



*Harold Webster*

*May 29, 1932      March 27, 2011*

*Home With Jesus*

**CALTRANS ORAL HISTORY**  
**SUMMARY OF MY INTERVIEW WITH HAROLD WEBSTER**  
**BY GUY LUTHER & EDITED BY HAROLD WEBSTER**

The following is a summary of my December 8, 2010 interview and subsequent follow-up discussions with Harold Webster, who worked for the Division of Highways/Caltrans District 1 in Eureka for nearly 40 years.

Harold grew up on a small ranch near Blue Lake, California, and attended Arcata High School. He went on to Humboldt State College (now University), working half-time at a sawmill to support himself. He also occasionally worked for a local land surveyor, Mr. Whipple.

When Harold was out of work at the end of the summer in 1951, he answered an advertisement in the newspaper, and came to work for the California Division of Highways the last week of September, 1951, at the sweet age of nineteen. While his new employers were impressed that Harold's education included a lot of math and science, they could not give him an advanced engineering rating, so he began work for the Division of Highways at the lowest rating in engineering those days, which was an "Under Engineering Aid".

Harold's first assignment for the Division of Highways was on a survey party working out of Eureka. The party chief was Howard Fellman, sometimes referred to as "Father Fellman." As Harold described it, he "...came on the party as Mr. flunky, as the stake puncher, brush chopper, go give them a site, anything needed."

So, Harold started his career with the Division of Highways setting slope stakes on the Route 101 freeway immediately behind the Scotia Inn, Scotia California. Harold worked on the Fellman survey party for the next four years, living out of a suitcase and learning lessons of life. He started the Division of highways as ".....a tender eared young man that never lived away from home..." but soon found that gambling, drinking, fighting, and chasing ladies were common pastimes of many surveyors. Harold noted that he, for the most part, stayed out of all that stuff over the years, except for the gambling and drinking.

Later in 1951 and early 1952, Harold was with the Fellman survey party when they were assigned to survey a five-mile section of Route 299 between the community of Willow Creek and the South Fork of Trinity River Bridge, which is the Humboldt-Trinity County line. It was a particularly severe winter, bringing down power lines, so the motels in the area were without light or heat. Their Department head, Mr. George Leatherwood insisted that the survey must go on, and ordered the survey crew to stay in the free men's quarters at the Burnt Ranch con camp, where they ate two meals a day with the cons. Harold remembered the experience as "... rather intimidating...."

This survey required considerable rope work off of Martin's Bluffs, on the East end of the job. In those days, you were not required to wear a harnesses, you didn't have to wear gloves, have a double rope, or tie off. It was normal for people to work with one hand on the rope and the other hand holding the rod and the tape, sometimes a hundred or more feet of the ground. According to Harold, he was the "monkey on the party, and enjoyed being so."

In Late 1952, Fellman's crew was doing a preliminary survey on Route 101 near the old "Snake Pit", a "Tourist Trap" just North of Red Mountain Creek in Northern Mendocino County. They

had just received a new "Berger" transit that would measure angles to 20-seconds, to complement their two old and well worn transits that measured angles only to the nearest minute. It was raining about an inch an hour while they were running the "P" line, and their two older transits got soaked, so they were huddled up in their truck, waiting for their transits to dry or the rain to break. The head of their Department, Mr. Leatherwood saw them and told them to get out of that survey truck, get out there, and get to running that line. Party chief Fellman explained to him that the transit was going to get soaked, the same as the other two, but it didn't make any difference, nobody argued with Mr. Leatherwood. Thirty minutes later, their new gun was fogged, but by that time, Mr. Leatherwood was long gone down the road.

Around the Spring of 1953, Fellman's party was sent to survey a project on Highway 101 between the Patrick's Point interchange to just North of the old wooden causeway across the east side of Big Lagoon, a total length of about three and one-half miles. While on this survey, the Fellman party was given two new pieces of equipment: A New "T-2" transit that allowed angles to be read to tenths of a second, and a five hundred foot oval steel tape, similar to an invar tape.

In late 1953, Fellman's survey party was sent to Route 36, to survey "white stripe" centerline, and take minimal cross sections between the community of Cuddyback and the arched concrete bridge on the East side of the community of Swain's Flat, a distance of approximately ten and one-half miles. At this time there was no record of Route 36 alignment, and too much tree cover to do an Aerial Survey. Since there was no control at the beginning or end of the survey, they tied in both ends of the survey by "shooting Polaris". Polaris is the north star.

Harold ran into a little trouble when they were "shooting Polaris" at the East end of the survey. They had to do this at night when Polaris was visible, so they prepared for it during the day by extending the tangent of the bridge alignment and setting a point for the transit to occupy off of the road. In addition, they measured between the two bridge curbs and used a plumb line to establish line of sight for the back tangent on the concrete superstructure of the bridge.

