# **CITY OF ALBUQUERQUE**



February 10, 2017

Richard J. Berry, Mayor

David Soule, P.E. Rio Grande Engineering PO Box 93924 Albuquerque, NM, 87199

RE: La Madeleines 2110 Louisiana Blvd NE Grading Plan (Stamp Date 2/2/17) and Drainage Report (Stamp Date 1/26/17) Hydrology File: J19D071B

Dear Mr. Soule:

Sincerely,

Based upon the information provided in your submittal received 2/2/17, the Grading Plan and Drainage Report are approved for Building Permit.

PO Box 1293The nominal increase in run-off (+0.14 cfs) is acceptable and no Erosion and Sediment<br/>Control Plan will be needed (0.47-Ac lot). Work within the City Right-of-Way to remove<br/>and replace the sidewalk will require a city work order or sidewalk permit. If you have<br/>any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

nouqueique

New Mexico 87103

www.cabq.gov

a ph

Dana Peterson, P.E. Senior Engineer, Planning Dept. Development Review Services

Orig: Drainage file



## City of Albuquerque

Planning Department Development & Building Services Division DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

| Project Title: LA MADELEINES  |                    | Building Permit #:  | City Drainage #:J19-D071B   |
|---|--------------------|---|---|
| DRB#:   | EPC#:              |   | Work Order#:  |
| Legal Description: TRACT A-1-C HUNT SPECTR  | UM DEVELOPMENT     |   |   |
| City Address: 2110 LOUISIANNA NE  |                    |   |   |
| Engineering Firm: RIO GRANDE ENGINEERIN   | G                  |   | Contact: DAVID SOULE  |
| Address: PO BOX 93924, ALBUQUERQUE, NM 8  | 7199               |   |   |
| Phone#: 505.321.9099  | Fax#: 505.872.0999 |   | E-mail: DAVID@RIOGRANDEENGINEERING.COM  |
| Owner:  |                    |   | Contact:  |
| Address:  |                    |   |   |
| Phone#:   | Fax#:              |   | E-mail:   |
| Architect: DAVE PORT AND ASSOCIATED   |                    |   | Contact:  |
| Address:  |                    |   |   |
| Phone#:   | Fax#:              |   | E-mail:   |
| Other Contact:  |                    |   | Contact:  |
| Address:  |                    |   |   |
| Phone#:   | Fax#:              |   | E-mail:   |
| TRAFFIC/ TRANSPORTATION<br>MS4/ EROSION & SEDIMENT CONTRO<br>TYPE OF SUBMITTAL:<br>ENGINEER/ ARCHITECT CERTIFICATIO<br>CONCEPTUAL G & D PLAN<br>X GRADING PLAN<br>DRAINAGE MASTER PLAN<br>DRAINAGE REPORT<br>CLOMR/LOMR<br>TRAFFIC CIRCULATION LAYOUT (TC<br>TRAFFIC IMPACT STUDY (TIS) | DN<br>L)           | CERTIFICAT CERTIFICAT PRELIMINA SITE PLAN X SITE PLAN FINAL PLAT SIA/ RELEA FOUNDATIC GRADING P SO-19 APPR AVING PEI GRADING/ F WORK ORDE | TE OF OCCUPANCY<br>RY PLAT APPROVAL<br>FOR SUB'D APPROVAL<br>FOR BLDG. PERMIT APPROVAL<br>T APPROVAL<br>SE OF FINANCIAL GUARANTEE<br>DN PERMIT APPROVAL<br>ERMIT APPROVAL<br>OVAL<br>RMIT APPROVAL<br>PAD CERTIFICATION<br>R APPROVAL |
| EROSION & SEDIMENT CONTROL PLA  | AN (ESC)           | CLOMR/LON   | ИR  |
| OTHER (SPECIFY)   | No                 | PRE-DESIGNOTHER (SPI  | MEETING<br>ECIFY)   |
|   | · -                |   |   |
| DATE SUBMITTED: <u>1/26/17</u>  | By:                |   |   |
|   |                    |   |   |

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_

Dana M. Peterson, P.E. Senior Engineer- Hydrology Planning Department City of Albuquerque (505) 924-3695 dpeterson@cabq.gov 600 2<sup>nd</sup> Street NW Albuquerque, NM 87102

