UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
106 East 13th Street
Austin, Texas

March 11, 1940

Memorandum for the Files

Re: Possible Location of (Natchez Trace Extension-Inter-American Highway) Through the State of Texas

This memorandum does not in any particular pose as a report or attempt to record final conclusions or recommendations relative to the location of that section of an "Inter-American Highway", which may at some future date be constructed, through the State of Texas.

It merely records certain observations which are believed to be pertinent and possibly helpful to those who may at some future date be confronted with the task of determining such a location.

On an attached road map of Texas there is recorded the various routes and railroads travelled by the undersigned during the months of January, February and March of 1940. The travel as shown was performed primarily for the purpose of scouting the park and recreational possibilities of the more densely populated portions of the state; in connection with a survey and study which the National Park Service has undertaken to prepare under the auspicies of the Lower Colorado River Authority. The observations herein recorded are merely a by-product of this survey. They are recorded as first impressions, for whatever they may be worth as a contribution to the Inter-American Highway problem when and if this problem is presented to the National Park Service for solution. It will be noted that the memorandum is divided into two major headings.

Part one considers what is termed the "Efficiency Line", for lack of a better term. Part two considers the "Parkway Aspects" of three possible locations in so far as Texas only is concerned.

Respectfully submitted

Harry P. Thompson,
Chief-Landscape Division

Prepared at Austin, Texas
March 11, 1940.

NPS-Inactive Proposed

D-37

RECONNAISSANCE SURVEY

FOR

AN INTER-AMERICAN HIGHWAY

THROUGH

THE STATE OF TEXAS

As Prepared 3-11-40.
By - H.T.T.

"THE EFFICIENCY LINE"

It is assumed that a highway that has been all but completed in Mexico; which extends southward from Mexico City and northward from Mexico City through the cities of Victoria and Monterrey, terminating at Nuevo Laredo (on the Rio Grande River), constitutes the "Inter-American Highway in Mexico" in so far as that country is concerned. At least it is so considered and designated on various published road maps.

The Pacific Coast highway which has been discussed from time to time as another possible location is discounted in this discussion as an improbability for some years to come, and as a problem that will be solved on a sectional rather than on a national basis.

With approximately seven hundred miles of such a system now an accomplished fact it seems reasonable to say that the City of Laredo, Texas, is the logical terminal objective of any portion or link in such a highway that may be built by the United States.

Rather than start at some point or center of population selected at random (such as Cincinnati, Blue Ridge Parkway or St. Louis) and plot a location which would terminate at Laredo it seems more reasonable to take a known factor (namely an existing link in an Inter-American Highway system as it has been built in Mexico) and plot northward with the objective of reaching and serving centers of population in the United States; in the most efficient manner consistent with existing highways, if that is possible. Laredo, Texas, is therefore accepted as a base from which to start scouting a location.

It is again assumed that all traffic that would use such a highway, as is herein considered, would in the process of their travels in reaching it, use existing main line trunk routes, as built by either the Federal or various State governments. In this connection it seems reasonable to say such traffic would be headed in a southerly direction, since all of the United States lies to the North of Laredo. Florida is no exception to this statement since traffic from this state would pass through Tallahassee, which places this state North and not South of Laredo, so far as this problem is concerned.

While all routes, even to unpaved country roads would contribute to the traffic eventually using such a highway it seems sufficient to consider the major roots only at this time. The pattern of these major routes as they now exist, is such as to establish convergence points at certain strategic locations, with a certain number of routes leading in the general direction of the objective, namely Laredo, as they meet at these various centers of convergence.

It seems essential that any highway with the designation Inter-American should be so located as to serve the greatest number of people in the most efficient manner and should be located by an analysis of the entire country rather than by connecting existing highways which might by the construction of connecting links serve after a fashion. Some formula which takes into account all major factors must first be developed and used to determine such a location.

As an approach to such a formula (which should be considered as an approach and not as a formula to be used) there has been plotted on an overlay (see attached map of the United States) the principal major trunk line highways of the United States which are so located, with regard to their compass bearings, as to lead traffic using them in the general direction of Laredo. Obviously thousands of miles of good roads have not been recorded in this overlay, but in a general way the roads as plotted would serve to carry a preponderance of traffic onto any Inter-American Highway leading through Mexico into South America.

