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ARCHITECTURE
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PLANNING
INVESTIGATION
EXPERT WITNESS

PENTECOST
MISSIONARY
BAPTIST CHURCH
36138 SHADDY LANE
SLIDELL, LA

PARTIAL
SITE, PAVING
& DRAINAGE
PLAN

REV:

SCALE: AS NOTED

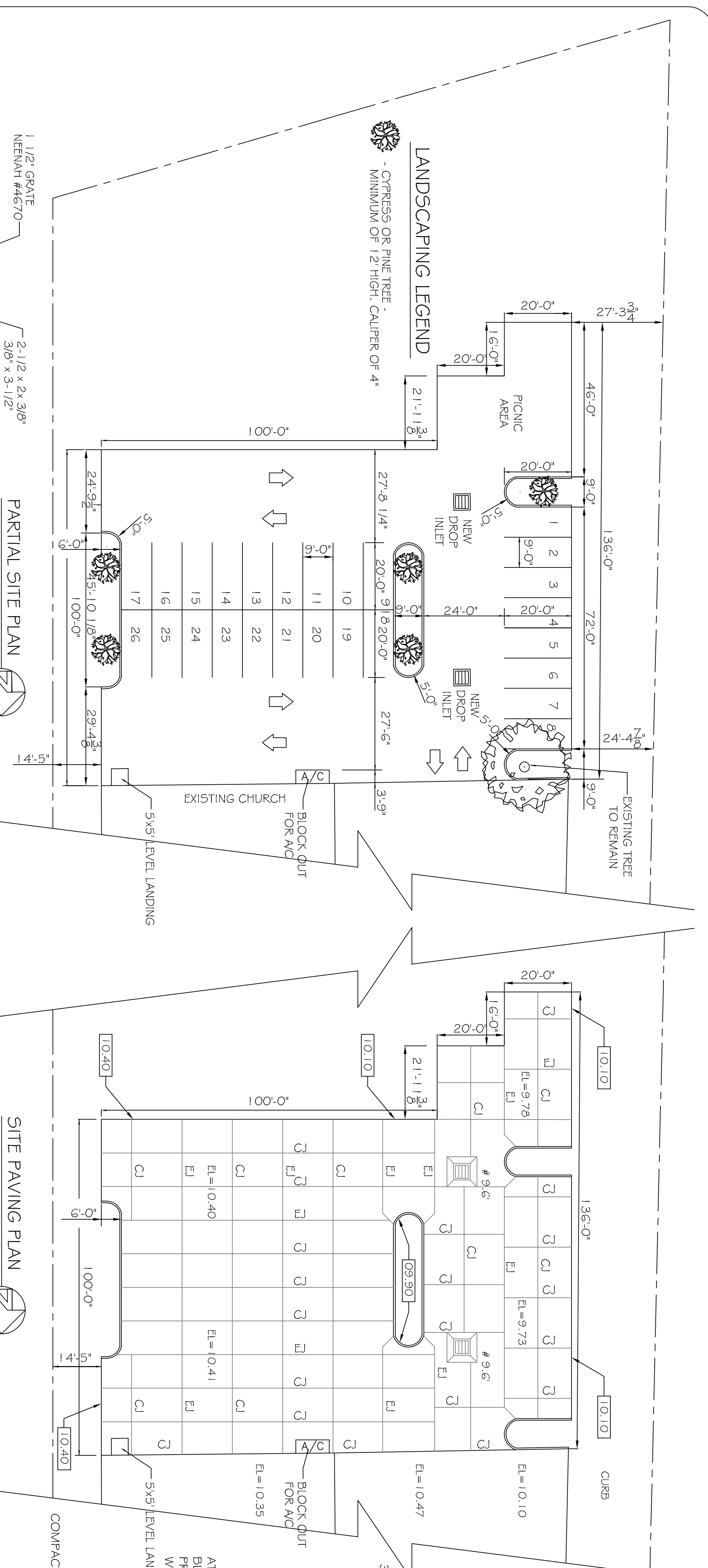
JOB#:

DATE: 05-24-10

SHEET

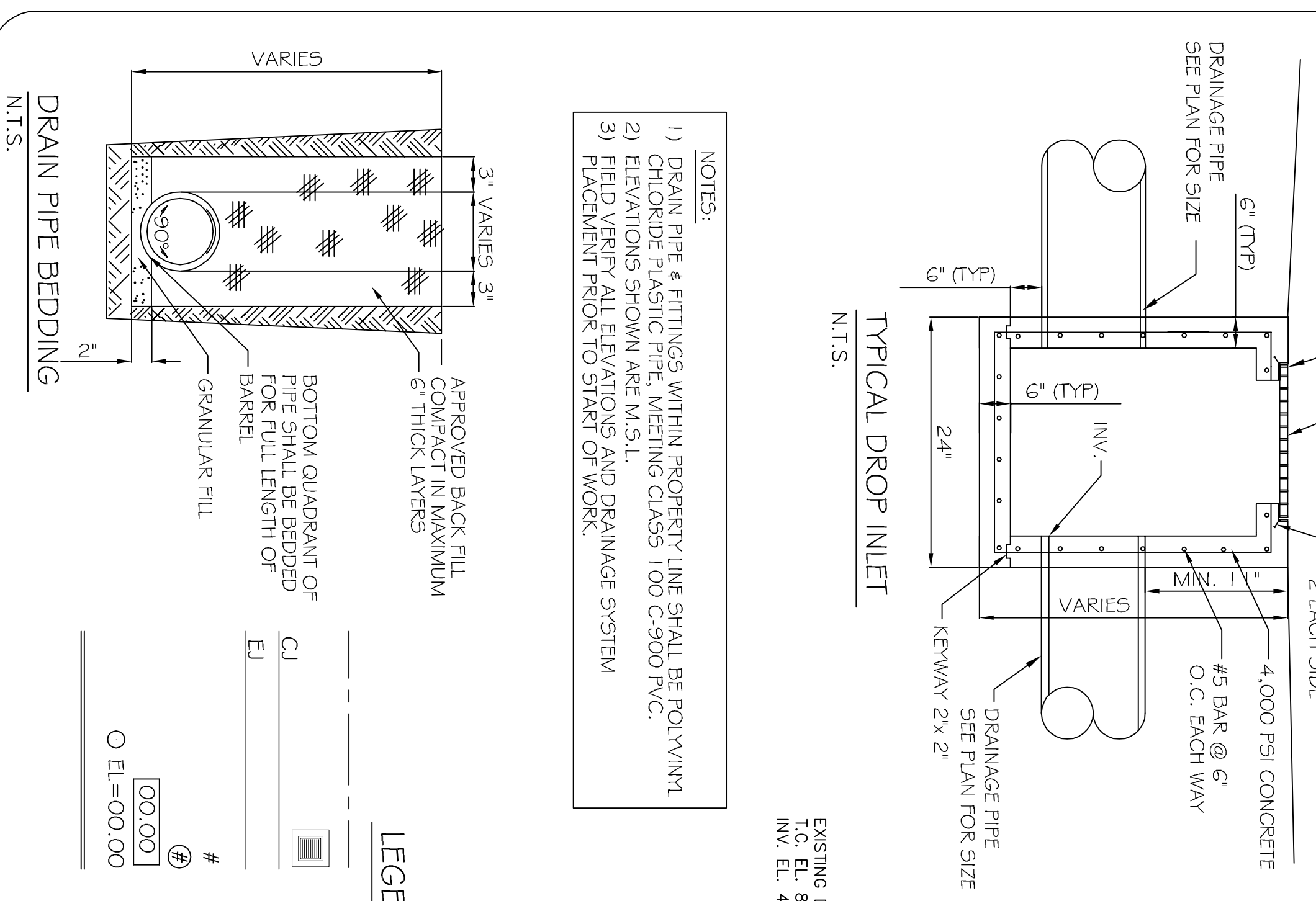
C-1

OF



PARTIAL SITE PLAN
SCALE: 1"=20'

SITE PAVING PLAN
SCALE: 1"=20'

