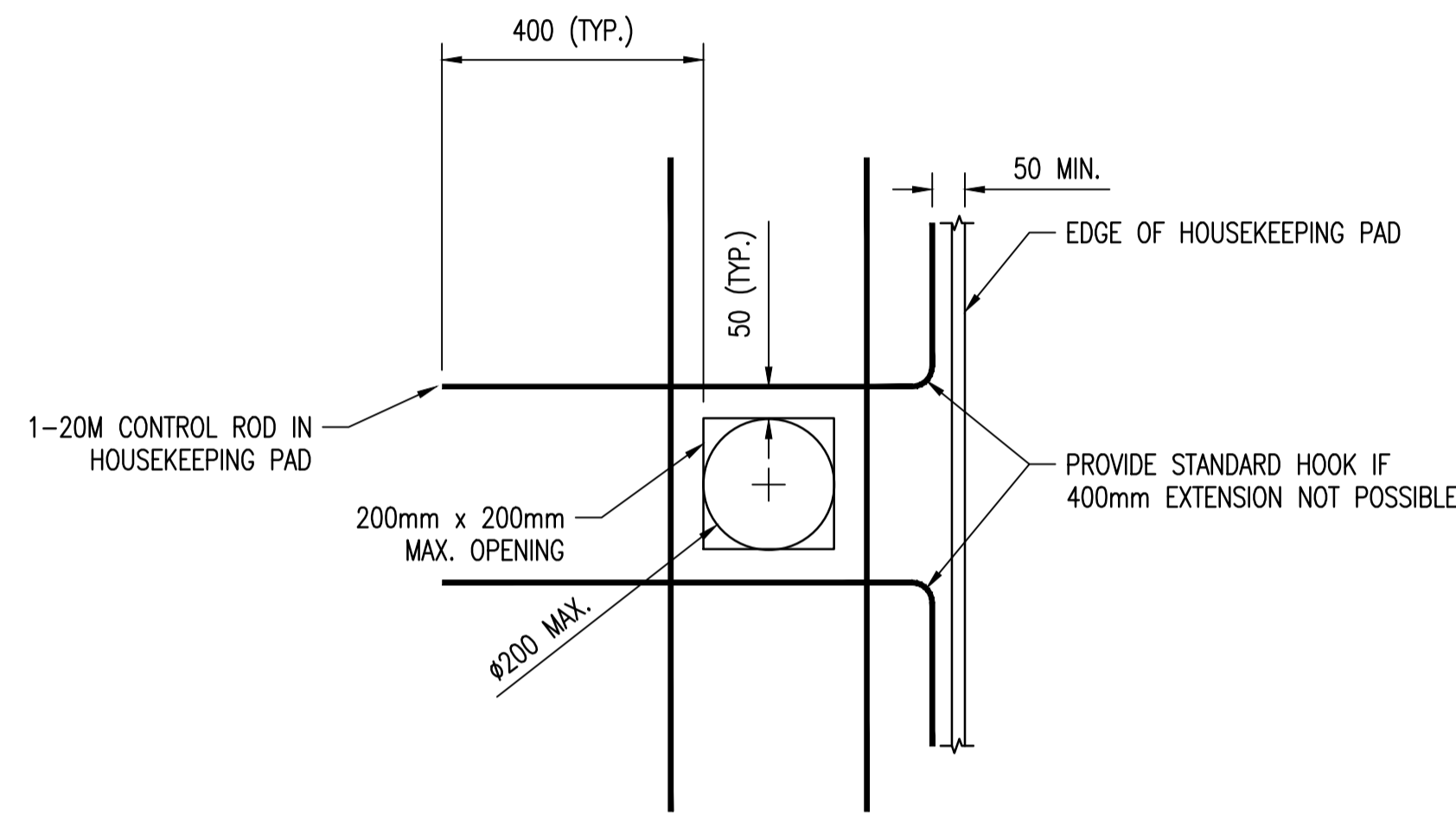
