

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director



Mayor Timothy M. Keller

August 28, 2019

Scott Eddings, P.E.
Huitt-Zollars
333 Rio Rancho Blvd., Suite 101
Rio Rancho, NM 87124

RE: **Winrock Regal Cinema Temporary Parking
Amendment to Road B Extension
2100 Louisiana Blvd NE
Grading and Drainage Plan Stamp Date: 8/21/19
Hydrology File: J19D058H**

Dear Mr. Eddings:

PO Box 1293

Based on submittal received on 8/22/19, the Grading and Drainage Plan cannot be approved until the following are corrected:

Albuquerque

Prior to Site Plan for Building Permit:

NM 87103

www.cabq.gov

1. Show all proposed (temporary) grading in the future park area; the site is being graded now and we need a plan for it (§ 14-5-2-12-B-4).
 - a. Provide temporary ponding for the 100-yr volume.
 - b. Special care needs to be taken with respect to grading around the adjacent buildings to prevent water from entering them. Notably, Dillard's has a finished floor of 5294.4', but surrounding grades are ~5298'.
 - c. Add callouts as necessary that grading is temporary and will be revised when the park is constructed.
2. Construction notes 3 and 4 need to be swapped.
3. For Information. The ponds being proposed will need to be surveyed, certified, and inspected as part of the Work Order close-out.

Prior to Grading and Paving Approval:

4. As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Curtis Cherne, PE, ccherne@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director



Mayor Timothy M. Keller

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,



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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Winrock Town Center - Regal Temporary Parking Lot

Project Title: Grading and Drainage **Building Permit #:** _____ **Hydrology File #:** J19D058H

DRB#: 2018-001579 **EPC#:** _____ **Work Order#:** 4553.90

Legal Description: A-1-A-1-A-1 Winrock Town Center

City Address: 2100 Louisiana Blvd NE

Applicant: Winrock Partners LLC **Contact:** Fred Gorenz

Address: 100 Sun Avenue

Phone#: 505-881-0100 **Fax#:** _____ **E-mail:** seddings@huitt-zollars.com

Other Contact: Huitt-Zollars, Inc. **Contact:** Scott Eddings

Address: 333 Rio Rancho Blvd, Rio Rancho, NM 87124

Phone#: 505-235-7211 **Fax#:** _____ **E-mail:** seddings@huitt-zollars.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE X ADMIN SITE

IS THIS A RESUBMITTAL? X Yes _____ No

DEPARTMENT _____ TRANSPORTATION X HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE MASTER PLAN
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ STREET LIGHT LAYOUT
- ☐ OTHER (SPECIFY) _____
- ☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ SITE PLAN FOR SUB'D APPROVAL
- ☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ GRADING PERMIT APPROVAL
- ☐ SO-19 APPROVAL
- ☒ PAVING PERMIT APPROVAL
- ☐ GRADING/ PAD CERTIFICATION
- ☐ WORK ORDER APPROVAL
- ☐ CLOMR/LOMR
- ☐ FLOODPLAIN DEVELOPMENT PERMIT
- ☐ OTHER (SPECIFY) _____

DATE SUBMITTED: August 21, 2019 **By:** Scott Eddings

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

THIS PORTION OF WINROCK IS THE FORMER SPORTS AUTHORITY BUILDING CURRENTLY BEING DEMOLISHED. SPORTS AUTHORITY ROOF DISCHARGED TO THE NORTH AND EAST ENTERING INTO THE EXISTING STORM DRAIN DISCHARGING TO ANALYSIS POINT B PER THE APPROVED DRAINAGE IMPLEMENTATION PLAN PREPARED BY HUITT-ZOLLARS, INC DATED JULY 15, 2019.

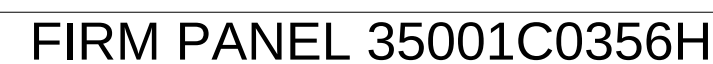
PER THE FEMA MAP NUMBER 35001 C0356H DATED
AUGUST 16, 2012 SHOWS THE SITE IS NOT
LOCATED WITHIN A FLOOD HAZARD ZONE AREA.

