

IF SPRINKLER CONTRACTOR USES PLASTIC PIPING THEN THE FOLLOWING IS APPLICABLE.

NOTE: CONTRACTOR TO INSTALL PLASTIC PIPING AS PER MANUFACTURER'S SPECIFICATIONS INCLUDING EXPANSION LOOP.

O.B.C. SECTION 3.2.5.14 COMBUSTIBLE SPRINKLER PIPING

- (1) COMBUSTIBLE SPRINKLER PIPING SHALL BE USED ONLY FOR WET SYSTEMS IN RESIDENTIAL OCCUPANCIES AND OTHER LIGHT HAZARD OCCUPANCIES. (SEE APPENDIX A.)
- (2) COMBUSTIBLE SPRINKLER PIPING SHALL MEET THE REQUIREMENTS OF ULC/ORD-199P-M, "COMBUSTIBLE PIPING FOR SPRINKLER SYSTEMS".
- (3) COMBUSTIBLE SPRINKLER PIPING SHALL BE SEPARATED FROM THE AREA SERVED BY THE SPRINKLER SYSTEM AND FROM ANY OTHER FIRE COMPARTMENT BY CEILINGS, WALLS, OR SOFFITS CONSISTING AS A MINIMUM,
 - (A) LATH AND PLASTER,
 - (B) GYPSUM BOARD NOT LESS THAN 9.5 MM (3/8 IN) THICK
 - (C) PLYWOOD NOT LESS THAN 13 MM (1/2 IN) THICK OR
 - (D) A SUSPENDED MEMBRANE CEILING WITH
 - (i) STEEL SUSPENSION GRID, AND
 - (ii) LAY-IN PANELS OR TILES HAVING A MASS NOT LESS THAN 1.7 KG/SQUARE METRE (0.35 LB/SQUARE FOOT)
- (4) IF COMBUSTIBLE SPRINKLER PIPING IS LOCATED ABOVE A CEILING, AN OPENING THROUGH THE CEILING THAT IS NOT PROTECTED IN CONFORMANCE WITH SENTENCE (3) SHALL BE LOCATED SO THAT THE DISTANCE BETWEEN THE EDGE OF THE OPENING AND THE NEAREST SPRINKLER IS NOT MORE THAN 300 MM (11 3/4").
- (5) THE PROTECTION REQUIRED BY SENTENCES (3) AND (4) IS PERMITTED TO BE WAIVED WHERE COMBUSTIBLE SPRINKLER PIPING HAS BEEN TESTED IN CONFORMANCE WITH ULC/ORD-199P-M, "COMBUSTIBLE PIPING FOR SPRINKLER SYSTEMS", AND HAS BEEN SHOWN TO MEET THE REQUIREMENTS IN THAT DOCUMENT WITHOUT ADDITIONAL PROTECTION.

