





ZONING CODE AND ATRISCO BUSINESS PARK LANDSCAPE REQUIREMENTS  
 The landscape plan shall comply with the City of Albuquerque Water Conservation Ordinance.  
 Landscape material quantities and area calculations are as follows:

	CITY OF ALBUQUERQUE REQUIREMENT	ATRISCO REQ.
Total Site Area	122,303 S.F.	20%
Building Footprint	37,633 S.F.	Required Percentage for Landscape
Public R.O.W. Landscape	3,500 S.F.	Landscape Area Required: 12,176 S.F.
Net Area	81,170 S.F.	Landscape Area Provided: 23,023 S.F.
		23,023 S.F.

CITY OF ALBUQUERQUE STREET TREE ORDINANCE AND ATRISCO REQUIREMENTS  
 The total quantity of street trees shall be according to the City of Albuquerque Street Tree Ordinance and Atrisco Business Park Requirements as follows:

	CITY OF ALB. REQ.	ATRISCO REQ.	Trees Provided:
Los Volcanes Rd.	360 LF, 1 tree per 30LF = 12 trees req.	Trees Required: 13	Trees Provided: 13
Silver Creek Rd.	360 LF, 1 tree per 30LF = 12 trees req.	Trees Required: 13	Trees Provided: 13
Perimeter Trees	(west & south, 1 tree per 40LF)	Trees Required: 9	Trees Provided: 9

PARKING LOT TREE REQUIREMENTS (per City of Albuquerque Landscaping Ordinance and Atrisco Business Park Requirements)  
 1 tree per 10 spaces required, 72 parking spaces requires 8 trees, 8 trees provided (all parking spaces within 100' of a tree trunk)

PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	WATER REQ.	REMARKS
<b>Trees</b>						
	Chilopsis linearis	Desert Willow	11	15 gallon	L	4' - 6' ht. 3' min. sprd. multi-trunk, 15" o.c.
	Cupressocyparis leylandii	Leyland Cypress	11	24" box	M	2-1/2" cal. 7'-9" ht.
	Cupressus glabra	Arizona Cypress	4	24" box	M	3' min. sprd., 15" o.c. 2-1/2" cal. 7'-9" ht.
	Gleditsia triacanthos inermis 'Shademaster'	Honey Locust	17	24" box	H	3' min. sprd., 15" o.c. 2" cal.
	Pistachia chinensis	Chinese Pistache	15	24" box	M	12' - 14' ht. 3' min. sprd., 30" o.c. 2" cal.
<b>Shrubs</b>						
	Chrysothamnus nauseosus	Rubber Rabbitbrush	4	1 gallon	L	12" - 18" ht. and sprd., 5" o.c.
	Cotoneaster dammeri	Bearberry Cotoneaster	18	1 gallon	M	8" min. ht., 12" min. sprd., 6" o.c.
	Forestiera neomexicana	New Mexico Olive	5	5 gallon	M	18" min. ht. and sprd., 8' o.c.
	Juniperus sabina 'Buffalo'	Buffalo Juniper	19	1 gallon	M	8" - 12" ht. and sprd., 4' o.c.
	Perovskia atriplicifolia	Russian Sage	5	1 gallon	M	12" - 18" ht. and sprd., 2'-6" o.c.
	Rosmarinus officinalis	Rosemary	3	1 gallon	M	8" - 12" ht. and sprd., 6' o.c.
<b>Turf</b>						
	Festuca elatior	Tall Fescue	4040 S.F.	sod	M/H	
<b>Mulches</b>						
	3/4" Santa Ana Tan Rock Mulch, 3" - 6" Smooth River Rock					

