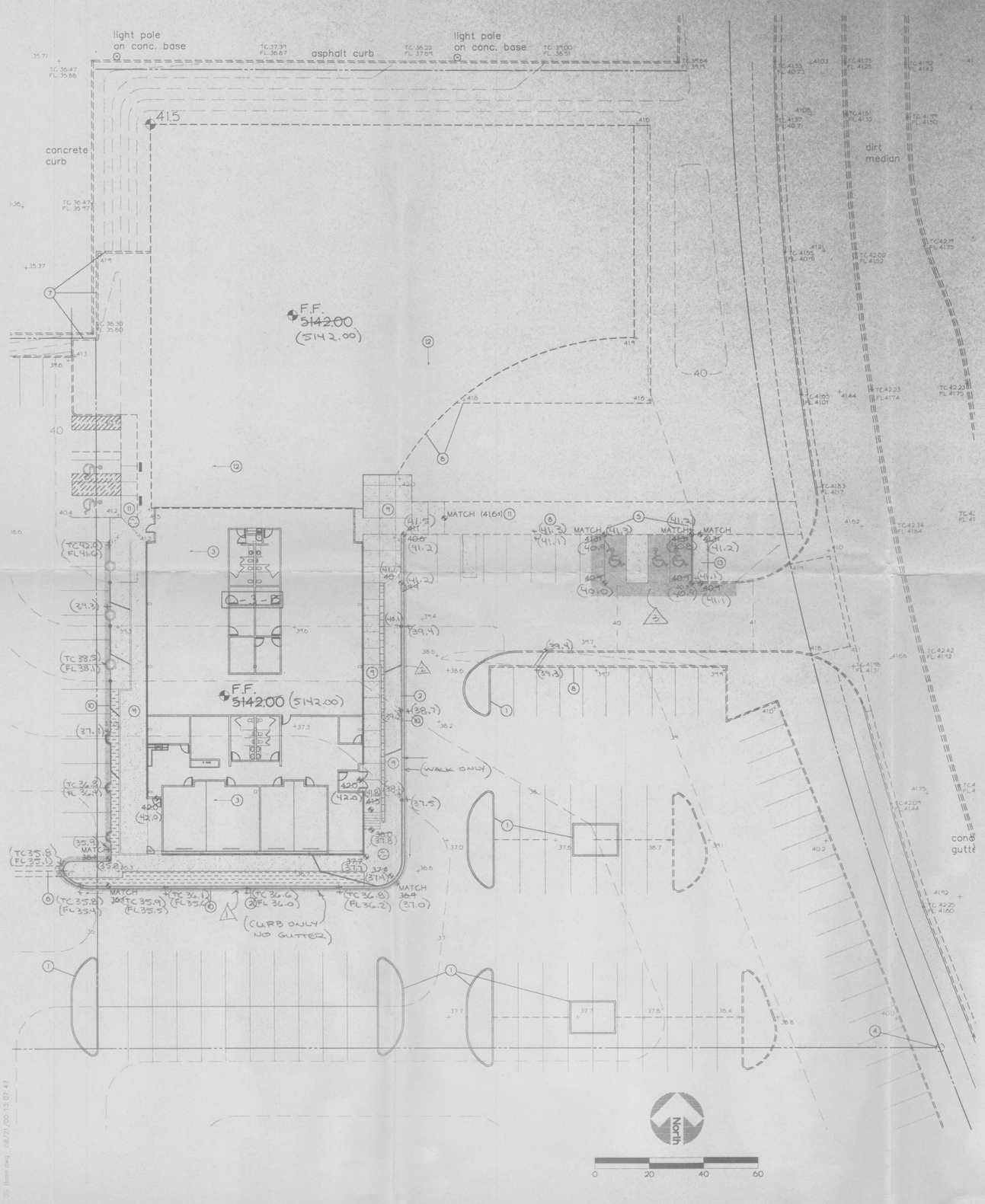


SCOPE:

The proposed improvements include approximately 10,000 SF (approx. footprints) commercial building areas with associated concrete walks and asphalt paved parking areas.

The present site is a fully developed commercial property with the proposed building replacing existing parking / access streets. Jefferson Street N.E. abuts the property to the east. The properties to the north, west and south are developed commercial properties.

The intent of this plan is to show:

- Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.
- The extent of proposed site improvements, including buildings, walks and pavement.
- The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City of Albuquerque requirements for drainage management.
- The relationship of on-site improvements with existing neighboring property to insure an orderly transition between proposed and surrounding grades.

