



Addendum No. 1

Bid Opportunity: 7159-RW-22 – Smithson PS Office and HVAC Upgrades.

Closing Date: Monday, March 14th, 2022 2:00 PM

The following issued by the Board shall form part of the Bid / Proposal Solicitation document. The revisions and additions noted herein along with any attachments shall be read in conjunction with all other related documents. This Addendum shall, take precedence over the previously issued documents where differences occur. Receipt of this addendum must be acknowledged in the Bidding System, bids&tenders.

If you have already submitted a Bid / Proposal, it will be automatically withdrawn as a result of this addendum. You must resubmit the Bid / Proposal acknowledging all addenda and revising your Bid / Proposal to comply with all addenda.

The information below, attachments and drawings provide additional clarification and does not change the Scope or intent of the bid document.

ITEM 1

Refer to attached A0.0 Cover Sheet for Revised Detail 3 (Revised Corridor Fire Rating).

ITEM 2

Refer to attached A1.1 Demolition RCP for Added GWB ceiling area to be removed and Added Ceiling Demolition Note.

ITEM 3

Refer to attached A2.0 Proposed Plans & Schedules for Revised Door Schedule (Revised D101, Added Fire Rating for D106, D108, and D114), Revised Screen Schedule (Added Fire Rating and Revised layout).

ITEM 4

Refer to attached A2.1 Proposed Partial Plan for Revised Detail 1 (Added Beam at new Roof Hatch. Revised Screens S1 and S2).

ITEM 5

Refer to attached A2.2 Proposed RCP for Revised Detail 5 and Added Detail 7.

ITEM 6

Refer to attached A4.0 Interior Elevations for Revised Detail 15 and 16.

ITEM 7

Refer to attached Specification Section 08 81 00 Interior Glass Glazing for Added 2.2.4 Fire Rated Glass (FRG).

ITEM 8

Revise 01 21 00 Allowances. 1.4. Allowances Schedule Increase Cash Allowance Item .2 IT/HDMI/PA Cabling & Terminations to \$20,000.

ITEM 9

Refer to attached Structural SK-1. Revise lintel beam size for detail 6/S1.0 from W200X42 to **W250X28**; bearing plates and end support requirements remain the same as detail 6A/S1.0"

ITEM 10

Refer to attached ADD-M01

ITEM 11

Refer to attached ADD-E01

ATTACHMENTS

Specification Section 08 81 00 Interior Glass Glazing
ADD-M01 (including Mechanical Drawings)
ADD-E01 (including Electrical Drawings)

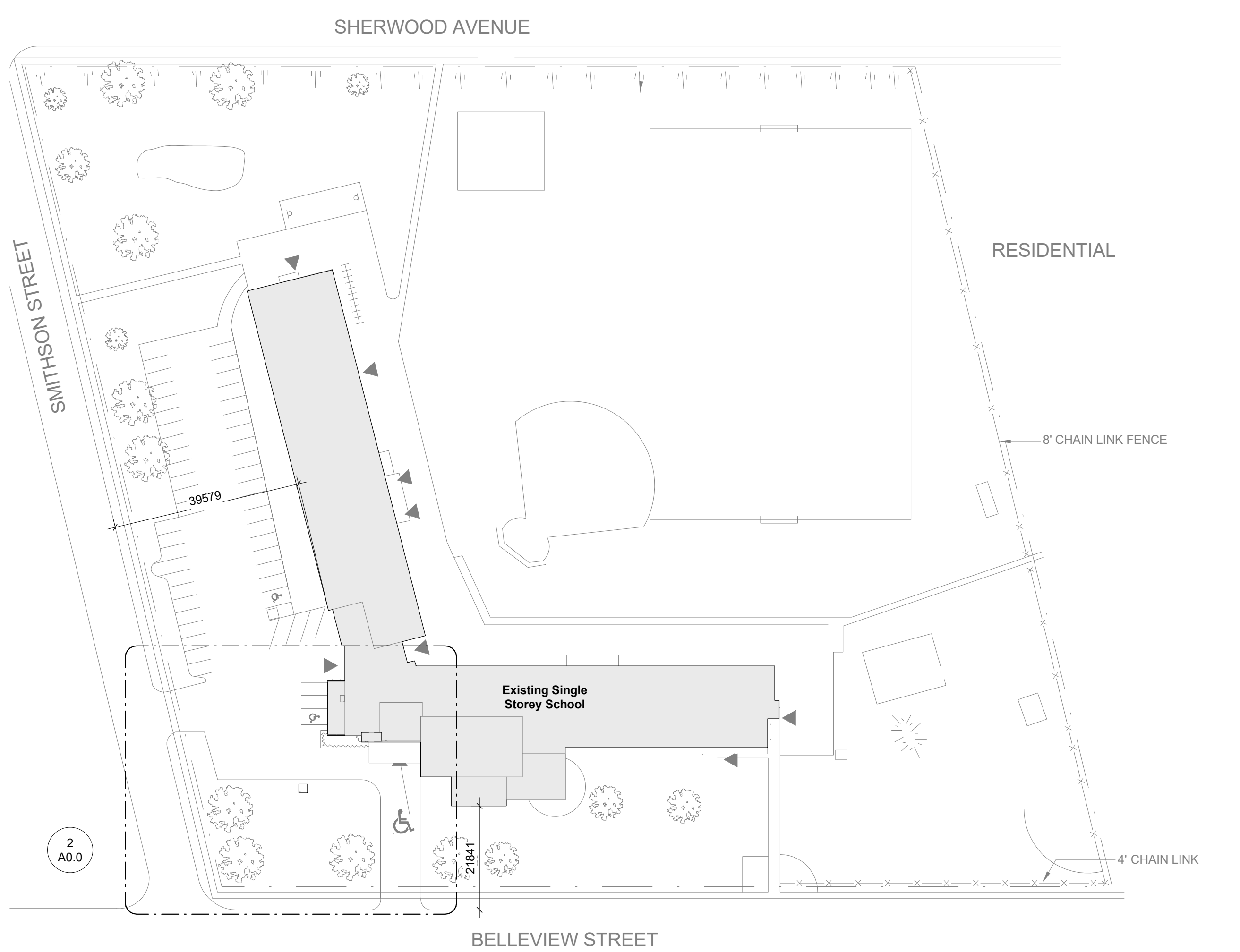
DRAWINGS

A0.0 Cover Sheet
A1.1 Demolition RCP
A2.0 Proposed Plans & Schedules
A2.1 Proposed Partial Plan
A2.2 Proposed RCP
A4.0 Interior Elevations
Sk-1 Addendum No.1 – Revision to Detail 6/S1.0

End of Addendum #1

FIRM NAME: WORKSHOP ARCHITECTURE 6 SOUSA MENDES ST Toronto, ON M6P 0A8 tel. 416.901.8055 fax 416.849.0383		LOCATION: 150 Bellevue Avenue Kitchener, ON	
NAME OF PROJECT: Interior Renovations & HVAC Upgrades		Project Area: 480 M²	
ITEM		ONTARIO'S 2012 BUILDING CODE DATA MATRIX PARTS 3 & 9	
1 PROJECT DESCRIPTION:		References are to Division B unless noted [A] for Division A or [C] for Division C	
<input type="checkbox"/> CHANGE OF USE <input type="checkbox"/> NEW <input type="checkbox"/> ADDITION <input checked="" type="checkbox"/> ALTERATION		<input type="checkbox"/> PART 11 <input type="checkbox"/> PART 3 <input type="checkbox"/> PART 9 11.1 TO 11.4 1.1.2 [A] 1.1.2 [A] & 9.10.1.3	
2 MAJOR OCCUPANCY(S): A2		3.1.2.1(1) 9.10.2	
3 BUILDING AREA (M ²)		EXISTING NEW TOTAL No change 1.4.1.2 [A] 1.4.1.2 [A]	
4 GROSS AREA		EXISTING NEW TOTAL No change 1.4.1.2 [A] 1.4.1.2 [A]	
5 NUMBER OF STOREYS ABOVE GRADE 1 BELOW GRADE 0		1.4.1.2 [A] & 3.2.1.1. 1.4.1.2 [A] & 9.10.4	
6 NUMBER OF STREETS / FIRE FIGHTER ACCESS		1 (EXISTING UNCHANGED) 3.2.2.10 & 3.2.5 9.10.20	
7 BUILDING CLASSIFICATION		3.2.2.25 (Existing Non-conforming) 3.2.2.20-83 9.10.2.	
8 SPRINKLER SYSTEM (PROPOSED)		<input type="checkbox"/> ENTIRE BUILDING <input type="checkbox"/> BASEMENT <input type="checkbox"/> SELECTED FLOOR AREAS <input checked="" type="checkbox"/> NOT REQUIRED <input type="checkbox"/> SELECTED COMPARTMENTS <input type="checkbox"/> IN LIEU OF ROOF RATING	
9 STANDPIPE REQUIRED		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.2.9 N/A	
10 FIRE ALARM REQUIRED		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.4 9.10.18	
11 WATER/SERVICE/SUPPLY IS ADEQUATE		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.5.7 N/A	
12 HIGH BUILDING		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.6 N/A	
13 CONSTRUCTION RESTRICTIONS		<input checked="" type="checkbox"/> COMBUSTIBLE PERMITTED <input type="checkbox"/> COMBUSTIBLE NOT PERMITTED <input type="checkbox"/> NON-COMBUSTIBLE REQUIRED <input checked="" type="checkbox"/> NON-COMBUSTIBLE BOTH	
14 MEZZANINE(S) AREA M ²		NA 3.2.1.1.(3)-(8) 9.10.4.1	
15 OCCUPANT LOAD BASED ON		<input type="checkbox"/> M.SQ./PERSON <input checked="" type="checkbox"/> DESIGN OF BUILDING OCCUPANCY: A2 240 students 18 staff TOTAL: 258 PERSONS UNCHANGED	
16 BARRIER-FREE DESIGN		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (EXPLAIN) 3.8 9.5.2	
17 HAZARDOUS SUBSTANCES		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.3.1.2 & 3.3.1.19 9.10.1.3(4)	
18 REQUIRED FIRE RESISTANCE RATING (FRR)		HORIZONTAL ASSEMBLIES FRR (HOURS) LISTED DESIGN NO. OR DESCRIPTION (SG-2) 3.2.2.20-83 & 3.2.1.4 9.10.8 9.10.9 FLOORS 45 MIN existing no change ROOF 45 MIN existing no change MEZZANINE N/A NA NO CHANGE FRR OF SUPPORTING MEMBERS LISTED DESIGN NO. OR DESCRIPTION (SG-2) NO CHANGE FLOORS no change HOURS ROOF no change HOURS MEZZANINE N/A HOURS	
19 SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS		NA 3.2.3 9.10.14	
20 OTHER-DESCRIBE		Existing non-conforming items: Building area exceeds area for building classification 3.2.2.25. Existing Corridor walls are not constructed as fire separations with FRR of 45min as required by 3.3.2.5 (2) & 3.4.2.4 (2). New HVAC ductwork will be equipped with fire dampers and new penetrations firestopped in accordance with these clauses.	

NAME OF PRACTICE: WORKSHOP Architecture 6 Sousa Mendes Street Toronto, ON M6P 0A8 phone: 416.901.8055		PROJECT DESCRIPTION: HVAC upgrades in classrooms, washrooms, corridors and vestibules in west wing & central lobby of school with minor interior renovations to suit.	
NAME OF PROJECT: Smithson PS HVAC Upgrades & Admin/Staff Area Renovations		Interior renovations to reconfigure main office to include health room, barrier-free wc and expanded office area. Renovation to existing staff work room, staff wc and custodial area. Conversion of existing classroom in to Special Education Room. Demolition of existing redundant vestibule and boiler room chimney.	
LOCATION: 150 Bellevue Avenue Kitchener, ON			
Ontario Building Code Data Matrix - Part 11 - Renovation of Existing Building			
11.1	Existing Building classification:	Describe Existing Use: Construction Index: Existing Hazard Index: Hazard Index for Proposed Use: <input checked="" type="checkbox"/> Not Applicable (no change of major occupancy)	A2 - Elementary School 11.2.1 T 11.2.1.1A to N
11.2	Alteration to Existing Building is:	Basic Renovation <input checked="" type="checkbox"/> Extensive Renovation <input type="checkbox"/>	11.3.3.1 11.3.3.2
11.3	Reduction in Performance Level:	Structural: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By Increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage-system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.2 11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5
11.4	Compensating Construction:	Structural: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.3 11.4.3.2 11.4.3.3 11.4.3.4 11.4.3.5 11.4.3.6
11.5	Compliance Alternatives Proposed:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.5.1



Rev	Description	Date
1	Issued for Schematic Design Report	04 Dec 2020
2	50% Review	26 Feb 2021
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
7	Reissued for Permit	3 Mar 2022
8	Issued for Addendum 1	7 Mar 2022

Life Safety Plan Legend

- Travel Distance Max Allowable = 30m
- Shaded area indicates scope of work
- Not In Contract (N.I.C.)
- 0HR FRR
- 0.45HR FRR

WORKSHOP architecture

WORKSHOP architecture inc
6 Sousa Mendes Street
Toronto Ontario M6P 0A8
T 416.901.8055 F 416.849.0383
www.workshoparchitecture.ca

ONTARIO ASSOCIATION OF ARCHITECTS
DAVID BARTON COLUCCI
LICENCE 6548

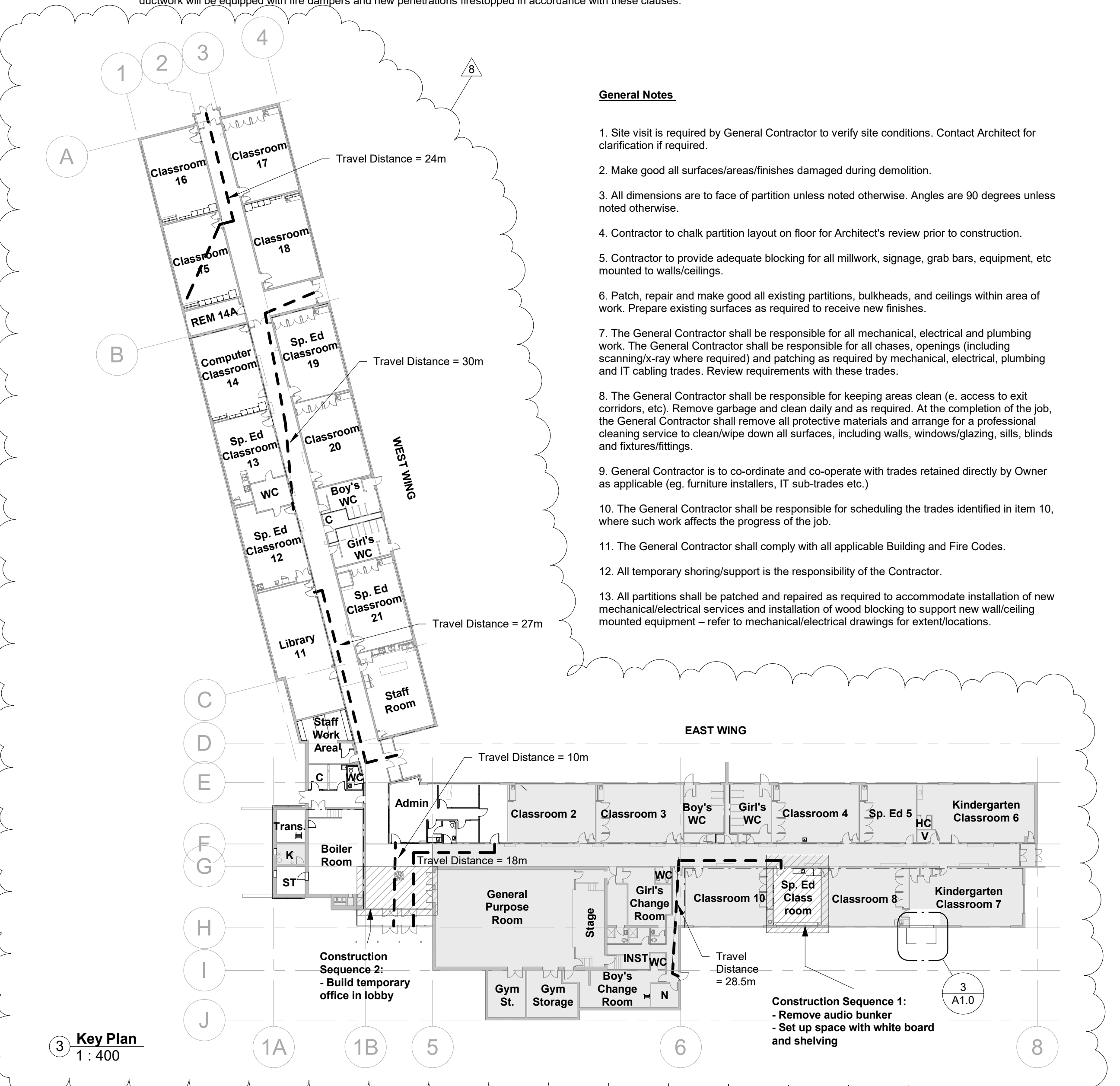
WRDSB Smithson Public School - HVAC & Electrical Upgrades, Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

PROJECT CODE: 20_28	SCALE: As indicated
DATE: December 2021	STATUS: Permit/Tender

Cover Sheet

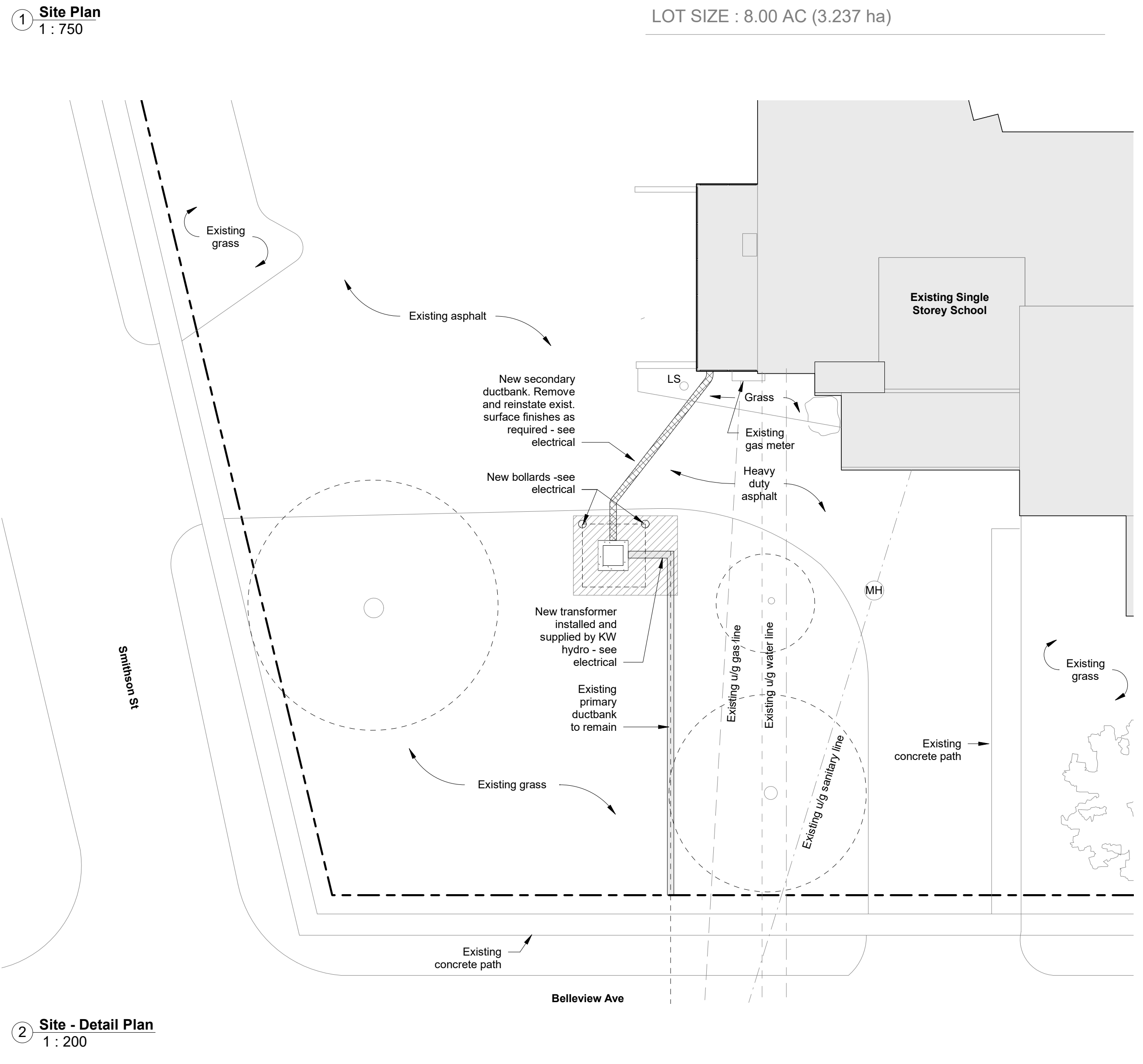
Project North

drawing number
A0.0

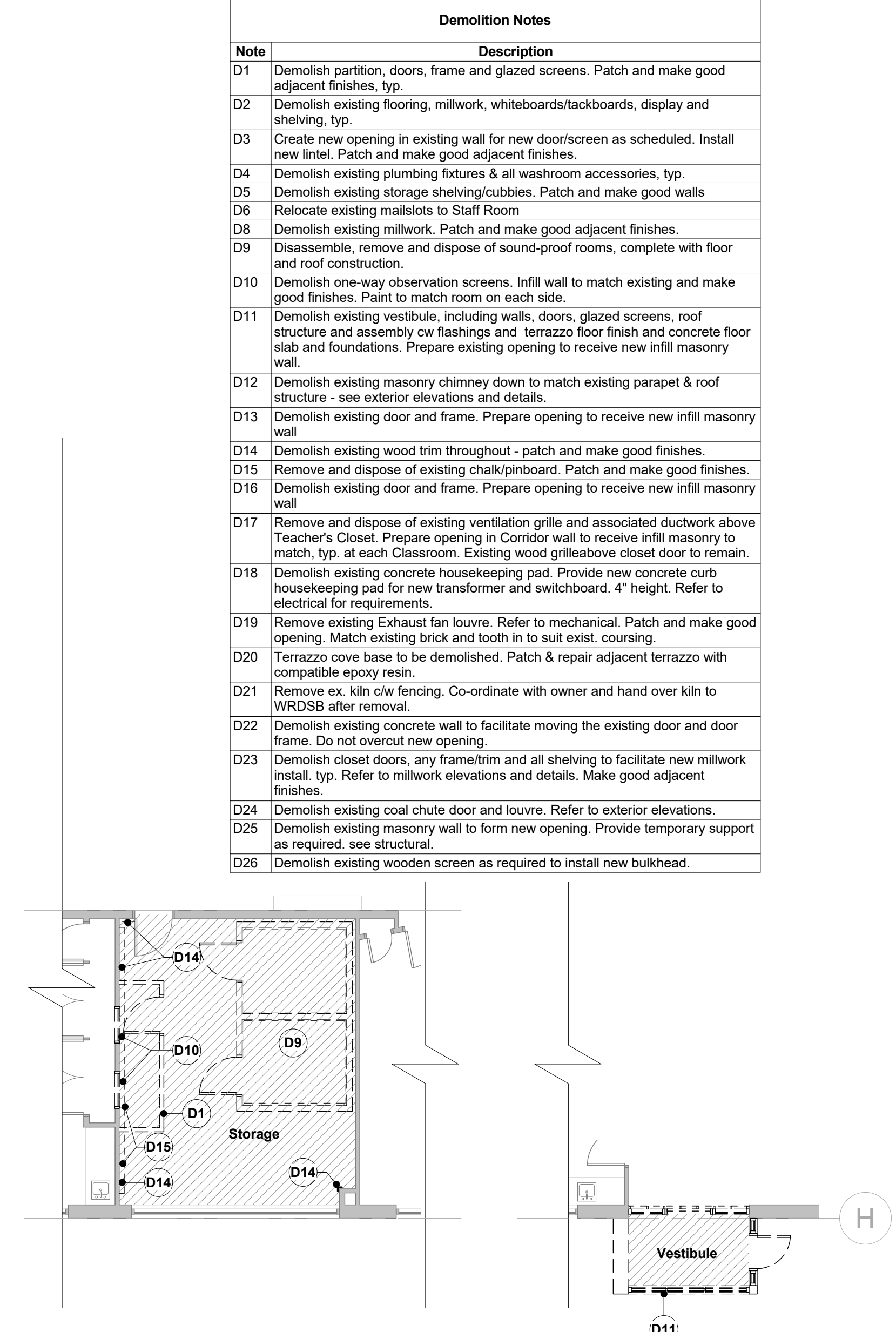
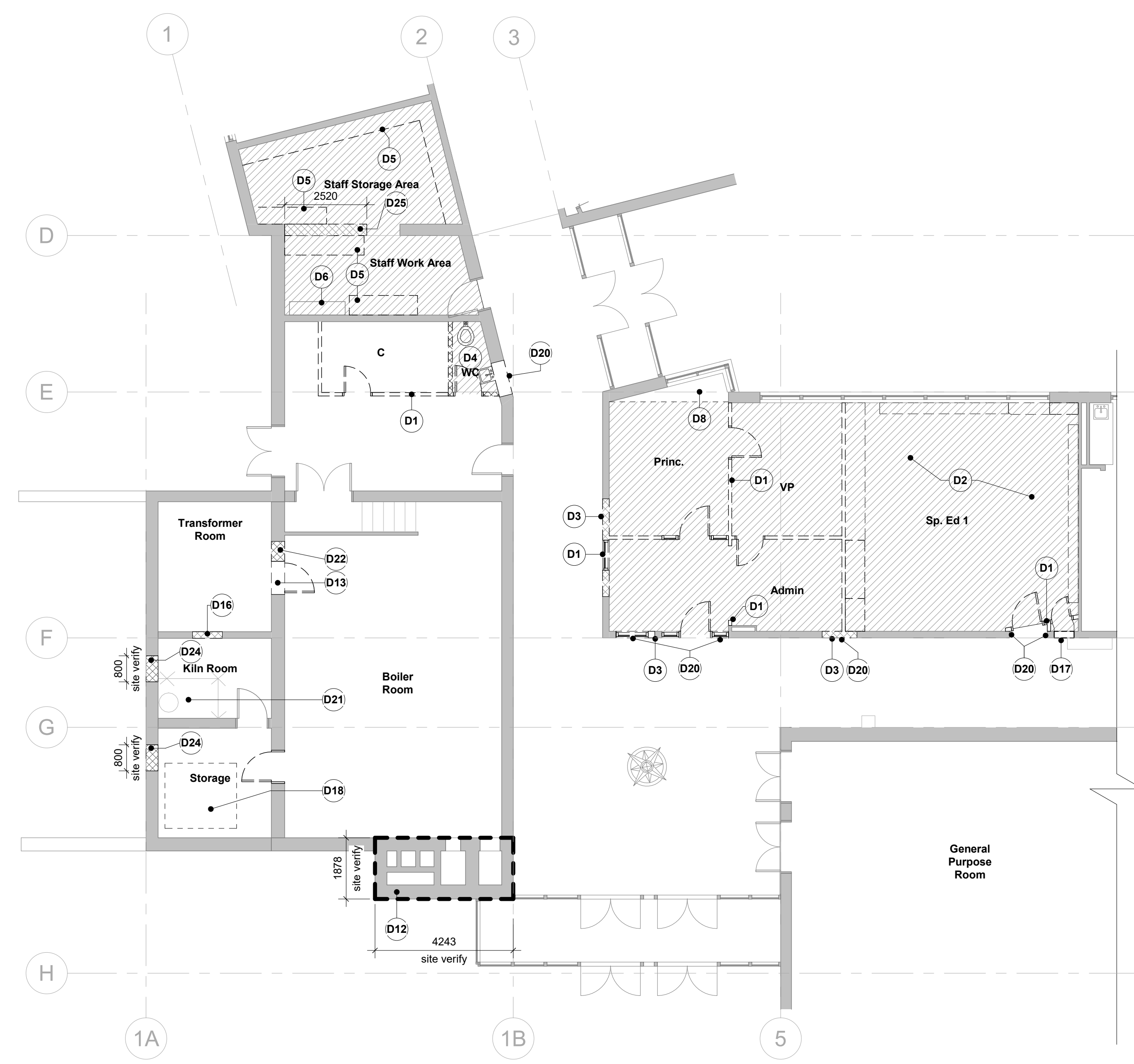
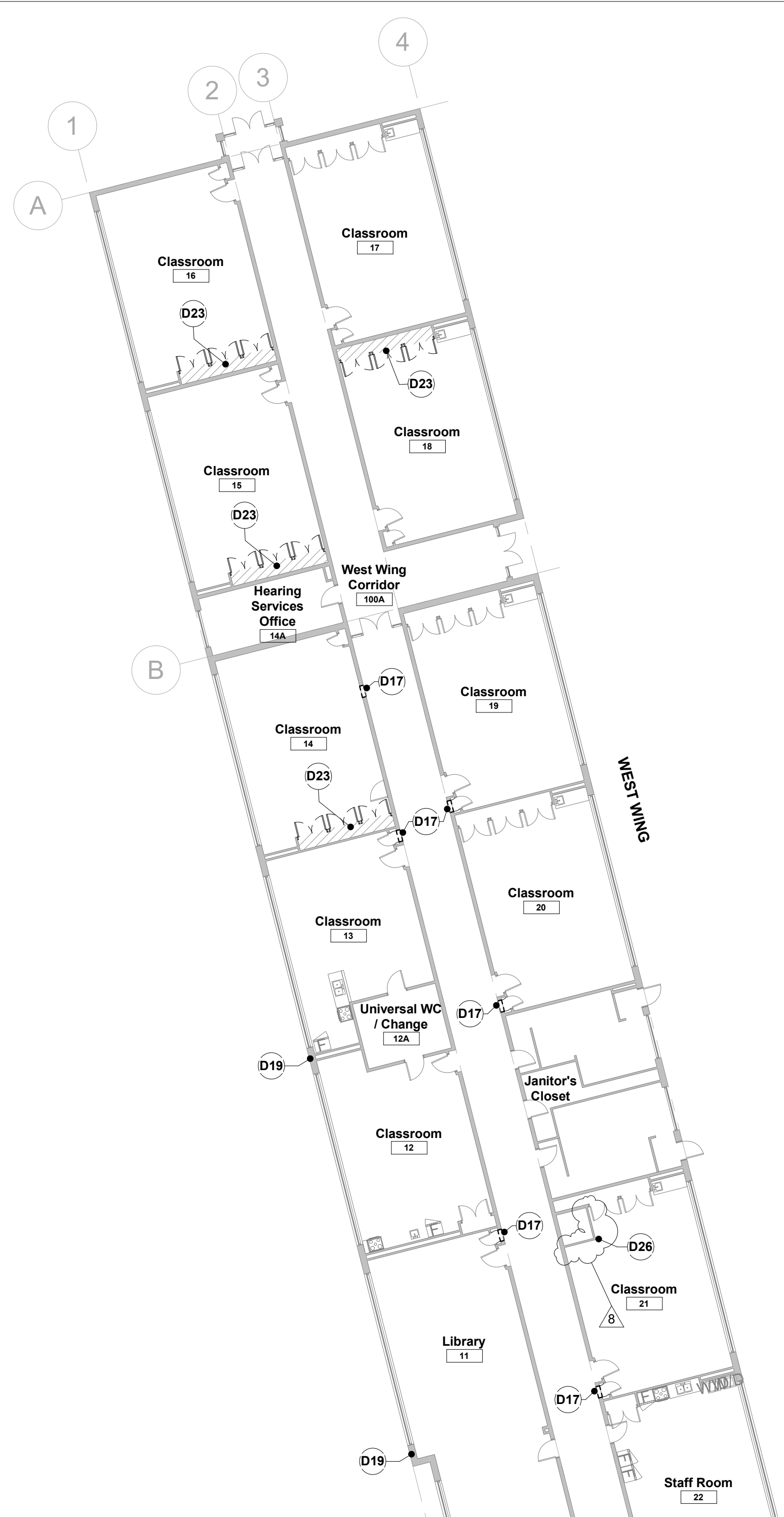


- General Notes**
- Site visit is required by General Contractor to verify site conditions. Contact Architect for clarification if required.
 - Make good all surfaces/areas/finishes damaged during demolition.
 - All dimensions are to face of partition unless noted otherwise. Angles are 90 degrees unless noted otherwise.
 - Contractor to chalk partition layout on floor for Architect's review prior to construction.
 - Contractor to provide adequate blocking for all millwork, signage, grab bars, equipment, etc mounted to walls/ceilings.
 - Patch, repair and make good all existing partitions, bulkheads, and ceilings within area of work. Prepare existing surfaces as required to receive new finishes.
 - The General Contractor shall be responsible for all mechanical, electrical and plumbing work. The General Contractor shall be responsible for all chases, openings (including scanning/x-ray where required) and patching as required by mechanical, electrical, plumbing and IT cabling trades. Review requirements with these trades.
 - The General Contractor shall be responsible for keeping areas clean (e. access to exit corridors, etc). Remove garbage and clean daily and as required. At the completion of the job, the General Contractor shall remove all protective materials and arrange for a professional cleaning service to clean/wipe down all surfaces, including walls, windows/glazing, sills, blinds and fixtures/fittings.
 - General Contractor is to co-ordinate and co-operate with trades retained directly by Owner as applicable (eg. furniture installers, IT sub-trades etc.)
 - The General Contractor shall be responsible for scheduling the trades identified in item 10, where such work affects the progress of the job.
 - The General Contractor shall comply with all applicable Building and Fire Codes.
 - All temporary shoring/support is the responsibility of the Contractor.
 - All partitions shall be patched and repaired as required to accommodate installation of new mechanical/electrical services and installation of wood blocking to support new wall/ceiling mounted equipment - refer to mechanical/electrical drawings for extent/locations.

Sheet List	
Sheet Number	Sheet Name
ARCHITECTURAL	
A0.0	Cover Sheet
A1.0	Demolition Plans
A1.1	Demolition RCP
A2.0	Proposed Plans & Schedules
A2.1	Proposed Partial Plan
A2.2	Proposed RCP
A3.0	Roof Plan & Details
A4.1	Interior Elevations & Schedules
A5.0	Lower Roof Detail Plan, Exterior Elevations & Details
A5.1	Millwork Details
A5.2	Millwork Details
STRUCTURAL	
S1.0	Structural Details
S2.0	Screen Framing & Construction Notes
ARCHITECTURAL	
A4.0	Interior Elevations
MECHANICAL	
M0	Mechanical Specifications
M1	Site Plan
M2	Demo Plan - West Wing
M3	New HVAC Plan - West Wing
M4	New Hydronic Plan - West Wing
M5	Plumbing Plan - West Wing
M6	Roof Plan - West Wing
M7	Mechanical Details Part 1
M8	Mechanical Details Part 2
M9	Heating Pipe Schematic
M10	Mechanical Schedules
ELECTRICAL	
E1	Electrical Legend and Schedules
E2	Electrical Single Line Diagram and Site Plan
E3	Existing/ Demo Power Plans
E4	Existing/ Demo Fire Alarm Plans
E5	Existing/ Demo Lighting & Reflected Ceiling Plans
E5.1	Existing/ Demo Lighting & Reflected Ceiling Plans
E5.2	Existing/ Demo Emergency Lighting & Exit Sign Plans
E6	Proposed Power Plans
E6.1	Proposed Power Plans
E7	Proposed Fire Alarm Plans
E8	Proposed Lighting & Reflected Ceiling Plans
E8.1	Proposed Lighting & Reflected Ceiling Plans
E8.2	Proposed Emergency Lighting & Exit Sign Plans
E9	Electrical and Boiler Room Layouts
E10	Proposed Rooftop Plans
E11	Electrical Details
E11.1	Electrical Details
E11.2	Unnamed



2 Site - Detail Plan
1 : 200

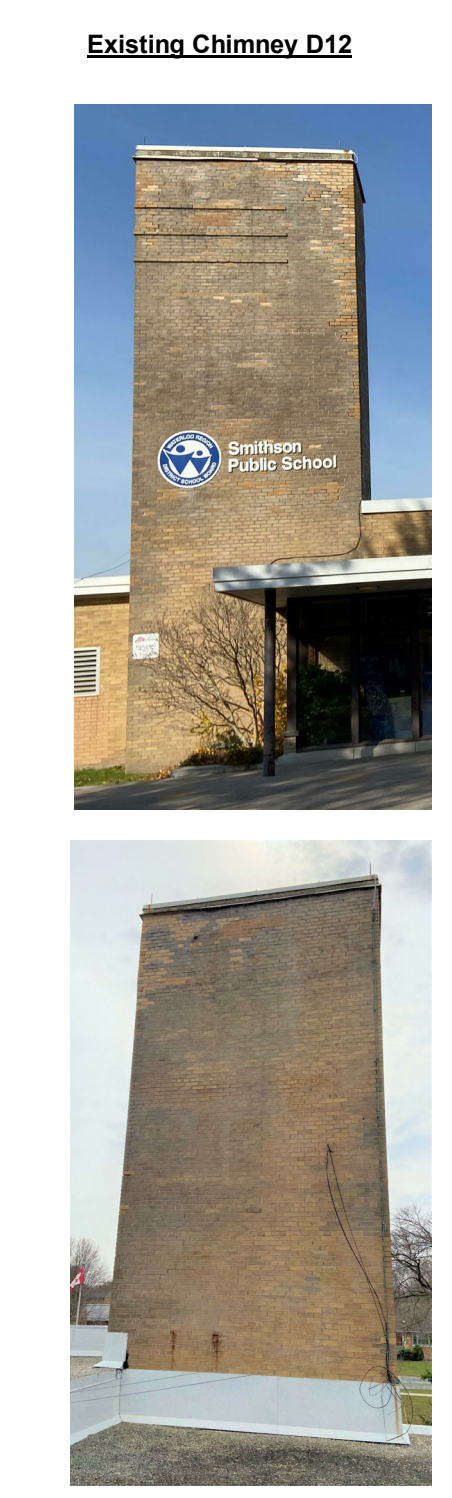


Note	Description
D1	Demolish partition, doors, frame and glazed screens. Patch and make good adjacent finishes, typ.
D2	Demolish existing flooring, millwork, whiteboards/blackboards, display and shelving, typ.
D3	Create new opening in existing wall for new door/screen as scheduled. Install new lintel. Patch and make good adjacent finishes.
D4	Demolish existing plumbing fixtures & all washroom accessories, typ.
D5	Demolish existing storage shelving/cubbies. Patch and make good walls
D6	Relocate existing mailslots to Staff Room
D8	Demolish existing millwork. Patch and make good adjacent finishes.
D9	Disassemble, remove and dispose of sound-proof rooms, complete with floor and roof construction.
D10	Demolish one-way observation screens. Infill wall to match existing and make good finishes. Paint to match room on each side.
D11	Demolish existing vestibule, including walls, doors, glazed screens, roof structure and assembly w/ flashings and terrazzo floor finish and concrete floor slab and foundations. Prepare existing opening to receive new infill masonry wall.
D12	Demolish existing masonry chimney down to match existing parapet & roof structure - see exterior elevations and details.
D13	Demolish existing door and frame. Prepare opening to receive new infill masonry wall
D14	Demolish existing wood trim throughout - patch and make good finishes.
D15	Remove and dispose of existing chalk/pinboard. Patch and make good finishes.
D16	Demolish existing door and frame. Prepare opening to receive new infill masonry wall
D17	Remove and dispose of existing ventilation grille and associated ductwork above Teacher's Closet. Prepare opening in Corridor wall to receive infill masonry to match, typ. at each Classroom. Existing wood grille/above closet door to remain.
D18	Demolish existing concrete housekeeping pad. Provide new concrete curb housekeeping pad for new transformer and switchboard. 4" height. Refer to electrical for requirements.
D19	Remove existing Exhaust fan louvre. Refer to mechanical. Patch and make good opening. Match existing brick and tooth in to suit exist. coursing.
D20	Terrazzo cove base to be demolished. Patch & repair adjacent terrazzo with compatible epoxy resin.
D21	Remove ex. kiln c/w fencing. Co-ordinate with owner and hand over kiln to WRDSB after removal.
D22	Demolish existing concrete wall to facilitate moving the existing door and door frame. Do not overcut new opening.
D23	Demolish closet doors, any frame/trim and all shelving to facilitate new millwork install, typ. Refer to millwork elevations and details. Make good adjacent finishes.
D24	Demolish existing coal chute door and louvre. Refer to exterior elevations.
D25	Demolish existing masonry wall to form new opening. Provide temporary support as required. see structural.
D26	Demolish existing wooden screen as required to install new bulkhead.

All drawings and related documents are the property of Workshop Architecture Inc. and may not be reproduced in whole or in part without the architect's permission. This drawing should not be used to calculate areas. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. This drawing shall not be used for construction unless identified as "Issued for Construction" Drawing errors or discrepancies are to be immediately reported to the architect.

Rev	Description	Date
1	Issued for Schematic Design Report	04 Dec 2020
2	50% Review	26 Feb 2021
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
8	Issued for Addendum 1	7 Mar 2022

Demolition Legend	
	Existing CMU partition to be demolished
	Existing wall partition system to be demolished
	Existing element to be demolished
	Approximate extent of flooring to be removed
	Approximate extent of ceiling to be removed
	Approximate extent of fibreboard to be removed from US Joists
	Existing door leaf and frame to be demolished
	Area not in architectural scope of work



WORKSHOP
architecture
WORKSHOP architecture inc
6 Sousa Mendes Street
Toronto Ontario M5P 0A8
T 416.901.8055 F 416.849.0383
www.workshoparchitecture.ca

WRDSB Smithson Public School -
HVAC & Electrical Upgrades,
Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

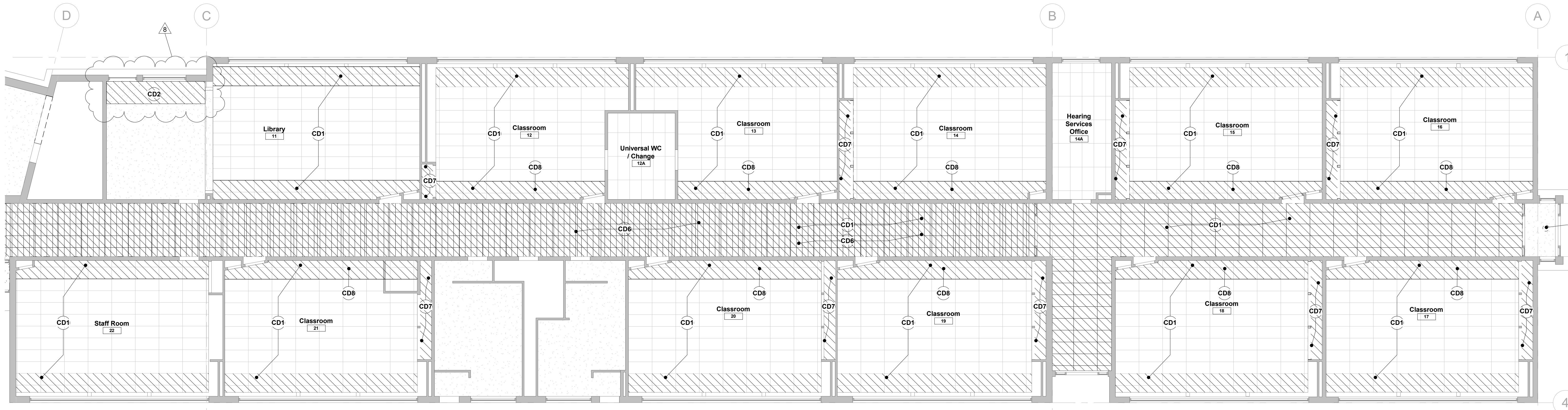
PROJECT CODE:	SCALE:
20_28	As indicated
DATE:	STATUS:
December 2021	Permit/Tender

Demolition Plans

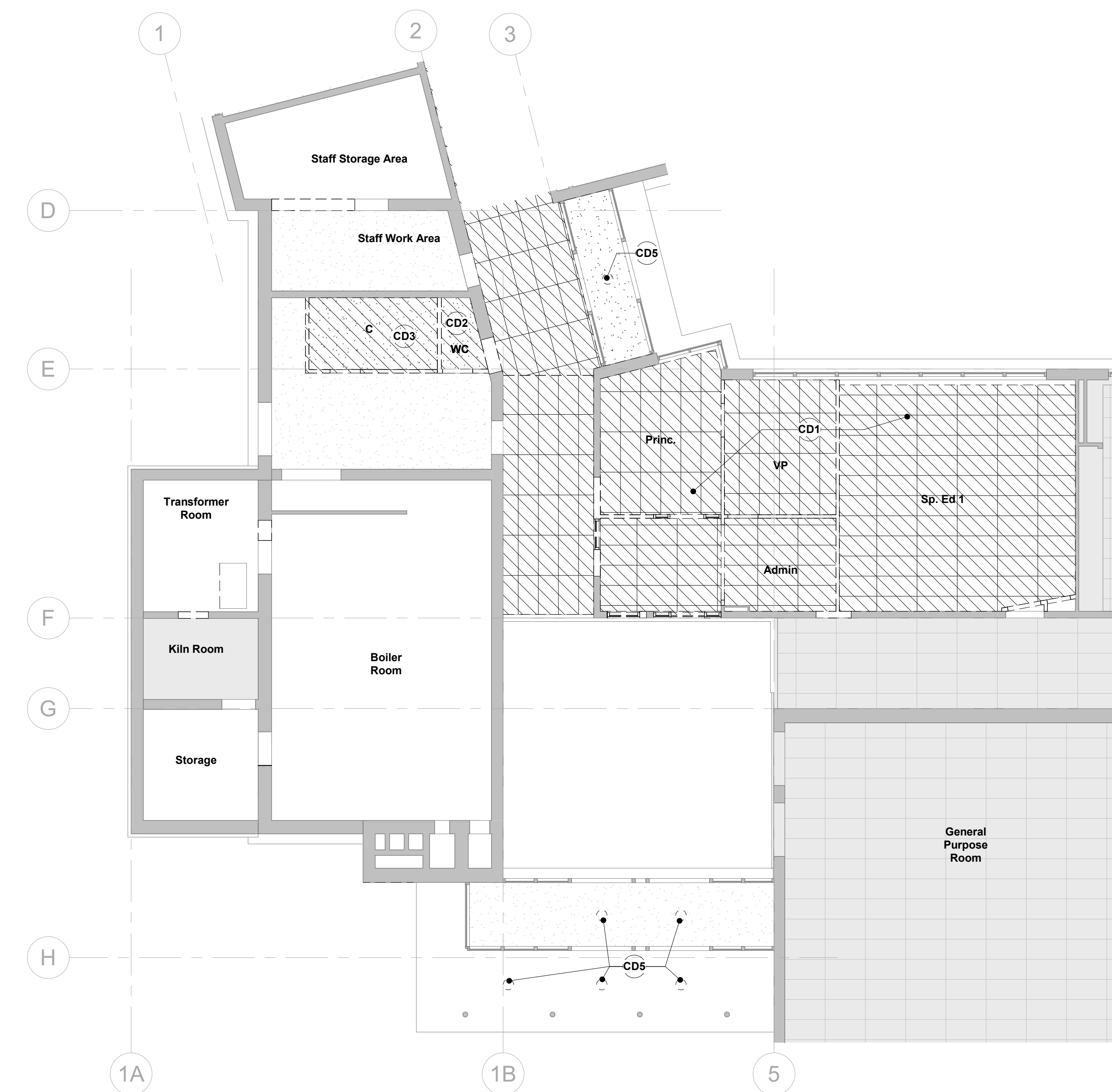
Project North

drawing number
A1.0

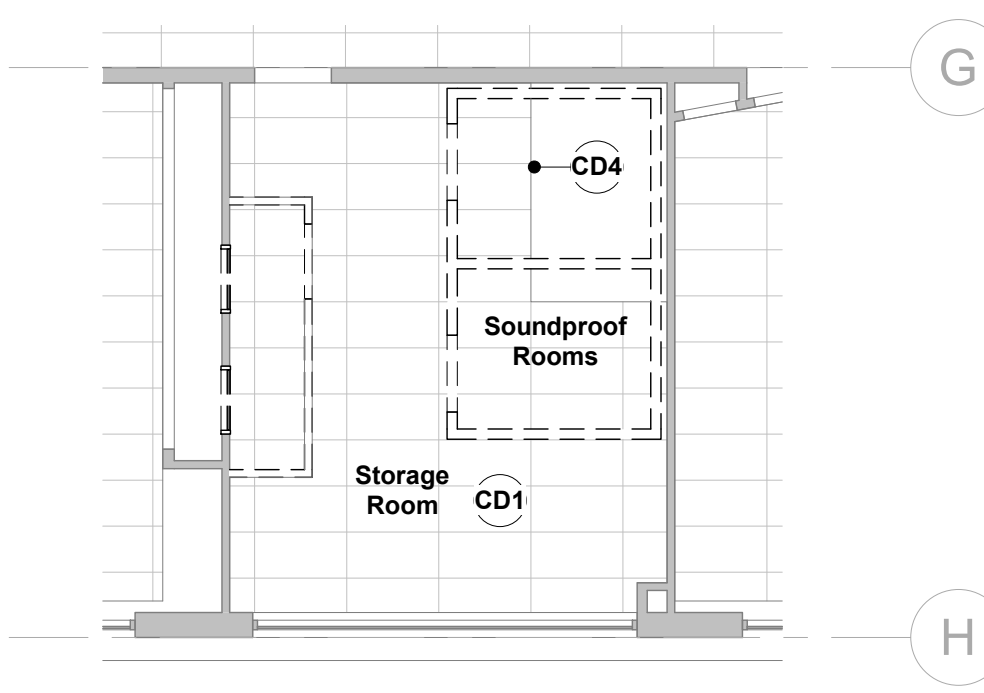
All drawings and related documents are the property of Workshop Architecture Inc. and may not be reproduced in whole or in part without the architect's permission. This drawing shall not be used for calculation areas. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. This drawing shall not be used for construction unless identified as "Issued for Construction" Drawing errors or discrepancies are to be immediately reported to the architect.



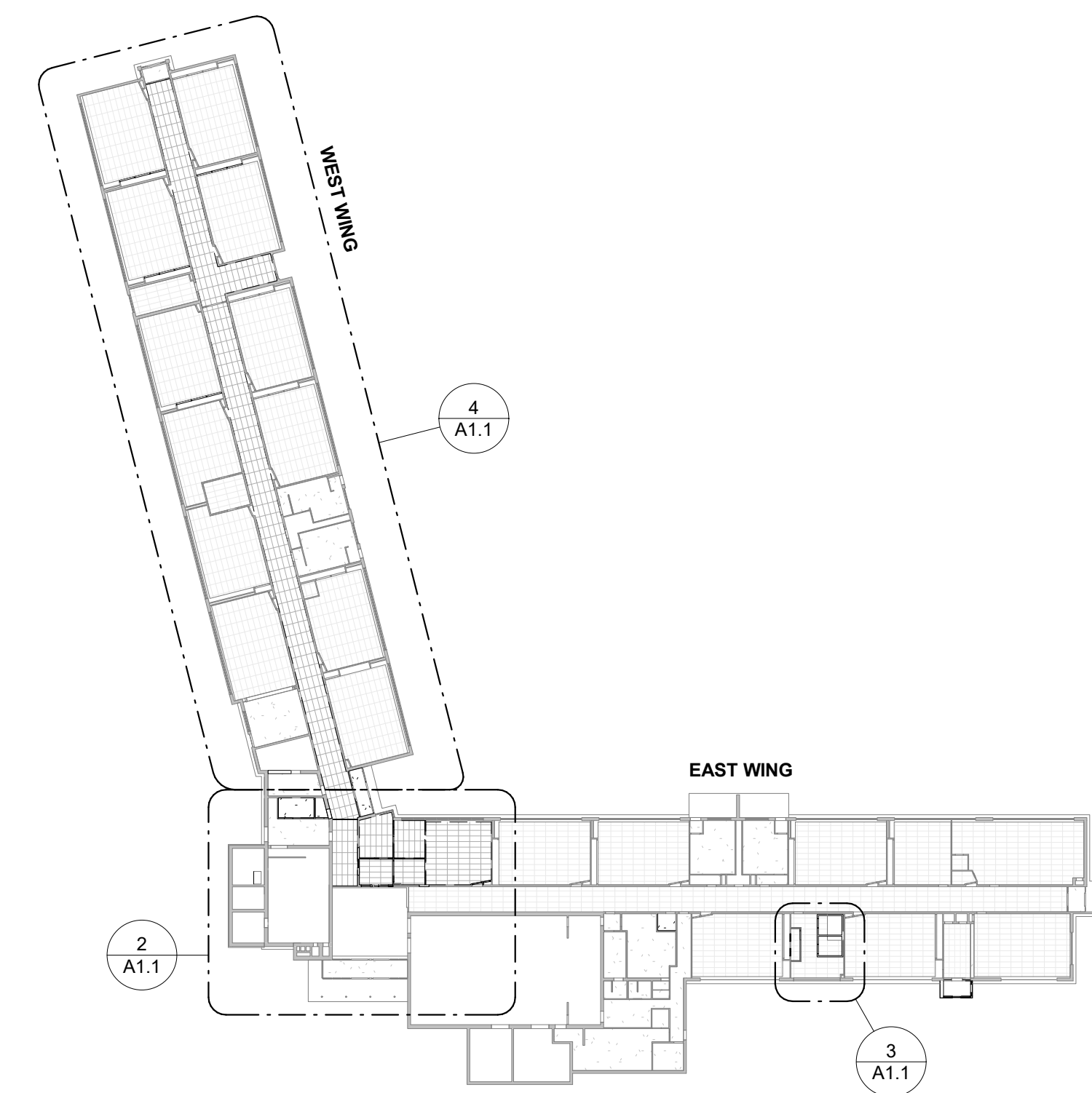
4 Level 01 - Demolition RCP - West Wing
1 : 100



2 Level 01 - Demolition RCP - Area of Work 1
1 : 100



3 Level 01 - Demolition RCP - Area of Work 3
1 : 100



1 Level 01 - Demolition RCP Key Plan
N.T.S.

Rev	Description	Date
1	Issued for Schematic Design Report	04 Dec 2020
2	50% Review	26 Feb 2021
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
8	Issued for Addendum 1	7 Mar 2022

Demolition Legend

- Existing CMU partition to be demolished
- Existing wall partition system to be demolished
- Existing element to be demolished
- Approximate extent of flooring to be removed
- Approximate extent of ceiling to be removed
- Approximate extent of fibreboard to be removed from U/S joists
- Existing door leaf and frame to be demolished
- Area not in architectural scope of work



WORKSHOP
architecture

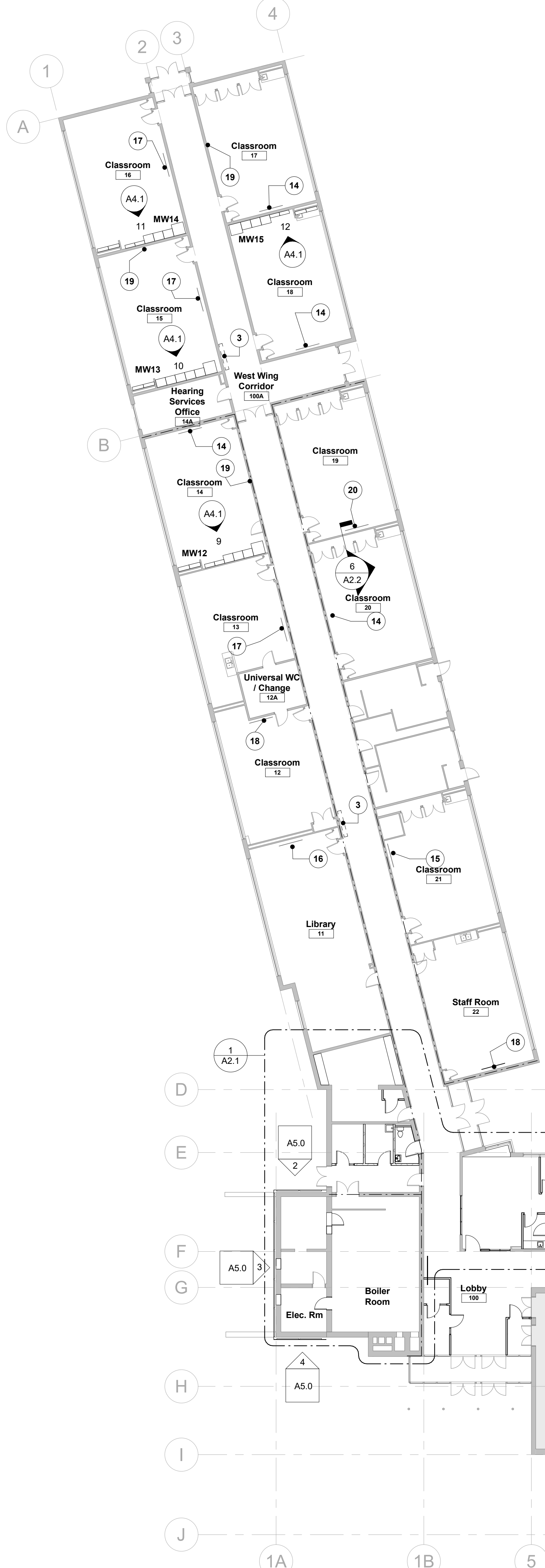
WORKSHOP architecture inc
6 Sousa Mendes Street
Toronto Ontario M5P 0A8
T 416.901.8055 F 416.849.0383
www.workshoparchitecture.ca

WRDSB Smithson Public School -
HVAC & Electrical Upgrades,
Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

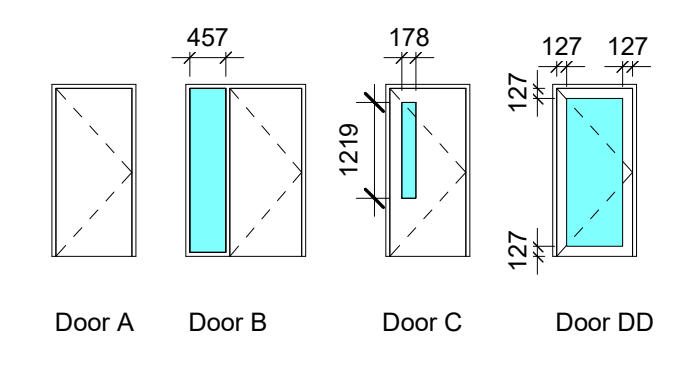
PROJECT CODE: 20_28
SCALE: As indicated
DATE: December 2021
STATUS: Permit/Tender

Note	Description
CD1	Demolish existing ACT ceiling & associated supports, typ. Patch and make good adjacent finishes, typ.
CD2	Demolish existing plaster/GWB ceiling and associated framing, typ. Patch and make good adjacent finishes, typ.
CD3	Demolish existing ceiling/lid over office/storage area complete with associated framing. Patch and make good adjacent finishes, typ.
CD4	Existing ACT ceiling does not extend across full extent of room. Prepare grid to extend over gap once sound-proof room is removed.
CD5	Remove and dispose of existing exterior lighting fixtures.
CD6	Demolish existing fibreboard from U/S of joists c/w moldings and trim
CD7	Demolish existing GWB ceiling and associated grilles, typ. see mechanical. Patch and make good adjacent finishes, typ.
CD8	Relocate interfering clocks and horns/strobe devices within the classrooms to facilitate the installation of new bulkhead. Coordinate new location with WRDSB.