The principle of - "resultant forces" - as established by physical law has been employed as an aid in analysing this problem. Its application is explained by reference to the following explanations.

(1) Let us assume that our problem is to develop a highway location that will serve all of the population which lay to the North and East of Cincinnati, Ohio; and which will carry persons living in this sector of the country (I. E. North and East of Cincinnati) to Laredo in the shortest possible manner.

In that space of country between Cleveland and Laredo there is not a single inhabitant to be served or point of interest to be reached. Without any physical barriers in the way it seems reasonable to say that we would choose a railroad location, stretching as straight as a string between the two cities. This line of reasoning will seem quite elemental and obvious, but it has a bearing.

(2) Now let us assume that it has been determined to connect Salt Lake City, Utah; Chicago, Illinois, and Laredo, Texas, by means

of a single highway system that will serve most efficiently to carry traffic between these three cities. Again no barriers are interposed and we would have as our location three perfectly straight highways; one leading from each city, and all highways converging at a point somewhere near Dodge City, Kansas. This likewise is obvious since such a highway would be the shortest, cheapest, and most economical to build, and it would serve its intended purpose more efficiently than any other possible location that could be built.

The location of Dodge City is determined by plotting the average trend of all major highways leading into Salt Lake City and Chicago giving the mathematical value of 10 to each mile of highway carrying traffic in the general direction of Laredo.

Our problem is concerned with literally thousands of Chicagoes, Cincinnatis and Salt Lake Cities all trying to reach Laredo by means of the most efficient route and it is by combining the resultant forces that are set up by trunk routes converging at principal strategic locations throughout the entire country that our "line of efficiency" is obtained.

So far we have been thinking in terms of efficient use only; totally disregarding for the moment any thought of scenic feature, physical obstructions such as mountains or rivers, recreational areas, historic sites and a myriad of other factors that necessarily enter into such a problem.

All that such an analysis can hope to show is simply this:-

If, by some miracle every single highway in the United States were completely destroyed; the population left intact with automobiles (and the desire to go to South America), and there was sufficient money left to build <u>one highway only</u> that would serve all the people on the North American Continent connecting it with South America in its most efficient manner; then that highway would by this method of reasoning

Start at Laredo, Texas.
Pass West of San Antonio.
South and East of Dallas-
Through Fort Smith, Arkansas
West of St. Louis
Through Detroit
and through Ottawa.

And incidentally through the center of population of the United States.

I am quite certain however, that a highway would not be built on such a location under these circumstances. Pressure groups, physical obstructions and a great many other factors would see to it otherwise. Oddly enough one can travel almost this identical route today over major trunk highways already completed.

If population distribution (which is reflected in our highway system as it now exists); directional trend of traffic, and other major factors are all weighed and an efficiency location determined it then becomes a question of taking that location, warping and adjusting it to avoid a duplication of existing trunk-line highways, the duplication of bridges, possible accommodations to the public along its route, scenic features, the avoidance of flood zones, accessability to historical and recreational features, etc., etc.

All of which serves as a preface to the observations relative to the location of any link in an Inter-American Highway as it may eventually be built across the State of Texas.

It is not contended that a highway built on the location as plotted would serve more people than an equal length of highway built elsewhere. It is simply stated that a highway so located would serve all of the people of the United States more efficiently than a highway built on a radically different location -- assuming Laredo to be the southern terminus or starting point in either case, and of course assuming that the method used in arriving at this location is a reasonable one.

To consider briefly the aspects of any such highway as it may eventually be located in passing through Texas.

While my travels and observations in the State of Texas have been quite limited, from what little of the area as I have seen it would be my opinion that a highway could be built on a good direction-location extending northward from Laredo through Texas anywhere East of the Rocky Mountains. Highway construction in Texas seems to be a comparatively simple matter, but any location West of a North-South line extended northward from Laredo is automatically ruled out because of its indirection.

