



PROPOSED SPRINKLER AREA
SCALE: 1:100

SPECIFICATIONS

- 1.1 GENERAL
- THE SPRINKLER CONTRACTORS WILL ACT AS DESIGN/BUILD CONTRACTORS, BEING FULLY RESPONSIBLE FOR THE COMPLETE DESIGN AND INSTALLATION OF THE SPRINKLER SYSTEM. SPRINKLER HEADS, PIPING AND NOTATION SHOWN ON THE MECHANICAL DRAWINGS ARE FOR REFERENCE AND COORDINATION ONLY.
 - PRIOR TO INSTALLATION SUBMIT FIVE (5) COPIES OF THE WORKING DRAWINGS AND HYDRAULIC DESIGN CALCULATIONS TO ALL AUTHORITIES HAVING JURISDICTION. A PROFESSIONAL ENGINEER SHALL SEAL ALL DESIGN DRAWINGS AND HYDRAULIC CALCULATIONS. ASSUME ANY ADDITIONAL COSTS THAT MAY BE INCURRED TO MODIFY OR COMPLETE THE SYSTEM SHOULD THE AUTHORITIES HAVING JURISDICTION REQUIRE CHANGES. ANY AND ALL ADDITIONAL COSTS PERTAINING TO APPROVAL SHALL BE BORNE BY THE CONTRACTOR.
 - SUBMIT DRAWINGS TO THE ENGINEER AFTER REVIEW BY THE AUTHORITIES HAVING JURISDICTION INCLUDING COMMENTS RECEIVED.
 - ALL SPRINKLER SYSTEMS SHALL BE DESIGNED & INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO BUILDING CODE AND NFPA 13.
 - PIPING MATERIALS
 - ALL WET PIPE AND DRY PIPE SPRINKLER PIPING SHALL BE AS OUTLINED IN TABLE 6.3.1.1 OF NFPA 13
 - ALL FIRE PROTECTION SPECIALTIES SHALL CONFORM TO NFPA REQUIREMENTS AND BEAR ULC AND/OR CSA LISTING AS REQUIRED. PROVIDE AND INSTALL ALL SPECIALTY ITEMS AS LISTED, BY NOT LIMITED TO:
 - PROVIDE PIPE HANGERS IN LOCATIONS SUBJECT TO THE APPROVAL OF THE CANADIAN UNDERWRITERS ASSOCIATION. HANGERS SHALL BE AS MANUFACTURED BY GRINNEL.
 - ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING OF ELEC. SUPERVISOR VALVES.
 - PROVIDE DRAIN CONNECTIONS FOR THE COMPLETE DRAINAGE OF EACH SYSTEM. SLOPE PIPING TO PREVENT FREEZING AND ALLOW FOR THE CONDUCTING OF OPERATIONAL TESTS. PROVIDE REDUCED ORIFICE INSPECTORS TEST VALVES FOR TESTING.
 - PROVIDE PRESSURE GAUGES AT EVERY WATER SUPPLY CONNECTION TO SYSTEM. GAUGE CONNECTED BY MINIMUM 1/4" DIAMETER PIPE OR TUBING AND CW SHUT-OFF VALVE.
 - USE QUALIFIED AND RECOGNIZED CONTRACTOR REGULARLY ENGAGED IN THIS TYPE OF WORK THAT EMPLOYS QUALIFIED AND SUITABLE EQUIPPED TECHNICIANS AND WILLING TO UNDERTAKE LONG TERM SERVICE OF THE SYSTEM.

- 1.2 FIRE EXTINGUISHERS
- PROVIDE ULC RATED 5 LB. DRY CHEMICAL CLASS 2A:10B-C PORTABLE FIRE EXTINGUISHERS AS MANUFACTURED BY NFE C/W WALL MOUNTING BRACKET. IN ALL MECHANICAL ROOMS, ELECTRICAL ROOMS, GARBAGE ROOM AND WHERE INDICATED ON DRAWINGS.

- 1.5 SPRINKLERS
- PROVIDE RELIABLE AUTOMATIC SPRINKLER HEADS 16SE FUSIBLE RATING UNLESS NOTED OTHERWISE ON DRAWINGS. INSTALL CONCEALED SPRINKLERS IN OFFICES, CORRIDORS AND LUNCH ROOMS. INSTALL SEMI-RECESSED SPRINKLER HEADS IN WASHROOMS, LOCKER ROOMS AND STORAGE AREAS.
 - PROVIDE SPRINKLER HEAD CABINET WITH 12 SPARE HEADS AND HEAD WRENCH.
 - PROVIDE RELIABLE MODEL ALARM VALVES.

