SPECIFICATIONS

1.0 GENERAL SPECIFICATIONS

1.1. THESE DRAWINGS ARE THE PROPERTY OF THE ENGINEERS AND SHALL NOT BE ALTERED WITHOUT APPROVAL. DRAWINGS SHALL BE RETURNED UPON REQUEST.

1.2. BEFORE SUBMITTING TENDER FOR THIS WORK, EXAMINE THE SITE, LOCAL SERVICES AND LOCAL CONDITIONS, MECHANICAL DRAWINGS, LOCATION OF EXISTING EQUIPMENT AND SPACE ALLOWANCES TO ASCERTAIN THAT THE WORK CAN BE SATISFACTORILY CARRIED OUT AS SHOWN ON THESE DRAWINGS AND AS HEREIN SPECIFIED. BEFORE COMMENCING WORK, EXAMINE THE WORK AND REPORT AT ONCE, ANY DEFECT OF INTERFERENCE AFFECTING THE WORK OF THIS SECTION OR THE GUARANTEE OF SAME. NO EXTRA WILL SUBSEQUENTLY BE ALLOWED TO COVER ANY THOROUGH INSPECTION OF THE GROUNDS. EXISTING CONDITIONS. DRAWINGS AND SPECIFICATION. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

1.3. THESE DRAWINGS ARE FOR PERMIT, AND FOR PRICING, AND MUST BE ADHERED TO FOR INSTALLATION. IF CONTRACTOR WISHES TO ALTER DRAWINGS. THEN CONTRACTOR IS RESPONSIBLE FOR OBTAINING RE-APPROVALS.

1.4. CONTRACTOR TO SUPPLY AND INSTALL A COMPLETE AND FULLY OPERATIONAL AUTOMATIC SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS AND AS INDICATED IN THE SPECIFICATIONS AND CONFORMING TO N.F.P.A. REQUIREMENTS, O.B.C. REQUIREMENTS AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES.

1.5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL CODES, STANDARDS BY-LAWS AND AUTHORITIES HAVING JURISDICTION. 1.6. SYSTEMS TO BE INSTALLED AS PER N.F.P.A. STANDARDS, AND LOCAL AUTHORITIES

1.7. ALL WORK SHALL CONFORM TO C.S.A., E.S.A. CODES, AND LOCAL, MUNICIPAL AND PROVINCIAL LAWS AND REGULATIONS.

1.8. SPRINKLER CONTRACTOR TO CO-ORDINATE INSTALLATION WITH EXISTING SITE CONDITIONS AND ACCEPT RESPONSIBILITY FOR AND COST OF MAKING ADJUSTMENTS TO PIPING TO AVOID INTERFERENCE WITH MECHANICAL, ELECTRICAL AND OTHER BUILDING

1.9. SPRINKLER CONTRACTOR TO INCLUDE FOR OFFSETS IN SPRINKLER PIPING AND MUST SUPPLY AND INSTALL TRAPEZE HANGERS WHERE REQUIRED. HANGERS FOR MAINS TO BE INSTALLED AT PANEL POINTS OF JOISTS.

1.10. ALL MATERIALS USED IN THE INSTALLATION OF THE SPRINKLER SYSTEM SHALL BE CANADIAN MADE, UNLESS SPECIFICALLY APPROVED IN WRITING PRIOR TO INSTALLATION BY THE ARCHITECTS AND/OR ENGINEERS RESPONSIBLE FOR THE SYSTEM DESIGN. 1.11. CPVC PIPE IS TO HAVE A PIPE CELL CLASSIFICATION OF 23547 AND FITTING CELL CLASSIFICATION OF 24447 AND MEETS ASTM 4120-06

1.12. ALL SPRINKLERS SHALL BE U.L.C. LISTED AND SHALL BE THE TYPE AND TEMPERATURE RATING SPECIFIED ON THE DRAWINGS. SPRINKLERS OF SUITABLE TEMPERATURE RATING SHALL BE INSTALLED NEAR HEATING EQUIPMENT AS SPECIFIED IN N.F.P.A. STANDARD # 13 (LATEST EDITION).