Demolition RCP

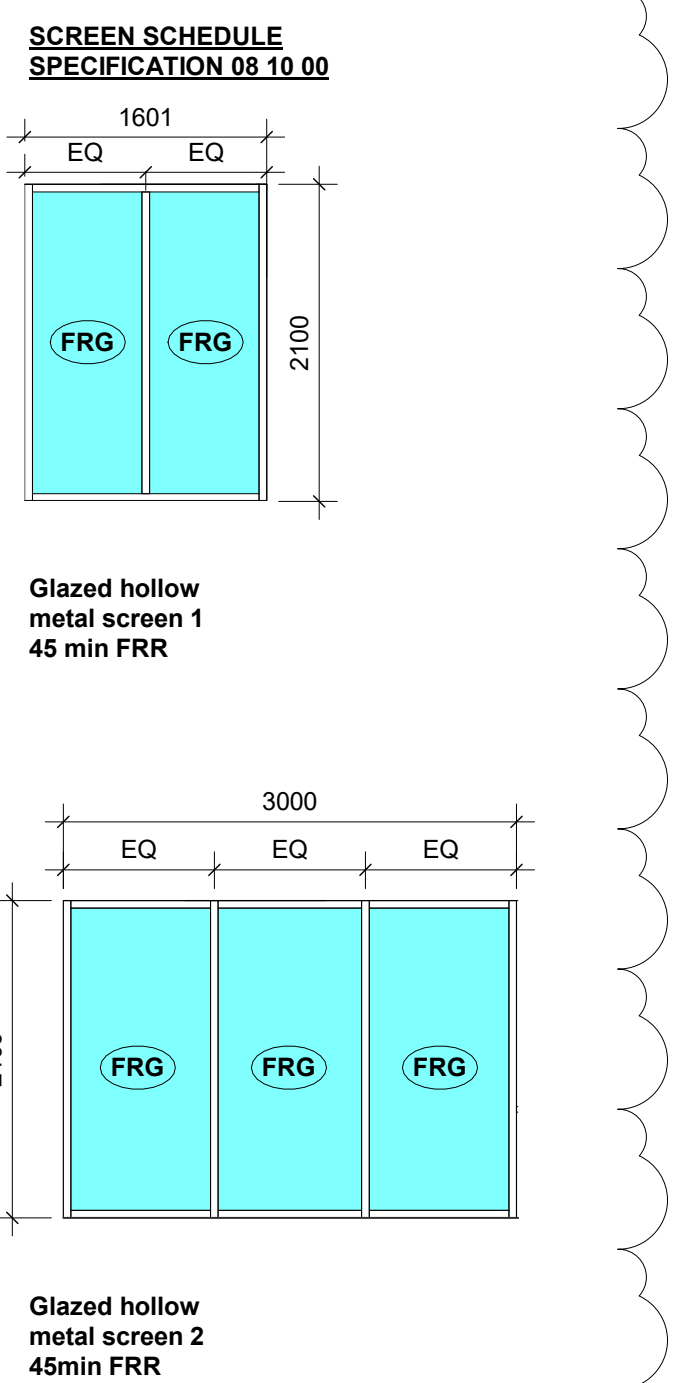


Door Schedule										
Door No.	Room	Type	Height	Width	Door Mat	Finish	Frame Material	Frame Fin.	Fire Rating	Comments
D101	Reception/Admin	DD	2049	1094	HM	PT	HM	PT	45MIN	Door is part of fire rated glazed screen
D102	Health Room	C	2134	965	SCW	WS	WD	PT	-	
D102A	Health Room	A	2134	965	SCW	WS	HM	PT	-	
D103	Principal's Office	B	2134	965	SCW	WS	WD	PT	-	
D104	Meeting Room	B	2134	965	SCW	WS	WD	PT	-	
D104A	Meeting Room	A	2134	1067	HM	PT	HM	PT	45MIN	Door and frame to suit existing rough opening - site verify
D105	Office	B	2134	965	SCW	WS	HM	PT	-	
D106	BF Washroom	A	2134	965	HM	PT	HM	PT	45MIN	
D108	Staff WC	A	2134	965	SCW	WS	HM	PT	45MIN	
D114	Custodial Closet	A	2134	965	HM	PT	HM	PT	45MIN	
D115	Custodial Office	B	2134	965	HM	PT	HM	PT	-	
D116A	IT Closet	A	2134	965	SCW	WS	WD	PT	-	
D117	Electrical Room	A	2134	914	HM	PT	HM	PT	45MIN	
D118	Roof Access Room	A	2134	914	EX	EX	HM	PT	45MIN	Keep existing door. Only provide new frame.



NOTE: All glazing to be tempered
 NOTE: All fire rated assemblies to be FRG
 NOTE: All HM frames to be 2" profile

WA - Room Finish Schedule						
Room Name	Room No.	Wall Finish	Floor Finish	Base Finish	Ceiling Finish	Comments
Library	11				EXIST/ACT	
Classroom	12				EXIST/ACT	
Universal WC / Change	12A				EXIST	
Classroom	13				EXIST/ACT	
Classroom	14				EXIST/ACT	
Hearing Services Office	14A				EXIST/ACT	
Classroom	15				EXIST/ACT	
Classroom	16				EXIST/ACT	
Classroom	17				EXIST/ACT	
Classroom	18				EXIST/ACT	
Classroom	19				EXIST/ACT	
Classroom	20				EXIST/ACT	
Classroom	21				EXIST/ACT	
Staff Room	22				EXIST/ACT	
Lobby	100				FAB	
West Wing Corridor	100A				ACT	
Reception/Admin	101	PT	POR/CPT	POR/RB	ACT	
Health Room	102	PT	POR	RB	ACT	
Principal's Office	103	PT	CPT	RB	ACT	
Meeting Room	104	PT	CPT	RB	ACT	
Office	105	PT	CPT	RB	ACT	
BF WC	106	CER	POR	-	ACT	
Staff WC	107	CER	POR	-	GWB	
Custodial Closet	108	PT	EXIST	RB	EXIST	
Custodial Office	109	PT	POR	POR	ACT	
Staff Work Room	110	PT	RES	RB	PT EXIST	
IT Closet	110A	PT	RES	RB	-	
Electrical Room	111					



ASSEMBLY SCHEDULE

NOTES:

- USE WATER RESISTANT DRYWALL IN ALL WET AREAS - REFER TO SPECIFICATION 09250
- PROVIDE CONTINUOUS PLYWOOD BLOCKING BEHIND ALL MILLWORK CABINETS, SUSPENDED ITEMS, TELEVISIONS ETC.
- ALL INTERNAL PARTITIONS EXTEND TO U/S DECK ABOVE UNLESS NOTED OTHERWISE.
- PROVIDE FIRE RESISTANCE RATINGS AS INDICATED ON DRAWINGS

INTERIOR PARTITIONS

PW1
 1 LAYER 16mm TYPE X GYPSUM WALLBOARD
 92mm STEEL STUDS
 ACOUSTICAL FIRE BATT INSULATION
 1 LAYER 16mm TYPE X GYPSUM WALLBOARD
 TO U/S OF DECK

PW2
 140mm CMU PARTITION

General Notes	
Note	Description
1	Provide new concrete curb housekeeping pad, height 4", painted safety yellow, co-ordinate exact style with mechanical trade.
2	Flush mount floor monument. Refer to electrical for requirements.
3	New convactor unit. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
4	Infill exterior wall to match existing brick.
5	Provide top soil and sod to match existing.
6	Exterior galvanized metal screen - see elevations. Refer to structural.
7	Infill exterior wall opening to match existing concrete block and brick assembly.
8	Infill existing door opening in concrete wall with block up to jamb of new door opening. Provide new door frame. Remove existing door, store and reuse in new frame.
9	New forced floor heater. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
10	For new beam and lintel type and section, see structural.
11	Transition between POR floor finish and CPT floor finish in the offices and meeting room. Provide aluminum transition, refer to specification.
12	Provide floor drain, see mechanical.
13	Provide new mop sink c/w side mount faucet on new wall, see mechanical.
14	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB.
15	Provide wall mounted TV mounted on the corridor wall, to the right of white board, on open wall space. Elevation height - Match top of White boards/doors.
16	Provide wall mounted TV mounted below the current projector screen(to be removed). Two millwork book cases to be relocated to left side to replace unit with Tree.
17	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Relocate existing white board. Coordinate with WRDSB.
18	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Remove white boards or tack boards and hand over to WRDSB.
19	Provide new white board. New white boards are part of cash allowance for supply. Refer to specification and coordinate with WRDSB.
20	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Modify & add white boards to fill all chalk board area along front of room. HDM/Data drop to be in the corner to the left. This room has several wall mounted speakers as part of an older soundfield system. Contractor to remove and hand over to the school.
21	Provide temporary administration offices during construction and prior to Demo Phase. Windows, doors, door frame and hardware will be provided from WRDSB. Coordinate exact location and duration at construction start up meeting. All partitions are PW-1 unconnected height of 10'-0" with PT finish and rubber baseboards. No ceiling. Temporary Office install is part of Cash Allowance.
22	Enlarge existing opening in concrete roof slab to suit new roof access hatch, no overcutting allowed- see structural.
23	Provide 900x1370mm clear space in front at lavatory.
24	Provide 900x1500mm clear transfer space beside WC.
25	Provide 1500mm clear turning radius.
26	New beam installed tight to underside of existing slab, see structural for requirements.

Rev	Description	Date
1	Issued for Schematic Design Report	04 Dec 2020
2	50% Review	26 Feb 2021
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
7	Reissued for Permit	3 Mar 2022
8	Issued for Addendum 1	7 Mar 2022

Materials Legend

ACT	Acoustic Ceiling Tile
ALUM	Aluminum
CER	Ceramic Tile
CPT	Carpet
EPO	Epoxy Paint
EXIST	Existing
EXP	Exposed
FAB	Fabric Faced Acoustic Core Composite Ceiling Panel
FRG	Fire Rated Glass
FGL	Frosted Glass
F1	Glazing Surface Film
GWB	Gypsum Wallboard
MIR	Mirror
MDF	MDF Baseboard
PLY	Fire Rated Plywood
POR	Porcelain Tile
PLAM	Plastic Laminate
PT	Paint Finish
QTZ	Quartz
RB	Rubber Base
RES	Resilient Sheet Flooring
SO	Solid Polymer Fabrications
SS	Stainless Steel
ST	Natural Stone
TGL	Tempered Glass
WB	Dry Erase Whiteboard
WD	Solid Wood
WS	Wood Stain

Legend

Existing partition to remain
 New partition as scheduled

Symbols Legend

PWX Partition Tag - refer to partition schedule
 SX Glazed Screen tag - refer to schedule
 DXW New Door tag - refer to schedule
 MW1 Millwork Tag
 GWB Ceiling Material Height above Finished Floor
 (E) Existing

ONTARIO ASSOCIATION
 OF ARCHITECTS
 DAVID BARTON COLLUSSI
 LICENCE #548

WORKSHOP architecture

WORKSHOP architecture inc
 6 Sousa Mendes Street
 Toronto Ontario M5P 0A8
 T 416.901.8055 F 416.849.0383
 www.workshoparchitecture.ca

WRDSB Smithson Public School - HVAC & Electrical Upgrades, Interior Renovations
 Smithson Public School
 150 Bellevue Ave
 Kitchener ON
 N2B 1G7

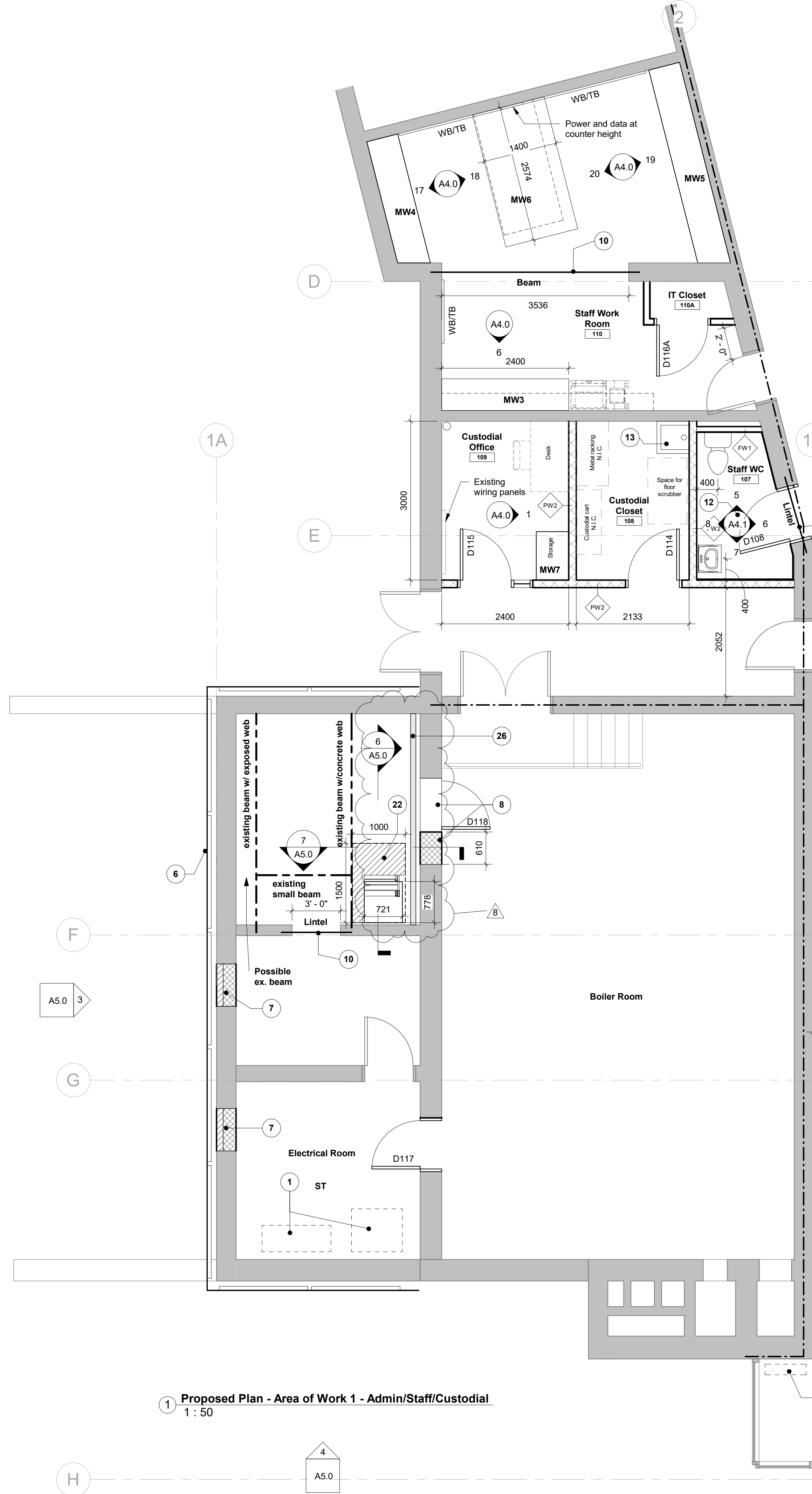
PROJECT CODE: 20_28 SCALE: As indicated
 DATE: December 2021 STATUS: Permit/Tender

1 Proposed Plan - East Wing
 1 : 200

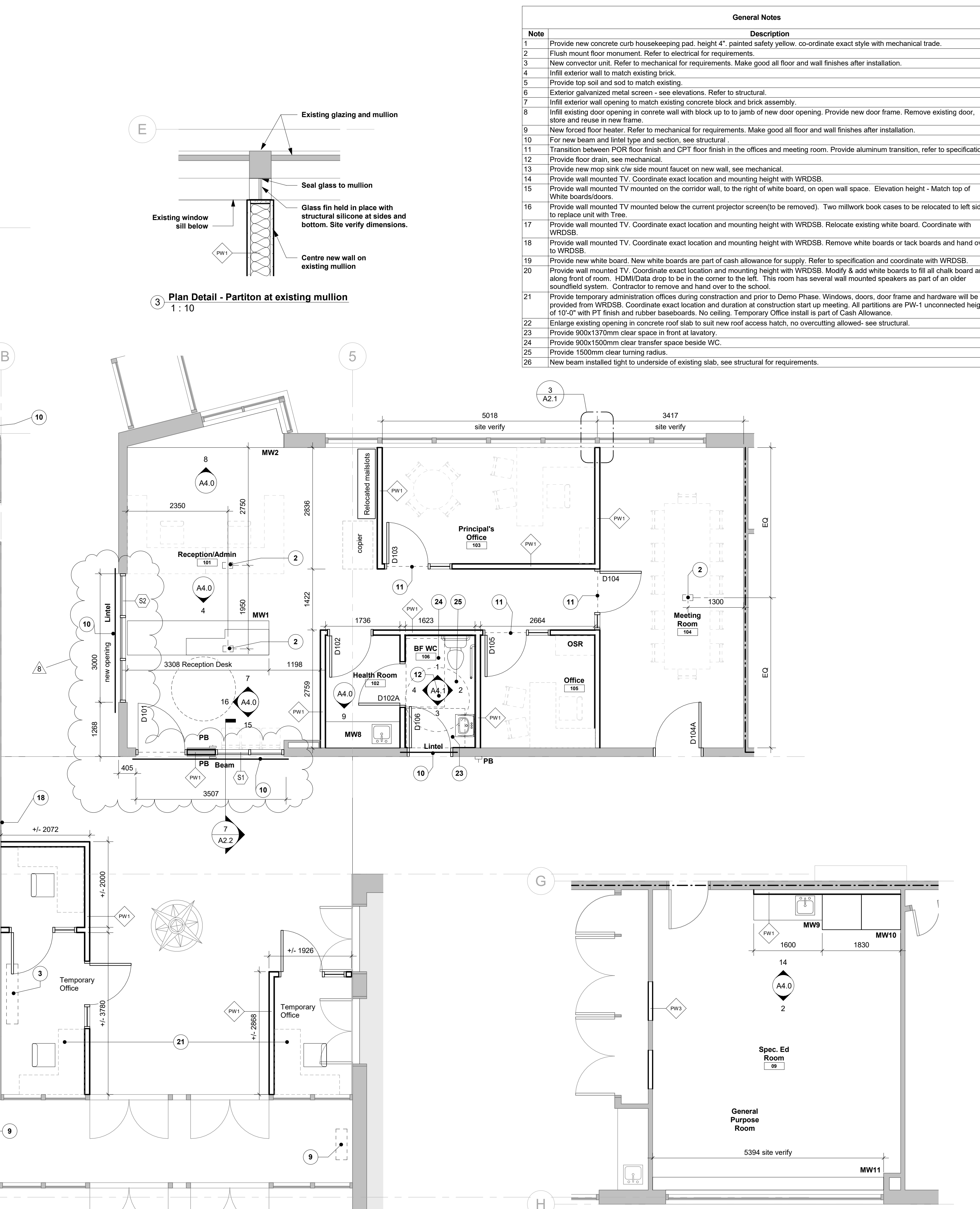
Proposed Plans & Schedules

Project North

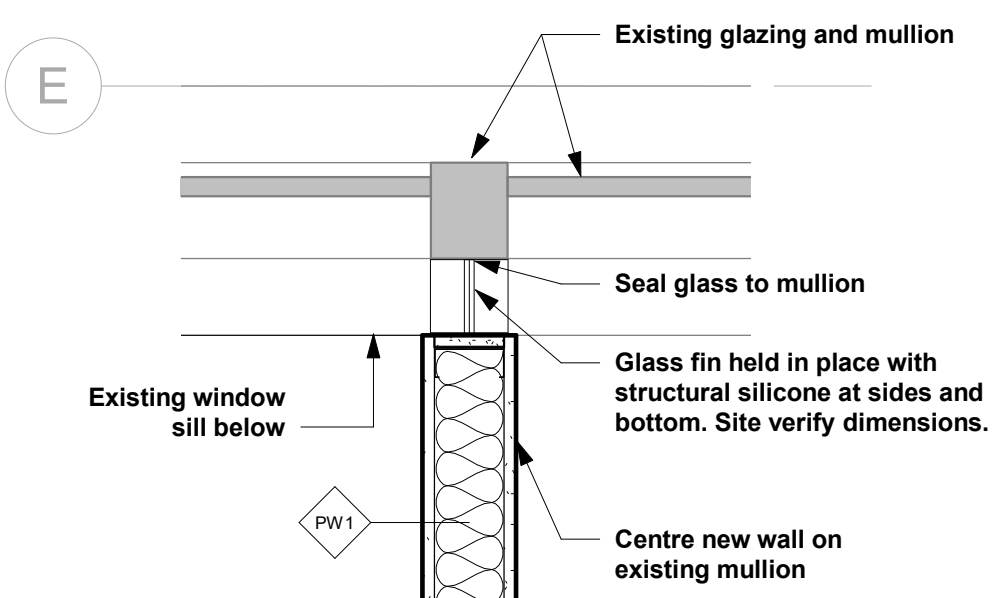
drawing number
A2.0



1 Proposed Plan - Area of Work 1 - Admin/Staff/Custodial
1 : 50



2 Proposed Plan - Area of Work 2
1 : 50



3 Plan Detail - Partiton at existing mullion
1 : 10

General Notes	
Note	Description
1	Provide new concrete curb housekeeping pad, height 4", painted safety yellow, co-ordinate exact style with mechanical trade.
2	Flush mount floor monument. Refer to mechanical for requirements.
3	New convactor unit. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
4	Infill exterior wall to match existing brick.
5	Provide top soil and sod to match existing.
6	Exterior galvanized metal screen - see elevations. Refer to structural.
7	Infill exterior wall opening to match existing concrete block and brick assembly.
8	Infill existing door opening in concrete wall with block up to to jamb of new door opening. Provide new door frame. Remove existing door, store and reuse in new frame.
9	New forced floor heater. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
10	For new beam and lintel type and section, see structural.
11	Transition between POR floor finish and CPT floor finish in the offices and meeting room. Provide aluminum transition, refer to specification.
12	Provide floor drain, see mechanical.
13	Provide new mop sink c/w side mount faucet on new wall, see mechanical.
14	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB.
15	Provide wall mounted TV mounted on the corridor wall, to the right of white board, on open wall space. Elevation height - Match top of White boards/doors.
16	Provide wall mounted TV mounted below the current projector screen(to be removed). Two millwork book cases to be relocated to left side to replace unit with Tree.
17	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Relocate existing white board. Coordinate with WRDSB.
18	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Relocate white boards or tack boards and hand over to WRDSB.
19	Provide new white board. New white boards are part of cash allowance for supply. Refer to specification and coordinate with WRDSB.
20	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Modify & add white boards to fill all chalk board area along front of room. HDMI/Data drop to be in the corner to the left. This room has several wall mounted speakers as part of a older soundfield system. Contractor to remove and hand over to the school.
21	Provide temporary administration offices during construction and prior to Demo Phase. Windows, doors, door frame and hardware will be provided from WRDSB. Coordinate exact location and duration at construction start up meeting. All partitions are PW-1 unconnected height of 10'-0" with PT finish and rubber baseboards. No ceiling. Temporary Office install is part of Cash Allowance.
22	Enlarge existing opening in concrete roof slab to suit new roof access hatch, no overcutting allowed- see structural.
23	Provide 900x1370mm clear space in front at lavatory.
24	Provide 900x1500mm clear transfer space beside WC.
25	Provide 1500mm clear turning radius.
26	New beam installed tight to underside of existing slab, see structural for requirements.

All drawings and related documents are the property of Workshop Architecture Inc. and may not be reproduced in whole or in part without the architects permission. This drawing shall not be used for construction unless dimensions to be checked on site by the contractor and such dimensions to be their responsibility. This drawing shall not be used for construction unless identified as "Issued for Construction" Drawing errors or discrepancies are to be immediately reported to the architect.

Rev	Description	Date
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
7	Reissued for Permit	3 Mar 2022
8	Issued for Addendum 1	7 Mar 2022

- Legend**
- Existing partition to remain
 - New partition as scheduled
- Symbols Legend**
- PWX Partition Tag - refer to partition schedule
 - SX Glazed Screen tag - refer to schedule
 - DX New Door tag - refer to schedule
 - MW1 Millwork Tag
 - GWB Ceiling Material Height above Finished Floor
 - (E) Existing



WORKSHOP
architecture

WORKSHOP architecture inc
6 Sousa Mendes Street
Toronto Ontario M5P 0A8
T 416.901.8055 F 416.849.0383
www.workshoparchitecture.ca

WRDSB Smithson Public School -
HVAC & Electrical Upgrades,
Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

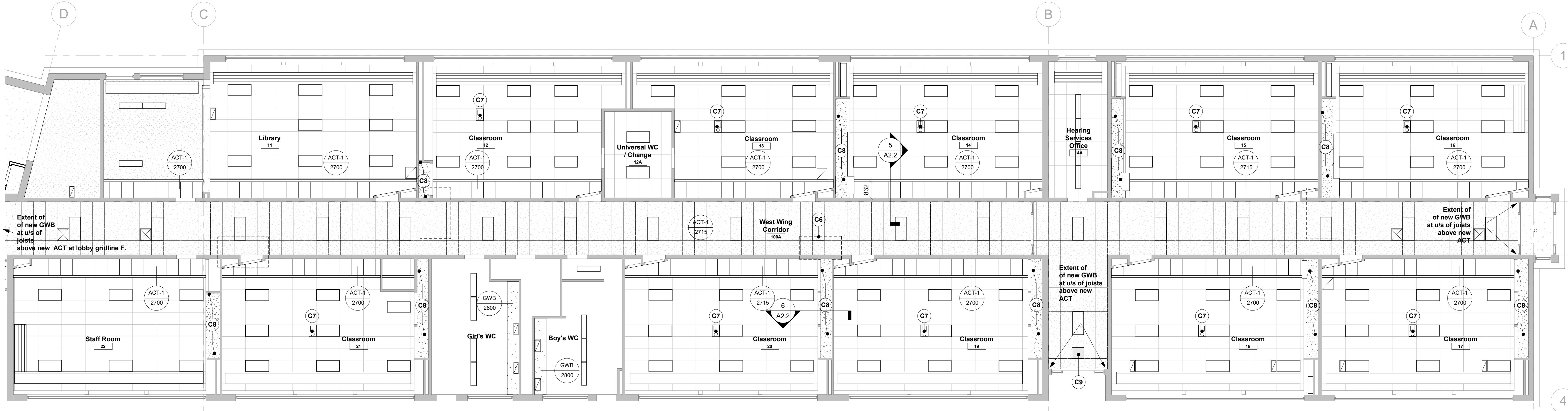
PROJECT CODE: 20_28
SCALE: As indicated
DATE: December 2021
STATUS: Permit/Tender

Proposed Partial Plan

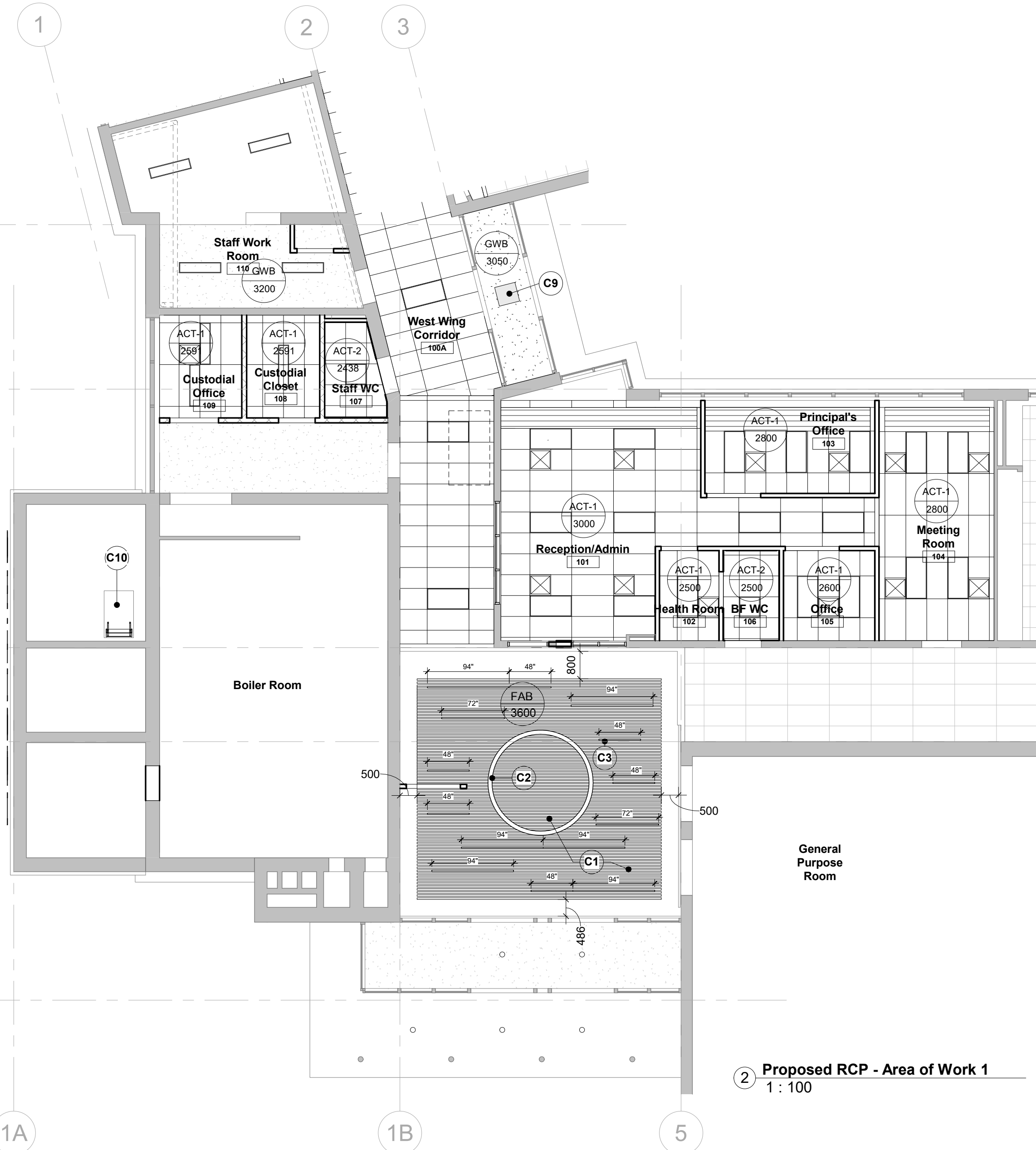


All drawings and related documents are the property of Workshop Architecture Inc. and may not be reproduced in whole or in part without the architect's permission. This drawing shall not be used for construction unless identified as "Issued for Construction" Drawing errors or discrepancies are to be immediately reported to the architect.

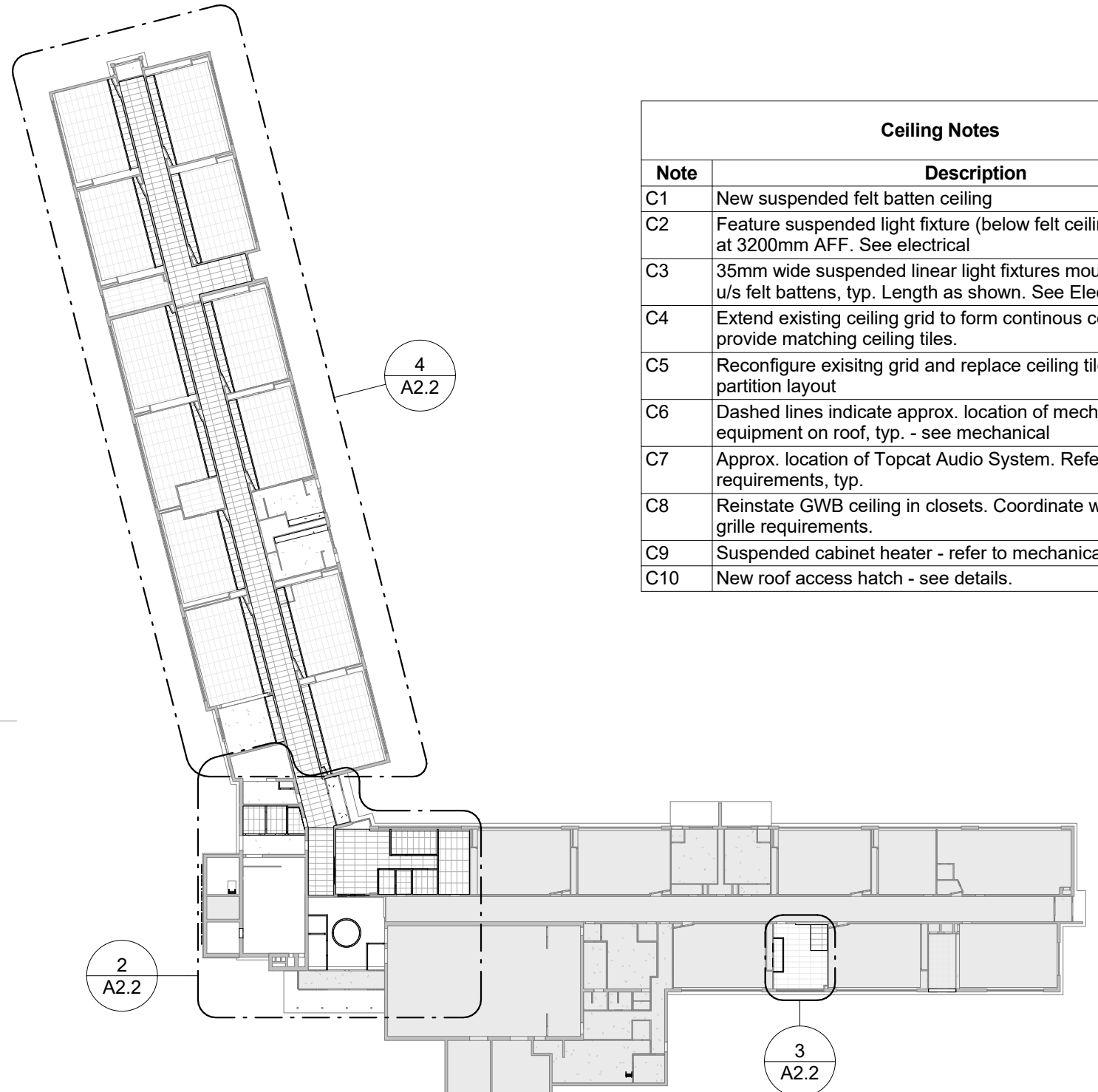
Rev	Description	Date
1	Issued for Schematic Design Report	04 Dec 2020
2	50% Review	26 Feb 2021
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
8	Issued for Addendum 1	7 Mar 2022



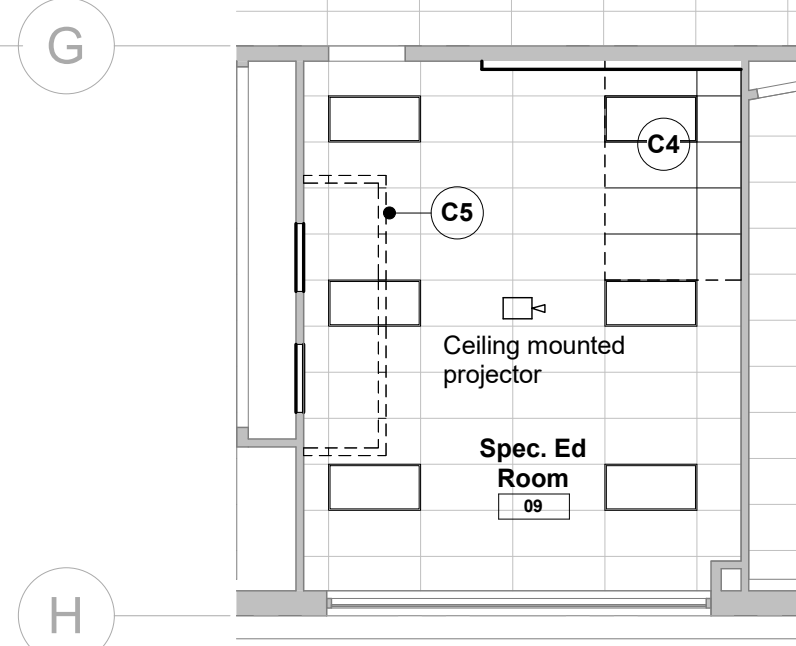
4 Proposed RCP - Area of Work 2 - West Wing
1 : 100



2 Proposed RCP - Area of Work 1
1 : 100

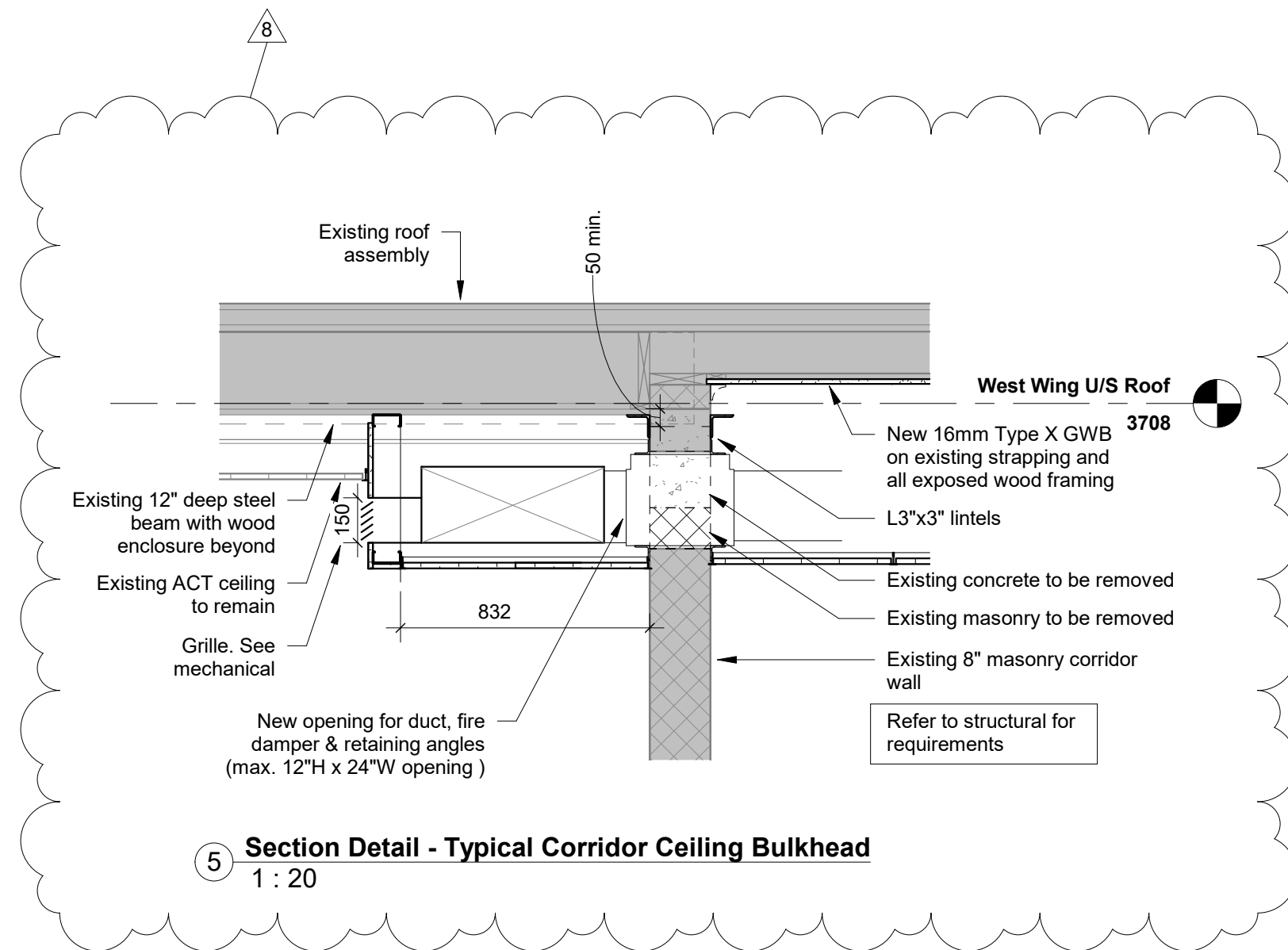


1 Level 01 - Proposed RCP
N.T.S.

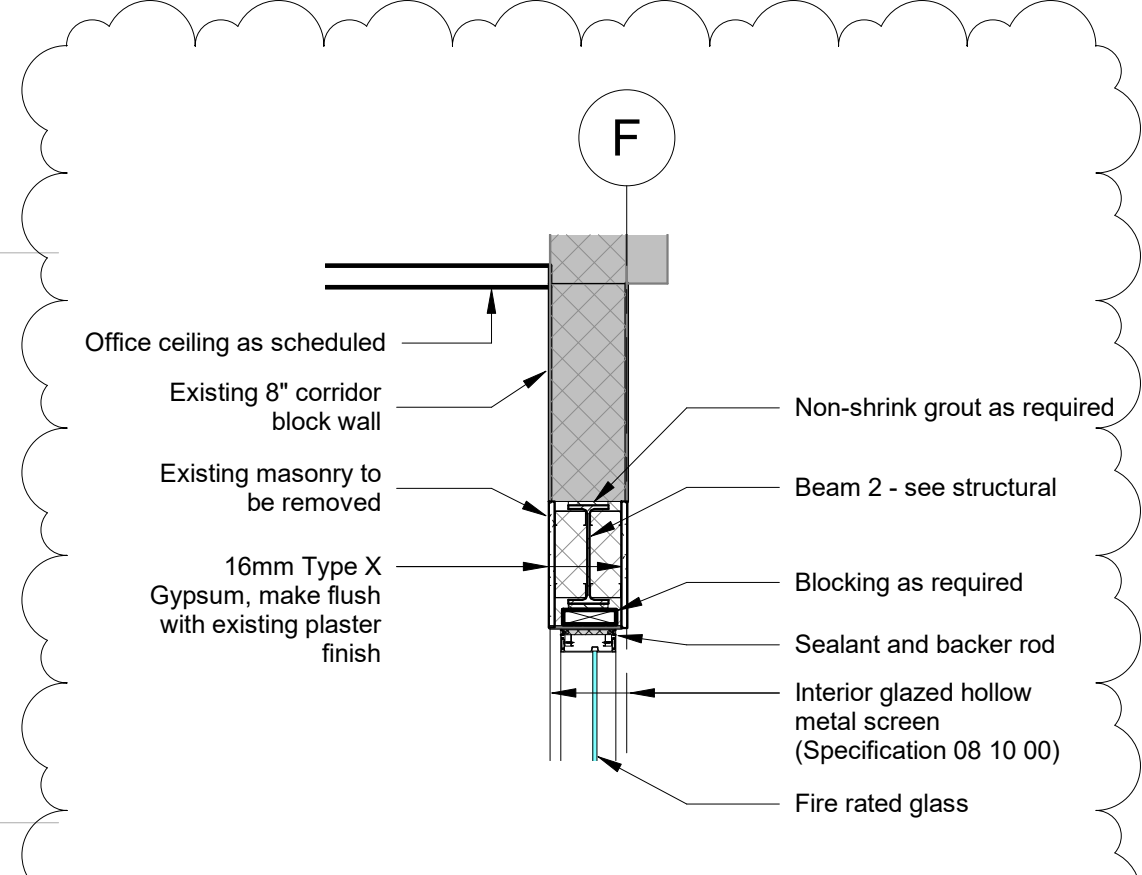


3 Proposed RCP - Area of Work 3
1 : 100

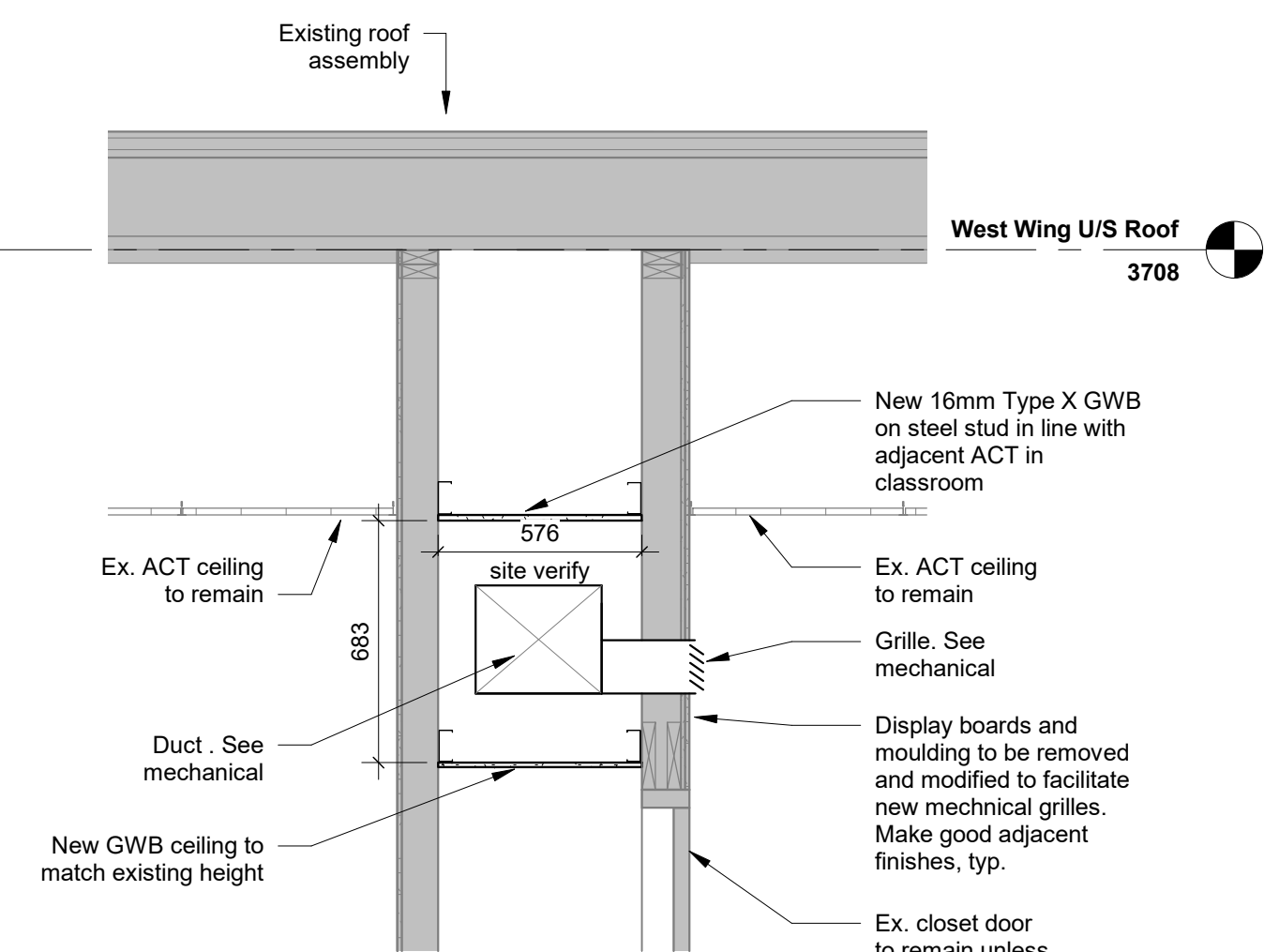
Ceiling Notes	
Note	Description
C1	New suspended felt batten ceiling
C2	Feature suspended light fixture (below felt ceiling) suspended at 3200mm AFF. See electrical
C3	35mm wide suspended linear light fixtures mounted flush with u/s felt battens, typ. Length as shown. See Electrical
C4	Extend existing ceiling grid to form continuous ceiling and provide matching ceiling tiles.
C5	Reconfigure existing grid and replace ceiling tiles to suit new partition layout
C6	Dashed lines indicate approx. location of mechanical equipment on roof, typ. - see mechanical
C7	Approx. location of Topcat Audio System. Refer to electrical for requirements, typ.
C8	Reinstate GWB ceiling in closets. Coordinate with mechanical grille requirements.
C9	Suspended cabinet heater - refer to mechanical.
C10	New roof access hatch - see details.



5 Section Detail - Typical Corridor Ceiling Bulkhead
1 : 20



7 Section Detail - Screen S1 at Beam 2
1 : 20



6 Section Detail - Typical Classroom Closet
1 : 20

- RCP LEGEND**
- Suspended LED fixture see electrical
 - LED potlight - see electrical
 - LED lighting fixture see electrical
 - Transfer grille
 - Supply air diffuser
 - Radiant ceiling panel
 - Topcat audio system
 - (E) Existing



WORKSHOP
architecture

WORKSHOP architecture inc
6 Sousa Mendes Street
Toronto Ontario M5P 0A8
T 416.901.8055 F 416.849.0383
www.workshoparchitecture.ca

WRDSB Smithson Public School -
HVAC & Electrical Upgrades,
Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

PROJECT CODE: 20_28
SCALE: As indicated
DATE: December 2021
STATUS: Permit/Tender

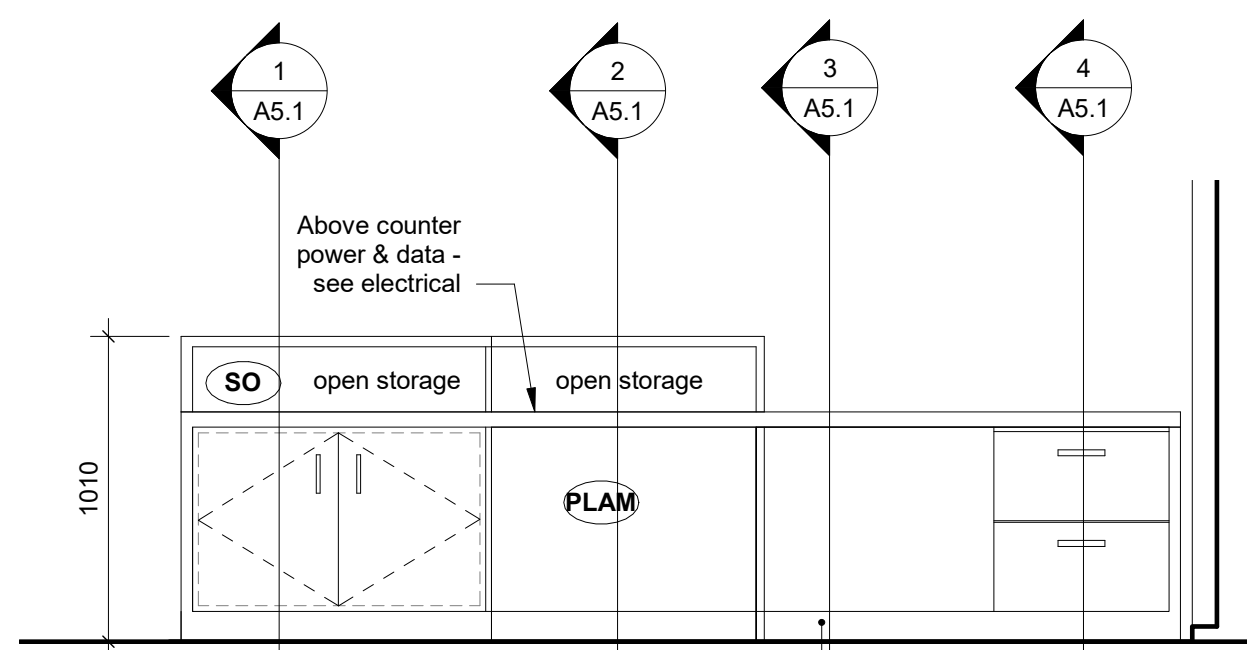
Proposed RCP

All drawings and related documents are the property of Workshop Architecture Inc. and may not be reproduced in whole or in part without the architect's permission. This drawing should not be used for construction unless identified as "Issued for Construction" Drawing errors or discrepancies are to be immediately reported to the architect.

