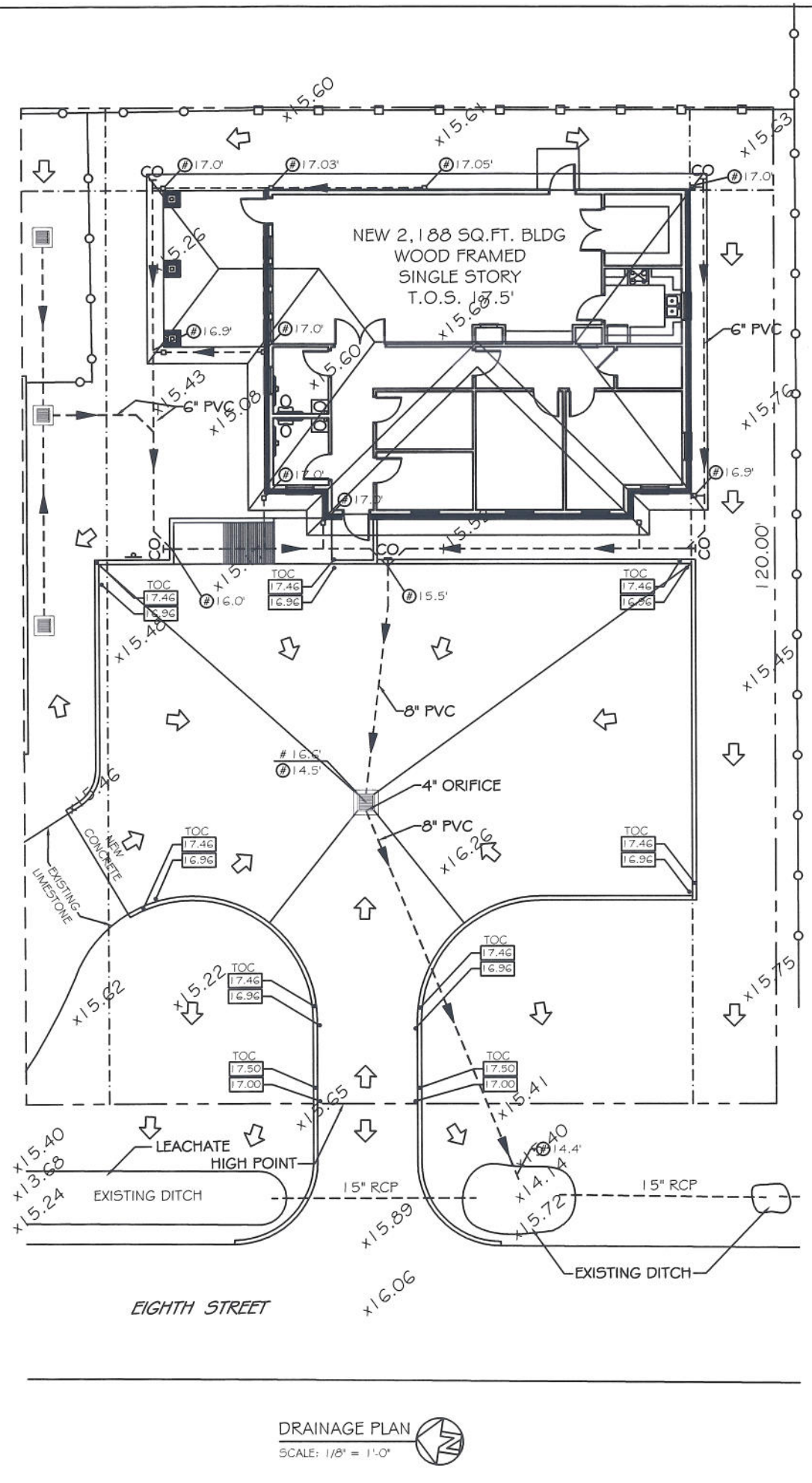
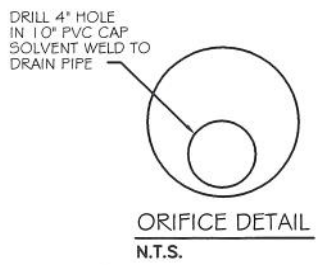
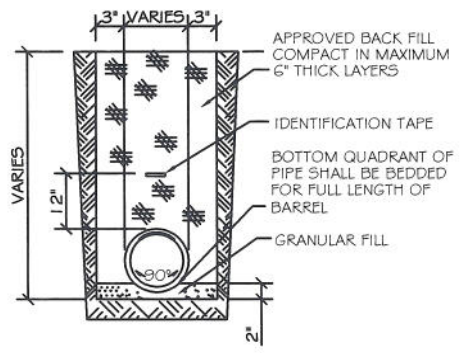


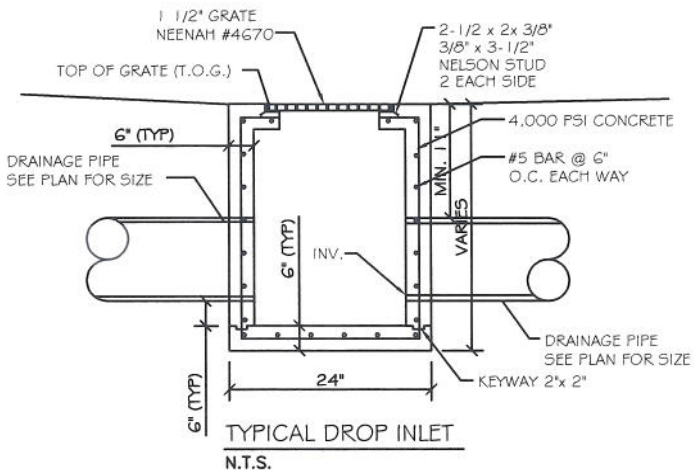
DRAINAGE PLAN
SCALE: 1/8" = 1'-0"



ORIFICE DETAIL
N.T.S.



