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Refer to: • 08 63 00/DIT for Acrylic Walkway Covers • 10 71 13/DIT for Extruded Aluminum Sunshades

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Photography by dana



Front cover photo:

- Belle Terre at Millenia
- Orlando, Florida
- Baker Barrios Architects Architect
- Kelsey Construction, Inc. Contractor



- GTE Federal Credit Union Headquarters
- Tampa, Florida
- Reynolds, Smith and Hills, Inc. Architect
- Whiting Turner Contracting Company
 Contractor



- Trigg County Middle School, Cadiz, Kentucky
- W.M.B. Inc. Architect
- Alliance Corporation
 Contractor



- Community School at Lake Nona, Orlando, Florida
- Schenkel Shultz
 Architect
- Centex Rooney Construction Co.
 Contractor



- Orlando Regional Medical Center
- Orlando, Florida
- Rogers, Lovelock & Fritz, Inc. Architect
- Trafalgar House Construction Contractor



- Marriott Orlando World Center, Orlando, Florida
- Hansen Lind Meyer, Inc. Architect
- Centex Rooney Construction Co., Inc.
 Contractor

2

- Wayne County Municipal Courts Building
- Wooster, Ohio
- Hanahan/Strollo & Associates, Inc. Architect
- Bogner Construction Company
 Contractor





- Imperial Estates Elementary
- Titusville, Florida
- Harvard, Jolly, Clees, Toppe Architect
- Ivey's Construction, Inc. Contractor

• American Culinary Federation

- St. Augustine, Florida
- Dixon & Associates Architect
- DiMare Construction Company Contractor

- Titusville High School
- Titusville, Florida
- The Haskell Company Architect
- G. H. Johnson Construction Co. Contractor

3

- Celebration Service Center
- Celebration, Florida
- Wakefield/Beasley & Associates Architect
- Kelsey Construction, Inc. Contractor

- The Celebration School
- Celebration, Florida
- Schenkel Shultz Architect
- Centex Rooney Const. Co.
 Contractor

- Fleet Management
- Clearwater, Florida
- Pinellas County Architect
- Grosz & Stamper Construction
 Contractor

- Trinity Preparatory School
- Winter Park, Florida
- Hunton Brady Pryor Maso Architects Architect
- Welbro Contractors, Inc. Contractor

DITT-DECK Extruded Aluminum Walkway

Covers enhance school, hospital and other institutional architecture while being totally maintenance free. The internal drainage system contributes to the uncluttered beauty of our carefully designed and engineered system. Our in-house chromate conversion coating facility, electrostatic paint-line and ovens offer you considerable finish options on your project.

- Gran Park 200
- Orlando, Florida
- HuntonBrady Architects Architect
- Brasfield & Gorrie, L.L.C. Contractor

- Veranda Park at Metro West
- Orlando, Florida
- Dittmer Architectural Aluminum Design
- Skanska USA Building, Inc. Contractor

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Specifications

General: Aluminum Walkway Cover or Canopy shall be entirely of anodized aluminum extrusions. Understructure shall consist of heli-arc welded one-piece rigid bents and the deck of interlocking anodized aluminum extrusions, as manufactured by Dittmer Architectural Aluminum, 1006 Shepard Road, Winter Springs, Florida 32708. The structure shall be capable of sustaining severe icing, hail, hurricane winds and being walked upon.

Materials: All sections shall be 6063 alloy heat-treated to a T-6 temper. Deck screws shall be type 18-8 stainless steel, sealed with neoprene "O" ring beneath stainless steel; trim rivets may be aluminum. A dip-coat of clear acrylic enamel shall insulate column ends from electrolytic reaction with grout. Grout shall be 3:1 Portland cement to masonry sand, 2000# compressive strength.

Internal Drainage: Water flow is directed from deck to beams and columns, as indicated by the drawings, for discharge out "weepholes" at ground level.

Bent Construction: Anodized beams and columns shall be heli-arc welded into rigid, one-piece units in the manufacturer's plant. Column ends shall be pierced to "key" grout to bent for maximum uplift protection.

Roof Deck: Extruded, self-flashing deck sections interlock into a composite unit, spanning double-bays for superior loading. Deck shall be staked into a camber sufficient to off-set deadload deflection and to cause positive drainage on spans over 15'-0". Staking shall consist of an abrupt local deformation of deck-lock metal, each stake having a shear value in excess of 350# and shall occur as detailed.

Finish: STANDARD FINISH shall be satin anodized, per Aluminum Association Specification AA-M-10C-22A-21, HARDCOAT bronze, amber or black color anodizing shall be per AA-M-10C-22A-42 on KB-45 controlled billet, color to selected. PAINTED FINISH shall consist of baked acrylic enamel, for maximum chalk and fade resistance, over chromate conversion pretreatment on deck and fascia. Bents, after solvent cleaning, shall receive one coat of vinyl wash-etch primer (Mil.#125-880) and a 1 mil. minimum coating of exterior grade, two-part, polyurethane for maximum abrasion resistance and maintainability.

