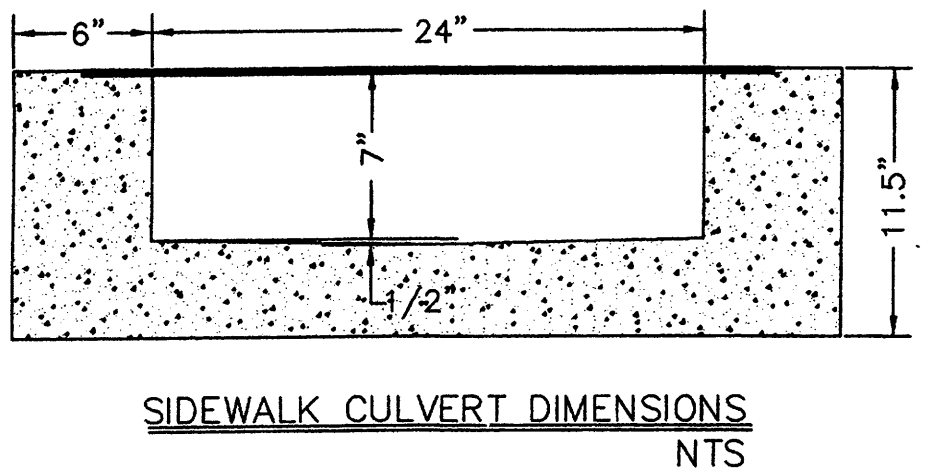


- KEYED NOTES:**
- ① DEMOLISH EXISTING BUILDING.
 - ② DEMOLISH EXISTING PAVEMENT.
 - ③ DEMOLISH EXISTING CURB.
 - ④ DEMOLISH EXISTING CHAIN LINK FENCE.
 - ⑤ DEMOLISH EXISTING WALL.
 - ⑥ DEMOLISH REFUSE BIN ENCLOSURE.
 - ⑦ DEMOLISH EXISTING SIDEWALK AND DRIVEPAD.
 - ⑧ CONSTRUCT NEW "CURB TYPE" SIDEWALK AND STANDARD CURB & GUTTER PER COA STD DWGS 2415 & 2430.
 - ⑨ CONSTRUCT NEW DRIVEPAD PER COA STD DWG 2425.
 - ⑩ CONSTRUCT 6' CMU WALL.
 - ⑪ CONSTRUCT 3' ROLLING GATE.
 - ⑫ CONSTRUCT 3' CMU/WROUGHT IRON WALL.
 - ⑬ INSTALL NEW LANDSCAPE.
 - ⑭ INSTALL MONUMENT SIGN.
 - ⑮ INSTALL NEW TRANSFORMER.
 - ⑯ CONSTRUCT NEW REFUSE BIN ENCLOSURE.
 - ⑰ CONSTRUCT NEW SIDEWALK.
 - ⑱ REMOVE AND REPLACE W/ HEAVYWEIGHT COVER AND LID PER COA STD DWG 2369.
 - ⑲ CONSTRUCT DAYLIGHT DRAIN THROUGH CMU WALL.
 - ⑳ CONSTRUCT SEGMENTAL RETAINING WALL.
 - ㉑ INSTALL 6' CONCRETE PARKING BUMPER.
 - ㉒ CONSTRUCT MEDIAN CURB PER COA STD DWG 2415.
 - ㉓ CONSTRUCT 1 FT WIDE RIBBON CURB.
 - ㉔ CONSTRUCT 2' WIDE CONCRETE CURB DRAIN.
 - ㉕ INSTALL PLASTIC SPEED BUMP/WATER BLOCK.
 - ㉖ CONSTRUCT 1' CMU WALL/WATER BLOCK.

