

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

June 2, 2020

Craig Hagelgantz, P.E.
ABQ Engineering Inc.
8102 Menaul Blvd NE, Suite D
Albuquerque, NM, 87120

**RE: All-Rite Construction Warehouse
519 Oliver Ross Dr. NW
Grading & Drainage Plan
Engineer's Stamp Date: 05/15/20
Hydrology File: K09D042**

Dear Mr. Hagelgantz:

PO Box 1293

Based upon the information provided in your resubmittal received 05/27/2020, the Grading & Drainage Plan is approved for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

NM 87103

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.

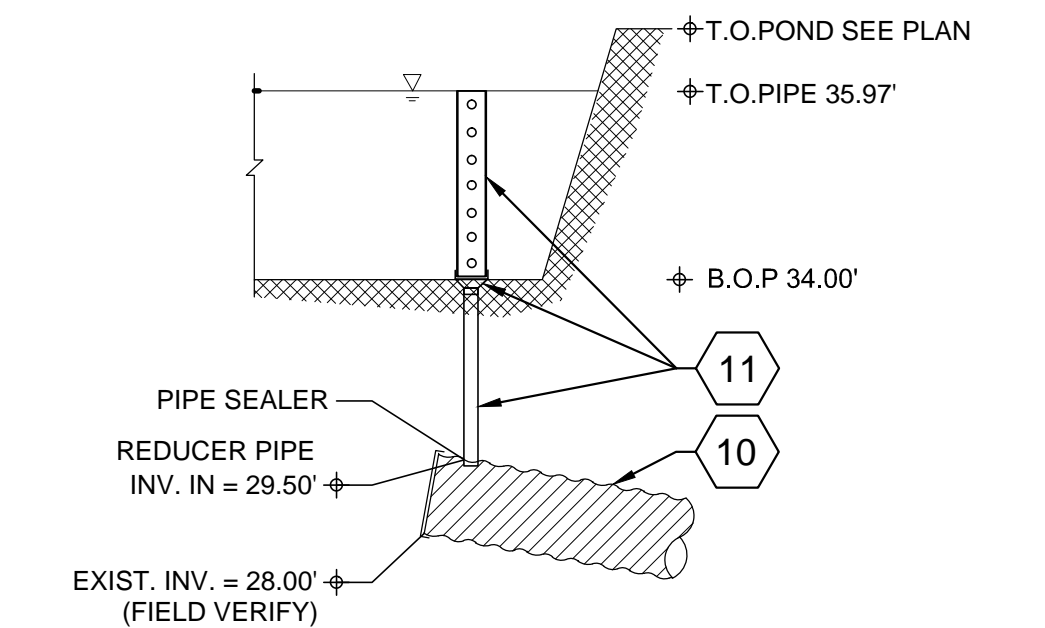
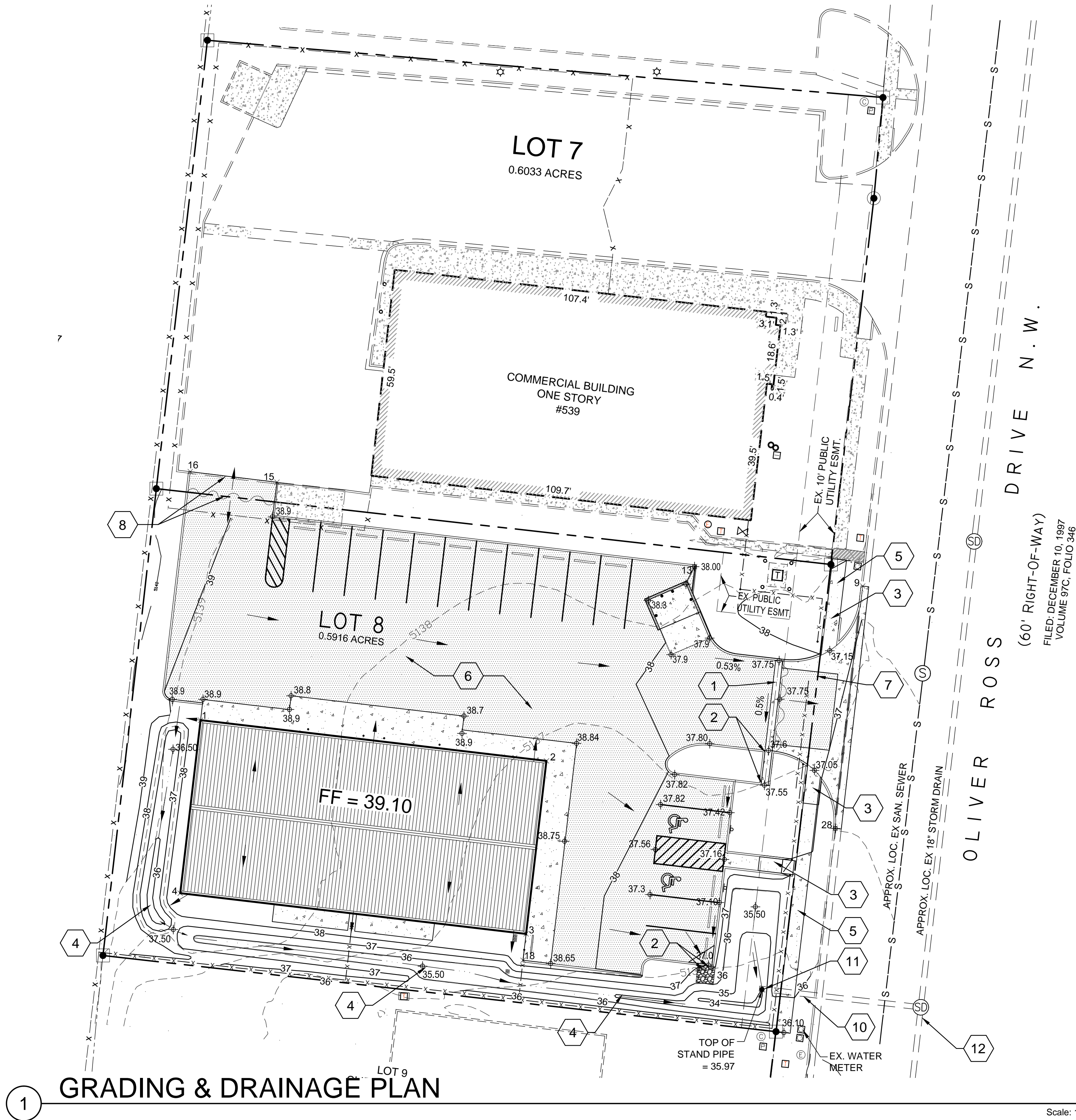
www.cabq.gov