DRAINAGE PLAN CONCEPT: The site is part of the Jefferson Office project (E17-D16C), which included the adjacent American On-Line service center. The on-site basin comprising the proposed construction area drains into existing Type 'D' double inlets to the west. Flows continue within the storm drain system to the Bear Arroyo Diversion Channel (A.M.A.F.C.A.) Refer to the Drainage Management Plan for Tracts B-1, C-3-A, C-3-B, C-3-C, C-3-D, C-3-E, C-3-F and C-3-G, Group Nine Industrial Park, February 1991 (revised January 1995) for additional information (C.O.A. Project E-17/D16). Note: Due to increased landscaping proposed for the perimeter of the building, the discharge from the proposed improvements will be less than or equal to the existing discharge for the area.

GENERAL NOTES:

LEGAL: A portion of Tracts C-3-B, Group Nine Industrial Park, Albuquerque, NM.

SURVEYOR: Forstbauer Surveying Co. - Ron Forstbauer, 7100 Alvarado Dr. NE, Albuq. 87110 – As-built data – December 1997.

B.M.: Square Monument located on Top of Concrete Curb at the S.S.E. curb return of the intersection of Osuna Road and Jefferson Street. Elevation = 5140.05' (M.S.L.D.)

TBM: Top of Plastic Cap located on east property line (see plan). Elevation = 5141.60

FLOOD HAZARD: Per FEMA Map #16, the property is not located within a flood zone.

OFF-SITE DRAINAGE: No off-site drainage affects this property.

EROSION CONTROL: The contractor is responsible for retaining on-site all sediment generated during construction by means of temporary earth berms or silt fences at the low points on the west property line.

CALCULATIONS

Calculations are based on the Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan. 1993.

ON-SITE

AREA OF PROPOSED IMPROVEMENTS: 20000 SF = 0.4591 Ac.
(see Keyed Note #10)

EXCESS PRECIPITATION: Precip Zone 2

BEFORE IMPROVEMENTS:			AFTER IMPROVEMENTS:			
Area a =	0	SF	Area a =	0	SF	Ea = 0.53
Area b =	2000	SF	Area b =	3000	SF	Eb = 0.78
Area c =	0	SF	Area c =	0	SF	Ec = 1.13
Area d =	18000	SF	Area d =	17000	SF	Ed = 2.12
Total Area =	20000	SF	Total Area =	20000	SF	

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)
Weighted E = (Ea·Aa + Eb·Ab + Ec·Ac + Ed·Ad) / Aa + Ab + Ac + Ad

Historic E	1.99 in.	Developed E	=	1.92 in.	
On-Site Volume of Runoff V360	= E*A / 12				
Historic V360	= 3310 CF	Developed V360	=	3198 CF	
On-Site Peak Discharge Rate: Qp = QpaAa + QpbAb + QpcAc + QpdAd / 43,560					
For Precipitation Zone	2				
Qpa	1.56	Qpc	=	3.14	
Qpb	2.28	Qpd	=	4.70	
Historic Qp	2.0 CFS	Developed Qp	=	2.0 CFS	

Because the proposed building is replacing paved parking, there is no increase in the peak discharge rate (Qp). Note: Due to increased landscaping along the perimeter of the proposed building, a minor decrease in the peak discharge rate may occur

AREAS OF MODIFICATION BETWEEN APPROVED DRAINAGE GRADING PLAN AND ACTUAL AS-BUILT

1. Extruded concrete curb this area - no gutter. OKAY.
2. Turned-down walk this area - no gutter. OKAY.
3. Handicap Parking not constructed this area. OKAY

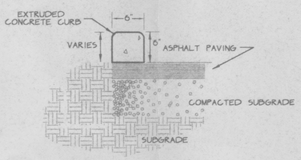
I, Christopher L. Weiss, P.E. hereby certify that the as-built information shown, is in substantial compliance with the approved drainage / grading plan.

CHRISTOPHER L. WEISS NEW MEXICO 8653 REGISTERED PROFESSIONAL ENGINEER

1/30/01

LEGEND

- SIDEWALK, CURB AND GUTTER (EXISTING, PROPOSED)
- PROPOSED PAVED DRIVE
- BUILDING (EXISTING, PROPOSED)
- PROPERTY LINE
- x 65.7 EXISTING SPOT ELEVATION
- 20 EXISTING CONTOUR
- 75.2 PROPOSED SPOT ELEVATION
- 30 PROPOSED CONTOUR
- SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
- LA LANDSCAPED AREA
- TW TOP OF WALL (DESIGN BY OTHERS)
- TG TOP OF GRATE
- TA TOP OF ASPHALT
- TC TOP OF CURB
- FL FLOW LINE
- FF FINISHED FLOOR
- R/W RIGHT OF WAY
- PL PROPERTY LINE
- PP POWER POLE
- ▲ ENTRY / EXIT LOCATION



