

**THE ECONOMIC IMPACT OF THE EQUINE INDUSTRY  
ON THE VILLAGE OF WELLINGTON**

for

**The Village Of Wellington**

by

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## EXECUTIVE SUMMARY

The equine industry in the Village of Wellington makes an important economic contribution to Wellington's economy. Many horses are boarded at locations in the equestrian preservation area (EPA) in the southern part of the village which includes the Palm Beach Polo and Country Club (PBPCC). World class polo and equestrian events take place at the PBPCC which is home to two world-class equine operations - the Palm Beach Polo Club and the Palm Beach Polo Equestrian Club. The latter is operated by Stadium Jumping, Inc. under a lease-purchase arrangement with the Palm Beach Polo and Country Club. In 1996, Littlewood Farm and Littlewood Fences conducted their equestrian events at the Palm Beach Polo Equestrian Club and in 1997 their activities were moved to leased property near the PBPCC. The activities at these shows, although significant, are relatively small compared to the Stadium Jumping events. The equine activity in Wellington takes place during the "season" which runs from December through May for polo and December through March for world-class equestrian events at the Palm Beach Polo Equestrian Club.

### Study Objective

The primary objective of this study was to determine the economic impact of the equine industry in the Village of Wellington on the Wellington economy. The direct economic impact was measured in terms of annual expenditures and employment created by the industry in 1996. The impact was measured separately for property owners with horses in the EPA and for event participants who board their at the PBPCC which is also located in the EPA.

In addition to the direct economic impact of the equine industry in terms of expenditures, there is an indirect, or "ripple", effect, created by the initial introduction of expenditures into the economy. For example, total spending by horse owners for labor, for services such as veterinarian, farrier, and shipping, and for inputs such as feed and bedding, create employment and income for businesses in those sectors. Expenditures for items such as insurance, equine clothing, tack and subscriptions also create employment and income in those and related sectors. A portion of the income to labor, other industries and government created by the initial round of expenditures by horse owners into the Wellington economy is diverted to savings and investment. The remainder is spent by recipients on additional goods and services such as food, clothing, shelter, wholesale and retail goods, services, and so forth. Successive rounds of spending for purchases of Wellington goods and services occur at a decreasing rate until spending stops at the point where the money withheld for savings in the last round leaves no more to be spent on subsequent rounds. At the end of the process, the initial injection of employment and spending into the Wellington economy, through the indirect "ripple" effect results in total employment and spending greater than the initial direct injection by the equine industry. The total spending created by the direct injection of employment and spending into the Wellington economy is, therefore, some multiple of the initial injection and is equal to the direct effect plus the indirect effect. Total (direct plus indirect) spending was estimated as part of this study.

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## EPA Survey

Owners of property of one or more acres in the EPA, excluding the PBPCC, were identified from the Palm Beach County Assessor's list. Of the 2,169 properties located in the EPA, 342, had less than one acre of land and so were omitted from the survey. The remaining 1,827 parcels had one or more acres of land, possibly sufficient to support equine on the premises. The Wellington EPA survey list was constructed from the list of 1,827 parcels, narrowed down by assigning one account number to each owner of multiple properties. The resulting list contained 991 property owner names representing 1,827 parcels. There was a 21% response rate to the survey. Of those responding, 40% owned horses and/or boarded horses on their property. It is estimated from this survey that there are a total of 396 equine owners, or non-equine owners who have parcels of land on which equine were boarded, in the EPA. When multiple parcel ownership is included, the number of separate parcels owned by equine owners was estimated to be 731.

## Palm Beach Polo Club and Palm Beach Polo Equestrian Club Surveys

To determine spending by horse owners at the PBPCC facilities, separate surveys were conducted of Palm Beach Polo Club event participants and Stadium Jumping event participants at the Palm Beach Polo Equestrian Club. The Palm Beach Polo Club list contained 177 entries. There was a response rate of 11% to the survey. The sample size was supplemented by 13 respondents to the EPA property owner survey who indicated that the principal use of their horses was for polo, yielding a final sample size of 30. The Stadium Jumping list contained 689 names, excluding duplicates with the EPA survey list. There was a 21% response rate to the survey.

## Expenditure Impact

Average annual equine-related spending by equine households is as follows:

- ☛ \$150,853 per household for households in the EPA.
- ☛ \$233,296 per household with polo ponies at the Palm Beach Polo Club.
- ☛ \$151,735 per household with horses at Stadium Jumping events.

The average spending by equine households resulted in *total spending* in Wellington as follows:

- ☛ *\$124.9 million in direct spending and \$214.3 million in total (direct plus indirect) spending by horse owners with horses in Wellington. This can be further broken down as follows:*
  - ☛ \$82.4 million in direct spending and \$138.8 million in total spending by owners in the EPA, excluding those with horses at the PBPCC.

- ☞ \$30.0 million in direct spending and \$53.3 million in total spending by owners with horses at the Palm Beach Polo Club, The Palm Beach Polo Equestrian Club, and Littlewood. Eighty two percent of this total was attributed to event participants at the Palm Beach Polo Equestrian Club.
- ☞ \$12.5 million in direct and \$22.2 million in total visitor-related spending by event participants with horses boarded at the Palm Beach Polo Club, the Palm Beach Polo Equestrian Club and Littlewood.

Spending in the EPA was distributed over many sectors of the local economy. The distribution of spending among some of the major sectors identified in the study was as follows:

- ☞ 26% on wages, including contract labor.
- ☞ 18% on board, feed and bedding and training and riding lessons which are often included in board expenses.
- ☞ 14% on veterinarian and farrier (blacksmith) services.

Expenditures and employment are related to the number of horses in the Village at different times over the year which is very seasonal in nature. The number of horses in Wellington over the year is given in the following table.

Quarter	EPA	PB Polo Club	PB Equestrian Club	Total
Q1	4,782	433	2,282	7,497
Q2	2,962	433	67	3,462
Q3	1,850	50	41	1,941
Q4	3,519	283	438	4,240
Average	3,278	300	707	4,285

The greatest amount of equine activity with its related spending and employment in Wellington takes place in the first quarter of the year.

