Development Application

Planning Division 9220 Kimmer Drive, Lone Tree, CO 80124 303.708.1818 | www.cityoflonetree.com



Instructions: All sections must be completed and typed or legibly printed. All required attachments must be included. This application does not cover Building Division and Public Works submittal requirements and fees.

Application	on Type		For Planning Division Use						
	Presubmittal	Final Plat	Project Name:						
	SIP	Re-Plat	Job #						
	SIP Amendment	Rezoning	Application Fee:						
	Preliminary Plan	Variance	Check/Transaction #:						
	Other		Date:	Staff Initials:					

Project Information								
Project Name:	Project Address:							
State Parcel ID: 2231-243-00-002	Subdivision:							
Acreage:	Lot #:							
Existing Zoning:	Block #:							
Proposed Rezoning:	Filing #:							
Project Description (submit additional sheets if necessa	ry):							

Owner and Representative Information									
Property Owner Information	Applicant Information if Different than Owner								
Name (Individual or Organization):	Name (Individual or Organization):								
Mailing Address:	Mailing Address:								
Phone:	Phone:								
Email:	Email:								

Letter of Authorization

Regarding Development Applications for Land Use Entitlements

City of Lone Tree 9220 Kimmer Dr., #100 Lone Tree, CO 80124

Regarding: <u>Ridgegate SW Village Filing #1 Plat</u>

Assessor's Parcel Number (SPN): Portion of 2231-243-00-002

To Whom It May Concern: I/We, the owner(s) of the above described real property, authorize Aaron Clutter

of JR Engineering

to act as an agent on my/our behalf for the purpose of

creating, filing and/or managing an application for the Ridgegate Southwest Village Filing #1

The undersigned hereby certifies to being the fee owner(s) or legally authorized representative of the fee owner(s) of the real property described above.

RidgeGate Investments, Inc. (Print Name of Property Owner or Authorized Representative)

(Signature of Property Owner or Authorized Representative) Keith D. Simon, Vice President

State of Colorado

County of Douglas

The foregoing instrument was acknowledged before me this $\underline{94}$ day of February, 2021

amra M by (Print Name of Notary

(Notary's official signature)

2021

(Commission expiration date)

TAMRA M HIRSCHMAN NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20174040957 MY COMMISSION EXPIRES 10/03/2021

LEGAL DESCRIPTION

SEE SHEET 2

DEDICATION STATEMENT

THE UNDERSIGNED. BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LANDS DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED AND PLATTED SAID LANDS INTO LOTS, TRACTS, PUBLIC RIGHTS-OF-WAY AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF RIDGEGATE SW VILLAGE FILING NO. 1. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND CABLE COMMUNICATION SYSTEMS, AND DRAINAGE EASEMENTS (SEE NOTE 19), SIGHT DISTANCE EASEMENTS AND ACCESS EASEMENTS ARE HEREBY DEDICATED TO THE CITY OF LONE TREE FOR THE PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES FOR WHICH THE EASEMENTS ARE ESTABLISHED ARE HEREBY GRANTED THE PERPETUAL RIGHT OF INGRESS AND EGRESS FROM AND TO ADJACENT PROPERTIES FOR INSTALLATION, MAINTENANCE AND REPLACEMENT OF UTILITY LINES AND RELATED FACILITIES. TRACTS AJ AND AQ, AND ALL PUBLIC RIGHTS-OF-WAY SHOWN HEREON ARE DEDICATED AND CONVEYED TO THE CITY OF LONE TREE, CO, IN FEE SIMPLE ABSOLUTE, FOR PUBLIC USES AND PURPOSES. THE DRAINAGE EASEMENT LOCATED IN TRACT AQ IS DEDICATED AND CONVEYED TO RAMPART RANGE METROPOLITAN DISTRICT NO. 6 FOR THE CONSTRUCTION, INSTALLATION, OPERATION, MAINTENANCE, REPAIR AND REPLACEMENT OF WATER QUALITY AND DRAINAGE DETENTION, RETENTION AND CONVEYANCE FACILITIES. THE SIGNATURE OF ANY REPRESENTATIVE OF ANY PARTNERSHIP OR CORPORATE ENTITY INDICATES THAT ALL REQUIRED PARTNERSHIP OR CORPORATE APPROVALS HAVE BEEN OBTAINED.

SIGNATURE OF OWNER:

RIDGEGATE INVESTMENTS, INC., A DELAWARE CORPORATION

SIGNATURE OF OWNER:

SCHWEIGER RANCH FOUNDATION

BY:KEITH D. SIMON, VICE PRESIDENT	BY: KEITH D. SIMON, PRESIDENT		
ATTEST: KEVIN GREGORY, SECRETARY	STATE OF COLORADO))SS		
	COUNTY OF)		
COUNTY OF	ACKNOWLEDGED BEFORE ME THIS DAT OF		
ACKNOWLEDGED BEFORE ME THIS DAY OF	, _02., 01		
, 2021, BY KEITH D. SIMON AS VICE PRESIDENT OF RIDGEGATE INVESTMENTS, INC., A DELAWARE	KEITH D. SIMON, AS PRESIDENT, OF SCHWEIGER RANCH FOUNDATION		
WITNESS MY HAND AND OFFICIAL SEALS	WITNESS MY HAND AND OFFICIAL SEAL:	GE	ENERAL NO
MY COMMISSION EXPIRES:		1.	FIDELITY NATION
	NOTARY PUBLIC		OWNERSHIP, R
NOTARY PUBLIC		2.	THE BEARINGS
STATE OF NEW YORK))SS			ASSUMED TO
COUNTY OF)		3.	THE SUBJECT AGENCY FLOOI
2021 BY KEVIN GREGORY AS		4.	DISTANCES ON
SECRETARY OF RIDGEGATE INVESTMENTS, INC., A DELAWARE CORPORATION		5.	ANY PERSON
WITNESS MY HAND AND OFFICIAL SEAL:		E	MISULMLANOR
MY COMMISSION EXPIRES:		0.	CONSTRUCTION
		7.	ALL PRESENT
ACCEPTANCE OF DRAINAGE EASEMENT IN TRACT THE UNDERSIGNED HEREBY ACCEPTS THE DEDICATION OF THE DRAIN LOCATED IN TRACT AQ. RAMPART RANGE METROPOLITAN DISTRICT NO. 6	AQ NAGE EASEMENT		LOCATED WITH 2020 IN THE I THE PROPERTY FUMES, FUEL I AIRPORT IMPA RECORDS AND GOVERNMENTA WHETHER THE
BY:KEITH D. SIMON, PRESIDENT		8.	LOTS AS PLAT APPROVED DR APPROVAL FR ACCORDANCE SAID LAND FO
STATE OF COLORADO) SS COUNTY OF		9.	THE CITY OF I THE PROPERTY AND DETENTIO FACILITIES, TH
ACKNOWLEDGED BEFORE ME THIS DAY OF	, 2021,		ASSESSED TO
BY KEITH D. SIMON, AS PRESIDENT AND ELIZABETH MATHEWS, AS S RAMPART RANGE METROPOLITAN DISTRICT NO. 6	SECRETARY, OF	10.	PUBLIC STREE WORKS DEPAR
WITNESS MY HAND AND OFFICIAL SEAL:		11.	WORKS DEPAR
MY COMMISSION EXPIRES:		12.	SIGHT DISTANC OBJECT WITHIN INCLUDE BUT CASE OF MATU WITHIN THE SI DESIGN GUIDEL OR APPROPRIA
WE, FIDELITY NATIONAL TITLE INSURANCE COMPANY, DO HEREBY CE EXAMINED THE TITLE OF ALL LAND PLATTED HEREON AND THAT TIT	TIFY THAT WE HAVE TLE TO SUCH LAND IS	13.	TRACTS AP AN SINGLE-FAMILY
IN THE DEDICATOR(S) FREE AND CLEAR OF ALL LIENS AND MONETA	ARY ENCUMBRANCES.	14.	TRACT AS SHA
BY:		4 F	CONSTRUCTED
TITLE:		15.	PARK AND AR APPROVED BY
DATE:		16.	TRACTS BZ AN ONCE ALL IMP CITY OF LONE
STATE OF COLORADO))SS COUNTY OF)		17.	DRAINAGE EAS ACCESSING, M STRUCTURES,
ACKNOWLEDGED BEFORE ME THIS DAY OF	, 2021,	18.	THE DRAINAGE
BY AS	, OF	19	THIS PLAT IS
WITNESS MY HAND AND OFFICIAL SEAL.		20.	. THIS PLAT IS
MY COMMISSION EXPIRES:		_0.	

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GEGATE SW VILLAGE F	'ILI'	NG NO.	1					
A PORTION OF THE RIDGEGATE SOUTHWEST VILLAGE	PRELIM	IINARY PLAN						
HALF AND SOUTHEAST QUARTER OF SECTION 23, ANI) THE I	NORTHWEST QUARI	TER OF	SECTION 24.				
AND A PART OF THE SOUTH HALF OF SEC	CTION 1	4,		TRACT SUMMARY TABLE				
TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE SIXTH	PRINCIE	PAL MERIDIAN,	TRACT		AREA	AREA		
CITY OF LONE TREE COUNTY OF DOUGLAS STAT	F OF C	ΟΙΟΡΑΠΟ		USE	ACRES	SQ. FEET	MAINTENANCE	OWNER
CIT OF LONE INEE, COUNTI OF DOUGLAS, STAT		OLONADO.	IRACI AJ	REGIONAL PARK, DRAINAGE	28.763	1,252,958	SSPRD	
185 060 ACRES $-$ 365 RESIDENTIAL LOTS $-$ 25 T	RACTS 3	SB21-08R	TRACT AK	UTILITY, DRAINAGE, LANDSCAPE	0.170	/,398	HUA	HOA
			TRACT AL	UTILITY, DRAINAGE, LANDSCAPE, PRIVATE ALLEY		4,037		
			TRACT AN	UTILITY DRAINAGE, LANDSCAPE, PRIVATE ALLET	0.093	25 204		
			TRACT AO	UTILITY DRAINAGE LANDSCAPE	0.175	7.617	HOA	HOA
			TRACT AP*	FUTURE SINGLE FAMILY ATTACHED	2.659	115,839	SHL	SHL
			TRACT AQ	REGIONAL PARK, DRAINAGE	49.672	2,163,711	SSPRD	COLT
			TRACT AR*	FUTURE SINGLE FAMILY ATTACHED	1.888	82,225	SHL	SHL
			TRACT AS*	VILLAGE RECREATION AND AMENITY CENTER	3.284	143,054	НОА	HOA
			TRACT AT	UTILITY, DRAINAGE, LANDSCAPE, PRIVATE ALLEY	1.263	55,033	HOA	HOA
			TRACT AW	UTILITY, DRAINAGE, LANDSCAPE	0.219	9,535	НОА	HOA
RIDGEGATÉ PKWY			TRACT AY	UTILITY, DRAINAGE, LANDSCAPE	0.203	8,834	HOA	HOA
RGE	SHEET INDE	X	TRACT AZ	UTILITY, DRAINAGE, LANDSCAPE, RETAINING WALL	1.348	58,735	HOA/COLT/SSPRC) HOA
$ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	CUEET 1	TITLE SHEET TRACT SUMMARY	TRACT BD	UTILITY, DRAINAGE, LANDSCAPE	0.572	24,910	HOA	HOA
	SHELLI	IND SUMMARY AND NOTES	IRACI BG	UTILITY, DRAINAGE, LANDSCAPE	0.305	13,273	HOA	HOA
		LAND SUMMART, AND NOTES	IRACI BH	UTILITY, DRAINAGE, LANDSCAPE, PRIVATE ALLEY	1.094	47,654	HOA	HOA
	SHEET 2	BOUNDARY LEGAL DESCRIPTION		UTILITY, DRAINAGE, LANDSCAPE, RETAINING WALL	1.835		HUA	HOA
	SHELT Z		TRACI BJ	UTILITY, DRAINAGE, LANDSCAPE	0.134	5,849	HUA	HUA
	SHEET 3	OVERALL BOUNDARY INFORMATION	TRACI BK	UTILITY, DRAINAGE, LANDSCAPE		575 577		
				NEIGHBURHUUD PARK	1 2.249	68 652		
	SHEET 4	OVERALL – LOT & INNER TRACT		UTILITY DRAINAGE, LANDSCAPE, TRAILS	0.148	6 4 4 3		
		NUMBERING	TRACT CE	UTILITY DRAINAGE, LANDSCAPE	0.140	590	HOA = HOA	
			TRACT CX	SWAP PARCEI	0.74.3	32 354	I SRF	SRF
	SHEET 5-13	BOUNDARY, LOT LINES AND		TRACTS TOTAL (25)	109 113	4.754.946		
		EASEMENTS	* = SUBJECT	TO FUTURE SIP PROCESS WITH THE CITY OF LONETREE	1.001.10 1			
			SOB020	TH SUBURRAN DARKS & RECREATION DEDARTMENT				
	SHEET 14	LINE AND CURVE TABLES	$\frac{33110}{2017} = \frac{300}{2017}$	OF LONE TREE				
				OF LONE TREE				
The second secon			HUA = LYRIC	UWNERS ASSUCIATION, INC. (MASTER HOA)				
			SHL = SH LYF	RIC, LLC, ITS SUCCESSORS AND ASSIGNS				
			RGI = RIDGEG	ATE INVESTMENTS, INC. THEIR SUCCESSORS AND ASSIGNS				
			SRF = SCHWF	IGER RANCH FOUNDATION (TO BE DEEDED BY RGI AFTER PLAT	RECORDIN	1G)		
VICINITY MAP SCALE $1'' = 3000'$						- /		

ONAL TITLE INSURANCE COMPANY ORDER NO. 100-N0025911-030-TH-DK2, AMENDMENT NO. 5, DATED FEBRUARY 12, 2021 AT WAS RELIED UPON FOR RECORD REGARDING RIGHTS-OF-WAY, EASEMENT(S) AND ENCUMBRANCE(S). THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY AZTEC CONSULTANTS INC. TO DETERMINE RIGHTS-OF-WAY, EASEMENT(S) OR OTHER MATTERS OF PUBLIC RECORD.

SHOWN HEREON ARE BASED UPON THE SOUTH LINE OF SECTION 23, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEING MONUMENTED AT QUARTER CORNER BY A 10" X 6" X 8" STONE WITH A CUT CROSS AND AT THE EAST QUARTER CORNER BY A 12" X 12" X 5" STONE WITH A CUT CROSS, BEING BEAR NORTH 89°35'02" EAST.

PROPERTY SHOWN HEREIN LIES WITHIN SPECIAL FLOOD HAZARD AREAS - ZONES AO, AE AND X, AS SHOWN AND DEFINED ON FEDERAL EMERGENCY MANAGEMENT INSURANCE RATE MAP INDEX NO. 08035C0063H, MAP REVISED SEPTEMBER 4, 2020.

THIS PLAT ARE GROUND DISTANCES EXPRESSED IN U.S. SURVEY FEET AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS. WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO (2)

PURSUANT TO STATE STATUTE 18-4-508, COLORADO REVISED STATUTE.

EASEMENTS DEDICATED OR GRANTED ON THIS PLAT IS NON-EXCLUSIVE, AND THE GRANTEE OF EACH SUCH EASEMENT AT ITS EXPENSE SHALL, AFTER ANY REPAIR, REPLACEMENT, ENLARGEMENT OR OTHER WORK FOR ANY IMPROVEMENTS OR FACILITIES INSTALLED PURSUANT TO SUCH EASEMENT, RESTORE THE SURFACE OF AFFECTED BY SUCH CONSTRUCTION, AND ANY IMPROVEMENTS THEREON, TO THE GENERAL CONDITION IT WAS IN PRIOR TO ANY SUCH CONSTRUCTION.

AND FUTURE OWNERS AND OCCUPANTS OF LAND HEREBY SUBDIVIDED OR SUBJECT TO A SITE IMPROVEMENT PLAN ARE HEREBY NOTIFIED THAT THE PROPERTY IS HIN PROXIMITY TO CENTENNIAL AIRPORT AND IS SUBJECT TO THE TERMS OF THAT CERTAIN AVIGATION NOTICE RECORDED AT RECEPTION NO. 2020016188 ON MARCH 4 RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER. PROXIMITY TO CENTENNIAL AIRPORT MAY HAVE ANY NUMBER OF IMPACTS ON THE PROPERTY OCCUPANTS, , AND THE DEVELOPMENT, IMPROVEMENT, USE, ENJOYMENT OR OCCUPANCY OF THE PROPERTY, INCLUDING WITHOUT LIMITATION ODORS, AIRCRAFT NOISE, VIBRATION, PARTICLES, EXHAUST, AND THE OPERATION AND PASSAGE OF AIRCRAFT ABOVE OR NEAR THE PROPERTY. INDIVIDUAL SENSITIVITIES TO THE POTENTIAL CENTENNIAL CTS CAN VARY FROM PERSON TO PERSON, AND POTENTIAL AIRPORT IMPACTS CAN VARY FROM LOCATION TO LOCATION WITH THE PROPERTY AND FROM TIME TO TIME. INFORMATION CONCERNING CENTENNIAL AIRPORT AND POTENTIAL AIRPORT IMPACTS ARE PUBLICLY AVAILABLE THROUGH VARIOUS FEDERAL, STATE, AND LOCAL AGENCIES, INCLUDING CENTENNIAL AIRPORT. ALL PRESENT AND FUTURE OWNERS AND OCCUPANTS ARE SOLELY RESPONSIBLE FOR EVALUATING AND DETERMINING AIRPORT IMPACTS, IF ANY, ARE ACCEPTABLE TO THEM.

ITED HEREIN MAY BE REQUIRED TO CONVEY SURFACE DRAINAGE FROM OTHER LOTS IN THIS FILING, IN ACCORDANCE WITH CITY OF LONE TREE REQUIREMENTS AND THE AINAGE PLAN FOR THIS FILING. NO ALTERATIONS TO THE GRADING OF THE LOTS MAY BE MADE THAT WOULD DISRUPT THE APPROVED DRAINAGE PLAN, WITHOUT PRIOR OM THE CITY OF LONE TREE. ALL NATURAL AND IMPROVED DRAINAGE WAYS OR DRAINAGE SYSTEMS IN SAID LOTS SHALL BE MAINTAINED BY THE LOT OWNER IN WITH CITY OF LONE TREE CRITERIA. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE CITY OF LONE TREE SHALL HAVE THE RIGHT TO ENTER OR THE PURPOSES OF OPERATIONS AND MAINTENANCE OF THE DRAINAGE WAYS OR DRAINAGE SYSTEMS. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE

LONE TREE REQUIRES THAT MAINTENANCE ACCESS BE PROVIDED TO ALL STORM DRAINAGE FACILITIES TO ASSURE CONTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL DRAINAGE FACILITIES INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES IN BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY THE SUBDIVISION IMPROVEMENT AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID CITY OF LONE TREE SHALL HAVE THE RIGHT TO ENTER SAID LAND FOR THE PURPOSES OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE THE PROPERTY OWNER.

TS: THE DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF ALL ROADWAY SIGNAGE, INCLUDING NO PARKING/FIRE LANE SIGNAGE, AS REQUIRED BY THE CITY PUBLIC TMENT AND FIRE DISTRICT.

ETS: THE DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF ALL ROADWAY SIGNAGE, INCLUDING NO PARKING/FIRE LANE SIGNAGE, AS REQUIRED BY THE CITY PUBLIC TMENT AND FIRE DISTRICT. THE OWNER/HOMEOWNER ASSOCIATION SHALL MAINTAIN SAID SIGNAGE.

CE EASEMENTS SHOWN HEREON ARE DEDICATED TO THE CITY OF LONE TREE FOR LINE OF SIGHT TOGETHER WITH THE FOLLOWING RESTRICTIONS OVER SAID EASEMENT: NO THE SIGHT DISTANCE EASEMENT SHALL BE MORE THAN THIRTY-SIX (36) INCHES ABOVE THE FLOWLINE TO THE ADJACENT STREET. SUCH OBJECTS SHALL INCLUDE BUT ARE NOT LIMITED TO BUILDINGS, VEGETATION, TREES, FILL MATERIAL, UTILITY CABINETS, WALLS, SIGNS, ETC. PARKING IS ALSO RESTRICTED WITHIN SAID EASEMENT. IN THE URE TREES THEY MUST BE PRUNED UP TO SEVEN (7) FEET IN HEIGHT. ANY LOTS CONTAINING A SIGHT DISTANCE EASEMENT SHALL NOT BE ALLOWED TO BUILD A FENCE IGHT DISTANCE EASEMENT. LIMITED LANDSCAPING SHALL BE ALLOWED WITH NO SOLID STRUCTURES PERMITTED AS STATED IN THE CITY OF LONE TREE'S LANDSCAPE INES AND STANDARDS FOR AREAS IN AND ALONG PUBLIC RIGHTS-OF-WAY. LANDSCAPING WITHIN THE SIGHT TRIANGLE SHALL BE MAINTAINED BY THE PROPERTY OWNER ATE ASSOCIATION.

ND AR SHALL BE OWNED AND MAINTAINED BY SH LYRIC, LLC, ITS SUCCESSORS AND ASSIGNS (UPON ACQUISITION). THE PURPOSE DESIGNATED FOR SAID TRACTS IS FOR ' ATTACHED AND ARE SUBJECT TO THE CITY OF LONE TREE SIP PROCESS AND APPROVAL.

ALL BE OWNED BY SH LYRIC, LLC, ITS SUCCESSORS AND ASSIGNS (UPON ACQUISITION). THE PURPOSE DESIGNATED FOR SAID TRACT IS FOR VILLAGE RECREATION AND ER AND ARE SUBJECT TO THE CITY OF LONE TREE SIP PROCESS AND APPROVAL. ONCE THE VILLAGE RECREATION AND AMENITY CENTER IMPROVEMENTS ARE) BY SHEA LYRIC LLC, ITS SUCCESSORS AND ASSIGNS AND APPROVED BY THE CITY, THE LAND WILL BE CONVEYED TO THE HOA VIA DEED AND MAINTAINED BY THE HOA.

ALL INITIALLY BE OWNED BY SH LYRIC, LLC, ITS SUCCESSORS AND ASSIGNS (UPON ACQUISITION). THE PURPOSE DESIGNATED FOR SAID TRACT IS FOR NEIGHBORHOOD E SUBJECT TO THE CITY OF LONE TREE SIP PROCESS AND APPROVAL. ONCE THE NEIGHBORHOOD PARK IMPROVEMENTS ARE CONSTRUCTED BY SH LYRIC LLC AND THE CITY AND SSPRD, THE LAND WILL BE CONVEYED TO THE CITY OF LONE TREE VIA DEED AND MAINTAINED BY SSPRD.

ND CB SHALL INITIALLY BE OWNED BY SH LYRIC, LLC, ITS SUCCESSORS AND ASSIGNS (UPON ACQUISITION). THE PURPOSE DESIGNATED FOR SAID TRACT IS OPEN SPACE. ROVEMENTS HAVE BEEN CONSTRUCTED IN SAID TRACTS, THE LAND WILL BE CONVEYED TO THE CITY OF LONE TREE VIA DEED. THE TRACT WILL BE MAINTAINED BY THE TREE/SSPRD.

EMENTS SHOWN HEREON, OTHER THAN THE DRAINAGE EASEMENT LOCATED ON TRACT AQ, ARE DEDICATED TO THE CITY OF LONE TREE FOR THE PURPOSE OF AINTAINING, AND REPAIRING STORM WATER MANAGEMENT IMPROVEMENTS INCLUDING BUT NOT LIMITED TO INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC AND RIPRAP (COLLECTIVELY, THE FACILITIES)

EASEMENT LOCATED IN TRACT AQ THAT IS BEING CONVEYED HEREBY TO RAMPART RANGE METROPOLITAN DISTRICT NO. 5 FOR DRAINAGE PURPOSES WILL BE RAMPART RANGE METROPOLITAN DISTRICT NO. 6.

SUBJECT TO ALL CONDITIONS CONTAINED WITHIN THE MASTER IMPROVEMENT AGREEMENT FOR THE SOUTHWEST VILLAGE AS RECORDED AT RECEPTION NO. 2021024964. SUBJECT TO ALL CONDITIONS CONTAINED WITHIN THE SUBDIVISION IMPROVEMENT AGREEMENT FOR THIS FILING AS RECORDED AT RECEPTION NO.



LAND AREA SUMMARY TABLE

DESIGNATION	AREA (SF)	AREA (AC)	% OF TOTAL AREA
RESIDENTIAL LOTS	1,709,477	39.290	21.21
NON ALLEY TRACTS	4,643,469	106.555	57.60
ALLEY TRACTS	111,477	2.558	1.38
RIGHT-OF-WAY	1,596,798	36.657	19.81
RIDGEGATE SW VILLAGE FIL. NO. 1	8,061,221	185.060	100.00

SITE SUMMARY TABLE

DESIGNATION	TOTALS	AREA (SF)	AREA (AC)
NUMBER OF SINGLE FAMILY RESIDENTIAL LOTS	365	1,709,477	39.290
NUMBER OF PRIVATE ALLEY TRACTS	4	111,477	2.558
NUMBER OF REGIONAL PARK TRACTS	2	3,416,639	78.435
NUMBER OF NEIGHBORHOOD PARK TRACTS	1	535,577	12.249
NUMBER OF FUTURE DEVELOPMENT TRACTS	2	198,064	4.547
NUMBER OF VILLAGE RECREATION & AMENITY CENTER TRACTS	1	143,054	3.284
NUMBER OF OPEN SPACE TRACTS	2	75,095	1.724
NUMBER OF HOA LANDSCAPE & UTILITY TRACTS	12	242,686	5.573
SWAP TRACTS	1	32,354	0.743
PUBLIC RIGHT-OF-WAY		1,596,798	36.657
	TOTAL	8,061,221	185.060

<u>SURVEYOR</u>

I, ANTHONY K. PEALL, A DULY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE ON JULY 23, 2020, BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON: THAT MATHEMATICAL CLOSURE ERRORS ARE LESS THAN 1:50,000 (SECOND ORDER); AND THAT SAID PLAT HAS BEEN PREPARED IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS OF THE STATE OF COLORADO DEALING WITH MONUMENTS, SUBDIVISIONS OR SURVEYING OF LAND, ALL APPLICABLE PROVISIONS OF THE CITY SUBDIVISION REGULATIONS. THIS CERTIFICATION IS BASED ON MY KNOWLEDGE, INFORMATION AND BELIEF AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED.

I ATTEST THE ABOVE ON THIS _____ DAY OF _____, 2021



LAST REVISED: 3/12/2021

ANTHONY K. PEALL, LICENSED PROFESSIONAL LAND SURVEYOR COLORADO P.L.S. NO. 38636 FOR AND ON BEHALF OF AZTEC CONSULTANTS, INC.

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

CITY MANAGER

THIS PLAT WAS APPROVED FOR FILING BY THE CITY MANAGER OF THE CITY OF LONE TREE, COLORADO, ON THE

2021, SUBJECT TO ANY CONDITIONS SPECIFIED HEREON. THE DEDICATION OF ALL PUBLIC DAY OF RIGHTS-OF-WAY, TRACTS AJ AND AQ, UTILITY EASEMENTS, DRAINAGE EASEMENTS, SIGHT DISTANCE EASEMENTS AND ACCESS EASEMENTS ARE ACCEPTED.

ALL EXPENSES INCURRED WITH RESPECT TO IMPROVEMENTS FOR ALL UTILITY SERVICES, PAVING, GRADING, LANDSCAPING, CURBS, GUTTER, SIDEWALKS, ROAD LIGHTING, ROAD SIGNS, FLOOD PROTECTION DEVICES, DRAINAGE STRUCTURES, AND ALL OTHER IMPROVEMENTS THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER AND NOT THE CITY.

THIS ACCEPTANCE DOES NOT GUARANTEE THAT SOIL CONDITIONS, SUBSURFACE GEOLOGY, GROUNDWATER CONDITIONS OR FLOODING CONDITIONS OF ANY LOTS SHOWN HEREON ARE SUCH THAT A BUILDING PERMIT, WELL PERMIT OR SEWAGE DISPOSAL PERMIT WILL BE ISSUED.

SETH HOFFMAN, CITY MANAGER, CITY OF LONE TREE

CLERK AND RECORDER

STATE OF COLORADO)

COUNTY OF DOUGLAS)

I HEREBY CERTIFY THAT THIS PLAT WAS FILED IN MY OFFICE ON THIS _____ DAY OF _____ 2021,

A.D., AT _____ A.M./P.M. AND WAS RECORDED AT RECEPTION NO. _____

DOUGLAS COUNTY CLERK AND RECORDER

X T T 300 East Mineral Ave., Suite 1	DEVELOPER	DATE OF PREPARATION:	2/8/2021
CONSULTANTS, INC. Littleton, Colorado 80122 Phone: (303) 713-1898 Fax: (303) 713-1897 www.aztecconsultants.com	SH LYRIC, LLC	SCALE:	N/A
roj. No.: 10720-20 Drawn By: GLW/JFT	9380 STATION STREET, SUITE 600 LONE TREE, COLORADO 80124 (303) 791–8180	SHEET	1 OF 14

RIDGEGATE SW VILLAGE FILING NO. 1 A PORTION OF THE RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN A PART OF THE NORTH HALF AND SOUTHEAST QUARTER OF SECTION 23, AND THE NORTHWEST QUARTER OF SECTION 24, AND A PART OF THE SOUTH HALF OF SECTION 14, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO. 185.060 ACRES – 365 RESIDENTIAL LOTS – 25 TRACTS SB21–08R

LEGAL DESCRIPTION

A PARCEL OF LAND BEING A PART OF THE NORTH HALF AND SOUTHEAST QUARTER OF SECTION 23, A PART OF THE NORTHWEST QUARTER OF SECTION 24, AND A PART OF THE SOUTH HALF OF SECTION 14, ALL IN TOWNSHIP 6 SOUTH RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 23, BEARS NORTH 89'35'02" EAST, A DISTANCE OF 2,635.44 FEET, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO. COMMENCING AT THE CENTER QUARTER CORNER OF SAID SECTION 23:

THENCE NORTH 15°34'02" EAST, A DISTANCE OF 144.38 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 09"37'05" EAST, A DISTANCE OF 318.79 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE EASTERLY HAVING A RADIUS OF 745.50 FEET;

THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 01°42'04". AN ARC LENGTH OF 22.13 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 22.00 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 84°27'18", AN ARC LENGTH OF 32.43 FEET;

THENCE NORTH 73'08'09" WEST, A DISTANCE OF 621.97 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 62.00 FEET;

THENCE NORTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90'00'00", AN ARC LENGTH OF 97.39 FEET;

THENCE NORTH 73°08'32" WEST, A DISTANCE OF 88.78 FEET;

THENCE SOUTH 16'16'23" WEST, A DISTANCE OF 255.80 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 636.86 FEET, THE RADIUS POINT OF SAID CURVE BEARS SOUTH 16°29'03" WEST;

THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 29'56'06", AN ARC LENGTH OF 332.74 FEET;

THENCE SOUTH 76'32'57" WEST, A DISTANCE OF 440.26 FEET;

THENCE NORTH 13°27'03" WEST, A DISTANCE OF 93.54 FEET TO THE SOUTHERLY BOUNDARY OF THAT BARGAIN AND SALE DEED RECORDED AT RECEPTION NO. 2008034431, OF THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE;

THENCE ALONG SAID SOUTHERLY BOUNDARY, NORTH 53°27'29" EAST, A DISTANCE OF 107.42 FEET;

THENCE DEPARTING SAID SOUTHERLY BOUNDARY, NORTH 23°54'07" EAST, A DISTANCE OF 588.85 FEET TO THE NORTHEASTERLY BOUNDARY OF SAID BARGAIN AND SALE DEED;

THENCE ALONG SAID NORTHEASTERLY BOUNDARY, NORTH 33°41'49" WEST, A DISTANCE OF 523.60 FEET TO THE SOUTHWESTERLY BOUNDARY OF THAT SPECIAL WARRANTY DEED RECORDED AT RECEPTION NO. 2014064760, IN SAID RECORDS; THENCE ALONG SAID SOUTHWESTERLY BOUNDARY AND THE SOUTHEASTERLY AND NORTHEASTERLY BOUNDARY THE FOLLOWING THREE (3) COURSES:

1. SOUTH 49°12'44" EAST. A DISTANCE OF 462.00 FEET

2.NORTH 40°47'16" EAST, A DISTANCE OF 371.30 FEET;

3.NORTH 49"12'44" WEST, A DISTANCE OF 161.83 FEET TO THE EASTERLY BOUNDARY OF RIDGEGATE EAST FILING NO. 2, A PLAT RECORDED UNDER RECEPTION NO. 2020097699, IN SAID RECORDS AND THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 1,717.90 FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH 48°27'57" WEST;

THENCE ALONG SAID EASTERLY BOUNDARY THE FOLLOWING EIGHTEEN (18) COURSES:

1. NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 18°24'39", AN ARC LENGTH OF 552.01

· ·,
2.NORTH 26°27'05" EAST, A DISTANCE OF 110.50 FEET;
3.SOUTH 63°32'55" EAST, A DISTANCE OF 80.39 FEET;
4.NORTH 56°32'09" EAST, A DISTANCE OF 61.15 FEET;
5.SOUTH 60°42'14" EAST, A DISTANCE OF 59.61 FEET;
6.SOUTH 29°45'20" EAST, A DISTANCE OF 22.96 FEET;
7.SOUTH 78°42'29" EAST, A DISTANCE OF 75.34 FEET;
8.NORTH 46°13'36" EAST, A DISTANCE OF 132.79 FEET;
9.NORTH 42°31'28" EAST, A DISTANCE OF 146.82 FEET;
10.NORTH 02°20'12" WEST, A DISTANCE OF 89.87 FEET;
11. NORTH 47"11'52" WEST, A DISTANCE OF 79.84 FEET;
12. NORTH 09"18'42" EAST, A DISTANCE OF 231.91 FEET;
13. NORTH 80°17'49" EAST, A DISTANCE OF 143.19 FEET;
14. NORTH 68'39'37" EAST, A DISTANCE OF 120.54 FEET
15. NORTH 42'38'06" EAST, A DISTANCE OF 232.92 FEET
16.NORTH 67°36'20" EAST, A DISTANCE OF 42.82 FEET;
17. NORTH 87*46'47" EAST, A DISTANCE OF 134.01 FEET;

18. NORTH 09'03'38" EAST, A DISTANCE OF 149.62 FEET TO THE SOUTHERLY RIGHT-OF-WAY OF RIDGEGATE PARKWAY AND THE BEGINNING OF A NON-TANGENT CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 2,316.00 FEET, THE RADIUS POINT OF SAID CURVE BEARS SOUTH 09*53'39" WEST;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY THE FOLLOWING THREE (3) COURSES:

1. SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 32"19'33", AN ARC LENGTH OF 1,306.67 FEET;

NORTHEASTERLY HAVING A RADIUS OF 1,884.00 FEET; FEET:

THENCE DEPARTING SAID SOUTHERLY RIGHT-OF-WAY, SOUTH 39°40'25" WEST, A DISTANCE OF 30.83 FEET; THENCE NORTH 50°19'35" WEST, A DISTANCE OF 29.19 FEET; THENCE SOUTH 42°13'12" WEST, A DISTANCE OF 179.60 FEET; THENCE SOUTH 47'30'39" WEST, A DISTANCE OF 213.09 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 642.00 FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH 45°12'13" WEST;

THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 0914'54". AN ARC LENGTH OF 103.63 FEET TO THE BEGINNING OF A REVERSE CURVE HAVING A RADIUS OF 5.00 FEET; THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 85'31'25", AN ARC LENGTH OF 7.46 FEET;

THENCE SOUTH 31°28'43" EAST, A DISTANCE OF 180.92 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 524.50 FEET; THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 11°36'10", AN ARC LENGTH OF 106.22 FEET;

NORTHERLY HAVING A RADIUS OF 5.00 FEET; FEET;

THENCE NORTH 48'32'00" EAST, A DISTANCE OF 12.74 FEET; THENCE NORTH 41°06'26" EAST, A DISTANCE OF 12.00 FEET;

EASTERLY HAVING A RADIUS OF 5.00 FEET;

FEET;

35°10'05" EAST;

178.38 FEET;

CONCAVE NORTHWESTERLY HAVING A RADIUS OF 5.00 FEET;

7.85 FEET; THENCE NORTH 15°40'55" EAST, A DISTANCE OF 23.50 FEET; THENCE SOUTH 74"19'05" EAST, A DISTANCE OF 71.00 FEET; THENCE SOUTH 15'40'55" WEST, A DISTANCE OF 23.50 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 5.00 FEET;

THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00", AN ARC LENGTH OF

THENCE SOUTH 74"19'05" EAST, A DISTANCE OF 306.28 FEET;

7.85 FEET;

THENCE SOUTH 74"19'05" EAST, A DISTANCE OF 83.93 FEET;

08°42'40" EAST;

THENCE EASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 17°47'03". AN ARC LENGTH OF 316.75 FEET TO THE BEGINNING OF A COMPOUND CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 16.50 FEET; THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 91'57'30", AN ARC LENGTH OF 26.48 FEET;

THENCE NORTH 11°01'53" WEST, A DISTANCE OF 23.72 FEET;

THENCE NORTH 77"18'48" EAST, A DISTANCE OF 71.03 FEET;

THENCE SOUTH 11°02'25" EAST, A DISTANCE OF 23.94 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 16.50 FEET;

THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 93"58'18", AN ARC LENGTH OF 27.06 FEET TO THE BEGINNING OF A COMPOUND CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 1,020.50 FEET;

THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 22'59'34", AN ARC LENGTH OF 409.53 FEET TO THE BEGINNING OF A COMPOUND CURVE CONCAVE WESTERLY HAVING A RADIUS OF 16.50 FEET; THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 94"34"30", AN ARC LENGTH OF 27.24 FEET;

THENCE NORTH 42°34'46" WEST, A DISTANCE OF 18.48 FEET; THENCE NORTH 47°25'14" EAST, A DISTANCE OF 91.00 FEET;

2. SOUTH 47°46'48" EAST, A DISTANCE OF 423.77 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE 3.SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 02°42'04", AN ARC LENGTH OF 88.82

THENCE SOUTH 46'07'04" EAST, A DISTANCE OF 11.32 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE

THENCE EASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 85°20'56", AN ARC LENGTH OF 7.45

THENCE SOUTH 48°57'24" EAST, A DISTANCE OF 71.00 FEET;

THENCE SOUTH 41°02'36" WEST, A DISTANCE OF 12.00 FEET;

THENCE SOUTH 33'29'25" WEST, A DISTANCE OF 12.74 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE

THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 85"16'03", AN ARC LENGTH OF 7.44

THENCE SOUTH 51°46'38" FAST. A DISTANCE OF 11.32 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 524.50 FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH

THENCE SOUTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 19"29'10", AN ARC LENGTH OF

THENCE SOUTH 74'19'05" EAST, A DISTANCE OF 526.32 FEET TO THE BEGINNING OF A TANGENT CURVE

THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90'00'00", AN ARC LENGTH OF

THENCE SOUTH 15°40'55" WEST, A DISTANCE OF 91.00 FEET;

THENCE SOUTH 03°23'27" EAST, A DISTANCE OF 178.09 FEET;

THENCE SOUTH 17"16'47" WEST, A DISTANCE OF 379.29 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHERLY HAVING A RADIUS OF 1,020.50 FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH

THENCE SOUTH 42°34'46" EAST, A DISTANCE OF 20.92 FEET TO THE BEGINNING OF A TANGENT NORTHERLY HAVING A RADIUS OF 16.50 FEET;

THENCE EASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 93°40'39", AN ARC LENC FEET;

THENCE NORTH 43°44'34" EAST, A DISTANCE OF 159.57 FEET TO THE BEGINNING OF A TANGENT CONCAVE NORTHWESTERLY HAVING A RADIUS OF 560.50 FEET; THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 24°17'55", AN ARC

237.70 FEET TO THE BEGINNING OF A COMPOUND CURVE CONCAVE WESTERLY HAVING A RADIUS THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 09'46'23", AN ARC LE FEET;

THENCE NORTH 09'40'16" EAST, A DISTANCE OF 64.79 FEET TO THE BEGINNING OF A TANGENT WESTERLY HAVING A RADIUS OF 555.00 FEET;

THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 03"16'12", AN ARC LEN FEET;

THENCE NORTH 82°19'19" WEST, A DISTANCE OF 20.70 FEET;

THENCE NORTH 07.40'41" EAST, A DISTANCE OF 29.33 FEET TO THE SOUTHERLY RIGHT-OF-WAY PARKWAY AND THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHERLY HAVING A RAD FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH 07'39'08" EAST;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY, EASTERLY ALONG SAID CURVE THROUGH A CEI 05°55'23", AN ARC LENGTH OF 119.25 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CON HAVING A RADIUS OF 655.00 FEET, THE RADIUS POINT OF SAID CURVE BEARS NORTH 86'33'23' THENCE DEPARTING SAID SOUTHERLY RIGHT-OF-WAY, SOUTHERLY ALONG SAID CURVE THROUGH ANGLE OF 13'19'48", AN ARC LENGTH OF 152.39 FEET TO THE BEGINNING OF A COMPOUND CUR WESTERLY HAVING A RADIUS OF 218.00 FEET;

THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 15°21'33", AN ARC LEN THENCE SOUTH 32°07'58" WEST, A DISTANCE OF 116.05 FEET TO THE BEGINNING OF A TANGENT CONCAVE NORTHWESTERLY HAVING A RADIUS OF 639.50 FEET;

THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 11'36'36", AN ARC 129.58 FEET;

THENCE SOUTH 43°44'34" WEST, A DISTANCE OF 138.60 FEET TO THE BEGINNING OF A TANGEN CONCAVE NORTHWESTERLY HAVING A RADIUS OF 1,099.50 FEET;

THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 01*56'09". AN ARC 37.15 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE EASTERLY HAVING A RADIUS OF THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 88"15'30", AN ARC LE FEET;

THENCE SOUTH 42°34'46" EAST, A DISTANCE OF 21.48 FEET;

THENCE SOUTH 47°25'14" WEST, A DISTANCE OF 71.00 FEET;

THENCE NORTH 42'34'46" WEST, A DISTANCE OF 22.23 FEET TO THE BEGINNING OF A TANGENT SOUTHERLY HAVING A RADIUS OF 17.50 FEET;

THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 86.32'58", AN ARC LENG FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 24'06'37", AN ARC 462.67 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE SOUTHEASTERLY HAVING A RAD FEET:

THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 86"12'57", AN ARC 24.83 FEET;

THENCE SOUTH 11°02'00" EAST, A DISTANCE OF 23.47 FEET; THENCE SOUTH 78°58'00" WEST, A DISTANCE OF 79.00 FEET;

THENCE NORTH 11"02'00" WEST, A DISTANCE OF 21.70 FEET TO THE BEGINNING OF A TANGENT SOUTHWESTERLY HAVING A RADIUS OF 16.50 FEET; THENCE NORTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 88°01'51", AN ARC

25.35 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE NORTHERLY HAVING A RADIUS FEET;

THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 18°23'59", AN ARC LENG FEET; THENCE SOUTH 17°16'42" WEST, A DISTANCE OF 460.69 FEET;

THENCE SOUTH 41°46'08" EAST, A DISTANCE OF 52.11 FEET TO THE BEGINNING OF A NON-TANG CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 425.00 FEET, THE RADIUS POINT OF SAID CURY 49°32'40" EAST;

THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 02"13'10", AN ARC 16.46 FEET;

THENCE SOUTH 38'14'10" WEST, A DISTANCE OF 474.17 FEET TO THE BEGINNING OF A TANGENT CONCAVE NORTHERLY HAVING A RADIUS OF 18.00 FEET; THENCE WESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 89'38'20", AN ARC LENG

FEET; THENCE NORTH 52°07'30" WEST, A DISTANCE OF 157.43 FEET; THENCE NORTH 37°52'30" EAST, A DISTANCE OF 96.00 FEET;

THENCE NORTH 07°07'30" WEST, A DISTANCE OF 14.14 FEET;

THENCE NORTH 52°07'30" WEST, A DISTANCE OF 447.46 FEET;

THENCE NORTH 15°40'55" EAST, A DISTANCE OF 346.80 FEET;



CURVE CONCAVE	THENCE NORTH 74°58'38" WEST, A	DISTANCE OF 223.24 FEET;		
GTH OF 26.98	THENCE SOUTH 13 42 38 WEST, A	DISTANCE OF 98.84 FEET;	IG OF A NON-TANGEN	
T CURVE	CONCAVE NORTHERLY HAVING A R 50°37'27" WEST;	ADIUS OF 53.00 FEET, THE RADIUS POINT C	IF SAID CURVE BEARS	SOUTH
C LENGTH OF	THENCE WESTERLY ALONG SAID CU FEET TO THE BEGINNING OF A REV	JRVE THROUGH A CENTRAL ANGLE OF 220*5 VERSE CURVE CONCAVE SOUTHWESTERLY HA	3'41", AN ARC LENGTI VING A RADIUS OF 18	H OF 204.33 .00 FEET;
NGTH OF 30.96	THENCE NORTHWESTERLY ALONG S 24.44 FEET;	AID CURVE THROUGH A CENTRAL ANGLE OF	77°48'12", AN ARC L	ENGTH OF
CURVE CONCAVE	THENCE NORTH 76°17'04" WEST, A	DISTANCE OF 83.25 FEET;		
	THENCE SOUTH 13°42'56" WEST, A	DISTANCE OF 58.99 FEET;		
NGTH OF SI.67	THENCE SOUTH 75"15'09" WEST, A	DISTANCE OF 366.22 FEET;		
	THENCE SOUTH 312227 WEST, A	DISTANCE OF 276.27 FEET;		
Y OF RIDGEGATE DIUS OF 1,153.50	THENCE SOUTH 60°42'26" WEST, A	DISTANCE OF 49.33 FEET:		
	THENCE NORTH 72°30'19" WEST, A	DISTANCE OF 14.11 FEET;		
NCAVE WESTERLY	THENCE SOUTH 64°37'07" WEST, A	DISTANCE OF 70.72 FEET;		
A CENTRAL	THENCE SOUTH 68°43'05" WEST, A	DISTANCE OF 56.09 FEET		
RVE CONCAVE	THENCE SOUTH 47°57'53" WEST, A	DISTANCE OF 73.48 FEET;		
NGTH OF 58.57;	THENCE SOUTH 09°37'05" WEST, A	DISTANCE OF 17.36 FEET;		
I CURVE	THENCE NORTH 80°22'55" WEST, A	DISTANCE OF 111.00 FEET;		
C LENGTH OF	THENCE NORTH 09°37'12" EAST, A	DISTANCE OF 61.46 FEET;		
	THENCE NORTH 80°23'30" WEST, A THENCE NORTH 09°37'05" EAST, A	DISTANCE OF 50.00 FEET;	IG OF A TANGENT CUI	RVE CONCAVE
C LENGTH OF	SOUTHWESTERLY HAVING A RADIUS	S OF 18.00 FEET; GAID CURVE THROUGH A CENTRAL ANGLE OF	107°18'43", AN ARC	LENGTH OF
16.50 FEET;	33.71 FEET TO THE BEGINNING OF	A REVERSE CURVE CONCAVE NORTHERLY H	AVING A RADIUS OF S	925.00 FEET;
NGTH OF 25.42	FEET TO THE BEGINNING OF A REV	VERSE CURVE CONCAVE SOUTHEASTERLY HA	VING A RADIUS OF 18	.00 FEET;
	THENCE SOUTHWESTERLY ALONG S 26.47 FEET;	AID CURVE THROUGH A CENTRAL ANGLE OF	84°14'31", AN ARC LI	ENGTH OF
	THENCE SOUTH 09°37'05" WEST, A	DISTANCE OF 16.72 FEET;		
CURVE CUNCAVE	THENCE NORTH 80°22'55" WEST, A	DISTANCE OF 50.00 FEET;		
GTH OF 26.44 1,099.50 FEET;	SOUTHWESTERLY HAVING A RADIUS	S OF 18.00 FEET;	IG OF A TANGENT CUP	RVE CONCAVE
RC LENGTH OF DIUS OF 16.50	THENCE NORTHWESTERLY ALONG S 28.39 FEET TO THE BEGINNING OF	AID CURVE THROUGH A CENTRAL ANGLE OF A REVERSE CURVE CONCAVE NORTHERLY F	90°22'44", AN ARC L AVING A RADIUS OF 1	ENGTH OF 925.00 FEET;
	THENCE WESTERLY ALONG SAID CU	JRVE THROUGH A CENTRAL ANGLE OF 00°31	'17", AN ARC LENGTH	OF 8.42
C LENGTH OF	THENCE NORTH 80°22'55" WEST, A	DISTANCE OF 86.21 FEET;		
	THENCE SOUTH 42°37'17" WEST, A	DISTANCE OF 25.11 FEET;		
	THENCE SOUTH 09°37'05" WEST, A	DISTANCE OF 13.94 FEET;		
CURVE CONCAVE	THENCE NORTH 80°23'00" WEST, A	DISTANCE OF 91.00 FEET TO THE POINT O	F BEGINNING.	
C LENGTH OF OF 1,099.50	CONTAINING AN AREA OF 185.060	ACRES, (8,061,221 SQUARE FEET), MORE O	R LESS.	
GTH OF 353.09				
GENT CURVE VE BEARS SOUTH				
C LENGTH OF				
CURVE				
GTH OF 28.16				NEW
			A RE	VIL.
			FORT	
			FUR AND ON AZTEC CONSU	BEHALF OF LTANTS, INC
			DATE OF	2/8/2021
A7T	300 East Mineral Ave., Suite 1 Littleton, Colorado 80122 Phone: (303) 713-1898	SH LYRIC, LLC		
CONSULTANT	Fax: (303) 713-1897		SCALE:	N/A

9380 STATION STREET, SUITE 600 LONE TREE, COLORADO 80124 (303) 791-8180

PREPARATION:	2/8/2021
SCALE:	NZA
SHEET	2 OF 14

AzTec Proj. No.: 10720-20

Drawn By: GLW/JFT













22' ACCESS & MAINT. ESMT. SEE SHEET 6 4,841 0.111 4,84 0.111 4,841 0.111 <u> స్త</u> 5,3**8** 0,124 ^{~74}°19'05"F 8' U.E. \$74°19'05"F ·00' 574°19'05"F S74°19'05"F 574°19'05"F 110 120 120 120 120 00 R=941.50° SEE SHEET L=50.13' 5,239 5,239 SF 0.120 AC 125 60 5 86 5 4°19'05"W 47.00' 126 760 S 100 N74°19'05"W 47.00' TRACT BG 13,273 SF 0.305 AC N74°19'05"W+ 47.00' +N74°19'05"W 47.00, 8' U.E. — 4,559 S 4°.0 10 1.29' **TRACT BJ** 5,849 SF 0.134 AC 48 3,666 0.084 A ^{3,666} 0.084 3,666 0.084 67 ,666 ,084 3,619 3,619 0.083 AC 3,619 0.083 AC S74'19'05"E 922.39' 3,619 3,619 0.083 AC HIGH NOTE AVENUE 47.00° (91' WIDE PUBLIC ROW) PRIVATE ALLEY) 3,619 SF 0.083 AC 47.00' 47.00' ${}^{163}{83}{}^{619}_{23}{}^{83}_{44}$ S74°19'05"E 49.92' . 10' U.E. SEE SHEET 1





A PORTION OF THE RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN A PART OF THE NORTH HALF AND SOUTHEAST QUARTER OF SECTION 23, AND THE NORTHWEST QUARTER OF SECTION 24, AND A PART OF THE SOUTH HALF OF SECTION 14, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO. 185.060 ACRES - 365 RESIDENTIAL LOTS - 25 TRACTS SB21-08R

RIDGEGATE SW VILLAGE FILING NO. 1

SEE SHEET 9 SEE SHEET 8 160 1619 1083 **TRACT BH** 47,654 SF 1.094 AC NON-EXCLUSIVE PARKER WATER & SAN MONTOSO AO' WIDE DOWATE STREET S68°38'34"E 26.07' **TRACT BI** 79,922 SF 1.835 AC -8'U.E. 8' U.E. 5,406 0.124 A N74°58'38"W 223.24' 5,406 0.124 50 5,516 SF 0.127 AC 6.6 ______S76*17'04"E______339.47' POETRY PLACE 10.93 8' UT1LITY - PUBLIC ROW) EASEMENT S76*17'04"E BY FUTURE PLAT _S50*****37**'**27"W 13.73' 2. 8. 8. 8' UTILITY S50°37'27"W BY FUTURE (RADIAL) PLAT TRACT BQ ∆**=**77*****48**'**12" 533,577 SF 12.249 AC R=18.00'-L=24.44' SEE SHEET 3

RIDGEGATE SW VILLAGE FILING NO. 1 A PORTION OF THE RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN

A PART OF THE NORTH HALF AND SOUTHEAST QUARTER OF SECTION 23, AND THE NORTHWEST QUARTER OF SECTION 24, AND A PART OF THE SOUTH HALF OF SECTION 14, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO.

LEGEND

- RECOVERED SECTION CORNER, MONUMENTED AS NOTED HEREON
- SET NO. 5 REBAR WITH 1-1/4" PINK PLASTIC CAP STAMPED
- "AZTEC LS 38636"
- FOUND NO. 5 REBAR WITH 1-1/4" YELLOW PLASTIC CAP • STAMPED "MERRICK & CO LS 24673"
- FOUND NO. 5 REBAR WITH 1-1/4" ORANGE PLASTIC CAP STAMPED "AZTEC LS 38367"
- ³ FOUND NO. 5 REBAR WITH 1-1/4" BLUE PLASTIC CAP STAMPED "AZTEC LS 22561"
- U.E. UTILITY EASEMENT D.E. DRAINAGE EASEMENT ROW RIGHT-OF-WAY FIND PIAIN INF

SEE SHEET 14 FOR LINE AND CURVE TABLES 185.060 ACRES - 365 RESIDENTIAL LOTS - 25 TRACTS SB21-08R

RIDGEGATE SW VILLAGE FILING NO. 1

A PORTION OF THE RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN A PART OF THE NORTH HALF AND SOUTHEAST QUARTER OF SECTION 23, AND THE NORTHWEST QUARTER OF SECTION 24, AND A PART OF THE SOUTH HALF OF SECTION 14, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO. 185.060 ACRES - 365 RESIDENTIAL LOTS - 25 TRACTS SB21-08R

∆=93**°**58'18" -R=16.50'

_**∆=86**•12'57"

_S11°02'00"E

-R=16.50' L=24.83'

L=27.06'

