

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



September 22, 2014

Martin J. Garcia, P.E.
Anchor Engineering, LLC
1035 South Bosque Loop
Bosque Farms, NM 87102

Richard J. Berry, Mayor

**Re: Garcias Kitchen Food Prep & Catering
Grading and Drainage Plan
Engineer's Stamp Date: 9-8-14 (J13/D096)**

Dear Mr. Garcia:

Based upon the information provided in your submittal received 9-9-14, the above referenced plan is approved for Building Permit.

Since the disturbed area on this site exceeds 1.0 acre, an Erosion and Sediment Control (ESC) Plan, prepared by a NM PE and approved by the City's Stormwater Engineer, will be required for this site, prior to Hydrology approval of a Building Permit or Work Order.

PO Box 1293 If you have any questions, you can contact me at 924-3695.

Albuquerque

New Mexico 87103

Sincerely,

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

www.cabq.gov

Orig: Drainage file
c.pdf Addressee via Email, MONICA ORTIZ



Vicinity Map

Drainage Calculations

Hydrology Calculations				
Garcia's Restaurant				
DPM - Section 22.2				
Volume 2, January 1993				
Precipitation Zone	1			
100 Year Storm Depth, P (360)	2.2			

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37

Land Treatment Area	Acres	Existing	Proposed
Type "D" (Roof)		0.76	1.76
Type "C" (Unpaved Roadway)		0	0.00
Type "B" (Irrigated Lawns)		0.26	0.44
Type "A" (Undeveloped)		1.18	0.00

Total (Acres)	2.2	2.20
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Excess Precipitation(in)	1.00	1.71
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Volume (100) 24 hr, cf	7951.88	13656.06
Volume (10), cf	5327.76	9149.56
Q (100), cfs	5.37	8.58
Q (10), cfs	3.60	5.75

Pond Volumes

POND VOLUME REQUIRED 13656 CF

POND VOLUME PROVIDED:

