THERMALLY PROVEN DOOR
	WASH AREA	EXT EXTERIOR	1	965 965	2150 2568	HM ALUM.	PAINT PAINT	A E	HM ALUM.	PAINT PAINT		•	•	•	THERMALLY BROKEN DOOR
63 107	CORRIDOR	108 OPEN OFFICE													

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



2022.03.14 ARCHITECTS

BOY HOWARD TURNER LICENCE

AECON

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

www.aecom.com

SUB CONSULTANT

PRIME CONSULTANT

DESIGN BY: JC / GG

SCALE: As indicated

DRAWN BY: TH / MR

DATE: 10/08/20

CHECKED BY: JC

CONSULTANT PROJECT NO. 60611569

APPROVED BY: RT

CLIENT FILE No.: 811/20



THE REGIONAL MUNICIPALITY OF DURHAM

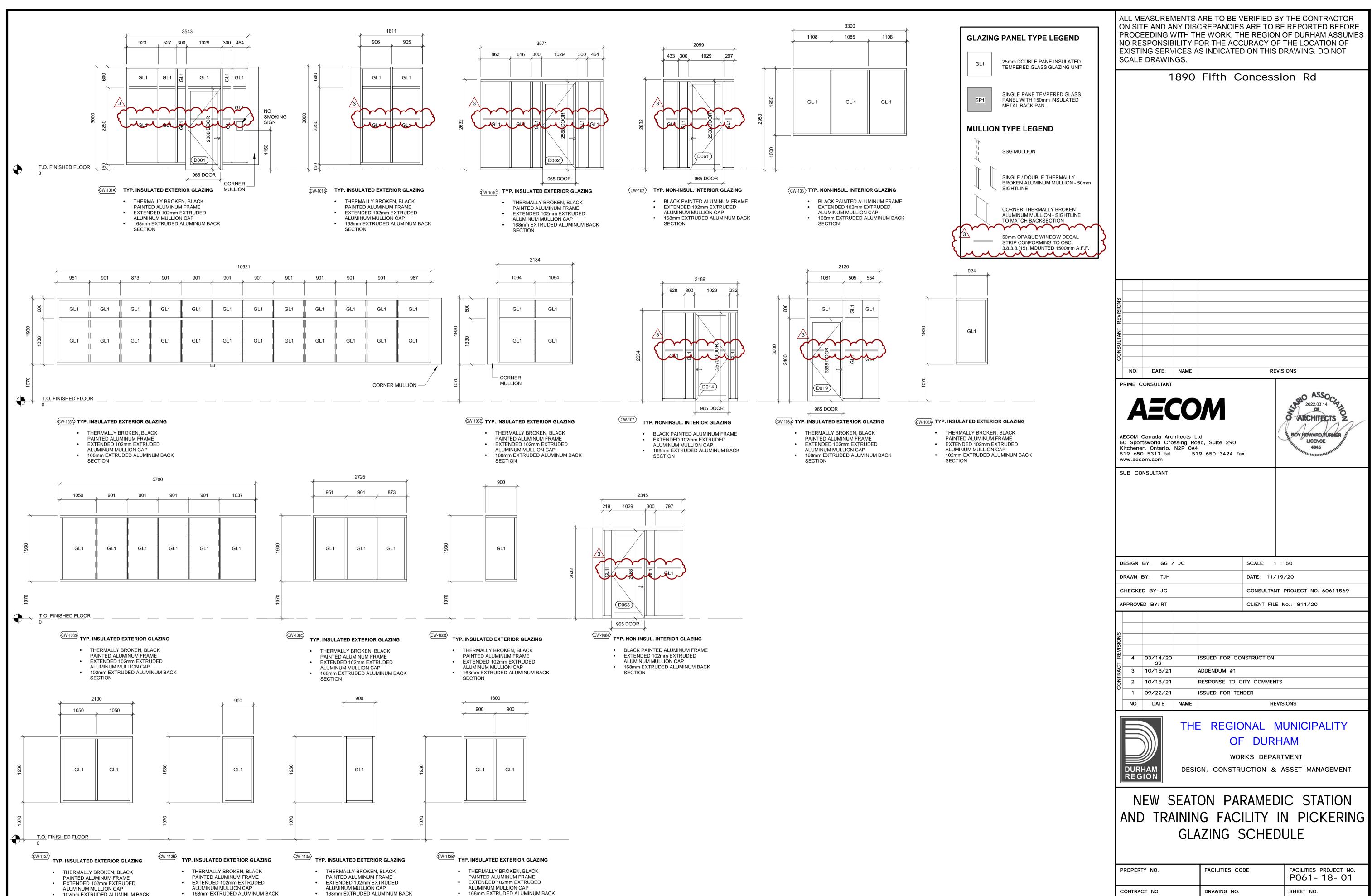
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING DOOR SCHEDULE

FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
DRAWING NO.	SHEET NO.	(
A- 003		00 14
	DRAWING NO.	P061- 18- 01 DRAWING NO. SHEET NO.

11569-Seaton RDPS/60611569-Seaton RDPS-A.rvt

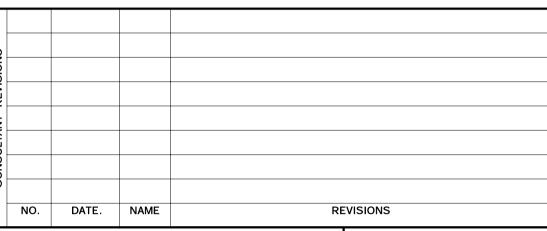


102mm EXTRUDED ALUMINUM BACK

SECTION

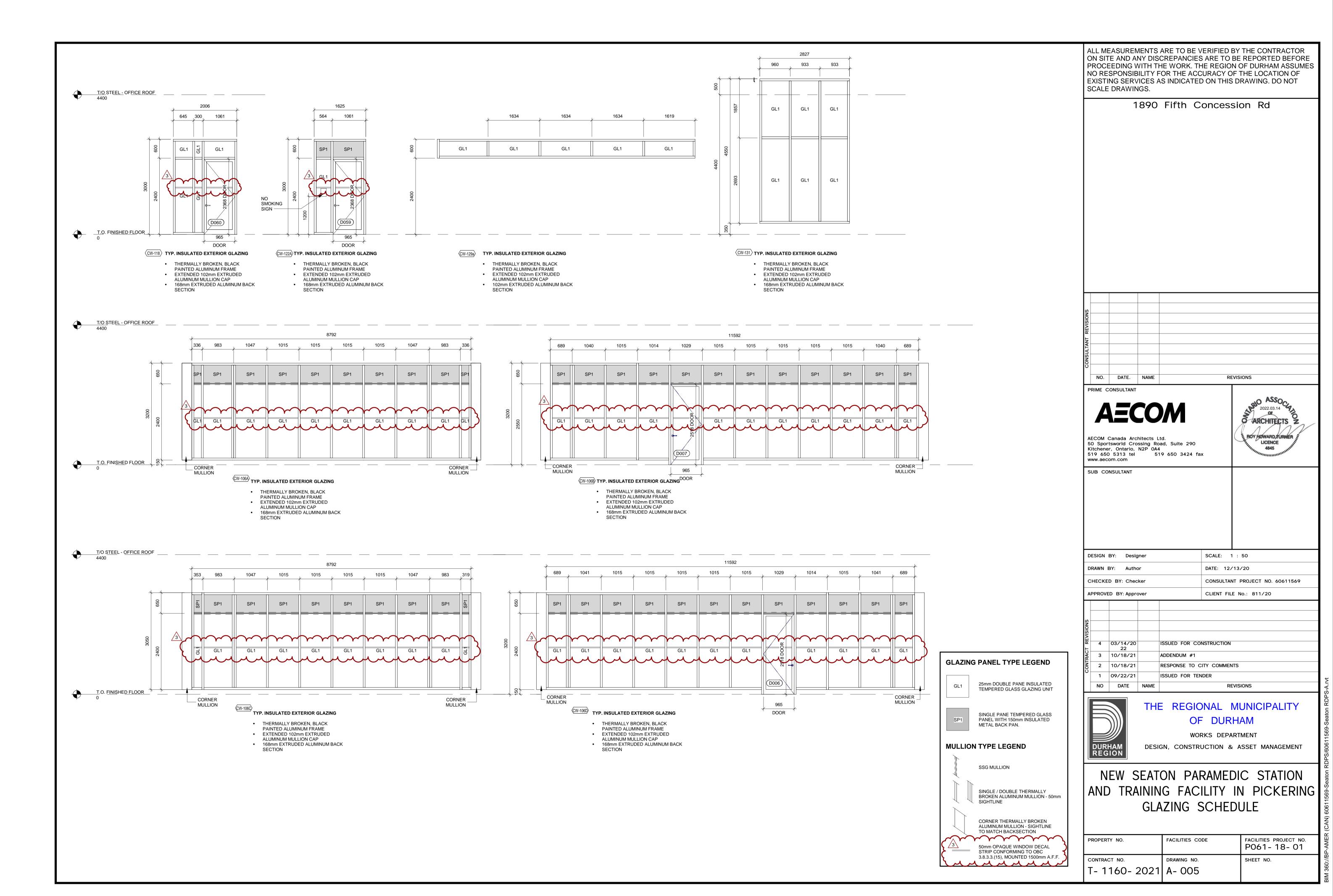
SECTION

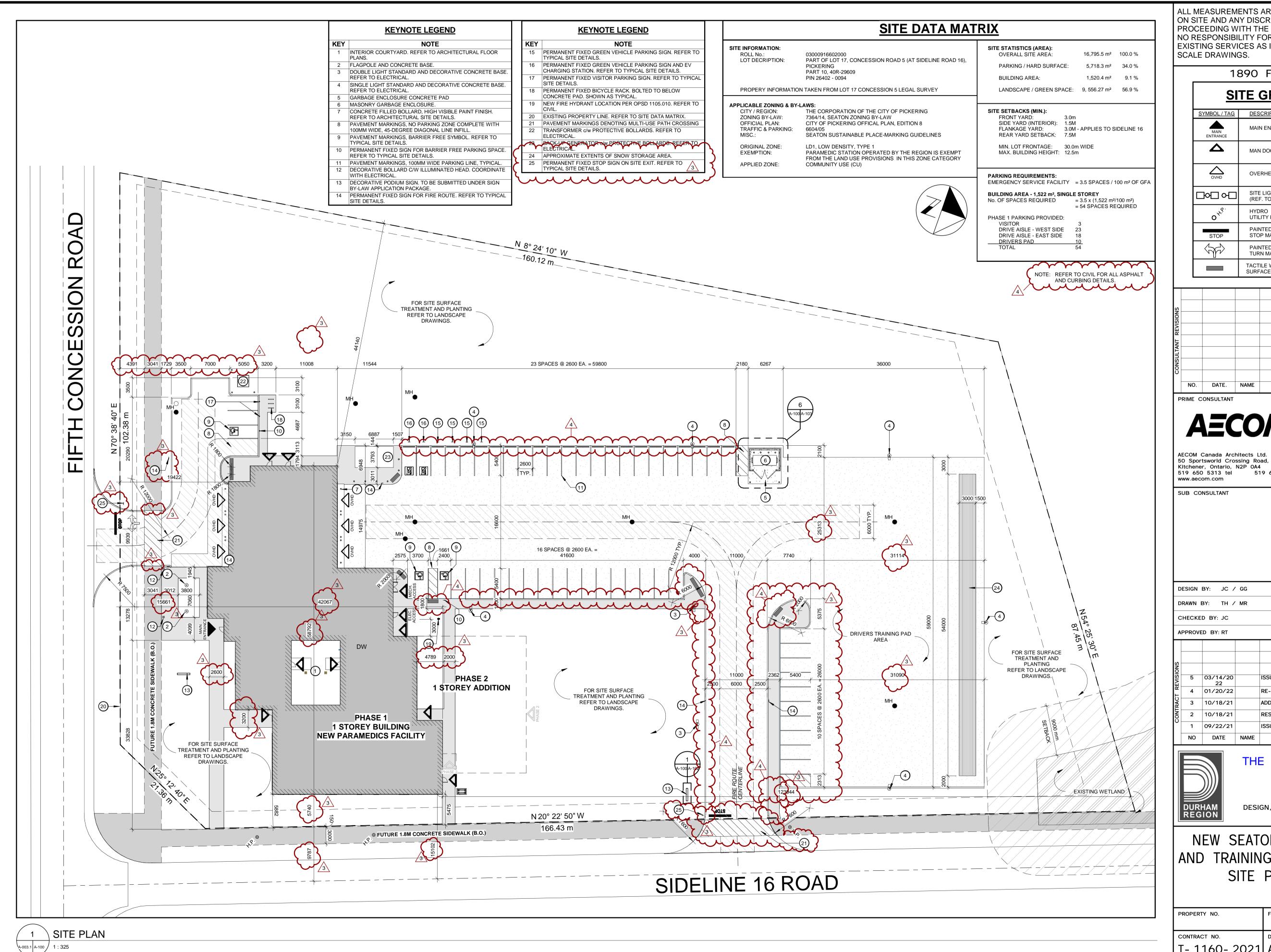
SECTION





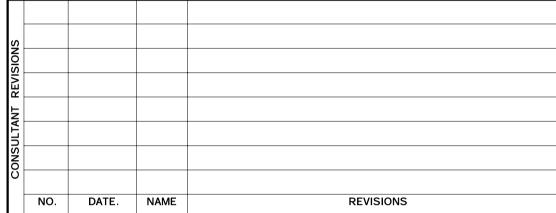
PROPERTY NO.	FACILITIES CODE	PO61- 18- 01	P-AME
CONTRACT NO. T- 1160- 2021	A- 004	SHEET NO.	BIM 360://B





1890 Fifth Concession Rd

<u>SI</u>	TE GRAPH	ICS LEG	<u>SEND</u>
SYMBOL / TAG	DESCRIPTION	<u>LINETYPE /</u> GRAPHIC	DESCRIPTION
MAIN ENTRANCE	MAIN ENTRANCE		PROPERTY LINE
Δ	MAN DOOR		SITE SETBACK
OVHD	OVERHEAD DOOR		ASHPALT AREA (COORD. w/ CIVIL)
	SITE LIGHTING		HARD SURFACE SIDEWALK
	(REF. TO ELEC.)		FIRE ROUTE
O _{YS} .	PAINTED TRAFFIC STOP MARKING PAINTED TRAFFIC TURN MARKING		c/w CENTERLINE
STOP			NEW BUILDING AREA (PHASE 1)
			FUTURE BUILDING
	TACTILE WARNING SURFACE INDICATOR		AREA (PHASE 2)



2022.03.14

BOY HOWARD TURNER

LICENCE

O ARCHITECTS

50 Sportsworld Crossing Road, Suite 290 519 650 3424 fax

DESIGN BY: JC / GG	SCALE: As indicated
DRAWN BY: TH / MR	DATE: 10/07/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

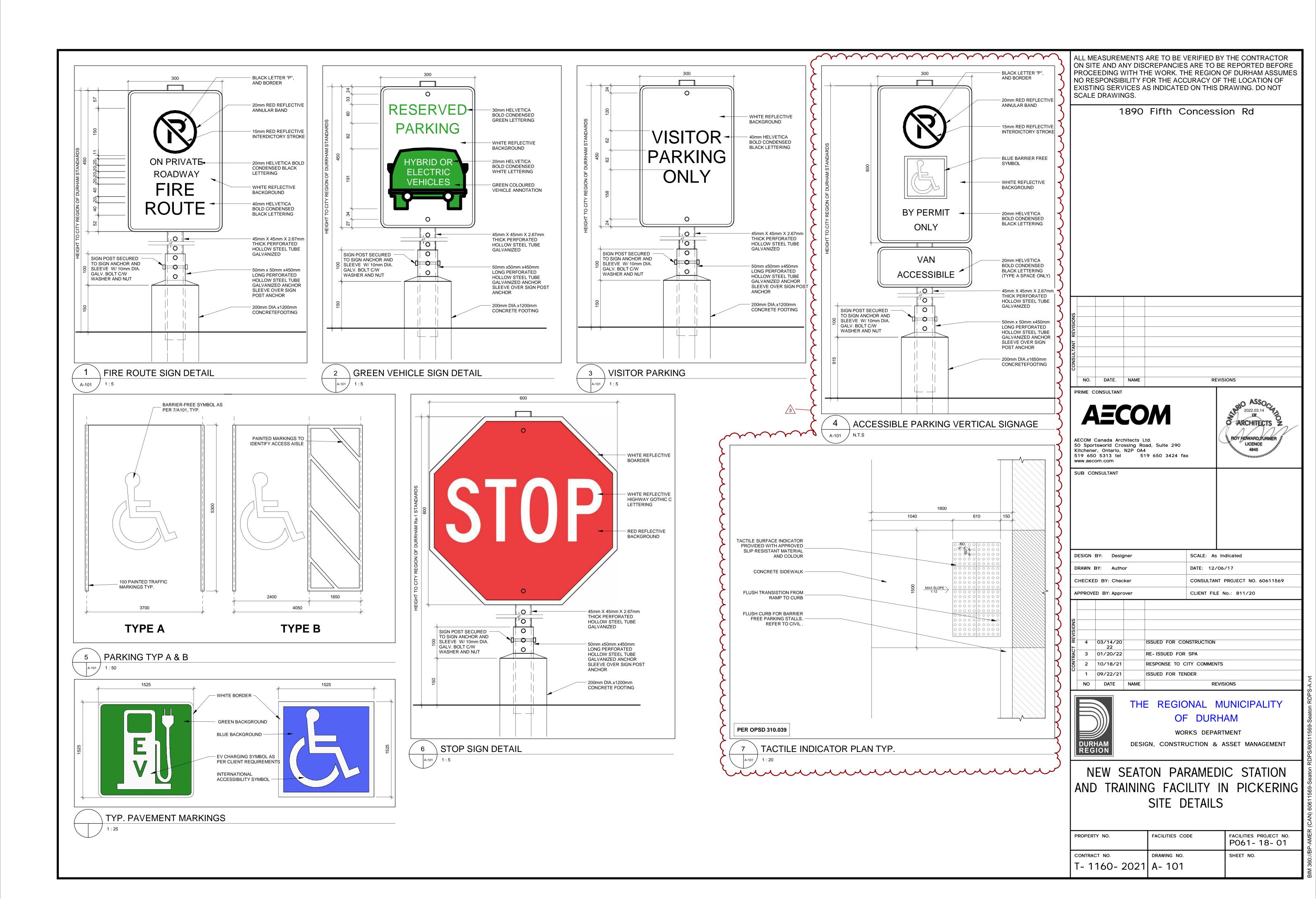
- 1					
	KEVISIONS	5	03/14/20 22		ISSUED FOR CONSTRUCTION
ļ	_	4	01/20/22		RE- ISSUED FOR SPA
CONTRAC	₹ S	3	10/18/21		ADDENDUM #1
	200	2	10/18/21		RESPONSE TO CITY COMMENTS
ľ		1	09/22/21		ISSUED FOR TENDER
		NO	DATE	NAME	REVISIONS

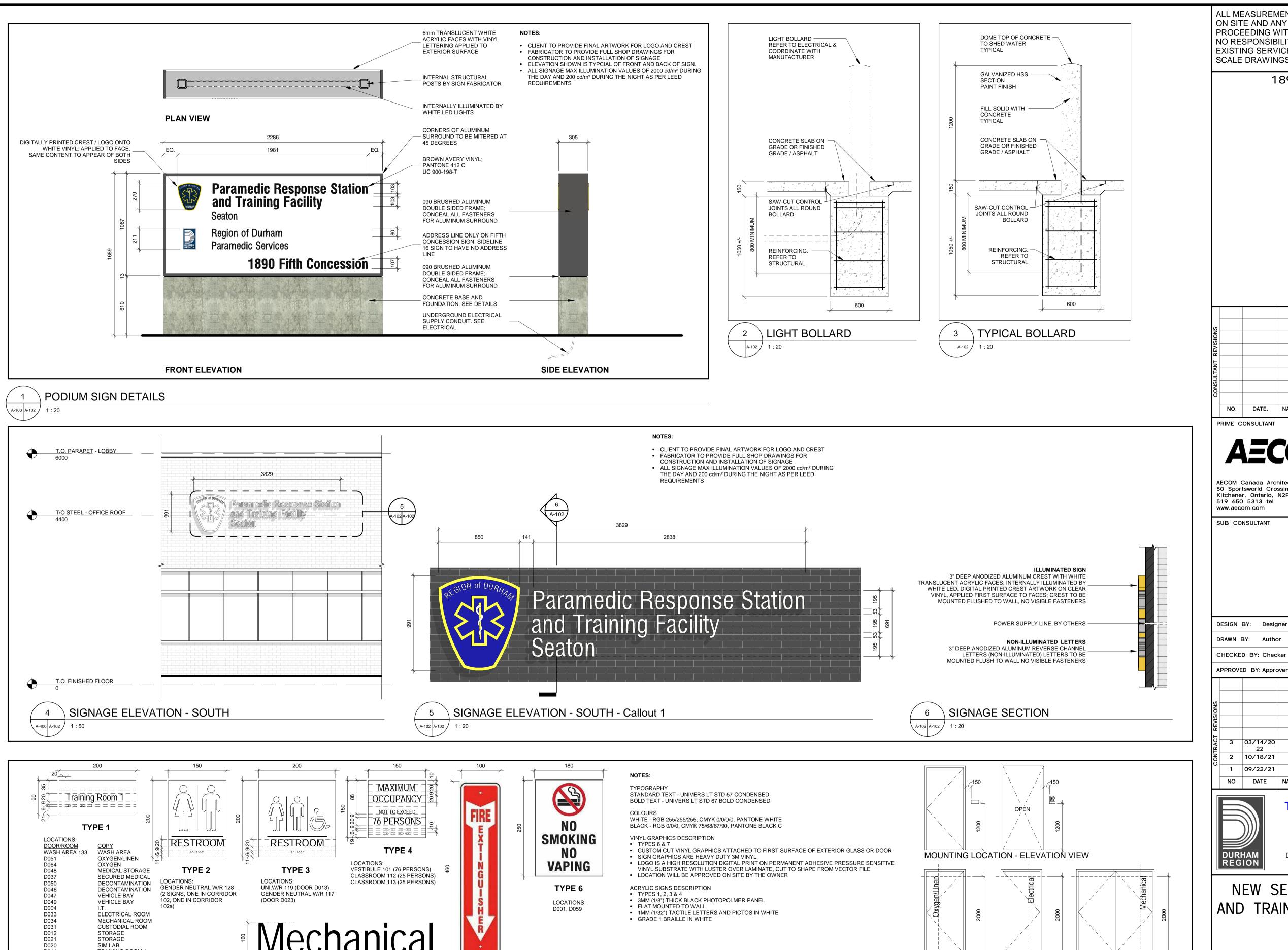
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING SITE PLAN - PHASE 1

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61-18-01	
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 100	SHEET NO.	IM/ 360-//BI





LOCATIONS: SEE M200

TRAINING ROOM TRAINING ROOM 1

TRAINING ROOM 2

TRAINING ROOM 2

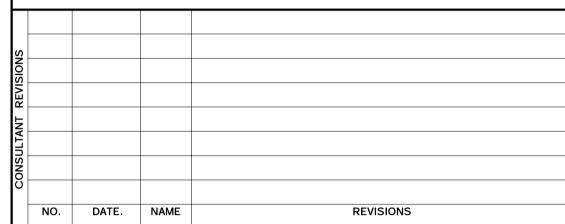
ROOM IDENTIFICATION SIGNAGE

D010 D008

D009

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT

1890 Fifth Concession Rd



2022.03.14

BOY HOWARD TURNER

LICENCE

O ARCHITECTS

AECOM Canada Architects Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel

SUB CONSULTANT

DESIGN BY: Designer SCALE: As indicated DATE: 12/14/20 DRAWN BY: Author CONSULTANT PROJECT NO. 60611569 CHECKED BY: Checker

3 03/14/20 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 09/22/21 ISSUED FOR TENDER REVISIONS NO DATE NAME



650

EXTERNAL ACCESS ROOM - ELEVATION VIEW

THE REGIONAL MUNICIPALITY OF DURHAM

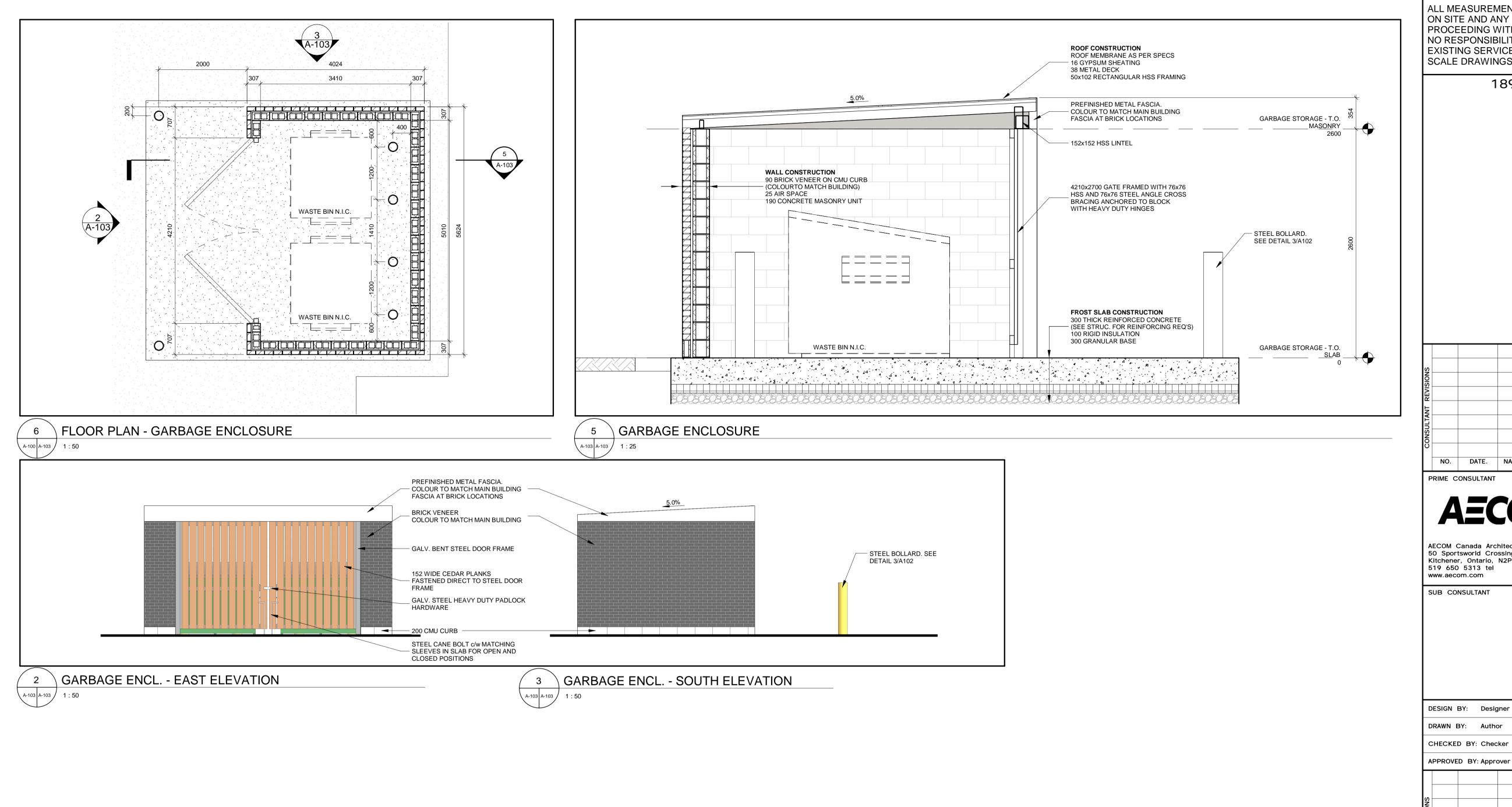
CLIENT FILE No.: 811/20

WORKS DEPARTMENT

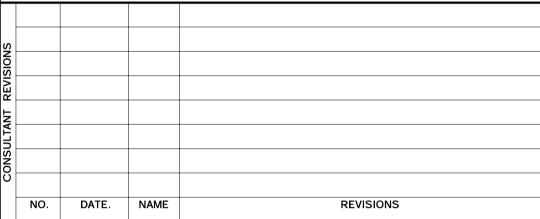
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING SIGNAGE DETAIL

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61-18-01	
CONTRACT NO.	DRAWING NO.	SHEET NO.	<u>م</u> / رو
T- 1160- 2021	A- 102		26/
]



1890 Fifth Concession Rd



2022.03.14

S ARCHITECTS 7

BOY HOWARD TURNER

LICENCE 4845

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel

SUB CONSULTANT

DESIGN BY: Designer	SCALE: As indicated
DRAWN BY: Author	DATE: 12/30/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569

REVISIONS				
EVIS				
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION
NO	2	10/18/21		RESPONSE TO CITY COMMENTS
	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

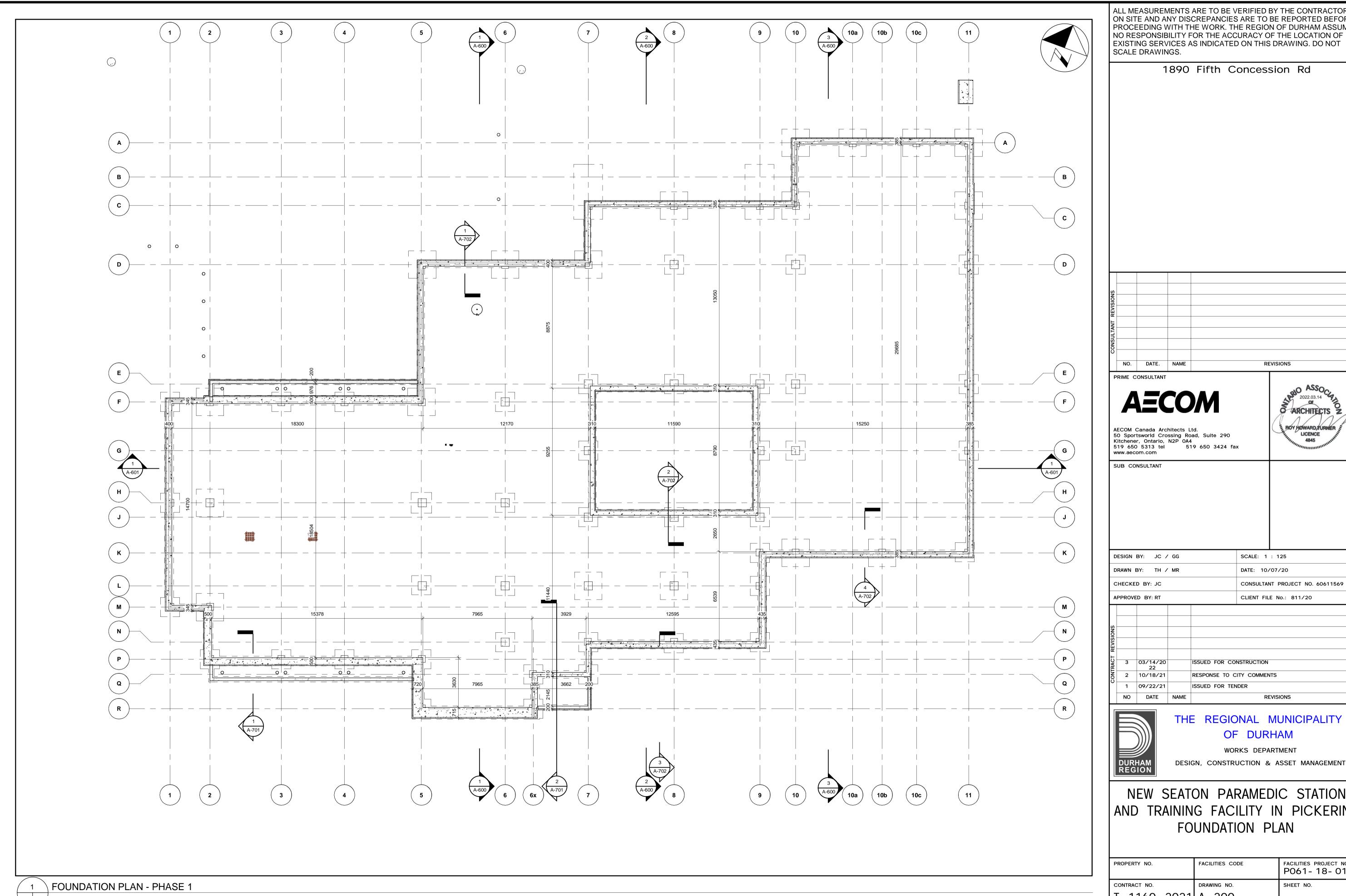
CLIENT FILE No.: 811/20

WORKS DEPARTMENT

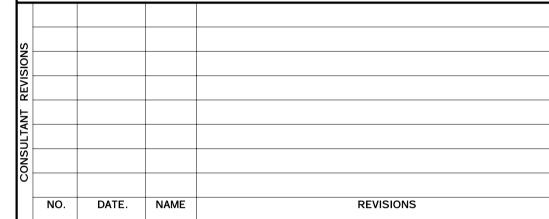
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING GARBAGE ENCLOSURE PLANS AND **DETAILS**

PROPERTY NO.	FACILITIES CODE	PO61- 18- 01	אין ט
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 103	SHEET NO.	A//-09c MIG



1890 Fifth Concession Rd



2022.03.14 S ARCHITECTS 7

ROY HOWARD TURNER LICENCE 4845

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

DESIGN	BY: JC /	′ GG	SCALE: 1 : 125
DRAWN I	BY: TH /	MR	DATE: 10/07/20
CHECKE	D BY: JC		CONSULTANT PROJECT NO. 60611569
APPROVE	ED BY: RT		CLIENT FILE No.: 811/20
"			
NO			
REVISIONS			
<u>م</u>			

RESPONSE TO CITY COMMENTS

THE REGIONAL MUNICIPALITY OF DURHAM

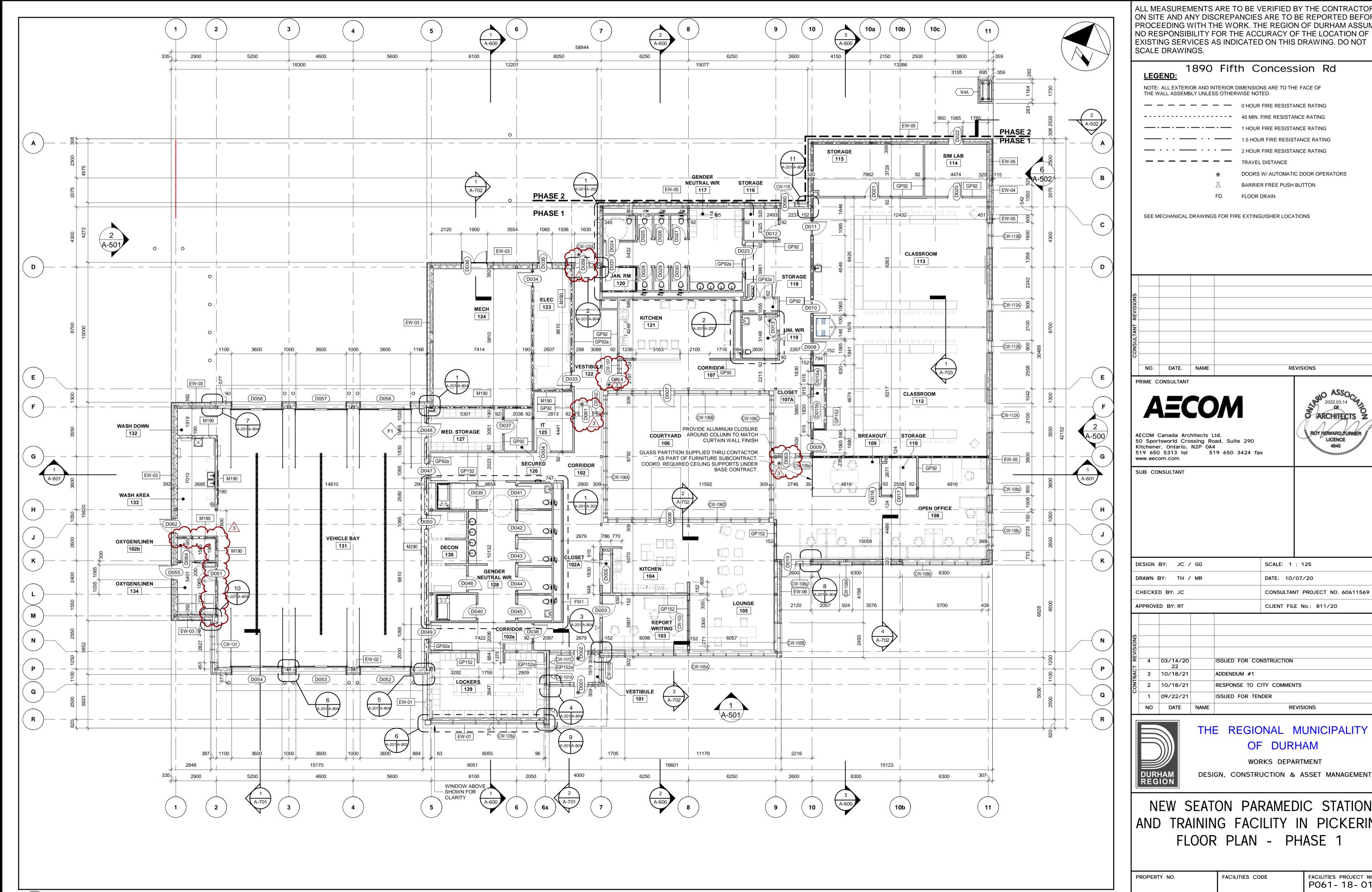
REVISIONS

WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION

AND TRAINING FACILITY IN PICKERING FOUNDATION PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. - 1160- 2021	DRAWING NO. A- 200	SHEET NO.



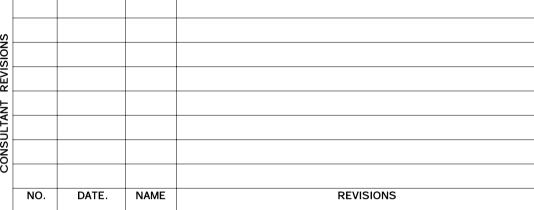
FLOOR PLAN - MAIN FLOOR

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT

1890 Fifth Concession Rd

1.5 HOUR FIRE RESISTANCE RATING 2 HOUR FIRE RESISTANCE RATING

DOORS W/ AUTOMATIC DOOR OPERATORS



2022.03.14 O ARCHITECTS ROY HOWARD TURNER LICENCE

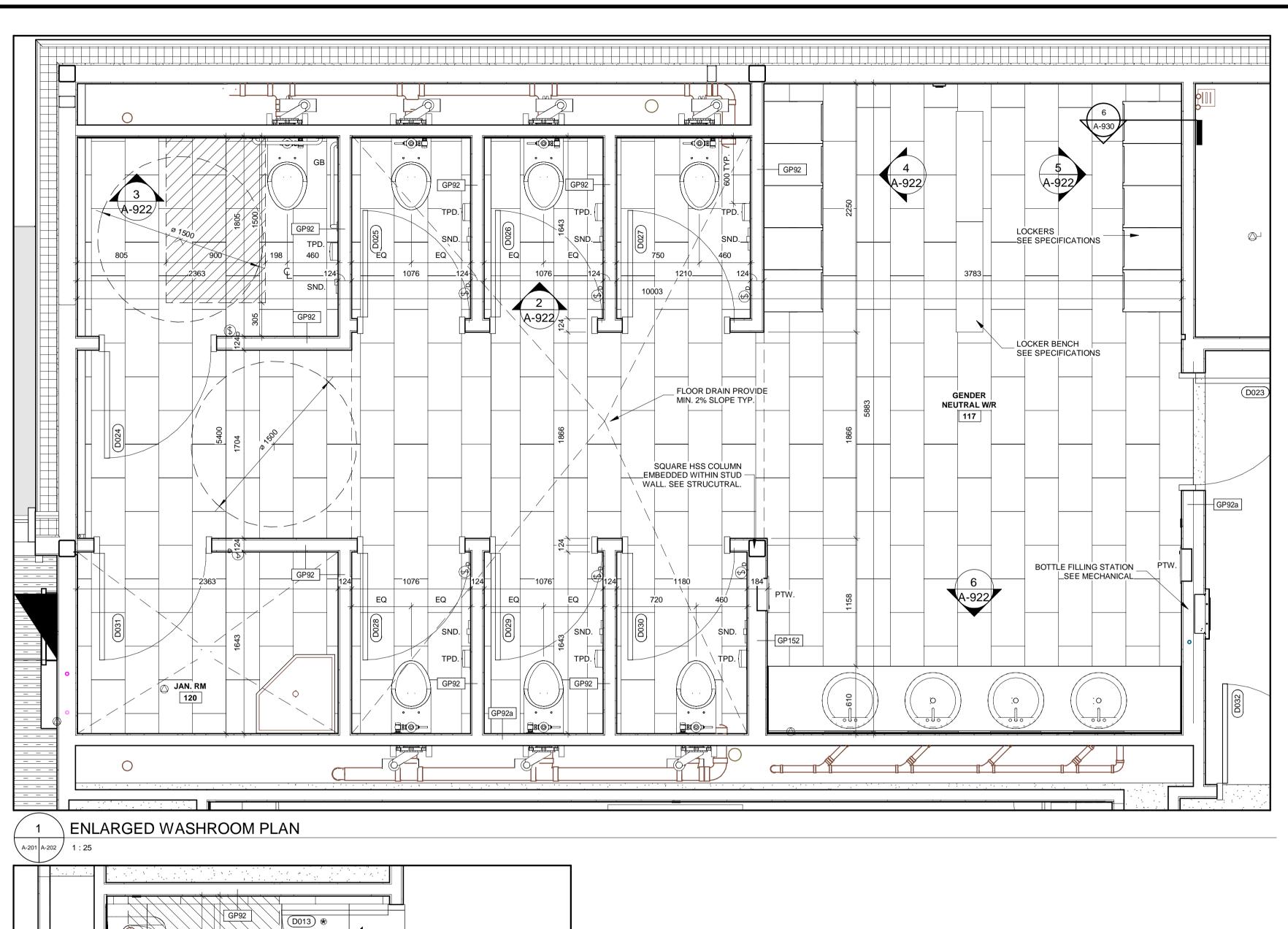
CONSULTANT PROJECT NO. 60611569

THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
ONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	A- 201	



WASHROOM ACCESSORIES LEGEND AND DETAIL

. ALL WASHROOM LAYOUTS TO CNFORM TO SECTION 3.8 OF THE ONTARIO BUILDING CODE. SEE WASHROOM DETAILS SHEET FOR

COORDINATE POWER DOOR OPERATORS, EMERGENCY CALL SYSTEMS, VISUAL AND AUDIBLE ALARMS WITH ELECTRICAL AND DOOR SCHEDULE.

3. COORDINATE WALL ASSEMBLIES AND BLOCKING REQUIREMENTS WITH MECHANICAL TOILET CARRIERS.

TPD. TOILET PAPER DISPENSER

SND. SANITARY NAPKIN DISPOSAL SD. SOAP DISPENSER

MIR. MIRROR

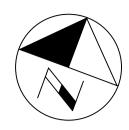
CHK. COAT HOOK

GRAB BAR BARRIER FREE PUSH BUTTON - PDO

SH. STAINLESS STEEL SHELF

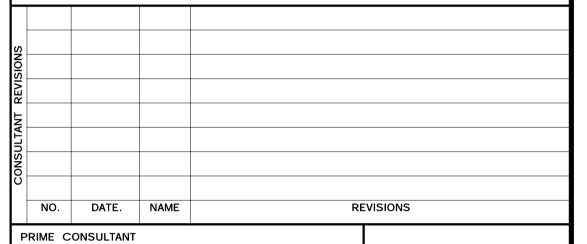
BCH. BENCH

PTW. RECESSED PAPER TOWEL DISPENSER AND WASTE BASKET



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



ASSOCIATION NO. 100 ASSOCI

S ARCHITECTS Z

BOY HOWARD TURNER

LICENCE 4845

AECOM Canada Architects Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4

519 650 5313 tel 519 650 3424 fax

SUB CONSULTANT

www.aecom.com

DESIGN BY: JC / GG	SCALE: As indicated
DRAWN BY: TH / MR	DATE: 10/08/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
_				
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION
Š	2	10/18/21		RESPONSE TO CITY COMMENTS
	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



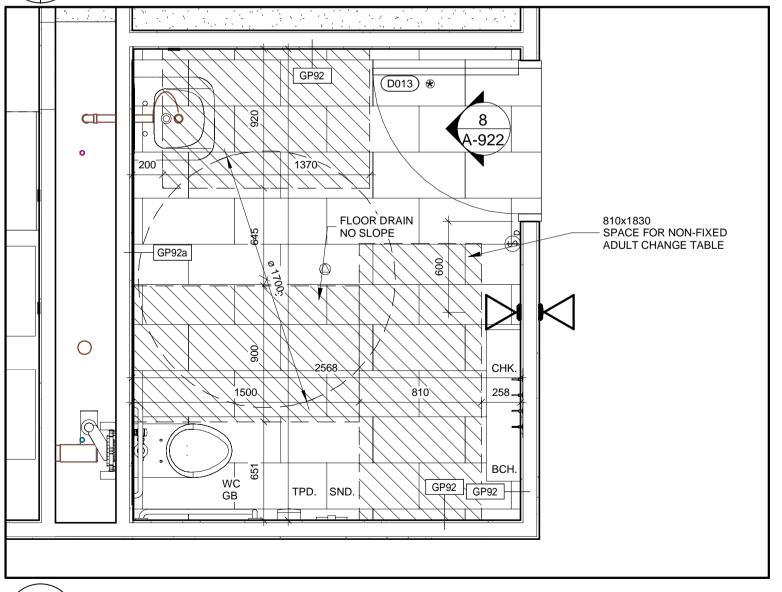
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

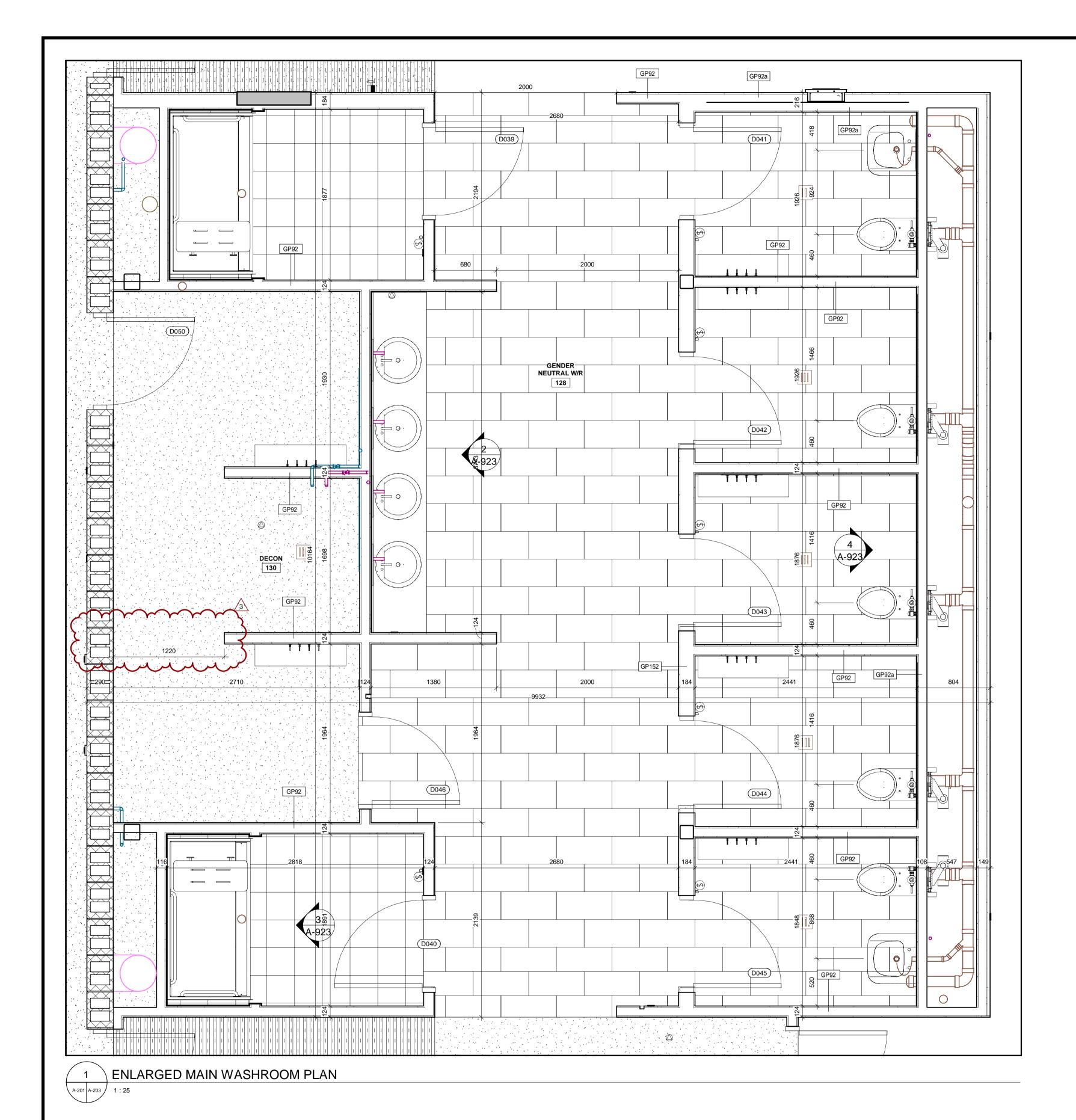
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING WASHROOM FLOOR PLANS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 202	SHEET NO.	



2 ENLARGED UNIVERSAL WASHROOM A-201 A-202 1 : 25



1890 Fifth Concession Rd

NO. DATE. NAME REVISIONS PRIME CONSULTANT

> 2022.03.14 S ARCHITECTS Z

BOY HOWARD TURNER LICENCE 4845

AECOM

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

SUB CONSULTANT

www.aecom.com

DESIGN BY: Designer	SCALE: As Indicated
DRAWN BY: Author	DATE: 12/30/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
_	4	03/14/20 22		ISSUED FOR CONSTRUCTION
2	3	12/9/21		ADDENDUM #3
	2	10/18/21		RESPONSE TO CITY COMMENTS
_	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING WASHROOM FLOOR PLANS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61-18-01
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 203	SHEET NO.

WASHROOM ACCESSORIES LEGEND AND DETAIL

- ALL WASHROOM LAYOUTS TO CNFORM TO SECTION 3.8 OF THE ONTARIO BUILDING CODE. SEE WASHROOM DETAILS SHEET FOR
- 2. COORDINATE POWER DOOR OPERATORS, EMERGENCY CALL SYSTEMS, VISUAL AND AUDIBLE ALARMS WITH ELECTRICAL AND DOOR SCHEDULE.
- 3. COORDINATE WALL ASSEMBLIES AND BLOCKING REQUIREMENTS WITH MECHANICAL TOILET CARRIERS.
- TPD. TOILET PAPER DISPENSER
- SANITARY NAPKIN DISPOSAL
- SOAP DISPENSER
- MIRROR
- COAT HOOK
- BARRIER FREE PUSH BUTTON PDO
- STAINLESS STEEL SHELF
- BCH. BENCH
- PTW. RECESSED PAPER TOWEL DISPENSER AND WASTE BASKET

BARRIER-FREE DESIGN NOTES:

- BARRIER-FREE ENTRANCE TO THE BUILDING SHALL BE THROUGH THE FRONT ENTRANCE DOOR AND SHALL BE AT THE SAME ELEVATION AS THE EXTERIOR SIDEWALK
- 2. EXTERIOR WALKWAYS SHALL HAVE A SLIP RESISTANT FINISH (ie. ANTI-SLIP PAVING STONES, HEAVY BROOM FINISH ON CONCRETE). EXTERIOR WALKS THAT ARE FLUSH WITH ADJACENT LEVELS SHALL HAVE A TEXTURED SURFACE TO DIFFERENTIATE THE WALKWAY FROM SURROUNDING AREAS. MAX. SLOPE ON WALKWAYS SHALL BE NOT MORE THAN 1: 20.
- 3. SPACES REQUIRED TO BE PART OF THE BARRIER FREE PATH OF TRAVEL SHALL HAVE DOORS WITH MIN. 860mm CLEARANCE WHEN IN THE OPEN POSITION
- 4. SIGNS INCORPORATING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE INSTALLED WHERE NECESSARY TO INDICATE LOCATION OF THE ENTRANCE, ACCESSIBLE WASHROOMS, ACCESS TO BARRIER-FREE PARKING, MEANS OF EGRESS, ETC. SIGNS SHALL BE MOUNTED NOT LESS THAN 1200mm AND MORE THAN 1500mm A.F.F. (AS PER OBC 3.8.3.1).
- 5. PROVIDE SOLID BLOCKING IN WALLS ADJACENT TO SPACE PROVIDED FOR FUTURE ADULT CHANGE TABLES AS PER OBC 3.8.3.12.(4).

UNIVERSAL WASHROOM DESIGN NOTES:

(1) A UNIVERSAL WASHROOM SHALL,

- (A) BE SERVED BY A BARRIER-FREE PATH OF TRAVEL,
 (B) HAVE A DOOR THAT IS CAPABLE OF BEING LOCKED FROM THE INSIDE AND RELEASED FROM THE OUTSIDE IN CASE OF EMERGENCY AND THAT HAS,
- (I) A GRASPABLE LATCH-OPERATING MECHANISM LOCATED NOT LESS THAN 900 MM AND NOT MORE THAN 1 000 MM ABOVE THE FINISHED FLOOR,

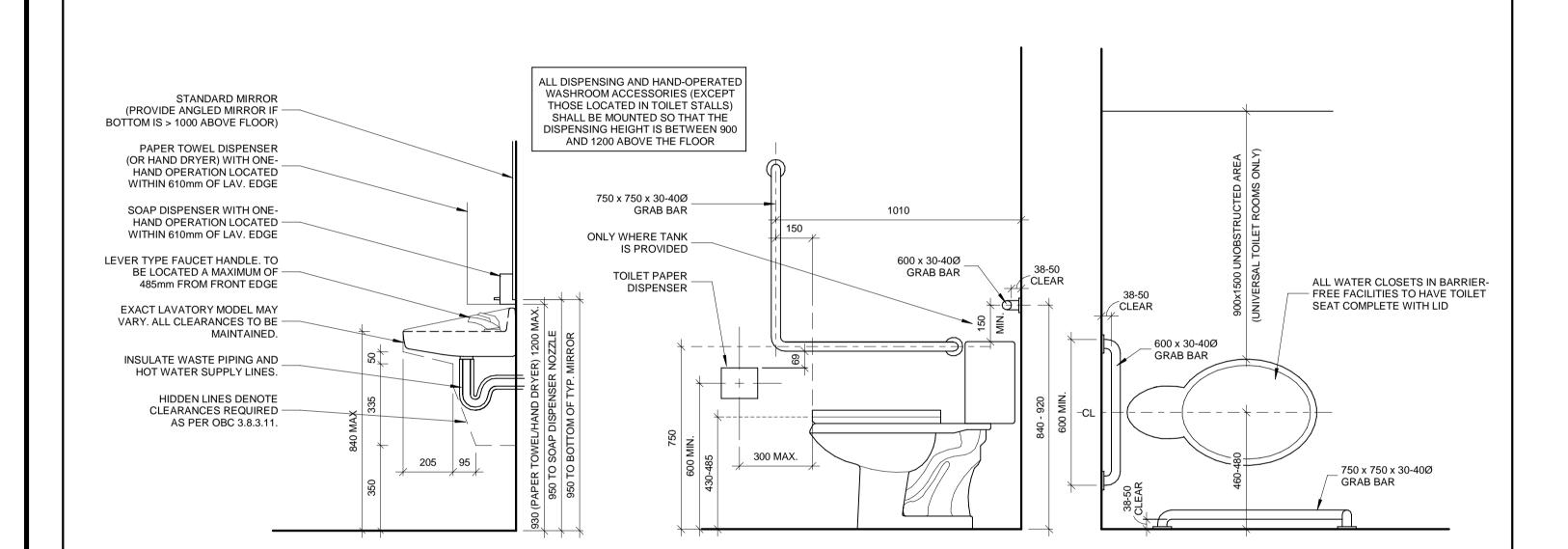
 (II) IF IT IS AN OUTWARD SWINGING DOOR, A DOOR PULL NOT LESS THAN 140 MM LONG LOCATED ON THE INSIDE SO THAT ITS MIDPOINT IS NOT LESS THAN
- 200 MM AND NOT MORE THAN 300 MM FROM THE LATCH SIDE OF THE DOOR AND NOT LESS THAN 900 MM AND NOT MORE THAN 1 100 MM ABOVE THE FINISHED FLOOR, AND

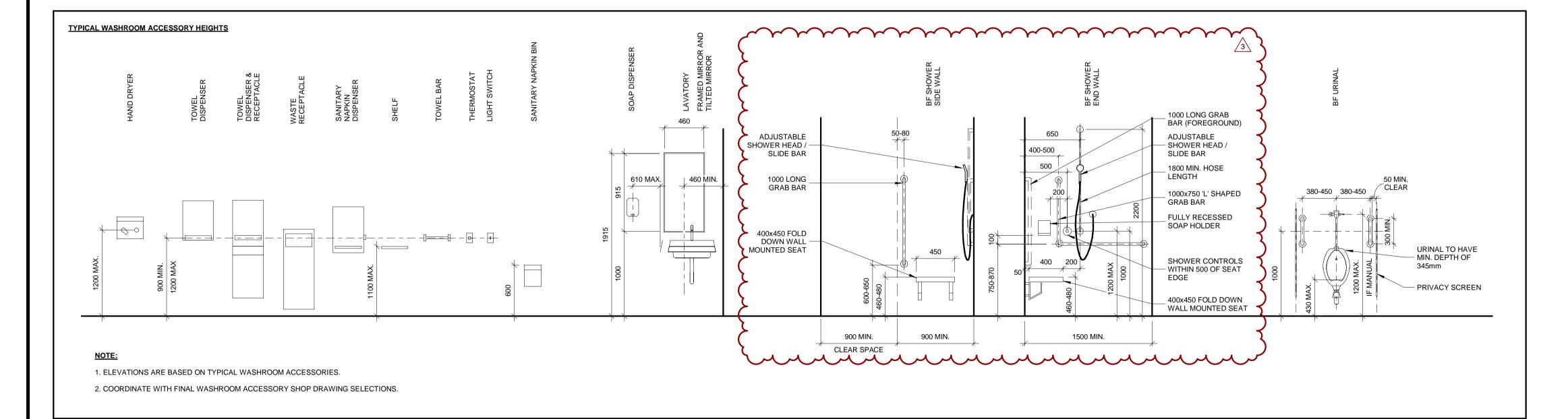
 (III) IF IT IS AN OUTWARD SWINGING DOOR, A DOOR CLOSER, SPRING HINGES OR GRAVITY HINGES, SO THAT THE DOOR CLOSES AUTOMATICALLY,
- (C) HAVE ONE LAVATORY CONFORMING TO SENTENCES 3.8.3.11.(1), (3) AND (4), (D) HAVE ONE WATER CLOSET CONFORMING TO ARTICLE 3.8.3.9. THAT IS LOCATED IN ACCORDANCE WITH CLAUSE 3.8.3.8.(2)(A) OR (B),
- (E) HAVE GRAB BARS CONFORMING TO,
- (I) SENTENCE 3.8.3.8.(3), IF THE WATER CLOSET IS LOCATED IN ACCORDANCE WITH CLAUSE 3.8.3.8.(2)(A), OR (II) SENTENCE 3.8.3.8.(4), IF THE WATER CLOSET IS LOCATED IN ACCORDANCE WITH CLAUSE 3.8.3.8.(2)(B),
- (F) HAVE NO INTERNAL DIMENSION BETWEEN WALLS THAT IS LESS THAN 1 700 MM,

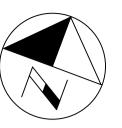
 (G) HAVE A COAT HOOK THAT CONFORMS TO CLAUSE 3.8.3.8.(1)(E) AND A SHELF THAT IS LOCATED NOT MORE THAN 1 100 MM ABOVE THE FINISHED FLOOR AND PROJECTS NOT MORE THAN 100 MM FROM THE WALL,
- (H) BE DESIGNED TO PERMIT A WHEELCHAIR TO TURN IN AN OPEN SPACE NOT LESS THAN 1 700 MM IN DIAMETER,
- (I) BE PROVIDED WITH A DOOR EQUIPPED WITH A POWER DOOR OPERATOR IF THE DOOR IS EQUIPPED WITH A SELF-CLOSING DEVICE, (J) BE PROVIDED WITH A MIRROR,
- (I) INSTALLED ABOVE A LAVATORY DESCRIBED IN CLAUSE (1)(C), AND

 (II) MOUNTED WITH ITS BOTTOM EDGE NOT MORE THAN 1 000 MM ABOVE THE FINISHED FLOOR OR INCLINED TO THE VERTICAL TO BE USABLE BY A PERSON IN A WHEELCHAIR, AND

 (K) HAVE LIGHTING CONTROLLED BY A MOTION SENSOR CONFORMING TO SENTENCE 12.2.4.1.(2).
- (2) A UNIVERSAL WASHROOM SHALL HAVE,
- (A) AN EMERGENCY CALL SYSTEM THAT CONSISTS OF AUDIBLE AND VISUAL SIGNAL DEVICES INSIDE AND OUTSIDE OF THE WASHROOM THAT ARE ACTIVATED BY A CONTROL DEVICE INSIDE THE WASHROOM, AND
 (B) AN EMERGENCY SIGN THAT CONTAINS THE WORDS "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE" IN LETTERS AT LEAST 25 MM HIGH WITH A 5 MM STROKE AND THAT IS POSTED ABOVE THE EMERGENCY BUTTON.
- (3) A CLEAR SPACE NOT LESS THAN 810 MM WIDE AND 1 830 MM LONG SHALL BE PROVIDED IN EACH UNIVERSAL WASHROOM FOR AN ADULT-SIZE CHANGE TABLE.
- (4) WHERE THE CLEAR SPACE PROVIDED FOR AN ADULT-SIZE CHANGE TABLE IS ADJACENT TO A WALL, REINFORCEMENT SHALL BE INSTALLED IN THE WALL TO PERMIT THE FUTURE INSTALLATION OF THE CHANGE TABLE.

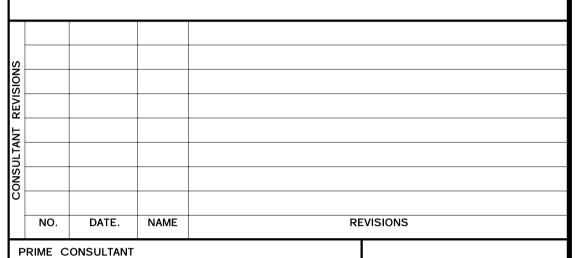






ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



2022.03.14

BOY HOWARD TURNER

LICENCE

ARCHITECTS

A = 66



AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT

DESIGN BY: Designer	SCALE: As indicated	
DRAWN BY: Author	DATE: 12/30/20	
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569	
APPROVED BY: Approver	CLIENT FILE No.: 811/20	

,,				
REVISIONS				
EVIS				
	4	03/14/20 22		ISSUED FOR CONSTRUCTION
IRAC	3	10/18/21		ADDENDUM #1
CONTRACT	2	10/18/21		RESPONSE TO CITY COMMENTS
	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



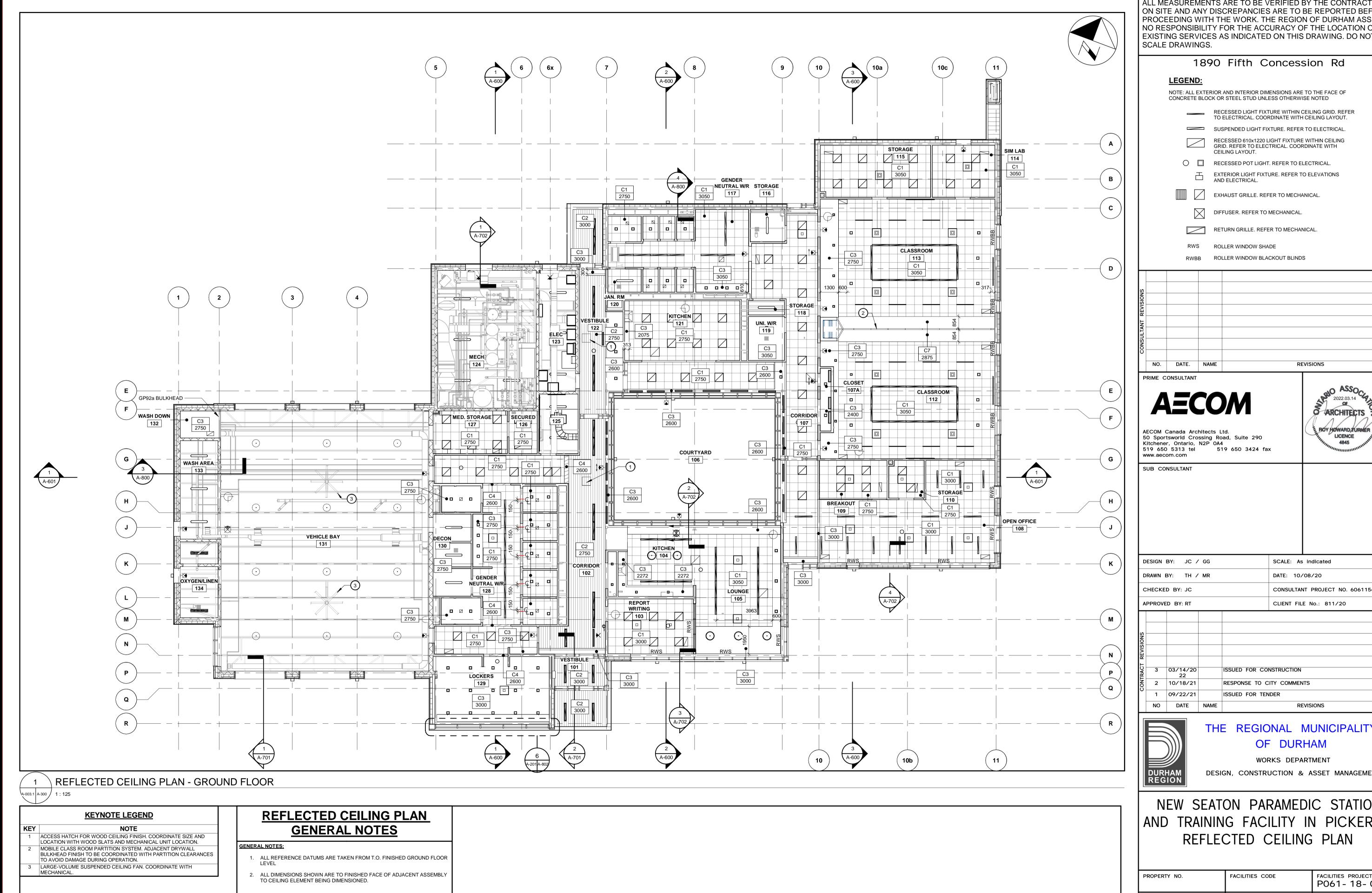
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

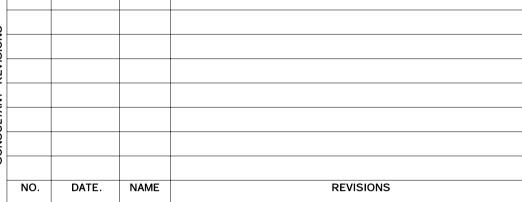
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING WASHROOM DETAILS

PROPERT	Y NO.	FACILITIES CODE	facilities project no. P061- 18- 01
T- 1	ст NO. 160- 2021	DRAWING NO. A- 204	SHEET NO.



NOTE: ALL EXTERIOR AND INTERIOR DIMENSIONS ARE TO THE FACE OF

RECESSED LIGHT FIXTURE WITHIN CEILING GRID. REFER TO ELECTRICAL. COORDINATE WITH CEILING LAYOUT.



2022.03.14

LICENCE

DESIGN BY: JC / GG	SCALE: As Indicated
DRAWN BY: TH / MR	DATE: 10/08/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

REVISIONS

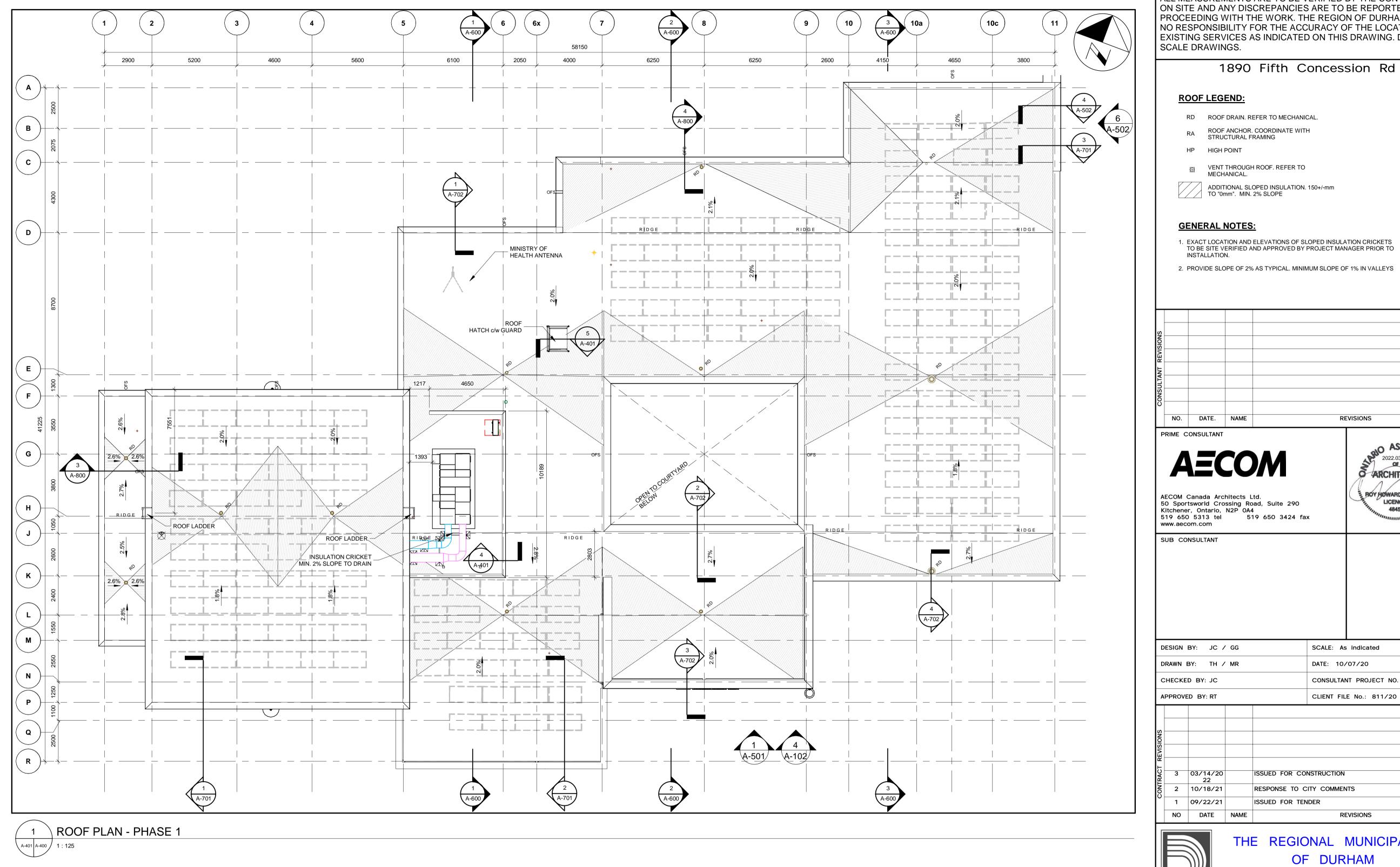
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

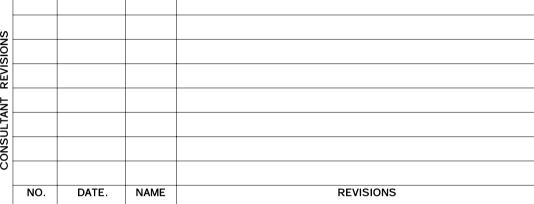
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING REFLECTED CEILING PLAN

			_ ^
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	DAME
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 300	SHEET NO.	A//-096 MIG



1890 Fifth Concession Rd

- 2. PROVIDE SLOPE OF 2% AS TYPICAL. MINIMUM SLOPE OF 1% IN VALLEYS



SIO ASSOCIATION OF THE PROPERTY OF THE PROPERT

S ARCHITECTS 7

BOY HOWARD TURNER

LICENCE 4845

DESIGN BY: JC / GG	SCALE: As indicated
DRAWN BY: TH / MR	DATE: 10/07/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 6061156

ISSUED FOR CONSTRUCTION RESPONSE TO CITY COMMENTS



THE REGIONAL MUNICIPALITY OF DURHAM

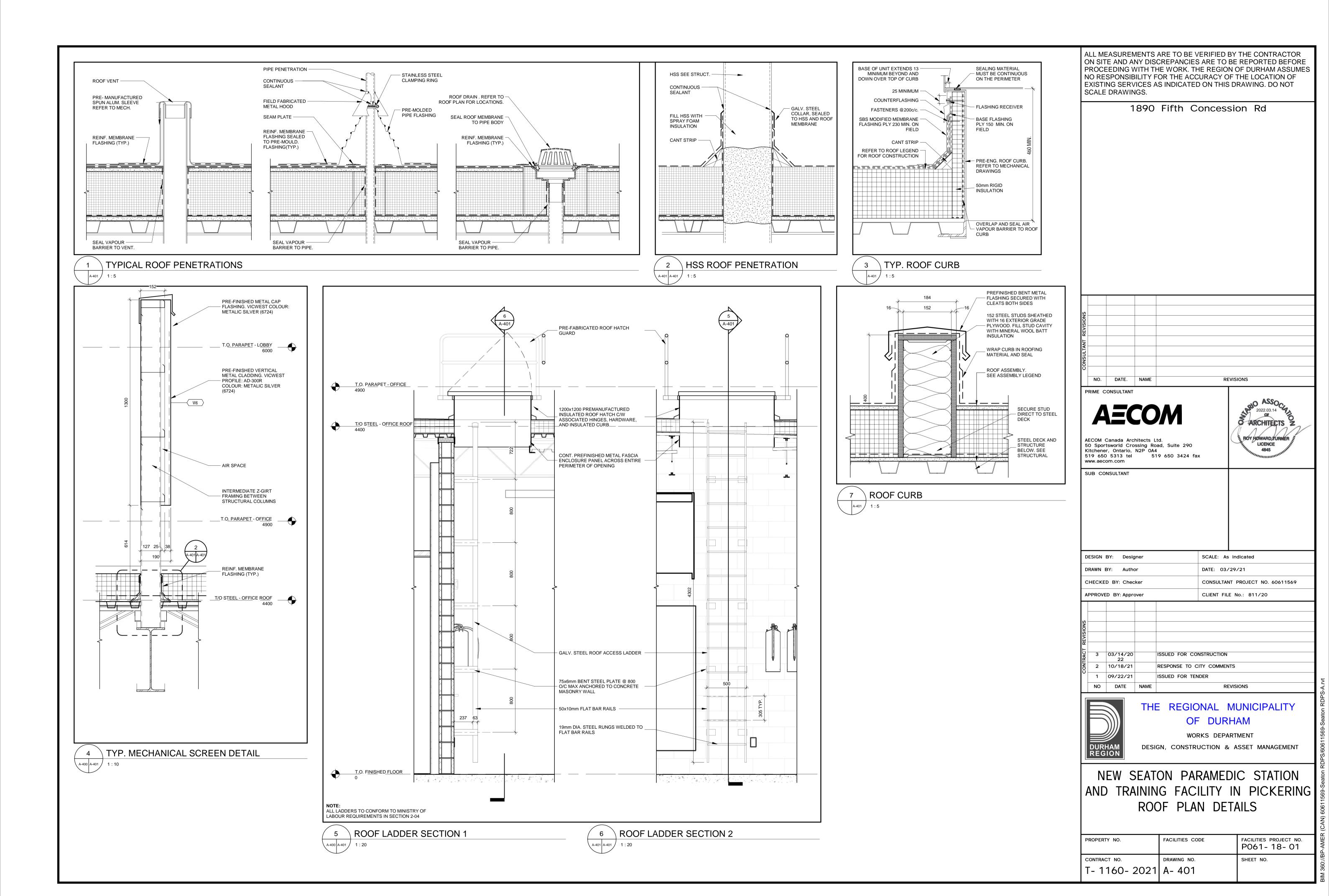
REVISIONS

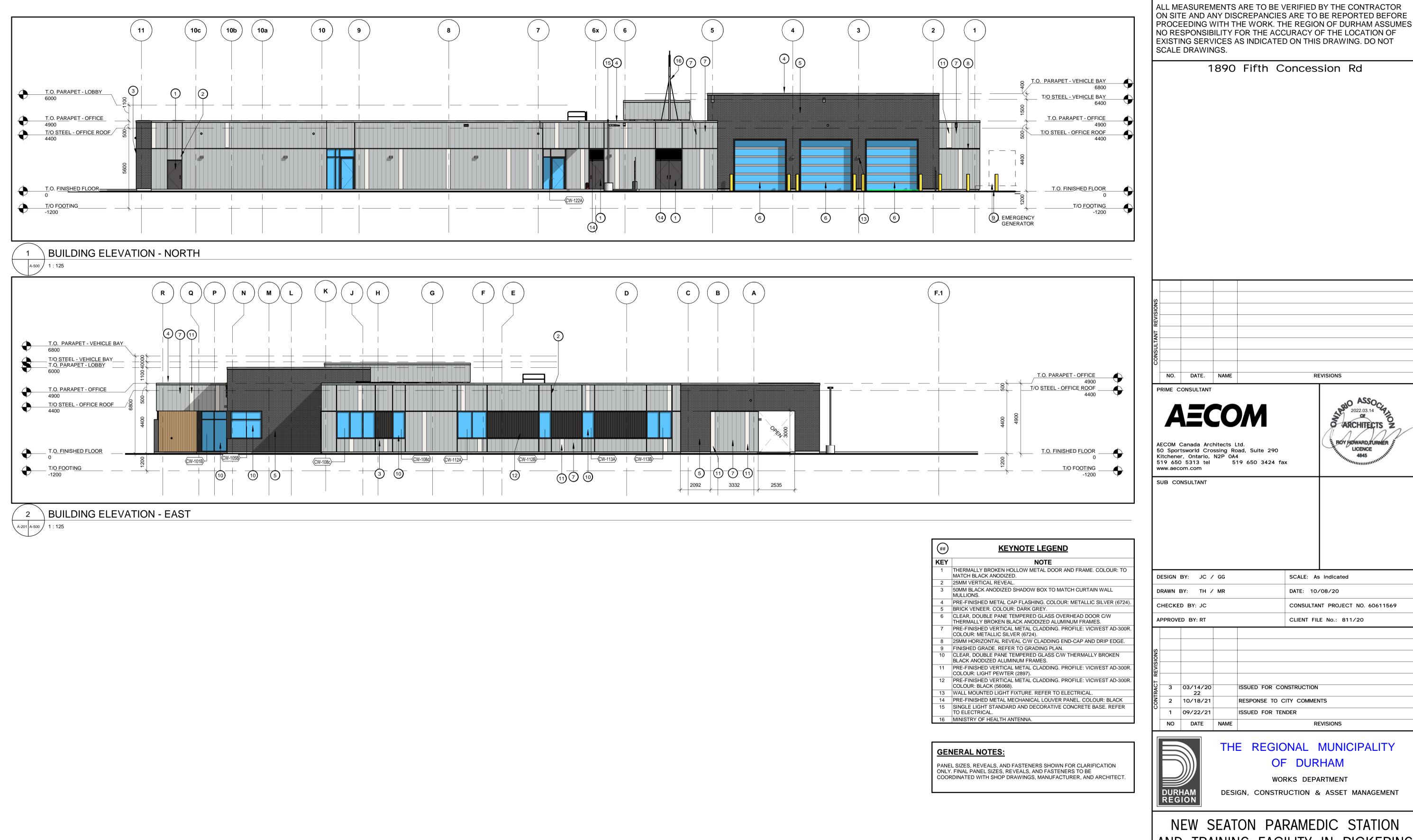
WORKS DEPARTMENT

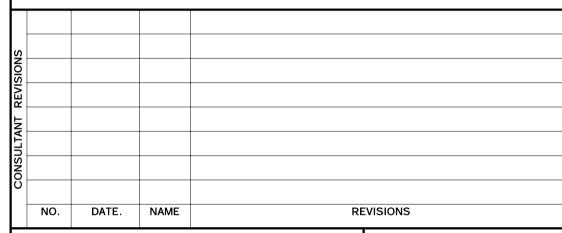
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ROOF PLAN - PHASE 1

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 400	SHEET NO.

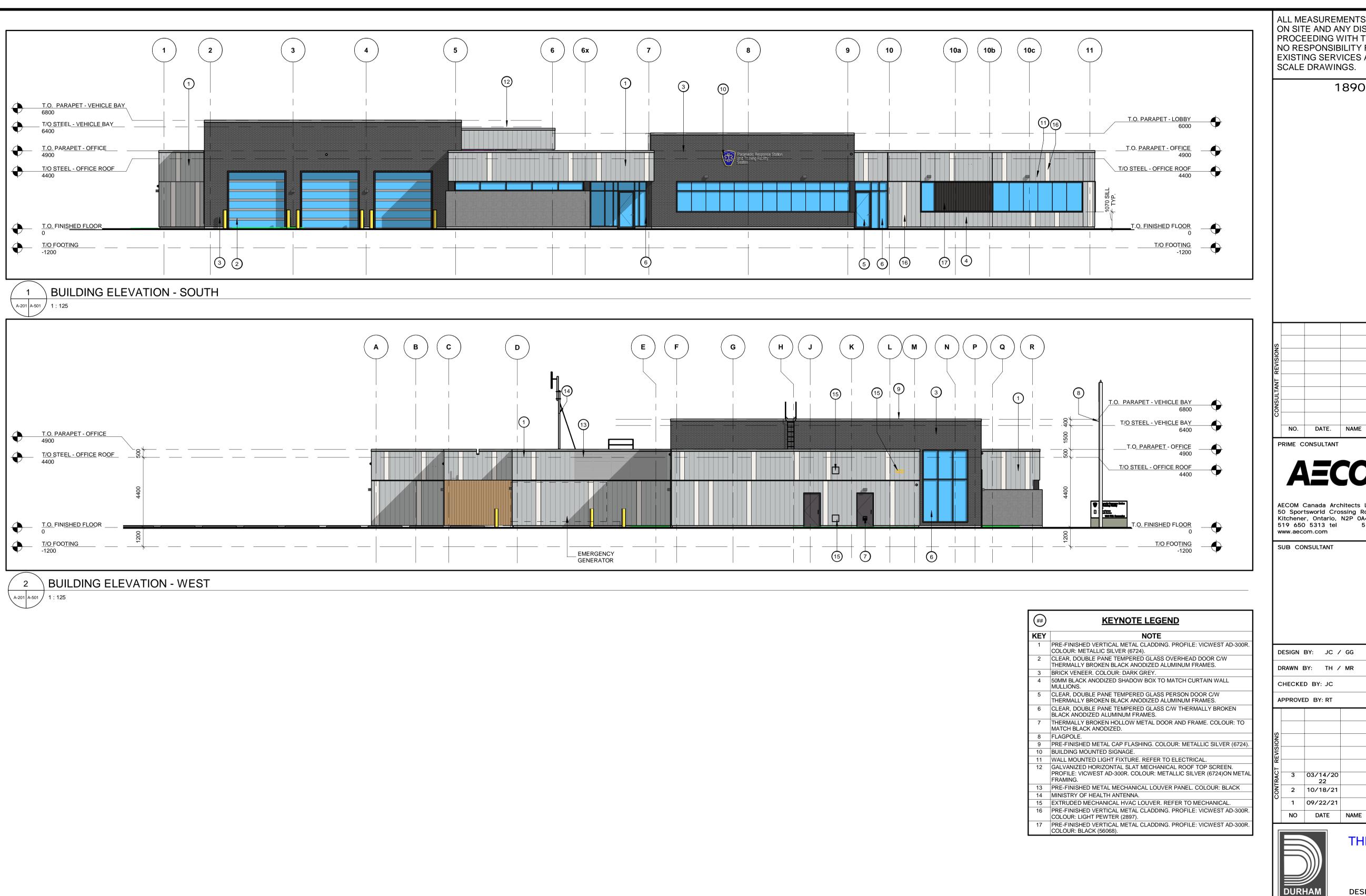




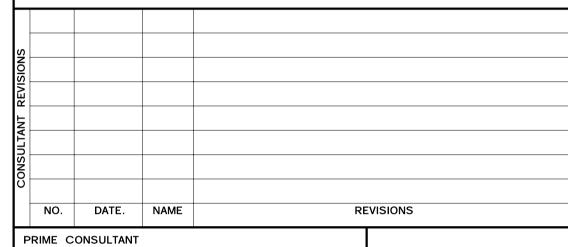


AND TRAINING FACILITY IN PICKERING EXTERIOR ELEVATIONS - PHASE 1

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	A- 500	



1890 Fifth Concession Rd



ARCHITECTS

BOY HOWARD TURNER LICENCE 4845

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fa 519 650 3424 fax

SUB CONSULTANT

DESIGN BY: JC / GG		SCALE: 1	: 125
DRAWN BY: TH / MR		DATE: 10/	/08/20
CHECKED BY: JC		CONSULTA	NT PROJECT NO. 60611569
APPROVED BY: RT		CLIENT FIL	E No.: 811/20

3 03/14/20 ISSUED FOR CONSTRUCTION RESPONSE TO CITY COMMENTS 2 10/18/21 1 09/22/21 ISSUED FOR TENDER



THE REGIONAL MUNICIPALITY OF DURHAM

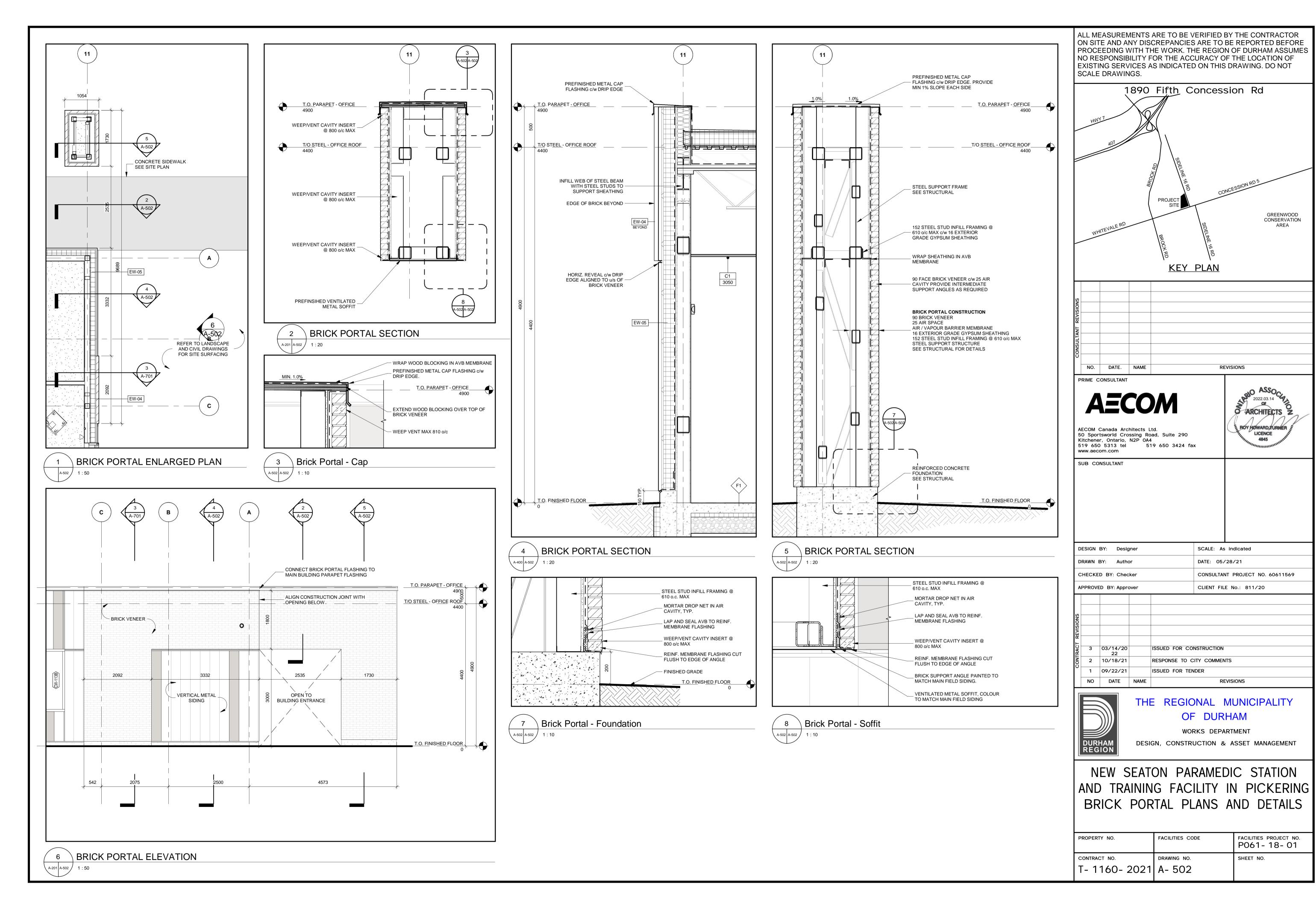
REVISIONS

WORKS DEPARTMENT

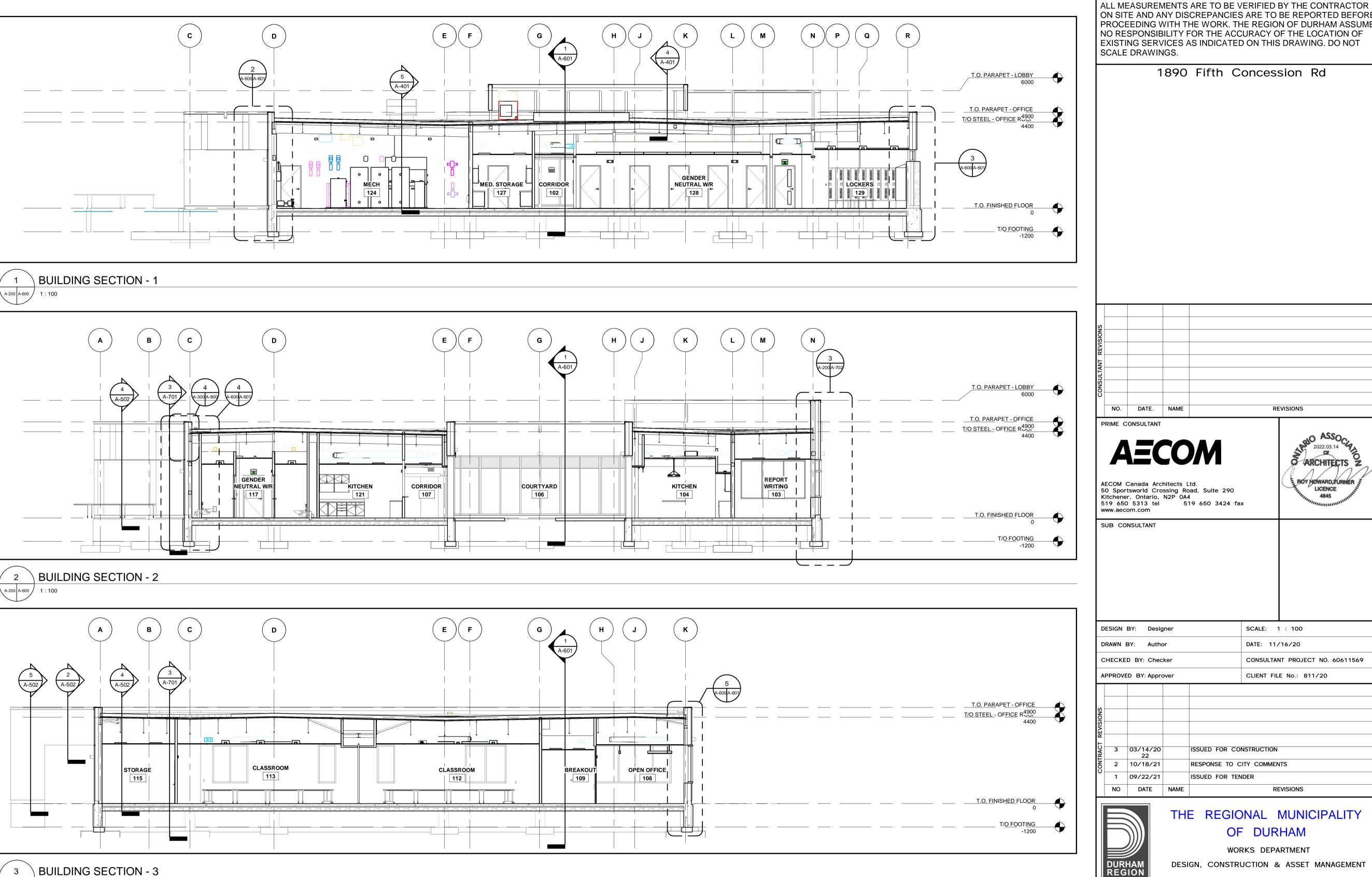
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING EXTERIOR ELEVATIONS - PHASE 1

			Δ
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO.	DRAWING NO.	SHEET NO.	<u>ر</u> خ
T- 1160- 2021	A- 501		267



2 A-5



A-200 A-600 1 : 100

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

FACILITIES PROJECT NO. PROPERTY NO. FACILITIES CODE P061- 18- 01 CONTRACT NO. DRAWING NO. SHEET NO. T- 1160- 2021 A- 600

ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd

NO. DATE. NAME REVISIONS PRIME CONSULTANT ASSOCIATION 2022.03.14 S ARCHITECTS 7 BOY HOWARD TURNER LICENCE 4845 AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax www.aecom.com SUB CONSULTANT

DATE: 11/16/20 CONSULTANT PROJECT NO. 60611569 CHECKED BY: Checker CLIENT FILE No.: 811/20 APPROVED BY: Approver

3 03/14/20 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER

NO DATE NAME

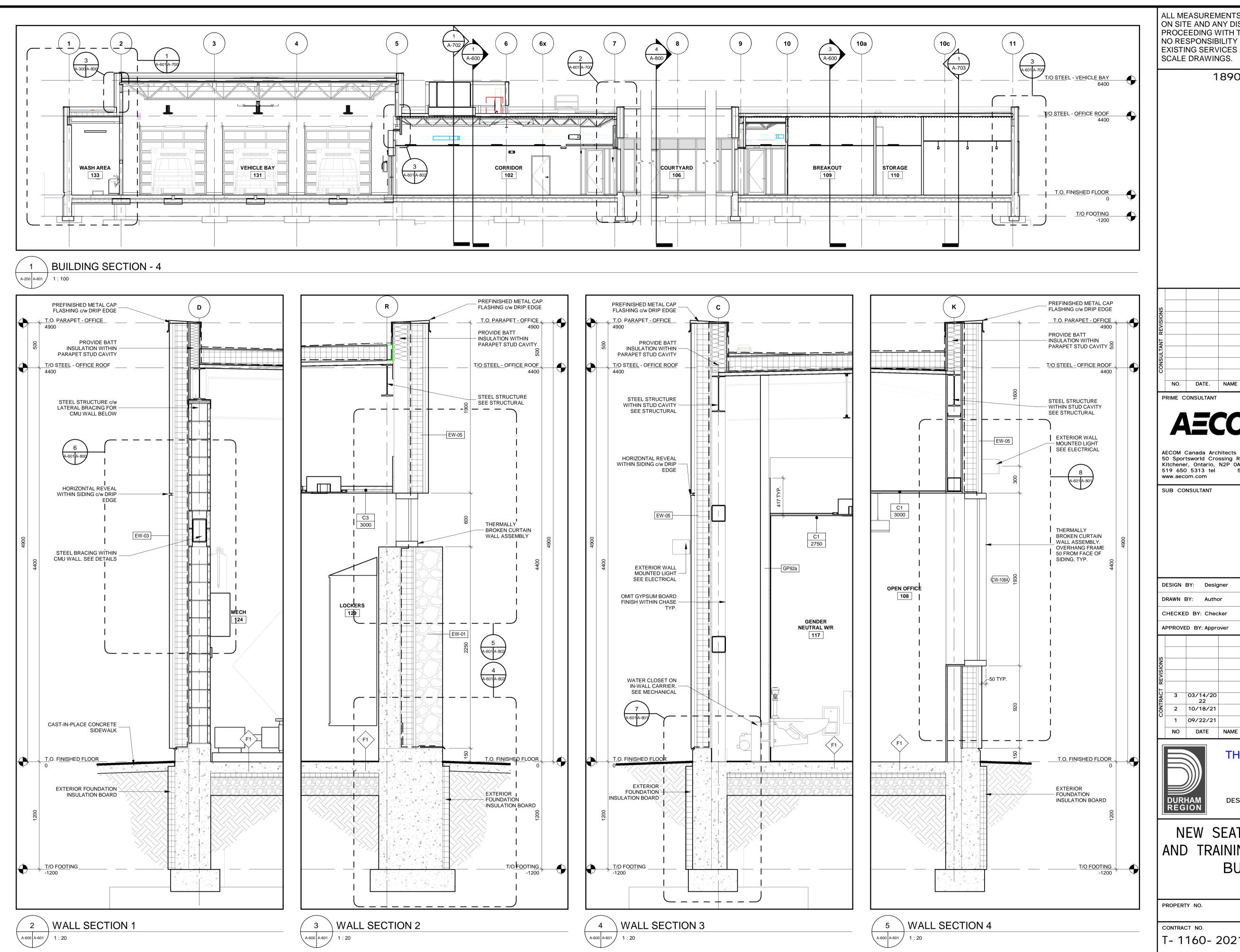
THE REGIONAL MUNICIPALITY OF DURHAM

REVISIONS

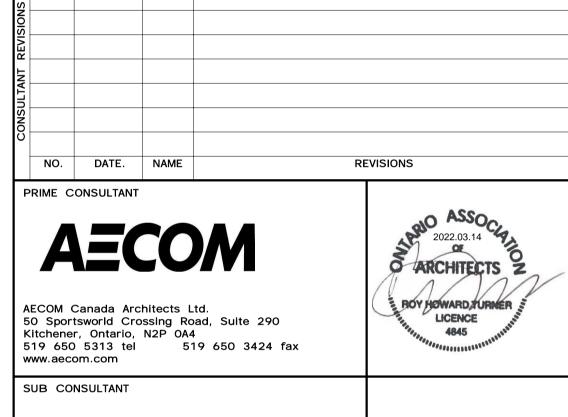
SCALE: 1 : 100

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

BUILDING SECTIONS



1890 Fifth Concession Rd



THE REGIONAL MUNICIPALITY OF DURHAM

REVISIONS

SCALE: As indicated

CLIENT FILE No.: 811/20

CONSULTANT PROJECT NO. 60611569

DATE: 11/16/20

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

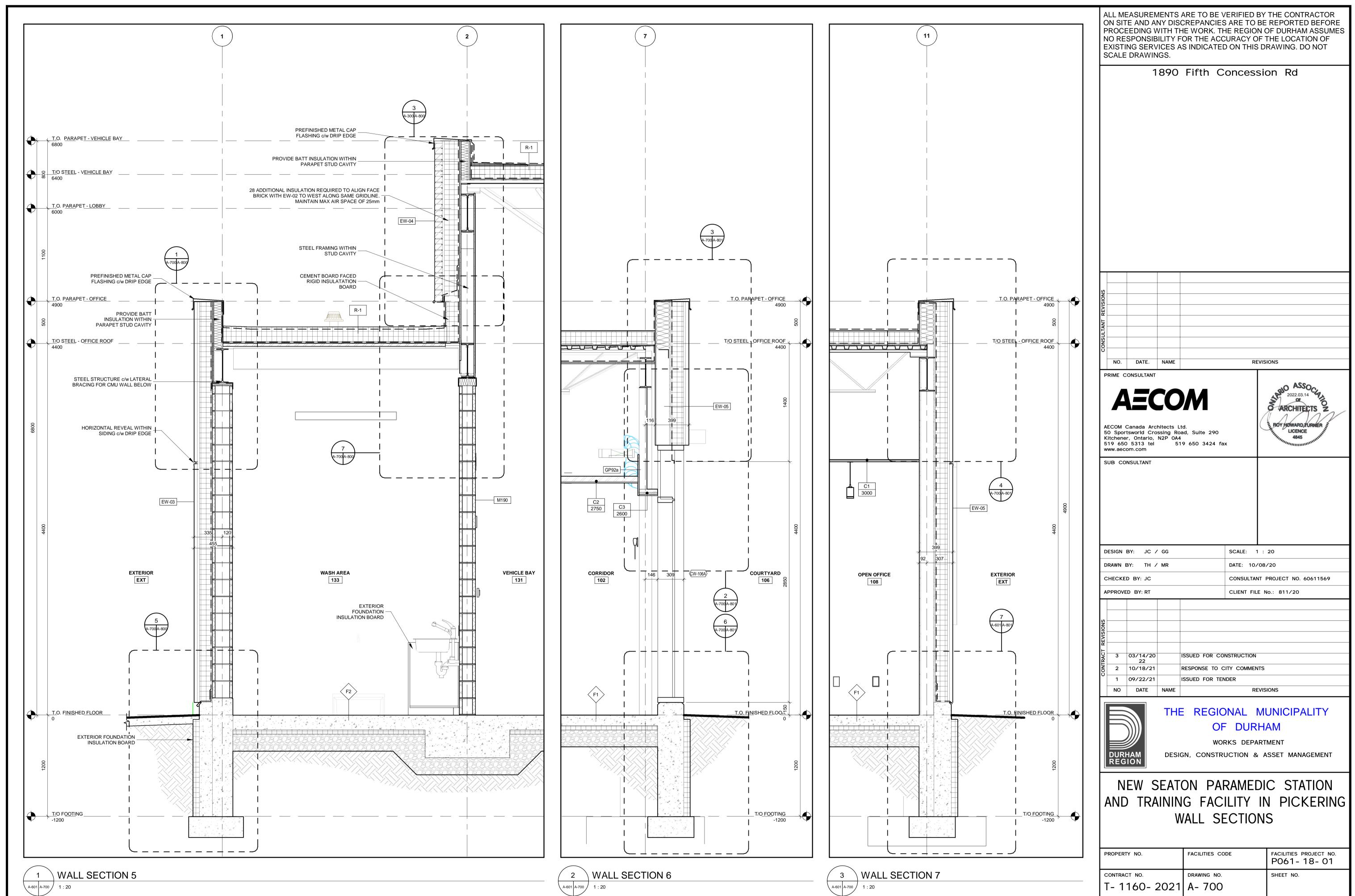
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING BUILDING SECTIONS

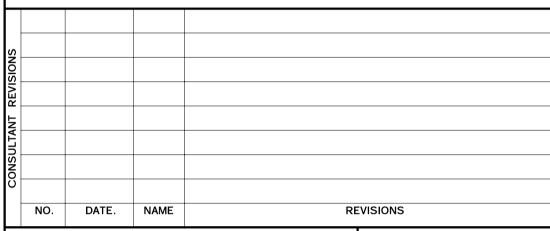
ISSUED FOR CONSTRUCTION

ISSUED FOR TENDER

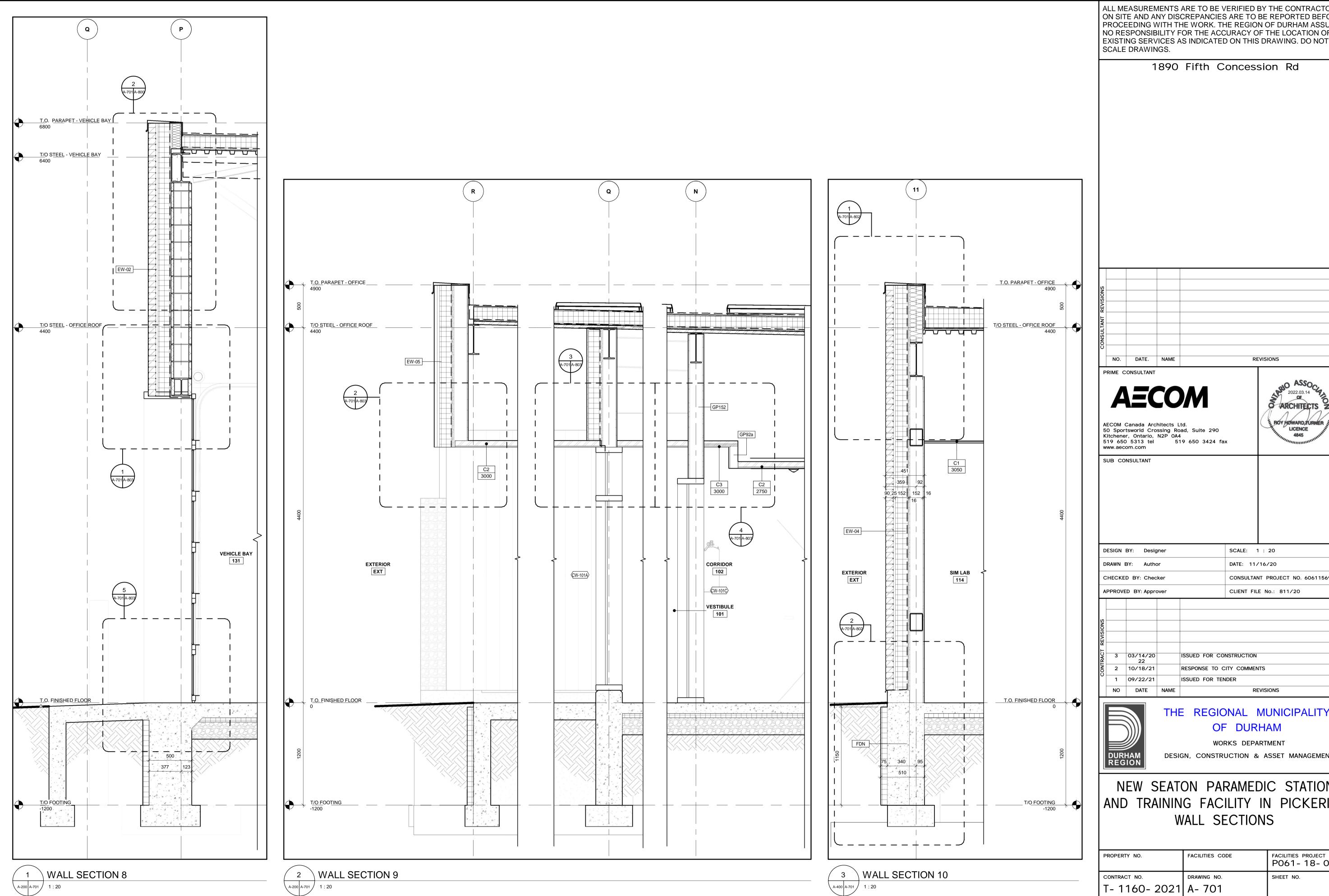
RESPONSE TO CITY COMMENTS

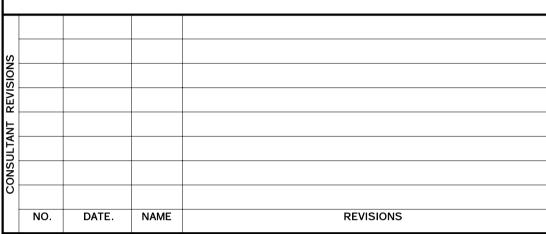
			Ω
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMER
CONTRACT NO. T- 1160- 2021	DRAWING NO. A-601	SHEET NO.	360-//R





FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
DRAWING NO. A- 700	SHEET NO.