GENERAL NOTES

- NOTE 1: RESIDENTIAL SPRINKLERS IN ACCORDANCE WITH NFPA 13, CLOSETS LESS THAN 12 SQ.FT. IN AREA IN INDIVIDUAL DWELLING UNITS SHALL NOT BE REQUIRED TO BE SPRINKLERED, CLOSETS THAT CONTAIN EQUIPMENT SUCH AS WASHERS, DRYERS, FURNACES, OR WATER HEATERS SHALL BE SPRINKLERED REGARDLESS OF SIZE. AS PER NFPA-13 (2007) CLAUSE 21.20.19.2.1
- NOTE 2: SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS THAT ARE LOCATED WITHIN DWELLING UNITS, THAT DO NOT EXCEED 55 SQ.FT. IN AREA, AND THAT HAVE WALLS AND CEILINGS OF NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS WITH A 15-MINUTE THERMAL BARRIER RATING, INCLUDING THE WALLS AND CEILINGS BEHIND ANY SHOWER ENCLOSURE OR TUB. AS PER NFPA-13 (2007) CLAUSE 8.15.8.1.1
- NOTE 3: WHERE SIDEWALL SPRINKLER IS INSTALLED AT SOFFIT (BULKHEAD) EXCEEDING MORE THAN 8" IN WIDTH, PENDENT SPRINKLERS SHALL BE INSTALLED UNDER THE SOFFIT (BULKHEAD).
- NOTE 4: RESIDENTIAL SIDEWALL SPRINKLERS SHALL BE PERMITTED TO BE INSTALLED IN THE FACE OF A SOFFIT LOCATED DIRECTLY OVER CABINETS WITHOUT REQUIRING ADDITIONAL SPRINKLERS BELOW THE SOFFIT OR CABINETS WHERE THE SOFFIT DOES NOT PROJECT HORIZONTALLY MORE THAN 12" FROM THE WALL.
- NOTE 5: IF CPVC PIPE IS USED, CONTRACTOR TO PROVIDE "EXPANSION OFFSET LOOP" ON STRAIGHT RUNS EXCEEDING 100 FT IN LENGTH.
- NOTE 6: ANY FIRE STOPPING, ACOUSTIC SEALANT AND MATERIALS USED IN THIS PROJECT WHICH COME IN CONTACT WITH CPVC SPRINKLER PIPING IS TO BE COMPATIBLE WITH CPVC PIPING.
- NOTE 7: SPRINKLERS TO BE A MINIMUM 3'-0" FROM EDGE OF ALL SURFACE MOUNTED LIGHT FIXTURE.

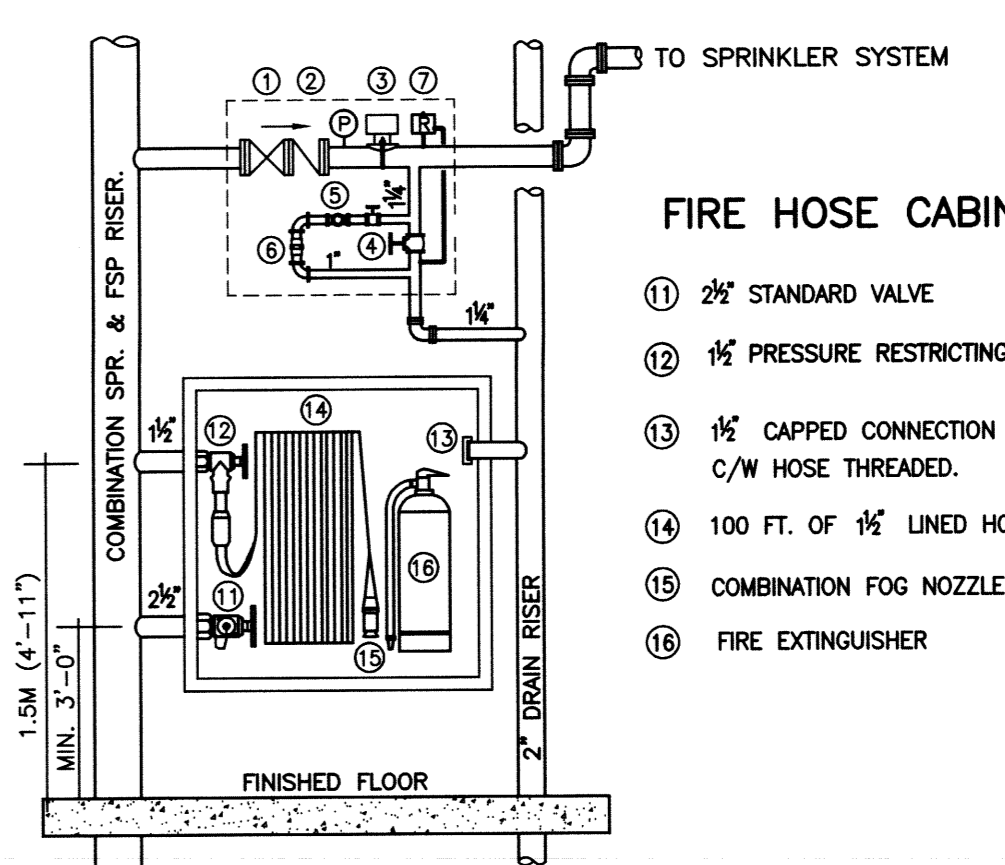
SPRINKLER LAYOUT BASED ON BULKHEADS BEING MAXIMUM 12" DEEP. ADDITIONAL SIDEWALL SPRINKLERS MAY BE REQUIRED IF BULKHEAD DEPTH EXCEEDS 12".