LEGEND

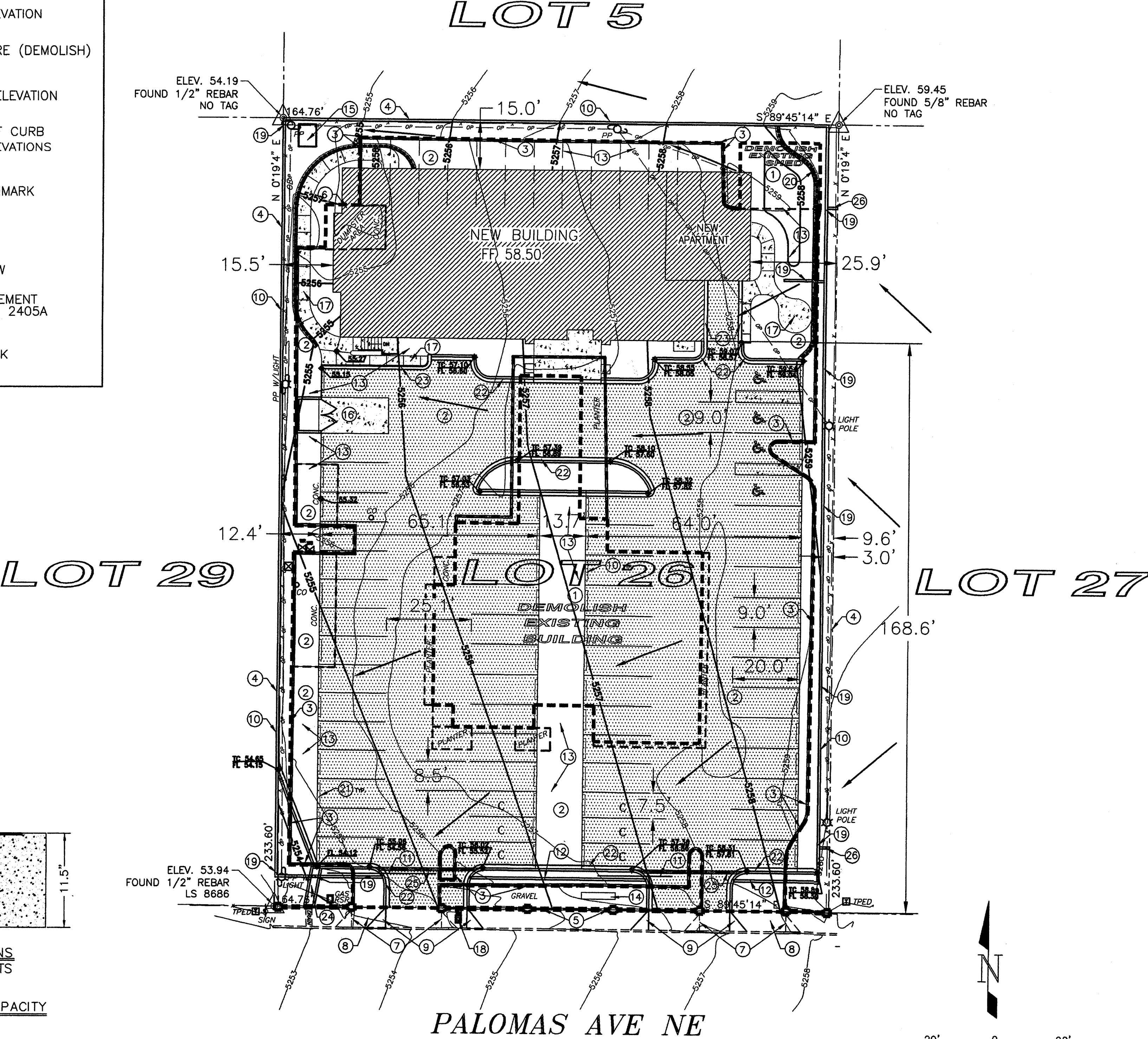
- 5200 — EXISTING ELEV. CONTOUR
- 5201 — PROPOSED ELEV. CONTOUR
- 5206 — PROPOSED ELEV. CONTOUR
- ◆ 08.98 EXISTING SPOT ELEVATION
- EXISTING STRUCTURE (DEMOLISH)
- ◆ 07.50 PROPOSED SPOT ELEVATION
- TC 85.17 FL 84.67 PROPOSED TOP OF CURB AND FLOWLINE ELEVATIONS
- △ TEMPORARY BENCHMARK
- FF FINISHED FLOOR
- DIRECTION OF FLOW
- ▨ PC CONCRETE PAVEMENT PER COA STD DWG 2405A
- ▩ CONCRETE SIDEWALK



SIDEWALK CULVERT DISCHARGE CAPACITY

$$Q = (1.486 \times A \times R^{0.67} \times S^{0.5}) / n = 15.1 \text{ ft}^3/\text{sec}$$

where Q = Discharge Capacity, ft³/sec
 A = Area, 1.21 ft²
 R = Hydraulic Radius, 0.38
 S = Slope, 0.0432 ft/ft
 n = Mannings Roughness, 0.013



LEGAL DESCRIPTION
 Lot 28, Block 11, Tract A, Unit A, North Albuquerque Acres (City of Albuquerque, New Mexico),

FLOOD HAZARD ZONE
 Lot 28 is located in Flood Hazard Zone X (i.e., areas of 100-year flood with average depths of less than 1 foot) designated on the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map Panel No. 35001C0137F (November 19, 2003).