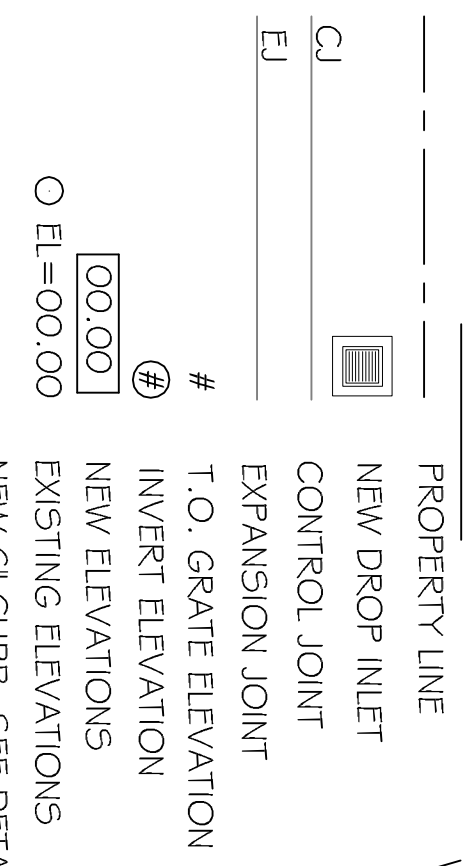


TYPICAL DROP INLET
N.T.S.

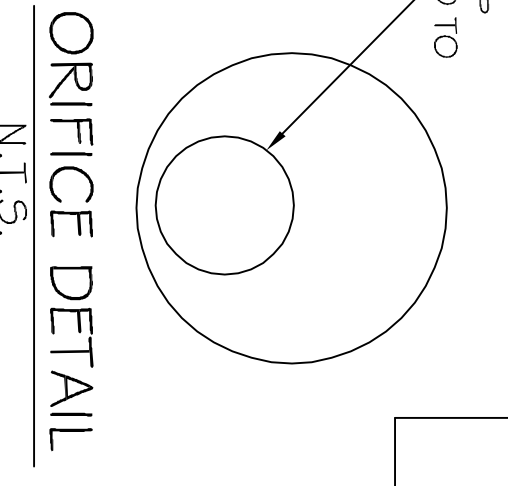
DRAIN PIPE BEDDING
N.T.S.

- NOTES:
- 1) DRAIN PIPE & FITTINGS WITHIN PROPERTY LINE SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE, MEETING CLASS 100 C-900 PVC.
 - 2) ELEVATIONS SHOWN ARE M.S.L.
 - 3) FIELD VERIFY ALL ELEVATIONS AND DRAINAGE SYSTEM PLACEMENT PRIOR TO START OF WORK.