DESIGN BY: Designer	SCALE: 1 : 20
DRAWN BY: Author	DATE: 11/16/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
ADDDOVED DV. Approver	CLIENT FILE No : 811/20

RESPONSE TO CITY COMMENTS

THE REGIONAL MUNICIPALITY

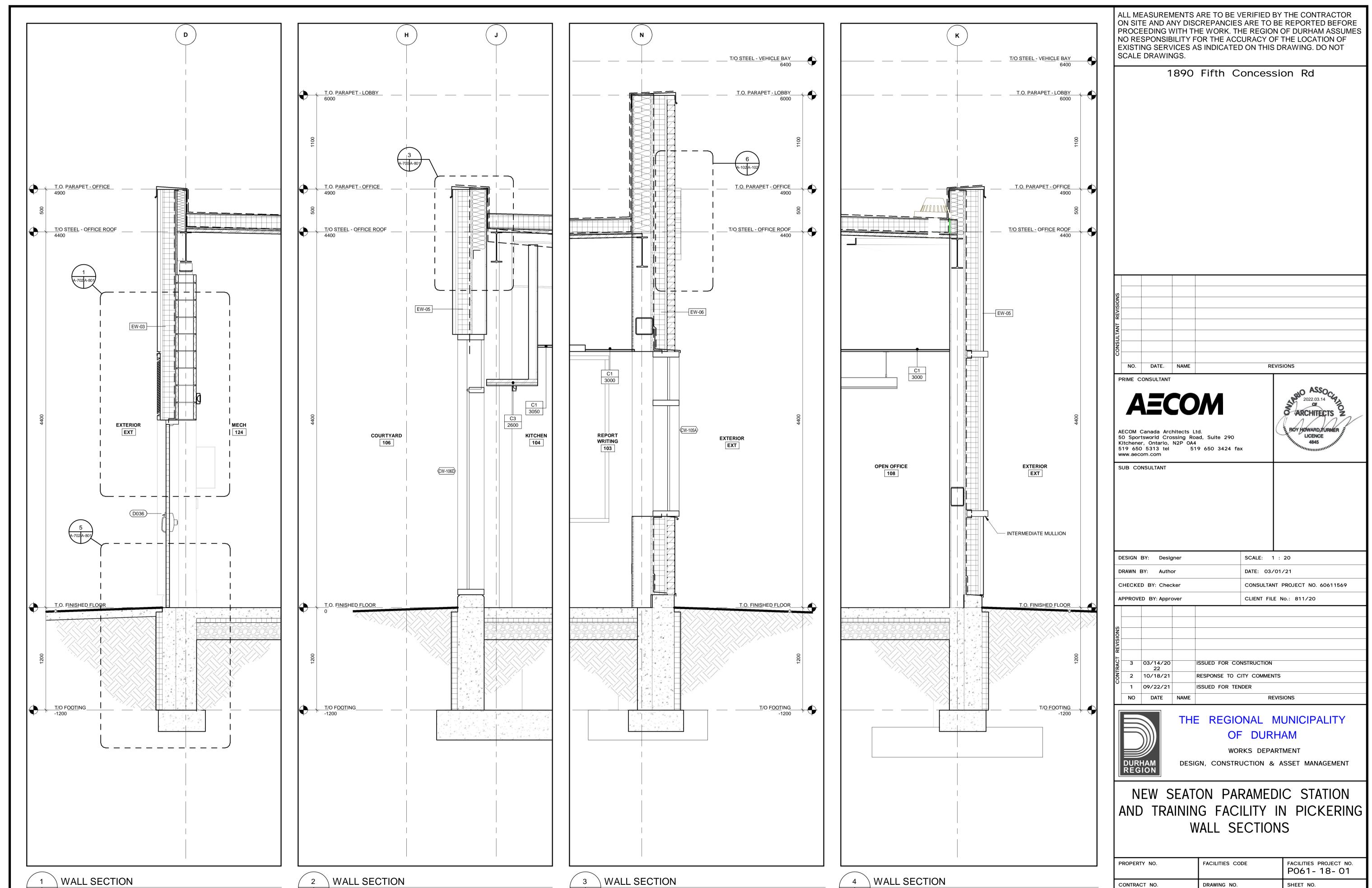
BOY HOWARD TURNER LICENCE 4845

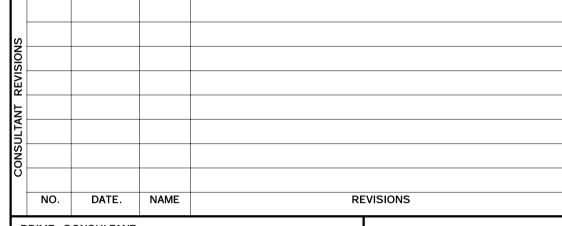
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

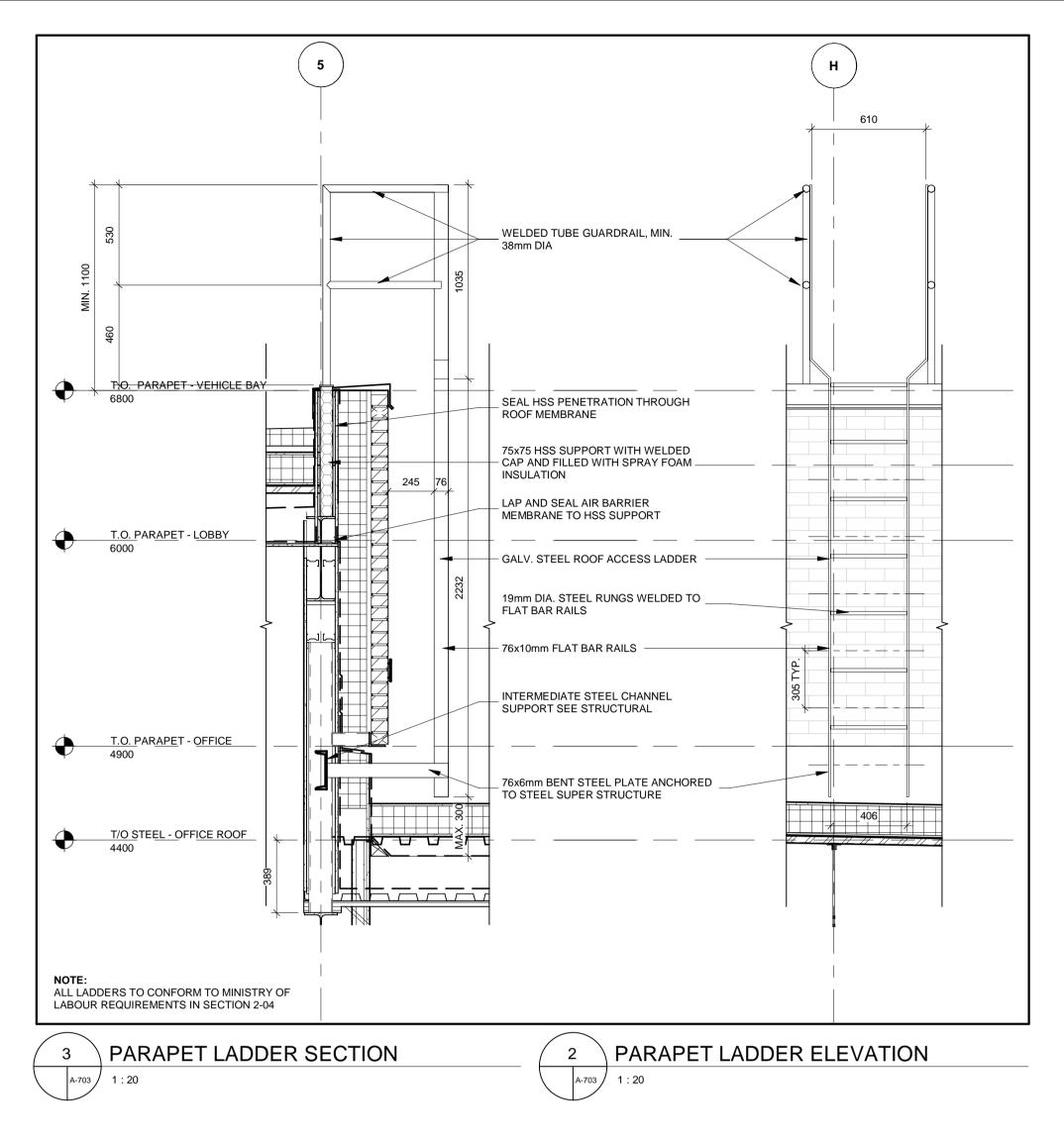
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

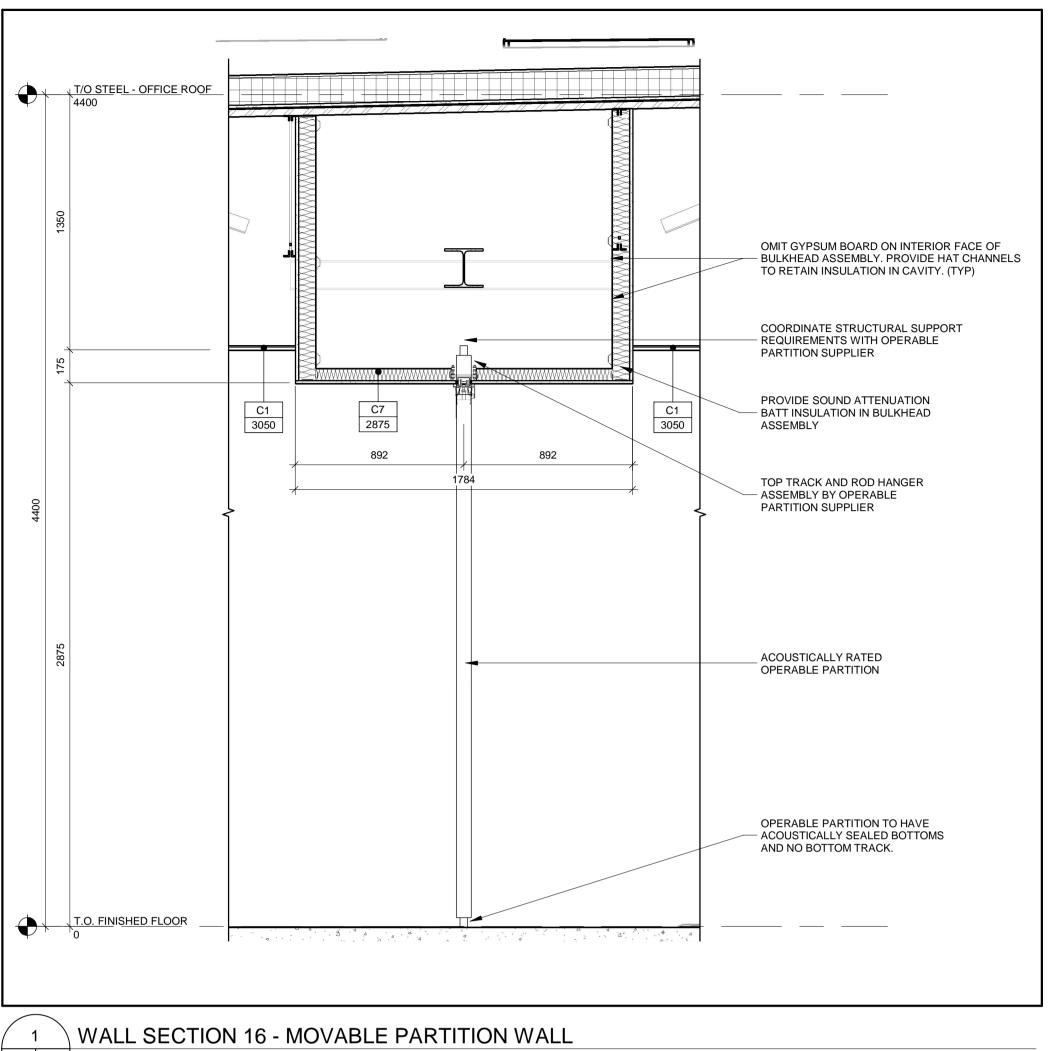
ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
ONTRACT NO. - 1160- 2021	DRAWING NO. A- 701	SHEET NO.



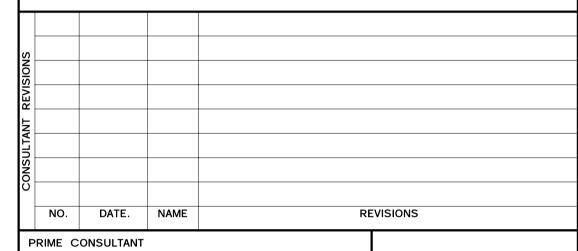


PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	A- 702	





1890 Fifth Concession Rd



ARCHITECTS Z

BOY HOWARD TURNER LICENCE 4845

AECON

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

www.aecom.com

SUB CONSULTANT

DESIGN BY: Designer	SCALE: 1 : 20
DRAWN BY: Author	DATE: 03/03/21
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

,,				
REVISIONS				
EVIS				
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION
NO	2	10/18/21		RESPONSE TO CITY COMMENTS
	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



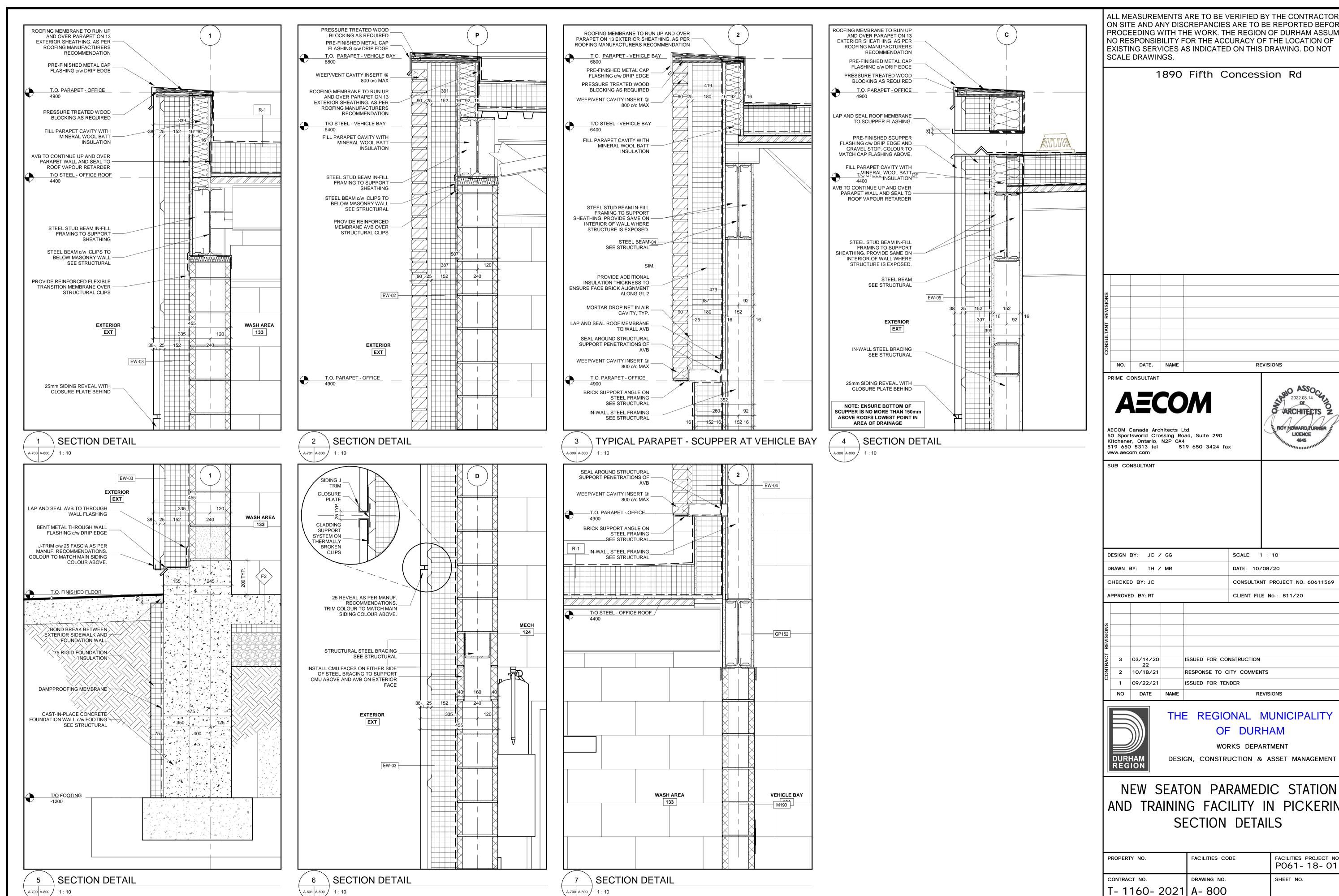
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

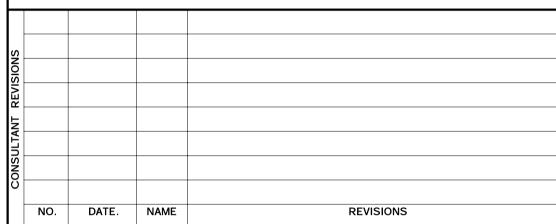
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING WALL SECTIONS

			٥
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO.	DRAWING NO.	SHEET NO.	(
T- 1160- 2021	A- 703		
			ī



1890 Fifth Concession Rd





DESIGN BY: JC / GG	SCALE: 1 : 10	
DRAWN BY: TH / MR	DATE: 10/08/20	
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569	
APPROVED BY: RT	CLIENT FILE No.: 811/20	

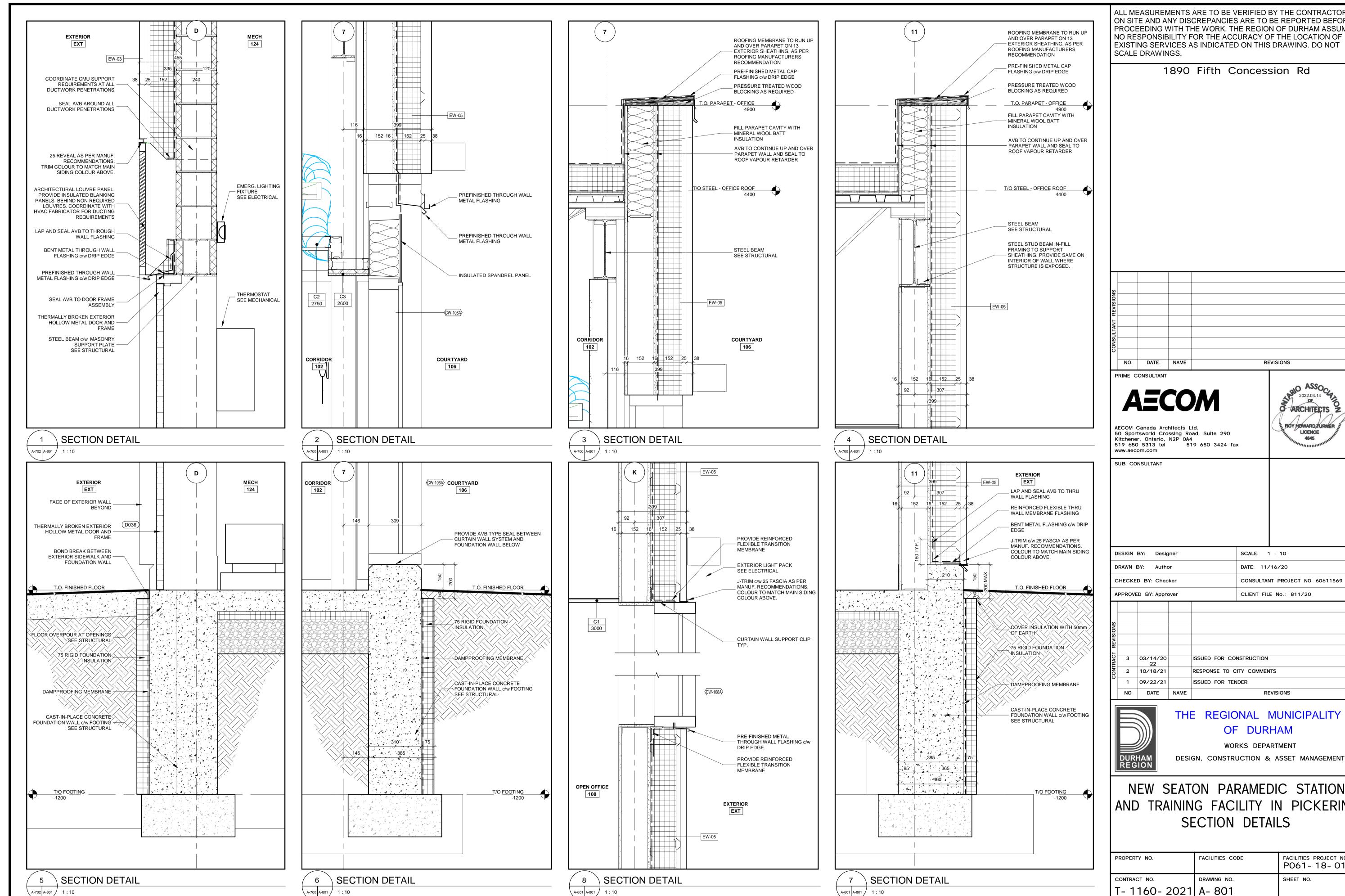
REVISIONS

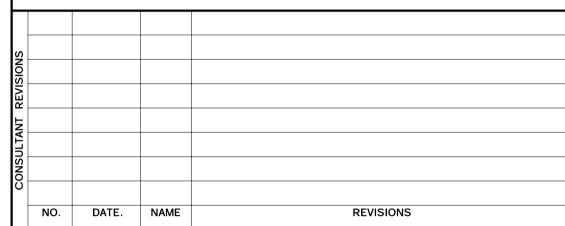
THE REGIONAL MUNICIPALITY

WORKS DEPARTMENT

AND TRAINING FACILITY IN PICKERING SECTION DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMFR
CONTRACT NO.	DRAWING NO.	SHEET NO.	8//B
T- 1160- 2021	A- 800		.03E M





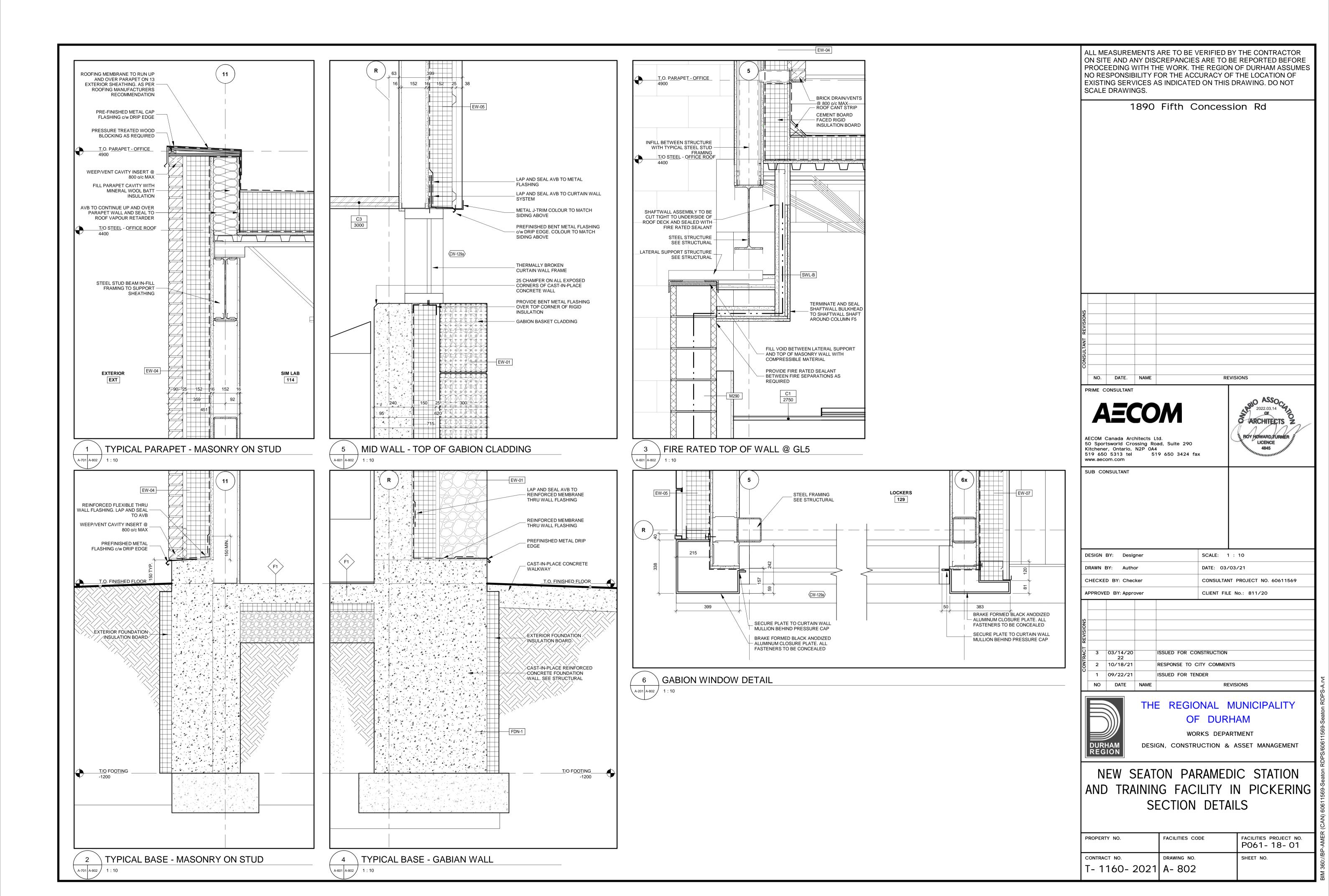


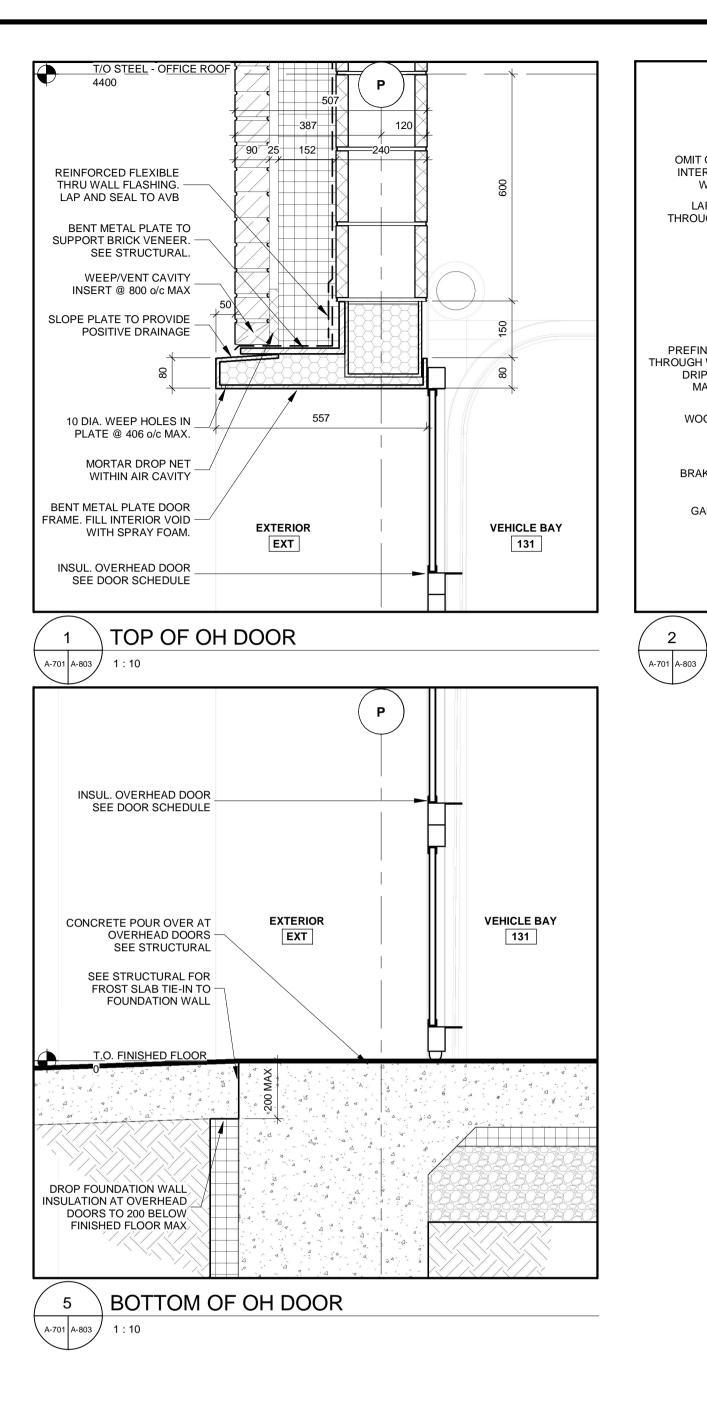
- 1							
	DRAWN BY: Author				DATE: 11/16/20		
	CHECKED BY: Checker				CONSULTANT PROJECT NO. 60611569		
	AF	PROVE	D BY: Appro	over			CLIENT FILE No.: 811/20
	(0						
	NOIS						
	REVISIONS						
	_		00 (4.4 (00		ISSUED FOR		NOTELLOTION
١	IRAC.	3	03/14/20 22		ISSUED FOR	e Coi	NSTRUCTION

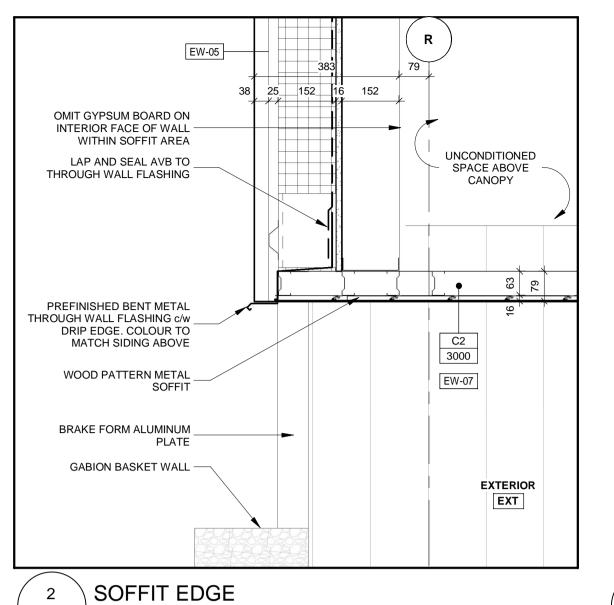
THE REGIONAL MUNICIPALITY

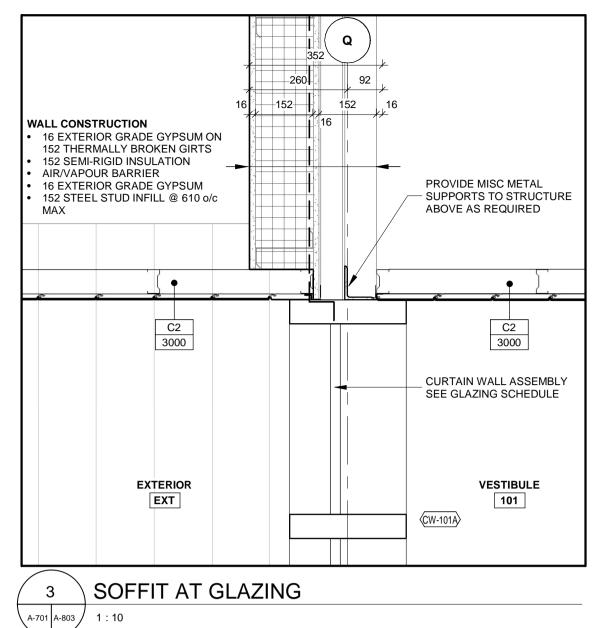
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

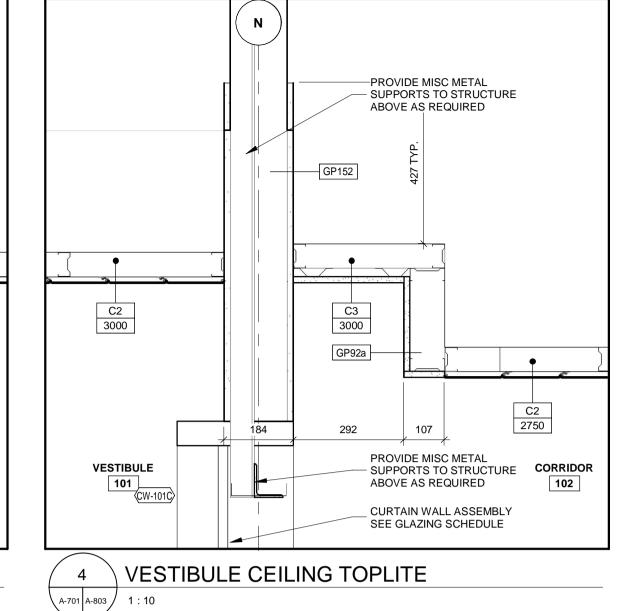
ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
- 1160- 2021	A- 801	



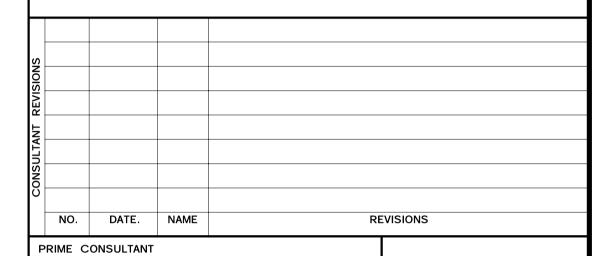








1890 Fifth Concession Rd



ARCHITECTS

ROY HOWARD TURNER LICENCE 4845

AECON

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT

	DESIGN BY: Designer	SCALE: 1 : 10
	DRAWN BY: Author	DATE: 06/08/21
	CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
	APPROVED BY: Approver	CLIENT FILE No.: 811/20

را				
REVISIONS				
EVIS				
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION
NO	2	10/18/21		RESPONSE TO CITY COMMENTS
I^{J}	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



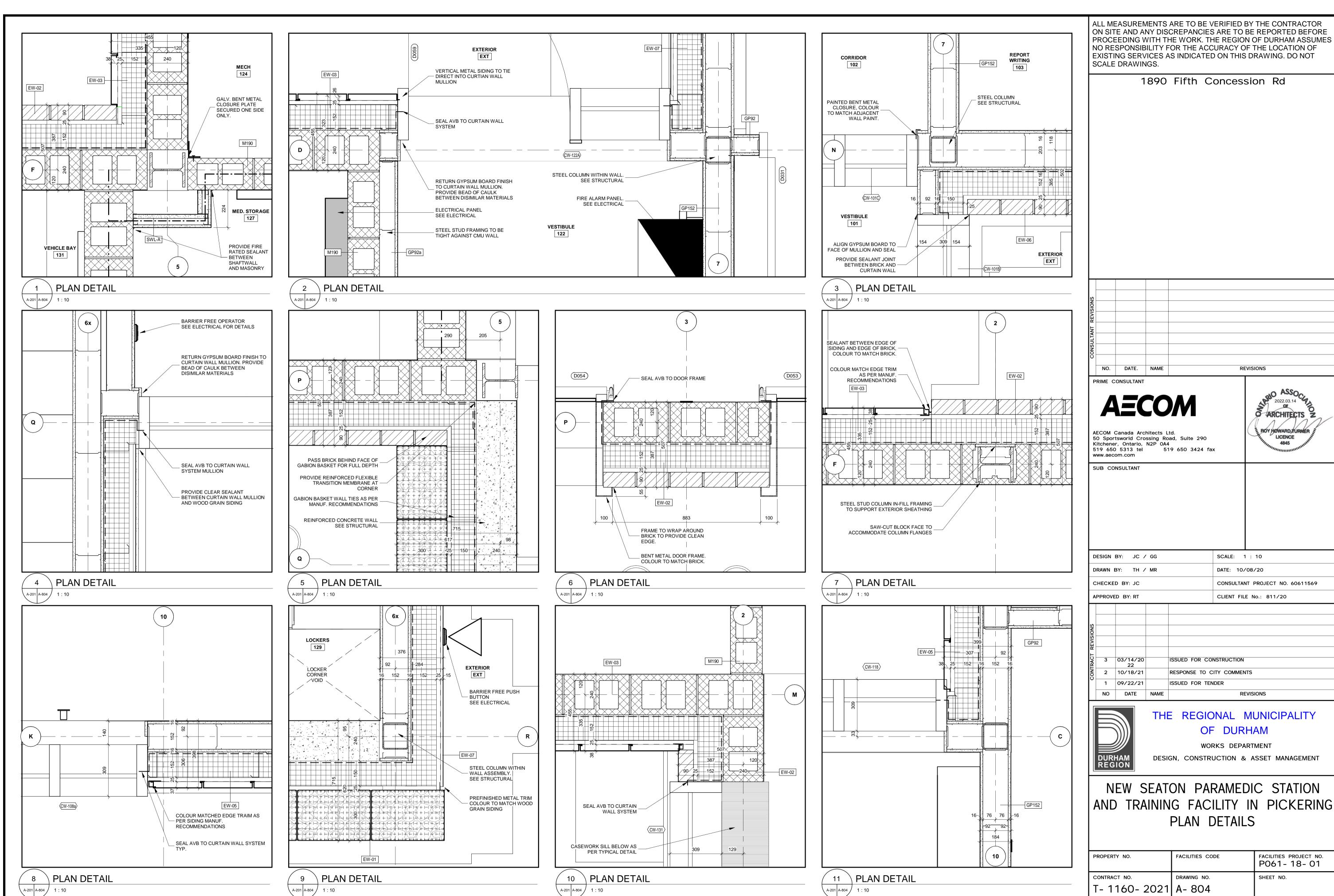
THE REGIONAL MUNICIPALITY OF DURHAM

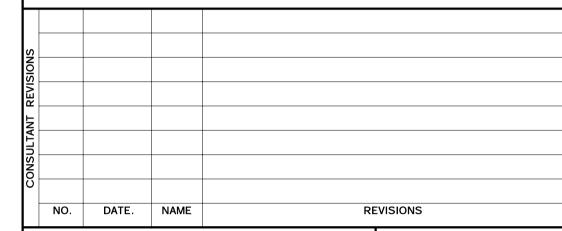
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING SECTION DETAILS

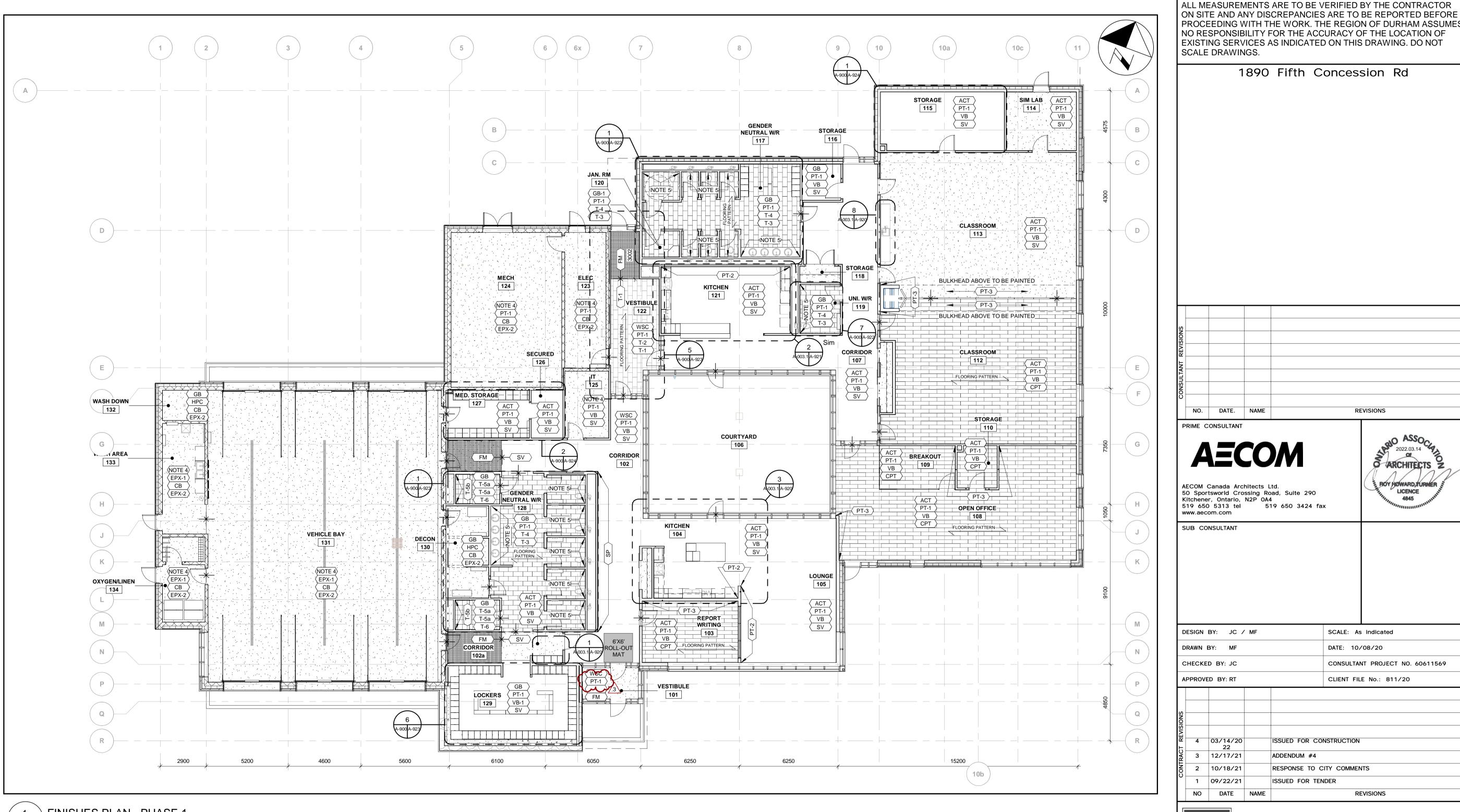
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	ם אאבנ
CONTRACT NO. T- 1160- 2021	DRAWING NO. A-803	SHEET NO.	RIM 360-//B





AND TRAINING FACILITY IN PICKERING

ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
ONTRACT NO.	DRAWING NO.	SHEET NO.
- 1160- 2021	A- 804	
		4



FINISHES PLAN - PHASE 1

NOTES

- 1. COORDINATE WITH REFLECTED CEILING PLANS.
- 2. REFER TO SCHEDULE OF FINISHES SECTION 09 06 00 AND INTERIOR ELEVATIONS.
- 3. INSTALL HIGH PERFORMANCE COATING UP TO 2200mm AFF. AND PAINT (PT-1) ABOVE.
- 4. EXPOSED CEILING STRUCTURE TO BE PAINTED.
- . INSTALL WALL TILE T-5b AS INDICATED ON INTERIOR ELEVATIONS. INDIVIDUAL SHOWER ROOMS TO HAVE WALL TILE TO FINISHED CEILING.

ROOM FINISH LEGEND NOTE: ALL COLOURS, FINISHES, AND PATTERNS TO BE

ORDER OF FINISHES

SYMBOL LEGEND

⟨XXX-X⟩

 CEILING FINISH

WALL FINISH XXX-X BASE FINISH

XXX-X FLOOR FINISH

DENOTES FLOOR FINISH TRANSITION

DENOTES FLOOR DRAIN. REFER TO MECHANICAL

COORDINATED WITH THE OWNER, ARCHITECT, AND SPECIFICATIONS

CS SEALED CONCRETE VB VINYL BASE

SS-X SOLID SURFACE (EPX-X) EPOXY COATING

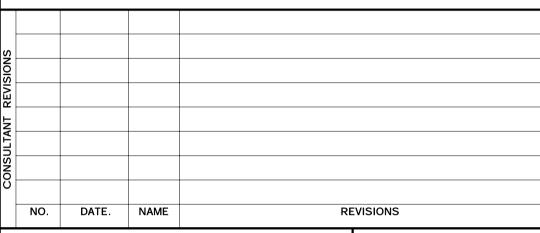
T-X TILE (CERAMIC OR PORCELAIN) CARPET TILE

SV SHEET VINYL

GB GYPSUM BOARD $\begin{tabular}{ll} $\langle \mbox{WSC} \mbox{\rangle} & \mbox{WOOD SLAT CEILING} & \begin{tabular}{ll} $\langle \mbox{CB} \mbox{$\rangle$} & \mbox{INTEGRATED COVE} \\ \mbox{BASE} & \mbox{\rangle} & \mbox{BASE} \\ \end{tabular}$

SP STONE PANEL WALL FM WALK-OFF MAT

PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS. 1890 Fifth Concession Rd



2022.03.14

BOY HOWARD TURNER

LICENCE 4845

S ARCHITECTS

PRIME CONSULTANT

www.aecom.com

SUB CONSULTANT

AECOM Canada Architects Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel



DESIGN BY: JC / MF	SCALE: As indicated
DRAWN BY: MF	DATE: 10/08/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

	I KOVL	DI. KI		CEIENT TILE NO.: 011720
] مرا				
REVISIONS				
EVIS				
.	4	03/14/20 22		ISSUED FOR CONSTRUCTION
CONTRACT	3	12/17/21		ADDENDUM #4
Š	2	10/18/21		RESPONSE TO CITY COMMENTS
	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



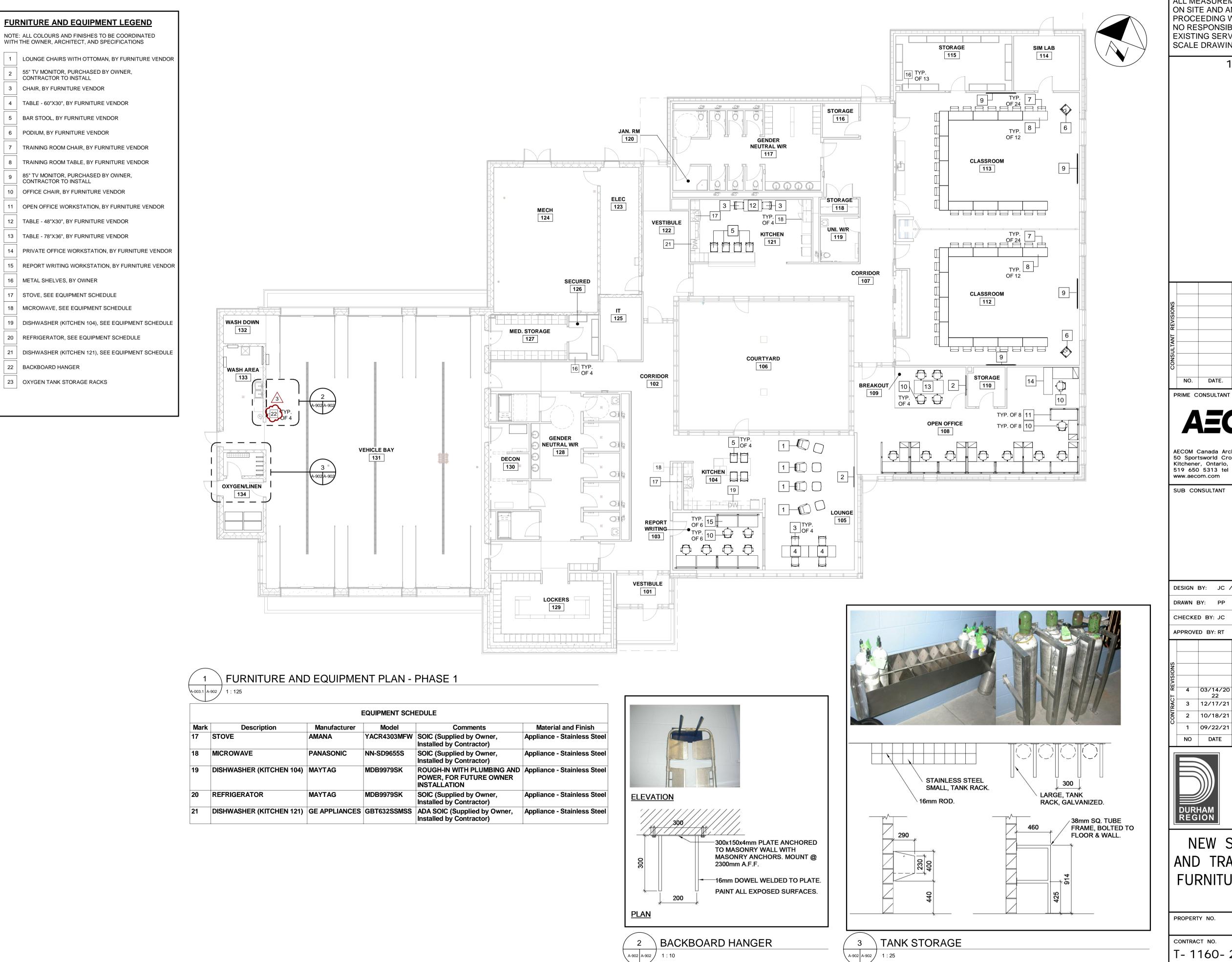
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

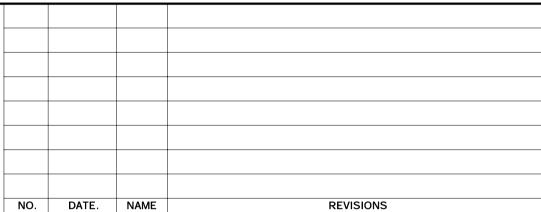
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING INTERIOR FINISHES - PHASE 1

FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
DRAWING NO.	SHEET NO.
A- 900	



1890 Fifth Concession Rd



2022.03.14

BOY HOWARD TURNER

LICENCE

S ARCHITECTS

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel

SUB CONSULTANT

	DESIGN BY: JC / MF	SCALE: As indicated
	DRAWN BY: PP	DATE: 11/19/20
	CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
	APPROVED BY: RT	CLIENT FILE No.: 811/20

ISSUED FOR CONSTRUCTION 3 12/17/21 ADDENDUM #4 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



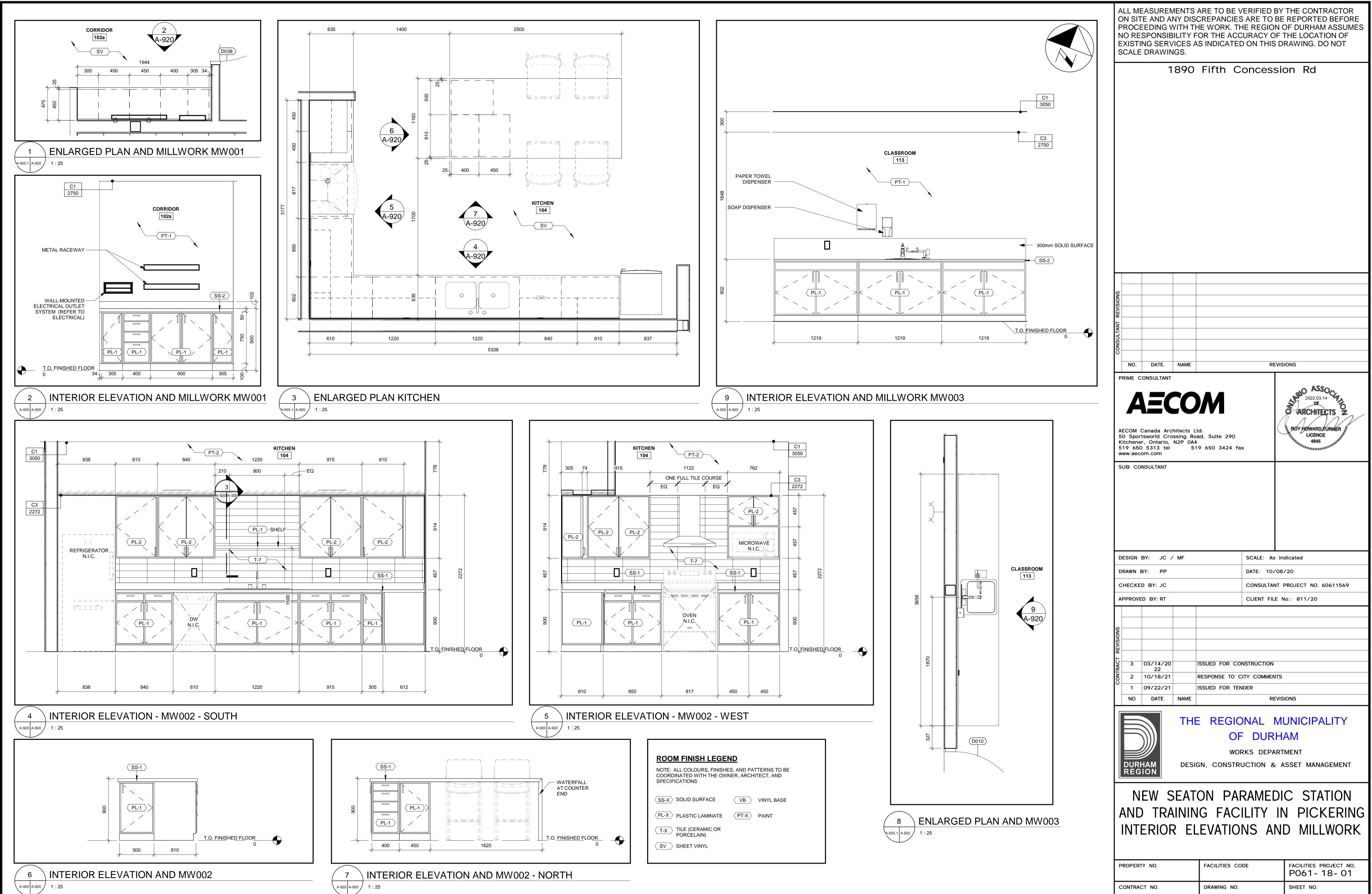
THE REGIONAL MUNICIPALITY OF DURHAM

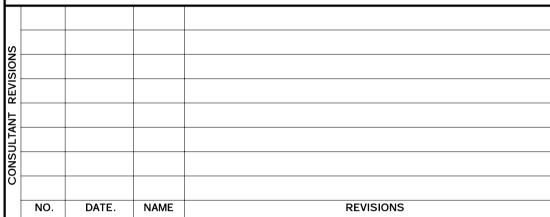
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FURNITURE AND EQUIPMENT PLAN -PHASE 1

			~
PERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMFR
TRACT NO. 1160- 2021	DRAWING NO.	SHEET NO.	360·//R
1100-2021	A- 902		Z





2022.03.14

LICENCE 4845

DESIGN BY: JC / MF	SCALE: As indicated
DRAWN BY: PP	DATE: 10/08/20
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

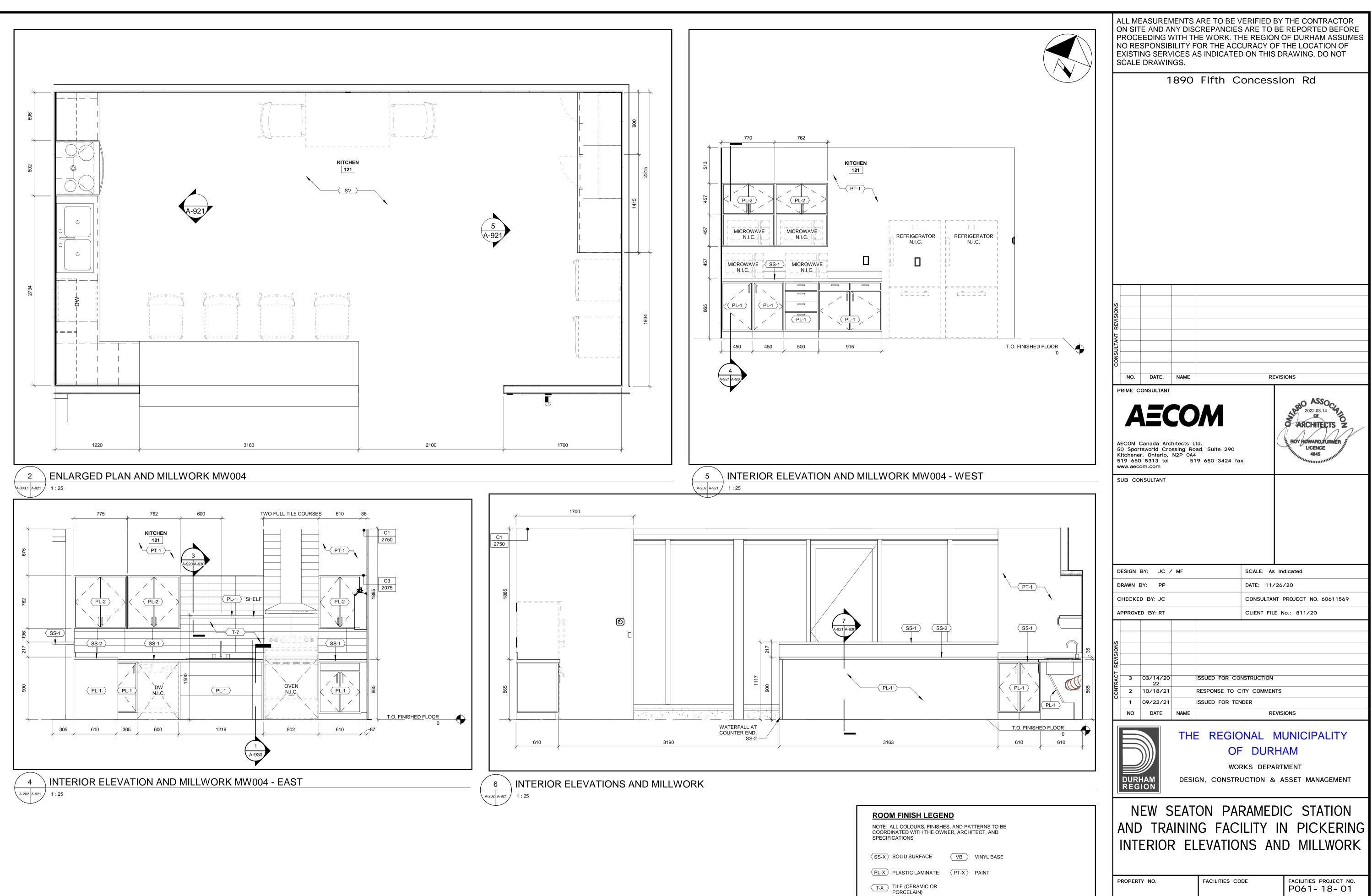
REVISIONS

THE REGIONAL MUNICIPALITY

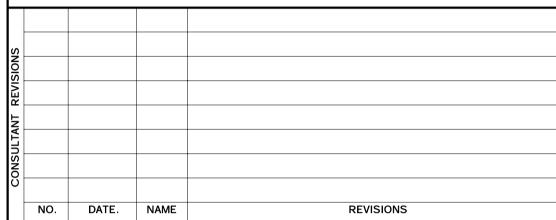
WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	A- 920	



1890 Fifth Concession Rd



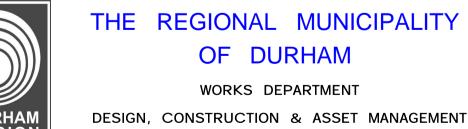
S ARCHITECTS

BOY HOWARD TURNER LICENCE 4845

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

	DESIGN BY: JC / MF	SCALE: As indicated
	DRAWN BY: PP	DATE: 11/26/20
	CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
	APPROVED BY: RT	CLIENT FILE No.: 811/20

3 03/14/20 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS ISSUED FOR TENDER 1 09/22/21 NO DATE NAME REVISIONS



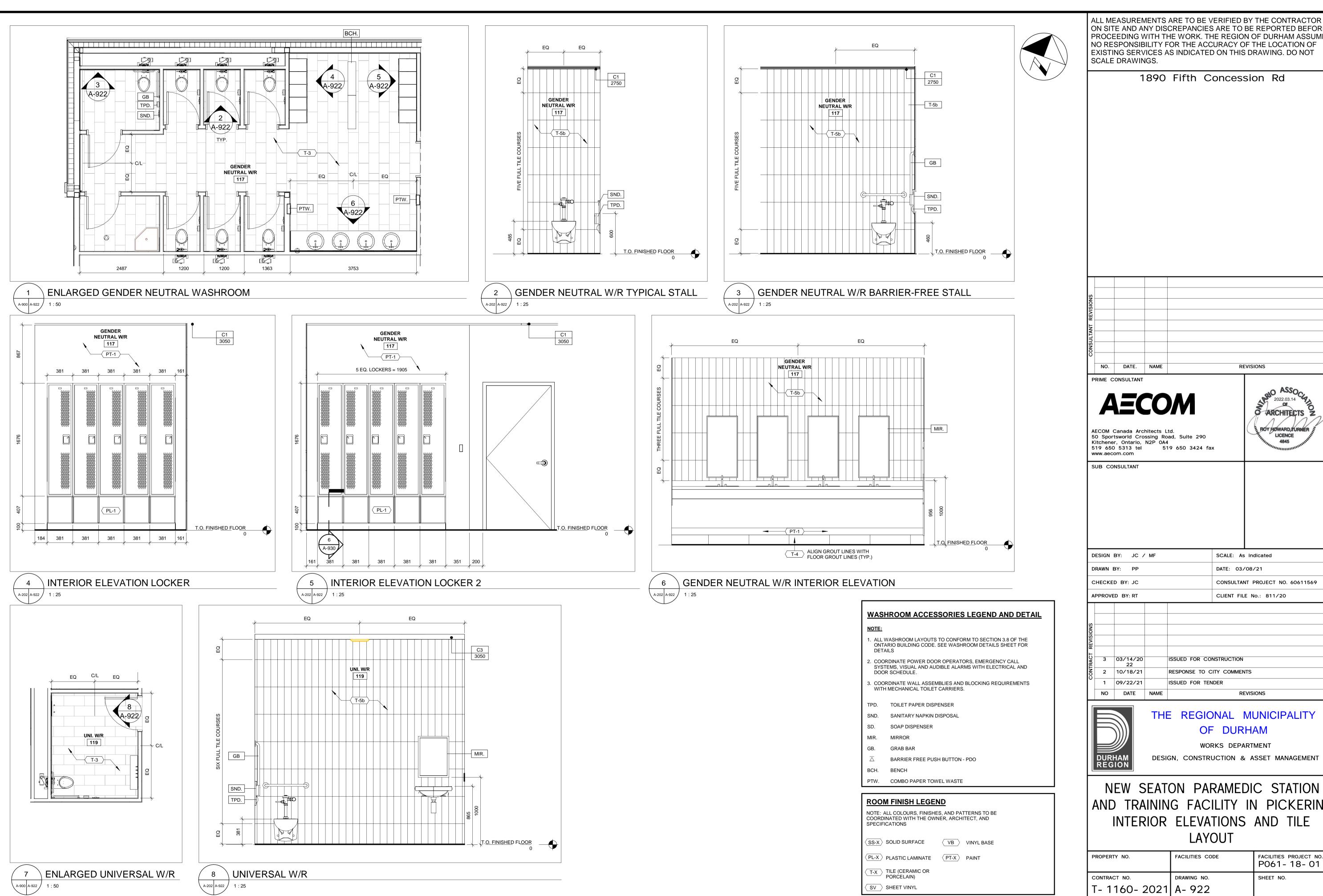
SV SHEET VINYL

THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	A- 921	



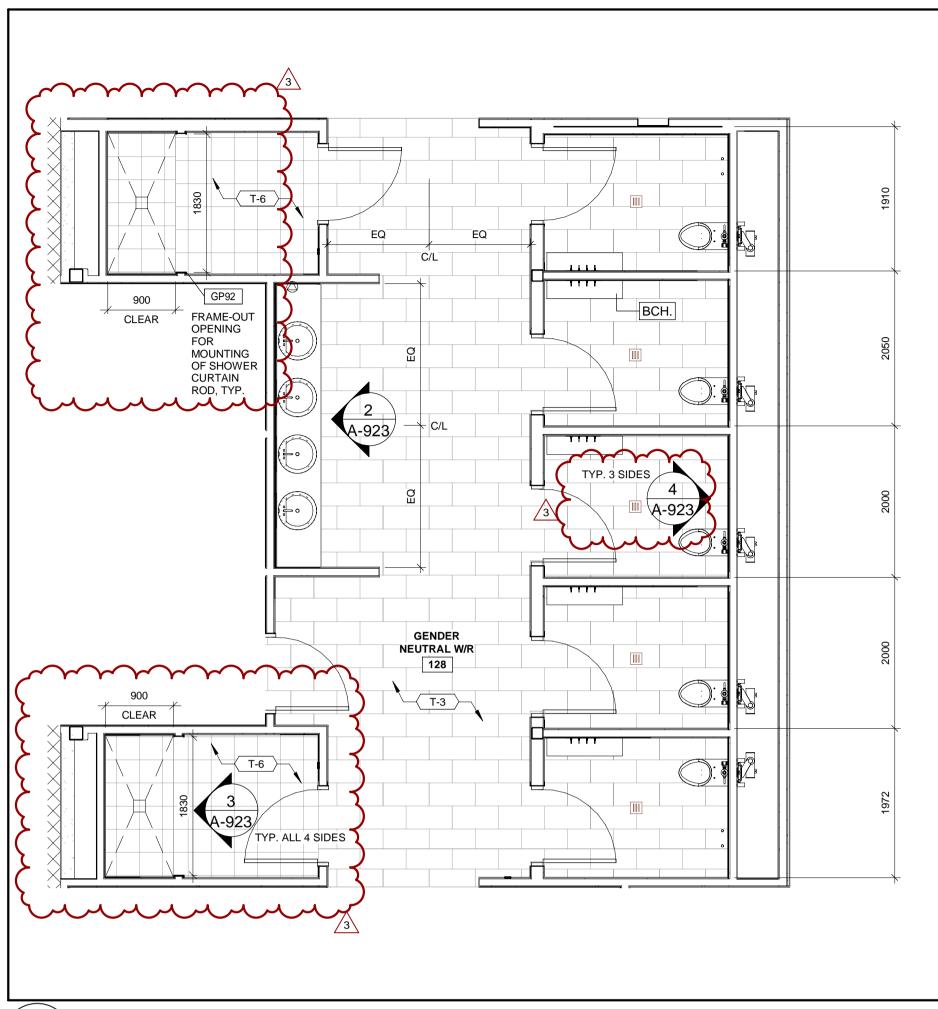
DESIGN BY: JC / MF	SCALE: As indicated
DRAWN BY: PP	DATE: 03/08/21
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569

THE REGIONAL MUNICIPALITY

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

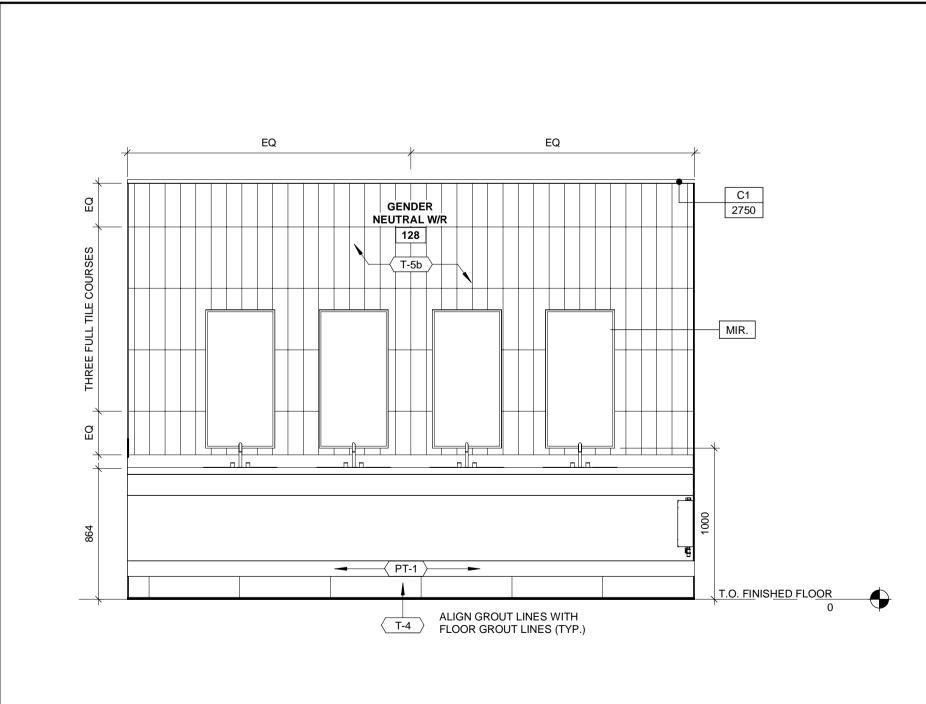
AND TRAINING FACILITY IN PICKERING INTERIOR ELEVATIONS AND TILE

			~
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMER
CONTRACT NO. T- 1160- 2021	DRAWING NO. A- 922	SHEET NO.	BIM 360://B



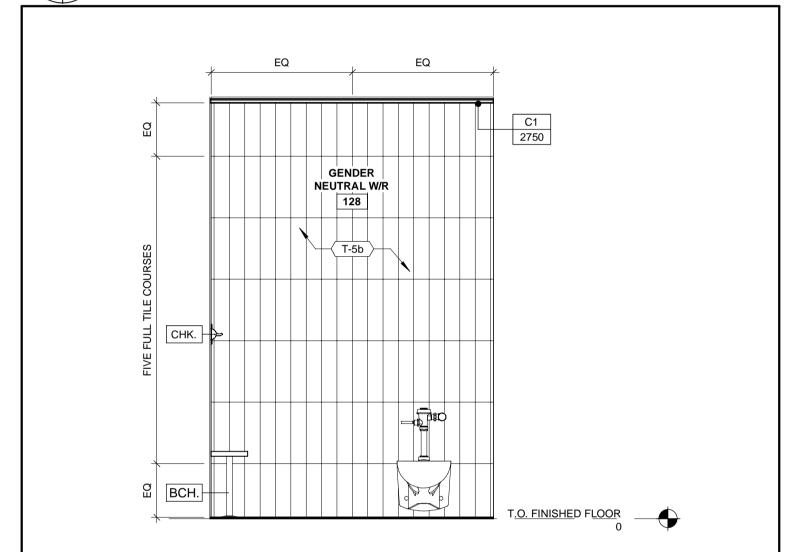
\ ENLARGED PLAN

INTERIOR ELEVATION W/R SINK

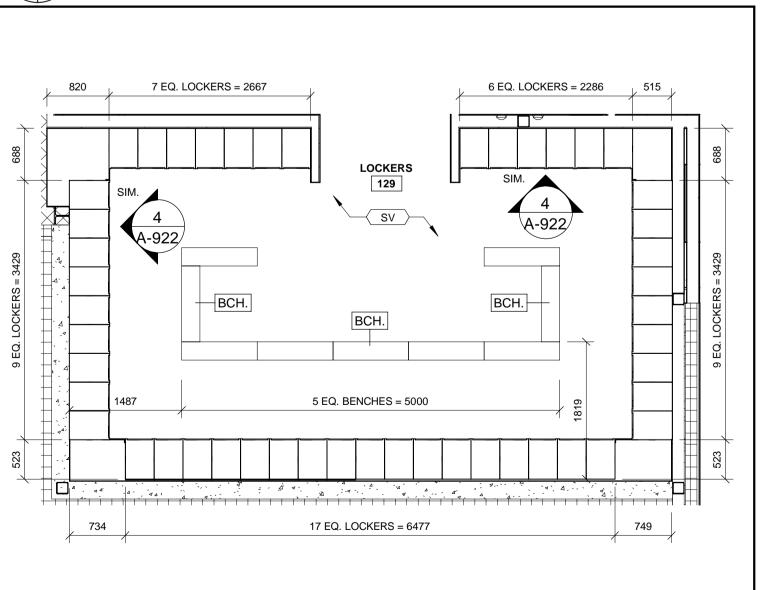


EQ GENDER **NEUTRAL W/R** 128 T.O. FINISHED FLOOR

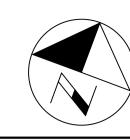
INTERIOR ELEVATION W/R SHOWER STALL A-203 A-923 1 : 25



INTERIOR ELEVATION W/R TYPICAL STALL A-203 A-923 1 : 25



ENLARGED PLAN LOCKERS A-900 A-923 1 : 50



WASHROOM ACCESSORIES LEGEND AND DETAIL

NOTE:

1. ALL WASHROOM LAYOUTS TO CNFORM TO SECTION 3.8 OF THE ONTARIO BUILDING CODE. SEE WASHROOM DETAILS SHEET FOR

2. COORDINATE POWER DOOR OPERATORS, EMERGENCY CALL SYSTEMS, VISUAL AND AUDIBLE ALARMS WITH ELECTRICAL AND DOOR SCHEDULE.

3. COORDINATE WALL ASSEMBLIES AND BLOCKING REQUIREMENTS WITH MECHANICAL TOILET CARRIERS.

MIR. MIRROR

CHK. COAT HOOK

BARRIER FREE PUSH BUTTON - PDO

BCH. BENCH

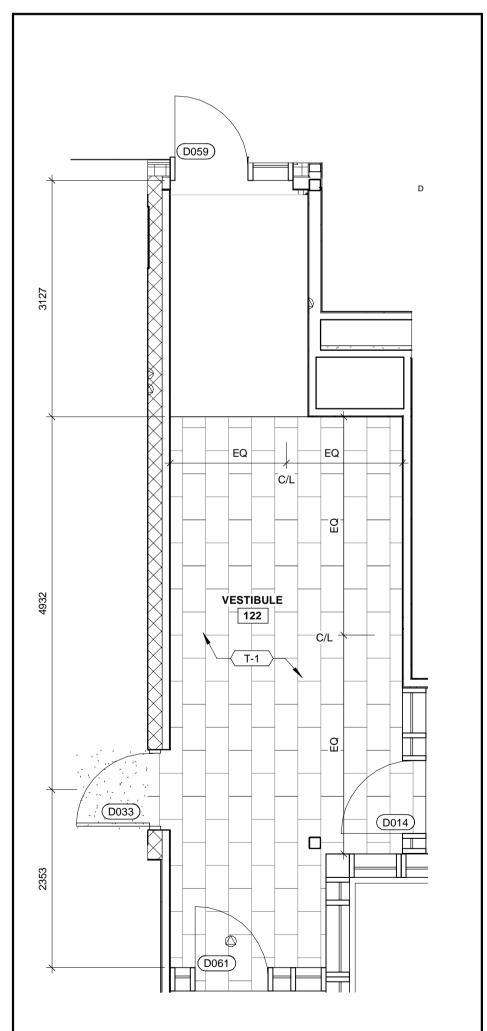
ROOM FINISH LEGEND

NOTE: ALL COLOURS, FINISHES, AND PATTERNS TO BE COORDINATED WITH THE OWNER, ARCHITECT, AND **SPECIFICATIONS**

PL-X PLASTIC LAMINATE PT-X PAINT

T-X TILE (CERAMIC OR PORCELAIN)

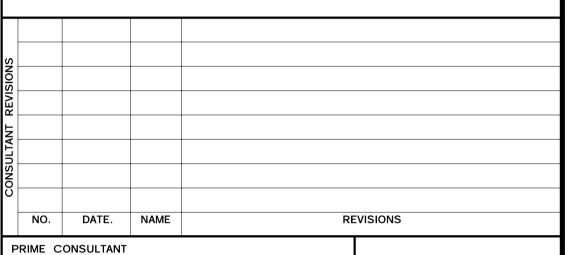
SV SHEET VINYL



ENLARGED PLAN VESTIBULE

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



2022.03.14 & ARCHITECTS

BOY HOWARD TURNER

LICENCE

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fa 519 650 3424 fax

www.aecom.com SUB CONSULTANT

DESIGN BY: JC / MF	SCALE: As indicated
DRAWN BY: PP	DATE: 03/09/21
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20

ISSUED FOR CONSTRUCTION 3 12/9/21 ADDENDUM #3 RESPONSE TO CITY COMMENTS 2 10/18/21 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



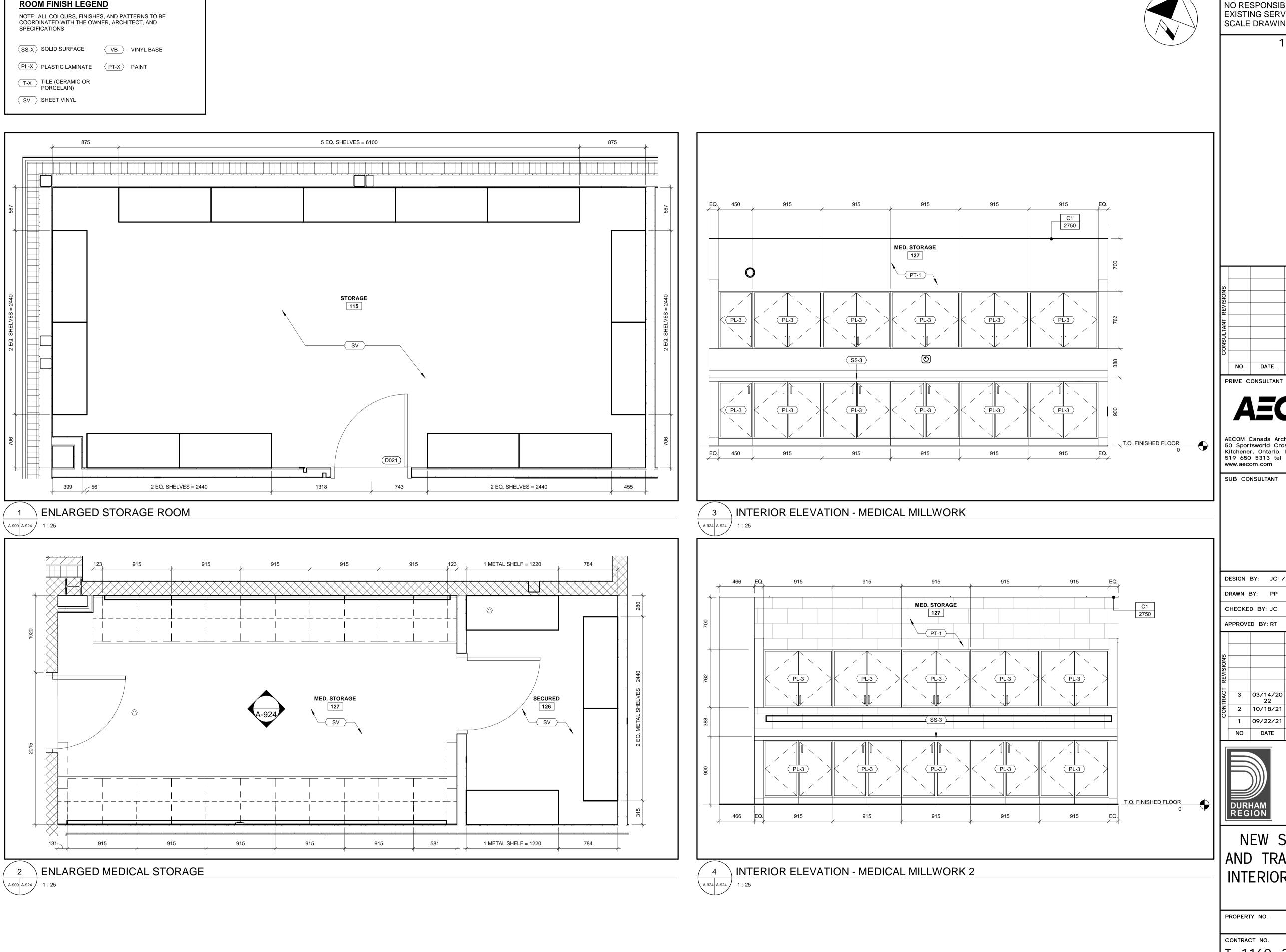
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

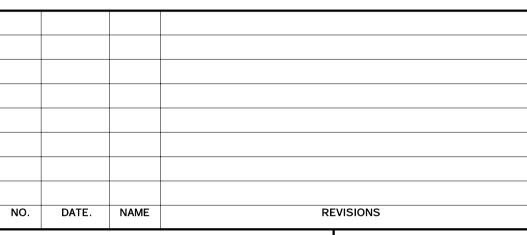
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING INTERIOR ELEVATIONS AND TILE LAYOUT

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO.	DRAWING NO.	SHEET NO.	١
T- 1160- 2021	A- 923		0
			1



1890 Fifth Concession Rd



2022.03.14

BOY HOWARD TURNER

LICENCE 4845

S ARCHITECTS

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax

DESIGN BY: JC / MF SCALE: As indicated DATE: 03/25/21 CONSULTANT PROJECT NO. 60611569 CLIENT FILE No.: 811/20

3 03/14/20 RESPONSE TO CITY COMMENTS Z 2 10/18/21 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



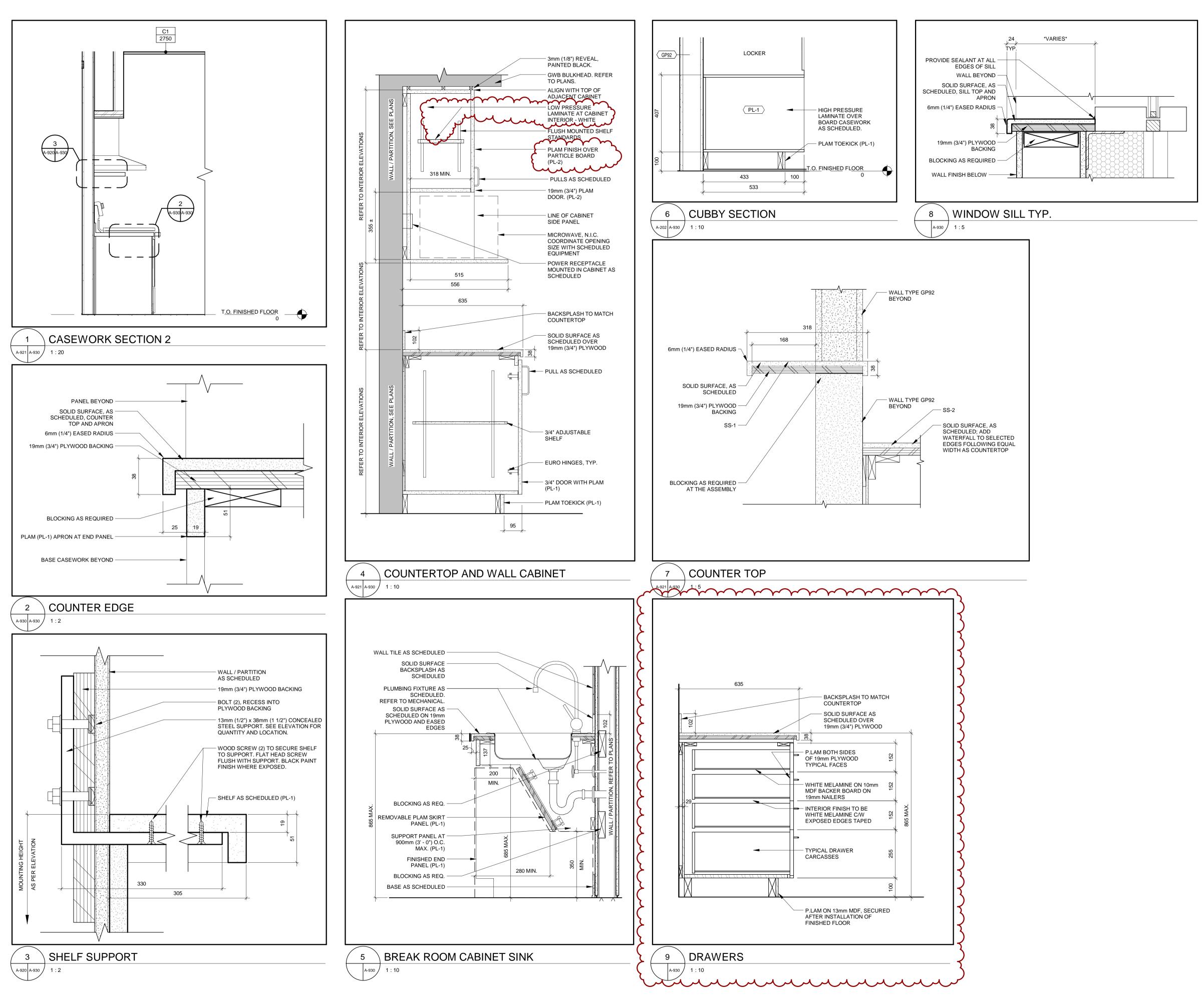
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

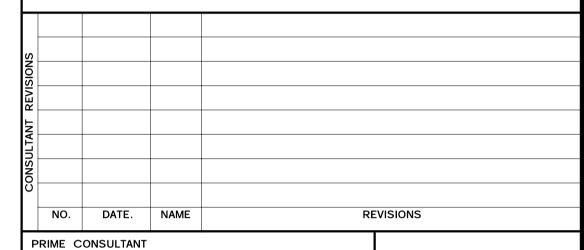
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING INTERIOR ELEVATIONS AND MILLWORK

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AME
CONTRACT NO.	DRAWING NO.	SHEET NO.)://B
T- 1160- 2021	A- 924		360
	/ 		Σ



1890 Fifth Concession Rd



2022.03.14

BOY HOWARD TURNER

LICENCE

O ARCHITECTS

AECOM

AECOM Canada Architects Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

SUB CONSULTANT

www.aecom.com

DESIGN BY: JC / MF	SCALE: As indicated
DRAWN BY: PP	DATE: 03/23/21
CHECKED BY: JC	CONSULTANT PROJECT NO. 60611569
APPROVED BY: RT	CLIENT FILE No.: 811/20



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING CASEWORK DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61-18-01	P-AMFF
CONTRACT NO.	DRAWING NO.	SHEET NO.)://B
T- 1160- 2021	A- 930		360
	1 , 5 5		≥

GENERAL NOTES

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH MECHANICAL, ELECTRICAL, CIVIL, AND ARCHITECTURAL DRAWINGS.
- 2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 ONTARIO BUILDING CODE (LATEST EDITION), AND STRUCTURAL COMMENTARIES (PART 4 OF THE 2015 NATIONAL
- 3. ALL DIMENSIONS, ELEVATIONS, OPENINGS FOR PIPES, SLEEVES, EQUIPMENT LOCATIONS AND THE LIKE SHALL BE CHECKED WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, AND ELECTRICAL, DRAWINGS. REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE
- 4. PROVIDE ALL NECESSARY PROFESSIONAL ENGINEER CERTIFIED SHORING, SCAFFOLDING AND UNDERPINNING TO EXECUTE THE PROJECT SAFELY.
- 5. MAKE GOOD ANY DAMAGES DONE DURING CONSTRUCTION.
- 6. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE CONDITIONS AND CHECK AND VERIFY THE LOCATION OF ANY UNDERGROUND UTILITIES OR OTHER EXISTING SERVICES WHICH MAY INTERFERE WITH THE WORK OF THIS PROJECT AND COORDINATE WITH THE OWNER, ENGINEER OR OTHER AUTHORITIES AS MAY BE REQUIRED FOR THEIR RELOCATION, REMOVAL, OR TEMPORARY SUPPORT. PROTECT EXISTING UNDERGROUND UTILITIES, AND OTHER EXISTING CONDUITS, PIPING OR UTILITY SERVICES DURING CONSTRUCTION. MAKE GOOD ANY DAMAGE RESULTING FROM WORK ON THIS PROJECT TO THE SATISFACTION AND FULL INDEMNIFICATION OF
- 7. THE CONTRACTOR SHALL SUPPLY, REMOVE AND TAKE RESPONSIBILITY FOR ALL TEMPORARY BRACING, EXCAVATION SUPPORT SYSTEM AND DEWATERING NECESSARY TO UNDERTAKE THE
- 8. DO NOT SCALE THESE DRAWINGS.
- 9. OMITTED DIMENSIONS ON FRAMING PLANS AND ELEVATIONS SCHEMATICS INDICATE MEMBERS EQUALLY SPACED BETWEEN DEFINED LINES.

EXCAVATIONS

- 1. PROVIDE ADEQUATE MEANS OF DEWATERING TO ENSURE EXCAVATIONS ARE DRY AT ALL TIMES. PLACEMENT OF CONCRETE SHALL ONLY BE MADE IN DRY EXCAVATIONS. THE METHOD OF DEWATERING SHALL BE SUCH AS TO PREVENT SETTLEMENT OF, AND ANY DAMAGE TO, ADJACENT STRUCTURES, UTILITIES, OR SERVICES.
- 2. THE CONTRACTOR SHALL TAKE THE RESPONSIBILITY FOR SHORING THE EXCAVATION TO PREVENT UNDERMINING OF ADJACENT EXISTING FOUNDATIONS.

CONSTRUCTION

- 1. FORMWORK SHALL CONFORM TO THE REQUIREMENTS OF C.S.A. SPECIFICATION A23M AND A.C.I.
- 2. FORMWORK SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER OF THE PROVINCE OF ONTARIO, TO WITHSTAND ALL SUPERIMPOSED LOADS DURING CONSTRUCTION.
- 3. SHORING, RE-SHORING, AND CONSTRUCTION LOADS SHALL BE CONTROLLED TO ENSURE THAT NO STRUCTURAL ELEMENT IS OVERSTRESSED.
- 4. MAKE NECESSARY ALLOWANCE FOR FORMWORK CREEP AND DEFLECTION AND ADJUST ACCORDINGLY TO ACHIEVE THE ELEVATION FOR THE COMPLETION OF THE JOB.
- 5. CONSTRUCTION JOINTS SHALL BE MADE AND LOCATED SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE.
- 6. THE CONTRACTOR SHALL MAKE NECESSARY ALLOWANCE FOR ANY VARIATION AND/OR ANY REVISIONS MADE ON ACCOUNT OF SUB-TRADES AND PRODUCT SELECTION FOR THE COMPLETION

FOUNDATIONS

- 1. ALL PERTAINING SOILS INFORMATION AS PER GEOTECHNICAL REPORT PROJECT NO.BRM-00604892-A0 DATED NOVEMBER 26, 2018 BY EXP, AND SUBSEQUENT REVISIONS, SHALL BE USED.
- 2. REMOVAL OF ALL TOP SOIL, FILL, ORGANIC AND LOOSE MATERIAL FROM THE BUILDING ENVELOPE AS DIRECTED BY GEOTECHNICAL ENGINEER.
- 3. ANY OVER EXCAVATION DUE TO ERROR OR NECESSITATED BY LOCAL SOFT AREAS, FRACTURED BEARING STRATA OR OTHER DETERIORATED CONDITIONS SHALL BE MADE GOOD WITH 10 MPa CLASS N CONCRETE OR PROPERLY COMPACTED ENGINEERED STRUCTURAL FILL.
- 4. ENGINEERED STRUCTURAL FILL SHALL BE INSTALLED ABOVE THE EXPOSED AND APPROVED NATIVE SOILS. INSTALL ENGINEERED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. ENGINEERED STRUCTURAL FILL SHOULD COMPRISE OF APPROVED GRANULAR MATERIAL SUCH AS OPSS.PROV 1010 GRANULAR 'B' PLACED IN MAXIMUM 300mm LAYERS AND COMPACTED TO 100% SPMDD. ENGINEERED FILL SHOULD EXTEND AT LEAST 3 METERS BEYOND THE OUTSIDE OF THE BUILDING.
- 5. ALL EXTERIOR AND INTERIOR FOOTINGS SHALL BE CARRIED DOWN AT LEAST 1200mm BELOW FINISHED GRADE FOR FROST PROTECTION UNLESS NOTED OTHERWISE.
- 6. PROTECT FOUNDATIONS, WALLS, SLABS ON GRADE, GRADE BEAMS, FOOTINGS AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.
- 7. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE SOIL OR ENGINEERED STRUCTURAL FILL AS INDICATED AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE UNDISTURBED NATIVE SOIL OR ENGINEERED STRUCTURAL FILL AT THE UNDERSIDE OF THE FOOTINGS SHALL HAVE A MINIMUM GEOTECHNICAL BEARING RESISTANCE OF:

150 kPa SERVICEABILITY LIMIT STATES (SLS) 225 kPa ULTIMATE LIMIT STATES (ULS)

BEFORE PLACING FOOTINGS.

