

DETERMINE LOCATION OF UNDERGROUND UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION. LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN AND EXACT LOCATIONS OF ALL UNDERGROUND INCLUDING CONNECTIONS MUST BE CHECKED WITH THE UTILITY CONCERNED BEFORE PROCEEDING WITH CONSTRUCTION.

**GENERAL**

-DRAWING SHOULD BE USED AS A GENERAL GUIDE. EXACT SIZE, ALONG WITH STYLE AND LOCATION OF VEHICLE GATES, ACCESS, PLAYER'S GATES & PLAYER'S BOXES LOCATION, GRADING AND LIGHTING REQUIREMENTS TO BE SHOWN ON PROJECT SITE PLAN.

**APPLICABLE CITY OF WINNIPEG STANDARD SPECIFICATIONS**

-CW 3110-R5 -SUB-GRADE, SUB-BASE & BASE COURSE CONSTRUCTION CW 3410-R5  
-ASPHALT CONCRETE PAVEMENT WORK CW 3170-R5-EARTHWORK & GRADING

**HOCKEY RINK AND PLAYER'S BOXES**

-ALL POST UPRIGHTS TO BE MINIMUM 3 1/2" Ø SCHEDULE 40 STEEL PIPES.  
-UPRIGHT POSTS TO BE LOCATED AS SHOWN ON THE DRAWINGS. POSTS TO BE PUSHED INTO GROUND & SHALL BE PLUMB IN ALL DIRECTIONS.  
-VEHICLE GATES (OPTION 'B') REQUIRES POST UPRIGHTS ENCASED IN CONCRETE (GATE ONLY).  
-ALL LUMBER & PLYWOOD TO BE PRESSURE TREATED (P.T.).  
-LUMBER WITH LOOSE KNOTS, SURFACE IMPERFECTIONS OR SPLITS WILL NOT BE ACCEPTED.  
-ALL FASTENERS TO BE GALVANIZED. NAILS TO BE 3 1/2" ARDOX & CLINCHED. FASTEN ARDOX NAILS WITH THE GRAIN.  
-ALL CARRIAGE BOLTS, BARREL BOLTS, NUTS & WASHERS TO BE CADMIUM PLATED.  
-CARRIAGE BOLTS TO BE USED TO FASTEN WOOD FRAMING TO SLEEVES & GATE HARDWARE.  
-ALL BOLT LOCATIONS TO BE PRE-DRILLED.  
-NUTS ON GATE HARDWARE TO BE NON-REMOVABLE.  
-TOP RAIL OF RINK END BOARDS TO BE 2" x 4" RIPPED FROM 2" x 8" PRESSURE TREATED LUMBER.  
-ALL HARDWARE TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION.  
-PLAYER'S BOXES TO BE CONSTRUCTED SEPARATELY FROM RINK.  
-NOTCH TOP PLATE OF RINK BOARDS TO FIT PLAYER'S BOX UPRIGHTS.  
-FLOOR OF PLAYER'S BOXES TO BE NOTCHED AROUND STEEL POSTS. FLOOR TO BE FLUSH WITH BACK OF RINK BOARDS.

**CHAIN LINK SCREENING**

-CHAIN LINK SCREENING SHALL BE LOCATED AT BOTH ENDS OF RINKS AS SHOWN.  
-ALL CHAIN LINK SCREENING TO BE 9 GAUGE STEEL WIRE WOVEN INTO 2" MESH. TOP & BOTTOM SELVAGE SHALL BE KNUCKLED.  
-TOP RAILS FOR SCREENING SHALL BE 1 1/2" DIAMETER. RAILS TO BE HAMMERED FLAT & WELDED TO UPRIGHTS.  
-ALL WELDS TO BE SMOOTH & CONTINUOUS.  
-POSTS & RAILS TO BE CLEANED OF ALL WELDING RESIDUE. APPLY GALVALUME ACCORDING TO MANUFACTURER'S SPECIFICATIONS.  
-MESH TO BE ATTACHED TO UPRIGHTS WITH WIRE TIES AT 1'-0" O.C.  
-METAL STRAPPING TO BE INTERWOVEN IN MESH & SECURED TO TOP RAIL WITH SCREWS AT 8" O.C. STRAPPING TO BE CONTINUOUS POST TO POST.  
-CHAIN LINK SCREENING TO BE FLUSH WITH FRONT OF UPRIGHT.  
-CHAIN LINK CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS CW 3550-R5.

