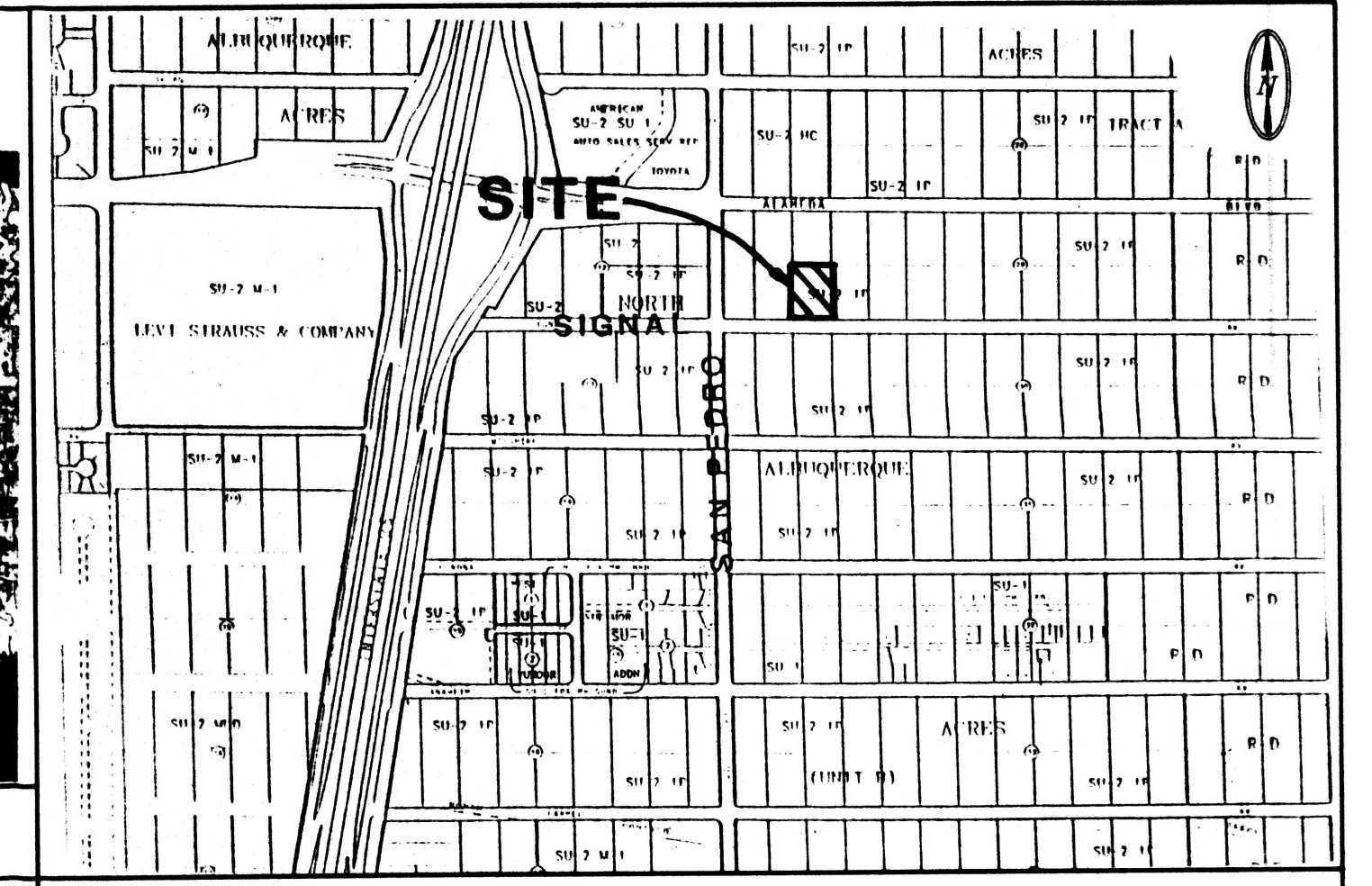


ALTHOUGH THE TOPOGRAPHY SHOWN HEREON DOES NOT REFLECT RECENT DEVELOPMENT THE DRAINAGE BASINS REMAIN ESSENTIALLY UNCHANGED



FLOODWAY & OFFSITE DRAINAGE MAP 1"=500' C-18 LOCATION MAP 1"=150'