- 1.6 TESTING AND CERTIFICATION
- PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR TESTING THE FIRE SYSTEMS AND PAY ALL FEES FOR INSPECTION AND TESTING. NOTIFY THE ENGINEERS AND THE LOCAL AUTHORITIES HAVING JURISDICTION OF THE TESTS AND CONDUCT THE TESTS TO THE SATISFACTION AND IN THE PRESENCE OF THEIR REPRESENTATIVES.
 - TEST THE SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST NFPA STANDARDS.
 - UPON COMPLETION OF THE WORK, INSPECTIONS AND TESTS SHALL BE MADE BY THE CONTRACTORS REPRESENTATIVE AND WITNESSED BY AN OWNERS REPRESENTATIVE.
 - COMPLETE AND SIGN CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR ABOVEGROUND PIPING. AS OUTLINED IN NFPA-13.

FIRE NOTES

- IN PORTIONS OF SPRINKLER SYSTEMS WHERE ALL COMPONENTS ARE NOT LISTED FOR PRESSURE GREATER THAN 175 PSI AND THE POTENTIAL EXISTS FOR NORMAL (NONFIRE CONDITION) WATER PRESSURE IN EXCESS OF 175 PSI. A LISTED PRESSURE-REDUCING VALVE SHALL BE INSTALLED AND SET FOR AN OUTLET PRESSURE NOT EXCEEDING 165 PSI AT THE MAXIMUM INLET PRESSURE AS PER NFPA 13.
- SPRINKLERS CAN BE OMITTED FROM TOP OF ELEVATOR SHAFT CAR ENCLOSURE MEETS ASME A17.1 REQUIREMENTS AND IS IN A NON-COMBUSTIBLE ELEVATOR SHAFT. NFPA 13 - 8.15.5.5
- LOCATE FIRE EXTINGUISHERS AS PER O.B.C., ONTARIO FIRE CODE & NFPA REQUIREMENTS.
- IF CPVC PIPING IS USED, IT IS THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO ENSURE THE PIPING IS NOT IN CONTACT WITH ANY MATERIALS THAT DEGRADE THE PIPING SUCH AS ARMORED ELECTRICAL CABLES.
- ANY PIPING IN AN UNHEATED SPACE IS TO BE HEAT TRACED & INSULATED UNLESS OTHERWISE NOTED.
- ANY ACCESS PANELS REQUIRED ARE TO BE SUPPLIED BY THE TRADE INSTALLING THE EQUIPMENT SERVED AND INSTALLED BY THE DRYWALL INSTALLATION CONTRACTOR. COORDINATE ALL ACCESS PANEL SIZES, TYPES AND RATINGS WITH ARCHITECTURAL DRAWINGS.
- ALL HYDRAULIC CALCULATIONS TO BE SUBMITTED FOR REVIEW WITH A SAFETY FACTOR OF NO LESS THAN 10PSI.

DESCRIBED EQUIPMENT	SPECIFIED MANUFACTURER	APPROVED EQUAL BY
PORTABLE FIRE EXTINGUISHERS	NATIONAL FIRE EQUIPMENT	AMEREX SIMPLEX GRINELL
CPVC PIPING	BLAZEMASTER	NONE
WATERFLOW ALARM SWITCH, PRESSURE SWITCH		POTTER
SPRINKLER HEADS		TYCO RELIABLE VIKING
SUPERVISED VALVES, CHECK VALVES, BALL VALVES, BUTTERFLY VALVES, OS&Y VALVES		TYCO NIBCO VICTAULIC
TEST DRAIN		AGF

