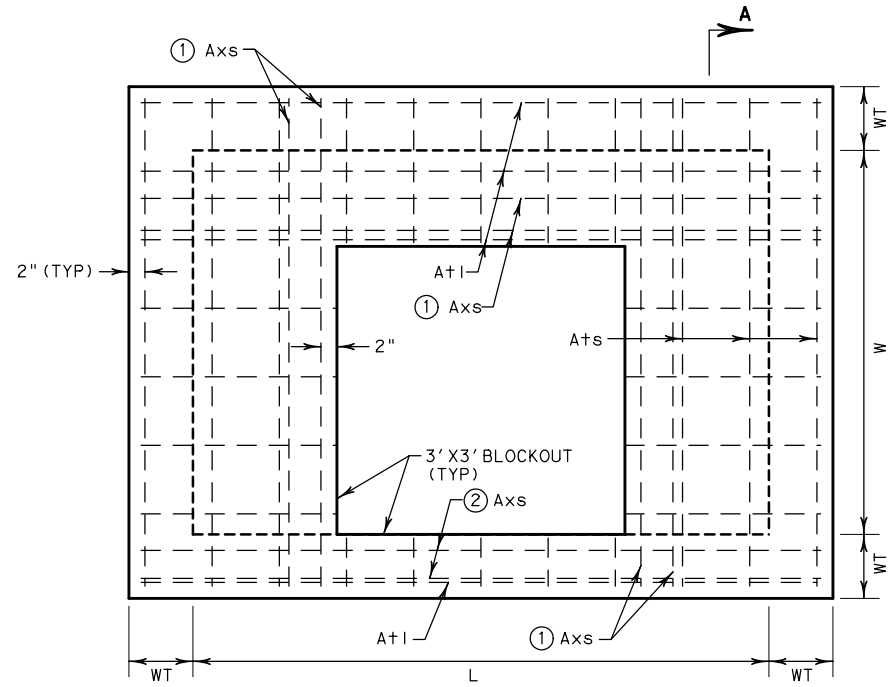


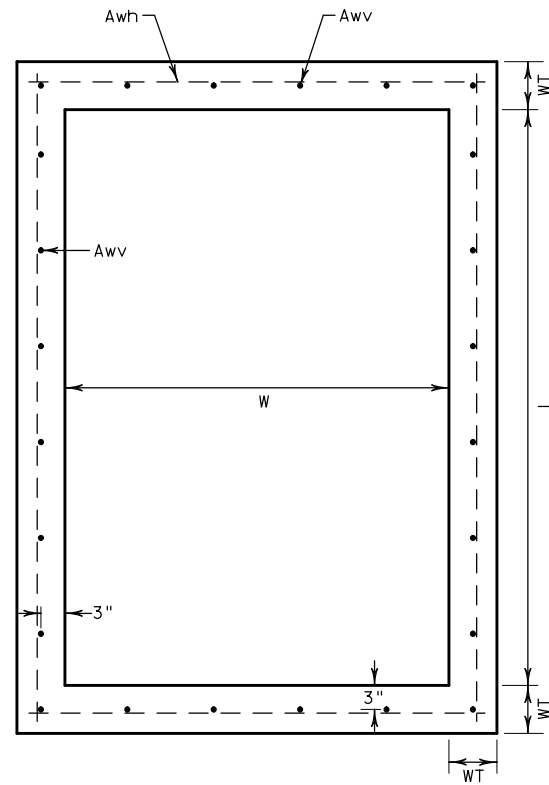
DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING PRACTICE ACT". NO WARRANTY OF ANY KIND IS MADE BY TXDOT FOR ANY PURPOSE WHATSOEVER. TXDOT ASSUMES NO RESPONSIBILITY FOR THE CONVERSION OF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

