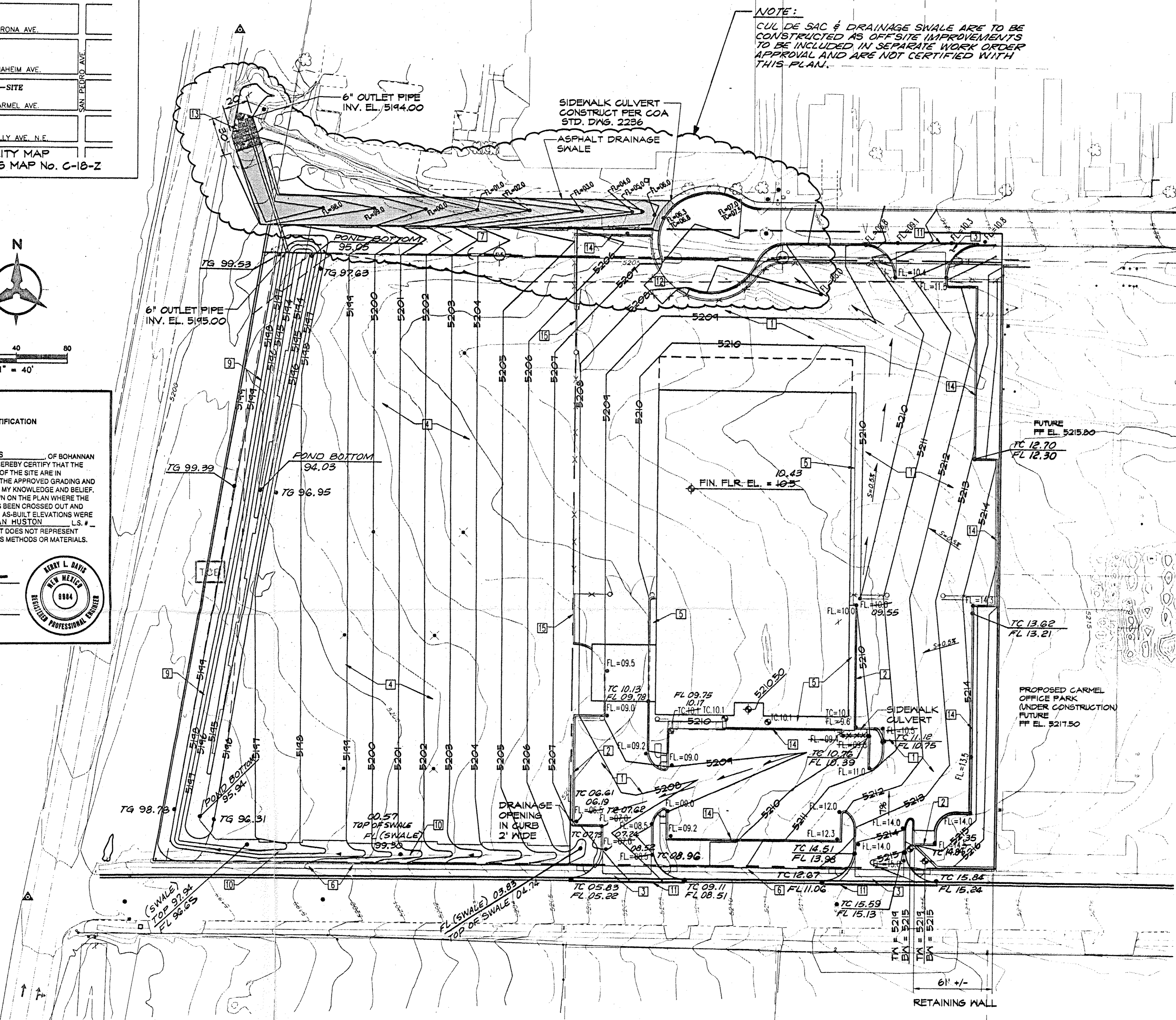


DRAINAGE CERTIFICATION

KERRY L. DAVIS OF BOHANNAN HUSTON, N.M.P.E. # 9984, HEREBY CERTIFY THAT THE AS-BUILT DRAINAGE CONDITIONS OF THE SITE ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN, TO THE BEST OF MY KNOWLEDGE AND BELIEF. AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN WHERE THE ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND THE AS-BUILT ELEVATION ADDED. AS-BUILT ELEVATIONS WERE VERIFIED BY BOHANNAN HUSTON, L.S.# _____ THIS STATEMENT DOES NOT REPRESENT CERTIFICATION OF CONTRACTOR'S METHODS OR MATERIALS.