Well after dark, Harold climbed up one side of the concrete arch, then crawled about half way across the bridge on an overhead center beam about 12-inches wide, and about 15-feet above the bridge deck. He put a small can with a slit in one side on the previously determined point, and lit the candle in the can, to provide an illuminated sight for the back tangent. All was going well until an obviously overloaded logging truck came across the bridge, causing the bridge to bounce and Harold to hang on for dear life, dropping the can and the candle. As if this wasn't enough, the overloaded truck also had limbs that slapped against the sides and overhead members of the bridge. Harold said: "I think the Lord had something to do with saving my life that night, because I didn't get hit with even the smallest limb on that load."

Harold had one other story from when he was on surveys, when both Fellman's and Les Spinny's survey parties were staying at a motel in "old" Klamath, which was heavily damaged by the 1955 flood and destroyed by the 1964 flood. According to Harold, he and Green Barry Kent were "good little boys" and stayed in their motel room studying that night. Other members of the two survey parties visited the 3-7's Bar, instigated an altercation with some of the local Native Americans, and ended up knocking out one of the Bar's end walls (studs and all).

December 1954, after passing the Senior Engineering Aid test, Harold was transferred into the

Design Department. While in the Design Department, he passed the Junior Civil Engineer exam and was appointed to that classification. Two years later (1957), he took and passed the Assistant Highway engineer exam, and was appointed to the position of Design Squad Leader by L. R. Reddin, the Senior Design Engineer. Harold was given a number of small design projects, and one squad member; Beverly Bradford.

In the Spring of 1958, Harold was transferred into Construction as the Assistant Resident Engineer, or as Harold calls it, "hound dog and hatchet man", for a project on Route 101 from the Route 299/101 interchange up to the middle of Bella Vista Hill. They were four-laning the existing 101 up to the middle of Bella Vista Hill, but not including the interchange at Guintoli Lane, which got built later. The Resident Engineer on the project was Joe McDonough, and when back pain landed Joe in the Hospital, Harold was put in charge of the job. With the help of Bob Meyers in the Construction office, Harold was able to run the project and prepare the monthly progress pay estimates. Harold compared the experience to: "...tearing out the hair on a bald man..."

As was common practice at that time, Harold spent the winter in Design, and the next construction season he was transferred out to be Assistant Resident Engineer for a project on Route 101 from the Salmon Creek Bridge, south of Beatrice to the big curve South of the community of Fields Landing. The project lasted four years, and included three interchanges, the Loleta interchange, the Hookton Road interchange, and the Tompkins Hill Road interchange. Jack Mouat was the Resident Engineer, and their field office was in the community of Fields Landing.

The Loleta interchange was south of the limits of their freeway project, but they were building it to convert the expressway South of their project to freeway. Post-stressed concrete "T" beams about 60-feet in length were used for the interchange structure. Harold recalled the challenge of transporting these beams from where they were constructed, near the Hookton Road interchange, and safely placing them over four lanes of traffic. Since the "T" beams were post-stressed, they would "blow up" if they were not maintained in a closely held vertical position throughout the process.

But the major challenge on this project was to build a freeway on a mud flat. The Beatrice flats are soupy blue mud with floating underground puddles, to a depth of between 40- and 80-feet, topped with an average of about 18-inches of turf, grass, and roots. The Design Department had designed a combination of "sand drains" and a four-foot high "land bridge" to stabilize the roadway. The theory was that the sand drains would allow water to leech upwards under the pressure of the fill being placed on top of these, they would bleed and let the water come out sideways, and the fill would sink down into the blue mud and stabilize itself.

The sand drains were approximately 24" in diameter, and 40- to 60-foot deep. They were put in between White Slough (the big curve opposite the College of the Redwoods) and the Thompkins Hill Road interchange. For most of the fill, they were on 15-foot centers, but the spacing was decreased where the fill was higher, reaching maximum density (6-foot centers) near the railroad crossing. The sand drains were built from a working platform, made up of gravel filter material, about three-foot deep. They were placed using a pile driver mounted on crawler tracks that drove a hollow mandrill filled with dry sand down into the mud. A flap-gate held the sand in place, and compressed air, at about 200-pounds per square inch pressure, was used to force the sand from the mandrill as it was retracted.

