



PROCUREMENT SERVICES

**CITY OF SURREY, SURREY CITY HALL
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ADDENDUM No. 4

REQUEST FOR QUOTATIONS No.:	1220-040-2024-045
TITLE:	TENANT IMPROVEMENTS OF BRIDGEVIEW CHILDCARE CENTRE
ADDENDUM ISSUE DATE:	SEPTEMBER 10, 2024
CLOSING DATE:	PREFER TO RECEIVE SUBMISSION ON OR BEFORE SEPTEMBER 11, 2024

INFORMATION FOR CONTRACTORS

Contractors are advised that Addendum No. 4 to 1220-040-2024-045 is hereby issued by the City. This addendum shall form part of the contract documents and is to be read, interpreted and coordinated with all other parts. The following information is provided to answer questions raised by Contractors for the above-named project, to the extent referenced and shall become a part thereof. No consideration will be allowed for extras due to the Contractors or any sub-contractor not being familiar with this addendum. This Addendum No. 4 contains forty-four (44) pages.

CLARIFICATIONS:

1. Please see the following additional specifications and attachments to this Addendum #4:

a) SCHEDULE B – APPENDIX 2 – SUPPLEMENTARY SPECIFICATIONS (PROJECT)

Add:

- **Acoustical Panel Ceilings**
- **GE Appliances – Refrigerators Owner’s Manual & Installation Instructions**
- **Communications General Requirements from the City of Surrey Communications, Audio Visual and Security Performance Specifications (section 27 00 10) – Contractors must meet these requirements.**

b) The existing crawl space has been classified as a confined space; contractors must comply with WorkSafe (WSBC) requirements while working in this area.

Add:

- Attachment 4 – City of Surrey Confined Space Entry Procedure

QUESTIONS AND ANSWERS:

Q1. In regard to clause S.P.3 liquidated damages for late completion, could you clarify the following:

- a.** Is it a total of \$100/day for clause (1)a. and (1)b. or \$100/day for (1)a. and \$100/day for (1)b. resulting in a total of \$200/day?
- b.** What are the estimated out of pocket costs associated with clause (2)
- c.** What is the potential loss from third party funding for clause (3)

A1. These costs are associated with the draft Agreement and are related to the Contractor's quotation in their Submission.

Q2. Confirming that the substantial completion date is March 31st 2025?

A2. The City intends to achieve final occupancy of this project by the end of the first quarter of 2025 or sooner.

Q3. What is an F.A.A.P? Mentioned on A2.01.

A3. Refer to Sheet A0.02 – Annotation and Abbreviations – Fire Alarm Annunciator Panel.

Q4. Also, there are 2 LAV-3's tagged on M200 that are not specified on the Plumbing Fixture Schedule on M001. Can a spec be provided for LAV-3?

A4. Please Refer to Mechanical Addendum #1.

Q5. Is the card access system in our scope of work?

A5. Yes.

Q6. Who is the base building contractor for the card access/security system?

A6. Rose Security Services.

Q7. Is there any scope for the GC on the parking spaces that are being re-allocated?

A7. No parking spots have been reallocated.

Q8. Is there a spec available for the t-bar ceiling and ACT?

A8. Refer to Addendum #4 Architectural note within this Addendum No. 4, which includes deletion for ceiling type 2 under specifications section 09 51 13.

Q9. Can you confirm the count for each appliance? If we refer to the elevations looks like we are supplying the following:

- a.** (2) Dishwashers – the spec has two different dishwashers. Which one are we supplying?
- b.** (4) Microwaves

- c. (3) Refrigerators (full height) and (1) u/c refrigerator – Is there a spec for the u/c fridge?
- d. (1) washer
- e. (1) dryer

A9. Answers:

- a. There are 4 dishwashers – 1 Commercial Dishwasher to be placed at the Commercial Kitchen of the community center; and 3 dishwashers in the kitchenettes of room 106, 107 and 108.
- b. Yes, 4 microwaves.
- c. Yes, 3 refrigerators and 1 u/c refrigerator find specs attached (GE 5.6 Cu. Ft. Compact Refrigerator White GCE06GGHWW) within this Addendum No. 4.
- d. Yes, 1 washer and 1 dryer.

Q10. What is the transition between the C1 ACT and the existing GWB variance DRWG A3.01?

A10. Partition wall provided separation between C1 ACT and existing GWB in NAP 106B, as noted on A3.01.

Q11. What assembly is to be used for the furring wall beside P2? It is not tagged DRWG A7.00 ?

A11. F1, shown on detail #1/A7.01.

Q12. What assembly is to be used for the West wall of the Janitor closet DRWG A7.0 ?

A12. P2b, tagged on A2.01.

Q13. What assembly is to be used adjacent to the Comms room ?

A13. All walls have tagged adjacent to Comm room, refer to A2.01.

Q14. What assembly is to be used below the existing kitchen DRWG A7.0?

A14. P2b, tagged on A2.01.

Q15. Are metal end caps required at locations where partitions about mullions?

A15. Refer to keynote B on A2.01.

Q16. Is a level 5 finish required?

A16. Refer to section 09 21 16, 3.4.17.2 Finish Requirements.

Q17. Please provide details and specifications for the high-density acoustic gypsum board random perforations. Is it 18-15-20 or 12-20-35?

A17. Gypsoorb, Strata Panel 12-20-35.

All Addenda will become part of the Contract Documents.

- END OF ADDENDUM -

Addendum No. 4

Date Out:	September 5th, 2024
Project Name:	Bridgeview Metis Daycare
Project Number:	2315
Client:	City of Surrey
Attention:	Carlos Aller
Number of Pages:	21 pages

This addendum is issued after the tendering posting date but prior to start of construction. It is to revise the tender/contract documents, and as such is part of those documents; the value of all items shall be included in the tender. After acceptance of a tender, claims for cost will not be considered by reason of failure by the bidder to have read the addenda. It is the responsibility of the general contractor to distribute this addendum to all bidders.

ARCHITECTURAL:

- 1.0 Refer to revised Spec section 09 51 13 , 2.3.1
 - 1.1 Delete Ceiling C2
- 2.0 Add: specifications for under counter refrigerator in room 103.
 - 2.1 Manufacturer: GE 5.6 Cu. Ft. Compact Refrigerator White GCE06GGHWW

Addendum No. 4



Date: September 5th, 2024
Sarah Bjornson Architect AIBC

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 09 21 16 – Gypsum Board Assemblies
- .2 Section 13 05 41 - Seismic Restraint Requirements for Non-Structural Components

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM):
 - .1 ASTM C423-17, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
 - .2 ASTM C635/C635M-17, Standard Specifications for Manufacture, Performance and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - .3 ASTM C636/C636M-19, Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
 - .4 ASTM E580/E580M-20, Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions.
 - .5 ASTM E1264-19, Standard Classification for Acoustical Ceiling Products.
 - .6 ASTM E1477-98a (2017) e1, Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers.
 - .7 ASTM F1667-18a, Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
- .2 Canadian General Standards Board (CGSB):
 - .1 CAN/CGSB-92.1-M89, Sound Absorptive Prefabricated Acoustical Units. (Withdrawn)
- .3 Department of Justice Canada (Jus):
 - .1 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
 - .2 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.
- .4 Health Canada/Workplace Hazardous Materials Information System (WHMIS):
 - .1 SDS - Safety Data Sheets.
- .5 Underwriter's Laboratories of Canada (ULC):
 - .1 ULC 102-2018, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies (ULC S102)

1.3 ADMINISTRATIVE REQUIREMENTS.

- .1 Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

1.4 ACTION SUBMITTALS / INFORMATIONAL SUBMITTALS

- .1 Submit product data in accordance with Section 01 33 00 – Submittal Procedures.
 - .1 Submit manufacturer's printed product literature, specifications and data sheet for each product specified.
- .2 Submit shop drawings in accordance with Section 01 45 00 – Quality Control.
 - .1 Provide signed & sealed shop drawings detailing fabrication and location of seismic restraint system by Engineer registered in Province of British Columbia
 - .1 Provide Letter of Commitment (Schedule S-B Assurance of Professional Design and Commitment for Field Review) in conjunction with shop drawings, signed and sealed by the professional engineer required by the Work of this Section indicating the following are designed to the intent of the Building Code for seismic restraint.
 - .2 Provide Letter of Compliance (Model Schedule S-C Assurance of Professional Field Review and Compliance), signed and sealed by the professional engineer required by the Work of this Section indicating that connections, reinforcement and deflection criteria, of installed system is in compliance with the Building Code and reviewed shop drawings for seismic restraint before declaration of Substantial Performance.
 - .2 Coordination Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling mounted items indicating the following:
 - .1 Ceiling suspension system members.
 - .2 Method of attaching suspension system hangers to building structure.
 - .3 Ceiling mounted items including light fixtures; air outlets and inlets; speakers; sprinklers; and special mouldings at walls, column penetrations, and other junctures of acoustic ceilings with adjoining construction.
- .3 Submit samples in accordance with Section 01 33 00 – Submittal Procedures.
 - .1 Submit duplicate full size samples of each type of acoustical unit.
 - .2 Include accessories and mitered interior and exterior corners of wall mouldings.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- .1 Extra Materials
 - .1 Provide extra materials of acoustic units in accordance with Section 01 78 40 – Maintenance Requirements.
 - .2 Provide acoustical units amounting to 5% of gross ceiling area for each pattern and type required for project.
 - .3 Ensure extra materials are from same production run as installed materials.

