

STRIPE LANE

SAW CUT EXISTING AC.

STANDARD C & G PER
COA DWG. 2415A

AND GUTTER

GROUND TELEPHONE

42" ROP-COVER

A PRIVATE STORM DRAIN MAINTENANCE AGREEMENT. NAID COMENANT IS RECUIRED PRIOR TO MORK PROER FOR THE PORTION OF THE POYND THAT. ENOROACHES INTO THE PUBLIC DRAINAGE EASEMENT.

SCALE: 1" = 10'

A PRIVATE STORM DRAIN MAINTENANCE AGREEMENT AND COMPLIANT IS RECURRED PRICE TO WORK ORDER FOR THE PORTION OF THE PORM THAT ENCROACHES INTO THE PUBLIC DRAINAGE EASEMENT.

THIS SHEET IS FOR PRIVATE GRADING & DRAINAGE ON PARGEL 128 ADDITION IN THE CITY OF ALBUQUERQUE AND ON TRACT & OF THE PEDRAS MERCALAS CHANNEL & DETENTION DAM DRAINAGE RIGHT— BERNALULLO COUNTY.

AMAR VEW

REVIEW COMMITTEE

CITY ENGINEER APPROVAL

HO /DAY/YR. PLAN

MO_/DAY/YR.

NO. DATE

DESIGNED BY

DRAWN BY CHECKED BY JDH ACH

DMC

REMARKS

REVISIONS

DESIGN

DATE

DATE

DATE

BY

07/14

07/14

AST DESIGN UPDATE

THIS SHEET IS NOT FOR CONSTRUCTION OF PUBLIC INFRASTRUCTURE, EXCEPT THAT IT ESTABLISHES FLOW RATES TO BE USED FOR DESIGN OF THE PUBLIC STORM DRAIN.

CITY PROJECT NO.

702182

SHEET

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Station\GRADE & DRAIN\A10024 GRADY G&D_r7.dwg, Last saved by:

BIKE

305

WHES OO'

OF PAVEMENT

WAGE EASEMENT MANTENANCE RD.

STRIPED BUFFER BIKE LANE

-EXISTING EDGE OF PAVEMENT

Stormwater Management Plan

The peak 100 year stormwater nundiff rates from this site will be less than the rate established by the North Coors Drainage
The peak 100 year stormwater nundiff rates from this site will be less than the rate established by the North Coors Drainage Management Plan – Middle Area (Smith Feb '97) is accepted by AMAFCA and by the City of Albuquerque. When several of the culverts under Coors Bivd, were plugged as part of the construction of the Bosque Del Pueblo Final Grading &Drainage
Plan (Greiner, 1989), at de fact boyond was created on these properties unknown to the owners until recently. The Team Radio development will construct a new improved regional pond in accordance with an AMAFCA Turnkey Agreement date September 26, 2014. Drainage infrastructure west of the Team Radio site will then be maintained by AMAFCA. The new regional pond will cut the peak 100-YR flow rate from the 39, 1 acre upstream offsite basins plus the onsite 2 acre basin to about helf of the originally planned runoff rate (90 cfs reduced 53,21 cfs).

Upstream Offsite Flows

Drainage from Eagle Ranch Road and from Coors Bixd.. Basins 101 and 106 respectively will be conveyed through Parcel 12B in a Drainage from Eagle Ranch Road and from Coors Bixd.. Basins 101 and 106 respectively will be conveyed through Parcel 12B in a storm drain to be constructed by the developer and maintained by the Cily of Albuquerque, it will outfall into an existing 60° culver under storm drain to be construction by the developer.

Coors Bixd., NMDOT owned and Maintained. The 60° culvert will be extended as part of the construction by the developer.

Offsite flows from Basins 102 and 103 are diverted by a roadside dlich west of Calle Nortena to a sump in Calle Nortena where they flow on the surface over the Calle Nortena roadway and into this site. There they will be joined by the cristle drainage (basin 105) and flow on the surface over the Calle Nortena roadway and into this site. There they will be joined by the cristle drainage (basin 105) and all will be conveyed on the surface through the pairing to the a concrete rundown that will drain the first this into the onsite Storm Water Quality pond. The rundown will drain higher flows into the regional detention pond located on both sides of Calle Nortena near the 60° outfall under Coors Blvd. At peak stage the regional detention pond spreads into the top 0.57° of the SWQ pond.

Offsite flows from Basin 104 drain into the portion of the regional detention pond located on the AMAFCA right of way Tract 4. That portion of the regional pond is one macked to the portion or Parcel 12B by a 48° RCP which is oversized so that head loss through it is repliable and the pond is at the same elevation on both sides.

