

DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
2. WALLS ASSUMED TO BE BACKFILLED WITH INSITU BACKFILL WITH ADEQUATE DRAINAGE LAYER AND WEEPING TILE
3. WALLS HAVE BEEN DESIGNED ASSUMING ADEQUATE LATERAL SUPPORT AT THE TOP AND BOTTOM OF THE WALL

CONCRETE PROPERTIES:

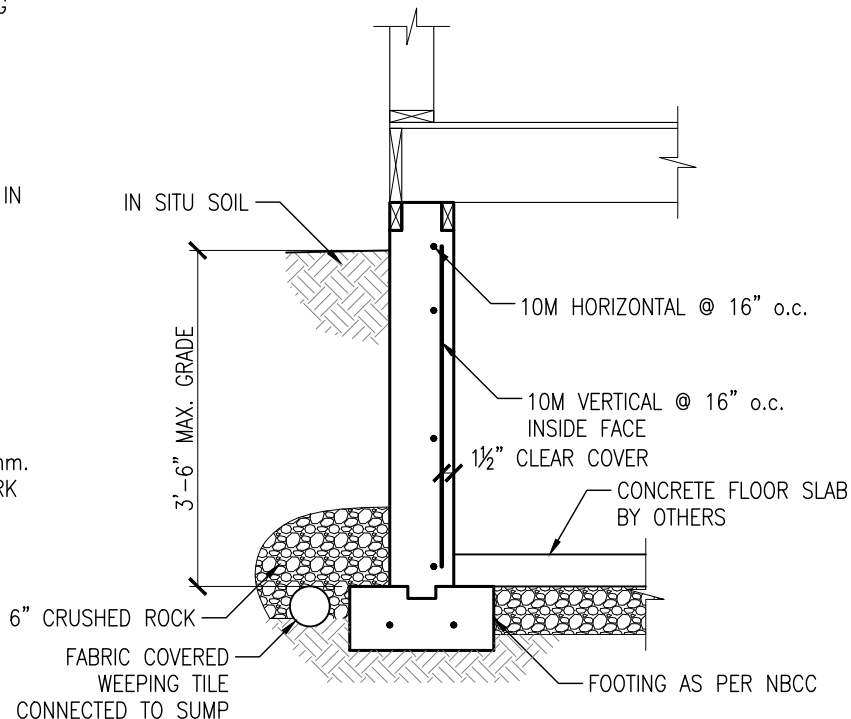
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
2. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH CAN/CSA A23.3.



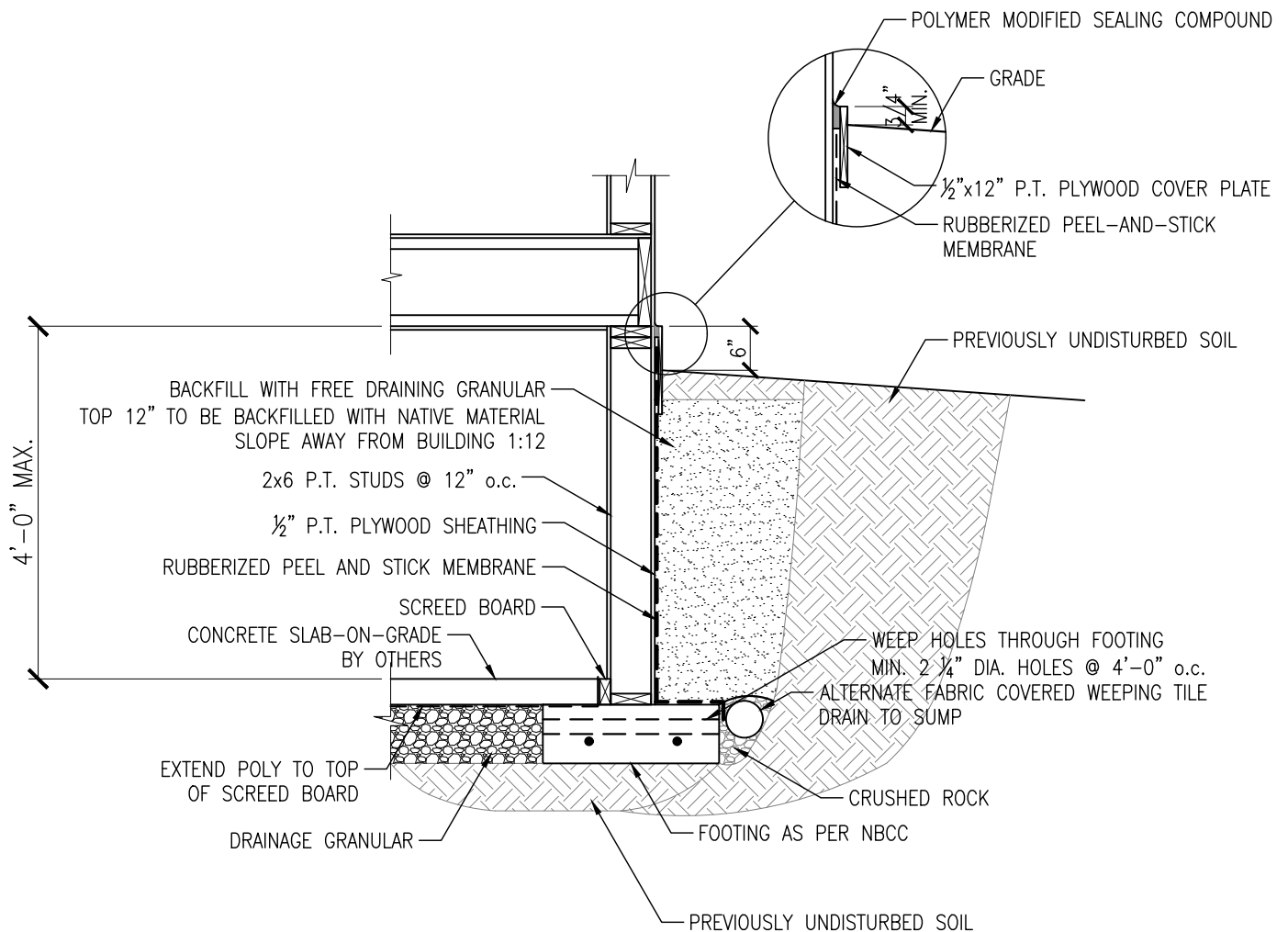
TYPICAL 4'-0"x8" FOUNDATION WALL REINFORCING DETAIL