- .4 Clearly identify each type of acoustic unit, including colour and texture.
- .5 Deliver to Consultant, upon completion of the work of this Section.

1.6 QUALITY ASSURANCE

- .1 Regulatory Requirements:
 - .1 Fire-resistance rated floor/ceiling and roof/ceiling assembly: certified by Canadian Certification Organization accredited by Standards Council of Canada.
 - .2 Single-Source Responsibility: Provide perimeter trim components, panels and grid components by a single manufacturer.
 - .3 Ensure seismic restraint work including anchoring devices are designed and certified by a Professional Engineer registered in BC, who shall carry out periodic site reviews of the work of this Section during construction and at completion, and submit reports and Letters of Assurance in the Forms established by BC Building Code.
 - .4 Mock-Ups:
 - .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control.
 - .2 Construct mock-up 10 m² minimum of each type of acoustical panel ceiling including one inside corner and one outside corner.
 - .3 Construct mock-up where directed.
 - .4 Allow 24 hours for inspection of mock-up by Consultant before proceeding with ceiling work.
 - .5 When accepted, mock-up will demonstrate minimum standard for this work. Reviewed mock-up may remain as part of the finished work.

1.7 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and as follows:
 - .1 Protect on site stored or installed absorptive material from moisture damage.
 - .2 Store extra materials required for maintenance, where directed by Consultant.
- .2 Packaging Waste Management
 - .1 Separate and recycle waste materials in accordance with Section 01 74 19 – Sustainable Design Construction Waste Management.

1.8 SITE CONDITIONS

- .1 Permit wet work to dry before beginning to install.
- .2 Maintain uniform minimum temperature of 15 degrees C and humidity of 20-40% before and during installation.
- .3 Store materials in work area 48 hours prior to installation.

Part 2 Products

2.1 MANUFACTURERS

.1 Acceptable Manufacturers: Subject to compliance with requirements specified in this Section and as established by the Basis-of-Design Materials, manufacturers offering products that may be incorporated into the Work include the following:

- .1 Acoustic Panels:
 - .1 Armstrong World Industries Canada Ltd.
 - .2 CertainTeed.
 - .3 CGC Interiors, A USG Company.
 - .4 Rockfon.
- .2 Suspension Systems:
 - .1 Armstrong World Industries Canada Ltd.
 - .2 CertainTeed.
 - .3 CGC Interiors, A USG Company.
 - .4 Chicago Metallic / Rockfon.

2.2 PERFORMANCE/DESIGN CRITERIA

.1 Maximum deflection: 1/360th of span to ASTM C635/C635M deflection test.

2.3 MATERIALS

- .1 Acoustic Panels (C1 & C2): conforming to ASTM E1264:
 - .1 Classification: Type III, Form 2.
 - .2 Surface Texture: medium.
 - .3 Size:
 - .1 C1: 610 mm x 1220 mm
 - ~~.2 C2: 610 mm x 610 mm~~
 - .4 Edge: square.
 - .5 Colour: white.
 - .6 Noise Reduction Coefficient (NRC): 0.70 minimum.
 - .7 CAC: 30 minimum.
 - .8 Flame Spread: Class A.
 - .9 Light Reflectance (LR): 0.82.
 - .10 Acceptable Materials:
 - .1 School Zone Fine Fissured, Armstrong.
 - .2 Serano Fine Fissured High NRC/High CAC, CertainTeed.
 - .3 Radar High NRC/High CAC, CGC, A USG Company.
- .2 Clean Panel for Kitchen Areas (C2a): conforming to ASTM E1264:
 - .1 Classification: Type IV, Form 2.
 - .2 Surface Texture: smooth, washable and wipeable (Mylar or other cleanable surface).
 - .3 Material: Mineral fibre, wet-formed.

- .4 Size: 610 mm x 610 mm.
- .5 Edge: square lay-in.
- .6 Colour: white.
- .7 Flame Spread: Class A.
- .8 CAC: 40 minimum.
- .9 Articulation Class (AC): n/a.
- .10 Light Reflectance (LR): 0.80.
- .11 Acceptable Materials:
 - .1 Clean Room VL Unperforated 870, Armstrong.
 - .2 VinylShield C 1170-CRF-1, CertainTeed.
 - .3 Clean Room ClimaPlus 56091, CGC, A USG Company.

2.4 ACOUSTICAL SUSPENSION SYSTEM

- .1 Intermediate duty system to ASTM C635/C635M.
- .2 Basic materials for suspension system: commercial quality cold rolled steel.
- .3 Suspension system: non fire rated, exposed tee bar grid width as appropriate for materials specified
- .4 Rated for kitchen applications in locations as indicated on Drawings.
- .5 Acceptable Materials: materials to match products specified, use only materials from same manufacturers of panel products and as follows:
 - .1 Prelude XL 15/16" Exposed Tee, Armstrong.
 - .2 15/16" Classic, CertainTeed.
 - .3 DX/DXL, CGC, A USG Company.
- .6 Exposed tee bar grid components: shop painted satin sheen white colour. Components die cut. Main tee with double web, rectangular bulb and 25 mm rolled cap on exposed face. Cross tee with rectangular bulb; web extended to form positive interlock with main tee webs; lower flange extended and offset to provide flush intersection.
- .7 Hanger wire: galvanized soft annealed steel wire:
 - .1 3.6 mm diameter for access tile ceilings.
 - .2 To suit seismic requirements and ceiling flatness requirements.
 - .3 2.78 mm diameter for other ceilings.
- .8 Hanger inserts: purpose made.
- .9 Accessories: splices, clips, wire ties, retainers and wall moulding flush, to complement suspension system components, as recommended by system manufacturer.
- .10 Edge Mouldings and Trim: Sheet metal edge mouldings and trim selected from manufacturer's standard mouldings for edges and penetrations that fit specified acoustic panel edge and suspension system, and as follows:
 - .1 Provide edge mouldings fabricated to diameter required to fit circular penetrations exactly.

- .2 Provide edge mouldings and trims that match width and configuration of exposed runners including the following configurations:
 - .1 Sheet Metal Fillers: Light zinc coated sheet steel finished to match T-bar.
 - .2 Wall Mould: Channel or angle shape with a 25 mm or 22 mm exposed face.
- .11 System Accessories:
 - .1 Hold-Down Clips for Wind Uplift: Provide hold down clips spaced 610 mm ^{o/c} on all cross tees for interior ceilings consisting of acoustic panels weighing less than 4.88 kg/m².
 - .2 Impact Clips: Where indicated, provide manufacturer's standard impact clip system designed to absorb impact forces against acoustic panels.
 - .3 Sealant: Acrylic type as specified in Section 07 92 00 - Sealants for use in exposed locations, colour to match ceiling grid.
 - .4 Expansion Joint: 50% movement santoprene with mill finish aluminum base, colour from manufacturers standard range, confirm colour with Consultant.
 - .1 Basis-of-Design Material:
 - .1 ACWW-3, Balco.

Part 3 Execution

3.1 EXAMINATION

- .1 Do not install acoustical panels and tiles until work above ceiling has been reviewed by Consultant.

