

Ref. 571-8

ENGINEERING REPORT  
PROPOSED PHILLIPPI CREEK  
FLOOD CONTROL DISTRICT

March 1963

For the  
BOARD OF COUNTY COMMISSIONERS  
County of Sarasota

Warren S. Henderson, Chairman

Boyd R. Gernhard

L. L. Parker

Fred Haigh

G. Johnson Warren

March 5, 1963

Board of County Commissioners  
County Court House  
Sarasota, Florida

Subject: Establishment of Proposed Phillippi  
Creek Flood Control District  
Under Special Act 59-1849

Our Ref: 571-8

In order to implement flood control measures in the Phillippi Creek drainage basin, the Board of County Commissioners has authorized us to proceed with engineering services related to the formation of a Flood Control District under Special Act 59-1849. This report supersedes a previous report dated December 10, 1962 which outlined procedures under Special Act 59-1850 for an alternative proposed district combining a number of contiguous basins.

I. SCOPE OF THIS REPORT

The purpose of this preliminary report is to outline the framework of the proposed Flood Control District, and in particular the following:

1. General description of the proposed district.
2. Proposed improvements.
3. Preliminary cost estimates
4. Present conditions of facilities within the proposed district.
5. Basis for including lands within the proposed district and exclusion of lands adjacent thereto.

## II. BACKGROUND AND REFERENCES

The history of floods in recent years is common knowledge and a matter of record in many ways. Severe floods of 1957, 1958, 1959 and 1960 culminated in the disastrous flood of September 21, 1962. It is unnecessary to review here this history in detail, but suitable references will be noted.

Perhaps the most comprehensive summary of this history as it affects Phillippi Creek will be the record of the special hearing on November 30, 1962 called by the U.S. Army Corps of Engineers. In addition to recognition of various engineering reports and technical data, testimony and evidence from many local sources was spread upon the record.

The following list summarizes selected references and information sources which are deemed most pertinent to the matter, although it is by no means exhaustive:

- A. Report on Phillippi Creek Basin Flood Control (June, 1961) prepared by Smally, Wellford & Nalven including plans referenced therein.
- B. Report on Flood Relief Study of Phillippi Creek at the Tamiami Trail (August, 1961) prepared by J. E. Greiner Company.
- C. Supplementary plans, letter-reports and documentary material prepared by Smally, Wellford & Nalven, as appearing in the records of the Board of County

Commissioners and departments of the County administration. This includes resolutions and statements prepared for federal and state agencies, and for our representatives in Congress.

- D. Report on Flood of 20-21 September 1962, Southwest Florida (November, 1962) prepared by U.S. Army Corps of Engineers.
- E. Newspaper accounts of on-the-scene events, including photographs on the ground and from the air.
- F. Reports of eye-witnesses and other competent sources as to the events that occurred and their direct and long-range impact on the community, summarized most effectively to date during the November 30, 1962 Corps of Engineers hearing.

The first four items above have been utilized by the Board of County Commissioners as the core of the officially adopted "Sarasota County Comprehensive Flood Control Plan". Various elements of this official plan have already been proven effective, such as the control of building elevations in certain flood hazard areas and the placement of surveying monuments delineating the future right-of-way for Phillippi Creek.

### III. GENERAL DESCRIPTIONS OF THE PROPOSED DISTRICT

On the following pages is a general description of the proposed district.

