

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

June 8, 2018

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

**RE: Clark Truck Equipment Co, Inc.
501 Industrial Road
Water Quality Grading and Drainage Plan
Engineer's Stamp Date: 05/15/18
Hydrology File: G15D057**

Dear Mr. Soule:

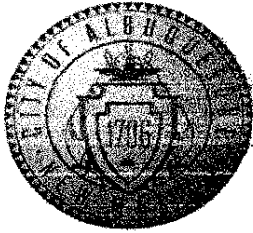
Based upon the information provided in your submittal received 05/18/2018, the Grading Plan is approved for Grading Permit and SO-19 Permit.

Once both the first flush pond and sidewalk culverts are completed, an Engineer Certification per the DPM checklist 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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: clarke Trucking Building Permit #: _____ City Drainage #: _____

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

Legal Description: Lot 5A, Block 2 North Four Hills

City Address: 415 Industrial road

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: clark Trucking Contact: _____

Address: 415 Industrial Road Alb nm 87107

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

Architect: _____ Contact: _____

Address: _____

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

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

- ☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ ARCHITECT CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: 5/15/18 By: _____

CHECK 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
☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

May 15, 2018

James Hughes, PE
Principal Engineer, Planning Department
City of Albuquerque
600 2nd street NW
Albuquerque, NM 87102

**RE: Drainage Submittal
Clarke Trucking-
501 Industrial Road
Albuquerque, New Mexico**

Dear Mr. Hughes:

The purpose of this letter is to provide a narrative for the enclosed plan. The subject site is an existing facility. There are no proposed improvements that require a grading plan. The purpose of this plan is to provide a water quality outfall to address the sites EPA Industrial Storm Water Permit. The site repairs and renovates trucks for construction uses. The potential for oil migration from the site requires structural improvements to reduce or eliminate this. The site historically discharges 19.09 cfs at the North West corner. Due to berms, ponds, solid walls and curbs this site is not impacted by upland flows. The owner would like the ability to pave some portions of the site. So 37,850 square feet of pavement is accounted for in the developed conditions analysis. The site will discharge 20.49 cfs. The site will generate a 2682 cubic foot water quality requirement.

The proposed improvement consists of an oil/water- floatable baffle box that will allow water to enter the box thru 3- 4' wide by 0.67' tall openings at an invert of 4996.50. The structure will discharge at 4997.50. Due to the baffle, the oil and floatables will be prohibited from leaving the site during the 100-year event. The outfall will discharge to Rankin Road via a 12' channel that tapers to 3-2' sidewalk culverts. The outfall, channel and culverts have in excess of the required 20.45 cfs. The water quality volume is will be the volume below the 4997.50 out fall (8280 CF provided, 8172 cf required). The detention volume is provided by the construction of an armored berm at the property with a top elevation of 4999.00. The box will overflow at 4998.50 in the event of an emergency or clogging

Sincerely,

David Soule, PE
RIO GRANDE ENGINEERING
PO Box 93924
ALBUQUERQUE, NM 87199
321-9099

Enclosures



Weighted E Method

Basin	Area (sf)	Area (acres)	Treatment A			Treatment B			Treatment C			Treatment D			100-Year, 6-hr.			10-day		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)	Flow cfs	Volume (ac-ft)
EXISTING	236648.00	5.433	0%	0	0%	0.000	76%	4.1288	24%	1.304	1.368	0.619	19.09	0.793						
Proposed	236648.00	5.433	0%	0	0%	0.000	60%	3.2596	40%	2.173	1.526	0.691	20.45	0.981						
increase	0.00	0.00	0%	0.000	0%	0.000	-16%	-0.869	16%	0.869		0.072	1.36	0.188						

Equations:

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

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm
Ea= 0.53
Eb= 0.78
Ec= 1.13
Ed= 2.12

Qa= 1.56
Qb= 2.28
Qc= 3.14
Qd= 4.7

Developed Conditions

PONDING REQUIRED 0.188 ac-ft 8172 c.f. increased 100-year-10day volume compared to existing

