

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

## REINFORCED CONCRETE PILE BASES

### 2.0 CONCRETE BASES

- MATERIALS FOR CONCRETE PILES SHALL BE AS SPECIFIED ON THE DRAWING & IN ACCORDANCE WITH CW 2160-R4 OF THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
- EXCAVATION FOR PILES SHALL BE DONE BY AUGERING TO SIZES SHOWN. CASING SHALL BE TO PREVENT THE SIDES OF THE AUGERED HOLE FROM SLOUGHING IN, CASING SHALL BE SUPPLIED & INSTALLED BY THE CONTRACTOR. THE CASING DIAMETER SHALL NOT BE LESS THAN 3/4" SMALLER THAN THE PILE EXCAVATION.
- MATERIALS FOR CONCRETE PILES SHALL BE AS SPECIFIED ON THE DRAWING & IN ACCORDANCE WITH CW 2160-R4 OF THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS.
- THE CONCRETE PILE SHALL BE EXCAVATED & PLACED WITH CONCRETE ON THE SAME DAY.
- PILE REINFORCEMENT SHALL BE SUPPLIED & INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION DRAWING DETAIL.
- THE PILE EXCAVATION SHALL BE KEPT DRY AT ALL TIMES & WATER PUMPED OUT IF IT ACCUMULATES.
- CONCRETE PLACING SHALL BE CONTINUOUS FROM TOP OF PILE & PUDDLING OR RODDING CARRIED CONSTANTLY TO BRING AIR BUBBLES TO THE SURFACE & PRODUCE A UNIFORM STRUCTURE. REMOVE SONOTUBE AFTER CURING OF CONCRETE.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 36 HOURS (WORKING DAYS) NOTICE TO THE CONTRACT ADMINISTRATOR PRIOR TO ANY CONCRETE PLACEMENT TO ALLOW FOR THE INSPECTION OF PILE DEPTHS & DIAMETERS, STEEL REINFORCING SIZES & LOCATIONS TO ENSURE ALL PILE HOLES ARE DRY. IF NECESSARY, PUMP HOLES DRY PRIOR TO CONCRETE PLACEMENT.
- THE PORTION OF THE PILE TO BE EXPOSED ABOVE THE FINISHED GRADE SHALL BE FORMED WITH SONOTUBE. THE TOP OF THE PILE SHALL BE FINISHED TO A FLAT SMOOTH SURFACE TO THE DESIGN ELEVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING GOOD ALL AREAS DAMAGED BY HIS OPERATIONS IN CONNECTION WITH THIS CONTRACT.
- THE CONTRACTOR SHALL SUBMIT FOR REVIEW COPIES OF THE PILE INSPECTION REPORT FOR THE CONCRETE PILING WITH A REGISTERED PROFESSIONAL STRUCTURAL ENGINEERS STAMP TO THE CONTRACT ADMINISTRATOR.