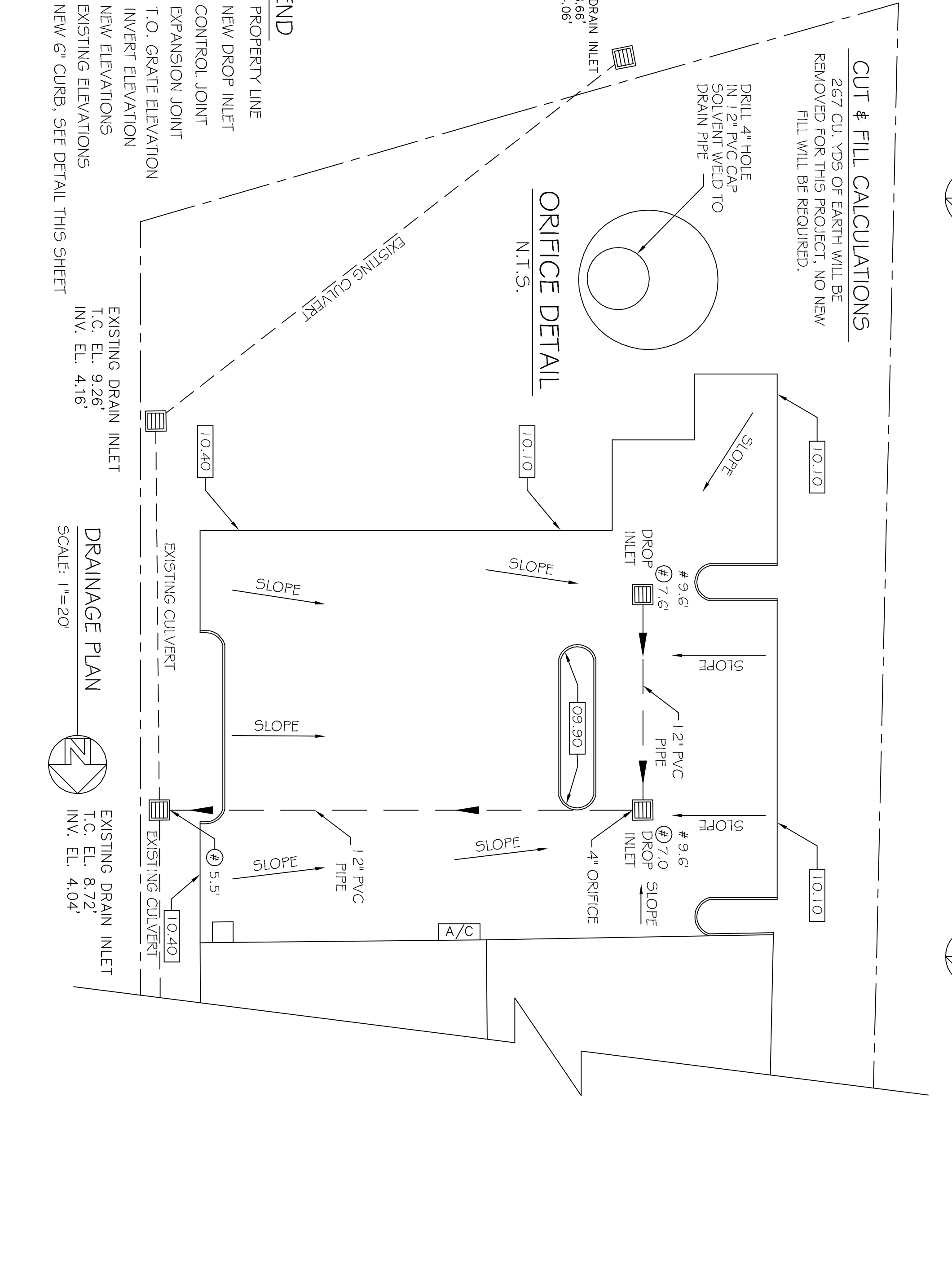
LEGEND



CUT & FILL CALCULATIONS
267 CU. YDS OF EARTH WILL BE REMOVED FOR THIS PROJECT. NO NEW FILL WILL BE REQUIRED.



ORIFICE DETAIL
N.T.S.



DRAINAGE PLAN
SCALE: 1"=20'

PROJECT: CHURCH

DRAINAGE RUN OFF CALCULATIONS - MODIFIED RATIONAL METHOD

25 Year Frequency

Q = CIA

Watersight Surfaces	c(1) = 0.9	sqft = 14461	sqft = 0.332	Acres
Gravel Surface	c(2) = 0.25	sqft = 0	sqft = 0.000	Acres
Green Space	c(3) = 0.35	sqft = 100,000	sqft = 0.022	Acres
Summary	c = 0.90	sqft = 14561	sqft = 0.334	Acres

where
 $Q = 7.029(L^{0.3877}(C^{1.1309})S^{0.1985})$
 where
 L = 136
 C = 0.90
 S = 0.2515
 therefore
 $Q = 1.048$ cfs

POST DEVELOPMENT
10 Year Frequency

Watersight Surfaces	c(1) = 0.9	sqft = 14461	sqft = 0.332	Acres
Gravel Surface	c(2) = 0.25	sqft = 0	sqft = 0.000	Acres
Green Space	c(3) = 0.35	sqft = 100	sqft = 0.002	Acres
Summary	c = 0.90	sqft = 14561	sqft = 0.334	Acres

where
 $Q = 7.029(L^{0.3877}(C^{1.1309})S^{0.1985})$
 where
 L = 136
 C = 0.90
 S = 0.2515
 therefore
 $Q = 1.048$ cfs

RESULTS

RETENTION REQUIRED	Q ₁ -Q ₂	0.157	cfs
DETENTION DIMENSIONS	WIDTH	1132.4	in
	LENGTH	136	feet
	DEPTH	0.06	feet

DISCHARGE END AREA CALCULATIONS

where Q is allowable run off

Q =	0.891	cfs
Allowable run off	0.89	coefficient
Friction loss factor	g	32.2
Acceleration	g	200
Friction above invert	ft	0.89
End area	sqft	3.83

REQUIRED CONDUIT = 4 inch odie