PROTECTION AREA PER RESIDENTIAL CONCEALED PENDENT SPRINKLER SHALL NOT EXCEED 300 SQ.FT. MAX. SPACING IS 20 FT. PROTECTION AREA PER RESIDENTIAL CONCEALED SIDEWALL SPRINKLER SHALL NOT EXCEED 256 SQ.FT. (16 FT. X 16 FT.)

CONTRACTOR SHALL COORDINATE WITH LIGHTING, DIFFUSER & INTERIOR DESIGN DRAWINGS PRIOR TO INSTALLATION OF SPRINKLER SYSTEM.

SPRINKLER CONTROL VALVE STATION

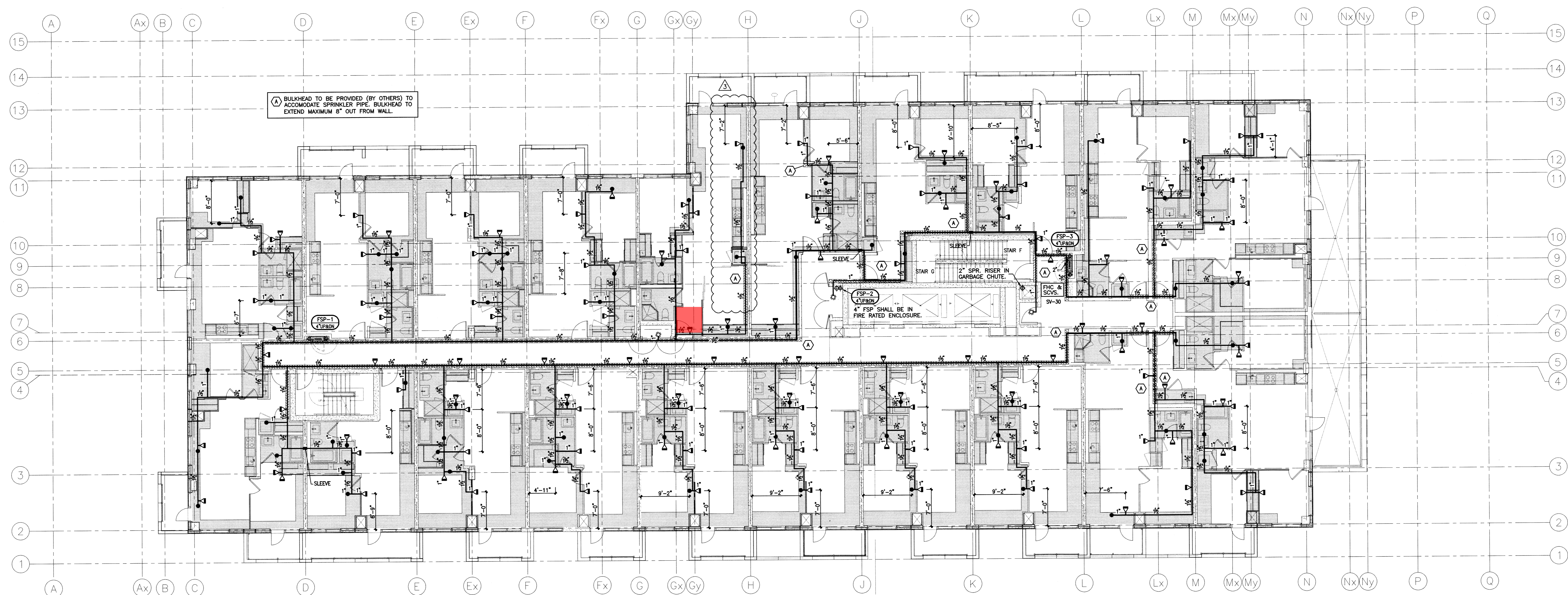
- 1 STANDARD SHUT OFF VALVE
 - 2 2" CHECK VALVE
 - 3 FLOW SWITCH
 - 4 1/2" DRAIN GLOBE VALVE
 - 5 1" INSPECTOR TEST VALVE SIGHT GLASS
 - 6 UNION WITH CORROSION RESISTANT ORIFICE GIVING FLOW EQUIVALENT TO SMALLEST SPRINKLER ORIFICE IN SYSTEM.
 - 7 1/2" RELIEF VALVE (SET AT 175 PSI) WHERE AUXILIARY AIR RESERVOIRS ARE INSTALLED TO ABSORB PRESSURE INCREASES, A RELIEF VALVE SHALL BE NOT REQUIRED.
- FLOW SWITCH & SHUT OFF VALVE OR PRV TO BE SUPERVISED AND CONNECTED TO FIRE ALARM SYSTEM.