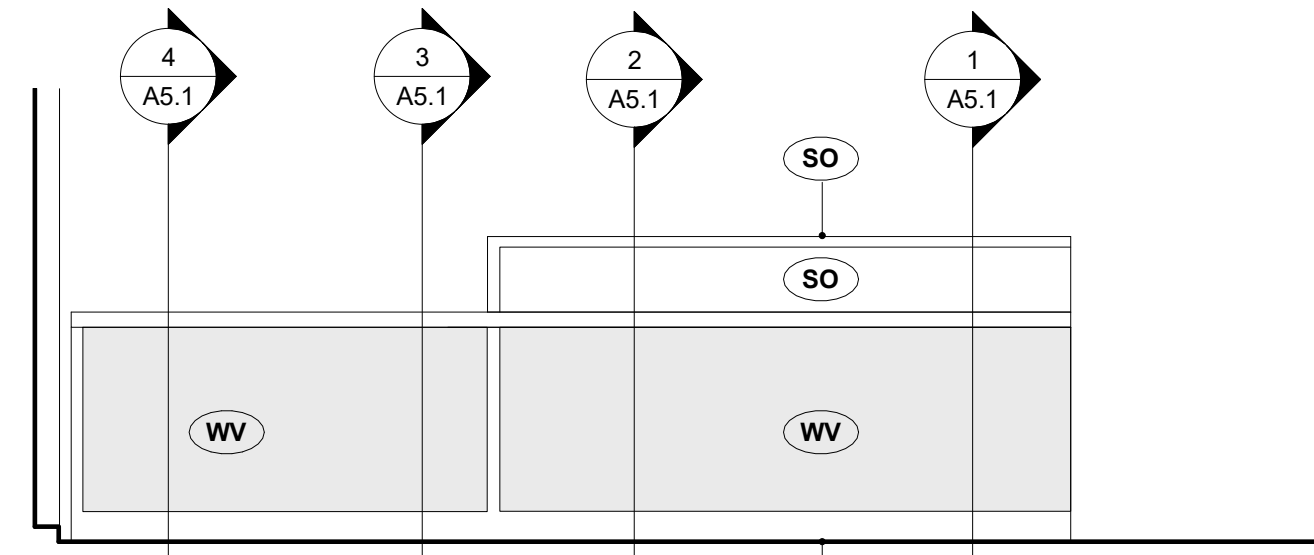
Rev	Description	Date
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022
8	Issued for Addendum 1	7 Mar 2022

Materials Legend

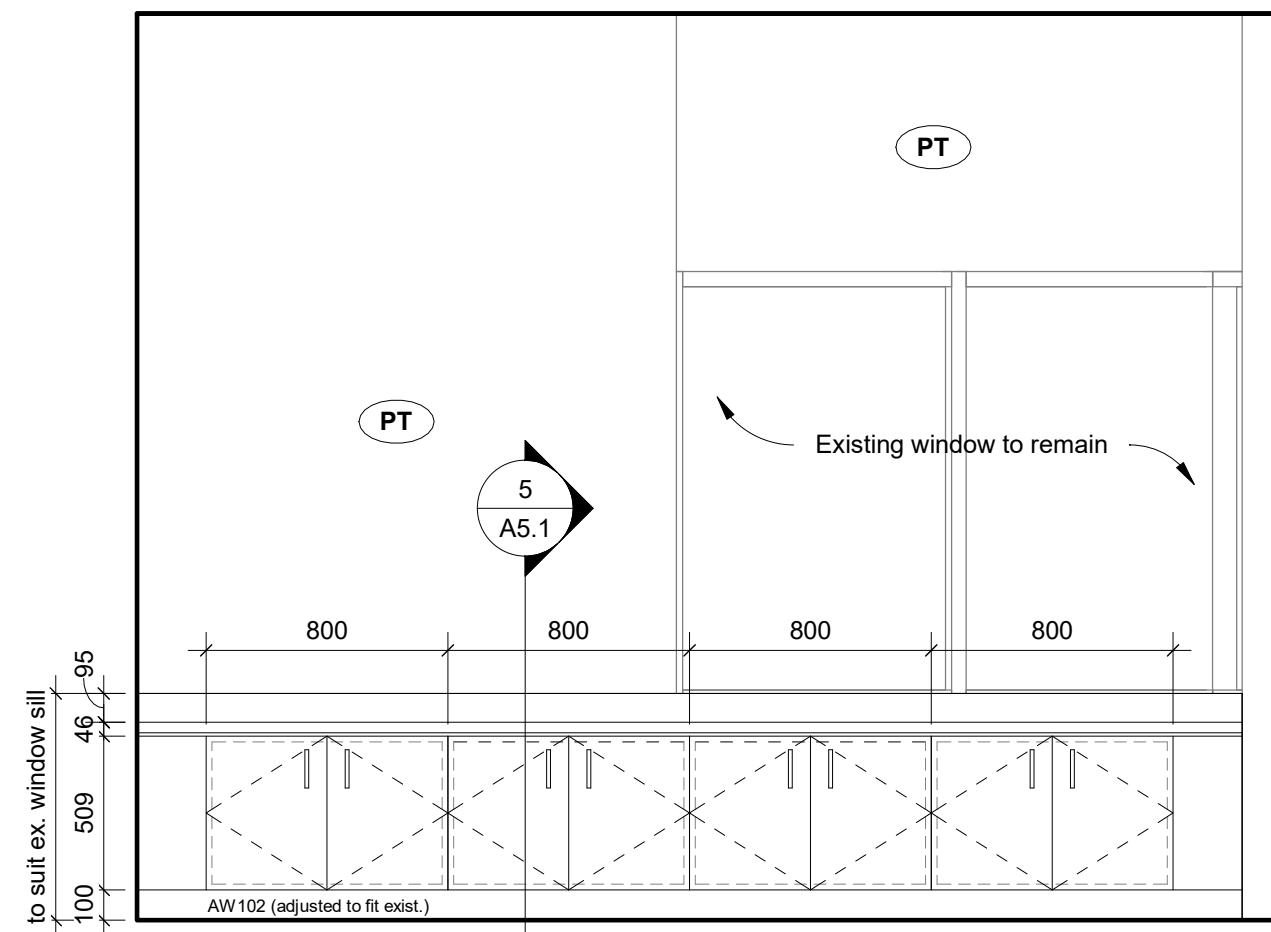
ACT	Acoustic Ceiling Tile
ALUM	Aluminum
CER	Ceramic Tile
CPT	Carpet
EPO	Epoxy Paint
EXIST	Existing
EXP	Exposed
FAB	Fabric Faced Acoustic Core Composite Ceiling Panel
FRG	Fire Rated Glass
FGL	Frosted Glass
F1	Glazing Surface Film
GWB	Gypsum Wallboard
MIR	Mirror
MDF	MDF Baseboard
PLY	Fire Rated Plywood
POR	Porcelain Tile
PLAM	Plastic Laminate
PT	Paint Finish
QTZ	Quartz
RB	Rubber Base
RES	Resilient Sheet Flooring
SO	Solid Polymer Fabrications
SS	Stainless Steel
ST	Natural Stone
TGL	Tempered Glass
WB	Dry Erase Whiteboard
WD	Solid Wood
WS	Wood Stain



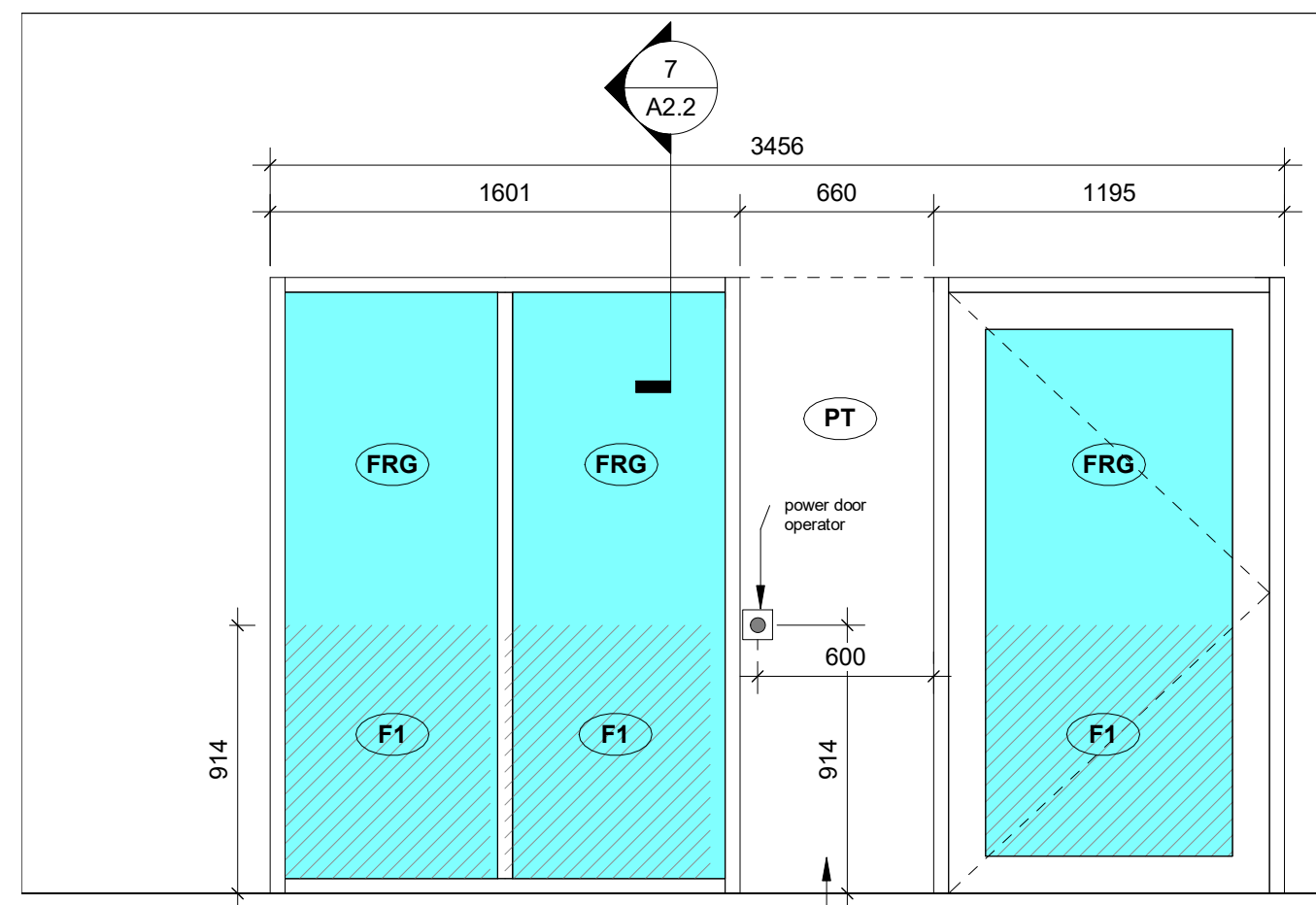
4 Interior Elevation - MW1 Reception Counter - Staff Side
1 : 25



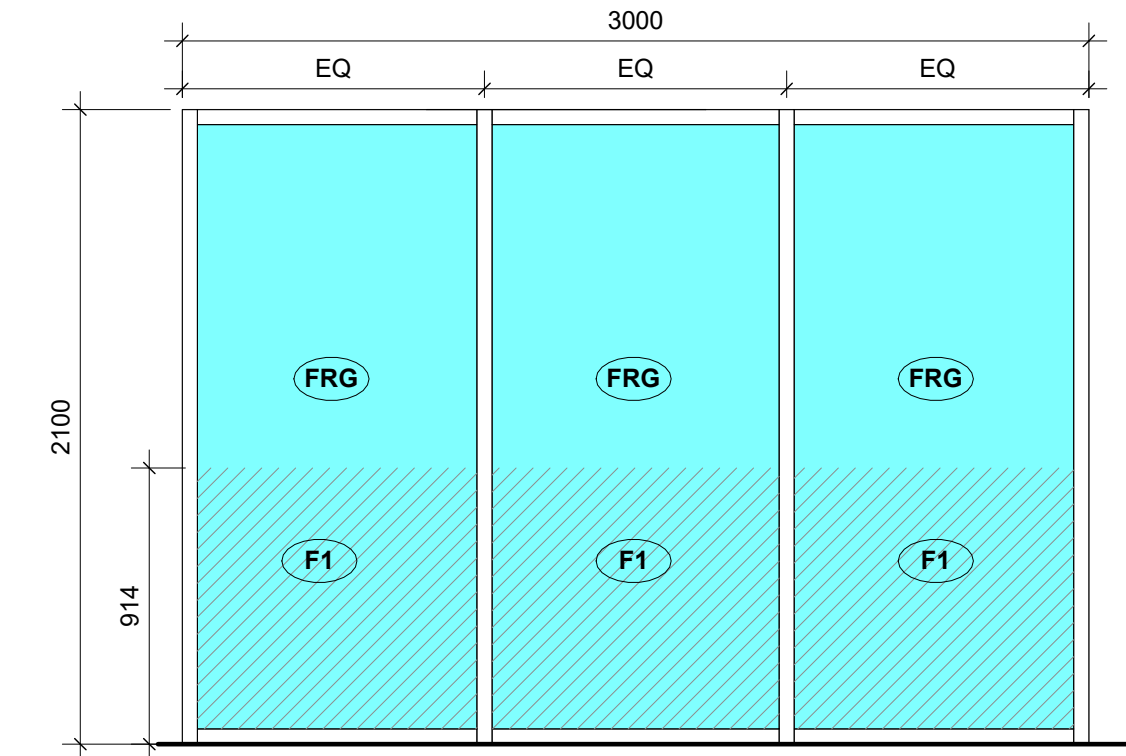
7 Interior Elevation - MW1 Reception Counter - Public Side
1 : 25



8 Interior Elevation - MW2 Reception Low Cabinets (Reception/Admin 101)
1 : 25

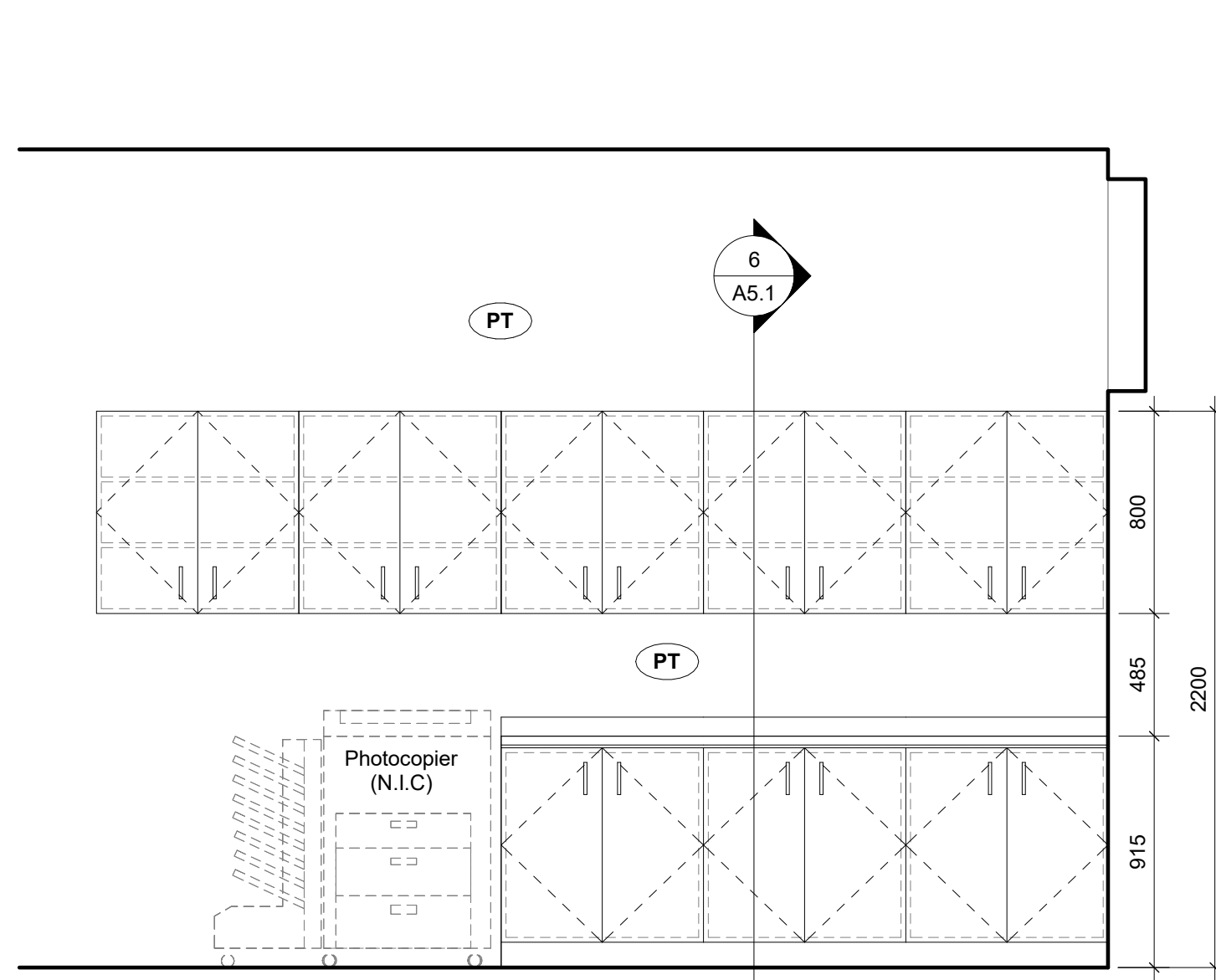
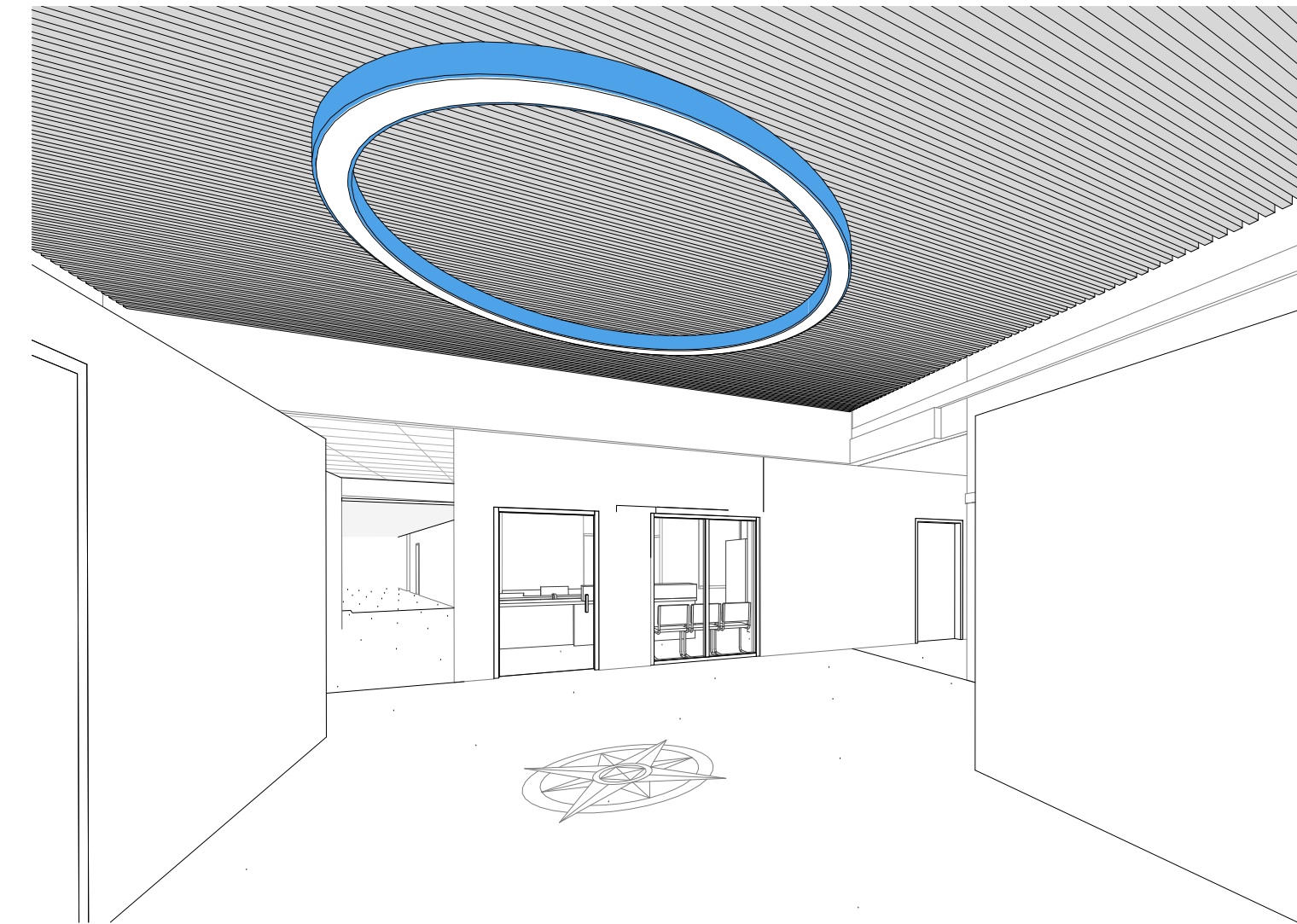


15 Interior Elevation - New Glazing South (Reception/Admin 101)
1 : 25

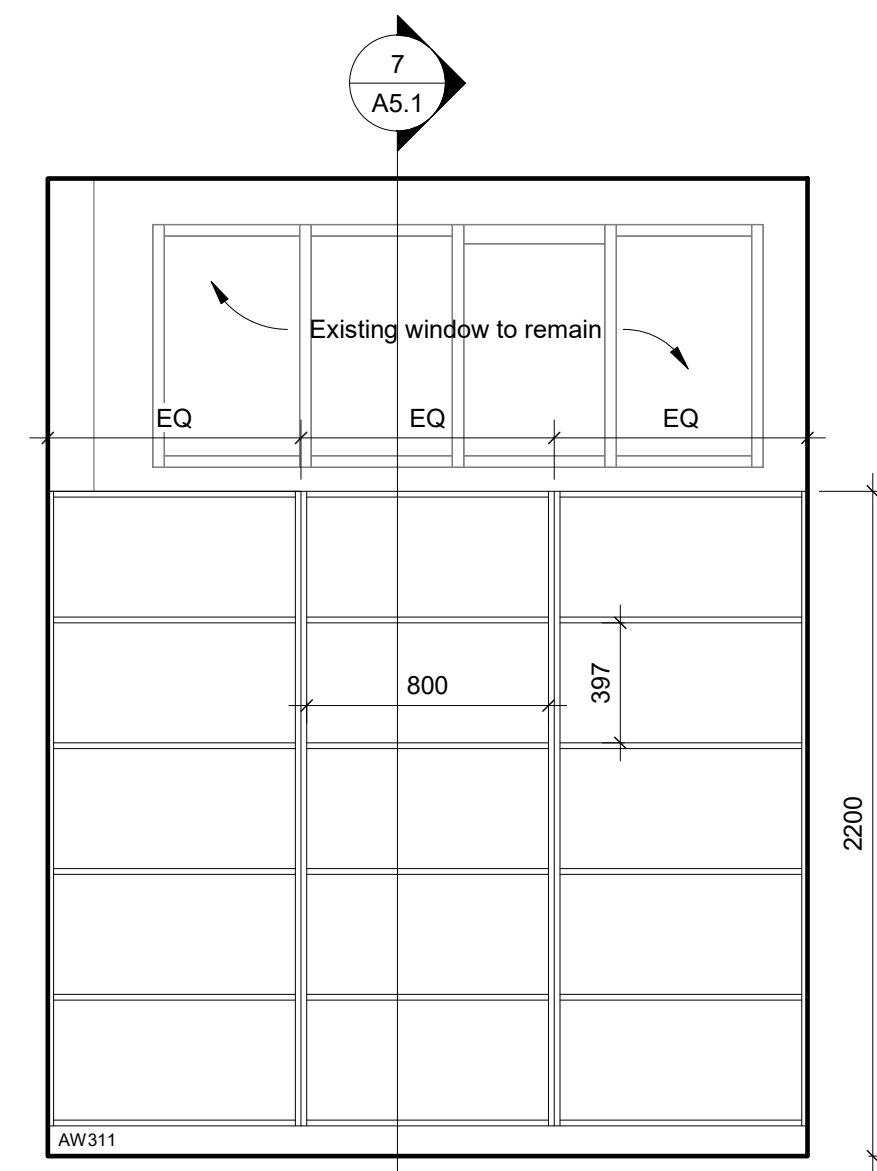


16 Interior Elevation - New Glazing West (Reception/Admin 101)
1 : 25

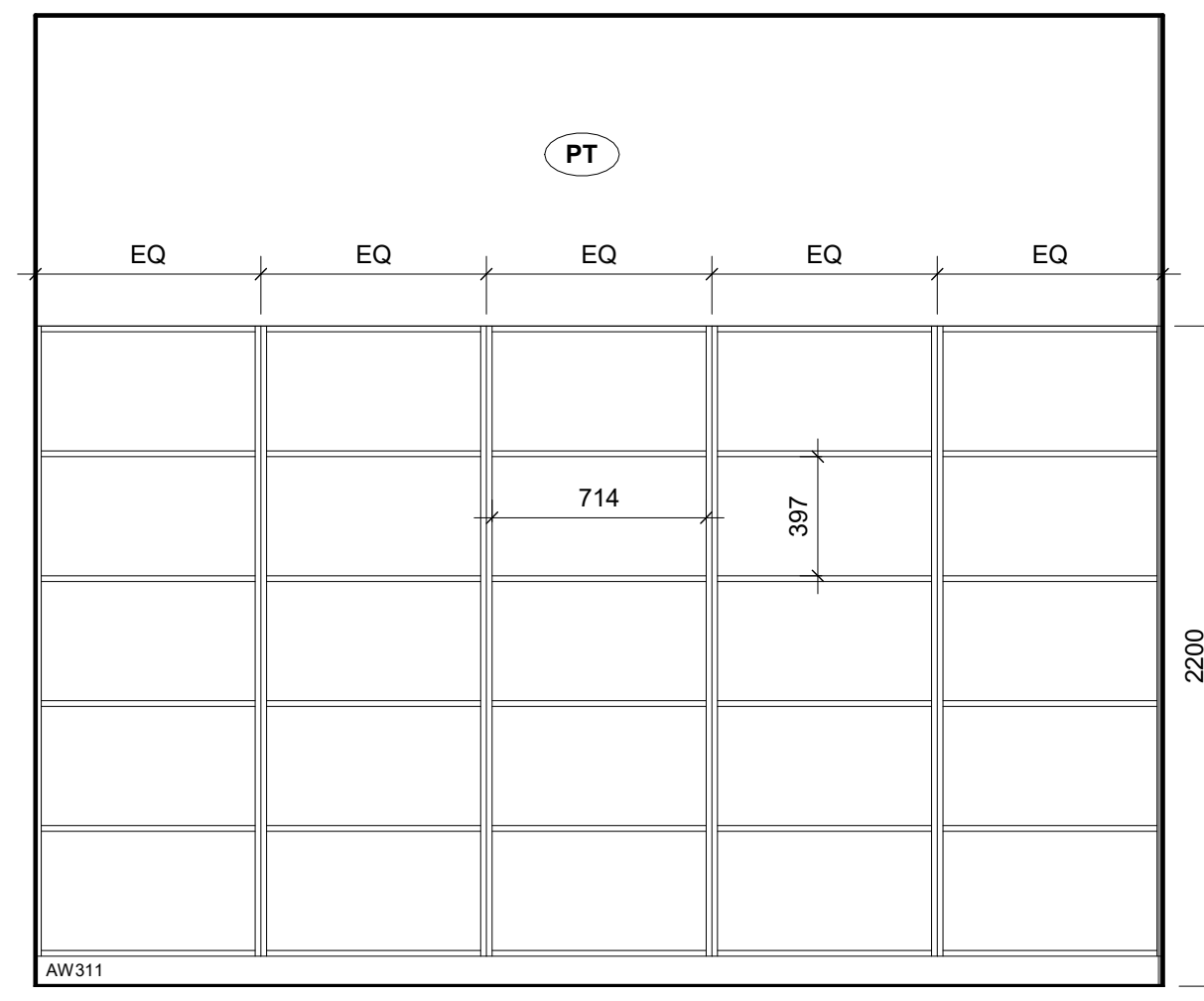
Fill GWB PW1 between door and hollow metal screen up to underside of beam



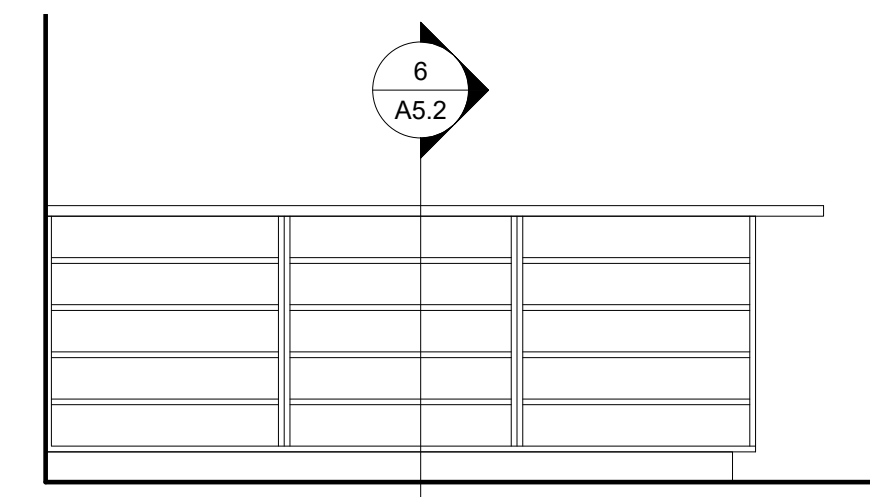
6 Interior Elevation - MW3 South Millwork (Staff Work Room 110)
1 : 25



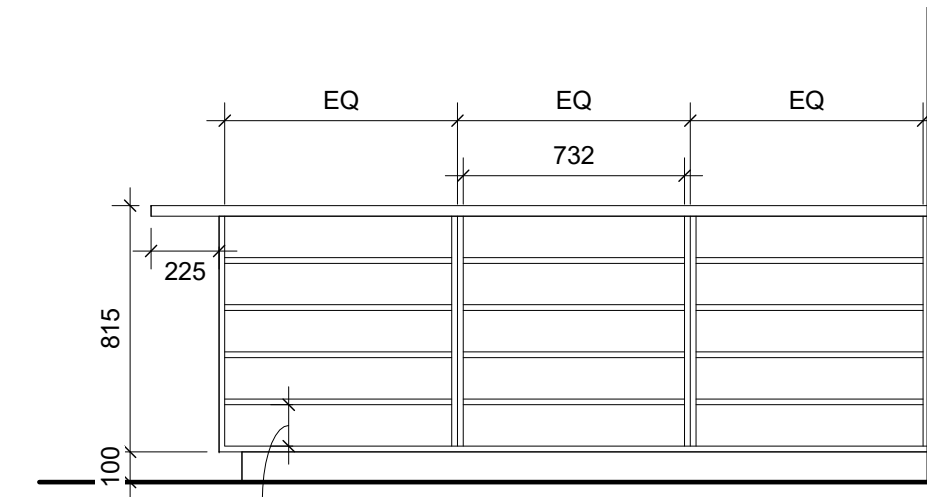
17 Interior Elevation - MW4 West Millwork (Staff Work Room 110)
1 : 25



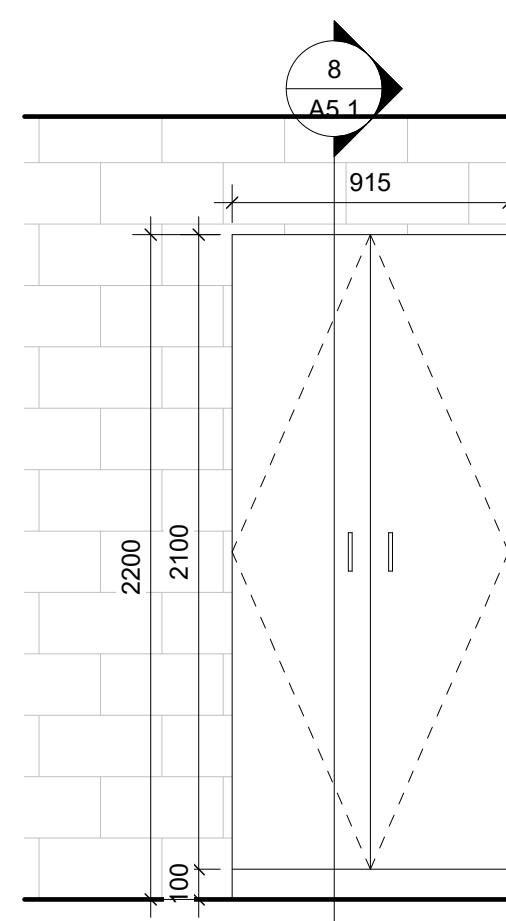
19 Interior Elevation - MW5 East Millwork (Staff Work Room 110)
1 : 25



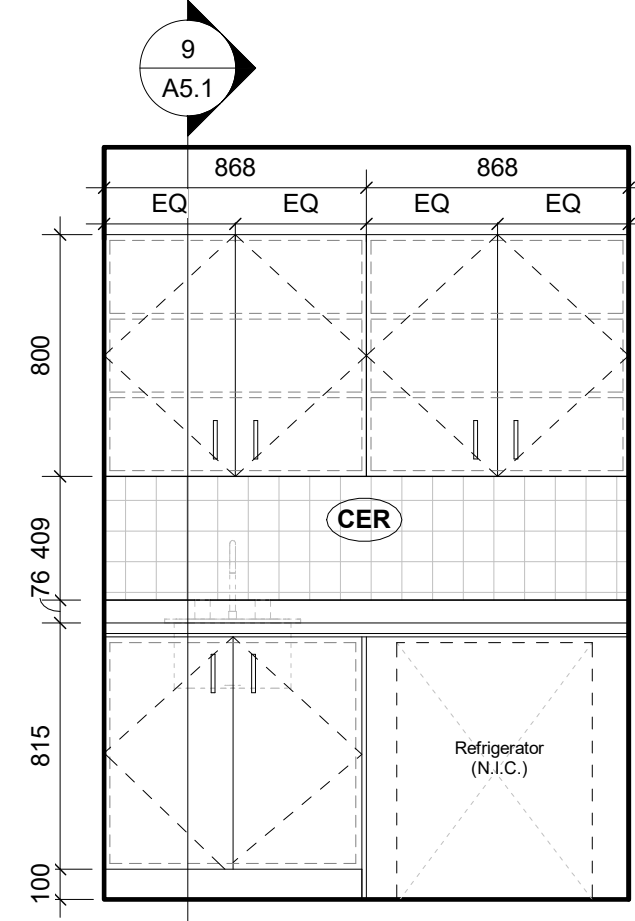
18 Millwork Elevation - MW6 West Counter (Staff Work Room 110)
1 : 25



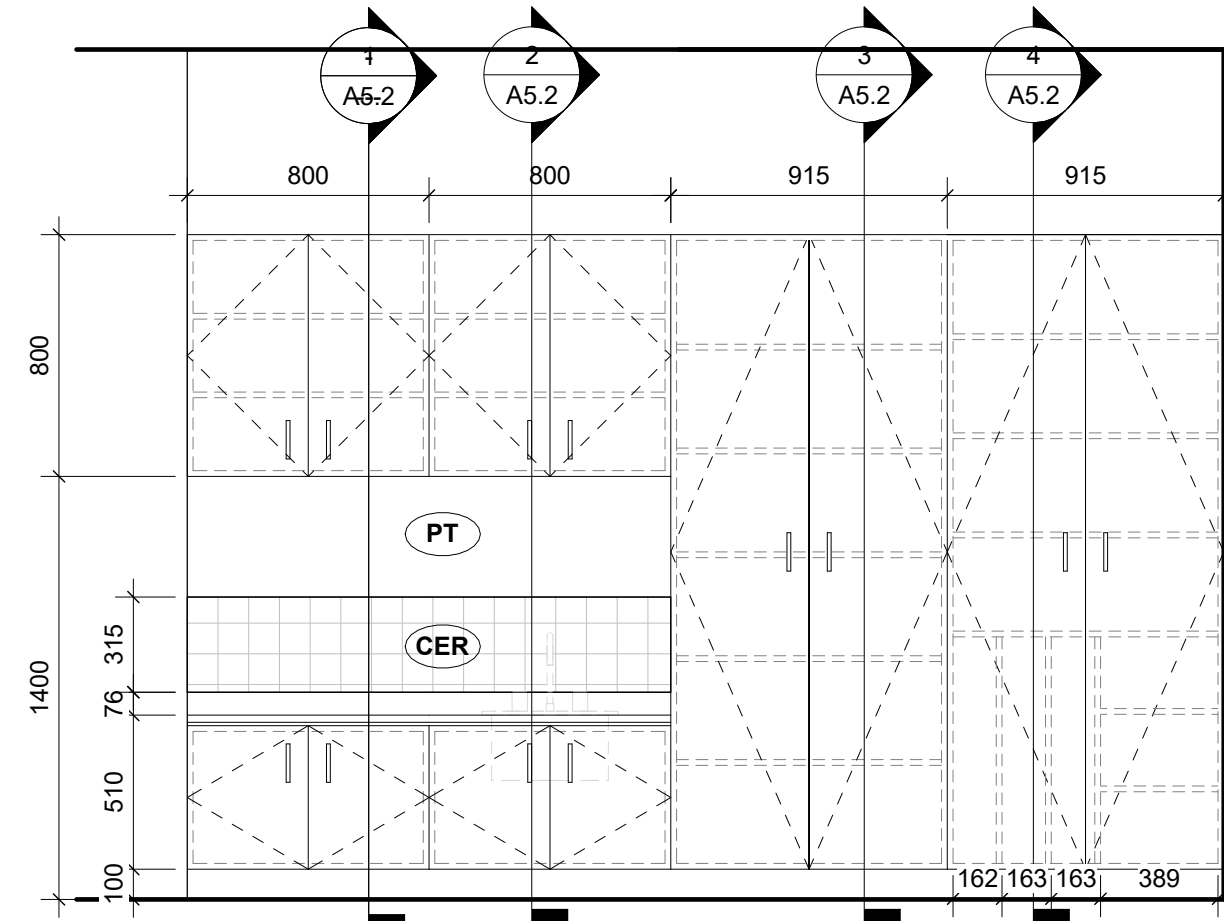
20 Millwork Elevation - M6 East Counter (Staff Work Room 110)
1 : 25



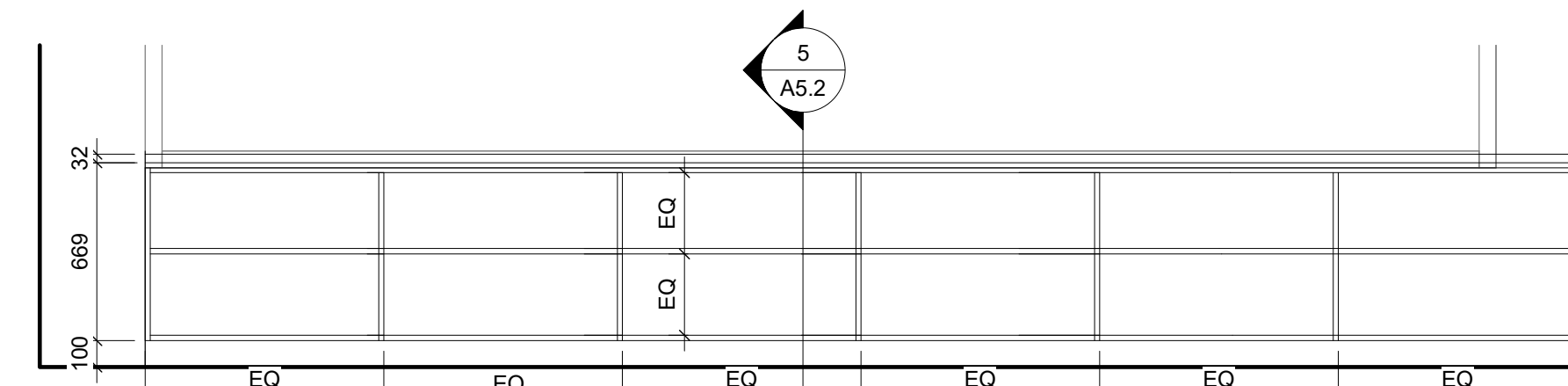
1 Interior Elevation - MW7 Storage (Custodial Storage 109)
1 : 25



9 Interior Elevation - MW8 Sink (Health Room 102)
1 : 25



14 Interior Elevation - MW9 Sink & MW10 Teachers Closet (Spec. Ed. Room 09)
1 : 25



2 Interior Elevation - MW11 Perimeter Shelving (Spec. Ed. Room 09)
1 : 25



WORKSHOP
architecture

WORKSHOP architecture inc
6 Sousa Mendes Street
Toronto Ontario M5P 0A8
T 416.901.8055 F 416.849.0383
www.workshoparchitecture.ca

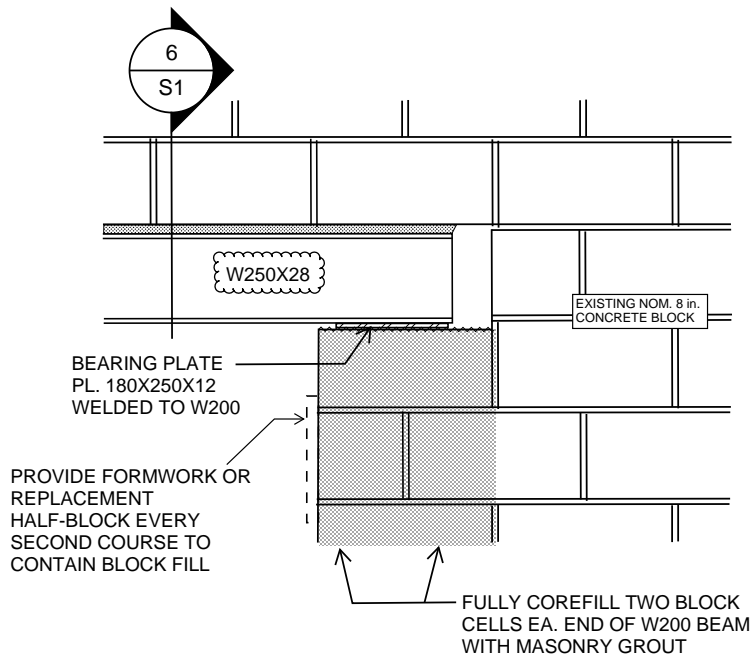
WRDSB Smithson Public School -
HVAC & Electrical Upgrades,
Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

PROJECT CODE: 20_28
DATE: December 2021
SCALE: As indicated
STATUS: Permit/Tender

Interior Elevations

drawing number

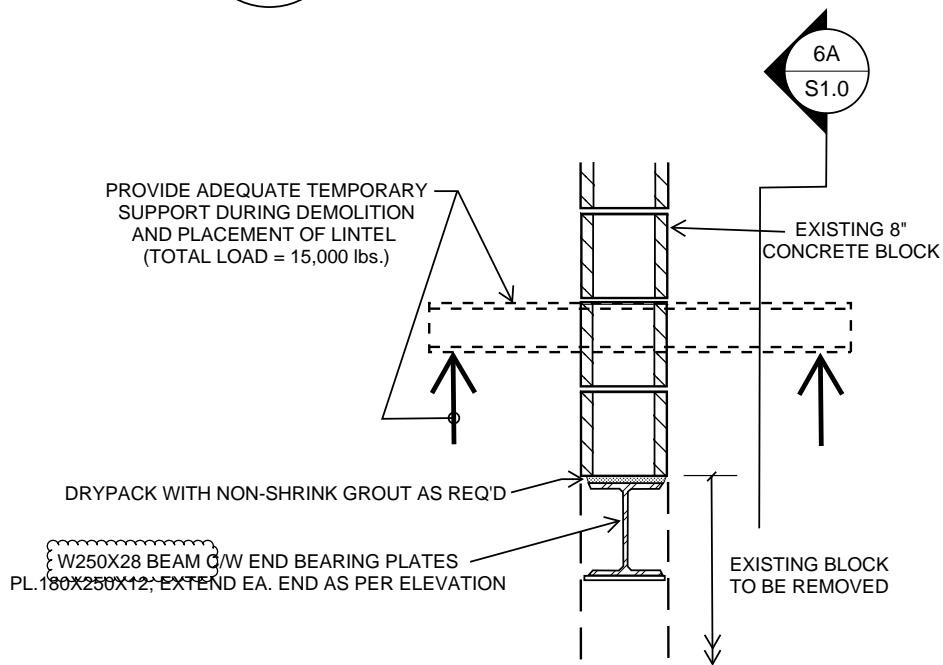
A4.0



6A
S1.0

BEAM B2 END SUPPORTS

SCALE: NTS



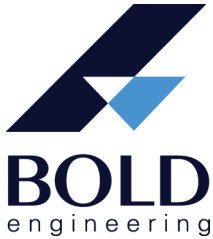
6
S1.0

BEAM B2

SCALE: NTS

project	WRDSB SMITHSON P.S. RENOVATIONS	project no.	WORKS-20-031	date	22/03/07
location	150 Belleview Ave., Kitchener ON			scale	Not To Scale
description				sketch no.	SK-1
Addendum No. 1 - Revision to Detail 6/S1.0				revision	0





Bold Engineering Inc.
2778 Dufferin Street, Suite 104,
Toronto, ON M6B 3R7 Canada
T: 416-556-0766
F: 1-866-876-5758
www.boldengineering.ca

ADD
#M01

Project:	Smithson Public School HVAC Upgrades & Interior Renovations	Project No.	B20.349.02A
Address:	150 Belleview Avenue, Kitchener, ON	Date:	2022-03-04
To:	Christian Kliegel Workshop T: 416-901-8055 ext 7 E: christian.k@workshopto.ca	From:	Manny Kahlon Bold Engineering Inc. 2778 Dufferin Street, Suite 104 Toronto, ON M6B 3R7 T: 416-556-0766 E: mkahlon@boldengineering.ca

This addendum shall form an integral part of the Bid Documents for the above project and shall be read in conjunction therewith. This addendum shall, however, take precedence over all requirements of the previously issued Drawings and Specifications with which it may prove to be at variance, unless otherwise clarified by the Engineer.

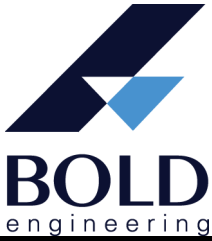
MECHANICAL:

1. REFERENCE DRAWING M3 – PROPOSED HVAC PLANS – WEST WING (RE-ISSUED)

1. Install fire damper in supply ductwork serving Classroom 21 and 18.
2. Install a 6”x6” transfer air ductwork serving Janitor’s Office complete with fire damper
3. Provide a fire damper in 6” supply duct serving Janitors Offices
4. Refer to Dwg for details

2. REFERENCE DRAWING M10 – MECHANICAL SCHEDULE

1. Updated Pump Schedule to include pump model number.
2. Heating pumps are to be Grundfos Model TP 40-240/2 A-G-A-BUBE-GX2.



No: Addendum #M01
To: All Bidders

Project No: B20.349.02A
Date: 2022-03-04

PUMP SCHEDULE				
TAG	LOCATION	MANUFACTURER	MODEL	SERVICE
P-1 P-2	MECH RM	GRUNDFOS	TP 40-240/2 A-G-A-BUBE-GX2	WEST WING

Issued by:
BOLD Engineering Inc.

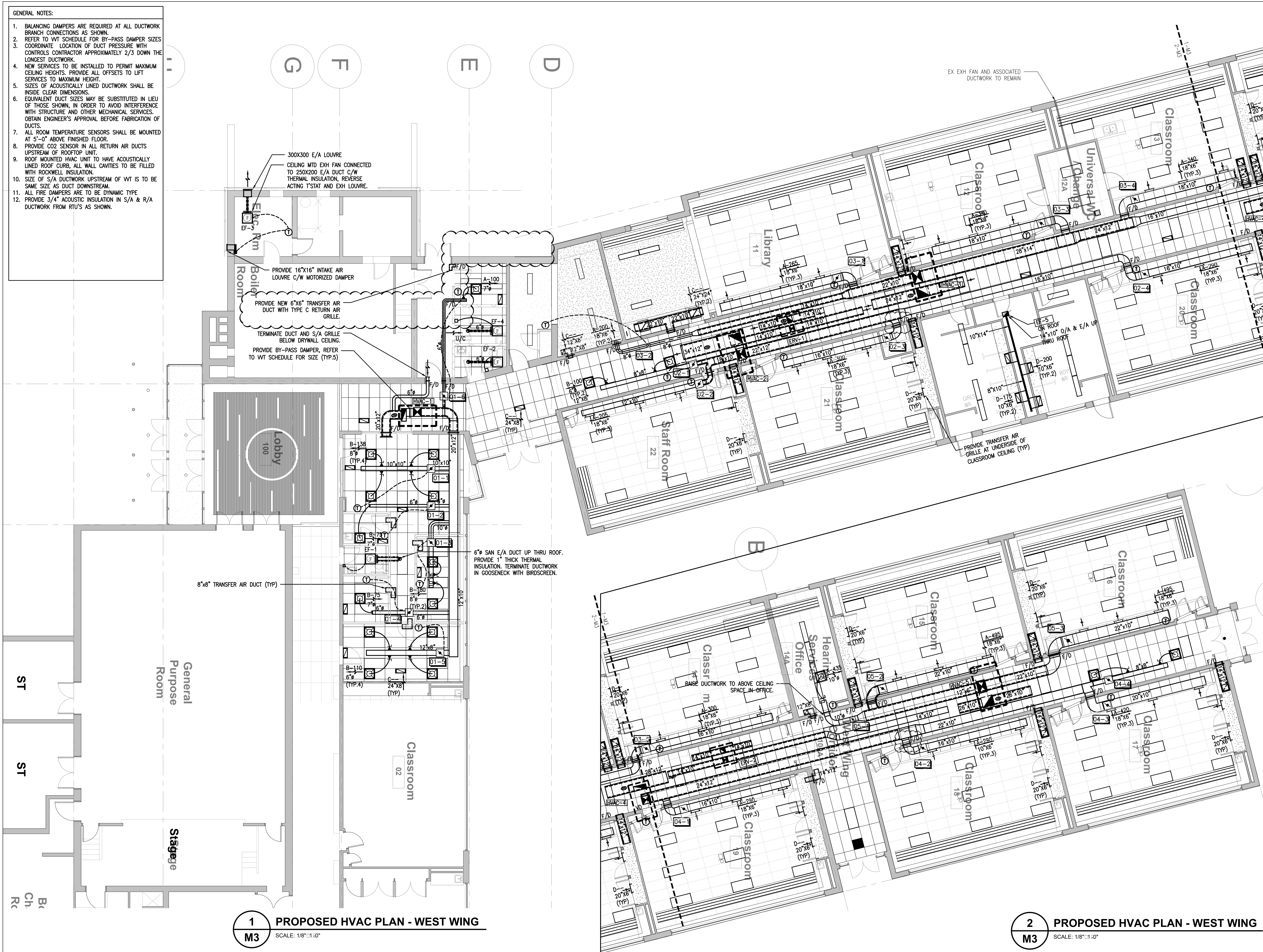
Per:
Manny Kahlon.
Mechanical

Bold Engineering Inc.
2778 Dufferin St. Suite 104
Toronto, Ontario
M6B 3R7
Tel: 416-556-0766
Fax: 1-866-876-5758
www.boldengineering.ca

End of Addendum

GENERAL NOTES:

- BALANCING DAMPERS ARE REQUIRED AT ALL DUCTWORK BRANCH CONNECTIONS AS SHOWN.
- REFER TO WT SCHEDULE FOR BY-PASS DAMPER SIZES.
- COORDINATE LOCATION OF DUCT PRESSURE WITH CONTROLS CONTRACTOR APPROXIMATELY 2/3 DOWN THE LONGEST DUCTWORK.
- NEW SERVICES TO BE INSTALLED TO PERMIT MAXIMUM CEILING HEIGHTS. PROVIDE ALL OFFSETS TO LIFT SERVICES TO MAXIMUM HEIGHT.
- SIZES OF ACOUSTICALLY LINED DUCTWORK SHALL BE INSIDE CLEAR DIMENSIONS.
- EQUIVALENT DUCT SIZES MAY BE SUBSTITUTED IN LIEU OF THOSE SHOWN, IN ORDER TO AVOID INTERFERENCE WITH STRUCTURE AND OTHER MECHANICAL SERVICES. OBTAIN ENGINEER'S APPROVAL BEFORE FABRICATION OF DUCTS.
- ALL ROOM TEMPERATURE SENSORS SHALL BE MOUNTED AT 5'-0" ABOVE FINISHED FLOOR.
- PROVIDE CO2 SENSOR IN ALL RETURN AIR DUCTS UPSTREAM OF ROOFTOP UNIT.
- ROOF MOUNTED HVAC UNIT TO HAVE ACOUSTICALLY LINED ROOF CURB, ALL WALL CAVITIES TO BE FILLED WITH ROCKWELL INSULATION.
- SIZE OF S/A DUCTWORK UPSTREAM OF WT IS TO BE SAME SIZE AS DUCT DOWNSTREAM.
- ALL FIRE DAMPERS ARE TO BE DYNAMIC TYPE.
- PROVIDE 3/4" ACOUSTIC INSULATION IN S/A & R/A DUCTWORK FROM RTU'S AS SHOWN.

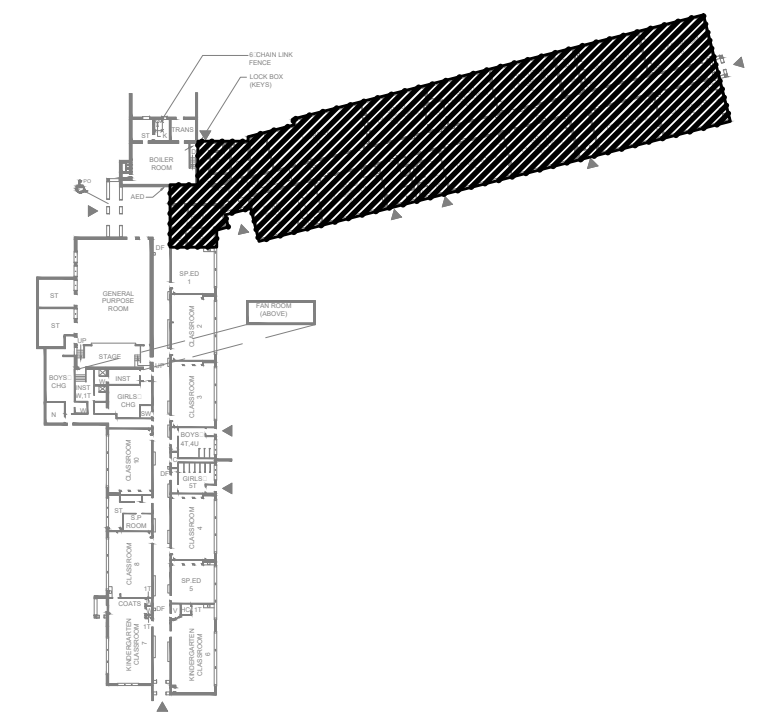


1 PROPOSED HVAC PLAN - WEST WING
SCALE: 1/8"=1'-0"

2 PROPOSED HVAC PLAN - WEST WING
SCALE: 1/8"=1'-0"

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
- The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.

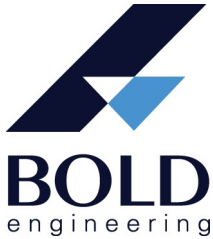


No.	Revision	Date	By
8	ISSUED FOR TENDER	22 FEB 15	MK
7	ISSUED FOR PERMIT	22 FEB 03	MK
6	ISSUED FOR 99% REVIEW	22 JAN 14	MK
5	ISSUED FOR 90% REVIEW	21 DEC 03	MK
4	ISSUED FOR PERMIT & TENDER	21 MAY 13	MK
3	ISSUED FOR 50% REVIEW	21 MAR.30	MK
2	ISSUED FOR 66% REVIEW	21 FEB.25	MK
1	ISSUED FOR 33% REVIEW	20 DEC 04	MS

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED HVAC PLANS - WEST WING

Drawn By MS Scale 1/8"=1'-0"
 Designed By MS Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
M3 1



Bold Engineering Inc.
2778 Dufferin Street, Suite 104,
Toronto, ON M6B 3R7 Canada
T: 416-556-0766
F: 1-866-876-5758
www.boldengineering.ca

ADD
#E01

Project:	Smithson Public School HVAC Upgrades & Interior Renovations	Project No.	B20.349.02A
Address:	150 Belleview Avenue, Kitchener, ON	Date:	2022-03-04
To:	Christian Kliegel Workshop T: 416-901-8055 ext 7 E: christian.k@workshopto.ca	From:	Devin Bliefert Bold Engineering Inc. 2778 Dufferin Street, Suite 104 Toronto, ON M6B 3R7 T: 416-556-0766 E: dbliefert@boldengineering.ca

This addendum shall form an integral part of the Bid Documents for the above project and shall be read in conjunction therewith. This addendum shall, however, take precedence over all requirements of the previously issued Drawings and Specifications with which it may prove to be at variance, unless otherwise clarified by the Engineer.

ELECTRICAL:

1. GENERAL NOTES

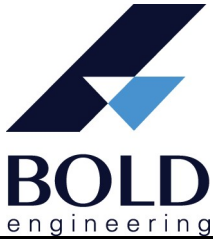
1. For the general lighting fixtures, equivalent fixtures from the following manufacturers will be accepted:
 - Metalux Lighting
 - Premise Lighting
2. All Data, Phone, PA System scope of work including cabling, terminations, testing and commissioning is to be completed by 3rd party contractor Network Telecom through cash allowances.
3. Drawing E12 and E12.1 have been added to include the fire alarm signalling devices scope of work. Refer to drawings for more information.
4. Contractor shall allow for the relocation of existing time clocks and fire alarm horn/strobe combination units within all classrooms, staff rooms and library within the West wing to facilitate the installation of the new bulkheads against the corridor wall. Extend or revise wiring as required. Devices shall be site

verified and relocated to below new bulkhead if determined that the clearance is not sufficient. Supply and install access panels as required to provide maintenance to any junction boxes concealed by the new bulkhead. Coordinate all work with architectural and mechanical trades. (Refer to photos below for typical device configurations)



- Contractor shall allow for the removal of existing wall mounted speakers within five (5) classrooms. Remove wiring back to source, retain speakers and hand over to WRDSB after removal. (Refer to photo below for typical speaker installation)





No: Addendum #E01
To: All Bidders

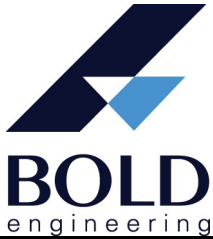
Project No: B20.349.02A
Date: 2022-03-04

**2. REFERENCE DRAWING E1 – ELECTRICAL LEGEND AND SCHEDULES
(ISSUED FOR ADD-E01)**

1. The breaker size for rooftop unit HVAC-2, has been revised from 600V,25A,3P to 600V,20A,3P to match the latest requirements from the mechanical design.
2. The breaker size for rooftop unit HVAC-3, has been revised from 600V,25A,3P to 600V,20A,3P to match the latest requirements from the mechanical design.
3. The breaker size for rooftop unit HVAC-5, has been revised from 600V,25A,3P to 600V,20A,3P to match the latest requirements from the mechanical design.
4. The circuit breakers SWB#A10 and SWB#A11 have been removed. The pumps P-1 and P-2 will now be 208V, fed from panel LP-2.
5. A Panel schedule for new panel LP-4 has been added.
6. The panel scheduleS for LP-2 has been revised to an existing and updated panel schedules to show the scope of work regarding demolition of existing breakers and installation of new breakers within the existing to remain panel.

**3. REFERENCE DRAWING E2 – ELECTRICAL SINGLE LINE DIAGRAM AND
SITE PLAN (ISSUED FOR ADD-E01)**

1. The demolition of the existing ‘LP-2’ panel has been removed from the scope of work. The panel is existing to remain and the contractor shall revise the circuit breakers within the existing panel to suit new loads as per the updated panel schedule. Remove and dispose of obsolete breakers and supply and install new circuit breakers as required.
2. The new 100A,208V,3P switch within the existing 208V switchboard has been revised to feed the new panel ‘LP-4’. The supply and installation of one (1) new 100A,208V,3ph,4W panel ‘LP-4’ has been added. Refer to drawings for additional information and panel schedules. Supply and install new circuit breakers as required. Note 7 has been revised to indicate the revised scope of work.
3. Some of the devices fed from LP-2 have been revised to be fed from LP-4. Refer to updated panel schedules for more information.



No: Addendum #E01
To: All Bidders

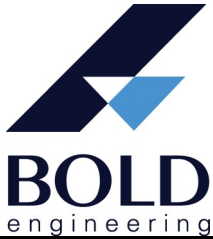
Project No: B20.349.02A
Date: 2022-03-04

4. REFERENCE DRAWING E3 – EXISTING/DEMO POWER PLANS (ISSUED FOR ADD-E01)

1. An existing IT Hub cabinet and cabling shall be relocated to facilitate the installation of the new bulkhead within Classroom 14. Refer to detail 8/E11 for more information. Extend or revise all data and power cabling as required. Final location to be approved by WRDSB.
2. Within the existing office space detail 4/E3, a device labelled as “TIMING SWITCH AND TIMER/CONTACTOR” which is to be removed and relocated, has been clarified to “BUZZER TIMER AND CONTROL”. This device shall be removed and relocated as shown on layout drawings to facilitate the architectural changes within the office. Revise and/or extend wiring as required to facilitate the relocation.
3. Notes on detail 4/E3 regarding the existing door access video system have been revised. The existing TV receptacle and IT terminals shall be removed and relocated as shown on layout drawings to facilitate the architectural changes within the office. Revise and/or extend wiring as required to facilitate the relocation.
4. The location of the existing PA system and wireways have been noted on detail 4/E3. The new location of the PA system is shown on the proposed layout drawings. The contractor shall revise and/or extend wiring as required to facilitate the relocation, refer to detail 3/E6 for more information.

5. REFERENCE DRAWING E6 – PROPOSED POWER PLANS (ISSUED FOR ADD-E01)

1. Note 8 on drawing E6 has been revised to provide further information regarding the power and IT cabling to be provided at each furniture whip. Each furniture whip shall have 1xPower, 2x Data, and 1xPhone terminations. Confirm termination requirements will millwork and architectural trades.
2. Within the existing office space detail 3/E6, a device labelled as “TIMING SWITCH AND TIMER/CONTACTOR” which has been relocated, has been clarified to “BUZZER TIMER AND CONTROL”. This device shall be relocated as shown on layout drawings to facilitate the architectural changes within the office. Revise and/or extend wiring as required to facilitate the relocation.



No: Addendum #E01
To: All Bidders

Project No: B20.349.02A
Date: 2022-03-04

6. REFERENCE DRAWING E6.1 – PROPOSED POWER PLANS (ISSUED FOR ADD-E01)

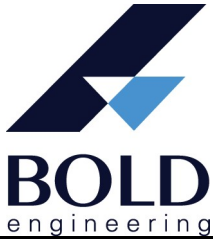
1. One (1) “AV” Audio/Video station was added for the Library Room 11.

7. REFERENCE DRAWING E7 – PROPOSED FIRE ALARM PLANS (ISSUED FOR ADD-E01)

1. On detail 3/E7, one (1) duct smoke detector, two (2) smoke detectors and two (2) direct connections for fire/smoke dampers have been added to the Janitor office.

8. REFERENCE DRAWING E9 – ELECTRICAL AND BOILER ROOM LAYOUTS (ISSUED FOR ADD-E01)

1. Heat detectors in the electrical room and adjacent storage room are existing to remain. The supply and installation of an additional heat detector has been added to the existing utility vault that is being revised to a storage room.
2. Panel ‘LP-2’ is now existing to remain. Revise breakers and feeds as shown and supply and install new breakers as required.
3. The supply and installation of a new 100A,208V,3ph,4W panel ‘LP-4’ has been added within the boiler room. Refer to drawings for additional information and panel schedule.
4. Locations of existing electrical panels within boiler room have been provided for reference.
5. Notes 1 & 2 have been revised to provide clarification regarding the annunciator installation. There is no existing annunciator for the fire alarm control panel, therefore its demolition is no longer part of the scope of work. The new annunciator panel shall be supplied and installed in the main entrance vestibule.
6. Note 13 has been added to provide additional detail regarding the replacement of the existing Bell/Strobe signalling units. “Contractor shall replace all existing bell/strobe signaling devices with new horn/strobe devices. Re-use existing wiring and supply and install all devices, mounting plates, etc. required for installation. Patch walls to match basebuilding finishes.”



No: Addendum #E01
To: All Bidders

Project No: B20.349.02A
Date: 2022-03-04

7. Detail 3/E9 has been added to show the proposed location of the new Annunciator panel. Exact location is to be coordinated onsite with WRDSB before rough-in is completed.
8. The power supplies for Pumps P-1 and P-2 have been revised from 600V,15A,3P to 208V,15A,3P. The pumps will now be fed from LP-4.

9. REFERENCE DRAWING E10 – PROPOSED ROOFTOP POWER PLAN (ISSUED FOR ADD-E01)

1. The labelling of the HVAC units has been revised to match latest mechanical drawings.
2. The power supply size for rooftop unit HVAC-2, has been revised from 600V,25A,3P to 600V,20A,3P to match the latest requirements from the mechanical design.
3. The power supply size for rooftop unit HVAC-3, has been revised from 600V,25A,3P to 600V,20A,3P to match the latest requirements from the mechanical design.
4. The power supply size for rooftop unit HVAC-5, has been revised from 600V,25A,3P to 600V,20A,3P to match the latest requirements from the mechanical design.

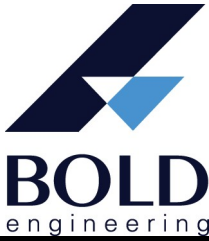
10. REFERENCE DRAWING E11.1 – ELECTRICAL DETAILS (ISSUED FOR ADD-E01)

1. Updates have been made to details 10/E11.1 and 11/E11.1 to add a 3.5mm Audio cable from TV to Topcat Audio system for TV audio output.

11. REFERENCE DRAWING E12 – EXISTING/DEMOLITION SIGNALING DEVICE LAYOUT (ISSUED FOR ADD-E01)

1. This drawing has been added to indicate the scope of work required to upgrade all existing bell/strobe combination units within the existing school. Refer to drawings for exact quantity and locations. Existing wiring to be reused.

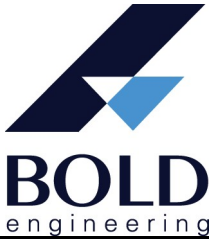
12. REFERENCE DRAWING E12.1 – PROPOSED SIGNALING DEVICE LAYOUT (ISSUED FOR ADD-E01)



No: Addendum #E01
To: All Bidders

Project No: B20.349.02A
Date: 2022-03-04

-
1. This drawing has been added to indicate the scope of work required to upgrade all existing bell/strobe combination units within the existing school. Refer to drawings for exact quantity and locations.



No: Addendum #E01
To: All Bidders

Project No: B20.349.02A
Date: 2022-03-04

Issued by:
BOLD Engineering Inc.