Spectators at the Palm Beach Polo Club and the Palm Beach Polo Equestrian Club account for additional expenditure impacts. An estimation of spectator attendance was not made for this study but in an earlier study of the equine industry in Palm Beach County, it was reported that there were about 38,000 spectators for events held at the Palm Beach Polo Equestrian Club in 1993 and about 20,000 spectators for events held at the Palm Beach Polo Club. Estimates of spectator attendance were provided by the two organizations. Not including estimated expenditures by these spectators leads to an underestimate of the impact of the equine industry.

## Employment Impact

Employment by the equine industry includes both full-time and seasonal jobs. Seasonal employees were converted to a full-time-equivalent (fte) basis for reporting purposes. For example, 12 seasonal employees, each working one full month a year, are equivalent to 1 fte employee. Results of the analysis in terms of annual (1996) employment impact are:

- ☞ 887 fte jobs created directly by the equine industry and 1,503 in total fte jobs, as follows:
  - ☞ 525 direct and 854 total fte jobs created by equine activity in the EPA.
  - ☞ 372 direct and 649 total fte jobs created by equine activity at the Pam Beach Polo Club and the Palm Beach Polo Equestrian Club.

## Horse Uses

Horses on EPA property, excluding those boarded at the PBPCC, were used for the following activities (in some cases a horse had more than one use):

- ☞ 37% for polo.
- ☞ 35% for show/competition.
- ☞ 17% for pleasure or sport.
- ☞ 11% for breeding and "other".

This contrasts sharply with an earlier study of all of Palm Beach County where horses used for pleasure or sport accounted for 44% of horse usage (Thalheimer Research Associates, 1994). The difference in usage of horses between the Village of Wellington, and Palm Beach County as a whole, points out the distinctive nature of the horse population in Wellington. *In Wellington owners use horses primarily for show/competition and polo rather than for pleasure or sport.*

## Horses Per Household

There were approximately 1.9 family members per equine household. On average, each equine household owned 6 horses. Horses boarded on EPA property included horses owned by the household and horses boarded for others who live both in the EPA and outside the EPA. Adjusting for days spent outside Wellington at other equine events, the average number of horses of all use types is as follows:

- ☞ 6.1 horses owned by the EPA property owner and 3.9 horses owned by others and boarded on EPA owner property at the height of the "season" (first quarter).
- ☞ 4.7 horses owned by the EPA property owner and 2.3 horses owned by others and boarded on EPA owner property in Wellington, averaged over the entire year.

Horse owners with residences outside Wellington who enter horses in events at the PBPCC owned the following number of horses:

- ☞ 4.2 horses per household for those participating in Stadium Jumping Events at the Palm Beach Polo Equestrian Club. Total daily spending per horse was \$99.0.
- ☞ 15 horses per household for those participating in events at the Palm Beach Polo Club. Of these, 14 were used for polo and 1 for show/competition. Total daily spending per horse was \$42.6.

#### **Accommodations For Participants In Events At The Palm Beach Polo Equestrian Club**

From the Stadium Jumping participant survey, it was determined that 93% of Stadium Jumping event participants resided in locations outside Wellington. For these participants, 79% stayed in Wellington, 20% stayed in Palm Beach County and the remaining 1% stayed outside the County.

Accommodations for those participants residing outside Wellington who participated in the premier events at the Palm Beach Polo and Equestrian Club were as follows (some respondents stayed at more than one location over the year):

- ☞ 44% stayed in a dwelling which they owned in Wellington (condo/apartment/home).
- ☞ 40% stayed in a dwelling which they rented in Wellington (condo/apartment home).
- ☞ 10% stayed at least part of the season in a hotel or motel near Wellington.
- ☞ 8% stayed at a campground or RV park.
- ☞ 6% stayed with friends or relatives in Wellington.

#### **Non-Resident Owner Visitor-Related Expenditures**

Non-resident owners who participated in equine events at the PBPCC spent about 62 nights in Wellington, had an average travel party size of 2.6 persons, and spent about \$187 per day.

#### **Importance of Horse Industry To Owner Location In County**

The equine events in Wellington, predominantly those at the PBPCC, have a great impact on the decision of equine owners to locate in Wellington or to bring their horses there as follows:

- ☞ 90% of EPA property owner respondents said that they would move to a location outside of Wellington if there were no equine events or facilities there.
- ☞ 95% of participants in events at the PBPCC who were from locations outside Wellington said that they would go to other locations if there were no equine events or facilities there.

# THE ECONOMIC IMPACT OF THE EQUINE INDUSTRY ON THE VILLAGE OF WELLINGTON

## INTRODUCTION

The purpose of this study was to estimate the economic impact of the equine industry in the Village of Wellington on the local economy. The economic impact is estimated in terms of spending and employment created by the industry, specifically for the year 1996. A similar study was performed for all of Palm Beach County for 1993 (Thalheimer Research Associates, 1994). At that time, the specific impact of the equine industry in Wellington was not isolated. This study follows the general methodology of the prior study in determination of the economic impact.

The Village of Wellington, incorporated in March 1996, is located in Palm Beach County, Florida. The estimated Village population was 29,973 in 1996.<sup>1</sup> Many property owners in the south end of the Village, known as the Equestrian Preservation Area (EPA), have horses of their own and/or board horses for others on their properties. Much of the equestrian activity there is closely linked to polo events at the Palm Beach Polo and Country Club (PBPCC) and equestrian events at its leased facility, the Palm Beach Polo Equestrian Club which are also located in the EPA.

The Palm Beach Polo Club was founded in 1978. World class polo matches are conducted there during the "season" which lasts from December through May. The Club is host to the World Cup and USPA (U.S. Polo Association) Gold Cup, as well as other major international events. The Club contains thirteen polo fields and two practice fields. There is a tiered 5,000 seat stadium for spectators. Stabling is available for 600 polo ponies at the facility. The total number of horses participating in events at the PBPCC is greater than 600 and these horses, in general, come from other polo operations in the EPA as well as from private residences which board their own polo ponies.

