



Construction Materials Testing
Concrete Testing
Cordova Trails Unit 1
Seguin, Texas

InTEC Project No. S212171-5
October 25, 2023

Ashton Woods
17319 San Pedro Avenue, Suite 140
San Antonio, Texas 78232



Integrated Testing and Engineering Company of San Antonio, L.P.

Geotechnical & Environmental Engineering • Construction Services • Geologic Assessment

E.A. Palaniappan, Ph.D., P.E.
Murali Subramaniam, Ph.D., P.E.
Kausi Subramaniam, B.S.

October 25, 2023

Ashton Woods
17319 San Pedro Avenue, Suite 140
San Antonio, Texas 78232

Attention: Mr. Kyle Lents

**Re: Concrete Tests
Cordova Trails Unit 1
Seguin, Texas**

InTEC Project #: S212171-5

Gentlemen:

Integrated Testing and Engineering Company of San Antonio, L.P. (InTEC) performed concrete field and compressive strength tests at the above referenced project site between May 26, 2022 and October 20, 2023.

Field concrete tests were performed on an "on call" basis by the contractor. Full time observation of concrete placement was not performed. Concrete field and compressive strength test results for the above referenced project are presented for your review.

We appreciate and wish to thank you for the opportunity to be of service to you on this project. If we can be of additional assistance, or if you have any questions, please call us.

Respectfully Submitted,
InTEC of San Antonio, L.P.

Murali Subramaniam, Ph.D., P.E.

Copies Submitted: Above (1)



[Signature]
10/30/2023



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 17536

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	1	Technician:	Martinez, Juan	Batched:	12:27 CDT
Specimen Size:	6" X 12"	Cast By:	Martinez, Juan	Sampled:	13:10 CDT
Specimens In Set:	4	Date Cast:	05/26/22	Cast:	13:15 CDT
Truck / Ticket #:	586 / 20126792	Sampled From:	Chute	Truck Empty:	
Contractor:	V.K.Knowlton	Placement Method:	Chute	Placement Time:	

Location

Placement Location:	Drain - Inlet
Location Details:	Drain CA Inlet 1+00-1+24
Sample Location / Notes:	Drain CA Inlet STA 1+00

Batch Log

Supplier:	Vulcan Materials
On-Site Admixtures:	None

Specifications

Strength:	3000 (psi)
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Field Measurements

Weather:	Clear	Slump (in):	7-1/2 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	84	Concrete Temp (F):	75 (ASTM C1064)	Air Content:	
				Load Volume:	9.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
1-1	7	06/02/22	1 / 6	6.00	28.27	77,000	2,720	5		U
1-2	7	06/02/22	1 / 6	6.00	28.27	75,000	2,650	5		U
1-3	28	06/23/22	1 / 27	6.00	28.27	97,500	3,450	5		U
1-4	28	06/23/22	1 / 27	6.00	28.27	100,000	3,540	5		U

Test Age Average Strengths (psi): 7 Day - 2690, 28 Day - 3490

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 05/27/2022 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6

Testing performed when called in by contractor.

Test results apply only to the specific locations and materials noted and may not represent any other locations or elevations.

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 17610

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	2	Technician:	Castellanos, Arturo	Batched:	10:25 CDT
Specimen Size:	6" X 12"	Cast By:	Castellanos, Arturo	Sampled:	12:10 CDT
Specimens In Set:	4	Date Cast:	06/01/22	Cast:	12:20 CDT
Truck / Ticket #:	587 / 20127663	Sampled From:	Chute	Truck Empty:	12:45 CDT
Contractor:	VK KNOWLTON	Placement Method:	Chute	Placement Time:	140 (min)

Location

Placement Location:	Drain - Inlet
Location Details:	INLET WALLS DRAIN "CA" STA1+24.50-1+64.52 DRAIN "D" STA1+64.52
Sample Location / Notes:	INLET WALLS

Batch Log

Supplier: Vulcan Materials
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather:	Sunny	Slump (in):	5-1/2 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	88	Concrete Temp (F):	72 (ASTM C1064)	Air Content:	
				Load Volume:	10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
2-1	7	06/08/22	1 / 6	6.00	28.27	69,700	2,470	2		U
2-2	7	06/08/22	1 / 6	6.00	28.27	78,300	2,770	2		U
2-3	28	06/29/22	1 / 27	6.00	28.27	110,000	3,890	5		U
2-4	28	06/29/22	1 / 27	6.00	28.27	115,000	4,070	5		U

Test Age Average Strengths (psi): 7 Day - 2620, 28 Day - 3980

Capping Methods

Tested By: Weston Herrera (1,2), Alex Martinez (3,4)

Checked In : 06/02/2022 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6

Testing performed when called in by contractor.