10' UTILITY _ EASEMENT BY FUTURE

PLAT

R=1099.5U

10' UTILITY __EASEMENT BY FUTURE PLAT

FOR AND ON BEHALF OF AZTEC CONSULTANTS, INC

9380 STATION STREET, SUITE 600 LONE TREE, COLORADO 80124 (303) 791–8180

DEVELOPER

SH LYRIC, LLC

RIDGEGATE SW VILLAGE FILING NO. 1

	CURVE	TABLE] [CURVE	TABLE			CURVE	TABLE				CURVE	TABLE		ר ו		CURVE	TABLE			
CURVE	DELTA	RADIUS	LENGTH	CURVE	DELTA	RADIUS	LENGTH	CURVE	DELTA	RADIUS	LENGTH	CUR	VE	DELTA	RADIUS	LENGTH	1	CURVE	DELTA	RADIUS	LENGTH		
C1	75°19'06"	7.42'	9.76'	C21	98°04'56"	19.00'	32.53'	C41	81°01'50"	5.00'	7.07'	C6	51 g	90°00'00"	5.00'	7.85'	1	C81	220°53'41"	53.00'	204.33'		
C2	3°42'47"	318.50'	20.64'	C22	10°46'57"	547.00'	102.94'	C42	87°35'34"	5.00'	7.64'	C6	2 9	90°00'00"	5.00'	7.85'	1	C82	77 ° 48'12"	18.00'	24.44'		
C3	1°28'54"	318.50'	8.24'	C23	45°45'57"	542.50'	433.33'	C43	86°31'31"	16.50'	24.92'	C6	3 1	17°47'03"	1020.50'	316.75'	1 [C83	107 ° 18'43"	18.00'	33.71'		
C4	6°02'02"	62.50'	6.58'	C24	90°00'00"	19.00'	29.85'	C44	91°17'54"	5.00'	7.97'	C6	4 g	91 ° 57'30"	16.50'	26.48'	1 [C84	11 ° 33'13"	925.00'	186.53'		
C5	2°44'48"	2042.00'	97.89'	C25	92°45'04"	12.00'	19.43'	C45	83°43'01"	19.00'	27.76'	C6	59	93 ° 58'18"	16.50'	27.06'] [C85	84°14'31"	18.00'	26.47'		
C6	2°06'42"	416.73'	15.32'	C26	93°18'57"	10.00'	16.29'	C46	76°27'21"	19.00'	25.35'	C6	6 2	22°59'34"	1020.50'	409.53'] [C86	90 ° 22'44"	18.00'	28.39'		
C7	90°00'00"	7.50'	11.78'	C27	69°25'48"	18.50'	22.42'	C47	90°00'00"	19.00'	29.85'	C6	7 9	94°34'30"	16.50'	27.24'		C87	0°31'17"	925.00'	8.42'		
C8	1°48'02"	555.50 '	17.46'	C28	90°02'27"	19.00'	29.86'	C48	90°00'00"	19.00'	29.85'	C6	8 9	93°40'39"	16.50'	26.98'		C88	1°42'04"	745.50'	22.13'		
C9	88°08'26"	5.00'	7.69'	C29	95°02'56"	5.00'	8.29'	C49	85°29'57"	5.00'	7.46'	C6	9 2	24°17'55"	560.50'	237.70'		C89	84°27'18"	22.00'	32.43'		
C10	0°11'32"	862.50'	2.89'	C30	98°03'06"	18.00'	30.80'	C50	90°00'00"	5.00'	7.85'	C7	0 9	9°46'23"	181.50 '	30.96'		C90	6°20'48"	1099.50'	121.79'		
C11	0°13'25"	822.50'	3.21'	C31	2°11'49"	654.50'	25.10'	C51	90°00'00"	5.00'	7.85'	C7	'1	3°16'12"	555.00'	31.67'		C91	2°44'48"	1963.00'	94.10'		
C12	90°00'00"	7.50'	11.78'	C32	7 ° 12'49"	225.00'	28.33'	C52	67 ° 59'36"	20.00'	23.73'	C7	2 1	11°36'36"	639.50'	129.58'		C92	4°33'37"	2039.50'	162.32'		
C13	90°00'00"	5.00'	7.85'	C33	74°39'43"	18.00'	23.46'	C53	0 ° 27'55"	1884.00'	15.30'	C7	3	1 ° 56'09"	1099.50'	37.15'		C93	90 ° 00'00"	22.00'	34.56'		
C14	0°13'25"	745.50'	2.91'	C34	74°06'23"	18.00'	23.28'	C54	0°26'58"	554.86'	4.35'	C7	4 8	88°15'30"	16.50'	25.42'		C94	46°24'14"	264.50'	214.22'		
C15	68°14'47"	22.00'	26.20'	C35	36°54'31"	53.00'	34.14'	C55	9°14'54"	642.00'	103.63'	C7	58	36°32'58"	17.50'	26.44'	┤┟	C95	54°24'59"	635.50'	603.56'		
C16	90°00'00"	19.00'	29.85'	C36	87°53'18"	5.00'	7.67'	C56	85°31'25"	5.00'	7.46'	C7	6 2	24°06'37"	1099.50'	462.67'	┤┟	C96	90°00'00"	62.00'	97.39'		
C17	90°00'00"	19.00'	29.85'	C37	92°09'17"	5.00'	8.04'	C57	11°36'10"	524.50'	106.22'	C7	7 ε	86°12'57"	16.50'	24.83'	┤┟	C97	79 ° 38'35"	20.00'	27.80'		
C18	90°00'00"	19.00'	29.85'	C38	2°31'51"	1086.50'	47.99'	C58	85°20'56"	5.00'	7.45'	C7	8 8	88°01'51"	16.50'	25.35'	┤┟	C98	11°43'59"	552.00'	113.04'		
C19	2°24'52"	1955.50'	82.41'	C39	90°00'00"	19.00'	29.85'	C59	85°16'03"	5.00'	7.44'	C7	9 1	18°23'59"	1099.50'	353.09'	L	C99	95 ° 24'56"	4.93 '	8.21'		
C20	90°00'00"	19.00'	29.85'	C40	90°24'20"	9.99'	15.76'	C60	19 ° 29'10"	524.50'	178.38'	C8	0 8	39 ° 38'20"	18.00'	28.16'							
	LINE TABLE			LINE TAB	LE		LINE TABL	E		LINE TA	BLE			LINE TA	ABLE			LINE	TABLE		LINI	E TABLE	
LINE	LINE TABLE BEARING	LENGTH	LINE	LINE TAB BEARING	LE LENGTH	LINE	LINE TABL BEARING	E LENGTH	l LINE	LINE TA BEARING	BLE G LENGTI		LINE	LINE TA BEARIN	ABLE	GTH I	LINE	LINE		STH L	LINI INE BE/	TABLE	GTH
LINE L1	LINE TABLE BEARING S16°51'51"W	LENGTH 2.18'	LINE L21	LINE TAB BEARING S86°17'42"\	LE LENGTH N 26.15'	LINE L41	LINE TABL BEARING S43°17'52"W	E LENGTH 21.58'	LINE	LINE TA BEARING S15°40'55	BLE G LENGTI "W 23.50		LINE L81	LINE TA BEARIN S50°37'2	ABLE IG LENG 7"W 13.7	GTH 73'	LINE L101	LINE BEAF N80°23	TABLERINGLENG5'00"W91.0	GTH L	LINI INE BEA 121 N26*2	TABLE ARING LENG 27'05"E 2.5	GTH ;0'
LINE L1 L2	LINE TABLE BEARING S16°51'51"W S85°08'45"E	LENGTH 2.18' 12.73'	LINE L21 L22	LINE TAB BEARING S86°17'42"\ N74°47'06"	LE LENGTH W 26.15' E 21.67'	LINE L41 L42	LINE TABL BEARING S43°17'52"W S11°56'02"E	E LENGTH 21.58' 21.58'	LINE L61 L62	LINE TA BEARING S15°40'55 N11°01'53	BLE LENGTI "W 23.50 "W 23.72		LINE L81 L82	LINE TA BEARIN S50°37'2 N76°17'04	ABLE G LENG 7"W 13.7 4"W 83.2	GTH 1 73' 1 25' 1	LINE L101 _102	LINE BEAF N80°23 N56°32	TABLE RING LENG 3'00"W 91.0 2'09"E 61.0	GTH L DO' L 15' L	LINI INE BEA 121 N26*2 122 S63*3	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251.	GTH 50' 65'
LINE L1 L2 L3	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E	LENGTH 2.18' 12.73' 13.21'	LINE L21 L22 L23	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"	LE LENGTH W 26.15' E 21.67' W 26.20'	LINE L41 L42 L43	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W	E LENGTH 21.58' 21.58' 12.90'	H LINE L61 L62 L63	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48	BLE LENGTI "W 23.50 "W 23.72 3"E 71.03		LINE L81 L82 L83	LINE TA BEARIN S50°37'27 N76°17'04 S13°42'56	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9	GTH 1 73' 25' 1 99' 1	LINE L101 _102 _103	LINE BEAF N80°23 N56°32 S60°42	TABLE RING LENG 5'00"W 91.0 2'09"E 61.1 2'14"E 59.1	GTH L DO' L 15' L 61' L	LINI INE BEA 121 N26 [°] 2 122 S63 [°] 3 123 S60 [°] 4	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. +8'07"E 180.	GTH 50' .65' .17'
LINE L1 L2 L3 L4	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E	LENGTH 2.18' 12.73' 13.21' 13.22'	LINE L21 L22 L23 L24	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"' S09°36'30"	LE LENGTH W 26.15' E 21.67' W 26.20' W 12.00'	LINE L41 L42 L43 L44	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E	E LENGTH 21.58' 21.58' 12.90' 25.18'	H LINE L61 L62 L63 L64	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25	BLE LENGTI "W 23.50 "W 23.72 3"E 71.03 "E 23.94		LINE L81 L82 L83 L84	LINE TA BEARIN S50°37'27 N76°17'04 S13°42'56 N30°39'49	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6	GTH 73' 25' 99' 63'	LINE L101 _102 _103 _104	LINE BEAF N80°23 N56°32 S60°42 S29°45	TABLE RING LENG 5'00"W 91.0 2'09"E 61. 2'14"E 59. 5'20"E 22.9	GTH L DO' L 15' L 61' L 96' L	LINI INE BEA 121 N26 [°] 2 122 S63 [°] 2 123 S60 [°] 2 124 S60 [°] 2	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. +8'07"E 180. 33'47"E 66.4	GTH 50' .65' .17' 42'
LINE L1 L2 L3 L4 L5	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E N47°10'09"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56'	LINE L21 L22 L23 L24 L25	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" N09°36'30"	LE LENGTH V 26.15' E 21.67' W 26.20' W 12.00' E 12.03'	LINE L41 L42 L43 L44 L45	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27'	LINE L61 L62 L63 L64 L65	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46	BLE S LENGTI "W 23.50 "W 23.72 3"E 71.03 "E 23.94 "W 18.48		LINE L81 L82 L83 L84 L85	LINE TA BEARIN S50°37'2 N76°17'04 S13°42'56 N30°39'49 S60°42'26	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3	GTH 73' 25' 99' 63' 33'	LINE L101 _102 _103 _104 _105	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42	TABLE RING LENG 1'00"W 91.0 2'09"E 61.1 2'14"E 59. 5'20"E 22.1 2'29"E 75.1	GTH L DO' L 15' L 61' L 96' L 34' L	LINI INE BEA 121 N26*2 122 S63*3 123 S60*4 124 S60*3 125 S65*0	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 48'07"E 180. 33'47"E 66.4 07'24"E 314.	GTH 50' .65' .17' 42' .31'
LINE L1 L2 L3 L4 L5 L6	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E S42°49'51"E S42°49'51"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50'	LINE L21 L22 L23 L24 L25 L26	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06" S09°36'30" N09°36'30" S76°17'04"	LE LENGTH V 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00'	LINE L41 L42 L43 L44 L45 L46	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83'	H LINE L61 L62 L63 L64 L65 L66	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46	BLE LENGTI "W 23.50 "W 23.72 "W 23.72 B"E 71.03 "E 23.94 "W 18.48 D"E 20.92 "		LINE L81 L82 L83 L84 L85 L86	LINE TA BEARIN S50°37'27 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19	ABLE IG LENG 7"W 13.7 4"W 83.2 5"W 58.9 9"W 101.6 6"W 49.3 9"W 14.1	GTH 73' 25' 63' 11'	LINE L101 _102 _103 _104 _105 _106	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13	TABLE RING LENG 3'00"W 91.0 2'09"E 61.1 2'14"E 59.0 5'20"E 22.1 2'29"E 75.1 3'36"E 132.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L'	LINI INE BEA 121 N26 ² 122 S63 ³ 123 S60 ² 124 S60 ³ 125 S65 ⁴ 126 S24 ⁴ 5	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 8'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.3	GTH 50' .65' .17' 42' .31' 75'
LINE L1 L2 L3 L4 L5 L6 L7	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E N47°10'09"E S42°49'51"E N34°32'04"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07'	LINE L21 L22 L23 L24 L25 L26 L27	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"' S09°36'30" N09°36'30" S76°17'04" N58°42'56"	LE LENGTH W 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73'	LINE L41 L42 L43 L44 L45 L46 L47	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19'	H LINE L61 L62 L63 L64 L65 L66 L66	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 N43°44'34	BLE LENGTI "W 23.50 "W 23.72 "W 23.72 "E 71.03 "E 23.94 "E 23.94 "E 20.92 "E 159.57		LINE L81 L82 L83 L84 L85 L86 L87	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 14.1 7"W 70.7	GTH I 73' I 25' I 99' I 63' I 11' I 72' I	LINE L101 _102 _103 _104 _105 _106 _107	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31	TABLE RING LENG 2'00"W 91.0 2'09"E 61.0 2'14"E 59.0 2'20"E 22.0 2'20"E 75.0 2'36"E 132.0 '28"E 146.0	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L'	LINI INE BEA 121 N26 ² 122 S63 ³ 123 S60 ⁴ 124 S60 ³ 125 S65 ⁴ 126 S24 ⁵ 127 S71 ⁴	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 8'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196.	GTH 50' .65' .17' 42' .31' 75' 65'
LINE L1 L2 L3 L4 L5 L6 L7 L8	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E S42°49'51"E S42°49'51"E N34°32'04"E S77°13'09"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10'	LINE L21 L22 L23 L24 L25 L26 L27 L28	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" S09°36'30" N09°36'30" S76°17'04" N58°42'56" N19°33'11"E	LE LENGTH N 26.15' E 21.67' W 26.20' W 26.20' E 12.00' E 12.03' E 42.00' E 12.73' E 21.67'	LINE L41 L42 L43 L44 L45 L46 L47 L48	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60	LINE L61 L62 L63 L64 L65 L66 L66 L67 L68	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16	BLE C LENGTI "W 23.50 "W 23.72 3"E 71.03 "E 23.94 "W 18.48 0"E 20.92 4"E 159.57 5"E 64.79 "W 20.72		LINE L81 L82 L83 L84 L85 L85 L86 L87 L88	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 7"W 70.7 2"W 14.1 7"W 70.7 2"W 14.1	GTH 1 73' 1 25' 1 99' 1 63' 1 11' 1 72' 1 11' 1	LINE L101 _102 _103 _104 _105 _106 _107 _108	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.1 2'20"E 22.1 2'20"E 75.1 2'36"E 132.1 2'28"E 146.1 0'12"W 89.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 125 S653 125 S653 126 S243 127 S713 128 S163	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 8'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 1'51"W 174.	GTH 50' .65' .17' 42' .31' 75' 65' 88' -7'
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E S42°49'51"E S42°49'51"E N34°32'04"E S77°13'09"E S08°18'40"W	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30"\ N09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51"	LE LENGTH N 26.15' E 21.67' W 26.20' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09	I LINE L61 L62 L63 L63 L64 L65 L65 L66 L67 L68 L69 L70	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19	BLE C LENGTI "W 23.50 "W 23.72 "W 23.72 "E 71.03 "E 23.94 "W 18.48 "W 18.48 "E 20.92 "E 159.57 "E 64.79 "W 20.70 "W 20.70		LINE L81 L82 L83 L84 L85 L85 L85 L85 L85 L85 L87 L88 L89 L89	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'55	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 70.7 2"W 14.1 3"W 73.4 5"W 14.1	GTH 1 73' 1 25' 1 99' 1 63' 1 11' 1 72' 1 11' 1 48' 1	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _110	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.0 2'20"E 22.1 2'20"E 75.1 2'29"E 75.1 2'36"E 132.1 2'28"E 146.1 0'12"W 89.1 '52"W 79.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 84' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 124 S603 125 S653 126 S243 127 S711 128 S163 129 N233	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 48'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 01'51"W 174. 54'07"E 146.	GTH 50' .65' .17' 42' .31' 75' .65' .31'
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E S42°49'51"E S42°49'51"E S42°49'51"E S77°13'09"E S08°18'40"W N35°45'15"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06" S09°36'30" S09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18"	LE LENGTH N 26.15' E 21.67' W 26.20' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14' E 22.88'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W S47°30'39"W S31°28'43"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.79'	I LINE L61 L62 L63 L63 L64 L65 L65 L66 L67 L68 L69 L70	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41	BLE G LENGTI "W 23.50 "W 23.72 3"E 71.03" "E 23.94 "W 18.48" "E 20.92 "E 159.57 "E 64.79 "W 20.70 "W 29.33		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90	LINE TA BEARIN S50°37'27 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'53 S09°37'09	ABLE IG LENG 7"W 13.7 4"W 83.2 5"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 141.1	GTH I 73' I 25' I 99' I 63' I 11' I 72' I 11' I 48' I 36' I	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _110	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.0 2'14"E 59.0 2'20"E 22.1 2'20"E 75.1 2'29"E 75.1 2'36"E 132.1 2'28"E 146.1 0'12"W 89.1 '52"W 79.1 0'37"E 120.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 54' L'	LINI INE BEA 121 N26 ² 122 S63 ³ 123 S60 ⁴ 124 S60 ³ 125 S65 ⁴ 126 S24 ⁴ 5 127 S71 ⁴ 128 S16 ⁴ 5 129 N23 ³ 130 S47 ⁴	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 48'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 01'51"W 174. 6'407"E 146. 6'48"E 345.	GTH 50' .65' .17' 42' .31' 75' 65' 88' 37' 90' 20'
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E N47°10'09"E S42°49'51"E S42°49'51"E S77°13'09"E S08°18'40"W N35°45'15"E S57°44'11"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30"\ N09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\	LE LENGTH N 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14' E 22.88' W 26.30'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W S47°30'39"W S31°28'43"E S46°07'04"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58	BLE LENGTI "W 23.50 "W 23.72 "W 23.72 "E 23.94 "E 23.94 "W 18.48 "E 20.92 "E 159.57 "E 64.79 "W 20.70 "W 29.33 "E 116.05		LINE L81 L82 L83 L84 L85 L86 L87 L88 L87 L88 L90 L91	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'55 S09°37'09 N80°22'59	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 70.7 2"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 614.4	GTH I 73' I 25' I 99' I 63' I 33' I 11' I 72' I 11' I 48' I 36' I 00' I	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _110 L111 _112	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°38	TABLE RING LENG 2'09"E 61. 2'09"E 61. 2'14"E 59. 2'20"E 22. 2'20"E 75. 2'29"E 75. 2'36"E 132. 2'28"E 146. 0'12"W 89. 3'37"E 120. 3'06"E 232.	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 84' L' 94' L' 92' L	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 125 S653 125 S653 126 S2435 127 S713 128 S1635 129 N233 130 S472 131 N313	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 48'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 6'50"W 174. 64'07"E 146. 6'48"E 345. 51'47"E 56.6	GTH 50' .65' .17' 42' .31' 75' 65' 88' 37' 90' 59' 42'
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L12 L12 L12 L13	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E S42°49'51"E S42°49'51"E S42°49'51"E S77°13'09"E S08°18'40"W N35°45'15"E S57°44'11"E N20°21'07"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30"\ N09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\ N26°49'15"\	LE LENGTH V 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14' E 22.88' W 26.30' V 10.69' E 11.60'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L52	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S47°30'39"W S47°30'39"W S31°28'43"E S46°07'04"E N48°32'00"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L68 L69 L70 L71 L72 L73	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34	BLE G LENGTI "W 23.50 "W 23.72 3"E 71.03 3"E 23.94 "W 18.48 5"E 20.92 FE 159.57 5"E 64.79 "W 20.70 "W 29.33 3"E 116.05 F"E 138.60		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'53 S09°37'09 N80°22'59 N09°37'12	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.0 6"W 49.3 9"W 101.0 6"W 70.7 2"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0	GTH 1 73' 1 25' 1 99' 1 63' 1 11' 1 72' 1 11' 1 11' 1 16' 1 36' 1 00' 1 46' 1	LINE L101 _102 _103 _104 _105 _106 _107 _108 _107 _108 _109 _110 L111 _112 _113	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°38 N42°38	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.1 2'14"E 59.1 2'20"E 22.1 2'20"E 75.1 2'29"E 75.1 2'36"E 132.1 2'28"E 146.1 0'12"W 89.1 '52"W 79.1 9'37"E 120.1 3'06"E 232.1 5'20"E 42.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 94' L' 54' L' 92' L 82' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 125 S653 125 S653 126 S243 127 S713 128 S163 129 N233 130 S472 131 N313	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 32'55"E 251. 48'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 01'51"W 174. 54'07"E 146. 6'48"E 345. 51'47"E 56.6 3'12"E 320.	GTH 50' .65' .17' 42' .31' 75' .65' .88' .37' .90' 69' .46' 5,
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L12 L13 I	LINE TABLE BEARING S16*51'51"W S85*08'45"E N18*23'23"E S28*08'09"E N47*10'09"E S42*49'51"E S42*49'51"E S42*49'51"E S77*13'09"E S08*18'40"W N35*45'15"E S57*44'11"E N20*21'07"E N15*59'56"W	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55' 11.04'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\ S72°40'43"\ S46°32'59"	LE LENGTH N 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14' E 22.88' W 26.30' N 10.69' E 11.69' E 21.14'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W S47°30'39"W S47°30'39"W S31°28'43"E S46°07'04"E N48°32'00"E N41°06'26"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00' 71.00'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72 L73 L74	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34 N42°34'46	BLE S LENGTI "W 23.50 "W 23.72 "E 71.03 "E 23.94 "W 18.48 "W 18.48 "E 20.92 "E 159.57 "E 64.79 "W 20.70 "W 29.33 S"E 116.05 "W 21.48 "W 21.48		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92 L93	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'55 S09°37'09 N80°22'59 N80°22'59 N80°23'30	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 49.3 9"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0 5"E 10.0	GTH 1 73' 1 25' 1 99' 1 63' 1 11' 1 72' 1 11' 1 48' 1 36' 1 00' 1 46' 1 00' 1	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _109 _110 L111 _112 _113 _114	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°36 N42°36 N42°36	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.0 2'20"E 22.1 2'20"E 75.1 2'29"E 75.1 2'29"E 75.1 2'29"E 132.1 2'29"E 132.1 2'29"E 146.1 0'12"W 89.1 '52"W 79.1 9'37"E 120.1 3'06"E 232.2 5'20"E 42.1 5'47"E 134.2	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 84' L' 54' L' 92' L 32' L' 61' L'	LINI INE BEA 121 N26°2 122 S63°3 123 S60°2 124 S60°3 125 S65°0 126 S24°5 127 S71°1 128 S16°5 129 N23°5 130 S47°2 130 S47°2 131 N31°5	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 33'47"E 66.4 33'47"E 66.4 33'47"E 314. 2'36"W 74.7 6'50"W 196. 31'51"W 174. 54'07"E 146. 6'48"E 345. 51'47"E 56.6 3'12"E 320. 57'11"E 8.4 4'59"E 0.2	GTH 50' .65' .17' 42' .31' 75' .88' .37' .90' 69' .46' .5' .3'
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L10 L11 L12 L12 L13 L14 L14 L14 L15	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E N47°10'09"E S42°49'51"E S42°49'51"E S42°49'51"E S77°13'09"E S08°18'40"W N35°45'15"E S57°44'11"E N20°21'07"E N15°59'56"W S08°02'58"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55' 11.04'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\ N26°49'15"\ S46°32'59" N72°27'52"	LE LENGTH N 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14' E 22.88' W 26.30' W 10.69' E 11.69' E 21.14' E 251.65'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53 L54 L54	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W S47°30'39"W S47°30'39"W S31°28'43"E S46°07'04"E N48°32'00"E N48°32'00"E S48°57'24"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00' 71.00' 12.00'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72 L73 L74	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34 N42°34'46 N42°34'46	BLE G LENGTI "W 23.50 "W 23.72 3"E 71.03 "E 23.94 "W 18.48 5"E 20.92 4"E 159.57 5"E 64.79 "W 20.70 "W 29.33 3"E 116.05 4"E 138.60 "W 21.48 "W 22.23 "W 22.23		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92 L92 L93 L94	LINE TA BEARIN S50°37'27 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'57 S09°37'09 N80°22'59 N80°22'59 N80°23'30 N80°23'30	ABLE IG LENG 7"W 13.7 4"W 83.2 5"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 49.3 9"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0 5"E 12.0 5"W 16.7	GTH I 73' I 25' I 99' I 63' I 11' I 72' I 11' I 11' I 72' I 11' I 11' I 12' I 10' I 36' I 00' I 100' I 72' I	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _109 _110 L111 _112 _113 _114 _115	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°38 N42°38 N42°38 N42°38 N67°36 N87°46	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.1 2'14"E 59.1 2'20"E 75.1 2'29"E 75.1 2'29"E 132.1 2'28"E 146.1 0'12"W 89.1 '52"W 79.1 0'37"E 120.1 3'06"E 232.1 5'20"E 42.1 5'20"E 42.1 5'38"E 149.1 3'38"E 149.1 3'24"F 6.8	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 82' L' 96' L' 96' L' 96' L' 15' L' 92' L' 92' L' 62' L'	LINI INE BEA 121 N26 ² 122 S63 ³ 123 S60 ⁴ 124 S60 ³ 125 S65 ⁴ 126 S24 ⁴ 127 S71 ⁴ 128 S16 ⁴ 129 N23 ⁴ 130 S47 ⁴ 131 N31 ⁴ 132 N42 ⁴ 133 N53 ⁴ 134 N54 ⁴	TABLE ARING LENG 27'05"E 2.5 22'55"E 251. 32'55"E 251. 8'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 6'50"W 196. 6'50"W 196. 6'407"E 146. 6'407"E 345. 51'47"E 56.6 13'12"E 320. 57'11"E 8.4 4'59"E 9.0 31'17"E 24'0	GTH 50' .65' .17' 42' .31' .65' .88' .90' 69' .46' .3' .3' .3' .3' .3' .3' .3' .3
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L10 L11 L12 L12 L13 L14 L15 L15 L16	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E N47°10'09"E S42°49'51"E S42°49'51"E S42°49'51"E S77°13'09"E S08°18'40"W N35°45'15"E S57°44'11"E N20°21'07"E N15°59'56"W S08°02'58"E S11°37'01"W	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55' 12.55' 11.04' 3.79'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35 L36	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" S09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\ S72°40'43"\ S46°32'59" N72°27'52" S63°32'54"	LE LENGTH N 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 14.14' E 22.88' W 26.30' N 10.69' E 11.69' E 21.14' E 251.65' E 20.00'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53 L54 L55 L55	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W S39°40'25"W S42°13'12"W S42°13'12"W S47°30'39"W S47°30'39"W S47°30'39"W S47°30'39"W S47°30'39"W S47°30'25"W	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00' 71.00' 12.00' 12.74'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72 L73 L74 L75 L76	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34 N42°34'46 N42°34'46 N42°34'46	BLE G LENGTI "W 23.50 "W 23.72 3"E 71.03 3"E 23.94 "W 18.48 3"E 20.92 4"E 159.57 5"E 64.79 "W 20.70 "W 20.70 "W 20.33 3"E 116.05 4"E 138.60 "W 21.48 "W 22.23 "W 21.70		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92 L92 L93 L94 L95	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'02 S64°37'02 S47°57'53 S09°37'03 N80°22'59 N80°23'30 N09°37'03	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.0 6"W 49.3 9"W 101.0 6"W 70.7 2"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0 5"E 12.0 5"W 16.7 5"W 16.7 5"W 50.0	GTH I 73' I 25' I 99' I 63' I 11' I 72' I 11' I 100' I 00' I 00' I 100' I 100' I	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _109 _110 L111 _112 _113 _114 _115 _116	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°38 N42°38 N42°38 N67°36 N87°46 N87°46	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.1 2'20"E 22.1 2'20"E 75.1 2'29"E 75.1 2'28"E 146.1 0'12"W 89.1 0'12"W 89.1 0'12"W 89.1 0'37"E 120.1 3'36"E 122.2 5'20"E 42.1 5'20"E 42.1 5'20"E 42.1 5'20"E 134.1 5'38"E 149.1 3'38"E 149.1 3'24"E 68.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 82' L' 87' L' 96' L' 10' L' 11' L' 12' L' 14' L' 15' L' 16' L' 16' L' 16' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 125 S653 125 S653 126 S243 127 S713 128 S163 129 N233 129 N233 130 S472 131 N313 132 N423 133 N533 134 N543	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 8'07"E 180. 33'47"E 66.4 07'24"E 314. 2'36"W 74.7 6'50"W 196. 1'51"W 174. 6'4'07"E 146. 6'4'07"E 345. 51'47"E 56.6 3'12"E 320. 57'11"E 8.4 4'59"E 9.0 31'17"E 24.0	GTH 50' .65' .17' 42' .31' .65' .88' .37' .90' .46' .37' .90' .46' .31
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L10 L11 L12 L12 L13 L14 L15 L16 L14 L15 L16 L17 L15 L16 L17	LINE TABLE BEARING S16°51'51"W S85°08'45"E N18°23'23"E S28°08'09"E N47°10'09"E S42°49'51"E S42°49'51"E S77°13'09"E S08°18'40"W N35°45'15"E S57°44'11"E N20°21'07"E N15°59'56"W S08°02'58"E S11°37'01"W S29°53'17"W	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55' 12.55' 11.04' 3.79' 17.85'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35 L36 L37	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" S09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43" N26°49'15"\ S46°32'59" N72°27'52" S63°32'54" N26°27'05"	LE LENGTH N 26.15' E 21.67' W 26.20' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 21.67' E 22.88' W 26.30' N 10.69' E 11.69' E 21.14' E 251.65' E 29.00' E 12.76'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53 L54 L55 L56 L56	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W S39°40'25"W S42°13'12"W S42°13'12"W S47°30'39"W S42°13'12"W S47°30'39"W S42°13'12"W S43°40'25"W S41°06'26"E S48°57'24"E S41°02'36"W S33°29'25"W	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00' 71.00' 12.00' 12.00' 12.74' 11.32'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72 L73 L74 L75 L76	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34 N42°34'46 N42°34'46 N42°34'46 N11°02'00	BLE G LENGTI "W 23.50 "W 23.72 3"E 71.03 3"E 23.94 "W 18.48 5"E 20.92 4"E 159.57 5"E 64.79 "W 20.70 "W 29.33 3"E 116.05 4"E 138.60 4"W 21.48 "W 21.70 "W 21.70 "W 157.43 "E 9.600		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92 L92 L93 L94 L95 L95 L96	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'53 S09°37'08 N80°22'59 N09°37'09 S09°37'09 S09°37'09	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 49.3 9"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0 5"E 12.0 5"W 16.7 5"W 50.0 3"E 12.0	GTH I 73' I 25' I 99' I 63' I 33' I 11' I 72' I 36' I 00' I 46' I 00' I 72' I 00' I 100' I 117 I	LINE L101 _102 _103 _104 _105 _106 _107 _108 _107 _108 _107 _108 _107 _108 _107 _103 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _104 _105 _106 _107 _107 _108 _109 _110 _110 _109 _110 _109 _110 _109 _110 _109 _110 _109 _110 _109 _110 _110 _109 _110 _110 _109 _110 _110 _110 _109 _110 _1111 _111 _111 _111 _1111 _111 _111 _111 _111 _111 _111	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°38 N42°38 N42°38 N42°38 N67°36 N87°46 N87°46	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.1 2'20"E 22.1 2'20"E 75.1 2'29"E 75.1 2'36"E 132.1 2'28"E 146.1 0'12"W 89.1 0'12"W 89.1 0'37"E 120.1 3'36"E 142.1 5'20"E 42.1 5'20"E 42.1 5'20"E 42.1 5'20"E 134.1 5'38"E 149.1 3'38"E 149.1 2'24"E 68.1 2'24"E 342.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 84' L' 94' L' 92' L' 32' L' 62' L' 21' L' 56' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 125 S653 125 S653 126 S243 127 S711 128 S163 129 N233 130 S472 130 S472 131 N313 132 N423 133 N533 134 N543 135 N583	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 32'55"E 251. 33'47"E 66.4 33'47"E 314. 2'36"W 74.7 6'50"W 196. 01'51"W 174. 64'07"E 146. 6'48"E 345. 51'47"E 56.6 3'12"E 320. 57'11"E 8.4 4'59"E 9.0 31'17"E 24.0 8'14"E 183. 20'47"E 74.7	GTH 50' .65' .17' 42' .31' 75' .65' .88' .37' .90' 69' .46' .3' .3' .3' .3' .3' .3' .46' .3' .3' .46' .3' .3' .3' .46' .3' .3' .3' .3' .3' .3' .3' .3
LINE L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L12 L13 L14 L15 L14 L15 L16 L17 L14 L15 L16 L17 L14 L15 L16 L17 L14 L15 L16 L17 L18 L17 L18 L18 L17 L18	LINE TABLE BEARING S16*51'51"W S85*08'45"E N18*23'23"E S28*08'09"E S42*49'51"E S42*49'51"E S42*49'51"E S77*13'09"E S08*18'40"W N35*45'15"E S57*44'11"E N20*21'07"E N15*59'56"W S08*02'58"E S11*37'01"W S29*53'17"W S62*38'30"W	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55' 12.55' 12.55' 11.04' 3.79' 17.85' 42.55'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35 L36 L37 L38	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" N09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\ N26°49'15"\ S46°32'59" N72°27'52" S46°32'59" N72°27'52" S48°17'17"E	LE LENGTH N 26.15' E 21.67' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 21.67' E 14.14' E 22.88' W 26.30' W 10.69' E 11.69' E 21.14' E 251.65' E 29.00' E 12.76' E 21.52'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53 L54 L55 L56 L57 L58	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W S42°13'12"W S47°30'39"W S42°13'12"W S41°02'36"E S46°07'04"E N41°06'26"E S48°57'24"E S41°02'36"W S33°29'25"W S51°46'38"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00' 71.00' 12.00' 12.00' 12.74' 11.32' 526.32	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72 L73 L74 L75 L76 L77 L73	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34 N42°34'46 N42°34'46 N11°02'00 N52°07'30	BLE G LENGTI "W 23.50 "W 23.72 3"E 71.03 3"E 23.94 "W 18.48 5"E 20.92 4"E 159.57 5"E 64.79 "W 20.70 "W 29.33 3"E 116.05 4"E 138.60 "W 21.48 "W 157.43 "W 157.43		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92 L93 L93 L94 L95 L95 L95 L95	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'07 S21°44'32 S47°57'53 S09°37'08 N80°22'59 N09°37'08 N80°23'30 N09°37'08 S09°37'08	ABLE IG LENG 7"W 13.7 4"W 83.2 6"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 49.3 9"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0 5"E 12.0 5"W 16.7 5"W 50.0 3"E 12.0 5"W 50.0	GTH I 73' I 25' I 99' I 63' I 33' I 11' I 72' I 36' I 00' I 46' I 00' I 72' I 00' I	LINE L101 _102 _103 _104 _105 _106 _107 _108 _109 _109 _109 _109 _109 _110 _112 _112 _113 _114 _115 _115 _116 _117 _118	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°36 N42°36 N42°36 N42°36 N67°36 N87°46 N87°46 N87°46	TABLE RING LENG 2'00"W 91.0 2'09"E 61.1 2'14"E 59.1 2'14"E 59.1 2'20"E 75.1 2'29"E 75.1 2'29"E 75.1 2'29"E 75.1 2'29"E 132.1 2'29"E 132.1 2'29"E 120.1 3'36"E 120.1 3'06"E 232.2 3'20"E 42.1 5'20"E 42.1 5'20"E 42.1 5'20"E 42.1 5'20"E 42.1 5'38"E 149.1 3'38"E 149.1 3'24"E 68.1 2'24"E 34.2 '55"W 13.9 3'05"E 32.0	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 82' L' 84' L' 94' L' 92' L' 34' L' 54' L' 92' L' 62' L' 21' L' 56' L' 92' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 124 S603 125 S653 125 S653 126 S243 127 S711 128 S163 129 N233 130 S472 130 S472 131 N313 132 N423 133 N533 134 N543 135 N583 136 N693	E TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 33'47"E 66.4 33'47"E 66.4 37'24"E 314. 2'36"W 74.7 6'50"W 196. 11'51"W 174. 6'407"E 146. 6'48"E 345. 51'47"E 56.6 13'12"E 320. 57'11"E 8.4 4'59"E 9.0 31'17"E 24.0 8'14"E 183. 20'47"E 70.9	GTH 50' .65' .17' 42' .31' 75' .65' .88' .37' .90' 69' .46' .5' .3' 03' .41' 91' .0'
LINE L1 L2 L3 L4 L5 L6 L7 L6 L7 L8 L9 L10 L11 L12 L12 L13 L14 L15 L14 L15 L16 L17 S L16 L17 L18	LINE TABLE BEARING S16*51'51"W S85*08'45"E N18*23'23"E S28*08'09"E S42*49'51"E S42*49'51"E S42*49'51"E S77*13'09"E S08*18'40"W N35*45'15"E S57*44'11"E N20*21'07"E N15*59'56"W S08*02'58"E S11*37'01"W S29*53'17"W S62*38'30"W S62*42'31"E	LENGTH 2.18' 12.73' 13.21' 13.22' 23.56' 80.50' 26.07' 30.10' 26.19' 13.44' 5.55' 22.32' 12.55' 12.55' 12.55' 11.04' 3.79' 17.85' 42.55' 113.37' 180.17'	LINE L21 L22 L23 L24 L25 L26 L27 L28 L29 L30 L31 L32 L33 L34 L35 L36 L37 L38 L37	LINE TAB BEARING S86°17'42"\ N74°47'06" N23°23'06"\ S09°36'30" S76°17'04" N58°42'56" N19°33'11"E S87°49'51" N64°34'18" S72°40'43"\ N26°49'15"\ S46°32'59" N72°27'52" S46°32'59" N72°27'52" S63°32'54" N26°27'05" S48°17'17"E	LE LENGTH N 26.15' E 21.67' W 26.20' W 26.20' W 12.00' E 12.03' E 42.00' E 12.73' E 21.67' E 21.67' E 21.67' E 21.69' E 21.14' E 251.65' E 29.00' E 12.76' E 21.52' W 11.00'	LINE L41 L42 L43 L44 L45 L46 L47 L48 L49 L50 L51 L52 L53 L54 L55 L56 L57 L58 L58	LINE TABL BEARING S43°17'52"W S11°56'02"E S42°13'12"W N05°03'35"E N04°27'22"E S39°40'25"W N50°19'35"W S42°13'12"W S42°13'12"W S42°13'12"W S42°13'12"W S42°13'12"W S42°13'2"W S42°13'2"W S42°13'2"W S42°13'2"W S41°02'36"W S31°28'43"E S48°57'24"E S41°02'36"W S33°29'25"W S51°46'38"E S74°19'05"E	E LENGTH 21.58' 21.58' 12.90' 25.18' 10.27' 30.83' 29.19' 179.60 213.09 180.92 11.32' 12.74' 12.00' 71.00' 12.00' 12.74' 11.32' 526.32 23.50'	I LINE L61 L62 L63 L64 L65 L66 L67 L68 L69 L70 L71 L72 L73 L74 L75 L76 L77 L78 L78 L70	LINE TA BEARING S15°40'55 N11°01'53 N77°18'48 S11°02'25 N42°34'46 S42°34'46 S42°34'46 N43°44'34 N09°40'16 N82°19'19 S07°40'41 N32°07'58 N43°44'34 N42°34'46 N42°34'46 N11°02'00 N52°07'30 N52°07'30	BLE G LENGTI "W 23.50 "W 23.72 "E 71.03 "E 23.94 "W 18.48 "E 20.92 "E 159.57 "E 64.79 "W 20.70 "W 20.70 "W 20.70 "W 20.33 3"E 116.05 "W 21.48 "W 21.48 "W 22.23 "W 21.48 "W 21.70 "W 21.70 "W 157.43 "W 23.34		LINE L81 L82 L83 L84 L85 L86 L87 L88 L89 L90 L91 L92 L92 L93 L94 L95 L95 L95 L95 L95	LINE TA BEARIN S50°37'22 N76°17'04 S13°42'56 N30°39'49 S60°42'26 N72°30'19 S64°37'02 S47°57'52 S09°37'03 N80°22'53 N09°37'03 N80°23'30 N09°37'03 S09°37'03 N80°22'53 N80°22'53 N80°22'53	ABLE IG LENG 7"W 13.7 4"W 83.2 5"W 58.9 9"W 101.6 6"W 49.3 9"W 101.6 6"W 49.3 9"W 14.1 7"W 70.7 2"W 14.1 3"W 73.4 5"W 17.3 5"W 111.0 2"E 61.4 0"W 50.0 5"E 12.0 5"W 16.7 5"W 50.0 3"E 12.0 5"W 86.2 7"W 20.6	GTH I 73' I 25' I 99' I 63' I 33' I 11' I 72' I 11' I 48' I 36' I 00' I 10' I 20' I 100' I 100' I 100' I 100' I 100' I 11' I	LINE L101 _102 _103 _104 _105 _104 _105 _106 _107 _108 _109 _109 _110 L111 _112 _113 _114 _115 _114 _115 _116 _117 _118 _119	LINE BEAF N80°23 N56°32 S60°42 S29°45 S78°42 N46°13 N42°31 N02°20 N47°11 N68°39 N42°36 N42°36 N42°36 N67°36 N87°46 N87°46 N87°46 N87°46 N87°46	TABLE RING LENG 2'00"W 91.0 2'00"E 61.1 2'14"E 59.1 2'14"E 59.1 2'20"E 75.1 2'29"E 75.1 2'29"E 75.1 2'29"E 132.1 2'29"E 132.1 2'29"E 146.1 0'12"W 89.1 2'22"W 79.1 0'37"E 120.1 3'36"E 142.1 5'20"E 42.1 5'20"E 42.1 5'20"E 42.1 5'20"E 134.1 3'38"E 149.1 3'38"E 149.1 3'24"E 68.1 2'24"E 342.1 3'55"W 13.2 3'52"E 320.1	GTH L DO' L 15' L' 61' L' 96' L' 34' L' 79' L' 82' L' 87' L' 96' L' 34' L' 92' L' 92' L' 92' L' 92' L' 92' L' 92' L' 62' L' 21' L' 56' L' 36' L'	LINI INE BEA 121 N262 122 S633 123 S602 124 S603 125 S653 125 S653 126 S243 127 S711 128 S163 129 N233 129 N233 130 S472 130 S472 131 N313 132 N423 133 N533 134 N543 135 N583 134 N543 135 N583	TABLE ARING LENG 27'05"E 2.5 32'55"E 251. 33'47"E 66.4 33'47"E 66.4 37'24"E 314. 2'36"W 74.7 6'50"W 196. 6'50"W 196. 6'50"W 196. 6'407"E 146. 6'407"E 345. 6'48"E 345. 6'48"E 345. 6'1'47"E 56.6 3'12"E 320. 57'11"E 8.4 4'59"E 9.0 31'17"E 24.0 8'14"E 183. 20'47"E 70.3 07'24"E 454.	GTH 50' .65' .17' 42' .31' 75' .65' .88' .37' .90' 69' .46' .5' .37' .90' .03' .41' 91' .00' .01'
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A PORTION OF THE RIDGEGATE SOUTHWEST VILLAGE PRELIMINARY PLAN A PART OF THE NORTH HALF AND SOUTHEAST QUARTER OF SECTION 23, AND THE NORTHWEST QUARTER OF SECTION 24, AND A PART OF THE SOUTH HALF OF SECTION 14, TOWNSHIP 6 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LONE TREE, COUNTY OF DOUGLAS, STATE OF COLORADO. 185.060 ACRES - 365 RESIDENTIAL LOTS - 25 TRACTS SB21-08R

9220 Kimmer Drive, Ste. 100 Lone Tree, CO 80124 (303) 708 - 1818

Invoice

Project Area:

RidgeGate East

Invoice # 1

Invoice Date 2/18/2021

Community Development Permit # SB21-08R

Description	Amount
Pre-Submittal Meeting	\$200.00
Final Plat (SFD)	\$3,000.00
Subdivision Improvement Agreement	\$2,000

Amount Due \$5,200.00

Payment can be made either by:

Check	or	Card* (Discover, Visa, Mastercard)
City of Lone Tree		Call Front Office to process
Attn: Roshana Floyd		(303) 708 - 1818
9220 Kimmer Drive, Suite 100		
Lone Tree, CO 80124		*Note: There is a 2.5% processing fee for CC transactions

Address: 9380 Station St., Ste. 600

Ryan McDermed

Attn:

Lone Tree, CO 80124

Terms & Conditions

cityoflonetree.com | 303.708.1818 9220 Kimmer Drive Suite 100, Lone Tree, CO 80124

March 30, 2021

Shea Homes ATTN: Ryan McDermed 9380 Station St., Ste. 600 Lone Tree, CO 80124 Via email: ryan.mcdermed@sheahomes.com

Dear Ryan,

Thank you for resubmitting the subdivision application for Southwest Village, Filing 1; we received this application package on March 12, 2021.

Below are the comments from staff's review of the resubmission. Note that additional staff comments may arise as the application moves through the referral process. Please use this letter to respond to each comment. Pending the substance of the referral comments, a resubmittal may be required.