We have received your comments below and the response as to how we addressed are underlined

- The reissued Drainage Report is missing the 40-Ac or less Calcs (Appendix A) and several excerpts from the Target Drainage Study (Appendix B). These were included in the 1/3/17 report. we have added
- 2. The infiltrators do not retain the first flush volume:
  - a. StormTech assumes a stone porosity of 40% for in the cumulative volume storage. The City allows only 30% porosity for storage in the stone void space. The volume stored needs to reflect this. calculations have been revised
  - b. The volume stored needs to be calculated as the amount stored beneath the outlet pipe invert. i.e the volume that cannot leave through the outlet pipe.
    - calculation has been revised and cross-section shown
- 3. The Master Plan excerpts showing the grease trap and sanitary sewer routing were not included.

reduced size master utility has been enclosed

4. The first flush volume needs to be recalculated to only include the new impervious area.

<u>The calculation was based upon he improved area not the whole lot so the value is correct</u>

DRAINAGE REPORT

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For

### LAMADELEINES 2110 LOUISIANNA NE

## Albuquerque, New Mexico

Prepared by

Rio Grande Engineering PO Box 93924 Albuquerque, New Mexico 87199



SEPTEMBER 2016

David Soule P.E. No. 14522



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### <u>Appendix</u>

| ite Hydrology                     | ٩ |
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Map Site Grading and Drainage Plan



#### PURPOSE

The purpose of this report is to provide the Drainage Management Plan for the development of a 0.47 acre pad site development. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

#### INTRODUCTION

The subject of this report, as shown on the Exhibit A, is a 0.47-acre parcel of land located on the northeast corner of Louisiana and uptown loop. The legal description of this site is tract A-1-C, Hunt-Spectrum Development. As shown on FIRM map35001C0352E, the entire site is located within Flood Zone X. The adjacent roadway contains flood plain A0-1. The site is a completely developed pad site. The entire parking area is paved, the surrounding landscape is completed and the entire supporting drainage infrastructure is completed. Since this site is a pad only development, the grading plan must conform to the Target Center Grading plan. Due to the completed landscaping and parking area, there is limited opportunity to capture the first flush.

#### **EXISTING CONDITIONS**

The site is currently a developed pad site. The site is a small pad site located within the Target Center development. The entire parking area has been completed. The entire site is captured by series of onsite storm drains. The site drains to an existing inlet located within the Louisiana right of way. As shown in appendix A, the location of improvements is basin 3.3 of the target center grading plan. All downstream improvements are in place and maintained by the city of Albuquerque.







#### **PROPOSED CONDITIONS**

The proposed improvements consist of a new 4,900 square foot building on a graded pad site. Minor modifications to the dumpster and handicap isle are required. There are no modifications to the parking field, except to accommodate the modified dumpster and saw cuts to allow connection to proposed building. The dumpster will have an area drain that discharges to the sanitary sewer upstream of a grease interceptor. The building contains an interior roof drainage system. The roof drain will be connected to the existing junction box located adjacent to the building. The existing pad site area drain will be removed and replaced with the roof drain connection at the existing outfall junction box that is modified only to allow new connection to roof drain. An infiltrator underground storage system will be utilized to capture the required first flush volume generated by this site. Due to the site being only a pad, with completed landscaping and parking, there is no opportunity to capture the first flush above ground. The infiltration tanks will match the existing storm drain soffits, so that they will fill to capacity and allow normal discharge to pass through. The introduction of the tank will not impede the flow line nor alter the hydraulic grade line. The site is being developed in accordance with the previously approved Target drainage plan. The Target drainage report anticipated .61 cfs to be generated from the pad site area. The same basin is predicted to generate.75 cfs. This basin is the new roof which will be a smooth plastic roof at 2% and will have a peak sooner than the parking area, therefore we feel the .14 cfs will pass before the basin peak is observed. The first flush volume of 133 cfs is captured. The existing onsite drainage system line sizes and slopes will not be altered. The only system changes are the addition of storage volume and removing of an area drain and replacement of that reach with a roof drain downspout connect to a junction box that was modified to accept the roof drain.

