

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

February 14, 2023

Troy Kelts, P.E.  
Galloway & Company  
6162 S Willow Drive, Suite 320  
Greenwood Village, CO 80111

**RE: 2121 Yale Boulevard SE**  
**Revised Master Drainage Plan**  
**Engineer's Stamp Date: 02/13/23**  
**Hydrology File: M15D021**

Dear Mr. Kelts:

PO Box 1293  
Albuquerque  
NM 87103

Based upon the information provided in your submittal received 02/03/2023, the Revised Master Drainage Plan is approved for action by the Development Facilitation Team (DFT) and Development Hearing Officer (DHO) on Preliminary/Final Plat.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, [jhughes@cabq.gov](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

[www.cabq.gov](http://www.cabq.gov)

Sincerely,

*Renée C. Brissette*

Renée C. Brissette, P.E. CFM  
Senior Engineer, Hydrology  
Planning Department



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2018)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE

IS THIS A RESUBMITTAL? \_\_\_\_\_ Yes \_\_\_\_\_ No

**DEPARTMENT:** \_\_\_\_\_ TRAFFIC/TRANSPORTATION \_\_\_\_\_ HYDROLOGY/DRAINAGE

Check all that Apply:

### TYPE OF SUBMITTAL:

- \_\_\_\_\_ ENGINEER/ARCHITECT CERTIFICATION
- \_\_\_\_\_ PAD CERTIFICATION
- \_\_\_\_\_ CONCEPTUAL G & D PLAN
- \_\_\_\_\_ GRADING PLAN
- \_\_\_\_\_ DRAINAGE MASTER PLAN
- \_\_\_\_\_ DRAINAGE REPORT
- \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- \_\_\_\_\_ ELEVATION CERTIFICATE
- \_\_\_\_\_ CLOMR/LOMR
- \_\_\_\_\_ TRAFFIC CIRCULATION LAYOUT (TCL)
- \_\_\_\_\_ TRAFFIC IMPACT STUDY (TIS)
- \_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_
- \_\_\_\_\_ PRE-DESIGN MEETING?

### TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- \_\_\_\_\_ BUILDING PERMIT APPROVAL
- \_\_\_\_\_ CERTIFICATE OF OCCUPANCY
- \_\_\_\_\_ PRELIMINARY PLAT APPROVAL
- \_\_\_\_\_ SITE PLAN FOR SUB'D APPROVAL
- \_\_\_\_\_ SITE PLAN FOR BLDG. PERMIT APPROVAL
- \_\_\_\_\_ FINAL PLAT APPROVAL
- \_\_\_\_\_ SIA/ RELEASE OF FINANCIAL GUARANTEE
- \_\_\_\_\_ FOUNDATION PERMIT APPROVAL
- \_\_\_\_\_ GRADING PERMIT APPROVAL
- \_\_\_\_\_ SO-19 APPROVAL
- \_\_\_\_\_ PAVING PERMIT APPROVAL
- \_\_\_\_\_ GRADING/ PAD CERTIFICATION
- \_\_\_\_\_ WORK ORDER APPROVAL
- \_\_\_\_\_ CLOMR/LOMR
- \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT
- \_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_

