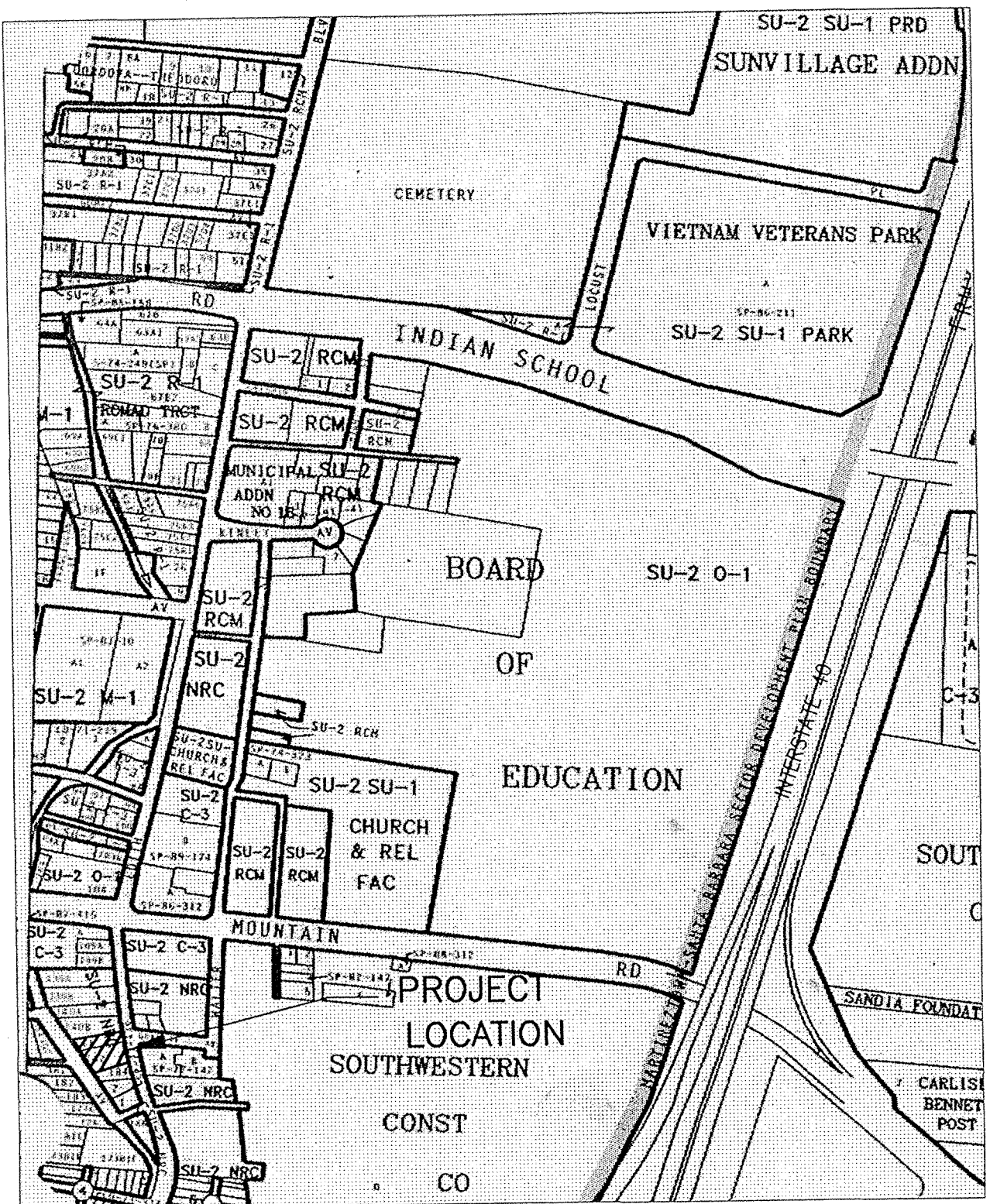


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VICINITY MAP, ZONE ATLAS J-14