DESCRIPTION OF PROPOSED DISTRICT

Begin at the intersection of the centerline of Stickney Point Road, State Road 72 and Tamiami Trail, State Road 45; thence Northwesterly and Northerly along the centerline of said Tamiami Trail to its intersection with centerline of Hyde Park Street; thence Easterly along the centerline of said Hyde Park Street to its intersection with the centerline of Tuttle Avenue; thence Northerly along said centerline to its intersection with the centerline of Courtland Street; thence Easterly along said centerline to its intersection with the West line of the East  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of the Northwest  $\frac{1}{4}$  of Section 28, Township 36 South, Range 18 East; thence Northerly along said West line and also along the West line of the East  $\frac{1}{2}$  of the Southwest  $\frac{1}{4}$  of the Southwest  $\frac{1}{4}$  of Section 21, Township 36 South, Range 18 East to its intersection with the centerline of Davis Boulevard; thence Easterly along said centerline to its intersection with the centerline of Brink Avenue; thence Northerly along said centerline to its intersection with the centerline of Aspinwall Street; thence Westerly along said centerline to its intersection with the centerline of Rhodes Avenue; thence Northerly along said centerline to its intersection with the centerline of Eighth Street; thence Westerly along said centerline to its intersection with the centerline of Tuttle Avenue; thence Northerly along said centerline to its intersection with the centerline of 17th Street; thence Easterly along said centerline to its intersection with the centerline of Lockwood Ridge Road; thence Northerly along said centerline to its intersection with the centerline of 47th Street; thence Westerly along said centerline to its intersection with the centerline of Tuttle Avenue; thence Northerly along said centerline to its intersection with the Sarasota-Manatee County line; thence Easterly along said county line to the Northeast corner of Section 2, Township 36 South, Range 18 East; thence Southerly along the Easterly lines of Sections 2, 11 and 14 of Township 36 South, Range 18 East to the centerline of 17th Street; thence Easterly along said centerline and said centerline extended also being the South line of the North  $\frac{1}{2}$  of Section 13, Township 36 South, Range 18 East, to its intersection with the Easterly line of said Section 13; thence Northerly along said Easterly line to its intersection with the Northerly line of Section 18, Township 36 South, Range 19 East; thence Easterly along the Northerly lines of Sections 18, 17, 16 & 15 of Township 36 South, Range 19 East to the intersection with the Easterly line of Section 15, Township 36 South, Range 19 East; thence Southerly along the Easterly lines of Sections 15, 22, 27 and 34 of Township 36 South, Range 19 East to the intersection with the South line of Section 34, Township 36 South, Range 19 East; thence Westerly along the South line of Section 34, Township 36 South, Range 19 East and the south line of Section 33, Township 36 South, Range 19 East to the intersection with the East line of the West  $\frac{1}{2}$  of Section 4, Township 37 South, Range 19 East; thence

Description continued:

Southerly along said Easterly line and along the Easterly line of the West  $\frac{1}{2}$  of Section 9, and the West  $\frac{1}{2}$  of Section 16, Township 37 South, Range 19 East to the intersection with the centerline of Old Clark Road; thence Westerly along said centerline to its intersection with the Westerly line of Section 18, Township 37 South, Range 19 East; thence Northerly along said Westerly lines to its intersection with the centerline of Clark Road, (State Road 72); thence Westerly along said centerline to its intersection with the centerline of Gantt Road; thence Northerly along said centerline to its intersection with the Southerly line of the North  $\frac{1}{2}$  of Section 12, Township 37 South, Range 18 East; thence Westerly along said Southerly line and along the Southerly line of the North  $\frac{1}{2}$  of Section 11, Township 37 South, Range 18 East to the intersection of the centerline of McIntosh Road; thence S'ly along said centerline to its intersection with the centerline of Clark Road, (SR 72); thence Westerly along said centerline to its intersection with the centerline of Sawyer Road; thence Southerly along the said centerline to its intersection with the Southerly line of the North  $\frac{1}{2}$  of Section 15, Township 37 South, Range 18 East; thence Westerly along said Southerly line to its intersection with the centerline of Beneva Road; thence Northerly along said centerline to its intersection with the centerline of Clark Road, (SR 72); thence Westerly along said centerline to its intersection with the centerline of Stickney Point Road; thence Southwesterly along said centerline of Stickney Point Road to the P.O.B.

#### IV. PROPOSED IMPROVEMENTS

It is proposed that the main channel of Phillippi Creek between the Oak Shores area and the intracoastal waterway be improved by straightening, deepening and widening in accordance with good engineering practices.

A channel width of 200 feet is proposed between the Oak Shores area and U.S. Highway 41. This channel would be bulkheaded with reinforced concrete seawalls. By utilizing bulkheads compared to earth banks a considerable savings can be derived in right-of-way acquisition costs.

Downstream of U.S. Highway 41 a 400 foot channel width is proposed. This section would not be bulkheaded at this time.

The principles and criteria applied would be in accordance with previous reports which have been cited above and also in accordance with preliminary plans which have been prepared and are to be considered a part of this report.

#### V. COST OF IMPROVEMENTS

Preliminary cost estimates have been made for the proposed improvements, as defined above. These estimates include both construction and right-of-way. No allowance has been made for possible federal aid, which might reduce the District's share of the total cost.

