

**St. Lawrence College Kingston
Cafeteria Renovations**

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Prepared for:

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Division 00-01

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PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Scheduled pre-construction, and progress meetings.

1.2 ADMINISTRATIVE

- .1 The Consultant shall schedule and administer project meetings throughout the progress of Work.
- .2 Prepare agenda for meetings.
- .3 Distribute written notice of each meeting four days in advance of meeting date to Consultant.
- .4 Make arrangements for meetings.
- .5 Preside at meetings.
- .6 Record the meeting minutes.
- .7 The purpose of the meeting minutes is to document significant proceedings and decisions and identify actions by parties.
- .8 Reproduce and distribute copies of minutes within (5) business days after meetings and transmit to meeting participants and, affected parties not in attendance for their review. Within two (2) business days of receipt of the meeting minutes, the Contractor shall be notified of any noted errors and/or omissions. Revise the meeting minutes if deemed appropriate and return the revised meeting minutes to the Owner, Contractor and all parties in attendance except Subcontractors.
- .9 The Contractor shall be responsible for distribution of meeting minutes to their Subcontractors.
- .10 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.3 PRE-CONSTRUCTION MEETING

Within seven (7) days after award of Contract, Owner will request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.

- .1 Senior representatives of Owner, Consultant, and Contractor will be in attendance.
- .2 Owner will establish time and location of meeting and notify parties concerned minimum five (5) days before meeting.
- .3 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
- .4 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Status of Building Permit.

- .3 Contractor Use of Premises, Workplace policies.
- .4 Schedule of Work: in accordance with Supplementary Conditions.
- .5 Schedule of submission of shop drawings, samples, colour chips. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .6 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00 - Construction Facilities.
- .7 Delivery schedule of specified equipment in accordance with Supplementary Conditions.
- .8 Site security in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.
- .9 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
- .10 Owner provided products.
- .11 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .12 Maintenance manuals in accordance with Section 01 78 00 - Closeout Submittals.
- .13 Take-over procedures, acceptance, warranties in accordance with Section 01 78 00 - Closeout Submittals.
- .14 Monthly progress claims, administrative procedures, photographs, hold backs.
- .15 Appointment of inspection and testing agencies or firms in accordance with Section 01 45 00 – Quality Control.
- .16 Insurances, transcript of policies.
- .17 Site concerns/inquiries to date.
- .18 List of outstanding project specific building permit conditions.
- .19 Environmental protection, measures specific to the project and Place of Work in accordance with Section 01 35 43 – Environmental Procedures.
- .20 Next Meeting.
- .21 Other Business.

1.4 PROGRESS MEETINGS

- .1 During course of Work and two (2) weeks prior to project completion, schedule progress meetings Bi-Weekly.
- .2 Contractor, major Subcontractors involved in Work, Consultant and Owner are to be in attendance.
- .3 Notify parties minimum five (5) days prior to meetings.
- .4 Record minutes of meetings and circulate to attending parties and affected parties. The Contactor shall be responsible for distribution of meeting minutes to their Subcontractors.
- .5 Agenda to include the following:
 - .1 Review, approval of minutes of previous meeting.
 - .2 Review of Work progress since previous meeting.
 - .3 Field observations, problems, conflicts.
 - .4 Problems which impede construction schedule.
 - .5 Review of off-site fabrication delivery schedules.
 - .6 Corrective measures and procedures to regain projected schedule.
 - .7 Revision to construction schedule.
 - .8 Progress schedule, during succeeding work period.

- .9 Review submittal schedules: expedite as required.
- .10 Maintenance of quality standards.
- .11 Review proposed changes for effect on construction schedule and on completion date.
- .12 Other business.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Shop drawings and product data
- .2 Samples

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC):
 - .1 CCDC 2-2008, Stipulated Price Contract.

1.3 ADMINISTRATIVE

- .1 Submit to Consultant submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in units to correspond with Contract Drawings.
- .4 Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .5 Notify Consultant in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .6 Verify field measurements and affected adjacent Work is coordinated.
- .7 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.
- .8 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant's review.
- .9 Keep one (1) reviewed copy of each submission on site.

1.4 SHOP DRAWINGS AND PRODUCT DATA

- .1 Refer to CCDC 2 GC 3.10.
- .2 Make changes in shop drawings as Consultant may require, consistent with Contract Documents.

When resubmitting, notify Consultant in writing of revisions other than those requested.

- .3 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .4 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents. Shop drawings submitted without the Contractor's executed stamp of review will not be considered and will be returned to the Contractor for review and re-submission.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
- .5 Should the Consultant deem the Contractor has not complied with the requirements of this section, the Contractor shall be held fully responsible for all delays in the Work to the same extent as if no shop drawings or details had been submitted for that section of the Work.
- .6 After Consultant's review, distribute copies.
- .7 Submit one (1) electronic copy of shop drawings for each requirement requested in specification Sections and Consultant may reasonably request.
- .8 Submit one (1) electronic copy of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will not be prepared due to standardized manufacture of product.
- .9 Submit one (1) electronic copy of test reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
 - .2 Testing must have been within three (3) years of date of contract award for project.

- .10 Submit one (1) electronic copy of certificates for requirements requested in specification Sections and as requested by Consultant.
 - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
 - .2 Certificates must be dated after award of project contract complete with project name.
- .11 Submit one (1) electronic copy of manufacturer's instructions for requirements requested in specification Sections and as requested by Consultant.
 - .1 Pre-printed material describing installation of product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.
- .12 Submit one (1) electronic copy of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.
- .13 Submit one (1) electronic copy of Operation and Maintenance Data for requirements requested in specification Sections and as requested by Consultant.
- .14 Delete information not applicable to project.
- .15 Supplement standard information to provide details applicable to project.
- .16 If upon review by the Consultant, no errors or omissions are discovered or if only minor corrections are made, one (1) electronic copy stamped by the Consultant complete with appropriate comments where applicable will be returned electronically in .PDF format and fabrication and installation of Work may proceed. If shop drawings are rejected, one (1) electronic copy stamped by the Consultant complete with appropriate comments where applicable will be returned electronically in .PDF format and resubmission procedure indicated above, shall be repeated prior to fabrication and installation of Work.

1.5 SAMPLES

- .1 Submit for review samples in duplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Site.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price or Contract Time. If adjustments affect value of Work or Contract Time, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.6 MOCK-UPS

- .1 Erect mock-ups in accordance with Section 01 45 00 - Quality Control.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

- .1 Definitions:
 - .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
 - .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.
 - .3 Adequate Ventilation: ventilation, including air circulation and air changes, required to cure material, dissipate humidity, and prevent accumulation of dust fumes, vapours or gases.
 - .4 Construction and Demolition Waste: includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
 - .1 Includes both combustible and non-combustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, metal cans and bones.
 - .5 Debris: includes both combustible and non-combustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work.
 - .6 Chemical Waste: includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
 - .7 Environmental Pollution and Damage: the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavourably alter ecological balances; or degrade the utility of the environment for aesthetic, cultural, or historical purposes.
 - .8 Hazardous Materials: includes pesticides, biocides, and carcinogens, as listed by recognized authorities.
 - .9 Interior Final Finishes: materials and products that will be exposed at interior, occupied spaces, including flooring, wall coverings, finish carpentry and ceilings.
 - .10 Municipal Solid Waste Landfill: a permitted facility that accepts solid, nonhazardous waste such as household, commercial and industrial waste, including construction and demolition waste.
 - .11 Packaged Dry Products: materials and products that are installed in dry form and are delivered to the site in manufacturer's packaging, including carpets, resilient flooring, ceiling tiles, and insulation.
 - .12 Sediment: soil and other debris that has been eroded and transported by storm or well production runoff water.
 - .13 Sanitary Wastes:
 - .1 Garbage: refuse and scraps resulting from preparation, cooking, distribution, or consumption of food.
 - .2 Sewage: domestic sanitary sewage.
 - .14 Wet Products: materials and products installed in wet form, including paints, sealants, adhesives and special coatings.
- .1 Reference Standards:
 - .1 CCDC 2-2008 Stipulated Price Contract.

