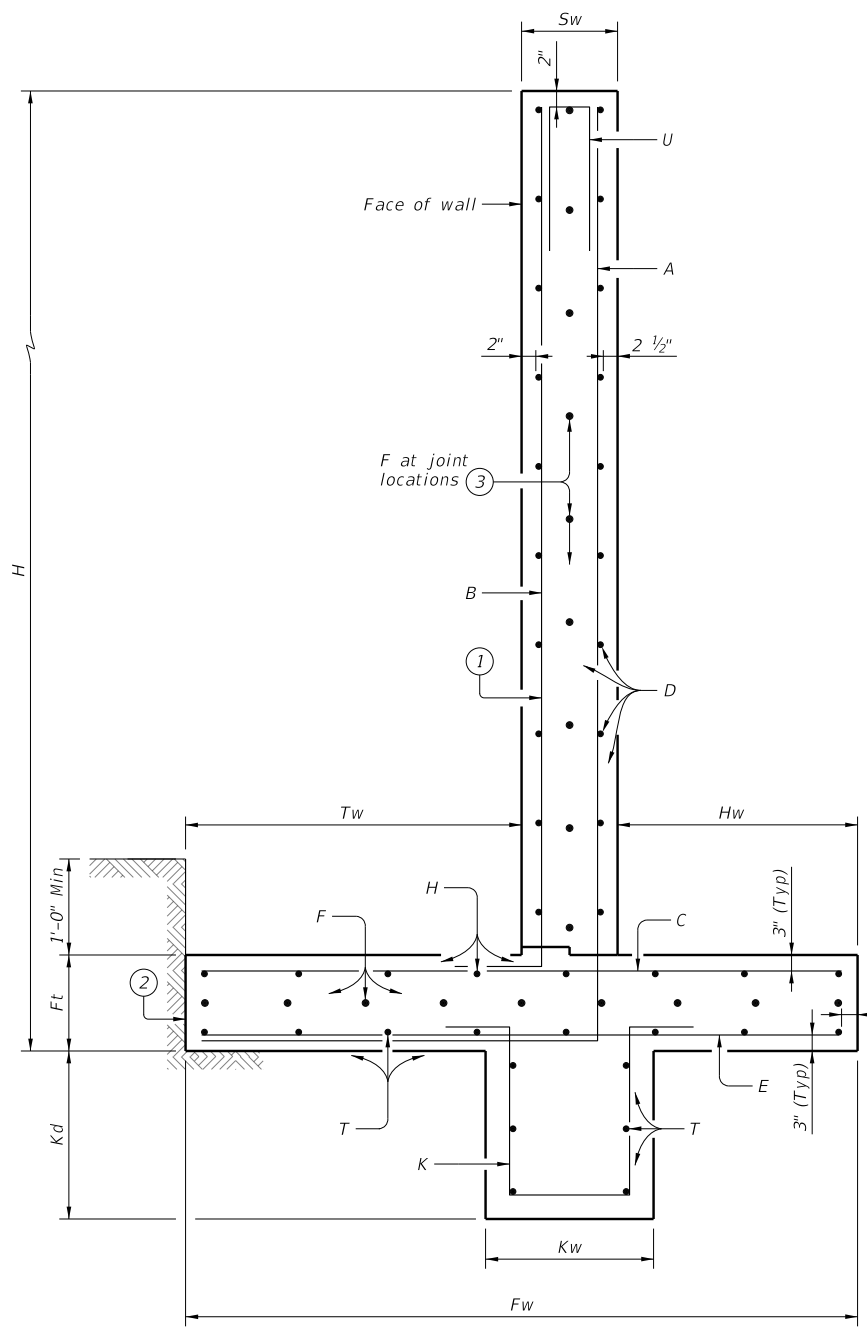


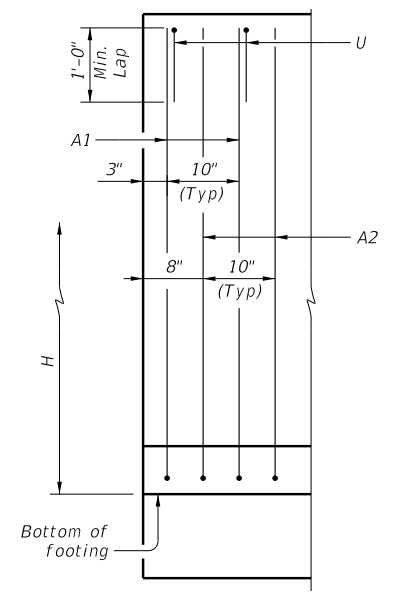
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act." No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:

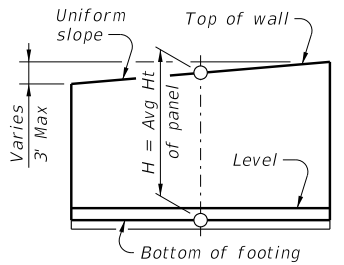
Wall Height "H" (Ft)	PROPERTIES								REINFORCING STEEL FOR ONE 32' PANEL (DESIGN C)																				QUANTITY FOR ONE 32' PANEL		Wall Height "H" (Ft)																				
	WALL DIMENSIONS							MAX SOIL PRESS T/SF	Bars A1		Bars A2		Bars B		Bars C		Bars E		Bars K		D (#5) at 12" Max.		Dowel F at 12" 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	5'-0"	1'-0"	1'-0"	3'-0"	1'-0"	1'-0"	1'-0"	0.218	39	#4	10"	3'-2"	83	39	#4	10"	3'-2"	83	39	#4	10"	1'-11"	50	39	#4	10"	4'-6"	118	39	#4	10"	4'-6"	118	39	#4	10"	3'-10"	100	4	132	8	65	6	198	6	198	2'-0"	82	8.3	1227	2
4	5'-0"	1'-0"	1'-0"	3'-0"	1'-0"	1'-0"	1'-0"	0.321	39	#4	10"	5'-2"	135	39	#4	10"	5'-2"	135	39	#4	10"	3'-11"	103	39	#4	10"	4'-6"	118	39	#4	10"	4'-6"	118	39	#4	10"	3'-10"	100	8	263	10	81	6	198	6	198	6'-0"	245	10.7	1694	4
6	5'-6"	1'-6"	1'-0"	3'-0"	1'-0"	1'-0"	1'-0"	0.395	39	#4	10"	7'-8"	200	39	#4	10"	7'-8"	200	39	#4	10"	5'-11"	155	39	#4	10"	5'-0"	131	39	#4	10"	5'-0"	131	39	#4	10"	3'-10"	100	12	395	12	97	6	198	6	198	8'-5"	343	13.7	2148	6
8	7'-4"	1'-9"	1'-1"	4'-6"	1'-0"	1'-0"	1'-0"	0.500	39	#4	10"	10'-0"	261	39	#4	10"	10'-0"	261	39	#4	10"	7'-11"	207	39	#4	10"	6'-10"	179	39	#4	10"	6'-10"	179	39	#4	10"	3'-10"	100	16	526	16	129	8	263	8	263	8'-6"	346	18.9	2714	8
10	8'-8"	2'-4"	1'-1"	5'-3"	1'-2"	1'-6"	1'-6"	0.590	39	#5	10"	12'-7"	512	39	#4	10"	12'-7"	328	39	#4	10"	9'-9"	255	39	#5	10"	8'-2"	333	39	#4	10"	8'-2"	213	39	#4	10"	5'-4"	139	20	658	20	161	10	329	10	329	8'-6"	346	26.0	3603	10
12	10'-4"	2'-11"	1'-2"	6'-3"	1'-4"	1'-9"	1'-9"	0.684	39	#5	10"	15'-3"	621	39	#4	10"	15'-3"	398	39	#4	10"	11'-7"	302	39	#5	10"	9'-10"	400	39	#4	10"	9'-10"	257	39	#4	10"	6'-1"	159	24	789	23	185	11	362	11	362	8'-7"	350	34.8	4185	12
14	11'-8"	3'-6"	1'-4"	6'-10"	1'-7"	2'-0"	2'-0"	0.769	39	#5	10"	18'-0"	733	39	#4	10"	18'-0"	469	39	#4	10"	13'-4"	348	39	#5	10"	11'-2"	455	39	#4	10"	11'-2"	291	39	#4	10"	6'-10"	179	28	920	27	217	13	428	13	428	8'-9"	356	46.3	4824	14
16	13'-1"	4'-0"	1'-6"	7'-7"	1'-9"	2'-0"	2'-0"	0.853	39	#5	10"	20'-8"	841	39	#5	10"	20'-8"	841	39	#4	10"	15'-2"	396	39	#6	10"	12'-7"	738	39	#4	10"	12'-7"	329	39	#4	10"	6'-10"	179	32	1052	30	241	14	460	14	460	8'-11"	363	57.3	5900	16
18	14'-7"	4'-6"	1'-8"	8'-5"	1'-9"	2'-0"	2'-0"	0.937	39	#6	10"	23'-4"	1367	39	#5	10"	23'-4"	950	39	#4	10"	17'-2"	448	39	#7	10"	14'-1"	1124	39	#4	10"	14'-1"	368	39	#4	10"	6'-10"	179	36	1183	34	273	16	526	16	526	9'-1"	370	67.1	7314	18
20	16'-5"	5'-0"	1'-10"	9'-7"	2'-0"	2'-0"	2'-0"	1.039	39	#6	10"	26'-0"	1524	39	#6	10"	26'-0"	1524	39	#4	10"	18'-11"	493	39	#7	10"	17'-11"	1429	39	#4	10"	17'-11"	467	39	#4	10"	6'-10"	179	38	1249	36	289	17	559	17	559	9'-3"	377	82.8	8649	20