PBPCC also leases its 125 acre Palm Beach Polo Equestrian Club facility, under a lease-purchase agreement, to Stadium Jumping, Inc. The Equestrian Club, under Stadium Jumping's management, is host to world class riding and jumping competition. The internationally recognized Winter Equestrian Festival (WEF) put on by Stadium Jumping at its Wellington location features jumpers, hunters and dressage riders who compete in Grand Prix and World Cup events. Most of the equestrian event activity in Wellington takes place "in season". The "season" for the Palm Beach Polo Equestrian Club follows the Stadium Jumping WEF Events and lasts from December through March.

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<sup>1</sup> Source: Village of Wellington, General & Demographic Information, September, 1996.

Stadium Jumping also put on a three day show in September and in mid-December in 1996. Stadium Jumping, Inc. leases the Equestrian Club facilities to other organizations over the year for a mix of national and local horse shows. In 1997, Littlewood Farm and Littlewood Fences, which had conducted equestrian events at the Palm Beach Polo Equestrian Club, conducted these events on leased property near the PBPCC. The Littlewood shows are smaller and more regional than the WEF shows and are conducted throughout the year. Many of the participants in the Stadium Jumping, Inc. events also participate in the Littlewood events. In addition to Stadium Jumping and Littlewood events, the Equestrian Club was host to another international event, the Olympic Trials, in 1996. During the spring, summer and fall seasons, the facilities are leased by Stadium Jumping to other equine organizations for a variety of smaller events which largely attract state and local entries. Among the groups leasing the facility to put on shows are: the Palm Beach County Horseman's Association, Inc., the Palm Beach County Horse Council (in conjunction with the Palm Beach County Horseman's Association, Inc.), the Everglades Appaloosa Horse Club, South Florida Horse Shows, Inc. (quarter horse), the South Florida Hunter and Jumper Association (produced by Littlewood Farm), and the Vinceremos Charity Horse Show.

In addition to polo and equestrian events at the PBPCC and the Palm Beach Polo Equestrian Club, there are other equestrian activities in the EPA such as trail riding and fox hunting. Recently, rodeo-type events have been held in Wellington.

To determine the relative size and location of properties in the EPA, a list of properties in the Village Of Wellington was obtained from the Palm Beach County Assessor's Office on computer media. There were a total of 14,705 parcels comprising the Village of Wellington in 1996. In all, there were 2,169 properties identified as being in the Equestrian Preserve Area.<sup>2</sup> This is approximately 15% of all properties located in the Village of Wellington.

The 1996 assessed value for the Equestrian Preservation Area was approximately \$302 million which represented 17% of the total assessed value of the Village of Wellington. The average assessed value per parcel of \$139,000 for the EPA was 19% greater than the average value of \$117,000 for the rest of the Village.

## METHODOLOGY

By its very nature, the equine industry is transient as horse owners follow polo and show circuits across the country and the world. Because the cost of maintaining a horse is location-specific, the general method used in this study was first to determine where the horses in the Village of Wellington were located. There are two possible locations:

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<sup>2</sup> The Equestrian Preserve was constructed from sections (or parts of sections) 02, 16, 17, 19, 20, 21, 22, 25, 27, 28, 29, 30, 32, 33, 34, 35. There were some misclassifications that were eliminated with help from the Village of Wellington.

- (1) On property of one or more acres in the EPA, excluding facilities of the PBPCC.
- (2) At the Palm Beach Polo Club owned by the PBPCC or at the Palm Beach Polo Equestrian Club facilities, leased from the PBPCC by Stadium Jumping, Inc. In addition a smaller number of horses in 1997 were located on facilities leased by Littlewood Farm and Littlewood Fences from a private landowner with property near the PBPCC.

Parts (1) and (2) above are interrelated and are separated in their impact on Wellington only for ease of measurement. For part (1), horses in Wellington must be boarded on property with sufficient acreage to maintain them. This limits them to properties of sufficient acreage in the Equestrian Preservation Area. In this study, questions were asked of each property owner of one acre or more in the EPA to determine if they owned horses and boarded them on their own property and/or if they boarded horses for others on their property. Once these individuals were identified, it was possible to obtain a count of horses boarded on property in the EPA and the number of days during the year that they were in Wellington.

Having identified the horse population in Wellington and the number of days those horses were in the Village over a year's period, the EPA property owner survey also yielded an estimate of average equine-related household. Knowing the average equine-related spending per horse, and the number of horses (adjusted for days in Wellington) the product of these two factors yielded an estimate of total equine-related spending in Wellington over the year. The same basic procedure was followed for determining equine-related employment.

A similar procedure was followed for part (2) to determine the equine-related spending of those who boarded their horses at Palm Beach Polo Club, Palm Beach Polo Equestrian Club, and Littlewood Farm and Fences (first quarter of 1997). A survey of these organizations resulted in counts of horses stabled on the grounds each month for the latest twelve month period.

To obtain average spending per horse by event participant, participant lists were provided by Palm Beach Polo and Stadium Jumping. Each of these lists was surveyed in its entirety. Knowing the average expenditure and employment per horse, the number of horses and the number of days these horses were stabled at each facility, total spending and employment by horsemen with horses at these facilities could be determined.

The sum of spending and employment associated with horses boarded in the EPA, including the Palm Beach Polo Club, the Palm Beach Polo Equestrian Club, and Littlewood, gives a measure of direct annual equine-related spending and employment in the Village of Wellington. It should be emphasized that care has been taken to avoid "double-counting" of the horse population and associated expenditures in this study.

Added to the direct economic impact of spending and employment is an additional indirect economic impact. The indirect impact results from recipients of the direct spending by equine owners who, in turn, purchase both equine products and non-equine products for business and personal use. This spending process follows for a number of rounds, diminishing at each round as receipts are saved or invested. The sum of the spending (and employment created by it) for all of these rounds is referred to as the indirect impact created by the initial round of direct spending of the equine industry in Wellington. The sum of the direct and indirect spending and employment impacts are the total economic impact of the Wellington equine industry on the Village's economy.