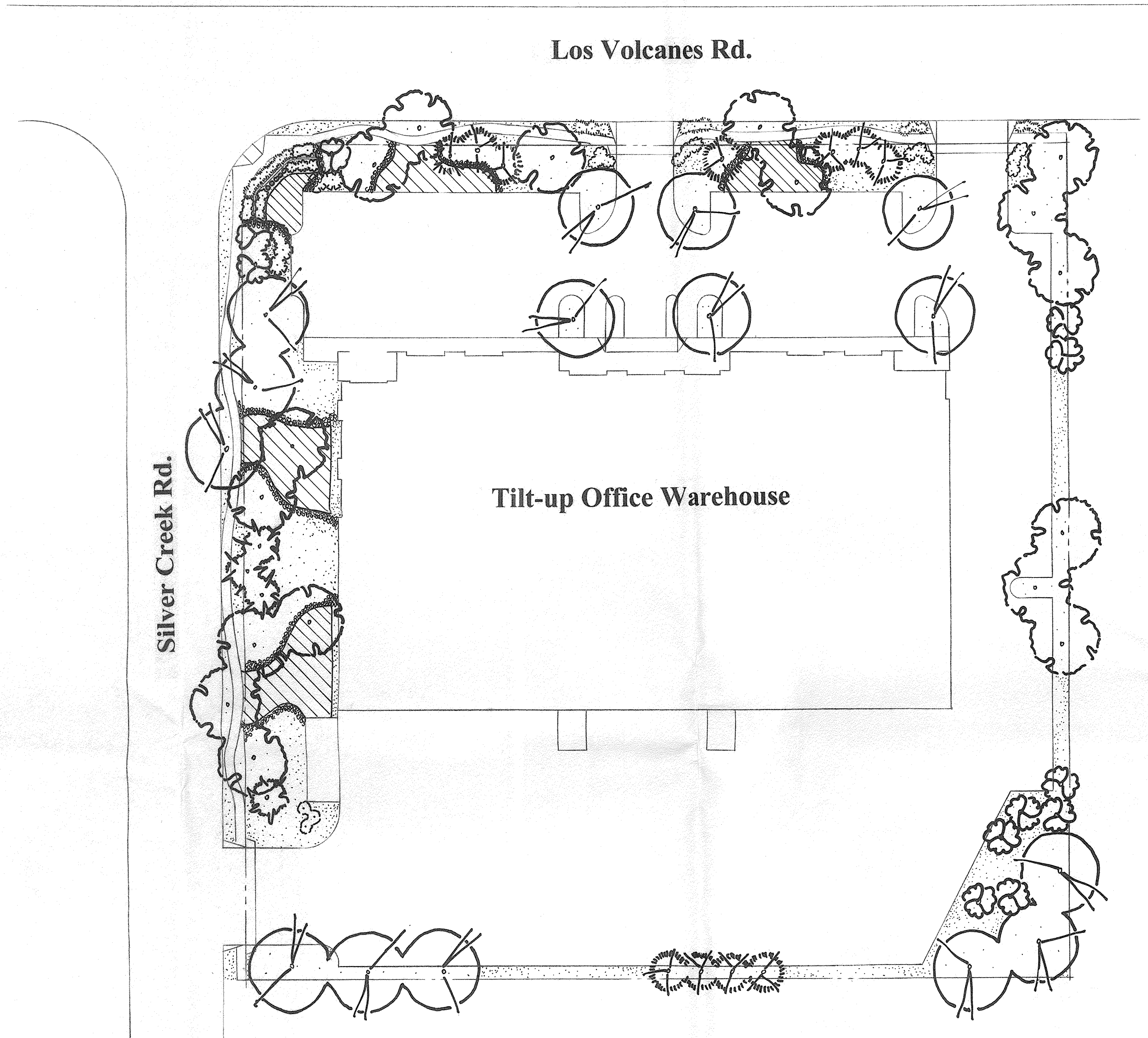
IRRIGATION SYSTEM - GENERAL DESCRIPTION

A fully automated drip irrigation system will irrigate tree, shrub, and groundcover planting areas. Single-outlet and multi-outlet drip emitters will irrigate plant materials in the planting beds.

Municipal drinking water will be used for irrigation. The point-of-connection (P.O.C.) will be immediately downstream of the irrigation water meter installed by others. A backflow prevention assembly will be provided immediately after the P.O.C., and will be screened from view. The irrigation control system utilizes a main control terminal and multiple remote control valves. All irrigation scheduling is done at the main controller. Valves can be operated manually from the field switching terminals. Isolation gate valves will permit the isolation of sections of the system for repair or maintenance.

MAINTENANCE RESPONSIBILITY

Maintenance of the landscaping and irrigation system shall be the responsibility of the Owner. All planting areas will be maintained in a living, attractive, and weed free condition.



GENERAL LANDSCAPE NOTES

- Prior to beginning work on the project, the Landscape Contractor shall review the project in the field with the Owner's Construction Manager.
- If discrepancies occur between the drawings and the site, the Landscape Contractor shall notify the Owner's Construction Manager for clarification prior to proceeding on that portion of work.
- The Landscape Contractor shall coordinate construction activities with the General Contractor.
- The Owner's Construction Manager shall approve all plant material prior to planting. In addition, the Owner's Construction Manager reserves the right to refuse any plant material deemed unacceptable.
- The Owner's Construction Manager is to approve any and all substitutions.
- It is the Landscape Contractor's responsibility to locate all underground utilities.

LANDSCAPE CONSTRUCTION NOTES

- Install steel header and cobble mulch adjacent to turf areas as shown on plan.
- Install 3" depth Santa Ana Tan Rock Mulch or a minimum 6" depth River Rock in all landscape areas, except turf areas. All rock mulch to be installed over weed control fabric.
- Install a 3" diameter, 3" depth bark mulch ring at the base of all trees and shrubs planted in turf areas.

GENERAL IRRIGATION NOTES

- The Irrigation Contractor shall determine the exact location of underground utilities and electrical wiring prior to construction.
- The Irrigation Contractor shall select nozzles for pop-up spray sprinklers with arcs which provide complete and adequate coverage with minimum overspray for the site conditions. The radius of throw of each sprinkler shall be carefully adjusted to provide the best performance.
- Electrical power to the irrigation control system shall be in accordance with local electric utility codes.

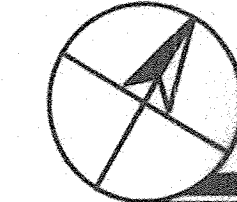
IRRIGATION CONSTRUCTION NOTES

- Controller to be wall-mounted. Contractor shall coordinate final location with Owner's Construction Manager; and power requirements with Electrical Contractor.
- Coordinate location of backflow prevention assembly with Owner's Construction Manager; and power requirements for heat tape with Electrical Contractor.

IRRIGATION EQUIPMENT SCHEDULE

Description	
Sleeving:	Schedule 40 PVC, two sizes larger than pipe to be sleeved
Mainline Pipe:	Schedule 40 PVC
Lateral Pipe to Sprinklers/Emitters:	Class 200 PVC
Backflow Prevention Assembly:	Febco 825Y Reduced Pressure Device
Quick Coupling Valve Assembly:	Rain Bird 33 DRC
Remote Control Valve Assembly for Sprinkler Laterals:	Rain Bird PEB Series
Pop-up Spray Sprinkler:	Rain Bird 1804 Series.
Remote Control Valve Assembly for Drip Laterals:	Rain Bird PEB Series RCV, Rain Bird RBY Inline Wye Filter, Rain Bird PSI Pressure Regulator
Flexible Polyethylene Drip Irrigation Pipe (size as required) with PVC/poly adapter	
Emitter Assembly:	Rain Bird
XB-10	Flow: 1 GPH (See emitter schedule below)
XB-20	Flow: 2 GPH (See emitter schedule below)
PC-5	Flow: 5 GPH (2 per tree, except 3 per each Honey Locust)
Irrigation Controller Unit:	Irritrol MC Plus Series
<b>Emitter Schedule</b>	
Emitter	Shrub
XB-20	Cotoneaster, New Mexico Olive, Juniper, Russian Sage, Rosemary
XB-10	Rubber Rabbitbrush