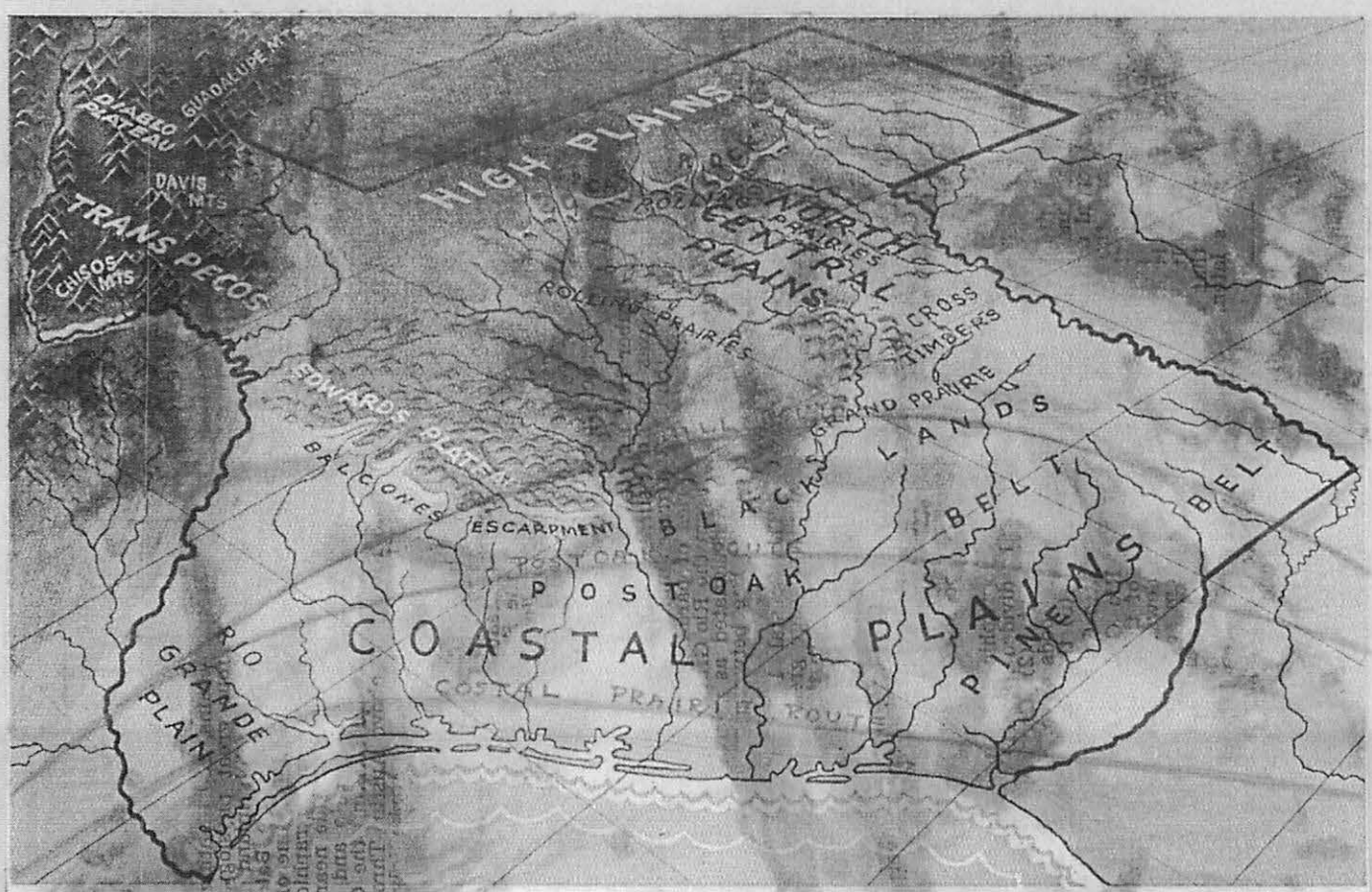
It remains then to consider some location East of this North-South line that will take into account what is referred to -- perhaps erroneously as the efficiency line, and which might be recommended for its purely scenic, recreational and other features.

In this connection we shall consider three possible routes:

1. A Seaboard or Coastal Prairie Route.

2. An Inland or Postoak Prairie Route.

3. An Upland or Hill Country - Blacklands Route.



The stage on which the drama of Texas history has been enacted—Texas with its four great physiographic provinces and subregions. Drawn according to the works of Dr. Robert T. Hill. As the converging point of coastal and low and high interior plains, and the mountain area, Texas has been called a geologic and physiographic crossroads.