In the following sections, a more detailed account of the analysis and its results are presented.

### **DIRECT EXPENDITURE IMPACT**

Although not listed as an official business in most cases, each of the private horse operations is, in fact, a small business operation. These equine operations purchase labor inputs, raw material inputs (e.g. feed and bedding), and services (e.g. veterinarian, farrier, shipping, training, riding lessons, subscriptions), all necessary to support their operation.

#### **Direct Expenditure Impact Of The Equine Industry In The EPA, Excluding PBPC**

Following is a discussion of the method used, and the results of, the equine survey of the EPA, excluding PBPC, with respect to direct spending by property owners associated with horses there.

#### **Population Characteristics of EPA**

Since one of the major objectives of the Wellington equine survey, with respect to the Equestrian Preservation area, was to count the horses residing on properties there, only those properties with one or more acres were included in the sample. Of the 2,169 properties located in the EPA, 342, or 16%, had less than one acre of land and so were omitted from the survey. These property owners who owned horses were identified from separate surveys of commercial facilities and Wellington event participants. The remaining 1,827 or 84% of the Equestrian Preservation Area parcels had one or more acres of land, possibly sufficient to support equine on the premises. There were 1.9 equine owners and 6 horses per equine household.

#### **Equine Household and Owner Count for EPA Properties of One or More Acres**

The Wellington Equine Preservation Area survey list, excluding PBPC, was constructed from the list of 1,827 parcels, narrowed down by assigning one account number to each owner of

multiple properties. The resulting list contained 991 property owner names representing 1,827 parcels. The response rate is given below:

Sample Size	991
Less Returns For Insufficient Address	-48
Adjusted Sample Size	943
Responses To Survey	199
Number With Equine	79

The response rate to the survey was 21%. Of those responding, 40% owned horses and/or boarded horses on their property. It is estimated from this survey that there are a total of 396 equine owners, or non-equine owners who have parcels of land on which equine were boarded, in the EPA. When multiple parcel ownership is included, the number of separate parcels owned by equine owners was estimated to be 731.<sup>3</sup>

### Geographic Location Of EPA Owners Of Property Of One Or More Acres

Eighty one percent of the owners surveyed resided in Florida. The rest of the owners were scattered around the country and in other countries with no one geographic area represented by more than 3.5% of the total.<sup>4</sup> Eighty eight percent of those returning a survey resided in Florida, 77% in Wellington and 11% in other Florida counties. Eighty five percent of those respondents who owned horses resided in Florida with 80% living in Wellington and 5% in other Florida counties.

### Description Of Property and Location Where Horses Boarded

There was an average of 7.4 acres per household who owned horses and had property with one or more acres in the EPA. A description of the type of property owned by the EPA equine owner respondents who had property with one or more acres is as follows:

Table 1: Property Improvement Type

Residence-And Equine Outbuildings	74%
Residence-No Equine Outbuilding	16%
No Improvements	13%
Equine Outbuildings Only	11%
Note: Total adds to more than 100% due to multiple responses.	

<sup>3</sup> This is an approximation since multiple property owners may not have equine on both properties. The assumption is that they do have equine on each property since the parcels are all one acre or more.

<sup>4</sup> 3.2% of the owners resided in New York.

For those respondents with horses in the EPA, a summary of location of those horses relative to the type of reporting unit is as follows:

**Table 2: Horse Location Relative To Reporting Unit**

Private residence-horses boarded on	71%
Private residence-horses boarded off	23%
Commercial boarding/training facility	14%
Note: Total adds to more than 100% due to multiple property ownership.	

The EPA respondents who owned horses or who boarded horses for others on their property were made up of 87% private residences and 13% commercial equine operations. Seventy one percent of horses owners boarded their horses on their own private residences. Twenty one percent of property owners with horses had a residence in the EPA and boarded their horses off-property. These horses could be boarded at other private residences, at commercial operations in the EPA, excluding the PBPCC facilities, or at the Palm Beach Polo Club or the Palm Beach Polo Equestrian Club. About 14% of property owners were commercial boarding, training, or breeding operations in the EPA.

### Zoning

Horse owner respondents indicated that their property was zoned as follows:

**Table 3: Zoning Of Equine Property Owners**

Ag-residential	48%
Residential	30%
Agricultural	17%
Rural-residential	5%
Commercial	0%

### Horse Distribution By Breed

Table 4 gives the distribution of horses owned by EPA property owners by breed.

Table 4: Distribution Of Horses Owned By EPA Property Owners By Breed

Breed	Percent
Thoroughbred	54.3%
Warmblood	16.3%
Quarter Horse	9.7%
Arabian	6.6%
National Show Horse	3.0%
Appaloosa	1.1%
Morgan	0.2%
Standardbred	0.2%
Saddlebred	0.0%
Other Registered	2.7%
Other Non-Registered	5.9%

By far the largest breed is thoroughbred at 54% followed by warmblood at 16.3%. The large percentage of thoroughbreds reflects not only those used for equestrian events but also those used for polo where large strings of horses are required.

#### Horse Distribution By Use

The horses categorized by breed above were used for different purposes by their owners. Table 5 gives the distribution of horses by use.

