GENERAL PROJECT NOTES:

GENERAL

- 1. If power equipment is to be used for excavation on this project, the Contractor must: a) Notify all utilities of the proposed location of excavation
- n) Take precaution to avoid damage to all utilities
- Confirmation of existence and exact location of all services must be obtained from the individual utilities before proceeding with Contractor to confirm all existing conditions, dimensions and Materials on Site and report any discrepancies to the Contract
- Administrator prior to construction 4. Refer also to all City of Winnipeg and written Specifications.

CIP CONCRETE PAVEMENT NOTES:

GENERAL

- 1. The Contractor shall be responsible for the design and installation of all necessary shoring, bracing and formwork. Formwork for new construction shall be bridged over existing services. Submit Shop Drawings sealed by a Professional Engineer registered in the Province of Manitoba for approval by the Contract Administrator.
- Any unsound structural conditions observed or created during construction are to be reported to the Contract Administrator
- Confirm the location of all sub-grade services prior to commencing Site Work.

 Verify all dimensions and elevations with Architectural Drawings prior to construction. Any discrepancies to be reported to
- Contract Administrator immediately. Do not scale Drawings.
- Confirm all existing conditions prior to construction. Any discrepancies or conflicts to be reported to Contract Administrator

CONCRETE

- The use of calcium chloride is not permitted.
- Coordinate the location of all items embedded in concrete work with Architectural, Mechanical & Electrical Drawings. Contract Administrator to be notified at least 48 hours in advance of all major pours. Refer to Landscape Architectural Drawings for concrete surfaces requiring Architectural finishes.
- Refer to Structural Drawings for concrete thickness and reinforcing. Provide sawcut joints @ max. 10'-0" o/c. as shown on 6. Provide light broom finish with no tool frames for exterior slabs as shown in Drawings

REINFORCING

1. Refer to Structural. See also CW 3310 and CW-SD-212.

03 30 00 CAST IN PLACE CONCRETE

REFERENCES

- American Society for Testing and Materials (ASTM)
 ASTM C260-94, Specification for Air-Entraining Admixtures for Concrete. ASTM C309-94, Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- ASTM C494-92, Specification for Chemical Admixtures for Concrete.

 ASTM D1751-83(1991), Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
- Canadian Standards Association (CSA) CAN/CSA-A5-93, Portland Cement.
- CAN/CSA-A23.1-04, Concrete Materials and Methods of Concrete Construction. CAN/CSA-A23.2-04, Methods of Testing for Concrete.

STANDARD

1. Concrete Materials and methods of construction to CAN/CSA-A23.1 unless otherwise specified.

TESTING AND INSPECTION

Concrete testing to CAN/CSA-A23.1 by testing laboratory designated by Contract Administrator.

for sampling.

- Give Contract Administrator minimum of seven days notice prior to each concrete pour. **SAMPLES**
- 1. Concrete testing to CAN/CSA-A23.1 by testing laboratory designated by Contract Administrator. Submit samples in accordance 2. At least 4 weeks prior to commencing Work, inform Contract Administrator of proposed source of aggregates and provide access

CERTIFICATES

Submit certificates in accordance with submittal procedures Provide certification that mix proportions selected will produce concrete of quality, yield and strength as specified in concrete mixes, and will comply with CAN/CSA-A23.1. 3. Provide certification that plant, equipment, and Materials to be used in concrete comply with requirements of CAN/CSA-A23.1.

PRODUCTS

MATERIALS

- Portland Cement: to CAN/CSA-A5 Supplementary cementing Materials: to CAN/CSA-A23.5.
- Water: to CAN/CSA-A23.1 Aggregates: to CAN/CSA-A23.
- Air entraining admixture: to ASTM C260.
- Chemical admixtures: to ASTM C494. Contract Administrator to approve accelerating or set retarding admixtures during cold and Concrete Retarders: to ASTM C494. Do not allow moisture of any kind to come in contact with the retarder film.
- Non-shrink grout: premixed compound consisting of non-metallic aggregate, portland cement, water reducing and plasticizing
- .1 Compressive strength: 50 MPA at 28 days.
 Polyethylene Film: 10 mil. thickness to CAN/CGSB-51.34.
 Curing compound: to CAN/CSA-A23.1 and to ASTM C309.
- Bituminous impregnated fiber board: to ASTM D1751.

- 1. Proportion concrete in accordance with CAN/CSA-A23.1, to give quality and yield for concrete as indicated. Refer to Drawings, general notes for mix proportions and strengths.
- 1. Concrete hauling time: deliver to Site of Work and discharge within 120 minutes maximum after batching.