#### SUMMARY AND RECOMMENDATIONS

This project is a development of a building on an existing pad site. The fully developed conditions from this site were anticipated with the master drainage plan for the entire Target



development. The peak flow does exceed the anticipated flow by .14 cfs. Due to the nature of the basin, the time to peak will be less than the parking area, and will not have an adverse impact. The first flush volume is being retained by introducing a storage take that will fill and spill without changing the peak flow rate hydraulics. No pipes or inlets will be decreased in size and the system hydraulics that were designed for this development and are not being altered. The development of this site will not negatively impact the upstream nor down stream facilities. Since this site does not exceed 1 acre, erosion and sediment Control Plan should not be required prior to any construction activity.



### APPENDIX A

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### SITE HYDROLOGY

## Weighted E Method Lomas Apts

#### Existing Developed Basins

|                      |      |         |           |         |             |         |        |         |          |         | 100-Year, 6-h | n.      |      | 10-day  |
|----------------------|------|---------|-----------|---------|-------------|---------|--------|---------|----------|---------|---------------|---------|------|---------|
| Basin                | Area | Area    | Treatment | A       | Treatment E | 3       | Treatm | ent C   | Treatmen | tD      | Weighted E    | Volume  | Flow | Volume  |
|                      | (sf) | (acres) | %         | (acres) | %           | (acres) | %      | (acres) | %        | (acres) | (ac-ft)       | (ac-ft) | cfs  | (ac-ft) |
| PAD AREA(BASIN 3.3)  | 7840 | 0.180   | 0%        | 0       | 18.0%       | 0.032   | 22.0%  | 0.0396  | 60.0%    | 0.108   | 1.865         | 0.028   | 0.75 | 0.042   |
| PAD AREA (BASIN 3.3) | 7840 | 0.180   | 40%       | 0.07199 | 5.0%        | 0.009   | 15.0%  | 0.027   | 40.0%    | 0.072   | 1.448         | 0.022   | 0.61 | 0.031   |
| COMPARISON           |      |         |           |         |             |         |        |         |          |         |               |         | 0.14 |         |
| Fauations            |      |         |           |         |             |         |        |         |          |         |               |         |      |         |

Equ

Weighted E = Ea\*Aa + Eb\*Ab + Ec\*Ac + Ed\*Ad / (Total Area)

| Volume = Weighted D * Total Area          |                     |                          | PONDING PROV<br>FIRST FLUSH R |
|---|---------------------|--------------------------|-------------------------------|
| Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * | Adi                 |                          |                               |
| Where for 100-year, 6-hour storm (zone 3) |                     |                          |                               |
|   | Ea≈ 0.66            | Qa= 1.87                 |                               |
|   | Eb= 0.92            | Qb= 2.6                  |                               |
|   | Ec= 1.29            | Qc= 3.45                 |                               |
|   | Ed≈ 2.36            | Qd= 5.02                 |                               |
| FLOW SUMMARY                              | ANTICIPATED<br>0.61 | PROPOSED<br>CFS 0.75 CFS |                               |
|   |                     |                          |                               |

PROPOSED ALLOWED

DRAINAGE NARRATIVE THE SITE IS A DEVELOPED PAD SITE WITHIN THE TARGET PARKING LOT. ALL OF THE SURROUNDING IMPROVEMENT HAVE BEEN CONSTRUCTED. THE SURROUNDING INFRASTRUCTURE ANTICIPATED .61 CFS TO BE DISCHARGED FROM THIS SITE. THE PAD DEVELOPMENT WILL DISCHARGE .75 CFS, WHICH IS .14 CFS GREATER THAN ANTICIPATED. DUE TO THE FACT THE FLOW GENERATED FROM THIS SITE WILL BE ON A SMOOTH PLAS ROOF MEMBRAIN TO A DOWN SPOUT AND THE REMAIING BASIN WILL BE GENERATED FROM A PARKING FIELD, THE INCREASE OF .14 CFS WILL ENTER THE SYSTEM PRIOR TO THE PARKING AREA PEAK, WHICH WILL MAKE INCREASE NEGLIGABLE. THE FIRST FLUSH RETENTION OF THE 133 CUBIC FEET IS CAPTURED AND INFILTRATED ON SITE.

OVIDED REQUIREMENT

133.3 CF



### **StormTech** MC-3500 Chamber

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots thus maximizing land usage for commercial and municipal applications.