- SUMP : 2.33 FT X 400 SF = 932 CF
- POND 1: 2.00 FT X 2731 SF = 5,462 CF
- POND 2: 1.50 FT X 4908.6 SF = 7,363 CF

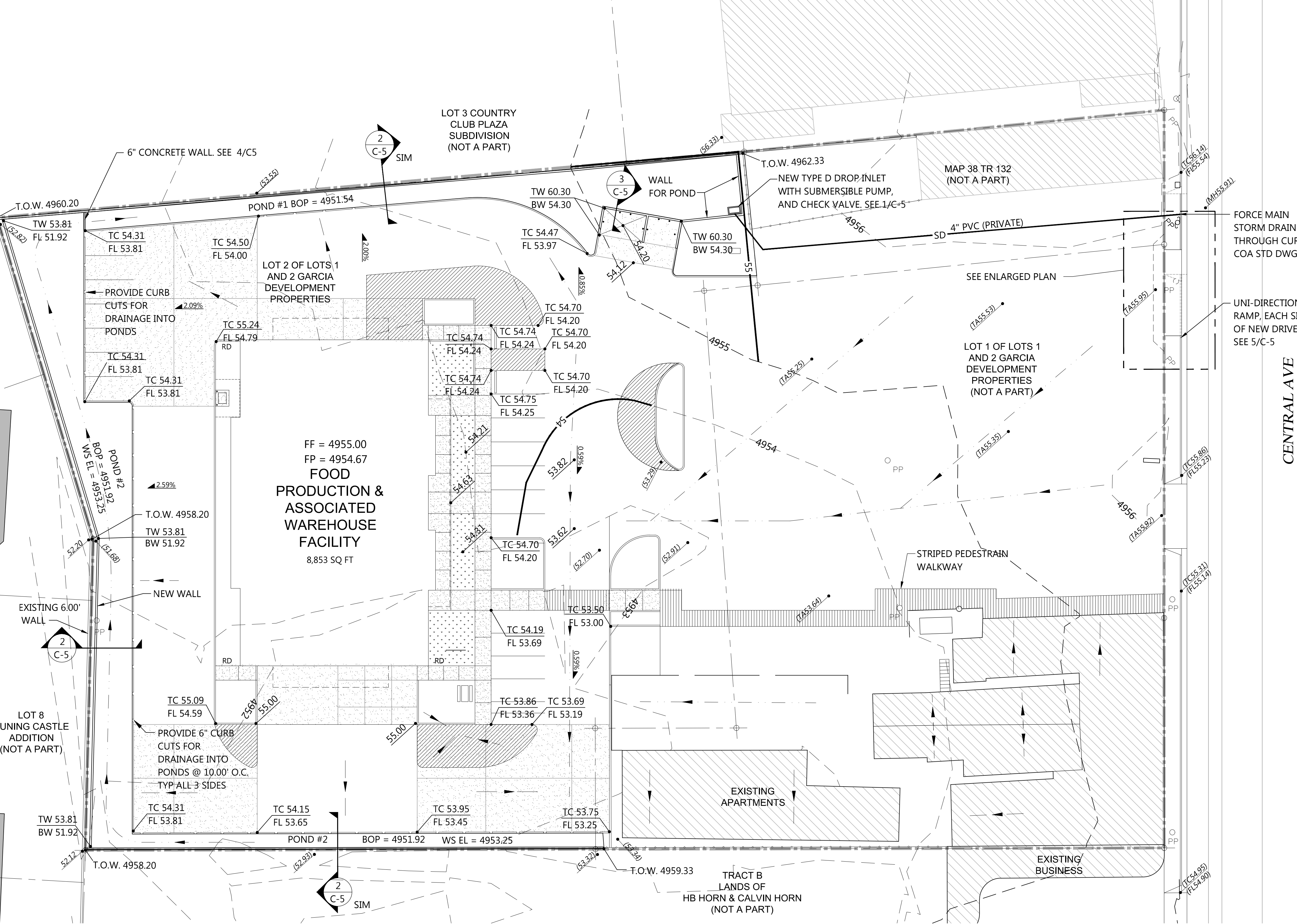
TOTAL POND VOLUME PROVIDED 13,757 CF

Drainage Narrative

THE PURPOSE OF THIS GRADING PLAN IS FOR THE CONSTRUCTION OF A NEW FOOD PREPARATION FACILITY AND CATERING FACILITY LOCATED BEHIND THE EXISTING GARCIA'S RESTAURANT AT 1736 CENTRAL AVENUE S.W. THIS GRADING AND DRAINAGE PLAN TAKES INTO CONSIDERATION LOT 1 AND LOT 2 GARCIA DEVELOPMENT PROPERTIES. THE SITE IS BOUND ON THE NORTH BY CENTRAL BOULEVARD, THE WEST BY EXISTING DEVELOPMENT, AND THE SOUTH BY EXISTING RESIDENTIAL DEVELOPMENT AND THE EAST BY EXISTING DEVELOPMENT. THE EXISTING SITE CURRENTLY DRAINS FROM THE NORTHEAST TO THE SOUTHWEST CORNER OF THE SITE (LOTS 1 AND 2). THERE IS NOT ANY OFF-SITE RUNOFF THAT ENTERS THE PROPERTY, AND DUE TO THE PROPERTY LOWEST POINT BEING THE SOUTHWEST CORNER, WATER CANNOT BE RELEASED INTO CENTRAL BOULEVARD WITHOUT PUMPING. THE PROPOSED DESIGN COLLECTS ALL RUNOFF FROM LOTS 1 AND 2 INTO TWO DETENTION PONDS AS SHOWN. THE WATER WILL THEN BE PUMPED TO A DISCHARGE POINT IN THE CURB AT CENTRAL AVENUE AT THE RATE OF 75 GPM. THE PONDS HAVE BEEN DESIGNED TO ACCOMMODATE A 100 YEAR-24 HOUR STORM AND THE PUMP SPECIFIED WILL DRAIN THAT VOLUME OVER A 24HR PERIOD. IN THE EVENT OF PUMP MALFUNCTION, WATER WILL BACKUP INTO THE PARKING LOT. THE PAD FOR THE NEW BUILDING HAS BEEN ELEVATED SO THAT IN THE EVENT OF WATER PONDING INTO THE PARKING AREAS, THERE IS MINIMAL TO NO CHANCE FOR DAMAGE TO THE BUILDING. THE SITE IS NOT WITHIN THE 100-YEAR FLOOD PLAIN.

