



APRIL 1, 1964

NEWSLETTER ISSUE NO. 5

PUBLISHED QUARTERLY FOR TUDOR
ENGINEERING COMPANY PERSONNEL

In Memoriam

In 1947, Ralph Tudor and his friend, Clarence Seage, formed the consulting engineering firm of Seage and Tudor. This was the predecessor organization to the Tudor Engineering Company which Ralph adopted as the name of his solely owned company after the death of Mr. Seage in 1950.

Through his wide acquaintanceship and reputation for ability, honesty and forthrightness, Ralph attracted enough business to expand Tudor Engineering Company from a one man office to its present size. His policies of fairness to employees--providing good working conditions, sharing company profits, and considering all employees as members of a team, have worked to create an esprit de corps which is outstanding. His practice of taking a direct personal interest in the lives of people endeared him to all. His foresight in selecting able associates and insisting that they assume leadership and exercise judgment should assure the continuation of the established reputation of the firm.

Ralph had an intense pride in the company and was so thoroughly enamored with the work it was doing that even through all his last year, he could not bear the thought of divesting himself of active participation in its affairs. Even as late as November 12, his last day, he spent several hours in intense work at the office.

The suddenness of his passing was a shock which has wrenched our hearts and those of his friends and acquaintances. Messages of condolence were received from people in all walks of life and from all parts of the world attesting to the affection and respect which he brought into being wherever he went. We count ourselves fortunate to have been associated with such a dynamic person as Ralph Tudor and we hope that our future actions will be guided by a desire to achieve the goals that he constantly advocated.

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New Officers

The Board of Directors of Tudor Engineering Company have elected the following officers:

L. A. Helgesson, Chairman of the Board
Louis W. Riggs, President
Arthur R. Reitter, Senior Vice President
John G. Marr, Administrative Vice President
Stanley H. Froid, Vice President
Carl W. Otto, Vice President

INTERESTING EVENTS ON CURRENT JOBS:

NEWS FROM WASHINGTON:

It is nice to have John Marr with the San Francisco office at 595 Mission Street. The Washington office was closed last month under the capable direction of Jim Albert and Berniece Beal. Jim and Berniece have just arrived and we greet them too.

NEWS FROM PALM SPRINGS:

The Palm Springs Aerial Tramway is now completed and in operation. Tom Mackenzie has returned to the San Francisco office and brought Frank Paul with him. Tom and Barbara found a house in Contra Costa County and Frank is "baching it" until his family joins him.

Poor Tom comes into the office these mornings wrapped up like it's 10° below and complaining about San Francisco's cold weather. He really enjoyed the warm weather in Palm Springs and after another two months or so, may get used to the "beautiful" weather in the Bay Area.

Tom and Stan take turns flying to Palm Springs to handle a "particular" situation as it arises. Despite the fact that the office of Tudor Engineering Company in Palm Springs is officially closed.

Frank Paul showed some colored movies he had taken of the construction and operation of the tramway one day in the office and they were most interesting.

NEWS FROM LISBON:

After one full year of construction, the project is proceeding approximately on schedule with the main bridge substructure ahead of schedule and the approaches and viaduct slightly behind.

Pier 4 (North Tower Pier) concreting was completed in October and United States Steel started tower erection during the last part of November--a most impressive sight.

Pier 3 (South Tower Pier) has been sunk to minus 258.5 and final concreting is well along. This founding depth is a world's record for this type of bridge pier construction.

The big push has been on the South Anchorage where concreting is now complete. The timber crib cofferdam at Pier 2 has been started, the large diameter piles at Pier 5 are 60% complete and Pier 6 has been completed for some months. At the North Anchorage, the 12 circular caissons have been sunk to position and sealed. Morrison-Knudsen had the center portion of the anchorage excavated and were cleaning up for the tremie pour when they had a blow-in between two caissons on the east side. This blow-in filled the center section half full of sand and must be re-excavated after the hole is plugged.

NEWS FROM LIMA:

The Design Criteria for the steel mill wharf has been completed and is now undergoing review by the various entities of German organizations, SOGESA and its consultants. Since agreement has been reached on nearly all important aspects of the project, we are proceeding "full steam" on the design.

