

1920.000

**TOWN OF HIGH LEVEL
DEVELOPMENT PERMIT**

PERMIT NO.: **DP25-023**
PROPOSED USE: **Permitted Use – 362 ft² Temporary Accessory Building or Structure**
APPLICANT: **Aurora Ventures Ltd.**
LANDOWNER: **Brown Investments Ltd.**
LOCATION: **Lot 3, Block 1, Plan 142-3377**

A development involving Application No. DP25-023 has been Approved with Conditions.

- 1. The site shall be developed in accordance with the site drawings and information attached hereto as Schedule A.**
- 2. The Applicant/Registered Owner shall remove the Accessory Building or Structure by October 16, 2025.**
- 3. The Applicant/Registered Owner shall ensure there is no damage to municipal property resulting from this permit. Costs for repairs of municipal property will be assessed by the Town of High Level and will be charged back to the applicant.**

You are hereby authorized to proceed with the development specified, provided that any stated conditions are complied with, that all other applicable permits are obtained, and that the appropriate appeal period has been exhausted. Should an appeal be made against this decision to the Land and Property Rights Tribunal, this Development Permit shall not come into effect until the appeal has been determined and the Permit upheld, modified or nullified.

DATE OF DECISION OF DEVELOPMENT PERMIT: **July 30, 2025**

DATE OF ISSUE OF DEVELOPMENT PERMIT: **July 30, 2025**

DATE OF VALIDITY OF DEVELOPMENT PERMIT: **August 21, 2025**

SIGNATURE OF DEVELOPMENT AUTHORITY:



Viv Thoss

NOTES:

1. If the development is found to be incorrectly placed, the applicant may be required to move or remove the development at the sole expense of the Applicant/Registered Owner. Any changes to the attached plans will require a new development permit.
2. An appeal can be made by filing a written notice of appeal along with payment to the **Subdivision and Development Appeal Board (10511 103rd Street, High Level, AB, T0H 1Z0)** within 21 days from the date of the receipt of this decision. In the case of an appeal made by a person referred to in section 685(2) of the *Municipal Government Act*, within 21 days after the date on which the notice of the issuance of the permit was given.
3. **This is a Development Permit ONLY.** Issuance of this Permit does not excuse the applicant from satisfying all other applicable municipal, provincial and/or federal requirements.

OTHER PERMITS ARE REQUIRED

In the interest of public safety and as required by the Safety Codes Act construction permits must be obtained before commencing any work. Required permits may include building, electrical, gas, plumbing, and private sewage. Additionally, the Town of High Level requires permits for water & sewer connection, new accesses, and driveways.

PLEASE NOTE

The Applicant and/or Registered Owner are responsible for applying for, and receiving, all necessary permits prior to beginning construction. Ensure that you or your contractors obtain all other required permits related to the development. For more information regarding how to obtain the required permits, contact Superior Safety Codes 1-866-999-4777. If you are unsure which additional municipal permits you may need, please contact development@highlevel.ca.

SCHEDULE A

Approved July 30, 2025



(19 pages)

Viv Thoss
Development Authority

Development Permit Application



General Development (Non-Residential)

Employees & Customers:

Total Staff Employed _____
 Including Business Owner _____
 Expected Daily Customers _____

Maximum Number of Staff Present at any one Time _____
 Expected Weekly Customers _____

Hours and Days of Operations: (Include if your operations will be seasonal)

Describe any storage structures and the nature of goods to be stored:

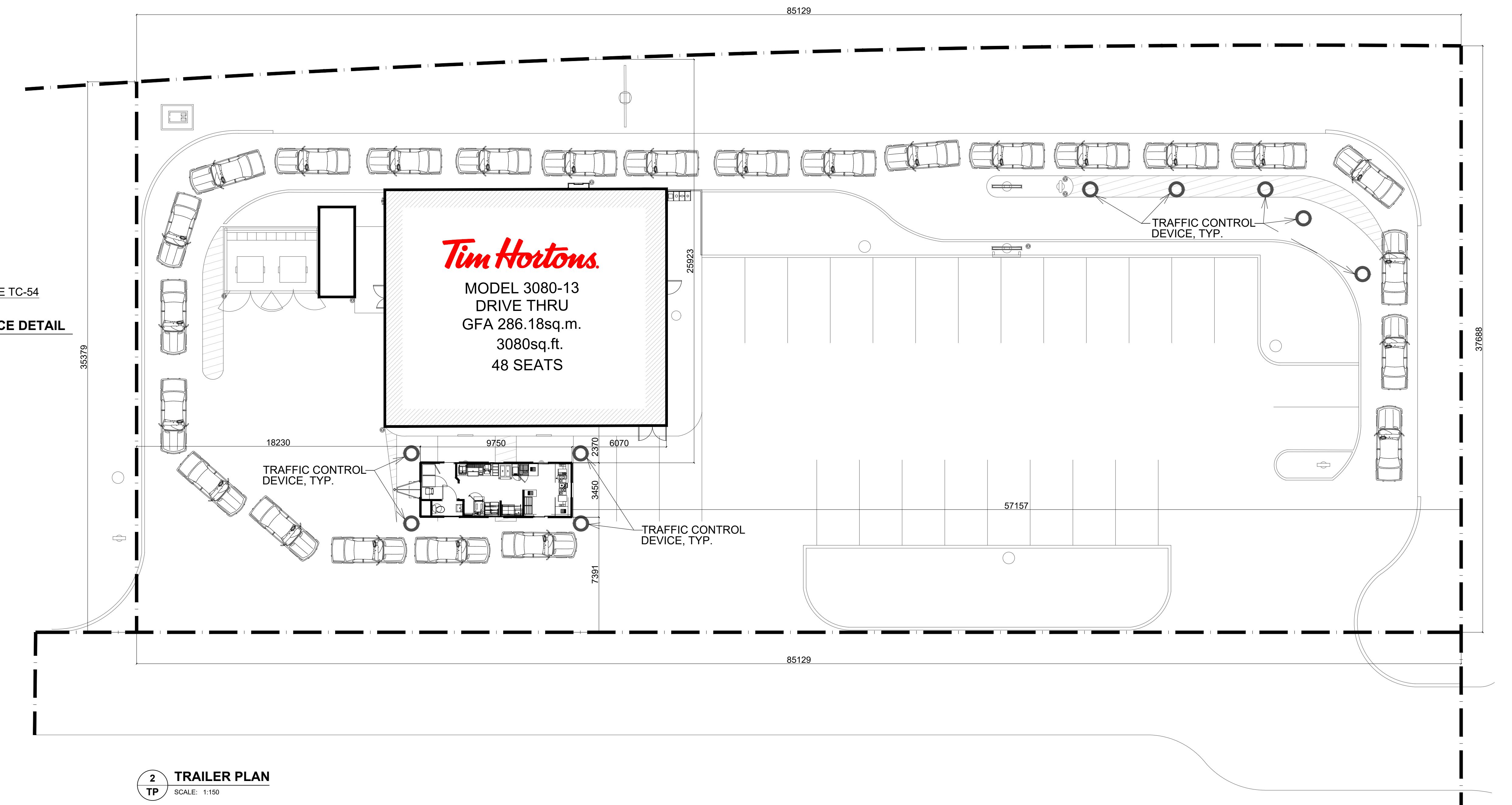
Will commercial vehicles be stored on site? How many and where?

What is your waste management plan?

How will local traffic be changed by this development?

Is the site open to the public? If so, what parts? (include dimensions)

Describe planned signage:



2 **TP** **TRAILER PLATE**
SCALE: 1:150

SITE AREA					
SITE AREA	3142.7 SQ M				
EXISTING BUILDING AREA	286.18 SQ M				
TRAILER AREA	33.63 SQ M				
	REQUIRED		PROVIDED		
MINIMUM DISTANCE FROM PRINCIPAL BUILDING	2m		7.3m		
MAXIMUM LOT COVERAGE OF ALL ACCESSORY STRUCTURES	20%		9.82%		
MAXIMUM HEIGHT	6m		4m		
MINIMUM SETBACKS	FRONT	9m	FRONT	57.16m	ACCESSORY STRUCTURES ARE NOT CLOSER TO THE FRONT LOT LINE THAN THE PRINCIPAL BUILDING
	SIDE	0m	SIDE	25.93m	
	REAR	0m	REAR	18.23m	
	FLANKAGE (SIDE ABUTTING A ROAD)	6m	FLANKAGE (SIDE ABUTTING A ROAD)	7.4m	

2 GATEWAY BLVD HIGH LEVEL. AB: ISSUED FOR CHECKSET (APRIL 29. 2025) TDL NO.RN 09490
TIM HORTONS RENOVATION TO RESTAURANT #105788. INTERIOR (BASE SCOPE) & EXTERIOR (ENHANCED SCOPE).
ITS
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-1986
ON,

ISSUE TABLE		
	Date (mm/dd/yy)	Description
	04-29-25	ISSUED FOR CHECK

VISIONS		
	Date	Description

DRAWINGS REVISED AS PER DESIGN BULLETIN		
	Date	Description

A circular diagram representing a compass rose. It features a vertical line through the center labeled 'N' for North. A horizontal line through the center is labeled 'E' for East. The circle is divided into four quadrants by these lines. The top-left quadrant contains vertical hatching, while the other three quadrants are blank.



K PAUL ARCHITECT INC.

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227-0000 647- (905) 227-1000

Tim Hortons

EXTERIOR (ENHANCED SCOPE) RENOVATION,
(RESTAURANT #105788)

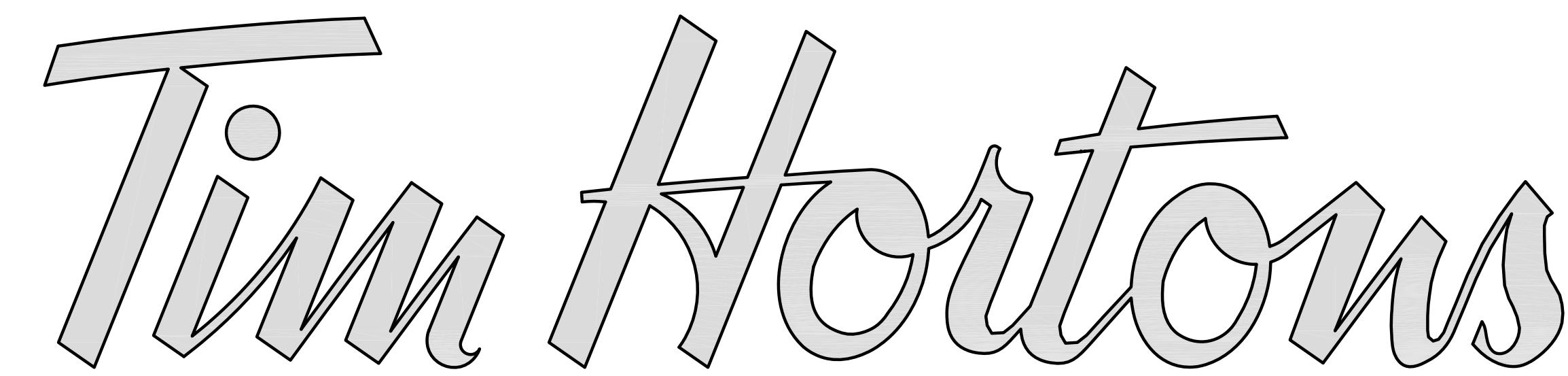
ation

2 GATEWAY BLVD

HIGH | LEV1 | AB

DT TRAILER

vn	SW	Checked	EMJ
e	1:150	Date	APRIL 2025
ect No.	2404119	Drawing No.	TP

ARCHITECT**CONSULTANTS****RENOVATION TRAILER**

THESE DOCUMENTS HAVE BEEN PREPARED AS A PROTOTYPE SET OF DRAWINGS.
FOR SITE SPECIFIC LOCATIONS IT IS THE CONSULTANT'S RESPONSIBILITY TO ENSURE
THE DRAWINGS COMPLY WITH PROVINCIAL, MUNICIPAL AND LOCAL BUILDING CODES.

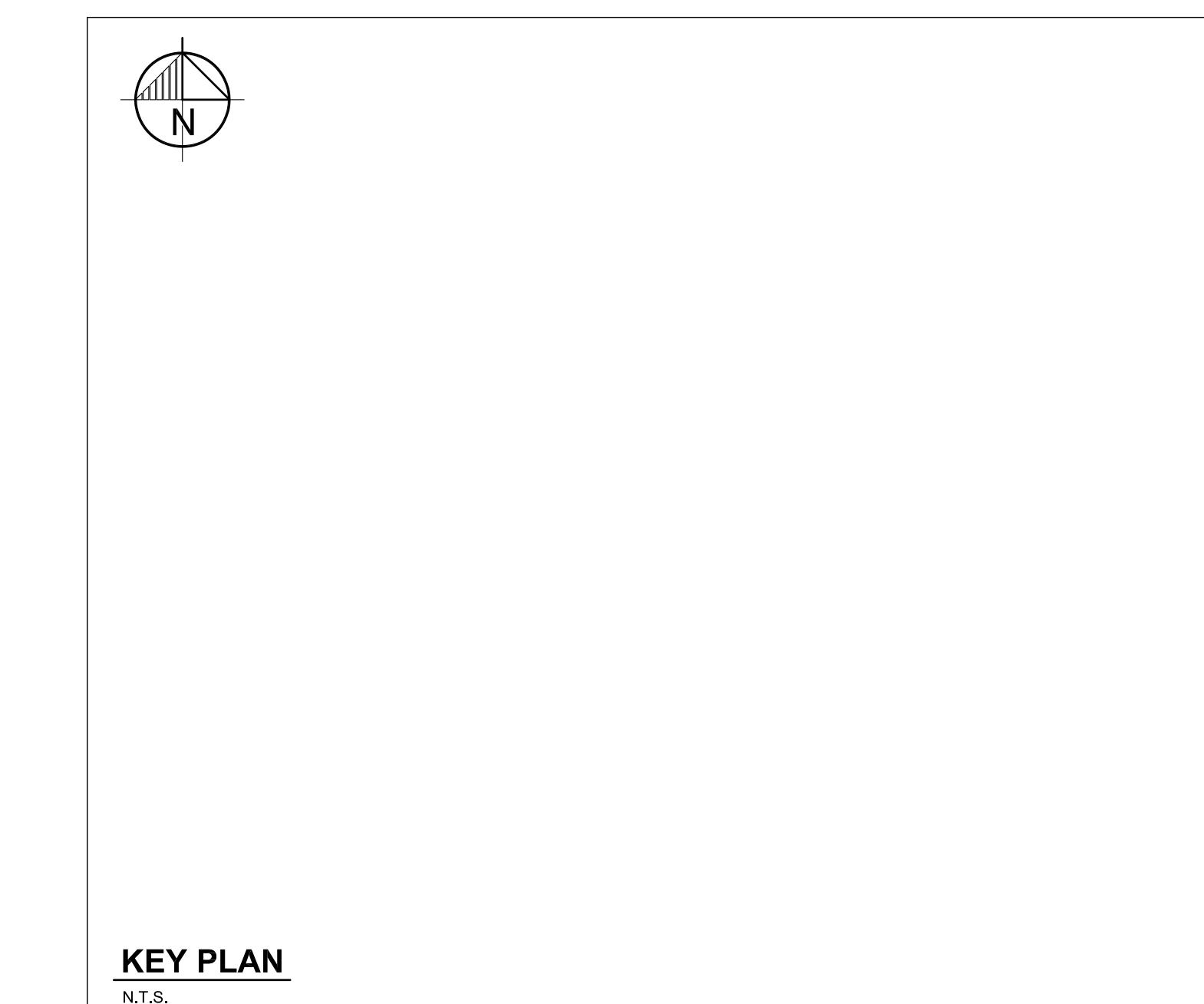
DRAWING LIST

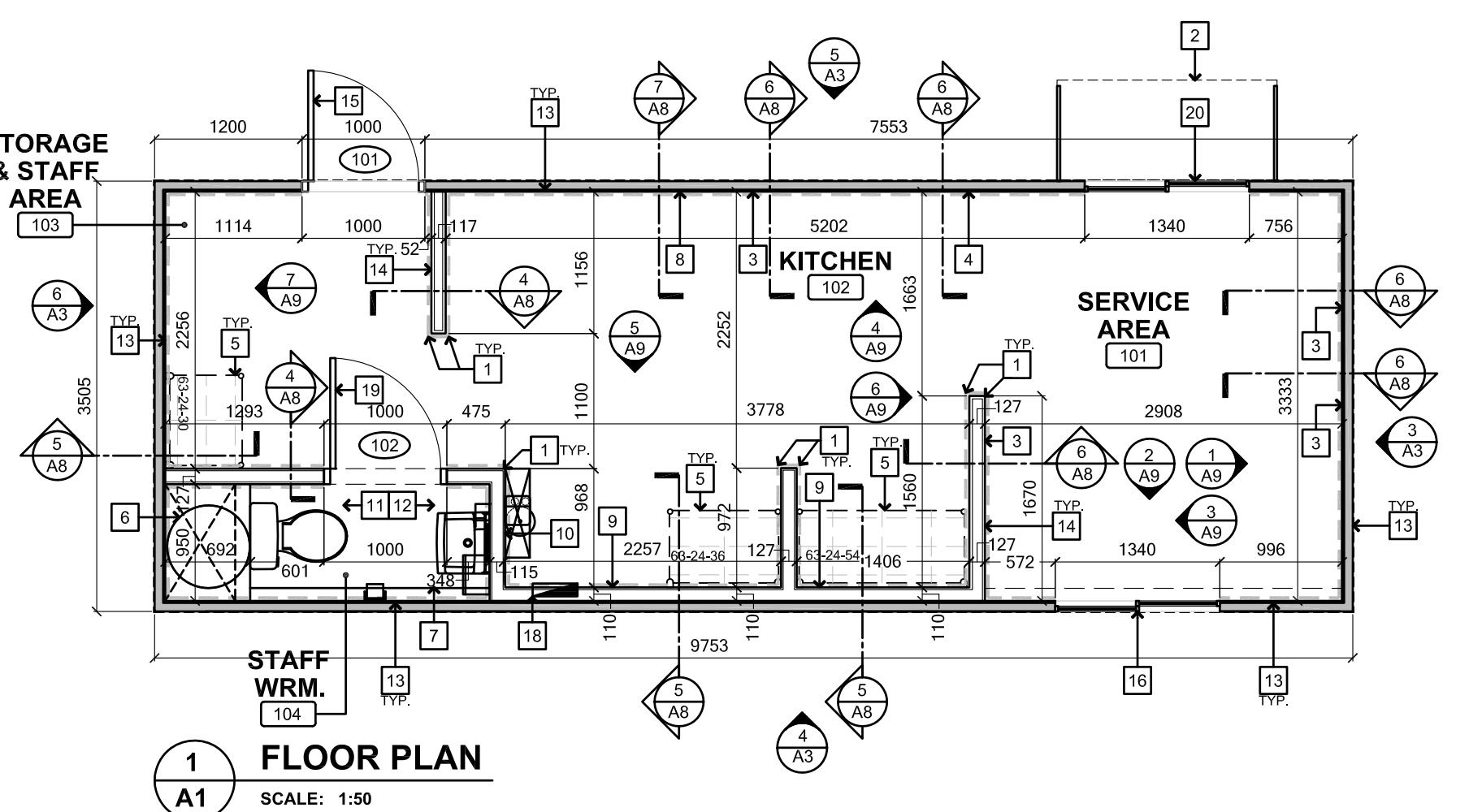
A1 FLOOR & EQUIPMENT PLANS & SCHEDULES
 A3 REFLECTED CEILING PLAN & ROOF PLANS & EXTERIOR ELEVATIONS
 A8 DETAILS
 A9 INTERIOR & WASHROOM ELEVATIONS
 A10 FLOOR TILE PATTERN & FINISH, DOOR & HARDWARE SCHEDULES

M1 PIPING PLAN, DRAWING NOTES, DETAILS AND SCHEDULES
 M2 SANITARY PLAN, DRAWING NOTES, SCHEDULES AND LEGEND
 M3 HVAC PLAN, DRAWING NOTES, SCHEDULE AND LEGEND
 M4 MECHANICAL INSTALLATION DETAILS
 M5 MECHANICAL SCHEDULES
 M6 MECHANICAL SCHEDULES
 M7 TDL MECHANICAL SPECIFICATIONS

E1 ELECTRICAL SPECIFICATIONS
 E2 LIGHTING PLAN, NOTES, SCHEDULE AND ELECTRICAL LEGEND
 E3 POWER & SYSTEMS PLAN, NOTES AND MECHANICAL EQUIPMENT WIRING SCHEDULE
 E4 KITCHEN EQUIPMENT SCHEDULE AND ELECTRICAL ELEVATIONS
 E5 ELECTRICAL SERVICE AND PANEL SCHEDULE