Legend

— 4954 —	EXISTING CONTOUR
— 55 —	NEW CONTOUR
— — — — —	DRAINAGE BASIN BOUNDARY
— — — — —	SWALE - DIRECTION OF FLOW
TC	TOP OF CURB
FL	FLOW LINE
FF	FINISH FLOOR
RD	ROOF DRAIN
55.00	NEW SPOT ELEVATION
55.00	EXISTING SPOT ELEVATION



GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'

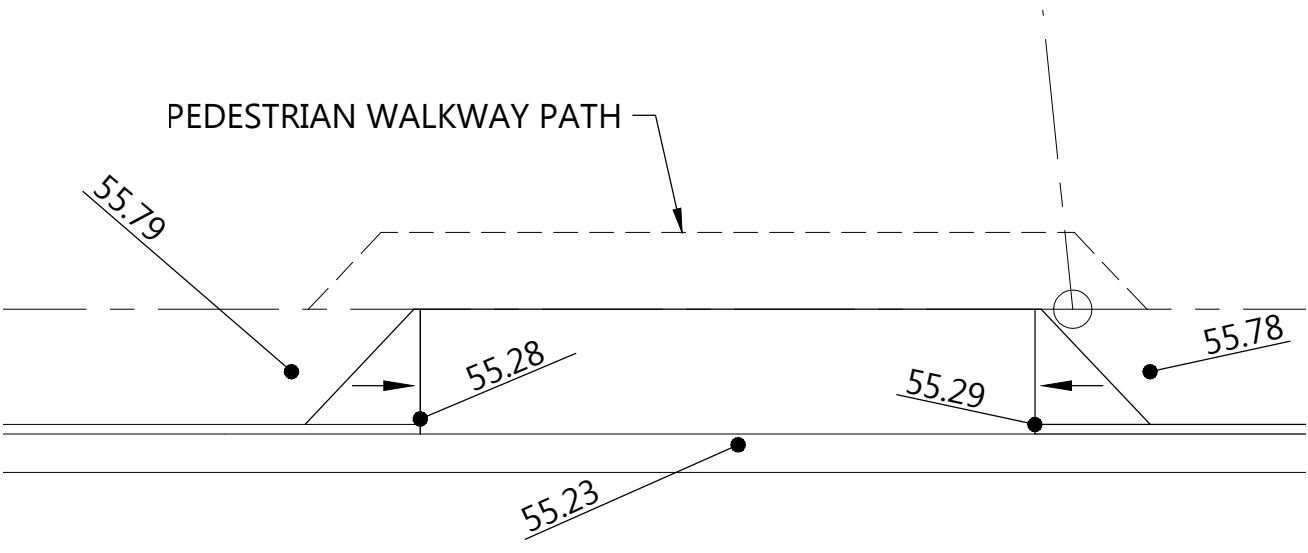
Site Notes

- OIL/WATER SEPARATOR TO BE INSTALLED IN TRASH ENCLOSURE PRIOR TO CONNECTION TO SANITARY SEWER.
- IN THE EVENT OF PUMP FAILURE, WATER WILL BACK UP INTO PARKING LOT.

Sump Pump Information

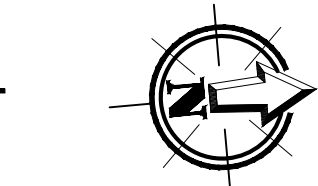
FLYGT - MODEL CP-3068 WITH IMPELLER
PORTABLE CONFIGURATION
PUMP ON A STAND WITH 4" DISCHARGE
75gpm

QTY: 1



ENLARGED PLAN

SCALE: 1" = 20'



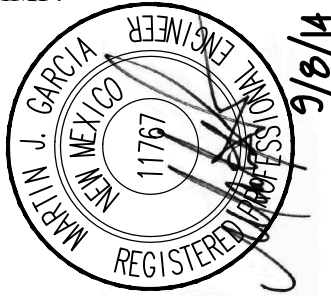
Project Benchmark

PROJECT BENCHMARK

THE PROJECT BENCHMARK IS AN ACS ALUMINUM DISC STAMPED 14-J13 SET FLUSH WITH TOP OF CURB LOCATED AT THE INTERSECTION OF CENTRAL AVE AND RIO GRANDE BLVD.

N=1514405.693
E=1490158.066
Z=4957.34

STAMP:



J-S • ROGERS ARCHITECTS P.C.