**MATERIAL SPECIFICATION SUMMARY**

**ROOFING:**

SBS MODIFIED BITUMEN MEMBRANE ROOFING / SOPREMA

**1.0 STORAGE AND DELIVERY**

- 1.1 ONLY SKILLED & CERTIFIED TRADE PERSONS, OFFICIALLY EMPLOYED BY A ROOFING CONTRACTOR OPERATING ADEQUATE & NECESSARY EQUIPMENT, WILL BE AUTHORIZED TO PERFORM ALL ROOFING WORK.
- 1.2 AT ALL TIMES, MATERIALS WILL BE ADEQUATELY PROTECTED & STORED IN A DRY & PROPERLY VENTILATED AREA, AWAY FROM ANY WELDING FLAME OR SPARK & SHELTERED FROM THE ELEMENTS. IF ROLLS CANNOT BE STORED IN A HEATED ENVIRONMENT, THEY MAY BE PRE-CONDITIONED BEFORE INSTALLATION. CONSULT SOPREMA'S "MATERIAL INSTALLATION GUIDE" ON MEMBRANE APPLICATION PROCEDURES.
- 1.3 MATERIALS DELIVERED IN ROLLS WILL BE CAREFULLY STORED UPRIGHT; FLASHING WILL BE STORED TO AVOID CREASING, BUCKLING, SCRATCHES OR ANY OTHER POSSIBLE DAMAGE.

**2.0 PRODUCTS**

- 2.1 PRIMER: ELASTOCOL FR BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B7.
- 2.2 ADHESIVES: COLD ADHESIVE-MASTIC COMPOSED OF A BITUMINOUS BINDER, ADDED TO BONDING AGENTS & SOLVENTS. SPECIFIED PRODUCT: SOPRACOLLE 300 BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B7.
- 2.3 OVERLAY: MULTI-PLY, SEMI-RIGID ASPHALTIC ROOFING SUBSTRATE BOARD. SPECIFIED PRODUCT: SOPRABOARD BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B7.
- 2.4 ROOFING MEMBRANE REINFORCEMENT, BASE SHEET FLASHING & CAP SHEET: NON-WOVEN POLYESTER & GLASS GRID. MIX OF SELECTED BITUMEN & SBS POLYMER. SPECIFIED PRODUCT: SOPRALENE FLAM 180 OR APPROVED EQUAL IN ACCORDANCE WITH B7.
- 2.5 COLOUR: AS SELECTED BY CONTRACT ADMINISTRATOR.
- 2.6 FLEXIBLE MEMBRANE FOR EXPANSION JOINTS: SPECIFIED PRODUCT: SOPRAJOINT MEMBRANE BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B7.
- 2.7 WATERPROOFING MASTICS: SPECIFIED PRODUCT: SOPRAMASTIC 200 BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B7.

**3.0 EXECUTION**

- 3.1 SURFACE EXAMINATION & PREPARATION MUST BE COMPLETED IN CONFORMANCE WITH RECOMMENDATIONS IN THE SOPREMA MANUAL.
- 3.2 DO NOT BEGIN ANY WORK BEFORE SURFACES ARE SMOOTH, DRY, EXEMPT OF DEBRIS.
- 3.3 NO MATERIALS WILL BE INSTALLED DURING RAIN OR SNOWFALL.
- 3.4 PREPARE SURFACES & COMPLETE WATERPROOFING WORK IN CONFORMANCE WITH SOPREMA'S REQUIREMENTS & THE "MATERIAL INSTALLATION GUIDE".
- 3.5 APPLICATION OF ASPHALT PRIMER: WHEN A TORCH GRADE MEMBRANE IS USED ON WOOD SUBSTRATE, SURFACE MUST BE PRIMED WITH ELASTOCOL FR. ALL SURFACES TO BE PRIMED MUST BE FREE OF DUST OR ANY RESIDUE.
- 3.6 SHEET METAL FLASHING & TRIM. UNLESS OTHERWISE SPECIFIED, NAILS, STAPLES, SCREWS, BOLTS, WASHERS & ALL OTHER METAL FASTENERS, WILL BE MADE OF COMPATIBLE & RUST-PROOF METALS.
- 3.7 CAULK ALL SHEET METAL JOINTS & AT ALL JUNCTIONS WITH OTHER MATERIALS.