DRAINAGE ANALYSIS
 REFERENCE: City of Albuquerque, Development Process Manual -Vol. 2, Section 22.2 - Hydrology, January, 1993.

Principal Design Storm: 100-year 6-hour event
 Precipitation Zone 3 (Table A-1)
 Excess Precipitation (Table A-8):
 $E_1 = 0.66$ in (Land Treatment 'A'), $E_2 = 0.92$ in (Land Treatment 'B'),
 $E_3 = 1.29$ in (Land Treatment 'C'), & $E_4 = 2.36$ in (Land Treatment 'D')

Peak Discharge (Table A-9):
 $Q_{P1} = 1.87 \text{ ft}^3/\text{sec-acre}$ (Land Treatment 'A')
 $Q_{P2} = 2.60 \text{ ft}^3/\text{sec-acre}$ (Land Treatment 'B')
 $Q_{P3} = 3.45 \text{ ft}^3/\text{sec-acre}$ (Land Treatment 'C')
 $Q_{P4} = 5.02 \text{ ft}^3/\text{sec-acre}$ (Land Treatment 'D')

On-Site 'Existing' Condition (Lot 28):
 Lot 28 Area = 38,487 ft² x 1 acre/43,560 ft² = 0.88 acres
 13.16% Land Treatment 'C', 86.84% Land Treatment 'D' (Table A-4)
 Weighted E = $((E_3 \times 0.11 \text{ acres}) + (E_4 \times 0.77 \text{ acres})) / 0.88 \text{ acres}$
 = 2.22 in

$V_{360} = (2.22 \text{ in} \times 0.88 \text{ acres}) \times 1 \text{ ft}/12 \text{ in}$
 = 0.163 acre-ft x 43,560 ft²/acre
 = 7,117 ft³

Total $Q_P = (Q_{P3} \times 0.11 \text{ acres}) + (Q_{P4} \times 0.77 \text{ acres})$
 = 4.25 ft³/sec

On-Site 'Post Development' Condition (Lot 28):
 29.90% Land Treatment 'C', 70.10% Land Treatment 'D'
 Weighted E = $((E_3 \times 0.26 \text{ acres}) + (E_4 \times 0.62 \text{ acres})) / 0.88 \text{ acres}$
 = 2.04 in

$V_{360} = (2.04 \text{ in} \times 0.88 \text{ acres}) \times 1 \text{ ft}/12 \text{ in}$
 = 0.150 acre-ft x 43,560 ft²/acre
 = 6,543 ft³

Total $Q_P = (Q_{P3} \times 0.26 \text{ acres}) + (Q_{P4} \times 0.62 \text{ acres})$
 = 4.02 ft³/sec

Off-Site 'Existing' Condition:
 Offsite Basin = 60,700 ft² x 1 acre/43,560 ft² = 1.39 acres
 61.45% Land Treatment 'C', & 38.55% Land Treatment 'D'
 Weighted E = $((E_3 \times 0.85 \text{ acres}) + (E_4 \times 0.54 \text{ acres})) / 1.39 \text{ acres}$
 = 1.7 in

$V_{360} = (1.7 \text{ in} \times 1.39 \text{ acres}) \times 1 \text{ ft}/12 \text{ in}$
 = 0.198 acre-ft x 43,560 ft²/acre
 = 8,612 ft³

Total $Q_P = (Q_{P3} \times 0.85 \text{ acres}) + (Q_{P4} \times 0.54 \text{ acres})$
 = 5.65 ft³/sec

As demonstrated by these calculations, the peak 'Post Development' discharge will be 0.23 CFS less than the 'Existing Condition' peak discharge from Lot 26. The impact of the peak discharge from Lot 26 on the San Pedro Drive storm drain is negligible. Free discharge from Lot 26 is recommended for the following reasons:

1. The 'Post Development' runoff from Lot 26 is a small percentage of the total runoff from the Palomas Ave. drainage basin.
2. The San Pedro Drive storm drain has sufficient capacity to convey the 'Post Development' runoff from Lot 26.
3. There are no storm water ponds on parcels adjacent to Lot 26.

