A RESOLUTION APPROVING A SITE PLAN AND COMMUNITY IMPACT ASSESSMENT STATEMENT FOR THE PROPOSED KEY WEST SHOPPING CENTER; PROVIDING AN EFFECTIVE DATE.

BE IT RESOLVED by the City Commission of the City of Key West, Florida, as follows:

Section 1. The attached Site Plan and Community Impact Assessment Statement for the Key West Shopping Center, 2800 North Roosevelt Boulevard are hereby approved.

- A. The developer shall construct a masonry wall along its rear or Southerly property line where the site abuts the 2800 and 2900 blocks of Patterson Avenue. Subject to approval of any required variances, the wall shall be 10' high adjacent to Lots 7 and 8 on the 2900 block of Patterson Avenue and 10' high adjacent to Lots 1 and 2 of the 2800 block of Patterson Avenue, with the remainder of the wall being 8' in height. The developer's application to the South Florida Water Management District will include all site improvements including the southerly perimeter wall, and all site improvements will be designed to comply with the South Florida Water Management District's regulations for surface water drainage.
- B. The developer shall block off 10th and 11th Streets during all construction on the subject property.
- C. The City shall close 10th and 11th Streets to vehicular traffic to or from the project and the developer shall construct a wall blocking vehicular ingress and egress from the site via 10th and 11th Streets. Each terminos (of 10th and 11th Streets) shall be landscaped by the Developer on the "neighborhood" side of the wall with a buffer of Bougainvillea hedge; the buffer shall be subject to approval by the City Planner prior to installation. The wall shall be

constructed after the site is cleared and graded to the finish floor elevation (FFE).

D. The City shall take all steps necessary to provide a right-of way for rear access to the site for vehicular traffic from a public street, preferably Kennedy Drive, including without limitation the exercise of its power of eminent domain and special assessment; provided, however, that the City's obligation to provide such access shall not exceed a total cost to the City equal to 50% of the amount due to the City for the project's traffic impact fees.

Section 2. The City Manager and City Attorney are hereby directed to take such steps as are necessary for performance of the City's obligations hereunder, including without limitation that stated at Section 1(D) above.

Section 3. This approval shall not be construed to constitute, promise, or convey, any grant of variance or special exception, or any waiver of full compliance with law.

This Resolution shall go into effect immediately upon its passage and adoption and authentication by the signatures of the presiding officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 17 day of _____, 1989.

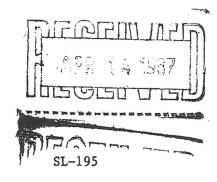
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THE CITY OF KEY WEST POST OFFICE BOX 1409 KEY WEST, FLORIDA 33041

April 7, 1987



Mr. H. A. V. Parker, III, P.E. Post, Buckley, Schuh & Jernigan, Inc. 1 North Krome Avenue Homestead, FL 33030

Dear Mr. Parker:

Please be advised that based upon the engineering review performed by the City's Consulting Engineers, CH2M Hill, a copy of which is attached, the City has no objection to the proposed development known as I.D. Properties, Key West Shopping Center, to discharge its' proposed secondarily treated effluent into the City Sewer System at the point known as Manhole No. 94A. This approval is contingent upon the Shopping Center sewer facilities including a mechanism which will limit discharge to a maximum of 80 gallons per minute (GPM). If discharge rates exceed 80 GPM, the City cannot guarantee that the downstream sewer facilities can accept the development's discharge, and sewer service may be interrupted for an undetermined amount of time until the downstream facilities are upgraded to accept the surcharge and other proposed developments as they come on line.

It is important that discharge rates be kept below 80 GPM or initial connection to the manhole may be delayed pending sewer line expansion.

I recommend that you design the holding tank, or whatever means you decide on using into your treatment facilities before you apply for a treatment plant permit from the City so that review and approval of said facility can proceed without any unnecessary delays.

Should you have any questions concerning the contents of this letter please feel free to contact my office.

Sincerely,

CITY OF KEY WEST

Daniel J. Lagosky Sewer Director

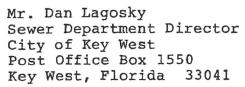
cc: City Manager Joel I

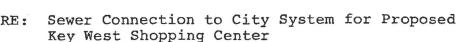
cc: City Manager Joel L. Koford
Bruce Johnson, CH2M Hill
Building and Zoning



April 1, 1987

SE20064.N1





Dear Dan:

As requested in your letter of March 19, we have investigated the feasibility of connecting a sewer from the proposed shopping center to the City's system at Manhole 94A located at the north end of 11th Street.

We believe there is capacity in the existing sewer to carry the flow from the shopping center providing that it does not exceed 80 gpm. Flow to Manhole 94A should be at the lowest rate possible. This may necessitate use of some equalizing storage.

At this stage of the project we find no reason to question the estimated flow of 22648 GPD as provided by Post, Buckley, Schuh and Jernigan, Inc. The peak flow rate to the existing sewer is of greater immediate concern, and both total daily flow and peak flow rate should be reexamined and possibly revised during the final design and review phase of the project when more information will be available.

According to the TV inspection contractor's log made in August 1986, the 11th Street sewer was generally in good condition. There are some leaking joints and other defects in the line but none that significantly affect the line's capacity.

Based on the Manning formula and a roughness coefficient of 0.14 the capacity of the 10-inch sewer downstream of Manhole 94A should be about 400 gpm. While this flow rate is not

Mr. Dan Lagosky Page 2 April 1, 1987 SE20064.N1

expected to be precise, it should be reasonably accurate, say within 5 to 10%.

Present flow to the 11th Street Sewer at Manhole 94A is from the lift station at Key Plaza Shopping Center and two small commercial buildings. Although the exact pumping rate for the lift station could not be readily determined, there is reason to assume that the rate is in the range of 100 to 150 gpm. Flow from the small commercial buildings is no more than a few gallons per minute.

The other major source of sanitary flow to the 11th Street Sewer is the residential flow. At the intersection of each street; Patterson, Fogarty, Harris, Seidenberg, and Staples, a tributary sewer contributes about 30 gpm to flow in the main sewer. The estimated peak flow from the entire residential area is 150 gpm, and the estimated peak flow in the 11th Street sewer is 300 gpm plus groundwater infiltration.

If the flow from the proposed shopping center is added to the present flow, no surplus capacity will remain in the sewer. Further, providing sewer service from Manhole 94A to the properties north of Roosevelt Boulevard, as has been considered in several recent studies, will no longer be possible.

In summary, we believe that a sewer connection for the proposed shopping center at Manhole 94A is feasible for a flow rate of up to 80 gpm. If the shopping center discharges 80 gpm there will be no reserve capacity in the 11th Street sewer for further development along North Roosevelt Boulevard. The estimated total flow of 22,648 gpd is not unreasonable but should be reviewed at the end of the design of the project.

Sincerely,

Bruce A. Johnson

mlDS/KWG1/056



POST, BUCKLEY, SCHUH & JERNIGAN, INC.