3.2 INSTALLATION OF SUSPENSION SYSTEM

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.
- .2 Installation: in accordance with ASTM C636/C636M except where specified otherwise.
- .3 Install suspension system to manufacturer's instructions and Certification Organizations tested design requirements.
- .4 Conform to building code for seismic restraints of ceiling grid and as follows:
 - .1 Minimum 50 mm wall molding.
 - .2 Attach suspension system to two adjacent walls, opposite walls must have a 19 mm clearance.
 - .3 Use heavy duty suspension system.
 - .4 Ceiling areas over 93 m² must have horizontal restraint wire or rigid bracing.
 - .5 Ceiling areas over 232 m² must have seismic separation joints or full height partitions.

- .6 Ceilings without rigid bracing must have 50 mm oversized trim rings for sprinklers and other penetrations.
- .7 Changes in ceiling plane must have positive bracing.
- .8 Cable trays and electrical conduits must be independently supported and braced.
- .9 Suspended ceilings are subject to special inspection.
- .10 Provide perimeter support wires within 200 mm.
- .5 Do not erect ceiling suspension system until all mechanical and electrical work above ceiling has been inspected by Consultant.
- .6 Secure hangers to overhead structure using attachment methods acceptable to Consultant.
- .7 Install hangers spaced at maximum 1200 mm centres and within 150 mm from ends of main tees.
- .8 Lay out system according to reflected ceiling plan.
- .9 Ensure suspension system is co-ordinated with location of related components.
- .10 Install wall moulding to provide correct ceiling height.
- .11 Completed suspension system to support super-imposed loads, such as lighting fixtures, diffusers grilles and speakers.
- .12 Support at light fixtures and diffusers with additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of fixture.
- .13 Interlock cross member to main runner to provide rigid assembly.
- .14 Finished ceiling system to be square with adjoining walls and level within 1:1000.
- .15 Expansion joints:
 - .1 Erect two main runners parallel, 25 mm apart, on building expansion joint line. Lay in strip of acoustic tile/board, painted colour as directed, 25% narrower than space between 2 'T' bars.

3.3 INSTALLATION OF ACOUSTIC PANELS

- .1 Install acoustic panels and tiles in ceiling suspension system.

3.4 APPLICATION

- .1 Refer to reflected ceiling plan.
- .2 Scribe acoustic units to fit adjacent work. Butt joints tight, terminate edges with moulding.
- .3 Paint cut panel edges remaining exposed after installation; match colour of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.

3.5 SYSTEM INTEGRATION

- .1 Co-ordinate ceiling work to accommodate components of other Sections, such as light fixtures, diffusers, speakers, sprinkler heads, to be built into acoustical ceiling components.

END OF SECTION



REFRIGERATORS

SAFETY INFORMATION. 2

OPERATING INSTRUCTIONS

Control Settings 4
 Refrigerator Features 4
 Replacing the Light Bulb 5
 Care and Cleaning 5

INSTALLATION INSTRUCTIONS. 7

TROUBLESHOOTING TIPS 9

WARRANTY 11

CONSUMER SUPPORT . . 12

ATTENTION:

Defrosting—Do not use sharp, pointed objects to remove frost or ice from surfaces of the freezer compartment. Doing so could puncture the cooling coil, causing the unit to lose its ability to maintain cold temperatures and voiding the warranty. See the Care and Cleaning section for instructions on defrosting the freezer compartment.

Write the model and serial numbers here:

Model # _____

Serial # _____

Find these numbers on a label inside the refrigerator on the side wall.

**OWNER'S MANUAL
 & INSTALLATION
 INSTRUCTIONS**

6 Cubic Foot Models

**ENGLISH/FRANÇAIS/
 ESPAÑOL**

IMPORTANT SAFETY INFORMATION. READ ALL INSTRUCTIONS BEFORE USING.



GE Appliances Website

For more information on your refrigerator's operation, visit www.GEAppliances.com or call GE Appliances at 800.GECARES (800.432.2737). In Canada visit GEAppliances.ca or call 800.561.3344.

REFRIGERATOR SAFETY INFORMATION

! This is the safety alert symbol. This symbol alerts you to potential hazards that can kill or hurt you and others. All safety messages will follow the safety alert symbol and the word "DANGER", "WARNING", or "CAUTION". These words are defined as:

! DANGER

Indicates a hazardous situation which, if not avoided, **will** result in death or serious injury.

! WARNING

Indicates a hazardous situation which, if not avoided, **could** result in death or serious injury.

! CAUTION

Indicates a hazardous situation which, if not avoided, **could** result in minor or moderate injury.

! WARNING

IMPORTANT SAFETY INSTRUCTIONS

To reduce the risk of fire, explosion, electric shock, or injury when using your refrigerator follow these basic safety precautions:

- This refrigerator must be properly installed and located in accordance with the Installation Instructions before it is used.
- Unplug the refrigerator before cleaning and making repairs. NOTE: Repairs must be performed by a qualified Service Professional.
- Replace all parts and panels before operating.
- Because of potential safety hazards under certain conditions, we strongly recommend against the use of an extension cord. However, if you must use an extension cord, it is absolutely necessary that it be a UL-listed (in the United States) or a CSA certified (in Canada), 3-wire grounding type appliance extension cord having a grounding type plug and outlet and that the electrical rating of the cord be 15 amperes (minimum) and 120 volts.
- To prevent suffocation and entrapment hazards to children, Remove the fresh food and freezer doors from any refrigerator before disposing of it or discontinuing its use.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Power to the refrigerator cannot be disconnected by any setting on the control panel, refrigerator must be unplugged to remove power.
- Do not allow children to climb, stand or hang on the door handles or the shelves in the refrigerator. They could seriously injure themselves.
- In freezers with automatic icemakers, avoid contact with the moving parts of the ejector mechanism, or with the heating element that releases the cubes. Do not place fingers or hands on the automatic ice making mechanism while the refrigerator is plugged in.
- Do not clean glass shelves or covers with warm water when they are cold. Glass shelves and covers may break if exposed to sudden temperature changes or impact, such as bumping or dropping. Tempered glass is designed to shatter into many small pieces if it breaks.
- Keep fingers out of the "pinch point" areas; clearances between the doors and between the doors and cabinet are necessarily small. Be careful closing doors when children are in the area.
- Do not touch the cold surfaces in the freezer compartment when hands are damp or wet, skin may stick to these extremely cold surfaces.
- Do not refreeze frozen foods which have thawed completely.
- Before replacing a burned-out light bulb, the refrigerator should be unplugged in order to avoid contact with a live wire filament. (A burned-out light bulb may break when being replaced.)

INSTALLATION

WARNING



Explosion Hazard.

Keep flammable materials and vapors, such as gasoline, away from refrigerator. Failure to do so can result in fire, explosion, or death.

CONNECTING ELECTRICITY

WARNING



Electrical Shock Hazard.

Plug into a grounded 3-prong outlet.
Do not remove the ground prong.
Do not use an adapter.

Failure to follow these instructions can result in death, fire, or electrical shock.

Do not, under any circumstances, cut or remove the third (ground) prong from the power cord. For personal safety, this appliance must be properly grounded.

The power cord of this appliance is equipped with a 3-prong (grounding) plug which mates with a standard 3-prong (grounding) wall outlet to minimize the possibility of electric shock hazard from this appliance.

Have the wall outlet and circuit checked by a qualified electrician to make sure the outlet is properly grounded.

Where a standard 2-prong wall outlet is encountered, it is your personal responsibility and obligation to have it replaced with a properly grounded 3-prong wall outlet. Do not use an adapter.

The refrigerator should always be plugged into its own individual electrical outlet which has a voltage rating that matches the rating plate.

A 115 Volt AC, 60 Hz, 15- or 20-amp fused, grounded electrical supply is required. This provides the best performance and also prevents overloading house wiring circuits which could cause a fire hazard from overheated wires.

Never unplug your refrigerator by pulling on the power cord. Always grip plug firmly and pull straight out from the outlet.

Repair or replace immediately all power cords that have become frayed or otherwise damaged. Do not use a cord that shows cracks or abrasion damage along its length or at either end.

When moving the refrigerator away from the wall, be careful not to roll over or damage the power cord.

PROPER DISPOSAL OF YOUR OLD REFRIGERATOR

WARNING

Suffocation and child entrapment hazard.

Remove refrigerator door prior to disposal. Failure to do so can result in child entrapment which can lead to death or brain damage.

IMPORTANT: Child entrapment and suffocation are not problems of the past. Junked or abandoned refrigerators are still dangerous even if they will sit for "just a few days." If you are getting rid of your old refrigerator, please follow the instructions below to help prevent accidents.

Before You Throw Away Your Old Refrigerator:

- Take off the fresh food and freezer doors.