Kerry L. Davis
 NAME
 9/29/00
 DATE

NOTE:
 CUL-DE-SAC & DRAINAGE SWALE ARE TO BE CONSTRUCTED AS OFF-SITE IMPROVEMENTS TO BE INCLUDED IN SEPARATE WORK ORDER APPROVAL AND ARE NOT CERTIFIED WITH THIS PLAN.



GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATION AS NOTED IN THE SOILS REPORT PREPARED BY GEO-TEST, INC.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL SHEET 3 AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. ALL SPOT ELEVATIONS ARE TO FLOWLINE OR FINISH GRADE UNLESS OTHERWISE NOTED. TA=TOP ASPHALT TS = TOP SIDEWALK.
6. BOULDERS, GREATER THAN 3 FEET IN DIAMETER, EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.
7. ROUGH GRADING WITHIN PUBLIC R.O.W. ALONG ANAHEIM WILL BE INCLUDED IN THIS CONTRACT, INCLUDING DRAINAGE SWALES, BERMS AND CULVERTS.
8. 4' DIAMETER MANHOLES SHALL BE PER COA STANDARD, OR APPROVED EQUAL.

KEYED NOTES

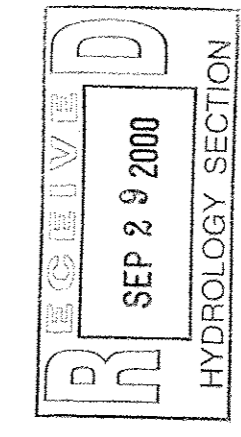
- 1 NEW ASPHALT PAVING - 2" THICK OVER 6" COMPACTED GRAVEL BASE COURSE OVER 12" COMPACTED SUB-GRADE.
- 2 NEW MEDIAN CURB AND GUTTER - CONSTRUCT PER COA STD. DWG. NO. 2415.
- 3 CONSTRUCT NEW PRIVATE ENTRANCE W/CONCRETE VALLEY GUTTER PER COA STD. DWG. NO. 2426 - REMOVE EXISTING CURB AND GUTTER AND SIDEWALK.
- 4 4" COMPACTED GRAVEL BASE COURSE DRIVE/ PARKING SURFACE.
- 5 4" THICK CONCRETE SURFACE.
- 6 EXISTING CONCRETE SIDEWALK TO REMAIN.
- 7 PORTION OF ANAHEIM AVE. VACATED PER V-99-88.
- 8 WIRE ENCLOSED RIPRAP - BUILD PER COA STD. DWG. NO. 2270.
- 9 DETENTION POND.
- 10 LANDSCAPED DRAINAGE SWALE.
- 11 SAW CUT, REMOVE AND REPLACE 12" MIN. ASPHALT AT NEW PRIVATE ENTRANCE LOCATIONS - MATCH EXISTING PAVEMENT ELEVATION.
- 12 REFUSE ENCLOSURE LOCATION.
- 13 CONSTRUCT 30'x20'x2' GROUTED RIPRAP SPLASH PAD @ CBC ENTRANCE.
- 14 HEADER CURB PER (C.O.A. STD. DWG. 2415)
- 15 CONSTRUCT NEW 1'x1' CONCRETE CUT-OFF WALL

P:\00246\CDP\DESIGN\SDGRADE2.DWG 03/01/00

GRADING PLAN
 SCALE: 1" = 40'

LEGEND

	5197	EXISTING TOPOGRAPHIC INFORMATION
	5198	PROPOSED TOPOGRAPHIC INFORMATION
		PROPOSED SIDEWALK CULVERT
		PROPOSED SPOT ELEVATION
		ASPHALT DRAINAGE SWALE - SEE SECTION SHEET 2



ALPHA R.V. / TRUCKS UNIQUE

PROPOSED GRADING AND DRAINAGE PLAN FOR RECREATIONAL VEHICLE SALES INCLUDING RELATED SERVICE AND REPAIR

I-25 FRONTAGE ROAD & CARMEL AVE. ALBUQUERQUE, NEW MEXICO

C-18/10/14

GRADING PLAN

PROJECT NUMBER	Scale
11-589	1" = 40'
Date	03/01/00
Drawn	
Checked	
PLW	

1 of 2

DRAINAGE MANAGEMENT PLAN

I. INTRODUCTION / BACKGROUND / PURPOSE

The proposed Aloha RV site is located on the Pan American Freeway, between Anaheim and Carmel, within City of Albuquerque Zone Atlas Map No. C-18. The site is within Precipitation Zone 3 as defined in the DPM Section 22.2. The site currently comprises all or parts of lots 8, 9, 10, 11, 22, 23, 24 and 25, Block 16, Tract A of North Albuquerque Acres, and contains approximately 6.9 acres. A replat of the property is proposed, which will consolidate and redefine the property as Tract B-A and 22-A, Block 16, Tract A, North Albuquerque Acres.