I NORTH KROME AVENUE HOMESTEAD, FLORIDA 33030

September 17, 1987

Art Mosley, City Planner City of Key West P.O. Box 1550 Key West, Florida 33040

RE: I.D. Properties **CIAS Review Response**

Dear Mr. Mosley:

Pursuant to your request, enclosed herewith, please find twenty-two (22) copies of the response, and supporting documents, to Staff's comments regarding the I.D. Properties C.I.A.S.

We understand that I.D. Properties is scheduled for PRC Review at their meeting to be held Friday, September 25, 1987, at 200 P.M. If our information is incorrect, please advise as to the correct time and date.

If you need additional information or have any questions, please contact this office.

Very truly yours,

H.A.V. Parker, III, P.E.

Project Manager

HAVP/dmh GC#21/hm 04-041.06 **Enclosures**

ce: w/encl.

> John Pennington, III (3 copies) John Spottswood (1 copy) Richard Layfield (1 copy) Edward Knight (1 copy) Frank Butler (1 copy)

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

Comment Response
For
I.D. Properties
Key West, Florida
Community Impact Assessment Statement

Comments from July 27, 1987 letter from Arthur Mosley.

Comment: (a) Delineated 100-year flood-prone areas and existing drainage patterns; map 34.08(a)(3).

Response: We have added one (1) foot contours and surface rainwater runoff pattern to both Figure 3, Page 2-6 and the Boundary and Limited Topographic Survey located in the Plan Pocket, Appendix C of the C.I.A.S. The following note has also been added to both of the above described exhibits:

"The property depicted and described hereon is located in flood zone A10, (Base Flood El. +10.00' N.G.V.D.), as shown on National Flood Insurance Program Flood Insurance Rate Map (FIRM) for Monroe County, Florida community - Panel No. 120168-0004B, dated 11/2/83."

Comment: (b) Explanation of building elevation drawings; the elevations shown appear to violate the building height restrictions.

Response: Both of the exhibits showing the projects elevations (Exhibit Fig. 11, Page 2-14 and the large scale drawing located in the Plan Pocket, Appendix C) have been corrected to show a maximum building height of 34'-0" (Elevation +44.0') above finished floor (Elevation +10.0'). The average C roadway elevation of Roosevelt Boulevard is assumed to be elevation +4.5' allowing a 40'-0" building height to elevation +44.5'.

Comment: (c) Explanation of setback of cinemas 1-4; structure appears to be in violation of required setback.

Response: The Preliminary Development Plan (PDP) has been revised to more clearly show the 50' minimum setback to the property lines. It is and has been the intent that all buildings will have a minimum of 50' setback as shown on the P.D.P.

Comment: (d) A natural vegetation map if the site includes wetland communities; map 34.08(a)(9).

Response: Both the Landscaping Plan (Fig. 9, Page 2-12) and the large scale Landscaping Plan (Plan Pocket, Appendix C) have been revised to show the wetland vegetation (mangroves) areas.

Comment: (e) Explanation of why 143,675 sq. ft. was used for traffic analysis, versus 158,675 sq. ft. shown on site plan.

Response: Inadvertantly retail area six (6) was omitted from the traffic analysis.

Retail Area 6 is the second floor over Retail Area one (1). The Traffic Analysis has been recalculated using the center's total square footage of 158,675 sq. ft. See attached Revised Traffic Analysis Sheets, 1-1, 3-1, 3-2, 3-3, 3-8, 3-9, 3-10, Figure 6, Figure 7, I-8, and I-9. Please note that with the additional 15,000 sq. ft. (Retail Area 6), Roosevelt Blvd. at Kennedy Dr. remained a level of Service B and Roosevelt Blvd. at Palm Ave. remained a level of Service E. Therefore, the conclusions and recommendations of the original report remain valid and have not been changed.

Comments from Tom Wilson's Memo Dated August 4, 1987.

Comment: Landscaping and Signage. The Comprehensive Plan Evaluation and Appraisal Report, adopted by the City Commission in January, 1987, calls for a "landscape, signage, and architectural standards ordinance." While landscaping standards have been improved, no ordinance is yet in effect which sets forth signage or architectural standards outside of the historic district. This development proposals provides good reason to adopt such additional standards. Not only is the appearance of this particular development at issue. Competitive pressures will likely require the other shopping centers to redevelop. The opportunity for a dramatic improvement in the aesthetics of North Roosevelt Boulevard may therefore be present. On the other hand, if no controls are present, businesses may feet it necessary to make their presence known to consumers with even larger signs and louder colors. At a minimum, the Commission may want to endorse the principle that vegetation should prevail over signage, rather than vice versa, by adopting an ordinance limiting the height of signs to the height of the development's vegetative canopy.

Response: Response to something (signage/architectural standards ordinance) that does not exist, is at best difficult. It is ID Properties' intent and desire to develop the most attractive, most inviting center in Key West. A major consideration in accomplishing this is the use of extensive, well-planned, co-ordinated landscaping. The landscaping plan for this project is not only a dramatic improvement in the area on its own, but we believe it will set a standard for future re-development that will show both the wisdom and necessity of preferring vegetation over signage. To that end, ID Properties will work closely with the City to accomplish these common goals.

The landscape objectives are to improve the appearance of off-street vehicular parking and of sales and service areas. Also to protect and preserve the appearance, character and value of the surrounding environment and neighborhoods and thereby promote the general welfare by providing for installation and maintenance of landscaping for screening effects and aesthetic qualities.

Shade Trees: Climatic control, by shading asphalt areas thus cooling parking lot. Also reducing glare and noise and pollutants within the air. 14'-16' height called for on plans, 10' minimum required by code.

Hedges: For screening effect from surrounding neighborhoods and roadways of cars and asphaltic areas. 30" height called for on plans, 30" minimum required by code.

Entry Area: View into project to be aesthetically pleasing with a sense of entry. (Planted with palms).

Interior (Site): While providing shade also accent trees with attractive flowers or foliage to add color to landscape.

<u>Transitional Protection Zone:</u> Before construction of Transitional Protection Zone (T.P.Z.), certain precautionary measures will be taken.

Construction barriers (temporary) to provide protection of mangrove's root system from fill or construction materials. Also during construction silt barrier (temporary) will also be used for run-off protection during construction.

Establishing Transitional/Ecotone: Salt tolerant wetland (coastal) plants provide shoreline stabilization and serve a valuable purpose in the marine food chain. The following and other species, are for stabilizing and percolation by absorption of minimum run-off within the slope area. This sloping area will act as protection for the existing coastal swamp area (mangroves). See sketch of transitional/ecotone attached.

Shrubs (Proposed) Transitional/Ecotone: These salt-tolerant shrubs withstand periodic flooding and thrive landward of mangroves and salt marshes. Attractive flowers of sea oxeye and foliage of shore juniper and marsh elder provide ornamental value to the landscaping.