Per:
Devin Bliefert, P.Eng.
Electrical Engineer

Bold Engineering Inc.
2778 Dufferin St. Suite 104
Toronto, Ontario
M6B 3R7
Tel: 416-556-0766
Fax: 1-866-876-5758
www.boldengineering.ca

End of Addendum

SMITHSON PUBLIC SCHOOL HVAC UPGRADES & INTERIOR RENOVATIONS

150 BELLEVIEW AVE, KITCHENER, ON

WRDSB - WORKSHOP ARCHITECTURE - SMITHSON PS

PROJECT NO.: B20-349.02A

DRAWING LIST

- E1 ELECTRICAL LEGEND AND SCHEDULES
- E2 ELECTRICAL SINGLE LINE DIAGRAM AND SITE PLAN
- E3 EXISTING/DEMO POWER PLANS
- E4 EXISTING/DEMO FIRE ALARM PLANS
- E5 EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS
- E5.1 EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS
- E5.2 EXISTING/DEMO EMERGENCY LIGHTING & EXIT SIGN PLANS
- E6 PROPOSED POWER PLANS
- E6.1 PROPOSED POWER PLANS
- E7 PROPOSED FIRE ALARM PLANS
- E8 PROPOSED LIGHTING & REFLECTED CEILING PLANS
- E8.1 PROPOSED LIGHTING & REFLECTED CEILING PLANS
- E8.2 PROPOSED EMERGENCY LIGHTING & EXIT SIGN PLANS
- E9 ELECTRICAL AND BOILER ROOM LAYOUTS
- E10 PROPOSED ROOFTOP POWER PLANS
- E11 ELECTRICAL DETAILS
- E11.1 ELECTRICAL DETAILS
- E12 EXISTING/DEMOLITION SIGNALING DEVICE LAYOUT
- E12.1 PROPOSED SIGNALING DEVICE LAYOUT



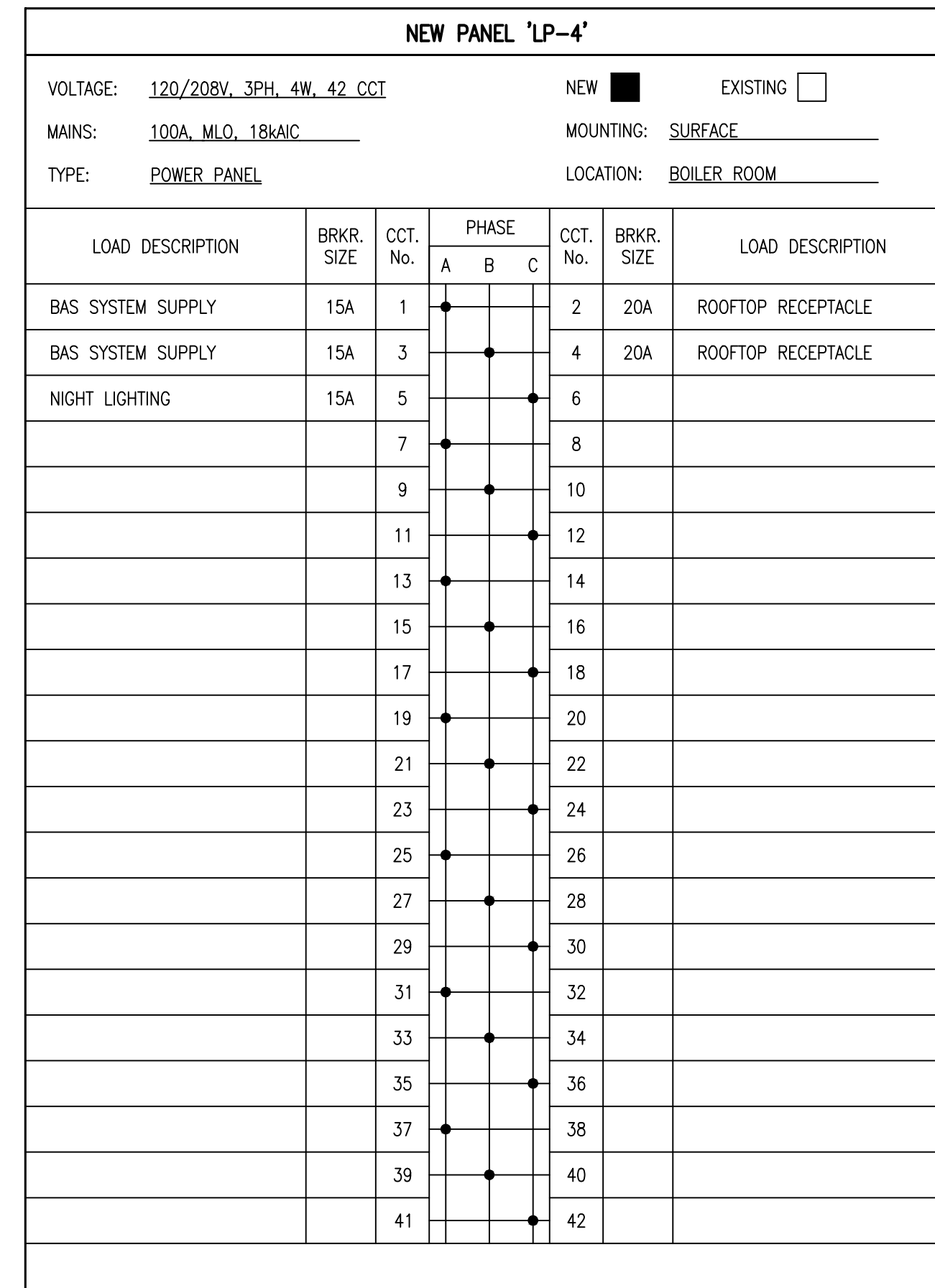
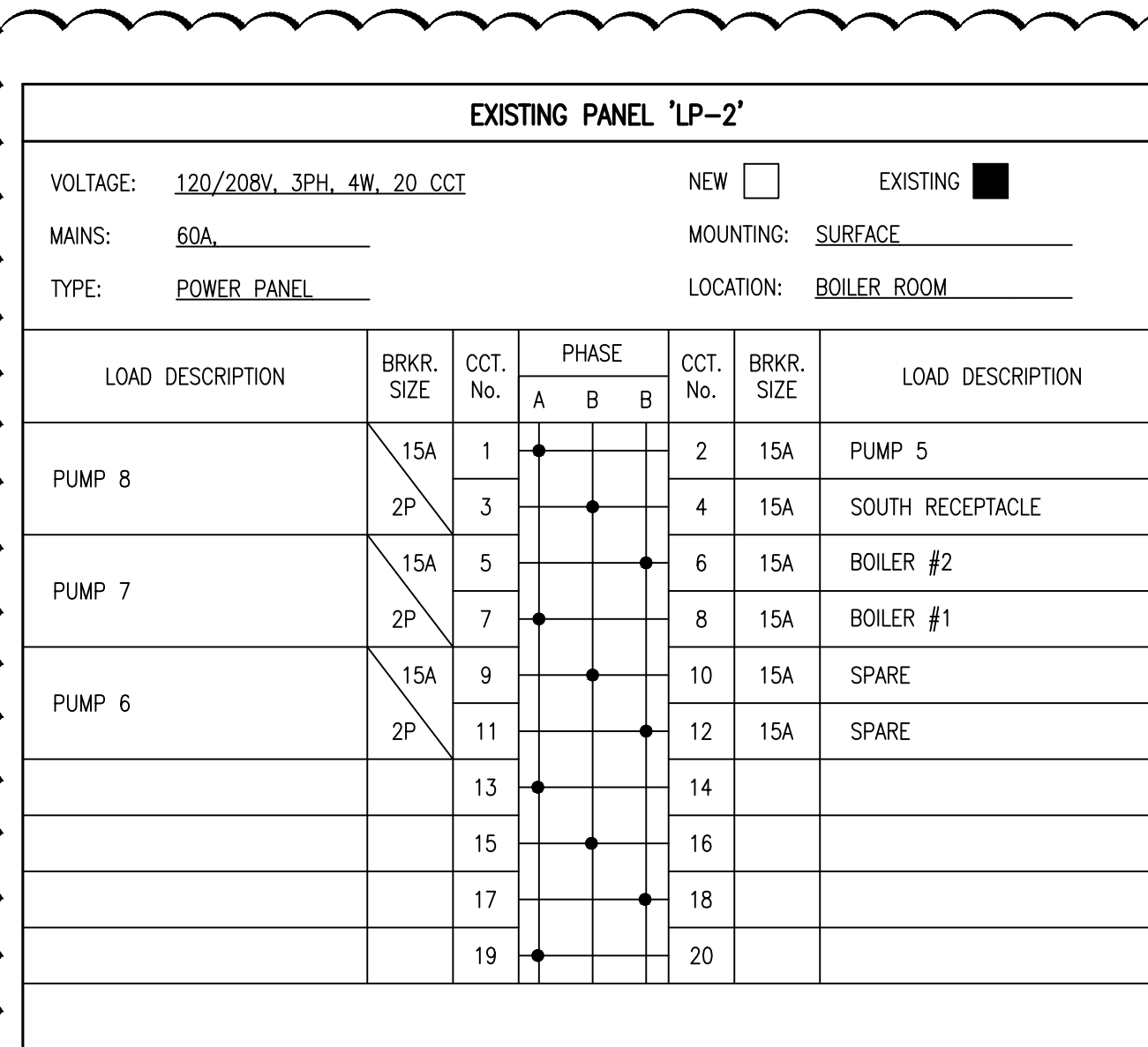
Bold Engineering Inc.
2778 Dufferin Street, Suite 104
Toronto, Ontario, M6B 3R7
Canada

Tel: 416-556-0766
Fax: 1-866-876-5758

www.boldengineering.ca

ELECTRICAL LEGEND	
[Symbol]	BASE BUILDING LUMINAIRE
[Symbol]	NEW LUMINAIRE
A	LUMINAIRE DESIGNATOR LETTER DEMOTES TYPE REFER TO LUMINAIRE SCHEDULE
[Symbol]	WALL MOUNTED EMERGENCY LIGHTING REMOTE HEAD(S)
[Symbol]	WALL MOUNTED EMERGENCY LIGHTING BATTERY UNIT WITH HEAD(S)
[Symbol]	CEILING MOUNTED EXIT SIGN DIRECTIONAL ARROW(S) AND WALL FACE(S) AS SHOWN
[Symbol]	WALL MOUNTED EXIT SIGN DIRECTIONAL ARROW(S) AND WALL FACE(S) AS SHOWN
[Symbol]	EXIT SIGNS WITH BATTERIES
[Symbol]	TOGGLE SWITCH - 120V
[Symbol]	GANGED TOGGLE SWITCHES, 2, 3, 4 GANG
[Symbol]	DIMMER SWITCH
[Symbol]	3 - WAY SWITCH
[Symbol]	KEY SWITCH
[Symbol]	WALL MOUNTED DUPLEX RECEPTACLE
[Symbol]	WALL MOUNTED QUAD RECEPTACLE (15A, 120V UNLESS OTHERWISE NOTED)
[Symbol]	WALL MOUNTED ABOVE COUNTER, GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE (15A, 120V)
[Symbol]	NEMA 5-20R GFI DUPLEX RECEPT. C/W WEATHERPROOF COVER FOR HVAC MAINTENANCE INSTALLED AT 750mm ABOVE FINISHED FLOOR
[Symbol]	WALL MOUNTED VOICE OUTLET
[Symbol]	WALL MOUNTED DATA OUTLET
[Symbol]	WALL MOUNTED DATA/VOICE OUTLET
[Symbol]	FLOOR MOUNTED VOICE OUTLET
[Symbol]	FLOOR MOUNTED DATA OUTLET
[Symbol]	FLOOR MOUNTED DATA/VOICE OUTLET
[Symbol]	WIRELESS ACCESS POINT
[Symbol]	FLOOR MOUNTED COMBINATION OUTLETS WITH OUTLETS AS SHOWN
[Symbol]	WALL FEED FOR POWER AND COMMUNICATIONS TO SYSTEM FURNITURE
[Symbol]	FLOOR FEED FOR POWER AND COMMUNICATIONS TO SYSTEM FURNITURE
[Symbol]	TELEVISION SYSTEM OUTLET - CEILING, WALL MOUNTED
[Symbol]	JUNCTION BOX
[Symbol]	DIRECTION CONNECTION
[Symbol]	MOTOR CONNECTION
[Symbol]	DISCONNECT SWITCH - UNFUSED
[Symbol]	DISCONNECT SWITCH - FUSED
[Symbol]	SURFACE MOUNTED PANEL BOARD
[Symbol]	RECESSED MOUNTED PANEL BOARD
[Symbol]	TRANSFORMER
[Symbol]	FIRE ALARM PULL STATION
[Symbol]	FIRE ALARM HORN AND STROBE COMBO UNIT
[Symbol]	FIRE ALARM BELL AND STROBE COMBO UNIT
[Symbol]	SPEAKER - CEILING, WALL MOUNTED
[Symbol]	OCCUPANCY SENSOR
[Symbol]	SMOKE DETECTOR
[Symbol]	DUCT TYPE SMOKE DETECTOR W/ REMOTE INDICATION
[Symbol]	HEAT DETECTOR - 135° FIXED TEMPERATURE TYPE - CEILING, WALL MOUNTED
[Symbol]	AUTOMATIC DOOR PUSHBUTTON
[Symbol]	MOTION DETECTOR
[Symbol]	TOPCAT AUDIO SYSTEM (CEILING MOUNTED)
[Symbol]	SMARTBOARD PROJECTOR MOUNT (CEILING MOUNTED)
[Symbol]	OUTLETS FOR AUDIO/VISUAL SYSTEM INSTALLATION
EX	EXISTING TO REMAIN
R	EXISTING TO REMOVED
RE/RE	EXISTING TO BE REMOVED AND REINSTALLED
RL	EXISTING IN RELOCATED POSITION
AFF	ABOVE FINISHED FLOOR
NL	NIGHT LIGHT CIRCUIT

TYPE	MAKE / MODEL	DESCRIPTION	VOLTAGE	LAMP DATA				MOUNTING	REMARKS
				No.	TYPE	WATTS	COLOUR		
'L1'	LITHONIA LIGHTING 2GTL-4-48L-G210-LP840	RECESSED LED 2'x4' TROFFER	120V	1	LED	36W	4000K	RECESSED	LIGHTING TO BE ON DIMMERS AS SHOWN ON DRAWINGS. PROVIDE DIMMING CONTROLLER.
'L2'	LITHONIA LIGHTING 2GTL-4-40L-G210-LP840	RECESSED LED 2'x4' TROFFER	120V	1	LED	30W	4000K	RECESSED	LIGHTING TO BE ON DIMMERS AS SHOWN ON DRAWINGS. PROVIDE DIMMING CONTROLLER.
'L3'	LITHONIA LIGHTING SBL4-4800LM-40K	SURFACE MOUNTED 1'x4'	120V	1	LED	32W	4000K	SURFACE	-
'L4'	LITHONIA LIGHTING SBL4-4800LM-40K	SURFACE MOUNTED 1'x4'	120V	1	LED	40W	4000K	SURFACE	-
'L5'	LLI ARCHITECTURAL LIGHTING LLI-S-IC1-SF-XX-40K-24V-XX	SUSPENDED LINEAR STRIP	120V	1	LED	XW/FT	4000K	SUSPENDED	COORDINATE SUSPENSION LENGTH AND EXACT LOCATION WITH ARCHITECTURAL TRADE.
'L6'	CAMMAN LIGHTING P1044-108-40K-1-ACM	ARCHITECTURAL PENDENT	120V	1	LED	160W	4000K	SUSPENDED	COORDINATE SUSPENSION LENGTH AND EXACT LOCATION WITH ARCHITECTURAL TRADE
'L7'	LITHONIA LIGHTING 2GTL-2-48L-G210-LP840	RECESSED 2'x2' TROFFER	120V	1	LED	42W	4000K	RECESSED	-
'L8'	LITHONIA LIGHTING FMLWL-48-840-MVOLT	RECESSED FIXTURE	120V	1	LED	42W	4000K	SURFACE	PATCH EXISTING CEILING AROUND FIXTURE. FINISHES TO MATCH EXISTING.
'L9'	HOLOPHANE PARKPAK PPSOL2-P10-40K-PY-TSE	RECESSED EXTERIOR FIXTURE	120V	1	LED	25W	4000K	RECESSED	PATCH EXISTING SOFFIT AROUND FIXTURE. FINISHES TO MATCH EXISTING.
'L10'	LITHONIA LIGHTING MNSL-148-21L-MVOLT-40K-80CRI-M6	SUSPENDED STRIP FIXTURE	120V	1	LED	35W	4000K	SUSPENDED	-
[Symbol]	BEGHELLI TEMPESTA LED TA-LED-SE-UNV-TB	EMERGENCY LIGHT WITH BATTERY PACK	120V	1	LED	2.3W	-	RECESSED	RECESSED IN ACT CEILING, C/W MINIMUM 90MIN BATTERY BACKUP.
[Symbol]	BEGHELLI FORTE RM FR-RM-SP-L-1/2-OLR-W/C-90SP	GREEN RUNNING MAN PICTOGRAM EXIT SIGN (SINGLE/DUAL FACE)	120V	1	LED	-	-	WALL/CEILING MOUNTED	COMPLETE WITH INTEGRAL STANDALONE 90MIN BATTERY BACKUP.



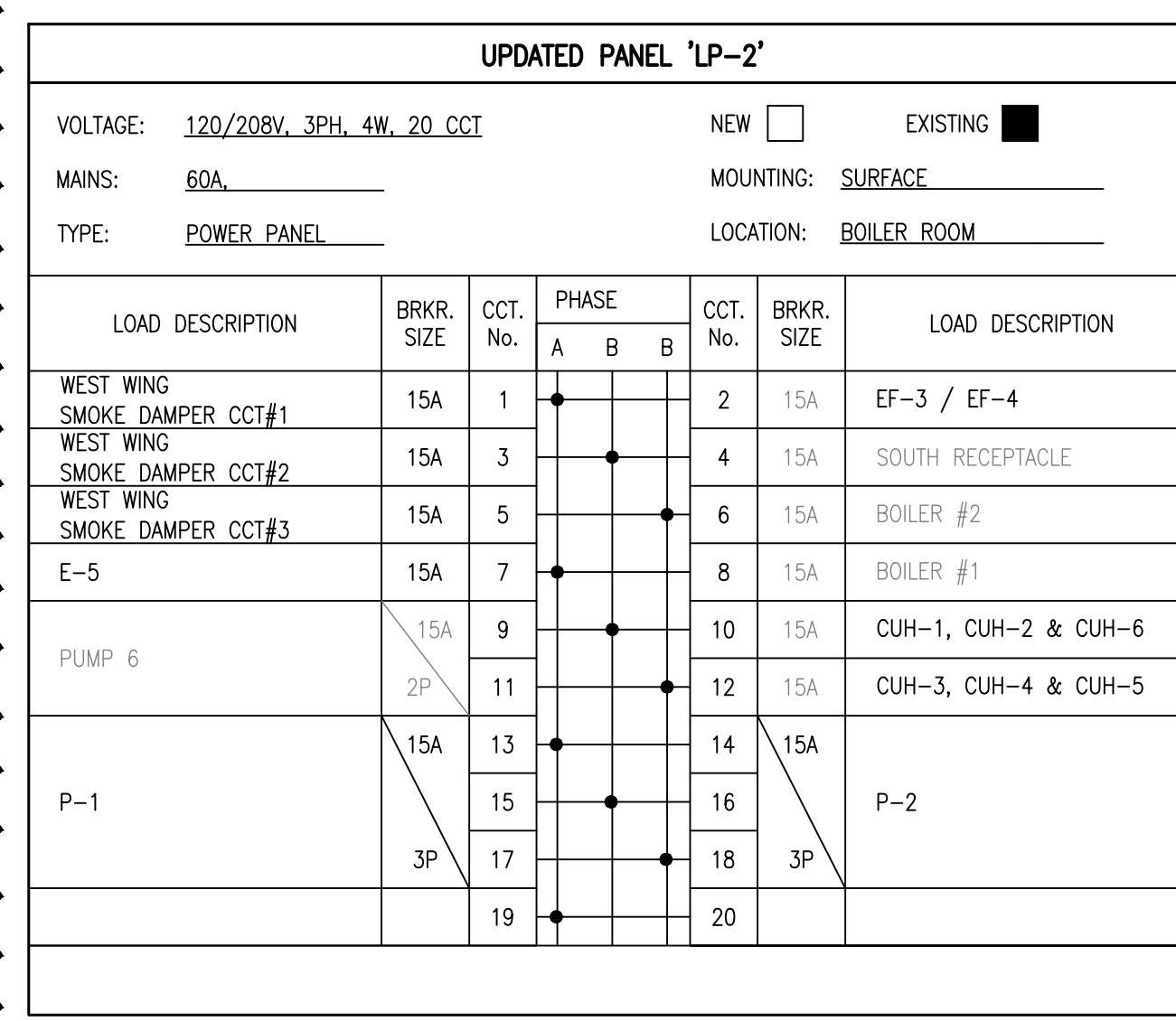
SWB-1 SWITCHBOARD DISTRIBUTION LOAD SCHEDULE (400A,600/347V,3PH,4W)

LOAD ID	LOAD DESCRIPTION	OVERCURRENT DEVICE TYPE	DEVICE AMP RATING	VOLTAGE	WIRING	# OF POLES
A1	EXISTING SWB	MOLDED CASE BREAKER	175A	600V	3-#3/0 CU + GND	3
A2	PHASE LOSS RLY	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3
A3	SPD	MOLDED CASE BREAKER	30A	600V	3-#10 AWG CU + GND	3
A4	HVAC-1	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3
A5	HVAC-2	MOLDED CASE BREAKER	20A	600V	3-#10 AWG CU + GND	3
A6	HVAC-3	MOLDED CASE BREAKER	20A	600V	3-#10 AWG CU + GND	3
A7	HVAC-4	MOLDED CASE BREAKER	20A	600V	3-#10 AWG CU + GND	3
A8	HVAC-5	MOLDED CASE BREAKER	20A	600V	3-#10 AWG CU + GND	3
A9	ERV-1/ERV-2	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3

1 EXISTING "LP-2" PANEL SCHEDULE
E1 SCALE: N.T.S.

2 NEW "LP-4" PANEL SCHEDULE
E1 SCALE: N.T.S.

3 NEW SWB-1 BREAKER SCHEDULE
E1 SCALE: N.T.S.



4 UPDATED "LP-2" PANEL SCHEDULE
E1 SCALE: N.T.S.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
- The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



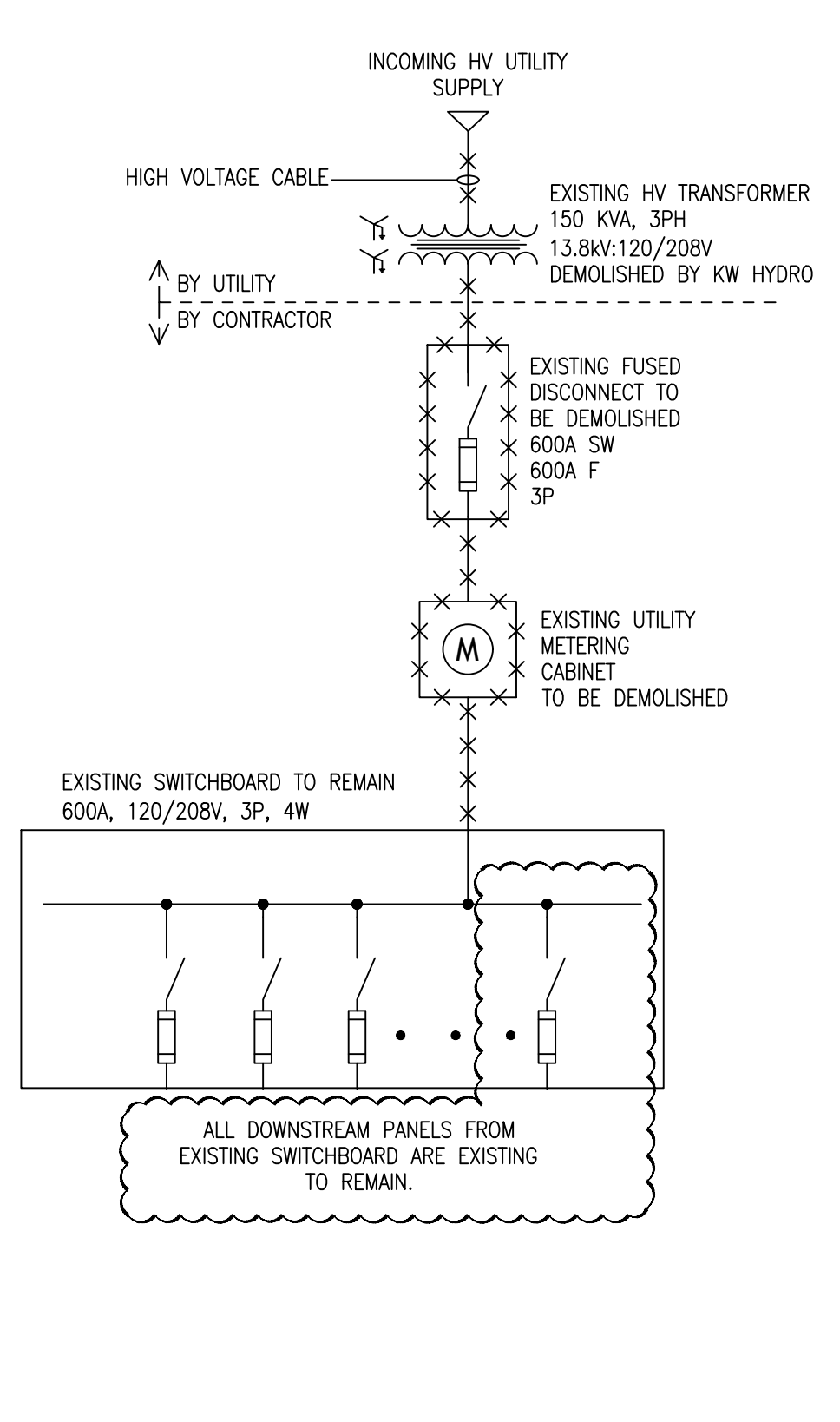
No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

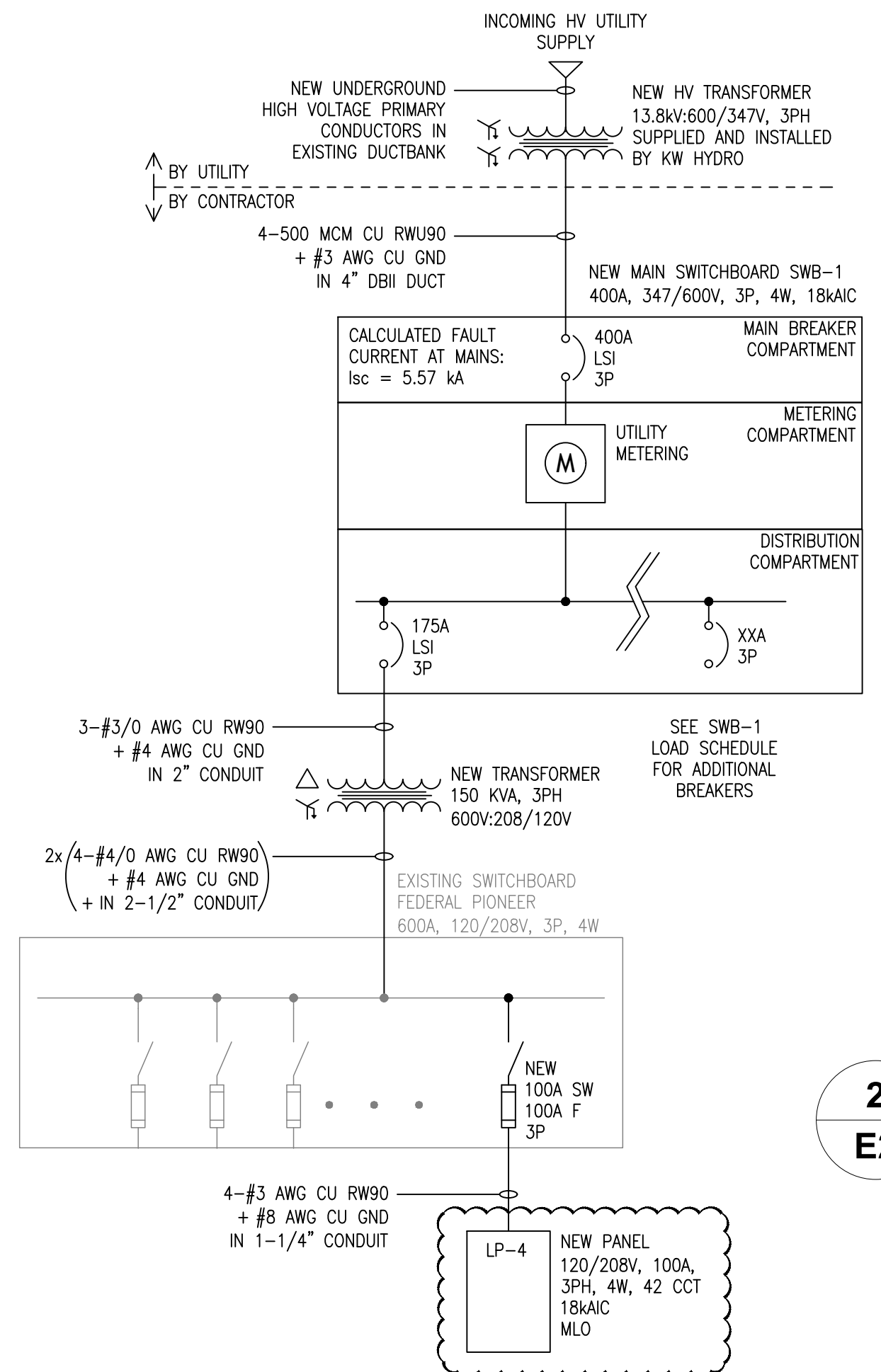
Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
ELECTRICAL LEGEND AND SCHEDULES

Drawn By **DB** Scale **As Shown**
 Designed By **DB** Date **November 26, 2020**
 Project Number **B20-349.02A**
 Sheet Number **E1** Revision **1**



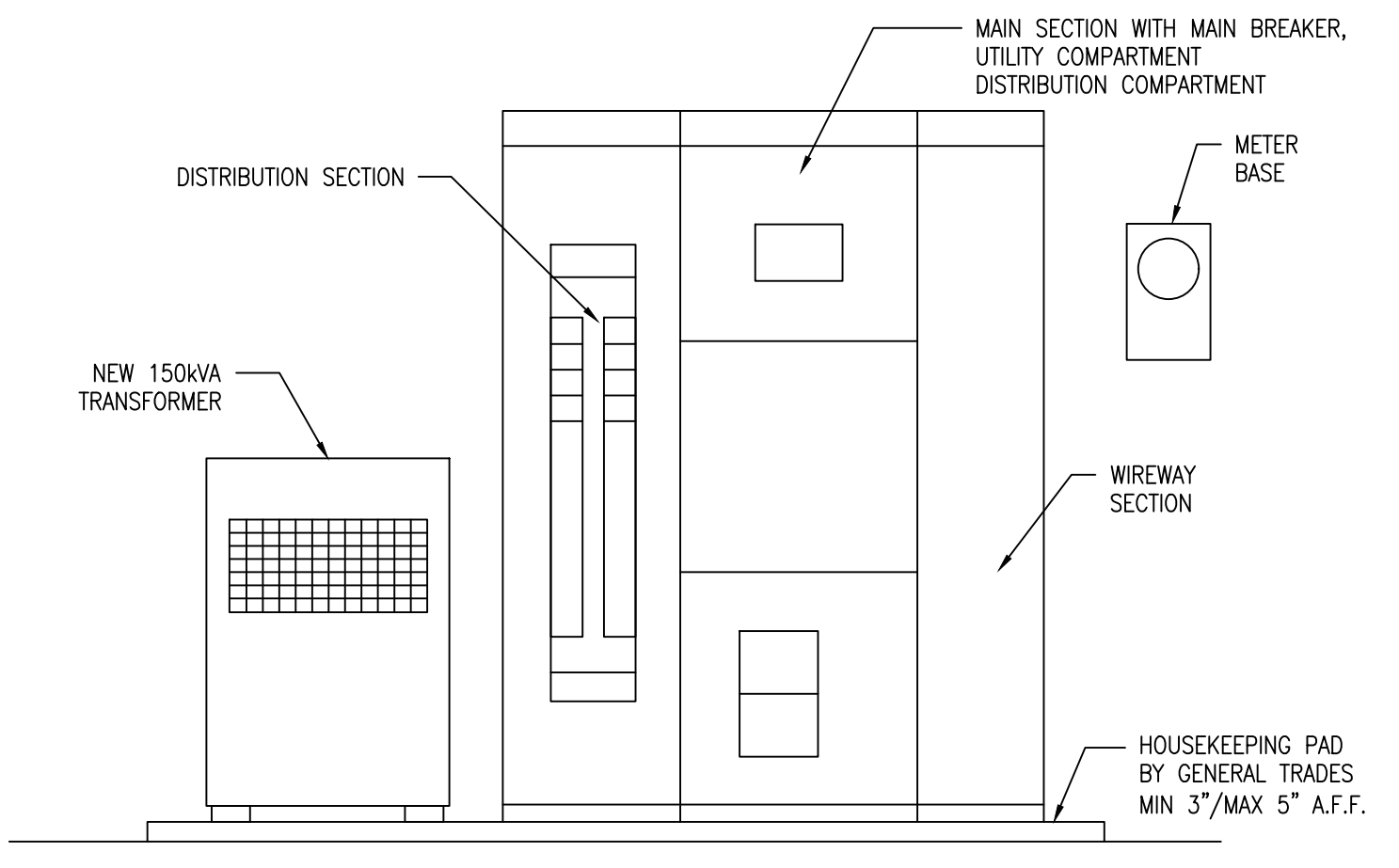
1 EXISTING SINGLE LINE DIAGRAM
E2 SCALE: N.T.S.



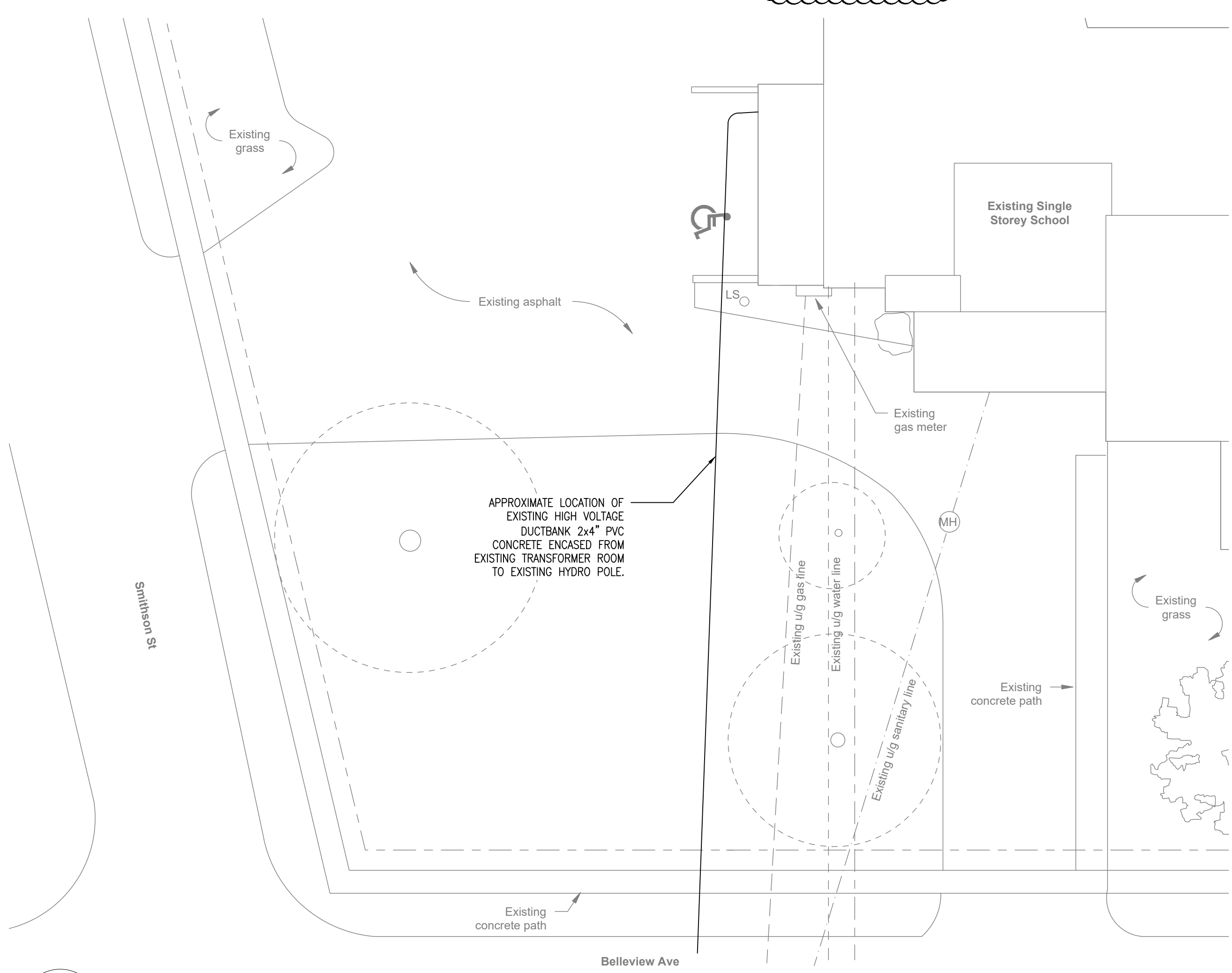
2 PROPOSED SINGLE LINE DIAGRAM
E2 SCALE: N.T.S.

- ELECTRICAL SERVICE NOTES:**
- CONTRACTOR TO SUPPLY AND INSTALL NEW MAIN SWITCHBOARD INCLUDING ALL CIRCUIT BREAKERS AND EQUIPMENT TO FACILITATE UTILITY METERING. SWITCHBOARD SHALL:
 - MAKE/MODEL: SCHNEIDER MDS, OR EQUIVALENT SIEMENS/EATON
 - INCLUDE WIREWAY SECTION AS REQUIRED.
 - MAIN SECTION SHALL INCLUDE MAIN 400A LSI BREAKER, UTILITY METERING COMPARTMENT, AND 1-LINE DISTRIBUTION COMPLETE WITH 175A, 3P LSI BREAKER FOR SUBFEED TO EXISTING SWITCHBOARD.
 - DISTRIBUTION SECTION WITH ADDITIONAL 70% SPACE FOR FUTURE BREAKERS.
 - SURGE PROTECTIVE DEVICE RATED FOR 160kA/PHASE, WITH INDICATION LIGHTS AND AUDIBLE ALARM
 - CONTRACTOR TO SUPPLY AND INSTALL NEW 150kVA STEP-DOWN TRANSFORMER TO RE-SUPPLY EXISTING SWITCHBOARD.
 - CONTRACTOR TO SUPPLY AND INSTALL ONE (1) 13-JAW METER BASE AT LOCATION PROVIDED BY KW HYDRO AT 5' ABOVE GRADE. CONFIRM REQUIREMENTS WITH KW HYDRO BEFORE PURCHASING AND INSTALLING EQUIPMENT.
 - CONTRACTOR TO SUPPLY AND INSTALL PHASE LOSS RELAY AND SECURITY INTERFACE WITHIN NEW DISTRIBUTION BOARD AS PER WRDSB REQUIREMENTS. CONTRACTOR TO SUPPLY AND INSTALL SURGE PROTECTIVE DEVICE FOR NEW SWITCHBOARD SWB-1.
 - CONTRACTOR TO SUPPLY AND MAINTAIN BACKUP POWER GENSET DURING MAIN SERVICE POWER SWITCH OVER TO MAINTAIN EXISTING FIRE ALARM, SECURITY, CORRIDOR LIGHTING AND CONSTRUCTION LOADS UNTIL UTILITY POWER IS RESTORED.
 - CONTRACTOR TO PHASE INSTALLATION OF NEW DISTRIBUTION EQUIPMENT TO BE COMPLETED BEFORE TRANSFORMER REPLACEMENT TO ENSURE THAT NEW DISTRIBUTION SYSTEM IS READY TO BE ENERGIZED ONCE KW HYDRO SERVICE UPGRADE IS COMPLETED.
 - CONTRACTOR TO SUPPLY AND INSTALL NEW 208V, 100A, 3P FUSED SWITCH WITHIN EXISTING SWITCHBOARD FOR NEW LP-4 FEED. SUPPLY AND INSTALL NEW 120/208V, 3PH, 4W, 42 CCT PANEL LP-4 WITHIN BOILER ROOM AS SHOWN. SUPPLY AND INSTALL NEW CIRCUIT BREAKERS AS PER PANEL SCHEDULES.
 - CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW CIRCUIT BREAKERS AND FUSES AS SHOWN. SUPPLY AND INSTALL CIRCUIT BREAKERS WITHIN SWB-1 AND ENSURE THAT DISTRIBUTION BOARD HAS 70% OPEN SPACE FOR ADDITIONAL FUTURE LOADS.
 - ALL NEW SWITCHBOARDS, PANELBOARDS, BREAKERS, ETC FOR NEW POWER DISTRIBUTION EQUIPMENT SHALL BE FROM THE SAME MANUFACTURER.

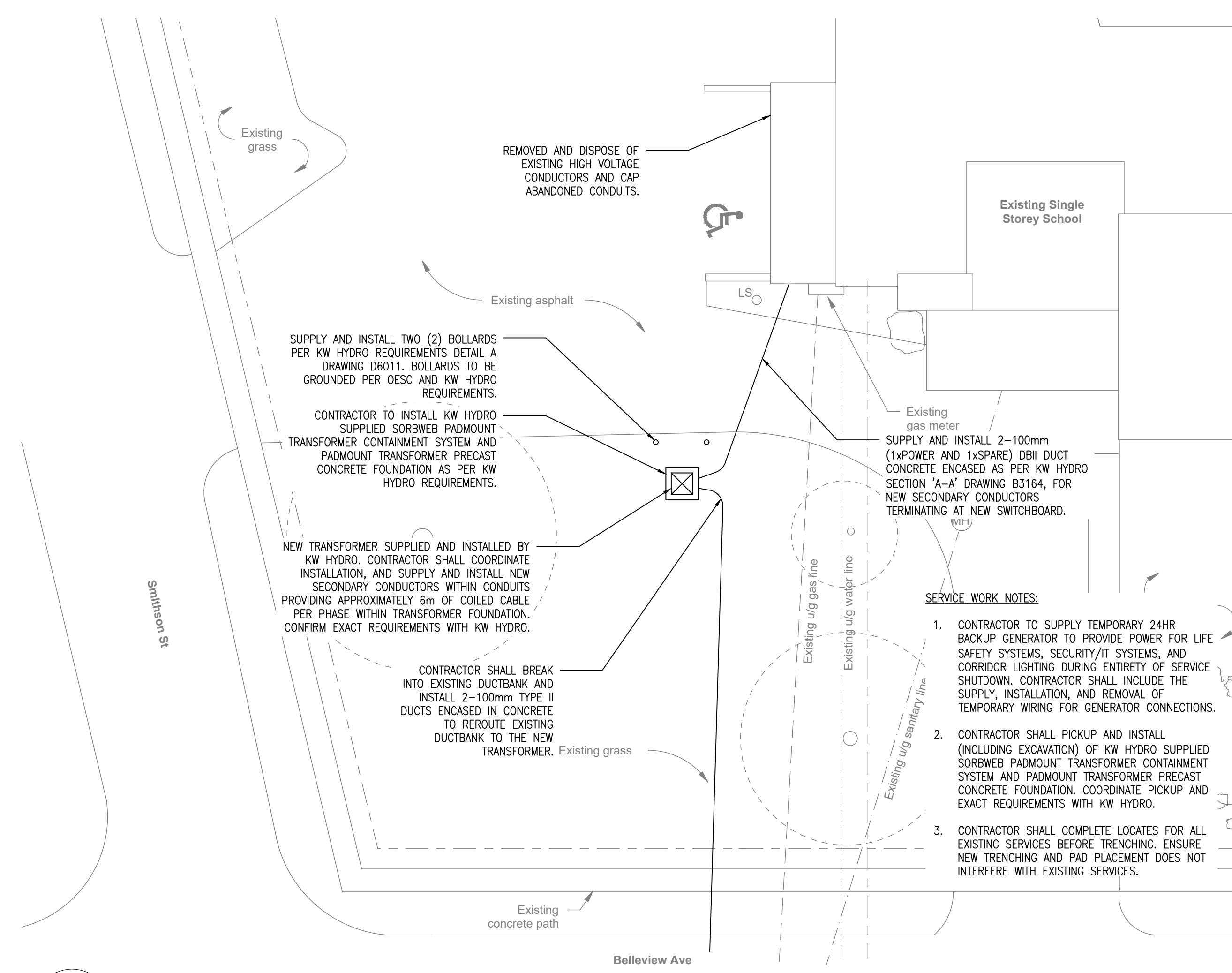
- ELECTRICAL SERVICE NOTES:**
- GENERAL CONTRACTOR SUPPLY AND INSTALL HOUSEKEEPING PAD FOR NEW SWITCHBOARD AND TRANSFORMER.
 - CONTRACTOR TO REVIEW KW HYDRO METERING REQUIREMENTS FOR UTILITY COMPARTMENT. PROPOSED SWITCHBOARD SHALL CONFORM TO ALL KW HYDRO STANDARDS INCLUDING KW HYDRO DRAWING E-9926 AND B3164. SUPPLY AND INSTALL 13-JAW METER BASE AND ALL METERING EQUIPMENT AS PER KW HYDRO METERING SPECIFICATIONS. CONTRACTOR SHALL INSTALL CT'S WITHIN METERING COMPARTMENT PROVIDED BY KW HYDRO.
 - CONTRACTOR TO INSTALL NEW SORBWEB CONTAINMENT SYSTEM AND PRECAST CONCRETE FOUNDATION SUPPLIED BY KW HYDRO FOR NEW TRANSFORMER. CONTRACTOR INSTALL EQUIPMENT CONFORMING TO KW HYDRO DRAWINGS AND SPECIFICATIONS:
 - DRAWING B3164
 - DRAWING C-9981
 - DRAWING D-8817
 - DRAWING D-8818
 COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH KW HYDRO.
 - CONTRACTOR TO REVISE EXISTING PRIMARY DUCTBACK TO TERMINATE AT NEW CONCRETE PAD. CONTRACTOR TO SUPPLY AND INSTALL NEW SECONDARY DUCTBACK FROM CONCRETE PAD TO NEW SWITCHGEAR LOCATION. CONTRACTOR TO FOLLOW KW HYDRO DUCTBANK DRAWINGS AND SPECIFICATIONS DRAWINGS B3164 AND E-9436.
 - CONTRACTOR TO SUPPLY AND INSTALL TWO (2) NEW BOLLARDS AS SHOWN. BOLLARDS ARE TO BE PAINTED YELLOW AND GROUNDED PER OESC AND KW HYDRO REQUIREMENTS DETAIL A DRAWING D6011.



3 SERVICE ENTRANCE ELEVATION
E2 SCALE: N.T.S.



4 EXISTING ELECTRICAL SERVICE
E2 SCALE: 1:200



5 NEW ELECTRICAL SERVICE
E2 SCALE: 1:200

- Drawing Notes**
- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 - These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 - The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

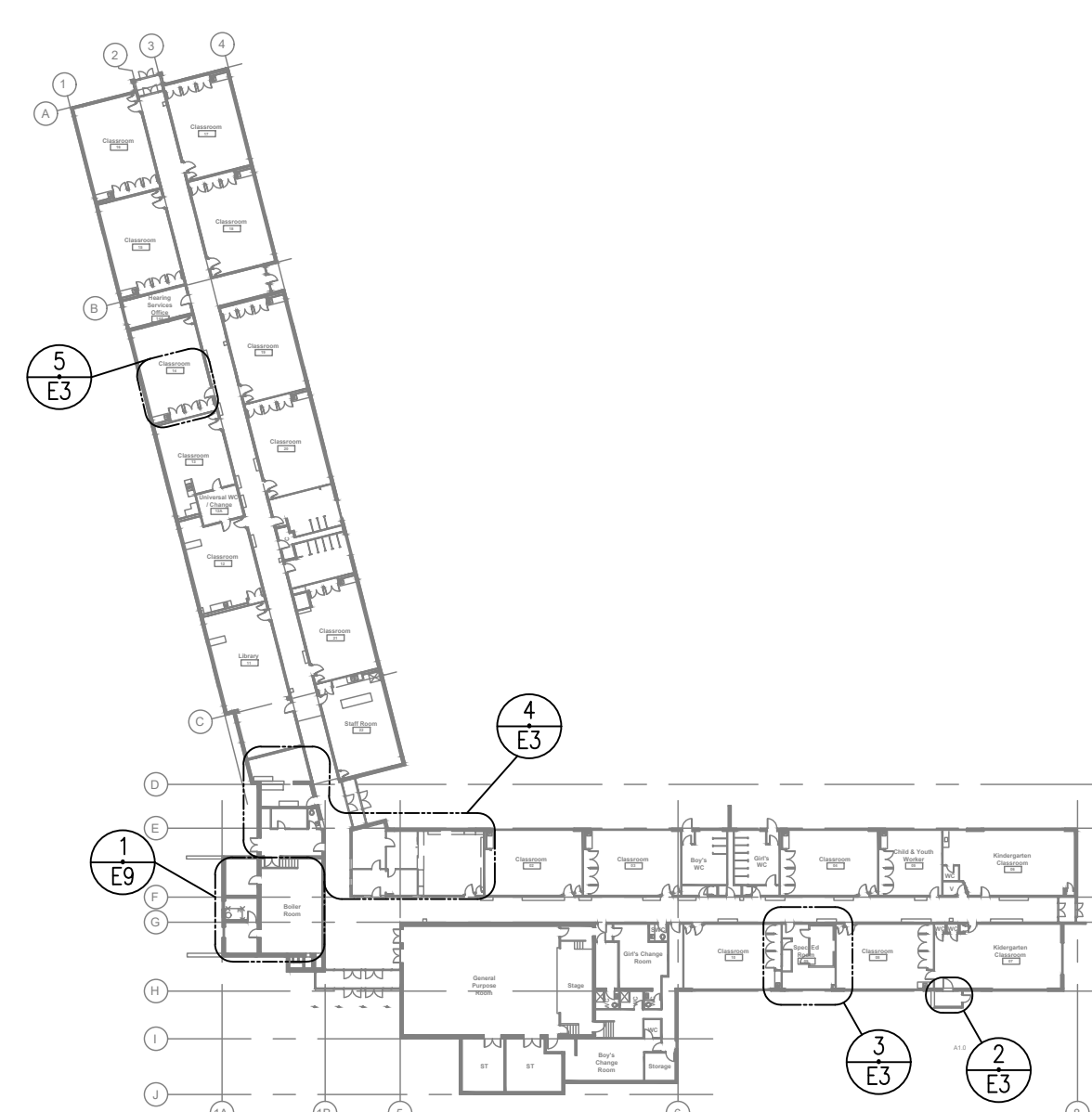
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

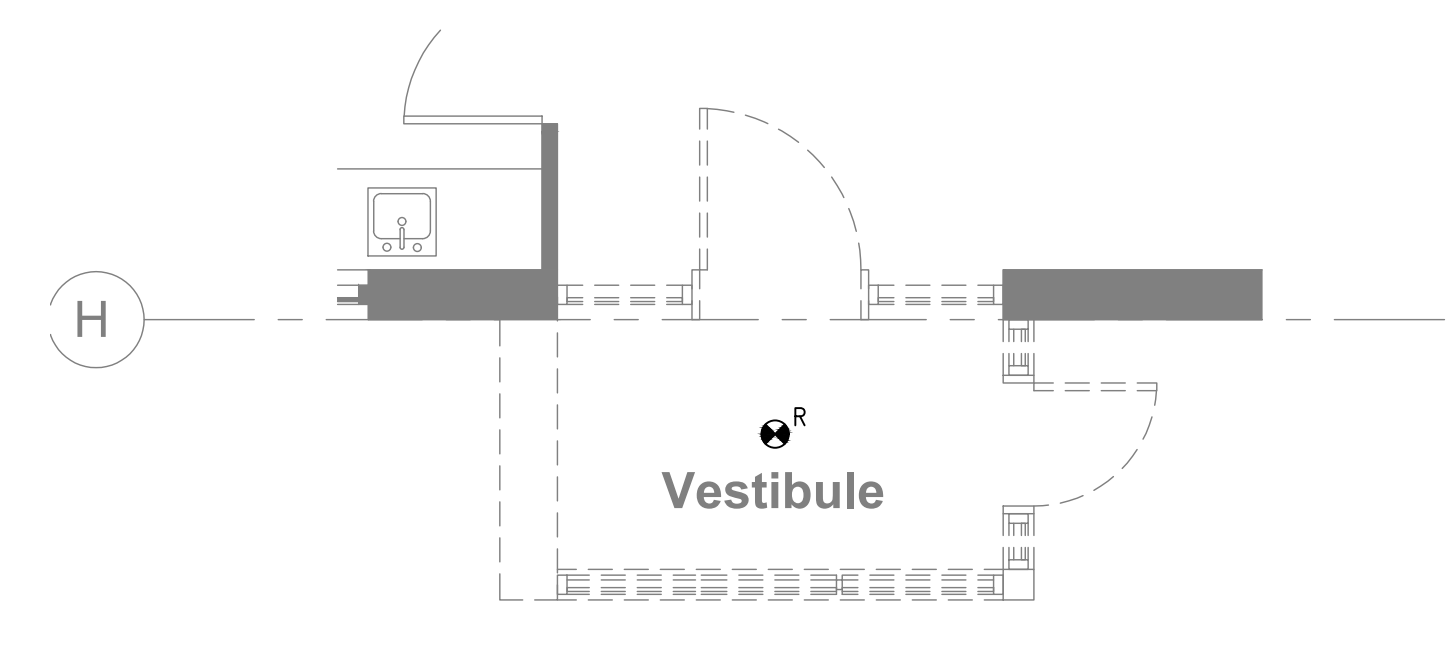
Sheet Title
ELECTRICAL SINGLE LINE DIAGRAM AND SITE PLAN

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

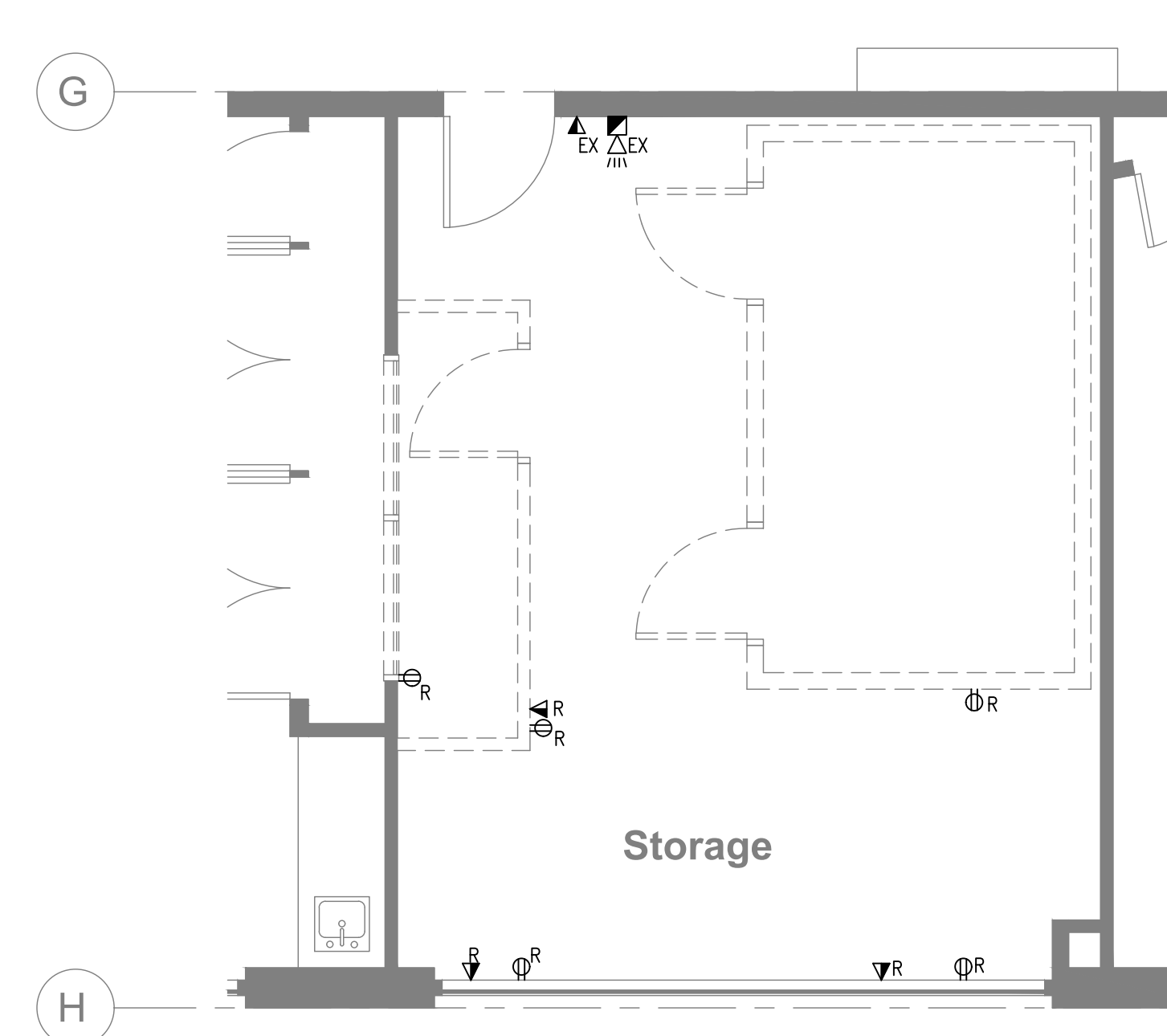
Sheet Number Revision
E2 1



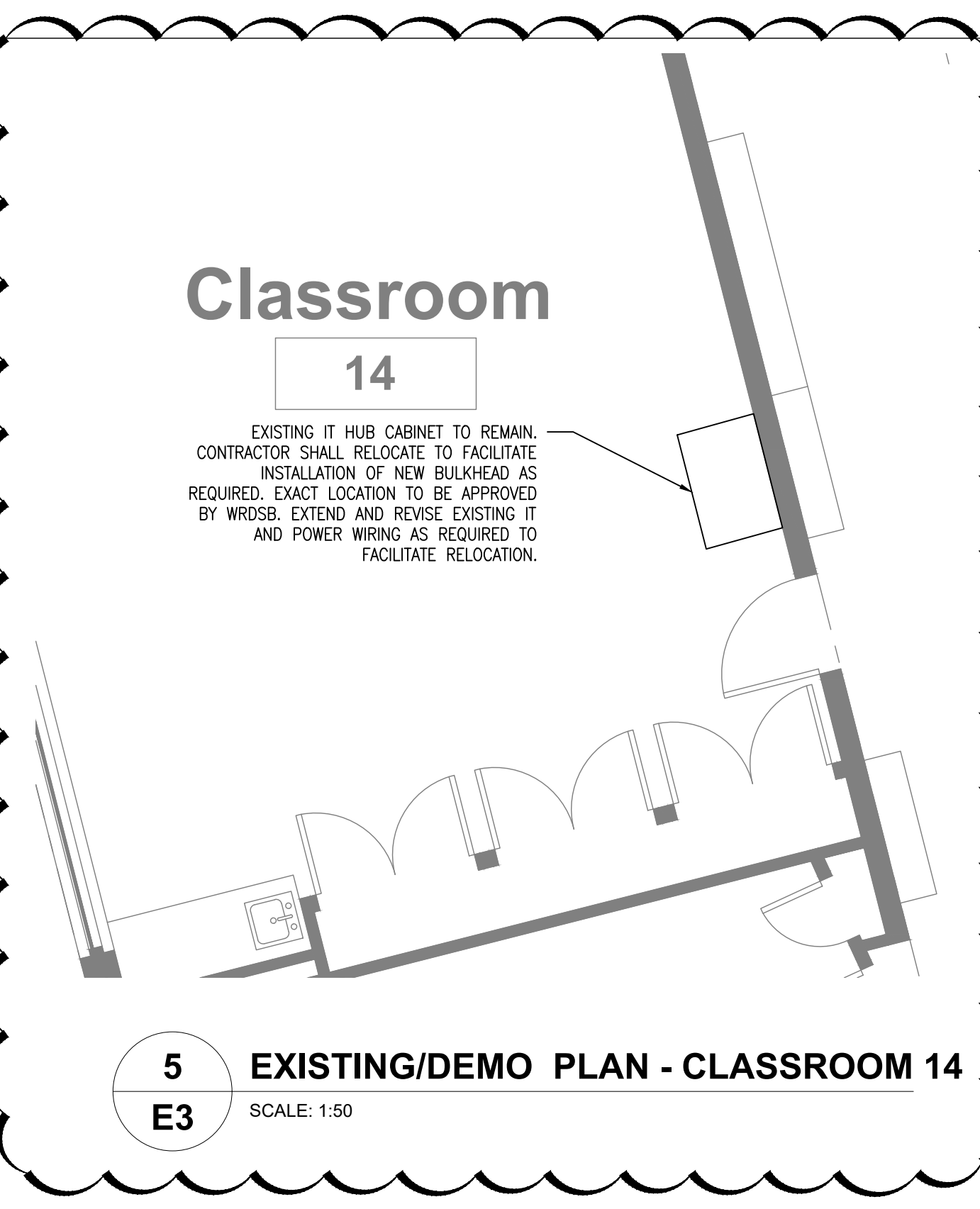
1 EXISTING/DEMO POWER - KEY PLAN
E3 SCALE: N.T.S.