PRELIMINARY PLAN ITEMS PENDING RESOLUTION:

- Easement Agreement from Xcel Energy (pending additional guidance from the Xcel management team).
- License Agreements: Mowing, Trails, Infrastructure tracts (pending input from Shea's legal counsel).

ADDITIONAL ITEMS REQUIRED TO COMPLETE APPLICATION:

- FAA letter of "Determination of no Hazard."
- Warranty deeds for all tracts to be dedicated to the City. (Note: these can be provided post-referral, but will be required prior to recordation of the plat)
- Confirmation of Master HOA incorporation.
 - Note that, per Sec. 4.c of the RidgeGate Southwest Village Master Improvements Agreement, you must submit a copy of the CCRs to the City for review.
- Please submit an application to amend the Master Improvements Agreement to accommodate the change in construction phasing relative to Octave Avenue and the Regional trail connection to RidgeGate Parkway. Both of these items will require separate development triggers. The total fee for this application is \$3,750 (invoice enclosed).

- Please note the amended agreement requires approval via resolution by City Council.
- Utilizing the City's template, please submit your proposed Subdivision Improvements Agreement for review by the City.
 - Please ensure you include complete estimates for infrastructure installation, as well as installation of all landscaping within the public rights-of-way.

GENERAL APPLICATION ITEMS

• Per the License Agreement for Mowing, the 'wildfire-defensible areas' will need to be identified on the plat. It is recommended this buffer be called out similarly to an easement, identifying the general area of the buffer and then referencing the reception number for the license agreement (to be determined). (*Pending final guidance from legal counsel*)

PLAT REVIEW

<u>General</u>

- All references to the HOA must correctly differentiate between the Master HOA and the neighborhood HOAs, per the maintenance/ownership authorities, as approved in the Preliminary Plan.
 - Please note that, pending additional details regarding Shea's desire to retain these tracts under Shea ownership at the time of plat recordation, a preliminary plan amendment may be required. A preliminary plan amendment must be reviewed and approved by the Planning Commission and City Council.

Sheet 3

- The emergency turn-around for the temporary end of Octave Avenue must be included in this filing. The turnaround must meet all specifications of South Metro Fire and Rescue Authority.
- Tract CX: the appropriate instrument for conveyance is currently under review by legal counsel. Pending this input, this tract may need to be removed from the filing.

LANDSCAPE PLAN

<u>General</u>

- Please revise the landscape design to include more continuity of design between street sections to ensure an aesthetic flow and to ensure the overall design concept is consistently represented throughout the filing. Currently the individual sections do not contain smooth transitions; this makes the plan overly geometric and disjointed in some areas.
- 2. Please provide an irrigation plan, see Article X of the Landscape Design Guidelines in for Public Right-of-Way.
- 3. Have you considered the inclusion of small intake rain gardens along the street corridors to provide additional sustainability components?
- 4. Identify/label utility easements/infrastructure, meter boxes, etc. on all sheets.
- 5. Identify any landscaped slopes 3.1 or steeper.

- 6. Landscape Plant List (Sheet L-201)
 - a. Please provide more seasonal variety in the plant list to provide interest during the winter. Currently all trees are deciduous.
 - b. Provide average tree/plant height at full maturity.
 - c. Provide average tree canopy diameter at full maturity.
 - d. Identify plants that are salt tolerant.
 - e. Identify plants that are tolerant to pet waste.
 - f. Provide the total square footage of the following:
 - i. Total landscaped area;
 - ii. Total sod area;
 - iii. Total area covered by plantings; and
 - iv. Total hardscaped area, to include all areas proposed to be covered by rock mulch and crusher fines.
 - g. Replace the Autumn Blaze Maple with an alternative species; Autumn Blaze Maple is a prohibited species (Landscape Design Guidelines for Public ROW, Appendix C).
 - h. Replace the 'Improved Bluegrass' sod. Sod must require less than 1 ½ inches of water per week and should be drought and heat tolerant, as well as resistant to pet waste and road salts. The RTF Water Saver or other tall fescue should be considered due to its deep roots and self-repairing qualities; it is also more in line with the requirements of Sec. 3.5 of the East Villages Sub-Area Plan and Sec. VIII(A.2) of the Landscape Design Guidelines and Standards for areas in along the Public Right-of-Way.
- 7. Please review the City's Landscape Design Guidelines and review the landscape plan, as submitted, to ensure:
 - a. The width of all tree lawns and planters is provided.
 - i. The tree lawn widths, as measured via the scale provided, are not corresponding correctly to the cross-sections approved for the preliminary plan (Ex. Sheet L-101). Please correct.
 - b. An alternative mulch is considered; rock mulch is heavily discouraged in planting beds, except in areas prone to high winds. (VI.F)
 - i. Please note the areas proposed to be covered by crusher fines (Ex. Sheet L-103) may be removed by Public Works as these areas suggest an informal street crossing that may create a safety hazard for pedestrians and vehicles.
 - c. No trees are planted closer than 30-feet from the intersecting curb face at intersections and street corners within the corner triangle. (VII.1i)
 - d. No trees are planted closer than 20-feet from light poles. (VII.1j)
 - e. No trees are planted closer than 4 feet from back of curb. (VII.1o)
 - f. No plantings higher than 24" are planted in the sight triangles (Ex. Sheet L-112). (VII.1m)

Sheet L-000

- 1. Plans must be stamped by the landscape architect.
- 2. Please provide summary table that includes:
 - a. Total square footage of landscaped area;
 - b. Square footage of area to be covered in sod;

- c. Square footage of area to be covered with plantings/groundcover; and
- d. Square footage of area to be covered with rock mulch and/or crusher fines.
- 3. Add General Note that a Right-of-Way permit may be required by the City's Public Works Department for landscaping and irrigation installation.
- 4. Add General Note that any existing invasive or prohibited species must be removed prior to landscape installation.
- 5. Add Maintenance Note that some landscaped areas will be subject to the mowing, thinning and low-limbing requirements outlined in the Southwest Village Wildfire Mitigation Plan.
- 6. Add Tree Maintenance Note that tree canopies extending over the roadway shall be maintained to have a minimum canopy of 14-feet above the roadway. (Landscape Design Guidelines in Public ROW, VII.1I)
- 7. Add Tree Maintenance Note that tree canopies within sight triangles or over sidewalks shall be maintained to have a minimum 7-feet clearance between the ground surface and tree canopy. (Landscape Design Guidelines in Public ROW, VII.1m)

<u>Sheet L-101</u>

1. Sec. 16-32-90(d): Feathered Reed Grass and Knock Out Rose exceed 25% biodiversity threshold.

Sheet L-102

1. Sec. 16-32-90(d): Feathered Reed Grass and Knock Out Rose exceed 25% biodiversity threshold.

Sheet L-104

- 1. Please add trees to the tree lawn on the southwest side of Lyric St. The street sections must be consistent with that approved in the preliminary plan.
- 2. Sec. 16-32-90(d): Biodiversity requirement not met; only two plant types provided.

Sheet L-105

1. Sec. 16-32-90(d): Feathered Reed Grass and Knock Out Rose exceed 25% biodiversity threshold.

Sheet L-106

1. Sec. 16-32-90(d): Feathered Reed Grass and Pink Beauty Potentilla exceed 25% biodiversity threshold.

Sheet L-107

1. Sec. 16-32-90(d): Feathered Reed Grass exceeds 25% biodiversity threshold.

Sheet L-108

- 1. Please consider revisiting the landscaping adjacent to the crossing of the regional trail; such a trail crossing would benefit from landscaping that provides visual interest and indication of the trail crossing.
- 2. Sec. 16-32-90(d): Feathered Reed Grass exceeds 25% biodiversity threshold.

Sheet L-109

- 1. Please revisit design and try to provide more consistency in plantings along the full stretch of Lyric Street and High Note Avenue.
- 2. Tree species on northwest side of High Note Ave. needs to be identified.

Sheet L-110

- 1. Please consider adding an aesthetic transition between the proposed landscaping for RidgeGate Parkway and that of Lyric.
- 2. Sec. 16-32-90(d): Feathered Reed Grass and Knock Out Rose exceed 25% biodiversity threshold.

Sheet L-112

1. Sec. 16-32-90(d): Feathered Reed Grass exceeds 25% biodiversity threshold.

Thank you again for your application. Please do not hesitate to reach out to us directly with any additional questions or concerns.

Sincerely,

Roshana Floyd

Roshana Floyd, MPA, AICP, CFM Senior Planner (720) 509-1271

9220 Kimmer Drive, Ste. 100 Lone Tree, CO 80124 (303) 708 - 1818

Invoice

Project Area:

RidgeGate East

Invoice # 1

Invoice Date 3/29/2021

Community Development Permit # SB21-08bR

Description				
Development Agreement Amendment (Planning)				
Development Agreement Amendment (Engineering)				

Amount Due \$3,750.00

Payment can be made either by:

Check	or	Card* (Discover, Visa, Mastercard)
City of Lone Tree		Call Front Office to process
Attn: Roshana Floyd		(303) 708 - 1818
9220 Kimmer Drive, Suite 100		
Lone Tree, CO 80124		*Note: There is a 2.5% processing fee for CC transactions

Address: 9380 Station St., Ste. 600

Ryan McDermed

Attn:

Lone Tree, CO 80124

Terms & Conditions

(1) Please be advised, depending on project scope, some projects may incur additional review and/or consultation fees. Such fees will be assessed via separate invoice, as applicable.

PHASE III DRAINAGE REPORT FOR RIDGEGATE SOUTHWEST VILLAGE FILING 1

Prepared For:

Shea Homes 9380 Station Street, Suite 600 Lone Tree, CO 80124 (303) 791-8180 Contact: Ryan McDermed

Prepared By:

JR Engineering, LLC

7200 South Alton Way Suite C400 Centennial, CO 80112 (303) 267-6220 Contact: Aaron Clutter

February 12, 2021

X:\1590000.all\1595001\Word\Reports\Phase III Drainage Report\2020-11-10_Phase III Drainage Report.docx

Engineer's Certification

I affirm that this report and plan for the Phase III drainage design of <u>Ridgegate Southwest</u> <u>Village Filing 1</u> was prepared by me (or under my direct supervision) in accordance with the provisions of Douglas County Drainage Design and Technical Criteria for the owners thereof. I understand that City of Lone Tree does not and will not assume liability for drainage facilities designed by others.

Aaron Clutter, P.E.	Date
State of Colorado No. 36742	
For and on Behalf of JR Engineering	

Shea Homes herby certifies that the drainage facilities for Ridgegate Southwest Village Filing 1 shall be constructed according to the design presented in this report. I understand that Douglas County does not and will not assume liability for the drainage facilities designed and/or certified by my engineer and that Douglas County reviews drainage plans pursuant to Colorado Revised Statutes, Title 30, Article 28; but cannot, on behalf of Ridgegate, guarantee that the final drainage design review will absolve Shea Homes and/or their successors and/or assigns of future liability for improper design. I further understand that approval of the final plat does not imply approval of my engineer's drainage design.

Shea Homes Name of Developer

Authorized Signature

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I. GENERAL LOCATION AND DESCRIPTION

A. Site Location

The proposed development henceforth referred to as "Ridgegate Southwest Village Filing 1" site is located in Sections 23 and 24, Township 6 South, Range 69 West and Section 18, Township 6 South, Range 67 West of the 6th Principal Meridian. The site is located to the south of Ridgegate Parkway, east of Interstate Highway 25 (I-25), and north of the public service right-of-way. The site is bisected by a reach of Happy Canyon Creek that runs adjacent to the site on the west. A vicinity map showing the project site is shown below and is also presented in Appendix A.

Figure 1: Vicinity Map

B. Description of Property

The proposed site of the Ridgegate Southwest Village Filing 1 development consists of approximately 186.03 acres of undeveloped land. The proposed development will consist of parks, commercial and multi-family lots, public roadways, and 365 residential lots. The site is currently unoccupied and undeveloped, and is vegetated with native grasses and shrubs. The majority of soil is classified by the Natural Resource Conservation Service (NRCS) as Hydrologic Group C and D. Hydrologic Group C soils are described as "soils that have low infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine structure." Hydrologic Group D soils are described as "soils that have very low infiltration rates when thoroughly wetted and consist chiefly of soils with a permanent high

water table, soils with a claypan or clay layer at or near the surface and shallow soils over nearly impervious material."

The site slopes vary between 0-25%, with some areas up to 33%. The terrain is mountainous and relatively steep throughout. The historic drainage patterns for the entire Ridgegate Southwest Village Development are split in two directions. The western half of the development drains north and west to Happy Canyon Creek, while the eastern half of the development drains to the north and east to Badger Gulch. The Filing 1 improvements within this report will drain west to Happy Canyon Creek.

The site is shown on the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) Community Panel No's. 08035C0063H and 08035C0064G, September 4, 2020 and March 16, 2016 respectively. The majority of the site lies within Zone X which is the flood insurance rate zone that corresponds to areas outside the one percent annual chance floodplain. See the FIRM Map located in Appendix A. Portions of the site, consisting of approximately 50 acres, are located within the 100 year floodplains of Happy Canyon Creek and Badger Gulch. These 100 year floodplains are further discussed in the "Happy Canyon Creek Flood Hazard Area Delineation", by Muller Engineering Company, dated July 2014. There will be no proposed development within these areas.

There is a major drainageway located adjacent to the site: Happy Canyon Creek. Happy Canyon Creek is located on the western edge of the site and shall be the ultimate outfall for the Filing 1 improvements. Happy Canyon Creek lies within a 100-year floodplain identified as Zone A in the FEMA FIRM Panel No's. 08035C0063H and 08035C0064G.

There is one irrigation canal located on site: Arapahoe Canal. This is an abandoned irrigation canal that crosses the proposed development.

There are no active ditch facilities located within the site. There are no significant geologic features within the area to be developed, and areas of higher topography within the site will remain undeveloped under a conservation easement.

II. DRAINAGE BASINS AND SUB-BASINS

A. Major Drainage Basins

The Ridgegate Southwest Village Filing 1 site lies within the Happy Canyon Creek basin, which is a left bank tributary of Cherry Creek. This report has been prepared in conformance with the "Master Drainage Plan for Ridgegate – Happy Canyon Creek and Badger Gulch Drainage Basins", by Merrick & Company, revised May 2017.

In the existing condition, storm runoff from the undeveloped site on the western half of the site drains into Happy Canyon Creek via overland sheet flow and natural drainage channels. The historic drainage basin map can be referenced in the "Master Drainage Plan for Ridgegate –

Happy Canyon Creek and Badger Gulch Drainage Basins", by Merrick & Company, revised May 2017, and is included in Appendix E.

Development of the project site will result in increased runoff volume to Happy Canyon Creek. One onsite WQ/EURV pond will be provided for the proposed Filing 1 development. This WQ/EURV pond will also provide some detention of the developed runoff, as these developed flows are routed through the outlet structure. The design 100-year discharge for this pond will be approximately 90% of the un-detained 100-year peak flows of the developed site. This discharge percentage of the 100-year developed flow has been established in coordination with Merrick & Company in order to minimize the outlet structure as well as minimizing the adverse effects of the peak discharge from the site coinciding with the peak discharge in the receiving drainageway. Online detention is proposed in Happy Canyon Creek (by others). The inflows into Happy Canyon Creek will be analyzed in a separate drainage report by Merrick & Company. Per the "Master Drainage Plan for Ridgegate – Happy Canyon Creek and Badger Gulch Drainage Basins", by Merrick & Company, revised May 2017, creek stabilization improvements are proposed (by others) within the channels to stabilize the drainageways and protect against the effects of urbanization in the watersheds.

B. Proposed Drainage Basins

There are three developed condition basins denoted within this report. Each basin is representative of a particular storm sewer system and outfall location. These basins are denoted as Basin A, Basin R, and Basin F. Basin A, and a majority of Basin F, will be routed to the proposed EURV Pond A, while Basin R and Sub-Basin F5 will have water quality provided by an existing water quality pond located just north of the site. The proposed basins will primarily follow existing drainage patterns. The drainage basins are presented in the drainage map located in Appendix F.

Basin A consists of Sub-Basins A1-A71 combining for a total of 151.78 acres. This basin represents a majority of the proposed Filing 1 development. These sub-basins are primarily residential lots, commercial lots, and open space. Stormwater runoff from these sub-basins are conveyed via curb and gutter and open space swales. Runoff is captured via a series of on-grade and sump inlets, as well as area inlets in the open space swales. Runoff is then piped north to the proposed EURV Pond A. The treated/detained pond releases are then discharged into Happy Canyon Creek.

Basin R consists of Sub-Basins R1-R19 combining for a total of 36.31 acres. This basin represents the eastern most portion of the proposed Filing 1 development. This basin also incorporates the existing Ridgegate Parkway that is adjacent to the site. Stormwater runoff from these sub-basins are conveyed via curb and gutter and open space swales. Runoff is captured via a series of on-grade and sump inlets, as well as area inlets in the open space swales. Runoff is then piped north where the developed runoff will split. A portion of the runoff will be piped north and outfall into an existing water quality pond located just north of Ridgegate Parkway. This existing water quality pond will provide water quality for the developed runoff prior to

releasing into Happy Canyon Creek. The remaining flows from this basin will be piped south and outfall directly into Happy Canyon Creek undetained. Further discussions of this flow split can be found below.

Basin F consists of Sub-Basins F1-F5 combining for a total of 32.34 acres. This basin represents the future developments that are tributary to the EURV Pond A, and the existing infrastructure along Ridgegate Parkway. These sub-basins are primarily future residential lots, commercial lots, and open space. Stormwater runoff from these sub-basins will be captured by proposed public storm sewer subs or conveyed via future curb and gutter to proposed on-grade and sump inlets. Runoff will then be piped north to the proposed EURV Pond or existing water quality pond. The treated runoff from this basin will be discharged into Happy Canyon Creek.

III. DRAINAGE DESIGN CRITERIA

A. Regulations

Storm drainage analysis and design criteria for this project were taken from the "Storm Drainage Design and Technical Criteria Manual" (SDDTCM) by Douglas County and the "Urban Storm Drainage Criteria Manual" (USDCM) by Mile High Flood Control District (MHFD).

B. Drainage Studies

The site has previously been studied by multiple reports. The "Master Drainage Plan for Ridgegate-Happy Canyon Creek and Badger Gulch Drainage Basins", by Merrick & Company, revised May 2017, has been utilized for the overall master planning of the site.

The "Phase III Drainage Report for Ridgegate Parkway Expansion – Phase I", by Merrick & Company, dated October 2018, the "Phase III Drainage Report for Ridgegate Parkway Expansion – Phase II", by Merrick & Company, dated October 2018, and the "Phase II Drainage Report for Ridgegate Southwest Village", by JR Engineering, dated October 28, 2020, have been utilized to confirm that this drainage report is in conformance with the allowable inflows into Happy Canyon Creek and also to the existing storm sewer system located in Ridgegate Parkway. The allowable versus the proposed inflows into the existing storm sewer systems is presented in Table 2.

The "Happy Canyon Creek Flood Hazard Area Delineation", by Muller Engineering Company, dated July 2014, has been utilized for 100 year floodplain mapping.

C. Water Quality and MS4 Permit Requirements

The Ridgegate Southwest Village development is subject to the requirements of the MS4 standards that went into effect July 1, 2019 (COR090000), or the standards in place at the time of submittal.

D. Hydrology

The Rational method was utilized to determine the hydrology of the site. The watershed areas for each inflow point into the ponds are less than 160 acres and do not require MHFD's Colorado Urban Hydrograph Procedure (CUHP). The overall EURV Pond A watershed has been split into two separate inflow points into the pond, each of which does not exceed 160 acres and does not require CUHP.

Rational method calculations were prepared for the sub-basins that directly impact the sizing of minor drainageways and pipe sizing. The 5-year storm was analyzed as the minor storm and the 100-year storm was analyzed as the major storm for aspects of design. The site is located in Douglas County Rainfall Zone 1. One-hour point rainfall values were taken from the SDDTCM and used in equation 5-1 from the USDCM to calculate intensities. 1-hour point rainfall values of 1.43 inches and 2.60 inches were used for a 5-year and 100-year storm events respectively.

Standard Forms SF-2 and SF-3 were used to determine the runoff from the minor and major storms on this site. Runoff coefficients were determined based on data presented in Table 6-5 from the USDCM. Basin percent impervious values were calculated based on proposed future land use and from data on Table 6-3 from the USDCM. Times of concentration were developed using equations from the USDCM. All runoff and hydrology calculations are included in Appendix B of this report.

E. Hydraulics

The UDFCD spreadsheet UD_Inlet v4.06, released August 2018, was utilized to determine street and inlet capacities of the development. The U.S. Environmental Protection Agency's Stormwater Management Model (EPA SWMM) v.5.0 was utilized to determine the existing flow rates in order to analyze the existing conditions for the site. EPA SWMM was also utilized to analyze the developed condition. Results for the existing and developed conditions can be found in the *Master Drainage Plan for Ridgegate – Happy Canyon Creek and Badger Gulch Drainage Basins* by Merrick & Company, May, 2017. A copy of these results can also be found in Appendix E.

Pipe capacities were modeled in Bentley StormCAD V8i. NeoUDSewer is the approved computer program for storm sewer analysis in Douglas County and has been replaced with the latest version of UD-Sewer. A calibration model was prepared in StormCAD using UDFCD Example 6.13 in accordance with Douglas County criteria. A summary table of all inputs and modeling output has been included in Appendix C.

Using Storm StormCAD V8i, a modeling program for stormwater drainage, the hydraulic grade lines and energy grade lines were determined for the storm sewer network. Manhole and pipe losses for the model were obtained from the <u>Modeling Hydraulic and Energy Gradients in Storm</u> <u>Sewers: A Comparison of Computation Methods</u>, by AMEC Earth & Environmental, Inc. The manhole loss coefficients used in the model can be seen in Table 2. Iterative loss coefficients for

manholes that contain 1 or more lateral lines were calculated using the Combined Junction Loss Equation. These iterative loss coefficients can be found in Appendix C.

Drainageway and swale calculations can be found in Appendix C. Swale locations have been provided on the drainage maps in Appendix F.

StormCAD Conversion Table				
	Bend Angle	K coefficient Conversion		
so	0	0.05	5	
٩L	22.5	0.1		
en	45	0.4		
•	60	0.64	1	
	90	1.32		
	1 Lateral K coefficient Conversion			
	Bend	Non		
	Angle	Surcharged	Surcharged	
SS	45	0.27	0.47	
Lo	60	0.52	0.9	
eral	90	1.02	1.77	
.ate	2 Latera	2 Laterals K coefficient Conversion		
_	45	0.96		
	60			
	90			

Table 1. StormCAD Standard Method Conversions

F. Pond Calculations and Water Quality Enhancement

The Ridgegate Southwest Village Filing 1 site will be serviced by one EURV pond and one existing WQ pond. All runoff from the proposed Filing 1 site will be captured and piped to one of these ponds, where the water will be treated prior to being released into Happy Canyon Creek. Detention will be provided in Happy Canyon Creek per the "Master Drainage Plan for Ridgegate – Happy Canyon Creek and Badger Gulch Drainage Basins", by Merrick & Company, revised May 2017. As a result, detention is not required in the on-site ponds within the Ridgegate Southwest Village development, and will be required to only provide the WQCV and EURV volumes.

As stated previously, the minimum design discharge will be 90% of the 100-year developed inflow for all ponds. These discharge percentages of the 100-year developed flows have been established in coordination with Merrick & Company in their design of the in-line ponds within the channels. The pond outfalls to the receiving drainageways will include energy dissipation for the 100-year outfall and will include a low tail-water basin. The outfalls will be armored with soil riprap into Happy Canyon Creek or Badger Gulch to either the thalweg of the channel or the 100-year floodplain. All calculations pertaining to the proposed pond and the proposed location can be found in the appendix.

IV. STORMWATER MANAGEMENT FACILITY DESIGN

A. Stormwater Conveyance Facilities

The conveyance system within the Ridgegate Southwest Village site is that of a typical subdivision with curb and gutter capturing and conveying flows to on-grade and sump storm sewer inlets. Concentrated off-site flows are proposed to be channelized via swales and routed into the proposed storm sewer system.

All inlets within the proposed roadways will be Type R inlets. Area inlets for the improvements will consist of Type C inlets. Inlet calculations and sizing can be found in Appendix C.

Storm sewer will be sized to carry the minor storm in a free flowing condition, and the major storm will maintain an HGL a minimum of one foot below finished grade. Storm runoff from the proposed development will be conveyed via proposed storm sewer infrastructure to the proposed EURV Pond A, or to the existing infrastructure within Ridgegate Parkeway.

All storm sewer pipes, inlets, and streets will be public improvements. The EURV pond will reside on property owned by the City of Lone Tree but will be maintained by the Rampart Range Metro District. Easements and tracts will be established to allow for maintenance access to drainage facilities outside of public right-of-way.

B. Stormwater Storage Facilities

There is one proposed EURV pond within the Filing 1 development. This EURV pond will provide water quality for a majority of the Filing 1 site, and will outfall into Happy Canyon Creek. In-line detention is planned to be provided within Happy Canyon (by others) per the *Ridgegate Master Drainage Report* and will not be provided in the on-site ponds. The site will also utilize existing storm sewer infrastructure within Ridgegate Parkway, along with an existing water quality pond located just north of the site.

The proposed EURV pond will utilize forebays at each outfall point into the pond in order to dissipate the energy from the storm runoff and collect sediment. Trickle channels will then convey the runoff to the outlet structure. The outlet structure will include a micropool and contain an initial surcharge volume. The outlet structure will utilize orifice plates for both the water quality capture volume (WQCV) and EURV. The outlet structure's orifice plate will be sized to release the WQCV and EURV events over a period of 40 and 72 hours respectively. For the developed 100-year inflows, an overflow grate on the top of the outlet structure will be used in order to pass discharges above the EURV level and minimize incidental detention. The outlet structure will have a release rate of 464.5 cfs for a 100-year storm event and will require 10.266 ac-ft of storage. All flows up to the 100-year storm event shall enter the channel at the proposed outfall location. This outfall shall utilize a low tail-water basin to dissipate the kinetic energy of the storm discharge, and prevent scouring of Happy Canyon Creek. The pond will also have an emergency spillway to discharge emergency flows above the 100-year storm event. Trash racks will be used to prevent any trash from escaping the development, and for easy cleaning. A

maintenance access trail will also be constructed for easy access to the outlet structure and forebays for maintenance and repairs. Watershed design parameters and design storm results for the proposed EURV pond can be found below in Table 2 & Table 3 respectively. All pond and forebay calculations can be found in Appendix D.

Table 2. Watershed Design Parameters

Watershed Area	a 176.58 AC
Percent Impervio	us 48.4%
Watershed Slop	e 0.031 ft/ft

Design Storm Period	Volume (AC-FT)	Depth (FT)	Q _{out} (CFS)
WQCV	2.973	5.39	1.2
EURV	8.072	8.19	2.4
100-YR	10.266	9.27	464.5

Table 3. Design Storm Results

The pond outfall will utilize riprap within Happy Canyon Creek. The flows from the pond are proposed to discharge into Happy Canyon Creek upstream of the 100-year floodplain and include a low-tailwater basin. In the situation that grading is done within the 100 year floodplain, a no-rise certification and a floodplain permit will be required.

A. Water Quality Enhancement Best Management Practices

Water quality is being provided for the site in the proposed EURV Pond A and an existing water quality pond prior to entering Happy Canyon Creek. Pond A will be designed as an EURV Pond and will utilize forebays and an outlet structure to treat storm water runoff from the proposed development. The forebays will be used to dissipate the energy of the runoff and allow any remaining sediment to settle out of the water before it departs the pond. The outlet structure will utilize an orifice plate to release the WQCV event over a period of 40 hours.

The existing water quality pond located north of Ridgegate Parkway, will provide water quality for Basin R and Sub-Basin F5. This existing pond and the associated tributary areas have been analyzed in the "Phase III Drainage Report for Ridgegate Parkway Expansion – Phase I", by Merrick & Company, dated October 2018, and the "Phase III Drainage Report for Ridgegate Parkway Expansion – Phase II", by Merrick & Company, dated October 2018.

B. Existing Ridgegate Parkway Storm Sewer

There is an existing storm sewer system located in Ridgegate Parkway that will be used to pipe flows to the existing water quality pond located just north of the site. The proposed design flows that enter the existing storm sewer system located in Ridgegate Parkway are all within the previously designed limit. These allowable inflows were specified in the following reports: "Phase III Drainage Report for Ridgegate Parkway Expansion – Phase I", by Merrick & Company, dated October 2018, and the "Phase III Drainage Report for Ridgegate Parkway Expansion – Phase II", by Merrick & Company, dated October 2018. Allowable and proposed inflows for the 5-year and 100-year storm events entering the existing Ridgegate Parkway storm sewer system are shown in the table below. The manhole located at Design point 9.4 will split the developed flows and send a portion of the developed runoff north to the existing water quality pond. The remaining flows will be diverted south, where they will combine with the flows released from EURV Pond A prior to entering Happy Canyon Creek. Based on the analysis conducted by Merrick & Company, 26.8 cfs will be routed to the EURV Pond A outfall, and 63.3 cfs will be routed to the existing water quality pond. A outfall, and 111.0 cfs will be routed to the existing water quality pond. Calculations for this flow split can be found in Appendix E.

RIDGEGATE PARKWAY STORM SEWER ALLOWABLE INFLOWS PER THE 2018 RIDGEGATE PARKWAY PHASE II AND III DRAINAGE REPORT							
Design	5-yr Minor Storm			100 yr- Major Storm			
Point	Allowable Inflow (cfs)	Proposed Inflow (cfs)	∆ Inflow (cfs)	Allowable Inflow (cfs)	Proposed Inflow (cfs)	∆ Inflow (cfs)	
8.5	29.7	25.4	-4.3	86.3	61.6	-24.7	
8.9	59.6	55.0	-4.6	160	132.9	-27.1	
9.1	87.1	75.3	-11.8	219.2	182.0	-37.2	
9.4	91.7	78.6	-13.1	234.3	190.7	-43.6	

Table 4: Allowable vs. Proposed Inflows into Existing Ridgegate Storm Sewer System

C. Floodplain Modification

There are no modifications proposed to any floodplain. The project site is outside the one percent annual chance floodplain, and there are no CLOMR, LOMR, or floodplain permitting requirements. In the situation that grading is done within the 100 year floodplain, a no-rise certification and a floodplain permit will be required.

D. Additional Permitting Requirements

An Approved Jurisdictional Determination, provided by the U.S. Army Corps of Engineers, Corps File No. MWO-2019-01406-DEN, has determined that there are no water resources of the U.S. on this site; therefore, a Department of the Army permit will not be required for this site. There are currently no endangered species located on the site. There are no other permitting requirements placed on the site.

V. CONCLUSIONS

A. Compliance with Standards

This report is in compliance with the standards set forth in the "Storm Drainage Design and Technical Criteria Manual" by Douglas County as well as the "Urban Storm Drainage Criteria Manual" by the Mile High Flood Control District (MHFD).

B. Variances

No variances are requested at this time.

C. Drainage Concept

All proposed runoff will be safely conveyed through the site and release at allowable rates at the proposed Pond A outfall and at the existing water quality pond outfall north of Ridgegate Parkway. Water quality is currently or will be provided at both outfall locations. No adverse effects to Happy Canyon Creek or to the downstream infrastructure are expected as a result of the proposed Ridgegate Southwest Village Filing 1 improvements. No impacts are expected with respect to stormwater quality, quantity, or timing.
REFERENCES

- 1. <u>Happy Canyon Creek Flood Hazard Area Delineation</u>, by Muller Engineering Company, dated July 2014.
- 2. <u>Master Drainage Plan for Ridgegate-Happy Canyon Creek and Badger Gulch</u> <u>Drainage Basins</u>, Merrick & Company, Revised May 2017.
- <u>Phase III Drainage Report for Ridgegate Parkway Expansion Phase I</u>, by Merrick & Company, dated October 2018.
- <u>Phase III Drainage Report for Ridgegate Parkway Expansion Phase II</u>, by Merrick & Company, dated October 2018.
- 5. <u>Storm Drainage Design and Technical Criteria Manual</u>, Douglas County, July 2008.
- 6. <u>Urban Storm Drainage Criteria Manual</u>, Mile High Flood Control District, Latest Revision.
- 7. <u>Phase II Drainage Report for Ridgegate Southwest Village</u>, JR Engineering, dated October 28, 2020

APPENDIX A FIGURES AND EXHIBITS







PROJECT NO.: 15950.00

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information. vations (BFEs

To obtain more detailed information in areas where Base Flood Elevations (B and/or floodways have been determined, users are encouraged to consult the F Profiles and Floodway Data and/or Summary of Siltware Elevations tables show this FRM. Users about be avent that BFEs shown on the FRM represent rou-whole/oot elevations. These BFEs are intended for flood insurance rating pape only and should not be used as the sole accurso of flood elevation inform and/or Summary of Siltware Elevations tables should be utilized in conjunction the FRM for purposes of construction and/or floodplain management.

oundaries of the floodways were computed at cross sections and interpolated atween cross sections. The floodways were based on hydraulic considerations with agend to requirements of the National Flood Insurance Program. Floodway widdhs in other pertinent floodway data are provided in the Floodway Data table shown on the provided in the Floodway Data table shown on the structure of the stru

The projection used in the preparation of this may use Universal Transverse Mecrator (UM) zone 13. The hortontal datum was NAD 53. GRS 1869 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIMs for adjacent juriadicions may result in sight positional differences in mag features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

BITCE the security or unit in map are referenced to the North American Vertical Datum of 1985. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding convention vertical Datum of 1985, with the National Geodetic Survey withite at Vertical Datum and 1985, with the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the National Geodetic Survey at the following the International Convention of the International Geodetic Survey at the following the International Convention of the International Geodetic Survey at the following the International Convention of the International Geodetic Survey at the following the I

GS Information OAA, N/NGS12

NGARA, MINGS12 National Geodetic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 301) 713-3242

b obtain current elevation, description, and/or location information for bench marks hown on this map, please contact the information Services Branch of the National seedetic Survey at (301) 713- 3242, or visit its website at <u>http://www.ngs.noaa.gov</u>.

