CTL | THOMPSON INCORPORATED

February 9, 2022

D.R. Horton
9555 South Kingston Court
Suite 200
Englewood, Colorado 80112

Attention: George Hart

Subject: Declaration Letter
Trails at Crowfoot, Filing 13
East of Bayou Gulch Road and North Pinery Parkway
Parker, Colorado
Project No. DN50626.002F

CTL | Thompson, Inc provided testing and observation services during site development for Trails at Crowfoot, Filing 13 in Parker, Colorado. Services were provided on a part to full-time, on-call basis.

We performed compaction testing of sub-excavation backfill during our observations completed between December 7, 2020 through October 26, 2021. The compaction tests and our observations indicated the fill was placed in general conformance with compaction recommendations.

We performed compaction testing of sanitary trench and manhole backfill during our observations completed between June 9 through August 20, 2021. The compaction tests and our observations indicated the fill was placed in general conformance with compaction recommendations.

We performed compaction testing of waterline trench backfill during our observations completed between July 20 through December 29, 2021. The compaction tests and our observations indicated the fill was placed in general conformance with compaction recommendations.

We performed compaction testing of storm inlets and storm sewer trench backfill during our observations completed between July 26 through September 28, 2021. The compaction tests and our observations indicated the fill was placed in general conformance with compaction recommendations.

We performed compaction testing of curb and gutter subgrade, street subgrade, and sidewalk subgrade during our observations completed between October 13 through November 18, 2021. The compaction tests and our observations indicated the fill was placed in general conformance with compaction recommendations.

We performed asphalt testing during our observations completed between November 12 through December 2, 2021. Our observations indicated the asphalt was placed in general conformance with asphalt recommendations.

We performed concrete testing of inlet wall, curb and gutter, sidewalk, crosspan, crosswalk, and manhole during our observations completed between September 14 through November 22, 2021. The test results indicated the average 28-day compressive strengths achieved specified strengths.

If we can be of further assistance, please contact us at your convenience.

Very truly yours,

CTL | THOMPSON, INC.

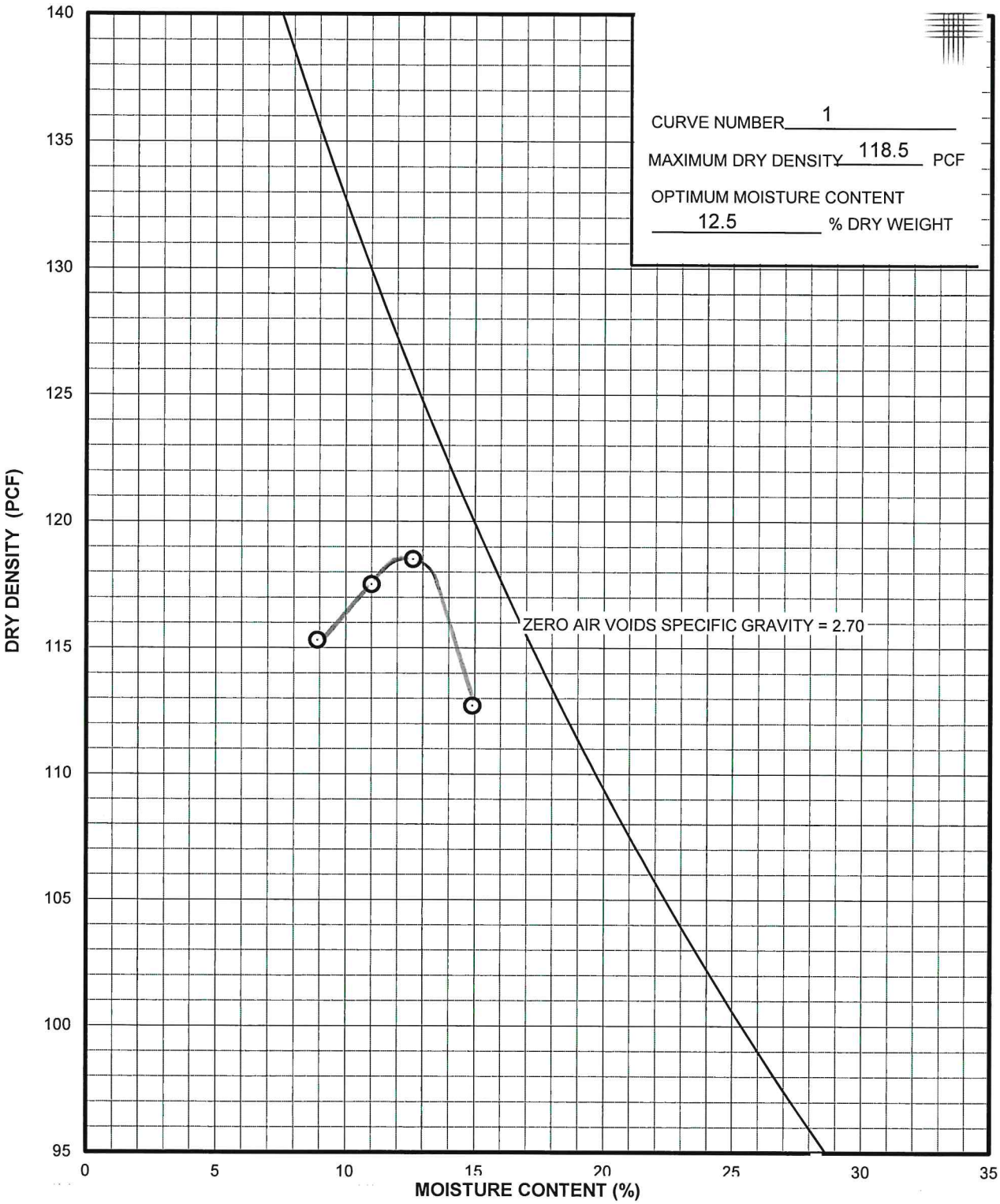
Reviewed by:

Spencer Hrubala, P.M.
Project Manager

Christopher N. Bouc
Associate/Denver Fiel

SH:CNB/ss

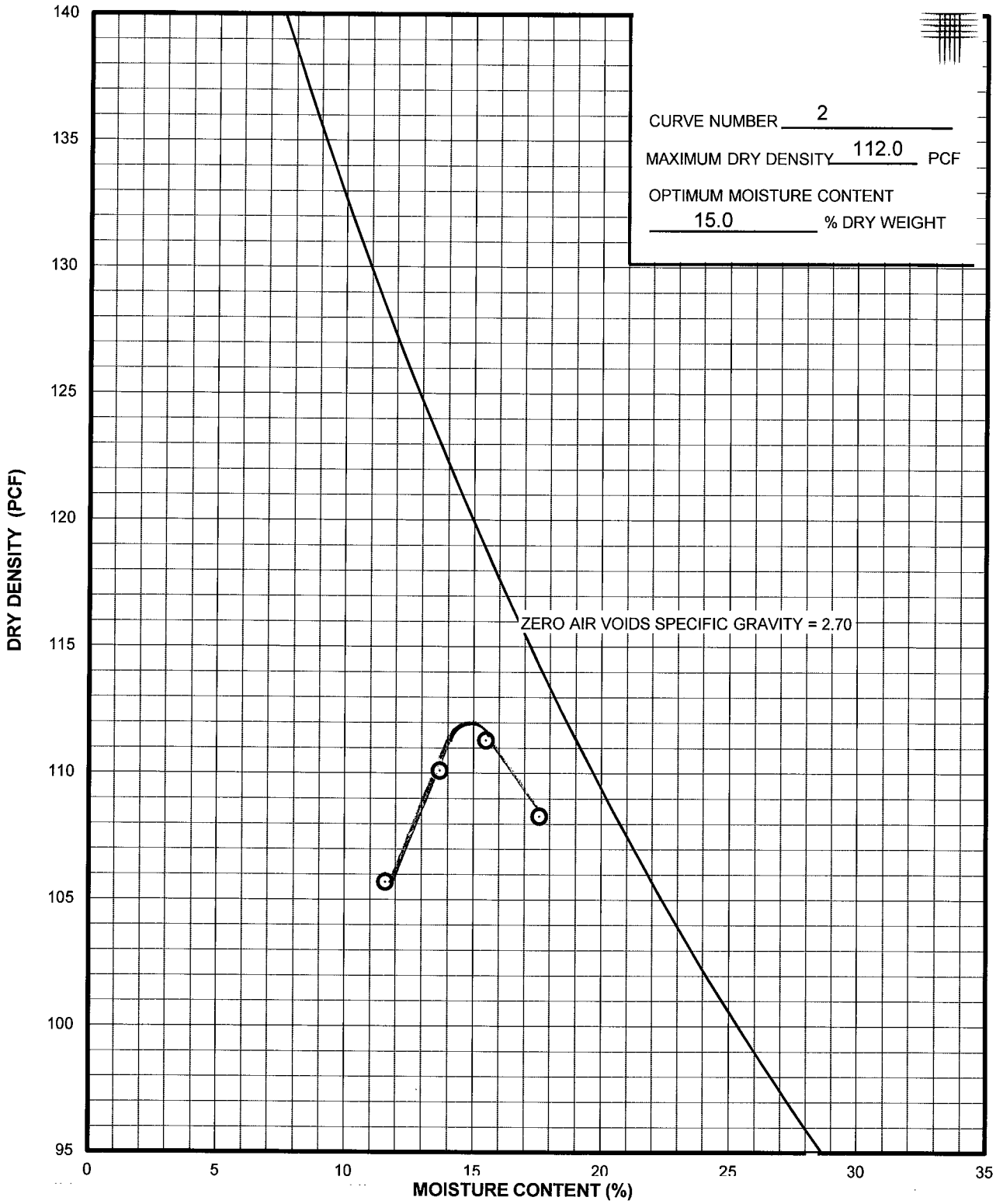
Christopher Bouchet
Feb 9 2022 8:18 AM



SAMPLE DESCRIPTION	SAND, CLAYEY, SOME GRAVEL, LIGHT BROWN	LIQUID LIMIT	27 %
LOCATION	ON-SITE SOUTHEAST CORNER OF SITE	PLASTICITY INDEX	9 %
COMPACTION TEST PROCEDURE	ASTM D698-07 METHOD A	GRAVEL	%
		SAND	%
		SILT AND CLAY	34 %

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	CLAY, CLAYSTONE, SAND, BROWN, TAN, OLIVE
LOCATION	ON-SITE- 1100 FT N, 700 FT E OF ENTRANCE TO SITE FROM CROWFOOT VALLEY
COMPACTION TEST PROCEDURE	ASTM D698-07 METHOD A

LIQUID LIMIT	41	%
PLASTICITY INDEX	22	%
GRAVEL		%
SAND		%
SILT AND CLAY	52	%

Laboratory Compaction Test Results

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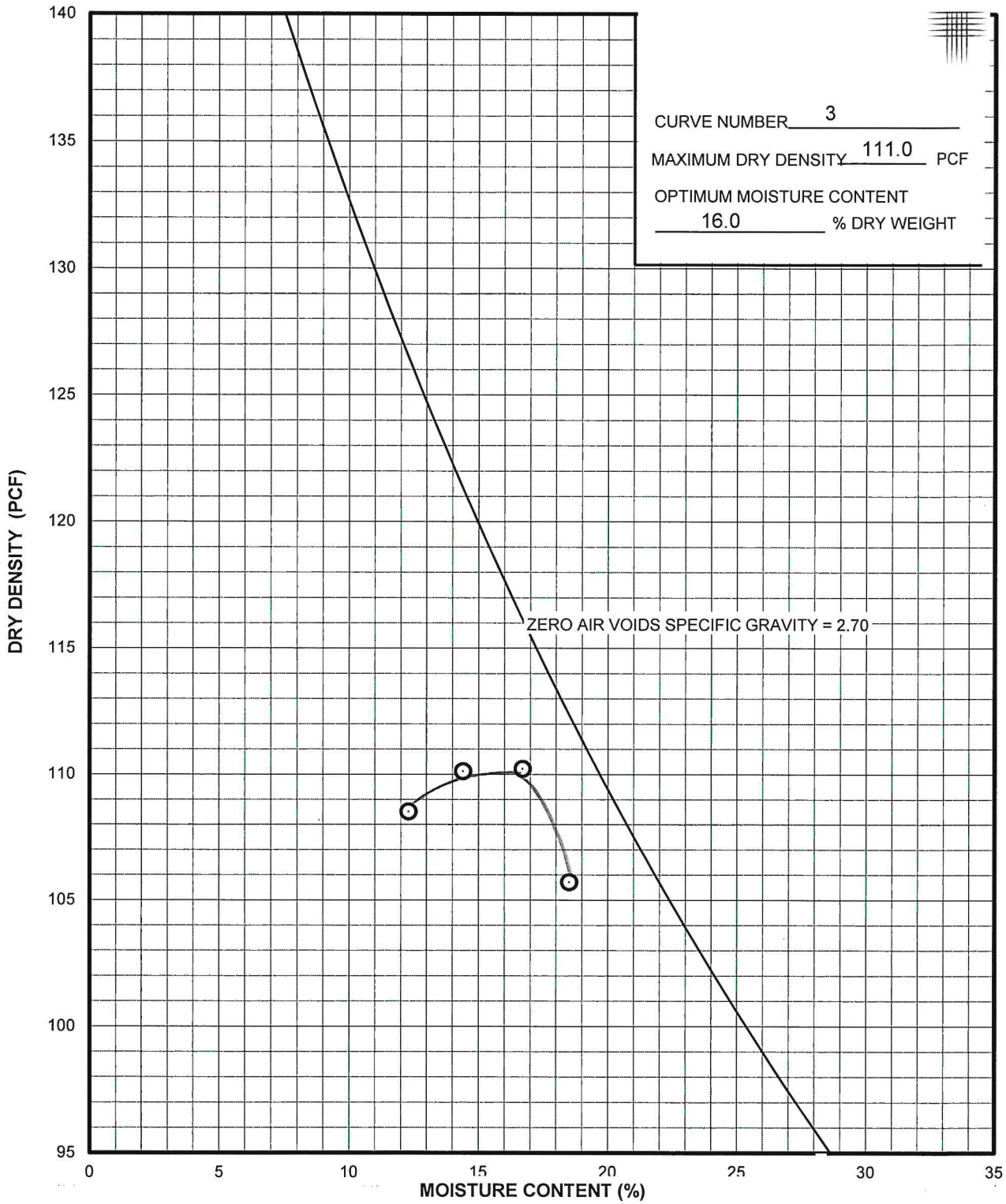
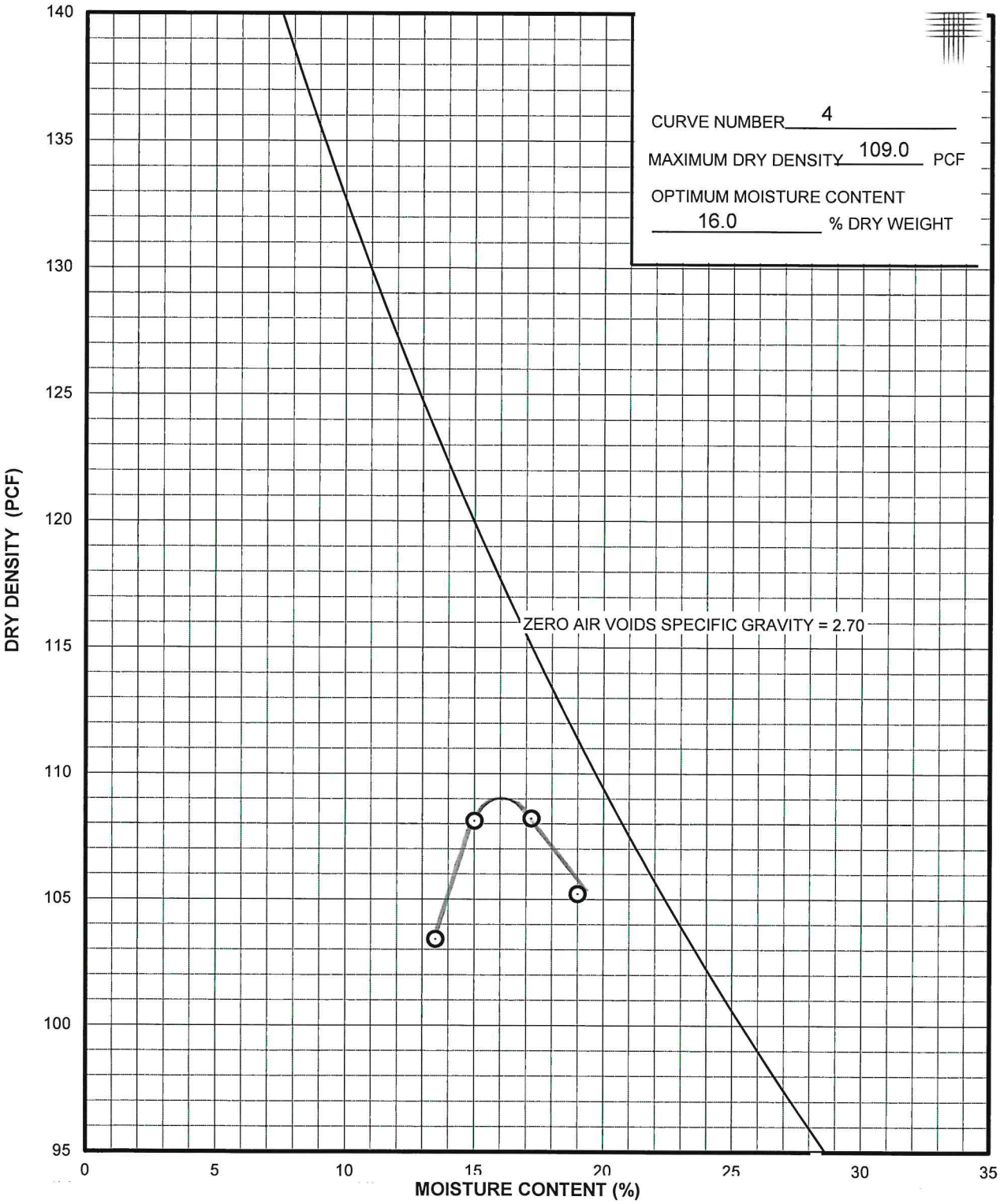
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	CLAY, SANDY, DARK BROWN	LIQUID LIMIT	37 %
		PLASTICITY INDEX	19 %
LOCATION	ON-SITE- 1000 FT N, 500 FT E OF ENTRANCE	GRAVEL	%
	TO SITE FROM CROWFOOT VALLEY	SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-07	SILT AND CLAY	63 %
	METHOD A		

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	CLAY, SANDY, DARK BROWN	LIQUID LIMIT	36 %
		PLASTICITY INDEX	16 %
LOCATION	ON-SITE- STA 46+70 ON N CROWFOOT VALLEY OUTFALL LINE	GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-07 METHOD A	SILT AND CLAY	69 %

Laboratory Compaction Test Results

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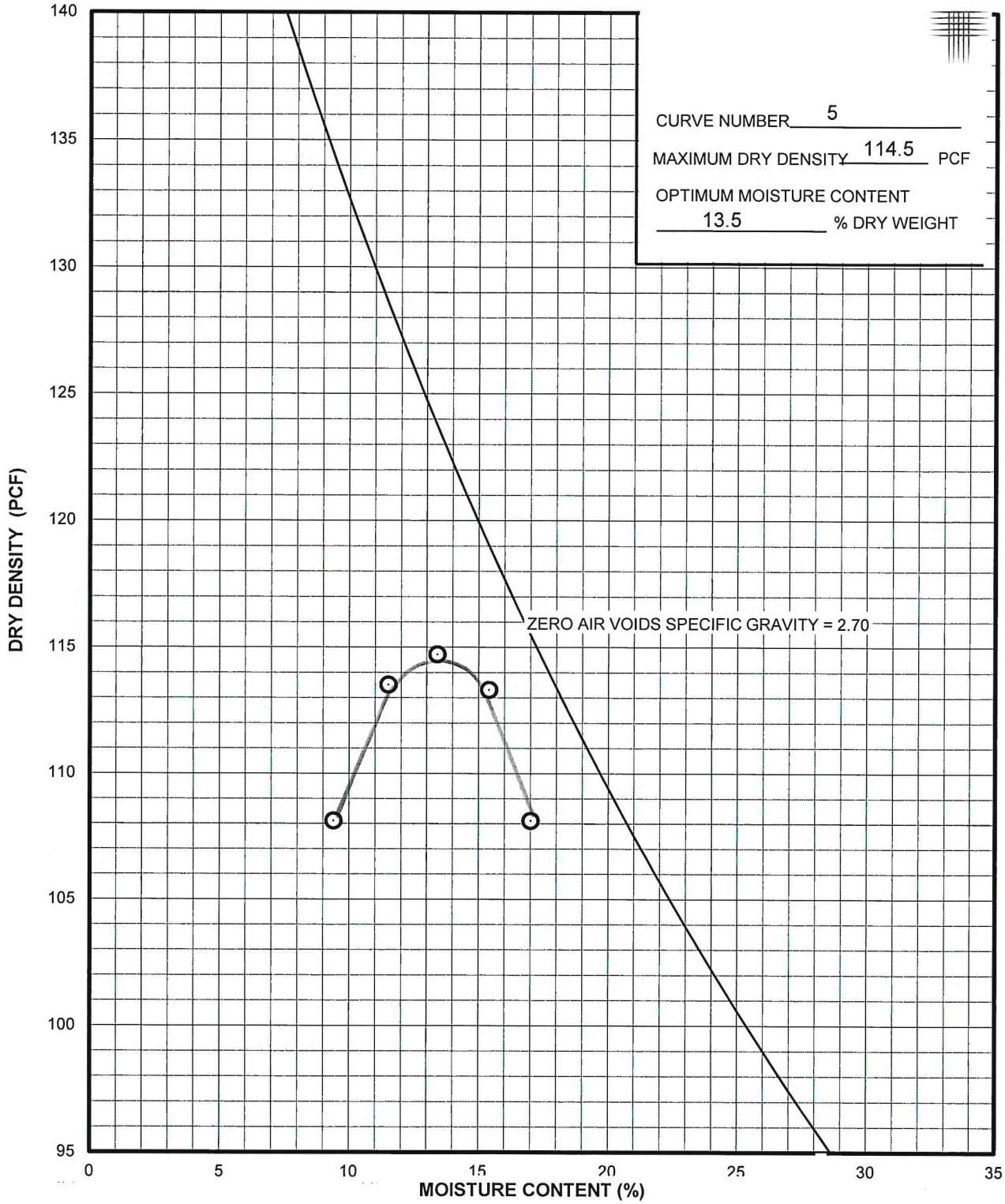
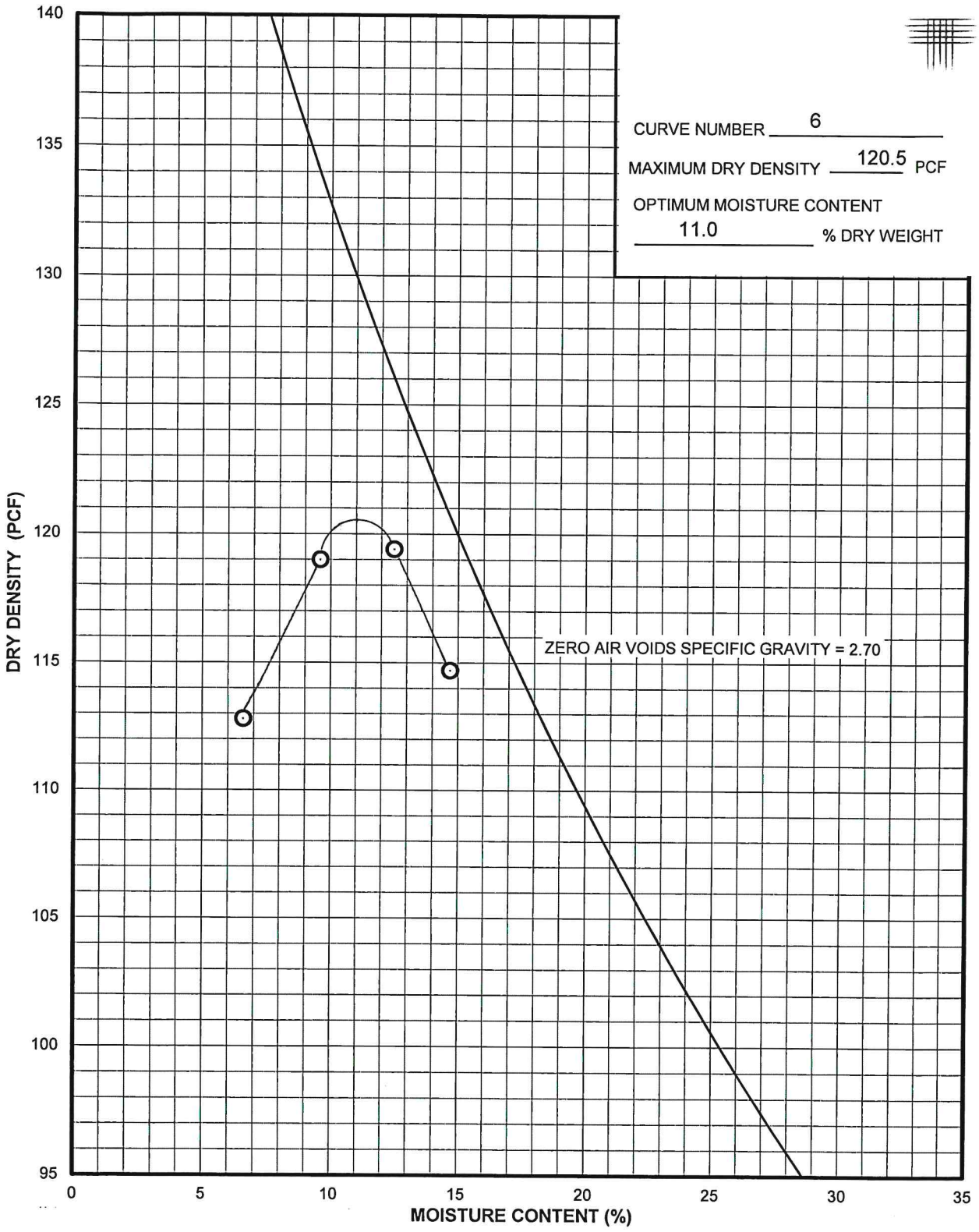
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	SAND, CLAYEY, BROWN	LIQUID LIMIT	31 %
		PLASTICITY INDEX	13 %
LOCATION	ON-SITE- STA 33+30 ON E OUTFALL SANITARY LINE	GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-07 METHOD A	SILT AND CLAY	25 %

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9

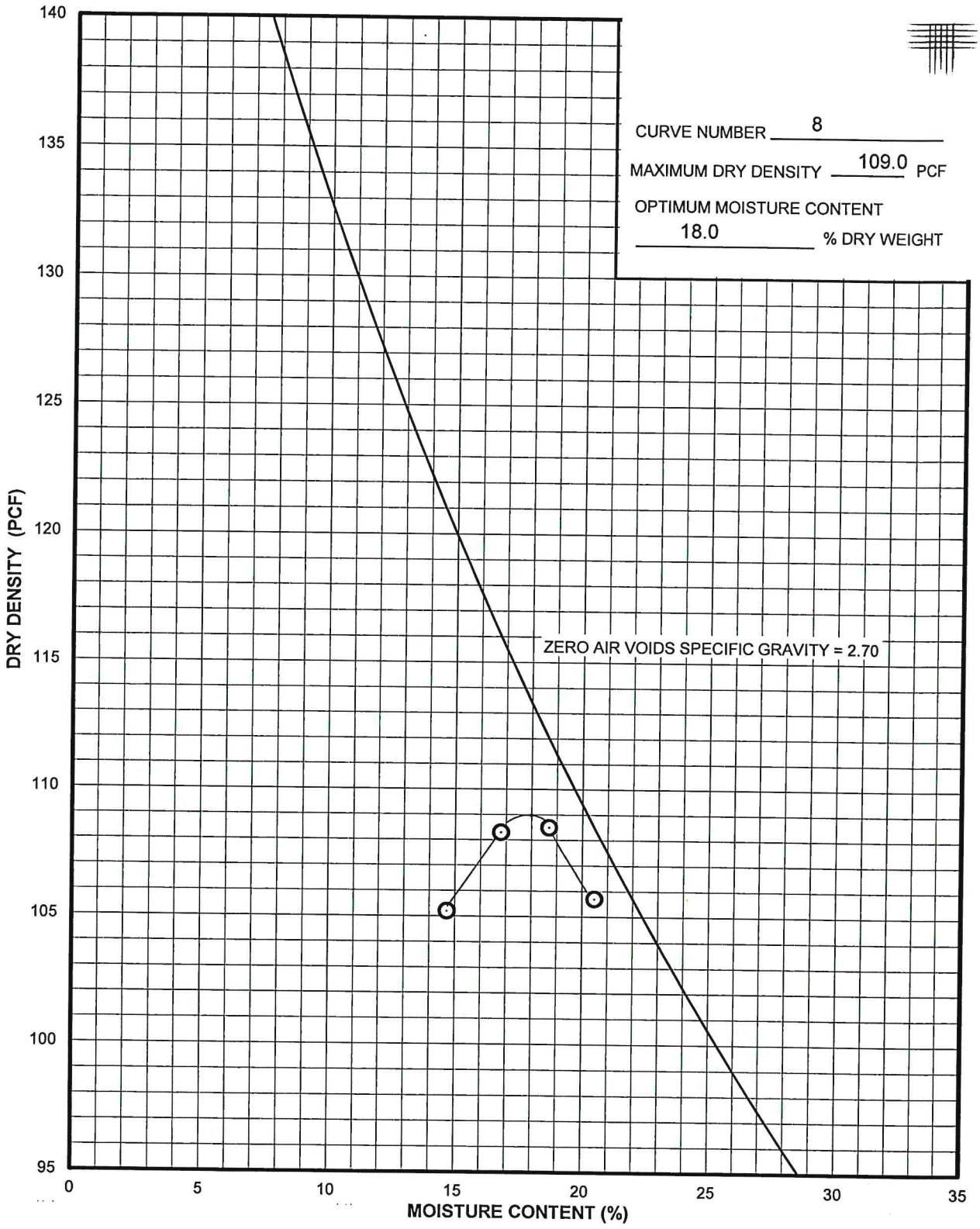


SAMPLE DESCRIPTION	SAND, CLAYEY, GRAVELLY, TAN, BROWN TO DARK BROWN
LOCATION	ON-SITE- STA 43+30 ON E OUTFALL SANITARY LINE
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD B

LIQUID LIMIT	28	%
PLASTICITY INDEX	13	%
GRAVEL		%
SAND		%
SILT AND CLAY	32	%

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION CLAY, CLAYSTONE, SANDY, BROWN

LOCATION ON-SITE

COMPACTION TEST PROCEDURE ASTM D698-12
METHOD A

LIQUID LIMIT	45	%
PLASTICITY INDEX	24	%
GRAVEL		%
SAND		%
SILT AND CLAY	75	%

Laboratory Compaction Test Results

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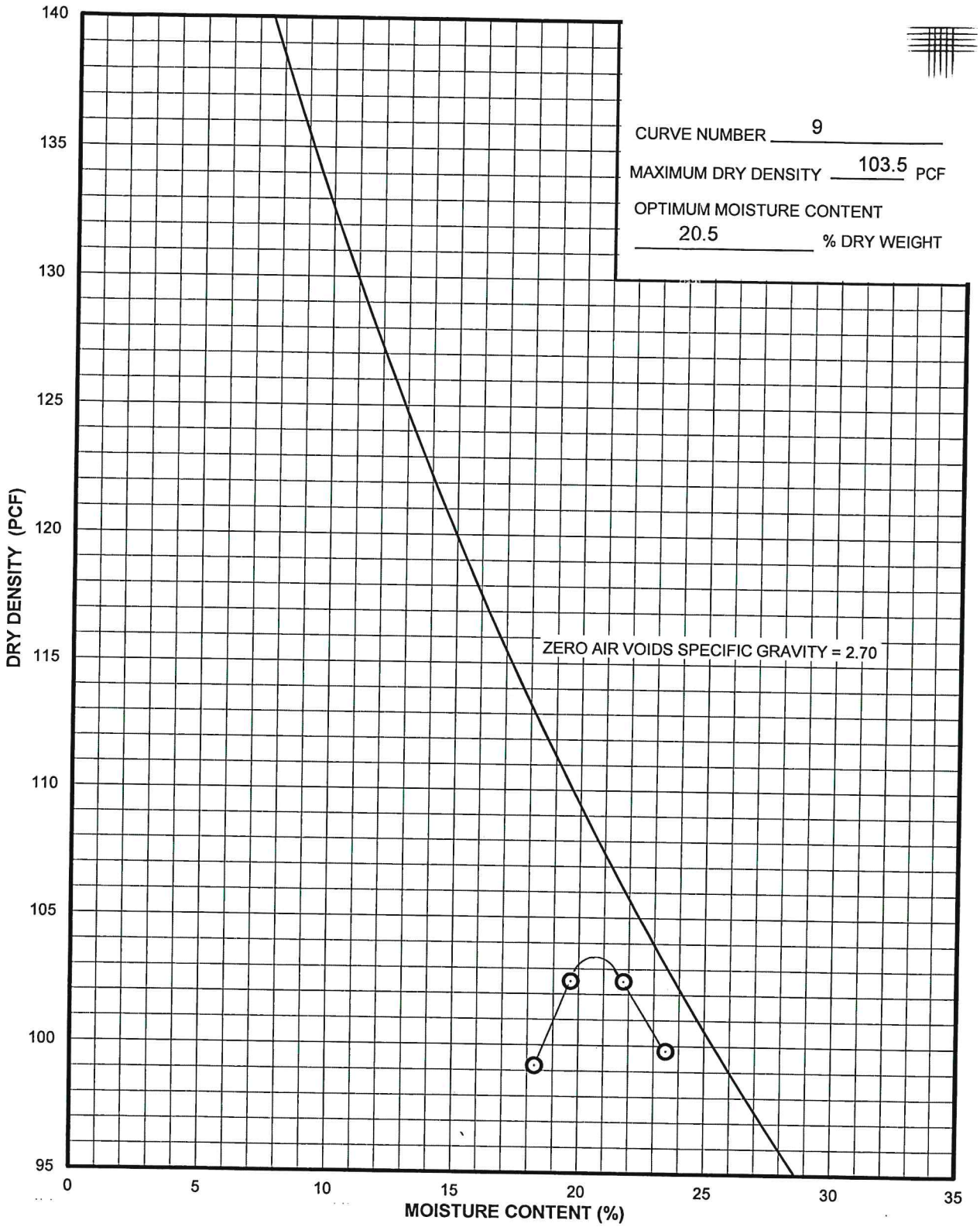
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION CLAY, CLAYSTONE, SANDY, TAN, OLIVE, LIGHT BROWN

LOCATION ON-SITE

COMPACTION TEST PROCEDURE ASTM D698-12 METHOD A

LIQUID LIMIT	49	%
PLASTICITY INDEX	27	%
GRAVEL		%
SAND		%
SILT AND CLAY	78	%

Laboratory Compaction Test Results

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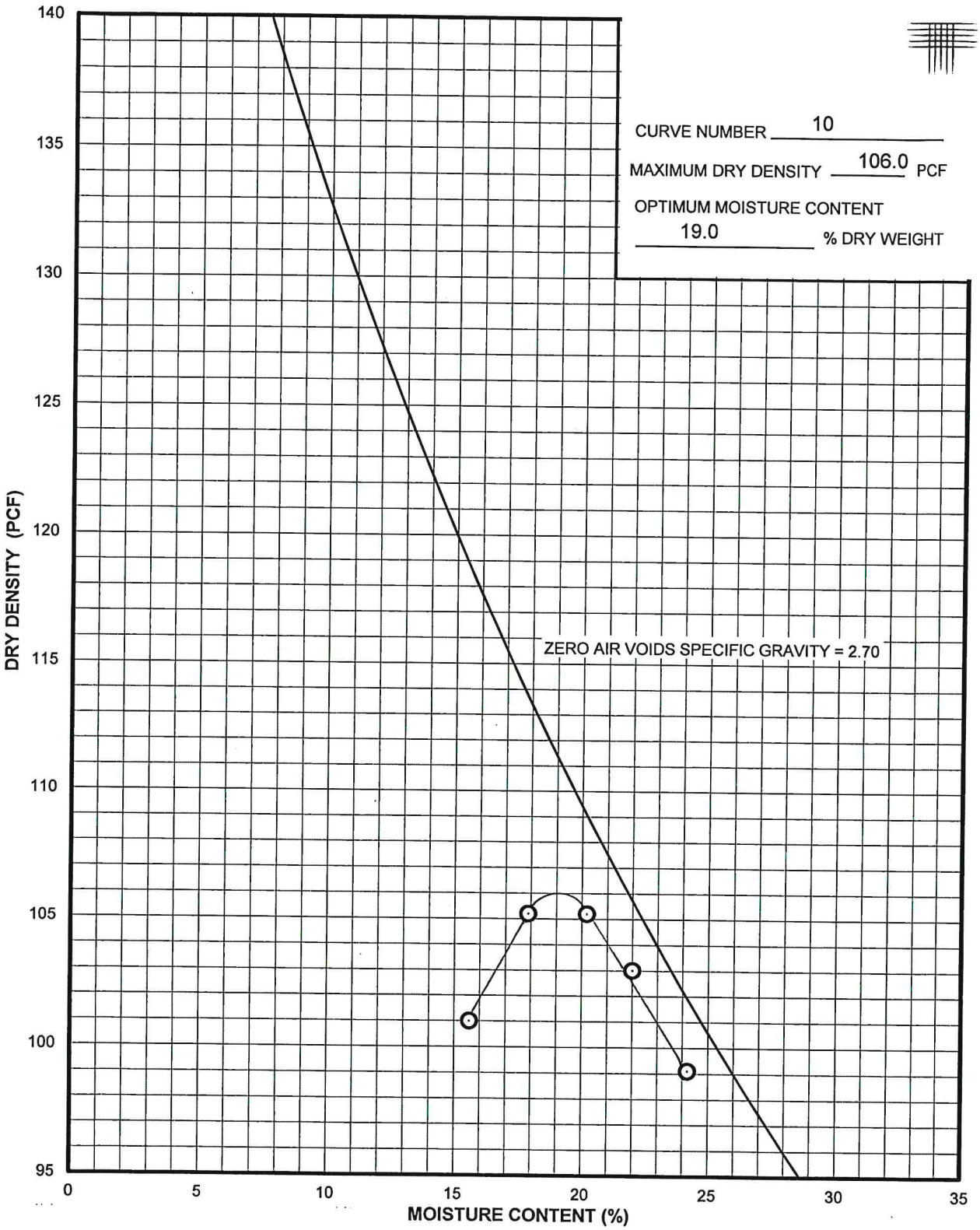

SAMPLE DESCRIPTION	CLAY, CLAYSTONE, SANDY, SILTY, GRAY-OLIVE	LIQUID LIMIT	49 %
LOCATION	ON-SITE	PLASTICITY INDEX	30 %
		GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD A	SILT AND CLAY	52 %

Laboratory Compaction Test Results

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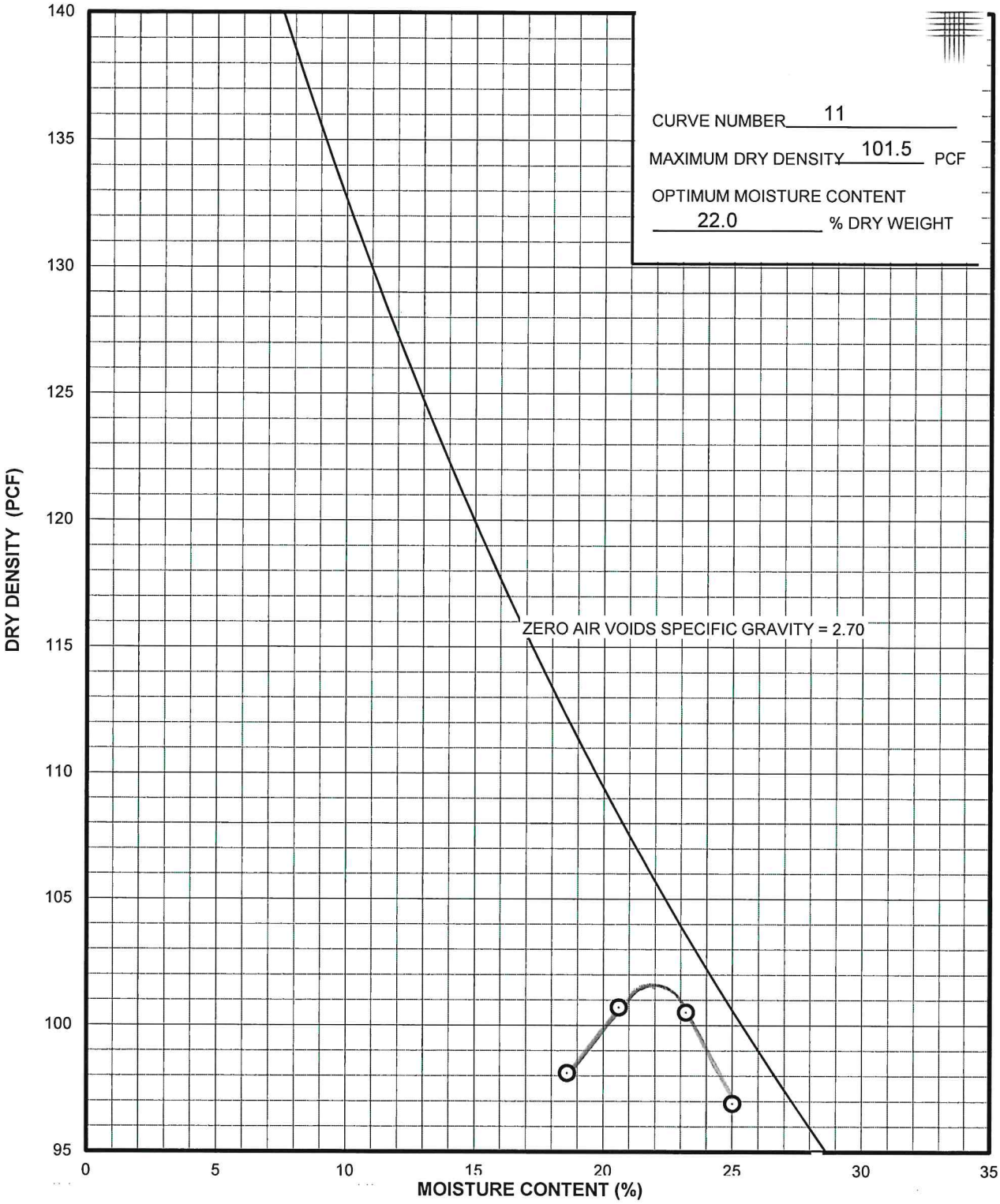
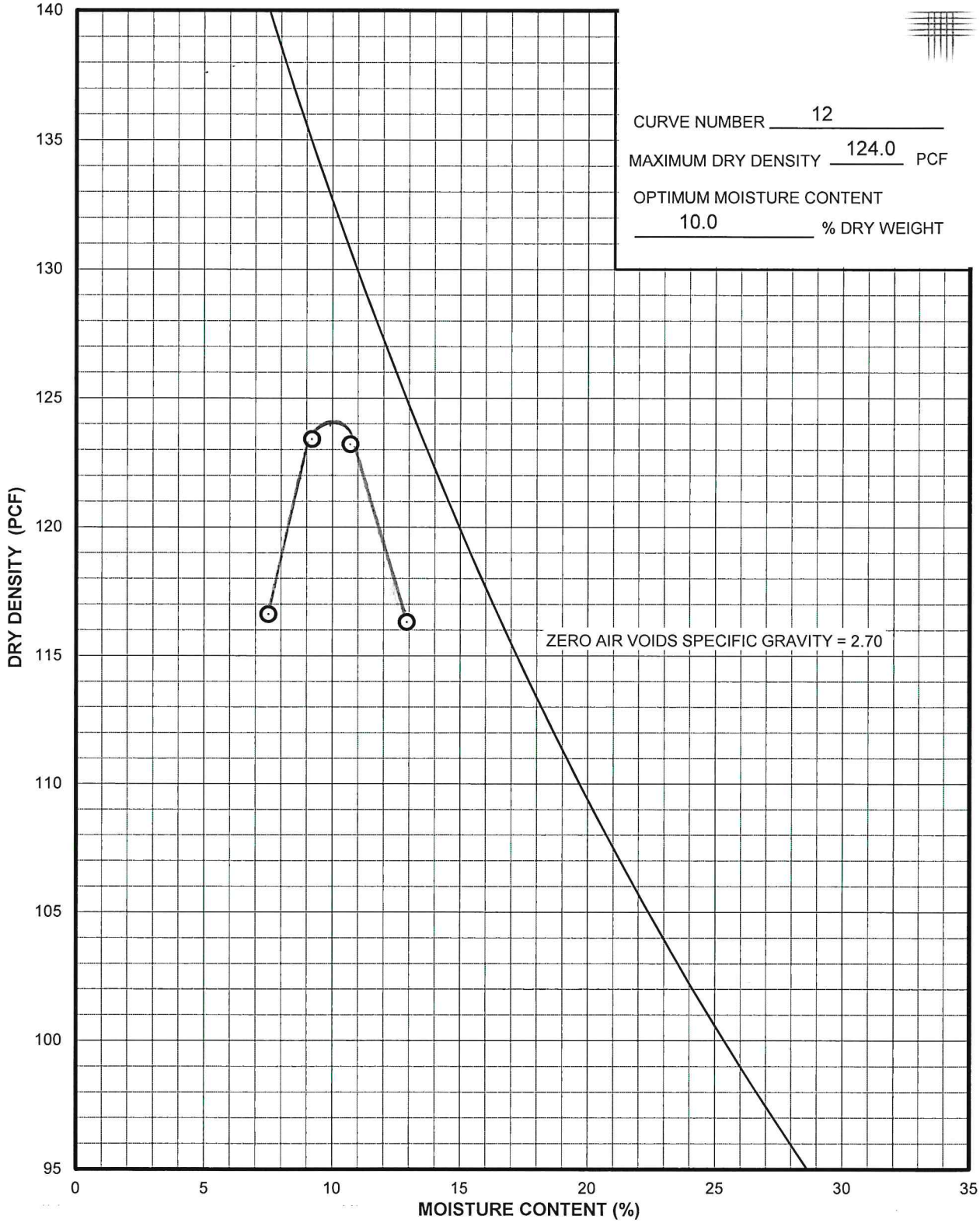
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	CLAYSTONE, CLAY, SANDY, RED, BROWN	LIQUID LIMIT	48 %
LOCATION	ON-SITE	PLASTICITY INDEX	26 %
		GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD A	SILT AND CLAY	81 %