Silver Buttonwood/Conocartus Erectus "Sericeus"
Sea Oxeye/Borrichia frutescens
Shore Juniper/Juniperus conferta "compacta"
Marsh Elder/Iva frutescens

Low Growing Grasses (Proposed) Transitional/Ecotone: These low growing grasses are ideal for planting intertidal zones of bays and estuaries. Cord grasses grow in areas periodically flooded by tides. Seashore paspalum provides fast cover for bank stabilization, it also tolerates periodic tidal inundation and can be moved.

Smooth Cordgrass/Spartina alterniflora Slender Cordgrass/Spartina patens Seashore Paspalum/Paspalum vaginatum

Comment: Housing. The City places no direct requirement on a development to mitigate its housing impact; however, this site carries with it a commitment to provide affordable housing that was made by the owner when seeking a residential to commercial zone change. Acknowledging this commitment, the developers have set aside 2.05 acres fo the site for affordable housing. In order to ensure use of the property for this purpose, the developer should provide plans for the concurrent construction of approximately fifty housing units. In lieu of this, the developer should deed over to the City or the Housing Authority the housing site.

Response: As has been further discussed and reconfirmed with the City, the commitment which was made by and will be honored by the owner was to co-operate with the city in negotiating a mutually acceptable arrangement

to address the City's affordable housing concerns. There are a number of possible acceptable methods of satisfying both the City's needs and the owner's concerns, and the final outcome will depend on the negotiations between the two parties on this issue.

Comment: Traffic. The proposed development would have a major impact on North Roosevelt Boulevard, an arterial which already supports a level of traffic exceeding its design capacity. While it is true that some of the traffic will "drop-in", this type of traffic will create new turning movements, and it therefore also can have an impact on level of service in the immediate vicinity of the development. The intersection proposed to control traffic at this location appears to be inadequate and unsafe, especially because of its proximity to Salt Run Channel bridge.

The CIAS does not in fact examine closely enough projected traffic conditions in the project's immediate vicinity, i.e., from Salt Run Channel bridge to Key Plaza. Recent development on the north side of the boulevard has created a complex array of turning movements onto a road that is already over capacity. A much more thorough analysis of this area is needed. Both the Florida Department of Transportation (FDOT) and the South Florida Regional Planning Council (SFRPC) have been contacted, and they have assured us of their assistance. Jim Kimbler, Planning Manager with FDOT, and Ping Chang, Transportation Planner with SFRPC, have been sent the traffic impact analysis. Both will be here to visit the site on August 18th.

The CIAS by using secondary data also fails to adequately examine existing traffic conditions on North Roosevelt. Instead of assuming that either, (a) traffic conditions are "erratic," or assuming that either, (b) there are problems with previous traffic counts attributable "to the recording procedure used by "FDOT" (p. B-17), current traffic counts should have been taken. Traffic patterns in Key West are not erratic, although they differ from patterns common in other urban areas. The decrease in traffic on North Roosevelt west of Kennedy from 1985 to 1986 (p. B-12) is not substantiated by the records in this office, which demonstrate a 2 percent per year increase in traffic during this period. Moreover, records published by FDOT for their permanent traffic counter near Cow Key Bridge clearly demonstrate that traffic has increased dramatically in Key West in recent years. Taking these facts into account, the impact of the project would be much greater that suggested by the CIAS.

Response: See response above and below regarding traffic. The Levels of Service (L.O.S.) on North Roosevelt Boulevard do not change as per revised Traffic Analysis. Therefore, the conclusions and recommendations of the original report remain valid and have not been changed.

The Traffic Analysis, Proposed Improvements, Project Traffic Impacts, Signal Warrant Analysis and related items are amoung the most thoroughly studied items of this project. The study includes input from both city staff and FDOT staff throughout, especially regarding the location of the traffic signal. The Community Impact Assessment Statement prepared by Post, Buckley, Schuh & Jernigan addresses each item of the comments, and the conclusions and recommendations as implemented by the project provide more than adequately for traffic as to capacity, turning movements and level of service. To address the comments further requires identification of specifically which part or subpart of the study might be of concern. Post, Buckley has again confirmed the traffic studies and the conclusions and recommendations contained therein.

Comment: Other. (1) Corps of Engineers and Water Management District concerns expressed in letters in the CIAS have not yet been addressed; (2) It is not clear as whether Patterson Street is adequately screened from the rear of the shopping center; (3) The CIAS should address the possibility that the rear of the site and adjacent fill might contain old railroad artifacts, and that care should be taken to retain these when working in the area. Before beginning construction, Wright Langley or Sharon Wells of the Historic Florida Keys Preservation Board should be notified.

Response: 1a. Corps of Engineers' letter response dated April 1, 1987 located in Appendix A, page A-84: Development is limited to existing filled uplands within the property boundaries and the wetland fringe along the canal/basin will be maintained in its entirety. Final design of stormwater management for this site will meet existing codes and regulations. It is not planned for any stromwater discharge into the canal/basin from this site. It is not planned at this time to remove the irregular old fill area which extends into Riveria Canal as it contains wetland vegetation and past experience indicates that

permitting from DNR/FDER/ACOE to remove this vegetation would not be forthcoming.

- 1b. South Florida Water Management District letter response dated May 11, 1987, located in Appendix A, page A-86: Final design will comply with requirements of SFWMD as outlined in their response letter. As of this date stormwater design is conceptual and shown schematically on the drawings to illustrate the type of drainage proposed for this site (french drain system). Past experience indicates that this system is both workable in this area and permittable under existing rules and regulations.
- 2. In our opinion, Patterson Street is adequately screened from the rear of the shopping center and the proposed landscaping complies with City codes. Both a vegetative hedge screen, in conjunction with Canopy Trees are specified for the entire length of the south property line with the exception of the two (2) driveway connections to 10th and 11th Streets. The fill slope incorporates native ground cover, shrubs, and Canopy Trees.
- 3. Sharon Wells of the Historic Florida Keys Preservation Board was contacted and she states that it is not known, at this time, if in fact there are any old railroad artifacts located on the site. She also advises that her department needs to do a study of the area to determine if the possibility of artifacts do exist on the site. She requests that twenty-four (24) hour notice be given her department prior to construction so that a representative from the Historic Florida Keys Preservation Board can be on-site to observe construction operations. I.D. Properties intends to comply with this request.

Comments from Art Mosley Memo Dated August 5, 1987.

Comment: The setbacks for this project must be a minimum of 50 feet on all sides.

This will require a corrected site plan for the cinemas 1-4 structure.

Response: The Preliminary Development Plan (PDP) has been revised to more clearly show the 50' minimum setback required. See Revised P.D.P. included with this response.

Comment: The building height for this project is 40 feet maximum measured from the crown of the nearest adjacent road. This will require a corrected architectural elevations drawing.

Response: The elevation drawings (both Figure 11, Page 2-14 and the large scale elevation drawing) have been revised so that the maximum building heights is now 34'-0" (Elev. +44.0') above finished floor (Elev. +10.0').

