

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	36.6400 cfs
Slope	0.0100 ft/ft
Manning's n	0.0240
Height	12.0000 in
Bottom width	72.0000 in
Left slope	0.3333 ft/ft (V/H)
Right slope	0.3333 ft/ft (V/H)

Computed Results:

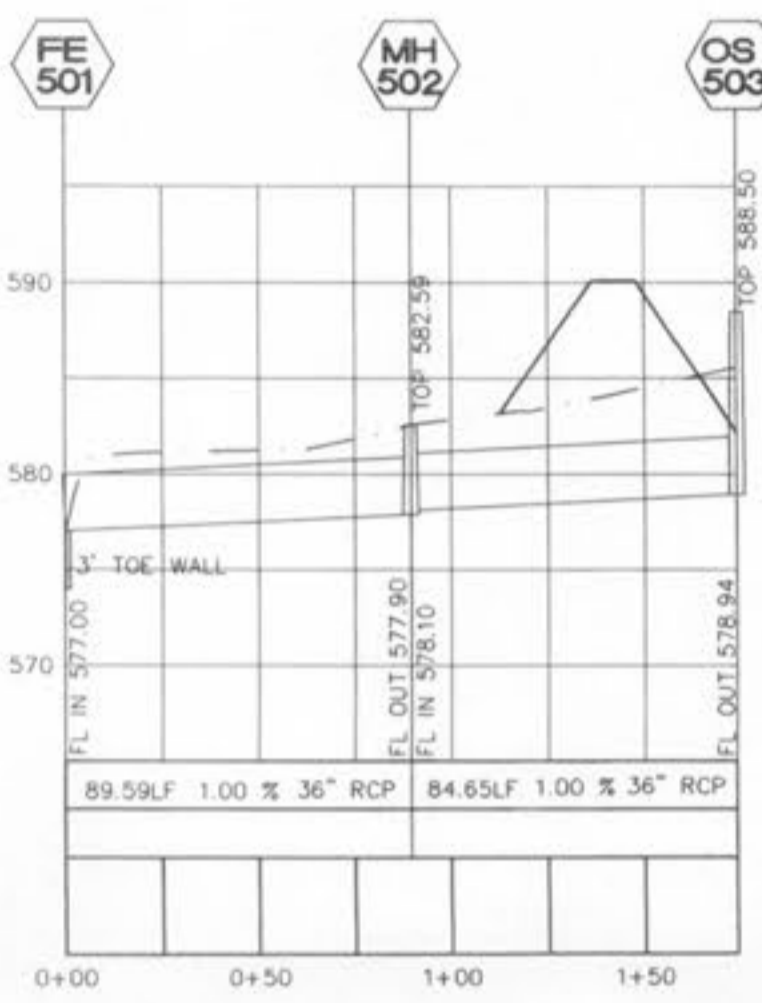
Depth	10.7262 in
Velocity	4.7215 fps
Full Flowrate	45.1899 cfs
Flow area	7.7602 ft <sup>2</sup>
Flow perimeter	138.8444 in
Hydraulic radius	7.9908 in
Top width	136.3635 in
Area	9.0003 ft <sup>2</sup>
Perimeter	147.9015 in
Percent full	89.3848 %

Critical Information:

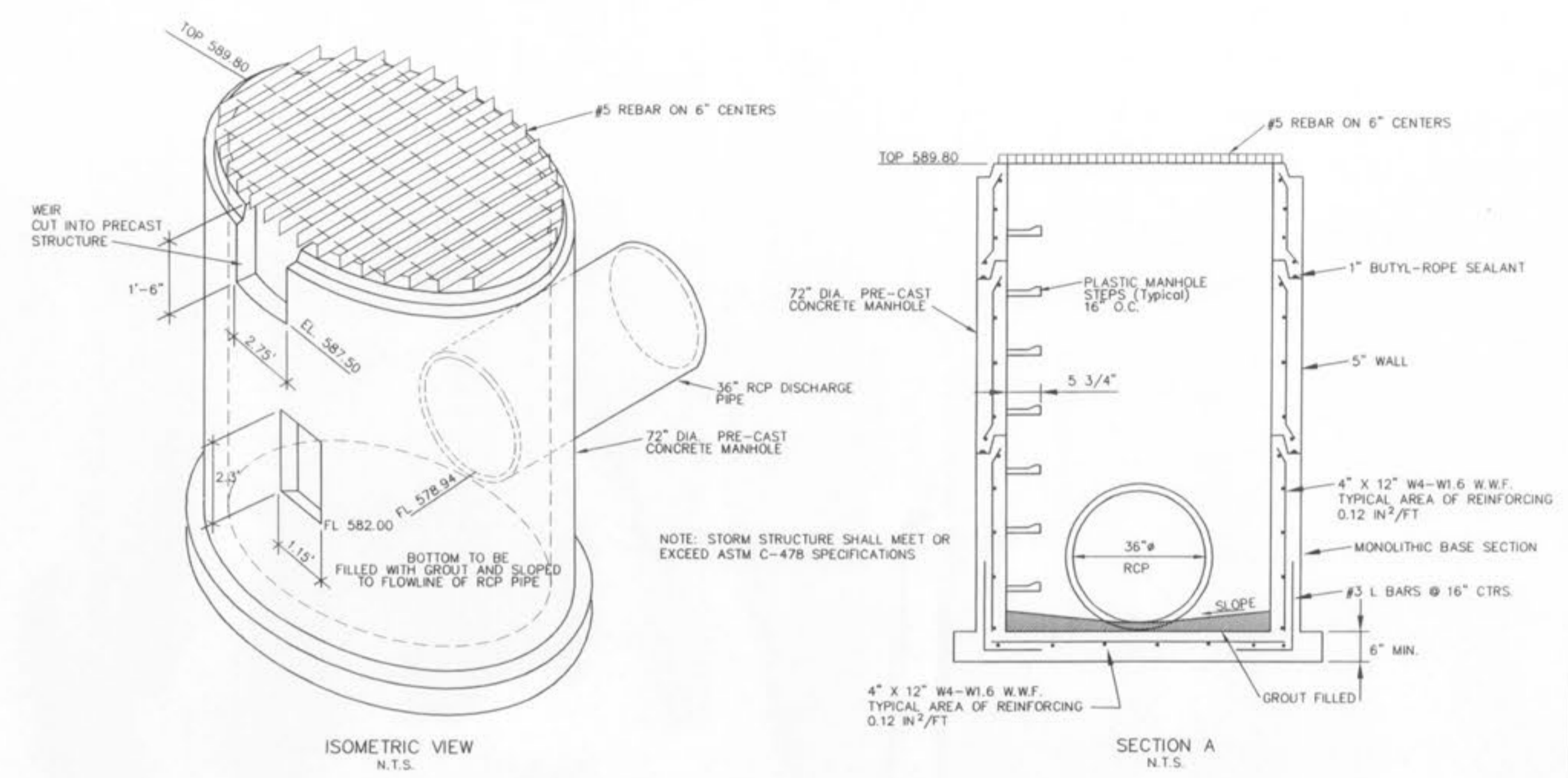
Critical depth	10.7713 in
Critical slope	0.0098 ft/ft
Critical velocity	4.6596 fps
Critical area	7.8030 ft <sup>2</sup>
Critical perimeter	140.1298 in
Critical hydraulic radius	8.0185 in
Critical top width	136.6343 in
Specific energy	1.2403 ft
Minimum energy	1.3464 ft
Froude number	1.0073
Flow condition	Supercritical