BUILDING CODE DATA MATRIX									
FIRM NAME: ENTER FIRM NAME CERTIFICATE OF PRACTICE NUMBER: ####									
ADDRESS ADDRESS ADDRESS									
NAME OF PROJECT: TRAILER 13-RESTAURANT #XXXX									
LOCATION: ENTER PROJECT LOCATION		THE ARCHITECT NOTED ABOVE HAS EXERCISED RESPONSIBLE CONTROL WITH RESPECT TO DESIGN ACTIVITIES. THE ARCHITECT'S SEAL NUMBER IS THE ARCHITECT'S SIGN.							
1	PROJECT DESCRIPTION	<input checked="" type="checkbox"/> NEW	<input type="checkbox"/> PART 3						
		<input type="checkbox"/> ADDITION	<input type="checkbox"/> PART 9						
		<input type="checkbox"/> ALTERATION	<input type="checkbox"/> PART 11						
2	MAJOR OCCUPANCY	GROUP <input type="checkbox"/> E	DIVISION <input type="checkbox"/>						
3	MINOR OCCUPANCY	NOT APPLICABLE							
4	BUILDING AREA	-- (SQ. M.) EXISTING 34.18 (SQ. M.) NEW -- (SQ. M.) MEZZANINE -- (SQ. M.) TOTAL 34.18 (SQ. M.) TOTAL							
5	NUMBER OF STORIES	<input checked="" type="checkbox"/> ABOVE GRADE	<input type="checkbox"/> BELOW GRADE						
6	BUILDING HEIGHT	4.0 (m) 13.12 (ft)	(m) (ft)						
7	NUMBER OF STREETS	<input type="checkbox"/> STREETS	3.2.2.10 (3)						
8	BUILDING CLASSIFICATION	X:X-XX (APPLICABLE CODE)							
9	SPRINKLER SYSTEM	-- ENTIRE BUILDING -- BASEMENT ONLY -- PROVIDED UNDER BASE BUILDING PERMIT (IF APPLICABLE)							
10	STANDPIPE SYSTEM	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO						
11	FIRE ALARM SYSTEM	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO						
12	HIGH BUILDING	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO						
13	CONSTRUCTION TYPE	<input checked="" type="checkbox"/> COMBUSTIBLE	<input type="checkbox"/> NON-COMBUSTIBLE						
14	REQUIRED FIRE RESISTANCE RATING	HORIZONTAL ASSEMBLY (FRR)	LISTED DESIGN NO. (ULC NO.)						
		N/A	---						
		---	N/A						
		N/A	---						
15	OCCUPANT LOAD	GENERAL PUBLIC	EMPLOYEES / STAFF						
		0 PEOPLE	3.1.17 (1) (a)						
		5 PEOPLE	3.1.17 (1) (c)						
	PLUMBING REQUIREMENT	MALE	FEMALE						
	REQUIRED	-	SHARED STAFF WASHROOM						
	PROVIDED	-	1						
16	SPATIAL SEPARATION								
		WALL	AREA OF EBF (m ²)	LIMITING DISTANCE (m)	L/H OR H/L	PERMITTED MAX. % OF OPENINGS	FIRE RESISTANCE RATING (HRS.)	LISTED DESIGN OR DESCRIPTION	CONSTRUCTION TYPE
		FRONT	12.62	7.0	< 3:1	100	0	---	---
		REAR	13.17	7.0	< 3:1	100	0	---	---
		D/T SIDE	34.77	11.0	< 3:1	100	0	---	---
		SIDE	34.91	11.0	< 3:1	100	0	---	---

**COLOUR SCHEME: SPECIAL**



FLOOR PLAN NOTES:

- 1 38MM X 38MM PLASTIC CORNER GUARDS FROM FRP SUPPLIER INSTALLED BY G.C. (TYP.) ON ALL OUTSIDE CORNERS.
- 2 LINE OF REMOVABLE CANOPY ABOVE (ONE CANOPY PER TRAILER).
- 3 PROVIDE BACKING IN WALL AS REQUIRED TO SUPPORT WALL MOUNTED MONITORS. REFER TO INTERIOR ELEVATIONS 1A/9, 3A/9 & 4A/9 & DETAIL 6/A8.
- 4 PROVIDE BACKING IN WALL AS REQUIRED TO SUPPORT NEW MICROWAVE SHELF. REFER TO INTERIOR ELEVATION 4/A/9 & DETAIL 6/A8.
- 5 G.C. TO PROVIDE PLYWOOD BACKING FOR SHELVING SUPPORT. REFER TO DETAIL 5/A8.
- 6 HOT WATER TANK ON PLATFORM ABOVE. REFER TO MECHANICAL DRAWINGS.
- 7 PLASTIC CHASE FOR PLUMBING PIPES (450mm HEIGHT) IN STAFF WASHROOM.
- 8 PROVIDE PLYWOOD BACKING IN WALL AS REQUIRED TO SUPPORT WALL MOUNTED BRACKETS FOR EXHAUST HOOD 723. REFER TO ELEVATION 4/A/9 & DETAIL 7/A8.
- 9 FURR OUT WALL W/ 1 LAYER 12.5 GYPSUM BOARD ON 92 METAL STUDS @ 400 O.C. CARRY STUDS & GYPSUM BOARD TO CEILING. OR 100 ABOVE CEILING.
- 10 PROVIDE & INSTALL (600MM WIDE X 2450MM HIGH) PLYWOOD BACKING TO ACCOMMODATE COMBI OVEN FILTERS/PIPING.
- 11 NOT USED.
- 12 REFER TO SHEET A9 FOR WASHROOM ELEVATIONS.
- 13 TRAILER EXTERIOR WALL.
- 14 PARTITION WALL. REFER TO FINISH SCHEDULE ON SHEET A6.
- 15 ENTRANCE/DELIVERY DOOR AND FRAMES. REFER TO SHEET A10 FOR DETAILS.
- 16 DRIVE THRU WINDOW.
- 17 NOT USED.
- 18 RECESSED ELECTRICAL PANEL. REFER TO ELECTRICAL DRAWINGS.
- 19 DOOR AND FRAMES. REFER TO SHEET A10 FOR DETAILS.
- 20 WALK UP WINDOW.

WALL TYPE LEGEND

TRAILER WALL.
1 LAYER 12.5 GYPSUM BOARD ON 92 METAL STUDS (BOTH SIDES) @ 400 O.C. EXTEND STUDS TO U/S OF STRUCTURE ABOVE. FINISH WALL AS PER SCHEDULE. REFER TO SHEET A10.

GENERAL NOTES:

1. PROVIDE FIRE CALLING AT ALL PIPES, CONDUITS, WIRES AND FRAMING PENETRATIONS THROUGH FIRE RATED SEPARATIONS. HILTI CANADA FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CANADA - 800-363-4468.
2. G.C. TO PREP EXISTING WALLS AND MAKE SMOOTH FOR NEW PAINT FINISH.

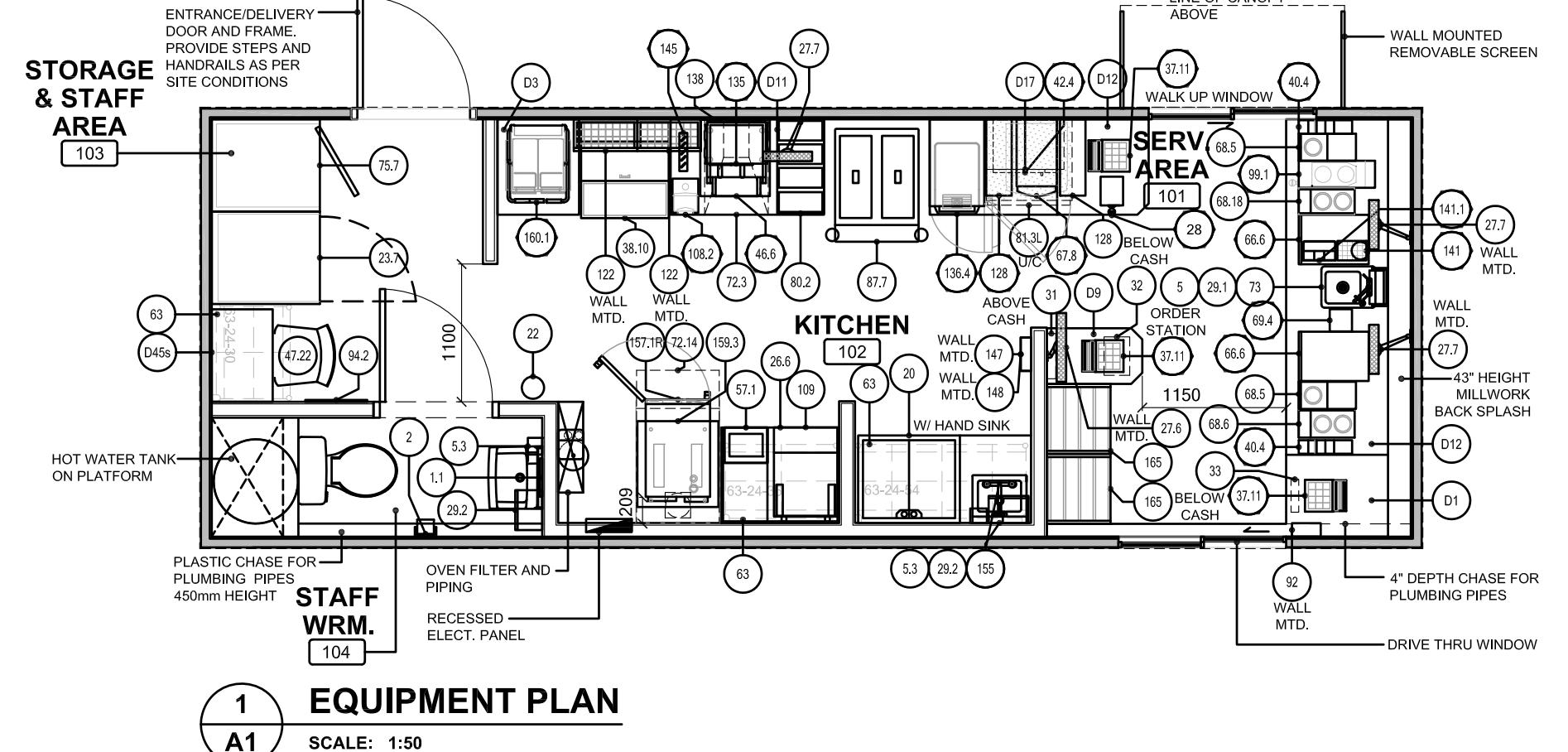
STORAGE SHELVING LEGEND

SHELVING TYPE	SPG STORG. PROD. / TARRISON ITEM-DEPTH-LENGTH-TIERS	QUANTITY
WALL TRACKING #43.1	-	-
OVERHEAD SHELVING #63 (REFER TO DETAIL 7/A8 & 8/A8)	63-24-30 63-24-36 63-24-54	1 1 1
DRY STORAGE SHELVING #64	-	-
DRAINBOARD #88	-	-
MOBILE DISH CART #112	-	-

NOTES: 1. REFER TO INTERIOR ELEV. SHEET A9 FOR SHELVING HEIGHTS.
2. PROVIDE SUPPORT BLOCKING BACKING IN WALLS & CEILING AS REQUIRED FOR SHELF SUPPORT.

SYMBOL LEGEND

1 AX: DETAIL NUMBER
SECTION NUMBER
DRAWING NUMBER
2 AX: ELEVATION NUMBER
DRAWING NUMBER
SERVICE AREA: ROOM NAME & NUMBER
1: NOTE REFERENCE



EQUIPMENT SCHEDULE

NO.	DESCRIPTION	QTY.	MANUFACTURER	MODEL	TDL #	NOTES	
1.1	MIRROR SMALL 457 (18") W x 762 (30") H	1	BOSBICK GLASS MIRR. CW SS FRM	B-290 1830		SURFACE MOUNTED, SCREW LOCK INSTALLATION	
2	TOILET PAPER HOLDER	1	KIMBERLY CLARK	B266	14037	INSTALLED BY G.C.	
5	SOAP DISPENSER (HAND SINK AREA)	1	FROST	712	17394	LIQUID SOAP B16 - PUB. LIQUID SOAP B16 - STA	
5.3	SOAP DISPENSER (WALL MOUNT BATHROOM)	2	DEB IP LTD	PROLINE	10003168	LIQUID SOAP B16 - PUB. LIQUID SOAP B16 - STA	
20	SPECIAL 2 - COMPARTMENT SINK W/ HAND SINK	1	ASTRON				
22	FIRE EXTINGUISHER 5 LB.	1	LEAVITT		52391	REFER TO MECHANICAL DRAWINGS	
23.7	REACH-IN SINGLE DOOR COOLER	1	DELFIELD	6025XL-S	65230		
26.6	ALWAYS FRESH FINISHING TABLE - 940mm (37")	1	ASTRON				
27.6	CASH POINT MONITOR	1					
27.7	23" MONITOR	3	ACER	V23H-AJD-ET.VV 365-AJ1	10005426		
28	HOT WATER MACHINE	1R	BUNN-O-MATIC	HW2	71041	SUPPLIED WITH 6.3MM MALE FLARED FITTING	
29.1	PAPER TOWEL DISPENSER	1	FROST	126	17392		
29.2	ROLLING FOLD DISPENSER	2	FROST	101	14060		
31	WIRELESS BASE STATION	1	HME3M/PANASONIC		98033		
32	BATTERY CHARGER	1	HME3M/PANASONIC		98033		
33	HARDWIRE RECEIVER	1	HME3M/PANASONIC		98033		
37.11	CASH REGISTER (P.O.S.) SYSTEM	3R	NCR	NCR7448	89980		
38.10	SANDWICH UNIT 24" (610mm) WITH NEW LIDS	1		SC2437			
40.4	LID DISPENSER - HOT	2R			10003543		
42.4	MICROWAVE OVEN (STANDARD)	1R	PANASONIC	NE-1054TC	74117		
46.6	BAGEL TOASTER - HIGH SPEED	1R	NIECO	Ex6220	10005966		
47.22	STAFF SEATING	1	PETER ANTHONY		10001657	G.C. TO ASSEMBLE AND INSTALL. REFER TO A10	
57.1	MINI FONDANT WARMER	1	GARLAND				
63	OVERHEAD PERIMETER SHELVING	3	TARRISON	63-DEPTH-LENGTH	51631	REFER TO DETAILS ON SHEET A8	
66.6	DUAL VOLUME MILK/CREAMER - STANDARD	2R	SURE SHOT	AC230	74251		
67.8	3 HEAD HOT POWDERED DRINK MACHINE	1R	BUNN	IMAK-3 TDL CDA	10005276		
68.5	D/T DUAL COFFEE BREWER	2	NEWCO	DB2A	71062		
68.6	COFFEE BREWER	1R	BUNN	CWT-5-3	10001392		
68.18	AXIOM DARK ROAST COFFEE BREWER	1	BUNN	AXIOM 35-3T BREWWISE	10007210		
69.4	SUGAR DISPENSER - ELECTRIC (STANDARD)	1R	SURE SHOT	AC-5-E	10003477		
72.3	BAGEL TOASTER EXHAUST SYSTEM - HOOD/FAN/CURB	1	VENT MASTER	VG5	44284/44271/44281		
73	HAND SINK IN COUNTERTOP	1	CONTOURS	TDL-SS-HW1			
73.2	HAND SINK - WALL MOUNTED - BOH	-	CONTOURS				
75.7	MERIDIAN REACH-IN SINGLE DOOR FREEZER	1	DELFIELD	MRR-1MFR-S	65200		
80.2	Soup COOKER/WARMER	1	APW WYOTT	CW-3A	53015		
81.3L	UNDERCOUNTER REFRIGERATOR - LEFT HINGE	1	QBD	RUC-27	78007		
87.7	COLD BEVERAGE UNIT	1	TAYLOR	342	10001314		
92	DRIVE-THRU LANE TIMER	1	HME3M/PANASONIC		98032	WALL MOUNTED	
94.2	PICTURE FRAME - CONTACT SHEET	1	CANAFRAME		52546		
99.1	TEAWATER COMBO UNIT	1R	BBC SALES	AKPA-3D8-T	71042		
108.2	BAGEL SABER	1R	PRINCE CASTLE	970 SERIES	61078		
109	TABLETOP GLAZER	1	ASTRON		62010		
122	WIRE BASKET BRACKET	2	ASTRON		52525		
128	FLAVOUR SHOT DISPENSER	1, 1R	SURE SHOT	AC FS5	78152		
135	HOT HOLDING UNIT	1R	MERC CO.	MHC22-TDL	70067		
136.4	ESPRESSO MACHINE - MILANO	1R	NESTLE	MILANO 8/100	10003205		
138	TOASTER STAND - SINGLE	1	ASTRON		70068		
141	TEA CADDY	1R	TBD BY TDL		71044	TO BE INSTALLED CLOSE TO 99.1	
141.1	BAGGED TEA CADDY	1R	TBD BY TDL			TO BE INSTALLED CLOSE TO 99.1	
145	KNIFE HOLDER	1R	TBD BY TDL				
147	BIOHAZARD KIT	1	NEATH		14611		
148	FIRST AID KIT	1	VARIES PER REGION		52580-9 (VARIES PER REGION)		
155	EYE WASH STATION	1	BRADLEY (SWING DOWN)		S19274HW	10007070	
157.1R	GLOBAL MINI COMBI OVEN- STEAMER - RIGHT HINGE	1	CLEVELAND	OES 6.10 MINI	10002765		
160.1	PANINI PRESS	1R	PROGRILL	SL157PHNA	10003416		
165	MOBILE BAKED GOODS RACK	2			10002730		

SYMBOL LEGEND

NO. EQUIPMENT REFERENCE
REFER TO EQUIPMENT SCHEDULE

STORE FIXTURE SCHEDULE

NO.	DESCRIPTION	QTY.	NOTES
D1	MAIN COFFEE STATION	1	
D3	SOUP AND SANDWICH COUNTER	1	
D9	DRIVE-THRU CASH COUNTER	1	S.F.C. TO SECURE AND LEVEL MECH. & ELEC. CONNECTIONS BY G.C.
D11	BACK BAR	1	
D12	BACK BAR DRINK COUNTER	2	
D17	MICROWAVE SHELF	1	
D455	PORTAL CABINET	1	

ISSUE TABLE		
No.	Date (mm-dd-yy)	Description
01	MM-DD-YY	ISSUED FOR BUILDING PERMIT
REVISIONS		
No.	Date	Description

DRAWINGS REVISED AS PER DESIGN BULLETIN		
No.	Date	Description

PROJECT NORTH
ONTARIO ASSOCIATION OF ARCHITECTS
AVENUE ARCHITECTURE INC.
90 Eglington Ave. E., Suite 990
Toronto, ON M4P 2Y3
T: (416) 481-1675 F: (866) 216-5216

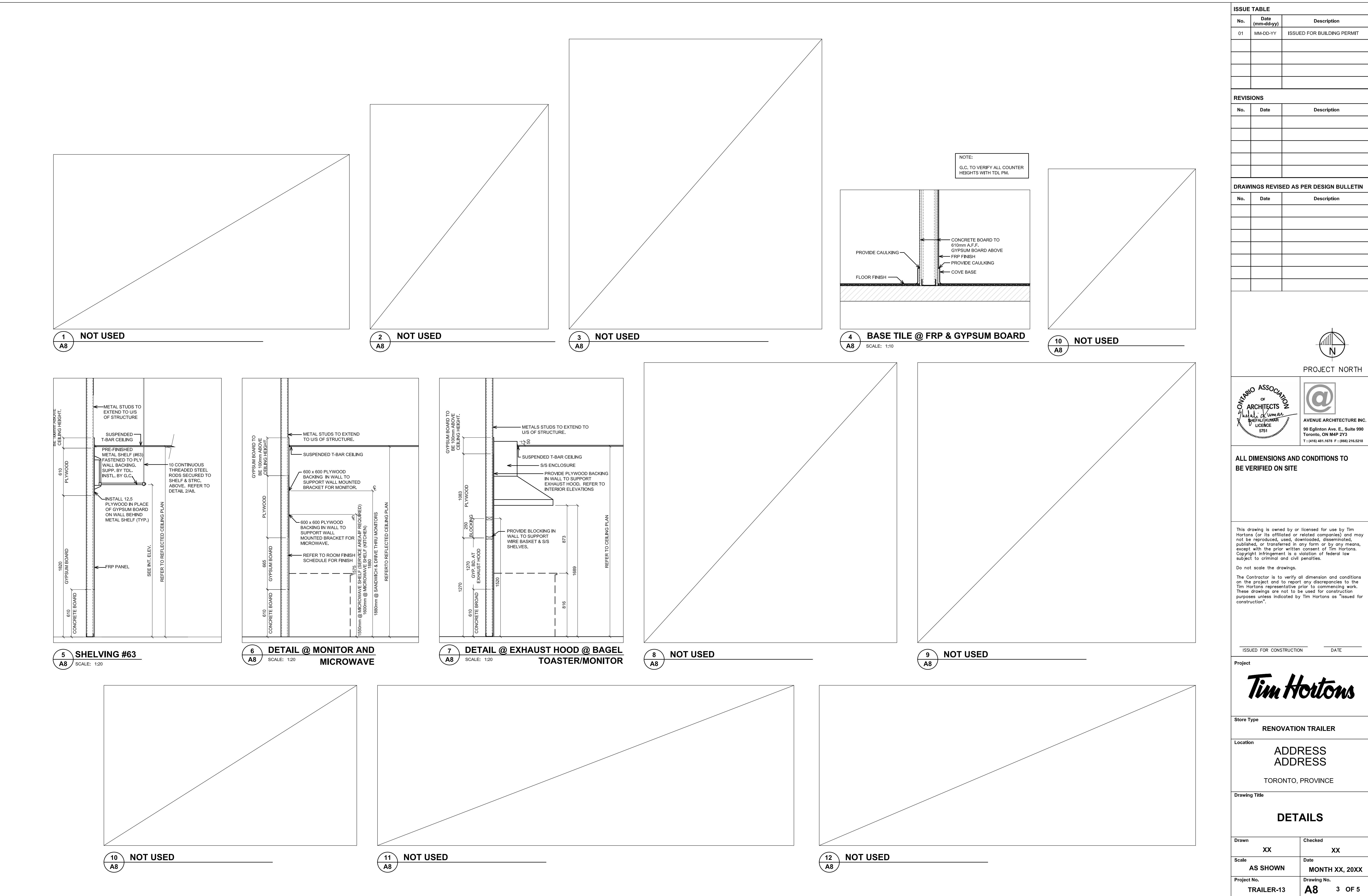
ALL DIMENSIONS AND CONDITIONS TO BE VERIFIED ON SITE

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Do not scale the drawings.

The Contractor is to verify all dimensions and conditions on the project and to report any dimensions or conditions to the Project Manager or Project Manager's representative in writing prior to commencing work.

These drawings are not to be used for construction purposes unless indicated by Tim Hortons as "issued for construction".