1.13. CONTRACTOR TO ALLOW IN PRICE FOR SUFFICIENT PIPE AND FITTINGS TO INSTALL PENDENT SPRINKLERS WITHIN A 5 FT. RADIUS OF THE LOCATION SHOWN ON DRAWINGS.

1.14. PROVIDE SPARE SPRINKLER HEADS AND WRENCH IN A METAL CABINET, MOUNTED ON THE WALL NEAR THE MAIN SPRINKLER VALVE HEADER. AMOUNT AS PER N.F.P.A. STANDARD # 13.

1.15. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL TEST THE SYSTEM AND SUBMIT TO THE ENGINEER COMPLETED CONTRACTORS TEST CERTIFICATES STATING THAT THE SYSTEMS HAVE BEEN INSTALLED, TESTED AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION IN ACCORDANCE WITH N.F.P.A.#13, LATEST EDITION.

1.16. PENDENT SPRINKLERS INSTALLED WHERE SUSPENDED CEILING TILES OR DRYWALL OCCUR ARE TO BE EQUIPPED WITH TWO PIECE ESCUTCHEONS. (WHERE APPLICABLE)

1.17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE FIRE PROTECTION SYSTEMS AND FOR CO-ORDINATION WITH ALL SITE CONDITIONS. BEFORE COMMENCING WORK, EXAMINE THE SITE AND THE EXISTING CONDITIONS AND REPORT IMMEDIATELY TO THE ENGINEER ANY DEFECT OR INTERFERENCE AFFECTING THE COMPLETION OF THE WORK OR THE

1.18. RECORD AS-BUILT" DRAWINGS: BE RESPONSIBLE FOR CLEARLY MARKING, AS THE JOB PROGRESSES, ALL CHANGES AND DEVIATIONS FROM THE ROUTING OF SERVICES AND THE LOCATION OF EQUIPMENT SHOWN ON THE CONTRACT DOCUMENTS ON A BOUND SET OF WHITE PRINTS. KEEP THE PRINTS AVAILABLE AT THE SITE FOR PERIODIC INSPECTION THROUGHOUT THE DURATION OF THE WORK. NOTE THAT MARKED-UP WHITE PRINTS SHALL INCORPORATE ALL REVISIONS MADE BY CHANGE ORDERS, ADDENDA, FIELD INSTRUCTION. ETC. HAND THE AS-BUILT DRAWINGS TO THE ENGINEER AT THE END OF THE PROJECT.

1.19. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE CO-OPERATIVE. PERFORM ALL WORK WHICH IS SHOWN, SPECIFIED OR REASONABLY IMPLIED ON THE DRAWINGS, BUT NOT MENTIONED IN THE SPECIFICATIONS OR VICE-VERSA, AS THOUGH FULLY COVERED BY BOTH.

1.20. WARRANT THE MECHANICAL WORK TO BE IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS AND FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ISSUED OF CERTIFICATE OF SUBSTANTIAL PERFORMANCE OF THE WORK. PROVIDE EXTENDED WARRANTY WHERE SPECIFIED IN ALL SUBSEQUENT SECTIONS OF THE SPECIFICATION.

1.21. MAINTAIN LIABILITY INSURANCE WHICH WILL FULLY PROTECT THE OWNER AND THE CONTRACTORS FROM ANY AND ALL CLAIMS UNDER THE WORKPLACE SAFETY & INSURANCE BOARD ACT.