**DETENTION BASIN  
SODDED SWALE DETAIL**

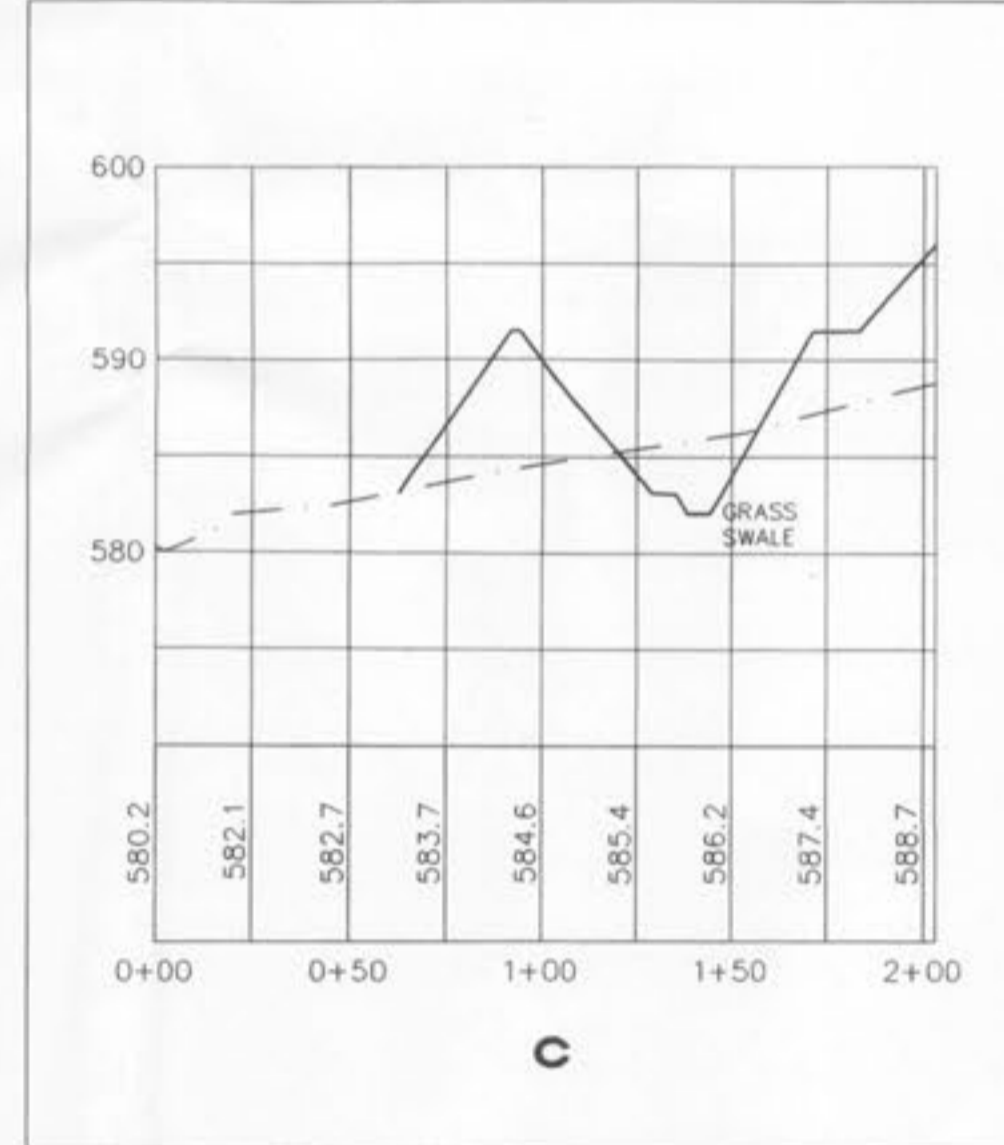
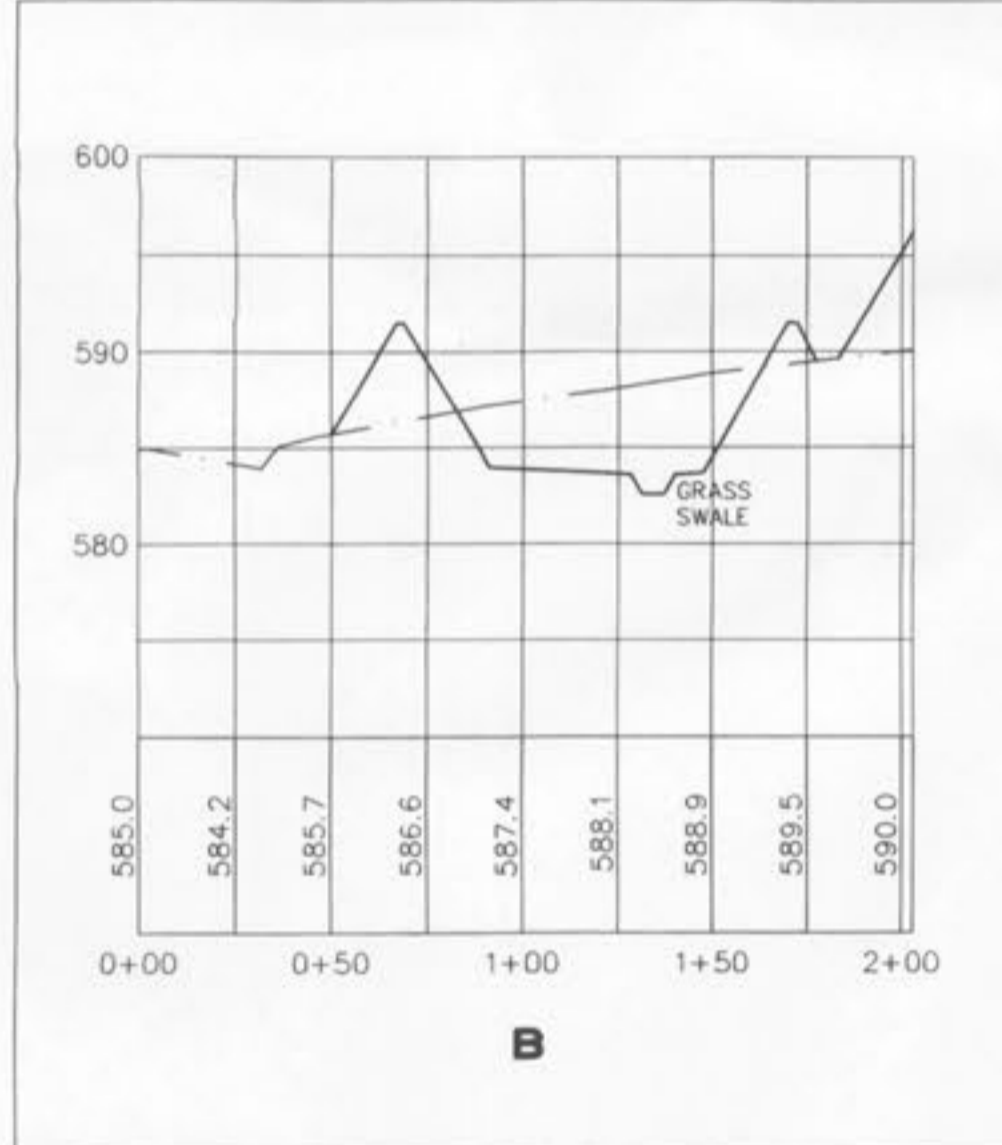