TDL ELECTRICAL SPECIFICATIONS

GENERAL:

1. THE GENERAL SPECIFICATIONS APPLY TO THIS CONTRACTOR AS THOUGH WRITTEN IN FULL HEREIN.
2. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RULES AND RECOMMENDATIONS OF THE BOARD OF FIRE UNDERWRITERS, THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE, PROVINCIAL/STATE ELECTRICAL CODE, THE CANADIAN STANDARDS ASSOCIATION AND ALL REQUIREMENTS OF THE LOCAL UTILITY COMPANY, AND THE AUTHORITIES HAVING JURISDICTION.
3. ALL EQUIPMENT SUPPLIED SHALL BE NEW, CSA APPROVED BEARING THE CSA SEAL AND BE OF COMMERCIAL SPECIFICATION GRADE QUALITY.
4. THESE CONTRACTORS SHALL OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS IN CONNECTION WITH THIS WORK, FILE ALL PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS, OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION AND DELIVER SAME TO THE T.D.L. GROUP BEFORE REQUEST FOR ACCEPTANCE.
5. THE CONTRACTOR SHALL PROVIDE ALL LABOUR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION. QUALIFIED AND EXPERIENCED TRADESMEN SHALL CARRY OUT ALL WORK IN A NEAT AND WORKMANLIKE MANNER. ANY SPECIALIZED SUB-TRADE WORK SHALL BE PERFORMED BY TRADESMEN EXPERIENCED IN SUCH INSTALLATION. FINAL CONNECTIONS OF ALL ELECTRICAL SERVICES TO ALL EQUIPMENT (INCLUDING KITCHEN EQUIPMENT) SHALL BE BY THE ELECTRICAL CONTRACTOR.
6. ELECTRICAL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
7. IT IS THE RESPONSIBILITY OF THESE CONTRACTORS REVIEW ALL DRAWINGS AND VISIT THE SITE BEFORE SUBMITTING THEIR TENDERS TO EVALUATE ANY CONDITIONS THAT MIGHT ARISE DURING THE CARRYING OUT OF THESE CONTRACTS. FAILURE TO DO SO WILL NOT BE ACCEPTED AS A REASON FOR SUBMITTING A CLAIM FOR ANY ADDITIONAL WORK.
8. THESE CONTRACTORS SHALL CONFER WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND SHALL ARRANGE THEIR EQUIPMENT IN PROPER RELATION WITH APPARATUS OF ALL OTHER TRADES.
9. ALL CUTTING AND PATCHING RELATED TO THIS TRADE SHALL BE BY THIS CONTRACTOR IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE ARCHITECTURAL SPECIFICATION.
10. IN GENERAL, THE DRAWINGS ARE DIAGRAMMATIC.
11. THE MATERIAL AND EQUIPMENT ARE NAMED FOR THE PURPOSE OF ESTABLISHING A STANDARD OF MATERIALS AND QUALITY OF WORK TO WHICH EACH CONTRACTOR SHALL ADHERE.
12. EACH CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ANY DAMAGE, INCURRED BY THE CONTRACTOR SHALL BE REPAIRED BY THEM TO THE OWNERS SATISFACTION.
13. EACH CONTRACTOR SHALL MAINTAIN SUCH INSURANCE TO FULLY PROTECT BOTH THE CONTRACTOR AND THE OWNER FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKERS' COMPENSATION ACT, ETC.
14. ALL STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT SHALL BE SUPPLIED AND INSTALLED BY THIS CONTRACTOR UNLESS OTHERWISE NOTED.
15. THIS CONTRACTOR SHALL CLEAN UP ALL DEBRIS DAILY AND REMOVE FROM THE SITE ON OR BEFORE COMPLETION OF CONTRACT.
16. PROVIDE TEMPORARY ELECTRICAL POWER FOR THE WORK OF THE OTHER TRADES AS REQUIRED BY THE GENERAL CONTRACTOR.
17. BEFORE FINAL PAYMENT IS MADE, THE CONTRACTOR SHALL GIVE A WRITTEN GUARANTEE TO MAKE GOOD ANY DEFECTS NOT DUE TO ORDINARY WEAR AND TEAR OR IMPROPER USE, WHICH MAY DEVELOP WITHIN ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ALL LAMPS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR.
18. CONTRACTORS SHALL ENSURE THAT ALL OPENINGS MADE IN EXTERIOR WALLS TO FACILITATE RUNNING OF CABLES, MUST BE SEALED COMPLETELY TO PREVENT ENTRANCE OF MOISTURE, TO THE SATISFACTION OF THE OWNER.
19. ALL INSTALLATION SHALL BE COORDINATED WITH STORE FIXTURE SHOP DRAWINGS AND GENERAL CONTRACTOR ON SITE.
20. PROVIDE FIRE STOPPING MATERIAL AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN PIPES, DUCTS, INSULATION AND ADJACENT FIRE SEPARATION.
21. THE CONTRACTOR SHALL PROVIDE A CERTIFICATE OF FINAL INSPECTION FROM THE LOCAL HYDRO INSPECTION AUTHORITY PRIOR TO REQUEST FOR FINAL PAYMENT.
22. ALL DIMENSIONS AND ACCURATE MEASUREMENTS ARE TO BE TAKEN FROM ARCHITECTURAL DRAWINGS.
- FIRESTOPPING:**
 1. FIRESTOPPING MATERIAL AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN CONDUITS, SLEEVES AND ADJACENT FIRE SEPARATION TO BE ULC APPROVED.

2. SERVICE PENETRATION COMPONENTS AND ASSEMBLIES, INCLUDING BACK-UP MATERIALS AND SUPPORTS SHALL BE CERTIFIED IN ACCORDANCE WITH CAN4-S115-M85, ULC-S101M-1980, UL 1479, DIN 4102 OR ASTM E814.

3. COMBINED AND/OR BUILT-UP SITE SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH ULI, ULC, FM, FMCA OR SWR SYSTEM RESTRICTIONS AND TECHNICAL EVALUATION AS APPROVED BY AUTHORITIES HAVING JURISDICTION.

4. PRODUCTS:
DOUBLE A/D DISTRIBUTORS LTD., FIREBARRIER FIRESTOPPING OR DOW CORNING CANADA INC., FIRE STOP SEALANT NO. 2000 AND FIRE STOP FOAM NO. 2001.

THIS CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS BETWEEN SERVICE SPACES AND OTHER FIRE SEPARATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS.

SERVICE AND DISTRIBUTION:

1. SERVICE AND DISTRIBUTION EQUIPMENT SHALL BE AS INDICATED ON DRAWINGS.
2. PANELBOARDS SHALL BE SCHNEIDER SQUARE-D CLIP-IN BREAKERS C/W TYPE WRITTEN DIRECTORY (HAND WRITTEN DIRECTORIES WILL NOT BE ACCEPTED). ALTERNATE MANUFACTURERS ARE NOT ACCEPTABLE.
3. FAULT TOLERANCE AT ANY POINT IN THE SYSTEM SHALL BE MINIMUM OF 25 KAIC UNLESS NOTED OTHERWISE. SERIES RATING OF DEVICES IS PERMITTED. PROVIDE MANUFACTURERS COORDINATION AND CERTIFICATION OF SYSTEM PER SINGLE LINE DIAGRAM.
4. BREAKERS SHALL BE SWITCHING DUTY AND MULTIPOLE BREAKERS SHALL HAVE COMMON TRIP MECHANISMS.
5. ALL FUSES TO BE BUSSMAN FUSETRON DUAL ELEMENT HRC TYPE.
6. PROVIDE LAMACOID TAGS FOR IDENTIFICATION OF EQUIPMENT ADDED HAVING 3/8" WHITE LETTERS ON RED BACKGROUND. ALL EQUIPMENT SHALL BE LABELED WITH LAMACOID NAME PLATES. (I.E.) EF-1 (OVEN FAN), EF-2 (BAGEL TOASTER FAN), ETC.
7. PROVIDE HORSEPOWER RATED, QUICK MAKE/BREAK DISCONNECT SWITCHES (SIZES AS INDICATED ON DRAWINGS).

CONDUIT AND WIRING:

1. ALL BUILDING WIRING SHALL BE APPROVED FOR USE IN NON-COMBUSTIBLE CONSTRUCTION.
2. ALL WIRING USED THROUGHOUT SHALL BE T-90 NYLON OR R-90 COPPER RUN IN EMT UNLESS OTHERWISE SPECIFIED. DO NOT RUN ANY CONDUIT OR WIRING BELOW FLOOR UNLESS SPECIFICALLY NOTED ON ELECTRICAL PLANS. ENT IS NOT ACCEPTABLE.
3. USE FLEXIBLE WEATHERPROOF CONDUIT FOR CONNECTIONS TO MECHANICAL VIBRATING EQUIPMENT.
4. ALL SERVICE FEEDERS, WIRING TO MECHANICAL EQUIPMENT AND TRANSFORMERS SHALL BE RW90 COPPER.
5. WHERE PERMITTED BY CODE, BX ARMoured CABLE (AC-90) MAY BE USED FOR FIXTURE DROPS, SWITCH DROPS AND RECEPTACLE DROPS ONLY. DROPS SHALL NOT EXCEED 3.0M (10'-0"). AC-90 NOT TO BE INSTALLED IN OPEN CEILINGS OR ANY OTHER EXPOSED APPLICATION.
6. NOTWITHSTANDING MINIMUM SIZE, BRANCH CIRCUIT WIRING SHALL BE SIZED SO THAT THE VOLTAGE DROP FROM PANELBOARDS TO THE FARDEST OUTLET SHALL NOT EXCEED 2%.
7. ALL CONDUITS SHALL RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES.
8. ALL CONDUITS SHALL BE CONCEALED UNLESS NOTED OTHERWISE.
9. CONDUIT RUNS BELOW FLOOR SHALL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED ON DRAWINGS.

GROUNDING:

1. PROVIDE SUITABLE GROUNDING IN ACCORDANCE WITH CODE INSPECTION REQUIREMENTS.
2. PROVIDE AN ISOLATING GROUND BUS IN DESIGNATED 120/208V PANELS AND CONNECT BACK TO WATER MAIN (IF METALLIC), BUILDING OR GROUND RODS USING #6 MINIMUM (AS REQUIRED BY CODE) INSULATED GROUND WIRE IN 1/2" EMT CONDUIT TO FACILITATE I.G. GROUNDING DEVICES.
3. ISOLATED GROUND SYSTEM SHALL BE CONTINUOUS THROUGHOUT DISTRIBUTION SYSTEM FROM POINT OF SUPPLY TO POINT OF UTILIZATION.
4. PROVIDE BONDING JUMPER ACROSS WATER METER.

5. INSTALL GROUNDING CONNECTIONS FOR TELEPHONE SYSTEM. MAKE TELEPHONE GROUNDING SYSTEM IN ACCORDANCE WITH TELEPHONE COMPANY'S REQUIREMENTS.

CASH SYSTEM & ISOLATED GROUND WIRING:

1. ALL I.G. RECEPTACLES I.E. CASH REGISTERS, MONITOR, AND OFFICE I.G TO BE ON DEDICATED I.G. CIRCUITS. CONNECT NO OTHER EQUIPMENT TO ISOLATION TRANSFORMER SUPPLIED WITH EQUIPMENT.
2. I.G. RECEPTACLES ARE TO BE HUBBELL CAT. # IG5262.
3. WIRING IS TO BE 3/12 +GRND IN A SEPARATE CONDUIT CARRYING NO OTHER WIRING.
4. THE ISOLATED GROUND WIRE IS TO BE RUN FROM THE RECEPTACLE TO THE INSULATED GROUND BUS IN THE PANEL BOARD. DO NOT CONNECT TO COMMON GROUND BUS IN PANEL.
5. ALL CIRCUITS MUST RUN FROM THE SAME PANEL AND SAME PHASE.
6. NOT USED.
7. MAINTAIN DISTANCE FROM FLUORESCENT LIGHTS, OTHER CONDUITS AND ELECTRICAL DEVICES.

LIGHTING:

1. PROVIDE LUMINAIRES AS INDICATED ON PLANS AND ON THE "LIGHTING FIXTURE SCHEDULE" C/W ALL SUPPORTING DEVICES, PLASTER FRAME RINGS, SURFACE MOUNTED JUNCTION BOXES AND OUTLET BOXES WHERE REQUIRED.
2. ALL BALLASTS TO HAVE A TYPE 'A' SOUND RATING AND BE HIGH POWER FACTOR TYPE.
3. ALL LIGHTING SHOWN NOT BEING CONTROLLED FROM SWITCHES SHALL BE CONTROLLED VIA SWITCHABLE BREAKERS IN PANELBOARDS AND ALL BREAKERS SHALL BE APPROVED FOR SUCH USE AND BE MARKED 'SWD'.

EXIT AND EMERGENCY LIGHTING:

1. SUPPLY AND INSTALL ALL EMERGENCY AND EXIT LIGHTING UNITS AS NOTED ON THE DRAWINGS, INCLUDING MOUNTING SHELVES AND REMOTE HEADS AS INDICATED. EMERGENCY LIGHTING UNITS ARE SPECIFIED ON THE "LIGHTING FIXTURE SCHEDULE".
2. EQUIPMENT SHALL PROVIDE ILLUMINATION FOR A MINIMUM OF 30 MINUTES UPON FAILURE OF NORMAL POWER.
3. INSTALL EMERGENCY LIGHTING UNITS 2.4 M (8'-0") ABOVE FINISHED FLOOR OR 300 mm (12") BELOW FINISHED CEILING LEVEL OR 3 M (10'-0") ABOVE FINISHED FLOOR ON COLUMNS IF APPLICABLE

DEVICES:

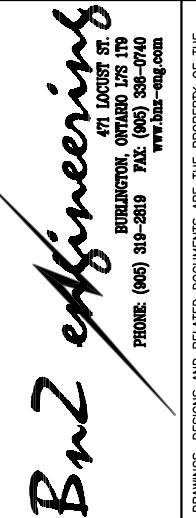
1. ALL DEVICE BOXES INSTALLED ON THE SURFACE SHALL BE CAST FS TYPE.
2. SWITCHES SHALL BE PASS & SEYMOUR #15AC1-I IVORY (OR APPROVED) EQUAL. RECEPTACLES SHALL BE PASS & SEYMOUR #5262-AICN IVORY (OR APPROVED EQUAL). ALL PLATES TO BE STAINLESS STEEL.
3. MOUNTING HEIGHTS AS NOTED OR TO LOCAL OR N.B.C. REQUIREMENTS AS APPLICABLE.
4. ALL ELECTRICAL DEVICES (INCLUDING SWITCHES, RECEPTACLES, TELEPHONE OUTLETS, ETC.) SHALL BE MOUNTED SO AS TO BE FLUSH WITH FACE OF FINISH (WHERE APPLICABLE).
5. ALL SWITCH AND OUTLET LOCATIONS SHALL BE COORDINATED WITH FURRING AND PIPE CHASES, ETC., TO INSURE ADEQUATE SPACE IS AVAILABLE FOR DEVICE MOUNTING.

MISCELLANEOUS SYSTEMS:

1. PROVIDE BOX AND EMPTY CONDUIT FOR TELEPHONE, MONITORS, COMPUTERS AND CASH REGISTER SYSTEMS C/W DEDICATED CIRCUITS AND ISOLATED GROUND WHERE INDICATED ON THE DRAWINGS. DIV. 16 SHALL SUPPLY/INSTALL ALL STAINLESS STEEL FACE PLATES FOR ALL DATA OUTLETS.

WIRING FOR MECHANICAL WORK:

1. DIVISION 16 WILL SUPPLY ALL STARTERS AND CONTROL TRANSFORMERS AND CONTROLS FOR EQUIPMENT IF NOT SUPPLIED BY DIVISION 15 AND WILL MOUNT AND WIRE ALL THESE EXCEPT FOR LOW VOLTAGE STARTERS AND WALL MOUNTED LOW VOLTAGE CONTROLS, WHICH SHALL BE MOUNTED AND WIRED BY DIVISION 15.
2. DIVISION 16 SHALL DO ALL POWER WIRING, WHICH IS WIRING THAT CARRIES THE LOAD CURRENT OF THE MOTOR, HEATER, OR HOT WATER TANK OR OTHER EQUIPMENT SUPPLIED BY DIVISION 15. DIVISION 15 WILL DO ALL OTHER CONTROL WIRING.

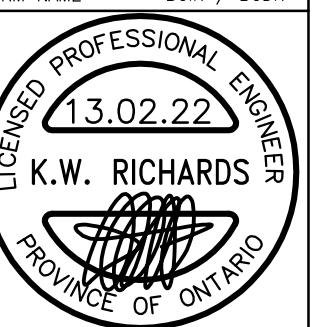

 BnZ engineering
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 www.bnz-eng.com

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 SITE WITH ANY PART OF THE WORK THAT INVOLVED ADDITIONAL COST.

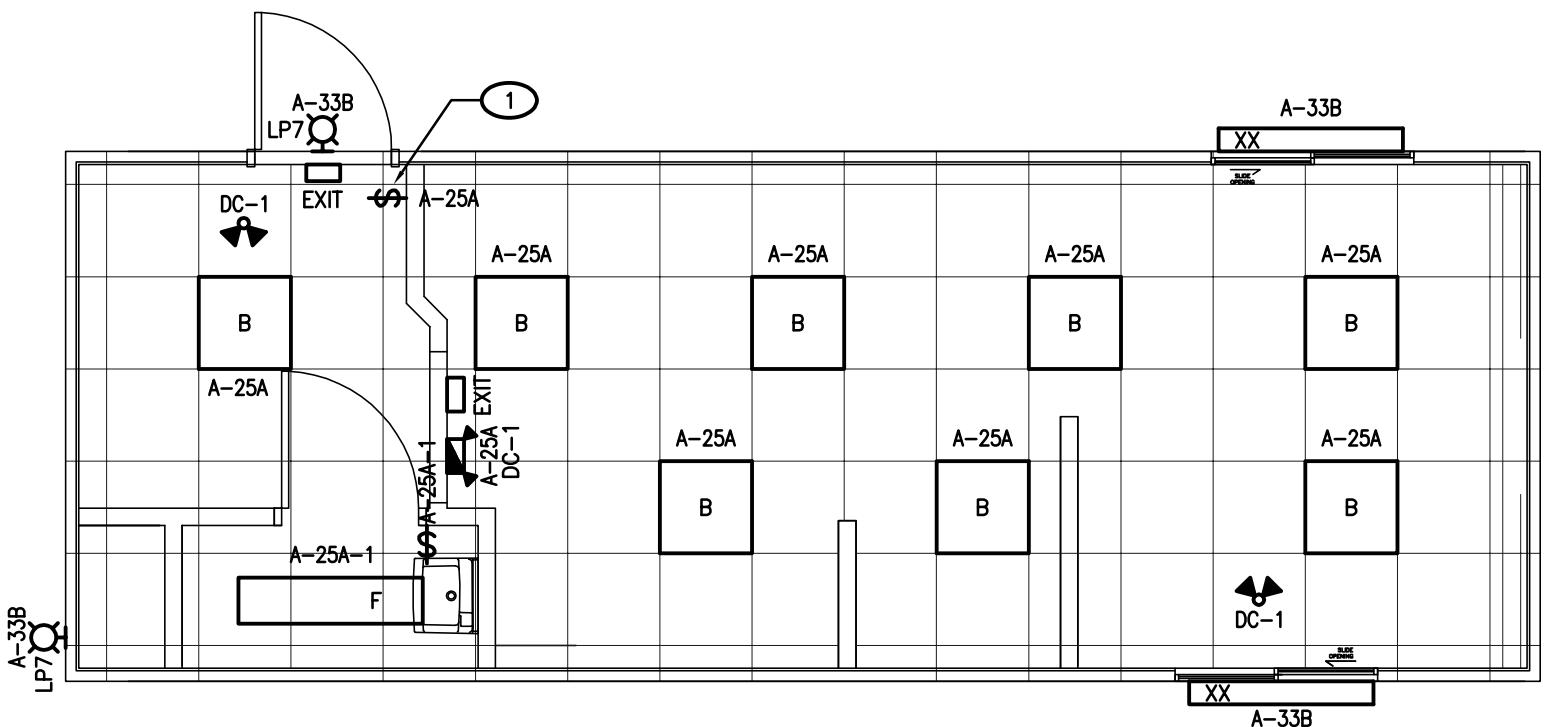
THE UNDERSIGNED HAS REVIEWED AND

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K. W. Richards 24865
 NAME BCIN / BCDN
 BnZ engineering 3020
 FIRM NAME BCIN / BCDN



ISSUE TABLE				
No.	Date (mm/yy)	Description	By:	D.B.
A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION		
Project: Tim Hortons				
TRAILERS-13		E1 OF 5		
ONTARIO		ELECTRICAL SPECIFICATIONS		
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Page 1				



FLOOR PLAN - LIGHTING

SCALE 1:50

LUMINAIRE SCHEDULE

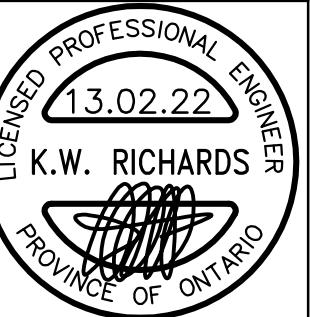
TYPE	DESCRIPTION	LAMPS	TYPE	DESCRIPTION	LAMPS
A	2' x 4' RECESSED FLUORESCENT FOR T-BAR CEILING C/W 2-32W LAMPS, ELECTRONIC BALLASTS 120V (HINGED ACRYLIC COVER). CFI CAT # AA-2W8-120OHIVA	OSRAM PART NO. F032/835/XP	XX	CUSTOM 45W LED LIGHT	LED, NO LAMP REPLACEMENT
D	4'-1 LAMP STRIP FLUORESCENT LUMINAIRE C/W 1-32W LAMP, ELECTRONIC BALLAST. CFI CAT # SB148-UNVHI	OSRAM PART NO. F032/835/XP	REMOTE HEADS	SINGLE OR DOUBLE REMOTE HEADS SHALL BE MICRO-QUARTZ (12V DC, 12W) UNIGLO MR SERIES PART NO. MR.1/2-12-12Q-BG BEIGE COLOUR THROUGHOUT	
LP7	ARCHITECTURAL LED WALL SCONCE C/W 13W HI-LUMEN LEDS, TITANIUM FINISH STONCO ('LYTEPRO 7') CAT# LP77	LED, NO LAMP REPLACEMENT	EXIT SIGNS	GLO BRITE ECO EXIT 7210 SERIES P50 C/W SILVER ALUMINUM FRAME FOR GLO BRITE EXIT SIGN INQUIRIES CONTACT SHONA ATKINS (PNA GROUP) AT 1-888-268-0520	
EMERGENCY BATTERY UNITS	EMERGENCY BATTERY UNITS SHALL BE UNIGLO 12V SERIES BEIGE 360W CAPACITY. ENSURE EMERGENCY BATTERIES ARE SIZED TO MAINTAIN CONNECTED LOAD FOR MINIMUM 1/2 HR. UNITS SHALL BE FOR OPERATION ON 120V SINGLE PHASE WITH NUMBER OF HEADS AS INDICATED ON THE DRAWING. UNITS SHALL BE PLUG-IN TYPE WITH SEALED PURE LEAD BATTERIES. THE CHARGER SHALL BE COMPLETE AUTOMATIC, SOLID STATE TYPE CAPABLE OF FULLY RECHARGING DISCHARGE BATTERY IN 24 HRS. TRANSFER DEVICE SHALL AUTOMATICALLY SWITCH LOAD ON AT POWER FAILURE AND OFF ON RETURN OF NORMAL POWER. UNITS SHALL HAVE LOW VOLTAGE DISCONNECT FEATURE, AND C/W MOUNT SHELF.	LIGHTING MFGR. / REP. CONTACTS	FOR LIGHTING FIXTURE PRICING INFORMATION CONTACT CANLYTE CUSTOMER SERVICE AT 1-514-636-8765 OR 1-800-565-5486 FOR LIGHTING TECHNICAL INQUIRIES CONTACT JOHN ROWE, NATIONAL ACCOUNT REPRESENTATIVE AT (519) 623-8820 x2359 FOR CEILING OCCUPANCY SENSOR TECHNICAL INQUIRIES CONTACT NATIONAL ACCOUNT REPRESENTATIVE AT 1-800-526-2731		