821 Mountain Road NW, Albuquerque, NM 87102

phone: (505) 247-1168 fax: (505) 247-0262

e-mail: info@jrogersarchitects.com

ENGINEER:



JOB No:

FILE NAME:

DWG NAME: C1 GarciaGrading

DRAWN BY: FKP

ISSUE DATE: August 29, 2012

RE: DATE DESCRIPTION

-
-
-
-

TITLE:

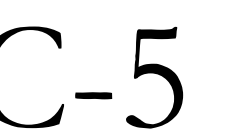
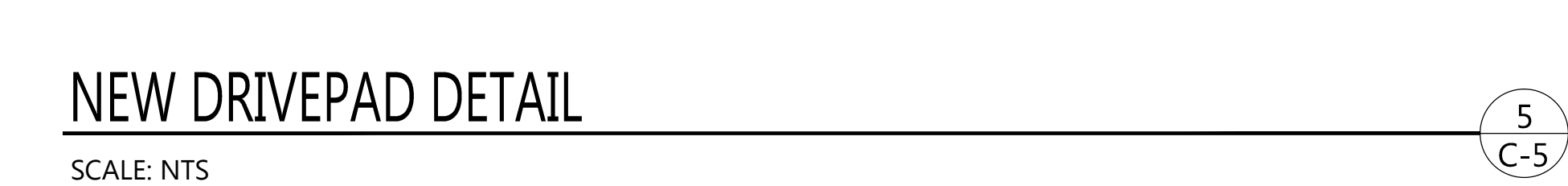
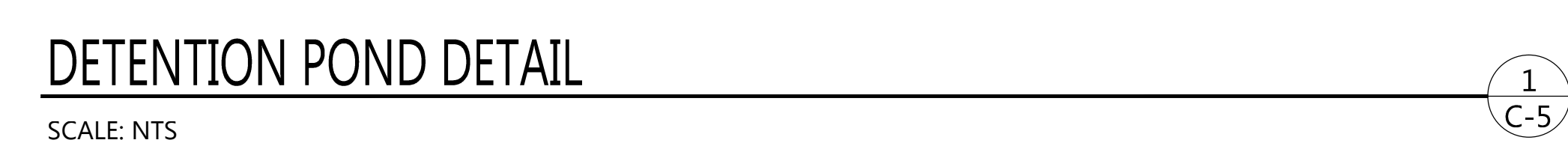
GRADING AND DRAINAGE PLAN

GARCIA'S KITCHEN
FOOD PRODUCTION & WAREHOUSE

1736 Central Avenue, SW
Albuquerque, NM

SHEET:

C-1

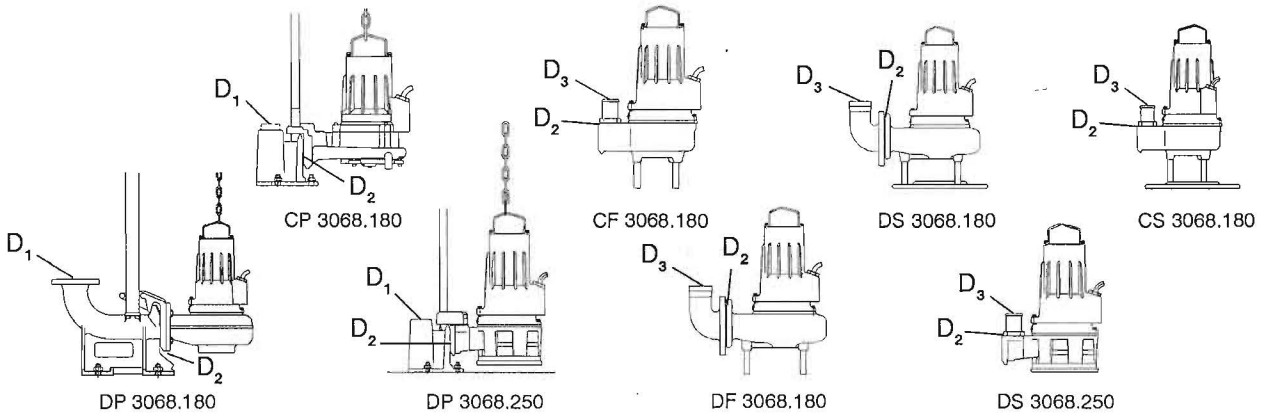


C/D-3068

Verify Power

PUMP MODEL	IMPELLER CODE	HP RATING						VAC	D1	D2	D3
		CP	CF	CS	DP	DF	DS				
3068 3Ø	471 MT	--	--	--	3.2	3.2	3.2	200 230/460 575	*2-1/2 or *3"	*2-1/2 or *3"	3"
	472 MT 473 MT	--	--	--	2.4, 3.2	2.4, 3.2	2.4, 3.2				
	475 MT	--	--	--	2.4, 3.2	2.4, 3.2	2.4, 3.2				
	481 MT 483 MT 484 MT	--	--	--	1.7 2.4 3.2	1.7 2.4 3.2	1.7 2.4 3.2	230/460	*2-1/2	*2" or *2-1/2	3"
	253 HT 255 HT	3.8	3.8	3.8	--	--	--	200 230/460 575	*2" or *3"	*2"	2"
	256 HT	2.7, 3.8	2.7, 3.8	2.7, 3.8	--	--	--				
	281 LT 283 LT	--	--	--	2.7	2.7	2.7	200 230/460 575	*2"	*1-1/2	1-1/2"

*Discharge Connection inlet & D₂ Volute dimensions must match for proper function.