1.2 SUBMITTALS

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.

1.3 SUBSTITUTIONS

- .1 Notify Consultant in writing when Contractor is aware of materials, equipment, or products that meet the aesthetic and programmatic intent of Contract Documents but are more environmentally sensitive than materials, equipment, or products specified or indicated in the Contract Documents.

1.4 FIRES

- .1 Fires and burning of rubbish on site not permitted.

1.5 DISPOSAL OF WASTE

- .1 Do not bury rubbish and waste materials on site.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

1.6 POLLUTION CONTROL

- .1 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
- .2 Collection: implement a recycling / reuse program that includes separate collection of waste materials of the following types:
 - .1 Metal:
 - .1 Ferrous
 - .2 Nonferrous
 - .2 Wood
- .3 Environmental Controls: disposal operations for waste materials that are not identified to be salvaged, recycled or reused:
 - .1 Remove debris, rubbish, and other waste materials resulting from construction operations from site.
 - .2 No burning permitted.
 - .3 Transport materials with appropriate vehicles, and dispose off-site to areas that are approved for disposal by governing authorities having jurisdiction.
 - .4 Avoid spillage by covering and securing loads when hauling on or adjacent to public streets or highways. Remove spillage, and sweep, wash, or otherwise clean project site, streets, or highways.
 - .5 Comply with applicable regulations.

- .4 Air Resources: prevent creation of dust, air pollution, and odours.
 - .1 Use water sprinkling, temporary enclosures, and other appropriate methods to limit to lowest practical level dust and dirt rising and scattering in air.
 - .1 Do not use water when it may create hazardous or other adverse conditions such as flooding and pollution.
 - .2 Store volatile liquids, including fuels and solvents, in closed containers.
 - .3 Properly maintain equipment to reduce gaseous pollutant emissions.
 - .4 Interior final finishes: schedule construction operations involving wet products prior to packaged dry products to the greatest extent possible.
 - .5 Temporary Ventilation:
 - .1 Provide adequate ventilation during and after installation of interior wet products and interior final finishes.
 - .2 Provide adequate ventilation of packaged dry products prior to installation. Remove from packaging and ventilate in a secure, dry, well-ventilated space free from strong contaminant sources, and residues. Do not ventilate within limits of Work unless otherwise approved by Consultant.

1.7 NOTIFICATION

- .1 Consultant will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Consultant of proposed corrective action and take such action for approval by Consultant.
- .3 Do not take action until after receipt of written approval by Consultant.
- .4 Consultant will issue stop order of work until satisfactory corrective action has been taken.
- .5 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES AND CODE

- .1 Perform Work in accordance with Ontario Building Code (OBC) including amendments up to tender closing date and other codes of local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2 Meet or exceed requirements of:
 - .1 Contract documents.
 - .2 Specified standards, codes and referenced documents.

1.2 HAZARDOUS MATERIAL DISCOVERY

- .1 Asbestos: demolition of spray or trowel-applied asbestos is hazardous to health. Stop work immediately when material resembling spray or trowel-applied asbestos is encountered during demolition work. Notify Consultant.
- .2 PCB: Polychlorinated Biphenyl: stop work immediately when material resembling Polychlorinated Biphenyl is encountered during demolition work. Notify Consultant.
- .3 Mould: stop work immediately when material resembling mould is encountered during demolition work. Notify Consultant.

1.3 BUILDING SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions and municipal by-laws.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Inspection and testing, administrative and enforcement requirements.
- .2 Tests and mix designs.
- .3 Mock-ups.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-2008, Stipulated Price Contract.

1.3 INSPECTION

- .1 Refer to CCDC 2, GC 2.3 Review and Inspection of the Work.

1.4 SUPERINTENDENT

- .1 Refer to CCDC 2, GC 3.6 – Supervision.
- .2 Not Used
- .3 The Superintendent shall be satisfactory to the Owner and Consultant and shall not be changed except for good reason and only then after consultation with and agreement by the Owner and Consultant.
- .4 The Superintendent shall represent the Contractor at Work site and directions given to him by the Consultant shall be held to have been given to the Contractor.
- .5 The Contractor shall remove the Superintendent of the Work if in the opinion the Superintendent is unable to carry out their proper functions and duties, due to whatever reason, to the complete satisfaction of the Consultant and the Owner.
- .6 Should the Contractor wish to replace the Superintendent, the Contractor shall submit to the Consultant, a request for the change in writing. Include in the written request the reason for the change and the experience and qualifications of the replacement superintendent. The acceptance of the replacement superintendent will be at the sole discretion of Owner and Consultant and issued to the Contractor in writing. Should the replacement superintendent be deemed unacceptable to the Owner or Consultant, submit experience and qualifications of other superintendents for review and approval by the Owner and Consultant until a suitable replacement is accepted.
- .7 The Superintendent of the work shall remain at the place of Work until all deficiencies of all trades have been rectified and the project is deemed Totally Performed by the Consultant.

- .8 The duties of the Superintendent shall include, but not be limited to the following:
 - .1 Co-ordination of the Work of all trades including own forces.
 - .2 Expediting labour and Products of all trades including own forces.
 - .3 Total project control and co-ordination.
 - .4 Project scheduling.
 - .5 Quality control and supervision as required to ensure the project is constructed in accordance with the Contract Documents.

1.5 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Cooperate to provide reasonable facilities for such access.

1.6 PROCEDURES

- .1 Notify appropriate agency and Consultant in advance of requirement for tests, in order that attendance arrangements may be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.7 REJECTED WORK

- .1 Refer to CCDC, GC 2.4.
- .2 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .3 Make good other Contractor's work damaged by such removals or replacements promptly at no cost to the Owner.
- .4 If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by Consultant.

1.8 REPORTS

- .1 Submit one (1) electronic copy of inspection and test reports to Consultant.
- .2 Provide copies to [subcontractor of work being inspected or tested] [manufacturer or fabricator of

material being inspected or tested].

1.9 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as requested.
- .2 Cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work will be appraised by Consultant and may be authorized as recoverable.

1.10 MOCK-UPS

- .1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of Sections required to provide mock-ups.
- .2 Construct in locations as specified in specific Section.
- .3 Prepare mock-ups for Consultant's review with reasonable promptness and in orderly sequence, to not cause delays in Work.
- .4 If requested Consultant may assist in preparing schedule fixing dates for preparation.
- .5 Failure to prepare mock-ups in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be permitted.
- .6 Failure to prepare mock-ups to Consultant approval is not considered sufficient reason for an increase to Contract Price and no claim for increase by reason of such default will be accepted.
 - .1 Rectify, and/or remove and replace all such rejected mock-ups to Consultant approval.
- .7 Approved mock-ups may remain as part of Work subject to the approval of the Consultant

1.11 EQUIPMENT AND SYSTEMS

- .1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

1.12 TOLERANCES

- .1 Unless more stringent tolerances are required by a Section of the Specifications or a referenced standard, meet the following tolerances for installed Work:
 - .1 "plumb" shall mean plumb within 3 mm ($1/8$ ") in 3 m (10 ft.).
 - .2 "level" shall mean level within 3 mm ($1/8$ ") in 3 m (10 ft.).
 - .3 "square" shall mean not in excess of 10 seconds less or more than 90°.
 - .4 "straight" shall mean within 3 mm ($1/8$ ") in 3 m (10 ft.) under a 3 m (10 ft.) straight edge.

1.13 BUILDING COMPONENTS

- .1 Requirements specified herein apply to all elements of the building components.
- .2 Continuity of fire separations, air barriers, vapour barriers, air/vapour barriers and insulation components are critical and must be maintained at all locations. Where different systems meet, ensure proper interface and continuity between adjacent components by implementing suitable construction sequences and by using compatible materials only.
- .3 Anchor exterior components to structure in manner suitable to accommodate structural deflection and creep. Design anchorage to withstand expected wind loads, positive and negative, in accordance with applicable regulations.
- .4 Ensure that air spaces within building components are firestopped in accordance with applicable regulations.
- .5 Ensure that air spaces on the outside of vertical air barrier/vapour barriers (walls) are constructed with adequate drainage provisions to the exterior.