Comment: Landscaping area requirements (20% of project site) should not be satisfied by existing submerged water areas. Such practice could lead to situation where no upland landscaping were provided if a property owner owned enough submerged land. I therefore recommend that the submerged land owned by this property owner not be used to calculate landscaping area requirements as indicated on the site plan.

Response: A total of 20.65% of the site has been dedicated to landscaping, including water areas. The inclusion of water area as part of the landscaping plan for a project has always been natural, accepted, and in fact desirable. In this case, the actual amount of water needed to reach the 20% landscaping level is only 2.14% or 15,642 sq. ft. of the site, since 17.86% is "upland-landscaping". As there are 166 more parking spaces than required for the project, parking can be eliminated and replaced with landscaping to achieve 20% of the site being planted. Considering the benefits of including water area in a landscaping plan and the general need for

properly designed parking in the area it would seem most desirable for the city to approve the project as it now exists. The change from parking to landscaping would result in a cost savings to the owner and does not otherwise impact the project, so no objection is made to such a change, but for the overall benefit of the neighborhood it is not recommended.

Comment: The impacts calculated for solid waste (7,870 lbs./day), sewer (21,298 gallons/day), and traffic (67.8 trips/1,000 sq. ft. x 158,675 sq. ft. = 10,758 trips/day) appear reasonable.

Response: No response required.

Comments: I do not agree with the conclusion of the traffic analysis, "The transportation impacts of the proposed project are not significant." This project will add thousands of new vehicular trips per day to an already overcrowded N. Roosevelt Boulevard. Furthermore, it would seem prudent to move any signalized intersection as far east along the project's N. Roosevelt boundary as possible to provide maximum safety for vehicules coming over the Salt Run Channel Bridge (headed eastward). This intersection could still be tied in with ingress/egress to Hampton Inn as well as Scotty's.

Response: As stated above, the traffic projections do not alter the Level of Service (LOS) of the traffic on Roosevelt Blvd. The intersection (traffic signal) was located as a result of conversations with both City Staff and FDOT Staff. As to the concern of east-bound traffic on Roosevelt Blvd., please refer to Page 3-14 and Figure 9 of the Traffic Analysis. In addition, auxiliary warning lights could be added on the west side (east bound traffic) of Salt Run Bridge if it was deemed adviseable.

Comment: The City should begin planning for expansion of our solid waste incinerator capacity. This project (with 3-4 tons/day), Truman Annex (with 9-10 ton/day), and other new development will exceed the capacity of our present 150 ton/day facility (I understand we have 135 ton/day demand now).

Response: We agree and are pleased that our impact fees will be going to such a project in keeping with the intent for those fees.

Comment: I recommend that steps be taken to increase the sewer flow capacity of the 11th Street sewer line. Since this development would completely exhaust the existing capacity of that line (see letter from CH₂MHill engineer Bruce Johnson), we need a larger line to handle any additional affordable housing on this site or other future development in the area.

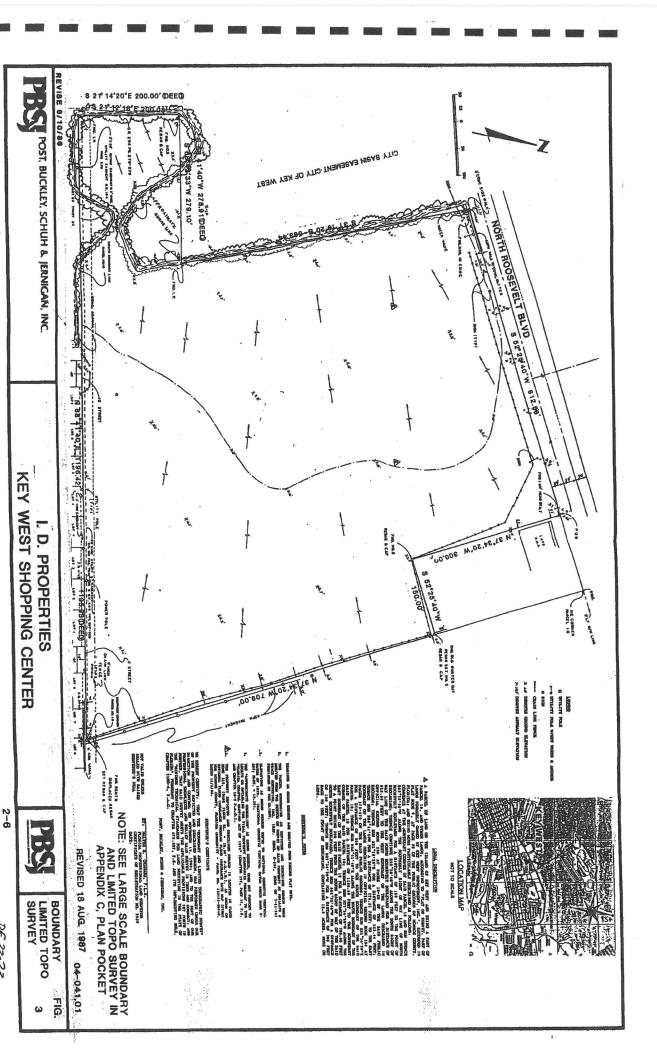
Response: As above, we feel our impact fees, which have been estimated to run a total of approximately \$874,000.00, more than provide our portion of the answer to this concern. Mr. Lagosky, Sewer Director has stated that the 80 GPM flow at 11 Street was acceptable.

Comment: A concerted effort should be made by the City and the developer to provide some affordable housing on this site (Site Plan indicates a possible location for such housing).

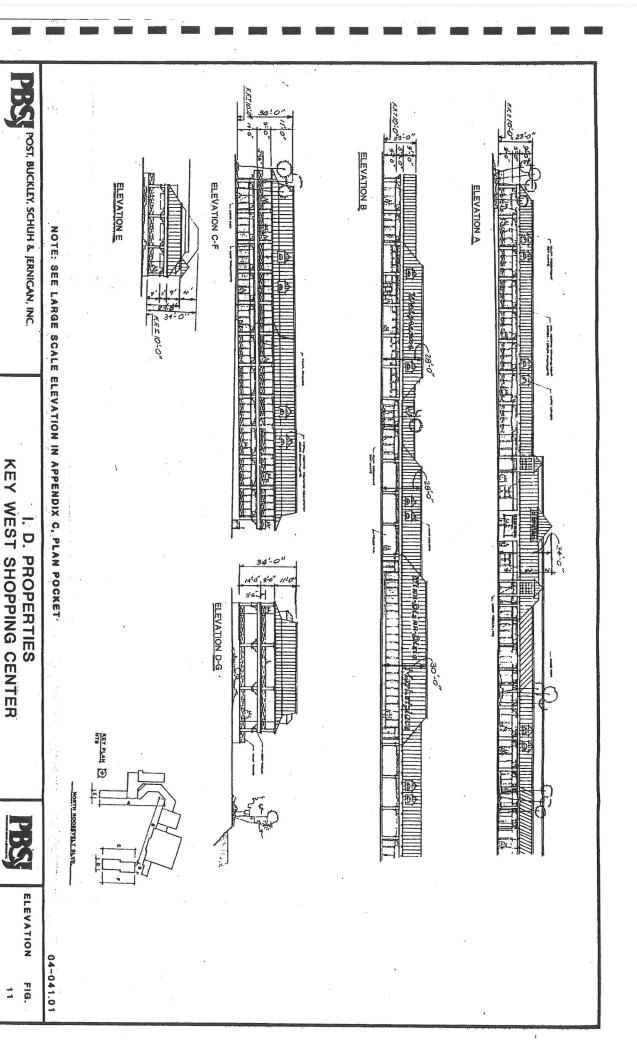
Response: As has been further discussed and reconfirmed with the City, the commitment which was made by and will be honored by the owner was to co-operate with the city in negotiating a mutually acceptable arrangement to address the City's affordable housing concerns. There are a number of possible acceptable methods of satisfying both the City's needs and the owners concerns, and the final outcome will depend on the negotiations between the two parties on this issue.

