CITY OF ALBUQUERQUE

September 17, 2015

David Soule, PE
Rio Grande Engineering
1606 Central SE Suite 201
Albuquerque, NM 87106

Re: Kirkpatrick
8610 President Place
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 2-5-15 (C17D122)
Certification dated: 9-14-15

Dear Mr. Soule,

Based on the Certification received 9/15/2015, the site is acceptable for release of Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3695 or Totten Elliott at 924-3982.

Sincerely,

Rita Harmon, P.E.,
Senior Engineer, Hydrology
Planning Department

TE/RH
C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: kirkpatrick Building Permit #: _____ City Drainage #: c17d122

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

Legal Description: B1A5 CLIFFORD INDUSTRIAL PARK

City Address: 8610 presidents place

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: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
x ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
x CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
SEP 15 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: 9/14/15 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services

Richard J. Berry, Mayor

February 9, 2015

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

RE: Kirkpatrick Warehouse (File: C17D122)
Grading and Drainage Plan, Engineer's Stamp Date 2-5-15
Drainage Report, Engineer's Stamp dated 11-25-14

Dear Mr. Soule:

Based upon the information provided in your submittal received 2-6-15, the above referenced submittal is approved for Building Permit and SO-19 with the following condition:

- Add rip-rap where the drainage channel along the south side discharges to the retention pond.
- Note that the fence is to be removed.
- Limit the diameter or size of any landscaping that is to be put within the channel so that the capacity of the channel is not reduced.

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

A separate SO-19 permit is required for construction within City ROW. A copy of this approval letter must be on hand when applying for the excavation/barricading permit. The work in the City ROW must be inspected and accepted. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf: via Email: Recipient, Monica Ortiz, Jason Rodriguez and Antoinette Baldonado (DMD)

C17D122_BP_SO19_Appr.doc

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

DAN HERR
239-3320

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

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___ ENGINEER'S CERT (TCL)
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___ WORK ORDER APPROVAL
___ GRADING CERTIFICATION

X SO-19 APPROVAL
___ ESC PERMIT APPROVAL
___ ESC CERT. ACCEPTANCE
___ OTHER (SPECIFY)

RECEIVED
FEB 06 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ___ Yes X No ___ Copy Provided

DATE SUBMITTED: 020515 By: _____

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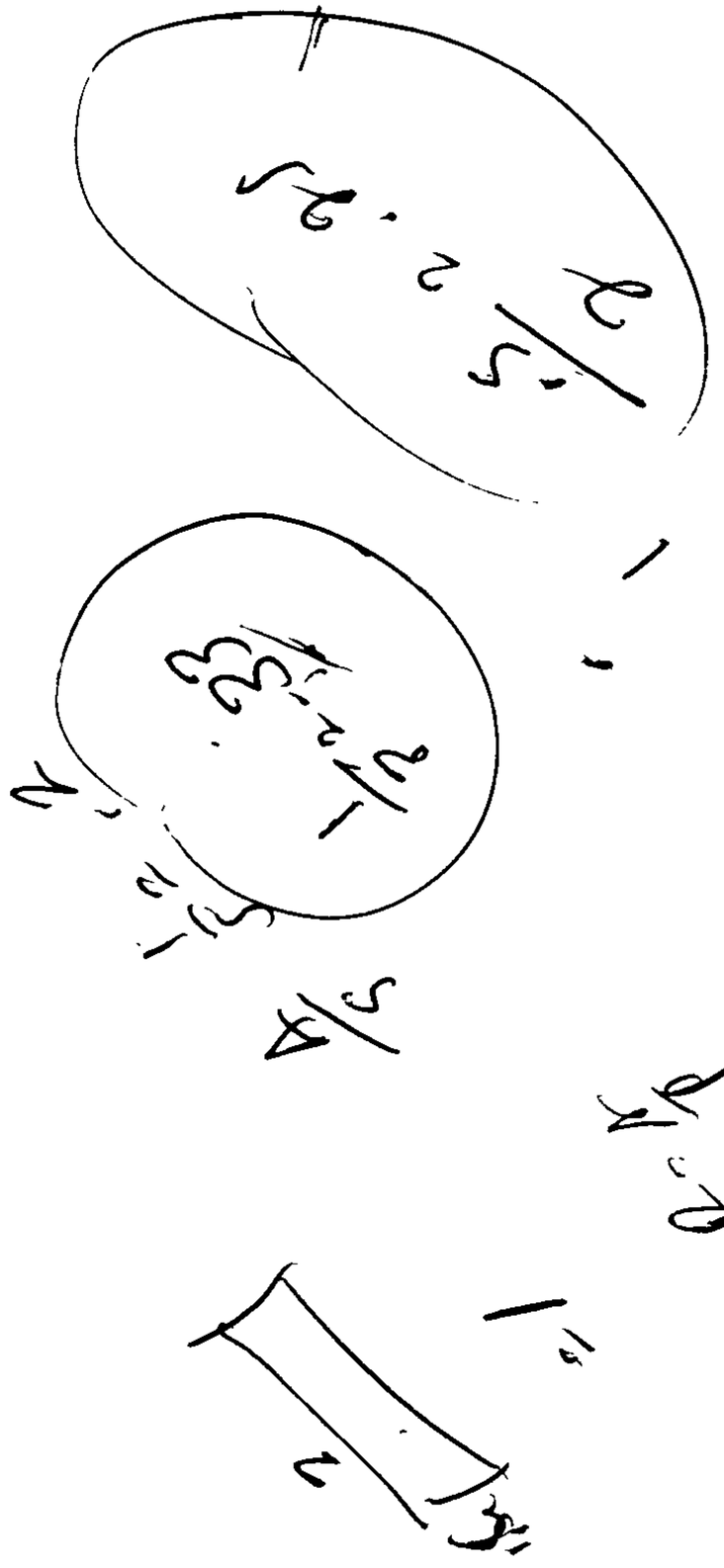
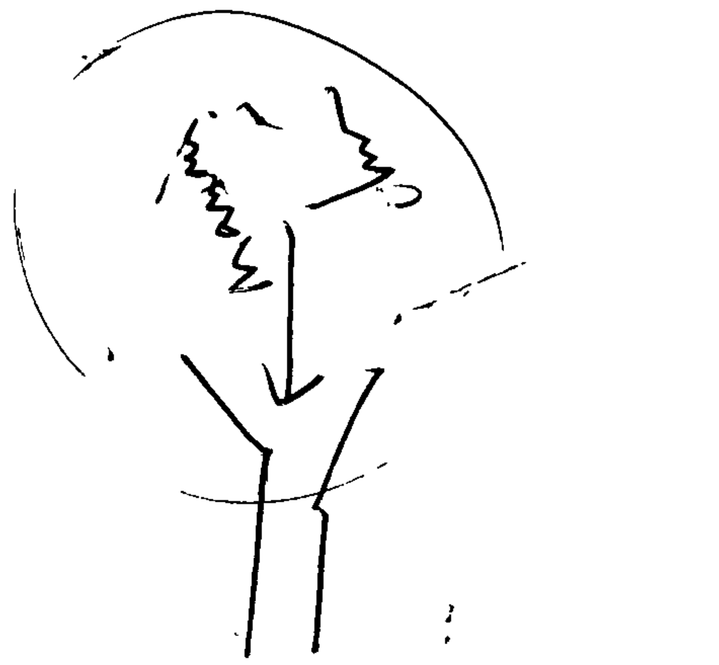
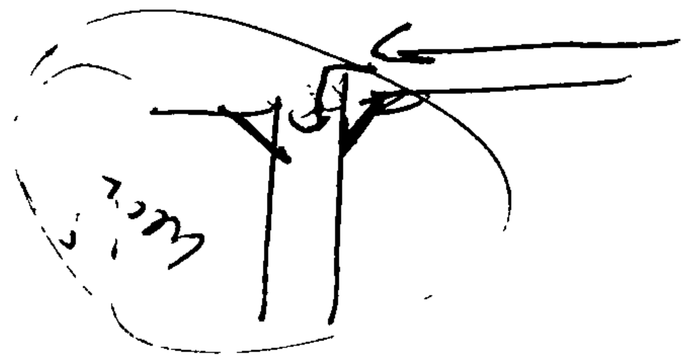






DRAINAGE REPORT

For

KIRKPATRICK WAREHOUSE
TRACT B1A5, CLIFFORD INDUSTRIAL PARK
8610 PRESIDENTS PLACE
Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

NOVEMBER 2014

David Soule P.E. No. 14522

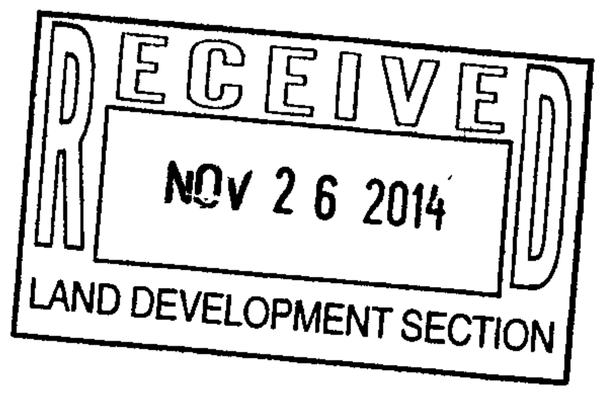
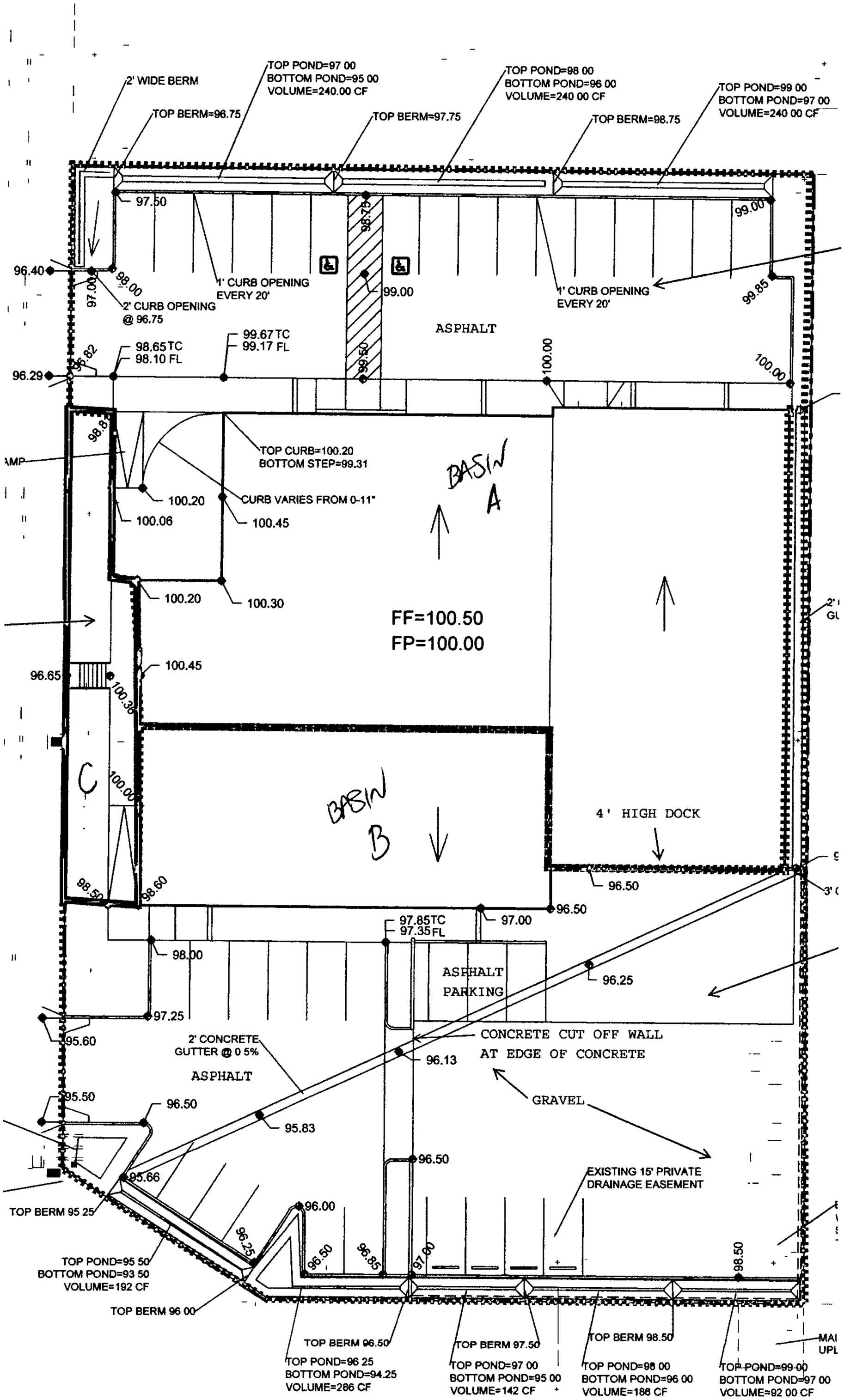


TABLE OF CONTENTS

Appendix

Map Pocket

Site Grading and Drainage Plan


2' WIDE BERM
TOP BERM=96.75
TOP POND=97 00
BOTTOM POND=95 00
VOLUME=240.00 CF
TOP BERM=97.75
TOP POND=98 00
BOTTOM POND=96 00
VOLUME=240 00 CF
TOP BERM=98.75
TOP POND=99 00
BOTTOM POND=97 00
VOLUME=240 00 CF
97.50
98.75
99.00
96.40
98.00
97.00
2' CURB OPENING
@ 96.75
1' CURB OPENING
EVERY 20'
99.00
1' CURB OPENING
EVERY 20'
99.85
ASPHALT
99.67 TC
99.17 FL
98.65 TC
98.10 FL
96.82
96.29
99.50
100.00
100.00
98.87
TOP CURB=100.20
BOTTOM STEP=99.31
BASIN
A
100.20
CURB VARIES FROM 0-11"
100.06
100.45
100.20
100.30
FF=100.50
FP=100.00
100.45
96.65
100.30
C
100.00
BASIN
B
4' HIGH DOCK
98.50
98.60
96.50
96.50
97.85 TC
97.35 FL
97.00
98.00
ASPHALT
PARKING
96.25
97.25
95.60
2' CONCRETE
GUTTER @ 0 5%
CONCRETE CUT OFF WALL
AT EDGE OF CONCRETE
96.13
ASPHALT
GRAVEL
95.50
96.50
95.83
96.50
95.66
EXISTING 15' PRIVATE
DRAINAGE EASEMENT
TOP BERM 95 25
96.00
96.25
96.50
96.85
97.00
98.50
TOP POND=95 50
BOTTOM POND=93 50
VOLUME=192 CF
TOP BERM 96 00
TOP BERM 96.50
TOP POND=96 25
BOTTOM POND=94.25
VOLUME=286 CF
TOP BERM 97.50
TOP POND=97 00
BOTTOM POND=95 00
VOLUME=142 CF
TOP BERM 98.50
TOP POND=98 00
BOTTOM POND=96 00
VOLUME=186 CF
TOP POND=99 00
BOTTOM POND=97 00
VOLUME=92 00 CF

PURPOSE

The purpose of this report is to provide the Drainage Management Plan for the development of a platted lot located at 8610 President Place Northeast. 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 1.01-acre parcel of land located on the east side of President Place south of Alameda Boulevard Northeast. The legal description of this site is tract B-1-a-5 Clifford Industrial Park. As shown on FIRM map35013C0136G, the entire site is located within Flood Zone X. The site is located within the drainage master plan for Clifford industrial park C17D1U9

EXISTING CONDITIONS

The site is currently a vacant parcel. It appears minor grading may have occurred in the past yet the native grasses make this appear to be close to native conditions. The site is located in basin D of the Clifford west drainage plan. The site accepts 12.9 cfs from the upland lots. The flow is accepted at the southeast corner and conveyed across the site within a 6' asphalt swale. The flow is discharged to President Place via two sidewalk culverts. The flow drains to the southern terminus and is accepted by a concrete lined channel and ultimately conveyed to the AMAFCA north diversion channel west of the site.

what about east P/L flow are now blocked in the swale area on adjacent site.

C17D1U7 = Klingler Expansion
- 7.08 cfs

C17D1U9 - Washington St NE
- 8 cfs allowed from
- 4.9 from site
- But letters indicate that a pond (not on plan) discharges 2.5 cfs

PROPOSED CONDITIONS

The proposed improvements consist of a new building with paved and gravel parking areas. The proposed site development will create three onsite basins, Basin a is the majority of the building and the northern paved parking field. This basin will drain to a water quality swale where 720 cubic feet of water is harvested, prior to the attenuation provided by the ponds, the peak flow will be 2.24 cfs. Basin C is the front porch and landscape area, this area will sheet flow .13 cfs to the street. Basin B consists of a portion of the building and the southern parking and dock area. This basin generates 1.77 cfs and 2677 cubic feet of storm water during the 100-year, 6 hour event. This basin drains to the southwest corner of the site. Due to the master plan requirement of 2.3 cfs per acre, as well as the water quality volume of 1235 cfs, the entire volume generated by this basin will be captured onsite and harvested via 34-Stormtech infiltrator chambers. The upland flows will continue to be accepted on site yet they will be contained within the 5' landscape buffer swale. As shown in appendix A, the channel and pond overflow improvements are adequately sized. The existing sidewalk culverts will not see increased flow from our site so they will remain in existing condition. Appendix B includes the details of the drainage inlet and infiltration systems.

