

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

January 14, 2021

Jeremy Shell, P.E.
Respec
5971 Jefferson St. NE
Albuquerque, NM 8710

**RE: 7120 Wyoming Drainage Channel
Grading and Drainage Plan
Engineer's Stamp Date: 12/04/20
Hydrology File: D19D018B**

Dear Mr. Shell:

Based upon the information provided in your submittal received 12/07/2020, the Grading and Drainage Plan is approved for SO-19 Permit.

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, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ 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) _____

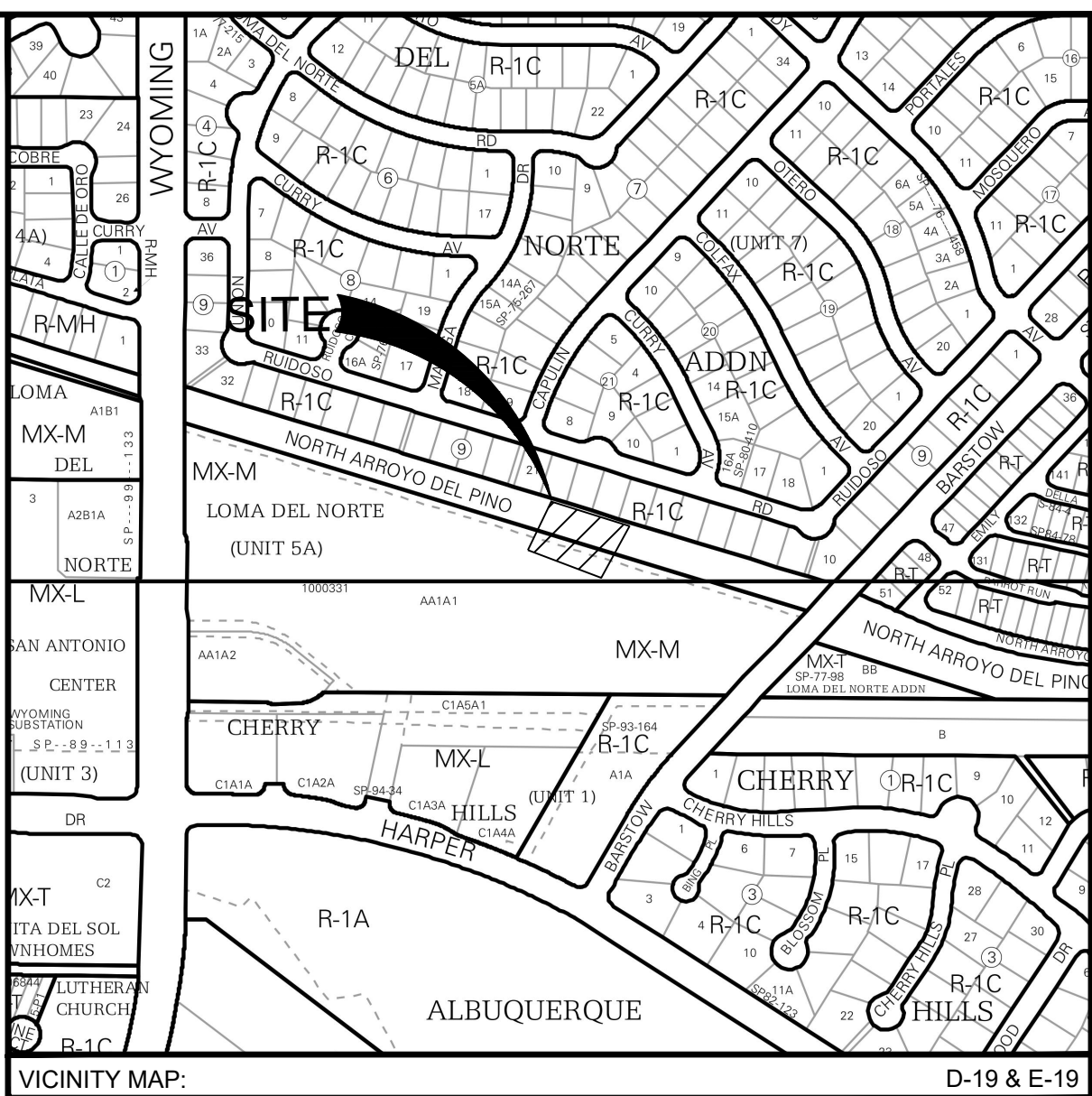
DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