Laboratory Compaction Test Results

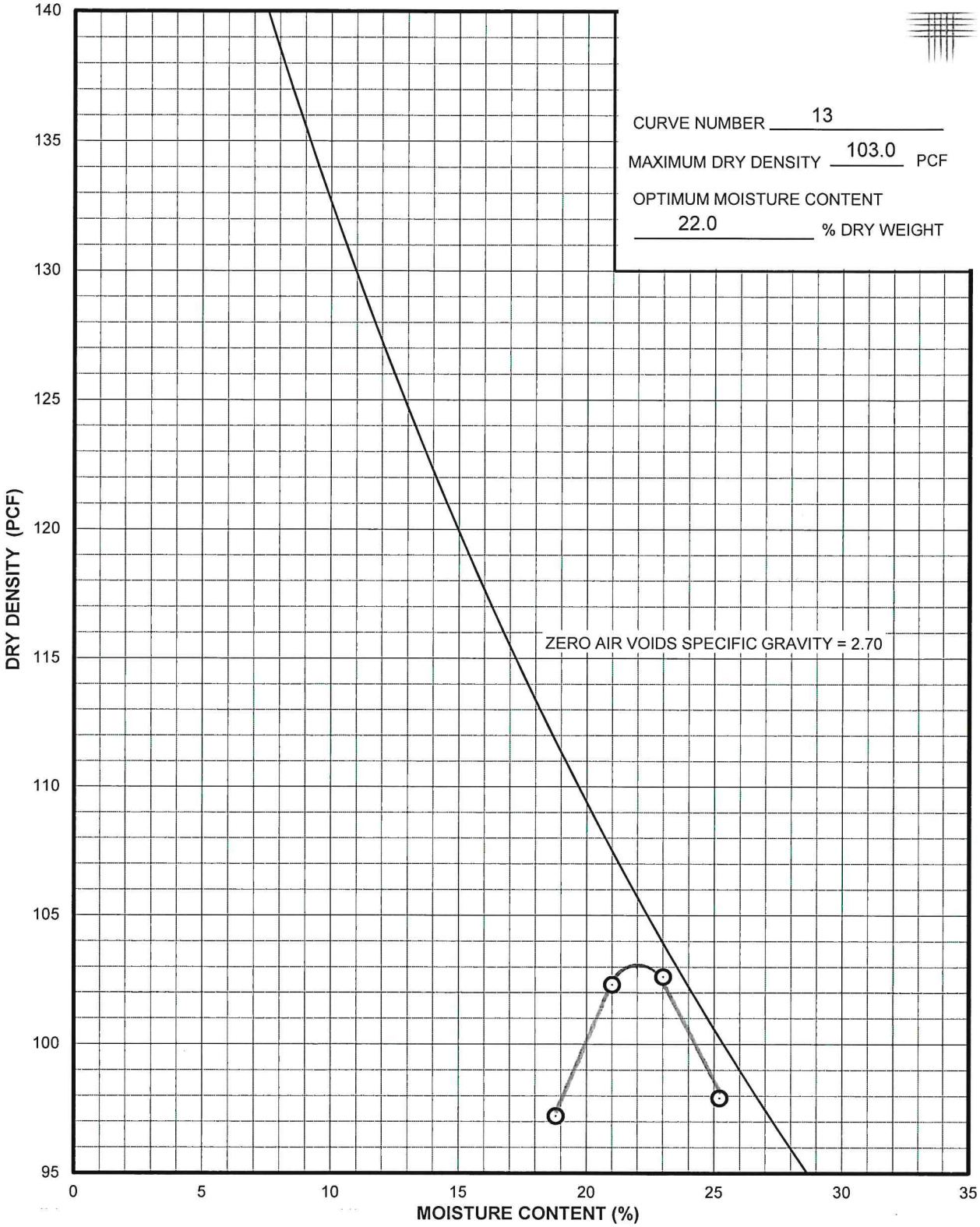
PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	SANDSTONE, CLAYEY, WHITE, TAN	LIQUID LIMIT	28 %
		PLASTICITY INDEX	12 %
LOCATION	ON-SITE	GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD B	SILT AND CLAY	29 %

Laboratory Compaction Test Results

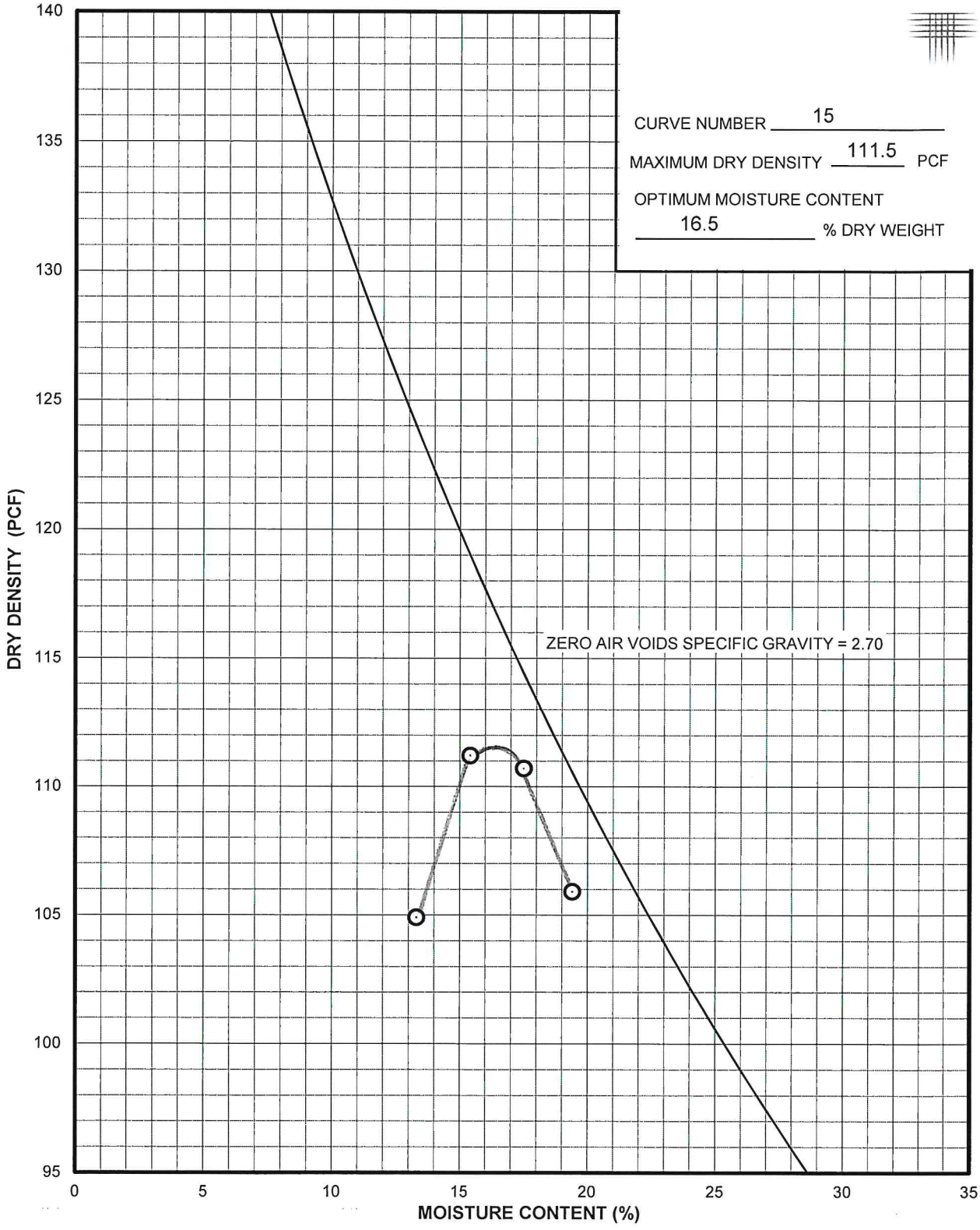
PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	CLAYSTONE, BROWN, GREY	LIQUID LIMIT	42 %
		PLASTICITY INDEX	18 %
LOCATION	ON-SITE	GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD A	SILT AND CLAY	88 %

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION CLAYSTONE, SANDY, GREY

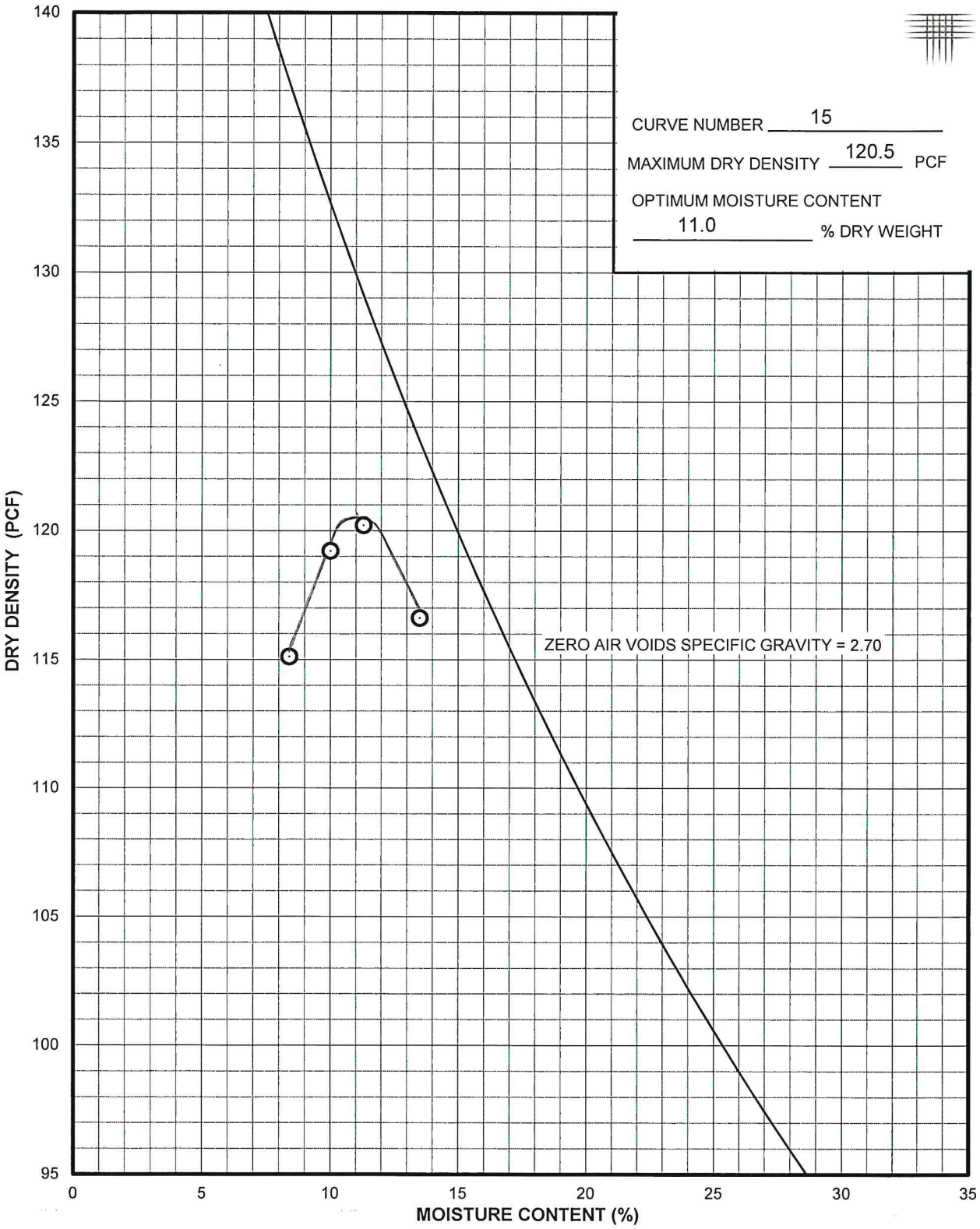
LOCATION ON-SITE

COMPACTION TEST PROCEDURE ASTM D698-12
METHOD A

LIQUID LIMIT	38	%
PLASTICITY INDEX	18	%
GRAVEL		%
SAND		%
SILT AND CLAY	64	%

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	SAND, CLAYEY, TAN, RUST, BROWN	LIQUID LIMIT	34 %
LOCATION	ON-SITE	PLASTICITY INDEX	14 %
		GRAVEL	%
		SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD B	SILT AND CLAY	26 %

Laboratory Compaction Test Results

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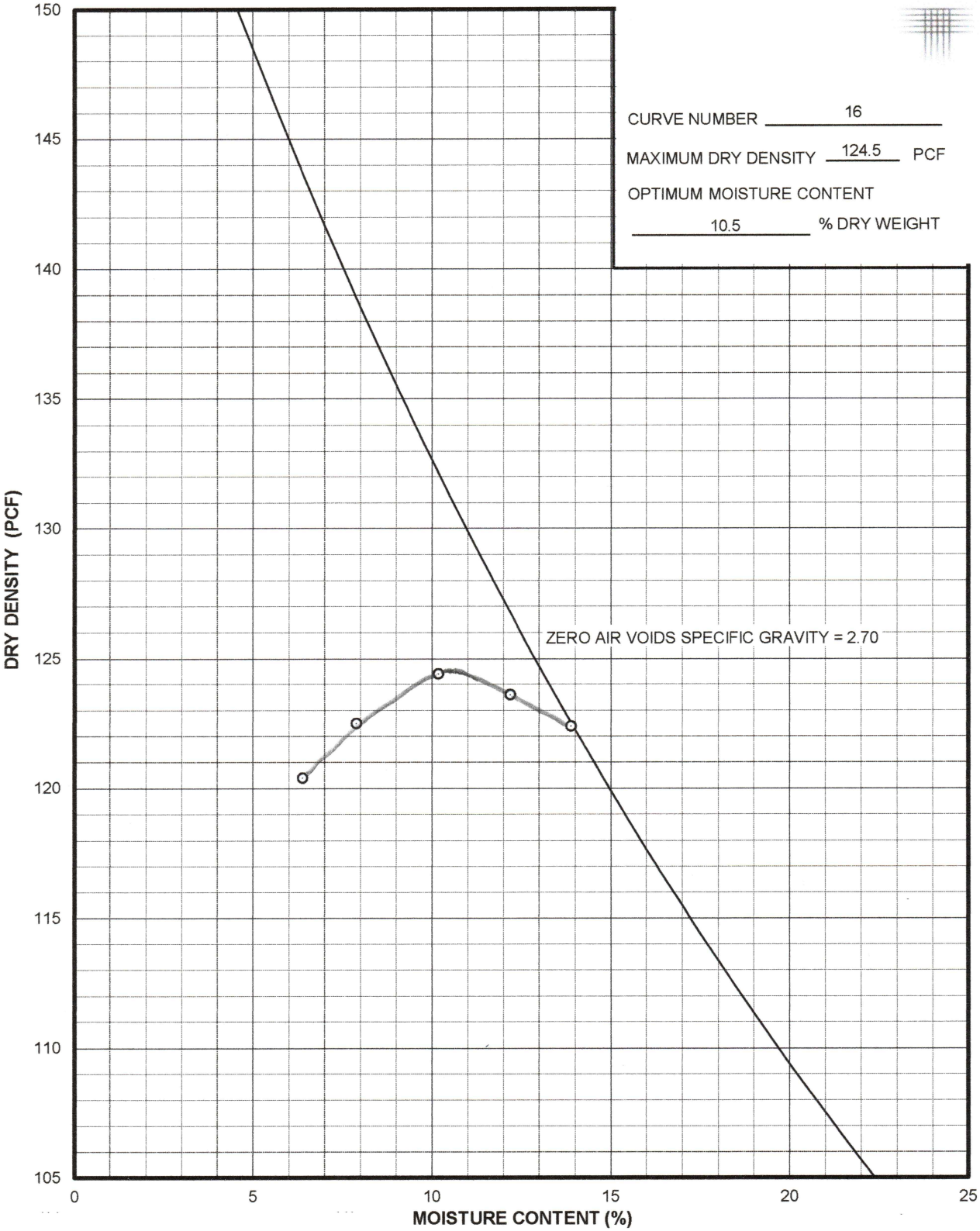
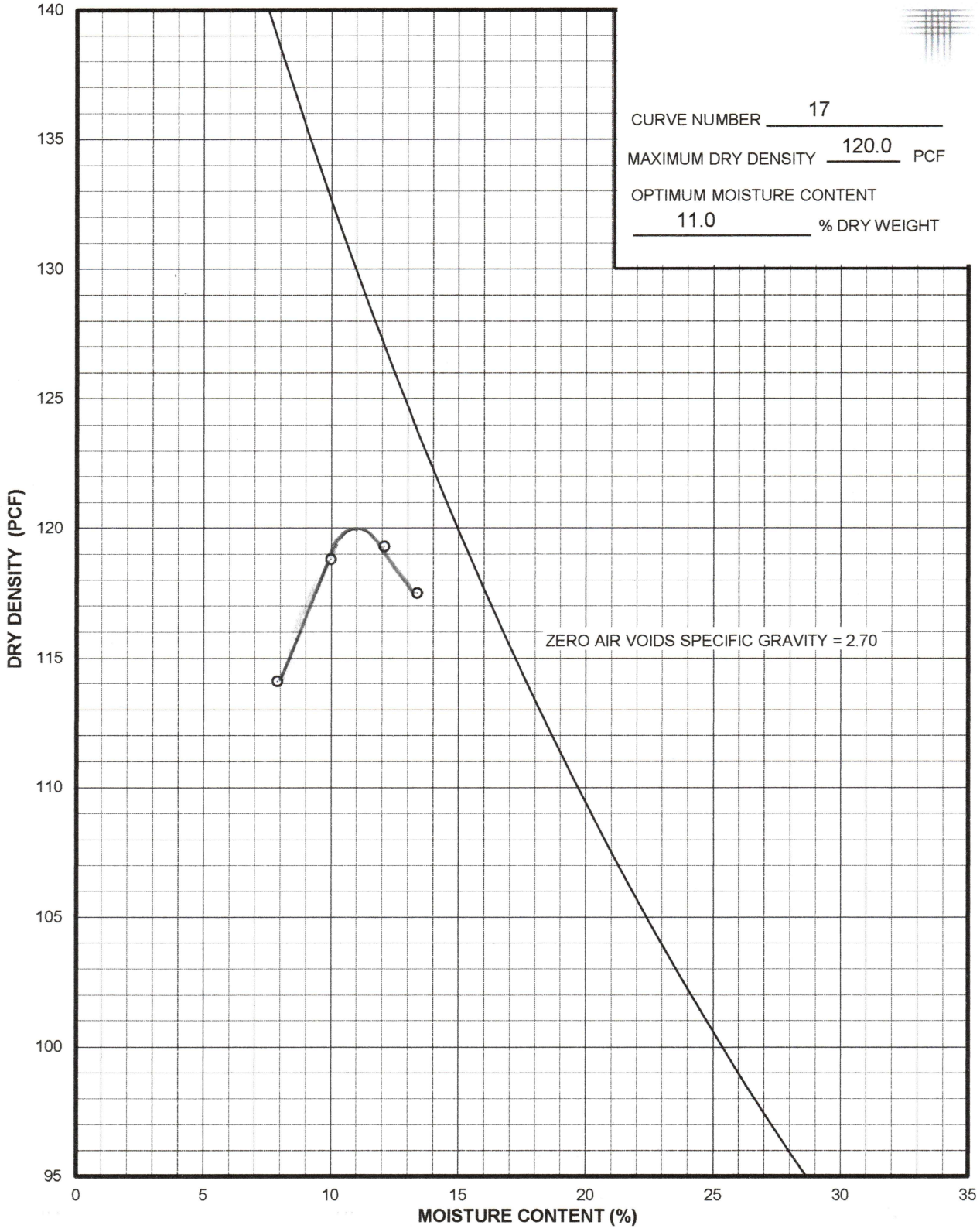


SAMPLE DESCRIPTION	RECYCLED CONCRETE	LIQUID LIMIT	33 %
		PLASTICITY INDEX	9 %
LOCATION	IMPORTED-UNKNOWN SOURCE	GRAVEL	%
	STOCK PILE ON-SITE	SAND	%
COMPACTION TEST PROCEDURE	ASTMD D698	SILT AND CLAY	10 %
	METHOD C		

Laboratory Compaction Test Results

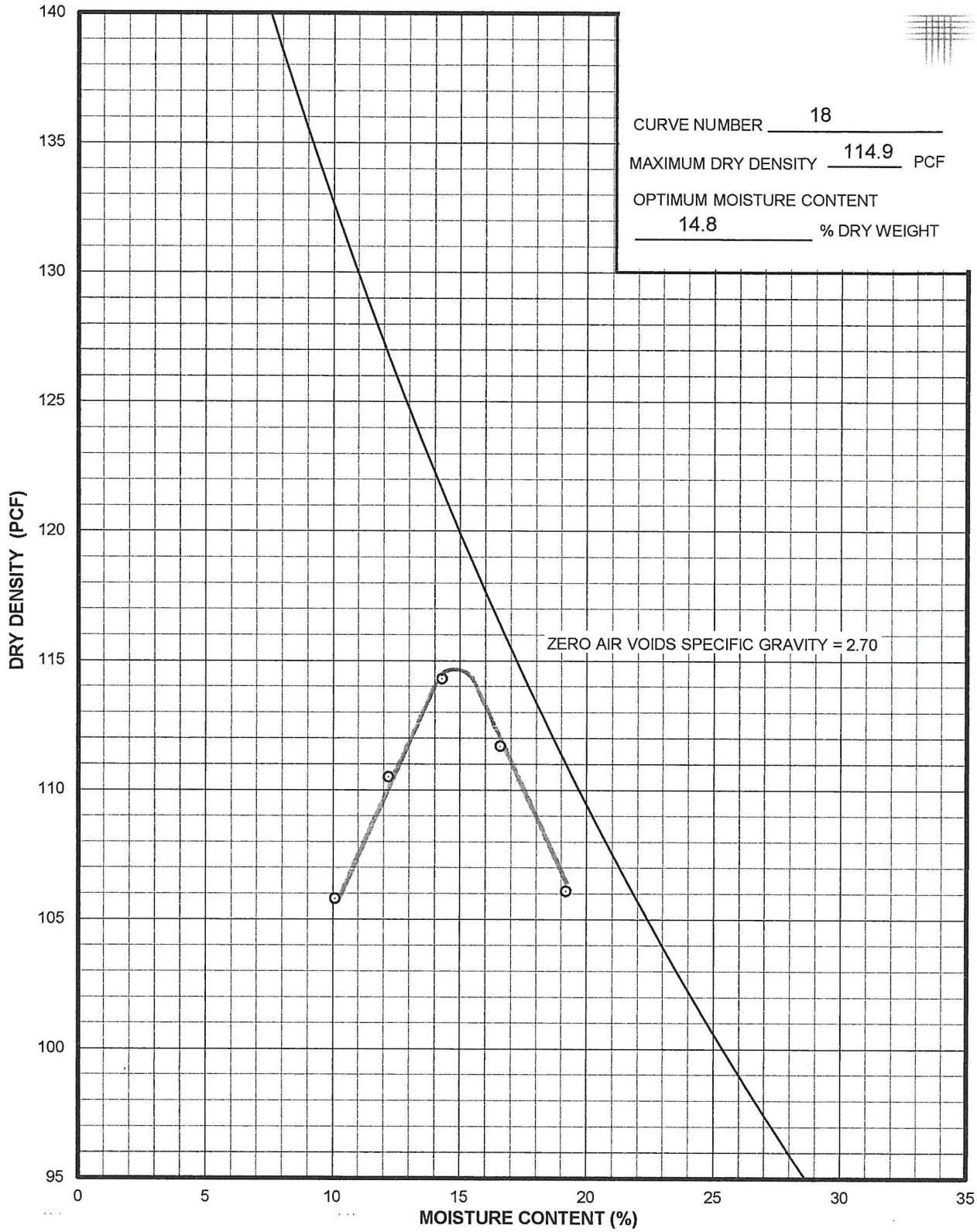
PROJECT NO: DN48372.000F
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	RECYCLED CONCRETE	LIQUID LIMIT	35 %
		PLASTICITY INDEX	7 %
LOCATION	IMPORTED-UNKNOWN SOURCE	GRAVEL	%
	STOCK PILE ON-SITE	SAND	%
COMPACTION TEST PROCEDURE	ASTM D1557-12	SILT AND CLAY	11 %
	METHOD C		

Laboratory Compaction Test Results

PROJECT NO: DN48372.000
PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



CURVE NUMBER 18

MAXIMUM DRY DENSITY 114.9 PCF

OPTIMUM MOISTURE CONTENT 14.8 % DRY WEIGHT

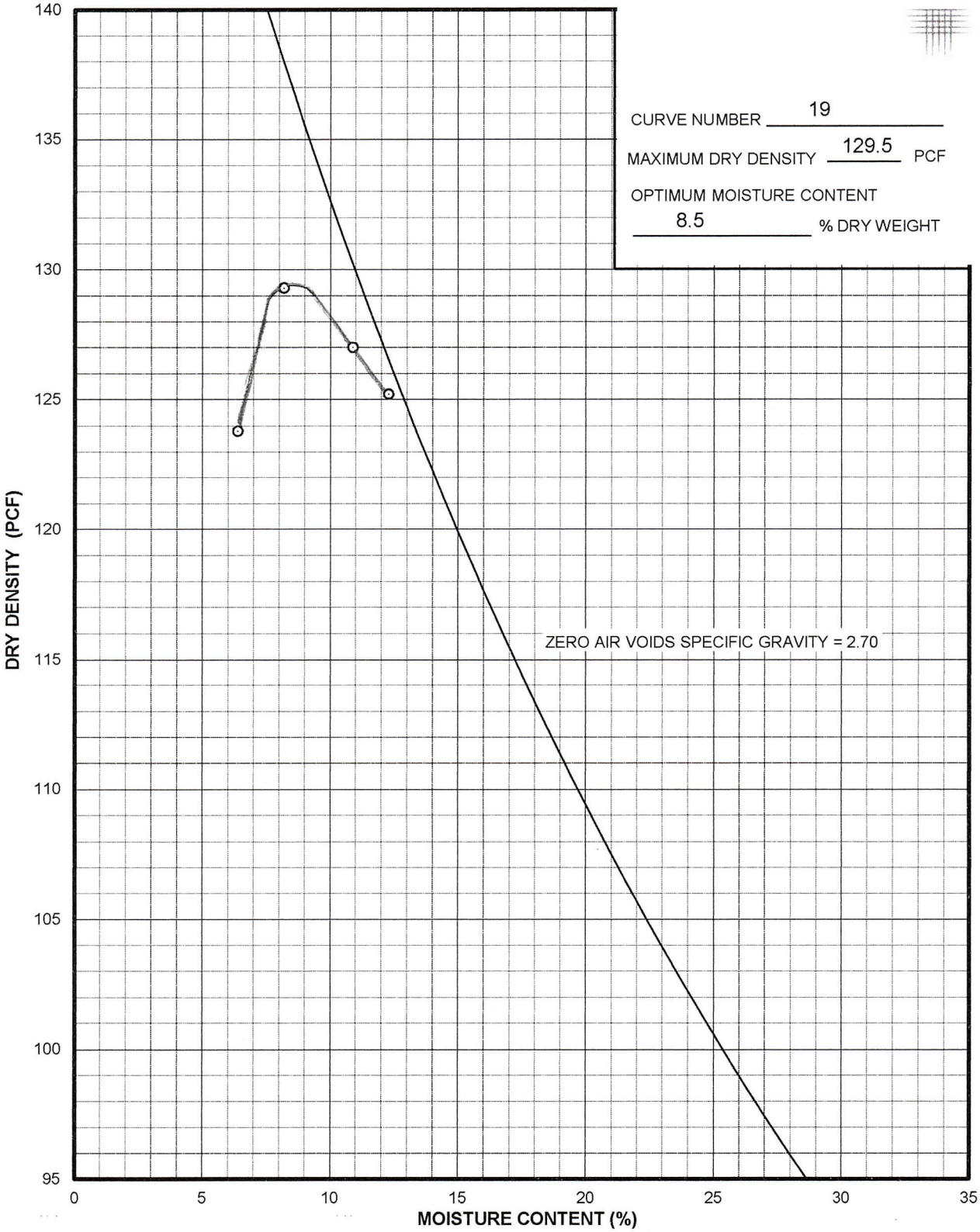
SAMPLE DESCRIPTION	SAND, CLAYEY, RED-BROWN
LOCATION	ON-SITE
	SUBEX OF BLOCK 2, FILING 13
COMPACTION TEST PROCEDURE	ASTM D698-12
	METHOD A

LIQUID LIMIT	33	%
PLASTICITY INDEX	13	%
GRAVEL		%
SAND		%
SILT AND CLAY	47	%

Laboratory Compaction Test Results

PROJECT NO: DN48372.000

PROJECT NAME: TRAILS AT CROWFOOT, FILINGS 1 AND 9



SAMPLE DESCRIPTION	RECYCLED CONCRETE, GRAY	LIQUID LIMIT	29 %
		PLASTICITY INDEX	5 %
LOCATION	IMPORT	GRAVEL	%
	SAMPLED PILE ON-SITE	SAND	%
COMPACTION TEST PROCEDURE	ASTM D698-12	SILT AND CLAY	13 %
	METHOD C		

Laboratory Compaction Test Results

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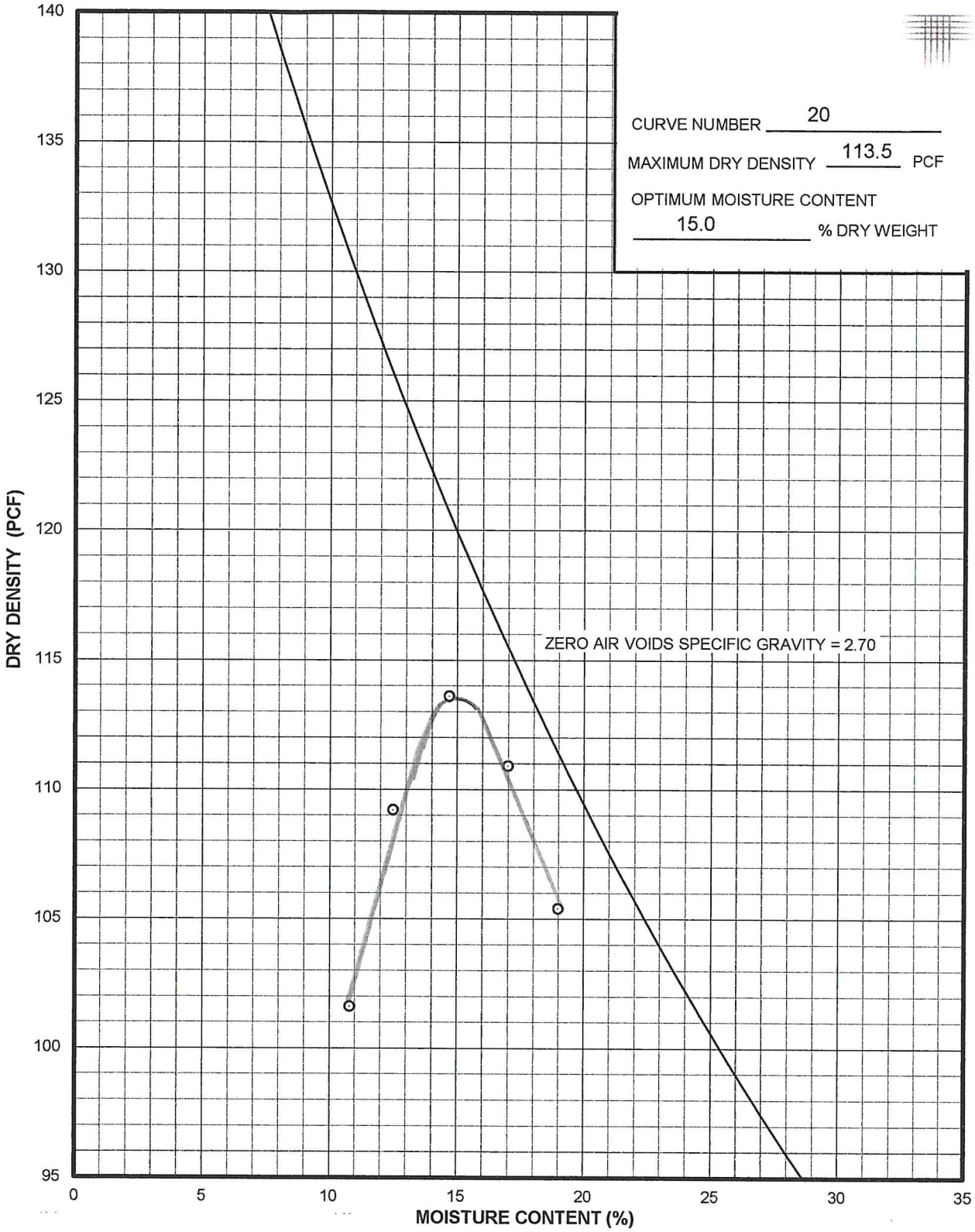

SAMPLE DESCRIPTION	SAND, VERY CLAYEY, CLAYSTONE CHUNKS	LIQUID LIMIT	39 %
LOCATION	ON-SITE HOP CLOVER TRAIL AND ROSE MALLOW AVE	PLASTICITY INDEX	21 %
COMPACTION TEST PROCEDURE	ASTM D698-12 METHOD B	GRAVEL	%
		SAND	%
		SILT AND CLAY	50 %

Laboratory Compaction Test Results

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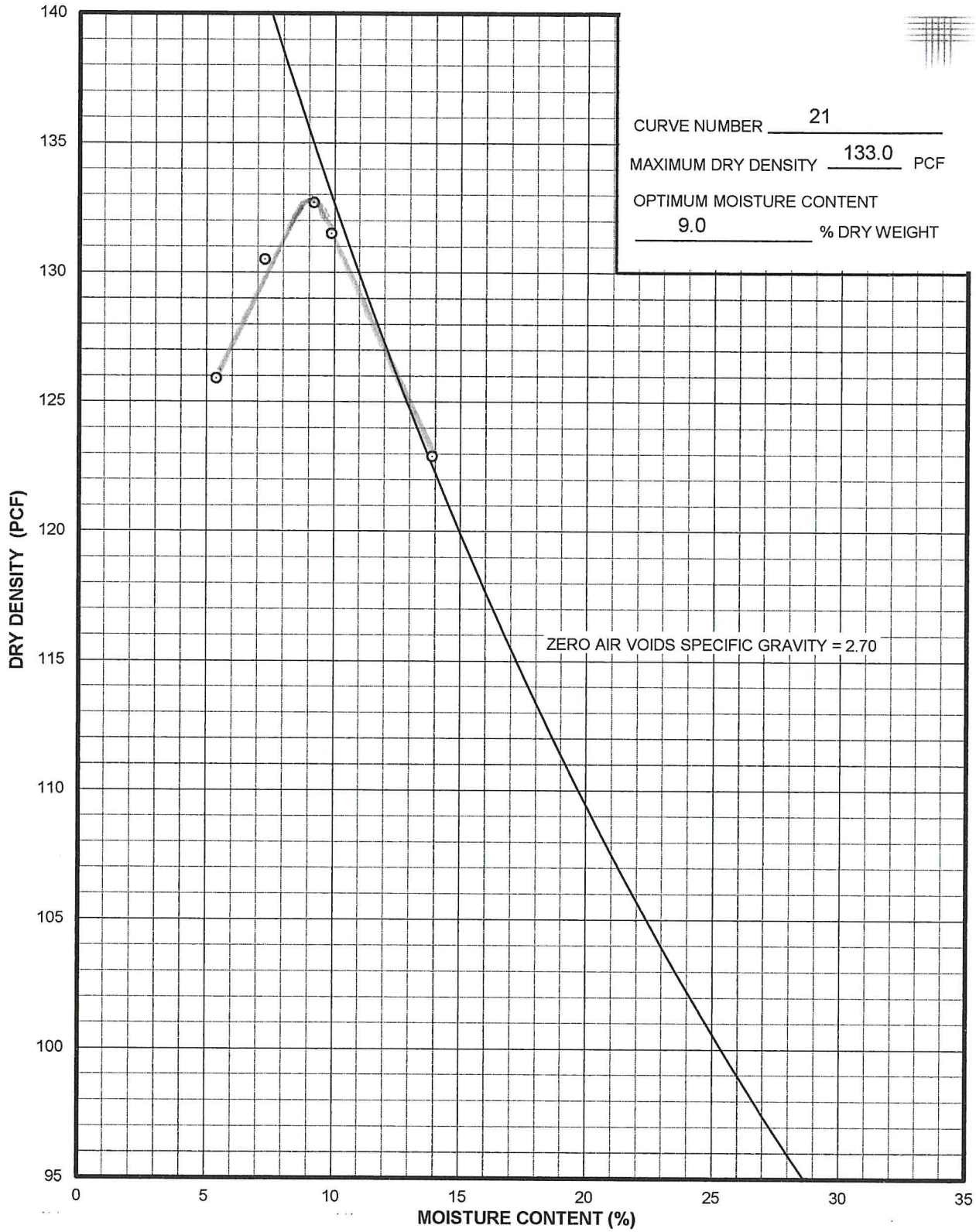

CURVE NUMBER 21

MAXIMUM DRY DENSITY 133.0 PCF

OPTIMUM MOISTURE CONTENT 9.0 % DRY WEIGHT

SAMPLE DESCRIPTION CLASS 6 ROAD BASE

LOCATION IMPORT
N PINERY PKWY, E OF BAYOU GULCH RD

COMPACTION TEST PROCEDURE ASTM D698-12
METHOD C

LIQUID LIMIT ____ %

PLASTICITY INDEX ____ %

GRAVEL ____ %

SAND ____ %

SILT AND CLAY 16 %

Laboratory Compaction Test Results

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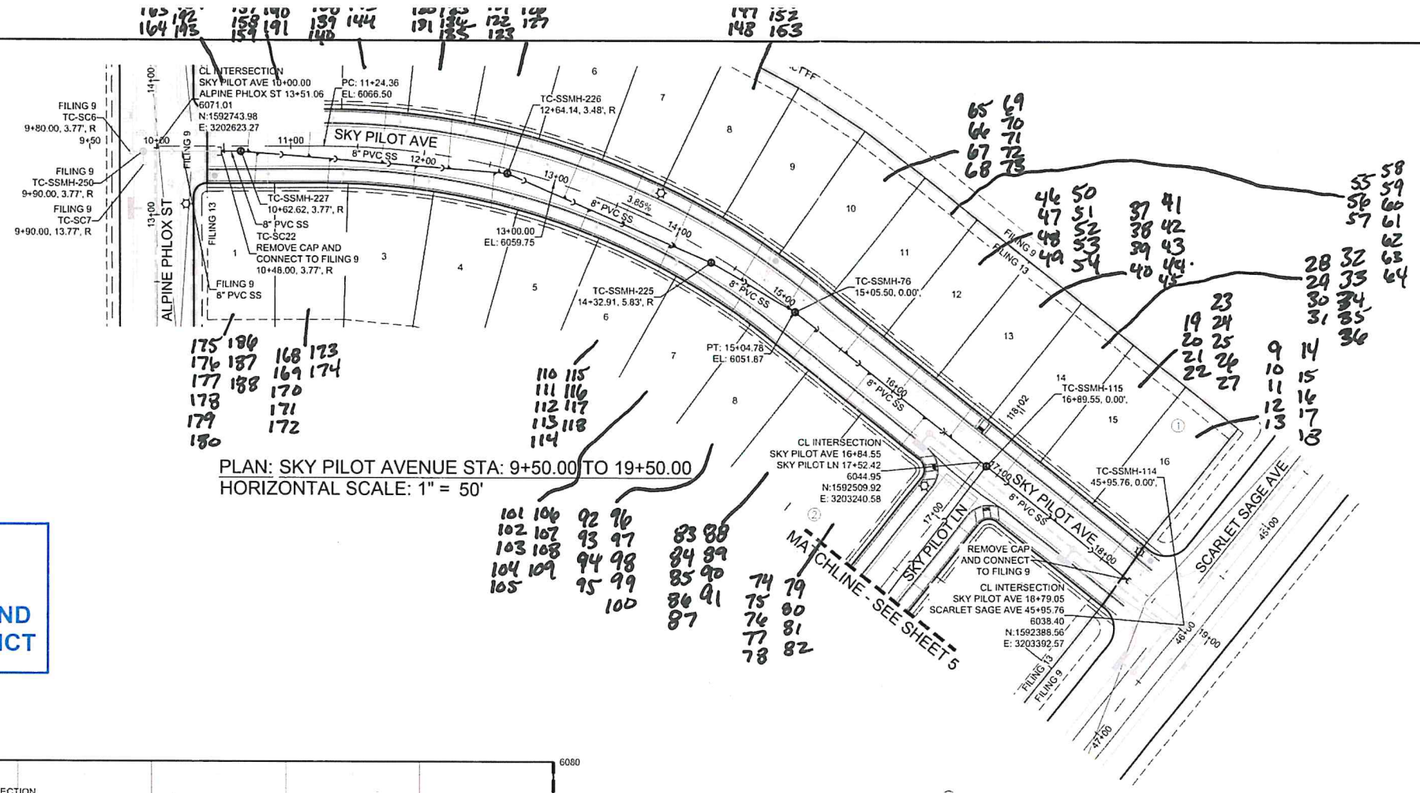
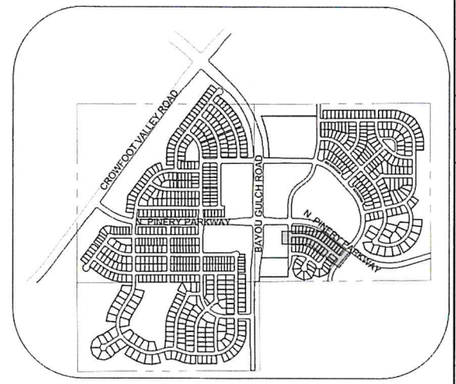


PLAN: SKY PILOT AVENUE STA: 9+50.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.

PROFILE: SKY PILOT AVE STA: 9+50.00 TO 15+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

PROFILE: SKY PILOT AVENUE STA: 15+00.00 TO 19+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

(2)	BLOCK NUMBER	△	PROPOSED RANGE POINT
(A)	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT		EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK		EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
	FUTURE PHASE VALVE		PROPOSED SEWER LINE WITH MANHOLE
	FUTURE FIRE HYDRANT		PROPOSED SEWER LATERAL
	PROPOSED LIGHT POLE	8"W	PROPOSED WATER LINE
	PROPOSED SIDEWALK		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK RAMP		SECTION LINE
	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION		EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET		EXISTING OVERHEAD POWER
(4)(5)(6)	PROPOSED STORM DRAIN MANHOLE		EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
BVP	BEGIN VERTICAL PROFILE	PVI	PT. OF VERTICAL INTERSECTION
CBO	CAP WITH BLOW OFF	PVT	POINT OF VERTICAL TANGENT
CRR	CURB RETURN RADIUS	RCBC	REINFORCED CONCRETE BOX CULVERT
EL	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
EVC	END VERTICAL CURVE	SC	SANITARY CAP
EVP	END VERTICAL PROFILE	SD	STORM DRAIN
FG	FINISHED GROUND	SL	SECTION LINE
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
GV	GATE VALVE	T.O.P.	TOP OF PIPE
HCR	HANDICAP CURB RAMP	UE	UTILITY EASEMENT
HP	HIGH POINT	VC	VERTICAL CURVE
INV	INVERT	WL	WATER LINE
K	CURVATURE COEFFICIENT	WLC	WATER LINE CONNECTION
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION

1. SEE SHEET 3 - AREA UTILITY PLAN FOR SANITARY SERVICE TABLES.

APPROVED
Apr 07 2021
PARKER WATER AND
SANITATION DISTRICT

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC 1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1 060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE SUPERVISION OF
COLORADO LICENSED PROFESSIONAL ENGINEER 0050067
BRIAN P. WILSON
COLORADO P.E. 0050067

No.	Revisions	Date	Init.	Appr.	Date

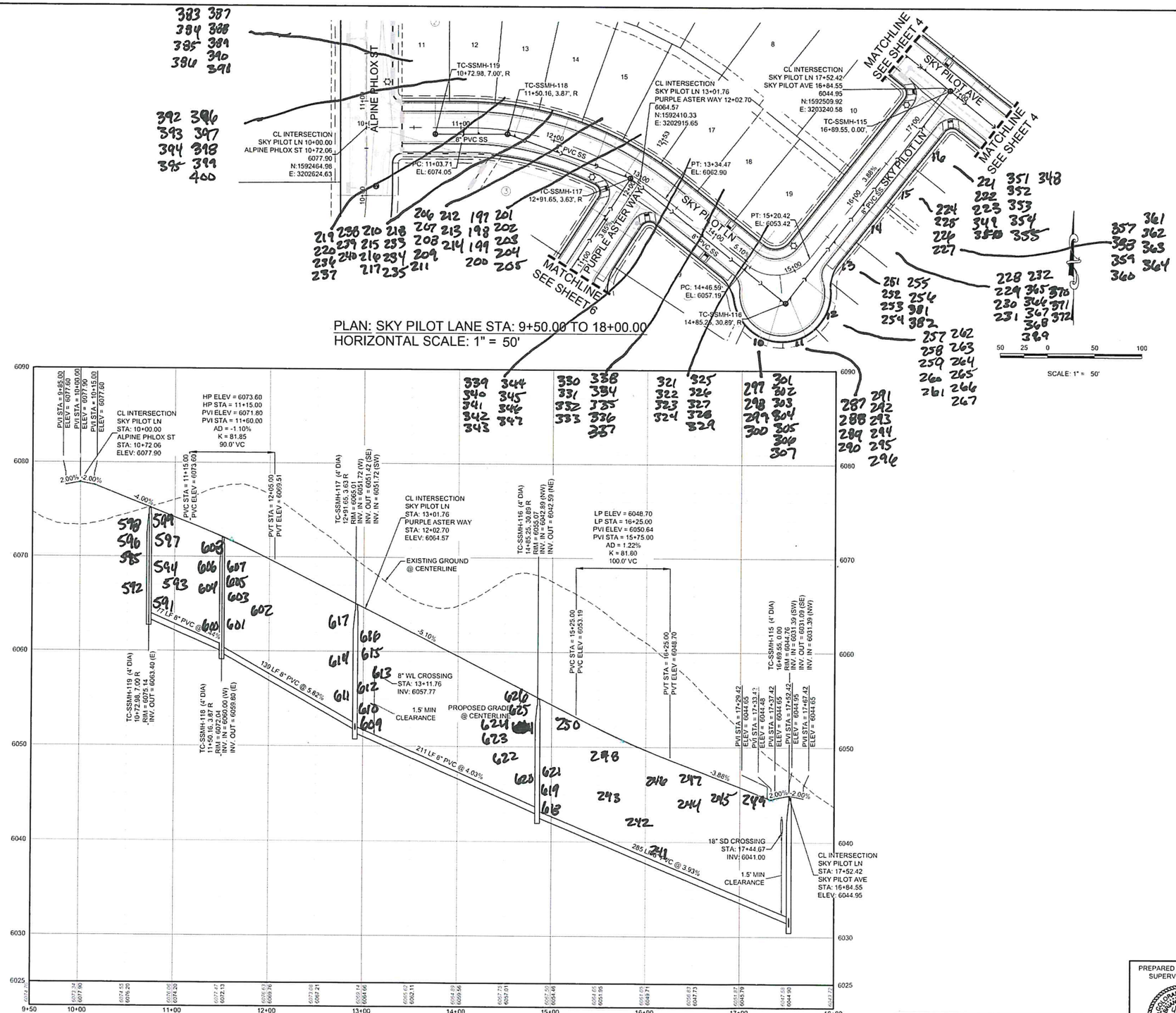
CVL CONSULTANTS
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
(720) 482-9526
Fax: (720) 482-9546

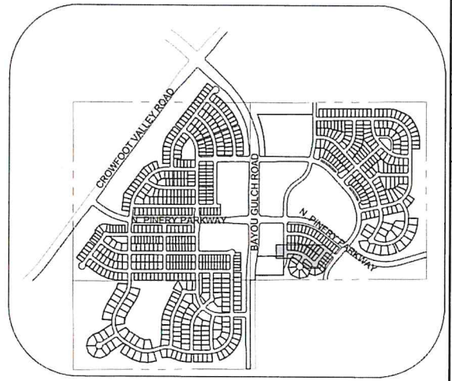
HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SKY PILOT AVENUE

SCALE: AS SHOWN
FILE NO: 81302837701
DRAWN BY: JLR
CHECKED BY: JJ
DATE: SEPTEMBER 2017
SHEET NUMBER 4

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\CD'S\F13 PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\F13 SKY PILOT AVENUE SANITARY.DWG, CODY A, 3/13/2018 2:22 PM





KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
FUTURE PHASE VALVE	PROPOSED SEWER LINE WITH MANHOLE
FUTURE FIRE HYDRANT	PROPOSED SEWER LATERAL
PROPOSED LIGHT POLE	PROPOSED WATER LINE
PROPOSED SIDEWALK	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD POWER
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
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EVP	END VERTICAL PROFILE	SD	STORM DRAIN
FG	FINISHED GROUND	SL	SECTION LINE
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
GV	GATE VALVE	T.O.P.	TOP OF PIPE
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HP	HIGH POINT	VC	VERTICAL CURVE
INV	INVERT	WL	WATER LINE
K	CURVATURE COEFFICIENT	WLC	WATER LINE CONNECTION
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION

1. SEE SHEET 3 - AREA UTILITY PLAN FOR SANITARY SERVICE TABLES.

PROFILE: SKY PILOT LN STA: 9+50.00 TO 18+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

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1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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PREPARED UNDER THE SUPERVISION OF
COLORADO LICENSED BRIAN P. WILSON 0050067 PROFESSIONAL ENGINEER
4-21-21
BRIAN P. WILSON
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APPROVED
Apr 07 2021
PARKER WATER AND SANITATION DISTRICT

No.	Revisions	Date	Init.	Appr.	Date

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Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SKY PILOT LANE

SCALE:	AS SHOWN		
DRAWN BY:	JLR	FILE NO:	8130283701
CHECKED BY:	JJJ		
DATE:	SEPTEMBER 2017		

SHEET NUMBER 5

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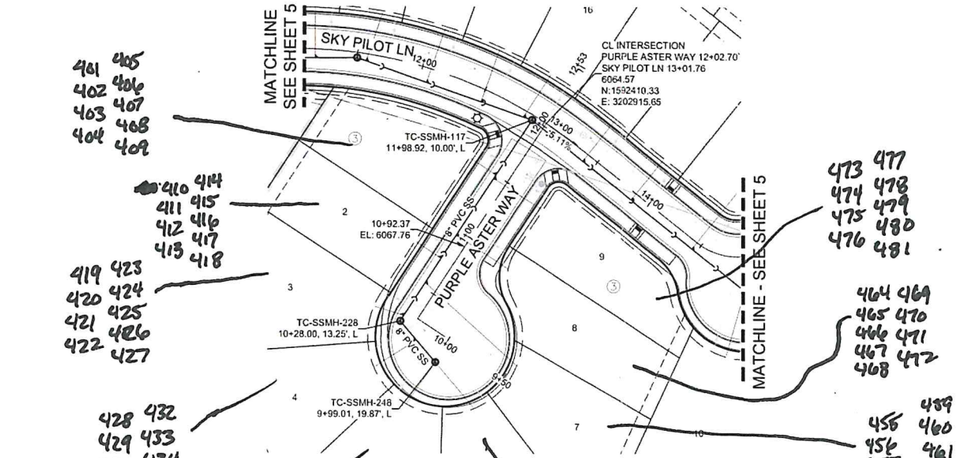
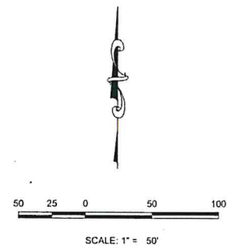
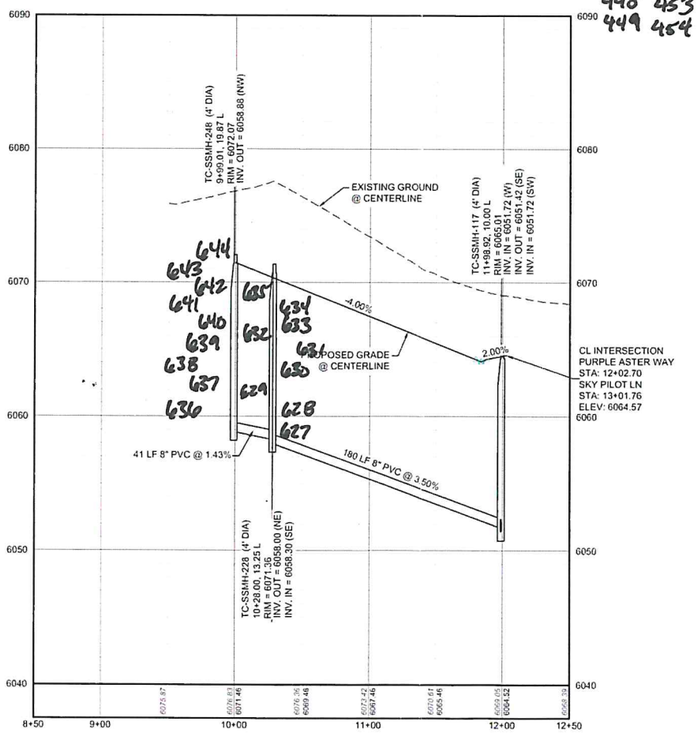


PLAN: PURPLE ASTER WAY STA: 8+50.00 TO 12+50.00
HORIZONTAL SCALE: 1" = 50'





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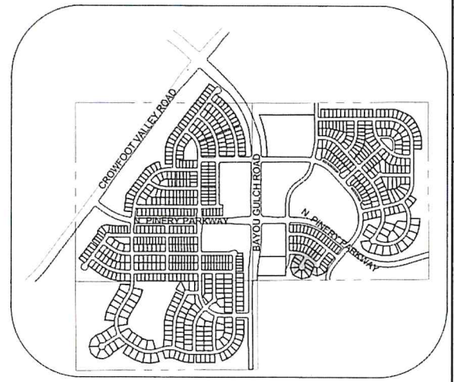

KEYMAP
N.T.S.