SUMMARY AND RECOMMENDATIONS

This project is a development of a parcel located within a master plan industrial park. The development of this site is in conformance to the master drainage study. The site will discharge 2.36 cfs. Due to the harvest ponds on the north the attenuated flow will be less than calculated. The site development allows the upland flow to continue to enter unimpeded and discharge the site thru the existing inlet. The site development meets the water quality requirements. Since the effected area site encompasses and area greater that 1 acre, a NPDES permit should be required prior to any construction activity. An Erosion Control Plan will also be required.

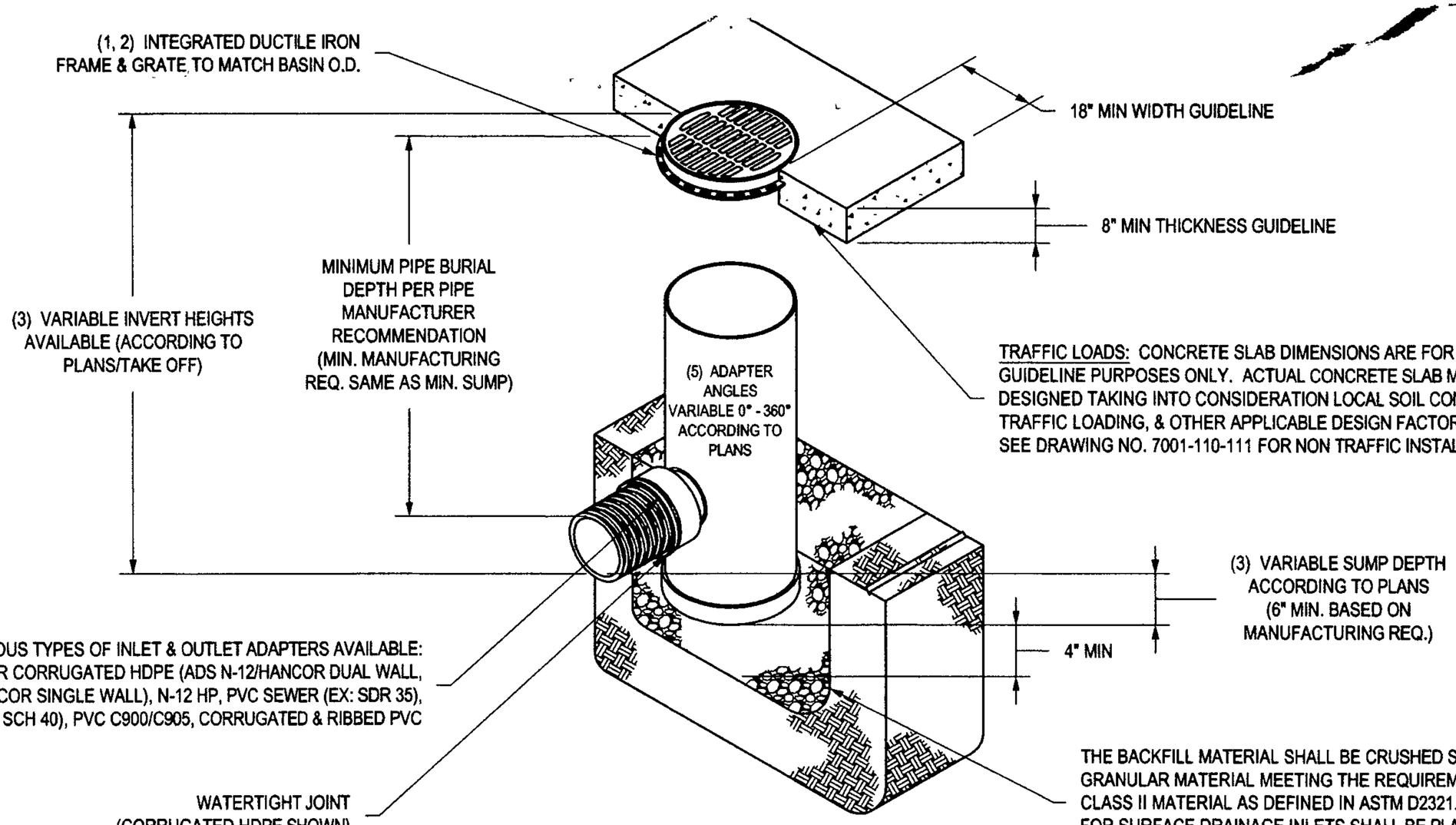
APPENDIX A

SITE HYDROLOGY

APPENDIX B

INFILTRATOR DETAILS

NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2499CGP	7001-110-216
STANDARD	MEETS H-20	2499CGS	7001-110-217
SOLID COVER	MEETS H-20	2499CGC	7001-110-218
DOME	N/A	2499CGD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2401DI	7001-110-075

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

DRAWN BY	EBC	MATERIAL	
DATE	04-03-06		
REVISED BY	CCA	PROJECT NO./NAME	
DATE	08-27-13		
DWG SIZE	A	SCALE 1:40 SHEET 1 OF 1	

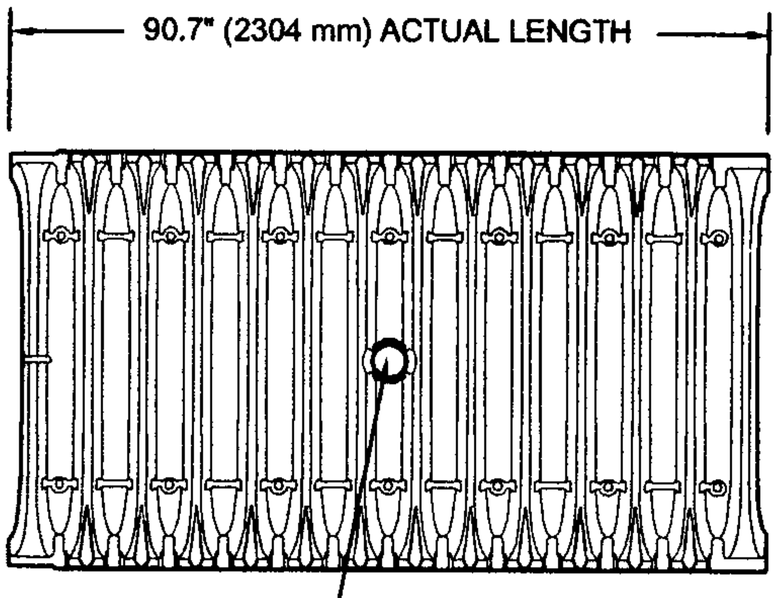
Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

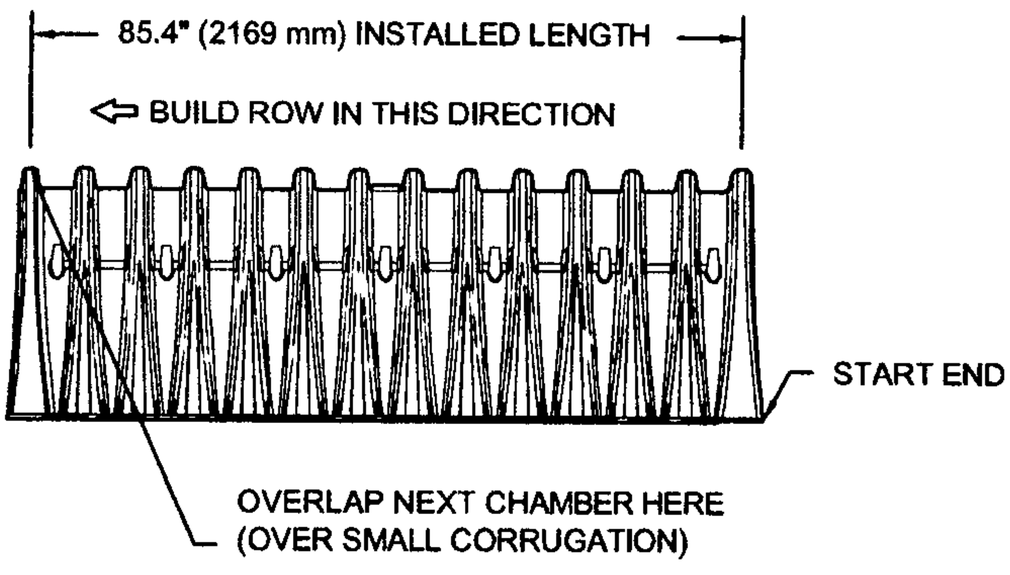
TITLE
24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-192 REV D

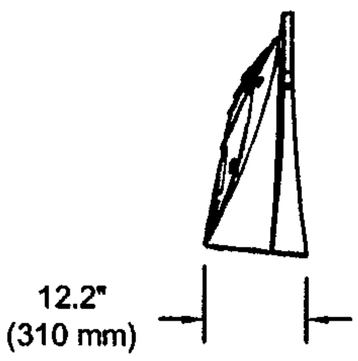
DC-780 TECHNICAL SPECIFICATION

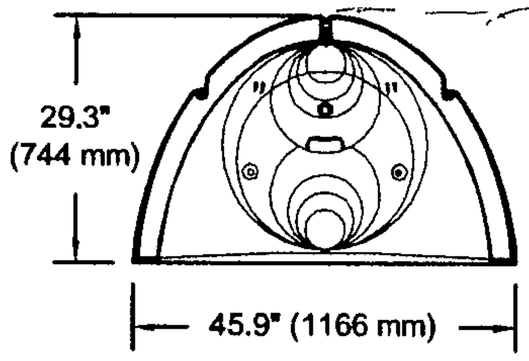
NTS

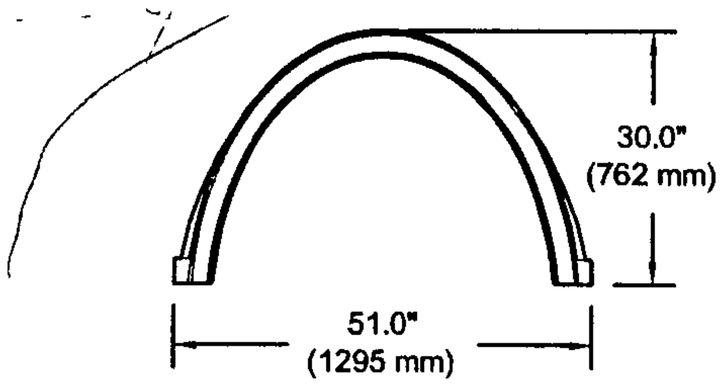




ACCEPTS 4" (100 mm) SCH 40 PVC PIPE FOR INSPECTION PORT. FOR PIPE SIZES LARGER THAN 4" (100 mm) UP TO 10" (250 mm) USE INSERTA TEE CONNECTION CENTERED ON A CHAMBER CRUST CORRUGATION



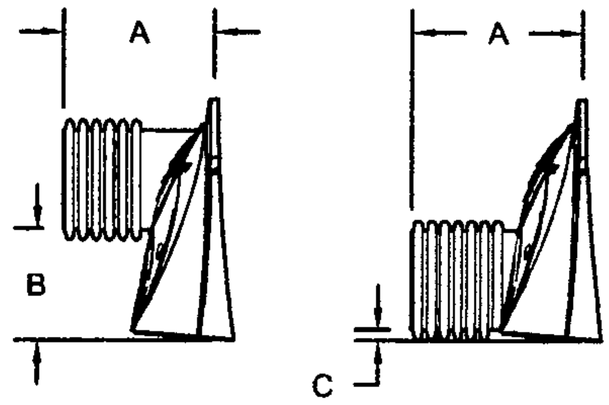




NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	46.2 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.20 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW, AND 6" (152 mm) BETWEEN CHAMBERS



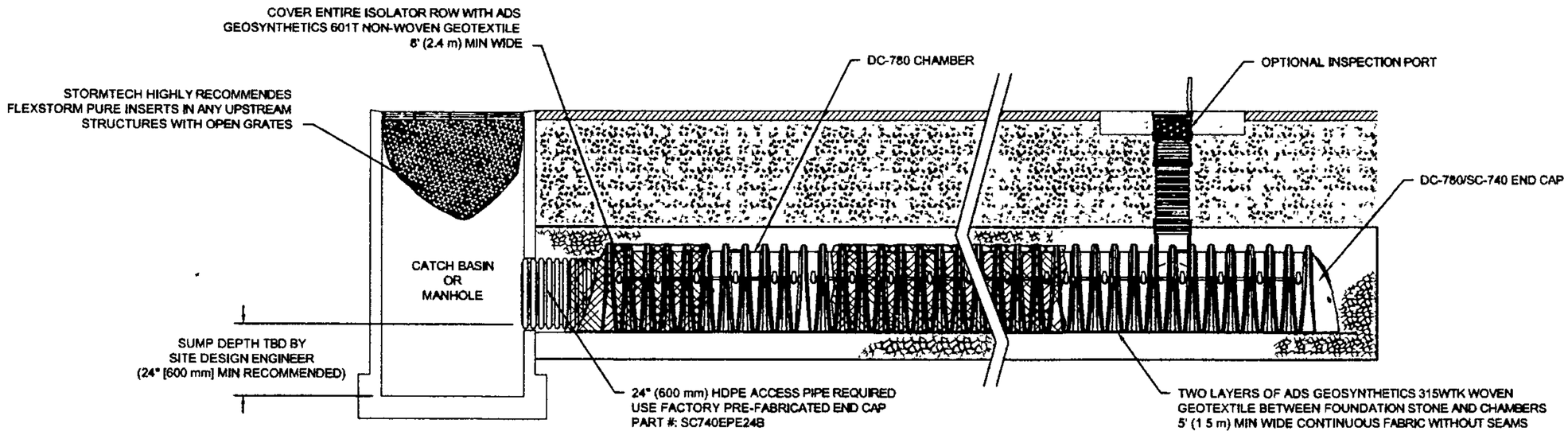
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EPE06B / SC740EPE06BPC			—	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	—
SC740EPE08B / SC740EPE08BPC			—	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	—
SC740EPE10B / SC740EPE10BPC			—	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	—
SC740EPE12B / SC740EPE12BPC			—	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	—
SC740EPE15B / SC740EPE15BPC			—	1.3" (33 mm)
SC740EPE18T/ SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	—
SC740EPE18B / SC740EPE18BPC			—	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	—	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL



DC-780 ISOLATOR ROW DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2 IF NOT, PROCEED TO STEP 3.
- B ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B 2 USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - I) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - II) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C VACUUM STRUCTURE SUMP AS REQUIRED

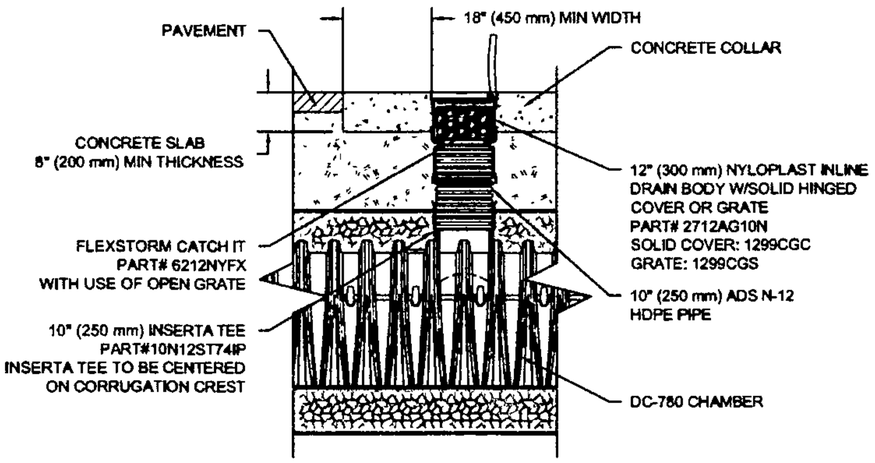
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM

NOTES

1 INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



DC-780 INSPECTION PORT DETAIL
NTS

DC-780
ISOLATOR ROW DETAILS

DATE 11/18/14 | DRAWN: JLM | CHECKED: JLM | PROJECT #:

REV	DRW	CHK	DESCRIPTION

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

StormTech
Detention Retention Water Quality
70 INWOOD ROAD SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

ADS
ADVANCED DRAINAGE SYSTEMS, INC.
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