Comment: Letter concerning Sanitary Sewer flows from Dan Lagosky dated August 5, 1987. (Copy Attached)

Response: See response above.



DF 23-23



2-14 -

DF 23-23

POST, BUCKLEY, SCHUH & JERNIGAN, INC. 1 I. D. PROPERTIES
KEY WEST SHOPPING CENTER NOTE: SEE LARGE SCALE LANDSCAPING PLAN IN APPENDIX C, PLAN POCKET 2-12 DF 23-23 LANDSCAPING PLAN FIG.

TRAFFIC IMPACT AND SIGNAL WARRANT ANALYSIS

I.D. PROPERTIES

Key West, Florida

August 1987

POST, BUCKLEY, SCHUH & JERNIGAN, INC. Engineers • Planners • Architects 2131 Hollywood Boulevard Hollywood, Florida 33020

Section 1 INTRODUCTION

BACKGROUND

I.D. Properties is proposing to develop a shopping center on a 16.8-acre site, on North Roosevelt Boulevard (U.S. 1) in Key West, Florida. This shopping center, located on the south side of Roosevelt Boulevard between Kennedy and MacMillan Drives, and adjacent to the Salt Run Channel, is scheduled to open in 1988. Included in the development plans are provisions for 158,675 square feet of commercial floor space, including a multi-screen movie theater, and parking for 940 vehicles. Figure 1 shows the location of the project on the island of Key West.

AUTHORIZATION, PURPOSE AND SCOPE

Post, Buckley, Schuh & Jernigan, Inc. (PBS&J) was engaged by I.D. Properties to undertake a traffic impact and signal warrant analysis relative to the proposed development. PBS&J analyzed both existing and anticipated traffic conditions in the immediate vicinity of the site. More specifically, PBS&J focused its concern on the adjacent streets -- Roosevelt Boulevard and its intersection with the main access driveway of the proposed shopping center, Kennedy Drive, Palm Avenue/Ist Street and Flagler Avenue -- in evaluating the impacts of the project. The analysis of traffic conditions and the Manual of Uniform Traffic Control Devices (MUTCD) signal warrant summary as well as general observations, conclusions, and recommendations are contained in this report.

m:F-14/e

Section 3 ANALYSIS OF PROJECT IMPACTS

Having reviewed and analyzed existing traffic conditions, PBS&J assessed the impacts of the proposed project on the adjacent transportation network. First, estimates of the number of vehicular trips generated by the project on a daily basis as well as during the morning and evening peak hours were calculated. These trips were then assigned to the adjacent streets during the p.m. peak hour. Finally, the impacts resulting from the increased traffic were assessed.

TRIP GENERATION

Standard site trip rates reported in the Institute of Transportation Engineers (ITE) <u>Trip Generation</u> handbook have been incorporated in this analysis. The rates used are identified in Table 1.

PBS&J's application of the aforementioned trip rates for a 158,675-square-foot commercial center showed that the project site could be expected to generate 10,298 vehicular trips on an average weekday. Of these, 269 trips (142 inbound, 127 outbound) would occur during the morning peak hour and 910 trips (440 inbound, 470 outbound) would occur during the evening peak hour.

Though the above vehicular traffic volumes are presumed to be generated by the site, the actual number of additional vehicles on the adjacent streets would be significantly less. Studies conducted at shopping centers indicate that a large percentage of the commercial shopping (site-generated) trips are already on the streets and "drop in" as part of the passing traffic. A recent study published in the ITE Journal focused on shopping center trip types and the net traffic impact of commercial establishments on adjacent street networks. The study indicated that, for shopping centers with 100,000 to 200,000 gross

¹Wayne K. Kittelson and T. Keith Lawton, "Evaluation of Shopping Center Trip Types," <u>Institute of Transportation Engineers</u> (ITE) <u>Journal</u>, Volume 57, Number 2, February 1987, Pages 35-39.

Table 1
SITE TRIP-GENERATION RATES

USE	TIME PERIOD	TRIPS/ 1000 SQ. FT.	TRIP/ WEEKDAY
Commercial, Shopping Center (158,675 Sq. Ft.)	Daily (Weekday)	64.90	10,298
	A.M. Peak Hour	1.69	269
	Inbound	0.89	142
	Outbound	0.80	127
	P.M. Peak Hour	5.73	910
	Inbound	2.77	440
	Outbound	2.96	470

square feet of floor area, the percentage of drop-in trips could be as high as 65 percent. Of course, factors other than center size have an effect on the actual percentage of drop-in trips. The location of a commercial center relative to the surrounding metropolitan area and arterial street system will influence trip generation.

Based on the study discussed above and the unique characteristics of the island of Key West, it is conservatively recommended that approximately 50 percent of the site-generated commercial traffic be assigned to the adjacent streets. This additional street traffic is indicated in the following table:

	Inbound Vehicles	Outbound Vehicles
ADT	2,574	2,574
A.M. Peak Hour	72	65
P.M. Peak Hour	223	240

The volumes indicated above were used to identify the impact of the project on the adjacent streets.

PROJECTED BACKGROUND TRAFFIC

Considering the 1984 and 1985 traffic data discussed in Section 2 of this report, PBS&J projected the 1988 background traffic as follows:

- o ADT: The 1984 ADT volumes were increased 2.0 percent per year, as shown in Figure 6.
- Peak-Hour Turning Movements: The 1984 peak-hour turning movement volumes were increased 1.0 percent per year, as shown in Figure 7. With this 1.0 percent per year increase in the 1984 turning movement counts, the projected 1988 turning movement volumes are approximately 40 percent higher than the latest counts conducted in March 1985.