https://www.dot.state.tx.us/ftw/spec/info/standard.htm  
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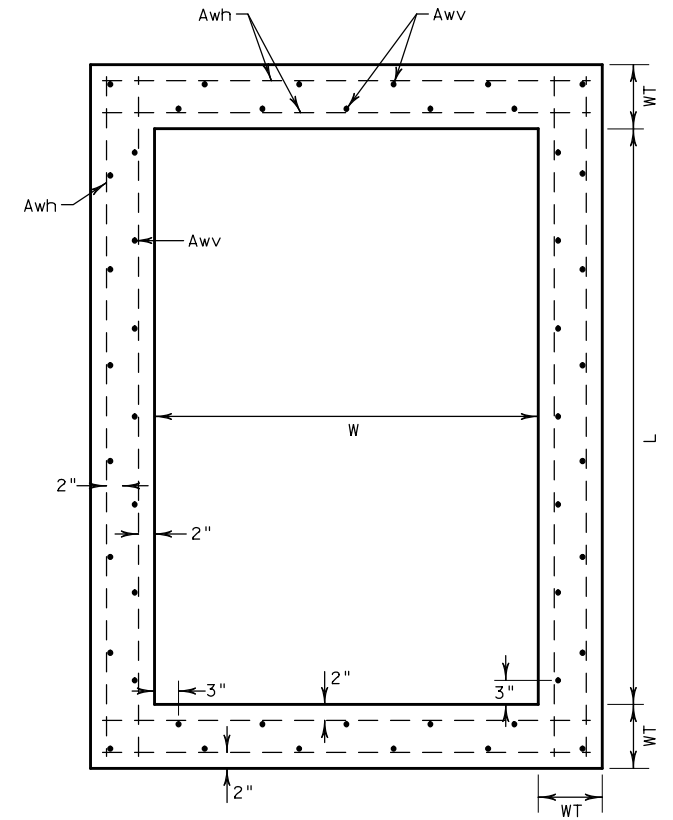
- ① FOR STRUCTURES WHERE W=L PROVIDE BARS Axs IN BOTH LONG AND SHORT (L AND W) DIRECTIONS AS SHOWN, FOR L>W, BARS Axs ONLY REQUIRED.
- ② BARS Axs MAY BE OMITTED IF DIRECTLY ABOVE THE WALL.