There are many future work prospects in South America, but it is difficult to get them developed into engineering work and signed contracts. We, as well as our associates, Leonard Oboler Engineers, have high hopes in spite of certain setbacks which are occurring in Peru to discourage the inflow of private investment (such as a recent decision by the Government to reclaim certain fields being exploited by International Petroleum Corporation). Present prospects include more port work and highways.

Andy Lamore returned to San Francisco from Bangkok for one whole week before getting on a plane for Lima to give Carl a helping hand. He returned to be with his family over the holidays then back to Lima. Dan Yavorsky left for South America in January to also help.

Carl was in New York, Washington then to San Francisco during December. He had to celebrate Christmas a little late with his family since he didn't leave Los Angeles until the end of December.

ON THE HOME FRONT

Merced Irrigation District

Full scale design work is now under way on the Merced Project. The Water Resources Division, as of mid-February, has built up a staff of about 40 people spanning the fields of civil, mechanical and electrical engineering. To accommodate this increased staff, it was found necessary to move to 515 Market Street. The 3,000 feet of office space on the second floor at 515 filled to overflowing and necessitated a move to larger quarters on the third floor.

The Division is working closely with the Sacramento office of the Corps of Engineers in developing final plans and specifications as the Corps is participating

in the flood control aspect of the Exchequer Project. The Merced Irrigation District recently constituted a new Board of Consultants to review the design work on the project. The District and Water Resources Division are very pleased to have Dr. Frank Nickell, Messrs. J. Barry Cooke, Thomas Leps, Julian Hinds, and O. W. Peterson on the new Board of Consultants. The Board held its first meeting in Merced on December 18 and 19, 1963.

Due to the unusual nature of the design features associated with the raising of Exchequer Dam, the State Division of Dam Safety, under the supervision of Mr. Walter A. Brown, has constituted a Board of Consultants composed of Mr. I. C. Steele, Dr. P. C. Rutledge, Mr. Raymond Hill, and Mr. Louis Pulls.

Tudor Engineering Company is also very fortunate to have on the Merced Project the geological services of Mr. John Trantina of Woodward-Clyde-Sherard and Associates, photogrammetric services of Mr. Harl Pugh of R. M. Towill, Inc., and the very capable field surveying services of Mr. John Duff, Engineering Surveys.

The Division is very busy meeting design schedules, organizing field trips, participating in legal and financial arrangements, and satisfying the needs of the various boards and groups associated with the New Exchequer Project. The staff of the Water Resources Division is now moving ahead on all phases of design and should have complete plans and specifications ready about the first of April, 1964. Start of construction is scheduled for July, 1964.

Calaveras County

The Federal Power Commission application for the first phase of the Calaveras Project was filed with the Commission in Washington, D. C. on September 9, 1963. The application is presently under review by various Federal agencies. Preparations are under way for holding a \$225,000,000 bond election to finance the total Calaveras Development Project.

A public hearing was held at White Pines in Calaveras County on October 30, 1963, to form the Ebbetts Pass Domestic Water Improvement District. After a most favorable public hearing, the Board of Directors of the Calaveras County Water District set January 28, 1964, as the date for a \$1,100,000 bond election to finance this water supply system. The bond election was held and passed by an overwhelming majority. The Water Resources Division will soon start preparation of plans and specifications with construction scheduled to commence during the spring of 1964. A tight schedule for both design and construction is expected.

Trinidad Dam

The Water Resources Division completed the Trinidad Dam Report in the early summer of 1963. The Panama Canal Company prepared the report for the Bureau of the Budget using our report for basic data. This report was submitted to the Bureau in September, 1963 for appropriations beginning in 1964. The latest reports are that this has been approved by the Bureau of the Budget and will be submitted to Congress soon. We have been asked to submit a proposal for supervision of field construction and the balance of design on the Dam and appurtenant structures. Word received from

Colonel Harrison is that the Bureau of the Budget's comments were that the reports on this project are the most complete they have reviewed.