SCALE 1/2"=1'-0"



REV.	DATE	COMMENTS
1	JUNE 19/19	ISSUED FOR CONSTRUCTION
0	JULY 31/17	ISSUED FOR CONSTRUCTION

CONSULTANT:  Rempel Engineering & Management Ltd 1809 LORNE AVENUE. SASKATOON, SK., S7H 1Y5 PHONE: (306) 343-8737 FAX: (306) 343-8732 WWW.REMPELENG.CA	PROJECT: TYPICAL FOUNDATION DETAILS LAKE DIEFENBAKER, SASKATCHEWAN CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN	DRAWING NAME: TYPICAL CRAWL SPACE CONCRETE FDN. WALL	
		SCALE: AS NOTED PROJECT NUMBER: 17-9698	DWG. No. S1.1



PWF WALL SECTION

SCALE 1/2"=1'-0"

NOTES:

1. MOISTURE BARRIER SHALL NOT EXTEND UNDER THE FOOTING PLATE OR BETWEEN THE GRANULAR DRAINAGE LAYER AND THE BACKFILL AT EXTERIOR WALL.
2. ALL FOUNDATION CONSTRUCTION TO BE IN ACCORDANCE WITH THE NBCC 2010 AND CSA-S406 "CONSTRUCTION OF PRESERVED WOOD FOUNDATIONS."
3. THE APPLICATION OF THIS DETAIL IS LIMITED TO 2 STOREY WOOD FRAME HOUSES WITH ROOF SPANS NOT EXCEEDING 50'-0" AND FLOOR SPANS NOT EXCEEDING 25'-0". NO ALLOWANCE HAS BEEN MADE FOR CONCRETE TOPPING OR OTHER HEAVY FLOOR FINISHES.



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Rempel Engineering & Management Ltd

1809 LORNE AVENUE.
SASKATOON, SK., S7H 1Y5
PHONE: (306) 343-8737
FAX: (306) 343-8732
WWW.REMPELNG.CA

PROJECT:

TYPICAL FOUNDATION DETAILS

LAKE DIEFENBAKER, SASKATCHEWAN

CLIENT:

SANDY SHORES RESORT

LAKE DIEFENBAKER, SASKATCHEWAN

DRAWING NAME:

TYPICAL CRAWLSPACE PWF FOUNDATION WALL

SCALE:

AS NOTED

PROJECT NUMBER:
17-9698

DWG. No.

S2.1

DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
2. WALLS ASSUMED TO BE BACKFILLED WITH INSITU BACKFILL WITH ADEQUATE DRAINAGE LAYER AND WEeping TILE
3. WALLS HAVE BEEN DESIGNED ASSUMING ADEQUATE LATERAL SUPPORT AT THE TOP AND BOTTOM OF THE WALL

CONCRETE PROPERTIES:

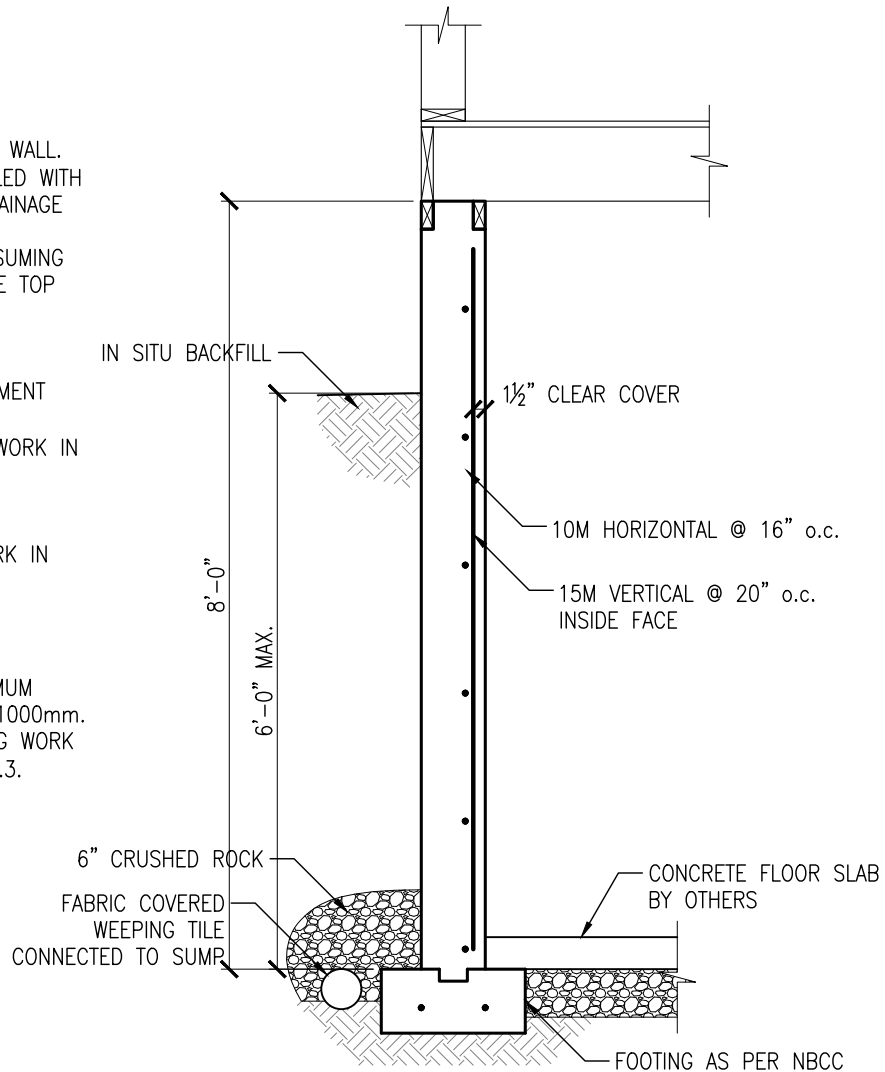
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
2. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH CAN/CSA A23.3.