SITE DRAINAGE IS IN ACCORDANCE WITH THE APPROVED WINROCK TOWN CENTER MASTER DRAINAGE PLAN. DRAINAGE FROM THIS PROJECT DISCHARGES INTO BASIN 500P OF THE MASTER DRAINAGE BASIN. OUTFALLS INTO MH7 WITH A BASIN AREA OF 1.34 ACRES AND A DISCHARGE RATE OF 6.7 CFS. DMP ALLOWS 7 CFS INTO MH7 SO THE PROPOSED TEMPORARY IMPROVEMENTS COMPLY WITH THE DMP AND NO ADDITIONAL PONDING IS REQUIRED.

DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE APPROVED DRAINAGE MASTER PLAN FOR WINROCK TOWN CENTER. THE DRAINAGE PLAN IS ONLY FOR THE TEMPORARY PARKING LOT TO SUPPORT THE REGAL THEATER DURING CONSTRUCTION OF CITY WORK ORDER 4553.90.

BASIN 100 DISCHARGES INTO THE NEW STORM DRAIN - REQUIRES
ADDING A PRIVATE TYPE 'D' STORM DRAIN INLET AND STORM DRAIN
LATERAL EXTENDING TO MANHOLE 8B IN WORK ORDER 4553.90. BASIN
DISCHARGE RATE IS 6.7 CFS AND ALLOWABLE IS 7.0 CFS

BASIN 200 DISCHARGES ONTO ADJACENT PARKING AISLES



SURVEY INFORMATION			BENCH MARKS		AS BUILT INFORMATION	
NO.	BY	DATE	FOUND MONUMENT	WORK STAKED BY	CONTRACTOR	DATE
			STANDARD 3 1/4" ALUMINUM DISC (FOUND IN PLACE)	NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE NAD. 1983)	WORK ACCEPTANCE BY	DATE
			N=1,433,154.978		FIELD CORRECTION BY	DATE
			E=1,545,048.210		DRAWINGS CORRECTED BY	DATE
				PUBLISHED EL=5283.22 (NAVD 1989)	MICRO-FILM INFORMATION	
				GROUND TO GRID FACTOR=1.99966190	RECORDED BY	DATE
				DELTA ALPHA ANGLE=+0°11'00.11"	NO.	

HYDROLOGY - BASIN 100

DRAINAGE AREA 100

AREA = 58,383 sf
AREA = 1.34 ac.

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

TREATMENT A 0.66 in. 1.87 cfs/ac.
TREATMENT B 0.92 in. 2.60 cfs/ac.
TREATMENT C 1.29 in. 3.45 cfs/ac.
TREATMENT D 2.36 in. 5.02 cfs/ac.

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

% AREA % AREA
TREATMENT A 0% 0.00 ac. 0% 0.00 ac.
TREATMENT B 0% 0.00 ac. 0% 0.00 ac.
TREATMENT C 0% 0.00 ac. 0% 0.00 ac.
TREATMENT D 100% 1.34 ac. 100% 1.34 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(1.34)/ 1.34 ac.
= 2.36 in.
V100-360 = (2.36)x(1.34)/ 12 = 0.263590 ac-ft = 11482 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(1.34)= 6.73 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(1.34)/ 1.34 ac.
= 2.36 in.
V100-360 = (2.36)x(1.34)/ 12.0 = 0.263590 ac-ft = 11482 cf

V100-1440 = (0.26)+(1.34)x(3.10 - 2.60)/ 12 = 0.319436 ac-ft = 13915 cf

V100-10day = (0.26)+(1.34)x(4.90 - 2.60)/ 12 = 0.520479 ac-ft = 22672 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(1.34)= 6.73 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.34" OF RAINFALL

V = 1,654 cf

HYDROLOGY - BASIN 200

DRAINAGE AREA 200

AREA = 10,378 sf
AREA = 0.24 ac.

DRAINAGE ZONE 3

PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

EXCESS PRECIPITATION:

PEAK DISCHARGE:

TREATMENT A 0.66 in. 1.87 cfs/ac.
TREATMENT B 0.92 in. 2.60 cfs/ac.
TREATMENT C 1.29 in. 3.45 cfs/ac.
TREATMENT D 2.36 in. 5.02 cfs/ac.