**PLAN VIEW**  
 SHOWING TOP SLAB REINFORCEMENT  
 N. T. S.

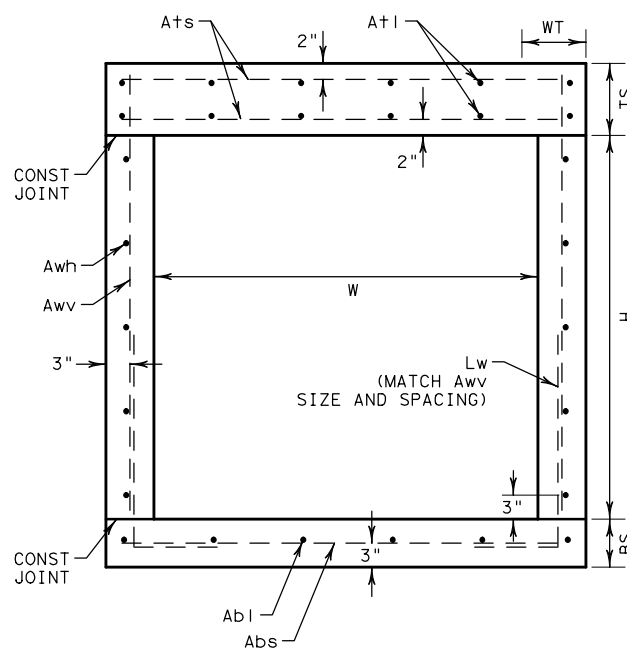


**SINGLE LAYER REINFORCING**  
 FOR WT = 6"

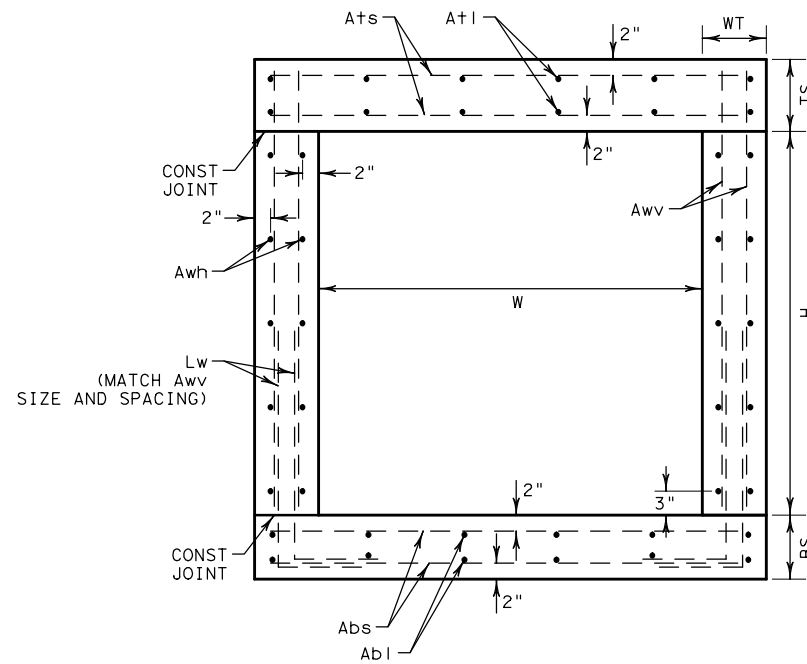


**DOUBLE LAYER REINFORCING**  
 FOR WT >= 8"

**PLAN VIEW**  
 SHOWING WALL REINFORCEMENT  
 N. T. S.



**SINGLE LAYER WALL REINFORCING**  
 FOR BS = 6"  
 FOR WT = 6"



**DOUBLE LAYER WALL REINFORCING**  
 FOR BS >= 8"  
 FOR WT >= 8"

**SECTION A-A**  
 N. T. S.

Maximum Conduit Size		
"L" Or "W"	Pipe Diam. (IN)	Box Span (FT)
3'	24	-
4'	36	3
5'	42	3
6'	54	4
7'	66	5
8'	78	6

**GENERAL NOTES**

- DESIGNED FOR AASHTO LRFD HL 93 LOADING.
- STRUCTURES MAY BE EITHER CAST-IN-PLACE OR PRECAST. FOR PRECAST STRUCTURES, SUBMIT SEALED ENGINEERING CALCULATIONS AND DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
- USE CLASS "C" CONCRETE FOR CAST-IN-PLACE STRUCTURES; USE CLASS "H" CONCRETE (MINIMUM 5000 PSI DESIGN STRENGTH) FOR PRECAST STRUCTURES.
- USE GRADE 60 STEEL FOR ALL REINFORCING.
- DIMENSIONS RELATING TO REINFORCING STEEL ARE TO THE CENTERS OF BARS.
- FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM DRAIN PIPE.
- FOR PIPE OR BOX CONNECTIONS TO PRECAST STRUCTURES, SEE STANDARD PBGC.
- LOCATION OF STRUCTURE AS SHOWN IN THE PLANS REFERS TO THE CONTROL POINT FOR THE SURFACE FEATURE INDICATED ON THE APPLICABLE STANDARD AND DETAILED ON THE "DRAINAGE STRUCTURE CONTROL DATA" SHEET. LOCATE AND POSITION BASE AS DETAILED ON THE DRAINAGE STRUCTURE CONTROL DATA SHEET, OR AS DIRECTED.

SHEET 1 OF 2 SHEETS

		<b>Fort Worth District Standard</b>	
<h2>MANHOLE AND INLET BASE AND RISER MI-B&amp;R (FTW)</h2>			
ORIGINAL DRAWING: 05/2019   mibr-ftw.dgn		PROJECT NO.	
DATE: 05/2019		SHEET NO.	
REVISIONS		6	
NEW STANDARD		STATE: TEXAS	
REVISION WALL THICKNESS; ADD MAX CONDUIT SIZE TABLE; REINFORCING FOR DEPTH > 15'; REVISE REINFORCING TABLE.		COUNTY: FTW	
CONT.		SECT.	
JOB		HIGHWAY NO.	