Base map information shown on this FIRM was provided by the Douglas County GIS Department and the Town of Castle Rock GIS Department. Additional input was provided by the City of Lone Tree and Town of Parker. These data are current as of 2010.

Certain areas not in Special Flood Hazard Areas may be protected by **flood** control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction

The profile baselines depicted on this map represent the hydraulic modeling baseline that match the flood profiles in the FIS report. As a result of improved topographic data the profile baseline, in some cases, may deviate significantly from the channel cariteriine or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date stream channel configurations and floodplain delineations than those shown on the previous FRMM for this jurisdiction. As a result, the Flood Profiles and Floodway Date tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect atera channel distances that differ from what is shown on the map. Also, the could to floodplain relationships our unrevised streams may differ from what is atom what is the stream of the ad to floodplain nown on previous

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of communities table: containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the Map Service Center (MSC) website at <u>http://msc.tema.gov</u>, Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at 1-377-45M-MAP (1-877-336-2627) or visit the FEMA website at <u>http://www.fema.gov/business/http</u>.



	CDECTAL ELOO				
	INUNDATION	BY THE 1% ANNUAL CHANCE FLOOD			
a 1% chance of the area subject	chance flood (100- being equaled or e	year flood), also known as the base flood, is the flood that has scceeded in any given year. The Special Flood Hazard Area is 1% annual chance flood. Areas of Special Flood Hazard			
Include Zones A elevation of the	, AE, AH, AO, AR, A 1% annual chance	A99, V, and VE. The Base Flood Elevation is the water-surface flood.			
ZONE A	No Base Flood	Bevations determined.			
ZONE AE	Base Flood Ele	wations determined.			
ZONE AH	Flood depths o determined.	of 1 to 3 feet (usually areas of ponding); Base Flood Bevations			
ZONE AO	Flood depths o	of 1 to 3 feet (usually sheet flow on sloping terrain); average			
ZONE AR	Special Boord I	Harard Areas formerly pontected from the 1% annual chaose			
LONE AN	flood by a floo	d control system that was subsequently decertified. Zone with the former flood control system is being restored to provide			
	protection from	n the 1% annual chance or greater flood.			
LONE AND	protection syst	tem under construction; no Base Flood Elevations determined.			
ZONE V	Coastal flood a determined.	tone with velocity hazard (wave action); no Base Flood Bevations			
ZONE VE	Coastal flood a	one with velocity hazard (wave action); Base Flood Elevations			
		REAS IN ZONE AF			
	1 LOOD WAT AF				
The floodway is encroachment s	the channel of a si that the 1% ann	tream plus any adjacent floodplain areas that must be kept free of ual chance flood can be carried without substantial increases in			
flood heights.					
	OTHER FLOOD	AREAS			
ZONE X	Areas of 0.2% and average denths of	nual chance flood; areas of 1% annual chance flood with less than 1 foot or with drainage areas less than 1 square			
	mile; and areas pr	otected by levees from 1% annual chance flood.			
	OTHER AREAS				
ZONE X	Areas determined Areas in which flor	to be outside the 0.2% annual chance floodplain. of bazants are undetermined, but nossible.			
N7777					
77777	CUASTAL BAR	NER RESOURCES STSTEM (UDKS) AREAS			
1.1	OTHERWISE P	ROTECTED AREAS (OPAs)			
CBRS areas and	OPAs are normally	located within or adjacent to Special Flood Hazard Areas.			
	- 1%	Annual Chance Floodplain Boundary			
	Flor	odway boundary			
	Zon	e D boundary			
•••••	•••• CBF	RS and OPA boundary			
	Bou	Indary dividing Special Flood Hazard Area Zones and boundary ding Special Flood Hazard Areas of different Rase Flood Floorations			
	floo	d depths, or flood velocities.			
~ 513~	Bas	e Rood Elevation line and value; elevation in feet*			
(EL 987)	feel	e Hood Elevation value where uniform within zone; elevation in ex			
*Referenced to	the North American	a Vertical Datum of 1988			
A	(A) ~~	ss section line			
@		nsect line			
45* 02' 08*, 9	3* 02' 12* Get	ographic coordinates referenced to the North American Datum of (NAD 83) Western Hemischere			
**89 ⁰⁰⁰ " N	100	0-meter Universal Transverse Mercator grid values, zone 13			
 *egeocom N 1000-meter Universal Transverse Mercator grid values, zone 13 DX5510 X Bench mark (see explanation in Notes to Users section of this FIRM 					
•	pan Dhe	e)			
M1.5	KN	cr mile			
	Refer	MAP REPOSITORIES to Map Repositories list on Map Index			
	EF	FECTIVE DATE OF COUNTYWIDE			
		FLOOD INSURANCE RATE MAP			
	EFFECTIVE	DATE(S) OF REVISION(S) TO THIS PANEL			
MARCH 16,	2016: to update co	rporate limits, to change base flood elevations, to add base flood			
to reflect upda	add special flood hi ated topographic inf	azard areas, to update map format, to add roads and road names, formation, to incorporate previously issued letters of map revision.			
For commun	ity map revision his	tory prior to countywide mapping, refer to the Community			
Map History	table located in the	Flood Insurance Study report for this jurisdiction.			
To determine or call the N	if flood insurance i ational Flood Insura	is available in this community, contact your insurance agent ance Program at 1-800-638-6620.			
		MAP SCALE 1" = 500'			
	250 0	500 1000			
	150	0 160 300			
(NAC	PANEL 0064G			
ĺ	NAP				
ĺ		PANEL 0084G			
	E MAX	PANEL 0064G FIRM FLOOD INSURANCE RATE MAP			
(CERAN H	PANEL 0064G FIRM FLOOD INSURANCE RATE MAP DOUGLAS COUNTY.			
	OIGRAM Z	PANEL 0084G FIRM FLOOD INSURANCE RATE MAP DOUGLAS COUNTY, COLORADO			
ļ	INTOTANAN	PANEL 0064G FIRM FLOOD INSURANCE RATE MAP DOUGLAS COUNTY, COLORADO AND INCORPORATED AREAS			
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Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey



Hydrologic Soil Group

100.0%	1.857.6		st	Totals for Area of Intere
2.2%	40.1	D	Renohill-Manzanola clay loams, 3 to 20 percent slopes	RnE
8.3%	154.8	D	Renohill-Buick complex, 5 to 25 percent slopes	RmE
13.0%	242.0	Β	Newlin-Satanta complex, 5 to 20 percent slopes	Ns E
3.9%	71.9	Β	Newlin gravelly sandy loam, 8 to 30 percent slopes	NeE
3.3%	61.5	C	Manzanola clay loam	Ma
4.2%	78.0	С	Loamy alluvial land	Го
22.5%	417.4	D	Hilly gravelly land	Hg
29.2%	541.8	C	Fondis-Kutch association	Fu
6.6%	122.1	C	Fondis clay loam, 3 to 9 percent slopes	FoD
3.5%	65.5	C	Fondis clay loam, 1 to 3 percent slopes	FoB
2.3%	42.5	С	Englewood clay loam	En
0.6%	11.1	D	Coni rocky loam, 3 to 100 percent slopes	CoG
0.5%	9.0	Β	Bresser sandy loam, cool, 5 to 9 percent slopes	BrD
Percent of AOI	Acres in AOI	Rating	Map unit name	Map unit symbol

Description

soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. assigned to one of four groups according to the rate of water infiltration when the Hydrologic soil groups are based on estimates of runoff potential. Soils are

three dual classes (A/D, B/D, and C/D). The groups are defined as follows: The soils in the United States are assigned to four groups (A, B, C, and D) and

thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission. Group A. Soils having a high infiltration rate (low runoff potential) when

These soils have a moderate rate of water transmission. drained soils that have moderately fine texture to moderately coarse texture consist chiefly of moderately deep or deep, moderately well drained or well Group B. Soils having a moderate infiltration rate when thoroughly wet. These

water transmission. soils of moderately fine texture or fine texture. These soils have a slow rate of chiefly of soils having a layer that impedes the downward movement of water or Group C. Soils having a slow infiltration rate when thoroughly wet. These consist

material. These soils have a very slow rate of water transmission. layer at or near the surface, and soils that are shallow over nearly impervious potential, soils that have a high water table, soils that have a claypan or clay thoroughly wet. These consist chiefly of clays that have a high shrink-swell Group D. Soils having a very slow infiltration rate (high runoff potential) when

their natural condition are in group D are assigned to dual classes for drained areas and the second is for undrained areas. Only the soils that in If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is

Rating Options

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified

Tie-break Rule: Higher

7/24/2019

USDA

APPENDIX F

DRAINAGE MAPS



DRAINAGE LEGEND





J·R ENGINEERING A Westrian Company

Centennial 303—740—9393 Colorado Springs 719—593—2593 Fort Gollins 970—491—9888 www.jrengineering.com

	~		/					
Tributary	B/ Area	Percent	/IIVIA	κΥ 17 	ABLE t.	0-	0.00	
Sub-basin	(acres)	Impervious	C ₅	C ₁₀₀	د (min)	رcfs)	(cfs)	
A1	1.44	10%	0.12	0.52	8.2	0.7	5.8	
A2 A3	1.60 3.34	<u> </u>	0.05	0.49	10.6 15.0	0.3	5.4 9.7	
A4	12.75	2%	0.05	0.49	14.3	2.2	37.9	
A5 A6	2.22 0.90	44% 64%	0.39	0.66	13.0 7.0	3.1 2.3	9.2 5.4	
Α7	1.62	52%	0.46	0.70	8.8	3.1	8.4	
A8 ۵۵	1.38 2 94	70%	0.61	0.77	7.6	3.7 16	8.2	
A9 A10	0.48	40% 69%	0.43	0.08	5.2	4.0	3.2	
A11	3.76	19%	0.19	0.56	14.2	2.4	12.8	
A12 A13	0.13	60% 60%	0.52	0.73	5.0 8.6	0.3 6.9	0.9	
A14	3.51	74%	0.64	0.79	8.1	9.7	21.1	
A15	3.08	7%	0.10	0.51	16.9	0.9	8.8	
A16 A17	0.86	76%	0.14	0.54	<u>19.4</u> 5.0	4.1 2.8	28.5 6.0	
A18	0.47	75%	0.65	0.79	5.0	1.5	3.3	
A19	1.94 1.54	57% 61%	0.50	0.72	9.7 8.8	3.9 3 /	9.9 & 3	
A21	0.67	80%	0.69	0.81	5.0	2.3	4.8	
A22	1.05	81%	0.70	0.82	6.3	3.4	7.1	
A23 A23A	1.81 1.75	61% 46%	0.53	0.73	7.0 10.1	4.3 2.8	10.6 8.2	
A24	1.88	58%	0.51	0.72	7.9	4.2	10.4	
A25	3.34	82%	0.71	0.82	7.0	10.6	21.9	
A26 A27	1.99 1.18	67% 78%	0.58	0.76	9.4 7.7	4.7 3.4	7.3	
A28A	0.96	69%	0.60	0.76	8.9	2.4	5.4	
A28	0.68	66%	0.58	0.75	6.6	1.8	4.1	
A30	0.59	78%	0.49	0.71	5.1	2.9	4.1	
A31	2.11	48%	0.43	0.68	9.9	3.6	10.1	
A32 A33	0.93	61% 46%	0.53 0.41	0.73	8.3 9.4	2.1	5.1 5.6	
A34	0.74	55%	0.49	0.71	7.6	1.6	4.0	
A35	0.18	62%	0.54	0.74	5.9	0.5	1.1	
A36 A37	3.43	56% 57%	0.50	0.71	9.2	4.3 7.0	11.1	
A38	2.42	44%	0.40	0.67	14.7	3.2	9.6	
A39	1.42 2.15	58%	0.51	0.72	9.0 7 º	3.0	7.5	
A41	2.15	52%	0.46	0.79	10.5	4.0	10.8	
A42	1.48	41%	0.37	0.65	8.9	2.3	7.1	
A43 A44	2.48 1.90	48% 56%	0.43 0.49	0.68	9.8 10.7	4.2 3.6	11.9 9.2	
A45	6.05	73%	0.64	0.79	12.4	13.9	30.5	
A46	8.92	36%	0.33	0.63	23.2	7.9	26.7	
A52	2.36	<u>63</u> %	0.49	0.74	9.7	5.1	12.4	(A35)
A53A	2.99	75%	0.65	0.79	11.2	7.3	15.9	0.19
A53 A54A	1.75 1.01	8% 52%	0.10 0.46	0.51	14.7 8.4	0.6 1.9	5.4 5.3	A.3.3
A54	1.35	68%	0.59	0.76	6.4	3.7	8.5	
A55	0.88	76%	0.65	0.79	5.4 9.5	2.8	6.1 5.2	
A57	1.49	51%	0.47	0.69	10.4	2.6	7.1	
A58	0.67	75%	0.65	0.79	5.7	2.1	4.5	
A59 A60	2.61 1.25	49% 61%	0.44	0.69	9.2 10.8	4.6 2.6	13.0 6.3	
A61	1.00	44%	0.39	0.66	7.0	1.7	5.3	A34 A32
A62	1.94	61%	0.54	0.73	11.3	3.9	9.5	
A63	2.63 1.68	52%	0.55	0.74	8.7	3.2	8.7	
A65	2.17	69%	0.60	0.76	10.3	5.1	11.5	
A66 A67	2.54	65% 77%	0.56	0.75	8.8 7 २	5.9	14.1 77	
A68	0.74	74%	0.64	0.79	6.2	2.2	4.8	
A69	1.95	43%	0.39	0.66	12.2	2.8	8.4	
A70 A71	2.04	83%	0.54	0.74	5.0	5.0 1.8	3.7	
R1	0.75	90%	0.77	0.85	5.1	2.9	5.6	
R2 R3	1.87 3 7/	71% 81%	0.62	0.77	7.0	5.2 12 1	11.6 25 1	
R4	0.44	75%	0.65	0.79	6.2	1.4	2.9	
R5	0.36	75%	0.65	0.79	6.2	1.1	2.3	
кь R7	2.90 0.55	51% 73%	0.45	0.69	10.7 5.0	5.0 1.7	13.7 3.8	
R8	0.28	61%	0.53	0.73	8.2	0.6	1.6	
R9	9.78	85%	0.73	0.83	6.7	32.6	66.1	
R10	2.18	10%	0.4/	0.52	13.9	0.9	7.0	
R12	3.36	30%	0.28	0.61	14.1	3.2	12.4	A A A A A A A A A A A A A A A A A A A
R13	2.33	30% 35%	0.28	0.61	9.1 7 9	2.7 35	10.4 12 3	FUTURE TILL
R14	1.34	53%	0.32	0.03	6.0	3.0	7.9	RIDGEGATE T
R16	0.28	59%	0.52	0.73	6.7	0.7	1.6	FILINGS
R17 R18	1.00 0.87	51% 68%	0.45 0.50	0.69	7.0	2.0	5.5 5.2	
R19	0.63	81%	0.70	0.81	6.4	2.2	4.2	
F1	6.05	42%	0.38	0.65	12.1	8.3	25.7	
F2	5.03 8.14	53% 75%	0.47	0.70	11.8 7.6	8.7 23.1	23.2 50.1	
F3 -								
F3 F4	5.58	66%	0.58	0.75	13.3	11.3	26.3	















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SCOPE

This report presents the results of our Preliminary Geotechnical Investigation for the Ridgegate Southwest Village in Lone Tree, Colorado (Fig. 1). The purpose of our investigation was to evaluate the subsurface conditions to assist in due diligence assessment and planning of site development. The report includes descriptions of subsurface strata and groundwater found in our exploratory borings, identification of geologic hazards and geotechnical concerns, and discussions of site development and construction as influenced by geotechnical considerations. The scope was described in a Proposal dated February 11, 2019 (DN 19-0079). Environmental Site Assessment and a Biological and Cultural Assessment were recently completed by our firm.

This report is based on our understanding of the planned construction, site reconnaissance, subsurface conditions disclosed by exploratory drilling and sampling, results of field and laboratory tests, engineering analysis of field and laboratory data, and our experience. The report contains descriptions of the soil and groundwater found in our exploratory borings, preliminary recommendations for site development, and preliminary discussion of foundations, floor systems, pavements, and surface and subsurface drainage. The discussions of foundation, floor system and pavement alternatives are intended for planning purposes only. Additional investigation may be necessary to evaluate merits of sub-excavation. Site-specific investigations will be necessary to design structures, pavements, and other improvements. A summary of our conclusions and recommendations follows, with more detailed discussion in the report.

SUMMARY OF CONCLUSIONS

1. The site is judged suitable for development. The primary geotechnical concern is expansive soil and bedrock. The soils and bedrock were erratic and borings indicate much of the site is underlain by



expansive materials, a geologic hazard. Moderate to steep slopes are also present, along with regional issues of seismicity and potential radon. These concerns can be mitigated with proper planning, engineering, design and construction. We believe there are no geotechnical constraints that would preclude development.

- 2. Strata found in our borings were erratic and consisted of about 1 to more than 25 feet of sand and/or clay underlain by weathered and comparatively unweathered claystone, sandstone and interbedded claystone and sandstone bedrock. Bedrock was not encountered in three borings. Clay and claystone samples exhibited variable swelling characteristics.
- 3. Groundwater was encountered during drilling in one boring at a depth of about 33 feet. When the holes were checked after drilling, water was measured in seven borings at depths of about 18 to 47 feet below existing grades, or 16 to 26 feet below proposed grades. Groundwater may be encountered during deep sub-excavation and utility installation. Groundwater may fluctuate seasonally and rise in response to development, precipitation, landscape irrigation and water levels in Happy Canyon Creek and Badger Gulch.
- 4. We estimate total potential ground heave could range from less than 0.5-inch to about 11.5 inches considering wetting depths of 20 and 24 feet below proposed grades. We believe the estimates are conservative (high).
- 5. The site is judged to have variable risk of damage due to expansive soil and bedrock. Footing foundations may be used where low swelling soil and bedrock are present within depths likely to influence performance of foundations. Drilled piers or other deep foundation systems should be anticipated in areas with moderate to high swelling soil or claystone are present. Sub-excavation can be considered for a wider use of shallow foundations and slab-on-grade basement floors. The variability of soils and bedrock conditions and presence of sandstone imply depth of sub-excavation could be variable, or you could elect to sub-excavate all lots to 10 feet below basements, 13 feet below structure foundations where no basements are planned, or to massive sandstone. Further investigation is recommended if you wish to use the variable approach.



- 6. Slopes greater than 20 percent will need to be benched prior to placement of fill. Sub-fill drains are recommended along the alignment of the existing drainages where about 15 or more feet of fill is planned.
- 7. The clayey soils are anticipated to possess poor pavement support qualities. For planning purposes, we estimate a 4-inch thick asphaltic concrete and 6-inch base course section for local residential streets. Mitigation of expansive soils will likely be required, such as placement of an extra 12 inches of base course. Minimum pavement sections are provided in the report. A subgrade investigation and pavement design should be performed after grading is complete.
- 8. Control of surface and subsurface drainage will be critical to the performance of foundations, slabs-on-grade, pavements and other improvements. Overall surface drainage should be designed to provide rapid run-off of surface water away from structures and off pavements and flatwork. Water should not be allowed to pond near structures or on pavements and flatwork, or on the crests of slopes. Conservative irrigation practices should be employed to reduce the risk of subsurface wetting.

SITE CONDITIONS

Ridgegate Southwest Village includes about 2,000 acres (+/-) southeast of Ridgegate Parkway and I-25 in southeastern Lone Tree, Colorado (Fig. 1 and Photo 1). The site is vacant rangeland and bordered by Happy Canyon Creek to the West, vacant land and Ridgegate Parkway to the north, Badger Gulch to the east and vacant land to the south. The site generally slopes north, with moderate grades on the south portion flattening to the north. There are several ephemeral drainages which flow toward Happy Canyon Creek to the west, Badger Gulch to the east, and to the north. The old Arapahoe Canal traverses the central portion of the site east to west. The ground surface is covered with grass, weeds, bushes and trees. The bushes and trees are concentrated near the drainages. Historical aerial photographs dating to 1936 indicate the site has remained relatively unchanged.





PROPOSED DEVELOPMENT

Preliminary plans indicate the site may be developed for a mix of about 1860 single-family residences. A school site, recreational area and a small commercial component are planned. The residences will include a mix of attached and detached products ranging from one to three-story. Basements are anticipated for some of the residences. The development will be served by paved roadways and buried utilities. Plans dated March 13, 2018 indicate retaining wall heights range from 10 to 31 feet. Plans dated February 22, 2019 suggest cuts up to about 50 feet and fills up to about 34 feet (Fig. 2). The deepest cuts will be in the southeastern portion of the site near TH-37 and TH-38. The deeper fills are planned within existing drainages and in the north-central portion of the site. Some lots are planned over drainages, such as near TH-6, 9, 11, 22, 25, 26, and 38-40.



Photo 1 – Google Earth[©] Aerial Site Photo – June 2017



INVESTIGATION

Subsurface conditions were investigated by drilling 42 exploratory borings at the locations shown on Fig. 1. The locations were selected to provide spacing of about 600 to 750 feet. Boring locations were surveyed by others. Prior to drilling, we contacted the Utility Notification Center of Colorado and local sewer and water districts to identify locations of buried utilities. The borings were drilled to depths of about 20 to 30 feet below proposed grades using 4-inch diameter, continuous-flight solid-stem augers and truck-mounted drill rigs.

Samples of the soil and bedrock were obtained at approximate 5-feet intervals using a 2.5-inch diameter (O.D.) modified California barrel sampler driven by an automatic 140-pound hammer falling 30 inches. Our field representatives were present to observe drilling, log the soil and bedrock, obtain samples and measure the depth to groundwater. Bulk samples were collected from auger cuttings at select borings. Summary logs of exploratory borings are presented in Appendix A.

Samples were returned to our laboratory where they were examined. Laboratory tests included dry density, moisture content, particle size analysis, Atterberg limits, swell-consolidation, standard Proctor (ASTM D 698 or AASHTO T99) and water-soluble sulfate concentration. Swell-consolidation tests were performed by wetting the samples under approximate post-construction overburden pressures (the pressure exerted by overlying soils after proposed grading). Results of laboratory tests are presented in Appendix B.

SUBSURFACE CONDITIONS

Strata encountered in our exploratory borings were erratic and consisted of 1 to more than 25 feet of sand and/or clay underlain by weathered and





comparatively unweathered bedrock to the maximum depth explored of 55 feet. Bedrock was not encountered in three borings. Pertinent engineering characteristics of the soil and bedrock are described in the following paragraphs. Table I summarizes the results of swell-consolidation tests.

	Compression	Range of Measured Swell (%)					
Soil Type	Compression	0 to <2	2 to <4	4 to <6	≥6		
	Number and Fraction of Samples						
Clay	6	7	7	4	13		
	16%	19%	19%	11%	35%		
Sand	0	0	1	0	0		
	0%	0%	100%	0%	0%		
Claystone/Interbedded Clay-	5	49	21	8	3		
stone and Sandstone	6%	57%	24%	9%	4%		
Sandstone	2	1	0	0	0		
	67%	33%	0%	0%	0%		
Overall	13	57	29	12	16		
	10%	45%	23%	9%	13%		

TABLE I SUMMARY OF SWELL TEST RESULTS

*Swell measured after wetting under approximate future overburden pressure

Sand and Clay

Overburden soils consisted of clean to clayey sand and silty to sandy clay and were generally thicker near or within drainages. Clay was predominant. It contained occasional sand lenses and gravel and was calcareous at times. The sand was generally found near drainages in the west-central and east to southeast-central areas and the cleaner sand contained gravel. Based on the results of field penetration resistance tests, the sand was medium dense to very dense and the clay was stiff to very stiff. Of the clay samples that swelled, nearly 75 percent swelled more than 2 percent. Eighteen clay samples developed loadback swelling pressures ranging from 900 to 31,000 psf. One clayey sand sample swelled 2.7 percent. Fourteen clay samples contained 50 to 94 percent silt and clay sized particles and three exhibited high or very high plasticity. Eleven





sand samples contained 6 to 48 percent fines, five contained 1 to 10 percent gravel, and one exhibited moderate plasticity. Testing indicates the clay is predominantly expansive. We judge the sand to be non-expansive or low-swelling.

Standard Proctor moisture-density relationships were conducted on bulk samples of sandy clay obtained from the surficial soils in TH-23 and TH-31. Results of laboratory testing are summarized in Table II.

Boring	Depth (ft)	Maximum Dry Density (pcf)	Optimum Mois- ture Content (%)	Percent Passing No. 200 Sieve (%)	Liquid Limit	Plasticity Index
TH-23	0-5	107.5	16.0	59	40	23
TH-31	0-10	105.0	20.0	78	55	34

TABLE II SUMMARY OF BULK SAMPLE TEST RESULTS

Bedrock

Bedrock was encountered in 39 borings at depths of about 1 to 24 feet. The approximate depth to and elevation of bedrock are presented on Fig. 3. Bedrock was not encountered in TH-4, 9, and 25. Bedrock consisted of weathered and comparatively unweathered claystone, sandstone and interbedded claystone/sandstone bedrock. Weathered layers were identified in three borings about 3 to 13 feet thick. The comparatively unweathered bedrock was medium hard to very hard. Of the bedrock samples that swelled, 38 developed load-back swelling pressures of 1,300 to 30,000 and about 40 percent swelled 2 percent or more. Sixteen samples contained 15 to 97 percent silt and clay and eight exhibited moderate to very high plasticity. The claystone is expansive and the sandstone is non-expansive or low-swelling.



Groundwater

Groundwater was encountered during drilling in one boring at a depth of about 33 feet. When the holes were checked after drilling on March 25, 2019, water was measured in seven borings at depths of about 18 to 47 feet below existing grades or 16 to 26 feet below proposed grades. Groundwater may be encountered during deep sub-excavation and utility installation. Groundwater may fluctuate seasonally and rise in response to development, precipitation, landscape irrigation and water levels in Happy Canyon Creek and Badger Gulch.

SITE GEOLOGY AND GEOLOGIC HAZARDS

We reviewed a map by Maberry, J.O. and Lindvall, R.M. (Map I-770-A, Geologic Map of the Parker Quadrangle, Arapahoe and Douglas Counties, Colorado, 1972). The map indicates the site is underlain by the Dawson and Arapahoe Formations. Surficial soils are a mixture of clay and sand alluvium. An excerpt from the geologic map is shown below.

Geologic hazards and geotechnical concerns at this site include expansive soil and bedrock, some compressible soils, moderate slopes, erosion and the regional geologic hazards of seismicity and naturally occurring radioactive materials. These concerns can be mitigated with proper planning, engineering, design and construction. No geologic hazards or geotechnical concerns that would preclude development were noted. The following sections provide site development recommendations.

Expansive Soil and Bedrock and Compressible Soils

The presence of expansive/compressible soil and bedrock implies risk that ground heave or settlement will damage foundations, slabs-on-grade floors, and



pavements. Covering the ground with structures, streets, driveways, patios, etc., coupled with lawn irrigation and changing drainage patterns, leads to an increase in subsurface moisture conditions. Thus, some soil movement due to heave or settlement is inevitable. Expansive soils and bedrock are present at this site, which constitutes a geologic hazard. There is risk that foundations and slab-on-grade floors will experience heave and subsequent damage. It is critical that precautions are taken to increase the chances that proposed improvements will perform satisfactorily. Engineered planning, design and construction of grading, pavements, foundations, slabs-on-grade, and drainage can mitigate, but not eliminate, the effects of expansive and compressible soils. Sub-excavation is a ground improvement method that can be used to reduce the impacts of swelling soils.





Excerpt from the Geologic Map of the Parker Quadrangle, Arapahoe and Douglas Counties, Colorado by Maberry, J.O. and Lindvall, R.M. (Map I-770-A, 1972)

- Legend: Qp Piney Creek Alluvium (Holocene): Poorly sorted silt, clay, sand and interbedded gravel.
 - Qsu Slocum Alluvium (Pleistocene), upper part: Quartz-and-feldspar sand and silty clay; bouldery gravels at the base of the upper and lower parts.
 - Tda Dawson Arkose, Upper Part (Paleocene) Arkosic sandstone with clay binder; fine to coarsegrained; crossbedded.
 - Tdo Dawson Arkose, Upper Part (Paleocene) Claystone with thin interbeds of arkosic sandstone common throughout in varying intervals.
 - Tds Dawson Arkose, Upper Part (Paleocene) Sandstone with crossbedded lens- and tabularshaped beds of fine-grained quartz, feldspar, and mica in abundant clay binder. Silty, clayey.
 - Tde Denver Formation, Upper Tongue (Paleocene) Claystone, silty, commonly has extremely high swelling-pressure potential.

Seismicity

The soil and bedrock are not expected to respond unusually to seismic activity. According to the 2015 International Residential Code (IRC, Standard Penetration Resistance method of Section 1613.5.2) and based upon the results of our investigation, we judge the site classifies as Seismic Site Class C or D.





Steep Slopes and Erosion

Existing slopes appear to be stable. Some steeper slopes approaching 1H:1V (horizontal:vertical) were observed along the drainages and in the southern portion of the site. Slopes will require erosion control during and after construction. The granular soils are considered highly erodible. Soil cut and fill slopes no steeper than 3H:1V (horizontal:vertical) should be stable. Slopes of 4H:1V are preferable. Re-vegetation or other erosion control measures should be employed to control erosion.

Water is expected to flow onto the site from the south. During peak precipitation events, some accumulation of surface sheet flow in drainages is expected. Development will increase the amount of impervious surfaces, which can lead to drainage problems and erosion if surface water flow is not adequately designed. Surface drainage design and evaluation of flood potential should be performed by a Civil Engineer as part of the project design.

Radioactivity

It is normal in the Front Range of Colorado and nearby eastern plains area to measure radon gas in poorly ventilated spaces (e.g., crawl spaces, if any) in contact with soil or bedrock. Radon 222 gas is considered a health hazard and is just one of several radioactive products in the chain of the natural decay of uranium into lead. Radioactive nuclides are common in the soil and bedrock underlying the subject site. Because these sources exist or will exist on most sites in the area, there is a potential for radon gas accumulation in poorly ventilated spaces. The concentration of radon that can develop is a function of many factors, including the radionuclide activity of the soil and bedrock, construction methods and materials, soil gas pathways, and accumulation areas. The only reliable method to determine if a hazard exists is to perform radon testing of completed



residential structures. Typical mitigation methods consist of sealing soil gas entry areas, ventilation of below-grade spaces, and venting from foundation drain systems. We recommend provision for ventilation of foundation drain systems to allow venting if a radon problem is discovered.

Other Considerations

Site grading will include filling of existing drainages. Subsurface drainage may follow these drainages. We recommend installation of drains below drainages where more than about 15 feet of fill is planned as discussed in <u>Sub-Fill</u> <u>Drain.</u>

ESTIMATED POTENTIAL HEAVE

Based on the subsurface profiles, swell-consolidation test results and our experience, we calculated the potential heave at the proposed ground surface for each boring, as shown in Table III. The analysis involves dividing the soil profile into layers and modeling the heave of each layer from representative swell tests. We assumed an average swell of 0.5 percent for fill placed during site grading. We estimated potential proposed ground surface heave may range from <0.5 to about 11.5 inches. Wetting depths of 20 and 24 feet below proposed grades were considered for the analysis. Variations from our estimates should be anticipated. Our estimates are generally conservative; it is not certain whether the full estimated heave will occur. Based on the heave estimates and our experience, we assessed the risk of potential damage due to expansive soils as shown on Fig. 4. Sub-excavation can be used to mitigate the risk.



TABLE III ESTIMATED POTENTIAL PROPOSED GROUND SURFACE HEAVE BASED ON 20- AND 24-FEET DEPTHS OF WETTING

Boring	Estimated Pote Proposed Gro (inch	ential Heave at ound Surface nes)	Boring	Estimated Potential Heave at Proposed Ground Surface (inches)		
	Depth of Wetting 20 Feet	Depth of Wetting 24 Feet	boiling	Depth of Wetting 20 Feet	Depth of Wetting 24 Feet	
TH-1	3.3	3.3	TH-22	8.4	8.7	
TH-2	2.0	2.6	TH-23	1.0	2.1	
TH-3	2.4	2.7	TH-24	3.7	4.2	
TH-4	2.1	2.1	TH-25	2.0	2.1	
TH-5	2.7	3.0	TH-26	7.6	7.6	
TH-6	0.2	0.7	TH-27	8.0	8.0	
TH-7	3.0	3.2	TH-28	7.4	7.4	
TH-8	3.2	3.7	TH-29	9.5	9.5	
TH-9	1.2	1.2	TH-30	3.9	3.9	
TH-10	4.4	4.5	TH-31	7.1	7.4	
TH-11	1.2	1.8	TH-32	3.8	3.9	
TH-12	2.9	3.4	TH-33	10.9	11.5	
TH-13	1.7	1.8	TH-34	1.2	1.6	
TH-14	3.2	3.2	TH-35	4.5	5.1	
TH-15	<0.5	0.5	TH-36	5.8	7.0	
TH-16	10.4	10.8	TH-37	3.7	4.2	
TH-17	4.4	4.4	TH-38	3.3	3.9	
TH-18	2.1	2.4	TH-39	4.2	4.8	
TH-19	3.7	4.0	TH-40	0.8	1.1	
TH-20	0.9	1.4	TH-41	7.5	8.4	
TH-21	9.1	10.0	TH-42	6.2	6.6	

SITE DEVELOPMENT

The following sections provide site development recommendations based on our current understanding of the planned construction.



