

# University of Colorado - Green Roof Project - 4th flr patio

Description	Quantity	Units	Unit Cost	Total Cost	Donations/paid
<b>Initial Structural Eval. + SD/DD review</b>				\$5,000.00	\$5,000.00
<b>General Installation</b>	2395.5	sq ft	\$12.00	\$28,746.00	
<b>American Hydrotech, Inc.</b>					
Demolition	2395.5	sq ft	\$2.00	\$4,791.00	\$ 4,791.00
Re-roofing w/high quality membrane/Layers_System	2395.5	sq.ft.	\$8.00	\$19,164.00	\$ 19,164.00
Drainage	2395.5	sq.ft.	\$5.00	\$11,977.50	
Installation				-	
<b>Interior</b>					
living wall	400	sq. ft.	\$18.00	\$7,200.00	
<b>Exterior Materials</b>					
<b>decking (Ipe)</b>					
material	1300	l.f.	\$4.03	\$5,239.00	
installation	496	sq ft	\$10.00	\$4,960.00	
<b>aluminum grating</b>	381.2	sq ft			
material	400	sq ft	\$30.00	\$12,000.00	
customizing				\$1,000.00	
installation	381.2	sq ft	\$10.00	\$3,812.00	
<b>pavers/pedestals</b>	453.4	sq ft			
material	525	sq ft	\$6.50	\$3,412.50	
installation	453.4	sq ft	\$8.00	\$3,627.20	
<b>cobble/stone</b>	132.9	sq ft			
material/installation 6"depth	8	cu.yd.	\$40.00	\$320.00	
<b>cip concrete walls</b>					
sloping walls (0" to 30")	100	face ft	\$40.00	\$4,000.00	
8" x 18" buffer planter walls	90	face ft	\$40.00	\$3,600.00	
8" x 30" planter walls	125	face ft	\$40.00	\$5,000.00	
curbing"	38	face ft	\$25.00	\$950.00	
installation- hauling/forms/pumping				\$3,000.00	
<b>Green Screen</b>				\$18,740.00	
<b>Exterior Parapet</b>				-	
<b>Internal Roof</b>				-	
<b>Structural Eng. Design and Fabrication</b>				\$1,500.00	
<b>Installation</b>				-	
<b>Plantings</b>					
growing medium	167	cubic yds	\$30.00	\$5,010.00	\$ 5,010.00
material	167	cubic yds	\$40.00	\$6,680.00	\$ 6,680.00
installation and transport		yds	\$10.00	-	
<b>Groundcovers</b>		1 gal	\$10.00		
<b>Ornamental Grasses</b>		1 gal	\$15.00		
<b>Ornamental Grasses</b>		3 gal	\$30.00		
<b>Shrubs</b>		5 gal dec	\$25.00		
<b>Shrubs</b>		5 gal eve	\$28.00		
<b>Small Trees</b>		2" cal.	\$275.00		
<b>Total</b>				\$ 4,500.00	

<b>Shade Structure</b>				\$25,000.00	\$25,000.00
<b>Furnishings/Planters</b>					
Parapet Planters				\$ 8,000.00	
Bar/Seating Area				\$ 7,500.00	
Planter wall seating (custom)				\$ 5,000.00	
Stainless Parapet Railing (new)	140 ft.		\$75.00	\$ 10,500.00	
Furniture (trash receptacles, benches, etc.)				\$ 10,000.00	
<b>Lighting (LED)</b>					
rope	80 l.f.		\$5.50	\$440.00	
ground/surface	8 pc		\$90.00	\$720.00	
wall	8 pc		\$50.00	\$400.00	
shade structure	12 pc		\$50.00	\$600.00	
uplighting	5 pc		\$228.00	\$1,140.00	
installation				-	
<b>Irrigation</b>					
Consultant			\$3,500.00	\$3,500.00	
Material/Installation	1600 sq. ft.		\$3.00	\$4,800.00	
<b>Permitting, Etc.</b>					\$500
<b>Crane</b>		2 days (16 hrs?)		-	

<b>Estimated Project Cost</b>			<b>\$237,329.20</b>	\$40,645.00
Contingency	10 %	\$23,732.92	\$24,000.00	
			<u>\$261,329.20</u>	

<b>Maintenance</b>	2395.5 sq ft	\$2.00	\$4,791.00
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## University of Colorado - Green Roof Project - 2nd/3rd flr roof

Description	Quantity	Units	Unit Cost	Total Cost	Donations/paid
<b>Initial Structural Eval. + SD/DD review</b>				\$5,000.00	\$5,000.00
<b>General Installation</b>	6400	sq ft	\$5.00	\$32,000.00	
<b>American Hydrotech, Inc.</b>					
Demolition (none necessary) -gravel removal?	6400	sq ft	\$0.00	\$0.00	-
Drainage	6400	sq.ft.	\$0.00	\$0.00	-
Installation				-	

<b>Research Plot Construction</b>				
<b>Lumber</b>				
2" x 6" x 16' redwood	3546	l.f.	\$1.49	\$5,283.54
2" x 12" x 8' untreated pine - plot dividers	864	l.f.	\$1.10	\$950.40
4" x 4" x 8' redwood posts	216	l.f.	\$2.05	\$442.80
<b>Hardware</b>				
3/8" x 6" carriage bolt with washer and nut	864	pc	\$2.25	\$1,944.00
Simson 2"x6" Construction Angle ML2Z6	216	pc	\$0.84	\$181.44
Simson RTR Rigid Tie Connector	216	pc	\$0.76	\$164.16
6" wood screws	1	30# box	\$34.98	\$34.98
<b>Pathway Materials</b>				
Recycled rubber roof matting - quote coming	1000	sf		\$0.00
<b>Plantings</b>				
growing medium	84	cubic yds	\$44.00	\$3,696.00
transport (on roof? Unless it's Hydrotech soil...)	4	delivery	\$75.00	\$300.00
plant material (retail price - wholesale available)				
<b>Groundcovers</b>	288	4.5" cont	\$6.25	\$1,800.00
<b>Ornamental Grasses</b>	288	4.5" cont	\$6.99	\$2,013.12
<b>Shrubs/perennials</b>	288	4.5" cont	\$6.99	\$2,013.12
<b>Total</b>				<b>\$5,826.24</b>
<b>Irrigation</b>				
Consultant				\$0.00
Material/Installation	6400	sq. ft.	\$1.10	\$7,040.00
<b>Testing Equipment</b>				
Data Logger CR100 Campbell Scientific				\$1,440.00
Vaisala Temperature/Relative Humidity Probe				\$605.05
Texas Electronics Rain Gage TE525				\$361.00
Apogee Pyranometer				\$248.20
Additional Hardware, Sensors and Equipment				\$1,981.00
<b>Total</b>				<b>\$4,635.25</b>
<b>Water Runoff Calculations</b>				
Cone Bottom 40gal Cistern with stand	4		\$239.99	\$959.96
Downspout reconfiguration	8		\$45.00	\$360.00
<b>Crane</b>				
	2	days (16 hrs?)		-

<b>Estimated Project Cost</b>			<b>\$74,280.26</b>	\$5,000.00
Contingency	10 %	\$7,428.03	\$8,000.00	
			<u>\$82,280.26</u>	