### NOTES:

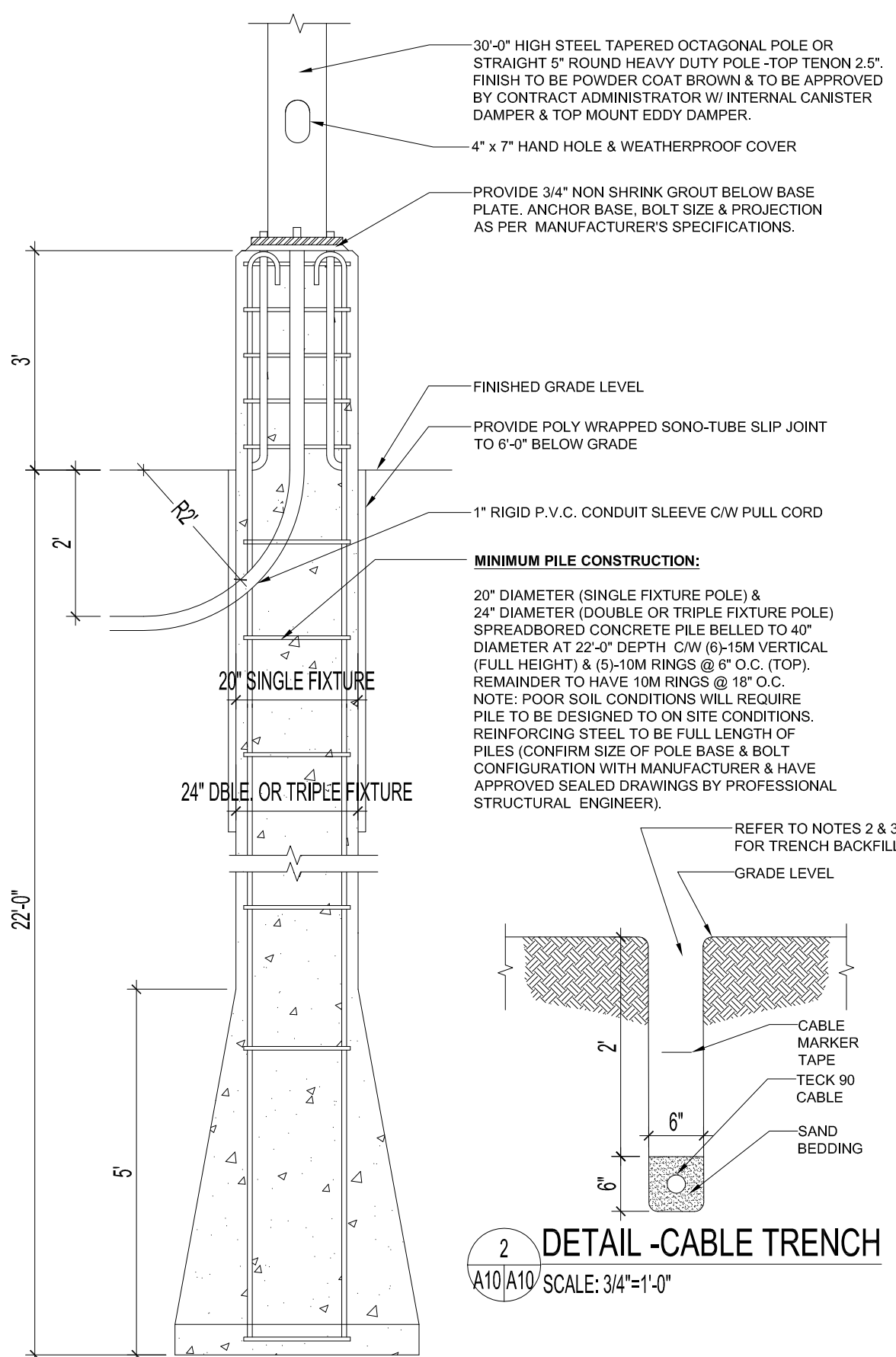
- CONCRETE BASES SHALL BE TYPE 50 SULPHATE RESISTANT HAVING A 28 DAY COMPRESSIVE STRENGTH OF 30MPa & IN ACCORDANCE WITH CW 2160-R4. ANCHOR PLATES & BASE PLATES SHALL BE STANDARD STRUCTURAL STEEL SECTIONS MEETING THE CURRENT CITY OF WINNIPEG STANDARDS & OF THE DIMENSIONS AS INDICATED ON THE DRAWINGS & DETAILS.
- BACKFILL TRENCH WITH CLEAN EARTH FILL TO 4" BELOW THE SURFACE. BACKFILL WITH 3" TOPSOIL & SOD TO MATCH SURFACE GRADE.
- BACKFILL TRENCH AT ASPHALT SURFACE WITH 3/4" DOWN CRUSHED LIMESTONE COMPACTED @ 6" LIFTS. TOP WITH 2" ASPHALT SURFACE TO MATCH EXISTING.
- REMOVAL AND DISPOSAL OF EXISTING POLES AND FIXTURES.