7120 WYOMING DRAINAGE CHANNEL
CONSTRUCTION PLANS
BERNALILLO COUNTY, NEW MEXICO
GRADING, PAVING, AND SITE IMPROVEMENTS
JANUARY 2021



Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

1. Build sidewalk culvert per COA STD DWG 2236.
2. Contact Storm Drain Maintenance at (505) 235-8106 to schedule a meeting prior to forming.
3. An excavation permit will be required before beginning any work within City Right-Of-Way.
4. 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.
5. 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.
6. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
7. Backfill compaction shall be according to traffic/street use.
8. Maintenance of the facility shall be the responsibility of the owner of the property being served.
9. Work on arterial streets may be required on a 24-hour basis.
10. Contractor must contact Storm Drain Maintenance at (505) 235-8106 and Construction Coordination at 924-3416 to schedule an inspection.

REV. 05/01/2019

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
2. CONTRACTOR SHALL ASSUME FINANCIAL RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, SIGNAGE, CURB AND GUTTER, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED ON THE PLANS, AND SHALL REPAIR OR REPLACE, PER THE STANDARD SPECIFICATIONS, ANY SUCH DAMAGE.
3. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL PERTINENT EXISTING UTILITIES AND/OR OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
4. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS SHOWN. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ANY SUCH COSTS INCURRED.
5. REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
7. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
8. TACK COAT REQUIREMENTS SHALL BE DETERMINED DURING CONSTRUCTION BY THE PROJECT ENGINEER.

9. ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.

10. CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY, WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

11. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING.

13. ALL FILL SHALL BE CLEAN, FREE FROM VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS, AND SHALL NOT BE CONTAMINATED WITH HYDROCARBONS OR OTHER CHEMICAL CONTAMINANTS.

14. IF CULTURAL RESOURCES, SUCH AS HISTORIC OR PREHISTORIC ARTIFACTS OR HUMAN REMAINS ARE DISCOVERED DURING EXCAVATION OR CONSTRUCTION, WORK SHALL CEASE AND THE ENGINEER SHALL NOTIFY LOCAL AUTHORITIES. IF HUMAN REMAINS ARE DETERMINED BY THE OFFICE OF THE MEDICAL EXAMINER NOT TO BE RECENT, THE ENGINEER SHALL NOTIFY THE STATE HISTORIC PRESERVATION OFFICER (SHPO) AT 827-6320.

15. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING. EXISTING VALVES AND MANHOLES SHALL NOT BE BURIED OR PAVED OVER BUT RIMS SHALL BE ADJUSTED TO MATCH NEW GRADE.

16. MANHOLE RIMS, FIRE HYDRANT ELEVATIONS, AND FLANGE ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.

17. ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM D-1557.

18. AT UTILITY CROSSINGS, WHERE LESS THAN 18" OF VERTICAL SEPARATION FROM STORM DRAIN PIPING OR STRUCTURES IS PROPOSED, LEAN FILL CONSTRUCTION SHALL BE USED TO PROTECT THE WATER OR SEWER LINE. LEAN FILL SHALL EXTEND A PERPENDICULAR DISTANCE OF 5 FEET ON EACH SIDE OF THE STORM PIPE OR STRUCTURE.

19. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINE, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

20. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.

