

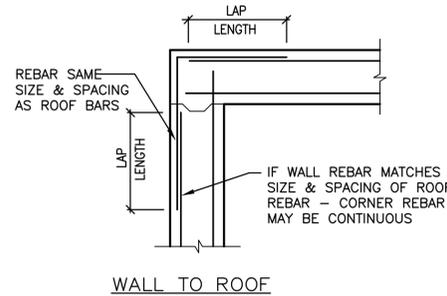
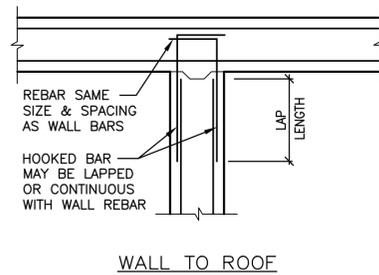
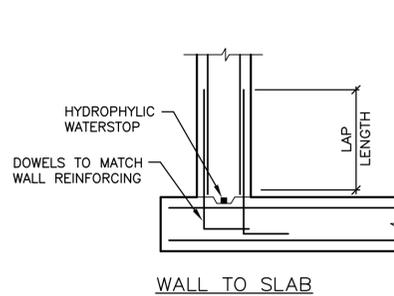
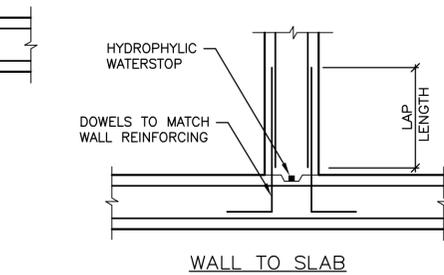
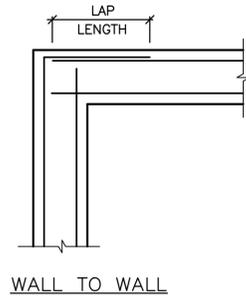
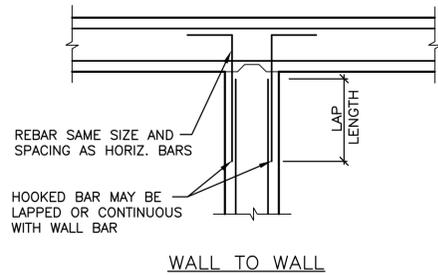
MINIMUM LAP LENGTHS	
BAR SIZE	35 MPa CONCRETE
10M	1'-8"
15M	2'-4"
20M	2'-10"
25M	4'-5"
30M	5'-0"
35M	6'-0"

- NORMAL WEIGHT CONCRETE.
- CLEAR COVER GREATER THAN 1.5 x BAR DIAMETER.
- CLEAR SPACING NOT LESS THAN 2 x BAR DIAMETER.
- Fy=400 MPa.
- MULTIPLY ABOVE BY 1.3 FOR HORIZONTAL REBAR SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.