1.14 DRAINAGE

- .1 Lay out and construct Work to ensure that positive drainage is provided to roof drains, floor drains, site drains and catch basins, as set in their final position, preventing undrained areas and ponding.
- .2 Ensure that allowable construction tolerances and structural deflection do not cause ponding of water.
- .3 Report to Consultant in writing prior to executing Work affected, in case adequate drainage cannot be provided.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section [01 33 00 - Submittal Procedures].

1.2 INSTALLATION AND REMOVAL

- .1 Provide temporary utilities controls in order to execute work expeditiously.
- .2 Remove from site all such work after use.

1.3 WATER SUPPLY

- .1 Owner to provide continuous supply of potable water for construction use.

1.4 TEMPORARY HEATING AND VENTILATION

- .1 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of Work.
 - .2 Protect Work and products against dampness and cold.
 - .3 Prevent moisture condensation on surfaces.
 - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for safe working environment.
- .2 Maintain temperatures of minimum 10 degrees C in areas where construction is in progress.
- .3 Ventilating:
 - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .4 Ventilate storage spaces containing hazardous or volatile materials.
 - .5 Ventilate temporary sanitary facilities.
 - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .4 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.5 TEMPORARY POWER AND LIGHT

- .1 Owner will Provide power for temporary lighting during construction for temporary power for operation of power tools, to a maximum supply of 120 volts 15 amps.

- .2 Arrange for connection with appropriate utility company. Pay costs for installation, maintenance and removal.
- .3 Provide temporary power for electric cranes and other equipment as required.
- .4 Provide and maintain temporary lighting throughout project. Ensure level of illumination on all floors and stairs is not less than 162 lx.
- .5 Electrical power and lighting systems installed under this Contract may be used for construction requirements only with prior approval of Consultant provided that guarantees are not affected. Make good damage to electrical system caused by use under this Contract. Replace lamps which have been used for more than [3] months.

1.6 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for temporary cell phones, and all equipment necessary for own use.

1.7 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 "Hot work" shall not be performed unless:
 - .1 The area can be made safe for the work;
 - .2 The work has been approved by the Owner; and
 - .3 The Hot Work is performed within the authorized time frame and only as long as conditions remain safe.
- .3 "Hot work" shall not be performed if:
 - .1 Processes involving flammable liquids, gases and dusts cannot be shut down and made safe;
 - .2 Lint conditions are severe beyond correction;
 - .3 Partitions, walls, ceilings, or roofs have combustible coverings (e.g., expanded plastic insulation);
 - .4 Partitions are made of combustible sandwich-type construction.
- .4 Burning rubbish and construction waste materials is not permitted on site.

1.8 CONSTRUCTION AID

- .1 Provide temporary stairs, ladders and ramps required for movement and placing of materials, equipment and personnel.
- .2 Provide mechanical hoisting equipment and fully qualified operators as required during construction.
- .3 Erect required scaffolding independent of walls. Arrange to avoid interference with work of other Sections as much as possible. Design and construct scaffolding in accordance with CSA S269.2-1975.
- .4 Provide and maintain regular shoring and bracing in accordance with Construction Safety Act and other applicable regulations. Design and construct falsework in accordance with CSA S269.1-1975.

- .5 Use of explosive power tools must be approved in writing by Consultant. The use of explosive power tools will not be permitted under any circumstances unless equipped with a device which positively prevents free flight of the stud.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC):
 - .1 CCDC 2-2008, Stipulated Price Contract.
- .2 Canadian General Standards Board (CGSB):
 - .1 CAN/CGSB 1.189-[00], Exterior Alkyd Primer for Wood.
 - .2 CGSB 1.59-[97], Alkyd Exterior Gloss Enamel.
- .3 Canadian Standards Association (CSA International):
 - .1 CSA-A23.1/A23.2-[04], Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .2 CSA-0121-[M1978(R2003)], Douglas Fir Plywood.
 - .3 CAN/CSA-S269.2-[M1987(R2003)], Access Scaffolding for Construction Purposes.
 - .4 CAN/CSA-Z321-[96(R2001)], Signs and Symbols for the Occupational Environment.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.3 INSTALLATION AND REMOVAL

- .1 Prepare pedestrian control plan indicating proposed location and dimensions of areas to be hoarded and site-specific procedures for storage/removal of existing seating, delivery of materials, maintaining partial operation of the dining/server areas, and maintaining a thoroughfare for pedestrian travel during construction in accordance with section 01 56 00 Temporary Barriers and Enclosures.
- .2 Indicate use of supplemental or other staging area.
- .3 Provide construction facilities in order to execute work expeditiously.
- .4 Remove from site all such work after use.

1.4 COLD WEATHER CONDITIONS

- .1 The term "cold weather periods" shall mean the periods between the 15th of September to the 31st day of May of the following year; from the date of commencement of the Work until the Work is completed.
- .2 Assume full responsibility and pay all costs for snow or ice removal from the project site. Maintain site during cold weather periods including but not limited to cleaning and/or clearing any snow or ice accumulation as required to perform the Work and to provide a safe working environment around the building and project site. Dump snow at properly designated areas to the requirements of local authorities.

1.5 SCAFFOLDING

- .1 Scaffolding in accordance with CAN/CSA-S269.2.
- .2 Provide and maintain scaffolding, ramps, ladders, and temporary stairs as required to perform Work.

1.6 HOISTING

- .1 Provide, operate and maintain hoists required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for their use of hoists.
- .2 Hoists to be operated by qualified operator.

1.7 ELEVATORS

- .1 Designated existing and permanent elevators to not to be used by construction personnel and transporting of materials. Co-ordinate use with Consultant.

1.8 SITE STORAGE/LOADING

- .1 Refer to CCDC 2, GC 3.11.
- .2 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .3 Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.9 CONSTRUCTION PARKING

- .1 Paid Parking will be permitted on site.
- .2 Provide and maintain adequate access to project site and traffic areas.

1.10 SECURITY

- .1 Comply with Owner's security system to Owner approval.

1.11 OFFICES

- .1 Owner will provide space to accommodate site meetings. Contractor to provide a site office if required and furnish space with a drawing layout table and filing cabinets for construction documents as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 Reviewed Shop Drawings of Owner Furnished Items.

- .6 List of Outstanding Shop Drawings.
- .7 Site Instructions.
- .8 Change Notices.
- .9 Change Orders.
- .10 Other Modifications to Contract.
- .11 Field Test Reports.
- .12 Copy of Most Recent and Approved Work Schedule.
- .13 Health and Safety Plan and Other Safety Related Documents.
- .14 'Notice of Project' from Ontario Ministry of Labour.
- .15 Building permit.
- .16 Meeting Minutes.
- .17 Other documents as specified.

- .2 Provide marked and fully stocked first-aid case in a readily available location.

1.12 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.13 SANITARY FACILITIES

- .1 Owner will designate sanitary facilities for work force. Use only the designated facilities.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.14 CONSTRUCTION SIGNAGE

- .1 Maintain approved signs and notices in good condition for duration of project, and dispose of off-site on completion of project or earlier if directed by Consultant.

1.15 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by Consultant.
- .2 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs
- .3 Protect travelling public from damage to person and property.
- .4 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.
- .5 Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.

- .6 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.
- .7 Dust Control: adequate to ensure safe operation at all times.
- .8 Provide snow removal during period of Work.

1.16 CLEAN-UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Stack stored new or salvaged material not in construction facilities.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

- .1 **NOT USED**

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

- .1 Canadian General Standards Board (CGSB):
 - .1 CGSB 1.59-[97], Alkyd Exterior Gloss Enamel.
 - .2 CAN/CGSB 1.189-[00], Exterior Alkyd Primer for Wood.
- .2 Canadian Standards Association (CSA International):
 - .1 CSA-O121-[M1978(R2003)], Douglas Fir Plywood.