PUMP MODEL	IMPELLER CODE	HP RATING						VAC	D1	D2	D3
		CP	CF	CS	DP	DF	DS				
3068 1Ø	473 MT	--	--	--	2.0	2.0	2.0	115/230	*2-1/2 or *3"	*2-1/2 or *3"	3"
	484 MT	--	--	--	1.3 2.0	1.3 2.0	1.3 2.0	115/230	*2-1/2	*2	
	257 HT	1.9 2.3	1.9 2.3	1.9 2.3	--	--	--	115/230	*2" or *3"	*2	2"
	283 LT	--	--	--	2.3	--	2.3	230	*2	*1-1/2	1-1/2"
	285 LT	--	--	--	2.3	--	2.3	230			

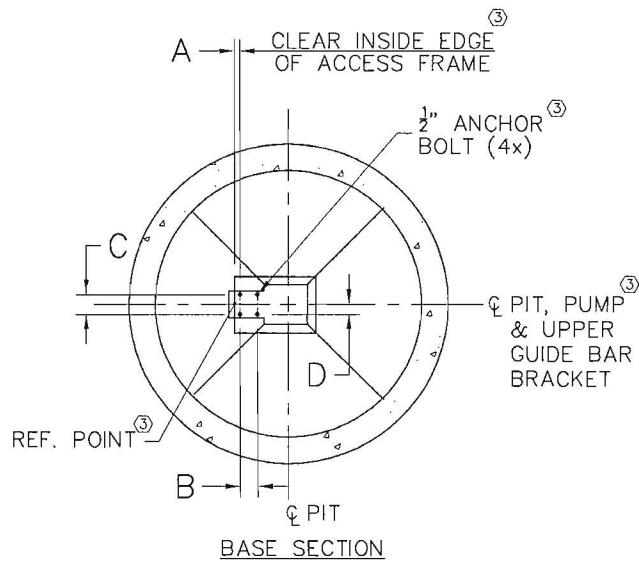
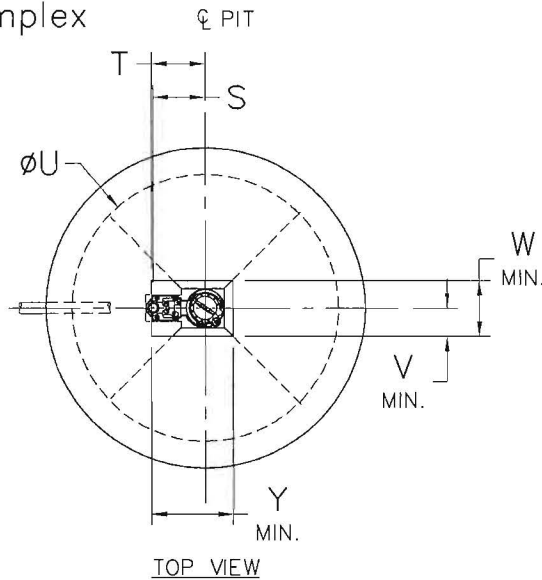
LT = High Volume MT = Standard HT = High Head