Also as a reminder, please provide Drainage Covenant for the detention pond per Chapter 17 of the DPM prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee will be required.

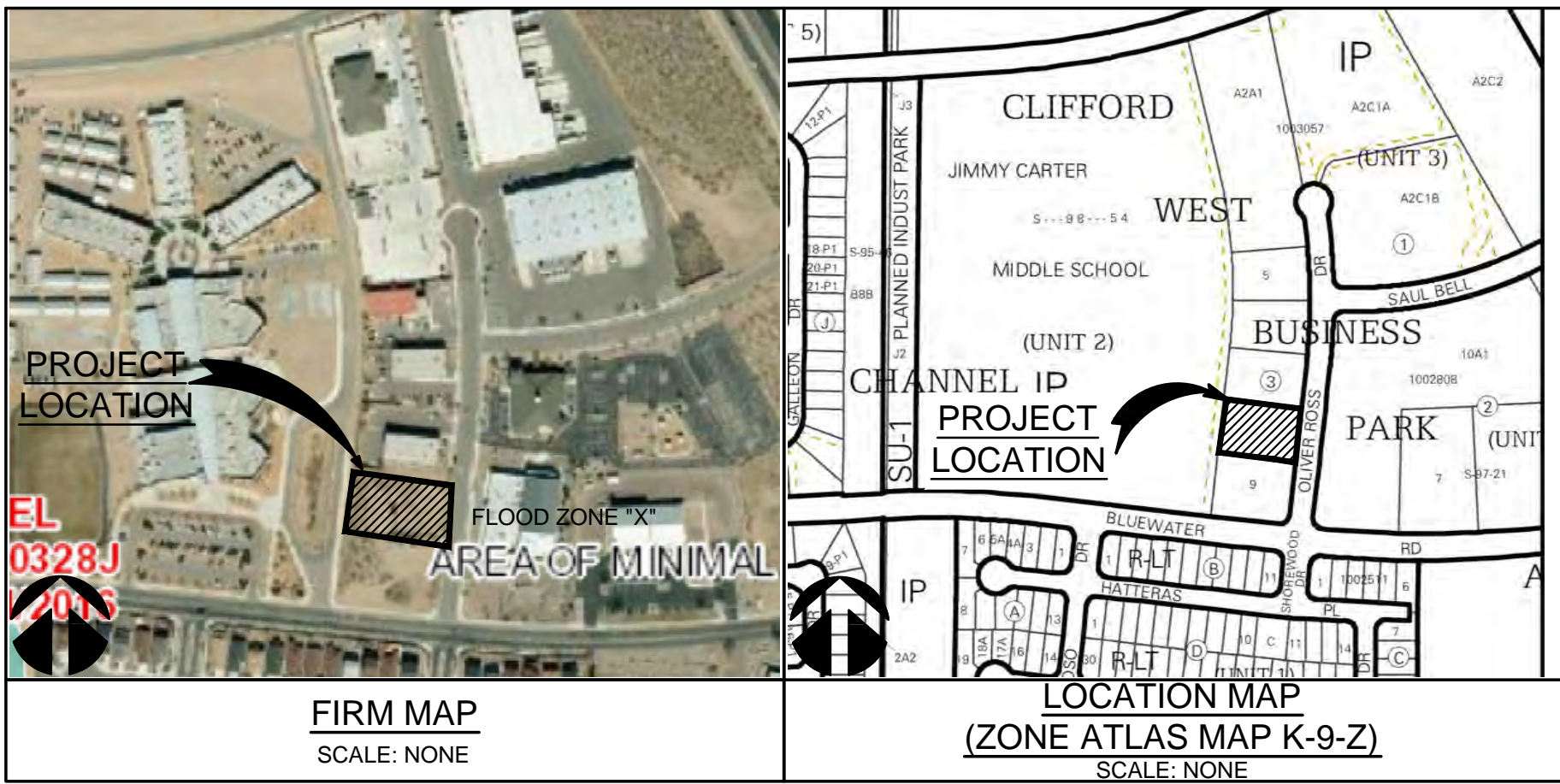
If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