- Leave the shelves in place so that children may not easily climb inside.

Refrigerants

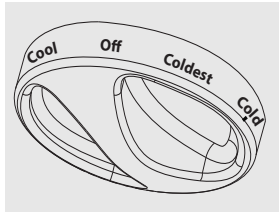
All refrigeration products contain refrigerants, which under federal law must be removed prior to product disposal. If you are getting rid of an old refrigeration product, check with the company handling the disposal about what to do.



READ AND FOLLOW THIS SAFETY INFORMATION CAREFULLY.

SAVE THESE INSTRUCTIONS

About the control on the refrigerator.



Control Settings

The temperature control maintains the temperature in the refrigerator. Setting the control at **COOL** is the warmest setting. Setting the control at **COLDEST** is the coldest setting. Set the control at **COLD**.

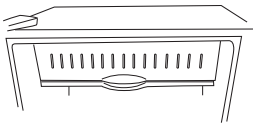
Allow 24 hours for the refrigerator to reach the desired temperature. If you want a colder or warmer temperature, move the dial one setting at a time. Moving the control to **OFF** stops cooling but does not turn off the power to the refrigerator. Setting the control too high may cause freezing in the refrigerator depending on the room temperature.

After changing the control, allow 24 hours for the refrigerator to reach the temperature you have set.

Features.

Shelves

To remove a shelf, lift up the back slightly and pull forward. All models have multi-position shelves that can be moved to different levels.



Ice Tray Compartment

This compartment is designed for production of ice cubes and short-term storage (a few days at most) of some commercially-frozen foods when in contact with the evaporator (cold surface in compartment)

Door Shelves

Shelves on the door provide convenient storage for frequently used items. this model has doors that are deep enough to store large bottles.

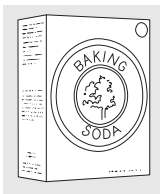
Cleaning the Outside

Keep the outside clean. Wipe with a clean cloth lightly dampened with kitchen appliance wax or mild liquid dish detergent. Dry and polish with a clean, soft cloth.

Do not wipe the refrigerator with a soiled dish cloth or wet towel. These may leave a residue that can erode the paint. Do not use scouring pads, powdered cleaners, bleach or cleaners containing bleach because these products can scratch and weaken the paint finish.

Protect the paint finish. The finish on the outside of the refrigerator is a high quality, baked-on paint finish. With proper care, it will stay new-looking and rust-free for years. Apply a coat of kitchen/ appliance wax when the refrigerator is new, and then at least twice a year.

Cleaning the Inside



To help prevent odors, leave an open box of baking soda in the refrigerator.

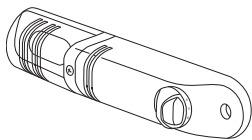
Unplug the refrigerator before cleaning. If this is not practical, wring excess moisture out of sponge or cloth when cleaning around the control.

Use warm water and baking soda solution—about a tablespoon (15 ml) of baking soda to a quart (1 liter) of water. This both cleans and neutralizes odors. Rinse and wipe dry.

Other parts of the refrigerator—including door gaskets, fruit and vegetable drawers, and all plastic parts—can be cleaned the same way.

Do not wash any plastic refrigerator parts in the dishwasher.

Replacing the Light Bulb



Unplug the refrigerator before replacing a burned-out bulb. Setting the controls to **OFF** does not remove power to the light circuit.

The light bulb is located behind the temperature control housing and is visible through the slots in the housing.

Using a Phillips screwdriver, unscrew the lens and pull horizontally until the lens is removed. Gently unscrew the light bulb and replace with a bulb of 15 watts or less.

Care and cleaning of the refrigerator.

Defrosting

Defrost whenever frost on the wall of the ice tray compartment becomes 1/4" thick. **Never use a sharp or metallic instrument to remove frost as it may damage the cooling coils.** (A punctured cooling coil will cause serious problems and void the warranty.) We recommend using a plastic scraper. Do not use any electrical device in defrosting your refrigerator.

To defrost:

- Remove foods and ice trays from the ice tray compartment.
- Set the temperature control dial to **OFF**.

Defrosting usually takes a few hours. To defrost faster, keep the door open. Also, pouring warm (not hot) water on the frosted part may speed defrosting. **Do not use boiling water**—it may damage plastic parts.

After defrosting:

- Empty water from the drip tray or from the pan placed beneath the ice tray compartment. Wash the tray or pan with warm water.
- Wipe the ice tray compartment with a damp cloth.
- Turn the temperature control to the desired setting and return food and ice trays to the refrigerator.

NOTE: *If ice buildup is very thick, it may keep the ice tray compartment door from opening or closing completely. Don't try to force it open; after defrosting, the door will open and close easily.*

Preparing for Vacation

For long vacations or absences, remove food and unplug the refrigerator. Move the control to the position, and clean the interior with a baking soda solution of one tablespoon (15 ml) of baking soda to one quart (1 liter) of water. Leave the door open.

Preparing to Move

Secure all loose items such as shelves and ice trays by taping them securely in place to prevent damage.

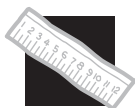
Be sure the refrigerator stays in an upright position during moving.

Read these instructions completely and carefully.



Refrigerator Location

- Do not install the refrigerator where the temperature will go below 50°F (10°C) because it will not run often enough to maintain proper temperatures.
- Install it on a floor strong enough to support it fully loaded.
- Do not install it closer than 5" (13 cm) from range.



Clearances

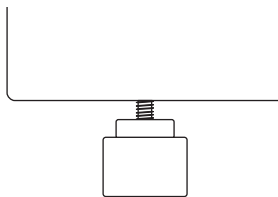
Allow the following clearances for ease of installation and proper air circulation.

Sides 0" (0 mm)*

Top 0" (0 mm)

Back 0" (0 mm)

*0.5" (13 mm) for hinge side clearance



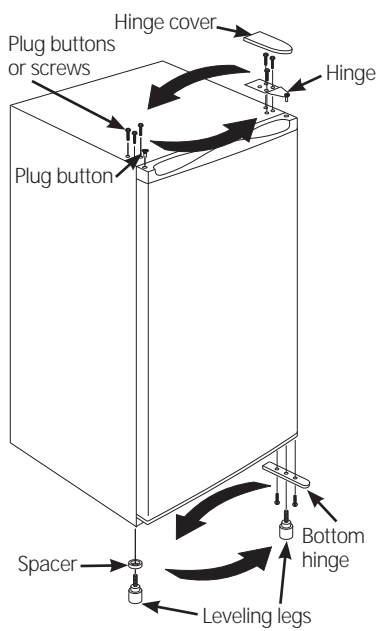
Turn counterclockwise to raise,
clockwise to lower.

Leveling Legs

Adjustable legs at the front corners of the refrigerator should be set so the refrigerator is firmly positioned on the floor and the front is raised just enough that the door closes easily when opened about halfway.

To adjust the leveling legs, turn the legs *counterclockwise to raise* the refrigerator, *clockwise to lower* it.

Preparing to install the refrigerator.



Door Reversal

1. Remove the small plug button on the left side of the door top cap.
2. Remove the 2 plug buttons or screws on the left side on top of the cabinet.
3. Remove the screw from the hinge cover, then remove the hinge cover by lifting it up by the front edge.
4. Remove the 2 screws from the top hinge.
5. Lift the door up and off the bottom hinge (right side).
6. Tilt the refrigerator cabinet back to remove the right leveling leg.
7. Remove the screws on the bottom hinge (right side) and remove the leveling legs, as well as plastic door stop. Move the bottom hinge and door stop to the left side and secure it with screws. Re-install the leveling legs
IMPORTANT: The left leg has a spacer or spacer feature that must be moved to the right side leveling leg when the door swing is reversed.
8. Screw the right leveling leg, with the spacer in place, back in place on the right side.
9. Position the door on the left bottom hinge. With the magnetic gasket holding the door in place, secure the top hinge with screws.
10. **Make sure the door is aligned with the refrigerator cabinet before continuing.**
11. Replace the hinge cover on top of the hinge.
12. Put the plug button in the hole on the right side of the door cap.
13. Put the 3 (2 on some models) plug buttons on the right side on top of the cabinet



Troubleshooting Tips

Save time and money! Review the chart below first and you may not need to call for service.