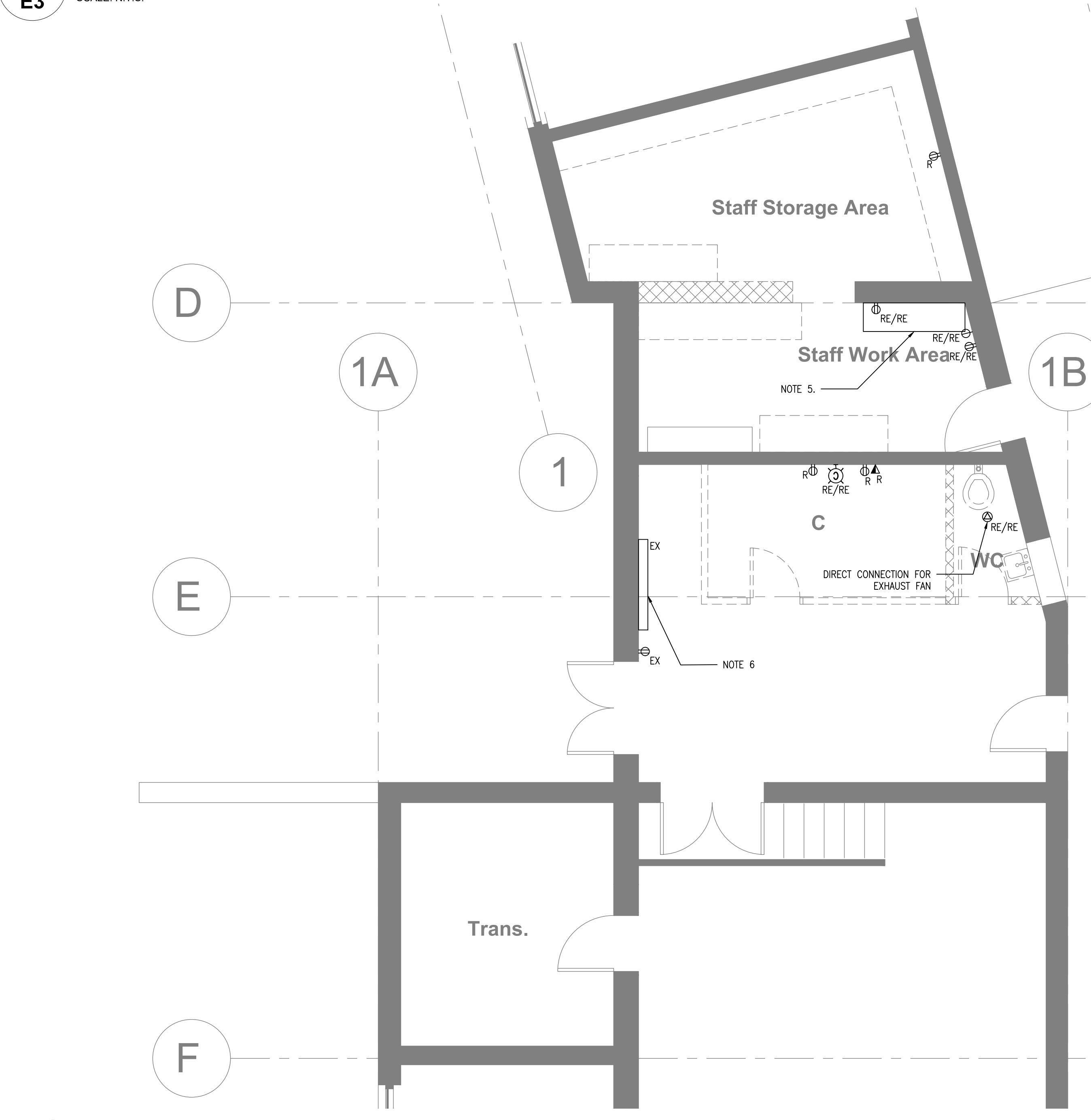
2 EXISTING/DEMO POWER - ENTRANCE VESTIBULE
E3 SCALE: 1:50



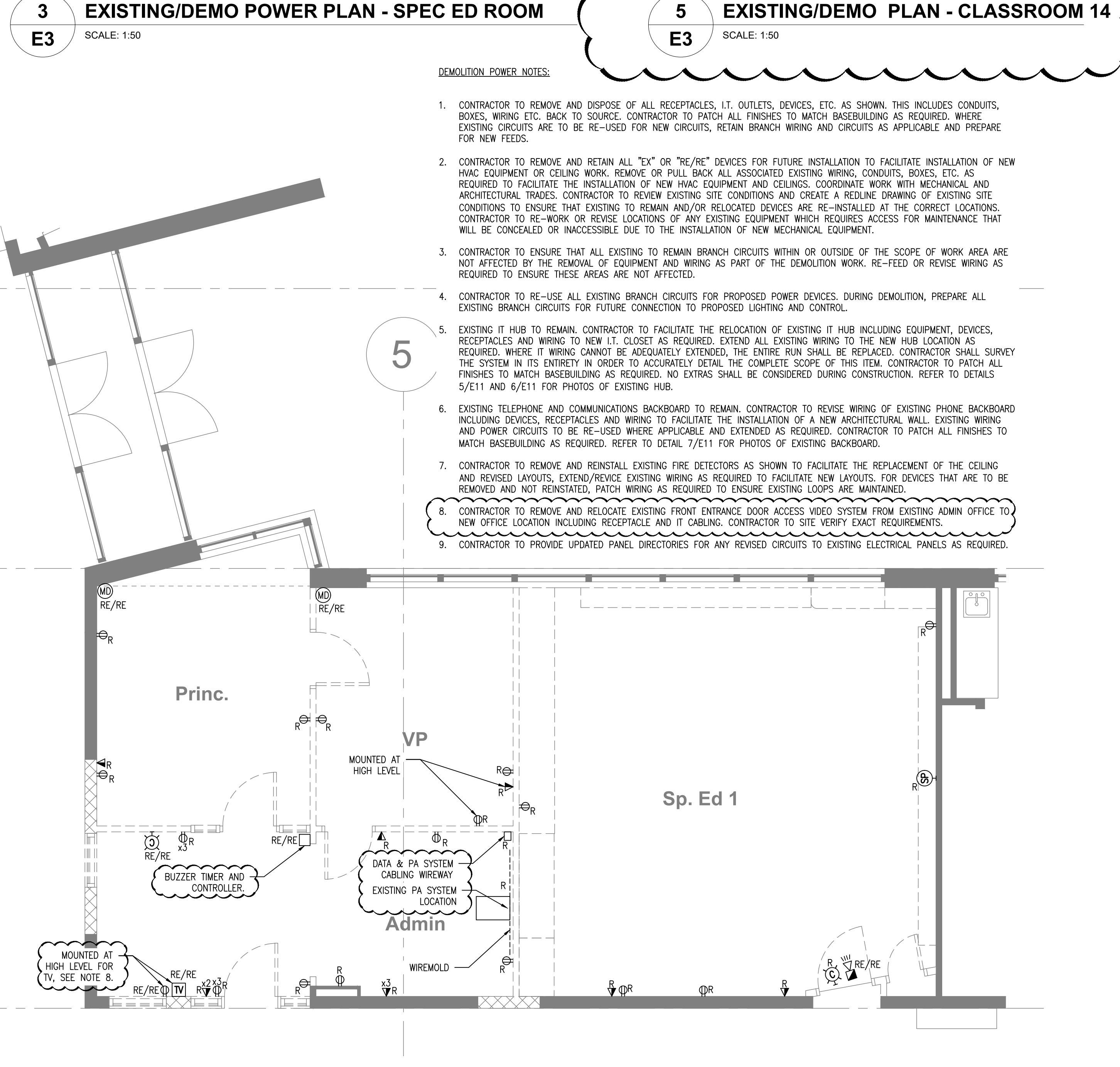
3 EXISTING/DEMO POWER PLAN - SPEC ED ROOM
E3 SCALE: 1:50



5 EXISTING/DEMO PLAN - CLASSROOM 14
E3 SCALE: 1:50



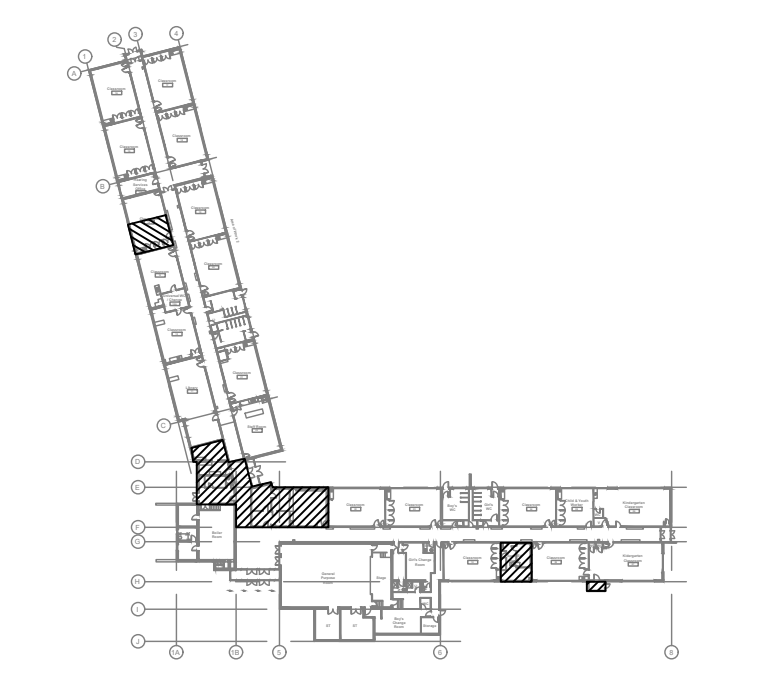
4 EXIST./DEMO POWER PLAN - CUST./STAFF WC/OFFICE
E3 SCALE: 1:50



- DEMOLITION POWER NOTES:**
- CONTRACTOR TO REMOVE AND DISPOSE OF ALL RECEPTACLES, I.T. OUTLETS, DEVICES, ETC. AS SHOWN. THIS INCLUDES CONDUITS, BOXES, WIRING ETC. BACK TO SOURCE. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED. WHERE EXISTING CIRCUITS ARE TO BE RE-USED FOR NEW CIRCUITS, RETAIN BRANCH WIRING AND CIRCUITS AS APPLICABLE AND PREPARE FOR NEW FEEDS.
 - CONTRACTOR TO REMOVE AND RETAIN ALL "EX" OR "RE/RE" DEVICES FOR FUTURE INSTALLATION TO FACILITATE INSTALLATION OF NEW HVAC EQUIPMENT OR CEILING WORK. REMOVE OR PULL BACK ALL ASSOCIATED EXISTING WIRING, CONDUITS, BOXES, ETC. AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW HVAC EQUIPMENT AND CEILING. COORDINATE WORK WITH MECHANICAL AND ARCHITECTURAL TRADES. CONTRACTOR TO REVIEW EXISTING SITE CONDITIONS AND CREATE A REDLINE DRAWING OF EXISTING SITE CONDITIONS TO ENSURE THAT EXISTING TO REMAIN AND/OR RELOCATED DEVICES ARE RE-INSTALLED AT THE CORRECT LOCATIONS. CONTRACTOR TO RE-WORK OR REVISE LOCATIONS OF ANY EXISTING EQUIPMENT WHICH REQUIRES ACCESS FOR MAINTENANCE THAT WILL BE CONCEALED OR INACCESSIBLE DUE TO THE INSTALLATION OF NEW MECHANICAL EQUIPMENT.
 - CONTRACTOR TO ENSURE THAT ALL EXISTING TO REMAIN BRANCH CIRCUITS WITHIN OR OUTSIDE OF THE SCOPE OF WORK AREA ARE NOT AFFECTED BY THE REMOVAL OF EQUIPMENT AND WIRING AS PART OF THE DEMOLITION WORK. RE-FEED OR REVISE WIRING AS REQUIRED TO ENSURE THESE AREAS ARE NOT AFFECTED.
 - CONTRACTOR TO RE-USE ALL EXISTING BRANCH CIRCUITS FOR PROPOSED POWER DEVICES. DURING DEMOLITION, PREPARE ALL EXISTING BRANCH CIRCUITS FOR FUTURE CONNECTION TO PROPOSED LIGHTING AND CONTROL.
 - EXISTING IT HUB TO REMAIN. CONTRACTOR TO FACILITATE THE RELOCATION OF EXISTING IT HUB INCLUDING EQUIPMENT, DEVICES, RECEPTACLES AND WIRING TO NEW I.T. CLOSET AS REQUIRED. EXTEND ALL EXISTING WIRING TO THE NEW HUB LOCATION AS REQUIRED. WHERE IT WIRING CANNOT BE ADEQUATELY EXTENDED, THE ENTIRE RUN SHALL BE REPLACED. CONTRACTOR SHALL SURVEY THE SYSTEM IN ITS ENTIRETY IN ORDER TO ACCURATELY DETAIL THE COMPLETE SCOPE OF THIS ITEM. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED. NO EXTRAS SHALL BE CONSIDERED DURING CONSTRUCTION. REFER TO DETAILS 5/E11 AND 6/E11 FOR PHOTOS OF EXISTING HUB.
 - EXISTING TELEPHONE AND COMMUNICATIONS BACKBOARD TO REMAIN. CONTRACTOR TO REVISE WIRING OF EXISTING PHONE BACKBOARD INCLUDING DEVICES, RECEPTACLES AND WIRING TO FACILITATE THE INSTALLATION OF A NEW ARCHITECTURAL WALL. EXISTING WIRING AND POWER CIRCUITS TO BE RE-USED WHERE APPLICABLE AND EXTENDED AS REQUIRED. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED. REFER TO DETAIL 7/E11 FOR PHOTOS OF EXISTING BACKBOARD.
 - CONTRACTOR TO REMOVE AND REINSTALL EXISTING FIRE DETECTORS AS SHOWN TO FACILITATE THE REPLACEMENT OF THE CEILING AND REVISED LAYOUTS. EXTEND/REVISE EXISTING WIRING AS REQUIRED TO FACILITATE NEW LAYOUTS. FOR DEVICES THAT ARE TO BE REMOVED AND NOT REINSTATED, PATCH WIRING AS REQUIRED TO ENSURE EXISTING LOOPS ARE MAINTAINED.
 - CONTRACTOR TO REMOVE AND RELOCATE EXISTING FRONT ENTRANCE DOOR ACCESS VIDEO SYSTEM FROM EXISTING ADMIN OFFICE TO NEW OFFICE LOCATION INCLUDING RECEPTACLE AND IT CABLING. CONTRACTOR TO SITE VERIFY EXACT REQUIREMENTS.
 - CONTRACTOR TO PROVIDE UPDATED PANEL DIRECTORIES FOR ANY REVISED CIRCUITS TO EXISTING ELECTRICAL PANELS AS REQUIRED.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
- The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



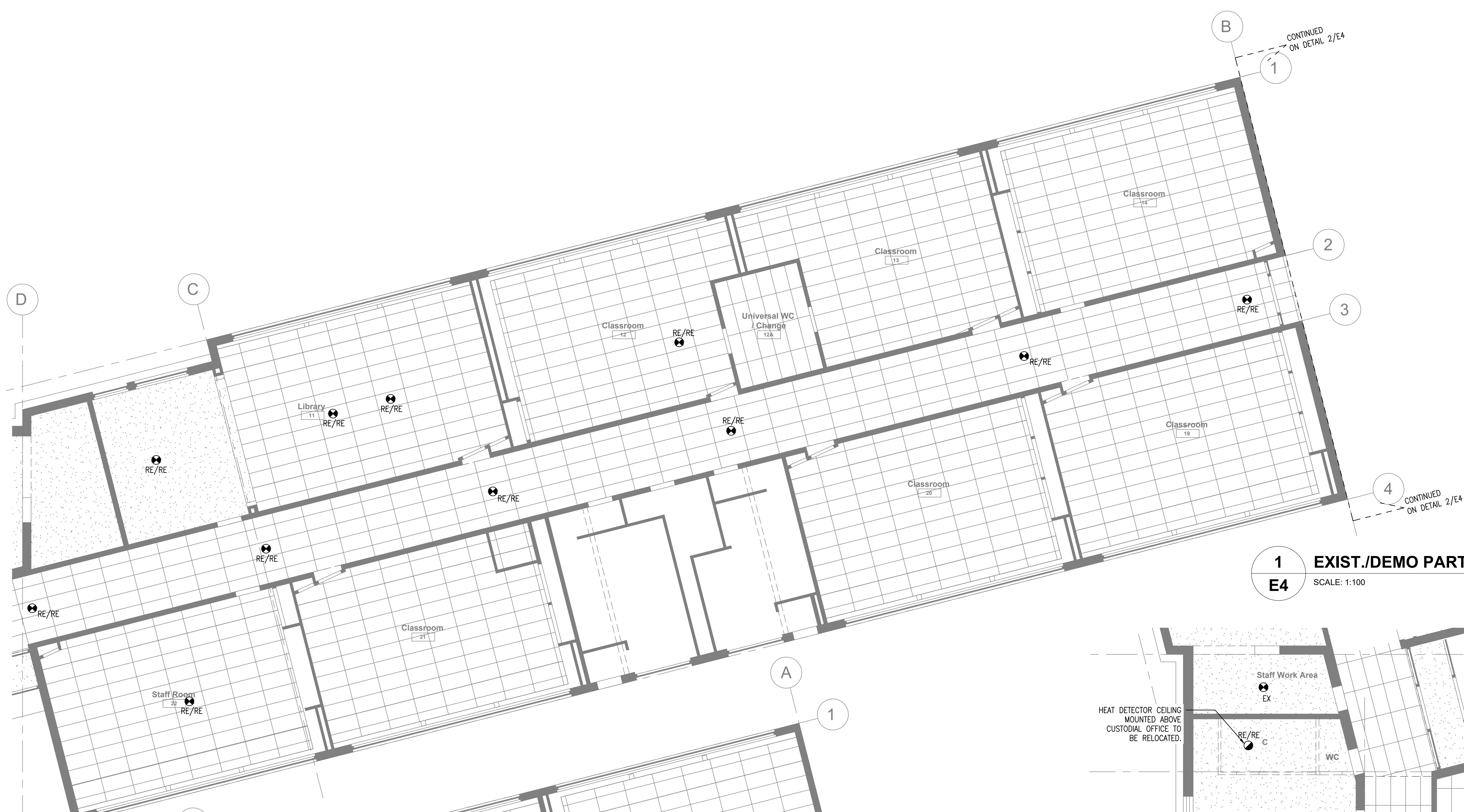
No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

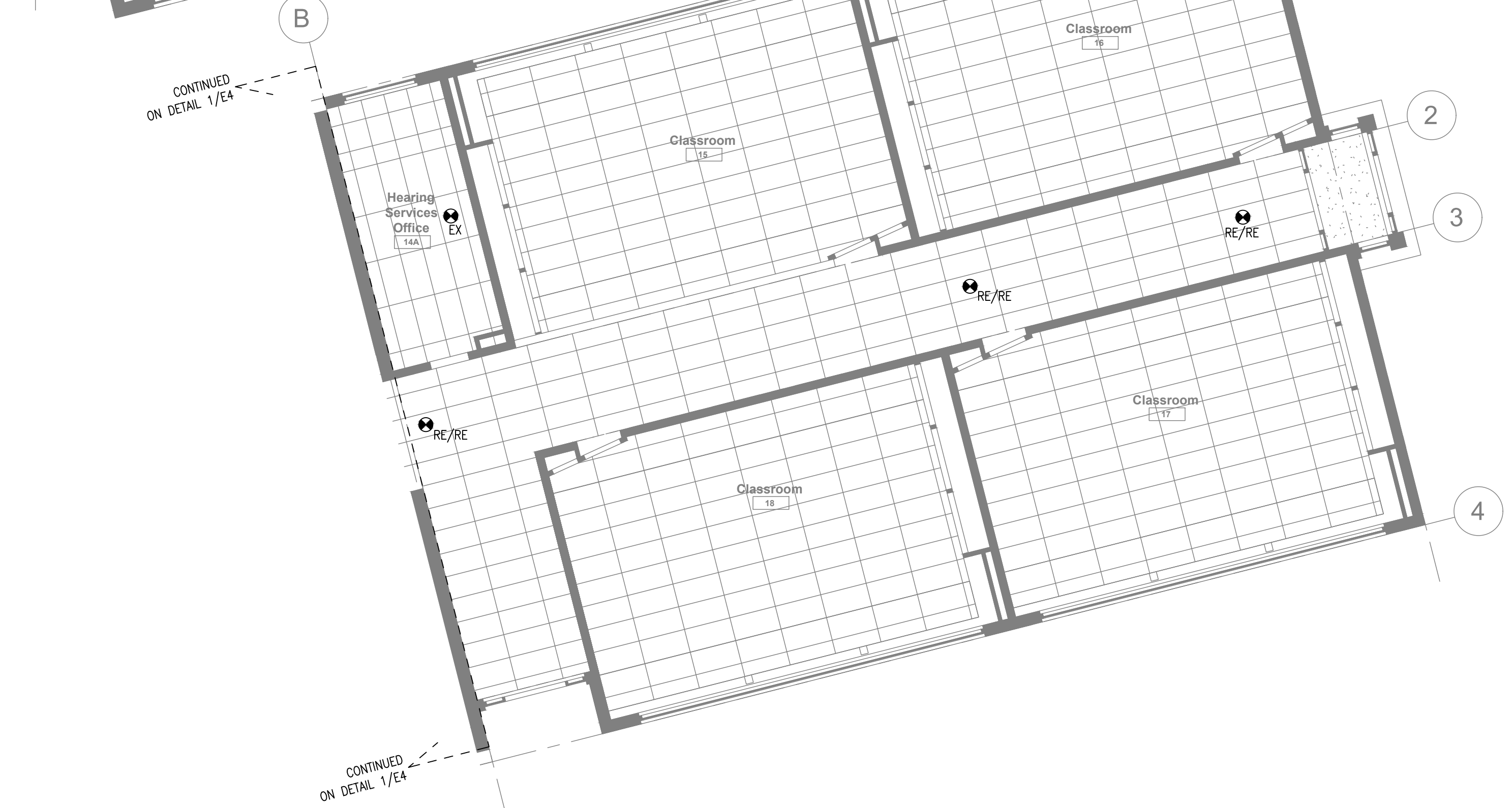
Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
EXISTING/DEMO POWER PLANS

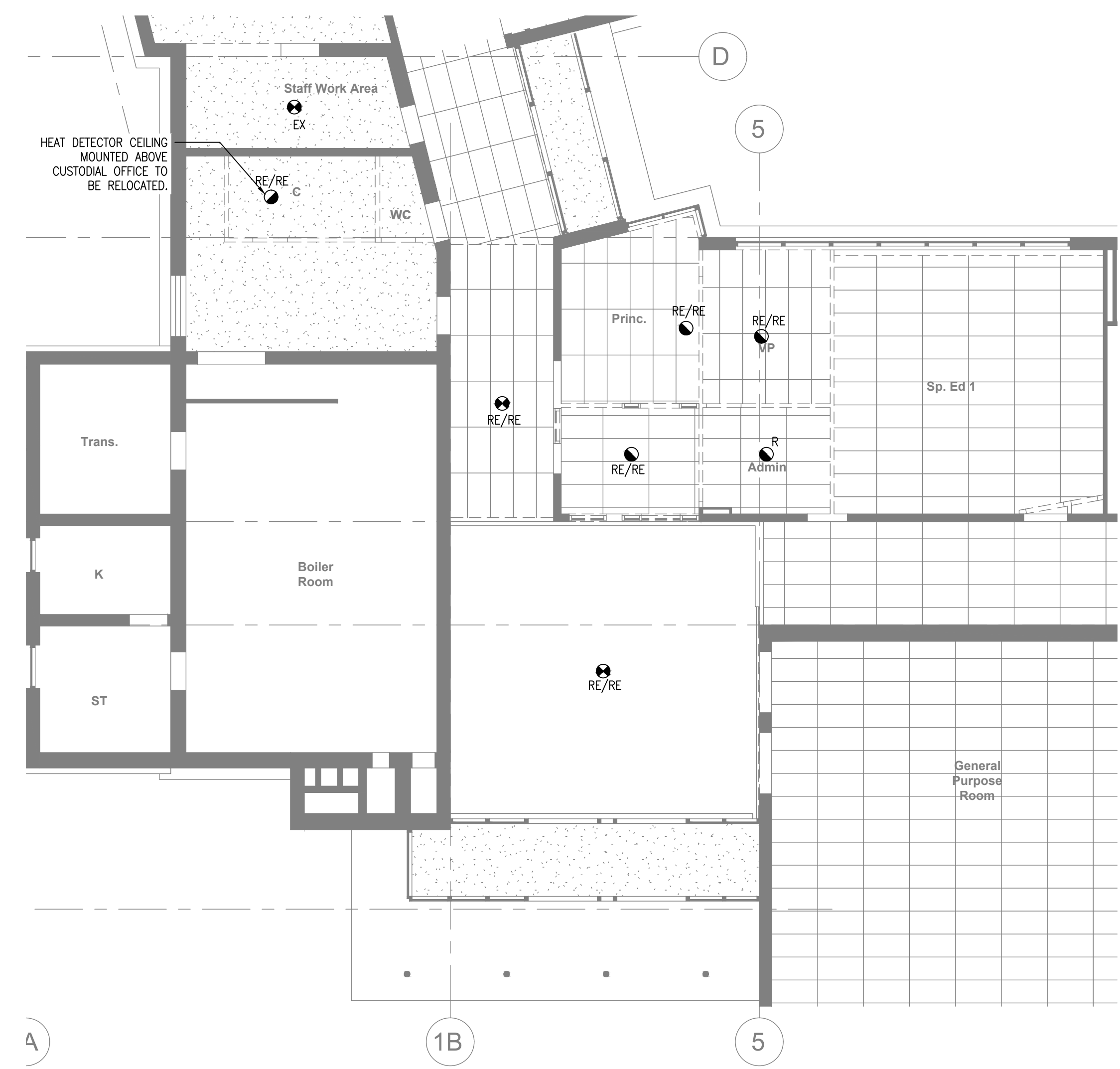
Drawn By	DB	Scale	As Shown
Designed By	DB	Date	November 26, 2020
Project Number	B20-349.02A		
Sheet Number			Revision
E3			1



1 EXIST./DEMO PART PLAN - WEST WING CORRIDOR
SCALE: 1:100

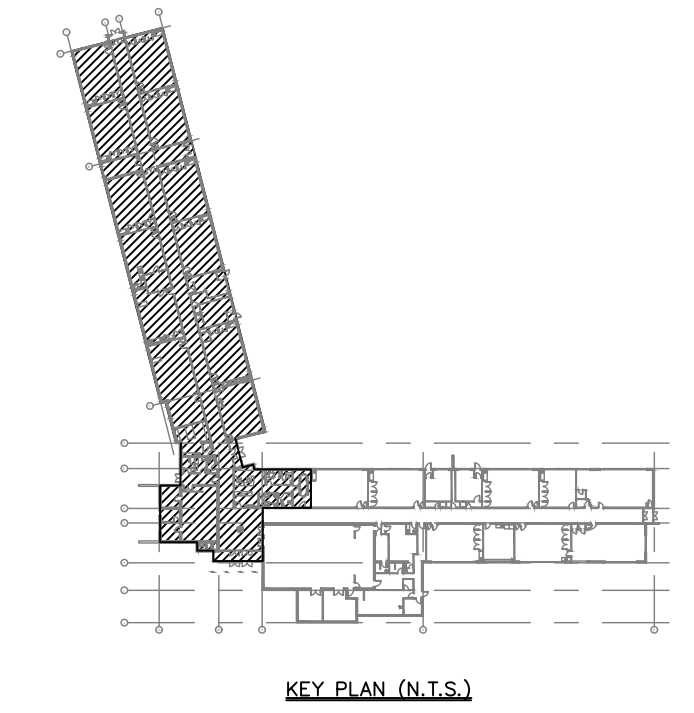


2 EXIST./DEMO PART PLAN - WEST WING CORRIDOR
SCALE: 1:100



3 EXIST./DEMO PART PLAN - LOBBY/OFFICE
SCALE: 1:100

- Drawing Notes**
1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.

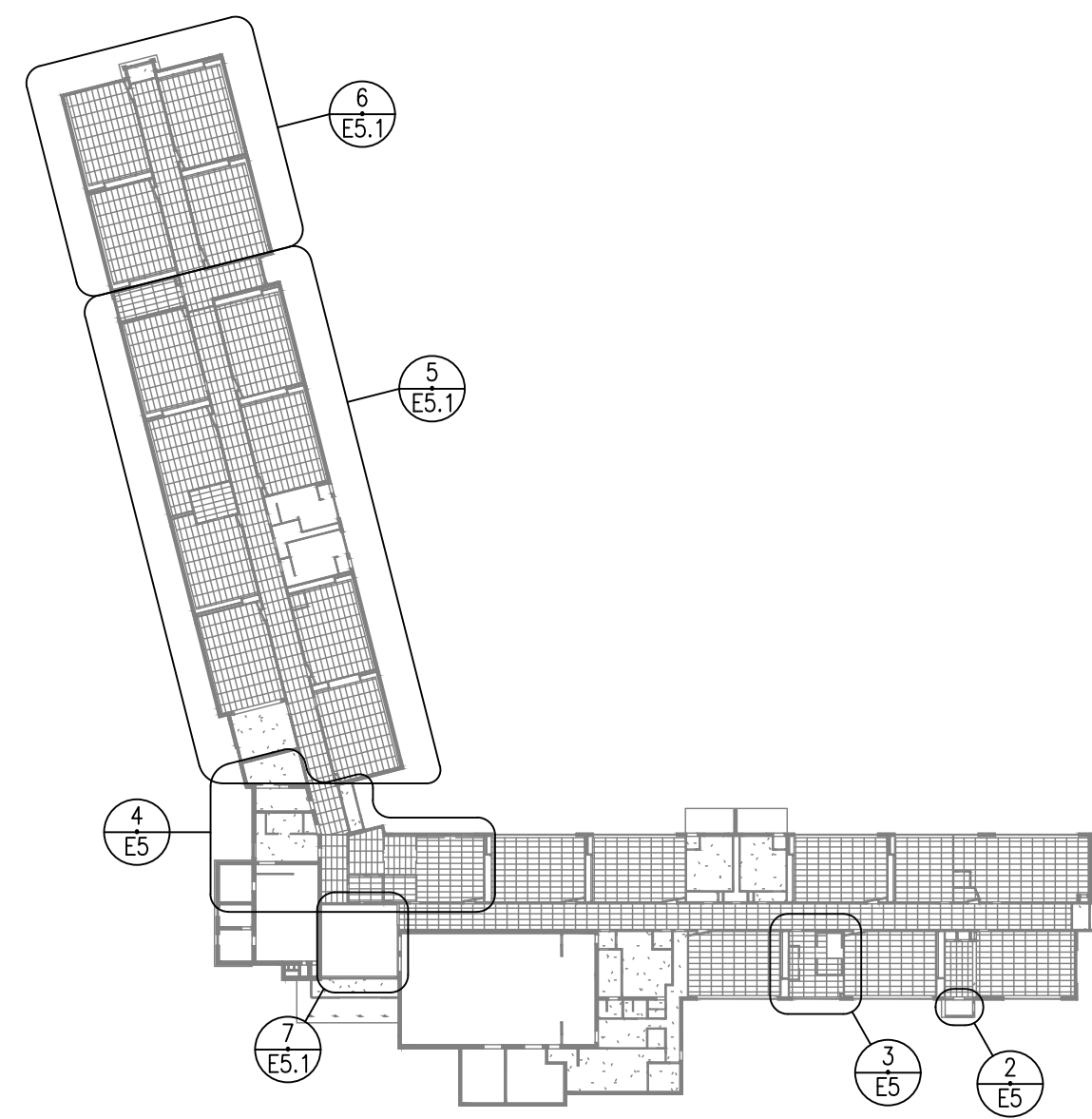


No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

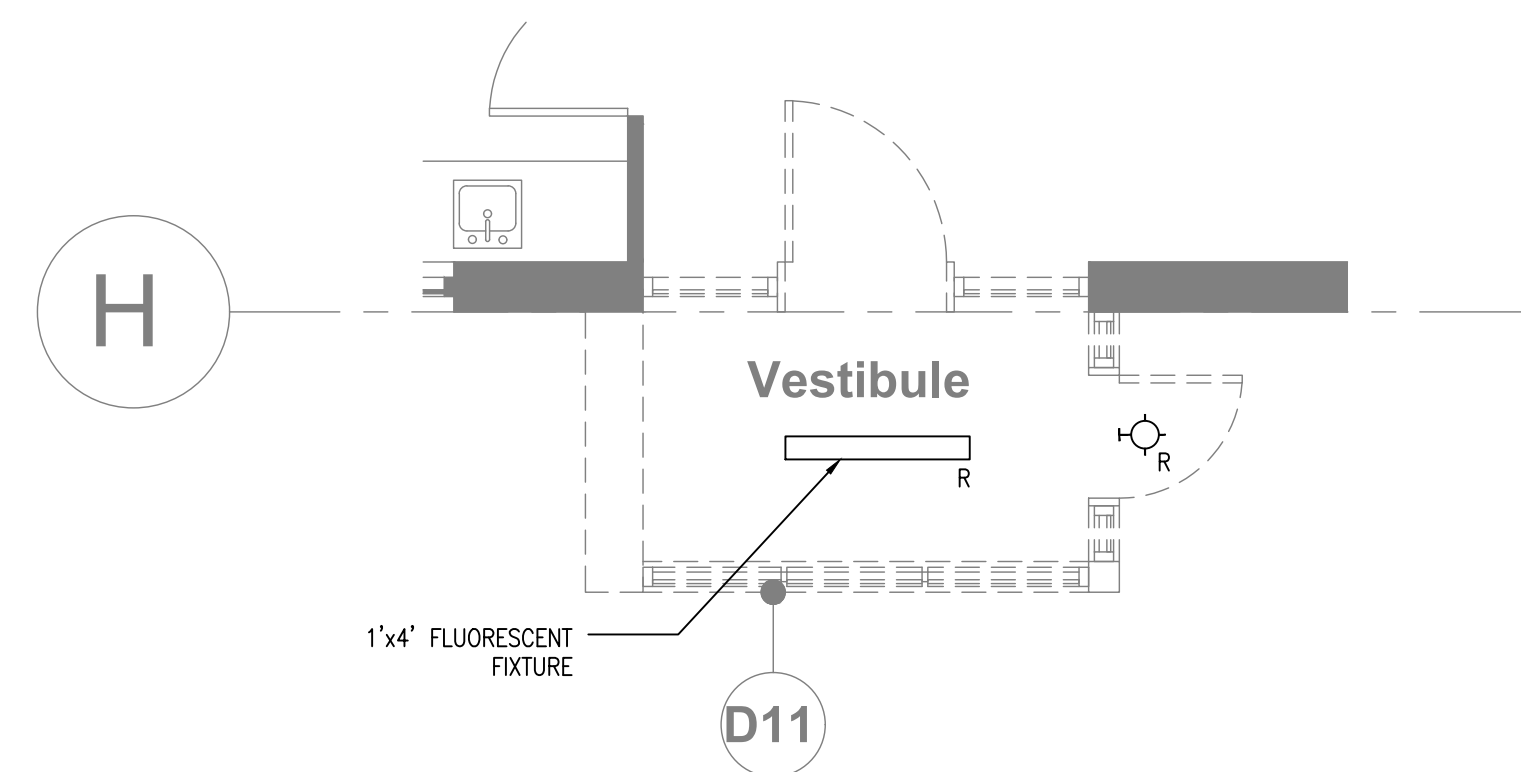
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMO FIRE ALARM PLANS

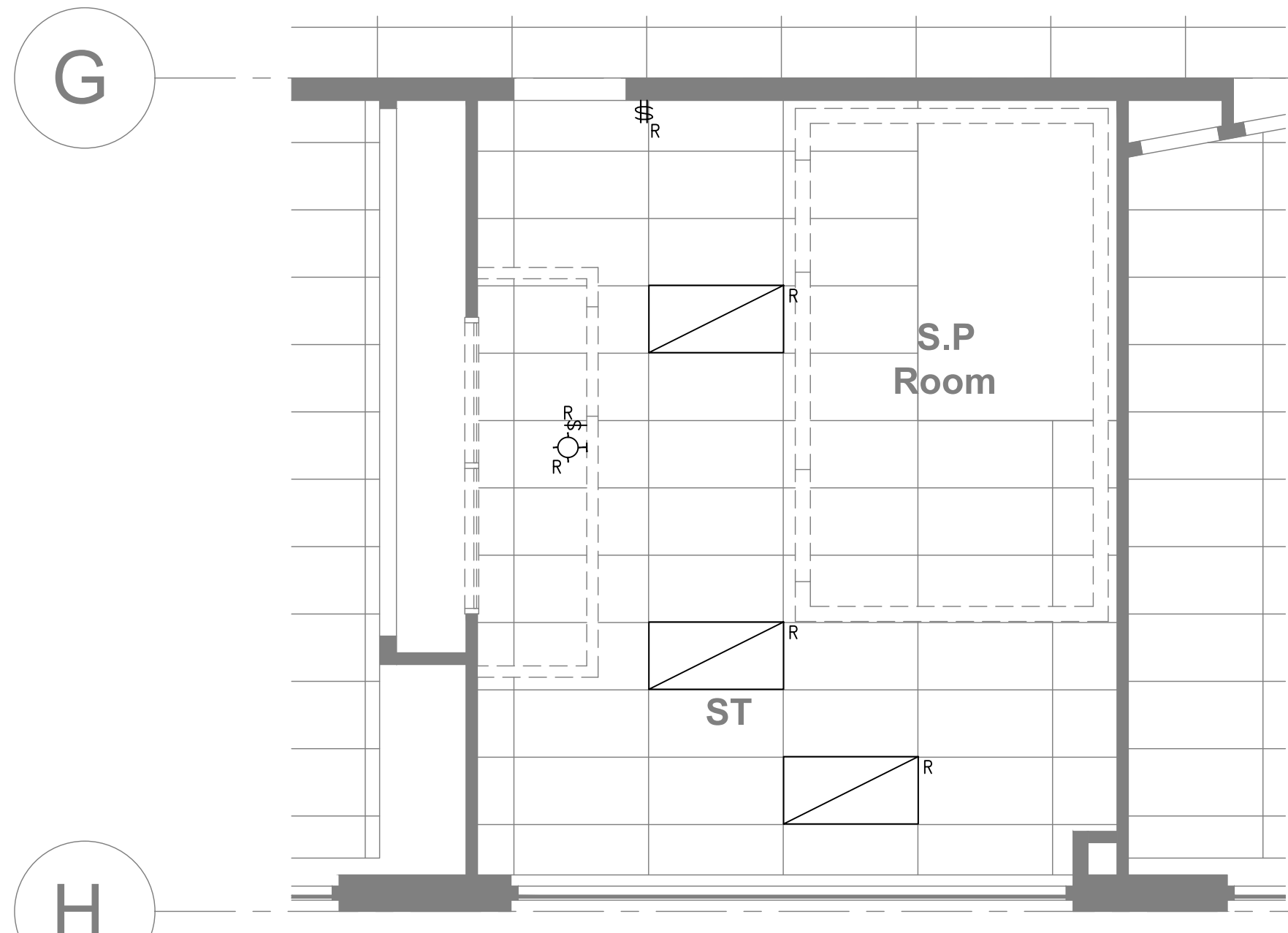
Drawn By	DB	Scale	As Shown
Designed By	DB	Date	November 26, 2020
Project Number	B20-349.02A		
Sheet Number			Revision
E4			1



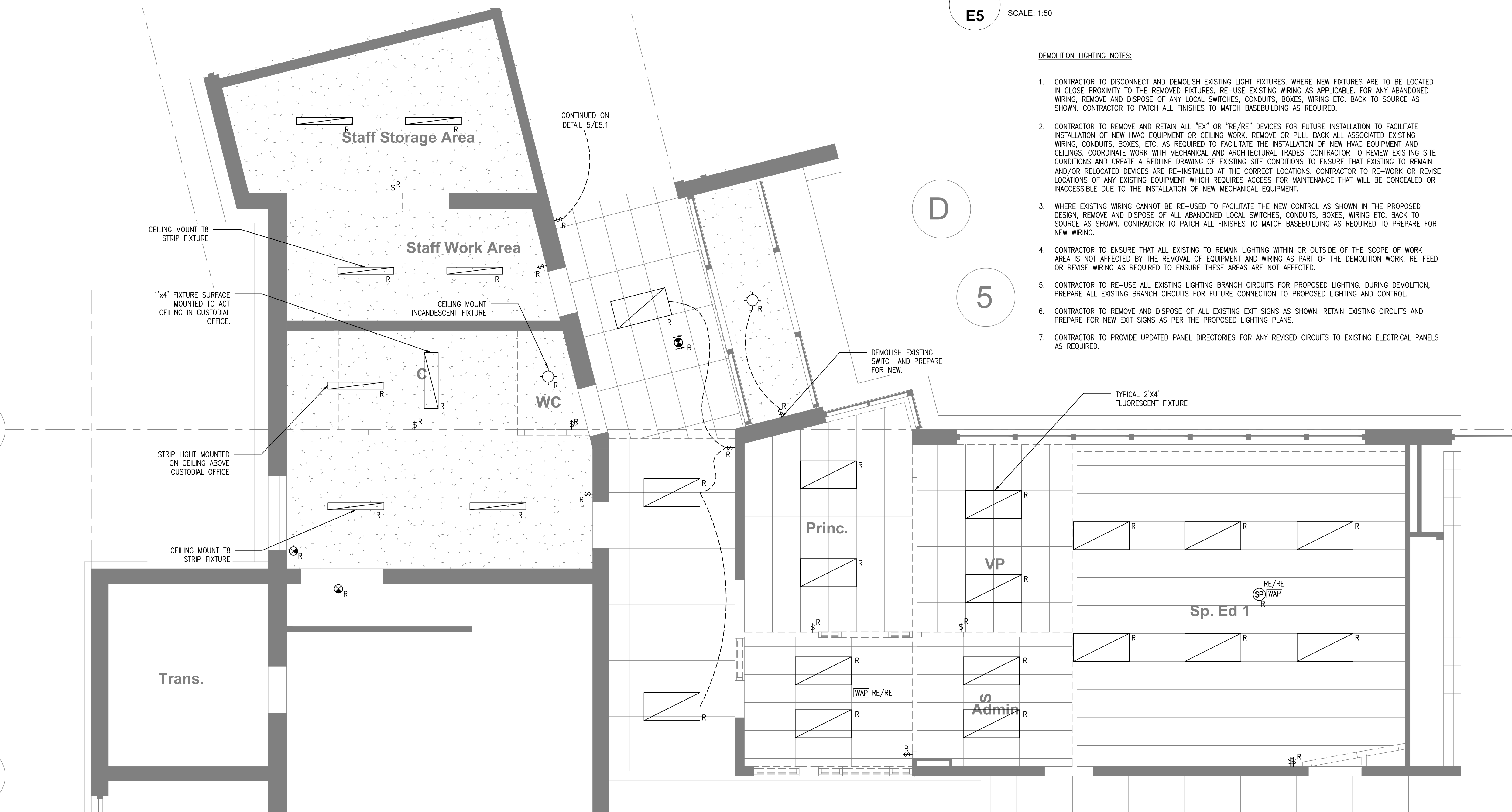
1 EXISTING/DEMO LIGHTING & RCP - KEY PLAN
E5 SCALE: N.T.S.



2 EXISTING/DEMO LIGHTING & RCP - ENTRANCE VESTIBULE
E5 SCALE: 1:50



3 EXISTING/DEMO LIGHTING & RCP - SPEC ED ROOM
E5 SCALE: 1:50



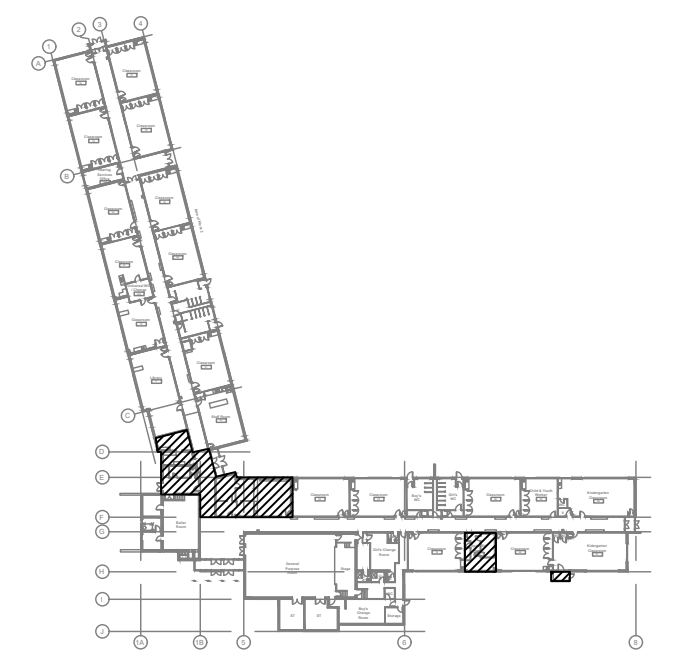
4 EXIST./DEMO LIGHTING & RCP - CUST./STAFF WC/OFFICE
E5 SCALE: 1:50

DEMOLITION LIGHTING NOTES:

- CONTRACTOR TO DISCONNECT AND DEMOLISH EXISTING LIGHT FIXTURES. WHERE NEW FIXTURES ARE TO BE LOCATED IN CLOSE PROXIMITY TO THE REMOVED FIXTURES, RE-USE EXISTING WIRING AS APPLICABLE. FOR ANY ABANDONED WIRING, REMOVE AND DISPOSE OF ANY LOCAL SWITCHES, CONDUITS, BOXES, WIRING ETC. BACK TO SOURCE AS SHOWN. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED.
- CONTRACTOR TO REMOVE AND RETAIN ALL "EX" OR "RE/RE" DEVICES FOR FUTURE INSTALLATION TO FACILITATE INSTALLATION OF NEW HVAC EQUIPMENT OR CEILING WORK. REMOVE OR PULL BACK ALL ASSOCIATED EXISTING WIRING, CONDUITS, BOXES, ETC. AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW HVAC EQUIPMENT AND CEILINGS. COORDINATE WORK WITH MECHANICAL AND ARCHITECTURAL TRADES. CONTRACTOR TO REVIEW EXISTING SITE CONDITIONS AND CREATE A REDLINE DRAWING OF EXISTING SITE CONDITIONS TO ENSURE THAT EXISTING TO REMAIN AND/OR RELOCATED DEVICES ARE RE-INSTALLED AT THE CORRECT LOCATIONS. CONTRACTOR TO RE-WORK OR REVISE LOCATIONS OF ANY EXISTING EQUIPMENT WHICH REQUIRES ACCESS FOR MAINTENANCE THAT WILL BE CONCEALED OR INACCESSIBLE DUE TO THE INSTALLATION OF NEW MECHANICAL EQUIPMENT.
- WHERE EXISTING WIRING CANNOT BE RE-USED TO FACILITATE THE NEW CONTROL AS SHOWN IN THE PROPOSED DESIGN, REMOVE AND DISPOSE OF ALL ABANDONED LOCAL SWITCHES, CONDUITS, BOXES, WIRING ETC. BACK TO SOURCE AS SHOWN. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED TO PREPARE FOR NEW WIRING.
- CONTRACTOR TO ENSURE THAT ALL EXISTING TO REMAIN LIGHTING WITHIN OR OUTSIDE OF THE SCOPE OF WORK AREA IS NOT AFFECTED BY THE REMOVAL OF EQUIPMENT AND WIRING AS PART OF THE DEMOLITION WORK. RE-FEED OR REVISE WIRING AS REQUIRED TO ENSURE THESE AREAS ARE NOT AFFECTED.
- CONTRACTOR TO RE-USE ALL EXISTING LIGHTING BRANCH CIRCUITS FOR PROPOSED LIGHTING. DURING DEMOLITION, PREPARE ALL EXISTING BRANCH CIRCUITS FOR FUTURE CONNECTION TO PROPOSED LIGHTING AND CONTROL.
- CONTRACTOR TO REMOVE AND DISPOSE OF ALL EXISTING EXIT SIGNS AS SHOWN. RETAIN EXISTING CIRCUITS AND PREPARE FOR NEW EXIT SIGNS AS PER THE PROPOSED LIGHTING PLANS.
- CONTRACTOR TO PROVIDE UPDATED PANEL DIRECTORIES FOR ANY REVISED CIRCUITS TO EXISTING ELECTRICAL PANELS AS REQUIRED.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
- The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



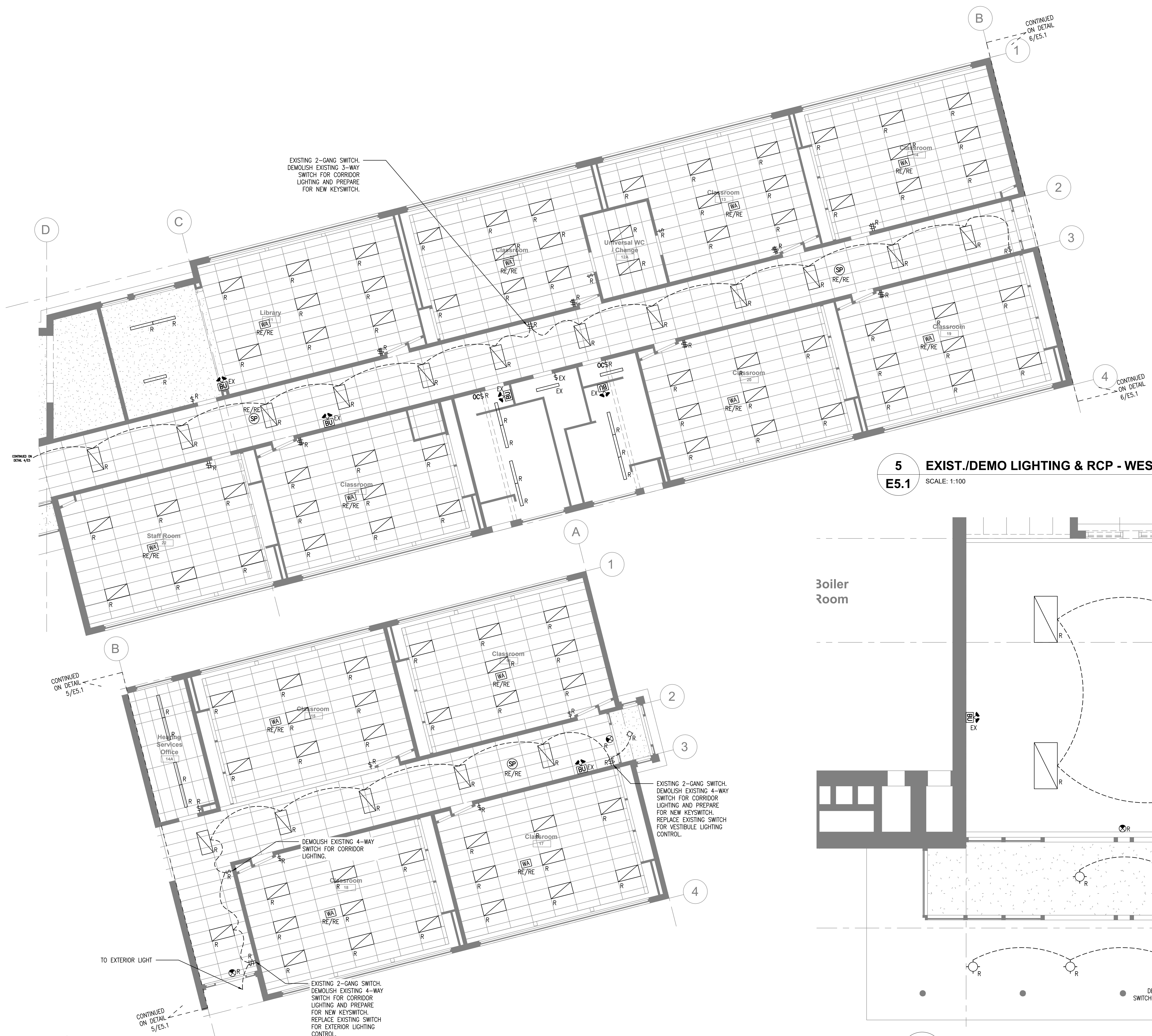
No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision



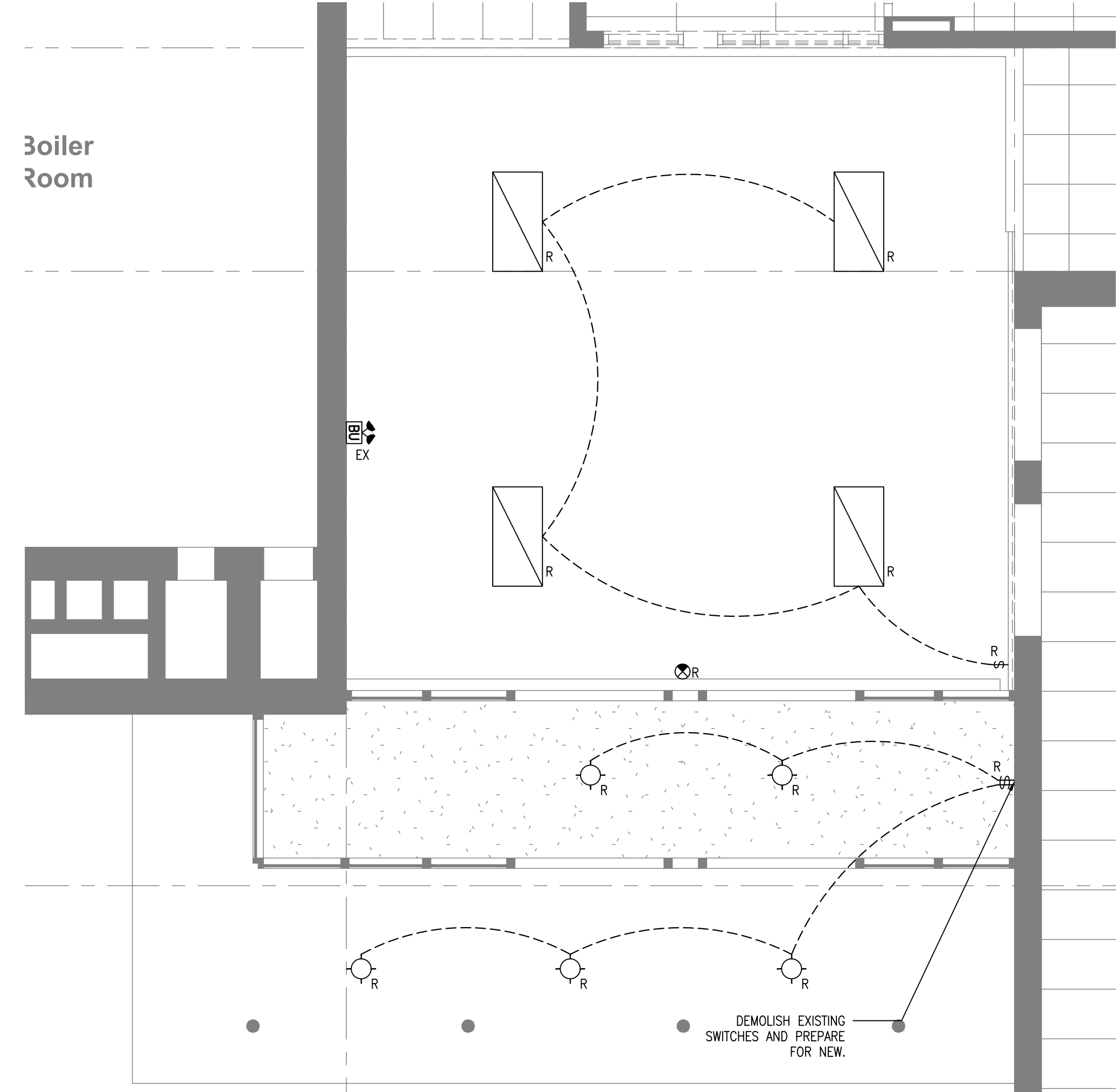
EXISTING 2-GANG SWITCH.
DEMOLISH EXISTING 3-WAY
SWITCH FOR CORRIDOR
LIGHTING AND PREPARE
FOR NEW KEYSWITCH.

EXISTING 2-GANG SWITCH.
DEMOLISH EXISTING 4-WAY
SWITCH FOR CORRIDOR
LIGHTING AND PREPARE
FOR NEW KEYSWITCH.
REPLACE EXISTING SWITCH
FOR VESTIBULE LIGHTING
CONTROL.

DEMOLISH EXISTING 4-WAY
SWITCH FOR CORRIDOR
LIGHTING.

EXISTING 2-GANG SWITCH.
DEMOLISH EXISTING 4-WAY
SWITCH FOR CORRIDOR
LIGHTING AND PREPARE
FOR NEW KEYSWITCH.
REPLACE EXISTING SWITCH
FOR EXTERIOR LIGHTING
CONTROL.