BEARING ELEVATION MUST BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER

- 8. DO NOT BACKFILL AGAINST WALLS RETAINING EARTH UNTIL ELEMENTS PROVIDING LATERAL SUPPORT ARE COMPLETED. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS BELOW
- 9. ALL COLUMNS, PIERS, AND WALL FOOTINGS SHALL BE CENTERED ON THE COLUMN, PIER, OR WALL, RESPECTIVELY UNLESS NOTED.
- 10. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS FOR DIMENSIONS, ELEVATIONS, DETAILS AND LOCATIONS OF SLAB DEPRESSIONS, SLOPES, TRENCHES, ETC.
- 11. PROVIDE A 75mm THICK CONCRETE SLAB (MUD SLAB) UNDER FOOTINGS WHEN SOIL AND WEATHER CONDITIONS CREATE A MUDDY SURFACE ON THE SITE.

12. PROVIDE A 20mm CHAMFER AT EXPOSED CORNERS.

- 13. PROVIDE TEMPORARY SHORING, ETC., ADEQUATE TO SUPPORT EXISTING STRUCTURES DURING CONSTRUCTION.
- 14. DO NOT POUR CONCRETE UNTIL ALL ELECTRICAL, CIVIL, AND MECHANICAL CONDUITS, PIPING OR OTHER EMBEDDED SERVICES ARE INSTALLED AND VERIFIED.

CONCRETE

- 1. CONCRETE CONSTRUCTION SHALL CONFORM TO ALL C.S.A. A23 SERIES STANDARDS.
- 2. CONCRETE STRENGTH AFTER 28 DAYS SHALL BE AS FOLLOWS:

TYPE	STRENGTH	CLASS OF EXPOSURE
LEAN CONCRETE FILL, MUD SLAB	10 MPa	N
FOOTINGS	25 MPa	N
PIERS, FOUNDATION WALLS. AND CONCRETE WALLS	25 MPa	F-2
OFFICE - INTERIOR SLAB ON GRADE, CONCRETE ON DECK, AND TOPPINGS	25 MPa	N
GARAGE - INTERIOR SLAB ON GRADE	35 MPa	C-1
EXTERIOR SLAB ON GRADE	35 MPa	C-1

3. MINIMUM CONCRETE COVER TO REINFORCING BARS:

EXPOSURE CONDITION	N	F-2	C-1
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	75mm	75mm	75mm
BEAMS AND PIERS	30mm	40mm	60mm
SLABS, WALLS, JOISTS, SHELLS, AND FOLDED PLATES	30mm	40mm	60mm
RATIO OF COVER TO NOMINAL BAR DIAMETER	1.0	1.5	2.0
RATIO OF COVER TO NOMINAL MAXIMUM AGGREGATE SIZE	1.0	1.5	2.0

- 4. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE WALLS ARE NOT PERMITTED EXCEPT WHERE SHOWN ON THESE DRAWINGS. LEAVE CHASES AND POCKETS IN WALLS FOR SEATING OF SLABS AND BEAMS.
- 5. NO OPENINGS OTHER THAN THOSE INDICATED ON STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE WALLS, COLUMNS, BEAMS AND SLABS WITHOUT PRIOR REVIEW BY THE CONSULTANT. SUBMIT DRAWINGS INDICATING ADDITIONAL OPENINGS TO THE CONSULTANT FOR REVIEW BEFORE PROCEEDING WITH THE WORK.
- 6. REINFORCE ALL SIDES OF OPENINGS IN CONCRETE WALLS AND SLABS AS INDICATED BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS:

- LENGTH OF BARS EQUAL TO OPENING DIMENSION PLUS 600mm BOTH SIDES.
- USE 2-15M BARS FOR WALL THICKNESS UP TO 200mm. - USE 2-20M BARS FOR WALL THICKNESS OVER 200mm.

- ADD ADDITIONAL REINFORCING BARS EACH SIDE OF OPENING EQUAL TO 50% OF INTERRUPTED BARS AND EXTEND THEM 800mm BEYOND OPENINGS.
- 7. JOINT CHAMFER: ALL FLUSH CONCRETE SURFACES MEETING AT JOINTS IN VISIBLE LOCATIONS SHALL BE FORMED WITH A 'V' SHAPED REGLET AT FACE (20mm DEEP).
- 8. FILL AND REFINISH ALL VOIDS. FORM-WIRE LOCATIONS ETC.
- 9. USE PORTLAND TYPE GU FOR ALL CONCRETE UNLESS NOTED OTHERWISE.
- 10. STRUCTURAL GROUT UNDER BASE PLATES SHALL BE NON-SHRINK, NON-METALLIC, AND HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 50 MPa.
- 11. BONDING AGENT FOR POURING NEW CONCRETE AGAINST EXISTING, APPLY THE EPOXY BONDING ADHESIVE TO EXPOSED EXISTING SURFACES IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. USE SIKADUR 32 HI-MOD BY SIKA OR ENGINEER APPROVED EQUAL.

12. DOWELLING INTO EXISTING CONCRETE:

- FOR DOWELLING REINFORCING STEEL BARS INTO THE EXISTING CONCRETE. DRILL AND PREPARE A CONCRETE HOLE. 3mm LARGER THAN THE BAR DIAMETER, SET THE BAR INTO THE SPECIFIED HOLE USING THE EPOXY BONDING ADHESIVE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. USE HIT HY 200 ADHESIVE BY HILTI OR ENGINEER APPROVED EQUAL.
- 13. COORDINATE THE PLACEMENT OF ALL CONCRETE INSERTS AND ANCHOR BOLTS SUPPLIED BY OTHERS.

REINFORCING STEEL

- 1. ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH C.S.A. G30.18M GRADE 400.
- 2. REINFORCING BARS SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS AND ELEVATION VARIATIONS UNLESS NOTED. CONTINUOUS BARS SHALL BE FULLY DEVELOPED BYLAPPING WHERE SPLICED.
- 3. DETAIL, BEND, PLACE, AND SUPPORT REINFORCING STEEL IN CONFORMANCE WITH RSIO MANUAL OF STANDARD PRACTICE, UNLESS NOTED OTHERWISE.
- 4. ALL TENSION SPLICES ARE CLASS 'B'.

SLAB-ON-GRADE

- 1. SEE PLAN FOR SLAB THICKNESS AND REINFORCEMENT
- 2. SLAB ON GRADE SHALL BE PLACED ON A 150mm BASE COURSE OF GRANULAR 'A' BACKFILLED AS PER OPSS.PROV 1010 COMPACTED TO 100% SPMDD MINIMUM. ALL INFILLING BELOW THE GRANULAR 'A' SHOULD BE WELL GRADED FREE DRAINING GRANULAR 'B' TYPE I BACKFILL AS PER OPSS.PROV 1010 COMPACTED TO A MINIMUM OF 100% SPMDD. ALL ENGINEERED FILL MUST BE INSPECTED, APPROVED AND COMPACTION VERIFIED BY THE GEOTECHNICAL ENGINEER.
- 3. PRIOR TO PLACING GRANULAR FILL MATERIALS, PROOF-ROLL EXISTING SUB-GRADE TO IDENTIFY INCONSISTENCIES OR SOFT AREAS. PROCEED WITH GRANULAR PLACEMENT ONLY AFTER THESE AREAS HAVE BEEN RE-WORKED AND COMPACTED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- 4. DO NOT POUR CONCRETE UNTIL ALL ELECTRICAL AND MECHANICAL CONDUITS, PIPING OR OTHER EMBEDDED SERVICES ARE INSTALLED, AND VERIFIED.
- 5. MAINTAIN SLAB THICKNESS INDICATED ON THE DRAWINGS IN ALL CASES.
- 6. PROVIDE SLAB ON GRADE THICKENING UNDER ALL NON-LOADBEARING MASONRY WALLS UNLESS NOTED OTHERWISE.
- 7. AGREE TO LOCATIONS OF CONSTRUCTION JOINTS WITH ENGINEER PRIOR TO CONSTRUCTION.
- 8. PROVIDE SAW-CUT CONTROL JOINTS OF 30 X t (t = SLAB THICKNESS) MAXIMUM SPACING WITHIN 18 HOURS AFTER CONCRETE POUR (FOR JOINTED FLOORS) UNLESS NOTED OTHERWISE.
- 9. PROVIDE INTERIOR COLUMN ISOLATION JOINTS AND SAW-CUTTING AS PER DETAILS.

10.PERFORM SAW-CUTTING FOR CONTROL JOINTS USING DRY METHOD (SOFT-CUT SAW) AS SOON AS POSSIBLE AFTER CONCRETE PLACEMENT WITHOUT LEAVING TREAD MARKS. DISLODGING AGGREGATE AND BEFORE UNCONTROLLED SHRINKAGE OCCURS. FILL CONTROL JOINTS, AS SPECIFIED, NO SOONER THEN 120 DAYS AFTER CONCRETE POUR.

11.PROVIDE SLAB ON GRADE THICKENING TO SUIT ANY ANCHORS OR INSERTS AS REQUIRED, UNLESS

12. HARDENER: FOR ALL SLAB AREAS EXPOSED TO VEHICULAR TRAFFIC (INTERIOR VEHICLE BAY, EXTERIOR APRON SLABS, EXTERIOR GARBAGE CONTAINER SLAB), APPLY A HEAVY DUTY APPLICATION OF FLOOR HARDENER AT A RATE OF 7-8 kg/m2 (140-160 lbs. PER 100sf) OF FLOOR AREA, IN ACCORDANCE WITH THE SPECIFICATIONS.

13. FOR FLOOR FINISHES SEE THE SPECIFICATIONS.

MASONRY

OTHERWISE.

- 1. ALL MASONRY RELATED DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING CAN/CSA STANDARDS:
- S304.1 DESIGN OF MASONRY STRUCTURES - A165 SERIES STANDARDS ON CONCRETE MASONRY UNITS
- A179 MORTAR AND GROUT FOR UNIT MASONRY - A370 CONNECTORS FOR MASONRY
- A371 MASONRY CONSTRUCTION FOR BUILDINGS
- G30.18 BILLET STEEL BARS FOR CONCRETE REINFORCING - G30.3 COLD DRAWN STEEL WIRE FOR CONCRETE REINFORCING - G164 HOT DIP GALVANIZING OF IRREGULARLY SHAPED ARTICLES
- 2. CONCRETE BLOCK SHALL BE NORMAL WEIGHT, METRIC MODULAR, MOISTURE CONTROLLED UNITS TO CSA A165.1, TYPE H/15/A/M WITH A MINIMUM COMPRESSIVE STRENGTH OF 15 MPA BASED ON THE NET
- 3. TYPE 'S' MORTAR TO BE USED THROUGHOUT.
- 4. REINFORCING SHALL BE NEW HI-BOND DEFORMED BARS WITH MINIMUM Fy=400 MPa. MINIMUM LAP FOR REINFORCING TO BE 36X BAR DIA.
- 5. HORIZONTAL MASONRY REINFORCEMENT TO BE AS PER CONCRETE BLOCK WALL REINFORCING SCHEDULE. USE APPROVED STANDARD LADDER DESIGN, GALVANIZED CONTINUOUS REINFORCEMENT USE DUR-O-WAL DW 100 STANDARD (3.66mm DIA. WIRES) OR APPROVED EQUAL. IT MUST BE PLACED HORIZONTALLY IN THE JOINTS AT NOT MORE THAN 400mm C/C VERTICALLY. REINFORCEMENT SHALL BE INSTALLED IN THE FIRST AND SECOND BED JOINTS 200mm APART, IMMEDIATELY ABOVE LINTELS AND BELOW SILLS. REINFORCEMENT IN THE SECOND BED JOINT ABOVE LINTELS AND BELOW SILLS SHALL EXTEND 600mm. BEYOND THE JAMB. ALL OTHER REINFORCEMENT SHALL BE CONTINUOUS AND SIDE RODS SHALL BE LAPPED FOR 200mm MIN.
- 6. REINFORCING SHALL BE PLACED IN THE CENTRE OF THE BLOCK CORES UNLESS INDICATED OTHERWISE. ALL VERTICAL BARS ARE TO HAVE MATCHING LAPPING DOWELS, 1300mm LONG, EMBEDDED 650mm INTO THE FOUNDATION WALLS.
- 7. GROUT SHALL BE COARSE WITH MIN. 28 DAY COMPRESSIVE STRENGTH OF 20 MPa. GROUT SLUMP TO BE 200mm TO 250mm. GROUTING SHALL BE DONE IN LOW LIFTS WITH VIBRATING OR "RODDING" GROUT TO ENSURE THAT ALL VOIDS ARE FILLED AND REINFORCING IS FULLY ENCASED.
- 8. ALL MASONRY UNDER CONCENTRATED LOADS SHALL HAVE VOIDS FILLED WITH 20 MPa CONCRETE FOR DEPTH AND WIDTH EQUAL TO 3 TIMES THE LENGTH OF BEARING.
- 9. ALL MASONRY WALLS SHALL BE PROPERLY SHORED DURING CONSTRUCTION UNTIL STRUCTURAL STEEL AND/OR SLABS ARE IN PLACE.
- 10. ALL MASONRY WALLS TO BE CONSTRUCTED WITH FULL MORTAR JOINTS.
- 11. PROVIDE VERTICAL MASONRY CONTROL JOINTS AT MAX. SPACING OF 2X WALL HEIGHT OR 6m O.C. WHICHEVER IS LESS. REFER TO DRAWINGS FOR SPECIAL EQUIREMENTS. PLACE CONTROL JOINTS AT EDGES FOR WINDOWS OR DOORS WHERE POSSIBLE OR FEASIBLE.
- 12. INTERSECTING MASONRY BLOCK WALLS OR PARTITIONS SHALL BE BONDED BY OVERLAPPING HALF OF THE UNITS OF ONE WALL WITH THE UNITS IN THE OTHER WALL FOR A MINIMUM DISTANCE EQUAL TO THE THICKNESS OF THE THINNER WALL.
- 13. HORIZONTAL AND VERTICAL LATERAL SUPPORT ANCHORS SPACING AS PER A370 "CONNECTORS
- 14. PROVIDE LINTELS AS SPECIFIED OVER ALL OPENINGS IN MASONRY WALL AS SHOWN OR AS REQUIRED. REFER TO DRAWINGS FOR SIZES AND LOCATIONS OF OPENINGS AND RECESSES. WHERE LINTELS ARE NOT SHOWN PROVIDE THEM IN ACCORDANCE WITH STANDARD SCHEDULE.
- 15. STEEL BEAMS AND LINTELS SHALL HAVE 200mm MIN. END BEARING ON MASONRY UNLESS INDICATED
- 16. FOR MASONRY OPENINGS NOT SHOWN ON THE DRAWINGS, PROVIDE ONE ANGLE, L 89 X 89 X 6.4 FOR EACH 100mm THICKNESS OF MASONRY, FOR OPENINGS UP TO 1200mm.
- 17. ALL LINTEL ASSEMBLIES IN EXTERIOR WALLS SHALL BE HOT-DIPPED GALVANIZED.

FOR MASONRY" STANDARD AND/OR INFORMATION SHOWN ON DRAWINGS.

- 18. VERTICAL REINFORCING IN FULLY GROUTED CORE FOR WALLS SHALL BE AT THE SPACINGS DESIGNATED, AND IN ADDITION, SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS; PROVIDE ONE VERTICALLY REINFORCED CELL WITH 1-15M, FULL HEIGHT, EACH SIDE OF DOOR JAMBS, EACH SIDE OF WALL OPENINGS OR WINDOW OPENINGS, EACH SIDE OF A CORNER, EACH SIDE OF A WALL INTERSECTION, AND EACH SIDE OF A CONTROL JOINT. PROVIDE TWO VERTICALLY REINFORCED CELLS WITH 1-15M PER CELL, FULL HEIGHT, AT A WALL END. ALL 15M VERTICAL BARS ARE TO HAVE MATCHING, LAPPING, 15M DOWELS, 1300mm LONG, EMBEDDED 650mm INTO THE FOUNDATION WALLS.
- 19. BOND BEAM COURSES WITH VERTICAL REINFORCING INTERSECTING. SHALL CONSIST OF STANDARD UNITS WITH SAW-CUT WEBS TO ACCOMMODATE HORIZONTAL REINFORCING BARS. ALL BOND BEAMS TO HAVE 1-15M BAR MINIMUM, IN A FULLY GROUTED BOND BEAM COURSE. PROVIDE BOND BEAMS AT THE FOLLOWING LOCATIONS FOR ALL LOADBEARING WALLS; TOP OF WALL, AT ANCHORED ANGLE FOR STEEL DECK SUPPORT, BOTTOM OF WALL, AT OTHER LOCATIONS SHOWN ON THE DRAWINGS, AND AT A MINIMUM OF EVERY 2400mm VERTICALLY.
- 20. CONCRETE MASONRY BLOCK WALLS ARE TO BE REINFORCED AS NOTED ABOVE, AND AS FOLLOWS:

LOADBEARING EXTERIOR WALLS (ALL WALLS TO HAVE HORIZONTAL JOINT REINFORCEMENT EVERY SECOND COURSE)

190mm BLOCK EXTERIOR WALL

15M BARS VERTICAL AT 600mm O.C. MINIMUM. 240mm BLOCK EXTERIOR WALL

15M BARS VERTICAL AT 600mm O.C. MINIMUM.

LOADBEARING EXTERIOR WALL AT GABION BASKET WALL (ALL WALLS TO HAVE HORIZONTAL JOINT REINFORCEMENT EVERY SECOND COURSE)

190mm BLOCK EXTERIOR WALL

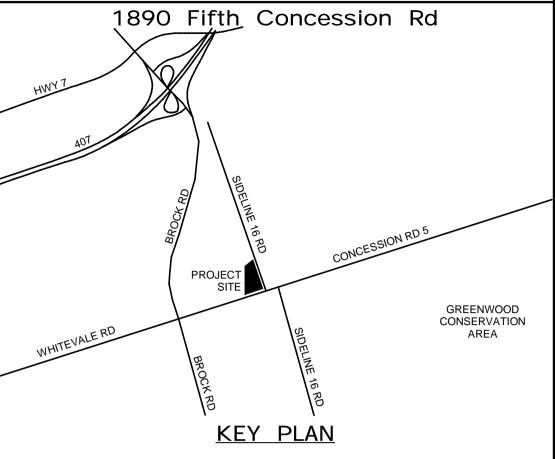
15M BARS VERTICAL AT 600mm O.C. MINIMUM. **FULLY GROUT ENTIRE WALL.**

NON-LOADBEARING INTERIOR PARTITION WALLS (ALL WALLS TO HAVE HORIZONTAL JOINT REINFORCEMENT EVERY SECOND COURSE)

190mm BLOCK INTERIOR WALL 15M BARS VERTICAL AT 1200mm O.C. MINIMUM.

240mm BLOCK INTERIOR WALL 15M BARS VERTICAL AT 1000mm O.C. MINIMUM.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

AECOM Canada Ltd 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax www.aecom.com



APPROVED BY: K.D.

SUB CONSULTANT

PRIME CONSULTANT

DESIGN BY: D.S. SCALE: DRAWN BY: R.E. DATE: 03/31/21 CHECKED BY: C.Y. CONSULTANT PROJECT NO. 60611569

3 03/22/22 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

CLIENT FILE No.: 811/20

WORKS DEPARTMENT

NEW PARAMEDICS STATION - SEATON

GENERAL NOTES AND LOADING -SHEET 1 OF 2

FACILITIES PROJECT NO. PROPERTY NO. FACILITIES CODE P061- 18- 01 DRAWING NO. SHEET NO. T- 1160- 2021 S- 100

STRUCTURAL STEEL

- 1. THE CONTRACTOR SHALL FIELD CHECK AND VERIFY ALL CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT TO THE CONSULTANT ANY DISCREPANCIES OR UNSATISFACTORY CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE WORK BEFORE PROCEEDING WITH THE WORK.
- 2. ALL SHOP CONNECTIONS SHALL BE WELDED. ALL FIELD CONNECTIONS SHALL BE WELDED OR BOLTED USING HIGH TENSILE BOLTS. BEARING TYPE CONNECTIONS SHALL BE C.I.S.C. DOUBLE ANGLE BEAM CONNECTIONS OR SHEAR PLATES USING A325 BOLTS AND E49XX FILLET WELDS, MINIMUM SIZE OF BOLTS 20mm DIAMETER. THEY SHALL BE CAPABLE OF SUPPORTING 50% OF THE TOTAL UNIFORM LOAD CAPACITY CALCULATED USING UNIFORM LOAD CONSTANTS FOR BEAMS LATERALLY SUPPORTED EXCEPT WHERE SPECIFICALLY NOTED OR DETAILED.
- 3. ALL HSS SECTIONS MUST HAVE OPEN ENDS CAPPED OR WELDED SOLID ALL AROUND AT CONNECTION
- 4. ALL COLUMN ENDS SHALL BE SAW-CUT AND WELDED TO BASE PLATES.
- 5. ALL COLUMNS TO HAVE CLOSURE PLATES, TEES ANGLES OR OUTRIGGERS AT ROOF AND FLOOR LEVELS TO SUPPORT STEEL DECK WHERE REQUIRED AND TO PREVENT CONCRETE LOSS. (ELEVATED FLOORS)
- 6. PROVIDE AND TAKE RESPONSIBILITY FOR ALL TEMPORARY BRACING AND SHORING REQUIRED. DO NOT REMOVE THEM UNTIL COMPLETION OF CONSTRUCTION.
- 7. PROVIDE WELDED STIFFENER PLATES ON BOTH SIDES, UNLESS NOTED, OF THE WEB OF BEAMS AT POINTS OF CONCENTRATED LOAD INCLUDING BEAMS SUPPORTING COLUMNS OR RUNNING OVER TOP OF COLUMNS. MINIMUM STIFFENER PLATE THICKNESS SHALL BE 10mm OR FLANGE THICKNESS OF COLUMNS ABOVE OR BELOW, WHICHEVER IS GREATER. MINIMUM SIZE OF WELD SHALL BE 5mm DOUBLE FILLET WELD, OR SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE STIFFENER, WHICH EVER IS GREATER.
- 8. FOR LOCATIONS OF DOOR FRAMES, WALL OPENINGS, AND ROOF OPENINGS, ETC. AND RELATED DETAILS, SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- 9. PERIMETER ROOF ANGLES SHALL BE CONTINUOUS AND BUT WELDED TOGETHER AT JOINTS.
- 10. GIRTS SHALL HAVE END CONNECTIONS CAPABLE OF SUPPORTING 50% OF THE MEMBERS CAPACITY ABOUT THE MAJOR AXIS, CALCULATED IN THE SAME MANNER AS FOR BEAMS. EACH WEB OF BUILT-UP MEMBERS SHALL HAVE THEIR ENDS CONNECTED AS SPECIFIED ABOVE.
- 11. THE MINIMUM END CONNECTION OF ANY MEMBER SHALL BE MADE WITH TWO(2) A325 BOLTS OR EQUIVALENT WELD.
- 12. GUSSET PLATES FOR DIAGONAL BRACING SHALL BE CONNECTED TO ALL INTERSECTING MEMBERS UNLESS NOTE OTHERWISE, AND BE IN LINE WITH CENTERLINE OF MEMBERS.
- 13. IN ADDITION TO STRENGTH WELDS, STRUCTURAL STEEL EXPOSED TO WEATHER SHALL HAVE CONTINUOUS SEAL WELDS AT ALL JOINTS (INCLUDING ALL CONNECTION MATERIAL).
- 14. ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH CSA G40.21M GRADE 300W, UNLESS NOTED.
- 15. ALL STRUCTURAL STEEL `W' SHAPES SHALL CONFORM TO CSA G40.21M GRADE 350W.
- 16. ALL HOLLOW STRUCTURAL STEEL SECTIONS SHALL CONFORM TO CSA G40.21M GRADE 350W CLASS H
- 47 FARRICATION ERECTION AND MODIZMANICHIR CHALL CONFORM TO CANICOA CAC CA
- 17. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CAN/CSA S16-01.
- 18. ALL WELDING SHALL CONFORM TO CSA S16-01 AND THE LATEST VERSION OF W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER THE LATEST VERSION OF CSA W47.
- 19. WELDING ELECTRODES SHALL BE E49XX.
- 20. SURFACES TO BE WELDED SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER INCLUDING PAINT
- 21. ALL JOINTS SHALL BE WELDED USING E49XX ELECTRODES OR BEARING TYPE CONNECTIONS USING M20 ASTM A325M HIGH STRENGTH BOLTS, UNLESS NOTED.
- 22. PROVIDE FOR MASONRY CONVENTIONAL ANCHORS AT MAX. 4X WALL THICKNESS O.C. FOR ALL COLUMNS NEXT TO MASONRY WALLS, UNLESS NOTED. PROVIDE FOR MASONRY CONVENTIONAL ANCHORS FOR ALL STEEL BEAMS NEXT TO NEW CONVENTIONAL MASONRY WALLS AT MAX. 10X WALL THICKNESS O.C. UNLESS NOTED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS.
- 23. SUBMIT SHOP DRAWINGS TO THE CONSULTANT FOR REVIEW AND APPROVAL. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.
- 24. ALL EXTERIOR (PERMANENTLY EXPOSED) STRUCTURAL STEEL MUST BE HOT DIP GALVANIZED TO CONFORM TO CSA G164 AND TO HAVE A MINIMUM ZINC COATING OF 600 g/m2.
- 25. FOR PRIME PAINTING AND/OR PAINTING OF THE STRUCTURAL, STEEL REFER TO THE SPECIFICATIONS.

OPEN WEB STEEL JOISTS AND LONG SPAN JOISTS FOR THE VEHICLE GARAGE ROOF

- 1. ----DENOTES (IF SHOWN) SUGGESTED TOP AND BOTTOM CHORD BRIDGING LOCATIONS; RECOMMENDED MINIMUM LOCATIONS ONLY. FINAL DESIGN AND LOCATIONS BY OWSJ DESIGNER.
- 2. X DENOTES (IF SHOWN) SUGGESTED X-BRIDGING LOCATIONS; RECOMMENDED MINIMUM LOCATIONS ONLY. FINAL DESIGN AND LOCATIONS BY OWSJ DESIGNER.
- 3. MANUFACTURED OPEN WEB STEEL JOISTS SHALL CONFORM TO THE LATEST EDITIONS OF CAN/CSA-S16-01 AND CISC "RECOMMENDED PRACTISE".
- 4. REFER TO THE DRAWINGS FOR ALL LOADINGS AND DEFLECTION REQUIREMENTS.
- 5. PROVIDE DETAILED JOIST FABRICATION SHOP DRAWINGS AND CALCULATIONS, STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO. THE JOIST MANUFACTURER SHALL INDICATE DETAILS, MATERIALS, UNIFORM AND CONCENTRATED DESIGN LOADS, BRIDGING, AND ACCESSORIES.
- 6. DESIGN JOIST FOR THE LOADINGS SHOWN ON THE DRAWINGS, PLUS AN ADDITIONAL LIVE LOAD POINT LOAD APPLIED ANYWHERE ALONG THE BOTTOM CHORD AS FOLLOWS:
 - 2 kN FOR LONG SPAN JOISTS FOR THE VEHICLE GARAGE ROOF
 1 kN FOR ALL OTHER OWSJ'S
- 7. CONNECT JOISTS TO SUPPORTING MEMBERS BY WELDING ONLY. BEARING ENDS OF JOISTS SHALL HAVE THE FOLLOWING JOIST SHOE DEPTHS:
 - 125mm DEEP JOIST SHOE FOR LONG SPAN JOISTS FOR THE VEHICLE GARAGE ROOF
 100mm DEEP JOIST SHOE FOR ALL OTHER OWSJ'S
- 8. JOISTS TO BE WELDED CONSTRUCTION. NO HOLES ARE TO BE DRILLED FOR HANGERS.
- 9. EXTEND THE BOTTOM CHORD AT THE END OF JOISTS, WHEREVER THE JOISTS LINE UP WITH CENTER LINE OF A COLUMN, AND AT OTHER LOCATIONS INDICATED ON THE PLANS.
- 10. ALL JOISTS SHALL HAVE HOT ROLLED DOUBLE ANGLE TOP AND BOTTOM CHORDS.
- 11. EXTEND JOIST TOP CHORDS TO SUPPORT DECK AND SIDING WHERE REQUIRED.
- 12. CAMBER JOISTS FOR 0.002 OF THE SPAN (L/500).
- 13. ATTACHMENTS FOR MECHANICAL, ELECTRICAL, AND OTHER SERVICES SHALL BE MADE BY USING APPROVED CLAMPING DEVICES OR U-BOLT TYPE CONNECTIONS TO THE TOP CHORD ONLY. CONNECTIONS TO THE BOTTOM CHORD TO BE PERMITTED ONLY AT PANEL POINTS. OTHER CONNECTION POINTS ONLY IF APPROVED BY THE CONSULTANT.

METAL DECK

- ALL METAL DECK TO BE NEW AND SHALL BE DESIGNED, FABRICATED AND INSTALLED TO CONFORM TO THE REQUIREMENTS OF CAN/CSA-S136 COLD FORMED STEEL STRUCTURAL MEMBERS AND THE REQUIREMENTS OF THE CANADIAN SHEET STEEL BUILDING INSTITUTE.
- 2. ALL ROOF AND FLOOR DECK INFORMATION IS SHOWN ON FRAMING PLANS AND DETAIL DRAWINGS.
- 3. SPAN DECK UNITS OVER THREE OR MORE SUPPORTS FOR INCREASED RIGIDITY
- 4. PLACE DECK IN ACCORDANCE WITH MANUFACTURER'S SHOP DRAWINGS. END LAPS SHALL ALWAYS OCCUR OVER SUPPORTS. SIDE LAPS SHALL BE ON HALF CORRUGATION. MINIMUM ROOF DECK END LAP IS 50mm FOR ATTACHMENT.
- 5. FIELD CUTTING OF DECK UNITS SHALL BE DONE IN WORKMANLIKE MANNER. CUT OPENINGS AND REINFORCE EDGES AS REQUIRED FOR PIPES, DUCTS, ETC. THE MAXIMUM SIZE OF AN UNREINFORCED OPENING IS 200mm SQUARE OR IN DIAMETER. ROOF OPENING LARGER THE 450mm SHALL BE SUPPORTED BY STEEL FRAMING.
- 6. PIPING, DUCTWORK, SUSPENDED EQUIPMENT AND ANY SIMILAR INSTALLATION SHALL NOT BE SUPPORTED OR FASTENED DIRECTLY TO THE METAL DECK.
- 7. ROOF DECK: DESIGNED AS A DIAPHRAGM FOR THE LATERAL LOAD RESISTING SYSTEM. ROOF DECK SHALL BE GALVANIZED CORRESPONDING TO Z275, AND MINIMUM 3 SPANS CONTINUOUS. WELD DECK TO SUPPORTING STEEL WITH 20mm DIA. PLUG WELDS AT 300mm O/C MAXIMUM, SIDES BUTTON PUNCHES AT 600mm O/C MAXIMUM, MARGINAL WELDS AT 900mm MAXIMUM, OR EQUIVALENT ENGINEER APPROVED MECHANICAL FASTENING SYSTEM.
 - ROOF DECK SHALL BE 38mm (1.5") X 0.91mm (0.036"),
 MINIMUM 3 SPANS CONTINUOUS.
- SUBMIT DETAILED SHOP DRAWINGS INDICATING DECKING LAYOUT PLANS, TYPE OF DECK, GAUGES, SHEET LOCATION
 AND SIZES, CUTTING WORK, OPENING LOCATIONS, BEARING CONDITIONS, METHOD OF ATTACHMENT AND SPACING OF
 FASTENERS, COVER AND CLOSURE PLATES.

ANCHOR TYPES

- 1. ANCHOR BOLTS FOR THE COLUMN BASEPLATES SHALL CONFORM TO ASTM A307.
- 2. SET-IN-PLACE ANCHOR TYPES:

ANCHORS SHALL BE HILTI ANCHOR SYSTEM INSTALLED IN STRICT ACCORDANCE WITH THE HILTI SPECIFICATIONS, FOR THE LOAD INDICATED, OR ENGINEER APPROVED EQUAL.

ANCHOR TYPE 1: (TO CONCRETE)
HILTI KWIK BOLT 3 EXPANSION ANCHOR SYSTEM, USING 16mm DIAMETER ANCHORS WITH A 80mm EMBEDMENT, FOR

AN ALLOWABLE (UNFACTORED) SHEAR LOAD OF 35 kN AND TENSION LOAD OF 15 kN PER ANCHOR.

ANCHOR TYPE 2: (TO CONCRETE)
HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM, USING 19mm DIAMETER HAS-E RODS WITH A 170mm EMBEDMENT, FOR
AN ALLOWABLE (UNFACTORED) SHEAR LOAD OF 35 KN AND TENSION LOAD OF 40 KN PER ANCHOR.

ANCHOR TYPE 3: (TO HOLLOW BLOCK)
HILTI HIT-HY70 ADHESIVE ANCHOR SYSTEM, USING 13mm DIAMETER THREADED RODS, BASED ON A HIT SHORT 51mm
EMBEDMENT INTO THE CENTRE OF THE BLOCK FACE SHELL, FOR AN ALLOWABLE (UNFACTORED) SHEAR LOAD OF 3.0 kN PER ANCHOR.

ANCHOR TYPE 4: (TO FULLY GROUTED BLOCK)
HILTI HIT HY 150/HIT-ICE INJECTION ADHESIVE ANCHOR SYSTEM, USING 13mm DIAMETER HAS-E THREADED ROD
ANCHOR, BASED ON A 108mm EMBEDMENT INTO THE FULLY GROUTED BLOCK, FOR AN ALLOWABLE (UNFACTORED)
SHEAR LOAD OF 10 kN AND TENSION LOAD OF 8 kN PER ANCHOR.

ANCHOR TYPE 5: (TO FULLY GROUTED BLOCK)
HILTI HIT HY 150/HIT-ICE INJECTION ADHESIVE ANCHOR SYSTEM, USING 19mm DIAMETER HAS-E THREADED ROD
ANCHOR, BASED ON AN 168mm EMBEDMENT INTO THE FULLY GROUTED MASONRY BLOCK, FOR AN ALLOWABLE
(UNFACTORED) SHEAR LOAD OF 24 kN AND TENSION LOAD OF 16 kN PER ANCHOR.

DESIGN LOADS

- 1. ENVIRONMENTAL LOADS FOR PICKERING, ONTARIO:
- 2. BUILDING IMPORTANCE CATEGORY: POST-DISASTER.

LIVE LOAD DUE TO SNOW (1/50):

Is = 1.25 FOR ULTIMATE LIMIT STATES (ULS)
Is = 0.90 FOR SERVICEABILITY LIMIT STATES (SLS)
Ss = 1.0 kPa, Sr = 0.4 kPa, NOMINAL ROOF SNOW; S = 1.20 kPa

SNOW ACCUMULATION TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 (LATEST EDITION), AND THE NATIONAL BUILDING CODE 2015 STRUCTURAL COMMENTARIES (PART 4).

- 3. ONE DAY RAIN (1/50): 92mm
- 4. LIVE LOAD DUE TO WIND:

Iw= 1.25 FOR ULTIMATE LIMIT STATES (ULS) Iw = 0.75 FOR SERVICEABILITY LIMIT STATES (SLS) q(1/10) = 0.37 kPa, q(1/50) = 0.48 kPa, INTERNAL PRESSURE CATEGORY 2.

WIND PRESSURES ARE TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 (LATEST EDITION), AND PRESSURE COEFFICIENTS FROM THE NATIONAL BUILDING CODE 2015 STRUCTURAL COMMENTARIES (PART 4).

5. LIVE LOAD DUE TO SEISMIC:

Ie = 1.5 FOR ULTIMATE LIMIT STATES (ULS)
Sa(0.2) = 0.219, Sa(0.5) = 0.117, Sa(1.0) = 0.060,
Sa(2.0) = 0.029, Sa(5.0) = 0.0071, Sa(2.0) = 0.0028, PGA = 0.140, PGV = 0.094

SOIL SITE CLASS 'C'
Fs = 1.00
IeFsSa(0.2) = 0.329, IeFsSa(2.0) = 0.044

SEISMIC FORCE MODIFICATION FACTORS:
CONVENTIONAL CONSTRUCTION OF:
STEEL MOMENT-RESISTING FRAMES; Rd = 1.5, Ro = 1.3
STEEL BRACED FRAMES; Rd = 1.5, Ro = 1.3

STEEL BRACED FRAMES; Rd = 1.5, Ro = 1.3

- 6. EXTERIOR WALL COMPONENTS, INCLUDING OVERHEAD DOORS, DESIGNED FOR A MINIMUM UNFACTORED NET WIND PRESSURE OF ± 1.09 kPa.
- 7. ROOF DEAD LOAD:

ROOFING ASSEMBLY
STEEL DECK
ROOF STEEL
ELECT/MECH
SOLAR PANEL ALLOWANCE

TOTAL DL:

0.86 kPa
0.15 kPa
0.48 kPa
0.24 kPa
0.48 kPa

MAXIMUM LL DEFLECTION OF L/360

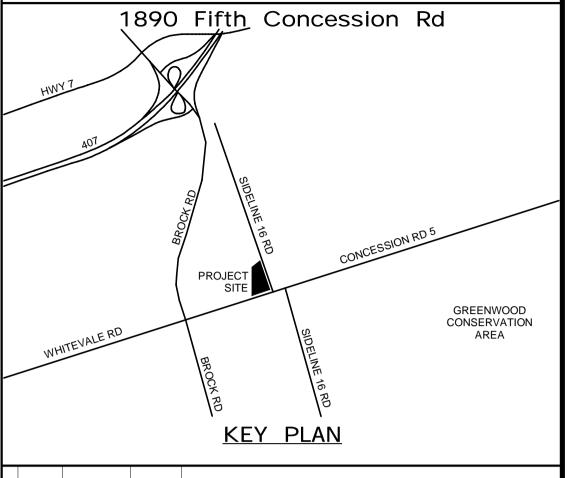
- 8. LIVE LOAD VEHICLE GARAGE GROUND FLOOR = 12.0 kPa
- 9. LIVE LOAD ALL OFFICE AREAS (UNO) = 4.8 kPa
- 10.LIVE LOAD FOR OPERATIVE WALL SYSTEM
 SUPERIMPOSED LIVE LOAD = 0.75 kPa
 (LOAD BASED ON SURFACE AREA OF WALL. DESIGN SUPPORTS FOR
- 11.MECHANICAL ROOF TOP UNIT ERV-1: DIMENSIONS: 4318 mm LONG X 1829 mm WIDE X 1950 mm HIGH (INCLUDING CURB). (170" L x 72" W x 77" H)

LOAD DISTRIBUTION BASED ON SYSTEM STACKING AT DESIGNATED END)

12. VEHICAL BAY CEILING CIRCULATING FAN WEIGHT: 1 kN

OPERATING WEIGHT: 20.3 kN (4553 lbs)

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

PRIME CONSULTANT

AECON

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



SUB CONSULTANT

DESIGN BY: D.S.	SCALE:
DRAWN BY: R.E.	DATE: 03/31/21
CHECKED BY: C.Y.	CONSULTANT PROJECT NO. 60611569
APPROVED BY: K.D.	CLIENT FILE No.: 811/20



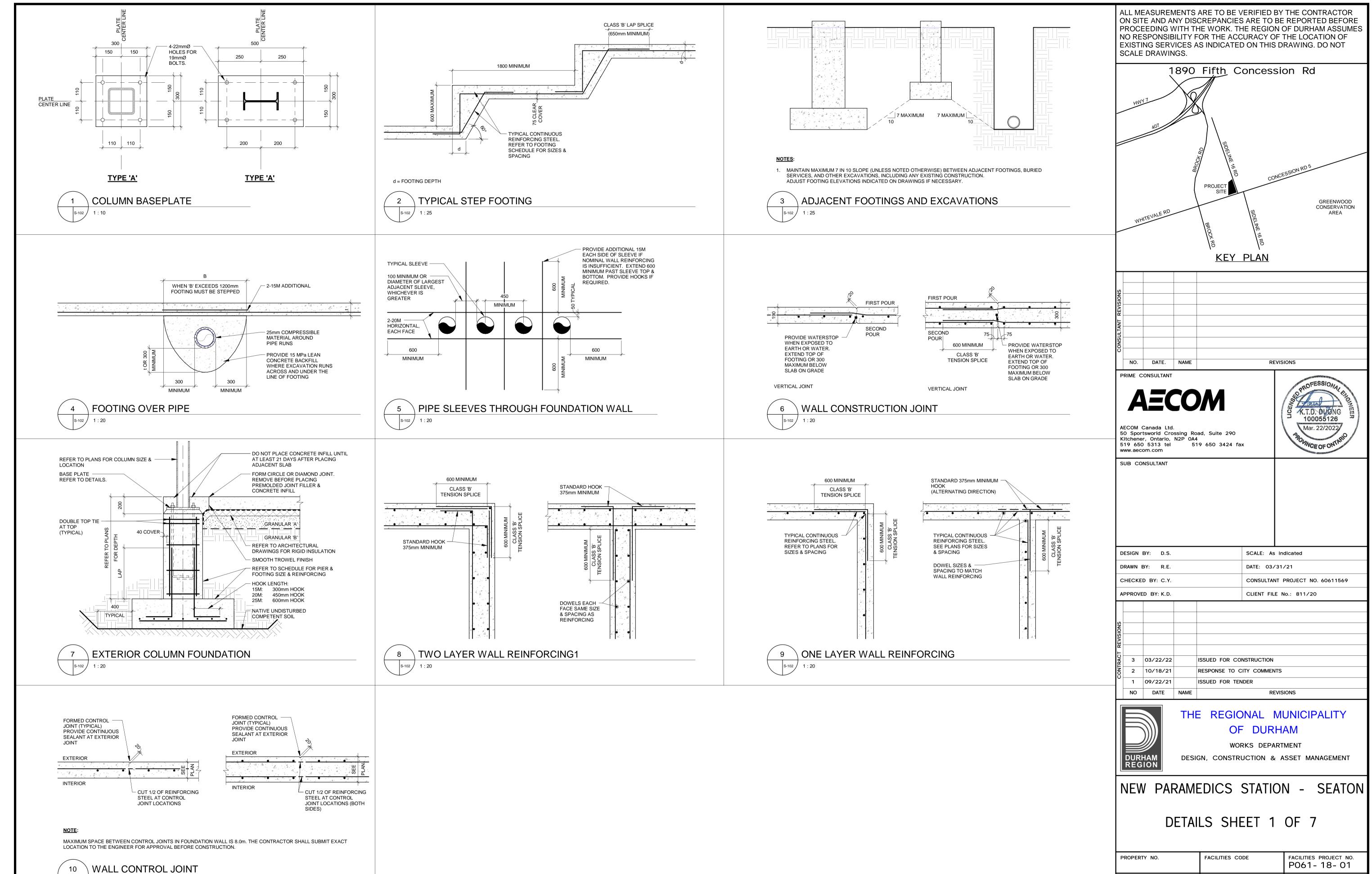
THE REGIONAL MUNICIPALITY OF DURHAM

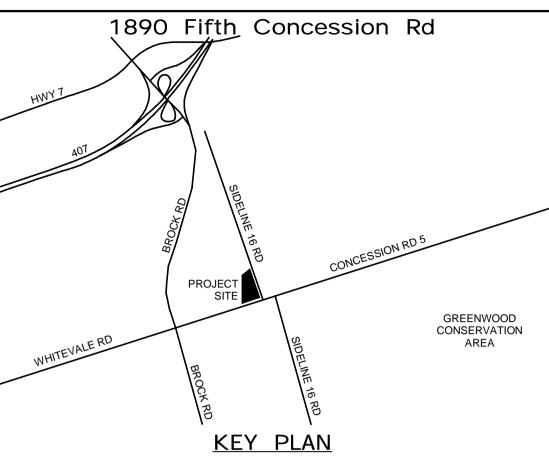
WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW PARAMEDICS STATION - SEATON

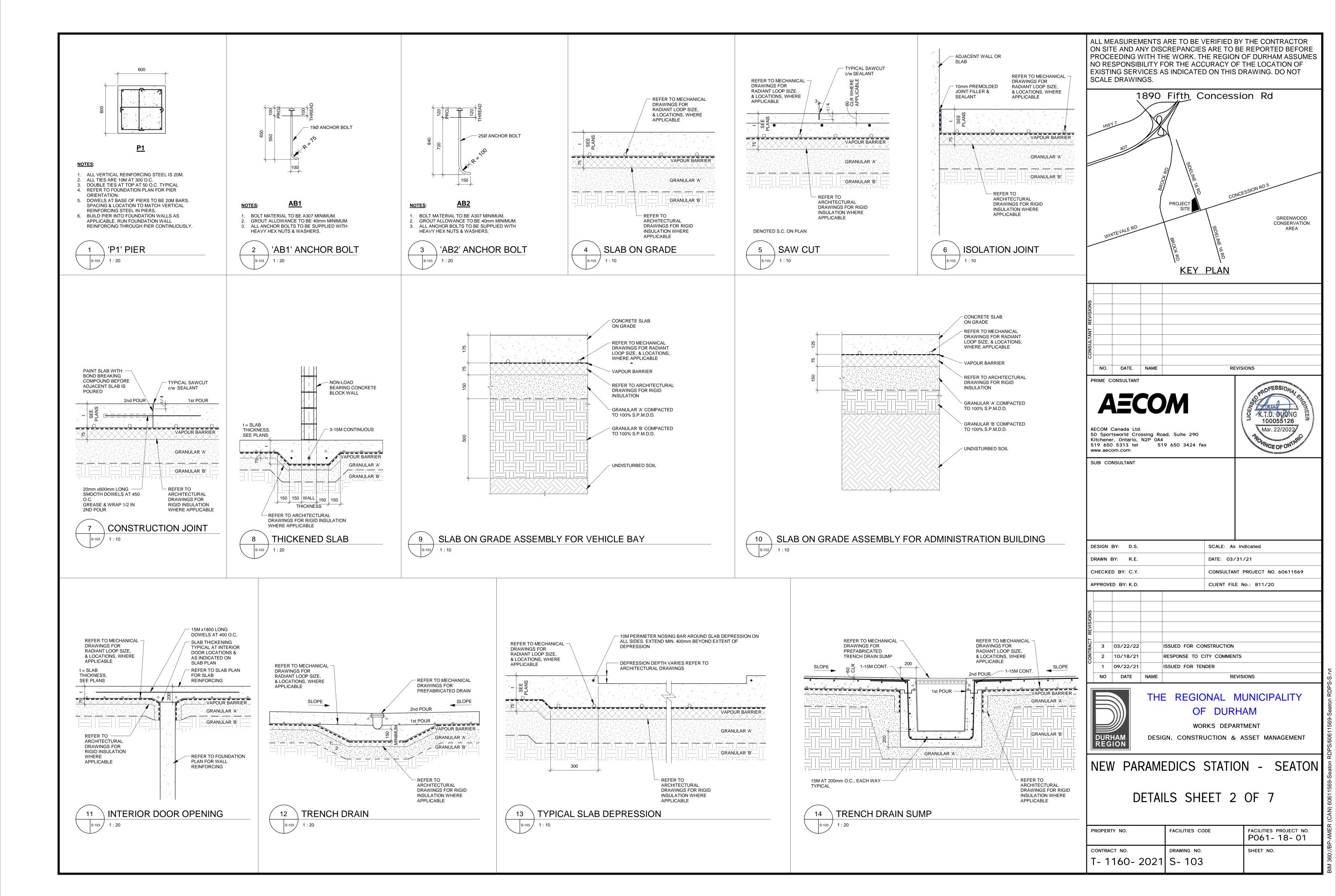
GENERAL NOTES AND LOADING -SHEET 2 OF 2

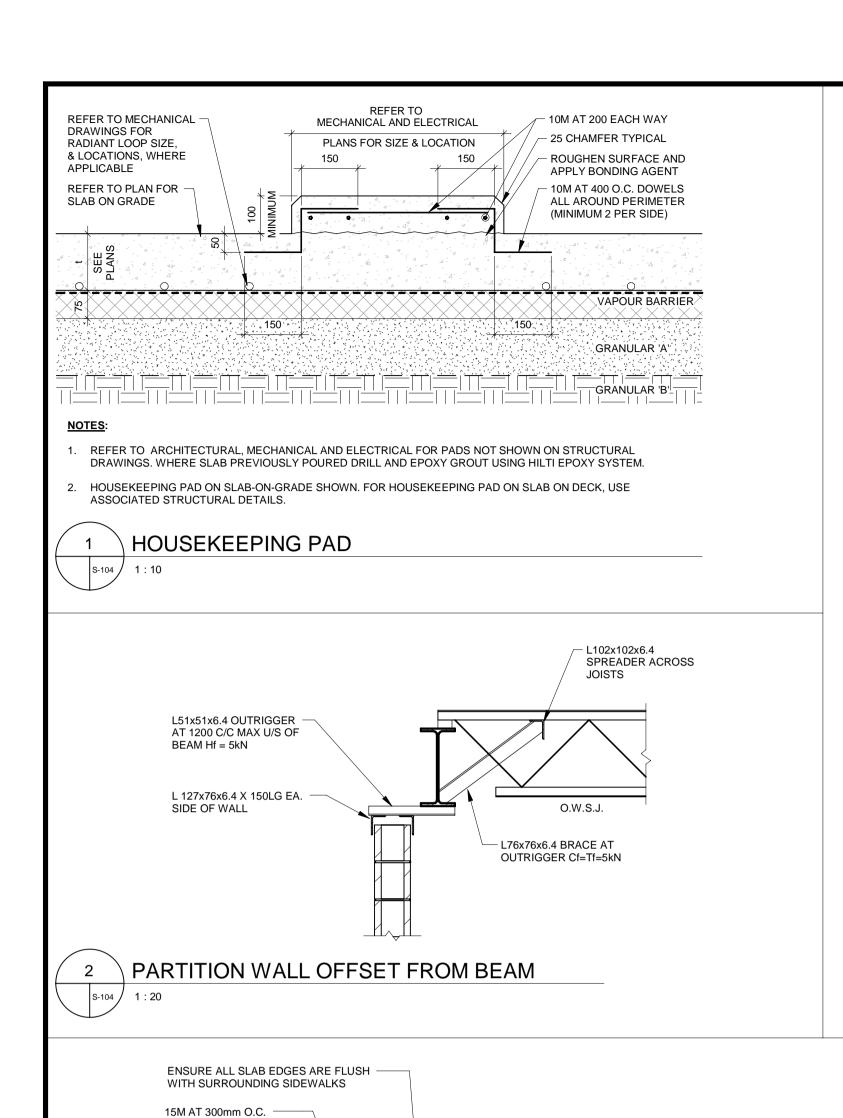
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. PO61-18-01
CONTRACT NO. T- 1160- 2021	DRAWING NO. S-101	SHEET NO.

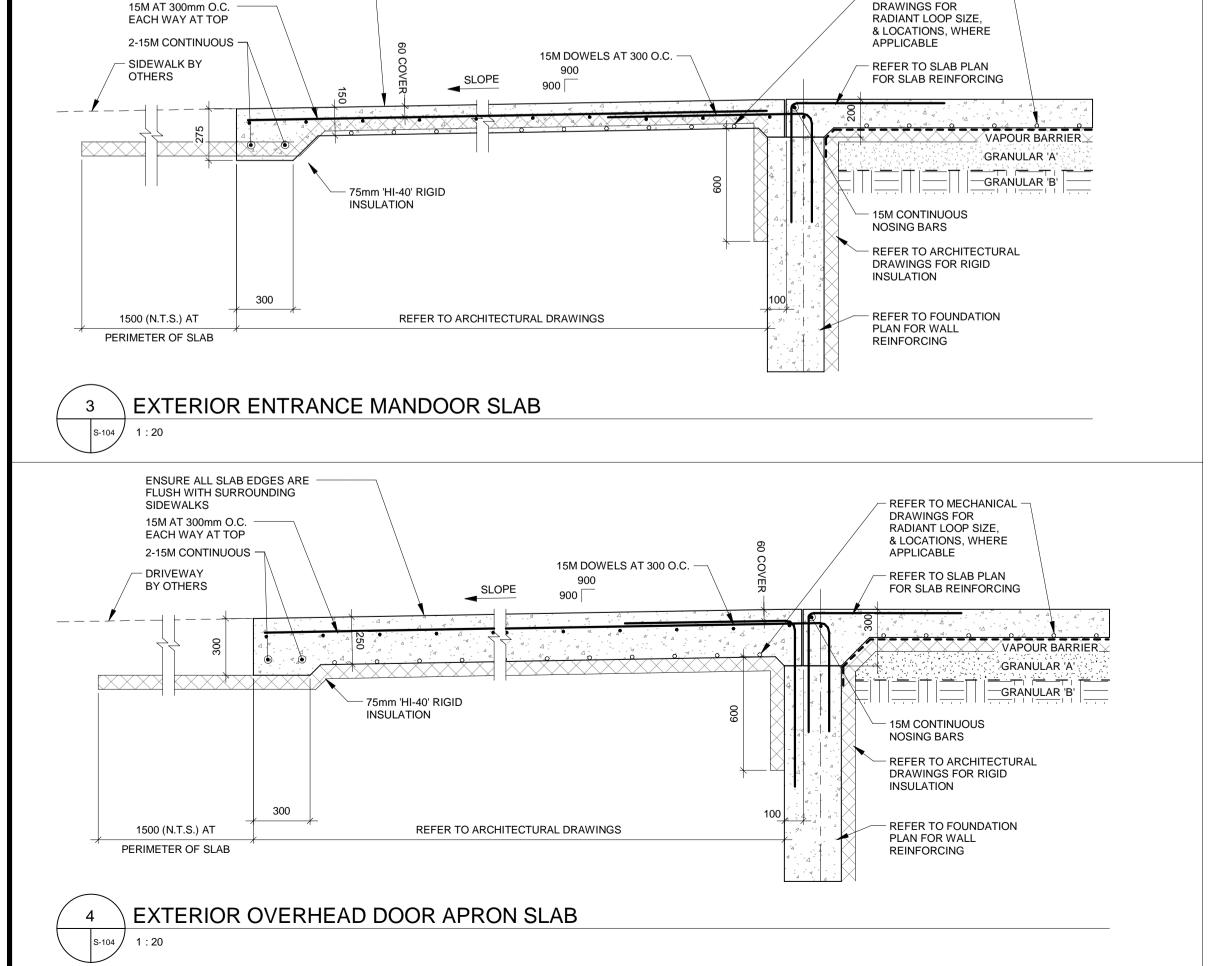




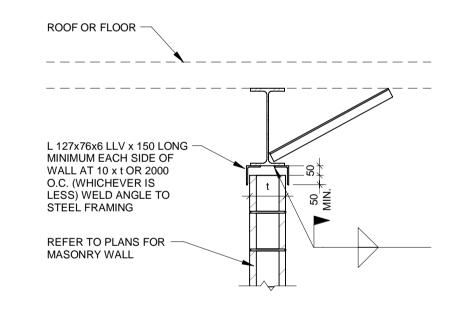
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	S- 102	



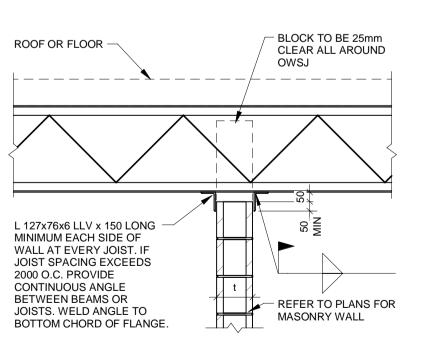




REFER TO MECHANICAL -



PARTITION WALL AT UNDERSIDE OF BEAMS



PARTITION WALL PERPENDICULAR TO JOIST OR BEAM

OTES:

- 1. PROVIDE 150x6 PL. AS REQUIRED FOR THICKER WALLS UNDER JOISTS OR BEAMS.
- 2. FILL GAPS WITH COMPRESSIBLE MATERIAL AS INDICATED ON ARCHITECTURAL DRAWINGS.
- 3. DEFLECTION GAP 50 OR SPAN OF JOIST/360.

5 LA s-104 1 : 20

LATERAL SUPPORT FOR TOP WALLS AT NON-LOADBEARING MASONRY

ROOF OR FLOOR -

L 127x76x6 LLV x 150 LONG

MINIMUM EACH SIDE OF

WALL AT 10 x t OR 2000 O.C. (WHICHEVER IS

LESS) WELD ANGLE TO

REFER TO PLANS FOR

PARTITION WALL AT UNDERSIDE OF JOISTS

PARTITION PARALLEL TO JOISTS OR BEAMS

C100x8 AT 10 x t OR 2000 O.C.

(WHICHEVER IS

LESS)

STEEL FRAMING.

MASONRY WALL

ROOF OR FLOOR

BLOCK TO BE 25mm CLEAR ALL AROUND

L 127x76x6 LLV x 150 LONG -MINIMUM EACH SIDE OF

WALL AT 10 x t OR 2000

LESS) WELD ANGLE TO

REFER TO PLANS FOR

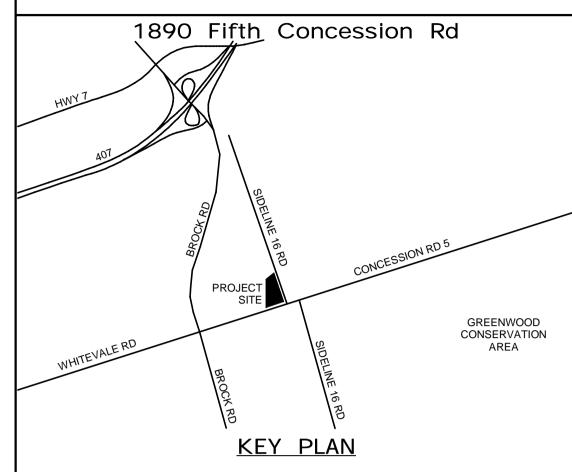
O.C. (WHICHEVER IS

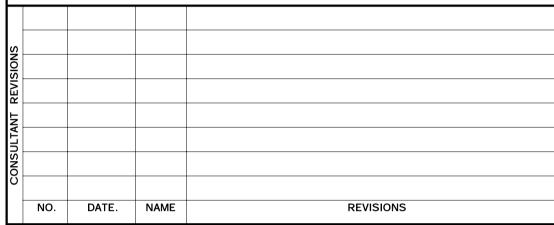
STEEL CHANNEL.

MASONRY WALL

CHANNEL

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





AECOM

PRIME CONSULTANT

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: D.S.	SCALE: As indicated
DRAWN BY: R.E.	DATE: 03/31/21
CHECKED BY: C.Y.	CONSULTANT PROJECT NO. 60611569
APPROVED BY: K.D.	CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
١.				
CONTRACT	3	03/22/22		ISSUED FOR CONSTRUCTION
NOS	2	10/18/21		RESPONSE TO CITY COMMENTS
ľ	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



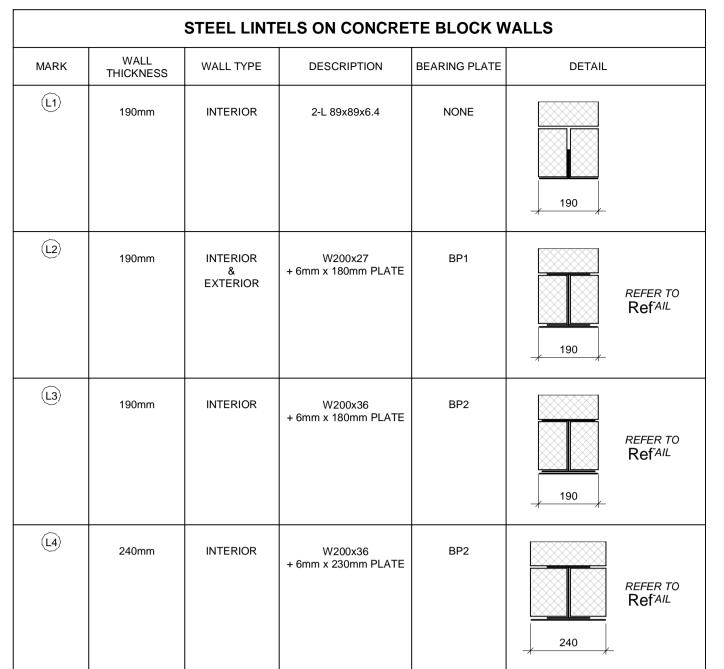
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW PARAMEDICS STATION - SEATON

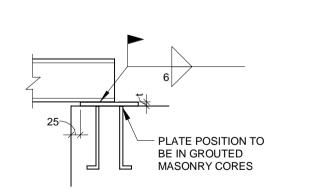
DETAILS SHEET 3 OF 7

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	S- 104	

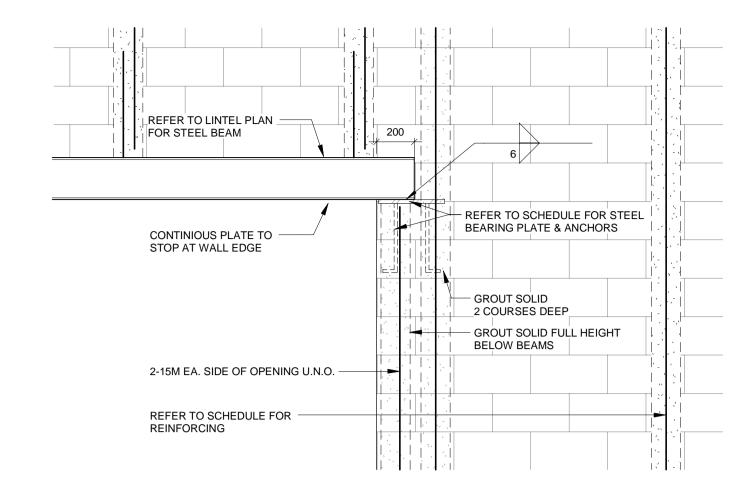


- 1. BEARING LENGTH: 200mm MINIMUM AT EACH END (ANGLED LINTEL) ON FILLED OR SOLID MASONRY U.N.O.
- 2. CONNECT BACK TO BACK ANGLES AT 450 O.C. BY WELDING
- 3. ALL ANGLES ARE LONG LEG VERTICAL (LLV) U.N.O.
- 4. COORDINATE ALL ADDITIONAL REQUIRED OPENINGS WITH ALL DISCIPLINES.
- 5. FOR MASONRY OPENINGS LESS THAN OR EQUAL TO 300mm WIDE, USE A 8mm THICK STEEL PLATE LINTEL THE EDGE OF THE PLATE SHALL BE RECESSED 6mm FROM EACH WALL FACE. PROVIDE 150mm BEARING EACH SIDE.
- 6. STEEL LINTELS ARE NOT REQUIRED FOR OPENINGS LESS THEN 150mm.
- 7. FOR LINTEL "L1", PROVIDE MINIMUM BEARING OF SOLIDLY GROUTED BLOCK TWO COURSES DEEP.
- 8. LINTELS "L2" TO "L4", PROVIDE BEAM BEARING PLATES (REFER TO BEARING PLATE SCHEDULE) INTO SOLIDLY GROUTED REINFORCED CORES, TWO COURSES DEEP. LOCATE BEARING PLATES MINIMUM 25mm FROM EDGE OF OPENING.
- 9. ALL STEEL LINTEL BEAM ASSEMBLIES IN EXTERIOR WALLS ARE TO BE HOT-DIPPED GALVANIZED.
- 10. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL WALL OPENINGS REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.

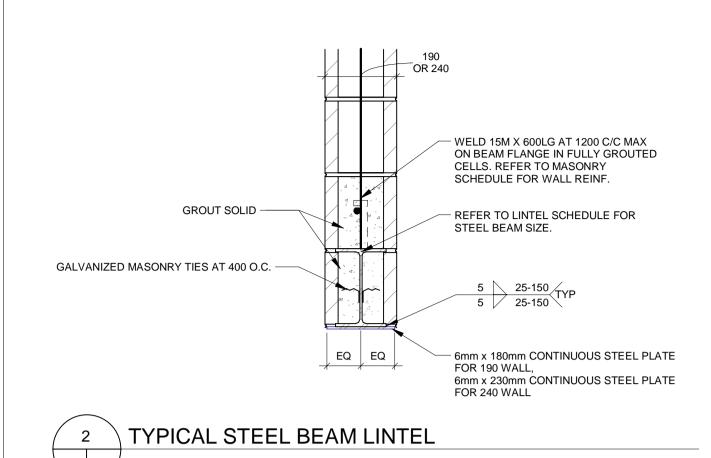
	BEARING PLATE SCHEDULE			
MARK BEAM MAX FLANGE WIDTH BEAM SIZE P		PLATE SIZE (MM) T x W x L	ANCHORS REQUIRED	
BP1	150mm	SEE PLANS	16 x 170 x 300	2-19mmØ
BP2	175mm	SEE PLANS	16 x 190 x 300	2-19mmØ
BP3	STEEL DECK	STEEL DECK	6 x 100 CONTINIOUS	1 - 16mmØ AT 400mm O.C.

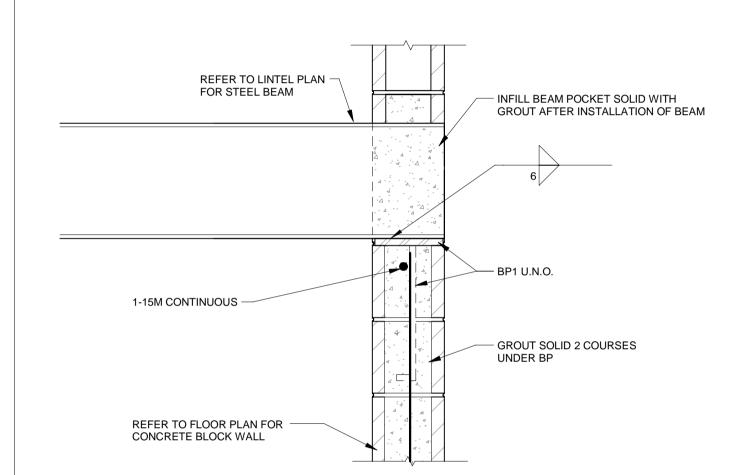


- 1. BEAM BEARING LENGTH (L) MUST MATCH BASE PLATE DIMENSION.
- 2. ANCHORS SHALL BE FULLY WELDED TO THE BEARING PLATE: 16mm DIA. x 150mm LONG w/ 50mm HOOK; 550mm LONG FOR ROOF LEVEL.
- 19mm DIA. x 350mm LONG w/ 50mm HOOK.
- 3. SEE DETAILS ON THIS SHEET FOR WALL REINFORCING UNDER BEARING PLATE LOCATIONS.
- 4. REFER TO LINTEL SCHEDULE FOR REQUIRED BEARING PLATES AT LINTEL LOCATIONS.

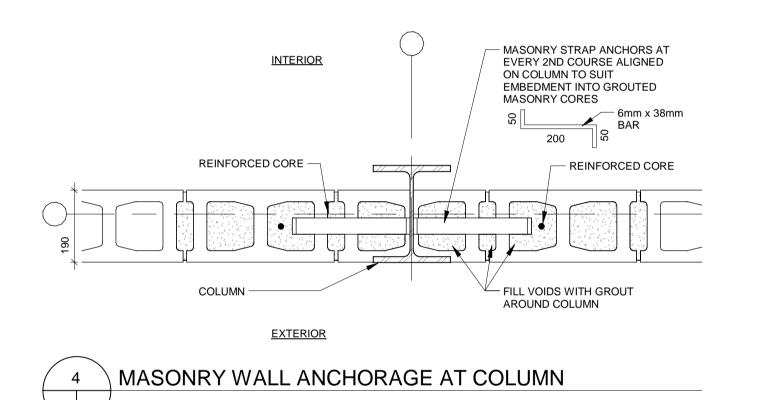


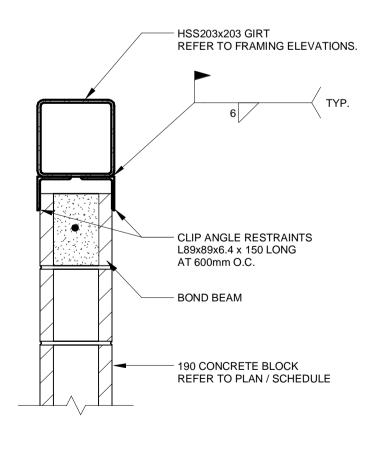




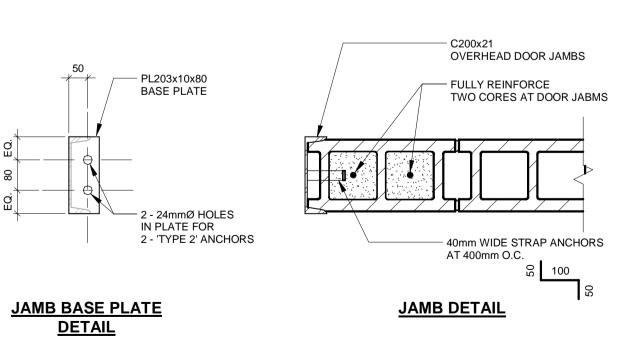






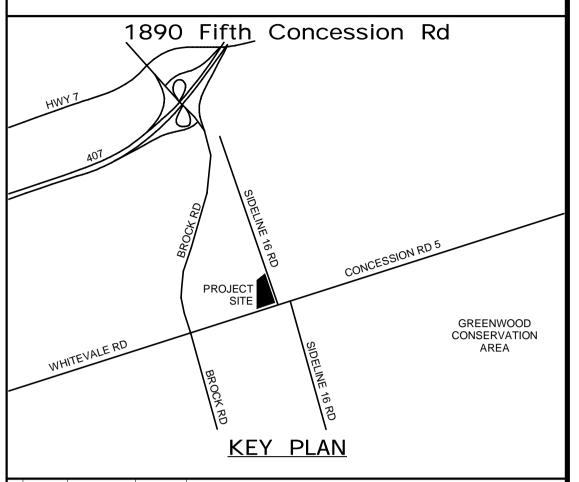






TYPICAL DETAIL - OVERHEAD DOOR JAMB AT BLOCK

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

100055126

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel www.aecom.com

SUB CONSULTANT

PRIME CONSULTANT

DESIGN BY: D.S. SCALE: As indicated DRAWN BY: R.E. DATE: 03/31/21 CONSULTANT PROJECT NO. 60611569 CHECKED BY: C.Y.

APPROVED BY: K.D. CLIENT FILE No.: 811/20 ISSUED FOR CONSTRUCTION 3 03/22/22 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



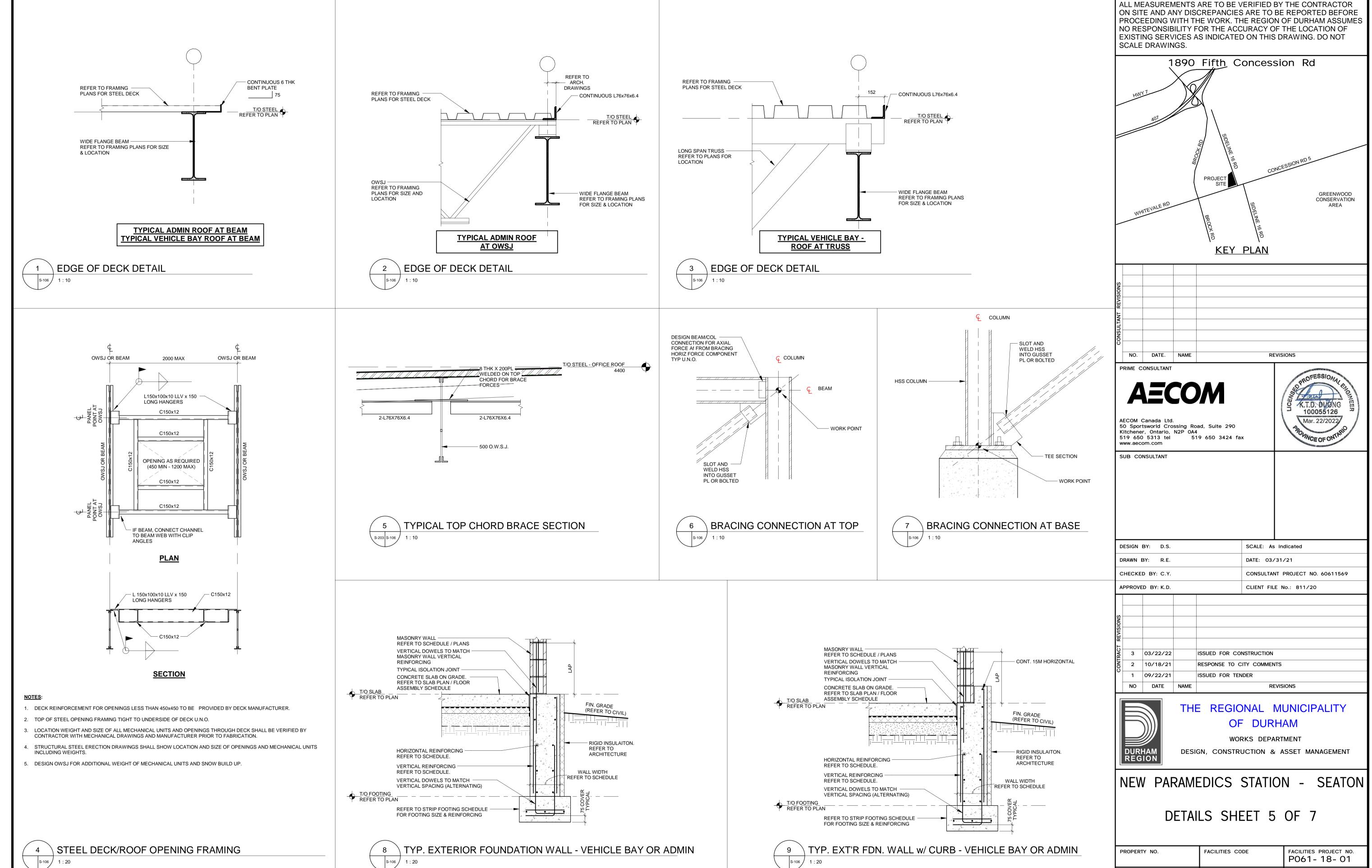
THE REGIONAL MUNICIPALITY OF DURHAM

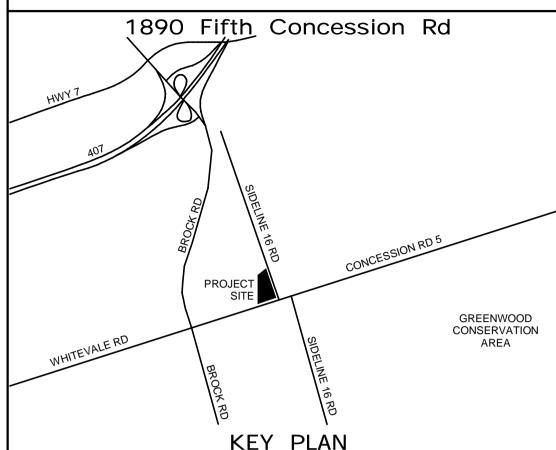
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

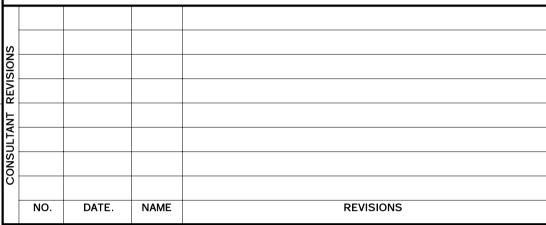
NEW PARAMEDICS STATION - SEATON

DETAILS SHEET 4 OF 7

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. T- 1160- 2021	DRAWING NO. S- 105	SHEET NO.



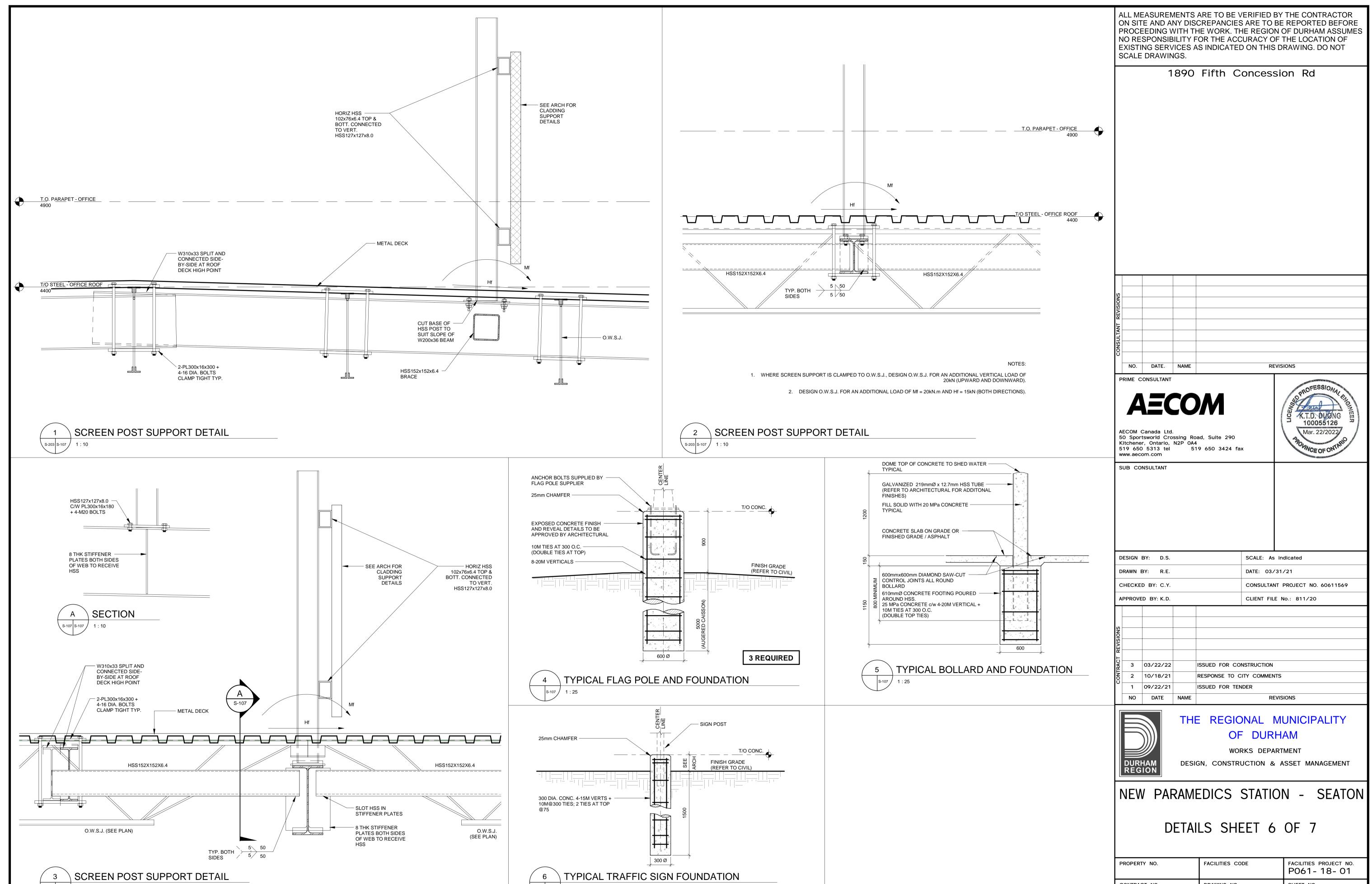




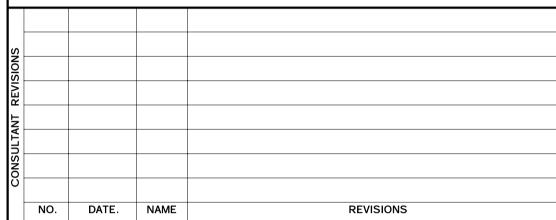
DRAWING NO.

T- 1160- 2021 S- 106

SHEET NO.

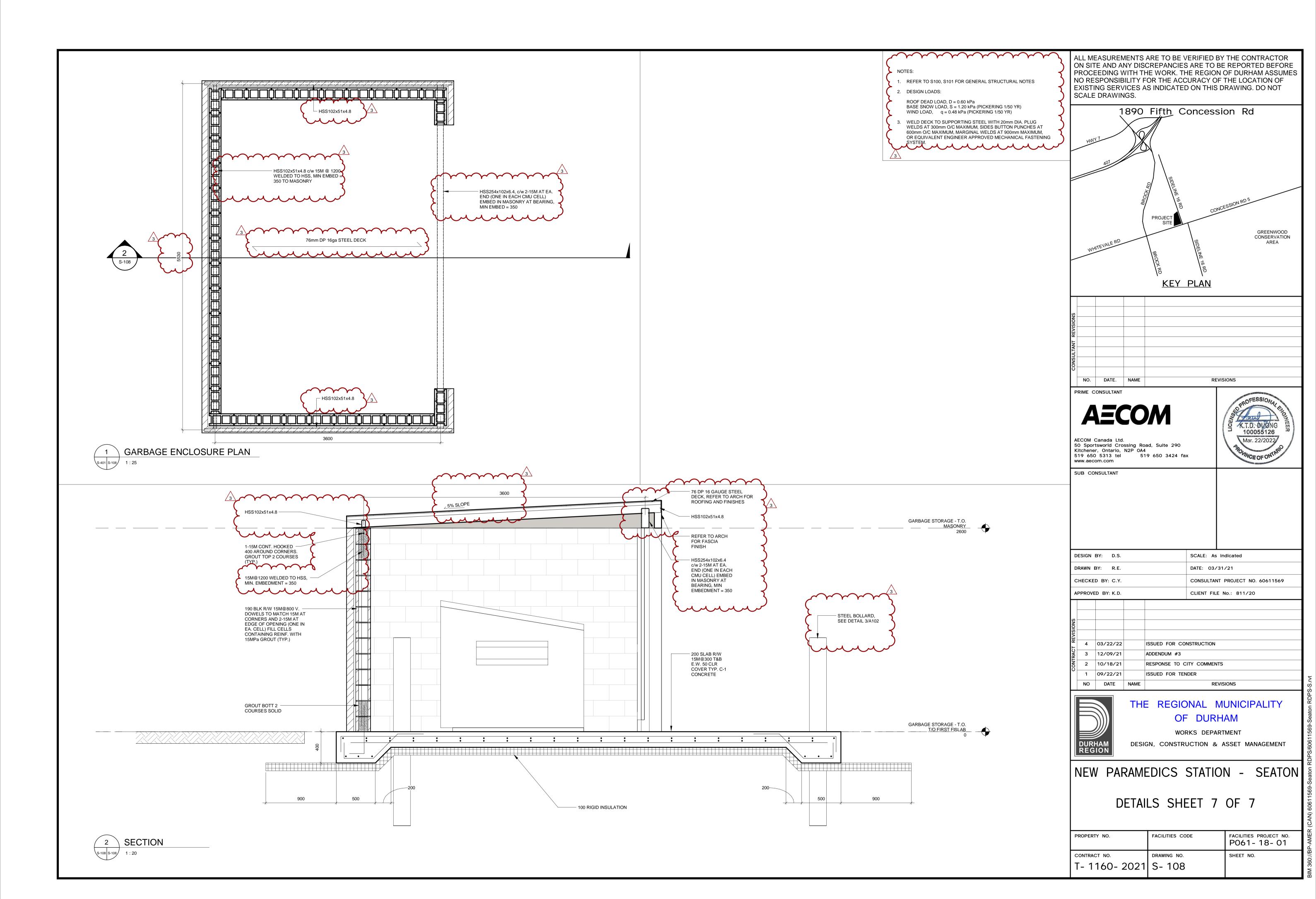


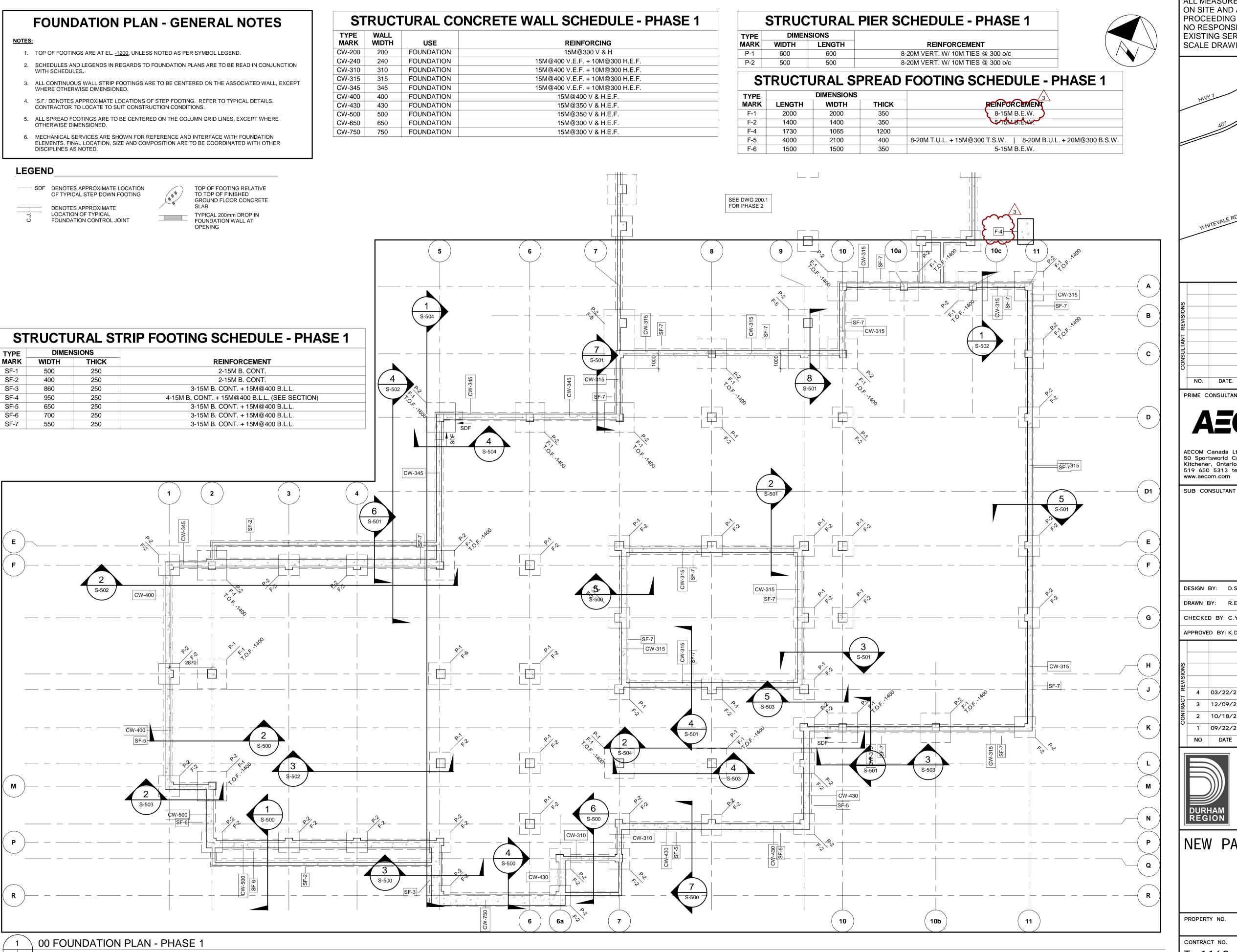
ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES

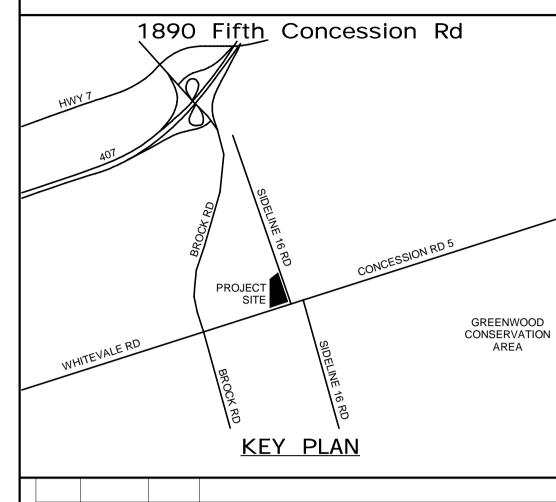




			ı
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO.	DRAWING NO.	SHEET NO.	
T- 1160- 2021	S- 107		







PRIME CONSULTANT **AECOM**

NO. DATE. NAME

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel www.aecom.com



REVISIONS

DESIGN BY: D.S. SCALE: As indicated DATE: 03/31/21 DRAWN BY: R.E. CONSULTANT PROJECT NO. 60611569 CHECKED BY: C.Y. CLIENT FILE No.: 811/20 APPROVED BY: K.D.

ISSUED FOR CONSTRUCTION 3 12/09/21 ADDENDUM #3 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER



DATE NAME

NO

THE REGIONAL MUNICIPALITY OF DURHAM

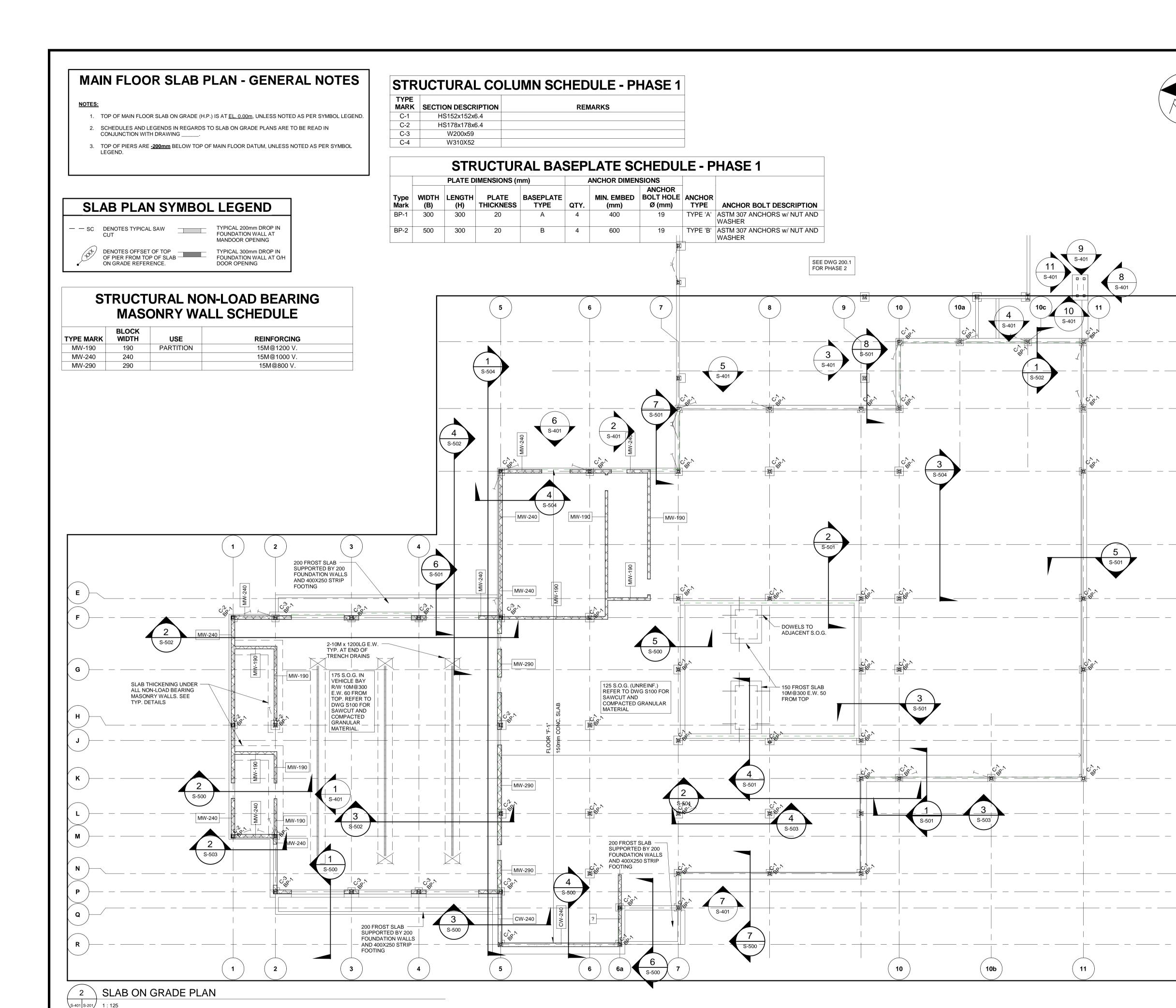
REVISIONS

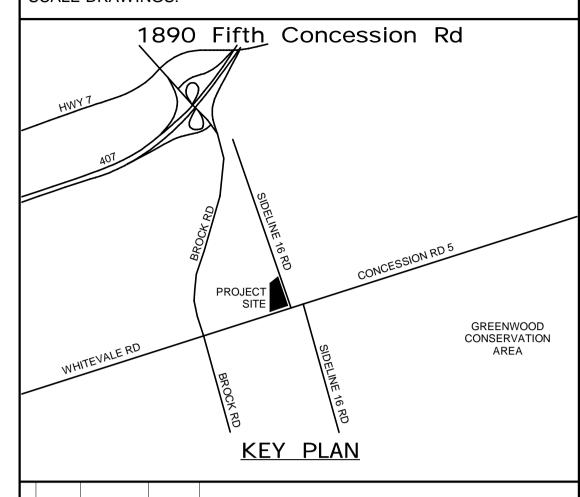
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW PARAMEDICS STATION - SEATON

FOUNDATION PLAN

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	ם אאכם
CONTRACT NO.	DRAWING NO.	SHEET NO.	g//c
T- 1160- 2021	S- 200		1.080
			N I





PRIME CONSULTANT

AECOM

NO. DATE. NAME

SUB CONSULTANT

APPROVED BY: K.D.

-(**D** `

-(D1

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



REVISIONS

DESIGN BY: D.S.

SCALE: As Indicated

DRAWN BY: R.E.

DATE: 03/31/21

CHECKED BY: C.Y.

CONSULTANT PROJECT NO. 60611569



THE REGIONAL MUNICIPALITY OF DURHAM

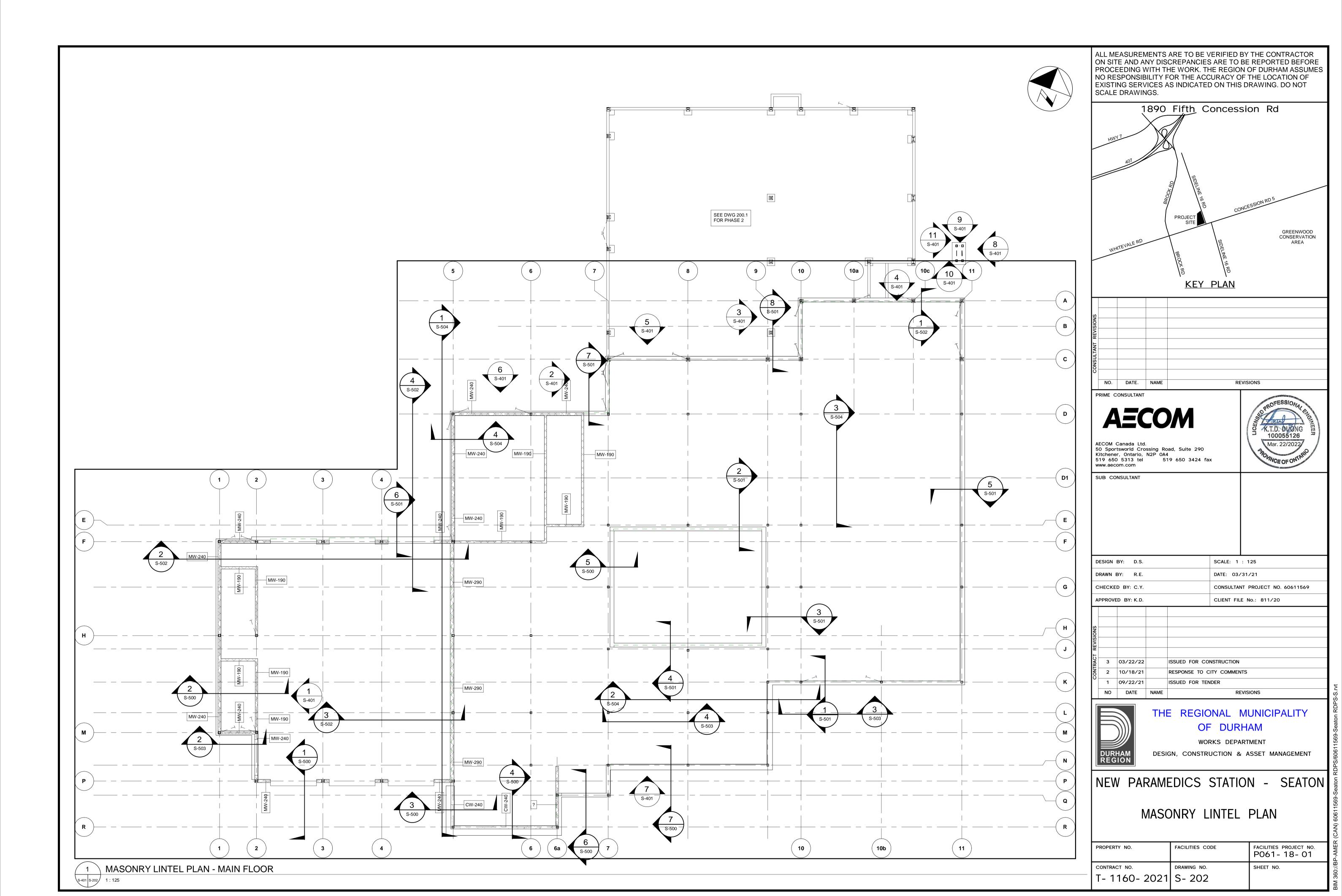
CLIENT FILE No.: 811/20

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW PARAMEDICS STATION - SEATON

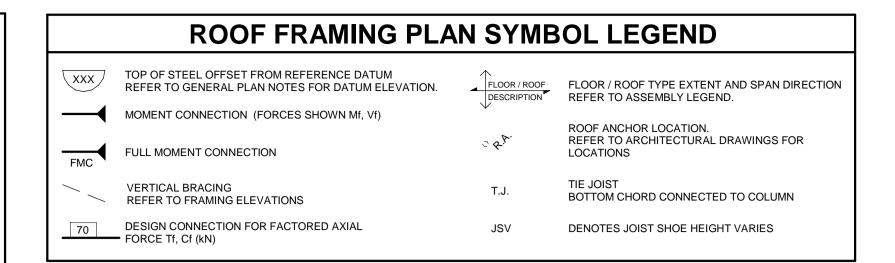
FLOOR SLAB PLAN

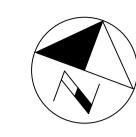
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01	P-AMFR
CONTRACT NO. T- 1160- 2021	DRAWING NO. S- 201	SHEET NO.	380·//B



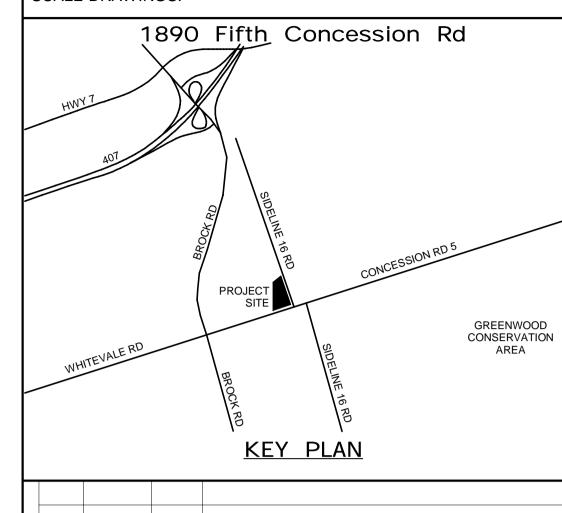
OFFICE ROOF FRAMING PLAN - GENERAL NOTES

- 1. TOP OF STEEL FOR ROOF FRAMING IS AT REFERENCE DATUM **EL. 4400 = 0.0**, UNLESS NOTED AS PER SYMBOL LEGEND. REFER TO ARCH DRAWINGS FOR ROOF SLOPES.
- 2. SCHEDULES AND LEGENDS IN REGARDS TO ROOF FRAMING PLANS ARE TO BE READ IN CONJUNCTION
- 3. UNDERSIDE OF DECK IS AT SAME LEVEL AS TOP OF STEEL, UNLESS NOTED AS PER SYMBOL LEGEND.
- 4. INTERMEDIATE BEAMS AND/OR OWSJs ARE TO BE EVENLY SPACED BETWEEN GRID LINE MEMBERS, UNLESS NOTED OTHERWISE.
- 5. MEMBER FORCES, WHERE SHOWN, ARE FACTORED FORCES IN kN, UNLESS NOTED OTHERWISE.
- 6. ** DENOTES JOIST TO BE DESIGNED FOR LIVE LOAD DEFLECTION OF SPAN /720.
- 7. B1 DENOTES 2L-102X102X8.0, Cf = Tf = 100kN U.N.O.





ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel



DESIGN BY: D.S. SCALE: As indicated DATE: 03/31/21 DRAWN BY: R.E. CHECKED BY: C.Y. CONSULTANT PROJECT NO. 60611569 APPROVED BY: K.D. CLIENT FILE No.: 811/20

3 03/22/22 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 REVISIONS



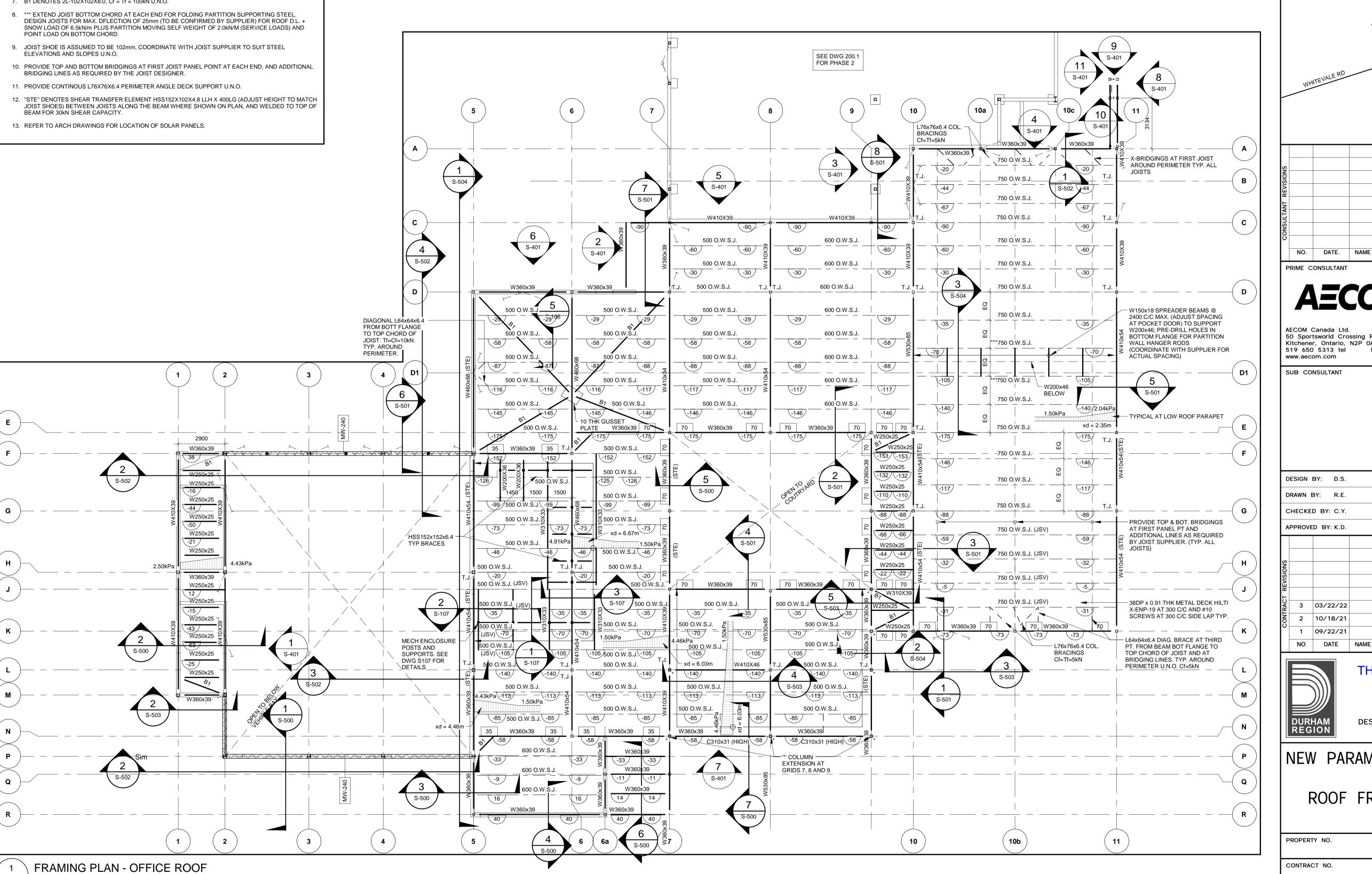
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW PARAMEDICS STATION - SEATON

ROOF FRAMING PLAN - OFFICE

ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. - 1160- 2021	DRAWING NO. S- 203	SHEET NO.



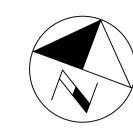
VEHICLE BAY ROOF FRAMING PLAN - GENERAL NOTES

NOTES:

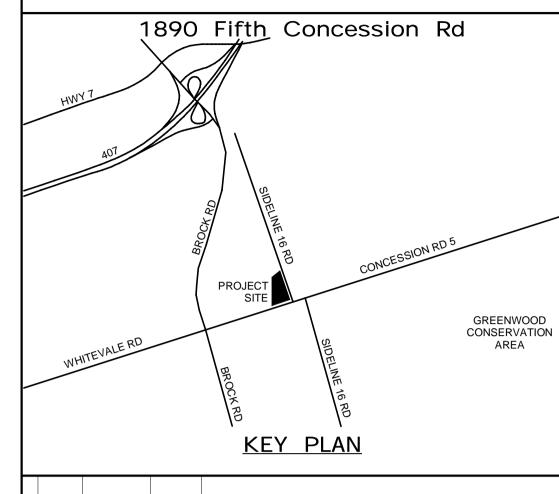
S-401 S-204 1 : 125

- TOP OF STEEL FOR ROOF FRAMING IS AT REFERENCE DATUM <u>EL. 6400 = 0.0</u>, UNLESS NOTED AS PER SYMBOL LEGEND. REFER TO ARCH DRAWINGS FOR ROOF SLOPES.
- 2. SCHEDULES AND LEGENDS IN REGARDS TO ROOF FRAMING PLANS ARE TO BE READ IN CONJUNCTION WITH SECTIONS AND DETAILS.
- 3. UNDERSIDE OF DECK IS AT SAME LEVEL AS TOP OF STEEL, UNLESS NOTED AS PER SYMBOL LEGEND.
- 4. INTERMEDIATE BEAMS AND/OR OWSJs ARE TO BE EVENLY SPACED BETWEEN GRID LINE MEMBERS, UNLESS NOTED OTHERWISE.
- 5. MEMBER FORCES, WHERE SHOWN, ARE FACTORED FORCES IN kN, UNLESS NOTED OTHERWISE.
- 6. ** DENOTES JOISTS TO BE DESIGNED FOR LIVE LOAD DEFLECTION OF SPAN /720.
- 7. "STE" DENOTES SHEAR TRANSFER ELEMENT HSS152X102X4.8 LLV X 400LG (ADJUST HEIGHT TO MATCH JOIST SHOES) BETWEEN JOISTS ALONG THE BEAM WHERE SHOWN ON PLAN, AND WELDED TO TOP OF BEAM FOR 30kN SHEAR CAPACITY.

ROOF FRAMING PLAN SYMBOL LEGEND TOP OF STEEL OFFSET FROM REFERENCE DATUM FLOOR / ROOF TYPE EXTENT AND SPAN DIRECTION REFER TO ASSEMBLY LEGEND. REFER TO GENERAL PLAN NOTES FOR DATUM ELEVATION. MOMENT CONNECTION (FORCES SHOWN Mf, Vf) ROOF ANCHOR LOCATION. REFER TO ARCHITECTURAL DRAWINGS FOR FULL MOMENT CONNECTION LOCATIONS VERTICAL BRACING BOTTOM CHORD CONNECTED TO COLUMN REFER TO FRAMING ELEVATIONS DESIGN CONNECTION FOR FACTORED AXIAL DENOTES JOIST SHOE HEIGHT VARIES



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel

100055126

DESIGN BY: D.S. SCALE: As indicated DRAWN BY: R.E. DATE: 03/31/21 CONSULTANT PROJECT NO. 60611569 CHECKED BY: C.Y.

3 03/22/22 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

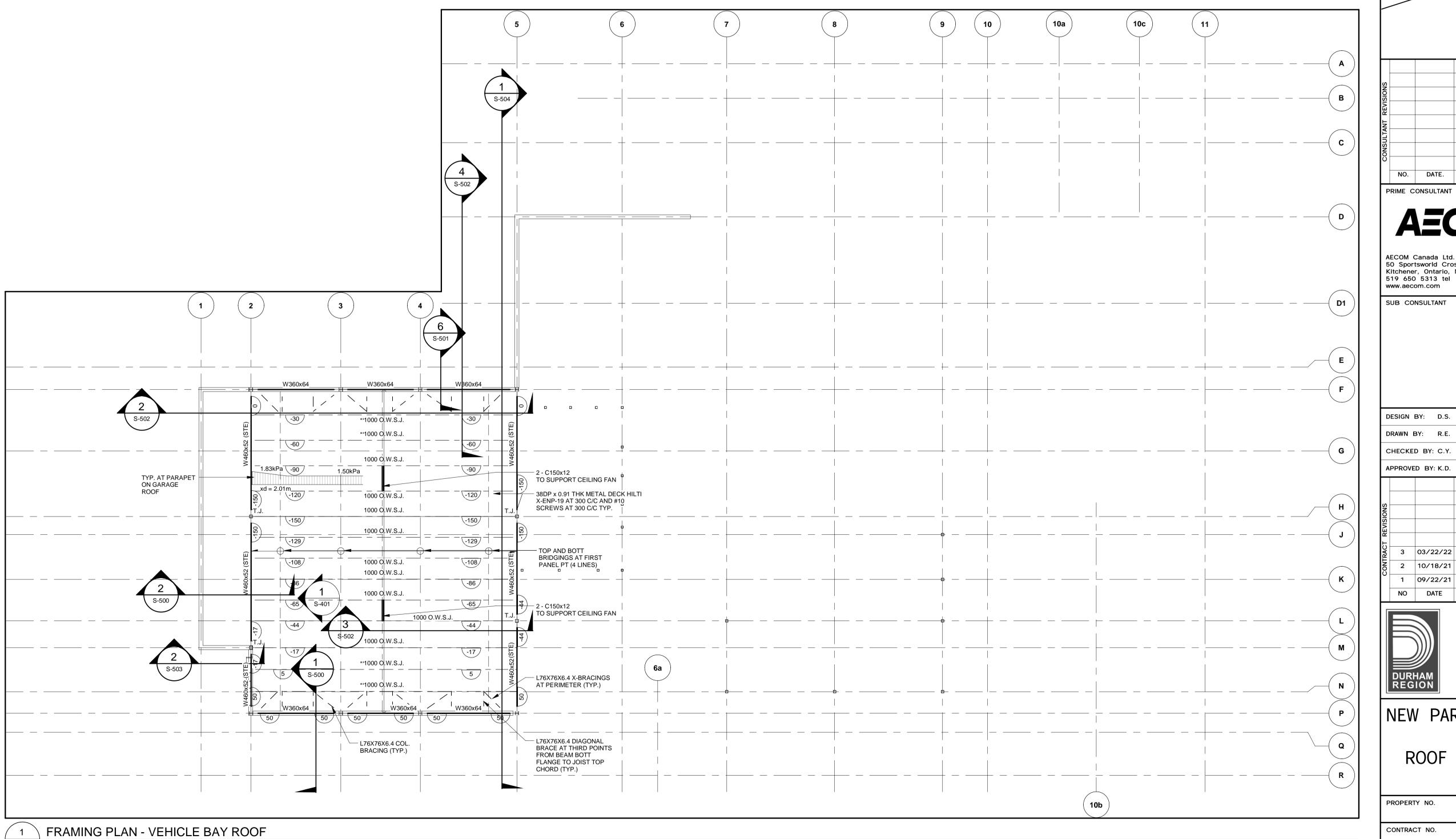
CLIENT FILE No.: 811/20

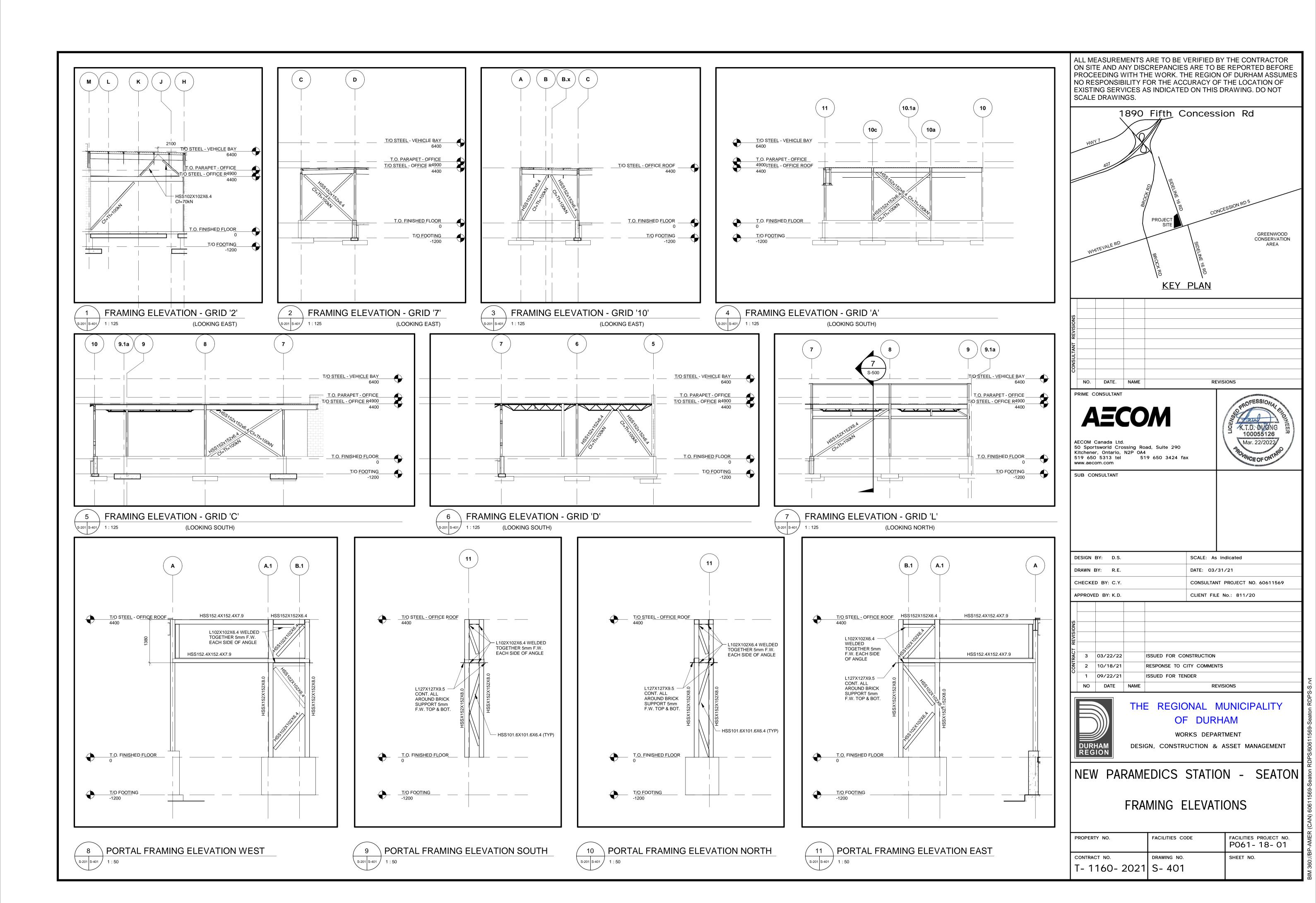
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

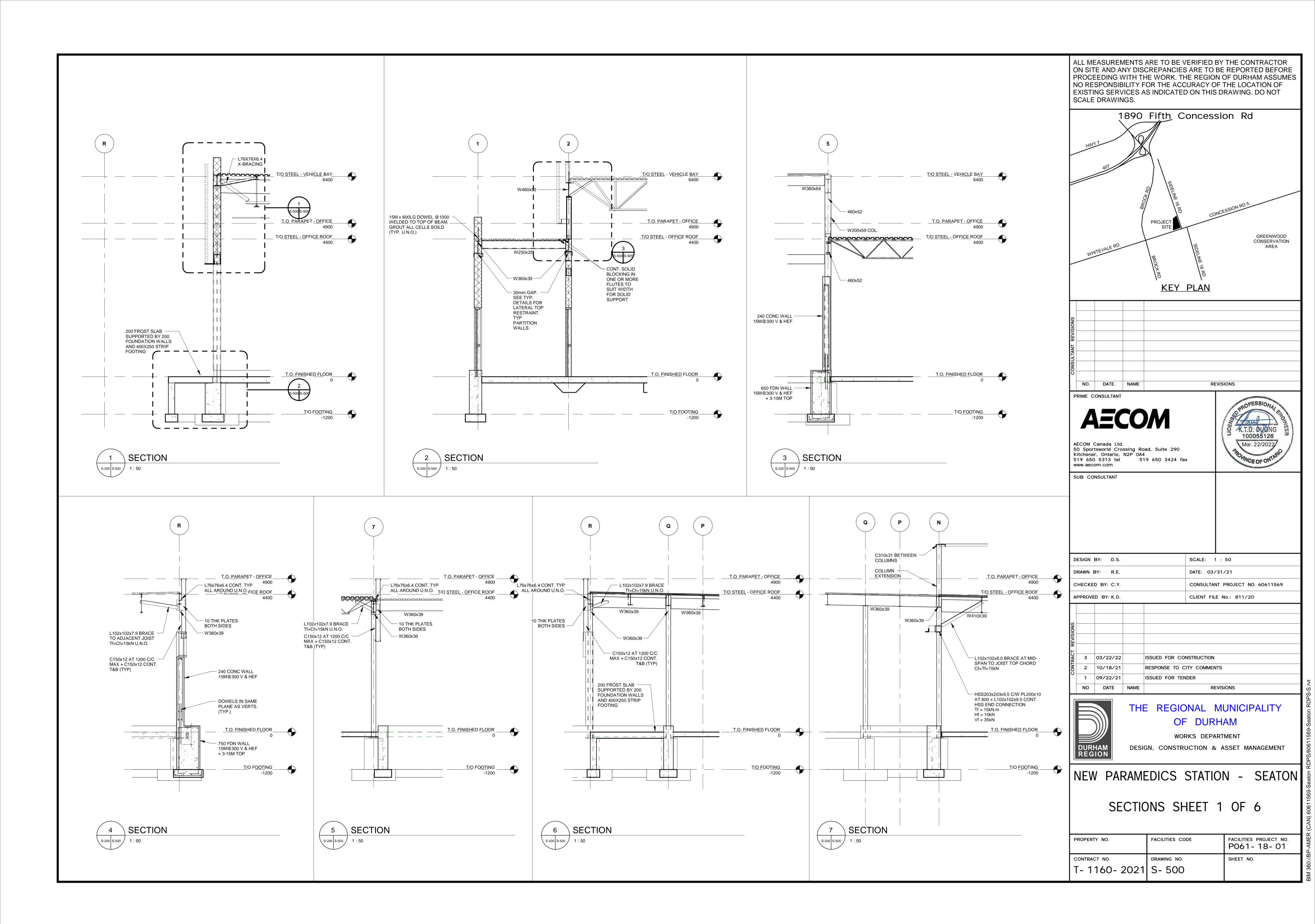
NEW PARAMEDICS STATION - SEATON

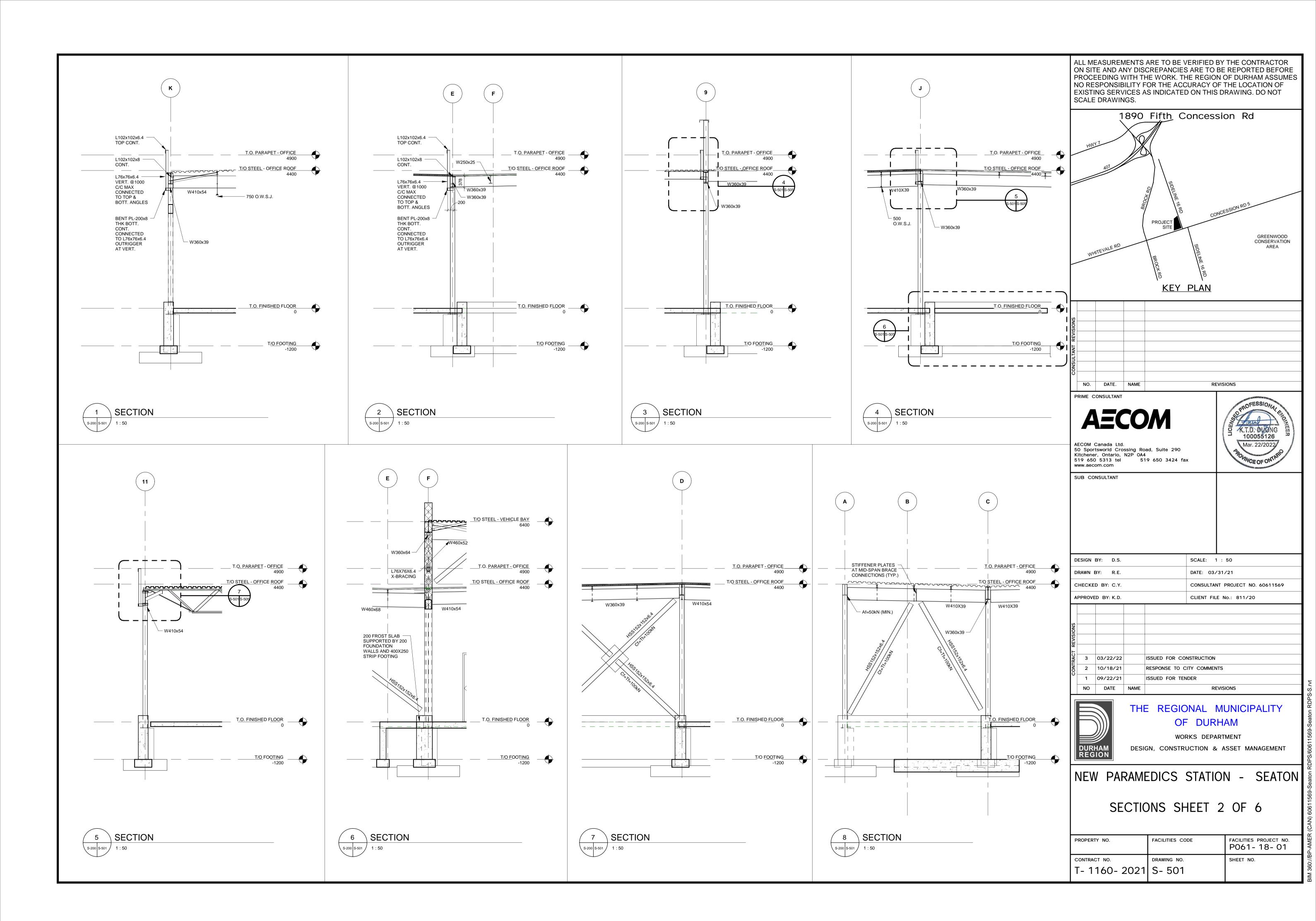
ROOF FRAMING PLAN - VEHICLE BAY

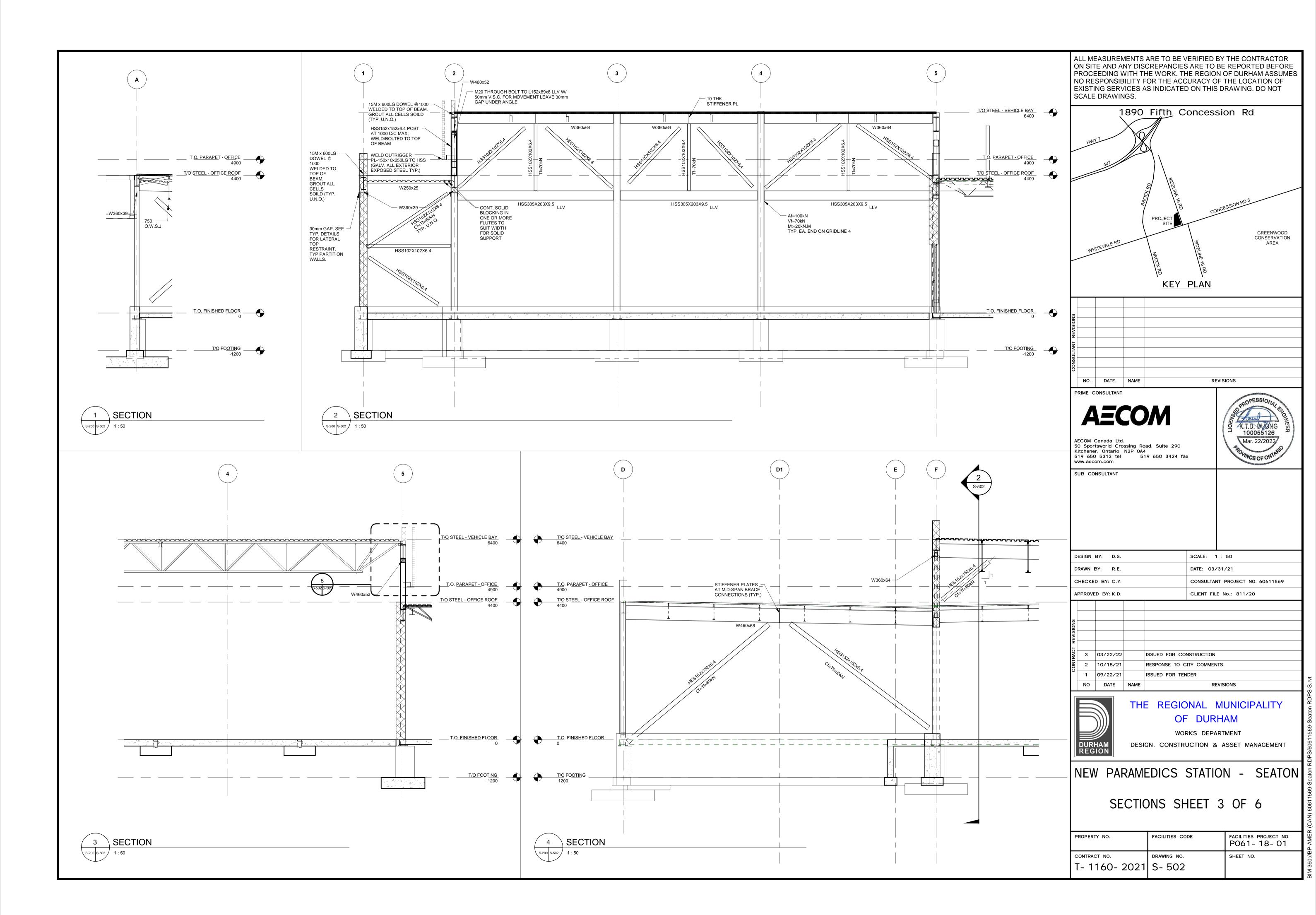
ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
ONTRACT NO. - 1160- 2021	DRAWING NO. S- 204	SHEET NO.

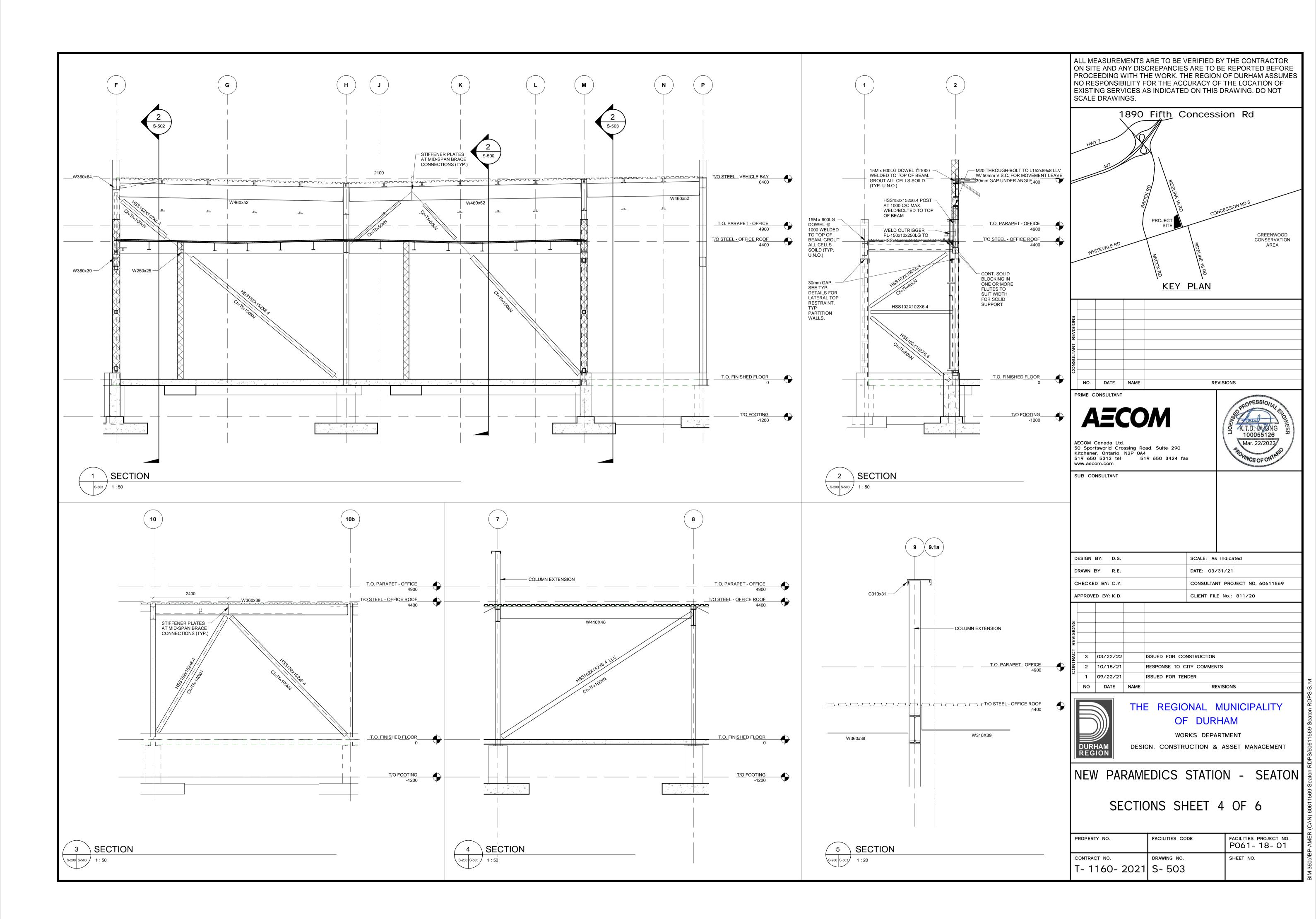


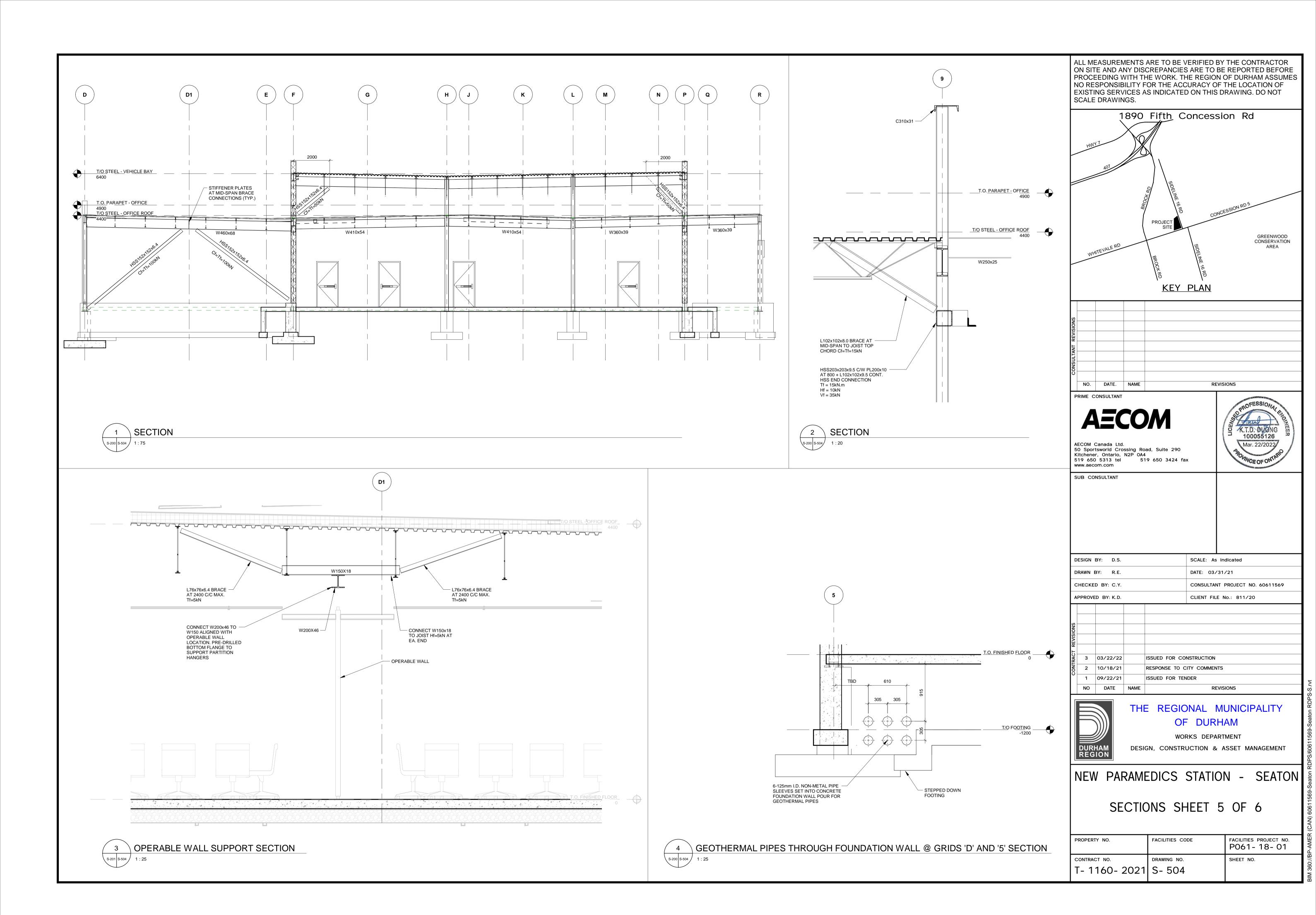


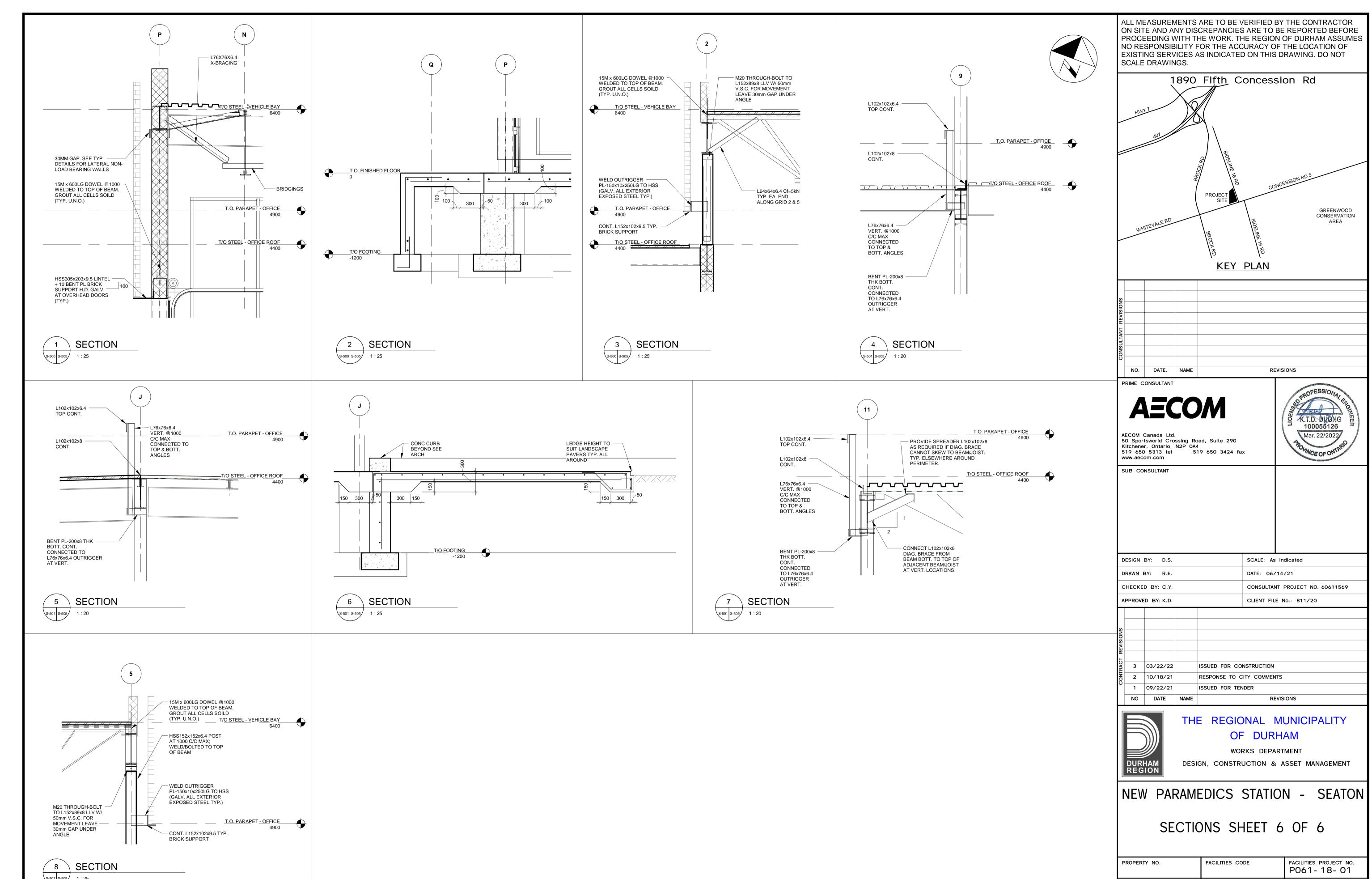






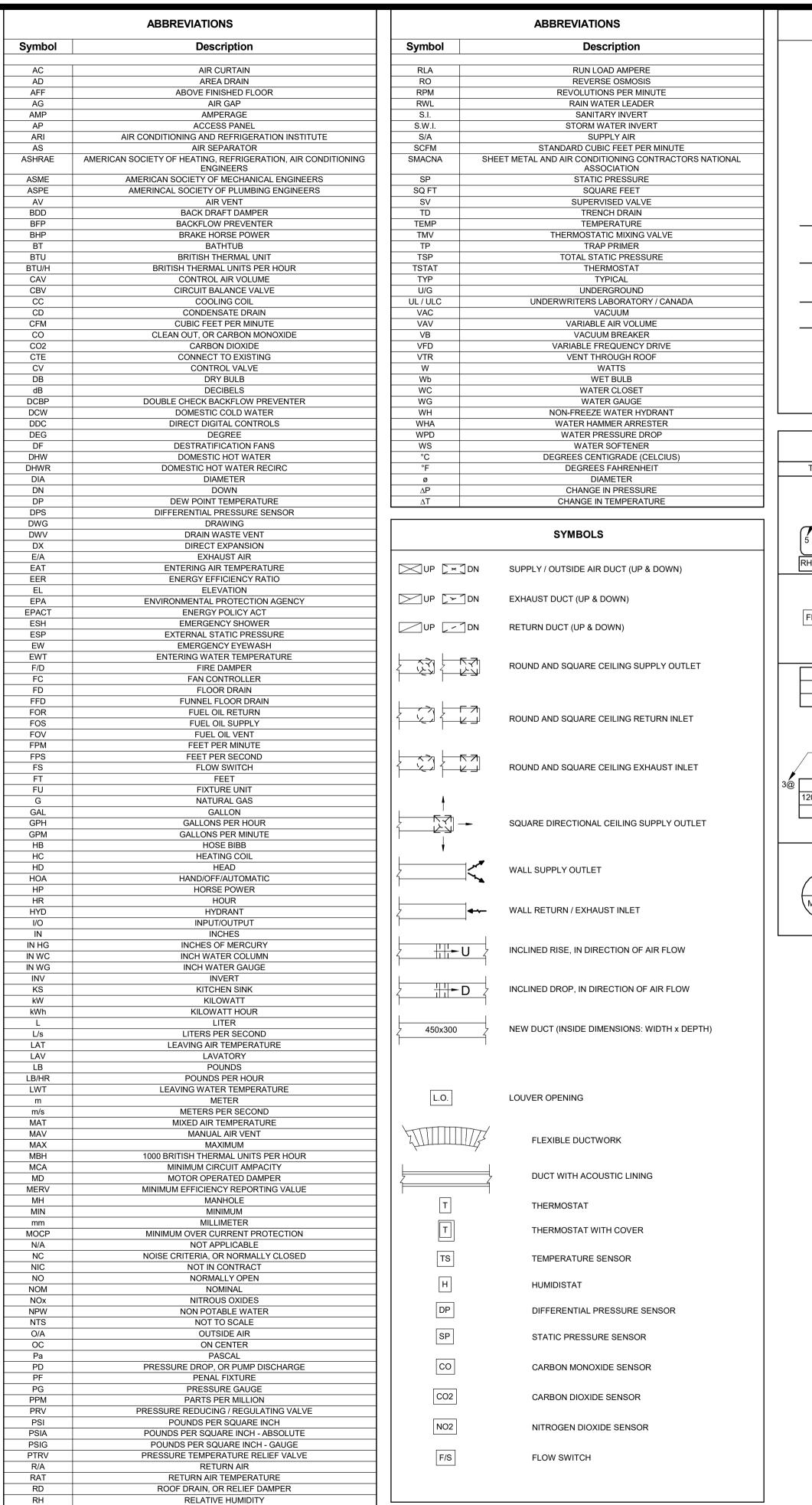






SHEET NO.

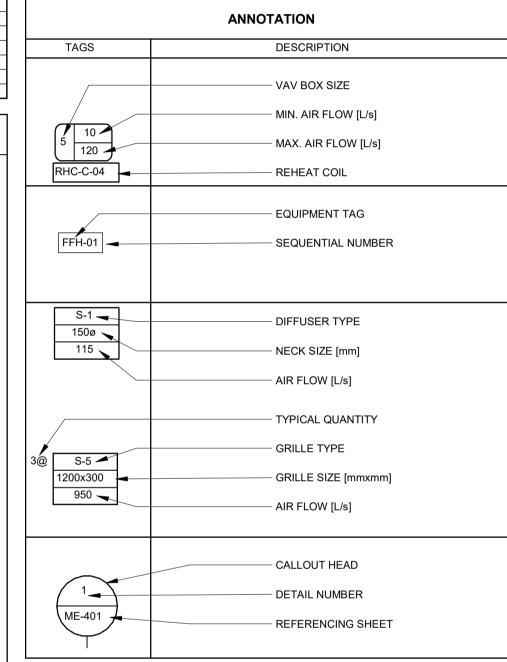
T- 1160- 2021 S- 505

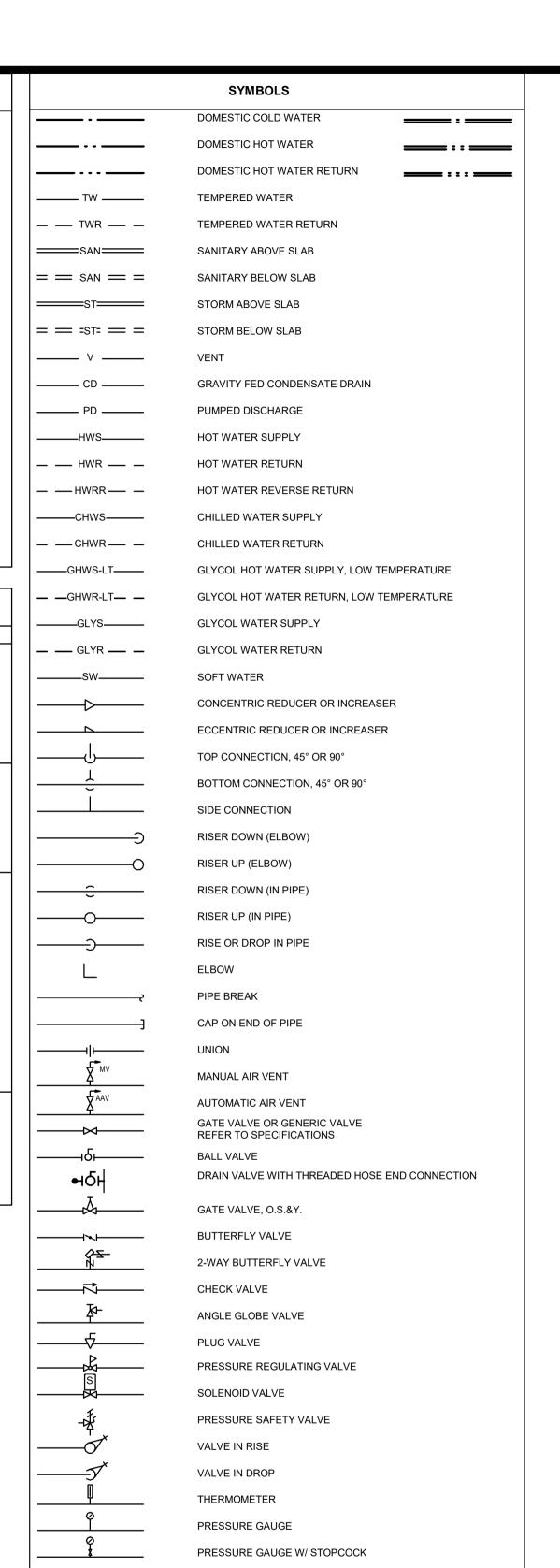


RHC

REHEAT COIL

	SYMBOLS
MD	MOTOR OPERATED DAMPER
— F/D	FIRE DAMPER
□ S/D	SMOKE DAMPER
— ∢ FS/D	COMBINATION FIRE & SMOKE DAMPER
⊕ FE	FIRE EXTINGUISHER
FE (CO2)	FIRE EXTINGUISHER, CO2
	DOUBLE CHECK BACKFLOW PREVENTER
- 360 60 2060 90	DRAINS ABOVE
	FLOOR CLEANOUT
——————————————————————————————————————	CLEANOUT PLUG
\square	FLOOR DRAIN
⊕	ROOF DRAIN





PLUGGED PRESSURE GAUGE CONNECTION

TWO WAY CONTROL VALVE

THREE WAY CONTROL VALVE

CIRCUIT BALANCING VALVE

PIPE/DUCT FLEXIBLE CONNECTION

CHILLED WATER REVERSE RETURN

EXPANSION JOINT

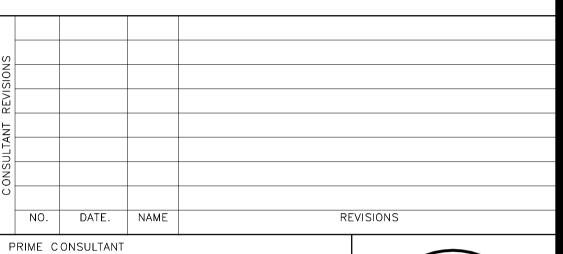
WATER METER

──////

_ __CHWRR___ _

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd

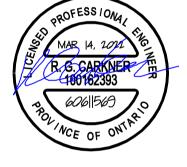


AECON

SUB CONSULTANT

APPROVED BY: JC

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: JB SCALE: NTS

DRAWN BY: VM DATE: 2020.04.17

CHECKED BY: KA CONSULTANT PROJECT NO. 60611569

REVISIONS				
EVIS				
CONTRACT	2	03/14/22		ISSUED FOR CONSTRUCTION
: ONI	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



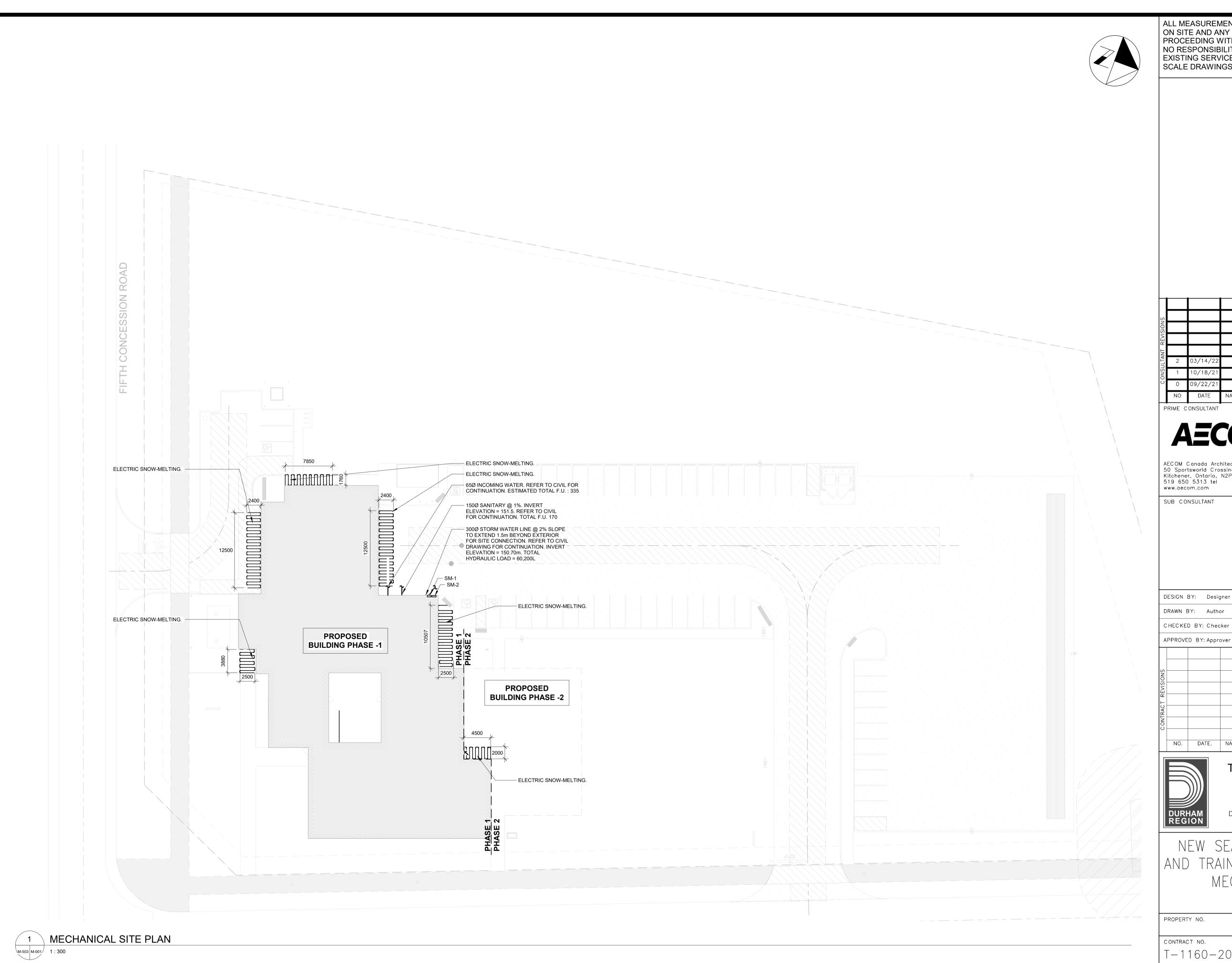
THE REGIONAL MUNICIPALITY OF DURHAM

CLIENT FILE No.: 811/20

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
MECHANICAL LEGENDS AND DRAWING

	LIST	
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 000	



<u>key plan</u>

_		_		
S				
REVISIONS				
REVI				
CONSULTANT	2	03/14/22		ISSUED FOR CONSTRUCTION
ONS	1	10/18/21		RESPONSE TO CITY COMMENTS
Ö	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS

AECOM

AECOM Canada Architects Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax

SCALE: 1 : 300 DESIGN BY: Designer DATE: 11/11/20 DRAWN BY: Author CHECKED BY: Checker CONSULTANT PROJECT NO. 60611569

REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

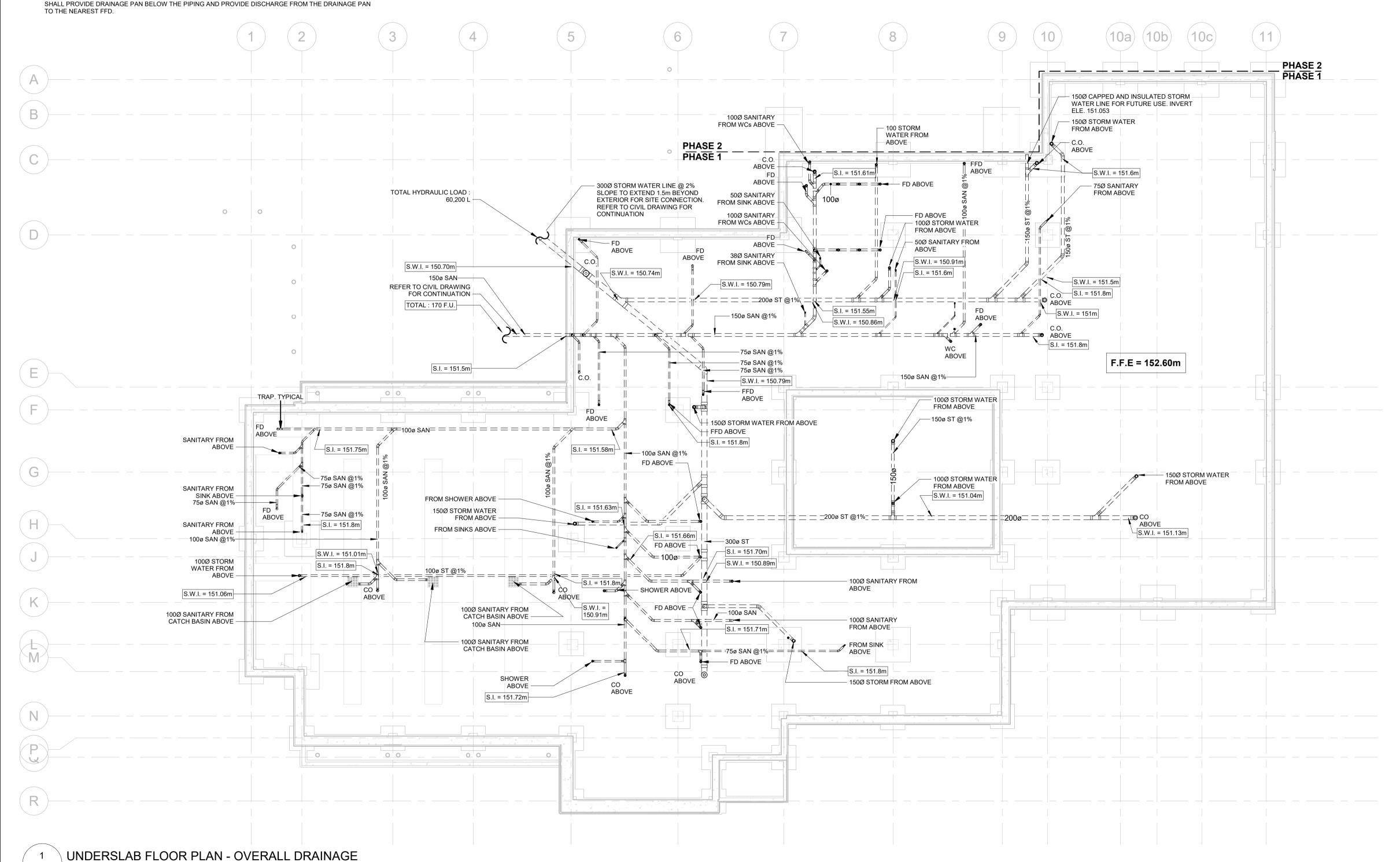
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 001	

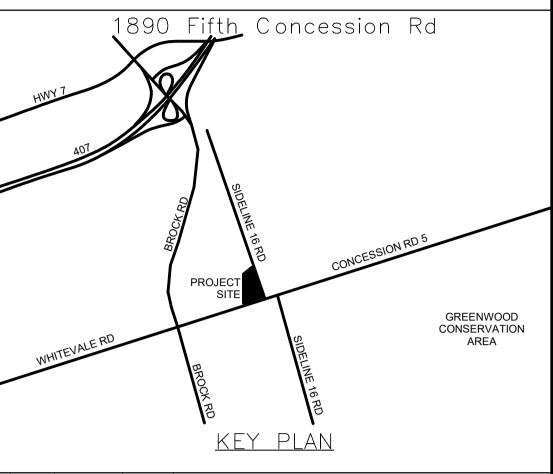
PLUMBING AND DRAINAGE NOTES

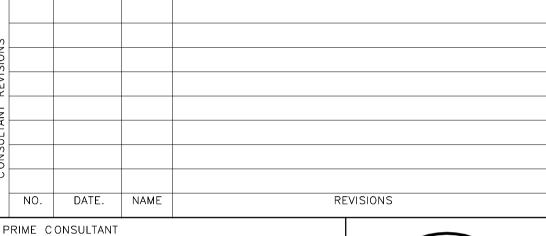
M-503 M-100 / 1 : 125

- 1. PROVIDE MINIMUM OF 75Ø PIPING FOR UNDERGROUND SANITARY.
- 2. PROVIDE APPROVED BACKFLOW PREVENTOR FOR ALL TRAP SEAL PRIMER SYSTEMS.
- 3. PROVIDE MINUMUM 100Ø PIPING FOR UNDERGROUND STORMWATER DRAINAGE.
- 4. INSTALL ALL PIPING OVERHEAD, TIGHT TO UNDESIDE OF THE STRUCTURE WITH SUFFICIENT ROOM FOR INSULATION UNLESS INDICATED OTHERWISE. ROUTE PIPING WITHIN STRUCTURE STEEL STRATA OR THROUGH CONCRETE BEAMS WHERE PRACTICAL.SUPPLY DUCT OF FAN COILS FC-3,4,8,9,10,11,13,19 SHALL BE ACOUSTICALLY LINED FOR MINIMUM LENGTH OF 3 METERS.
- 5. PROVIDE SHUT-OFF VALVE ON ALL MIN RISERS AND AT EACH CONNECTION TO THE EQUIPMENT FOR FLOW CONTROL IN TIME OF MAINTANANCE.
- 6. PROVIDE COMPLETE VENTING SYSTEM IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- 7 PROVIDE A CLEANOUT AT THE BOTTOM OF EVERY SANITARY AND STORM STACK THAT CONNECTS TO A HORIZONTAL PIPE.
- 8 PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING FIXTURE VENTS TO INDICATED BUILDING
- 8 ALL PLUMBING FIXTURES AND DRAINS SHALL BE P-TRAPPED AND VENTED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- 9 THE CONTRACTOR SHALL PROVIDE A TRAP SEAL PRIMER AS SPECIFIED FOR ALL FLOOR DRAINS, FUNNEL FLOOR DRAINS, PIT DRAINS AND HUB DRAINS AS MAY BE APPLICABLE. COORDINATE ELECTRICAL TRAP SEAL PRIMERS WITH THE ELECTRICAL TRADE(S).
- 10. PIPING SHALL NOT PASS DIRECTLY ABOVE THE ELECTRICAL EQUIPMENT. CONTRACTOR SHALL PROVIDE DRAINAGE PAN BELOW THE PIPING AND PROVIDE DISCHARGE FROM THE DRAINAGE PAN



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





SUB CONSULTANT

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax www.aecom.com



DESIGN BY: Designer	SCALE: As indicated
DRAWN BY: Author	DATE: 10/27/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

AFFINOVED BT. Approver		7061	CLIENT FILE NO STT/20	
2				
2				
-				
	2	03/14/22		ISSUED FOR CONSTRUCTION
5	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

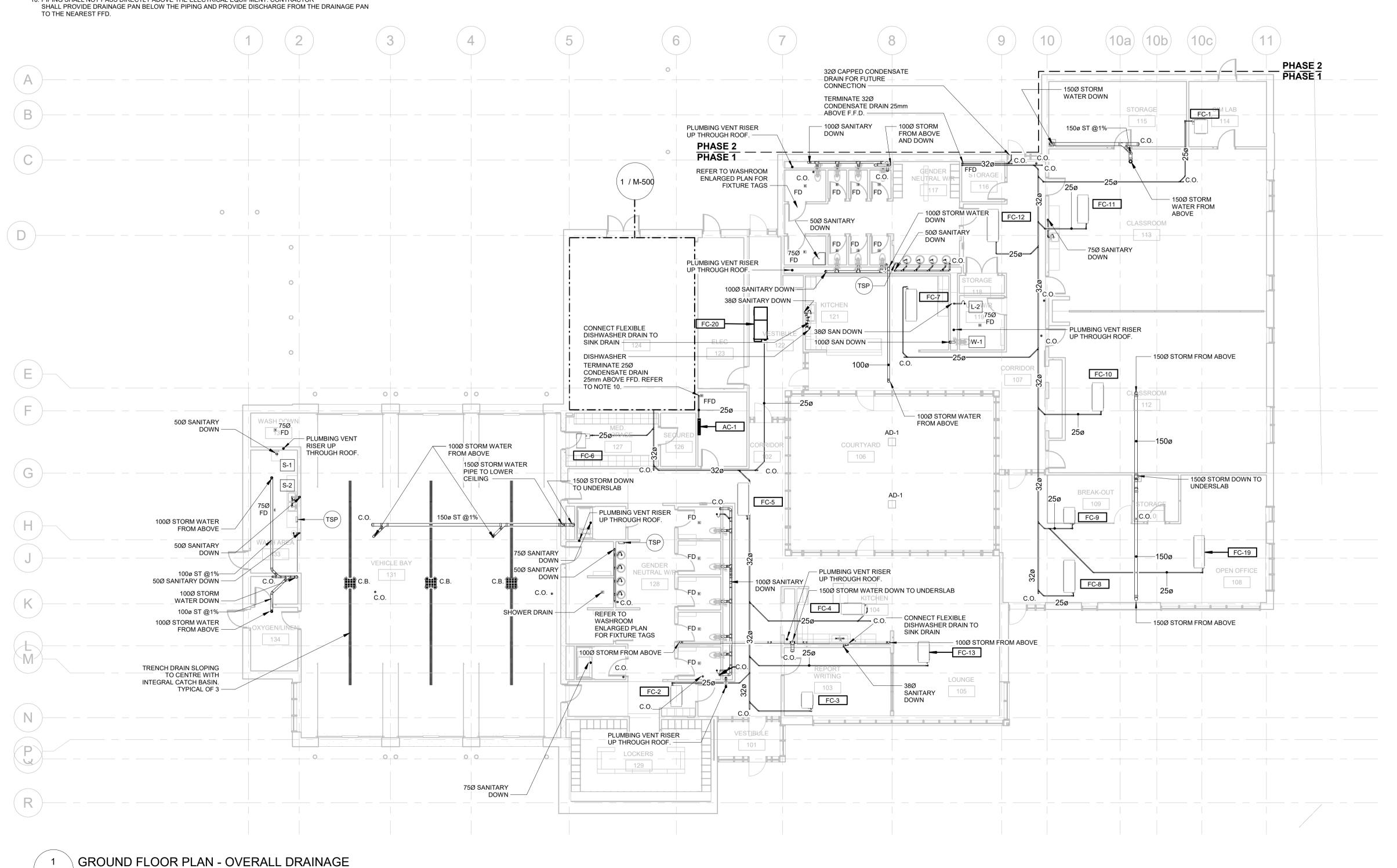
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING UNDERSLAB PLAN — DRAINAGE

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 100	

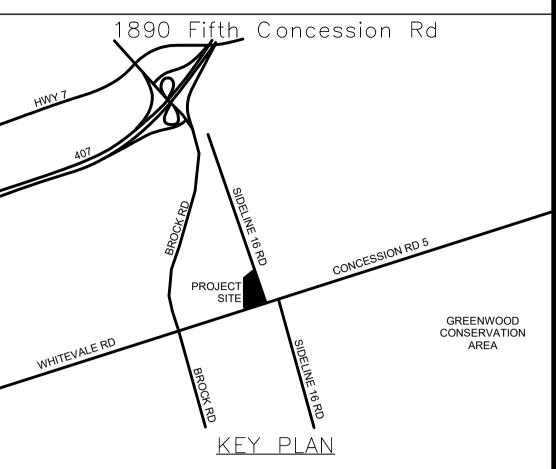
PLUMBING AND DRAINAGE NOTES

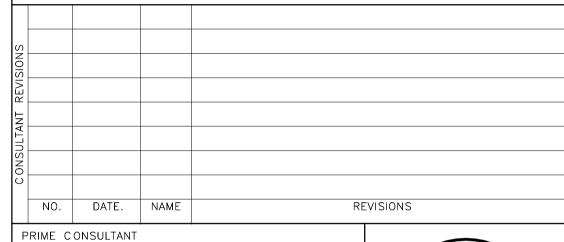
M-503 M-101 1 : 125

- 1. PROVIDE MINIMUM OF 75Ø PIPING FOR UNDERGROUND SANITARY.
- 2. PROVIDE APPROVED BACKFLOW PREVENTOR FOR ALL TRAP SEAL PRIMER SYSTEMS.
- 3. PROVIDE MINUMUM 100Ø PIPING FOR UNDERGROUND STORMWATER DRAINAGE.
- 4. INSTALL ALL PIPING OVERHEAD, TIGHT TO UNDESIDE OF THE STRUCTURE WITH SUFFICIENT ROOM FOR INSULATION UNLESS INDICATED OTHERWISE. ROUTE PIPING WITHIN STRUCTURE STEEL STRATA OR THROUGH CONCRETE BEAMS WHERE PRACTICAL.SUPPLY DUCT OF FAN COILS FC-3,4,8,9,10,11,13,19 SHALL BE ACOUSTICALLY LINED FOR MINIMUM LENGTH OF 3 METERS.
- 5. PROVIDE SHUT-OFF VALVE ON ALL MIN RISERS AND AT EACH CONNECTION TO THE EQUIPMENT FOR FLOW CONTROL IN TIME OF MAINTANANCE.
- 6. PROVIDE COMPLETE VENTING SYSTEM IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- 7 PROVIDE A CLEANOUT AT THE BOTTOM OF EVERY SANITARY AND STORM STACK THAT CONNECTS TO A
- 8 PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING FIXTURE VENTS TO INDICATED BUILDING VENT TERMINATEION(S)
- 8 ALL PLUMBING FIXTURES AND DRAINS SHALL BE P-TRAPPED AND VENTED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- 9 THE CONTRACTOR SHALL PROVIDE A TRAP SEAL PRIMER AS SPECIFIED FOR ALL FLOOR DRAINS, FUNNEL FLOOR DRAINS, PIT DRAINS AND HUB DRAINS AS MAY BE APPLICABLE. COORDINATE ELECTRICAL TRAP SEAL PRIMERS WITH THE ELECTRICAL TRADE(S).
- 10. PIPING SHALL NOT PASS DIRECTLY ABOVE THE ELECTRICAL EQUIPMENT. CONTRACTOR



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





SUB CONSULTANT

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax www.aecom.com



DESIGN BY: Designer	SCALE: As indicated
DRAWN BY: Author	DATE: 10/27/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
1.				
ONTRACT	2	03/14/22		ISSUED FOR CONSTRUCTION
CON	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS

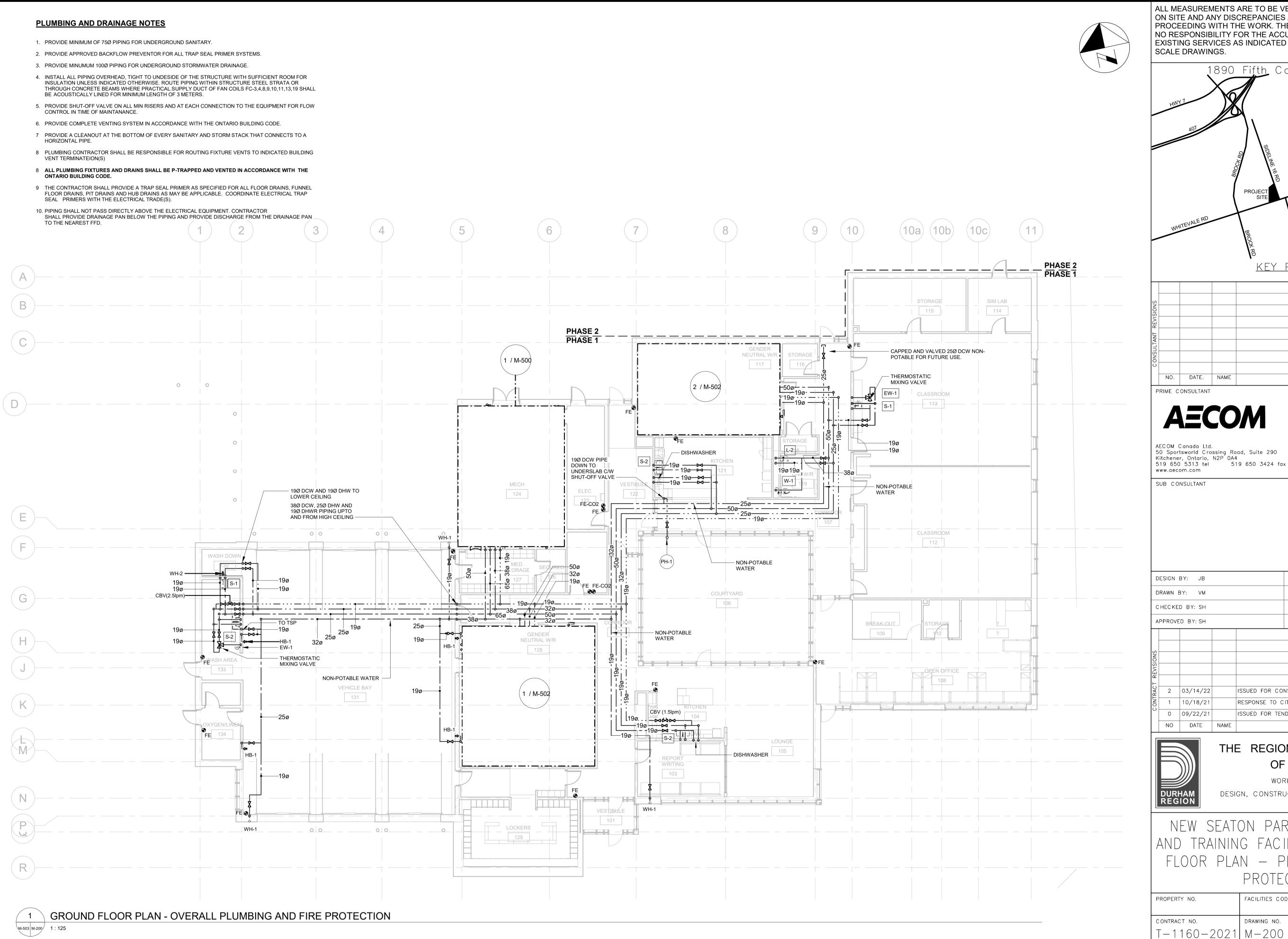


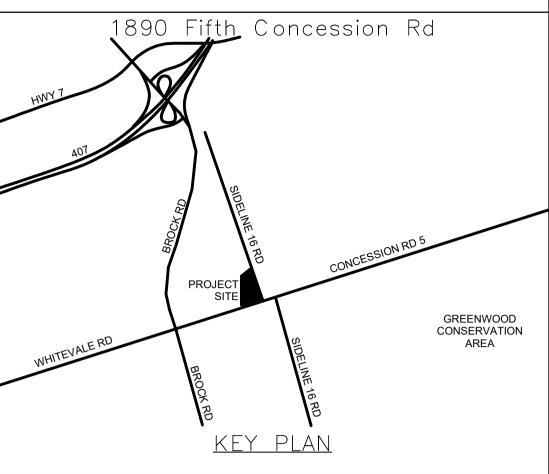
THE REGIONAL MUNICIPALITY OF DURHAM

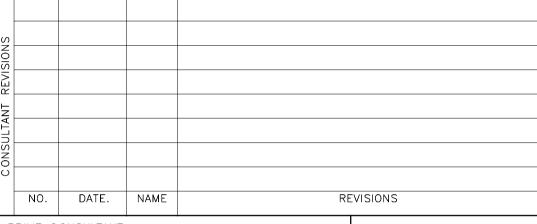
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FLOOR PLAN - DRAINAGE

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01	
CONTRACT NO. T-1160-2021	drawing no. M — 1 O 1	SHEET NO.	







519 650 3424 fax



DESIGN BY: JB	SCALE: As indicated
DRAWN BY: VM	DATE: 10/27/20
CHECKED BY: SH	CONSULTANT PROJECT NO. 60611569
APPROVED BY: SH	CLIENT FILE No.: 811/20

	APPROVE	ED BY: SH		CLIENT FILE No.: 811/20
DEVISIONS	2			
01/13	2			
TONTENC	2	03/14/22		ISSUED FOR CONSTRUCTION
N	1	10/18/21		RESPONSE TO CITY COMMENTS
O	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS

THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FLOOR PLAN - PLUMBING & FIRE PROTECTION

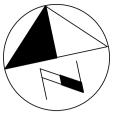
PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 200	

KEY NOTES

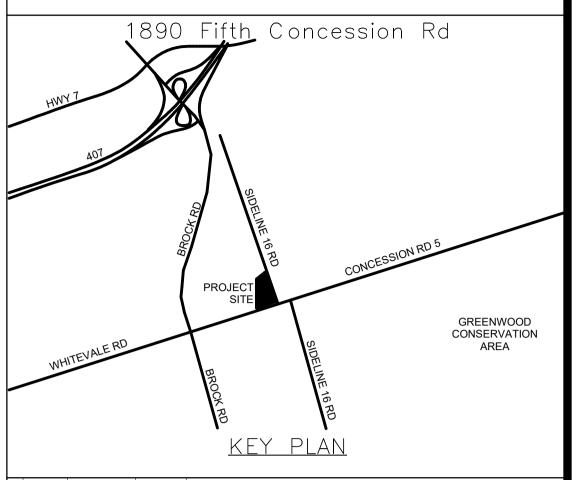
- 1. PROVIDE SILVER COLOURED GRAVITY BACKDRAFT FLAP FOR RANGE HOOD AND WASHROOM EXHAUST. (TYPICAL OF 3) INSTALL AT 3500 AFF
- 2. DUCT DOWN TO 300MM A.F.F. COMPLETE WITH BALANCING DAMPER. TERMINATE AT E3 GRILLE...
- 3. 350Ø TRANSFER DUCT TO BE 300X300 UNLESS INDICATED OTHERWISE. PROVIDE ACOUSTICALLY LINED DUCT FOR ALL TRANSFER AIR DUCTS.
- 4. RETURN AIR PLENUMS OF FAN COIL TO BE ACOUSTICALLY LINED COMPLETE WITH MITERED SINGLE THICKNESS VANE ELBOW. FOR SIZE, REFER TO MANUFACTURER SPECIFICATION. (TYPICAL FOR ALL FAN
- 5. PROVIDE ACCESS DOORS FOR ALL FAN COILS, VAV TERMINAL BOXES AND BALANCING DAMPERS IN AREAS WITHOUT T-BAR CEILING.
- 6. INSTALL GAS DETECTORS OF VEHICLE BAY AT 1500mm A.F.F.
- 7. ROOM THERMOSTATS OF FOLLOWING FAN COIL UNITS SHALL HAVE INTEGRATED RELATIVE HUMIDITY SENSOR AND CO2 SENSOR: FC-3,4,8,9,13&19
- 8. ROOM THERMOSTATS OF FOLLOWING FAN COIL UNITS SHALL HAVE INTEGRATED RELATIVE HUMIDITY SENSOR, CO2 SENSOR AND OCCUPANCY SENSOR: FC-10&11
- 9. AIR BALANCING AND SEQUENCING OF MOTORIZED DAMPERS:
- a. WHEN EMS IS THE ONLY OCCUPIED SPACE OF THE BUILDING (AS DETERMINED BY THE TIME-OF-DAY SCHEDULING) GENERAL RETURN AIR DAMPER [MD-4] SHALL BE CLOSED AND WASHROOM EXHAUST AIR DAMPER [MD-5] SHALL BE FULLY OPEN).
- b. WHEN THE ENTIRE SPACE OF PHASE-1 BUILDING IS OCCUPIED (AS DETERMINED BY THE ZONE
- OCCUPANCY SENSORS AND TIME-OF-DAY SCHEDULING) DAMPERS [MD-3] AND [MD-5] SHALL BE
- FULLY OPEN AND DAMPER [MD-4] SHALL ONLY OPEN TO ALLOW A MAXIMUM AIRFLOW RATE OF 885

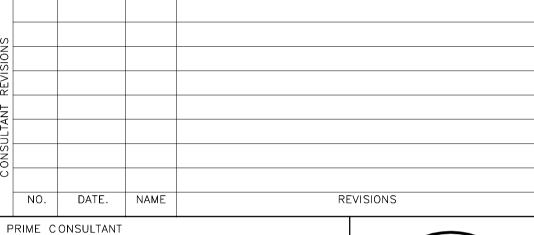
GROUND FLOOR PLAN - OVERALL HVAC PLAN

M-503 M-300 1 : 125



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.







SUB CONSULTANT

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax www.aecom.com



DESIGN BY: Designer	SCALE: As indicated
DRAWN BY: Author	DATE: 10/27/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

3	03/14/22		ISSUED FOR CONSTRUCTION	
2	10/18/21		ADDENDUM #1	
1	10/18/21		RESPONSE TO CITY COMMENTS	
0	09/22/21		ISSUED FOR TENDER	
NO	DATE	NAME	REVISIONS	

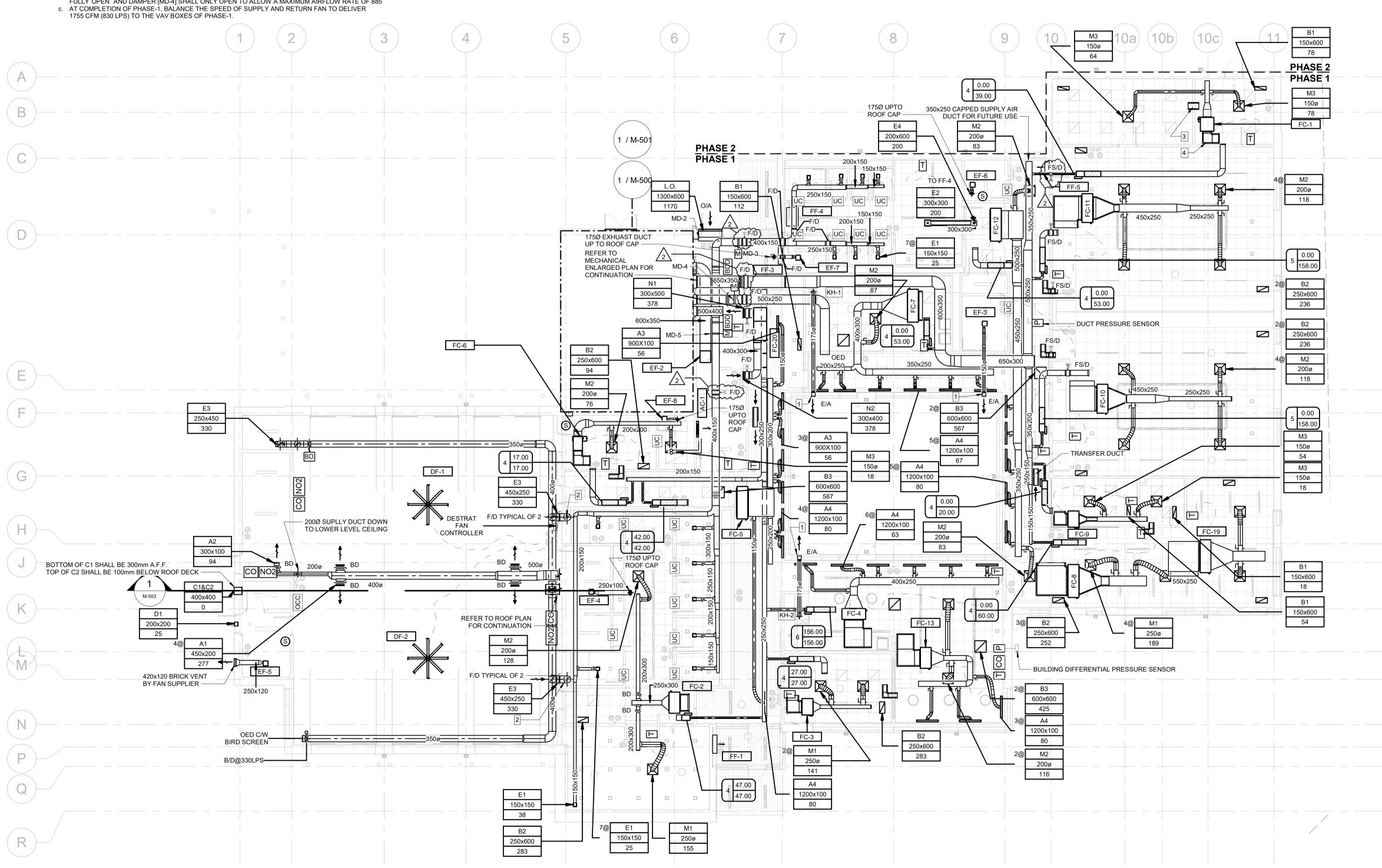


THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FIRST FLOOR PLAN - HVAC

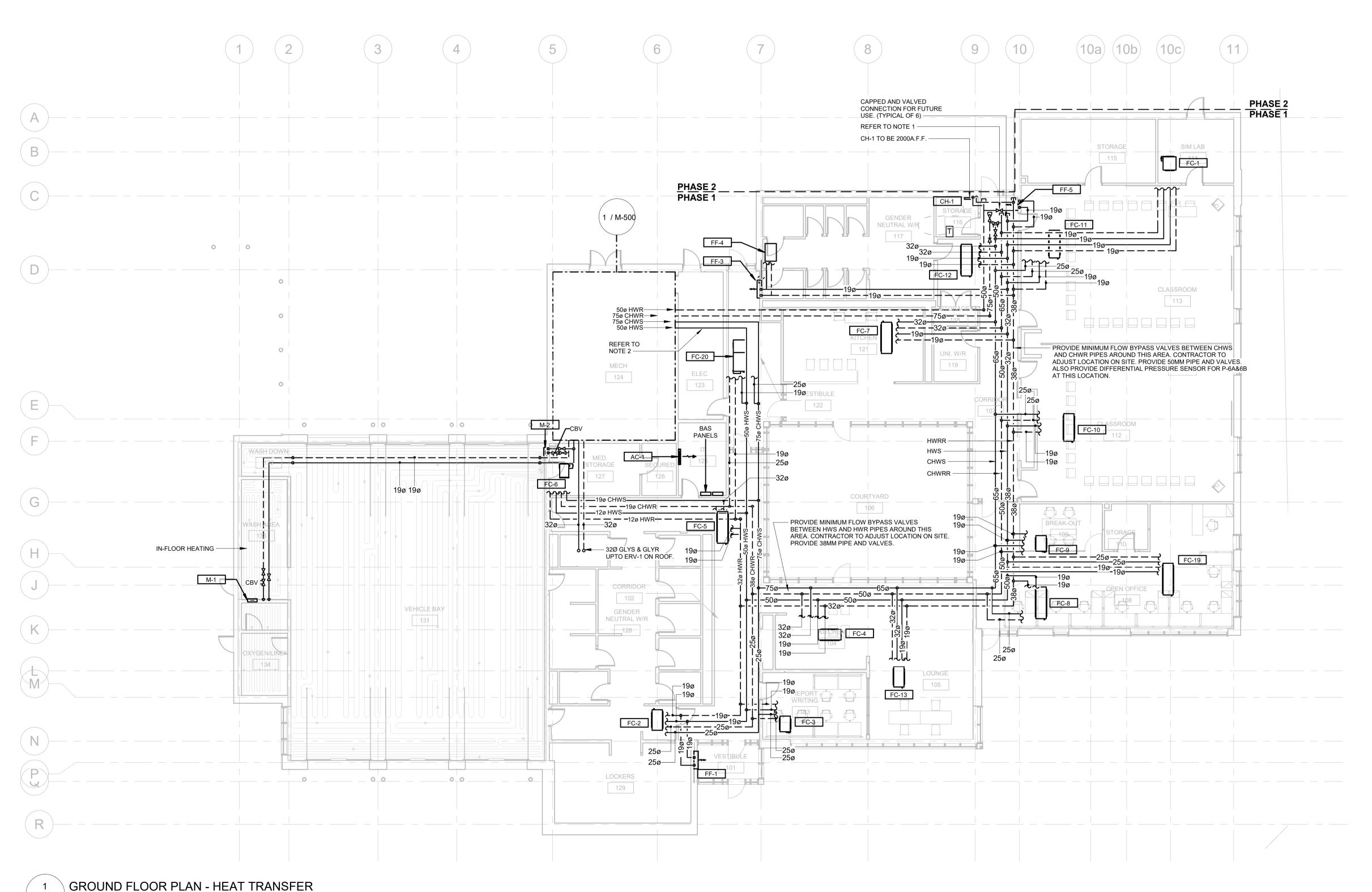
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 300	



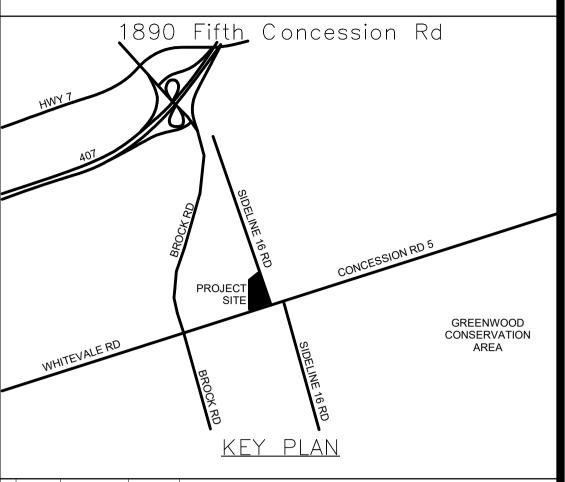
GENERAL NOTES

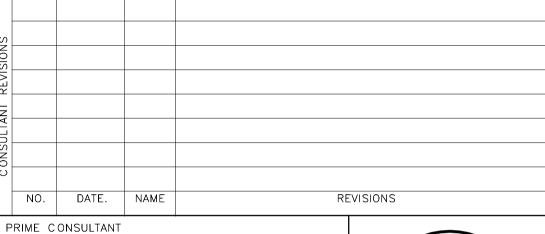
M-503 M-301 1 : 125

- 1- SHUT OFF VALVE SHALL BE CLOSED AT COMPLETION OF PHASE 2 (TYP. OF 2).
- 2- PIPING SHALL NOT PASS DIRECTLY ABOVE THE ELECTRICAL EQUIPMENT. CONTRACTOR SHALL PROVIDE DRAINAGE PAN BELOW ALL THE PIPING AND PROVIDE DISCHARGE FROM THE DRAINAGE PAN TO THE NEAREST FFD.
- 3- GENERAL CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR OPERATING/MAINTENANCE OF VALVES IN NON-REMOVABLE CEILING TYPES (GYPSUM BOARD AND WOOD FEATURE CEILING).
- 4- INSTALL ALL PIPING OVERHEAD, TIGHT TO UNDERSIDE OF THE STRUCTURE WITH SUFFICIENT ROOM FOR INSULATION. ROUTE PIPING WITHIN STRUCTURE STEEL STRATA OR THROUGH CONCRETE BEAMS WHERE



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





AECOM

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: Designer	SCALE: As indicated
DRAWN BY: Author	DATE: 10/28/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
ADDDOVED BY Approver	CLIENT FILE No. 911/20

Ľ	AFFROVED BT. Approver				SEILINI FIEL NO 811/20	
REVISIONS						
EVIS						
1.						
ONTRACT	2	03/14/22		ISSUED FOR CONS	STRUCTION	
CON	1	10/18/21		RESPONSE TO CIT	Y COMMENTS	
	0	09/22/21		ISSUED FOR TEND	ER	
	NO	DATE	NAME		REVISIONS	

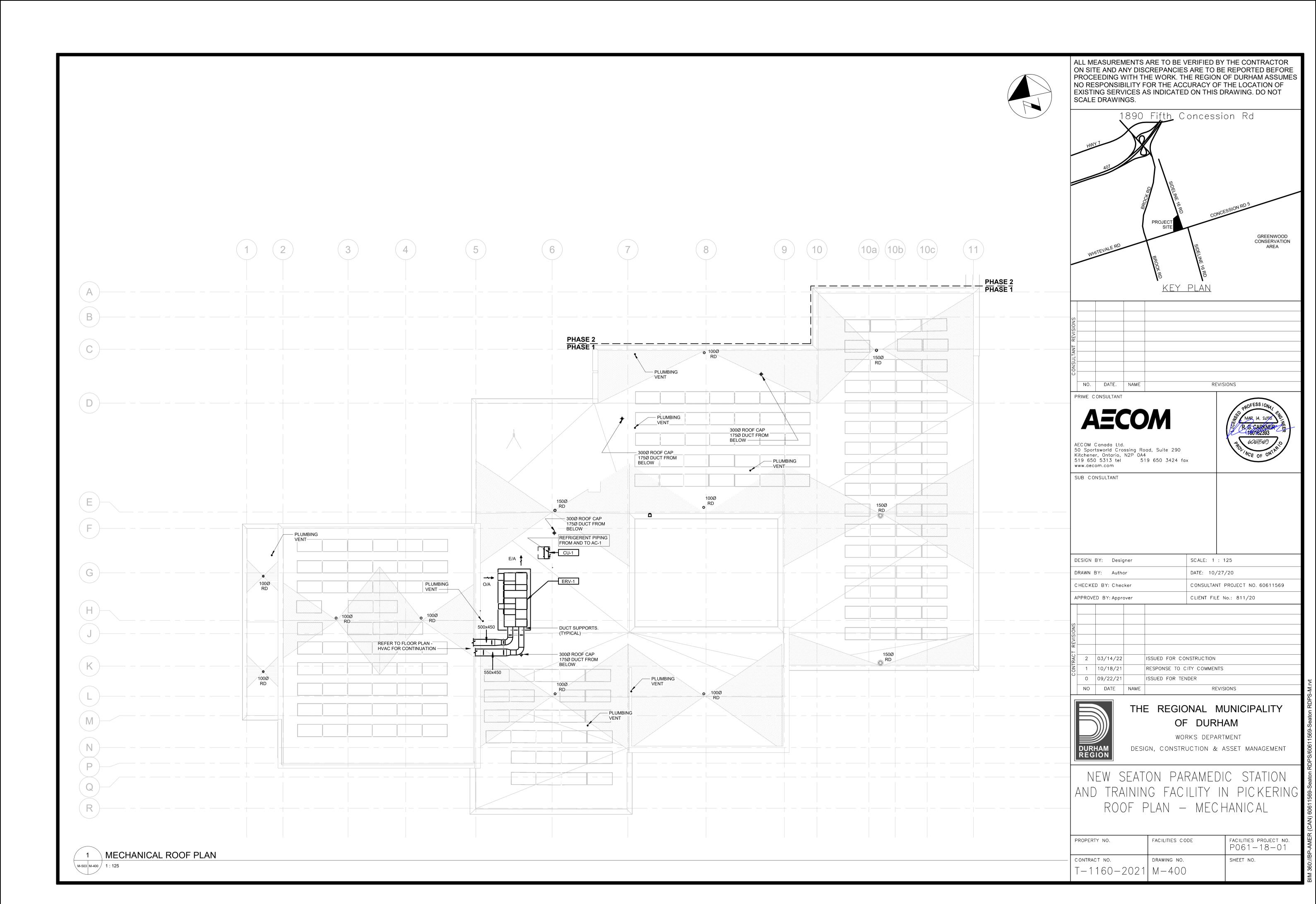


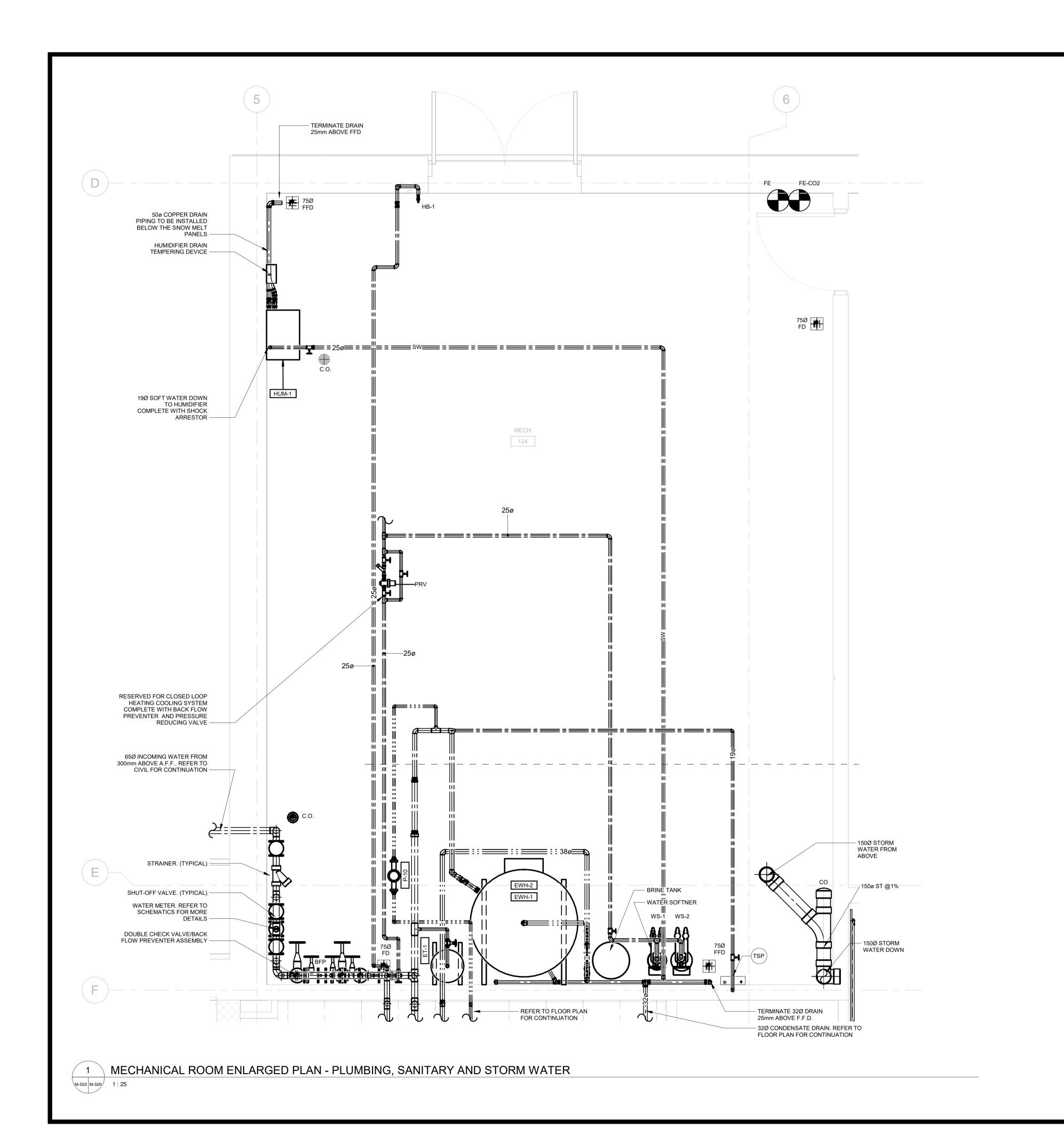
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

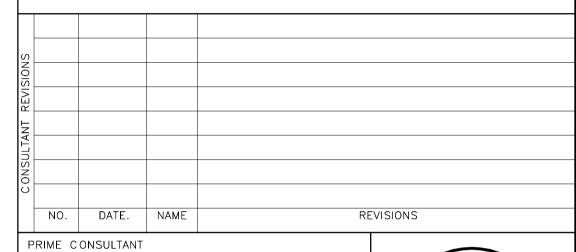
NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
FLOOR PLAN — HYDRONIC HEATING
& COOLING

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 301	





1890 Fifth Concession Rd



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT



DESIGN BY: Designer	SCALE: 1 : 25
DRAWN BY: Author	DATE: 10/27/20
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

,,				
REVISIONS				
EVIS				
CONTRACT	2	03/14/22		ISSUED FOR CONSTRUCTION
NO	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



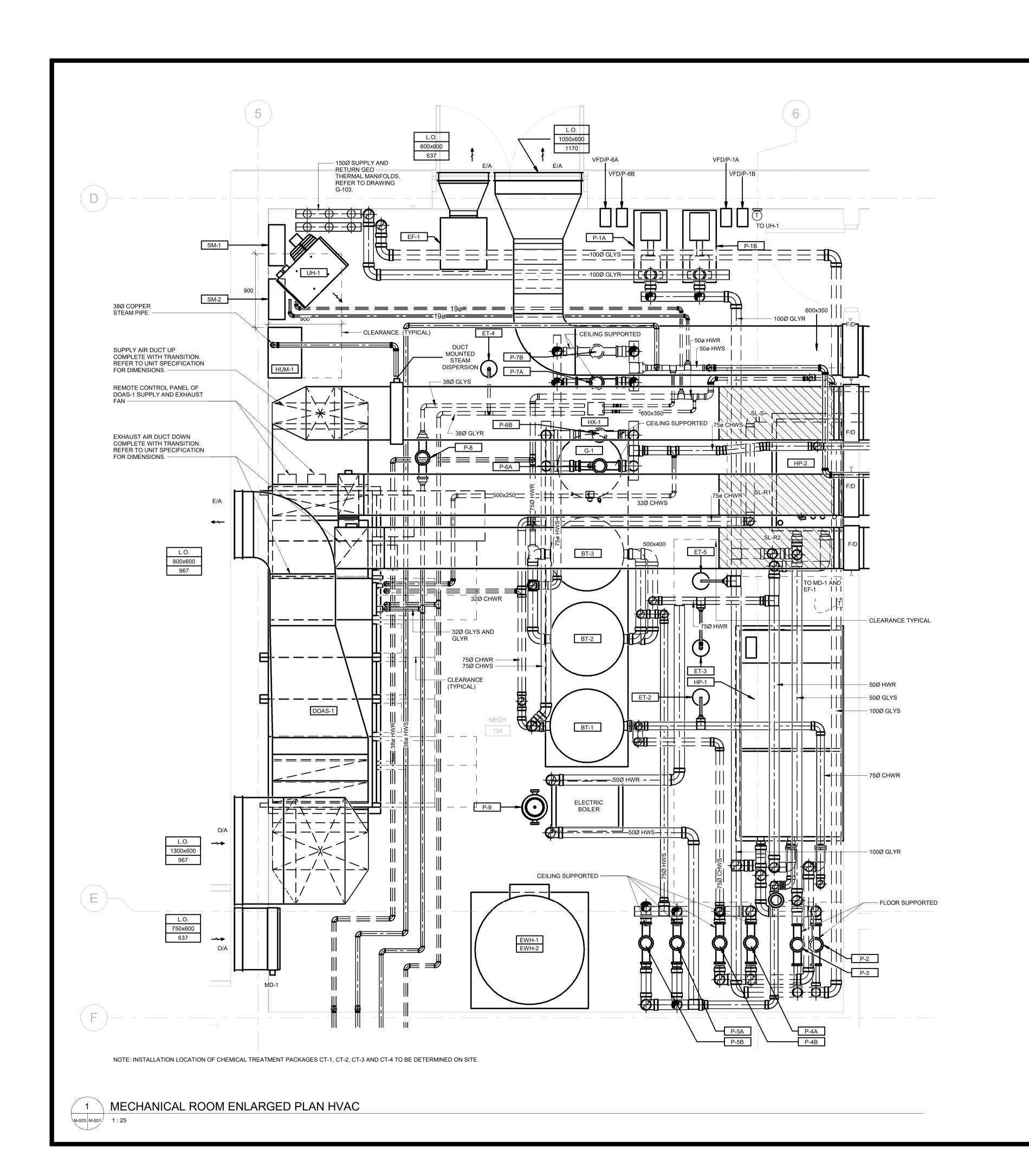
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

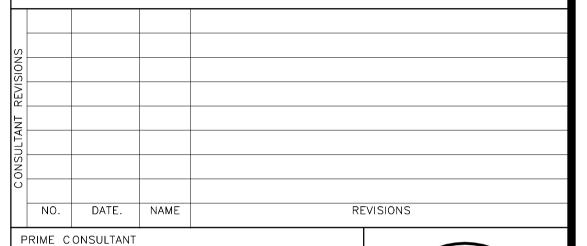
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
MECHANICAL ROOM ENLARGED
PLAN-1

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01			
CONTRACT NO.	DRAWING NO.	SHEET NO.			
T-1160-2021	M - 500				

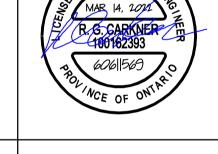


1890 Fifth Concession Rd



AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fc 519 650 3424 fax www.aecom.com

SUB CONSULTANT



DESIGN BY: Designer	SCALE: 1 : 25	
DRAWN BY: Author	DATE: 12/10/20	
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569	
APPROVED BY: Approver	CLIENT FILE No.: 811/20	

2	03/14/22		ISSUED FOR CONSTRUCTION
1	10/18/21		RESPONSE TO CITY COMMENTS
0	09/22/21		ISSUED FOR TENDER
NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

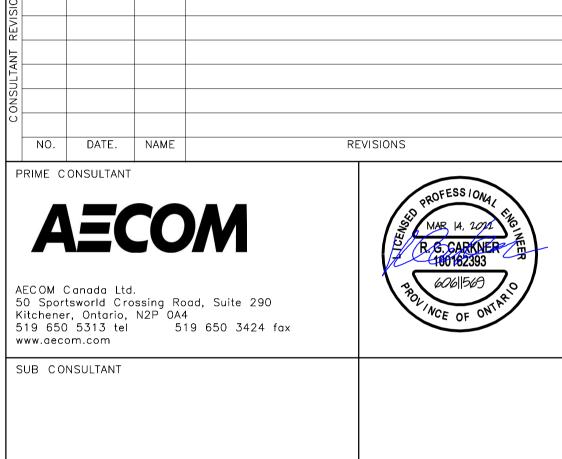
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING MECHANICAL ROOM ENLARGED PLAN-2

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 501	

C D

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT

1890 Fifth Concession Rd





1 10/18/21

0 09/22/21

THE REGIONAL MUNICIPALITY OF DURHAM

SCALE: 1 : 50

DATE: 12/02/20

CLIENT FILE No.: 811/20

REVISIONS

CONSULTANT PROJECT NO. 60611569

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

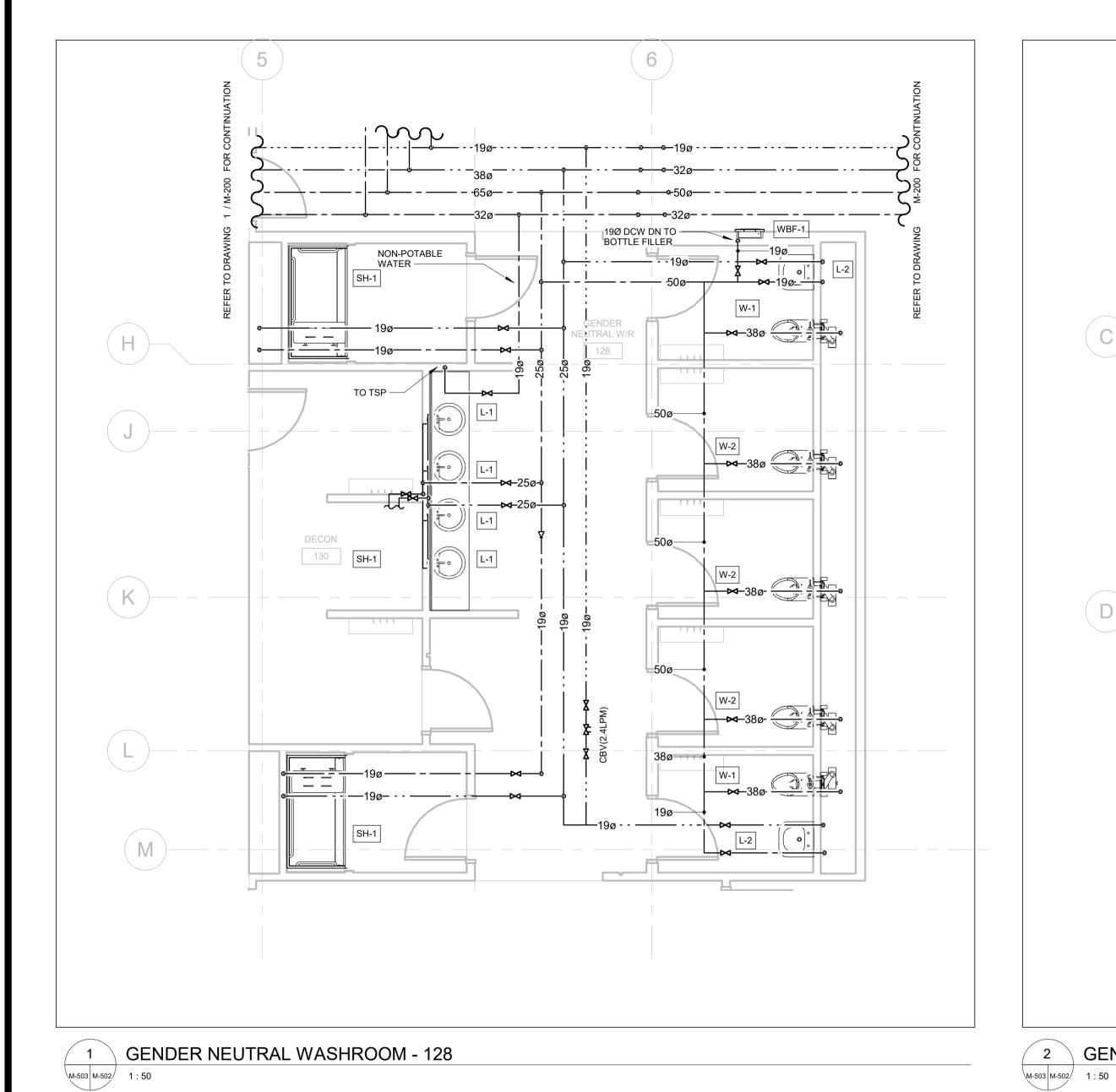
WASHROOM ENLARGED PLAN

ISSUED FOR CONSTRUCTION

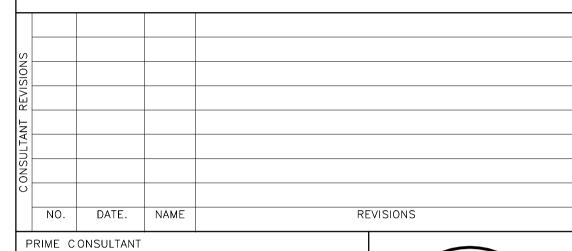
ISSUED FOR TENDER

RESPONSE TO CITY COMMENTS

FACILITIES PROJECT NO. P061-18-01 PROPERTY NO. FACILITIES CODE CONTRACT NO. DRAWING NO. SHEET NO. T-1160-2021 M-502



1890 Fifth Concession Rd



AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fax www.aecom.com

SUB CONSULTANT



SCALE: 1 : 50 DESIGN BY: Designer DATE: 11/18/20 DRAWN BY: Author CHECKED BY: Checker CONSULTANT PROJECT NO. 60611569 CLIENT FILE No.: 811/20

VISIONS				
REVIS				
⊢ R				
ONTRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
	1	10/18/21		RESPONSE TO CITY COMMENTS
O	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



APPROVED BY: Approver

THE REGIONAL MUNICIPALITY OF DURHAM

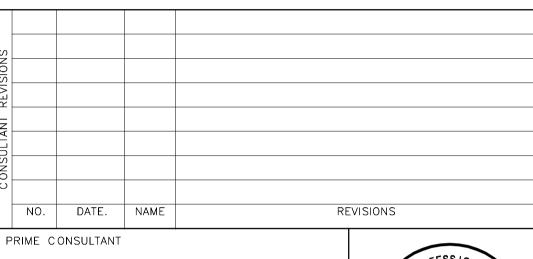
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01				
CONTRACT NO.	DRAWING NO.	SHEET NO.				
T-1160-2021	M - 503					

MECHANICAL ROOM ISOMETRIC

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT



DESIGN BY: Designer	SCALE:	
DRAWN BY: Author	DATE: 11/27/20	
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569	
APPROVED BY: Approver	CLIENT FILE No.: 811/20	

SINCICING					
01/1	2 [
_	-				
ONTEAC	2	2	03/14/22		ISSUED FOR CONSTRUCTION
		1	10/18/21		RESPONSE TO CITY COMMENTS
	_	0	09/22/21		ISSUED FOR TENDER
		NO	DATE	NAME	REVISIONS



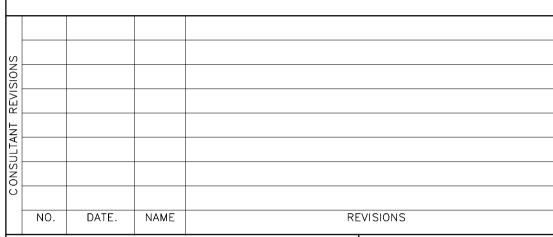
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. T-1160-2021	DRAWING NO. M-504	SHEET NO.