Problem	Possible Causes	What To Do
Refrigerator does not operate	Control in OFF position.	Move the control to a temperature setting.
	Refrigerator is unplugged.	Push the plug completely into the outlet.
	The fuse is blown/circuit breaker is tripped.	Replace fuse or reset the breaker.
Vibration or rattling (slight vibration is normal)	Front leveling legs need adjusting.	See Leveling Legs .
Motor operates for long periods or cycles	Normal when refrigerator is first plugged in.	Wait 24 hours for the refrigerator to completely cool down.
	Often occurs when large amounts of food are placed in refrigerator.	This is normal.
	Door left open.	Check to see if package is holding door open.
	Hot weather or frequent door openings.	This is normal.
	Temperature control set at the coldest setting.	See About the control .
	Not enough clearance from the wall.	See Clearances in Preparing to install the refrigerator .
Refrigerator too warm	Temperature control not set cold enough.	See About the control.
	Warm weather or frequent door openings.	Set the temperature control one step colder. See About the control.
	Door left open.	Check to see if package is holding door open.
Refrigerator has odor	Foods transmitting odor to refrigerator.	Foods with strong odors should be tightly wrapped.
		Keep an open box of baking soda in the refrigerator; replace every three months.
	Interior needs cleaning.	See Care and cleaning .
	Defrost water pan needs cleaning.	See Care and cleaning .

Before you call for service...

<i>Problem</i>	<i>Possible Causes</i>	<i>What To Do</i>
<i>Moisture forms on outside of refrigerator</i>	Not unusual during periods of high humidity.	Wipe surface dry.
<i>Moisture collects inside (in humid weather, air carries moisture into refrigerator when door is opened)</i>	Too frequent or too long door openings	
<i>Refrigerator too cold</i>	Temperature control set too cold.	See <i>About the control.</i>

Refrigerator Warranty. (For customers in the United States)



For US Customers, all warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, on-line, 24 hours a day, visit us at GEAppliances.com, or call [GEAppliances at 800.GE.CARES \(800.432.2737\)](tel:800.GE.CARES). Please have serial number and model number available when calling for service. In Canada, call 800.561.3344.

Staple your receipt here. Proof of the original purchase date is needed to obtain service under the warranty.

For The Period Of:

GE Appliances Will Replace:

One Year

From the date of the original purchase

Any part of the refrigerator which fails due to a defect in materials or workmanship. During this **limited one-year warranty**, GE Appliances will also provide, **free of charge**, all labor and related service costs to replace the defective part.

What GE Appliances Will Not Cover:

- Service trips to your home to teach you how to use the product.
- Replacement of house fuses or resetting of circuit breakers.
- Improper installation, delivery or maintenance.
- Replacement of the light bulbs.
- Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.
- Damage to the product caused by accident, fire, floods or acts of God.
- Loss of food due to spoilage.
- Incidental or consequential damage caused by possible defects with this appliance.
- Damage caused after delivery.
- Product not accessible to provide required service.

EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.

For US Customers: This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. If the product is located in an area where service by a GE Appliances Authorized Servicer is not available, you may be responsible for a trip charge or you may be required to bring the product to an Authorized GE Appliances Service location for service. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

Warrantor US: GE Appliances

For Customers in Canada: This warranty is extended to the original purchaser and any succeeding owner for products purchased in Canada for home use within Canada. In-home warrant service will be provided in areas where it is available and deemed reasonable by Mabe to provide.

Warrantor Canada: MC Commercial, Burlington, Ontario, L7R 5B6

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Consumer Support

GE Appliances Website

Have a question or need assistance with your appliance? Try the GE Appliances Website 24 hours a day, any day of the year! You can also shop for more great GE Appliances products and take advantage of all our on-line support services designed for your convenience. In the US: GEAppliances.com In Canada: GEAppliances.ca

Register Your Appliance

Register your new appliance on-line at your convenience! Timely product registration will allow for enhanced communication and prompt service under the terms of your warranty, should the need arise. You may also mail in the pre-printed registration card included in the packing material.

In the US: GEAppliances.com/register

In Canada: Prodsupport.mabe.ca/crm/Products/ProductRegistration.aspx

Schedule Service

Expert GE Appliances repair service is only one step away from your door. Get on-line and schedule your service at your convenience any day of the year. In the US: GEAppliances.com/ge/service-and-support/service.htm or call 800.432.2737 during normal business hours.

In Canada: GEAppliances.ca/en/support/service-request or call 800.561.3344

Extended Warranties

Purchase a GE Appliances extended warranty and learn about special discounts that are available while your warranty is still in effect. You can purchase it on-line anytime. GE Appliances Services will still be there after your warranty expires. In the US: GEAppliances.com/ge/service-and-support/shop-for-extended-service-plans.htm or call 800.626.2224 during normal business hours.

In Canada: GEAppliances.ca/en/support/purchase-extended-warranty or call 800.290.9029

Remote Connectivity

For assistance with wireless network connectivity (for models with remote enable), visit our website at GEAppliances.com/ge/connected-appliances/ or call 800.220.6899 in the US only.

Parts and Accessories

Individuals qualified to service their own appliances can have parts or accessories sent directly to their homes (VISA, MasterCard and Discover cards are accepted). Order on-line today 24 hours every day.

In the US: GEApplianceparts.com or by phone at 877.959.8688 during normal business hours.

Instructions contained in this manual cover procedures to be performed by any user. Other servicing generally should be referred to qualified service personnel. Caution must be exercised, since improper servicing may cause unsafe operation.

Customers in Canada should consult the yellow pages for the nearest Mabe service center, visit our website at GEAppliances.ca/en/products/parts-filters-accessories or call 800.661.1616.

Contact Us

If you are not satisfied with the service you receive from GE Appliances, contact us on our Website with all the details including your phone number, or write to:

In the US: General Manager, Customer Relations | GE Appliances, Appliance Park | Louisville, KY 40225

GEAppliances.com/ge/service-and-support/contact.htm

In Canada: Director, Consumer Relations, Mabe Canada Inc. | Suite 310, 1 Factory Lane | Moncton, N.B. E1C 9M3

GEAppliances.ca/en/contact-us

Communications, Audio Visual and Security
Performance Specifications

1 CONSULTANT QUALIFICATIONS

1.1 Design Consultant shall hold the professional BICSI designation of Registered Communications Distribution Designer (RCDD), be in good standing with BICSI and have a proven 5 year track record in projects of similar nature as the RCDD.

1.2 The City IT representative will be notified at the start of the project design process the name and contact information of the RCDD assigned to the project.

2 PRE-APPROVED CONTRACTORS

2.1 The following contractors have been pre-approved by City of Surrey IT Division and are eligible to perform Communications Infrastructure work on City of Surrey projects. City of Surrey reserves the right to modify this list at their discretion:

- 4th Utility Inc.;
- Houle Electric;
- Sasco;
- Western Pacific Enterprises.

2.2 For all Moves, Adds and Changes to building spaces previously renovated by the City, the contractor shall match the existing contractor that initially installed the cabling system. The City of Surrey reserves the right to modify this statement at their discretion.

3 PRE-APPROVED MANUFACTURERS

3.1 The following manufacturers have been pre-approved by City of Surrey IT Division and are eligible to supply Communications Infrastructure material on City of Surrey projects. City of Surrey reserves the right to modify this list at their discretion:

- Panduit: Structured cabling, racks and associated components;
- Eaton: Rack mounted UPS and power distribution components;
- Harger or Panduit: Grounding Busbars;
- Cablofil, Flextray, Legrand or Panduit : Cable tray and associated components.

7 QUALITY ASSURANCE

7.1 All work shall be performed by Panduit Certified Telecommunications Technicians who are trained and certified to install voice, data & multimedia cabling systems and to perform related tests as required by the manufacturer in accordance with the manufacturer's methods

7.2 The contractor shall accept complete responsibility for the installation, certification, and support of the cabling system. Contractor shall show proof that it has the certifying manufacturer's support on all of these issues.

7.3 The cabling contractor (including subcontractors if any) shall have a proven 7 year track record in projects of similar nature.

8 PERMITS

8.1 Contractor shall obtain and pay for all permits and inspections by Authority Having Jurisdiction as required by local authorities to commence, execute and substantially complete work.

9 DAMAGE

9.1 Where existing structure, grade or paving has to be removed, altered or otherwise defaced to facilitate communication installation, Contractor shall arrange for breaking of openings or grooves in any building structure or breaking of pavement and/or digging of trenches.

9.2 Any equipment, structure, finished, pavement or grade damaged by the execution of this Contract will be repaired or replaced to its original condition. Any cost incurred for such work shall be allowed for in tender sum.