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



POND STAND PIPE DRAIN W/ REDUCER
N.T.S.



KEYED NOTES

- CONSTRUCT 30 LF ALLEY GUTTER PER COA STD DWG 2415A @ 0.5%.
- CONSTRUCT 2' WIDE CURB CUT FOR DRAINAGE. CONSTRUCT A 5'x 5' RIPRAP PAD FOR EROSION CONTROL AT OUTFALL INTO POND..
- CONSTRUCT ACCESSIBLE SIDEWALK RAMP PER DETAIL 5/C-501 AND COA STD. DWG. 2426.
- CONSTRUCT RETENTION PONDING AREA FOR FIRST FLUSH. TOP POND = 5136.0, BOTTOM POND = 5134.0 VOLUME PROVIDED FOR FIRST FLUSH = 790 CF STORAGE.
- CONSTRUCT CONCRETE SIDEWALK PER DETAILS 6/C-501.
- INSTALL ASPHALT PAVEMENT. SEE DETAIL 7/C-501.
- CONSTRUCT CONCRETE DRIVEPAD PER COA STD. DWG. 2426.
- TOP OF WATER BLOCK = EXISTING FL ELEV. + 0.5 FT.
- EXISTING 18" CMP STUB OUT FROM STREET (FILED VERIFY LOCATION AND INVERT)
- 8" PVC-SCH40 STAND PIPE POND DRAIN (PERFORATED ABOVE GRADE) WITH 4" PVC-SCH40 REDUCER W PIPE INTO EXISTING 18" CMP STUBOUT. SEE DETAIL THIS SHEET.
- EXISTING STORM DRAIN IN STREET.

DRAINAGE NARRATIVE

THIS SITE IS LOCATED ON THE WEST SIDE OF OLIVER ROSS DRIVE NORTH WEST, AND IS LOT 8 WITH IN BLOCK 3 OF THE CLIFFORD WEST BUSINESS PARK IN ALBUQUERQUE, NM AND CONTAINS APPROXIMATELY 0.592 ACRES. THIS SITE IS LOCATED ON FIRM MAP NO. 35002, PANEL 0328J EFFECTIVE DATE 11/04/16 WHICH INDICATES THE ENTIRE SITE IS LOCATED IN ZONE X, AND THAT NO PORTION OF THE SITE IS LOCATED WITHIN A 100 YEAR FLOOD PLAIN.