Excavation

We believe the soils penetrated by our exploratory borings can be excavated with typical heavy-duty equipment. Contractors should be familiar with applicable local, state and federal safety regulations, including the current Occupational Safety and Health Administration (OSHA) Excavation and Trench Safety Standards. Based on our investigation and OSHA standards, we anticipate the clay and bedrock will classify as Type B soil and the sand as Type C. Type B and C soils require maximum slope inclinations of 1:1 and 1¹/₂:1 (horizontal:vertical), respectively, for temporary excavations in dry conditions. Excavation side slopes specified by OSHA are dependent upon soil types and groundwater or seepage conditions encountered. The contractor's "competent person" is required to identify the soils encountered in excavations and refer to OSHA standards to determine appropriate slopes. Stockpiles of soils and equipment should not be placed within a horizontal distance equal to one-half the excavation depth, from the edge of the excavation. A professional engineer should design excavations deeper than 20 feet. Excavations should not compromise stability of adjacent improvements.

Site Grading

Prior to fill placement, the ground surface in areas to be filled should be stripped of debris, vegetation/organics and other deleterious materials, scarified and moisture conditioned to between 1 and 4 percent above optimum moisture content for clay or within 2 percent of optimum for sand and gravel, and compacted to at least 95 percent of standard Proctor maximum dry density (ASTM D 698). Fill should be moisture conditioned and compacted in accordance with criteria shown in Table IV. Based on Douglas County specifications, utility trench backfill should be moistened between optimum and 4 percent wetter and compacted to at least 95 percent of standard Proctor maximum dry density for clay





and moistened within 2 percent of optimum and compacted to 100 percent of standard Proctor for sand.

TABLE IV

SUMMARY OF COMPACTION AND MOISTURE CONTENT SPECIFICATIONS

Soil Turo	Depth of Site	Utility Trench Backfill	
Soli Type	≤20 Feet >20 Feet		
Clay (CL, CH)	95% STD, 1 to 4 percent above optimum	98% STD, 2 percent be- low to 1 percent above optimum	95% STD, 0 to 4 per- cent above optimum
Granular Soils (Sand and Gravel)	95% STD, -2 to +2 per- cent from optimum	98% STD, 2 percent be- low to 1 percent above optimum	100% STD, within 2 per- cent of optimum

*Compaction and moisture content percentage specifications based on standard Proctor maximum dry density (STD, ASTM D 698) and optimum moisture content (optimum).

The properties of fill will affect the performance of foundations, slabs-ongrade, utilities, pavements, flatwork and other improvements. The on-site soils are suitable for use as new fill provided they are substantially free of debris, vegetation/organics and other deleterious materials. Fill should be placed in thin loose lifts, moisture conditioned and compacted prior to placement of the next lift. The placement and compaction of fill should be observed and tested by a representative of our firm during construction. Guideline site grading specifications are presented in Appendix C.

Our experience indicates fill will settle under its own weight. We estimate potential settlement of about 1 to 2 percent of the fill thickness even if the fill is compacted to the specified criteria. Most of this settlement usually occurs during and soon after construction; for clayey fill, it may continue for longer. Heave or additional settlement may occur after development in response to wetting. If fill will be placed on slopes of 20 percent or steeper the slopes should be benched prior to placing fill (Fig. 5).




There are some areas where proposed grading will create non-uniform depths of fill below residence sites. Where the depth varies more than about 5 feet, sub-excavation or benching of existing slopes should be considered to create more uniform fill depth. <u>We recommend additional review of these conditions as grading and sub-excavation plans are formalized.</u>

Sub-Excavation

Our investigation indicates expansive soil and bedrock are present at depths likely to influence the performance of shallow foundations and slabs-ongrade for most of the site. Sub-excavation may be used to create more stable soil conditions and control risk of excessive movements. The variability of soil and bedrock materials implies that depth of sub-excavation could be variable, and that sub-excavation may not be merited for some of the site. You could elect to excavate all building areas to about 10 feet below lowest foundations for basements and 13 feet for no basements, or to massive sandstone (whichever is less) or use a variable depth approach. <u>Further investigation is recommended in indi-vidual parcels to better assess the merits of sub-excavation.</u>

The bottom of sub-excavation areas should extend laterally at least 5 feet outside the largest possible foundation footprint to ensure foundations are constructed over moisture-conditioned fill. The sub-excavation areas should be staked by a surveyor, and we recommend periodic surveying verification of the "as-built" bottom of the excavations. Conceptual sub-excavation profiles are shown on Figs. 6 and 7.

The excavation contractor(s) should be chosen carefully to assure they have experience with fill placement at over-optimum moisture and have the necessary compaction equipment. The contractors should provide a construction disc to break down fill materials and anticipate use of push-pull scraper



operations and dozer assistance. The operation will be relatively slow. The contractor should provide a construction disc to break down fill materials. For the procedure to be performed properly, strict contractor control of fill placement to specifications is required. Sub-excavation fill should be moisture-conditioned between 1 and 4 percent above optimum moisture content with an average test moisture content each day of at least 1.5 percent above optimum.

Special precautions should be taken for compaction of fill at corners, access ramps and along the perimeters of sub-excavated areas due to equipment access constraints. The contractors should have appropriate equipment to reach and compact these areas. Our representative should observe placement procedures and test compaction of the fill. The fill should be tested after placement to evaluate swell. Guideline sub-excavation grading specifications are presented in Appendix D. We recommend a surveyor document the actual limits of treatment and create "as-built" plans to verify that the buildings are over the treated areas.

If the fill dries excessively prior to construction, it may be necessary to rework the upper, drier materials just prior to constructing foundations. We judge the fill should retain adequate moisture for about two to three years.

<u>Slopes</u>

We recommend permanent cut and fill slopes be designed with a maximum slope of 3:1 (horizontal to vertical); use of 4:1 would be better to control erosion. If site constraints (property boundaries and streets) do not permit construction with recommended slopes, we should be contacted to evaluate the subsurface soils and steeper slopes. Slopes greater than 20 feet high should be evaluated by our office on a case-by-case basis. Concentrated surface drainage should not be allowed to sheet flow across slopes or pond near the crest of slopes. All slopes should be re-vegetated soon after grading to reduce erosion.



<u>Utilities</u>

Water and sewer lines are usually constructed beneath paved roads. Compaction of trench backfill can have a significant effect on the life and serviceability of pavements. Trench backfill should be placed in thin (8 inches or less) loose lifts and moisture conditioned and compacted to the specifications provided in <u>Site Grading.</u>

For utility installation, we recommend use of a self-propelled compactor. Special attention should be paid to backfill placed adjacent to manholes as we have seen instances where settlement in excess of 2 percent has occurred. Any improvements placed over backfill should be designed to accommodate movement. The placement and compaction of utility trench backfill should be observed and tested by a qualified representative during construction.

Subsurface Drainage

With long term development and subsequent irrigation, groundwater may develop and rise. Our firm generally advocates an underdrain system below sanitary sewer mains and services to control groundwater that may accumulate in response to development. The underdrain may help to control unusually deep wetting which results in heave-related foundation and floor problems and frequent pumping from basement foundation drain systems.

If an underdrain system is not installed, individual house foundation drains would discharge into sumps with pumps. Sump discharge can result in ponding and recycling if slopes between lots are not adequately graded and well-drained. Problems with chronic ice or algae formation on sidewalks have also developed from sump discharge.



If selected, the underdrain should consist of ³/₄ to 1¹/₂-inch clean, freedraining gravel surrounding a perforated PVC pipe (Fig. 7). We believe use of perforated pipe below sanitary sewer mains is the most effective approach. The pipe should be sized for anticipated flow. The line should consist of smooth, perforated or slotted, rigid PVC pipe placed at a grade of at least 0.5 percent. A concrete cutoff should be constructed around the sewer pipe and underdrain pipe immediately downstream of the point where the underdrain pipe exits the sewer trench and transitions from perforated to solid (Fig. 8). Solid pipe should be used down gradient of this cutoff wall. The underdrains should be designed to discharge to a gravity outfall and be provided with a permanent concrete headwall and trash rack. If the underdrain discharges into a detention pond, the risk of flood water backflow through the underdrain into basements should be evaluated. A check valve or backflow preventer can be considered.

Where feasible, the underdrain services should be installed deep enough so that the lowest point of the basement foundation drain can be connected to the underdrain service as a gravity outlet (Fig. 9). For non-walkout basements, the low point of the basement foundation drain may be about 2 to 3 feet deeper than the foundation excavation. For buildings with walkout basements, the low point of the basement foundation drain will be below the frost stem wall in the rear portion of the basement. The foundation drain in a walkout basement would require a deeper underdrain service for a gravity discharge and may not be practical. For these conditions, we suggest the front portion of the foundation drain be connected to the underdrain and a sump pit used for the rear portion.

Sub-Fill Drain

A sub-fill drain is recommended along the bottom of the existing drainages where more than about 15 feet of site grading fill is planned. The drain should slope with the grade of the existing drainages and have a minimum slope of 0.5





percent. A typical sub-fill drain detail is provided as Fig. 11. A perforated pipe should be connected to the end of the drain and protected with a concrete head-wall. The alignment and profile of the sub-fill drain should be shown in the development plans. Potential deep locations are shown on Fig. 2. We recommend rerouting the drainages to avoid installation of sub-fill drains below proposed build-ing/structure footprints.

Retaining Walls

Retaining walls may be planned. Retaining walls should be designed to resist lateral earth pressures. Mechanically Stabilized Earth (MSE) are commonly used in residential developments. <u>Residence foundations should not be con-</u> <u>structed on retaining wall backfill.</u>

MSE Walls

MSE walls include geosynthetic-reinforced structural fill. Internal and global stability should be analyzed as part of the design process. Surcharge pressures from slopes, backfill and vehicular loads should also be considered.

Some movement of MSE walls must occur to mobilize the shear strength of the soil and reinforcement. We assume retained soil and backfill behind the reinforced zone will be native soil or fill derived from similar materials. The on-site soil should not be used in the reinforced zone. We recommend the reinforced zone be constructed with imported sand and gravel meeting CDOT Class 5 or 6 Aggregate Road Base or Class I Structural fill specifications (or better). Angular gravel meeting AASHTO No. 57 or 67 may also be used for the reinforced soil and is recommended for the leveling pad and drainage material. Most MSE block retaining wall design programs require input of soil parameters for foundation





soil, leveling pad, reinforced soil and retained soil. We anticipate the parameters in Table V.

Material Use	Material Description & Classification	Cohesion (psf)	Internal Friction Angle (degrees)	Unit Weight (pcf)
Foundation Soil	Clay (CH)	100	21	110
Leveling Pad	Gravel (imported) AASHTO #57 or 67 Coarse Concrete Aggregate	0	40	135
Reinforced Soil (import recommended)	Sand, Gravelly, Silty, CDOT Class 6 Road Base (or better)	0	34	125
Retained Soil	Clay (CH)	100	21	110

TABLE V PRELIMINARY MSE SOIL INPUT PARAMETERS

Free-draining granular backfill should be used behind the block face to relieve hydrostatic pressure and provide drainage. We recommend a material with less than 5 percent fines (passing No. 200 sieve) within at least 1 foot behind the walls. The free-draining gravel layer should be placed in thin, loose lifts, and compacted to at least 70 percent of maximum relative dry density (ASTM D 4253 and ASTM D 4254). Fill should be placed and compacted to the criteria provided in <u>Site Grading</u>. Special precautions should be taken to avoid over-stressing the walls during compaction. We recommend use of small, hand-operated compactors.

We recommend weep holes and/or installation of a drain pipe at the base of the free-draining backfill zone. If a drain is installed, it should consist of a 4inch perforated, rigid PVC pipe encased in free-draining gravel. The drain should slope at least 1 percent to a positive gravity outlet at either or both ends of the wall or be connected to outfall more than 5 feet in front of the wall. Any pipe installed beneath a wall should be strong enough to withstand the applied pressure and should be a solid pipe extending at least 5 feet beyond the toe of the wall or within a concrete pan.



Pavements

Pavement subgrade soils are variable and may consist of clay, sand, bedrock or fill of similar composition. The City of Lone Tree has adopted Douglas County pavement design standards. Douglas County minimum pavement section alternatives are presented in Table V. For planning purposes, we estimate a 4inch thick asphaltic concrete and 6-inch base course section for local residential streets. Douglas County requires swell mitigation consisting of 12 inches of aggregate base course when pavement subgrade samples swell more than 2 percent under an applied pressure of 100-150 psf. This base course is in addition to any base course that is part of the pavement section. Additionally, sub-excavation (3 to 5 feet) may also be merited. Minimum pavement sections are summarized in Table VI. We suggest assuming an additional inch of asphalt for budgeting. Subgrade investigation and pavement designs should be performed after grading is complete.

Traffic Classification	Hot Mix Asphalt (HMA)	Hot Mix Asphalt (HMA) + Aggregate Base (ABC)	Portland Cement Concrete (PCC) + Prepared Subgrade
Local Residential	5.0" HMA	3" HMA + 6" ABC	5" PCC
Local Commercial	5.0" HMA	3" HMA + 6" ABC	6" PCC
Minor Collector Residential	5.0" HMA	3" HMA + 6" ABC	6" PCC
Minor Collector Commercial	6.0" HMA	4" HMA + 6" ABC	6" PCC

TABLE VI DOUGLAS COUNTY MINIMUM PAVEMENT SECTIONS*

*Placement of 12 inches of additional base course may be necessary





BUILDING CONSTRUCTION CONSIDERATIONS

The following discussions are preliminary and are not intended for design or construction. After grading is completed, design-level investigations should be performed on a structure-specific basis.

Foundations

Footing foundations may be used for sites where low swelling soil and bedrock are present within depths likely to influence performance of foundations. Where moderate to high swelling clay and claystone are present, drilled piers or other deep foundation systems would be best to control risk of heave. Long (25 to 35 feet) drilled piers should be anticipated unless sub-excavation is performed. Sub-excavation should allow footing foundations and slab-on-grade basement floors on most or all treated sites.

Slab-On-Grade Construction

Slab-on-grade basement floors may be considered on low and some moderate risk sites where potential heave is acceptable to builders and home buyers. Structurally supported basement floors should be used on all sites with high or very high risk of poor basement slab performance. We judge risk is moderate or high for most of this site. Sub-excavation should result in low or possibly moderate risk conditions. A structurally supported basement floor should also be used where a buyer cannot tolerate potential movement. Structurally supported floor systems should be anticipated in all non-basement residences and finished living areas. Post-tensioned slab-on-grade foundations may also be considered where no basements are planned.





The performance of garage floors, driveways, sidewalks and other surface flatwork will likely be poor at this site, unless sub-excavation is performed. The following precautions will be required to reduce the potential for damage due to movement of slabs-on-grade placed at this site:

- 1. Isolation of the slabs from foundation walls, columns and other slab penetrations;
- 2. Voiding of interior partition walls to allow slab movement without transferring the movement to the structure;
- 3. Proper surface grading and foundation drain installation to reduce water availability to sub-slab and foundation soils; and
- 4. Performance of surface improvements such as sidewalks and driveways will likely be poor for portions of the site where sub-excavation is not performed.

Below-Grade Areas

Surface water can penetrate relatively permeable loose backfill soils located adjacent to structures and collect at the bottom of relatively impermeable basement or crawl space excavations, causing wet or moist conditions. Foundation walls which retain earth should be designed for lateral earth pressures. Foundation drains should be constructed around the lowest excavation levels and ideally should be connected to an underdrain system to provide a gravity outlet. The drains can be connected to a sump pit where water can be removed by pumping if an underdrain is not provided.

Surface Drainage

The performance of improvements will be influenced by surface drainage. When developing an overall drainage scheme, consideration should be given to drainage around each unit/residence and building. The ground surface around



the residences and townhome buildings should be sloped to provide positive drainage away from the foundations. We recommend a slope of at least 10 percent for the first 10 feet surrounding each residence with basements, where practical. For non-basement developments, we recommend a slope of at least 5 percent for the first 10 feet surrounding each building. If the distance between houses is less than 20 feet, the recommended slope in this area should be installed to the swale between buildings. Where possible, drainage swales should slope at least 2 percent. Variations from these criteria are acceptable in some areas. For example, for lots graded to direct drainage from the rear yard to the front, it is difficult to achieve the recommended slope at the high point behind a house. We believe it is acceptable to use a slope of about 6 inches in the first 10 feet (5 percent) in this instance and others when achieving 10 percent is not practical. Roof downspouts and other water collection systems should discharge beyond the limits of all backfill around structures.

Proper control of surface runoff is also important to control the erosion of surface soils. Concentrated sheet flow should not be directed over unprotected slopes. Water should not be allowed to pond at the crest of slopes. Permanent slopes should be prepared to reduce erosion.

Attention should be paid to compaction of the soils behind curbs and gutters adjacent to streets and in utility trenches during the construction and development. If surface drainage between preliminary development and construction phases is neglected, performance of the roadways, flatwork and foundations may be poor.

Concrete

Concrete in contact with soil can be subject to sulfate attack. Water-soluble sulfate concentrations were predominantly less 0.1 percent. We measured





water-soluble sulfate concentrations of 0.07 percent or less in 16 samples and 0.72 percent in one sample from this site. For sulfate concentrations less than 0.1 percent, ACI 332-08 *Code Requirements for Residential Concrete* indicates there are no special requirements for sulfate resistance. Additional testing should be performed during design-level investigations.

Superficial damage may occur to the exposed surfaces of highly permeable concrete. To control this risk and to resist freeze-thaw deterioration, the water-to-cementitious materials ratio should not exceed 0.50 for concrete in contact with soils that are likely to stay moist due to surface drainage or shallow groundwater. Concrete should have a total air content of 6 percent \pm 1.5 percent.

RECOMMENDED FUTURE INVESTIGATIONS

We recommend the following investigations and services:

- 1. Additional investigation to evaluate the extent and depth of sub-excavation (if selected).
- 2. Review of grading and sub-excavation plans to evaluate merits of benching under sites where variable fill depth will occur.
- Construction testing and observation during site development, and building and pavement construction; including compaction testing of grading fill, utility trench backfill, and pavements;
- 4. Subgrade investigation and pavement design after grading;
- 5. Design-level Soils and Foundation Investigations after grading; and
- 6. Foundation installation observations.



CONSTRUCTION OBSERVATIONS

This report has been prepared for the exclusive use of Shea Homes and your team to provide geotechnical information for development planning. The information, conclusions, and recommendations presented herein are based upon consideration of many factors including, but not limited to, the type of structures proposed, the geologic setting, and the subsurface conditions encountered.

We recommend that CTL | Thompson, Inc. provide construction observation services to allow us the opportunity to verify whether soil conditions are consistent with those found during this investigation. If others perform these observations, they must accept responsibility to judge whether the recommendations in this report remain appropriate.

GEOTECHNICAL RISK

The concept of risk is an important aspect with any geotechnical evaluation, primarily because the methods used to develop geotechnical recommendations do not comprise an exact science. We never have complete knowledge of subsurface conditions. Our analysis must be tempered with engineering judgment and experience. Therefore, the recommendations presented in any geotechnical evaluation should not be considered risk-free. Our recommendations represent our judgment of those measures that are necessary to increase the chances that the development improvements will perform satisfactorily. It is critical that all recommendations in this and future reports are followed.

LIMITATIONS

Our borings were widely spaced to provide a general picture of subsurface conditions for due diligence assessment and preliminary planning of



development and residential and commercial construction. Variations from our borings should be anticipated. We believe this investigation was conducted in a manner consistent with the level of care and skill ordinarily used by geotechnical engineers practicing under similar conditions. No warranty, express or implied, is made.

If we can be of further service in discussing either the contents of this report or the analysis of the influence of subsurface conditions on the project, please call.

CTL | THOMPSON, INC.

Mark Gayeski, E.I.T. Staff Engineer

Reviewed by:

Ronald M. McOmber, P.E. Chairman, Senior Principal

MG:RMM/bg

Via e-mail: <u>ryan.mcdermed@sheahomes.com</u> jennifer.miller@sheahomes.com







CTL\T Project No. DN49,935-115-R1



Depths



SHEA HOMES RIDGEGATE SOUTHWEST VILLAGE CTL\T Project No. DN49,935-115-R1



Approximate Depth and Elevation of Bedrock







NOTES:

- 1) NATURAL SLOPES OF 20 PERCENT OR STEEPER ARE TO BE BENCHED PRIOR TO FILL PLACEMENT.
- 2) SLOPE BENCHES TO OUTSLOPE AT 2± PERCENT.

Benched Fill Detail



NOT TO SCALE

SHEA HOMES RIDGEGATE SOUTHWEST VILLAGE CTL\T Project No. DN49,935-115-R1 Conceptual Sub-excavation **Profile**



NOT TO SCALE

Conceptual Sub-excavation Profile (Walk-out Basement) Fig. 7

SHEA HOMES RIDGEGATE SOUTHWEST VILLAGE CTL\T Project No. DN49,935-115-R1



NOTE: NOT TO SCALE

Conceptual Sewer Underdrain Detail Fig. 8

SHEA HOMES RIDGEGATE SOUTHWEST VILLAGE CTL\T Project No. DN49,935-115-R1



NOTE: THE CONCRETE CUTOFF WALL SHOULD EXTEND INTO THE UNDISTURBED SOILS OUTSIDE THE UNDERDRAIN AND SANITARY SEWER TRENCH A MINIMUM DISTANCE OF 12 INCHES.

> Underdrain Cutoff Wall Detail

SHEA HOMES RIDGEGATE SOUTHWEST VILLAGE CTL\T Project No. DN49,935-115-R1



50-UNDERDRAIN_06



Drainage Sub-Drain Fig. 11



NOTE: DRAIN PIPE TO GRAVITY OUTLET OR WEEP HOLES MAY BE USED.

SHEA HOMES RIDGEGATE SOUTHWEST VILLAGE CTL\T Project No. DN49,935-115-R1 Typical Earth Retaining Wall Drain



APPENDIX C GUIDELINE SITE GRADING SPECIFICATIONS Ridgegate Southwest Village Lone Tree, Colorado





GUIDELINE SITE GRADING SPECIFICATIONS Ridgegate Southwest Village Lone Tree, Colorado

1. DESCRIPTION

This item shall consist of the excavation, transportation, placement and compaction of materials from locations indicated on the plans, or staked by the Engineer, as necessary to achieve preliminary street and overlot elevations. These specifications shall also apply to compaction of excess cut materials that may be placed outside of the development boundaries.

2. <u>GENERAL</u>

The Soils Engineer shall be the Owner's representative. The Soils Engineer shall approve fill materials, method of placement, moisture contents and percent compaction, and shall give written approval of the completed fill.

3. CLEARING JOB SITE

The Contractor shall remove all vegetation and debris before excavation or fill placement is begun. The Contractor shall dispose of the cleared material to provide the Owner with a clean, neat appearing job site. Cleared material shall not be placed in areas to receive fill or where the material will support structures of any kind.

4. SCARIFYING AREA TO BE FILLED

All topsoil and vegetable matter shall be removed from the ground surface upon which fill is to be placed. The surface shall then be plowed or scarified until the surface is free from ruts, hummocks or other uneven features, which would prevent uniform compaction.

5. <u>COMPACTING AREA TO BE FILLED</u>

After the foundation for the fill has been cleared and scarified, it shall be disked or bladed until it is free from large clods, brought to the proper moisture content (1 to 4 percent above optimum moisture content for clay and within 2 percent of optimum moisture content for sand) and compacted to not less than 95 percent of maximum dry density as determined in accordance with ASTM D698.

6. FILL MATERIALS

Fill soils shall be free from organics, debris or other deleterious substances, and shall not contain rocks or clods having a diameter greater than three (3) inches. Fill materials shall be obtained from cut areas shown on the plans or staked in the field by the Engineer.





On-site materials classifying as CL, CH, SC, SM, SW, SP, GP, GC and GM are acceptable. Concrete, asphalt, organic matter and other deleterious materials or debris shall not be used as fill.

7. MOISTURE CONTENT

Fill material shall be moisture-conditioned in accordance with specifications summarized below. Sufficient laboratory compaction tests shall be made to determine the optimum moisture content for the various soils encountered in borrow areas.

Soil Type	Depth of Site Grading Fill		
Son Type	≤20 Feet	>20 Feet	
Clay (CL, CH)	1 to 4 percent above op- timum	2 percent below to 1 percent above optimum	
Granular Soils (SC, SM, SW, SP, GP, GC, GM	Within 2 percent of opti- mum	2 percent below to 1 percent above optimum	

SUMMARY OF MOISTURE CONTENT REQUIREMENTS

*Percentage specification based on optimum moisture content (optimum).

The Contractor may be required to add moisture to the excavation materials in the borrow area if, in the opinion of the Soils Engineer, it is not possible to obtain uniform moisture content by adding water on the fill surface. The Contractor may be required to rake or disc the fill soils to provide uniform moisture content through the soils.

The application of water to embankment materials shall be made with any type of watering equipment approved by the Soils Engineer, which will give the desired results. Water jets from the spreader shall not be directed at the embankment with such force that fill materials are washed out.

Should too much water be added to any part of the fill, such that the material is too wet to permit the desired compaction from being obtained, rolling and all work on that section of the fill shall be delayed until the material has been allowed to dry to the required moisture content. The Contractor will be permitted to rework wet material in an approved manner to hasten its drying.

8. <u>COMPACTION OF FILL AREAS</u>

Selected fill material shall be placed and mixed in evenly spread layers. After each fill layer has been placed, it shall be uniformly compacted to not less than the specified percentage of maximum density. Fill materials shall be placed such that the thickness of loose materials does not exceed 10 inches and the compacted lift thickness does not exceed 6 inches.





SUMMARY OF MINIMUM COMPACTION SPECIFICATIONS

Soil Type	Depth of Site Grading Fill		
Son Type	≤20 Feet	>20 Feet	
Clay (CL, CH)	95% STD	98% STD	
Granular Soils (SC, SM, SW, SP, GP, GC, GM	95% STD	98% STD	

*Compaction percentage specifications based on standard Proctor maximum dry density (STD).

Compaction shall be obtained by the use of sheepsfoot rollers, multiple-wheel pneumatic-tired rollers, or other equipment approved by the Engineer for soils classifying as CL, CH, or SC. Granular fill shall be compacted using vibratory equipment or other equipment approved by the Soils Engineer. Compaction shall be accomplished while the fill material is at the specified moisture content. Compaction of each layer shall be continuous over the entire area. Compaction equipment shall make sufficient trips to ensure that the required density is obtained.

9. <u>COMPACTION OF SLOPES</u>

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compaction operations shall be continued until slopes are stable, but not too dense for planting, and there is not appreciable amount of loose soils on the slopes. Compaction of slopes may be done progressively in increments of three to five feet (3' to 5') in height or after the fill is brought to its total height. Permanent fill slopes shall not exceed 3:1 (horizontal to vertical).

10. PLACEMENT OF FILL ON NATURAL SLOPES

Where natural slopes are steeper than 20 percent in grade and the placement of fill is required, benches shall be cut at the rate of one bench for each 5 feet in height (minimum of two benches). Benches shall be at least 10 feet in width. Larger bench widths may be required by the Engineer. Fill shall be placed on completed benches as outlined within this specification.

11. DENSITY TESTS

Field density tests shall be made by the Soils Engineer at locations and depths of his choosing. Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density tests shall be taken in compacted material below the disturbed surface. When density tests indicate that the density or moisture content of any layer of fill or portion thereof is not within specification, the particular layer or portion shall be reworked until the required density or moisture content has been achieved.





12. SEASONAL LIMITS

No fill material shall be placed, spread or rolled while it is frozen, thawing, or during unfavorable weather conditions. When work is interrupted by heavy precipitation, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed materials are as specified.

13. NOTICE REGARDING START OF GRADING

The Contractor shall submit notification to the Soils Engineer and Owner advising them of the start of grading operations at least three (3) days in advance of the starting date. Notification shall also be submitted at least 3 days in advance of any resumption dates when grading operations have been stopped for any reason other than adverse weather conditions

14. <u>REPORTING OF FIELD DENSITY TESTS</u>

Density tests made by the Soils Engineer, as specified under "Density Tests" above, shall be submitted progressively to the Owner. Dry density, moisture content, and percentage compaction shall be reported for each test taken.

15. DECLARATION REGARDING COMPLETED FILL

The Soils Engineer shall provide a written declaration stating that the site was filled with acceptable materials, and was placed in general accordance with the specifications.



APPENDIX D GUIDELINE SUB-EXCAVATION SPECIFICATIONS Ridgegate Southwest Village Lone Tree, Colorado

Note: This guideline is intended for use with sub-excavation, If sub-excavation is not selected, the guidelines in Appendix C should be followed.





GUIDELINE SUB-EXCAVATION SPECIFICATIONS Ridgegate Southwest Village Lone Tree, Colorado

1. DESCRIPTION

This item shall consist of the excavation, transportation, placement and compaction of materials from locations indicated on the plans, or staked by the Engineer, as necessary to achieve preliminary street and overlot elevations. These specifications shall also apply to compaction of materials that may be placed outside of the development boundaries.

2. <u>GENERAL</u>

The Soils Engineer shall be the Owners representative. The Soils Engineer shall approve fill materials, method of placement, moisture content and percent compaction, and shall give written approval of the completed fill.

3. <u>CLEARING JOB SITE</u>

The Contractor shall remove all vegetation and debris before excavation or fill placement is begun. The Contractor shall dispose of the cleared material to provide the Owner with a clean, neat appearing job site. Cleared material shall not be placed in areas to receive fill where the material will support structures of any kind.

4. <u>SCARIFYING AREA TO BE FILLED</u>

All topsoil and vegetable matter shall be removed from the ground surface upon which fill is to be placed. The surface shall then be plowed or scarified until the surface is free from ruts, hummocks or other uneven features which would prevent uniform compaction.

5. <u>COMPACTING AREA TO BE FILLED</u>

After the foundation for the fill has been cleared and scarified, it shall be disked or bladed until it is free from large clods, brought to the proper moisture content, (1 to 4 percent above optimum) and compacted to not less than 95 percent of maximum density as determined in accordance with ASTM D 698.

6. FILL MATERIALS

Fill soils shall be free from vegetable matter or other deleterious substances, and shall not contain rocks having a diameter greater than three (3) inches. Fill materials shall be obtained from cut areas shown on the plans or staked in the field by the Engineer.





On-site materials classifying as CL, CH, SC, SM, SP, GP, GC and GM are acceptable. Concrete, asphalt, and other deleterious materials or debris shall not be used as fill.

7. MOISTURE CONTENT

Fill materials shall be moisture treated to within limits of optimum moisture content specified in "Moisture Content and Density Criteria". Sufficient laboratory compaction tests shall be made to determine the optimum moisture content for the various soils encountered in borrow areas or imported to the site.

The Contractor may be required to add moisture to the excavation materials in the borrow area if, in the opinion of the Soils Engineer, it is not possible to obtain uniform moisture content by adding water on the fill surface. <u>The Contractor will</u> be required to rake or disc the fill to provide uniform moisture content throughout the fill.

The application of water to embankment materials shall be made with any type of watering equipment approved by the Soils Engineer, which will give the desire results. Water jets from the spreader shall not be directed at the embankment with such force that fill materials are washed out.

Should too much water be added to any part of the fill, such that the material is too wet to permit the desired compaction from being obtained, rolling and all work on that section of the fill shall be delayed until the material has been allowed to dry to the required moisture content. The Contractor will be permitted to rework wet material in an approved manner to hasten its drying.

8. <u>COMPACTION OF FILL MATERIALS</u>

Selected fill material shall be placed and mixed in evenly spread layers. After each fill layer has been placed, it shall be uniformly compacted to not less than the specified percentage of maximum density given in "Moisture Content and Density Criteria". Fill materials shall be placed such that the thickness of loose material does not exceed 8 inches and the compacted lift thickness does not exceed 6 inches.

Compaction, as specified above, shall be obtained by the use of sheepsfoot rollers, multiple-wheel pneumatic-tired rollers, or other equipment approved by the Soils Engineer for soils classifying as CL, CH or SC. Granular fill shall be compacted using vibratory equipment or other equipment approved by the Soils Engineer. Compaction shall be accomplished while the fill material is at the specified moisture content. Compaction of each layer shall be continuous over the entire area. Compaction equipment shall make sufficient trips to ensure that the required density is obtained.

9. MOISTURE CONTENT AND DENSITY CRITERIA

Fill material shall be substantially compacted to at least 95 percent of maximum ASTM D 698 (AASHTO T 99) dry density at 1 to 4 percent above optimum moisture content. Additional criteria for acceptance are presented in <u>DENSITY</u><u>TESTS</u>.

10. DENSITY TESTS

Field density tests shall be made by the Soils Engineer at locations and depths of his choosing. Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density tests shall be taken in compacted material below the disturbed surface. When density tests indicate the density or moisture content of any layer of fill or portion thereof not within specifications, the particular layer or portion shall be reworked until the required density or moisture content has been achieved.

Allowable ranges of moisture content and density given in <u>MOISTURE CON-</u> <u>TENT AND DENSITY CRITERIA</u> are based on design considerations. The moisture shall be controlled by the Contractor so that moisture content of the compacted earth fill, as determined by tests performed by the Soils Engineer, shall be within the limits given. The Soils Engineer will inform the Contractor when the placement moisture is less than or exceeds the limits specified and the Contractor shall immediately make adjustments in procedures as necessary to maintain placement moisture content within the specified limits, to satisfy the following requirements.