This site is within the area covered by the North Albuquerque Acres Drainage Management Plan, prepared for AMAFCA by Resource Technology, Inc., dated October, 1998. The area of the development is also covered by a Drainage Report prepared by Wilson and Co., titled Summary Drainage Report for the Subarea I-25 Frontage Road to San Pedro/Paseo del Norte to Anaheim, dated December, 1999.

This plan proposes to construct a recreational vehicle sales, storage, display and repair facility consisting of a maximum of 42,000 square feet. The building may be phased. The purpose of this plan is to identify existing and proposed drainage characteristics of the site, as required to receive Site Development Plan Approval and Building Permit Approval in accordance with the requirements of the North I-25 Sector Development Plan and the City of Albuquerque.

II. EXISTING CONDITIONS

Currently, the site slopes from east to west at approximately 3%. The existing site is sparsely covered with grasses and weeds. The site is currently undeveloped. The entire site drains toward the northwest and discharges to the existing box culvert crossing structures under I-25 within the North Domingo Baca Arroyo. The site accepts offsite flows from the parcels to the east, which are proposed to be routed to Anaheim via development of the Carmel Office Park. A separate drainage report for this adjacent development was submitted by ABQ Engineering, as discussed below.

III. PROPOSED DRAINAGE MANAGEMENT PLAN

Development of an RV Sales and Service facility at the site, will direct flows generated onsite toward Anaheim Avenue on the north, and to a proposed detention pond along the west boundary of the site adjacent to the I-25 Frontage Road. Offsite flows will be routed to and conveyed by Anaheim Avenue, which is proposed to be terminated in a cul-de-sac north of the proposed building. As proposed within the Drainage Report for the Carmel Office Park, and the Subarea drainage report by Wilson and Co., a surface conveyance is proposed to convey the developed runoff of approximately 33 CFS (offsite) plus approximately 7 CFS (onsite from Basin B3) from the end of the cul-de-sac to the concrete box culvert crossing structure under I-25. The surface conveyance proposed will be constructed within a public drainage and utility easement, and will consist of a 25' wide asphalt lined swale, at a slope of approximately 2%. Sidewalk culverts within the cul-de-sac will deliver flows from the street to the swale. Maintenance of the swale is anticipated to be provided by the property owners and governed by a maintenance covenant.

Outfall from the detention pond will be via a temporary 6" outlet pipe which will deliver flows to the concrete box culvert under I-25. A portion of the site (Basin B3) is identified with free discharge to Anaheim Avenue of approximately 7 CFS. The pond has been designed with to store the 100-year, 10-day volume. The discharge from the pond has been restricted to approximately 1.0 CFS (average), which is adequate to drain the pond in approximately 12 hours. The total discharge from the site will be approximately 0.0 CFS, which is roughly half of the existing undeveloped flow rate of approximately 2.2 CFS/ac, totaling approximately 15.1 CFS for the site, as identified in the Subarea Drainage Report prepared by Wilson and Co. referenced above.

