

CAPISTRANO BAY DISTRICT  
AGENDA REPORT  
April 29, 2008

---

*Manager's Reports*

ITEM I.3

Reinforcement of Block Wall Along RR Side of Road

The District has had some recent success with reinforcing sections of the block wall without having to completely tear down the entire section and build up a new wall.

New masonry wall construction today for a typical 6 foot high wall runs in the neighborhood of \$200 per lineal foot. The District was fortunate to get a good price recently for replacement of an 85 LF section at 35731 for about \$170 per foot. While working at this location an adjacent wall section was reinforced without tearing the wall down. The procedure involves the removal of the top course and possibly some of the second course then individual rebars (reinforced steel rods) are placed vertically down into each hollow cell of the existing wall and a soupy concrete slurry is poured into these cells and allowed to harden. When this step is complete, a horizontal rebar is run across the top course to create a bond beam, then the decorative top course is replaced.

It is surprising how rigid this procedure can leave an otherwise weak wall as can be demonstrated in a second area adjacent to 35265 which was successfully reinforced during the past few weeks. The District had this second area repaired as a test section to narrow down the cost per foot for the reinforcement procedure as the District does not want to turn a contractor loose to repair wall sections on an hourly basis.

The net result is an estimated cost of \$22 per LF as compared to \$170 per LF for a completely new wall. Keep in mind however, that in addition to this cost, the expense for *access* must be considered. Access can sometimes represent a larger expense than the actual construction cost. Contractors have to figure in the expense for "getting to" the work. In the case of our block wall, the access difficulty is high in some areas as the vegetation is mature, thick, high, and wide. Couple this with the restriction that the workers cannot venture over onto the RR track bed and it adds up to expensive access.

In order to get access to some block wall areas, the vegetation will have to be cut back considerably, whether the wall is being completely rebuilt or reinforced. For starters, it is recommended that the District select another section that represents some of the most difficult access, get a bid for cutting back the growth, then proceed with the reinforcement work at \$22 per LF plus vegetation pruning. This should be completed before June so a total overall unit cost can be developed to get into the upcoming budget.

In some areas, the pruning will be done by property owner at his/her expense which will save on the District's cost but this will be on a case-by-case basis, worked out in advance.