The Construction survey crew laid out a grid for the sand drains, and John Albonico was the State inspector, making sure that they got every sand drain punched in place. The operator needed to gradually decrease the air pressure on the mandrill as it was withdrawn, otherwise it would blow out to the side and spray sand like BB shot. After several of these blow outs, it was difficult to tell where the completed sand drains were located. This was a danger, because some of the blown out sand drains would form a pocket of air, up to 15-foot deep, where the sand drain was supposed to be. Johnny Albonico stepped into one of those hollow sand drains, with just a little sand dome built over the top, and when he stepped on it, he went down. Fortunately, a pile butt reached out and grabbed his shoulder before he slid completely out of sight. There is a good chance this saved Johnny's life, because if he went all the way down and sunk into the sand, he would have disappeared and been difficult to find, and probably would have suffocated before someone could dig him out. Two hours later, Johnny's face remained white as a sheet.

Once the sand drains were complete, the contractor started building the fill. He immediately had problems with his earth moving equipment breaking through, and fill material disappearing down beneath the turf. Construction inspectors watched the contractor very closely, to make sure that he loaded the fill at the rate specified by Division of Highway's special provisions, and not more.

It didn't work. When the fill was halfway built, the farmer's pasture on both sides of the fill began to elevate, and the fill began to crack and break. Work on the fill was suspended, and, after some time, it did heal. Based on monitoring efforts that showed that the fill was no longer subsiding, the contractor was allowed to continue building the rest of the fill, and it held up.

Another problem on this project involved elevation references for grading the base material, which were placed on power poles on the Northwestern Pacific's Railroad's fill. The contractor was having trouble making grade on the base material, and suggested that something must be wrong with the elevations. So Harold and Jack Mouat watched the railroad track when a fully loaded lumber train was going South, and the locomotive ran uphill all the way across the flats, pushing a big mud roll. So, they brought in some temporary elevations to complete the grade and the project. However, after the contract was built, the new freeway would roll under the weight of fully loaded legal trucks. You could get down and sight along the freeway grade and watch the roll come towards you.

As this project neared completion, the contractor discovered that a huge overhead sign bridge was missing. They checked with their supplier in Oakland, and found it had been shipped by rail, but it hadn't arrived in Loleta. Tracing it, they found it on a rail siding in Goleta, about 500 miles south of it's intended destination. The contractor worked overtime to get the sign bridge installed by the required completion date of the contract. Ironically, a few years after the contract was completed, District management that the sign bridge was unnecessary, and let a contract to remove it. So, the sign bridge is still missing!

When Harold was on this project, he stayed on Construction through the Winter, rather than transferring in to Design. That Winter, a honeymooning couple was killed when they crashed and burned on an old narrow wooden overhead structure on Route 101 near the current Tompkins Hill Road interchange. That structure was later removed as a part of the construction project on which Harold was working.

Harold appreciated the guidance of Resident Engineer Jack Mouat, who he considered to be an excellent highway engineer, and an excellent supervisor. He was also impressed with the work of two young people on this job: Ken Davenport, who started on the survey crew and later became paving inspector, who left State service and established Davenport Engineering in Eureka. And, Gene Courier, who became the party chief of their survey crew and later became a Design Section leader for Boeing Aircraft, in Seattle.

In 1963, when Harold was still on the Fields Landing to Salmon Creek project, he found that he had been reassigned as the Assistant Resident Engineer of the McKinleyville Bypass project, under Resident Engineer Karl Kampe. The project consisted of building a new Route 101 freeway from the Mad River Bridge to just North of Little River. It was a big job, and included several bridges and interchanges. Granite Construction was the contractor, and they decided to run two-ten hour shifts, seven days a week. The project was shorthanded, and Harold was told that he and the twenty – two people under his supervision were to work sixteen hours a day. He asked for a bit of mercy, and was allowed to work only eight hours on Sunday. Even working the long hours, they could not inspect everything that the contractor did.

One morning Harold found that one of the projects two survey crews was missing from the project. The contractor was nipping at the survey party's heels, and missed time would probably mean more claims. When Harold found that the missing survey party had closed a pizza parlor/beer hall in Arcata the previous night, he stopped in at the field office and got the address where the party chief and another member of the party shared an apartment. He paid them a visit about nine o'clock in the morning, and forcibly helped them into their vehicle so they could return to work. Caltrans supervisors just don't give you that kind of personal attention now days.

Working shorthanded, with the contractor doing some work that was barely passable (according to standard specifications), the job was very stressful for Harold. As a result, Harold told Karl Kampe that he felt they were purposely being understaffed, and that he didn't want to come back to that project after he went into the District office for the Winter. A big rainstorm came on October 23, 1963, that shut down the contractor's operations, and a week later Harold was again assigned to the Design Department as Harold Halsten's Assistant Design Squad leader. And, the person that replaced Harold as the Assistant Resident Engineer on the McKinleyville freeway project died on the job in July of 1964, due to a heart attach that may have been stress induced. Harold thinks of him often.