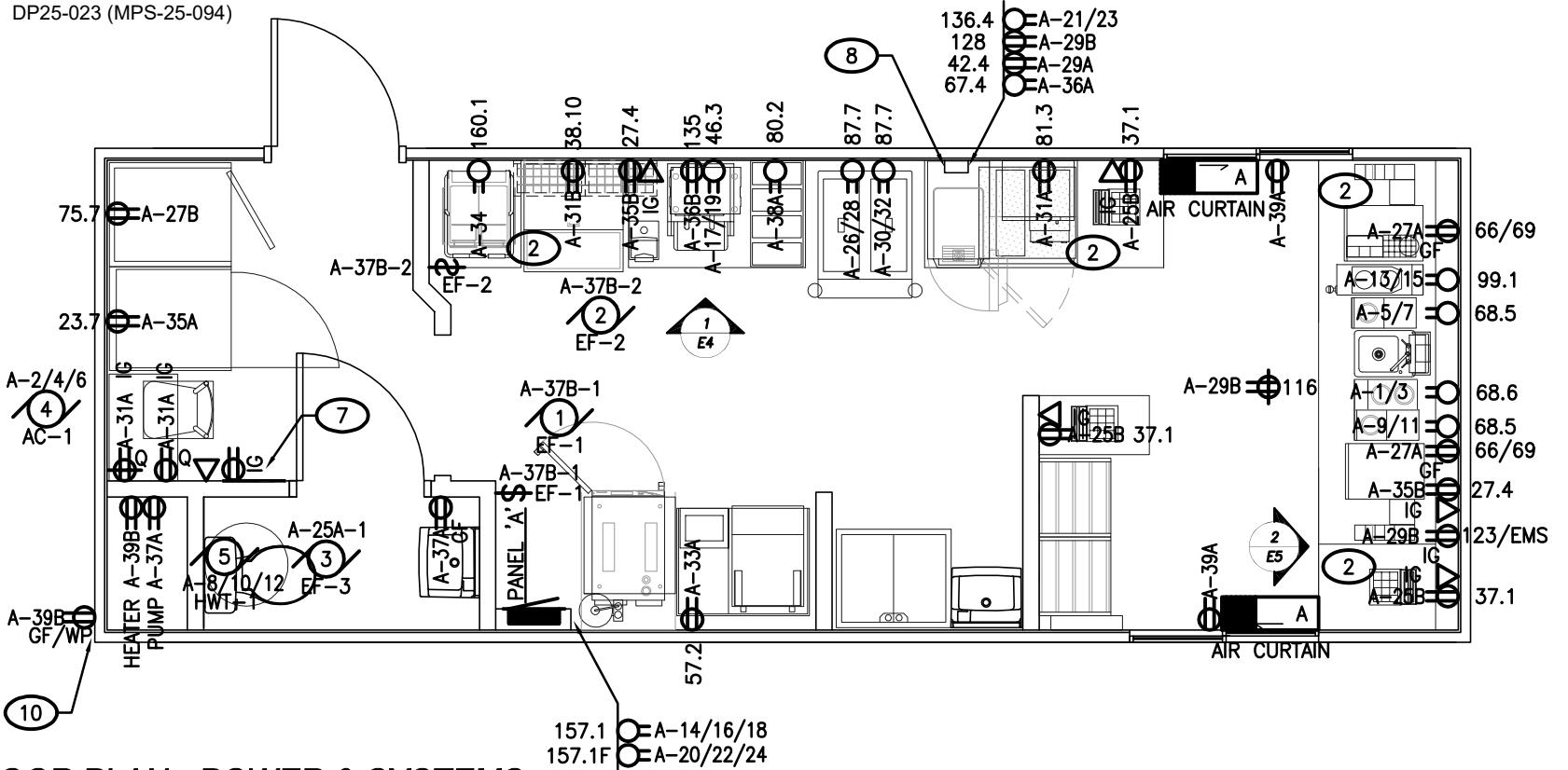
LIGHTING DRAWING NOTES

1. SWITCH LOCATED ON WALL CONFIRM LOCATION ON SITE WITH TDL PROJECT MANAGER PRIOR TO ROUGH-IN.

ELECTRICAL LEGEND

	FLUORESCENT LIGHT FIXTURE TYPE AS INDICATED. HATCHED FIXTURE DENOTES NIGHT LIGHT
	WALL MOUNTED LIGHT FIXTURE TYPE AS INDICATED
	EMERGENCY EXIT SIGN. "EXIT" DENOTES FACE, ARROWS DENOTE DIRECTION
	COMBINATION EMERGENCY LIGHTING AND BATTERY UNIT. PROVIDE RECEPTACLE.
	CEILING OR WALL MOUNTED SINGLE AND TWIN EMERGENCY LIGHTING FIXTURE
	SINGLE POLE SWITCH (3-3 WAY, 4-4 WAY, P-PILOT LIGHT, K-KEYED, M-MOTOR RATED)
	WP DENOTES WEATHERPROOF GF DENOTES GROUNDFault IG DENOTES ISOLATED GROUND
	A-1-2 DENOTES PANEL 'A', CIRCUIT No.1, SWITCH No.2
	15A-120 VOLT DUPLEX WALL RECEPTACLE (IG-ISOLATED GROUND, C-CEILING MTD., Q-QUAD RECEPTACLE)
	15A-120 VOLT DUPLEX WALL RECEPTACLE MOUNTED ABOVE COUNTER (S-SPLIT, Q-QUAD RECEPTACLE)
	SPECIAL RECEPTACLE AS NOTED ON DRAWINGS
	WALL MOUNTED TELEPHONE OUTLET WITH 19 (3/4") CONDUIT TO TELEPHONE SERVICE BOARD U.N.O.
	WALL MTD. DATA OUTLET WITH 19 (3/4") CONDUIT TO CEILING UNLESS NOTED OTHERWISE (U.N.O.)
	MECHANICAL EQUIPMENT ITEM NO. SEE EQUIPMENT WIRING SCHEDULE
	FLUSH MOUNTED POWER PANEL. PANEL DESIGNATION AS INDICATED
	ELECTRIC HEATER TYPE AS INDICATED

<i>BnZ engineering</i>		471 LOCUST ST. 17D BURLINGTON, ONTARIO L7S 1T9 PHONE: (905) 319-2819 FAX: (905) 384-0740 www.bnzel.com													
		THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.													
K. W. Richards		24865 NAME BCIN / BCDN													
BnZ engineering		3020 FIRM NAME BCIN / BCDN													
 13.02.22 K.W. RICHARDS 															
Tim Hortons TRAILERS-13 ONTARIO		ISSUE TABLE <table border="1"> <thead> <tr> <th>No.</th> <th>Date (yy/mm/dd)</th> <th>Description</th> <th>By:</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>13.02.22</td> <td>ISSUED FOR PERMIT & CONSTRUCTION</td> <td>D.B.</td> </tr> </tbody> </table>		No.	Date (yy/mm/dd)	Description	By:	A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION	D.B.				
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SCHEDULE AND ELECTRICAL LEGEND TRAILERS-13 ONTARIO		<table border="1"> <thead> <tr> <th>DRAWN BY:</th> <th>CHECKED</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>T.C./D.B.</td> <td>K.W.R.</td> <td>13.01.24</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Project No.</th> <th>Lighting Plan, Notes</th> <th>Drawing Number</th> </tr> </thead> <tbody> <tr> <td>TRAILERS-13</td> <td></td> <td>E2 OF 5</td> </tr> </tbody> </table>		DRAWN BY:	CHECKED	Date	T.C./D.B.	K.W.R.	13.01.24	Project No.	Lighting Plan, Notes	Drawing Number	TRAILERS-13		E2 OF 5
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Project No.	Lighting Plan, Notes	Drawing Number													
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I.O.L. DRAWING No. Sheet Page		OPTION REV 12													



FLOOR PLAN - POWER & SYSTEMS

SCALE 1:50

TDL POWER & SYSTEMS DRAWING NOTES

1. GENERAL NOTE - ENSURE RECEPTACLES ARE MOUNTED SUCH THAT THE PLUGS WILL NOT INTERFERE WITH EACH OTHER WHEN THE EQUIPMENT IS CONNECTED. ALL RECEPTACLES ARE TO BE INSTALLED TO MINIMIZE STRAIN ON THE CABLES OF THE EQUIPMENT. ORIENTATION OF THE RECEPTACLE SHOULD BE SUCH THAT WHEN THE CABLE IS IN ITS NORMAL POSITION, THERE IS NO STRAIN INDUCED ONTO THE CABLE.
2. GENERAL NOTE - LEAVE 1200mm SLACK CABLE AT 610mm (OR 1150mm WHERE INSTALLED ABOVE COUNTER) THROUGH DRYWALL FOR BACK BAR ITEMS. INSTALL RECEPTACLES IN MILLWORK AFTER COUNTER IS INSTALLED.
3. GENERAL NOTE - FOR EXACT LOCATION OF J-BOXES/DEVICES UNDER/SIDE FRONT COUNTER, REFER TO STORE FIXTURE (MILLWORK MANUFACTURER) SHOP DRAWINGS.
4. GENERAL NOTE - CASH SYSTEM: ALL CASH REGISTERS #37, DRIVE-THRU MONITOR #27 AND OFFICE I.G. TO SHARE ONE COMMON INSULATED ISOLATED GROUND CIRCUIT WITH ORANGE FACED I.G. RECEPTACLES GROUND WIRE TO BE COLOURED GREEN. NOTE: DO NOT USE CONDUIT AS CIRCUIT GROUND IN ANY PART OF THE SYSTEM.
5. GENERAL NOTE - DIVISION 16 MUST SUPPLY/INSTALL ALL DATA OUTLET FACE PLATES WITH GROMMETS, MIN. 13MM DIA.
6. GENERAL NOTE - UPON COMPLETION OF ALL WORK (INCLUDES WORK BY TDL FORCES), DIVISION 16 TO PROVIDE ALL STAINLESS STEEL COVER PLATES, INCLUDING BLANKS AND THOSE REQUIRED FOR DATA CABLES.
7. NOTED DEVICE - INSTALL DATA AND PHONE JACKS IN SINGLE 50x100 BOX C/W COVER PLATE.
8. NOTED DEVICE - RUN POWER AND DATA LINES SERVING THIS COUNTER WITHIN CHASE PROVIDED. RECEPTACLES FOR ITEMS 136.4, 128, 42.4 & 67.4 SHALL BE INSTALLED ON SIDE OF CHASE. EXTEND POWER AND DATA LINES BELOW COUNTER TO SERVE CASH AND ITEM 81.3
9. GENERAL NOTE - WHERE RECEPTACLES ARE SURFACE MOUNTED PROVIDE EMT FROM RECEPTACLE TO CEILING SPACE FOR POWER/DATA WIRING.
10. NOTED ITEM - PROVIDE WEATHER PROOF ENCLOSURE FOR INCOMING TELEPHONE, ETHERNET/DSL, AND CONNECTION TO D.T. SPEAKER POST.

THE UNDERSIGNED HAS REVIEWED AND
TAKES RESPONSIBILITY FOR THIS DESIGN,
AND HAS THE QUALIFICATIONS AND MEETS
THE REQUIREMENTS SET OUT IN THE
ONTARIO BUILDING CODE TO BE A DESIGNER.

K. W. Richards 24865
NAME BCIN / BCDN
BnZ engineering 3020
FIRM NAME BCIN / BCDN

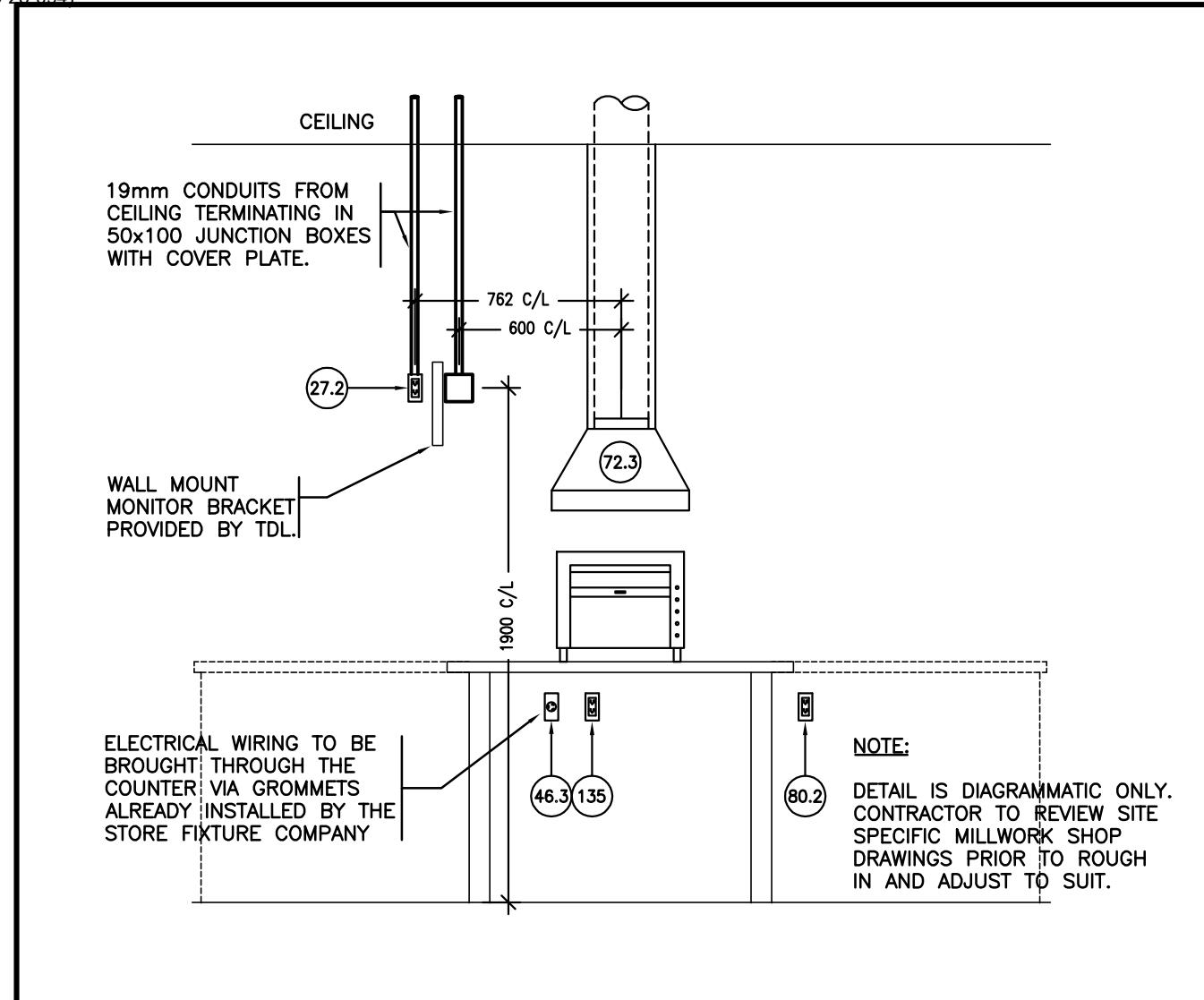
PROFESSIONAL

A circular black and white stamp. The top half of the outer ring contains the words 'LICENSED PROFESSIONAL' and 'ENGINEER' stacked vertically. The bottom half of the outer ring contains the words 'PROVINCE OF ONTARIO' stacked vertically. In the center, the date '13.02.22' is printed above the name 'K.W. RICHARDS'. A large, hand-drawn style 'X' is scribbled over the name 'K.W. RICHARDS'.

TDL MECHANICAL EQUIPMENT WIRING SCHEDULE

DESCRIPTION			POWER		STARTER		ISOLATING DEVICE		REMOTE CONTROL						REMARKS										
ITEM NUMBER	ITEM	PROVIDED BY	VOLTAGE	PHASE	H.P./KW/AMPS	MOCP (AMPS)	MANUAL	MAGNETIC	COMBINATION	CONTACTOR	CONTROL VOLTAGE	DISCONNECT	W.P. DISCONNECT	WIRED BY	TERMOSTAT	R.A. THERMOSTAT	TIME CLOCK	VARIABLE SPEED	MOTOR RATED SWITCH	AUTOMATION SYSTEM-B.A.S.	DOOR SWITCH	WIRED BY	INTERLOCKED WITH	INTERLOCKED BY	
1	INLINE EXHAUST FAN EF-1	M	120	1	100W								E	E				E	E			E			DIV. 16 TO PROVIDE RHEOSTATIC VARIABLE SPEED CONTROLLER MOUNTED IN CEILING SPACE ADJACENT TO FAN IN ACCESIBLE LOCATION. LEAVE IN HIGH POSITION ALL FINAL ADJUSTMENTS BY BALANCING CONTRACTOR ONLY.
2	INLINE EXHAUST FAN EF-2	M	120	1	100W								E	E				E	E			E			DIV. 16 TO PROVIDE RHEOSTATIC VARIABLE SPEED CONTROLLER MOUNTED IN CEILING SPACE ADJACENT TO FAN IN ACCESIBLE LOCATION. LEAVE IN HIGH POSITION ALL FINAL ADJUSTMENTS BY BALANCING CONTRACTOR ONLY.
3	EXHAUST FAN EF-3	M	120	1	FHP								E	E				E			E				SWITCHED WITH LIGHTS.
4	AC-1	M	208	3	43 MCA	60							E	E	E	M					M				
5	HOT WATER TANK	M	208	3	5 KW	30							E		E										FIELD WIRE FOR NON-SIMULTANEOUS AND SINGLE ELEMENT OPERATION BY DIV. 16

Project <i>Tim Hortons</i>	ISSUE TABLE			
	No.	Date (yy/mm/dd)	Description	By:
TRAILERS-13 ONTARIO	A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION	D.B.
POWER & SYSTEMS PLAN, NOTES AND MECHANICAL EQUIPMENT WIRING SCHEDULE				
I.O.L. DRAWING No.	SHEET	OPTION	DATE DRAWN BY: T.C./D.B.	DATE CHECKED K.W.R.
				13.01.24
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1

TYPICAL BACK COUNTER DETAIL N.T.S.

