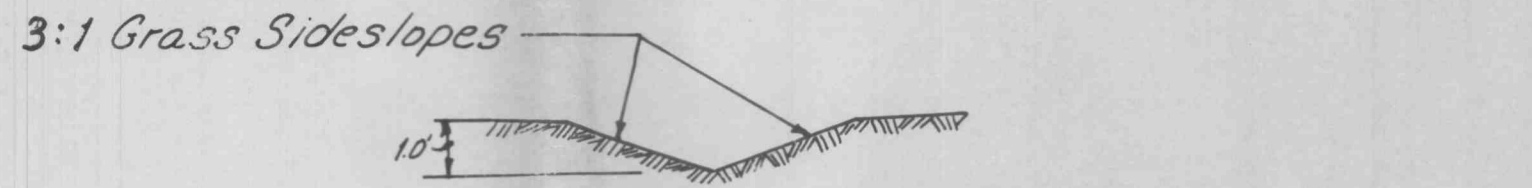
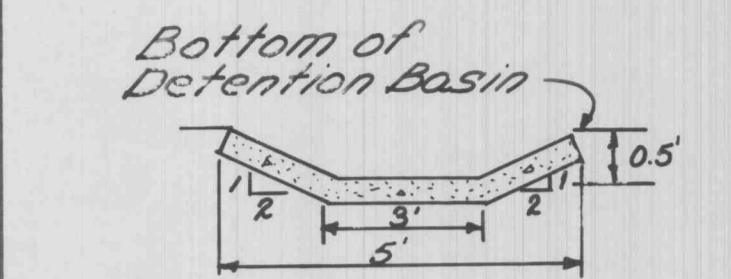


TYPICAL PAVEMENT & 6" VERTICAL CONCRETE CURBS  
 NO SCALE



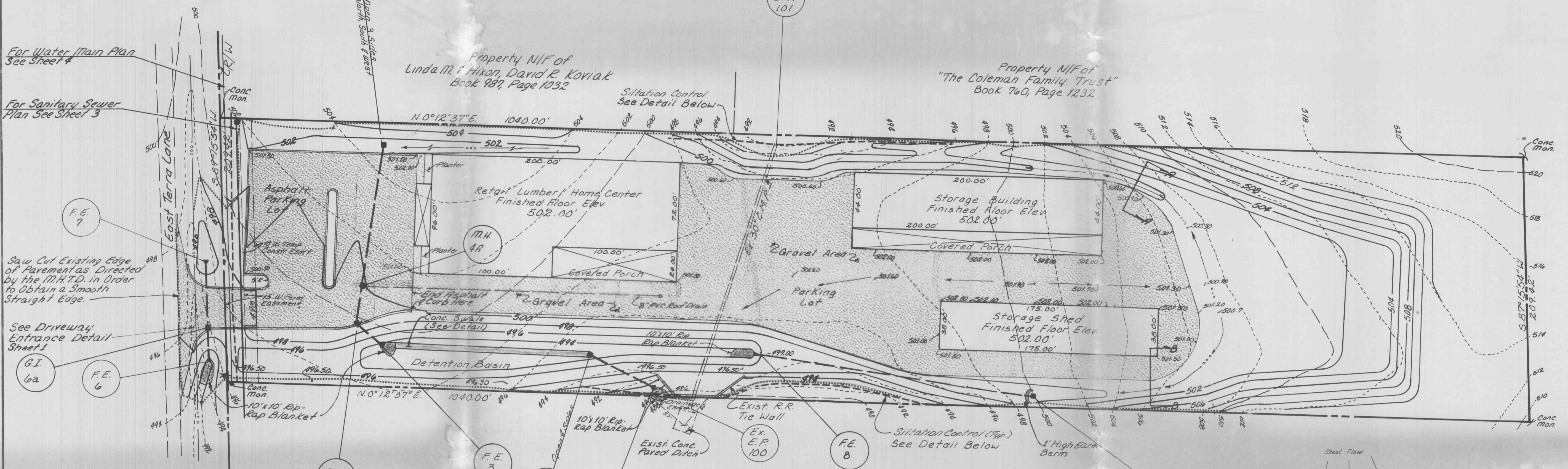
$S=0.011/A$      $h=0.52'$      $S=0.011/A$      $h=0.48'$   
 $n=0.025$  (Grass)     $A=0.81A^2$      $n=0.025$  (Grass)     $A=0.69A^2$   
 $P=3h^2$      $V=2.35f.p.s.$      $P=3h^2$      $V=2.17f.p.s.$   
 $Q=1.90c.f.s.$      $Q=1.50c.f.s.$   
 $Q=1.886 A(\frac{h}{2})^{2.33}$      $Q=1.886 A(\frac{h}{2})^{2.33}$

Ditch Section "A-A"    Ditch Section "B-B"  
 Typical Grass Swale Detail n.t.s.