StormTech MC-3500 Chamber (not to scale)

| Nominal Chamber  | Specifications   | Nominal End Cap Specifications                       |  |  |
|--|--|--|--|--|
| Size (L x W x H)   | 90° (2286 mm) x 77" (1956 mm) x 45° (1143 mm)  | Size (L x W x H)                                     | 26.5" (673 mm) x 71" (1803 mm) x 45.1" (1145 mm)   |  |
| Chamber Storage  | 109.9 tt³ (3.11 m³)  | End Cap Storage                                      | 15.6 ft³ (0.44 m³)   |  |
| Min. Installed Storage*  | 178.9 ft³ (5.06 m³)  | Min. Installed Storage*                              | 46.9 ft³ (1.33 m³)   |  |
| Weight   | 134 lbs (60.8 kg)  | Weight   | 43 lbs (19.5 kg)   |  |
| * This assumes a minimum of<br>chambers, 9* (229 mm) row   | 12" (305 mm) of stone above, 9" (229 mm) of stone below<br>spacing, and 40% stone porosity.  | *This assume: a minumum of 1<br>row spacing, CrOSS S | 2* 2006 marb of clone above, 9* (229 mm) of stone below, 9* (229 mm)<br>ection area one porosity.  |  |
| Shipping<br><u>15 chambers/pallet</u><br><u>16 end caps/pallet</u><br><u>7 pallets/truck</u><br>volume=14.33x<br>(13.13+3.64)<br>=240.31 cubic fee | 12" Pipe<br>12" Pipe<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | of cham<br>sf  | hber=13.13<br>roots section of rock=12.16 sf x .3=3.64 sf<br>x .3=3.64 sf<br>roots section of rock=12.16 sf x .3=3.64 sf<br>x .3=3.64 sf<br>roots section of rock=12.16 sf x .3=3.64 sf<br>roots section of roots section of roots section of roots section of roots |  |
|  |  |  |  |  |

StormTech MC-3500 End Cap (not to scale)