Test results apply only to the specific locations and materials noted and may not represent any other locations or elevations.

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 17757

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	3	Technician:	Martinez, Juan	Batched:	10:10 CDT
Specimen Size:	6" X 12"	Cast By:	Martinez, Juan	Sampled:	10:45 CDT
Specimens In Set:	4	Date Cast:	06/09/22	Cast:	10:50 CDT
Truck / Ticket #:	586 / 20129737	Sampled From:	Chute	Truck Empty:	
Contractor:	V.K.Knowlton	Placement Method:	Chute	Placement Time:	

Location

Placement Location:	Drain - Top Deck
Location Details:	Drain C STA 1+00 & 1+24
Sample Location / Notes:	Drain C STA 1+00

Batch Log

Supplier:	Vulcan Materials	Strength:	3000 (psi)
On-Site Admixtures:	None		

Field Measurements

Weather:	Clear	Slump (in):	5-1/2 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	85	Concrete Temp (F):	80 (ASTM C1064)	Air Content:	
				Load Volume:	10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
3-1	7	06/16/22	1 / 6	6.00	28.27	85,000	3,010	5		U
3-2	7	06/16/22	1 / 6	6.00	28.27	88,000	3,110	2		U
3-3	28	07/07/22	1 / 27	6.00	28.27	110,000	3,890	2		U
3-4	28	07/07/22	1 / 27	6.00	28.27	115,000	4,070	3		U

Test Age Average Strengths (psi): 7 Day - 3060, 28 Day - 3980

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 06/10/2022 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 18033

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	4	Technician:	Castellanos, Arturo	Batched:	08:11 CDT
Specimen Size:	6" X 12"	Cast By:	Castellanos, Arturo	Sampled:	09:30 CDT
Specimens In Set:	4	Date Cast:	06/21/22	Cast:	09:40 CDT
Truck / Ticket #:	637 / 20132226	Sampled From:	Chute	Truck Empty:	09:50 CDT
Contractor:	VK KNOWLTON	Placement Method:	Chute	Placement Time:	99 (min)

Location

Placement Location: Drain - Rip Rap
Location Details: Drain "A"
Sample Location / Notes: Drain "A"

Batch Log

Supplier: Vulcan Materials
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather:	Sunny	Slump (in):	5-1/2 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	82	Concrete Temp (F):	70 (ASTM C1064)	Air Content:	
				Load Volume:	10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
4-1	7	06/28/22	1 / 6	6.00	28.27	61,000	2,160	5		U
4-2	7	06/28/22	1 / 6	6.00	28.27	62,000	2,190	5		U
4-3	28	07/19/22	1 / 27	6.00	28.27	97,500	3,450	5		U
4-4	28	07/19/22	1 / 27	6.00	28.27	90,000	3,180	5		U

Test Age Average Strengths (psi): 7 Day - 2180, 28 Day - 3320

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 06/22/2022 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6

Testing performed when called in by contractor.

Test results apply only to the specific locations and materials noted and may not represent any other locations or elevations.

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 18305

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	5	Technician:	Castellanos, Arturo	Batched:	07:10 CDT
Specimen Size:	6" X 12"	Cast By:	Castellanos, Arturo	Sampled:	08:45 CDT
Specimens In Set:	4	Date Cast:	07/07/22	Cast:	08:55 CDT
Truck / Ticket #:	2003 / 200334	Sampled From:	Chute	Truck Empty:	09:05 CDT
Contractor:	VK KNOWLTON	Placement Method:	Chute	Placement Time:	115 (min)

Location

Placement Location: Drain - Footing
Location Details: Drain A
Sample Location / Notes: Drain A

Batch Log

Supplier: Cemex
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Sunny
Air Temperature (F): 87
Slump (in): 5 (ASTM C143)
Concrete Temp (F): 72 (ASTM C1064)
Plastic Unit Weight:
Air Content:
Load Volume: 10.00 (yd³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
5-1	8	07/15/22	4 / 4	6.00	28.27	87,500	3,100	5		U
5-2	8	07/15/22	4 / 4	6.00	28.27	100,000	3,540	3		U
5-3	28	08/04/22	4 / 24	6.00	28.27	120,000	4,250	5		U
5-4	28	08/04/22	4 / 24	6.00	28.27	110,000	3,890	5		U