GRADING AND DRAINAGE PLAN

NOTE: THIS IS NOT A BOUNDARY SURVEY. PROPERTY CORNERS, BEARINGS AND DISTANCES SHOWN HEREON ARE FOR ORIENTATION PURPOSES ONLY.

NOTE: ADD 5200 FEET TO PROPOSED SPOT ELEVATIONS TO GET MEAN SEA LEVEL DATUM ELEVATIONS.

BENCHMARK:
 ACS 9-C18
ELEVATION 5232.47
 ACS ALUMINUM CAP STAMPED "9-C18 1988", RIVITED TO A 2-1/2" ALUMINUM TUBE, SW CORNER INTERSECTION OF WILSHIRE AVE. AND SAN PEDRO AVE.

ENGINEERS CERTIFICATION

I HEREBY CERTIFY THAT I HAVE PERSONALLY INSPECTED THE SITE AND THAT NO GRADING, FILLING OR EXCAVATION HAS OCCURRED SINCE THE DATE OF THE TOPOGRAPHIC SURVEY (MARCH 22, 2006).

JAMES L. HEWITT, JR., PE DATE



RHOMBUS P.A., INC.
 FACILITIES ENGINEERS/ENVIRONMENTAL CONSULTANTS

e-mail: rhombus@nma.com
 web site: www.RHOMBUSPA.COM

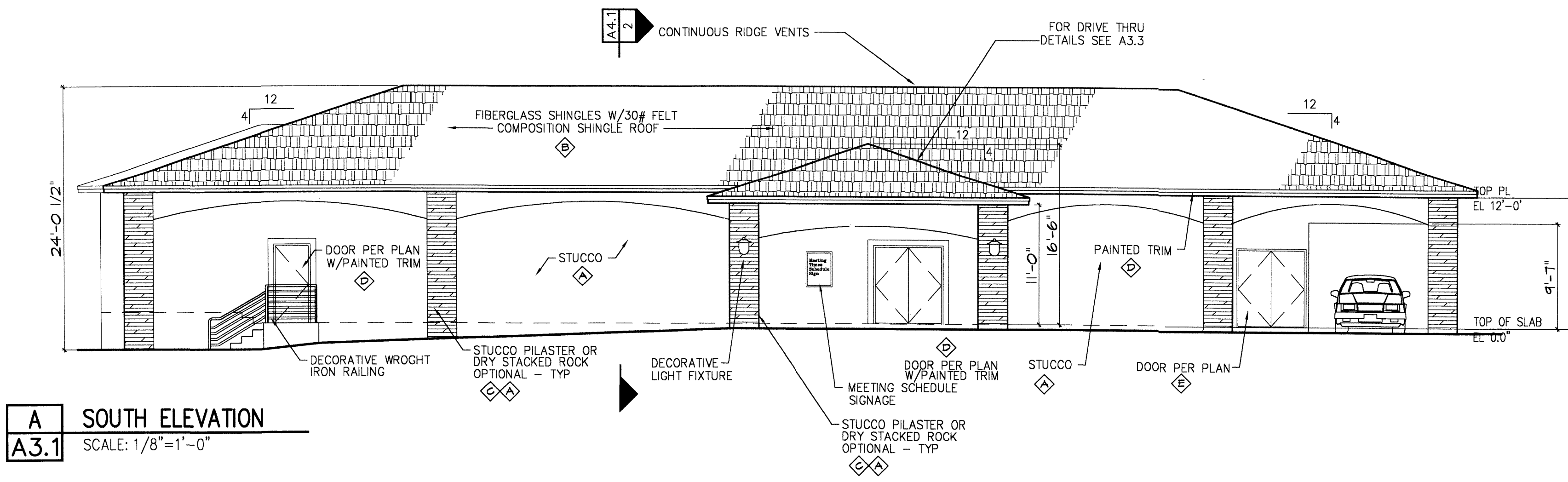
2620 San Mateo NE Suite B Albuquerque, NM 87110
 TEL: (505) 881-6890 FAX: (505) 881-6896