Table 2

OUTBOUND HOURLY TRAFFIC GENERATION (I.D. Properties Shopping Center)

Hour	Westbound	Eastbound	Northbound	Southbound	Total
12 - 1 a.m.	4	4	Negligible	2	10
1 - 2	2	2	-	1	5
2 - 3	-			~	-
3 - 4	-	. <u>-</u>	-	_	-
4 - 5	-	-	_	_	-
5 - 6	-	-	-	-	-
6 - 7	8	5	-	3	16
7 - 8	33	25	-	14	72
8 - 9	70	54	-	30	154
9 - 10	107	83	-	47	237
10 -11	134	105	•	59	298
11 - 12	162	126	-	72	360
12 - 1 p.m.	197	153	-	88	438
1 - 2	181	141	-	80	402
2 - 3	172	133	-	77	382
3 - 4	174	135	- '	78	387
4 - 5	183	143	-	81	407
5 - 6	200	155	-	88	443
6 - 7	190	148	-	85	423
7 - 8	171	133	-	76	380
8 - 9	144	112	-	63	319
9 - 10	125	97	• -	56	278
10 -11	43	34	-	20	97
11 - 12	19	15	-	7	41

Table 3

APPROACH VOLUMES: INTERSECTION OF NORTH ROOSEVELT BOULEVARD AND MAIN ACCESS DRIVEWAY

SOUTH LEG (I.D. Properties Shopping Center)

Hour	Left Turn	Thru	Right Turn	Total
12 - 1 p.m.	197	Negligible	153	438
1 - 2	181	-	141	402
2 - 3	172		133	382
3 - 4	174	-	135	387
4 - 5	183	-	143	407
5 - 6	200	-	155	443
6 - 7	190	•	148	423
7 - 8	171	-	133	380

NORTH LEG (Hampton Inn Hotel)

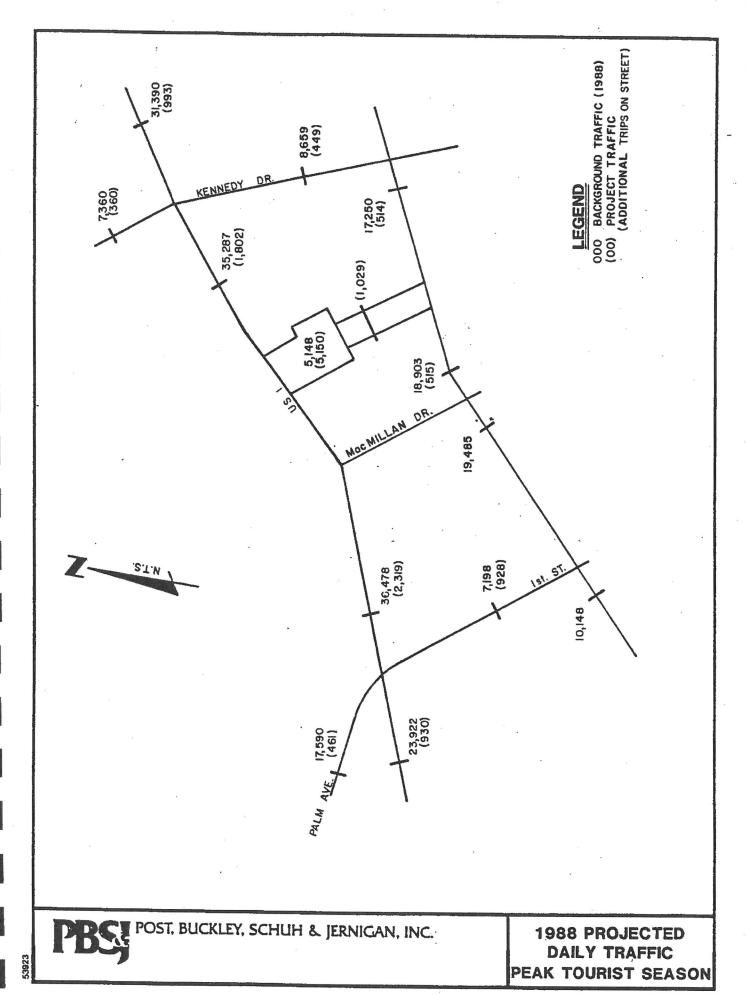
Hour	Left Turn	Thru	Right Turn	Total
12 - 1 p.m.	23	Negligible	44	67
1 - 2	19	•	35	54
2 - 3	15	-	28	43
3 - 4	16	-	29	45
4 - 5	22	-	42	64
5 - 6	28	-	51	79
6 - 7	22	-	41	63
7 - 8	18	-	33	51

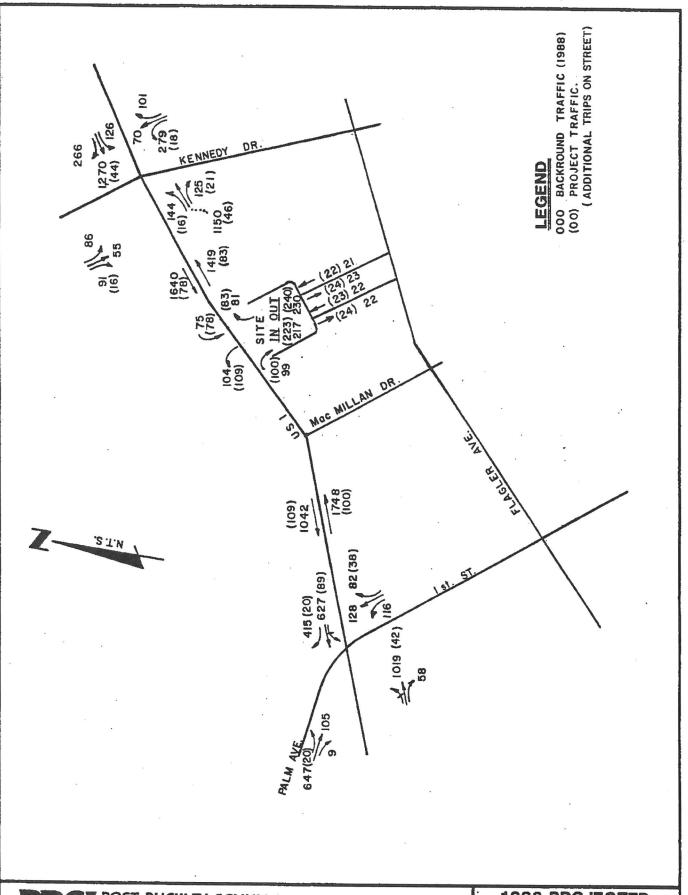
Table 4
1988 PROJECTED DAILY TRAFFIC VOLUMES

<u>Roadwa y</u>	(Projected) 1988 Peak Tourist Season Background Traffic Volume (vpd)	Project- Generated Traffic Volume (vpd)	Total Traffic Peak Tourist Season	Percent Increase
Roosevelt Boulevard				
East of Kennedy West of Kennedy East of Palm West of Palm	31,390 35,287 ^a 36,478 ^a 23,922	993 1,802 2,319 930	32,383 37,089ª 38,797ª 24,852	3.2 5.1 6.4 3.9
Flagler Avenue				
East of Mac Millan West of Kennedy	18,903 19,485	515 514	19,418 19,999	2.7

m:F14.g

 $^{^{}a}$ Exceeds maximum capacity (35,200 vpd) at LOS "E."