Test Age Average Strengths (psi): 8 Day - 3320, 28 Day - 4070

Capping Methods

Tested By: Alex Martinez (1,2,3,4)

Checked In : 07/11/2022 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 18309

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	6	Technician:	Vidal, Efrain	Batched:	07:50 CDT
Specimen Size:	6" X 12"	Cast By:	Vidal, Efrain	Sampled:	08:45 CDT
Specimens In Set:	4	Date Cast:	07/08/22	Cast:	08:50 CDT
Truck / Ticket #:	2003 / 200346	Sampled From:	Chute	Truck Empty:	
Contractor:	Vkk	Placement Method:	Chute	Placement Time:	

Location

Placement Location: Drain - Footing
Location Details: Drain A
Sample Location / Notes: Drain A

Batch Log

Supplier: Jarco Ready Mix
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Partly cloudy	Slump (in): 5-1/4 (ASTM C143)	Plastic Unit Weight:
Air Temperature (F): 81	Concrete Temp (F): 72 (ASTM C1064)	Air Content:
		Load Volume: 10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
6-1	7	07/15/22	3 / 4	6.00	28.27	75,000	2,650	5		U
6-2	7	07/15/22	3 / 4	6.00	28.27	60,000	2,120	3		U
6-3	28	08/05/22	3 / 25	6.00	28.27	88,000	3,110	5		U
6-4	28	08/05/22	3 / 25	6.00	28.27	90,000	3,180	5		U

Test Age Average Strengths (psi): 7 Day - 2390, 28 Day - 3150

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 07/11/2022 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 19455

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	7	Technician:	Chhetri, Shankar	Batched:	08:17 CDT
Specimen Size:	6" X 12"	Cast By:	Chhetri, Shankar	Sampled:	09:20 CDT
Specimens In Set:	4	Date Cast:	09/13/22	Cast:	09:35 CDT
Truck / Ticket #:	598 / 20147767	Sampled From:	Chute	Truck Empty:	
Contractor:	V.K Knowlton Construction	Placement Method:	Chute	Placement Time:	

Location

Placement Location: Curb and Gutter
Location Details: LABATT ST
Sample Location / Notes: STA 13+00 Right side curb

Batch Log

Supplier: Vulcan Materials
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Sunny
Air Temperature (F): 78
Slump (in): 1-3/4 (ASTM C143)
Concrete Temp (F): 85 (ASTM C1064)
Plastic Unit Weight:
Air Content:
Load Volume: 10.00 (yd³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
7-1	7	09/20/22	1 / 6	6.00	28.27	95,000	3,360	5		U
7-2	7	09/20/22	1 / 6	6.00	28.27	95,150	3,370	5		U
7-3	28	10/11/22	1 / 27	6.00	28.27	105,000	3,710	5		U
7-4	28	10/11/22	1 / 27	6.00	28.27	110,000	3,890	2		U

Test Age Average Strengths (psi): 7 Day - 3360, 28 Day - 3800

Capping Methods

Tested By: Alex Martinez (1,2,3,4)

Checked In : 09/14/2022 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 19506

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	8	Technician:	Chhetri, Shankar	Batched:	09:35 CDT
Specimen Size:	6" X 12"	Cast By:	Chhetri, Shankar	Sampled:	10:45 CDT
Specimens In Set:	4	Date Cast:	09/15/22	Cast:	11:00 CDT
Truck / Ticket #:	611 / 20148482	Sampled From:	Chute	Truck Empty:	
Contractor:	V.K Knowlton Construction	Placement Method:	Curb & Gutter	Placement Time:	

Location

Placement Location:	Curb and Gutter
Location Details:	YALE ST
Sample Location / Notes:	STA 11+00 right side

Batch Log

Supplier:	Vulcan Materials	Strength:	3000 (psi)
On-Site Admixtures:	None		

Field Measurements

Weather:	Mostly cloudy	Slump (in):	2-3/4 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	83	Concrete Temp (F):	87 (ASTM C1064)	Air Content:	
				Load Volume:	9.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
8-1	7	09/22/22	1 / 6	6.00	28.27	65,000	2,300	2		U
8-2	7	09/22/22	1 / 6	6.00	28.27	73,000	2,580	3		U
8-3	28	10/13/22	1 / 27	6.00	28.27	98,000	3,470	5		U
8-4	28	10/13/22	1 / 27	6.00	28.27	86,000	3,040	2		U

Test Age Average Strengths (psi): 7 Day - 2440, 28 Day - 3260

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 09/16/2022 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6

Testing performed when called in by contractor.