IV. CONCLUSIONS

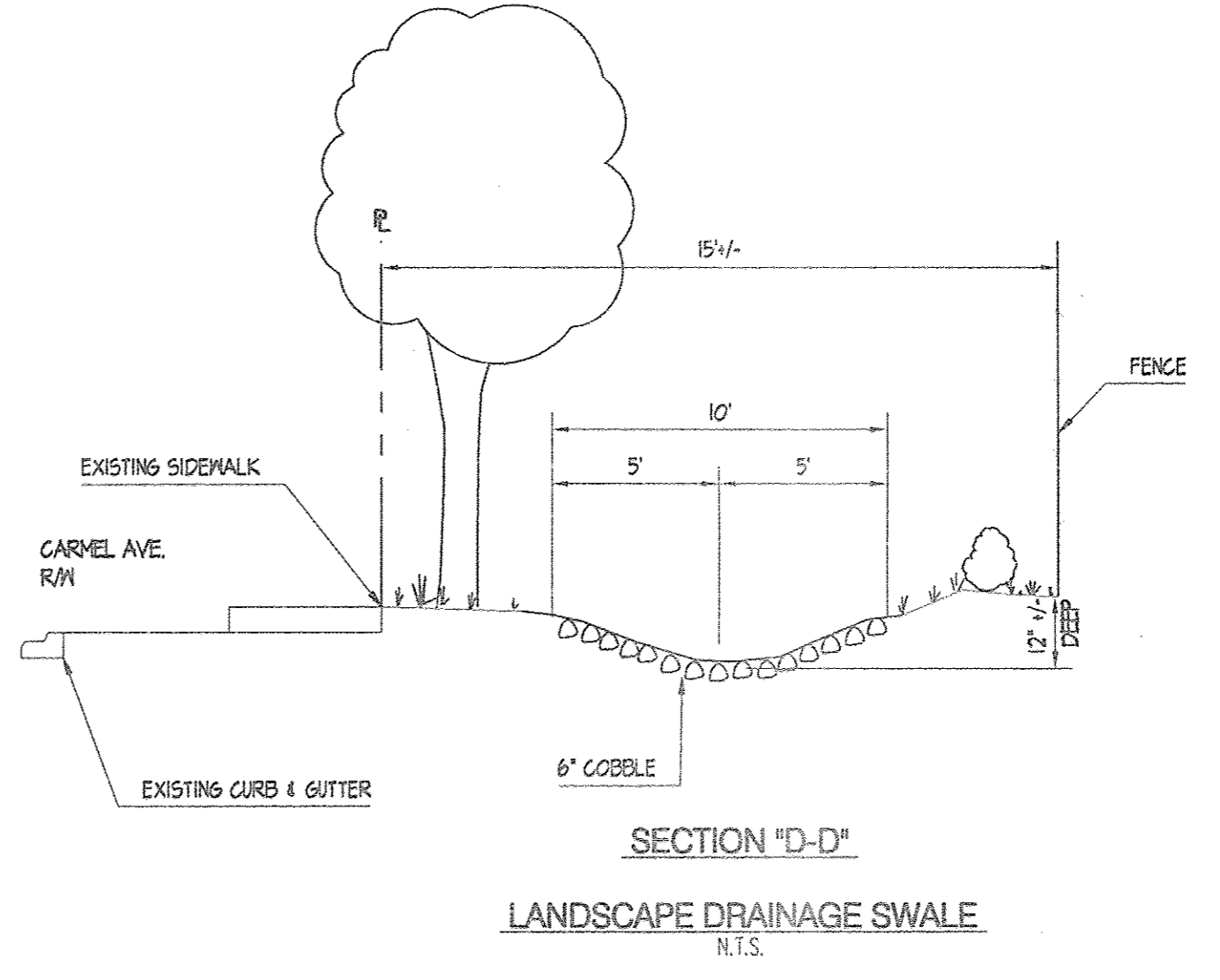
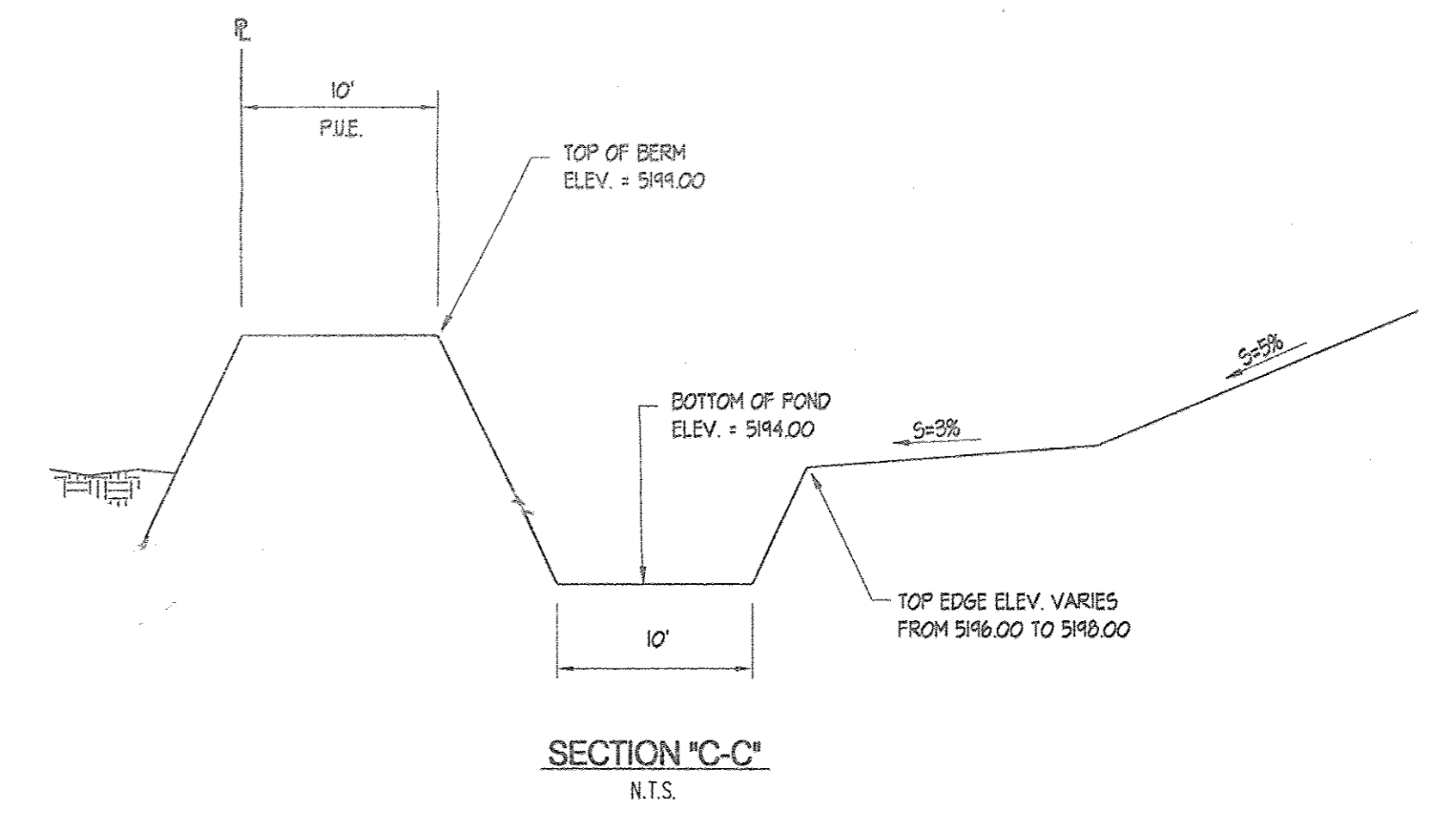
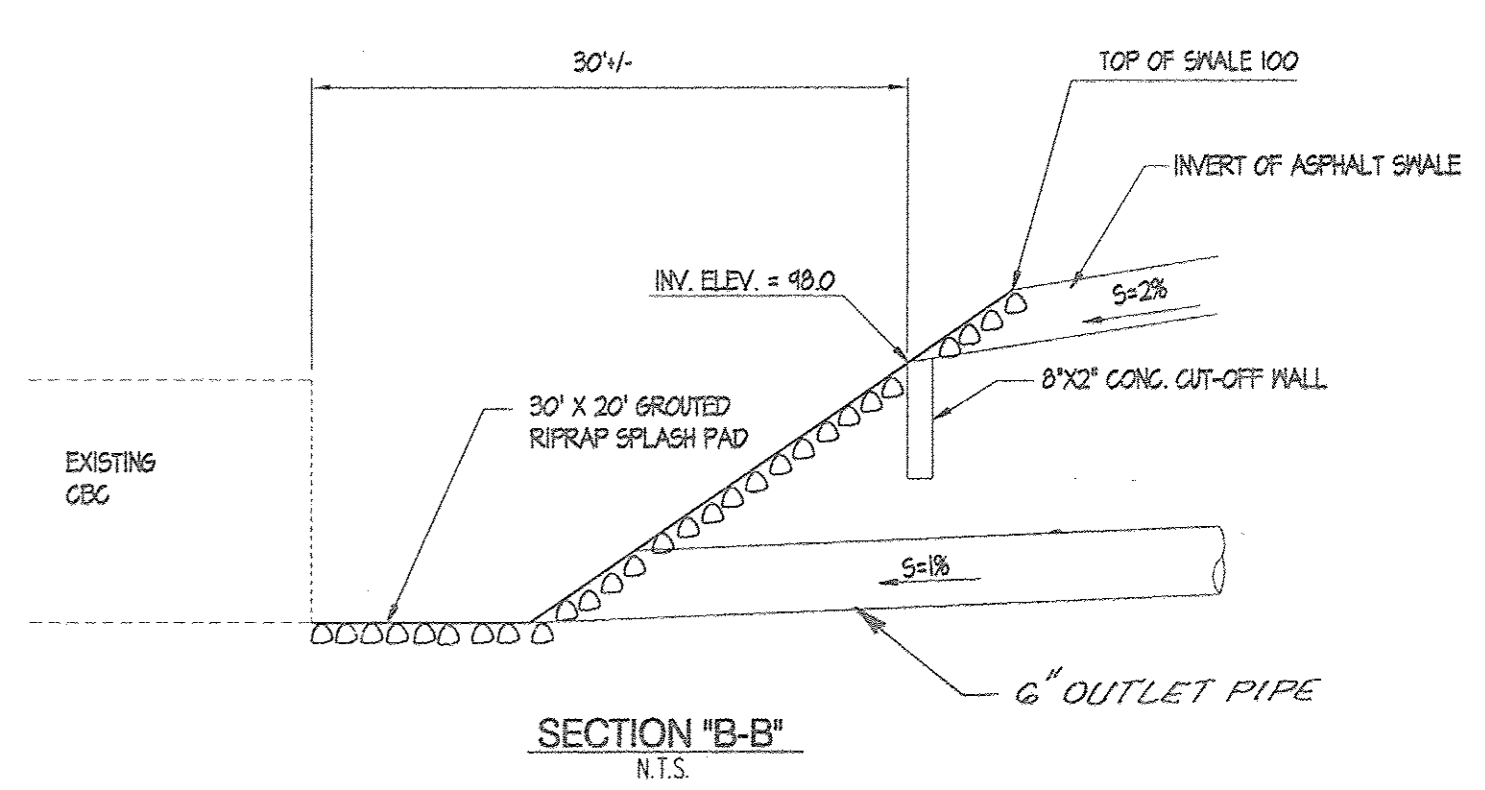