TYP. 8'-0"x8" FOUNDATION WALL REINFORCING DETAIL

SCALE 1/2"=1'-0"

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	CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN	SCALE: AS NOTED PROJECT NUMBER: 17-9698	DWG. No. S3.1

DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
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CONCRETE PROPERTIES:

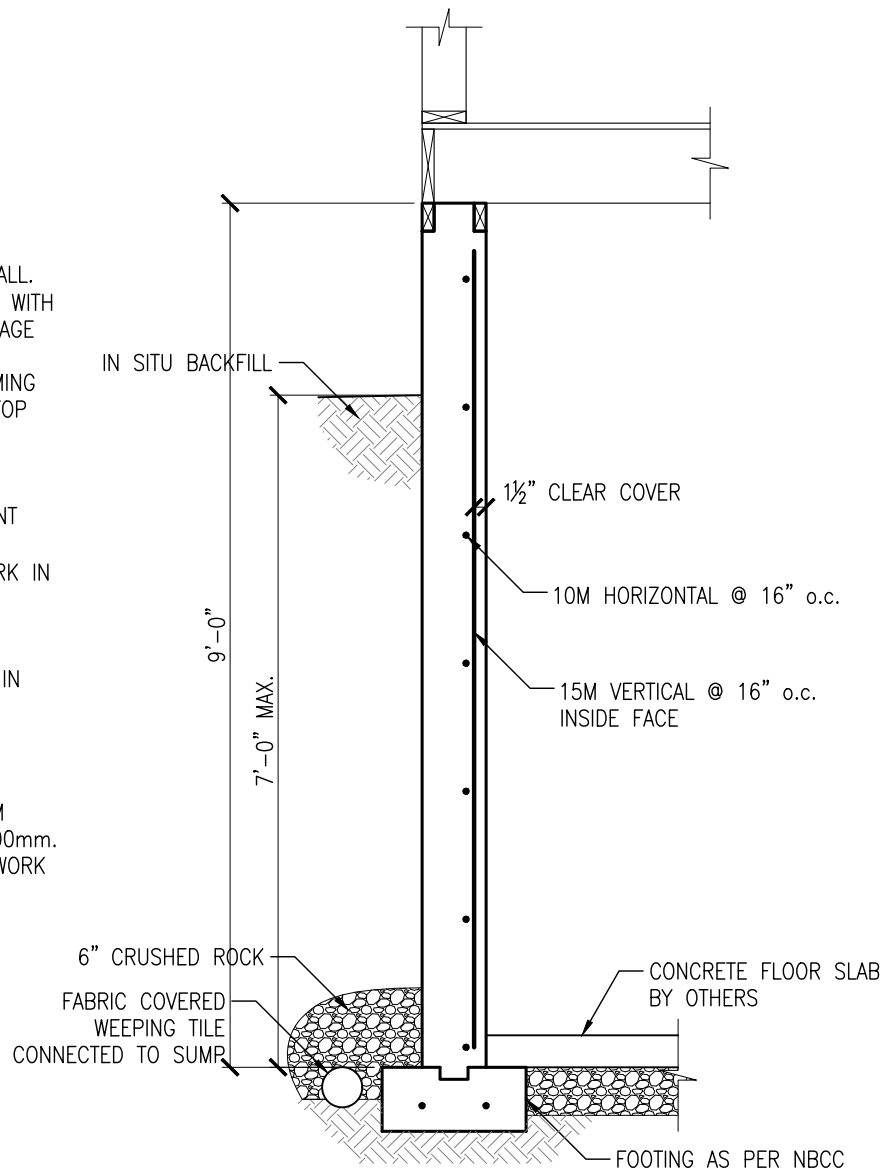
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
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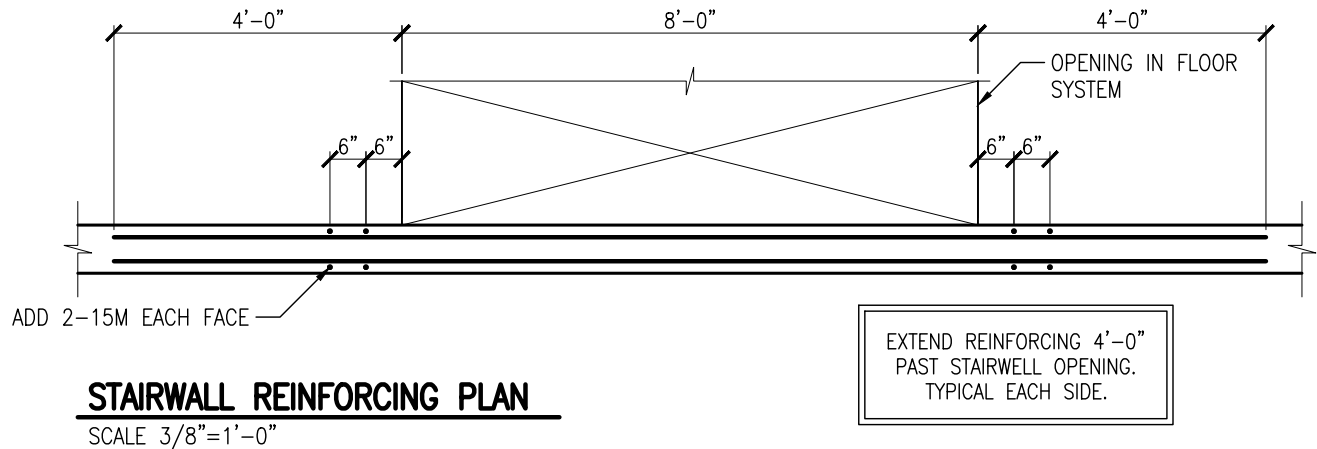
TYP. 9'-0"x8" FOUNDATION WALL REINFORCING DETAIL

SCALE 1/2"=1'-0"



REV.	DATE	COMMENTS
1	JUNE 19/19	ISSUED FOR CONSTRUCTION
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CONSULTANT: 1809 LORNE AVENUE. SASKATOON, SK., S7H 1Y5 PHONE: (306) 343-8737 FAX: (306) 343-8732 WWW.REMPELENG.CA	PROJECT: TYPICAL FOUNDATION DETAILS LAKE DIEFENBAKER, SASKATCHEWAN	DRAWING NAME: TYPICAL BASEMENT FOUNDATION WALL	
	CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN	SCALE: AS NOTED PROJECT NUMBER: 17-9698	DWG. No. S3.2



DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
2. WALLS ASSUMED TO BE BACKFILLED WITH INSITU BACKFILL WITH ADEQUATE DRAINAGE LAYER AND WEeping TILE
3. WALLS HAVE BEEN DESIGNED ASSUMING ADEQUATE LATERAL SUPPORT AT THE TOP AND BOTTOM OF THE WALL

CONCRETE PROPERTIES:

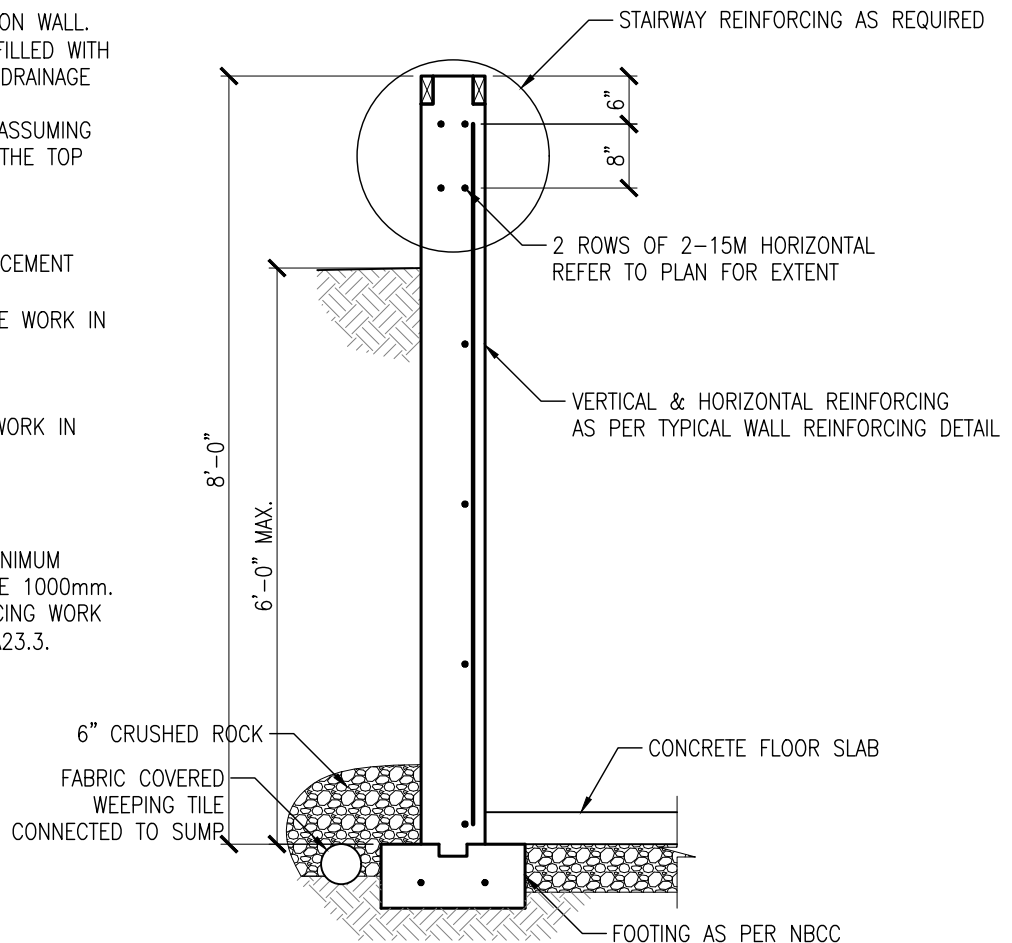
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
2. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH CAN/CSA A23.3.

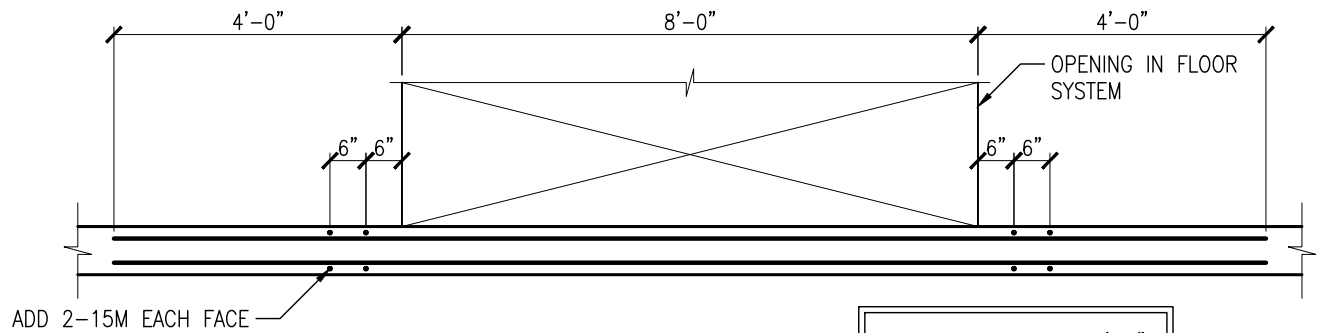


MAX. 8'-0" WIDE STAIRWELL OPENING REINFORCING DETAIL (8'-0"x8" WALL)

SCALE $1/2"=1'-0"$

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	SCALE: AS NOTED PROJECT NUMBER: 17-9698		DWG. No. S4.1	



STAIRWALL REINFORCING PLAN

SCALE $3/8"=1'-0"$

DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
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3. WALLS HAVE BEEN DESIGNED ASSUMING ADEQUATE LATERAL SUPPORT AT THE TOP AND BOTTOM OF THE WALL

CONCRETE PROPERTIES:

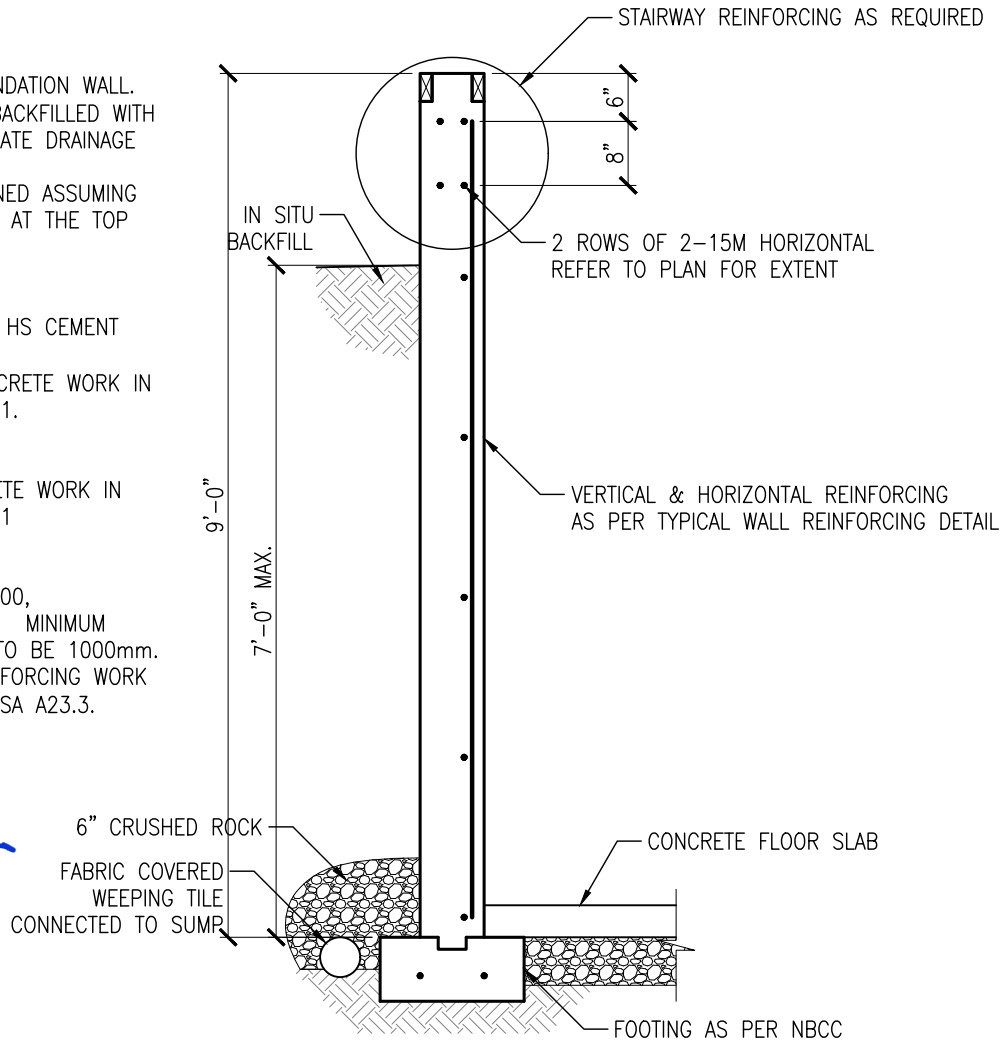
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
2. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH CAN/CSA A23.3.

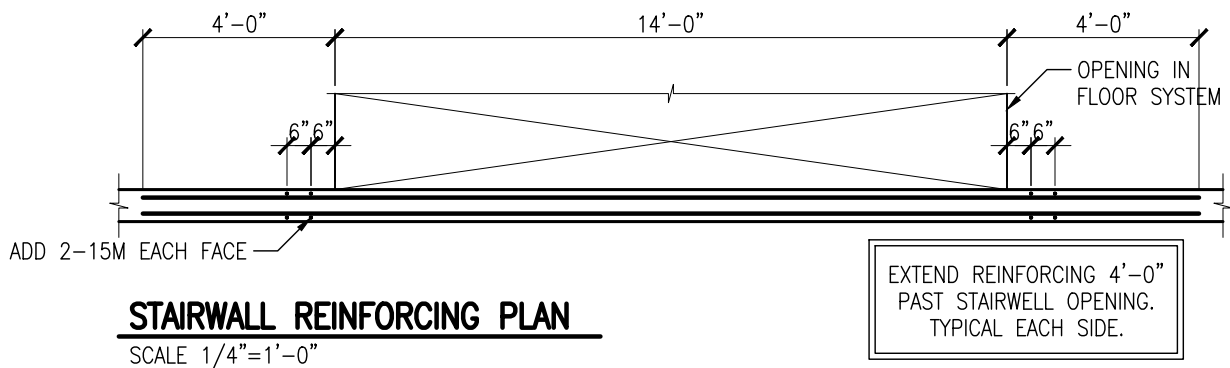


MAX. 8'-0" WIDE STAIRWELL OPENING REINFORCING DETAIL (9'-0"x8" WALL)

SCALE $1/2"=1'-0"$

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	CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN		SCALE: AS NOTED	DWG. No. S4.2
			PROJECT NUMBER: 17-9698	



DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
2. WALLS ASSUMED TO BE BACKFILLED WITH INSITU BACKFILL WITH ADEQUATE DRAINAGE LAYER AND WEEPING TILE
3. WALLS HAVE BEEN DESIGNED ASSUMING ADEQUATE LATERAL SUPPORT AT THE TOP AND BOTTOM OF THE WALL

CONCRETE PROPERTIES:

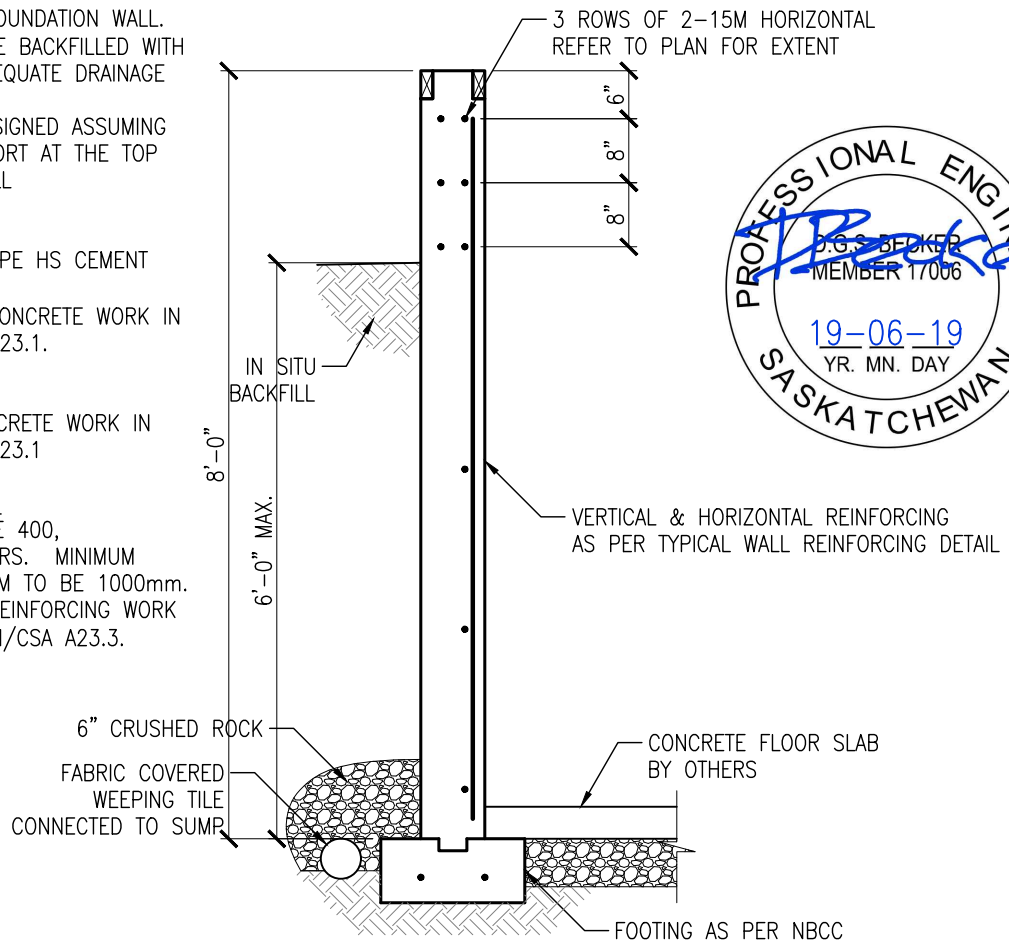
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