WATER QUALITY VOLUME 2682

NARRATIVE

SITE IS CURRENTLY DEVELOPED AS A VEHICLE CONSTRUCTION YARD. THERE ARE NO UNDISTURBED AREAS OF THE SITE. THE SITE IS COVERED WITH COMPACTED GRAVEL AND PAVEMENT. THE SITE DRAINS ITS FLOW TO THE NORTH WEST CORNER WHERE IT DISCHARGES TO RANKIN ROAD. THE UPLAND BASINS ARE EITHER RETAINED, DIVERTED TO THE ROADWAY OR CUT OFF BY SOLID WALLS. THE DRAINAGE MANAGEMENT PLAN CALLS FOR RETENTION OF THE INCREASE IN DEVELOPED FLOWS. THE EXISTING PATTERNS WILL REMAIN DUE TO USE OF PROPERTY, THE SITE WILL RETAIN THE 90% STORM WATER AND DISCHARGE THE EXCESS VIA A WATER QUALITY STRUCTURE. THE POND WILL HAVE AN EMERGENCY OVERFLOW AT THE TOP OF THE STRUCTURE. THE PLAN ACCOUNTS FOR THE POTENTIAL TO PAVE AN ADDITIONAL 37,850 SQUARE FEET IN THE FUTURE.

Channel Capacity

	Top Width (ft)	Bottom Width (ft)	Depth (ft)	Area (ft ²)	WP (ft)	R	Slope (%)	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
bottom	6	6	0.67	4.02	7.34	0.5476839	2	47.25	21.00	5.22

Manning's Equation:

$$Q = 1.49/n * A * R^{2/3} * S^{1/2}$$

A = Area

R = D/4

S = Slope

n = 0.012

The channel is irregular shaped so we calculated capacity at narrowest
show here

Outfall

Weir Equation:

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

Q= 1.52 cfs

C = 2.95

H = 0.67 ft

L = Length of weir

$$L = \frac{20.49}{2.95(1.00)^{3/2}}$$

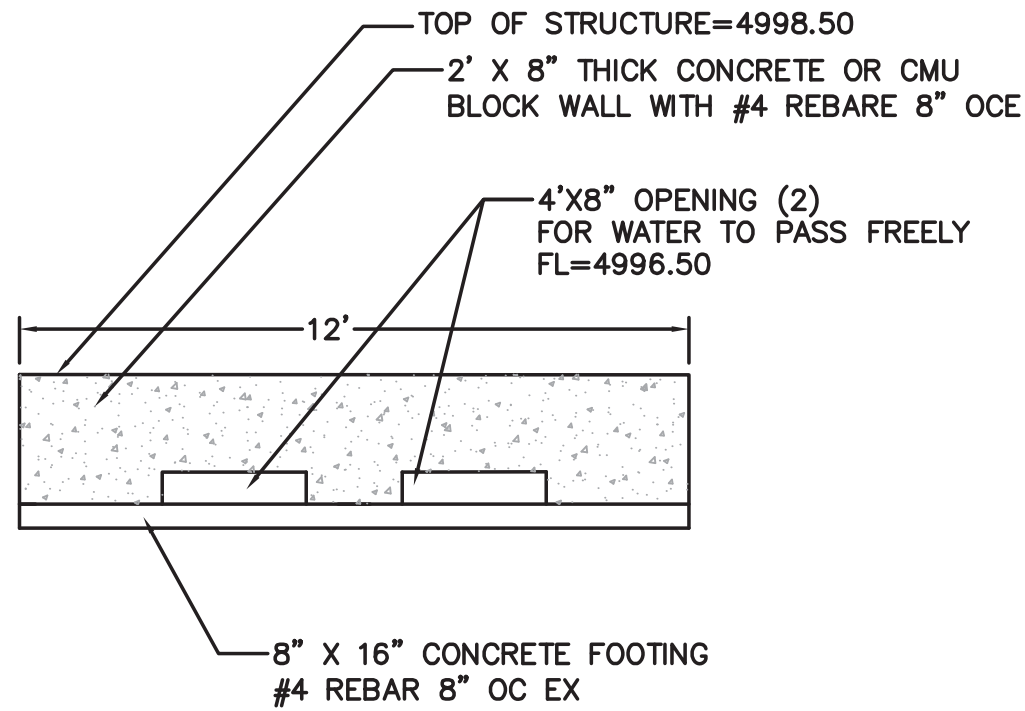
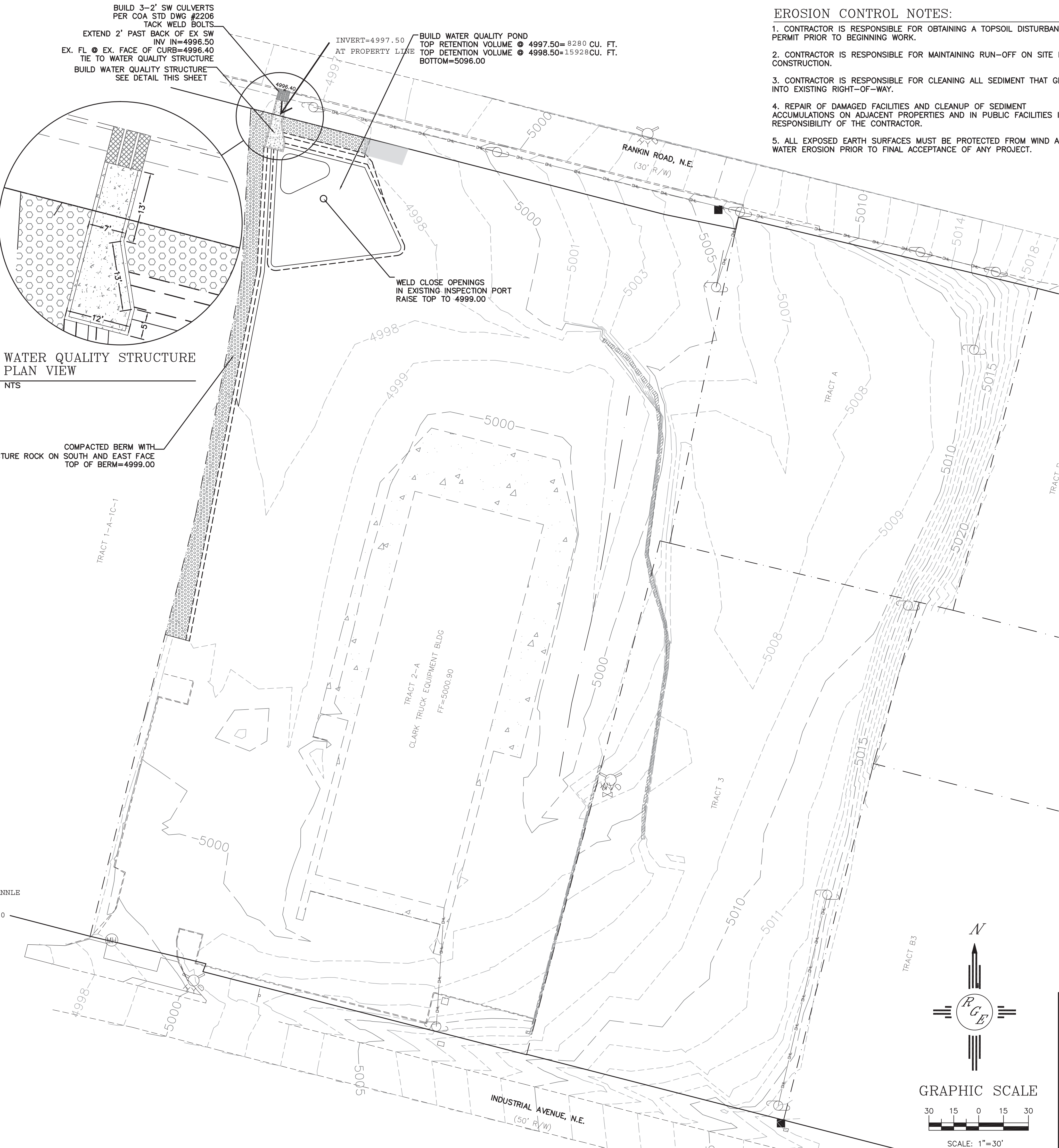
L = 6.956 ft