TDL AIR CURTAIN SCHEDULE

TYPE

DESCRIPTION

A AIR CURTAIN BETTER AIR MODEL #AC-020 120V 1Ø. BOTTOM OF UNIT TO BE MOUNTED TIGHT TO TOP OF DRIVE THRU WINDOW, CENTERED ABOVE WINDOW. PROVIDE WALL MOUNTED 5-15R RECEPTACLE. UNIT AND RECEPTACLE TO BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
CONTACT GREEN AIR SYSTEMS: greenairsystems@mymts.net

TDL KITCHEN EQUIPMENT SCHEDULE

DESCRIPTION		POWER			MISC.			REMARKS			
ITEM NUMBER	ITEM	SUPPLY	INSTALL	VOLTAGE	PHASE	CURRENT (A)	H.P./KW	CONNECTION	OUNTING HEIGHT	DUPLEX RECEPTACLE	SINGLE RECEPTACLE
23.7	REACH-IN COOLER	TDL	TDL	120	1	12.0	1/3 HP	5-15R			Y
27.4	MONITOR-SANDWICH	TDL	TDL	120	1			5-15R IG	*	Y	(3#12). MOUNT INLINE WITH MONITOR BRACKET.
37.X	CASH	TDL	TDL	120	1			5-15R IG	600 (895-DT)	Y	(3 #12) SEE DWG. E3 NOTE 4.
38.10	SANDWICH UNIT	TDL	G.C.	120	1	4.9		5-15R	200 (8")	Y	PROVIDED C/W 2100MM CORD & PLUG.
42.X	MICROWAVE	TDL	G.C.	120	1		900W	5-15R	2000	Y	EQUIPMENT MOUNTED ON SHELF.
46.3	BAGEL TOASTER	TDL	G.C.	208	1	17.8	3.6KW	6-30R	*	Y	(2#10 + GROUND) PROVIDED C/W 1200MM CORD & PLUG.
57.2	FONDANT COND.	TDL	G.C.	120	1	8.3	1.0 KW	5-15R GF	1100 (43")	Y	RECEPTACLE MOUNTED ABOVE BACKSPLASH OF ITEM 26.
66.X	CREAMER	TDL	G.C.	120	1	3		5-15R	1150	Y	OUNTED ON FRONT BAR.
67.X	HOT POWDERED DRINK	TDL	G.C.	120	1	12.5	1.5 KW	5-20RA	610 (24")	Y	RECEPTACLE C/W CORD & PLUG. SEE POWER & SYSTEMS NOTE 2
68.5	COFFEE BREWER	TDL	G.C.	120/208	1	23.3		L14-30R	1150	Y	(3#10) PROVIDE 1200MM CORD & PLUG.
68.6	COFFEE BREWER	TDL	G.C.	120/208	1	15.1		L14-20R	1150	Y	(3#12) PROVIDED C/W CORD & PLUG.
69.X	SUGAR DISPENSER	TDL	G.C.	120	1	2			1150		SHARE RECEPTACLE WITH CLOSEST CREAMER ITEM #66.
75.7	REACH-IN FREEZER	TDL	TDL	120	1	11.1	1/2 HP	5-15R	1790	Y	OUNTED ABOVE FREEZER
80.2	SOUP WARMER	TDL	G.C.	120	1	15	1.8 KW	5-20RA	*	Y	SEE POWER & SYSTEMS NOTE 2
81.3	U/C FRIDGE SINGLE DOOR	TDL	G.C.	120	1	2.6	1/6 HP	5-15R	100	Y	RECEPTACLE MOUNTED TO RIGHT HAND SIDE OF UNIT. SEE NOTE 2.
87.7	SMOOTHIE MACHINE	TDL	TDL	208	1	15/15	3120W/3120W	6-20R (X2)	610 (24")	Y (X2)	PROVIDED C/W TWO SEPERATE 1800MM (72") POWER CORDS & PLUGS.
99.1	TEA BREWER / HOT WATER	TDL	G.C.	120/208	1	22.8	6.0 KW	L14-30R	610 (24")	Y	(3#10) PROVIDED C/W CORD & PLUG.
116	OVERHEAD MENU	TDL	TDL	120	1	0.5		5-15R	BACK OF SIGN	Y	SUPPLIED C/W BACK BOX LOOSE CORD & PLUG. PROVIDE & WIRE RECEPTACLE IN BOX ON BACK OF SIGN. WIRE THROUGH MOUNTING TUBE USING AC-90.
123	MEDIA ENGINE CABINET	TDL	G.C.	120	1	**		5-15R IG	*	Y	REFER TO ELEVATION.
128	FLAVOR SHOT	TDL	G.C.	120	1	**		5-15R	610 (24")	Y	SEE POWER & SYSTEMS NOTE 2.
135	HOT HOLDING UNIT	TDL	G.C.	120	1		1350 WATTS	5-20RA	*	Y	MOUNT RECEPT. BELOW WORK COUNTER.
136.4	ESPRESSO MACHINE	TDL	TDL	208	1	7		L6-15R	610 (24")	Y	PROVIDED C/W 1800MM (72") CORD & PLUG.
157.1	COMBI ELECTRIC OVEN	TDL	G.C.	208	3	17.9	6448 WATTS	L15-30R	1250	Y	PROVIDED C/W 1800MM (72") CORD. DIV.16 TO PROVIDE PLUG.
160.1	SANDWICH TOASTER	TDL	G.C.	120	1	18.3	2200 WATTS	5-30R	500	Y	(2#10) PROVIDED C/W 1800MM (72") CORD & PLUG.
- ALL WIRING TO BE 2#12 UNLESS NOTED OTHERWISE. - THE CONVENTION FOR THE NUMBER OF CONDUCTOR SHOWN IS ONLY PHASE & NEUTRAL CONDUCTORS ARE IDENTIFIED. GROUND MUST ALWAYS BE ADDED (I.E. 3#12 MEANS 3#12 + GROUND) - * REFER TO ELEVATION DETAILS FOR MOUNTING HEIGHT.											

ISSUE TABLE

No.	Date (yy/mm/dd)	Description	By:	D.B.
A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION		

Project: **Tim Hortons**
TRAILERS-13
ONTARIO

KITCHEN EQUIPMENT SCHEDULE
AND ELECTRICAL ELEVATIONS
TRAILERS-13

471 LOCUST ST.
BURLINGTON, ONTARIO L7S 1T9
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BnZ engineering
THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

K. W. Richards 24865
NAME BCIN / BCDN
BnZ engineering 3020
FIRM NAME BCIN / BCDN



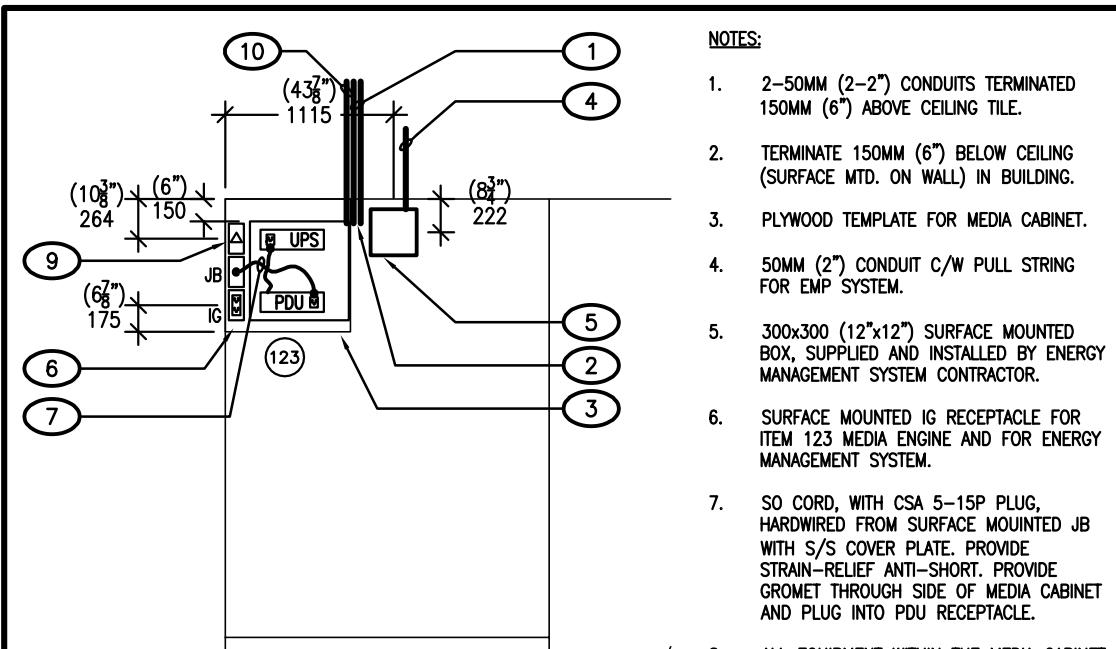
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LOAD WATTS CONNECTED	PANEL-A								LOAD WATTS CONNECTED
LOAD	DESCRIPTION	BKR	CCT	PHASE A B C	CCT	BKR	DESCRIPTION	LOAD	
1570	ITEM 68.6 COFFEE BREWER	20A	1		2	60A	AC-1	5164	
1570		2P	3		4	/		5164	
2423	ITEM 68.5 COFFEE BREWER	30A	5		6	3P		5164	
2423		2P	7		8	30A	HWT-1	3333	
2423	ITEM 68.5 COFFEE BREWER	30A	9		10	/		3333	
2423		2P	11		12	3P		3333	
3000	ITEM 99.1 TEA BREWER	30A	13		14	30A	ITEM 157.1 COMBI OVEN	2149	
3000		2P	15		16	/		2149	
1800	ITEM 46.3 BAGEL TOASTER	30A	17		18	3P		2149	
1800		2P	19		20	30A	ITEM 157.1 FUTURE COMBI OVEN	2149	
728	ITEM 136.4 ESPRESSO MACHINE	15A	21		22	/		2149	
728		2P	23		24	3P		2149	
1048 600	INTERIOR LIGHTS ITEM 37.1 CASH	15A 15A	25A 25B		26	20A	ITEM 87.7 SMOOTHIE MACHINE	1560	
1200 1277	ITEMS 66 CREAMER / 69 SUGAR ITEM 75.7 REACH-IN FREEZER	15A 15A	27A 27B		28	2P		1560	
900 940	ITEM 42.4 MICROWAVE ITEM 128 FLAVOUR & ITEM 123 / E.M.S.	15A 15A	29A 29B		30	20A	ITEM 87.7 SMOOTHIE MACHINE	1560	
699 588	ITEM 81.3 U/C FRIDGE & GEN RECEPT. ITEM 38.10 SANDWICH UNIT	15A 15A	31A 31B		32	2P		1560	
996 116	ITEM 57.2 FONDANT CONDITIONER EXTERIOR LIGHTING	15A 15A	33A 33B		34	30A	ITEM 160.1 SANDWICH TOASTER	2200	
1380 400	ITEM 23.7 REACH IN COOLER ITEM 27.4 LCD MONITOR	15A 15A	35A 35B		36A 36B	20A 20A	ITEM 67.4 HOT POWDERED DRINK ITEM 135 HOT HOLDING UNIT	1500 1350	
400	WASHROOM RECEPTACLE / SAN PUMP COMBI & BAGEL FANS	15A	37A		38A	20A	ITEM 80.2 COOKER / WARMER SPARE	1800 —	
400	ELECTRIC AIR CURTAIN	15A	37B		40			—	
400	EXTERIOR GF RECEPTACLE & HEATER	15A	39A		42			—	
—			41					—	
<input checked="" type="checkbox"/> MAIN BREAKER 200 MAIN BREAKER RATING <input type="checkbox"/> MAIN BREAKER GFCI 208V PANEL VOLTAGE 3 PANEL PHASES <input checked="" type="checkbox"/> NEUTRAL BUS					200	MAIN BUS AMPACITY 10000	1 EEMAC RATING RECESSED PANEL	PHASE LOADING	
					<input checked="" type="checkbox"/> INSULATED GROUND BUS			A 30,043.00 W	
						FAULT CURRENT TOLERANCE		B 28,665.00 W	
								C 28,199.00 W	
								A 250.17 A	
								B 238.70 A	
								C 234.82 A	

PANEL-A

RISER AND DISTRIBUTION NOTES

1. PANEL TO BE WIRED FOR CONNECTION TO INCOMING 120/208V 200A POWER SUPPLY FROM STORE.
2. CO-ORDINATE AND CONFIRM ALL ASPECTS OF MECHANICAL SYSTEMS AND OPERATING VOLTAGE AND PHASE WITH MECHANICAL CONTRACTOR PRIOR TO PURCHASE.
3. ALL PANELS SUPPLIED C/W 13mm TANDEM DNBA BREAKERS WHERE HALF SIZE BREAKERS ARE REQUIRED.



LEGEND:

IG. RECEPTACLE DEVICE
 □ WALL OPENING W/ F-51 BRACKET OR
 □ PLASTER RING BY DIV.16 FOR DATA OUTLET

9. ONE CAT5E ETHERNET CABLE TO BE RUN FROM THE CONNECTION AT THE FRONT OF THE TRAILER TO DESIGNATED LOCATION ON THE PLYWOOD TEMPLATE.

ITEM 123 MEDIA ENGINE CABINET - TYP. INSTALLATION

N.T.S.

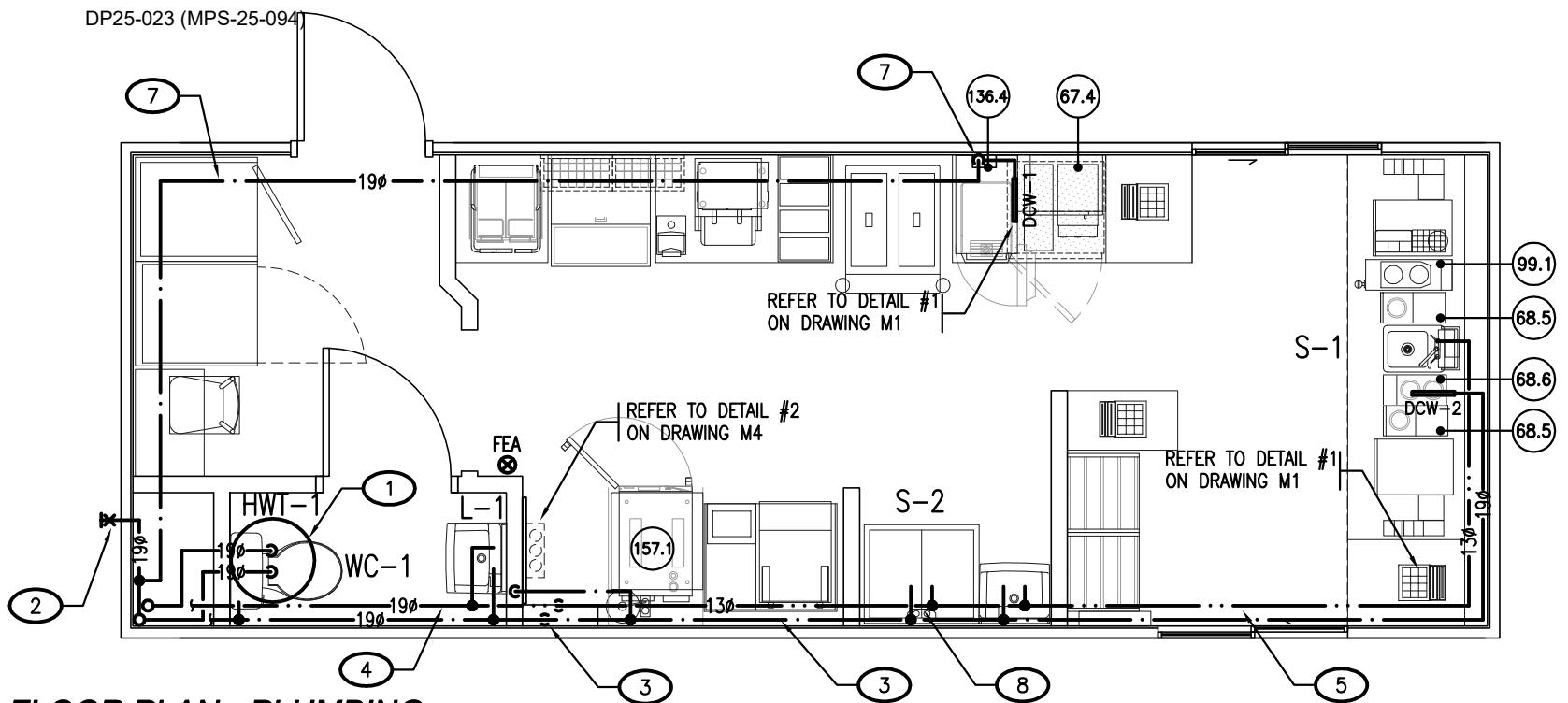
LOAD CALCULATION SUMMARY

LOAD CALCULATION SUMMARY											
DESCRIPTION	INTERIOR LIGHTING	EXTERIOR LIGHTING	EQUIPMENT @ 100%	EQUIPMENT @ 80%	EQUIPMENT @ 60%	EQUIPMENT @ 40%	EQUIPMENT @ 20%	MISC	A/C	ELECTRIC HEATING	TOTAL
CONNECTED LOAD	1,048	116	1,000	3,140	49,598	9,266	6,647		15,492	600	86,307
DIVERSITY FACTOR	100%	100%	100%	80%	60%	40%	20%	100%	90%	100%	61.89%
DEMAND LOAD	1,048	116	1,000	2,512	29,759	3,706	1,329		13,943	600	53,413

Only the greater of the loads between heating and cooling is calculated in the total.

		471 LOCUST ST. BURRINGTON, ONTARIO L7S 1T9 PHONE: (905) 319-2819 FAX: (905) 338-0740 WWW.bnz-eng.com
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<p>THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.</p>		
K. W. Richards NAME		24865 BCIN / BCDN
BnZ engineering FIRM NAME		3020 BCIN / BCDN
		

 Tim Hortons ONTARIO		TRAILERS-13				
		ELECTRICAL SERVICE AND PANEL SCHEDULE				
Project I.O.L., DRAWING No.		SHEET Page	OPTION 15	DRAWN BY: T.C./D.B.	CHECKED K.W.R.	Drawing TRAILERS-13
				Scale: 1:50	Project Number 13	E5

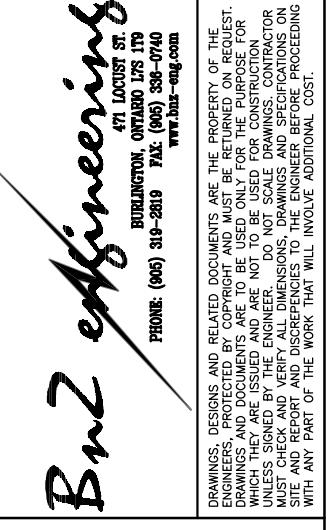


FLOOR PLAN - PLUMBING

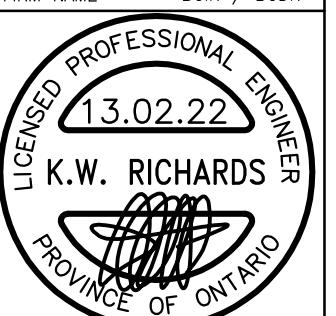
SCALE 1:50

TDL PLUMBING DRAWING NOTES

1. NOTED DEVICE - HWT TO BE MOUNTED ON PLATFORM BEHIND WC-1.
2. NOTED DEVICE - PROVIDE 19" FEMALE HOSE CONNECTION FOR INCOMING DOMESTIC COLD WATER CONNECTION.
3. NOTED DEVICE - PROVIDE WATER LINES C/W SHUT OFF VALVES AT LOW POINT OF HOT & COLD WATER LINES FOR DRAINAGE PRIOR TO TRANSPORT. PIPE THROUGH FLOOR TO DRAIN TO GRADE.
4. NOTED DEVICE - PLUMBING LINES SHALL RUN ALONG EXTERIOR WALL TO FEED EQUIPMENT AND FIXTURES. PROVIDE PIPE SUPPORTS AT MINIMUM 450mm INTERVALS.
5. NOTED DEVICE - RUN PLUMBING LINES THROUGH PIPE CHASE BELOW D.T. WINDOW TO FEED EQUIPMENT AND SINK ON FRONT COUNTER. COLD WATER LINE TO CONNECT TO MANIFOLD DCW-2 (LOCATED BELOW COUNTER IN MILLWORK).
6. GENERAL NOTE - DIVISION 15 TO PURGE AND FLUSH ALL WATER LINES PRIOR TO HOOK UP.
7. NOTED DEVICE - RUN PLUMBING LINE IN CEILING SPACE TO PIPE CHASE, DOWN THROUGH CHASE AND THROUGH GROMMET TO SERVE MANIFOLD DCW-1. MANIFOLD DCW-1 LOCATED ABOVE COUNTER.
8. NOTED DEVICE - PROVIDE DOUBLE CHECK VALVE ASSEMBLY (D.C.V.A) ON HOT AND COLD WATER LINES SERVING TWO COMPARTMENT SINK. REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.



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FIRM NAME BCIN / BCDN



TDL WATER HEATER SCHEDULE

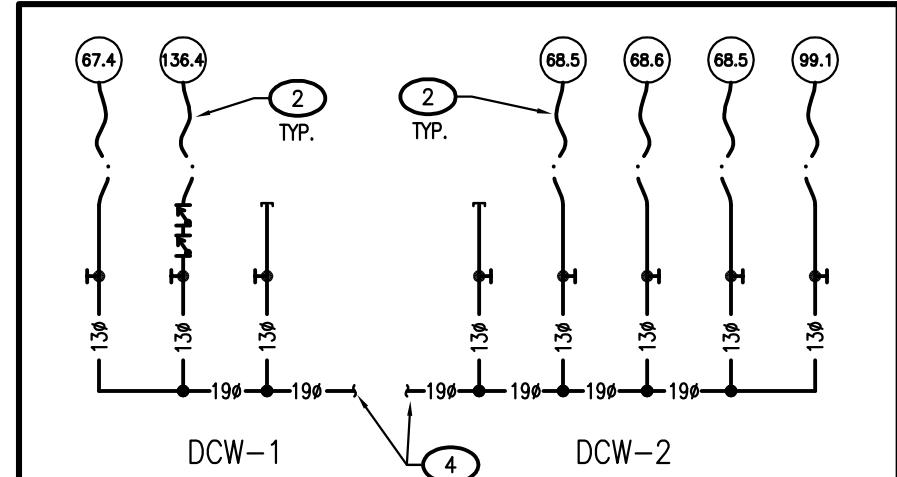
No.	MANUFACTURER & MODEL	STORAGE U.S. GAL	INPUT MBH	THERMAL EFFICIENCY	TEMP. RISE	RECOVERY GPH	ELECTRICAL	REMARKS
HWT-1	A.O. SMITH MODEL DEL-50	189 LITERS (50 USG)	5000/5000 WATT		44°C (80°F)	192 LPH (51 USGPH)	208V 3Ø 60 Hz	FIELD WIRED FOR NON-SIMULTANEOUS AND SINGLE ELEMENT OPERATION.

- H.W.T. C/W SHUT OFF VALVES & TEMP/PRESSURE RELIEF VALVE SUPPLIED & INSTALLED BY DIVISION 15. PIPE RELIEF VALVE INDIRECTLY TO GRADE. SET DISCHARGE TEMP. AT 140°F. MOUNT H.W.T. ON PLATFORM PROVIDED BEHIND WATER CLOSET PER DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. A.O. SMITH CONTACT: CUSTOMER SERVICE, TEL:1(800) 265-8520. TANK TO BE PURCHASED THRU LOCAL WESTBURN DISTRIBUTOR.