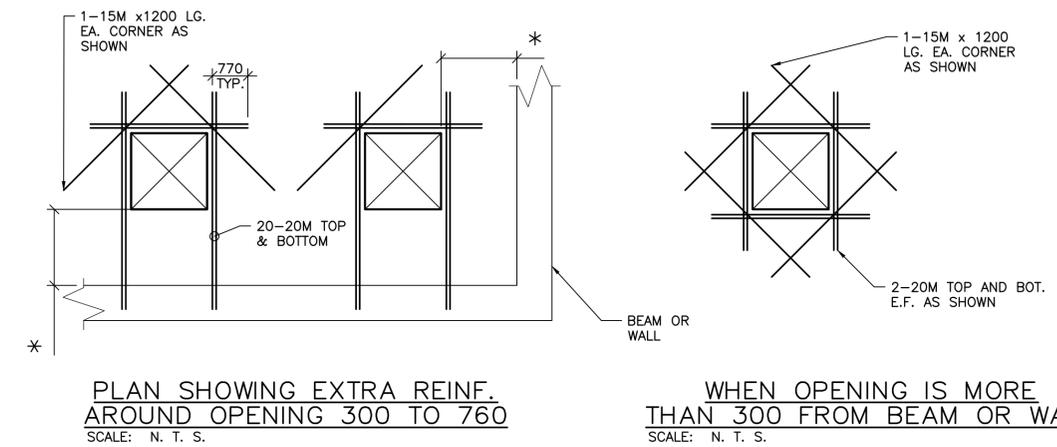
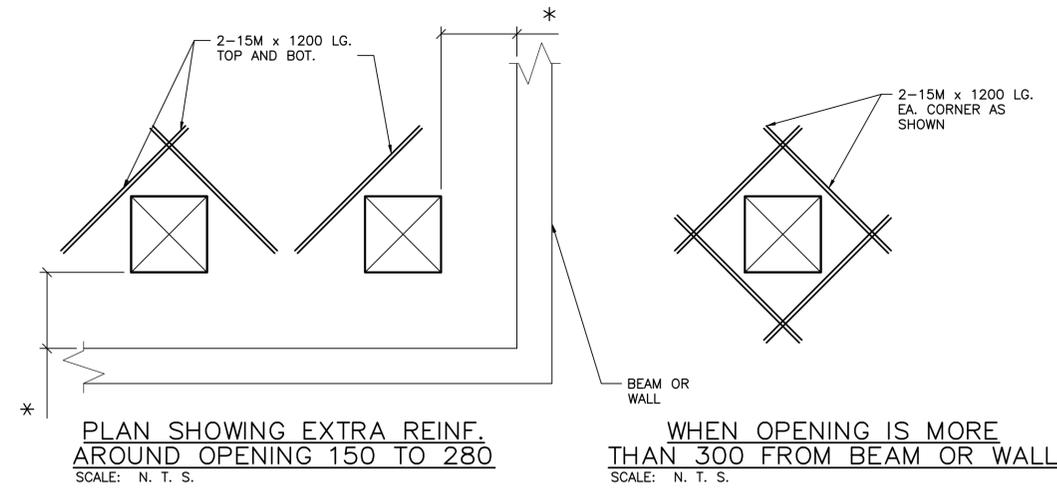
**REINFORCING LAP LENGTHS**  
UNLESS NOTED OTHERWISE ON DRAWINGS

BAR LOCATIONS	REINF. COVER
FOOTING, SLABS, OR WALLS, WHERE CONCRETE IS CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH, LIQUID, WEATHER, HUMID ENVIRONMENT OR CAST AGAINST WORKING SLAB	2"
BEAM STIRRUPS & COLUMN TIES	1 1/2"
SUSPENDED SLAB	3/4"

**TABLE OF CONCRETE COVER**  
UNLESS NOTED OTHERWISE ON DRAWINGS

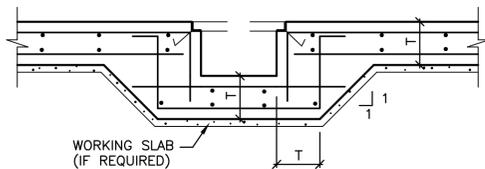


**TYPICAL CONCRETE WALL INTERSECTIONS**  
(UNLESS NOTED OTHERWISE ON THE DRAWINGS) SCALE: NOT TO SCALE



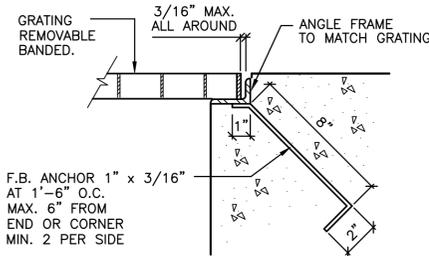
**TYPICAL REINFORCING AROUND OPENINGS IN CONCRETE SLAB OR WALL**  
SCALE: N. T. S.

1. NUMBER OF REINFORCING BARS TO BE CUT AT OPENING TO BE KEPT AT A MINIMUM. DEFLECT AS MANY BARS AS POSSIBLE AROUND OPENING.
2. REINFORCING BARS TO BE KEPT MINIMUM 50 CLEAR OF OPENING.
3. CIRCULAR OPENINGS TO BE TREATED IN SAME MANNER AS RECTANGULAR UNLESS OTHERWISE DETAILED.