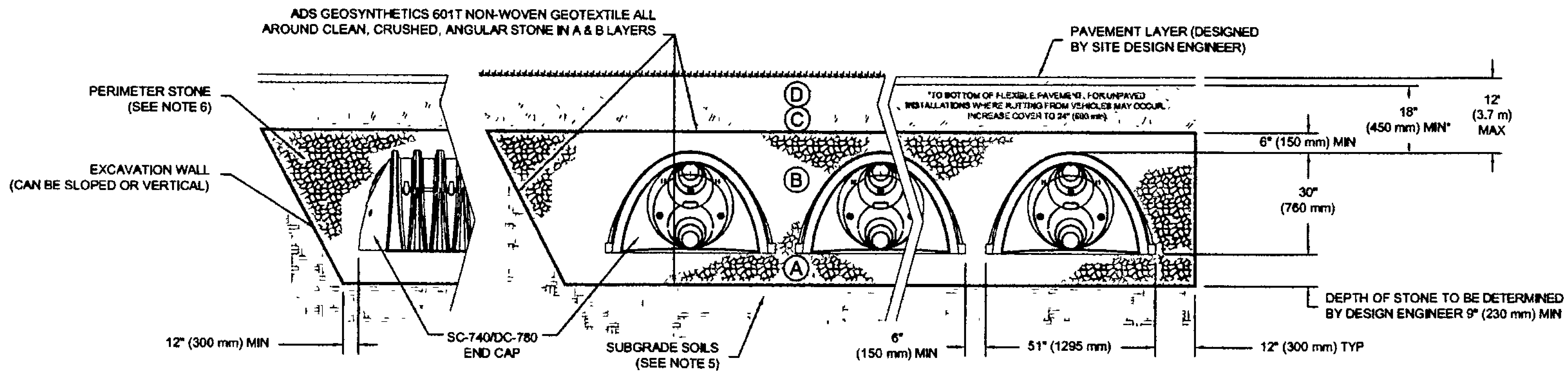
SHEET
1 OF 1

ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE [2,3]

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE"
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

1. DC-780 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

DC-780
STANDARD CROSS SECTION

DATE: 11/18/14	DRAWN: JLM
PROJECT #:	CHECKED: JLM

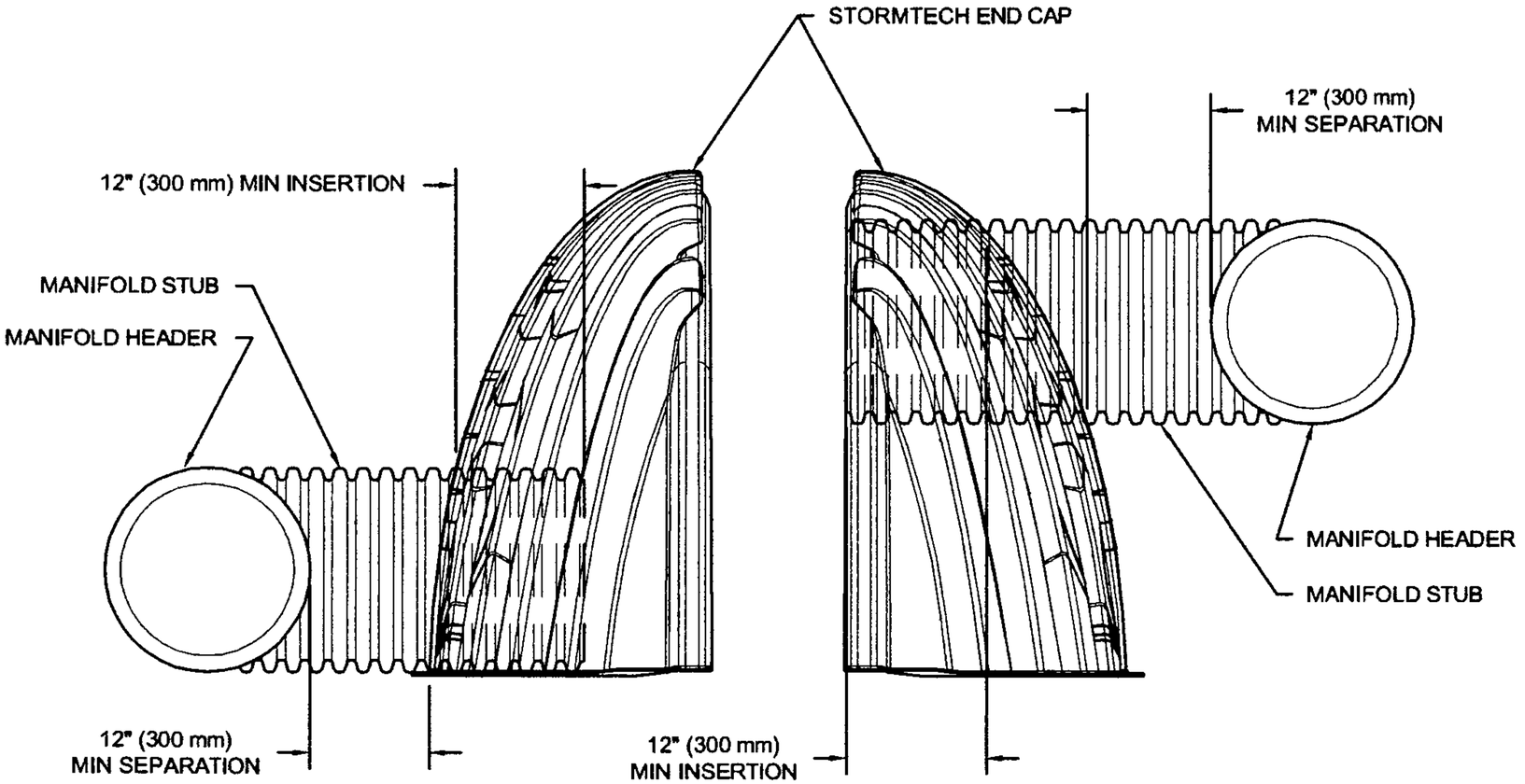
REV	DRW	CHK	DESCRIPTION

StormTech®
70 INWOOD ROAD SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

ADS® ADVANCED DRAINAGE SYSTEMS, INC.
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

MC-SERIES END CAP INSERTION DETAIL

NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL
FOR A PROPER FIT IN END CAP OPENING.

landscape pond overflows

Weir Equation:

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

Q= 1.85 & 1.48
C = 2.95
H = 0.5 ft
L = Length of weir ~ 6

Q=2.95x6x.5^(1.5)
6.4 cfs

Q allowable = 6.25 cfs > Q required=2.28

WALL OPENING

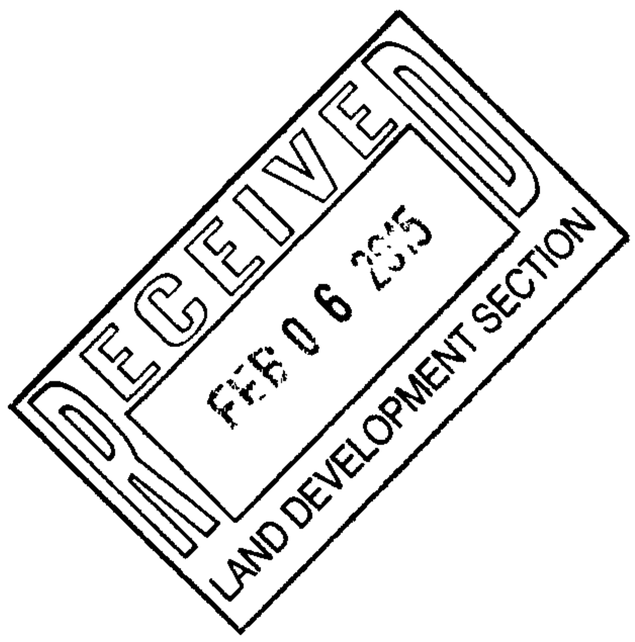
Weir Equation:

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

Q= 13cfs from C17D149
C = 2.95
H = 1.33 ft
L = 3.33r

Q=2.95X3.33X1.33^1.5=

Q = 15.07 CFS
THEREFORE 2.5 BLOCK WIDE BY 2 BLOCK TALL I S OK



CURB OPENING

Weir Equation:

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

Q= 1.52 cfs
C = 2.95
H = 0.5 ft
L = Length of weir

$$L = \frac{1.77}{2.95(0.5)^{3/2}}$$

L = 1.70 ft
Use 2.0 feet for length of weir

Channel Capacity

	Top Width	Bottom Width	Depth	Area	WP	R	Slope	Q Provided	Q Required	Velocity
	(ft)	(ft)	(ft)	(ft^2)	(ft)		(%)	(cfs)	(cfs)	(ft/s)
CAPACITY	5	0.25	1.5	3.94	5.87	0.6710064	2	21.20	12.90	3.28

Manning's Equation:

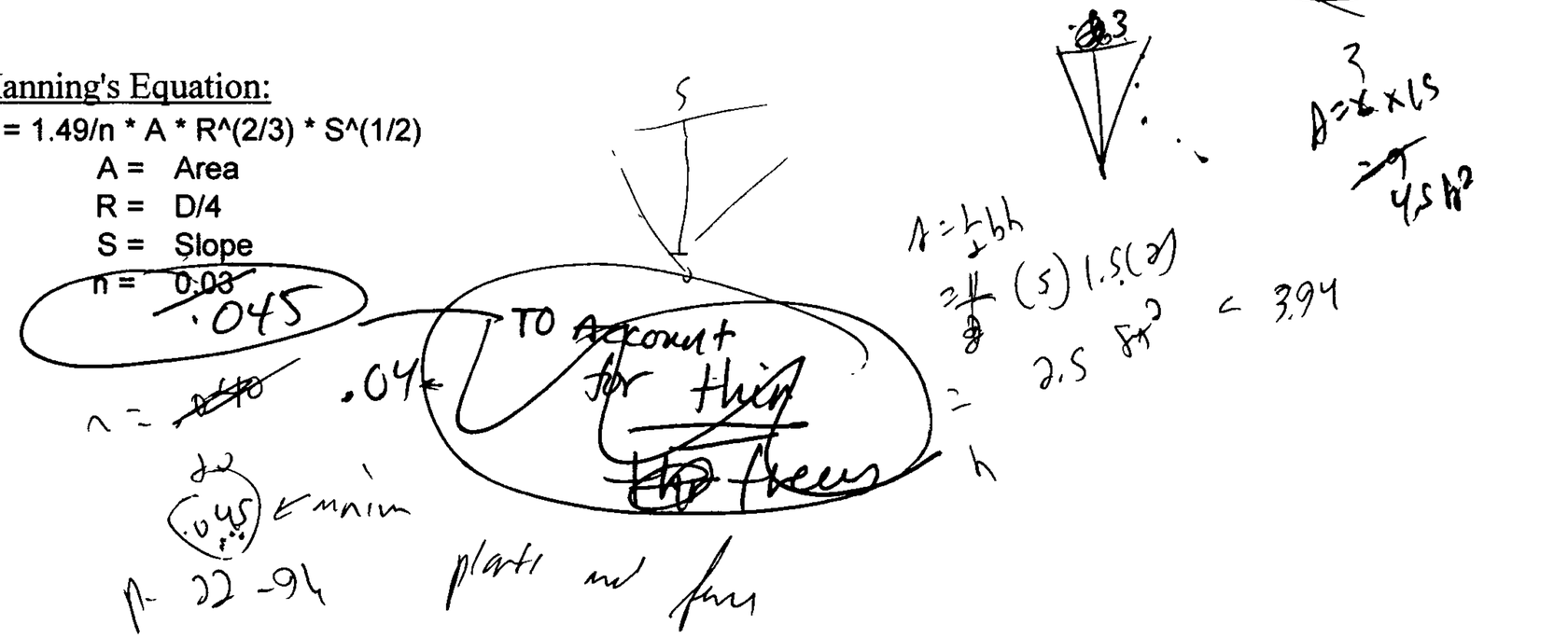
Q = 1.49/n * A * R^(2/3) * S^(1/2)

A = Area

R = D/4

S = Slope

n = ~~0.03~~ .045



Q = 14.1 cfs

Channel Capacity

	Top Width	Bottom Width	Depth	Area	WP	R	Slope	Q Provided	Q Required	Velocity
	(ft)	(ft)	(ft)	(ft^2)	(ft)		(%)	(cfs)	(cfs)	(ft/s)
Beginning	6	0.1	1.5	4.58	6.72	0.6809138	2	24.87	13.00	2.84

Manning's Equation:

Q = 1.49/n * A * R^(2/3) * S^(1/2)

A = Area

R = D/4

S = Slope

n = 0.03

OBS

opening in wall

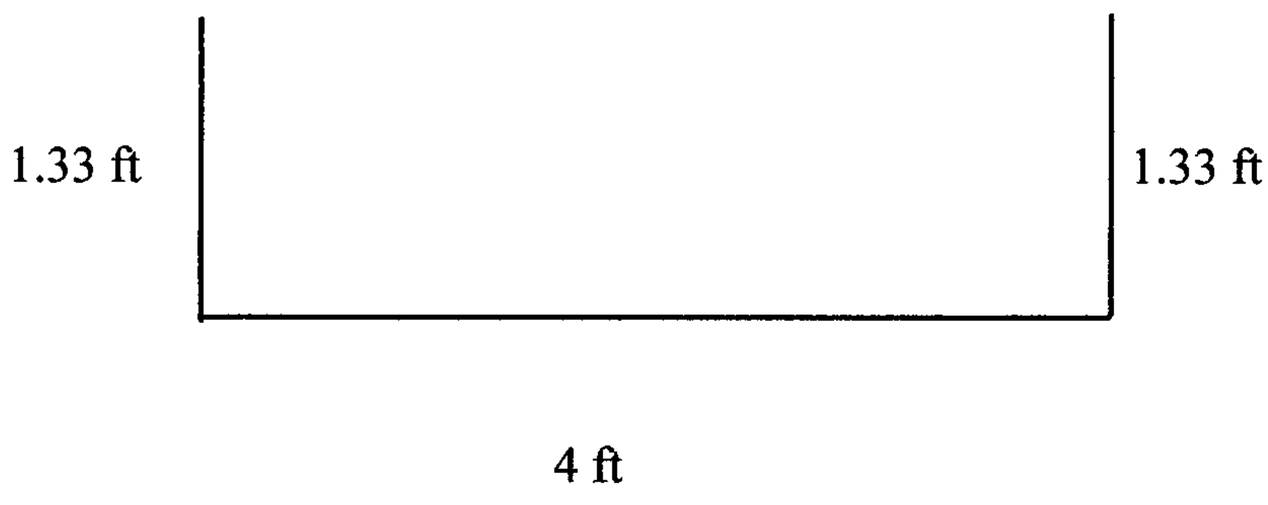
Weir Equation:

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

Q= 13. cfs
C = 2.95
H = 0.67 ft
L = Length of weir

$$L = \frac{12.9}{2.95(1.33)^{3/2}}$$

L = 2.85 ft
Use 4' to match 3 blocks wide



Weighted E Method

KIRKPATRICK

Proposed

Existing Developed Basins

											100-Year, 6-hr.			10-day	
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)	
BASIN A	16304	0.374	0%	0	8.0%	0.030	6.0%	0.02246	86%	0.322	1.953	2657 0.061	1.65	0.104	4530
BASIN B	24640	0.566	0%	0	13.0%	0.074	31.0%	0.17535	54%	0.305	1.597	3267 0.075	2.15	0.116	5052
BASIN C	2616	0.060	0%	0	7.0%	0.004	75.0%	0.04504	18%	0.011	1.284	261 0.006	0.20	0.008	348
TOTAL	43560	1.000	0%	0		0.108		0.243	45%	0.638		6229 0.143	4.007	#VALUE!	
														0.228	9930

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 (zone 3)

