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## **Appendix C**

### **Calibration Factors Used in HEC-RAS**

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# Appendix C – Calibration Factors Used in HEC-RAS

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Table C-1 is a summary of Manning's n friction factors used in cross sections in the calibration model for Truckee River Downtown.

TABLE C-1 – MANNING'S N VALUES – TRUCKEE DOWNTOWN CALIBRATION MODEL  
Truckee Visioning Report

River Station		Manning's n Value <sup>1</sup>				
		n #1	n #2	n #3	n #4	n #5
10100		n	0.1	0.044	0.045	0.045
10050	Arlington Ave.	Bridge				0.12
10000		n	0.1	0.04	0.045	0.045
9500		n	0.1	0.035	0.03	0.03
9000		n	0.1	0.03	0.12	
8968.35		n	0.1	0.029	0.12	0.12
8500		n	0.1	0.018	0.12	
8000		n	0.1	0.016	0.12	0.12
7800	Sierra St.	Bridge				
7500		n	0.1	0.02	0.12	0.12
7000		n	0.1	0.02	0.12	
6500		n	0.1	0.02	0.12	
6300	Virginia St.	Bridge				
6000		n	0.12	0.039	0.12	
5500		n	0.1	0.039	0.12	
5000		n	0.11	0.039	0.12	
4800	Center St.	Bridge				
4500		n	0.11	0.039	0.12	
4000		n	0.1	0.039	0.1	
3500		n	0.1	0.039	0.1	
3300	Lake St.	Bridge				
3000		n	0.1	0.032	0.1	
2500		n	0.1	0.032	0.1	
2000		n	0.1	0.032	0.1	

TABLE C-1 – MANNING'S N VALUES – TRUCKEE DOWNTOWN CALIBRAION MODEL

Truckee Visioning Report

		Manning's n Value <sup>1</sup>				
River Station		n #1	n #2	n #3	n #4	n #5
1500		n	0.1	0.032	0.1	
1000		n	0.1	0.032	0.1	
500		n	0.1	0.032	0.1	
400		n	0.13	0.032	0.13	
375	2nd St.	Bridge				
350		n	0.12	0.046	0.12	
300		n	0.12	0.045	0.12	
275	Kuenzli St.	Bridge				
250		n	0.11	0.045	0.11	
200		n	0.1	0.045	0.1	

Notes:

1. Highlighted cells represent the Manning's n value applied to the channel portion of the cross section. Other cells represent over-bank portions of the cross sections.

Table C-2 is a summary of Expansion, Contraction coefficients used in cross sections in the calibration model for Truckee River Downtown.

TABLE C-2 – EXPANSION AND CONTRACTION FACTORS - TRUCKEE DOWNTOWN CALIBRATION MODEL

Truckee Visioning Report

River Station		Contraction	Expansion
10100		0.1	0.3
10050	Arlington Ave.	Bridge	
10000		0.1	0.3
9500		0.1	0.3
9000		0.1	0.3
8968.35		0.3	0.3
8500		0.3	0.5
8000		0.1	0.3
7800	Sierra St.	Bridge	
7500		0.1	0.3
7000		0.3	0.5

TABLE C-2 – EXPANSION AND CONTRACTION FACTORS - TRUCKEE DOWNTOWN  
CALIBRATION MODEL

Truckee Visioning Report

<b>River Station</b>		<b>Contraction</b>	<b>Expansion</b>
6500		0.1	0.3
6300	Virginia St.	Bridge	
6000		0.3	0.5
5500		0.1	0.3
5000		0.1	0.3
4800	Center St.	Bridge	
4500		0.1	0.3
4000		0.1	0.3
3500		0.1	0.3
3300	Lake St.	Bridge	
3000		0.1	0.3
2500		0.1	0.3
2000		0.1	0.3
1500		0.1	0.3
1000		0.1	0.3
500		0.1	0.3
400		0.1	0.3
375	2nd St.	Bridge	
350		0.1	0.3
300		0.1	0.3
275	Kuenzli St.	Bridge	
250		0.1	0.3
200		0.1	0.3