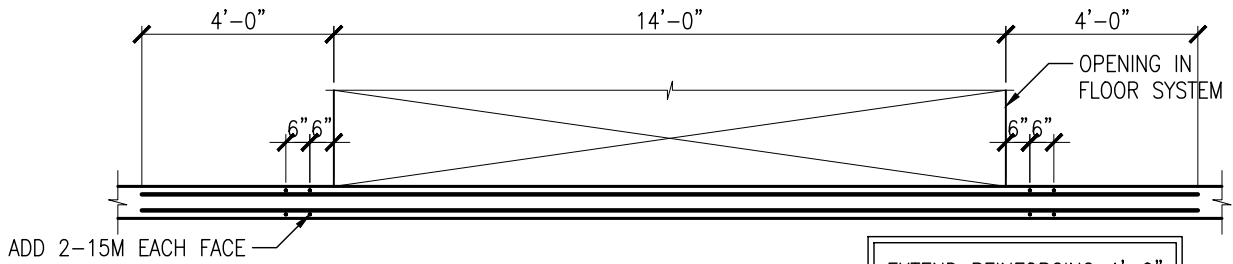
1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
2. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH CAN/CSA A23.3.



MAX. 14'-0" WIDE STAIRWELL OPENING REINFORCING DETAIL (8'-0"x8" WALL)

SCALE 1/2"=1'-0"

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	CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN	SCALE: AS NOTED PROJECT NUMBER: 17-9698
	DWG. No. S4.3	
	REV. DATE COMMENTS 1 JUNE 19/19 ISSUED FOR CONSTRUCTION 0 JULY 31/17 ISSUED FOR CONSTRUCTION	



STAIRWALL REINFORCING PLAN

SCALE 1/4"=1'-0"

DESIGN ASSUMPTIONS

1. 8" THICK CONCRETE FOUNDATION WALL.
2. WALLS ASSUMED TO BE BACKFILLED WITH INSITU BACKFILL WITH ADEQUATE DRAINAGE LAYER AND WEEPING TILE
3. WALLS HAVE BEEN DESIGNED ASSUMING ADEQUATE LATERAL SUPPORT AT THE TOP AND BOTTOM OF THE WALL

CONCRETE PROPERTIES:

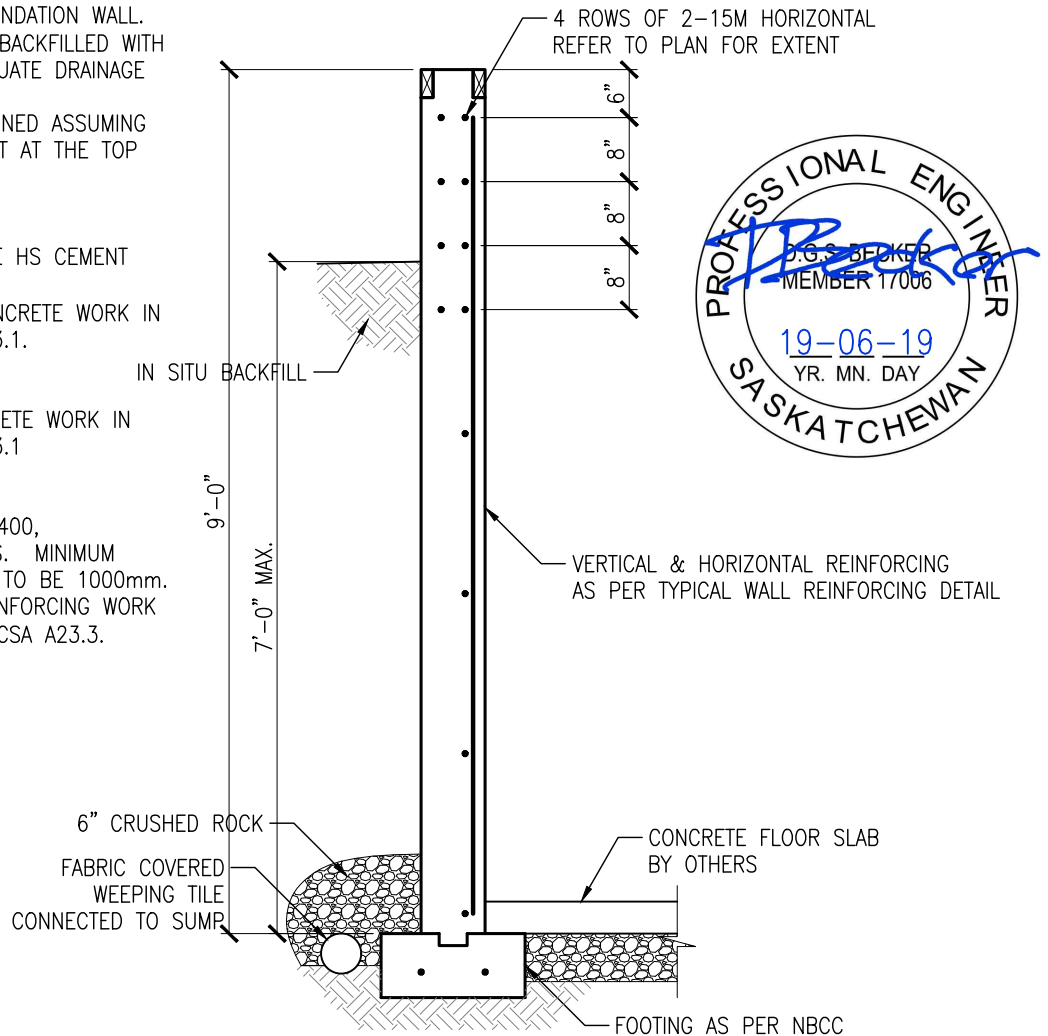
1. 25 MPa CONCRETE, TYPE HS CEMENT
- 1 1/2" CONCRETE COVER.
2. ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1.