**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

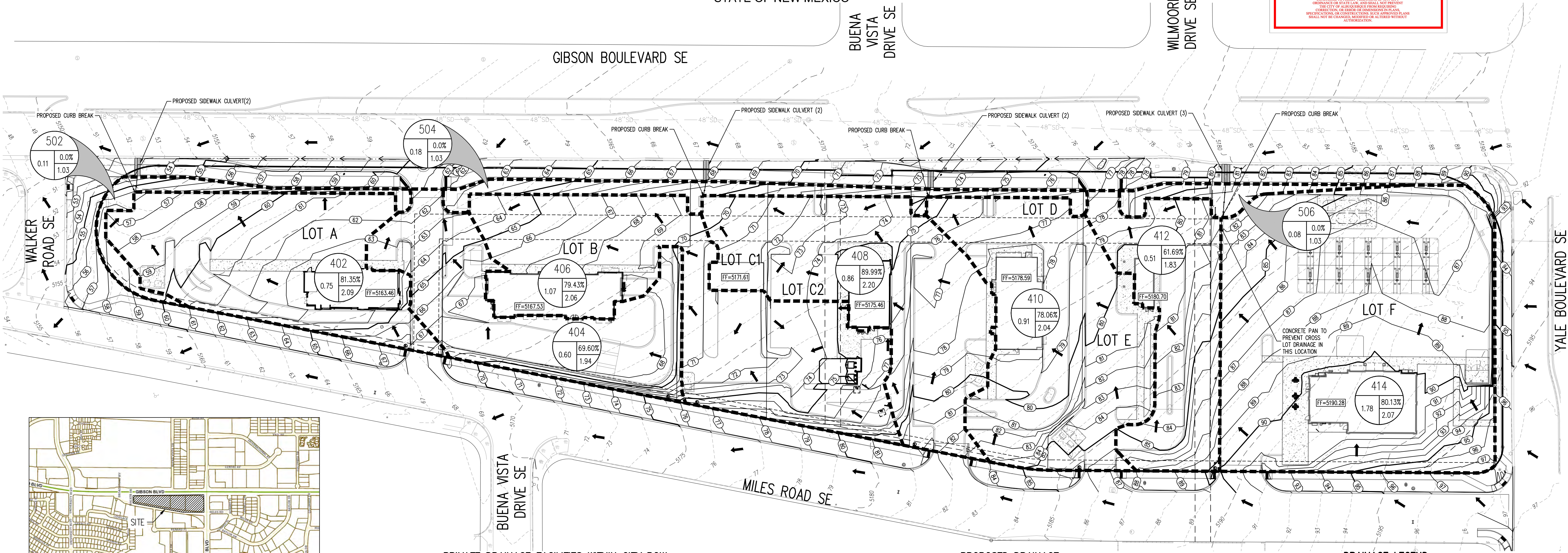
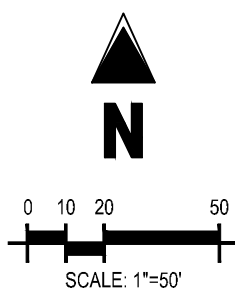
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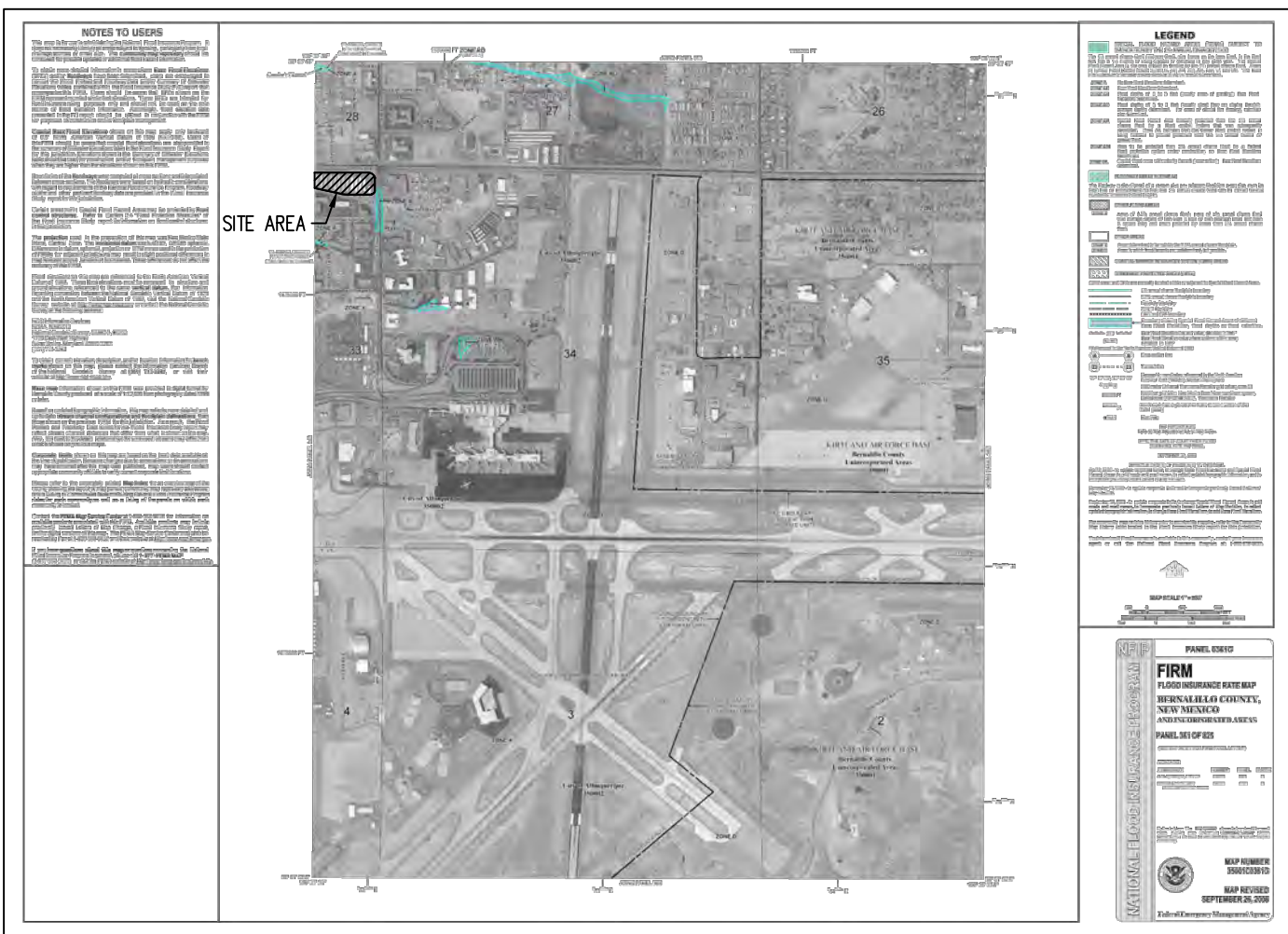
# LOVELACE HEIGHTS ADDITION