THE PRE DEVELOPED SITE IS A VACANT LOT. THE UNDEVELOPED DRAINAGE PATTERN IS SHEET FLOW DIRECTED TOWARD THE SOUTH EAST CORNER TO THE LOT AND ONTO OLIVER ROSS DRIVE AND THEN DOWN THE STREET TO THE SOUTH AND INTO AN EXISTING STORM DRAIN SYSTEM AT THE INTERSECTION OF OLIVER ROSS DRIVE NW AND BLUEWATER ROAD NW.

THE SCOPE OF THIS DEVELOPMENT IS, AN ASPHALT PARKING LOT, PROPOSED BUILDING, AND SIDEWALKS WILL BE ADDED TO THE SITE AS SHOWN ON PLAN. THE DIRECTION AND DESTINATION OF THE HISTORIC DRAINAGE PATTERNS WILL BE PRESERVED. THE ADDITION OF AN ONSITE RETENTION PONDING TO CAPTURE AND RETAIN THE "FIRST FLUSH" RUNOFF PER COA DRAINAGE ORDINANCE WILL BE LOCATED IN THE AREAS WEST OF THE PROPOSED BUILDING, THE REMAINING VOLUME FROM THE 90TH PERCENTILE STORM EVENT (100 YEAR, 10 DAY) WILL MAINTAIN HISTORIC DRAINAGE PATTERNS AND AS DESCRIBED ABOVE IN THE PRE DEVELOPED CONDITIONS (SEE CALCULATIONS). DUE TO THE DEVELOPED CONDITIONS, WITH THE FIRST FLUSH RETAINING POND AND SIDEWALK DRAINAGE OUTLET ONTO OLIVER ROSS DRIVE, THE DEVELOPED OFFSITE DISCHARGE RATE IS WITHIN THE ALLOWABLE DEVELOPED OFFSITE FLOW RATE (0.48 CFS) AS DESCRIBED IN THE DRAINAGE MASTER PLAN FOR CLIFFORD WEST BUSINESS PARK DATED 9/12/97 (COA #K-9/D23).

ONSITE DRAINAGE RETENTION

FIRST FLUSH STORAGE REQUIRED BY COA HYDROLOGY:

PROVIDE STORAGE FOR FIRST FLUSH RUNOFF PER SECTION 22 OF DPM USE 0.1 - 0.44 = 0.34 IN, PER COA HYDROLOGY FIRST FLUSH (IN) APPLIED OVER IMPERVIOUS AREAS (ACRES); THEREFORE 0.34/12 x 0.445 x 43560 = 550 CF FIRST FLUSH PONDING AREA REQD. = 550 CF < 790 CF PROVIDED (SEE NOTE 4)

DRAINAGE CALCULATIONS

| Hydrology Calculations | | | | |
|--|-------|----------|-----------|----------|
| DPM - Volume 2, October 2008 | | | | |
| Section 22.2.Hydrology | | | | |
| Precipitation Zone | 1 | | | |
| 100 year-6hr Depth, P (360) | 2.20 | | | |
| 100 year-24hr Depth, P (1440) | 2.66 | | | |
| Treatment Area | A | B | C | D |
| Excess Precipitation Factors | 0.44 | 0.67 | 0.99 | 1.97 |
| Peak Discharge Factors | 1.29 | 2.03 | 2.87 | 4.37 |
| Land Treatment Area | Acres | Existing | Allowable | Proposed |
| Type "D" (Impervious, Roof, Drive way, Ect.) | | 0.000 | | 0.423 |
| Type "C" (Compacted Soil, Unpaved Parking) | | 0.592 | | 0.000 |
| Type "B" (Landscape Areas) | | 0.000 | | 0.169 |
| Type "A" (Undeveloped) | | 0.000 | | 0.000 |
| Total (Acres) | | 0.592 | | 0.592 |
| Excess Precipitation E (in) | | 0.99 | | 1.60 |
| Volume (360), acre-ft | | 0.049 | | 0.079 |
| Volume (1440), acre-ft | | 0.065 | | 0.095 |
| Q (360), cfs | | 1.698 | 0.480 | 2.191 |
| Q (1440), cfs | | 1.579 | | 2.037 |