EXISTING CONDITIONS:

PROPOSED CONDITIONS:

% AREA % AREA
TREATMENT A 0% 0.00 ac. 0% 0.00 ac.
TREATMENT B 0% 0.00 ac. 0% 0.00 ac.
TREATMENT C 0% 0.00 ac. 0% 0.00 ac.
TREATMENT D 100% 0.24 ac. 100% 0.24 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.24)/ 0.24 ac.
= 2.36 in.
V100-360 = (2.36)x(0.24)/ 12 = 0.046855 ac-ft = 2041 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.24)= 1.20 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.24)/ 0.24 ac.
= 2.36 in.
V100-360 = (2.36)x(0.24)/ 12.0 = 0.046855 ac-ft = 2041 cf

V100-1440 = (0.05)+(0.24)x(3.10 - 2.60)/ 12 = 0.056782 ac-ft = 2473 cf

V100-10day = (0.05)+(0.24)x(4.90 - 2.60)/ 12 = 0.092519 ac-ft = 4030 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.24)= 1.20 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.34" OF RAINFALL

V = 294 cf

INLET ANALYSIS

Huitt-Zollars, Inc.

Inlet Worksheet (Sump Condition) for Road B Extension

Objective: Design a Type C or Type D Inlet in Sump Condition for a 100-year flow

- 1 Inlet to collect peak flow amount before overtopping headwall.

- 2 Grate Dimensions

35.5
18.5" 35.5" 18.5
**Net dimensions of open area of a single grate. (Total Area less Area of Bars)

Weir Perimeter = 9.0 ft
Area of Orifice = 4.6 sf

- 3 Calculate Orifice and Weir Flow into Grate at Design Depth

Orifice Equation	Weir Equation
$Q = 0.6 \times A \times (2 \times g \times h)^{1/2}$ Where A = 4.6 sq. ft. g = 32.2 ft./sec. h = 0.5 ft. Therefore Q = 15.5 cfs	$Q = 2.65 \times P \times H^{3/2}$ Where P = 9.0 ft. H = 0.5 ft. Therefore Q = 16.9 cfs

Orifice Equation controls
Grate Capacity = 15.5 cfs

- 4 Apply 25% Clogging Factor to determine allowable design flow into inlet

15.5 x 0.75 12 cfs

Therefore Capacity of Single CID Inlet in Sump Condition = 12 cfs

Capacity of Double CID Inlet in Sump Condition = 23 cfs

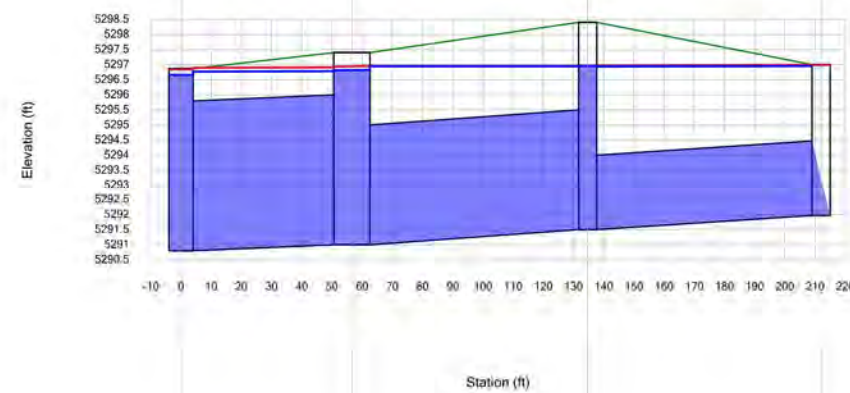
*Grate Capacities do not account for curb opening inflow. Therefore, inlet capacities are the same for Type C and Type D inlets.