## MASTER GRADING & DRAINAGE PLAN

2121 YALE BOULEVARD  
CITY OF ALBUQUERQUE, COUNTY OF BERNALILLO,  
STATE OF NEW MEXICO



VICINITY MAP  
SCALE: 1"=1000'



FIRM MAP 35001CQ361G  
NOT TO SCALE

### Curb Chase Capacity

#### Weir Equation:

$$Q = CLH^{3/2}$$

Q = Flow  
C = 2.95  
L = Length of weir  
H = Height of weir

#### 2' Curb Chase Capacity (8" Curb)

$$Q = 2.95 \times 2 \times 0.583^{3/2}$$
$$Q = 2.63 \text{ cfs}$$

Required Equivalent Curb Opening				
Basin	100-Year Flow (cfs)	Number of 2' Curb Openings	Equivalent Open Length (ft)	Actual Flow Capacity (cfs)
402	3.09	2	4	5.26
404	2.37	1	2	2.63
406	4.36	2	4	5.26
408	3.64	2	4	5.26
410	3.68	2	4	5.26
412	1.98	1	2	2.63
414	6.72	3	6	7.89

NOTE: LOT LAYOUTS AND GRADING ARE CONCEPTUAL AND SUBJECT TO CHANGE. FOR WATER QUALITY CALCULATION PURPOSES, PROPOSED LOTS ARE ASSUMED TO BE 90% IMPERVIOUS AND SHALL BE INDIVIDUALLY RESPONSIBLE FOR WATER QUALITY TREATMENT BASED ON ACTUAL LAND TREATMENT AT THE TIME OF BUILDING PERMIT SUBMITTAL.