LEGEND

(2)	BLOCK NUMBER	△	PROPOSED RANGE POINT
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6	LOT NUMBER		RIGHT-OF-WAY
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	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT		EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK		EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
	FUTURE PHASE VALVE		PROPOSED SEWER LINE WITH MANHOLE
	FUTURE FIRE HYDRANT		PROPOSED SEWER LATERAL
	PROPOSED LIGHT POLE	8"W	PROPOSED WATER LINE
	PROPOSED SIDEWALK		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK RAMP		SECTION LINE
	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	OH	EXISTING OVERHEAD POWER
(4)(5)(6)	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

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APPROVED
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No.	Revisions	Date	Init.	Appr.	Date

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TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
PURPLE ASTER WAY

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: SEPTEMBER 2017
SHEET NUMBER 6

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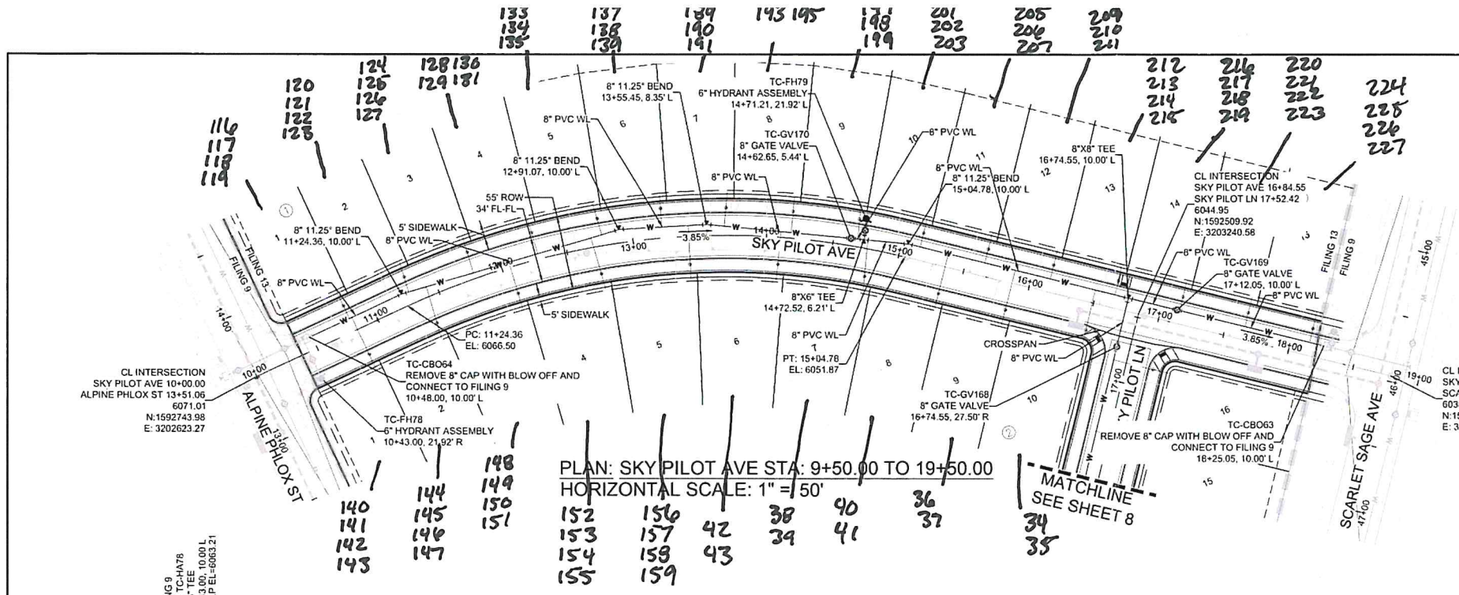

PLAN: SKY PILOT AVE STA: 9+50.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'

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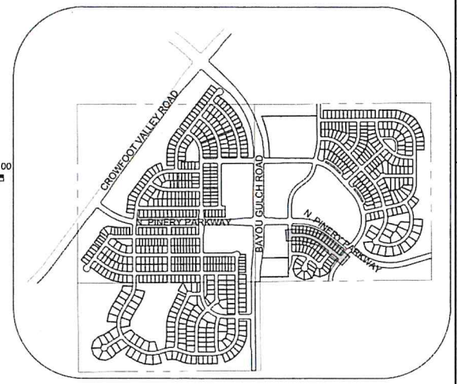

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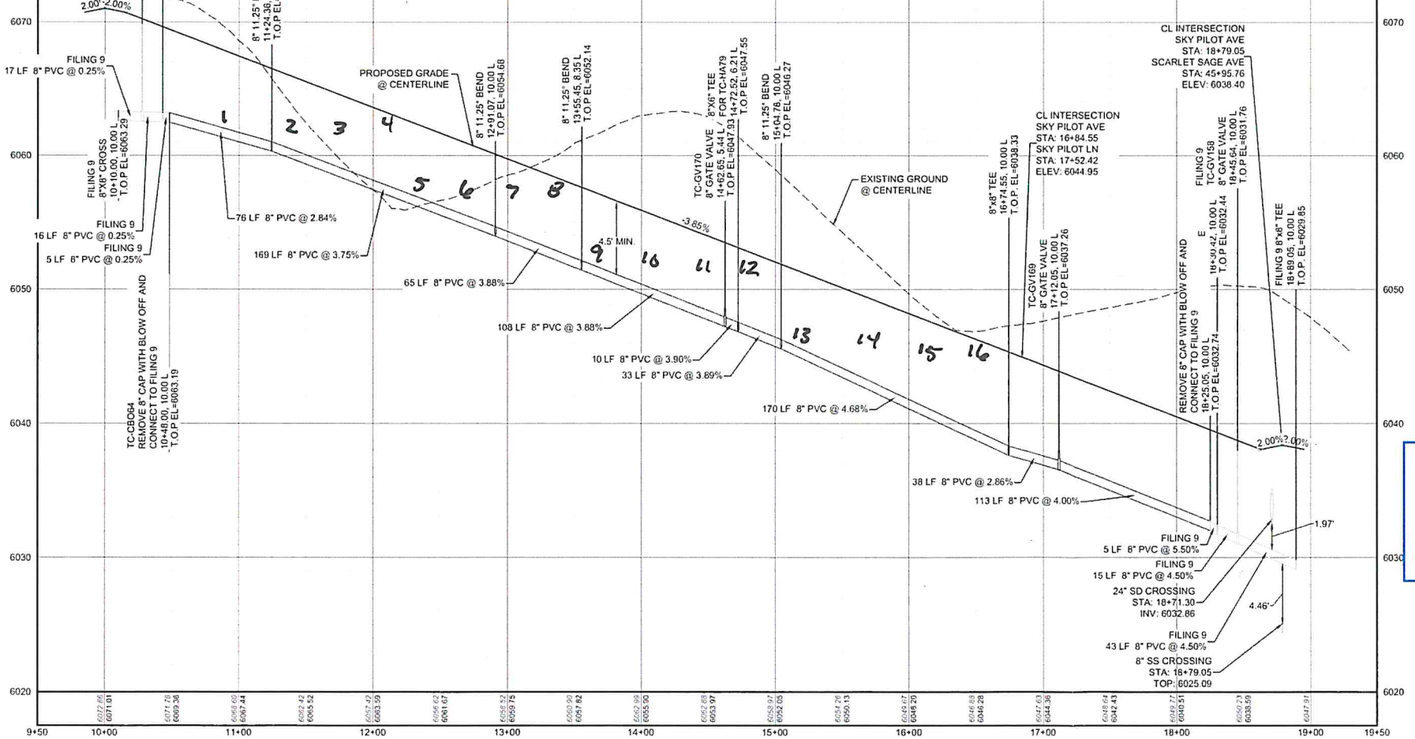

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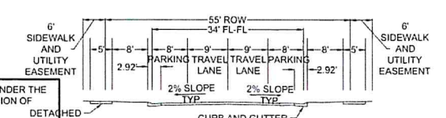

RESIDENTIAL LOCAL

1. SEE SHEET 3 - AREA UTILITY PLAN FOR WATER SERVICE TABLES

PREPARED UNDER THE SUPERVISION OF:
COLORADO LICENSED BRIAN P. WILSON 0050067 PROFESSIONAL ENGINEER
BRIAN P. WILSON
COLORADO P.E. 0050067

BENCHMARK
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HR 935 LLC
7351 S. Clinton Way
CENTENNIAL, CO 80112

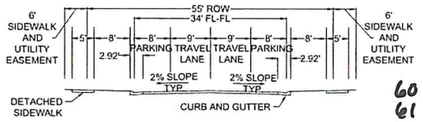
TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
SKY PILOT AVENUE

SCALE:	FILE NO:
AS SHOWN	8130283701

DRAWN BY:	CHECKED BY:	DATE:
RRR	JJJ	SEPTEMBER 2017

SHEET NUMBER 7

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\CD'S\F13\PARKER WATER AND SANITATION\WATER PLAN AND PROFILE F13 SKY PILOT AVENUE WATER.DWG, CODY A, 1/3/2018 2:33 PM



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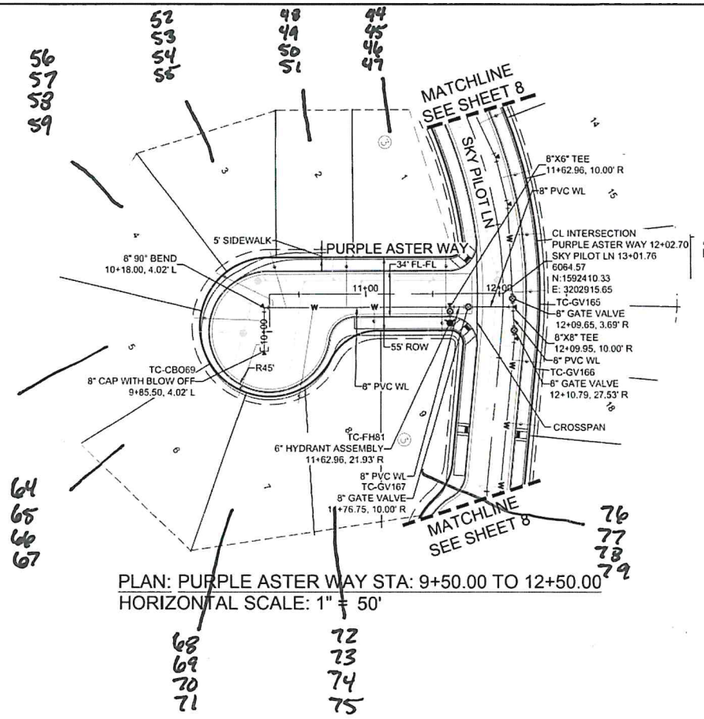

PLAN: PURPLE ASTER WAY STA: 9+50.00 TO 12+50.00
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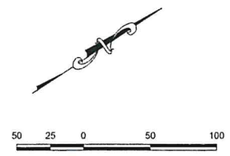

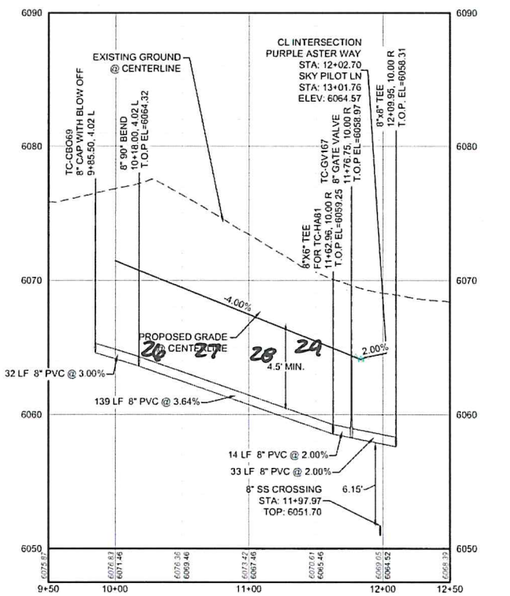

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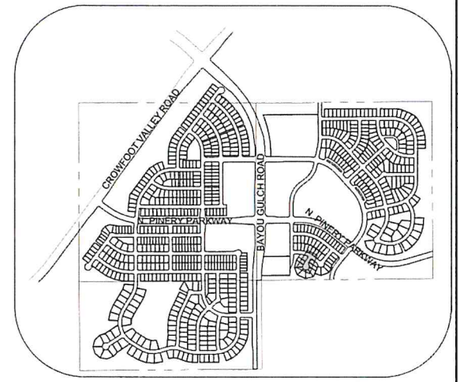

KEYMAP
N.T.S.

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Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

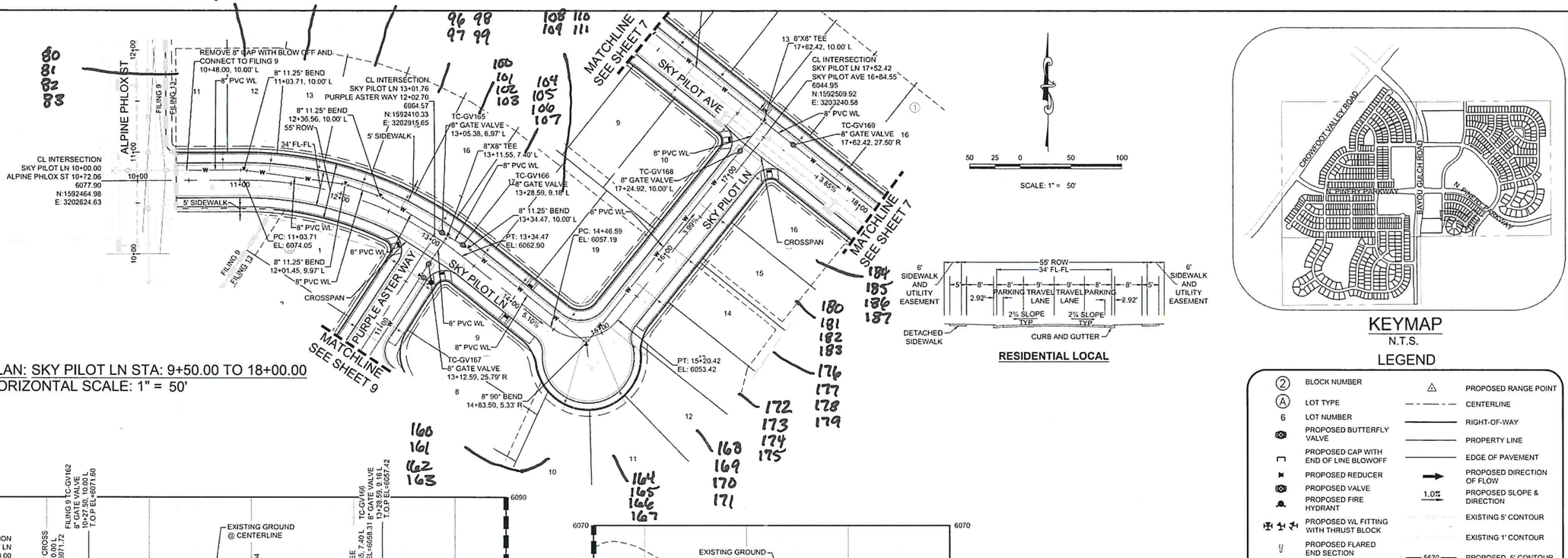
HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
PURPLE ASTER WAY

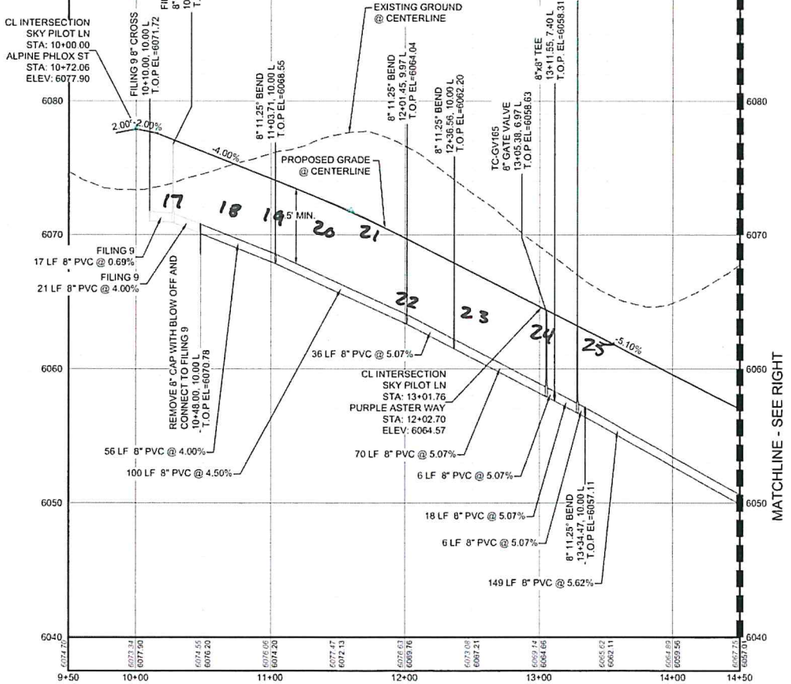
SCALE: AS SHOWN
DRAWN BY: RHR
CHECKED BY: JJJ
DATE: SEPTEMBER 2017
FILE NO: 8130283701
SHEET NUMBER 9

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\CD'S\F13\PARKER WATER AND SANITATION\WATER PLAN AND PROFILE\F13 PURPLE ASTER WAY WATER.DWG, CHRISTOPHERB, 3/13/2018 2:42 PM

112 114
113 116



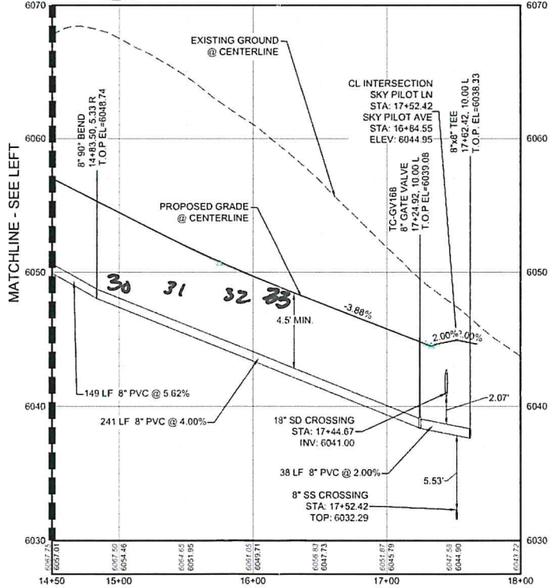
PLAN: SKY PILOT LN STA: 9+50.00 TO 18+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SKY PILOT LN STA: 9+50.00 TO 14+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

MATCHLINE - SEE LEFT

MATCHLINE - SEE RIGHT



PROFILE: SKY PILOT LN STA: 14+50.00 TO 18+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
FUTURE PHASE VALVE	PROPOSED SEWER LINE WITH MANHOLE
FUTURE FIRE HYDRANT	PROPOSED SEWER LATERAL
PROPOSED LIGHT POLE	PROPOSED WATER LINE
PROPOSED SIDEWALK	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD POWER
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
BVP	BEGIN VERTICAL PROFILE	PVI	PT. OF VERTICAL INTERSECTION
CBO	CAP WITH BLOW OFF	PVT	POINT OF VERTICAL TANGENT
CRR	CURB RETURN RADIUS	RCBC	REINFORCED CONCRETE BOX CULVERT
EL	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
EVC	END VERTICAL CURVE	SC	SANITARY CAP
EVP	END VERTICAL PROFILE	SD	STORM DRAIN
FG	FINISHED GROUND	SL	SECTION LINE
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
GV	GATE VALVE	T.O.P.	TOP OF PIPE
HCR	HANDICAP CURB RAMP	UE	UTILITY EASEMENT
HP	HIGH POINT	VC	VERTICAL CURVE
INV	INVERT	WL	WATER LINE
K	CURVATURE COEFFICIENT	WLC	WATER LINE CONNECTION
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION

1. SEE SHEET 3 - AREA UTILITY PLAN FOR WATER SERVICE TABLES.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC 1-800-922-1987
UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE SUPERVISION OF
COLORADO LICENSED
BRIAN P. WILSON
11-01-17
050067
PROFESSIONAL ENGINEER
BRIAN P. WILSON
COLORADO P.E. 0050067

APPROVED
Apr 07 2021
PARKER WATER AND SANITATION DISTRICT

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
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Englewood, CO 80112
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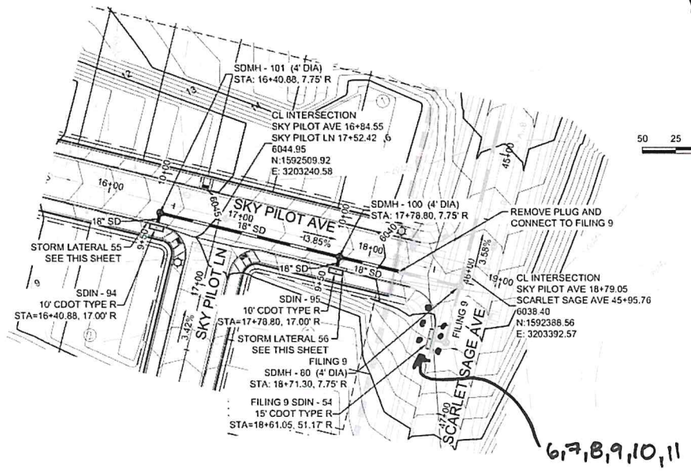
CVL CONSULTANTS

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

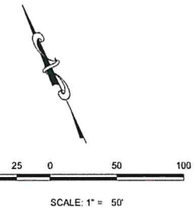
TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
SKY PILOT LANE

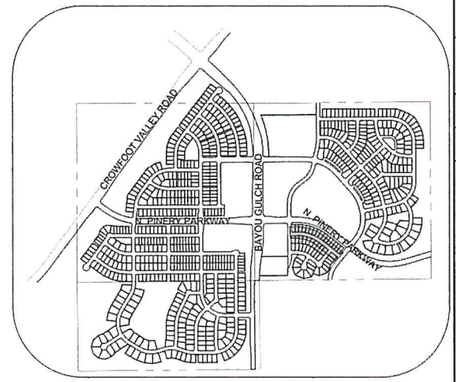
SCALE: AS SHOWN
DRAWN BY: RIR
CHECKED BY: JJ
DATE: SEPTEMBER 2017
FILE NO: 8130283701
SHEET NUMBER 8

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\CD'S\F13\PARKER WATER AND SANITATION\WATER PLAN AND PROFILE\F13 SKY PILOT LANE WATER.DWG, CODY A, 3/13/2018 2:36 PM



PLAN: SKY PILOT AVE STA: 16+00.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'

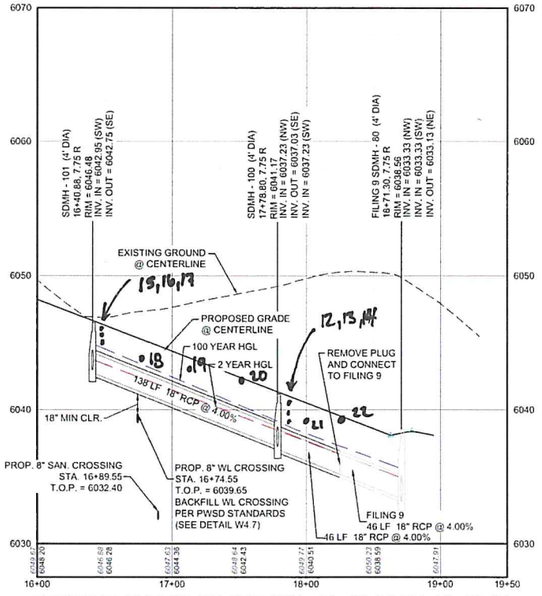




KEYMAP
N.T.S.

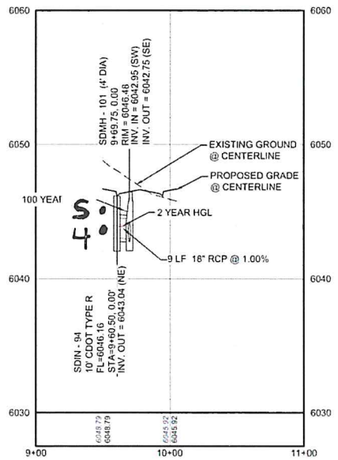
LEGEND

(2)	BLOCK NUMBER	△	PROPOSED RANGE POINT
(A)	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT		EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK		EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
	FUTURE PHASE VALVE		PROPOSED SEWER LINE WITH MANHOLE
	FUTURE FIRE HYDRANT		PROPOSED SEWER LATERAL
	PROPOSED LIGHT POLE	8"W	PROPOSED WATER LINE
	PROPOSED SIDEWALK		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK RAMP		SECTION LINE
	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	OHP	EXISTING OVERHEAD POWER
(4)(5)(6)	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE



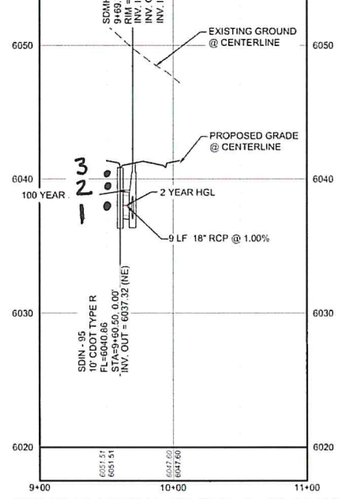
PROFILE: SKY PILOT AVE STA: 16+00.00 TO 19+50.00
HORIZONTAL: 1" = 50'

STORM LATERAL 55 - SEE THIS SHEET



PROFILE: STORM LATERAL 55 STA: 9+00.00 TO 11+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

STORM LATERAL 56 - SEE THIS SHEET



PROFILE: STORM LATERAL 56 STA: 9+00.00 TO 11+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
BVP	BEGIN VERTICAL PROFILE	PVI	PT. OF VERTICAL INTERSECTION
CBO	CAP WITH BLOW OFF	PVT	POINT OF VERTICAL TANGENT
CRR	CURB RETURN RADIUS	RCBC	REINFORCED CONCRETE BOX CULVERT
EL	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
EVC	END VERTICAL CURVE	SC	SANITARY CAP
EVP	END VERTICAL PROFILE	SD	STORM DRAIN
FG	FINISHED GROUND	SL	SECTION LINE
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
GV	GATE VALVE	T.O.P.	TOP OF PIPE
HCR	HANDICAP CURB RAMP	UE	UTILITY EASEMENT
HP	HIGH POINT	VC	VERTICAL CURVE
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LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION

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1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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PREPARED UNDER THE SUPERVISION OF
COLORADO LICENSED
BRIAN P. WILSON
0050067
PROFESSIONAL ENGINEER
BRIAN P. WILSON
COLORADO P.E. 0050067

The Town of Parker review constitutes general compliance with the Town's Standards and approved variances, subject to these plans being stamped, signed, and dated by the professional engineer of record. Review by the Town does not constitute approval of the plan design or accuracy and correctness of engineering calculations. Errors in the design or calculations remain the responsibility of the registered professional engineer whose stamp and signature are affixed to this document.

This review does not constitute approval of any private on-site improvements which may be shown. Construction cannot commence until all required drainage/traffic report(s), final development plan(s), special review(s), grading permit, and/or other permits are complete, approved and on file with the Town of Parker.

Town of Parker, Director of Engineering — 04/14/2021 Date

No	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 13 CONSTRUCTION DRAWINGS
STORM PLAN & PROFILE
SKY PILOT AVENUE

SHEET NUMBER 15
DRAWN BY: JF
CHECKED BY: JJJ
SCALE: AS SHOWN
FILE NO: 8130283701
DATE: SEPTEMBER 2017

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\CDOT\F13\TOWN OF PARKER\STORM PLAN AND PROFILE\F13 SKY PILOT AVENUE STORM.DWG, BRIANW, 6/7/2018 5:29 PM

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000001
12/07/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
1		12/07/20	18	698A	CL	16.0	111.0	17.4	110.0	129.1	8	99	95	1 / 4	A
2		12/07/20	18	698A	CL	16.0	111.0	17.2	109.9	128.8	8	99	95	1 / 4	A
3		12/07/20	18	698A	CL	16.0	111.0	17.0	108.7	127.2	8	98	95	1 / 4	A
4		12/07/20	18	698A	CL	16.0	111.0	17.6	110.4	129.8	8	99	95	1 / 4	A
5		12/07/20	18	698A	CL	16.0	111.0	17.0	109.7	128.3	8	99	95	1 / 4	A
6		12/07/20	18	698A	CL	16.0	111.0	17.0	109.1	127.7	8	98	95	1 / 4	A
7		12/07/20	18	698A	CL	16.0	111.0	17.3	109.1	128.0	8	98	95	1 / 4	A
8		12/07/20	18	698A	CL	16.0	111.0	17.2	110.4	129.4	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Sub-Excavation and Backfill: Lot 1 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
2	Sub-Excavation and Backfill: Lot 2 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
3	Sub-Excavation and Backfill: Lot 3 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
4	Sub-Excavation and Backfill: Lot 5 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
5	Sub-Excavation and Backfill: Lot 8 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
6	Sub-Excavation and Backfill: Lot 9 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
7	Sub-Excavation and Backfill: Lot 10 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
8	Sub-Excavation and Backfill: Lot 12 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000001
12/07/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
9		12/07/20	18	698A	CL	16.0	111.0	18.5	109.5	129.8	8	99	95	1 / 4	A
10		12/07/20	18	698A	CL	16.0	111.0	18.8	109.3	129.9	8	98	95	1 / 4	A
11		12/07/20	18	698A	CL	16.0	111.0	17.3	109.6	128.6	8	99	95	1 / 4	A
12		12/07/20	18	698A	CL	16.0	111.0	17.1	110.7	129.6	8	100	95	1 / 4	A
13		12/07/20	18	698A	CL	16.0	111.0	18.2	108.8	128.6	8	98	95	1 / 4	A
14		12/07/20	18	698A	CL	16.0	111.0	17.6	108.7	127.8	8	98	95	1 / 4	A
15		12/07/20	18	698A	CL	16.0	111.0	17.9	110.0	129.7	8	99	95	1 / 4	A
16		12/07/20	18	698A	CL	16.0	111.0	17.7	109.7	129.1	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
9	Sub-Excavation and Backfill: Street, Lot 4 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
10	Sub-Excavation and Backfill: Street, Lot 7 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
11	Sub-Excavation and Backfill: Street, Lot 11 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
12	Sub-Excavation and Backfill: Street, Lot 14 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
13	Sub-Excavation and Backfill: Street, Lot 16 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
14	Sub-Excavation and Backfill: Street, Lot 15 Block 1 Filing 13 on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
15	Sub-Excavation and Backfill: Street, Lot 1 Block 1 Filing 13on Sky Pilot Avenue	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
16	Sub-Excavation and Backfill: Street, Lot 9 Block 1 Filing 13 on Sky Pilot Avenue	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

16: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000002
12/08/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
17		12/08/20	18	698A	CL	16.0	111.0	18.1	110.2	130.1	8	99	95	1 / 4	A
18		12/08/20	18	698A	CL	16.0	111.0	17.0	110.0	128.7	8	99	95	1 / 4	A
19		12/08/20	18	698A	CL	16.0	111.0	18.6	108.9	129.2	8	98	95	1 / 4	A
20		12/08/20	18	698A	CL	16.0	111.0	17.8	109.1	128.5	8	98	95	1 / 4	A
21		12/08/20	18	698A	CL	16.0	111.0	18.8	110.1	130.8	8	99	95	1 / 4	A
22		12/08/20	18	698A	CL	16.0	111.0	18.4	110.7	131.1	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
17	Sub-Excavation and Backfill: Lot 3 Block 1 Filing 13 on Sky Pilot Avenue	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
18	Sub-Excavation and Backfill: Lot 10 Block 1 Filing 13 on Sky Pilot Avenue	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
19	Sub-Excavation and Backfill: Lot 16 Block 1 Filing 13 on Sky Pilot Avenue	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
20	Sub-Excavation and Backfill: Street, Lot 5 Block 1 Filing 13 on Sky Pilot Avenue	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
21	Sub-Excavation and Backfill: Street, Lot 9 Block 1 Filing 13 on Sky Pilot Avenue	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
22	Sub-Excavation and Backfill: Street, Lot 14 Block 1 Filing 13 on Sky Pilot Avenue	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

22: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000003
12/09/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
23		12/09/20	18	698A	CL	16.0	111.0	17.2	109.8	128.7	8	99	95	1 / 4	A
24		12/09/20	18	698A	CL	16.0	111.0	17.8	109.9	129.5	8	99	95	1 / 4	A
25		12/09/20	18	698A	CL	16.0	111.0	17.7	111.1	130.8	8	100	95	1 / 4	A
26		12/09/20	18	698A	CL	16.0	111.0	17.1	109.4	128.1	8	99	95	1 / 4	A
27		12/09/20	18	698A	CL	16.0	111.0	17.1	110.5	129.4	8	100	95	1 / 4	A
28		12/09/20	18	698A	CL	16.0	111.0	17.1	112.1	131.3	8	101	95	1 / 4	A
29		12/09/20	16	698A	CL	15.5	111.0	17.7	108.5	127.7	8	98	95	1 / 4	A
30		12/09/20	16	698A	CL	15.5	111.0	16.8	109.8	128.3	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
23	Sub-Excavation and Backfill: Lot 4 Block 1 Filing 13 on Sky Pilot Avenue	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
24	Sub-Excavation and Backfill: Lot 11 Block 1 Filing 13 on Sky Pilot Avenue	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
25	Sub-Excavation and Backfill: Lot 15 Block 1 Filing 13 on Sky Pilot Avenue	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
26	Sub-Excavation and Backfill: Street, Lot 8 Block 1 Filing 13 on Sky Pilot Avenue	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
27	Sub-Excavation and Backfill: Street, Lot 13 Block 1 Filing 13 on Sky Pilot Avenue	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
28	Sub-Excavation and Backfill: Street, Lot 6 Block 1 Filing 13 on Sky Pilot Avenue	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
29	Sub-Excavation and Backfill: Lot 1 Block 2 Filing 13 on Sky Pilot Avenue	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
30	Sub-Excavation and Backfill: Lot 4 Block 2 Filing 13 on Sky Pilot Avenue	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000003
12/09/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
31		12/09/20	16	698A	CL	15.5	111.0	17.0	110.3	129.1	8	99	95	1 / 4	A
32		12/09/20	16	698A	CL	15.5	111.0	17.6	108.6	127.7	8	98	95	1 / 4	A
33		12/09/20	16	698A	CL	15.5	111.0	17.2	110.7	129.7	8	100	95	1 / 4	A
34		12/09/20	16	698A	CL	15.5	111.0	17.6	108.8	128.0	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
31	Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13 on Sky Pilot Avenue	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
32	Sub-Excavation and Backfill: Lot 13 Block 2 Filing 13 on Sky Pilot Avenue	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
33	Sub-Excavation and Backfill: Lot 15 Block 2 Filing 13 on Sky Pilot Avenue	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
34	Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13 on Sky Pilot Avenue	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

34: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000004
12/10/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
35		12/10/20	18	698A	CL	16.0	111.0	17.7	109.7	129.1	8	99	95	1 / 4	A
36		12/10/20	18	698A	CL	16.0	111.0	17.3	109.7	128.7	8	99	95	1 / 4	A
37		12/10/20	18	698A	CL	16.0	111.0	17.8	110.6	130.3	8	100	95	1 / 4	A
38		12/10/20	18	698A	CL	16.0	111.0	18.3	110.3	130.5	8	99	95	1 / 4	A
39		12/10/20	18	698A	CL	16.0	111.0	18.0	108.9	128.5	8	98	95	1 / 4	A
40		12/10/20	18	698A	CL	16.0	111.0	18.6	109.5	129.9	8	99	95	1 / 4	A
41		12/10/20	16	698A	CL	15.5	111.0	16.5	109.1	127.1	8	98	95	1 / 4	A
42		12/10/20	16	698A	CL	15.5	111.0	17.5	109.2	128.3	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
35	Sub-Excavation and Backfill: Lot 6 Block 1 Filing 13 on Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
36	Sub-Excavation and Backfill: Lot 10 Block 1 Filing 13 on Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
37	Sub-Excavation and Backfill: Lot 15 Block 1 Filing 13 on Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
38	Sub-Excavation and Backfill: Lot 2 Block 1 Filing 13 on Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
39	Sub-Excavation and Backfill: Street, Lot 2 Block 1 Filing 13 on Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
40	Sub-Excavation and Backfill: Street, Lot 7 Block 1 Filing 13 on Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
41	Sub-Excavation and Backfill: Street, Lot 2 Block 2 Filing 13 on Sky Pilot Avenue	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
42	Sub-Excavation and Backfill: Street, Lot 5 Block 2 Filing 13 on Sky Pilot Avenue	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000004
12/10/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
43		12/10/20	16	698A	CL	15.5	111.0	17.3	110.5	129.6	8	100	95	1 / 4	A
44		12/10/20	16	698A	CL	15.5	111.0	17.1	109.9	128.7	8	99	95	1 / 4	A
45		12/10/20	16	698A	CL	15.5	111.0	17.6	109.7	129.0	8	99	95	1 / 4	A
46		12/10/20	16	698A	CL	15.5	111.0	17.4	109.4	128.4	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
43	Sub-Excavation and Backfill: Lot 7 Block 2 Filing 13 on Sky Pilot Avenue	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
44	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13 on Sky Pilot Avenue	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
45	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Avenue	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
46	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13 on Sky Pilot Avenue	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

46: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000005
12/11/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
47		12/11/20	18	698A	CL	16.0	111.0	18.5	111.3	131.9	8	100	95	1 / 4	A
48		12/11/20	18	698A	CL	16.0	111.0	18.0	110.5	130.4	8	100	95	1 / 4	A
49		12/11/20	18	698A	CL	16.0	111.0	17.4	109.6	128.7	8	99	95	1 / 4	A
50		12/11/20	18	698A	CL	16.0	111.0	17.9	108.7	128.2	8	98	95	1 / 4	A
51		12/11/20	18	698A	CL	16.0	111.0	18.4	109.4	129.5	8	99	95	1 / 4	A
52		12/11/20	18	698A	CL	16.0	111.0	18.8	110.9	131.8	8	100	95	1 / 4	A
53		12/11/20	16	698A	CL	15.5	111.0	16.8	109.8	128.3	8	99	95	1 / 4	A
54		12/11/20	16	698A	CL	15.5	111.0	16.6	109.0	127.1	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
47	Sub-Excavation and Backfill: Lot 2 Block 1 Filing 13 on Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
48	Sub-Excavation and Backfill: Lot 8 Block 1 Filing 13 on Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
49	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13 on Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
50	Sub-Excavation and Backfill: Street, Lot 3 Block 1 Filing 13 on Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
51	Sub-Excavation and Backfill: Street, Lot 7 Block 1 Filing 13 on Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
52	Sub-Excavation and Backfill: Street, Lot 11 Block 1 Filing 13 on Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
53	Sub-Excavation and Backfill: Lot 3 Block 2 Filing 13 on Sky Pilot Avenue	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
54	Sub-Excavation and Backfill: Lot 6 Block 2 Filing 13 on Sky Pilot Avenue	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000005
12/11/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
55		12/11/20	16	698A	CL	15.5	111.0	17.0	111.0	129.9	8	100	95	1 / 4	A
56		12/11/20	16	698A	CL	15.5	111.0	17.2	109.6	128.4	8	99	95	1 / 4	A
57		12/11/20	16	698A	CL	15.5	111.0	16.6	109.8	128.0	8	99	95	1 / 4	A
58		12/11/20	16	698A	CL	15.5	111.0	16.9	110.2	128.8	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
55	Sub-Excavation and Backfill: Lot 8 Block 2 Filing 13 on Sky Pilot Avenue	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
56	Sub-Excavation and Backfill: Lot 12 Block 2 Filing 13 on Sky Pilot Avenue	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
57	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Avenue	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
58	Sub-Excavation and Backfill: Lot 17 Block 2 Filing 13 on Sky Pilot Avenue	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

58: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000006
12/14/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
59		12/14/20	18	698A	CL	16.0	111.0	17.8	109.8	129.3	8	99	95	1 / 4	A
60		12/14/20	18	698A	CL	16.0	111.0	17.8	109.0	128.4	8	98	95	1 / 4	A
61		12/14/20	18	698A	CL	16.0	111.0	18.2	109.6	129.5	8	99	95	1 / 4	A
62		12/14/20	18	698A	CL	16.0	111.0	17.1	110.7	129.6	8	100	95	1 / 4	A
63		12/14/20	18	698A	CL	16.0	111.0	17.4	110.8	130.1	8	100	95	1 / 4	A
64		12/14/20	18	698A	CL	16.0	111.0	17.3	109.5	128.4	8	99	95	1 / 4	A
65		12/14/20	18	698A	CL	16.0	111.0	17.9	109.6	129.2	8	99	95	1 / 4	A
66		12/14/20	18	698A	CL	16.0	111.0	17.8	110.7	130.4	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
59	Sub-Excavation and Backfill: Lot 1 Block 1 Filing 13 on Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
60	Sub-Excavation and Backfill: Lot 9 Block 1 Filing 13 on Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
61	Sub-Excavation and Backfill: Lot 4 Block 1 Filing 13 on Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
62	Sub-Excavation and Backfill: Lot 15 Block 1 Filing 13 on Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
63	Sub-Excavation and Backfill: Street, Lot 2 Block 1 Filing 13 on Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
64	Sub-Excavation and Backfill: Street, Lot 6 Block 1 Filing 13 on Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
65	Sub-Excavation and Backfill: Street, Lot 10 Block 1 Filing 13 on Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
66	Sub-Excavation and Backfill: Street, Lot 14 Block 1 Filing 13 on Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000006
12/14/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
67		12/14/20	16	698A	CL	15.5	111.0	17.0	110.1	128.8	8	99	95	1 / 4	A
68		12/14/20	16	698A	CL	15.5	111.0	17.6	109.8	129.1	8	99	95	1 / 4	A
69		12/14/20	16	698A	CL	15.5	111.0	16.7	111.7	130.3	8	101	95	1 / 4	A
70		12/14/20	16	698A	CL	15.5	111.0	16.6	110.3	128.6	8	99	95	1 / 4	A
71		12/14/20	16	698A	CL	15.5	111.0	17.0	110.9	129.7	8	100	95	1 / 4	A
72		12/14/20	16	698A	CL	15.5	111.0	17.0	109.7	128.3	8	99	95	1 / 4	A
73		12/14/20	16	698A	CL	15.5	111.0	16.6	111.4	129.9	8	100	95	1 / 4	A
74		12/14/20	16	698A	CL	15.5	111.0	17.0	109.5	128.1	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
67	Sub-Excavation and Backfill: Lot 1 Block 2 Filing 13 on Sky Pilot Lane	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
68	Sub-Excavation and Backfill: Lot 4 Block 2 Filing 13 on Sky Pilot Lane	14.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
69	Sub-Excavation and Backfill: Lot 7 Block 2 Filing 13 on Sky Pilot Lane	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
70	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13 on Sky Pilot Lane	14.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
71	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
72	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Lane	14.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
73	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Lane	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
74	Sub-Excavation and Backfill: Lot 17 Block 2 Filing 13 on Sky Pilot Lane	14.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

74: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000007
12/15/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
75		12/15/20	18	698A	CL	16.0	111.0	17.4	109.2	128.2	8	98	95	1 / 4	A
76		12/15/20	18	698A	CL	16.0	111.0	18.9	109.9	130.7	8	99	95	1 / 4	A
77		12/15/20	18	698A	CL	16.0	111.0	18.1	109.4	129.2	8	99	95	1 / 4	A
78		12/15/20	18	698A	CL	16.0	111.0	18.1	108.7	128.4	8	98	95	1 / 4	A
79		12/15/20	18	698A	CL	16.0	111.0	17.2	109.7	128.6	8	99	95	1 / 4	A
80		12/15/20	18	698A	CL	16.0	111.0	17.8	110.7	130.4	8	100	95	1 / 4	A
81		12/15/20	16	698A	CL	15.5	111.0	17.0	110.2	128.9	8	99	95	1 / 4	A
82		12/15/20	16	698A	CL	15.5	111.0	16.7	111.0	129.5	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
75	Sub-Excavation and Backfill: Lot 1 Block 1 Filing 13 on Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
76	Sub-Excavation and Backfill: Lot 5 Block 1 Filing 13 on Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
77	Sub-Excavation and Backfill: Lot 10 Block 1 Filing 13 on Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
78	Sub-Excavation and Backfill: Lot 16 Block 1 Filing 13 on Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
79	Sub-Excavation and Backfill: Street, Lot 7 Block 1 Filing 13 on Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
80	Sub-Excavation and Backfill: Street, Lot 13 Block 1 Filing 13 on Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
81	Sub-Excavation and Backfill: Lot 1 Block 2 Filing 13 on Sky Pilot Lane	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
82	Sub-Excavation and Backfill: Lot 4 Block 2 Filing 13 on Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000007
12/15/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
83		12/15/20	16	698A	CL	15.5	111.0	17.8	109.7	129.2	8	99	95	1 / 4	A
84		12/15/20	16	698A	CL	15.5	111.0	17.6	109.2	128.4	8	98	95	1 / 4	A
85		12/15/20	16	698A	CL	15.5	111.0	17.4	109.6	128.7	8	99	95	1 / 4	A
86		12/15/20	16	698A	CL	15.5	111.0	17.9	110.6	130.4	8	100	95	1 / 4	A
87		12/15/20	16	698A	CL	15.5	111.0	16.9	109.7	128.2	8	99	95	1 / 4	A
88		12/15/20	16	698A	CL	15.5	111.0	18.0	109.9	129.7	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
83	Sub-Excavation and Backfill: Lot 7 Block 2 Filing 13 on Sky Pilot Lane	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
84	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13 on Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
85	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
86	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
87	Sub-Excavation and Backfill: Lot 17 Block 2 Filing 13 on Sky Pilot Lane	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
88	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13 on Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