21. ADJACENT PROPERTIES WILL NOT BE DISTURBED WITH CONSTRUCTION OF THE INFRASTRUCTURE SHOWN HEREIN.

SHEET INDEX

G-100. CONSTRUCTION PLAN COVER

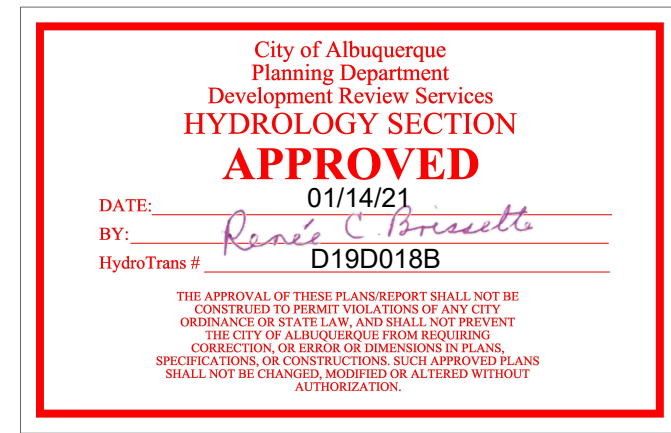
C-100. CONSTRUCTION PLAN

C-101. DRAINAGE PLAN

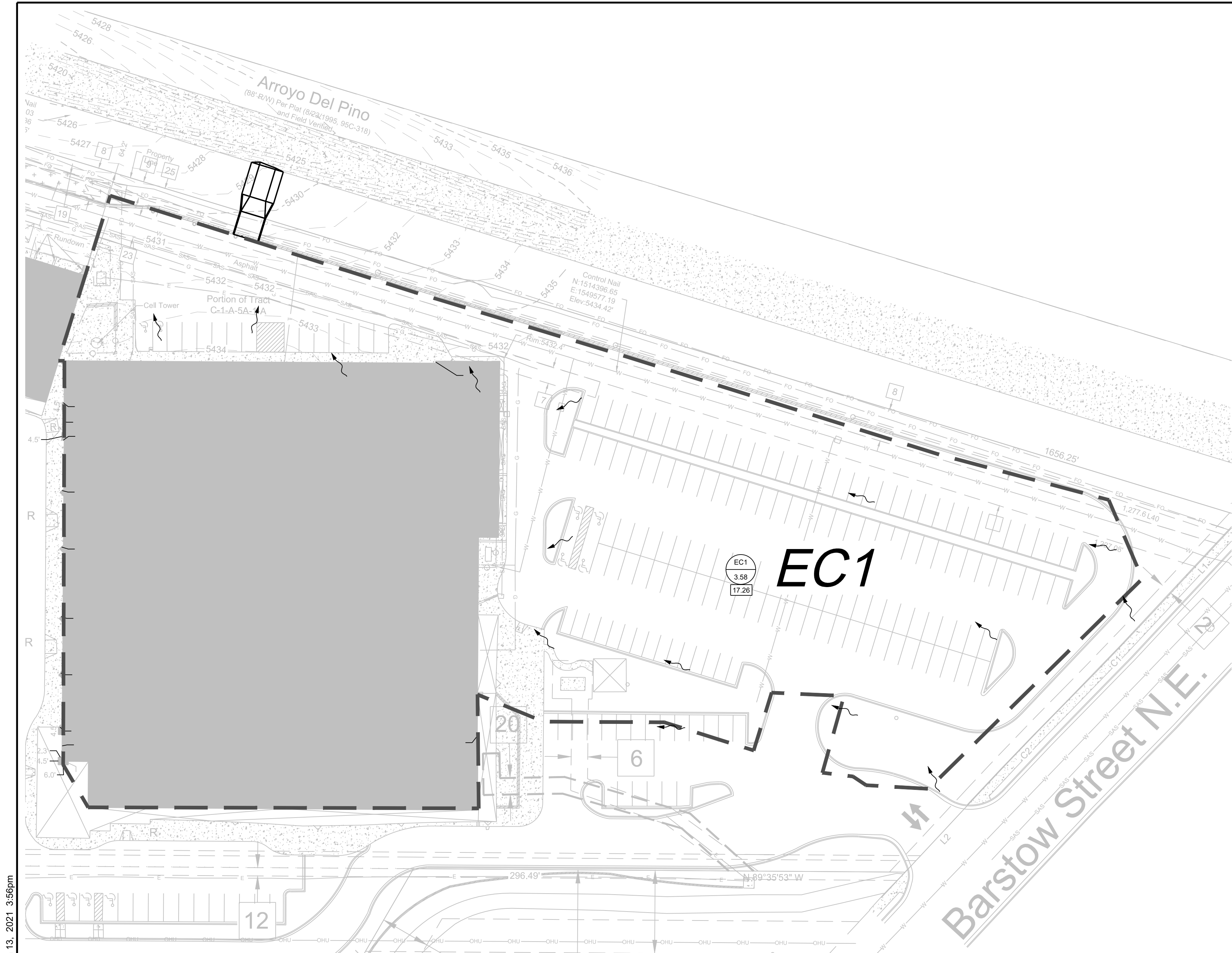
GENERAL LEGEND		
ITEM	EXISTING	PROPOSED
RIGHT OF WAY LINE		
PROPERTY LINE		
WATERLINE		
METERED		
WATER SERVICE		
FIRE HYDRANT		
VALVE		
SANITARY SEWER		
SEWER MANHOLE		
STORM SEWER		
STORM SEWER MANHOLE		
DROP INLET		
CURB AND GUTTER		
HEADER CURB		