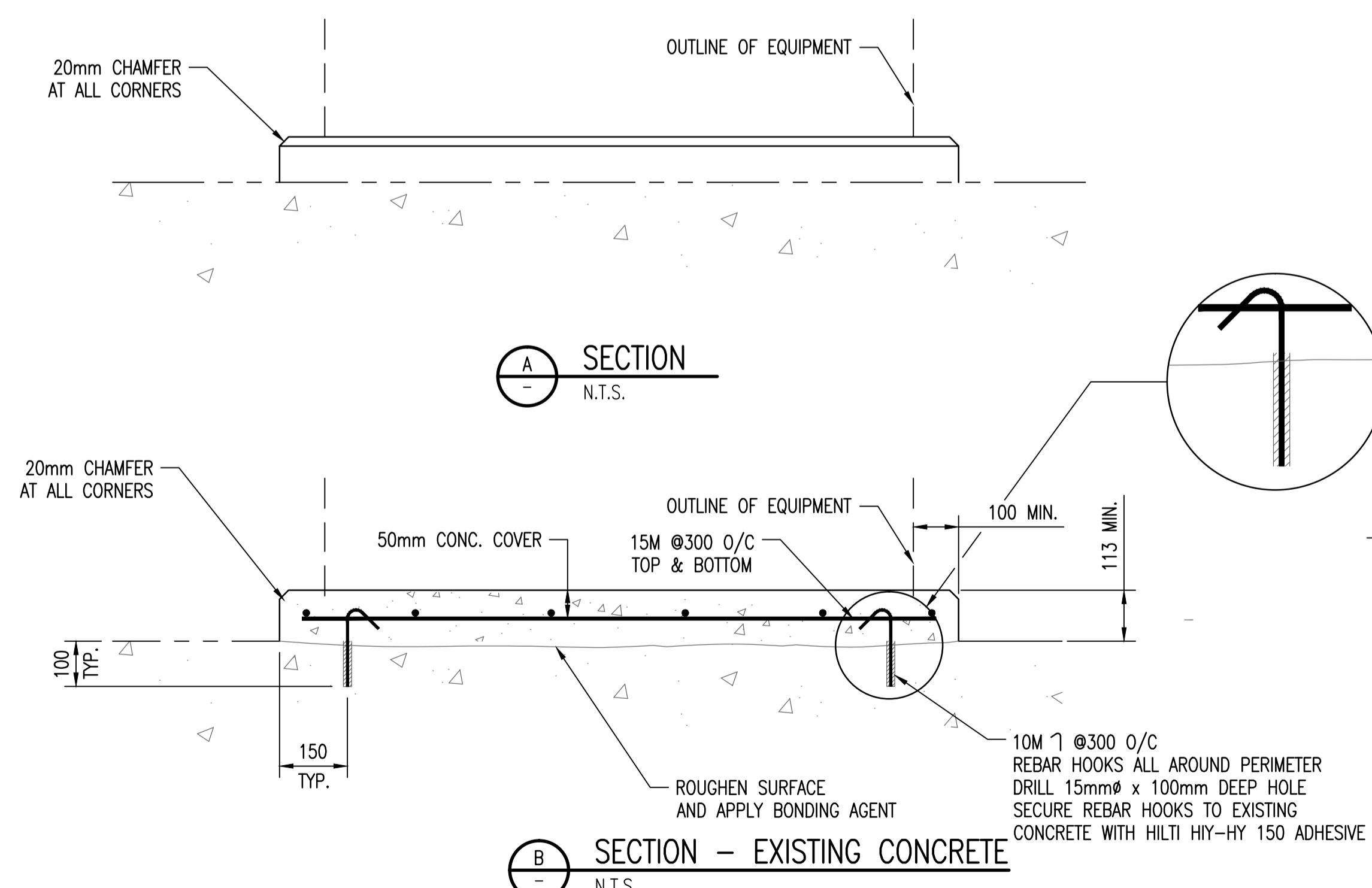