CONCRETE NOTE:

ALL CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1

REINFORCING STEEL NOTE:

1. TO CSA G30.18, GRADE 400, PLAIN FINISH FOR ALL BARS. MINIMUM SPLICE FOR 10M AND 15M TO BE 1000mm.
2. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH CAN/CSA A23.3.



MAX. 14'-0" WIDE STAIRWELL OPENING REINFORCING DETAIL (9'-0"x8" WALL)

SCALE 1/2"=1'-0"

CONSULTANT:  Rempel Engineering & Management Ltd 1809 LORNE AVENUE. SASKATOON, SK., S7H 1Y5 PHONE: (306) 343-8737 FAX: (306) 343-8732 WWW.REMPELENG.CA	PROJECT: TYPICAL FOUNDATION DETAILS LAKE DIEFENBAKER, SASKATCHEWAN		DRAWING NAME: TYPICAL BASEMENT FDN WALL AT STAIR OPENING	
	CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN		SCALE: AS NOTED	DWG. No. S4.4
			PROJECT NUMBER: 17-9698	
			REV. DATE COMMENTS 1 JUNE 19/19 ISSUED FOR CONSTRUCTION 0 JULY 31/17 ISSUED FOR CONSTRUCTION	

REQUIRED REINFORCING FOR 8'-0" HIGH BASEMENT WALL		
WIDTH OF WINDOW OPENING	NUMBER OF VERTICAL BARS EACH SIDE OF WINDOW (EACH FACE)	NUMBER OF HORIZONTAL BARS (EACH FACE)
4'-0" - 4'-6"	1-15M	1-10M
5'-0" - 7'-0"	1-15M	1-15M
7'-6"	1-15M	1-20M
8'-0"	1-20M	1-20M

NOTE: MAX. 6'-0" GRADE

REQUIRED REINFORCING FOR 9'-0" HIGH BASEMENT WALL		
WIDTH OF WINDOW OPENING	NUMBER OF VERTICAL BARS EACH SIDE OF WINDOW (EACH FACE)	NUMBER OF HORIZONTAL BARS (EACH FACE)
4'-0" - 5'-0"	1-20M	1-15M
5'-6" - 6'-6"	1-20M	1-20M
7'-0"	1-20M	2-15M
7'-6" - 8'-0"	2-15M	2-15M