Ea= 0.53	Qa= 1.57
Eb= 0.78	Qb= 2.28
Ec= 1.13	Qc= 3.14
Ed= 2.12	Qd= 4.7

Reduction of discharge

basin a 38% 1010 retained/2657 generated

basin b 50% 1652 retaind/3267 generated

water quality requirement 1234.88 787 REQ

Pond basin B 1652.00 cf

Pond basin A 1010.00 cf

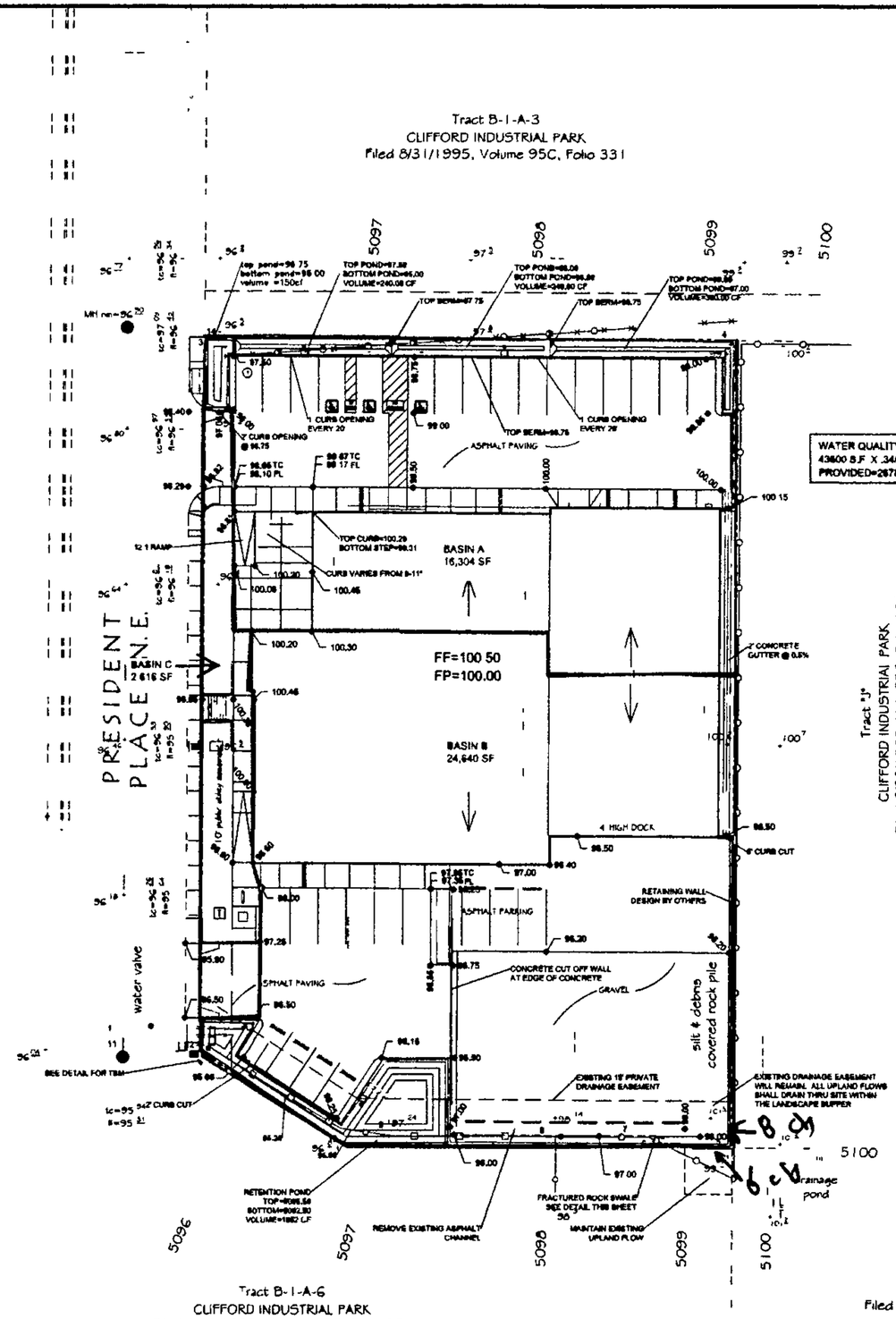
Total retained 2662.00

Theoretical discharge 62% Basin A+50% Basin B+100%Basin C= 2.302804 = 0.62(1.65cfs) + 0.50(2.15) + 0.20 cfs = 1.02 + 1.08 + 0.20 = 2.30

allowed discharge 2.3 cfs CLIFFORD BUS PARK C17D122

THE SUBJECT PROPERTY IS LOCATED WITHIN BASIN D OF THE C-17D1U9 GRADING PLAN. THIS SITE IS ALLOWED TO FREE DISCHARGE 2.3CFS PER ACRE.
THE SITE ACCEPTS 12.9 CFS FROM THE UPLAND LOTS. THE FLOW SHALL PASS THRU THE SITE. TO REDUCE FLOW TO ALLOWED BASINS B AND D WILL BE RETAINED

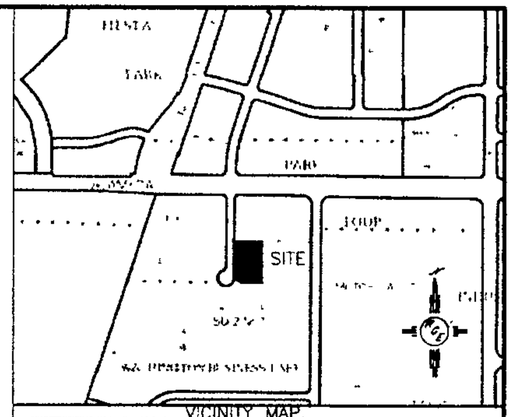
BASIN MAP

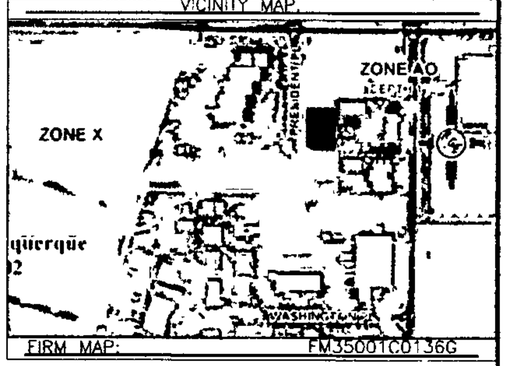


WATER QUALITY REQUIREMENT
43600 S.F. X .34/12=1237 CF
PROVIDED=2678.00 CF

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 (CITY) ACCEPTANCE OF ANY PROJECT





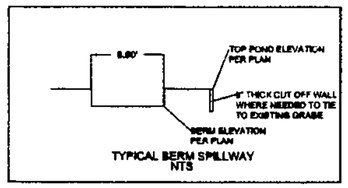
LEGAL DESCRIPTION:
Tract B-1-A-5, Clifford Industrial Park

NOTES

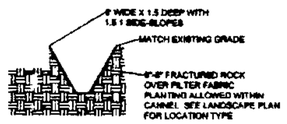
1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED
2. TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN WAS OBTAINED BY Christopher J. Dahler, NMLS 7923
3. ONSITE CURB SHALL BE 6" UNLESS OTHERWISE NOTED
4. ALL POND SHALL BE LINED WITH 6-8" FRACTURED ROCK. LANDSCAPING SHALL BE INSTALLED WITHIN ROCK

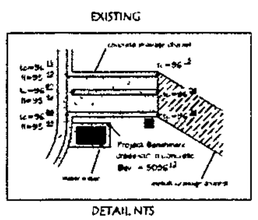
LEGEND

- 5411 EXISTING CONTOUR
- 5410 EXISTING INDEX CONTOUR
- 5411 PROPOSED CONTOUR
- 5410 PROPOSED INDEX CONTOUR
- DESIGN ELEVATION



TYPICAL BERM SPILLWAY
NTS





DETAIL NTS

Elevations shown hereon are NAVD88 values. Project Benchmark is a cross-cut in concrete at the southwest corner of Tract B-1-A-5, elevation = 5096.13 feet. Provided by Christopher J. Dahler, NMLS 7923.

Tract B-1-A-6
CLIFFORD INDUSTRIAL PARK
Filed 8/31/1995, Volume 95C, Folio 331

Tract B-1-A-7
CLIFFORD INDUSTRIAL PARK
Filed 8/31/1995, Volume 95C, Folio 331

N

GRAPHIC SCALE
20 10 0 10 20
SCALE 1"=20'

ENGINEER'S SEAL	TRACT B-1-A-5 CLIFFORD INDUSTRIAL PARK	DRAWN BY JDG
		DATE 01-12-2015
	GRADING AND DRAINAGE PLAN	
	Rio Grande Engineering 1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0999	SHEET # 1 OF 1
DAVID SOULE P.E. #14522		JOB #

EARTHWORKS ENGINEERING GROUP, LLC
• GEOTECHNICAL ENGINEERING •
MATERIALS TESTING • DISTRESS INVESTIGATIONS

January 26, 2015

Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

Attention: David Soule

Subject: 8610 President Pl. NE
EEG Project No.: A15-47

This letter provides the results of percolation testing for design of a stormwater retention pond at 8610 President Pl. NE in Albuquerque New Mexico.

A single test hole was drilled to 3 feet below existing grade in the proposed stormwater retention pond area. The test hole was cased to prevent collapse and percolation testing was performed. The location of the percolation test hole is shown on Figure 1.

Soils within the proposed retention pond area appear to consist of silty to clayey sand. The test results indicate a percolation rate of 30 minutes/inch. $= \frac{.5\ hr}{1\ in}$ or $\frac{1\ in}{.5\ hr} = 2\ in/hr.$

The staff of Earthworks Engineering Group is available for additional consultation as necessary. Should you have any questions concerning this information, please contact us at (505) 899-4886.

Prepared by

Patrick Gallegos, EIT

Reviewed by

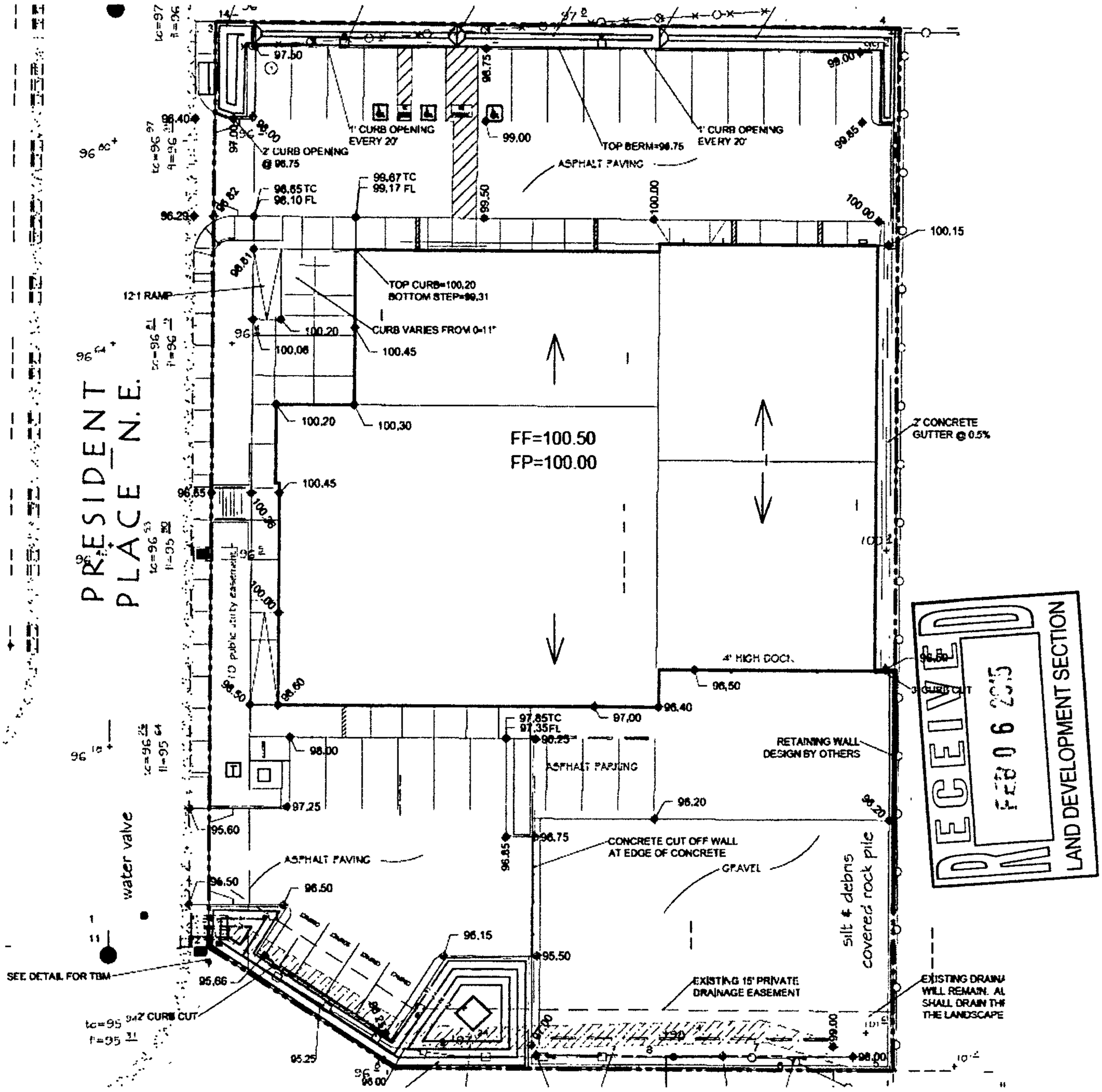
Dave Liebelt, P.E.
Earthworks Engineering Group LLC

7901 LORRAINE CT NE • ALB5UQUERQUE, NM • 87113
PHONE: **505 899 4886** 6• FAX: **505 899 4861**

8610 President Pl NE, Albuquerque, NM

Site Plan

*Not To Scale



RECEIVED
FEB 06 2015
LAND DEVELOPMENT SECTION

◇ Percolation Test Hole Location

Project No.: A15-47 **Earthworks Engineering Group, LLC** **Figure 1**

USDA United States Department of Agriculture
National Resources Conservation Service

Web Soil Survey

Printable Version

— Map Unit Description

alillo County and Parts of Sandoval and Valencia Counties, w Mexico

B—Wink-Embudo complex, 0 to 5 percent slopes

lap Unit Setting

National map unit symbol: 1vz3
Elevation: 4,850 to 6,500 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 58 to 60 degrees F
Frost-free period: 170 to 195 days
Farmland classification: Not prime farmland

lap Unit Composition

Wink and similar soils: 65 percent
Embudo and similar soils: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

escription of Wink

Setting

Landform: Alluvial fans, fan piedmonts
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

H1 - 0 to 6 inches: fine sandy loam
H2 - 6 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: Loamy (R042XA052NM)

escription of Embudo

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

H1 - 0 to 4 inches: gravelly fine sandy loam
H2 - 4 to 20 inches: gravelly sandy loam
H3 - 20 to 60 inches: stratified very gravelly loamy coarse sand to extremely gravelly loamy sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Low (about 3.4 inches)

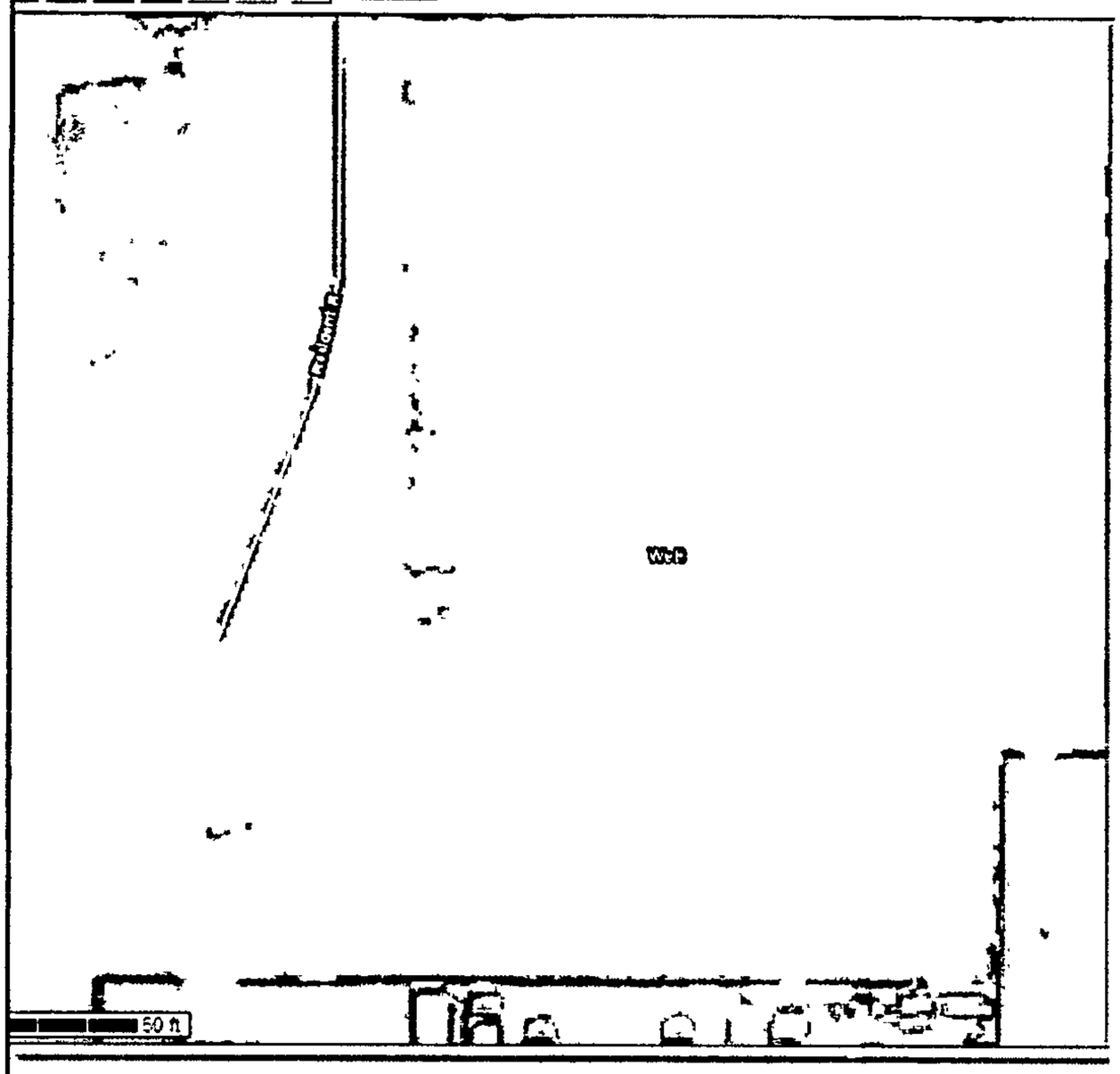
Interpretive groups

Land capability classification (irrigated): None specified

Download Soils Data | Shopping Cart (Free)

Printable Version | Add to Shopping Cart

Scale (not to scale)



ng: Soil Map may not be valid at this scale.

zoomed in beyond the scale at which the soil map for this area is intended to be used. M
scale. The soil surveys that comprise your AOI were mapped at 1:24,000. The design of
own in the resulting soil map are dependent on that map scale.

ent of maps beyond the scale of mapping can cause misunderstanding of the detail of map
t. The maps do not show the small areas of contrasting soils that could have been shown

David Soule

From: Niese, Amy [AmyNiese@cabq.gov]
Sent: Friday, January 09, 2015 12:02 PM
To: David Soule (david@riograndeengineering.com)
Subject: Kirkpatrick C17D122

You made the corrections I requested on the plans.

