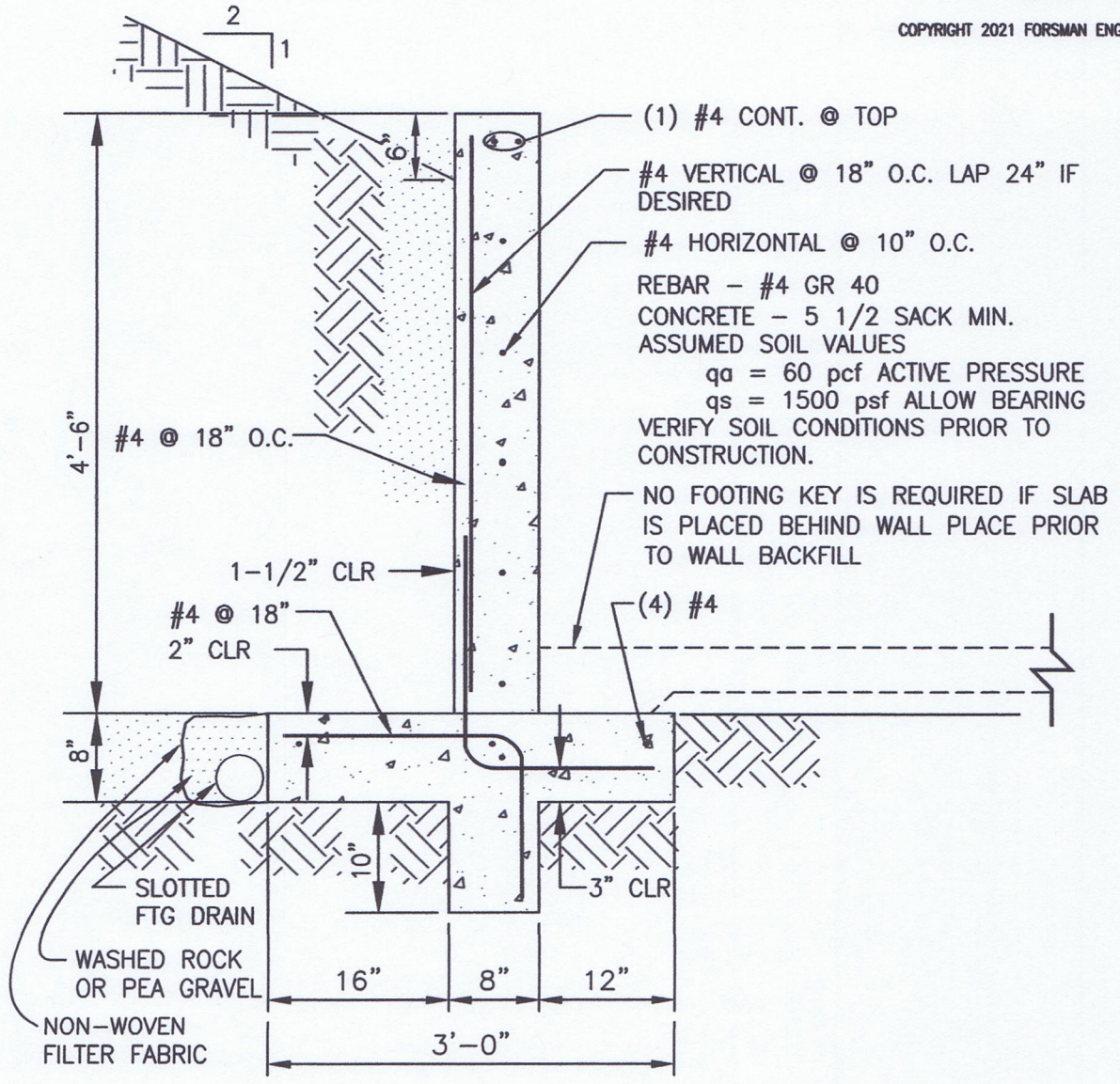


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LANDSCAPE WALL

3/4" = 1'-0"

**REINFORCED CONCRETE CANTILEVER RETAINING WALL (ACI 318)**

Des \_\_\_\_\_ Job # 19026

**Wall:** **Forsman Engineering**

**Soil:**

**Concrete:**

Hgt wall	5.167	ft
Hgt soil he	4.667	ft
Hgt soil to	0.667	ft
Toe	1.000	ft
Heel	1.333	ft
Thick wall	8.000	in
Thick ftg	8.000	in
Thick Key	8.000	in
Depth Key	0.833	ft
Width ftg	3.000	ft

Wgt soil	0.120	kcf
EFP active	0.060	ksf/ft
EFP passive	0.400	ksf/ft
Friction	0.350	

Wgt conc	0.160	kcf
f'c	2.500	ksi
fy	40.000	ksi
Beta 1	0.850	

**Load (@ CL of wall):**

**Phi Factors:**

**Load Factors:**

P vert	0.000	kip
P horiz	0.000	kip
Moment	0.000	k-ft

Phi Flexure	0.90
Phi Shear	0.85

DeadLoad	1.400
LiveLoad	1.700

**Stability:**

**Eccentricity:**

**Soil Pressure:**

Sum F vert	1.529	kip
X resultant	1.199	ft
Sum F resis	0.985	kip
Sum F horiz	0.653	kip
F.S. slidin	1.508	
Sum M resis	2.700	k-ft
Sum M O.T.	1.017	k-ft
F.S. O.T.	2.656	

M ecc	0.460	k-ft
X ecc	0.301	ft
X zero	3.000	ft
compression	100.000	%

ph wall t	0.000	ksf
ph wall b	0.240	ksf
ph ftg ba	0.280	ksf
ph key ba	0.330	ksf
pv toe	0.816	ksf
pv wall t	0.612	ksf
pv wall h	0.476	ksf
pv heel	0.203	ksf

**Wall Reinforcing :**

**Toe Reinforcing :**

**Heel Reinforcing :**

bar	4	#
spacing	18.000	in
As	0.133	sq-in
cover	3.900	in
d	3.850	in
0.0020 Ag	0.192	sq-in
0.0025 Ag	0.240	sq-in
As min	0.231	sq-in
As max	1.072	sq-in
Mu	1.088	k-ft
Phi Mn	1.498	k-ft
Vu	0.918	kip
Phi Vc	3.927	kip

bar	4	#
spacing	18.000	in
As	0.133	sq-in
cover	3.000	in
d	4.750	in
0.0018 Ag	0.173	sq-in
0.0020 Ag	0.192	sq-in
As min	0.285	sq-in
As max	1.322	sq-in
Mu	0.578	k-ft
Phi Mn	1.858	k-ft
Vu	1.214	kip
Phi Vc	4.845	kip

bar	4	#
spacing	18.000	in
As	0.133	sq-in
cover	1.500	in
d	6.250	in
0.0018 Ag	0.173	sq-in
0.0020 Ag	0.192	sq-in
As min	0.375	sq-in
As max	1.740	sq-in
Mu	0.730	k-ft
Phi Mn	2.458	k-ft
Vu	1.095	kip
Phi Vc	6.375	kip