A. Moisture

- 1. The average moisture content of material tested each day shall not be less than 1.5 percent over optimum moisture content.
- 2. Material represented by samples tested having moisture lower than 1 percent over optimum will be rejected. Such rejected materials shall be reworked until moisture equal to or greater than 1 percent above optimum is achieved.
- B. Density
 - 1. The average dry density of material tested each day shall not be less than 95 percent of maximum ASTM D 698 dry density.
 - 2. No more than 10 percent of the material represented by the samples tested shall be at dry densities less than 95 percent of maximum ASTM D 698 dry density.
 - 3. Material represented by samples tested having dry density less than 94 percent of maximum ASTM D 698 dry density will be rejected. Such rejected materials shall be reworked until a dry





density equal to or greater than 95 percent of maximum ASTM D 698 dry density is obtained.

11. INSPECTION AND TESTING OF FILL

Inspection by the Soils Engineer shall be sufficient during the placement of fill and compaction operations so that they can declare the fill was placed in general conformance with specifications. All inspections necessary to test the placement of fill and observe compaction operations will be at the expense of the Owner.

12. SEASONAL LIMITS

No fill material shall be placed, spread or rolled while it is frozen, thawing, or during unfavorable weather conditions. When work is interrupted by heavy precipitation, fill operations shall not be resumed until the Soils Engineer indicates the moisture content and density of previously placed materials are as specified.

13. <u>REPORTING OF FIELD DENSITY TESTS</u>

Density tests made by the Soils Engineer, as specified under "Density Tests" above, shall be submitted progressively to the Owner. Dry density, moisture content and percentage compaction shall be reported for each test taken



RidgeGate Southwest Village Filing 1 R.O.W. Landscape General Project Narrative March 12, 2021

General Project Narrative

I. Contact Information

Land Owner:

RidgeGate Investments Inc. 70 East 55th Street, 11th Floor New York, NY 10022 720.390.5211 Phone Ryan.mcdermed@sheahomes.com <u>Contact</u>: Ryan McDermed

Site Plan Preparation/Authorized Representative: Sage Design Group 1500 S. Pearl Street, Suite 200 Denver, CO 80210 303-470-2855 Phone <u>nickm@sagedesigngroup.com</u> <u>Contact:</u> Nick Molter

II. General Project Information/Summary

This is the Filing 1 R.O.W. Landscape submittal for RidgeGate Southwest Village as required by the RidgeGate Planned Development, 6th Amendment. Roadway plantings will be native and xeric focused to reduce water usage and maintenance needs. Landscaping will include a mix of native shrubs, sod, river rock mulch, and deciduous shade trees. Small crusher fines pathways through the landscaping connects on-street parking locations to adjacent sidewalk and lots, allowing for pedestrians to move off the street in quick and safe manner. Tree plantings are spaced to induce a uniform sense of place, and vary between deciduous shade trees in sod and decorative ornamental trees set in rock mulch, creating more visual interest.

A. Zoning: PD

RidgeGate Southwest Village – Residential Mixed-Use, Open Space, Institutional, Commercial Mixed-Use. Adjacent zoning and land use are as follows:

West: Interstate 25, Colorado Department of Transportation ROW

East: Approved and Planned for Single-Family Residential, zoned Residential Mixed-Use


North: Approved and Planned for Commercial District, zoned Residential Mixed-Use Commercial Mixed Use, City Center, Institutional

South: Open Space, natural bluffs, zoned Open Space

GENERAL NOTES:

- THE BASE PLANS ON THESE DRAWINGS HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION, HOWEVER, IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL MATERIAL LOCATIONS AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES THAT ARE FOUND. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THE PLANS. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THESE PLANS FOR PERTINENT INFORMATION RELATING TO SITE CONSTRUCTION.
- THE LANDSCAPE CONTRACTOR SHALL HAVE ONE (1) APPROVED COPY OF PLANS AT THE JOB SITE AT ALL TIMES. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL CONSTRUCTION BARRICADES, SIGNS, AND WARNING DEVICES NECESSARY DURING CONSTRUCTION.
- LANDSCAPE CONTRACTOR SHALL MAINTAIN A QUALIFIED SUPERVISOR ON SITE AT ALL TIMES DURING CONSTRUCTION.
- 5. LANDSCAPE CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND **SPECIFICATIONS**
- 6. LANDSCAPE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL PERMITS AT THEIR OWN EXPENSE, WHICH ARE NECESSARY TO PERFORM ALL PROPOSED WORK AND SHALL COMPLY WITH ALL NOTIFICATION AND INSPECTION REQUIREMENTS
- LANDSCAPE CONTRACTOR SHALL EXAMINE THE SITE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND NOTIFY THE GENERAL CONTRACTOR IN WRITING OF UNSATISFACTORY CONDITIONS. DO NOT PROCEED UNTIL CONDITIONS HAVE BEEN CORRECTED.
- BEFORE COMMENCING WORK, CONTACT APPROPRIATE UTILITY COMPANIES FOR UTILITY LOCATIONS, AND COORDINATE WITH THE OWNER'S REPRESENTATIVE IN REGARD TO LOCATION OF PROPOSED UTILITIES, IRRIGATION SLEEVES, CONDUITS, (ETC). LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MODIFICATIONS OR DAMAGES TO THE UTILITY LINES, STRUCTURES OR INJURIES THEREFROM. FOR EXISTING UTILITY INFORMATION CONTACT "THE UTILITY NOTIFICATION CENTER OF COLORADO" AT 1-800-922-1987. A MINIMUM OF THREE (3) BUSINESS DAY NOTICE IN ADVANCE OF LOCATIONS NEEDED ARE REQUIRED.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT AREAS OUTSIDE THE CONSTRUCTION ZONE FROM STORM WATER RUNOFF, EROSION, AND/OR DEPOSITION OF DEBRIS RESULTING FROM CONSTRUCTION OF THIS PROJECT. ANY AREAS OUTSIDE THE CONSTRUCTION ZONE DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY REPAIRED AT HIS COST
- THE CONTRACTOR SHALL EMPLOY ALL LABOR. EQUIPMENT. AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO PROPERTY, CULTIVATED OR NATIVE VEGETATION, DOMESTIC AND NON-DOMESTIC ANIMALS, OR CPOPING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF JOB SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CPOPED BY DUST RESULTING FROM HIS OPERATIONS.
- 11. WHERE PROVIDED, AREA TAKEOFFS AND QUANTITY ESTIMATES ARE PROVIDED FOR CONTRACTOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKEOFFS FOR ALL MATERIALS AND SIZES SHOWN ON THE PLANS. IN THE CASE OF DISCREPANCIES. PLANS TAKE PRECEDENCE OVER PLANT CALL-OUTS AND/OR LISTS.
- 12. LANDSCAPE CONTRACTOR TO SUBMIT SAMPLES OF MISCELLANEOUS LANDSCAPE & HARDSCAPE MATERIALS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION, IE.; WOOD/ROCK MULCH, EDGER. NATIVE SEED, LANDSCAPE FABRIC (ETC).
- 13. THE LANDSCAPE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE AND SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE ANY CONSTRUCTION TAKES PLACE.
- 14. ALL MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED AND MAINTAINED FOR ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE UNLESS OTHERWISE AGREED UPON CONTRACTUALLY BETWEEN OWNER AND CONTRACTOR. ALL REPLACEMENT COST SHALL BE BORN BY THE CONTRACTOR.
- 15. ALL LANDSCAPE CONSTRUCTION PRACTICES, WORKMANSHIP, AND ETHICS SHALL, BE IN ACCORDANCE WITH INDUSTRY STANDARDS SET FORTH IN THE CURRENT CONSTRUCTION HANDBOOK PUBLISHED BY THE COLORADO LANDSCAPE CONTRACTORS ASSOCIATION.

Soils Report:

1. IT'S THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT COPY OF THE SOILS REPORT FROM HOMEOWNER AND FOLLOW ALL REQUIREMENTS PERTAINING TO IRRIGATION AND LANDSCAPE INSTALLATION AND MAINTENANCE PRACTICES. IF THESE DRAWINGS ARE IN CONFLICT IN ANYWAY WITH THE REPORT, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY TO WORK OUT A RESOLUTION.

PROJECT CONTACTS

SHEET INDEX

LANDSCAPE ARCHITECT SAGE DESIGN GROUP 1500 SOUTH PEARL STREET #200 DENVER, COLORADO 80210 (303) 470-2855 CONTACT: STEFAN MCELROY STEFAN@SAGEDESIGNGROUP.COM OWNER: SHEA HOMES 9380 STATION ST, SUITE 600 LONE TREE, CO 80124 (303) 791-8180 CONTACT: SKYLER HAGER

SKYLER.HAGER@SHEAHOMES.COM

L-000 L-101 - L-112 L-201

COVER SHEET PLANTING PLAN LANDSCAPE DETAILS

RIDGEGATE SOUTHWEST VILLAGE FILING 1, R.O.W. LANDSCAPE PLANS

MAINTENANCE SPECIFICATIONS

(UNLESS OTHERWISE AGREED UPON CONTRACTUALLY BETWEEN OWNER AND CONTRACTOR).

GENERAL

A. WEEDING

- 1. WEEDS REPRESENT THE GREATEST THREAT TO SUCCESSFUL ESTABLISHMENT OF NEWLY LANDSCAPE AREAS. THEREFORE, A VIGOROUS, HIGH LEVEL OF WEED CONTROL IS NECESSARY TO MAINTAIN AN ATTRACTIVE, HEALTHY LANDSCAPE
- 2. SPOT CONTROL WEEDS BI-WEEKLY USING CHEMICAL AND/OR MECHANICAL MEANS. DO NOT SPRAY IN WINDY WEATHER. USE EXTRA CAUTION IN APPLICATION OF CHEMICALS TO PREVENT OVERSPRAY ONTO DESIRED PLANT MATERIAL
- 3. MECHANICAL MEANS ARE THE PREFERRED METHODS FOR REMOVAL OF WEEDS.
- 4. PLANTING BEDS SHALL BE INSPECTED BI-WEEKLY FOR WEEDS.
- 5. IF SPRAYING WEEDS, DEAD MATERIAL SHALL BE REMOVED FROM IMMEDIATELY SO AS NOT TO CREATE UNNECESSARY DEBRIS

B. NOXIOUS WEED CONTROL

REMOVE NOXIOUS WEEDS, AS DEFINED BY THE STATE OF COLORADO AND DOUGLAS COUNTY, FROM THE AREA WITHIN FIVE FEET OF THE PERIMETERS OF THE LANDSCAPED AREAS BY SPRAYING WITH AN APPROVED BROADLEAF HERBICIDE BY MAY 15TH AND OCTOBER 1 WITH SPOT APPLICATION AS REQUIRED. COST FOR SPOT APPLICATIONS, SHALL BE DONE ON A TIME AND MATERIAL BASIS PER THE CONTRACT DOCUMENTS

C. TREE MAINTENANCE

- 1. TRIM TREE LIMBS TO PREVENT ENCROACHMENT ON PEDESTRIAN OR VEHICULAR PATH.
- 2. MAINTAIN TENSIONED TREE GUYS. REPLACE ANY STAKES OR GUYS THAT MAY BECOME LOOSENED
- 3. REPLACE TREE WRAP WHERE APPLICABLE.
- 4. REMOVE STAKES AND GUYS AFTER 1 YEAR.

D. SHRUB MAINTENANCE

- 1. TRIM SHRUBS TO PREVENT PEDESTRIAN OR VEHICULAR CONFLICTS
- 2. REMOVE WEEDS INCLUDING ROOTS FROM SHRUB BEDS.
- IF BARE SOIL OR FILTER FABRIC IS VISIBLE WITHIN SHRUB BEDS, RE-APPLY MULCH PER DRAWINGS.
- 4. NO HERBICIDE TO BE USED IN SHRUB BEDS.

MOWING:

- 1. MOWING DURING MAINTENANCE PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. DO NOT BEGIN MOWING UNTIL THE BLUE GRASS SOD HAS HAD AT LEAST TEN (10) CONSECUTIVE DAYS FROM INSTALLATION TO ROOT INTO THE SOIL.
- 2. MOWING HEIGHT SHALL BE NO LESS THAN 2". MOW NEWLY SEEDED AREAS WHEN 75% OF GRASS REACHES 3" HEIGHT. TRIM BLUE GRASS SOD AROUND FOUNDATIONS. ROCKS, LIGHT POLES, FIRE HYDRANTS AND ANY OTHER OBJECTS WITHIN THE LAWN AREAS. DO NOT USE HERBICIDE AS A SUBSTITUTE FOR TRIMMING.

FERTILIZING:

1. APPLY FERTILIZER AFTER FIRST MOWING AND WHEN THE GRASS IS DRY. USE 10:6 OR EQUIVALENT AT RATE OF 1 LB. OF NITROGEN PER 1000 SQ. FT. OF LAWN AREA.

WATERING: F

- 1. TREES AND SHRUBS:WATER AREA SUFFICIENTLY TO MOISTEN SOIL THOROUGHLY AND IN SUCH A MANNER AS TO AVOID EROSION. COMMENCE WATERING ON THE DAY OF INSTALLATION AND CONTINUE AS NEEDED.
- 2. BLUE GRASS SOD: WATER NEW LAWN AREA SUFFICIENTLY TO MOISTEN SOIL THOROUGHLY AND IN SUCH A MANNER AS TO AVOID EROSION. COMMENCE WATERING ON THE DAY OF INSTALLATION AND CONTINUE AS NEEDED.
- 3. PROVIDE AND MAINTAIN TEMPORARY PIPING, HOSES AND LAWN WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP ALL PLANTED AREAS UNIFORMLY MOIST AS REQUIRED FOR PROPER GROWTH.

	(UNLESS OTHERW
1.	SUBMIT 1 YEAR MA
2.	EDGE OF ALL TUR
3.	(4) FOUR WINTER \
4.	MANICURED TURF
5	PERENNIALS AND

- PLANTING BEDS SHALL BE WEEDED BI-WEEKLY.
- TURF IN APRIL.



MAINTENANCE SCHEDULE

/ISE AGREED UPON CONTRACTUALLY BETWEEN OWNER AND CONTRACTOR).

AINTENANCE SCHEDULE TO OWNER AT FINAL ACCEPTANCE WALK. F AREAS WITH A STEEL BLADED EDGER ADJACENT TO WALKS AND DRIVEWAYS TWICE A MONTH DURING GROWING SEASON

WATERING'S ON ALL TREES AND EVERGREEN SHRUBS. AREAS SHALL BE FERTILIZED TWICE YEARLY IN APRIL AND SEPTEMBER.

PERENNIALS AND ORNAMENTAL GRASSES SHALL BE CUT BACK ONCE ANNUALLY IN SPRING (TYPICALLY MARCH).

7. TREES AND SHRUBS SHALL BE FERTILIZED ONCE ANNUALLY IN THE SPRING. THIS CAN BE CONCURRENT WITH FERTILIZATION OF THE MANICURED

8. TRASH SHALL BE REMOVED FROM THE SITE ON A WEEKLY BASIS. WEEKLY IRRIGATION SYSTEM CHECK, SPRING START UP, MAINTENANCE, WINTERIZATION, & WATER MANAGEMENT



	RIDGEGATE SOUTHWEST VILLAGE PHASE 1 COLLECTOR ROADS	
	Ridge Gate	Lone Tree, Colorado
	SAGE DESIGN GROUP LANDSCAPE ARCHITECTURE SITE PLANNING LANDSCAPE ARCHITECTURE SITE PLANNING 1500 South Pearl SL 203.170 2855 (A) 203.170 SB0.46	11100:dnoibilbisanaberswaw (1) 7607:074:000 (d) 0007:074:000
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RIDGEGATE SOUTHWEST VILLAGE PHASE 1

RIDGEGATE SOUTHWEST VILLAGE PHASE 1



LANDSCA	APE PLANT LIST		
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION
DECIDUC	US STREET TREES	3	
		_	
AME	AUTUMN BLAZE MAPLE	ACER X FREEMANII 'AUTUMN BLAZE'	2 1/2" CAL. B&B
ENO	HERITAGE OAK	QUERCUS X MACDANIELII 'CLEMONS'	2 1/2" CAL. B&B
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B SUBTOTAL:
DECIDUO	JS ORNAMENTAL TR	EES	
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B
			SUBTOTAL:
DECIDUO	JS SHRUBS		
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.
KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.
RUS	RUSSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT.
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.
RGB	ROSY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.
GFS	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.
EVERGRE	EN AND BROADLEAF	SHRUBS	
BRJ	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONII'	5 GAL CONT.
MAP	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT.
ORNAMEN	ITAL GRASSES		
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL FORESTER'	5 GAL CONT.

NOTE - PLANT QUANTITIES ARE FOR CONTRACTOR CONVENIENCE ONLY. QUANTITIES SHOWN ON PLAN SHALL PREVAIL

NOTE - SIGHT LINE REQUIREMENTS:

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└LIMITS OF WORK

 DECIDUOUS TREES ONLY ALLOWED IN SIGHT TRIANGLE.
 NO PLANTS BETWEEN 24"-84" FROM THE FLOWLINE
 TREE CANOPY NO LOWER THAN 7' WITHIN SIGHT TRIANGLE OR OVER SIDEWALK.

4. TREE CANOPY OVER STREET NO LOWER THAN 14'.









CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



EDGER, SEE DETAIL '3', SHEET L-201, TY

-8 FRG -LIMITS OF WORK

				RIDGEGATE SOUTHWEST VILLAGE PHASE 1
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SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION	
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ENO	HERITAGE OAK	QUERCUS X MACDANIELII 'CLEMONS'	2 1/2" CAL. B&B	BN ING er, Co sagedé
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			SUBTOTAL:	ARCHITE ARCHITE and St 303.4
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PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.	LAND 00 So 1470.2
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.	303.
RUS	RUSSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT. 5 GAL CONT.	
PBS MKL	PAWNEE BUTTES SAND CHERRY LILAC 'MISS KIM'	PRUNUS BESSEYI 'PAWNEE BUTTES' SYRINGA PATULA 'MIS KIM'	5 GAL CONT. 5 GAL CONT.	ALL DRAWN AND WRITTEN INFORMATION APPEARINGHEREIN SHALL NOT BE DUPLICATED, DISCLOSED OR OTHERWISE USED WITHOUT THE
RGB	ROSY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.	WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.
GFS	GULUFLAME SPIREA	SMIKAEA X BUMALDA 'GOLDFLAME'	D GAL JUNI.	DRAWN BY: KF
/ERGRE	EN AND BROADLEAF	SHRUBS		CHECKED BY:
יחם			5 GAL CONT	
ықј МАР	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT.	
RNAMEN	ITAL GRASSES			
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.	
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ROVE	R SIDEWALK.			DATE: 3/12/21
TREE	CANOPY OVER	STREET NO LOWER TH	HAN 14'.	SHEET TITLE:
				PLANTING PLAN
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			COLORADO 81	L-102
			NORTH SCALE: 1" = 20'	
			CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	VILLAGE PHASE 1

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AME	AUTUMN BLAZE MAPLE	ACER X FREEMANII 'AUTUMN BLAZE'	2 1/2" CAL. B&B	
ENO IPH	HERITAGE OAK	QUERCUS X MACDANIELII 'CLEMONS' GI EDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B 2 1/2" CAL. B&B	UING Mer, (C
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				Orace Construction Orace Ora
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B	AG 33.47
			SUBTOTAL:	S/ Pearl (p) 3(
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PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.	LAN 00 SA0
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.	303.
KOR RUS	KNUCK OUT ROSE RUSSIAN SAGE	KUSA 'KAUKAZZ' PEROVSKIA ARTIPI ICIFOI IA	5 GAL CONT. 5 GAL CONT.	
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.	
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.	DISCLOSED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.
RGB GFS	KUSY GLOW BARBERRY GOLDFLAME SPIRFA	BERBERIS THUNBERGII 'ROSY GLOW' SPIRAEA X BUMALDA 'GOI DEI AME'	5 GAL CONT. 5 GAL CONT.	
-				DRAWN BY: KF
ERGRI	EEN AND BROADLEA	F SHRUBS		CHECKED BY:
BRJ	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONII'	5 GAL CONT.	
MAP	MANZITA PANCHITO	AKUTUSTAPHYLOS 'PANCHITO'	5 GAL CUNT.	
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FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.	
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E - PLANT (QUANTITIES ARE FOR CONTRACT	OR CONVENIENCE ONLY.		
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	R SIDEWALK.			DATE: 3/12/21
TREE	CANOPY OVER	STREET NO LOWER T	HAN 14'.	SHEET TITLE:
_				PLANTING PLAN
				SHEET NO. :
			COLORADO 81.	L-102

	RIDGEGATE SOUTHWEST VILLAGE PHASE 1
LIMITS OF WORK	HOMES ^W 9380 Station Street, Suite 600 Lone Tree, Colorado 80124 (303) 791-8180
FRG 3 RGB WOOD MULCH SKOR WOOD MULCH SKOR WOOD MULCH SKOR WOOD MULCH SKOR WOOD MULCH SKOR S	RIDGEGATE SOUTHWEST VILLAGE FILING 1, R.O.W. LANDSCAPE PLANS
EDGER. SEE DETAIL 3', SHEET L-201, TYP.	Ridge Gate Lone Tree, Colorado
LANDSCAPE PLANT LIST SYMBOL COMMON NAME BOTANICAL NAME SIZE & CONDITION DECIDUOUS STREET TREES	ROUP ado 80210 Ingroup.com
AMEAUTUMN BLAZE MAPLEACER X FREEMANII 'AUTUMN BLAZE'2 1/2" CAL. B&BENOHERITAGE OAKQUERCUS X MACDANIELII 'CLEMONS'2 1/2" CAL. B&BIPHIMPERIAL HONEYLOCUSTGLEDITSIA TRIACANTHOS INERMIS 'INERMIS'2 1/2" CAL. B&B	GNGI ANNING ENT Nver, Colora <i>M</i> .sagedesigi
SUBTOTAL:	DESI SITE PLA 34 (f) WW1
TAT TATARIAN MAPLE ACER TATARICUM 2" CAL. B&B	GEL TECTURE St. Suite 3.470.289
SUBTOTAL:	SAPE ARCHIT h Pearl (55 (p) 303
PBP PINK BEAUTY POTENTILLA POTENILLA FRUTICIOSA 'QUI DROP 5 GAL CONT. GDP GUIL DROP POTENTILLA POTENILLA FRUTICIOSA' QUI DROP 5 GAL CONT. KOR KNOCK OUT ROSE ROSA RADRAZZ 5 GAL CONT. RUS RUSSINN SAGE PEROVISKIA ARTIPLICIOSA' QUI DIPOLIP 5 GAL CONT. PBS PAINNEE BUTTES SAND OHERY PEROVISKIA ARTIPLICIOSA' QUI DIPOLIP 5 GAL CONT. PBS PAINNEE BUTTES SAND OHERY PEROVISKIA ARTIPLICIOSA' QUI DIPOLIP 5 GAL CONT. RGB ROSQ GLOW BARBERRY BERBERIS HUNBERGIS ROSY GLOW 5 GAL CONT. GFB GOLDFLAME SPREA SPREALS BUMALIA 'GOLDFLAME' 5 GAL CONT. GFB GOLDFLAME SPREA SPREALS BUMALIA' GOLDFLAME' 5 GAL CONT. GFB BULE RUG JUNPER JUNPERUS HORIZONTALIS 'WILTONI' 5 GAL CONT. MAP MANZITA PANCHITO JUNPERUS HORIZONTALIS 'WILTONI' 5 GAL CONT. MAP MANZITA PANCHITO JUNPERUS HORIZONTALIS 'WILTONI' 5 GAL CONT. MAP MANZITA PANCHITO ARTOSTIS X ACUTIFLORA KARL 5 GAL CONT. FOR FEATHERED REED GRASS DLAMAROSTIS X ACUTIFLORA KARL 5 GAL CONT. <t< td=""><td>ALL DRAWN AND WRITTEN INFORMATION APPEARINGHEREIN SHALL NOT BE DUPLICATED, DISCLOSED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.</td></t<>	ALL DRAWN AND WRITTEN INFORMATION APPEARINGHEREIN SHALL NOT BE DUPLICATED, DISCLOSED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.
NOTE - SIGHT LINE REQUIREMENTS: 1. DECIDUOUS TREES ONLY ALLOWED IN SIGHT TRIANGLE. 2. NO PLANTS BETWEEN 24"-84" FROM THE FLOWLINE 3. TREE CANOPY NO LOWER THAN 7' WITHIN SIGHT TRIANGLE OR OVER SIDEWALK. 4. TREE CANOPY OVER STREET NO LOWER THAN 14'. $\widehat{\text{NREE CANOPY OVER STREET NO LOWER THAN 14'.}$	REVISION RECORD NO. CHANGE DATE DATE: J/12/21 DATE: 3/12/21 SHEET TITLE: PLANTING PLAN SHEET NO. : L-102

		ST ST	RIDGEGATE SOUTHWEST VILLAGE PHASE 1
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			Ridge Gote Lone Tree, Colorado
CAPE PLANT LIST L COMMON NAME JOUS STREET TREE	BOTANICAL NAME	SIZE & CONDITION	OUP.com
AUTUMN BLAZE MAPLE HERITAGE OAK IMPERIAL HONEYLOCUST	ACER X FREEMANII 'AUTUMN BLAZE' QUERCUS X MACDANIELII 'CLEMONS' GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B 2 1/2" CAL. B&B 2 1/2" CAL. B&B	IGN GR ENTITLE ENVER, Colorado MW.sagedesigngr
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TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B	St. Suite
OUS SHRUBS		SUBTOTAL:	SA Pearl 5 (p) 300
PINK BEAUTY POTENTILLA GOLD DROP POTENTILLA KNOCK OUT ROSE RUSSIAN SAGE PAWNEE BUTTES SAND CHERRY LILAC 'MISS KIM' ROSY GLOW BARBERRY GOLDFLAME SPIREA	POTENILLA FRUTICOSA 'PINK BEAUTY' POTENILLA FRUTICOSA 'GOLD DROP' ROSA 'RADRAZZ' PEROVSKIA ARTIPLICIFOLIA PRUNUS BESSEYI 'PAWNEE BUTTES' SYRINGA PATULA 'MIS KIM' BERBERIS THUNBERGII 'ROSY GLOW' SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT. 5 GAL CONT.	ALL DRAWN AND WRITTEN INFORMATION APPEARINGHEREIN SHALL NOT BE DUPLICATED, DISCLOSED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.
REEN AND BROADLEAF	SHRUBS		
BLUE RUG JUNIPER MANZITA PANCHITO	JUNIPERUS HORIZONTALIS 'WILTONII' ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT. 5 GAL CONT.	
ENTAL GRASSES			
FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL FORESTER'	5 GAL CONT.	
T QUANTITIES ARE FOR CONTRACTO SHOWN ON PLAN SHALL PREVAIL	OR CONVENIENCE ONLY.		
- SIGHT LINE REQ IDUOUS TREES O PLANTS BETWEEN E CANOPY NO LO ER SIDEWALK. E CANOPY OVER	UIREMENTS: NLY ALLOWED IN SIGH V24"-84" FROM THE FL WER THAN 7' WITHIN S STREET NO LOWER TH	IT TRIANGLE. OWLINE BIGHT TRIANGLE IAN 14'.	REVISION RECORD NO. CHANGE DATE I I I
		NORTH 0 10 20 40 SCALE: 1" = 20'	SHEET NO. : L-102

	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION	
AME	AUTUMN BLAZE MAPLE	ACER X FREEMANII 'AUTUMN BLAZE'	2 1/2" CAL. B&B	
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B SUBTOTAL:	
CIDUC	OUS ORNAMENTAL TR	EES		
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B SUBTOTAL:	
CIDUC	OUS SHRUBS			
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT. 5 GAL CONT	
KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.	
PBS	PAWNEE BUTTES SAND CHERRY	PROVSKIA ARTIPLICIPOLIA PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.	
MKL RGB	LILAC 'MISS KIM' ROSY GLOW BARBERRY	SYRINGA PATULA 'MIS KIM' BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT. 5 GAL CONT.	
GFS			5 GAL CONT.	
<u>ERGRI</u>				
MAP	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT. 5 GAL CONT.	
RNAME	NTAL GRASSES			
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL FORESTER'	5 GAL CONT.	
E - PLANT	QUANTITIES ARE FOR CONTRACTO	OR CONVENIENCE ONLY.		
ANTITIES SH	HOWN ON PLAN SHALL PREVAIL			3 ENO
FC				
				3 AME
	STREET LIGHTS			
殿	FIRE HYDRANT			
	SIGHT LINE			
\sim	EDGER			
	CRUSHER FINES	3		
			SIGHT LINE	
	SOD			
	RIVER ROCK MU	JLCH		
•	DECIDUOUS TRI	ΞE		
\checkmark	/			
\cdot	ORNAMENTAL T	REE		
$\frac{2}{2}$	DECIDUOUS SHI	RUBS		
\mathcal{N}	EVERGREEN SH			
$\hat{}$	ORNAMENTAL C	RASSES		
\bigcirc			SCORED CONCRETE	
			WOOD WOOD	D MULCH 9 GDP
				2 MAP 6 MAP
			RIVER ROCK MULCH	6 FRG
			CRUSHER FINES, SEE DETAIL '4', SHEET L-201,	
			4 MAP-	-3 MKL
	2 AWL CHART	SOD SOD	WOOD MULCH	-2 TAT
/			9 GDP - X	
				'S', SHEET L-201, TYP.
	X		8 FRG	3 MKL
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	The A			
	UXXX IN			







LANDSCA	PE PLANT LIST			RIDGEGATE SOUTHWEST
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION	
AME ENO IPH	AUTUMN BLAZE MAPLE HERITAGE OAK IMPERIAL HONEYLOCUST	ACER X FREEMANII 'AUTUMN BLAZE' QUERCUS X MACDANIELII 'CLEMONS' GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B 2 1/2" CAL. B&B 2 1/2" CAL. B&B	124 00 N
		EES	SUBTOTAL:	aet, Suli
				a) 791
		ACER TATARICUM	2" CAL. B&B SUBTOTAL:	80 Stat
	<u>S SHKUBS</u>			T 8. J
PBP GDP KOR RUS PBS MKL RGB GFS	PINK BEAUTY POTENTILLA GOLD DROP POTENTILLA KNOCK OUT ROSE RUSSIAN SAGE PAWNEE BUTTES SAND CHERRY LILAC 'MISS KIM' ROSY GLOW BARBERRY GOLDFLAME SPIREA	POTENILLA FRUTICOSA 'PINK BEAUTY' POTENILLA FRUTICOSA 'GOLD DROP' ROSA 'RADRAZZ' PEROVSKIA ARTIPLICIFOLIA PRUNUS BESSEYI 'PAWNEE BUTTES' SYRINGA PATULA 'MIS KIM' BERBERIS THUNBERGII 'ROSY GLOW' SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT. 5 GAL CONT.	
EVERGREE	N AND BROADLEAF	SHRUBS		LSI N.
				NNS NNS
МАР	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT. 5 GAL CONT.	1, F
ORNAMEN	TAL GRASSES			
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.	
		FORESTER'		E F OSC
NOTE - PLANT QUA	ANTITIES ARE FOR CONTRACTO VN ON PLAN SHALL PREVAIL	R CONVENIENCE ONLY.		
NOT				
1. D	ECIDUOUS TRE	ES ONLY ALLOWED IN	I SIGHT TRIANGLE.	
2. N	O PLANTS BET	WEEN 24"-84" FROM TH	HE FLOWLINE	
3. T OR	OVER SIDEWAL	.K.	THIN SIGHT TRIANGLE	
4. T	REE CANOPY C	VER STREET NO LOW	/ER THAN 14'.	
SE		HLINE "F" THIS	S SHEET	
				D210
				NTITLEME rado 8(igngrou
				ING E Colo
				E DE uite 200
		SOD SOD	MAL	AGE HITECTU
	SOD		SIGHT LINE	Scape are 355 (p) 3
				LAND 500 So
				3054
				ALL DRAWN AND WRITTEN INFORMATION APPEARINGHEREIN SHALL NOT BE DUPLICATED,
SIDE				DISCLOSED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.
				DRAWN BY: KF
		J		CHECKED BY:
		SCORED CONCRETE	TOCATA	
			TRAI	
		+		
				NO. CHANGE DATE
IASE 1				
	LIMIT OF			DATE: 3/12/21
	-			SHEET TITLE:
				PLANTING PLAN
		0 10 20 4	0	SHEET NO. :
			COLORADO OTI	
	NORTH	SCALE: 1" - 20'	KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.	
	NORTH	UUTLL I = 20	CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	RIDGEGATE SOUTHWEST VILLAGE PHASE 1