9.3 Openings and conduits shall not be burned into panels. Oversized openings shall not be patched up with loose plates or oversized washers. Oversized openings will be considered damaged to the equipment and are to be treated as specified above.

9.4 The Contractor shall use extreme care when working near existing services and any services disturbed will be replaced at their cost to the satisfaction of the City.

9.5 Contractor shall determine the location of the existing underground services from the Authorities Having Jurisdiction and/or Owner and/or Architects before excavation of existing grade and sub-grade, or new construction begins

10 NOT IN CONTRACT

10.1 Supply and installation of computers, servers, switches, routers and wireless access points are not in this contract and shall be provided by City of Surrey. Wireless access points maybe installed by the contractor depending on the project.

11

WARRANTY AND CERTIFICATION

11.1

Contractor shall register the installation with Panduit and provide a twenty five year performance guarantee and certification on all cabling infrastructure products installed.

11.2

Contractor shall provide a one year Labour Warranty for the entire installation to guarantee against substandard installation practices based on the installation guidelines outlined in codes and standards listed. The warranty shall commence from the date of City of Surrey final acceptance.

11.3

Contractor shall provide a one year Product Warranty for the entire installation. The warranty shall commence from the date of City of Surrey final acceptance.

12 CLEANING

12.1 Contractor shall leave the site every day in a clean and safe manor.

12.2 Contractor shall remove all debris, surplus material and all tools.

13 CONTACTS – INFORMATION TECHNOLOGY

- Iain Malcolm need to include a new city rep here
IT Network Manager
T 604.591.4165
IAMalcolm@surrey.ca

14 DESIGN STAGE SUBMITTALS

14.1 The prime consultant on the design team shall submit directly to the City of Surrey IT Division a PDF copy of the drawings and specification at the following stages:

- 33% design drawings indicating the communication rooms including dimensions showing all equipment in the communication room
- 50% design drawings indicating the outlet locations;
- 75% design drawings and specification;
- 100% design drawings and specification, the City IT rep will have final signoff

14.2

Review comments from the City IT department for each of the submissions shall be incorporated into the design package by the design consultant for review by the City in the following submission.

14.3 The completed drawings shall contain the minimum following information and shall have a similar appearance to the Standard Drawings:

- Floor Plans indicating outlet, floorbox, and consolidation point locations, cable tray routing and communication room locations;
- Riser Diagram indicating communication rooms, riser sleeves and backbone pathways, termination method and routing, type and quantity of each riser cable;
- Room Layouts in 1:25 scale indicating room dimensions and all components contained within, power circuits of each receptacle, and clearance dimensions around the racks;
- Rack Elevation Layouts indicating all components contained within;
- The design consultant shall incorporate the comments made by the City of Surrey IT Division before submitting the next issue.

15 CONSTRUCTION SUBMITTALS

15.1 The prime consultant on the design team shall submit directly to the City of Surrey IT Division a PDF copy of all shop drawings relating to communications and security infrastructure, including but not limited to:

- Copper and Fibre Optic Cable;
- Jacks, Faceplates and Patch Panels;
- **Patch Cords**; Supplying patch cords are removed at this time
- Racks, UPS and all related accessories;
- Consolidation Points;
- Cable Tray and J-Hooks.

15.2 The contractor shall receive written approval from City of Surrey IT Division of these shop drawings before purchasing or installation.

16 **SUBSTANTIAL SUBMITTALS**

16.1 The contractor shall submit directly to the City of Surrey IT Division an electronic copy of the maintenance manuals which shall contain the following documents:

- Contractors name, address and telephone number;
- Neatly type written table of contents arranged in a systematic order;
- All communication infrastructure shop drawings;
- Warranty and Certification Certificates;
- Test results of all cable installations;
- As built drawings in PDF and AutoCAD format – showing accurate riser diagrams, room layouts, rack elevation layouts and floor plans indicating all outlets with associated outlet label



City of Surrey Confined Space Entry Procedures

CONFINED SPACE ENTRY PROCEDURES

General Requirements For All Classifications/Types Of Confined Space

Training - All workers involved in a confined space entry, including entry personnel, standby person and supervisor shall be trained in confined space entry and all associated hazards and precautions necessary for their safety prior to commencing the entry;

Risk Assessments: The Department is to work with Employee Health and Safety to maintain a Risk Assessment for each type of Confined Space that workers are required to enter.

Please contact Employee Health & Safety (604-591-4658) for a copy of completed Confined Space Risk Assessment for the various types of Confined Spaces within the City of Surrey.

Procedures - All personnel involved in confined space entry, including supervisors responsible for employees involved in confined space entry, shall:

- know and thoroughly understand these procedures;
- ensure that every step of these procedures are satisfied prior to entry;

All workers are required to comply with the City of Surrey Employee Safety Handbook, the City's Confined Space Entry, Lock Out, Working Alone Fall Protection Programs and WorkSafeBC Occupational Health & Safety Regulation. Copies of these documents are available from Employee Health & Safety (604-591-4131).

Standby Person - A Standby Person trained in the use of all specific safety equipment is required for all categories of confined spaces. The Standby Person shall be stationed outside of the confined space and shall be capable of maintaining continuous communication with the worker in the confined space and shall know what to do in case of any type of emergency;

The Standby Person is responsible to:

- Notify rescue personnel prior to entry into the confined space;
- Watch the area around the space & keep people and hazards away;
- Monitor entrants and communicate with them as they work;
- Know signs of a problem with the entrants and the area;
- Order entrants out of the space;
- May take continuous monitor readings of the confined space atmosphere;
- Summon the rescue team;
- Begin **non-entry** rescue;
- Never enter the confined space.

Supervisor - The on-site supervisor is responsible to ensure that a safe entry is being made and that everyone involved in the entry knows and understands their responsibilities and the emergency procedures;

The Entry Procedure Supervisor is responsible to:

- Ensure the CS Entry Procedure Form is complete;
- Ensure that all tests and procedures are done;
- Determine that all team members and eqpt are in place and ready;
- Oversee follow-up tests done during the entry;
- Keep non-authorized personnel out of the confined space;
- Terminate the entry at completion or because there is a problem.

Entry Personnel

- Know the hazards of the space & entry sheet information;
- Personally check to see that all listed hazards are controlled;
- Wear all required safety eqpt. and PPE;
- Recognize signs of a problem;
- Stay in contact with the standby person at all times;
- Get out immediately at the first sign of a problem or if ordered to do so by the standby person.

Rescue Personnel – City of Surrey Fire Services

- Know the characteristics and hazards of the confined space & potential rescue problems;
- be trained in first aid and CPR;
- Understand confined space entry procedures and use of rescue equipment;
- Practice regularly at the spaces where a rescue may be needed.

Entry Forms - A confined space entry form shall be completed and signed by the supervisor responsible for the entry before entering any confined space;

Personal Protective Equipment - All employees shall wear approved safety headgear, safety footwear, gloves, safety vests, full body harness and/or any other safety equipment as necessary;

Equipment Safety - Keep all tools and debris away from the entrance of the space,

- Do not throw any object into or out of the space;

Explosive-Proof / Intrinsic Equipment - Where there is a risk of a flammable or explosive atmosphere, explosion proof or intrinsic equipment shall be used in the space and for ventilation, i.e. blower fan;

Vacate the Space - All workers shall vacate the space immediately whenever:

- a worker notices an unusual odour, taste or sensation,
- the gas detector alarm sounds,
- the Standby Person tells him/her to leave the space,
- the mechanical ventilation stops working,
- communication with the Standby Person does not work.

Compressed Gas Cylinders - Compressed gas cylinders shall not be taken into the space. Hoses supplying compressed gases must be thoroughly inspected prior to use and removed when no longer in use and whenever workers vacate the space, e.g. for coffee or lunch breaks;

Protection From Traffic - Whenever possible, position the crew vehicle to provide maximum protection from oncoming traffic;

Hot Work - Hot work, e.g. welding, burning, drilling, cutting, in a confined space requires specific written entry procedures and precautions. Where hazardous products such as sealants, paints, solvents, etc. are to be used inside the confined space, the appropriate Material Safety Data Sheet must be at the worksite and reviewed to ensure safe handling and protective measures are followed.