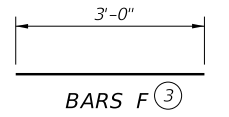
SECTION



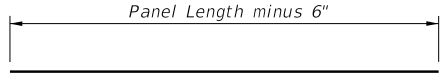
PARTIAL WALL ELEVATION
(Showing vertical reinforcing pattern in back face.)



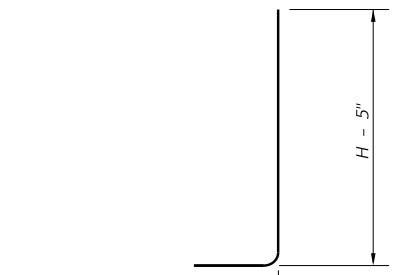
H DEFINITION



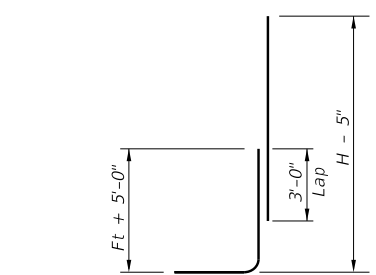
BARS F



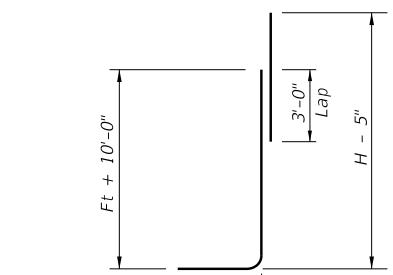
BARS D, H, and T



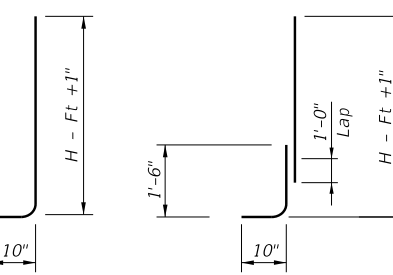
BARS A1 & A2



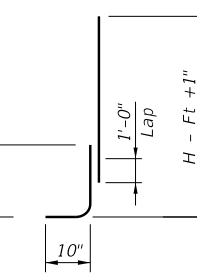
OPTIONAL BARS A1



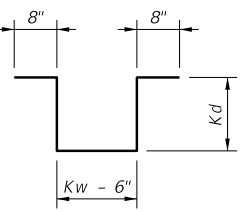
OPTIONAL BARS A2



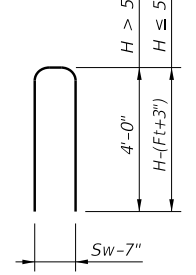
BARS B



OPTIONAL BARS B



BARS K



BARS U

- Place vertical bars inside of horizontal bars (Typical both faces).
- Place footing toe against undisturbed soil.
- See Retaining Wall Miscellaneous Details (RW(SF)) standard for size.
- 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:

- C - 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.

Texas Department of Transportation

Bridge Division Standard

SPREAD FOOTING RETAINING WALL

RW(SFC)

FILE: RW-SFC-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.