88: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000008
12/16/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
89		12/16/20	18	698A	CL	16.0	111.0	17.4	109.5	128.6	8	99	95	1 / 4	A
90		12/16/20	18	698A	CL	16.0	111.0	17.4	108.8	127.7	8	98	95	1 / 4	A
91		12/16/20	18	698A	CL	16.0	111.0	17.0	109.8	128.5	8	99	95	1 / 4	A
92		12/16/20	18	698A	CL	16.0	111.0	17.6	110.3	129.7	8	99	95	1 / 4	A
93		12/16/20	18	698A	CL	16.0	111.0	17.3	111.2	130.4	8	100	95	1 / 4	A
94		12/16/20	18	698A	CL	16.0	111.0	17.2	109.4	128.2	8	99	95	1 / 4	A
95		12/16/20	18	698A	CL	16.0	111.0	18.5	110.6	131.1	8	100	95	1 / 4	A
96		12/16/20	18	698A	CL	16.0	111.0	17.9	111.0	130.9	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
89	Sub-Excavation and Backfill: Lot 5 Block 1 Filing 13 on Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
90	Sub-Excavation and Backfill: Lot 8 Block 1 Filing 13 on Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
91	Sub-Excavation and Backfill: Lot 11 Block 1 Filing 13 on Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
92	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13 on Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
93	Sub-Excavation and Backfill: Street, Lot 1 Block 1 Filing 13 on Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
94	Sub-Excavation and Backfill: Street, Lot 3 Block 1 Filing 13 on Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
95	Sub-Excavation and Backfill: Street, Lot 6 Block 1 Filing 13 on Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
96	Sub-Excavation and Backfill: Street, Lot 9 Block 1 Filing 13 on Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000008
12/16/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
97		12/16/20	16	698A	CL	15.5	111.0	17.4	108.3	127.1	8	98	95	1 / 4	A
98		12/16/20	16	698A	CL	15.5	111.0	17.5	108.4	127.4	8	98	95	1 / 4	A
99		12/16/20	16	698A	CL	15.5	111.0	17.1	108.5	127.1	8	98	95	1 / 4	A
100		12/16/20	16	698A	CL	15.5	111.0	16.7	109.0	127.2	8	98	95	1 / 4	A
101		12/16/20	16	698A	CL	15.5	111.0	17.6	109.7	129.0	8	99	95	1 / 4	A
102		12/16/20	16	698A	CL	15.5	111.0	16.9	109.1	127.5	8	98	95	1 / 4	A
103		12/16/20	16	698A	CL	15.5	111.0	16.5	110.9	129.2	8	100	95	1 / 4	A
104		12/16/20	16	698A	CL	15.5	111.0	17.6	110.5	129.9	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
97	Sub-Excavation and Backfill: Lot 2 Block 2 Filing 13 on Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
98	Sub-Excavation and Backfill: Lot 5 Block 2 Filing 13 on Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
99	Sub-Excavation and Backfill: Lot 7 Block 2 Filing 13 on Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
100	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13 on Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
101	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
102	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
103	Sub-Excavation and Backfill: Lot 16 Block 2 Filing 13 on Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
104	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13 on Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

104: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Denver, CO 80204
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Compaction Test Report

Report #: SNG-000009
12/17/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
105		12/17/20	18	698A	CL	16.0	111.0	18.4	110.4	130.7	8	99	95	1 / 4	A
106		12/17/20	18	698A	CL	16.0	111.0	17.2	109.8	128.7	8	99	95	1 / 4	A
107		12/17/20	18	698A	CL	16.0	111.0	17.3	111.5	130.8	8	100	95	1 / 4	A
108		12/17/20	18	698A	CL	16.0	111.0	18.5	110.8	131.3	8	100	95	1 / 4	A
109		12/17/20	16	698A	CL	15.5	111.0	17.1	109.3	128.0	8	98	95	1 / 4	A
110		12/17/20	16	698A	CL	15.5	111.0	16.9	109.7	128.2	8	99	95	1 / 4	A
111		12/17/20	16	698A	CL	15.5	111.0	17.9	109.5	129.1	8	99	95	1 / 4	A
112		12/17/20	16	698A	CL	15.5	111.0	17.1	109.1	127.8	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
105	Sub-Excavation and Backfill: Lot 5 Block 1 Filing 13 on Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
106	Sub-Excavation and Backfill: Lot 10 Block 1 Filing 13 on Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
107	Sub-Excavation and Backfill: Street, Lot 8 Block 1 Filing 13 on Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
108	Sub-Excavation and Backfill: Street, Lot 14 Block 1 Filing 13 on Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
109	Sub-Excavation and Backfill: Lot 1 Block 2 Filing 13 on Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
110	Sub-Excavation and Backfill: Lot 4 Block 2 Filing 13 on Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
111	Sub-Excavation and Backfill: Lot 6 Block 2 Filing 13 on Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
112	Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13 on Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000009
12/17/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
113		12/17/20	16	698A	CL	15.5	111.0	17.4	109.9	129.0	8	99	95	1 / 4	A
114		12/17/20	16	698A	CL	15.5	111.0	18.1	109.8	129.7	8	99	95	1 / 4	A
115		12/17/20	16	698A	CL	15.5	111.0	17.0	109.7	128.4	8	99	95	1 / 4	A
116		12/17/20	16	698A	CL	15.5	111.0	16.7	111.3	129.9	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
113	Sub-Excavation and Backfill: Lot 13 Block 2 Filing 13 on Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
114	Sub-Excavation and Backfill: Lot 15 Block 2 Filing 13 on Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
115	Sub-Excavation and Backfill: Lot 17 Block 2 Filing 13 on Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
116	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13 on Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

116: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000010
12/18/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
117		12/18/20	16	698A	CL	15.5	111.0	17.1	109.3	128.0	8	98	95	1 / 4	A
118		12/18/20	16	698A	CL	15.5	111.0	16.6	109.5	127.7	8	99	95	1 / 4	A
119		12/18/20	16	698A	CL	15.5	111.0	17.5	109.8	129.0	8	99	95	1 / 4	A
120		12/18/20	16	698A	CL	15.5	111.0	16.8	110.0	128.5	8	99	95	1 / 4	A
121		12/18/20	16	698A	CL	15.5	111.0	16.6	109.1	127.2	8	98	95	1 / 4	A
122		12/18/20	16	698A	CL	15.5	111.0	17.9	108.9	128.4	8	98	95	1 / 4	A
123		12/18/20	16	698A	CL	15.5	111.0	17.1	110.9	129.9	8	100	95	1 / 4	A
124		12/18/20	16	698A	CL	15.5	111.0	17.3	109.4	128.3	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
117	Sub-Excavation and Backfill: Lot 2 Block 2 Filing 13 on Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
118	Sub-Excavation and Backfill: Lot 4 Block 2 Filing 13 on Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
119	Sub-Excavation and Backfill: Lot 6 Block 2 Filing 13 on Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
120	Sub-Excavation and Backfill: Lot 8 Block 2 Filing 13 on Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
121	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
122	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
123	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
124	Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13 on Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

124: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000011
12/21/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
125		12/21/20	16	698A	CL	15.5	111.0	16.7	109.9	128.2	8	99	95	1 / 4	A
126		12/21/20	16	698A	CL	15.5	111.0	17.5	108.7	127.7	8	98	95	1 / 4	A
127		12/21/20	16	698A	CL	15.5	111.0	17.6	109.7	129.0	8	99	95	1 / 4	A
128		12/21/20	16	698A	CL	15.5	111.0	17.3	108.6	127.4	8	98	95	1 / 4	A
129		12/21/20	16	698A	CL	15.5	111.0	16.9	109.9	128.5	8	99	95	1 / 4	A
130		12/21/20	16	698A	CL	15.5	111.0	18.0	108.4	127.9	8	98	95	1 / 4	A
131		12/21/20	16	698A	CL	15.5	111.0	17.3	109.2	128.1	8	98	95	1 / 4	A
132		12/21/20	16	698A	CL	15.5	111.0	17.7	110.2	129.7	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
125	Sub-Excavation and Backfill: Lot 2 Block 2 Filing 13 on Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
126	Sub-Excavation and Backfill: Lot 7 Block 2 Filing 13 on Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
127	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
128	Sub-Excavation and Backfill: Lot 14 Block 2 Filing 13 on Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
129	Sub-Excavation and Backfill: Lot 16 Block 2 Filing 13 on Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
130	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13 on Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
131	Sub-Excavation and Backfill: Lot 5 Block 2 Filing 13 on Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
132	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13 on Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
12/22/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
133		12/22/20	16	698A	CL	15.5	111.0	16.6	110.6	129.0	8	100	95	1 / 4	A
134		12/22/20	16	698A	CL	15.5	111.0	17.2	109.3	128.1	8	98	95	1 / 4	A
135		12/22/20	16	698A	CL	15.5	111.0	17.1	108.8	127.4	8	98	95	1 / 4	A
136		12/22/20	16	698A	CL	15.5	111.0	16.9	109.6	128.1	8	99	95	1 / 4	A
137		12/22/20	16	698A	CL	15.5	111.0	16.9	110.7	129.4	8	100	95	1 / 4	A
138		12/22/20	16	698A	CL	15.5	111.0	17.3	109.9	128.9	8	99	95	1 / 4	A
139		12/22/20	16	698A	CL	15.5	111.0	17.2	108.5	127.2	8	98	95	1 / 4	A
140		12/22/20	16	698A	CL	15.5	111.0	17.7	109.8	129.2	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
133	Sub-Excavation and Backfill: Lot 1 Block 2 Filing 13 on Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
134	Sub-Excavation and Backfill: Lot 1 Block 2 Filing 13 on Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
135	Sub-Excavation and Backfill: Lot 13 Block 2 Filing 13 on Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
136	Sub-Excavation and Backfill: Lot 11 Block 2 Filing 13 on Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
137	Sub-Excavation and Backfill: Lot 15 Block 2 Filing 13 on Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
138	Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13 on Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
139	Sub-Excavation and Backfill: Lot 16 Block 2 Filing 13 on Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
140	Sub-Excavation and Backfill: Lot 12 Block 2 Filing 13 on Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
12/22/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
141		12/22/20	16	698A	CL	15.5	111.0	18.2	108.8	128.6	8	98	95	1 / 4	A
142		12/22/20	16	698A	CL	15.5	111.0	17.7	110.2	129.7	8	99	95	1 / 4	A
143		12/22/20	16	698A	CL	15.5	111.0	17.2	109.5	128.3	8	99	95	1 / 4	A
144		12/22/20	16	698A	CL	15.5	111.0	16.8	109.5	127.9	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
141	Sub-Excavation and Backfill: Lot 3 Block 2 Filing 13 on Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
142	Sub-Excavation and Backfill: Lot 5 Block 2 Filing 13 on Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
143	Sub-Excavation and Backfill: Lot 7 Block 2 Filing 13 on Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
144	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13 on Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

144: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000013
12/31/2020
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
145		12/31/20	18	698A	CL	16.0	111.0	18.2	109.7	129.7	8	99	95	1 / 4	A
146		12/31/20	18	698A	CL	16.0	111.0	17.2	109.5	128.3	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
145	Sub-Excavation and Backfill: Lot 1 Block 3 Filing 13	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
146	Sub-Excavation and Backfill: Lot 4 Block 3 Filing 13	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

146: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000014
01/04/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
147		01/04/21	16	698A	CL	15.5	111.0	17.9	109.2	128.8	8	98	95	1 / 4	A
148		01/04/21	16	698A	CL	15.5	111.0	17.6	109.8	129.1	8	99	95	1 / 4	A
149		01/04/21	16	698A	CL	15.5	111.0	17.3	108.4	127.2	8	98	95	1 / 4	A
150		01/04/21	16	698A	CL	15.5	111.0	17.3	109.5	128.4	8	99	95	1 / 4	A
151		01/04/21	16	698A	CL	15.5	111.0	17.7	110.7	130.3	8	100	95	1 / 4	A
152		01/04/21	16	698A	CL	15.5	111.0	17.4	109.5	128.5	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
147	Sub-Excavation and Backfill: Lot 7 Block 3 Filing 13	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
148	Sub-Excavation and Backfill: Lot 3 Block 3 Filing 13	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
149	Sub-Excavation and Backfill: Lot 5 Block 3 Filing 13	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
150	Sub-Excavation and Backfill: Lot 2 Block 3 Filing 13	17.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
151	Sub-Excavation and Backfill: Lot 6 Block 3 Filing 13	16.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
152	Sub-Excavation and Backfill: Lot 9 Block 3 Filing 13 on Purple Aster Way	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

152: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000015
01/05/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
153		01/05/21	16	698A	CL	15.5	111.0	16.5	109.4	127.5	8	99	95	1 / 4	A
154		01/05/21	16	698A	CL	15.5	111.0	17.1	109.9	128.7	8	99	95	1 / 4	A
155		01/05/21	16	698A	CL	15.5	111.0	17.3	110.7	129.9	8	100	95	1 / 4	A
156		01/05/21	16	698A	CL	15.5	111.0	16.6	109.4	127.6	8	99	95	1 / 4	A
157		01/05/21	16	698A	CL	15.5	111.0	16.7	111.7	130.4	8	101	95	1 / 4	A
158		01/05/21	16	698A	CL	15.5	111.0	16.8	110.7	129.3	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
153	Sub-Excavation and Backfill: Lot 4 Block 3 Filing 13 on Purple Aster Way	14.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
154	Sub-Excavation and Backfill: Lot 1 Block 3 Filing 13 on Purple Aster Way	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
155	Sub-Excavation and Backfill: Lot 8 Block 3 Filing 13 on Purple Aster Way	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
156	Sub-Excavation and Backfill: Lot 2 Block 3 Filing 13 on Purple Aster Way	14.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
157	Sub-Excavation and Backfill: Lot 3 Block 3 Filing 13 on Purple Aster Way	13.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
158	Sub-Excavation and Backfill: Lot 5 Block 3 Filing 13 on Purple Aster Way	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

158: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000016
01/06/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
159		01/06/21	16	698A	CL	15.5	111.0	16.6	109.8	128.0	8	99	95	1 / 4	A
160		01/06/21	16	698A	CL	15.5	111.0	17.7	111.2	130.9	8	100	95	1 / 4	A
161		01/06/21	16	698A	CL	15.5	111.0	16.6	110.1	128.4	8	99	95	1 / 4	A
162		01/06/21	16	698A	CL	15.5	111.0	17.4	110.4	129.6	8	99	95	1 / 4	A
163		01/06/21	16	698A	CL	15.5	111.0	16.7	111.2	129.8	8	100	95	1 / 4	A
164		01/06/21	16	698A	CL	15.5	111.0	18.2	108.9	128.7	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
159	Sub-Excavation and Backfill: Lot 6 Block 3 Filing 13 on Purple Aster Way	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
160	Sub-Excavation and Backfill: Lot 7 Block 3 Filing 13 on Purple Aster Way	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
161	Sub-Excavation and Backfill: Lot 9 Block 3 Filing 13 on Purple Aster Way	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
162	Sub-Excavation and Backfill: Lot 2 Block 3 Filing 13 on Purple Aster Way	11.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
163	Sub-Excavation and Backfill: Lot 3 Block 3 Filing 13 on Purple Aster Way	10.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
164	Sub-Excavation and Backfill: Lot 4 Block 3 Filing 13 on Purple Aster Way	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

164: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000017
01/07/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
165		01/07/21	16	698A	CL	15.5	111.0	17.7	110.5	130.1	8	100	95	1 / 4	A
166		01/07/21	16	698A	CL	15.5	111.0	17.3	109.3	128.2	8	98	95	1 / 4	A
167		01/07/21	16	698A	CL	15.5	111.0	16.5	110.3	128.5	8	99	95	1 / 4	A
168		01/07/21	16	698A	CL	15.5	111.0	16.6	111.9	130.5	8	101	95	1 / 4	A
169		01/07/21	16	698A	CL	15.5	111.0	16.6	111.1	129.5	8	100	95	1 / 4	A
170		01/07/21	16	698A	CL	15.5	111.0	16.8	109.2	127.6	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
165	Sub-Excavation and Backfill: Lot 5 Block 3 Filing 13 on Purple Aster Way	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
166	Sub-Excavation and Backfill: Lot 6 Block 3 Filing 13 on Purple Aster Way	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
167	Sub-Excavation and Backfill: Lot 7 Block 3 Filing 13 on Purple Aster Way	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
168	Sub-Excavation and Backfill: Lot 1 Block 3 Filing 13 on Purple Aster Way	8.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
169	Sub-Excavation and Backfill: Lot 8 Block 3 Filing 13 on Purple Aster Way	7.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
170	Sub-Excavation and Backfill: Lot 2 Block 3 Filing 13 on Purple Aster Way	6.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

170: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000018
01/08/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
171		01/08/21	16	698A	CL	15.5	111.0	17.0	109.1	127.7	8	98	95	1 / 4	A
172		01/08/21	16	698A	CL	15.5	111.0	17.2	109.7	128.6	8	99	95	1 / 4	A
173		01/08/21	16	698A	CL	15.5	111.0	17.5	110.4	129.7	8	99	95	1 / 4	A
174		01/08/21	16	698A	CL	15.5	111.0	17.2	111.1	130.2	8	100	95	1 / 4	A
175		01/08/21	16	698A	CL	15.5	111.0	18.0	108.6	128.2	8	98	95	1 / 4	A
176		01/08/21	16	698A	CL	15.5	111.0	17.0	110.0	128.7	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
171	Sub-Excavation and Backfill: Lot 3 Block 3 Filing 13 on Purple Aster Way	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
172	Sub-Excavation and Backfill: Lot 4 Block 3 Filing 13 on Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
173	Sub-Excavation and Backfill: Lot 5 Block 3 Filing 13 on Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
174	Sub-Excavation and Backfill: Lot 6 Block 3 Filing 13 on Purple Aster Way	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
175	Sub-Excavation and Backfill: Lot 7 Block 3 Filing 13 on Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
176	Sub-Excavation and Backfill: Lot 5 Block 3 Filing 13 on Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

176: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with equipment traffic.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000019
01/11/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
177		01/11/21	7	698A	CL	16.5	107.5	17.6	109.0	128.2	8	101	95	1 / 4	A
178		01/11/21	16	698A	CL	15.5	111.0	17.2	110.8	129.9	8	100	95	1 / 4	A
179		01/11/21	16	698A	CL	15.5	111.0	17.1	109.6	128.3	8	99	95	1 / 4	A
180		01/11/21	16	698A	CL	15.5	111.0	16.8	111.5	130.2	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
177	Sub-Excavation and Backfill: Lot 9 Block 3 Filing 13 on Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
178	Sub-Excavation and Backfill: Lot 3 Block 3 Filing 13 on Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
179	Sub-Excavation and Backfill: Lot 1 Block 3 Filing 13 on Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
180	Sub-Excavation and Backfill: Lot 4 Block 3 Filing 13 on Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000020
01/12/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
229		01/12/21	18	698A	CL	16.0	111.0	17.1	110.1	128.9	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
229	Sub-Excavation and Backfill: Lot 10 Block 3 Filing 13 on Purple Aster Way	18.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000021
01/13/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
230		01/13/21	18	698A	CL	16.0	111.0	17.7	109.7	129.1	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
230	Sub-Excavation and Backfill: Lot 12 Block 3 Filing 13 on Purple Aster Way	15.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000022
01/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
231		01/14/21	10	ASTM D698B	CL	18.0	107.0	19.3	106.9	127.5	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
231	Sub-Excavation and Backfill: Lot 14 Block 3 Filing 13 on Purple Aster Way	12.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000023
01/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
232		01/15/21	4	ASTM D698B	SC	12.0	118.5	13.5	116.9	132.7	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
232	Sub-Excavation and Backfill: Lot 16 Block 3 Filing 13 on Purple Aster Way	9.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000024
01/25/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
181		01/25/21	5	698A	SC	13.5	114.5	14.5	114.6	131.2	8	100	95	-2 / 2	A
182		01/25/21	3	ASTM D698B	SC	12.5	117.0	13.8	116.1	132.1	8	99	95	-2 / 2	A
183		01/25/21	15	ASTM D698A	CL	16.5	111.5	17.6	110.3	129.7	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
181	Street Sub-Excavation and Backfill: W of Lot 1 Block 1 Filing 13 on Alpine Phlox Street	6.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
182	Street Sub-Excavation and Backfill: W of Lot 1 Block 2 Filing 13 on Alpine Phlox Street	8.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
183	Street Sub-Excavation and Backfill: W of Lot 11 Block 2 Filing 13 on Alpine Phlox Street	4.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

183: As requested by Kelley Trucking, site visits were made to observe and test street sub-excavation and backfill. We observed the contractor place fill with the scrapers, tractor with discs, and water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000025
01/26/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
184		01/26/21	14	ASTM D698A	SC	11.0	120.5	12.2	119.2	133.7	6	99	95	-2 / 2	A
185		01/26/21	17	698A	SC	12.5	117.5	14.2	117.4	134.1	6	100	95	-2 / 2	A
186		01/26/21	16	698A	CL	15.5	111.0	16.8	106.4	124.3	6	96	95	1 / 4	A
187		01/26/21	5	698A	SC	13.5	114.5	12.9	110.0	124.2	6	96	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
184	Sub-Excavation and Backfill: Lot 15 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
185	Sub-Excavation and Backfill: Lot 14 Block 3 Filing 13	3.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
186	Sub-Excavation and Backfill: Lot 10 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
187	Sub-Excavation and Backfill: Lot 12 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

187: As requested by Mike with Kelley Trucking, site visits were made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scrapers, tractor with discs, and water truck. Clumps of clay were found in fill with temperature of 30*F (air temperature 22*F); snowed night before/morning. Tests on center of fill was good, ramp to fill was dry. It was recommended placement stop, but contractor wanted to keep placing. Dry spots across fill were encountered and contractor was told to stop placing fill, add moisture, process fill extra due to ground/air temperature, and wheel roll before continuing.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000026
01/27/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
188		01/27/21	16	698A	CL	15.5	111.0	16.9	109.2	127.7	6	98	95	1 / 4	A
189		01/27/21	16	698A	CL	15.5	111.0	17.7	109.9	129.4	6	99	95	1 / 4	A
190		01/27/21	16	698A	CL	15.5	111.0	16.5	110.0	128.1	6	99	95	1 / 4	A
191		01/27/21	17	698A	SC	12.5	117.5	13.9	114.9	130.9	6	98	95	-2 / 2	A
192		01/27/21	5	698A	SC	13.5	114.5	15.5	113.8	131.4	6	99	95	-2 / 2	A
193		01/27/21	15	ASTM D698A	CL	16.5	111.5	17.8	111.9	131.8	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
188	Sub-Excavation and Backfill: Lot 11 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
189	Sub-Excavation and Backfill: Lot 10 Block 3 Filing 13	8.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
190	Sub-Excavation and Backfill: Lot 11 Block 3 Filing 13	7.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
191	Sub-Excavation and Backfill: Lot 11 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
192	Sub-Excavation and Backfill: Lot 12 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
193	Sub-Excavation and Backfill: Lot 13 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

193: As requested by Mike with Kelley Trucking, site visits were made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scrapers, tractor with discs, and water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000027
01/28/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
194		01/28/21	10	ASTM D698B	CL	18.0	107.0	19.6	107.4	128.4	8	100	95	1 / 4	A
195		01/28/21	10	ASTM D698B	CL	18.0	107.0	20.4	105.9	127.5	8	99	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
194	Sub-Excavation and Backfill: N of Lot 3 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2027 / 01/07/2021	Burke, Jackson
195	Sub-Excavation and Backfill: N of Lot 1 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2027 / 01/07/2021	Burke, Jackson

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

195: As requested by Rick with Kelley Trucking, site visits were made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scrapers, add moisture with the water truck, and process the fill with the tractors. Compactive effort was applied with the scrapers.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000028
01/29/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
196		01/29/21	8	698A	CL	18.0	109.0	20.1	105.4	126.6	8	97	95	1 / 4	A
197		01/29/21	16	698A	CL	15.5	111.0	16.9	109.2	127.7	8	98	95	1 / 4	A
198		01/29/21	8	698A	CL	18.0	109.0	20.8	103.6	125.2	8	95	95	1 / 4	A
199		01/29/21	8	698A	CL	18.0	109.0	20.4	103.8	125.0	8	95	95	1 / 4	A
200		01/29/21	7	698A	CL	16.5	107.5	19.3	104.4	124.5	8	97	95	1 / 4	A
201		01/29/21	16	698A	CL	15.5	111.0	17.3	108.1	126.8	8	97	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
196	Sub-Excavation and Backfill: Lot 10 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
197	Sub-Excavation and Backfill: Lot 13 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
198	Sub-Excavation and Backfill: Lot 11 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
199	Sub-Excavation and Backfill: Lot 10 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
200	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
201	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

201: As requested by Mike with Kelley Trucking, site visits were made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scrapers, water truck, and tractor with discs.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000029
02/01/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
202		02/01/21	16	698A	CL	15.5	111.0	17.1	111.0	130.0	8	100	95	1 / 4	A
203		02/01/21	15	ASTM D698A	CL	16.5	111.5	18.2	109.1	129.0	8	98	95	1 / 4	A
204		02/01/21	5	698A	SC	13.5	114.5	15.2	114.6	132.0	8	100	95	-2 / 2	A
205		02/01/21	18	698A	CL	16.0	111.0	17.2	112.1	131.4	8	101	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
202	Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
203	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
204	Sub-Excavation and Backfill: Lot 12 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas
205	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2417 / 04/20/2020	Meritt, Nicolas

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000030
02/02/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
206		02/02/21	8	698A	CL	18.0	109.0	19.0	108.3	128.9	8	99	95	1 / 4	A
207		02/02/21	8	698A	CL	18.0	109.0	19.4	108.8	129.9	8	100	95	1 / 4	A
208		02/02/21	8	698A	CL	18.0	109.0	19.2	108.1	128.9	8	99	95	1 / 4	A
209		02/02/21	8	698A	CL	18.0	109.0	20.7	107.0	129.1	8	98	95	1 / 4	A
210		02/02/21	7	698A	CL	16.5	107.5	17.8	108.8	128.2	8	101	95	1 / 4	A
211		02/02/21	7	698A	CL	16.5	107.5	18.1	108.1	127.7	8	101	95	1 / 4	A
212		02/02/21	7	698A	CL	16.5	107.5	19.0	108.5	129.1	8	101	95	1 / 4	A
213		02/02/21	7	698A	CL	16.5	107.5	19.8	107.7	129.0	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
206	Sub-Excavation and Backfill: Lot 10 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
207	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
208	Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
209	Sub-Excavation and Backfill: Lot 19 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
210	Sub-Excavation and Backfill: Lot 11 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
211	Sub-Excavation and Backfill: Lot 13 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
212	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
213	Sub-Excavation and Backfill: Lot 12 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000030
02/02/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
214		02/02/21	7	698A	CL	16.5	107.5	20.1	108.5	130.3	8	101	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
214	Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

214: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with the tractor.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000031
02/03/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
215		02/03/21	5	698A	SC	13.5	114.5	15.1	114.9	132.2	8	100	95	-2 / 2	A
216		02/03/21	5	698A	SC	13.5	114.5	15.2	115.9	133.5	8	101	95	-2 / 2	A
217		02/03/21	5	698A	SC	13.5	114.5	14.7	114.9	131.8	8	100	95	-2 / 2	A
218		02/03/21	5	698A	SC	13.5	114.5	15.0	114.3	131.5	8	100	95	-2 / 2	A
219		02/03/21	5	698A	SC	13.5	114.5	15.1	113.7	130.9	8	99	95	-2 / 2	A
220		02/03/21	5	698A	SC	13.5	114.5	14.6	114.9	131.7	8	100	95	-2 / 2	A
221		02/03/21	8	698A	CL	18.0	109.0	19.8	107.5	128.8	8	99	95	1 / 4	A
222		02/03/21	8	698A	CL	18.0	109.0	19.5	106.8	127.6	8	98	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
215	Street Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
216	Street Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
217	Street Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
218	Street Sub-Excavation and Backfill: Lot 18 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
219	Street Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
220	Sub-Excavation and Backfill: Lot 9 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
221	Sub-Excavation and Backfill: Lot 13 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
222	Sub-Excavation and Backfill: Lot 13 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000031
02/03/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
223		02/03/21	8	698A	CL	18.0	109.0	19.6	107.9	129.0	8	99	95	1 / 4	A
224		02/03/21	10	ASTM D698B	CL	18.0	107.0	20.4	107.5	129.4	8	100	95	1 / 4	A
225		02/03/21	10	ASTM D698B	CL	18.0	107.0	19.4	107.2	128.0	8	100	95	1 / 4	A
226		02/03/21	10	ASTM D698B	CL	18.0	107.0	20.0	107.7	129.2	8	101	95	1 / 4	A
227		02/03/21	16	698A	CL	15.5	111.0	17.3	109.6	128.6	8	99	95	1 / 4	A
228		02/03/21	16	698A	CL	15.5	111.0	17.9	110.9	130.7	8	100	95	1 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
223	Sub-Excavation and Backfill: Lot 13 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
224	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
225	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
226	Sub-Excavation and Backfill: Lot 14 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
227	Sub-Excavation and Backfill: Lot 12 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse
228	Sub-Excavation and Backfill: Lot 12 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/14/2020	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

228: As requested by Mike with Kelley Trucking, a site visit was made to observe and test sub-excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck, and process the fill with the tractor with discs. Compactive effort was applied with the tractor.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000032
10/26/2021
Report Date: 01/05/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-310
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
233		10/26/21	2	ASTM D698C	SC	10.5	121.0	8.8	123.2	134.0	8	102	95	-2 / 2	A
234		10/26/21	2	ASTM D698C	SC	10.5	121.0	10.0	120.6	132.6	8	100	95	-2 / 2	A
235		10/26/21	2	ASTM D698C	SC	10.5	121.0	8.5	120.7	130.9	8	100	95	-2 / 2	A
236		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.2	120.7	131.8	8	100	95	-2 / 2	A
237		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.0	120.7	131.6	8	100	95	-2 / 2	A
238		10/26/21	2	ASTM D698C	SC	10.5	121.0	11.8	121.0	135.3	8	100	95	-2 / 2	A
239		10/26/21	2	ASTM D698C	SC	10.5	121.0	10.0	121.0	133.1	8	100	95	-2 / 2	A
240		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.6	120.4	132.0	8	100	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
233	Sub-Excavation and Backfill: Block 5 Lot 4	6.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
234	Sub-Excavation and Backfill: Block 5 Lot 2	6.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
235	Sub-Excavation and Backfill: Block 2 Lot 20	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
236	Sub-Excavation and Backfill: Block 2 Lot 18	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
237	Sub-Excavation and Backfill: Block 5 Lot 6	5.5	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
238	Sub-Excavation and Backfill: Block 5 Lot 3	5.5	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
239	Sub-Excavation and Backfill: Block 2 Lot 19	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
240	Sub-Excavation and Backfill: Block 2 Lot 17	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

240: As requested by Sheryl with JBS, a site visit was made to observe and test sub excavation and backfill. We observed the contractor place fill with the scraper, add moisture with the water truck and apply compactive effort with the tractor disc.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000001
06/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
1		06/09/21	5	698A	SC	13.5	114.5	14.7	114.8	131.7	8	100	100	-2 / 2	A
2		06/09/21	5	698A	SC	13.5	114.5	14.5	114.2	130.8	8	100	100	-2 / 2	A
3		06/09/21	5	698A	SC	13.5	114.5	15.5	115.8	133.7	8	101	100	-2 / 2	A
4		06/09/21	17	698A	SC	12.5	117.5	12.9	117.4	132.5	8	100	100	-2 / 2	A
5		06/09/21	17	698A	SC	12.5	117.5	12.9	118.5	133.8	8	101	100	-2 / 2	A
6		06/09/21	17	698A	SC	12.5	117.5	11.0	117.3	130.2	8	100	100	-2 / 2	A
7		06/09/21	17	698A	SC	12.5	117.5	12.8	118.5	133.7	8	101	100	-2 / 2	A
8		06/09/21	17	698A	SC	12.5	117.5	14.3	117.1	133.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Sanitary Trench Backfill: Lot 16 Block 3 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
2	Sanitary Trench Backfill: Lot 16 Block 3 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
3	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
4	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
5	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
6	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
7	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
8	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver, CO 80204
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Compaction Test Report

Report #: SNG-000001
06/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
9		06/09/21	17	698A	SC	12.5	117.5	12.4	117.0	131.5	8	100	100	-2 / 2	A
10		06/09/21	17	698A	SC	12.5	117.5	11.4	117.2	130.6	8	100	100	-2 / 2	A
11		06/09/21	17	698A	SC	12.5	117.5	11.9	117.5	131.5	8	100	100	-2 / 2	A
12		06/09/21	17	698A	SC	12.5	117.5	12.8	117.7	132.8	8	100	100	-2 / 2	A
13		06/09/21	17	698A	SC	12.5	117.5	12.8	117.3	132.3	8	100	100	-2 / 2	A
14		06/09/21	17	698A	SC	12.5	117.5	12.5	119.0	133.9	8	101	100	-2 / 2	A
15		06/09/21	17	698A	SC	12.5	117.5	12.0	117.7	131.8	8	100	100	-2 / 2	A
16		06/09/21	17	698A	SC	12.5	117.5	13.8	117.8	134.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
9	Sanitary Trench Backfill: Service line. Lot 16 Block 3 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
10	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
11	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
12	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
13	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
14	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
15	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
16	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000001
06/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
17		06/09/21	17	698A	SC	12.5	117.5	12.7	117.6	132.5	8	100	100	-2 / 2	A
18		06/09/21	17	698A	SC	12.5	117.5	13.0	118.4	133.8	8	101	100	-2 / 2	A
19		06/09/21	17	698A	SC	12.5	117.5	14.1	118.1	134.7	8	101	100	-2 / 2	A
20		06/09/21	17	698A	SC	12.5	117.5	12.9	118.0	133.2	8	100	100	-2 / 2	A
21		06/09/21	17	698A	SC	12.5	117.5	13.0	118.4	133.8	8	101	100	-2 / 2	A
22		06/09/21	17	698A	SC	12.5	117.5	12.2	118.5	132.9	8	101	100	-2 / 2	A
23		06/09/21	17	698A	SC	12.5	117.5	12.5	119.1	134.0	8	101	100	-2 / 2	A
24		06/09/21	17	698A	SC	12.5	117.5	12.6	117.3	132.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
17	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
18	Sanitary Trench Backfill: Service line. Lot 16 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
19	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
20	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
21	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
22	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
23	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
24	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000001
06/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
25		06/09/21	17	698A	SC	12.5	117.5	12.1	117.0	131.1	8	100	100	-2 / 2	A
26		06/09/21	17	698A	SC	12.5	117.5	12.7	117.9	132.9	8	100	100	-2 / 2	A
27		06/09/21	17	698A	SC	12.5	117.5	11.8	119.5	133.6	8	102	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
25	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
26	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
27	Sanitary Trench Backfill: Service line. Lot 15 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

27: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000002
06/10/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
28		06/10/21	17	698A	SC	12.5	117.5	11.9	117.0	130.9	8	100	100	-2 / 2	A
29		06/10/21	17	698A	SC	12.5	117.5	12.1	117.4	131.6	8	100	100	-2 / 2	A
30		06/10/21	17	698A	SC	12.5	117.5	12.9	118.2	133.5	8	101	100	-2 / 2	A
31		06/10/21	17	698A	SC	12.5	117.5	11.9	117.7	131.7	8	100	100	-2 / 2	A
32		06/10/21	17	698A	SC	12.5	117.5	12.4	118.9	133.7	8	101	100	-2 / 2	A
33		06/10/21	17	698A	SC	12.5	117.5	12.0	117.1	131.1	8	100	100	-2 / 2	A
34		06/10/21	17	698A	SC	12.5	117.5	12.4	118.2	132.9	8	101	100	-2 / 2	A
35		06/10/21	17	698A	SC	12.5	117.5	11.8	117.5	131.4	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
28	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
29	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
30	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
31	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
32	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
33	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
34	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
35	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000002
06/10/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
36		06/10/21	17	698A	SC	12.5	117.5	12.1	119.4	133.8	8	102	100	-2 / 2	A
37		06/10/21	7	698A	CL	16.5	107.5	17.2	107.5	126.0	8	100	95	0 / 4	A
38		06/10/21	7	698A	CL	16.5	107.5	16.9	107.3	125.4	8	100	95	0 / 4	A
39		06/10/21	7	698A	CL	16.5	107.5	17.5	108.0	126.9	8	100	95	0 / 4	A
40		06/10/21	7	698A	CL	16.5	107.5	18.1	108.1	127.7	8	101	95	0 / 4	A
41		06/10/21	7	698A	CL	16.5	107.5	17.9	106.4	125.4	8	99	95	0 / 4	A
42		06/10/21	7	698A	CL	16.5	107.5	17.3	106.3	124.7	8	99	95	0 / 4	A
43		06/10/21	7	698A	CL	16.5	107.5	16.8	108.1	126.3	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
36	Sanitary Trench Backfill: Service line, Lot 14 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
37	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
38	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
39	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
40	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
41	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
42	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
43	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000002
06/10/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
44		06/10/21	7	698A	CL	16.5	107.5	18.3	105.5	124.8	8	98	95	0 / 4	A
45		06/10/21	7	698A	CL	16.5	107.5	17.9	107.4	126.6	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
44	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
45	Sanitary Trench Backfill: Lot 13 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

45: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000003
06/11/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
46		06/11/21	7	698A	CL	16.5	107.5	17.8	105.6	124.4	8	98	95	0 / 4	A
47		06/11/21	7	698A	CL	16.5	107.5	17.4	107.0	125.6	8	100	95	0 / 4	A
48		06/11/21	7	698A	CL	16.5	107.5	17.5	106.6	125.3	8	99	95	0 / 4	A
49		06/11/21	7	698A	CL	16.5	107.5	18.0	105.3	124.3	8	98	95	0 / 4	A
50		06/11/21	7	698A	CL	16.5	107.5	17.9	107.0	126.1	8	100	95	0 / 4	A
51		06/11/21	7	698A	CL	16.5	107.5	18.3	106.1	125.5	8	99	95	0 / 4	A
52		06/11/21	7	698A	CL	16.5	107.5	18.6	107.0	126.9	8	100	95	0 / 4	A
53		06/11/21	7	698A	CL	16.5	107.5	17.5	108.8	127.8	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
46	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
47	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
48	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
49	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
50	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
51	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
52	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
53	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000003
06/11/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
54		06/11/21	7	698A	CL	16.5	107.5	17.4	106.0	124.4	8	99	95	0 / 4	A
55		06/11/21	7	698A	CL	16.5	107.5	17.1	105.9	124.0	8	99	95	0 / 4	A
56		06/11/21	7	698A	CL	16.5	107.5	17.5	106.6	125.3	8	99	95	0 / 4	A
57		06/11/21	7	698A	CL	16.5	107.5	17.9	105.6	124.5	8	98	95	0 / 4	A
58		06/11/21	7	698A	CL	16.5	107.5	17.6	106.3	125.0	8	99	95	0 / 4	A
59		06/11/21	7	698A	CL	16.5	107.5	18.2	106.0	125.3	8	99	95	0 / 4	A
60		06/11/21	7	698A	CL	16.5	107.5	18.1	106.9	126.2	8	99	95	0 / 4	A
61		06/11/21	7	698A	CL	16.5	107.5	17.2	106.7	125.1	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
54	Sanitary Trench Backfill: Lot 12 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
55	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
56	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
57	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
58	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
59	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
60	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
61	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000003
06/11/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
62		06/11/21	7	698A	CL	16.5	107.5	17.0	105.9	123.9	8	99	95	0 / 4	A
63		06/11/21	7	698A	CL	16.5	107.5	17.1	105.7	123.8	8	98	95	0 / 4	A
64		06/11/21	7	698A	CL	16.5	107.5	18.2	106.5	125.9	8	99	95	0 / 4	A
65		06/11/21	7	698A	CL	16.5	107.5	17.5	105.8	124.3	8	98	95	0 / 4	A
66		06/11/21	7	698A	CL	16.5	107.5	18.5	106.9	126.7	8	99	95	0 / 4	A
67		06/11/21	7	698A	CL	16.5	107.5	16.5	108.8	126.8	8	101	95	0 / 4	A
68		06/11/21	7	698A	CL	16.5	107.5	17.2	107.1	125.5	8	100	95	0 / 4	A
69		06/11/21	7	698A	CL	16.5	107.5	16.6	107.1	124.9	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
62	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
63	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
64	Sanitary Trench Backfill: Lot 11 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
65	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
66	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
67	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
68	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
69	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000003
06/11/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
70		06/11/21	7	698A	CL	16.5	107.5	16.8	106.2	124.0	8	99	95	0 / 4	A
71		06/11/21	7	698A	CL	16.5	107.5	17.7	107.0	125.9	8	100	95	0 / 4	A
72		06/11/21	7	698A	CL	16.5	107.5	17.9	106.9	126.0	8	99	95	0 / 4	A
73		06/11/21	7	698A	CL	16.5	107.5	17.1	107.1	125.4	8	100	95	0 / 4	A
74		06/11/21	7	698A	CL	16.5	107.5	17.9	107.7	127.0	8	100	95	0 / 4	A
75		06/11/21	7	698A	CL	16.5	107.5	18.1	105.9	125.1	8	99	95	0 / 4	A
76		06/11/21	7	698A	CL	16.5	107.5	17.6	107.1	126.0	8	100	95	0 / 4	A
77		06/11/21	7	698A	CL	16.5	107.5	17.7	107.6	126.6	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
70	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
71	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
72	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
73	Sanitary Trench Backfill: Lot 10 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
74	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
75	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
76	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
77	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000003
06/11/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
78		06/11/21	7	698A	CL	16.5	107.5	17.5	107.3	126.1	8	100	95	0 / 4	A
79		06/11/21	7	698A	CL	16.5	107.5	16.8	106.4	124.3	8	99	95	0 / 4	A
80		06/11/21	7	698A	CL	16.5	107.5	16.9	108.6	126.9	8	101	95	0 / 4	A
81		06/11/21	7	698A	CL	16.5	107.5	18.1	106.6	125.9	8	99	95	0 / 4	A
82		06/11/21	7	698A	CL	16.5	107.5	18.9	107.4	127.7	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
78	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
79	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
80	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
81	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
82	Sanitary Trench Backfill: Lot 10 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

82: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000004
06/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
83		06/14/21	7	698A	CL	16.5	107.5	17.1	106.8	125.1	8	99	95	0 / 4	A
84		06/14/21	7	698A	CL	16.5	107.5	17.7	106.7	125.6	8	99	95	0 / 4	A
85		06/14/21	7	698A	CL	16.5	107.5	17.4	106.2	124.7	8	99	95	0 / 4	A
86		06/14/21	7	698A	CL	16.5	107.5	17.6	107.9	126.9	8	100	95	0 / 4	A
87		06/14/21	7	698A	CL	16.5	107.5	17.1	107.4	125.8	8	100	95	0 / 4	A
88		06/14/21	7	698A	CL	16.5	107.5	17.9	107.7	127.0	8	100	95	0 / 4	A
89		06/14/21	7	698A	CL	16.5	107.5	16.8	107.2	125.2	8	100	95	0 / 4	A
90		06/14/21	7	698A	CL	16.5	107.5	18.1	106.6	125.9	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
83	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
84	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
85	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
86	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
87	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
88	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
89	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
90	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Denver
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Compaction Test Report

Report #: SNG-000004
06/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
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Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
91		06/14/21	7	698A	CL	16.5	107.5	16.9	106.8	124.8	8	99	95	0 / 4	A
92		06/14/21	7	698A	CL	16.5	107.5	18.4	107.4	127.2	8	100	95	0 / 4	A
93		06/14/21	7	698A	CL	16.5	107.5	18.5	106.7	126.4	8	99	95	0 / 4	A
94		06/14/21	7	698A	CL	16.5	107.5	16.7	107.6	125.6	8	100	95	0 / 4	A
95		06/14/21	7	698A	CL	16.5	107.5	17.4	106.4	124.9	8	99	95	0 / 4	A
96		06/14/21	7	698A	CL	16.5	107.5	17.6	107.1	126.0	8	100	95	0 / 4	A
97		06/14/21	7	698A	CL	16.5	107.5	18.4	106.7	126.3	8	99	95	0 / 4	A
98		06/14/21	7	698A	CL	16.5	107.5	17.6	105.7	124.3	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
91	Sanitary Trench Backfill: Lot 9 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
92	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
93	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
94	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
95	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
96	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
97	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
98	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Compaction Test Report

Report #: SNG-000004
06/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
99		06/14/21	7	698A	CL	16.5	107.5	17.7	106.1	124.9	8	99	95	0 / 4	A
100		06/14/21	7	698A	CL	16.5	107.5	16.6	107.4	125.2	8	100	95	0 / 4	A
101		06/14/21	7	698A	CL	16.5	107.5	18.4	108.1	128.0	8	101	95	0 / 4	A
102		06/14/21	7	698A	CL	16.5	107.5	18.8	108.1	128.4	8	101	95	0 / 4	A
103		06/14/21	7	698A	CL	16.5	107.5	17.5	108.3	127.2	8	101	95	0 / 4	A
104		06/14/21	7	698A	CL	16.5	107.5	17.1	107.7	126.1	8	100	95	0 / 4	A
105		06/14/21	7	698A	CL	16.5	107.5	17.5	107.8	126.7	8	100	95	0 / 4	A
106		06/14/21	7	698A	CL	16.5	107.5	18.3	107.0	126.6	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
99	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
100	Sanitary Trench Backfill: Lot 8 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
101	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
102	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
103	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
104	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
105	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
106	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000004
06/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
107		06/14/21	7	698A	CL	16.5	107.5	16.6	108.9	127.0	8	101	95	0 / 4	A
108		06/14/21	7	698A	CL	16.5	107.5	17.4	106.9	125.5	8	99	95	0 / 4	A
109		06/14/21	7	698A	CL	16.5	107.5	17.2	108.4	127.0	8	101	95	0 / 4	A
110		06/14/21	7	698A	CL	16.5	107.5	17.5	108.6	127.6	8	101	95	0 / 4	A
111		06/14/21	7	698A	CL	16.5	107.5	18.2	108.5	128.2	8	101	95	0 / 4	A
112		06/14/21	7	698A	CL	16.5	107.5	17.8	107.9	127.1	8	100	95	0 / 4	A
113		06/14/21	7	698A	CL	16.5	107.5	16.9	109.0	127.4	8	101	95	0 / 4	A
114		06/14/21	7	698A	CL	16.5	107.5	16.9	108.5	126.8	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
107	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
108	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
109	Sanitary Trench Backfill: Lot 7 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
110	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
111	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
112	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
113	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
114	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000004
06/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
115		06/14/21	7	698A	CL	16.5	107.5	17.7	108.2	127.3	8	101	95	0 / 4	A
116		06/14/21	7	698A	CL	16.5	107.5	17.1	108.9	127.5	8	101	95	0 / 4	A
117		06/14/21	7	698A	CL	16.5	107.5	19.0	107.8	128.3	8	100	95	0 / 4	A
118		06/14/21	7	698A	CL	16.5	107.5	18.0	106.1	125.2	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
115	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
116	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
117	Sanitary Trench Backfill: Lot 6 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
118	Sanitary Trench Backfill: Service line. Lot 6 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