GENERAL NOTES

- ALL PENETRATION THROUGH FIRE SEPARATIONS SHALL BE FIRE STOPPED IN ACCORDANCE WITH O.B.C. 3.1.8 & 3.1.9 AND ARCHITECTURAL PLANS AND SPECIFICATIONS.
- CONTROLS FOR THE OPERATION OF BUILDING SERVICES OR SAFETY DEVICES INCLUDING SWITCHES, THERMOSTATS, INTERCOM SWITCHES, ALARMS AND KEYPADS, LOCATED WITHIN A BARRIER FREE PATH OF TRAVEL (AS OUTLINED IN O.B.C. 3.8.2.1) SHALL BE MOUNTED AT 1200 MM ABOVE THE FINISHED FLOOR IN THE CASE OF A THERMOSTAT AND/OR A MANUAL PULL STATION AND NOT LESS THAN 900 MM AND NOT MORE THAN 1100 MM ABOVE THE FINISHED FLOOR IN THE CASE OF ALL OTHER CONTROLS. IN ACCORDANCE WITH O.B.C. 3.8.1.5. REFER TO ARCHITECTURAL DRAWINGS FOR AREAS DESIGNATED AS "BARRIER FREE PATH OF TRAVEL."
- ALL MATERIALS AND SERVICES IN A CONCEALED SPACE USED AS A RETURN AIR PLENUM MUST COMPLY WITH O.B.C. 3.6.4.3 & 6.2.3.2, WHICH INCLUDES THAT THEY MUST HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION NOT MORE THAN 50.
- MECH. EQUIPMENT DIVISION OF RESPONSIBILITY. UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFICATIONS, MECHANICAL EQUIPMENT CONTROLS (THERMOSTATS, CONTROL PANELS, STARTERS, ETC.) AND LOW VOLTAGE WIRING AND CONDUIT ARE TO BE PROVIDED BY THE CONTRACTOR SUPPLYING THE EQUIPMENT BEING CONTROLLED. CONTROL WIRING IS TO BE 24 VOLT WHERE PRACTICAL UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFICATIONS. ALL WIRING, CONDUITS AND DISCONNECTING MEANS 120 VOLT AND GREATER ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. REVIEW REQUIREMENTS WITH LATEST SHOP DRAWINGS AND PERTINENT TRADES PRIOR TO ORDERING EQUIPMENT.
- AS PER OBC SEC. 7.3.5.4 PROTECTION FROM FROST: WHERE PIPING MAY BE EXPOSED TO FREEZING CONDITIONS IT SHALL BE PROTECTED FROM THE EFFECTS OF FREEZING.
- ALL PIPING IS TO BE INSTALLED WITH ADEQUATE CHANGE OF DIRECTION, EXPANSION JOINTS, GUIDES, AND ANCHORS, SO THAT THE PIPING AND EQUIPMENT WILL IN NO WAY BE STRAINED OR DISTORTED BY EXPANSION AND CONTRACTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT EXPANSION AND CONTRACTION IS ACCOUNTED FOR. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- ALL EQUIPMENT, VALVES, BALANCING DAMPERS, FIRE DAMPERS, JUNCTION BOXES AND MAINTENANCE ITEMS LOCATED IN BULKHEADS, CEILINGS OR INACCESSIBLE SPACES SHALL BE PROVIDED WITH THE APPROPRIATELY RATED / INSULATED ACCESS PANELS. ACCESS PANELS TO BE PROVIDED BY CONTRACTOR INSTALLING THE COMPONENTS REQUIRING ACCESS.
- IN ORDER TO MAINTAIN LONGEVITY OF COMBUSTIBLE CPVC PIPING SUCH AS BUT NOT LIMITED TO: AQUARIUM PIPING, ALL CONTRACTORS ARE TO ENSURE NO PRODUCTS WITH RESIDUAL OILS SUCH AS BUT NOT LIMITED TO: ARMORED CABLES, DUCTWORK, METAL STUDS, METAL CONDUIT & COMMUNICATION CABLES, ARE RUN IN CONTACT WITH COMBUSTIBLE CPVC PIPES.
- CONTRACTOR TO REVIEW ARCHITECTURAL REFLECTIVE CEILING PLANS FOR CEILING TYPES AND HEIGHTS ON ALL FLOOR PLANS.

- DRAWING NOTES**
- LOCATE FIRE EXTINGUISHERS AS PER O.B.C., ONTARIO FIRE CODE & NFPA REQUIREMENTS. PROVIDE ULC RATED TYPE 3A:20B-C 5 LB CHEMICAL FIRE EXTINGUISHERS EQUAL TO NATIONAL FIRE EQUIPMENT. FIRE EXTINGUISHERS COMPLETE WITH WALL BRACKET. INSTALL AS PER ONTARIO FIRE CODE.
 - TENANT SPRINKLER CONTRACTOR TO DESIGN SPRINKLERS TO INTERIOR DESIGN FOLLOWING OBC CODE. INCLUDES TURN PIPING UP OR DOWN AS REQUIRED AND PROVIDE UPRIGHT HEADS IN ALL OPEN CEILING AREAS.
 - TENANT SPRINKLER CONTRACTOR TO PROVIDE STAMPED SHOP DRAWINGS FOR SPRINKLER DESIGN.