STORM CAD OUTPUT

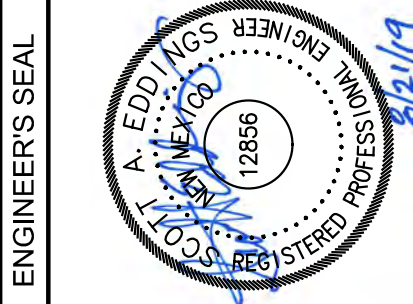
Profile Report

Profile: REGAL PARKING LOT INLET

REGAL PARKING LOT INLET - Base



ID\Label	40 \ LINE 5	39 \ LINE 7	170 \ CO-62
Link Length (ft)	56.6	78.1	77.3
Rise (in)\Material	60.0 \ PVC	48.0 \ PVC	30.0 \ PVC
Flow (cfs)	55.6	7.5	7.5
Slope (ft/ft)	0.004	0.006	0.006
ID\Label	34 \ MH 4	35 \ MH 5	37 \ MH 7 169 \ REGAL TEMP. INLET
Ground (ft)	5296.87	5297.40	5298.40
Invert (ft)	5290.80	5291.00	5291.50
Station (ft)	0.0	56.6	134.7



Designed By:

HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

WINROCK PARTNERS, LLC.

WINROCK TOWN CENTER

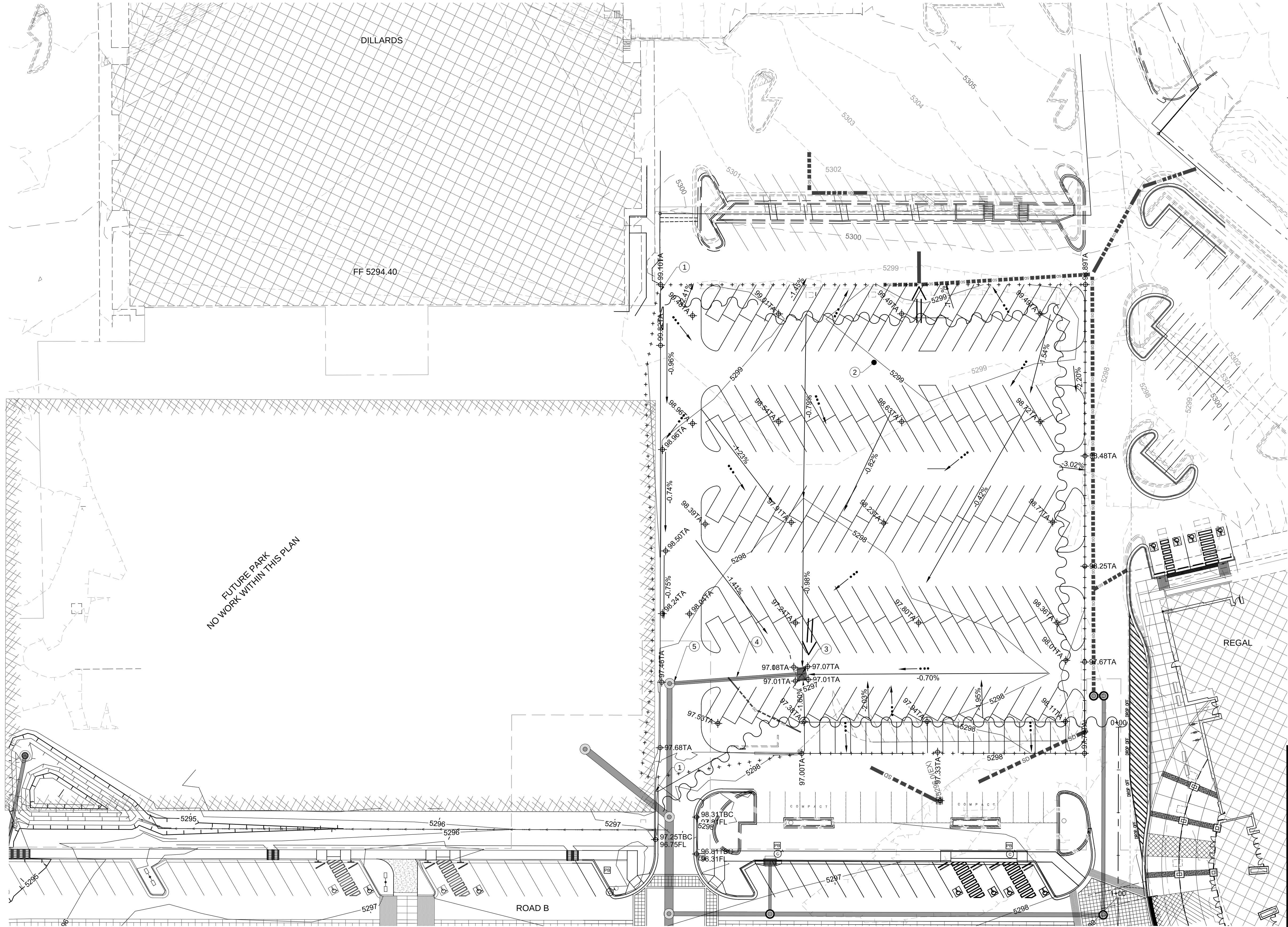
REGAL TEMPORARY PARKING LOT

TITLE: HYDROLOGY & HYDRAULICS

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of

J-19-Z 2 3

Plotted: 8/27/2019, 5:16:41 PM, By: Edgings, Scott
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Last Saved: 8/27/2019, 5:16:41 PM, By: Edgings, Scott



REGAL TEMPORARY PARKING LOT

CONSTRUCTION NOTES

1. CONSTRUCT 6" ASPHALT CURB PER COA STD. DWG. 2415
2. CONSTRUCT 3" SP-C ASPHALT PARKING LOT.
3. CONSTRUCT PRIVATE STORM DRAIN 24" HDPP
4. INSTALL PRIVATE TYPE D INLET
5. CONNECT TO MANHOLE INSTALLED AS PART OF PROJECT 4553.90

LEGEND