Rapid Transit

BARTD alias SFBART alias Rapid Transit has caused a minor population explosion in the Structural and Transportation Division of Tudor Engineering Company. At Dudley Auger's last daily count, the Division totals 62. This is a few more than the 20-odd persons (no reflection intended) that comprised the Division last fall.

Since Stan Froid was unsuccessful in his diabolic plan of constructing a mezzanine at "595" and hiring only 4-foot high engineers for the slightly reduced headroom, it was necessary for us to regretfully part company with Paul Potter and his "Conceptual Engineers," and Gene Altshuler's "Berkeley Subway Group" since they moved to the second floor at 515. We will have to admit that those departing have lost some scintillating 595 companionship, but have gained a more rapid elevator. It seems strange not to see Mr. Helgesson at 595 since he too moved to 515 Market.

Recruiting continues but we hope to be fully staffed in the near future then we can dispense with the introductions and get to work. Bob Ganse's addition to the firm has led to our gaining several more former Indenco engineers: Herman Minkowski, Dudley Auger and Edwin Miller.

Rapid Transit

The dream of a Rapid Transit System for the Bay Area is being realized. The project is slowly but surely taking shape on the drawing boards of the three joint venturers--Tudor Engineering Company; Parsons, Brinckerhoff, Quade & Douglas; and Bechtel Corporation.

The staff at TEC has grown to a total of sixty-five enthusiastic (but sometimes frustrated) people. This group has been built around a solid core of "old-timers" and is being led by Quent Smith who is in charge of the project for TEC. Quent is being ably assisted by such old-time stalwarts as Paul Potter, Bert LaVigne, Bela Vadasz and Dick Fischer.

Under Paul Potter's guidance, conceptual design packages are becoming available for use by all designers that will be working on BART during the next few years. In addition to design manuals, design aids, and computer programs, the Conceptual Group is producing standard drawings to be included in the contract drawings.

Bert LaVigne has a capable group of engineers who are well along in the location of the major part of the 75-mile rail network. It appears that their responsibility is not limited to locating the transit line in a reasonable location. Much of their effort must be devoted to answering the questioning cries of excited citizens who ask "Is my house going to be taken, and why?" TEC is fortunate to have engineers with the diplomacy and talent to handle these difficult problems. This is an important phase of engineering that is not taught in school.

A start has been made on a few of the final design packages. Gene Altshuler is eagerly awaiting criteria that will permit his design squad to plunge into the final design of the Berkeley Subway. The soils exploration indicates that either the tunneling method or the cut-and-cover method of construction is feasible. A study of economics and political science will be required to make the final determination of the method to be used. Bela Vadasz is working closely with the Division of Highways to design that portion of BART which is to be incorporated in the Grove-Shafter Freeway.

Progress is being made in spite of organizational growing pains and the occasional temporary misunderstandings with local governmental agencies. We are confident that we will get this project off the ground and be able to point with pride to one of the outstanding engineering accomplishments of our times.

NEWS FROM TCC

Tom Mulron is now manager of Technical Computing Center and they too have been hiring many people and there are a lot of new faces. Ray Carlsen, Subdivision Designer, was with Western Subdivision Engineering Company before coming with TCC; Dan Rosales, Computer Operator on the 1311 Disk, worked for Pacific Airlines; two students from San Jose State: Pelley Falk and Clifford Greenlee, are working part time; and Joanna Hayes is the new secretary replacing Maureen Martinez who is being a full-time housewife and mother to Melissa.

JOBS COMPLETED:

Guam

Admiral Trexel and Bob Repp missed the Christmas luncheon because of "love of project" and the schedule of "MATS". However, the report has now been delivered and Bob cannot carry on his personal attention to the "snail" life on Guam.

Tagus River Bridge

There's no end to the miscellaneous items.