NORTH



LANDSCAPE PLAN

SCALE: 1" = 30' - 0"



**CLAUDIO VIGIL ARCHITECTS**

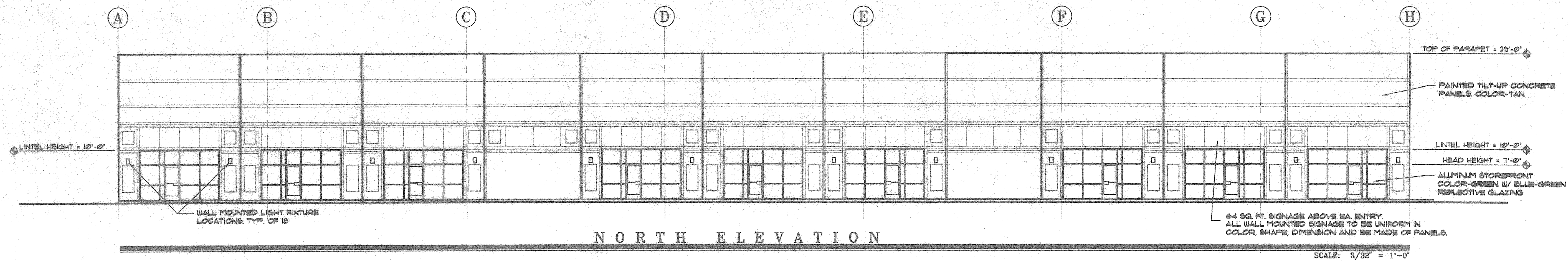
**MERIDIAN BUSINESS PARK**  
**BRUNACINI TILT-UP**  
**OFFICE WAREHOUSE**  
**LOS VOLCANES ROAD, N.W.**  
**ALBUQUERQUE, NEW MEXICO**

SHEET  
2 OF 3

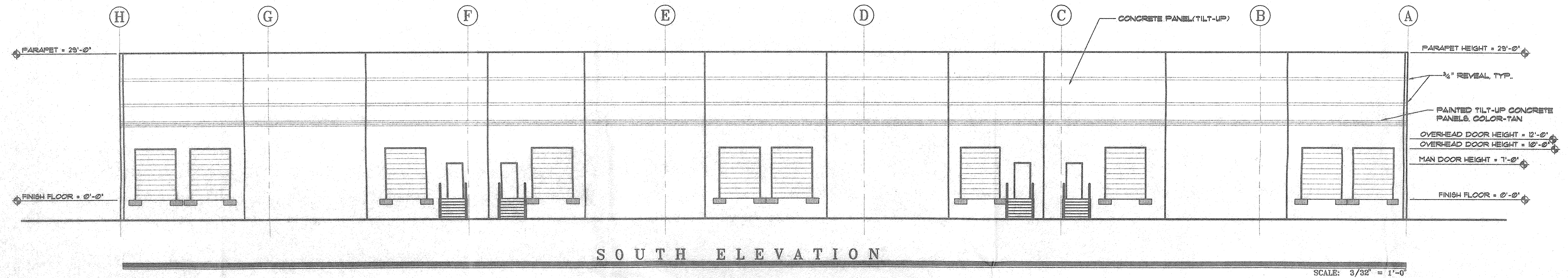
1305 Tijeras NW Albuquerque, NM 87102-2882  
 Phone: 505/842-1113 Fax: 505/842-1330