use 12' weir at exit of water quality box

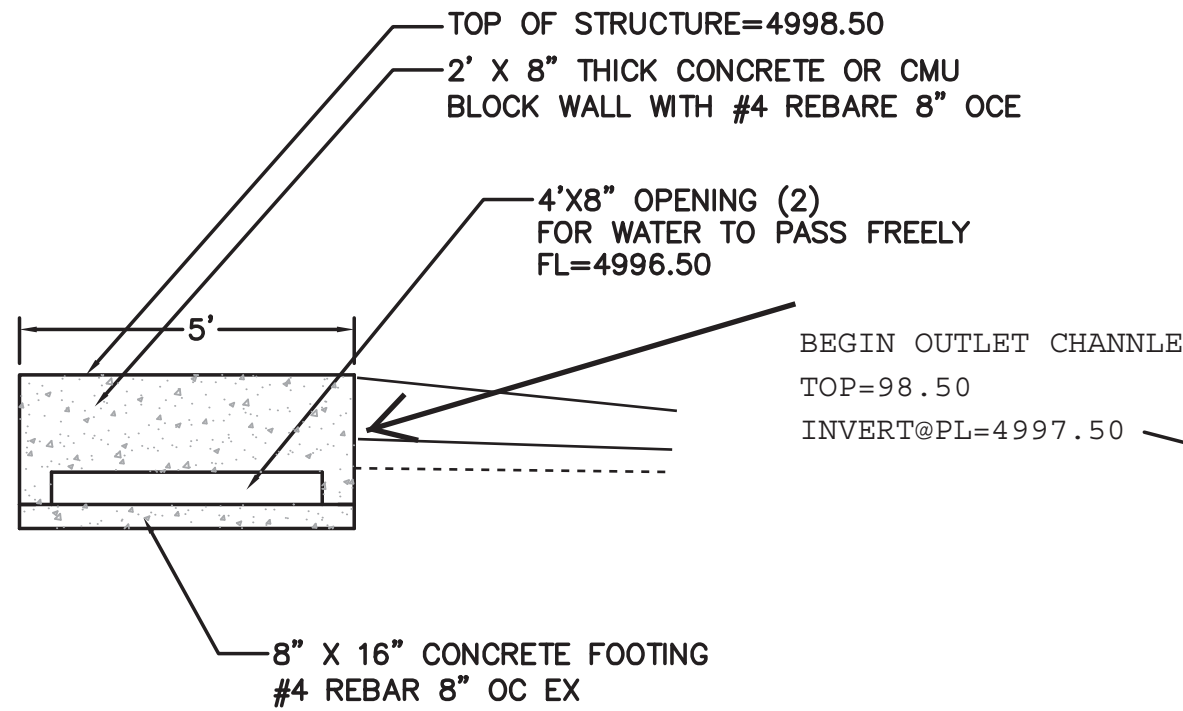
Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. 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.
3. 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.
4. 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.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets shall be performed on a 24-hour basis.
8. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