Pre-Entry Considerations

- Is entry absolutely necessary?
- Layout of site; traffic?
- Last time space was entered? Problems?
- Most likely hazards
- Type of work being carried out
 - How long will work take? Type of work, e.g. welding - Any hazards created by the process? Special precautions needed?
 - If needed, how will rescue be done?
 - What testing needs to be carried out to determine the level of contaminants in the atmosphere?
 - If contaminants are present, what special precautions will be taken?
 - Will respiratory protective equipment be required?
 - Is any special equipment needed at the site, e.g. explosion-proof lights, pumps?
 - What rescue equipment is required at the site?
 - Are lockout procedures required? If so provide written procedures.

COMMUNICATIONS PROCEDURES FOR ALL ENTRIES
(For City of Surrey Work Crews)

Communications with the Radio Room (or Fire Base after hours) must be established and tested prior to every confined space entry:

During Normal Working Hours:

- Contact the Radio Room to ensure that emergency radio communication is working properly and that the dispatcher is aware of the following:
 - that a confined space entry is taking place,
 - the location of the entry,
 - the length of time for the entry;
- If normal means of communication cannot be established, an alternate form of communication must be established prior to entry;
- If communication cannot be established the confined space entry must not be done;
- The Dispatcher must:
 - record entry information including time and location of the entry;
 - call the entry worker back within the time designated by the worker entering the space.

Outside of Normal Working Hours:

If entry into a confined space is necessary outside of normal working hours, communication with Fire Base shall be established and tested prior to entry. The same information as provided to the Radio Room shall be provided to Fire Base.

The entry must not proceed if communication cannot be established between:

1. the job site and the Radio Room or Fire Base, and/or
2. the entrant and the stand-by person.

If communication is lost between either of these two groups during the entry, the entrant(s) must immediately leave the confined space until communication is re-established.

City of Surrey Confined Space Entry Procedures for Types A, B, C, and D Spaces

Examples: PRV Chambers

Definition of Type A Confined Space

- Contains clean respirable air (same as outside air) according to pre-entry testing;
- There is NO direct exposure to sewage or other hazardous substances;
- Air quality is not likely to change during the work activity;
- Work will not generate contaminants, e.g. general inspection, meter reading, sampling, minor adjustments;
- **Occupied for less than 15 minutes.**

Equipment Required for Entry

- Harness, recovery line, tripod and hoist. Recovery equipment must be at the worksite during the entry but does not have to be set up. The harness must be worn but is not required to be attached to the recovery line;
- Gas detector(s);
- Ventilation fans and hoses;
- Personal safety equipment as required. May include: hard hat, safety footwear, high visibility clothing, hearing and eye protection, other ppe as required by the job;
- Confined Space Entry Forms.

Entry Procedure

1. Ensure all equipment is available and is in good condition;
2. Begin completion of the Confined Space Entry Form. Ensure it is signed by the crew supervisor prior to entry into the space;
3. All workers entering the space must wear an approved safety harness. The harness does not have to be attached to a retrieval line.
4. Ensure the emergency communication system is available and operating properly;
5. Designate a standby person who must:
 - be fully knowledgeable in these procedures and all equipment associated with confined spaces,
 - have a continuous means of being summoned by the workers in the space,
 - check on the well-being of the entrants at least every 20 minutes,
 - have a means to immediately summon rescue personnel;
6. **Assess** entry hazards and ensure a rescue plan is in place and is discussed with all workers involved in the entry prior to entering the confined space;
7. **Test** atmosphere prior to ventilation;
8. **Ventilate** for 10 minutes prior to entry. Ventilate continuously while person is in the space;
9. **Test** atmosphere after ventilating for 10 minutes and prior to entry;
10. Test the atmosphere continuously whenever a worker is in the space. Attach the gas detector to the worker entering the space (or lower the gas detector into the space and leave it in the area where the work is being conducted);
11. Inform the Radio Room (or Fire Base after hours) that a confined space entry is commencing. Provide the location (be specific) and the amount of time the entry will take;
12. The entry worker(s) may now enter the confined space while wearing a harness;
13. The worker(s) and the standby person will monitor the time. **All workers MUST vacate the space within 15 minutes from the time of entry;** If the entrants must stay in the space for longer than 15 minutes the procedure for Type B entries must be used.
14. Once the entry is over and the entrants are out inform the Radio Room (or Fire Base) that the confined space entry is complete.

Should rescue be required during normal working hours:

The Standby Person will:

-
1. Ensure the ventilation ducting is in place and is, as much as is possible, providing fresh air to the area in which the injured/unconscious worker is located;
 2. Call the Radio Room (or Fire Base after hours) via portable radio to inform them of a confined space emergency;
 - The Radio Room dispatcher will inform the Fire Department
 - Once the Fire Department has been alerted and provided with the information, the Radio Room dispatcher will call and inform:
 - the Foreman
 - the Manager
 - the Safety Advisorall of whom will attend the site immediately;
 1. Attempt to extricate the worker using the tripod/winch system;
 2. Perform life saving measures, i.e. CPR, **if safe to do so and if it is possible to do so without entering the confined space**;
 3. Standby to assist the Fire Department upon their arrival.

**UNDER NO CIRCUMSTANCES SHALL THE STANDBY PERSON
ENTER THE CONFINED SPACE TO ATTEMPT A RESCUE
-DEATH OR INJURY MAY RESULT-**

Examples: PRV Chambers

Definition of Type B Confined Space

- As for Type A but a worker **will be in the space for more than 15 minutes**,
- Work activity may generate air contaminants but contaminants are controlled so that worker exposure to the contaminant(s) will not impair the ability of a worker to escape unaided in the event of failure of the ventilation system or respirator.

Equipment Required for Entry

- Harness, recovery line, tripod and hoist. This equipment must be set up and operational prior to entry. The recovery line must be attached to the entrant's safety harness;
- Gas detector(s);
- Ventilation fan(s) and hoses;
- Personal safety equipment as required. May include: hard hat, safety footwear, high visibility clothing, hearing and eye protection, other ppe as required by the job;
- Confined Space Entry Forms.

Entry Procedure

1. Ensure all equipment is available and is in good condition.
2. Begin completion of the Confined Space Entry Form. Ensure it is signed by the crew supervisor prior to entry into the space;
3. All workers entering the space shall wear an approved safety harness attached to a lifeline and manlift device and other PPE as required;
4. Ensure the emergency communication system is available and operating properly;
5. Designate a standby person who must:
 - be fully knowledgeable in these procedures and all equipment associated with confined spaces
 - be stationed at or near the entrance to the space,
 - visually observe or otherwise check the well-being of the workers inside the space at least every 20 minutes or as often as may be required by the nature of the work,
 - have a continuous means of being summoned by the workers inside the space,
 - have a means to immediately summon rescue personnel,
 - prevent the entanglement of lifelines and other equipment.
6. **Assess** entry hazards and ensure that a written rescue plan is in place and is discussed with all workers involved in the entry prior to entering the confined space;
7. **Test** atmosphere prior to ventilating;
8. **Ventilate** for 10 minutes prior to entry. Ventilate continuously while person is in the space;
9. **Test** atmosphere after ventilating for 10 minutes and prior to entry;
10. Test the atmosphere continuously whenever a worker is in the space. Attach the gas detector to the worker entering the space (or lower the gas detector into the space and leave it in the area where the work is being conducted);
11. Inform the Radio Room (or Fire Base after hours) that a confined space entry is commencing. Provide the location (be specific) and the amount of time the entry will take;
12. The entry worker(s) may now enter the confined space while wearing a safety harness attached to a recovery line;

13. Once the entry is over and the entrants are out inform the Radio Room (or Fire Base) that the confined space entry is complete.

TYPE B - LOW TO MODERATE HAZARD ATMOSPHERE
EMERGENCY PROCEDURES

Page 2 of 2

Should rescue be required during normal working hours:

The Standby Person will:

1. Ensure the ventilation ducting is in place and is, as much as is possible, providing fresh air to the area in which the injured/unconscious worker is located;
2. Call the Radio Room (or Fire Base after hours) via portable radio to inform them of a confined space emergency;
 - The Radio Room dispatcher will inform the Fire Department
 - Once the Fire Department has been alerted and provided with the information, the Radio Room dispatcher will call and inform:
 - the Foreman
 - the Manager
 - the Safety Advisorall of whom will attend the site immediately;
1. Attempt to extricate the worker using the tripod/winch system;
2. Perform life saving measures, i.e. CPR, **if safe to do so and if it is possible to do so without entering the confined space;**
3. Standby to assist the Fire Department upon their arrival.