PROJECT TITLE:
DESERT HILLS KINGDOM HALL

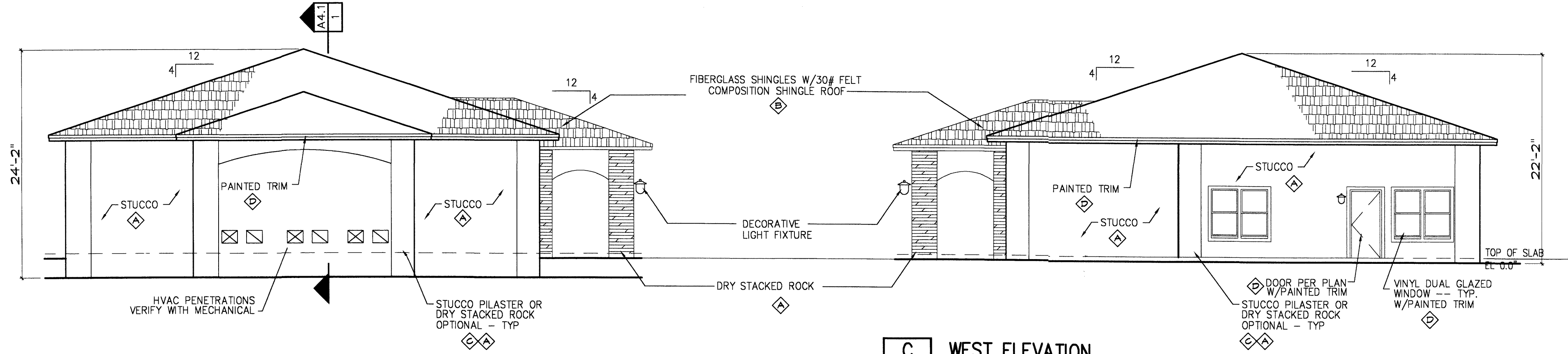
6501 PALOMAS AVENUE, N.E.

SHEET TITLE:
 GRADING AND DRAINAGE PLAN

DRAWN BY: JLLH CHECKED BY: CT FIELD WORK BY: RHO DATE: 04/24/2008 MAP NO: D-18-Z RHOBUS JOB NO: 06-C2-06 SHEET: C-1

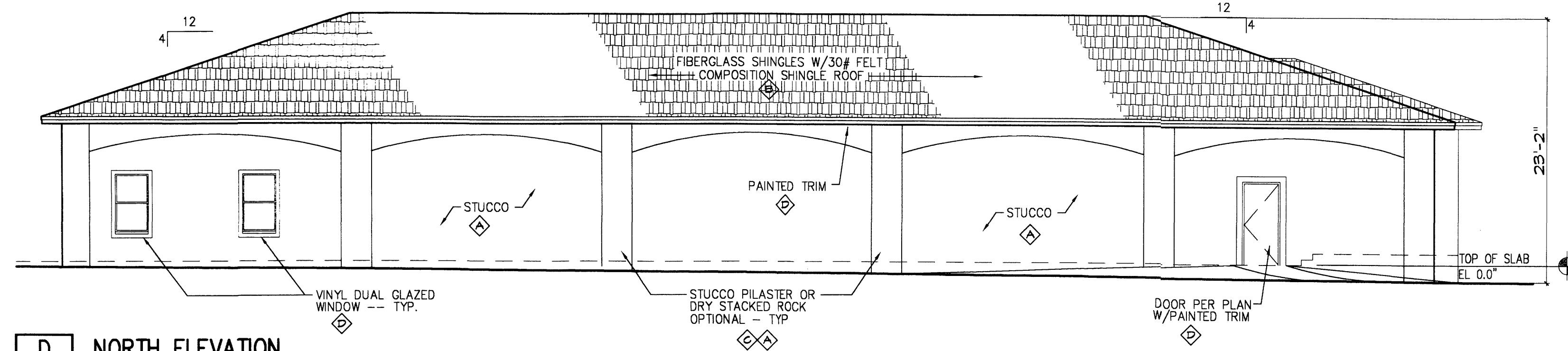


A SOUTH ELEVATION
A3.1 SCALE: 1/8"=1'-0"