ABBREVIATIONS

@	AT
CL	CENTERLINE
COA	CITY OF ALBUQUERQUE
DWG	DRAWING
DTL	DETAIL
DI	DROP INLET
EL	ELEVATION
FL	FLOWLINE
INV	INVERT
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
NO	NUMBER
OHU	OVERHEAD UTILITY
PC	POINT OF CURVATURE
RCP	REINFORCED CONCRETE PIPE
RT	RIGHT
STA	STATION
STD	STANDARD
TA	TOP OF ASPHALT
TP	TOP OF PIPE
TBC	TOP BACK CURB
TOC	TOP OF CONCRETE



NAME: N:\Projects\03860 Garrett 7120 Wyoming\3. DWG\Sheets\Drainage Plan.dwg PLOT DATE: Jan 13, 2021 3:56pm



BACKGROUND

THE PROJECT IS LOCATED AT 7120 WYOMING BOULEVARD NORTHEAST, IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THE AREA FOR CONSTRUCTION LIES APPROXIMATELY BETWEEN THE ARROYO DEL PINO AND THE NORTHERN BUILDING. THE BASIN AREA BEING ANALYZED WITH THIS PROJECT CONTAINS APPROXIMATELY 3.58 ACRES.

METHODOLOGY

HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) SECTION 22.2 USING THE RATIONAL METHOD TO CALCULATE PEAK FLOW RATES TO ENSURE ALL FLOW PATHS ARE SUFFICIENT TO CARRY FLOWS.

EXISTING CONDITIONS

THE BASIN, IN GENERAL, SLOPES DOWN TOWARDS THE NORTHWEST CORNER. STORM WATER RUNOFF GENERATED BY THE EXISTING BUILDING AND PARKING AREA FLOW GENERALLY IN THAT DIRECTION TO THE ARROYO DEL PINO AT THE NORTHWEST CORNER OF THE SITE, WHERE THE REMAINDER OF DEVELOPMENT FLOWS TO AS WELL. THE SLOPE VARIES FROM 1%-2% FROM EAST TO WEST. THE AREA ON THE NORTH SIDE OF THE EXISTING BUILDING SLOPES FROM SOUTH TO NORTH AT VARYING SLOPES FROM 4% - 6%. THE EXISTING CONDITION HAS ONE BASIN THAT REPRESENTS FLOW FROM THE BUILDING AND THE PARKING LOT. AS WATER FLOWS ALONG THE EXISTING WALL AND CURB, ALONG THE NORTHERN EDGE OF THE PROPERTY TOWARD THE NORTHWEST, RUNOFF IS OVERTOPPING THE WALL AND CURB NORTH OF THE EXISTING BUILDING.

SUB-BASIN EC1 IS 3.58 ACRES CONSISTING OF ALL FLOWS GENERATED BY EXISTING PARKING LOT AND BUILDING. THE DEVELOPED FLOW IS 17.26 CFS AND FLOWS NORTHWEST.

DEVELOPED CONDITIONS

IT IS PROPOSED TO ADD A CHANNEL LOCATED NORTH OF THE EXISTING BUILDING THAT WILL ALLOW RUNOFF GENERATED BY THIS BASIN TO BE DIVERTED INTO THE ARROYO DEL PINO. THIS WILL REMEDY THE EROSION OCCURRING BETWEEN THE PRIVATE PROPERTY AND ARROYO. THE ARROYO DEL PINO IS ULTIMATELY WHERE THIS AREA DISCHARGES UNDER EXISTING CONDITIONS.

LEGEND

- BASIN DESIGNATION
- BASIN AREA, ACRES
- 100 YEAR STORM, CFS
- EXISTING SUB-BASIN BOUNDARY
- PROPOSED SUB-BASIN BOUNDARY
- DIRECTION OF DRAINAGE FLOW
- PROPERTY LINE



Hydrology Calculations

The following calculations are based on Albuquerque's Development Process Manual, Section 22.2

Runoff Rate:

Treatment Type Ares

Subbasin	Area _A (ac)	Area _B (ac)	Area _C (ac)	Area _D (ac)	Total (ac)
EC1	0.00	0.292	0.00	3.288	3.58

Peak Discharge values based on Zone 3 from Table A-9

Q_A= 1.87 cfs/ac Q_B= 2.60 cfs/ac Q_C= 3.45 cfs/ac Q_D= 5.02 cfs/ac

Peak Discharge calculation for a 100yr – 24hr storm event from equation A-10

Subbasin	Discharge (cfs)
EC1	17.26
Total EC	17.26

Weir Calculations:

Weir (Unknown Q):		
Discharge Coeff. (C _w):	3.367	
Length (L):	15	ft
Flow (Q) = C _w · L · h ^{1.5} (1.5)		
Flow (Q) =	50.5	cfs