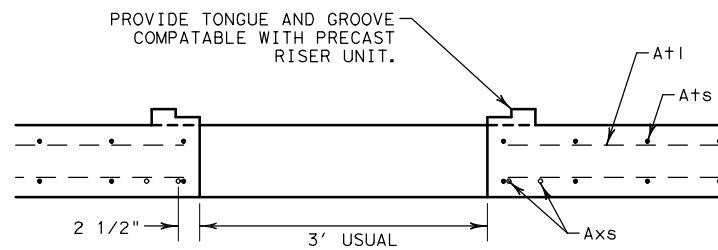
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https://www.dot.state.tx.us/ftw/spec/info/standard.htm  
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 T:\Groups\00\_KATY\PROJECTS\TXDOT\16121\5 FTW Standards Revision\CADD\SWA1\Standard Revisions\mibr-ftw.dgn

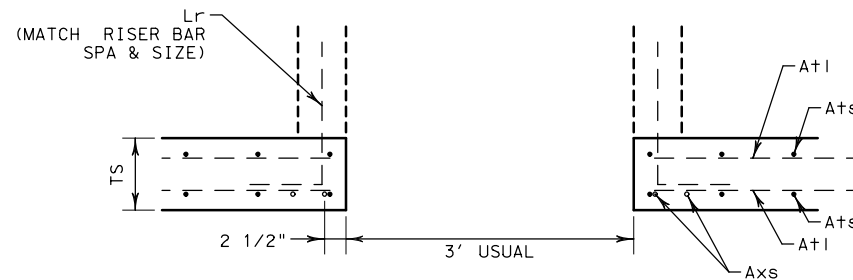
## BILL OF REINFORCING STEEL

SIZE			MAX DEPTH = 25' TO TOP OF BASE SLAB										MAX DEPTH = 15' TO TOP OF BASE SLAB									
			BASE SLAB			WALL			TOP SLAB				BASE SLAB			WALL			TOP SLAB			
L	W	H	BS*	Abs	Abi	WT*	Awh	Aww	TS*	Ats	Axs**	Atl	BS*	Abs	Abi	WT*	Awh	Aww	TS*	Ats	Axs**	Atl
8'	8' or 7'	8' or 7'	9"	#5 AT 8"	#5 AT 8"	10"	#5 AT 8"	#5 AT 8"	12"	#5 AT 9"	2~ #5	#5 AT 9"	9"	#5 AT 10"	#5 AT 10"	10"	#5 AT 10"	#5 AT 10"	12"	#5 AT 12"	1~ #5	#5 AT 12"
8'	<=6'	8' or 7'	9"	#5 AT 8"	#5 AT 12"	9"	#5 AT 8"	#5 AT 8"	12"	#5 AT 10"	1~ #5	#5 AT 12"	9"	#5 AT 10"	#5 AT 12"	9"	#5 AT 10"	#5 AT 10"	12"	#5 AT 12"	1~ #5	#5 AT 12"
8'	8' or 7'	<=6'	9"	#5 AT 8"	#5 AT 8"	9"	#5 AT 8"	#5 AT 8"	12"	#5 AT 9"	2~ #5	#5 AT 9"	9"	#5 AT 10"	#5 AT 10"	9"	#5 AT 10"	#5 AT 10"	12"	#5 AT 12"	1~ #5	#5 AT 12"
8'	<=6'	<=6'	8"	#5 AT 8"	#5 AT 12"	8"	#5 AT 8"	#5 AT 8"	12"	#5 AT 10"	1~ #5	#5 AT 12"	8"	#5 AT 10"	#5 AT 12"	8"	#5 AT 10"	#5 AT 10"	12"	#5 AT 12"	1~ #5	#5 AT 12"
7'	7' or 6'	7' or 6'	9"	#5 AT 10"	#5 AT 10"	9"	#5 AT 9"	#5 AT 9"	10"	#5 AT 8"	2~ #5	#5 AT 8"	9"	#4 AT 10"	#4 AT 10"	9"	#4 AT 9"	#4 AT 9"	10"	#5 AT 10"	1~ #5	#5 AT 10"
7'	<=5'	7' or 6'	8"	#5 AT 9"	#5 AT 12"	8"	#5 AT 9"	#5 AT 9"	10"	#5 AT 8"	2~ #5	#5 AT 12"	8"	#4 AT 9"	#4 AT 9"	8"	#4 AT 9"	#4 AT 9"	10"	#5 AT 10"	1~ #5	#5 AT 12"