- NOTES:**
- THE BUILDING'S OCCUPANCY ARE COMMERCIAL RETAIL COMPLEX, (ORDINARY HAZARD GROUP II)
 - SPRINKLER PROTECTION IS VIA WET PIPE SYSTEMS, WITH STANDARD RESPONSE SPRINKLERS, HYDRAULICALLY CALCULATED AS SHOWN HEREIN.
 - SPRINKLER DESIGN CRITERIA: DESIGN DENSITY 0.20 USGPM/FT² OVER 1500 FT² T 250 GPM TOTAL HOSE ALLOWANCE.
 - CONSTRUCTION CLASSIFICATION:
 - UNOBSTRUCTED CONSTRUCTION AS PER NEPA 13, 2013
 - DEFLECTOR OF SPRINKLERS TO BE A MINIMUM OF 25 MM (1") TO A MAXIMUM OF 300 MM (12") BELOW DECK.
 - SYSTEM DESIGN IS TO NEPA 13, 2013, THE ONTARIO BUILDING CODE GUIDELINES AND RECOMMENDATIONS.
 - WATER SUPPLY:
 - STATIC: 69 P.S.I.
 - RESIDUAL: 41 P.S.I.
 - FLOW: 1120 USGPM

NOTE: SPRINKLER CONTRACTOR TO COMPLETE HYDRANT ELOW TESTING AS PER NEPA 291, 2013 EDITION, CHAPTER 4, FIG. 4.3.4 AT LEAST ONE RESIDUAL HYDRANT AND ONE ELOW HYDRANT MUST BE USED. PITOT AND RESIDUAL PRESSURE FROM BOTH SINGLE AND TWO PORTS FLOWING

SPRINKLERS: AS NOTED IN SPRINKLER SYMBOL BOX.

A) SPARE SPRINKLER HEAD CABINET TO BE PROVIDED AS PER NEPA 13, 2013

- MATERIAL:**
- ALARM VALVES: ALARM CHECK VALVE C/W BASIC TRIM.
 - EIRE DEPARTMENT CONNECTION: STANDARD RED 4x2-1/2x2-1/2 C/W BREAK AWAY CAPS.
 - PIPINGS: 1-1/2" TO 4" SCHEDULE 40 ROLL GROOVED, BLACK, ULC, EM APPROVED. 1" SCHEDULE 40, THREADED, BLACK, ULC, EM APPROVED.
 - EITTINGS: 1-1/2" TO 4" GROOVED FITTINGS K COUPLINGS 1" CAST IRON FITTINGS, BLACK, THREADED
 - WELDED: OUTLET OFF MAINS AND BRANCH LINES ARE WELDED IN ACCORDANCE WITH AWS B.2.1 STANDARDS.
 - HANGERS: BEAM CLAMPS OFF O.W.S.J. ENISH ON ROD - BLACK RINGS - ADJUSTABLE SWIVEL LOOP TYPE PIPE HANGER SHALL BE INSTALLED AS REQUIRED BY NEPA FOR SUPPORTING SPRINKLER PIPING. NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE HANGER SYSTEM UNLESS THE HANGER HAS BEEN SPECIALLY DESIGNED FOR THE ADDITIONAL LOADING.

THIS CONTRACT DOES NOT INCLUDE ANY MATERIAL OR DEVICES TO IMPROVE THE STRUCTURAL STRENGTH OF THE BUILDING TO ENABLE IT TO CARRY THE LOAD OF THE EIRE PROTECTION SYSTEM.