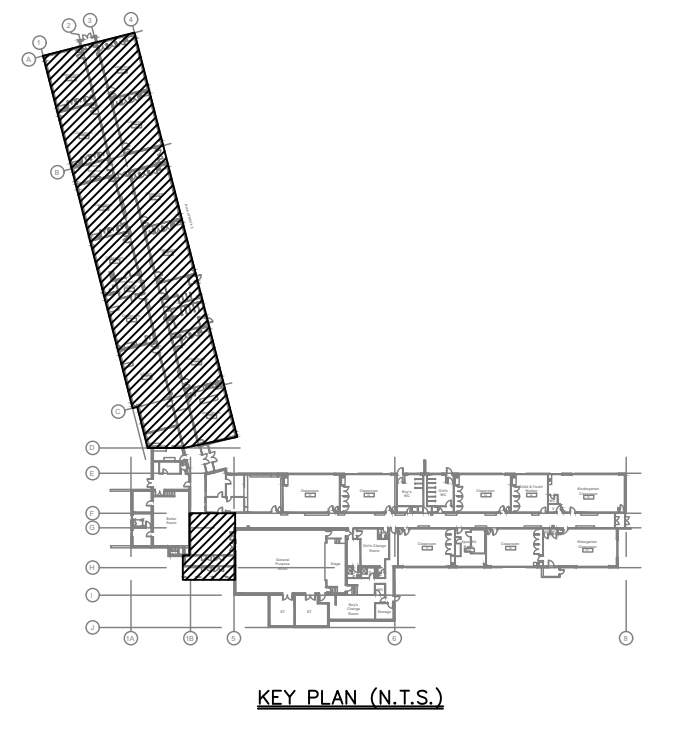
5 EXIST./DEMO LIGHTING & RCP - WEST WING CORRIDOR
E5.1 SCALE: 1:100



7 EXISTING/DEMO LIGHTING & RCP - LOBBY/ENTRANCE
E5.1 SCALE: 1:50

6 EXIST./DEMO LIGHTING & RCP - WEST WING CORRIDOR
E5.1 SCALE: 1:100

- Drawing Notes
1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

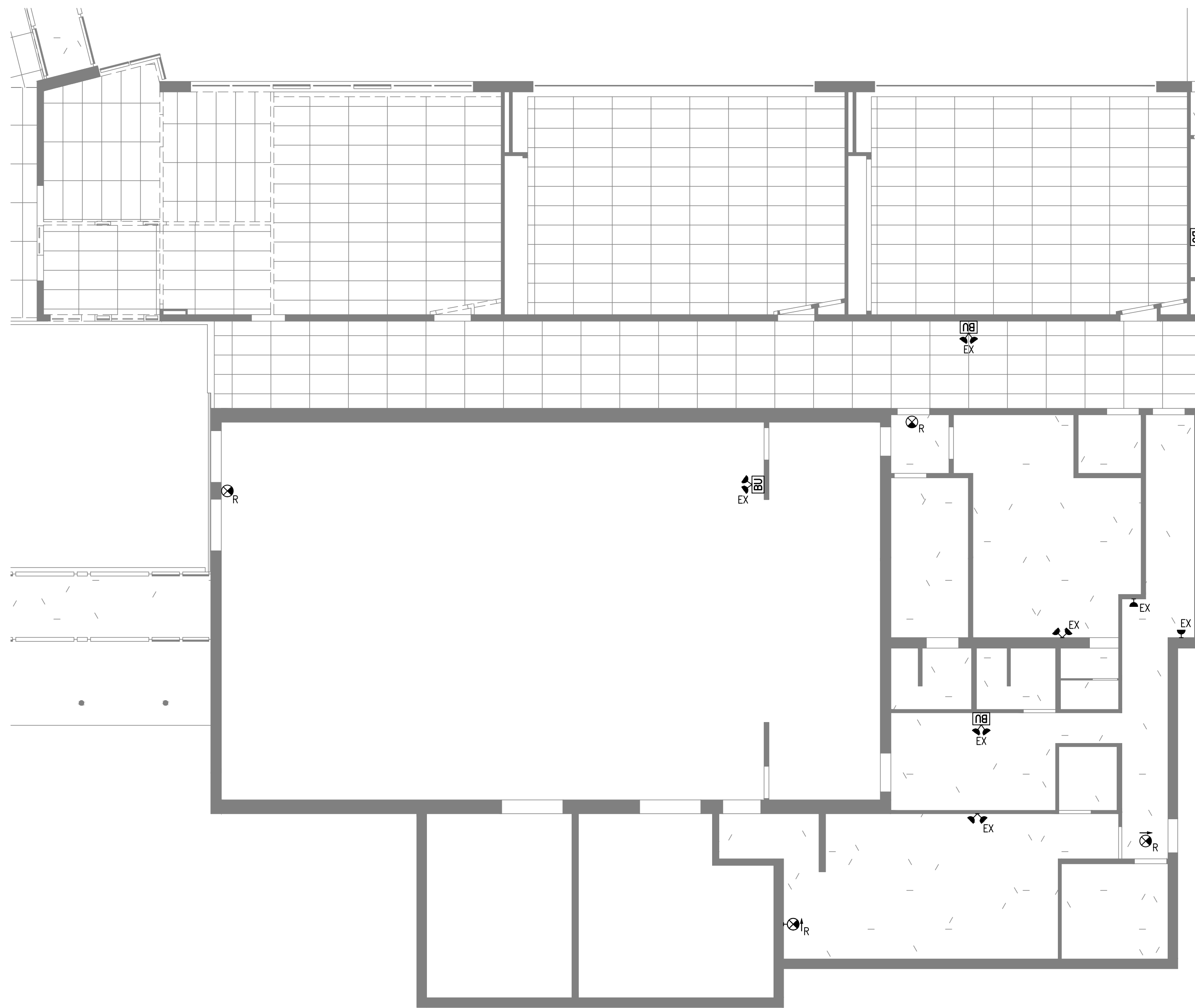
BOLD engineering
www.boldengineering.ca

Bold Engineering Inc.
2778 Dufferin Street, Suite 104
Toronto, Ontario, M6B 3R7
Canada
Tel: 416-556-0766
Fax: 1-866-876-5758

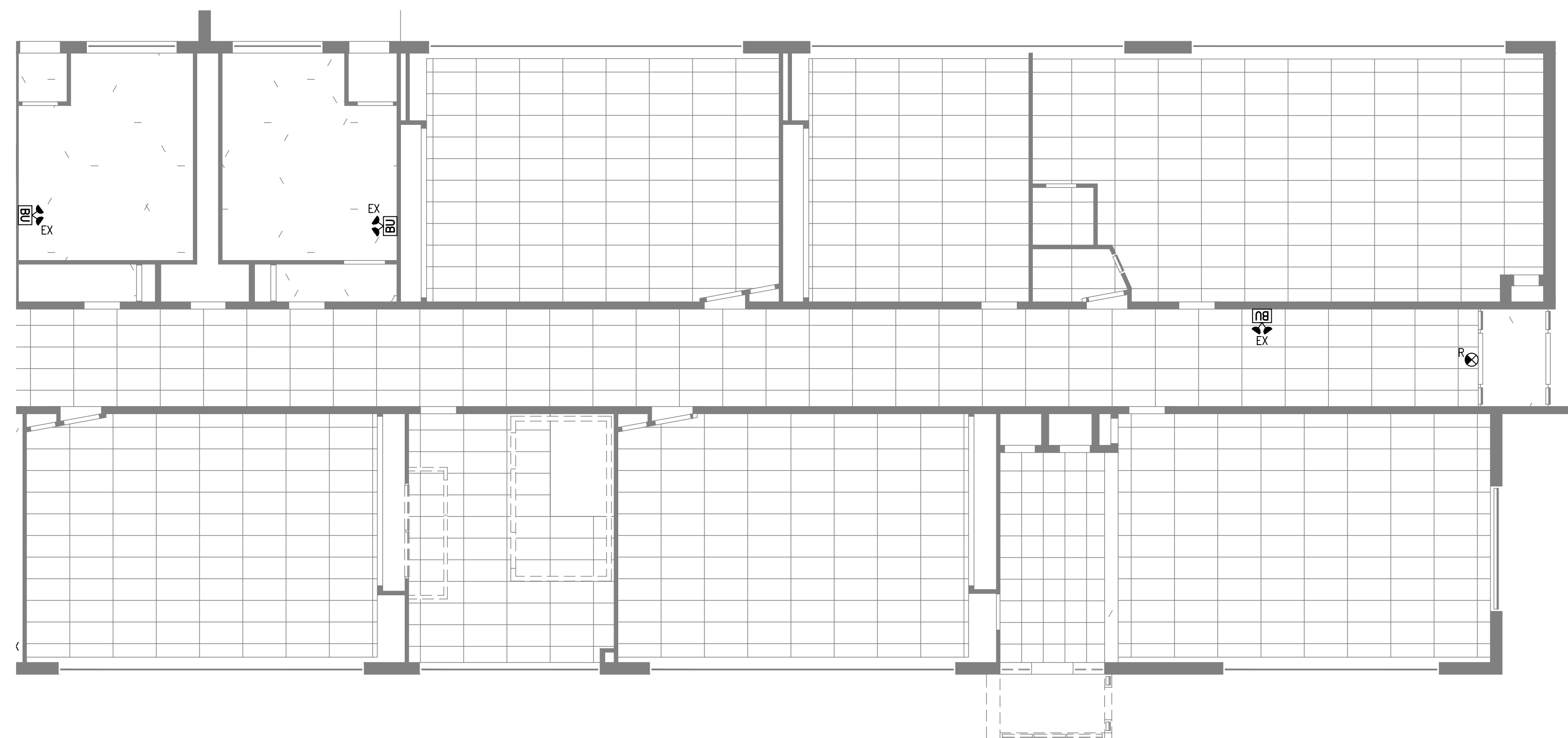
Project Name
WRDSB - WORKSHOP ARCHITECTURE
HVAC UPGRADES & INTERIOR RENOVATIONS
SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

Sheet Title
EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
Designed By DB Date November 26, 2020
Project Number **B20-349.02A**
Sheet Number Revision
E5.1 **1**



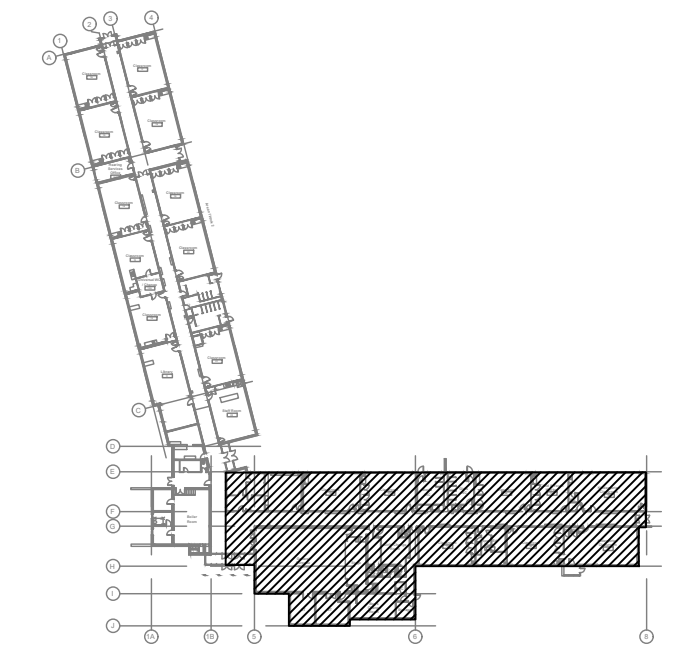
8 EXIST./DEMO EM LITG/EXISTS - EAST WING/GYM
E5.2 SCALE: 1:100



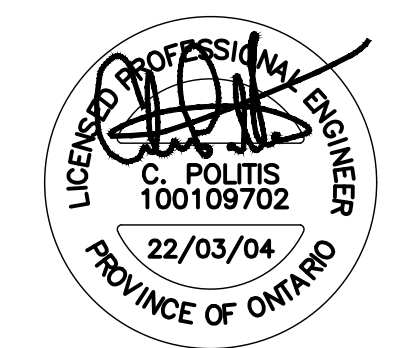
9 EXISTING/DEMO EM LLTG/EXITS - EAST WING COORIDOR
E5.2 SCALE: 1:100

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



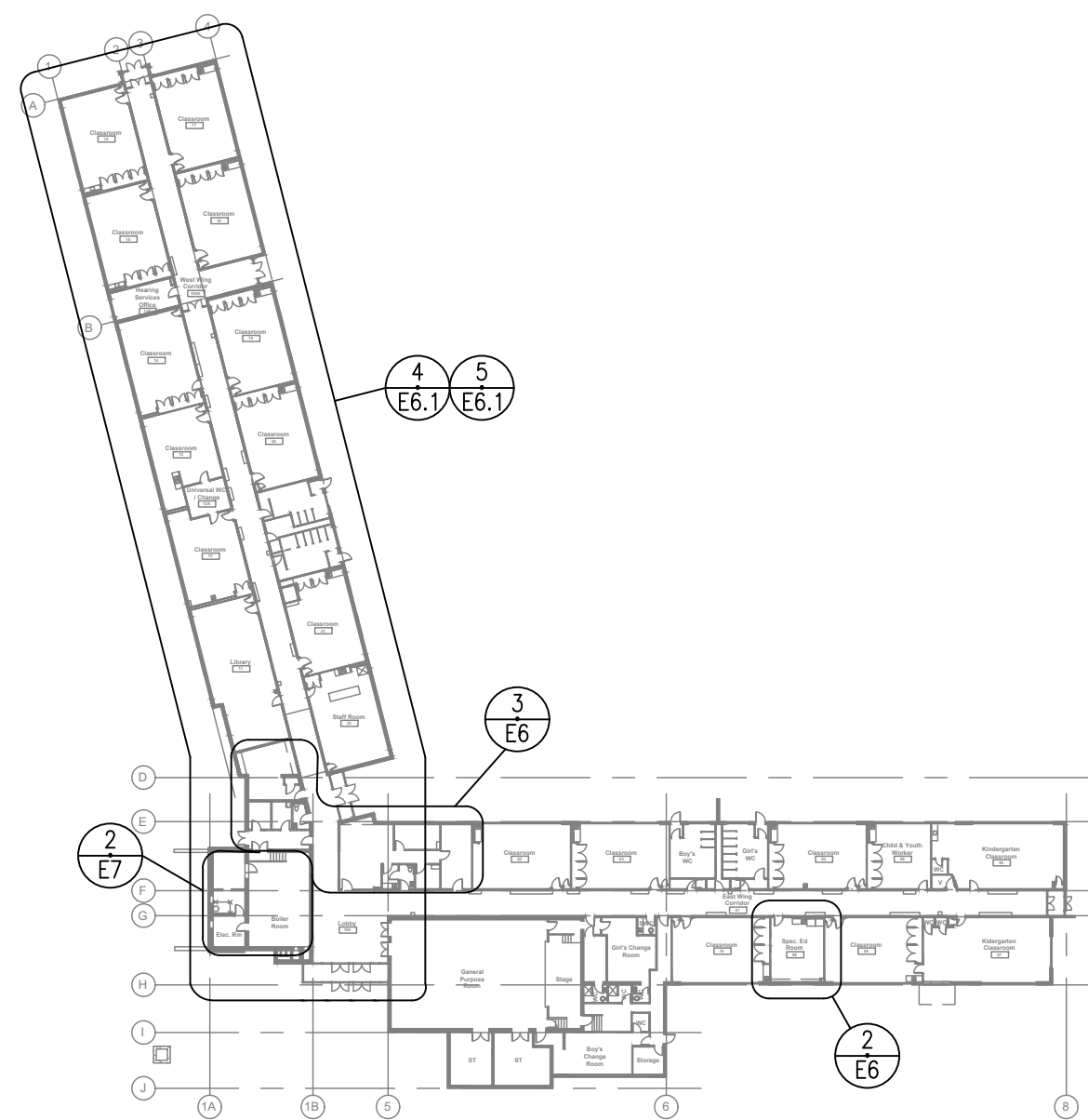
No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP
 ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMO EMERGENCY
LIGHTING & EXIT SIGN PLANS

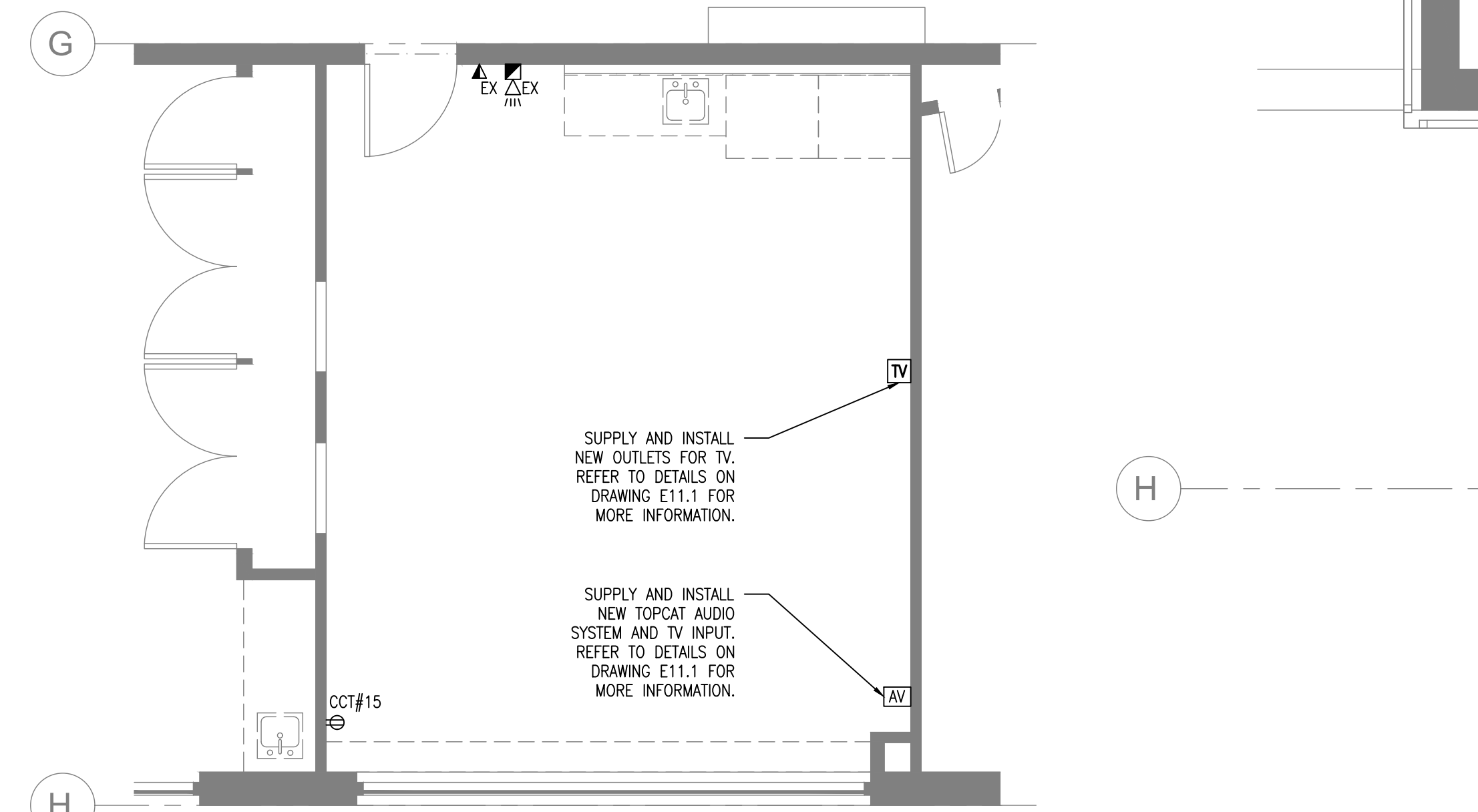
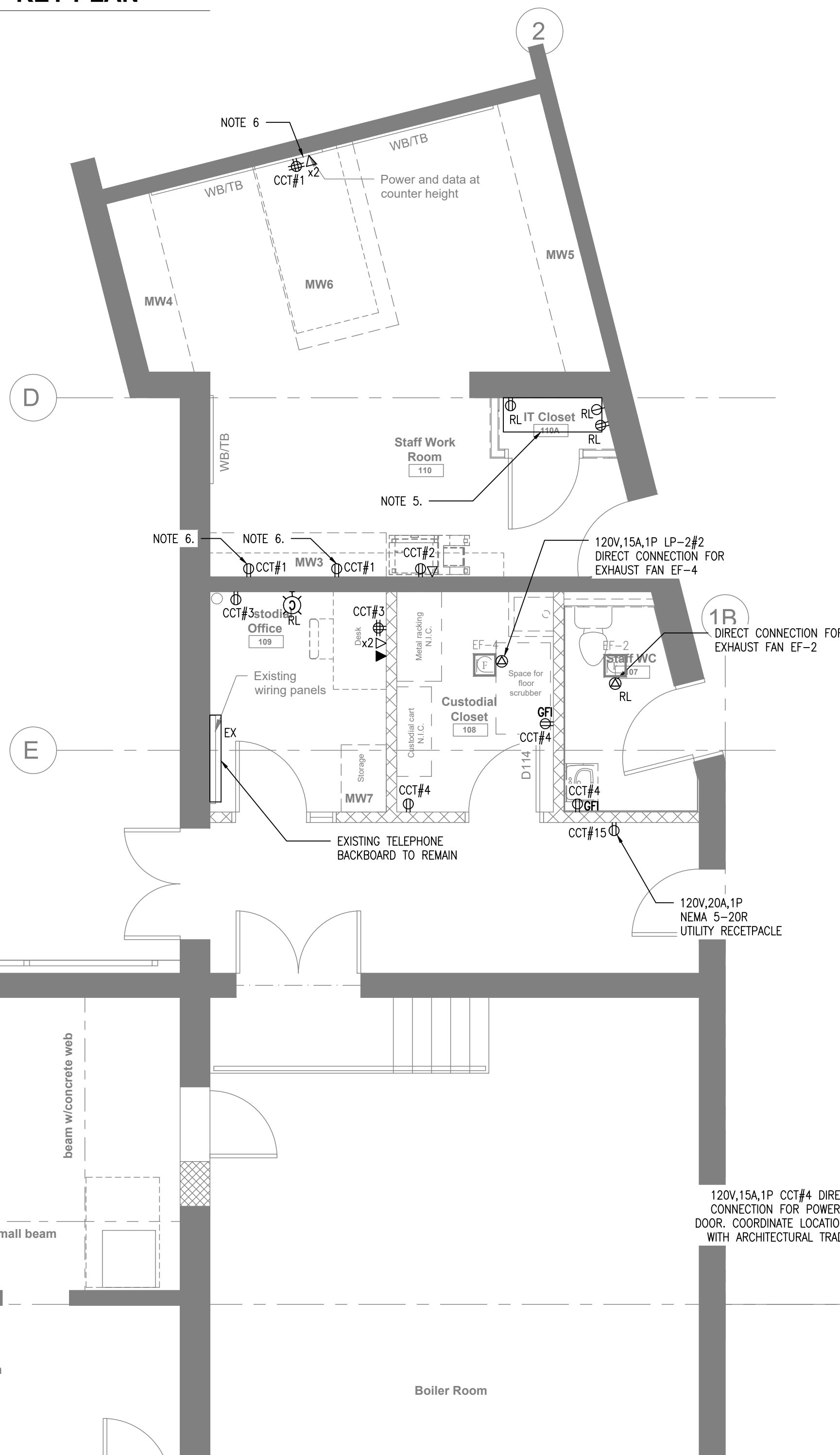
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision
E5.2 **1**



1 PROPOSED POWER - KEY PLAN

E6 SCALE: N.T.S.

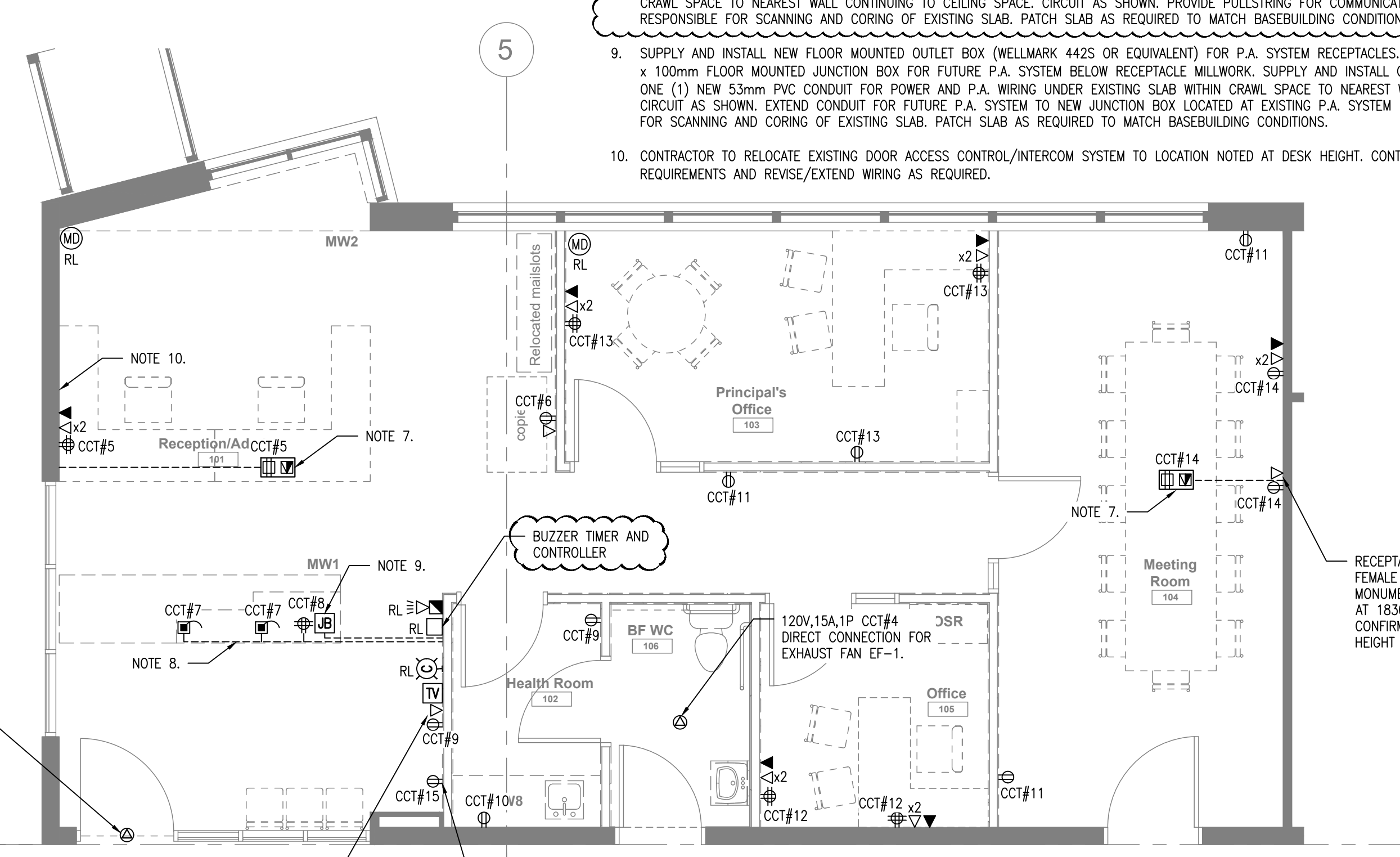


2 PROPOSED POWER PLAN - SPEC ED ROOM

E6 SCALE: 1:50

GENERAL POWER NOTES:

- LOCATIONS OF CONNECTIONS TO MECHANICAL EQUIPMENT IS APPROXIMATE AND SHOWN FOR REFERENCE ONLY. COORDINATE EXACT LOCATIONS AND TERMINATION REQUIREMENTS WITH MECHANICAL TRADE.
- FOR ALL NEW PUBLIC ADDRESS, TELEPHONE AND DATA CABLING DEVICES NOTED ON THE DRAWING, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR:
 - DEVICE BACKBOX, SINGLE GANG UNLESS OTHERWISE NOTED.
 - 21mm CONDUIT (UNLESS NOTED OTHERWISE), COMPLETE WITH PULL STRING TO EXTEND FROM DEVICE TO CORRIDOR CEILING SPACE. INCLUDE REQUIRED CORE DRILLING OF EXISTING CORRIDOR WALL AND FIRESTOPPING OF NEW PENETRATION ONCE CONDUIT WORK IS COMPLETE. ALL CABLING AND DEVICES SHALL BE PROVIDED BY A SCHOOL BOARD PREFERRED VENDOR UNIT A PRIME COST ALLOWANCE CARRIED UNDER THIS CONTRACT.
- DEVICES SHOWN ON NEW WALL CONSTRUCTION SHALL BE INSTALLED FLUSH MOUNTED WITH CONCEALED CONDUITS. DEVICES SHOWN ON EXISTING WALL CONSTRUCTION SHALL BE INSTALLED SURFACE MOUNTED ON FS TYPE BACK BOXES WITH SURFACE RACEWAY (WHITE WIREMOLD) FROM DEVICE TO CEILING SPACE. CONDUIT SHALL BE PROVIDED ABOVE CEILING SPACE IN ALL LOCATIONS.
- CIRCUITING OF NEW ELECTRICAL DEVICES AND EQUIPMENT IS FOR GROUPING PURPOSES ONLY. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS AVAILABLE FROM DEMOLISHED EQUIPMENT WITHIN EACH AREA. REVISE AND EXTEND WIRING AS REQUIRED TO SUPPLY NEW DEVICES. IF EXISTING AVAILABLE BRANCH CIRCUITS ARE NOT SUFFICIENT FOR NEW EQUIPMENT, SUPPLY AND INSTALL NEW 120V, 15A, 1P CIRCUIT BREAKERS WITHIN NEW PANEL LP-4, AND SUPPLY AND INSTALL NEW BRANCH WIRING AS REQUIRED TO SUPPLY NEW CIRCUITS. UPDATE PANEL SCHEDULES AS REQUIRED.
- EXISTING IT HUB IS TO REMAIN. RETAIN ALL DATA CABLING AND RECEPTACLES AND REVISE EQUIPMENT LAYOUT TO SUIT NEW IT CLOSET. CONTRACTOR SHALL INCLUDE CASH ALLOWANCE TO RETAIN THE SERVICES OF A WROSB APPROVED 3RD PARTY IT CONTRACTOR TO REVISE EXISTING EQUIPMENT AND SUPPLY AND INSTALL NEW HARDWARE REQUIRED FOR ADDITIONAL DATA DROPS.
- OUTLETS INSTALLED AT 150mm ABOVE NEW COUNTER (915mm). CONFIRM EXACT HEIGHTS WITH ARCHITECTURAL TRADE.
- SUPPLY AND INSTALL FLOOR MONUMENT (WELLMARK FM4-XX-B OR EQUIVALENT) COMPLETE WITH TWO (2) DUPLEX RECEPTACLES AND TWO (2) IT OUTLETS, AND (1) FEMALE HDMI OUTLET FROM TV LOCATION (HDMI FOR MEETING ROOM ONLY). CONFIRM EXACT LOCATION WITH ARCHITECTURAL TRADES. SUPPLY AND INSTALL TWO (2) NEW 21mm PVC CONDUITS FOR POWER AND COMMUNICATIONS UNDER EXISTING SLAB WITHIN CRAWL SPACE TO NEAREST WALL CONTINUING TO CEILING SPACE. CIRCUIT AS SHOWN. PROVIDE PULLSTRING FOR COMMUNICATIONS CONDUITS. CONTRACTOR RESPONSIBLE FOR SCANNING AND CORING OF EXISTING SLAB. PATCH SLAB AS REQUIRED TO MATCH BASEBUILDING CONDITIONS.
- SUPPLY AND INSTALL FURNITURE WHIPS (WELLMARK 442-FRN OR EQUIVALENT) FOR RECEPTACLES AND COMMUNICATION OUTLETS TO BE INSTALLED WITHIN FACE OF MILLWORK AT RECEPTION DESK. PROVIDE 1xPOWER, 2xDATA, 1xPHONE CONNECTION FOR EACH WHIP. CONFIRM EXACT LOCATION AND TERMINATION REQUIREMENTS WITH ARCHITECTURAL AND MILLWORK TRADES. SUPPLY AND INSTALL TWO (2) NEW 21mm PVC CONDUITS FOR POWER AND COMMUNICATIONS UNDER EXISTING SLAB WITHIN CRAWL SPACE TO NEAREST WALL CONTINUING TO CEILING SPACE. CIRCUIT AS SHOWN. PROVIDE PULLSTRING FOR COMMUNICATIONS CONDUITS. CONTRACTOR RESPONSIBLE FOR SCANNING AND CORING OF EXISTING SLAB. PATCH SLAB AS REQUIRED TO MATCH BASEBUILDING CONDITIONS.
- SUPPLY AND INSTALL NEW FLOOR MOUNTED OUTLET BOX (WELLMARK 442S OR EQUIVALENT) FOR P.A. SYSTEM RECEPTACLES. SUPPLY AND INSTALL 300mm x 300mm x 100mm FLOOR MOUNTED JUNCTION BOX FOR FUTURE P.A. SYSTEM BELOW RECEPTACLE MILLWORK. SUPPLY AND INSTALL ONE (1) NEW 21mm PVC CONDUIT AND ONE (1) NEW 53mm PVC CONDUIT FOR POWER AND P.A. WIRING UNDER EXISTING SLAB WITHIN CRAWL SPACE TO NEAREST WALL CONTINUING TO CEILING SPACE. CIRCUIT AS SHOWN. EXTEND CONDUIT FOR FUTURE P.A. SYSTEM TO NEW JUNCTION BOX LOCATED AT EXISTING P.A. SYSTEM LOCATION. CONTRACTOR RESPONSIBLE FOR SCANNING AND CORING OF EXISTING SLAB. PATCH SLAB AS REQUIRED TO MATCH BASEBUILDING CONDITIONS.
- CONTRACTOR TO RELOCATE EXISTING DOOR ACCESS CONTROL/INTERCOM SYSTEM TO LOCATION NOTED AT DESK HEIGHT. CONTRACTOR TO SITE VERIFY EXACT REQUIREMENTS AND REVISE/EXTEND WIRING AS REQUIRED.

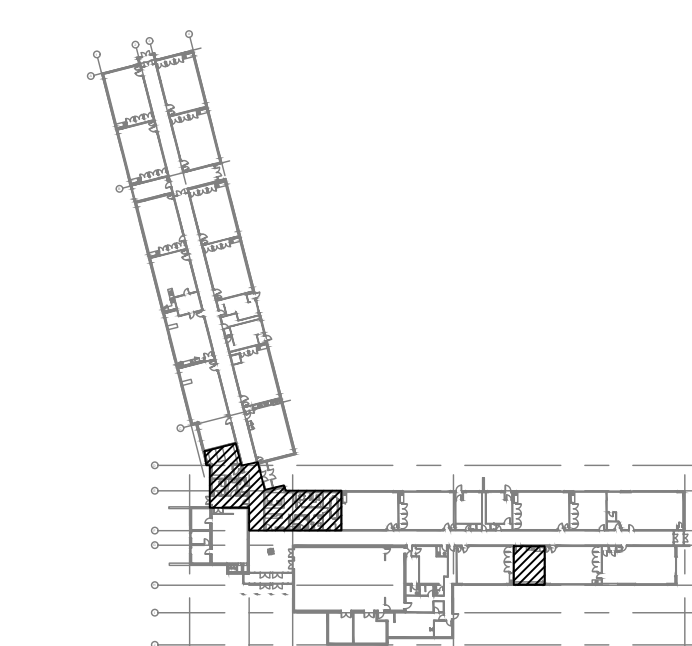


3 PROPOSED POWER PLAN - CUST./STAFF WC/OFFICE

E6 SCALE: 1:50

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
- The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)

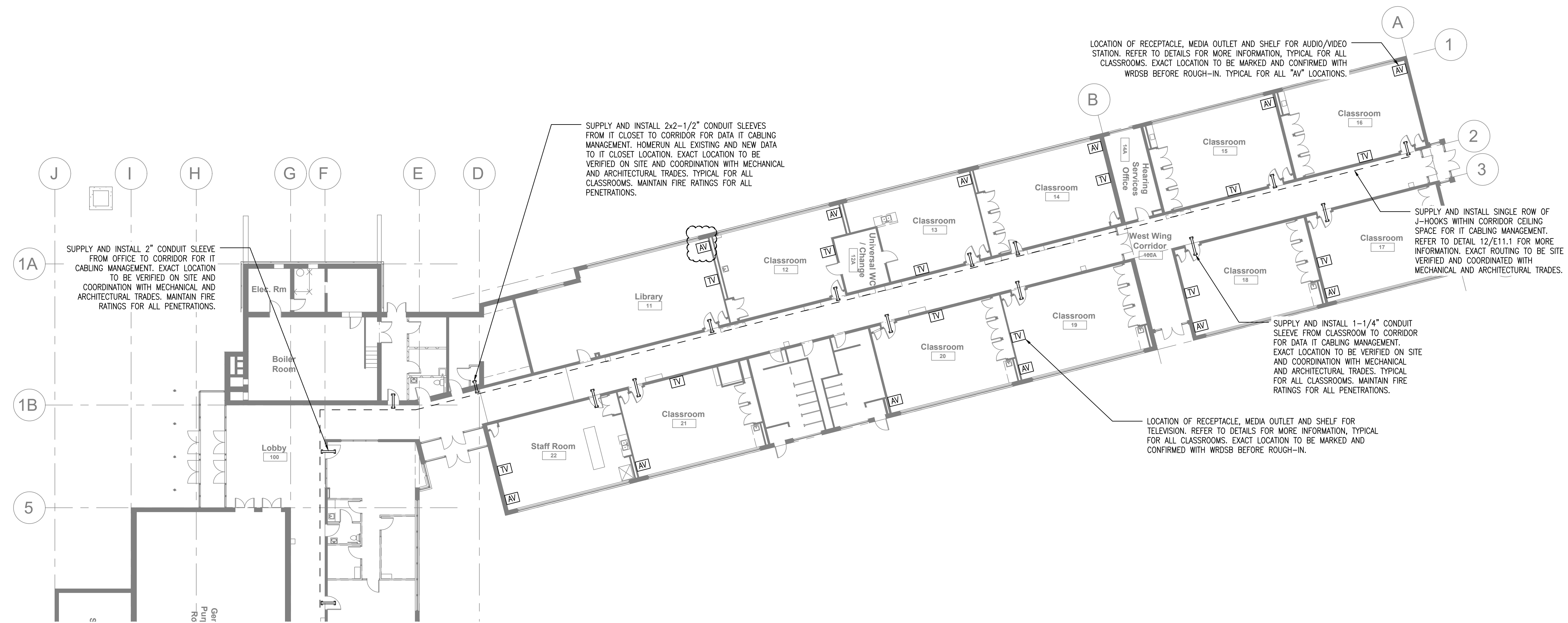


No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

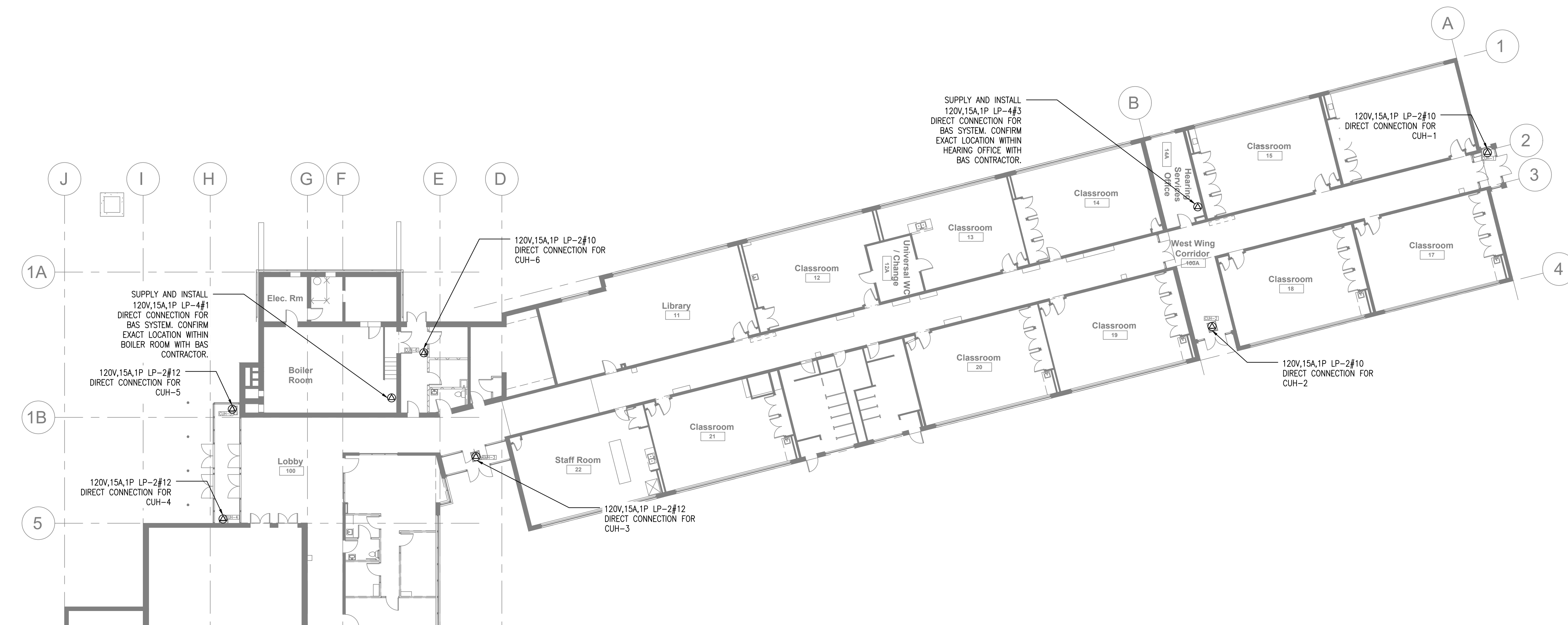
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED POWER PLANS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
E6 **1**

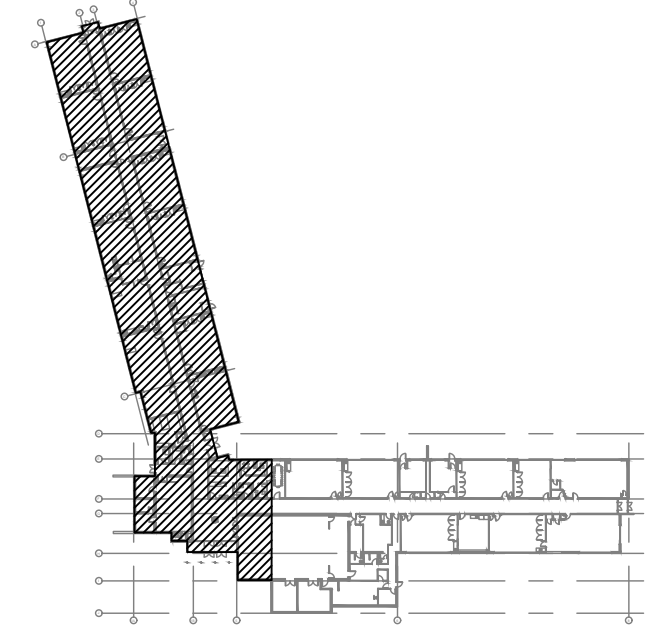


4 IT & MEDIA PLAN - WEST WING CORRIDOR
E6.1 SCALE: 1:200

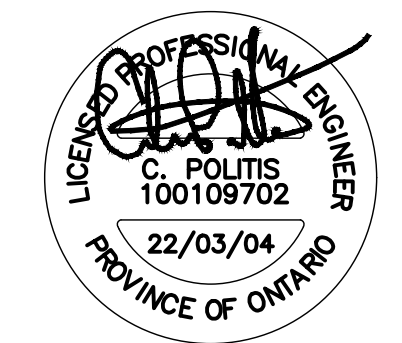


5 PROPOSED POWER PLAN - WEST WING CORRIDOR
E6.1 SCALE: 1:200

- Drawing Notes**
- All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 - These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 - The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

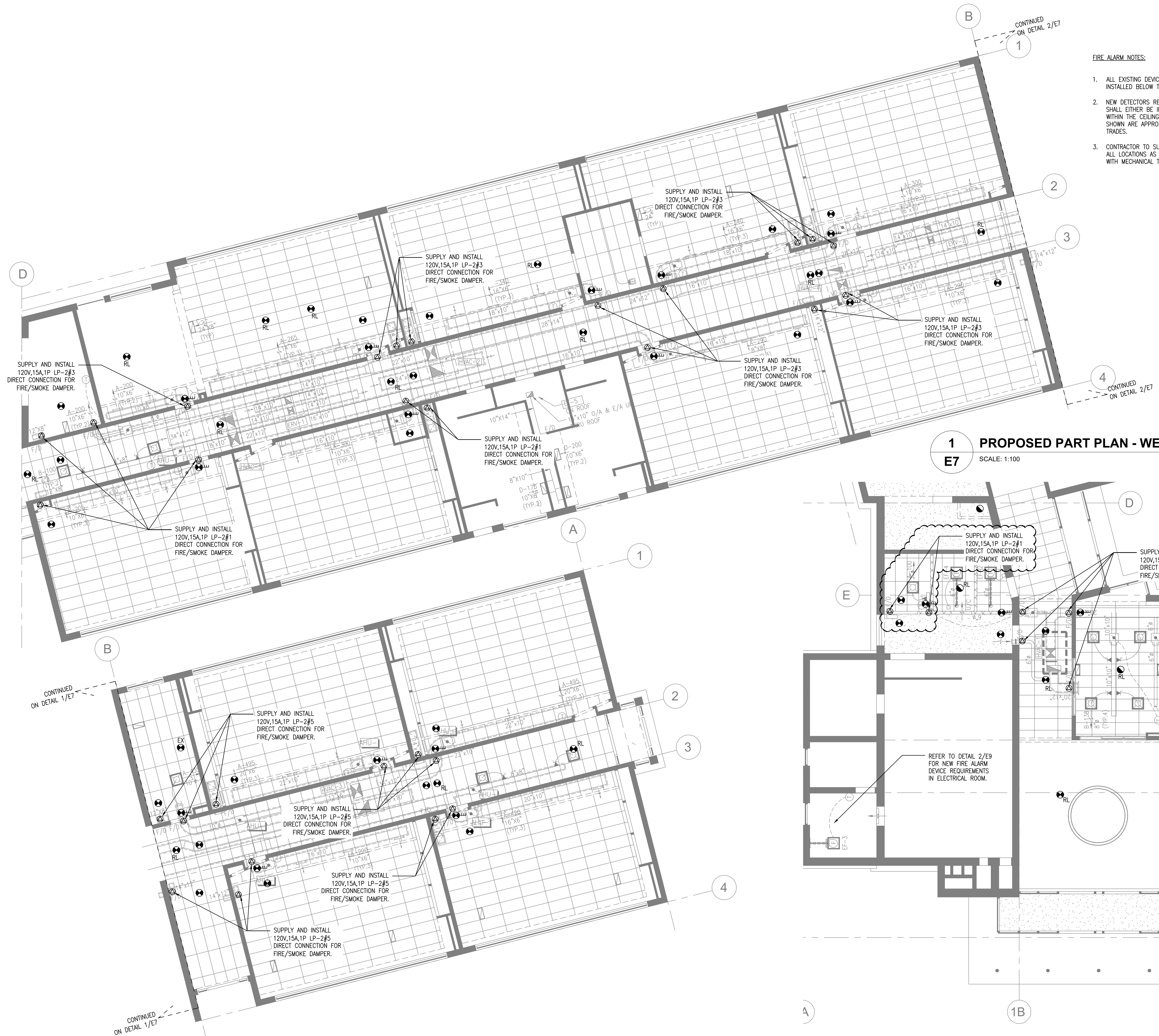
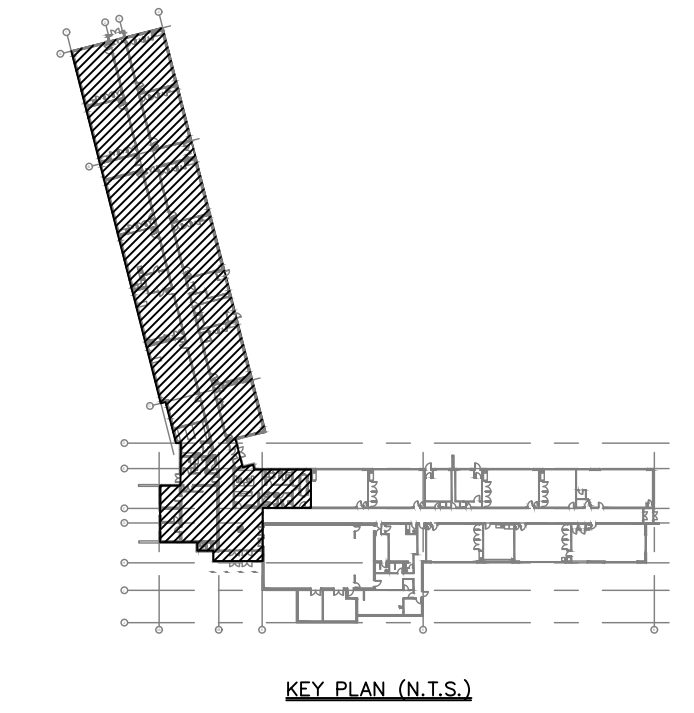
Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED POWER PLANS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision

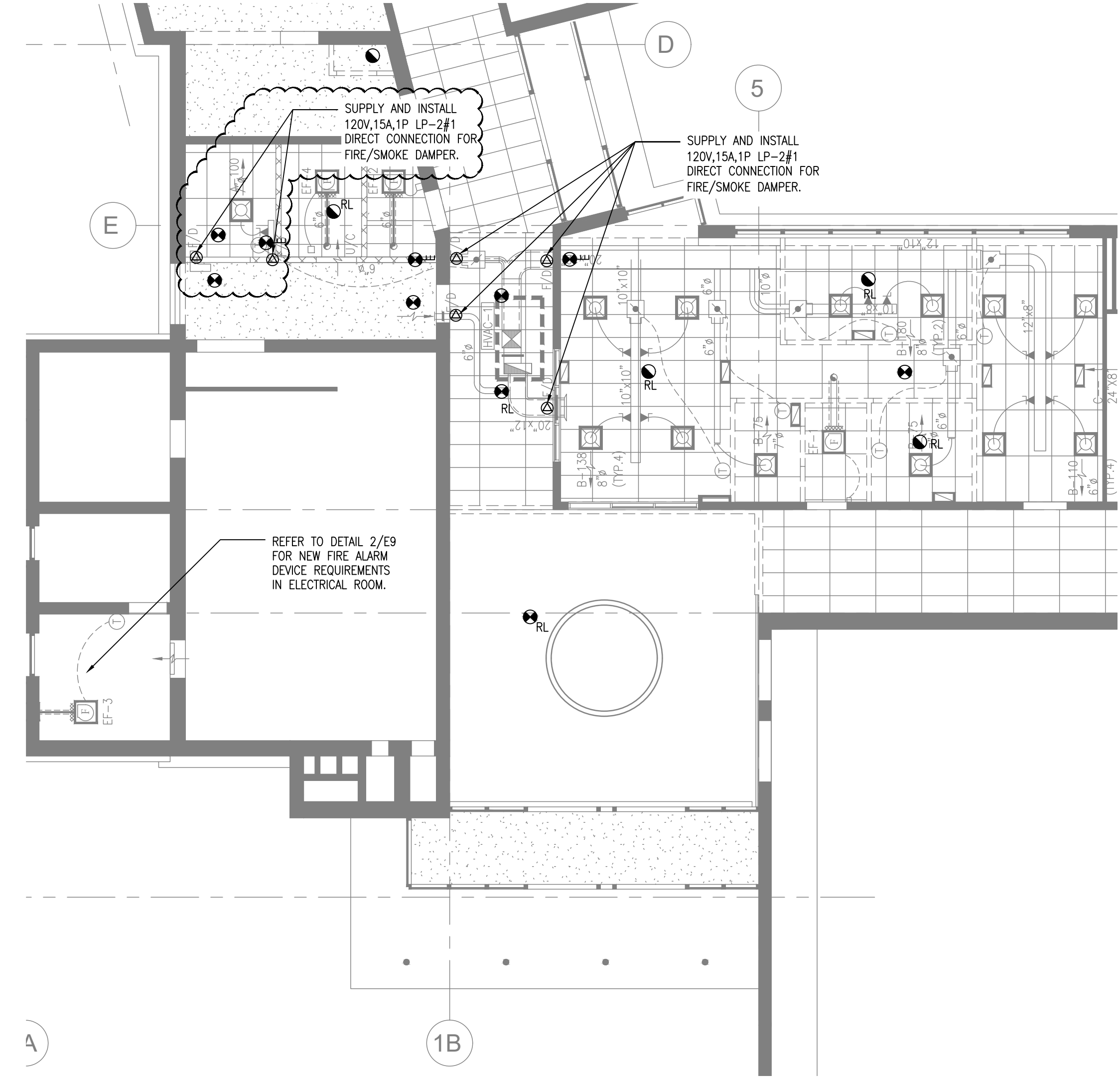
FIRE ALARM NOTES:

1. ALL EXISTING DEVICES THAT ARE EXISTING TO REMAIN, OR REMOVED AND RELOCATED ARE INSTALLED BELOW THE ACT CEILING.
2. NEW DETECTORS REQUIRED FOR OPERATION OF THE COMBINATION SMOKE/FIRE DAMPERS SHALL EITHER BE INSTALLED WITHIN THE DUCT, IF SHOWN AS DUCT TYPE DETECTORS, OR WITHIN THE CEILING SPACE ABOVE THE ACT WITHIN 1.5m OF THE PENETRATION. LOCATIONS SHOWN ARE APPROXIMATE, CONFIRM EXACT LOCATIONS AND REQUIREMENTS WITH MECHANICAL TRADES.
3. CONTRACTOR TO SUPPLY AND INSTALL POWER FOR COMBINATION SMOKE/FIRE DAMPERS AT ALL LOCATIONS AS SHOWN ON DRAWINGS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL TRADE.

- Drawing Notes**
1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



1 PROPOSED PART PLAN - WEST WING CORRIDOR
SCALE: 1:100



3 PROPOSED PART PLAN - LOBBY/OFFICE
SCALE: 1:100

2 PROPOSED PART PLAN - WEST WING CORRIDOR
SCALE: 1:100



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
www.boldengineering.ca

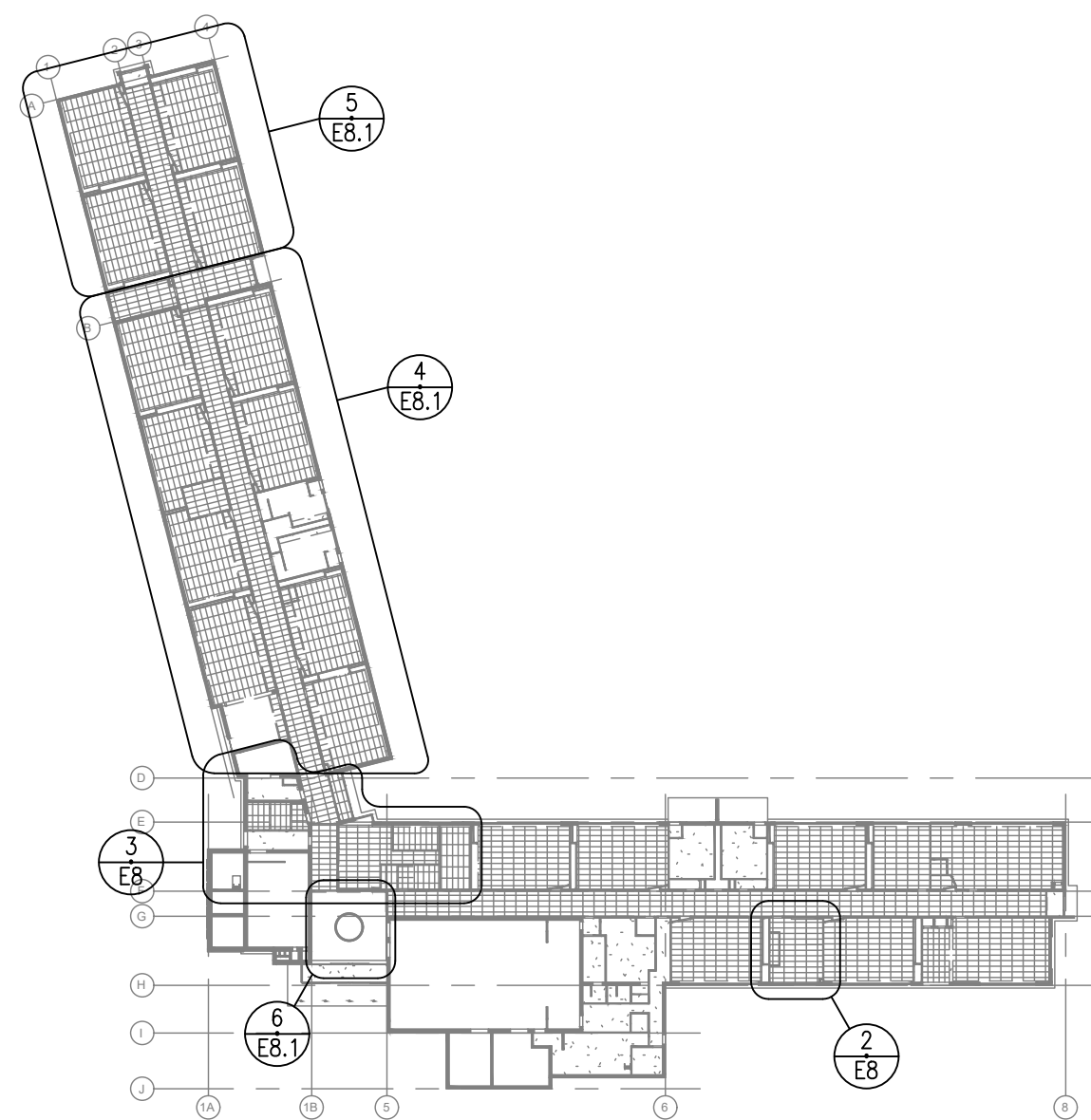
Bold Engineering Inc.
2778 Dufferin Street, Suite 104
Toronto, Ontario, M6B 3R7
Canada
Tel: 416-556-0766
Fax: 1-866-876-5758

Project Name
WRDSB - WORKSHOP ARCHITECTURE
HVAC UPGRADES & INTERIOR RENOVATIONS
SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED FIRE ALARM PLANS

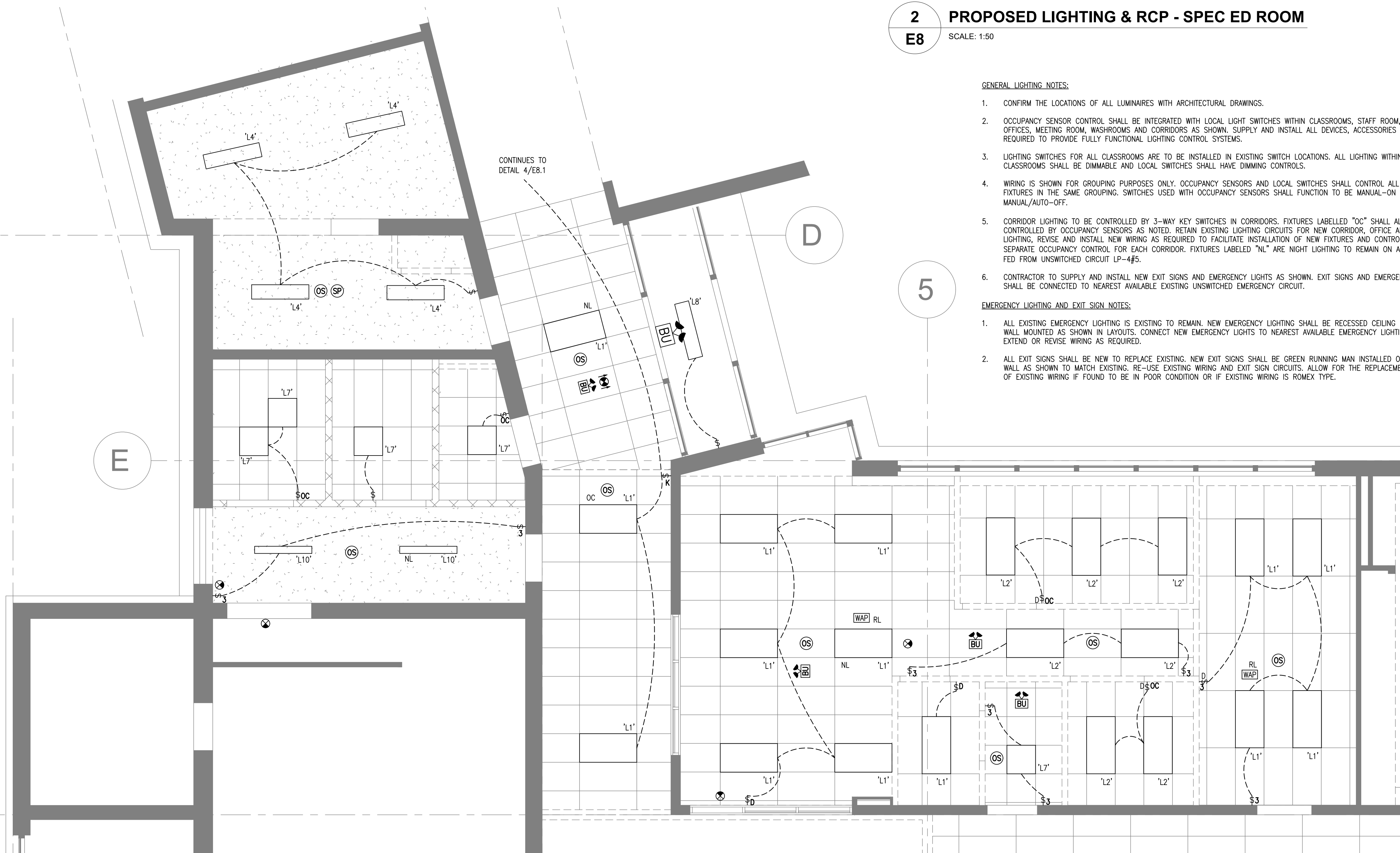
Drawn By DB Scale As Shown
Designed By DB Date November 26, 2020
Project Number **B20-349.02A**

Sheet Number **E7** Revision **1**



1 PROPOSED LIGHTING & RCP - KEY PLAN

E8 SCALE: N.T.S.