HYDROLOGY - HYMO							
Precipitation Zone 3							
BASIN	AREA	Aa	Ab	Ac	Ad	P360 = 2.60 inches	
acres	acres	acres	acres	acres	acres	E	Q100
EXISTING CONDITION:							VOL100
						inches	cfs
SITE	0.88	0.88				0.66	1.6
A	30.85	30.85				0.66	58.1
B	16.60	16.60				0.66	30.2
C	22.00	22.00				0.66	40.0
D	2.60	2.60				0.66	4.7
DEVELOPED CONDITION:							
SITE	0.88		0.06	0.06	0.76	2.19	4.2
1	0.46		0.03	0.03	0.40	2.19	2.2
2	0.42		0.03	0.03	0.36	2.19	2.0
A	30.85	13.25	6.17	6.17	5.26	1.30	98.7
B	16.60		0.45	0.45	15.70	2.19	79.2
C	22.00	9.46	4.40	4.40	3.74	1.30	70.4
D	2.60		0.20	0.20	2.20	2.19	12.4

GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE:
Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The property is to be developed as an office/warehouse building, with associated paving, landscaping, utility, grading, and drainage improvements.

EXISTING CONDITIONS:
The project site is approximately 0.88 acres in size and is located on Signal Avenue NE, just east of San Pedro Drive NE. The site is bounded by Signal Avenue on the south, developed property on the west, and undeveloped property on the north and east. Presently the site is undeveloped. Site topography slopes from east to west at approximately 3%. The site is covered with native vegetation. Signal Avenue consists of a graded earth section, with roadside swales, presently maintained by the City.

The site accepts off-site drainage in the form of sheet flow along the east property line. On-site, all flow drains as sheet flow to the south and west eventually discharging to Signal Avenue. All flows drain westward within the Signal Avenue right-of-way to the I-25 drainage system. Existing storm drains are located within Signal Avenue and San Pedro Drive. A 30-inch storm drain was constructed by the Sonora Subdivision to convey developed flow to the 48-inch line located in San Pedro.

As shown by the attached Floodway Panel, this site does not lie within a designated flood hazard zone.

DEVELOPED CONDITIONS:
As shown by the Plan, the project consists of the development of the property into an office/warehouse building. The Plan shows the contours and elevations required to properly grade and construct the required improvements. The direction of drainage flows are given by flow arrows and the project hydrology is tabulated for both existing and developed conditions.

The development of this site requires paved access from San Pedro Drive, therefore, Signal will be improved by providing curb, gutter, sidewalk and permanent pavement along the project frontage. Temporary pavement will be provided from the site to San Pedro.

An off-site study prepared by Avid Engineering for Sonora Subdivision determined that capacity of the 48-inch storm drain in San Pedro is limited to 180 cfs. The total off-site acreage contributing to the 48-inch line is estimated at 262 acres. Future diversion of portions of the off-site basin located east of Louisiana could reduce the acreage to 136 acres. By proration, the interim unit discharge to the 48-inch line is 0.61 cfs/acre. The future discharge would be 1.18 cfs/acre. This approach limits discharge from the project site to 0.61 (0.88 ac) = 0.54 cfs. However, the overland conveyance of Signal Avenue was not included in the analysis. Signal Avenue, once improved, will have a capacity of 130 cfs, increasing the unit discharge to 3.35 cfs/acre under interim conditions and 9.0 cfs/acre under future developed conditions. Future storm drainage improvements will be required when Signal and San Pedro are improved which will provide conveyance downstream.

Since the existing surface flows have no improved conveyance system this Plan proposes to utilize the existing 30-inch storm drain located in Signal Avenue. All on-site runoff will drain to an on-site detention pond located along Signal Avenue. The pond will drain via an inlet restricted to control pond volume to 1328 cf. Off-site flow will be managed on-site and will pass through the pond to Signal. As mentioned above, Signal will be improved, providing paved conveyance to San Pedro Drive.

EROSION CONTROL
Temporary erosion control will be required along the project boundaries during construction to prevent the discharge of sediment into the public street system and adjoining private property. The contractor should construct a ditch dike system (see Detail 'A') along the south and west property lines to effectively retain all runoff generated by the project. Care should be taken to provide ponding areas at the site perimeter, away from the buildings.

CALCULATIONS:
The calculations shown hereon define the 100 year/6 hour design storm falling with the project area under existing and developed conditions. The Hydrology is per "Section 22.2, Part A, DPM, Vol 2" Dated January 1993. Supplemental calculations are provided to demonstrate downstream capacity and detention pond design.