1.22. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE LAYOUT OF WORK AND FOR ANY DAMAGE CAUSED TO THE PROPERTY OF THE OWNER OR OTHER TRADES THROUGH THE IMPROPER LOCATION OF MATERIALS, EQUIPMENT, OR CARRYING OUT

1.23. PROVIDE PIPE HANGERS OR SUPPORTS ON ALL PIPING. HANGER RODS MUST BE VERTICAL WITHOUT BENDS OR OFFSETS AND WORKMANSHIP MUST BE SUCH THAT FINISHED PIPING IS TRUE, BOTH WITH MANUFACTURER'S LINE AND GRADE. METAL STRAPS, WIRES, PERFORATED BANDS, CHAIN OR SOLID RING HANGERS USED AS PIPE HANGERS OR SUPPORTS WILL NOT BE

1.24. WHERE NEW PIPES PASS THROUGH EXISTING CONCRETE SLABS AND CONCRETE OR MASONRY WALLS, CORE DRILL OR SAW CUT AN OPENING. SIZE OPENINGS TO LEAVE 13 mm (1/2") CLEARANCES AROUND PIPES. PACK AND SEAL THE VOID BETWEEN THE OPENING AND THE PIPES FOR THE LENGTH OF THE OPENING WITH DOW CORNING SERIES 2000. "FIRESTOP" SEALANT U.L.C. APPROVED MATERIAL PACKED AND SECURED IN SUCH A MANNER THAT THE PACKING IN VERTICAL HOLES AND OPENINGS WILL NOT FALL OUT.

1.25. WHERE DISSIMILAR METALS ARE IN CLOSE PROXIMITY TO EACH OTHER. THEY SHALL BE SEPARATED BY MEANS OF WATERPROOF GASKETS OR OF APPROVED MATERIALS. SCREWS, BOLTS, RIVETS AND OTHER FASTENING DEVICES SHALL BE MADE OF THE SAME MATERIALS OR OF MATERIALS HAVING THE SAME CHARACTERISTICS AS THE METALS WHICH THEY FASTEN, IN ORDER TO PREVENT ELECTROLYTIC ACTION. PROVIDE HEAVY BRASS ADAPTORS FOR CONNECTIONS BETWEEN STEEL AND COPPER PIPES.

1.26. NO INSTALLATION SHALL BE CONCEALED OR RENDERED INACCESSIBLE BY DRYWALL, BOARDING OR OTHER BUILDING CONSTRUCTION, UNTIL IT HAS BEEN INSPECTED BY THE ENGINEER AND LOCAL AUTHORITIES HAVING JURISDICTION AND FOUND TO CONFORM TO CONTRACT DOCUMENT AND REGULATIONS. WHEN REQUESTING AN INSPECTION, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WORKING DAYS NOTICE IN ADVANCE.

1.27. DIMENSIONS AND/OR MEASUREMENTS INDICATED ON THE DRAWINGS ARE TO BE VERIFIED AT SITE AND ANY MAJOR DISCREPANCIES TO BE REPORTED PRIOR TO FABRICATION AND INSTALLATION. (IF APPLICABLE)

1.28. EXACT LOCATION AND ELEVATION OF MAINS TO BE DETERMINED BY CONTRACTOR TO SUIT SITE CONDITIONS.

1.29. CONTRACTOR TO CO-ORDINATE LOCATION OF SPRINKLERS WITH RESPECT TO SURFACE MOUNTED LIGHT FIXTURES AND MAINTAIN MINIMUM CLEARANCE AS REQUIRED BY NFPA 13 TO AVOID ANY OBSTRUCTION TO SPRAY PATTERN OF SPRINKLERS.