THE SEABOARD OR COSTAL PRAIRIE ROUTE

The Coastal Prairies of Texas extend inward from tidewater for a distance of from fifty to eighty miles, seldom exceeding 200 feet above sea level. The country is traversed by numerous meandering streams that discharge the water from the uplands of Texas into the shallow bays of the gulf. Among the larger streams that must be crossed in any such route are the, Sabine, Neches, Trinity, San Jacinto, Brazos, Colorado, Guadalupe and San Antonio Rivers.

This coastal plain is referred to as the Original Cow Country, some rice is grown where the land is low enough to permit irrigation, some oil wells exist, others are drilling, sulphur is mined, cotton is grown and in its general aspect the land is very flat and without forest cover.

In traversing this country it was observed that highways already built are characterized by long straight stretches; sometimes as much as thirty miles without a turn and so gradual in grade as to appear perfectly flat.

Where highways are built the nature of the country is such as to require long earth causeways through marshy sections with the resulting barrow-pits filled with water hyacinths and other aquatic plants.

Where rivers and smaller waterways approach the coast line the bottomland may have a growth of live-oak, fringed by pine, but in almost every case it has been necessary to construct high long earthen causeways as approaches to concrete causeways over the river's proper. Obviously these elevated roads have been kept high to avoid spring and summer floods and to meet War Department requirements.

Some areas are covered with postoak or pine, but tree growth is so scarce that the area might be considered as having no forest cover, that is with the exception of an area directly adjacent to Louisiana; which carries a cover of pine and live-oak. Grazing, with an occasional strip of land under cultivation seems to be the principal use made of the land.

The area immediately adjacent to the coast is rather heavily populated for Texas, with the principal cities of Port Arthur, Houston, Galveston and Corpus Christi being located as sea-port cities. Otherwise the area is not particularly equipped to handle a large volume of

tourist traffic from the standpoint of hotels, cabins and eating accommodations.

It is believed that any highway such as we are considering would lie to the West of U. S. Highways 90 and 96, since it is believed to be entirely impractical to follow the coast line -- i. e. - further than has already been done between Sabine Pass and Galveston. The land is so marshy, and low, and from my observations unsuited for road construction purposes that a considerable portion of such a road would of necessity be of the causeway (either earth or concrete variety), and that the cost would be prohibitive.

Any new highway which lay to the West of Highways 90 and 96 would constitute a duplication of highways already provided and would traverse some five hundred miles of very uninteresting, and to those accustomed to variety, tiresome country.

Two points of historic interest are to be found along this route, namely, San Jacinto Monument, Northeast of Houston and the site of La Bahai Mission at Goliad.

Discounting the natural attraction that sea-coast and beach areas--(which in this case are not considered any more than ordinary)--hold for those from inland portions of the country the area holds few other attractions.

If the efficiency line as plotted can be considered as having any value in determining a location it should be remembered that a coastal-prairie line sweeping along or parallel to the Gulf of Mexico, is not altogether directional and that it would accommodate very little if any traffic approaching it from the South and from the East.

It may be that important factors which to me are not apparent have been overlooked in recording these observations, but it would be my opinion that a highway located along the coastal prairies of Texas would have little to recommend it as a link in an Inter-American Highway programme.

THE INLAND OR POSTOAK PRAIRIE ROUTE

An Inland or Postoak Prairie Route so very closely parallels that of a Coastal Prairie Route that it will be treated very briefly.

Extending Northward from Port Arthur to the Red River and Westward some eighty to ninty miles from the Louisiana State line is a growth of second stand pine, the westernmost extension of the southern pine belt, which is known as the "Piney Woods" of Texas. The topography throughout this region varies from 50 feet to 700 feet above sea level.

To the South of this area and extending in a paralleling sweep some 400 miles in length the Postoak belt follows the coast-line, west of the Coastal Plains. The same series of rivers would be crossed by any highway constructed through it as are encountered in projecting a Coastal Plains route. While this location represents a sparsely inhabited region through which a highway might run the topography and cover is such as to make such a highway -- certainly of a parkway nature -- highly undesirable from a scenic viewpoint.

Few towns or villages of any consequence are to be found throughout this region and so far as I can determine the only purpose that would be served by such a location would be long stretches of uninterrupted highway with fewer crossings than would be required in locating a road to the East or West of it.