PBSE POST, BUCKLEY, SCHUH & JERNIGAN, INC.

53823

1988 PROJECTED
PEAK HOUR
TURNING MOVEMENTS
5-6 P.M.

FLORIDA DEPARTMENT OF TRANSPORTATION 1 of 2 TRAFFIC SIGNAL WARRANT SUMMARY Major St North Roosevelt BlvD (U.S. I) Approach Lanes 4
Minor St I.D. PROPERTIES - DRIVEWAY Approach Lanes 2
City KEY WEST - County MONROE Engineer BC Date 3/87
Remarks POSTED SPEED LIMIT - 35
WARRANT NO. I - MIN. VEHICULAR VOLUME
Minimum Requirements 100% SATISFIED Yes 200 No
WARRANT NO. 2 - INTERRUPTION OF CONTINUOUS TRAFFIC
Minimum Raquirements 100 % SATISFIED Yes No
WARRANT NO. 3 - MIN. PEDESTRIAN VOLUME
NOT APPLICABLE 100% SATISFIED Yes No
WARRANT NO. 4 - SCHOOL CROSSINGS
NOT APPLICABLE SATISFIED Yes No D SEE VEHICLE GAP SIZE FORM AND PEDESTRIAN D. GROUP SIZE FORM.

FLORIDA DEPARTMENT OF TRANSFORTATION TRAFFIC SIGNAL WARRANT SUMMARY

2 of 2

		.WARRA	NT NO.5 - PROGRESSIVE MOVEMENT	
		NOT APP	LICABLE O SATISFIED YES NO D	
1		Minimum Requir		
lr		100011		
	AND	On isolated one	way st. or st. with one way traffic significance adjacent signals that necessary plataoning & speed control would be lost.	
	OR			
	<u> </u>	On 2-way St. whe	re adjacent signals do not provide necessary plataoning &	
		Social Country . 7	Total Control Constitute of Constitution of Co	
		WARRA	NT NO, 6 - ACCIDENT EXPERIENCE	
			SATISFIED YES NO	
	•	Requirement	Warrant Fulfilled	10.0
		One Warrant	Warrant I - Min. Vehicular Volume	
		Satisfied	or Warrant 2 - Interruption of Continuous Traffic	
	AND	80%	or Warrant 3 — Min. Pedestrian Volume Yes □ No □	
	AND	Signal will not	seriously disrupt progressive traffic flow	
	AND	Adequate trial	of less restrictive remedies has failed to reduce ACC. FREQ.	, if
	AND	ACC, within a 12	Man, period susceptible of corr. 8 involving injury or) \$ 100 damage	
	- 1	Minimum Requir	ement Number of Accidents	
Ì		5 or mor		
	;	:		•
L				
î		WARD	NITNO 7 - CYCLEN WARRANT	-
			ANT NO. 7 - SYSTEM. WARRANT	
			PLICABLE X SATISFIED YES NO O	
		Minimum Valume Requirement	Entering Valumes - All Approaches Fulfilled	
			During typical weekday peak hour (Yeh /Hr)	
		800 Veh/Hr	Ouring each of any 5 Hrs of a Saturday and/or SundayVeh/Hr	
į '	AND		Test No C	
			racteristics of Major Routes Major St Minor St	
			m serving as principle network for through traff.	
			orinciple traffic generation HWY outside of, emering orginaversing a city	
	•.		et FWY or expway ramp terminats	
	-		Route on an afficial plan	
	Any Major Route Characteristics Net Hoth Sis.			
		14/0 00 0	NIC NO CONTRACTOR	
			NT NO. 8 - COMBINATION OF WARRANTS	
			arrani satisfied 100%) SATISFIED Yes 🗆 No 🖸	
		Requirement	Warrant Fulfilled	
		Two Warrants	Warrant I - Min Vehicular Volume	İ
		Satisfied 80 %	Warrant 2 - Imerruption of Continuous Traffic	
		80 76	Warrant 3 - Min. Pedestrian Valume Yes □ No □	
	•		•	1
The second named in column 2 is not a column 2 in colu		The second supplied to the second supplied to		

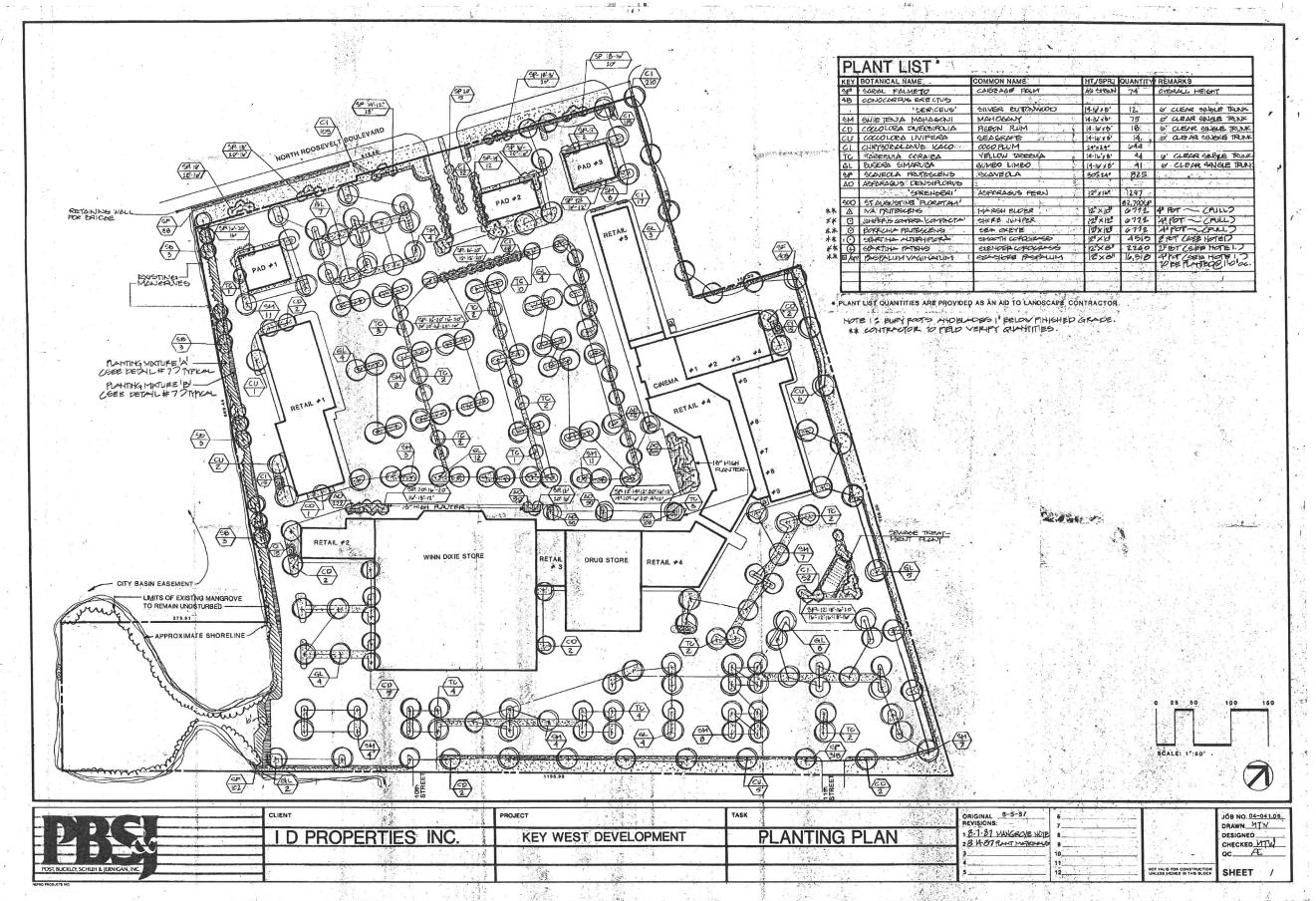
must be shown.