118: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000005
06/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
119		06/15/21	7	698A	CL	16.5	107.5	17.5	107.7	126.6	8	100	95	0 / 4	A
120		06/15/21	7	698A	CL	16.5	107.5	17.9	106.9	126.0	8	99	95	0 / 4	A
121		06/15/21	7	698A	CL	16.5	107.5	18.0	107.9	127.3	8	100	95	0 / 4	A
122		06/15/21	7	698A	CL	16.5	107.5	17.5	106.9	125.6	8	99	95	0 / 4	A
123		06/15/21	7	698A	CL	16.5	107.5	17.0	106.9	125.1	8	99	95	0 / 4	A
124		06/15/21	7	698A	CL	16.5	107.5	17.3	107.7	126.3	8	100	95	0 / 4	A
125		06/15/21	7	698A	CL	16.5	107.5	17.9	106.7	125.8	8	99	95	0 / 4	A
126		06/15/21	7	698A	CL	16.5	107.5	18.2	105.5	124.7	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
119	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
120	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
121	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
122	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
123	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
124	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
125	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
126	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000005
06/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
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East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
127		06/15/21	7	698A	CL	16.5	107.5	17.6	105.9	124.5	8	99	95	0 / 4	A
128		06/15/21	7	698A	CL	16.5	107.5	16.9	108.5	126.8	8	101	95	0 / 4	A
129		06/15/21	7	698A	CL	16.5	107.5	17.8	108.7	128.0	8	101	95	0 / 4	A
130		06/15/21	7	698A	CL	16.5	107.5	17.6	108.3	127.4	8	101	95	0 / 4	A
131		06/15/21	7	698A	CL	16.5	107.5	17.4	106.7	125.3	8	99	95	0 / 4	A
132		06/15/21	7	698A	CL	16.5	107.5	17.7	107.1	126.1	8	100	95	0 / 4	A
133		06/15/21	7	698A	CL	16.5	107.5	18.4	106.8	126.5	8	99	95	0 / 4	A
134		06/15/21	7	698A	CL	16.5	107.5	17.8	106.0	124.9	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
127	Sanitary Trench Backfill: Service line, Lot 5 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
128	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
129	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
130	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
131	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
132	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
133	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
134	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000005
06/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
135		06/15/21	7	698A	CL	16.5	107.5	18.2	105.5	124.7	8	98	95	0 / 4	A
136		06/15/21	7	698A	CL	16.5	107.5	17.1	106.1	124.2	8	99	95	0 / 4	A
137		06/15/21	7	698A	CL	16.5	107.5	17.7	108.3	127.5	8	101	95	0 / 4	A
138		06/15/21	7	698A	CL	16.5	107.5	18.0	107.3	126.6	8	100	95	0 / 4	A
139		06/15/21	7	698A	CL	16.5	107.5	18.1	105.8	125.0	8	98	95	0 / 4	A
140		06/15/21	7	698A	CL	16.5	107.5	17.2	106.9	125.3	8	99	95	0 / 4	A
141		06/15/21	7	698A	CL	16.5	107.5	18.4	107.9	127.8	8	100	95	0 / 4	A
142		06/15/21	7	698A	CL	16.5	107.5	16.9	107.7	125.9	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
135	Sanitary Trench Backfill: Service line, Lot 4 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
136	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
137	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
138	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
139	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
140	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
141	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
142	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000005
06/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
143		06/15/21	7	698A	CL	16.5	107.5	19.3	108.3	129.2	8	101	95	0 / 4	A
144		06/15/21	7	698A	CL	16.5	107.5	17.4	108.1	126.9	8	101	95	0 / 4	A
145		06/15/21	7	698A	CL	16.5	107.5	18.2	105.6	124.8	8	98	95	0 / 4	A
146		06/15/21	7	698A	CL	16.5	107.5	18.0	106.1	125.2	8	99	95	0 / 4	A
147		06/15/21	7	698A	CL	16.5	107.5	18.4	106.1	125.6	8	99	95	0 / 4	A
148		06/15/21	7	698A	CL	16.5	107.5	17.8	106.1	125.0	8	99	95	0 / 4	A
149		06/15/21	7	698A	CL	16.5	107.5	17.1	108.2	126.7	8	101	95	0 / 4	A
150		06/15/21	7	698A	CL	16.5	107.5	16.5	108.4	126.3	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
143	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
144	Sanitary Trench Backfill: Service line, Lot 3 Block 1 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
145	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
146	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
147	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
148	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
149	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
150	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Compaction Test Report

Report #: SNG-000005
06/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
151		06/15/21	7	698A	CL	16.5	107.5	18.1	107.6	127.1	8	100	95	0 / 4	A
152		06/15/21	7	698A	CL	16.5	107.5	17.0	108.5	126.9	8	101	95	0 / 4	A
153		06/15/21	7	698A	CL	16.5	107.5	17.3	106.9	125.4	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
151	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
152	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
153	Sanitary Trench Backfill: Service line, Lot 8 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

153: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000006
06/16/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
154		06/16/21	1	ASTM D698C	SC	10.5	122.0	9.8	132.0	145.0	8	108	100	NA	D

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
154	Cancelled on Site: Sanitary sewer trench backfill			XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks

D: Test result is considered acceptable with no moisture requirement.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

154: As requested by Edgar with JBS, two site visits were made to observe and test sanitary sewer trench backfill. No backfill was prepared for testing during either of our visits and no tests were performed.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000007
06/17/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
155		06/17/21	17	698A	SC	12.5	117.5	11.4	119.5	133.1	8	102	100	-2 / 2	A
156		06/17/21	17	698A	SC	12.5	117.5	11.7	118.8	132.7	8	101	100	-2 / 2	A
157		06/17/21	17	698A	SC	12.5	117.5	12.1	117.3	131.5	8	100	100	-2 / 2	A
158		06/17/21	17	698A	SC	12.5	117.5	12.9	117.6	132.8	8	100	100	-2 / 2	A
159		06/17/21	17	698A	SC	12.5	117.5	13.3	117.7	133.3	8	100	100	-2 / 2	A
160		06/17/21	17	698A	SC	12.5	117.5	14.3	117.8	134.7	8	100	100	-2 / 2	A
161		06/17/21	17	698A	SC	12.5	117.5	12.6	120.3	135.5	8	102	100	-2 / 2	A
162		06/17/21	17	698A	SC	12.5	117.5	13.5	117.9	133.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
155	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
156	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
157	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
158	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
159	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
160	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
161	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
162	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
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Compaction Test Report

Report #: SNG-000007
06/17/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
163		06/17/21	17	698A	SC	12.5	117.5	14.5	118.9	136.1	8	101	100	-2 / 2	A
164		06/17/21	17	698A	SC	12.5	117.5	13.6	118.2	134.3	8	101	100	-2 / 2	A
165		06/17/21	17	698A	SC	12.5	117.5	10.6	117.4	129.9	8	100	100	-2 / 2	A
166		06/17/21	17	698A	SC	12.5	117.5	13.2	117.0	132.4	8	100	100	-2 / 2	A
167		06/17/21	17	698A	SC	12.5	117.5	12.5	117.3	132.0	8	100	100	-2 / 2	A
168		06/17/21	17	698A	SC	12.5	117.5	14.1	117.1	133.6	8	100	100	-2 / 2	A
169		06/17/21	17	698A	SC	12.5	117.5	13.4	118.3	134.1	8	101	100	-2 / 2	A
170		06/17/21	17	698A	SC	12.5	117.5	12.5	117.2	131.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
163	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
164	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
165	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
166	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
167	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
168	Sanitary Trench Backfill: Service trench for L2 B3 F13, Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
169	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
170	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000007
06/17/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
171		06/17/21	17	698A	SC	12.5	117.5	11.0	117.3	130.2	8	100	100	-2 / 2	A
172		06/17/21	17	698A	SC	12.5	117.5	14.4	118.6	135.7	8	101	100	-2 / 2	A
173		06/17/21	17	698A	SC	12.5	117.5	13.2	117.9	133.5	8	100	100	-2 / 2	A
174		06/17/21	17	698A	SC	12.5	117.5	12.6	118.0	132.9	8	100	100	-2 / 2	A
175		06/17/21	17	698A	SC	12.5	117.5	12.1	119.9	134.4	8	102	100	-2 / 2	A
176		06/17/21	17	698A	SC	12.5	117.5	12.0	119.8	134.2	8	102	100	-2 / 2	A
177		06/17/21	17	698A	SC	12.5	117.5	11.7	117.2	130.9	8	100	100	-2 / 2	A
178		06/17/21	17	698A	SC	12.5	117.5	12.7	118.7	133.8	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
171	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
172	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
173	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
174	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
175	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
176	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
177	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
178	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000007
06/17/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
179		06/17/21	17	698A	SC	12.5	117.5	13.0	117.2	132.4	8	100	100	-2 / 2	A
180		06/17/21	17	698A	SC	12.5	117.5	10.8	118.1	130.8	8	101	100	-2 / 2	A
181		06/17/21	17	698A	SC	12.5	117.5	12.9	118.2	133.4	8	101	100	-2 / 2	A
182		06/17/21	17	698A	SC	12.5	117.5	12.8	117.3	132.3	8	100	100	-2 / 2	A
183		06/17/21	17	698A	SC	12.5	117.5	13.6	118.1	134.2	8	101	100	-2 / 2	A
184		06/17/21	17	698A	SC	12.5	117.5	13.8	117.7	133.9	8	100	100	-2 / 2	A
185		06/17/21	17	698A	SC	12.5	117.5	11.5	118.1	131.7	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
179	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
180	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
181	Sanitary Trench Backfill: SS STA 10+50, Sky Pilot Avenue	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
182	Sanitary Trench Backfill: SS STA 10+55, Sky Pilot Avenue	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
183	Sanitary Trench Backfill: SS STA 10+75, Sky Pilot Avenue	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
184	Sanitary Trench Backfill: SS STA 10+60, Sky Pilot Avenue	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
185	Sanitary Trench Backfill: SS STA 10+80, Sky Pilot Avenue	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

185: As requested by Edgar with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor process/place fill with the loader, add moisture with the water truck, and apply compactive effort with the rex roller. We recommended/observed the contractor add additional moisture to and reprocess the fill in areas where our initial tests indicated the fill did not meet project specifications.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000008
06/18/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
186		06/18/21	17	698A	SC	12.5	117.5	13.4	117.3	133.0	8	100	100	-2 / 2	A
187		06/18/21	17	698A	SC	12.5	117.5	13.5	117.6	133.5	8	100	100	-2 / 2	A
188		06/18/21	17	698A	SC	12.5	117.5	10.5	117.5	129.8	8	100	100	-2 / 2	A
189		06/18/21	17	698A	SC	12.5	117.5	14.2	118.8	135.7	8	101	100	-2 / 2	A
190		06/18/21	17	698A	SC	12.5	117.5	11.9	117.7	131.7	8	100	100	-2 / 2	A
191		06/18/21	17	698A	SC	12.5	117.5	13.7	118.0	134.2	8	100	100	-2 / 2	A
192		06/18/21	17	698A	SC	12.5	117.5	11.5	117.3	130.8	8	100	100	-2 / 2	A
193		06/18/21	17	698A	SC	12.5	117.5	11.1	118.4	131.5	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
186	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
187	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
188	Sanitary Trench Backfill: Service trench for L1 B2 F13, Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
189	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
190	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
191	Sanitary Trench Backfill: Service trench for L1 B1 F13, Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
192	Sanitary Trench Backfill: Service trench for L2 B1 F13, Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
193	Sanitary Trench Backfill: Service trench for L2 B2 F13, Sky Pilot Avenue	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
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Compaction Test Report

Report #: SNG-000008
06/18/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
194		06/18/21	17	698A	SC	12.5	117.5	14.4	118.8	135.9	8	101	100	-2 / 2	A
195		06/18/21	17	698A	SC	12.5	117.5	12.1	117.9	132.2	8	100	100	-2 / 2	A
196		06/18/21	17	698A	SC	12.5	117.5	11.5	117.6	131.1	8	100	100	-2 / 2	A
197		06/18/21	18	698A	CL	16.0	111.0	19.2	109.1	130.1	8	98	95	0 / 4	A
198		06/18/21	18	698A	CL	16.0	111.0	16.7	107.4	125.3	8	97	95	0 / 4	A
199		06/18/21	18	698A	CL	16.0	111.0	17.8	108.3	127.6	8	98	95	0 / 4	A
200		06/18/21	17	698A	SC	12.5	117.5	14.0	118.2	134.7	8	101	100	-2 / 2	A
201		06/18/21	17	698A	SC	12.5	117.5	13.3	117.5	133.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
194	Sanitary Trench Backfill: 40' SW of SSMH 115, Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
195	Sanitary Trench Backfill: 80' SW of SSMH 115, Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
196	Sanitary Trench Backfill: 60' SW of SSMH 115, Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
197	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
198	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
199	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
200	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
201	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000008
06/18/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
202		06/18/21	18	698A	CL	16.0	111.0	17.3	109.0	127.9	8	98	95	0 / 4	A
203		06/18/21	17	698A	SC	12.5	117.5	13.0	117.4	132.7	8	100	100	-2 / 2	A
204		06/18/21	17	698A	SC	12.5	117.5	13.0	118.4	133.8	8	101	100	-2 / 2	A
205		06/18/21	17	698A	SC	12.5	117.5	13.3	117.8	133.5	8	100	100	-2 / 2	A
206		06/18/21	17	698A	SC	12.5	117.5	13.0	117.3	132.6	8	100	100	-2 / 2	A
207		06/18/21	18	698A	CL	16.0	111.0	18.2	108.9	128.7	8	98	95	0 / 4	A
208		06/18/21	18	698A	CL	16.0	111.0	17.7	109.3	128.6	8	98	95	0 / 4	A
209		06/18/21	18	698A	CL	16.0	111.0	16.3	108.3	125.9	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
202	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
203	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
204	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
205	Sanitary Trench Backfill: Service trench for L16 B3 F13, Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
206	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
207	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
208	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
209	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000008
06/18/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
210		06/18/21	18	698A	CL	16.0	111.0	16.8	109.9	128.4	8	99	95	0 / 4	A
211		06/18/21	17	698A	SC	12.5	117.5	11.0	118.5	131.5	8	101	100	-2 / 2	A
212		06/18/21	17	698A	SC	12.5	117.5	12.1	119.0	133.4	8	101	100	-2 / 2	A
213		06/18/21	17	698A	SC	12.5	117.5	12.7	119.7	134.9	8	102	100	-2 / 2	A
214		06/18/21	17	698A	SC	12.5	117.5	13.2	118.5	134.2	8	101	100	-2 / 2	A
215		06/18/21	17	698A	SC	12.5	117.5	10.5	117.3	129.6	8	100	100	-2 / 2	A
216		06/18/21	17	698A	SC	12.5	117.5	11.5	117.2	130.7	8	100	100	-2 / 2	A
217		06/18/21	17	698A	SC	12.5	117.5	13.6	117.0	132.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
210	Sanitary Trench Backfill: Service trench for L14 B3 F13, Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
211	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
212	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
213	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
214	Sanitary Trench Backfill: Service trench for L15 B3 F13, Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
215	Sanitary Trench Backfill: Service trench for L14 B3 F13, Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
216	Sanitary Trench Backfill: Service trench for L14 B3 F13, Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
217	Sanitary Trench Backfill: Service trench for L14 B3 F13, Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000008
06/18/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
218		06/18/21	17	698A	SC	12.5	117.5	11.1	117.8	130.9	8	100	100	-2 / 2	A
219		06/18/21	17	698A	SC	12.5	117.5	11.8	117.6	131.5	8	100	100	-2 / 2	A
220		06/18/21	17	698A	SC	12.5	117.5	13.9	119.2	135.8	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
218	Sanitary Trench Backfill: Service trench for L14 B3 F13, Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
219	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane	12.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
220	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

220: As requested by Edgar with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor process/place fill with the loader, add moisture with the water truck, and apply compactive effort with the rex roller. We recommended/observed the contractor reprocess the fill in areas where our initial tests indicated the fill did not meet project specifications.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
06/21/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
221		06/21/21	17	698A	SC	12.5	117.5	12.9	117.5	132.7	8	100	100	-2 / 2	A
222		06/21/21	17	698A	SC	12.5	117.5	13.3	119.1	134.9	8	101	100	-2 / 2	A
223		06/21/21	17	698A	SC	12.5	117.5	12.6	117.1	131.8	8	100	100	-2 / 2	A
224		06/21/21	17	698A	SC	12.5	117.5	14.0	118.2	134.8	8	101	100	-2 / 2	A
225		06/21/21	17	698A	SC	12.5	117.5	13.0	118.3	133.7	8	101	100	-2 / 2	A
226		06/21/21	17	698A	SC	12.5	117.5	12.6	118.9	133.9	8	101	100	-2 / 2	A
227		06/21/21	17	698A	SC	12.5	117.5	12.4	117.9	132.5	8	100	100	-2 / 2	A
228		06/21/21	17	698A	SC	12.5	117.5	12.7	118.8	133.9	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
221	Sanitary Trench Backfill: Service trench for B3 L16 F13, Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
222	Sanitary Trench Backfill: Service trench for B3 L16 F13, Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
223	Sanitary Trench Backfill: Service trench for B3 L16 F13, Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
224	Sanitary Trench Backfill: Service trench for B3 L15 F13, Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
225	Sanitary Trench Backfill: Service trench for B3 L15 F13, Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
226	Sanitary Trench Backfill: Service trench for B3 L15 F13, Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
227	Sanitary Trench Backfill: Service trench for B3 L15 F13, Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
228	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
06/21/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
229		06/21/21	17	698A	SC	12.5	117.5	11.1	117.6	130.6	8	100	100	-2 / 2	A
230		06/21/21	17	698A	SC	12.5	117.5	13.8	117.7	133.9	8	100	100	-2 / 2	A
231		06/21/21	17	698A	SC	12.5	117.5	13.7	117.7	133.8	8	100	100	-2 / 2	A
232		06/21/21	16	698A	CL	15.5	111.0	16.9	109.3	127.8	8	98	95	0 / 4	A
233		06/21/21	16	698A	CL	15.5	111.0	16.1	109.3	126.9	8	98	95	0 / 4	A
234		06/21/21	17	698A	SC	12.5	117.5	12.6	117.1	131.8	8	100	100	-2 / 2	A
235		06/21/21	17	698A	SC	12.5	117.5	12.1	118.2	132.5	8	101	100	-2 / 2	A
236		06/21/21	17	698A	SC	12.5	117.5	12.1	117.4	131.6	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
229	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
230	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
231	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
232	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
233	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
234	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
235	Sanitary Trench Backfill: Service trench for B3 L14 F13, Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
236	Sanitary Trench Backfill: Service trench for B3 L13 F13, Sky Pilot Lane	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
06/21/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
237		06/21/21	17	698A	SC	12.5	117.5	11.5	117.5	131.0	8	100	100	-2 / 2	A
238		06/21/21	17	698A	SC	12.5	117.5	13.9	119.0	135.6	8	101	100	-2 / 2	A
239		06/21/21	16	698A	CL	15.5	111.0	17.5	109.6	128.8	8	99	95	0 / 4	A
240		06/21/21	17	698A	SC	12.5	117.5	13.4	117.4	133.1	8	100	100	-2 / 2	A
241		06/21/21	17	698A	SC	12.5	117.5	11.5	117.5	131.0	8	100	100	-2 / 2	A
242		06/21/21	17	698A	SC	12.5	117.5	12.9	119.0	134.4	8	101	100	-2 / 2	A
243		06/21/21	17	698A	SC	12.5	117.5	12.3	119.2	133.9	8	101	100	-2 / 2	A
244		06/21/21	17	698A	SC	12.5	117.5	13.5	117.1	132.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
237	Sanitary Trench Backfill: Service trench for B3 L13 F13, Sky Pilot Lane	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
238	Sanitary Trench Backfill: Service trench for B3 L13 F13, Sky Pilot Lane	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
239	Sanitary Trench Backfill: Service trench for B3 L13 F13, Sky Pilot Lane	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
240	Sanitary Trench Backfill: Service trench for B3 L13 F13, Sky Pilot Lane	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
241	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 150' S SSMH 115	12.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
242	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 130' S SSMH 115	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
243	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 110' S SSMH 115	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
244	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 130' S SSMH 115	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
06/21/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
245		06/21/21	17	698A	SC	12.5	117.5	14.0	118.9	135.6	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
245	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 100' S SSMH 115	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

245: As requested by Edgar with JBS a site visit was made to observe and test sanitary sewer trench backfill. Materials were placed/processed with loader, compaction was applied with Rex roller, and moisture was added with water truck. Recommended/observed contractors add additional moisture & reprocess fill in areas where materials initially failed to meet project specifications.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
06/22/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
246		06/22/21	17	698A	SC	12.5	117.5	11.1	117.7	130.8	8	100	100	-2 / 2	A
247		06/22/21	17	698A	SC	12.5	117.5	10.7	117.2	129.7	8	100	100	-2 / 2	A
248		06/22/21	17	698A	SC	12.5	117.5	13.5	117.7	133.6	8	100	100	-2 / 2	A
249		06/22/21	17	698A	SC	12.5	117.5	11.9	118.7	132.8	8	101	100	-2 / 2	A
250		06/22/21	17	698A	SC	12.5	117.5	12.0	119.3	133.6	8	102	100	-2 / 2	A
251		06/22/21	16	698A	CL	15.5	111.0	16.7	107.9	125.9	8	97	95	0 / 4	A
252		06/22/21	16	698A	CL	15.5	111.0	16.2	110.1	127.9	8	99	95	0 / 4	A
253		06/22/21	17	698A	SC	12.5	117.5	12.5	117.1	131.7	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
246	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 140' S SSMH 115	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
247	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 120' S SSMH 115	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
248	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 180' S SSMH 115	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
249	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 170' S SSMH 115	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
250	Sanitary Trench Backfill: Mainline, Sky Pilot Lane. 80' S SSMH 115	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
251	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
252	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
253	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000010
06/22/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
254		06/22/21	17	698A	SC	12.5	117.5	10.6	117.4	129.9	8	100	100	-2 / 2	A
255		06/22/21	16	698A	CL	15.5	111.0	16.4	109.7	127.7	8	99	95	0 / 4	A
256		06/22/21	17	698A	SC	12.5	117.5	13.4	117.6	133.4	8	100	100	-2 / 2	A
257		06/22/21	17	698A	SC	12.5	117.5	11.8	120.1	134.3	8	102	100	-2 / 2	A
258		06/22/21	17	698A	SC	12.5	117.5	11.3	120.0	133.6	8	102	100	-2 / 2	A
259		06/22/21	17	698A	SC	12.5	117.5	11.9	118.9	133.1	8	101	100	-2 / 2	A
260		06/22/21	17	698A	SC	12.5	117.5	12.5	118.9	133.8	8	101	100	-2 / 2	A
261		06/22/21	17	698A	SC	12.5	117.5	12.5	119.3	134.2	8	102	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
254	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
255	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
256	Sanitary Trench Backfill: Service trench for L13 B3 F13, Sky Pilot Lane.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
257	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
258	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
259	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
260	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
261	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Compaction Test Report

Report #: SNG-000010
06/22/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
262		06/22/21	17	698A	SC	12.5	117.5	12.6	120.2	135.3	8	102	100	-2 / 2	A
263		06/22/21	17	698A	SC	12.5	117.5	13.2	118.6	134.2	8	101	100	-2 / 2	A
264		06/22/21	18	698A	CL	16.0	111.0	17.6	109.6	128.9	8	99	95	0 / 4	A
265		06/22/21	18	698A	CL	16.0	111.0	18.1	108.8	128.5	8	98	95	0 / 4	A
266		06/22/21	17	698A	SC	12.5	117.5	13.7	117.1	133.2	8	100	100	-2 / 2	A
267		06/22/21	17	698A	SC	12.5	117.5	14.0	118.2	134.8	8	101	100	-2 / 2	A
268		06/22/21	17	698A	SC	12.5	117.5	11.9	117.7	131.7	8	100	100	-2 / 2	A
269		06/22/21	17	698A	SC	12.5	117.5	12.4	118.1	132.8	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
262	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
263	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
264	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
265	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
266	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
267	Sanitary Trench Backfill: Service trench for L12 B3 F13, Sky Pilot Lane.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
268	Manhole: 10' S SSMH 76, Filing 13.	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
269	Manhole: 10' NE SSMH 76, Filing 13.	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
06/22/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
270		06/22/21	17	698A	SC	12.5	117.5	13.8	118.2	134.5	8	101	100	-2 / 2	A
271		06/22/21	17	698A	SC	12.5	117.5	14.4	118.1	135.1	8	101	100	-2 / 2	A
272		06/22/21	17	698A	SC	12.5	117.5	14.0	117.4	133.8	8	100	100	-2 / 2	A
273		06/22/21	17	698A	SC	12.5	117.5	14.2	118.2	135.0	8	101	100	-2 / 2	A
274		06/22/21	17	698A	SC	12.5	117.5	13.4	119.2	135.2	8	101	100	-2 / 2	A
275		06/22/21	17	698A	SC	12.5	117.5	12.9	117.8	133.0	8	100	100	-2 / 2	A
276		06/22/21	17	698A	SC	12.5	117.5	12.4	118.1	132.8	8	101	100	-2 / 2	A
277		06/22/21	17	698A	SC	12.5	117.5	13.7	117.9	134.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
270	Manhole: 10' S SSMH 115, Filing 13.	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
271	Manhole: 10' SW SSMH 115, Filing 13.	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
272	Manhole: 10' NW SSMH 115, Filing 13.	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
273	Manhole: 10' NE SSMH 115, Filing 13.	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
274	Manhole: 10' S SSMH 115, Filing 13.	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
275	Manhole: 10' NW SSMH 115, Filing 13.	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
276	Manhole: 10' E SSMH 115, Filing 13.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
277	Manhole: 10' W SSMH 115, Filing 13.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Compaction Test Report

Report #: SNG-000010
06/22/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
278		06/22/21	17	698A	SC	12.5	117.5	14.3	118.5	135.4	8	101	100	-2 / 2	A
279		06/22/21	17	698A	SC	12.5	117.5	13.4	117.8	133.6	8	100	100	-2 / 2	A
280		06/22/21	17	698A	SC	12.5	117.5	13.3	119.5	135.4	8	102	100	-2 / 2	A
281		06/22/21	17	698A	SC	12.5	117.5	13.6	118.1	134.2	8	101	100	-2 / 2	A
282		06/22/21	16	698A	CL	15.5	111.0	16.8	109.1	127.4	8	98	95	0 / 4	A
283		06/22/21	16	698A	CL	15.5	111.0	16.5	109.4	127.4	8	99	95	0 / 4	A
284		06/22/21	16	698A	CL	15.5	111.0	17.2	109.1	127.9	8	98	95	0 / 4	A
285		06/22/21	16	698A	CL	15.5	111.0	16.2	108.1	125.6	8	97	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
278	Manhole: 10' SW SSMH 115, Filing 13.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
279	Manhole: 10' N SSMH 115, Filing 13.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
280	Manhole: 10' E SSMH 115, Filing 13.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
281	Manhole: 10' S SSMH 115, Filing 13.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
282	Manhole: 10' S SSMH 225, Filing 13.	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
283	Manhole: 10' N SSMH 225, Filing 13.	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
284	Manhole: 15' E SSMH 225, Filing 13.	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
285	Manhole: 10' E SSMH 225, Filing 13.	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
06/22/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
286		06/22/21	16	698A	CL	15.5	111.0	15.6	108.2	125.1	8	97	95	0 / 4	A
287		06/22/21	14	ASTM D698A	SC	11.0	120.5	10.2	121.1	133.5	8	100	100	-2 / 2	A
288		06/22/21	14	ASTM D698A	SC	11.0	120.5	11.0	120.8	134.1	8	100	100	-2 / 2	A
289		06/22/21	14	ASTM D698A	SC	11.0	120.5	12.1	120.3	134.9	8	100	100	-2 / 2	A
290		06/22/21	14	ASTM D698A	SC	11.0	120.5	12.2	120.5	135.2	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
286	Manhole: 15' W SSMH 225, Filing 13.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
287	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
288	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
289	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
290	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

290: As requested by Edgar with JBS a site visit was made to observe and test sanitary sewer trench and manhole backfill. Materials were placed/processed with loader, compaction was applied with Rex roller, and moisture was added with water truck. Recommended/observed contractors recompact fill in areas where materials initially failed to meet project specifications (mostly around manholes).

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Compaction Test Report

Report #: SNG-000011
06/23/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
291		06/23/21	14	ASTM D698A	SC	11.0	120.5	12.2	120.5	135.2	8	100	100	-2 / 2	A
292		06/23/21	14	ASTM D698A	SC	11.0	120.5	12.3	121.3	136.2	8	101	100	-2 / 2	A
293		06/23/21	17	698A	SC	12.5	117.5	13.1	117.5	132.9	8	100	100	-2 / 2	A
294		06/23/21	17	698A	SC	12.5	117.5	12.3	118.1	132.6	8	101	100	-2 / 2	A
295		06/23/21	17	698A	SC	12.5	117.5	12.9	118.4	133.7	8	101	100	-2 / 2	A
296		06/23/21	16	698A	CL	15.5	111.0	17.1	109.1	127.8	8	98	95	0 / 4	A
297		06/23/21	17	698A	SC	12.5	117.5	10.7	117.9	130.5	8	100	100	-2 / 2	A
298		06/23/21	16	698A	CL	15.5	111.0	17.4	109.3	128.3	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
291	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
292	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
293	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
294	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
295	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
296	Sanitary Trench Backfill: Service trench B3 L11 F13, Sky Pilot Lane.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
297	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	11.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
298	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	10.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000011
06/23/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
299		06/23/21	16	698A	CL	15.5	111.0	17.7	108.7	127.9	8	98	95	0 / 4	A
300		06/23/21	17	698A	SC	12.5	117.5	12.6	118.6	133.5	8	101	100	-2 / 2	A
301		06/23/21	17	698A	SC	12.5	117.5	14.0	118.5	135.1	8	101	100	-2 / 2	A
302		06/23/21	17	698A	SC	12.5	117.5	12.8	119.2	134.4	8	101	100	-2 / 2	A
303		06/23/21	17	698A	SC	12.5	117.5	11.7	117.1	130.8	8	100	100	-2 / 2	A
304		06/23/21	17	698A	SC	12.5	117.5	12.9	117.1	132.2	8	100	100	-2 / 2	A
305		06/23/21	16	698A	CL	15.5	111.0	15.5	108.5	125.3	8	98	95	0 / 4	A
306		06/23/21	17	698A	SC	12.5	117.5	12.4	117.9	132.5	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
299	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	9.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
300	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
301	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
302	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
303	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
304	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
305	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
306	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
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Client:
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Project:
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Trails at Crowfoot, Filing 13
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Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
307		06/23/21	17	698A	SC	12.5	117.5	12.9	118.1	133.3	8	101	100	-2 / 2	A
308		06/23/21	16	698A	CL	15.5	111.0	15.6	107.7	124.5	8	97	95	0 / 4	A
309		06/23/21	17	698A	SC	12.5	117.5	14.0	118.5	135.1	8	101	100	-2 / 2	A
310		06/23/21	16	698A	CL	15.5	111.0	16.9	109.1	127.5	8	98	95	0 / 4	A
311		06/23/21	16	698A	CL	15.5	111.0	18.0	109.8	129.6	8	99	95	0 / 4	A
312		06/23/21	17	698A	SC	12.5	117.5	13.8	117.2	133.4	8	100	100	-2 / 2	A
313		06/23/21	16	698A	CL	15.5	111.0	17.4	110.1	129.3	8	99	95	0 / 4	A
314		06/23/21	17	698A	SC	12.5	117.5	10.9	118.6	131.5	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
307	Sanitary Trench Backfill: Service trench B3 L10 F13, Sky Pilot Lane.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
308	Manhole: 5' S SSMH 72, Filing 13.	8.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
309	Manhole: 15' N SSMH 72, Filing 13.	7.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
310	Manhole: 10' W SSMH 72, Filing 13.	6.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
311	Manhole: 10' E SSMH 72, Filing 13.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
312	Manhole: 10' S SSMH 72, Filing 13.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
313	Manhole: 10' SE SSMH 72, Filing 13.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
314	Manhole: 10' NW SSMH 72, Filing 13.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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06/23/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
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Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
315		06/23/21	17	698A	SC	12.5	117.5	10.8	117.1	129.7	8	100	100	-2 / 2	A
316		06/23/21	16	698A	CL	15.5	111.0	16.7	108.4	126.5	8	98	95	0 / 4	A
317		06/23/21	16	698A	CL	15.5	111.0	18.0	107.8	127.2	8	97	95	0 / 4	A
318		06/23/21	16	698A	CL	15.5	111.0	16.9	108.6	126.9	8	98	95	0 / 4	A
319		06/23/21	16	698A	CL	15.5	111.0	17.6	107.9	126.9	8	97	95	0 / 4	A
320		06/23/21	16	698A	CL	15.5	111.0	17.7	108.8	128.1	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
315	Manhole: 10' W SSMH 72, Filing 13.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
316	Manhole: 10' SE SSMH 225, Filing 13.	5.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
317	Manhole: 10' SW SSMH 225, Filing 13.	4.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
318	Manhole: 10' NW SSMH 225, Filing 13.	3.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
319	Manhole: 10' E SSMH 225, Filing 13.	2.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley
320	Manhole: 15' N SSMH 225, Filing 13.	1.0	BG	XPLORER / 3500 / 1990 / 08/18/2020	Lamers, Riley

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

320: As requested by Edgar with JBS a site visit was made to observe and test sanitary sewer trench and manhole backfill. Materials were placed/processed with loader, compaction was applied with Rex roller, and moisture was added with water truck. Recommended/observed contractors reprocess fill in areas where materials initially failed to meet project specifications.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000012
06/24/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
321		06/24/21	5	698A	SC	13.5	114.5	13.5	114.2	129.6	8	100	100	-2 / 2	A
322		06/24/21	5	698A	SC	13.5	114.5	13.2	114.3	129.4	8	100	100	-2 / 2	A
323		06/24/21	5	698A	SC	13.5	114.5	13.9	114.9	130.9	8	100	100	-2 / 2	A
324		06/24/21	5	698A	SC	13.5	114.5	13.2	114.2	129.3	8	100	100	-2 / 2	A
325		06/24/21	5	698A	SC	13.5	114.5	14.1	114.9	131.1	8	100	100	-2 / 2	A
326		06/24/21	5	698A	SC	13.5	114.5	14.4	115.3	131.9	8	101	100	-2 / 2	A
327		06/24/21	5	698A	SC	13.5	114.5	13.0	114.4	129.3	8	100	100	-2 / 2	A
328		06/24/21	5	698A	SC	13.5	114.5	13.3	114.6	129.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
321	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
322	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
323	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
324	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
325	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
326	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
327	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
328	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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329		06/24/21	5	698A	SC	13.5	114.5	14.9	114.8	131.9	8	100	100	-2 / 2	A
330		06/24/21	5	698A	SC	13.5	114.5	13.8	115.0	130.9	8	100	100	-2 / 2	A
331		06/24/21	5	698A	SC	13.5	114.5	14.6	115.3	132.1	8	101	100	-2 / 2	A
332		06/24/21	5	698A	SC	13.5	114.5	12.9	114.1	128.8	8	100	100	-2 / 2	A
333		06/24/21	5	698A	SC	13.5	114.5	13.1	114.5	129.5	8	100	100	-2 / 2	A
334		06/24/21	5	698A	SC	13.5	114.5	14.3	114.8	131.2	8	100	100	-2 / 2	A
335		06/24/21	5	698A	SC	13.5	114.5	13.0	114.0	128.8	8	100	100	-2 / 2	A
336		06/24/21	5	698A	SC	13.5	114.5	14.4	114.2	130.7	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
329	Sanitary Trench Backfill: Service line. Lot 19. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
330	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
331	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
332	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
333	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
334	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
335	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
336	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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337		06/24/21	5	698A	SC	13.5	114.5	12.4	114.4	128.6	8	100	100	-2 / 2	A
338		06/24/21	5	698A	SC	13.5	114.5	13.0	114.3	129.2	8	100	100	-2 / 2	A
339		06/24/21	5	698A	SC	13.5	114.5	15.1	115.0	132.4	8	100	100	-2 / 2	A
340		06/24/21	5	698A	SC	13.5	114.5	13.2	114.5	129.6	8	100	100	-2 / 2	A
341		06/24/21	5	698A	SC	13.5	114.5	13.2	114.2	129.3	8	100	100	-2 / 2	A
342		06/24/21	5	698A	SC	13.5	114.5	14.0	114.6	130.7	8	100	100	-2 / 2	A
343		06/24/21	5	698A	SC	13.5	114.5	12.5	114.0	128.3	8	100	100	-2 / 2	A
344		06/24/21	5	698A	SC	13.5	114.5	13.4	114.9	130.3	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
337	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
338	Sanitary Trench Backfill: Service line. Lot 18. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
339	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
340	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
341	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
342	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
343	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
344	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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345		06/24/21	5	698A	SC	13.5	114.5	13.8	114.9	130.8	8	100	100	-2 / 2	A
346		06/24/21	5	698A	SC	13.5	114.5	12.9	114.7	129.5	8	100	100	-2 / 2	A
347		06/24/21	5	698A	SC	13.5	114.5	12.8	114.2	128.8	8	100	100	-2 / 2	A
348		06/24/21	5	698A	SC	13.5	114.5	13.2	114.9	130.1	8	100	100	-2 / 2	A
349		06/24/21	5	698A	SC	13.5	114.5	14.6	114.8	131.6	8	100	100	-2 / 2	A
350		06/24/21	5	698A	SC	13.5	114.5	14.0	115.3	131.4	8	101	100	-2 / 2	A
351		06/24/21	5	698A	SC	13.5	114.5	13.0	114.1	128.9	8	100	100	-2 / 2	A
352		06/24/21	5	698A	SC	13.5	114.5	12.3	114.2	128.2	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
345	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
346	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
347	Sanitary Trench Backfill: Service line. Lot 17. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
348	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
349	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
350	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
351	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
352	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000012
06/24/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
353		06/24/21	5	698A	SC	13.5	114.5	13.5	115.2	130.7	8	101	100	-2 / 2	A
354		06/24/21	5	698A	SC	13.5	114.5	14.6	115.1	131.9	8	101	100	-2 / 2	A
355		06/24/21	5	698A	SC	13.5	114.5	14.6	114.8	131.6	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
353	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
354	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
355	Sanitary Trench Backfill: Service line. Lot 16. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000013
06/25/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
356		06/25/21	5	698A	SC	13.5	114.5	14.2	115.1	131.4	8	101	100	-2 / 2	A
357		06/25/21	5	698A	SC	13.5	114.5	13.6	115.1	130.8	8	101	100	-2 / 2	A
358		06/25/21	5	698A	SC	13.5	114.5	13.4	114.5	129.9	8	100	100	-2 / 2	A
359		06/25/21	5	698A	SC	13.5	114.5	13.5	114.3	129.7	8	100	100	-2 / 2	A
360		06/25/21	5	698A	SC	13.5	114.5	12.6	114.3	128.7	8	100	100	-2 / 2	A
361		06/25/21	5	698A	SC	13.5	114.5	12.4	114.1	128.2	8	100	100	-2 / 2	A
362		06/25/21	5	698A	SC	13.5	114.5	13.5	114.0	129.4	8	100	100	-2 / 2	A
363		06/25/21	5	698A	SC	13.5	114.5	13.2	114.2	129.3	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
356	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
357	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
358	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
359	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
360	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
361	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
362	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
363	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
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Compaction Test Report

Report #: SNG-000013
06/25/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
364		06/25/21	5	698A	SC	13.5	114.5	13.2	114.9	130.1	8	100	100	-2 / 2	A
365		06/25/21	5	698A	SC	13.5	114.5	13.3	114.2	129.4	8	100	100	-2 / 2	A
366		06/25/21	5	698A	SC	13.5	114.5	14.1	115.2	131.5	8	101	100	-2 / 2	A
367		06/25/21	5	698A	SC	13.5	114.5	12.3	114.2	128.3	8	100	100	-2 / 2	A
368		06/25/21	5	698A	SC	13.5	114.5	13.4	115.1	130.5	8	101	100	-2 / 2	A
369		06/25/21	5	698A	SC	13.5	114.5	13.1	115.7	130.9	8	101	100	-2 / 2	A
370		06/25/21	5	698A	SC	13.5	114.5	12.8	114.4	129.0	8	100	100	-2 / 2	A
371		06/25/21	5	698A	SC	13.5	114.5	13.7	114.2	129.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
364	Sanitary Trench Backfill: Service line. Lot 15. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
365	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
366	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
367	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
368	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
369	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
370	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
371	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000013
06/25/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
372		06/25/21	5	698A	SC	13.5	114.5	13.5	114.0	129.4	8	100	100	-2 / 2	A
373		06/25/21	5	698A	SC	13.5	114.5	12.3	114.5	128.6	8	100	100	-2 / 2	A
374		06/25/21	5	698A	SC	13.5	114.5	13.3	114.3	129.5	8	100	100	-2 / 2	A
375		06/25/21	5	698A	SC	13.5	114.5	12.3	114.0	128.0	8	100	100	-2 / 2	A
376		06/25/21	5	698A	SC	13.5	114.5	13.6	115.1	130.7	8	101	100	-2 / 2	A
377		06/25/21	5	698A	SC	13.5	114.5	14.7	114.5	131.3	8	100	100	-2 / 2	A
378		06/25/21	5	698A	SC	13.5	114.5	13.3	114.3	129.5	8	100	100	-2 / 2	A
379		06/25/21	5	698A	SC	13.5	114.5	12.8	115.4	130.2	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
372	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
373	Sanitary Trench Backfill: Service line. Lot 14. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
374	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
375	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
376	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
377	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
378	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
379	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000013
06/25/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
380		06/25/21	5	698A	SC	13.5	114.5	14.3	115.1	131.6	8	101	100	-2 / 2	A
381		06/25/21	5	698A	SC	13.5	114.5	13.2	115.5	130.7	8	101	100	-2 / 2	A
382		06/25/21	5	698A	SC	13.5	114.5	13.3	114.8	130.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
380	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
381	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
382	Sanitary Trench Backfill: Service line. Lot 13. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

382: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Compaction Test Report

Report #: SNG-000014
06/30/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
383		06/30/21	7	698A	CL	16.5	107.5	17.3	106.4	124.8	8	99	95	0 / 3	A
384		06/30/21	7	698A	CL	16.5	107.5	18.5	105.9	125.5	8	99	95	0 / 3	A
385		06/30/21	7	698A	CL	16.5	107.5	17.9	105.5	124.4	8	98	95	0 / 3	A
386		06/30/21	7	698A	CL	16.5	107.5	18.6	106.3	126.1	8	99	95	0 / 3	A
387		06/30/21	7	698A	CL	16.5	107.5	18.1	106.4	125.7	8	99	95	0 / 3	A
388		06/30/21	7	698A	CL	16.5	107.5	19.1	105.9	126.1	8	99	95	0 / 3	A
389		06/30/21	7	698A	CL	16.5	107.5	17.0	106.1	124.1	8	99	95	0 / 3	A
390		06/30/21	7	698A	CL	16.5	107.5	17.7	107.7	126.8	8	100	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
383	Sanitary Trench Backfill: East of Alpine Phlox St. Lot 11 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
384	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
385	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
386	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
387	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
388	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
389	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
390	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
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Compaction Test Report

Report #: SNG-000014
06/30/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
391		06/30/21	7	698A	CL	16.5	107.5	18.7	106.7	126.6	8	99	95	0 / 3	A
392		06/30/21	7	698A	CL	16.5	107.5	18.0	106.2	125.3	8	99	95	0 / 3	A
393		06/30/21	7	698A	CL	16.5	107.5	17.9	105.3	124.2	8	98	95	0 / 3	A
394		06/30/21	7	698A	CL	16.5	107.5	17.9	106.4	125.4	8	99	95	0 / 3	A
395		06/30/21	7	698A	CL	16.5	107.5	18.5	107.2	127.0	8	100	95	0 / 3	A
396		06/30/21	7	698A	CL	16.5	107.5	18.0	108.0	127.4	8	100	95	0 / 3	A
397		06/30/21	7	698A	CL	16.5	107.5	17.2	109.1	127.9	8	101	95	0 / 3	A
398		06/30/21	7	698A	CL	16.5	107.5	17.3	108.1	126.8	8	101	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
391	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 11 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
392	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
393	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
394	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
395	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
396	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
397	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
398	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

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1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000014
06/30/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
399		06/30/21	7	698A	CL	16.5	107.5	17.8	107.1	126.2	8	100	95	0 / 3	A
400		06/30/21	7	698A	CL	16.5	107.5	18.2	107.7	127.3	8	100	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
399	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
400	Sanitary Trench Backfill: East of Alpine Phlox St. service line. Lot 12 Block 2 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

400: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000015
07/01/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
401		07/01/21	7	698A	CL	16.5	107.5	17.8	106.3	125.2	8	99	95	0 / 3	A
402		07/01/21	7	698A	CL	16.5	107.5	17.6	107.4	126.3	8	100	95	0 / 3	A
403		07/01/21	7	698A	CL	16.5	107.5	17.8	108.8	128.2	8	101	95	0 / 3	A
404		07/01/21	7	698A	CL	16.5	107.5	18.2	106.7	126.1	8	99	95	0 / 3	A
405		07/01/21	7	698A	CL	16.5	107.5	17.5	107.1	125.8	8	100	95	0 / 3	A
406		07/01/21	7	698A	CL	16.5	107.5	18.0	106.8	126.0	8	99	95	0 / 3	A
407		07/01/21	7	698A	CL	16.5	107.5	17.0	106.3	124.4	8	99	95	0 / 3	A
408		07/01/21	7	698A	CL	16.5	107.5	16.8	106.2	124.0	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
401	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
402	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
403	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
404	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
405	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
406	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
407	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
408	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000015
07/01/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
409		07/01/21	7	698A	CL	16.5	107.5	17.5	106.3	124.9	8	99	95	0 / 3	A
410		07/01/21	7	698A	CL	16.5	107.5	18.2	106.7	126.1	8	99	95	0 / 3	A
411		07/01/21	7	698A	CL	16.5	107.5	18.3	105.9	125.3	8	99	95	0 / 3	A
412		07/01/21	7	698A	CL	16.5	107.5	17.5	107.3	126.1	8	100	95	0 / 3	A
413		07/01/21	7	698A	CL	16.5	107.5	17.9	107.5	126.7	8	100	95	0 / 3	A
414		07/01/21	7	698A	CL	16.5	107.5	17.9	107.8	127.1	8	100	95	0 / 3	A
415		07/01/21	7	698A	CL	16.5	107.5	18.3	106.9	126.5	8	99	95	0 / 3	A
416		07/01/21	7	698A	CL	16.5	107.5	18.7	106.5	126.4	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
409	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 1 Block 3 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
410	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
411	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
412	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
413	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
414	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
415	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
416	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000015
07/01/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
417		07/01/21	7	698A	CL	16.5	107.5	17.6	106.3	125.0	8	99	95	0 / 3	A
418		07/01/21	7	698A	CL	16.5	107.5	18.4	106.9	126.6	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
417	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
418	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 2 Block 3 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

418: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000016
07/02/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
419		07/02/21	7	698A	CL	16.5	107.5	18.0	106.6	125.8	8	99	95	0 / 3	A
420		07/02/21	7	698A	CL	16.5	107.5	18.4	106.3	125.9	8	99	95	0 / 3	A
421		07/02/21	7	698A	CL	16.5	107.5	17.1	107.8	126.2	8	100	95	0 / 3	A
422		07/02/21	7	698A	CL	16.5	107.5	17.4	105.9	124.3	8	99	95	0 / 3	A
423		07/02/21	7	698A	CL	16.5	107.5	17.2	106.7	125.1	8	99	95	0 / 3	A
424		07/02/21	7	698A	CL	16.5	107.5	17.9	107.1	126.3	8	100	95	0 / 3	A
425		07/02/21	7	698A	CL	16.5	107.5	17.7	107.3	126.3	8	100	95	0 / 3	A
426		07/02/21	7	698A	CL	16.5	107.5	17.3	106.5	124.9	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
419	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
420	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
421	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
422	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
423	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
424	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
425	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
426	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000016
07/02/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
427		07/02/21	7	698A	CL	16.5	107.5	17.2	107.1	125.5	8	100	95	0 / 3	A
428		07/02/21	7	698A	CL	16.5	107.5	17.9	105.3	124.1	8	98	95	0 / 3	A
429		07/02/21	7	698A	CL	16.5	107.5	17.8	106.4	125.3	8	99	95	0 / 3	A
430		07/02/21	7	698A	CL	16.5	107.5	17.9	107.4	126.6	8	100	95	0 / 3	A
431		07/02/21	7	698A	CL	16.5	107.5	17.4	107.3	126.0	8	100	95	0 / 3	A
432		07/02/21	7	698A	CL	16.5	107.5	16.9	108.6	127.0	8	101	95	0 / 3	A
433		07/02/21	7	698A	CL	16.5	107.5	16.5	110.0	128.1	8	102	95	0 / 3	A
434		07/02/21	7	698A	CL	16.5	107.5	17.3	106.5	124.9	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
427	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 3 Block 3 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
428	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
429	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
430	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
431	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
432	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
433	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
434	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000016
07/02/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
435		07/02/21	7	698A	CL	16.5	107.5	17.5	107.9	126.8	8	100	95	0 / 3	A
436		07/02/21	7	698A	CL	16.5	107.5	18.6	106.8	126.7	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
435	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
436	Sanitary Trench Backfill: Purple Aster Way. service line. Lot 4 Block 3 Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