TDL KITCHEN EQUIPMENT SCHEDULE - DIVISION 15

ITEM	DESCRIPTION	B.F.P. RQD.	FW	DCW	INDIRECT WASTE	REMARKS
67	HOT POWDERED DRINK MACHINE		9mm (3/8")			PROVIDE STOP VALVE ON F.W. SUPPLY MINIMUM SUPPLY PRESSURE = 20 PSI. PROVIDE VALVED & CAPPED CONNECTION FOR FUTURE ITEMS WHERE NOTED ON PLANS.
68	COFFEE BREWER		9mm (3/8")			PROVIDE STOP VALVE ON F.W. SUPPLY MINIMUM SUPPLY PRESSURE = 20 PSI. PROVIDE VALVED & CAPPED CONNECTION FOR FUTURE ITEMS WHERE NOTED ON PLANS.
99.1	TEA BREWER / HOT WATER COMBO		9mm (3/8")			PROVIDE STOP VALVE ON F.W. SUPPLY MINIMUM SUPPLY PRESSURE = 20 PSI. PROVIDE VALVED & CAPPED CONNECTION FOR FUTURE ITEMS WHERE NOTED ON PLANS.
136.4	ESPRESSO MACHINE	Y	9mm (3/8")			PROVIDE 3/8" WATER LINE WITH IN-LINE STOP VALVE, DUAL CHECK VALVE & 9mm (3/8") FLARE FITTING FOR WATER CONNECTION TO MACHINE. MIN. SUPPLY PRESS. = 15 PSI.
157.1	COMBI OVEN	Y		2x13mm (1/2")	38mm (1 1/2")	DIVISION 15 TO INSTALL 13mm (1/2") F.P.T. WATER INLET INTO CLARIS FILTER SYSTEM (SUPPLIED WITH OVEN, INSTALLED BY DIVISION 15). 2x13mm (1/2") HOSE COUPLING THREAD WATER INLETS AT OVEN (ONE CW INLET, ONE FILTERED WATER INLET), 38mm (1 1/2") O.D. WATER OUTLET. DRAIN TO H.D. DRAIN LINE MUST BE VENTED. REFER TO DETAIL FOR INSTALLATION.

- PROVIDE STOP VALVE @ EACH CONNECTION TO EQUIPMENT, DAHL MINI-BALL VALVE PART# 121-13-61 UNLESS OTHERWISE NOTED.
- B.F.P. COLUMN IS TO DENOTE SEPARATE BACKFLOW PREVENTION DEVICE REQUIRED. SOME EQUIPMENT IS PROTECTED BY ZONE BACKFLOW PREVENTION, THIS IS NOT INDICATED IN THIS COLUMN. REFER TO PLUMBING PLAN ON THIS DRAWING. THIS CONTRACTOR IS RESPONSIBLE FOR SUPPLYING & INSTALLING ALL R.P., D.U.C., D.C.V.A., & C.V.



DAHL MINI BALL VALVE #121-13-61

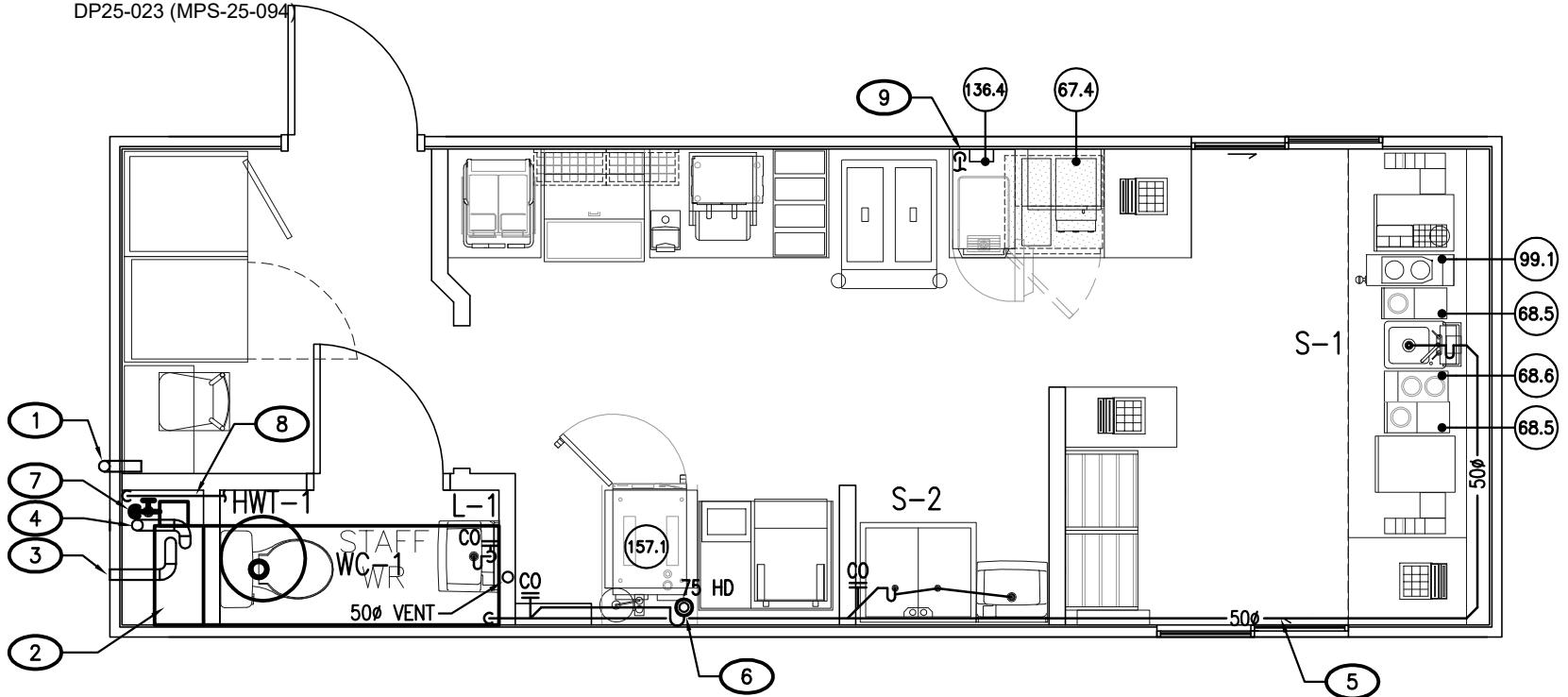
D.U.C. : DENOTES D.U.C (REFER TO TDL PLUMBING FITTINGS SCHEDULE)

NOTES:

1. ALL FITTINGS ARE TO BE IN MILLWORK UNLESS OTHERWISE NOTED ON PLANS.
2. PROVIDE 900mm (3') FLEXIBLE BRAIDED VINYL TUBING TERMINATED WITH 9mm (1/4") FLARE NUT FOR FUTURE CONNECTION TO EQUIPMENT.
3. MANIFOLDS SHALL BE TYPE 'L' COPPER.
4. CONNECT TO INCOMING 19" PEX TUBING. PROVIDE APPROPRIATE ADAPTER AS PER MECHANICAL SPECIFICATIONS.

1 PLUMBING MANIFOLD DETAIL
N.T.S.

Project TRAILERS-13 ONTARIO		PIPING PLAN, DRAWING NOTES, DETAILS AND SCHEDULES		DRAWN BY: CHECKED Date 13.01.24	
				T.C./D.B.	K.W.R.
				Project Number	Drawing Number
I.O.L.	DRAWING No.	TRAILERS-13	1:50	OPTION	M1 OF 7
				Page	16



FLOOR PLAN - SANITARY

SCALE 1:50

TDL SANITARY DRAWING NOTES

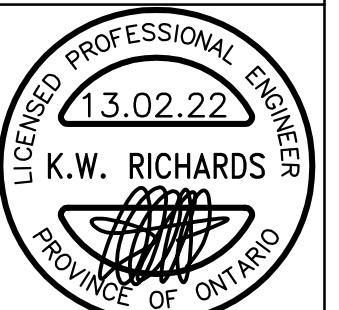
1. NOTED DEVICE - 75 ϕ VENT FROM CEILING SPACE TO VENT AT HIGH LEVEL THROUGH EXTERIOR WALL. VENT SHALL BE ORIENTED TO FACE AWAY FROM FRONT OF TRAILER TO AVOID DAMAGE DURING TRANSPORT.
2. NOTED DEVICE - PROVIDE 300 GALLON SEWAGE TANK BELOW WASHROOM C/W PUMP. PUMP (P-1) SHALL BE 120V 1 ϕ PUMP CAPABLE OF 6.7m HEAD.
3. NOTED DEVICE - OUTLET OF SEWAGE PUMP P-1 THROUGH EXTERIOR WALL. PROVIDE TEE CONNECTION ON EXTERIOR OF WALL PENETRATION WITH PIPE UP THROUGH OVERHANG FOR OVERHEAD CONNECTION AND DOWN FOR CONNECTION BELOW. PROVIDE SHUT-OFF VALVES ON UPPER AND LOWER PIPES.
4. NOTED DEVICE - 75 ϕ VENT UP FROM SEWAGE PUMP TO CEILING SPACE TO CONNECT TO MAIN VENT LINE IN CEILING SPACE.
5. NOTED DEVICE - RUN DRAIN LINE FROM SINK WITHIN PIPE CHASE AND ALONG EXTERIOR WALL.
6. NOTED DEVICE - EXTEND STEAM VENTING FROM COMBI OVEN WITHIN COMBI EXHAUST HOOD. REFER TO DETAIL #2 ON DRAWING M4.
7. NOTED DEVICE - PROVIDE DRAIN LINE C/W SHUT-OFF VALVE TERMINATING IN TRAILER DRAIN CONNECTION FOR DRAINAGE OF SEWAGE TANK PRIOR TO TRANSPORT.
8. NOTED DEVICE - DRAIN LINE AND T&P RELIEF LINE FROM HWT-1 SHALL DRAIN THROUGH ACCESS COMPARTMENT FOR SEWAGE PUMP AND THROUGH FLOOR FOR DRAINAGE TO GRADE.
9. NOTED DEVICE - DRAIN ATMOSPHERIC VENT FROM DUAL CHECK VALVE THROUGH FLOOR TO DRAIN TO GRADE.

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K. W. Richards 24865
 NAME BCIN / BCDN
BnZ engineering 3020
 FIRM NAME BCIN / BCDN



PLUMBING LEGEND

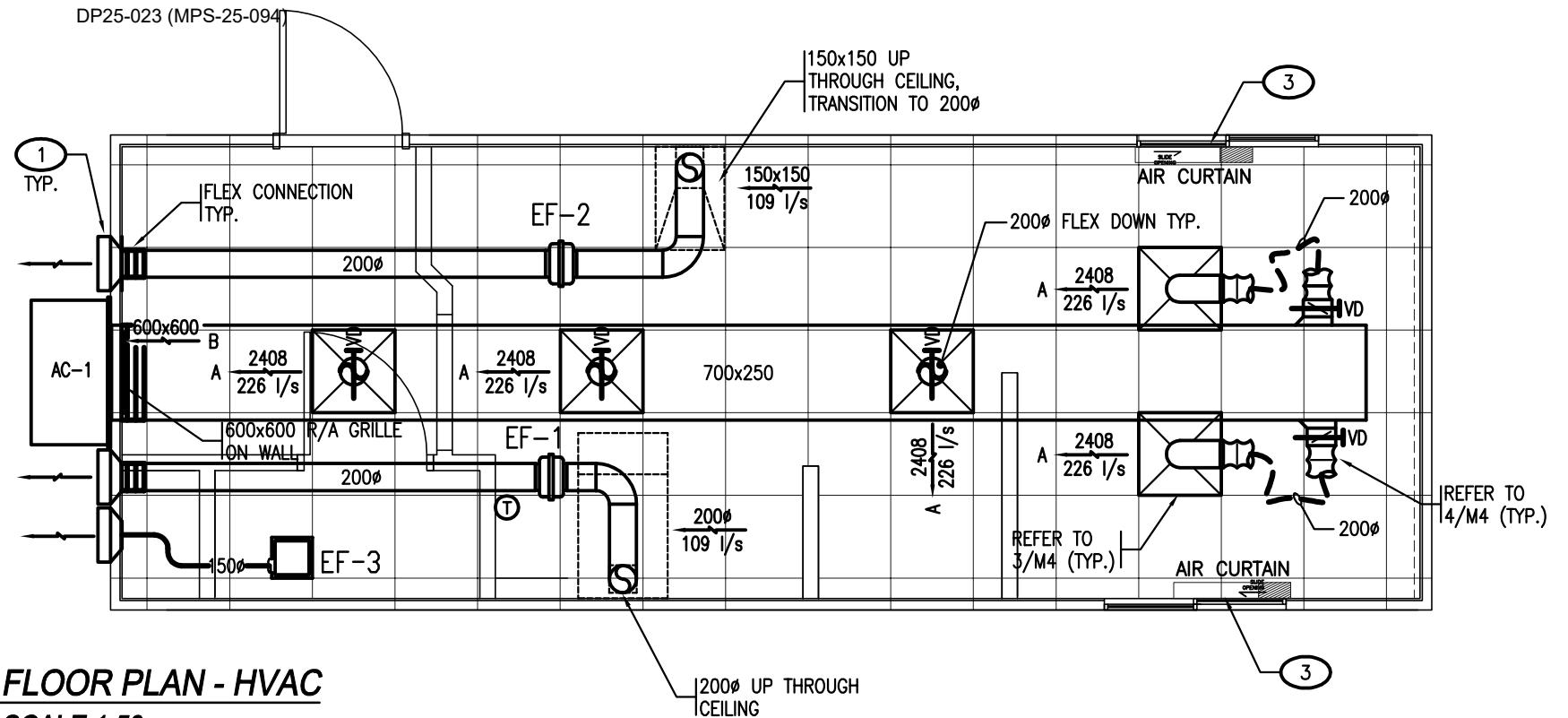
—	SANITARY BELOW GRADE/FLOOR SANITARY ABOVE GRADE/FLOOR
— · —	DOMESTIC COLD WATER
— · · —	DOMESTIC HOT WATER
— — —	PIPE DOWN PIPE UP
— — — —	LINE CLEANOUT
— — — — —	BALL VALVE
— — — — — —	WALL HYDRANT
— — — — — — —	MULTI-PURPOSE ABC DRY CHEMICAL FIRE EXTINGUISHER 2A:10BC RATING.
— — — — — — — —	FILTRATION SYSTEM

TDL PLUMBING FIXTURE SCHEDULE

TYPE	SPECIFICATION	TRIM	TRAPS & SUPPLIES EQUAL TO	CW	FW	HW	110	WASTE	VENT	REMARKS	
										D.B.	By:
WC-1	VITREOUS CHINA FREE STANDING ELONG. WATER CLOSET WITH FLANGE BOLTS, BOLT CAPS, FLOOR FLANGE & GASKET. (3.0/6.0 LPF DUAL FLUSH) -CAROMA, ROYALE 305 ELONGATED	INTEGRAL	13 mm (1/2")					75mm (3")	38mm (1 1/2")	C/W ROYALE 2000 TANK WITH VANDAL RESISTANT CONVERSION KIT PROVIDE SEAT CENTOCO #500CC DRAIN DIRECTLY TO SEWAGE TANK.	
L-1	ORDER ITEM # TDL-SS-HW2 HEAVY GAUGE WALL MOUNTED STAINLESS STEEL SINK WITH BACK SPLASH. ORDER FROM CONTOURS. SEE REMARKS.	102mm BACKSPLASH MOUNT FAUCET WITH GOOSENECK C/W CHG KN50-X120-A 1.9 LPM AERATOR	17 ga. 'P' TRAP C/W C.O. FLEXIBLE CHROME SUPPLIES WITH SCREW STOPS	13 mm (1/2")			13 mm (1 1/4")	32mm (1 1/4")	32mm (1 1/4")	SINK & FAUCET C/W ED BUILT-IN CHECK VALVE FROM CONTOURS BY DIV.15.	
S-1	ORDER ITEM # TDL-SS-HW1 POLISHED 20 GAUGE 304 STAINLESS STEEL DROP-IN SINK FROM CONTOURS	DELTA 27T4851 1.9 LPM	1 1/2" P-TRAP C/W C.O. TECK 477312 SUPPLIES WITH STOPS.	13 mm (1/2")			13 mm (1/2")	38mm (1 1/2")	32mm (1 1/4")	INSTALL SINKS AS FAR BACK AS POSSIBLE. - AVAILABLE FROM CONTOURS SUPPLIED C/W FAUCET SPECIFIED	
S-2	2-COMPARTMENT SINK WITH HAND SINK, WALL MOUNT SWIVEL ARM & PRE-RINSE ASSEMBLY W/ ADD-ON, 12" SPOUT, TEE, ADAPTERS & MOUNTING KIT	ENCORE MODEL KN53-1000-BR (2 COMP. SINK) 102mm DECK MOUNT FAUCET WITH GOOSENECK C/W 1.9 LPM AERATOR (HAND SINK)	2" P-TRAP C/W CLEANOUT	13 mm (1/2")		13 mm (1/2")		50mm (2")	38mm (1 1/2")	PRE-RINSE, FAUCETS & SINK SUPPLIED BY TDL & INSTALLED BY DIV.15. FAUCET MOUNTED EYEWASH ON HAND SINK SUPPLIED BY TDL & INST. BY DIV.15. CONFIRM FAUCET LOCATION BEFORE ROUGH-IN. PROVIDE D.C.V.A. FOR HOT & COLD WATER TO 2-COMPARTMENT SINK.	

- ALL FIXTURES SHALL BE BY ONE MANUFACTURER, DO NOT MIX AND MATCH FIXTURES FROM EQUAL MANUFACTURERS.
 - ALL FIXTURES SHALL BE SUPPLIED & INSTALLED BY THIS CONTRACTOR UNLESS OTHERWISE NOTED. MAKE ALL CONNECTIONS WITH BRAIDED FLEXIBLE HOSE.
 - FOR CONTOURS FIXTURES CONTACT CUSTOMER SERVICE @ (416) 744-3501 OR 1 (866) 930-6600

Project	ISSUE TABLE			
	No.	Date (yy/mm/dd)	Description	By:
Tim Hortons	A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION	D.B.
TRAILERS-13 ONTARIO				
SANITARY PLAN, DRAWING NOTES				
SCHEDULES & LEGEND				
DRAWN BY: T.C./D.B. Scale: 1:50	CHECKED K.W.R. Project Number TRAILERS-13	Date: 13.01.24 Drawing Number M2 OF 7		
I.O.L. DRAWING No.	Sheet	Option	Rev	
				Page 17



FLOOR PLAN - HVAC

SCALE 1:50

TDL HVAC DRAWING NOTES

1. NOTED DEVICE - TERMINATE EXHAUST DUCT IN LOUVER C/W RAIN CAP. RAIN CAP TO MATCH EXTERIOR OF TRAILER.
2. GENERAL NOTE - UNLESS OTHERWISE NOTED, QUANTITIES AND SIZES INDICATED ON DRAWINGS ARE:
 - LITERS PER SECOND, FOR AIR FLOW
 - MILLIMETERS, FOR DIMENSIONS
3. NOTED ITEM - AIR CURTAINS SUPPLIED & INSTALLED BY DIVISION 16.

HVAC LEGEND

	ROUND RETURN OR EXHAUST AIR DUCT DOWN		FLEXIBLE DUCT
	THERMOSTAT (ELECTRIC OR PNEUMATIC) G-GUARD.		VOLUME DAMPER
<u>B (2410)</u> C 1/s	A. SUPPLY AIR B. INDICATES TYPE OF DIFFUSER. C. INDICATES SIZE OF DIFFUSER & NECK (24" SQ. 10"Ø NECK) D. INDICATES CAPACITY FOR EACH		A. RETURN AIR B. INDICATES TYPE GRILLES/REGISTERS. C. INDICATES SIZE OF GRILLES/REGISTERS

TDL FAN SCHEDULE

TDL DIFFUSERS & GRILLES

TDL DIFFUSERS & GRILLES				
No.	TYPE	E.H. PRICE	TITUS	REMARKS
A	CEILING SUPPLY	SCDA/31/600x600 (SPF DRYWALL FRAME)	TMSA/3/600x600 (TRM DRYWALL FRAME)	
B	WALL RETURN	80/TB/0 (LAYIN) 80/F/A (SURFACE)	50F3 (LAYIN) 50F1 (SURFACE)	

NOTE: PROVIDE ALL REGISTERS, GRILLES AND DIFFUSERS FROM ONE MANUFACTURER. PAINT TO MATCH CEILING GRID. EQUAL BY: KRUEGER, OR NAILOR HART.