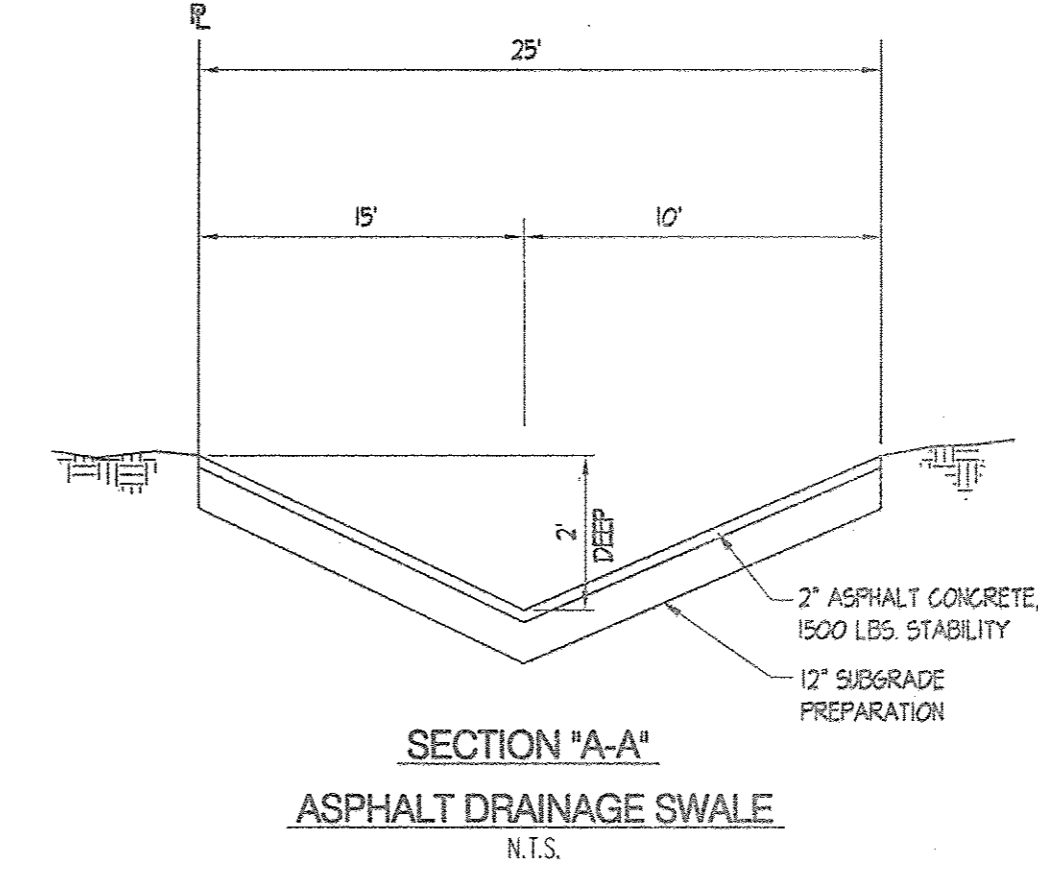
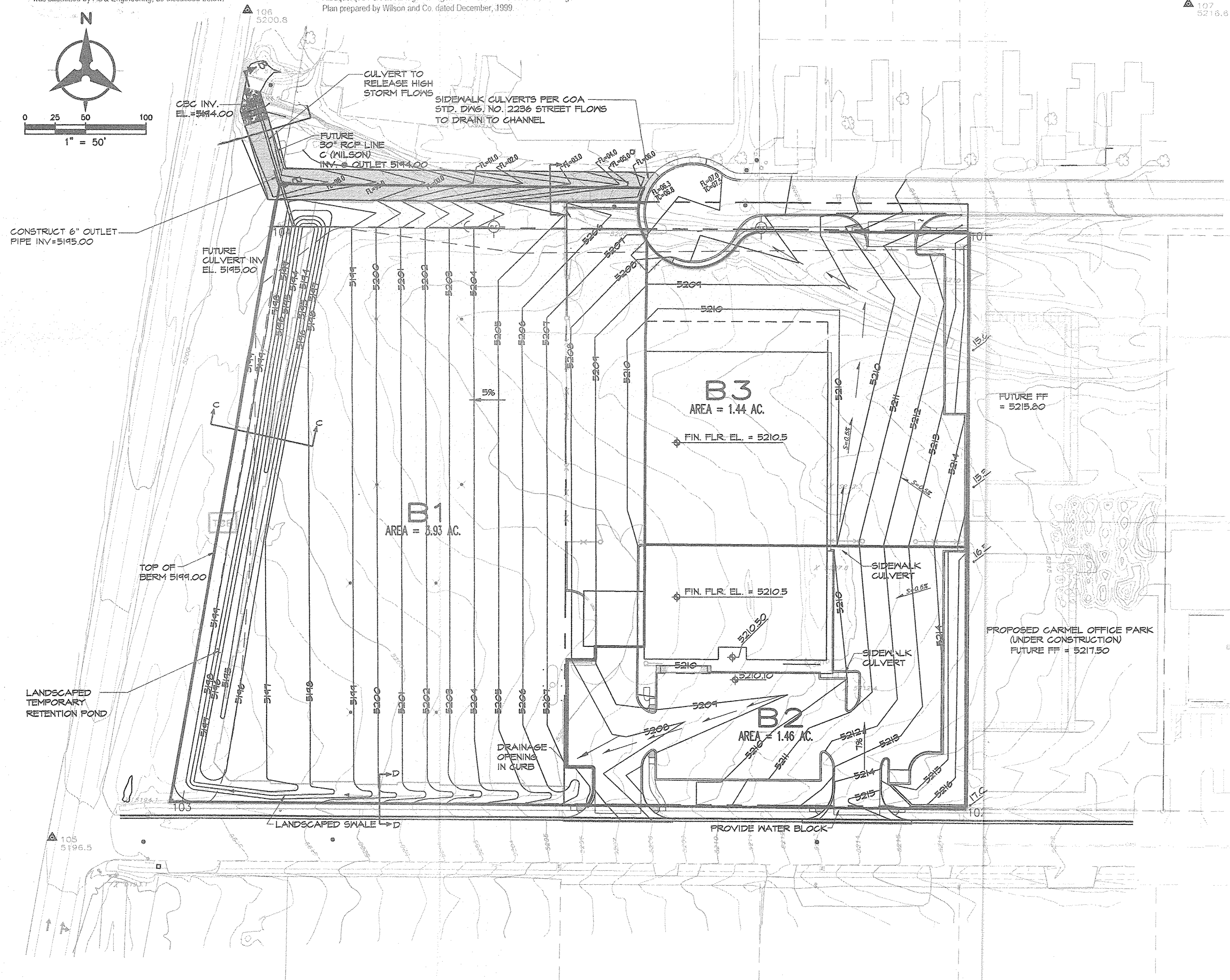
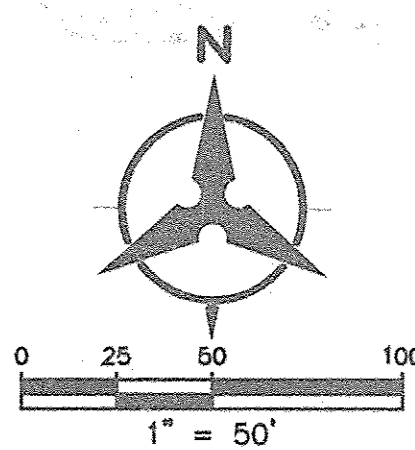