FIRE HOSE CABINET

- 1 2" STANDARD VALVE
- 2 1/2" PRESSURE RESTRICTING VALVE
- 3 1/2" CAPPED CONNECTION C/W HOSE THREADED.
- 4 100 FT. OF 1/2" LINED HOSE
- 5 COMBINATION FOG NOZZLE
- 6 FIRE EXTINGUISHER

FIRE HOSE CABINET AND SPRINKLER CONTROL VALVE STATION DETAIL
N.T.S.



▲ BULKHEAD TO BE PROVIDED (BY OTHERS) TO ACCOMMODATE SPRINKLER PIPE. BULKHEAD TO EXTEND MAXIMUM 8" OUT FROM WALL.

| REVISIONS | DATE |
|---|--------------|
| 1. ISSUED FOR REVIEW & PERMIT. | JULY 30 2014 |
| 2. RE-ISSUED FOR PERMIT. | AUG. 15 2014 |
| 3. REVISED LAYOUT AS PER TEEPLE ARCHITECTS COMMENTS DATED IN JUN.08, 2015 | JUN. 08 2015 |

NOTES

- THIS DRAWING ASSOCIATED CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF THE DESIGNER AND MUST BE RETURNED AT THE COMPLETION OF THE WORK OR LOST.
- DIMENSIONS TAKE PRECEDENCE OVER SCALE.
- THE SPRINKLER SYSTEM IS TO BE INSTALLED AS PER N.F.P.A. STANDARD # 13 AND O.B.C. STANDARDS.
- CONTRACTOR TO INCLUDE FOR OFFSETS IN BRANCH LINES AND MAINS HEADS TO BE U.L.C. LISTED AND APPROVED BY LOCAL AUTHORITIES.
- UNDETERMINED WATERMAIN TO BE INSTALLED ACCORDING TO LOCAL AUTHORITIES AND INSURANCE CO. STANDARDS. (IF APPLICABLE)
- INSTALL HIGH TEMPERATURE HEADS WHERE REQUIRED AS PER N.F.P.A. STANDARD # 13.
- ALL INTERIOR GRID BRANCH LINE MEASUREMENTS ARE GIVEN AS CENTER LINE TO CENTER LINE DIMENSIONS.
- ALL OTHER BRANCH LINE MEASUREMENTS ARE GIVEN AS CENTER LINE TO CENTER LINE DIMENSIONS (SOULAGE PIPES)
- ALL MAIN MEASUREMENTS ARE GIVEN AS CENTER LINE TO CENTER LINE DIMENSIONS. (THIN WALL PIPES)
- DENOTES DISTANCE IN INCHES FROM CENTER LINE OF PIPE TO UNDERFACE OF CEILING.
- IN DENOTES RISER NIPPLE.
- ALL SUPERHEATED VALVES FLOW (PRESSURE) SWITCHES AND LOW PRESSURE MONITORING SWITCHES TO BE CONNECTED TO FIRE ALARM SYSTEM. (IF F.A.S. IS INSTALLED)
- CONTRACTOR TO VERIFY SIZE, TO EXISTING, EXACT LOCATION AND ELEVATION OF MAINS (TO BE INSTALLED AS INDICATED ON DRAWINGS) ANY MAJOR DISCREPANCIES TO BE REPORTED TO THE DESIGNER PRIOR TO FABRICATION AND INSTALLATION.