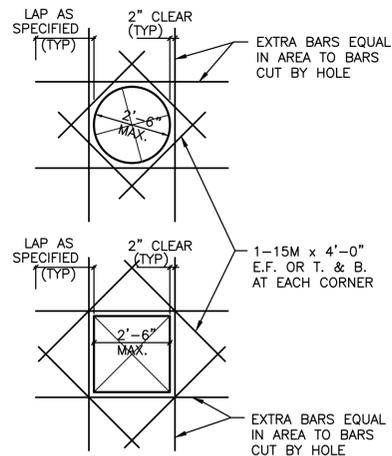
- NOTES:**
1. SIZE AND SPACING OF SUMP REINFORCING TO MATCH BASE SLAB REINFORCING.
  2. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH BITUMINOUS PAINT.

**SUMP PIT**  
SCALE: N. T. S.



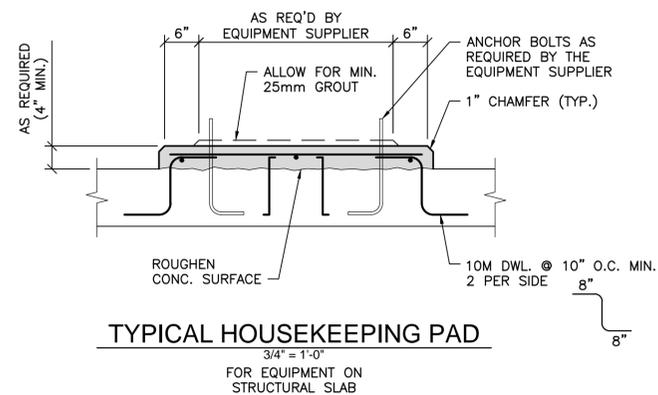
- NOTES:**
1. ALL GRATING TO BE FASTENED TO FRAME WITH SADDLE CLIPS UNLESS OTHERWISE NOTED.
  2. BAND ALL EXPOSED GRATING EDGES.

**FRAME DETAIL FOR GRATING**  
SCALE: NOT TO SCALE



- NOTE:**
1. FOR HOLES UP TO 6" NO EXTRA BARS ARE REQUIRED BUT NORMAL STEEL SHALL BE BENT AROUND HOLES.

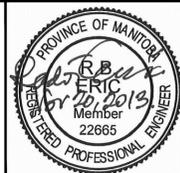
**ADDITIONAL REINFORCING AT SLAB OR WALL OPENINGS**  
SCALE: NOT TO SCALE



**TYPICAL HOUSEKEEPING PAD**  
3/4" = 1'-0"  
FOR EQUIPMENT ON STRUCTURAL SLAB

- NOTES:**
1. SIZE, NUMBER, TYPE, LOCATION AND THREAD PROJECTION OF ANCHOR BOLTS IS TO BE DETERMINED BY THE EQUIPMENT SUPPLIER.
  2. ANCHOR BOLTS SHALL BE HELD IN PLACE BY TEMPLATE WHILE SLAB IS CAST.
  3. BASES SHALL BE LEVEL UNLESS NOTED OTHERWISE.
  4. SLAB REINFORCEMENT NOT SHOWN FOR CLARITY. PAD DESIGN IS FOR EQUIPMENT ANCHOR TO SLAB. CONTRACTOR TO SIZE AND LOCATE PAD REINFORCEMENT TO SUIT ALTERNATIVE BOLT ARRANGEMENTS.

**Conditions of Use**  
Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.  
Do not scale dimensions from drawing.  
Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.



DESIGN	BWD	REVIEWED BY	RE
DRAWN	JZH	CHECKED BY	CGC
DATE	AUGUST 2013		
SCALE	AS NOTED		
ISSUED FOR	ISSUED FOR	DATE	BY
0	ISSUED FOR BID OPPORTUNITY NUMBER 850-2013	13-11-20	RE

<b>PAN AM POOL ELECTRICAL UPGRADE</b>		PROJECT NO.	137300
<b>STRUCTURAL SECTIONS &amp; DETAILS 3</b>		SHEET NO.	<b>S5</b>