### PRIVATE DRAINAGE FACILITIES WITHIN CITY ROW:

NOTICE TO CONTRACTOR (SPECIAL ORDER 19 "SO-10")

- BUILD SIDEWALK CULVERT PER COA STD DWG 2236.
- CONTACT STORM DRAIN MAINTENANCE AT (505) 857-8033 TO SCHEDULE A MEETING PRIOR TO FORMING.
- AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" OR (505) 260-1990 FOR THE LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD SO THE CONFLICT CAN BE RESOLVED WITH MINIMAL DELAY.
- BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF HTE OWNER OF THE PROPERTY BEING SERVED.
- WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.
- CONTRACTOR MUST CONTACT STORM DRAIN MAINTENANCE AT (505) 857-8033 TO SCHEDULE A CONSTRUCTION INSPECTION. FOR EXCAVATING AND BARRICADING INSPECTIONS, CONTACT CONSTRUCTION COORDINATION AT (505) 924-3416.

### Weighted E Method (Developed)

Basin	Area (sq ft)	Area (ac)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year			10-Year		
			Weighted E	Volume	Flow	Weighted E	Volume	Flow	Weighted E	Volume	Flow					
402	32,869	0.75	0.00%	0	0.00%	0	18.85%	0.14	81.35%	0.61	2.088	1.575	3.09	1.318	0.994	1.89
404	26,095	0.60	0.00%	0	0.00%	0	30.40%	0.18	69.60%	0.42	1.935	1.159	2.37	1.197	0.717	1.42
406	46,590	1.07	0.00%	0	0.00%	0	20.57%	0.22	79.43%	0.85	2.063	2.206	4.36	1.298	1.388	2.65
408	37,660	0.86	0.00%	0	0.00%	0	10.01%	0.09	89.99%	0.78	2.200	1.902	3.64	1.407	1.216	2.25
410	39,478	0.91	0.00%	0	0.00%	0	21.94%	0.20	78.06%	0.71	2.045	1.853	3.68	1.284	1.164	2.23
412	22,403	0.51	0.00%	0	0.00%	0	38.31%	0.20	61.69%	0.32	1.832	0.942	1.98	1.115	0.574	1.17
414	71,693	1.65	0.00%	0	0.00%	0	19.87%	0.33	80.13%	1.32	2.072	3.410	6.72	1.305	2.148	4.09
502	4,717	0.11	0.00%	0	0.00%	0	100.00%	0.11	0.00%	0.00	1.030	0.112	0.33	0.480	0.052	0.17
504	7,918	0.18	0.00%	0	0.00%	0	100.00%	0.18	0.00%	0.00	1.030	0.187	0.55	0.480	0.087	0.29
506	3,454	0.08	0.00%	0	0.00%	0	100.00%	0.08	0.00%	0.00	1.030	0.082	0.24	0.480	0.038	0.13
Total	292,877	6.72														

#### Equations:

$$\text{Weighted E} = E_a \times A_a + E_b \times A_b + E_c \times A_c + E_d \times A_d / \text{Total Area}$$

$$\text{Volume} = \text{Weighted E} \times \text{Total Area}$$

$$\text{Flow} = Q_a \times A_a + Q_b \times A_b + Q_c \times A_c + Q_d \times A_d$$

#### Water Quality Calculations

Note: For redevelopment site, SWQV = 0.26 in

Lot	Impervious Area (sf)	SWQV (in)	Storm Water Quality Vol (cf)	Storm Water Quality Vol (ac-ft)
	(Assumed 90% of basin area)			
A	39,428	0.26	854	0.020
B	39,618	0.26	858	0.020
C1	39,365	0.26	858	0.020
C2	33,022	0.26	715	0.016
D	37,897	0.26	821	0.019
E	32,034	0.26	694	0.016
F	68,376	0.26	1,481	0.034

Excess Precipitation, E (in)		
Zone 2	100-Year	10-Year
Ea	0.62	0.15
Eb	0.80	0.30
Ec	1.03	0.48
Ed	2.33	1.51