436: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. The Crowfoot site. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000017
07/06/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
437		07/06/21	7	698A	CL	16.5	107.5	18.6	106.7	126.5	8	99	95	0 / 4	A
438		07/06/21	7	698A	CL	16.5	107.5	18.1	107.9	127.4	8	100	95	0 / 4	A
439		07/06/21	7	698A	CL	16.5	107.5	17.3	109.1	128.0	8	101	95	0 / 4	A
440		07/06/21	7	698A	CL	16.5	107.5	17.7	107.7	126.8	8	100	95	0 / 4	A
441		07/06/21	7	698A	CL	16.5	107.5	17.5	107.5	126.3	8	100	95	0 / 4	A
442		07/06/21	7	698A	CL	16.5	107.5	18.5	106.0	125.6	8	99	95	0 / 4	A
443		07/06/21	7	698A	CL	16.5	107.5	17.6	106.0	124.7	8	99	95	0 / 4	A
444		07/06/21	7	698A	CL	16.5	107.5	17.4	105.7	124.1	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
437	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
438	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
439	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
440	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
441	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
442	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
443	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
444	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000017
07/06/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
445		07/06/21	7	698A	CL	16.5	107.5	17.4	107.3	126.0	8	100	95	0 / 4	A
446		07/06/21	7	698A	CL	16.5	107.5	17.1	108.4	126.9	8	101	95	0 / 4	A
447		07/06/21	7	698A	CL	16.5	107.5	16.7	106.5	124.3	8	99	95	0 / 4	A
448		07/06/21	7	698A	CL	16.5	107.5	16.6	106.2	123.8	8	99	95	0 / 4	A
449		07/06/21	7	698A	CL	16.5	107.5	17.2	107.1	125.5	8	100	95	0 / 4	A
450		07/06/21	7	698A	CL	16.5	107.5	17.5	106.0	124.5	8	99	95	0 / 4	A
451		07/06/21	7	698A	CL	16.5	107.5	17.0	105.4	123.3	8	98	95	0 / 4	A
452		07/06/21	7	698A	CL	16.5	107.5	17.5	106.7	125.4	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
445	Sanitary Trench Backfill: Service, Lot 5 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
446	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
447	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
448	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
449	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
450	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
451	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
452	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

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Compaction Test Report

Report #: SNG-000017
07/06/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
453		07/06/21	7	698A	CL	16.5	107.5	16.8	106.0	123.8	8	99	95	0 / 4	A
454		07/06/21	7	698A	CL	16.5	107.5	17.6	106.8	125.6	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
453	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
454	Sanitary Trench Backfill: Service, Lot 6 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

454: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000018
07/07/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
455		07/07/21	7	698A	CL	16.5	107.5	16.8	107.3	125.3	8	100	95	0 / 4	A
456		07/07/21	7	698A	CL	16.5	107.5	17.0	108.3	126.7	8	101	95	0 / 4	A
457		07/07/21	7	698A	CL	16.5	107.5	17.1	106.2	124.4	8	99	95	0 / 4	A
458		07/07/21	7	698A	CL	16.5	107.5	17.7	107.9	127.0	8	100	95	0 / 4	A
459		07/07/21	7	698A	CL	16.5	107.5	17.0	107.2	125.4	8	100	95	0 / 4	A
460		07/07/21	7	698A	CL	16.5	107.5	17.0	106.6	124.7	8	99	95	0 / 4	A
461		07/07/21	7	698A	CL	16.5	107.5	17.7	106.6	125.5	8	99	95	0 / 4	A
462		07/07/21	7	698A	CL	16.5	107.5	17.5	106.3	124.9	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
455	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
456	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
457	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
458	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
459	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
460	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
461	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
462	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000018
07/07/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
463		07/07/21	7	698A	CL	16.5	107.5	17.7	107.3	126.3	8	100	95	0 / 4	A
464		07/07/21	7	698A	CL	16.5	107.5	17.4	107.4	126.1	8	100	95	0 / 4	A
465		07/07/21	7	698A	CL	16.5	107.5	18.0	107.1	126.4	8	100	95	0 / 4	A
466		07/07/21	7	698A	CL	16.5	107.5	18.4	106.0	125.5	8	99	95	0 / 4	A
467		07/07/21	7	698A	CL	16.5	107.5	17.1	106.4	124.6	8	99	95	0 / 4	A
468		07/07/21	7	698A	CL	16.5	107.5	18.4	106.8	126.5	8	99	95	0 / 4	A
469		07/07/21	7	698A	CL	16.5	107.5	18.3	107.3	126.9	8	100	95	0 / 4	A
470		07/07/21	7	698A	CL	16.5	107.5	18.3	105.8	125.2	8	98	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
463	Sanitary Trench Backfill: Service, Lot 7 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
464	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
465	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
466	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
467	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
468	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
469	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
470	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000018
07/07/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
471		07/07/21	7	698A	CL	16.5	107.5	17.6	106.3	125.0	8	99	95	0 / 4	A
472		07/07/21	7	698A	CL	16.5	107.5	18.1	107.2	126.6	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
471	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
472	Sanitary Trench Backfill: Service, Lot 8 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

472: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

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Compaction Test Report

Report #: SNG-000019
07/08/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
473		07/08/21	7	698A	CL	16.5	107.5	18.3	105.9	125.3	8	99	95	0 / 4	A
474		07/08/21	7	698A	CL	16.5	107.5	17.9	105.3	124.2	8	98	95	0 / 4	A
475		07/08/21	7	698A	CL	16.5	107.5	18.1	105.4	124.5	8	98	95	0 / 4	A
476		07/08/21	7	698A	CL	16.5	107.5	17.6	106.3	125.0	8	99	95	0 / 4	A
477		07/08/21	7	698A	CL	16.5	107.5	17.3	108.0	126.7	8	100	95	0 / 4	A
478		07/08/21	7	698A	CL	16.5	107.5	17.1	107.6	126.0	8	100	95	0 / 4	A
479		07/08/21	7	698A	CL	16.5	107.5	17.2	107.0	125.4	8	100	95	0 / 4	A
480		07/08/21	7	698A	CL	16.5	107.5	17.6	107.3	126.2	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
473	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
474	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
475	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
476	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
477	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
478	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
479	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
480	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000019
07/08/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
481		07/08/21	7	698A	CL	16.5	107.5	16.9	107.8	126.0	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
481	Sanitary Trench Backfill: Service, Lot 9 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

481: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000020
07/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
482		07/09/21	5	698A	SC	13.5	114.5	14.0	112.8	128.6	8	99	95	-2 / 2	A
483		07/09/21	5	698A	SC	13.5	114.5	14.8	112.5	129.1	8	98	95	-2 / 2	A
484		07/09/21	5	698A	SC	13.5	114.5	13.1	112.9	127.7	8	99	95	-2 / 2	A
485		07/09/21	5	698A	SC	13.5	114.5	13.4	113.1	128.3	8	99	95	-2 / 2	A
486		07/09/21	5	698A	SC	13.5	114.5	14.4	112.8	129.0	8	99	95	-2 / 2	A
487		07/09/21	5	698A	SC	13.5	114.5	14.7	112.2	128.7	8	98	95	-2 / 2	A
488		07/09/21	5	698A	SC	13.5	114.5	13.1	113.2	128.0	8	99	95	-2 / 2	A
489		07/09/21	5	698A	SC	13.5	114.5	13.0	113.4	128.1	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
482	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
483	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
484	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
485	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
486	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
487	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
488	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
489	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000020
07/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
490		07/09/21	5	698A	SC	13.5	114.5	12.4	113.4	127.5	8	99	95	-2 / 2	A
491		07/09/21	5	698A	SC	13.5	114.5	12.7	114.3	128.8	8	100	95	-2 / 2	A
492		07/09/21	5	698A	SC	13.5	114.5	12.4	112.9	126.9	8	99	95	-2 / 2	A
493		07/09/21	5	698A	SC	13.5	114.5	12.9	114.3	129.1	8	100	95	-2 / 2	A
494		07/09/21	5	698A	SC	13.5	114.5	13.0	113.5	128.3	8	99	95	-2 / 2	A
495		07/09/21	5	698A	SC	13.5	114.5	12.6	112.3	126.5	8	98	95	-2 / 2	A
496		07/09/21	5	698A	SC	13.5	114.5	12.6	112.8	127.0	8	99	95	-2 / 2	A
497		07/09/21	5	698A	SC	13.5	114.5	13.3	113.9	129.1	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
490	Sanitary Trench Backfill: Service, Lot 10 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
491	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
492	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
493	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
494	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
495	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
496	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
497	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
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Compaction Test Report

Report #: SNG-000020
07/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
498		07/09/21	5	698A	SC	13.5	114.5	14.0	113.8	129.7	8	99	95	-2 / 2	A
499		07/09/21	5	698A	SC	13.5	114.5	14.1	112.8	128.7	8	99	95	-2 / 2	A
500		07/09/21	5	698A	SC	13.5	114.5	14.0	113.0	128.8	8	99	95	-2 / 2	A
501		07/09/21	5	698A	SC	13.5	114.5	13.1	112.5	127.2	8	98	95	-2 / 2	A
502		07/09/21	5	698A	SC	13.5	114.5	12.4	113.3	127.4	8	99	95	-2 / 2	A
503		07/09/21	5	698A	SC	13.5	114.5	13.7	114.2	129.8	8	100	95	-2 / 2	A
504		07/09/21	5	698A	SC	13.5	114.5	13.6	114.3	129.9	8	100	95	-2 / 2	A
505		07/09/21	5	698A	SC	13.5	114.5	13.9	113.3	129.1	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
498	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
499	Sanitary Trench Backfill: Service, Lot 11 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
500	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
501	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
502	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
503	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
504	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
505	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000020
07/09/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
506		07/09/21	5	698A	SC	13.5	114.5	13.4	114.2	129.5	8	100	95	-2 / 2	A
507		07/09/21	5	698A	SC	13.5	114.5	12.7	113.1	127.5	8	99	95	-2 / 2	A
508		07/09/21	5	698A	SC	13.5	114.5	13.1	112.9	127.7	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
506	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
507	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
508	Sanitary Trench Backfill: Service, Lot 14 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

508: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000021
07/12/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
509		07/12/21	5	698A	SC	13.5	114.5	13.4	112.9	128.0	8	99	95	-2 / 2	A
510		07/12/21	5	698A	SC	13.5	114.5	12.1	112.9	126.6	8	99	95	-2 / 2	A
511		07/12/21	5	698A	SC	13.5	114.5	13.3	112.1	127.0	8	98	95	-2 / 2	A
512		07/12/21	5	698A	SC	13.5	114.5	13.4	114.5	129.8	8	100	95	-2 / 2	A
513		07/12/21	5	698A	SC	13.5	114.5	14.0	113.4	129.3	8	99	95	-2 / 2	A
514		07/12/21	5	698A	SC	13.5	114.5	13.8	113.4	129.0	8	99	95	-2 / 2	A
515		07/12/21	5	698A	SC	13.5	114.5	14.3	114.1	130.4	8	100	95	-2 / 2	A
516		07/12/21	5	698A	SC	13.5	114.5	13.2	113.4	128.4	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
509	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
510	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
511	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
512	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
513	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
514	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
515	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
516	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Denver
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Compaction Test Report

Report #: SNG-000021
07/12/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
517		07/12/21	5	698A	SC	13.5	114.5	12.6	113.8	128.1	8	99	95	-2 / 2	A
518		07/12/21	5	698A	SC	13.5	114.5	13.1	114.8	129.8	8	100	95	-2 / 2	A
519		07/12/21	5	698A	SC	13.5	114.5	13.0	113.5	128.3	8	99	95	-2 / 2	A
520		07/12/21	5	698A	SC	13.5	114.5	12.3	113.8	127.8	8	99	95	-2 / 2	A
521		07/12/21	5	698A	SC	13.5	114.5	13.1	112.7	127.5	8	98	95	-2 / 2	A
522		07/12/21	5	698A	SC	13.5	114.5	13.8	113.4	129.0	8	99	95	-2 / 2	A
523		07/12/21	5	698A	SC	13.5	114.5	12.9	114.0	128.7	8	100	95	-2 / 2	A
524		07/12/21	5	698A	SC	13.5	114.5	12.7	114.5	129.0	8	100	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
517	Sanitary Trench Backfill: Service, Lot 12 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
518	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
519	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
520	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
521	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
522	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
523	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
524	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000021
07/12/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
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Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
525		07/12/21	5	698A	SC	13.5	114.5	12.5	114.3	128.6	8	100	95	-2 / 2	A
526		07/12/21	5	698A	SC	13.5	114.5	12.5	112.9	127.0	8	99	95	-2 / 2	A
527		07/12/21	5	698A	SC	13.5	114.5	12.2	115.0	129.0	8	100	95	-2 / 2	A
528		07/12/21	5	698A	SC	13.5	114.5	14.3	114.3	130.6	8	100	95	-2 / 2	A
529		07/12/21	5	698A	SC	13.5	114.5	13.7	114.4	130.1	8	100	95	-2 / 2	A
530		07/12/21	5	698A	SC	13.5	114.5	12.9	112.0	126.4	8	98	95	-2 / 2	A
531		07/12/21	5	698A	SC	13.5	114.5	13.0	114.3	129.2	8	100	95	-2 / 2	A
532		07/12/21	5	698A	SC	13.5	114.5	13.0	114.0	128.8	8	100	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
525	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
526	Sanitary Trench Backfill: Service, Lot 13 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
527	Sanitary Trench Backfill: All tests labeled for lot 12 on this date are actually lot 14.	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
528	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
529	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
530	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
531	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
532	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Compaction Test Report

Report #: SNG-000021
07/12/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
533		07/12/21	5	698A	SC	13.5	114.5	13.4	114.5	129.8	8	100	95	-2 / 2	A
534		07/12/21	5	698A	SC	13.5	114.5	12.5	111.9	125.9	8	98	95	-2 / 2	A
535		07/12/21	5	698A	SC	13.5	114.5	13.4	115.0	130.4	8	100	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
533	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
534	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
535	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000022
07/13/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
537		07/13/21	5	698A	SC	13.5	114.5	12.3	115.5	129.7	8	101	95	-2 / 2	A
538		07/13/21	5	698A	SC	13.5	114.5	13.5	113.0	128.2	8	99	95	-2 / 2	A
539		07/13/21	5	698A	SC	13.5	114.5	13.1	114.0	128.9	8	100	95	-2 / 2	A
540		07/13/21	5	698A	SC	13.5	114.5	12.9	112.5	127.0	8	98	95	-2 / 2	A
541		07/13/21	5	698A	SC	13.5	114.5	12.7	112.5	126.8	8	98	95	-2 / 2	A
542		07/13/21	5	698A	SC	13.5	114.5	13.5	115.2	130.8	8	101	95	-2 / 2	A
543		07/13/21	5	698A	SC	13.5	114.5	13.8	115.2	131.1	8	101	95	-2 / 2	A
544		07/13/21	5	698A	SC	13.5	114.5	14.6	115.0	131.8	8	100	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
537	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
538	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
539	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
540	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
541	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
542	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
543	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
544	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000022
07/13/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
545		07/13/21	5	698A	SC	13.5	114.5	14.1	113.7	129.7	8	99	95	-2 / 2	A
546		07/13/21	7	698A	CL	16.5	107.5	18.2	107.4	126.9	8	100	95	0 / 3	A
547		07/13/21	7	698A	CL	16.5	107.5	18.7	106.5	126.4	8	99	95	0 / 3	A
548		07/13/21	7	698A	CL	16.5	107.5	17.7	107.9	127.0	8	100	95	0 / 3	A
549		07/13/21	7	698A	CL	16.5	107.5	17.1	108.8	127.4	8	101	95	0 / 3	A
550		07/13/21	7	698A	CL	16.5	107.5	17.6	108.8	127.9	8	101	95	0 / 3	A
551		07/13/21	7	698A	CL	16.5	107.5	16.9	109.5	128.0	8	102	95	0 / 3	A
552		07/13/21	7	698A	CL	16.5	107.5	17.5	109.0	128.1	8	101	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
545	Sanitary Trench Backfill: Service, Lot 16 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
546	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
547	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
548	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
549	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
550	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
551	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
552	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

552: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Compaction Test Report

Report #: SNG-000023
07/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
553		07/14/21	7	698A	CL	16.5	107.5	17.3	106.6	125.0	8	99	95	0 / 3	A
554		07/14/21	7	698A	CL	16.5	107.5	17.5	106.0	124.5	8	99	95	0 / 3	A
555		07/14/21	7	698A	CL	16.5	107.5	17.2	105.7	123.9	8	98	95	0 / 3	A
556		07/14/21	7	698A	CL	16.5	107.5	17.6	106.4	125.1	8	99	95	0 / 3	A
557		07/14/21	7	698A	CL	16.5	107.5	17.1	107.6	126.0	8	100	95	0 / 3	A
558		07/14/21	7	698A	CL	16.5	107.5	17.1	107.6	126.0	8	100	95	0 / 3	A
559		07/14/21	7	698A	CL	16.5	107.5	17.3	106.6	125.0	8	99	95	0 / 3	A
560		07/14/21	7	698A	CL	16.5	107.5	18.2	107.4	127.0	8	100	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
553	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
554	Sanitary Trench Backfill: SSMH 115, Sky Pilot Ave, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
555	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
556	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
557	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
558	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
559	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
560	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000023
07/14/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
561		07/14/21	7	698A	CL	16.5	107.5	18.4	105.5	124.9	8	98	95	0 / 3	A
562		07/14/21	7	698A	CL	16.5	107.5	17.1	106.0	124.1	8	99	95	0 / 3	A
563		07/14/21	7	698A	CL	16.5	107.5	17.1	106.6	124.8	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
561	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
562	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
563	Sanitary Trench Backfill: SSMH 76, Sky Pilot Ave, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

563: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

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Compaction Test Report

Report #: SNG-000024
07/15/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
564		07/15/21	7	698A	CL	16.5	107.5	16.8	106.2	124.0	8	99	95	0 / 3	A
565		07/15/21	7	698A	CL	16.5	107.5	17.2	106.7	125.1	8	99	95	0 / 3	A
566		07/15/21	7	698A	CL	16.5	107.5	17.7	106.7	125.6	8	99	95	0 / 3	A
567		07/15/21	7	698A	CL	16.5	107.5	17.4	107.5	126.2	8	100	95	0 / 3	A
568		07/15/21	7	698A	CL	16.5	107.5	17.5	107.8	126.7	8	100	95	0 / 3	A
569		07/15/21	7	698A	CL	16.5	107.5	17.3	108.3	127.0	8	101	95	0 / 3	A
570		07/15/21	7	698A	CL	16.5	107.5	18.7	105.7	125.5	8	98	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
564	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
565	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
566	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
567	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
568	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
569	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
570	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

570: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000025
07/26/2021
Report Date: 07/28/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
571		07/16/21	7	698A	CL	16.5	107.5	17.7	106.7	125.6	8	99	95	0 / 3	A
572		07/16/21	7	698A	CL	16.5	107.5	16.8	106.9	124.9	8	99	95	0 / 3	A
573		07/16/21	7	698A	CL	16.5	107.5	17.5	105.9	124.4	8	99	95	0 / 3	A
574		07/16/21	7	698A	CL	16.5	107.5	17.3	108.9	127.7	8	101	95	0 / 3	A
575		07/16/21	7	698A	CL	16.5	107.5	18.1	108.5	128.1	8	101	95	0 / 3	A
576		07/16/21	7	698A	CL	16.5	107.5	17.3	106.3	124.7	8	99	95	0 / 3	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
571	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
572	Sanitary Trench Backfill: SSMH 225, Sky Pilot Ave, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
573	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
574	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
575	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
576	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

576: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000026
07/19/2021
Report Date: 08/05/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
577		07/19/21	7	698A	CL	16.5	107.5	18.0	105.9	125.0	8	99	95	0 / 2	A
578		07/19/21	7	698A	CL	16.5	107.5	18.4	106.8	126.4	8	99	95	0 / 2	A
579		07/19/21	7	698A	CL	16.5	107.5	17.7	106.8	125.7	8	99	95	0 / 2	A
580		07/19/21	7	698A	CL	16.5	107.5	17.3	108.4	127.2	8	101	95	0 / 2	A
581		07/19/21	7	698A	CL	16.5	107.5	18.4	107.7	127.5	8	100	95	0 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
577	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
578	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
579	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
580	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
581	Sanitary Trench Backfill: SSMH 226, Sky Pilot Ave, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

581: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000027
07/23/2021
Report Date: 08/05/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
582		07/23/21	5	698A	SC	13.5	114.5	12.3	114.3	128.4	8	100	100	-2 / 2	A
583		07/23/21	5	698A	SC	13.5	114.5	12.6	114.5	128.9	8	100	100	-2 / 2	A
584		07/23/21	5	698A	SC	13.5	114.5	12.2	114.0	127.9	8	100	100	-2 / 2	A
585		07/23/21	5	698A	SC	13.5	114.5	11.8	114.1	127.6	8	100	100	-2 / 2	A
586		07/23/21	5	698A	SC	13.5	114.5	12.2	114.3	128.3	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
582	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
583	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
584	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
585	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
586	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

586: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000028
07/29/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
591		07/29/21	7	698A	CL	16.5	107.5	18.0	107.7	127.1	8	100	95	0 / 4	A
592		07/29/21	7	698A	CL	16.5	107.5	18.8	108.6	129.0	8	101	95	0 / 4	A
593		07/29/21	7	698A	CL	16.5	107.5	17.4	108.0	126.8	8	100	95	0 / 4	A
594		07/29/21	7	698A	CL	16.5	107.5	17.4	108.9	127.8	8	101	95	0 / 4	A
595		07/29/21	7	698A	CL	16.5	107.5	17.8	108.7	128.0	8	101	95	0 / 4	A
596		07/29/21	7	698A	CL	16.5	107.5	17.4	107.5	126.2	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
591	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
592	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
593	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
594	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
595	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
596	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

596: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000029
07/28/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
587		07/28/21	7	698A	CL	16.5	107.5	17.9	107.0	126.1	8	100	95	0 / 4	A
588		07/28/21	7	698A	CL	16.5	107.5	18.9	108.1	128.5	8	101	95	0 / 4	A
589		07/28/21	7	698A	CL	16.5	107.5	17.5	107.9	126.8	8	100	95	0 / 4	A
590		07/28/21	7	698A	CL	16.5	107.5	19.3	108.1	129.0	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
587	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
588	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
589	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
590	Sanitary Trench Backfill: SSMH 227, Sky Pilot Ave, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

590: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000030
08/04/2021
Report Date: 08/22/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
609		08/04/21	7	698A	CL	16.5	107.5	17.5	107.4	126.2	8	100	95	0 / 4	A
610		08/04/21	7	698A	CL	16.5	107.5	17.7	107.9	127.0	8	100	95	0 / 4	A
611		08/04/21	7	698A	CL	16.5	107.5	17.3	108.5	127.3	8	101	95	0 / 4	A
612		08/04/21	7	698A	CL	16.5	107.5	16.7	108.4	126.5	8	101	95	0 / 4	A
613		08/04/21	7	698A	CL	16.5	107.5	17.6	107.1	125.9	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
609	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
610	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
611	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
612	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
613	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

613: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000031
08/03/2021
Report Date: 08/22/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
604		08/03/21	7	698A	CL	16.5	107.5	16.6	106.8	124.5	8	99	95	0 / 4	A
605		08/03/21	7	698A	CL	16.5	107.5	17.0	107.6	125.9	8	100	95	0 / 4	A
606		08/03/21	7	698A	CL	16.5	107.5	17.6	107.3	126.2	8	100	95	0 / 4	A
607		08/03/21	7	698A	CL	16.5	107.5	17.7	107.4	126.4	8	100	95	0 / 4	A
608		08/03/21	7	698A	CL	16.5	107.5	17.0	107.5	125.8	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
604	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
605	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
606	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
607	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
608	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

608: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the ex, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000032
08/02/2021
Report Date: 08/22/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
597		08/02/21	5	698A	SC	13.5	114.5	13.0	114.9	129.8	8	100	100	-2 / 2	A
598		08/02/21	5	698A	SC	13.5	114.5	12.9	114.6	129.4	8	100	100	-2 / 2	A
599		08/02/21	5	698A	SC	13.5	114.5	13.2	114.8	129.9	8	100	100	-2 / 2	A
600		08/02/21	7	698A	CL	16.5	107.5	17.5	107.0	125.7	8	100	95	0 / 4	A
601		08/02/21	7	698A	CL	16.5	107.5	17.3	107.5	126.1	8	100	95	0 / 4	A
602		08/02/21	7	698A	CL	16.5	107.5	17.9	106.7	125.8	8	99	95	0 / 4	A
603		08/02/21	7	698A	CL	16.5	107.5	17.9	106.9	126.0	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
597	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
598	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
599	Sanitary Trench Backfill: SSMH 119, Sky Pilot Lane, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
600	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
601	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
602	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
603	Sanitary Trench Backfill: SSMH 118, Sky Pilot Lane, Filing 13	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

603: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000033
08/09/2021
Report Date: 09/01/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
614		08/09/21	7	698A	CL	16.5	107.5	18.3	109.0	128.9	8	101	95	0 / 4	A
615		08/09/21	7	698A	CL	16.5	107.5	18.2	108.0	127.7	8	100	95	0 / 4	A
616		08/09/21	7	698A	CL	16.5	107.5	17.5	107.9	126.8	8	100	95	0 / 4	A
617		08/09/21	7	698A	CL	16.5	107.5	17.6	107.1	126.0	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
614	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13 The Crowfoot site	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
615	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13 The Crowfoot site	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
616	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13 The Crowfoot site	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
617	Sanitary Trench Backfill: SSMH 117, Sky Pilot Lane, Filing 13 The Crowfoot site	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

617: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000034
08/13/2021
Report Date: 09/01/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
618		08/13/21	5	698A	SC	13.5	114.5	13.2	114.8	129.9	8	100	100	-2 / 2	A
619		08/13/21	5	698A	SC	13.5	114.5	12.6	114.5	128.9	8	100	100	-2 / 2	A
620		08/13/21	5	698A	SC	13.5	114.5	13.0	114.5	129.4	8	100	100	-2 / 2	A
621		08/13/21	5	698A	SC	13.5	114.5	12.9	114.3	129.1	8	100	100	-2 / 2	A
622		08/13/21	5	698A	SC	13.5	114.5	12.4	114.8	129.0	8	100	100	-2 / 2	A
623		08/13/21	5	698A	SC	13.5	114.5	12.8	114.3	128.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
618	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
619	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
620	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
621	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
622	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
623	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

623: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000035
08/17/2021
Report Date: 09/01/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
624		08/17/21	5	698A	SC	13.5	114.5	13.2	114.6	129.7	8	100	100	-2 / 2	A
625		08/17/21	5	698A	SC	13.5	114.5	12.4	114.9	129.1	8	100	100	-2 / 2	A
626		08/17/21	5	698A	SC	13.5	114.5	12.8	114.5	129.2	8	100	100	-2 / 2	A
627		08/17/21	5	698A	SC	13.5	114.5	13.8	114.3	130.1	8	100	100	-2 / 2	A
628		08/17/21	5	698A	SC	13.5	114.5	13.4	114.5	129.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
624	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
625	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
626	Sanitary Trench Backfill: SSMH 116, Sky Pilot Lane, Filing 13 The Crowfoot site	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
627	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
628	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

628: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000036
08/18/2021
Report Date: 09/01/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
629		08/18/21	5	698A	SC	13.5	114.5	13.6	115.1	130.8	8	101	100	-2 / 2	A
630		08/18/21	5	698A	SC	13.5	114.5	12.2	114.4	128.4	8	100	100	-2 / 2	A
631		08/18/21	5	698A	SC	13.5	114.5	12.7	115.8	130.5	8	101	100	-2 / 2	A
632		08/18/21	5	698A	SC	13.5	114.5	12.9	115.4	130.3	8	101	100	-2 / 2	A
633		08/18/21	5	698A	SC	13.5	114.5	13.9	114.8	130.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
629	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
630	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
631	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
632	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
633	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

633: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Compaction Test Report

Report #: SNG-000037
08/19/2021
Report Date: 09/01/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
634		08/19/21	5	698A	SC	13.5	114.5	14.2	114.8	131.1	8	100	100	-2 / 2	A
635		08/19/21	5	698A	SC	13.5	114.5	13.0	114.5	129.4	8	100	100	-2 / 2	A
636		08/19/21	5	698A	SC	13.5	114.5	12.5	114.0	128.2	8	100	100	-2 / 2	A
637		08/19/21	5	698A	SC	13.5	114.5	13.8	115.1	131.0	8	101	100	-2 / 2	A
638		08/19/21	5	698A	SC	13.5	114.5	12.6	114.6	129.0	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
634	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
635	Sanitary Trench Backfill: SSMH 228, Sky Purple Aster Way, Filing 13 The Crowfoot site	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
636	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	9.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
637	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	8.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
638	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	7.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

638: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000038
08/20/2021
Report Date: 09/01/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
639		08/20/21	5	698A	SC	13.5	114.5	14.2	115.6	132.0	8	101	100	-2 / 2	A
640		08/20/21	5	698A	SC	13.5	114.5	13.2	114.1	129.2	8	100	100	-2 / 2	A
641		08/20/21	5	698A	SC	13.5	114.5	13.0	114.0	128.8	8	100	100	-2 / 2	A
642		08/20/21	5	698A	SC	13.5	114.5	13.2	114.9	130.1	8	100	100	-2 / 2	A
643		08/20/21	5	698A	SC	13.5	114.5	13.5	115.3	130.9	8	101	100	-2 / 2	A
644		08/20/21	5	698A	SC	13.5	114.5	12.0	114.7	128.5	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
639	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
640	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
641	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
642	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
643	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
644	Sanitary Trench Backfill: SSMH 248, Sky Purple Aster Way, Filing 13 The Crowfoot site.	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

644: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000039
07/12/2021
Report Date: 10/12/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-315
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
536		07/12/21	5	698A	SC	13.5	114.5	12.5	113.0	127.1	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
536	Sanitary Trench Backfill: Service, Lot 15 Block 3, Purple Aster Way, Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

536: As requested by Sheryl with JBS, a site visit was made to observe and test sanitary sewer trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the sheepsfoot roller and with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000001
07/22/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
9		07/22/21	7	698A	CL	16.5	107.5	17.1	108.3	126.8	8	101	95	0 / 4	A
10		07/22/21	7	698A	CL	16.5	107.5	16.8	108.3	126.5	8	101	95	0 / 4	A
11		07/22/21	7	698A	CL	16.5	107.5	17.4	108.9	127.8	8	101	95	0 / 4	A
12		07/22/21	7	698A	CL	16.5	107.5	18.8	108.3	128.7	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
9	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 9. Block 1. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
10	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 10. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
11	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 11. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
12	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 12. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

12: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000002
07/21/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
5		07/21/21	7	698A	CL	16.5	107.5	17.3	109.0	127.9	8	101	95	0 / 4	A
6		07/21/21	7	698A	CL	16.5	107.5	18.0	108.2	127.7	8	101	95	0 / 4	A
7		07/21/21	7	698A	CL	16.5	107.5	18.4	108.1	128.0	8	101	95	0 / 4	A
8		07/21/21	7	698A	CL	16.5	107.5	17.7	108.0	127.1	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
5	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 5. Block 1. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
6	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 6. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
7	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 7. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
8	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 8. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

8: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000003
07/20/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
1		07/20/21	7	698A	CL	16.5	107.5	18.2	108.4	128.1	8	101	95	0 / 4	A
2		07/20/21	7	698A	CL	16.5	107.5	19.3	107.6	128.4	8	100	95	0 / 4	A
3		07/20/21	7	698A	CL	16.5	107.5	18.7	108.7	129.0	8	101	95	0 / 4	A
4		07/20/21	7	698A	CL	16.5	107.5	18.1	108.5	128.1	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 1. Block 1. Filing 13	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
2	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 2. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
3	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 3. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
4	Waterline Trench Backfill: Mainline on Sky Pilot Ave. Lot 4. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

4: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000004
08/09/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
13		08/09/21	5	698A	SC	13.5	114.5	12.4	114.8	129.0	8	100	100	-2 / 2	A
14		08/09/21	5	698A	SC	13.5	114.5	12.2	115.7	129.8	8	101	100	-2 / 2	A
15		08/09/21	5	698A	SC	13.5	114.5	13.0	114.2	129.1	8	100	100	-2 / 2	A
16		08/09/21	5	698A	SC	13.5	114.5	12.6	114.9	129.4	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
13	Waterline Trench Backfill: Lot 13 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
14	Waterline Trench Backfill: Lot 14 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
15	Waterline Trench Backfill: Lot 15 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
16	Waterline Trench Backfill: Lot 16.Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

16: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000005
08/10/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
17		08/10/21	5	698A	SC	13.5	114.5	12.3	114.7	128.8	8	100	100	-2 / 2	A
18		08/10/21	5	698A	SC	13.5	114.5	13.4	114.5	129.8	8	100	100	-2 / 2	A
19		08/10/21	5	698A	SC	13.5	114.5	12.4	114.9	129.1	8	100	100	-2 / 2	A
20		08/10/21	5	698A	SC	13.5	114.5	13.5	114.2	129.6	8	100	100	-2 / 2	A
21		08/10/21	5	698A	SC	13.5	114.5	13.6	114.3	129.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
17	Waterline Trench Backfill: Lot 11 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Gregory, Ryan
18	Waterline Trench Backfill: Lot 12 Block 2 Filing 13 Sky Pilot Lane	3.5	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
19	Waterline Trench Backfill: Lot 13 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
20	Waterline Trench Backfill: Lot 13 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
21	Waterline Trench Backfill: Lot 15 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

21: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000006
08/11/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
30		08/11/21	5	698A	SC	13.5	114.5	13.8	114.6	130.4	8	100	100	-2 / 2	A
31		08/11/21	5	698A	SC	13.5	114.5	14.1	114.4	130.5	8	100	100	-2 / 2	A
32		08/11/21	5	698A	SC	13.5	114.5	12.2	114.7	128.7	8	100	100	-2 / 2	A
33		08/11/21	5	698A	SC	13.5	114.5	13.1	114.2	129.2	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
30	Waterline Trench Backfill: Lot 13 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
31	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
32	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
33	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

33: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000007
08/12/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
22		08/12/21	5	698A	SC	13.5	114.5	13.1	114.7	129.7	8	100	100	-2 / 2	A
23		08/12/21	5	698A	SC	13.5	114.5	13.0	114.8	129.7	8	100	100	-2 / 2	A
24		08/12/21	5	698A	SC	13.5	114.5	13.7	114.8	130.5	8	100	100	-2 / 2	A
25		08/12/21	5	698A	SC	13.5	114.5	12.9	114.3	129.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
22	Waterline Trench Backfill: Lot 16 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
23	Waterline Trench Backfill: Lot 17 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
24	Waterline Trench Backfill: Lot 18 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
25	Waterline Trench Backfill: Lot 19 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

25: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000008
08/13/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
26		08/13/21	5	698A	SC	13.5	114.5	12.2	114.8	128.8	8	100	100	-2 / 2	A
27		08/13/21	5	698A	SC	13.5	114.5	13.7	114.8	130.5	8	100	100	-2 / 2	A
28		08/13/21	5	698A	SC	13.5	114.5	13.8	114.3	130.1	8	100	100	-2 / 2	A
29		08/13/21	5	698A	SC	13.5	114.5	12.7	114.1	128.6	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
26	Waterline Trench Backfill: Lot 1 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
27	Waterline Trench Backfill: Lot 1 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
28	Waterline Trench Backfill: Lot 2 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
29	Waterline Trench Backfill: Mainline on Purple Aster Way. Lot 2. Block 3. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

29: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
08/25/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
34		08/25/21	3	ASTM D698B	SC	12.5	117.0	12.6	117.1	131.9	8	100	100	-2 / 2	A
35		08/25/21	3	ASTM D698B	SC	12.5	117.0	12.9	116.5	131.5	8	100	100	-2 / 2	A
36		08/25/21	3	ASTM D698B	SC	12.5	117.0	13.5	116.6	132.3	8	100	100	-2 / 2	A
37		08/25/21	3	ASTM D698B	SC	12.5	117.0	12.9	116.7	131.8	8	100	100	-2 / 2	A
38		08/25/21	3	ASTM D698B	SC	12.5	117.0	13.1	117.2	132.6	8	100	100	-2 / 2	A
39		08/25/21	3	ASTM D698B	SC	12.5	117.0	13.9	116.6	132.8	8	100	100	-2 / 2	A
40		08/25/21	3	ASTM D698B	SC	12.5	117.0	13.0	116.9	132.1	8	100	100	-2 / 2	A
41		08/25/21	3	ASTM D698B	SC	12.5	117.0	12.6	117.5	132.3	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
34	Waterline Trench Backfill: Lot 10 Block 1	2.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
35	Waterline Trench Backfill: Lot 10 Block 1	1.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
36	Waterline Trench Backfill: Lot 9 Block 1	2.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
37	Waterline Trench Backfill: Lot 9 Block 1	1.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
38	Waterline Trench Backfill: Lot 7 Block 2	2.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
39	Waterline Trench Backfill: Lot 7 Block 2	1.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
40	Waterline Trench Backfill: Lot 8 Block 1	2.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
41	Waterline Trench Backfill: Lot 8 Block 1	1.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
08/25/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
42		08/25/21	3	ASTM D698B	SC	12.5	117.0	12.5	117.1	131.7	8	100	100	-2 / 2	A
43		08/25/21	3	ASTM D698B	SC	12.5	117.0	12.6	117.2	132.0	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
42	Waterline Trench Backfill: Lot 6 Block 2	2.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
43	Waterline Trench Backfill: Lot 6 Block 2	1.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

43: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot attachment.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
09/02/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
44		09/02/21	16	698A	CL	15.5	111.0	16.1	110.6	128.4	8	100	95	0 / 4	A
45		09/02/21	16	698A	CL	15.5	111.0	16.0	111.2	129.0	8	100	95	0 / 4	A
46		09/02/21	16	698A	CL	15.5	111.0	16.1	110.9	128.7	8	100	95	0 / 4	A
47		09/02/21	16	698A	CL	15.5	111.0	16.3	110.8	128.9	8	100	95	0 / 4	A
48		09/02/21	16	698A	CL	15.5	111.0	16.0	111.5	129.3	8	100	95	0 / 4	A
49		09/02/21	16	698A	CL	15.5	111.0	16.3	110.9	129.0	8	100	95	0 / 4	A
50		09/02/21	16	698A	CL	15.5	111.0	16.1	110.6	128.4	8	100	95	0 / 4	A
51		09/02/21	16	698A	CL	15.5	111.0	16.7	110.5	129.0	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
44	Waterline Trench Backfill: Lot 1 Block 3 Filing 13 Purple Aster Way.	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
45	Waterline Trench Backfill: Lot 1 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
46	Waterline Trench Backfill: Lot 1 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
47	Waterline Trench Backfill: Lot 1 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
48	Waterline Trench Backfill: Lot 2 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
49	Waterline Trench Backfill: Lot 2 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
50	Waterline Trench Backfill: Lot 2 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
51	Waterline Trench Backfill: Lot 2 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
09/02/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
52		09/02/21	16	698A	CL	15.5	111.0	15.9	111.0	128.7	8	100	95	0 / 4	A
53		09/02/21	16	698A	CL	15.5	111.0	16.5	110.4	128.6	8	99	95	0 / 4	A
54		09/02/21	16	698A	CL	15.5	111.0	16.1	110.2	127.9	8	99	95	0 / 4	A
55		09/02/21	16	698A	CL	15.5	111.0	16.7	111.2	129.8	8	100	95	0 / 4	A
56		09/02/21	16	698A	CL	15.5	111.0	16.4	110.8	129.0	8	100	95	0 / 4	A
57		09/02/21	16	698A	CL	15.5	111.0	16.6	111.2	129.7	8	100	95	0 / 4	A
58		09/02/21	16	698A	CL	15.5	111.0	16.6	110.7	129.1	8	100	95	0 / 4	A
59		09/02/21	16	698A	CL	15.5	111.0	17.2	109.9	128.8	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
52	Waterline Trench Backfill: Lot 3 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
53	Waterline Trench Backfill: Lot 3 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
54	Waterline Trench Backfill: Lot 3 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
55	Waterline Trench Backfill: Lot 3 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
56	Waterline Trench Backfill: Lot 4 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
57	Waterline Trench Backfill: Lot 4 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
58	Waterline Trench Backfill: Lot 4 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
59	Waterline Trench Backfill: Lot 4 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
09/02/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
60		09/02/21	16	698A	CL	15.5	111.0	16.5	111.7	130.1	8	101	95	0 / 4	A
61		09/02/21	16	698A	CL	15.5	111.0	15.9	110.7	128.3	8	100	95	0 / 4	A
62		09/02/21	16	698A	CL	15.5	111.0	15.7	111.1	128.5	8	100	95	0 / 4	A
63		09/02/21	16	698A	CL	15.5	111.0	17.0	110.9	129.7	8	100	95	0 / 4	A
64		09/02/21	16	698A	CL	15.5	111.0	16.8	110.4	128.9	8	99	95	0 / 4	A
65		09/02/21	16	698A	CL	15.5	111.0	16.0	109.9	127.5	8	99	95	0 / 4	A
66		09/02/21	16	698A	CL	15.5	111.0	16.7	111.6	130.2	8	101	95	0 / 4	A
67		09/02/21	16	698A	CL	15.5	111.0	16.7	111.1	129.7	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
60	Waterline Trench Backfill: Lot 5 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
61	Waterline Trench Backfill: Lot 5 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
62	Waterline Trench Backfill: Lot 5 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
63	Waterline Trench Backfill: Lot 5 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
64	Waterline Trench Backfill: Lot 6 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
65	Waterline Trench Backfill: Lot 6 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
66	Waterline Trench Backfill: Lot 6 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
67	Waterline Trench Backfill: Lot 6 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
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Compaction Test Report

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09/02/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
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Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
68		09/02/21	16	698A	CL	15.5	111.0	17.1	110.8	129.8	8	100	95	0 / 4	A
69		09/02/21	16	698A	CL	15.5	111.0	15.9	111.6	129.4	8	101	95	0 / 4	A
70		09/02/21	16	698A	CL	15.5	111.0	16.5	110.3	128.5	8	99	95	0 / 4	A
71		09/02/21	16	698A	CL	15.5	111.0	17.1	112.0	131.1	8	101	95	0 / 4	A
72		09/02/21	16	698A	CL	15.5	111.0	16.0	110.6	128.3	8	100	95	0 / 4	A
73		09/02/21	16	698A	CL	15.5	111.0	16.6	110.2	128.5	8	99	95	0 / 4	A
74		09/02/21	16	698A	CL	15.5	111.0	16.2	111.1	129.1	8	100	95	0 / 4	A
75		09/02/21	16	698A	CL	15.5	111.0	17.4	111.9	131.4	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
68	Waterline Trench Backfill: Lot 7 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
69	Waterline Trench Backfill: Lot 7 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
70	Waterline Trench Backfill: Lot 7 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
71	Waterline Trench Backfill: Lot 7 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
72	Waterline Trench Backfill: Lot 8 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
73	Waterline Trench Backfill: Lot 8 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
74	Waterline Trench Backfill: Lot 8 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
75	Waterline Trench Backfill: Lot 8 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000010
09/02/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
76		09/02/21	16	698A	CL	15.5	111.0	16.9	110.7	129.4	8	100	95	0 / 4	A
77		09/02/21	16	698A	CL	15.5	111.0	17.0	110.3	129.0	8	99	95	0 / 4	A
78		09/02/21	16	698A	CL	15.5	111.0	16.9	109.7	128.2	8	99	95	0 / 4	A
79		09/02/21	16	698A	CL	15.5	111.0	16.4	111.6	129.9	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
76	Waterline Trench Backfill: Lot 9 Block 3 Filing 13 Purple Aster Way	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
77	Waterline Trench Backfill: Lot 9 Block 3 Filing 13 Purple Aster Way	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
78	Waterline Trench Backfill: Lot 9 Block 3 Filing 13 Purple Aster Way	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
79	Waterline Trench Backfill: Lot 9 Block 3 Filing 13 Purple Aster Way	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

79: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot attachment and and loader wheel rolling.