EXECUTION

PREPARATION

- Obtain Contract Administrator's approval before placing concrete. Provide seven days notice prior to placing of concrete. Pumping of concrete is permitted only after approval of equipment and mix.
- Ensure reinforcement and inserts are not disturbed during concrete placement Prior to placing of concrete, obtain Contract Administrator's approval of proposed method for protection of concrete during
- placing and curing in adverse weather. Maintain accurate records of poured concrete items to indicate date, location of pour, quality, air temperature and test samples
- 6. Do not place load upon new concrete until authorized by Contract Administrator.

COLD WEATHER REQUIREMENTS

1. Concrete Work shall be in accordance with the latest edition of CAN 3-A23.1 for "Concrete Materials and Methods of Concrete "Construction" including cold weather requirements when the temperature falls below 5°C.

- Do cast-in-place concrete Work in accordance with CAN/CSA-A23.1.
- Sleeves and Inserts No sleeves, ducts, pipes or other openings shall pass through joists, beams, column capitals or columns, except where indicated or approved by Contract Administrator.

 2 Where approved by Contract Administrator, set sleeves, ties, pipe hangers and other inserts and openings as indicated or
- specified elsewhere. Sleeves and openings greater than 100 x 100mm (4" x 4") not indicated must be approved by Contract Administrator. .3 Do not eliminate or displace reinforcement to accommodate hardware. If inserts cannot be located as specified, obtain
- approval of modifications from Contract Administrator before placing of concrete.
- Check locations and sizes of sleeves and openings shown on Drawings. Set special inserts for strength testing as indicated and as required by non-destructive method of testing concrete.
- ishing
 Finish concrete to CSA A23.1/A23.2. Refer to Drawings for finishes.
- Use procedures acceptable to Contract Administrator or those noted in CAN/CSA-A23.1 to remove excess bleed water.
- .3 Use curing compounds compatible with applied finish on concrete surfaces. Provide written declaration that compounds
- Rub exposed sharp edges of concrete with carborundum to produce 3mm (1/8") radius edges unless otherwise indicated.
- Provide light broom finish with no frames for exterior slabs as shown in Drawings. Contractor to make all sawcuts as shown in Drawings with chalk line for approval by Contract Administrator. Sawcuts shall not be cut using handsaw. Sawcuts shall be straight and use a steel plate guide edge
- Furnish filler for each joint in single piece for depth and width required for joint, unless otherwise authorized by Contract Administrator. When more than one piece is required for a joint, fasten abutting ends and hold securely to shape by stapling or other positive fastening Locate and form construction, expansion joints as indicated. Install joint filler.

CURING

- 1. Cure and protect concrete in accordance with CAN/CSA A23.1.
- SITE TOLERANCE
- 1. Concrete tolerance in accordance with CAN/CSA-A23.1 and to tolerance schedule as indicated.

FIELD QUALITY CONTROL

- 1. Inspection and testing of concrete and concrete materials will be carried out by a testing laboratory designated by Contract
- Administrator in accordance with CAN/CSA-A23.1 Contract Administrator will take additional test cylinders during cold weather concreting. Cure cylinders on job site under same
- Non-destructive methods for testing concrete shall be in accordance with CAN/CSA-A23.2. Inspection or testing by Contract Administrator will not augment or replace Contractor quality control nor relieve him/her or

05 50 01 LANDSCAPE METALS

- American Society for Testing and Materials International (ASTM)
 ASTM A53/A53M-02, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Steamless. ASTM A307-02, Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- Canadian General Standards Board (CGSB)
 .1 CAN/CGSB-1.40-97, Anti-Corrosive Structural Steel Alkyd Primer.
- .2 CAN/CGSB-1.181-92, Ready-Mixed, Organic Zinc-Rich Coating
 Canadian Standards Association (CSA INTERNATIONAL)
 .1 CAN/CSA-G40.20/G40.21-98, General Requirements for Rolled or Welded Structural Quality Steel. CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles
- CAN/CSA-S16.1-01, Limit States Design of Steel Structures.
 CSA W48-01, Fillers Metals and Allied Materials for Metal Arc Welding (developed in co-operation with the Canadian
- .5 CSA W59-1989(R2001), Welded Steel Construction (Metal Arc Welding).

QUALITY ASSURANCE

- Steel fabricator to be experienced in steel fabrication including: cutting, bending, fastening, and finishing. Thermal movements: allow for thermal movement resulting from the following maximum change (range) in ambient temperature in engineering, fabricating, and installing handrails and railing systems to prevent buckling, opening of joints, overstressing of components and connections, and other detrimental effects. Base engineering calculation on actual surface temperatures of
- Materials due to both solar heat gain and nighttime sky heat loss.