1890 Fifth Concession Rd



AECOM

PRIME CONSULTANT

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



	DESIGN BY: Designer	SCALE:
	DRAWN BY: Author	DATE: 12/19/20
	CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
	APPROVED BY: Approver	CLIENT FILE No.: 811/20

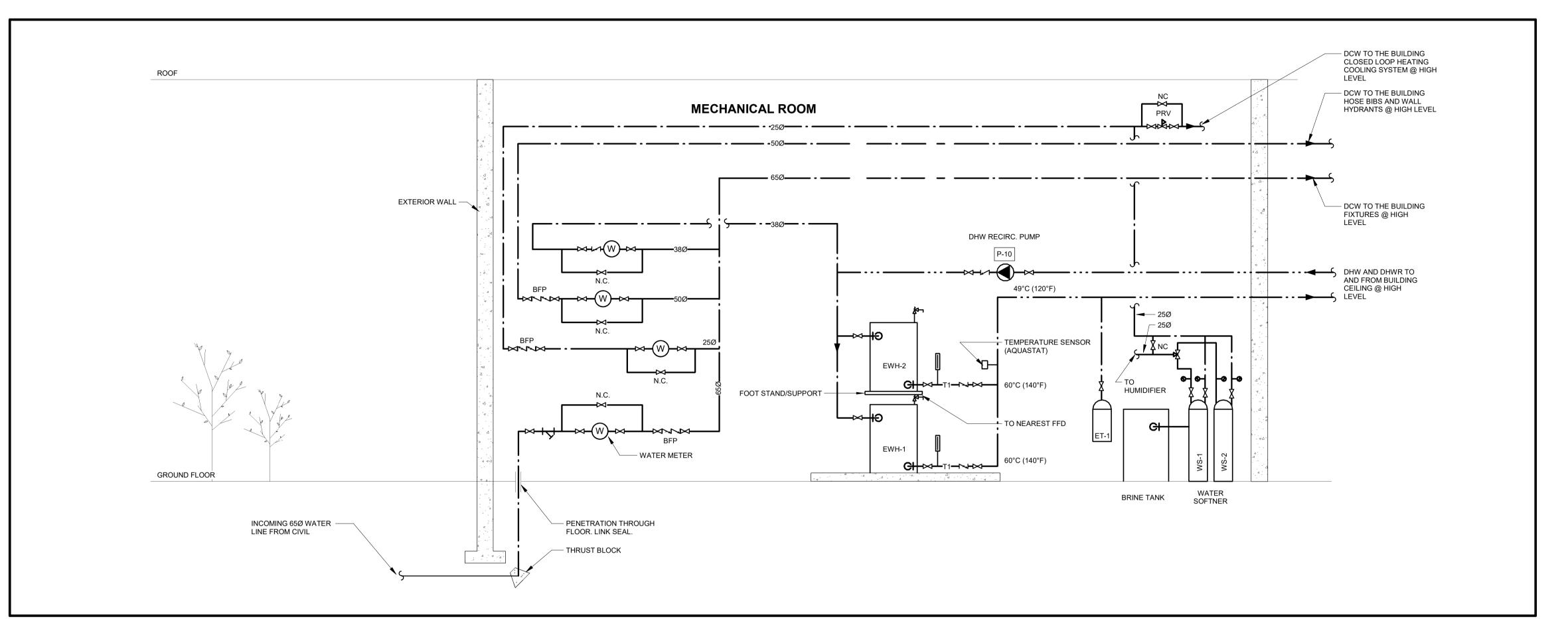
REVISIONS				
EVIS				
⊢				
RAC	2	03/14/22		ISSUED FOR CONSTRUCTION
ONT	1	10/18/21		RESPONSE TO CITY COMMENTS
O	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS

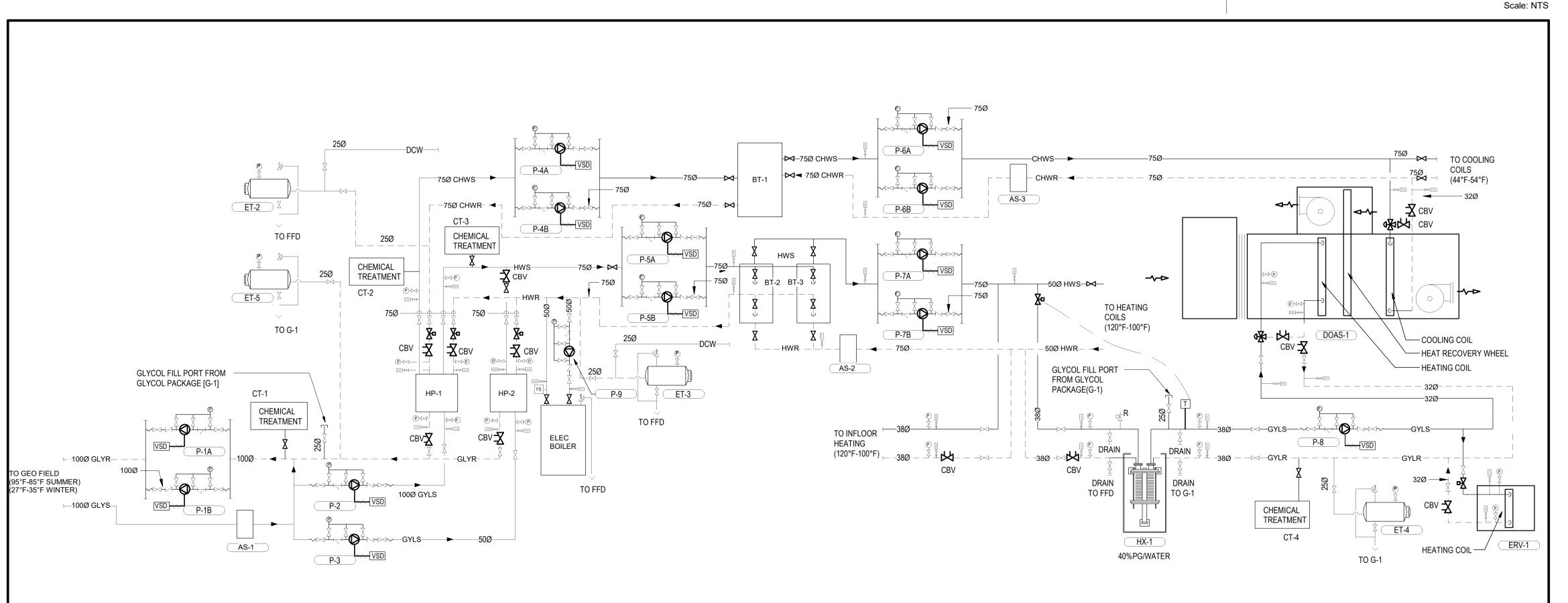


THE REGIONAL MUNICIPALITY OF DURHAM

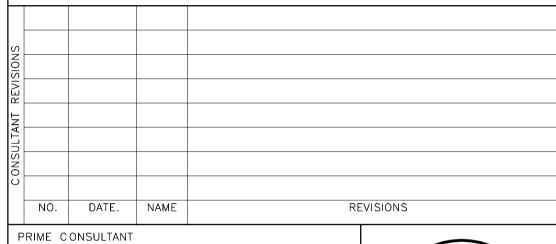
WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 505	





1890 Fifth Concession Rd



AECON

SUB CONSULTANT

APPROVED BY: SH

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: JB SCALE: As indicated

DRAWN BY: VM DATE: 10/27/20

CHECKED BY: SH CONSULTANT PROJECT NO. 60611569

1,0				
IONS				
REVISIONS				
⊢				
ONTRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
CONT	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

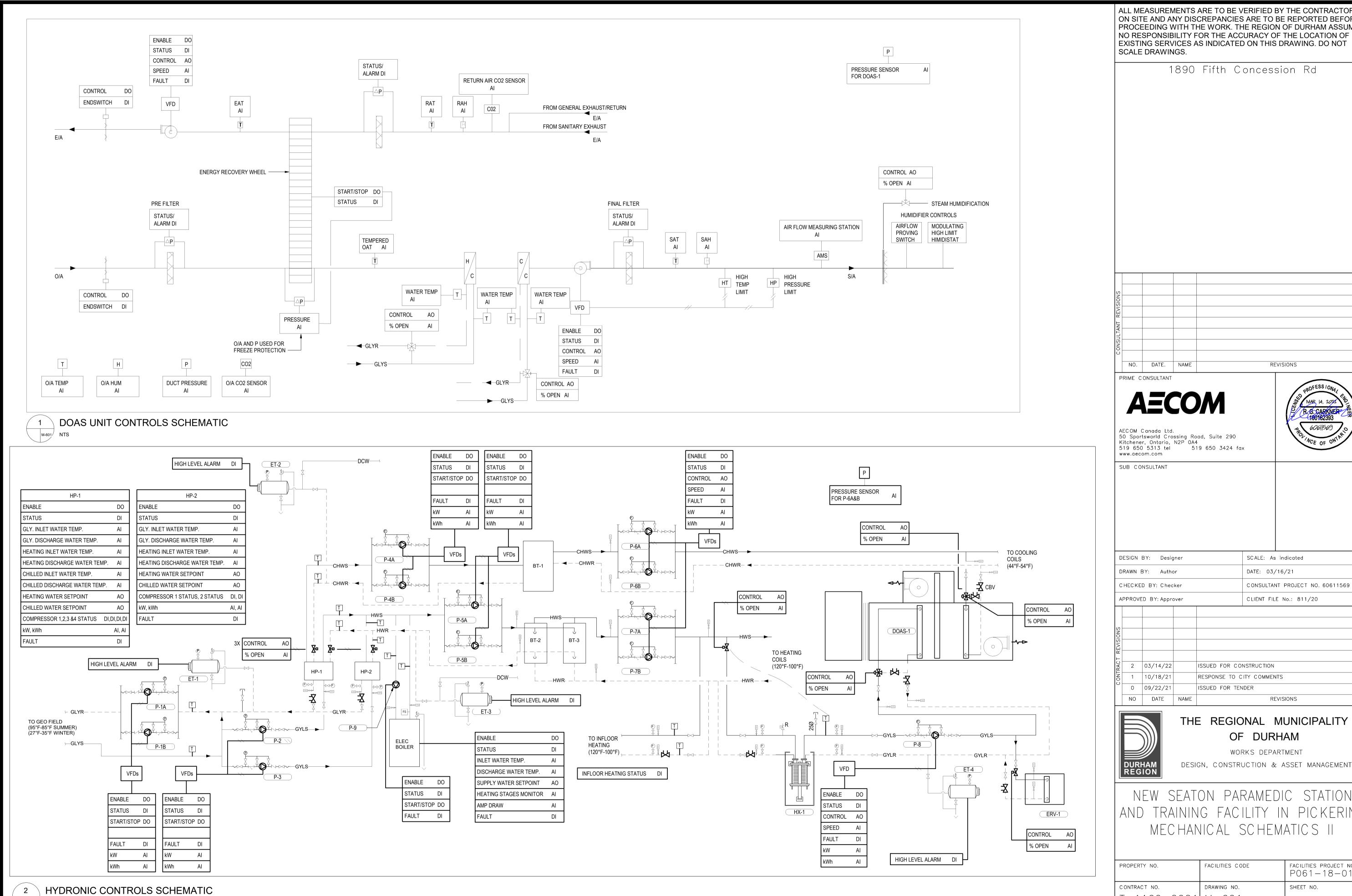
CLIENT FILE No.: 811/20

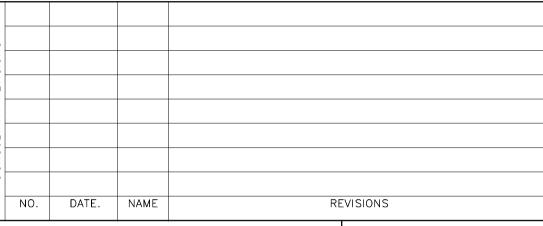
NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
MECHANICAL SCHEMATICS I

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 600	

HYDRONIC SCHEMATIC
Scale: N.T.S.

DOMESTIC WATER SCHEMATIC







SCALE: As indicated DATE: 03/16/21 CONSULTANT PROJECT NO. 60611569 CLIENT FILE No.: 811/20

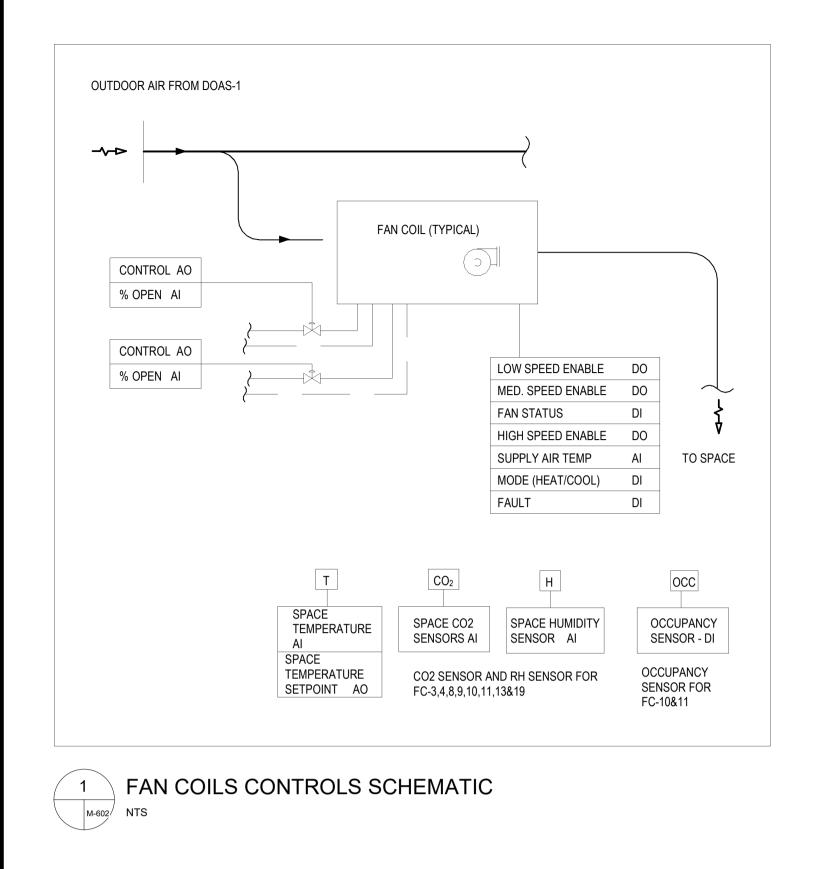
REVISIONS				
۲ -				
ONIRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS

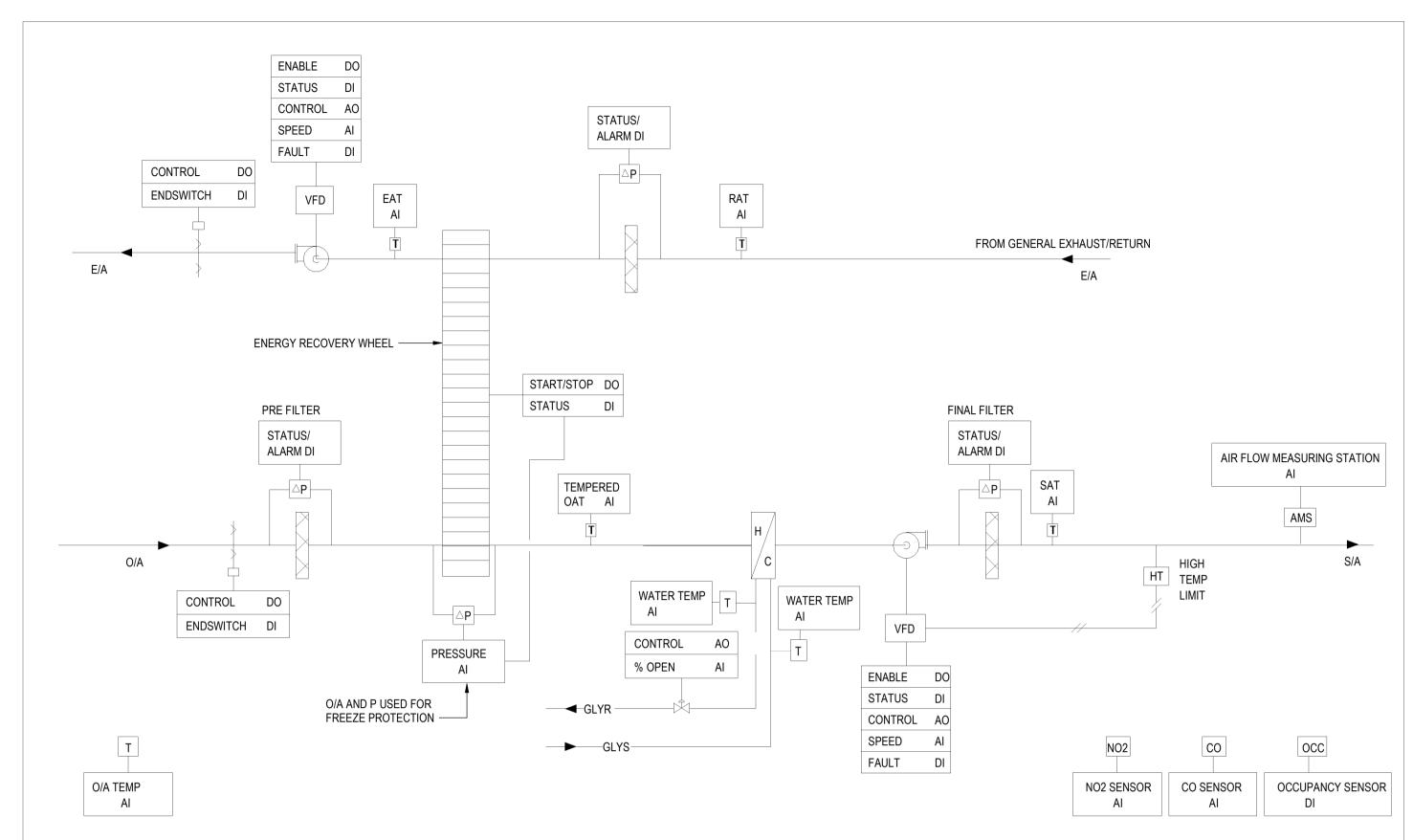
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

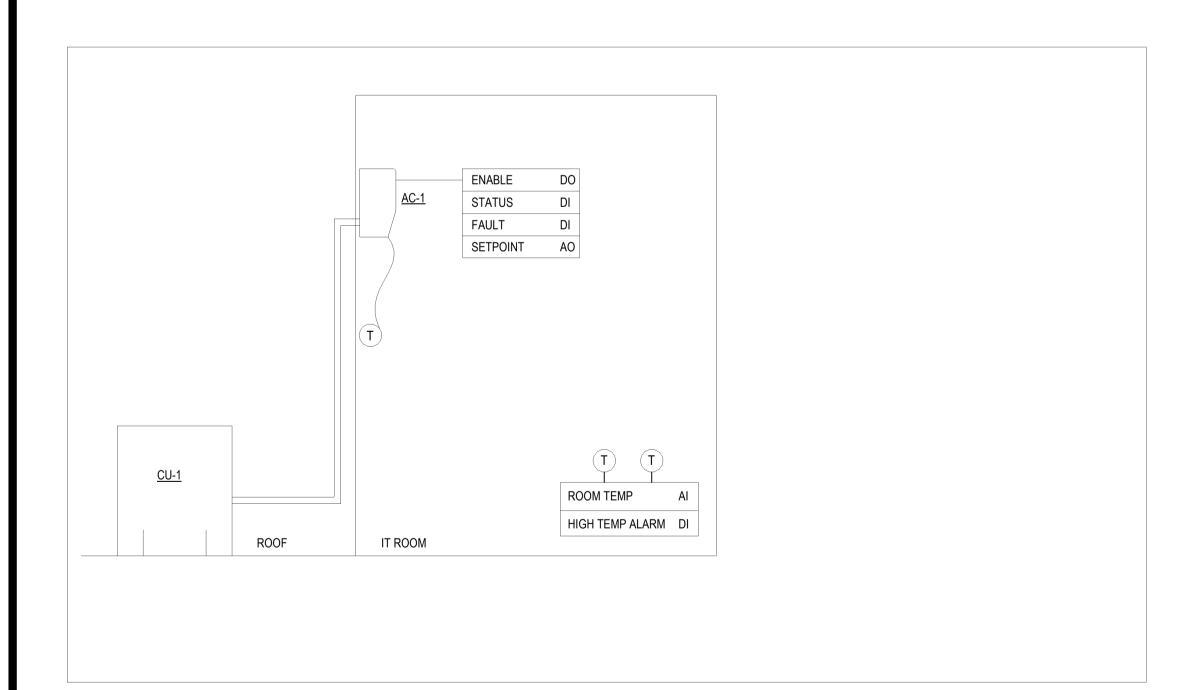
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

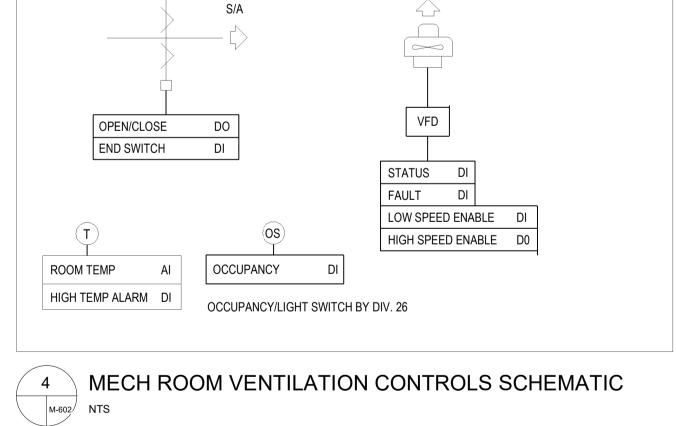
PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 601	

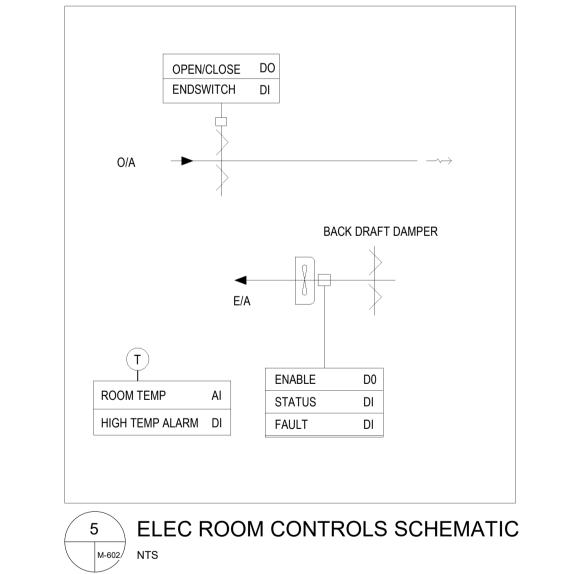


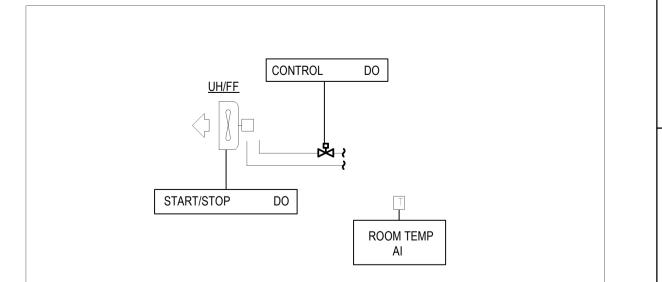








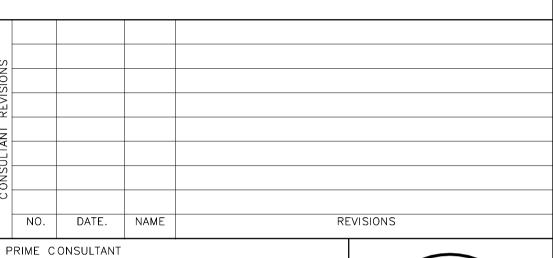




6 HYDRONIC UNIT HEATER CONTROLS SCHEMATIC
NTS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



AECOM

www.aecom.com

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



DESIGN BY: Designer

DRAWN BY: Author

DATE: 03/16/21

CHECKED BY: Checker

CONSULTANT PROJECT NO. 60611569

APPROVED BY: Approver

CLIENT FILE No.: 811/20

,,				
EVISIONS				
EVIS				
T.				
FRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
CONT	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
MECHANICAL SCHEMATICS III

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 602	

3 IT ROOM CONTROLS SCHEMATIC
NTS

Seaton Paramedics

							W	ATE	R SO	FTENER	SCHE	DUL	E				
						Flow	Rate			Brir Tank		VA/	iaht		Electrical		
TAG	LOCATION	MANUFACTURER	MODEL	Mini	mum	Max Co	ntinuous	Back	wash	Dx	н	VVE	eight	Input	Output	Output	REMARKS
				LPM	GPM	LPM	GPM	LPM	GPM	(mm x mm)	(in x in)	Kg	LBS	V/Ph/Hz	V/Ph/Hz	Current	
WS-1 & 2	MECHANICAL ROOM [124]	EXCALIBUR	EWS SD 130	3.4	0.9	18.9	5	10.2	2.7	450 x 840	18 x 33	82	180	120/1/60	12 VAC	500 mA	-Refer to specifications section -C/W Controls.

				BUFF	ER TANKS				
						# OF	SHIF	WT.	REMARKS
TAG	LOCATION	MANUFACTURER	SYSTEM	MODEL	VOLUME	PORTS	Kg	LBS	KEWAKNS
BT-1	MECH ROOM	AMTROL	CHILLED	HWBT300-4/4-125	300 GAL	4	342	753	
D1-1	WEOTTROOM	AWITTOL	OTTILLED	111111111111111111111111111111111111111	000 OAL		072	700	
BT-2	MECH ROOM	AMTROL	HEATING	HWBT300-4/4-125	300 GAL	4	342	753	
BT-3	MECH ROOM	AMTROL	HEATING	HWBT300-4/4-125	300 GAL	4	342	753	

							D	OMESTIC	WATER HEATE	R SCHEDULE					
					CA	PACITY	REC	OVERY			EFFICIENCY	OPEF	R. WT.	ELEC.	
TAG	LOCATION	MANUFACTURER	MODEL	TYPE	L	USG	LPH	GPH	NO. OF ELEMENTS	WATTAGE PER ELEMENT	PERCENT	Kg	LBS	V/Ph/Hz	REMARKS
EWH-1 EWH-2	MECHANICAL ROOM [124]	RHEEM	E50 (A) -18-G	TANK-HIGH EFFICIENCY	189	50	83	313	6	3000	98.0	145	320	208/3/60	-Refer to specifications -C/W Controls.

					AIR SEPERATO	OR .			
TAG	LOCATION	MANUFACTURER	SYSTEM	MODEL	RATED	MAX PRESS.	SHIF		REMARKS
					FLOW	DROP	Kg	LBS	
AS-1	MECH ROOM	AMTROL	GEO	4-AS	130 GPM	3 FTHD	32	70	
AS-2	MECH ROOM	AMTROL	HEATING	3-AS	100 GPM	0.7 FTHD	27	60	INSTALL WITH REQUIRED MAINTENANCE CLEARANCE
AS-2	MECH ROOM	AMTROL	CHILLED	3-AS	100 GPM	0.7 FTHD	27	60	

					S	SPLIT AIR CON	IDITIONING	SYSTEM S	CHEDULI	E				
							INDOOR U	NIT						
UNIT No. LOCATION / AREA SERVED ARRANGEMENT MANUFACTURER MODEL SEER RATED COOLING CAPACITY KW (MBH) REFRIGERANT REFRIGERANT Kg (Lbs) V / PH / Hz MCA REFRIGERANT Kg (Lbs) V / PH / Hz MCA REMARKS														
AC-1	KW (MBH) Kg (Lbs) V/PH/HZ FROM PROVIDE POWER AND CONTROL INTERLOCKS WITH REMOTE CONTROL WITH WITH WITH WITH WITH WITH WITH WITH													
		•					OUTDOOR	UNIT						
UNIT No.	RATED COOLING OPERATING POWER MCA /													
CU-1	EXTERIOR	OUTDOOR ROOF MOUNTED	MITSUBISHI	INTERLOCK WITH ASSOCIATED INDOOR UNIT. COMPLETE WITH VARIABLE SPEED INVERTER COMPRESSOR, WEATHERPROOF FACTORY DISCONNECT SWITCH, 600MM (24") HIGH STAND AND FRONT, REAR AND SIDE WIND BAFFLES FOR COOLING OPERATION TO -40°C (-40°F).										

																				,	AIR HAN	IDLING	UNIT SC	HEDU	LE																					
					1							SU	JPPLY FAN						-	<u> </u>					E	XHAUST F	AN	W. 5											COOLING	G PERFORMA	NCE					
TAG	LOCATION	MANUFACTURER / MODEL		NG WEIGHT	MAX. A	IR VOLUME	MIN. AIR	R VOLUME	E E	ESP	Т	rsp			N	MOTOR	FAN	ELEC	RICAL	MAX. AIR V	OLUME MI	I. AIR VOLUI	1E E	SP	T	SP		MO	TOR FA	N	ELECTRICAL	SEN	ISIBLE	тот	ΓAL	E	AIRS	IDE	\T	EWT		LMT	WATER SID	ELOW	I DDE	SS DROP
IAG	LOCATION	MANOFACTORER/ MODEL	KG	LBS	LPS	CFM	LPS	CFM	Pa	INS.W.C	c. Pa	INS.W.C.	FAN TYPE	ВНР	SPEED	CONTROL	SPEED -	MCA	POWER FEED	LPS	CFM L	PS CFM	l Pa	INS.W.C.	Pa	INS.W.C.	FAN TYPE BH		EED SPE	M M	MCA POWER FEED	kW	МВН	kW	мвн	CDB /	FDB / FWB	CDB /	FDB / FWB	C	F	C	F LF	PS GPM	и м	FT F
DOAS-1	MECHANICAL ROOM [124]	DAIKIN / CAH006GDCM	1107	2440	967	2050	283	600	253	1.1	873	3.8	CENTRIFUGAL PLENUM	1.77	3230	INTEGRATED DRIVE	2665	10.6	208/3/60	967	2050 2	83 600	172	0.8	482	2.1	CENTRIFUGAL 1.0	0 26	500 219	90 :	5.5 208/3/60	14.8	50.5	18.2	62	26.4	79.5 65.5	13.9 13.1	57 55.6	6.7	14.0	12.3	54.1 0.	.8 12.2	2 0.5	1.8 W.
ERV-1	ROOF	DAIKIN / OAH008GHGM	2042 WITH CURB	4500 WITH CURB	1203	2550	602	1275	115	0.5	666	2.9	CENTRIFUGAL PLENUM	1.90	1750	VFD	2075	4.3	575/3/60	1321	2800 6	61 1400	161	0.7	574	2.5	CENTRIFUGAL PLENUM 1.6	0 17	750 199	90 :	2.9 575/3/60	79	- 9	144	19	1/2/	1607	· u	149	-	N.		18 16	9 39	14	

														3	AIR HANDL	ING UNIT SC	HEDULE (PA	ART 2)																	
	DECOVERY	1			1		1		RETURN AU	R TEMP. BEFORE	EXHAUST AIR		WHEEL PERFORM			TEMP. BEFORE		TEMP. AFTER	OUTDOOR AIR	TEMP REFORE	EFFECTIV	ENESS			All	R SIDE		HEATIN/	IG PERFORM	IANCE	FLUID SID	DE			
TAG	RECOVERY WHEEL	TYPE	ELI	ECTRICAL	WINTER	CAPACITY	SUMMER	R CAPACITY		NGER IN WINTER	HEAT EXCHANG			IGER IN WINTER		GER IN SUMMER	HEAT EXCHANG	GER IN SUMMER	HEAT EXCHANG	GER IN SUMMER		TOTAL	CAPACITY		EAT		LAT	EW	NT	LWT		FLOW	PRE	SS. DROP] FLUID
	MANUFACTURER MODEL	, , , , ,	HP	POWER FEED	kW	МВН	kW	MBH	С	F	С	F	С	F	С	F	С	F	С	F	%	%	kW M	вн с	F	С	F	С	F	С	F I	LPS Gr	РМ М	FT	1 2015
DOAS-1	AIROTOR SXA-1200-MW	ALUMINUM	0.13 VFD	208/3/60	50.1	171.0	21.7	74.0	21.1	70	-13.2	8.2	-21.7	-7.0	23.9	75	32.2	90	32.2	90.0	77.2	77.8	27.2 9	.0 0	32.0	22.9	73.2	47.8	118.0	36.7	98.0	0.6 1	10 0.58	1.90	40% PROP.
ERV-1	AIROTOR SXA-1200-MW	ALUMINUM	0.13 VFD	208/3/60	61.5	210.0	26.1	89.0	20.0	68	-11.1	12	-21.7	-7.0	26.7	80	32.8	91	32.2	90.0	76.4	75.8	32.5 11	1.0 -1.1	30.0	21.0	69.7	47.8	118.0	36.7	98.0	0.8 12	2.0 1.49	4.90	40% PROP.

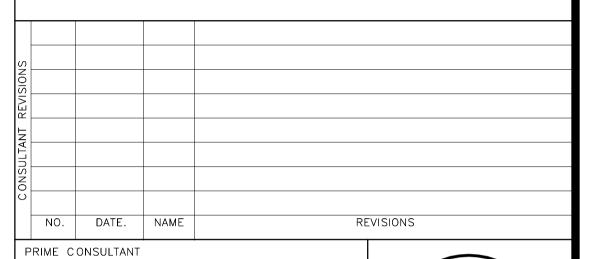
								EL	ECTRIC E	OILER	SCHEDU	LE				
TAG	MANUFACTURER / MODEL	LOCATION	SERVICE	9153	(IMUM ACITY	10.000	MUM ACITY	ELEMENTS	FLUID TYPE	WATER F	LOW RATE	POWER	FLA	OPERATIN	NG WEIGHT	REMARKS
				KW	MBH	KW	MBH	QTY.	0.00036.000.00.1000.000	LPS	GPM			KG	LBS	
B-1	PRECISION BOILERS / PCW1-094B-600-160	MECHANICAL ROOM [124]	BUILDING HEATING BACKUP	94	321	24	80	4	WATER	2.0	32	600/3/60	90	355	783	COMPLETE WITH DISCONNECT SWITCH, TEMPERATURE LIMIT SWITCH WITH RESET, LOW WATER CUTOFF, HIGH/LOW PRESSURE SWITCH, FLOW SWITCH, TEMPERATURE SETPOINT, SAFETY RELIEF VALVE, TEMPERATURE AND PRESSURE GAUGE, DRAIN VALVE AND 4-STAGE CONTROL. COMMUNICATING WITH BAS.

					EXPAN	SION	TAN	K SCI	HEDU			
	TAG	MANUFACTURER	MODEL	SERVICE	FLUID TYPE	TANK V L	OLUME GAL	ACCEP VOLU		SHIF WEI KG	PING GHT LBS	REMARKS
	ET-1	BELL AND GOSSETT	PTA-20V	POTABLE HOT WATER	WATER	30.3	8.0	20.1	5.3	15.5	34.0	-
	ET-2	BELL AND GOSSETT	HFT-15	CHILLED WATER LOOP	WATER	7.6	2.0	3.8	1.0	2.3	5.0	-
	ET-3	BELL AND GOSSETT	D-60	HEATING WATER LOOP	WATER	127.2	33.6	42.8	11.3	46.8	103.0	-
	ET-4	BELL AND GOSSETT	D-15	HEATING GLYCOL LOOP	40% P.G.	30.3	8.0	9.1	2.4	16.8	37.0	-
1	ET-5	BELL AND GOSSETT	D-40	GEOFIELD GLYCOL LOOP	25% P.G.	82.1	21.7	42.8	11.3	37.3	82.0	-

													HEAT	EXCH	ANGE	R SCH	EDUL	1									
TAG	MANUFACTURER	MODEL	TYPE	HEAT EX	CHANGED	EV	VT	L	NT (COLD SID	E .OW	PRESS	DDOD	FLUID	EV	VT I	LV		HOT SIDE	OW	PRESS	DROR	FLUID	EFFECTIVE AREA	OPERATING	G WEIGHT	REMARKS
				KW	BTU/H	С	F	С	F	LPS	GPM	KPA	PSI	TYPE	С	F	С	F	LPS	GPM	KPA	PSI	TYPE	SQFT	KG	LBS	
HX-1	XYLEM	BP422-40	BRAZED PLATE	58.2	198516	36.7	98	47.6	117.6	1.39	22.0	9.2	1.33	40%PG	37.8	100	48.9	120	1.26	20.0	7.3	1.06	WATER	40.39	35.4	77.9	

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



AECOM

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: Designer

SCALE: 1:2

DRAWN BY: Author

DATE: 12/24/20

CHECKED BY: Checker

CONSULTANT PROJECT NO. 60611569



APPROVED BY: Approver

THE REGIONAL MUNICIPALITY OF DURHAM

CLIENT FILE No.: 811/20

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 700	

					N	OTORI	ZED DA	MPER S	CHEDU	LE		
TAG	MANUFACTURER /	LOCATION	FUNCTION	DIMENSIO	NS (WxH)	MINIMUM	AIR FLOW	MAXIMUM	AIR FLOW	MAXIMUM	VELOCITY	ACCESSORIES
	MODEL			MM	INS	LPS	CFM	LPS	CFM	MPS	FPM	
MD-1	NAILOR 2010	MECHANICAL ROOM	INTAKE AIR OF EF-1	750 x 600	30 x 24	0	0	637	1,350	1.4	270	LOW LEAKAGE ALUMINUM CONTROL DAMPER WITH PARALLEL BLADES, INSULATED FRAME AND BLADES AND STAINLESS STEEL 304 LINKAGE. COMPLETE WITH 24VAC ON/OFF ACTUATOR, END SWITCH AND SPRING RETURN
MD-2	NAILOR 2010	ELECTRICAL ROOM	INTAKE AIR OF EF-2	1000 x 600	40 x 24	0	0	944	2,000	1.5	300	LOW LEAKAGE ALUMINUM CONTROL DAMPER WITH PARALLEL BLADES, INSULATED FRAME AND BLADES AND STAINLESS STEEL 304 LINKAGE. COMPLETE WITH 24VAC ON/OFF ACTUATOR, END SWITCH AND SPRING RETURN
MD-3	NAILOR 1020	ELECTRICAL ROOM	EXHAUST AIR OF WASHROOMS	400 x 150	16 x 6	0	0	175	370	2.8	555	LOW LEAKAGE GALVANIZED STEEL CONTROL DAMPER WITH OPPOSED BLADES. COMPLETE WITH 24VAC MODULATING ACTUATOR AND SPRING RETURN.
MD-4	NAILOR 1020	ELECTRICAL ROOM	GENERAL RETURN OF [DOAS-1]	500 x 250	20 x 10	0	0	580	1,230	4.5	885	LOW LEAKAGE GALVANIZED STEEL CONTROL DAMPER WITH OPPOSED BLADES. COMPLETE WITH 24VAC MODULATING ACTUATOR AND SPRING RETURN.
MD-5	NAILOR 1020	ELECTRICAL ROOM	EXHAUST AIR OF WASHROOMS	400 x 150	16 x 6	212	450	212	450	3.4	675	LOW LEAKAGE GALVANIZED STEEL CONTROL DAMPER WITH OPPOSED BLADES. COMPLETE WITH 24VAC MODULATING ACTUATOR AND SPRING RETURN.
FS/D	NAILOR 1222-2-12x08-V-BEL-120 I-24-250-ERL-DSDNF- EXT-CL-FL12-DTS	CLASSROOMS	[DOAS-1] SUPPLY AIR TO CLASSROOMS	300 x 200	12 x 8	0	0	156	330	2.5	490	ULC LISTED ULTRA LOW LEAKAGE GALVANIZED STEEL COMBINATION FIRE/SMOKE DAMPER WITH AIRFOIL BLADES AND FACTORY SLEEVE. LABELLED FOR 1.5 HR. COMPLETE WITH BELIMO 120VAC ACTUATOR, ERL (ELECTRIC RESETTABLE LINK HEAT RESPONSIVE DEVICE AND SPRING RETURN FAIL CLOSE. COMPLETE WITH 120VAC FACTORY MOUNTED DUCT SMOKE DETECTOR WITH PHOTOELECTRIC SENSOR, FOR NO FLOW CONDITION. WIRING TO FACP BY DIV. 26.
FS/D	NAILOR 1221-1-12x12-V-BEL-120 I-24-250-ERL-DSDNF- EXT-CL-FL12-DTS	CLASSROOMS	RETURN AIR FROM CLASSROOMS TO CORRIDOR	300 x 300	12 x 12	0	0	156	330	1.7	330	ULC LISTED ULTRA LOW LEAKAGE GALVANIZED STEEL COMBINATION FIRE/SMOKE DAMPER WITH AIRFOIL BLADES AND FACTORY SLEEVE. LABELLED FOR 1.5 HR. COMPLETE WITH BELIMO 120VAC ACTUATOR, ERL (ELECTRIC RESETTABLE LINK HEAT RESPONSIVE DEVICE AND SPRING RETURN FAIL CLOSE. COMPLETE WITH 120VAC FACTORY MOUNTED DUCT SMOKE DETECTOR WITH PHOTOELECTRIC SENSOR, FOR NO FLOW CONDITION. WIRING TO FACP BY DIV. 26.

						IFFUSE	R, REGI	STER & G	RILLE S	CHEDULE
TAG	KRUEGER MODEL NO.	APPLICATION		ZE x WIDTH	NEC	K SIZE		FLOW / MAXIMUM	MAXIMUM NC RANGE	REMARKS
			MM	INS	MM	INS	LPS	CFM	NORANGE	
A1	DMD-18-08-XX-01-44	DRUMLOUVRE	450	18	450	18	203	430	121	DUCT MOUNTED DRUM LOUVRE WITH ADJUSTABLE HEAVY GAUGE ALUMINUM VANES, HEAVY GAUGE ALUMINUM
	[XX = VARIES]	BriomEdovice	200	8	200	8	342	725	30	DRUM AND WHITE FINISH. COMPLETE WITH DAMPER EXTRACTOR.
A2	DMD-12-04-XX-01-44	DRUMLOUVRE	300	12	300	12	78	165	1073	DUCT MOUNTED DRUM LOUVRE WITH ADJUSTABLE HEAVY GAUGE ALUMINUM VANES, HEAVY GAUGE ALUMINUM
AZ	[XX = VARIES]	DIOMEGOVICE	100	4	100	4	130	275	30	DRUM AND WHITE FINISH. COMPLETE WITH DAMPER EXTRACTOR.
А3	1900-36-2-50-C-E-00-44 &	LINEAR SLOT	900	36	200	8	28	60	121	ALUMINUM LINEAR SLOT SUPPLY DIFFUSER WITH 2 SLOTS AND 25MM SLOT WIDTH. CONCEALED SURFACE MOUNT BOTH END CAPS AND A WHITE FINISH.
AS	1900BOOT-36-2-50-8-C-E-00-G-01	DIFFUSER	100	4	OVAL	OVAL	66	140	26	COMPLETE WITH GALVANIZED STEEL PLENUM BOOT AND PERFORMANCE BAFFLE.
	1900-48-2-50-C-E-00-44 &	LINEAR SLOT	1200	48	250	10	38	80	-	ALUMINUM LINEAR SLOT SUPPLY DIFFUSER WITH 2 SLOTS AND 25MM SLOT WIDTH. CONCEALED SURFACE MOUNT
A4	1900BOOT-48-2-50-10-C-E-00-G-01	DIFFUSER	100	4	OVAL	OVAL	99	210	29	BOTH END CAPS AND A WHITE FINISH. COMPLETE WITH GALVANIZED STEEL PLENUM BOOT AND PERFORMANCE BAFFLE.
-			600	24	0.00	E 0.75	24	50	-	ALUMINUM CORE EGG-CRATE RETURN GRILLE WITH 12MMx12MMx12MM (1/2"x1/2"x1/2") CORE STYLE, LAY-IN T-BAR
B1	EG5-24x06-F23-NONE-00-00-00-44	RETURN AIR GRILLE	150	6	GRILI	_E SIZE	293	620	23	ALUMINUM FRAME, NO SCREW HOLES AND WHITE FINISH.
			600	24		rangeria and	189	400	(-)	ALUMINUM CORE EGG-CRATE RETURN GRILLE WITH 12MMx12MMx12MM (1/2"x1/2"x1/2") CORE STYLE, LAY-IN T-BAR
B2	EG5-24x10-F23-NONE-00-00-00-44	RETURN AIR GRILLE	250	10	GRILI	_E SIZE	547	1,160	25	ALUMINUM FRAME, NO SCREW HOLES AND WHITE FINISH.
6826		and the same of the same of	600	24	0.000		425	900	1 121	ALUMINUM CORE EGG-CRATE RETURN GRILLE WITH 12MMx12MMx12MM (1/2"x1/2"x1/2") CORE STYLE, LAY-IN T-BAR
ВЗ	EG5-24x24-F23-NONE-00-00-00-44	RETURN AIR GRILLE	600	24	GRILI	_E SIZE	1,227	2,600	24	ALUMINUM FRAME, NO SCREW HOLES AND WHITE FINISH.
			200	8			-	-	(+)	ALUMINUM DOOR GRILLE WITH 12MM (1/2") BLADE SPACING, C/W ALUMINUM AUXILIARY FRAME, NO SCREW HOLES
D1	5600A-08x08-00-10	DOOR GRILLE	200	8	GRILI	_E SIZE	53	113	27	AND ALUMICAN FINISH
			150	6			14	30	-	ALUMINUM CORE EGG-CRATE EXHAUST GRILLE WITH 32MM (1 1/4" FLANGE), 12MMx12MMx12MM (1/2"x1/2"x1/2") CORE
E1	EGC5-06x06-F22-NONE-00-00-00-44	EXHAUST AIR GRILLE	150	6	GRILI	_E SIZE	80	170	21	STYLE, SURFACE MOUNT, NO SCREW HOLES AND WHITE FINISH. SITE VERIFY THE FLANGE REQUIREMENT BEFOR ORDERING.
			300	12			142	300		ALUMINUM CORE EGG-CRATE EXHAUST GRILLE WITH 32MM (1 1/4" FLANGE), 12MMx12MMx12MM (1/2"x1/2"x1/2") CORI
E2	EGC5-12x12-F22-NONE-00-00-00-44	RETURN AIR GRILLE	300	12	GRILI	_E SIZE	354	750	23	STYLE, SURFACE MOUNT, NO SCREW HOLES AND WHITE FINISH. SITE VERIFY THE FLANGE REQUIREMENT BEFOR ORDERING.
			250 W	10 W	1		156	330	-	CINCLE DELL'EGRON CTAINLESS STEEL 204 EVILABIST ORIGINA WITH 40MM (2/41) PLADE SPACING, 45 DES HODIZON
E3	9S80-H-304-F22-NONE-01-00-00-44	EXHAUST AIR GRILLE	450 H	18 H	GRILI	_E SIZE	472	1,000	27	SINGLE DEFLECTION STAINLESS STEEL 304 EXHAUST GRILLE WITH 19MM (3/4") BLADE SPACING, 45 DEG HORIZON BLADES, SURFACE MOUNT, COUNTERSUNK STAINLESS STEEL SCREWS AND WHITE FINISH.
			600	24			142	300	-	ALUMINUM CORE EGG-CRATE EXHAUST GRILLE WITH 32MM (1 1/4" FLANGE), 12MMx12MMx12MM (1/2"x1/2"x1/2") CORI
E4	EGC5-24x8-F23-24x24-00-00-00-44	RETURN AIR GRILLE	200	8	GRILI	_E SIZE	448	950	24	STYLE, LAY-IN T-BAR FRAME, 600MM x 600 MM PANEL, NO SCREW HOLES AND WHITE FINISH. SITE VERIFY THE FLANGE REQUIREMENT BEFORE ORDERING.
			600	24	(202	1 19211	52	110	-	ALUMINUM SQUARE FACE DROP CONE DIFFUSER WITH 3 CONES AND INTEGRAL EARTHQUAKE TABS. LAY-IN T-BAR
M1	51450-04-10-F23-24x24-00-44	4 WAY SUPPLY AIR DIFFUSER	600	24	250 ROUND	10 ROUND	203	430	26	FRAME, 600MM x 600 MM PANEL, NECK-MOUNTED ROUND DAMPER ADJUSTABLE FROM FACE OF THE DIFFUSER, 250MM (10") ROUND INLET AND WHITE FINISH.
			600	24			33	70	-	ALUMINUM SQUARE FACE DROP CONE DIFFUSER WITH 3 CONES AND INTEGRAL EARTHQUAKE TABS. LAY-IN T-BAF
M2	51450-04-08-F23-24x24-00-44	4 WAY SUPPLY AIR DIFFUSER	600	24	200 ROUND	8 ROUND	146	310	27	FRAME, 600MM x 600 MM PANEL, NECK-MOUNTED ROUND DAMPER ADJUSTABLE FROM FACE OF THE DIFFUSER, 200MM (8") ROUND INLET AND WHITE FINISH.
		MW 400 F0001 HAVING VACOUR F000 AND	2007	0.000	2	550	140	DOMEST .		S. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
МЗ	51450-04-06-F23-24x24-00-44	4 WAY SUPPLY AIR DIFFUSER	600	24	150 ROUND	6 ROUND	92	30	-	ALUMINUM SQUARE FACE DROP CONE DIFFUSER WITH 3 CONES AND INTEGRAL EARTHQUAKE TABS. LAY-IN T-BAR -FRAME, 600MM x 600 MM PANEL, NECK-MOUNTED ROUND DAMPER ADJUSTABLE FROM FACE OF THE DIFFUSER,
			600	7336				195	26	150MM (6") ROUND INLET AND WHITE FINISH.
N1	S80-HZ-16x12-F22-NONE-01-00-00-44	RETURN AIR GRILLE	400 W	16 W	GRILI	_E SIZE	283	600	13	STEEL SINGLE DEFLECTION RETURN GRILLE WITH 19MM (3/4") BLADE SPACING, 0 DEG HORIZONTAL BLADES, SURFACE MOUNT, COUNTERSUNK SCREWS AND WHITE FINISH.
			300 H	12 H	-		434	920	23	
N2	880-V-20x12-F22-NONE-01-00-00-44	SUPPLY AIR GRILLE	500 W	20 W	GRILI	_E SIZE	236	500	2	STEEL DOUBLE DEFLECTION SUPPLY GRILLE WITH 19MM (3/4") BLADE SPACING, SURFACE MOUNT, COUNTERSUNK SCREWS AND WHITE FINISH.
			300 H	12 H			510	1,080	27	COLUMN TO THE PROPERTY.

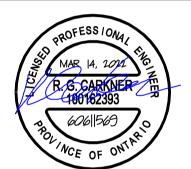
			PLUMBI	NG FIX	TURE C	ONNEC.	TION SC	HEDUL	E			
TAG	FIXTURE NAME	SANITAR	Y WASTE	SANITA	RY VENT	DC	cws	DH	WS	TEMF	PERED	REMARKS
TAG	FIXTURE NAME	ММ	INS	ММ	INS	ММ	INS	ММ	INS	ММ	INS	REMARKS
W-1	BARRIER FREE WALL HUNG FLUSH VALVE WATER CLOSET	75	3	38	1.5	25	1	-	-	-	-	
W-2	GENERAL USE WALL HUNG FLUSH VALVE WATER CLOSET	75	3	38	1.5	25	1	-	-	-	-	
U-1	BARRIER FREE WALL HUNG FLUSH VALVE URINAL	50	2	38	1.5	19	0.75	-	-	-	-	
L-1	BARRIER FREE COUNTERTOP LAVATORY	32	1.25	32	1.25	13	0.5	13	0.5	13	0.5	TEMPERED WATER FROM THERMOSTATIC MIXING VA
L-2	BARRIER FREE WALL HUNG LAVATORY	32	1.25	32	1.25	13	0.5	13	0.5	13	0.5	TEMPERED WATER FROM THERMOSTATIC MIXING VA
S-1	SINGLE COMPARTMENT STAINLESS STEEL SINK	38	1.5	38	1.5	13	0.5	13	0.5	-	-	
S-2	DOUBLE COMPARTMENT STAINLESS STEEL SINK	2@ 38	2@ 1.5	38	1.5	13	0.5	13	0.5	-	-	
S-3	JANITOR'S SERVICE SINK	75	3	38	1.5	13	0.5	13	0.5	-	-	
WBF-1	BARRIER FREE DRINKING FOUNTAIN	32	1.25	32	1.25	13	0.5					
E-1	EMERGENCY EYE/FACE WASH	38	1.5	38	1.5	19	0.75	19	0.75	19	0.75	TEMPERED WATER FROM THERMOSTATIC MIXING VA
FD	FLOOR DRAIN	75	3	38	1.5	9	0.38	-	-		-	NON-POTABLE SUPPLY FRO
FFD	FUNNEL FLOOR DRAIN	75	3	38	1.5	9	0.38	-	-	,	-	NON-POTABLE SUPPLY FRO
TD	TRENCH DRAIN	75	3	38	1.5	9	0.38	-	-	-	-	NON-POTABLE SUPPLY FRO
TSP	TRAP SEAL PRIMER		-	-	-	19 9*	0.75 0.38*	-	-	-	-	* PER FD+FFD
WH-1	EXTERIOR NON-FREEZE WALL HYDRANT	-	-	-	-	19	0.75	-	-	-	-	
WH-2	INTERIOR DOUBLE TEMPERATURE WALL HYDRANT	-	-	-	-	19	0.75	19	0.75	-	-	
HB-1	HOSE-BIBB		-	-	-	19	0.75	-	-	-	-	
PH-1	POST HYDRANT	-	-	-	-	19	0.75	-	-	-	-	

1890 Fifth Concession Rd

2				
REVISIONS				
REVI				
CONSULTANT				
ONS				
O				
	NO.	DATE.	NAME	REVISIONS

PRIME CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



SUB CONSULTANT

DESIGN BY: Designer	SCALE:
DRAWN BY: Author	DATE: 04/01/21
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

"				
NOI				
REVISIONS				
ONTRACT	2	03/14/22		ISSUED FOR CONSTRUCTION
CON	1	10/18/21		RESPONSE TO CITY COMMENTS
0	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 701	

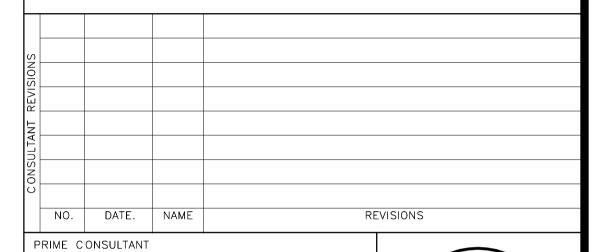
				ELECT	RIC SNOW	MELT	SYSTEM	SCHEDU	JLE		
CONTROL PANEL	LOCATION	AREA SERVED	RAYCHEM	EMBEDDED MATERIAL	CIRCUIT	HEAT	LOAD	ELEC	CTRICAL	POWER	REMARKS
TAG	2007111011	, , , , , , , , , , , , , , , , , , , ,	PRODUCT NO.		QUANTITY	KW	MBH	FEED	DISTRIBUTION	KW	
SM-1	MECHANICAL ROOM [124]	[131] VEHICLE BAY APRONS	SMPG3-208-3-2/3P(40)-1-100	ASPHALT	6 (3 + 3)	33.0	112629	208/3/60	208/3/60	33.0	THREE PHASE POWER DISTRIBUTION PANEL FOR THREE PHASE HEATING CABLES, COMPLETE WITH MAIN CIRCUIT BREAKER, INTERNAL TRANSFORMER, HDPE JACKETED COPPER SHEATHED HEATING CABLES, AERIAL SNOW SENSOR AND FOUR (4) PAVEMENT MOUNTED TEMPERATURE SENSORS.
SM-2	MECHANICAL ROOM [124]	PEDESTRIAN ENTRANCES [101], [122], [123], [124], [134] & [107]	SMPG1-208-3-4/2P(50)-1-200	CONCRETE	5 (2 + 1 +1 + 1)	27.4	93516	208/3/60	208/1/60	27.4	THREE PHASE POWER DISTRIBUTION PANEL FOR SINGLE PHASE HEATING CABLES, COMPLETE WITH MAIN CIRCUIT BREAKER, INTERNAL TRANSFORMER, HDPE JACKETED COPPER SHEATHED HEATING CABLES, AERIAL SNOW SENSOR AND FOUR (4) PAVEMENT MOUNTED TEMPERATURE SENSORS.

													FA	N SCH	EDULE					
TAG	LOCATION	FUNCTION	FAN TYPE	MANUFACTURER	MODEL	161818912518	(IMUM ACITY	\$25770700	IIMUM PACITY	STATIC	PRESSURE		ATING GHT	FAN	NOMINAL	MOTOR POWER	POWER	SOUND DATA		REMARKS
						LPS	CFM	LPS	CFM	Pa	IN WC	KGS	LBS	RPM	W	MCA OR BHP		SONES		
EF-1	MECHANICAL ROOM [124]	GENERAL EXHAUST	CENTRIFUGAL CABINET FAN BELT DRIVE	PENNBARRY	ZEPHYR ZC12	639	1,350	213	450	75	0.3			500	250	0.2 BHP	120/1/60		THERMOSTAT & OCCUPANCY SENSOR BY DIV. 25	COMPLETE WITH 2-SPEED 2-WINDING TOTALLY ENCLOSED MOTOR, GRAVITY BACKDRAFT DAMPER, VIBRATION ISOLATION HANGER, FLEXIBLE DUCT CONNECTION, INLET GUARD, EPOXY COATING, INSULATION, DISCONNECT SWITCH AND THERMAL OVERLOAD PROTECTION.
EF-2	ELECTRICAL ROOM [123]	GENERAL EXHAUST	CENTRIFUGAL CABINET FAN BELT DRIVE	PENNBARRY	ZEPHYR ZC15	1,183	2,500	1,183	2,500	87	0.35			1050	370	0.38 BHP	120/1/60		THERMOSTAT BY DIV. 25	COMPLETE WITH TOTALLY ENCLOSED MOTOR, GRAVITY BACKDRAFT DAMPER, VIBRATION ISOLATION HANGER, FLEXIBL DUCT CONNECTION, INLET GUARD, EPOXY COATING, INSULATION, DISCONNECT SWITCH AND THERMAL OVERLOAD PROTECTION.
EF-3	UNIVERSAL WASHROOM [119]	SANITARY EXHAUST	CENTRIFUGAL CEILING FAN DIRECT DRIVE	PENNBARRY	ZEPHYR Z1	24	50	24	50	31	0.125	3.6	8.0	1700	55	-	120/1/60	3.4	INTERLOCKED WITH LIGHTING BY DIV. 26	COMPLETE WITH UNIT MOUNTED SPEED CONTROLLER, VIBRATION ISOLATION HANGER AND FLEXIBLE DUCT CONNECTION.
EF-4	DECONTAMINATION SHOWER [130]	SANITARY EXHAUST	CENTRIFUGAL CEILING FAN DIRECT DRIVE	PENNBARRY	ZEPHYR Z5H	70	150	70	150	31	0.125	6.4	14.0	1550	80	-	120/1/60	3.3	INTERLOCKED WITH LIGHTING BY DIV. 26	COMPLETE WITH GRAVITY BACKDRAFT DAMPER, UNIT MOUNTED SPEED CONTROLLER, VIBRATION ISOLATION HANGER, FLEXIBLE DUCT CONNECTION AND WCC06 CURB-MOUNTED ROOF CAP.
EF-5	LINEN ROOM [134]	GENERAL EXHAUST	CENTRIFUGAL CEILING FAN DIRECT DRIVE	PENNBARRY	ZEPHYR Z1	24	50	24	50	31	0.125	3.6	8.0	1700	55	-	120/1/60	3.4	INTERLOCKED WITH LIGHTING BY DIV. 26	COMPLETE WITH GRAVITY BACKDRAFT DAMPER, UNIT MOUNTED SPEED CONTROLLER, VIBRATION ISOLATION HANGER, FLEXIBLE DUCT CONNECTION, B68 BRICK VENT AND METAL FACE GRILLE.
EF-6	STORAGE ROOM [116]	GENERAL EXHAUST	CENTRIFUGAL CEILING FAN DIRECT DRIVE	PENNBARRY	ZEPHYR Z1	24	50	24	50	31	0.125	3.6	8.0	1700	55	-	120/1/60	3.4	INTERLOCKED WITH LIGHTING BY DIV. 26	COMPLETE WITH GRAVITY BACKDRAFT DAMPER, UNIT MOUNTED SPEED CONTROLLER, VIBRATION ISOLATION HANGER, FLEXIBLE DUCT CONNECTION AND WCC06 CURB-MOUNTED ROOF CAP.
EF-7	JANITOR ROOM [120]	SANITARY EXHAUST	CENTRIFUGAL CEILING FAN DIRECT DRIVE	PENNBARRY	ZEPHYR Z1	24	50	24	50	31	0.125	3.6	8.0	1700	55	-	120/1/60	3.4	INTERLOCKED WITH LIGHTING BY DIV. 26	COMPLETE WITH GRAVITY BACKDRAFT DAMPER, UNIT MOUNTED SPEED CONTROLLER, VIBRATION ISOLATION HANGER FLEXIBLE DUCT CONNECTION AND WCC06 CURB-MOUNTED ROOF CAP.
DF-1 & DF-2	VEHICLE BAY [131]	DE-STRATIFICATION	AXIAL DIRECT DRIVE	BIGASS FANS	POWERFOIL D PFD1-0822	-	-	-	-	-	ú	96.2	212.0	200 MAX.	-	10 MCA	208/3/60	<55dB	VARIABLE SPEED	2.4 M (8 FT) DIAMETER, COMPLETE WITH AIRFOIL RESTRAINT AND SAFETY CABLE, MOUNTING KIT AND FIRE ALARM RELATIE-IN TO BAS FOR CONTROL AND MONITORING. FINISH COLOUR SELECTED AT SHOP DRAWING REVIEW

																	FAN	COIL S	CHEDU	LE															
			EL	ECTRICAL				SUPPL	LY FAN															CHILLED WATER	COOLING COI	Ľ				17.1					
TAG	SPACE SERVED	DAIKIN			 Ť		_		1	×		E	AT			L	AT		FACE	FACE					SENSIBLE	SENSIBLE	ENTERING	ENTERING	LEAVING	LEAVING				WATER	WATER
		MODEL	VOLT	AGE MC	RFLOW LPS	AIRFLOW CFM	/ ESP Pa	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MOTOR POWER HP	MOTOR TYPE	EDB °C	EDB °F	EWB °C	EWB °F	LDB °C	LDB °F	LWB °C	LWB °F	AREA M²	AREA ft²	FPI	Rows	TOTAL CAPACITY KW	TOTAL CAPACITY BTU/H	CAPACITY	CAPACITY BTU/H		WATER TEMP			LPS	FLOW RATE GPM	TYPE		PRESS. DROP
FC-1	114 SIM LAB & 115 STORAGE	FCHH203	115/	1/60 2.2	142	300	37.4	0.15	1/8	3-SPEED ECM	24.4	76.0	18.7	65.7	12.2	54.0	12.2	53.9	0.10	1.1	12	4	2.81	9595	1.89	6445	6.7	44.0	12.2	54.0	0.12	1.9	Water	4.39	1.47
C-2	128 WASHROOMS & 129 LOCKER ROOM	FCHH206	115/	1/60 4.7	283	600	37.4	0.15	1/4	3-SPEED ECM	24.5	76.1	18.2	64.8	11.9	53.5	11.8	53.2	0.20	2.1	12	4	5.53	18872	3.94	13452	6.7	44.0	12.2	54.0	0.24	3.8	Water	20.71	6.93
C-3	103 REPORT WRITING	FCHH206	115/	1/60 2.9	283	600	37.4	0.15	1/4	3-SPEED ECM	24.4	75.9	17.6	63.6	11.7	53.0	11.2	52.2	0.20	2.1	12	4	4.54	15502	3.50	11953	6.7	44.0	12.2	53.9	0.20	3.1	Water	14.65	4.90
C-4	104 KITCHEN	FCHH210	115/	1/60 5.8	472	1000	37.4	0.15	(2) 1/4	3-SPEED ECM	24.4	76.0	17.8	64.1	14.8	58.6	13.7	56.6	0.29	3.1	12	2	5.84	19948	4.79	16352	6.7	44.0	12.2	53.9	0.25	4.0	Water	14.86	4.97
C-5	102 CORRIDOR & 122 VESTIBULE	FCHH212	115/	1/60 8.5	567	1200	37.4	0.15	(2) 1/4	3-SPEED ECM	24.5	76.1	17.8	64.1	11.9	53.4	11.3	52.4	0.35	3.8	12	4	11.16	38103	8.06	27524	6.7	44.0	12.2	53.9	0.49	7.7	Water	27.23	9.11
C-6	126 SECURE STORAGE & 127 MEDICAL STORAGE	FCHH202	115/	1/60 2.2	94	200	37.4	0.15	1/8	3-SPEED ECM	24.4	76.0	18.3	65.0	13.0	55.4	12.7	54.8	0.07	0.7	12	3	1.54	5252	1.12	3818	6.7	44.0	12.2	54.0	0.07	1.1	Water	1.14	0.38
C-7	121 KITCHEN	FCHH212	115/	1/60 8.5	567	1200	49.8	0.20	(2) 1/4	3-SPEED ECM	24.6	76.2	17.9	64.2	12.5	54.5	11.6	52.8	0.35	3.8	12	3	10.53	35923	7.43	25346	6.7	44.0	12.2	54.0	0.45	7.2	Water	35.66	11.93
C-8 & FC-19	108 OPEN OFFICE	FCHH208	115/	1/60 5.3	378	800	37.4	0.15	1/4	3-SPEED ECM	24.6	76.3	17.8	64.0	11.9	53.4	11.6	52.8	0.23	2.5	12	4	6.72	22924	5.12	17465	6.7	44.0	12.2	54.0	0.29	4.6	Water	32.10	10.74
C-9	109 BREAK-OUT & 110 STORAGE	FCHH203	115/	1/60 2.2	142	300	37.4	0.15	1/8	3-SPEED ECM	24.3	75.8	18.4	65.2	13.3	56.0	13.2	55.8	0.10	1.1	12	4	2.12	7236	1.65	5643	6.7	44.0	12.2	54.0	0.09	1.5	Water	3.44	1.15
C-10	112 CLASSROOM	FCHH210	115/	1/60 5.8	472	1000	37.4	0.15	(2) 1/4	3-SPEED ECM	24.4	75.9	19.2	66.5	12.9	55.2	12.7	54.9	0.29	3.1	12	3	8.94	30514	5.66	19308	6.7	44.0	12.2	54.0	0.38	6.1	Water	23.02	7.70
C-11	113 CLASSROOM	FCHH210	115/	1/60 5.8	472	1000	37.4	0.15	(2) 1/4	3-SPEED ECM	24.4	75.9	19.2	66.5	12.9	55.2	12.7	54.9	0.29	3.1	12	3	8.94	30514	5.66	19308	6.7	44.0	12.2	54.0	0.38	6.1	Water	23.02	7.70
C-12	107 CORRIDOR	FCHH212	115/	1/60 8.5	567	1200	49.8	0.20	(2) 1/4	3-SPEED ECM	24.6	76.2	17.9	64.2	12.5	54.5	11.6	52.8	0.35	3.8	12	3	10.53	35923	7.43	25346	6.7	44.0	12.2	54.0	0.45	7.2	Water	35.66	11.93
C-13	105 LOUNGE	FCHH210	115/	1/60 5.8	472	1000	37.4	0.15	(2) 1/4	3-SPEED ECM	24.4	75.9	17.8	64.1	14.7	58.5	13.6	56.5	0.29	3.1	12	2	5.72	19534	4.71	16061	6.7	44.0	12.2	54.0	0.25	3.9	Water	14.29	4.78
C-20	123 ELECTRICAL ROOM	BCHD0081	115/	1/60 8.0	378	800	37.4	0.15	1/2	3-SPEED DIRECT CONTACT BRUSHLESS	30.6	87.0	17.8	64.1	12.7	54.8	11.2	52.2	0.15	1.6	12	6	8.24	28131	8.24	28131	6.7	44.0	12.2	54.0	0.35	5.6	Water	23.61	7.90

							FAN CC	IL SCHE	DULE (PA	RT 2)								
										HOT WATER H	EATING COIL							
TAG	SPACE SERVED	EDB °C	EDB °F	LDB °C	LDB °F	FPI	ROWS	TOTAL CAPACITY KW	TOTAL CAPACITY BTU/H	ENTERING WATER TEMP. °C	ENTERING WATER TEMP. °F	LEAVING WATER TEMP. °C	LEAVING WATER TEMP. °F	FLOW RATE LPS	FLOW RATE GPM	FLUID TYPE	WATER PRESS. DROP kPa	WATER PRESS. DROP ft H ₂ O
=C-1	114 SIM LAB & 115 STORAGE	21.4	70.5	34.4	93.9	12	2	2.01	6862	48.9	120.0	37.7	99.9	0.04	0.7	Water	1.85	0.62
=C-2	128 WASHROOMS & 129 LOCKER ROOM	21.7	71.0	35.6	96.0	12	2	4.35	14857	48.9	120.0	37.8	100.1	0.09	1.5	Water	10.49	3.51
=C-3	103 REPORT WRITING	21.9	71.5	28.6	83.5	12	1	1.84	6272	48.9	120.0	37.8	100.1	0.04	0.6	Water	4.24	1.42
-C-4	104 KITCHEN	21.6	70.8	35.5	95.9	12	2	6.94	23696	48.9	120.0	37.8	100.1	0.15	2.4	Water	5.17	1.73
-C-5	102 CORRIDOR & 122 VESTIBULE	21.8	71.2	36.2	97.2	12	2	9.22	31471	48.9	120.0	37.8	100.1	0.20	3.2	Water	9.86	3.30
-C-6	126 SECURE STORAGE & 127 MEDICAL STORAGE	21.7	71.0	35.6	96.1	12	1	0.78	2655	48.9	120.0	37.8	100.0	0.02	0.3	Water	5.08	1.70
-C-7	121 KITCHEN	21.8	71.2	35.4	95.7	12	2	8.38	28590	48.9	120.0	37.8	100.1	0.18	2.9	Water	8.13	2.72
C-8 & FC-19	108 OPEN OFFICE	21.8	71.2	34.2	93.5	12	2	4.97	16977	48.9	120.0	37.8	100.1	0.11	1.7	Water	14.44	4.83
-C-9	109 BREAK-OUT & 110 STORAGE	21.9	71.4	36.1	97.0	12	1	0.26	900	48.9	120.0	37.8	100.1	0.01	0.1	Water	0.15	0.05
-C-10	112 CLASSROOM	21.7	71.0	36.2	97.1	12	2	7.12	24292	48.9	120.0	37.8	100.1	0.16	2.5	Water	5.47	1.83
-C-11	113 CLASSROOM	21.7	71.0	36.2	97.1	12	2	7.12	24292	48.9	120.0	37.8	100.1	0.16	2.5	Water	5.47	1.83
FC-12	107 CORRIDOR	21.8	71.2	35.4	95.7	12	2	8.38	28590	48.9	120.0	37.8	100.1	0.18	2.9	Water	8.13	2.72
FC-13	105 LOUNGE	21.7	71.1	28.9	84.1	12	1	3.52	12024	48.9	120.0	37.8	100.1	0.08	1.2	Water	17.49	5.85
-C-20	123 ELECTRICAL ROOM	18.3	65.0	26.9	80.5	12	1	1.44	4900	48.9	120.0	37.8	100.1	0.03	0.5	Water	12.25	4.10

1890 Fifth Concession Rd



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



SUB CONSULTANT

DESIGN BY: Designer	SCALE:
DRAWN BY: Author	DATE: 04/01/21
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 702	

						н	JMIDIF	IER SC	CHEDULE
TAG	MANUFACTURER		AX. LOW RATE	POWE	R SUPPLY		OPER WEI	ATING GHT	REMARKS
TAG	/ MODEL	KG/HR	LB/HR	V / PH / Hz	KW	FLA	KG	LBS	REWARKS
HUM-1	DRISTEEM / VAPORMIST VM-14	19.1	42.0	600 / 3 / 60	14	13.5	63	130	MODULATING SOLID STATE RELAY CONTROLLED, WITH BACNET COMMUNICATION AND DISCONNECT SWITCH. COMPLETE WITH DRISTEEM "DRANE-KOOLER", REMOTE HIGH HUMIDITY SWITCH AND AIR PROVING SWITCH IN SUPPLY AIR DUCT. CONNECTED TO "DRISTEEM RAPIDSORB" STEAM DISPERSION TUBES WITH STAINLESS STEEL HEADER AND TUBE INSIDE ASSOCIATED SUPPLY AIR DUCT.

															НҮ	DRONI	C HEAT	TRANSFE	R UNITS S	CHEDUL	E								
TAG	TYPE	LOCATION	CONFIGURATION	MANUFACTURER /	MAX. A	IR FLOW	EA	ΑT	LAT		FLUID	E	ΝT	LWT	FLO	W RATE	WATER PRI	ESSURE DROP	MAX. HEATIN	G CAPACITY	MOTOR SIZE	MAX. FAN SPEED	POWER	AMP.	OPERATI	NG WEIGHT	DIMEN	SIONS	REMARKS
IAG	1175	LOCATION	CONFIGURATION	MODEL	LPS	CFM	°C	°F	°C	°F	PLOID	°C	°F °C	°F	LPS	GPM	kPa	FT.W.G.	kW	MBH	HP	RPM	SUPPLY	Α	KG	LBS	MM	IN	REWARKS
UH-1	UNIT HEATER	MECH. ROOM [124]	HORIZONTAL	SIGMA 058H	429	910	18.0	64.4	28.0	82.4	WATER	48.9	120.0 37	8 100.0	0.11	1.8	0.36	0.12	5.3	18	0.125	1150	115/1/60	2	21.8	48.0	W 685 D 457 H 420	W 27 D 18 H 16.5	
FF-1	FORCE FLOW HEATER	VESTIBULE [101]	RECESSED FRONT IN / FRONT OUT	SIGMA SFF-03	142	300	18.0	64.4	40.2 1	104.4	WATER	48.9	120.0 37	8 100.0	0.08	1.3	1.13	0.38	3.8	13	0.100	1075	115/1/60	1.9	56.8	125.0	W 1028 D 240 H 660	W 40.5 D 9.5 H 26	DISCONNECT SWITCH, UNIT MOUNTED THERMOSTAT AND SPEED
FF-3	FORCE FLOW HEATER	VESTIBULE [122]	SEMI-RECESSED FRONT IN / FRONT OUT	SIGMA SFF-02	94	200	21.1	70.0	39.1 1	102.4	WATER	48.9	120.0 37	8 100.0	0.04	0.7	0.81	0.27	2.1	7	0.100	1075	115/1/60	1.9	34.1	75.0	W 660 D 240 H 660	W 26 D 9.5 H 26	COMPLETE WITH LOUVRES, ACCESS DOOR, OVERLOAD PROTECTION, DISCONNECT SWITCH, UNIT MOUNTED THERMOSTAT AND SPEED CONTROLLER. COLOUR TO BE SELECTED AT SHOP DRAWING REVIEW.
FF-4	FORCE FLOW HEATER	GENDER NEUTRAL W/R [117]	RECESSED CEILING MOUNTED	SIGMA SFF-02	94	200	21.1	70.0	41.7 1	107.0	WATER	48.9	120.0 37	8 100.0	0.05	0.8	0.90	0.30	2.3	8	0.100	1075	115/1/60	1.9	34.1	75.0	W 660 D 240 H 660	W 26 D 9.5 H 26	DISCONNECT SWITCH, REMOTE THERMOSTAT AND SPEED CONTROLLER.
FF-5	FORCE FLOW HEATER	CORRIDOR [107]	SEMI-RECESSED FRONT IN / FRONT OUT	SIGMA SFF-02	94	200	21.1	70.0	33.9	93.1	WATER	48.9	120.0 37	8 100.0	0.03	0.5	0.60	0.20	1.5	5	0.100	1075	115/1/60	1.9	34.1	75.0	W 660 D 240 H 660	W 26 D 9.5 H 26	COMPLETE WITH LOUVRES, ACCESS DOOR, OVERLOAD PROTECTION, DISCONNECT SWITCH, UNIT MOUNTED THERMOSTAT AND SPEED CONTROLLER. COLOUR TO BE SELECTED AT SHOP DRAWING REVIEW.
CH-1	CONVECTOR HEATER	STORAGE [116]	WALL TYPE	SIGMA CWF	-	146	-	3	-	-	WATER	48.9	120.0 37.	8 100.0	0.01	0.2			0.5	1.7	-	ia	-				W 500 D 115 H 350	W 20 D 4.5 H 14	FLAT TOP, COMPLETE WITH 16 GA. FRONT COVER AND REMOTE THERMOSTAT.

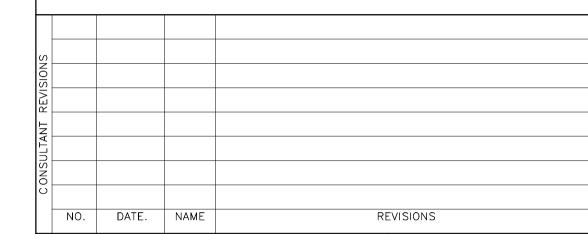
							IN	I-FLOOR I	RADIANT	CIRCU	ITS SCH	EDULE		
		REHAU	CIRCUIT	HEAT	LOAD	PIPE	SIZE	PIPE SF	PACING	WATE	R FLOW	HEAD	LOSS	
MANIFOLD	IFOLD AREA SERVED	ARTICLE NO.	QUANTITY	ĸw	МВН	ММ	INS.	ММ	INS.	LPS	GPM	KPA	FT	- REMARKS
M-1	133 WASH AREA AND 134 OXYGEN & LINEN	PRO-BALANCE 381102-001 & 345400-512	3	6.44	22.0	16	0.625	150	6	0.14	2.20	15.82	5.30	25MM (1") STAINLESS STEEL MANIFOLD AND WHITE FLUSH MOUNT MANIFOLD CABINET. PROVIDE PROGRAMMABLE RADIANT THERMOSTAT WITH SEPARATE CONTROL VALVES AND FLOOR SENSORS FOR WASH BAY AND OXYGEN/LINEN ROOM (ART. NO. 398023) AND 4 MANIFOLD ACTUATOR CONTROLLER (ART. NO. 298276-001)
M-2	131 VEHICLE BAY	PRO-BALANCE 381110-001 & 316856-512	10	30.16	103.0	16	0.625	150 AND 250	6 AND 12	0.65	10.30	41.49	13.90	25MM (1") STAINLESS STEEL MANIFOLD AND STAINLESS STEEL SURFACE MOUNT MANIFOLD CABINET. PROVIDE TWO PROGRAMMABLE RADIANT THERMOSTATS WITH SEPARATE CONTROL VALVES AND FLOOR SENSORS (ART. NO. 398023) AND 4 MANIFOLD ACTUATOR CONTROLLER (ART. NO. 298276-001)

							LOU	VRE SC	HEDUL	E	
TAG	LOCATION	MANUFACTURER /	APPLICATION	FREE AREA	SI	ZE	VELC	OCITY	AIR F	LOW	ACCESSORIES / COLOUR
		MODEL		SQM	MM	INS	MPS	FPM	LPS	CFM	
C1 & C2	OXYGEN	VENTEX / 2625	NATURAL	0.05	400 W	16 W					150MM (6") DEEP STORMPROOF LOUVRE, COMPLETE WITH INSECT SCREEN AND EXTENDED SLEEVE. LOUVRE COLOUR SHALL BE SELECTED AT SHOP DRAWING REVIEW.
0,00	ROOM	V = 1.1. = A.V. = 0.2.0	VENTILATION	5.00	400 H	16 H					CONTRACTOR TO PROVIDE LINTEL FOR INSTALLATION.

						PUI	MP S	CHEDU	JLE									
TAG	LOCATION	SERVICE	FLUID TYPE	MANUFACTURER	MODEL	FLOW ((MAX)	FLOW (OF	PERATING)	HE	AD		МОТО	R DATA		CONTROLS	POWER	REMARKS
,,,,,	200/1/1011	32.0.02	. 10.0	W W CO / NO / O / C		LPM	GPM	LPM	GPM	М	FT	RPM	BHP	HP	WATTS		V/Ph/Hz	1.2
P-1A&B	MECH ROOM	GEO FIELD PRIMARY PUMPS	25% P.G.	XYLEM	E-1531 2BD	492.1	130	469.4	124	15.2	50	1531	2.47	5		VFD (LOOSE)		DUTY/STANDBY, VARIABLE SPEED OPERATION, INTEGRATED TECHNOLOGIC SENSORLESS CONTROL (ITSC)
P-2	MECH ROOM	HP-1 SECONDARY PUMP	25% P.G.	XYLEM	E-80 3x3x7C	492.1	130	469.4	124	6.1	20	1548	0.9	1.5		VFD (PUMP MOUNTED)	575/3/60	VARIABLE SPEED OPERATION
P-3	MECH ROOM	HP-2 SECONDARY PUMP	25% P.G.	XYLEM	E-80 2x2x9.5C	170.3	45	147.6	39	4.3	14	976	0.35	0.75		VFD (PUMP MOUNTED)	575/3/60	VARIABLE SPEED OPERATION
P-4A&B	MECH ROOM	CHILLED WATER PRIMARY PUMPS	WATER	XYLEM	E-80SC 3x3x7C	397.5	105	371.0	98	3.7	12	991	0.4	0.75		VFD (PUMP MOUNTED)	575/3/60	DUTY/STANDBY, CONSTANT SPEED OPERATION
P-5A&B	MECH ROOM	HEATING WATER PRIMARY PUMPS	WATER	XYLEM	E-80 3x3x7C	605.7	160	473.2	125	4.6	15	1140	0.82	1		VFD (PUMP MOUNTED)		DUTY/STANDBY, VARIABLE SPEED OPERATION, INTEGRATED TECHNOLOGIC SENSORLESS CONTROL (ITSC)
P-6A&B	MECH ROOM	CHILLED WATER SECONDARY PUMPS	WATER	XYLEM	E-90 2AB	397.5	105	371.0	98	9.1	30	1696	1.13	1.5		VFD (LOOSE)	575/3/60	DUTY/STANDBY, VARIABLE SPEED OPERATION
P-7A&B	MECH ROOM	HEATING WATER SECONDARY PUMPS	WATER	XYLEM	E-80 2x2x9.5C	302.8	80	276.3	73	9.1	30	1098	1.02	1.5		VFD (PUMP MOUNTED)	575/3/60	DUTY/STANDBY, VARIABLE SPEED OPERATION, INTEGRATED TECHNOLOGIC SENSORLESS CONTROL (ITSC)
P-8	MECH ROOM	HEATING GLYCOL SECONDARY PUMP	40% P.G.	XYLEM	E-80 1.5x1.5x9.5B	94.6	25	83.3	22	6.1	20	1070	0.263	0.5		VFD (PUMP MOUNTED)	575/3/60	VARIABLE SPEED OPERATION, INTEGRATED TECHNOLOGIC SENSORLESS CONTROL (ITSC)
P-9	MECH ROOM	ELECTRIC BOILER INJECTION PUMP	WATER	XYLEM	ECOCIRC XL 15-75	132.5	35	121.1	32	3.0	10	2315		0.16		STARTER	120/1/60	ECM MOTOR
P-10	MECH ROOM	DOMESTIC HOT WATER RECIRCULATION PUMP	DOMESTIC WATER	XYLEM	ECOCIRC 19-16	15.1	4	15.1	4	2.4	8	1929			60	STARTER	120/1/60	ECM MOTOR C/W AQUASTAT, TIMER AND BAS INTERLOCK

						RAN	GE HC	OD SC	HEDUL	E.					
TAG	LOCATION	FUNCTION	MANUFACTURER	MODEL	BLOWER TYPE	CAPA	CITY	STATIC P	RESSURE	МС	OTOR POW	ER	SOUND DATA	CONTROLLED BY	REMARKS
170	LOCATION	TONOTION	MANOT ACTORER	MODEL	BEOWERTTIE	LPS	CFM	Pa	IN WC	RPM	AMP.	V/PH/HZ	SONES	CONTROLLED BY	NEWANNO
KH-1	KITCHEN [121]	RESIDENTIAL RANGE HOOD	REVERSOMATIC	DELUXE 2000-200 600MM (24")	CENTRIFUGAL DIRECT DRIVE	80	170	37	0.15	1,500	1.4	115/1/60	6.0		COMPLETE WITH INTEGRAL SPEED CONTROLLER, 60W LIGHT AND WHITE FINISH.
KH-2	KITCHEN [104]	RESIDENTIAL RANGE HOOD	REVERSOMATIC	DELUXE 2000-200 600MM (24")	CENTRIFUGAL DIRECT DRIVE	80	170	37	0.15	1,500	1.4	115/1/60	6.0		COMPLETE WITH INTEGRAL SPEED CONTROLLER, 60W LIGHT AND WHITE FINISH.

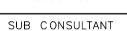
1890 Fifth Concession Rd



PRIME CONSULTANT



AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: Designer	SCALE:
DRAWN BY: Author	DATE: 06/10/21
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

VISIONS				
REVIS				
⊢				
RAC	2	03/14/22		ISSUED FOR CONSTRUCTION
CONT	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 703	

						SILE	NCER S	CHEDUL	E										
				С	IMENSION	IS		VELOCITY	IDEAL	MAX.DP		MINII	MUM D	YNAMI	C INSE	RTION	LOSS		
TAG	VIBRO-ACOUSTICS	SYSTEM	TYPE	DUCT	DUCT	LENGTH	AIRFLOW		DP	W/SYS EFF				dB (N	OTE 5)				Notes
IAO	MODEL NUMBER	OTOTEM		WIDTH	HEIGHT	LLINOTTI		(NOTE 2)	(NOTE 3)	(NOTE 4)		OCTAV	E BANI	CENT	TER FR	EQUEN	ICY, HZ	<u> </u>	140103
			(NOTE 1)	MM.	MM.	MM.	L/S	M/S	Pa	Pa	63	125	250	500	1000	2000	4000	8000	
SL-S	RD-LV-AY26997	SUPPLY	RD	650	350	900	967	+4	42	59	5	8	15	20	23	19	14	12	6, 7, 8
SL-R1	RD-ULV-AY26997	RETURN	RD	500	250	900	392	-3	27	33	9	18	21	17	22	16	13	12	6, 7, 8
SL-R2	RD-ULV-AY26997	RETURN	RD	500	400	900	599	-3	25	30	9	18	21	17	22	16	13	12	6, 7, 8

Notes:

1. TYPE: R - RECTANGULAR D - DISSIPATIVE

2. VELOCITY SHOWN IS + (FORWARD FLOW) OR - (REVERSE FLOW) AS DEFINED BY ASTM E477-13.

3. IDEAL PRESSURE DROP AS DETERMINED PER ASTM E477-13 IN A NVLAP-ACCREDITED ACOUSTICAL LABORATORY. 4. PRESSURE DROP PER ASTM E477-13 PLUS SYSTEM EFFECTS FOR NEARBY DUCT ELEMENTS.