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Compaction Test Report

Report #: SNG-000011
09/03/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
80		09/03/21	7	698A	CL	16.5	107.5	16.5	108.2	126.1	8	101	95	0 / 4	A
81		09/03/21	7	698A	CL	16.5	107.5	17.3	108.4	127.2	8	101	95	0 / 4	A
82		09/03/21	7	698A	CL	16.5	107.5	16.5	108.5	126.4	8	101	95	0 / 4	A
83		09/03/21	7	698A	CL	16.5	107.5	17.0	107.4	125.7	8	100	95	0 / 4	A
84		09/03/21	7	698A	CL	16.5	107.5	16.9	107.3	125.4	8	100	95	0 / 4	A
85		09/03/21	7	698A	CL	16.5	107.5	16.9	107.4	125.5	8	100	95	0 / 4	A
86		09/03/21	7	698A	CL	16.5	107.5	17.0	108.2	126.6	8	101	95	0 / 4	A
87		09/03/21	7	698A	CL	16.5	107.5	16.6	107.4	125.2	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
80	Waterline Trench Backfill: Lot 11 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
81	Waterline Trench Backfill: Lot 11 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
82	Waterline Trench Backfill: Lot 11 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
83	Waterline Trench Backfill: Lot 11 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
84	Waterline Trench Backfill: Lot 12 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
85	Waterline Trench Backfill: Lot 12 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
86	Waterline Trench Backfill: Lot 12 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
87	Waterline Trench Backfill: Lot 12 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

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88		09/03/21	7	698A	CL	16.5	107.5	16.7	108.8	127.0	8	101	95	0 / 4	A
89		09/03/21	7	698A	CL	16.5	107.5	17.0	108.4	126.8	8	101	95	0 / 4	A
90		09/03/21	7	698A	CL	16.5	107.5	17.5	108.1	127.0	8	101	95	0 / 4	A
91		09/03/21	7	698A	CL	16.5	107.5	17.1	107.7	126.1	8	100	95	0 / 4	A
92		09/03/21	7	698A	CL	16.5	107.5	16.9	107.7	125.9	8	100	95	0 / 4	A
93		09/03/21	7	698A	CL	16.5	107.5	17.6	106.5	125.2	8	99	95	0 / 4	A
94		09/03/21	7	698A	CL	16.5	107.5	17.1	109.1	127.8	8	101	95	0 / 4	A
95		09/03/21	7	698A	CL	16.5	107.5	16.8	107.9	126.0	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
88	Waterline Trench Backfill: Lot 13 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
89	Waterline Trench Backfill: Lot 13 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
90	Waterline Trench Backfill: Lot 13 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
91	Waterline Trench Backfill: Lot 13 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
92	Waterline Trench Backfill: Lot 14 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
93	Waterline Trench Backfill: Lot 14 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
94	Waterline Trench Backfill: Lot 14 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
95	Waterline Trench Backfill: Lot 14 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
96		09/03/21	7	698A	CL	16.5	107.5	17.4	108.2	127.0	8	101	95	0 / 4	A
97		09/03/21	7	698A	CL	16.5	107.5	16.6	108.0	125.9	8	100	95	0 / 4	A
98		09/03/21	7	698A	CL	16.5	107.5	16.7	107.5	125.5	8	100	95	0 / 4	A
99		09/03/21	7	698A	CL	16.5	107.5	17.6	107.2	126.1	8	100	95	0 / 4	A
100		09/03/21	7	698A	CL	16.5	107.5	17.3	107.8	126.5	8	100	95	0 / 4	A
101		09/03/21	7	698A	CL	16.5	107.5	16.9	107.0	125.1	8	100	95	0 / 4	A
102		09/03/21	7	698A	CL	16.5	107.5	17.0	108.4	126.8	8	101	95	0 / 4	A
103		09/03/21	7	698A	CL	16.5	107.5	16.8	108.7	127.0	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
96	Waterline Trench Backfill: Lot 15 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
97	Waterline Trench Backfill: Lot 15 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
98	Waterline Trench Backfill: Lot 15 Block 2.Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
99	Waterline Trench Backfill: Lot 15 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
100	Waterline Trench Backfill: Lot 16 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
101	Waterline Trench Backfill: Lot 16 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
102	Waterline Trench Backfill: Lot 16 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
103	Waterline Trench Backfill: Lot 16 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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Test Results

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104		09/03/21	7	698A	CL	16.5	107.5	16.9	108.6	126.9	8	101	95	0 / 4	A
105		09/03/21	7	698A	CL	16.5	107.5	17.1	108.5	127.0	8	101	95	0 / 4	A
106		09/03/21	7	698A	CL	16.5	107.5	17.7	108.9	128.2	8	101	95	0 / 4	A
107		09/03/21	7	698A	CL	16.5	107.5	17.4	108.9	127.8	8	101	95	0 / 4	A
108		09/03/21	7	698A	CL	16.5	107.5	16.6	108.0	125.9	8	100	95	0 / 4	A
109		09/03/21	7	698A	CL	16.5	107.5	16.8	109.1	127.4	8	101	95	0 / 4	A
110		09/03/21	7	698A	CL	16.5	107.5	17.0	109.1	127.7	8	101	95	0 / 4	A
111		09/03/21	7	698A	CL	16.5	107.5	18.2	108.4	128.1	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
104	Waterline Trench Backfill: Lot 17 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
105	Waterline Trench Backfill: Lot 17 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
106	Waterline Trench Backfill: Lot 17 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
107	Waterline Trench Backfill: Lot 17 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
108	Waterline Trench Backfill: Lot 18 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
109	Waterline Trench Backfill: Lot 18 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
110	Waterline Trench Backfill: Lot 18 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
111	Waterline Trench Backfill: Lot 18 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

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1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000011
09/03/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
112		09/03/21	7	698A	CL	16.5	107.5	17.5	107.3	126.1	8	100	95	0 / 4	A
113		09/03/21	7	698A	CL	16.5	107.5	17.0	108.1	126.5	8	101	95	0 / 4	A
114		09/03/21	7	698A	CL	16.5	107.5	17.1	107.6	126.0	8	100	95	0 / 4	A
115		09/03/21	7	698A	CL	16.5	107.5	16.9	108.6	126.9	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
112	Waterline Trench Backfill: Lot 19 Block 2 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
113	Waterline Trench Backfill: Lot 19 Block 2 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
114	Waterline Trench Backfill: Lot 19 Block 2 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
115	Waterline Trench Backfill: Lot 19 Block 2 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

115: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000012
09/07/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
116		09/07/21	16	698A	CL	15.5	111.0	16.3	111.6	129.8	8	101	95	0 / 4	A
117		09/07/21	16	698A	CL	15.5	111.0	16.8	110.5	129.1	8	100	95	0 / 4	A
118		09/07/21	16	698A	CL	15.5	111.0	17.2	110.3	129.3	8	99	95	0 / 4	A
119		09/07/21	16	698A	CL	15.5	111.0	16.1	110.3	128.1	8	99	95	0 / 4	A
120		09/07/21	16	698A	CL	15.5	111.0	17.5	110.6	129.9	8	100	95	0 / 4	A
121		09/07/21	16	698A	CL	15.5	111.0	16.8	111.0	129.7	8	100	95	0 / 4	A
122		09/07/21	16	698A	CL	15.5	111.0	16.4	110.4	128.5	8	99	95	0 / 4	A
123		09/07/21	16	698A	CL	15.5	111.0	17.1	111.2	130.2	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
116	Waterline Trench Backfill: Lot 1 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
117	Waterline Trench Backfill: Lot 1 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
118	Waterline Trench Backfill: Lot 1 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
119	Waterline Trench Backfill: Lot 1 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
120	Waterline Trench Backfill: Lot 2 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
121	Waterline Trench Backfill: Lot 2 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
122	Waterline Trench Backfill: Lot 2 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
123	Waterline Trench Backfill: Lot 2 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
09/07/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
124		09/07/21	16	698A	CL	15.5	111.0	16.9	111.4	130.2	8	100	95	0 / 4	A
125		09/07/21	16	698A	CL	15.5	111.0	17.2	109.6	128.5	8	99	95	0 / 4	A
126		09/07/21	16	698A	CL	15.5	111.0	17.4	111.5	130.9	8	100	95	0 / 4	A
127		09/07/21	16	698A	CL	15.5	111.0	16.8	111.0	129.7	8	100	95	0 / 4	A
128		09/07/21	16	698A	CL	15.5	111.0	17.3	110.1	129.1	8	99	95	0 / 4	A
129		09/07/21	16	698A	CL	15.5	111.0	17.7	110.8	130.4	8	100	95	0 / 4	A
130		09/07/21	16	698A	CL	15.5	111.0	16.7	111.7	130.4	8	101	95	0 / 4	A
131		09/07/21	16	698A	CL	15.5	111.0	16.6	111.3	129.8	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
124	Waterline Trench Backfill: Lot 3 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
125	Waterline Trench Backfill: Lot 3 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
126	Waterline Trench Backfill: Lot 3 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
127	Waterline Trench Backfill: Lot 3 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
128	Waterline Trench Backfill: Lot 4 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
129	Waterline Trench Backfill: Lot 4 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
130	Waterline Trench Backfill: Lot 4 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
131	Waterline Trench Backfill: Lot 4 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
09/07/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
132		09/07/21	16	698A	CL	15.5	111.0	16.2	110.8	128.7	8	100	95	0 / 4	A
133		09/07/21	16	698A	CL	15.5	111.0	17.4	110.4	129.6	8	99	95	0 / 4	A
134		09/07/21	16	698A	CL	15.5	111.0	17.7	109.9	129.3	8	99	95	0 / 4	A
135		09/07/21	16	698A	CL	15.5	111.0	16.9	111.3	130.1	8	100	95	0 / 4	A
136		09/07/21	16	698A	CL	15.5	111.0	17.6	111.2	130.8	8	100	95	0 / 4	A
137		09/07/21	16	698A	CL	15.5	111.0	16.8	111.4	130.1	8	100	95	0 / 4	A
138		09/07/21	16	698A	CL	15.5	111.0	16.4	111.2	129.4	8	100	95	0 / 4	A
139		09/07/21	16	698A	CL	15.5	111.0	17.2	109.7	128.6	8	99	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
132	Waterline Trench Backfill: Lot 5 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
133	Waterline Trench Backfill: Lot 5 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
134	Waterline Trench Backfill: Lot 5 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
135	Waterline Trench Backfill: Lot 5 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
136	Waterline Trench Backfill: Lot 6 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
137	Waterline Trench Backfill: Lot 6 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
138	Waterline Trench Backfill: Lot 6 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
139	Waterline Trench Backfill: Lot 6 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
09/07/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
140		09/07/21	16	698A	CL	15.5	111.0	16.8	111.7	130.5	8	101	95	0 / 4	A
141		09/07/21	16	698A	CL	15.5	111.0	16.4	110.3	128.4	8	99	95	0 / 4	A
142		09/07/21	16	698A	CL	15.5	111.0	16.5	110.9	129.2	8	100	95	0 / 4	A
143		09/07/21	16	698A	CL	15.5	111.0	16.8	111.4	130.1	8	100	95	0 / 4	A
144		09/07/21	16	698A	CL	15.5	111.0	16.6	110.9	129.3	8	100	95	0 / 4	A
145		09/07/21	16	698A	CL	15.5	111.0	15.7	110.7	128.1	8	100	95	0 / 4	A
146		09/07/21	16	698A	CL	15.5	111.0	17.2	111.5	130.7	8	100	95	0 / 4	A
147		09/07/21	16	698A	CL	15.5	111.0	17.8	111.2	131.0	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
140	Waterline Trench Backfill: Lot 1 Block 2 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
141	Waterline Trench Backfill: Lot 1 Block 2 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
142	Waterline Trench Backfill: Lot 1 Block 2 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
143	Waterline Trench Backfill: Lot 1 Block 2 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
144	Waterline Trench Backfill: Lot 2 Block 2 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
145	Waterline Trench Backfill: Lot 2 Block 2 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
146	Waterline Trench Backfill: Lot 2 Block 2 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
147	Waterline Trench Backfill: Lot 2 Block 2 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
09/07/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
148		09/07/21	16	698A	CL	15.5	111.0	17.1	111.5	130.6	8	100	95	0 / 4	A
149		09/07/21	16	698A	CL	15.5	111.0	17.7	110.7	130.3	8	100	95	0 / 4	A
150		09/07/21	16	698A	CL	15.5	111.0	17.9	110.5	130.3	8	100	95	0 / 4	A
151		09/07/21	16	698A	CL	15.5	111.0	16.5	111.4	129.8	8	100	95	0 / 4	A
152		09/07/21	16	698A	CL	15.5	111.0	16.9	110.8	129.5	8	100	95	0 / 4	A
153		09/07/21	16	698A	CL	15.5	111.0	17.1	111.7	130.8	8	101	95	0 / 4	A
154		09/07/21	16	698A	CL	15.5	111.0	17.0	110.6	129.4	8	100	95	0 / 4	A
155		09/07/21	16	698A	CL	15.5	111.0	16.3	111.0	129.1	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
148	Waterline Trench Backfill: Lot 3 Block 2 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
149	Waterline Trench Backfill: Lot 3 Block 2 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
150	Waterline Trench Backfill: Lot 3 Block 2 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
151	Waterline Trench Backfill: Lot 3 Block 2 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
152	Waterline Trench Backfill: Lot 4 Block 2 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
153	Waterline Trench Backfill: Lot 4 Block 2 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
154	Waterline Trench Backfill: Lot 4 Block 2 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
155	Waterline Trench Backfill: Lot 4 Block 2 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000012
09/07/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
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Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
156		09/07/21	16	698A	CL	15.5	111.0	17.7	111.6	131.4	8	101	95	0 / 4	A
157		09/07/21	16	698A	CL	15.5	111.0	16.4	110.5	128.6	8	100	95	0 / 4	A
158		09/07/21	16	698A	CL	15.5	111.0	17.3	111.5	130.8	8	100	95	0 / 4	A
159		09/07/21	16	698A	CL	15.5	111.0	16.1	110.5	128.3	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
156	Waterline Trench Backfill: Lot 5 Block 2 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
157	Waterline Trench Backfill: Lot 5 Block 2 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
158	Waterline Trench Backfill: Lot 5 Block 2 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
159	Waterline Trench Backfill: Lot 5 Block 2 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

159: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000013
09/08/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
160		09/08/21	7	698A	CL	16.5	107.5	17.6	107.5	126.4	8	100	95	0 / 4	A
161		09/08/21	7	698A	CL	16.5	107.5	17.6	106.2	124.9	8	99	95	0 / 4	A
162		09/08/21	7	698A	CL	16.5	107.5	17.8	107.9	127.1	8	100	95	0 / 4	A
163		09/08/21	7	698A	CL	16.5	107.5	18.4	107.6	127.4	8	100	95	0 / 4	A
164		09/08/21	7	698A	CL	16.5	107.5	17.1	107.3	125.7	8	100	95	0 / 4	A
165		09/08/21	7	698A	CL	16.5	107.5	17.8	107.1	126.2	8	100	95	0 / 4	A
166		09/08/21	7	698A	CL	16.5	107.5	17.1	106.7	124.9	8	99	95	0 / 4	A
167		09/08/21	7	698A	CL	16.5	107.5	17.0	107.4	125.7	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
160	Waterline Trench Backfill: Lot 10 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
161	Waterline Trench Backfill: Lot 10 Block 3 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
162	Waterline Trench Backfill: Lot 10 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
163	Waterline Trench Backfill: Lot 10 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
164	Waterline Trench Backfill: Lot 11 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
165	Waterline Trench Backfill: Lot 11 Block 3 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
166	Waterline Trench Backfill: Lot 11 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
167	Waterline Trench Backfill: Lot 11 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000013
09/08/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
168		09/08/21	7	698A	CL	16.5	107.5	17.0	106.8	125.0	8	99	95	0 / 4	A
169		09/08/21	7	698A	CL	16.5	107.5	16.5	107.2	124.9	8	100	95	0 / 4	A
170		09/08/21	7	698A	CL	16.5	107.5	16.5	107.1	124.8	8	100	95	0 / 4	A
171		09/08/21	7	698A	CL	16.5	107.5	17.3	107.8	126.5	8	100	95	0 / 4	A
172		09/08/21	7	698A	CL	16.5	107.5	17.4	107.8	126.6	8	100	95	0 / 4	A
173		09/08/21	7	698A	CL	16.5	107.5	17.9	107.2	126.4	8	100	95	0 / 4	A
174		09/08/21	7	698A	CL	16.5	107.5	16.7	108.8	127.0	8	101	95	0 / 4	A
175		09/08/21	7	698A	CL	16.5	107.5	17.9	107.6	126.9	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
168	Waterline Trench Backfill: Lot 12 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
169	Waterline Trench Backfill: Lot 12 Block 3 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
170	Waterline Trench Backfill: Lot 12 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
171	Waterline Trench Backfill: Lot 12 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
172	Waterline Trench Backfill: Lot 13 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
173	Waterline Trench Backfill: Lot 13 Block 3 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
174	Waterline Trench Backfill: Lot 13 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
175	Waterline Trench Backfill: Lot 13 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000013
09/08/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
176		09/08/21	7	698A	CL	16.5	107.5	16.7	107.0	124.9	8	100	95	0 / 4	A
177		09/08/21	7	698A	CL	16.5	107.5	16.8	108.2	126.4	8	101	95	0 / 4	A
178		09/08/21	7	698A	CL	16.5	107.5	18.2	108.2	127.9	8	101	95	0 / 4	A
179		09/08/21	7	698A	CL	16.5	107.5	17.2	106.7	125.1	8	99	95	0 / 4	A
180		09/08/21	7	698A	CL	16.5	107.5	17.5	106.9	125.6	8	99	95	0 / 4	A
181		09/08/21	7	698A	CL	16.5	107.5	17.9	107.0	126.2	8	100	95	0 / 4	A
182		09/08/21	7	698A	CL	16.5	107.5	16.8	107.7	125.8	8	100	95	0 / 4	A
183		09/08/21	7	698A	CL	16.5	107.5	17.5	107.8	126.7	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
176	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
177	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
178	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
179	Waterline Trench Backfill: Lot 14 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
180	Waterline Trench Backfill: Lot 15 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
181	Waterline Trench Backfill: Lot 15 Block 3.Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
182	Waterline Trench Backfill: Lot 15 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
183	Waterline Trench Backfill: Lot 15 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000013
09/08/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
184		09/08/21	7	698A	CL	16.5	107.5	16.7	108.8	127.0	8	101	95	0 / 4	A
185		09/08/21	7	698A	CL	16.5	107.5	17.1	108.8	127.4	8	101	95	0 / 4	A
186		09/08/21	7	698A	CL	16.5	107.5	16.7	108.7	126.8	8	101	95	0 / 4	A
187		09/08/21	7	698A	CL	16.5	107.5	16.6	107.0	124.8	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
184	Waterline Trench Backfill: Lot 16 Block 3 Filing 13 Sky Pilot Lane	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
185	Waterline Trench Backfill: Lot 16 Block 3 Filing 13 Sky Pilot Lane	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
186	Waterline Trench Backfill: Lot 16 Block 3 Filing 13 Sky Pilot Lane	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
187	Waterline Trench Backfill: Lot 16 Block 3 Filing 13 Sky Pilot Lane	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

187: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, aDD moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000014
09/09/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
188		09/09/21	7	698A	CL	16.5	107.5	17.5	107.0	125.7	8	100	95	0 / 4	A
189		09/09/21	7	698A	CL	16.5	107.5	16.8	107.1	125.1	8	100	95	0 / 4	A
190		09/09/21	7	698A	CL	16.5	107.5	16.7	107.3	125.2	8	100	95	0 / 4	A
191		09/09/21	7	698A	CL	16.5	107.5	17.8	106.9	125.9	8	99	95	0 / 4	A
192		09/09/21	7	698A	CL	16.5	107.5	17.5	107.3	126.1	8	100	95	0 / 4	A
193		09/09/21	7	698A	CL	16.5	107.5	17.5	107.7	126.6	8	100	95	0 / 4	A
194		09/09/21	7	698A	CL	16.5	107.5	17.8	107.8	127.0	8	100	95	0 / 4	A
195		09/09/21	7	698A	CL	16.5	107.5	17.2	107.1	125.5	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
188	Waterline Trench Backfill: Lot 7 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
189	Waterline Trench Backfill: Lot 7 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
190	Waterline Trench Backfill: Lot 7 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
191	Waterline Trench Backfill: Lot 7 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
192	Waterline Trench Backfill: Lot 8 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
193	Waterline Trench Backfill: Lot 8 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
194	Waterline Trench Backfill: Lot 8 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
195	Waterline Trench Backfill: Lot 8 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Compaction Test Report

Report #: SNG-000014
09/09/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
196		09/09/21	7	698A	CL	16.5	107.5	16.6	107.0	124.8	8	100	95	0 / 4	A
197		09/09/21	7	698A	CL	16.5	107.5	17.0	107.2	125.4	8	100	95	0 / 4	A
198		09/09/21	7	698A	CL	16.5	107.5	17.5	108.1	127.0	8	101	95	0 / 4	A
199		09/09/21	7	698A	CL	16.5	107.5	17.2	108.9	127.6	8	101	95	0 / 4	A
200		09/09/21	7	698A	CL	16.5	107.5	17.7	108.8	128.1	8	101	95	0 / 4	A
201		09/09/21	7	698A	CL	16.5	107.5	17.7	107.1	126.1	8	100	95	0 / 4	A
202		09/09/21	7	698A	CL	16.5	107.5	17.6	106.6	125.4	8	99	95	0 / 4	A
203		09/09/21	7	698A	CL	16.5	107.5	17.3	109.0	127.9	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
196	Waterline Trench Backfill: Lot 9 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
197	Waterline Trench Backfill: Lot 9 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
198	Waterline Trench Backfill: Lot 9 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
199	Waterline Trench Backfill: Lot 9 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
200	Waterline Trench Backfill: Lot 10 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
201	Waterline Trench Backfill: Lot 10 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
202	Waterline Trench Backfill: Lot 10 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
203	Waterline Trench Backfill: Lot 10 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000014
09/09/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
204		09/09/21	7	698A	CL	16.5	107.5	16.5	107.0	124.7	8	100	95	0 / 4	A
205		09/09/21	7	698A	CL	16.5	107.5	17.4	107.8	126.6	8	100	95	0 / 4	A
206		09/09/21	7	698A	CL	16.5	107.5	16.8	107.8	125.9	8	100	95	0 / 4	A
207		09/09/21	7	698A	CL	16.5	107.5	17.9	107.8	127.1	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
204	Waterline Trench Backfill: Lot 11 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
205	Waterline Trench Backfill: Lot 11 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
206	Waterline Trench Backfill: Lot 11 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
207	Waterline Trench Backfill: Lot 11 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

207: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, aDD moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000015
09/13/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
208		09/13/21	7	698A	CL	16.5	107.5	17.1	107.5	125.9	8	100	95	0 / 4	A
209		09/13/21	7	698A	CL	16.5	107.5	17.6	107.1	126.0	8	100	95	0 / 4	A
210		09/13/21	7	698A	CL	16.5	107.5	17.9	107.8	127.1	8	100	95	0 / 4	A
211		09/13/21	7	698A	CL	16.5	107.5	16.8	107.8	125.9	8	100	95	0 / 4	A
212		09/13/21	7	698A	CL	16.5	107.5	17.0	108.4	126.8	8	101	95	0 / 4	A
213		09/13/21	7	698A	CL	16.5	107.5	17.9	107.4	126.6	8	100	95	0 / 4	A
214		09/13/21	7	698A	CL	16.5	107.5	17.8	106.9	125.9	8	99	95	0 / 4	A
215		09/13/21	7	698A	CL	16.5	107.5	17.4	107.5	126.2	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
208	Waterline Trench Backfill: Lot 12 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
209	Waterline Trench Backfill: Lot 12 Block1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
210	Waterline Trench Backfill: Lot 12 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
211	Waterline Trench Backfill: Lot 12 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
212	Waterline Trench Backfill: Lot 13 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
213	Waterline Trench Backfill: Lot 13 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
214	Waterline Trench Backfill: Lot 13 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
215	Waterline Trench Backfill: Lot 13 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000015
09/13/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
216		09/13/21	7	698A	CL	16.5	107.5	16.6	109.0	127.1	8	101	95	0 / 4	A
217		09/13/21	7	698A	CL	16.5	107.5	17.6	106.4	125.1	8	99	95	0 / 4	A
218		09/13/21	7	698A	CL	16.5	107.5	17.3	107.6	126.2	8	100	95	0 / 4	A
219		09/13/21	7	698A	CL	16.5	107.5	17.8	108.5	127.8	8	101	95	0 / 4	A
220		09/13/21	7	698A	CL	16.5	107.5	17.7	106.9	125.8	8	99	95	0 / 4	A
221		09/13/21	7	698A	CL	16.5	107.5	18.0	107.3	126.6	8	100	95	0 / 4	A
222		09/13/21	7	698A	CL	16.5	107.5	16.8	107.2	125.2	8	100	95	0 / 4	A
223		09/13/21	7	698A	CL	16.5	107.5	17.3	108.0	126.7	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
216	Waterline Trench Backfill: Lot 14 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
217	Waterline Trench Backfill: Lot 14 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
218	Waterline Trench Backfill: Lot 14 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
219	Waterline Trench Backfill: Lot 14 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
220	Waterline Trench Backfill: Lot 15 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
221	Waterline Trench Backfill: Lot 15 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
222	Waterline Trench Backfill: Lot 15 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
223	Waterline Trench Backfill: Lot 15 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000015
09/13/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
224		09/13/21	7	698A	CL	16.5	107.5	17.8	107.8	127.0	8	100	95	0 / 4	A
225		09/13/21	7	698A	CL	16.5	107.5	16.6	107.0	124.8	8	100	95	0 / 4	A
226		09/13/21	7	698A	CL	16.5	107.5	16.7	107.4	125.3	8	100	95	0 / 4	A
227		09/13/21	7	698A	CL	16.5	107.5	18.0	107.8	127.2	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
224	Waterline Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
225	Waterline Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
226	Waterline Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
227	Waterline Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

227: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, aDD moisture with the water truck then apply compactive effort with a sheepsfoot roller and loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver, CO 80204
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Compaction Test Report

Report #: SNG-000016
12/15/2021
Report Date: 01/25/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
228		12/15/21	5	698A	SC	13.5	114.5	13.2	114.7	129.8	8	100	100	-2 / 2	A
229		12/15/21	5	698A	SC	13.5	114.5	13.4	114.1	129.4	8	100	100	-2 / 2	A
230		12/15/21	5	698A	SC	13.5	114.5	13.8	114.5	130.3	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
228	Waterline Trench Backfill: Sky Pilot Ave. Lot 2. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
229	Waterline Trench Backfill: Sky Pilot Ave. Lot 2. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
230	Waterline Trench Backfill: Sky Pilot Ave. Lot 2. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

230: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the loader. Many lots in filing 13 are being dug out.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000017
12/17/2021
Report Date: 01/25/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
235		12/17/21	5	698A	SC	13.5	114.5	13.3	114.2	129.4	8	100	100	-2 / 2	A
236		12/17/21	5	698A	SC	13.5	114.5	14.7	114.4	131.2	8	100	100	-2 / 2	A
237		12/17/21	5	698A	SC	13.5	114.5	13.7	114.2	129.9	8	100	100	-2 / 2	A
238		12/17/21	5	698A	SC	13.5	114.5	14.5	114.9	131.6	8	100	100	-2 / 2	A
239		12/17/21	5	698A	SC	13.5	114.5	12.8	114.5	129.2	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
235	Waterline Trench Backfill: Sky Pilot Ave. Lot 7. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
236	Waterline Trench Backfill: Sky Pilot Ave. Lot 7. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
237	Waterline Trench Backfill: Sky Pilot Ave. Lot 9. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
238	Waterline Trench Backfill: Sky Pilot Ave. Lot 9. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
239	Waterline Trench Backfill: Sky Pilot Ave. Lot 9. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

239: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000018
12/18/2021
Report Date: 01/25/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
240		12/18/21	5	698A	SC	13.5	114.5	14.0	114.5	130.5	8	100	100	-2 / 2	A
241		12/18/21	5	698A	SC	13.5	114.5	13.8	114.1	129.8	8	100	100	-2 / 2	A
242		12/18/21	5	698A	SC	13.5	114.5	14.0	114.6	130.7	8	100	100	-2 / 2	A
243		12/18/21	5	698A	SC	13.5	114.5	13.1	114.4	129.4	8	100	100	-2 / 2	A
244		12/18/21	5	698A	SC	13.5	114.5	14.0	115.6	131.8	8	101	100	-2 / 2	A
245		12/18/21	5	698A	SC	13.5	114.5	14.2	114.6	130.9	8	100	100	-2 / 2	A
246		12/18/21	5	698A	SC	13.5	114.5	14.3	115.1	131.6	8	101	100	-2 / 2	A
247		12/18/21	5	698A	SC	13.5	114.5	13.1	114.0	128.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
240	Waterline Trench Backfill: Sky Pilot Ave. Lot 12. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
241	Waterline Trench Backfill: Sky Pilot Ave. Lot 12. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
242	Waterline Trench Backfill: Sky Pilot Ave. Lot 12. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
243	Waterline Trench Backfill: Sky Pilot Ave. Lot 14. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
244	Waterline Trench Backfill: Sky Pilot Ave. Lot 14. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
245	Waterline Trench Backfill: Sky Pilot Ave. Lot 14. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
246	Waterline Trench Backfill: Sky Pilot Ave. Lot 16. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
247	Waterline Trench Backfill: Sky Pilot Ave. Lot 16. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
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Denver, CO 80204
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Compaction Test Report

Report #: SNG-000018
12/18/2021
Report Date: 01/25/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
248		12/18/21	5	698A	SC	13.5	114.5	14.5	114.8	131.4	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
248	Waterline Trench Backfill: Sky Pilot Ave. Lot 16. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

248: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000019
12/28/2021
Report Date: 01/25/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
249		12/28/21	16	698A	CL	15.5	111.0	16.0	110.9	128.6	8	100	95	0 / 4	A
250		12/28/21	16	698A	CL	15.5	111.0	15.6	111.7	129.1	8	101	95	0 / 4	A
251		12/28/21	16	698A	CL	15.5	111.0	16.4	110.5	128.6	8	100	95	0 / 4	A
252		12/28/21	16	698A	CL	15.5	111.0	16.5	111.1	129.4	8	100	95	0 / 4	A
253		12/28/21	16	698A	CL	15.5	111.0	16.4	111.4	129.7	8	100	95	0 / 4	A
254		12/28/21	16	698A	CL	15.5	111.0	16.6	110.6	129.0	8	100	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
249	Waterline Trench Backfill: Sky Pilot Ave. Lot 3. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
250	Waterline Trench Backfill: Sky Pilot Ave. Lot 3. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
251	Waterline Trench Backfill: Sky Pilot Ave. Lot 3. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
252	Waterline Trench Backfill: Sky Pilot Ave. Lot 5. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
253	Waterline Trench Backfill: Sky Pilot Ave. Lot 5. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
254	Waterline Trench Backfill: Sky Pilot Ave. Lot 5. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

254: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Compaction Test Report

Report #: SNG-000020
12/29/2021
Report Date: 01/25/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
255		12/29/21	16	698A	CL	15.5	111.0	16.7	111.5	130.1	8	100	95	0 / 4	A
256		12/29/21	16	698A	CL	15.5	111.0	16.7	111.0	129.5	8	100	95	0 / 4	A
257		12/29/21	16	698A	CL	15.5	111.0	16.0	112.0	129.9	8	101	95	0 / 4	A
258		12/29/21	16	698A	CL	15.5	111.0	16.0	111.7	129.6	8	101	95	0 / 4	A
259		12/29/21	16	698A	CL	15.5	111.0	16.8	111.6	130.3	8	101	95	0 / 4	A
260		12/29/21	16	698A	CL	15.5	111.0	16.8	112.0	130.8	8	101	95	0 / 4	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
255	Waterline Trench Backfill: Sky Pilot Ave. Lot 7. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
256	Waterline Trench Backfill: Sky Pilot Ave. Lot 7. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
257	Waterline Trench Backfill: Sky Pilot Ave. Lot 7. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
258	Waterline Trench Backfill: Sky Pilot Ave. Lot 10. Block 2. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
259	Waterline Trench Backfill: Sky Pilot Ave. Lot 10. Block 2. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
260	Waterline Trench Backfill: Sky Pilot Ave. Lot 10. Block 2. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

260: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck, and apply compactive effort with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000021
12/16/2021
Report Date: 02/03/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-320
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
231		12/16/21	5	698A	SC	13.5	114.5	13.1	114.0	128.9	8	100	100	-2 / 2	A
232		12/16/21	5	698A	SC	13.5	114.5	13.5	114.1	129.5	8	100	100	-2 / 2	A
233		12/16/21	5	698A	SC	13.5	114.5	12.9	116.1	131.1	8	101	100	-2 / 2	A
234		12/16/21	5	698A	SC	13.5	114.5	14.1	114.4	130.5	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
231	Waterline Trench Backfill: Sky Pilot Ave. Lot 4. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
232	Waterline Trench Backfill: Sky Pilot Ave. Lot 4. Block 1. Filing 13	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
233	Waterline Trench Backfill: Sky Pilot Ave. Lot 4. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
234	Waterline Trench Backfill: Sky Pilot Ave. Lot 7. Block 1. Filing 13	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

234: As requested by Sheryl with JBS, a site visit was made to observe and test waterline trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with the loader.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000001
07/30/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-325
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
6		07/30/21	5	698A	SC	13.5	114.5	14.3	114.8	131.2	8	100	95	-2 / 2	A
7		07/30/21	5	698A	SC	13.5	114.5	13.2	114.4	129.5	8	100	95	-2 / 2	A
8		07/30/21	5	698A	SC	13.5	114.5	13.8	114.1	129.8	8	100	95	-2 / 2	A
9		07/30/21	5	698A	SC	13.5	114.5	14.1	114.4	130.5	8	100	95	-2 / 2	A
10		07/30/21	5	698A	SC	13.5	114.5	14.3	115.0	131.4	8	100	95	-2 / 2	A
11		07/30/21	5	698A	SC	13.5	114.5	13.1	114.1	129.1	8	100	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
6	Storm Inlet Backfill: Corner of Sky Pilot Ave and Scarlet Sage Ave. Inlet 54. Station 46+46.93	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
7	Storm Inlet Backfill: Corner of Sky Pilot Ave and Scarlet Sage Ave. Inlet 54. Station 46+46.93	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
8	Storm Inlet Backfill: Corner of Sky Pilot Ave and Scarlet Sage Ave. Inlet 54. Station 46+46.93	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
9	Storm Inlet Backfill: Corner of Sky Pilot Ave and Scarlet Sage Ave. Inlet 54. Station 46+46.93	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
10	Storm Inlet Backfill: Corner of Sky Pilot Ave and Scarlet Sage Ave. Inlet 54. Station 46+46.93	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
11	Storm Inlet Backfill: Corner of Sky Pilot Ave and Scarlet Sage Ave. Inlet 54. Station 46+46.93	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

11: As requested by Sheryl with JBS, a site visit was made to observe and test storm trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000002
07/26/2021
Report Date: 08/14/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-325
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
1		07/26/21	5	698A	SC	13.5	114.5	14.2	113.3	129.4	8	99	95	-2 / 2	A
2		07/26/21	5	698A	SC	13.5	114.5	14.2	112.8	128.8	8	99	95	-2 / 2	A
3		07/26/21	5	698A	SC	13.5	114.5	13.8	114.3	130.1	8	100	95	-2 / 2	A
4		07/26/21	5	698A	SC	13.5	114.5	13.2	114.0	129.1	8	100	95	-2 / 2	A
5		07/26/21	5	698A	SC	13.5	114.5	13.3	115.4	130.8	8	101	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Storm Inlet Backfill: Corner of North Pinery Pkwy and Scarlet Sage Ave. Inlet 93.	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
2	Storm Inlet Backfill: Corner of North Pinery Pkwy and Scarlet Sage Ave. Inlet 93.	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
3	Storm Inlet Backfill: Corner of North Pinery Pkwy and Scarlet Sage Ave. Inlet 93.	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
4	Storm Inlet Backfill: Corner of North Pinery Pkwy and Scarlet Sage Ave. Inlet 93.	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
5	Storm Inlet Backfill: Corner of North Pinery Pkwy and Scarlet Sage Ave. Inlet 93.	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

5: As requested by Sheryl with JBS, a site visit was made to observe and test storm trench backfill. We observed the contractor place fill with the loader, apply moisture with the water truck, and apply compactive effort with loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000003
08/05/2021
Report Date: 09/30/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-325
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
17		08/05/21	5	698A	SC	13.5	114.5	14.4	114.9	131.5	8	100	100	-2 / 2	A
18		08/05/21	5	698A	SC	13.5	114.5	13.7	114.9	130.6	8	100	100	-2 / 2	A
19		08/05/21	5	698A	SC	13.5	114.5	13.9	114.8	130.7	8	100	100	-2 / 2	A
20		08/05/21	5	698A	SC	13.5	114.5	13.8	114.3	130.1	8	100	100	-2 / 2	A
21		08/05/21	5	698A	SC	13.5	114.5	13.2	114.3	129.4	8	100	100	-2 / 2	A
22		08/05/21	5	698A	SC	13.5	114.5	14.1	114.8	131.0	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
17	Storm Sewer Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave.	6.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
18	Storm Sewer Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave.	5.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
19	Storm Sewer Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave.	4.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
20	Storm Sewer Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave.	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
21	Storm Sewer Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave.	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
22	Storm Sewer Trench Backfill: Lot 16 Block 1 Filing 13 Sky Pilot Ave.	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

22: As requested by Sheryl with JBS, a site visit was made to observe and test storm trench backfill. We observed the contractor place fill with the loader, add moisture with the water truck then apply compactive effort with loader wheel rolling.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000004
08/04/2021
Report Date: 10/12/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-325
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
12		08/04/21	5	698A	SC	13.5	114.5	12.9	114.9	129.7	8	100	95	-2 / 2	A
13		08/04/21	5	698A	SC	13.5	114.5	13.1	115.3	130.4	8	101	95	-2 / 2	A
14		08/04/21	5	698A	SC	13.5	114.5	12.4	114.5	128.7	8	100	95	-2 / 2	A
15		08/04/21	5	698A	SC	13.5	114.5	13.9	114.3	130.2	8	100	95	-2 / 2	A
16		08/04/21	5	698A	SC	13.5	114.5	14.1	113.1	129.1	8	99	95	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
12	Storm Sewer Trench Backfill: Sky Pilot Ave. SDMH 100. W side	3.0		XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
13	Storm Sewer Trench Backfill: Sky Pilot Ave. SDMH 100. N side	2.0		XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
14	Storm Sewer Trench Backfill: Sky Pilot Ave. SDMH 100. E side	1.0		XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
15	Storm Sewer Trench Backfill: Sky Pilot Ave. SDMH 101. N side	3.0		XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
16	Storm Sewer Trench Backfill: Sky Pilot Ave. SDMH 101. W side	2.0		XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
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Compaction Test Report

Report #: SNG-000005
09/28/2021
Report Date: 10/29/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-325
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
23		09/28/21	5	698A	SC	13.5	114.5	13.2	114.0	129.1	8	100	100	-2 / 2	A
24		09/28/21	5	698A	SC	13.5	114.5	12.3	114.1	128.1	8	100	100	-2 / 2	A
25		09/28/21	5	698A	SC	13.5	114.5	13.9	114.2	130.1	8	100	100	-2 / 2	A
26		09/28/21	5	698A	SC	13.5	114.5	13.4	114.5	129.8	8	100	100	-2 / 2	A
27		09/28/21	5	698A	SC	13.5	114.5	13.5	114.0	129.4	8	100	100	-2 / 2	A
28		09/28/21	5	698A	SC	13.5	114.5	13.0	114.0	128.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
23	Storm Inlet Backfill: Inlet 93. Sta 44+12.76 refill	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
24	Storm Inlet Backfill: Inlet 93. Sta 44+12.76 refill	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
25	Storm Inlet Backfill: Inlet 93. Sta 44+12.76 refill	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
26	Storm Inlet Backfill: Inlet 54. Sta 46+49.93 refill	3.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
27	Storm Inlet Backfill: Inlet 54. Sta 46+49.93 refill	2.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
28	Storm Inlet Backfill: Inlet 54. Sta 46+49.93 refill	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000001
10/13/2021
Report Date: 10/29/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
4		10/13/21	2	ASTM D698C	SC	10.5	121.0	10.4	121.6	134.3	8	100	100	-2 / 2	A
5		10/13/21	2	ASTM D698C	SC	10.5	121.0	10.7	120.7	133.6	8	100	100	-2 / 2	A
6		10/13/21	2	ASTM D698C	SC	10.5	121.0	9.9	121.9	134.0	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
4	Curb and Gutter Subgrade: Adjacent to Lot 12 Block 2 filing 13. North side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
5	Curb and Gutter Subgrade: Adjacent to Lot 16 Block 2 filing 13. South side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
6	Curb and Gutter Subgrade: Adjacent to Lot 19 Block 2 filing 13. North side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

6: As requested by Ken with Thoutt, a site visit was made to test curb and gutter subgrade. The Crowfoot site. We observed the contractor add moisture with the water truck, and apply compactive effort with the paver. Our office will be contacted when further testing is requested

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000002
10/14/2021
Report Date: 10/29/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
7		10/14/21	2	ASTM D698C	SC	10.5	121.0	9.9	120.7	132.7	8	100	100	-2 / 2	A
8		10/14/21	2	ASTM D698C	SC	10.5	121.0	10.7	120.6	133.5	8	100	100	-2 / 2	A
9		10/14/21	2	ASTM D698C	SC	10.5	121.0	10.9	120.8	134.0	8	100	100	-2 / 2	A
10		10/14/21	2	ASTM D698C	SC	10.5	121.0	10.9	121.9	135.2	8	101	100	-2 / 2	A
11		10/14/21	2	ASTM D698C	SC	10.5	121.0	10.6	121.7	134.6	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
7	Curb and Gutter Subgrade: Sky Pilot lane. Adjacent to Lot 12 Block 3 filing 13. East side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
8	Curb and Gutter Subgrade: Sky Pilot lane. Adjacent to Lot 15 Block 3 filing 13. West side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
9	Curb and Gutter Subgrade: Sky Pilot lane. Adjacent to Lot 16 Block 3 filing 13. East side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
10	Curb and Gutter Subgrade: Purple Aster Way. Adjacent to Lot 1 Block 3 filing 13. West side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
11	Curb and Gutter Subgrade: Purple Aster Way. Adjacent to Lot 3 Block 3 filing 13. West side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

11: As requested by Ken with Thoutt, a site visit was made to test curb and gutter subgrade. The Crowfoot site. We observed the contractor add moisture with the water truck, and apply compactive effort with the paver. Our office will be contacted when further testing is requested

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000003
10/15/2021
Report Date: 10/29/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
12		10/15/21	2	ASTM D698C	SC	10.5	121.0	10.4	120.4	132.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
12	Curb and Gutter Subgrade: Purple Aster Way. Adjacent to Lot 7 Block 3 filing 13. East side	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

12: As requested by Ken with Thoutt, a site visit was made to test curb and gutter subgrade. The Crowfoot site. We observed the contractor add moisture with the water truck, and apply compactive effort with the paver. Our office will be contacted when further testing is requested

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000004
10/16/2021
Report Date: 10/29/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
13		10/16/21	2	ASTM D698C	SC	10.5	121.0	10.7	122.0	135.0	8	101	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
13	Observation Only: Purple Aster Way.	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

13: As requested by Ken with Thoutt, a site visit was made to test curb subgrade. The Crowfoot site. We observed the contractor apply compactive effort with the paver. No tests were taken. Our office will be contacted when further testing is requested

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver, CO 80204
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Compaction Test Report

Report #: SNG-000005
10/26/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
22		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.1	121.3	132.3	8	100	100	-2 / 2	A
23		10/26/21	2	ASTM D698C	SC	10.5	121.0	10.0	120.6	132.6	8	100	100	-2 / 2	A
24		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.0	121.0	131.9	8	100	100	-2 / 2	A
25		10/26/21	2	ASTM D698C	SC	10.5	121.0	10.6	120.8	133.6	8	100	100	-2 / 2	A
26		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.6	120.8	132.4	8	100	100	-2 / 2	A
27		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.2	121.5	132.7	8	100	100	-2 / 2	A
28		10/26/21	2	ASTM D698C	SC	10.5	121.0	9.9	121.0	133.0	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
22	Street Subgrade: 300' W of intersection Sky Pilot Ave & Sky Pilot Ln. N side of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
23	Street Subgrade: 200' W of intersection Sky Pilot Ave & Sky Pilot Ln. Middle of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
24	Street Subgrade: 100' W of intersection Sky Pilot Ave & Sky Pilot Ln. South side of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
25	Street Subgrade: 100' S of intersection Sky Pilot Ave & Sky Pilot Ln. East side of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
26	Street Subgrade: 125' S of intersection Sky Pilot Ave & Sky Pilot Ln. West side of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
27	Street Subgrade: 100' E of intersection Sky Pilot Ln & Purple Aster Way. Center of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent
28	Street Subgrade: 100' S of intersection Sky Pilot Ln & Purple Aster Way. Center of Rd.	1.0	BG	XPLORER / 3500 / 1987 / 08/30/2021	Bergman, Trent

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency. **28:** As requested by Thoutt Brothers, a site visit was made to observe and test street subgrade. Subgrade was prepared prior to our arrival.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000006
10/28/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
11		10/28/21	2	ASTM D698C	SC	10.5	121.0	10.1	120.4	132.6	8	100	100	-2 / 2	A
12		10/28/21	2	ASTM D698C	SC	10.5	121.0	11.0	120.4	133.6	8	100	100	-2 / 2	A
13		10/28/21	2	ASTM D698C	SC	10.5	121.0	10.2	121.5	133.9	8	100	100	-2 / 2	A
14		10/28/21	2	ASTM D698C	SC	10.5	121.0	9.5	121.2	132.7	8	100	100	-2 / 2	A
15		10/28/21	2	ASTM D698C	SC	10.5	121.0	9.2	120.5	131.6	8	100	100	-2 / 2	A
16		10/28/21	2	ASTM D698C	SC	10.5	121.0	9.8	120.4	132.2	8	100	100	-2 / 2	A
17		10/28/21	2	ASTM D698C	SC	10.5	121.0	10.1	120.6	132.8	8	100	100	-2 / 2	A
18		10/28/21	2	ASTM D698C	SC	10.5	121.0	10.8	120.4	133.4	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
11	Curb and Gutter Subgrade: NE corner of Alpine Phlox and Sky Pilot	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
12	Curb and Gutter Subgrade: SE corner of Sky Pilot Lane and Sky Pilot Ave	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
13	Curb and Gutter Subgrade: SW corner of Sky Pilot Lane and Sky Pilot Ave	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
14	Curb and Gutter Subgrade: Adjacent to Lot 11 block 3	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
15	Curb and Gutter Subgrade: Adjacent to Lot 19 block 2	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
16	Curb and Gutter Subgrade: Adjacent to Lot 10 block 3	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
17	Curb and Gutter Subgrade: SE corner of Purple Aster and Sky Pilot	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
18	Curb and Gutter Subgrade: SW corner of Purple Aster and Sky Pilot	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000006
10/28/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
19		10/28/21	2	ASTM D698C	SC	10.5	121.0	9.6	121.1	132.7	8	100	100	-2 / 2	A
20		10/28/21	2	ASTM D698C	SC	10.5	121.0	9.4	120.8	132.2	8	100	100	-2 / 2	A
21		10/28/21	2	ASTM D698C	SC	10.5	121.0	10.9	120.6	133.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
19	Curb and Gutter Subgrade: Adjacent to Lot 6 block 3	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
20	Curb and Gutter Subgrade: SE corner of Sky Pilot and Alpine Phlox	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay
21	Curb and Gutter Subgrade: NE corner of Sky Pilot and Alpine Phlox	0.0	BG	XPLORER / 3500 / 2418 / 04/20/2021	Abbott, Bay

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

21: As requested by Thoutt, a site visit was made to observe and test curb and gutter subgrade. Subgrade was prepared prior to our arrival.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
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Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000007
11/01/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
29		11/01/21	2	ASTM D698C	SC	10.5	121.0	10.0	120.8	132.9	8	100	100	-2 / 2	A
30		11/01/21	2	ASTM D698C	SC	10.5	121.0	10.7	120.8	133.7	8	100	100	-2 / 2	A
31		11/01/21	2	ASTM D698C	SC	10.5	121.0	9.2	120.4	131.5	8	100	100	-2 / 2	A
32		11/01/21	2	ASTM D698C	SC	10.5	121.0	10.5	120.5	133.1	8	100	100	-2 / 2	A
33		11/01/21	2	ASTM D698C	SC	10.5	121.0	9.9	120.8	132.8	8	100	100	-2 / 2	A
34		11/01/21	2	ASTM D698C	SC	10.5	121.0	9.5	120.4	131.8	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
29	Sidewalk Subgrade: Sky Pilot Lane. Filing 13. Lot 11. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
30	Sidewalk Subgrade: Sky Pilot Lane. Filing 13. Lot 15. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
31	Sidewalk Subgrade: Sky Pilot Lane. Filing 13. Lot 19. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
32	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 10. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
33	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 6. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
34	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 1. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

34: As requested by Thoutt Brothers, a site visit was made to observe and test sidewalk subgrade. We observed the contractor add moisture with the water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000008
11/02/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
35		11/02/21	2	ASTM D698C	SC	10.5	121.0	10.5	121.2	133.9	8	100	100	-2 / 2	A
36		11/02/21	2	ASTM D698C	SC	10.5	121.0	9.9	120.5	132.4	8	100	100	-2 / 2	A
37		11/02/21	2	ASTM D698C	SC	10.5	121.0	10.5	121.6	134.4	8	100	100	-2 / 2	A
38		11/02/21	2	ASTM D698C	SC	10.5	121.0	11.0	121.4	134.8	8	100	100	-2 / 2	A
39		11/02/21	2	ASTM D698C	SC	10.5	121.0	10.5	120.4	133.1	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
35	Sidewalk Subgrade: Sky Pilot lane. Filing 13. Adjacent to lot 11. Lot 1. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
36	Sidewalk Subgrade: Sky Pilot lane. Filing 13. Adjacent to lot 15. Lot 1. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
37	Sidewalk Subgrade: Sky Pilot lane. Filing 13. Adjacent to lot 18. Lot 1. Block 2	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
38	Sidewalk Subgrade: Sky Pilot lane. Filing 13. Lot 11. Block 3	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
39	Sidewalk Subgrade: Sky Pilot lane. Filing 13. Lot 15. Block 3	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

39: As requested by Thoutt Brothers, a site visit was made to observe and test sidewalk subgrade. We observed the contractor add moisture with the water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Compaction Test Report

Report #: SNG-000009
11/03/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
40		11/03/21	2	ASTM D698C	SC	10.5	121.0	10.9	120.8	134.0	8	100	100	-2 / 2	A
41		11/03/21	2	ASTM D698C	SC	10.5	121.0	11.0	121.2	134.5	8	100	100	-2 / 2	A
42		11/03/21	2	ASTM D698C	SC	10.5	121.0	10.0	120.4	132.5	8	100	100	-2 / 2	A
43		11/03/21	2	ASTM D698C	SC	10.5	121.0	10.7	120.8	133.7	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
40	Sidewalk Subgrade: Purple Aster Way. Filing 13. Lot 1. Block 3	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
41	Sidewalk Subgrade: Purple Aster Way. Filing 13. Lot 3. Block 3	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
42	Sidewalk Subgrade: Purple Aster Way. Filing 13. Lot 6. Block 3	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
43	Sidewalk Subgrade: Purple Aster Way. Filing 13. Lot 9. Block 3	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

43: As requested by Thoutt Brothers, a site visit was made to observe and test sidewalk subgrade. We observed the contractor add moisture with the water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

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Denver
1971 West 12th Avenue
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Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000010
11/04/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
44		11/04/21	2	ASTM D698C	SC	10.5	121.0	10.9	122.1	135.4	8	101	100	-2 / 2	A
45		11/04/21	2	ASTM D698C	SC	10.5	121.0	10.2	121.1	133.5	8	100	100	-2 / 2	A
46		11/04/21	2	ASTM D698C	SC	10.5	121.0	10.6	121.4	134.3	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
44	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 1. Block 1	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
45	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 4. Block 1	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
46	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 8. Block 1	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

46: As requested by Thoutt Brothers, a site visit was made to observe and test sidewalk subgrade. We observed the contractor add moisture with the water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000011
11/05/2021
Report Date: 11/24/2021
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
47		11/05/21	2	ASTM D698C	SC	10.5	121.0	10.0	120.6	132.6	8	100	100	-2 / 2	A
48		11/05/21	2	ASTM D698C	SC	10.5	121.0	11.1	121.3	134.8	8	100	100	-2 / 2	A
49		11/05/21	2	ASTM D698C	SC	10.5	121.0	10.3	121.4	133.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
47	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 10. Block 1	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
48	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 13. Block 1	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
49	Sidewalk Subgrade: Sky Pilot Ave. Filing 13. Lot 16. Block 1	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

49: As requested by Thoutt Brothers, a site visit was made to observe and test sidewalk subgrade. We observed the contractor add moisture with the water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Compaction Test Report

Report #: SNG-000012
11/18/2021
Report Date: 01/05/2022
Test Method: ASTM D 6938

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-340
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Optimum Moisture Tolerance (%)	Remark
50		11/18/21	2	ASTM D698C	SC	10.5	121.0	10.9	121.6	134.9	8	100	100	-2 / 2	A
51		11/18/21	2	ASTM D698C	SC	10.5	121.0	10.8	120.4	133.4	8	100	100	-2 / 2	A
52		11/18/21	2	ASTM D698C	SC	10.5	121.0	11.8	120.7	134.9	8	100	100	-2 / 2	A

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
50	Street Subgrade: Sky Pilot Ave. Lot 2. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
51	Street Subgrade: Sky Pilot Ave. Lot 8. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse
52	Street Subgrade: Sky Pilot Ave. Lot 15. Block 1. Filing 13	1.0	BG	XPLORER / 3500 / 2026 / 04/21/2021	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

52: As requested by Ken with JBS, a site visit was made to observe and test sidewalk subgrade. We observed the contractor add moisture with the water truck.

