Sprint

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EX PARTE OR LATE FILED

EX PARTE

July 31, 1998

Ms. Magalie Roman Salas
Secretary - Federal Communications Commission
1919 M Street, N.W. Room 222
Washington, D.C. 20554

RE: CC Docket Nos. 96-45 and 97-160

Dear Ms. Salas,

On July 30, 1998, a meeting was held between the sponsors of the HAI model, the BCPM sponsors, and representatives of the Common Carrier Bureau of the FCC with regard to the above referenced dockets. Representing the HAI sponsors were Rich Clark, Chris Frentrup, John Donovan, and Mike Lieberman. Representing the BCPM sponsors were Whit Jordan of BellSouth, Peter Copeland and Mark Wright of US WEST, and Brian Staihr, Kent Dickerson, Carl Laemmli, and Pete Sywenki of Sprint. Representing the FCC were Abdel Eqab, Bob Loube, Katy King, Paula Cech, Dick Kwiatkowski, and Richard Smith.

The purpose of the meeting was to provide information in response to several cost proxy model input issues that were raised by the FCC staff. The attached materials were presented by Sprint during the meeting.

The original and three copies of this notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(b)(1) of the Commission's rules. If there are any questions, please call.

Sincerely,

Pete Sywenki

Attachments

023

Indoor SAI Cost Analysis

July 30, 1998

Sprint - Local Telecommunications Division
Carl Laemmli, Sr. Manager - Network Costing
Telephone: (913) 624-1712
E-Mail: carl.laemmli@sprint.mail.com

Indoor SAI Cost Analysis

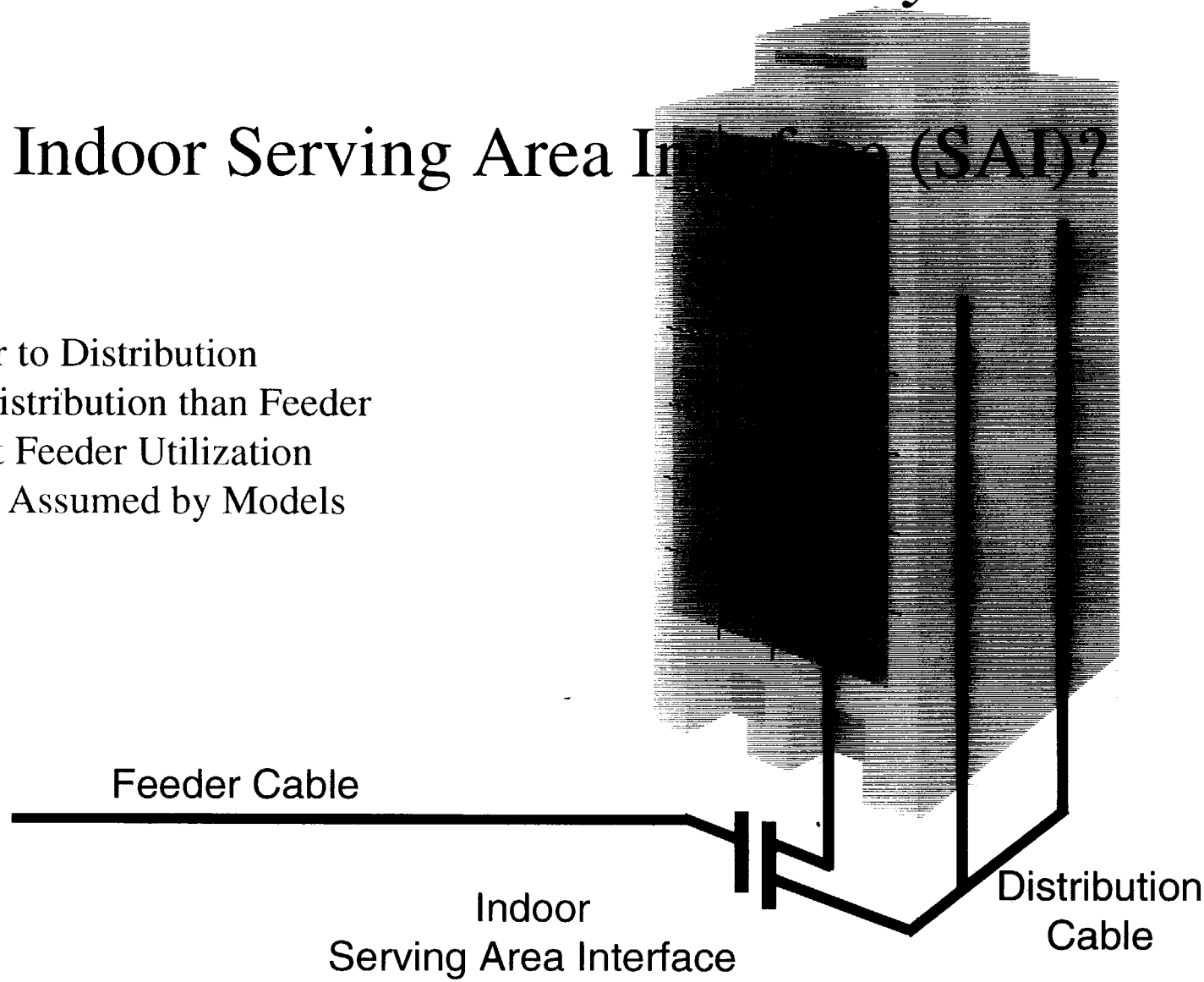
ISSUE: Large Disparity in Model Input Costs for Indoor SAIs

1) Identify what components comprise an Indoor SAI
2) Determine the costs for these components
3) Use HAI's Photo as a Starting Point
4) Move towards agreement on Indoor SAI Costs

Indoor SAI Cost Analysis

What is an Indoor Serving Area Interface (SAI)?

- Connects Feeder to Distribution
- Usually More Distribution than Feeder
- Allows Efficient Feeder Utilization
- Used by Telcos, Assumed by Models



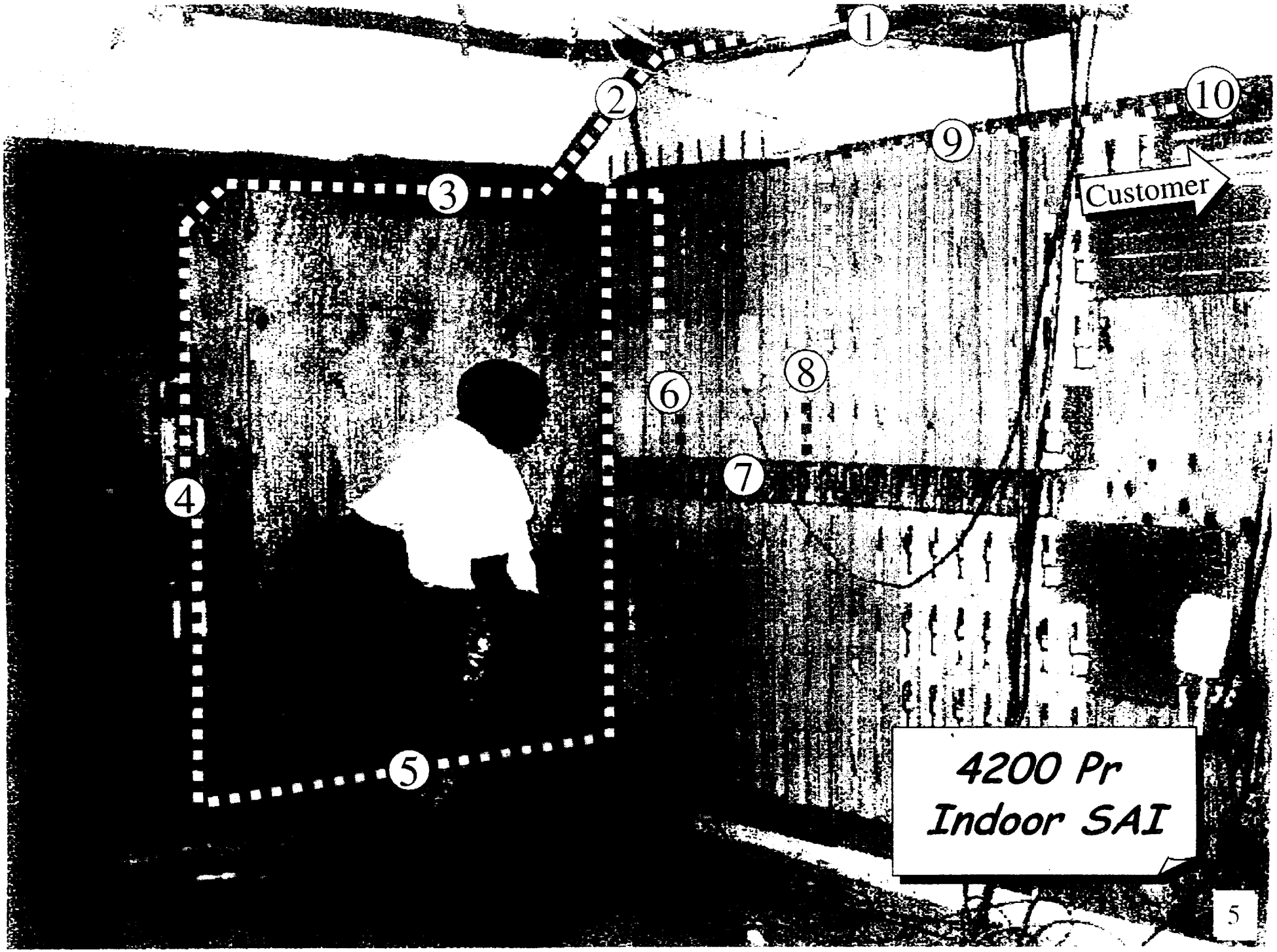
Indoor SAI Cost Analysis

1) Walk Through Depicted Installation

2) Develop Costs from HAI Supported Data

3) Develop Costs from Sprint Data

"Goal is to Agree on what is included in an Indoor SAI and what it should cost"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Customer
4200 Pr
Indoor SAI

Indoor SAI Cost Analysis

SAI Cost Work Sheet - Sample 7200

SAI Size	**7200**		**Material**
Feeder	3100		**Labor**
Distribution	4100		**Place Jumpers**
			Total
			Cost per Pair