DRAIN PIPE BEDDING
N.T.S.



TYPICAL DROP INLET
N.T.S.

DRAINAGE 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.
4) DOWN SPOUTS SHALL FLOW INTO SUB-SURFACE DRAINAGE SYSTEM.
5) THERE IS NO EVIDENCE OF EXISTING OFF-SITE FLOW CROSSING THE PROPERTY. NEW DRAINAGE CALCULATIONS ARE DETERMINED ACCORDINGLY.

LEGEND

- PROPERTY LINE
- SETBACK
- NEW DROP INLET w/TEMP. SILT FENCE
- # 0.00' - NEW ELEVATION
- # 0.00' - INVERT ELEVATION
- # 0.00' - TOP OF GRATE ELEVATION
- NEW DRAINAGE PIPE
- EXISTING DRAINAGE PIPE
- SHEET FLOW DIRECTION

PROJECT:	PAUL REES OFFICE BUILDING			
STORMWATER RUN OFF CALCULATIONS -- RATIONAL METHOD				
PRIOR DEVELOPMENT 25 Year Frequency				
$Q_1 = Aci$				
Watertight Surfaces		0	sqft =	0.000 Acres
c(1) =	0.9			
Gravel Surface		0	sqft =	0.000 Acres
c(2) =	0.25			
Green Space		10808	sqft =	0.248 Acres
c(3) =	0.15			
Summary		10808	sqft =	0.248 Acres
c =	0.15			
Duration (D) = Time of concentration (TC)				
TC = .7039(L^.3917)(c^-1.1309)(S^-.1985)				
where	L = 140	Runoff length ft		Elev diff = 1.4
	c = 0.15	Runoff coef		
	S = 1.0000	Percent Slope		
therefore	TC = D = 21.69	minutes		
and from Rainfall Intensity Table	I = 3.64	in/hr		
Q_1 =	0.135 cfs	10% reduction		0.014 cfs
POST DEVELOPMENT 25 Year Frequency				
$Q_2 = Aci$				
Watertight Surfaces		6028	sqft =	0.138 Acres
c(1) =	0.9			
Gravel Surface		0	sqft =	0.000 Acres
c(2) =	0.25			
Green Space		4780	sqft =	0.110 Acres
c(3) =	0.15			
Summary		10808	sqft =	0.248 Acres
c =	0.57			
D = Time of concentration (TC)				
TC = .7039(L^.3917)(c^-1.1309)(S^-.1985)				
where	L = 122	Runoff length ft		Elev diff = 3.1
	c = 0.57	Runoff coef		
	S = 2.5410	Percent Slope		
therefore	TC = D = 12.16	minutes or		
and from Rainfall Intensity Table	I = 3.64	in/hr		
Q_2 =	0.513 cfs			
DETENTION REQUIREMENTS				
DETENTION REQUIRED Q_2-Q_1		0.38 cfs		
ONE HOUR DETENTION		1360.0 cuft		
DETENTION DIMENSIONS		WIDTH	72 feet	
		LENGTH	40 feet	
		DEPTH	0.47 feet	
DISCHARGE END AREA REQUIREMENTS 10 Year Frequency				
Q = cA(2gH)^ 1/2	where Q is allowable run off			
Allowable run off	Q =	0.014 cfs		
Friction loss factor	c =	0.62 coefficient		
Acceleration	g =	32.16 ft/ft/sec		
Height above invert	h =	3.00 feet		
End area	A =	0.002 sqft		
REQUIRED CONDUIT =		0.54 inch diameter		
	USE	4 inch orifice		

DAMMON ENGINEERING, INC.
CHIEF ENGINEER
EMMETT DAMMON, P.E.
CHIEF ARCHITECT
ROBERT WILTSE
554 OLD SPANISH TRAIL
SLIDELL, LA. 70458
OFFICE: 985-649-5832
FAX: 985-641-5950
WEBSITE: WWW.DAMMONENGINEERING.COM
EMAIL: DAMMONENG@BELLSOUTH.NET
ARCHITECTURE
ENGINEERING
STUDIES
PLANNING
INVESTIGATION
EXPERT WITNESS

PAUL REES
OFFICE BUILDING
2271 8TH. ST.
MANDEVILLE, LA
70471

DRAINAGE PLAN

STATE OF LOUISIANA
EMMETT C. DAMMON, JR.
License No. 8795
REGISTERED PROFESSIONAL ENGINEER

REV: 9-29-11

SCALE: AS NOTED
JOB#: 2104
DATE: 05-20-11
SHEET 4
C-3
OF 20