 Temperature change (range): 120 deg. F (67 deg. C), ambient; 180 deg. F (100 deg. C), Material surfaces. Control of corrosion: prevent galvanic action and other forms of corrosion by insulating metals and other Materials from direct
- Mockups: Prior to installing edgings and walls, construct mockups for each finish required to verify selections made under sample submittals and to demonstrate aesthetic effects as well as qualities of Materials and execution. Build mockups to comply with the following requirements, using Materials indicated for final unit of Work.
 Place mockups on site in the location and of the size directed by Contract Administrator. Notify Contract Administrator one week in advance of the dates and times when mockups will be constructed. Demonstrate the proposed range of aesthetic effects and workmanship. Obtain acceptance of mockups before start of final unit of Work.

1. Shop Drawings showing fabrication and installation of circular chimney/firepit, retaining edging, edging and all other landscape netal Work including plans, elevations, sections, details of components, and attachments to other units of Work. Samples for verification of each type of exposed finish required, prepared on components indicated below of same thickness and

metal indicated for final unit of Work. Where finishes involve normal color and texture variations, include sample sets showing the

Refer to Drawings for Material type.

- DELIVERY, STORAGE AND HANDLING Ship, store and handle all items so as to protect metal components from damage on site. Store in a safe location, out of pedestrian and vehicular traffic and protected from weather. Repair or replace any damaged components before installation.
- 1. Field measurements: check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying
- Where field measurements cannot be made without delaying the Work, guarantee dimensions and proceed with fabrication without field measurements. Coordinate other construction to ensure that actual dimensions correspond to guaranteed dimensions.

PRODUCTS

METALS 1. General: Provide metal free from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces xhibiting pitting, seam marks, rollers marks, stains, discolorations, or other imperfections are not acceptable

1. Fasteners for anchoring: Select fasteners of the type, grade, and class required to produce connections that are suitable for

FABRICATION

- . Welded connections: Fabricate components for connecting members by welding. For connections made during fabrication, weld corners and seams continuously to comply with the following Use Materials and methods that minimize distortion and develop strength and corrosion resistance of base metals. Obtain fusion without undercut or overlap.
 - .2 Remove welding flux immediately. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and welded surface matches contours of adjoining surfaces. .3 Fabricate joints that will be exposed to weather in watertight manner.

1. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering prior to Appearance of finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one half of the range of approved samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved samples and they are assembled or installed to minimize

EXECUTION

INSTALLATION

- Fit exposed connections accurately together to form tight, hairline joints.
- Cutting, fitting, and placement: Perform cutting, drilling, and fitting required for installing components. Set components accurately in location, alignment, and elevation, measured from established lines and levels and free from rack. Do not weld, cut, or abrade surfaces of components that have been coated or finished after fabrication and are intended for field
- onnection by mechanical or other means without further cutting or fitting Field welding: Comply with the following requirements:
- Use Materials and methods that minimize distortion and develop strength and corrosion resistance of base metals. Obtain fusion without undercut or overlap. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after
- finishing and welded surface matches contours of adjoining surfaces. .5 Adjust components to anchoring to ensure matching alignment at abutting joints. Space components at interval indicated but not less than that required by structural loads.
- ADJUSTING AND CLEANING 1. Clean metals by washing thoroughly with clean water and soap, followed by rinsing with clean water or by sandblasting.
- 1. Protect finishes of components from damage during construction period with temporary protective coverings approved by
- manufacturer. Remove protective coverings at the time of substantial completion. Restore finishes damaged during installation and construction period so that no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units.

12 93 11 SITE FURNISHINGS

Drawings where required.

SUBMITTALS

- Submit product data a minimum of 60 days before beginning Work, unless indicated otherwise.

 Product data: Submit product data for each type of product indicated. Include construction details, Material descriptions dimensions of individual components and profiles, finishes, field-assembly requirements, and installation details. Provide Shop
- Material certificates: Submit product data for Site furnishings, signed by manufacturers. Maintenance data: Submit product data for Site furnishings to include in maintenance manuals.
- Warranties: Comply with manufacturer's written warranty, unless more stringent requirements are indicated.
- 1. Products that may be incorporated into the Work include, but are not limited to the following: Edgetyre STE311 Bike Rack, Colour: Black
 Surface mount to CIP concrete pad as per manufacturer's specifications
 - 2905 Westinghouse Blvd. Suite 300 Charlotte, NC 28273
 - (704) 576 2224 Qty: 3
- Or approved equal in accordance with B7 Substitutes. .2 Bicycle Repair Station Cycle Rescue Station by Saris Parking c/w outdoor pump. Colour: Black
 - Qtv: 1

Or approved equal in accordance with B7 Substitutes **EXECUTION**

- 1. Examine areas and conditions, with installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance. All locations for Site furnishings are to be approved by Contract Administrator on-site prior to attachment.