This report presents opinions formed as a result of our observations of fill placement and the test results shown above. Test data are not the sole basis for opinions whether the fill meets project specifications. The contractor is responsible to apply necessary compaction effort and moisture to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000001
11/12/2021
Report Date: 12/06/2021
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Test Location	Material	Mix Design	Thickness (in)	Max Density (pcf)	Max Density Source	In Place Density (pcf)	Probe Depth (in)	Percent Comp.	Min/Max Comp. (%)	Remark	Gauge SN	Technician
1		11/12/21	Asphalt Placement: Filing 13. Purple Aster Way. Lot 5. Block 3	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	149.1	Backscatter	96	92 / 96	A	2026	Eaton, Jesse
2		11/12/21	Asphalt Placement: Filing 13. Purple Aster Way. Lot 1. Block 3	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	148.7	Backscatter	96	92 / 96	A	2026	Eaton, Jesse
3		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Lane. Lot 11. Block 2	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	146.8	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
4		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Lane. Lot 14. Block 2	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	145.9	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
5		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Lane. Lot 18. Block 2	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	145.5	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
6		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Lane. Lot 11. Block 3	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	147.7	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
7		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Lane. Lot 14. Block 3	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	148.1	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
8		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Lane. Lot 16. Block 3	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	144.8	Backscatter	93	92 / 96	A	2026	Eaton, Jesse
9		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Ave. Lot 1. Block 1	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	149.3	Backscatter	96	92 / 96	A	2026	Eaton, Jesse
10		11/12/21	Asphalt Placement: Filing 13. Sky Pilot Ave. Lot 3. Block 2	Base Lift 1	5493 S-75		155.4	1 11/12/2021 / Rice	148.5	Backscatter	96	92 / 96	A	2026	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter"

10: As requested by Casey with Martin Marietta, a site visit was made to observe and test asphalt placement. We observed the contractor place asphalt with the paver and apply compactive effort with the vibratory drum rollers and rubber tire roller. One sample was collected and returned to our lab for testing.

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000001
11/12/2021
Report Date: 12/06/2021
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Gauge Information

Gauge SN	Make	Model	Density Count	Moisture Count	Standard Count Date	Last Calibration Date	Last Calibrated By
2026	XPLORER	3500	2749	764	11/12/21	04/21/21	Instrotek

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

Asphalt Concrete Material Analysis

CTL | THOMPSON INCORPORATED

CLIENT: D.R. Horton
PROJECT: Trails at Crowfoot, Filing 13
PROJECT NO: DN50626.002F
DATE: 11/12/2021

SIEVE SIZE	5493 MARTIN MARIETTA S-75		PERCENT PASSING	
	MIX DESIGN	PROJECT TOLERANCE	SAMPLE: 1	
2 INCH	-	-		
1-1/2 INCH	100	100		
1 INCH	100	100	100	
3/4 INCH	99	93 - 100	98	
1/2 INCH	89	83 - 95	89	
3/8 INCH	80	74 - 86	83	
NO. 4	62	57 - 67	66	
NO. 8	49	44 - 54	49	
NO. 16	36	-	34	
NO. 30	25	21 - 29	24	
NO. 50	16	-	15	
NO. 100	9	-	9	
NO. 200	6.2	4.2 - 8.2	5.2	
ASPHALT CONTENT [1]	4.9	4.6 - 5.2	5.1	
FIELD MIX TEMP (°F)				
UNIT WEIGHT	156.5	-	155.4	
% AIR VOIDS	3.5	-		
VMA	13.9	-		
LOTTMAN	-	-		

[1] WEIGHT OF AGGREGATE AND OIL USED TO DETERMINE ASPHALT CONTENT

REVIEWED BY: SPENCER HRUBALA

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000002
11/24/2021
Report Date: 12/21/2021
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Test Location	Material	Mix Design	Thickness (in)	Max Density (pcf)	Max Density Source	In Place Density (pcf)	Probe Depth (in)	Percent Comp.	Min/Max Comp. (%)	Remark	Gauge SN	Technician
11		11/24/21	Asphalt Placement: Filing 13. Sky Pilot Ave. Lot 6. Block 1	Base Lift 1	5493 S-75		156.4	1 11/24/2021 / Rice	145.4	Backscatter	93	92 / 96	A	2026	Eaton, Jesse
12		11/24/21	Asphalt Placement: Filing 13. Sky Pilot Ave. Lot 7. Block 2	Base Lift 1	5493 S-75		156.4	1 11/24/2021 / Rice	144.6	Backscatter	92	92 / 96	A	2026	Eaton, Jesse
13		11/24/21	Asphalt Placement: Filing 13. Sky Pilot Ave. Lot 13. Block 1	Base Lift 1	5493 S-75		156.4	1 11/24/2021 / Rice	146.0	Backscatter	93	92 / 96	A	2026	Eaton, Jesse
14		11/24/21	Asphalt Placement: Filing 13. Sky Pilot Ave. Lot 16. Block 1	Base Lift 1	5493 S-75		156.4	1 11/24/2021 / Rice	144.9	Backscatter	93	92 / 96	A	2026	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter"

14: As requested by George with Martin Marietta, a site visit was made to observe and test asphalt placement. We observed the contractor place asphalt with the paver and apply compactive effort with the smooth drum rollers and pneumatic roller. One sample was collected and returned to our lab for testing.

Gauge Information

Gauge SN	Make	Model	Density Count	Moisture Count	Standard Count Date	Last Calibration Date	Last Calibrated By
2026	XPLORER	3500	2736	765	11/24/21	04/21/21	Instrotek

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

Asphalt Concrete Material Analysis

CTL | THOMPSON INCORPORATED

CLIENT: D.R. Horton
PROJECT: Trails at Crowfoot, Filing 13
PROJECT NO: DN50626.002F
DATE: 11/24/2021

SIEVE SIZE	5493 MARTIN MARIETTA S-75		PERCENT PASSING	
	MIX DESIGN	PROJECT TOLERANCE	SAMPLE: 1	
2 INCH	-	-		
1-1/2 INCH	100	100		
1 INCH	100	100	100	
3/4 INCH	99	93 - 100	97	
1/2 INCH	89	83 - 95	84	
3/8 INCH	80	74 - 86	78	
NO. 4	62	57 - 67	57	
NO. 8	49	44 - 54	42 [2]	
NO. 16	36	-	30	
NO. 30	25	21 - 29	21	
NO. 50	16	-	14	
NO. 100	9	-	8	
NO. 200	6.2	4.2 - 8.2	4.8	
ASPHALT CONTENT [1]	4.9	4.6 - 5.2	4.8	
FIELD MIX TEMP (°F)				
UNIT WEIGHT	156.5	-	156.4	
% AIR VOIDS	3.5	-		
VMA	13.9	-		
LOTTMAN	-	-		

[1] WEIGHT OF AGGREGATE AND OIL USED TO DETERMINE ASPHALT CONTENT

[2] DOES NOT MEET PROJECT TOLERANCE

REVIEWED BY: SPENCER HRUBALA

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000003
11/29/2021
Report Date: 01/03/2022
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Test Location	Material	Mix Design	Thickness (in)	Max Density (pcf)	Max Density Source	In Place Density (pcf)	Probe Depth (in)	Percent Comp.	Min/Max Comp. (%)	Remark	Gauge SN	Technician
16		11/29/21	Street Asphalt: Filling 13. Sky Pilot lane. Lot 11. Block 2.	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	146.7	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
17		11/29/21	Street Asphalt: Filling 13. Sky Pilot lane. Lot 14. Block 2.	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	147.1	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
18		11/29/21	Street Asphalt: Filling 13. Purple Aster Way. Lot 1. Block 3	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	145.8	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
19		11/29/21	Street Asphalt: Filling 13. Purple Aster Way. Lot 3. Block 3	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	146.1	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
20		11/29/21	Street Asphalt: Filling 13. Purple Aster Way. Lot 8. Block 3	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	147.4	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
21		11/29/21	Street Asphalt: Filling 13. Sky Pilot lane. Lot 18. Block 2	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	148.0	Backscatter	96	92 / 96	A	2026	Eaton, Jesse
22		11/29/21	Street Asphalt: Filling 13. Sky Pilot lane. Lot 11. Block 3	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	145.1	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
23		11/29/21	Street Asphalt: Filling 13. Sky Pilot lane. Lot 14. Block 3	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	146.5	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
24		11/29/21	Street Asphalt: Filling 13. Sky Pilot lane. Lot 16. Block 3	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	144.9	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
25		11/29/21	Street Asphalt: Filling 13. Sky Pilot Ave. Lot 1. Block 1	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	147.0	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
26		11/29/21	Street Asphalt: Filling 13. Sky Pilot Ave. Lot 4. Block 2	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	145.8	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
27		11/29/21	Street Asphalt: Filling 13. Sky Pilot Ave. Lot 8. Block 1	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	143.3	Backscatter	93	92 / 96	A	2026	Eaton, Jesse

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000003
11/29/2021
Report Date: 01/03/2022
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Test Location	Material	Mix Design	Thickness (in)	Max Density (pcf)	Max Density Source	In Place Density (pcf)	Probe Depth (in)	Percent Comp.	Min/Max Comp. (%)	Remark	Gauge SN	Technician
28		11/29/21	Street Asphalt: Filling 13. Sky Pilot Ave. Lot 13. Block 1	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	143.5	Backscatter	93	92 / 96	A	2026	Eaton, Jesse
29		11/29/21	Street Asphalt: Filling 13. Sky Pilot Ave. Lot 16. Block 1	Top Lift	5462 SX-75		154.6	1 11/29/2021 / Rice	144.4	Backscatter	93	92 / 96	A	2026	Eaton, Jesse

Remarks

A: Test results comply with specifications.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter"

29: As requested by George with Martin Marietta, a site visit was made to observe and test asphalt placement. We observed the contractor place asphalt with the paver and apply compactive effort with the smooth drum rollers, and a pneumatic roller. One sample was collected and returned to our lab for testing.

Gauge Information

Gauge SN	Make	Model	Density Count	Moisture Count	Standard Count Date	Last Calibration Date	Last Calibrated By
2026	XPLORER	3500	2721	761	11/29/21	04/21/21	Instrotek

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

Asphalt Concrete Material Analysis

CTL | THOMPSON INCORPORATED

CLIENT: D.R. Horton
PROJECT: Trails at Crowfoot, Filing 13
PROJECT NO: DN50626.002F
DATE: 11/29/2021

SIEVE SIZE	5462 MARTIN MARIETTA SX-75		PERCENT PASSING	
	MIX DESIGN	PROJECT TOLERANCE	SAMPLE: 1	
2 INCH	-	-		
1-1/2 INCH	100	100		
1 INCH	100	100		
3/4 INCH	100	100	100	
1/2 INCH	98	92 - 100	97	
3/8 INCH	89	83 - 95	93	
NO. 4	68	63 - 73	77 [2]	
NO. 8	53	48 - 58	57	
NO. 16	39	-	40	
NO. 30	27	23 - 31	28	
NO. 50	17	-	18	
NO. 100	10	-	11	
NO. 200	6.6	4.6 - 8.6	6.0	
ASPHALT CONTENT [1]	5.4	5.1 - 5.7	5.4	
FIELD MIX TEMP (^{o}F)				
UNIT WEIGHT	155.4	-	154.6	
% AIR VOIDS	3.6	-		
VMA	14.8	-		
LOTTMAN	-	-		

[1] WEIGHT OF AGGREGATE AND OIL USED TO DETERMINE ASPHALT CONTENT

[2] DOES NOT MEET PROJECT TOLERANCE

REVIEWED BY: SPENCER HRUBALA

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000004
11/30/2021
Report Date: 01/03/2022
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Test Location	Material	Mix Design	Thickness (in)	Max Density (pcf)	Max Density Source	In Place Density (pcf)	Probe Depth (in)	Percent Comp.	Min/Max Comp. (%)	Remark	Gauge SN	Technician
15		11/30/21	Cancelled on Site: Filing 13	Base Lift 1			155.0	Supplied Value	147.0	Backscatter	95	92 / 96	E	2026	Eaton, Jesse

Remarks

E: Test number for data entry purposes only.

Comments

Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter"

15: As requested by Blake with Martin Marietta, site visits were made to observe and test asphalt placement. Upon arrival the contractor cancelled on site.

Gauge Information

Gauge SN	Make	Model	Density Count	Moisture Count	Standard Count Date	Last Calibration Date	Last Calibrated By
2026	XPLORER	3500	2725	772	11/30/21	04/21/21	Instrotek

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000005
12/02/2021
Report Date: 01/03/2022
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Test Results

Test #	Retest Of	Test Date	Test Location	Material	Mix Design	Thickness (in)	Max Density (pcf)	Max Density Source	In Place Density (pcf)	Probe Depth (in)	Percent Comp.	Min/Max Comp. (%)	Remark	Gauge SN	Technician
38		12/02/21	Street Asphalt: Scarlet Sage Ave. Adjacent to Lot 11. Block 3. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	147.7	Backscatter	96	92 / 96	A	2026	Eaton, Jesse
39		12/02/21	Street Asphalt: Scarlet Sage Ave. Adjacent to Lot 14. Block 3. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	147.1	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
40		12/02/21	Street Asphalt: Scarlet Sage Ave. Adjacent to Lot 16. Block 3. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	146.1	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
41		12/02/21	Street Asphalt: Scarlet Sage Ave. Adjacent to Lot 16. Block 1. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	146.6	Backscatter	95	92 / 96	A	2026	Eaton, Jesse
42		12/02/21	Street Asphalt: North Pinery Pkwy. Adjacent to Lot 15. Block 1. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	145.2	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
43		12/02/21	Street Asphalt: North Pinery Pkwy. Adjacent to Lot 12. Block 1. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	145.2	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
44		12/02/21	Street Asphalt: North Pinery Pkwy. Adjacent to Lot 9. Block 1. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	144.7	Backscatter	94	92 / 96	A	2026	Eaton, Jesse
45		12/02/21	Street Asphalt: North Pinery Pkwy. Adjacent to Lot 5. Block 1. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	144.2	Backscatter	93	92 / 96	A	2026	Eaton, Jesse
46		12/02/21	Street Asphalt: North Pinery Pkwy. Adjacent to Lot 1. Block 1. Filing 13.	Top Lift	5462 SX-75		154.4	1 12/02/2021 / Rice	145.0	Backscatter	94	92 / 96	A	2026	Eaton, Jesse

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

CTL | THOMPSON INCORPORATED

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777 | Fax: 303-825-4252

Bituminous Density

Report #: BNG-000005
12/02/2021
Report Date: 01/03/2022
Test Method: ASTM D2950

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-355
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Remarks	Comments
A: Test results comply with specifications.	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter" **46:** As requested by George with Martin Marietta, a site visit was made to observe and test asphalt placement. We observed the contractor place asphalt with the paver and apply compactive effort with the smooth drum rollers, and a pneumatic roller. One sample was collected and returned to our lab for testing.

Gauge Information

Gauge SN	Make	Model	Density Count	Moisture Count	Standard Count Date	Last Calibration Date	Last Calibrated By
2026	XPLORER	3500	2718	770	12/02/21	04/21/21	Instrotek

This report presents opinions formed as a result of our observations of asphalt placement and the test results shown above. Test data are not the sole basis for opinions whether the asphalt meets project specifications. The contractor is responsible to apply necessary compaction effort to comply with project specifications. Our test results, observations and opinions do not constitute acceptance of the work.

Asphalt Concrete Material Analysis

CTL | THOMPSON INCORPORATED

CLIENT: D.R. Horton
PROJECT: Trails at Crowfoot, Filing 13
PROJECT NO: DN50626.002F
DATE: 12/2/2021

SIEVE SIZE	5462 MARTIN MARIETTA SX-75		PERCENT PASSING	
	MIX DESIGN	PROJECT TOLERANCE	SAMPLE: 1	
2 INCH	-	-		
1-1/2 INCH	100	100		
1 INCH	100	100		
3/4 INCH	100	100	100	
1/2 INCH	98	92 - 100	99	
3/8 INCH	89	83 - 95	94	
NO. 4	68	63 - 73	79 [2]	
NO. 8	53	48 - 58	59 [2]	
NO. 16	39	-	42	
NO. 30	27	23 - 31	29	
NO. 50	17	-	18	
NO. 100	10	-	11	
NO. 200	6.6	4.6 - 8.6	6.5	
ASPHALT CONTENT [1]	5.4	5.1 - 5.7	5.5	
FIELD MIX TEMP (^{o}F)				
UNIT WEIGHT	155.4	-	154.4	
% AIR VOIDS	3.6	-		
VMA	14.8	-		
LOTTMAN	-	-		

[1] WEIGHT OF AGGREGATE AND OIL USED TO DETERMINE ASPHALT CONTENT

[2] DOES NOT MEET PROJECT TOLERANCE

REVIEWED BY: SPENCER HRUBALA

Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000001
09/14/2021
Report Date: 10/13/2021
Sample: 91420

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	1	**Technician:**	Hansher, Amber	**Batched:**	14:15 MDT
Specimen Size:	4" X 8"	**Cast By:**	Hansher, Amber	**Sampled:**	15:35 MDT
Specimens In Set:	5	**Date Cast:**	09/14/21	**Cast:**	15:50 MDT
Truck / Ticket #:	3826 / 1984700	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	JBS Pipeline	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Inlet Wall
Location Details: Inlet 94 and 95
Sample Location / Notes: Inlet 94

Batch Log

Supplier: Brannan Ready Mix
Mix Design: 145813G
Plant: 13
On-Site Admixtures: 10.00 Gal Water (7.5 yd³), 1.25 Bag AEA-Air Entraining Admixture (6.5 yd³)

Specifications

Strength: 4500 (psi)
Air: 5 - 8 (%)

Field Measurements

Weather:	**Slump (in):**	4	**Plastic Unit Weight:** 141.6 (lb/ft³)
Air Temperature (F):	**Concrete Temp (F):**	80	**Air Content:** 6.0
			Load Volume: 7.50 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 70/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
1-1	7 FC	09/21/21	1 / 6	4.00	12.57	58,187	4,630	2		N
1-2	28 FC	10/12/21	1 / 27	4.00	12.57	74,661	5,940	5	C4	N
1-3	28 FC	10/12/21	1 / 27	4.00	12.57	74,496	5,930	2	C4	N
1-4	28 FC	10/12/21	1 / 27	4.00	12.57	69,646	5,540	2	C4	N
1-5	28 FC	10/12/21	1 / 27	4.00	12.57	77,838	6,190	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4630**, 28 Day FC - **5900**

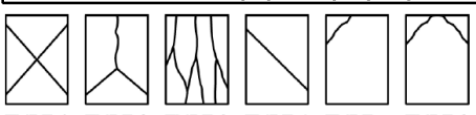
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 09/15/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000002
10/26/2021
Report Date: 11/23/2021
Sample: 93402

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	2	**Technician:**	Taylor, Christopher	**Batched:**	08:24 MDT
Specimen Size:	4" X 8"	**Cast By:**	Taylor, Christopher	**Sampled:**	09:10 MDT
Specimens In Set:	5	**Date Cast:**	10/26/21	**Cast:**	09:20 MDT
Truck / Ticket #:	9242 / 83615500	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Curb & Gutter	**Placement Time:**	

Location

Placement Location: Curb and Gutter
Location Details: Sky Pilot Ave, North side curb
Sample Location / Notes: Intersection of Alpine Phiox St, crew working east

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9458224.
On-Site Admixtures:	None		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	1 - 4 (in)

Field Measurements

Weather:		**Slump (in):**	1	**Plastic Unit Weight:**	142.6 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	88	**Air Content:**	6.8
				Load Volume:	10.00 (yd³)

Standard Cure

Initial Cure Method: Box
Final Cure Method: Fog Room

Field Cure

Min / Max Temp (F): 68/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
2-1	7 FC	11/02/21	1 / 6	4.00	12.57	57,248	4,550	5		N
2-2	28 FC	11/23/21	1 / 27	4.00	12.57	62,273	4,950	2	C4	N
2-3	28 FC	11/23/21	1 / 27	4.00	12.57	59,136	4,710	5	C4	N
2-4	28 FC	11/23/21	1 / 27	4.00	12.57	60,942	4,850	5	C4	N
2-5	28 FC	11/23/21	1 / 27	4.00	12.57	63,152	5,020	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4550**, 28 Day FC - **4880**

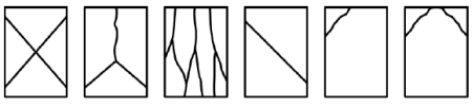
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 10/27/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000003
10/26/2021
Report Date: 11/23/2021
Sample: 93428

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	3	**Technician:**	Taylor, Christopher	**Batched:**	11:57 MDT
Specimen Size:	4" X 8"	**Cast By:**	Taylor, Christopher	**Sampled:**	12:50 MDT
Specimens In Set:	5	**Date Cast:**	10/26/21	**Cast:**	13:00 MDT
Truck / Ticket #:	9265 / 84615516	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Curb & Gutter	**Placement Time:**	

Location

Placement Location: Curb and Gutter
Location Details: Purple Aster Way, West side sidewalk
Sample Location / Notes: South and at roundabout, crew working north

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9458224.
On-Site Admixtures:	None		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	1 - 4 (in)

Field Measurements

Weather:		**Slump (in):**	1	**Plastic Unit Weight:**	142.0 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	88	**Air Content:**	7.0
				Load Volume:	10.00 (yd³)

Standard Cure

Initial Cure Method: Box
Final Cure Method: Fog Room

Field Cure

Min / Max Temp (F): 68/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
3-1	7 FC	11/02/21	1 / 6	4.00	12.57	58,358	4,640	2		N
3-2	28 FC	11/23/21	1 / 27	4.00	12.57	63,423	5,050	3	C4	N
3-3	28 FC	11/23/21	1 / 27	4.00	12.57	67,552	5,370	5	C4	N
3-4	28 FC	11/23/21	1 / 27	4.00	12.57	69,011	5,490	3	C4	N
3-5	28 FC	11/23/21	1 / 27	4.00	12.57	71,969	5,730	5	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4640**, 28 Day FC - **5410**

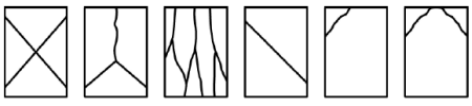
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 10/27/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000004
10/27/2021
Report Date: 11/29/2021
Sample: 93571

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	4	**Technician:**	Ferrick, Jackson	**Batched:**	10:48 MDT
Specimen Size:	4" X 8"	**Cast By:**	Ferrick, Jackson	**Sampled:**	12:15 MDT
Specimens In Set:	5	**Date Cast:**	10/27/21	**Cast:**	12:30 MDT
Truck / Ticket #:	9227 / 62317846	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Curb and Gutter
Location Details: Alpine Phlox St and Sky Pilot Ave
Sample Location / Notes: Curb and gutter on south side of Sky Pilot Ave, STA 12 + 10

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	7456120
Plant:	912		
On-Site Admixtures:	None		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	3 - 5 (in)

Field Measurements

Weather:		**Slump (in):**	3-3/4	**Plastic Unit Weight:**	142.4 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	70	**Air Content:**	5.1
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 68/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
4-1	7 FC	11/03/21	2 / 5	4.00	12.57	50,201	3,990	2		N
4-2	28 FC	11/24/21	2 / 26	4.00	12.57	62,138	4,940	2	C4	N
4-3	28 FC	11/24/21	2 / 26	4.00	12.57	60,373	4,800	2	C4	N
4-4	28 FC	11/24/21	2 / 26	4.00	12.57	51,159	4,070	2	C2	N
4-5	28 FC	11/24/21	2 / 26	4.00	12.57	60,808	4,840	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **3990**, 28 Day FC - **4660**

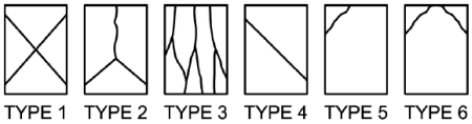
C4: Strength is greater than or equal to f'c.
C2: Strength is less than f'c. One cylinder will be held to break at 56 days.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 10/29/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000005
10/28/2021
Report Date: 11/30/2021
Sample: 93605

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	5	**Technician:**	Ferrick, Jackson	**Batched:**	10:11 MDT
Specimen Size:	4" X 8"	**Cast By:**	Ferrick, Jackson	**Sampled:**	11:25 MDT
Specimens In Set:	5	**Date Cast:**	10/28/21	**Cast:**	11:40 MDT
Truck / Ticket #:	680 / 61317943	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Curb and Gutter
Location Details: Alpine Phlox St and Sky Pilot Ave
Sample Location / Notes: Curb and gutter on south side of Sky Pilot Ave, STA 18 + 10

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9456623
Plant:	912		
On-Site Admixtures:	None		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	3 - 5 (in)

Field Measurements

Weather:		**Slump (in):**	4	**Plastic Unit Weight:**	138.4 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	74	**Air Content:**	7.9
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 68/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
5-1	7 FC	11/04/21	1 / 6	4.00	12.57	44,499	3,540	2		N
5-2	28 FC	11/25/21	1 / 27	4.00	12.57	57,544	4,580	2	C4	N
5-3	28 FC	11/25/21	1 / 27	4.00	12.57	58,092	4,620	2	C4	N
5-4	28 FC	11/25/21	1 / 27	4.00	12.57	56,370	4,480	2	C4	N
5-5	28 FC	11/25/21	1 / 27	4.00	12.57	58,329	4,640	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **3540**, 28 Day FC - **4580**

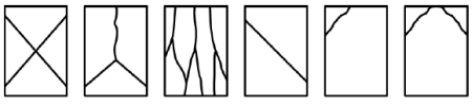
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 10/29/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000006
10/29/2021
Report Date: 11/30/2021
Sample: 93608

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	6	**Technician:**	Taylor, Christopher	**Batched:**	09:16 MDT
Specimen Size:	4" X 8"	**Cast By:**	Taylor, Christopher	**Sampled:**	10:50 MDT
Specimens In Set:	5	**Date Cast:**	10/29/21	**Cast:**	11:00 MDT
Truck / Ticket #:	9252 / 84615650	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Curb & Gutter	**Placement Time:**	

Location

Placement Location: Sidewalk
Location Details: Intersection of Sky Pilot Ave and Scarlet Sage Ave.
Sample Location / Notes: South side sidewalk, going west.

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9458224.
On-Site Admixtures:	None		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	1 - 4 (in)

Field Measurements

Weather:		**Slump (in):**	1-1/2	**Plastic Unit Weight:**	143.2 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	80	**Air Content:**	6.5
				Load Volume:	11.00 (yd³)

Standard Cure

Initial Cure Method:	Box
Final Cure Method:	Fog Room

Field Cure

Min / Max Temp (F): 68/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
6-1	7 FC	11/05/21	1 / 6	4.00	12.57	48,960	3,900	2		N
6-2	28 FC	11/26/21	1 / 27	4.00	12.57	56,817	4,520	2	C4	N
6-3	28 FC	11/26/21	1 / 27	4.00	12.57	55,582	4,420	2	C2	N
6-4	28 FC	11/26/21	1 / 27	4.00	12.57	57,975	4,610	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **3900**, 28 Day FC - **4520**

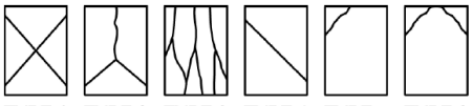
C4: Strength is greater than or equal to f'c.
C2: Strength is less than f'c. One cylinder will be held to break at 56 days.
Tested By: Patrick Patterson (1,2,3,4)
Checked In : 10/30/2021 (1,2,3,4)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000007
10/29/2021
Report Date: 11/30/2021
Sample: 93610

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	7	**Technician:**	Taylor, Christopher	**Batched:**	10:23 MDT
Specimen Size:	4" X 8"	**Cast By:**	Taylor, Christopher	**Sampled:**	11:20 MDT
Specimens In Set:	5	**Date Cast:**	10/29/21	**Cast:**	11:30 MDT
Truck / Ticket #:	9244 / 62318049	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Crosspan
Location Details: Intersection of Sky Pilot Ave and Sky Pilot Lane
Sample Location / Notes: Crosspan on Sky Pilot Lane, middle of crosspan crew working west

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9456623.
On-Site Admixtures:	None		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	3 - 5 (in)

Field Measurements

Weather:		**Slump (in):**	4-1/2	**Plastic Unit Weight:**	143.2 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	88	**Air Content:**	5.7
				Load Volume:	10.00 (yd³)

Standard Cure

Initial Cure Method: Box
Final Cure Method: Fog Room

Field Cure

Min / Max Temp (F): 68/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
7-1	7 FC	11/05/21	1 / 6	4.00	12.57	57,687	4,590	2		N
7-2	28 FC	11/26/21	1 / 27	4.00	12.57	67,417	5,360	2	C4	N
7-3	28 FC	11/26/21	1 / 27	4.00	12.57	70,411	5,600	2	C4	N
7-4	28 FC	11/26/21	1 / 27	4.00	12.57	65,583	5,220	2	C4	N
7-5	28 FC	11/26/21	1 / 27	4.00	12.57	68,045	5,410	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4590**, 28 Day FC - **5400**

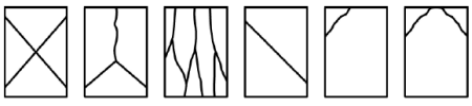
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 10/30/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000008
10/29/2021
Report Date: 11/30/2021
Sample: 93629

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	8	**Technician:**	Grohmann, Walter	**Batched:**	14:20 MDT
Specimen Size:	4" X 8"	**Cast By:**	Grohmann, Walter	**Sampled:**	15:15 MDT
Specimens In Set:	5	**Date Cast:**	10/29/21	**Cast:**	15:30 MDT
Truck / Ticket #:	9261 / 84615679	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Curb & Gutter	**Placement Time:**	

Location

Placement Location: Curb and Gutter
Location Details: 50' north of intersection of Sky Pilot Ave and Alpine Phlox St.
Sample Location / Notes: Sky Pilot Ave, west lane

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9458224.
Plant:	925		
On-Site Admixtures:	3.00 Gal Water (10.5 yd³)		

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:		**Slump (in):**	1	**Plastic Unit Weight:**	146.8 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	82	**Air Content:**	5.5
				Load Volume:	11.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 62/75

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
8-1	7 FC	11/05/21	4 / 3	4.00	12.57	44,509	3,540	2		N
8-2	28 FC	11/26/21	4 / 24	4.00	12.57	56,159	4,470	2	C2	N
8-3	28 FC	11/26/21	4 / 24	4.00	12.57	57,015	4,540	2	C4	N
8-4	28 FC	11/26/21	4 / 24	4.00	12.57	57,246	4,550	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **3540**, 28 Day FC - **4520**

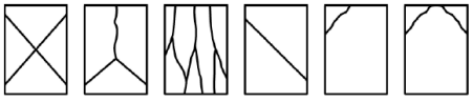
C2: Strength is less than f'c. One cylinder will be held to break at 56 days.
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4)
Checked In : 11/02/2021 (1,2,3,4)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000009
11/01/2021
Report Date: 11/30/2021
Sample: 93680

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	9	**Technician:**	Whitehall, Corey	**Batched:**	08:21 MDT
Specimen Size:	4" X 8"	**Cast By:**	Whitehall, Corey	**Sampled:**	09:30 MDT
Specimens In Set:	5	**Date Cast:**	11/01/21	**Cast:**	09:45 MDT
Truck / Ticket #:	9237 / 62318153	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Curb & Gutter	**Placement Time:**	

Location

Placement Location: Sidewalk
Location Details: Intersection of Sky Pilot Ave and Sky Pilot Lane. West side of Sky Pilot Lane.
Sample Location / Notes: Approximately 15 yards south of Sky Pilot Ave.

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9458224.
Plant:	4912		
On-Site Admixtures:	None		

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:		**Slump (in):**	1-1/2	**Plastic Unit Weight:**	144.8 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	75	**Air Content:**	5.0
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 65/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
9-1	7 FC	11/08/21	1 / 6	4.00	12.57	67,628	5,380	2		N
9-2	28 FC	11/29/21	1 / 27	4.00	12.57	84,641	6,730	3	C4	N
9-3	28 FC	11/29/21	1 / 27	4.00	12.57	79,145	6,300	3	C4	N
9-4	28 FC	11/29/21	1 / 27	4.00	12.57	81,775	6,510	3	C4	N
9-5	28 FC	11/29/21	1 / 27	4.00	12.57	81,513	6,490	3	C4	N

Test Age Average Strengths (psi): 7 Day FC - **5380**, 28 Day FC - **6510**

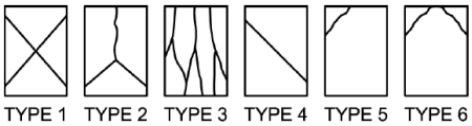
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/02/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000010
11/01/2021
Report Date: 11/30/2021
Sample: 93692

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	10	**Technician:**	Whitehall, Corey	**Batched:**	11:09 MDT
Specimen Size:	4" X 8"	**Cast By:**	Whitehall, Corey	**Sampled:**	12:00 MDT
Specimens In Set:	5	**Date Cast:**	11/01/21	**Cast:**	12:15 MDT
Truck / Ticket #:	9252 / 84615738	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Curb & Gutter	**Placement Time:**	

Location

Placement Location: Sidewalk
Location Details: South side of Sky Pilot Lane.
Sample Location / Notes: Approximately 30 yards east of Alpine Phlox St.

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9458224.
Plant:	4925		
On-Site Admixtures:	None		

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:	**Slump (in):**	1-1/2	**Plastic Unit Weight:**	140.8 (lb/ft³)
Air Temperature (F):	**Concrete Temp (F):**	70	**Air Content:**	5.8
			Load Volume:	4.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 65/70

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
10-1	7 FC	11/08/21	1 / 6	4.00	12.57	54,613	4,350	2		N
10-2	28 FC	11/29/21	1 / 27	4.00	12.57	61,050	4,860	5	C4	N
10-3	28 FC	11/29/21	1 / 27	4.00	12.57	58,137	4,630	5	C4	N
10-4	28 FC	11/29/21	1 / 27	4.00	12.57	58,576	4,660	2	C4	N
10-5	28 FC	11/29/21	1 / 27	4.00	12.57	63,707	5,070	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4350**, 28 Day FC - **4800**

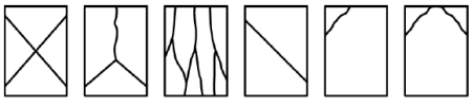
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/02/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000011
11/02/2021
Report Date: 12/01/2021
Sample: 93768

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	11	**Technician:**	Grohmann, Walter	**Batched:**	12:15 MDT
Specimen Size:	4" X 8"	**Cast By:**	Grohmann, Walter	**Sampled:**	13:15 MDT
Specimens In Set:	5	**Date Cast:**	11/02/21	**Cast:**	13:30 MDT
Truck / Ticket #:	9218 / 84615774	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	DR Horton	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Crosswalk
Location Details: Sky Pilot Lane. East Lane.
Sample Location / Notes: 100' from Sky Pilot Lane and Sky Pilot Ave intersection. East sidewalk lane

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9456623.
Plant:	925		
On-Site Admixtures:	None		

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:		**Slump (in):**	6-1/2	**Plastic Unit Weight:**	140.0 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	75	**Air Content:**	6.9
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 64/78

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
11-1	7 FC	11/09/21	1 / 6	4.00	12.57	54,675	4,350	2		N
11-2	28 FC	11/30/21	1 / 27	4.00	12.57	65,625	5,220	2	C4	N
11-3	28 FC	11/30/21	1 / 27	4.00	12.57	65,578	5,220	5	C4	N
11-4	28 FC	11/30/21	1 / 27	4.00	12.57	65,111	5,180	5	C4	N
11-5	28 FC	11/30/21	1 / 27	4.00	12.57	64,376	5,120	5	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4350**, 28 Day FC - **5190**

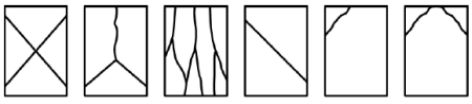
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/03/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000012
11/24/2021
Report Date: 12/02/2021
Sample: 94970

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	17	**Technician:**	Harder, Matthew	**Batched:**	
Specimen Size:	4" X 8"	**Cast By:**	Harder, Matthew	**Sampled:**	11:00 MST
Specimens In Set:	1	**Date Cast:**	11/24/21	**Cast:**	11:15 MST
Truck / Ticket #:		**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers Concrete	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Cancelled on Site
Location Details: Manhole on Trails at Crowfoot
Sample Location / Notes: Manhole on Trails at Crowfoot

Batch Log

On-Site Admixtures: None

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:	**Consistency:** Slump	**Plastic Unit Weight:**
Air Temperature (F):	**Concrete Temp (F):**	**Air Content:**
		Load Volume:

Standard Cure | **Field Cure**

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

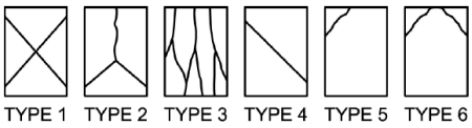
Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
17-1	8 FC	12/02/21	6 / 2							

Tested By: Patrick Patterson (1)
Checked In : 11/30/2021 (1)

Capping Methods

General Remarks

Cancelled on Site



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000013
11/03/2021
Report Date: 12/02/2021
Sample: 93911

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	12	**Technician:**	Lolleh, Malikie	**Batched:**	10:30 MDT
Specimen Size:	4" X 8"	**Cast By:**	Lolleh, Malikie	**Sampled:**	11:30 MDT
Specimens In Set:	5	**Date Cast:**	11/03/21	**Cast:**	11:45 MDT
Truck / Ticket #:	9227 / 62318298	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	DR Horton	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Sidewalk
Location Details: Sky Pilot Ave
Sample Location / Notes: Sky Pilot Avenue East side of sidewalk

Batch Log

On-Site Admixtures: None

Specifications

Strength: 4500 (psi)
Air: 5 - 8 (%)
Slump: 3 - 5 (in)

Field Measurements

Weather:		**Slump (in):**	4	**Plastic Unit Weight:**	144.0 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	84	**Air Content:**	5.0
				Load Volume:	

Standard Cure

Field Cure

Min / Max Temp (F): 65/78

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
12-1	7 FC	11/10/21	1 / 6	4.00	12.57	58,635	4,670	5		N
12-2	28 FC	12/01/21	1 / 27	4.00	12.57	69,315	5,510	2	C4	N
12-3	28 FC	12/01/21	1 / 27	4.00	12.57	71,934	5,720	2	C4	N
12-4	28 FC	12/01/21	1 / 27	4.00	12.57	65,462	5,210	2	C4	N
12-5	28 FC	12/01/21	1 / 27	4.00	12.57	69,926	5,560	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4670**, 28 Day FC - **5500**

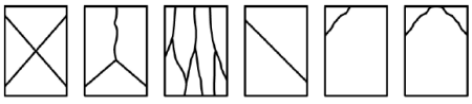
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/04/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000014
11/04/2021
Report Date: 12/02/2021
Sample: 93949

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	13	**Technician:**	Ferrick, Jackson	**Batched:**	10:19 MDT
Specimen Size:	4" X 8"	**Cast By:**	Ferrick, Jackson	**Sampled:**	11:10 MDT
Specimens In Set:	5	**Date Cast:**	11/04/21	**Cast:**	11:25 MDT
Truck / Ticket #:	9226 / 84615869	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Curb and Gutter
Location Details: Trails at Crowfoot F.13 - Purple Aster Way
Sample Location / Notes: East side of Purple Aster Way, curb and gutter where it turns into cul du sac

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9456623
Plant:	925		
On-Site Admixtures:	7.00 Gal Water (0 yd³)		

Specifications

Strength:	4500 (psi)
Air:	5 - 8 (%)
Slump:	3 - 5 (in)

Field Measurements

Weather:		**Slump (in):**	6	**Plastic Unit Weight:**	140.4 (lb/ft³)
Air Temperature (F):		**Concrete Temp (F):**	74	**Air Content:**	6.8
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 70/72

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
13-1	7 FC	11/11/21	1 / 6	4.00	12.57	52,415	4,170	5		N
13-2	28 FC	12/02/21	1 / 27	4.00	12.57	67,332	5,360	2	C4	N
13-3	28 FC	12/02/21	1 / 27	4.00	12.57	66,863	5,320	2	C4	N
13-4	28 FC	12/02/21	1 / 27	4.00	12.57	65,790	5,230	2	C4	N
13-5	28 FC	12/02/21	1 / 27	4.00	12.57	65,912	5,240	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4170**, 28 Day FC - **5290**

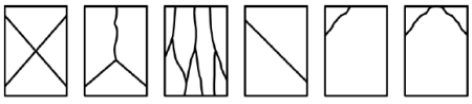
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/05/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000015
11/05/2021
Report Date: 12/06/2021
Sample: 94164

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	14	**Technician:**	Kunkel, Josh	**Batched:**	09:42 MDT
Specimen Size:	4" X 8"	**Cast By:**	Kunkel, Josh	**Sampled:**	10:30 MDT
Specimens In Set:	5	**Date Cast:**	11/05/21	**Cast:**	10:45 MDT
Truck / Ticket #:	9236 / 62318	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Sidewalk
Location Details: Sidewalk tie-ins on Purple Aster Ln.
Sample Location / Notes: Sidewalk tie-ins on Purple Aster Ln.

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9456623.
Plant:	908		
On-Site Admixtures:	None		

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:	Sunny	**Slump (in):**	4-1/2	**Plastic Unit Weight:**	141.2 (lb/ft³)
Air Temperature (F):	50	**Concrete Temp (F):**	70	**Air Content:**	5.3
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 68/74

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
14-1	7 FC	11/12/21	5 / 2	4.00	12.57	53,331	4,240	2		N
14-2	28 FC	12/03/21	5 / 23	4.00	12.57	62,253	4,950	2	C4	N
14-3	28 FC	12/03/21	5 / 23	4.00	12.57	62,993	5,010	2	C4	N
14-4	28 FC	12/03/21	5 / 23	4.00	12.57	62,889	5,000	3	C4	N
14-5	28 FC	12/03/21	5 / 23	4.00	12.57	64,130	5,100	5	C4	N

Test Age Average Strengths (psi): 7 Day FC - **4240**, 28 Day FC - **5020**

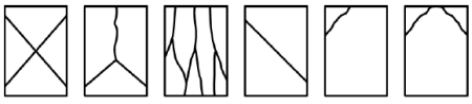
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/10/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000016
11/08/2021
Report Date: 12/08/2021
Sample: 94222

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	15	**Technician:**	Kunkel, Josh	**Batched:**	09:55 MST
Specimen Size:	4" X 8"	**Cast By:**	Kunkel, Josh	**Sampled:**	11:00 MST
Specimens In Set:	5	**Date Cast:**	11/08/21	**Cast:**	11:15 MST
Truck / Ticket #:	9224 / 84615972	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	Thoutt Brothers	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Crosspan
Location Details: Intersection of Purple Aster Ln and Sky Pilot Ln.
Sample Location / Notes: Crosspan for Purple Aster Ln

Batch Log

Supplier:	Aggregate Industries-Denver	**Mix Design:**	9456623
Plant:	925		
On-Site Admixtures:	None		

Specifications

Strength: 4500 (psi)

Field Measurements

Weather:	Sunny	**Slump (in):**	4-1/2	**Plastic Unit Weight:**	139.2 (lb/ft³)
Air Temperature (F):	50	**Concrete Temp (F):**	69	**Air Content:**	7.0
				Load Volume:	10.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 64/78

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
15-1	7 FC	11/15/21	3 / 4	4.00	12.57	46,399	3,690	2		N
15-2	28 FC	12/06/21	3 / 25	4.00	12.57	57,932	4,610	3	C4	N
15-3	28 FC	12/06/21	3 / 25	4.00	12.57	57,712	4,590	3	C4	N
15-4	28 FC	12/06/21	3 / 25	4.00	12.57	62,124	4,940	2	C4	N
15-5	28 FC	12/06/21	3 / 25	4.00	12.57	58,736	4,670	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **3690**, 28 Day FC - **4700**

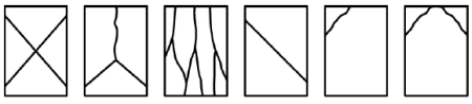
C4: Strength is greater than or equal to f'c.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/11/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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Compressive Strength of Concrete

Test Method: ASTM C 39

Report #: CC-000017
11/22/2021
Report Date: 12/30/2021
Sample: 94698

Denver
1971 West 12th Avenue
Denver, CO 80204
Phone: 303-825-0777
Fax: 303-825-4252

Client:
D.R. Horton
9555 S. Kingston Court Suite 200
Englewood, CO 80112

Project:
DN50626.002F-365
Trails at Crowfoot, Filing 13
East of Bayou Gulch Rd and N Pinery Pkwy
Parker, CO

Sample Details

Set #:	16	**Technician:**	Moran, David	**Batched:**	07:07 MST
Specimen Size:	4" X 8"	**Cast By:**	Moran, David	**Sampled:**	08:20 MST
Specimens In Set:	5	**Date Cast:**	11/22/21	**Cast:**	08:35 MST
Truck / Ticket #:	1218 / 20401784	**Sampled From:**	Chute	**Truck Empty:**	
Contractor:	JBS Pipeline	**Placement Method:**	Chute	**Placement Time:**	

Location

Placement Location: Manhole
Location Details: Manhole Base 101
Sample Location / Notes: Manhole Base 101

Batch Log

Supplier: Burnco
Mix Design: 45VM21C4C
Plant: 609
On-Site Admixtures: 18.00 Gal Water (6.5 yd³), 1.00 Bag AEA-Air Entraining Admixture (6.5 yd³)

Specifications

Strength: 4500 (psi)
Air: 5 - 8 (%)
Slump: 1 - 3 (in)

Field Measurements

Weather:	Partly Cloudy	**Slump (in):**	1-1/2	**Plastic Unit Weight:**	141.6 (lb/ft³)
Air Temperature (F):	43	**Concrete Temp (F):**	73	**Air Content:**	5.7
				Load Volume:	7.00 (yd³)

Standard Cure

Field Cure

Min / Max Temp (F): 69/71

Lab Test Results

Testing Lab: 22 Lipan, 22 Lipan, Denver, CO, 80223

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
16-1	7 FC	11/29/21	1 / 6	4.00	12.57	41,351	3,290	5		N
16-2	28 FC	12/20/21	1 / 27	4.00	12.57	57,964	4,610	5	C4	N
16-3	28 FC	12/20/21	1 / 27	4.00	12.57	57,057	4,540	5	C4	N
16-4	28 FC	12/20/21	1 / 27	4.00	12.57	54,805	4,360	2	C2	N
16-5	28 FC	12/20/21	1 / 27	4.00	12.57	57,226	4,550	2	C4	N

Test Age Average Strengths (psi): 7 Day FC - **3290**, 28 Day FC - **4520**

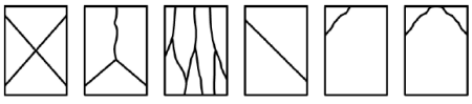
C4: Strength is greater than or equal to f'c.
C2: Strength is less than f'c. One cylinder will be held to break at 56 days.
Tested By: Patrick Patterson (1,2,3,4,5)
Checked In : 11/23/2021 (1,2,3,4,5)

Capping Methods

N: Unbonded Caps (ASTM C1231)

General Remarks

Notified contractor of physical property results. Reviewed by SH



Cylinders received in good condition unless noted otherwise. Physical properties of concrete (ASTM C143, C231, C138, C1064).

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