AHYMO AREA Ground Cover (%) Peak 100-YR Peak 10-YR Peak 10	He following lable. HYDROLOGY SUMMARY Peak 100-YR Peak 10-YR			18.65		40.41		53.21							Pond	Discharge from
HYDROLOGY SIJMMARY AREA Ground Gover (%) ANYAIO AREA Ground Gover (%) AREA Ground Gover (%) A	Har following lable: HYDROLOGY SUMMARY Peak 100-YR Peak 10-YR	0.050	25.21	2.48	62.85			5.83	100.0		0.0	0.0	0.00203	1.3	106	Coors Rd
AHYAJO	Hardinowing falabe.	0.06	22.77	3 38	59 07		113.82	8.51	80 0	20.0	0.0	00	0.00313	2.0	105	Onside
HYDROLOGY SUMMARY AREA Ground Cover (%) BASIN ID (Ac) (Sq mi) A B C D Incru Tolal 102 104 001625 000 16.6 16.7 16.7 56.7 16.7 56.7 16.7 56.7 56.7 56.8 76.8	HYDROLOGY SUMMARY Peak 10-YR SWC Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR Peak 10-YR Peak 10-YR SWC Peak 10-YR Peak 10-YR SWC Peak 10-YR Pe	0.107	19.39		53.54			43.04	16.7		16.6	500	0 02609	16.7	ĝ	Alban/AMAFCA
AHYAJO AREA Ground Cover (%) Flow Close (16) Flow Close	Hybridiowing lable: Hybridiogy SumMary Peak 10-YR	0.014	13.39	0.78	33.26	2.65		5.62	16.7	16.7	16.6	50.0	0.00344	2.2	103	Offsite west
HYDROLOGY SUMMARY AHYANO AREA Ground Cover (%) Flow O ₁₀₀ (26) (26) (26) (26) (26) (26) (26) (26)	HYDROLOGY SUMMARY	0.067	12.61	3.72	30.61	12.58	56.72	26.72		16.7	16.6	50.0	0.01625	10.4	102	Offsite west
HYDROLOGY SIMMMARY	HYDROLOGY SUMMARY	0.078	8.89	8.89	18 02	18.02	30 06	30.06		76.0	0.0	Н	0.01328	8	101	Eagle Ranch RD
HYDROLOGY SUMMARY Peak 100-YR	the following table. HYDROLOGY SUMMARY HYDROLOGY SUMMARY HYDROLOGY SUMMARY Feak 100-YR Feak 10-YR Peak 10-	(Ac	Total		Total	Incru	Total	Incru	o	ı	I	>	(Sq mi)	(Ac)		Description
	the following table. HYDROLOGY SUMMARY	SWC	5) CD O-YR	Peak 1	S O P	Flow (c	100-YR 1 ₁₀₀ (cfs)	Peak Flow 0	8	Caver (- Bring		REA		AHYMO BASIN ID	
	the following table.							RY	NMMA	LOGY	YDRO	1				

Pond volume Calculations

The point RCP on the west "let control in the dou RCP on the west side of Coors limits discharge rates at dep outlet control in the double 21° RCPs. The following table st nomographs for Concrete Pipe Culverts Flowing Full and fo Jan 1963 as contained in the Appendix of the Drainage Rep Team Radio Site Event Recurance Interval | The Team Radio Pond Summary Table | | Peak | Peak | Peak | Peak | Peak | Inflerval | (cfs) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | (2.5) | Area (SF) (Ac-Fr)

2.965 0.00

14,417 0.18

1.577 0.59

27,186 114

39,469 1.90
61,380 3.05 Total On & Outfall Hydraulic Calculations Feak Stage (ft) 5001.77 5002.77 5004.26 HW/D

Hydraulic Calculations

HGL calculations for the storm drain that parallels Coors Rd between Eagle Ranch Road and the existing 60° RCP under Coors Rd begin at the downstream end with the 100y pond elevation at the moment when the peak flow rate enters the storm drain at Eagle Ranch Rd. From AHYMO the peak of beasin 101 occurs at 1.53 hours when the pond stage is 5003 26. The peak flow rate in the 36° RCP is equal to 35.69cfs, the sum of basins 101 and 106.