1.30. MINIMUM WALL THICKNESS OF SPRINKLER PIPING TO BE EQUIVALENT TO SCHEDULE 10S.

1.31. CONTRACTOR TO INCLUDE FOR AN ADDITIONAL 6 SPRINKLERS FOR BELOW OBSTRUCTIONS ETC.

1.32. SINCE THE BUILDING IS EXISTING, CONTRACTOR IS TO VISIT SITE AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS RELATIVE TO THE PROJECT AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO QUOTING OR FABRICATION

1.33. A COPY OF N.F.P.A STANDARD #25 IS TO BE PROVIDED AND LEFT IN A VISIBLE LOCATION IN THE SPRINKLER ROOM.

1.34. PROVIDE SHOP DRAWINGS FOR THE FOLLOWING: (WHERE APPLICABLE)

- A) SPRINKLERS B) - DOUBLE CHECK VALVE ASSEMBLY / BACKFLOW DEVICE
- C) RISER CHECK/ALARM VALVE AND TRIM/DRY PIPE VALVE
- D) SUPERVISORY DEVICES E) - HANGERS

1.35. ALL SPRINKLER EQUIPMENT SHALL BE OF ONE MANUFACTURER FROM THE FOLLOWING:

- VICTAULIC VIKING

 TYCO RELIABLE OR APPROVED EQUAL. ALL SHALL BE U.L.C. LISTED FOR THEIR SPECIFIC APPLICATION.

1.36 CONTRACTOR MAY USE 1 INCH DIA. FLEXIBLE DROPS WITH A MAXIMUM LENGTH OF 6 FEET WITH A MAXIMUM OF 4, 90 DEGREE BENDS. FLEXIBLE PIPING IF USED IS TO BE STAINLESS STEEL WITH BRAIDED CONNECTION, SINGLE PIECE WELDED CONSTRUCTION WITH NO O-RINGS OR GASKETS, ULC LISTED AND FM APPROVED.

SCOPE OF WORK

1. FIRE PROTECTION WORK CONSISTS OF RENOVATING THE EXISTING SPRINKLER SYSTEM SERVICING THE BASEMENT AREA OF 3030 ERIN MILLS PARKWAY IN ACCORDANCE WITH THE DRAWINGS:

FP-01 - SPECIFICATIONS, DETAILS, & SITE PLAN FP-02 - PROPOSED SPRINKLER LAYOUT - BASEMENT

2. ALL WORK AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE (2012), AUTHORITY HAVING JURISDICTION REQUIREMENTS, WITH NFPA 13 (2013), NFPA 14 (2013), AND NFPA 20 (2016)

3. ALL PIPING AS FOLLOWS:

WET SYSTEMS:

STEEL PIPE: 1" PIPE, SCHED 40 BLACK, WITH THREADED ENDS, C=120 ALL PIPE LARGER THAN 1", SCHED 10 BLACK, WITH GROOVED ENDS, C=120

- WIRE GUARDS SHALL BE PROVIDED FOR HEADS IN AREAS SUSCEPTIBLE TO DAMAGE.
- 5. ALL HANGERS SHALL BE INSTALLED AND SPACED IN ACCORDANCE WITH NFPA 13 (2013)
- TEST/DRAIN CONNECTION TO DISCHARGE TO A SUITABLE LOCATION.
- TAMPER AND WATER FLOW SWITCHES ARE PROVIDED, BUT WIRING BY OTHERS
- 8. SPARE SPRINKLERS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA ADJACENT TO THE MAIN RISER. AT LEAST FOUR HEADS OF
- ALL TYPES OF SPRINKLERS AND ASSOCIATED WRENCHES IN THE BUILDING SHALL BE FURNISHED FOR THE CABINET(S) 9. PIPING IS TO BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA. 13 FOR 2 HOURS AT 200 PSI AT THE SYSTEM RISER ALL
- TESTING MUST BE WITNESSED AND SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE OWNER. 10. FIRE PROTECTION SYSTEM INSTALLER SHALL CO-ORDINATE WITH ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL DISCIPLINES
- 11. WHERE PIPING PENETRATES RATED WALL AND FLOORS, THE PENETRATION SHALL BE FIRE STOPPED WITH A ULC LISTED FIRE STOP SYSTEM.