HOUSKEEPING PAD PLAN
N.T.S.

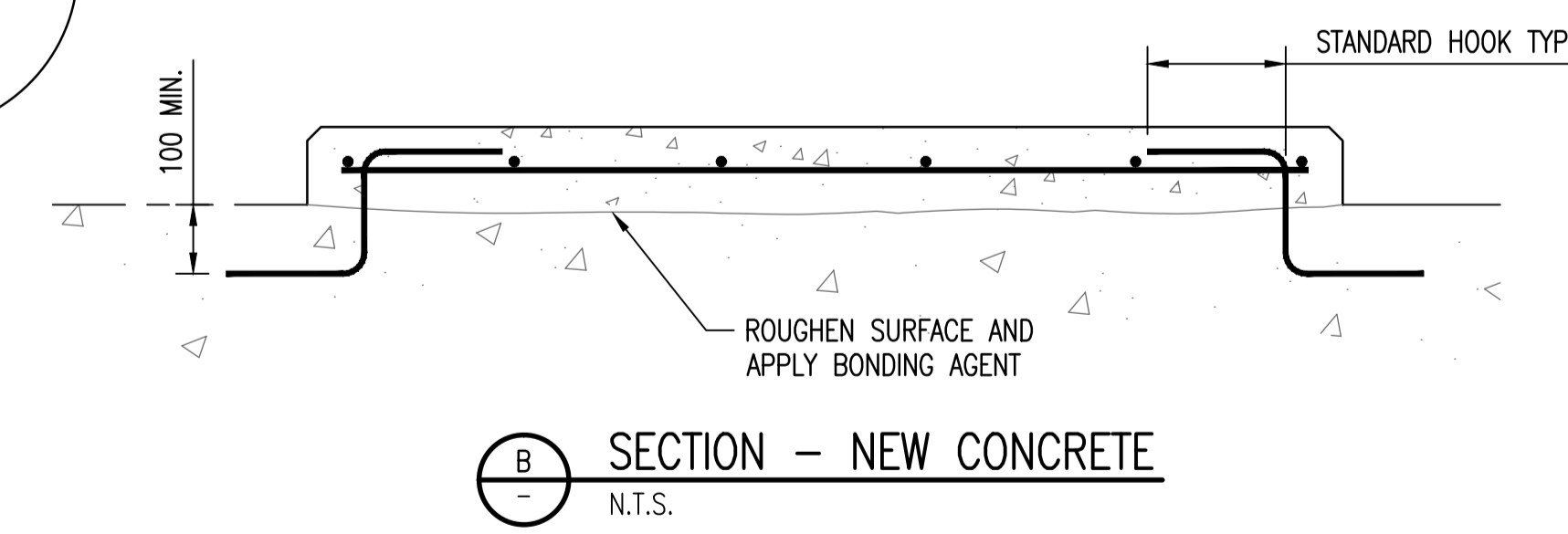


TYPICAL OPENING IN HOUSEKEEPING PAD
N.T.S.



SECTION A-A
N.T.S.

SECTION B-B
N.T.S.



SECTION B-B - NEW CONCRETE
N.T.S.

| BAR SIZE | BAR DIA (mm) | DIA ID (mm) | E (mm) |
|----------|--------------|-------------|--------|
| 10M | 11.3 | 45.0 | 100 |
| 15M | 16.0 | 65.0 | 140 |
| 20M | 19.5 | 120.0 | 220 |

STANDARD STIRRUP AND TIE BENDING

| STANDARD 90° HOOKS (MM) | | | | |
|-------------------------|---------|--------|--------|--------------|
| BAR SIZE | BAR DIA | DIA ID | A or G | Ldh (30 MPa) |
| 10M | 11.3 | 70 | 150 | 180 |
| 15M | 16.0 | 100 | 220 | 270 |
| 20M | 19.5 | 120 | 260 | 370 |

GENERAL NOTES:

DESIGN LOAD INFORMATION

1. THE HOUSEKEEPING PAD SHOWN IS NOT STRUCTURAL. THE SUPPORTING STRUCTURE UPON WHICH THE HOUSEKEEPING PAD IS INSTALLED SHALL BE CAPABLE OF SUPPORTING ALL LOADS AND DYNAMIC EFFECTS.
2. THE HOUSEKEEPING PAD HAS NOT BEEN DESIGNED FOR CORROSIVE ENVIRONMENTS AND MODIFICATION TO SUIT THE INSTALLED ENVIRONMENT IS BY OTHERS.