Photo Reference	Material			Labor				
	Units	Unit Cost	Total	Units	U/Hour	Hours	Rate	Total
1 **Building Entrance Splice**								
Splice Case	1			1				
Splice Pairs				3100				
2 **Tip Cable**								
Place Cable	10			10				
3 **Tip Splice**								
Tip Splice				3100				
Tip Splice Case	1			1				
4 **Protection**								
Protectors	31			31				
Terminate Feeder Tie Pairs				3100				
5 **Feeder Tie Cables**								
Place Tie Feeder cables				31				
6 **Place Feeder Blocks**								
Place 66 Blocks/Brackets/Mtg	124			124				
Terminate Feeder Pairs				3100				
7 **Place Cross Connect Jumpers**								
Place Cross-Connects				2480				
8 **Place Distribution Blocks**								
Place 66 Blocks/Brackets/Mtg	164			164				
Terminate Distribution Pairs				4100				
9 **Place Distribution Tie Cables**								
Place Tie Feeder cables				41				
10 **Distribution Splice**								
Distribution Splice				4100				
Splice Case	1			1				
	Total Material		**$0**	**Total Labor**				**$0**

Summary

HAI "Bottom Up" Pricing versus HAI Defaults

Reference> SAI Size	Feeder Pairs[1]	Jumpers Needed[2]	1 Entrance Splice	2 Tip Cable	3 Tip Splice	4 Protection Cost[4]	5 Feeder Tie Cable	6 Feeder Blocks	7 Jumper Cost[5]	8 Distribution Blocks	9 Dist Tie Cable	10 Distribution Splice	**HAI Bottom Up Cost ***	**HAI Default Input[3]**
50	25	20				$50			$27				**$77**	**$98**
100	50	40				$100			$54				**$154**	**$148**
200	100	80				$200			$107				**$307**	**$296**
400	200	160				$400			$215				**$615**	**$592**
600	300	240				$600			$322				**$922**	**$888**
900	400	320				$800			$430				**$1,230**	**$1,232**
1200	500	400				$1,000			$537				**$1,537**	**$1,776**
1800	800	640				$1,600			$859				**$2,459**	**$2,464**
2400	1,000	800				$2,000			$1,074				**$3,074**	**$3,352**
3600	1,500	1,200				$3,000			$1,611				**$4,611**	**$4,928**
5400	2,300	1,840				$4,600			$2,471				**$7,071**	**$7,392**
7200	3,100	2,480				$6,200			$3,330				**$9,530**	**$9,656**

*** Cost of *Only* the Jumpers and Protection**

[1] Source: Calculated from HAI 5.0 Inputs Portfolio, 12/31/1997, P.43

[2] Source: Calculated from HAI 5.0 Inputs Portfolio, 12/31/1997, P. 32 & 57

[3] Source: HAI 5.0 Inputs Portfolio, 12/31/1997, P.43

[4] Source: HAI 5.0 Inputs Portfolio, 12/31/1997, P. 43 ($2 per Feeder Pair)

[5] Source: AT&T NRCM Model NTAB2.2 Attachment B P.8 Line 74 (1.25 min/Jumper Place & Test w/ Sprint Rate)
Oral Testimony of Mr. John Donovan, Pres. Telecom Visions, Inc for AT&T
Testimony of Mr. Richard Walsh, Nevada 98-6005, July 1, 1998, P.32, line 15-17

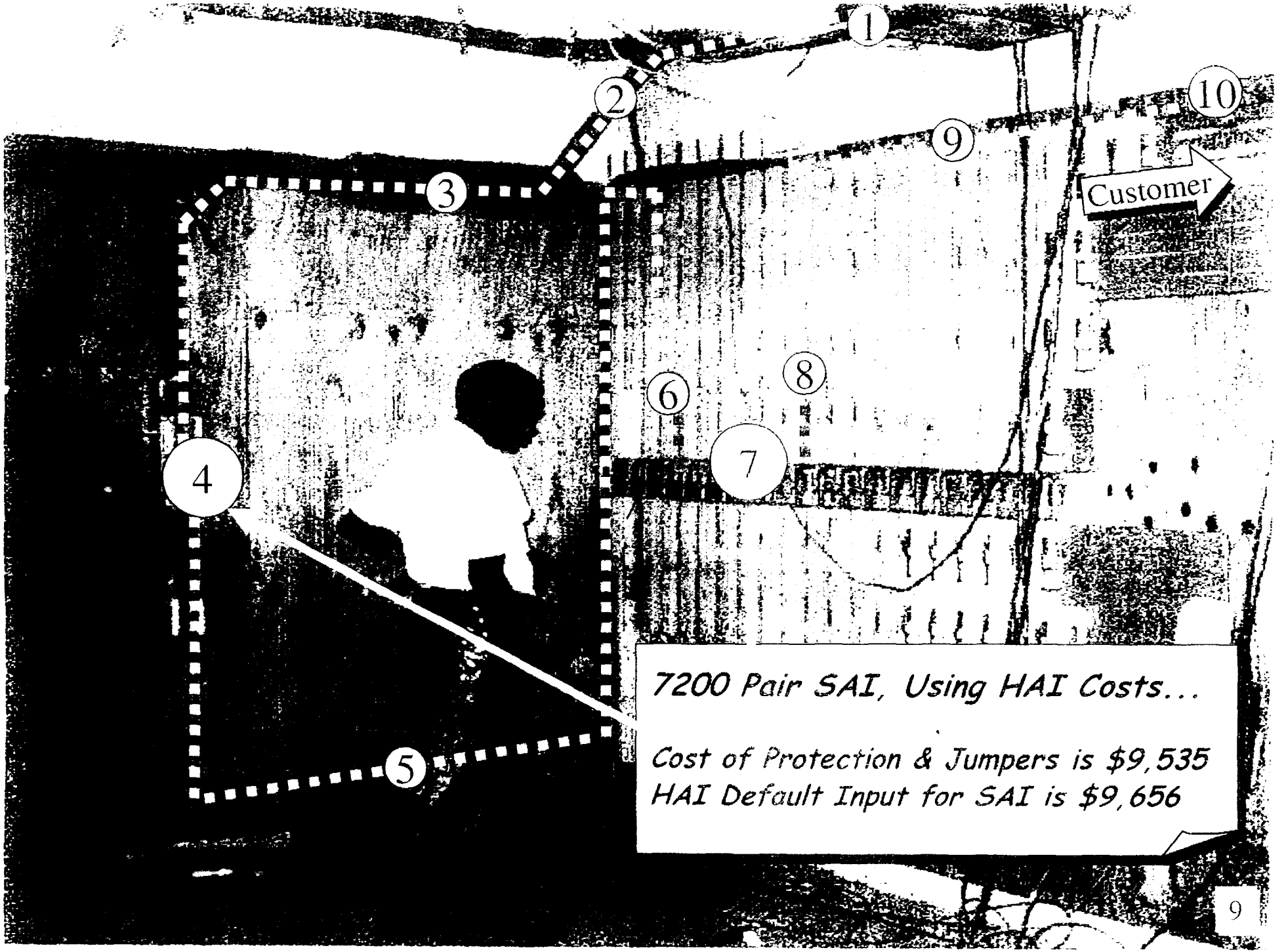
Indoor SAI Cost Analysis

SAI Cost Work Sheet - HAI "Bottom Up" Data 7200

SAI Size	**7200**
Feeder	3100
Distribution	4100

Material	**$6,200**
Labor	**$0**
Place Jumpers	**$3,330**
Total	**$9,530**
Cost per Pair	**$1.32**

Photo Reference	Material			Labor				
	Units	Unit Cost	Total	Units	U/Hour	Hours	Rate	Total
1 **Building Entrance Splice**								
Splice Case	1		$0.00	1				$0
Splice Pairs				3100				$0
2 **Tip Cable**								
Place Cable	10		$0.00	10				$0
3 **Tip Splice**								
Tip Splice				3100				$0
Tip Splice Case	1		$0	1				$0
4 **Protection**								
Protectors	31	$200	$6,200	31				$0
Terminate Feeder Tie Pairs				3100				$0
5 **Feeder Tie Cables**								
Place Tie Feeder cables				31				$0
6 **Place Feeder Blocks**								
Place 66 Blocks/Brackets/Mtg	124			124				$0
Terminate Feeder Pairs				3100				$0
7 **Place Cross Connect Jumpers**								
Place Cross-Connects				2480			$1.34	$3,330
8 **Place Distribution Blocks**								
Place 66 Blocks/Brackets/Mtg	164			164				$0
Terminate Distribution Pairs				4100				$0
9 **Place Distribution Tie Cables**								
Place Tie Feeder cables				41				$0
10 **Distribution Splice**								
Distribution Splice				4100				$0
Splice Case	1			1				$0
	Total Material		**$6,200**				**Total Labor**	**$3,330**



7200 Pair SAI, Using HAI Costs...

Cost of Protection & Jumpers is $9,535
HAI Default Input for SAI is $9,656

Indoor SAI Cost Analysis

Summary

HAI "Bottom Up" Pricing versus HAI Defaults

Jumpers Needed[2]	1 Entrance Splice	2 Tip Cable	3 Tip Splice	4 Protection Cost[4]	5 Feeder Tie Cable	6 Feeder Blocks	7 Jumper Cost[5]	8 Distribution Blocks	9 Dist Tie Cable	10 Distribution Splice	**HAI Bottom Up Cost ***	**HAI Default Input[3]**
20				$50			$27				**$77**	**$98**
40				$100			$54				**$154**	**$148**
80				$200			$107				**$307**	**$296**
160				$400			$215				**$615**	**$592**
240				$600			$322				**$922**	**$888**
320				$800			$430				**$1,230**	**$1,232**
400				$1,000			$537				**$1,537**	**$1,776**
640				$1,600			$859				**$2,459**	**$2,464**
800				$2,000			$1,074				**$3,074**	**$3,352**
1,200				$3,000			$1,611				**$4,611**	**$4,928**
1,840				$4,600			$2,471				**$7,071**	**$7,392**
2,480				$6,200			$3,330				**$9,530**	**$9,656**

ulated from HAI 5.0 Inputs Portfolio, 12/31/1997, P.43
ulated from HAI 5.0 Inputs Portfolio, 12/31/1997, P. 32 & 57
.0 Inputs Portfolio, 12/31/1997, P.43
.0 Inputs Portfolio, 12/31/1997, P. 43 ($2 per Feeder Pair)
NRCM Model NTAB2.2 Attachment B P.8 Line 74 (1.25 min/Jumper Place & Test w/ Sprint Rate)
ny of Mr. John Donovan, Pres. Telecom Visions, Inc for AT&T
Mr. Richard Walsh, Nevada 98-6005, July 1, 1998, P.32, line 15-17

*** Cost of *Only* the Jumpers and Protection**

HAI Does Not include all Costs

Indoor SAI Cost Analysis

Develop A Sprint Cost Estimate

- Assumed the Indoor SAI Depicted[1]
- Assumed Jumpers are part of the SAI Cost
- Assumed Sprint Costs for Material and Labor
- Assumed Sprint Work Times

[1] Sprint does not agree that this is the most efficient approach to building an Indoor SAI. The approach in the Photo was used for consistency.