DRAINAGE CALCULATIONS

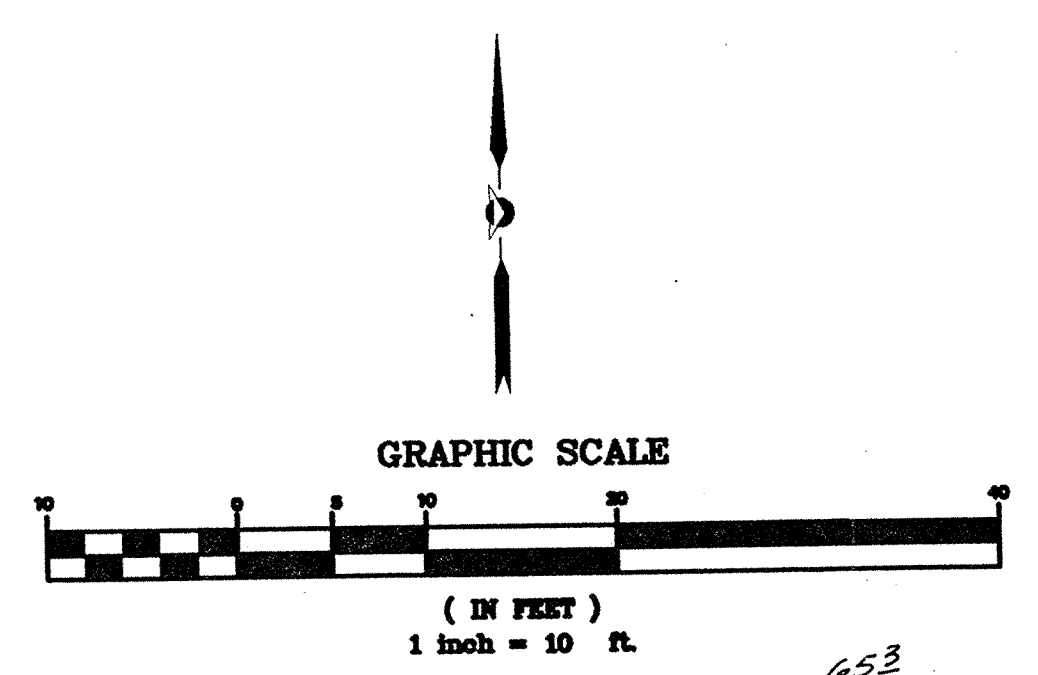
DRAINAGE CALCULATIONS FOR SIZING CONCRETE SWALE IN LOT 3
1. PRECIPITATION ZONE = 2
2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
6-HOUR = 2.35 INCHES
24-HOUR = 2.75 INCHES
10 DAY = 3.95 INCHES
3. PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE A-9:
Q = 1.56 CFS/ACRE SOIL UNCOMPACTED "A"
Q = 2.28 CFS/ACRE LANDSCAPED "B"
Q = 3.14 CFS/ACRE COMPACTED SOIL "C"
Q = 4.70 CFS/ACRE IMPERVIOUS AREA "D"
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES
4. EXCESS PRECIPITATION, E (INCHES), 6 HOUR STORM, ZONE 2, TABLE A-8:
E = 0.53 INCHES SOIL UNCOMPACTED "A"
E = 0.78 INCHES LANDSCAPED "B"
E = 1.13 INCHES COMPACTED SOIL "C"
E = 2.12 INCHES IMPERVIOUS AREA "D"
5. PROPOSED CONDITIONS ON SITE LOT #2 AND LOT #3
LOT #2 AREA = 3,602SF = 0.08AC
LOT #3 AREA = 4,178SF = 0.10AC
TOTAL AREA = 7,780SF = 0.18AC
TREATMENT "D" AREA:
LOT#2: (HOUSE, GARAGE AND SDWK) = (40'X27') + (15'X12') + (21'X12') + (8'X4') = 1544SF = 0.04AC
LOT#3: (HOUSE, GARAGE AND SDWK) = (43'X31') + (6'X16') + (21'X12') + (5'X5') + (8'X4') = 1738SF = 0.04AC
TREATMENT "C" AREA:
LOT#2: (GRAVEL DRIVEWAY) = (61'X11') = 671SF = 0.02AC
LOT#3: (GRAVEL DRIVEWAY) = (73'X11') = 803SF = 0.02AC
TREATMENT "B" AREA BALANCE:
LOT#2: AREA = 0.08 - 0.04 - 0.02 = 0.02AC
LOT#3: AREA = 0.10 - 0.04 - 0.02 = 0.04AC
TREATMENT AREA (ACRES)
A 0
B 0.02 + 0.04 = 0.06
C 0.02 + 0.02 = 0.04
D 0.04 + 0.04 = 0.08
Q(PROPOSED) = (2.28 X 0.06) + (3.14 X 0.04) + (4.70 X 0.08) = 0.64CFS PROPOSED ONSITE FLOW IN CONCRETE SWALE
6. CHECK FLOODWALL CAPACITY PROPOSED IN LOT #3
INPUT:
FLOW RATE = 0.64CFS
CHANNEL BOTTOM SLOPE = 0.023
MANNINGS "n" = 0.030 GRAVEL
CHANNEL SIDE SLOPE LEFT 0:1
CHANNEL SIDE SLOPE RIGHT 3:1
OUTPUT:
NORMAL DEPTH = 0.40FEET
FLOW VELOCITY = 2.23FPS
FROUDE No. = 0.64
ENERGY HEAD = 0.48FEET < 1.0 FEET ok
TOP WIDTH = 1.33 FEET