STREET MAINTENANCE INSPECTOR
APPROVAL _____



WATER QUALITY STRUCTURE
FRONT-(SOUTH FACE)
NTS

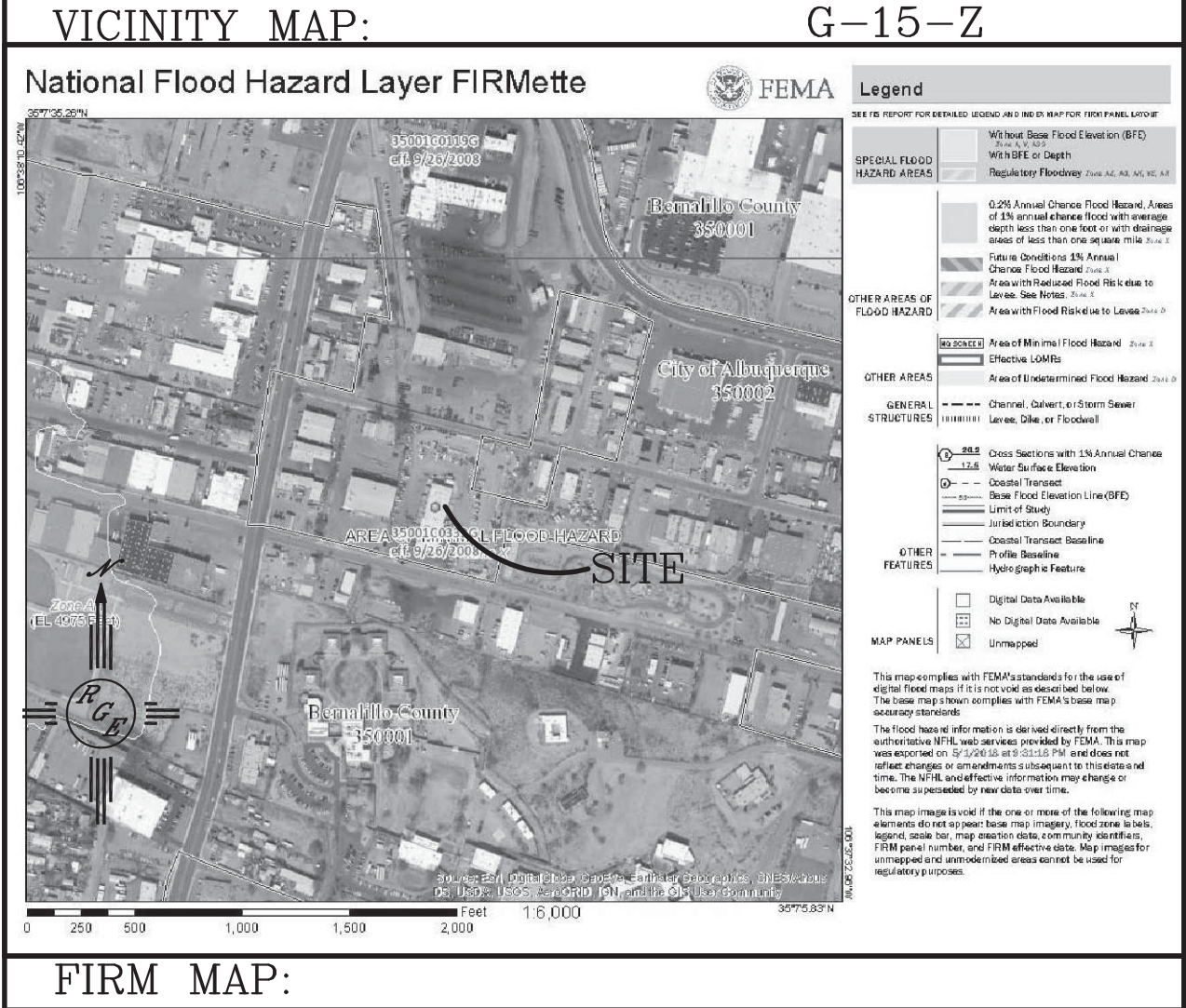
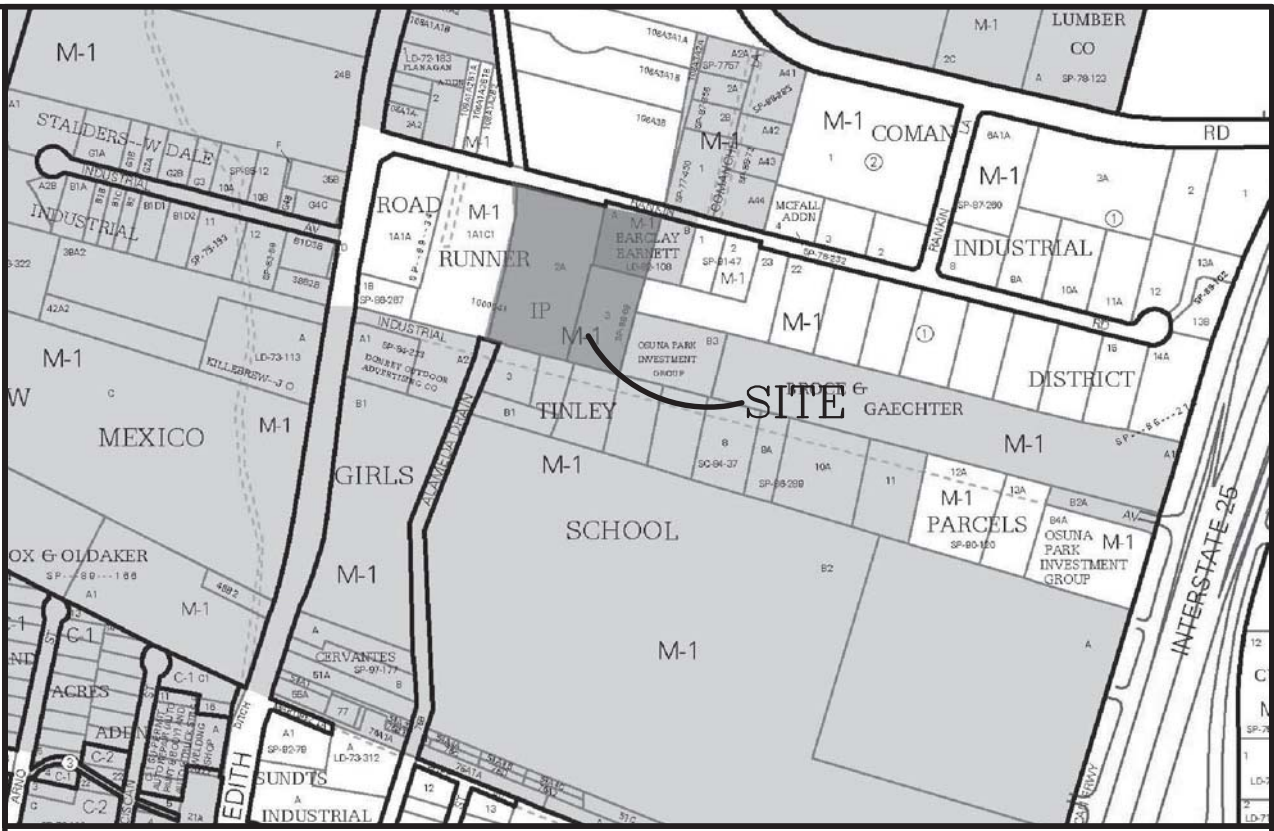