Indoor SAI Cost Analysis

SAI Cost Work Sheet - Sprint Data 7200

SAI Size	**7200**
Feeder	3100
Distribution	4100

Material	**$23,477**
Labor	**$22,143**
Place Jumpers	**$7,992**
Total	**$53,612**
Cost per Pair	**$7.45**

Photo Reference	Materia			Labor				
	Units	Unit Cost	Total	Units	U/Hour	Hours	Rate	Total
1 **Building Entrance Splice**								
Splice Case	1	$150	$150.22	1	0.50	2	$64.45	$129
Splice Pairs				3100	100	31	$64.45	$1,998
2 **Tip Cable**								
Place Cable	10	$12.52	$125.18	10	20	0.5	$64.45	$32
3 **Tip Splice**								
Tip Splice				3100	100	31	$64.45	$1,998
Tip Splice Case	1	$150	$150	1	0.50	2	$64.45	$129
4 **Protection**								
Protectors	31	$662	$20.528	31	2	15.5	$64.45	$129
Terminate Feeder Tie Pairs				3100	60	51.667	$64.45	$3,330
5 **Feeder Tie Cables**								
Place Tie Feeder cables				31	5	6.2	$64.45	$400
6 **Place Feeder Blocks**								
Place 66 Blocks/Brackets/Mtg	124	$8.76	$1,087	124	6	20.667	$64.45	$1,332
Terminate Feeder Pairs				3100	60	51.667	$64.45	$3,330
7 **Place Cross Connect Jumpers**								
Place Cross-Connects				2480	20	124	$64.45	$7,992
8 **Place Distribution Blocks**								
Place 66 Blocks/Brackets/Mtg	164	$8.76	$1,437	164	6	27.333	$64.45	$1,762
Terminate Distribution Pairs				4100	60	68.333	$64.45	$4,404
9 **Place Distribution Tie Cables**								
Place Tie Feeder cables				41	5	8.2	$64.45	$528
10 **Distribution Splice**								
Distribution Splice				4100	100	41	$64.45	$2,642
Splice Case	1	$150	$150	1	0.50	2	$64.45	$129
	Total Material		**$23,477**				**Total Labor**	**$30,135**

Indoor SAI Cost Analysis

SAI Size	Material	Labor	Jumper	Sprint SAI Cost[1]	HAI Default SAI Cost[2]
50	$428	$511	$64	**$1,004**	**$98**
100	$611	$733	$129	**$1,473**	**$148**
200	$978	$1,046	$258	**$2,282**	**$296**
400	$1,710	$1,674	$516	**$3,899**	**$592**
600	$2,623	$2,301	$773	**$5,697**	**$888**
900	$3,390	$3,156	$1,031	**$7,577**	**$1,232**
1200	$4,157	$4,011	$1,289	**$9,457**	**$1,776**
1800	$6,354	$5,893	$2,062	**$14,309**	**$2,464**
2400	$7,889	$7,603	$2,578	**$18,070**	**$3,352**
3600	$11,620	$11,195	$3,867	**$26,682**	**$4,928**
5400	$17,549	$16,669	$5,929	**$40,147**	**$7,392**
7200	$23,477	$22,143	$7,992	**$53,612**	**$9,656**

[1] Cost for Sprint to place SAI shown in AT&T Photograph

[2] Source: HAI 5.0 Inputs Portfolio, 12/31/1997, P.43

Indoor SAI Cost Analysis

Summary

What we did....

- HAI Provided a Photo of an Indoor SAI
- Sprint Identified the Component Parts
- Sprint did HAI and Sprint "Bottom Up" Costs

What we found...

- SAI Costs are easy to empirically determine
- HAI Does Not Cover the Cost of all Identified Parts
- Sprint's has provided detailed Cost Support to enable FCC Staff to fully account for all Indoor SAI Costs

Sprint Corporation
FCC Ex Parte Meeting
July 30, 1998

Comparison of BCPM and HAI Surface Texture Tables

The procedure used to compare the BCPM and HAI surface texture tables was to convert the values representing the impact in each model to either "Normal" or "Soft Rock" terrain. In BCPM, a "0" represents "Normal" and a "1" indicates "Soft Rock". In HAI, the impact value represents a multiplier to structure costs, so for this analysis the multipliers of 1.0 and 1.1 were assumed to be "Normal", while all other multipliers were considered "Soft Rock". This assumption was based on the relative percent differences in structure costs between Normal and Soft Rock structure in the default BCPM inputs (for example, Soft Rock costs for underground feeder structure ranged from 16% to 45% higher than Normal costs, while Soft Rock costs for buried feeder structure ranged from 16% to 55% higher than Normal costs).

The first difference produced in this comparison between the two models is that HAI does not recognize all of the terrain types shown in BCPM. While BCPM has a total of 690 surface textures, HAI recognizes only 275 (40% of the total). Because of this, the comparison was done on two bases. First, only the 275 surface textures contained in each model were compared. Second, the 415 additional surface textures not found in HAI were assigned an impact based on the closest-related surface texture, and all 690 surface textures were compared.

In the first comparison, 48 of 275 surface textures were considered "Soft Rock" in BCPM but "Normal" in HAI, while 1 of 275 surface textures were considered "Normal" in BCPM but "Soft Rock" in HAI (the remaining 226 surfaces had the same definition). In the second comparison, 134 of 690 surface textures were considered "Soft Rock" in BCPM but "Normal" in HAI, while 7 of 690 surface textures were considered "Normal" in BCPM but "Soft Rock" in HAI (the remaining 549 surfaces had the same definition). The surface textures which varied in both versions were Bouldery, Very Bouldery, Angular Cobbly, Very Flaggy, Extremely Flaggy, Very Gravelly, and Extremely Gravelly.

Based on these results, it appears that HAI has a systematic bias towards understating the impact of terrain on structure costs. Additionally, since HAI does not recognize all possible surface textures, there is a possibility of excluding any terrain impact in those clusters with the affected surface texture.