1.2 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.3 HOARDING

- .1 Erect hoarding and solid overhead protection to the requirements of the authorities having jurisdiction around entire perimeter of construction areas as required to protect public, workers, occupants, public and private property from injury or damage.
- .2 Refer to Appendix A of this section for proposed Project Phasing Plan.
- .3 Provide and maintain required hoardings, barricades, guardrails, and lights in accordance with applicable regulations.
- .4 Erect temporary site enclosures where required using 38 x 89 mm / 2" x 4" construction grade lumber framing at 600 mm centres and 1200 x 2400 x 13 mm / 4' x 8' x ½" fir plywood to CSA O121.
- .5 Apply plywood panels vertically flush and butt jointed.

1.4 GUARD RAILS AND BARRICADES

- .1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs.
- .2 Provide as required by governing authorities.

1.5 WEATHER ENCLOSURES

- .1 Provide weather-tight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.

- .2 Close off floor areas where walls are not finished; seal off other openings; enclose building interior work for temporary heat.
- .3 Design enclosures to withstand wind pressure and snow loading.

1.6 DUST TIGHT SCREENS

- .1 Provide dust tight screen partitions or insulated partitions where required to localize dust generating activities, and for protection of workers, finished areas of Work and public.
 - .1 Erect dust tight screen partitions where required using 38 x 89 mm / 2" x 4" construction grade lumber framing at 610 mm centres and 1200 x 2400 x 13 mm / 4' x 8' x ½" plywood to CSA 0121.
 - .2 Provide dust tight wood door frame and wood door complete with hinges, door closer, lockset and weatherstripping at all required access points.
 - .3 Provide positive dust tight seal at all:
 - .1 Plywood joints using continuous 38 mm / 1½" wide foam tape.
 - .2 Access doors using weather stripping at jamb, head and sill.
 - .3 Around entire perimeter using continuous foam rods between dust tight screen partition and floor, walls, and ceilings.
 - .4 Apply plywood panels vertically flush and butt jointed.
- .2 Maintain and relocate dust tight screen protection until such work is complete.
- .3 Maintain and relocate protection until such work is complete.

1.7 ACCESS TO SITE

- .1 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.

1.8 PUBLIC TRAFFIC FLOW

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public.

1.9 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.10 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.11 PROTECTION OF BUILDING FINISHES

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Confirm with Consultant locations and installation schedule three (3) days prior to installation.
- .4 Be responsible for damage incurred due to lack of or improper protection.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

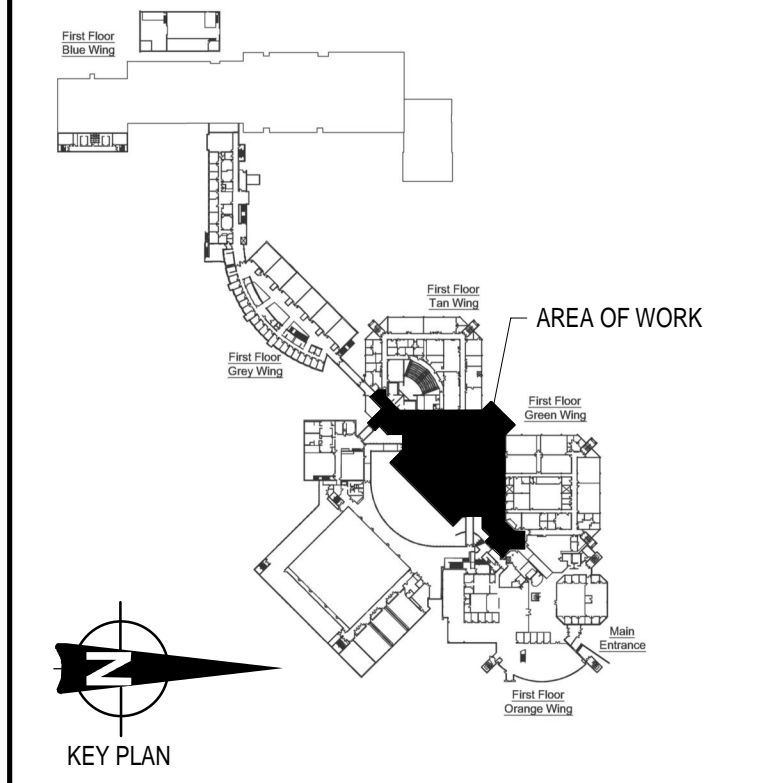
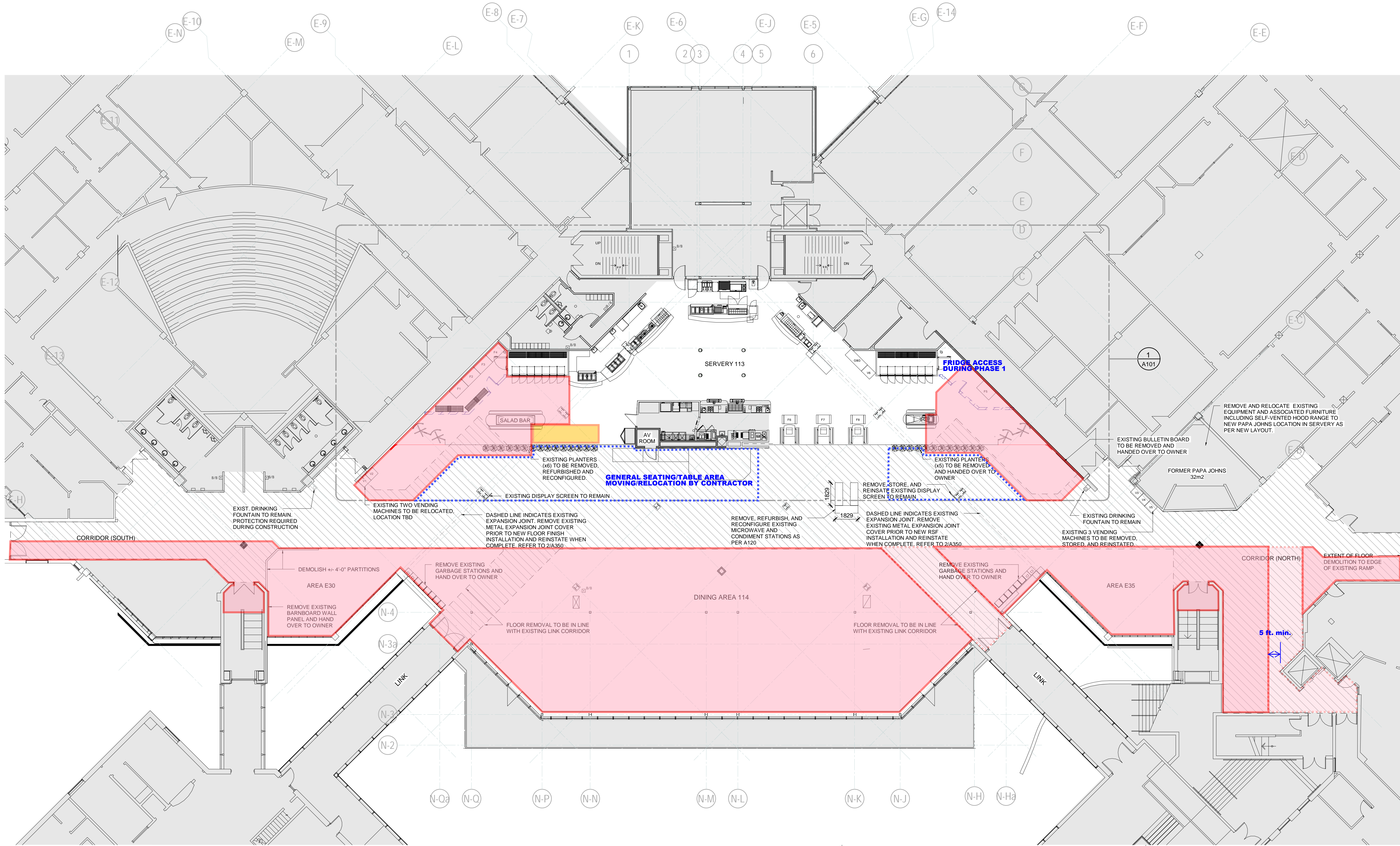
PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