Test results apply only to the specific locations and materials noted and may not represent any other locations or elevations.

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 21290

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	9	Technician:	Chhetri, Shankar	Batched:	10:14 CST
Specimen Size:	6" X 12"	Cast By:	Chhetri, Shankar	Sampled:	11:30 CST
Specimens In Set:	4	Date Cast:	01/13/23	Cast:	11:45 CST
Truck / Ticket #:	3475 / 17905	Sampled From:	Chute	Truck Empty:	
Contractor:	V.K Knowlton Construction	Placement Method:	Chute	Placement Time:	

Location

Placement Location:	Drain - Walls
Location Details:	Drain A
Sample Location / Notes:	Upstream Headwall

Batch Log

Supplier:	Jarco Ready Mix	Strength:	3000 (psi)
On-Site Admixtures:	None		

Field Measurements

Weather:	Sunny	Slump (in):	5-1/2 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	53	Concrete Temp (F):	65 (ASTM C1064)	Air Content:	
				Load Volume:	9.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
9-1	7	01/20/23	5 / 2	6.00	28.27	101,000	3,570	5		U
9-2	7	01/20/23	5 / 2	6.00	28.27	110,000	3,890	2		U
9-3	28	02/10/23	5 / 23	6.00	28.27	116,000	4,100	5		U
9-4	28	02/10/23	5 / 23	6.00	28.27	137,500	4,860	3		U

Test Age Average Strengths (psi): 7 Day - 3730, 28 Day - 4480

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 01/18/2023 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 23655

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	10	Technician:	Castellanos, Arturo	Batched:	09:24 CDT
Specimen Size:	6" X 12"	Cast By:	Castellanos, Arturo	Sampled:	10:35 CDT
Specimens In Set:	4	Date Cast:	07/31/23	Cast:	10:45 CDT
Truck / Ticket #:	673 / 29162	Sampled From:	Chute	Truck Empty:	10:50 CDT
Contractor:	VK KNOWLTON	Placement Method:	Pump	Placement Time:	86 (min)

Location

Placement Location:	Drain - Footing
Location Details:	Drain "A" C- CHANNEL
Sample Location / Notes:	DRAIN "A"

Batch Log

Supplier:	Vulcan Materials
On-Site Admixtures:	None

Specifications

Strength:	3000 (psi)
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Field Measurements

Weather:	Sunny	Slump (in):	6 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	88	Concrete Temp (F):	86 (ASTM C1064)	Air Content:	
				Load Volume:	10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
10-1	7	08/07/23	1 / 6	6.00	28.27	77,500	2,740	3		U
10-2	7	08/07/23	1 / 6	6.00	28.27	70,000	2,480	2		U
10-3	28	08/28/23	1 / 27	6.00	28.27	105,000	3,710	5		U
10-4	28	08/28/23	1 / 27	6.00	28.27	108,000	3,820	2		U

Test Age Average Strengths (psi): 7 Day - 2610, 28 Day - 3770

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 08/01/2023 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 23656

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	11	Technician:	Castellanos, Arturo	Batched:	09:40 CDT
Specimen Size:	6" X 12"	Cast By:	Castellanos, Arturo	Sampled:	11:15 CDT
Specimens In Set:	4	Date Cast:	07/31/23	Cast:	11:25 CDT
Truck / Ticket #:	596 / 29167	Sampled From:	Chute	Truck Empty:	11:45 CDT
Contractor:	VK KNOWLTON	Placement Method:	Pump	Placement Time:	125 (min)

Location

Placement Location: Drain - Footing
 Location Details: Drain "A" C- CHANNEL
 Sample Location / Notes: DRAIN "A" C- CHANNEL

Batch Log

Supplier: Vulcan Materials
 On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Sunny
 Air Temperature (F): 89
 Slump (in): 6 (ASTM C143)
 Concrete Temp (F): 87 (ASTM C1064)
 Plastic Unit Weight:
 Air Content:
 Load Volume: 10.00 (yd³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
11-1	7	08/07/23	1 / 6	6.00	28.27	60,000	2,120	2		U
11-2	7	08/07/23	1 / 6	6.00	28.27	50,000	1,770	5		U
11-3	28	08/28/23	1 / 27	6.00	28.27	88,000	3,110	3		U
11-4	28	08/28/23	1 / 27	6.00	28.27	92,000	3,250	3		U

Test Age Average Strengths (psi): 7 Day - 1950, 28 Day - 3180

Capping Methods

Tested By: Alex Martinez (1,2,3,4)

Checked In : 08/01/2023 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6

Testing performed when called in by contractor.