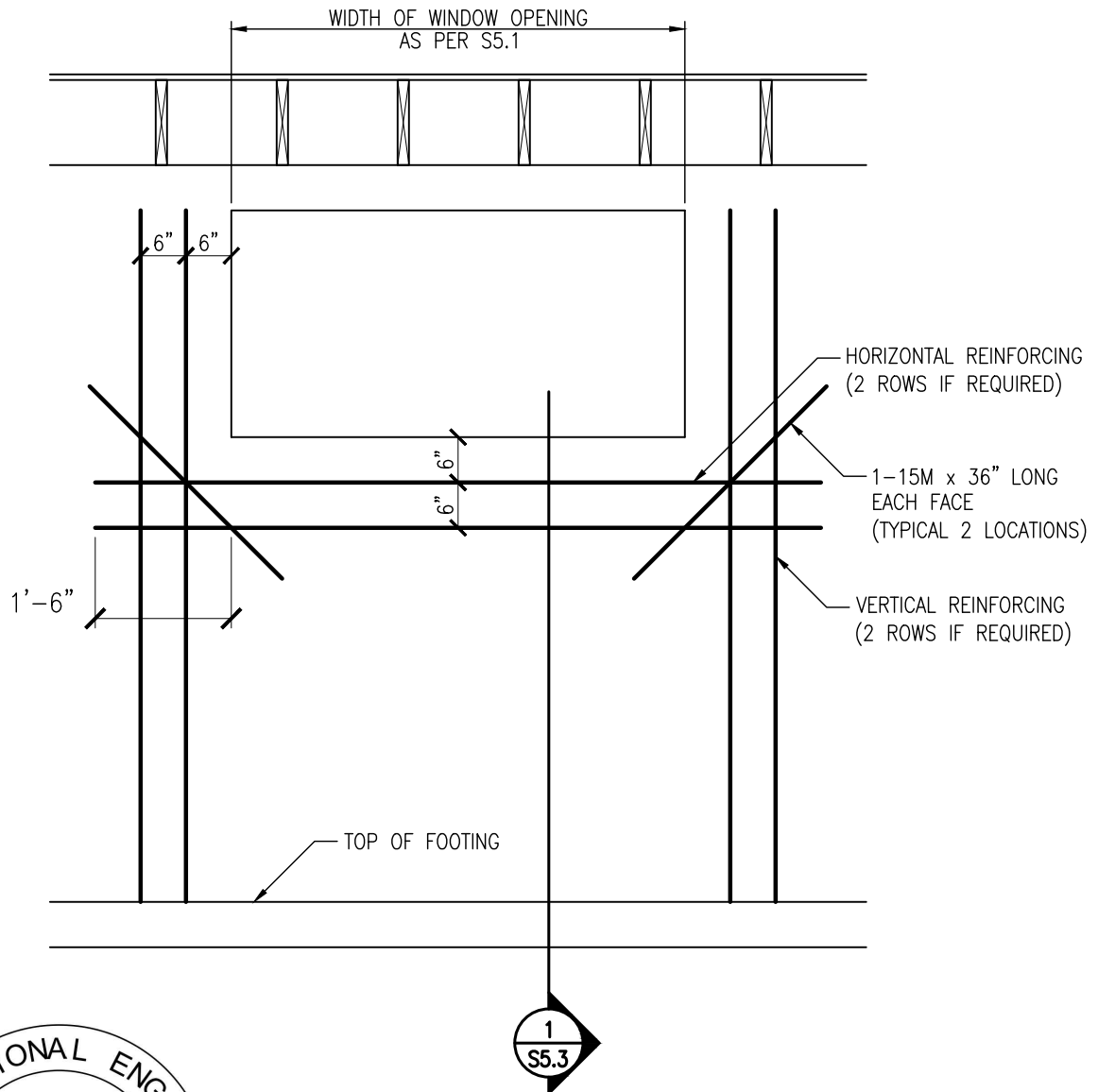
NOTE: MAX. 7'-0" GRADE

NOTE: SEE SKETCH S5.2 SHOWING ELEVATION OF WINDOW REINFORCING



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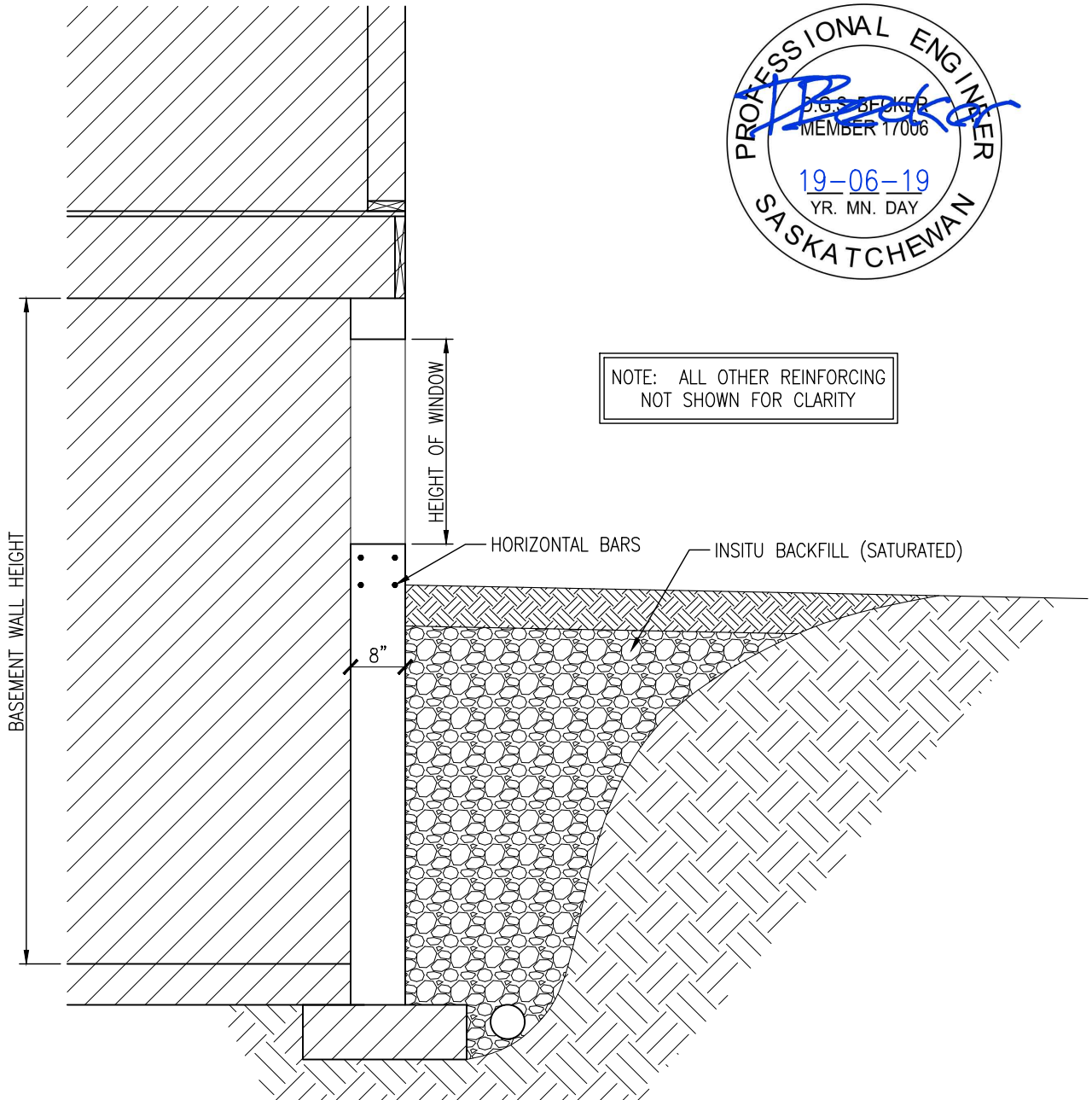
CONSULTANT:  Rempel Engineering & Management Ltd 1809 LORNE AVENUE. SASKATOON, SK., S7H 1Y5 PHONE: (306) 343-8737 FAX: (306) 343-8732 WWW.REMPELENG.CA	PROJECT: TYPICAL FOUNDATION DETAILS LAKE DIEFENBAKER, SASKATCHEWAN	DRAWING NAME: TYP. WINDOW OPENING IN BASEMENT FDN WALL	
	CLIENT: SANDY SHORES RESORT LAKE DIEFENBAKER, SASKATCHEWAN	SCALE: AS NOTED	DWG. No. S5.1
		PROJECT NUMBER: 17-9698	



NOTE: SEE SKETCH S5.1 FOR TABLES
INDICATING NUMBER OF VERTICAL AND
HORIZONTAL REINFORCING BARS.

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	<div>CLIENT:</div> <div>SANDY SHORES RESORT</div> <div>LAKE DIEFENBAKER, SASKATCHEWAN</div>	<div>SCALE:</div> <div>AS NOTED</div>	<div>DWG. No.</div> <div>S5.2</div>
		<div>PROJECT NUMBER:</div> <div>17-9698</div>	



NOTE: ALL OTHER REINFORCING
NOT SHOWN FOR CLARITY

1 TYP. WINDOW OPENING IN BASEMENT FOUNDATION WALL
S5.3 SCALE 1/2"=1'-0"

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DRAWING NAME: TYP. WINDOW OPENING IN BASEMENT FDN WALL		
SCALE: AS NOTED		DWG. No. S5.3
PROJECT NUMBER: 17-9698		

CONSULTANT:
REM Rempel Engineering
& Management Ltd
1809 LORNE AVENUE.
SASKATOON, SK., S7H 1Y5
PHONE: (306) 343-8737
FAX: (306) 343-8732
WWW.REMPELENG.CA

PROJECT:
**TYPICAL FOUNDATION
DETAILS**
LAKE DIEFENBAKER, SASKATCHEWAN
CLIENT:
**SANDY SHORES
RESORT**
LAKE DIEFENBAKER, SASKATCHEWAN