5. MINIMUM DYNAMIC INSERTION LOSS DETERMINED PER ASTM E477-13 IN A NVLAP-ACCREDITED ACOUSTICAL LABORATORY.

6. NON-BASIS OF DESIGN SILENCER MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED ACOUSTICAL CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO

DEMONSTRATE THAT THE RESULTANT DUCTBORNE FAN SOUND LEVELS, INCLUDING AIRBORNE AND BREAKOUT NOISE, MEET THE REQUIRED CRITERIA.

7. NON-BASIS OF DESIGN SILENCER MANUFACTURER SHALL PROVIDE, FOR APPROVAL, PROFESSIONAL ENGINEER STAMPED PRESSURE DROP CALCULATIONS FOR ALL SYSTEMS WITH SILENCERS TO

DEMONSTRATE THAT THE RESULTANT INSTALLED PRESSURE DROP WITH SYSTEM EFFECTS DOES NOT EXCEED SCHEDULED VALUES.

8. FOR NON-BASIS OF DESIGN PRODUCT SUPPLIED, CONTRACTOR IS FINANCIALLY RESPONSIBLE TO ENSURE NOISE CONTROL SOLUTION IS DELIVERED TO ACHIEVE SPECIFIED NC LEVEL IN SPACES.

							VARIAE	BLE AIR	VOLUM	E (VAV)	TERMIN	AL BOX	SCHED	ULE					
			NOMIN	NAL INLET		NOMINAL (OUTLET SIZE		7	TERMINAL AIF	RFLOW RANG	SE.	MIN	IMUM	ATTEN	UATOR	NC SOU	ND DATA	
TAG	MANUFACTURER & MODEL	TERMINAL TYPE	2/	METER	WI	DTH	HE	IGHT	MIN	IMUM	MAX	IMUM	F	o's	21 212 12 22220	GTH	WORNANDO ODIAGOOPOO	IMUM	REMARKS
			ММ	INS	MM	INS	ММ	INS	LPS	CFM	LPS	CFM	PA	INS.W.C.	ММ	INS	DISC.	RAD.	
04	KRUEGER LMHS-1-1-1-XX-04-D		100	4	300	12	200	8	19	40	109	230			900	36	32	24	
05	KRUEGER LMHS-1-1-1-XX-05-D	SINGLE INLET, PRESSURE INDEPENDENT (SUPPLY)	125	5	300	12	200	8	29	62	170	360	25	0.10	900	36	31	21	COMPLETE WITH 25 MM (1 IN) INSULATION AND LINEAR AVERAGIN SENSOR. DIGITAL CONTROLS SUPPLIED BY THIS DISCIPLINE AND INSTALLED BY THE TERMINAL MANUFACTURER.
06	KRUEGER LMHS-1-1-1-XX-06-D		150	6	300	12	200	8	42	89	243	515	1		900	36	27	25	

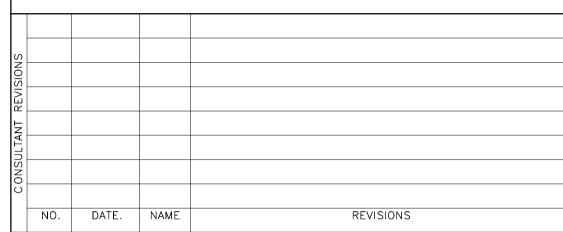
										ļ	HEAT	PUMP	SCHE	DULE																
				OPERATIN	IG WEIGHT		CIRCUIT D	ATA		CAPA	CITY					GEOTHER	MAL SOU	RCE SIDE	COOLING	G PERFOR	RMANCE				S	YSTEM SID	E			
TAG	LOCATION	MANUFACTURER / MODEL	TYPE			COMPRESSOR	COMPRESSOR	CIRCUIT	REFRIGERAN		CITT	EER	EV	VT	LV	VT	FLO	DW .	PRESS.	. DROP		EV	VT	LV	VT	FLC	OW	PRESS.	DROP	
	4		CONTRACTOR OF THE STATE OF THE	KG	LBS	TYPE	QTY.	QTY.	T	kW	TON	EER	С	F	O	F	LPS	GPM	М	FT	FLUID	С	F	С	F	LPS	GPM	М	FT	FLUID
HP-1	MECHANICAL	AERMEC / NXP0650Y	6 PIPE	1450	3196	SCROLL	4	2	R410A	144.1	41	15.6	29.5	85	35.0	95	7.8	124.0	4.75	15.60	25% PROP.	12.2	54.0	6.7	44.0	6.2	98.3	2.0	6.6	WATER
HP-2	ROOM [124]	AERMEC / WRL400Y	4 PIPE	411	907	SCROLL	2	1	R410A	-	(55)			10 .		1877		100		U.T.						176	ATSY	a.	•	10.50

										HE	AI PU	JMP SC	HEDU	ILE (PA	ART 2)									
				5			GEOTHER	RMAL SOU	RCE SIDE		G PERFO	RMANCE				W	ATER SID	F				SOUND	ELECTR	RICAL
TAG	CAPA	CITY	COD	EV	VT	LV			OW WC	PRESS	. DROP		EV	VT	LV		FLO		PRESS	. DROP		POWER	POWER SUPPLY	
	kW	МВН	COP	С	F	С	F	LPS	GPM	М	FT	FLUID	С	F	С	F	LPS	GPM	М	FT	FLUID	dBA	V / PH / HZ	MCA / MOC
HP-1	119.8	409.0	3	1.7	35	-2.8	27	4.6	73.2	1.86	6.10	25% PROP.	43.4	110.0	48.9	120.0	5.2	82.6	1.4	4.7	WATER	79	575/3/60	58 / 70
HP-2	62.1	212.0	3.23	1.7	35	-2.8	27	2.4	38.4	2.93	9.60	25% PROP.	43.4	110.0	48.9	120.0	2.7	42.8	2.8	9.1	WATER	82	575/3/60	35 / 40

						GLYC	DL MAKE	EUP UNI	T SCHE	DULE				
TAG	LOCATION	MANUFACTURER	MODEL	PUMP FL			RE RANGE	RESERV	1	MOTOR		SHIPPING		REMARKS
				LPS	GPM	kPa	PSI	LIT.	GAL.	HP	V/PH/HZ	KG	LBS	
G-1	MECHANICAL ROOM	BELL & GOSSETT	GMU-30	0.63	10	21 - 207	3 - 30	208	55	1/2	115/1/60	73	160	

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



PRIME CONSULTANT

SUB CONSULTANT



AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: Designer	SCALE:
DRAWN BY: Author	DATE: 06/15/21
CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
APPROVED BY: Approver	CLIENT FILE No.: 811/20

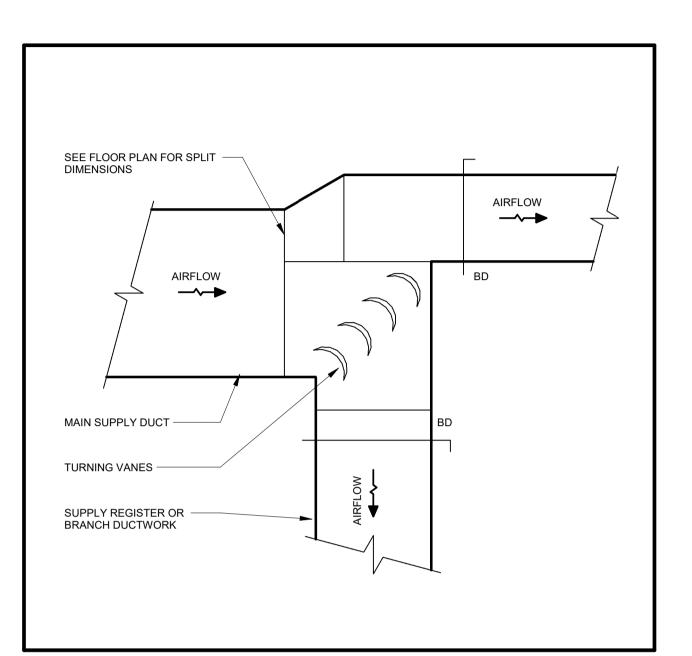
REVISIONS				
EVIS				
 -				
ONTRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
CON	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS

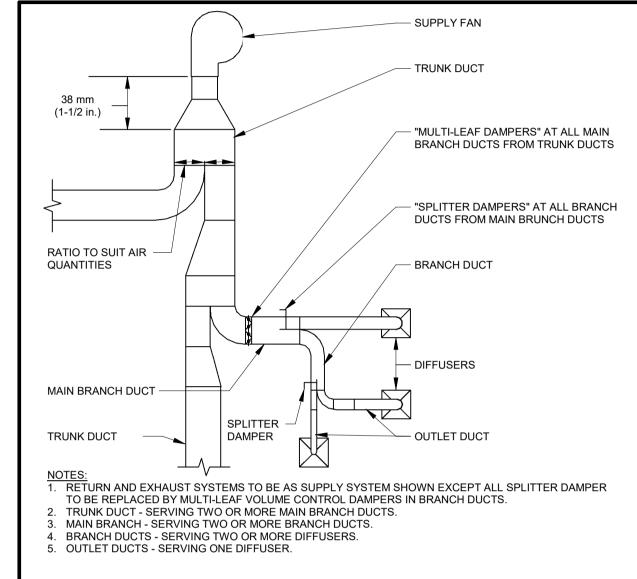


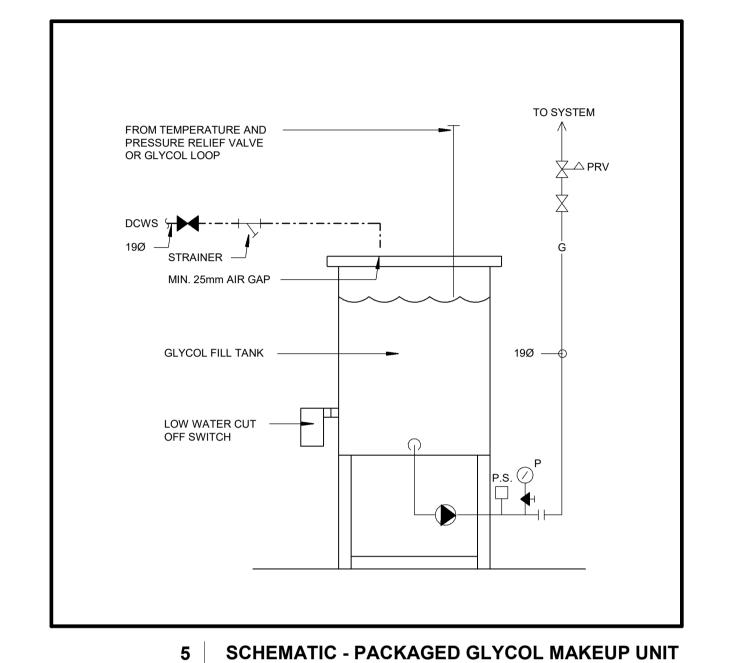
THE REGIONAL MUNICIPALITY OF DURHAM

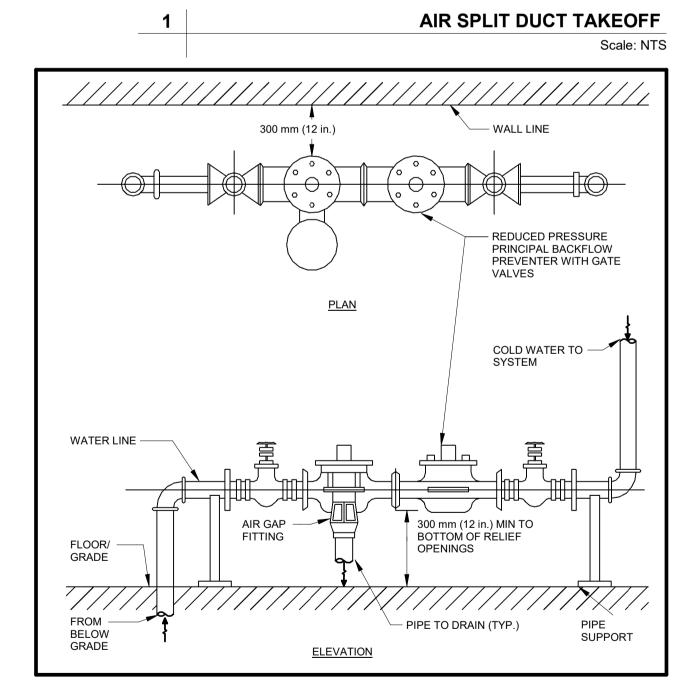
WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 704	



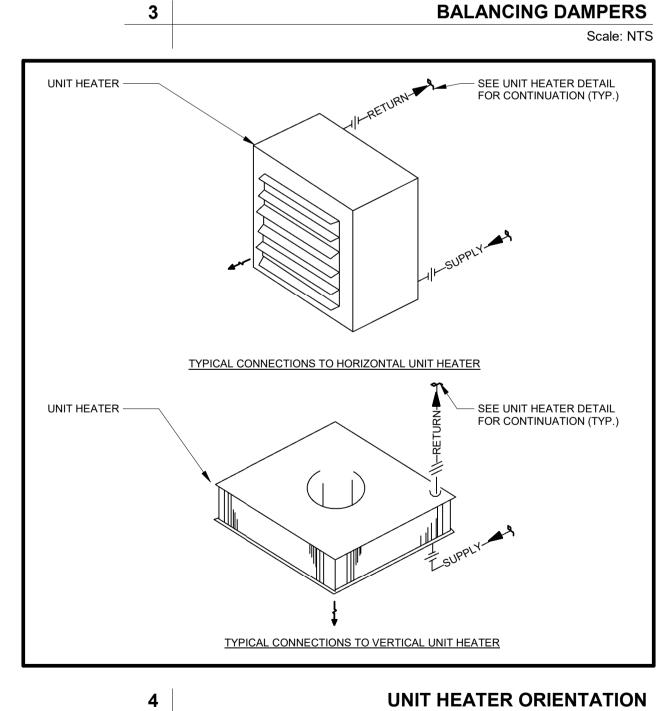




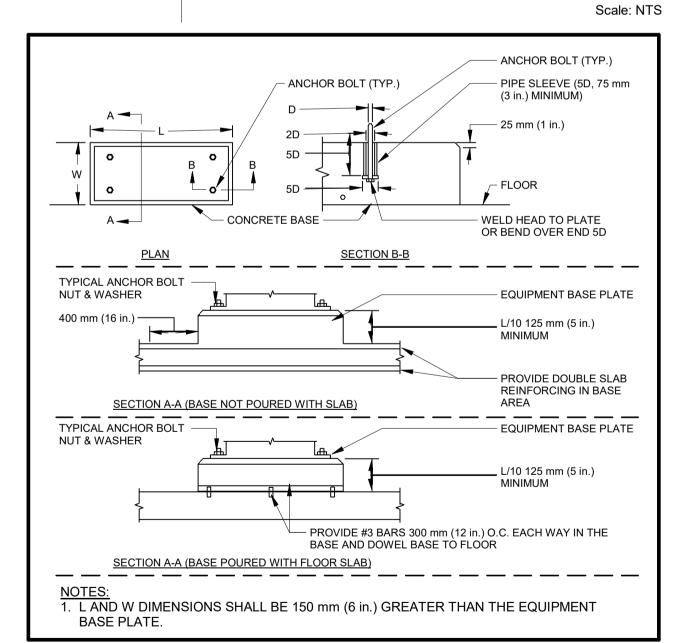


BACKFLOW PREVENTER PIPING DETAIL

Scale: NTS



Scale: NTS

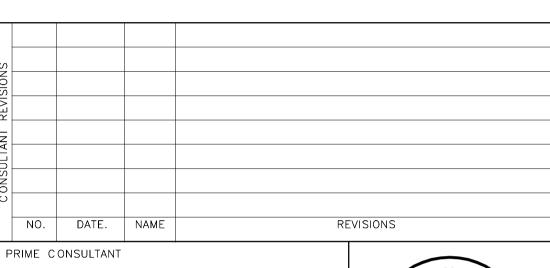


CONCRETE EQUIPMENT BASES

Scale: NTS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

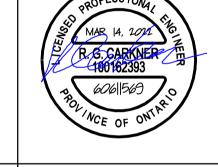
1890 Fifth Concession Rd



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT



DESIGN BY: Designer

DRAWN BY: Author

CHECKED BY: Checker

APPROVED BY: Approver

SCALE: As indicated

DATE: 10/27/20

CONSULTANT PROJECT NO. 60611569

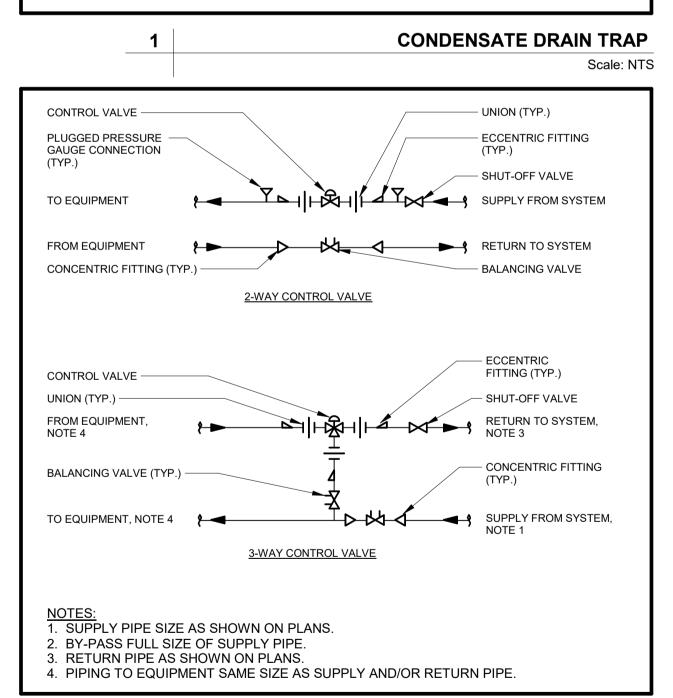
CLIENT FILE No.: 811/20



THE REGIONAL MUNICIPALITY OF DURHAM

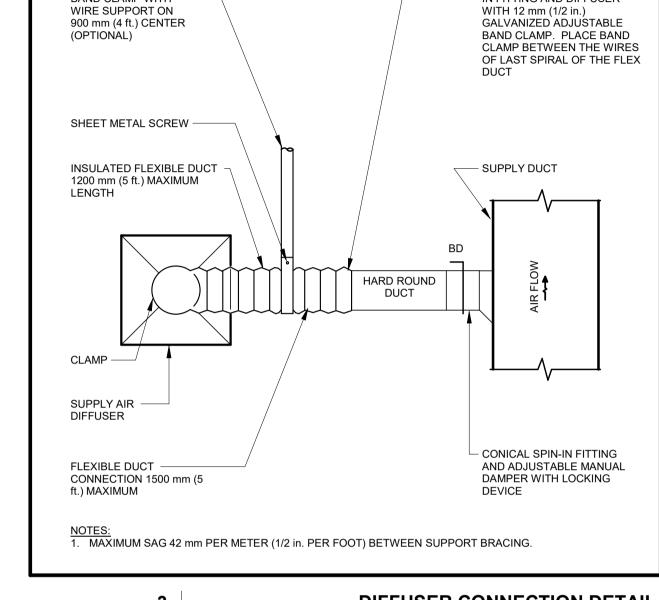
WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M-800	



CONTROL VALVE PIPING ARRANGMENTS

Scale: NTS



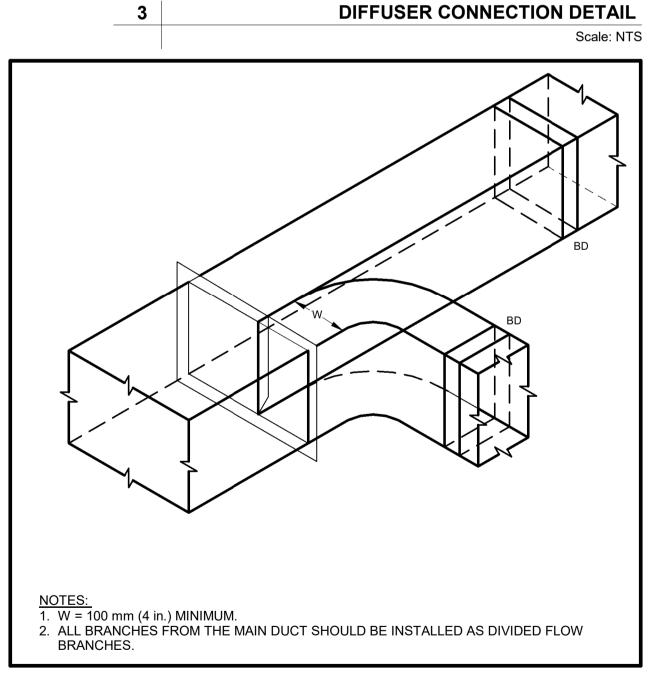
SECURE FLEX DUCT TO SPIN-

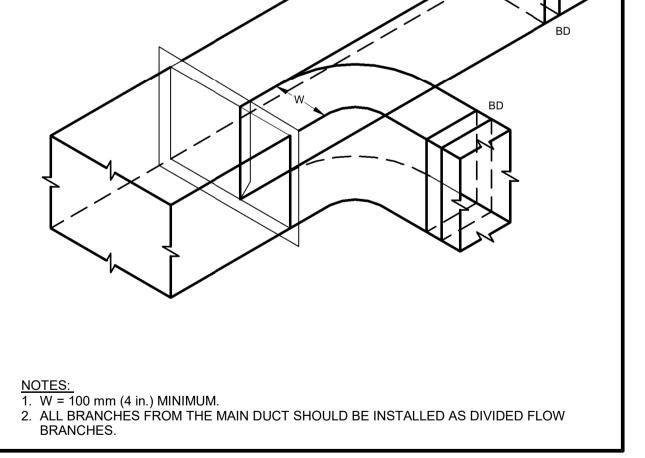
IN FITTING AND DIFFUSER

25 mm (1 in.) WIDE -

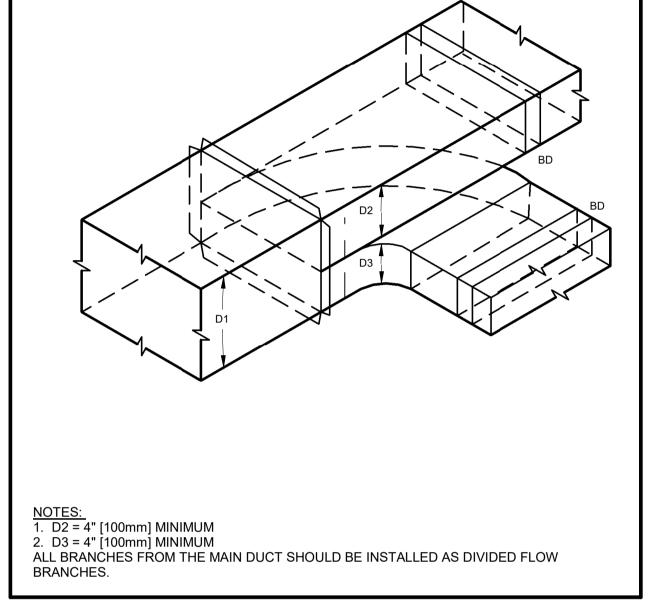
BAND CLAMP WITH

WIRE SUPPORT ON

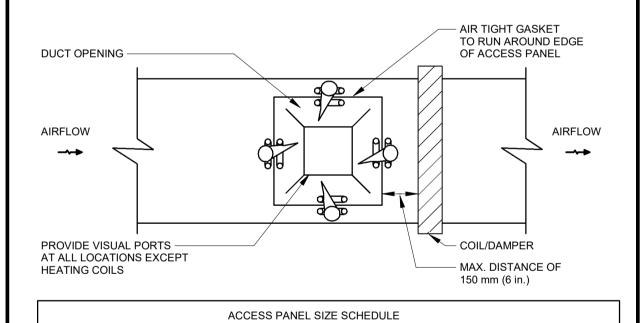




DIVIDED FLOW BRANCH TYPE 1 Scale: NTS



DIVIDED FLOW BRANCH TYPE 2 Scale: NTS



ACCESS P	ANEL SIZE SCHEDULE
DUCT DEPTH	ACCESS PANEL SIZE
150 mm (6 in.) TO 375 mm (15 in.)	250 mm (10 in.) W x (DUCT DEPTH - 50 mm (2 in.))D
375 mm (15 in.) TO 525 mm (21 in.)	300 mm (12 in.) W x (DUCT DEPTH - 50 mm (2 in.))D
525 mm (21 in.) AND ABOVE	450 mm (18 in.) W x (DUCT DEPTH - 50 mm(2 in.))D

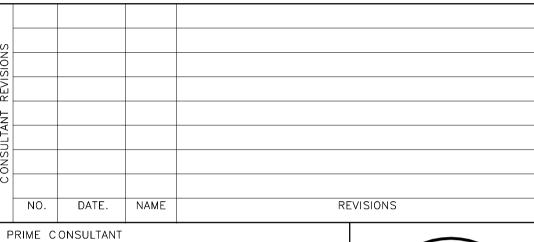
NOTES: 1. MAXIMUM ACCESS PANEL DIMENSION OF 600 mm (24 in.).

2. USE CAM LATCHES ON ACCESS PANELS 3. FOLLOW SMACNA FOR ACCEPTABLE TYPE AND CONTRUCTION STANDARDS

> **DUCT ACCESS PANEL SIZING** Scale: NTS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax www.aecom.com



DESIGN BY: Designer SCALE: As indicated DATE: 10/28/20 DRAWN BY: Author CHECKED BY: Checker CONSULTANT PROJECT NO. 60611569

REVISIONS				
EVIS				
_				
ONTRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
CONI	1	10/18/21		RESPONSE TO CITY COMMENTS
0	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



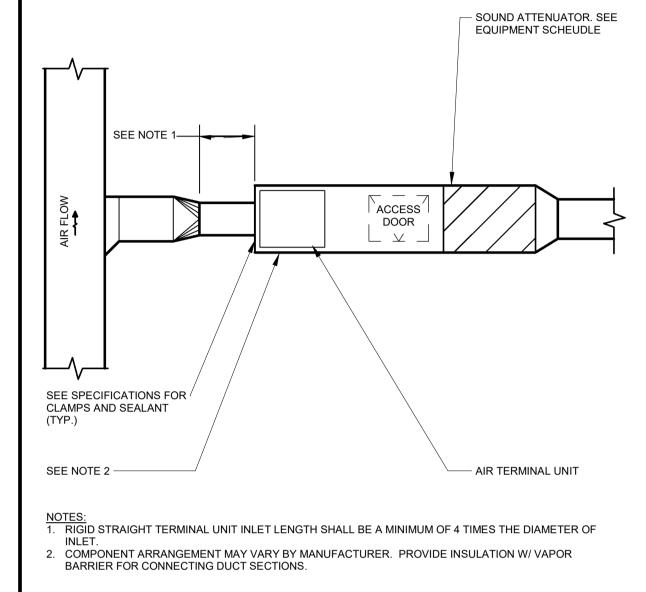
APPROVED BY: Approver

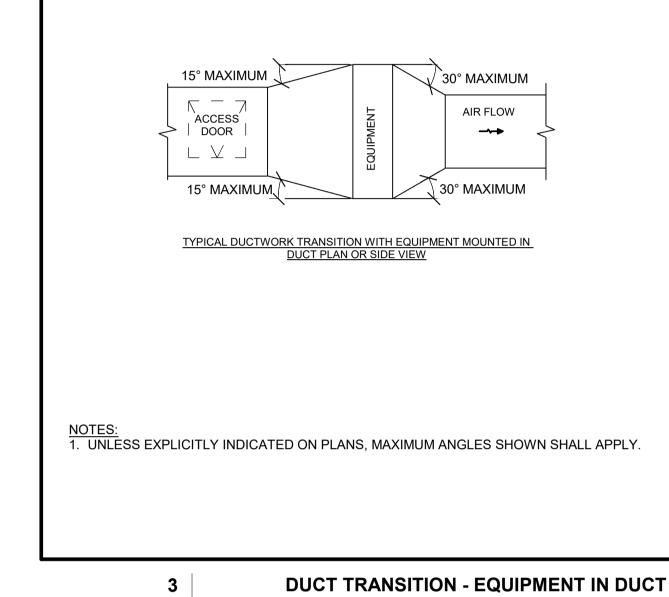
THE REGIONAL MUNICIPALITY OF DURHAM

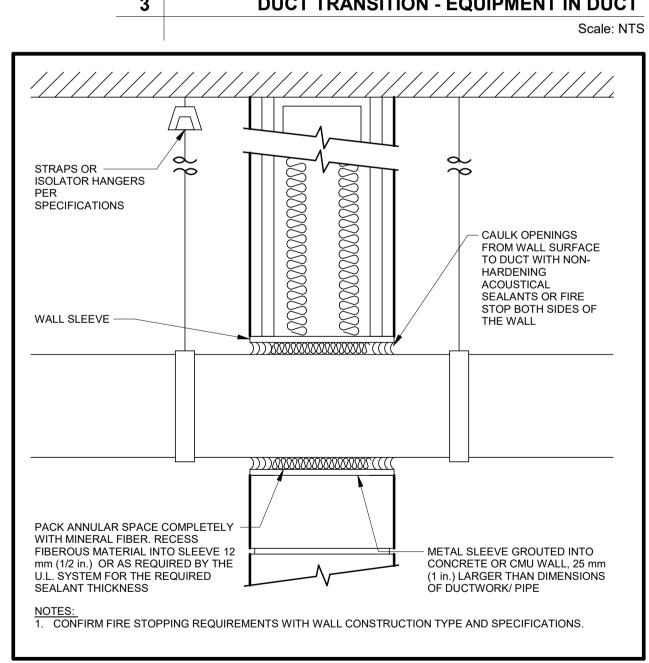
CLIENT FILE No.: 811/20

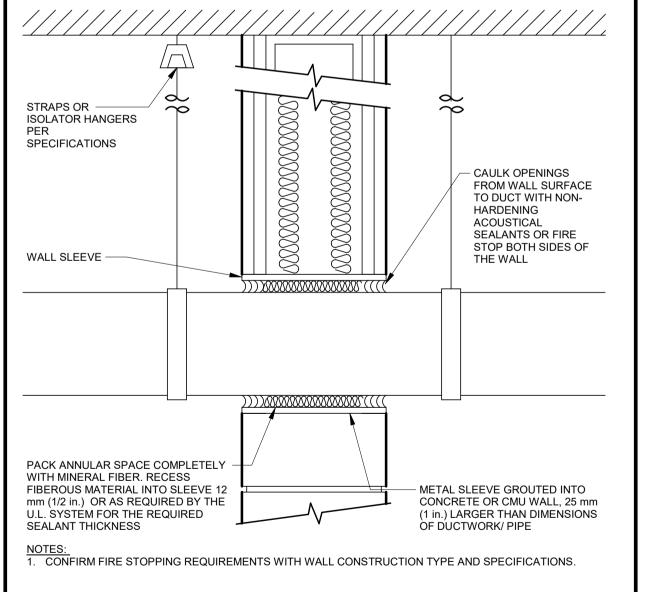
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 801	

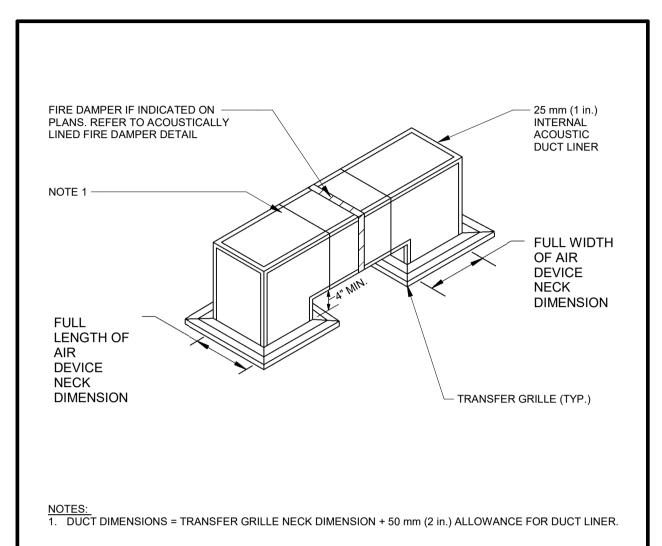


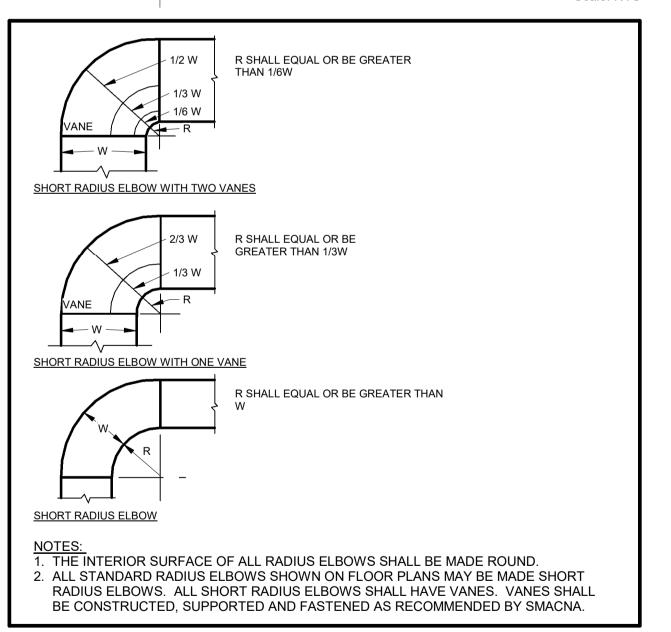






DUCT/PIPE WALL PENETRATION





2 03/14/22 1 | 10/18/21 0 09/22/21 NO DATE NAME

NO. DATE. NAME

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fa

519 650 3424 fax

PRIME CONSULTANT

www.aecom.com

SUB CONSULTANT

DESIGN BY: Designer

DRAWN BY: Author

CHECKED BY: Checker

APPROVED BY: Approver

THE REGIONAL MUNICIPALITY OF DURHAM

SCALE: NTS

DATE: 10/28/20

CLIENT FILE No.: 811/20

CONSULTANT PROJECT NO. 60611569

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

REVISIONS

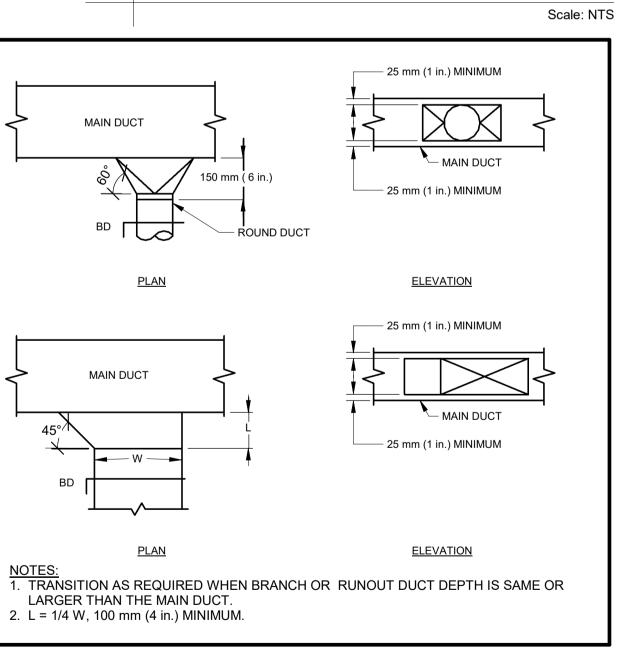
REVISIONS

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING MECHANICAL STANDARD DETAILS

ISSUED FOR CONSTRUCTION RESPONSE TO CITY COMMENTS

ISSUED FOR TENDER

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 802	



DUCT CONNECTION - AIR TERMINAL UNITS

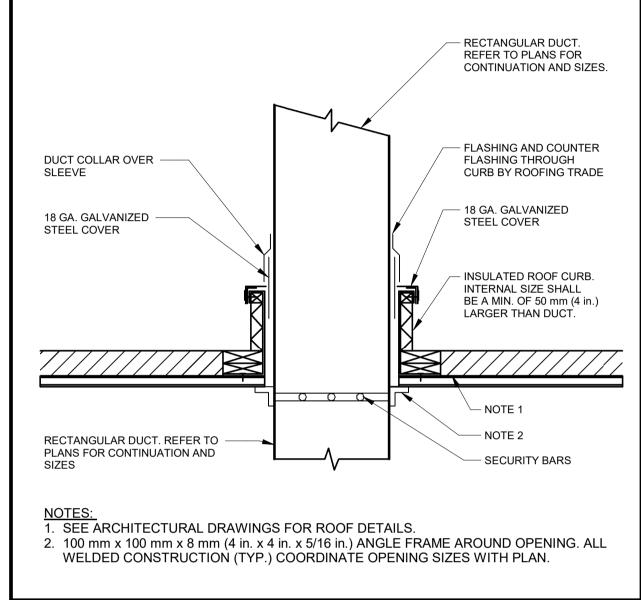
DUCT TAKE-OFF Scale: NTS

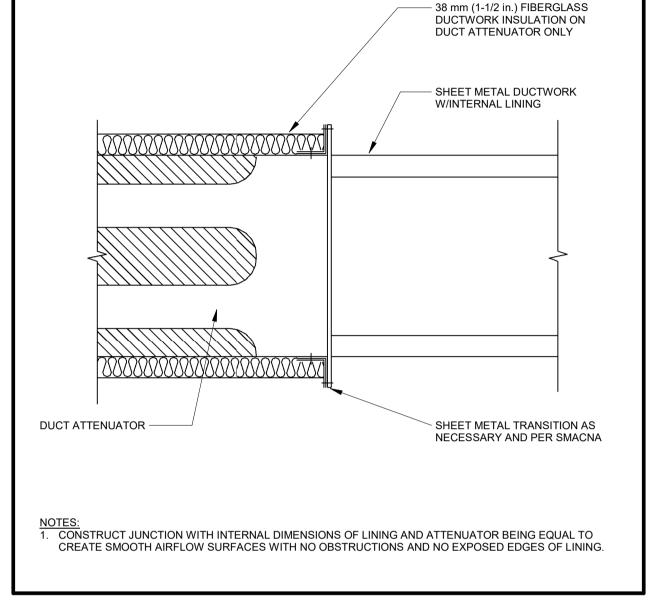
DUCTED RETURN AIR TRANSFER DUCT Scale: NTS

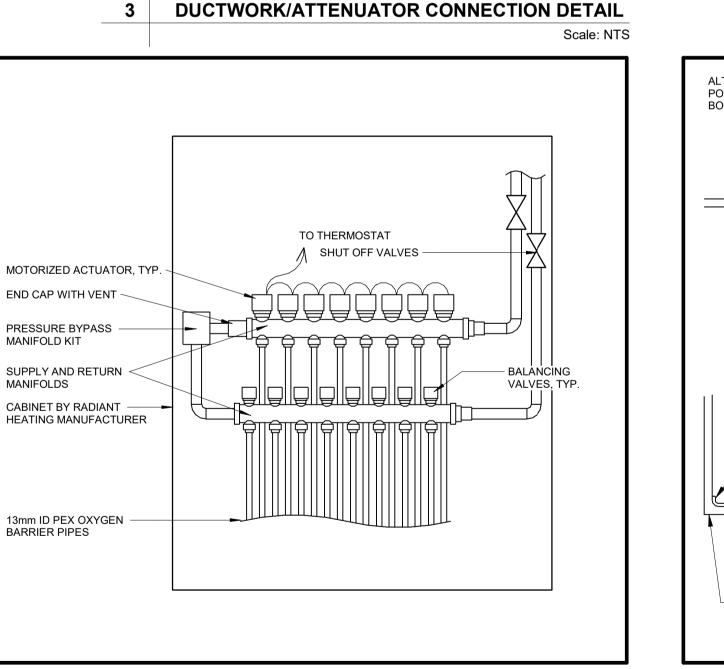
> **DUCTWORK RADIUS ELBOW** Scale: NTS

ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS. 1890 Fifth Concession Rd

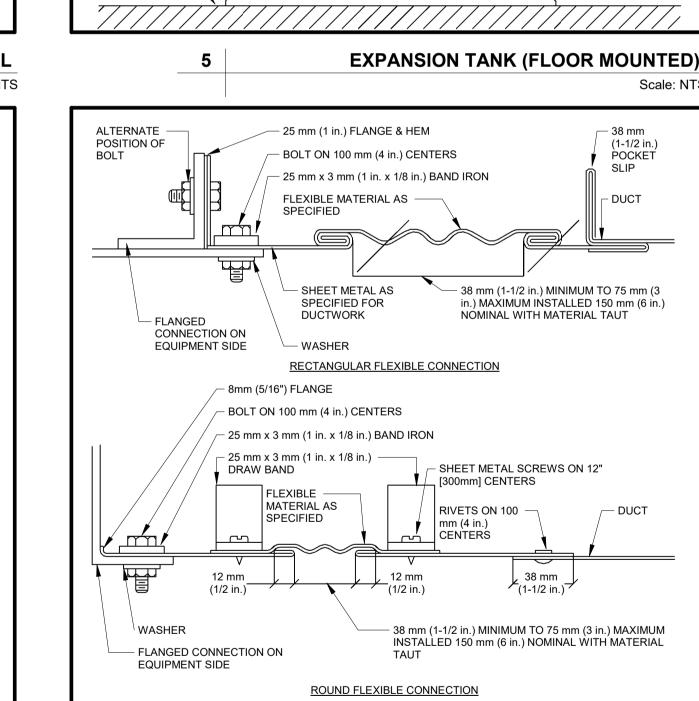
ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR







DETAIL - IN-FLOOR HEATING MANIFOLD



LIFTING RING

NPT CHARGING

FLOOR MOUNTED

EXPANSION TANK

LIFTING RING

100 mm (4 in.)

FLEXIBLE DUCT CONNECTIONS

Scale: NTS

HOUSEKEEPING PAD

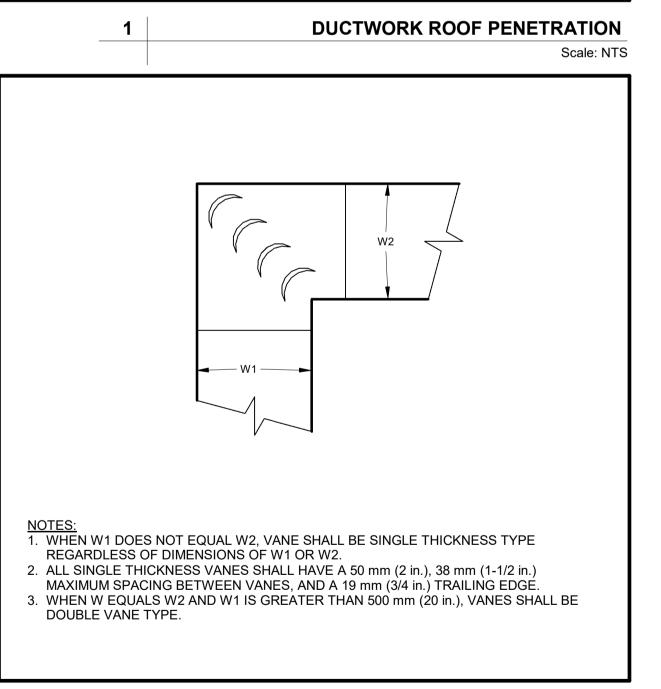
Scale: NTS

__ 38 mm

POCKET SLIP

- DUCT

VALVE



DUCTWORK SQUARE VANE ELBOWS

Scale: NTS

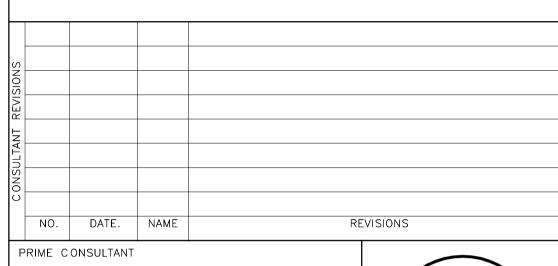
Scale: 1:5

UNION -

FLOOR -

ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS. 1890 Fifth Concession Rd

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR



AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 5313 tel 519 650 3424 fa 519 650 3424 fax www.aecom.com

SUB CONSULTANT



	DESIGN BY: Designer	SCALE: As indicated
	DRAWN BY: Author	DATE: 10/28/20
	CHECKED BY: Checker	CONSULTANT PROJECT NO. 60611569
	APPROVED BY: Approver	CLIENT FILE No.: 811/20

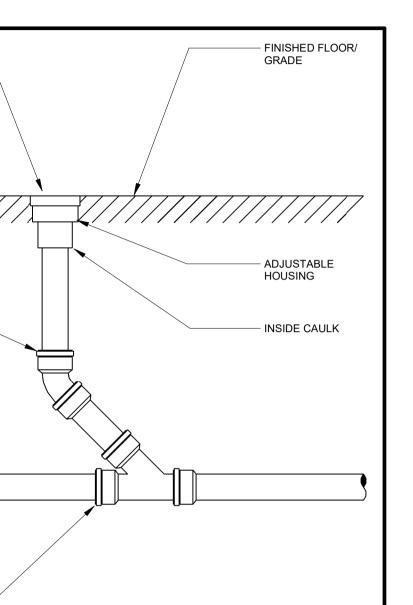
REVISIONS				
EVIS				
_				
CONIRAC	2	03/14/22		ISSUED FOR CONSTRUCTION
NOX	1	10/18/21		RESPONSE TO CITY COMMENTS
٠	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

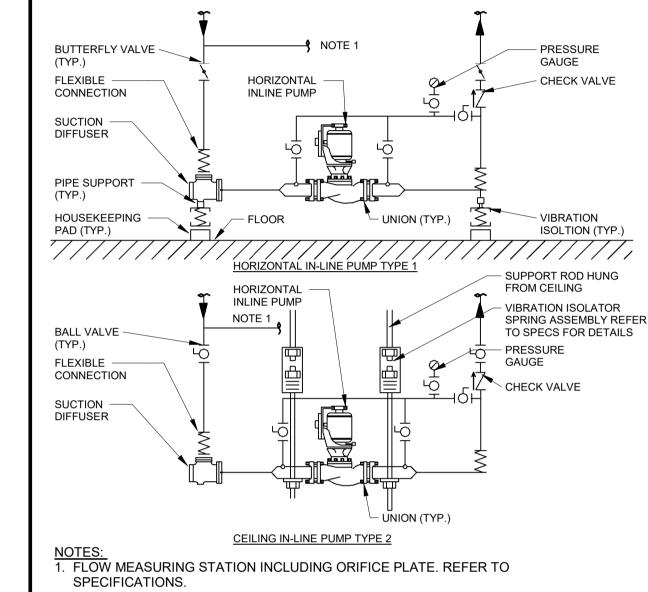
	PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
	CONTRACT NO.	DRAWING NO.	SHEET NO.
	T-1160-2021	M - 803	

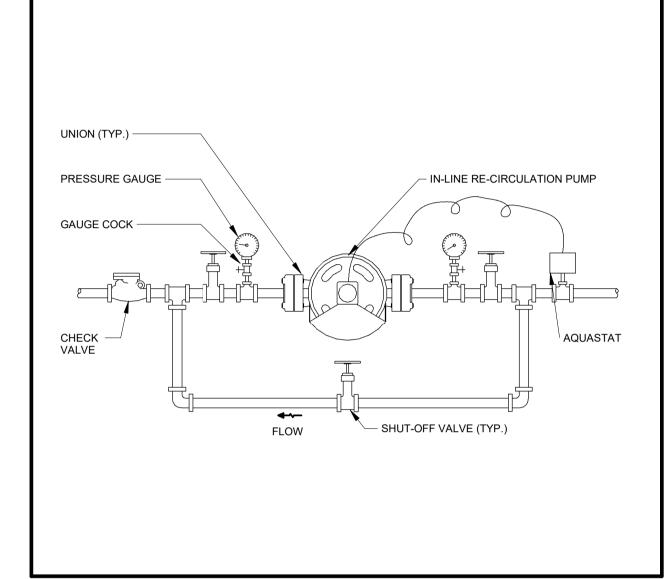


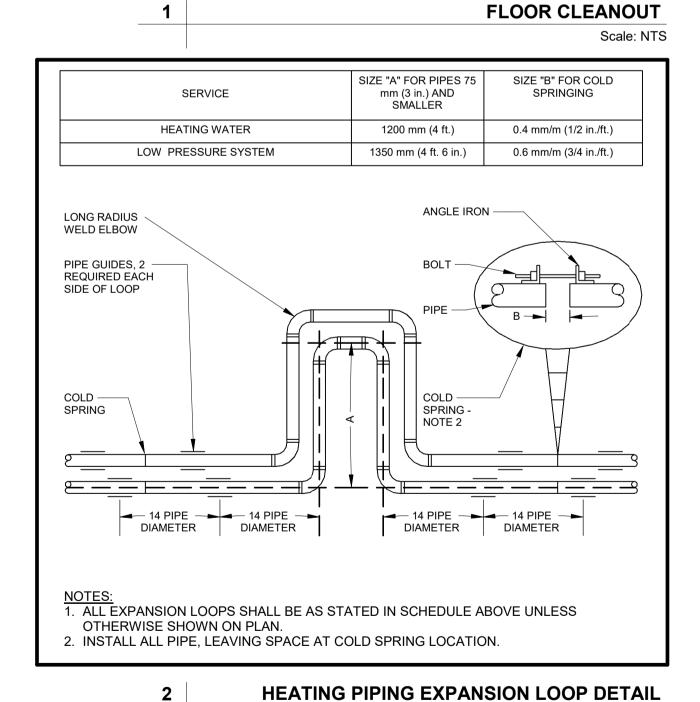
SECURED RIM FLUSH WITH FINISHED FLOOR/ GRADE

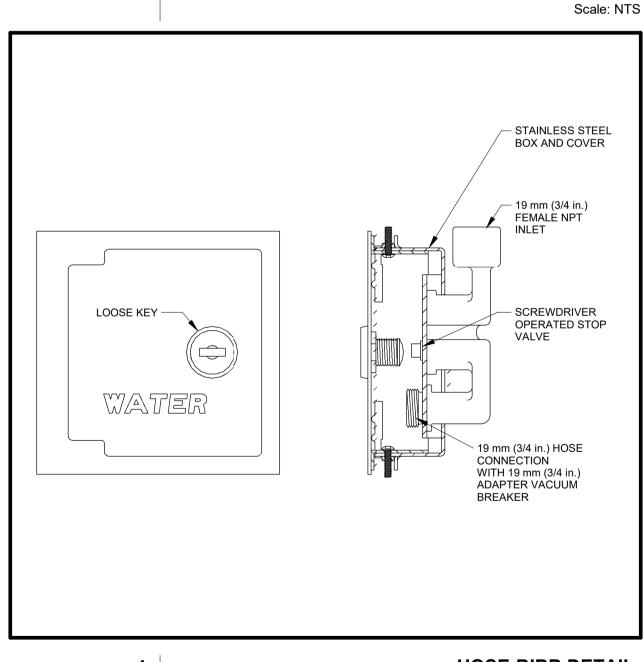
1/8 BEND -

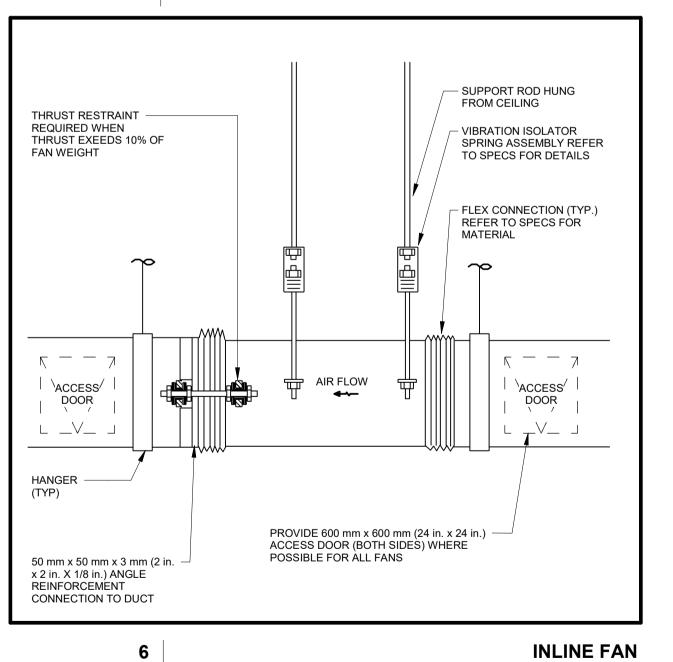
SANITARY WYE FITTING -











HOSE-BIBB DETAIL Scale: NTS

HORIZONTAL IN-LINE PUMP TYPE 1 & 2

ISSUED FOR TENDER REVISIONS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT

1890 Fifth Concession Rd

SCALE DRAWINGS.

NO. DATE. NAME

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax

PRIME CONSULTANT

www.aecom.com

SUB CONSULTANT

DESIGN BY: Designer

CHECKED BY: Checker

APPROVED BY: Approver

DRAWN BY: Author



Scale: NTS

THE REGIONAL MUNICIPALITY OF DURHAM

SCALE: As indicated

CLIENT FILE No.: 811/20

CONSULTANT PROJECT NO. 60611569

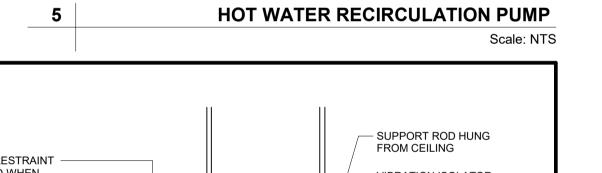
DATE: 10/28/20

REVISIONS

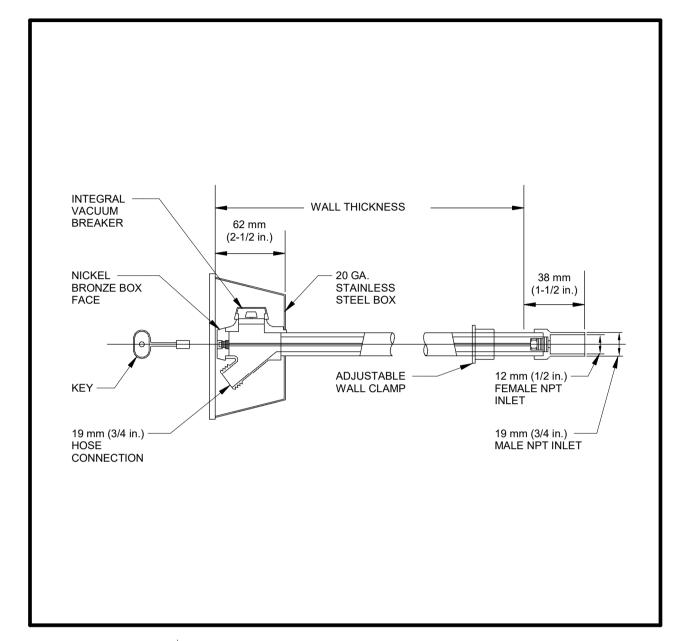
WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT

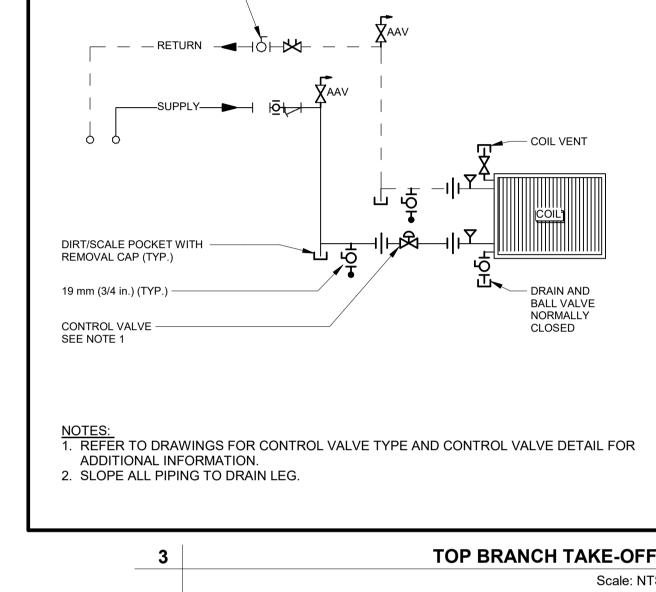
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING MECHANICAL STANDARD DETAILS

PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 804	

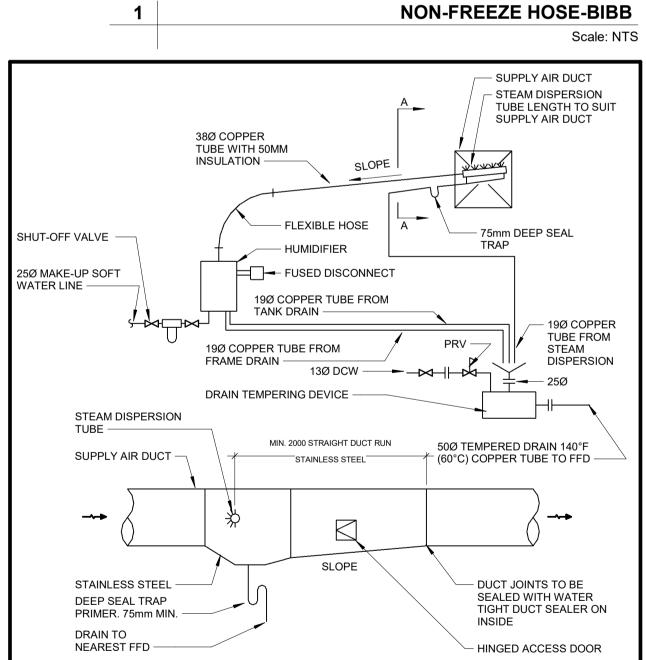


2 03/14/22 ISSUED FOR CONSTRUCTION RESPONSE TO CITY COMMENTS 1 10/18/21 0 09/22/21 NO DATE NAME

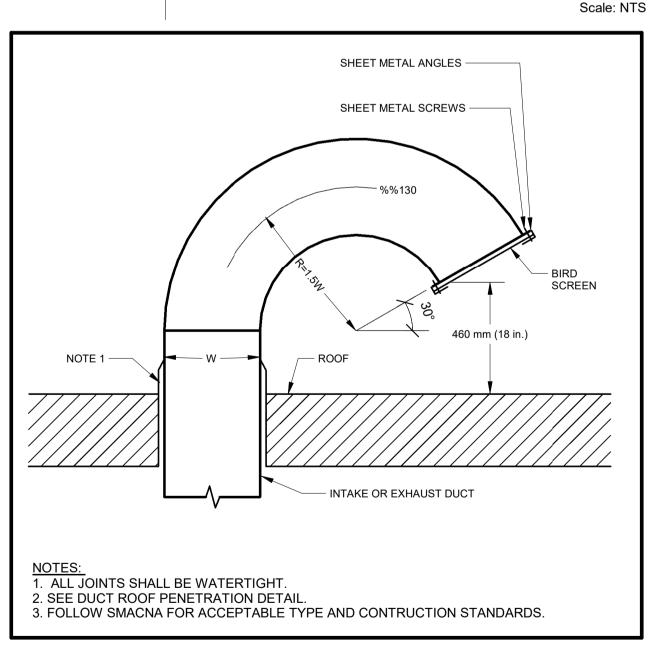




NORMALLY OPEN (TYP.) -

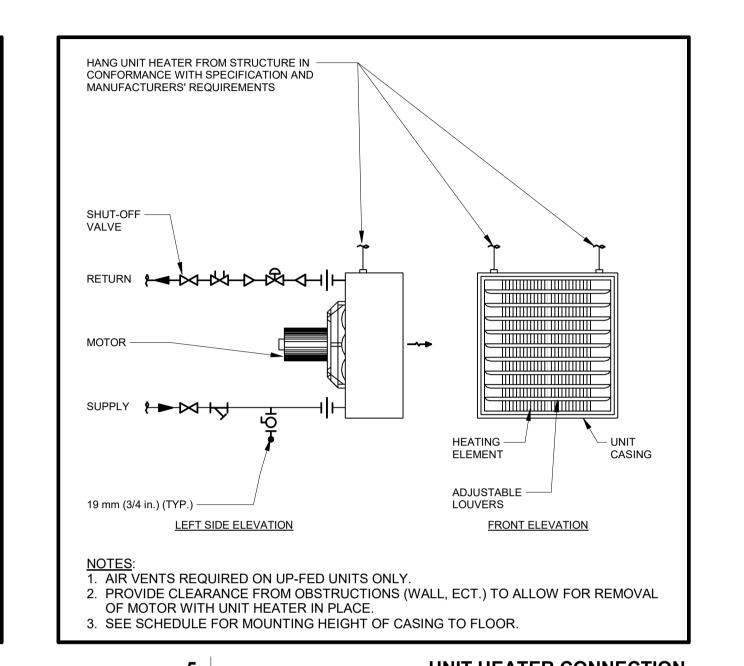


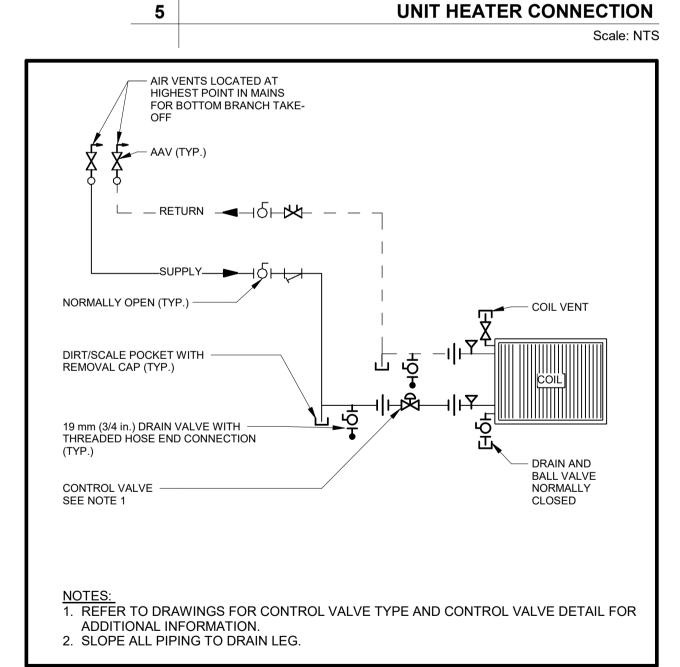
DUCT MOUNTED HUMIDIFIER DETAIL



TYPICAL GOOSENECK

Scale: NTS

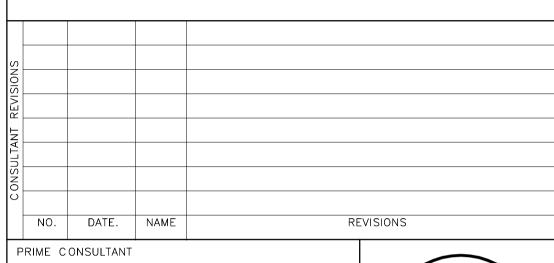




6 BOTTOM BRANCH TAKE-OFF
Scale: NTS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.

1890 Fifth Concession Rd



AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT



DESIGN BY: Designer

SCALE: As indicated

DRAWN BY: Author

DATE: 10/28/20

CHECKED BY: Checker

CONSULTANT PROJECT NO. 60611569

,,				
REVISIONS				
EVIS				
CONTRACT	2	03/14/22		ISSUED FOR CONSTRUCTION
NO	1	10/18/21		RESPONSE TO CITY COMMENTS
	0	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



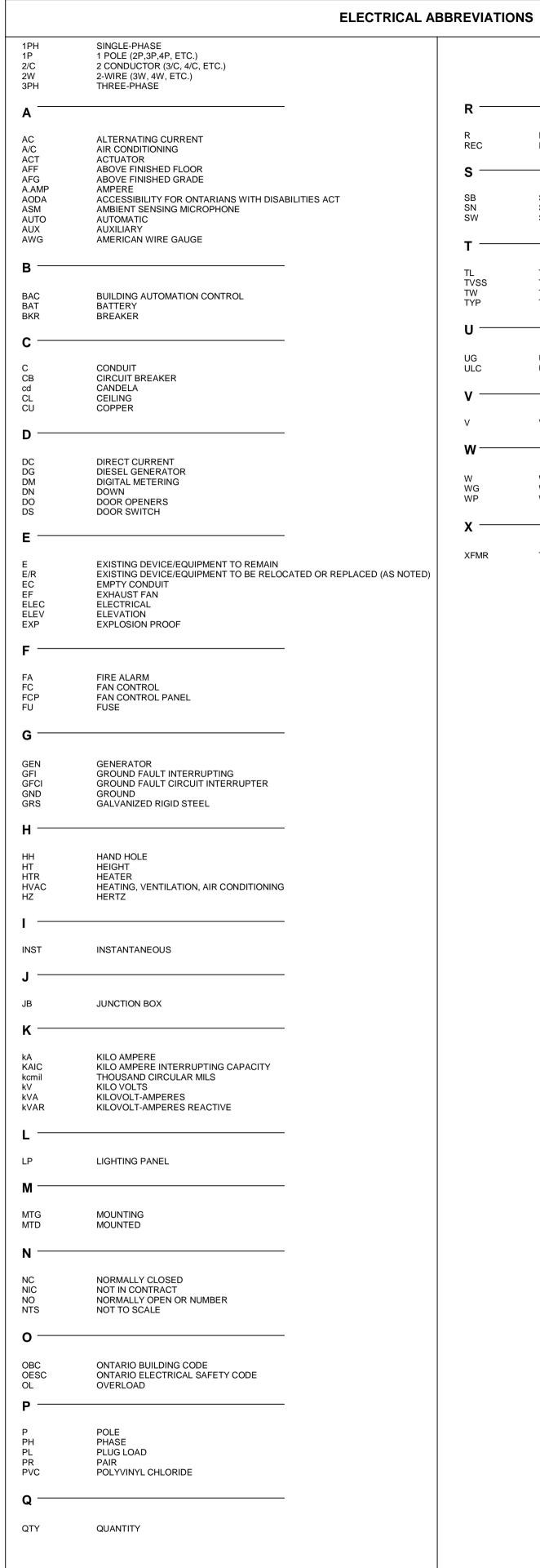
APPROVED BY: Approver

THE REGIONAL MUNICIPALITY OF DURHAM

CLIENT FILE No.: 811/20

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

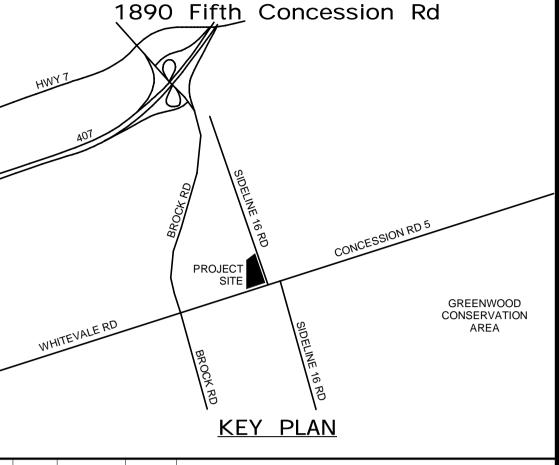
PROPERTY NO.	FACILITIES CODE	facilities project no. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-1160-2021	M - 805	

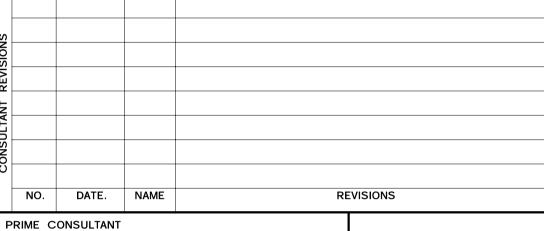


R	
R REC	EXISTING DEVICES/EQUIPMENT TO BE REMOVER RECEPTACLE
s	
SB SN SW	SOLAR LIGHT BOLLARD SOLID NEUTRAL SWITCH
т	
TL TVSS TW TYP	TWIST LOCK TRANSIENT VOLTAGE SURGE SUPPRESSOR TWISTED TYPICAL
u	
UG ULC	UNDERGROUND UNDERWRITERS LABORATORIES OF CANADA
v —	
V	VOLTS
w	
W WG WP	WIRE WIRE GUARD WEATHER PROOF
x	

	LIGHTING
A	CEILING MOUNTED LED FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
A	CEILING MOUNTED LED FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
# A	BARE FLUORESCENT STRIP. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#'
# A	INDICATES CIRCUIT NUMBER WALL MOUNTED LED FIXTURE. 'A' DENOTES TYPE. REFER TO SCHEDULE. '#'
#	INDICATES CIRCUIT NUMBER
A (WALL MOUNTED LIGHT FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
A () #	CEILING MOUNTED LIGHT FIXTURE. 'A' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
WP☐ #	WALL PACK OUTDOOR LIGHTING FIXTURE, 'WP' DENOTES TYPE, REFER TO SCHEDULE. '#' INDICATES CIRCUIT NUMBER
	FIXTURE CONNECTED TO EMERGENCY LIGHTING CIRCUIT
	POLE MOUNTED LIGHT FIXTURE STANDARD TYPE, SINGLE, DOUBLE, THREE AND FOUR HEADS. 'A' DENOTES TYPE, REFER TO SCHEDULE
PC PC	PHOTOCELL - CEILING, WALL MOUNTED
\$xx	120V, 15AMP SINGLE POLE TOGGLE SWITCH. XX INDICATES THE FOLLOWING: 3 = 3 WAY SWITCH 4 = 4 WAY SWITCH F = FAN SWITCH K = KEY SWITCH L = LOW VOLTAGE SWITCH
	L = LOW VOLTAGE SWITCH M = MASTER SWITCH P = PROJECTION SCREEN SWITCH T = TIMER SWITCH DIM = DIMMER MB = MOTORIZED BLINDS SWITCH OR = OVERRIDE
	20 = 20 AMP EF = EXHAUST FAN SWITCH WITH RED PILOT LIGHT OS = OCCUPANCY SENSOR OSD = OCCUPANCY SENSOR WITH DIMMING
	WP = WEATHER PROOF SWITCH - TWO, THREE & FOUR GANG
\$ \$ \$	LIGHTING CONTACTOR
LC	WALL MOUNTED EMERGENCY LIGHTING C/W SINGLE REMOTE HEAD
<u> </u>	CONNECTED TO EMERGENCY BATTERY UNIT AS INDICATED. WALL MOUNTED EMERGENCY LIGHTING C/W DOUBLE REMOTE HEADS
	CONNECTED TO EMERGENCY BATTERY UNIT AS INDICATED. EMERGENCY BATTERY UNIT C/W HEADS AS INDICATED
BU-1	EMERGENCY BATTERY UNIT C/W HEADS AS INDICATED & RECEPTACLE
	EMERGENCY BATTERY UNIT C/W HEADS AS INDICATED & RECEPTACLE & EXIT SIGN
	RECESSED CEILING MOUNTED EMERGENCY LUMINAIRES SINGLE REMOTE HEAD.
———	EXIT SIGN, SINGLE FACE, WALL MOUNTED
$\overline{\boxtimes}$	EXIT SIGN, SINGLE FACE, CEILING MOUNTED, C/W DIRECTIONAL ARROWS
 	EXIT SIGN, DUAL FACE, WALL MOUNTED, C/W DIRECTIONAL ARROWS
 ⊠ 	EXIT SIGN, DUAL FACE, CEILING MOUNTED, C/W DIRECTIONAL ARROWS
	CEILING MOUNTED EXIT LIGHT SIGN, WITH EMERGENCY HEADS. ARROWS DENOTE DIRECTION
	DIGITAL LIGHTING CONTROL
\$ _D	DIGITAL MANUAL SWITCH
₽D 	DIGITAL MANUAL DIMMING SWITCH
\$ _{DDIM}	DIGITAL IVIANOAL DIIVIIVIING SWITCH
\$ _s	DIGITAL MANUAL SCENE SWITCH
\$	WALL MOUNTED SWITCH AND OCCUPANCY SENSOR
(\$) _D	WALL MOUNTED DIGITAL SWITCH AND OCCUPANCY SENSOR
\$ _{DIM}	WALL MOUNTED DIGITAL DIMMING SWITCH AND OCCUPANCY SENSOR
C CO	C INDICATES - CLOSED LOOP SINGLE ZONE DIGITAL PHOTOSENSOR O INDICATES - OPEN LOOP SINGLE ZONE DIGITAL PHOTOSENSOR DIGITAL LIGHT MANAGEMENT PLUG LOAD CONTROLLER, 2 = TWO RELAY CIRCUITS
RC3-1	DIGITAL LIGHTING ROOM CONTROLLER RC3 = 3 RELAY CIRCUITS RC2 = 2 RELAY CIRCUITS RC1 = 1 RELAY CIRCUITS D = DIMMING CAPABILITY
os _x os _x	WALL, CEILING MOUNTED OCCUPANCY SENSOR. X INDICATES: D = DUAL TECHNOLOGY DIGITAL OCCUPANCY SENSOR IR = INFRARED SENSOR
ZC	US = ULTRASONIC DIGITAL LIGHT MANAGEMENT ZONE CONTROLLER PANEL
L	LIGHTNING PROTECTION & GROUNDING
↓ OR G	20mm X 3000mm GROUND ELECTRODE
	GROUND ROD IN TEST WELL
	GROUND ROD W/C INSPECTION WELL
$\underline{\hspace{1cm}}$	GROUNDING CONDUCTOR, SIZE AS INDICATED
G	GROUNDING CONDUCTOR, SIZE AS INDICATED

	LIGHTNING PROTECTION & GROUNDING	PROCEEDING NO RESPONSI
	GROUND BONDING POINT TO STEEL STRUCTURE, REBAR, PIPE, ETC.	EXISTING SER
	GROUND BAR	SCALE DRAW
NGR	NEUTRAL GROUNDING RESISTOR	
	DOWNLEAD CONDUCTOR	HWY 7
	LIGHTNING TERMINAL	
A A	PANELS, RECESSED OR SURFACE MOUNTED. 'A' DENOTES PANEL NAME.	407
⊘ -l	120V-1P CONNECTION TO EQUIPMENT AS NOTED C/W DISCONNECT SWITCH	
	DIRECT CONNECTION TO EQUIPMENT	
(a)	THREE PHASE DIRECT CONNECTION TO EQUIPMENT	
	DISCONNECT SWITCH	
∑ 1	COMBINATION MAGNETIC LOOSE STARTER	WHITEVALERE
F	FUSED DISCONNECT	
	COMBINATION MAGNETIC STARTER	
	MANUAL STARTER	
	LOOSE MOTOR STARTER	ω
$\overline{\mathbb{M}}$	1-PHASE MOTOR CONNECTION	REVISIONS
M	3-PHASE MOTOR CONNECTION	
• DO	ELECTRIC DOOR OPERATOR PUSHBUTTON	CONSULTANT
JB	JUNCTION BOX	
JB	ARROW INDICATES CONDUIT & WIRING "HOME RUN". REFER TO SINGLE LINE OR SCHEMATIC	NO. DATE. PRIME CONSULTAN
РВ	PULL BOX	
 Ф _{хх}	20A, 120V, DUPLEX RECEPTACLE (CSA 5-15R) OR AS NOTED. XX INDICATES THE FOLLOWING:	
11 🗚	A ABOVE COUNTER TOP AC HVAC CONTROL CONNECTION ABOVE CEILING DW DISHWASHER	AECOM Canada Li
	M MICROWAVE MB MOTORIZED BLIND (HEIGHT TO BE CONFIRMED WITH THE BLINDS CONTRACTOR)	50 Sportsworld C Kitchener, Ontario 519 650 5313 te
	P PRINTER REF REFRIGERATOR S STOVE	www.aecom.com
	TV TELEVISION - MOUNT AT 1500mm (5') AFF V VENDING XP EXPLOSION PROOF	SUB CONSULTANT
P _{xx}	15A, 120V, GROUND FAULT INTERRUPTING DUPLEX RECEPTACLE (CSA 5-15R) OR AS NOTED. XX INDICATES THE FOLLOWING	
<i>,</i>	WP WEATHER PROOF EEMAC TYPE 4 ENCLOSURE 20 CSA 5-20R	
\bigoplus_{20}	20A, 120V, DUPLEX RECEPTACLE (CSA 5-20R	
Ψ	240V RECEPTACLE	
—————————————————————————————————————	15A, 120V, DUPLEX RECEPTACLE, SPLIT CIRCUIT (CSA 5-15R) OR AS NOTED	DESIGN BY: GR
——— <u>"</u>	15A, 120V, QUAD RECEPTACLE (2X CSA 5-15R) OR AS NOTED	DRAWN BY: HD CHECKED BY: WA
φ	WALL MOUNTED SINGLE RECEPTACLE. AMPS, VOLTS AND CSA CONFIGURATION AS NOTED	APPROVED BY: WA
Φ	CEILING MOUNTED DUPLEX RECEPTACLE	
CLNG	FLOOR MOUNTED QUAD RECEPTACLE	SNO
\	FLOOR MOUNTED DUPLEX RECEPTACLE	REVISIONS
	FLOOR MOUNTED DUPLEX RECEPTACLE	3 03/14/2 22 22 10/18/2
•	WALL FEED FOR POWER AND COMMUNICATIONS TO SYSTEM FURNITURE	2 10/18/2 1 09/22/2
<u> </u>	RACEWAY COMPUTER RECEPTACLE	NO DATE
<u> </u>	RECEPTACLE IN 3 COMPARTMENTS RACEWAYS	
	BASEBOARD OR FAN-FORCED WALL HEATER	
	THERMOSTAT	
<u> </u>	DIGITAL CLOCK	DURHAM REGION
(●) HP	HYDRO POLE	
	MANHOLE	NEW
(●) MH	MAINTENANCE HOLE	AND TR
	HYDRO UTILITY METER	ELECT
	UNDERGROUND CONDUIT	
CL	CEILING SUSPENDED RETRACTABLE DROP-CORD RECEPTACLE	PROPERTY NO.
	EMERGENCY POWER OFF PUSHBUTTON (EPO)	CONTRACT NO.
		T- 1160-





AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel



DESIGN BY: GR	SCALE: N.T.S.
DRAWN BY: HD	DATE: 11/07/20
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

3 03/14/20 22 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL LEGEND AND GENERAL NOTES 1 OF 2

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	E- 001	

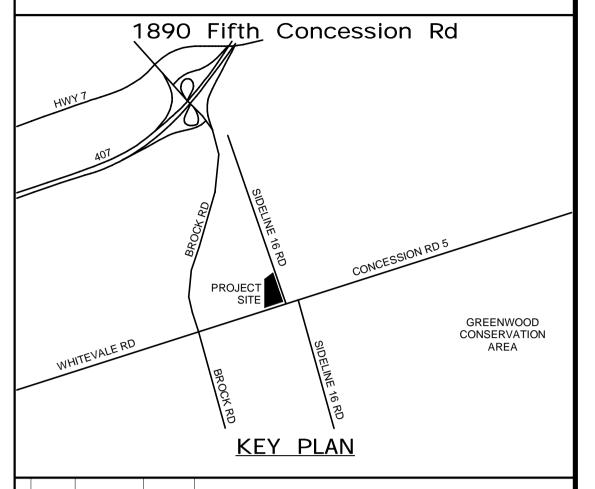
	TV / COMMUNICATION
▼ ▼ -	TELEPHONE OUTLET - WALL, FLOOR, CEILING MOUNTED. PROVIDE 27mmC (1"C) FROM WALL 1G OUTLET BACKBOX TO ACCESSIBLE CEILING SPACE
▼	UNLESS OTHERWISE NOTED. DATA OUTLET - WALL, FLOOR, CEILING MOUNTED. PROVIDE 27mm C (1"C) FROM WALL 1G OUTLET BACKBOX TO ACCESSIBLE CEILING SPACE UNLESS
Vxx 141xx	OTHERWISE NOTED. XX INDICATES THE FOLLOWING: TV - PROVIDE 21mmC (3/4")C FROM WALL OUTLET TO ACCESSIBLE CEILING SPACE UNLESS OTHERWISE NOTED. MOUNT AT 1500mm (5') AFF.
V D - P -	DATA / TELEPHONE OUTLET - WALL, FLOOR, CEILING MOUNTED. PROVIDE 27mm C (1"C) FROM WALL 1G ANG OUTLET BACKBOX TO ACCESSIBLE CEILING SPACE UNLESS OTHERWISE NOTED.
\forall	CABLE TELEVISION OUTLET
	TELECOMMUNICATION CABLING TRAY
	TELECOMMUNICATION CABLING 'J-HOOKS' (INSTALLED AT MAXIMUM 1220mm O/C)
WAP	CISCO WIRELESS ACCESS POINT C/W 1 DATA DROP IN 21mm CONDUIT. ELECTRICAL CONTRACTOR TO INSTALL WIRELESS ACCESS POINTS SUPPLIED BY OWNER.
S	CEILING MOUNTED SPEAKER C/W 1 PAIR OF SPEAKER CABLE IN 21mm CONDUIT TO COMMUNICATION BACKBOARD.
S	WALL MOUNTED SPEAKER C/W 1 PAIR OF SPEAKER CABLE IN 21mm CONDUIT TO COMMUNICATION ROOM.
	SECURITY
	SURVEILLANCE CAMERA (FIXED CAMERA)
	SURVEILLANCE CAMERA (MULTI LENS CAMERA)
	SURVEILLANCE CAMERA (180° CAMERA)
SWITCH	ETHERNET SWITCH
KP	LCD KEY PAD
CR	CARD READER
DC	DOOR CONTACT
ES	ELECTRIC STRIKE
IC	INTERCOM UNIT
GB	360 DEGREE GLASS BREAK
С	CONTACTOR
MD	MOTION DETECTOR
TS	24HR, 7-DAY ELECTRONIC TIME SWITCH, 20A, 120V
WAP	WIRELESS ACCESS POINT
SS	PUBLIC ADDRESS SPEAKER - CEILING, WALL MOUNTED
s	PUBLIC ADDRESS HORN
REX	REQUEST TO EXIT
ML	ELECTROMAGNETIC LOCK
	SINGLE LINE DIAGRAM
——————————————————————————————————————	FUSE
	FUSED DISCONNECT
0 0	DISCONNECT SWITCH
00	CIRCUIT BREAKER
((*)	DRAW-OUT CIRCUIT BREAKER
	TRANSFORMER
<u> </u> 	PT - POTENTIAL TRANSFORMER
	CT - CURRENT TRANSFORMER
<u>_</u>	GROUND CONNECTION
	TRANSFER SWITCH
	PANEL BOARD
XXX	
G	GENERATOR
AS VS	AMMETER & VOLTMETER SWITCHES
$\langle \hat{K} \rangle \langle \hat{E} \rangle \langle \hat{M} \rangle$	INTERLOCK: E = ELECTRIC INTERLOCK K = VIDE KEY INTERLOCK
v v v	K = KIRK KEY INTERLOCK
VFD	M = MECHANICAL INTERLOCK VARIABLE FREQUENCY DRIVE

	СОМ	MON SYMBOLS	
	EQUIPMENT	OR DEVICE AS NOTED	
AC1 EQUIPMENT TAG NO. MOUNTED ON WALL/FLOOR			
(AC-1)	EQUIPMENT	TAG NO. MOUNTED ON CEILING	
1 & 1 & 1	ELECTRICA	L NOTE TAGS	
3 E03/	DETAIL No.3	3 ON DRAWING E03	
	SI	TE SERVICE	
FO	— FO ——	FIBER OPTIC	
тс	— тс ——	TELECOM	
п	IT	DATA	
O/H — O/H — O/H	O/H	OVER HEAD UTILITY POWER FEED	
PWR-600V		600V POWER FEED	
PWR-120V	— PWR-120V	120V POWER FEED	
PWR-347V	PWR-347V	347V POWER FEED	
PWR-PF	— PWR-PF	TRANSFORMER PRIMARY FEED	
PWR-SF	— PWR-SF	TRANSFORMER SECONDARY FEED	
THIS IS A STANDARD LE NOT ALL DEVICES MAY MTG HTG AS SHOWN U	APPEAR ON NLESS OTHE		MTG HT.
FIRE ALARM BELL		1200	
Ĭ			
FIRE ALARM HORN FIRE ALARM STROBE		2300	
			2300
EIDE ALADM SDEAMS			2300
		RM COMBINATION SPEAKER / STROBE	
•	SMOKE DI		
•		ETECTOR - DUCT TYPE	
\longrightarrow		ETECTOR - BEAM TYPE	
•		ECTOR - 135°F RATE OF RISE TEMPERATURE TYPE	
•		ECTOR - 190°F FIXED TEMPERATURE TYPE	
•		ECTOR - 285°F RATE OF RISE TEMPERATURE TYPE	
	FACP FIRE ALARM CONTROL PANEL		
ANNUN.	ANNUN. REMOTE FIRE ALARM ANNUNCIATOR PANEL		
sv		R SYSTEM SUPERVISED VALVE	
FS	SPRINKLE	R SYSTEM FLOW OR PRESSURE SWITCH AS NOTED	
SD	SMOKE DA	AMPER	
<u>co</u> <u>co</u>	CARBON N WALL, CE	MONOXIDE DETECTOR (CO), ILING MOUNTED	
AR	FIRE ALAF	RM ADDRESSABLE RELAY	
"M"	FIRE ALAF	RM END-OFLINE DEVICE	

GENERAL NOTES

- . PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES, STANDARDS AND BULLETINS AND TO THE LOCAL AUTHORITIES REQUIREMENTS.
- INFORMATION REPRESENTED ON THESE DRAWINGS IS FROM VISUAL FIELD REVIEW. AECOM AND ITS REPRESENTATIVES ARE NOT RESPONSIBLE FOR ANY DISCREPANCIES AND/OR ERRORS. THE CONTRACTOR SHALL VERIFY THE SCOPE OF WORK PRIOR TO PROCEEDING.
- THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND THE DOCUMENTS PERTAINING TO THE WORK OF OTHER TRADES.
 OBTAIN EXACT DIMENSIONS FROM SITE MEASUREMENTS. DO NOT SCALE THESE DRAWINGS.
- 5. PENETRATIONS TO EITHER FIRE AND/OR SMOKE BARRIERS SHALL BE SLEEVED AND SEALED AGAINST THE PASSAGE OF FLAME AND/OR SMOKE WITH A SUITABLE NON-COMBUSTIBLE MATERIAL EQUAL TO THE CONSTRUCTION PENETRATED.
- 6. CHECK AND VERIFY THE LOCATIONS OF ALL PANELBOARDS, DISCONNECTS, RECEPTACLES, CONDUITS AND EQUIPMENT WITH THE WORK OF OTHER TRADES TO PREVENT INTERFERENCE. REMOVAL AND RELOCATION OF ANY SUCH WORK INTERFERING WITH THE WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE ELECTRICAL TRADE(S), UNLESS OTHERWISE APPROVED IN WRITING.
- PROVIDE ACCESS DOORS AS REQUIRED FOR ALL CONCEALED SERVICEABLE COMPONENTS LOCATED ABOVE, BEHIND OR BELOW INACCESSIBLE CONSTRUCTION.
- 8. RESTORE ALL SURFACES TO PRE-CONSTRUCTION STATE OR AS SHOWN ON LANDSCAPE SITE PLANS, FOLLOWING TRENCHING AND UNDERGROUND DUCT WORK.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

AECON

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



SUB CONSULTANT

www.aecom.com

PRIME CONSULTANT

DESIGN BY: GR

SCALE: N.T.S.

DRAWN BY: HD

DATE: 11/07/20

CHECKED BY: WA

CONSULTANT PROJECT NO. 60611569

APPROVED BY: WA

CLIENT FILE No.: 811/20



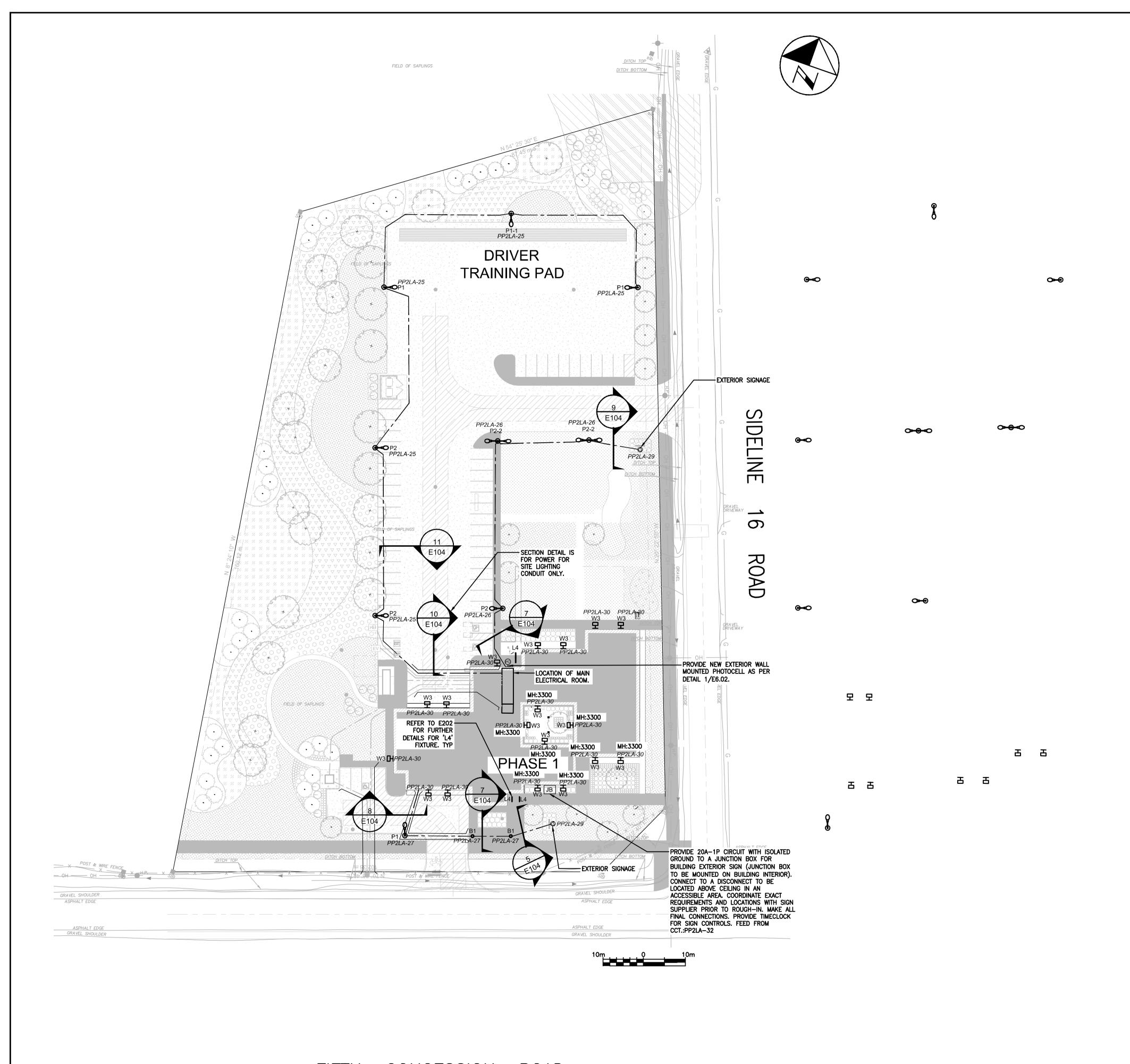
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

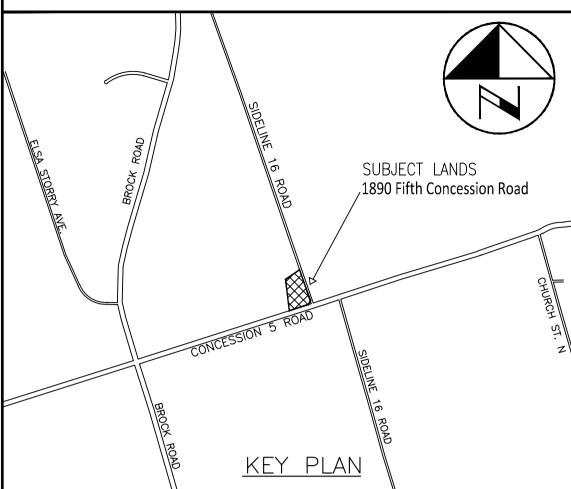
NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
ELECTRICAL LEGEND AND GENERAL
NOTES 2 OF 2

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	E- 002	



FIFTH CONCESSION ROAD

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



	7	03/22	WA	ISSUED FOR CONSTRUCTION
SN	6	07/21	GR	REVISED FOR 100%
REVISIONS	5	06/21	GR	ISSUED FOR 100%
REV	4	03/21	WA	ISSUED FOR 90% REVIEW
ΤN	4	03/21	WA	RE-ISSUED FOR SPA
CONSULTANT	3	12/20	WA	ISSUED FOR 60% REVIEW
NSI	2	11/20	WA	ISSUED FOR 30% REVIEW
ၓ	1	10/20	WA	ISSUED FOR SPA
	NO.	DATE	NAME	REVISIONS

W.E.MOHAMED ALI

100186996

PRIME CONSULTANT

AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB-CONSULTANT

	ESIGN	BY: GR		SCALE 1:500	
	RAWN E	BY: HD		DATE: 2020-10-3	50
	HECKED	BY: WA		CONSULTANT PROJECT	NO. 60611569
A	PPROVE	D BY: WA		SITE PLAN FILE NO.	S 11/20
	NO.	DATE	NAME	REVISIONS	



THE REGIONAL MUNICIPALITY
OF DURHAM

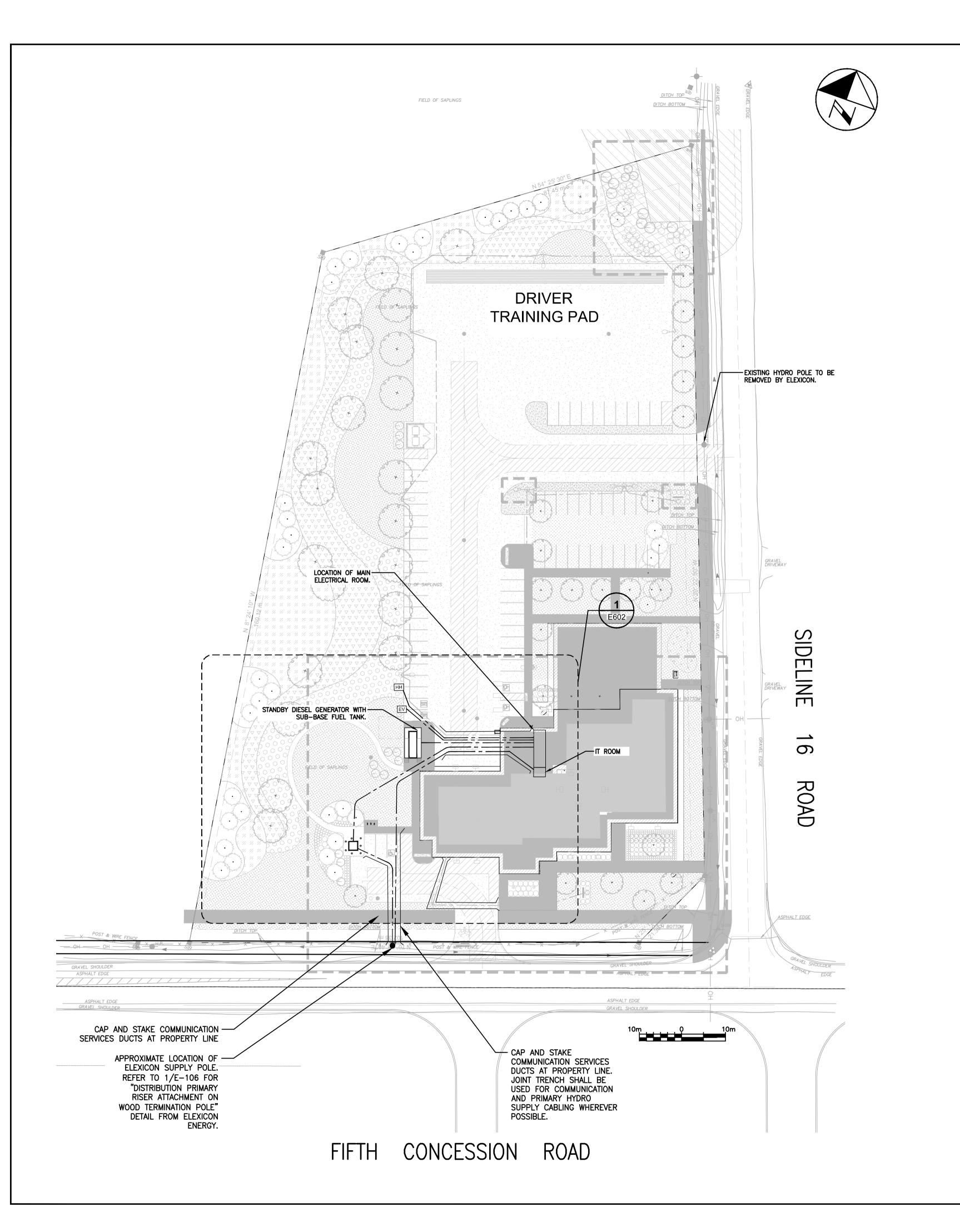
WORKS DEPARTMENT

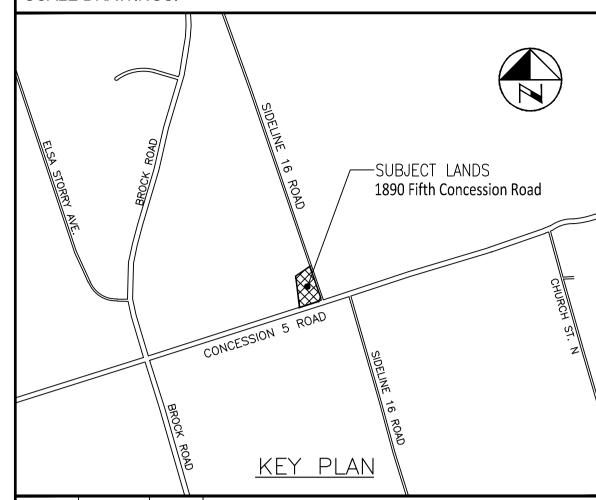
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

SEATON EMS

SITE LIGHTING PLAN

PROPERTY NO.	FACILITY CODE XXX-XXX-XXX	FACILITIES PROJECT NO.
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-XXXX-20XX	E-101	X OF XX





	6	03/22	WA	ISSUED FOR CONSTRUCTION
	5	07/21	GR	REVISED FOR 100%
	4	06/21	GR	ISSUED FOR 100%
	3	03/21	WA	ISSUED FOR 90% REVIEW
Ī	2	12/20	WA	ISSUED FOR 60% REVIEW
	1	11/20	WA	ISSUED FOR 30% REVIEW
	NO.	DATE	NAME	REVISIONS

PRIME CONSULTANT

AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



SUB-CONSULTANT

DESIGN BY:	GR		SCALE 1:500
DRAWN BY:	HD		DATE: 2020-10-30
CHECKED E	BY: WA		CONSULTANT PROJECT NO. 60611569
APPROVED	BY: WA		SITE PLAN FILE NO. S 11/20
NO.	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY
OF DURHAM

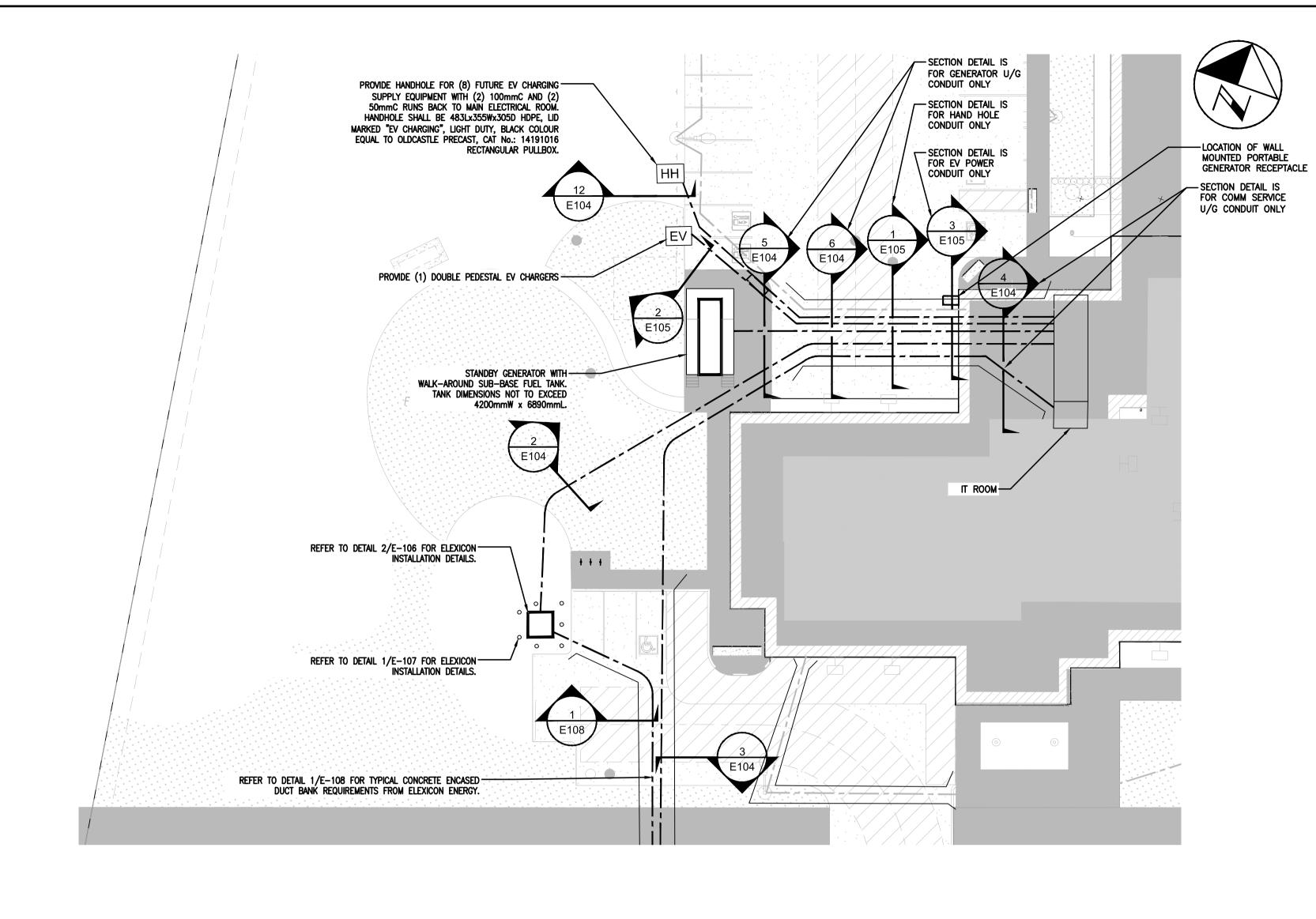
WORKS DEPARTMENT

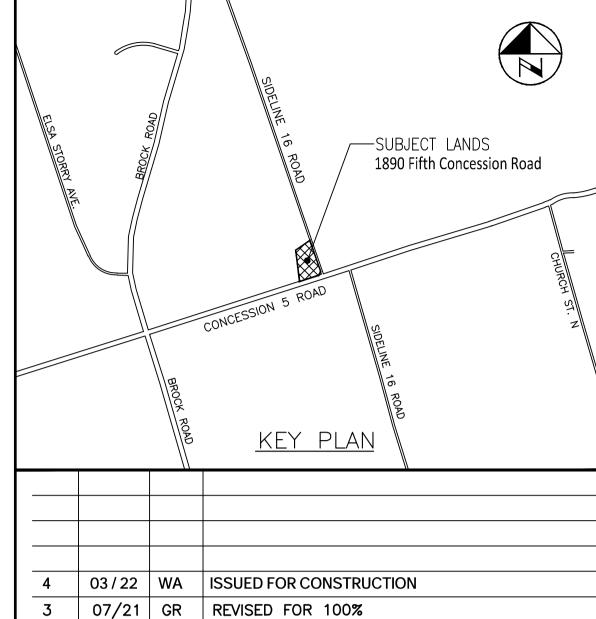
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

SEATON EMS

SITE POWER PLAN

PROPERTY NO.	FACILITY CODE XXX-XXX-XXXX	FACILITIES PROJECT NO.
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-XXXX-20XX	E-102	X OF XX





AECOM

NO. DATE NAME

PRIME CONSULTANT

SUB-CONSULTANT

2 | 06/21 | GR | ISSUED FOR 100%

03/21 WA ISSUED FOR 90% REVIEW

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



REVISIONS

DESIGN BY: GR		SCALE 1:250	
DRAWN BY: HD		DATE: 2020-10-30	
CHECKED BY: WA		CONSULTANT PROJECT NO.	60611569
APPROVED BY: WA		SITE PLAN FILE NO.	S 11/20
NO. DATE NA	ME	REVISIONS	



THE REGIONAL MUNICIPALITY
OF DURHAM

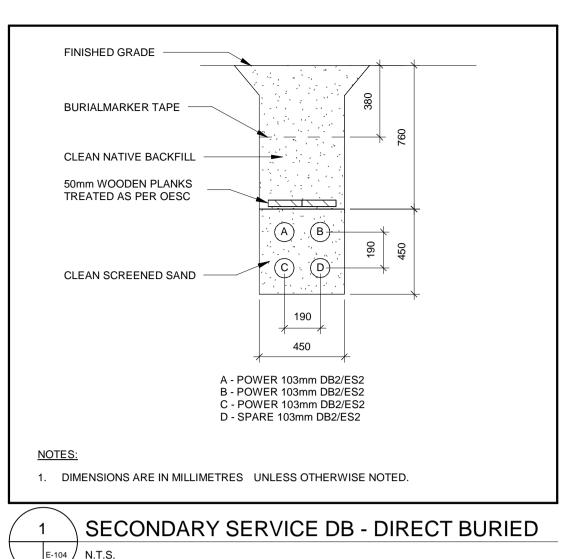
WORKS DEPARTMENT

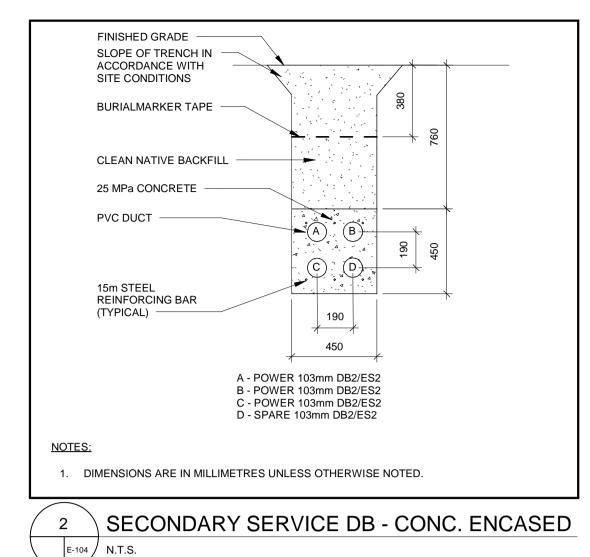
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

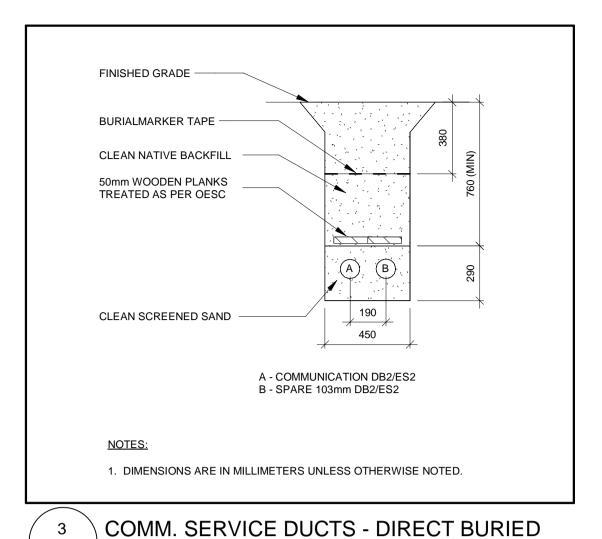
SEATON EMS

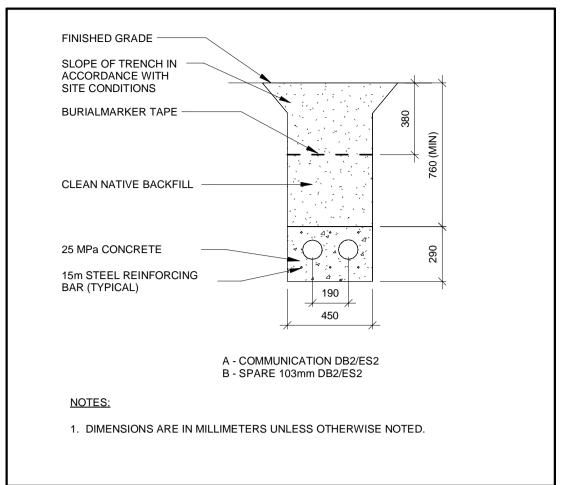
ENLARGE SITE POWER PLAN

PROPERTY NO.	FACILITY CODE XXX-XXX-XXX	FACILITIES PROJECT NO.
CONTRACT NO.	DRAWING NO.	SHEET NO.
T-XXXX-20XX	E-103	X OF XX









E-104 / N.T.S.

