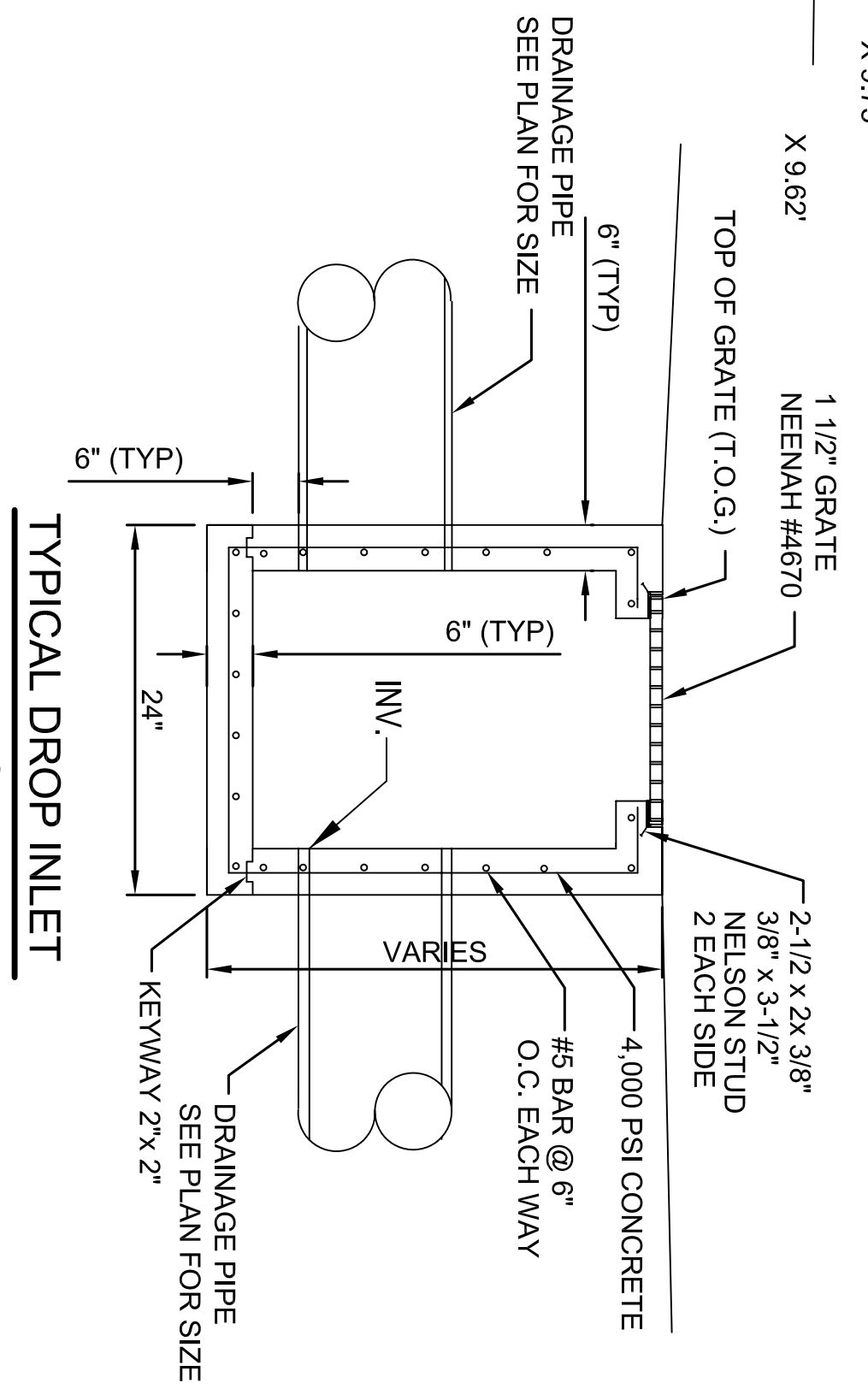
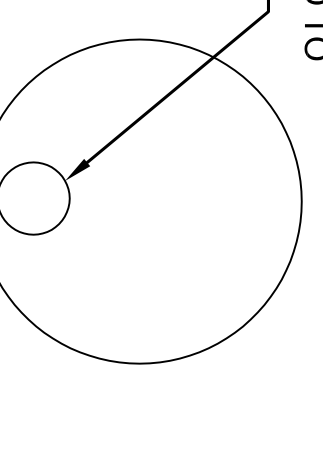
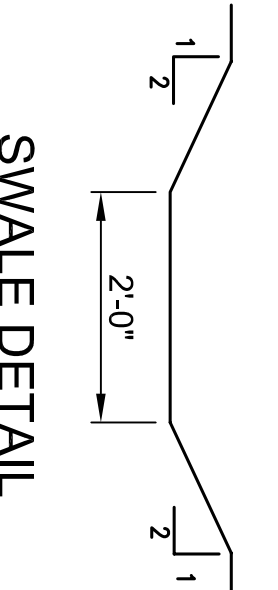
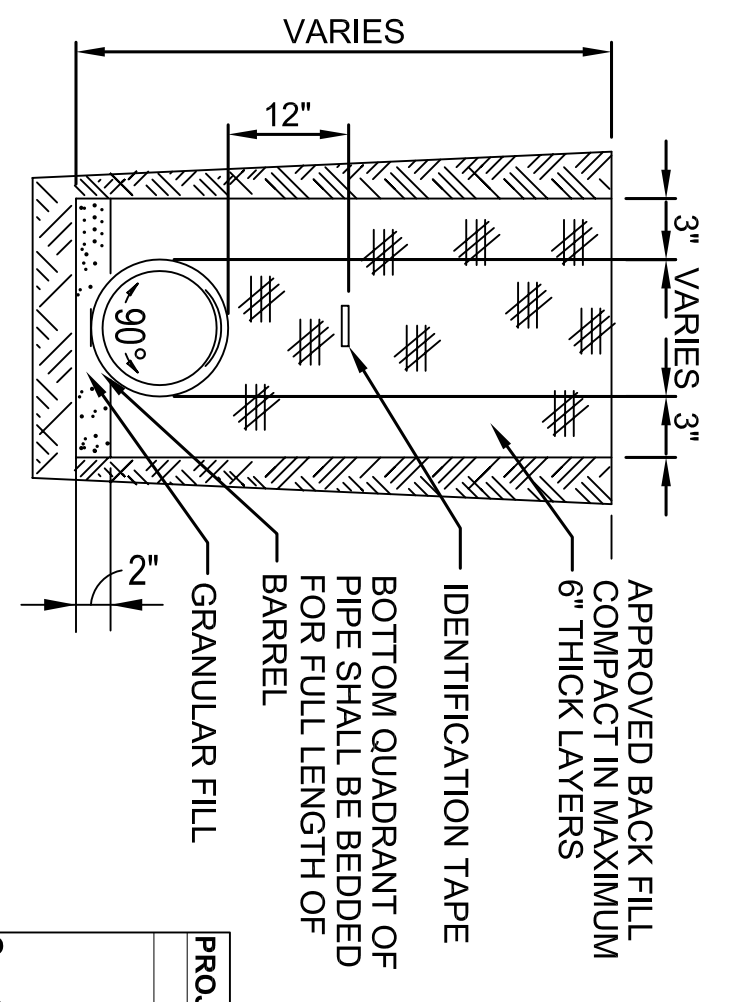