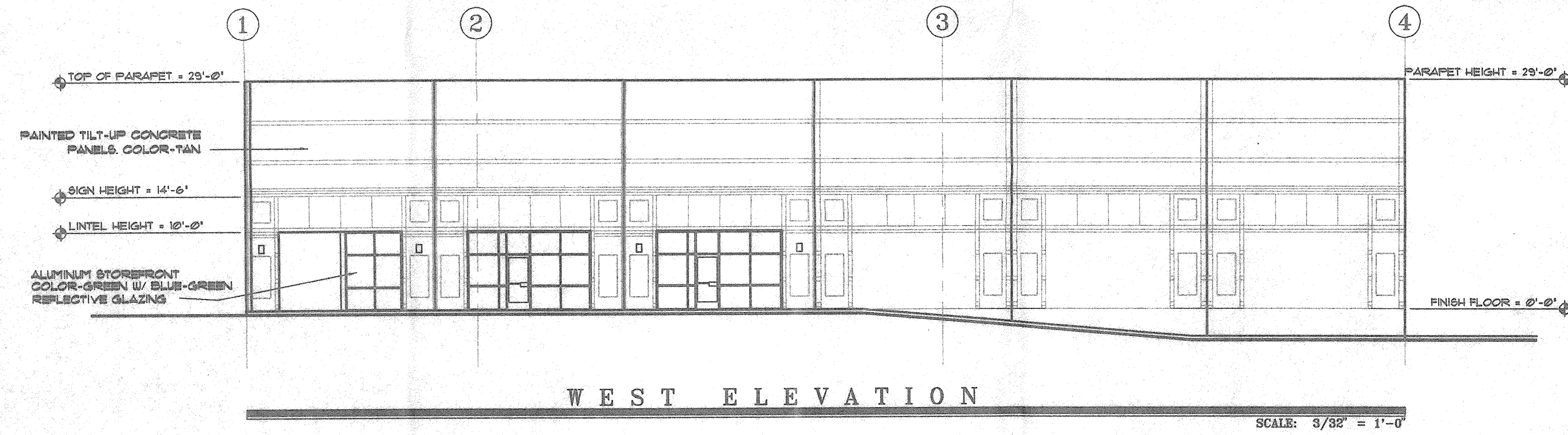




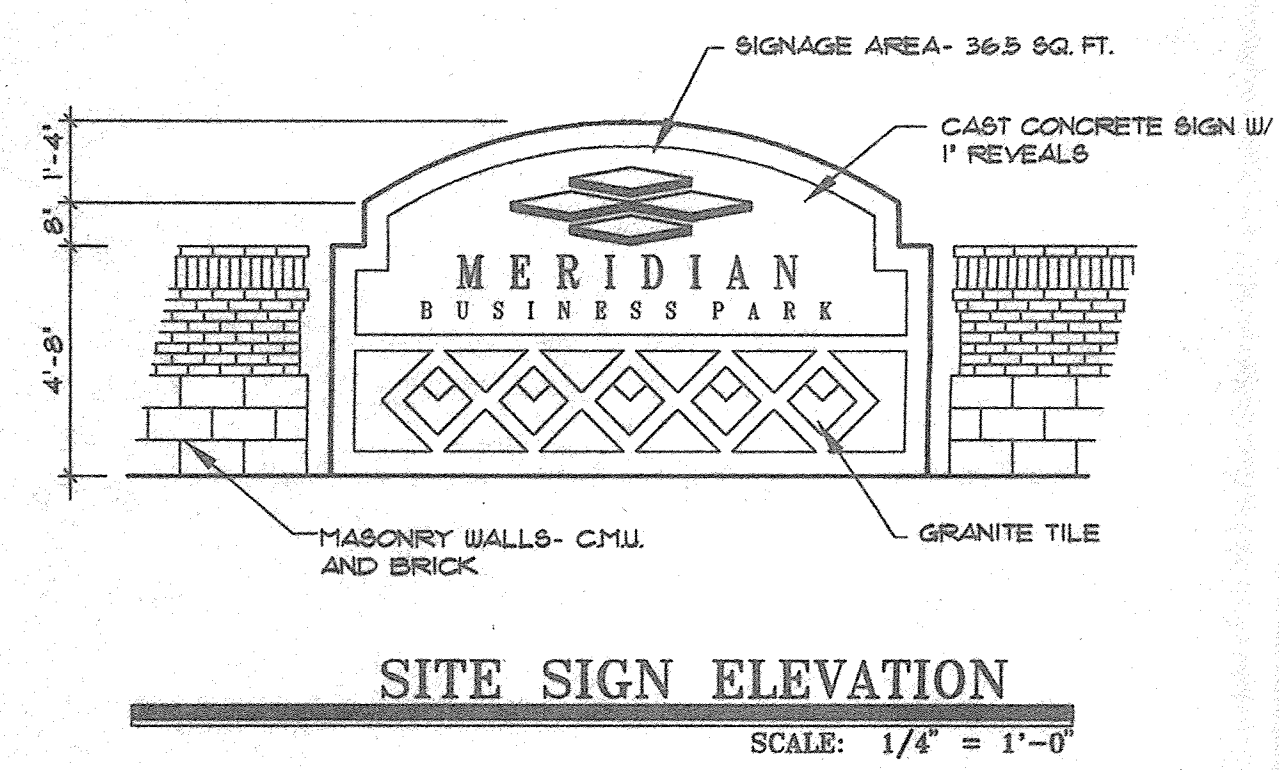
NORTH ELEVATION



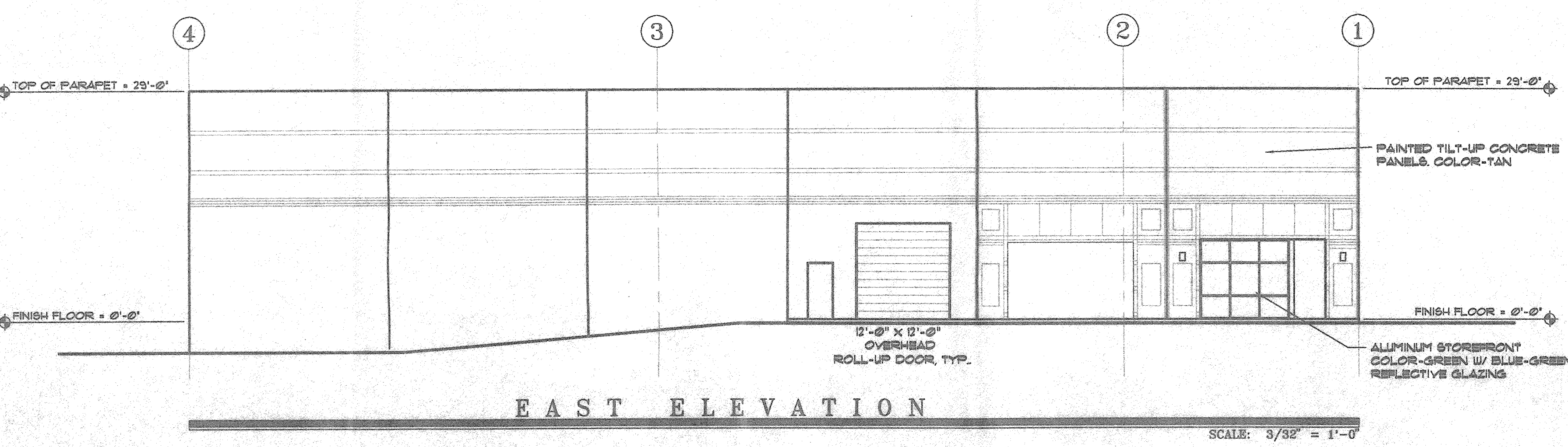
SOUTH ELEVATION



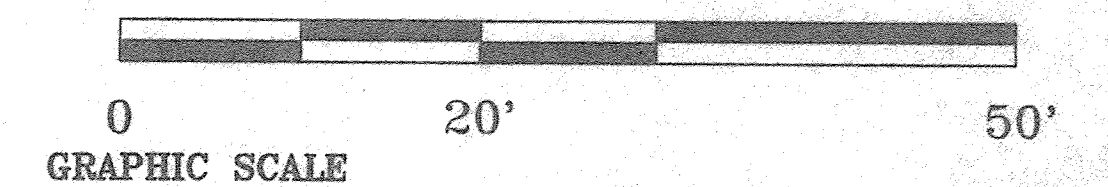
WEST ELEVATION



SITE SIGN ELEVATION



EAST ELEVATION



EXTERIOR ELEVATIONS  
MAY 13, 1997 SCALE: 3/32" = 1'-0" (U.N.O.)