2 PROPOSED LIGHTING & RCP - SPEC ED ROOM

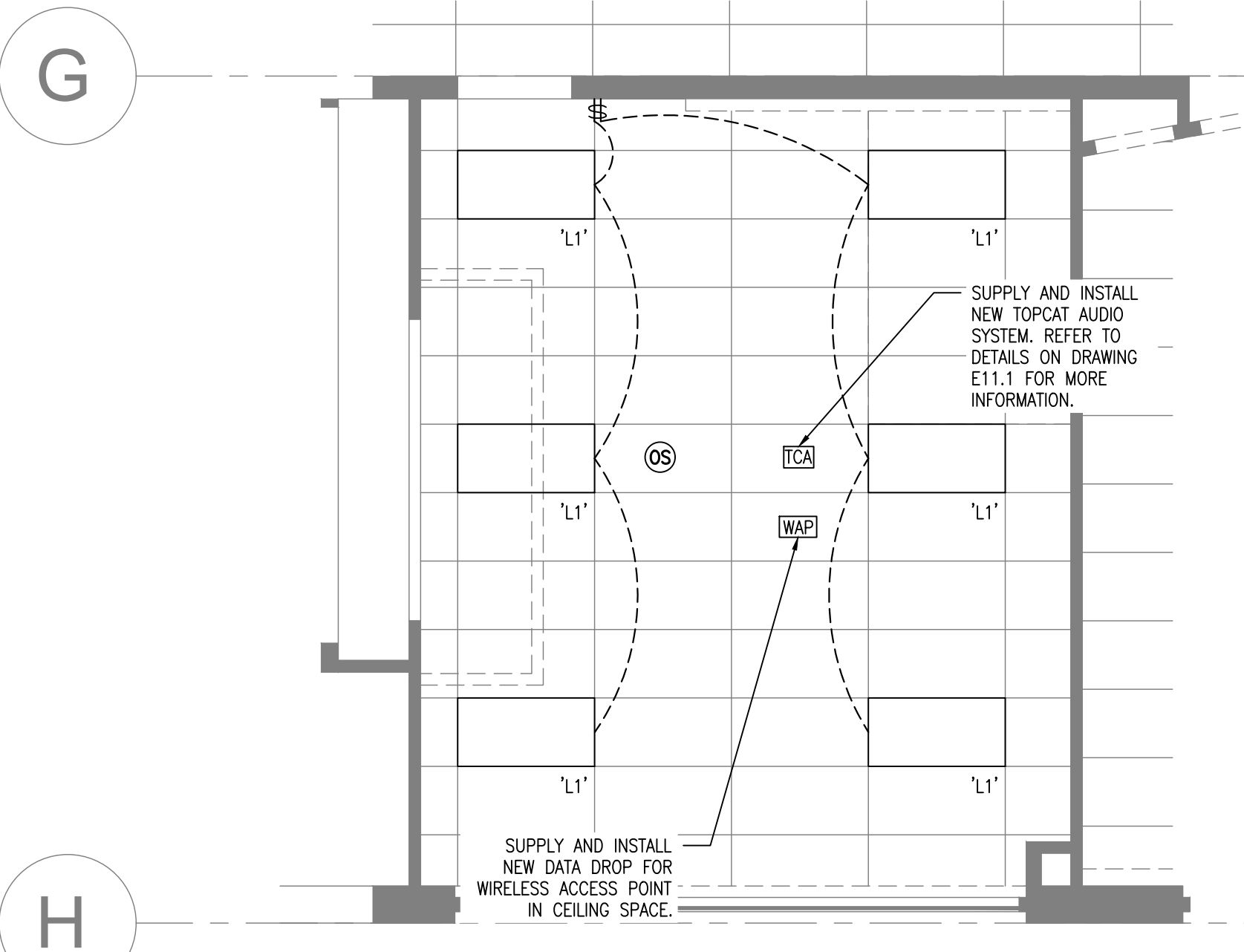
E8 SCALE: 1:50

GENERAL LIGHTING NOTES:

1. CONFIRM THE LOCATIONS OF ALL LUMINAIRES WITH ARCHITECTURAL DRAWINGS.
2. OCCUPANCY SENSOR CONTROL SHALL BE INTEGRATED WITH LOCAL LIGHT SWITCHES WITHIN CLASSROOMS, STAFF ROOM, INDIVIDUAL OFFICES, MEETING ROOM, WASHROOMS AND CORRIDORS AS SHOWN. SUPPLY AND INSTALL ALL DEVICES, ACCESSORIES AND WIRING REQUIRED TO PROVIDE FULLY FUNCTIONAL LIGHTING CONTROL SYSTEMS.
3. LIGHTING SWITCHES FOR ALL CLASSROOMS ARE TO BE INSTALLED IN EXISTING SWITCH LOCATIONS. ALL LIGHTING WITHIN CLASSROOMS SHALL BE DIMMABLE AND LOCAL SWITCHES SHALL HAVE DIMMING CONTROLS.
4. WIRING IS SHOWN FOR GROUPING PURPOSES ONLY. OCCUPANCY SENSORS AND LOCAL SWITCHES SHALL CONTROL ALL LIGHT FIXTURES IN THE SAME GROUPING. SWITCHES USED WITH OCCUPANCY SENSORS SHALL FUNCTION TO BE MANUAL-ON AND MANUAL/AUTO-OFF.
5. CORRIDOR LIGHTING TO BE CONTROLLED BY 3-WAY KEY SWITCHES IN CORRIDORS. FIXTURES LABELED "OC" SHALL ALSO BE CONTROLLED BY OCCUPANCY SENSORS AS NOTED. RETAIN EXISTING LIGHTING CIRCUITS FOR NEW CORRIDOR, OFFICE AND STAFF LIGHTING. REVERSE AND INSTALL NEW WIRING AS REQUIRED TO FACILITATE INSTALLATION OF NEW FIXTURES AND CONTROLS. PROVIDE SEPARATE OCCUPANCY CONTROL FOR EACH CORRIDOR. FIXTURES LABELED "NL" ARE NIGHT LIGHTING TO REMAIN ON AT ALL TIMES FED FROM UNSWITCHED CIRCUIT LP-4#5.
6. CONTRACTOR TO SUPPLY AND INSTALL NEW EXIT SIGNS AND EMERGENCY LIGHTS AS SHOWN. EXIT SIGNS AND EMERGENCY LIGHTS SHALL BE CONNECTED TO NEAREST AVAILABLE EXISTING UNSWITCHED EMERGENCY CIRCUIT.

EMERGENCY LIGHTING AND EXIT SIGN NOTES:

1. ALL EXISTING EMERGENCY LIGHTING IS EXISTING TO REMAIN. NEW EMERGENCY LIGHTING SHALL BE RECESSED CEILING MOUNTED OR WALL MOUNTED AS SHOWN IN LAYOUTS. CONNECT NEW EMERGENCY LIGHTS TO NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT. EXTEND OR REVISE WIRING AS REQUIRED.
2. ALL EXIT SIGNS SHALL BE NEW TO REPLACE EXISTING. NEW EXIT SIGNS SHALL BE GREEN RUNNING MAN INSTALLED ON CEILING OR WALL AS SHOWN TO MATCH EXISTING. RE-USE EXISTING WIRING AND EXIT SIGN CIRCUITS. ALLOW FOR THE REPLACEMENT OF 25% OF EXISTING WIRING IF FOUND TO BE IN POOR CONDITION OR IF EXISTING WIRING IS ROMEX TYPE.

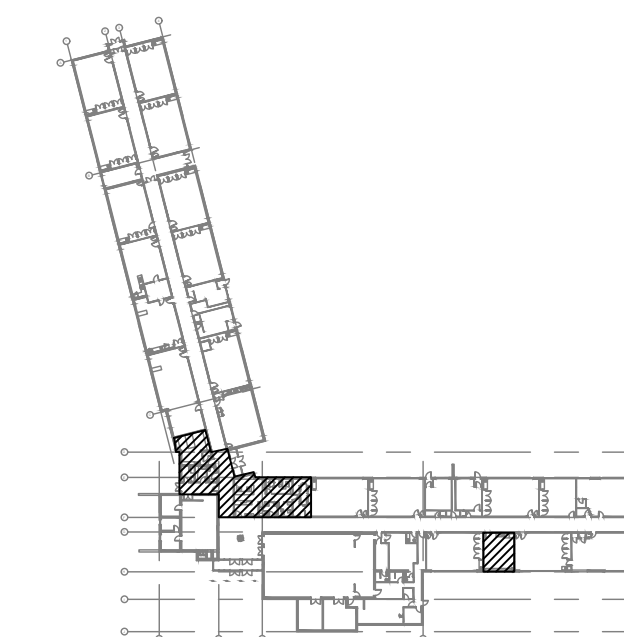


3 PROPOSED LIGHTING & RCP - CUST./STAFF WC/OFFICE

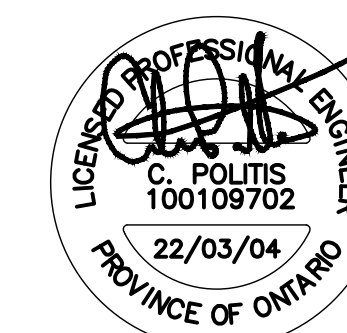
E8 SCALE: 1:50

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

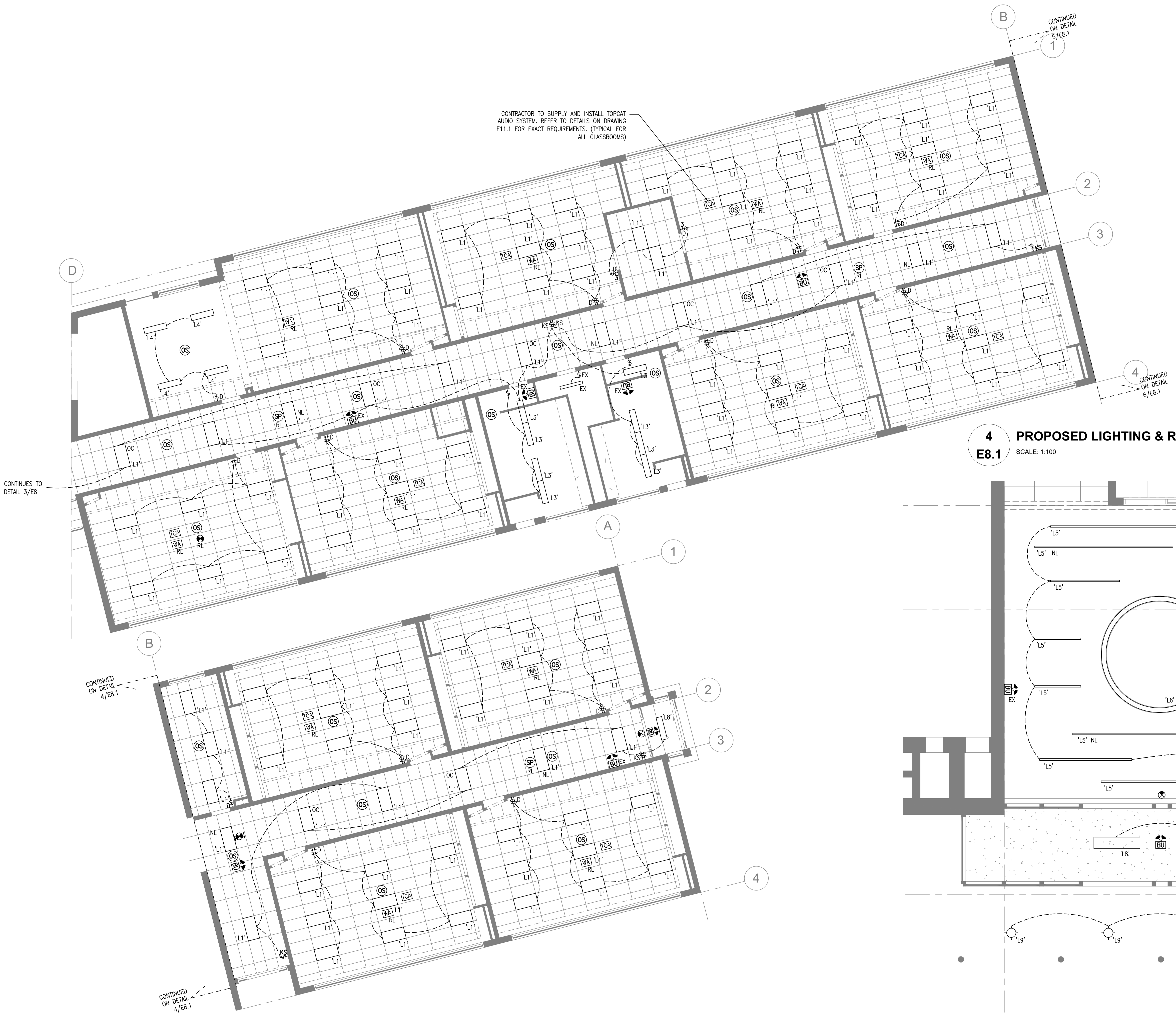
Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED LIGHTING * REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

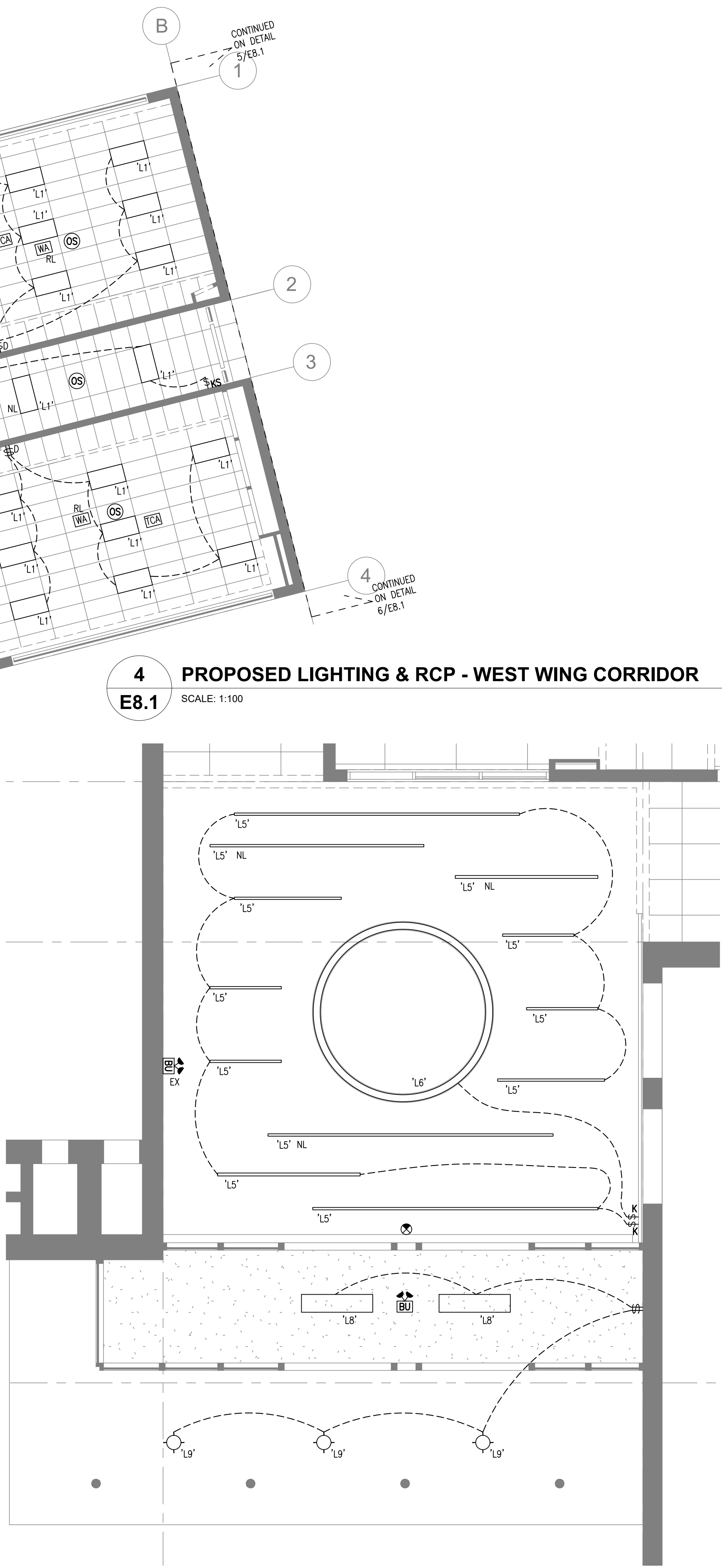
Sheet Number Revision

E8 **1**

CONTRACTOR TO SUPPLY AND INSTALL TOPCAT AUDIO SYSTEM. REFER TO DETAILS ON DRAWING E11.1 FOR EXACT REQUIREMENTS. (TYPICAL FOR ALL CLASSROOMS)

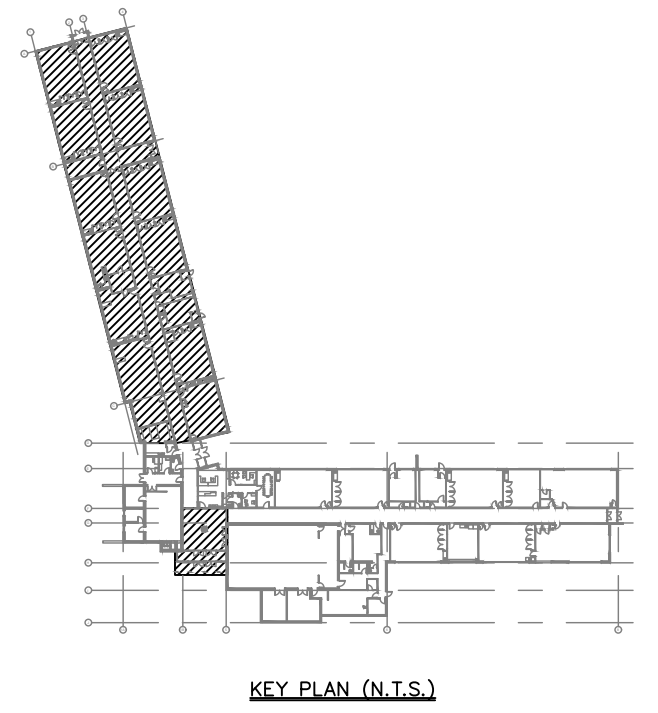


5 PROPOSED LIGHTING & RCP - WEST WING CORRIDOR
E8.1 SCALE: 1:100



6 PROPOSED LIGHTING & RCP - LOBBY
E8.1 SCALE: 1:50

- Drawing Notes**
1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB
No.	Revision	Date	By

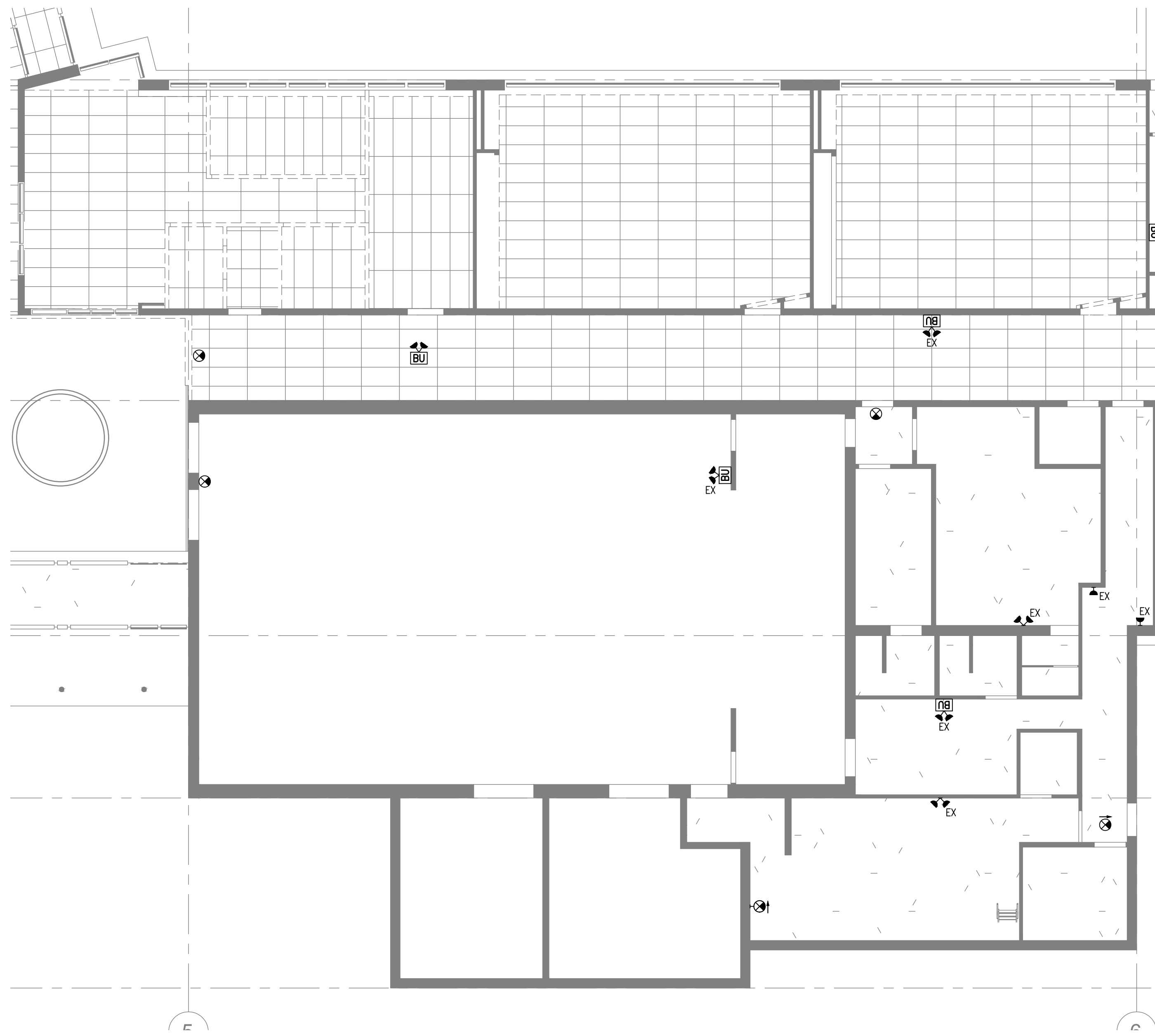
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED LIGHTING & REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

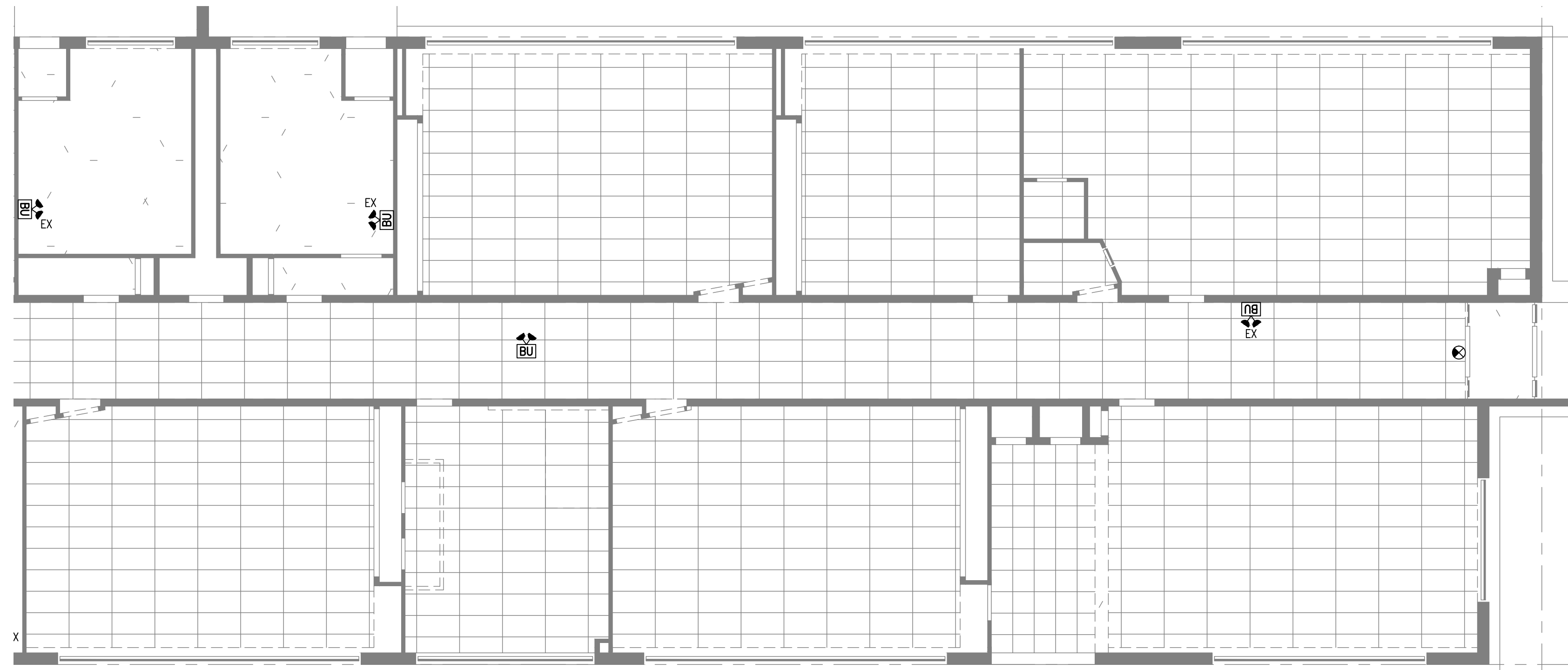
Sheet Number **E8.1** Revision **1**



8 PROPOSED EM. LTG/EXITS - EAST WING/GYM
E8.2 SCALE: 1:100

EMERGENCY LIGHTING AND EXIT SIGN NOTES:

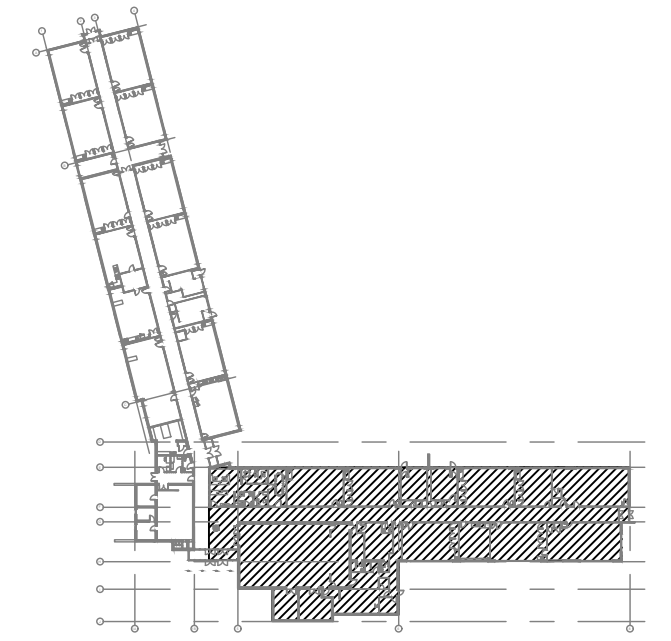
1. ALL EXISTING EMERGENCY LIGHTING IS EXISTING TO REMAIN. NEW EMERGENCY LIGHTING SHALL BE RECESSED CEILING MOUNTED OR WALL MOUNTED AS SHOWN IN LAYOUTS. CONNECT NEW EMERGENCY LIGHTS TO NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT. EXTEND OR REVISE WIRING AS REQUIRED.
2. ALL EXIT SIGNS SHALL BE NEW TO REPLACE EXISTING. NEW EXIT SIGNS SHALL BE GREEN RUNNING MAN INSTALLED ON CEILING OR WALL AS SHOWN TO MATCH EXISTING. RE-USE EXISTING WIRING AND EXIT SIGN CIRCUITS. ALLOW FOR THE REPLACEMENT OF 25% OF EXISTING WIRING IF FOUND TO BE IN POOR CONDITION OR IF EXISTING WIRING IS ROMEX TYPE.



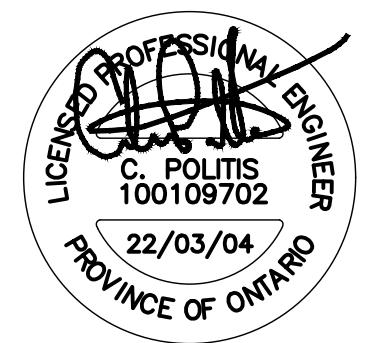
9 PROPOSED EM LTG/EXITS - EAST WING COORIDOR
E8.2 SCALE: 1:100

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

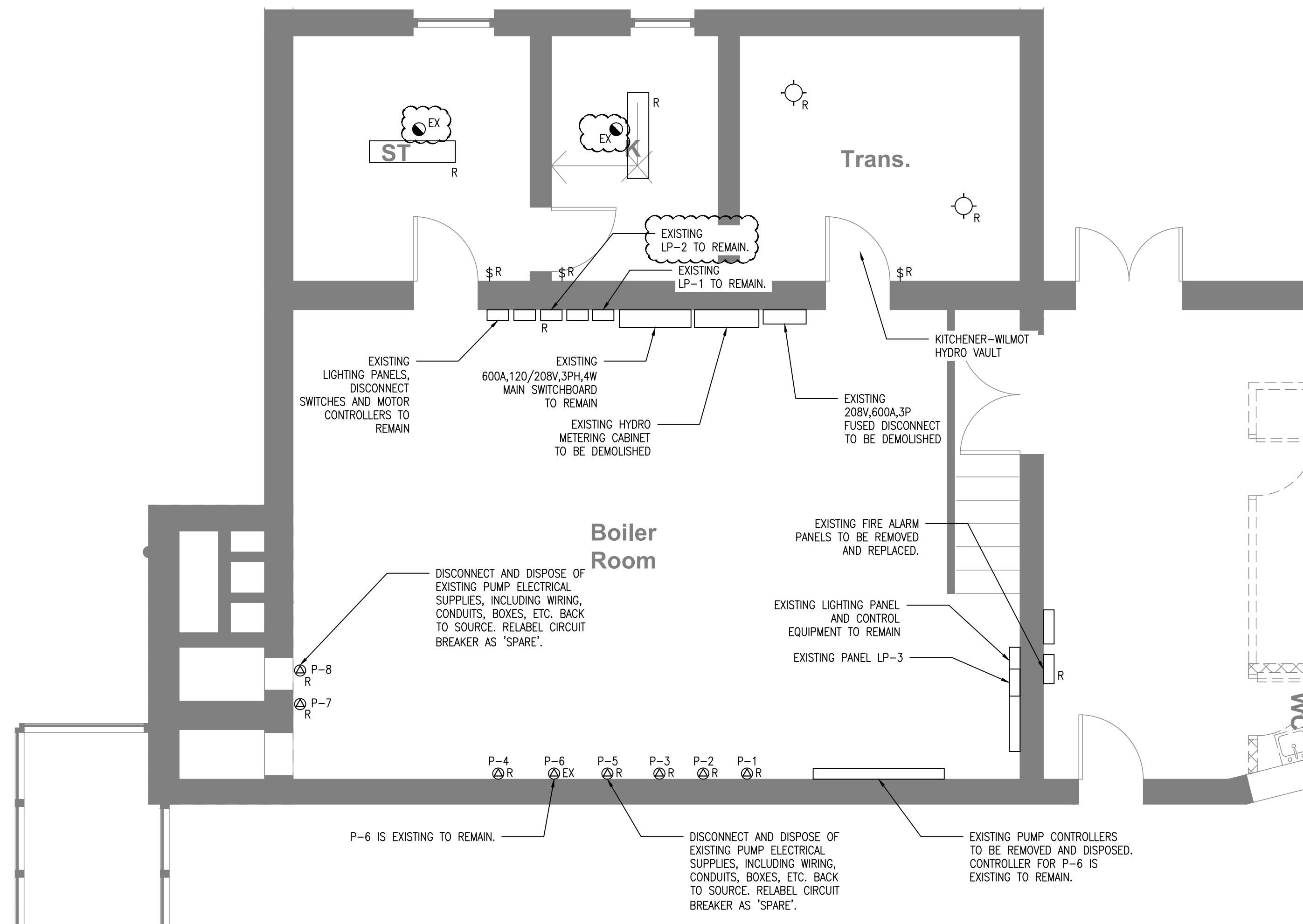
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP
ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED EMERGENCY LTG & EXIT SIGN PLANS - EAST WING

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision
E8.2 1

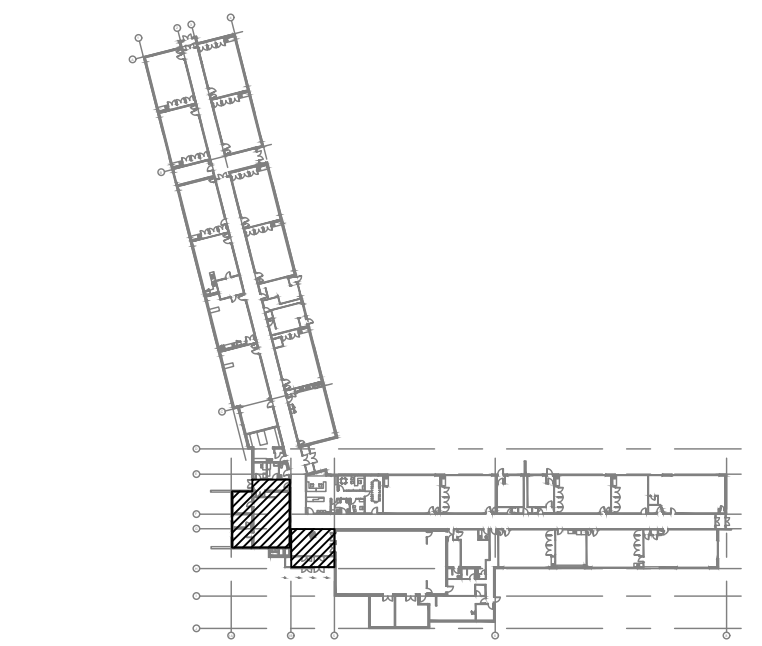


1 EXISTING/DEMOLITION EQUIPMENT LAYOUT - BOILER ROOM

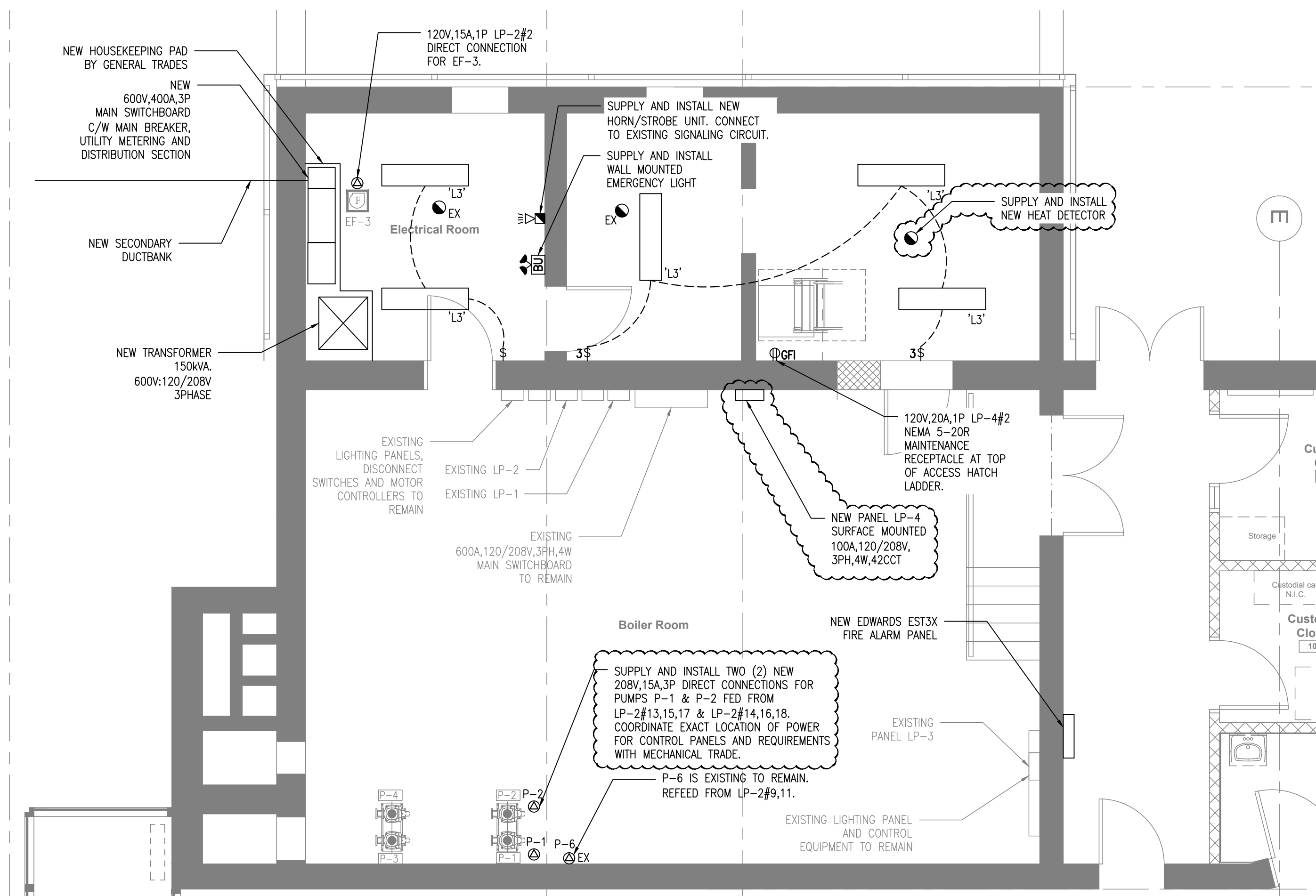
E9 SCALE: 1:50

FIRE ALARM SCOPE OF WORK:

- 1) CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING EDWARDS FIRESHIELD PLUS FIRE ALARM CONTROL PANEL AND ASSOCIATED ANNUNCIATOR. CONTRACTOR TO RETAIN ALL EXISTING CONVENTIONAL INITIATING DEVICE CIRCUITS AND ALL SIGNALING DEVICE CIRCUITS FOR NEW PANEL.
- 2) CONTRACTOR TO SUPPLY AND INSTALL NEW EDWARDS EST3X FIRE ALARM PANEL AND ANNUNCIATOR AT EXISTING PANEL LOCATIONS. CONTRACTOR TO INTEGRATE EXISTING INITIATING DEVICES ON CONVENTIONAL ZONES, AND EXISTING SIGNALING DEVICES WITH NEW PANEL.
- 3) CONTRACTOR TO SUPPLY AND INSTALL NEW CARDS FOR EST3X PANEL IN ORDER TO PICK UP EXISTING CONVENTIONAL ZONES. SUPPLY AND REVISE EXISTING END OF LINE DEVICES FOR EXISTING CONVENTIONAL ZONES WITH NEW AS NEEDED TO MATCH NEW PANEL REQUIREMENTS.
- 4) CONTRACTOR TO SUPPLY AND INSTALL ALL NEW ADDRESSABLE DEVICES AS SHOWN ON LAYOUT DRAWINGS AND SUPPLY AND INSTALL NEW ADDRESSABLE LOOP TO FIRE ALARM PANEL TO PICK UP ALL NEW DEVICES.
- 5) CONTRACTOR TO REMOVE AND RE-INSTALL ALL EXISTING INITIATING AND SIGNALING DEVICES MARKED AS 'RE/RE' AT NEW LOCATIONS MARKED AS 'RL'. REVISE AND/OR EXTEND EXISTING WIRING AS REQUIRED TO SUIT NEW LOCATIONS AND TO FACILITATE ARCHITECTURAL AND MECHANICAL ALTERATIONS.
- 6) CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING FIRE ALARM BELL/STROBE COMBINATION DEVICES AND SUPPLY AND INSTALL NEW HORN/STROBE DEVICES IN EXISTING LOCATIONS. ALL NEW HORN/STROBE DEVICES SHALL MATCH EXISTING VISUAL AND AUDIO PATTERNS.
- 7) CONTRACTOR TO SUPPLY AND INSTALL NEW ADDRESSABLE DUCT SMOKE DETECTORS AT LOCATIONS SHOWN FOR INITIATING THE COMBINATION FIRE/SMOKE DAMPERS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL TRADE. DUCT SMOKE DETECTORS SHALL BE INSTALLED WITHIN 1.5m HORIZONTALLY OF THE DUCT IN THE FIRE SEPARATION DOWNSTREAM OF THE COMBINATION FIRE AND SMOKE DAMPER. SUPPLY AND INSTALL 120V, 15A, 1P DIRECT CONNECTIONS AT EACH FIRE & SMOKE DAMPER LOCATION AS SHOWN.
- 8) CONTRACTOR SHALL SUPPLY AND INSTALL NEW ADDRESSABLE MODULES AT EACH COMBINATION FIRE AND SMOKE DAMPER LOCATION. CONFIRM EXACT QUANTITIES AND LOCATIONS WITH MECHANICAL TRADE. MODULES SHALL BE EQUIPPED WITH A TROUBLE AND OUTPUT RELAY FOR MONITORING AND INITIATING THE SMOKE DAMPERS. PROGRAM FIRE RELAY MODULE TO CLOSE THE SMOKE DAMPER UPON SIGNAL FROM THE ASSOCIATED SMOKE DETECTORS.
- 9) SUPPLY AND INSTALL ACCESS DOORS AS REQUIRED FOR DAMPER/MODULE INSPECTION AND TESTING. COORDINATE WITH ARCHITECTURAL TRADE.
- 10) CONTRACTOR SHALL SUPPLY AND INSTALL AN ALARM CONTACT AND WIRING FROM THE FACP TO EACH ROOFTOP HVAC UNIT FOR AUTOMATIC SHUTDOWN UPON ACTIVATION OF ANY ASSOCIATED SMOKE DETECTORS. CONFIRM EXACT REQUIREMENTS WITH MECHANICAL TRADE.
- 11) CONTRACTOR TO SUPPLY AND INSTALL A SET OF DRY CONTACTS WITHIN FACP FOR BAS NOTIFICATION. CONFIRM EXACT REQUIREMENTS WITH BAS SYSTEM SUPPLIER.
- 12) CONTRACTOR TO SUPPLY AND INSTALL WIRING, DEVICES AND ACCESSORIES TO PROVIDE MONITORING OF COMBINATION FIRE AND SMOKE DAMPER ACTUATOR POWER SUPPLY CIRCUITS LP-2#1,3,5 WHICH SHALL PROVIDE A TROUBLE SIGNAL UPON LOSS OF POWER.
- 13) CONTRACTOR SHALL REPLACE ALL EXISTING BELL/STROBE SIGNALING DEVICES WITH NEW HORN/STROBE DEVICES. RE-USE EXISTING WIRING AND SUPPLY AND INSTALL ALL DEVICES, MOUNTING PLATES, ETC REQUIRED FOR INSTALLATION. PATCH WALLS TO MATCH BASEBUILDING FINISHES.
- 14) CONTRACTOR SHALL MAINTAIN EXISTING CALL SIGNAL TO FIRE ALARM DEPARTMENT AND INTEGRATE WITH NEW PANEL.
- 15) RETAIN THE SERVICES OF TROY LIFE & SAFETY LTD. (CONTACT CALEB JOHNSON 519-807-4489, CALEB.JOHNSON@TROYLFS.COM) TO TEST, VERIFY AND COMMISSION THE NEW FIRE ALARM PANEL, DEVICES, SIGNALING AND CONTROLS. PROGRAMMING AND COMMISSIONING OF FACP SHALL BE INCLUDED AS PART OF THIS CONTRACT.
- 16) RETAIN THE SERVICES OF A WRDSB APPROVED QUALIFIED LIFE SAFETY TESTING AGENCY TO COMPLETE CAN/ULC S1001 INTEGRATING LIFE SAFETY TESTING.

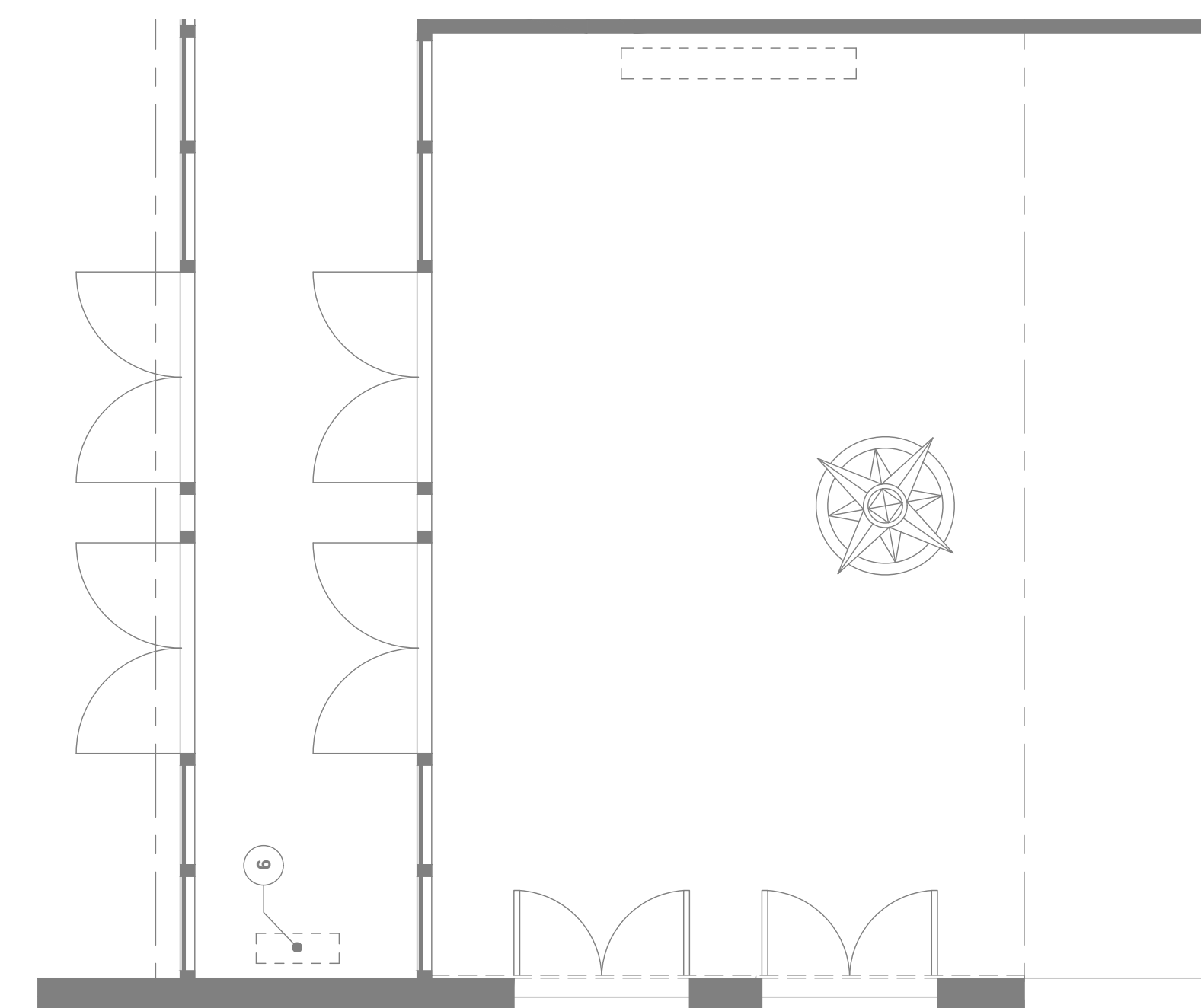


KEY PLAN (N.T.S.)



2 PROPOSED EQUIPMENT LAYOUT - BOILER ROOM

E9 SCALE: 1:50

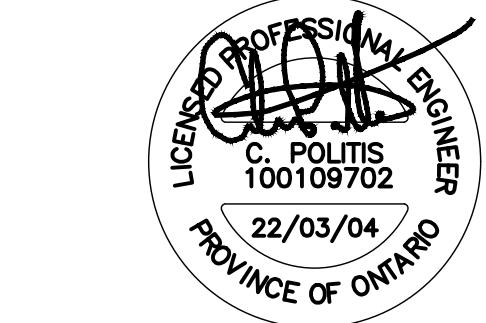


3 PROPOSED EQUIPMENT LAYOUT - MAIN ENTRANCE VESTIBULE

E9 SCALE: 1:50

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

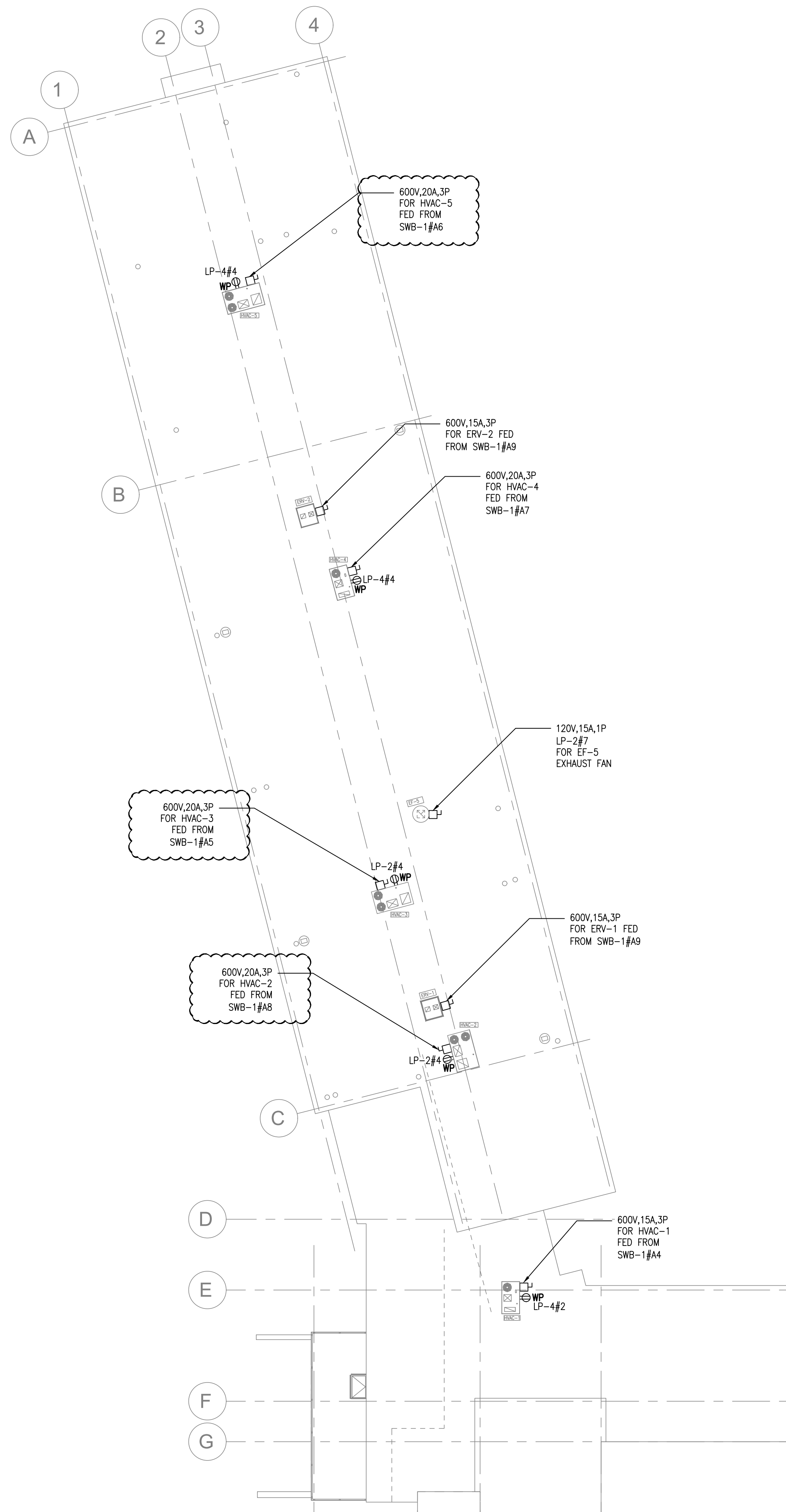
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
ELECTRICAL AND BOILER ROOM LAYOUTS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

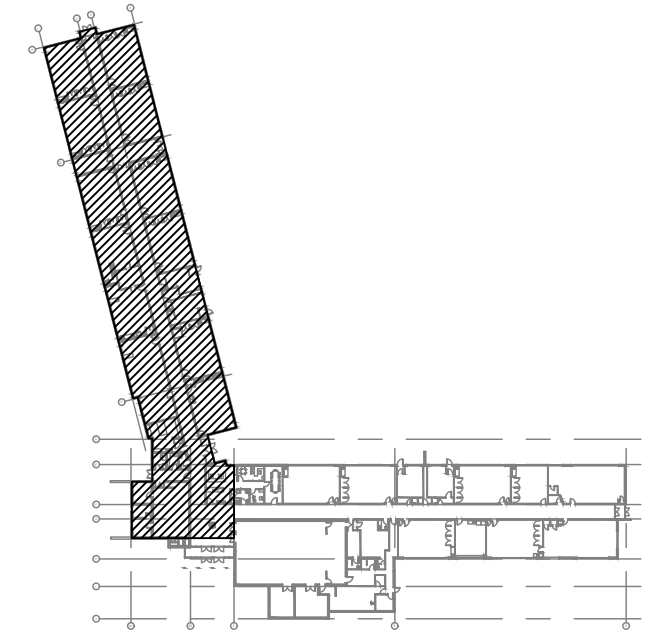
Sheet Number Revision



1 PROPOSED ROOFTOP PLAN
E10 SCALE: 1:200

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

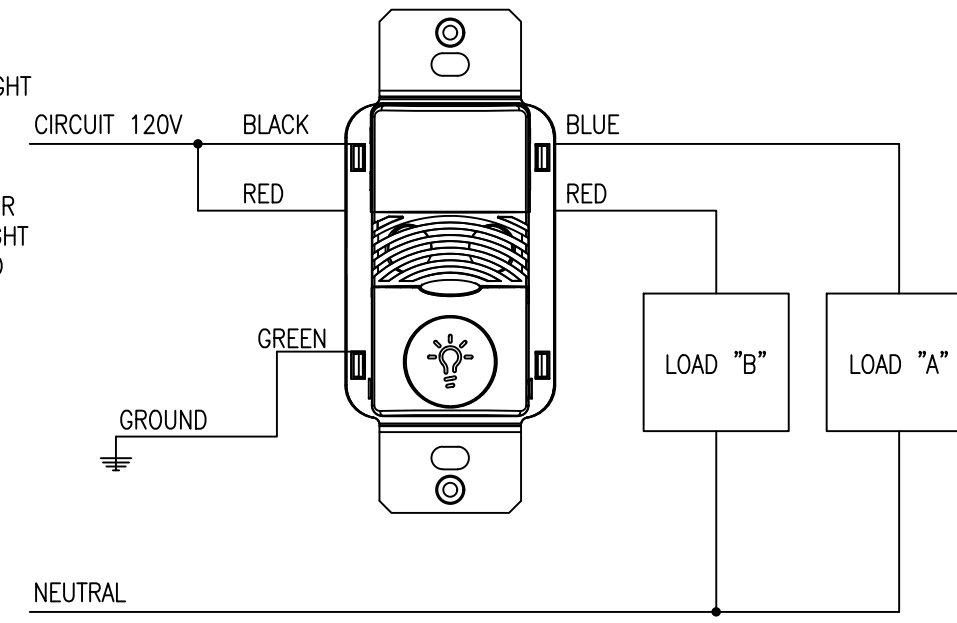
Project Name
WRDSB - WORKSHOP
ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED ROOFTOP POWER PLAN

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision
E10 1

OPERATION / FUNCTION:

1. LIGHTS ARE TURNED ON BY LIGHT SWITCH. NO AUTOMATIC ON FUNCTION IS PERMITTED.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT. 30 MINUTES. LIGHT SWITCH CAN ALSO BE USED TO TURN OFF LIGHTS.
3. DAY LIGHT SENSOR IS NOT ENABLED FOR THIS SENSOR.



1 WALL SWITCH OCCUPANCY SENSOR DETAIL

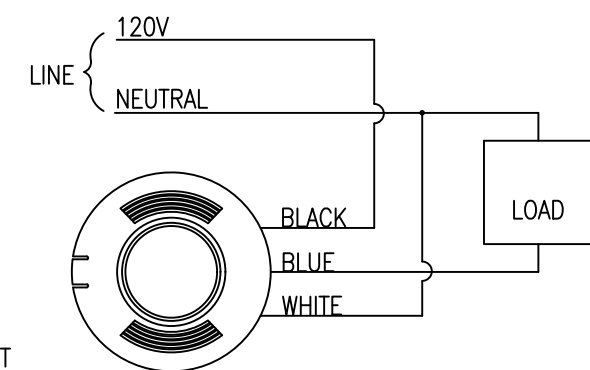
E11 SCALE: N.T.S.