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BY	1	1.0	Bouldery	SoftRock	Normal	TRUE	FALSE
BY-C	1	#N/A	Bouldery & Clay	SoftRock	#N/A	FALSE	FALSE
BY-CL	1	#N/A	Bouldery & Clay Loam	SoftRock	#N/A	FALSE	FALSE
BY-COS	1	1.0	Bouldery & Course Sand	SoftRock	Normal	TRUE	FALSE
BY-COSL	1	#N/A	Bouldery & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
BY-FS	1	#N/A	Bouldery & Fine Sand	SoftRock	#N/A	FALSE	FALSE
BY-FSL	1	1.0	Bouldery & Fine Sandy Loam	SoftRock	Normal	TRUE	FALSE
BY-L	1	1.0	Bouldery & Loam	SoftRock	Normal	TRUE	FALSE
BY-LCOS	1	#N/A	Bouldery & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
BY-LFS	1	#N/A	Bouldery & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
BY-LS	1	1.0	Bouldery & Sandy Loam	SoftRock	Normal	TRUE	FALSE
BY-MPT	1	#N/A	Bouldery & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
BY-MUCK	1	#N/A	Bouldery & Muck	SoftRock	#N/A	FALSE	FALSE
BY-S	1	#N/A	Bouldery & Sand	SoftRock	#N/A	FALSE	FALSE
BY-SC	1	#N/A	Bouldery & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
BY-SCL	1	#N/A	Bouldery & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
BY-SIC	1	#N/A	Bouldery & Silty Clay	SoftRock	#N/A	FALSE	FALSE
BY-SICL	1	1.0	Bouldery & Silty Clay Loam	SoftRock	Normal	TRUE	FALSE
BY-SIL	1	#N/A	Bouldery & Silty Loam	SoftRock	#N/A	FALSE	FALSE
BY-SL	1	1.0	Bouldery & Sandy Loam	SoftRock	Normal	TRUE	FALSE
BY-VFS	1	#N/A	Bouldery & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
BY-VFSL	1	#N/A	Bouldery & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
BYV	1	1.1	Very Bouldery	SoftRock	Normal	TRUE	FALSE
BYV-C	1	#N/A	Very Bouldery & Clay	SoftRock	#N/A	FALSE	FALSE
BYV-CL	1	#N/A	Very Bouldery & Clay Loam	SoftRock	#N/A	FALSE	FALSE
BYV-COS	1	#N/A	Very Bouldery & Course Sand	SoftRock	#N/A	FALSE	FALSE
BYV-COSL	1	#N/A	Very Bouldery & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
BYV-FS	1	#N/A	Very Bouldery & Fine Sand	SoftRock	#N/A	FALSE	FALSE
BYV-FSL	1	1.1	Very Bouldery & Fine Sandy Loam	SoftRock	Normal	TRUE	FALSE
BYV-L	1	1.1	Very Bouldery & Loamy	SoftRock	Normal	TRUE	FALSE
BYV-LCOS	1	#N/A	Very Bouldery & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
BYV-LFS	1	#N/A	Very Bouldery & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
BYV-LS	1	1.1	Very Bouldery & Loamy Sand	SoftRock	Normal	TRUE	FALSE
BYV-MPT	1	#N/A	Very Bouldery & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
BYV-MUCK	1	#N/A	Very Bouldery & Muck	SoftRock	#N/A	FALSE	FALSE
BYV-S	1	#N/A	Very Bouldery & Sand	SoftRock	#N/A	FALSE	FALSE
BYV-SC	1	#N/A	Very Bouldery & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
BYV-SCL	1	#N/A	Very Bouldery & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
BYV-SIC	1	#N/A	Very Bouldery & Silty Clay	SoftRock	#N/A	FALSE	FALSE
BYV-SICL	1	#N/A	Very Bouldery & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
BYV-SIL	1	1.1	Very Bouldery & Silt Loam	SoftRock	Normal	TRUE	FALSE
BYV-SL	1	1.1	Very Bouldery & Sandy Loam	SoftRock	Normal	TRUE	FALSE
BYV-VFS	1	#N/A	Very Bouldery & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
BYV-VFSL	1	#N/A	Very Bouldery & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
BYX	1	1.3	Extremely Bouldery	SoftRock	SoftRock	FALSE	FALSE
BYX-C	1	#N/A	Extremely Bouldery & Clay	SoftRock	#N/A	FALSE	FALSE
BYX-CL	1	#N/A	Extremely Bouldery & Clay Loam	SoftRock	#N/A	FALSE	FALSE
BYX-COS	1	#N/A	Extremely Bouldery & Course Sand	SoftRock	#N/A	FALSE	FALSE
BYX-COSL	1	#N/A	Extremely Bouldery & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
BYX-FS	1	#N/A	Extremely Bouldery & Fine Sand	SoftRock	#N/A	FALSE	FALSE
BYX-FSL	1	1.3	Extremely Bouldery & Fine Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
BYX-L	1	1.3	Extremely Bouldery & Loam	SoftRock	SoftRock	FALSE	FALSE
BYX-LCOS	1	#N/A	Extremely Bouldery & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
BYX-LFS	1	#N/A	Extremely Bouldery & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
BYX-LS	1	#N/A	Extremely Bouldery & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
BYX-MPT	1	#N/A	Extremely Bouldery & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
BYX-MUCK	1	#N/A	Extremely Bouldery & Muck	SoftRock	#N/A	FALSE	FALSE
BYX-S	1	#N/A	Extremely Bouldery & Sand	SoftRock	#N/A	FALSE	FALSE
BYX-SC	1	#N/A	Extremely Bouldery & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
BYX-SCL	1	#N/A	Extremely Bouldery & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
BYX-SIC	1	#N/A	Extremely Bouldery & Silty Clay	SoftRock	#N/A	FALSE	FALSE
BYX-SICL	1	#N/A	Extremely Bouldery & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
BYX-SIL	1	1.3	Extremely Bouldery & Silt Loam	SoftRock	SoftRock	FALSE	FALSE
BYX-SL	1	1.3	Extremely Bouldery & Sandy Loam	SoftRock	SoftRock	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BYX-VFS	1	#N/A	Extremely Bouldery & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
BYX-VFSL	1	#N/A	Extremely Bouldery & Very Fine Sandy Loa	SoftRock	#N/A	FALSE	FALSE
C	0	1.0	Clay	Normal	Normal	FALSE	FALSE
CB	0	1.0	Cobbly	Normal	Normal	FALSE	FALSE
CBA	1	1.0	Angular Cobbly	SoftRock	Normal	TRUE	FALSE
CBA-FSL	1	1.1	Angular Cobbly & Fine Sandy Loam	SoftRock	Normal	TRUE	FALSE
CB-C	0	1.0	Cobbly & Clay	Normal	Normal	FALSE	FALSE
CB-CL	0	1.0	Cobbly & Clay Loam	Normal	Normal	FALSE	FALSE
CB-COS	0	#N/A	Cobbly & Course Sand	Normal	#N/A	FALSE	FALSE
CB-COSL	0	1.0	Cobbly & Coarse Sandy Loam	Normal	Normal	FALSE	FALSE
CB-FS	0	1.1	Cobbly & Fine Sand	Normal	Normal	FALSE	FALSE
CB-FSL	0	1.1	Cobbly & Fine Sandy Loam	Normal	Normal	FALSE	FALSE
CB-L	0	1.0	Cobbly & Loamy	Normal	Normal	FALSE	FALSE
CB-LCOS	0	1.0	Cobbly & Loamy Course Sand	Normal	Normal	FALSE	FALSE
CB-LFS	0	#N/A	Cobbly & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
CB-LS	0	1.0	Cobbly & Loamy Sand	Normal	Normal	FALSE	FALSE
CB-MPT	0	#N/A	Cobbly & Mucky Peat	Normal	#N/A	FALSE	FALSE
CB-MUCK	0	#N/A	Cobbly & Mucky	Normal	#N/A	FALSE	FALSE
CB-S	0	1.1	Cobbly & Sand	Normal	Normal	FALSE	FALSE
CB-SC	0	#N/A	Cobbly & Sandy Clay	Normal	#N/A	FALSE	FALSE
CB-SCL	0	1.0	Cobbly & Sandy Clay Loam	Normal	Normal	FALSE	FALSE
CB-SIC	0	#N/A	Cobby & Silty Clay	Normal	#N/A	FALSE	FALSE
CB-SICL	0	1.0	Cobbly & Silty Clay Loam	Normal	Normal	FALSE	FALSE
CB-SIL	0	1.0	Cobbly & Silt Loam	Normal	Normal	FALSE	FALSE
CB-SL	0	1.1	Cobbly & Sandy Loam	Normal	Normal	FALSE	FALSE
CB-VFS	0	#N/A	Cobbly & Very Find Sand	Normal	#N/A	FALSE	FALSE
CB-VFSL	0	#N/A	Cobbly & Very Find Sandy Loam	Normal	#N/A	FALSE	FALSE
CBV	1	1.2	Very Cobbly	SoftRock	SoftRock	FALSE	FALSE
CBV-C	1	1.2	Very Cobbly & Clay	SoftRock	SoftRock	FALSE	FALSE
CBV-CL	1	1.2	Very Cobbly & Clay Loam	SoftRock	SoftRock	FALSE	FALSE
CBV-COS	1	#N/A	Very Cobbly & Course Sand	SoftRock	#N/A	FALSE	FALSE
CBV-COSL	1	#N/A	Very Cobbly & Coarse Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CBV-FS	1	#N/A	Very Cobbly & Fine Sand	SoftRock	#N/A	FALSE	FALSE
CBV-FSL	1	1.2	Very Cobbly & Fine Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
CBV-L	1	1.2	Very Cobbly & Loamy	SoftRock	SoftRock	FALSE	FALSE
CBV-LCOS	1	#N/A	Very Cobbly & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
CBV-LFS	1	1.2	Very Cobbly & Loamy Fine Sand	SoftRock	SoftRock	FALSE	FALSE
CBV-LS	1	1.2	Very Cobbly & Loamy Sand	SoftRock	SoftRock	FALSE	FALSE
CBV-MPT	1	#N/A	Very Cobbly & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
CBV-MUCK	1	1.2	Very Cobbly & Mucky	SoftRock	SoftRock	FALSE	FALSE
CBV-S	1	#N/A	Very Cobbly & Sand	SoftRock	#N/A	FALSE	FALSE
CBV-SC	1	#N/A	Very Cobbly & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
CBV-SCL	1	1.2	Very Cobbly & Sandy Clay Loam	SoftRock	SoftRock	FALSE	FALSE
CBV-SIC	1	#N/A	Very Cobby & Silty Clay	SoftRock	#N/A	FALSE	FALSE
CBV-SICL	1	#N/A	Very Cobbly & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
CBV-SIL	1	1.2	Very Cobbly & Silt Loam	SoftRock	SoftRock	FALSE	FALSE
CBV-SL	1	1.2	Very Cobbly & Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
CBV-VFS	1	1.2	Very Cobbly & Very Find Sand	SoftRock	SoftRock	FALSE	FALSE
CBV-VFSL	1	#N/A	Very Cobbly & Very Find Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CBX	1	1.2	Extremely Cobbly	SoftRock	SoftRock	FALSE	FALSE
CBX-C	1	#N/A	Extremely Cobbly & Clay	SoftRock	#N/A	FALSE	FALSE
CBX-CL	1	1.2	Extremely Cobbly & Clay Loam	SoftRock	SoftRock	FALSE	FALSE
CBX-COS	1	#N/A	Extremely Cobbly & Course Sand	SoftRock	#N/A	FALSE	FALSE
CBX-COSL	1	#N/A	Extremely Cobbly & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CBX-FS	1	#N/A	Extremely Cobbly & Fine Sand	SoftRock	#N/A	FALSE	FALSE
CBX-FSL	1	#N/A	Extremely Cobbly & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CBX-L	1	1.2	Extremely Cobbly & Loamy	SoftRock	SoftRock	FALSE	FALSE
CBX-LCOS	1	#N/A	Extremely Cobbly & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
CBX-LFS	1	#N/A	Extremely Cobbly & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
CBX-LS	1	#N/A	Extremely Cobbly & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
CBX-MPT	1	#N/A	Extremely Cobbly & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