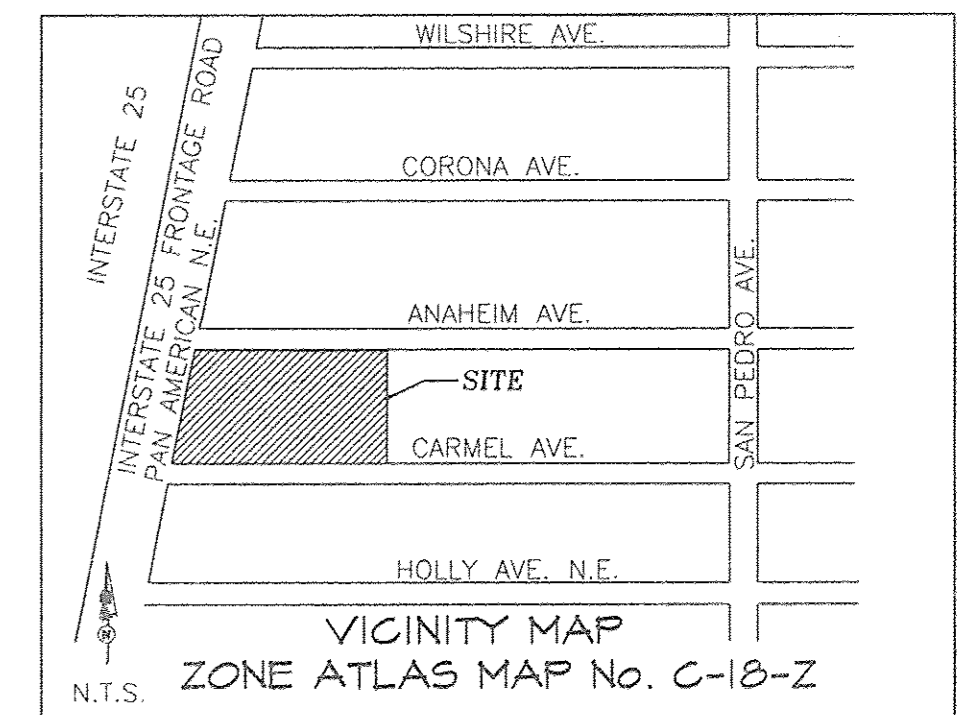
This plan presents a complete conceptual drainage management plan for the proposed development, in conformance with the North Albuquerque Acres Drainage Management Plan and the Subarea Drainage Plan prepared by Wilson and Co. dated December, 1999.