NEW EMPLOYEES:

We have many new faces at 595 and shall tell you a wee bit about them. Tom Patterson formerly worked in Canada and England; Gilbert Mar was with Western Knapp Engineering Company; Enrique Pedraza formerly worked for the U.S. Coast Guard, Engineering Division, and is from Colombia; Bob Ganse was with the Honolulu Branch of Indenco Engineers; John Nowack, DeLeuw, Cather; Quent Smith was with our Washington office for two years and more recently with OICC in Southeast Asia; Isaac Sznol, Ministry of Public Works, Havana; Mohammed M. Shahla, Washington State Department of Highways in Seattle; John Gavin was field engineer in Afghanistan for two years and before that, a year in Arabia; Ray Fountaine was with the Cleveland Metropolitan Park District; Francois Martin, DeLeuw, Cather; Jim Zerbe with Bourne Associates International in Saigon; Stanley James, Hewitt Robins in New York City; Bill Dundas, City of Newport Beach, City of West Covina and before that, spent five years in Contra Costa County so he is

more or less home now; Matt Hsiao is from Taipei, China; John Whipple was in business with his father and most recently was doing a highway job in Honduras; Dick Waissar, United Research Services, Inc. at Burlingame; Brad Guthrie, City of San Francisco; Ehrhard Voss has worked for Bechtel, Western Knapp and Hawke Engineers; Darrel Girton came to us from Omaha where he was with Henningson, Durham & Richardson; Jan Hyde came right to TEC from the U.S. Army Medical Corps; Ed Lai from Ampex; Bob Salaber, California Division of Highways; Fred Martinez, J. H. Pomeroy & Co.; Bob Hull, Port of Oakland; Ed Chow, San Francisco Naval Ship Yards; Ken Heilig, City of Berkeley; Bill Chin, Washington, D. C.; Hasan Centinel, Turkey; Terry Heilig replaces brother Dave, who returned to school; Julia Sevilla is the new secretary mostly helping the Rapid Transit Section and formerly lived in Santa Barbara; and Neysi Sample is helping the girls in the "back room"--namely Gloria and Ruth--and was with Dun & Bradstreet before coming to work for TEC.

More about new employees in the Water Resources Division in the next Newsletter.

PERSONAL NEWS ITEMS AND TRAVELS

From Lisbon--

Bob and Jeannine Wilkinson spent an extended weekend in Seville, Spain, sight-seeing and attending the bullfights. They continue to explore the surroundings of Lisbon on week-ends. The Wilkinsons had an open house during October for all of the project office personnel.

The Harwoods have moved to a new home on the outskirts of Cascais. Gere accompanied Mrs. Tom Kinter on a four-day trip to Madrid. She is now attending the "Patrao da Costa" course given by the Portuguese Navy. Offsprings Kimberly, Kurt and Brett may be old enough to go through the course before the Harwood's boat is ready for the water.

The Conyers report that they have recovered physically, but not financially, from their trip to the States last summer. They left son, Bruce, with relatives in Idaho to attend school, and Tamea is back at the American College in Paris for her second year. Tam is the one getting to see Europe--she toured Holland during Thanksgiving holidays, spent the Christmas holidays in Lisbon, and has two trips scheduled--one to Germany and one to Italy.

Bob Johnston, former Tudor Engineering Company employee, spent four days with the Wilkinsons this fall while on a quick tour of Europe. Bob has accepted a position as Soils Engineer with Woodward-Clyde in Omaha.

The Forsythes and Halligans of P-B-T-B, and Jack Naar, spent a few days in Lisbon during October making a study of the Portuguese National Railways. Julia Conyer's served as tour guide for the wives while the men were "railroading."

From Lima--

The Otto family has moved once again. Maybe this is one way of learning the different parts of the city but imagine it would be nice to stay in one house for awhile. The children had their summer vacation at Christmas time (well, it is different).

From San Francisco--

The annual Christmas luncheon was held at the Palace Hotel on December 20 and attended by 89 people. Mr. Helgesson gave a talk listing many "firsts" consisting of:

The first time--new employees outnumbered the old ones; there have been as many female employees with the company; the oldest and youngest employees were from the same family; new officers appeared at one time; we had received a Christmas card from Guam (from Carl Trexel and Bob Repp); we were represented by a Vice President from South America; Mr. Tudor had not been present.

Tom and Francine Mulron--with Timmy, of course--went to Boise in January for a vacation and were "snowed in" for several days which made for a longer vacation.