So few advantages are to be found and so little in the way of scenic interest to recommend this route that it is dismissed as being unattractive, and highly undesirable as a link in any Inter-American Highway system.

THE UPLAND OR HILL COUNTRY
BLACKLAND ROUTE

To the west of the Postoak belt, and highest of the Coastal Plains sub-divisions, lying immediately below the Balcones Escarpment in its middle course are the Blackland Prairies. They extend north as far as Dallas and south as far as San Antonio.

The surface is a rolling prairie traversed by numerous wooded valleys of rivers and creeks. Altitude varies from 400 feet to 700 feet above sea level throughout this area which is sometimes referred to as "the backbone of Texas". It is significant that 75% of the 6,000,000/ inhabitants of Texas who live in the larger cities and towns live principally in this area.

The Hill Country or that portion of Texas to the West of the Blacklands and through which such a location would run is a series of high hills varying between 700 feet and 1600 feet above sea level. This region is considered second in scenic importance only to the Trans-Pecos region of West Texas. The region is largely timbered with junipers, cedars, live-oak, postoak with mesquite to be found on level upland portions. To the South of the Hill Country extending from San Antonio to the Rio Grande one encounters the Rio Grande plain which in effect is flat prairie covered with mesquite and grasses of various kinds, still devoted almost entirely to grazing.

If a highway were to be located on this route it would pass through the Piney Woods, cross the northern portion of the Postoak belt, swing through the Blacklands, and into the Hill Country or Edwards Plateau. It would follow through the Hill Country for a distance of some three hundred miles, drop down from the Balcones Escarpment West of San Antonio and cross the Rio Grande plain into Mexico.

From the preceding it will be seen that such a location would afford a cross-section of several separate and distinct types of country, which is not the case with the two other routes previously discussed.

It is true that a trunk highway traverses essentially this same route in part, but an acceptable location could be found which would

carry to the North and West of the existing route, and at the same time carry tourists to several points of interst.

To be found along or in the immediate vicinity of such a location are such points of interest as Longhorn Cavern third largest in the United States, the Alamo at San Antonio, Randolph and Kelly Fields, Caddo Lake on the Eastern Boundary of the State, the newly created power project lakes on the Colorado River North and West of Austin, large oil fields and the State Capitol at Austin.

The best tourist accommodations to be found in any similar stretch of highway in the State will be found on the outskirts of the Cities of Dallas, Waco, Austin and San Antonio which would be approached, but by-passed.

The very nature of the country through which such a route would pass would of necessity force a departure from long uninterrupted straight stretches of highway.

It will also come closest to approaching the line projected on the overlay and while not quite so directional in accommodating traffic from the immediate East, lend itself reasonably well to such a hook-up.

Of the three routes considered a location following somewhat along the lines of this last discussed one would come first in my consideration. In my opinion if a link in an Inter-American Highway is to be located crossing the State of Texas, I think it would be well to thoroughly scout the possibilities of a location through the Upland or Hill Country and Blackland before reaching a final decision.

By H. T. Thompson

H. T. Thompson
Chief-Landscape Division

Prepared at Austin, Texas
March 11, 1940.

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

WASHINGTON

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE

January 10, 1940.

Memorandum for Mr. Wirth:

Mr. Olcott has spoken to my office regarding the desirability of having the Service representatives now engaged in examination of seashore areas along the Gulf Coast in Texas look into the feasibility of a parkway through the same area.

I believe this would be desirable as one of several alternate locations for proposed extensions to the Natchez Trace Parkway between Natchez, Mississippi, and Laredo, Texas, would pass through this area.

My last correspondence from Mr. Darnell indicates he will be in that area until late in January, with other Service representatives, on an inspection of recreational areas along the Gulf. I have no itinerary for the group, and expect your Land Planning Section arranged the trip and could send word to them somewhere along the route.

We doubt the time required for a thorough parkway study would be too great to add to the chores of the present group. However, they might assemble some helpful data as part of their present study. It would be helpful to know if a possible parkway extension could follow the coast closely enough to reach the recreation there available, or whether the number of bays, inlets, and wide stream outlets would force a location some miles inland, were a general coastal route considered. Also, general information as to the value of land, type of ownership, and topographical conditions would be helpful.

Chief of Planning.

W:cirsw