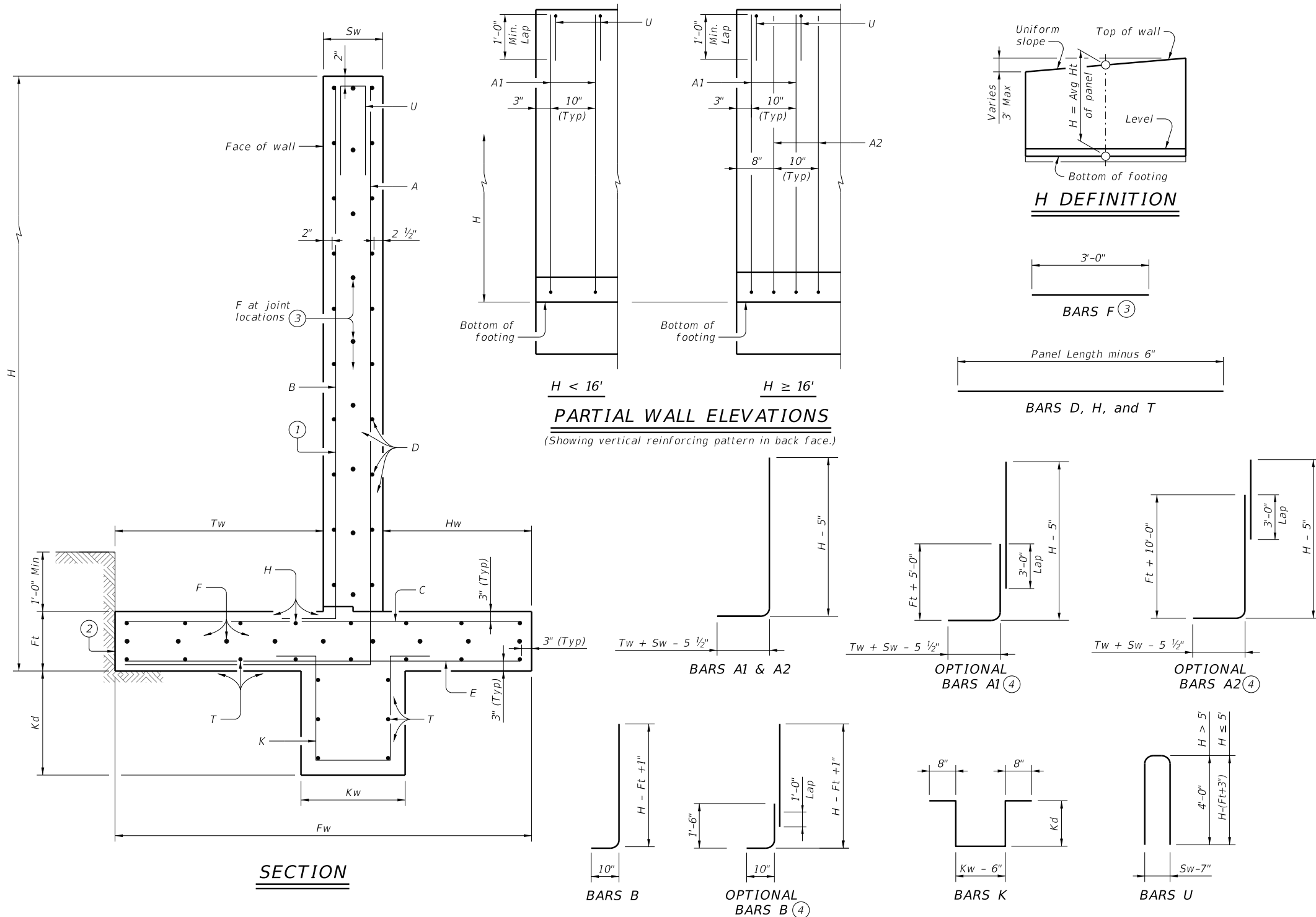


DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act." No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:

Wall Height "H" (Ft)	PROPERTIES								REINFORCING STEEL FOR ONE 32' PANEL (DESIGN A)																			QUANTITY FOR ONE 32' PANEL		Wall Height "H" (Ft)																					
	WALL DIMENSIONS							MAX SOIL PRESS T/SF	Bars A1			Bars A2			Bars B			Bars C			Bars E			Bars K			D (#5) at 12" Max.		Dowel F at 12" Max.		H (#5) at 12" Max.		T (#5) at 12" Max.		U ~ 39 #5 at 10" Max.		Conc (CY)	REINF (LB)													
	Fw	Tw	Sw	Hw	Ft	Kw	Kd		No.	Size	Spa.	Length	Weight	No.	Size	Spa.	Length	Weight	No.	Size	Spa.	Length	Weight	No.	Size	Spa.	Length	Weight	No.		Size	Spa.	Length	Weight	No.	Weight			No.	Weight	No.	Weight	No.	Weight	Length	Weight					
2	1'-4"	0'-4"	1'-0"	0'-0"	0'-9"	0'-9"	0'-9"	0.164	39	#4	10"	2'-6"	66				39	#4	10"	2'-2"	57									39	#4	10"	3'-1"	81	6	198	5	41	2	66	2	66	2'-5"	99	3.4	674	2				
4	2'-5"	0'-8"	1'-0"	0'-9"	1'-0"	0'-9"	0'-9"	0.287	39	#4	10"	4'-10"	126				39	#4	10"	3'-11"	103	39	#4	10"	1'-11"	50	39	#4	10"	1'-11"	50	39	#4	10"	3'-1"	81	8	263	7	57	3	99	3	99	6'-0"	245	7.1	1173	4		
6	3'-6"	1'-2"	1'-0"	1'-4"	1'-0"	0'-9"	0'-9"	0.373	39	#4	10"	7'-4"	192				39	#4	10"	5'-11"	155	39	#4	10"	3'-0"	79	39	#4	10"	3'-0"	79	39	#4	10"	3'-1"	81	12	395	10	81	4	132	4	132	8'-5"	343	10.8	1669	6		
8	5'-1"	1'-9"	1'-0"	2'-4"	1'-0"	0'-9"	0'-9"	0.425	39	#4	10"	9'-11"	259				39	#4	10"	7'-11"	207	39	#4	10"	4'-7"	120	39	#4	10"	4'-7"	120	39	#4	10"	3'-1"	81	16	526	14	113	6	198	6	198	8'-5"	343	15.0	2165	8		
10	6'-7"	2'-3"	1'-0"	3'-4"	1'-2"	1'-0"	1'-0"	0.513	39	#4	10"	12'-5"	324				39	#4	10"	9'-9"	255	39	#4	10"	6'-1"	159	39	#4	10"	6'-1"	159	39	#4	10"	3'-10"	100	20	658	18	145	8	263	8	263	8'-5"	343	20.8	2669	10		
12	8'-4"	2'-10"	1'-1"	4'-5"	1'-4"	1'-3"	1'-3"	0.589	39	#5	10"	15'-1"	614				39	#4	10"	11'-7"	302	39	#5	10"	7'-10"	319	39	#4	10"	7'-10"	205	39	#4	10"	4'-7"	120	24	789	21	169	9	296	9	296	8'-6"	346	28.8	3456	12		
14	9'-11"	3'-5"	1'-2"	5'-4"	1'-7"	1'-6"	1'-6"	0.674	39	#6	10"	17'-9"	1040				39	#4	10"	13'-4"	348	39	#6	10"	9'-5"	553	39	#4	10"	9'-5"	246	39	#4	10"	5'-4"	139	28	920	25	201	11	362	11	362	8'-7"	350	38.5	4521	14		
16	11'-5"	4'-0"	1'-3"	6'-2"	1'-9"	1'-9"	1'-9"	0.756	39	#6	10"	20'-5"	1196	39	#4	10"	20'-5"	532	39	#4	10"	15'-2"	396	39	#6	10"	10'-11"	640	39	#4	10"	10'-11"	285	39	#4	10"	6'-1"	159	32	1052	28	225	12	395	12	395	8'-8"	353	48.5	5628	16
18	12'-8"	4'-7"	1'-4"	6'-9"	1'-9"	2'-0"	2'-0"	0.830	39	#6	10"	23'-1"	1353	39	#5	10"	23'-1"	939	39	#4	10"	17'-2"	448	39	#7	10"	12'-2"	971	39	#4	10"	12'-2"	318	39	#4	10"	6'-1"	179	36	1183	32	257	14	460	14	460	8'-9"	356	56.7	6924	18
20	14'-4"	5'-2"	1'-6"	7'-8"	2'-0"	2'-0"	2'-0"	0.910	39	#6	10"	25'-10"	1514	39	#6	10"	25'-10"	1514	39	#4	10"	18'-11"	493	39	#7	10"	13'-10"	1103	39	#4	10"	13'-10"	361	39	#4	10"	6'-10"	179	38	1249	34	273	15	493	15	493	8'-11"	363	70.8	8035	20



- ① Place vertical bars inside of horizontal bars (Typical both faces).
- ② Place footing toe against undisturbed soil.
- ③ See Retaining Wall Miscellaneous Details (RW(SF)) standard for size.
- ④ Optional bars splices not included in above table.

**MATERIAL NOTES:**

Provide Class C concrete (f'c=3,600 psi.)  
Provide Grade 60 reinforcing steel.

**GENERAL NOTES:**

Designed according to AASHTO LRFD Bridge Design Specifications.  
Walls are designed assuming unit weight of soil = 120 pcf and a friction angle = 30 degrees for foundation and retained soil.  
See Retaining Wall Miscellaneous Details (RW(SF)) standard for details and notes not shown.  
These details provide designs for wall heights of 2 to 20 feet. For heights not shown, round up "H" to determine wall dimensions and reinforcing. (For example, a 9-foot high wall would use the 10-foot high dimensions and reinforcing.)  
Quantities are based on "H" being average height of panel.  
Retaining walls are designed to be coded as follows on Retaining Wall Layout Sheets:

- A - 15 - 32 Panel length ~ 32 ft. is standard; 28 ft. requires special quantities.
- Average height (H) of panel.
- Design A = No surcharge or slope above wall.
- Design B = No surcharge; slopes to 3:1.
- Design C = Traffic surcharge; no slope above wall.

Cover dimensions are clear dimensions, unless noted otherwise.  
Reinforcing bar dimensions shown are out-to-out of bar.



**SPREAD FOOTING RETAINING WALL**

**RW(SFA)**

FILE: RW-SFA-22.dgn	DN: TAR	CK: RLE	DW: JER	CK: TAR
©TxDOT June 2022	CONT	SECT	JOB	HIGHWAY
REVISIONS				
8-22: Constructability update.	DIST	COUNTY	SHEET NO.	