DRAINAGE CERTIFICATION

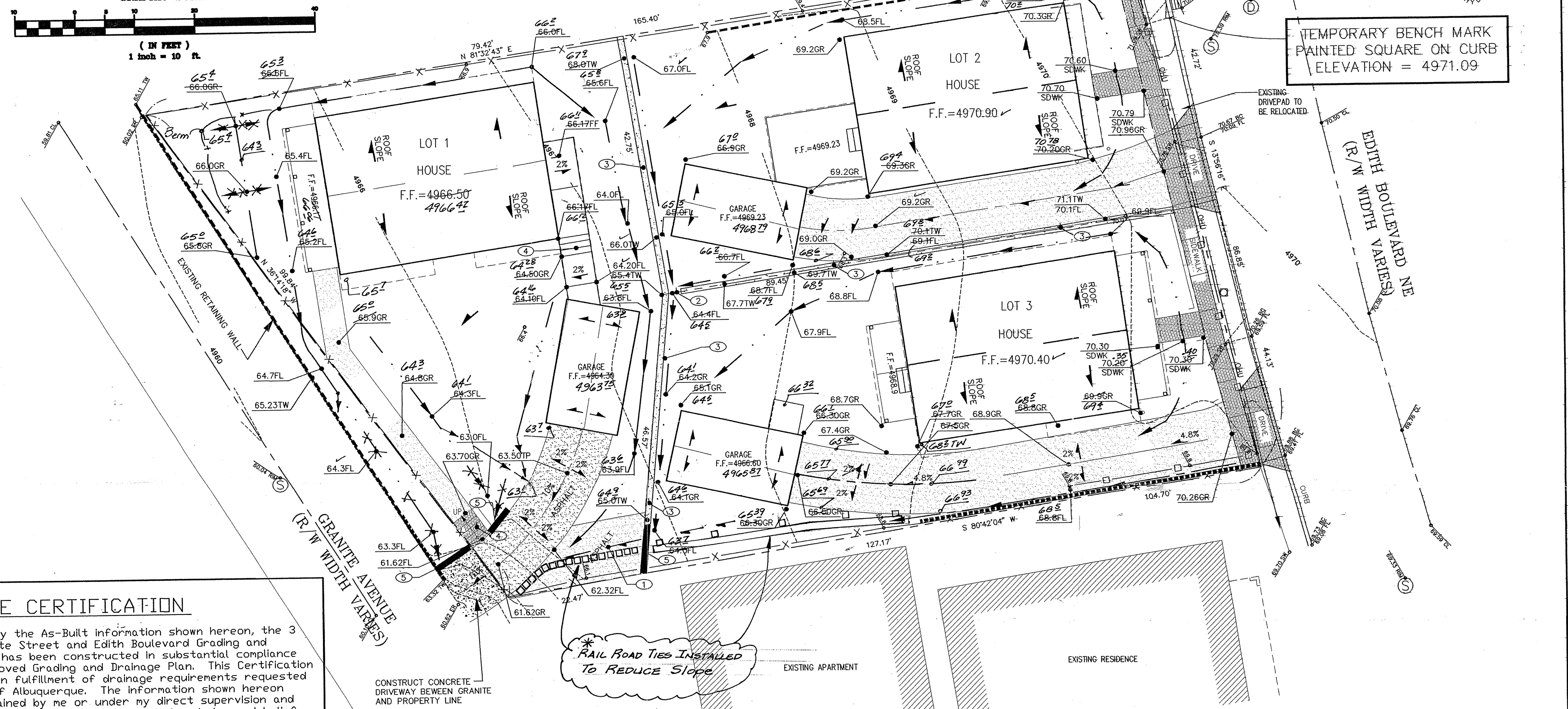
As Indicated by the As-Built information shown hereon, the 3 Lots at Granite Street and Edith Boulevard Grading and Drainage Plan has been constructed in substantial compliance with the approved Grading and Drainage Plan. This Certification is presented in fulfillment of drainage requirements requested by the City of Albuquerque. The information shown hereon has been obtained by me or under my direct supervision and is true and correct to the best of my knowledge and belief.