APPENDIX A – PROPOSED PHASING PLAN



**PRELIMINARY
NOT FOR
CONSTRUCTION**
EXTERNAL DESIGN REVIEW (30%)

1	ISSUED FOR CLIENT REVIEW	03/04/19
NO.	ISSUE/REVISION	DD/MM/YY

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CONSULTANT
JLR J.L. Richards
ENGINEERS - ARCHITECTS - PLANNERS
www.jlrichards.ca

PROFESSIONAL PROJECT
PROJECT
**ST LAWRENCE COLLEGE
CAFETERIA RENOVATION**

100 Portsmouth Avenue, Kingston Ontario

DRAWING
**PROJECT PHASING PLAN
PHASE 1**

DESIGN	LM	DRAWING
DRAWN	DF	
CHECKED	MK	A100
JLR	28389	

Phase 1 (May - June)

- Work Area (hoarded)**
- Work Area (after 4 p.m.)**
- Completed Area**
- Temporary Excluded Area**

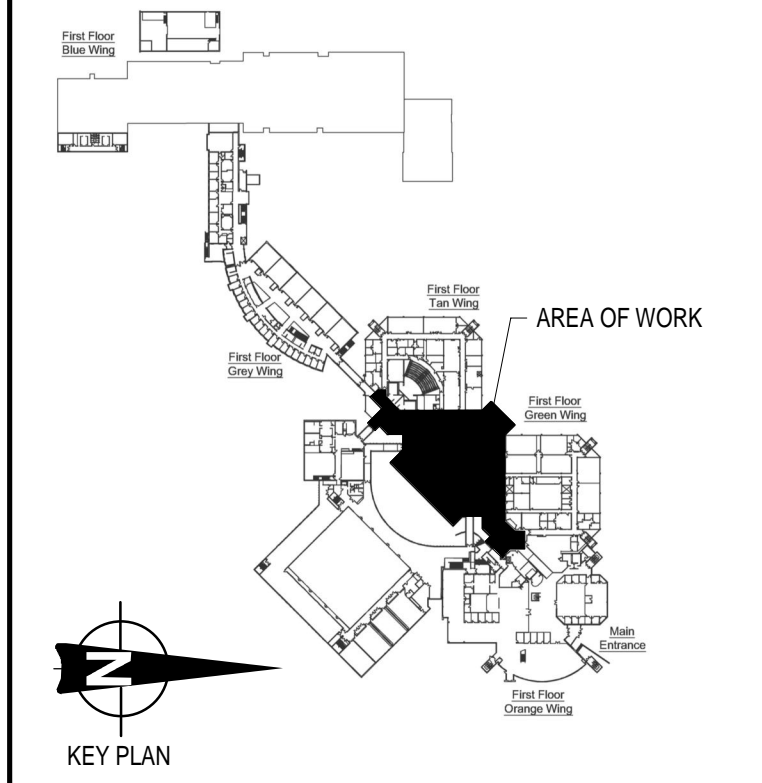
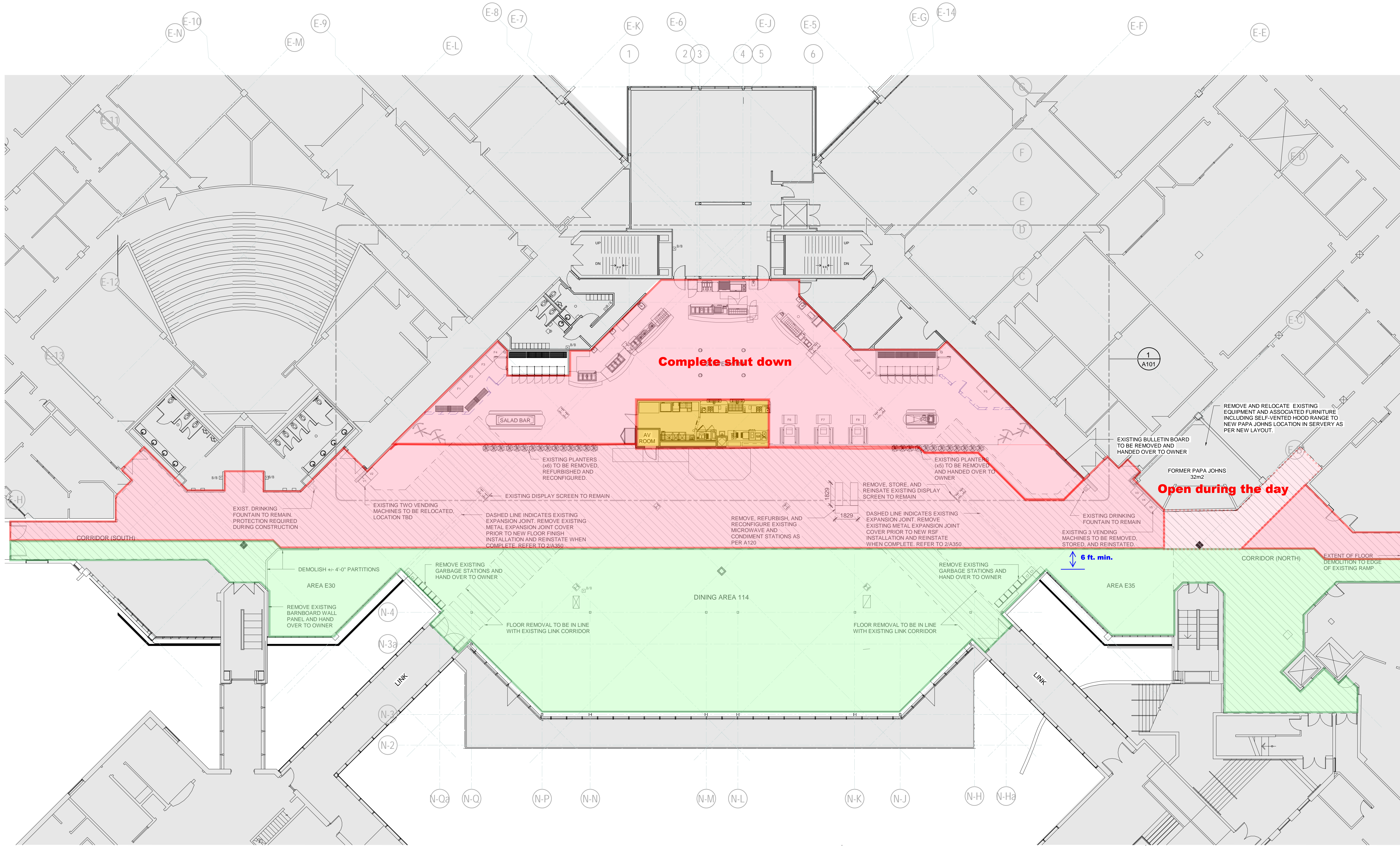
- LEGEND**
- AREA NOT IN SCOPE
 - EXTENT OF EXISTING CERAMIC FLOORING AND BASE TO BE REMOVED. AREA= 900m2
 - WALL TO BE DEMOLISHED
 - EXTENT OF EXISTING GYPSUM BULKHEAD TO BE DEMOLISHED.

- GENERAL NOTES:**
1. REMOVE EXISTING CERAMIC WALL BASE THROUGHOUT
 2. REMOVE EXISIRNG VINYL WALL BASE THROUGHOUT
 3. ALL EXISTING TABLES TO BE REMOVED AND TURNED OVER TO OWNER.