**GEO-TEXTILE FABRIC SPECIFICATIONS:**

- 1. GEO-TEXTILE: SHALL CONSIST OF A NON-WOVEN GEO-TEXTILE FABRIC, USED AS A SEPARATOR BETWEEN THE CRUSHED LIMESTONE SUB-BASE MATERIAL & THE COMPACTED SUB-GRADE. THE NON-WOVEN GEO-TEXTILE MATERIAL FOR CONSTRUCTION SHALL BE MIRAFI 600X OR APPROVED EQUAL IN ACCORDANCE WITH B7.
- 2. ALL WORK RELATED TO THE GEO-TEXTILE STORAGE, HANDLING & INSTALLATION SHALL COMPLY WITH THE RECOMMENDATIONS OF THE MANUFACTURER.
- 3. PRIOR TO LAYING THE FABRIC, THE SUB-GRADE MATERIAL SHALL BE CLEARED OF ALL UNSUITABLE MATERIAL & COMPACTED TO PROVIDE A SMOOTH UNIFORM SURFACE.
- 4. THE FABRIC SHALL BE EVENLY LAID IN ORDER TO ALLOW CONFORMITY TO THE COMPACTED SUB-GRADE. FOLDS & WRINKLES IN THE FABRIC SHALL BE AVOIDED. UPON COMPLETION OF THE INSTALLATION OF THE FABRIC, CRUSHED SUB-BASE MATERIAL SHALL BE INSTALLED.
- 5. MATERIALS PLACED IN THIS PROJECT SHALL BE SUBJECT TO TESTING & APPROVAL BY THE CONTRACT ADMINISTRATOR. THE CONTRACT ADMINISTRATOR RESERVES THE RIGHT TO REJECT ANY MATERIALS OR WORK WHICH ARE NOT IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION.

**SHUTTER CONSTRUCTION:**


- 1. ALL FASTENERS TO BE GALVANIZED.
- 2. SCREWS TO BE 3" WITH 1 1/2" CLEAR SHANK & CADMIUM PLATED.
- 3. ALL BOLTS, NUTS & WASHERS TO BE CADMIUM PLATED.
- 4. ALL BOLT LOCATIONS TO BE PRE-DRILLED.
- 5. ALL HARDWARE TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
- 6. HEAVY DUTY GALVANIZED 6" STRAP LENGTH TEE-HINGES (3 PER SHUTTER) TO BE STANLEY SC908BP.
- 7. HEAVY DUTY UTILITY 1/2" DIAMETER BARREL BOLT (3 PER SHUTTER) ASSEMBLY BY PENNER DOORS #1419 C/W PADLOCKS (3 PER SHUTTER).

**PAINTING**

-INSIDE OF RINK BOARDS & ENTIRE PLAYER'S BOXES SHALL BE PAINTED WITH TWO (2) COATS OF WHITE STAIN FINISH C/W GAME LINES (RED & BLUE).

-PLAYER'S /PENALTY BOX SHUTTERS -PAINT STEEL SAFETY BARS & STEEL BAR SLOT PLATES YELLOW.

V:\A-CAD\ARCHIVE\SPCS\HOCKEY RINK

 THE CITY OF WINNIPEG PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT MUNICIPAL ACCOMMODATIONS DIVISION 3-65 GARRY STREET, R3C 4K4		SHEET TITLE <b>SPECIFICATIONS</b>		PROJECT <b>STANDARD CONSTRUCTION DETAILS FOR OUTDOOR HOCKEY RINKS</b>	
DRAWN BY: MMK/SMD/LMC	DESIGNED BY:	CHECKED BY: B.KAZUN	APPROVED BY: B.KAZUN	DATE: 2018.06.08	SCALE: <b>AS SHOWN</b>
			eFILE: HOCKEY RINKS_2017.dwg	PROJECT No:	SHEET No: <b>A9</b>