Harold Halsten's Squad had designed the Ferndale to Fernbridge project, bypassing most of the old Ferndale Road on what was then Route 1 and is now Route 211. As soon as it got built, the 1964 flood wiped it out. So, the squad got to redesign their own job. Besides the two Harolds, the design squad included Mel Davidson and Slater Smith.

Sometime in 1968, District 1 decided to move supervision of the Right of Way Engineering Department from Right of Way to Design, due to concerns over process. Joe McDonough was the engineer selected to manage Right of Way Engineering, and he asked Harold if he would like to supervise one-half of the Department. Harold agreed to do so, and he and his squad were responsible for inspecting and writing deeds, and preparing property sizes and locations for the usage of the Right of Way Appraisal Department.

The first big project Harold had in Right of Way Engineering was identifying all of the appraisal properties for the Highway 101 from the North End of Crescent City to just past the interchange with Route 199, and getting them to Appraisal Department, in Right of Way. That consisted of a multitude of small properties, all about acre and a half or two acres in size, as the entire flat that the new freeway crossed had been subdivided. Harold admits to making some mistakes, since he was new to the job, but they did correct the difficulties that management had perceived. Several years later, management reversed its previous decision, and transferred management of Right of Way Engineering back to the Right of Way Department.

In 1969, after Harold had been working in the Right of Way Engineering Department about a year, he discovered that they had some very repetitious work that was ideally suited to a computer, and had the potential for a huge savings in man hours. As a result, Harold wrote the first letter from District 1 to Headquarters to justify having "Tennant" time share computers in the District. And, as a result, the first two time share computer terminals in the District were in Right of Way Engineering.

Harold and his staff developed several specialized Right of Way Engineering programs that saved hours of time, and which he shared with other Districts. However, when Harold transferred from Right of Way Engineering to Transportation Planning in 1973, the person who succeeded him did not believe in computers and deleted all of these programs from the "Tennant" system. Some of the other District Right of Way engineers were extremely upset.

As previously noted, Harold transferred into the newly created Transportation Planning Branch, supervised by Del Brown, in 1973. Chuck Secoy and Pat Randle were also in the Transportation Planning Branch at that time. The Branch had representatives for each Regional Transportation Planning Agency, and Harold was the Lake County representative. Del Brown would attend the Regional Transportation Planning Agency meetings, and Harold would attend the Technical Advisory Committee meetings and chair the Citizen's Advisory Committee meetings. Harold enjoyed the Technical Advisory Committee meetings, but he said that not everybody in Lake County liked everything that was being done, and it was not as much fun to Chair the Citizen's Advisory Committee meetings.

While in his initial year in Transportation Planning, Harold saw some differences between "... some of the workings going on behind the scenes, and what was being publicly expressed to the Board of Supervisors in Lake County." He noted this concern to Del Brown as they were driving back to Eureka from Lake County, and the next morning he was transferred from Transportation Planning back to Harold Halsten's Design Squad.

At that time (1974) there were few District Office jobs, and a number of openings for Construction Resident Engineer's at the Assistant level, for small jobs throughout the District. Harold was doing a lot of ministering with the church at that time, working with support groups, conducting a service and preaching a message, and also staying down at the Rescue Mission until about 10 o'clock at night, praying with people. So, Harold wanted to stay in the District Office in Eureka, if at all possible. In order to do so, he volunteered to be Bob McClary's office manager in the Survey's Department, spending the last 16-years of his career where he had spent his first four years with the Department, back in Surveys,

For the last 15- of these 16-years, Harold was District 1's Aerial Photogrammetry Engineer. Producing all of the aerial mapping for the District, including all aerial mapping and photos

required by Design, Advance Planning, Traffic Department, and occasionally, something for the Claims Department and Right of Way.

During the last few years of Harold's career, he encountered a strong push by Sacramento, to take over District 1's photogrammetry function. District 1 management was not interested in having Sacramento take over this function, and Harold was told to resist their attempts to do so. According to Harold, his years of being an Assistant Resident Engineer (hound dog and hatchet man) out on Construction served him well when he was asked to resist the structured push to take over District 1's photogrammetry function.

Harold retired on July second of 1991, with nearly forty years of State service, and promptly turned down offers to work for local engineering and surveying firms. Harold says that by this time he knew what he was called to be doing in ministry.

When asked what has gotten better over the years since he started working for the Division of Highways, Harold said that he felt supervision had gotten better, and the decision making process has become more transparent.

Regarding what has gotten worse, Harold cited the new Caltrans security system at the District Office, appointments to higher positions based on political decisions rather than merit, and more shuffling paper than producing a product (which he also considers to be the result of political decisions).