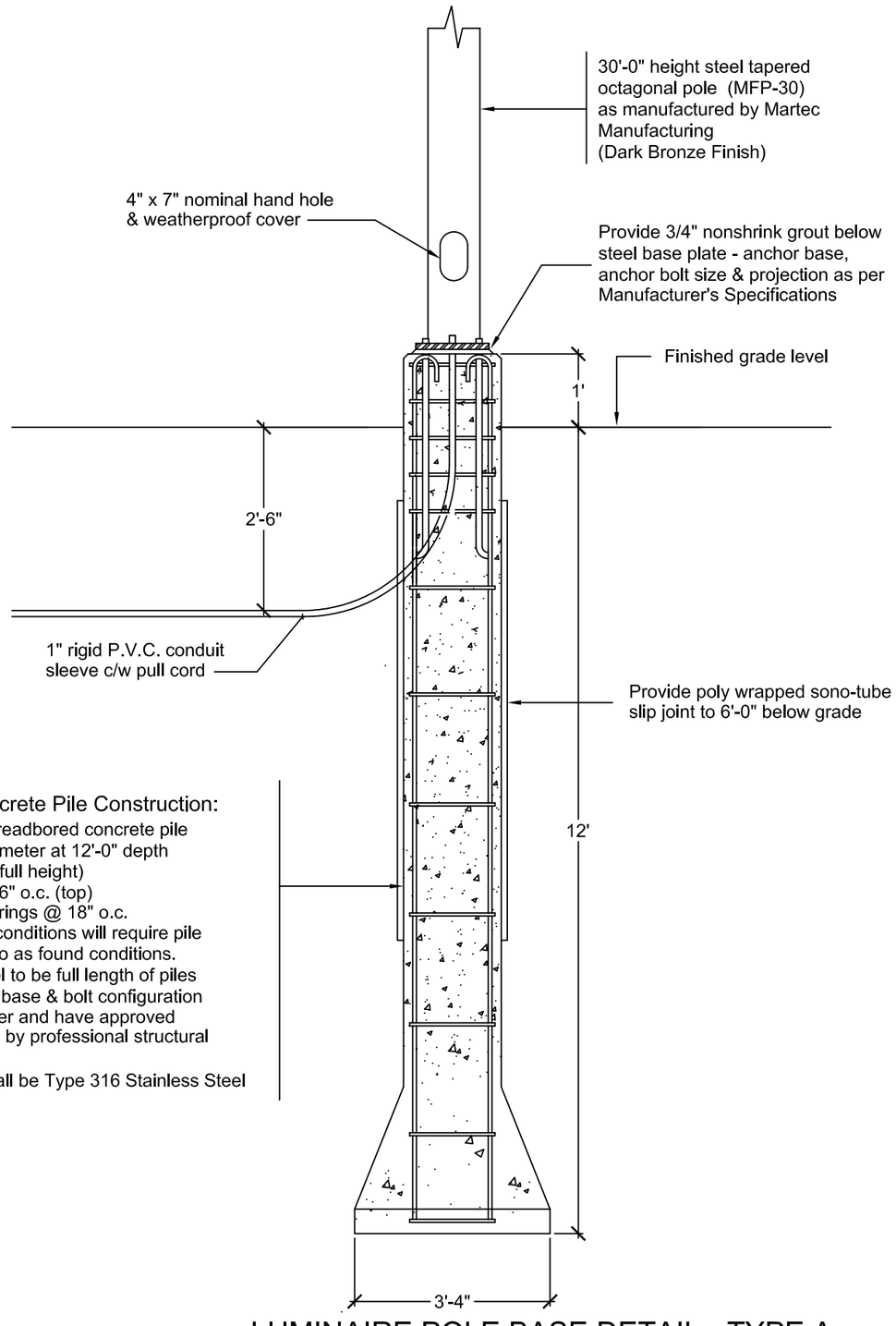



Minimum Concrete Pile Construction:

20" diameter spreadbored concrete pile
belled to 40" diameter at 12'-0" depth
6 - #15 vertical (full height)
5 - #10 rings @ 6" o.c. (top)
Remainder #10 rings @ 18" o.c.
Note: Poor soil conditions will require pile
to be designed to as found conditions.
Reinforcing steel to be full length of piles
(Confirm size of base & bolt configuration
with manufacturer and have approved
sealed drawings by professional structural
Engineer).
Anchor bolts shall be Type 316 Stainless Steel

## LUMINAIRE POLE BASE DETAIL - TYPE A

SCALE: N.T.S.

(Base Detail for Permanent Light Standards)

## SPECIFICATIONS

CONCRETE BASES

.1 Excavation for piles shall be done by augering to sizes shown. If casing is required to prevent the sides of the augered hole from sloughing in, casing shall be supplied and supplied, at no cost to the City. The casing diameter shall not be less than 3/4" smaller than the pile excavation.

.2 The pile concrete shall be cast not later than 24 hours after excavation has been completed.

.3 Pile reinforcement shall be supplied and installed in accordance with the Construction Drawing Detail.

.4 The pile excavation shall be kept dry at all times. Pump out water if it accumulates.