CBX-MUCK	1	#N/A	Extremely Cobbly & Muck	SoftRock	#N/A	FALSE	FALSE
CBX-S	1	#N/A	Extremely Cobbly & Sand	SoftRock	#N/A	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CBX-SC	1	#N/A	Extremely Cobbly & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
CBX-SCL	1	#N/A	Extremely Cobbly & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
CBX-SIC	1	#N/A	Extremely Cobbly & Silty Clay	SoftRock	#N/A	FALSE	FALSE
CBX-SICL	1	#N/A	Extremely Cobbly & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
CBX-SIL	1	1.2	Extremely Cobbly & Silt Loam	SoftRock	SoftRock	FALSE	FALSE
CBX-SL	1	1.2	Extremely Cobbly & Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
CBX-VFS	1	#N/A	Extremely Cobbly & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
CBX-VFSL	1	1.3	Extremely Cobbly Very Fine Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
CE	0	1.0	Coprogenous Earth	Normal	Normal	FALSE	FALSE
CIND	0	1.0	Cinders	Normal	Normal	FALSE	FALSE
CL	0	1.0	Clay Loam	Normal	Normal	FALSE	FALSE
CM	1	1.3	Cemented	SoftRock	SoftRock	FALSE	FALSE
CN	0	1.0	Channery	Normal	Normal	FALSE	FALSE
CN-C	0	#N/A	Channery & Silty Loam	Normal	#N/A	FALSE	FALSE
CN-CL	0	1.0	Channery & Clay Loam	Normal	Normal	FALSE	FALSE
CN-COS	0	#N/A	Channery & Course Sand	Normal	#N/A	FALSE	FALSE
CN-COSL	0	#N/A	Channery & Course Sandy Loam	Normal	#N/A	FALSE	FALSE
CN-FS	0	#N/A	Channery & Fine Sand	Normal	#N/A	FALSE	FALSE
CN-FSL	0	1.1	Channery & Fine Sandy Loam	Normal	Normal	FALSE	FALSE
CN-L	0	1.0	Channery & Loamy	Normal	Normal	FALSE	FALSE
CN-LCOS	0	#N/A	Channery & Loamy Course Sand	Normal	#N/A	FALSE	FALSE
CN-LFS	0	#N/A	Channery & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
CN-LS	0	#N/A	Channery & Loamy Sand	Normal	#N/A	FALSE	FALSE
CN-MPT	0	#N/A	Channery & Mucky Peat	Normal	#N/A	FALSE	FALSE
CN-MUCK	0	#N/A	Channery & Muck	Normal	#N/A	FALSE	FALSE
CN-S	0	#N/A	Channery & Sand	Normal	#N/A	FALSE	FALSE
CN-SC	0	#N/A	Channery & Sandy Clay	Normal	#N/A	FALSE	FALSE
CN-SCL	0	#N/A	Channery & Sandy Clay Loam	Normal	#N/A	FALSE	FALSE
CN-SIC	0	#N/A	Channery & Silty Clay	Normal	#N/A	FALSE	FALSE
CN-SICL	0	1.0	Channery & Silty Clay Loam	Normal	Normal	FALSE	FALSE
CN-SIL	0	1.0	Channery & Silt Loam	Normal	Normal	FALSE	FALSE
CN-SL	0	1.0	Channery & Sandy Loam	Normal	Normal	FALSE	FALSE
CN-VFS	0	#N/A	Channery & Very Fine Sand	Normal	#N/A	FALSE	FALSE
CN-VFSL	0	#N/A	Channery & Very Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
CNV	0	1.0	Very Channery	Normal	Normal	FALSE	FALSE
CNV-C	0	#N/A	Very Channery & Clay	Normal	#N/A	FALSE	FALSE
CNV-CL	0	1.0	Very Channery & Clay Loam	Normal	Normal	FALSE	FALSE
CNV-COS	0	#N/A	Very Channery & Course Sand	Normal	#N/A	FALSE	FALSE
CNV-COSL	0	#N/A	Very Channery & Course Sandy Loam	Normal	#N/A	FALSE	FALSE
CNV-FS	0	#N/A	Very Channery & Find Sand	Normal	#N/A	FALSE	FALSE
CNV-FSL	0	#N/A	Very Channery & Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
CNV-L	0	1.0	Very Channery & Loam	Normal	Normal	FALSE	FALSE
CNV-LCOS	0	#N/A	Very Channery & Loamy Course Sand	Normal	#N/A	FALSE	FALSE
CNV-LFS	0	#N/A	Very Channery & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
CNV-LS	0	#N/A	Very Channery & Loamy Sand	Normal	#N/A	FALSE	FALSE
CNV-MPT	0	#N/A	Very Channery & Mucky Peat	Normal	#N/A	FALSE	FALSE
CNV-MUCK	0	#N/A	Very Channery & Mucky Peat	Normal	#N/A	FALSE	FALSE
CNV-S	0	#N/A	Very Channery & Sand	Normal	#N/A	FALSE	FALSE
CNV-SC	0	#N/A	Very Channery & Sandy Clay	Normal	#N/A	FALSE	FALSE
CNV-SCL	0	1.0	Very Channery & Sandy Clay Loam	Normal	Normal	FALSE	FALSE
CNV-SIC	0	#N/A	Very Channery & Silty Clay	Normal	#N/A	FALSE	FALSE
CNV-SICL	0	#N/A	Very Channery & Silty Clay Loam	Normal	#N/A	FALSE	FALSE
CNV-SIL	0	1.0	Very Channery & Silt Loam	Normal	Normal	FALSE	FALSE
CNV-SL	0	1.0	Very Channery & Sandy Loam	Normal	Normal	FALSE	FALSE
CNV-VFS	0	#N/A	Very Channery & Very Fine Sand	Normal	#N/A	FALSE	FALSE
CNV-VFSL	0	#N/A	Very Channery & Very Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
CNX	0	1.0	Extremely Channery	Normal	Normal	FALSE	FALSE
CNX-C	0	#N/A	Extremely Channery & Clay	Normal	#N/A	FALSE	FALSE
CNX-CL	0	#N/A	Extremely Channery & Clay Loam	Normal	#N/A	FALSE	FALSE
CNX-COS	0	#N/A	Extremely Channery & Course Sand	Normal	#N/A	FALSE	FALSE
CNX-COSL	0	#N/A	Extremely Channery & Course Sandy Loam	Normal	#N/A	FALSE	FALSE
CNX-FS	0	#N/A	Extremely Channery & Fine Sand	Normal	#N/A	FALSE	FALSE
CNX-FSL	0	#N/A	Extremely Channery & Fine Sandy Loam	Normal	#N/A	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CNX-L	0	#N/A	Extremely Channery & Loamy	Normal	#N/A	FALSE	FALSE
CNX-LCOS	0	#N/A	Extremely Channery & Loamy Course Sand	Normal	#N/A	FALSE	FALSE
CNX-LFS	0	#N/A	Extremely Channery & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
CNX-LS	0	#N/A	Extremely Channery & Loamy Sand	Normal	#N/A	FALSE	FALSE
CNX-MPT	0	#N/A	Extremely Channery & Mucky Peat	Normal	#N/A	FALSE	FALSE
CNX-MUCK	0	#N/A	Extremely Channery & Muck	Normal	#N/A	FALSE	FALSE
CNX-S	0	#N/A	Extremely Channery & Sand	Normal	#N/A	FALSE	FALSE
CNX-SC	0	#N/A	Extremely Channery & Sandy Clay	Normal	#N/A	FALSE	FALSE
CNX-SCL	0	#N/A	Extremely Channery & sandy Clay Loam	Normal	#N/A	FALSE	FALSE
CNX-SIC	0	#N/A	Extremely Channery & Silty Clay	Normal	#N/A	FALSE	FALSE
CNX-SICL	0	#N/A	Extremely Channery & Silty Clay Loam	Normal	#N/A	FALSE	FALSE
CNX-SIL	0	#N/A	Extremely Channery & Silt Loam	Normal	#N/A	FALSE	FALSE
CNX-SL	0	1.0	Extremely Channery & Sandy Loam	Normal	Normal	FALSE	FALSE
CNX-VFS	0	#N/A	Extremely Channery & Very Fine Sand	Normal	#N/A	FALSE	FALSE
CNX-VFSL	0	#N/A	Extremely Channery & Very Fine Sandy Loa	Normal	#N/A	FALSE	FALSE
COS	0	1.0	Coarse Sand	Normal	Normal	FALSE	FALSE
COSL	0	1.0	Coarse Sandy Loam	Normal	Normal	FALSE	FALSE
CR	0	1.2	Cherty	Normal	SoftRock	FALSE	TRUE
CRC	1	1.2	Coarse Cherty	SoftRock	SoftRock	FALSE	FALSE
CR-C	1	#N/A	Cherty & Clay	SoftRock	#N/A	FALSE	FALSE
CR-CL	1	#N/A	Cherty & Clay Loam	SoftRock	#N/A	FALSE	FALSE
CR-COS	1	#N/A	Cherty & Course Sand	SoftRock	#N/A	FALSE	FALSE
CR-COSL	1	#N/A	Cherty & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CR-FS	1	#N/A	Cherty & Fine Sand	SoftRock	#N/A	FALSE	FALSE
CR-FSL	1	#N/A	Cherty & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CR-L	1	1.2	Cherty & Loam	SoftRock	SoftRock	FALSE	FALSE
CR-LCOS	1	#N/A	Cherty & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
CR-LFS	1	#N/A	Cherty & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
CR-LS	1	#N/A	Cherty & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
CR-MPT	1	#N/A	Cherty & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
CR-MUCK	1	#N/A	Cherty & Muck	SoftRock	#N/A	FALSE	FALSE
CR-S	1	#N/A	Cherty & Sand	SoftRock	#N/A	FALSE	FALSE
CR-SC	1	#N/A	Cherty & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
CR-SCL	1	#N/A	Cherty & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
CR-SIC	1	#N/A	Cherty & Silty Clay	SoftRock	#N/A	FALSE	FALSE
CR-SICL	1	1.2	Cherty & Silty Clay Loam	SoftRock	SoftRock	FALSE	FALSE
CR-SIL	1	1.2	Cherty & Silty Loam	SoftRock	SoftRock	FALSE	FALSE
CR-SL	1	1.2	Cherty & Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
CR-VFS	1	#N/A	Cherty & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
CR-VFSL	1	#N/A	Cherty & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRV	1	1.2	Very Cherty	SoftRock	SoftRock	FALSE	FALSE
CRV-C	1	#N/A	Very Cherty & Clay	SoftRock	#N/A	FALSE	FALSE
CRV-CL	1	#N/A	Very Cherty & Clay Loam	SoftRock	#N/A	FALSE	FALSE
CRV-COS	1	#N/A	Very Cherty & Course Sand	SoftRock	#N/A	FALSE	FALSE
CRV-COSL	1	#N/A	Very Cherty & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRV-FS	1	#N/A	Very Cherty & Fine Sand	SoftRock	#N/A	FALSE	FALSE
CRV-FSL	1	#N/A	Very Cherty & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRV-L	1	1.2	Very Cherty & Loamy	SoftRock	SoftRock	FALSE	FALSE
CRV-LCOS	1	#N/A	Very Cherty & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
CRV-LFS	1	#N/A	Very Cherty & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
CRV-LS	1	#N/A	Very Cherty & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
CRV-MPT	1	#N/A	Very Cherty & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
CRV-MUCK	1	#N/A	Very Cherty & Muck	SoftRock	#N/A	FALSE	FALSE
CRV-S	1	#N/A	Very Cherty & Sand	SoftRock	#N/A	FALSE	FALSE
CRV-SC	1	#N/A	Very Cherty & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
CRV-SCL	1	#N/A	Very Cherty & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
CRV-SIC	1	#N/A	Very Cherty & Silty Clay	SoftRock	#N/A	FALSE	FALSE
CRV-SICL	1	#N/A	Very Cherty & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
CRV-SIL	1	1.2	Very Cherty & Silt Loam	SoftRock	SoftRock	FALSE	FALSE
CRV-SL	1	#N/A	Very Cherty & Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRV-VFS	1	#N/A	Very Cherty & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
CRV-VFSL	1	#N/A	Very Cherty & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRX	1	1.3	Extremely Cherty	SoftRock	SoftRock	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