FINISHED GRADE

SLOPE OF TRENCH IN

ACCORDANCE WITH SITE CONDITIONS

BURIALMARKER TAPE

25 MPa CONCRETE

4-53mm RIGID PVC CONDUIT

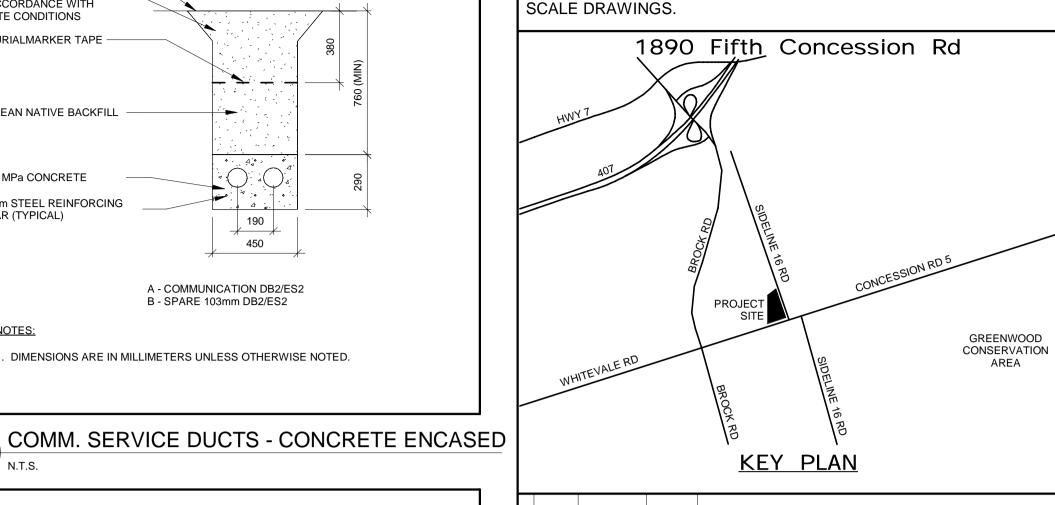
REINFORCING BAR (TYPICAL)

15m STEEL

NOTES:

E-104 / N.T.S.

CLEAN NATIVE BACKFILL

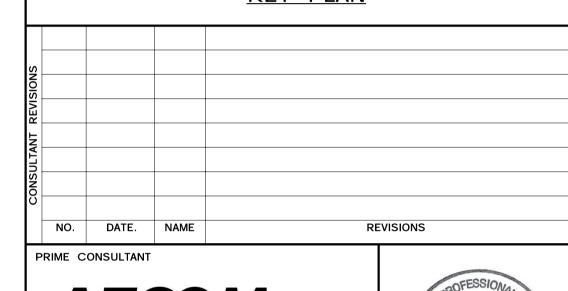


ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE

NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF

EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT

PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES



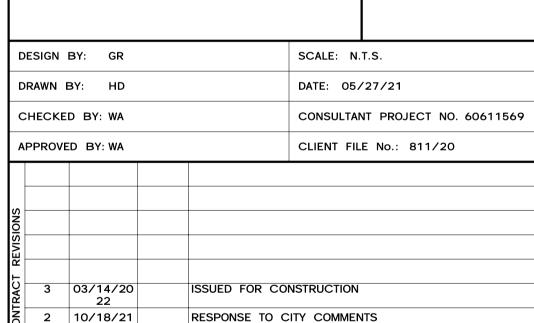


AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4



519 650 3424 fax 519 650 5313 tel www.aecom.com

SUB CONSULTANT



ISSUED FOR TENDER



1 09/22/21

THE REGIONAL MUNICIPALITY OF DURHAM

REVISIONS

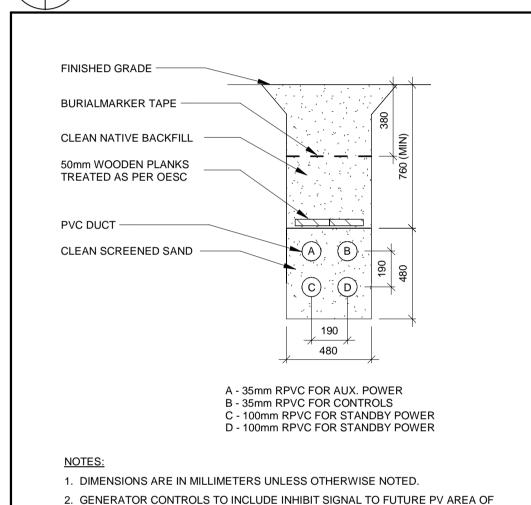
WORKS DEPARTMENT

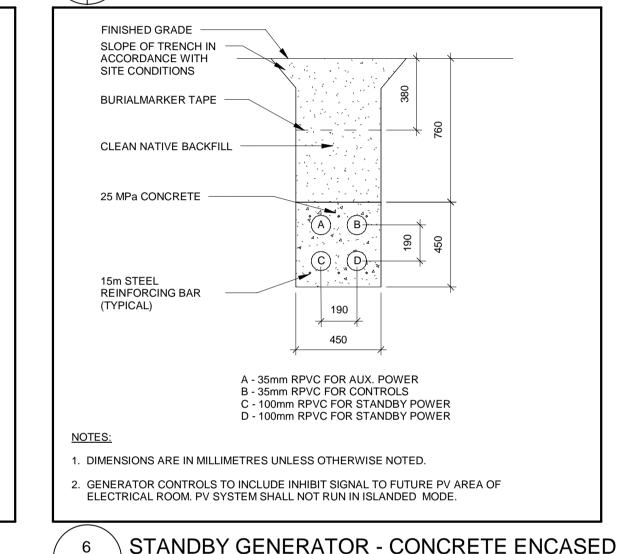
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

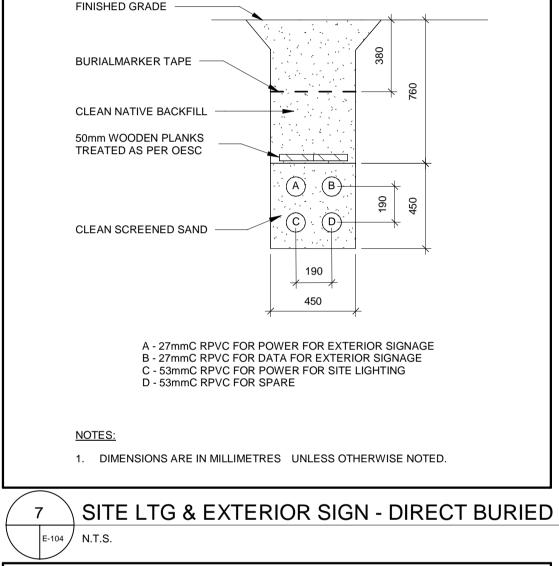
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

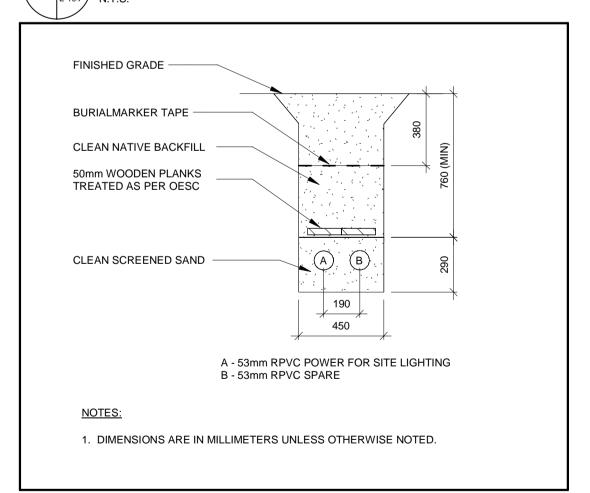
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO. T- 1160- 2021	DRAWING NO. E-104	SHEET NO.

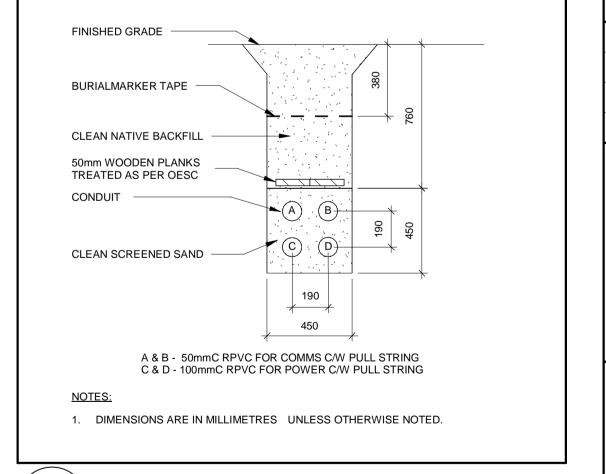












A - 27mmC RPVC FOR POWER FOR EXTERIOR SIGNAGE

SITE LTG & EXTERIOR SIGN - CONC. ENCASED

B - 27mmC RPVC FOR DATA FOR EXTERIOR SIGNAGE

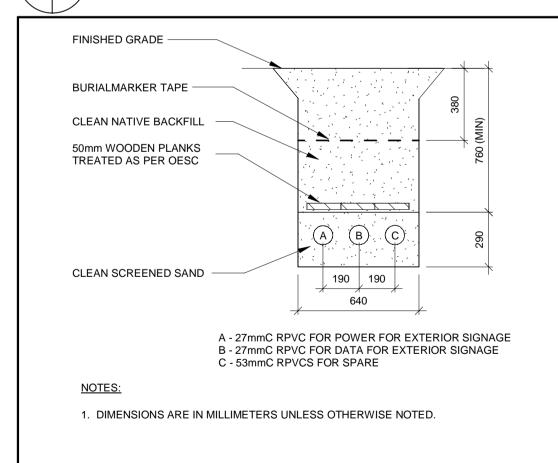
C - 53mmC RPVC FOR POWER FOR SITE LIGHTING

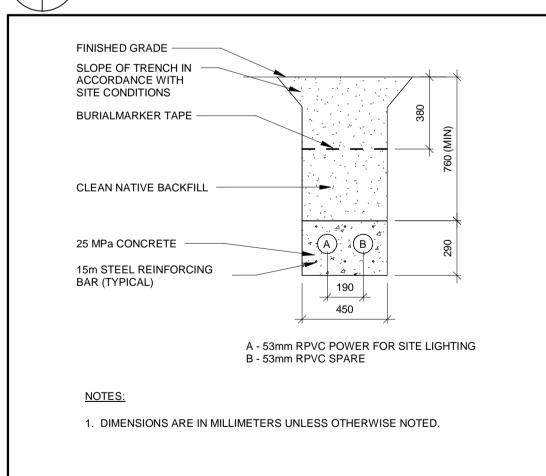
D - 53mmC RPVC FOR SPARE

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

STANDBY GENERATOR - DIRECT BURIED E-104 / N.T.S.

ELECTRICAL ROOM. PV SYSTEM SHALL NOT RUN IN ISLANDED MODE.

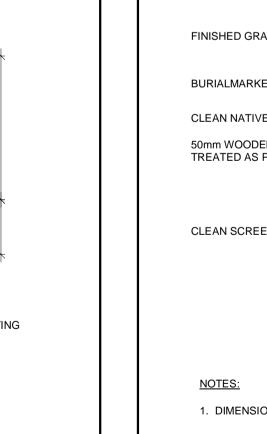




E-104 / N.T.S.

\ SITE LTG - CONCRETE ENCASED E-104 / N.T.S.

E-104 / N.T.S.

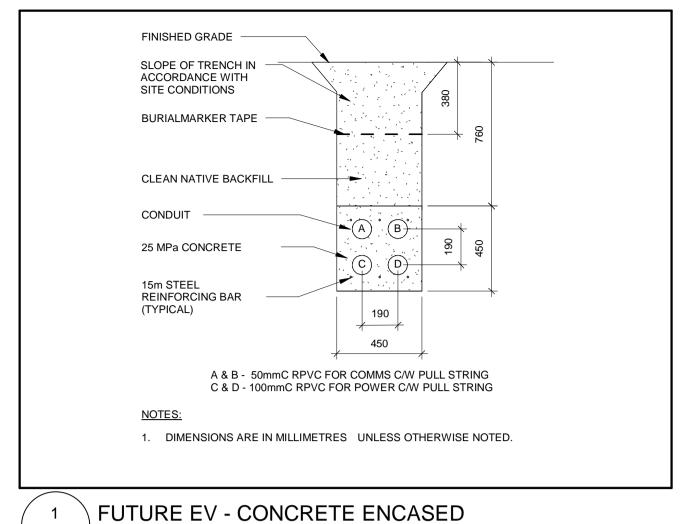


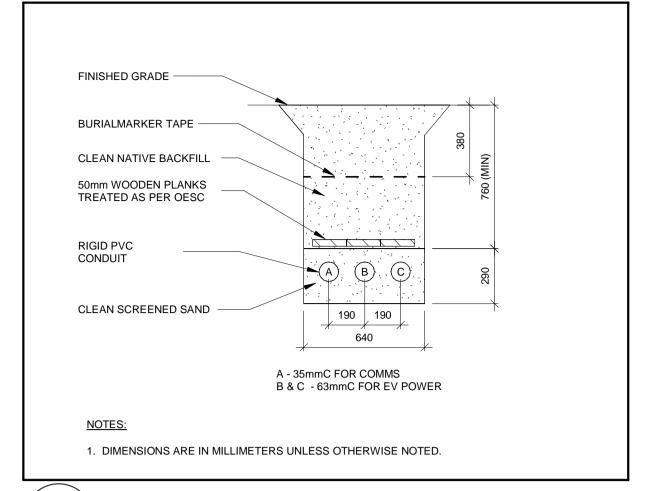
E-104 / N.T.S.

SITE LTG - DIRECT BURIED

EXTERIOR SIGNAGE - DIRECT BURIED

FUTURE EV - DIRECT BURIED E-104 / N.T.S.



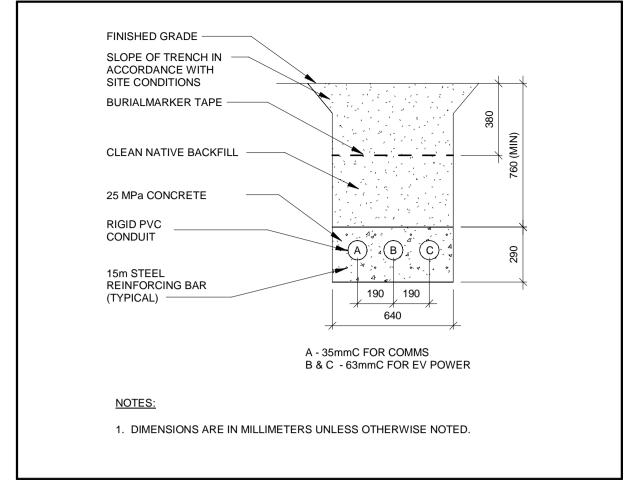


4 POLE BASE DETAIL

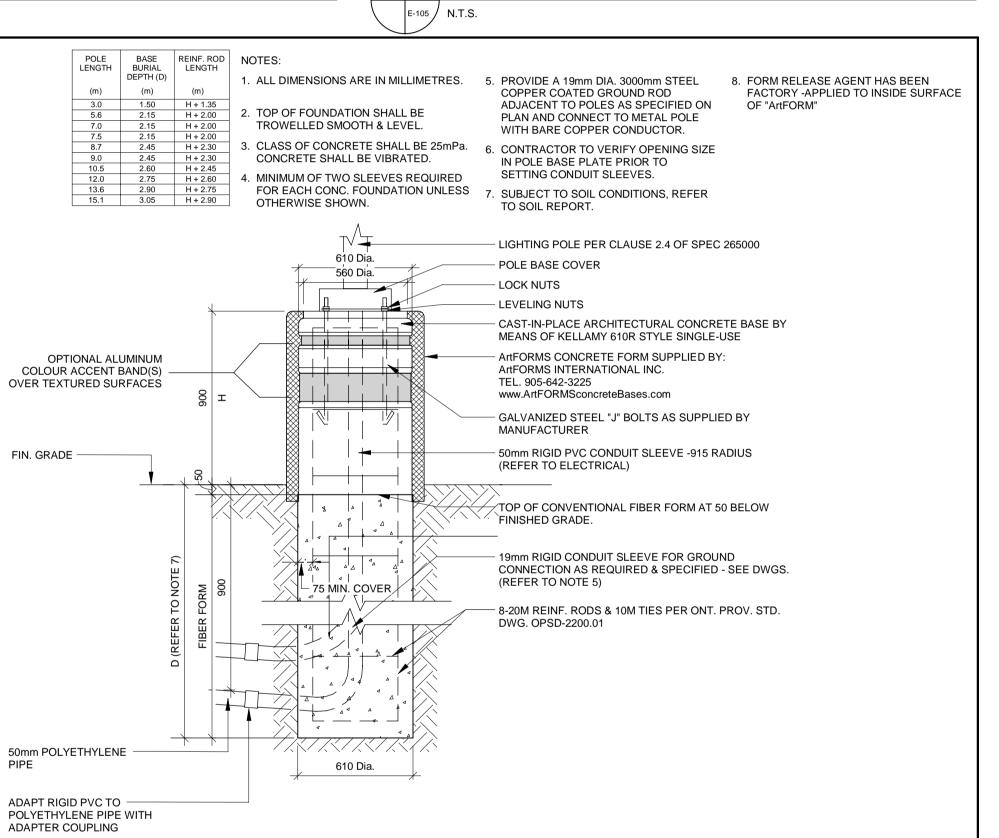
E-105 N.T.S.

EV - DIRECT BURIED

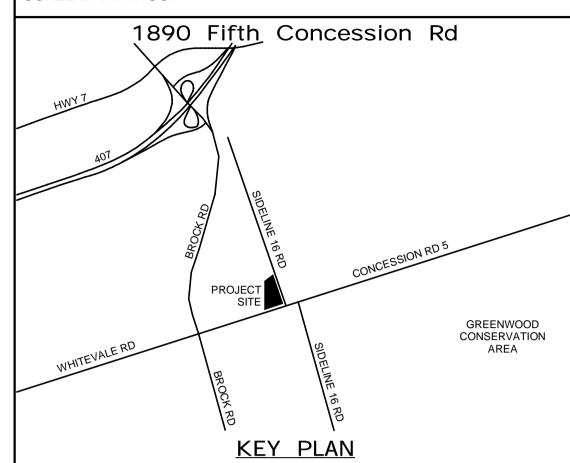
E-105 N.T.S.

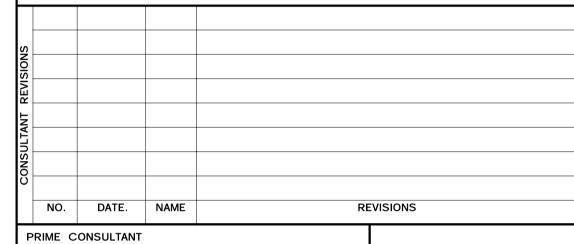


EV - CONCRETE ENCASED



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





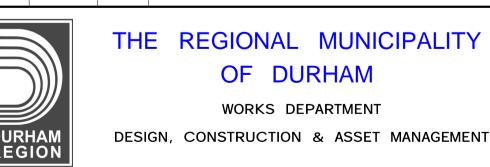
SUB CONSULTANT

AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel www.aecom.com



DESIGN BY: GR	SCALE: N.T.S.
DRAWN BY: HD	DATE: 06/01/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
1.				
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION
NOS	2	10/18/21		RESPONSE TO CITY COMMENTS
ľ	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



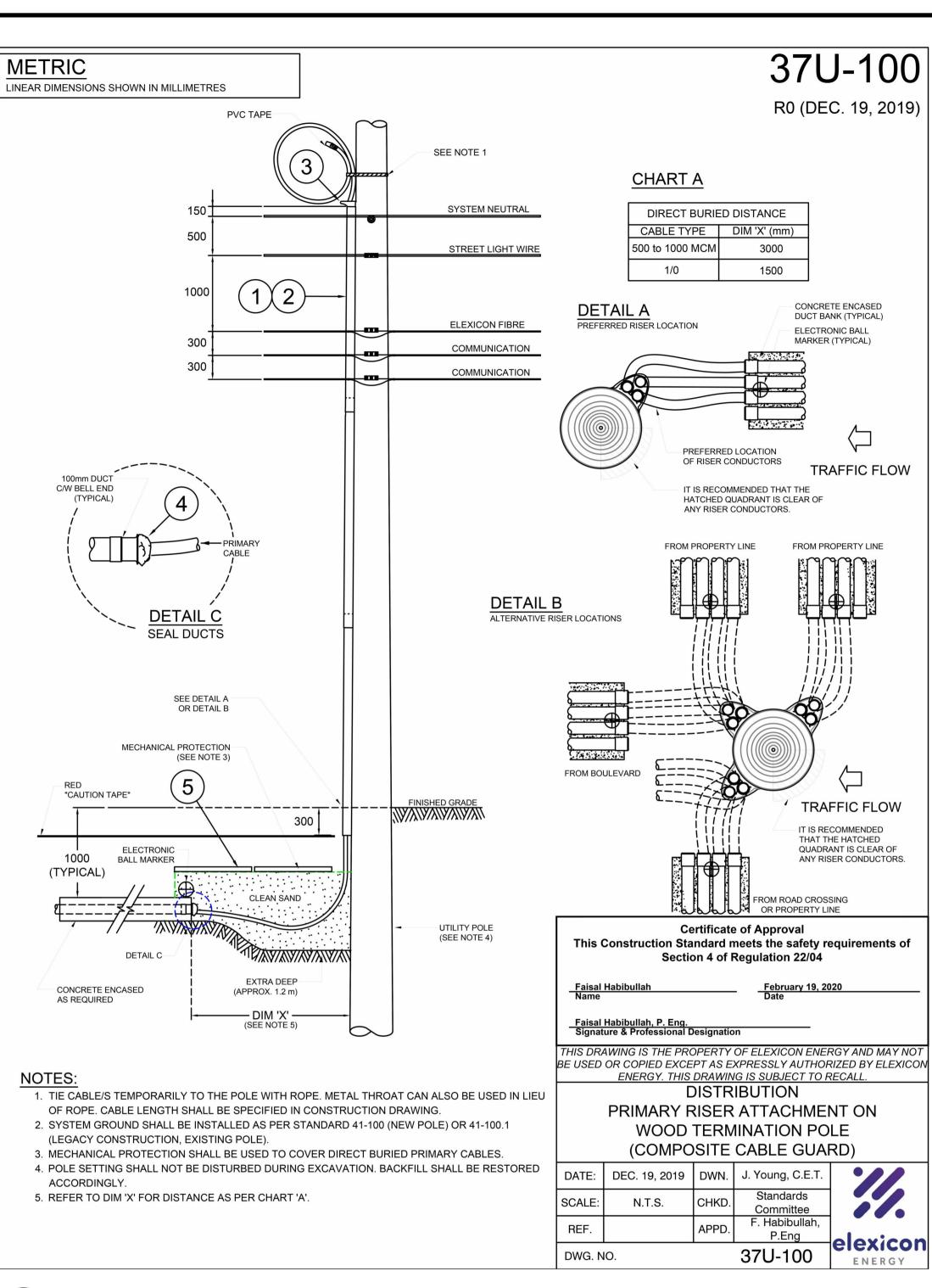
THE REGIONAL MUNICIPALITY OF DURHAM

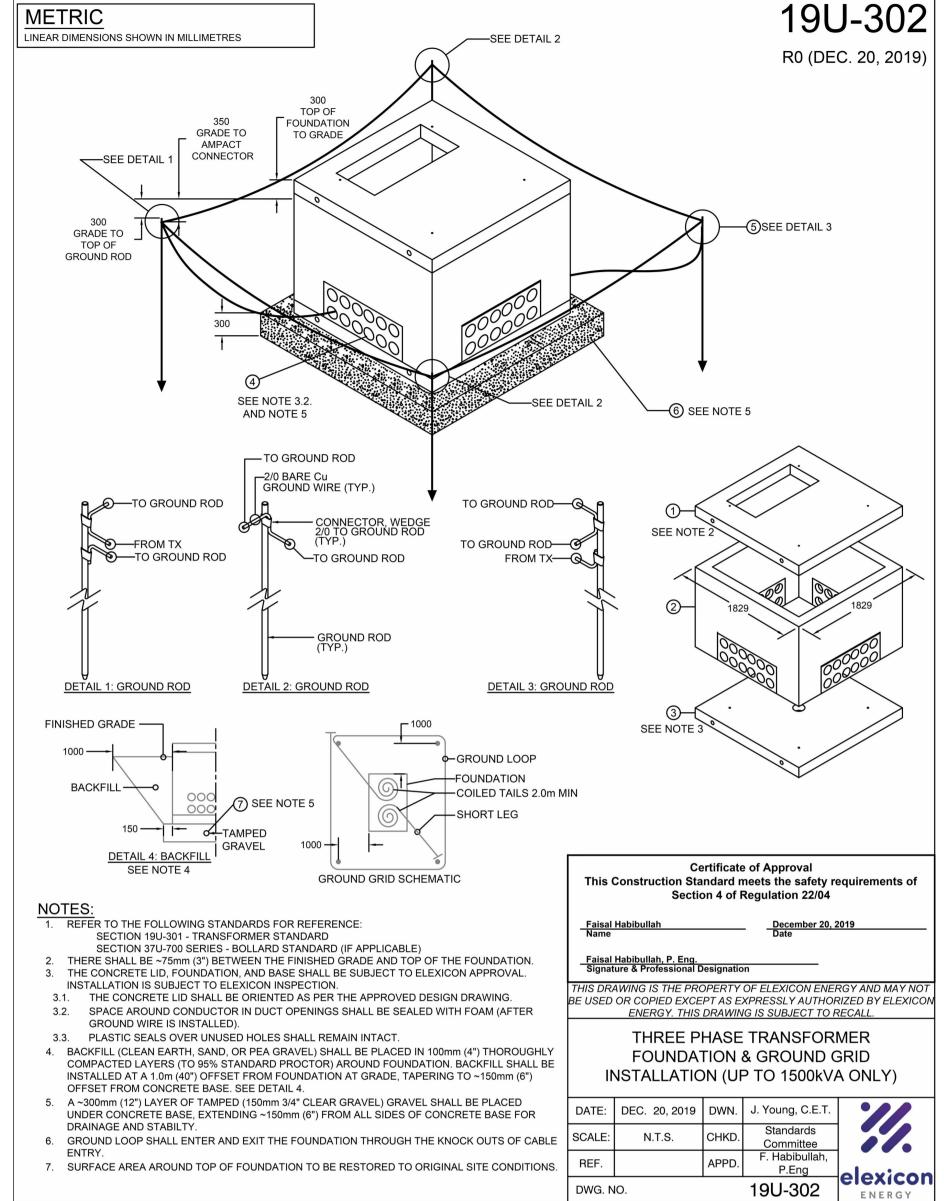
WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION

AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

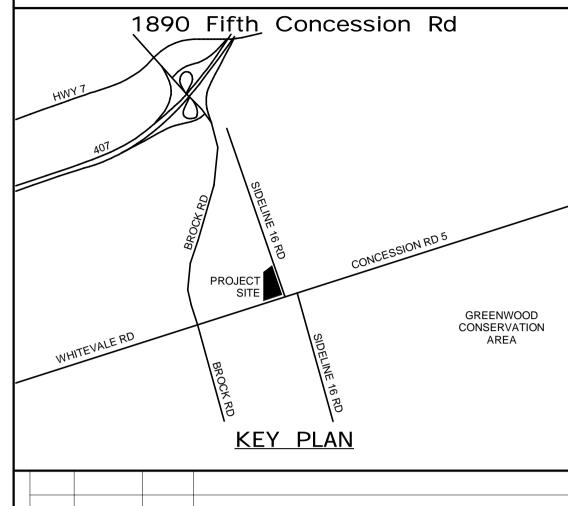
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061- 18- 01	P-AME
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 105	SHEET NO.	BIM 360://BI

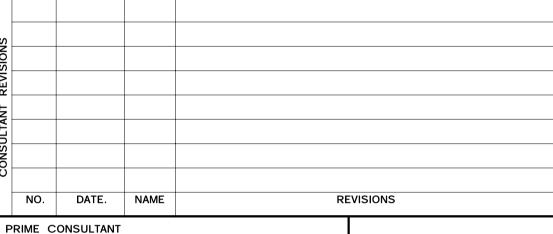




THREE PHASE TRANSFORMER FOUNDATION & GROUND GRID INSTALLATION

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





AECOM Canada Ltd. 50 Sportsworld Crossing Road, Suite 290 Kitchener, Ontario, N2P 0A4 519 650 3424 fax 519 650 5313 tel www.aecom.com

SUB CONSULTANT



DESIGN BY: GR SCALE: N.T.S. DRAWN BY: HD DATE: 05/27/21 CONSULTANT PROJECT NO. 60611569 CHECKED BY: WA

APPROVED BY: WA CLIENT FILE No.: 811/20 3 03/14/20 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

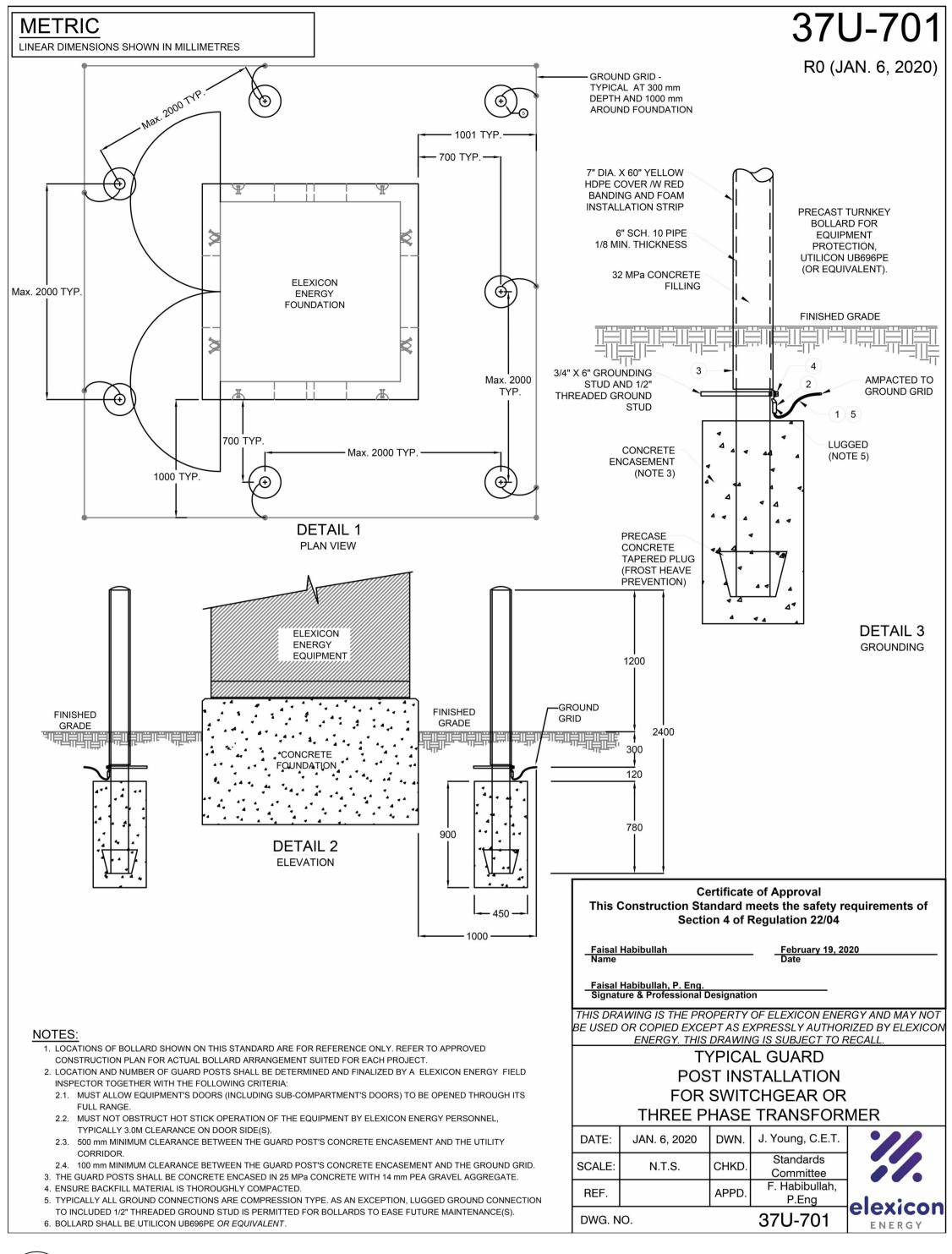
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

PROPERTY NO. FACILITIES CODE FACILITIES PROJECT NO. P061- 18- 01 CONTRACT NO. DRAWING NO. SHEET NO. T- 1160- 2021 E- 106



DISTRIBUTION PRIMARY RISER ATTACHMENT ON WOOD TERMINATION POLE



TYPICAL GUARD POST INSTALLATION FOR SWITCHGEAR OR THREE PHASE TRANSFORMER

CONCRETE ENCASED DUCT BANK REQUIREMENTS

DESIGN CONSIDERATIONS:

- 1.1. UNLESS OTHERWISE SPECIFIED ON THE DESIGN DRAWINGS, BENDS AND TURNS IN DUCT RUN SHALL BE ACCOMPLISHED WITH A GRADUAL SWEEP. ALL 90 DEGREE CHANGES IN DIRECTION SHALL BE MADE OF APPROPRIATE ELBOWS. MINIMUM RADIUS ELBOW FOR MAIN FEEDER CABLES (500MCM-1000MCM) SHALL BE 1.5m (60"). MINIMUM RADIUS ELBOW FOR (1/0 AWG) SHALL BE 0.91m (36"). SEE FIGURE 1 FOR DETAILS.
- 1.2. DUCT BANKS SHALL BE BURIED WITH A MINIMUM COVER OF 1000 mm, WITH THE EXCEPTION OF ROAD CROSSINGS WHICH SHALL BE BURIED WITH A MINIMUM COVER OF 1200 mm (UNLESS OTHERWISE SPECIFIED IN THE DESIGN DRAWINGS). TRENCH RESTORATION SHALL BE MADE UP OF CLEAN BACKFILL ON DUCT BANKS INSTALLED UNDER LAWNS AND PARKWAYS. DUCT BANKS ALONG BOULEVARDS OR ACROSS ROADS SHALL HAVE BACKFILL MATERIALS AND TRENCH RESTORATION TO CONFORM WITH THE MUNICIPAL OR REGIONAL AUTHORITY, AS REQUIRED.
- 1.3. PULLING TENSION CALCULATIONS ARE REQUIRED AND PULLING TENSION SHALL BE RECORDED DURING INSTALLATION AND SUBMITTED TO ELEXICON ENERGY REPRESENTATIVE.
- 1.4. PROPER LUBRICATION FOR CABLE PULLING IS REQUIRED. 1.5. CUSTOMER'S DUCT BANK SHALL HAVE A MINIMUM SLOPE OF 1% AWAY FROM THE BUILDING. CONSULT ELEXICON ENERGY INSPECTOR WHERE THE ABOVE REQUIREMENT CANNOT BE MET. (i.e. FRENCH DRAIN
- 1.6. REFER TO ENGINEERING DESIGN DRAWINGS FOR CONSIDERATION OF INSTALLING SCADA, COMMUNICATION & LOW VOLTAGE SUPPLY DUCTS.
- 1.7. CONFIGURATIONS NOT COVERED BY STANDARDS 37U-600 SERIES SHALL BE ARRANGED IN A SIMILAR MANNER TO THESE STANDARDS AND SUBJECT TO ELEXICON ENERGY APPROVAL.

2. DUCT BANK CONSTRUCTION:

- 2.1. THE DUCT SHALL BE 100mm (4") DIAMETER, RED, PVC TYPE DB2/ES2 (SOLID WALL ONLY) C/W BELL END AND BE APPROVED AS PER CSA STANDARD C22.3 (LATEST REVISION) AND ELEXICON ENERGY STANDARD. 2.1.1. FOR CABLE SIZES 750 MCM AND UP, THE DUCT SIZE SHALL BE 150mm (6").
- 2.2. ALL FITTINGS AND BENDS SHALL BE PVC TYPE DB2/ES2. APPROVED SOLVENT CEMENT SHALL BE USED TO JOIN ALL DUCTS AND SHOULD BE APPLIED AT A MINIMUM OF 30 MINUTES PRIOR TO POURING CONCRETE.
- 2.3. ALL DUCTS AT THE FACE OF THE DUCT BANK SHALL BE ORIENTED AND TERMINATED WITH EITHER BELL END SUPPORTING CABLES OR PLUGS FOR SPARE DUCTS AS PER ELEXICON ENERGY STANDARD 37U-610 &
- 2.4. DUCTS SHALL BE SUPPORTED WITH SPACERS EVERY 1.5m (5') OR NOT GREATER THAN 2.0m (6.5') AND BE ANCHORED SO AS NOT TO FLOAT DURING CONCRETE POURING.
- 2.5. ALL DUCT BANKS SHALL BE REINFORCED WITH NON PRE-STRESSED 20 mm (3/4") DEFORMED STEEL REINFORCING BARS - GRADE 400 AND CONFORM TO CSA G30.12 (LATEST REVISION). STEEL REINFORCING BARS SHALL BE INSTALLED CONTINUOUSLY, MINIMUM 300 mm OVERLAPPED AND TIED, AND BE LOCATED AT THE BOTTOM OF THE DUCT BANK AS PER ELEXICON ENERGY STANDARD 37U-601 TO 37U-608.
- BANDING EVERY 3.0m OF DUCT. WHERE DUCT BANK ARE TO BE EXTENDED IN FUTURE, STEEL REINFORCING BARS SHALL EXTEND BEYOND CONCRETE ENCASEMENT. REINFORCING BARS SHALL BE CONTINUOUS WHEN 2.7. DUCTS SHALL BE ENCASED IN 25MPa CONCRETE WITH 10 mm PEA GRAVEL AGGREGATE. SLUMP MUST NOT

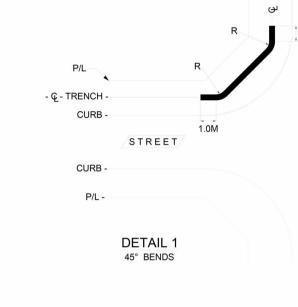
2.6. SECURE AND PREVENT DUCTS FROM MOVING DURING CONCRETE POURING BY INSTALLING NON METALLIC

- EXCEED 100 mm (4") UNDER STANDARD SLUMP TEST. EARTH BENEATH DUCT BANK SHALL BE THOROUGHLY COMPACTED PRIOR TO DUCT BANK INSTALLATION TO ELIMINATE SETTLING OF FINISHED DUCT BANK. 2.8. ALL DUCTS SHALL BE MANDRELLED AND CLEANED AFTER DUCT BANK INSTALLATION.
- 2.9. ALL DUCTS SHALL BE EQUIPPED WITH 10 mm (3/8") DIAMETER POLYPROPYLENE ROPE AND SHALL HAVE THE ENDS SEALED IMMEDIATELY AFTER INSTALLATION.
- 2.10. END OF DUCT BANK AND ROAD CROSSING SHALL BE MARKED WITH AN ELECTRONIC MARKER AS PER ELEXICON STANDARD 37U-610 & 37U-611.

3. CUSTOMER OBLIGATIONS:

- 3.1. CUSTOMER'S DUCT BANK INSTALLATION SHALL BE SUBJECT TO ELEXICON ENERGY INSPECTION AND ACCEPTANCE PRIOR TO POURING OF CONCRETE OR ANY BACKFILL MATERIAL, OR WILL NOT BE ACCEPTED. CUSTOMER SHALL CONTACT ELEXICON ENERC INSPECTION DEPARTMENT TO ARRANGE FOR INSPECTION 48 HOURS IN ADVANCE OF
- POURING CONCRETE. 3.2. THE CUSTOMER SHALL FOLLOW DIRECTIONS GIVEN BY THE ELEXICON ENERGY INSPECTOR
- FOR ANY SITUATION NOT COVERED IN THIS SPECIFICATION. 3.3. DUCTS SHALL BE PROBED PRIOR TO CABLE INSTALLATION. CABLE SHALL NOT BE INSTALLED IN DUCT WHICH DOES NOT ALLOW PASSAGE OF A TEST MANDREL SIZED TO 95 % OF THE DIAMETER OF THE PVC TYPE DB2/ES2 DUCT.
- 3.4. LANDSCAPING, PAVING AND CURBS SHALL NOT BE COMPLETED UNTIL DISTRIBUTOR'S CABLE INSTALLATION IS COMPLETE. OTHERWISE, ALL RESTORATION SHALL BE DONE BY THE CUSTOMER AT THEIR OWN EXPENSE.

MINIMUM BENDING RADIUS (R) OF PRIMARY CABLES SIZE OF CABLE ON TIGHT LOCATION PREFERRED 1524 mm (60") 910 mm (36")* 1/0 AWG CABLES - SUBJECT TO ELEXICON ENERGY APPROVAL AND INSPECTION



Certificate of Approval This Construction Standard meets the safety requirements of Section 4 of Regulation 22/04

HIS DRAWING IS THE PROPERTY OF ELEXICON ENERGY AND MAY NO USED OR COPIED EXCEPT AS EXPRESSLY AUTHORIZED BY ELEXICO ENERGY. THIS DRAWING IS SUBJECT TO RECALL

> CONCRETE ENCASED DUCT BANK REQUIREMENTS

DATE:	JAN. 6, 2020	DWN.	J. Young, C.E.T.	'//
SCALE:	N.T.S.	CHKD.	Standards Committee	
REF.		APPD.	F. Habibullah, P.Eng	elexico
DWG. NO.			37U-600	ENERGY

DESIGN BY: GR DRAWN BY: HD CHECKED BY: WA APPROVED BY: WA

NO. DATE. NAME

AECOM Canada Ltd.

519 650 5313 tel

www.aecom.com

SUB CONSULTANT

Kitchener, Ontario, N2P 0A4

AECOM

50 Sportsworld Crossing Road, Suite 290

519 650 3424 fax

3 03/14/20 ISSUED FOR CONSTRUCTION 2 10/18/21 RESPONSE TO CITY COMMENTS 1 09/22/21 ISSUED FOR TENDER NO DATE NAME REVISIONS

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES

NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT

PROJEC

1890 Fifth Concession Rd

KEY PLAN

REVISIONS

W. E. MOHAMED ALI

100186996

GREENWOOD CONSERVATION

SCALE DRAWINGS.



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

SCALE: N.T.S.

DATE: 05/27/21

CLIENT FILE No.: 811/20

CONSULTANT PROJECT NO. 60611569

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL SITE DETAILS

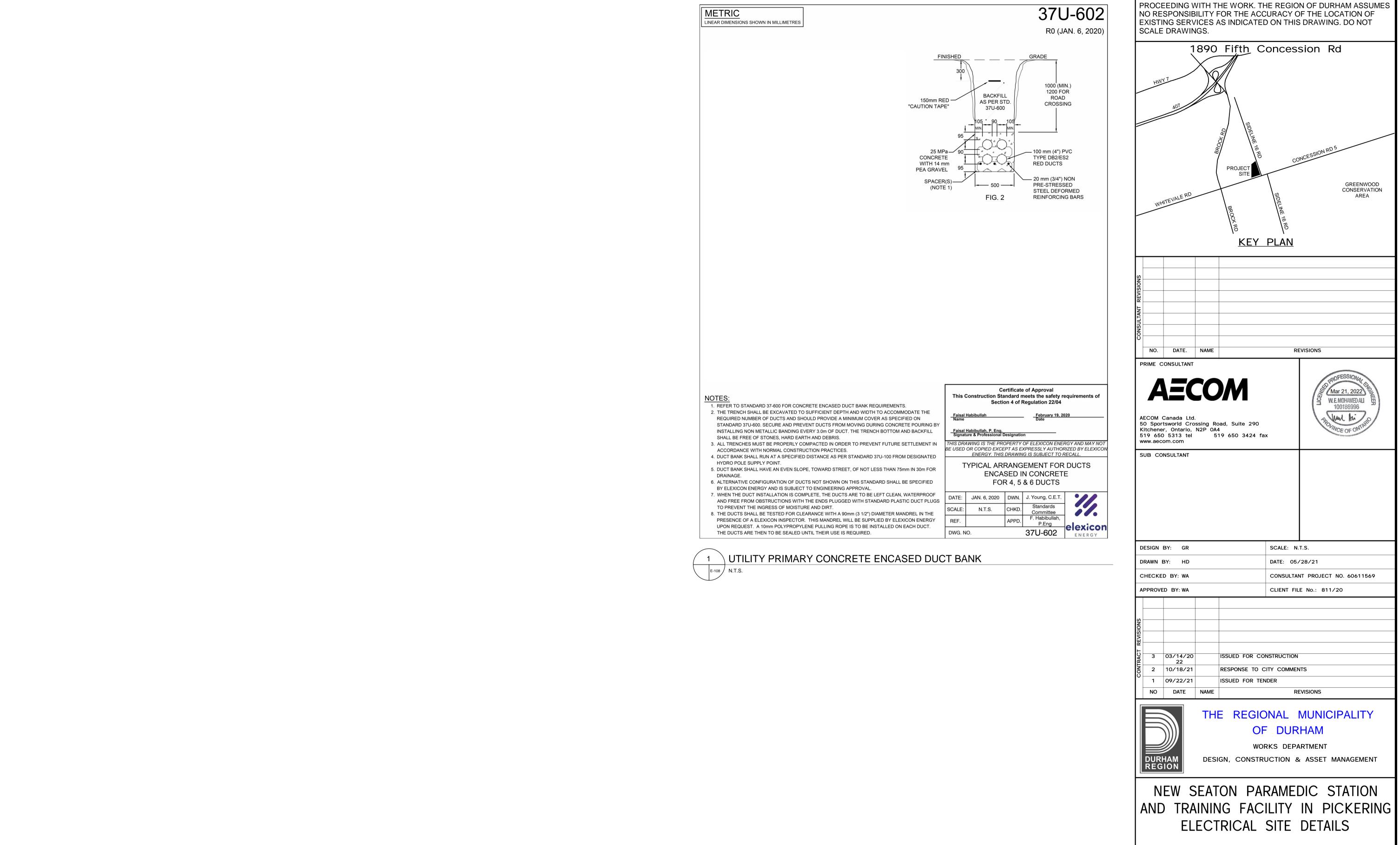
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	E- 107	

37U-600

R0 (JAN. 6, 2020)

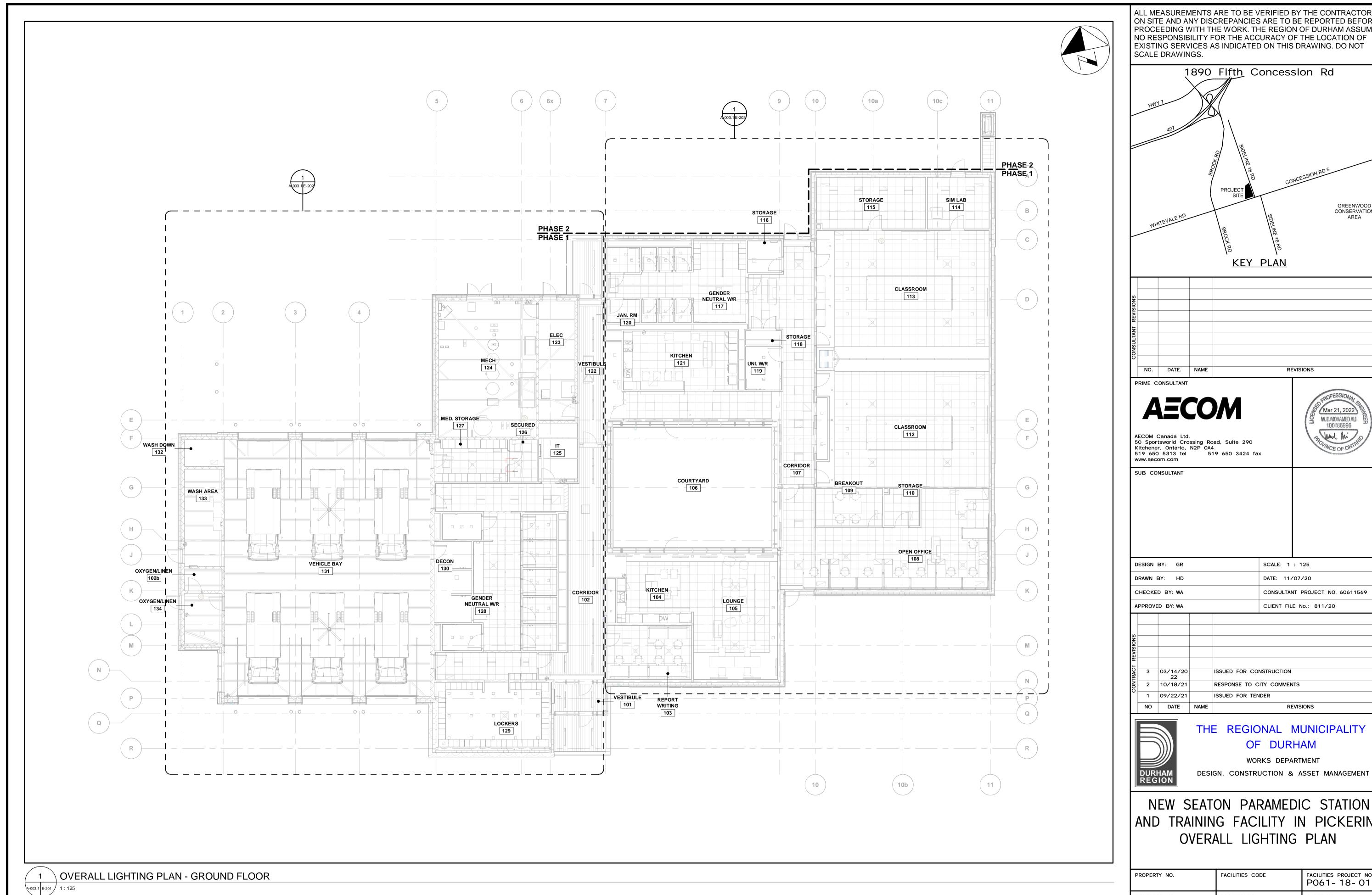
FIGURE 1 STREET - Q - TRENCH -DETAIL 2 90° BENDS

CONCRETE ENCASED DUCT BANK REQUIREMENTS

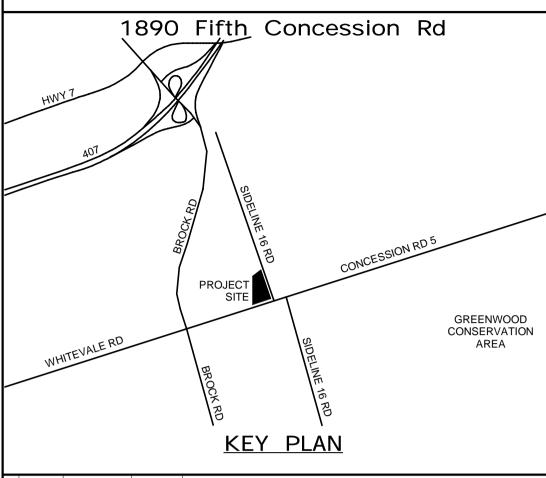


ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE

			~
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMER
CONTRACT NO. T- 1160- 2021	DRAWING NO. E- 108	SHEET NO.	BIM 360://BI



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF

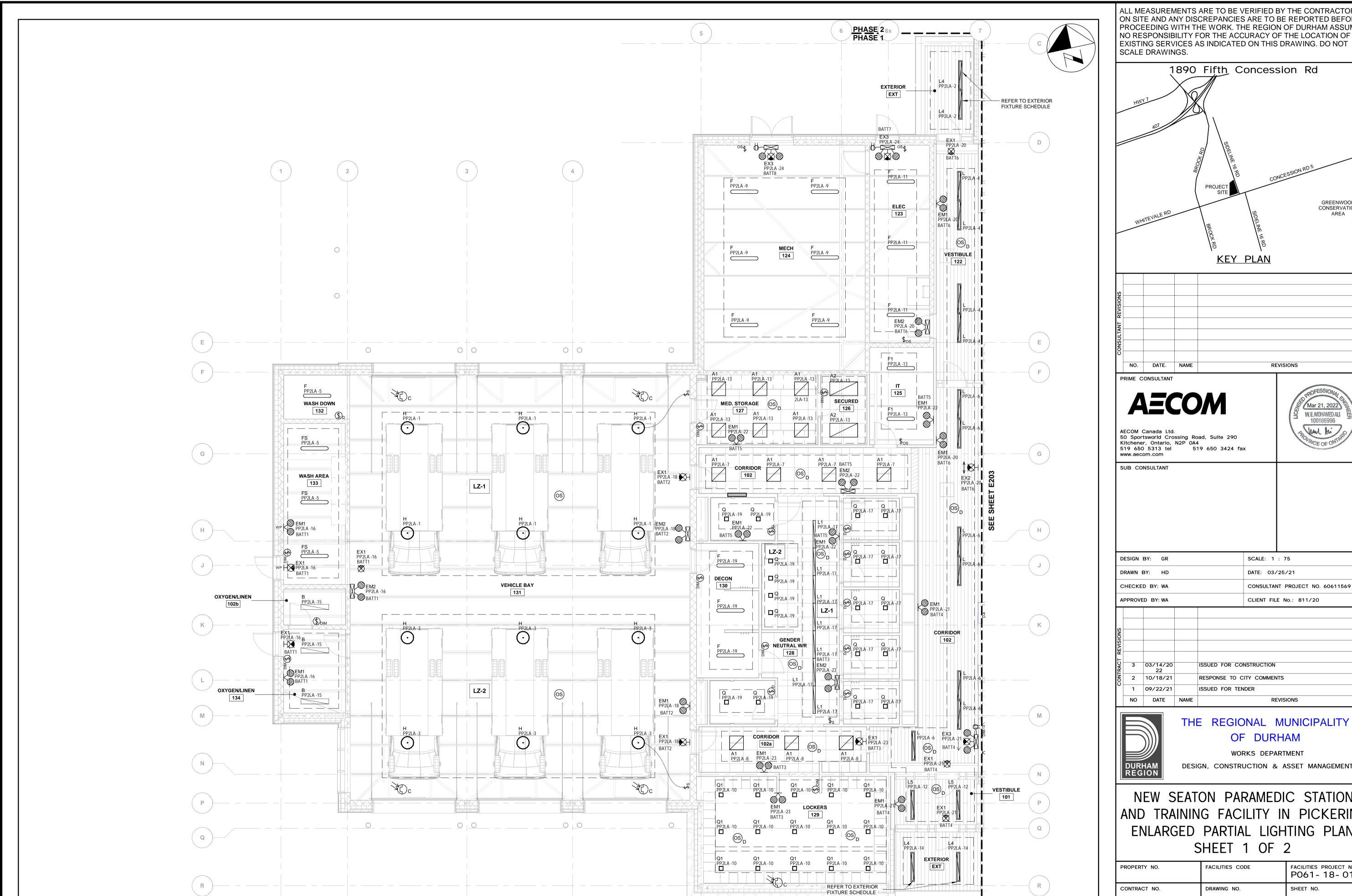




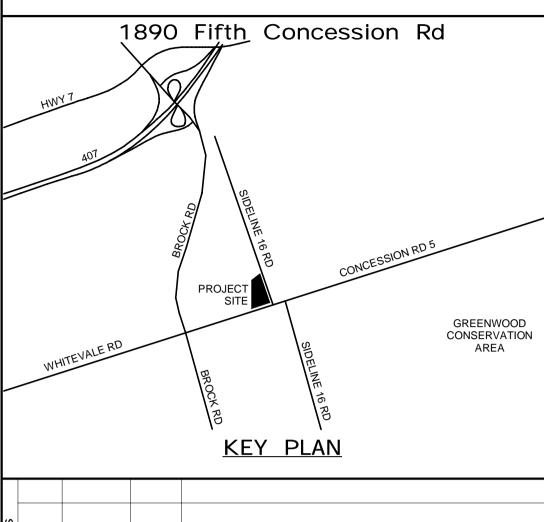
CONSULTANT PROJECT NO. 60611569

AND TRAINING FACILITY IN PICKERING

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMER
CONTRACT NO.	DRAWING NO.	SHEET NO.	D://B
T- 1160- 2021	E- 201		31M 360;



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





SCALE: 1 : 75 DATE: 03/25/21 CONSULTANT PROJECT NO. 60611569

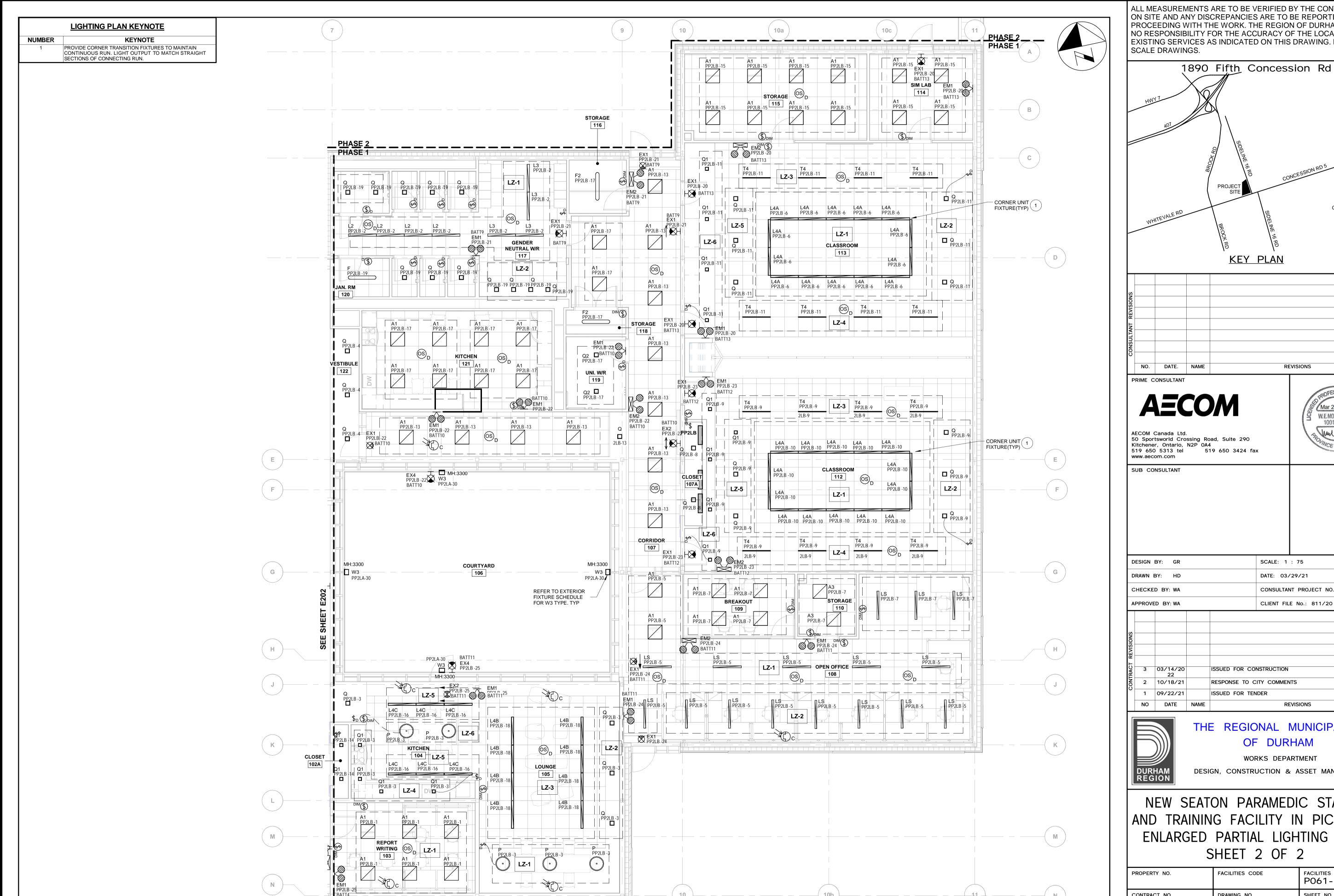
RESPONSE TO CITY COMMENTS REVISIONS

THE REGIONAL MUNICIPALITY OF DURHAM

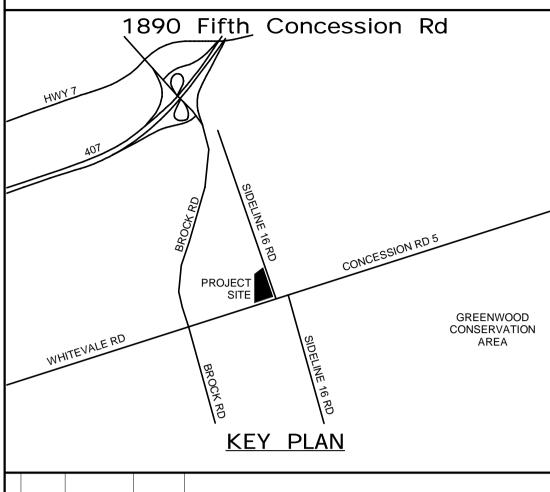
WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ENLARGED PARTIAL LIGHTING PLAN

ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
ONTRACT NO.	DRAWING NO.	SHEET NO.	
T- 1160- 2021	E- 202		



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT





SCALE: 1 : 75 DATE: 03/29/21 CONSULTANT PROJECT NO. 60611569

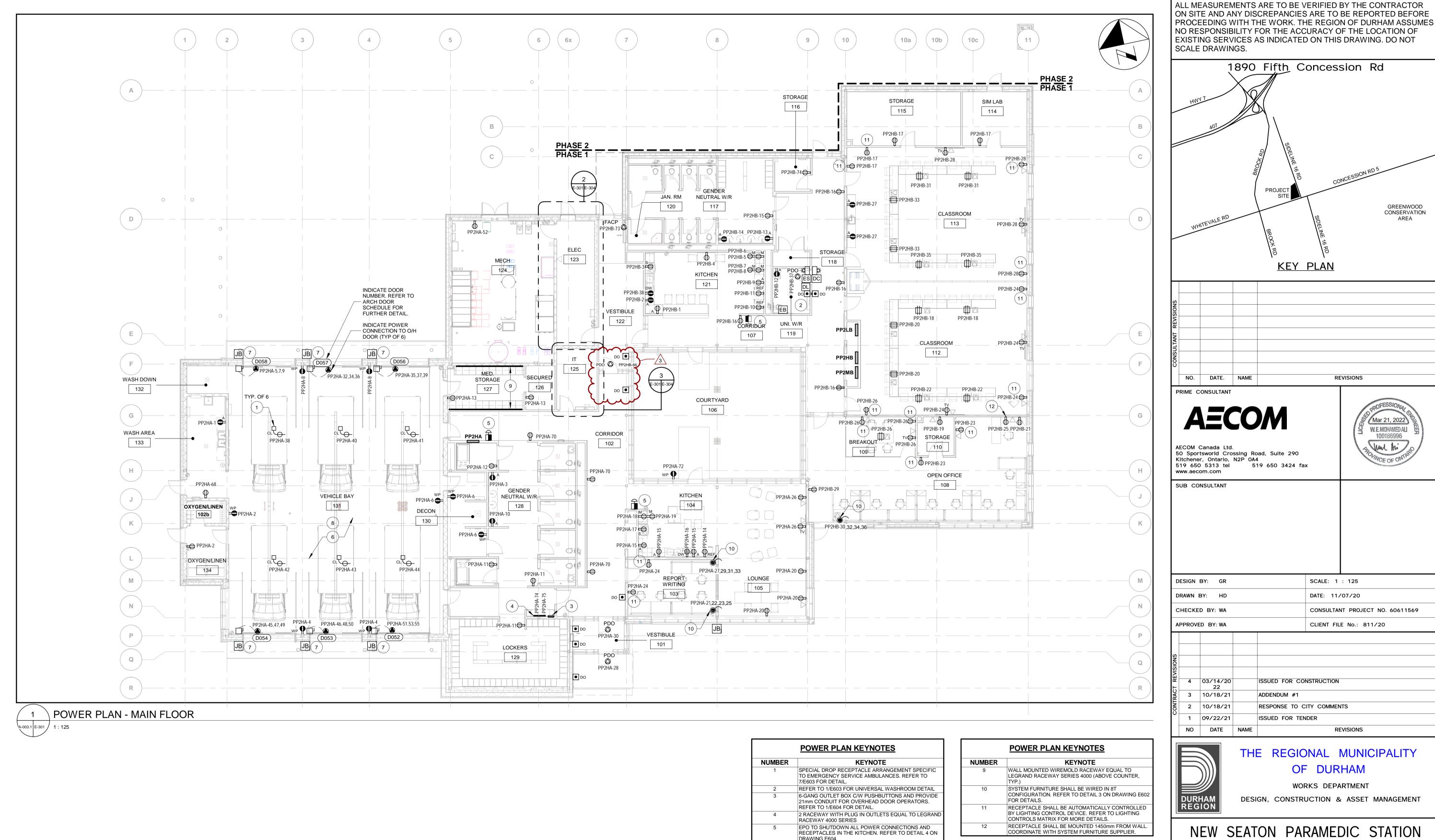
REVISIONS

THE REGIONAL MUNICIPALITY

WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ENLARGED PARTIAL LIGHTING PLAN

			~
PERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMER
1160- 2021	DRAWING NO. E- 203	SHEET NO.	1 360://BI
			BIM



SPECIAL DROP RECEPTACLE ARRANGEMENT SPECIFIC

TO EMERGENCY SERVICE AMBULANCES. REFER TO

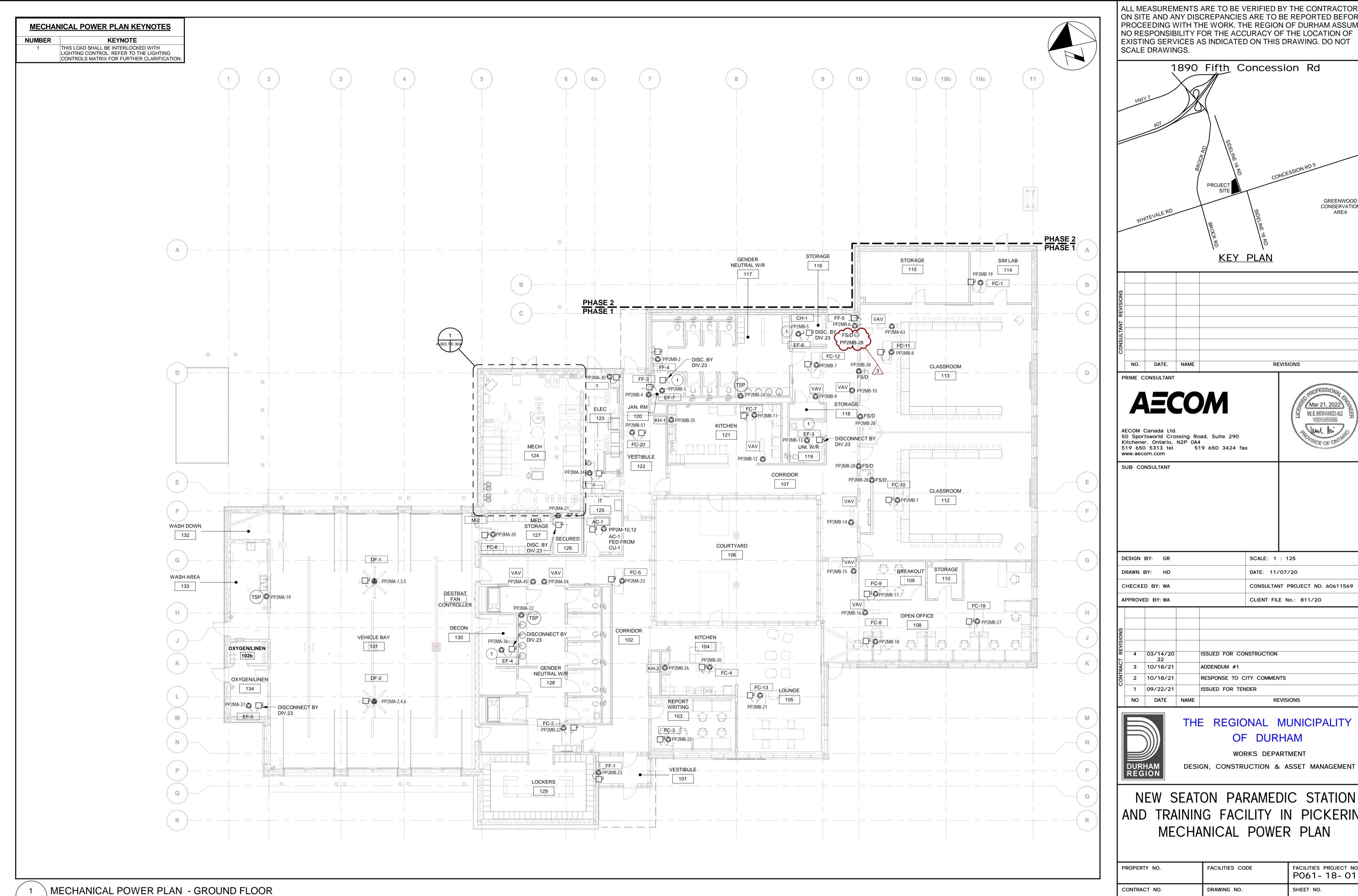
PROVIDE JUNCTION BOX C/W 21m CONDUIT TO THE DOOR OPERATOR FOR THE PHOTOCELL. EXACT LOCATION TO BE COORDIANTED ON SITE.

ALL DEVICES AND CONDUITS WITHIN VEHICLE BAY SHALI BE WEATHERPROOF TO ALLOW FOR WASHDOWN.

7/E302 FOR DETAIL.

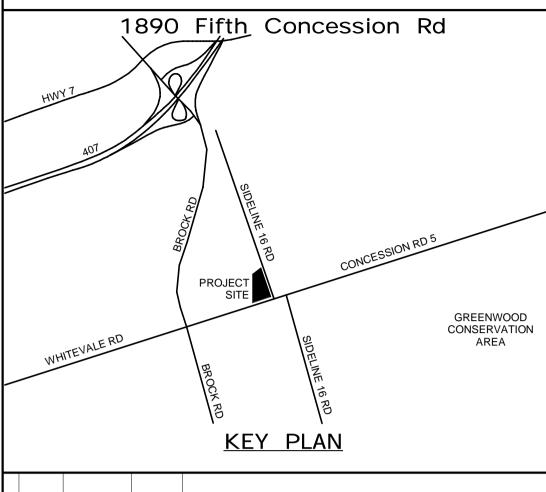
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING POWER PLAN

			~
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	BP-AMER
CONTRACT NO. T- 1160- 2021	DRAWING NO. E-301	SHEET NO.	BIM 360://B



A-003.1 E-302 1 : 125

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT



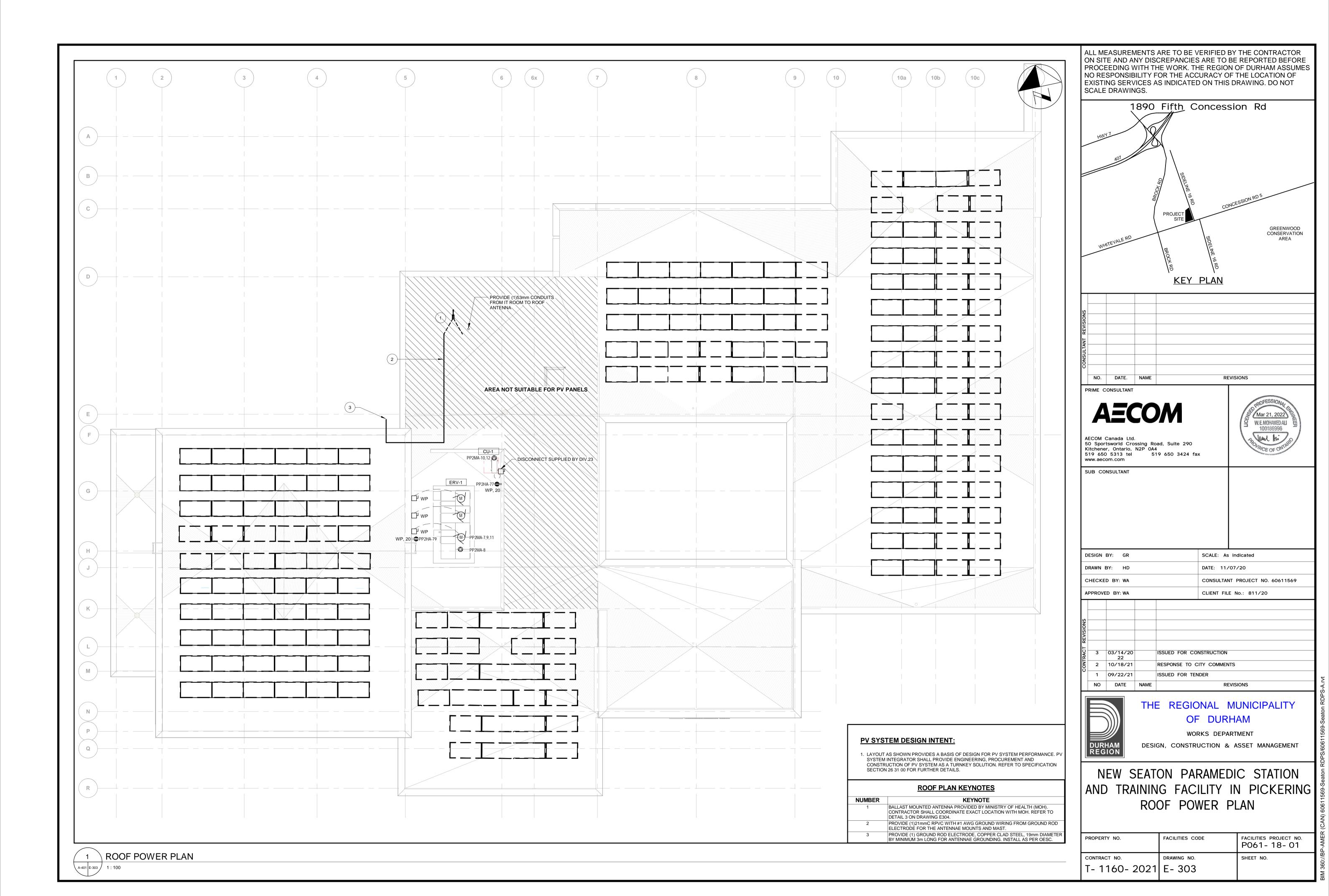


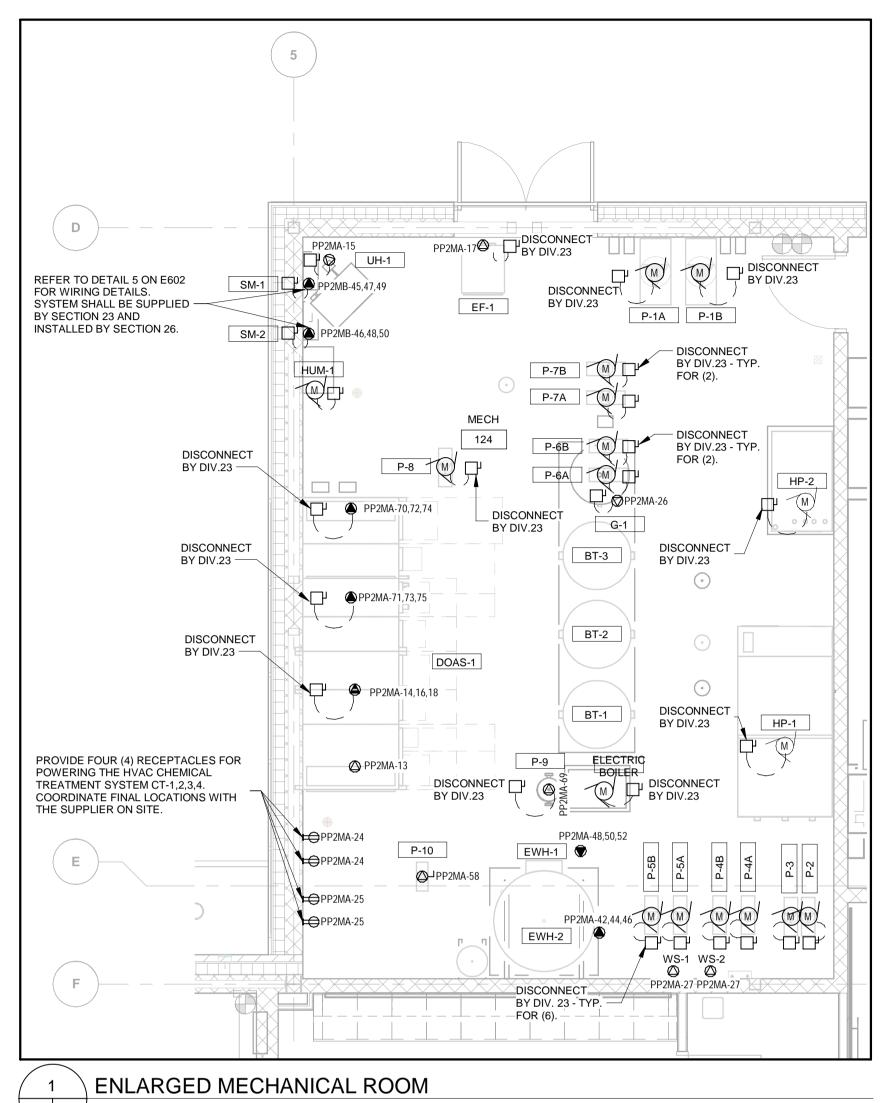
CONSULTANT PROJECT NO. 60611569

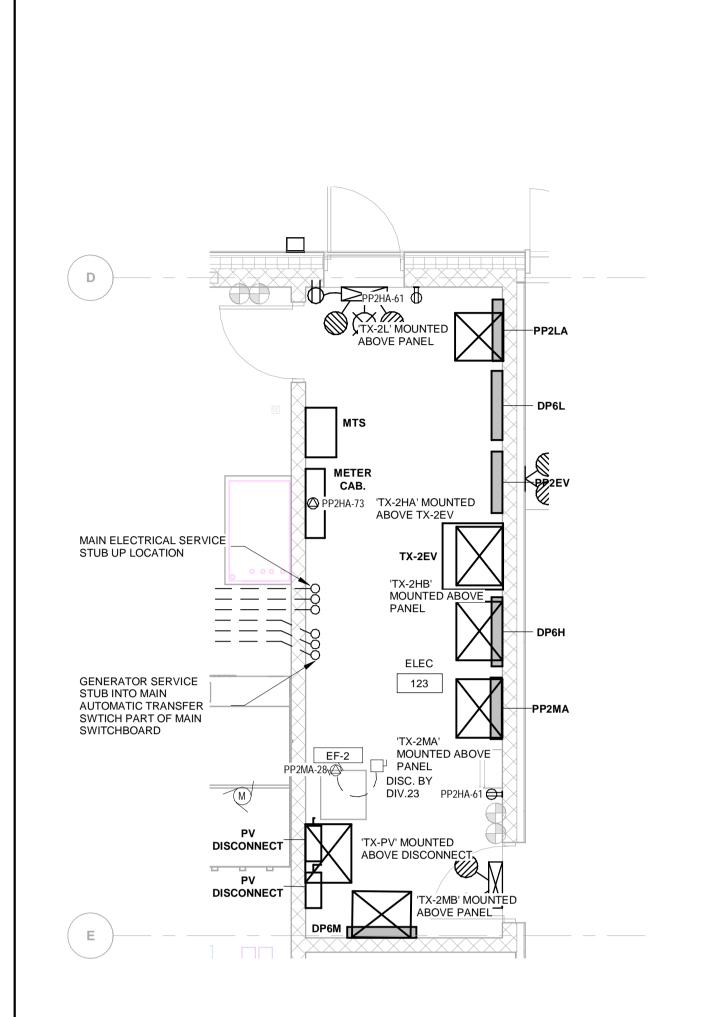
THE REGIONAL MUNICIPALITY

AND TRAINING FACILITY IN PICKERING MECHANICAL POWER PLAN

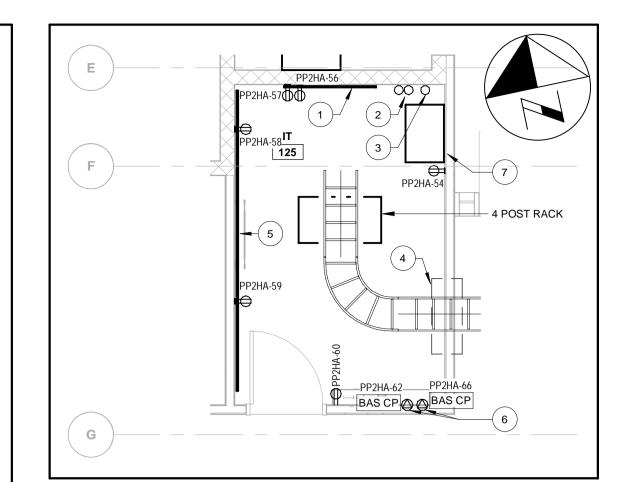
ROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
ONTRACT NO.	DRAWING NO.	SHEET NO.
- 1160- 2021	E- 302	











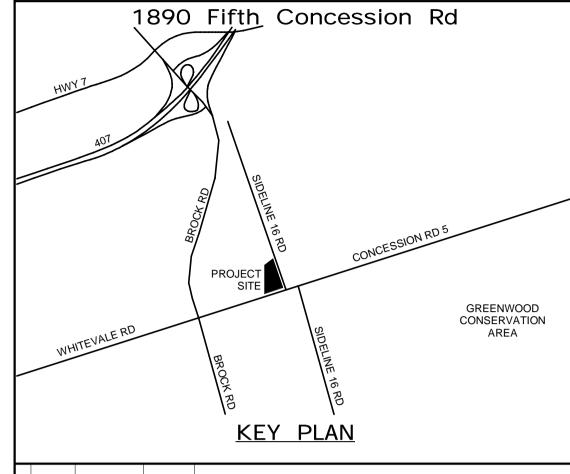
3 ENLARGED IT ROOM
1:50

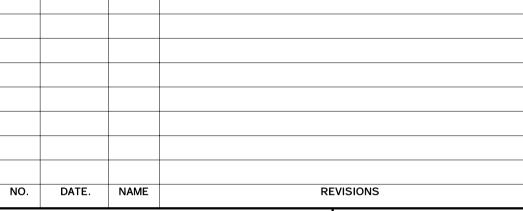
IT ROOM KEYNOTES						
NUMBER	NUMBER KEYNOTE					
1	1220mm X 2440mm X 19mm FIRE RATED PLYWOOD BACKBOARD FOR BUILDING COMM. SERVICES. PROVIDE #6 BOND BACK TO BUILDING GROUND.					
2	INCOMING COMM. CONDUIT STUB-UP LOCATION					
3	(1) 53mm CONDUIT TO ROOF ANTENNA.					
4	PROVIDE EZ-PATH SERIES 44+ FIRE RATED PATHWAY FROM IT ROOM TO CORRIDOR SPACE.					
5	PROVIDE 2440mm X 19mm FIRE RATED PLYWOOD BACKBOARD ALONG LENGTH OF WALL FOR SECURITY, CARD ACCESS, AND TELEPHONE HEAD END EQUIPMENT.					
6	PROVIDE DEDICATED CIRCUIT FOR MECHANICAL BAS PANEL.					
7	MINISTRY OF HEALTH PAGING CABINET PROVIDED BY OTHERS.					