**CLAUDIO VIGIL ARCHITECTS**  
**MERIDIAN BUSINESS PARK**  
 BRUNACINI TILT-UP  
 OFFICE WAREHOUSE  
 LOS VOLCANES ROAD, N.W.  
 ALBUQUERQUE, NEW MEXICO

SHEET  
**30F3**

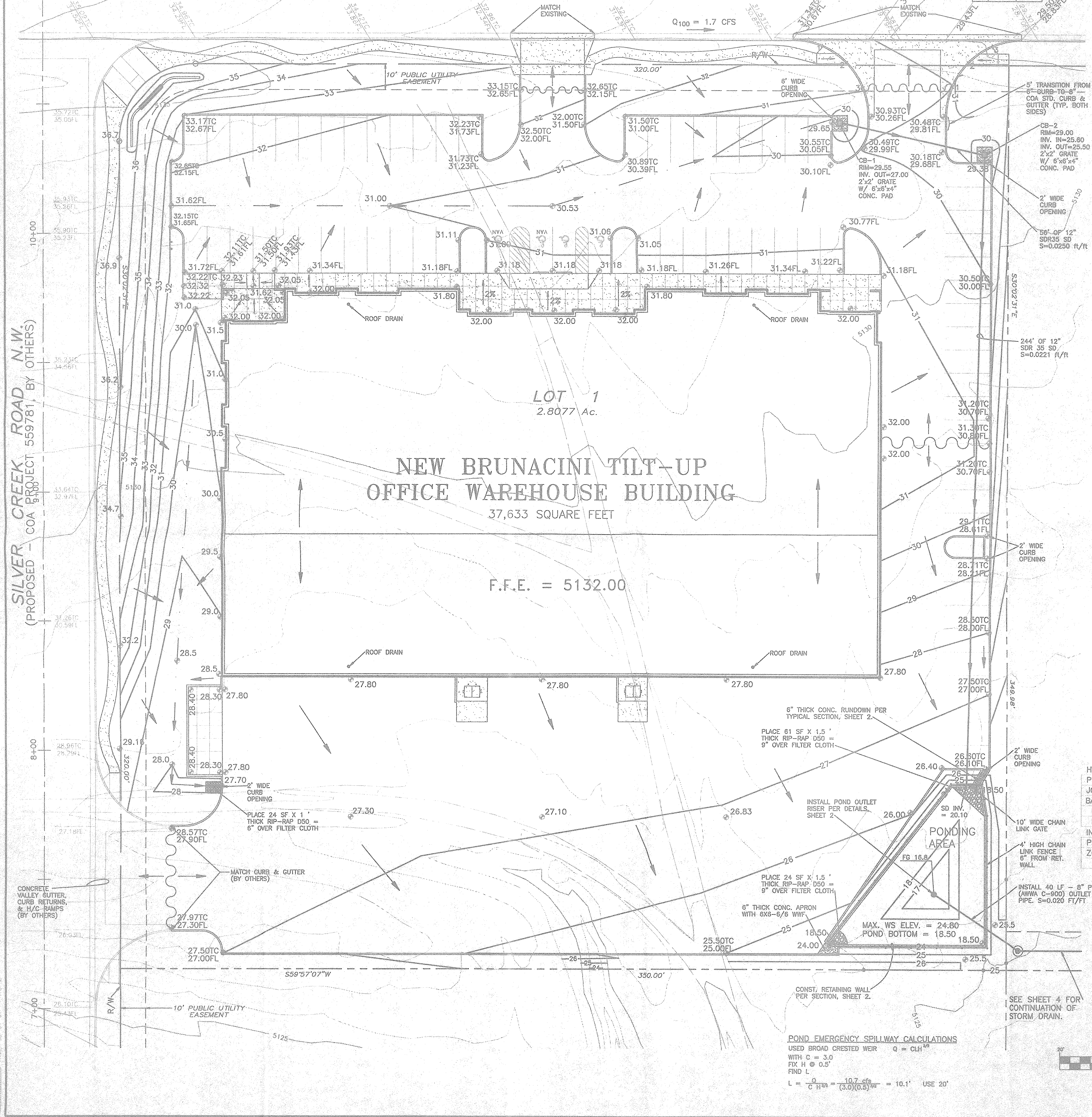
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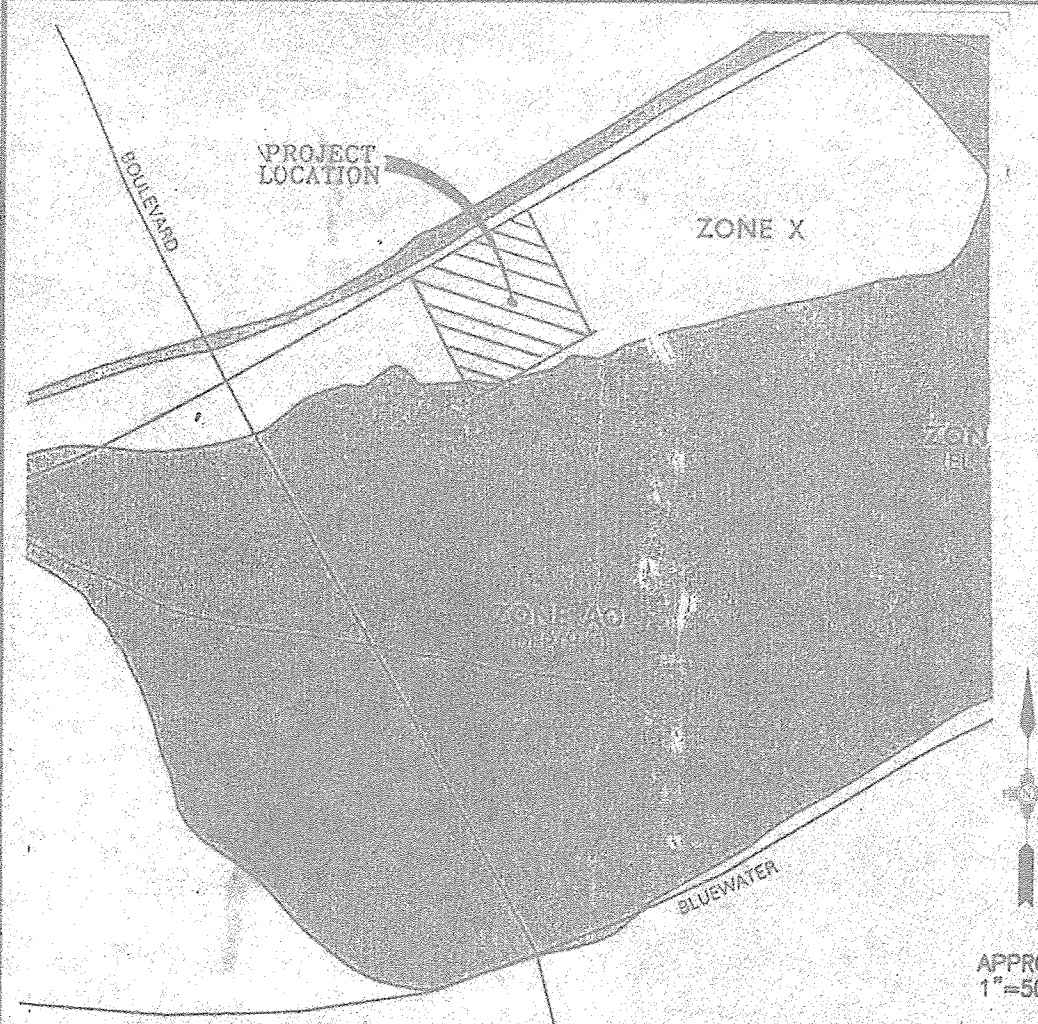
LOS VOLCANES RD. N.W.  
(EXISTING)