CRX-C	1	#N/A	Extremely Cherty & Clay	SoftRock	#N/A	FALSE	FALSE
CRX-CL	1	#N/A	Extremely Cherty & Clay Loam	SoftRock	#N/A	FALSE	FALSE
CRX-COS	1	#N/A	Extremely Cherty & Course Sand	SoftRock	#N/A	FALSE	FALSE
CRX-COSL	1	#N/A	Extremely Cherty & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRX-FS	1	#N/A	Extremely Cherty & Fine Sand	SoftRock	#N/A	FALSE	FALSE
CRX-FSL	1	#N/A	Extremely Cherty & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRX-L	1	#N/A	Extremely Cherty & Loamy	SoftRock	#N/A	FALSE	FALSE
CRX-LCOS	1	#N/A	Extremely Cherty & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
CRX-LFS	1	#N/A	Extremely Cherty & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
CRX-LS	1	#N/A	Extremely Cherty & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
CRX-MPT	1	#N/A	Extremely Cherty & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
CRX-MUCK	1	#N/A	Extremely Cherty & Muck	SoftRock	#N/A	FALSE	FALSE
CRX-S	1	#N/A	Extremely Cherty & Sand	SoftRock	#N/A	FALSE	FALSE
CRX-SC	1	#N/A	Extremely Cherty & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
CRX-SCL	1	#N/A	Extremely Cherty & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
CRX-SIC	1	#N/A	Extremely Cherty & Silty Clay	SoftRock	#N/A	FALSE	FALSE
CRX-SICL	1	#N/A	Extremely Cherty & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
CRX-SIL	1	1.3	Extremely Cherty & Silt Loam	SoftRock	SoftRock	FALSE	FALSE
CRX-SL	1	#N/A	Extremely Cherty & Sandy Loam	SoftRock	#N/A	FALSE	FALSE
CRX-VFS	1	#N/A	Extremely Cherty & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
CRX-VFSL	1	#N/A	Extremely Cherty & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
DB	0	1.0	Diotomaceous Earth	Normal	Normal	FALSE	FALSE
FB	0	1.0	Fibric Material	Normal	Normal	FALSE	FALSE
FINE	0	1.0	Fine	Normal	Normal	FALSE	FALSE
FL	0	1.0	Flaggy	Normal	Normal	FALSE	FALSE
FL-C	0	#N/A	Flaggy & Clay	Normal	#N/A	FALSE	FALSE
FL-CL	0	#N/A	Flaggy & Clay Loam	Normal	#N/A	FALSE	FALSE
FL-COS	0	#N/A	Flaggy & Course Sand	Normal	#N/A	FALSE	FALSE
FL-COSL	0	#N/A	Flaggy & Course Sandy Loam	Normal	#N/A	FALSE	FALSE
FL-FS	0	#N/A	Flaggy & Fine Sand	Normal	#N/A	FALSE	FALSE
FL-FSL	0	1.1	Flaggy & Fine Sandy Loam	Normal	Normal	FALSE	FALSE
FL-L	0	1.0	Flaggy & Loamy	Normal	Normal	FALSE	FALSE
FL-LCOS	0	#N/A	Flaggy & Loamy Course Sand	Normal	#N/A	FALSE	FALSE
FL-LFS	0	#N/A	Flaggy & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
FL-LS	0	#N/A	Flaggy & Loamy Sand	Normal	#N/A	FALSE	FALSE
FL-MPT	0	#N/A	Flaggy & Mucky Peat	Normal	#N/A	FALSE	FALSE
FL-MUCK	0	#N/A	Flaggy & Muck	Normal	#N/A	FALSE	FALSE
FL-S	0	#N/A	Flaggy & Sand	Normal	#N/A	FALSE	FALSE
FL-SC	0	#N/A	Flaggy & Sandy Clay	Normal	#N/A	FALSE	FALSE
FL-SCL	0	#N/A	Flaggy & Sandy Clay Loam	Normal	#N/A	FALSE	FALSE
FL-SIC	0	1.0	Flaggy & Silty Clay	Normal	Normal	FALSE	FALSE
FL-SICL	0	1.0	Flaggy & Silty Clay Loam	Normal	Normal	FALSE	FALSE
FL-SIL	0	1.0	Flaggy & Silt Loam	Normal	Normal	FALSE	FALSE
FL-SL	0	1.0	Flaggy & Sandy Loam	Normal	Normal	FALSE	FALSE
FL-VFS	0	#N/A	Flaggy & Very Fine Sand	Normal	#N/A	FALSE	FALSE
FL-VFSL	0	#N/A	Flaggy & Very Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
FLY	1	1.1	Very Flaggy	SoftRock	Normal	TRUE	FALSE
FLY-C	1	#N/A	Very Flaggy & Clay	SoftRock	#N/A	FALSE	FALSE
FLY-CL	1	#N/A	Very Flaggy & Clay Loam	SoftRock	#N/A	FALSE	FALSE
FLY-COS	1	#N/A	Very Flaggy & Course Sand	SoftRock	#N/A	FALSE	FALSE
FLY-COSL	1	1.1	Very Flaggy & Course Sandy Loam	SoftRock	Normal	TRUE	FALSE
FLY-FS	1	#N/A	Very Flaggy & Fine Sand	SoftRock	#N/A	FALSE	FALSE
FLY-FSL	1	#N/A	Very Flaggy & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
FLY-L	1	1.1	Very Flaggy & Loamy	SoftRock	Normal	TRUE	FALSE
FLY-LCOS	1	#N/A	Very Flaggy & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
FLY-LFS	1	#N/A	Very Flaggy & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
FLY-LS	1	#N/A	Very Flaggy & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
FLY-MPT	1	#N/A	Very Flaggy & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
FLY-MUCK	1	#N/A	Very Flaggy & Muck	SoftRock	#N/A	FALSE	FALSE
FLY-S	1	#N/A	Very Flaggy & Sand	SoftRock	#N/A	FALSE	FALSE
FLY-SC	1	#N/A	Very Flaggy & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
FLY-SCL	1	#N/A	Very Flaggy & Silty Clay	SoftRock	#N/A	FALSE	FALSE
FLY-SIC	1	#N/A	Very Flaggy & Silty Clay	SoftRock	#N/A	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FLY-SICL	1	1.1	Very Flaggy & Silt Clay Loam	SoftRock	Normal	TRUE	FALSE
FLY-SIL	1	#N/A	Very Flaggy & Silt Loam	SoftRock	#N/A	FALSE	FALSE
FLY-S	1	1.1	Very Flaggy & Sandy Loam	SoftRock	Normal	TRUE	FALSE
FLY-VFS	1	#N/A	Very Flaggy & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
FLY-VFSL	1	#N/A	Very Flaggy & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
FLX	1	1.1	Extremely Flaggy	SoftRock	Normal	TRUE	FALSE
FLX-C	1	#N/A	Extremely Flaggy & Clay	SoftRock	#N/A	FALSE	FALSE
FLX-CL	1	#N/A	Extremely Flaggy & Clay Loam	SoftRock	#N/A	FALSE	FALSE
FLX-COS	1	#N/A	Extremely Flaggy & Course Sand	SoftRock	#N/A	FALSE	FALSE
FLX-COSL	1	#N/A	Extremely Flaggy & Course Sandy Loam	SoftRock	#N/A	FALSE	FALSE
FLX-FS	1	#N/A	Extremely Flaggy & Fine Sand	SoftRock	#N/A	FALSE	FALSE
FLX-FSL	1	#N/A	Extremely Flaggy & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
FLX-L	1	1.1	Extremely Flaggy & Laomy	SoftRock	Normal	TRUE	FALSE
FLX-LCOS	1	#N/A	Extremely Flaggy & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
FLX-LFS	1	#N/A	Extremely Flaggy & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
FLX-LS	1	#N/A	Extremely Flaggy & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
FLX-MPT	1	#N/A	Extremely Flaggy & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
FLX-MUCK	1	#N/A	Extremely Flaggy & Muck	SoftRock	#N/A	FALSE	FALSE
FLX-S	1	#N/A	Extremely Flaggy & Sand	SoftRock	#N/A	FALSE	FALSE
FLX-SC	1	#N/A	Extremely Flaggy & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
FLX-SCL	1	#N/A	Extremely Flaggy & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
FLX-SIC	1	#N/A	Extremely Flaggy & Silty Clay	SoftRock	#N/A	FALSE	FALSE
FLX-SICL	1	#N/A	Extremely Flaggy & Silty Clay Loam	SoftRock	#N/A	FALSE	FALSE
FLX-SIL	1	#N/A	Extremely Flaggy & Silt Loam	SoftRock	#N/A	FALSE	FALSE
FLX-SL	1	#N/A	Extremely Flaggy & Sandy Loam	SoftRock	#N/A	FALSE	FALSE
FLX-VFS	1	#N/A	Extremely Flaggy & Very Fine Sand	SoftRock	#N/A	FALSE	FALSE
FLX-VFSL	1	#N/A	Extremely Flaggy & very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
FRAG	0	1.0	Fragmental Material	Normal	Normal	FALSE	FALSE
FS	0	1.1	Fine Sand	Normal	Normal	FALSE	FALSE
FSL	0	1.1	Fine Sandy Loam	Normal	Normal	FALSE	FALSE
G	0	1.0	Gravel	Normal	Normal	FALSE	FALSE
GR	0	1.0	Gravelly	Normal	Normal	FALSE	FALSE
GRC	0	1.0	Course Gravelly	Normal	Normal	FALSE	FALSE
GR-C	0	1.0	Gravel & Clay	Normal	Normal	FALSE	FALSE
GR-CL	0	1.0	Gravel & Clay Loam	Normal	Normal	FALSE	FALSE
GR-COS	0	1.0	Gravel & Course Sand	Normal	Normal	FALSE	FALSE
GR-COSL	0	1.0	Gravel & Coarse Sandy Loam	Normal	Normal	FALSE	FALSE
GR-FS	0	1.0	Gravel & Fine Sand	Normal	Normal	FALSE	FALSE
GR-FSL	0	1.0	Gravel & Fine Sandy Loam	Normal	Normal	FALSE	FALSE
GR-L	0	1.0	Gravel & Loamy	Normal	Normal	FALSE	FALSE
GR-LCOS	0	1.0	Gravel & Loamy Course Sand	Normal	Normal	FALSE	FALSE
GR-LFS	0	1.1	Gravel & Loamy Fine Sand	Normal	Normal	FALSE	FALSE
GR-LS	0	1.0	Gravel & Loamy Sand	Normal	Normal	FALSE	FALSE
GR-MPT	0	#N/A	Gravel & Mucky Peat	Normal	#N/A	FALSE	FALSE
GR-MUCK	0	1.0	Gravel & Mucky	Normal	Normal	FALSE	FALSE
GR-S	0	1.0	Gravel & Sand	Normal	Normal	FALSE	FALSE
GR-SC	0	#N/A	Gravel & Sandy Clay	Normal	#N/A	FALSE	FALSE
GR-SCL	0	1.0	Gravel & Sandy Clay Loam	Normal	Normal	FALSE	FALSE
GR-SIC	0	1.0	Gravel & Silty Clay	Normal	Normal	FALSE	FALSE
GR-SICL	0	1.0	Gravel & Slity Clay Loam	Normal	Normal	FALSE	FALSE
GR-SIL	0	1.0	Gravel & Slity Loam	Normal	Normal	FALSE	FALSE
GR-SL	0	1.0	Gravel & Sandy Loam	Normal	Normal	FALSE	FALSE
GR-VFS	0	1.1	Gravel & Very Fine Sandy	Normal	Normal	FALSE	FALSE
GR-VFSL	0	1.1	Gravel & Very Fine Sandy Loam	Normal	Normal	FALSE	FALSE
GRF	0	1.0	Fine Gravel	Normal	Normal	FALSE	FALSE
GRF-C	0	#N/A	Fine Gravel & Clay	Normal	#N/A	FALSE	FALSE
GRF-CL	0	#N/A	Fine Gravel & Clay Loam	Normal	#N/A	FALSE	FALSE
GRF-COS	0	#N/A	Fine Gravel & Course Sand	Normal	#N/A	FALSE	FALSE
GRF-COSL	0	#N/A	Fine Gravel & Coarse Sandy Loam	Normal	#N/A	FALSE	FALSE
GRF-FS	0	#N/A	Fine Gravel & Fine Sand	Normal	#N/A	FALSE	FALSE
GRF-FSL	0	#N/A	Fine Gravel & Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
GRF-L	0	#N/A	Fine Gravel & Loamy	Normal	#N/A	FALSE	FALSE
GRF-LCOS	0	#N/A	Fine Gravel & Loamy Course Sand	Normal	#N/A	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GRV-FS	0	#N/A	Fine Gravel & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
GRV-LS	0	#N/A	Fine Gravel & Loamy Sand	Normal	#N/A	FALSE	FALSE
GRV-MPT	0	#N/A	Fine Gravel & Mucky Peat	Normal	#N/A	FALSE	FALSE
GRV-MUCK	0	#N/A	Fine Gravel & Mucky	Normal	#N/A	FALSE	FALSE
GRV-S	0	#N/A	Fine Gravel & Sand	Normal	#N/A	FALSE	FALSE
GRV-SC	0	#N/A	Fine Gravel & Sandy Clay	Normal	#N/A	FALSE	FALSE
GRV-SCL	0	#N/A	Fine Gravel & Sandy Clay Loam	Normal	#N/A	FALSE	FALSE
GRV-SIC	0	#N/A	Fine Gravel & Silty Clay	Normal	#N/A	FALSE	FALSE
GRV-SICL	0	#N/A	Fine Gravel & Slity Clay Loam	Normal	#N/A	FALSE	FALSE
GRV-SIL	0	1.0	Fine Gravel & Slity Loam	Normal	Normal	FALSE	FALSE
GRV-SL	0	#N/A	Fine Gravel & Sandy Loam	Normal	#N/A	FALSE	FALSE
GRV-VFSL	0	#N/A	Fine Gravel & Very Fine Sandy	Normal	#N/A	FALSE	FALSE
GRV-VFSL	0	#N/A	Fine Gravel & Very Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
GRV	1	1.0	Very Gravelly	SoftRock	Normal	TRUE	FALSE
GRV-C	1	#N/A	Very Gravelly & Clay	SoftRock	#N/A	FALSE	FALSE
GRV-CL	1	1.0	Very Gravelly & Clay Loam	SoftRock	Normal	TRUE	FALSE
GRV-COS	1	1.0	Very Gravelly & Course Sand	SoftRock	Normal	TRUE	FALSE
GRV-COSL	1	1.0	Very Gravelly & Coarse Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRV-FS	1	#N/A	Very Gravelly & Fine Sand	SoftRock	#N/A	FALSE	FALSE
GRV-FSL	1	1.0	Very Gravelly & Fine Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRV-L	1	1.0	Very Gravelly & Loamy	SoftRock	Normal	TRUE	FALSE
GRV-LCOS	1	1.0	Very Gravelly & Loamy Course Sand	SoftRock	Normal	TRUE	FALSE
GRV-LFS	1	#N/A	Very Gravelly & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
GRV-LS	1	1.0	Very Gravelly & Loamy Sand	SoftRock	Normal	TRUE	FALSE
GRV-MPT	1	#N/A	Very Gravelly & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
GRV-MUCK	1	#N/A	Very Gravelly & Mucky	SoftRock	#N/A	FALSE	FALSE
GRV-S	1	1.0	Very Gravelly & Sand	SoftRock	Normal	TRUE	FALSE
GRV-SC	1	#N/A	Very Gravelly & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
GRV-SCL	1	1.0	Very Gravelly & Sandy Clay Loam	SoftRock	Normal	TRUE	FALSE
GRV-SIC	1	#N/A	Very Gravelly & Silty Clay	SoftRock	#N/A	FALSE	FALSE
GRV-SICL	1	1.0	Very Gravelly & Slity Clay Loam	SoftRock	Normal	TRUE	FALSE
GRV-SIL	1	1.0	Very Gravelly & Slity Loam	SoftRock	Normal	TRUE	FALSE
GRV-SL	1	1.0	Very Gravelly & Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRV-VFSL	1	1.0	Very Gravelly & Very Fine Sandy	SoftRock	Normal	TRUE	FALSE
GRV-VFSL	1	1.0	Very Gravelly & Very Fine Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRX	1	1.1	Extremely Gravelly	SoftRock	Normal	TRUE	FALSE
GRX-C	1	#N/A	Extremely Gravelly & Clay	SoftRock	#N/A	FALSE	FALSE
GRX-CL	1	1.1	Extremely Gravelly & Clay Loam	SoftRock	Normal	TRUE	FALSE
GRX-COS	1	1.1	Extremely Gravelly & Course Sand	SoftRock	Normal	TRUE	FALSE
GRX-COSL	1	1.1	Extremely Gravelly & Coarse Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRX-FS	1	#N/A	Extremely Gravelly & Fine Sand	SoftRock	#N/A	FALSE	FALSE
GRX-FSL	1	1.1	Extremely Gravelly & Fine Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRX-L	1	1.1	Extremely Gravelly & Loamy	SoftRock	Normal	TRUE	FALSE
GRX-LCOS	1	1.1	Extremely Gravelly & Loamy Course Sand	SoftRock	Normal	TRUE	FALSE
GRX-LFS	1	#N/A	Extremely Gravelly & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
GRX-LS	1	1.1	Extremely Gravelly & Loamy Sand	SoftRock	Normal	TRUE	FALSE
GRX-MPT	1	#N/A	Extremely Gravelly & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
GRX-MUCK	1	#N/A	Extremely Gravelly & Mucky	SoftRock	#N/A	FALSE	FALSE
GRX-S	1	1.1	Extremely Gravelly & Sand	SoftRock	Normal	TRUE	FALSE
GRX-SC	1	#N/A	Extremely Gravelly & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
GRX-SCL	1	#N/A	Extremely Gravelly & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
GRX-SIC	1	#N/A	Extremely Gravelly & Silty Clay	SoftRock	#N/A	FALSE	FALSE
GRX-SICL	1	#N/A	Extremely Gravelly & Slity Clay Loam	SoftRock	#N/A	FALSE	FALSE
GRX-SIL	1	1.1	Extremely Gravelly & Slity Loam	SoftRock	Normal	TRUE	FALSE
GRX-SL	1	1.1	Extremely Gravelly & Sandy Loam	SoftRock	Normal	TRUE	FALSE
GRX-VFSL	1	#N/A	Extremely Gravelly & Very Fine Sandy	SoftRock	#N/A	FALSE	FALSE
GRX-VFSL	1	#N/A	Extremely Gravelly & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
GYP	1	1.2	Gypsiferous Material	SoftRock	SoftRock	FALSE	FALSE
HM	0	1.0	Hemic Material	Normal	Normal	FALSE	FALSE
ICE	1	1.5	Ice or Frozen Soil	SoftRock	SoftRock	FALSE	FALSE
IND	1	1.2	Indurated	SoftRock	SoftRock	FALSE	FALSE
L	0	1.0	Loam	Normal	Normal	FALSE	FALSE
LCOS	0	1.0	Loamy Course Sand	Normal	Normal	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