7'	7' or 6'	<=5'	8"	#5 AT 9"	#5 AT 9"	8"	#5 AT 9"	#5 AT 9"	10"	#5 AT 8"	2~ #5	#5 AT 8"	8"	#4 AT 9"	#4 AT 9"	8"	#4 AT 9"	#4 AT 9"	10"	#5 AT 10"	1~ #5	#5 AT 10"
7'	<=5'	<=5'	8"	#5 AT 9"	#5 AT 12"	8"	#5 AT 9"	#5 AT 9"	10"	#5 AT 8"	2~ #5	#5 AT 12"	8"	#4 AT 9"	#4 AT 12"	8"	#4 AT 9"	#4 AT 9"	10"	#5 AT 10"	1~ #5	#5 AT 12"
6'	6' or 5'	6' or 5'	8"	#5 AT 10"	#5 AT 10"	8"	#5 AT 9"	#5 AT 9"	9"	#5 AT 8"	2~ #5	#5 AT 8"	8"	#4 AT 10"	#4 AT 10"	8"	#4 AT 8"	#4 AT 8"	9"	#5 AT 9"	1~ #5	#5 AT 9"
6'	<=4'	6' or 5'	8"	#5 AT 10"	#5 AT 12"	8"	#5 AT 10"	#5 AT 10"	9"	#5 AT 9"	1~ #5	#5 AT 12"	8"	#4 AT 10"	#4 AT 12"	8"	#4 AT 10"	#4 AT 10"	9"	#5 AT 10"	1~ #5	#5 AT 12"
6'	6' or 5'	<=4'	8"	#5 AT 10"	#5 AT 10"	8"	#5 AT 10"	#5 AT 10"	9"	#5 AT 8"	2~ #5	#5 AT 8"	8"	#4 AT 10"	#4 AT 10"	8"	#4 AT 10"	#4 AT 10"	9"	#5 AT 9"	1~ #5	#5 AT 9"
6'	<=4'	<=4'	8"	#5 AT 10"	#5 AT 12"	8"	#5 AT 12"	#5 AT 12"	9"	#5 AT 9"	1~ #5	#5 AT 12"	8"	#4 AT 10"	#4 AT 12"	8"	#4 AT 12"	#4 AT 12"	9"	#5 AT 10"	1~ #5	#5 AT 12"
5'	5' or 4'	<=5'	8"	#4 AT 10"	#4 AT 10"	8"	#4 AT 10"	#4 AT 10"	9"	#5 AT 9"	1~ #5	#5 AT 9"	6"	#4 AT 7"	#4 AT 7"	6"	#4 AT 7"	#4 AT 7"	9"	#5 AT 10"	1~ #5	#5 AT 10"
5'	3'	<=5'	8"	#4 AT 10"	#4 AT 10"	8"	#4 AT 10"	#4 AT 10"	9"	#4 AT 10"	1~ #4	#4 AT 12"	6"	#4 AT 9"	#4 AT 12"	6"	#4 AT 9"	#4 AT 9"	9"	#4 AT 12"	1~ #4	#4 AT 12"
4'	4' or 3'	4' or 3'	8"	#4 AT 12"	#4 AT 12"	8"	#4 AT 12"	#4 AT 12"	9"	#4 AT 10"	1~ #4	#4 AT 10"	6"	#4 AT 12"	#4 AT 12"	6"	#4 AT 12"	#4 AT 12"	9"	#4 AT 12"	1~ #4	#4 AT 12"
3'	3'	3'	8"	#4 AT 12"	#4 AT 12"	8"	#4 AT 12"	#4 AT 12"	9"	#4 AT 12"	1~ #4	#4 AT 12"	6"	#4 AT 12"	#4 AT 12"	6"	#4 AT 12"	#4 AT 12"	9"	#4 AT 12"	1~ #4	#4 AT 12"