Bert Alhorn and family spent the Thanksgiving vacation at Lake Tahoe skiing from morning 'til night.

Bob Janopaul spoke on the Tagus River Bridge Main Piers at an engineering seminar held at the University of California--Davis Campus--the guest of Professor Russell Keim (a former TEC employee).

Rup Trinidad and Fabian Eschen spent four days in Palm Springs (working, that is) inspecting the Palm Springs Aerial Tramway.

We had two marriages in the office--Neysi Corrales and Bruce Sample were married on March 27, and Ed Chow and Grace Gum Yuen Wong were married on March 28. Best wishes and congratulations Neysi and Bruce, and Ed and Grace.

There have been a few "new papas" recently--The Fabian Eschens had a girl on December 10; Harry Childs a boy on December 13; John Chechowskis a girl on December 27; Gilbert Mars a boy on January 14; Tom Pattersons a boy on February 25. Congratulations!

And you know the old cliché "what a small world." Frank Gawin mailed study plans for Ramps 6 and 7 to Lisbon and by some mysterious means, his erasing shield was included. A few days later, Frank received the erasing shield with a note from Oral saying Bob Wilkinson had recognized the shield and remembered that it belonged to Frank--so you can hardly get by with anything anymore!

I wish I could thank everyone personally who helped get the Newsletter together but time has run out--but--thank you so very much.

NEWSLETTER

PUBLISHED MONTHLY FOR PERSONNEL OF TUDOR ENGINEERING COMPANY SAN FRANCISCO

NOVEMBER 1964

To fill a need for dissemination of business and personal news items to the employees of Tudor Engineering Company, the quarterly Newsletter was instituted two years ago. The busiest of people were assigned to produce the Newsletter and it developed into more of a semiannual than quarterly publication because of its lower priority. Consequently, it became no longer a "news" letter and thus lost its purpose. It is believed that a monthly Newsletter devoted to more timely news will prove more useful. Although Alyce Storey will be responsible for make-up, the success of the Newsletter depends upon you, the "reporters." This issue inaugurates the monthly Newsletter and covers the period since the last quarterly Newsletter.

On May 25, Mrs. Tudor and Jean attended a meeting of the Society of American Military Engineers in Washington, D. C. to receive the George W. Goethals medal, awarded posthumously, to Mr. Ralph Tudor for the year 1963.

The George W. Goethals Medal, named in honor of the eminent military engineer and builder of the Panama Canal, is offered annually to an engineer in civil or military practice for the most notable contribution in the fields of engineering, particularly in design, construction, and methods.

Mr. Tudor was awarded the George W. Goethals Medal for his eminent and notable achievements throughout his career as a designer of bridges, dams, highways, and port facilities, and especially for his part in the planning, design and supervision of construction of the present San Francisco Bay Area Rapid Transit System Project.



(Copyright by The Society of American Military Engineers)
Presentation is being made to Mrs. Tudor
by
Lt. General Daniel Noce

The week-end of October 10 was "moving day" for everyone at Tudor Engineering Company. The 595 Mission Street office moved to 525 Market Street; the Water Resources Division moved from the third floor at 515 Market Street to 525 Market; and everyone from the second floor at 515 Market moved to the third floor at 515 and did confusion ever reign! The people in charge of the move and those who worked "way into the night" deserve a gold medal because they did a beautiful job. Of course, there were a few missing items--such as slide rules, a typewriter, and other miscellaneous items--but after a week, everything was again running smoothly.

The new offices at 525 Market Street are very attractive and it is nice to have almost everyone together again.

NEWS FROM LISBON

Oral Conyers returned to San Francisco in August and is now an Area Manager of Construction on the Rapid Transit Project. Bob Wilkinson has assumed responsibility for the Lisbon project and Dick Rudolph, who went to Lisbon in June, is Bob's principal assistant.

Bob and his family are planning a short vacation trip to Madrid.

NEWS FROM PERU

Carl Otto made a flying trip to the United States, visiting San Francisco, Washington, D. C. and New York.