Table 5: Distribution Of Horses Owned By EPA Property Owners By Use

Use	Percent
Polo	37%
Show/Competition	35%
Pleasure/Sport	17%
Breeding	9%
Other	2%
Racing	0%

Polo horses accounted for 37% of the use of horses in the EPA followed closely by 35% whose indicated use was for show or competition. It should be noted that there are an average of 14 polo horses per person who own such horses compared to about 4 horses per person for those who owns show/competition horses. Thus, the number of persons who own show horses is greater than the number of persons who own polo horses in the EPA. Horses used for pleasure or sport accounted for only 17% of horse usage in the EPA. This contrasts sharply with the earlier study of all of Palm Beach County where horses used for pleasure or sport accounted for 44% of horse usage (Thalheimer Research Associates, 1994). The difference in usage of horses between the Village of Wellington, and Palm Beach County as a whole, points out the distinctive nature of the horse population in Wellington. *In Wellington owners use horses primarily for show/competition and polo rather than for pleasure or sport.*

## Wellington EPA Horse Count

Horse owners with horses on their property in the EPA averaged 6.0 horses per household. The number of horses on properties in the EPA varies by quarter since many of the horse owners follow the show or polo circuit around the state and country over the year. The greatest number of horses are kept on property in the EPA for the first quarter (January through March) of the year at the height of the equestrian show and polo seasons. The least number of horses are kept on property in the third quarter (July through September) of the year. Table 6 gives the average number of horses on properties in the EPA by quarter.

**Table 6: Average Number Of Horses On Properties In The EPA, Excluding PBPC**

	Average Number Of Own Horses On EPA Owner Property	Average Number Of Outside Owner Horses On EPA Owner Property
Q1	6.1	3.9
Q2	4.4	1.7
Q3	3.3	1.0
Q4	5.0	2.8
Average (fte)	4.7	2.3

Adjusting the number of horses to an average year-round full-time-equivalent (fte) basis, horses owners in the EPA keep an average of 4.7 of their own horses year-round on their property. Thus, horses owned by property owners in the EPA were at events outside Wellington about 22% of the time in 1996.<sup>5</sup> Property owners in the EPA also board horses for others on their properties. Adjusting for seasonal variations, there were 2.3 fte "outside" horses boarded on properties which have an equine presence in the EPA. In all, there were 7.0 fte horses on EPA properties in 1996, 4.7 owned by the property owner and 2.3 owned by "outside" boarders" who may live either in the EPA or outside the EPA.

Excluded from these figures are four large private polo fields and a large equestrian facility, also located in the EPA which were surveyed separately. In addition, the Palm Beach Polo and Palm Beach Polo Equestrian Club facilities are excluded. Information was obtained on the four private polo fields and the large equestrian center in separate surveys. Following is a breakdown of horses stabled at these locations for the latest four quarters ending in the first quarter of 1997.

<sup>5</sup> Computed as:  $1 - (\text{fte horses} / \text{total horses}) = 1 - (4.7/6)$ .

**Table 7: Horses Stabled At 4 Large Polo Fields and 1 Large Equestrian Operation In The EPA**

Quarter*	Horses
Q1	860
Q2	577
Q3	160
Q4	430
Average(fte)	507
*Polo: South Forty, ESCUE, Isla Carroll, South Shore. Equestrian: Palm Beach Equestrian Center.	

The number of horses residing on property in the EPA year-round, is given in Table 8 as follows:

**Table 8: Average Number Of Horses Residing In The EPA Year-Round**

Location Of Horses In EPA	Average FTE Horses	Property Owners	Total Horses Year-Round
On Property With One Or More Acres	7.0	396	2,772
Large Polo and Equestrian Operations*	101.4	5	507
Total		401	3,279
*Four large polo and one large equestrian operation, excluding PBPCC.			

By far the greatest number of horses are on property in the EPA in the first quarter. The fewest number of horses are on EPA property during summer months when many of the polo and show horses are at events held outside Wellington. Table 9 gives the breakdown of total horses by quarter in the EPA based on sample totals by quarter.

**Table 9: Estimated Total Horses By Quarter In The EPA**

EPA Properties With Horses	Properties	Horses	Horses	Horses	Horses	Avg. (FTE)
		Q1	Q2	Q3	Q4	
On Property With One Or More Acres*	396	3,922	2,385	1,690	3,089	2,772
Large Polo and Equestrian Operations*	5	860	577	160	430	507
Total	401	4,782	2,962	1,850	3,519	3,279
*Four large polo and one large equestrian operation, excluding PBPCC.						

### Direct Expenditures

Total equine-related cash expenditures by households in the EPA were determined by subtracting depreciation, an estimate of investment based on historical cost, from total expenditures, and adding back 1996 investment outlays.

### Average Non-Investment Expenditures Per Household

There were 63 respondents to the total expenditures question, representing 80% of total respondents who had horses in the EPA. In 1996 the average annual equine-related expenditure of households with equine and who owned property of one acre or more in the EPA was

\$124,680. Depreciation expense represented 2.6% of total costs. Those surveyed indicated that 85.8% of their annual equine-related expenditures were made in Wellington. Non-investment expenditures, excluding depreciation and expenditures made outside Wellington, averaged \$104,194 per household.<sup>6</sup>

#### Average Investment Expenditures Per Household

Equine-related investment expenditures, excluding private residences, varied widely among respondents. These expenditures averaged \$46,659 per year.<sup>7</sup>

#### Total Expenditures By Horse

Table 10 summarizes average expenditures allocated to Wellington per horse on EPA properties in 1996.

Table 10: Average Expenditure Per Horse For Equine Owners In The EPA

Sample Size	63
Average Equine Owners Per Household	1.9
Average Horses Per Household	6.0
<b>Average Non-Investment Expenditures-Less Depreciation:</b>	
Average Non-Investment Expenditures	\$124,680
Average Non-Investment Expenditures Less 2.6% Depreciation	\$121,438
Average Non-Investment Expenditures Allocated To Wellington (85.8%)	\$104,194
Average Investment Expenditures Allocated To Wellington*	\$46,659
Average Annual Household Expenditures Allocated To Wellington	\$150,853
Average Annual Expenditures In Wellington Per Horse	\$25,142
Average Daily Expenditures In Wellington Per Horse	\$68.9
*30% of expenditures on horses made in Wellington	

Excluding investment expenditures, households in the EPA spent an average of \$104,194 in Wellington on their horses. When investment expenditures are included, the average household expenditure increases to \$150,853. The average expenditure per horse, excluding investment in new horses and equipment is \$17,366, increasing to \$25,142 when investment expenditures are included. In an earlier study (Thalheimer Research Associates, 1994) the average expenditure of *resident horse owners* was found to be \$25,000 per household. However, in that earlier study it was found that there are a much greater proportion of horses used for pleasure and lower-tier horse shows county-wide than in Wellington. A more valid comparison would be the average expenditure by household for out-of-state equestrian event participants in 1993 which was found to be \$124,407 in Palm Beach County for upper tier horse owners. The

<sup>6</sup> Computed as  $\$124,680 \times (1 - .026) \times .858$ .