- GENERAL NOTES:**
- ALL MATERIALS AND INSTALLATION TO CONFORM TO THE ONTARIO BUILDING CODE, APPLICABLE NEPA STANDARDS, AND LOCAL EIRE DEPARTMENT.
 - ALL DIMENSIONS SHOWN ON DRAWINGS ARE CENTER DIMENSIONS UNLESS OTHERWISE SPECIFIED.
 - ALL PIPING LOCATIONS TO BE VERIFIED UPON A SITE VISIT PRIOR TO ANY FABRICATION AND INSTALLATION.
 - COORDINATE BETWEEN SPRINKLER PIPING AND OTHER TRADES.
 - SPRINKLER PROTECTION MUST BE PROVIDED UNDER ALL FIXED OBSTRUCTIONS OVER 4'-0" (DUCTS, BULKHEADS, OVERHEAD DOORS, ETC.) AS PER NEPA 13, 2013.
 - ADEQUATE HEAT MUST BE PROVIDED BY THE OWNER OR OCCUPANT IN ALL AREAS WHERE WET SPRINKLER PIPING IS INSTALLED.
 - YARD EIRE HYDRANT AND INCOMING WATER SERVICE TO FLANGE ABOVE FINISH FLOOR BY OTHERS.

NOTES TO THE OWNER / OCCUPANTS:

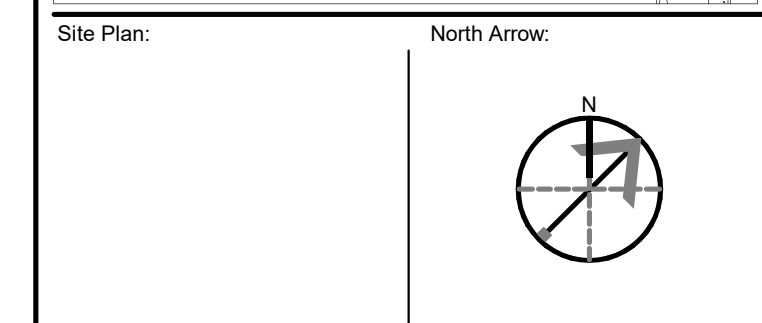
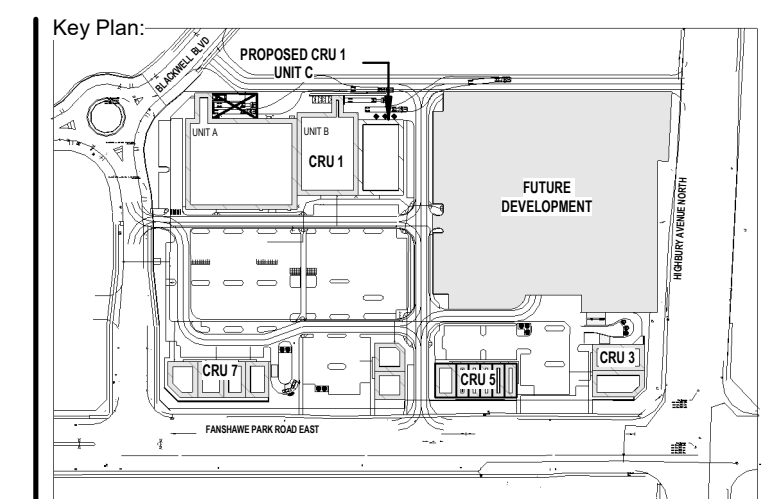
1- OWNER/OCCUPANT IS RESPONSIBLE FOR SUPPLYING & MAINTAINING ADEQUATE HEAT (4°C, 40°F) TO ALL AREAS WHERE WET SPRINKLER PIPE IS INSTALLED IN ORDER TO PREVENT THE WET SPRINKLER PIPE FROM FREEZING.

INSTALL HIGH TEMPERATURE SPRINKLERS AROUND ALL UNIT HEATERS COORDINATE ENAL LOCATIONS ON SITE PRIOR TO INSTALLATION

SPRINKLERS ARE TO BE INSTALLED UNDER ALL OBSTRUCTIONS AS PER NEPA 2013, TABLE 8.12.5.1.1 AND FIGURE 8.12.5.1.1, AND COMPLIES WITH 8.12.5.2(2)

- DWG NOTES:**
- EIRE PROTECTION TO BE PROVIDED VIA NEW WET SPRINKLER SYSTEM TO BE DESIGNED IN ACCORDANCE WITH NEPA 13, 2013 AND THE OBC 2012 GUIDELINES AND RECOMMENDATIONS.
 - IF APPLICABLE, COMMISSIONING OF INTEGRATED TESTING OF FIRE PROTECTION AND LIFE SAFETY SYSTEM TO BE COMPLETED BY OTHERS SHOP DRAWINGS TO BE SUBMITTED TO OWNERS INSURANCE COMPANY.
 - MATERIALS TO BE ULC LISTED AND MEET NEPA 13, 2013 REQUIREMENTS
 - COORDINATE SPRINKLER PIPE WITH EXISTING SITE CONDITIONS PRIOR TO INSTALLATION
 - ALL PIPING SHALL BE BLACK STEEL PIPE C/W WELDED RISER OUTLETS OR MECHANICAL TEE JOINTS.
 - SPRINKLER HEADS SHALL BE EQUAL TO TYPE LISTED IN SPRINKLER SYMBOL BOX