PHASE 1 PLAN
SCALE: 1:150

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EXTERNAL DESIGN REVIEW (30%)

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PROFESSIONAL PROJECT

PROJECT
**ST LAWRENCE COLLEGE
CAFETERIA RENOVATION**
100 Portsmouth Avenue, Kingston Ontario

DRAWING
**PROJECT PHASING PLAN
PHASE 2**

DESIGN	LM	DRAWING
DRAWN	DF	
CHECKED	MK	A100
JLR	28389	

Phase 2 (July - August 15)

- Work Area (hoarded)**
- Work Area (after 4 p.m.)**
- Completed Area**
- Temporary Excluded Area**

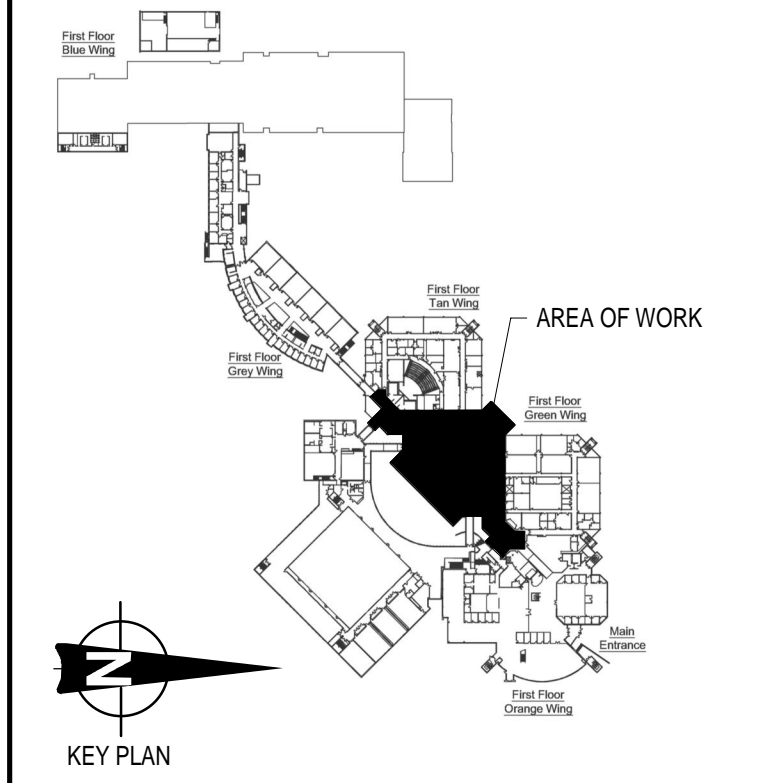
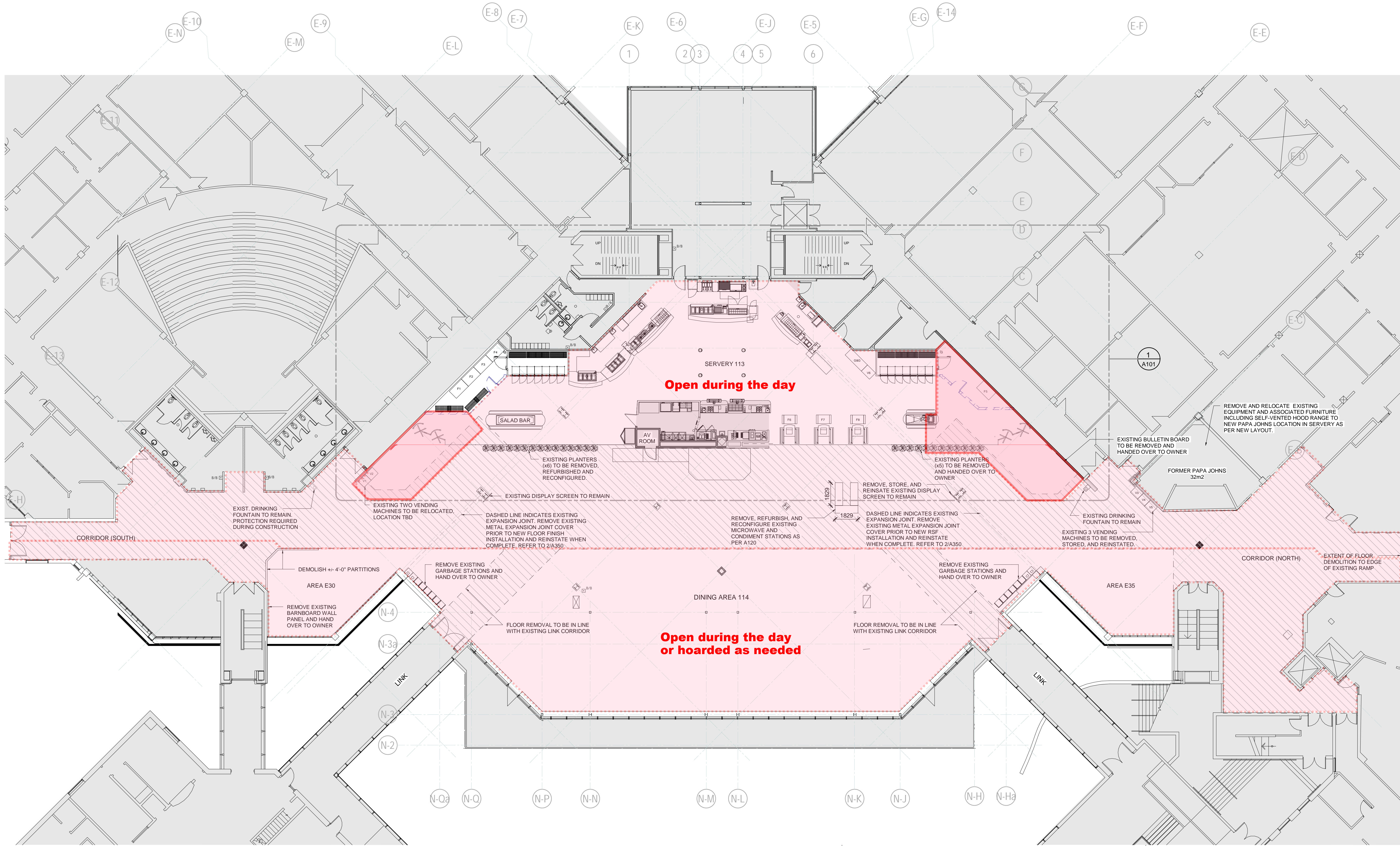
- LEGEND**
- AREA NOT IN SCOPE
 - EXTENT OF EXISTING CERAMIC FLOORING AND BASE TO BE REMOVED. AREA= 900m2
 - WALL TO BE DEMOLISHED
 - EXTENT OF EXISTING GYPSUM BULKHEAD TO BE DEMOLISHED.

- GENERAL NOTES:**
1. REMOVE EXISTING CERAMIC WALL BASE THROUGHOUT
 2. REMOVE EXISIRNG VINYL WALL BASE THROUGHOUT
 3. ALL EXISTING TABLES TO BE REMOVED AND TURNED OVER TO OWNER.

1 A100 **PHASE 2 PLAN**
SCALE: 1:150

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CAFETERIA RENOVATION**
100 Portsmouth Avenue, Kingston Ontario

DRAWING
**PROJECT PHASING PLAN
PHASE 3**

DESIGN	LM	DRAWING
DRAWN	DF	
CHECKED	MK	A100
JLR	28389	

Phase 3 (August 16 - September) - completion of acoustic panels, furniture, touch-ups etc.

- Work Area (hoarded)**
- Work Area (after 4 p.m.)**
- Completed Area**
- Temporary Excluded Area**

- LEGEND**
- AREA NOT IN SCOPE
 - EXTENT OF EXISTING CERAMIC FLOORING AND BASE TO BE REMOVED. AREA= 900m2
 - WALL TO BE DEMOLISHED
 - EXTENT OF EXISTING GYPSUM BULKHEAD TO BE DEMOLISHED.

- GENERAL NOTES:**
1. REMOVE EXISTING CERAMIC WALL BASE THROUGHOUT
 2. REMOVE EXISTING VINYL WALL BASE THROUGHOUT
 3. ALL EXISTING TABLES TO BE REMOVED AND TURNED OVER TO OWNER.