In talking with Curtis, we can only accept a volume in the rock voids of 30% not 40% that Stormtech uses. The number of units would have to be increased accordingly.

The Stormtech units can be used for retention for the First Flush. However, they cannot be used for infiltration because the DPM does not allow for infiltration at this time.

Because of these reasons, I cannot approve the Kirkpatrick plans until these issues are resolved.

I will discuss this more with you on Monday.

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department
Development & Building Services Division
(505) 924-3994

1/13/2015

January 13, 2015

Ms. Amy Niese
Senior Engineer
Hydrology Department
Public Works Department
City of Albuquerque

RE: Revised Grading Plan (C-17D122)
Kirkpatrick Warehouse
Albuquerque, New Mexico

Dear Ms. Niese:

The purpose of this letter is to accompany the enclosed revised grading plan. The plan has been revised to accommodate your email comments dated 1/9/15. We have chosen to forgo the Stormtech chambers in favor of a more standard ponding method. The attached plan shows the site has 3 basins. One small basin free discharges and the other two pass thru retention ponds prior to discharging. Since portions of the basin are captured by the ponds, there will be an attenuation of the peak flow. I submit that the reduction in flow rate is directly related to the ratio of total flow leaving the site compared to the total generated flow. There for Basin A retains 38% of the flow it generates therefore the peak discharge is reduced by the same 38%. This methodology is consistent with what Bernalillo County uses to calculate the attenuated peaks using retention ponds. We have preliminarily used infiltration rates from published USDA soil maps. Many Municipalities around the state allow this method. We have ordered a percolation test to confirm but would like to have plan reviewed and if acceptable have approval pending the submittal of the test. The soil type is Wink-Embudo complex with minimum 2" per hour, therefore the 3' pond will discharge in 18 hours.

Should you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

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

February 5, 2015

Ms. Rita Harmon
Senior Engineer
Hydrology Department
Public Works Department
City of Albuquerque

RE: Revised Grading Plan (C-17D122)
Kirkpatrick Warehouse
Albuquerque, New Mexico

Dear Ms. Harmon:

The purpose of this letter is to accompany the enclosed revised grading plan. The plan has been revised to accommodate your verbal comments dated 2/4/15. We have added a detail for the openings in the block walls. We also have included the weir calculation for this opening. We have included the percolation test results as well

Should you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

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

Tract B-1-A-3
CLIFFORD INDUSTRIAL PARK
Filed 8/31/1995, Volume 95C, Folio 331

Tract "J"
CLIFFORD INDUSTRIAL PARK
Filed 6/26/1986, Vol C36, Folio 101

PRESIDENT PLACE N.E.

WATER QUALITY REQUIREMENT
43603 S.F X .34/12=1237 CF
PROVIDED=2678.00 CF

FF=100.50
FP=100.00

TOP WALL=100.00
BOTTOM WALL=96.50

INSTALL STEEL PLATES ON EXISTING CULVERTS PER COA STD 2236 (80-190

water valve

SEE DETAIL FOR TBM

ASPHALT PAVING

CONCRETE CUT OFF WALL

GRAVEL

silt & debris covered rock pile

EXISTING 15' PRIVATE DRAINAGE EASEMENT

EXISTING DRAINAGE EASEMENT WILL REMAIN. ALL UPLAND FLOWS SHALL DRAIN THRU SITE WITHIN THE LANDSCAPE BUFFER

RETAINING WALL DESIGN BY OTHERS

4' HIGH DOCK

RETENTION POND
TOP=5098.00
BOTTOM=5092.00
VOLUME=1652 CF

3 block wide x 3-block high opening in wall at 95.50

3 block wide x 2-block high opening in wall at 99.50

drainage pond

REMOVE EXISTING ASPHALT CHANNEL

FRACTURED ROCK SWALE SEE DETAIL THIS SHEET

MAINTAIN EXISTING UPLAND FLOW

5096 5097 5098 5099 5100

Tract B-1-A-6
CLIFFORD INDUSTRIAL PARK
Filed 8/31/1995, Volume 95C, Folio 331

Tract B-1-A-7
CLIFFORD INDUSTRIAL PARK
Filed 8/31/1995, Volume 95C, Folio 331

Elevations shown hereon are NAVD88 values. Project Benchmark is a cross cut in concrete at line intersection corner of Tract B-1-A-5, elevation = 5096.13 feet. Provided by Christopher J. Dahler NMLS 7923.

ALLEY GUTTER

EXISTING

DETAIL NTS

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 (CITY) ACCEPTANCE OF ANY PROJECT

PRIVATE DRAINAGE IMPROVEMENET IN PUBLIC ROW

NOTICE TO CONTRACTORS

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 Prior to pouring concrete, contractor shall notify the storm drain inspector, 857-8074, to inspect reinforcement

APPROVAL	NAME	DATE
INSPECTOR		

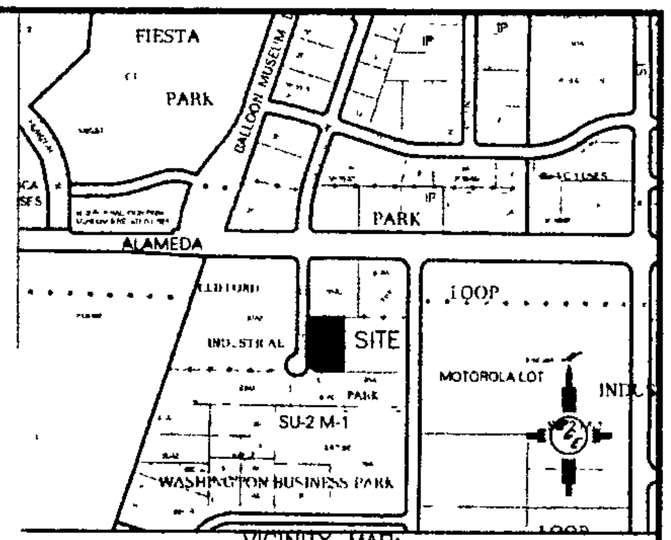
WALL OPENING DETAIL

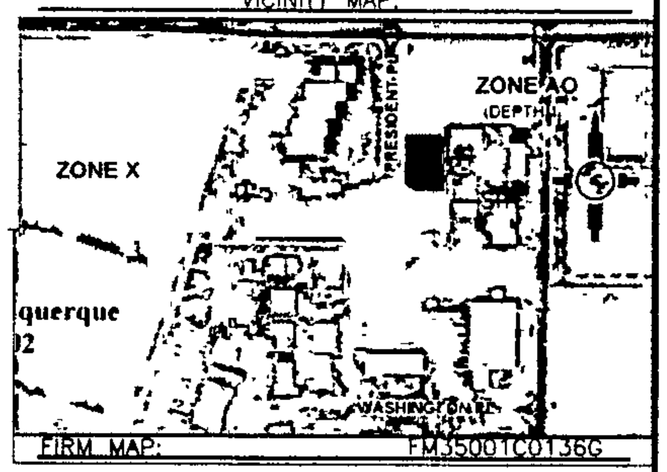
TYPICAL BERM SPILLWAY
NTS

SECTION A-A

N

GRAPHIC SCALE
20 10 0 10 20
SCALE 1"=20'





LEGAL DESCRIPTION:
Tract B-1-A-5 Clifford Industrial Park

NOTES
1 ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED
2 TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS PLAN WAS OBTAINED BY Christopher J. Dahler NMLS 7923
3 ONSITE CURB SHALL BE 6" UNLESS OTHERWISE NOTED
4 ALL POND SHALL BE LINED WITH 6-8" FRACTURED ROCK. LANDSCAPING SHALL BE INSTALLED WITHIN ROCK

LEGEND

- 5411 EXISTING CONTOUR
- 5410 EXISTING INDEX CONTOUR
- 5411 PROPOSED CONTOUR
- 5410 PROPOSED INDEX CONTOUR
- DESIGN ELEVATION

ENGINEER'S SEAL
DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER
2/5/15
DAVID SOULE P.E. #14522

TRACT B-1-A-5
CLIFFORD INDUSTRIAL PARK

GRADING AND DRAINAGE PLAN

DRAWN BY JDG
DATE 01-12-2015
SHEET # 1 OF 1
JOB #

Rio Grande Engineering
1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0979

Weighted E Method

KIRKPATRICK

Proposed
~~Existing~~ *Developed Basins*

											100-Year, 6-hr.		
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume cF (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
BASIN A	22068	0.507	0%	0	8.0%	0.041	6.0%	0.0304	86%	0.436	1.953	3571 0.082	2.24
BASIN B	19880	0.456	0%	0	11.0%	0.050	36.0%	0.1643	53%	0.242	1.616	2657 0.061	1.77
BASIN C	1636	0.038	0%	0	7.0%	0.003	75.0%	0.02817	18%	0.007	1.284	174 0.004	0.13
TOTAL	43584	1.001	0%	0		0.093		0.223	45%	0.684		6446 0.148	4.129

Equations:

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

Volume = Weighted E * Total Area

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

Where for 100-year, 6-hour storm (zone 3)

Ea= 0.53	Qa= 1.57
Eb= 0.78	Qb= 2.28
Ec= 1.13	Qc= 3.14
Ed= 2.12	Qd= 4.7

to reduce to below sub master plan	2677.50	POND BASIN B BY RATIO	
water quality requirement	X1234.88	844 REQ	C
total required	2677.505 cf		
provided in infiltrator system	2677.505 cf		
number of s780 chambers	34.1518	120.9839 long	
site discharge	2.36	2.359431 cfs/acres	

THE SUBJECT PROPERTY IS LOCATED WITHIN BASIN D OF THE C-17D1U9 GRADING PLAN. THIS SITE IS ALLOWED TO FREE DISCHARGE 2.3CFS PER ACRE. THE SITE ACCEPTS 12.9 CFS FROM THE UPLAND LOTS. THE FLOW SHALL PASS THRU THE SITE. TO REDUCE FLOW TO ALLOWED AN UNDERGROUNG STORM TECH CHAMBER WILL BE USED TO CAPTURE THE ADDITIONAL FLOW.

Weighted E Method

KIRKPATRICK

Existing Developed Basins

											100-Year, 6-hr.		
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
BASIN A	22068	0.507	0%	0	8.0%	0.041	6.0%	0.0304	86%	0.436	1.953	0.082	2.24
BASIN B	19880	0.456	0%	0	11.0%	0.050	36.0%	0.1643	53%	0.242	1.616	0.061	1.77
BASIN C	1636	0.038	0%	0	7.0%	0.003	75.0%	0.02817	18%	0.007	1.284	0.004	0.13
TOTAL	43584	1.001	0%	0		0.093		0.223	45%	0.684		0.148	4.129

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 (zone 3)

Ea= 0.53 Qa= 1.57
Eb= 0.78 Qb= 2.28
Ec= 1.13 Qc= 3.14
Ed= 2.12 Qd= 4.7

to reduce to below sub master plan	2677.50	POND BASIN B	
water quality requirement	1234.88		C
total required	2677.505	cf	
provided in infiltrator system	2677.505	cf	
capacity of mc3500 chamber	178.400	cf	
number of s780 chambers	15.0084	111 long	
site discharge	2.36	2.359431	cfs/acres

THE SUBJECT PROPERTY IS LOCATED WITHIN BASIN D OF THE C-17D1U9 GRADING PLAN. THIS SITE IS ALLOWED TO FREE DISCHARGE 2.3CFS PER ACRE. THE SITE ACCEPTS 12.9 CFS FROM THE UPLAND LOTS. THE FLOW SHALL PASS THRU THE SITE. TO REDUCE FLOW TO ALLOWED AN UNDERGROUNG STORM TECH CHAMBER WILL BE USED TO CAPTURE THE ADDITIONAL FLOW.

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Verbal No

Project Title: kirkpatrick Building Permit #: _____ City Drainage #: C17D122

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

Legal Description: B1A5 CLIFFORD INDUSTRIAL PARK

City Address: 8610 presidents place

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: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
x DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
x BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

x SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
JAN 15 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes x No ____ Copy Provided

DATE SUBMITTED: 1/13/15 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
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4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

City of Albuquerque

Planning Department

Development & Building Services Division

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(REV 02/2013)

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Address: PO BOX 93924, ALBUQUERQUE, NM 87199

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

Owner: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
x DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

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____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION
x SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
JAN 14 2015
AND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes x No ____ Copy Provided

DATE SUBMITTED: 1/13/15 By: _____

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4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

Niese, Amy

From: David Soule <david@riograndeengineering.com>
Sent: Friday, January 09, 2015 1:19 PM
To: Niese, Amy
Subject: RE: Kirkpatrick C17D122

Ok,

From: Niese, Amy [mailto:AmyNiese@cabq.gov]
Sent: Friday, January 09, 2015 12:02 PM
To: David Soule (david@riograndeengineering.com)
Subject: Kirkpatrick C17D122

You made the corrections I requested on the plans.

In talking with Curtis, we can only accept a volume in the rock voids of 30% not 40% that Stormtech uses. The number of units would have to be increased accordingly.

The Stormtech units can be used for retention for the First Flush. However, they cannot be used for infiltration because the DPM does not allow for infiltration at this time.

Because of these reasons, I cannot approve the Kirkpatrick plans until these issues are resolved.

I will discuss this more with you on Monday.

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department
Development & Building Services Division
(505) 924-3994

1/13/15
He is going to reconfigure parking lot for detention pond. Owner didn't like cost of Stormtech.

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

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

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

Owner: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

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____ DRAINAGE PLAN 1st SUBMITTAL
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____ CONCEPTUAL G & D PLAN
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____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

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X BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

X SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
JAN 08 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: 1/7/15 By: _____

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$A_D = 0.684$ $Q_{100} = 2.38$ CFS

Niese, Amy

From: Niese, Amy
Sent: Wednesday, January 07, 2015 11:47 AM
To: 'david1@spinn.net'
Subject: RE: RESUBMITTAL C17D112

I left a message for you hoping you would get it before your submittal this morning. Thanks for the corrections. The plans are much better. However there are still a few things:

1. Lower the invert of the Stormtech chamber so it fits under the pavement.
2. Provide which foundation depth the contractor should be using.
3. Put the spots back on the valley gutter that were on the previous plans.

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department
Development & Building Services Division
(505) 924-3994

From: david1@spinn.net [mailto:david1@spinn.net]
Sent: Wednesday, January 07, 2015 10:45 AM
To: Niese, Amy
Subject: Re: RESUBMITTAL C17D112

Just did thanks
T-Mobile. America's First Nationwide 4G Network.
------ Original message------
From: Niese, Amy
Date: Wed, Jan 7, 2015 9:04 AM
To: 'David Soule';
Subject:RE: RESUBMITTAL C17D112
When are you dropping off the hard copy?