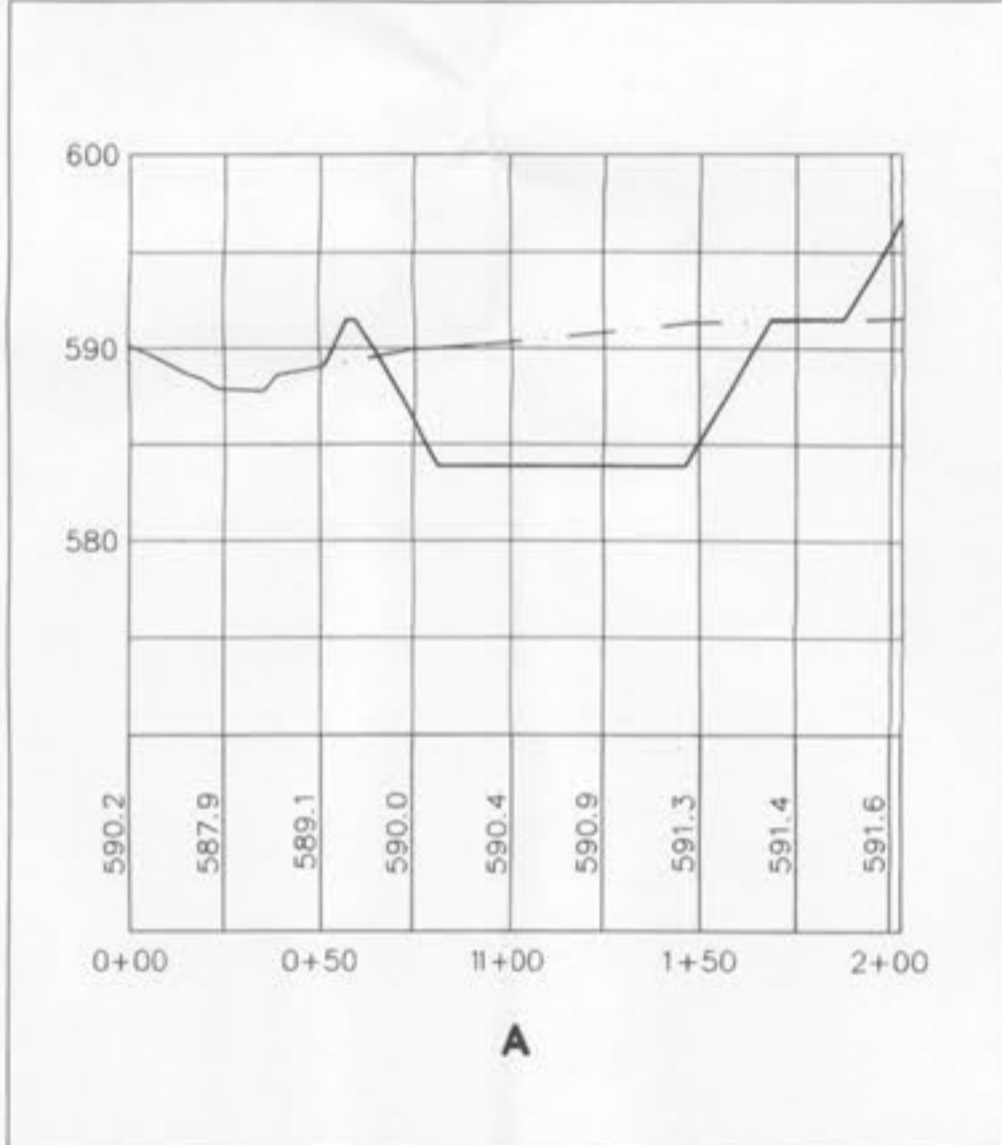
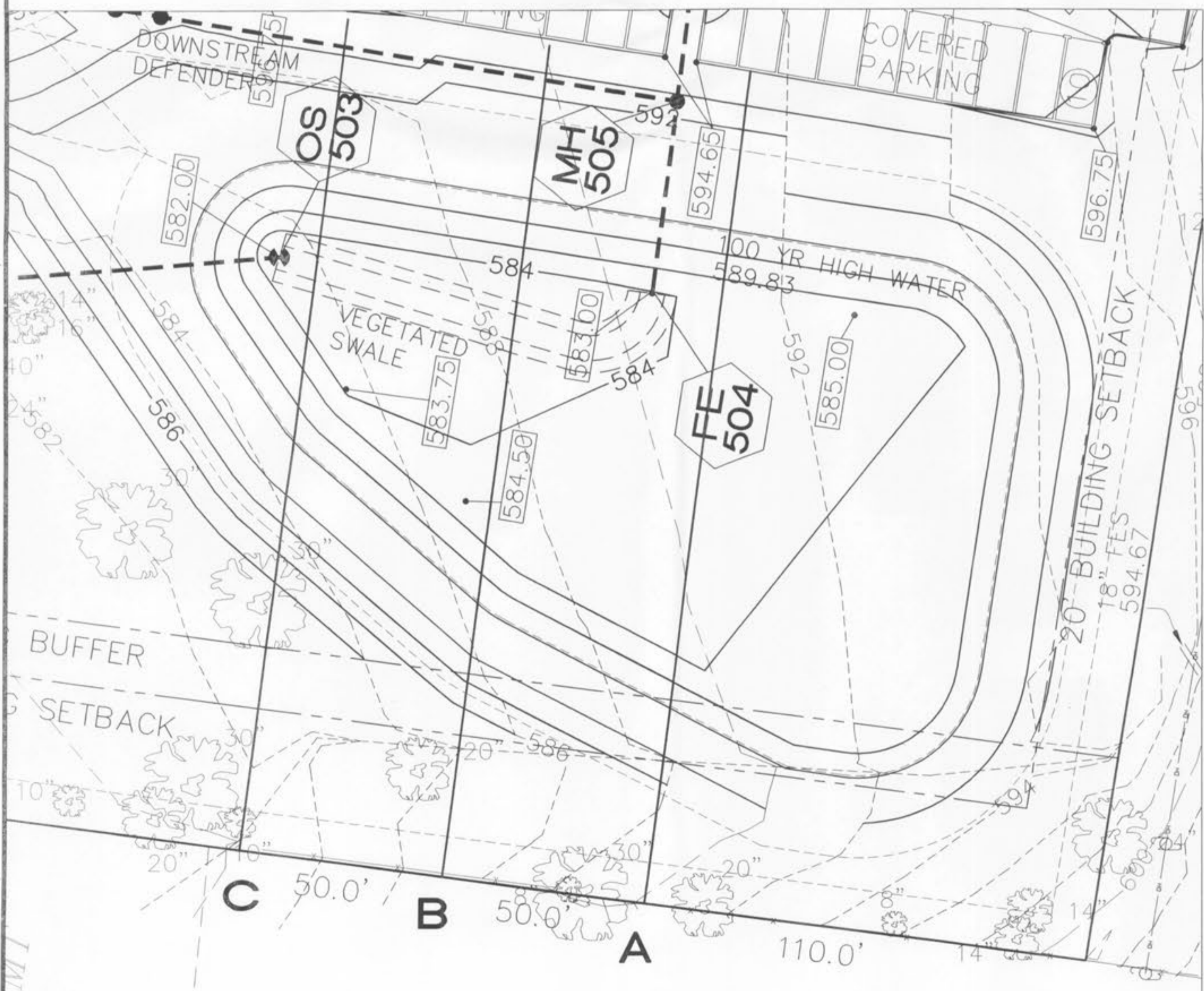
- NOTES:
- SWALE SHALL BE SODDED
  - MINIMUM CHANNEL SLOPE TO BE 1%
  - SOD SHALL BE PLACED ON A MINIMUM OF 12" OF SAND
  - SAND SHALL BE PLACED ON 6" OF 2"-1" GRAVEL



PRIVATE



**DETENTION STRUCTURE DETAIL**



12/24/07  
1/29/08

**DETENTION  
KING ARTHUR'S  
HIGHLAND TERRACE  
IMPROVEMENT PLANS**

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