Test results apply only to the specific locations and materials noted and may not represent any other locations or elevations.

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 23867

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	12	Technician:	Chhetri, Shankar	Batched:	08:02 CDT
Specimen Size:	6" X 12"	Cast By:	Chhetri, Shankar	Sampled:	09:10 CDT
Specimens In Set:	4	Date Cast:	08/11/23	Cast:	09:25 CDT
Truck / Ticket #:	610 / 34807	Sampled From:	Chute	Truck Empty:	
Contractor:	V.K Knowlton Construction	Placement Method:	Chute	Placement Time:	

Location

Placement Location:	Drain - Footing
Location Details:	Drain A
Sample Location / Notes:	Footing areas

Batch Log

Supplier:	Vulcan Materials	Strength:	3000 (psi)
On-Site Admixtures:	None		

Field Measurements

Weather:	SUNNY	Slump (in):	5-3/4 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	83	Concrete Temp (F):	91 (ASTM C1064)	Air Content:	
				Load Volume:	10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
12-1	7	08/18/23	3 / 4	6.00	28.27	84,000	2,970	5		U
12-2	7	08/18/23	3 / 4	6.00	28.27	70,000	2,480	5		U
12-3	28	09/08/23	3 / 25	6.00	28.27	115,000	4,070	2		U
12-4	28	09/08/23	3 / 25	6.00	28.27	110,000	3,890	5		U

Test Age Average Strengths (psi): 7 Day - 2720, 28 Day - 3980

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 08/14/2023 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 24019

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	13	Technician:	Espinoza, Ernest	Batched:	08:04 CDT
Specimen Size:	6" X 12"	Cast By:	Espinoza, Ernest	Sampled:	09:30 CDT
Specimens In Set:	4	Date Cast:	08/22/23	Cast:	09:45 CDT
Truck / Ticket #:	628 / 000337391	Sampled From:	Chute	Truck Empty:	10:10 CDT
Contractor:	VKK	Placement Method:	Chute	Placement Time:	126 (min)

Location

Placement Location: Drain - Walls
Location Details: Drain A STA 1+50
Sample Location / Notes: Labatt Dr.

Batch Log

Supplier: Vulcan Materials
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Cloudy
Air Temperature (F): 82
Slump (in): 4-1/2 (ASTM C143)
Concrete Temp (F): 79 (ASTM C1064)
Plastic Unit Weight:
Air Content:
Load Volume: 10.00 (yd³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
13-1	7	08/29/23	1 / 6	6.00	28.27	75,000	2,650	3		U
13-2	7	08/29/23	1 / 6	6.00	28.27	76,000	2,690	3		U
13-3	28	09/19/23	1 / 27	6.00	28.27	104,000	3,680	5		U
13-4	28	09/19/23	1 / 27	6.00	28.27	127,500	4,510	5		U

Test Age Average Strengths (psi): 7 Day - 2670, 28 Day - 4100

Capping Methods

Tested By: Alex Martinez (1,2,3,4)

Checked In : 08/23/2023 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)

General Remarks

Drain A Walls STA 1+00 to 3+00



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 24222

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	14	Technician:	Cisneros, Ramiro	Batched:	
Specimen Size:	6" X 12"	Cast By:	Cisneros, Ramiro	Sampled:	09:50 CDT
Specimens In Set:	4	Date Cast:	09/01/23	Cast:	10:05 CDT
Truck / Ticket #:	687 / 00040347	Sampled From:	Chute	Truck Empty:	
Contractor:	VKK	Placement Method:	Chute	Placement Time:	

Location

Placement Location:	Drain - Walls
Location Details:	Drain A Headwall
Sample Location / Notes:	Drain A Headwall

Batch Log

Supplier:	Vulcan Materials
On-Site Admixtures:	None

Specifications

Strength:	3000 (psi)
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Field Measurements