DESCRIPTION	AREA (acres)				TOTAL	VOLUME (ac-ft)			DISCHARGE (cfs)		
	A	B	C	D		10 YR.	100 YR.	100 YR.	10 YR.	100 YR.	100 YR.
Western Portion of Site- RV Display and Storage (Crusher Finos)	3.93	0%	0%	95%	5%	100%	0.22	0.44	0.47	8.1	13.9
South Portion of Building and Paved Parking Area	1.46	0%	0%	5%	95%	100%	0.18	0.28	0.49	4.8	7.2
Subtotal	5.39	0.0%	0.0%	70.6%	30.0%	100%	0.39	0.72	0.96	13.0	21.1
North Portion of Building and Parking Area (Discharge to Anaheim)	1.44	0%	0%	10%	90%	100%	0.17	0.27	N/A	4.7	7.0
Total Site Area	6.83	0.0%	0.0%	57.8%	42.2%	100%	0.56	0.99		17.7	28.1

MISCELLANEOUS COMPUTATIONS

Required Pond Volume = 0.96 Ac. Ft.

Elevation	Area	Avg Vol Cu Ft	Total Vol Cu Ft	Total Vol Ac Ft	Outlet Discharge 6" Outlet	Comments
5194	1313	2549 S	2549 S	0.05853	0.0	6" Outlet Pipe w/ 4" 0.21 Sq. Ft.
5195	3788	6112	8661 S	0.12884	0.7	
5196	8438	11556 S	20228 S	0.48437	1.2	
5197	14695	21027 S	41255 S	0.9471	1.6	Required Volume Achieved at Elevation 5198.1
5198	27360	37005 S	78262 S	1.79865	1.9	Time to drain pond = 12 hours at average discharge of 1.0 CFS
5199	46553					



LEGEND

- BASIN BOUNDARY
- TOPO
- BUILDING

ALPHA R.V. / TRUCKS UNIQUE

PROPOSED GRADING AND DRAINAGE PLAN FOR RECREATIONAL VEHICLE SALES AND REPAIR INCLUDING RELATED SERVICE AND REPAIR I-25 FRONTAGE ROAD & CARMEL AVE. ALBUQUERQUE, NEW MEXICO

DRAINAGE PLAN

PROJECT NUMBER: 9804
 Scale: AS NOTED
 Date: 03/01/00
 Drawn: RPS/BJG
 Check: PMW
 App'd: [Signature]
 2 of 2

BASIN MAP
SCALE: 1" = 50'

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