LEGEND

- 6001 — EXISTING CONTOUR ELEVATION
- 02.5 X EXISTING SPOT ELEVATION
- 01 — PROPOSED CONTOUR ELEVATION
- — — — — PROPERTY LINE
- 01.5 ♦ PROPOSED SPOT ELEVATION
- ← DIRECTION OF FLOW
- DRAINAGE SWALE
- DRAINAGE BASIN DIVIDE
- 38.2 38.0 ♦ AS BUILT ELEV

PROPERTY ADDRESS

6101 Signal Ave NE

LEGAL DESCRIPTION

Lot 30, Block 29, Tract A, Unit B, NAA

PROJECT BENCHMARK

TBM: NE property corner, a 1/2" rebar with cap marked "TYREE" LS 3516. Elevation 5241.2 feet

SURVEY

Topographic and Field Measurement by Professional Contracting Services
Dated September, 1995

ENGINEER'S CERTIFICATION

I, the undersigned, being a Professional Engineer registered in the state of New Mexico, do hereby certify that this drawing was prepared by me or under my supervision and that the as-built information shown hereon is based on actual field measurements and inspections performed by Brasher & Lorenz, Inc. I further certify that the as-built condition of the site is in substantial compliance with approved Grading and Drainage Plan prepared by Brasher & Lorenz, Inc. dated December 12, 1995.

Dennis Lorenz NINPE 6647 6-4-96 Date 9601 q

SCHIFFER BUILDING
GRADING & DRAINAGE PLAN

12-12-95

10-20-95

BLI
BRASHER & LORENZ, INC.
Consulting Engineers
4425 Juan Tabo Blvd. NE Suite 200
Albuquerque, New Mexico 87111
Ph: 505-296-0422 Fax: 505-296-0466