- ← DISCHARGE LOCATION
→ FLOW DIRECTION
+ + + + + LIMITS OF DISTURBANCE
~ HIGH POINT

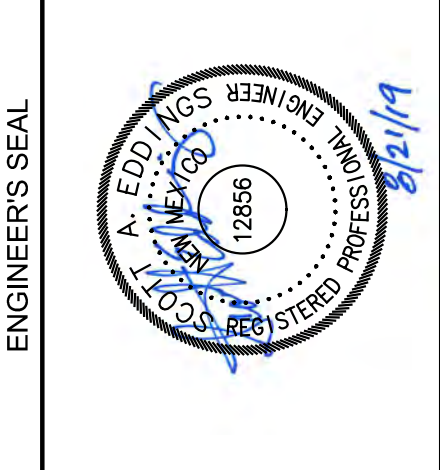
EARTHWORK SUMMARY

CUT: 1,475 CUBIC YARDS
FILL: 305 CUBIC YARDS
NET: 1,170 CUBIC YARDS (EXPORT)

AS BUILT INFORMATION	
CONTRACTOR	WORK
STARTED BY	DATE
ACCEPTANCE BY	DATE
FIELD LOCATION BY	DATE
DRAWINGS	DATE
CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS	
FOUND MONUMENT "20 H18"	DATE
STANDARD 3 1/4" ALUMINUM DISC (FOUND IN PLACE)	BY
NEW MEXICO STATE PLANE COORDINATES (CENTRAL ZONE-NAD 1983)	NO.
N= 4931.154.978	
E= 1545.042.210	
PUBLISHED EL= 5293.22 (NAD 1983)	
GROUND TO GRID FACTOR= 0.999661590	
DELTA ALPHA ANGLE= 0° 11' 01.1"	

SURVEY INFORMATION	
FIELD NOTES	DATE
BY	BY
NO.	NO.



ENGINEER'S SEAL	
NO.	DATE
REVISIONS	BY
DESIGN	DATE
DESIGNED BY: SAE	DATE: AUG. 3, 2019
DRAWN BY: LRT	DATE: AUG. 3, 2019
DWG NAME: GRADING PLAN.dwg	PROJ #: R303699.04
CHECKED BY: SAE	DATE: AUG. 3, 2019

0 30' 60'
SCALE: 1" = 30'



Designed By:

HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Pkwy NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

WINROCK PARTNERS, LLC.
WINROCK TOWN CENTER
REGAL TEMPORARY PARKING LOT

TITLE:

GRADING PLAN

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
		3	3

J-19-Z