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department
Development & Building Services Division
(505) 924-3994

From: David Soule [mailto:david@riograndeengineering.com]
Sent: Wednesday, January 07, 2015 8:07 AM
To: Ortiz, Monica; Niese, Amy
Cc: Ortiz, Annette
Subject: RESUBMITTAL C17D112

<<...>> <<...>> <<....>>

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

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Owner: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
x DRAINAGE PLAN RESUBMITTAL
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____ ENGINEER'S CERT (HYDROLOGY)
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____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
x BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

x SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
JAN 07 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes x No ____ Copy Provided

DATE SUBMITTED: 1/7/15 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

$A_D = 0.684$ $Q_{out} = 2.38$

Weighted E Method

KIRKPATRICK

Proposed

~~Existing~~ Developed Basins

											100-Year, 6-hr.		
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
BASIN A	22068	0.507	0%	0	8.0%	0.041	6.0%	0.0304	86%	0.436	1.953	0.082	2.24
BASIN B	19880	0.456	0%	0	11.0%	0.050	36.0%	0.1643	53%	0.242	1.616	0.061	1.77
BASIN C	1636	0.038	0%	0	7.0%	0.003	75.0%	0.02817	18%	0.007	1.284	0.004	0.13
TOTAL	43584	1.001	0%	0		0.093		0.223	45%	0.684		0.148	4.129

Equations:

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

Volume = Weighted E * Total Area

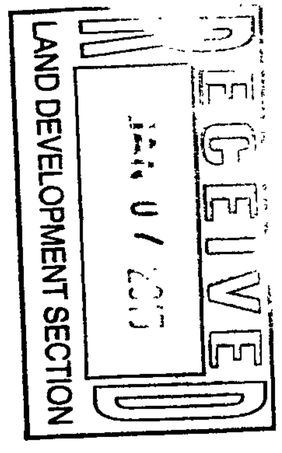
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm (zone 3)

Ea= 0.53	Qa= 1.57
Eb= 0.78	Qb= 2.28
Ec= 1.13	Qc= 3.14
Ed= 2.12	Qd= 4.7

to reduce to below sub master plan	2677.50	POND BASIN B	
water quality requirement	1234.88	844 REQ	C
total required	2677.505	cf	
provided in infiltrator system	2677.505	cf	
capacity of mc3500 chamber	178.400	cf	
number of s780 chambers	15.0084	111 long	
site discharge	2.36	2.359431 cfs/acres	

THE SUBJECT PROPERTY IS LOCATED WITHIN BASIN D OF THE C-17D1U9 GRADING PLAN. THIS SITE IS ALLOWED TO FREE DISCHARGE 2.3CFS PER ACRE. THE SITE ACCEPTS 12.9 CFS FROM THE UPLAND LOTS. THE FLOW SHALL PASS THRU THE SITE. TO REDUCE FLOW TO ALLOWED AN UNDERGROUNG STORM TECH CHAMBER WILL BE USED TO CAPTURE THE ADDITIONAL FLOW.



CITY OF ALBUQUERQUE

January 6, 2015

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

Re: Kirkpatrick Warehouse
Kirkpatrick Warehouse Drainage Report with Engineer's Stamp dated 11-25-14
Kirkpatrick Grading and Drainage Plan with Engineer's Stamp Dated 12-22-14
(C17D122)

Dear Mr. Soule,

Based upon the information provided in your submittal received December 30, 2014, the above referenced plan is not approved for Building Permit nor SO-19 until the following comments are addressed:

1. Provide a manhole for the drainage going into the Stormtech system. (Remove the Nyloplast inline drain detail.) Provide an invert elevation in the manhole. Also use one row as an isolator row so regular maintenance only has to be done for one row instead of two. Redesign the manifold system so that drainage goes into the isolator row first. Have a slope on the manifold system so sediment does not collect there.
2. When submitting revised plans, please revise the stamp date. Include two set of plans for SO-19 approval.

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

C: e-mail

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: kirkpatrick Building Permit #: _____ City Drainage #: C17D122

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

Legal Description: B1A5 CLIFFORD INDUSTRIAL PARK

City Address: 8610 presidents place

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: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
x DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL-TEMP)
____ FOUNDATION PERMIT APPROVAL
x BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
DEC 30 2014
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes x No ____ Copy Provided

DATE SUBMITTED: 12/30/14 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

$A_D = 0.684$ AC $Q_{OUT} = 2.36$ CFS

December 30, 2014

Ms. Amy Niese
Senior Engineer
Hydrology Department
Public Works Department
City of Albuquerque

RE: Revised Grading Plan (C-17D122)
Kirkpatrick Warehouse
Albuquerque, New Mexico

Dear Ms. Niese:

The purpose of this letter is to accompany the enclosed revised grading plan. The plan has been revised to accommodate your written comments dated 12/23/14. The following is a summary of your comment and the narrative as to how we addressed

1. Provide calculations for storm tech.
   I have highlighted the volume for each chamber (78.4 cf) the drainage calculation sheet show division of the required volume of 2677/78.4= 34 chambers
2. Provide detail sheets for the stormtech systems.
   We have added the individual details to a detail sheet
3. Correct typo on invert.
   We have corrected the typo.
4. Specify manifold, and separation, how is system to be cleaned
   We have better shown how the manifold works, the inlet is an inline basin each leg of the inlet drains to a reach of the system. The details show the separation of 6". We have added Inspection ports which are used for maintenance. A vactor truck is used for periodic maintenance.
5. Correctly specify the DC780
   We have corrected the typo
6. What are the depths and type of stone for system
   The standard detail shows 9" below, 6" above and 12" on side. The type of stone is on the detail sheet.
7. what kind of geo textile is used and where is it located
   The location and type of geotextile is shown on the detail sheet.

Should you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

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

CITY OF ALBUQUERQUE

December 23, 2014

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

Re: Kirkpatrick Warehouse
Kirkpatrick Warehouse Drainage Report with Engineer's Stamp dated 11-25-14
Kirkpatrick Grading and Drainage Plan with Engineer's Stamp Dated 12-22-14
(C17D122)

Dear Mr. Soule,

Based upon the information provided in your submittal received December 22, 2014, the above referenced plan is not approved for Building Permit until the following comments are addressed:

1. Include calculations for the design of the Stormtech system.
2. Provide a detail sheet for the Stormtech system that includes plan and profile views.
3. The inlet grate is at 94.25 but the invert is at 59.75. What should the invert really be at?
4. How will the manifold system be set up? How far apart are the rows? How will flows go into the isolator row? How will the isolator row be maintained and cleared of debris?
5. You have specified S780. Do you mean DC-780? What stub are you specifying?
6. What are the depths and type of stone for the whole system?
7. What kind of geotextile is being used? Where is the fabric located?

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

C: e-mail

RECEIVED
DEC 30 2014
LAND DEVELOPMENT SECTION

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

KIRKPATRICK

PROPOSED
Existing Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	100-Year, 6-hr. Weighted E (ac-ft)	Volume E (ac-ft)	Flow cfs
BASIN A	22068	0.507	0%	0	8.0%	0.041	6.0%	0.0304	86%	0.436	1.953	3571 0.082	2.24
BASIN B	19880	0.456	0%	0	11.0%	0.050	36.0%	0.1643	53%	0.242	1.616	3657 0.061	1.77
BASIN C	1636	0.038	0%	0	7.0%	0.003	75.0%	0.02817	18%	0.007	1.284	174 0.004	0.13
TOTAL	43584	1.001	0%	0		0.093		0.223	45%	0.684		6946 0.148	4.129

Equations:

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

Volume = Weighted E * Total Area

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

Where for 100-year, 6-hour storm (zone 3)

Ea= 0.53	Qa= 1.57
Eb= 0.78	Qb= 2.28
Ec= 1.13	Qc= 3.14
Ed= 2.12	Qd= 4.7

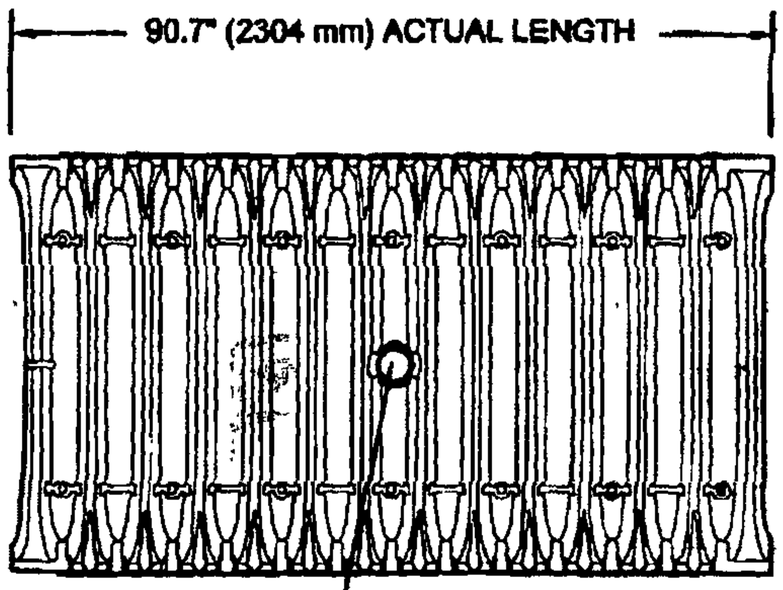
to reduce to below sub master plan	2677.50	POND BASIN B	
water quality requirement	1234.88	844 REQ	C
total required	2677.505 cf		
provided in infiltrator system	2677.505 cf		
number of s780 chambers	34.1518	120.9839 long	
site discharge	2.36	2.359431 cfs/acres	

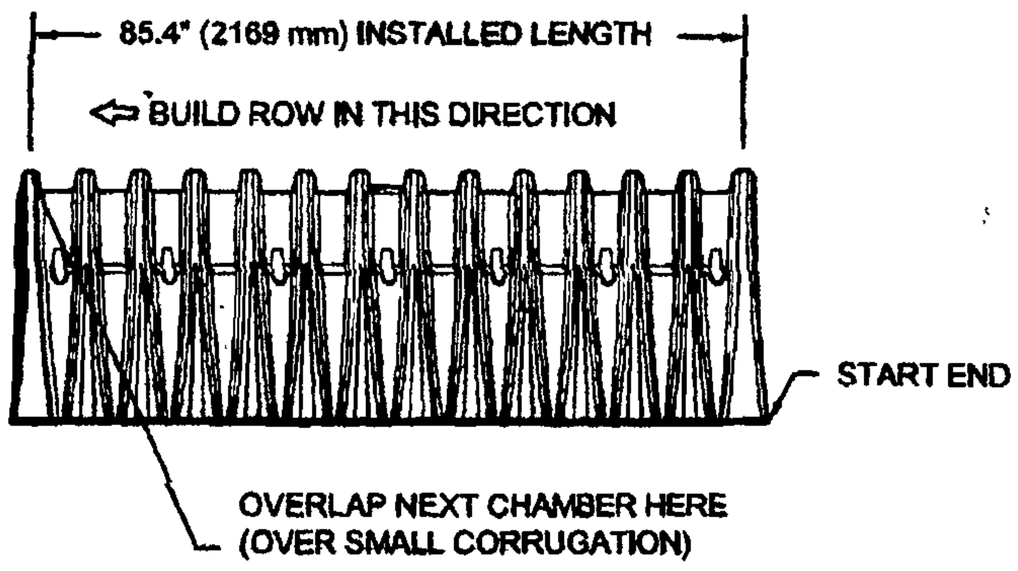
THE SUBJECT PROPERTY IS LOCATED WITHIN BASIN D OF THE C-17D1U9 GRADING PLAN. THIS SITE IS ALLOWED TO FREE DISCHARGE 2.3CFS PER ACRE. THE SITE ACCEPTS 12.9 CFS FROM THE UPLAND LOTS. THE FLOW SHALL PASS THRU THE SITE. TO REDUCE FLOW TO ALLOWED AN UNDERGROUNG STORM TECH CHAMBER WILL BE USED TO CAPTURE THE ADDITIONAL FLOW.

SAME AS IN REPORT

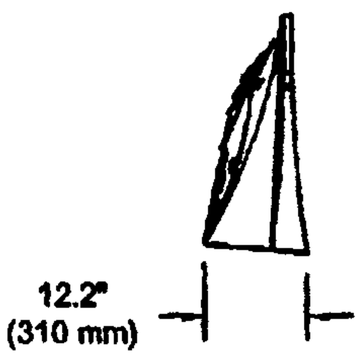
DC-780 TECHNICAL SPECIFICATION

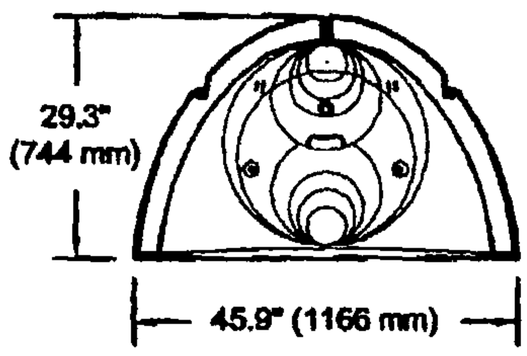
NTS

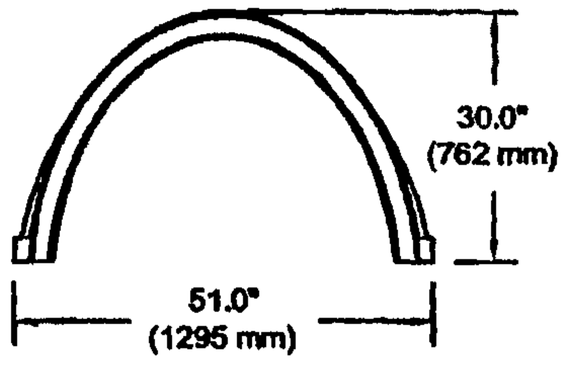




ACCEPTS 4" (100 mm) SCH 40 PVC PIPE FOR INSPECTION PORT. FOR PIPE SIZES LARGER THAN 4" (100 mm) UP TO 10" (250 mm) USE INSERTA TEE CONNECTION CENTERED ON A CHAMBER CREST CORRUGATION



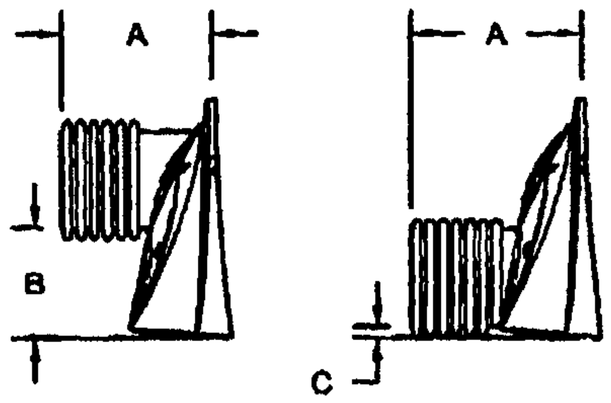




NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	46.2 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.20 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW, AND 6" (152 mm) BETWEEN CHAMBERS

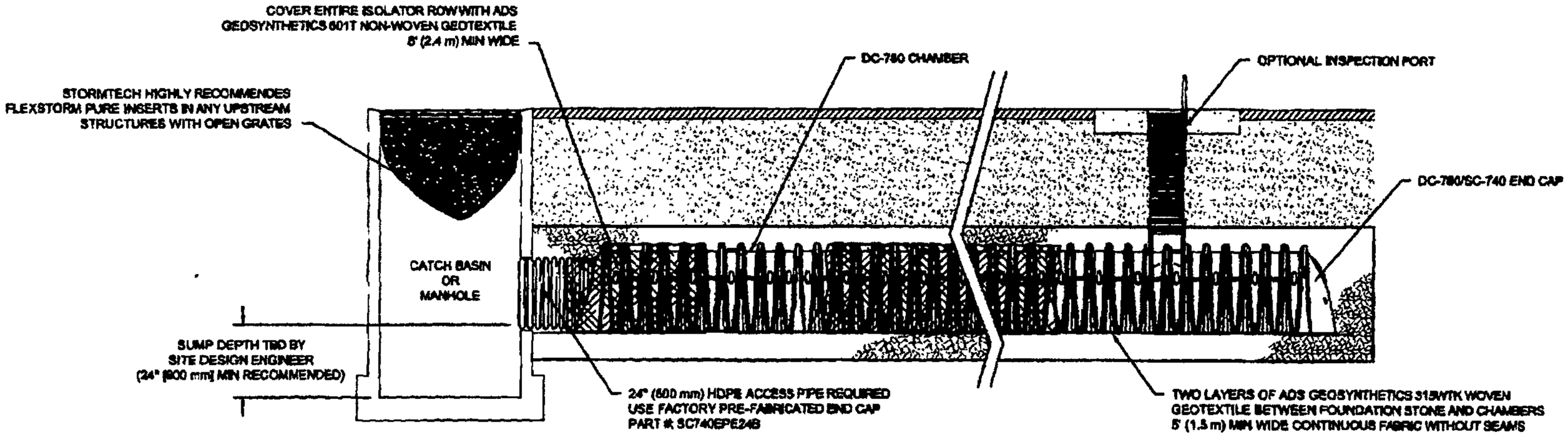


STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	—
SC740EPE06B / SC740EPE06BPC			—	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	—
SC740EPE08B / SC740EPE08BPC			—	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	—
SC740EPE10B / SC740EPE10BPC			—	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	—
SC740EPE12B / SC740EPE12BPC			—	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	—
SC740EPE15B / SC740EPE15BPC			—	1.3" (33 mm)
SC740EPE18T/ SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	—
SC740EPE18B / SC740EPE18BPC			—	1.6" (41 mm)
SC740EPE24B	24" (600 mm)	18.5" (470 mm)	—	0.4" (10 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

ex 2677/78.4 = 34 chambers



DC-780 ISOLATOR ROW DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - I) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - II) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