DESIGN DATA

- 1. SPRINKLER SYSTEM DESIGN IS IN ACCORDANCE WITH THE ONTARIO BUILDING CODE (2012), AUTHORITY HAVING JURISDICTION REQUIREMENTS, AND WITH NFPA 13 (2013).
- 2. HYDRAULIC REQUIREMENTS ARE IN COMPLIANCE WITH NFPA 13 AND SPRINKLER HEAD SPECIFICATIONS.

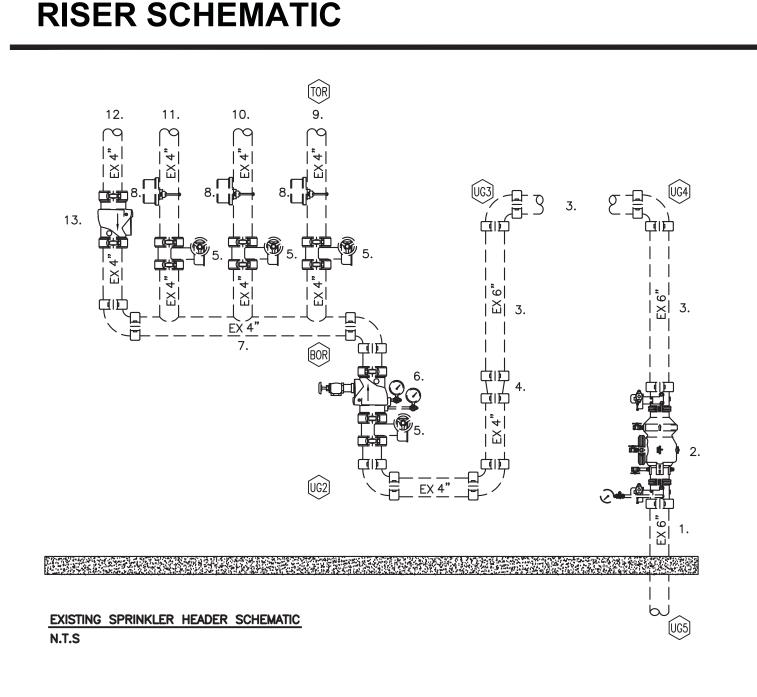
CALCULATION #1 - WET SYSTEM - BASEMENT - FEMALE LOCKER ROOM LIGHT HAZARD, 0.10 GPM/SQ.FT. DENSITY OVER 900 SQ.FT. AREA AREA REDUCTION PER NFPA 13 (2013 ED.) 11.2.3.2.3.1

APPLICABLE CODE AND STANDARDS

ONTARIO BUILDING CODE, 2012 EDITION, AS AMENDED ONTARIO FIRE CODE, 2015 EDITION

NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2013, EDITION.

WATER SUPPLY INFORMATION* FLOW TEST LOCATION: 3030 ERIN MILLS PKWY DATE: JUN 11, 2024 STATIC: 56 psi RESIDUAL: 45 psi FLOW: 1126 gpm

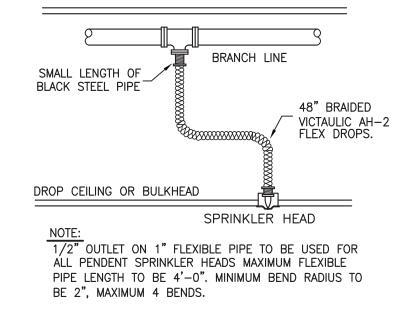


GENERAL INSTALLATION NOTE:

CONTRACTOR TO COORDINATE THE LOCATION OF PENDENT HEADS WITH ELECTRICAL & MECHANICAL SERVICES TO AVOID INTERFERENCE WITH OR OBSTRUCTIONS CREATED BY LIGHTS AND/OR DUCWORK (WHERE APPLICABLE).

CONTRACTOR TO CONFIRM EXISTING STRUCTURE AND PIPE ROUTING ON SITE

SPRINKLER CONTRACTOR TO INCLUDE FOR OFFSETS IN THE SPRINKLER PIPING AND SUPPLY AND INSTALLATION OF HANGERS. HANGERS SHALL BE PER NFPA 13.