1 A100 PHASE 3 PLAN
SCALE: 1:150

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APPENDIX A – PROPOSED PHASING PLAN

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Product quality, availability, storage, handling, protection, and transportation.
- .2 Manufacturer's instructions.
- .3 Quality of Work, coordination and fastenings.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC):
 - .1 CCDC 2-2008, Stipulated Price Contract.
- .2 Within text of each specifications section, reference may be made to reference standards.
- .3 Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .4 If there is question as to whether products or systems are in conformance with applicable standards, Consultant reserves right to have such products or systems tested to prove or disprove conformance.
 - .1 Cost for such testing will be borne by Owner in event of conformance with Contract Documents or by Contractor in event of non-conformance.

1.3 QUALITY

- .1 Refer to CCDC 2.
- .2 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .3 Procurement policy is to acquire, in cost effective manner, items containing highest percentage of recycled and recovered materials practicable consistent with maintaining satisfactory levels of competition. Make reasonable efforts to use recycled and recovered materials and in otherwise utilizing recycled and recovered materials in execution of work.
- .4 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .5 Should disputes arise as to quality or fitness of products, decision rests strictly with Consultant based upon requirements of Contract Documents.
- .6 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .7 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or

electrical rooms.

1.4 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify Consultant of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify Consultant at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Consultant reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.5 STORAGE, HANDLING AND PROTECTION

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials, lumber and other similar materials on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged products at own expense and to satisfaction Consultant.
- .9 Touch-up damaged factory finished surfaces to Consultant satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.6 TRANSPORTATION

- .1 Pay costs of transportation of products required in performance of Work.
- .2 Transportation cost of products supplied by Owner will be paid for by Owner. Unload, handle and store such products.

1.7 MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise indicated in specifications install or erect products in accordance with

manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.

- .2 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant will establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Consultant to require removal and re-installation at no increase in Contract Price or Contract Time.

1.8 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. Consultant reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Consultant , whose decision is final.

1.9 COORDINATION

- .1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves and accessories.

1.10 CONCEALMENT

- .1 In finished areas conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 Before installation inform Consultant if there is interference. Install as directed Consultant.

1.11 REMEDIAL WORK

- .1 Refer to CCDC 2 and Section 01 73 00 - Execution Requirements.
- .2 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.
- .3 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.12 LOCATION OF FIXTURES

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.

- .2 Inform Consultant of conflicting installation. Install as directed.

1.13 FASTENINGS

- .1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.14 FASTENINGS - EQUIPMENT

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.
- .3 Bolts may not project more than one diameter beyond nuts.
- .4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

1.15 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading of parts of building. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of Consultant.

1.16 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, and/or building occupants and pedestrian and vehicular traffic.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

PART 2 - PRODUCTS

2.1 NOT USED

.1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

.1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC):
 - .1 CCDC 2-2008, Stipulated Price Contract.

1.2 EXISTING SERVICES

- .1 Before commencing work, establish location and extent of service lines in area of Work and notify Consultant of findings.

1.3 LOCATION OF EQUIPMENT AND FIXTURES

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform Consultant of impending installation and obtain approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by Consultant.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of elements of project.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of operational elements.
 - .4 Visual qualities of sight-exposed elements.
 - .5 Work of Owner or separate contractor.
- .3 Include in request:
 - .1 Identification of project.
 - .2 Location and description of affected Work.
 - .3 Statement on necessity for cutting or alteration.
 - .4 Description of proposed Work, and products to be used.
 - .5 Alternatives to cutting and patching.
 - .6 Effect on Work of Owner or separate contractor.
 - .7 Written permission of affected separate contractor.
 - .8 Date and time work will be executed.

1.2 MATERIALS

- .1 Required for original installation.
- .2 Change in Materials: submit request for substitution in accordance with Section 01 33 00 - Submittal Procedures.

1.3 PREPARATION

- .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering, inspect conditions affecting performance of Work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.
- .4 Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.
- .5 Provide protection from elements for areas which are to be exposed by uncovering work; maintain excavations free of water.

1.4 EXECUTION

- .1 Execute cutting, fitting, and patching to complete Work.

- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Remove samples of installed Work for testing.
- .6 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.
- .7 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .8 Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
- .9 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.
- .10 Restore work with new products in accordance with requirements of Contract Documents.
- .11 Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .12 At penetration of fire rated wall, ceiling, or floor construction, completely seal voids with firestopping material in accordance with Specifications, full thickness of the construction element.
- .13 Refinish surfaces to match adjacent finishes: refinish continuous surfaces to nearest intersection. Refinish assemblies by refinishing entire unit.
- .14 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3- EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

PART 1- GENERAL

1.1 SECTION INCLUDES

- .1 Progressive cleaning.
- .2 Final cleaning.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC):
 - .1 CCDC 2-2008, Stipulated Price Contract.

1.3 PROJECT CLEANLINES

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, including:
 - .1 That caused by Owner or other Contractors to the Owner approval.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site waste containers for collection of waste materials and debris.
- .5 Dispose of waste materials and debris off-site, in accordance with authorities having jurisdiction.
- .6 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .9 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .10 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.4 FINAL CLEANING

- .1 Refer to CCDC 2, GC 3.13.
- .2 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.

- .3 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .4 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .5 Remove waste products and debris other than that caused by Owner or other Contractors to Owner approval.
- .6 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.
- .7 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .8 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
- .9 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors.
- .10 Clean lighting reflectors, lenses, and other lighting surfaces.
- .11 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
- .12 Unless noted otherwise wax, seal, shampoo or prepare floor finishes, as recommended by manufacturer.
- .13 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .14 Broom clean and wash exterior walks, steps and surfaces, paved areas and rake clean other surfaces of grounds affected by the Work.
- .15 Remove dirt and other disfiguration from exterior surfaces affected by the Work.
- .16 Clean and sweep roofs, gutters, areaways, and sunken wells.
- .17 Sweep and wash clean paved areas.
- .18 Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.
- .19 Clean roofs, downspouts, and drainage systems.
- .20 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
- .21 Remove snow and ice from access to building.

PART 2 - PRODUCTS

2.1 NOT USED

.1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

.1 Not Used.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES:

- .1 Record documents, samples, specifications.
- .2 Equipment and systems.
- .3 Product data, materials and finishes, and related information.
- .4 Operation and maintenance data.
- .5 As constructed documents.
- .6 Warranties and bonds.

1.2 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-warranty Meeting:
 - .1 Convene meeting one month prior to [contract completion] with Consultant in accordance with Section 01 31 19 - Project Meetings to:
 - .1 Verify Project requirements.
 - .2 Review manufacturer's installation instructions and warranty requirements.
 - .2 Consultant to establish communication procedures for:
 - .1 Notifying construction warranty defects.
 - .2 Determine priorities for type of defects.
 - .3 Determine reasonable response time.
 - .3 Contact information for bonded and licensed company for warranty work action: provide name, telephone number and address of company authorized for construction warranty work action.
 - .4 Ensure contact is located within local service area of warranted construction, is continuously available, and is responsive to inquiries for warranty work action.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section [01 33 00 - Submittal Procedures].
- .2 Two weeks prior to Substantial Performance of the Work, submit to the Consultant:
 - .1 One (1) [electronic] final copy of operating and maintenance manuals in [English].
 - .2 One (1) [electronic] copy of Commissioning Report in English, except warranty and seasonal verification activities manuals.
- .3 Two weeks following Substantial Performance of the Work, provide to the Consultant and / or Owner as directed by Consultant:
 - .1 Spare parts, maintenance materials and special tools of same quality and manufacture as products provided in Work.
 - .1 Provide evidence, if requested, for type, source and quality of products supplied.
 - .2 Defective products will be rejected, regardless of previous inspections. Replace products at no cost to Owner.
 - .2 As Constructed documents.

- .3 Maintenance materials.
- .4 Warranties.