MC 3500 CHamber



### APPENDIX B

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### EXCERPTS FROM TARGET

### MASTER DRAINAGE PLAN

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### NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN BERNALILLO COUNTY ROW. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OFCITY OF ALBUQUERQUE APPLICATION FOR THIS PERMIT. 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH BERNALILLO COUNTY INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, INCLUDING UPDATE 8. 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 260-1990, FOR LOCATION OF EXISTING UTILITIES. 4. PRIOR TO CONSTRUCTION, THE 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 THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. 5. BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE FOR ALL WORK. 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED. 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS. 8. CONTRACTOR SHALL DETERMINE LOCATION OF ANY UNDERGROUND FACILITY IN OR NEAR WORK AREAS, INCLUDING REQUESTS TO OWNERS/OPERATORS OF SAID FACILITIES PER SECTION 62–14–5 NMSA 1978. 9. CONTRACTOR SHALL PLAN ALL EXCAVATION TO MINIMIZE INTERFERENCE OR DAMAGE OF UNDERGROUND FACILITIES. 10. CONTRACTOR SHALL PROVIDE ADVANCE TELEPHONE NOTICE OF COMMENCEMENT, EXTENT AND DURATION OF ALL EXCAVATION WORK TO THE ONE-CALL NOTIFICATION SYSTEM, OR TO OWNERS/OPERATORS OF ANY EXISTING UNDERGROUND FACILITY IN OR NEAR THE EXCAVATION AREA THAT ARE NOT MEMBERS OF THE ONE-CALL NOTIFICATION CENTER; IN ORDER THAT OWNERS/OPERATORS MAY LOCATE AND MARK UNDERGROUND FACILITY PER SECTION 62-14-5 NMSA 1978 PRIOR TO ANY COMMENCEMENT OF WORK. CONTRACTOR SHALL REQUEST REAFFIRMATION OF LOCATION EVERY TEN (10) WORKING DAYS AFTER INITIAL REQUEST. 11. CONTRACTOR SHALL MAINTAIN EIGHTEEN (18) INCHES BETWEEN EXISTING UNDERGROUND FACILITIES THAT HAVE BEEN PREVIOUSLY IDENTIFIED AND MARKED BY THE OWNERS/OPERATORS OF SAID FACILITIES. CUTTING EDGE OR POINT OF ANY MECHANICAL EXCAVATING EQUIPMENT UTILIZED IN EXCAVATION AREA WILL BE USED IN A MANNER NECESSARY TO PREVENT DAMAGE TO EXISTING UNDERGROUND FACILITIES. 12. CONTRACTOR SHALL PROVIDE SUPPORT FOR EXISTING UNDERGROUND FACILITIES IN OR NEAR EXCAVATION AREA AS NECESSARY TO PREVENT DAMAGE TO SAID FACILITIES. 13. CONTRACTOR SHALL BACKFILL ALL EXCAVATIONS IN A MANNER AND WITH MATERIALS AS MAY BE NECESSARY TO PREVENT DAMAGE TO AND PROVIDE RELIABLE SUPPORT DURING AND FOLLOWING BACK FILLING ACTIVITIES FOR PREEXISTING UNDERGROUND FACILITIES IN OR NEAR EXCAVATION AREA. 14. CONTRACTOR SHALL IMMEDIATELY NOTIFY BY TELEPHONE THE OWNER/OPERATOR OF ANY UNDERGROUND FACILITY WHICH MAY HAVE BEEN DAMAGED OR DISLODGED DURING EXCAVATION WORK. 15. CONTRACTOR SHALL NOT MOVE OR OBLITERATE MARKINGS MADE PURSUANT TO CHAPTER 62, ARTICLE 14 NMSA 1978, OR FABRICATE MARKINGS IN A UNMARKED LOCATION FOR THE PURPOSE OF CONCEALING OR AVOIDING LIABILITY FOR VIOLATION OF OR NONCOMPLIANCE WITH THE PROVISIONS OF CHAPTER 62, ARTICLE 11 NMSA 1978. 16. ELECTRONIC MARKER SPHERES (EMS) SHALL BE INSTALLED ON WATER LINE AND SANITARY SEWER LINE FACILITIES PER SECTION 170 OF THE BERNALILLO COUNTY STANDARD SPECIFICATIONS 1986 EDITION AS REVISED THROUGH UPDATE #8, ADMENDMENT 1. 17. THE CONTRACTOR SHALL COORDINATE WITH THE WATER UTILITY AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH

WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF **REQUESTS MUST BE MADE ONLINE AT** http://abcwua.org/water\_shut\_off\_and\_turn\_on\_procedures 18. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.6150 SUBPART P.

19. ALL IMPACTED STRIPING SHALL BE REPLACED BY CONTRACTOR. 20. MANHOLE STEPS SHALL NOT BE INSTALLED IN SANITARY SEWER MANHOLES.

21. ALL WATER METERS SHALL INCLUDE DUAL CHECK VALVE SETTERS.

22. ALL WATER METER COVERS AND LIDS SHALL BE PER COA STD DWG #2369.

23. ALL C-900 DR18 UTILITY PIPE JOINTS SHALL BE FULLY RESTRAINED DUE TO

POSSIBLE DEFLECTION FROM WASTE DEGENERATION.

24. ALL MANHOLES AND VALVES SHALL HAVE GPS INFORMATION RECORDED AS PART OF AS BUILT PLAN SET.

001.

25. CONTRACTOR IS RESPONSIBLE AT ITS OWN COST FOR ANY DAMAGE TO EXISTING UTILITIES.

26. CONTRACTOR SHALL MAINTAIN 1' SEPERATION BETWEEN ELECTRICAL AND SAS CROSSINGS.



SUPPLEMENTAL TRENCH DETAIL

NTS-PER FIGURE V:2-13 OSHA STANDARD SPECIFICATIONS NOTE: ENTIRE TRENCH PRISM SHALL BE COMPACTED AT 95% ASTM D1557 INCLUDING ALL UTILITY MAIN LINES, WATER METER BOXES AND SERVICES, SAS SERVICES.





SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUT OFF REQUEST MUST BE MADE ONLINE AT HTTP://ABCWUA.ORG/WATER\_SHUT\_OFF\_AND\_TURN\_ON\_PROCEDURES.

Engineering

1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872–0999

DAVID SOULE

P.E. #14522

SCALE: 1"=20'

JOB #

21634

2. VALVES SHALL BE OPERATED BY ABOWUA EMPLOYEES ONLY.