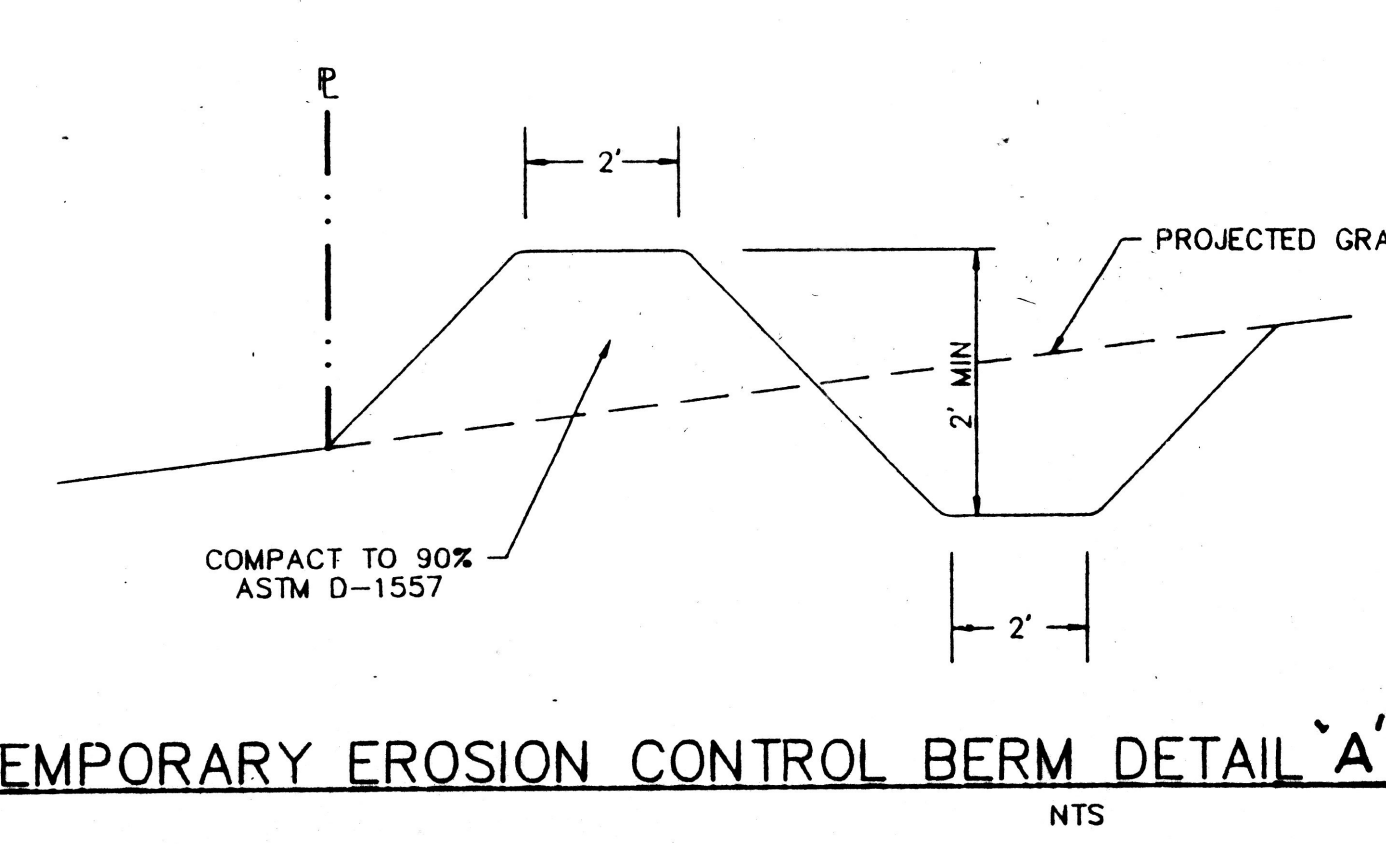
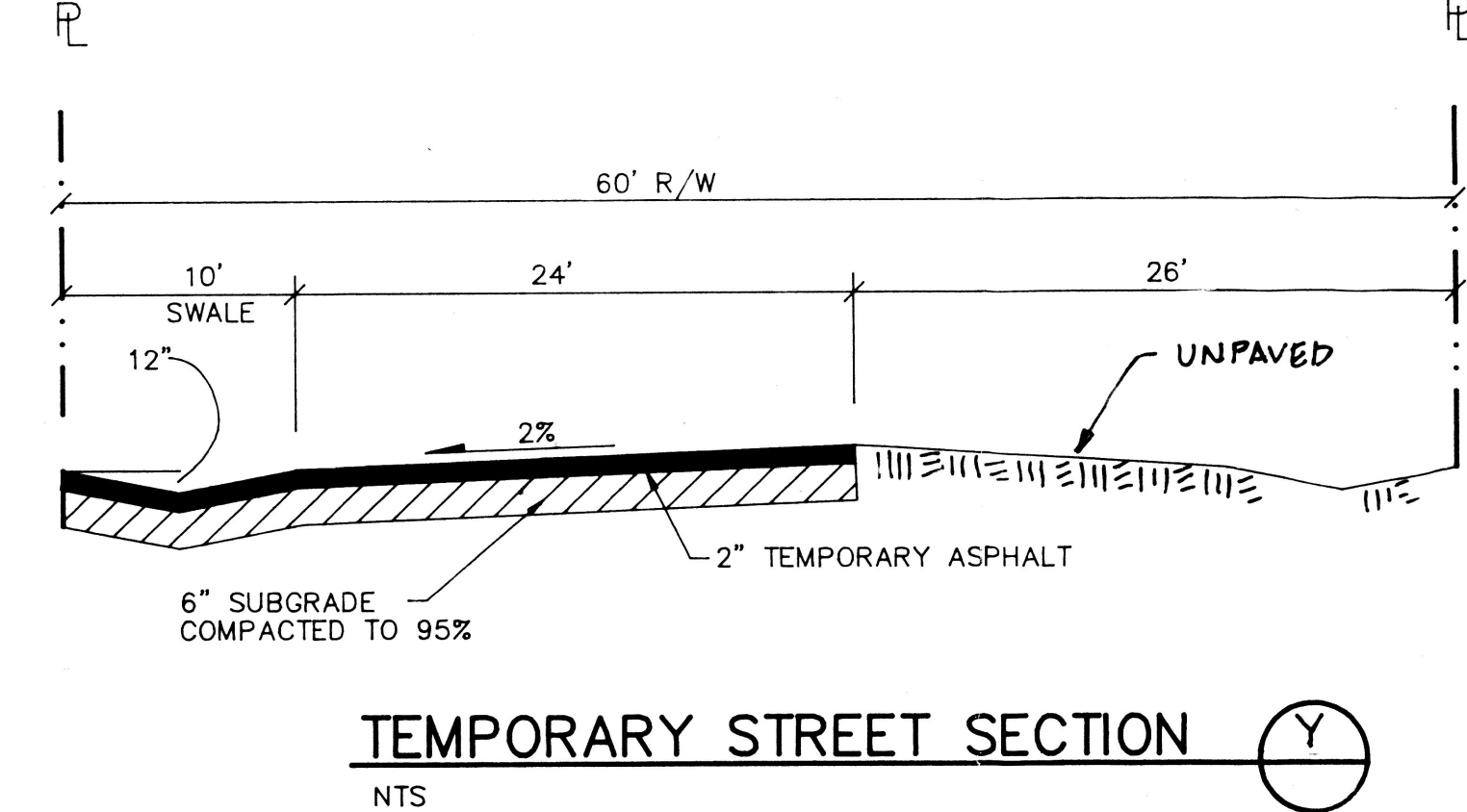
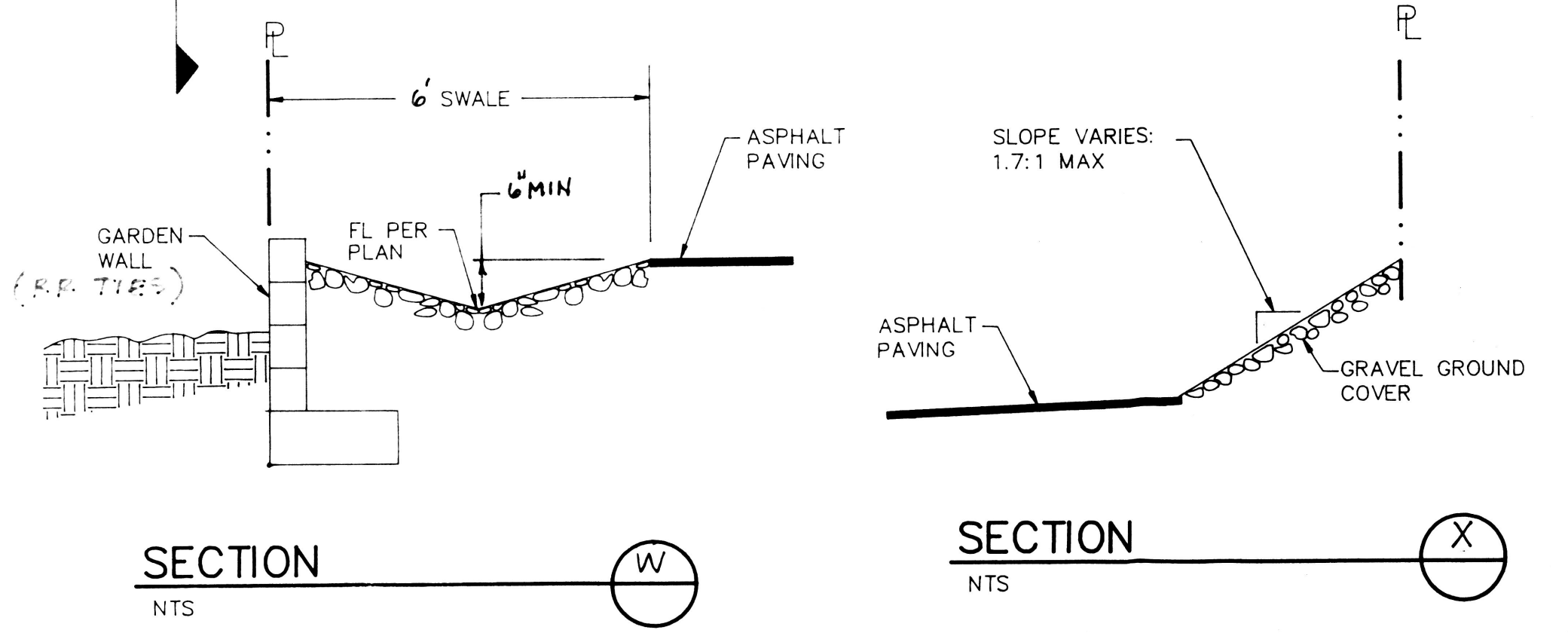
DRAWN BY: STAFF

CHECKED BY: D.A.L.

FILE: 50596-D.DWG

DATE: OCTOBER, 1995

SHEET 3 OF 4



C18-D26 1/1