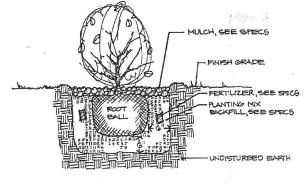
The salisfaction of a warrant is not necessarily justification for signals. Delay, congestion, confusion or other evidence of the need for right of way assignment

LEGEND O UTILITY POLE >-- O UTILITY POLE W/GUY WIRES & ANCHOR FND I V4" HEAD BOLT NORTH ROOSEVELT BLVD O SIGN **** CHAIN LINK PENCE X 58' DENOTES GROUND ELEVATION × 3.83' DENOTES ASPHALT ELEVATION LOCATION MAP PEBAR SET NO. 5 NOT TO SCALE S 52° 25' 40"W A PARCEL OF LAND ON THE ISLAND OF KEY WEST AND BEING A PART OF PARCEL 19, AND OTHER LANDS, ACCORDING TO "PLAT OF SURVEY, PART OF LANDS FORMERLY OWNED BY MEY WEST MODUSERY. INC.", RECORDED IN FLORIDA; AND STREET, THE PART SOC. 1, AND STREET, THE PART SOC. 1, AND STREET, THE STREET, STR LEGAL DESCRIPTION FND. NO.5 REBAR & CAP SURVEYOR'S NOTES 1. Same 1/2 1/3 \$ 41'40"W 278.91 DEED '33"W 279.10' (DEED) WE HEREBY CERTIFY: THAT THE "BOUNDARY AND LIMITED TOPOGRAPHIC SURVEY" OF THE PROPERTY DEPICTED AND DESCRIBED HEREON, WAS PERPORMED UNDER OUR DIRECTION AND CONTROL ON NOVEMBER 10, 1984; AND TO THE BEST OF OUR PROFESSIONAL ENOMIEDGE AND BELLEF SAID SURVEY IS THUE AND CORRECT; AND FUNTHER, THAT SAID SURVEY MEETS THE APPLICABLE PROVISIONS SET FORTH IN THE "MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING IN THE STATE OF FLORIDARY PURSUANT TO CHAPTER 472.027, P.S. AND ITS IMPLEMENTING RULE, CHAPTER 21HH-6, F.A.C. 200.00 -O.R 294 PG. 278-279 BY: WALTER H. CKAHARA, P.L.S. FLOBIDA PROFESSIONAL LAND SURVEYOR CERTIFICATE OF REGISTRATION NO. 2530 DATE: II STREET FND BENT & DISPLACED REBAR SET REBAR & CAP 1 X26 6 CAS WALL N 68°41'40"E 1196.42 REVISED 18 AUG. 1987 PROJECT BOUNDARY ORIGINAL NOV. 17, 1986 REVISIONS: JOB NO. 04-04-07 I D PROPERTIES, INC. A PART OF PARCEL 10 RECORDED IN PLAT BOOK 4 A J10-67 CORRECT SCRIVENERS
LERAOR

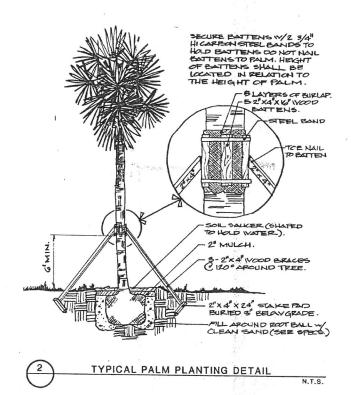
JEAN-08 SHOW CONTOUR
DRAINAGE PATTERNS AND
ONE HUNDRED VEAR

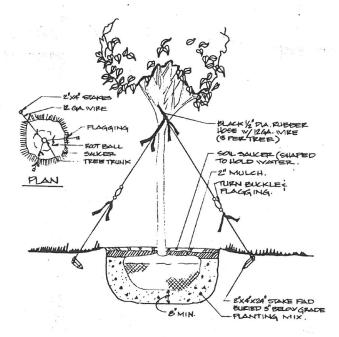
JEOODPRONE AREA. AND DRAWN_LANERAS DESIGNED LINDSAY 848 BRICKELL AVE. AT PAGE 69, CITY OF KEY WEST LIMITED TOPOGRAPHIC CHECKED OKAHARA MIAMI, FLORIDA 33131 MONROE COUNTY, FLORIDA. SURVEY SHEET



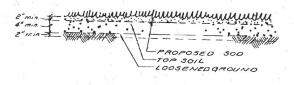


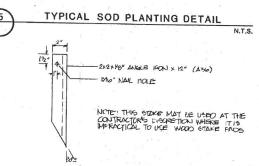




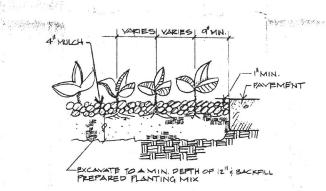




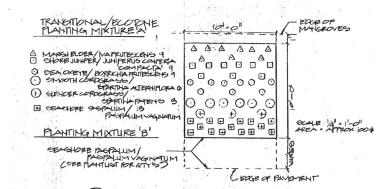












SLOPE PLANTING DETAIL NOTE: PETAIL CHAVE PLANTING FOR 1004 ONLY, FOR TOPY HUMBER OF PLANTOCCER PLANT LIST 3. ATTICK COL CLANKET IS PEQUIPED WITHIN LIMITS OF PLANTING MIXTURE ALIB

CLIENT PROJECT KEY WEST DEVELOPMENT TASK ORIGINAL 6-5-87 REVISIONS: JOB NO. 04-041.06 I D PROPERTIES 18487 PETOIL#7 DRAWN NILS CHECKED MTW LANDSCAPE DETAILS oc A NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK SHEET /