See product website: www.sarisparking.com/product/cycle-rescue-station/

Proceed with installation only after unsatisfactory conditions have been corrected. INSTALLATION

- 1. Comply with manufacturer's written installation instructions, unless more stringent requirements are indicated. Complete field
- assembly of Site furnishings, where required.
 Unless otherwise indicated, install site furnishings after landscaping and paving have been completed Install Site furnishings level, plumb, true and securely anchored at final locations to be located on Site by the Contract

- **CLEANING** 1. After completing site furnishing installation, inspect components. Remove spots, dirt, and debris. Repair damaged finishes to match original finish or replace component.
- MAINTENANCE AND SEASONAL COMMISSIONING 1. The Contractor shall perform the first year winter decommissioning of drinking fountain with training for City of Winnipeg staff. It is the Contractor's responsibility to ensure the drinking fountain decommissioned in a timely manner as to prevent freeze up and

31 22 13 ROUGH GRADING

WORK INCLUDED

1. This specification shall cover all Work associated with Site grading as described by the Drawings. The Contractor shall furnish all superintendence, overhead, labour, Materials, equipment, tools, supplies and all things necessary for and incidental to the satisfactory performance and completion of all Work hereinafter specified. This Specification shall supplement CW3170

GENERAL

1. The Contractor shall grade to the levels and contours as directed allowing for surface treatment as shown on Drawings. Existing topsoil shall be stockpiled on-site as directed by the Contract Administrator. Prior to placing any fill over existing ground, the Contractor shall scarify surface of existing ground to a depth of 150mm. Moisture content of filling and existing surface Material All fill shall be clean fill.

COMPACTION

1. Compact fill and undisturbed areas to standard proctor density to ASTM D698-78 as follows: .1 Landscaped areas - 85% .2 Paved areas - 95%

1. The Contract Administrator shall approve grading Work prior to installation of topsoil and/or surfacing Materials.

31 32 11 GEOTEXTILES

Refer to CW 3130.

32 11 23 SUBGRADE, SUB-BASE AND BASE COURSE

Refer to CW 3110-R10.

32 15 40 CRUSHED STONE SURFACING

MATERIALS 1. Granular limestone: Screenings; hard, durable, crushed limestone particles, free from clay lumps, cementation, organic material, frozen Material and other deleterious Materials

Gradations: 6mm (1/4") down black granite and 20mm (3/4") down limestone Landscape fabric: geotextile non-woven polypropylen needle punched fabric style LP6 or approved equal.

EXECUTION

- Contractor to stake proposed layout of surfacing for approval by Contract Administrator prior to construction. Ensure that subgrade conforms to levels and compaction required to allow for installation of granular Material. Obtain approval of subgrade by consultant before placing granular Material. Install Landscape fabric over subgrade before placing granular
- Aggregate Material: Granular Material to be a minimum compacted thickness of 225mm composed of the following: - 150mm base of 20mm down limestone
- 100mm lift of 6mm down black granite Spread and compact granular Material in uniform layers.
 Compact to a density of not less than 100% standard density in accordance with ASTM D698.

32 91 13 TOPSOIL AND FINISHED GRADING

- 1. Planting Soil: Black top soil, a fertile friable natural loam containing by volume not less than 4% and no more than 25% of organic matter for clay loams, and not less than 2% and no more than 25% for sandy loams, with an acidity value ranging from pH 6.0 to 8.0 and capable of sustaining vigorous plant growth. Topsoil is to be free of any mixture of subsoil, clay lumps and free of stones and other extraneous matter. It is not to contain couch or crab grass rhizomes
- Mulch: 3/4" clean black granite mulch Water: Potable and free of minerals which may be detrimental to plant growth.

Fertilizer: Complete synthetic slow release fertilizer with maximum 35% water-soluble nitrogen.

- PLANTING BED PREPARATION 1. All areas to be excavated shall be to the shape shown on the Drawings. Beds shall be excavated to the finished depth (including
- should be lightly compacted and indicated soil depths shall be depths after light compaction. All areas and locations provided for planting shall be staked according to layout shown on the Drawings. Excavation shall not proceed until the layout has been inspected and approved by the Contract Administrator. Excavation shall not be undertaken until all underground utilities have been located and protected.