Peak Discharge (cfs/acre)		
Zone 2	100-Year	10-Year
Qa	1.71	0.41
Qb	2.36	0.95
Qc	3.05	1.59
Qd	4.34	2.71

### PROPOSED DRAINAGE:

AFTER RIGHT-OF-WAY DEDICATION ALONG GIBSON BLVD AND YALE BLVD, THE PROPOSED SITE IS APPROXIMATELY 6.72 ACRES. AT THIS TIME, ONLY RIGHT-OF-WAY IMPROVEMENTS AND OVERALL INFRASTRUCTURE IS PROPOSED WITH THIS PROJECT. RIGHT-OF-WAY IMPROVEMENTS WILL NOT AFFECT THE OVERALL DRAINAGE PATTERN OF THE SITE OR THE SURROUNDING AREAS.

ALL ON-SITE LAYOUTS AND GRADING SHOWN ON THIS PLAN ARE CONCEPTUAL AND SUBJECT TO CHANGE. FOR THE PURPOSES OF STORMWATER QUALITY CALCULATIONS, IT IS BEING ASSUMED THAT ALL LOTS ARE 90% TREATMENT D AND 10% TREATMENT C. ALL LOTS WILL BE INDIVIDUALLY RESPONSIBLE FOR INDIVIDUAL STORM WATER QUALITY TREATMENT. FOR THE PURPOSES OF CURB CHASE SIZING, BASINS HAVE BEEN ESTABLISHED BASED ON THE CONCEPTUAL SITE LAYOUT AND GRADING, AND IMPERVIOUSNESS HAS BEEN CALCULATED AS SUCH.

BASIN "402" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 3.09 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

BASIN "404" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 2.37 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

BASIN "406" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 4.36 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

BASIN "408" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 3.64 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

BASIN "410" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 3.68 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

BASIN "412" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 1.98 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

BASIN "414" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 6.72 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY.

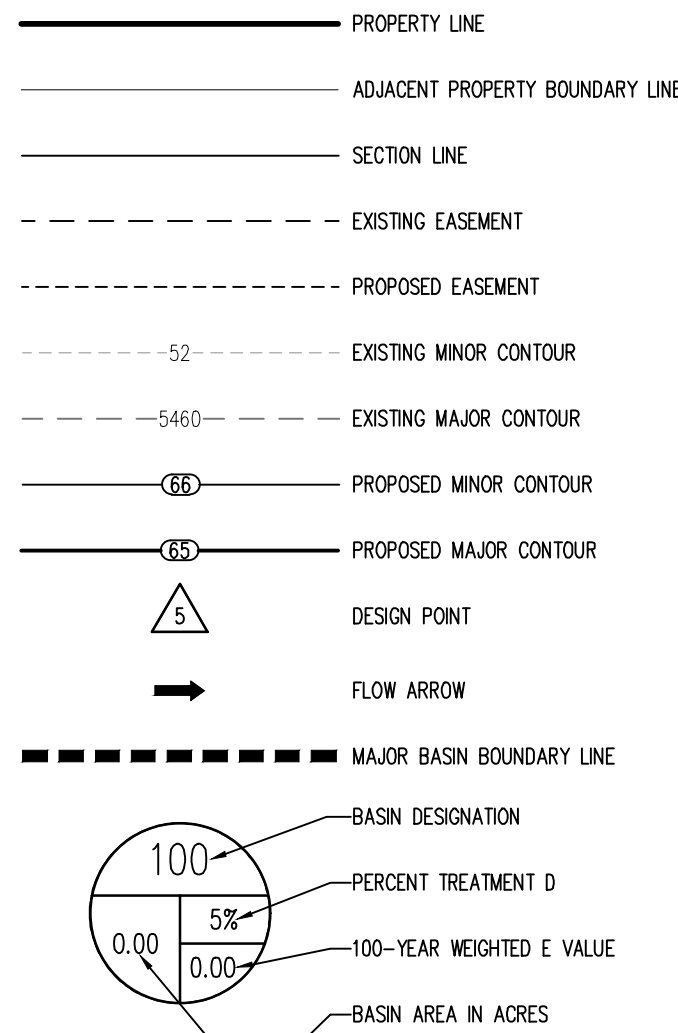
BASIN "502" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 0.33 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY. THIS BASIN REPRESENTS LANDSCAPED AREA AROUND THE PERIMETER OF LOT A.