CONCRETE

1. WORK, MATERIALS AND TESTING SHALL BE IN CONFORMANCE WITH CSA A23.1, AND CSA A23.2
2. CONCRETE SHALL BE READY MIXED, CONFORMING TO CSA A23.1 (ALTERNATIVE 1), AND AS NOTED HEREIN:

CEMENT TYPE: GU
 CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS: 30 MPa
 MAXIMUM AGGREGATE SIZE: 20 MM
 MAXIMUM SLUMP: 100 MM
 AIR CONTENT: 0% TO 3%
 W/C RATIO: 0.45 MAXIMUM
 CLASS OF SULPHATE AND CHLORIDE EXPOSURE: S-3 AND C-3

3. LIMESTONE CEMENT SHALL NOT BE USED UNLESS AUTHORISED IN WRITING BY THE CONTRACT ADMINISTRATOR.
4. GUB CEMENT MAY BE USED IN LIEU OF GU CEMENT WHEN AUTHORISED IN WRITING BY THE CONTRACT ADMINISTRATOR. MAXIMUM SUBSTITUTION OF FLYASH FOR PORTLAND CEMENT TO BE 25% BY WEIGHT.
5. FLYASH SHALL NOT HAVE A HIGH ALKALI, SULPHATE OR REACTIVE MATERIAL CONTENT AND SHALL BE TYPE 'F' AND FLYASH SHALL HAVE A PROVEN HISTORY OF SATISFACTORY USE FOR PERIOD OF NOT LESS THAN 10 YEARS.
6. REINFORCING STEEL SHALL BE NEW BILLET GRADE STEEL MEETING THE REQUIREMENT OF CSA G30.18, GRADE 400.
7. SUPPORT REINFORCING STEEL ON SUFFICIENT SUPPORT CHAIRS TO MAINTAIN CONCRETE COVER AS SPECIFIED.
8. REMOVE ALL LOOSE AND DELETERIOUS MATERIAL FROM REINFORCING STEEL.
9. TOLERANCES SHALL BE AS STIPULATED IN ACI 315.
10. NOTIFY CONTRACT ADMINISTRATOR FOR REVIEW OF REINFORCING STEEL PRIOR TO POUR.
11. SATURATE THE CONCRETE SURFACE FOR ONE HOUR PRIOR TO APPLYING THE BONDED CONCRETE TOPPING. PROVIDE A SATURATED SURFACE DRY CONDITION.
12. APPLY LATEX BONDING AGENT IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. BONDING AGENT TO BE DARAWELD 'C'.
13. PROVIDE A WET 'BURLAP' CURE FOR 7 DAYS MIN.
14. EXPOSED CONCRETE SHALL BE SEALED WITH MEADOWS SEALTIGHT CS-309.
15. ALL WORK TO BE EXECUTED IN A NEAT WORKMANLIKE MANNER.



| NO. | REVISIONS | DATE | DESIGN | CHECK |
|-----|--------------------------------------|------------|--------|-------|
| 01 | ISSUED FOR TENDER, BID OPP. 42-2013 | 2013/01/15 | DC | KK |
| 00 | ISSUED FOR TENDER, BID OPP. 545-2012 | 2012/10/12 | DC | KK |

| | |
|---|--|
| SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080 | |
| DESIGNED BY: D. COATES | CHECKED BY: K. KOTYK |
| DRAWN BY: M. TUGADE | APPROVED BY: C. REIMER |
| SCALE: N.T.S. | RELEASED FOR CONSTRUCTION BY: N. HARRINGTON |
| DATE: 2012/09/05 | DATE: 2012/09/10 |
| CONSULTANT NO.: 112577-0000-42DD-0006 | |

ENGINEER'S SEAL
 ORIGINAL DRAWING SEALED BY:
 R. A. COATES
 SNC-LAVALIN MEMBER #3015
 2012/10/17
 REV. 00

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
 VENTILATION UPGRADES
 PLAN AND SECTIONS
 TYPICAL HOUSEKEEPING PAD

| | | | |
|---------------------|-------|------|------|
| CITY DRAWING NUMBER | SHEET | REV. | SIZE |
| 1-0102A-S0001 | 001 | 01 | A1 |