$Q15=8.50c.f.s.$   
 $n=0.15$   
 $A=3h+2h^2$   
 $P=3+4.47h$   
 $Q=10.43c.f.s.$   
 $Q=10.43c.f.s.$   
 $10.43c.f.s. > 8.50c.f.s.;$  Ditch is Adequate.  
 See Sheet 9 for Construction Detail

Detention Basin Concrete  
 Ditch-Hydraulic Computations n.t.s.

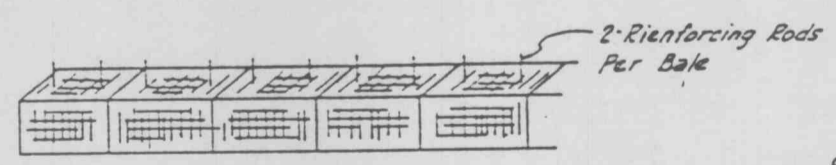
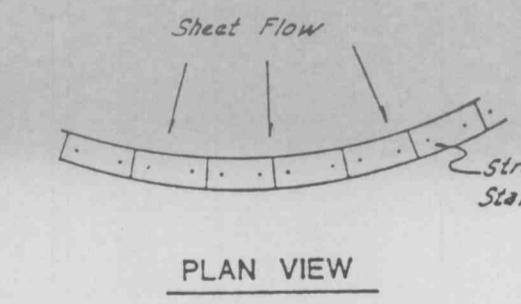


- General Notes
- All filled places under proposed storm sewer lines and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test.
  - All filled places in proposed road areas shall be compacted from the bottom of the fillup to 90% maximum density as determined by the Standard Proctor Test AASHTO T-99. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations.
  - Staked hay bales shall be installed to protect downstream property owners from siltation and erosion (see plan for location of staked hay bales).
  - The siltation control plan shall be implemented as soon as possible. No graded area is to remain bare without being seeded and mulched.
  - The Engineer has calculated the site work quantities or earthwork, to be regarded as an estimate of the bulk movement and redistribution of soils on the site. As an estimate, these quantities are intended for general use, and the Engineer assumes no liability for cost overruns due to excess excavated materials or shortage of fill. The existing topography and the overall grading plan concept was provided by 84 Lumber Company and we do not assume any responsibility to the existing elevations as shown. Also the quantities for "Topsoil Stripped at 6" depth, Topsoil replaced at 12" depth, Gravel placed at 6" Depth (Surfaced Area), Gravel Placed at 6" Depth (Paved Area), Gravel Placed at 4" Depth (Building Area), Total Gravel" were provided by 84 Lumber Company and no responsibility is claimed for their accurateness.
- The estimated quantities are based upon horizontal and vertical locations of the improvements as proposed on the site engineering plans.
- The Engineer's earthwork estimate includes only the bulk cut and fill listed above. Unlisted items requiring earthwork, necessary for completion of the project include, but are not limited to: Removal/Replacement or any "unsuitable" existing fill material; miscellaneous underground conduits, including sewer lines and water mains, electrical, gas, and telephone lines; manholes; bases for light standards; building footings and foundations; vertical concrete curbing; etc.

SITWORK QUANTITIES

Material and Operation	Volume (Cubic Yards)
Subsoil Cut	12003
Subsoil Fill 9,897 + 21% Compaction	12003
Excess Material	0
Topsoil Stripped at 6" Depth	2800
Topsoil Replaced at 12" Depth	1700
Gravel Placed at 6" Depth (Surfaced Area)	1150
Gravel Placed at 6" Depth (Paved Area)	350
Gravel Placed at 4" Depth (Building Area)	315
<b>Total Gravel 1815 + 1/4 Compaction</b>	<b>2270</b>

QUANTITIES SUPPLIED BY 84 LUMBER



STRAW BALE DETAIL  
 Straw Bale Erosion Control to Be Used Until Vegetation is Established.

**SILTATION CONTROL NOTE**  
 Siltation Control Shall Be Bales of Straw Placed End to End & Anchored to Ground With 4' Long Reinforcing Rods As Directed By The Department of Highways And Traffic.  
 Note: Siltation Control to be Placed as Needed.

SILTATION CONTROL DETAIL n.t.s.