Gilbert Aldaz
Gilbert Aldaz, NMPE 10848
11-08-02
Date

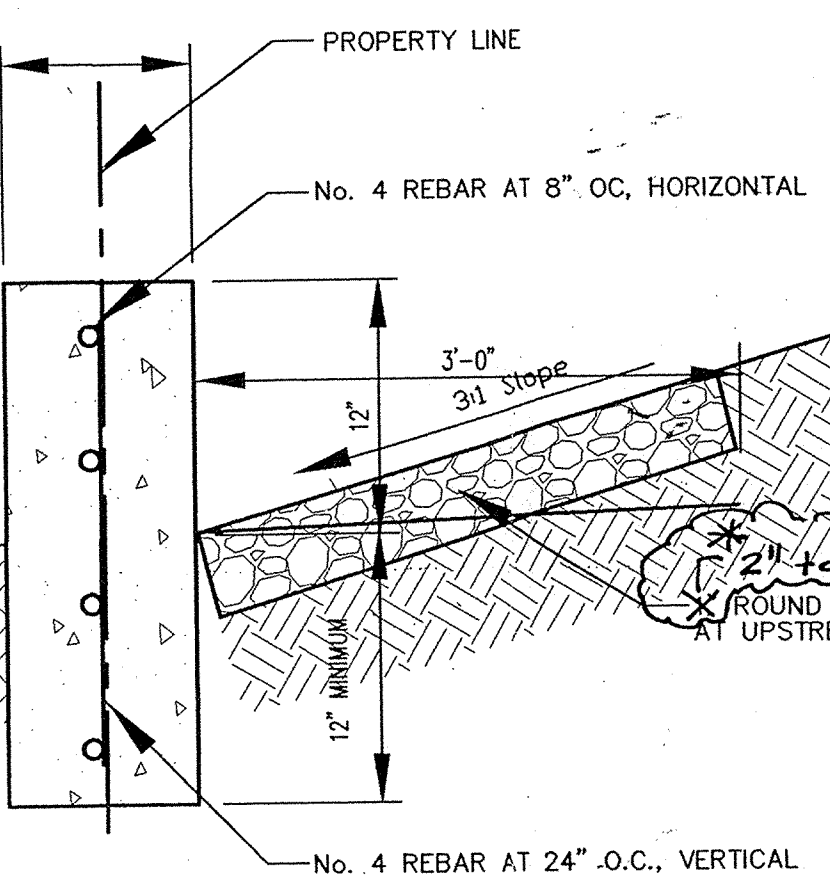
Note: Items in Clouded Area were
* Added During Construction to
minimize soil erosion



GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.



CONSTRUCT CONCRETE DRIVEWAY BETWEEN GRANITE AND PROPERTY LINE



FLOOD WALL
SCALE: N.T.S.

LEGEND

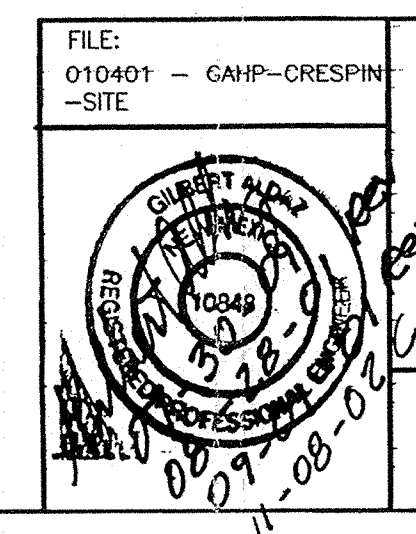
- EXISTING ELEVATIONS
- AS-BUILT
- PROPOSED TOP OF CURB
- PROPOSED FLOWLINE
- PROPOSED TOP OF FLOOD WALL
- PROPOSED BOTTOM OF FLOOD WALL
- AS-BUILT
- PROPOSED GRADE
- EXISTING CONTOUR
- FLOW DIRECTION

CAUTION:

NOTE THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. ALL EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE APPROXIMATE LOCATION ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATIONS TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS.

GENERAL NOTES

- CONSTRUCT DRAINAGE SWALE TO ACCEPT DRAINAGE FROM LOTS 2 AND 3.
- MAINTAIN 2' WIDE OPENING IN FLOODWALL
- CONSTRUCT 12" HIGH WALL TO PREVENT CROSS LOT DRAINAGE, SEE DETAIL.
- CONSTRUCT CONCRETE STAIRS.
- CONSTRUCT 18" DEEP CONCRETE CUTOFF WALL AT APPROXIMATELY THE LIMITS SHOWN AT EDGE OF DRIVEWAY TO PREVENT UNDERMINING FROM EROSION, USE REBAR SIZE AND SPACING AS PER FLOODWALL



DRAINAGE AND GRADING PLAN
FOR
GRANITE STREET & EDITH BLVD

Applied Engineering & Surveying, Inc.
1605 BLAIR DRIVE NE
ALBUQUERQUE, NEW MEXICO 87112 PH: (505)237-1456

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