<sup>7</sup> Computed as:  $\$38,500 \times 0.73$  (investment in horses, 73% purchased in Wellington) +  $\$10,417$  (equipment) +  $\$31,176$  (equine improvements).

annual cost of \$25,142 and the daily cost of \$68.8 are averages over all types of horses, i.e. those used for polo, show, pleasure, etc. which are kept on properties in the Village of Wellington.

**Total Direct Expenditure Impact By Owners Of Horses Boarded  
In The EPA, Excluding PBPCC**

Direct expenditures of property owners with horses in the EPA are given in Table 11.

**Table 11: Direct Economic Impact Of Owners Of Horses In The EPA, Excluding PBPCC**

Total FTE Horses On Wellington EPA Properties	3,279
Average Expenditures Per Horse	\$25,142
Total Equine-Related Expenditures In The EPA	\$82,440,618

**Distribution of Direct Expenditures By Category**

Direct expenditures of horse owners with property in the EPA were allocated among general categories as shown in Table 12. Wages, including contract wages, represent 26% of total expenditures. This is followed by board/feed and bedding/training fees and riding lesson costs, accounting for 18% of total costs. These categories were combined since board includes feed and bedding costs for those who don't own the property where their horses are boarded. Board may also include training and riding lesson costs. It was impossible to separate these costs accurately and so they were combined for reporting purposes. Veterinarian and farrier services accounted for 14% of total expenditures.

**Direct Expenditure Impact-Palm Beach Polo Club,  
Palm Beach Polo Equestrian Club, And Littlewood**

The first part of this study involved a determination of the direct spending impact of EPA property owners who board their own horses on their property and/or who board horses of others on their property. In the sections which follow, a determination is made of the direct spending impact of Wellington equine event participants at locations owned by the PBPCC and at Littlewood Farm and Littlewood Fences events held on leased land near the PBPCC.

**The Palm Beach Polo and Country Club**

Polo ponies are stabled on private residences of EPA property owners, facilities in the EPA, at facilities owned by the Palm Beach Polo and Country Club, or at other commercial facilities in the EPA. The direct economic impact of owning polo ponies in the EPA, either on private residences or on commercial facilities located there, has already been estimated. In this part of the study the direct economic impact of polo event participants at the PBPCC facilities, specifically the Palm Beach Polo Club, is measured. The Palm Beach Polo and Country Club is a 2,200 acre residential complex offering golf, tennis, polo and equestrian events.

Table 12: Distribution Of Expenditures

Expenditure Category	Percent
Wages-Excluding Contract Labor	20.4%
Wages-Contract Labor	4.2%
Wages-Contract Labor-Polo Players	1.5%
Board/Stabling/Feed/Bedding/Training Fees/Lessons*	18.2%
Veterinarian	8.2%
Insurance-Equine	2.1%
Insurance-Other	3.4%
Farrier (Blacksmith)	5.3%
Advertising	0.5%
Depreciation-Equine	0.6%
Depreciation-Facilities	2.0%
Equine Apparel	1.5%
Gasoline/Fuel	1.6%
Land/Facilities (for equine) Lease Payments	4.2%
Maintenance and Repair	4.9%
Membership Dues	1.3%
Nominations/Entry Fees/Registrations	4.8%
Subscriptions	0.1%
Tack and Supplies	2.9%
Taxes-Local Property	4.0%
Taxes-Other Local	0.8%
Travel and Entertainment	2.8%
Utilities	2.1%
Vanning/Shipping	1.4%
All Other	1.2%
Total	100.0%

\*Board and Stabling in many cases include feed and bedding and lessons and training fees. If an owner boards his or her own horses, there is no board bill which is reflected in direct expenditures for feed and bedding.

### Polo Events At The Palm Beach Polo Club

World class polo matches are conducted during the "season" at the Palm Beach Polo Club. As mentioned in the introduction, there is a tiered 5,000 seat stadium for spectators and stabling for 600 polo ponies at the facility.

### Polo Event Survey

In order to determine the average expenditures and employment of polo participants at the Palm Beach Polo Club, a survey of players and members was conducted using a 1996-1997 list provided by the Palm Beach Polo Club. The event survey form mailed to those on the list is

given in the Appendix. This form was used for both polo and equestrian event participants. Excluding duplicates with the county assessor list for the EPA, there were 177 potential candidates for the survey. The response rate is given below:

Sample Size	177
Less Returns For Insufficient Address	-5
Adjusted Sample Size	172
Responses To Survey	19
Number With Equine	17

There was an 11% response rate to the survey. Of those responding, 89% said that they owned horses in Wellington. In order to increase the sample size of polo respondents, the polo club survey was supplemented with 13 respondents to the EPA survey who indicated that the primary use of their horses in Wellington was for polo. The total sample size used to obtain average expenditures and employment for polo events in Wellington was, therefore, increased from 17 to 30. From the survey it was determined that there was an average of 2.0 equine owners and 15 horses per household. Fourteen of the horses were used for polo events while the additional horse was used for show events.

#### Description Of Property and Location Where Horses Boarded

From the polo list survey, it was determined that 41% of event participants had Wellington addresses. Of those who resided outside Wellington, 60% owned a residence in Wellington while 40% rented a dwelling there.