TC	FL
1	31.15 30.48
2	30.49 30.49
3	31.17 30.50

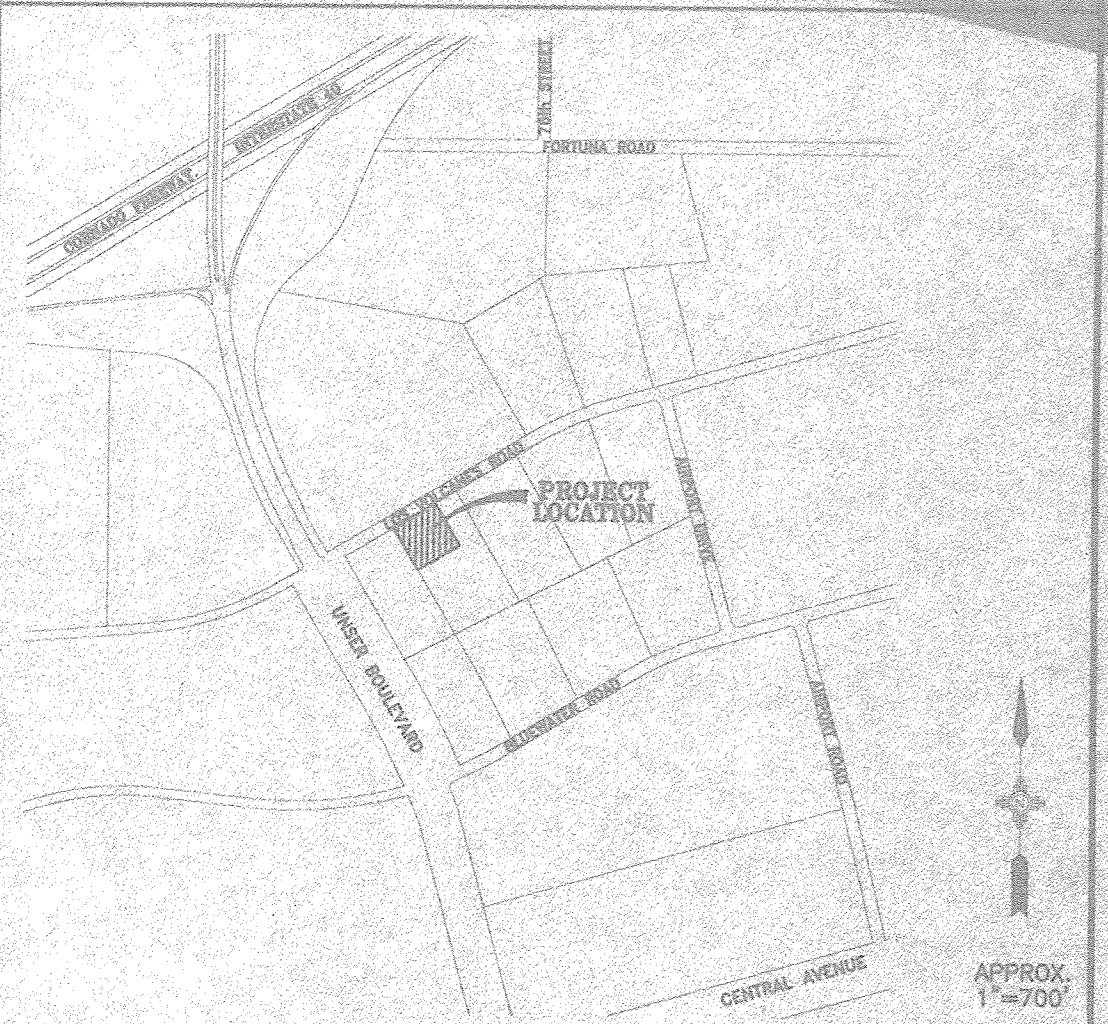
TC	FL
1	30.80 29.93
2	29.53 29.53
3	29.79 29.12



FIRM MAP  
No. 35001C0328 D



VICINITY MAP  
ZONE ATLAS MAP NO. K-10



**EXISTING CONDITIONS**

LOT 1 OF MERIDIAN BUSINESS PARK IS CURRENTLY UNDEVELOPED. THE 2.8 ACRE SITE IS COVERED BY SPARSE NATIVE VEGETATION. SITE SOILS ARE COMPOSED OF SANDY AND SILTY SAND SOILS.