ENLARGED MECHNANICAL ROOM GENERAL NOTES:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TERMINATIONS AND CONNECTIONS FROM VFD TO MOTORS, WHEREVER APPLICABLE.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





AECON

PRIME CONSULTANT

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



DESIGN BY: GR

DRAWN BY: HD

DATE: 11/15/20

CHECKED BY: WA

CONSULTANT PROJECT NO. 60611569

APPROVED BY: WA

CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
_				
IRAC	3	03/14/20 22		ISSUED FOR CONSTRUCTION
CONT	2	10/18/21		RESPONSE TO CITY COMMENTS
ľ	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

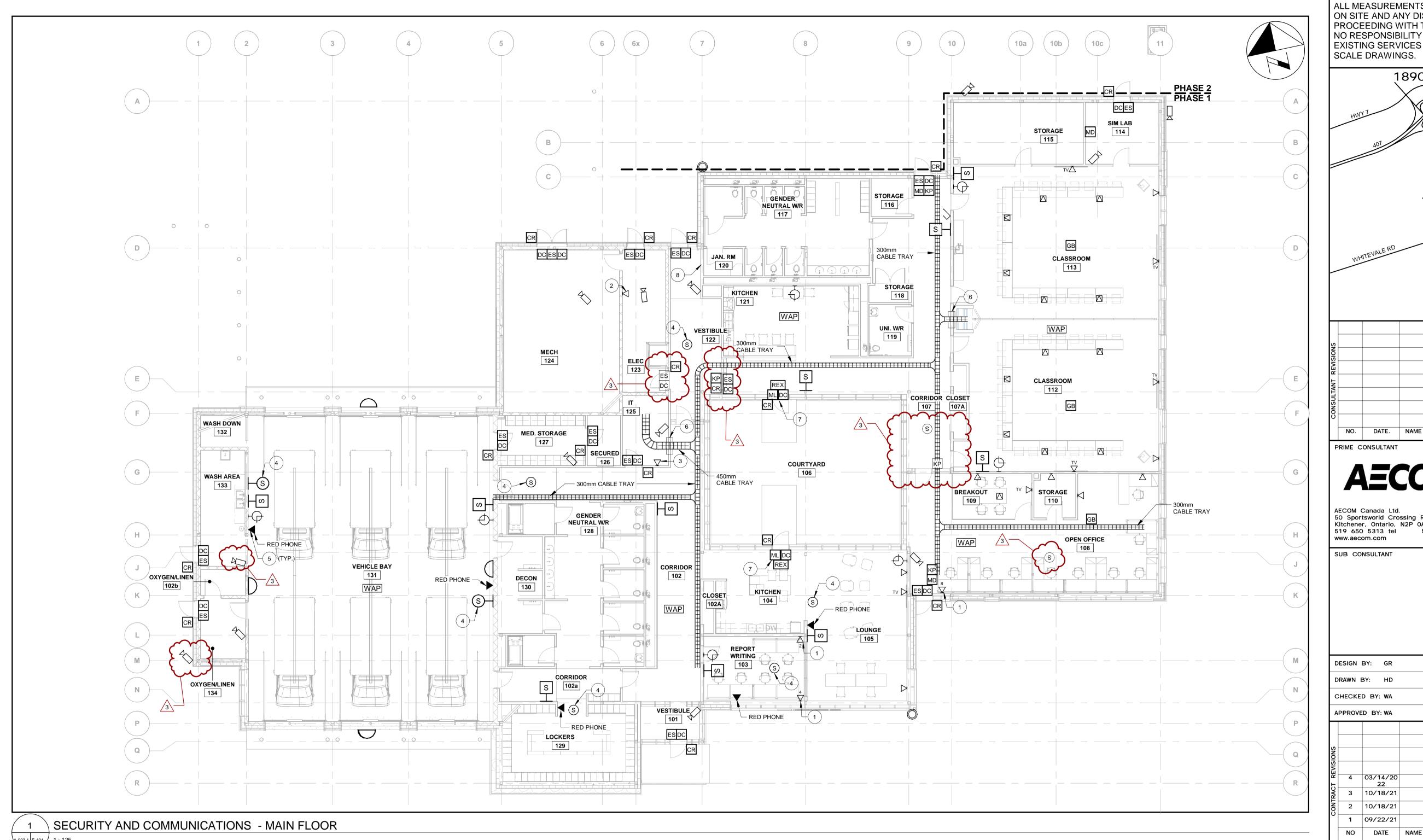
WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ENLARGED PLANS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	E- 304	

2 EN E-301 E-304 1 : 50

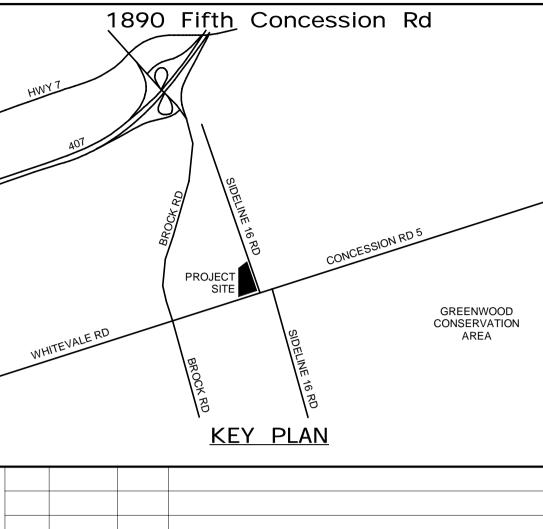


SECURITY AND SYSTEMS KEYNOTES NUMBER PROVIDE (1) DATA DROP PER SYSTEM FURNITURE. PROVIDE (1) DATA DROP FOR HYDRO METERING CABINET. PROVIDE (1) DATA DROP FOR BAS PANEL. CONTRACTOR SHALL INSTALL MINISTRY OF HEALTH (MOH) SPEAKERS DEDICATED TO THE AMBULANCE BASE PAGING SYSTEM. COORDINATE LOCATION WITH MOH PRIOR TO ROUGH-IN REFER TO DETAIL 2 ON E603 FOR DETAILS. PROVIDE EZ-PATH SERIES 44+ FIRE RATED PATHWAY. MAGNETIC DOOR LOCK, LOCKS ARE TO BE RELEASED UPON A FIRE CONDITION OR IF LOCAL PULL STATIONS ARE ACTIVATED.
REFER TO DETAIL 4 ON DRAWING E602. MAGLOCK RELEASE SWITCH TO BE LOCATED NEXT TO FIRE ALARM

SECURITY AND SYSTEMS PLAN GENERAL NOTES:

- 1. REFER TO SPECIFICATION SECTION 27 51 23 INTERCOM AND PUBLIC ADDRESS SYSTEM FOR DETAILS ON SCOPE OF WORK.
- 2. REFER TO SPECIFICATION SECTION 27 53 13 CLOCK SYSTEM FOR DETAILS ON SCOPE
- 3. REFER TO SPECIFICATION SECTION 28 10 00 CARD ACCESS AND INTRUSION DETECTION FOR DETAILS ON SCOPE OF WORK.
- 4. REFER TO SPECIFICATION SECTION 28 23 00 CCTV EQUIPMENT FOR DETAILS ON SCOPE

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



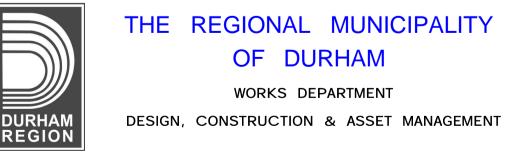
AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fa 519 650 3424 fax



REVISIONS

DESIGN BY: GR	SCALE: As indicated
DRAWN BY: HD	DATE: 03/29/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569

<u> </u>	- 1101	ED BY: WA		CEIEIII	ILE No.: 811/20	
-						
<u>ռ</u> ⊦						
KEVISIONS						
E K						
	4	03/14/20		ISSUED FOR CONSTRUCTION	V	
KA C	3	10/18/21		ADDENDUM #1		
CONIKAC	2	10/18/21		RESPONSE TO CITY COMME	INTS	
_	1	09/22/21		ISSUED FOR TENDER		
T	NO	DATE	NAME	ı	REVISIONS	



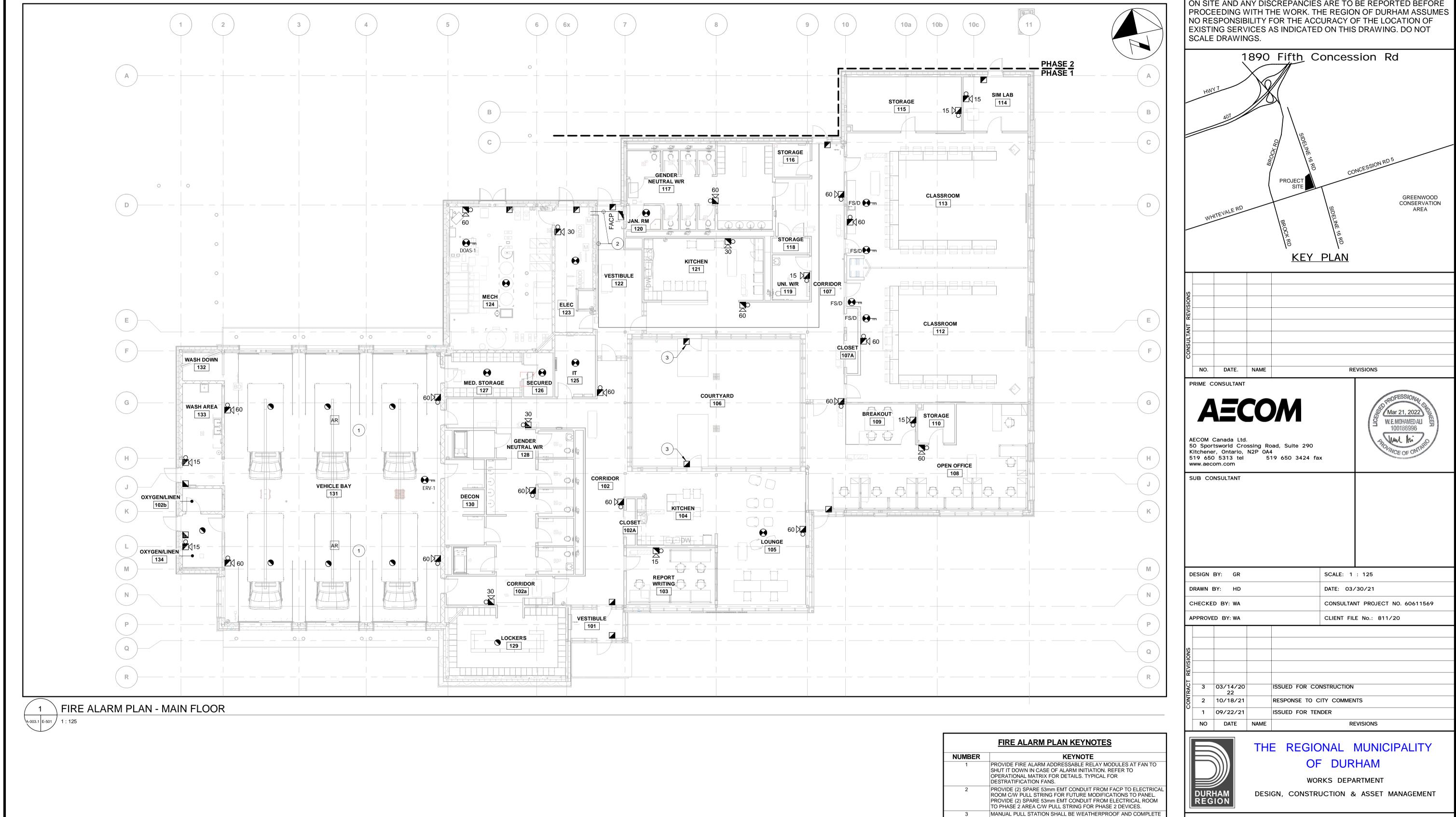
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING

SECURITY AND SYSTEMS PLAN

			ı
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	
CONTRACT NO.	DRAWING NO.	SHEET NO.	İ
T- 1160- 2021	E- 401		



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE

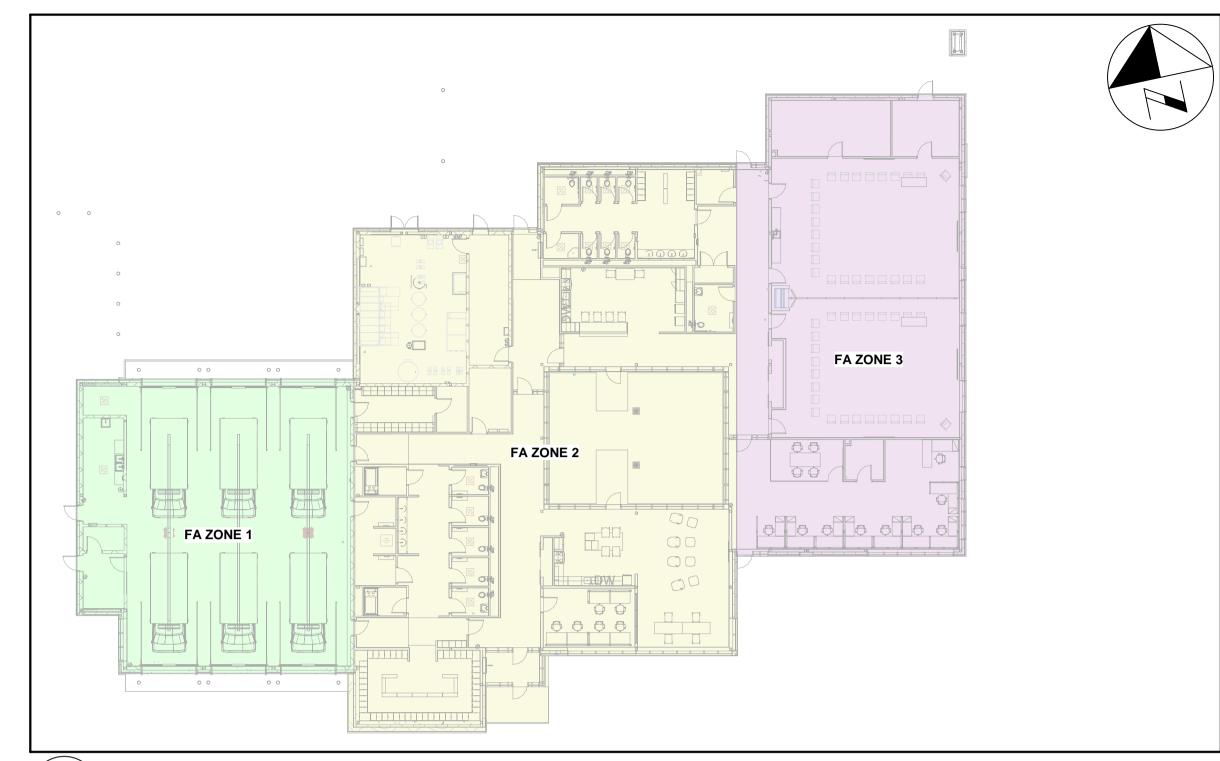
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FIRE ALARM PLAN

WITH AUXILLIARY CONTACTS FOR WIRING TO LOCAL

ELECTROMAGNETIC LOCK. REFER TO 4/E602 FOR DETAIL.

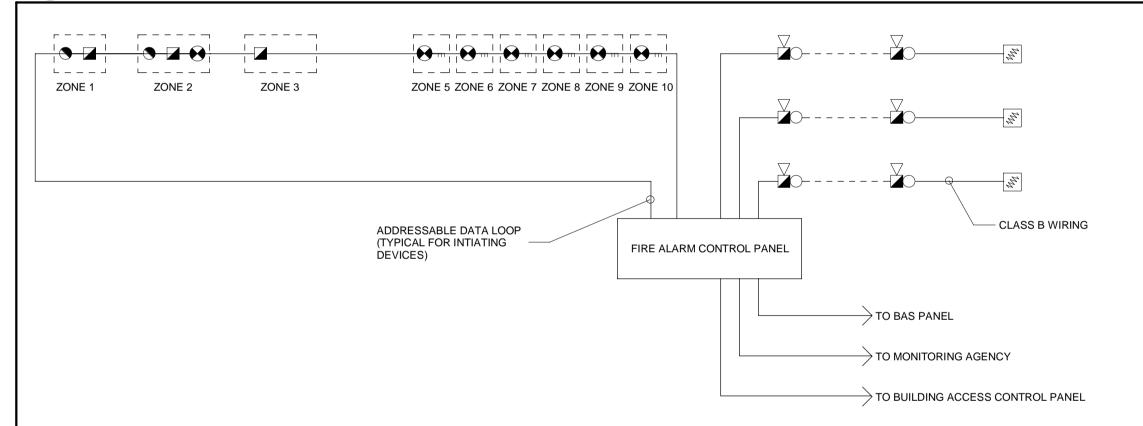
			\sim
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	P-AMER
CONTRACT NO. T- 1160- 2021	DRAWING NO. E-501	SHEET NO.	BIM 360://BI

	FIRE ALARM ZONE SCHEDULE				
ZONE	DESCRIPTION	ALARM	SUPERVISORY	CONTROL	NOTES
1	VEHICLE AREA	х			
2	ADMIN AREA	х			
3	CLASSROOMS	х			
4	RESERVED FOR PHASE 2	х			
5	ERV-1 DUCT SMOKE	х		х	DETECTOR IS HARDWIRED TO HVAC UNIT TO SHUTDOWN UPON ALARM FROM
6	DOAS-1 DUCT SMOKE	х		х	ASSOCIATED DUCT SMOKE DETECTOR.
7	FS/D DUCT SMOKE	х		х	DETECTOR IS HARDWIRED TO
8	FS/D DUCT SMOKE	х		х	FIRE/SMOKE DAMPER ACTUATOR TO
9	FS/D DUCT SMOKE	х		х	CLOSE UPON ALARM FROM ASSOCIATED DUCT SMOKE DETECTOR.
10	FS/D DUCT SMOKE	х		х	DUCT SWOKE BETECTOR.
S1	STANDBY GENERATOR - GENERAL FAULT		x		
C1	ALARM SIGNAL TO MONITORING AGENCY			х	
C2	ALARM SIGNAL TO BUILDING AUTOMATION SYSTEM			х	
С3	ALARM SIGNAL TO BUILDING ACCESS CONTROL SYSTEM			х	
C4	ERV-1 SHUTDOWN			х	
C5	DOAS-1 SHUTDOWN			х	
C6	DESTRATIFICATION FAN SHUTDOWN			х	



1 FIRE ALARM ZONING PLAN - MAIN FLOOR

A-003.1 E-502 1 : 25



FIRE ALARM NOTES:

- A. THIS DRAWING IS DIAGRAMMATICALLY ONLY. FOR EXACT QUANTITIES AND LOCATION OF DEVICES AND EQUIPMENT, REFER TO ELECTRICAL FLOOR
- B. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ELECTRICAL FIRE ALARM DRAWINGS.
- C. ALL END-OF-LINE, IF ANY, RESISTORS AND ISOLATORS TO BE LOCATED IN ELECTRICAL ROOM/CLOSET OR SERVICE ROOM.

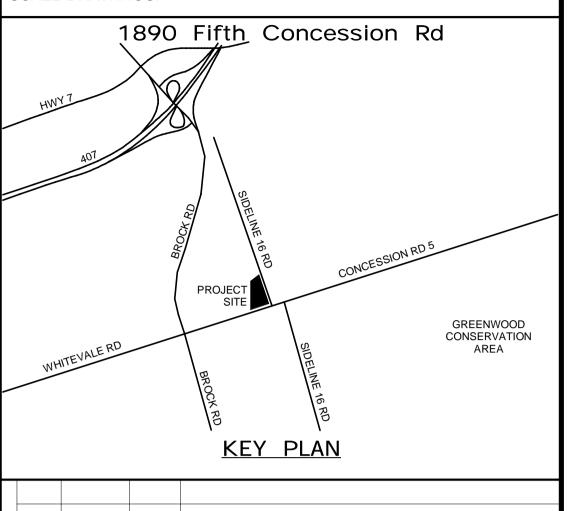
D. ALL FINAL DESIGNATION OF NAMES FOR THE FIRE ALARM ANNUNCIATOR

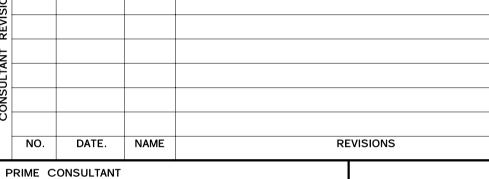
- ARE TO CORRESPOND TO THE FLOOR DESIGNATIONS.

 E. PROVIDE REMOTE NOTIFICATION APPLIANCE CIRCUIT POWER BOOSTER
- PANELS AS REQUIRED.
- F. AUDIBLE AND VISUAL NOTIFICATION APPLIANCES SHALL BE WIRED AND CONTROLLED SEPARATELY.
- G. COORDINATE CONNECTION OF FIRE ALARM SYSTEM EXTERNAL MONITORING WITH CONTRACTING SERVICE COMPANY.
- F. ADDRESSABLE INTERFACE MODULES MAY BE REQUIRED FOR THE INTEGRATION OF NON-ADDRESSABLE INITIATING AND SIGNALING DEVICES. PROVIDE AS NECESSARY. REFER TO FIRE ALARM DETAILS FOR ADDITIONAL
- H. PROVIDE 120V POWER FOR FACP FROM NEAREST HOUSE PANEL. PROVIDE 15A-1P BREAKER. BREAKER SHALL BE PAINTED RED AND LOCKED IN THE
- I. ENTIRE FIRE ALARM SYSTEM SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH CAN/ULC-S524 AND CAN/ULC-S537, APPLICABLE
- J. PROVIDE INTEGRATED TESTING OF FIRE ALARM COMPONENTS IN ACCORDANCE WITH CAN/ULC-1001.



ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





AECO/

www.aecom.com

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



DESIGN BY: GR	SCALE: As indicated
DRAWN BY: HD	DATE: 03/30/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

A	APPROVED BY: WA			CLIENT FILE No.: 811/20		
\ _						
REVISIONS						
EVIS						
١.						
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION		
NO	2	10/18/21		RESPONSE TO CITY COMMENTS		
ľ	1	09/22/21		ISSUED FOR TENDER		
	NO	DATE	NAME	REVISIONS		



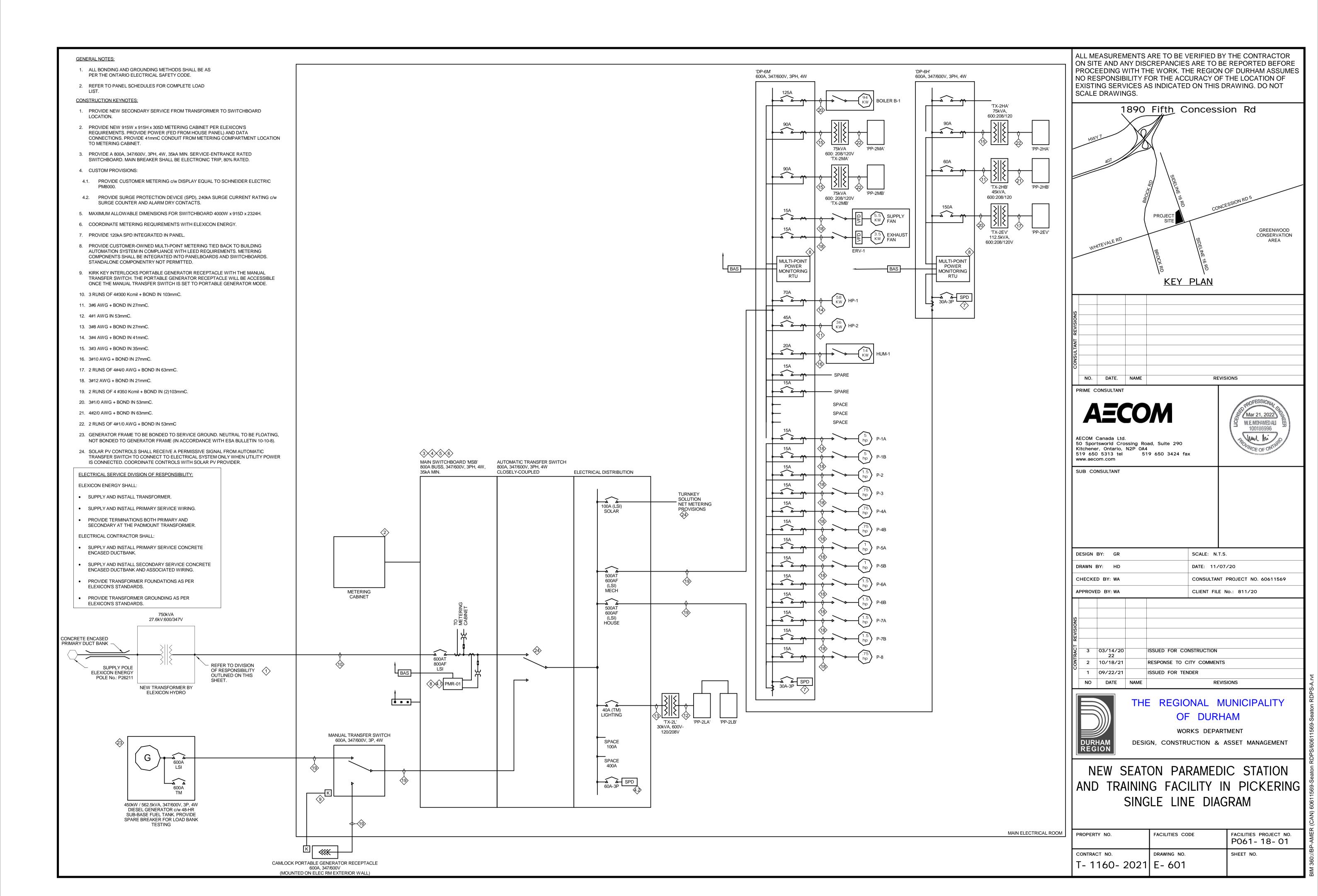
THE REGIONAL MUNICIPALITY OF DURHAM

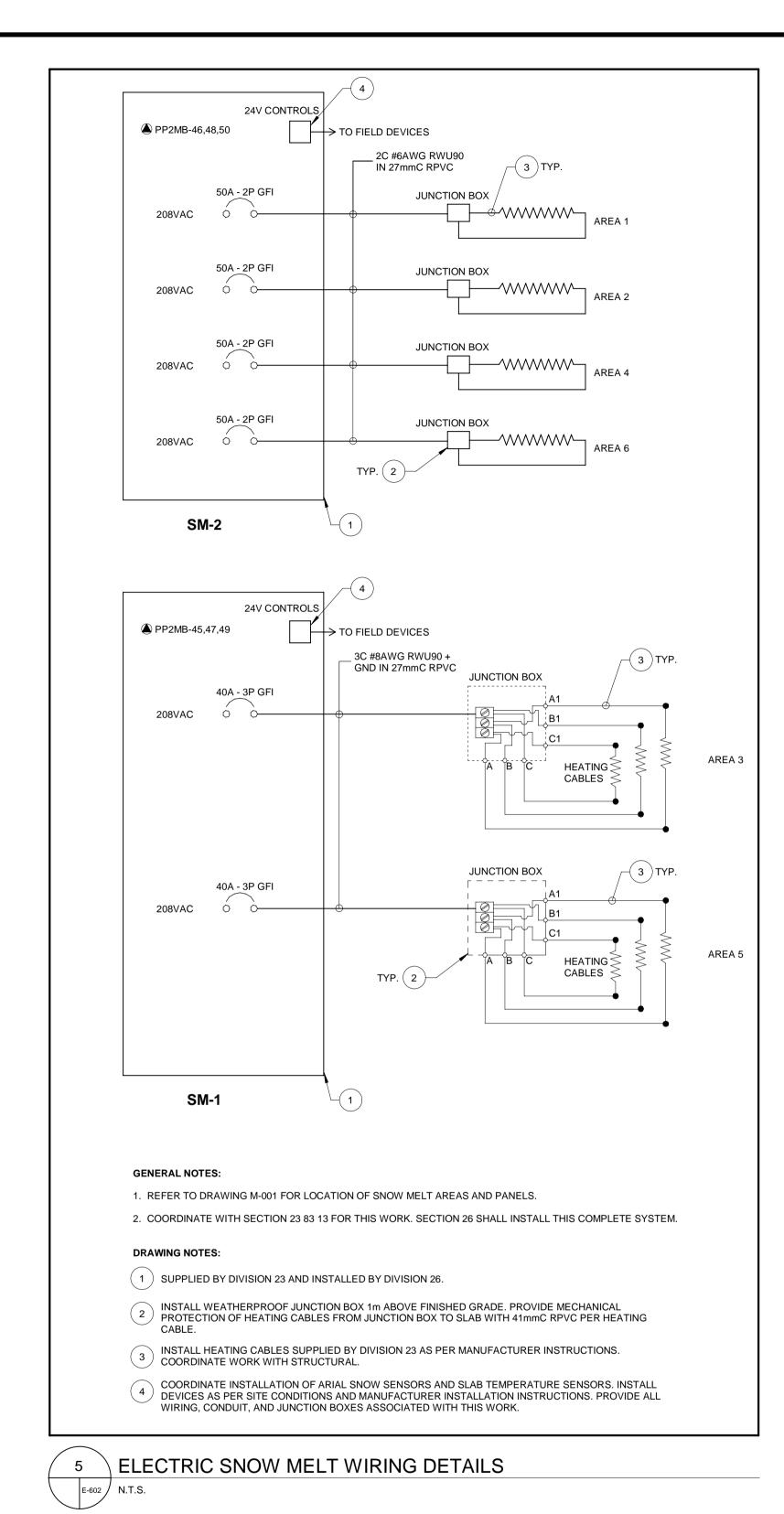
WORKS DEPARTMENT

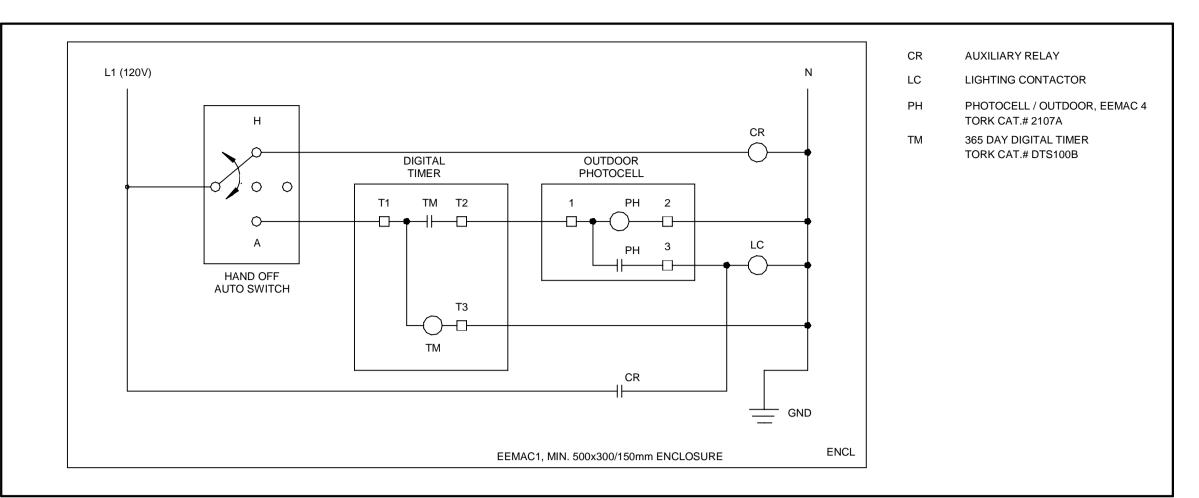
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING FIRE ALARM ZONE PLAN, RISER DIAGRAM AND DETAILS

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	ט אאבו
contract no. T- 1160- 2021	DRAWING NO.	SHEET NO.	g//·036
1100-2021			2

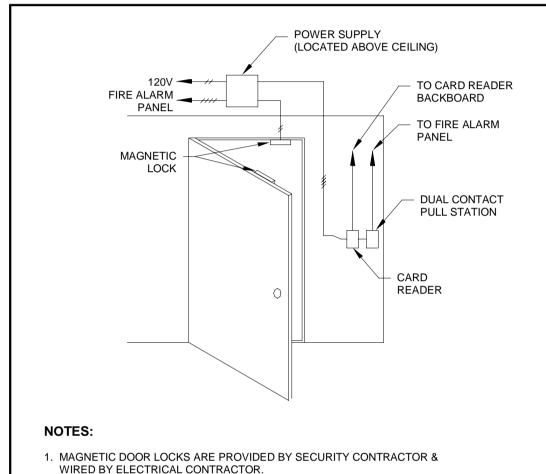






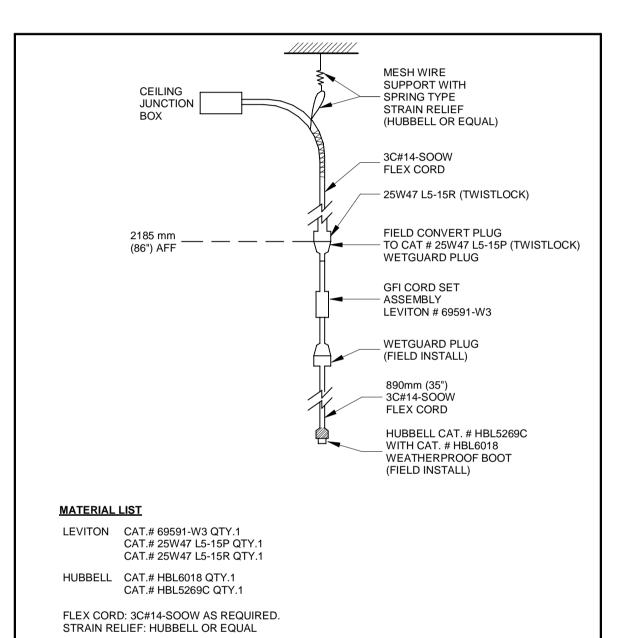
1 OUTDOOR LIGHTING CONTROLS

| E-602 | N.T.S.



- 2. SIZE ALL CONDUCTORS PER MANUFACTURER'S INSTRUCTIONS.
- 3. MAGNETIC DOOR LOCKS ARE TO RELEASE UNDER A FIRE CONDITION OR IF
- LOCAL PULL STATIONS ARE ACTIVATED.

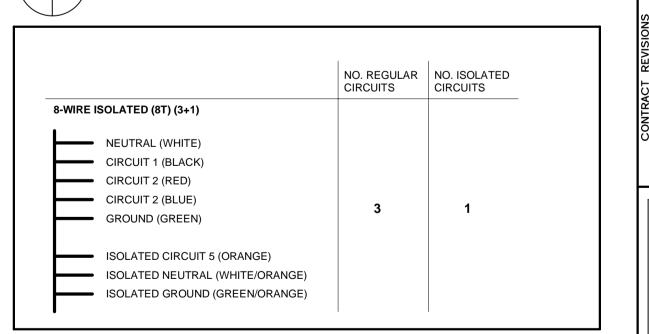
 4. CONTRACTOR TO PROVIDE ELECTROMAGNETIC LOCKS COMPLETE WITH
- 4 ELECTROMEGNETIC LOCK DETAIL





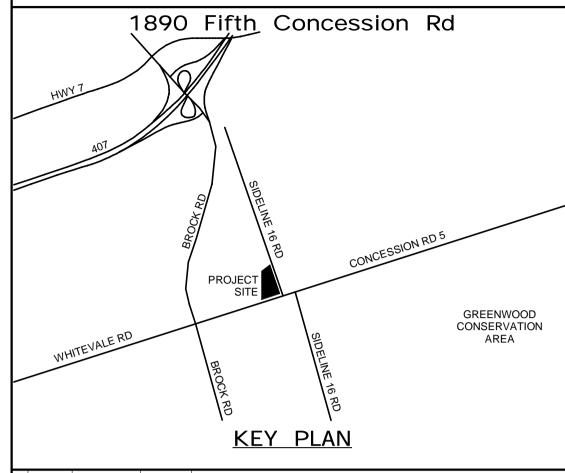
NOTE: CONTRACTOR TO PROVIDE ALL MATERIALS AND LABOR AS REQUIRED FOR FIELD

CONVERSION AND ASSEMBLY. DETAILED ASSEMBLY INSTRUCTIONS WILL BE



3 SYSTEM FURNITURE WIRING N.T.S.

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

PRIME CONSULTANT

AECOM

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com

SUB CONSULTANT



DESIGN BY: GR	SCALE: N.T.S.
DRAWN BY: HD	DATE: 11/07/20
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
PPROVED BY: WA	CLIENT FILE No.: 811/20

| SNO | SING | S

IRHAM C

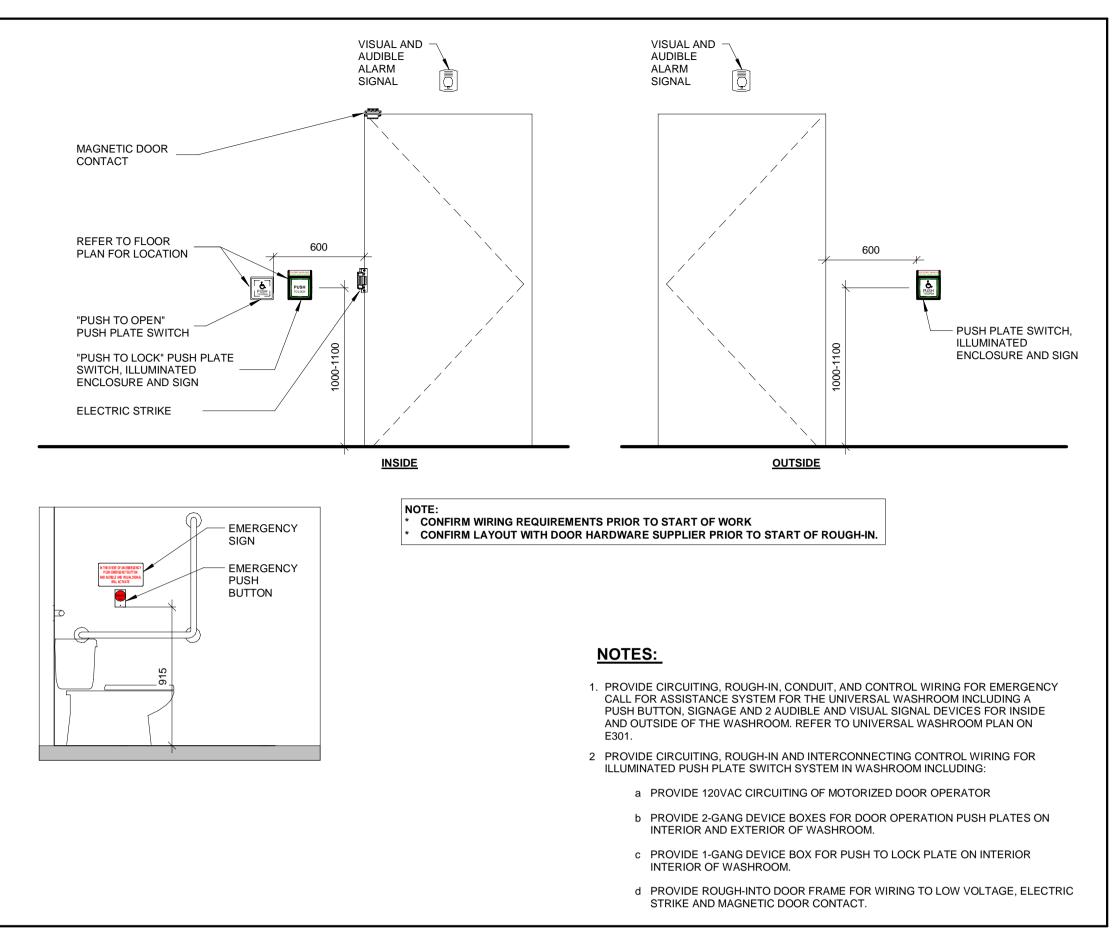
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

DESIGN, CONSTRUCTION & ASSET MANAGEMENT

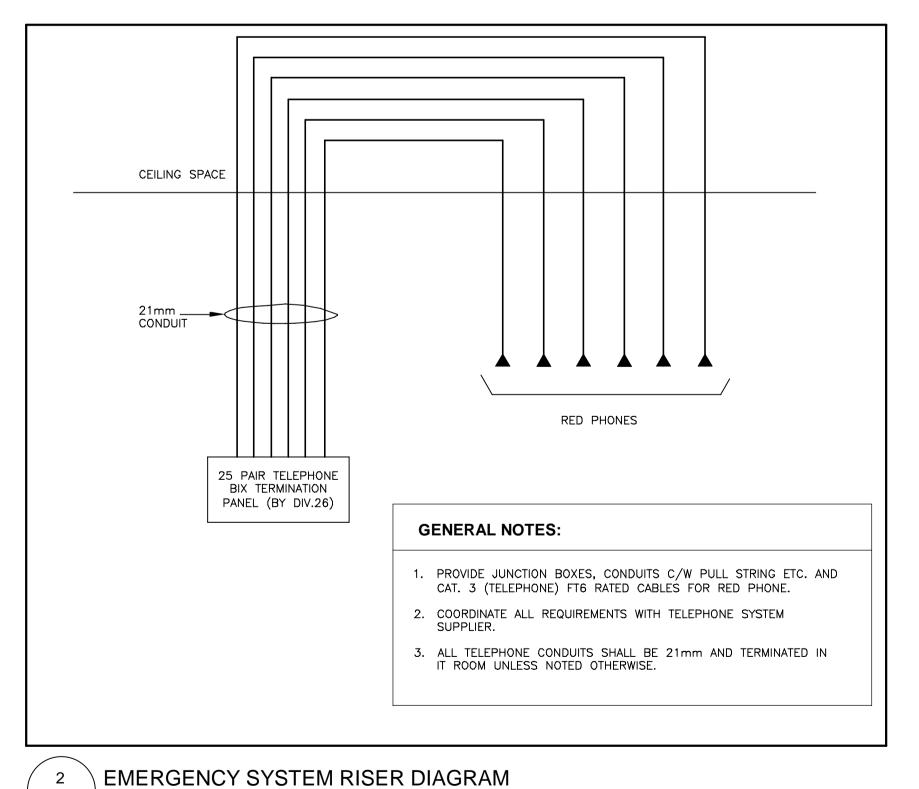
NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL DETAILS

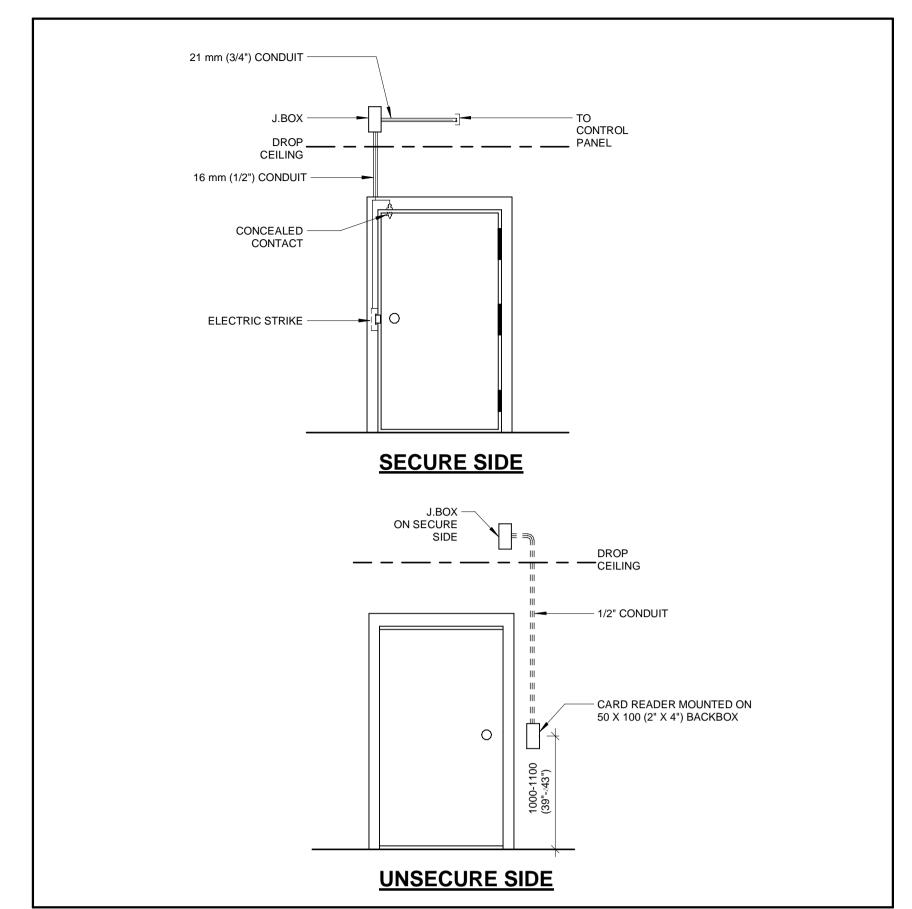
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	E- 602	



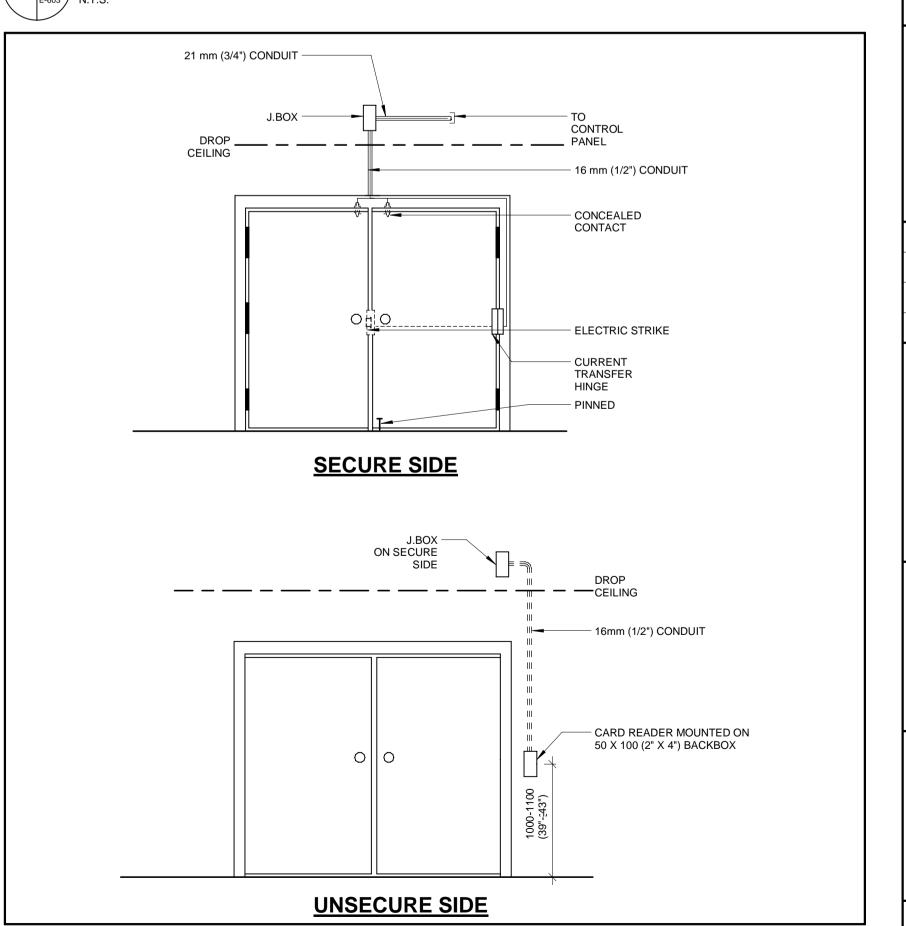
UNIVERSAL WASHROOM DETAIL

E-603 N.T.S.



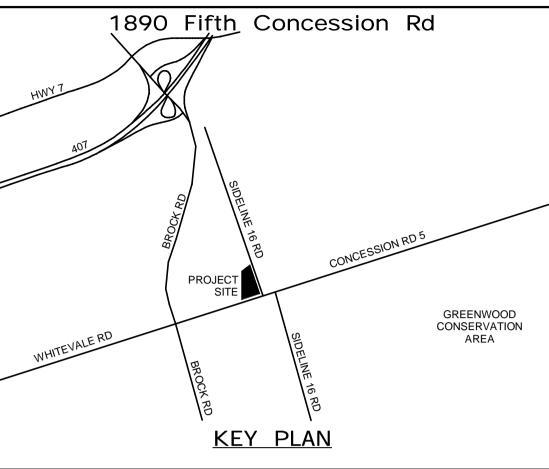


TYPICAL SINGLE DOOR DETAIL C/W CONTACT, STRIKE, CARD READER



TYPICAL DOUBLE DOOR DETAIL C/W CONTACTS, STRIKE, CARD READER

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



NO. DATE. NAME REVISIONS

AECON

PRIME CONSULTANT

www.aecom.com

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



DESIGN BY: GR

SCALE: As Indicated

DRAWN BY: HD

DATE: 12/19/20

CHECKED BY: WA

CONSULTANT PROJECT NO. 60611569



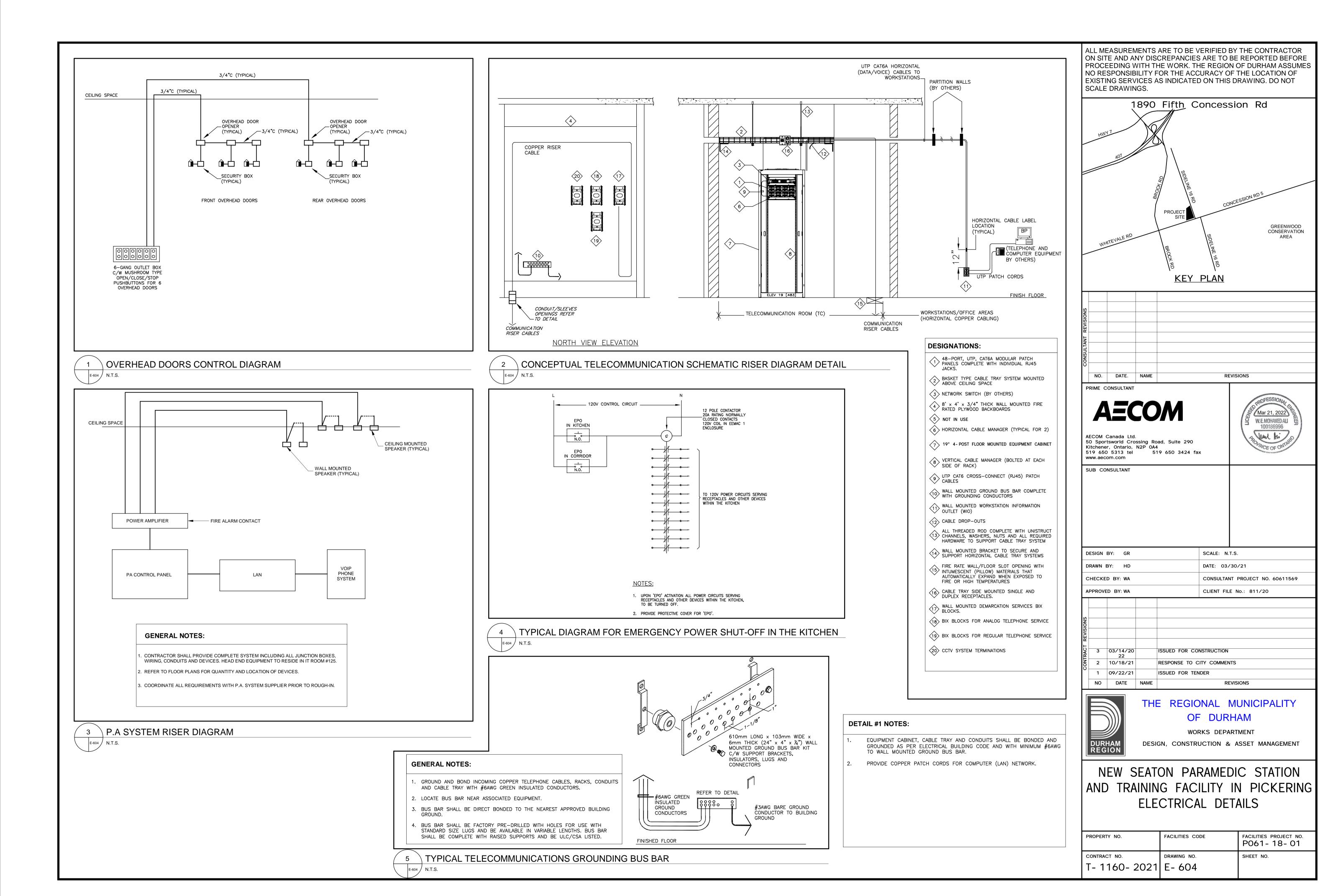
THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
ELECTRICAL DETAILS

OPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
ONTRACT NO.	DRAWING NO.	SHEET NO.
- 1160- 2021	E- 603	

BP-AMER (CAN) 60611569-Seaton F



			EMERGENCY LIG	HTING FIXT	JRE SCH	EDULE			
TYPE	IMAGE	MANUFACTURER / MODEL	DESCRIPTION	INPUT WATTS	VOLT	LAMP	MOUNTING	CAT.#	NOTES
EX1		LUMACELL/ LD SERIES OR APPROVED EQUAL	SINGLE FACE EXIT SIGN	2.5W	120	LED	CEILING / WALL	LD1BAAC3	WALL OR CEILING MOUNTED AS PER SYMBOLS ON PLANS. TO BE CONNECTED TO EMERGENCY LIGHTING CURCUITS
EX2	\$\dagger{\alpha}{\alpha}\$	LUMACELL/ LD SERIES OR APPROVED EQUAL	DOUBLE FACE EXIT SIGN	2.5W	120	LED	CEILING	LD2BAAC3	TO BE CONNECTED TO EMERGENCY LIGHTING CURCUITS
EX3		LUMACELL/ LAC SERIES OR APPROVED EQUAL	SINGLE FACE COMBO EMERGENCY + EXIT LIGHT	12.5	120	LED	CEILING	LAC1B12502LD9	TO BE CONNECTED TO EMERGENCY LIGHTING CURCUITS
EX4		LUMACELL/ LN SERIES OR APPROVED EQUAL	SINGLE FACE EXITERIOR EXIT SIGN	2.5W	120	LED	WALL	LN1BU	TO BE CONNECTED TO EMERGENCY LIGHTING CURCUITS
EM1		LUMACELL/ MQM SERIES OR APPROVED EQUAL	DOUBLE HEAD REMOTE LAMP	10W	120	LED	WALL	MQM2LD9	TO BE CONNECTED TO EMERGENCY LIGHTING CURCUITS
EM2		LUMACELL/ RGC SERIES OR APPROVED EQUAL	DOUBLE HEAD REMOTE LAMP + BATTERY	10W	120	LED	WALL	RG12C722LD9ZD	TO BE CONNECTED TO EMERGENCY LIGHTING CURCUITS

		MANUAL		OCCUPANCY	PLUG	SCHEDULE	DAYLIGHT	
SPACE TYPE	ROOM NAMES	SWITCH	DIMMING	SENSING	LOAD CONTROL	TIMER	HARVESTING	NOTES
NTRIES & CORRIDORS	101 VESTIBULE, 102 CORRIDOR, 102a CORRIDOR, 122 VESTIBULE, 107 CORRIDOR		×	×		X		SCHEDULED DAY TIME FULL ON, SCHEDULED NIGHT TIME DIMMING TO 30%, AUTO FULL ON WITH OCCUPANCY SENSING OVERNIGHT.
SERVICE ROOMS SPACES	124 MECH, 123 ELEC, 125 IT	×		×				PROVIDE LINE VOLTAGE CONTROLS. PROVIDE VACANCY SENSING TO AUTO OFF AFTER 30 MINUTES.
SUPPORT SPACES	127 MED. STORAGE, 126 SECURED, 134 OXYGEN/LINEN, 132 WASH DOWN, 133 WASH AREA, 102B OXYGEN/LINEN, 115 STORAGE, 114 SIM LAB, 116 STORAGE, 120 JAN. RM., STORAGE 118, STORAGE 110	×	×	x	x			AUTO ON AND OFF WITH OCCUPANCY SENSOR. SET AUTO OFF AFTER 15 MIN. PLUG LOAD CONTROL IS TO TIE IN TO ASSOCIATED EXHAUST FAN.
KITCHEN	KITCHEN 121, KITCHEN 104, 102A CLOSET	x	x	×			х	NO MORE THAN 50% OF THE LIGHTING SHALL BE TURNED ON AUTOMATICALLY. AUTO OFF AFTER 15 MINUTES. LOCAL CONTROL FOR PENDANT AND RECESSED POT LIGHTS.
BREAK ROOM	105 LOUNGE	×	×	x			x	AUTO OFF AFTER 15 MIN, LOCAL CONTROL FOR PENDANTS AND RECESSED POT LIGHTS
OCKER	129 LOCKER	х	х	х			х	SET AUTO ON AND OFF. SET AUTO OFF AFTER 30 MINS.
WASHROOM	128 GENDER NEUTRAL, 117 GENDER NEUTRAL, 119 UNIV W/R, 130 DECON. SHOWER	×	×	×	×			AUTO DIM TO 50% AFTER 150 SECONDS AND FULL OFF AFTER 5 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTACLES WITHIN 30 MINUTES. PROVIDE VACANCY SENSING TO AUTO OFF AFTER 30 MINUTES IN WASHROOM STALLS. PLUG LOAD CONTROL IS TO TIE IN TO ASSOCIATED EXHAUST FAN.
REPORT VRITING	103 REPORT WRITING	x	x	x	х		x	AUTO OFF AFTER 15 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTACLES WITHIN 30 MINUTES.
BREAKOUT	109 BREAKOUT	x	x	x	x			AUTO OFF AFTER 15 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTACLES WITHIN 30 MINUTES.
CLASSROOM	112 CLASSROOM, 113 CLASSROOM	x	x	х	x			AUTO OFF AFTER 15 MIN, LOCAL CONTROL FOR PENDANTS AND RECESSED POT LIGHTS. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTACLES WITHIN 30 MINUTES.
DPEN OFFICE	108 OPEN OFFICE	×	×	x	x		x	AUTO OFF AFTER 15 MIN. PROVIDE AUTOMATIC RECEPTACLE CONTROL. AUTO OFF RECEPTACLES WITHIN 30 MINUTES.
/EHICLE BAY	131 VEHICLE BAY	х		х			х	NO MORE THAN 50% OF THE LIGHTING SHALL BE TURNED ON AUTOMATICALLY. AUTO OFF AFTER 15 MINUTES.

NOTES:								
1. LIGHTING CON	TROL DEVICES SHOWN ON NI	EW LIGHTI	NG PLANS	ARE DIAGRAMA	ATIC. COORI	DINATE EXACT	QUANITITIES A	ND LOCATION OF DEVICES AND EQUIPMENT
WITH THE LIGHTI	NG CONTROL SUPPLIER.							
2. PROVIDE ROOF	M CONTROLLERS WITH APPLI	CABLE FEA	ATURES TO	MEET LIGHTIN	G CONTRO	LS MATRIX REC	QUIREMENTS A	ND SPECIFICATIONS SECTION 26 09 24 -

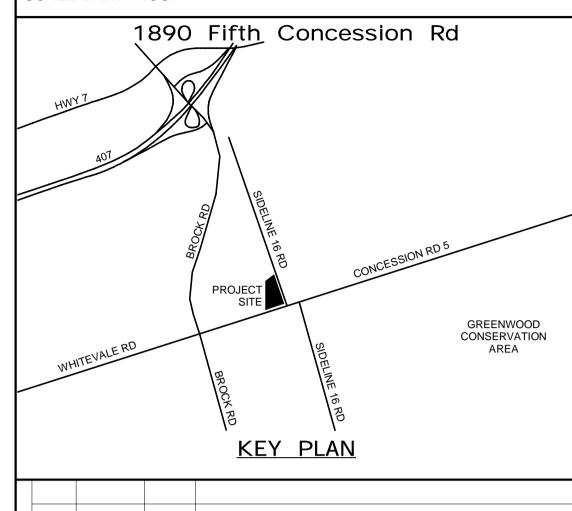
LIGHTING CONTROL DEVICES.
3. PROVIDE ONE (1) LIGHTING ZONE PER ROOM UNLESS INDICATED OTHERWISE ON THE LIGHTING PLANS.
4. PROVIDE EACH OCCUPANCY SENSING ROOM CONTROL SYSTEM WITH AN INTERFACE DEVICE THAT INCLUDES A PAIR DRY CONTACTS FOR BAS INTEGRATION, ONE (1)

PER LIGHTING ZONE.

5. PROVIDE LINE VOLTAGE CONTROLS IN THE SERVICE ROOMS. REST OF THE BUILDING INTERIOR SHALL BE DIGITAL LIGHTING CONTROLS.

A					IN	TERIOR LIG	HTING F	IXTURE	SCHEDULE		
	TYPE	IMAGE	MANUFACTURER	MODEL	DESCRIPTION		VOLT	LAMP	MOUNTING	CAT.#	NOTES
Control Approximation	A1			CRUZE ST 2X2	3401 LUMEN	24.2W	120	LED	RECESSED	22CZ2-32-S-UNV-L840-CD1-U	PROVIDE 3/8" TWIN FLEX, 3 WIRES 18 GAUGE 6' FOR DIMMABLE LUMINARIES
Control Cont	A2			CRUZE ST 2X4	8094 LUMEN	55.4W	120	LED	GRID RECESSED	22CZ2-75HE-S-UNV-L840-CD1-U	PROVIDE 3/8" TWIN FLEX, 3 WIRES 18 GAUGE 6' FOR DIMMABLE LUMINARIES
	А3			CRUZE ST 2X2	2226 LUMEN	16.2	120	LED	RECESSED	22CZ2-20-S-UNV-L840-CD1-U	PROVIDE 3/8" TWIN FLEX, 3 WIRES 18 GAUGE 6' FOR DIMMABLE LUMINARIES
P	В		EATON OR APPROVED EQUAL		7100 LUMEN	55W	120	LED	SUSPENDED PENDANT	MLL4/UNV1 TF WH PEND HAZ KIT	4' LINEAR WIDE BEAM GLASS LENS
1	F			VT3 LED VAPORTITE	6033 LUMEN	51.1W	120	LED	CEILING SURFACE	4VT3-LD5-6-G-UNV-L840-CD1-U	
COMPRESSION CONTROL SOLAR CONTROL CONT	F1			VT3 LED VAPORTITE	4116 LUMEN	32.24	120	LED	CEILING SURFACE	4VT3-LD5-4-G-UNV-L840-CD1-U	
CONTRACTORY OR APPROVED EQUAL VIS. DE PORTE 2 3877 LINES 28.89 120 LED 100 ENTES 100 E	F2			VT3 LED VAPORTITE	3099 LUMEN	23.92	120	LED	CEILING SURFACE	2VT3-LD5-3-G-UNV-L840-CD1-U	
Comparison Color Comparison Color Comparison Color Comparison Color	FS			VT3 LED VAPORTITE	6033 LUMEN	44W	120	LED	SUSPENDED PENDANT	4VT3-LD5-6-G-UNV-L840-CD1-U	
LI COOPER NEONAY OR APPROVED EQUAL NECRAY DEFINE 2 2672 LUMBN 28 397 120 LED RECESSED 51220% 867269-24079-4873 - LUDD PM CENTRAL CONTROL CONTR	н		COOPER / METALUX OR APPROVED EQUAL	OHB HIGH BAY	11883 LUMEN	67.5W	120	LED	PENDANT	OHB-12HE-MFL-UNV-L840-CD-U	
COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 2572 LLMEN 20.37 120 LED NEGESSED N	L		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	2672 LUMEN	26.3W	120	LED	RECESSED	S122DR-S675D840-4F0-1-UDD-F-W	
LI	L1		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	2672 LUMEN	26.3W	120	LED	RECESSED	S122DR-S675D840-X4F0-1-UDD-F-W	CONTINUOUS RUN 9000mm (CUSTOM LENGTH)
COOPER NECRAY OR APPROVED EQUAL NECRAY DEFINE 2 2872 LUMEN 28.3W 120 LED RECESSED S1220R-82308445-ET3-APP-1-LIDD-F-W CENTATION SUIT	L2		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	2672 LUMEN	26.3W	120	LED	RECESSED	S122DR-S675D840-GYP-16F0-1-UDD-F-W	
LAA	L3		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	2672 LUMEN	26.3W	120	LED	RECESSED	S122DR-S675D840-GYP-08F0-1-UDD-F-W	CONTINUOS RUN RECESSED IN DRYWALL CEILING. LENGTH TO SUIT
LAC COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 1167 LUMEN 11.6W 120 LED RECESSED S122DR-\$2500840-ETG-124F0-1-UDD-F-W 1272" RUN RECESSED IN T-BAR OF COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 1859 LUMEN 17.2W 121 LED RECESSED S122DR-\$46850840-X4F0-1-UDD-F-W 1272" RUN RECESSED IN T-BAR OF COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 2537 LUMEN 20.3 120 LED SUSPENDED S122DR-\$2500330U840-4F0-8-UDD-F-W 1272" RUN RECESSED IN T-BAR OF COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 2537 LUMEN 20.3 120 LED SUSPENDED S122DR-\$2500330U840-4F0-8-UDD-F-W 1272" RUN RECESSED IN T-BAR OF COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 2537 LUMEN 20.3 120 LED SUSPENDED S122DR-\$2500330U840-4F0-8-UDD-F-W 1272" RUN RECESSED IN T-BAR OF COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 1859 LUMEN 10.1W 120 LED SUSPENDED S122DR-\$2500330U840-4F0-8-UDD-F-W 1272" RUN RECESSED NEGRAY DEFINE 2 1872" RUN RECESSED NEGRAY DEFINE 2 1872" RUN RECESSED NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY OR APPROVED EQUAL NEGRAY DEFINE 2 1859 LUMEN 17.2W 120 LED SUSPENDED S122DR-\$2500330U840-X4F0-1-UDD-F-W 1272" RUN RECESSED NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER NEGRAY DEFINE 2 1872" RUN RECESSED IN T-BAR OF COOPER	L4A		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	1167 LUMEN	11.6W	120	LED	RECESSED	S122DR-S290D840-ETG-X4F0-1-UDD-F-W	CORNERS RECESSED IN T-BAR CEILING.
LS COOPER NEORAY OR APPROVED EQUAL NEORAY DEFINE 2 1859 LUMEN 17.2W 121 LED RECESSED S122DR-4485D840-X4F0-LUDD-F-W LS LEDALITE BY SIGNIFY OR APPROVED EQUAL NEORAY DEFINE 2 2537 LUMEN 20.3 120 LED SUSPENDED S122DP-S280D330U840-4F0-S-UDD-F P Belia-Calco Inc. OR APPROVED EQUAL CERCHIO II 4080 LUMEN 48W 120 LED SUSPENDED AE1-8H-8F1-8G1 T4 ARON OR APPROVED EQUAL ACE T-BAR 961 LUMEN 10.1W 120 LED T-BAR ACET1-2FA-1000-B1-3500K-89-UNY-DM Q COOPER OR APPROVED EQUAL HALO COMMERCIAL 2000 LUMEN 20W 120 LED RECESSED HC80D010-HM812840-61WDW Q1 COOPER OR APPROVED EQUAL HALO COMMERCIAL 1026 LUMEN 10W 121 LED RECESSED HC81D010-HM812840-61WDW	L4B		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	1167 LUMEN	11.6W	120	LED	RECESSED	S122DR-S290D840-ETG-16F0-1-UDD-F-W	16'X2" RUN RECESSED IN T-BAR CEILING.
LEDALITE BY SIGNIFY OR APPROVED EQUAL NEORAY DEFINE 2 2537 LUMEN 20.3 120 LED SUSPENDED S122DIP-S290D330U840-4F0-S-UDD-F P Beta-Calco Inc. OR APPROVED EQUAL CERCHIO II 4080 LUMEN 49W 120 LED SUSPENDED AE1-BH4-BF1-BG1 T4 ARON OR APPROVED EQUAL ACE T-BAR 961 LUMEN 10.1W 120 LED T-BAR ACET1-2FA-1000-B1-3500K-80-UNV-DM C COOPER OR APPROVED EQUAL HALO COMMERCIAL 2000 LUMEN 20W 120 LED RECESSED HC820D010-HIM612840-61WDW C COOPER OR APPROVED EQUAL HALO COMMERCIAL 1026 LUMEN 10W 121 LED RECESSED HC810D010-HIM612840-61WDW	L4C		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	1167 LUMEN	11.6W	120	LED	RECESSED	S122DR-S290D840-ETG-124F0-1-UDD-F-W	12'X2" RUN RECESSED IN T-BAR CEILING.
P Beta-Calco Inc. OR APPROVED EQUAL CERCHIO II 4080 LUMEN 48W 120 LED SUSPENDED AE1-BH4-BF1-BG1 T4 ARON OR APPROVED EQUAL ACE T-BAR 961 LUMEN 10.1W 120 LED T-BAR ACET1-2FA-1000-B1-3500K-80-UNV-DM COOPER OR APPROVED EQUAL HALO COMMERCIAL 2000 LUMEN 20W 120 LED RECESSED HC610D010-HM612840-61WDW COOPER OR APPROVED EQUAL HALO COMMERCIAL 1026 LUMEN 10W 121 LED RECESSED HC610D010-HM612840-61WDW	L5		COOPER NEORAY OR APPROVED EQUAL	NEORAY DEFINE 2	1859 LUMEN	17.2W	121	LED	RECESSED	S122DR-H485D840-X4F0-1-UDD-F-W	
T4 ARON OR APPROVED EQUAL ACE T-BAR 961 LUMEN 10.1W 120 LED T-BAR ACET1-2FA-1000-B1-3500K-80-UNV-DM COOPER OR APPROVED EQUAL HALO COMMERCIAL 2000 LUMEN 20W 120 LED RECESSED HC620D010-HM612840-61WDW COOPER OR APPROVED EQUAL HALO COMMERCIAL 1026 LUMEN 10W 121 LED RECESSED HC610D010-HM612840-61WDW	LS		LEDALITE BY SIGNIFY OR APPROVED EQUAL	NEORAY DEFINE 2	2537 LUMEN	20.3	120	LED	SUSPENDED	S122DIP-S290D330U840-4F0-S-UDD-F	
Q COOPER OR APPROVED EQUAL HALO COMMERCIAL 2000 LUMEN 20W 120 LED RECESSED HC620D010-HM612840-61WDW Q1 COOPER OR APPROVED EQUAL HALO COMMERCIAL 1026 LUMEN 10W 121 LED RECESSED HC610D010-HM612840-61WDW	Р		Beta-Calco Inc. OR APPROVED EQUAL	CERCHIO II	4080 LUMEN	48W	120	LED	SUSPENDED	AE1-BH4-BF1-BG1	
Q1 COOPER OR APPROVED EQUAL HALO COMMERCIAL 1026 LUMEN 10W 121 LED RECESSED HC610D010-HM612840-61WDW	Т4		ARON OR APPROVED EQUAL	ACE T-BAR	961 LUMEN	10.1W	120	LED	T-BAR	ACET1-2FA-1000-B1-3500K-80-UNV-DM	
	Q	- Del	COOPER OR APPROVED EQUAL	HALO COMMERCIAL	2000 LUMEN	20W	120	LED	RECESSED	HC620D010-HM612840-61WDW	
COOPER OR APPROVED EQUAL HALO COMMERCIAL 1422 LUMEN 14 120 LED RECESSED HC615D010-HM612840-61WDW	Q1	1	COOPER OR APPROVED EQUAL	HALO COMMERCIAL	1026 LUMEN	10W	121	LED	RECESSED	HC610D010-HM612840-61WDW	
	Q2	1	COOPER OR APPROVED EQUAL	HALO COMMERCIAL	1422 LUMEN	14	120	LED	RECESSED	HC615D010-HM612840-61WDW	

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



PRIME CONSULTANT

AECOM

NO. DATE. NAME

www.aecom.com

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



REVISIONS

DESIGN BY: GR SCALE:

DRAWN BY: HD DATE: 11/07/20

CHECKED BY: WA CONSULTANT PROJECT NO. 60611569



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
ELECTRICAL SCHEDULES

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	L
CONTRACT NO. T- 1160- 2021	DRAWING NO. E-701	SHEET NO.	

			SITE LIGHTII	NG FIXTURE	SCHEDU	ILE			
TYPE	IMAGE	MANUFACTURER / MODEL	DESCRIPTION	INPUT WATTS	VOLT	LAMP	MOUNTING	CAT.#	NOTES
B1		BEGA	1363 LUMEN	23 W	120	LED		BEGA 84_063_K3 BOLLARD	
P1		COOPER / GLEON OR APPROVED EQUAL	18848 LUMEN	225 W	120	LED	MOUNTED @ 6000mm (19'9")	GLEON-AF-04-LED-E1- SL4-7030-HSS	6000mm AFG (POLE+BASE)
P1-1		COOPER / GLEON OR APPROVED EQUAL	5475 LUMEN	59 W	120	LED	MOUNTED @ 6000mm (19'9")	GLEON SA1C-730-U- SL4-HSS	6000mm AFG (POLE+BASE)
P2		COOPER / GLEON OR APPROVED EQUAL	19839 LUMEN	225 W	120	LED	MOUNTED @ 6000mm (19'9")	GLEON-AF-04-LED-E1- SL3-7030-HSS	6000mm AFG (POLE+BASE)
P2-2		COOPER / GLEON OR APPROVED EQUAL	19839 LUMEN	225 W	120	LED	MOUNTED BACK-TO-BACK @ 6000mm (19'9")	2-GLEON-AF-04-LED- E1-SL3-7030-HSS	BACK-TO-BACK CONFIGURATION
L4		COOPER/ NEORAY	1167	11.6	120	LED	SUSPENDED @ 3000 mm (9'10")	S122DR-S290D840-4F0- UDD-F-W	-SUSPENDED FLUSH WITH CEILING
W3		BEGA WALL LUMINAIRE	2187 LUMEN	21 W	120	LED	WALL MOUNTED @ 3300mm (10'9")	BEGA 22_383_K3	

Description	Wire	BRK .LC B K.		Poles	СС	1			ь		•	сc	Poles	Breake	BRK .LC K.	Wire	Description
Description WASH AREA RECEP	wire		15 A	1	1	180 VA	380 \/A		В			2	1	15 A	r.	vvire	BAY AREA RECEP
WASHROOM RECEP			15 A	1	3	100 VA	360 VA		360 VA			4	1	15 A			BAY AREA RECEP
OVERHEAD DOOR			15 A	3	5			100 VA			540 VA	-	1	15 A			BAY/STORAGE AREA RECEP
						200 VA	360 \/\			200 VA	340 VA	8	1	15 A			BAY AREA RECEP
					9	200 VA	300 VA		180 VA			10	1	15 A			WASHROOM RECEP
WASHROOM RECEP		<u> </u>	15 A	1	11			200 VA			200 VA	$\overline{}$	1	15 A			WASHROOM RECEP
BAY STORAGE RECEP			15 A	1		400 VA	400 VA			000 VA	200 VA	14	1	15 A			FRIDGE
KITCHEN RECEP			15 A	1	15	400 VA	400 VA	600 VA	1200			16	1	15 A			DISHWASHER
STOVE			15 A	1	17			000 VA		200 VA	1100	18	1	15 A			KITCHEN RECEP
MICROWAVE			15 A	1	19	1100	600 VA			200 VA	1100	20	1	15 A			LOUNGE AREA RECEP
REPORT RM FURN. RECEP			15 A	1	21	1100	000 VA		200 VA			22	1	15 A			REPORT RM FURN. RECEP
REPORT RM FURN. RECEP			15 A	1	23			200 VA			400 VA	-	1	15 A			REPORT RM RECEP
REPORT RM FURN. RECEP			15 A	1	_	200 VA	400 VA			200 VA	400 VA	26	1	15 A			LOUNGE AREA RECEP
REPORT RM FURN. RECEP			15 A	1	27	200 VA	400 VA		300 VA			28	1	15 A			PDO EXT
REPORT RM FURN. RECEP			15 A	1	29			200 VA			300 VA		1	15 A			PDO VESTIBULE RM 101
REPORT RM FURN. RECEP			15 A	1		200 VA	200 \/A			200 VA	300 VA	32	3	15 A			OVERHEAD DOOR
REPORT RM FURN. RECEP			15 A	1	33	200 VA	200 VA		200 VA			34					OVERTICAD BOOK
OVERHEAD DOOR			15 A	3	35			200 VA			200 VA					 	<u></u>
OVERHEAD BOOK						200 VA	1440			200 VA	200 VA	38	1	15 A			VEHICLE BAY POWER DROP
					39	200 VA	1440	200 VA	1440			40	1	15 A			VEHICLE BAY POWER DROP
EHICLE BAY POWER DROP		.	15 A	1	41			200 VA	1440	1440	1440	42	1	15 A			VEHICLE BAY POWER DROP
EHICLE BAY POWER DROP			15 A	1	43	1440	1440			1440	1440	44	1	15 A			VEHICLE BAY POWER DROP
OVERHEAD DOOR			15 A	3	45	1440	1440	200 \/A	200 VA			46	3	15 A			OVERHEAD DOOR
OVERHEAD BOOK					47			200 VA			200 VA						OVERHEAD BOOK
					_	200 VA	200 \/ 4			200 VA	200 VA	50					
OVERHEAD DOOR			15 A	3	51		200 VA		200 VA			52	1	15 A			MECH RM RECEP
					53			200 VA			200 VA		1	15 A			MOH RECEP
						200 VA	200 \/A			200 VA	200 VA	56	1	15 A			IT RM RECEP
IT RM RECEP			15 A	1	57	200 VA	200 VA		200 VA			58	1	15 A			IT RM RECEP
IT RM RECEP			15 A	1	59			200 VA			200 VA	$\overline{}$	1	15 A			IT RM RECEP
ELEC RM RECEPT			15 A	1		400 VA	800 VA			200 VA	200 VA	62	1	15 A			BAS PANEL
SPARE			20 A	1	63	400 VA	000 VA	0 VA	0 VA			64	1	20 A			SPARE
SPARE			20 A	1	65			UVA	O VA	Ο \/Δ	800 VA	-	1	15 A			BAS PANEL
SPARE			15 A	1	67	0.1/4	200 VA			O VA	300 VA	68	1	15 A			RECEPT
SPARE			15 A	1	69	UVA	200 VA		600 VA			70	1	15 A			RECEPT
SPARE			15 A	1	71			O VA	000 17		180 VA	$\overline{}$	1	15 A			COURTYARD RECEPT
HYDRO METERING CAB			15 A	1	73	1000	1400			UVA	100 VA	74	1	15 A			WIREWAY
WIREWAY			15 A	1	75	1000	1400	1400	8000			76	2	100 A		2#3AWG+GND	GENERATOR AUX POWER
ROOFTOP RECEPTACLE			20 A	1	77			. 100	5555	180 VA	8000	78					
ROOFTOP RECEPTACLE			20 A 20 A	1		180 VA				100 VA	3000	80					
ROOF FOR REGER TABLE			2071	<u>'</u>	81	100 171						82					
					83							84					
			Total	l oad.	00	1392	Ο \/Δ	1686	0 VA	1758	Ο VΔ	04					
			Total A			110			4 A	1738		1					

Volts: 120/208 Wye

Phases: 3

A.I.C. Rating: 10kAIC

Mains Rating: 400 A

Panel ID: PP2HA

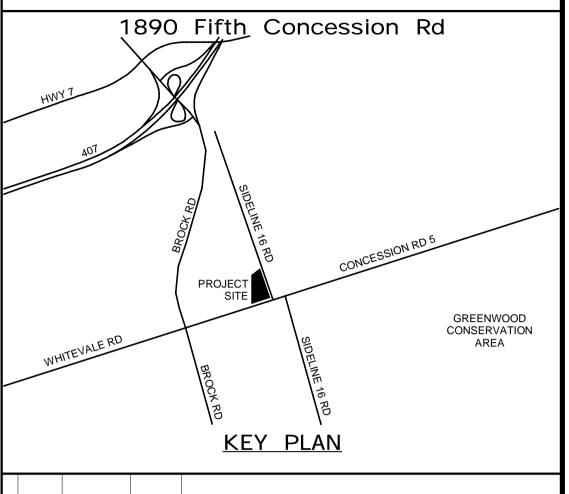
Supply From: TX-2HA

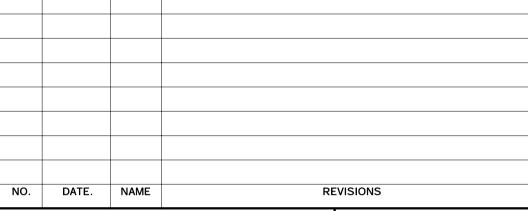
Location: CORRIDOR 102

Suppl Mo	ocation: ELEC 12 by From: TX-2L cunting: SURFAC closure: TYPE 1						ı	Volts: Phases: Wires: Lugs:	4	3 Wye					Mains	Rating: 10k Rating: 100 A Rating: 100A	
Description	Wire	BRK .LC K.	Breake	Poles	CC		A	E	3		;	CC T	Poles	Breake r	BRK .LC K.	Wire	Description
LIGHTING RM 131			15 A	1	1	405 VA	82 VA					2	1	15 A			LIGHTING EXTERIOR EXT
LIGHTING RM 131			15 A	1	3			405 VA	164 VA			4	1	15 A			LIGHTING VESTIBULE 122
LIGHTING RM 132, 133			15 A	1	5					204 VA	287 VA	6	1	15 A			LIGHTING CORRIDOR 102
LIGHTING RM 102			15 A	1	7	97 VA	73 VA					8	1	15 A			LIGHTING CORRIDOR 102a
LIGHTING RM 124			15 A	1	9			307 VA	150 VA			10	1	15 A			LIGHTING RM 129
LIGHTING RM 123			15 A	1	11					153 VA	82 VA	12	1	15 A			LIGHTING VESTIBULE 101
LIGHTING RM 127, 126, 125			15 A	1	13	320 VA	82 VA					14	1	15 A			LIGHTING EXTERIOR EXT
LIGHTING EM 102B, 134			15 A	1	15			158 VA	12 VA			16	1	15 A	ON		EMERG/EXIT RM - 133, 135
LIGHTING RM 128			15 A	1	17					374 VA	7 VA	18	1	15 A	ON		EMERG/EXIT VEHICLE BAY
LIGHTING RM 128, 130			15 A	1	19	305 VA	11 VA					20	1	15 A	ON		EMERG/EXIT RM - 123,124, 12
EMERG/EXIT RM - 102, 122		ON	15 A	1	21			17 VA	10 VA			22	1	15 A	ОИ		EMERG/EXIT RM - 127, 128
EMERG/EXIT RM - 101, 102a,		ON	15 A	1	23					8 VA	16 VA	24	1	15 A	ON		EMERG/EXIT RM 123,124
SITE LIGHTING	2#6AWG+GND		15 A	1	25	960 VA	675 VA					26	1	15 A		2#10AWG+GND	SITE LIGHTING
SITE LIGHTING			15 A	1	27			275 VA	250 VA			28	1	15 A			EXTERIOR SIGNAGE
EXTERIOR SIGNAGE	2#10AWG+GND		15 A	1	29					250 VA	400 VA	30	1	15 A			EXTERIOR WALL MT LTG
SPARE			15 A	1	31	0 VA	400 VA					32	1	20 A			EXTERIOR SIGNAGE
SPARE			15 A	1	33			0 VA	1837			34	3	100 A		4#3+GND IN	PP2LB
SPARE			15 A	1	35					0 VA	2809	36					
SPARE			20 A	1	37	0 VA	2396					38					
SPARE			20 A	1	39			0 VA				40					
SPARE			20 A	1	41					0 VA		42					
			Total			5799		3558		4583							
			Total A	Amps:		50	Α	30	Α	40	Α		E	Estimate	d Der	eted Load: mand Load: eed Current	13937 VA 13937 VA 39 A

Si	Location: ELEC 1 upply From: TX-2EV Mounting: SURFA Enclosure: TYPE1							Volts: Phases: Wires: Lugs:	4	8 Wye					Mains	. Rating: 10kAIC s Rating: 400 A B Rating: 400A		
Description	Wire	BRK .LC I K.	Breake r	Poles	CC T		A		В		3	CC T	Poles	Breake	BRK .LC K.	Wire	Description	
EV CHARGER	2#8 AWG IN		40 A	2	1	3500	3500					2	2	40 A		2#8 AWG IN	EV CHARGER	
					3			3500	3500			4	-					
SPARE			40 A	2	5					0 VA	0 VA	6	2	40 A			SPARE	
					7	0 VA	0 VA					8						
SPARE			40 A	2	9			0 VA	0 VA			10	2	40 A			SPARE	
					11					0 VA	0 VA	12	-					
SPARE			40 A	2	13	0 VA	0 VA					14	2	40 A			SPARE	
					15			0 VA	0 VA			16	-					
SPARE			40 A	2	17					0 VA	0 VA	18	2	40 A			SPARE	
					19	0 VA	0 VA					20	-					
					21							22						
					23							24						
					25							26						
					27							28						
					29							30						
					31							32						
					33							34						
					35							36						
					37							38						
					39							40						
					41							42						
	<u>'</u>		Total				0 VA		0 VA	0								
			Total A	Amps:		67	7 A	67	7 A	0	Α]		Total Co	nnec	cted Load:	14000 VA	

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.





AECON

PRIME CONSULTANT

www.aecom.com

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax



DESIGN BY: GR SCALE:

DRAWN BY: HD DATE: 04/12/21

CHECKED BY: WA CONSULTANT PROJECT NO. 60611569

3 03/14/20 ISSUED FOR CONSTRUCTION
22
2 10/18/21 RESPONSE TO CITY COMMENTS
1 09/22/21 ISSUED FOR TENDER
NO DATE NAME REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION
AND TRAINING FACILITY IN PICKERING
ELECTRICAL SCHEDULES

			_
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	D AMED
CONTRACT NO. T- 1160- 2021	DRAWING NO. E-702	SHEET NO.	מיייטשני ועוב

Loc Supply	ID: PP2 cation: CLOSET From: PP2LA unting: SURFAC	Г 107А					ı	Volts: Phases: Wires:		3 Wye					Mains	. Rating: 10kAIC s Rating: 100 A s Rating: N/A	
l .	osure: TYPE 1	_						Lugs:									
Description	Wire	BRK .LC Brea K. r		oles	CC T		.		В		C	CC	Poles	Breake	BRK .LC K.	Wire	Description
LIGHTING RM 103	VVIIC	15 /		1		145 VA						2	1	15 A	1	Wile	LIGHTING RM 117
LIGHTING RM 104, 105		15 /		1	3			352 VA	60 VA			4	1	15 A			LIGHTING RM 122
LIGHTING RM 108		15 /		1	5					312 VA	574 VA		1	15 A			LIGHTING RM 113
LIGHTING RM 109, 110, 111		15 /		1		190 VA	40 VA					8	1	15 A			LIGHTING CLOSET 107A
LIGHTING RM 112		15 /		1	9			396 VA	574 VA			10	1	15 A			LIGHTING RM, 112
LIGHTING RM 113		15 /		1	11					406 VA		12					,
LIGHTING RM 107		15 /	١	1	13	266 VA	20 VA					14	1	15 A			LIGHTING CLOSET 102A
LIGHTING RM 115, 114		15 /	4	1	15			290 VA	246 VA			16	1	15 A			LIGHTING RM 104
LIGHTING RM 116, 107, 121,		15 /	4	1	17					315 VA	328 VA	18	1	15 A			LIGHTING RM 105
LIGHTING RM 117, 120		15 /	\	1	19	287 VA	12 VA					20	1	15 A	ON		EMERG/EXIT RM - 114, 113
EMERG/EXIT RM - 117, 119,		ON 15	۸	1	21			9 VA	15 VA			22	1	15 A	ON		EMERG/EXIT CORRIDOR 107
EMERG/EXIT RM - 112		ON 15 /	١	1	23					7 VA	10 VA	24	1	15 A	ON		EMERG/EXIT OPEN OFFICE
EMERG/EXIT RM - 103, 104		ON 15	۸ .	1	25	9 VA	508 VA					26	1	15 A			PH 2 - LIGHTING RM 203
PH 2 - LIGHTING RM 205, 206		15 /	4	1	27			145 VA	244 VA			28	1	15 A			PH 2 - LIGHTING RM, 201, 207
PH 2 - LIGHTING RM 204		15 /	4	1	29					284 VA	162 VA	30	1	15 A			PH 2 - LIGHTING
PH 2 - LIGHTING RM 204		15 /	4	1	31	164 VA	6 VA					32	1	15 A	ON		PH 2 - EMERG/EXIT RM 202,
PH 2 - EMERG/EXIT 201		ON 15	4	1	33			4 VA	484 VA			34	1	15 A			PH 2 -LIGHTING RM 202
SPARE		20 /	4	1	35					0 VA	2 VA	36	1	15 A	ON		PH 2 - EMERG RM 204
SPARE		20 /	4	1	37	0 VA	0 VA					38	1	20 A			SPARE
SPARE		15 /	4	1	39			0 VA	0 VA			40	1	15 A			SPARE
SPARE		15 /	4	1	41					0 VA		42					
			al Lo			1837			9 VA		6 VA						
		Tot	al Am	ps:		15	Α	24	I A	21	Α			_			
																ted Load:	7041 VA
																mand Load: ted Current	7041 VA 20 A

Panel ID: PP2MA

SPARE

Lo Supply Mo End		Phases: 3										A.I.C. Rating: 10kAIC Mains Rating: 400 A MCB Rating: N/A					
Description	Wire	BRK .LC K.		Poles	CC		Α		В			CC T	Poles	Breake	BRK .LC K.	Wire	Description
DF-1			15 A	3		693 VA						2	3	15 A			DF-2
					3			693 VA	693 VA			4					
					5					693 VA	693 VA	6					
ERV-1 ENERGY RECOVERY			15 A	3		287 VA	0 VA					8	1	15 A			ERV-1 Lighting
					9			287 VA	2000			10	2	30 A		2#10 IN 27mmC	CU-1
					11					287 VA	2000	12					
DOAS-1 LIGHTING			15 A	1		100 VA	0 VA					14	3	15 A			DOAS-1 ENERGY RECOVERY
UH-1			15 A	1	15		5 77 (200 VA	0 VA			16					
EF-1			15 A	1	17			200 171	0 171	300 VA	0 VA	18					
TSP			15 A	1		100 VA	250 \/ 4			555 VA	5 VA	20	1	15 A			FC-6
EF-8			15 A	1	21	100 VA	200 VA		100 VA			22	1	15 A			TSP
FC-5			15 A	1	23			33 VA	100 VA	980 VA	600 \/^		1	15 A			CT - 1 AND 2
CT - 3 AND 4			15 A	1		600 VA	300 \/\			300 VA	000 VA	26	1	15 A			G-1
				1	27	000 VA	300 VA	600 VA	0 VA			28	1	20 A			EF-2
WS-1 AND WS-2			15 A	<u> </u>				600 VA	UVA		220 \/A		1				
					29						220 VA		1	15 A			FF-2
					31				0.1/4			32		45.0			ODADE
					33				0 VA			34	1	15 A			SPARE
					35						80 VA		1	15 A			EF-4
EF-5			15 A	1	37	55 VA						38					
					39							40					
IT Servers			20 A	2	41					0 VA	6000	42	3	60 A		3#4 IN 35mmC	EWH-2
					43	0 VA	6000					44					
VAV		X	15 A	1	45			200 VA	6000			46					
					47						6000		3	60 A		3#4 IN 35mmC	EWH-1
					49		6000					50					
					51				6000			52					
					53						200 VA	54	1	15 A			HVAC
					55							56					
					57				100 VA			58	1	15 A			DOMESTIC HOT WATER PUMP
					59							60					
					61							62					
VAV		X	15 A	1	63			200 VA				64					
					65							66					
					67							68					
P-9			15 A	1	69			300 VA	1333			70	3	15 A			DOAS-1 SUPPLY FAN
DOAS-1 EXHAUST FAN			15 A	3	71					667 VA	1333	72					
						667 VA	1333					74					
					75	55. 77	. 500111	667 VA	0 VA			76	1	20 A			SPARE
SPARE			20 A	1	77			3. 77	5 77	0 VA	0 VA	78	1	20 A			SPARE
SPARE			15 A	1	79	0 VA				U V/1	3 771	80	<u>'</u>	2571			0.700
SPARE			15 A	1	81	3 47		0 VA				82					
JFARE			15 A		01			UVA				02					

0 VA

Total Connected Load:

Estimated Demand Load:

Total Connected Current

56560 VA

55692 VA

157 A

17078 VA 19428 VA 20053 VA

142 A 165 A 170 A

15 A 1 83

Total Load:

Total Amps:

Supply F	tion: CLOSE rom: TX2-HE ting: SURFA sure: TYPE 1	3	•			1	Volts: 120/20 Phases: 3 Wires: 4 Lugs: MLO	o vvy e					Mains I	Rating: 10kAIC Rating: 225 A Rating: N/A	
Description	Wire	BRK .LC K.	Breake r	Poles	CC T	A	В		c	CC T	Poles	Breake r	BRK .LC K.	Wire	Description
KITCHEN RECEP			15 A	1	1	200 VA 180 VA				2	1	15 A			KITCHEN RECEP
STOVE			15 A	1	3		1400 200 VA			4	1	15 A			KITCHEN RECEP
MICROWAVE			15 A	1	5			1100	1100	6	1	15 A			MICROWAVE
MICROWAVE			15 A	1	7	1100 1100				8	1	15 A			MICROWAVE
KITCHEN RECEP			15 A	1	9		200 VA 400 VA			10	1	15 A			KITCHEN RECEP
KITCHEN RECEP			15 A	1	11			400 VA	180 VA	12	1	15 A			WASHROOM RECEP
WASHROOM RECEP			15 A	1	13	180 VA 180 VA				14	1	15 A			WASHROOM RECEP
WASHROOM RECEP			15 A	1	15		200 VA 800 VA			16	1	15 A			CORRIDOR RECEP
STORAGE RECEP			15 A	1	17			800 VA	200 VA	18	1	15 A			CLASSROOM FLOOR RECEP
PRINTER			15 A	1	19	200 VA 200 VA				20	1	15 A			CLASSROOM FLOOR RECEP
PRINTER			15 A	1	21		200 VA 200 VA			22	1	15 A			CLASSROOM FLOOR RECEP
OPEN OFFICE RECEP			15 A	1	23			400 VA	800 VA	24	1	15 A			CLASSROOM TV RECEP
OPEN OFFICE DESK RECEP			15 A	1	25	200 VA 900 VA				26	1	20 A			BREAKOUT RECEP
CLASSROOM RECEP			15 A	1	27		360 VA 800 VA			28	1	15 A			CLASSROOM TV RECEP
OPEN OFFICE RECEP			15 A	1	29			200 VA	200 VA	30	1	15 A			OPEN OFFICE FURN.
CLASSROOM FLOOR RECEP			15 A	1	31	200 VA 200 VA				32	1	15 A			OPEN OFFICE FURN.
CLASSROOM FLOOR RECEP			15 A	1	33		200 VA 200 VA			34	1	15 A			OPEN OFFICE FURN.
CLASSROOM FLOOR RECEP			15 A	1	35			200 VA	200 VA	36	1	15 A			OPEN OFFICE FURN.
PDO UNI. W/R			15 A	1	37	300 VA 1200				38	1	15 A			DISHWASHER
SPARE			20 A	1	39		0 VA 0 VA			40	1	20 A			SPARE
EMERG OP. CENT. RECEP			15 A	1	41			200 VA		42	1	15 A			EMERG OP. CENT. FURN.
EMERG OP. CENT. FURN.			15 A	1	43	200 VA 200 VA				44	1	15 A			EMERG OP. CENT. FURN.
MERG OP. CENT. TV RECEP			15 A	1	45		400 VA 400 VA			46	1	15 A			EMERG OP. CENT. TV RECEP
EMERG OP. CENT. FURN.			15 A	1	47				200 VA	48	1	15 A			EMERG OP. CENT. FURN.
EMERG OP. CENT. FURN.			15 A	1	49	200 VA 200 VA				50	1	15 A			EMERG OP. CENT. FURN.
MERG OP. CENT. TV RECEP			15 A	1	51		400 VA 600 VA			52	1	15 A			EMERG OP. CENT. TV RECEP
BREAKOUT FURN.			15 A	1	53			100 VA	800 VA	54	1	15 A			BREAKOUT RECEP
OFFICE RECEP			15 A	1	55	800 VA 400 VA				56	1	15 A			OPEN OFFICE RECEP
OPEN OFFICE FURN.			15 A	1	57		200 VA 200 VA			58	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	59			200 VA	200 VA	60	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	61	200 VA 200 VA				62	1	15 A			OPEN OFFICE FURN.
OPEN OFFICE FURN.			15 A	1	63		200 VA 200 VA		~~	64	~	151		~~~	OPEN OFFICE FURN
OPEN OFFICE FURN.			15 A	1	65			200 VA	300 VA	66	1	20 A			PDO
OPEN OFFICE FURN.			15 A	1	67	200 VA 0 VA				68	~~	45 A	~~		SPARE
OPEN OFFICE FURN.			15 A	1	69		200 VA 0 VA			70	1	15 A			SPARE
OPEN OFFICE FURN.			15 A	1	71			200 VA	0 VA	72	1	15 A			SPARE
FACP		ON	15 A	1	73	1200 200 VA				74	1	15 A			RECEPT
					75					76					
					77					78					
					79					80					
					81					82					
		+			83					84		+	+ +		

66 A

73 A

Total Connected Load:

Estimated Demand Load:

Total Connected Current

26980 VA

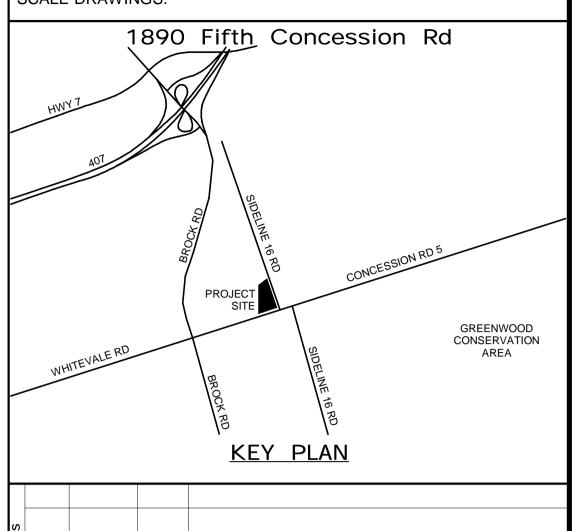
26980 VA

75 A

Total Amps:

Panel ID: PP2HB

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



AECOM

NO. DATE. NAME

SUB CONSULTANT

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



REVISIONS

DESIGN BY: GR	SCALE:
DRAWN BY: HD	DATE: 04/13/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

L	APPROVE	D BT: WA		CLIENT FILE NO.: 811720
\\				
REVISIONS				
FVIS				
١.	_	03/14/20 22		ISSUED FOR CONSTRUCTION
CONTRACT	3	10/18/21		ADDENDUM #1
NO	2	10/18/21		RESPONSE TO CITY COMMENTS
٦	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT

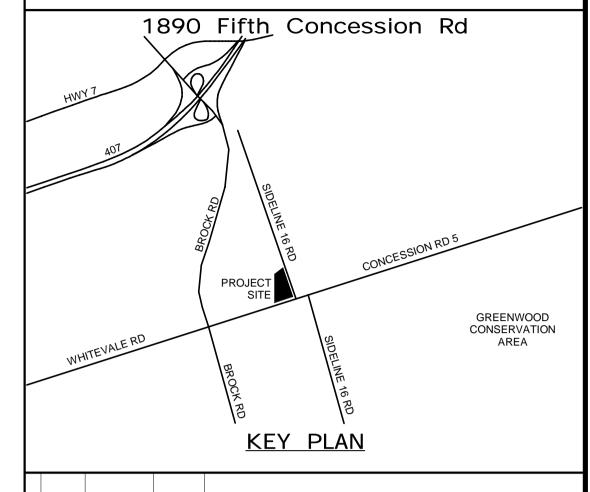
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL PHASE 1 & 2 SCHEDULES

			_
PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01	DAMED
CONTRACT NO. T- 1160- 2021	DRAWING NO. E-703	SHEET NO.	a//.096 M
			$\overline{\alpha}$

Panel ID: PP2MB Location: CLOSET 107A A.I.C. Rating: 10kAIC Volts: 120/208 Wye Mains Rating: 400 A Supply From: TX-2MB Phases: 3 **Mounting: SURFACE** MCB Rating: N/A Wires: 4 Enclosure: TYPE 1 Lugs: MLO .LC Breake Breake .LC Description FC-10 15 A 1 1 670 VA 220 VA 2 1 15 A EF-7 4 1 15 A 15 A | 1 | 3 | 55 VA 220 VA EF-6 55 VA 220 VA 6 1 15 A FC-12 15 A | 1 | 7 | 980 VA | 670 VA 8 1 15 A X 15 A 1 9 10 1 15 A X VAV 200 VA 200 VA FC-7 15 A 1 11 980 VA 200 VA 12 1 15 A X EF-3 15 A | 1 | 13 | 0 VA | 200 VA 14 1 15 A VAV X 15 A 1 15 200 VA 200 VA 16 1 15 A FC-9 15 A 1 17 330 VA 980 VA 18 1 15 A 20 1 15 A FC-1 15 A | 1 | 19 | 300 VA | 980 VA | 22 1 15 A FC-13 15 A 1 21 700 VA 870 VA FF-1 15 A 1 23 220 VA 100 VA 24 1 15 A KH-1 26 1 15 A 15 A | 1 | 25 | 300 VA | 300 VA FC-19 15 A 1 27 300 VA 1200... 28 1 15 A SPARE 20 A 1 29 0 VA | 220 VA | 30 | 1 | 15 A SPARE 20 A | 1 | 31 | 0 VA | 1100... SPARE 20 A 1 33 34 1 15 A X 0 VA | 200 VA SPARE 15 A 1 35 0 VA | 200 VA | 36 | 1 | 15 A | X SPARE 15 A | 1 | 37 | 0 VA | 980 VA 38 1 15 A SPARE 15 A | 1 | 39 | 0 VA 980 VA 40 1 15 A VAV 200 VA 200 VA 42 1 15 A X X 15 A 1 41 FC-18 15 A 1 43 980 VA 980 VA 44 1 15 A SM-1 3#1 IN 41mmC 110 A 3 45 1100... 9000... 46 3 100 A 3#2 IN 41mmC | 1100... | 9000... | 48 | -- | -- 49 1100... 9000... 50 --FC-20 15 A 1 51 52 960 VA 53 54 55 57 59 61 62 63 64 65 66 67 68 72 28660 VA 26285 VA 23905 VA **Total Load:** 242 A 222 A Total Amps: **Total Connected Load: Estimated Demand Load: Total Connected Current**

ALL MEASUREMENTS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING WITH THE WORK. THE REGION OF DURHAM ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF EXISTING SERVICES AS INDICATED ON THIS DRAWING. DO NOT SCALE DRAWINGS.



AECOM

NO. DATE. NAME

SUB CONSULTANT

Description

FF-4

FF-3

FF-5

FC-11

VAV

VAV

HVAC

HVAC

FC-8

FC-4

FC-2 & FC-3

TSP

KH-2

FS/D

FF-6

FC-17

VAV

VAV

FC-16

FC-15

VAV

FC-14

SM-2

78850 VA

75080 VA

219 A

AECOM Canada Ltd.
50 Sportsworld Crossing Road, Suite 290
Kitchener, Ontario, N2P 0A4
519 650 5313 tel 519 650 3424 fax
www.aecom.com



REVISIONS

DESIGN BY: GR	SCALE:
DRAWN BY: HD	DATE: 06/09/21
CHECKED BY: WA	CONSULTANT PROJECT NO. 60611569
APPROVED BY: WA	CLIENT FILE No.: 811/20

REVISIONS				
EVIS				
I.				
CONTRACT	3	03/14/20 22		ISSUED FOR CONSTRUCTION
ΝÖ	2	10/18/21		RESPONSE TO CITY COMMENTS
ľ	1	09/22/21		ISSUED FOR TENDER
	NO	DATE	NAME	REVISIONS



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

NEW SEATON PARAMEDIC STATION AND TRAINING FACILITY IN PICKERING ELECTRICAL PHASE 1 & 2 SCHEDULES

PROPERTY NO.	FACILITIES CODE	FACILITIES PROJECT NO. P061-18-01
CONTRACT NO.	DRAWING NO.	SHEET NO.
T- 1160- 2021	E- 704	