#### Average Non-Investment Expenditures Per Household

There were 21 respondents to the total expenditures question, representing 70% of the total polo event participant sample. In 1996 the average annual equine-related expenditures of households with polo ponies who participated in events at Wellington was \$196,197. Depreciation expense represented 4.7% of total costs. Average non-investment expenditures, excluding depreciation, were \$186,976 per household.<sup>8</sup>

#### Average Investment Expenditures Per Household

Equine-related investment expenditures, excluding private residences, varied widely among respondents. These expenditures averaged \$46,320 per year.<sup>9</sup>

<sup>8</sup> Computed as \$196,197 x (1-.047)

<sup>9</sup> Computed as: \$38,500x0.72 (investment in horses, 72% purchased in Wellington) + [\$10,417 (investment in equipment) + \$14,583 (investment in equine improvements)]x0.744

## Average Expenditures By Horse

Table 13 summarizes average expenditures allocated to Wellington per polo pony for Palm Beach Polo Club event participants.

**Table 13: Average Expenditures Per Horse For Polo Horse Owners**

Sample Size	30
Average Equine Owners Per Household	2.0
Average Horses Per Household	15
<b>Average Non-Investment Expenditures-Less Depreciation</b>	
Average Non-Investment Expenditures	\$196,197
Average Non-Investment Expenditures Less 4.7% Depreciation	\$186,976
<b>Average Investment Expenditures Allocated To Wellington*</b>	<b>\$46,320</b>
<b>Average Annual Household Expenditures</b>	<b>\$233,296</b>
<b>Average Annual Expenditures Per Horse</b>	<b>\$15,553</b>
<b>Average Daily Expenditures In Wellington Per Horse</b>	<b>\$42.6</b>
*72% of investment expenditures on horses made in Wellington plus 74.4% of all other investment expenditures allocated to Wellington.	

Excluding investment expenditures, polo event participants spent an average of \$186,976 in Wellington on their horses. When investment expenditures are included the average household expenditure increases to \$233,296. The average expenditure per horse, excluding investment in new horses and equipment, is \$12,465, increasing to \$15,553 when investment expenditures are included. Average daily expense per horse in Wellington was computed to be \$42.6.

### Total Direct Expenditure Impact By Polo Participants At Palm Beach Polo Club

A list of the number of polo ponies stabled at Palm Beach Polo for the latest 12 month period at the time this survey was performed was obtained from the Palm Beach Polo Club. The period covered included the last three quarters of 1996 and the first quarter of 1997. Table 14 gives the number of polo horses boarded at the Palm Beach Polo facilities.

The intensity of use of the facility is measured by horse-days per month. The number of polo ponies stabled at Palm Beach Polo each month, multiplied by the number of days per month, yields the number of horse-days per month.

Total direct expenditures of horse owners with horses boarded at the Palm Beach Polo Club are given in Table 14. The expenditures by month are given in the last column of the Table and are computed as the number of horse-days for the month multiplied by the average expenditure per horse per day.

**Table 14: Polo Ponies At Palm Beach Polo And Country Club**

	<b>Polo Ponies Stabled At PB Polo</b>	<b>Horse-Days</b>	<b>Total Expenditures</b>
Jan	600	18,600	\$792,360
Feb	600	16,800	\$715,680
Mar	100	3,100	\$132,060
Apr	600	18,000	\$766,800
May	600	18,600	\$792,360
Jun	100	3,000	\$127,800
Jul	50	1,550	\$66,030
Aug	50	1,550	\$66,030
Sep	50	1,500	\$63,900
Oct	50	1,550	\$66,030
Nov	300	9,000	\$383,400
Dec	500	15,500	\$660,300
<b>Total</b>		<b>108,750</b>	<b>\$4,632,750</b>

It should be noted that polo ponies stabled elsewhere in Wellington, due to lack of space at Palm Beach Polo, would be moved to locations outside the Village if the events held at the PBPCC were to be discontinued.

#### **Equestrian Events At The Palm Beach Polo Equestrian Club and Littlewood**

The Palm Beach Polo Equestrian Club was surveyed to determine the number of horses stabled on the grounds for the same time period at that used for the Palm Beach Polo Club.

The equestrian events held at the Palm Beach Polo Equestrian Club can be grouped into two levels, Tier 1 and Tier 2 (see Thalheimer Research Associates, 1994). The Tier 1, or top level, events are those put on by Stadium Jumping, Inc., Littlewood Farm and Littlewood Fences, and the Olympic Trials. The competition in these events is at the national and international levels. The remainder of the events held at the Palm Beach Polo Equestrian Club, Tier 2 events, are of a more local nature.

#### **Equestrian Event Survey**

**Tier 1.** In order to determine the average expenditures and employment of Tier 1 equestrian event participants at the Palm Beach Polo Equestrian Club a survey of Stadium Jumping, Inc. event participants was conducted using a list provided by that organization. The event survey form is given in the Appendix. Excluding duplicates with the county assessor list, there were 177 potential candidates for the survey. The response rate is given below:

Sample Size	689
Less Returns For Insufficient Address	-20
Adjusted Sample Size	669
Responses To Survey	139
Number With Equine	124

There was a 21% response rate to the survey. Of those responding, 89% said that they owned horses in Wellington. From the survey it was determined that there was an average of 1.8 equine owners and 3.8 horses per household. It should be noted that many of the Stadium Jumping event participants also indicated that they participated in Littlewood Farm and Littlewood Fences events.

Tier 2. A separate survey was not conducted for the Tier 2 event participants. Information on expenditures by these participants was obtained from an earlier survey (Thalheimer Research Associates, 1994).

#### Location Where PBPCC Event Participant Stayed

The Stadium Jumping and Palm Beach Polo lists were combined to obtain information on accommodations for those participants living outside Wellington. From the Stadium Jumping list, it was determined that 93% of Stadium Jumping event participants resided in locations outside Wellington. For these participants, 79% stayed in Wellington, 20% stayed in Palm Beach County and the remaining 1% stayed outside Palm Beach County. The breakdown given in Table 15 shows where they stayed.<sup>10</sup>

Table 15: Location Where Equestrian Event Participant Stayed

	Respondents Staying In Wellington
Condo/Apartment/Home (Own)	44.4%
Condo/Apartment/Home (Rent)	40.0%
Hotel Or Motel	10.0%
Campground or RV Park	7.8%
Friends Or Relatives	5.6%
Other	0%
Timeshare Unit	0%
Note: Total adds to more than 100% due to multiple responses.	