##### PRELIMINARY COST ESTIMATES

Excavation	\$ 469,000
Structures	20,000
Bulkhead	<u>825,000</u>
TOTAL CONSTRUCTION	\$1,314,000

Total Construction	\$1,314,000
Engineering	66,000
*Preparation of Assessment Roll	100,000
Right-of-Way	800,000
Legal, Financing & Misc.	120,000
Contingencies	<u>120,000</u>
BOND ISSUE	\$2,520,000

\*Special Act 59-1849 requires preparation of an assessment roll based on benefits to each and every property from improvements, as directed by the District Board.

Based on a 4% interest rate, a 20 year bond issue would require an annual debt service of \$185,000.

Although the above estimates are necessarily approximate, they are sufficiently accurate for the purpose of exploring the order of magnitude of a bond issue which could finance the program.

#### VI. PRESENT CONDITIONS OF FACILITIES WITHIN THE PROPOSED DISTRICT

The area comprising the proposed district is subject to periodic flooding. In certain areas the damage resulting from this flooding has at times reached serious proportions and has resulted in damages to homes and properties amounting to many hundreds of thousands of dollaes. During the last serious flood in 1963 there was considerable danger to human life and welfare.

Conditions within the area covered by the proposed district had become so serious in 1961 that at that time the Board of County Commissioners took the drastic step of halting the platting of new developments in the entire Phillippi Creek basin.



Needless to say this continued ban has had a far reaching deleterious effect upon the economy of the County.

Phillippi Creek which is the outlet for all storm waters within the proposed area is, in its present condition, inadequate to carry off flood waters within the proposed district. The stream does not have sufficient cross sectional area to handle heavy rainfalls of short duration. This is particularly so at times when the ground is saturated from previous rainfalls. Detailed studies have been made of these conditions and are referred to in Article II of this report.

VII. BASIS FOR INCLUDING LANDS WITHIN THE PROPOSED DISTRICT

Inasmuch as Phillippi Creek is the outlet for all water within the proposed district, all land within the area contributes to the problem. There is a network of minor canals throughout much of the area, all of which lead to the main Phillippi Creek.

When the main creek is flooded and water overtops its banks, lands far upstream in the basin are inundated in varying degrees. Non-flooded lands within the proposed district are involved in one way or another with the flooding of Phillippi Creek.

Since all the lands within the area contribute to the problem as a whole, these lands must of necessity be included in the proposed district. The boundaries of the proposed district correspond to the watershed funneling into Phillippi Creek.

VIII. EXCLUSION OF LANDS ADJACENT TO THE PROPOSED DISTRICT

Because the proposed area of the District is closely confined to natural ridge lines, lands outside the proposed district do not contribute to the flooding problem. Consequently adjacent lands should reasonably be excluded from the District.

IX. CONCLUSIONS

Formation of a Flood Control District to include all lands within the Phillippi Creek Basin would establish the framework for effective alleviation of floods that continue to inflict hardship and injure the economy. The framework of the District should provide for flexible action, proceeding by stages, and compatibility with both independent action and federal aid.

The proposed improvement within the District could be financed by a bond issue of approximately \$2,520,000 without allowance for federal aid. Based on a 20 year general obligation issue at 4 percent interest, an annual debt service of \$185,000 will be required. Annual operation and maintenance costs would be assumed by the County out of general revenue funds. Property values should be protected and enhanced by the removal of economic blight caused by flood hazard within the District.

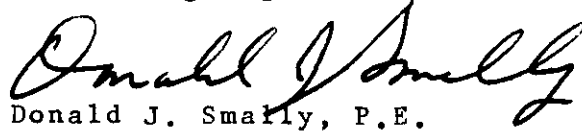
The bond issue could be of the open-end type, permitting staging of engineering and construction. The timing could allow for the possibility of federal aid as future

actions of the Corps of Engineers and Congress may reveal.  
Any federal aid should reduce the debt service required;

The proposed District would permit action to begin now  
whether or not federal aid might become available some years  
in the future. The procedures necessary to establish an  
entity as large and important as the District necessarily  
require a spirit of compromise among all parties, in the  
public interest.

Yours very truly,

SMALLY, WELLFORD & NALVEN  
Consulting Engineers

  
Donald J. Smally, P.E.

DJS/lc

Filed 5<sup>th</sup> day of March 1963  
W. A. WYNNE - CLERK  
Board County Commissioners  
Sarasota County, Fla.

A. Gallacher  
Deputy Clerk

DESCRIPTION OF PROPOSED DISTRICT

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