Dimensions: General contractor shall field-confirm bent location, dimensions and elevations as shown on shop drawings prior to fabrication by Dittmer.

Erection: Sleeves (styrofoam block-outs) shall be furnished by Dittmer and set by General Contractor. Dittmer, or authorized installer, shall be scheduled to erect after all adjacent roofing and masonry have been completed. Concrete footings, anchor bolts and/or flashing, where required, shall be by others. Bents shall be carefully aligned prior to grouting; downspout column interiors shall be grouted to lower edge of "weephole"; deflectors shall be installed after grouting. All deck ends at beam joints shall be capped as detailed. Butt and miter joints shall be executed in a workman like manner.

Approval: Written approval of the architect must be obtained 10 days prior to bid opening. Interested manufacturers must furnish full details of proposed product, engineering calculations on all sections involved, physical samples of all shaped, and a list of installations similar in size and design.

EXTRUDED ALUMINUM DECKS

Sx = 1.399 in³ 50" $Ix = 0.993 in^4$.070 S.S. Eight 6' 10' SPAN 8 q Stress 320 Limit 235 180 142 115 Deflection 102 65 43 30 22 I imit Sx = 1.53 in³ $Ix = 2.48 in^4$ 25 6 6' 6″ \sim 060 Stretch 60 SPAN 8 13 14 11 Stress Limit 203 161 130 108 90 77 66 Deflection 122 85 63 46 36 28 22 Limit Sx = 1.45 in³ 25 $Ix = 2.35 \text{ in}^4$ 5″ 5 5 060 Standard 60 SPAN 8 11 12 13' 14' Stress 226 179 145 120 100 86 74 Limit Deflection 25 136 95 70 52 40 32 Limit Sx = 2.06 in 3 ŝ $Ix = 3.60 \text{ in }^4$ 4″ or 6 6″ 6" m. 080 Spread 80 SPAN 12' 14 15 16 17' 18' 13 Stress 143 Limit 122 105 91 80 71 63 Deflection 62 48 39 32 26 22 18 I imit Sx = 2.36 in³ 5′ ŝ 5″ $Ix = 5.31 \text{ in }^4$ 51 065 Sturdy 65 SPAN 12' 13 14 16 18 Stress 164 140 121 105 92 82 73 I imit Deflection 91 Limit 71 57 46 38 32 27 $Sx = 4.10 \text{ in}^3$ 6″ 6" 6 $Ix = 12.31 in^4$ è, 080 Six x Six SPAN 16 20' 21' 22 18 19 Stress 160 142 102 93 85 Limit 126 113 Deflection 89 34 Limit 74 62 53 45 39 $Sx = 2.25 \text{ in }^3$ $Ix = 3.94 in^4$ 6 or 6 080 Soffit SPAN 16' 12 13 11 14 Stress Limit 225 186 156 133 115 100 88 Deflection 87 67 28 Limit 116 53 42 35

Tables show allowable loads (lbs. per sq. ft.) All extrusions are 6063-T6. Safety factor of 2.1 Yield: 31,000 psi. Figures based on breaking deck at alternate bends.