## ELECTRICAL WORK:

- ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE CANADIAN ELECTRICAL CODE, PROVINCIAL, MUNICIPAL & OTHER CODES, RULES & REGULATIONS.
- PREPARE & SUBMIT TO THE PROPER AUTHORITIES ALL NECESSARY PERMITS & PAY ALL APPLICABLE FEES.
- UPON COMPLETION & BEFORE FINAL PAYMENT IS MADE, PRESENT TO THE CONTRACT ADMINISTRATOR A CERTIFICATE OF APPROVAL FOR ALL ELECTRICAL WORK FOR THE INSPECTION DEPARTMENT HAVING JURISDICTION.
- ELECTRICAL WORK: SUPPLY & INSTALL (2) - 4 POLE CONTACTORS WITH 30A RATING, (2) CONTACTOR COILS IN NEMA 1 ENCLOSE C/W (2) - 2 SINGLE POLE TOGGLE SWITCH (SPEC. GRADE) & A 24 HOUR, 7 DAY TIMER CLOCK TO OPERATE CONTACTORS. WHICH SWITCHES RINK LIGHTS (RECOMMENDED MANUFACTURERS: ALLEN-BRADLEY, SQUARE D, SIEMENS OR APPROVED EQUAL).
- LIGHT FIXTURES:  
LED FIXTURES MUST BE ON MB HYDRO POWERSMART COMMERCIAL LIGHTING PROGRAM ELIGIBLE PRODUCT LIST;  
1) STANDARD OF ACCEPTANCE -120V-277U : -40 DEGREE FLOOD OPTIC -120 LEDS /421 WATTS /35,832 LUMENS OR GREATER -120V -277 UNV DRIVEN -1000 MA DRIVER -4000H SHOP DRAWINGS MUST BE SUBMITTED TO CONTRACT ADMINISTRATOR FOR APPROVAL.  
2) FIXTURE COLOUR TO MATCH POLE.
- FIXTURE MOUNTING:  
1) SINGLE FIXTURE POLE MOUNT BRACKET REQUIRED FOR SINGLE FIXTURE.  
2) DOUBLE FIXTURE POLE MOUNT BRACKET REQUIRED FOR DOUBLE FIXTURE.  
3) TRIPLE FIXTURE POLE MOUNT BRACKET REQUIRED FOR TRIPLE FIXTURE.  
4) FIXTURE POLE MOUNT BRACKETS COLOUR TO MATCH POLE.
- SAFETY LIGHTING:  
1) WEATHERPROOF PHOTOCELL INSTALLATION PER FIXTURE  
2) LED FIXTURE MUST BE ON MB HYDRO POWERSMART COMMERCIAL LIGHTING PROGRAM ELIGIBLE PRODUCT LIST;  
3) STANDARD OF ACCEPTANCE -120V-277U : -40 DEGREE FLOOD OPTIC -25,000 LUMENS OR GREATER. SHOP DRAWINGS MUST BE SUBMITTED TO CONTRACT ADMINISTRATOR FOR APPROVAL.  
4) FIXTURE COLOUR TO MATCH POLE.
- ALL NEW LIGHT FIXTURES SHALL BE AIMED TO SUIT SITE CONDITIONS.

## LIGHT POLE SYSTEMS:

- SHALL BE 30'-0" HIGH STEEL TAPERED ROUND POLE -30'-0" HIGH STEEL TAPERED OCTAGONAL POLE (OT) OR ROUND POLE(5RH). FINISH TO BE POWDER COAT BROWN & TO BE APPROVED BY CONTRACT ADMINISTRATOR W/ INTERNAL CANISTER DAMPER & TOP MOUNT EDDY DAMPER.
- SINGLE POLE FIXTURE** SHALL BE 30'-0" HIGH STEEL TAPERED 5 1/2" OCTAGONAL POLE OR 5" ROUND HEAVY DUTY POLE TO 2 1/2" TENON. FINISH POWDER COAT BROWN & APPROVED BY CONTRACT ADMINISTRATOR.
- DOUBLE /TRIPLE FIXTURE** SHALL BE 30'-0" HIGH STEEL TAPERED 5 1/2" OCTAGONAL POLE OR 6" ROUND HEAVY DUTY POLE TO 2 1/2" TENON. FINISH POWDER COAT BROWN & APPROVED BY CONTRACT ADMINISTRATOR.
- POLE CONSTRUCTION: CSA APPROVED  
SHEAR FORCE 3.6 kN  
AXIAL FORCE 1.7 kN  
OVERTURNING MOMENT 17 kN.m
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW & APPROVAL OF POLE, CONCRETE BASES & ANCHOR DETAILS TO CONTRACT ADMINISTRATOR.
- POLES SHALL BE LOCATED AS PER THE CONTRACT ADMINISTRATOR. EXACT LOCATIONS OF THE LIGHT POLES SHALL BE INSPECTED & APPROVED BY THE CONTRACT ADMINISTRATOR PRIOR TO EXCAVATION FOR NEW CONCRETE PILES.
- MOUNT POLES ON CONCRETE BASES PLUMB & TRUE, UTILIZING METAL SHIMS AS REQUIRED. ENSURE COMPLETE ELECTRICAL CONNECTION & SECURELY ANCHOR POLES TO CONCRETE PILES.



**2** **DETAIL -CABLE TRENCH**  
A10/A10 SCALE: 3/4"=1'-0"

**1** **DETAIL -LUMINAIRE POLE BASE**  
A10/A10 SCALE: 1/2"=1'-0"

THE CITY OF WINNIPEG PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT MUNICIPAL ACCOMMODATIONS DIVISION 3-65 GARRY STREET, R3C 4K4			SHEET TITLE <b>LUMINAIRE POLE BASE DETAIL CABLE TRENCH DETAIL &amp; SPECIFICATIONS BELL PILE</b>		PROJECT <b>STANDARD CONSTRUCTION DETAILS FOR OUTDOOR HOCKEY RINKS</b>	
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