

# Vandenberg AFB

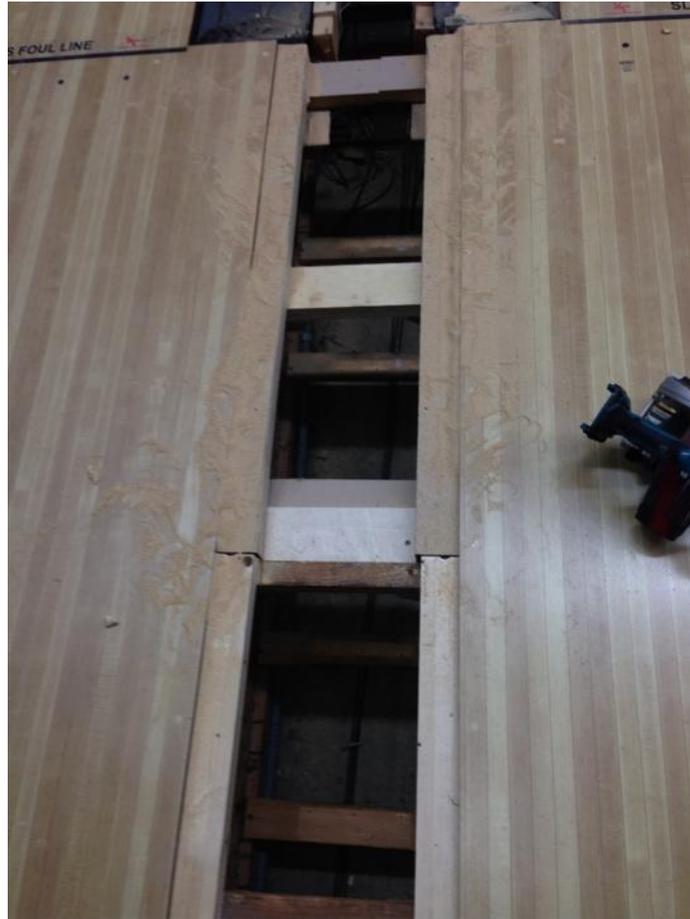
## Lompoc, CA – 16 Lanes of new Underlane Track

Day 1 – Wednesday, October 2, 2013 – We arrived and got Base passes at the pass office which took a long time, and unloaded our tools. We inspected the underlanes and bought supplies needed to begin the job tomorrow. The center is full of leagues all day and the shipment didn't arrive until late afternoon. We unloaded the materials and inventoried. We are ready to begin in the morning. Most all of the time today was waiting around for the truck to unload. Daily hours: (me) 8 + (skilled labor) 16 = 24.

Day 2 – Thursday, October 3, 2013 – We removed the old Heddon underground ball return track and removed the fill panels (Murray overlay about a year ago) and keyways to install the new track on Lanes 1-4. The fill panels were UNBELIEVABLY tight. Almost impossible to remove without chipping the 60" panels or the fills. When Murray did the overlay they replaced 42" of approach but DID NOT cut them a keyway.



So I cut them a keyway and secured the replaced underlayment outside the cut.



I removed the maple keyways and we installed the new track. We removed the old wooden downsweeps and replaced with the new steel downsweeps. We set in all of the track sections and moved the support lumber to be under our new securing points.



We connected all of the track sections and ran a string from the centerline of the downsweep to the centerline of the powerlift up front, and secured the new track under the stringline.



We centered the lower Black Track between the pinspotter frames, and centered the first rail track section to the powerlift bottom frame. We installed the plastic runners from the powerlift to a point 4" up into the Black Track rail holes. We leveled and centered the lower Black Track/Downsweep joint. We tested the tracks on 1-4 for horse-collar clearance and smooth roll underground and smooth transition at the powerlift. We re-installed the double coverboards and scoring cameras. We re-installed the keyways and secured. We went to re-install the Murray double fill panels and THERE IS NO WAY that they would fit. The 60" approach panels went to the position they have been trying to get to for months, and the fill was 3/32" WIDER than the space they once occupied. 3/32"!!!!!! There was NO WAY to re-install the fills properly (and without chipping), because I DIDN'T BRING MY BETTERLEY ROUTER. It was too little to cut off with a saw... it would have looked BAD. So I explained the situation to the bowling center managers and they agreed that they wanted it done right, and the ONLY way to do it right was with a Betterley router. Which is in Las Vegas. 440 miles from here. I am driving home Friday morning then back on Saturday morning and we will resume the job. THERE IS NO A/C SYSTEM IN THIS CENTER. This usually cool area on the Pacific Ocean has had a hot/humid summer... hence the swelling. Daily hours 10 + 20 = 30. Job hours: 18 + 36 = 54.

Day 3 – Monday, October 7, 2013 – Back from drive to Las Vegas and back. Picked-up tools and hardware to do the job correctly. I brought some 4" #16 screws to secure both sides of the approach keyway cut that I made, that was not provided by the Murray installers when they did the overlay here.



I secured both sides of the keyway cut with the 4" #16 screws.

Then I used my Betterley router to properly size the Double Fill panel between the two 60" approach panels on Lanes 1-4.



The fill panel joints turned out perfect. The Base commander came by to thank me for the extra effort to do the job right. I was very thankful for the fact that the Base Commander, Colonel Davis (an avid bowler), even knew of the situation and especially because he came by to thank me. We removed the old track and installed the new as described above on Lanes 5-8. Betterley routed the fills and scoped-in all cameras on 1-8 in Conqueror. Lanes 1-8 all tested for ball returning and scoring and ready for use. We cleaned-up completely. Daily hours: 8 + 16 = 24. Job hours: 26 + 52 = 78.

Day 4 – Tuesday, October 8, 2013 – The mechanic called-in sick today, so we stripped the lanes we needed to work on today ourselves (13-16) and we stripped/oiled the lanes to be used for league this morning (1-12) We removed the old underlane track and installed the new on lanes 13-16 as described above in Day 2 and 3. Scoped-in cameras, Betterley routed the fills and cleaned-up completely – ready for league bowling tonight. Daily hours: 8 + 16 = 24. Job hours: 34 + 68 = 102.

Day 5 – Thursday, October 10, 2013 – Finished the last 4 lanes (9-12) as described above. All went very well. Customer was lamenting about all of the ball damage they were getting. We found the main cause. When the Murray installers did the overlay, on

lanes 11-16, they put a row of screws in their approach underlayment RIGHT OVER the underlane ball return track and used 5" SCREWS.



These screws were so long that they were in the ball's path as the balls returned. All of the screws were badly bent and a pile of ball chips was in the underlane.



They have been trying to figure out where the ball damage was coming from for a year.  
Daily hours:  $7 + 14 = 21$ . Job hours:  $41 + 89 = 130$  (actual work 106).