This approach calls for a little trial and error so we'll try eight points and I'll work out the math for two of the points and leave the remaining six for you to do.

The first thing to do is to determine the coordinates of a point that is on the fence at a specified distance from the end of the fence. I've chosen the eight points to be located at multiples of 28 sections from the fence ends. The first four points will be from the Northwest end.

So the idea is to find, with the use of Google Earth, a point that is a multiple of 28 sections from the end of the fence. Here are the calculated distances.

1 * 28 sections * 117.2 inches / section = 3281.6 inches = 273 feet
2 * 28 sections * 117.2 inches / section = 6563.2 inches = 547 feet
3 * 28 sections * 117.2 inches / section = 9844.8 inches = 820 feet
4 * 28 sections * 117.2 inches / section = 13126.4 inches = 1094 feet

Please note that I've rounded to the closest foot for these lengths. Also note that coordinate sets that I've gotten from Google Earth may differ from yours by a thousandth of a minute or so but it's really not critical to finding a solution. Trust me, if your waypoint is within three fence sections (about 30 feet) of what I placed into certitude you'll pass though and you'll have no trouble finding the cache.

Once you've got a coordinate set for a given point you simply convert to it's equivalent UTM set. Then you add or subtract the bias to or from the Easting or Northing number and divide by the total fence picket count of 7200. Here are the calculations for the first trial.

Easting
596447 + 2677 = 599124
599124 / 7200 = 83.21166666667
0.21166666667 * 300 = 63.5 sections from the Southeast end
        (300 – 63.5) 236.5 sections from the Northwest end

The whole count of 83 is an odd number, which it means that the factional part (0.211667) is to be measured from Southeast end. If you don't see why this is stop and think about it.

Northing
4133271- 5361 = 4127910
4127910 / 7200 = 573.32083333333
0.32083333333 * 300 = 96.25 sections from the Southeast end
Or (300 – 96.25) 203.75 sections from the Northwest end

Neither of the solved positions is close to the 28th section from the Northwest end so we know that this first trial is not a solution. I'll leave the other three trials for you to work out.

Trial	Sec.	Dist.	Lat 37	Long 121	Easting	Northing	Es	Ns
1	28	273	20.467	54.670	596447	4133271	263.5	203.8
2	56	547	20.446	54.620	596521	4133233		
3	84	820	20.422	54.572	596593	4133189		
4	112	1094	20.399	54.524	596664	4133147		

The second four points will be from the Southeast end. Starting with trial 5 we'll try a waypoint that is 273 feet from the Southeast end.

Easting
597076 + 2677 = 599753
599753 / 7200 = 83.29902777778
(The odd whole number means we're at counting from the correct end.)
0.29902777778 * 300 = 89.7

Northing
4132932 - 5361 = 4127571
4127571 / 7200 = 573.27375
0.27375 * 300 = 82.1

Neither of the solved positions is close to the 28th section from the Southeast end so we know that this fifth trial is not a solution. However, you should note that the error in this trial is less than in the previous trials. The remaining trials are for you to work out.

Trial	Sec,	Dist.	Lat 37	Long 121	Easting	Northing	Es	Ns
5	28	273	20.280	54.247	597076	4132932	89.7	82.1
6	56	547						
7	84	820						
8	112	1094						

N 37° 20.483 W 121° 54.722   Northwest fence end
N 37° 20.295 W 121° 54.194   Southeast fence end