**OFF-SITE FLOWS**  
WITH THE CONSTRUCTION OF SILVER CREEK ROAD ON THE SITE'S WEST BOUNDARY AND DRAINAGE IMPROVEMENTS ASSOCIATED WITH ITS CONSTRUCTION (COA PROJECT 559781), THERE WILL BE NO OFF-SITE FLOWS ENTERING THIS SITE. THE 100 YEAR FLOW RATE AND DEPTH IN LOS VOLCANES ROAD ARE 1.7 CFS AND 0.23 FT. WATER BLOCKS ARE PROPOSED IN BOTH DRIVEWAYS ONTO LOS VOLCANES ROAD AT 0.6 FT HIGH.

**ON-SITE DRAINAGE**

THIS SITE IS BEING DEVELOPED IN ACCORDANCE WITH THE "ATRISCO BUSINESS PARK MASTER DRAINAGE PLAN," EASTERLING & ASSOCIATES, INC. 1993 (K-10, D-23) AND IN ACCORDANCE WITH THE "CONCEPTUAL MASTER GRADING AND DRAINAGE PLAN, LOTS 1-23 MERIDIAN BUSINESS PARK," EASTERLING & ASSOCIATES, INC. 1998 (J-10/D-20). THOSE PLANS PROVIDE FOR AN ALLOWABLE DISCHARGE FROM DEVELOPED SITES OF 0.1 CFS/ACRE TO A SYSTEM OF PRIVATE AND PUBLIC STORM DRAINS.

A 17,363 CUBIC FOOT DETENTION POND IS PROPOSED FOR THE SOUTHEAST CORNER OF THE SITE. THE POND IS SUBSTANTIALLY DRAINED AT THE 0.28 CFS RELEASE RATE WITHIN 24 HOURS (LESS THAN 10% OF 100 YEAR STORM VOLUME REMAINS). THE POND CAN SAFELY PASS RUNOFF FROM AN ADDITIONAL 100-YEAR STORM AT THAT TIME AS ONLY 1,773 CUBIC FEET REMAIN IN THE POND AFTER 24 HOURS. AN ADDITIONAL ROUTING WAS PERFORMED AFTER SUBTRACTING THAT VOLUME FROM THE AVAILABLE POND CAPACITY. THE POND WILL NOT OVERFLOW THROUGH ITS EMERGENCY SPILLWAY IN A SECOND 100-YEAR STORM. (SEE ATTACHED AHYMO 194 MODEL RUNS.)

THE POND WILL DISCHARGE THROUGH A 24" CMP RISER/TRASH RACK WITH THE OUTFLOW LIMITED TO .28 CFS BY MEANS OF A 2" ORIFICE IN THE OUTFLOW LINE. THE POND WILL BE CONNECTED TO A 10" PVC PRIVATE STORM DRAIN TO BE CONSTRUCTED IN CONJUNCTION WITH THIS PROJECT. THIS PRIVATE STORM DRAIN WILL CONNECT TO A PUBLIC STORM DRAIN (COA PROJECT 559781), CONSISTENT WITH THE ATRISCO BUSINESS PARK DRAINAGE MASTER PLAN. PLEASE SEE ACCOMPANYING SHEETS FOR STORM DRAIN PLAN AND PROFILE.

THE 10" STORM DRAIN HAS BEEN SIZED BASED ON MAINTENANCE RATHER THAN HYDRAULIC CONSIDERATIONS DUE TO THE EXTREMELY SMALL ALLOWABLE FLOW RATES ON LOTS DRAINING TO THIS LINE. THE HGL IS CONTAINED WITHIN THE PIPE THROUGHOUT ITS LENGTH.

**POND OUTFLOW HYDRAULICS**

OUTLET STORM DRAIN IS 8" PVC @ 0.02 FT/FT  
CAPACITY IS = 1.7 CFS  
ALLOWABLE DISCHARGE IS 0.28 CFS - USE "INLET CONTROL"

**ORIFICE EQUATION**  $Q = CA\sqrt{2gh}$   
 $Q = 0.28 \text{ cfs}$        $C = 0.6$   
 $SET \ h \ \text{MAX} \ @ \ 25.0 - 18.5 = 6.5'$

FIND AREA OF OPENING REQUIRED  
 $A = \frac{Q}{C\sqrt{2gh}} = \frac{0.28}{(0.6)\sqrt{(49 \times 6.5)}} = 0.02281 \text{ ft}^2$   
 FIND DIAMETER OF OPENING WITH  $A = 0.02281 \text{ FT}^2$   
 $A = \frac{\pi D^2}{4}$        $D = \sqrt{\frac{4A}{\pi}} = 0.1704 \text{ ft} = 2.05 \text{ in.}$