	BCPM Index	HAI Index	Description of Texture	BCPM	HAI	BCPM Rock Flag	HAI Rock Flag
LFS	0	1.1	Loamy Fine Sand	Normal	Normal	FALSE	FALSE
LS	0	1.0	Loamy Sand	Normal	Normal	FALSE	FALSE
LVFS	0	1.0	Loamy Very Fine Sand	Normal	Normal	FALSE	FALSE
MARL	0	1.0	Marl	Normal	Normal	FALSE	FALSE
MEDIUM COURSE	0	#N/A	Medium Course	Normal	#N/A	FALSE	FALSE
MK	0	1.0	Mucky	Normal	Normal	FALSE	FALSE
MK-C	0	1.0	Mucky & Clay	Normal	Normal	FALSE	FALSE
MK-CL	0	1.0	Mucky & Clay Loam	Normal	Normal	FALSE	FALSE
MK-COS	0	#N/A	Mucky & Course Sand	Normal	#N/A	FALSE	FALSE
MK-COSL	0	#N/A	Mucky & Coarse Sandy Loam	Normal	#N/A	FALSE	FALSE
MK-FS	0	1.0	Mucky & Fine Sand	Normal	Normal	FALSE	FALSE
MK-FSL	0	1.0	Mucky & Fine Sandy Loam	Normal	Normal	FALSE	FALSE
MK-L	0	1.0	Mucky & Loamy	Normal	Normal	FALSE	FALSE
MK-LCOS	0	#N/A	Mucky & Loamy Course Sand	Normal	#N/A	FALSE	FALSE
MK-LFS	0	1.0	Mucky & Loamy Fine Sand	Normal	Normal	FALSE	FALSE
MK-LS	0	1.0	Mucky & Loamy Sand	Normal	Normal	FALSE	FALSE
MK-MPT	0	#N/A	Mucky & Mucky Peat	Normal	#N/A	FALSE	FALSE
MK-MUCK	0	#N/A	Mucky & Mucky	Normal	#N/A	FALSE	FALSE
MK-S	0	1.0	Mucky & Sand	Normal	Normal	FALSE	FALSE
MK-SC	0	#N/A	Mucky & Sandy Clay	Normal	#N/A	FALSE	FALSE
MK-SCL	0	#N/A	Mucky & Sandy Clay Loam	Normal	#N/A	FALSE	FALSE
MK-SIC	0	#N/A	Mucky & Silty Clay	Normal	#N/A	FALSE	FALSE
MK-SICL	0	1.0	Mucky & Slity Clay Loam	Normal	Normal	FALSE	FALSE
MK-SIL	0	1.0	Mucky & Slity Loam	Normal	Normal	FALSE	FALSE
MK-SL	0	1.0	Mucky & Sandy Loam	Normal	Normal	FALSE	FALSE
MK-VFSL	0	1.0	Mucky & Very Fine Sandy	Normal	Normal	FALSE	FALSE
MK-VFSL	0	1.0	Mucky & Very Fine Sandy Loam	Normal	Normal	FALSE	FALSE
MPT	0	1.0	Mucky Peat	Normal	Normal	FALSE	FALSE
MUCK	0	1.0	Muck	Normal	Normal	FALSE	FALSE
PEAT	0	1.0	Peat	Normal	Normal	FALSE	FALSE
PT	0	1.0	Peaty	Normal	Normal	FALSE	FALSE
RB	1	1.5	Rubbly	SoftRock	SoftRock	FALSE	FALSE
RB-FSL	1	1.5	Rubbly Fine Sandy Loam	SoftRock	SoftRock	FALSE	FALSE
S	0	1.0	Sand	Normal	Normal	FALSE	FALSE
SC	0	1.0	Sandy Clay	Normal	Normal	FALSE	FALSE
SCL	0	1.0	Sandy Clay Loam	Normal	Normal	FALSE	FALSE
SG	0	1.0	Sand & Gravel	Normal	Normal	FALSE	FALSE
SH	0	1.0	Shaly	Normal	Normal	FALSE	FALSE
SH-C	0	#N/A	Shaly & Clay	Normal	#N/A	FALSE	FALSE
SH-CL	0	1.0	Shaly & Clay Loam	Normal	Normal	FALSE	FALSE
SH-COS	0	#N/A	Shaly & Course Sand	Normal	#N/A	FALSE	FALSE
SH-COSL	0	#N/A	Shaly & Coarse Sandy Loam	Normal	#N/A	FALSE	FALSE
SH-FS	0	#N/A	Shaly & Fine Sand	Normal	#N/A	FALSE	FALSE
SH-FSL	0	#N/A	Shaly & Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
SH-L	0	1.0	Shaly & Loamy	Normal	Normal	FALSE	FALSE
SH-LCOS	0	#N/A	Shaly & Loamy Course Sand	Normal	#N/A	FALSE	FALSE
SH-LFS	0	#N/A	Shaly & Loamy Fine Sand	Normal	#N/A	FALSE	FALSE
SH-LS	0	#N/A	Shaly & Loamy Sand	Normal	#N/A	FALSE	FALSE
SH-MPT	0	#N/A	Shaly & Mucky Peat	Normal	#N/A	FALSE	FALSE
SH-MUCK	0	#N/A	Shaly & Mucky	Normal	#N/A	FALSE	FALSE
SH-S	0	#N/A	Shaly & Sand	Normal	#N/A	FALSE	FALSE
SH-SC	0	#N/A	Shaly & Sandy Clay	Normal	#N/A	FALSE	FALSE
SH-SCL	0	#N/A	Shaly & Sandy Clay Loam	Normal	#N/A	FALSE	FALSE
SH-SIC	0	#N/A	Shaly & Silty Clay	Normal	#N/A	FALSE	FALSE
SH-SICL	0	1.0	Shaly & Slity Clay Loam	Normal	Normal	FALSE	FALSE
SH-SIL	0	1.0	Shaly & Slity Loam	Normal	Normal	FALSE	FALSE
SH-SL	0	#N/A	Shaly & Sandy Loam	Normal	#N/A	FALSE	FALSE
SH-VFSL	0	#N/A	Shaly & Very Fine Sandy	Normal	#N/A	FALSE	FALSE
SH-VFSL	0	#N/A	Shaly & Very Fine Sandy Loam	Normal	#N/A	FALSE	FALSE
SHV	1	1.5	Very Shaly	SoftRock	SoftRock	FALSE	FALSE
SHV-C	1	#N/A	Very Shaly & Clay	SoftRock	#N/A	FALSE	FALSE
SHV-CL	1	1.5	Very Shaly & Clay Loam	SoftRock	SoftRock	FALSE	FALSE
SHV-COS	1	#N/A	Very Shaly & Course Sand	SoftRock	#N/A	FALSE	FALSE