CP-3068

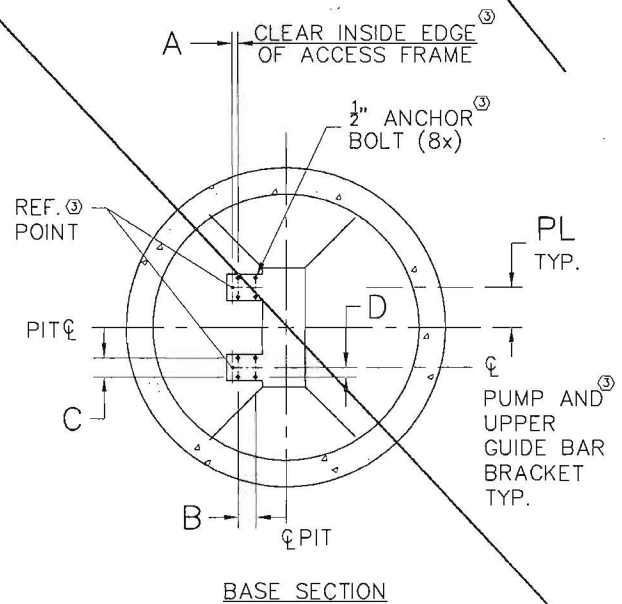
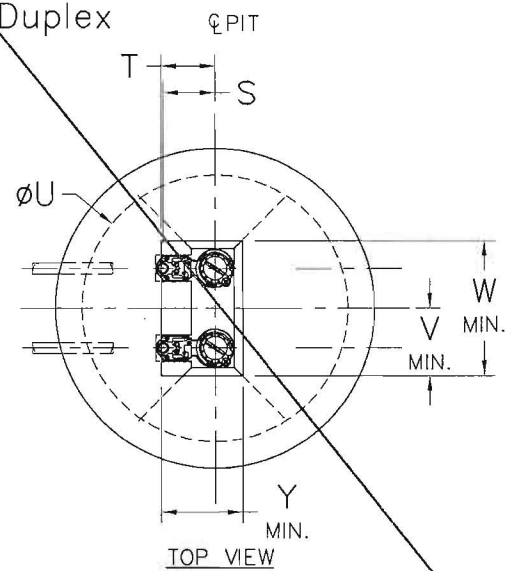
NOTES:

1. CONFIGURATION AND DIMS. SHOWN ARE SUGGESTED REQUIREMENTS ONLY. ALL DETAILS, INCLUDING SIZING OF PIT, TYPE, LOCATION AND ARRANGEMENT OF VALVES AND PIPING, ETC. ARE TO BE SPECIFIED BY THE CONSULTING ENGINEER AND ARE SUBJECT TO THEIR APPROVAL.
2. REFERENCE GENERIC DUPLEX LIFT STATION LAYOUT.
3. LOCATE ANCHOR BOLTS USING CLEAR INSIDE EDGE OF ACCESS FRAME AND PUMP CENTERLINE AS REFERENCE POINT. BOLT LOCATIONS MUST BE HELD TO MAINTAIN EXACT POSITION OF PUMP TO ACCESS FRAME.

Simplex



Duplex



ALL DIMENSIONS ARE IN INCHES

NOM. SIZE	VERSION	SIMPLEX										DUPLEX							
		A	B	C	D	S	T	U	V	W	Y	S	T	U	PL	V	W	Y	
2"	HT	1½	4	4½	2⅞	11½	12⅞	60	6½	12½	18½	11½	12⅞	60	0	15½	30½	18½	
3"	HT	3	5½	4½	2⅞	14⅞	12⅞	60	6½	12½	18½	14⅞	12⅞	60	0	15½	30½	18½	