**SIZE HOLES IN INLET STRUCTURE**

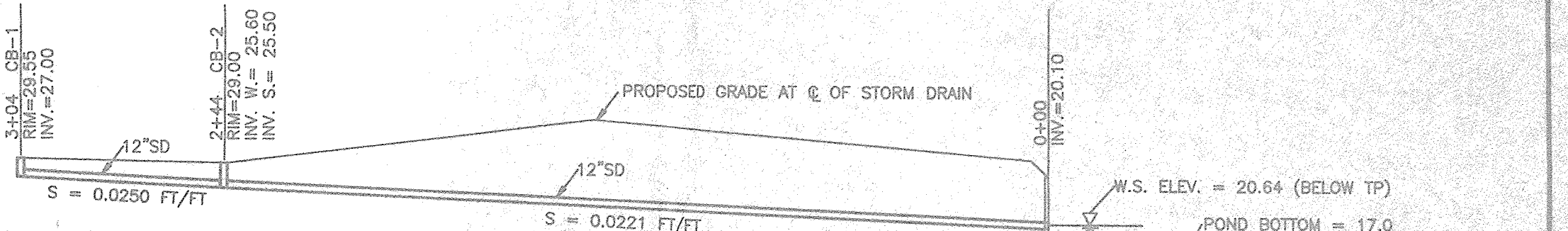
TO PREVENT CLOGGING OF ORIFICE DIAMETER IN INLET  $\leq 3/4$  ORIFICE DIAMETER = 1 1/2"

VELOCITY THROUGH INLET  $\leq 1.0 \text{ FT/SEC}$

0.28 CFS  $\rightarrow$  0.28 FT<sup>3</sup> = MINIMUM AREA OF OPENINGS

USING 1 1/2" OPENINGS (0.01227 FT<sup>2</sup>)  
 AT LEAST 23 OPENINGS MUST BE AVAILABLE AT MAXIMUM POND DEPTH AND ORIFICE FLOW

USING 24" DIA CMP FOR RISER WITH CIRCUMFERENCE = 6.3 FT PLACE 1-1/3" HOLES IN ROWS OF SIX AROUND PIPE AND 12" BETWEEN ROWS WITH A 4' HIGH RISER AND FIRST ROW AT POND INVERT



**STORM DRAIN HYDRAULICS**

CHECK ORIFICE FOR HEAD REQUIRED TO OPERATE SD @ INLETS  
 $Q = CA\sqrt{2gh}$        $C = 0.6$        $A = 0.785 \text{ FT}^2$   
 $Q = 5.34 \text{ CFS} > 5.0 \text{ OK}$   
 $INLET \ 2 \ h_2 = 29.00 - 26.00 = 3' > h, \text{ OK}$   
 POND ELEV. WHEN PEAK FLOW OF 5.0 CFS ENTERS POND IS 20.64  $\leq$  TOP OF PIPE  
 NON-PRESSURE FLOW

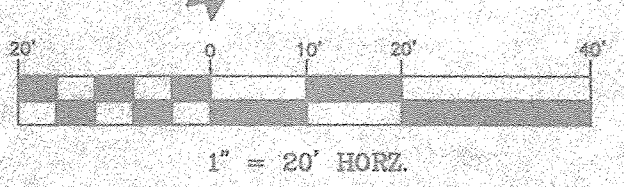
**HYDROLOGY SUMMARY**

PROJECT NAME: MERIDIAN BUSINESS PARK, LOT 1				2 YEAR			10 YEAR			100 YEAR			
JOB NUMBER:	AREA	LAND TREATMENTS			Q	VOLUME (ac.ft.)	Q	VOLUME (ac.ft.)	Q	VOLUME (ac.ft.)	Q	VOLUME (ac.ft.)	
4320	(acres)	A	B	C	(cfs)	6 HR	24 HR	(cfs)	6 HR	24 HR	(cfs)	6 HR	24 HR
BASIN L1 UNDEV LOT 1	2.81	100.0%	0.0%	0.0%	0.0	0.0000	0.0000	0.7	0.0187	0.0187	3.6	0.1030	0.1030
BASIN L1 DEV LOT 1	2.81	0.0%	21.0%	0.0%	79.0%	3.8	0.1337	0.1706	6.9	0.2402	0.2970	10.9	0.3974
INPUT DATA:													
PRECIP. ZONE	RAINFALL DEPTHS (INCHES) AT 100-YEAR STORM												
1	1 HOUR	6 HOUR	24 HOUR	4 DAY	10 DAY								
	1.87	2.20	2.66	3.12	3.67								

**LEGAL DESCRIPTION**  
 LOT 1, MERIDIAN BUSINESS PARK (BEING A REPLAT OF LOTS 1 THRU 9 IN TRACT M, ATRISCO BUSINESS PARK UNIT 2) CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO AUG. 1998

**BENCHMARK**  
 "10-K10" ELEV. = 5142.79  
 LOCATED 54.0' EAST OF UNSUB. BLDG. CENTERLINE AND 22.4' SOUTH OF NORTH END OF BACK OF CURB OF TRAFFIC ISLAND. ASS 3 1/4" ALUM CAP SET. FLUSH IN THE TOP OF CURB.

**POND EMERGENCY SPILLWAY CALCULATIONS**  
 USED BROAD CRESTED WEIR  $Q = CLH^{3/2}$   
 $WITH \ C = 3.0$   
 $FIX \ H @ 0.5'$   
 $FIND \ L$   
 $L = \frac{Q}{C \cdot H^{3/2}} = \frac{10.7 \text{ cfs}}{(3.0)(0.5)^{3/2}} = 10.1' \text{ USE } 20'$



NO.	REVISIONS	BY	DATE

**MERIDIAN BUSINESS PARK  
LOT 1  
OFFICE / WAREHOUSE  
GRADING & DRAINAGE PLAN**

**Easterling & Associates, Inc.**  
 CONSULTING ENGINEERS  
 10131 Coors Rd., NW, Suite H-7  
 Albuquerque, New Mexico 87114  
 (505) 898-8021 FAX (505) 898-8501

DESIGNED BY CME	DRAWN BY DEC	CHECKED BY CME	SHEET 1
JOB NO. 4320	DATE 1-97	OF 4	