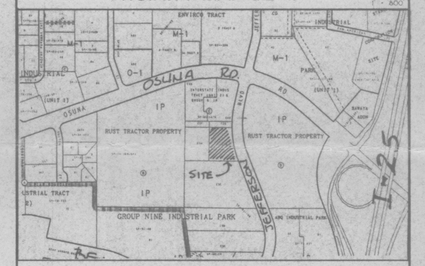
GENERAL NOTES
1. PROVIDE CONTRACTION JOINTS @ 10' O.C. MAX. PROVIDE EXPANSION JOINTS ADJACENT TO BLDGS, WALLS AND CURB RETURNS.
2. EDGES SHOULD BE REMOVED WITH 1/8" EDGING TOOL.

EXTRUDED CONCRETE CURB
N.T.S.

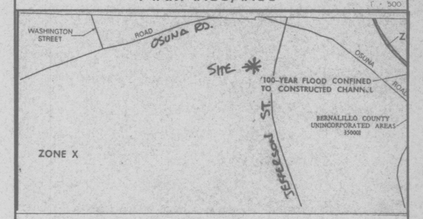
KEYNOTES

1. SEE ARCHITECTURAL FOR PARKING ISLAND DEMOLITION / CONSTRUCTION / STRIPING REVISIONS. CONSTRUCT 6" EXTRUDED CONCRETE CURB - TYPICAL UNLESS NOTED.
2. CONSTRUCT 1.5' WIDE STANDARD CURB AND GUTTER TO CARRY CONCENTRATED FLOWS THIS AREA.
3. ROOF FLOWS TO DRAIN IN DIRECTIONS INDICATED. ALL ROOF FLOWS TO BE RELEASED THROUGH PIPES INTO ASPHALT PARKING AREA.
4. T.B.M. - TOP OF PLASTIC CAP, ELEVATION = 5141.60
5. NEW H.C. PARKING THIS AREA AS SHOWN. MATCH TOP OF EXISTING WALK. MAX. SLOPE = 2% IN ANY DIRECTION. TRANSITION TO TOP OF EXISTING ASPHALT AS REQUIRED BEYOND PARKING SPACES.
6. EXISTING 4' WIDE CONCRETE VALLEY GUTTER TO DIRECT FLOWS TO EXISTING STORM DRAIN INLETS.
7. EXISTING RETAINING WALL THIS AREA.
8. EXISTING SITE WALKS / PARKING LOT ISLANDS / STRIPING TO REMAIN.
9. SEE ARCHITECTURAL FOR INFORMATION REGARDING RETAINING WALLS / NEW CONCRETE WALKS THIS AREA.
10. SAWCUT EXISTING ASPHALT PAVING AS REQUIRED TO PROVIDE POSITIVE DRAINAGE AND SMOOTH TRANSITION TO EXISTING.
11. MATCH TOP OF EXISTING WALKS / PAVING WITH ALL NEW CONSTRUCTION. PROVIDE SMOOTH TRANSITION. SEE ARCHITECTURAL FOR SPECIFIC MATCH LOCATIONS.
12. ROOF FLOWS THIS AREA TO BE REDIRECTED WEST THROUGH FACE OF CURB. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
13. REMOVE REPLACE SIDEWALK THIS AREA. NEW WALK TO BE HANDICAP ACCESSIBLE AT ELEVATIONS SHOWN.

VICINITY MAP #E-17



FIRM #138/#139



GENERAL NOTE: AT ALL DOWNSPOUT LOCATIONS LOCATED WITHIN A LANDSCAPED AREA, ALL ROOF RUNOFF SHALL BE DIRECTED TOWARDS AN ASPHALT AREA AT A MINIMUM SLOPE OF 1%.

RECEIVED FEB 02 2001 HYDROLOGY SECTION

CHRISTOPHER L. WEISS NEW MEXICO 8653 REGISTERED PROFESSIONAL ENGINEER 8-22-00

C.L. WEISS ENGINEERING, INC.

SANDIA PARK OFFICE
POST OFFICE BOX 97
SANDIA PARK, NM. 87047
(505) 281-1600

ALVARADO OFFICE
1100 ALVARADO DR. NE.
ALBUQUERQUE, NM. 87110
(505) 266-3446

Revisions

ROGOFF EXPANSION
CHANT AND ASSOCIATES

Scale:	Drawn By:	Checked By:	Job Number:	Date:
1" = 20'	BJB	CLW		AUGUST 2000

Drainage and Grading Plan

C-1
SH. 1 OF 1

DG Base Dwg 08/21/00 13:07:47