PERFORMANCE CURVE

PRODUCT
CP3068.180

TYPE
HT

DATE
2010-08-02

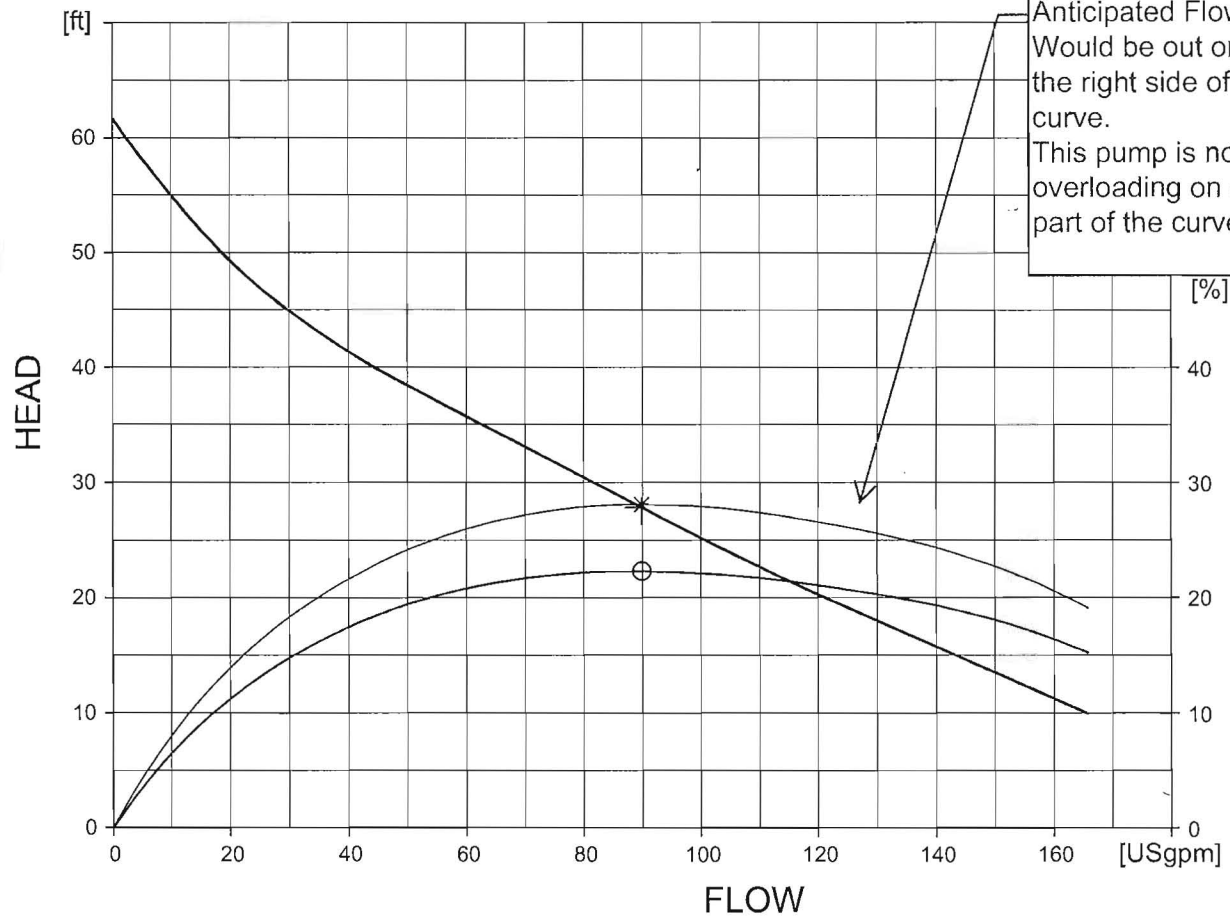
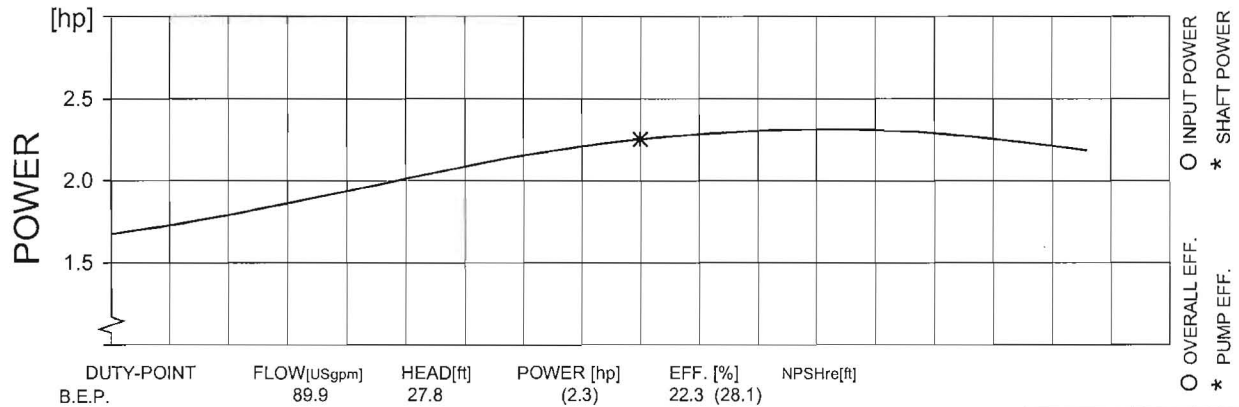
PROJECT
FLYGT US Catalog

CURVE NO
63-256-00-0161

ISSUE
4

	1/1-LOAD	3/4-LOAD	1/2-LOAD	
POWER FACTOR	0.89	0.85	0.76	RATED POWER 3.8 hp
EFFICIENCY	78.0 %	81.0 %	82.0 %	STARTING CURRENT ... 26 A
MOTOR DATA	---	---	---	RATED CURRENT ... 5.1 A
COMMENTS NEVACLOG NEMA Code Letter: F	INLET/OUTLET			RATED SPEED 3295 rpm
	- / 2 inch			TOT.MOM.OF INERTIA ... 0.0073 kgm2
	IMP. THROUGHLET			NO. OF BLADES 1

IMPELLER DIAMETER 94 mm			
MOTOR #	STATOR	REV	
13-10-2BB	1 Y	10	
FREQ.	PHASES	VOLTAGE	POLES
60 Hz	3	460 V	2
GEARTYPE		RATIO	
---		---	



Anticipated Flow
Would be out on
the right side of the
curve.
This pump is non-
overloading on any
part of the curve.