Comparison of BCPM and HAI Surface Texture Tables

SurfaceTextureTable **Terrain Types**

	BCPM Category	HAI Method	Description of Texture	BCPM	HAI	HAI Category = BCPM Category	HAI Method = BCPM Method
SHV-COSL	1	#N/A	Very Shaly & Coarse Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHV-FS	1	#N/A	Very Shaly & Fine Sand	SoftRock	#N/A	FALSE	FALSE
SHV-FSL	1	#N/A	Very Shaly & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHV-L	1	#N/A	Very Shaly & Loamy	SoftRock	#N/A	FALSE	FALSE
SHV-LCOS	1	#N/A	Very Shaly & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
SHV-LFS	1	#N/A	Very Shaly & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
SHV-LS	1	#N/A	Very Shaly & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
SHV-MPT	1	#N/A	Very Shaly & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
SHV-MUCK	1	#N/A	Very Shaly & Mucky	SoftRock	#N/A	FALSE	FALSE
SHV-S	1	#N/A	Very Shaly & Sand	SoftRock	#N/A	FALSE	FALSE
SHV-SC	1	#N/A	Very Shaly & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
SHV-SCL	1	#N/A	Very Shaly & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
SHV-SIC	1	#N/A	Very Shaly & Silty Clay	SoftRock	#N/A	FALSE	FALSE
SHV-SICL	1	#N/A	Very Shaly & Slity Clay Loam	SoftRock	#N/A	FALSE	FALSE
SHV-SIL	1	#N/A	Very Shaly & Slity Loam	SoftRock	#N/A	FALSE	FALSE
SHV-SL	1	#N/A	Very Shaly & Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHV-VFSL	1	#N/A	Very Shaly & Very Fine Sandy	SoftRock	#N/A	FALSE	FALSE
SHV-VFSL	1	#N/A	Very Shaly & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHX	1	2.0	Extremely Shaly	SoftRock	SoftRock	FALSE	FALSE
SHX-C	1	#N/A	Extremely Shaly & Clay	SoftRock	#N/A	FALSE	FALSE
SHX-CL	1	#N/A	Extremely Shaly & Clay Loam	SoftRock	#N/A	FALSE	FALSE
SHX-COS	1	#N/A	Extremely Shaly & Course Sand	SoftRock	#N/A	FALSE	FALSE
SHX-COSL	1	#N/A	Extremely Shaly & Coarse Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHX-FS	1	#N/A	Extremely Shaly & Fine Sand	SoftRock	#N/A	FALSE	FALSE
SHX-FSL	1	#N/A	Extremely Shaly & Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHX-L	1	#N/A	Extremely Shaly & Loamy	SoftRock	#N/A	FALSE	FALSE
SHX-LCOS	1	#N/A	Extremely Shaly & Loamy Course Sand	SoftRock	#N/A	FALSE	FALSE
SHX-LFS	1	#N/A	Extremely Shaly & Loamy Fine Sand	SoftRock	#N/A	FALSE	FALSE
SHX-LS	1	#N/A	Extremely Shaly & Loamy Sand	SoftRock	#N/A	FALSE	FALSE
SHX-MPT	1	#N/A	Extremely Shaly & Mucky Peat	SoftRock	#N/A	FALSE	FALSE
SHX-MUCK	1	#N/A	Extremely Shaly & Mucky	SoftRock	#N/A	FALSE	FALSE
SHX-S	1	#N/A	Extremely Shaly & Sand	SoftRock	#N/A	FALSE	FALSE
SHX-SC	1	#N/A	Extremely Shaly & Sandy Clay	SoftRock	#N/A	FALSE	FALSE
SHX-SCL	1	#N/A	Extremely Shaly & Sandy Clay Loam	SoftRock	#N/A	FALSE	FALSE
SHX-SIC	1	#N/A	Extremely Shaly & Silty Clay	SoftRock	#N/A	FALSE	FALSE
SHX-SICL	1	#N/A	Extremely Shaly & Slity Clay Loam	SoftRock	#N/A	FALSE	FALSE
SHX-SIL	1	#N/A	Extremely Shaly & Slity Loam	SoftRock	#N/A	FALSE	FALSE
SHX-SL	1	#N/A	Extremely Shaly & Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SHX-VFSL	1	#N/A	Extremely Shaly & Very Fine Sandy	SoftRock	#N/A	FALSE	FALSE
SHX-VFSL	1	#N/A	Extremely Shaly & Very Fine Sandy Loam	SoftRock	#N/A	FALSE	FALSE
SI	0	1.0	Silt	Normal	Normal	FALSE	FALSE
SIC	0	1.0	Silty Clay	Normal	Normal	FALSE	FALSE
SICL	0	1.0	Silty Clay Loam	Normal	Normal	FALSE	FALSE
SIL	0	1.0	Silt Loam	Normal	Normal	FALSE	FALSE
SL	0	1.0	Sandy Loam	Normal	Normal	FALSE	FALSE
SP	0	1.0	Sapric Material	Normal	Normal	FALSE	FALSE
SR	0	1.0	Stratified	Normal	Normal	FALSE	FALSE
ST	0	1.0	Stony	Normal	Normal	FALSE	FALSE
ST-C	0	1.0	Stony & Clay	Normal	Normal	FALSE	FALSE
ST-CL	0	1.0	Stony & Clay Loam	Normal	Normal	FALSE	FALSE
ST-COS	0	#N/A	Stony & Course Sand	Normal	#N/A	FALSE	FALSE
ST-COSL	0	1.0	Stony & Coarse Sandy Loam	Normal	Normal	FALSE	FALSE
ST-FS	0	#N/A	Stony & Fine Sand	Normal	#N/A	FALSE	FALSE
ST-FSL	0	1.1	Stony & Fine Sandy Loam	Normal	Normal	FALSE	FALSE
ST-L	0	1.0	Stony & Loamy	Normal	Normal	FALSE	FALSE
ST-LCOS	0	1.0	Stony & Loamy Course Sand	Normal	Normal	FALSE	FALSE
ST-LFS	0	1.1	Stony & Loamy Fine Sand	Normal	Normal	FALSE	FALSE
ST-LS	0	1.0	Stony & Loamy Sand	Normal	Normal	FALSE	FALSE
ST-MPT	0	#N/A	Stony & Mucky Peat	Normal	#N/A	FALSE	FALSE
ST-MUCK	0	#N/A	Stony & Mucky	Normal	#N/A	FALSE	FALSE
ST-S	0	#N/A	Stony & Sand	Normal	#N/A	FALSE	FALSE
ST-SC	0	#N/A	Stony & Sandy Clay	Normal	#N/A	FALSE	FALSE
ST-SCL	0	#N/A	Stony & Sandy Clay Loam	Normal	#N/A	FALSE	FALSE