TLIMIT OF WORF LIMITS OF WORK HASE SCORED CONCRETE li | | | NOTE - SIGHT LINE REQUIREMENTS: 1. DECIDUOUS TREES ONLY ALLOWED IN SIGHT TRIANGLE. 2. NO PLANTS BETWEEN 24"-84" FROM THE FLOWLINE 3. TREE CANOPY NO LOWER THAN 7' WITHIN SIGHT TRIANGLE OR OVER SIDEWALK. 4. TREE CANOPY OVER STREET NO LOWER THAN 14'. LANDSCAPE PLANT LIST SYMBOL COMMON NAME BOTANICAL NAME SIZE & CONDITION DECIDUOUS STREET TREES ACER X FREEMANII 'AUTUMN BLAZE' 2 1/2" CAL. B&B AME AUTUMN BLAZE MAPLE 2 1/2" CAL. B&B ENO HERITAGE OAK QUERCUS X MACDANIELII 'CLEMONS' IPH IMPERIAL HONEYLOCUST GLEDITSIA TRIACANTHOS INERMIS 'INERMIS' 2 1/2" CAL. B&B SUBTOTAL: DECIDUOUS ORNAMENTAL TREES TAT TATARIAN MAPLE ACER TATARICUM 2" CAL. B&B SUBTOTAL: DECIDUOUS SHRUBS 5 GAL CONT. POTENILLA FRUTICOSA 'PINK BEAUTY' PBP PINK BEAUTY POTENTILLA POTENILLA FRUTICOSA 'GOLD DROP' 5 GAL CONT. GOLD DROP POTENTILLA GDP KNOCK OUT ROSE ROSA 'RADRAZZ' 5 GAL CONT. KOR PEROVSKIA ARTIPLICIFOLIA 5 GAL CONT. RUS RUSSIAN SAGE PAWNEE BUTTES SAND CHERRY PRUNUS BESSEYI 'PAWNEE BUTTES' 5 GAL CONT. PBS 5 GAL CONT. MKL LILAC 'MISS KIM' SYRINGA PATULA 'MIS KIM' 5 GAL CONT. RGB ROSY GLOW BARBERRY BERBERIS THUNBERGII 'ROSY GLOW' GOLDFLAME SPIREA SPIRAEA X BUMALDA 'GOLDFLAME' 5 GAL CONT. GFS

EVERGREEN AND BROADLEAF SHRUBS

BRJ	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONII'	5 GAL CON
MAP	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CON

ORNAMENTAL GRASSES

FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.
		FORESTER'	

NOTE - PLANT QUANTITIES ARE FOR CONTRACTOR CONVENIENCE ONLY. QUANTITIES SHOWN ON PLAN SHALL PREVAIL



AME	JU JINLLI IKEE	S		
AME				
ENO	AUTUMN BLAZE MAPLE		2 1/2" CAL. B&B	
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2 CAL. B&B 2 1/2" CAL. B&B	i.
			SUBTOTAL:	4.
DECIDUOU	JS ORNAMENTAL TR	EES		
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B	× Ki
			SUBTOTAL:	
DECIDUOU	JS SHRUBS			
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.	NS
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.	HIN A
KOR RUS	KNOCK OUT ROSE RUSSIAN SAGE	ROSA 'RADRAZZ' PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT. 5 GAL CONT.	
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.	
MKL RGB	LILAC 'MISS KIM' ROSY GLOW BARBERRY	SYRINGA PATULA 'MIS KIM' BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT. 5 GAL CONT.	
GFS	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.	
EVERGREE	EN AND BROADLEAF	SHRUBS		
BRJ	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONII'	5 GAL CONT.	
MAP	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT.	
DRNAMEN	TAL GRASSES			
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.	
		FORESTER'		
OTE - PLANT QU	JANTITIES ARE FOR CONTRACTO	R CONVENIENCE ONLY.		EDGER, SEE DETAIL '3', SHEET L-201, TYP.
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	R SIDEWALK. CANOPY OVER S	STREET NO LOWER TH	AN 14'.	RH SIDEWALK





AME		S		
AME				
ENO	AUTUMN BLAZE MAPLE HERITAGE OAK	ACER X FREEMANII 'AUTUMN BLAZE' QUERCUS X MACDANIELII 'CLEMONS'	2 1/2" CAL. B&B 2 1/2" CAL. B&B	
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B	
DECIDUO	US ORNAMENTAL TR	EES	SUDI UTAL:	
ΤΔΤ	ΤΑΤΑΡΙΑΝ ΜΑΡΙ Ε			
			SUBTOTAL:	
DECIDUO	<u>US SHRUBS</u>			
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.	
GDP KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT. 5 GAL CONT.	
RUS	RUSSIAN SAGE		5 GAL CONT.	
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.	
RGB GFS	ROSY GLOW BARBERRY GOLDFLAME SPIREA	BERBERIS THUNBERGII 'ROSY GLOW' SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT. 5 GAL CONT.	
	EN AND BROADLEAF	SHRUBS		
BRJ MAP	BLUE RUG JUNIPER MANZITA PANCHITO	JUNIPERUS HORIZONTALIS 'WILTONII' ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT. 5 GAL CONT.	
	ITAL GRASSES			
			5 GAL CONT	
FKG	I LATTIERED REED GKASS	FORESTER'	J GAL CUNT.	
OTE - PLANT Q	UANTITIES ARE FOR CONTRACTO	R CONVENIENCE ONLY.		
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EDC '3', S SOL	SER, SEE DETAIL HEET L-201, TYP. WOOD MU EDGER '3', SHE 4 MA 5 RUS 5 RUS 12 FRG-	ALCH 8 FRG SEE DETAIL ET L.201, TYP. 1 TAT 1 GDP 1 G	HIS SHEET K'	
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RIDGEGATE SOUTHWEST

VILLAGE PHASE 1

CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

 NORTH
 SCALE: 1" = 20'



	COMMON NAME	BOTANICAL NAME	SIZE & CONDITIO
DECIDU	OUS STREET TREES	S	
AME	AUTUMN BLAZE MAPLE	ACER X FREEMANII 'AUTUMN BLAZE'	2 1/2" CAL. B&B
ENO	HERITAGE OAK	QUERCUS X MACDANIELII 'CLEMONS'	2 1/2" CAL. B&B
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B SUBTOTAL:
DECIDUO	US ORNAMENTAL TR	EES	
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B
			SUBTOTAL:
DECIDUO	US SHRUBS		
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.
KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.
RUS	RUSSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT.
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.
RGB	ROSY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.
GFS	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.
EVERGR	EEN AND BROADLEAF	SHRUBS	
BRJ	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONII'	5 GAL CONT.
BRJ MAP	BLUE RUG JUNIPER MANZITA PANCHITO	JUNIPERUS HORIZONTALIS 'WILTONII' ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT. 5 GAL CONT.
brj Map ORNAME	BLUE RUG JUNIPER MANZITA PANCHITO NTAL GRASSES	JUNIPERUS HORIZONTALIS 'WILTONII' ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT. 5 GAL CONT.



LANDSCA	APE PLANT LIST				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION		
DECIDUC	US STREET TREES	S			
		<u> </u>			
AME	ALITLIMN BLAZE MAPLE	ACER X EREEMANII 'AUTUMN BI AZE'	2 1/2" CAL B&B		
ENO		OUERCUS X MACDANIEL II 'CLEMONS'	2 1/2" CAL B&B		12-18
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL, B&B		
			SUBTOTAL:		
		FF0		VOTEAVE	100
DECIDUOL	JS ORNAMENTAL TR	EES			LATX1
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B		
			SUBTOTAL:		
DECIDUOL	JS SHRUBS				
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.		X106
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.		
KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.		
RUS	RUSSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT.		
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.		B Month Month And
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.		
RGB	ROSY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.		
GFS	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.		
				POTTSTROAD	
		311(003		L- 19 4	
BRJ			5 GAL CONT.		
MAP	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT.		
ORNAMEN	ITAL GRASSES				
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.		
		FORESTER'			
NOTE - PLANT QU	JANTITIES ARE FOR CONTRACTO	OR CONVENIENCE ONLY.			

QUANTITIES SHOWN ON PLAN SHALL PREVAIL

NOTE - SIGHT LINE REQUIREMENTS:

1. DECIDUOUS TREES ONLY ALLOWED IN SIGHT TRIANGLE.

- 2. NO PLANTS BETWEEN 24"-84" FROM THE FLOWLINE
- 3. TREE CANOPY NO LOWER THAN 7' WITHIN SIGHT TRIANGLE
- OR OVER SIDEWALK.
- 4. TREE CANOPY OVER STREET NO LOWER THAN 14'.





PI ANT LIST		
	BOTANICAL NAME	SIZE & CONDITION
	2	
SIREELIKEE	5	
ΓΙΙΜΝ ΒΙ ΑΖΕ ΜΑΡΙ Ε	ACER X EREEMANII 'AI ITI IMN BI AZE'	2 1/2" CAL B&B
	QUERCUS X MACDANIELII 'CLEMONS'	2 1/2" CAL. B&B
ERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS'	2 1/2" CAL. B&B
		SUBTOTAL:
ONIAMENITAL TO	EEQ	
ARIAN MAPLE	ACER TATARICUM	2" CAL. B&B
		SUBTOTAL:
SHRUBS		
Κ ΒΕΔΙΙΤΥ ΡΩΤΕΝΤΙΙ Ι Δ	POTENII I A FRUTICOSA 'PINK REAUTY'	5 GAL CONT
		5 GAL CONT
DCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.
SSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT.
VNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.
AC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.
SY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.
_DFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.
AND BROADLEAF	SHKUBS	
IE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WII TONII'	5 GAL CONT
	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT
GRASSES		
		5 GAL CONT
	FORESTER'	J OAL CONT.

NOTE - PLANT QUANTITIES ARE FOR CONTRACTOR CONVENIENCE ONLY.

NOTE - SIGHT LINE REQUIREMENTS:

1. DECIDUOUS TREES ONLY ALLOWED IN SIGHT TRIANGLE. 2. NO PLANTS BETWEEN 24"-84" FROM THE FLOWLINE 3. TREE CANOPY NO LOWER THAN 7' WITHIN SIGHT TRIANGLE OR OVER SIDEWALK.

MATCHILI.

4. TREE CANOPY OVER STREET NO LOWER THAN 14'.









SANITAR

JUT(N) 18" PVC

 $\vee IN(S) 18$ PVC

LIMITS OF WORK

EDGER, SEE DETAIL – '3', SHEET L-201, TYP.







LIGHTS DECIDUOUS STREET TREES PRANT AME AUTUMN BLAZE MAPLE ACER X FREEMANII 'AUTUMN BLAZE' 21/2 ENO HERITAGE OAK QUERCUS X MACDANIELII 'CLEMONS' 21/2 IPH IMPERIAL HONEYLOCUST GLEDITSIA TRIACANTHOS INERMIS 'NERMIS' 21/2 SU DECIDUOUS ORNAMENTAL TREES TAT TATARIAN MAPLE ACER TATARICUM 2" SI	/2" CAL. B&B /2" CAL. B&B /2" CAL. B&B UBTOTAL:
AME AUTUMN BLAZE MAPLE ACER X FREEMANII 'AUTUMN BLAZE' 2 1/2 ENO HERITAGE OAK QUERCUS X MACDANIELII 'CLEMONS' 2 1/2 IPH IMPERIAL HONEYLOCUST GLEDITSIA TRIACANTHOS INERMIS 'INERMIS' 2 1/2 SL DECIDUOUS ORNAMENTAL TREES TAT TATARIAN MAPLE ACER TATARICUM 2"	(2" CAL. B&B (2" CAL. B&B (2" CAL. B&B UBTOTAL:
AME AUTUMN BLAZE MAPLE ACER X FREEMANII 'AUTUMN BLAZE' 2 1/2 ENO HERITAGE OAK QUERCUS X MACDANIELII 'CLEMONS' 2 1/2 IPH IMPERIAL HONEYLOCUST GLEDITSIA TRIACANTHOS INERMIS 'INERMIS' 2 1/2 NE DECIDUOUS ORNAMENTAL TREES SU TAT TATARIAN MAPLE ACER TATARICUM 2"	/2" CAL. B&B /2" CAL. B&B /2" CAL. B&B UBTOTAL:
TAT TATARIAN MAPLE ACER TATARICUM 21/2	/2" CAL. B&B /2" CAL. B&B UBTOTAL:
IPH IMPERIAL HONEYLOCUST GLEDITSIA TRIACANTHOS INERMIS 'INERMIS' 2 1/2 SL DECIDUOUS ORNAMENTAL TREES TAT TATARIAN MAPLE ACER TATARICUM 2"	/2" CAL. B&B UBTOTAL:
SL <u>DECIDUOUS ORNAMENTAL TREES</u> TAT TATARIAN MAPLE ACER TATARICUM 2" SL	UBTOTAL:
DECIDUOUS ORNAMENTAL TREES	
TAT TATARIAN MAPLE ACER TATARICUM 2"	
	CAL B&B
	0010111
PBP PINK BEAUTY POTENTILLA POTENILLA FRUTICOSA 'PINK BEAUTY' 5 G	GAL CONT.
GDP GOLD DROP POTENTILLA POTENILLA FRUTICOSA 'GOLD DROP' 5 G	GAL CONT.
KOR KNOCK OUT ROSE ROSA 'RADRAZZ' 5 G	GAL CONT.
RUS RUSSIAN SAGE PEROVSKIA ARTIPLICIFOLIA 5 G	GAL CONT.
DCK MULCH PBS PAWNEE BUTTES SAND CHERRY PRUNUS BESSEYI 'PAWNEE BUTTES' 5 G	GAL CONT.
MKL LILAC 'MISS KIM' SYRINGA PATULA 'MIS KIM' 5 G	GAL CONT.
RGBROSY GLOW BARBERRYBERBERIS THUNBERGII 'ROSY GLOW'5 G	GAL CONT.
GFS GOLDFLAME SPIREA SPIRAEA X BUMALDA 'GOLDFLAME' 5 G	GAL CONT.
US TREE	
EVERGREEN AND BROADLEAF SHRUBS	
	GAL CONT
INIAL IINEL MAP MARZITA PANCHITO ARCTOSTAPHYLOS 'PANCHITO' 5 G	GAL CONT
US SHRUBS ORNAMENTAL GRASSES	
FRG FEATHERED REED GRASS CALAMAROSTIS X ACUTIELORA "KARL 5.G	GAL CONT
FORESTER'	

NOTE - SIGHT LINE REQUIREMENTS:

-EDGER, SEE DETAIL '3', SHEET L-201, TYP./

- 1. DECIDUOUS TREES ONLY ALLOWED IN SIGHT TRIANGLE.
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4. TREE CANOPY OVER STREET NO LOWER THAN 14'.

LIMIT OF WORK

RIVER







NOM MA



12" NYLON TREE STRAP ON GUY WIRE AND AROUND TREE TRUNK.

- 1/2 " DIA. WHITE PVC PIPE SECTION ON ENTIRE

LENGTH OF EACH WIRE.

WRAP ENTIRE SURFACE OF TRUNK TO SECOND BRANCH WITH SPECIFIED TREE WRAP MATERIAL SECURED WITH ELECTRICAL TAPE, NOT TWINE AT TOP AND BOTTOM & AT 2-FT. INTERVALS. WRAP OCT 15 AND REMOVE BY MARCH 31.

WOOD POSTS OR APPROVED EQUAL

#10 GUY WIRE, DOUBLE STRAND TWISTED. SET ROOT COLLAR 4" HIGHER THAN GRADE AT WHICH TREE GREW.

48" CIRCLE OF SHREDDED BARK MULCH (4"-6" DEEP) AROUND BASE OF TREES IN GRASS AREAS. KEEP MULCH BACK FROM TREE TRUNK.

REMOVE ALL TWINE, BURLAP AND TOP $\frac{2}{3}$ OF WIRE BASKET AFTER THE TREE IS SET IN PLACE.

FORM SAUCER AROUND EDGE OF TREE PIT. NO WATERING SAUCERS IN IRRIGATED TURF AREAS.

SLOPE SIDES OF PIT AS SHOWN. ROUGHEN SIDES

PRIOR TO BACKFILLING. SPECIFIED BACKFILL MIXTURE

FINISH GRADE

UNDISTURBED SUBGRADE

GRASS MOUND, 4:1 SLOPE.

4" HIGHER THEN SURROUNDING GRADE. ESTABLISH ROOT COLLAR AS GROWN AT NURSERY.

PRUNE ALL DAMAGED OR DEAD WOOD AFTER

DECIDUOUS TREE DETAIL

PLANTING AND MULCHING.

- PLACE TOP OF ROOT BALL 2" ABOVE FINISH GRADE

ALL TREES SHALL BE SET AT FINAL GRADE

STAKE TO EXTEND MIN. 24" INTO UNDISTURBED SOIL

REJECTED. REMOVING THE WIRE WILL NOT BE AN EXCUSE FOR DAMAGED ROOTBALLS. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING. TREES SHOULD BE PLANTED THE SAME DAY AS DELIVERED TO THE SITE.

1. ANY BROKEN OR CRUMBLING ROOTBALL WILL BE

NORTH

3. REPLACE ALL PIT EXCAVATION WITH THE FOLLOWING BACKFILL:

BRACE DETAIL

NOTES:

CLASS I, SUBMIT TESTING CERTIFICATE.

 TOPSOIL TO BE CLEAN, NEUTRAL PH AND HAVE NO FOREIGN MATERIALS OR CONTAMINATES.

- 50% PLANTER MIX / 50% COMPOST OR PREPARED PLANTER MIX OR 75% IMPORTED TOPSOIL / 25% PREPARED PLANTER MIX. SUBMIT PROPOSED BACKFILL TO OWNERS REPRESENTATIVE FOR APPROVAL BEFORE PLANTING.
- DO NOT INCLUDE FERTILIZER FOR NEWLY PLANTED TREES UNLESS DIRECTED BY OWNERS REPRESENTATIVE.
- COORDINATE IRRIGATION AND TREE PLANTINGS IN SOD AREAS. IRRIGATE IN MORE APPLICATIONS IN LESSER AMOUNTS. PREVENT OVER WATERING.
- CONTACT OWNERS REPRESENTATIVE IF NEEDED. NO WATERING SAUCERS IN IRRIGATED TURF AREAS SUPPLEMENTAL HAND WATERING WILL BE REQUIRED DURING ESTABLISHMENT PERIOD AND PERSONNEL MUST BE ONSITE TO INSURE NEWLY PLANTED TREES GET ENOUGH WATER WERE NEEDED. COORDINATE WITH OWNERS REPRESENTATIVE TO MEET ALL WATERING ISSUES AND ESTABLISH BEST MAINTENANCE PRACTICES. CONSTANT VIGILANCE WILL BE NEED FOR

SUCCESSFUL TREE PLANTING.

PLANTING NOTES:

Minimum Plant size Requirements and Soil Preparation:

- 1. ALL PLANT MATERIALS SHALL MEET OR EXCEED SIZE IN SCHEDULES. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REFUSE PLANT MATERIALS WHICH DO NOT MEET THE QUALITY REQUIRED FOR THE PROJECT. ALL DECIDUOUS TREES SHALL HAVE FULL, WELL SHAPED HEADS, ALL EVERGREEN TREES SHALL BE UNSHEARED AND FULL TO THE GROUND. PLANT MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1.
- 2. ALL TREES TO BE STAKED OR GUYED PER DETAILS ON SHEET L-110. ALL TREE LOCATIONS ARE TO BE STAKED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION .. BLUE GRASS SOD AND SHRUB BEDS AREAS SHALL BE AMENDED WITH: CLASS II COMPOST AT A RATE OF 5
- CUBIC YARDS PER 1000 S.F.; AMMONIUM SULFATE (20-0-0) AT A RATE OF 5 LBS PER 1000 S.F.; AND SOIL SULFUR (90% -100% ELEMENTAL) AT A RATE OF 10 LBS PER 1000 S.F. AMENDMENTS SHALL BE THOROUGHLY BLENDED TO HOMOGENOUS CONDITION TO A DEPTH OF NO LESS THAN 6" AND NO MORE THAN 12" BELOW FINISH GRADE. ALL BACKFILL MATERIAL PER DETAILS ON THIS SHEET.
- PRIOR TO PLANTING ANY TREES ON SITE, THE LANDSCAPE CONTRACTOR SHALL PERFORM A SOIL PERCOLATION TEST TO DETERMINE IF THERE ARE ANY DRAINAGE PROBLEMS. THE LANDSCAPE CONTRACTOR IS REQUIRED TO DIG 3 HOLES AT DIFFERENT LOCATIONS AS DIRECTED BY OWNERS REPRESENTATIVE. THE HOLE SHALL BE EQUAL IN SIZE TO THE LARGEST TREE PIT REQUIRED FOR EACH PARTICULAR LOCATION. ADDITIONAL LOCATIONS WILL BE REQUIRED IF VARIOUS SOIL TYPES ARE FOUND AROUND THE SITE AND/OR IF THE OWNER'S REPRESENTATIVE FINDS IT NECESSARY. THE LANDSCAPE CONTRACTOR SHALL VERIFY TEST PIT LOCATIONS WITH OWNER'S REPRESENTATIVE AND FILL EACH HOLE WITH WATER AND MONITOR HOW MUCH WATER IS REMAINING IN THE HOLE AFTER 24 HOURS. MAKE A WRITTEN REPORT TO THE OWNER'S REPRESENTATIVE. IF IT IS DETERMINED THAT SOIL DRAINAGE IS A PROBLEM, A RESOLUTION WILL BE WORKED OUT BY THE OWNER AND IF NECESSARY A CHANGE ORDER WILL BE INITIATED.
- 6. ALL TREES, SHRUBS, PERENNIALS, BLUE GRASS SOD AREAS SHALL BE GUARANTEED TO REMAIN ALIVE AND HEALTHY FOR A 1-YEAR PERIOD AFTER INITIAL ACCEPTANCE. ALL REPLACEMENT COSTS SHALL BE BORN BY THE CONTRACTOR.
- 7. TREE WRAPPING MATERIAL SHALL BE FOUR INCHES WIDE, BITUMINOUS IMPREGNATED TAPE, CORRUGATED OR CREPE PAPER, BROWN IN COLOR, SPECIFICALLY MANUFACTURED FOR TREE WRAPPING. TREES SHALL BE WRAPPED BETWEEN OCTOBER 15 AND NOVEMBER 1 OF THE YEAR THEY ARE PLANTED. NO TREE WRAPPING SHALL BE PERMITTED UNTIL A LICENSED LANDSCAPE CONTRACTOR OR CERTIFIED ARBORIST HAS INSPECTED THE TREE. IT IS THE DUTY OF THE CONTRACTOR TO WRAP DECIDUOUS TREES DURING THE ONE-YEAR WARRANTY PERIOD.
- 8. ALL TREES TO BE PLANTED A MINIMUM OF (3) THREE FEET FROM ALL EDGER. (4) FIVE FEET FROM ALL CONCRETE WALKS.
- 9. DO NOT PLANT ANY PLANT MATERIAL IN THE BOTTOM OF ANY DRAINAGE SWALE. RELOCATE AS NEEDED.
- CONTACT OWNERS REPRESENTATIVE IF MORE INFORMATION IS NEEDED BEFORE PLANTING. 10. CONTRACTOR TO REMOVE ALL TREE STAKING AND GUYING AFTER ONE YEAR.

L

NDSCA	APE PLANT LIST				
YMBOL	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION	QUANTITY	HIGH WATER USE
CIDUC	US STREET TREE	S			
		_			
AME	AUTUMN BLAZE MAPLE	ACER X FREEMANII 'AUTUMN BLAZE'	2 1/2" CAL. B&B	66	NO
ENO	HERITAGE OAK	QUERCUS X MACDANIELII 'CLEMONS'	2 1/2" CAL. B&B	85	NO
IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B	82	NO
			SUBTOTAL:	233	
CIDUO	JS ORNAMENTAL TR	EES			
IAI	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B	87	NO
			SUBTUTAL:	07	
CIDUOL	<u>JS SHRUBS</u>				
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.	137	NO
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.	191	NO
KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.	220	NO
RUS	RUSSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT.	174	NO
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.	66	NO
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.	43	NO
RGB	ROSY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.	60	NO
GFS	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.	85	NO
				976	
ERGRE	EN AND BROADLEAF	SHRUBS			
RD I				73	NO
MAD			5 GAL CONT	101	NO
WIAF		ARCTOSTAFITEOS FARCHITO	J GAL CONT.	174	NO
NAMEN	ITAL GRASSES				
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL FORESTER'	5 GAL CONT.	636	NO
		· · · · · · · · · · · · · · · · · · ·		636	

ANDSCA	APE PLANT LIST				
SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE & CONDITION	QUANTITY	HIGH WATER USE
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		—			
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IPH	IMPERIAL HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'INERMIS'	2 1/2" CAL. B&B	82	NO
			SUBTOTAL:	233	
ECIDUOL	JS ORNAMENTAL TR	EES			
TAT	TATARIAN MAPLE	ACER TATARICUM	2" CAL. B&B	87	NO
			SUBTOTAL:	87	
FCIDUOL	IS SHRUBS				
PBP	PINK BEAUTY POTENTILLA	POTENILLA FRUTICOSA 'PINK BEAUTY'	5 GAL CONT.	137	NO
GDP	GOLD DROP POTENTILLA	POTENILLA FRUTICOSA 'GOLD DROP'	5 GAL CONT.	191	NO
KOR	KNOCK OUT ROSE	ROSA 'RADRAZZ'	5 GAL CONT.	220	NO
RUS	RUSSIAN SAGE	PEROVSKIA ARTIPLICIFOLIA	5 GAL CONT.	174	NO
PBS	PAWNEE BUTTES SAND CHERRY	PRUNUS BESSEYI 'PAWNEE BUTTES'	5 GAL CONT.	66	NO
MKL	LILAC 'MISS KIM'	SYRINGA PATULA 'MIS KIM'	5 GAL CONT.	43	NO
RGB	ROSY GLOW BARBERRY	BERBERIS THUNBERGII 'ROSY GLOW'	5 GAL CONT.	60	NO
GFS	GOLDFLAME SPIREA	SPIRAEA X BUMALDA 'GOLDFLAME'	5 GAL CONT.	85	NO
				976	
VERGRE	EN AND BROADLEAF	SHRUBS			
BRJ	BLUE RUG JUNIPER	JUNIPERUS HORIZONTALIS 'WILTONII'	5 GAL CONT.	73	NO
MAP	MANZITA PANCHITO	ARCTOSTAPHYLOS 'PANCHITO'	5 GAL CONT.	101	NO
				174	
RNAMEN	TAL GRASSES				
FRG	FEATHERED REED GRASS	CALAMAROSTIS X ACUTIFLORA 'KARL	5 GAL CONT.	636	NO
		FORESTER'		636	
				000	
	TANTITLE ADE LOD CONTRACTO				

NOTE - PLANT QUANTITIES ARE FOR CONTRACTOR CONVENIENCE ONLY QUANTITIES SHOWN ON PLAN SHALL PREVAIL

SOD AND NATIVE SEED

SOD *	100% IMPROVED BLUEGRA
(All sou areas to be	SOD BY: GREEN VALLEY IN
fully irrigated with an	COMPANY - THERMAL BLU
automatic irrigation	BLEND. LOCATE PER PLAN
system)	

MULCH

Ω

LANDSCAPE FABRIC 3 OZ. SUPERIOR LANDSCAPE FABRIC BY PIONEER SAND COMPANY - 303-791-3535, LOCATE UNDER SPECIFIED MULCH

WOOD MULCH WASHINGTON CEDAR ("GORILLA HAIR") BY PIONEER SAND COMPANY - 303-791-3535. WITH NO LANDCSAPE FABRIC, LOCATE PER PLANS.

RIVER ROCK MULCH 1.5 TO 2" LOCAL SMOOTH RIVER ROCK BY PIONEER SAND COMPANY - 303-791-3535, OVER LANDCSAPE FABRIC, LOCATE PER PLANS.

INSTALL PER MANUFACTURES INSTRUCTIONS

4" IN DEPTH

3" IN DEPTH



RIDGEGATE SOUTHWEST VILLAGE PHASE 1
HOMES ¹ 3380 Station Street, Suite 600 Lone Tree, Colorado 80124 (303) 791-8180
RIDGEGATE SOUTHWEST VILLAGE PHASE 1 COLLECTOR ROADS
Ridge Gate Lone Tree, Colorado
SAGE DESIGN GROUP LANDSCAPE ARCHITECTURE SITE PLANNING ENTITLEMENT 1500 South Pearl St. Suite 200 Denver, Colorado 80210 303.470.2855 (p) 303.470.2894 (f) www.sagedesigngroup.com
ALL DRAWN AND WRITTEN INFORMATION APPEARINGHEREIN SHALL NOT BE DUPLICATED, DISCLOSED OR OTHERWISE USED WITHOUT THE WRITTEN CONSENT OF SAGE DESIGN GROUP, LLC.
REVISION RECORD NO. CHANGE DATE
DATE: 1/31/21 SHEET TITLE: DETAILS SHEET NO. : L-201

CERTIFICATION OF ENGINEER RE: FAA SURFACE/HEIGHT LIMITATIONS:

I, AARON CLUTTER, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE ATTACHED INFORMATION PERTAINING TO THE FOLLOWING SUBDIVISION/SITE IMPROVEMENT PLAN:

RIDGEGATE SW VILLAGE FILING NO. 1

WAS PREPARED AND/OR UTILIZED BY ME OR UNDER MY PERSONAL SUPERVISION FOR THE PURPOSE OF SURFACE/HEIGHT ANALYSIS PER §77.9 OF 14 C.F.R. PART 77; THAT ALL SUCH INFORMATION IS TRUE, ACCURATE, AND COMPLETE; AND THAT PROPOSED CONSTRUCTION OF STRUCTURES WITHIN SUCH SUBDIVISION/SITE IMPROVEMENT PLAN **EXCEEDS APPLICABLE SURFACE/HEIGHT LIMITATIONS ENUMERATED IN §77.9, AS MORE SPECIFICALLY DEPICTED IN ATTACHED EXHIBIT A AND THEREFORE NOTIFICATION TO THE FAA IS REQUIRED.**

NAME: AARON CLUTTER **REGISTRATION NUMBER: 36742** DATE: 3/10/2021

ATTESTATION RE: FAA NOTICE REQUIREMENT COMPLIANCE:

I, AARON CLUTTER, ACTING ON BEHALF OF THE APPLICANT, SH LYRIC, LLC., DO HEREBY AFFIRM AND ACKNOWLEDGE THAT: (1) §77.9 OF 14 C.F.R. PART 77 ENUMERATES STANDARDS, BASED UPON SURFACE/HEIGHT LIMITATIONS, FOR DETERMINING WHETHER PROPOSED CONSTRUCTION OF STRUCTURES REQUIRES NOTICE TO THE FAA; (2) THE ATTACHED INFORMATION WAS PREPARED AND/OR UTILIZED FOR THE PURPOSE OF ENSURING COMPLIANCE WITH SUCH REGULATIONS AS APPLICABLE TO **RIDGEGATE SW VILLAGE FILING NO. 1** (THE "DEVELOPMENT"); (3) THE CITY OF LONE TREE MAY RELY UPON SUCH DOCUMENTATION FOR ITS INTENDED PURPOSE; (4) BASED UPON SUCH INFORMATION, AND PURSUANT TO 14 C.F.R. PART 77, **NOTICE TO THE FAA OF PROPOSED CONSTRUCTION OF STRUCTURES IS REQUIRED, AS SET FORTH MORE FULLY IN ATTACHED EXHIBIT A, AND SHALL BE PROVIDED IN ACCORDANCE WITH 14. C.F.R. PART 77**; AND (5) THE CITY RETAINS THE RIGHT TO REQUIRE ADDITIONAL INFORMATION IN THE FUTURE, SHOULD FINAL GRADES OR STRUCTURE HEIGHT WARRANT SUCH, WHICH INFORMATION MAY TRIGGER A REQUIREMENT FOR 14. C.F.R. PART 77 REVIEW BY THE FAA.

un 2 auto

NAME: AARON CLUTTER DATE: 3/10/2021

STATE OF COLORADO)) ss. COUNTY OF <u>Arapatae</u>)

The foregoing ATTESTATION RE: FAA NOTICE REQUIREMENT COMPLIANCE was acknowledged before me

this 10 day of March , 20,21, personally by Aaron L Clutter as Applicant Reprensentative SH Lyric LLC.

Allad,

Notary Public

(SEAL)

Commission expires:

2/17/24

Wendy J Craven
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID# 20044005551
MY COMMISSION EXPIRES February 17, 2024





FAA PART 77, SUBPART C ANALYSIS - DETERMINING OBSTRUCTIONS TO AIR NAVIGATION

TABLE A - MAX. BUILDING HEIGHT DEPICTED HEREON:

ALL SINGLE FAMILY DETACHED (SFD): 55 FT MAX HEIGHT UNLESS OTHERWISE NOTED ALL SINGLE FAMILY ATTACHED (SFA): 100 FT MAX HEIGHT

LEGEND POINT DIFFERENCE IN ELEVATION BETWEEN FAA 77.19 "CIVIL ×120.00 AIRPORT OBSTRUCTION SURFACE" AND MAX BLDG. HEIGHT SURFACE CENTENNIAL AIRPORT FAA 77.19 CIVIL AIRPORT OBSTRUCTION -6200 SURFACE" MAX BLDG. HEIGHT SURFACE ENCROACHES INTO FAA 77.19 "CIVIL AIRPORT OBSTRUCTION SURFACE" FAA 77.19 "CIVIL AIRPORT OBSTRUCTION SURFACE" IS 0 FT TO 50 FT ABOVE MAX BLDG. HEIGHT SURFACE FAA 77.19 "CIVIL AIRPORT OBSTRUCTION SURFACE" IS 50 FT TO 100 FT ABOVE MAX BLDG. HEIGHT SURFACE FAA 77.19 "CIVIL AIRPORT OBSTRUCTION SURFACE" IS 100 FT TO 200 FT ABOVE MAX BLDG. HEIGHT SURFACE FAA 77.19 "CIVIL AIRPORT OBSTRUCTION SURFACE" IS OVER 200 FT ABOVE MAX BLDG. HEIGHT SURFACE EXISTING OVERHEAD UTILITY LINES SURFACE DESCRIPTION



Fort Collins 970–491–9888 • www.jrengineering.com