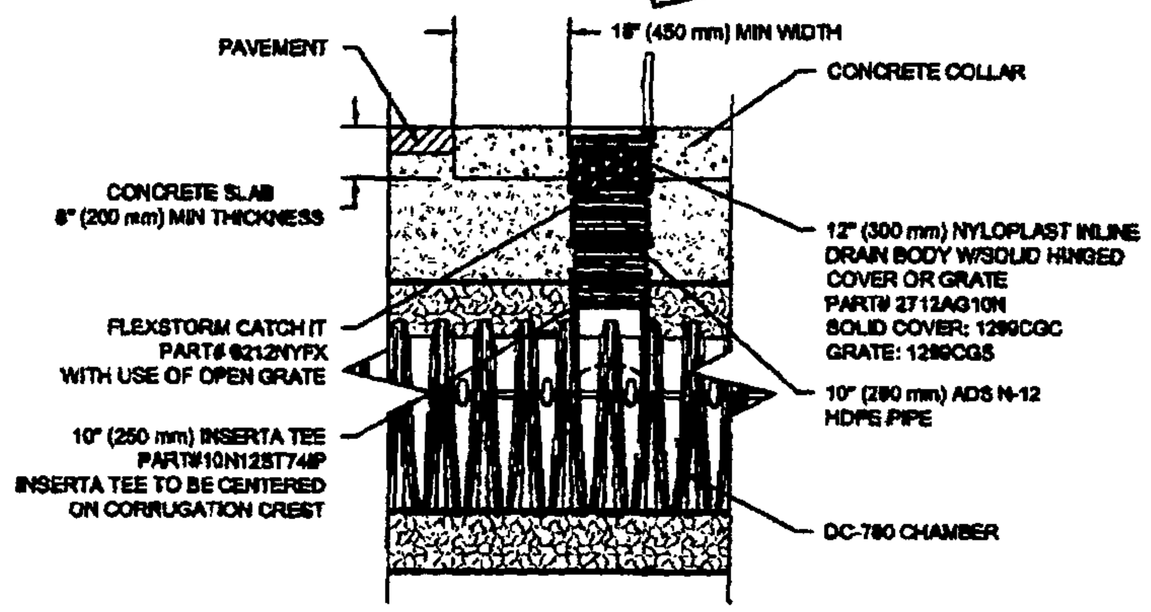
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

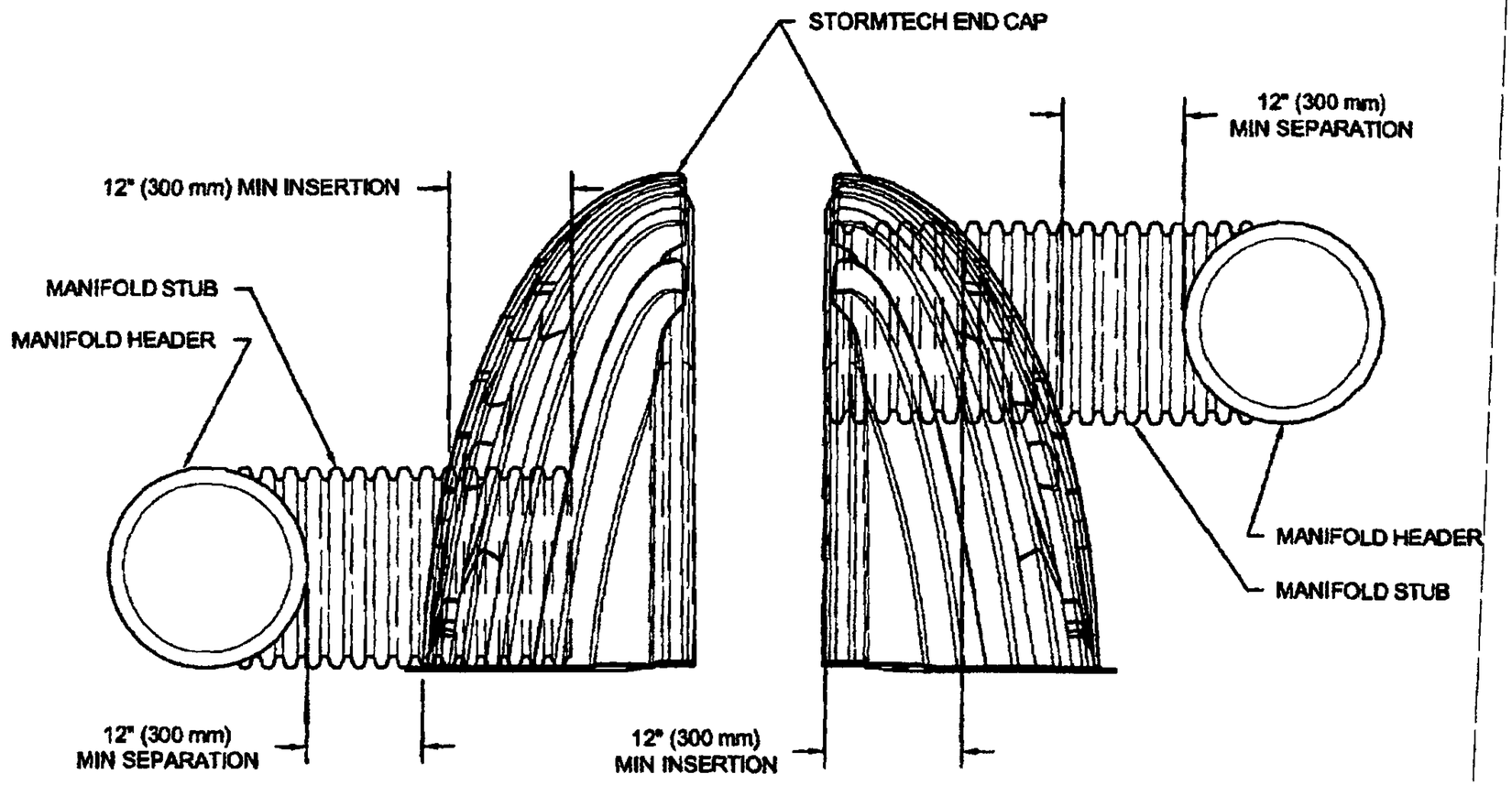
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



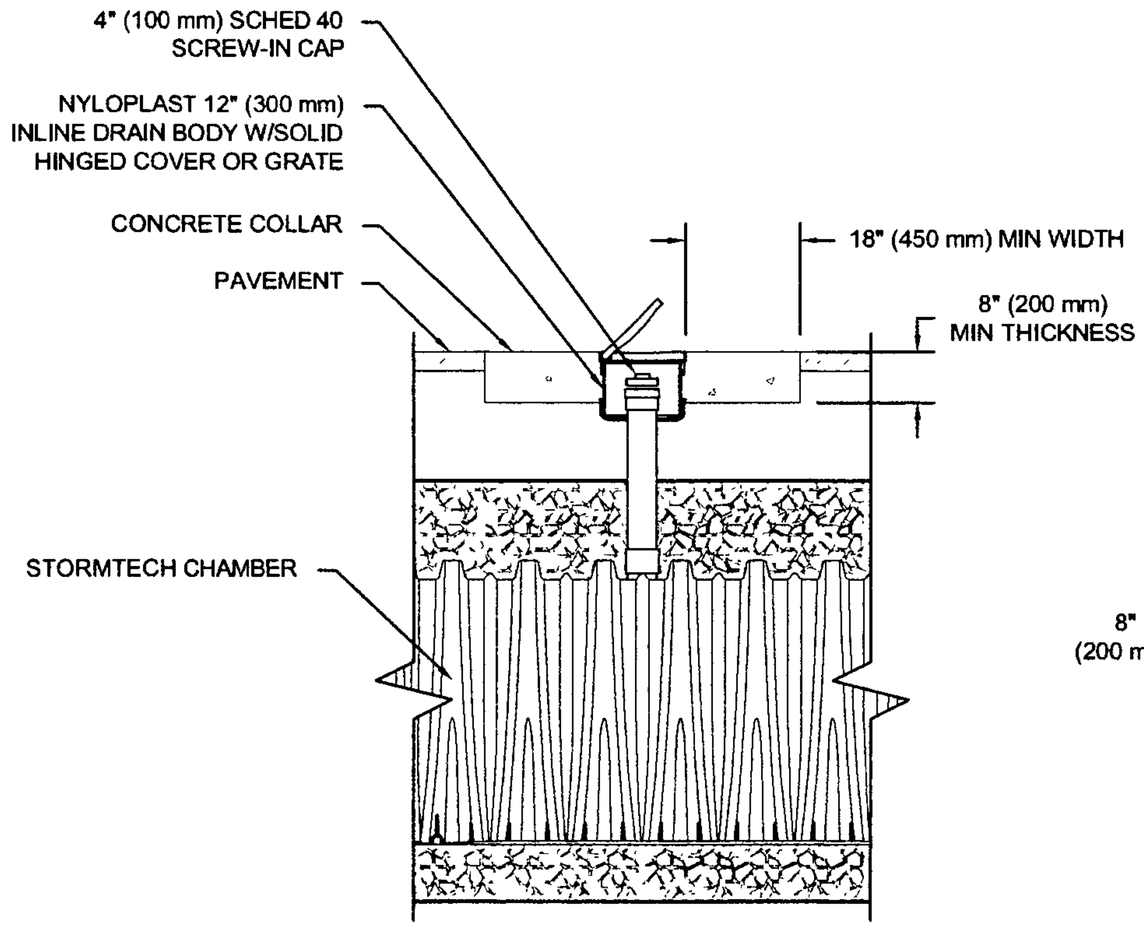
DC-780 INSPECTION PORT DETAIL
NTS

MC-SERIES END CAP INSERTION DETAIL

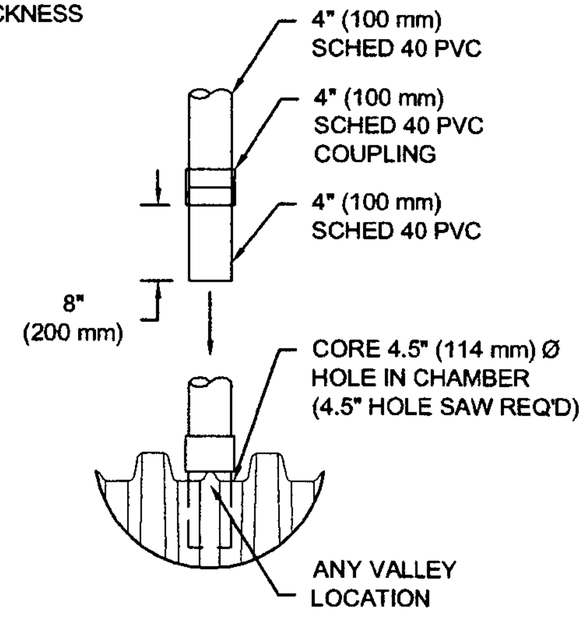
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.



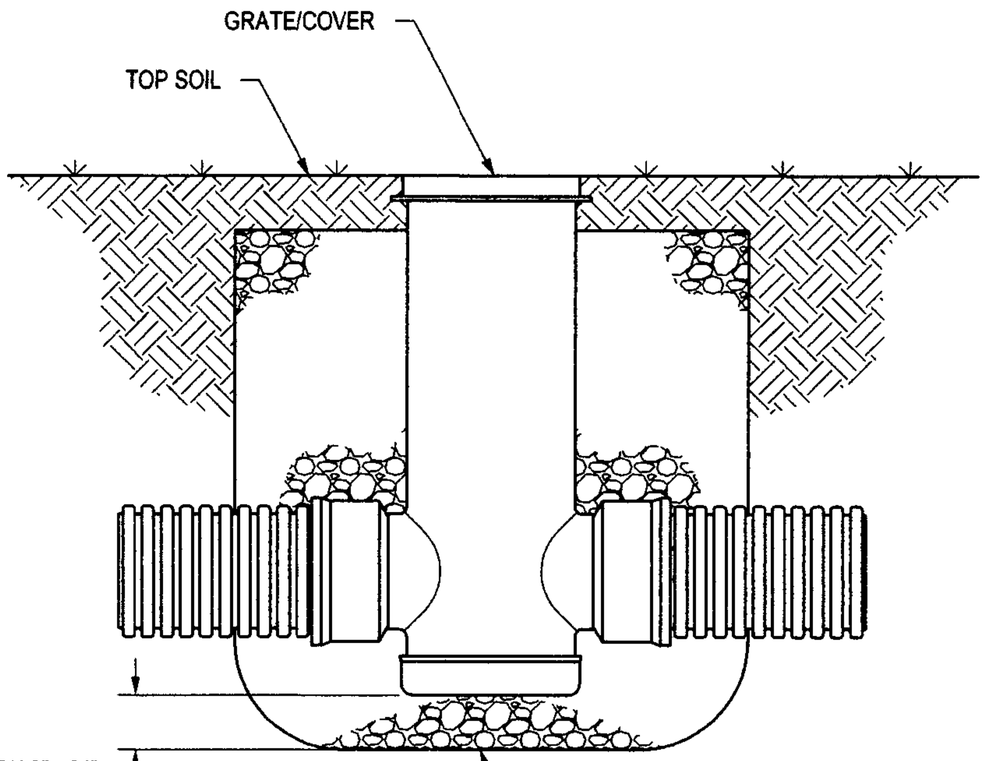
NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.



CONNECTION DETAIL
NTS

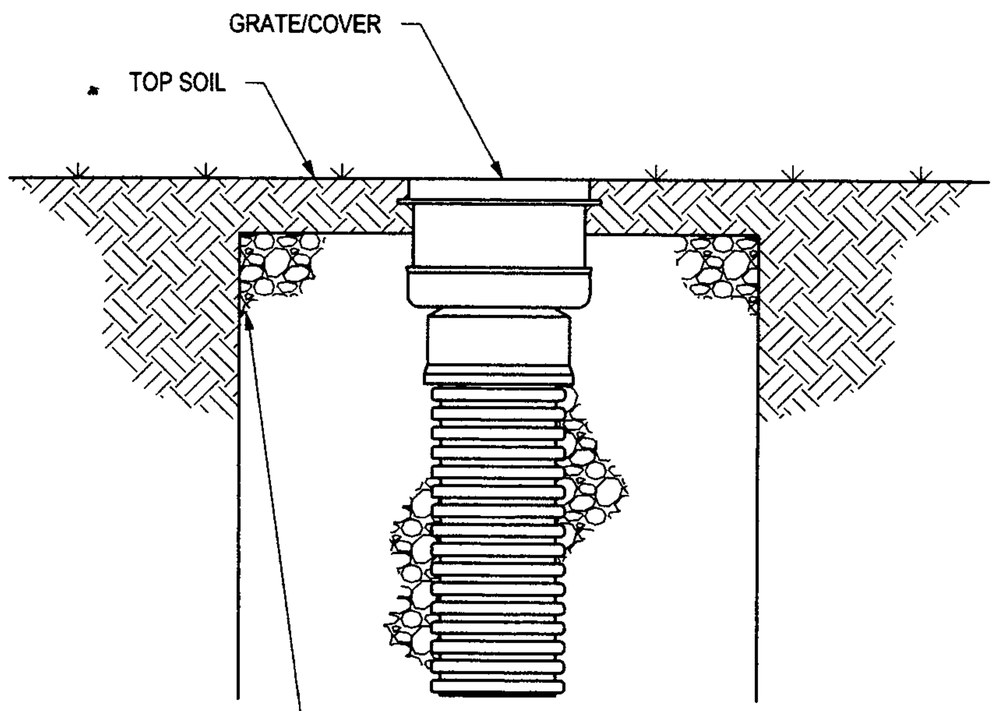
NON TRAFFIC INSTALLATION

DRAIN BASIN



THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE WELL PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

INLINE DRAIN



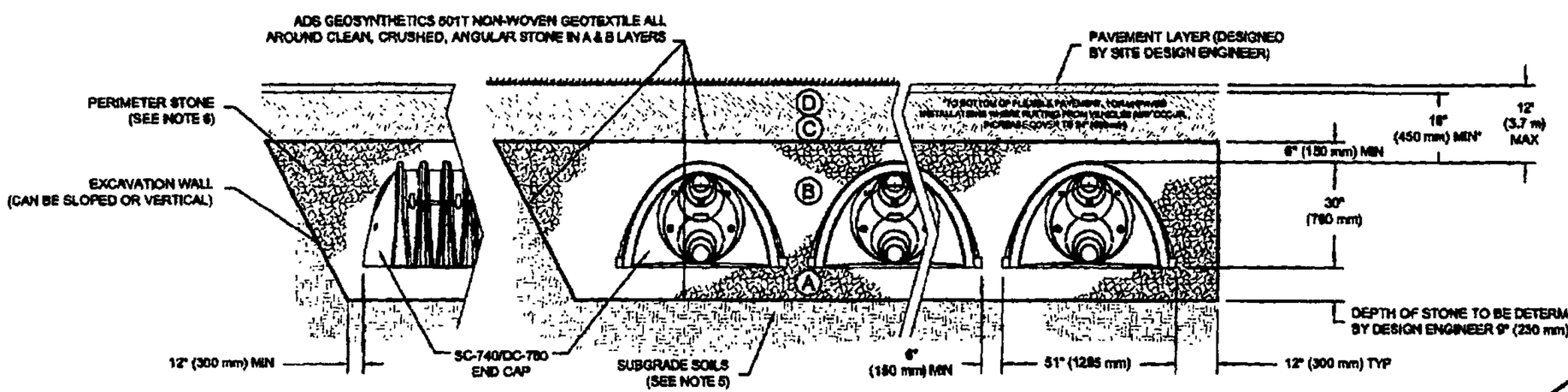
THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE WELL PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

DRAWN BY CJA	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 9-30-99			
REVISED BY CCA	PROJECT NO./NAME	TITLE	DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION
DATE 12-29-11			
DWG SIZE A	SCALE 1:25 SHEET 1 OF 1	DWG NO. 7001-110-111	REV D

ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-60 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-60 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

1. DC-780 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

CITY OF ALBUQUERQUE

December 23, 2014

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

Re: Kirkpatrick Warehouse
Kirkpatrick Warehouse Drainage Report with Engineer's Stamp dated 11-25-14
Kirkpatrick Grading and Drainage Plan with Engineer's Stamp Dated 12-22-14
(C17D122)

Dear Mr. Soule,

Based upon the information provided in your submittal received December 22, 2014, the above referenced plan is not approved for Building Permit until the following comments are addressed:

1. Include calculations for the design of the Stormtech system.
2. Provide a detail sheet for the Stormtech system that includes plan and profile views.
3. The inlet grate is at 94.25 but the invert is at 59.75. What should the invert really be at?
4. How will the manifold system be set up? How far apart are the rows? How will flows go into the isolator row? How will the isolator row be maintained and cleared of debris?
5. You have specified S780. Do you mean DC-780? What stub are you specifying?
6. What are the depths and type of stone for the whole system?
7. What kind of geotextile is being used? Where is the fabric located?