.5 Concrete placing shall be continuous from top of pile and rodding carried constantly to bring air bubbles to the surface and produce a uniform structure.

.6 The Contractor shall provide a minimum of 36 hours notice to the City of Winnipeg, Public Works Department, Contracted Maintenance Branch, Ph. 986-7278 or 986-7266 prior to any concrete placement to allow for the inspection of concrete pile depths and diameters, steel reinforcing sizes and locations and to ensure all pile holes are dry. If necessary, pump holes dry prior to concrete placement.

.7 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, with top edge chamfered.

.8 The Contractor shall be responsible for making good all areas damaged by his operations in connection with this contract

.9 The Contractor shall submit to the City's Contract Administrator for review copies of the Shop Drawings for the concrete piling with a registered professional engineer's stamp/seal.

ELECTRICAL WORK:

.1 Electrical installation shall be in accordance with the current edition of the Canadian Electrical Code, Provincial, Municipal and other codes, rules and regulations.

.2 Prepare and submit to the proper authorities all necessary permits and pay all fees.

.3 Upon completion and before final payment is made, present to the Contract Administrator a Certificate of Approval for all electrical work for the inspection department having jurisdiction.

.4 The Electrical Contractor shall guarantee the satisfactory operation of all work and apparatus included and installed under this Section of the Specification for a period of 12 months after the Certificate of Total Performance is issued.

.5 Supply and install (1) additional key switch inside the Community Centre so that the East rink can be operated independent of the West rink. Provide 4 Pole 30A rated contactors as required in NEMA 4 enclosure. Install trenching, underground cabling and interior wiring between new key switch and exterior panel to facilitate this control. Identify key switches with lamacoids as East rink and West rink.

.6 Floodlights: shall be Thomas NiteBrites Megaflood, integral slipfitter luminaires, 1000 watts, metal halide, dark bronze finish with coated lamps (Model No. FLL-10X-M-208-1SF) or Acculite Accuflood Series (Model No. FLL-1000MH-208-SF). Total quantity of (16) required.

.7 Bullhorns: shall be Martec 2U-180 Degree bullhorns or NiteBrites RBH2-2DB to accommodate the (4) light poles and (2) fixtures per pole. Bullhorns are to be utilized for the centre row poles located in the middle of the East and West hockey rinks. Total quantity of (4) required.

LIGHT POLE SYSTEMS:

.1 Shall be 30'-0' high steel tapered octagonal poles (Dark Bronze Colour) c/w integral slipfitter top 2-3/8" tenon as manufactured by Martec Manufacturing (Series MFP-30) or approved equal. Total quantity of (12) required.

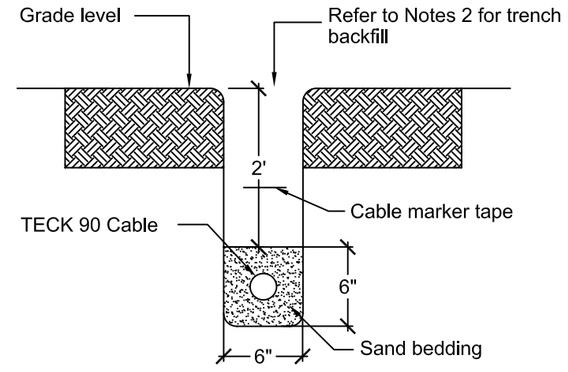
.2 Poles shall be located as per the Construction Drawings. Exact locations of the light poles shall be inspected and approved by the City's Contract Administrator prior to excavation for new concrete piles.

.3 Mount poles on concrete bases plumb and true, utililizing metal shims as required. Ensure complete electrical connection and securely anchor poles to concrete piles.

NOTES:

1 - Concrete bases shall be Type 50 sulphate resistant having a 28 day compressive strength of 40 Mpa.
Maximum aggregate size of 40mm (1 1/2") diameter. Maximum slump of 90mm.
Anchor and base plates shall be standard structural steel sections meeting current City of Winnipeg Standards and of the dimensions as indicated on the drawings and details.

2 - Backfill trench with clean earth fill to 4" of the surface, then backfill with topsoil and sod to match surface grade.




## CABLE TRENCH DETAIL

SCALE: N.T.S.

| NO. | DESCRIPTION | DATE | BY |
|---|---|---|---|

REVISIONS / ISSUE

THE CITY OF WINNIPEG

Winnipeg

PUBLIC WORKS DEPARTMENT
BUILDING SERVICES DIVISION
100 MAIN STREET, MAIN FLOOR
WPG, MB. R3C 1A4

PROJECT:
R.A. STEEN MEMORIAL C.C./LAURA SECORD SCHOOL
960 WOLSELEY AVENUE, WINNIPEG, MB.
CONCRETE PILE BASES, LIGHT STANDARDS, LUMINAIRES AND RELATED WORKS

SHEET TITLE
POLE BASE TYPE A - SECTIONS & SPECIFICATIONS

| ENG. STAMP | PROJECT NO. | DRAWN BY: | CHECKED BY: |
|---|---|---|---|
| | | L.M.C. | |
| | APPROVED BY: | | |
| | SCALE: AS NOTED | DATE: MARCH, 2005 | |
| | DWG. NO. L2 | | REV. |