Weather:	Sunny	Slump (in):	5 (ASTM C143)	Plastic Unit Weight:	
Air Temperature (F):	90	Concrete Temp (F):		Air Content:	
				Load Volume:	10.00 (yd ³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
14-1	7	09/08/23	4 / 3	6.00	28.27	90,000	3,180	5		U
14-2	7	09/08/23	4 / 3	6.00	28.27	92,000	3,250	5		U
14-3	28	09/29/23	4 / 24	6.00	28.27	110,000	3,890	5		U
14-4	28	09/29/23	4 / 24	6.00	28.27	119,000	4,210	3		U

Test Age Average Strengths (psi): 7 Day - 3220, 28 Day - 4050

Capping Methods

Tested By: Alex Martinez (1,2,3,4)	U: Unbonded Caps (ASTM C1231)
Checked In : 09/05/2023 (1,2,3,4)	



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 24450

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	15	Technician:	Gonzalez, Chris	Batched:	08:10 CDT
Specimen Size:	6" X 12"	Cast By:	Gonzalez, Chris	Sampled:	09:10 CDT
Specimens In Set:	4	Date Cast:	09/18/23	Cast:	09:15 CDT
Truck / Ticket #:	592 / 00044061	Sampled From:	Chute	Truck Empty:	
Contractor:	VK Knowlton	Placement Method:	Chute	Placement Time:	

Location

Placement Location: Drain - Footing
Location Details: Drain A
Sample Location / Notes: Footing STA 10+50

Batch Log

Supplier: Vulcan Materials
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Clear
Air Temperature (F): 78
Slump (in): 4-1/2 (ASTM C143)
Concrete Temp (F): 75 (ASTM C1064)
Plastic Unit Weight:
Air Content:
Load Volume: 10.00 (yd³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
15-1	7	09/25/23	1 / 6	6.00	28.27	85,000	3,010	3		U
15-2	7	09/25/23	1 / 6	6.00	28.27	77,000	2,720	3		U
15-3	28	10/16/23	1 / 27	6.00	28.27	115,000	4,070	2		U
15-4	28	10/16/23	1 / 27	6.00	28.27	113,000	4,000	6		U

Test Age Average Strengths (psi): 7 Day - 2870, 28 Day - 4030

Capping Methods

Tested By: Alex Martinez (1,2,3,4)

Checked In : 09/19/2023 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6



Compressive Strength of Concrete

Test Method: ASTM C 39

Report Date: 10/30/2023

Sample: 24548

InTEC of San Antonio

12028 Radium
San Antonio, TX 78216
Phone: 210-525-9033

Client:

Ashton Woods
17319 San Pedro, Ste. 140
San Antonio, TX 78232

Project:

S212171
Cordova Trails Unit 1
29.628389, -97.985009
Seguin, TX

Sample Details

Set #:	16	Technician:	Gonzalez, Chris	Batched:	07:55 CDT
Specimen Size:	6" X 12"	Cast By:	Gonzalez, Chris	Sampled:	09:10 CDT
Specimens In Set:	4	Date Cast:	09/22/23	Cast:	09:15 CDT
Truck / Ticket #:	633 / 00045375	Sampled From:	Chute	Truck Empty:	
Contractor:	VK Knowlton	Placement Method:	Chute	Placement Time:	

Location

Placement Location: Drain - Walls
Location Details: Drain A
Sample Location / Notes: Walls STA 10+50

Batch Log

Supplier: Vulcan Materials
On-Site Admixtures: None

Specifications

Strength: 3000 (psi)

Field Measurements

Weather: Clear
Air Temperature (F): 88
Slump (in): 4-1/2 (ASTM C143)
Concrete Temp (F): 80 (ASTM C1064)
Plastic Unit Weight:
Air Content:
Load Volume: 10.00 (yd³)

Lab Test Results

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
16-1	7	09/29/23	3 / 4	6.00	28.27	95,000	3,360	2		U
16-2	7	09/29/23	3 / 4	6.00	28.27	98,000	3,470	3		U
16-3	28	10/20/23	3 / 25	6.00	28.27	115,000	4,070	5		U
16-4	28	10/20/23	3 / 25	6.00	28.27	120,000	4,250	3		U

Test Age Average Strengths (psi): 7 Day - 3410, 28 Day - 4160

Capping Methods

Tested By: Alex Martinez (1,2,3,4)

Checked In : 09/25/2023 (1,2,3,4)

U: Unbonded Caps (ASTM C1231)



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5 TYPE 6