BASIN "504" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 0.55 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY. THIS BASIN REPRESENTS LANDSCAPED NORTH OF LOTS B, C AND D.

BASIN "506" WILL GENERATE A 100-YR, 6-HOUR FLOW OF 0.24 CFS, WHICH IS ASSUMED TO BE DIRECTED NORTHWEST, WHERE IT SHALL EITHER BE DIRECTED INTO THE GIBSON RIGHT-OF-WAY, OR INTO A WATER QUALITY POND THEN OVERFLOWING INTO THE GIBSON RIGHT-OF-WAY. THIS BASIN REPRESENTS LANDSCAPED NORTH OF LOTS E AND F.

THE TOTAL DISCHARGE INTO THE GIBSON RIGHT-OF-WAY SHALL BE LESS THAN THE DISCHARGE IN THE EXISTING CONDITIONS DUE TO THE INCREASE IN LANDSCAPED AREA ON-SITE.

### DRAINAGE LEGEND



### EXISTING DRAINAGE:

THIS SITE IS CURRENTLY DEVELOPED AND USED AS AIRPORT PARKING, CONSISTING OF SEVERAL BUILDINGS, CARPORTS, AND ASPHALT DRIVES. ALMOST THE ENTIRETY OF THE LOT IS IMPERVIOUS AREA. THE SITE IS BOUNDED BY GIBSON BLVD TO THE NORTH, YALE BLVD TO THE EAST, MILES RD TO THE SOUTH, AND WALKER DR TO THE WEST. THE SITE IS APPROXIMATELY 7.18 ACRES AND DRAINS FROM SOUTHEAST TO NORTHWEST, FREE-RELEASING INTO GIBSON BLVD THROUGH SEVERAL SIDEWALK CULVERTS. THE SITE IS NOT LOCATED IN A FLOODPLAIN AS SHOWN ON THE FIRM MAP (SEE THIS SHEET). THE PROJECT DOES NOT RECEIVE OFFSITE FLOWS.

### NOTE:

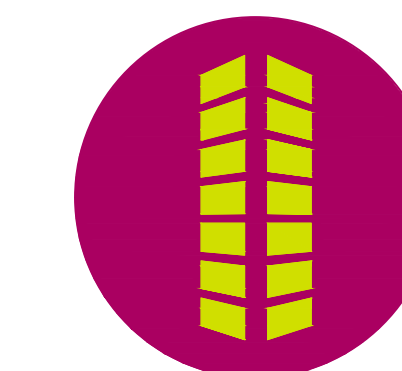
INDIVIDUAL LOTS ARE NOT BEING DEVELOPED AT THIS TIME. LOTS SHALL BE INDIVIDUALLY RESPONSIBLE FOR STORM WATER QUALITY TREATMENT. INDIVIDUAL LOTS SHALL NEED TO CONFORM TO RELEASE RATES SPECIFIED IN THIS PLAN. CURRENT SITE LAYOUT AND GRADING SHOWN ARE CONCEPTUAL AND SUBJECT TO CHANGE.

**Galloway**

6162 S. Willow Drive, Suite 320  
Greenwood Village, CO 80111  
303.770.8884  
gallowayus.com



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MASTER GRADING & DRAINAGE PLAN  
LOVELACE HEIGHTS ADDITION

125 & GIBSON, LLC.

2121 YALE BOULEVARD  
ALBUQUERQUE, NM

#	Date	Issue / Description	Init.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Project No:	PRP000008
Drawn by:	DDJ
Checked by:	TDK
Date:	01/05/2023

CONCEPTUAL MASTER  
GRADING & DRAINAGE PLAN