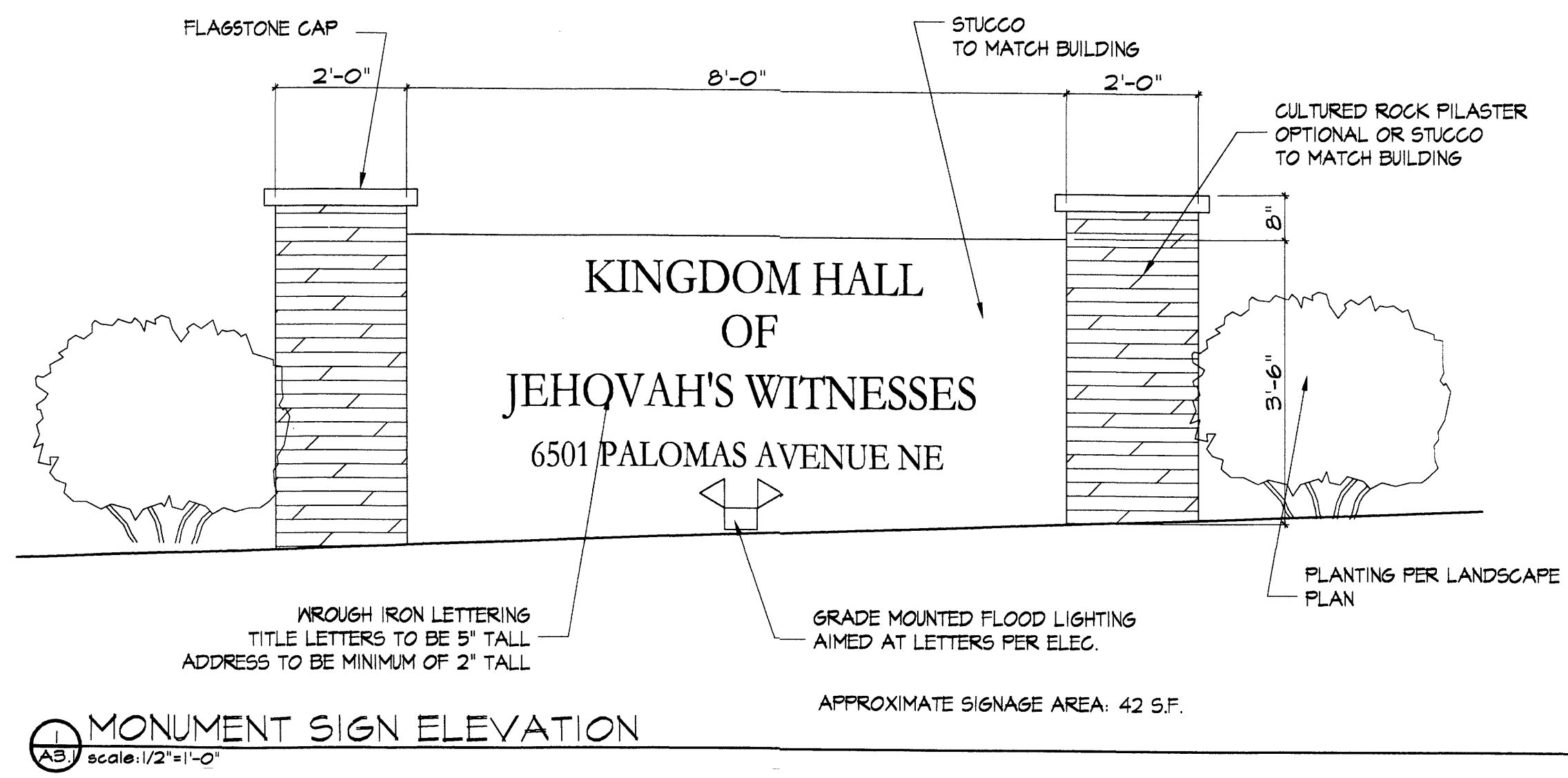
B WEST ELEVATION
A3.1 SCALE: 1/8"=1'-0"

C WEST ELEVATION
A3.1 SCALE: 1/8"=1'-0"



D NORTH ELEVATION
A3.1 SCALE: 1/8"=1'-0"

COLOR / MATERIAL SCHEDULE	
◇ MATERIAL	COLOR
◇ STUCCO	EARTHTONE EL REY #115 "COTTONWOOD"
◇ ASPHALT SHINGLES	GRAY OWEN'S CORNING "ESTATE GREY"
◇ STACKED ROCK COLUMNS (OPTIONAL)	OWEN'S CORNING CULTURED STONE PRO FIT - "PHEASANT" ALPINE LEDGESTONE SERIES
◇ TRIM PAINT	OFF WHITE OLYMPIC PAINTS #C-20-2 "GARLIC CLOVE"
◇ TRIM PAINT	MATCH STUCCO COLOR



MONUMENT SIGN ELEVATION
 scale: 1/2"=1'-0"

APPROXIMATE SIGNAGE AREA: 42 SF.

Kingdom Hall
of
Jehovah's Witnesses
6501 PALOMAS AVENUE, NE

SHEET TITLE
EXTERIOR ELEVATIONS

DATE
06/01/06

SHEET NO.
A-3