Last month Carl and his family were on vacation and had a very bad automobile accident. Gloria and Van were hospitalized but are now home and everyone is doing fine.

MERCED IRRIGATION PROJECT

After a rather hectic five months topping our six years of planning, studies, and design by the Water Resources Division, the Merced River Project was successfully brought to bid on June 25, 1964. Low bidder was Dravo Corporation at \$31,957,234. Three other contractors' bids ranged from \$36,295,000 to \$38,666,000. Prior to the contract award, \$36,000,000 worth of bonds were sold at a premium of \$344,000 above their par value. This was a particularly secure bond because the construction bid was low enough that all project costs were covered by the available monies and sufficient payments to retire the bonds would be forthcoming under the power sale contract with Pacific Gas and Electric Company.

Construction work has begun and several of our office staff have departed for the field office in Merced which is headed up by Bob Jenkinson as Resident Manager and assisted by Bill Clough as Project Manager. Matt Harrison is responsible for liaison between the field and home offices. Matt is a recent addition to the company having been Engineering and Construction Director with the Corps of Engineers in the Panama Canal Zone.

RAPID TRANSIT PROJECT

The Bay Area Rapid Transit Project is under construction. On June 19, President Lyndon B. Johnson was the principal speaker at the official ground breaking ceremonies. Tudor Engineering Company was well represented. In fact, some of our "Indians" wandered into the official reserved seat area and they paid for their audacity by being dusted by the helicopter as it left with President Johnson.

NEWS FROM TCC

To give wider range for prospective clients, a new IBM 1620 Model II and Calcomp 563 30" Plotter have been secured. A new IBM System/360 is to be delivered in early 1966.

Lee Albertson attended the IBM 1620 Users Group Convention in Oklahoma the week of November 9.

Open House was held in September with approximately 150 guests attending.

We believe many of Maureen Martinez' friends will be interested to learn she is recovering very fast from the automobile accident in which she was involved.

Have you moved recently? To update your records, notify Gloria Pinell of any new addresses and telephone numbers.

PERSONAL NEWS ITEMS FROM 525 AND 515

The yearly company picnic was held on August 30 at the Helgessons and everyone enjoyed themselves. Several people went swimming (even understand there were a few "Esther Williams" and "Buster Crabbes"); badminton, ping-pong, shuffleboard and horseshoes were also enjoyed; and the food was very good.

Several people had interesting vacations--the Northwest called Ruth and Paul McCandless, Mary Coker, Mohammed Shahla, Bob Repp and family (who went on to Canada). Gloria Pinell and Julia Sevilla went to Santa Barbara; Berniece Beal to the Los Angeles area; Don and Donna Bruzzzone went to Lake County; Bela Vadasz and family to Trinity Alps, Hector Calderon had to see the "fabulous Las Vegas." John and Mrs. Marr toured Arizona; Louis Riggs and family went to the Lair of the Bear; Stan Froid and family to "the forest." Bob Janopaul took his family to Sonoma and reported this was the scariest vacation since they were there during the big fires and didn't know when they might be forced to evacuate. Art Reitter took his family to the New York World's Fair (he combined this with business); Bert Pfeiffer spent two delightful weeks in Acapulco; Sabine Thureau traveled home to Germany; and Alyce Storey spent two weeks loafing on the beach at Waikiki. Stan James saw much of the United States--he started at Hoover Dam, Grand Canyon, to the Mexican border and returned through Southern California. John Sokoloff and his wife spent 5-1/2 weeks in Sydney, Australia and three days in Honolulu.

We have two employees who worked for Tudor in Lima, Peru and have decided they want to live in the United States. Alicia Brissiolese and Wilmar Montalvo--welcome!

Congratulations to two new papas! Frits Fenger and Jose Puente-Arnan both have boy babies at their homes.

Mary Coker has a new gleam in her eye and a new gleam on her third finger. The lucky man is Nick Roberts and the wedding is set for February. Best wishes Mary and Nick!



Items for the monthly Newsletter must be submitted prior to the 20th of the month for inclusion in the following Newsletter.

WE WISH EVERYONE A HAPPY THANKSGIVING