1.4 FORMAT

- .1 Organize data as instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 8 ½ x 11 inches with spine and face pockets.
- .3 When multiple binders are used correlate data into related consistent groupings.
 - .1 Identify contents of each binder on spine.
- .4 Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Arrange content by [systems,] [~~process flow,~~] under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 Text: manufacturer's printed data, or typewritten data.
- .8 Drawings: provide with reinforced punched binder tab.
 - .1 Bind in with text; fold larger drawings to size of text pages.

1.5 CONTENTS - PROJECT RECORD DOCUMENTS

- .1 Table of Contents for Each Volume (provide title of project):
 - .1 Date of submission; names.
 - .2 Addresses, and telephone numbers of Consultant and Contractor / ~~Sub-Contractor~~ with name of responsible parties.
 - .3 Schedule of products and systems, indexed to content of volume.
- .2 For each product or system:
 - .1 List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3 Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5 Typewritten Text: as required to supplement product data.
 - .1 Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section [01 45 00 - Quality Control].

1.6 AS-CONSTRUCTED DOCUMENTS AND SAMPLES

- .1 Maintain, in addition to requirements in General Conditions, at site for Consultant record copy of:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Supplemental Instructions.
 - .5 Change Orders and other modifications to Contract.
 - .6 Reviewed shop drawings, product data, and samples.
 - .7 Field test records.
 - .8 Inspection certificates.
 - .9 Manufacturer's certificates.
- .2 Store record documents and samples in field office apart from documents used for construction.
 - .1 Provide files, racks, and secure storage.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual.
 - .1 Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition.
 - .1 Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Consultant.

1.7 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

- .1 Prior to commencing with construction, arrange with Consultant to obtain one complete set of opaque contract drawings.
- .2 Record information on set of black line opaque drawings, and in copy of Project Manual, provided by Consultant.
- .3 Use felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .4 Record information concurrently with construction progress:
 - .1 Do not conceal Work until required information is recorded.
- .5 Contract Drawings and shop drawings: mark each item to record actual construction, including:
 - .1 Measured depths of elements of foundation in relation to finish first floor datum.
 - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
 - .4 Field changes of dimension and detail.
 - .5 Supplemental Instructions.
 - .6 Changes made by change orders.
 - .7 Details not on original Contract Drawings.
 - .8 References to related shop drawings and modifications.

- .6 Specifications: mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Supplemental Instructions.
 - .3 Changes made by Addenda and change orders or change directives.
- .7 Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.

1.8 FINAL SURVEY

- .1 Submit final site survey certificate in accordance with Section 01 71 00 - Examination and Preparation, certifying that elevations and locations of completed Work are in conformance, or non-conformance with Contract Documents.

1.9 EQUIPMENT AND SYSTEMS

- .1 For each item of equipment and each system include description of unit or system, and component parts.
 - .1 Give function, normal operation characteristics and limiting conditions.
 - .2 Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
- .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
- .3 Include installed colour coded wiring diagrams.
- .4 Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences.
 - .1 Include regulation, control, stopping, shut-down, and emergency instructions.
 - .2 Include summer, winter, and any special operating instructions.
- .5 Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide Contractor's co-ordination drawings, with installed colour coded piping diagrams.
- .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- .14 Include test and balancing reports as specified in Section 01 45 00 - Quality Control.
- .15 Additional Requirements: as specified in individual specification sections.

1.10 MATERIALS AND FINISHES

- .1 Building Products, Applied Materials and Finishes: include product data, with catalogue number, size, composition, and colour and texture designations.
 - .1 Provide information for re-ordering custom manufactured products.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture Protection and Weather Exposed Products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional Requirements: as specified in individual specifications sections.

1.11 MAINTENANCE MATERIALS

- .1 Spare Parts:
 - .1 Provide spare parts, in quantities specified in individual specification sections.
 - .2 Provide items of same manufacture and quality as items in Work.
 - .3 Deliver to site; place and store.
 - .4 Receive and catalogue items:
 - .1 Submit inventory listing to Consultant.
 - .2 Include approved listings in Maintenance Manual.
 - .3 Obtain receipt for delivered products and submit prior to final payment.
- .2 Extra Stock Materials:
 - .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
 - .2 Provide items of same manufacture and quality as items in Work.
 - .3 Deliver to site; place and store.
 - .4 Receive and catalogue items:
 - .1 Submit inventory listing to Consultant.
 - .2 Include approved listings in Maintenance Manual.
 - .5 Obtain receipt for delivered products and submit prior to final payment.
- .3 Special Tools:
 - .1 Provide special tools, in quantities specified in individual specification section.
 - .2 Provide items with tags identifying their associated function and equipment.
 - .3 Deliver to site; place and store.
 - .4 Receive and catalogue items:
 - .1 Submit inventory listing to Consultant.

- .2 Include approved listings in Maintenance Manual.

1.12 DELIVERY, STORAGE AND HANDLING

- .1 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Store paints and freezable materials in a heated and ventilated room.
- .5 Remove and replace damaged products at own expense and for review by Consultant.

1.13 WARRANTIES AND BONDS

- .1 Develop warranty management plan to contain information relevant to Warranties.
- .2 Submit warranty management plan, thirty (30) days before planned pre-warranty conference, to Consultant approval.
- .3 Warranty management plan to include required actions and documents to assure that Consultant receives warranties to which it is entitled.
- .4 Provide plan in narrative form and contain sufficient detail to make it suitable for use by future maintenance and repair personnel.
- .5 Submit, warranty information made available during construction phase, to Consultant for approval prior to each monthly pay estimate.
- .6 Assemble approved information in binder, submit upon acceptance of work and organize binder as follows:
 - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
 - .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 - .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within [ten] days after completion of applicable item of work.
 - .4 Verify that documents are in proper form, contain full information, and are notarized.
 - .5 Co-execute submittals when required.
 - .6 Retain warranties and bonds until time specified for submittal.
- .7 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.
- .8 Conduct joint nine (9) month warranty inspection, measured from time of acceptance, by Consultant.
- .9 Include information contained in warranty management plan as follows:
 - .1 Roles and responsibilities of personnel associated with warranty process, including points of contact and telephone numbers within the organizations of Contractors, subcontractors, manufacturers or suppliers involved.

- .2 Provide list for each warranted equipment, item, feature of construction or system indicating:
 - .1 Name of item.
 - .2 Model and serial numbers.
 - .3 Location where installed.
 - .4 Name and phone numbers of manufacturers or suppliers.
 - .5 Names, addresses and telephone numbers of sources of spare parts.
 - .6 Warranties and terms of warranty: include one-year overall warranty of construction. Indicate items that have extended warranties and show separate warranty expiration dates.
 - .7 Cross-reference to warranty certificates as applicable.
 - .8 Starting point and duration of warranty period.
 - .9 Summary of maintenance procedures required to continue warranty in force.
 - .10 Cross-reference to specific pertinent Operation and Maintenance manuals.
 - .11 Organization, names and phone numbers of persons to call for warranty service.
 - .12 Typical response time and repair time expected for various warranted equipment.
- .3 Contractor's plans for attendance at nine (9) month post-construction warranty inspection.
- .4 Procedure and status of tagging of equipment covered by extended warranties.
- .5 Post copies of instructions near selected pieces of equipment where operation is critical for warranty and/or safety reasons.
- .10 Respond in timely manner to oral or written notification of required construction warranty repair work.
- .11 Written verification to follow oral instructions.
 - .1 Failure to respond will be cause for the Consultant to proceed with action against Contractor.

1.14 WARRANTY TAGS

- .1 Tag, at time of installation, each warranted item. Provide durable, oil and water resistant tag approved by Consultant.
- .2 Attach tags with copper wire and spray with waterproof silicone coating.
- .3 Leave date of acceptance until project is accepted for occupancy.
- .4 Indicate following information on tag:
 - .1 Type of product/material.
 - .2 Model number.
 - .3 Serial number.
 - .4 Contract number.
 - .5 Warranty period.
 - .6 Inspector's signature.
 - .7 Construction Contractor.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

.1 Not Used.

END OF SECTION



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