DATE

DATE

DATE

MICRO-FILM INFORMATION

RECORDED BY

Alternatively when the peak stage of the pond occurs, at 1.73 hours, the peak inflow is 52.47ds which is 44% of the peak flow. At that moment the beginning HGL elevation at the downstream end is 5004.26 and the proreted flow in the 36" pipe is 15.74ds. The hydraulic grade line elevation was calculated using WSPGW at each of these two moments of the 100 year storm, peak inflow and peak pond stage, and the higher of the two elevations is shown on the pipe profiles along with the peak flow rate and corresponding relicity. The flow rates in the storm drains in Eagle Ranch Rd. are based on the record drawings for Eagle Ridge Subdivision, City

elocity. The flow roject # 702181.

The backwater effect of the pond on the 100 year surface drainage from The Team Radio site, including drainage from upstream offsite basins 102 and 103 that drain on the surface through The Team Radio site, was analyzed using HEC-RAS for the moment in the hydrograph where the peak flow rate of 41 cfs occurs, at 1.53 hours, when the pond stage is 5003.26. The analysis determined that the 100-yr elevation at The Team Radio site is 5004.85 which is higher than the peak 100 year pond stage of 5004.26. The lowest parking lot elevation is 5004.20 where the normal 100 year flow depth is 0.82 using Plate 22.3 D-4 for 41cfs at 0.50% stope compared to 0.65" depth backwater from the concrete spillway.

Storm Water Quality Calculations
The required volume is based on a 0.6" precipitation event that produces 0.46" runoff from impervious surfaces only and is shown for each basin in the Hydrology Summary table on page 5. The required volume for The Team Radio site is 0.61 ac-ft. The concrete sprilway is designed to drain north into the SWO pond(s) until the 0.67 ac-ft pond(s) fill up to elevation 5003.70, then it spills south into the detention pond.

Survey

The existing conditions as shown on the plans were surveyed by Aldrich Land Surveying revised 10-27-2014.

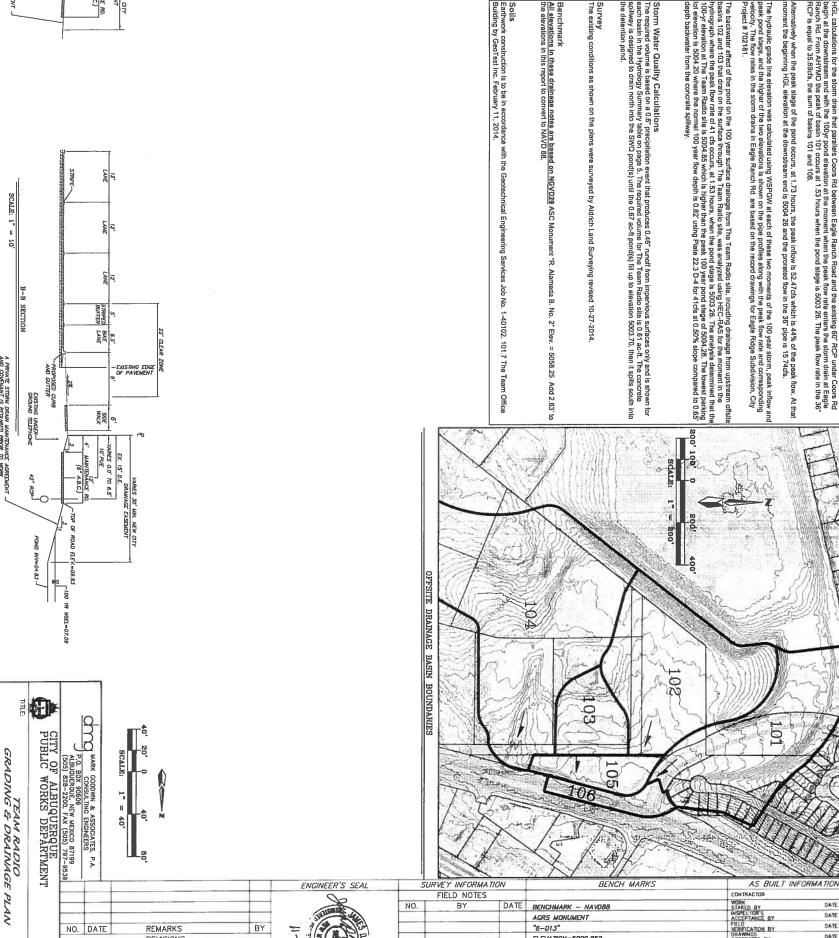
AGRS MONUMENT

ELEVATION=5009.852

THIS PROJECT IS BASED ON NAD27 AND NAVD88

"6-D13"

All elevations in these drainage notes are based on NGVD29 ASC Mon the elevations in this report to convert to NAVD 88. Alameda B. No. 2" Elev. = 5058.25, Add 2.83' to



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