HELI-ARC WELDED BENTS											$\frac{10}{10}$	73 00/DIT
Sx = 1.83 1x = 3.71 .125 Sx = 2.56 1x = 4.55 .150 Sx = 1x = 1 .12 4x3 4x4 62		4.48 13.84 25 x4 $6x6$		Sx = 7.66 x = 31.75 .125 .190 8x4 6		×8	Sx = 12.57 Ix = 56.60 .188 5x9	Sx = 22.14 Ix = 110.73 .188 .300 10×6				
DEAMS								r.	٦			
Sx = 1.8 [x = 3.7 [x = 3.7	Sx = 3.15 Ix = 6.37 .150 A x 4 Sx = 4.88 Ix = 15.09 .125 .190 A x 4 Sx = 8.8 Ix = 3.3 .125 .190 A x 4 Sx = 8.8 Ix = 3.7 .125 .190 A x 4 Sx = 8.8 Ix = 3.7 .125 .190 A x 4 Sx = 8.8 Ix = 3.7 .190 .1		Sx = 8.00 Ix = 33.6 .125 .190	13 6 5x = 7.82 1x = 23.48 .188		Sx = 13.04 Ix = 52.14 .188	Sx = 9.94 Ix = 44.73 .188	Sx = 14 Ix = 73. .188 .250	.78			
4x3	4	+ 024	0.4	07	(0	0.00	5,5					
U BENT	DEC Mode	K WIDTH el BM./COL.	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'
	1	4x3/4x3	5,134	3,565	2,680	2,110						
	2	6x4/4x4	10,338	7,384	5,680	4,544	3,725	3,104	2,587	2,192	0.007	
	3	6x4/6x4	12,950	9,250	7,115	5,692	4,666	3,888	3,240	2,746	2,367	0.010
	4	8X4/4X4	14,589	10,727	8,513	6,978 9 109	5,815	4,928	4,248	3,694	3,212	2,818
	5	8×4/0×4	20.657	15 180	11 060	0,100	8 103	5,607	5,000	4,323	3,720	3,240
	7	6x6/6x6	16,330	13,109	11,900	9,724	8 590	7 760	7 100	6 560	4,477	5,927
	8	8x6/6x6	21,616	16,830	13,991	11.976	10,565	9.503	8,653	7,939	7.386	6.927
	9	8x6/8x6	28,492	22,950	19,405	16,915	15,070	13,600	12,461	11,424	10,591	9,885
	10	5x9/9x5	23,518	19,100	14,080	11,500	9,000	7,300	6,100	5,977		
	11	10x6/10x6	33,520	27,000	22,830	19,900	17,730	16,000	14,660	13,440	12,460	11,630
L BENT	1	123/123	3 800	2 05/	2 308							
	2	6×4/4×4	8 340	6 318	4 936	3 785	3 004	2 612	2 375	2 262		
	3	6x4/6x4	9 258	7 014	5 480	4 246	3,397	2,012	2,685	2,202	2 436	
	4	8x4/4x4	12,855	9,739	7,609	6,136	4,989	4,123	3,465	2,962	2,533	2,220
	5	8x4/6x4	14,194	10,753	8,401	6.830	5.553	4,589	3.856	3.296	2,841	2,470
	6	8x4/8x4	16,749	12,689	9,913	8,059	6,553	5,415	4,550	3,889	3,352	2,915
	7	6x6/6x6	15,730	11,780	9,440	7,900	6,800	5,970	5,330	4,820		
	8	8x6/6x6	21,734	16,949	14,050	12,104	10,693	9,503	8,432	7,573		
3	9	8x6/8x6	25,236	19,005	15,291	12,825	11,050	9,732	8,695	7,862		
	10	5x9/9x5	24,235	15,800	10,940	8,700	7,000	6,000	4,900	4,350		
	11	10x6/10x6	29,690	22,360	17,990	15,090	13,000	11,450	10,230	9,250		
TT BENT		DIM.A DIM.B	4' 1'	6' 1'	7' 1.5'	8' 2'	10' 2'	11' 2.5'	12' 3'	14' 3'	15' 3.5'	16' 4'
	4	4 0/4 0	11.010	0.077	0.000	-	-	0.000	0.000	•		
	1	4x3/4x3	11,918	8,277	6,323	4,800	3,952	3,239	2,699	5 610	4 001	4 204
	2	6x4/4x4	25,561	18 807	14,000	11,244	9,210	7,000	6 731	5,010	5 080	4,394
BAB	4	8x4/4x4	33 443	25 591	19,363	16,002	13 795	12 317	11,300	10,561	9,963	9 489
	5	8x4/6x4	37.059	27.249	21.456	17.732	15,286	13.649	12,522	11.703	11.040	10.514
	6	8x4/8x4	43,729	32,154	23,318	20,924	18,038	16,105	14,776	13,809	13,027	12,407
	7	6x6/6x6			24,500	24,530	20,520	17,790	17,710	15,695	14,150	14,050
	8	8x6/6x6			32,606	32,801	26,940	23,094	23,018	20,255	18,139	18,105
	9	8x6/8x6			42,432	42,262	35,470	30,804	30,498	27,058	24,403	24,114
	10	5x9/9x5			10.000	35,300	25,800	20,810	16,235	13,050		
	11	10x6/10x6			49,920	49,720	41,730	36,240	35,880	31,835	28,710	28,370
TBENT		DIM.A DIM.B	5' 1'	6' 2'	9' 1'	10' 2'	12' 2'	13' 3'	15' 3'	16' 4'	18' 4'	20' 4'
	1	4x3/4x3	5.979	4.983	3.691	2.977	2.481	2.130				
8	2	6x4/4x4	12,403	10,336	7,656	6,174	5,145	4,039	3,606	3,339	3,092	2,863
State of the second sec	3	6x4/6x4	14,031	11,692	8,661	6,985	5,821	4,660	4,161	3,853	3,567	3,303
AB	4	8x4/4x4	21,031	17,518	12,976	10,465	8,720	7,638	6,820	6,046	5,598	5,183
3	5	8x4/6x4	22,855	19,046	14,108	11,377	9,481	7,986	7,130	6,612	6,122	5,669
	6	8x4/8x4	26,968	22,473	16,647	13,425	11,188	9,423	8,413	7,802	7,224	6,689
S.	7	6x6/6x6		17,140	14,380	12,040	10,110	8,920	8,170	7,520	6,860	6,300
	8	8x6/6x6		25,738	21,564	17,935	15,028	13,209	12,155	11,211	10,196	9,350
	9	8x6/8x6		28,241	23,655	19,826	16,630	14,671	13,434	12,342	11,254	10,336
	10	5x9/9x5		23,600	15,700	13,500	10,560	17.000	1,550	0,355	5,472	10.100
		10X0/10X0		JJ,225	21,030	20,020	19,000	17,200	15,605	14,520	13,240	12,100

* Load values are for general quidelines only.

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