Excavation shall be filled with soil mixture. After filling, excavation of top of bed shall be level with surrounding grade. Soil

4. The Contractor shall provide a planting bed with a crisp spade edge (where appropriate). Complete with topsoil and bark mulch as indicated on the Drawings

1. Bark or stone mulch shall be spread to a consistent depth over entire planting bed area, taking care not to damage the plants.

32 92 23 SODDING

Refer to CW 3510-R6 and CW 3540.

32 93 00 TREES, SHRUBS AND GROUNDCOVERS 1. The Contractor shall agree and guarantee to replace and replant any nursery stock found dead and/or in poor condition one (1)

- year from the date plant Material is accepted to begin the warranty period, without cost to the City of Winnipeg. Poor condition shall be interpreted as meaning nursery stock on which branches are dead or dying, or have not shown satisfactory growth of leaves. Excepted is nursery stock damaged by accidental causes or vandalism, which stock shall be replaced at the cost of the The Contractor hereby warrants that deciduous plant material over 65mm caliper and evergreen trees over 1.8m height will
- remain free of defects for two (2) full growing seasons. An End-of-Warranty inspection will be conducted. The Contract Administrator reserves the right to extend Contractor's warranty responsibilities for an additional one (1) year if, at the end of the initial warranty period, leaf development and growth are not sufficient to ensure future survival.

REPLACEMENTS

- 1. During the warranty period, the Contractor shall remove from site any plant Material that has died or failed to grow satisfactorily as determined by the Contract Administrator and replace within two (2) weeks.

 Required replacements shall be by plants of the same species and at least the same size as specified, and shall be supplied and planted in accordance with the Drawings and Specifications.
- **PLANT MATERIAL** 1. Quality and source: Comply with all sections of "Canadian Standards for Nursery Stock" latest edition of Canadian Nursery Trades Association referring to size and development of plant Material and rootball. Measure plants when branches are in their
- Height and spread dimensions refer to main body of plant and not from branch to branch tip. Use trees and shrubs of No. 1 grade. The use of "collected plants" will not be permitted unless approved by the City of Winnipeg Substitutions to plant Material as indicated on planting plan will not be allowed, unless written approval has been obtained from Contract Administrator as to type, variety and size. Plant substitutions must be of similar species and of equal size as those

TOPSOIL / PLANTING SOIL

Cultivate entire area which is to receive topsoil to depth of 100mm.

Apply topsoil to depths shown on the Drawings

- 32 93 45 LANDSCAPE MAINTENANCE
- 1. Thirty (30) days after all planting has been installed, the Contract Administrator shall perform an inspection to determine if the plant Material is acceptable to start warranty.
- Provide maintenance from date of installation up to the date plant Material is accepted to begin warranty period. Contract Administrator shall provide written notification that the maintenance period has ended and the warranty period has

4. All plant Material shall be under warranty for one (1) year after acceptance.

CIVIC ADDRESS: 781 CRESCENT DRIVE, CRESCENT DRIVE PARK

<u>LEGAL DESCRIPTION:</u> FIRSTLY PART PUBLIC PARK PLAN 11355 WLTO EXC: PLAN 54553 WLTO IN RL 24 TO 30 PARISH OF ST.VITAL

SECONDLY PARCELS A,B,C,D & E PLAN 54553 WLTO IN RL 24 TO 27

CERT. OF TITLE NO. 2674381/1 IN PART WLTO

. FLOOD PROTECTION LEVEL [FPL] = 231.35 . LOWEST FINISHED FLOOR ELEVATION [FFE] = 231.35 EXEMPTION FROM FPL, REFER TO DESIGNATED FLOODWAY AREA REGULATION SECTION 1 DEFINITIONS "STRUCTURE" (b)

Owner City of Winnipeg 185 King Street

Winnipeg, Manitoba R3B 1J1

707 Sara Avenue

Winnipeg Manitoba

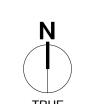
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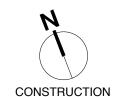
publiccityarchitecture.com

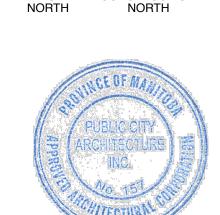
(204) 794-4418

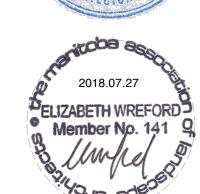
Revision Notes Rev. No. Date

2018.07.27 Issued for Construction









This drawing must not be scaled. The contractors shall verify all dimensions and other data on site prior to commencement of work. Discrepancies, errors, and omissions are to be reported to Public City Architecture Inc.

prior to proceeding with the Work.

Architecture Inc. upon request.

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Crescent Drive Park Pavilion

Drawn By

Landscape Architectural Specifications

2018.07.27 1448

Reviewed By