**UNDER NO CIRCUMSATANCES SHALL THE STANDBY PERSON
ENTER THE CONFINED SPACE TO ATTEMPT A RESCUE
-DEATH OR INJURY MAY RESULT-**

Definition of Type C Confined Space

- There **is** direct exposure to sewage or other potentially hazardous substance;
- Not clean respirable air but is not likely to impair the ability of the worker to escape unaided from a confined space in the event of a failure of the ventilation system or respirator;
- Work activity **will** generate air contaminants but contaminants are controlled so that worker exposure to the contaminant(s) will not impair the ability of a worker to escape unaided in the event of failure of the ventilation system or respirator, **or**
- There is potential for entrapment while working, entering or exiting the confined space.

Equipment Required for Entry

- Harness, recovery line, tripod and hoist. This equipment must be set up and operational prior to entry. The recovery line must be attached to the entrant's safety harness;
- Gas detector(s);
- Ventilation fans(s) and hoses;
- Personal safety equipment as required. May include: hard hat, safety footwear, high visibility clothing, hearing and eye protection, other ppe as required by the job;
- Confined Space Entry Forms.

Entry Procedure

1. Ensure all equipment is available and is in good condition;
2. Begin completion of the Confined Space Entry Form. Ensure it is signed by the crew supervisor prior to entry into the space;
3. All workers entering the space shall wear an approved safety harness attached to a lifeline and manlift device, and other PPE as required;
4. Ensure the emergency communication system is available and operating properly;
5. Designate a standby person who must:
 - be fully knowledgeable in these procedures, and all equipment associated with confined spaces,
 - be stationed at the entrance to the space and must continuously attend to the standby duties,
 - visually observe or otherwise **continuously monitor** the well-being of the workers inside the space,
 - have a continuous means of being summoned by the workers inside the space,
 - be equipped and capable of immediately effecting rescue using lifting equipment if required and where possible,
 - prevent the entanglement of lifelines and other equipment.
6. **Assess** entry hazards and ensure a written rescue plan is in place and is discussed with all workers involved in the entry prior to entering the confined space;
7. **Test** atmosphere prior to ventilating.
8. **Ventilate** for 10 minutes prior to entry. Ventilate continuously while person is in the space;
9. **Test** atmosphere after ventilating for 10 minutes and prior to entry;
10. Test the atmosphere continuously whenever a worker is in the space. Attach the gas detector to the worker entering the space (or lower the gas detector into the space and leave it in the area where the work is being conducted);
11. Inform the Radio Room (or Fire Base after hours) that a confined space entry is commencing. Provide the location (be specific) and the amount of time the entry will take;
12. The entry worker(s) may now enter the confined space while wearing a safety harness attached to a recovery line.
13. Once the entry is over and the entrants are out inform the Radio Room (or Fire Base) that the confined space entry is complete.

Should rescue be required during normal working hours:

The Standby Person will:

1. Ensure the ventilation ducting is in place and is, as much as is possible, providing fresh air to the area in which the injured/unconscious worker is located;
2. Call the Radio Room (or Fire Base after hours) via portable radio to inform them of a confined space emergency;
 - The Radio Room dispatcher will inform the Fire Department
 - Once the Fire Department has been alerted and provided with the information, the Radio Room dispatcher will call and inform:
 - the Foreman
 - the Manager
 - the Safety Advisorall of whom will attend the site immediately;
1. Attempt to extricate the worker using the tripod/winch system;
2. Perform life saving measures, i.e. CPR, **if safe to do so and if it is possible to do so without entering the confined space**;
3. Standby to assist the Fire Department upon their arrival.

**UNDER NO CIRCUMSTANCES SHALL THE STANDBY PERSON
ENTER THE CONFINED SPACE TO ATTEMPT A RESCUE
-DEATH OR INJURY MAY RESULT-**

Example: Landfill

Definition of Type D Confined Space

- There **is** direct exposure to sewage or other potentially hazardous substance;
- Air contaminant concentrations are such that worker exposure **will** impair the ability of the worker to escape unaided in the event of failure of the ventilation system or respirator;
- Contaminant levels cannot be reduced to acceptable levels despite continuous ventilation, or;
- Gas detector alarm is continuous and will not shut off;
- Air contaminants type and/or concentration unknown. Such a space is considered to have an Immediately Dangerous to Life or Health (IDLH) atmosphere.

City of Surrey personnel shall NOT enter a confined space that has an IDLH atmosphere.

All Type D confined spaces require entry procedures designed specifically for each individual space and entry.

DO NOT enter any confined space where Immediately Dangerous to Life or Health (IDLH) conditions may be present.

Secure the area and contact your supervisor immediately. DO NOT let anyone enter or go near the contaminated space.

Type 'D' confined spaces must not be down-graded without an investigation by qualified personnel. Once a space is identified as a Type 'D' confined space, it must be referred to the Confined Space Entry Committee for evaluation before there is an entry. This evaluation will be based on identifying the cause of the IDLH atmosphere and ensuring that it no longer poses a hazard prior to entry. The evaluation team will include the original entry team.

**CITY OF SURREY CONFINED SPACE ENTRY FORM
(PRE-ENTRY ASSESSMENT FORM)**

This form must be:

- completed BEFORE work commences
- signed by the Designated Supervisor and the Entry Team Leader **prior to entering** the confined space
- retained and sent to the supervisor for filing when completed

Designated Supervisor: Name: _____ Signature: _____

Entry Team Leader: Name: _____ Signature: _____

Standby Person: Name: _____

Employees Assigned: Name: _____

Name: _____

Atmospheric Testing Performed by: _____

Work Group: _____

Confined Space Hazard: Low Moderate High

Location of space: _____

Date: _____ Start Time: _____ a.m. p.m.

Confined Space Procedure to be Used: Type A Type B Type C Type D

Type of Structure (Check one)			
Wet Well <input type="checkbox"/>	Manhole <input type="checkbox"/>	Outlet/Inlet <input type="checkbox"/>	Prv. Chamber <input type="checkbox"/>
Dry Well <input type="checkbox"/>	Tank <input type="checkbox"/>	Pipe Line <input type="checkbox"/>	Excavation <input type="checkbox"/>
Partial Entry <input type="checkbox"/>	Valve Chamber ... <input type="checkbox"/>	Miscellaneous <input type="checkbox"/>	Specify: _____

Type of Work Being Performed (Check <u>all</u> that apply)		
Inspection <input type="checkbox"/>	Clearing Blockage..... <input type="checkbox"/>	Debris Removal..... <input type="checkbox"/>
Cleaning <input type="checkbox"/>	Minor Repair..... <input type="checkbox"/>	Refit or modification <input type="checkbox"/>
Repair major breakdown.. <input type="checkbox"/>	Standard electrical repair . <input type="checkbox"/>	Standard mechanical repair .. <input type="checkbox"/>
Painting Repair..... <input type="checkbox"/>	Other <input type="checkbox"/>	Specify: _____

Comments: _____

Confined Space Equipment Required and On Site								
Type	Yes	No	Not Required	Type	Yes	No	Not Required	
Barricades & signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Harness & lifeline	<input type="checkbox"/>	<input type="checkbox"/>		
Fire extinguisher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fall arrest eqpt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Protective clothing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Respirator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Gas detector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SCBA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fan(s) & hoses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Manhole adapter for fan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Light &/or generator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Tasks Performed Prior To Entry	
Check site & vehicle safety.....	<input type="checkbox"/>
Establish communication	<input type="checkbox"/>
Discussion of work & possible hazards	<input type="checkbox"/>
Rescue plan established	<input type="checkbox"/>
Chamber pumped out if required	<input type="checkbox"/>
Atmosphere tested & results recorded	<input type="checkbox"/>
Space ventilated 10 minutes prior to entry	<input type="checkbox"/>
Eqpt inspected & tested	<input type="checkbox"/>
Electrical lockout complete	<input type="checkbox"/>
Mechanical lockout complete	<input type="checkbox"/>
Ignition sources locked out	<input type="checkbox"/>
Recovery hoist in position & checked	<input type="checkbox"/>
Confined space cleaned as required.....	<input type="checkbox"/>

**Atmospheric Test Results
To Be Taken At Least Every 20 Minutes**

Gas Detector #: _____

Bump Tested: Yes No

Name	Initials	Time	CO	H₂S	O₂	LEL

Entry Complete and Space Vacated at (time): _____

This Sheet Must Remain On The Worksite During Work Process