WATER QUALITY STRUCTURE
SIDE-(EAST FACE)
NTS

CAUTION:
EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY
OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



LEGAL DESCRIPTION:
Tracts 2-A-3-C-1 & 2-A-3-C-2 McLeod Business Park

- NOTES:**
1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
 2. ALL CURB AND GUTTER TO 6" HEADER UNLESS OTHERWISE NOTED.
 3. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.
 4. ANY CURBS OR PAVEMENT NEGATIVELY IMPACTED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED TO MATCH EXISTING CONDITIONS.
 5. ALL SITE WORK SHALL CONFORM TO CITY OF ALBUQUERQUE STANDARDS FOR PUBLIC WORKS CONSTRUCTION EDITION 9

LEGEND	
---	EXISTING CONTOUR
- - -	EXISTING INDEX CONTOUR
---	PROPOSED CONTOUR
---	PROPOSED INDEX CONTOUR
▲	SLOPE TIE
x 4048.25	EXISTING SPOT ELEVATION
x 4048.25	PROPOSED SPOT ELEVATION
---	BOUNDARY
---	CENTERLINE
---	RIGHT-OF-WAY
---	PROPOSED CURB
---	EXISTING CURB AND GUTTER
---	EXISTING SIDEWALK
---	6" FRACTURED ROCK

ENGINEER'S SEAL 5/15/18 DAVID SOULE P.E. #14522	CLARKE TRUCKING	DRAWN BY WCVJ
	WATER QUALITY GRADING AND DRAINAGE PLAN 1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0899	DATE 5-07-18 21899-LAYOUT-5-07-18
		SHEET # JOB # 21899