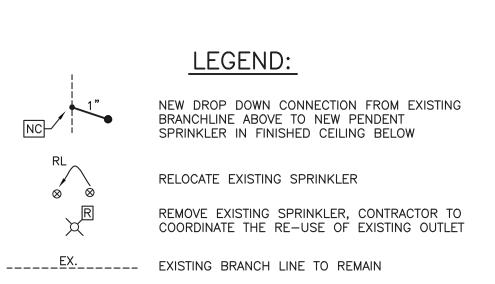


SITE PLAN
SCALE: 1:300

DUNDAS STREET WEST

SITE PLAN

SPRINKLER HEAD C/W FLEXIBLE PIPING INSTALLATION



_ _ _ EX. _ _ _ EXISTING MAIN TO REMAIN

► BEAM CLAMP OPEN WEB STEEL JOIST -ALL THREAD ROD OR BEAM ULC AND FM APPROVED **HANGER** AS PER N.F.P.A.13

1 STOREY

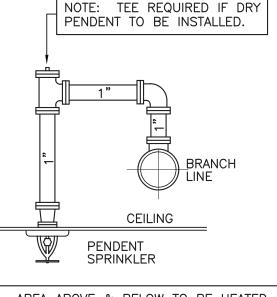
CONCRETE

BUILDING

PEEL REGIONAL POLICE STATION

125'-10"±

HANGER DETAIL



NOTE: AREA ABOVE & BELOW TO BE HEATED. IF EITHER AREA IS UNHEATED THEN DRY PENDENT TO BE USED

> RETURN BEND DETAIL N.T.S.

SUBMITTALS SITE PLAN $D\Lambda TE$

S

EXISTING FIRE HYRANT

DESCRIPTION ISSUED FOR CLIENT REVIEW AND 25/2024 COORDINATION RE-ISSUED FOR CLIENT REVIEW AND 27/2024 COORDINATION ISSUED FOR PERMIT & TENDER

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING. LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION. THIS DRAWING ASSOCIATED CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF THE ESIGNER AND MUST BE RETURNED AT THE COMPLETION OF THE WORK OR UPON REQUEST DIMENSIONS TAKE PRECEDENT OVER SCALE. CONTRACTOR IS TO NOTIFY NORRIS FIRE CONSULTING PRIOR TO STARTING CONSTRUCTION AND

FAILURE TO NOTIFY NORRIS FIRE CONSULTING OF THE COMMENCEMENT OF CONSTRUCTION AND FAILURE TO PROVIDE A CONSTRUCTION SCHEDULE MAY REQUIRED CONCEALED ELEMENTS TO BE EXPOSED AT THE COST OF THE CONTRACTOR. CONSTRUCTION SCHEDULE CAN BE SENT TO OWNER (OR OTHERS) TO PROVIDE ADEQUATE HEAT IN ALL AREAS OF BUILDING SUBJECT TO FREEZING THAT ARE PROTECTED BY A WET TYPE SPRINKLER SYSTEM.

Provide a project schedule so that we can determine our site inspection frequenc

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

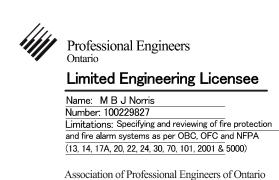


Norris Fire Consulting Inc

1840 Clements Road, Suite 202, Pickering, ON L1W 3Y2 Tel: (905) 669-5154; www.norrisfireconsulting.com Learn + Grow + Inspire + Execute

PROJECT





JUN. 27/

3030 ERIN MILLS PKWY

3030 ERIN MILLS PKWY MISSISS/NUG/N ON L5L 1M

DRAWING TITLE

PECIFICATIONS, DETAILS & SITE PLAN

JOB. NO. 24-0015 SCALE: **AS-SHOWN** DRAWN BY: CHECKED BY: JML

SHEET FP-1