OWNER (OR OTHERS) TO PROVIDE ADEQUATE HEAT IN ALL AREAS OF BUILDING SUBJECT TO FREEZING THAT ARE PROTECTED BY A WET TYPE SPRINKLER SYSTEM.

ALL GLASS BULB TYPE SPRINKLERS TO BE OF RECENT ISSUE MANUFACTURE DATE OF AT LEAST YEAR 2013.

| S/R=STANDARD RESPONSE Q/R=QUICK RESPONSE C/W GUARD | | |
|--|---|----|
| ○ | 1/2" 155°F STANDARD COVERAGE CONCEALED PENDENT (K=5.6) Q/R | 00 |
| ○ | 1/2" 155°F STANDARD COVERAGE UPRIGHT (K=5.6) Q/R | 00 |
| ● | 1/2" 155°F RESIDENTIAL CONCEALED PENDENT (K=4.9) | 00 |
| ◀ | 1/2" 155°F RESIDENTIAL CONCEALED SIDEWALL (K=4.0) | 00 |
| ■ | FIRE HOSE RACK - 100 FT OF 1/2" LINED HOSE C/W COMBINATION FOG NOZZLE | 00 |

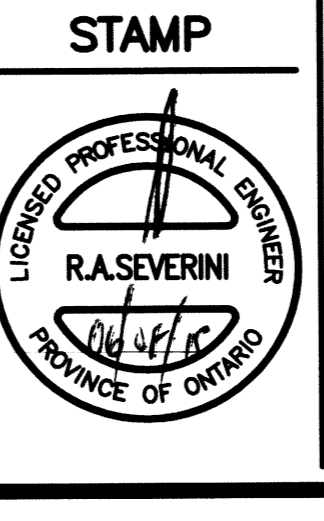
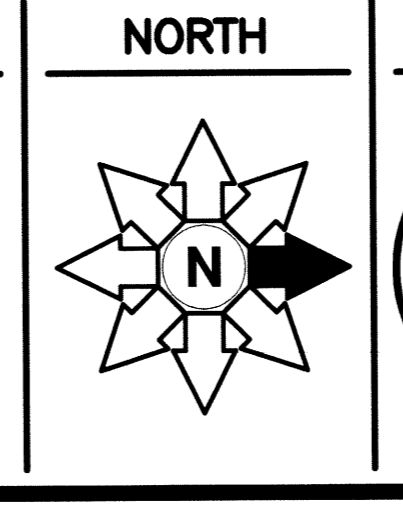
DESIGN CRITERIA

DESIGNED FOR RESIDENTIAL SPRINKLERS AS PER NFPA 13 SECTION 11.3.1 (2010 ED.).

DESIGN AREA TO INCLUDE THE FOUR ADJACENT SPRINKLERS THAT PRODUCE THE GREATEST HYDRAULIC DEMAND.

THE REQUIRED DISCHARGE FROM EACH SPRINKLER SHALL BE THE GREATER OF THE FOLLOWING:

- (1) MIN. FLOW RATES INDICATED IN SPR. LISTING.
- (2) MIN. 0.10 GPM/SQ.FT. OVER DESIGN AREA.



TRIDEL
4800 DUFFERIN STREET
TORONTO ONTARIO

PROJECT
SQ ALEXANDRA PARK
BLOCK 11
38 CAMERON ST. TORONTO

DWG TITLE
7TH FLOOR
SPRINKLER & STANDPIPE SYSTEM

DATE JULY 2014
SCALE 1:100
DWN BY H.W.
ISSUED FOR REVISION NO.

PROJECT NO. 14-10224
DWG NO. SP-10
OF 16