POINT TABLE

| POINT # | ELEVATION | NORTHING | EASTING | DESCRIPTION |
|---------|-----------|------------|------------|-----------------------|
| 1 | 5139.00 | 1485802.55 | 1496929.98 | BLDG COR |
| 2 | 5139.00 | 1485790.88 | 1497029.29 | BLDG COR |
| 3 | 5139.00 | 1485741.22 | 1497023.45 | BLDG COR |
| 4 | 5139.00 | 1485752.89 | 1496924.14 | BLDG COR |
| 9 | MATCH EX | 1485841.07 | 1497120.12 | PC-20'R-MATCH EX CURB |
| 13 | 5138.00 | 1485846.67 | 1497071.83 | FC-COR PKG |
| 15 | MATCH EX | 1485870.87 | 1496951.92 | END PAVEMENT |
| 16 | MATCH EX | 1485873.90 | 1496927.02 | BEGIN CURB |
| 17 | 5139.20 | 1485821.69 | 1496920.88 | END CURB @ DUMPSTER |
| 18 | 5138.80 | 1485733.65 | 1497022.56 | END CURB |
| 19 | 5137.33 | 1485728.51 | 1497066.26 | FC-COR |
| 20 | 5137.28 | 1485730.50 | 1497066.50 | PC-3'R |
| 21 | 5137.19 | 1485733.13 | 1497069.83 | PT-FC |
| 28 | MATCH EX | 1485771.52 | 1497112.21 | PT-MATCH EX CURB |

NOTE: ALL ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.

CURB CUT WEIR CAPACITY

SEE KEYED NOTE 9 AND PLAN FOR LOCATIONS OF CURB CUT
 $Q = C \cdot L \cdot H^{3/2} = 2.5 \times 2 \times 0.867^{3/2} = 2.72 \text{ cfs} > Q_{360} = 2.19 \text{ cfs}$

REDUCER ORIFICE CAPACITY

SEE KEYED NOTE 11 AND PLAN FOR LOCATIONS OF POND PIPE DRAIN
 $4" \text{ PVC SCH40 INSIDE DIA} = 4.026" \text{ USE } 90\% \text{ FULL} \rightarrow A = P_i (3.6/2/12)^2 = 0.071 \text{ SF}$
 $Q = 0.6 \sqrt{A} (2gh)^{1/2} = 0.6 \times (0.071) \times (2 \times 32.2 \times 1.97)^{1/2} = 0.48 \text{ cfs} \leq Q_{allow} = 0.48 \text{ cfs}$

LEGEND

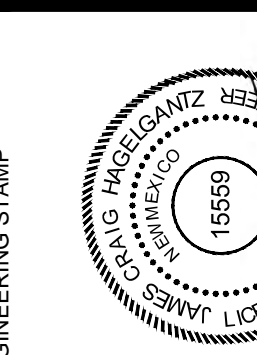
| | | |
|-----|------|---------------------------------|
| --- | 6610 | EXISTING INDEX CONTOUR |
| --- | 6609 | EXISTING INTERIM CONTOUR |
| --- | 10 | NEW INDEX CONTOUR |
| --- | 09 | NEW INTERIM CONTOUR |
| --- | | NEW WATER BLOCK |
| --- | | NEW SPOT ELEVATION |
| --- | 22.8 | EXISTING CONCRETE SIDEWALK |
| --- | | NEW CONCRETE SIDEWALK |
| --- | | NEW ASPHALT PAVEMENT |
| --- | | EXISTING BUILDING |
| --- | | NEW BUILDING |
| --- | | FINISH FLOOR ELEVATION |
| --- | | EXISTING SANITARY SEWER MANHOLE |
| --- | | EXISTING SANITARY SEWER LINE |
| --- | | EXISTING STORM DRAIN MANHOLE |
| --- | | EXISTING STORM DRAIN |
| --- | | DIRECTION OF FLOW |
| --- | | EXISTING FENCE LINE |
| --- | | NEW FENCE LINE |
| --- | | NEW SIGN |

CABQ ELECTRONIC STAMP

ABQ Engineering

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tele: 505.255.7802 Proj. No.: 16-082A www.abqeng.com

REV. NO. REV. DATE DESCRIPTION



DO NOT SCALE DRAWINGS
CONTRACTOR TO VERIFY ALL
EXISTING CONDITIONS AND
DIMENSIONS- NOTIFY
ENGINEER/ARCHITECT OF ANY
DISCREPANCIES PRIOR TO
BEGINNING CONSTRUCTION

RITECON WAREHOUSE
519 OLIVER ROSS DRIVE NW
ALBUQUERQUE, NM 87121

DESIGNED BY: CAB
DRAWN BY: CAB
PROJECT NO.: 16-082A
DATE: MAY 2020

SHEET TITLE

GRADING &
DRAINAGE
PLAN

SHEET NUMBER

C-101