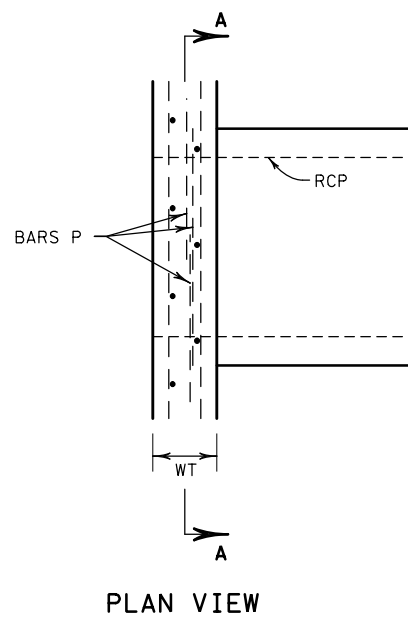
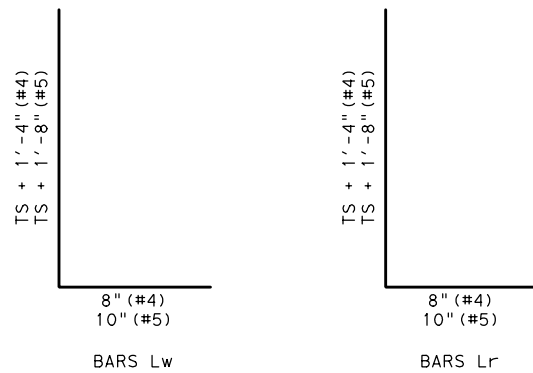
\*PLACE TWO LAYERS OF REINFORCING MAT IN CONCRETE THICKNESSES EQUAL OR GREATER THAN 8". PLACE ONE LAYER OF REINFORCING MAT IN 6" THICK WALL/SLAB.  
 \*\* ADDITIONAL REINFORCING BAR(S), Axs, REQUIRED AROUND BLOCKOUT PERIMETER. PLACE BARS Axs PARALLEL WITH BARS Ats IN THE SHORT DIRECTION. AND PLACE BARS Axs PARALLEL WITH BARS Atl IN THE LONG DIRECTION ONLY AS REQUIRED.  
 FOR TOP SLAB W=L, BAR(S) Axs ARE REQUIRED IN BOTH SHORT AND LONG DIRECTION.  
 IF TWO ADDITIONAL Axs BARS REQUIRED PER TABLE, PLACE THE SECOND Axs BAR AT 4" SPACING FROM THE FIRST Axs BAR IF THE Ats SPACING IS 8" OR GREATER, OTHERWISE BUNDLE WITH THE SECOND Ats BAR.



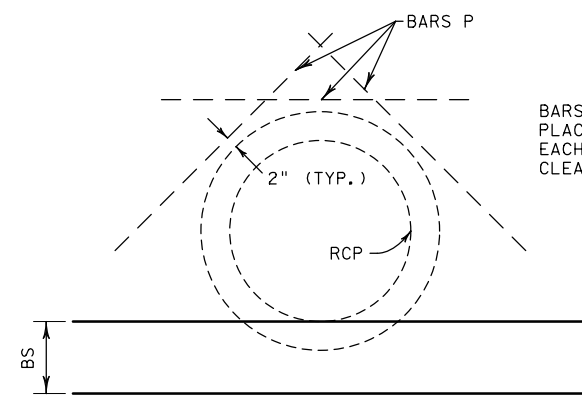
**CONNECTION FOR PRECAST RISER**  
 N. T. S.



**CONNECTION FOR CAST-IN-PLACE RISER**  
 N. T. S.



PLAN VIEW



SHOWING ONLY BARS P FOR CLARITY

**SECTION A-A**  
 N. T. S.

### SUPPLEMENTAL REINFORCEMENT RCP CONNECTION (CAST-IN-PLACE ONLY)

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SHEET 2 OF 2 SHEETS

		<b>Fort Worth District Standard</b>	
<b>MANHOLE AND INLET BASE AND RISER MI-B&amp;R (FTW)</b>			
ORIGINAL DRAWING: 05/2019   mibr-ftw.dgn		PROJECT NO.	
DATE: 07/2022		REVISIONS: 6	
NEW STANDARD		STATE DISTRICT: TEXAS FTW	
REVISE WALL THICKNESS & REINFORCING FOR DEPTH > 15'; REVISE REINFORCING TABLE.		COUNTY:	
CONT.		SECT. JOB HIGHWAY NO.	