TDL HVAC UNIT SCHEDULE

UNIT	MODEL	NOM. TONS	L/S (CFM)	E.S.P. PA (W.G.)	KW (H.P.)	VOLT	NET COOL.	HTG. MBH		MIN. EER	REMARKS
								IN	OUT		
AC-1	BARD W70A1-B09	6 TON	1133 (2400)	-	-	208V 3Ø 60 Hz.	68 MBH	9 KW	6.75 KW	9.5	C/W 9 KW ELECTRIC HEATER BARD MODEL # EHW70A-B09

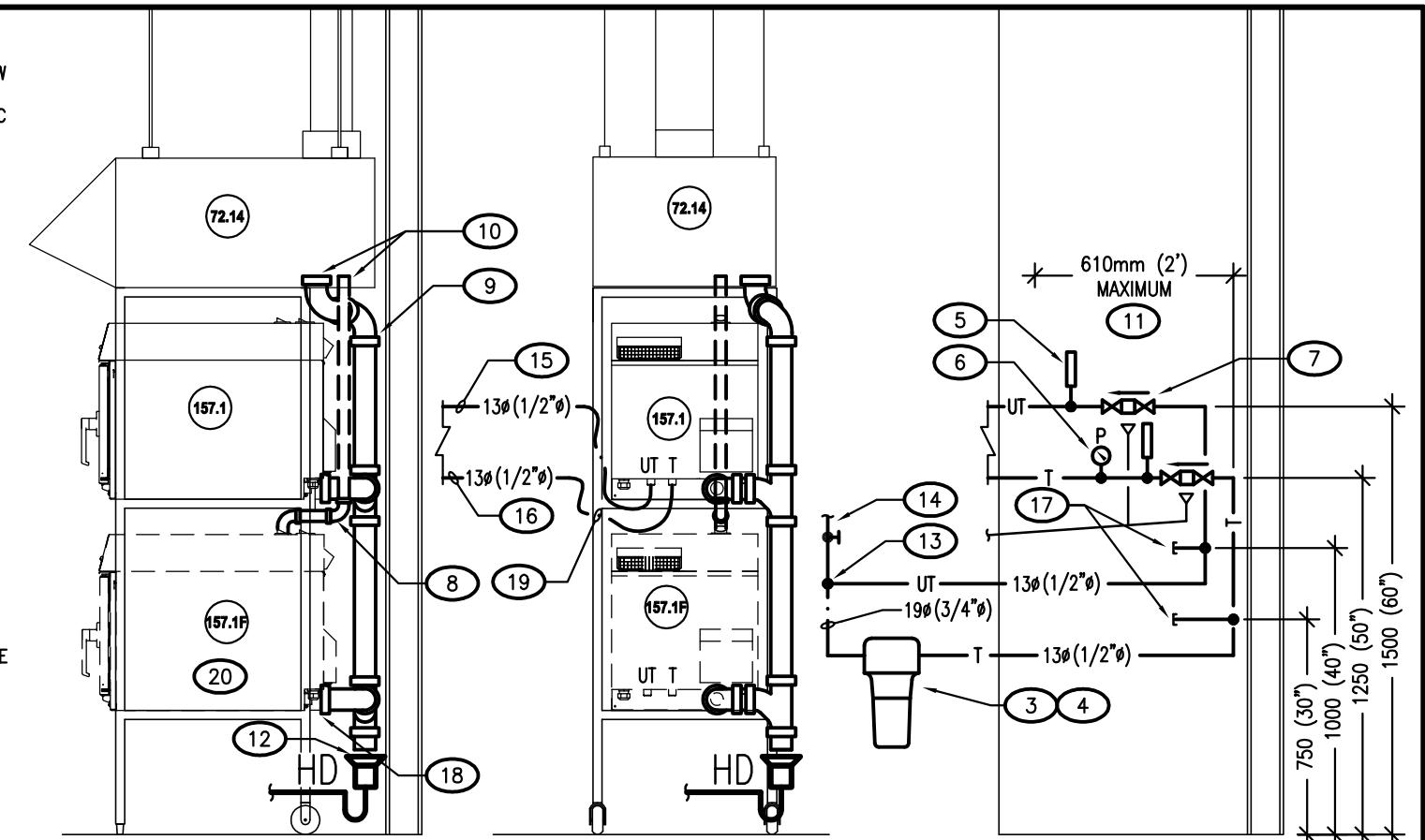
- ALL UNITS SHALL HAVE FANS SET TO CONTINUOUSLY RUN.
- AIR FLOWS SHOWN ABOVE ARE NOMINAL ONLY – REFER TO AIR BALANCE SCHEDULE FOR ACTUAL DESIGN AIR FLOWS.
- ALL EQUIPMENT LISTED ON THIS SCHEDULE ARE SUPPLIED & INSTALLED BY DIVISION 15 UNLESS OTHERWISE NOTED. DIVISION 15 SHALL VERIFY & CONFIRM THE VOLTAGES OF ALL MECHANICAL EQUIPMENT WITH DIVISION 16 PRIOR TO ORDERING.

	
471 LOUCY ST. BURLINGTON, ONTARIO L7S 1T0 PHONE: (905) 319-2510 FAX: (905) 336-0740 WWW.bnz-eng.com	
<p>DRAWINGS, DESIGNS AND RELATED DOCUMENTS ARE THE PROPERTY OF THE ENGINEERS, PROTECTED BY COPYRIGHT AND MUST BE RETURNED ON REQUEST. DRAWINGS AND DOCUMENTS ARE TO BE USED ONLY FOR THE PURPOSE FOR WHICH THEY ARE ISSUED AND ARE NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER. DO NOT SCALE DRAWINGS. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND SPECIFICATIONS ON SITE AND REPORT ANY DEFECTS OR DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH ANY PART OF THE WORK THAT WILL INVOLVE ADDITIONAL COST.</p>	
<p>THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.</p>	
<p>K. W. Richards 24865</p>	
NAME	BCIN / BCDN
<p>BnZ engineering 3020</p>	
FIRM NAME	BCIN / BCDN
	

PROJECT		DRAWING NO.		SHEET		PAGE		DRAWN BY:		OPTION		SCALE:		DRAWING NUMBER		DATE	
<i>Tim Hortons</i>		TRAILERS-13		SHEET		PAGE		T.G.J/D.B.		OPTION		1:50		TRAILERS-13		M3 OF 7	
I.O.L.		ONTARIO		18		10		CHECKED		K.W.R.		13-01-24					
HVAC PLAN, DRAWING NOTES,		SCHEDULE AND LEGEND															
ISSUE TABLE																	

NOTES:

1. DETAIL IS DIAGRAMMATIC ONLY. CONTRACTOR TO REVIEW SITE SPECIFIC DRAWINGS PRIOR TO ROUGH IN AND ADJUST TO SUIT.
2. PLUMBING CONTRACTOR SHALL PERFORM A PRESSURE TEST ON INCOMING WATER LINE AND DOWNSTREAM OF CLARIS WATER TREATMENT SYSTEM FOR COMBI OVEN(S) AND SUBMIT THE RESULTS BACK TO THE ENGINEER & TDL PROJECT MANAGER FOR REVIEW.
3. CLARIS WATER TREATMENT SYSTEM (FOR 2 OVENS) SUPPLIED W/ ITEM 157.1 COMBI OVEN INSTALLED BY DIVISION 15. SYSTEM TO BE INSTALLED BELOW ELECTRICAL PANEL BESIDE OVEN(S). ENSURE CLEARANCES ARE MAINTAINED FOR FILTER REPLACEMENT.
4. PRE-FILTER.
5. WATER HAMMER ARRESTOR WATTS MODEL LF15 SIZE: 1/2" (TYP. FOR 2)
6. PRESSURE GAUGE WATTS MODEL DPG-1 SIZE: 1/2" (MAXIMUM 100 P.S.I.)
7. REDUCED PRESSURE BACKFLOW PREVENTER "APOLLO 4A-200 SERIES" OR "WATTS 009 SERIES" (TYP. FOR 2). PIPE AIR GAP DRAIN ("APOLLO" MODEL NO. AGD OR "WATTS" MODEL NO. 909AG) TO H.D. R.P. TO BE MOUNTED MIN. 750mm (30") TO MAX. 1500mm (60") A.F.F. AND MIN. 300mm (12") FROM THE BOTTOM OF THE RELIEF VALVE. (REFER TO CSA B64.10 TABLE-4 FOR CLEARANCE REQUIREMENTS)
8. METAL VENT PIPE SUPPLIED BY GARLAND, INSTALLED BY DIV. 15. DIV. 15 TO PROVIDE PRE-MOULDED GLASS-FIBER INSULATION WITH ZESTON 2000 PVC JACKETING.
9. 38mm (1 1/2") COPPER DWV C/W PRE-MOULDED GLASS-FIBER INSULATION WITH ZESTON 2000 PVC JACKETING.
10. EXTEND STEAM VENTING WITHIN EXHAUST HOOD.
11. DIVISION 15 TO ENSURE ALL PLUMBING FITTINGS, GAUGES, BACK FLOW PREVENTERS AND PIPING TO BE INSTALLED WITHIN THE 610mm (2') WIDE WALL SPACE AS NOTED ON THE DETAIL.
12. MAINTAIN MINIMUM 25mm (1") AIR GAP AT H.D.
13. TEE FOR TREATED & UNTREATED WATER LINES TO BACK OF OVEN.
14. 19Ø (3/4") COLD WATER LINE.
15. UT: UNTREATED WATER LINE.
16. T: TREATED WATER LINE.
17. CAPPED AND C/W SHUT-OFF VALVE FOR FUTURE COMBI OVEN.
18. CAPPED FOR FUTURE COMBI OVEN.
19. MAKE ALL CONNECTIONS TO COMBI OVENS WITH FLEXIBLE BRAIDED VINYL TUBING RATED FOR MINIMUM 100 PSI @ 25°C. TERMINATE WITH THREADED CONNECTION. TUBING TO BE MINIMUM LENGTH OF 2400mm. (TYP. FOR 2)
20. SEPARATE PRICE TO BE PROVIDED FOR THE INSTALLATION OF THE FUTURE COMBI OVEN AT THE TIME OF TENDER.



SIDE VIEW

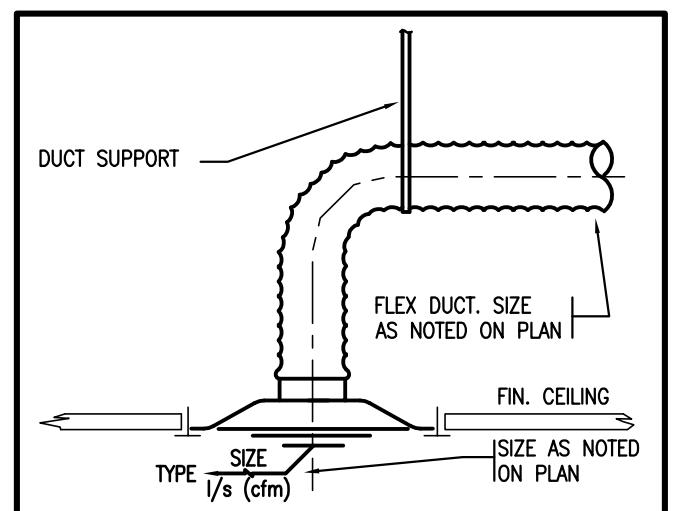
SIDE VIEW

BACK VIEW

2

MECHANICAL INSTALLATION DETAIL AT ITEM 157.1 COMBI OVEN

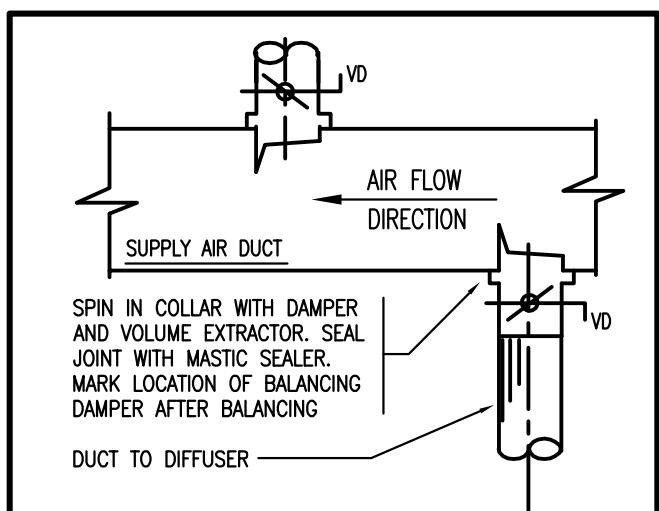
N.T.S.



3

TYPICAL CEILING DIFFUSER

N.T.S.



4

TYPICAL BRANCH TAKE-OFF

N.T.S.

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER.

K. W. Richards 24865

NAME BCIN / BCDN

BnZ engineering 3020

FIRM NAME BCIN / BCDN



ISSUE TABLE					
No.	Date (yy/mm/dd)	Description	By:	D.B.	
A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION			

Tim Hortons

Project: TRAILERS-13
ONTARIO

MECHANICAL INSTALLATION DETAILS

DRAWN BY: T.C./D.B.	CHECKED K.W.R.	Date: 13.01.24	Drawing Number: M4 OF 7
Scale: 1:50	Project Number: TRAILERS-13	Page 19	OPTION REV

AIR BALANCE SCHEDULE

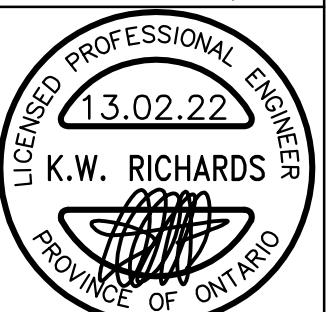
MARK	SUPPLY AIR		RETURN AIR		OUTSIDE AIR		RELIEF/ EXH. AIR		PRESSURE		MIXED AIR TEMP	
	L/S	CFM	L/S	CFM	L/S	CFM	L/S	CFM	L/S	CFM	C	F
AC-1	1,246	2,640	926	1,962	320	678			320	678	7	45
EF-1							109	231	-109	-231		
EF-2							109	231	-109	-231		
EF-3							52	110	-52	-110		
TOTAL	1,246	2,640	926	1,962	320	678	270	572	50	106		

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 FIRM NAME BCIN / BCDN



TDL PLUMBING FITTINGS

DESIGNATION	ZURN	SMITH	WATTS	REMARKS
H.D. (HUB DRAIN)	ZN-211-BE	2005A-3580-P050	FD-200-EF-1	CONNECTION TO TRAP SEAL PRIMER SYSTEM REQUIRED.
C.O. (CLEANOUT)	ZN-1602	4020	CO-200 R-1	
R.P. (REDUCED PRESSURE BACKFLOW PREVENTER)	APOLLO 4A-200 SERIES OR WATTS 009 SERIES			R.P. MUST BE MOUNTED HORIZONTALLY C/W AIR GAP DRAIN APOLLO MODEL NO. AGD OR WATTS MODEL NO. 909AG. PIPE TO F.F.D. OR MOP SINK. REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
D.C.V.A. (DOUBLE CHECK VALVE ASSEMBLY)	APOLLO 4A-100 SERIES OR WATTS 007 SERIES			
D.U.C. (DUAL CHECK VALVE)	WATTS 9D C/W INTERMEDIATE ATMOSPHERIC VENT			
- PLUMBING FITTINGS SHALL BE WATTS, SMITH, ZURN OR APOLLO. - ALL FLOOR DRAINS TO BE TRAP SEALED & PRIMED. - PLUMBING FITTINGS ARE AVAILABLE AT NATIONAL PRICING THROUGH HAINES, JONES & CADBURY. CONTACT BARRY BRYANT: (800) 459-7099 FOR DISTRIBUTION WITHIN 24 HOURS				

Fixture and Water Calculation

ITEM	QTY	WATER		WASTE	
		F.U. PER ITEM	TOTAL FIXTURE UNITS	TRAP SIZE	F.U. PER ITEM
W.C. (FLUSH TANK)	1	5.0	5.0	3"	4.0
FLOOR/HUB DRAIN	1			3"	3.0
2 COMPARTMENT SINK	1	4.0	4.0	2"	2.0
HAND SINK	2	2.0	4.0	1 1/4"	1.0
SERVICE SINK	1	2.0	2.0	1 1/2"	1.5
ITEM 67 HOT POWDERED DRINK	1	2.0	2.0		
ITEM 68 COFFEE BREWER	3	2.0	6.0		
ITEM 99.1 TEA BREWER	1	2.0	2.0		
ITEM 157.1 COMBI OVEN	1	6.0	6.0		
TOTAL FIXTURE UNITS			31.0		12.5
MAXIMUM GPM			-		24.0
MIN. SERVICE SIZE			3/4"		3"
BUILDING WATER SERVICE * WITH ALL PRESSURE REDUCING AND BACKFLOW PREVENTOR EQUIPMENT IN MECHANICAL ROOM				T.B.D.	

LOSSES	QTY	UNIT	LOSS / UNIT	LOSS	PRESSURE
STREET STATIC PRESSURE RANGE ASSUMED	50				50.00
SERVICE PIPE LOSS (6 LBS/100FT)	100	FT	0.06	6.00	44.00
STATIC HEIGHT (FTx.43)	10	FT	0.43	4.30	39.70
WATER METER	1		5	5.00	34.70
MISC					34.70
TOTAL				15.30	34.70 PSI

ISSUE TABLE		No.	Date (yy/mm/dd)	Description	By:	D.B.
A	13.02.22					
MECHANICAL SCHEDULES		Project No.	Drawing No.	Date	K.W.R.	Drawing Number
TRAILERS-13						
Tim Hortons		Project No.	Drawing No.	Date	T.C./D.B.	Drawing Number
TRAILERS-13						
Mechanical Schedules		Project No.	Drawing No.	Date	Scale:	Drawing Number
TRAILERS-13						

PROJECT SUMMARY - HEAT GAIN/HEAT LOSS

AREA	327.23	SF											
EXTERIOR WALL	85.44	LINEAR FT											
HEAT LOSS FACTORS					HEAT GAIN FACTORS					HEAT GAIN			
					CONDUCTED HEAT GAIN		SOLAR HEAT GAIN		TOTAL HEAT GAIN				
	QUANTITY	UNITS	CALCULATED HEAT LOSS Btu/Hr	CALCULATED HEAT LOSS Watts	CONDUCTED SENSIBLE HEAT GAIN Btu/hr	CONDUCTED LATENT HEAT GAIN Btu/hr	SOLAR GAIN Btu/hr	TOTAL SENSIBLE HEAT GAIN	TOTAL LATENT HEAT GAIN	TOTAL HEAT GAIN Btu/hr	TOTAL HEAT GAIN tons	CFM	l/s
NORTH EXPOSURE													
EXTERIOR WALL	218.17	sf	1,237.04	362.56	78.54			78.54		78.54	0.01	2.62	1.2
WINDOW	17.87	sf	1,125.60	329.89	71.47		225.12	296.59		296.59	0.02	9.89	4.7
SKY LIGHTS		sf											
DOOR	21.00	sf	2,976.75	872.44	189.00			189.00		189.00	0.02	6.30	3.0
INFILTRATION	36.93	lf	7,689.61	2,253.70	488.23	1,408.93		488.23	1,408.93	1,897.16	0.16	63.24	29.8
EAST EXPOSURE													
EXTERIOR WALL	93.47	sf	529.96	155.32	33.65			33.65		33.65	0.00	1.12	0.5
WINDOW		sf											
SKY LIGHTS		sf											
DOOR		sf											
INFILTRATION		lf											
SOUTH EXPOSURE													
EXTERIOR WALL	221.65	sf	1,256.77	368.34	79.80			79.80		79.80	0.01	2.66	1.3
WINDOW	17.87	sf	1,125.60	329.89	71.47		1,064.85	1,136.32		1,136.32	0.09	37.88	17.9
SKY LIGHTS		sf											
DOOR		sf											
INFILTRATION	16.93	lf	3,525.56	1,033.28	223.85	645.97		223.85	645.97	869.82	0.07	28.99	13.7
WEST EXPOSURE													
EXTERIOR WALL	93.47	sf	529.96	155.32	33.65			33.65		33.65	0.00	1.12	0.5
WINDOW		sf											
SKY LIGHTS		sf											
DOOR		sf											
INFILTRATION		lf											
COMMON LOADS													
INT. WALL		sf											
CEILING	327.23	sf	1,855.42	543.79	117.80			117.80		117.80	0.01	3.93	1.9
PERIMETER	85.44	lf	1,076.50	315.50									
FLOOR	327.23	sf	412.31	120.84									
PEOPLE	5.25	# people			1,206.55	996.71		1,206.55	996.71	2,203.26	0.18	73.44	34.7
COMPUTERS		# computers											
LIGHTING	490.85	watts			1,673.80			1,673.80		1,673.80	0.14	55.79	26.3
EQUIPMENT		Btu/hr			32,376.67	3,237.67		32,376.67	3,237.67	35,614.33	2.97	1,187.14	560.3
MISCELLANEOUS 1		Btu/hr											
MISCELLANEOUS 2		Btu/hr											
VENTILATION *	677.92	cfm	83,025.89	24,333.50	5,271.49	15,212.47		5,271.49	15,212.47	20,483.95	1.71	682.80	322.2
			Btu/hr	Watts	Btu/hr	Btu/hr	Btu/hr	Btu/hr	Btu/hr	Btu/hr	tons AC	cfm	l/s
TOTAL			95,152	27,887	41,204	19,447	1,290	42,494	19,447	61,941	5.16	2,065	974

THE UNDERSIGNED HAS REVIEWED AND
TAKES RESPONSIBILITY FOR THIS DESIGN,
AND HAS THE QUALIFICATIONS AND MEETS
THE REQUIREMENTS SET OUT IN THE
ONTARIO BUILDING CODE TO BE A DESIGNER.

K. W. Richards	24865
NAME	BCIN / BCDN
BnZ engineering	3020
FIRM NAME	BCIN / BCDN

PROFESSIONAL

PROFESSIONAL

ED 13 00 00 ENG

WSI 13.02.22 GVA

A circular license plate with a black border. Inside, the word 'LICENSE' is written vertically along the top left edge, and 'NEER' is written vertically along the top right edge. In the center, the name 'K.W. RICHARDS' is printed in large, bold, capital letters. Below the name is a large, irregular scribble that obscures the license number. Along the bottom edge, the words 'PROVINCE OF ONTARIO' are printed in capital letters.

TDL MECHANICAL SPECIFICATIONS

GENERAL

1. THE INSTRUCTIONS TO BIDDERS, CONSTRUCTION CONTRACT AND DIVISION 1 SHALL APPLY TO THIS SECTION AS IF WRITTEN IN FULL HEREIN.
2. SUPPLY AND INSTALL ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS, INCLUDE ALL LABOUR, EQUIPMENT AND TOOLS NECESSARY TO COMPLETE ALL THE SYSTEMS SHOWN ON THE DRAWINGS RENDERING A COMPLETE AND OPERATING INSTALLATION.
3. VISIT AND INSPECT THE SITE AND ALL OTHER DRAWINGS. COORDINATE THE WORK OF THE LOCAL UTILITY GIVING ALL NOTICES AND DETAILS OF REQUIREMENTS. ALLOW FOR AND MAKE ADJUSTMENTS AS NECESSARY TO CONNECT TO THE SERVICES OF THE LOCAL UTILITY. NO ALLOWANCE WILL BE MADE FOR FAILURE TO DO SO. ALL FEES FOR THE WORK OF THE UTILITY IS TO BE PAID BY THE GENERAL CONTRACTOR.
4. THIS CONTRACTOR RESPONSIBLE FOR CARE OF THE BUILDING. DO ALL CUTTING PATCHING AND PAINTING REQUIRED FOR THE WORK OF THIS TRADE. PAINT ALL STEEL THAT IS NOT FACTORY FINISHED WITH RED OXIDE PRIMER AND TOUCH UP ALL DAMAGED PAINTED EQUIPMENT SURFACES. WORK TO BE PERFORMED BY THIS CONTRACTOR AT THIS CONTRACTOR'S EXPENSE. INSTALL TEMPORARY CAPS OR CLOSERS ON THE ENDS OF ALL PIPES, CONDUITS, ETC., TO PREVENT THE ENTRY OF DEBRIS. CLEAN UP ALL DEBRIS DAILY AND REMOVE FROM THE SITE BEFORE COMPLETION OF CONTRACT. COOPERATE WITH ALL OTHER TRADES.
5. OBTAIN ALL PERMITS REQUIRED. ARRANGE FOR INSPECTION OF WORK BY INSPECTION AUTHORITY, PAY ALL FEES. RETAIN ALL INSPECTION CERTIFICATES. SUBMIT FINAL CERTIFICATES TO TDL GROUP LTD.
6. ALL WORK SHALL BE IN ACCORDANCE WITH ALL LAWS AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. ALL EQUIPMENT AND MATERIALS SHALL BE NEW COMMERCIAL GRADE AND SHALL HAVE THE APPROPRIATE CSA, ULC OR CGA APPROVAL. BEFORE PROCEEDING WITH CHANGES REQUIRED BY LOCAL AUTHORITIES, CONSULT THE ENGINEER.
7. SHOP DRAWINGS: BEFORE DELIVERY OF ANY PIECE OF EQUIPMENT OR FIXTURES SUBMIT "5" COPIES OF SHOP DRAWINGS C/W ALL DATA PRE-CHECKED AND STAMPED ACCORDINGLY, TO TDL GROUP LTD. FOR APPROVAL.
8. IDENTIFY ALL EQUIPMENT (I.E. HVAC UNITS, FANS, STARTERS ETC.) WITH SECURELY FASTENED BLACK LAMICOID NAMEPLATES WITH 3/8" ENGRAVED WHITE LETTERS.
9. FIRESTOPPING:

RESTORING.