AUTOMATIC MODE OPERATION:

1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. LOAD TURNS OFF WHEN SENSOR TIMES OUT.

OPERATION / FUNCTION:

1. LIGHTS ARE TURNED ON BY LIGHT SWITCH. NO AUTOMATIC ON FUNCTION IS PERMITTED.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT. 30 MINUTES. LIGHT SWITCH CAN ALSO BE USED TO TURN OFF LIGHTS.
3. WHERE DIMMER SWITCH IS REQUIRED, PLEASE CONNECT AS PER MANUFACTURER'S INSTRUCTIONS.
4. DAY LIGHT SENSOR IS NOT ENABLED FOR THIS SENSOR.



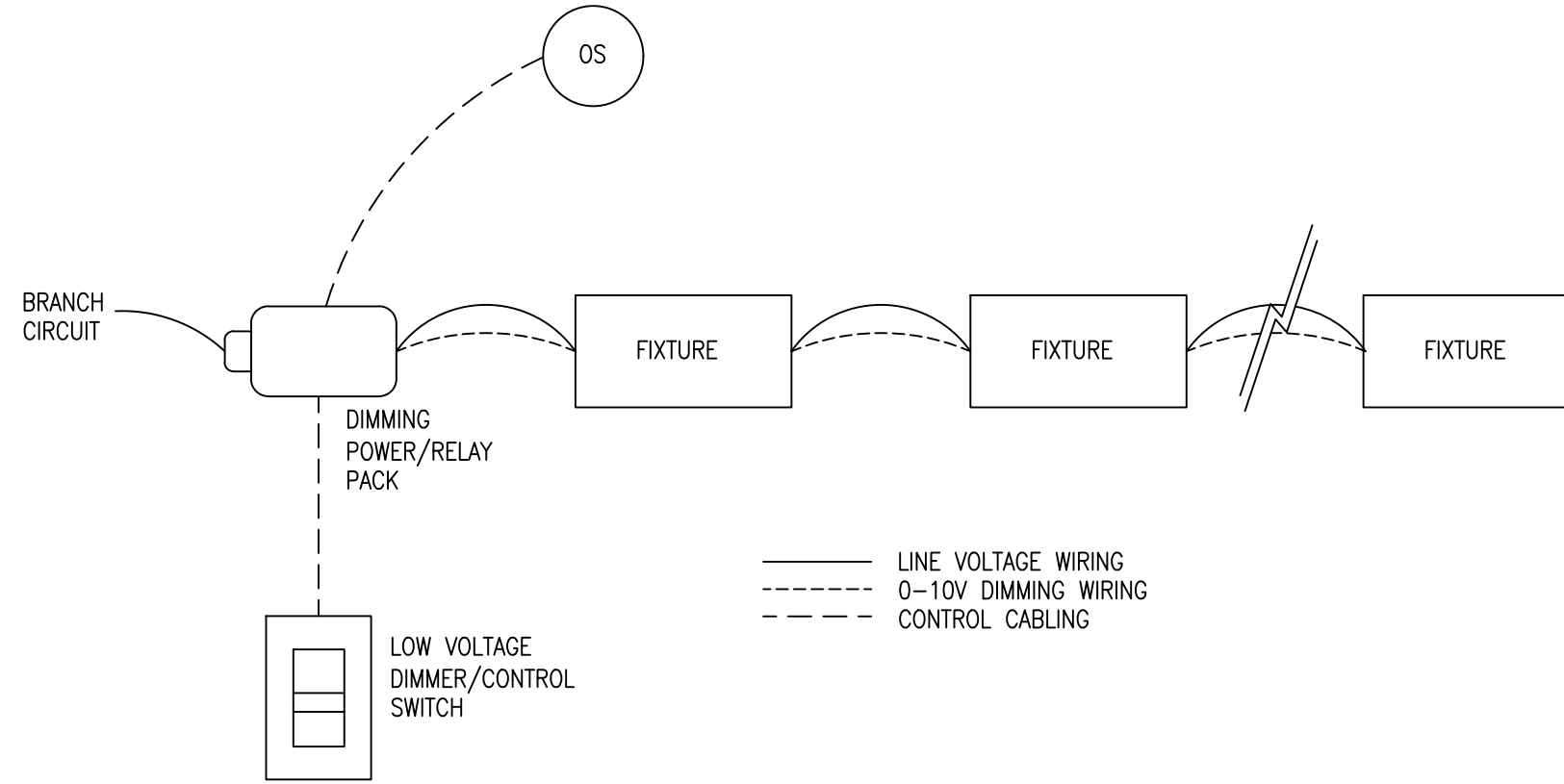
2 CEILING MOUNT OCCUPANCY SENSOR DETAIL

E11 SCALE: N.T.S.



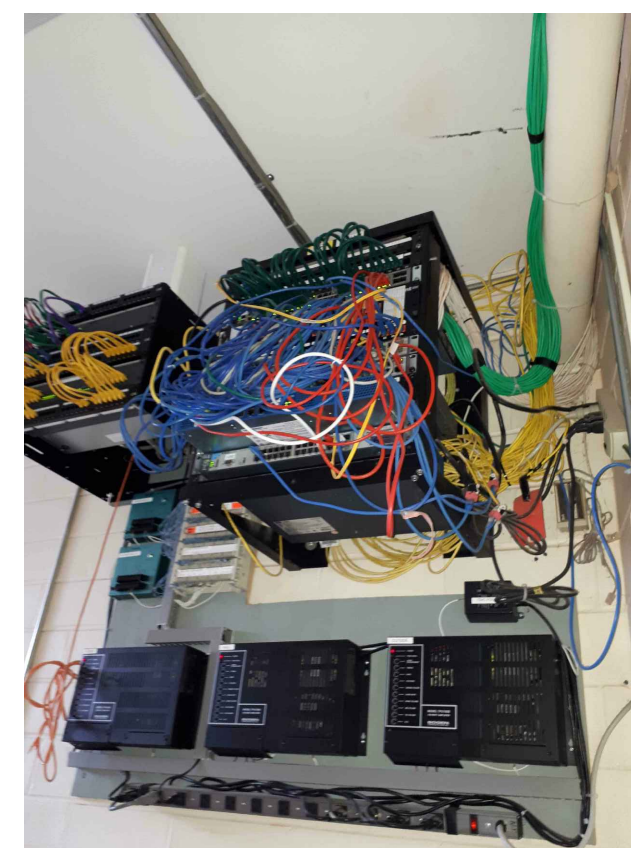
5 EXISTING IT HUB

E11 SCALE: N.T.S.



3 OCCUPANCY SENSOR WITH DIMMING DETAIL

E11 SCALE: N.T.S.



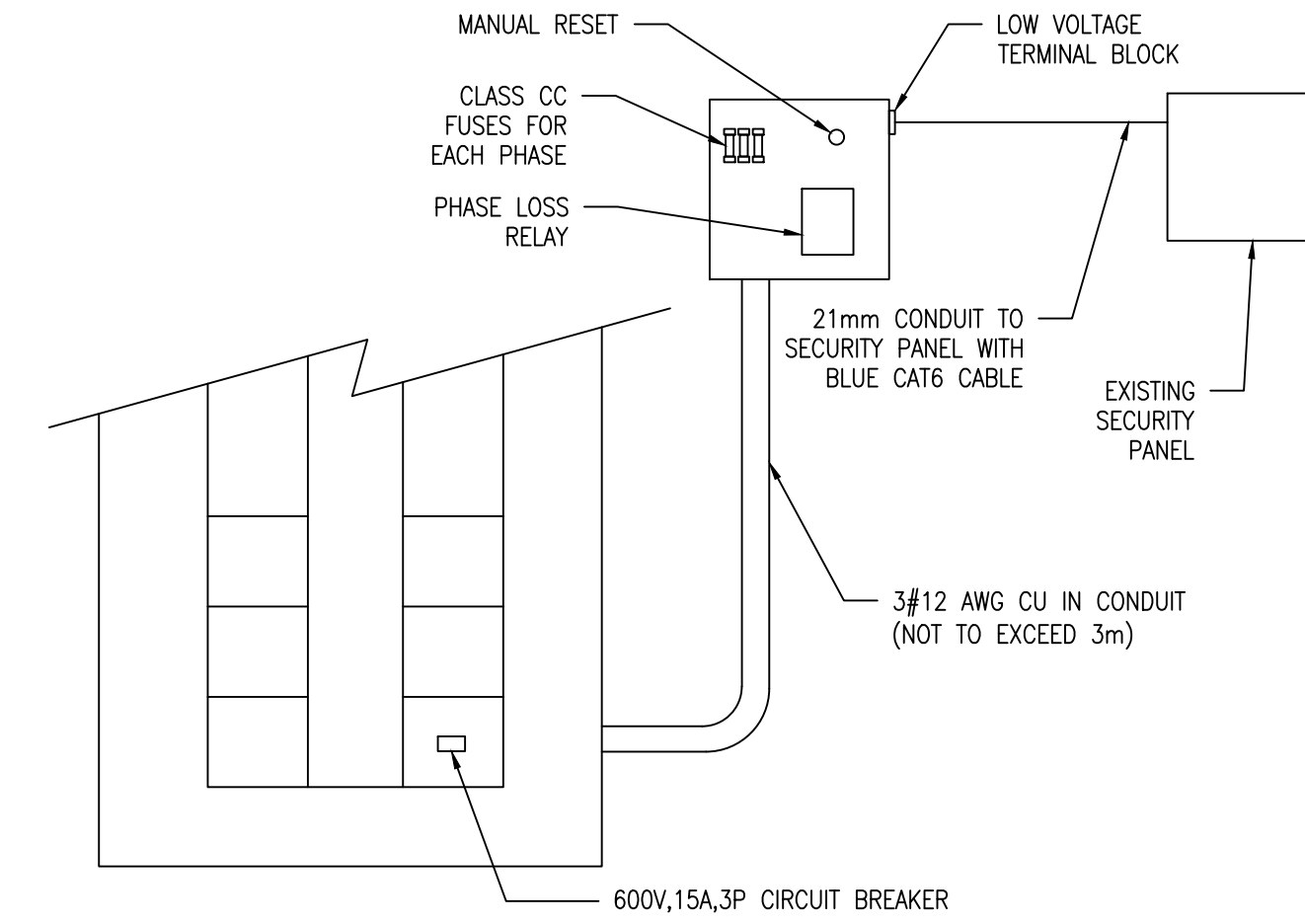
6 EXISTING IT HUB

E11 SCALE: N.T.S.



7 EXISTING PHONE BACKBOARD

E11 SCALE: N.T.S.



PHASE LOSS RELAY REQUIREMENTS:

1. SUPPLY AND INSTALL 250mm x 250mm x 150mm BOX, PHASE LOSS RELAY (EATON D65VMS600 OR EQUIVALENT) AND ACCESSORIES AS SHOWN, LABEL ON COVER STATING: "PHASE LOSE RELAY. CONTACT MONITORING COMPANY BEFORE DE-ENERGIZING".
2. MOUNT RELAY ON DIN RAIL AND SUPPLY AND INSTALL CLASS CC FUSING WITHIN BOX. SUPPLY AND INSTALL 2-#18 AWG WIRES FROM OUTPUT CONTACT TO LOW VOLTAGE TERMINAL STRIP ON EXTERIOR OF BOX. WHEN PHASE IS LOST, THE CONTACT SHALL OPEN. SUPPLY AND INSTALL 21mm CONDUIT FROM LOW VOLTAGE TERMINAL BLOCK TO SECURITY PANEL COMPLETE WITH BLUE CAT6 CMP CABLE. FINAL TERMINATIONS BY SECURITY SUBCONTRACTOR.
3. SUPPLY AND INSTALL NORMALLY CLOSED PUSHBUTTON ON FRONT OF BOX TO MANUALLY RESET THE RELAY. PUSHBUTTON SHALL BE FLUSH WITH THE BOX AND SHALL BE LABELED "MANUAL RESET".
4. ADJUST UNDERVOLTAGE TO MINIMUM, UNBALANCE TO MAXIMUM AND TRIP DELAY TO MAXIMUM TO AVOID NUISANCE TRIPPING.

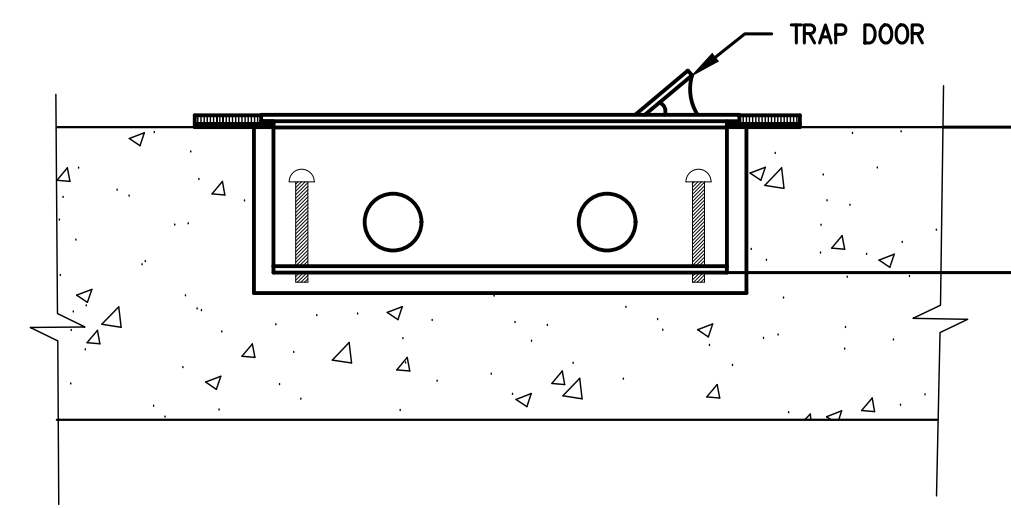
4 PHASE LOSS RELAY DETAIL

E11 SCALE: N.T.S.

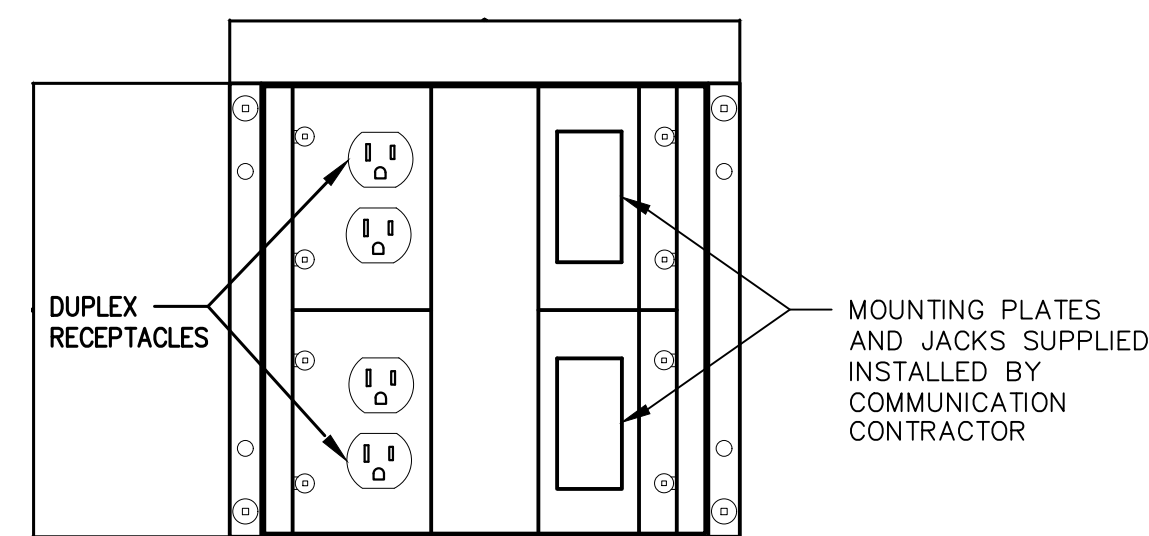


8 EXISTING IT HUB CLASSROOM 14

E11 SCALE: N.T.S.



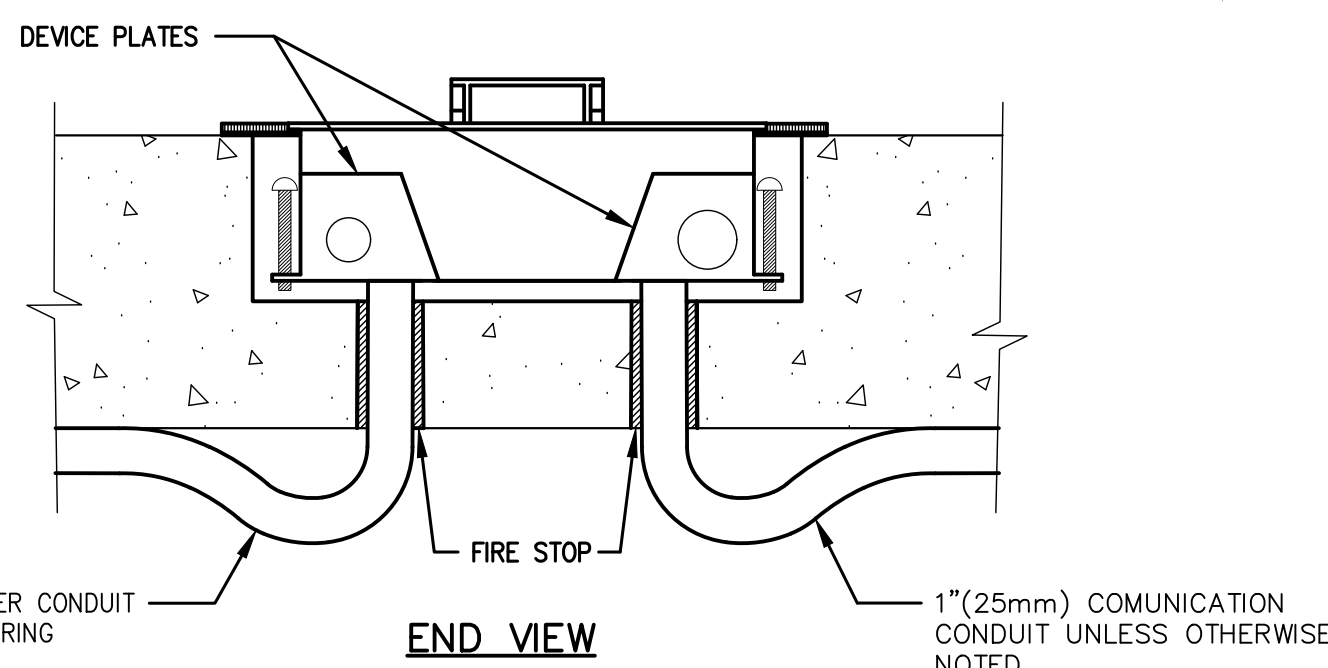
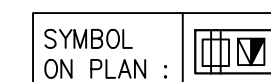
SIDE VIEW



TOP VIEW

NOTES:

1. FLOOR BOX SHALL BE NEPCO, WELLMARK OR CANADIAN ELECTRICAL RACEWAYS, "LOW PROFILE SERIES".
2. FLOOR BOX FINISH TO BE BLACK.



END VIEW

9 FLOOR BOX DETAIL

E11 SCALE: N.T.S.

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

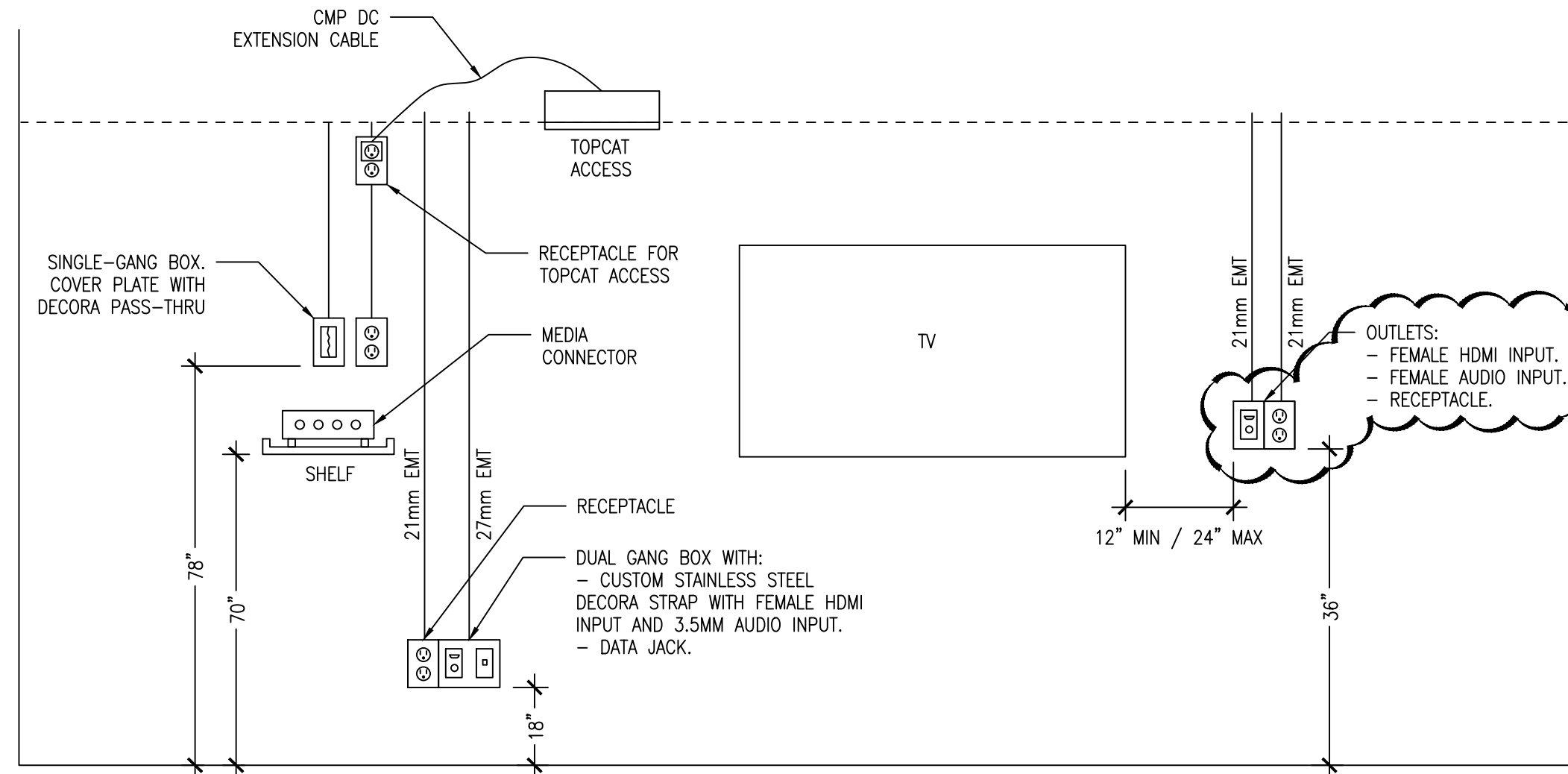
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
ELECTRICAL DETAILS

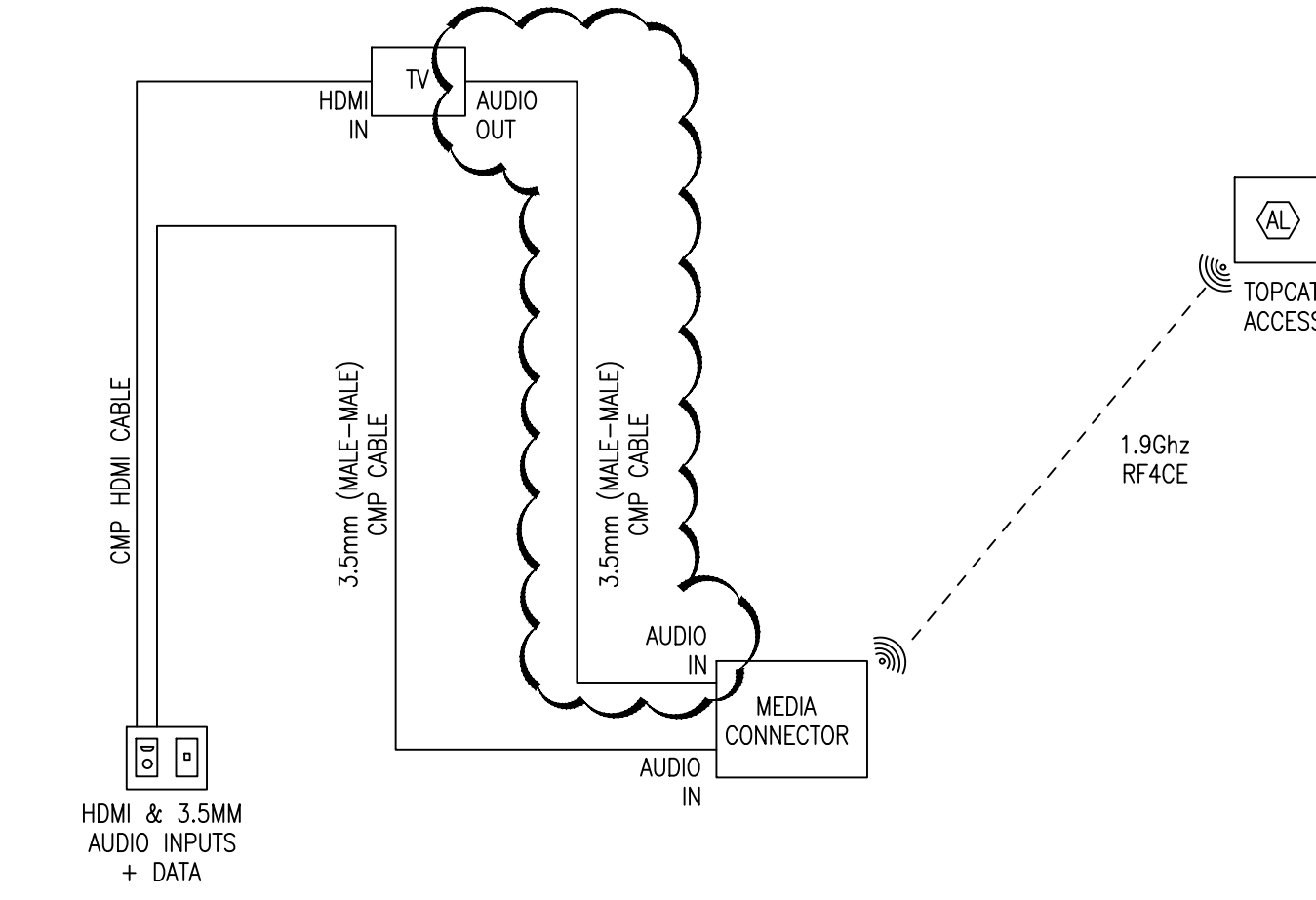
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
E11 **1**

TOPCAT AUDIO AND TV REQUIREMENTS:

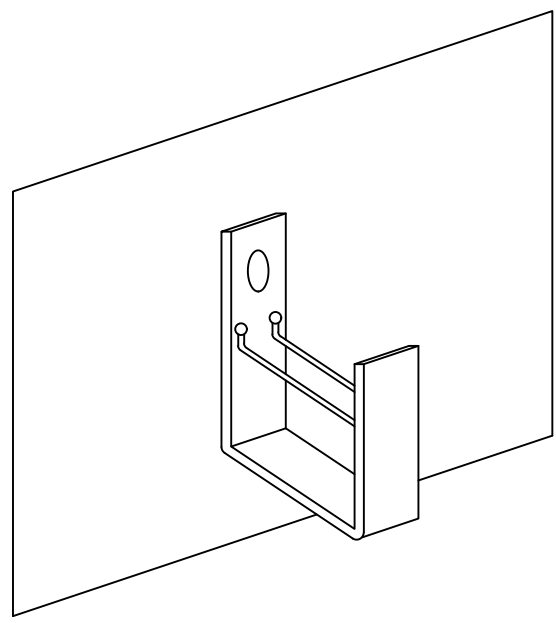
1. TOPCAT AUDIO SYSTEM SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR. SUPPLY AND INSTALL OF TV IS NOT PART OF ELECTRICAL CONTRACTOR SCOPE OF WORK.
2. ALL LOCATIONS FOR TV AND AV EQUIPMENT AND OUTLETS WITHIN CLASSROOMS IS APPROXIMATE. CONTRACTOR TO VERIFY AND RECOMMEND EXACT LOCATIONS BASED ON SITE CONDITIONS AND SUBMIT TO CONSULTANT FOR REVIEW AND APPROVAL.



10 TOPCAT AND PROJECTOR ROUGH-IN DETAIL
E11.1 SCALE: N.T.S.



11 TOPCAT CABLING SCHEMATIC
E11.1 SCALE: N.T.S.



NOTES:

1. INCLUDE CABLE RETAINERS WITH HANGER.
2. HANGERS SHALL BE WALL MOUNTED WHERE POSSIBLE. WHEN NOT POSSIBLE, UNITS SHALL BE SUSPENDED FROM STRUCTURE WITH THREADED ROD.
3. CORRIDOR MOUNTED HANGERS SHALL BE IN-LINE. MAXIMUM SPACING TO BE 1.5m.
4. COORDINATE INSTALLATION OF HANGERS WITH MECHANICAL TRADE TO AVOID CONFLICTS.
5. INSTALLATION OF POWER CABLES WITHIN HANGERS IS NOT PERMITTED.
6. J-HOOKS TO BE EATON BCH64 OR APPROVED EQUIVALENT.

12 J-HOOK INSTALLATION DETAIL
E11.1 SCALE: N.T.S.



SYSTEM DESCRIPTION

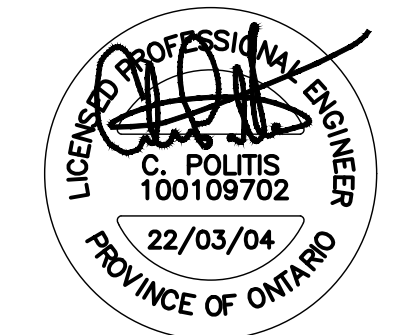
1. Lightspeed TopCat Access is an all-in-one, ceiling-mount classroom audio system. A typical assistive listening system will include speakers, an integrated amplifier and a wireless audio receiver/transmitter.
2. The TopCat assistive listening system shall include the following features and components:
 - a. A two-way hybrid speaker system with an exciter technology sound panel and low frequency cone driver.
 - b. Cross over technology to deliver high speech intelligibility and full range sound with even distribution throughout the classroom.
 - c. Pendant-style microphones for whole classroom instruction, team-teaching or student sharing.
 - d. Wireless Media Connector to integrate with and wirelessly transmit all classroom multimedia to be played.
 - e. Devices communicate using wireless Access Technology (1.9Ghz + RF4CE).
 - f. Suitable for use in return air plenums.

PRODUCTS

1. **Typical Classrooms**
 - a. Assistive listening equipment manufactured by Lightspeed for a typical classroom (approximately 75 m²) shall consist of the following:
 - i. One (1) Model No. TCA
 - Topcat ceiling-mounted wireless audio base station
 - Plug-in power adapter
 - 50' plenum rated DC power cable kit
 - Hybrid speaker system consisting of exciter sound panel plus low frequency cone driver
 - o Panel Size: 13.75" x 6.75"
 - o Cone Driver Size: 5.25"
 - o Impedance: 8 Ω
 - o Power Handling: 25W
 - (1) Tone control inside cabinet
 - Audio Input: (1) 3.5mm inside cabinet
 - Dimensions (W x D x H): 610 x 305 x 94mm
 - ii Two (2) Model No. FM
 - Flexmike pendant-style wireless microphone
 - AA NIMH rechargeable battery pack
 - Lavalier cord
 - Audio distortion: <1%
 - Integrated microphone type: uni-directional electret
 - Audio input: (1) 3.5mm
 - Earbud output: (1) 3.5mm
 - Push button volume control: +/- 6dB (total range = 12 dB)
 - Power: on/off/mute button
 - Battery run time: 8 hours
 - Dimensions (L x W x H): 74 x 28 x 25mm
 - iii One (1) Model No. FMCC
 - Cradle charger for two Flexmikes
 - Plug-in power adapter
 - iv One (1) Model No. Media connector
 - Wireless audio transmitter/receiver to integrate with classroom audio sources and send/receive the wireless signal to the Topcat system in the ceiling
 - Plug-in power adapter
 - Audio Inputs: (4) 3.5mm stereo jacks connect to classroom audio sources
 - Audio Outputs: (2) 3.5mm jack with volume control
 - (1) Microphone volume control
 - (1) Audio input volume control
 - (1) Audio output volume control
 - (1) Power button with LED
 - (1) Tone control
 - Dimensions (W x D x H): 193 x 104 x 28mm
 - v One (1) wall-mounted, single shelf.
 - Glass shelf.
 - Black colour.

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.

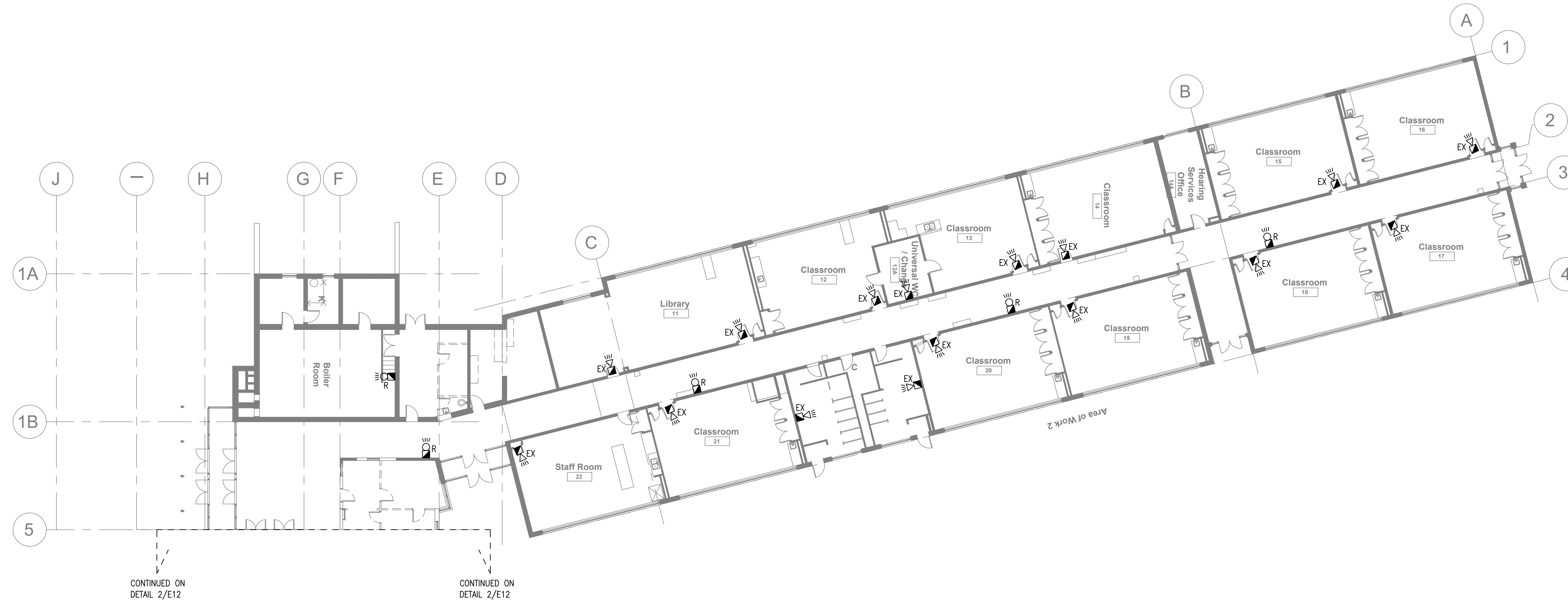


No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

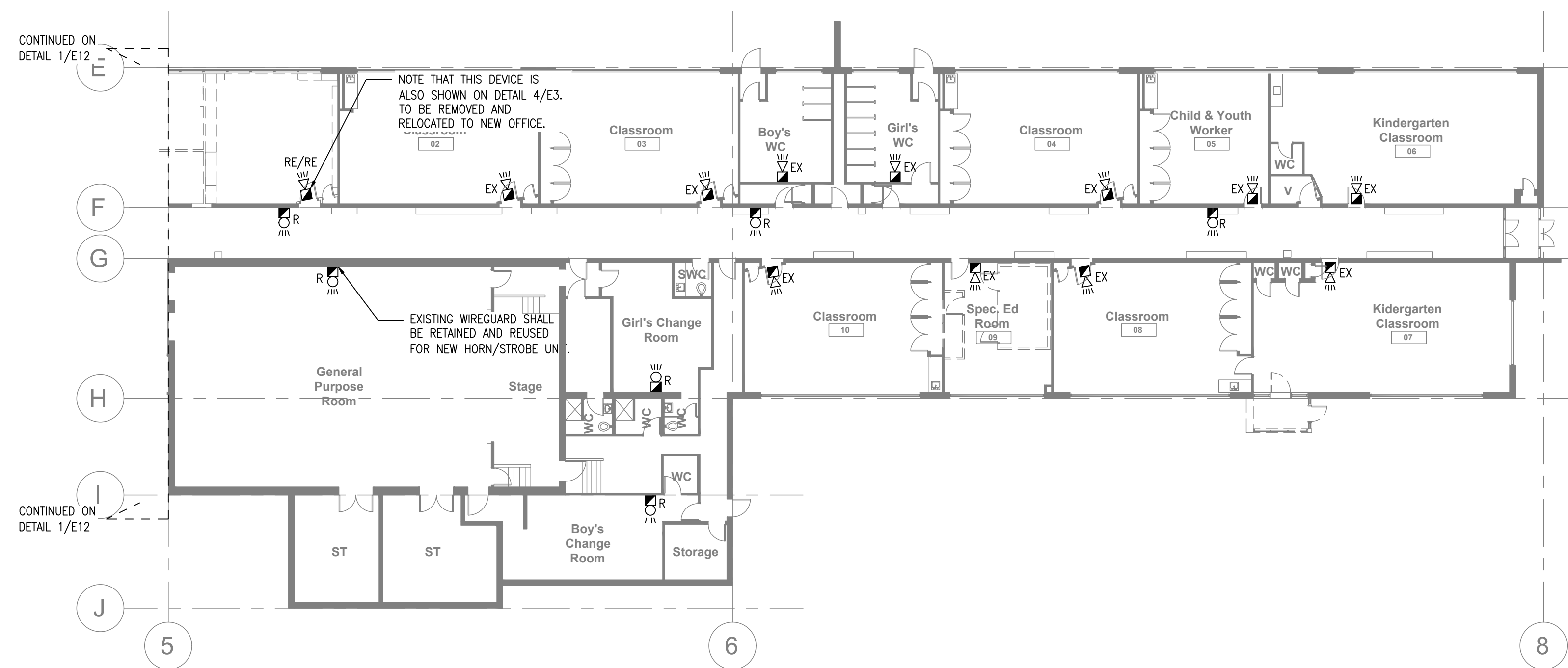
BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
ELECTRICAL DETAILS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
E11.1 1



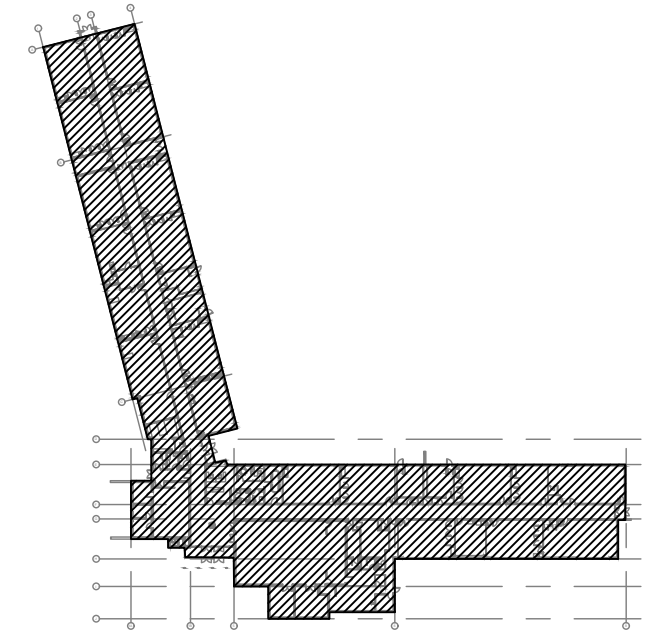
1 EXISTING/DEMO SIGNALING DEVICE LAYOUT - WEST WING
E12 SCALE: 1:200



1 EXISTING/DEMO SIGNALING DEVICE LAYOUT - EAST WING
E12 SCALE: 1:200

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



KEY PLAN (N.T.S.)



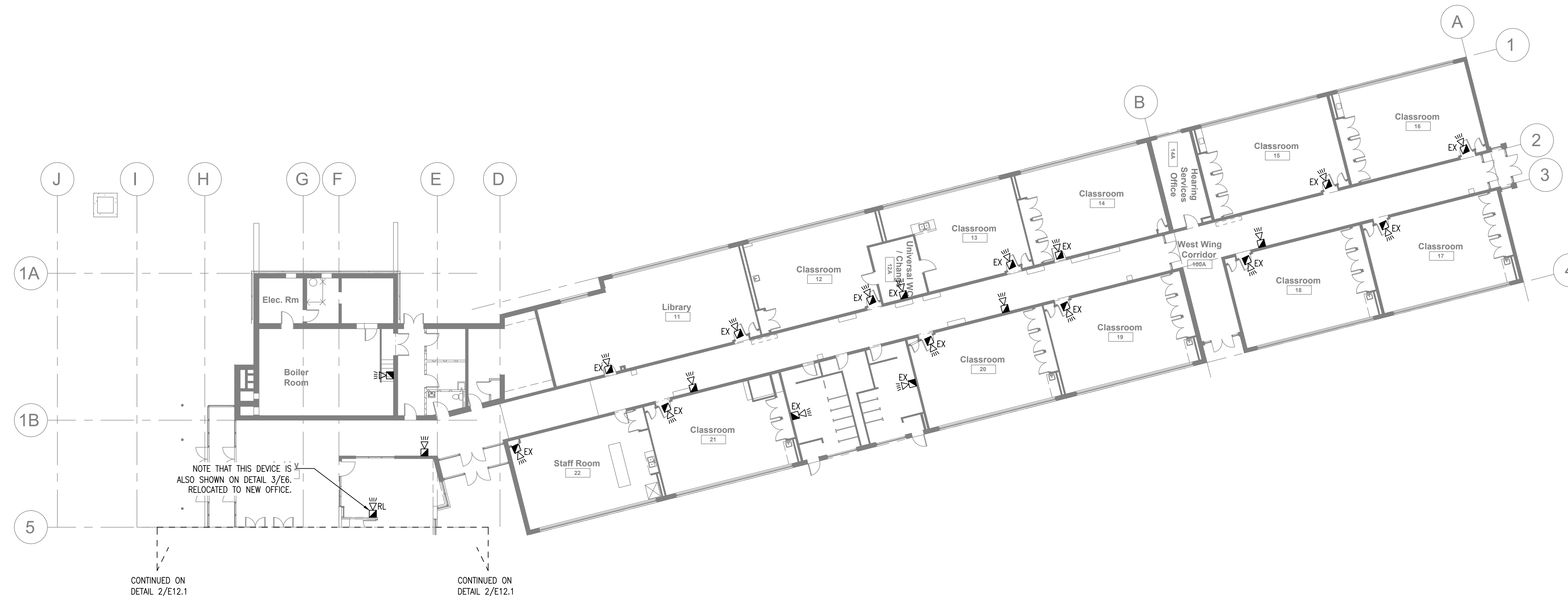
No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

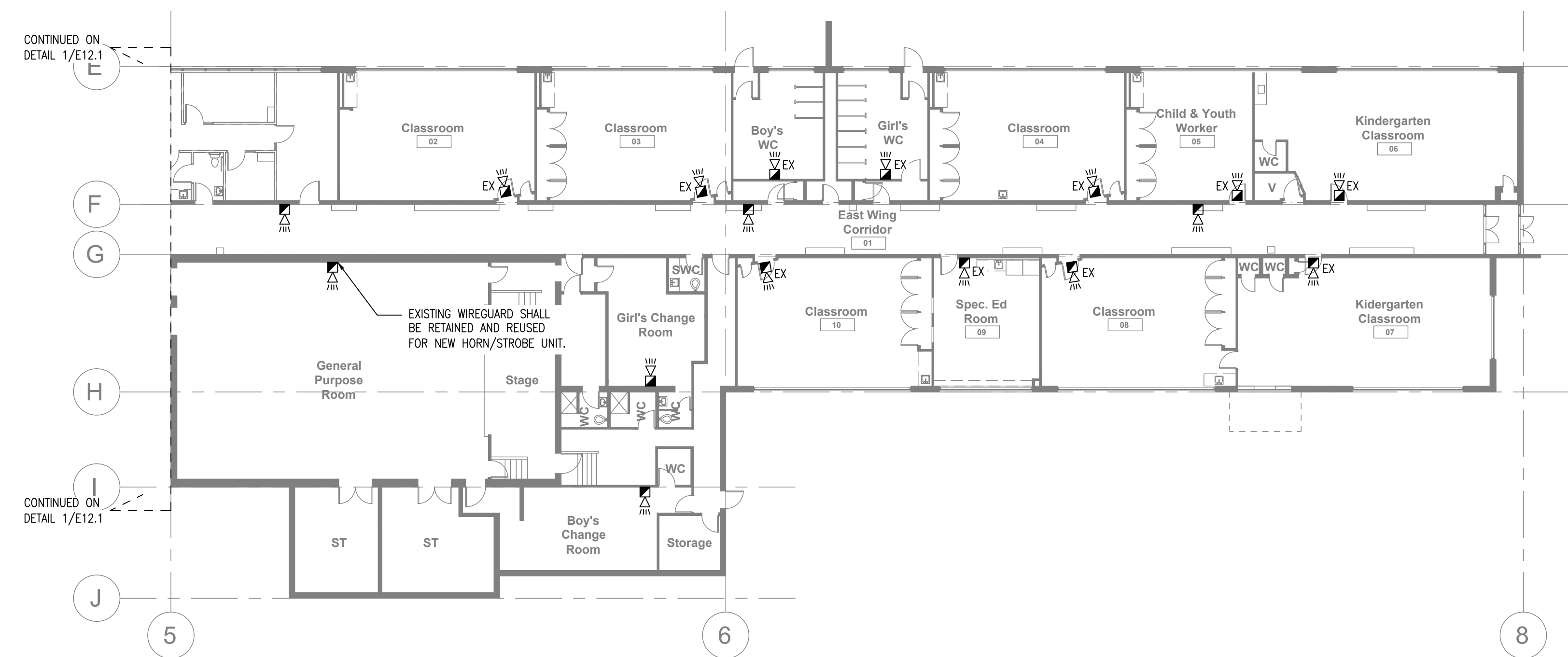
Project Name
WRDSB - WORKSHOP
ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMOLITION
SIGNALING DEVICE LAYOUT

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision

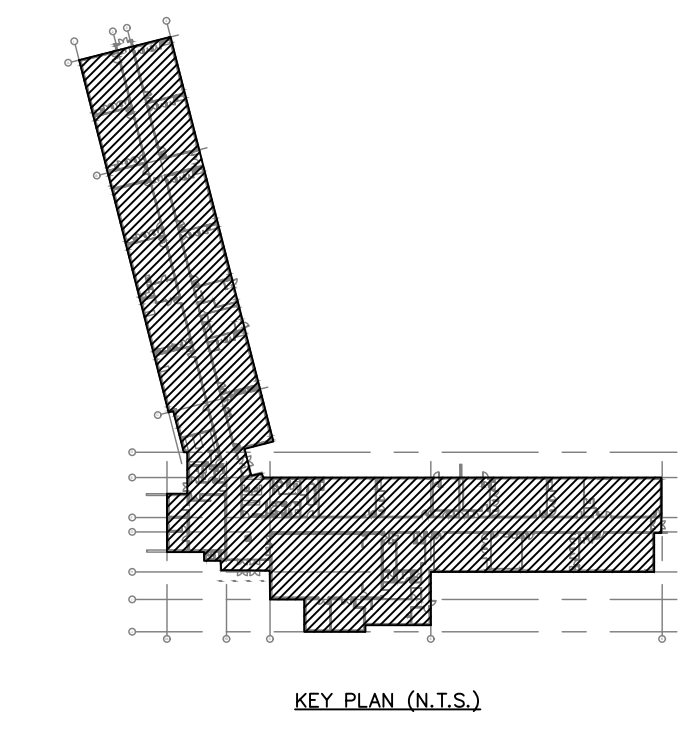


1 PROPOSED SIGNALING DEVICE LAYOUT - WEST WING
E12.1 SCALE: 1:200



1 PROPOSED SIGNALING DEVICE LAYOUT - EAST WING
E12.1 SCALE: 1:200

- Drawing Notes**
1. All drawings, plans, models, designs, specifications and other documents prepared by Bold Engineering Inc. ("BOLD") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of BOLD whether the Work is executed or not, and BOLD reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 2. These drawings are "design drawings" only. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from BOLD.
 3. The work "as constructed" may vary from what is shown on these drawings. Use of these drawings is limited to that identified in the Issued/Revision column. Do not construct from these drawings unless marked "Issued for Construction" by BOLD in the Issued/Revision column, and then only for the parts noted. The drawings shall not be used for "pricing" / "costing" or "tender" unless so not complete and any prices based on such drawings must allow for this.



No.	Revision	Date	By
10.	ISSUED FOR ADD-E01	22 MAR 04	CP
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB

BOLD engineering
 Bold Engineering Inc.
 2778 Dufferin Street, Suite 104
 Toronto, Ontario, M6B 3R7
 Canada
 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED SIGNALING DEVICE LAYOUT

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number **E12.1** Revision **1**

PART 1 - GENERAL

1.1 Summary

- .1 Design, labour, Products, equipment, tools, and services necessary for glass and glazing Work in accordance with the Contract Documents.
- .2 Decorative surface glazing films.

1.2 References

- .1 Canadian Door and Window Manufacturers, Certification Program.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.
 - .2 CAN/CGSB-12.2-M91, Flat, Clear Sheet Glass.
 - .3 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.
 - .4 CAN/CGSB-12.4-M91, Heat Absorbing Glass.
 - .5 CAN/CGSB-12.5-M86, Mirrors, Silvered.
 - .6 CAN/CGSB-12.6-M91, Transparent (One-Way) Mirrors.
 - .7 CAN/CGSB-12.8-97, Insulating Glass Units.
 - .8 CAN/CGSB-12.9-M91, Spandrel Glass.
 - .9 CAN/CGSB-12.10-M76, Glass, Light and Heat Reflecting.
 - .10 CAN/CGSB-12.11-M90, Wired Safety Glass.
 - .11 CAN/CGSB-12.12-M90, Plastic Safety Glazing.
 - .12 CAN/CGSB-12.13-M91, Patterned Glass.
 - .13 CAN/CGSB-12.20-M, Structural Design of Glass for Buildings
- .3 Flat Glass Manufacturers Association (FGMA), Glazing Manual

1.3 Submittals

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures. Where indicated, Shop drawings shall be sealed by a qualified professional engineer licensed to design structures and registered in Place of the Work.
- .2 Samples:
 - .1 Submit following samples in accordance with Section 01 33 00.
 - .2 Submit one 300 x 300mm sample of ultra clear low iron glass

1.4 Closeout Submittals

- .1 Provide maintenance data including cleaning instructions for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.5 Quality Assurance

- .1 Installer shall comply with GANA (Glass Association of North America) - Glazing Manual other relevant standards, guidelines, and the Ontario Building Code
- .2 Tempered glass:
 - .1 Tempered and heat strengthened glass shall be horizontally treated; vertical treatment will not be acceptable. Fabrication and treatment shall be such that distortion lines (where they occur) run horizontally (parallel to sill and head) after installation.

- .2 Tempered glass shall bear the manufacturer's identification as to thickness. Such identification for glazing shall be permanently etched so as to be visible after glass has been installed. Glass other than fully tempered (FT) glass shall not have etched labels.
- .3 Identification: Label each pane of glass and glass unit with type, thickness, quality, and colour of glass and with manufacturer's trade name
- .4 Glazing: Glazing compounds and methods shall conform with applicable requirements of GANA Glazing Manual.
- .5 Where glass and glazing is located less than 1m (40") above finished floor, it shall be designed as a guardrail as per OBC 4.1.5.14. and shall be tempered.

PART 2 – PRODUCTS

2.1 General:

- .1 Glazing to be used for interior glass doors and partitions shall be heat treated to strengthen glass in bending to not less than 4.5 times annealed strength. Glass shall have minimal waviness or distortion and with all areas free of tong marks

2.2 Materials

- .1 General: All materials under work of this Section, including but not limited to, primers, coatings, sealers, sealants, adhesives and cleaners are to have low VOC content limits.
- .2 Tempered glass (**TGL**): CAN/CGSB-12.1-M, Type 2, Class B, Category II, minimum 6 mm thick, clear or tinted as per drawings/schedules.
 - .1 Provide tinted glass at outboard light of all new exterior glazing unless noted otherwise. Acceptable colour/product: CrystalBlue by Guardian.
- .3 Annealed Clear Float Glass (**FGL**): ASTM C 1036, Type 1, Class 1, Quality q3, minimum 6 mm thick, clear.
- .4 Fire Rated Glass (**FRG**): Clear and wireless ceramic fire rated glass material; listed for use in fire-rated or fire/impact safety-rated insulated glass units in locations with fire rating requirements ranging from 20 to 90 minutes with required hose stream test.
 - .1 Passes positive pressure test standards UL 10C.
 - .2 Fire Protective Rated Glass: Each lite shall bear permanent, nonremovable label of UL certifying it for use in tested and rated fire protective assemblies.
 - .3 Fire Rating: Fire rating classified and labeled by UL for fire rating scheduled at opening locations on drawings, when tested in accordance with ASTM E2010-01; ULC Standards CAN4 S-104 and CAN4 S-106; NPFA 252 and NFPA 257; and UL 9 and UL 10B.
 - .4 Acceptable products: Firelite NT Premium Grade; Keralite Select F.
- .5 Insulating glass units: To CAN/CGSB-12.8-M and IGMA requirements utilizing approved non-metallic PVC or Fibreglass edge spacer in black. Dual seal with a PIB primary seal and silicone secondary seal.
- .6 Airspace: 90% air, 10% argon.
- .7 Low-E coating: High performance sputtered low-E coating. Provide insulating glass units with low-E coating edge deletion and low-E coating. Apply low-E coating to second surface unless otherwise indicated. Solarban 60 by PPG Industries Inc, SunGuard SN68 by Guardian or Cardinal LoE-270.
- .8 Glazing and rebate primers, sealants, sealers, and cleaners: Compatible with each other. Type as recommended by glass manufacturer.
- .9 Glazing sealant: Silicone sealant as recommended by glazing manufacturer. Verify compatibility with insulating glass unit secondary sealant.

- .10 Heel & toe bead: Silicone sealant as recommended by glazing manufacturer.
- .11 Glazing gasket: 'Visionstrip' by Tremco Ltd., extruded composite glazing seal, size as recommended by manufacturer.
- .12 Glazing tape: 'Polyshim II' glazing tape EPDM shim.
- .13 Glazing splines: EPDM or neoprene, extruded shape to suit glazing channel retaining slot, colour as selected.
- .14 Setting blocks (regular): EPDM, 80 - 90 Shore A durometer hardness to ASTM D2240, 100 mm long x 6 mm high x rebate width minimum, size designed for glass size and weight of glass unit.
- .15 Edge blocks: EPDM, 60-70 Shore A Durometer hardness, sized with 3 mm clearance from glass edge and spanning glass thickness(es). Capable of withstanding weight of glass unit, self adhesive on face.
- .16 Glass presence markers: Easily removable, non-residue depositing.
- .17 Isolation coating: CAN/CGSB 1.108-M; Bitumastic paint.
- .18 Screws, bolts and fasteners: Type 304 stainless steel.

PART 3 – EXECUTION

3.1 Installation of Glazing

- .1 Obtain field dimensions for each opening that is to receive glass and cut each glass to provide the optimal fit on, and clearance from, the sash or frame.
- .2 Clean the surfaces that are to receive the glass and glazing materials. Surfaces shall be free of dirt, corrosion, residue, oils, and any other substance that may impair adhesion of glazing materials.
- .3 Clean contact surfaces with solvent and apply primers to surfaces to receive tapes and sealants in accordance with the glass manufacturer's written instructions.
- .4 Ensure all finishes are fully dry before installing the glazing.
- .5 Seal porous glazing channels or recesses with substrate compatible primer or sealer. Prime surfaces scheduled to receive glazing compound.
- .6 Do not perform glazing when ambient temperature is below 4 degrees Celsius
- .7 Ensure humidity level is low before installation.
- .8 Install glazing according to manufacturers' specifications.
- .9 Ensure space between double-glazing is perfectly clean before installing the second panel.

3.2 General Glazing requirements:

- .1 Comply with the general provisions of GANA Glazing Manual and the Ontario Building Code for minimum glazing requirements, and ensure that minimum frame lap (minimum grip of glass) and edge clearances are provided as required for the size of openings. Provide for expansion and contraction of glass as required.
- .2 Conform with the manufacturers' latest published installation instructions and recommendations for glazing of tempered glass, laminated glass, and insulating glass. Follow manufacturer's latest published instructions for protection of edges and sizing of glass.
- .3 Provide setting blocks at quarter points along the bottom of the glass pane. Blocks shall support the glass 1.5875 mm above the metal. Provide spacers to hold glass in centre between stops
- .4 Provide spacers for glass panes where length plus width is greater than 1270 mm
 - .1 Locate spacers directly opposite each other on both inside and outside faces of the glass. Install correct size of spacers and spacing to preserve required face clearances, unless

Section 08 81 00
Interior Glass Glazing

gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements

- .2 Provide 3.2 mm minimum bite of spacers on glass and use thickness equal to sealant width.
- .5 Adjust glazing channel dimensions as required by conditions during installation to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.
- .6 Protect glass edges from damage during handling and installation. Remove damaged glass from project site and dispose in accordance with municipal waste management and recycling requirements. Glass is considered to be damaged if edge damage, or other imperfections that, when installed, could weaken the glass and impair performance and/or appearance.
- .8 Glazing of hollow metal doors and frames: glass shall be set around all edges with glazing gaskets hereinbefore specified. Provide setting blocks and spacers blocks as required. Set gasket legs on both sides of glass. Gasket shall be continuous, notched only at top rail in the centre. Compress gasket at least 15 percent to form a tight seal.
- .9 For indoor glass panels: - set glass panes with proper orientation so that coating faces the correct specified direction

3.4 Finishing

- .1 Immediately remove sealant and compound droppings from finished surfaces. Remove labels after work is completed.

3.5 Cleaning and Replacement

- .1 Upon completion of glazing, remove paint spots, splatters, and other blemishes from glass
- .2 Assure that each light is identified as to type and grade of glass
- .3 Remove and replace glass panes that are cracked or broken and where distortion is evident and distracting, as determined by the Consultant.
- .4 Remove paper labels, wash, and polish glass just before acceptance by Consultant.
- .5 Protect glass against damage from subsequent construction activities and damage.

END OF SECTION