- NOTES:**
- 1) DRAIN PIPE & FITTINGS WITHIN PROPERTY LINE SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE, MEETING CLASS 100 C-9000 PVC.
 - 2) ELEVATIONS SHOWN ARE M.S.L.
 - 3) FIELD VERIFY ALL ELEVATIONS AND DRAINAGE SYSTEM PLACEMENT PRIOR TO START OF WORK.
- LEGEND**
- - - - - PROPERTY LINE
 - - - - - SETBACK
 - - - - - NEW BUILDING OUTLINE
 - - - - - NEW 6\"/>

DRAINAGE PLAN
SCALE: 1" = 20'-0"



PROJECT: EL-BETHEL PENTECOSTAL CHURCH

DRAINAGE RUN OFF CALCULATIONS - RATIONAL METHOD

PRIOR DEVELOPMENT
25 Year Frequency

Waterlight Surfaces	c(1) =	0.9	0	sqft =	0.000	Acres
Gravel Surface	c(2) =	0.21	0	sqft =	0.000	Acres
Green Space	c(3) =	0.35	86798.5	sqft =	1.993	Acres
Summary	c =	0.35	86798.5	sqft =	1.993	Acres

q₁ = CIA

Duration (D) = Time of concentration (TC)

TC = 7.039(L^{0.3917}(C^{-1.1309})^{0.985})
 where L = 300
 C = 0.35
 S = 0.3333
 TC = D = 26.81 minutes or
 therefore and from Rainfall Intensity Table I = 5.53 in/hr

q₁ = 3.857 cfs 10% Reduction
POST DEVELOPMENT
 25 Year Frequency

q₁ = CIA

Waterlight Surfaces	c(1) =	0.9	62058	sqft =	1.425	Acres
Gravel Surface	c(2) =	0.21	0	sqft =	0.000	Acres
Green Space	c(3) =	0.35	24740	sqft =	0.568	Acres
Summary	c =	0.74	86798	sqft =	1.993	Acres

D = Time of concentration (TC)
TC = 7.039(L^{0.3917}(C^{-1.1309})^{0.985})
 where L = 300
 C = 0.74
 S = 0.1667
 TC = D = 13.15 minutes or
 therefore and from Rainfall Intensity Table I = 7.30 in/hr

q₂ = 10.811 cfs

RESULTS

DEFENTION REQUIRED Q ₂ -Q ₁	7.340 cfs
ONE HOUR DEFENTION <td>29424.2 cuft</td>	29424.2 cuft
DEFENTION DIMENSIONS <td>250 feet</td>	250 feet
REQUIRED DEPTH <td>0.41 feet</td>	0.41 feet

DISCHARGE END AREA CALCULATIONS

where Q is allowable run off

Q =	3.471 cfs
c =	0.98 coefficient
g =	32.2 ft/sec
if H =	3.64 feet
A =	0.23 sqft

MINIMUM REQUIRED PIPE SIZE = 6.51 INCH DIAMETER
 USE 3/82 INCH ORIFICE

EL-BETHEL PENTECOSTAL CHURCH

DAMMON ENGINEERING, INC.

1095 FLORIDA AVENUE 985-649-5832 SLIDELL, LA. 70458
 DAMMONENGINEERING.COM

DRAINAGE PLAN

EUGENE WELLINGTON
 ALLEN ROAD
 SLIDELL, LOUISIANA

SCALE: AS NOTED

FILE: _____

JOB NO. 1819

DATE: 3-29-07

SHEET 6

OF 22