FIRESTOPPING MATERIAL AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN CONDUITS, SLEEVES AND ADJACENT FIRE SEPARATION TO BE ULC APPROVED.

SERVICE PENETRATION COMPONENTS AND ASSEMBLIES, INCLUDING BACK-UP MATERIALS AND SUPPORTS SHALL BE CERTIFIED IN ACCORDANCE WITH CAN4-S115-M85, ULC-S101M-1980, UL 1479, DIN 4102 OR ASTM E814. COMBINED AND/OR BUILT-UP SITE SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH UL, ULC, FM, FMPA OR SWR SYSTEM RESTRICTIONS AND TECHNICAL EVALUATION AS APPROVED BY AUTHORITIES HAVING JURISDICTION.

PRODUCTS:

DOUBLE A/D DISTRIBUTORS LTD., FIREBARRIER FIRESTOPPING OR DOW CORNING CANADA INC., FIRE STOP SEALANT NO. 2000 AND FIRE STOP FOAM NO. 2001.

THIS CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS BETWEEN SERVICE SPACES AND OTHER FIRE SEPARATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS.

10. RETAIN ONE CLEAN SET OF WHITE PRINTS ON THE SITE AND AS THE JOB PROGRESSES, MARK-UP THESE PRINTS TO ACCURATELY INDICATE THE WORK "AS BUILT". THESE WHITE PRINTS SHALL BE AVAILABLE FOR REVIEW AT THE SITE AT ALL TIMES. ON COMPLETION OF WORK, SUBMIT THESE PRINTS TO TDL GROUP LTD. FOR REVIEW. SUBMIT 3 SETS OF AS BUILT AT END OF PROJECT.
11. SUBMIT A "CERTIFICATE OF GUARANTEE" OF WORKMANSHIP AND MATERIALS FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. THIS GUARANTEE SHALL BIND THE CONTRACTOR TO CORRECT, REPAIR OR REPLACE PROMPTLY ANY DEFECTIVE EQUIPMENT OR WORKMANSHIP WITHOUT COST TO THE OWNER.
12. ON COMPLETION OF PROJECT SUBMIT 3 HARDCOVER "OPERATING AND MAINTENANCE MANUALS" FOR APPROVAL. THE MANUALS SHALL CONTAIN AN INDEX PAGE, TABBED DIVIDER PAGES, A LIST OF THE SUPPLIERS NAMES, ADDRESSES AND TELEPHONE NUMBERS, OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT, COPIES OF TEST CERTIFICATES, ETC., AND INCLUDING A COMPLETE SET OF APPROVED SHOP DRAWINGS.
13. CARRY ALL STRAPPING IS NOT PERMITTED TO BE USED IN ANY PART OF THIS PROJECT.
14. REPORT ANY DISCREPANCIES OR AMBIGUITIES TO "TDL GROUP LTD" BEFORE PRICING.

PROJECT RECORD DRAWINGS:

1. PRINTS OF THE DRAWINGS WILL BE KEPT ON SITE FOR RECORD PURPOSES. CLEARLY MARK ON THESE PRINTS IN RED, AS THE JOB PROGRESSES, ALL SITE CHANGES AND DEVIATIONS FROM THE ENGINEER'S DRAWINGS.
2. INDICATE DIMENSIONS OF BURIED SERVICES RELATIVE TO THE BUILDING COLUMN LINES, AND INVERTS RELATIVE TO FINISHED FLOOR LEVELS OR GRADES.
3. RECORD REVISIONS OR VARIATIONS COVERED BY AUTHORIZED CHANGES.
4. DURING THE CONSTRUCTION PERIOD, THIS CONTRACTOR SHALL RETAIN DRAWINGS ON SITE FOR THIS PURPOSE AND SHALL PROVIDE THESE DRAWINGS FOR REVIEW AS REQUESTED BY THE ENGINEER.
5. FINAL CERTIFICATE OF ACCEPTANCE WILL NOT BE ISSUED UNTIL ALL ITEMS ARE COMPLETE AND SATISFACTORY TO

1. THE GENERAL SPECIFICATION FOR THIS JOB SHALL APPLY TO THIS CONTRACTOR AS IF WRITTEN HERE IN FULL.

DIVISION 15 SHALL PERFORM A PRESSURE TEST ON INCOMING WATER LINE AND SUBMIT THE RESULTS BACK TO THE ENGINEER FOR REVIEW. IF THE WATER PRESSURE EXCEEDS 80PSI SUPPLY AND INSTALL A PRESSURE REDUCING VALVE.

3. FINAL HOOK-UP OF ALL PLUMBING & GAS SERVICES TO ALL EQUIPMENT INCLUDING KITCHEN EQUIPMENT IS BY DIVISION 15.

4. PLUMBING DRAWING TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND EQUIPMENT SHOP DRAWINGS.

5. PLUMBING INSTALLATION SHALL BE IN ACCORDANCE WITH PLUMBING CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.

6. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, COMMERCIAL GRADE.

7. SUPPLY AND INSTALL NEW PLUMBING FIXTURES AND FITTINGS AS PER THE PLUMBING FIXTURE SCHEDULE.

8. DOMESTIC HOT WATER TANK SHALL BE AS SPECIFIED IN WATER HEATER SCHEDULE.

9. CLEAN UP ALL DEBRIS DAILY AND REMOVE FROM THE SITE ON OR BEFORE COMPLETION OF CONTRACT.

10. EXCAVATION AND BACKFILLING FOR ALL BURIED PIPES AND SERVICES FOR THIS TRADE ARE THE RESPONSIBILITY OF THIS CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THE GENERAL SPECIFICATION.

11. USE CAST IRON FOR SANITARY SEWER PIPES WITH MECHANICAL JOINTS. USE CAST IRON FOR STORM SEWER PIPES WITH CAST IRON FITTINGS. USE COPPER TUBING (DW) FOR VENTS, USE CAST IRON THROUGH ROOF. PVC SYSTEM 15, PVC XFR & ABS PLASTIC PIPE ARE ACCEPTABLE FOR SANITARY, STORM SEWER & VENTS WHERE PERMITTED BY LOCAL CODES AND AUTHORITIES HAVING JURISDICTION. WHERE USED IN A RETURN AIR PLENUM, PVC SYSTEM 15 & ABS ARE NOT PERMITTED.

12. USE CROSS-LINKED POLYETHYLENE (PEX) MANUFACTURED BY PEX-A OR PEROXIDE METHOD FOR WATER PIPES. ACCEPTABLE PRODUCT: UPONOR AQUAPEX TUBING. SUBSTITUTIONS: NO SUBSTITUTIONS PERMITTED.

- PEX TUBING SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM F876, ASTM F877 AND CAN/CSA-B137.5. THE TUBE SHALL BE LISTED TO ASTM BY AN INDEPENDENT THIRD PARTY AGENCY.
- PEX TUBING SHALL HAVE STANDARD GRADE HYDROSTATIC DESIGN AND PRESSURE RATINGS OF 200 F (82 DEGREES C) AT 80 PSI (551 KPA), 180 DEGREES F (82 DEGREES C) AT 100 PSI (689 KPA), AND 73.4 DEGREES F (23 DEGREES C) AT 160 PSI (1102 KPA). TEMPERATURE AND PRESSURE RATINGS SHALL BE ISSUED BY THE PLASTIC PIPE INSTITUTE (PPI), A DIVISION OF THE SOCIETY OF THE PLASTIC INDUSTRY (SPI).
- MINIMUM BEND RADIUS FOR COLD BENDING OF THE PEX TUBING SHALL NOT BE LESS THAN 6 TIMES THE OUTSIDE DIAMETER. BENDS WITH A RADIUS LESS THAN STATED SHALL REQUIRE THE USE OF A BEND SUPPORT AS SUPPLIED BY TUBE MANUFACTURER.
- PEX TUBE DIMENSIONS SHALL BE:
 - A. 1/2" NOMINAL INSIDE DIAMETER IN ACCORDANCE WITH ASTM F876 AND ASTM F877 AND/OR, B. 3/4" NOMINAL INSIDE DIAMETER IN ACCORDANCE WITH ASTM F876 AND ASTM F877 AND/OR,
 - FITTINGS SHALL BE MANUFACTURED OF ENGINEERED PLASTIC (EP). BRASS MATERIALS ARE ALLOWED ONLY FOR TRANSITION FITTINGS. FITTINGS SHALL BE PEX-A COLD EXPANSION TYPE.
 - A. FITTINGS SHALL BE SUPPLIED BY THE PEX TUBING MANUFACTURER.
 - B. PEX-A COLD EXPANSION TYPE FITTING SHALL BE AN ASSEMBLY CONSISTING OF INSERT AND PEX-A COLD EXPANSION RING.
 - C. FITTING TYPE: UPONOR ENGINEERED PLASTIC (EP).

13. PEX TUBING PASSING THROUGH METAL STUDS SHALL BE USE GROMMETS OR SLEEVES AT THE PENETRATION. PROTECT PEX TUBING WITH SLEEVES WHERE ABRASION MAY OCCUR.

14. USE CRANE, RED WHITE/TOYO OR APPROVED EQUAL CRANE #428 GATE, VALVES, CRANE #37 CHECK VALVES, CRANE # 7 GLOBE VALVES. PROVIDE SHUT-OFF VALVES ON WATER SERVICE TO EQUIPMENT AND SCREWDRIVER STOPS AT ALL THE FIXTURES IN PUBLIC WASHROOMS. INSTALL BACKFLOW PREVENTOR ON EQUIPMENT CONNECTIONS AS REQUIRED BY CODE. INSTALL P.R.V. AND STRAINER (SUPPLIED BY T.D.L.) ON HOT WATER LINE TO DISHWASHER.

15. RUN ALL PIPES INTO CEILING SPACE AS HIGH AS POSSIBLE. COORDINATE ALL WORK WITH HVAC CONTRACTOR. ALL PIPING IS TO BE RUN ABOVE GRADE UNLESS NOTED OTHERWISE. DO NOT RUN PIPING BELOW GRADE UNLESS SPECIFICALLY NOTED ON PLUMBING PLANS.

16. INSTALL POLISHED CHROME ESCUTCHEON PLATES ON ALL PIPES WHERE THEY PASS THROUGH WALLS OR CEILING FINISHED AREAS.

17. WATERPROOF ALL SLAB AND EXTERIOR WALL PENETRATIONS.

18. ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES UNLESS OTHERWISE NOTED. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIALECTIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.

19. **INSULATION:** INSULATE ALL WATER PIPES, CONDENSATE PIPES AND METAL FITTINGS ON STORM PIPING IN CEILING SPACE, WITH PRE-MOLDED GLASS-FIBER INSULATION WITH VAPOUR BARRIER JACKET (FOAM TYPE INSULATION IS NOT ACCEPTABLE). INSULATION IS TO BE CONTINUOUS THROUGH SLEEVES, DOWN IN WALL CAVITIES & IN EXPOSED AREAS. SEAL ALL JOINTS OF VAPOUR BARRIER, DO NOT USE STAPLES ANYWHERE. THICKNESS OF INSULATION AS FOLLOWS:

- PIPES UP TO 25MM SIZE: 25MM THICKNESS
- PIPES 32MM TO 50MM SIZE: 25MM THICKNESS
- PIPES 63MM TO 100MM SIZE: 38MM THICKNESS.
- "R" FACTOR = 4.0 TO 4.6 PER INCH OF THICKNESS.

20. PROVIDE ALL ACCESS DOORS FOR CONCEALED VALVES. HAVE THESE INSTALLED BY THE TRADES IN WHOSE WORK THE DOOR IS LOCATED. DOORS TO MATCH WALLS AND OR CEILING SURFACES.

21. INSTALL ALL VENT PIPING AS PER LOCAL CODE REQUIREMENT.

22. EXACT LOCATION, INVERT & SIZE OF EXISTING SERVICES, MUST BE VERIFIED ON SITE, BEFORE ANY WORK IS STARTED.

23. CROSS CONNECTION & BACKFLOW PREVENTION:
BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH B64 BACKFLOW PREVENTION STANDARD, MANUFACTURER'S SPECIFICATIONS, LOCAL CODES AND AUTHORITIES HAVING JURISDICTION. REFER TO TDL CROSS CONNECTION DETAIL AND TDL PLUMBING FITTING SCHEDULE FOR REQUIRED BACKFLOW PREVENTION DEVICES. PRIOR TO RESTAURANT TURNOVER DIVISION 15 TO TEST ALL BACKFLOW PREVENTION DEVICES AS REQUIRED BY LOCAL CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE TESTING REPORT TO TDL PROJECT MANAGER UPON COMPLETION.

HVAC:

1. THE GENERAL SPECIFICATIONS FOR THIS JOB SHALL APPLY TO THIS CONTRACTOR AS IF WRITTEN HEREIN IN FULL.
2. **HVAC UNIT:** HVAC UNIT SHALL BE AS INDICATED IN TDL HVAC UNIT SCHEDULE.
3. PROVIDE ALL REGISTERS, GRILLES AND DIFFUSERS AS PER DIFFUSERS, GRILLES & REGISTERS SCHEDULE.
4. **DUCTWORK:** ALL DUCTWORK FOR AIR HANDLING SHALL BE NEW GALVANIZED STEEL. ALL SUPPLY AIR DUCTS IN UNCONDITIONED SPACES SHALL BE SEALED WITH CLASS 'C' SEALER AS DEFINED BY 'SMACNA'. FLEXIBLE DUCT TO BE METALLIC-INSULATED, SPIRAL WOUND FLEXIBLE ALUMINUM WITH FACTORY APPLIED FLEXIBLE GLASS FIBER THERMAL INSULATION WITH VAPOUR BARRIER AND VINYL JACKET. ACCEPTABLE PRODUCT: 'FLEXMASTER' THERMAL DUCT TYPE T/L-VT OR AL-V-FLEX INSULATED FLEXIBLE DUCT. INSULATED NON-METALLIC, NON-COLLAPSIBLE, ALUMINUM FOIL MYLAR, HELICALLY SUPPORTED BY STEEL WIRE WITH FACTORY APPLIED INSULATION SUCH AS FLEXMASTER FAB-3T IS NOT ACCEPTABLE. INSTALL FLEXIBLE DUCTS WITH SPIN-ON COLLARS, FULL SIZE BUTTERFLY DAMPER WITH LOCKING SUPPORT, ACCEPTABLE PRODUCT 'DURO DYNE RB-25T SOLID RAPID', CLAMP & SEALER. ALL KITCHEN RELATED EXHAUST DUCTWORK SHALL BE 16 GAUGE ALL WELDED STEEL TO CONFORM TO NFPA 96. CONSTRUCT & INSTALL ALL DUCTWORK TO LATEST "ASHRAE" AND "SMACNA" STANDARDS. ALL CONNECTIONS TO RETURN AIR GRILLES SHALL BE MADE WITH RIGID DUCTS ONLY, FLEXIBLE CONNECTIONS ARE NOT ACCEPTABLE.
5. **HANGERS & SUPPORT:**
GENERAL:
 - INSTALL DUCTS IN ACCORDANCE WITH ASHRAE AND SMACNA AND AS INDICATED.
 - DO NOT BREAK CONTINUITY OF INSULATION VAPOUR BARRIER WITH HANGERS OR RODS.
 - SUPPORT RISERS IN ACCORDANCE WITH SMACNA.
 - SUPPORT FLEXIBLE DUCTS IN ACCORDANCE WITH SMACNA.
 - MAXIMUM LENGTH OF FLEXIBLE DUCT: 2M.
6. **HANGERS & SUPPORT:**
 - STRAP HANGERS: OF SAME MATERIAL AS DUCT BUT NEXT SHEET METAL THICKNESS HEAVIER THAN DUCT. INSTALLED IN ACCORDANCE WITH SMACNA. MAXIMUM SIZE DUCT SUPPORTED BY STRAP HANGER: 500MM.
 - ANGLE HANGERS: COMPLETE WITH LOCKING NUTS AND WASHERS. GALVANIZED STEEL ANGLE WITH GALVANIZED STEEL RODS.
7. **UPPER HANGER ATTACHMENTS:**
 - FOR CONCRETE: MANUFACTURED CONCRETE INSETS
 - FOR STEEL JOIST: MANUFACTURED JOIST CLAMP OR STEEL PLATE WASHER.
 - FOR STEEL BEAMS: MANUFACTURED BEAM CLAMPS.
8. **INSULATION:**
SEALING AS PER SMACNA SEAL CLASS C. INSULATE ALL RIGID SUPPLY, RETURN & SANITARY EXHAUST DUCTWORK WITH 38MM THICK FIBERGLASS INSULATION WITH FOIL FACED VAPOUR BARRIER. SEAL JOINTS OF VAPOUR BARRIER WITH 50MM ALUMINUM FOIL TAPE. FLEXIBLE DUCTS TO HAVE FACTORY APPLIED FLEXIBLE GLASS FIBER THERMAL INSULATION WITH VAPOUR BARRIER.
9. **SUPPLY ACCESS DOORS TO CONCEALED MECHANICAL EQUIPMENT FOR OPERATING, INSPECTION, ADJUSTING AND SERVICING.** FLUSH MOUNTED 600x600 FOR BODY ENTRY AND 300x300 FOR HAND ENTRY UNLESS OTHERWISE NOTED. DOORS TO OPEN 180 DEG., HAVE ROUNDED SAFETY CORNERS, CONCEALED HINGES, SCREWDRIVER AND ANCHOR STRAPS. HAVE THESE INSTALLED BY THE TRADE IN WHOSE WORK THE DOOR IS LOCATED. DOORS TO MATCH WALL AND OR CEILING SURFACES.
10. **PROVIDE ALL NECESSARY BALANCING AND VOLUME DAMPERS.** BALANCE THE AIR SYSTEM TO ALL VOLUMES SHOWN. SUBMIT "3" COPIES OF THE AIR BALANCING REPORT TO 'TDL GROUP LTD.' FOR REVIEW ON COMPLETION OF THE BALANCING. AIR BALANCING SHALL BE DONE BY AN AIR BALANCING CONTRACTOR APPROVED BY 'TDL GROUP LTD.' WHILE ALL SYSTEM ARE OPERATING.
11. **PROVIDE FIRE DAMPERS AND OR FIRE FLAPS WHERE REQUIRED BY LOCAL AUTHORITY AND CODES.** RATE FIRE DAMPERS/FLAPS TO MATCH THE RATING OF THE SEPARATION CROSSED. PROVIDE ULC LABELED DAMPERS. INSTALL AS SPECIFIED IN NFPA/CUA 90A.
12. **ALL TEST MEASUREMENTS ARE TO BE + OR - 5% OF DESIGN**
13. **CHANGE OR ADJUST THE SHEAVES AND BELTS IF NECESSARY TO ACHIEVE THE SPECIFIED AIR VOLUMES.**

ISSUE TABLE

TRAILERS-13

ONTARIO

Project		ISSUE TABLE			
		No.	Date (yy/mm/dd)	Description	By:
TRAILERS-13 ONTARIO		A	13.02.22	ISSUED FOR PERMIT & CONSTRUCTION	D.B.
TDL MECHANICAL SPECIFICATIONS					
I.O.L.	DRAWING No.	DRAWN BY: T.C./D.B.	CHECKED BY: K.W.R.	Date 13.01.24	Drawing Number M7 OF 7
SHEET		OPTION	Project Number TRAILERS-13	REV	Scale: 1:50
Page 12					

BnZ engineering	
471 LOCUST ST BURLINGTON, ONTARIO L7R 1T9 PHONE: (905) 319-2819 FAX: (905) 338-0740 www.bnz-eng.com	DRAWINGS, DESIGNS AND RELATED DOCUMENTS ARE THE PROPERTY OF THE ENGINEERS, PROTECTED BY COPYRIGHT AND MUST BE RETURNED ON REQUEST. DRAWINGS, AND DOCUMENTS ARE TO BE USED ONLY FOR THE PURPOSE FOR WHICH THEY ARE PROVIDED.
THE UNDERSIGNED HAS REVIEWED TAKES RESPONSIBILITY FOR THIS DRAWING AND HAS THE QUALIFICATIONS AND EXPERIENCE TO ENSURE THAT IT MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A PROFESSIONAL.	
K. W. Richards	
NAME	BCIN /
BnZ engineering	
FIRM NAME	BCIN /
	

WHICH THEY ARE ISSUED BY THE ENGINEER, NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER. DO NOT MAKE DRAWINGS, CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS, DRAWINGS AND SPECIFICATIONS ON SITE AND REPORT AND DISCLOSE THEM TO THE ENGINEER BEFORE PROCEEDING WITH ANY PART OF THE WORK THAT WILL INVOLVE ADDITIONAL COST.