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

C: e-mail

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: kirkpatrick Building Permit #: _____ City Drainage #: C17D122

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

Legal Description: B1A5 CLIFFORD INDUSTRIAL PARK

City Address: 8610 presidents place

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: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
x DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
x BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION
____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED DEC 19 2014 LAND DEVELOPMENT SECTION

RECEIVED DEC 22 2014 LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes x No ____ Copy Provided

DATE SUBMITTED: 12/22/14 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

December 22, 2014

Ms. Amy Niese
Senior Engineer
Hydrology Department
Public Works Department
City of Albuquerque

RE: Revised Grading Plan (C-17D122)
Kirkpatrick Warehouse
Albuquerque, New Mexico

Dear Ms. Niese:

The purpose of this letter is to accompany the enclosed revised grading plan. The plan has been revised to accommodate your written comments dated 12/18/14. The following is a summary of your comment and the narrative as to how we addressed

1. Provide steel plate on culvert.
   We have added the note and SO19 to the plan. The existing culvert extends approximately 5' past the property line
2. Add valley gutter detail to plans
   We have added the detail
3. Call out curb opening at pond.
   We have labeled the opening, and have attached the calculation to demonstrate 2' is adequate for the 1.77 cfs
4. First flush is .34" for the impervious area
   The volume retained for this site is governed by the need to reduce flow of the site. The required volume exceeds the volume required for the first flush. We have noted the clarified city requirement and will utilize this amount in all future plans

Should you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

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

Enclosures

CITY OF ALBUQUERQUE

December 18, 2014

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

Re: Kirkpatrick Warehouse
Kirkpatrick Warehouse Drainage Report dated 11-25-14
Kirkpatrick Grading and Drainage Plan with Engineer's Stamp Dated 11-26-14
(C17D122)

Dear Mr. Soule,

Based upon the information provided in your submittal received December 1, 2014, the above referenced plan is not approved for Building Permit until the following comments are addressed:

1. Provide a steel plate for the existing culvert draining to the curb per City Standard Drawing 2236 with modified detail B-B. Since this will require work in the ROW, include a SO-19 request and SO-19 language on the plan.
2. Add a valley gutter detail to the plan.
3. Call out a curb opening where the storm water drains from the valley gutter to the pond inlet.
4. For the First Flush, you only need to multiply 0.34 inches times the impervious area of the site not the entire area of the site.

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

C: e-mail

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: kirkpatrick Building Permit #: _____ City Drainage #: C17D122

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

Legal Description: B1A5 CLIFFORD INDUSTRIAL PARK

City Address: ~~8610~~ 8620 presidents place

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: KIRKPATRICK COMPANY Contact: _____

Address: _____

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

Architect: DAN HERR Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
X DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
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____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION
____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
DEC - 1 2014
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: 11/26/14 By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
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3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

RECEIVED
NOV 26 2014
LAND DEVELOPMENT SECTION

$A_D = 0.684$ AC $\quad Q_{act} = 2.30$ CFS

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

September 16, 2015

Dan Herr
Slagle Herr Architects
413 2nd St., NW
Albuquerque, NM 87102

Re: New Facility For Kirkpatrick & Associates
Certificate of Occupancy – Transportation Development
Engineer's/Architect's Stamp dated 12-18-14 (C17-D122)
Certification dated 9-9-15

Dear Mr. Herr,

Based upon the information provided in your submittal received 9-9-15, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, please contact Gary Sandoval at (505) 924-3675 or me at (505)924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

\gs via: email
C: CO Clerk, File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: New Facility for Kirkpatrick & Associates Building Permit #: _____ City Drainage #: C17-D122

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

Legal Description: Tract B-1-A-5, Clifford Industrial Park

City Address: 8610 President Place NE

Engineering Firm: Rio Grande Engineering Contact: David Soule

Address: 1606 Central Ave SE, Suite 201, Albuquerque, NM

Phone#: 505 872 0999 Fax#: _____ E-mail: david@riograndeengineering.com

Owner: Susan Kirkpatrick Contact: _____

Address: 6608 2nd St NW, Albuquerque NM 87107

Phone#: 505 342 0402 Fax#: _____ E-mail: susank@susankirkpatrick.com

Architect: Slagle Herr Architects Contact: _____

Address: 413 2nd St SW, Albuquerque, NM 87102

Phone#: 505 246 0870 Fax#: _____ E-mail: dan@slagleherr.com

Surveyor: Chris Dehler Contact: _____

Address: 3827 Palacio Del Rio Grande NW, Albuquerque, NM 87107

Phone#: 505 414 8223 Fax#: _____ E-mail: dehlersurveying@q.com

Contractor: Mechenbier Construction Contact: John Mechenbier

Address: 8500 Washington St. NE, Suite A-5, Albuquerque NM 87113

Phone#: 314-7700 Fax#: 314-7799 E-mail: jmechenbier@mechenbier.com

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
X ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
X CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
SEP 09 2015
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: 9-9-15 By: Dan Herr

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

slagle herr architects

TRAFFIC CERTIFICATION FOR CERTIFICATE OF OCCUPANCY

RE: 8610 PRESIDENT PLACE NE, ALBUQUERQUE NM 87113

I, Dan Herr, NMRA 3076, of the firm Slagle Herr Architects, hereby certify that this project is in substantial compliance with and in accordance with the design intent of the TCL approved plan dated 12-15-14 and approved 12-18-14. I certify that I have personally visited the project site on 9-9-15 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for permanent certificate of occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Dan Herr, Architect

9-9-15

Date

STATE OF NEW MEXICO
DANIEL
HERR
NO. 3076
9-9-15
REGISTERED ARCHITECT

RECEIVED
SEP 09 2015
LAND DEVELOPMENT SECTION

413 second street sw
albuquerque new mexico 87102

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

December 18, 2014

Daniel Herr, R.A.
Slagle Herr Architects
413 2nd Street SW
Albuquerque, NM 87102

Re: Office/Warehouse, 8620 President Place
Traffic Circulation Layout
Architect's Stamp dated 12-15-14 (C17-D122)

Dear Mr. Herr:

The TCL submittal received 12-16-14 is approved for Building Permit. A copy of the stamped and signed plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation.

When the site construction is completed and a Certificate of Occupancy (C.O.) is requested, use the original City stamped approved TCL for certification. Redline any minor changes and adjustments that were made in the field. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed Drainage and Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation.

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

C: File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: New Facility for Kirkpatrick & Associates Building Permit #: _____ City Drainage #: C17-D122

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

Legal Description: Tract B-1-A-5, Clifford Industrial Park

City Address: 8610 President Place NE

Engineering Firm: Rio Grande Engineering Contact: David Soule

Address: 1606 Central Ave SE, Suite 201, Albuquerque, NM

Phone#: 505 872 0999 Fax#: _____ E-mail: david@riograndeengineering.com

Owner: Susan Kirkpatrick Contact: _____

Address: 6608 2nd St NW, Albuquerque NM 87107

Phone#: 505 342 0402 Fax#: _____ E-mail: susank@susankirkpatrick.com

Architect: Slagle Herr Architects Contact: _____

Address: 413 2nd St SW, Albuquerque, NM 87102

Phone#: 505 246 0870 Fax#: _____ E-mail: dan@slagleherr.com

Surveyor: Chris Dehler Contact: _____

Address: 3827 Palacio Del Rio Grande NW, Albuquerque, NM 87107

Phone#: 505 414 8223 Fax#: _____ E-mail: dehlersurveying@q.com

Contractor: TBD Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
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____ GRADING PLAN
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X TRAFFIC CIRCULATION LAYOUT (TCL)
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____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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____ S. DEV. PLAN FOR SUB'D APPROVAL
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____ SECTOR PLAN APPROVAL
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____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION
____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
DEC 16 2014
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: 12-16-14 By: Dan Herr

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**. Required for building permits, grading permits, paving permits and site plans less than five (5) acres
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4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

November 24, 2014

Daniel Herr, R.A.
Slagle Herr Architects
413 2nd Street SW
Albuquerque, NM 87102

Re: Office/Warehouse, 8620 President Place
Traffic Circulation Layout
Architect's Stamp dated 11-19-14 (C17-D122)

Dear Mr. Herr,

Thank you for your updated plan. Based upon the information provided in your submittal received 11-19-14, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Please provide a zone atlas number for the vicinity map.
2. Per the DPM, a 6 ft. wide ADA accessible pedestrian pathway is required from both President Place and the parking lot to the building entrances. Detail 15 shows a ramp that is only 3'-6" wide, and it needs to be widened to 6 feet.
3. Detail 15 conflicts with the construction of a drivepad. If you are building a drivepad, no wheelchair ramp is needed.

Resubmit acceptable package along with fully completed Drainage Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation. If you wish to send me a quick electronic copy prior to the official hard copy submittal for the final plan, feel free to go ahead and do so. If you have any questions, please contact me at (505) 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

c: File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: New Facility for Kirkpatrick & Associates Building Permit #: _____ City Drainage #: C17-D122

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

Legal Description: Tract B-1-A-5, Clifford Industrial Park

City Address: 8610 President Place NE

Engineering Firm: Rio Grande Engineering Contact: David Soule

Address: 1606 Central Ave SE, Suite 201, Albuquerque, NM

Phone#: 505 872 0999 Fax#: _____ E-mail: david@riograndeengineering.com

Owner: Susan Kirkpatrick Contact: _____

Address: 6608 2nd St NW, Albuquerque NM 87107

Phone#: 505 342 0402 Fax#: _____ E-mail: susank@susankirkpatrick.com

Architect: Slagle Herr Architects Contact: _____

Address: 413 2nd St SW, Albuquerque, NM 87102

Phone#: 505 246 0870 Fax#: _____ E-mail: dan@slagleherr.com

Surveyor: Chris Dehler Contact: _____

Address: 3827 Palacio Del Rio Grande NW, Albuquerque, NM 87107

Phone#: 505 414 8223 Fax#: _____ E-mail: dehlersurveying@q.com

Contractor: TBD Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
__X__ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
____ S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
__X__ BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
NOV 19 2014
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes __X__ No ____ Copy Provided

DATE SUBMITTED: 11-19-14 By: Dan Herr

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

October 29, 2014

Daniel Herr, R.A.
Slagle Herr Architects
413 2nd Street SW
Albuquerque, NM 87102

Re: Office/Warehouse, 8620 President Place
Traffic Circulation Layout
Architect's Stamp dated 10-27-14 (C17-D122)

Dear Mr. Herr,

Based upon the information provided in your submittal received 10-27-14, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Please show a vicinity map showing the location of the development in relation to existing streets.
2. Identify existing pavement and right-of-way dimensions for President Place. Show existing features such as existing curb and sidewalk as a different line-type to distinguish them from proposed improvements.
3. Label the compact parking spaces by placing the words **"COMPACT"** on the pavement of each space for the parking spaces shown on the southwest corner of the site.
4. Enlarge the detail for the van accessible signs so that the text on it is legible.
5. The ADA access aisle shall have the words **"NO PARKING"** in capital letters, each of which shall be at least one foot high and at least two inches wide, placed at the rear of the parking space so as to be close to where an adjacent vehicle's rear tire would be placed. (66-1-4.1.B NMSA 1978)
6. Per the DPM, a 6 ft. wide ADA accessible pedestrian pathway is required from both President Place and the parking lot to the building entrances. Please clearly show this pathway from President Place, and provide details. Ensure that ADA accessible slopes are met. Label the sidewalk dimensions for the sidewalk along the northwest corner of the building, ensuring that the sidewalk is over 6 feet in width.
7. The design delivery vehicle route for the warehouse needs to be shown.

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New Mexico 87103
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18. For the parking spaces within the gravel area, make sure they are called out on the plan as "8 spaces @ 9' wide X 18' long".

19. Label the existing feature immediately to the south of the property within the sidewalk area. There must be a continuous 4-foot wide ADA access on the sidewalk adjacent to the property.

10. Where is detail 4 for curb and gutter being used on-site? Clearly show limits for beginning and end of curb or curb and gutter on-site. Clearly show beginning and end of new sidewalk on President Place.

11. Show the mini clear site triangle as per the DPM for both driveway entrances. Add the following note to the clear sight triangle: "Landscaping and signage will not interfere with clear sight requirements. Therefore, signs, walls, trees, and shrubbery between 3 and 8 feet tall (as measured from the gutter pan) will not be acceptable in this area."

12. Please specify the City Standard Drawing Number when applicable. Call out applicable COA Standard Details when calling out the new drivepads and new sidewalk. Ensure ADA accessibility across drivepads.

13. Be sure to get approval from Solid Waste on this site plan since they would need access to the trash bin behind the electrically operated rolling gate. Discuss with them prior to the next site plan submittal.

Resubmit acceptable package along with fully completed Drainage Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation. If you have any questions, please contact me at (505) 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

c: File
CO Clerk

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

October 29, 2014

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3. Label the compact parking spaces by placing the words **"COMPACT"** on the pavement of each space for the parking spaces shown on the southwest corner of the site.
4. Enlarge the detail for the van accessible signs so that the text on it is legible.
5. The ADA access aisle shall have the words **"NO PARKING"** in capital letters, each of which shall be at least one foot high and at least two inches wide, placed at the rear of the parking space so as to be close to where an adjacent vehicle's rear tire would be placed. (66-1-4.1.B NMSA 1978)
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8. For the parking spaces within the gravel area, make sure they are called out on the plan as "8 spaces @ 9' wide X 18' long".

9. Label the existing feature immediately to the south of the property within the sidewalk area. There must be a continuous 4-foot wide ADA access on the sidewalk adjacent to the property.

10. Where is detail 4 for curb and gutter being used on-site? Clearly show limits for beginning and end of curb or curb and gutter on-site. Clearly show beginning and end of new sidewalk on President Place.

11. Show the mini clear site triangle as per the DPM for both driveway entrances. Add the following note to the clear sight triangle: "Landscaping and signage will not interfere with clear sight requirements. Therefore, signs, walls, trees, and shrubbery between 3 and 8 feet tall (as measured from the gutter pan) will not be acceptable in this area."

12. Please specify the City Standard Drawing Number when applicable. Call out applicable COA Standard Details when calling out the new drivepads and new sidewalk. Ensure ADA accessibility across drivepads.

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City of Albuquerque

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DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

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Contractor: TBD Contact: _____

Address: _____

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____ DRAINAGE PLAN 1st SUBMITTAL
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____ ENGINEER'S CERT (TCL)
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____ SO-19 APPROVAL
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RECEIVED
OCT 27 2014
LAND DEVELOPMENT SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes X No ____ Copy Provided

DATE SUBMITTED: 10-27-14 By: Dan Herr

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