DESIGN CRITERIA:
INSTALLATION OF AUTOMATIC SPRINKLERS TO MEET THE REQUIREMENTS FOR ORDINARY GROUP 2, MAXIMUM HEAD SPACING OF 130SQ.FT.



CS@CREATIVESTR.CA

Seal: Seal:

General Notes:

IT IS THE RESPONSIBILITY OF THE OWNER, GENERAL AND/OR TENANT CONTRACTOR AND ALL SUB-TRADES TO BE FAMILIAR WITH THE PROJECT AS A WHOLE. ALL DISCREPANCIES AND DIMENSIONAL ERRORS ON THE PLANS AND RELATED DOCUMENTS MUST BE REPORTED TO CREATIVE STRUCTURES (CS) PRIOR TO COMMENCING ANY WORK.

DO NOT SCALE DRAWING. FOR CONSTRUCTION DRAWINGS MUST HAVE ORIGINAL CONSULTANTS STAMP AND SIGNATURE. ALL CONSTRUCTION AND MATERIALS MUST CONFORM WITH APPLICABLE CODES AND C.M.H.C. STANDARDS AND BE APPROVED BY OWNER.

THE CONTENTS OF THIS DRAWING REMAIN THE COPYRIGHT PROPERTY OF CREATIVE STRUCTURES (CS) AND SHALL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF CREATIVE STRUCTURES.

THESE DRAWINGS AND ALL DETAILS ARE FOR THIS PROJECT ONLY AND SHOULD NOT BE USED FOR ANY OTHER WORK.

IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ALL ERRORS AND/OR OMISSIONS TO CREATIVE STRUCTURES LTD. PRIOR TO COMMENCING WORK. ALL DIMENSIONS AND LEVELS ARE APPROXIMATE AND SHOULD BE CONFIRMED BY OWNER AND GENERAL CONTRACTOR PRIOR CONSTRUCTION.

ALL CONTRACTORS MUST COMPLY WITH ALL PERTINENT BUILDING CODE REGULATIONS AND BYLAWS WITHIN JURISDICTION.

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNTIL IT HAS BEEN ISSUED AND MARKED "ISSUED FOR CONSTRUCTION". THE DRAWINGS SHALL NOT BE USED FOR PRICING, COSTING, OR TENDER UNLESS INDICATED IN THE REVISION COLUMN AND THESE DRAWINGS ARE NOT COMPLETE AND ANY PRICES BASED ON THESE DRAWINGS MUST INCLUDE ALLOWANCES FOR THIS WITH NO LIABILITY ON CREATIVE STRUCTURES LTD.

CONSTRUCTION TO BE ACCORDING TO BEST COMMON PRACTICE.

CONTRACTOR IS FULLY RESPONSIBLE FOR MATTERS AFFECTING CONSTRUCTION.

ANY MATERIAL ALTERATIONS CARRIED OUT DURING CONSTRUCTION BY THE CONTRACTOR OR ASSOCIATED SUB-CONTRACTOR SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO INSTALL. FAILURE TO DO SO COMPLETE AND ANY CONTRACTOR RESPONSIBILITY FOR SYSTEMS AFFECTED.

**PRELIMINARY FOR REVIEW ONLY
NOT FOR OFFICIAL SUBMISSIONS,
PRICING AND/OR CONSTRUCTION**

No.	Date	Revision
3	APR 02, 2024	ISSUED FOR TENDER

Westoell
DEVELOPMENT CORP
1300 FANSHAWE PARK
ROAD, EAST. - CRU #1 UNIT
1300 FANSHAWE PARK ROAD, EAST, LONDON, ON

SPRINKLERS AND SPECIFICATIONS

Drawn By: D.H. Scale: AS INDICATED
Checked By: Plot Date: APR 02, 2024
Project Date: JAN 2024
Project No: 2023-102
Drawing No: Revision

S-1.0 3