CURVE

Performance with clear water and ambient temp 40 °C



1035 South Bosque Loop Bosque Farms, NM 87068
505-362-1530 fax 505-869-9195

August 20, 2014

Ms. Rita Harmon, PE
Senior Engineer Planning Department
City of Albuquerque
Development and Building Services
600 Second Street NW
Albuquerque, NM 87102

RE: Re-submittal of Grading and Drainage Plan for Garcia's Kitchen Food Prep & Catering J13/D096

Dear Ms. Harmon,

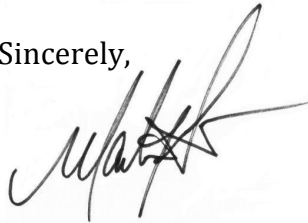
I am in receipt of your comments dated July 10, 2014 for this project and have the following responses to offer:

1. All Plans and Calculations need to be stamped by an Engineer. I am the engineer of record for this project and all plans have been stamped and signed by me.
2. Onsite flows from the existing restaurant and apartments must be accounted for. The proposed curb south of these existing structures does not allow roof runoff from these structures to drain to pond 2. The flows have been accounted for in the calculations; a swale has been added east of the apartments to assure the runoff goes into pond 2. In addition a curb cut has been added to allow for drainage to enter pond 2.
3. Roof runoff from the apartments appears to drain offsite to east and then reenter the property and drain to the south west, along with some amount of offsite flows. LIDAR contours support this and so this onsite/offsite flows need to be accounted for. In addition, it appears that a wall is to be built along west property boundary. How will flows from apartments reenter? Some of the runoff from the apartments goes offsite historically. This plan does not plan to modify this condition except to collect the runoff from the east side of the apartments into a swale and direct to the pond. Off site grading is not proposed.
4. Sections thru pond on East and West property boundaries need to be shown to indicate how flows will reenter, or how overflows will be contained on site. Sections have been added to plans. The overflow from the pond will be contained within the parking lot of the property. The ponds have been design to contain the 100yr 24 hr flow which is in excess of city requirements.

5. It appears that Pond #2 volume should be the total volume of both ponds #2 and #3 from the previous submittal. With a combined larger volume the WSEL will be lower. Not correct. The WSEL Elevation calculated for the previous submittal took into consideration the total volume of Ponds 2 and 3. The previous submittal missed the volume of pond #2 when the two were combined that has been corrected.
6. While a check valve is indicated on the plans, it is not clear where the check valve will be located. Indicate location of check valve. Also indicate what construction will be done thru Work Order and the CPN#. The check valve location is shown on detail 1-C5 which shows it near the pump. All the public utility work and the drivepad modifications on Central Boulevard will be done through work order. All other work is being done through the building permit process.
7. Details 1/C5 and 3/C5 show retaining walls that need to be designed, detailed, and dimensioned. The retaining wall designs and details are included as part of the building permit submittal for the Garcias Food Preparation Facility Construction Plans.
8. Pump Cut sheets provided show general information but do not show where on the curve the pump will operate (which is typically shown on a system curve), nor are there supporting calculations. Please provide. Attached to this letter is the pump cut sheets with the system curve identifying where the pump is designed to operate.

I believe that we have addressed your comments and the plan is ready for approval of building permit approval. If you have any questions or require additional information, please call me at 505-362-1530.

Sincerely,

A handwritten signature in black ink, appearing to read 'Martin J. Garcia', with a stylized flourish at the end.

Martin J. Garcia, PE
Anchor Engineering LLC



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: _____ City Drainage #: _____

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

Legal Description: _____

City Address: _____

Engineering Firm: _____ Contact: _____

Address: _____

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

Owner: _____ Contact: _____

Address: _____

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

Architect: _____ Contact: _____

Address: _____

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

Surveyor: _____ Contact: _____

Address: _____

Phone#: _____ 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)
- ☐ 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
- ☐ 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) _____

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

DATE SUBMITTED: _____ 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 following:

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