There are no hotels or motels in Wellington, yet 10% of the respondents indicated that they stayed at hotels or motels. This can be explained by the multiple responses of some

<sup>10</sup> A similar breakdown was not available for Palm Beach Polo Club participants from outside Wellington due to insufficient response.

participants who may stay at these locations some time during the season as well as renting in their own or rented condominiums in Wellington.

### Description Of Property and Location Where Horses Boarded

For those non-resident participants in Stadium Jumping events, their horses were boarded in locations shown in Table 16.

Table 16: Stadium Jumping Participant Horse Location Relative To Reporting Unit

Commercial boarding/training facility	88.7%
Private residence-horses boarded on	6.5%
Private residence-horses boarded off	4.8%

As can be seen, 89% of all non-resident participants board their horses at commercial facilities in Wellington. The primary facility for this is, of course, the Palm Beach Polo Equestrian Club.

### Average Non-Investment Expenditures Per Household

There were 81 respondents to the total expenditures question, representing 65% of the total Stadium Jumping participant sample. In 1996 the average annual equine-related expenditures of households who participated in Stadium Jumping events at Wellington was \$128,203. Depreciation expense represented 4.1% of total costs. Average non-investment expenditures, excluding depreciation and expenditures were \$122,947 per household.<sup>11</sup>

### Average Investment Expenditures Per Household

Equine-related investment expenditures varied widely among respondents. These expenditures in Wellington averaged \$28,788 per year.<sup>12</sup>

### Total Expenditures Per Horse

Tier 1. Table 17 summarizes average expenditures allocated to Wellington per equestrian event horse for Stadium Jumping event participants at the Equestrian Club.

<sup>11</sup> Computed as  $\$128,203 \times (1 - .041)$

<sup>12</sup> Computed as:  $\$66,878 \times 0.33$  (investment in horses, 33% purchased in Wellington) +  $[\$8,986$  (investment in equipment)]  $\times 0.417$  +  $\$42,449$  (investment in equine improvements in Wellington)]  $\times 0.07$ .

**Table 17: Average Expenditures Per Horse For Stadium Jumping Event Participants**

Sample Size	98
Average Equine Owners Per Household	1.8
Average Horses Per Household	4.2
Average Non-Investment Expenditures-Less Depreciation	
Average Non-Investment Expenditures	\$128,203
Average Non-Investment Expenditures Less 4.7% Depreciation	\$122,947
Average Investment Expenditures Allocated To Wellington*	\$28,788
Average Annual Household Expenditures	\$151,735
Average Annual Expenditures Per Horse	\$36,127
Average Daily Expenditures In Wellington Per Horse	\$99.0
*33% of investment expenditures on horses made in Wellington, 41.7% of equipment investment, and 7% of improvement investment allocated to Wellington.	

Excluding investment expenditures, Tier 1 event participants spent an average of \$122,947 in Wellington on their horses. When investment expenditures are included, average household expenditures increase to \$151,735. The average expenditure per horse, excluding investment in new horses and equipment is \$29,273, increasing to \$36,127 when investment expenditures are included. Total expenditures per day per horse for Tier 1 horses averaged \$99.0. This was 13.5% higher than the 1993 cost of \$87.2 reported for Tier 1 horses in an earlier study (Thalheimer Research Associates, 1994).

Tier 2. Information on the cost per day for these horses was available for Tier 2 participants from an earlier study (Thalheimer Research Associates, 1994). In that study the cost per day of Tier 2 horses was found to be \$25.7. Using the 13.5% increase reported for Tier 1 horses above, the 1996 daily cost per horse is estimated to be \$29.2 per day.

#### **Total Direct Expenditures Palm Beach Polo Equestrian Club**

A list of the horses stabled at the Palm Beach Equestrian Club for the last three quarters of 1996 and the first quarter of 1997 was provided by Stadium Jumping, Inc. which leases the stall space. Table 18 gives the number of horses boarded at the Equestrian Club Facilities. The intensity of use of the facility is measured by horse-days per month. The number of horses stabled at the Palm Beach Equestrian Club by month times the number of days per month yields the number of horse-days per month.

Table 18: Horses At Palm Beach Polo Equestrian Club

Month	Stall Occu-pancy	Average Days	Total Horse-Days	Tier 1: % Horse-Days	Tier 2: % Horse-Days	Tier 1: Horse-Days	Tier 2: Horse-Days
Jan	2,238	31	69,378	100.0%	0.0%	69,378	0
Feb	2,374	28	66,472	100.0%	0.0%	66,472	0
Mar	2,318	30	69,540	97.9%	2.1%	68,073	1,467
Apr	841	3.25	2,733	41.8%	58.2%	1,141	1,592
May	393	2.5	983	43.7%	56.3%	430	553
Jun	791	3	2,373	22.5%	77.5%	533	1,840
Jul	123	2	246	0.0%	100.0%	0	246
Aug	226	2.5	565	0.0%	100.0%	0	565
Sep	880	3.4	2,992	62.0%	38.0%	1,855	1,137
Oct	373	1.5	560	37.1%	62.9%	208	352
Nov	1,509	3.8	5,734	33.6%	66.4%	1,929	3,805
Dec	1,098	31	34,038	100.0%	0.0%	34,038	0
Total Horse-Days			255,614			244,057	11,557

Source Stable Count: Stadium Jumping, Inc.

Total direct expenditures of horse owners with horses boarded at the Palm Beach Polo Equestrian Club are given in Table 19. The expenditures by month are computed as the product of cost per horse per day multiplied by the number of horse-days in the month.

Table 19: Total Expenditures At Palm Beach Polo Equestrian Club

Month	Tier 1 Horse-Days	Tier 1 Expenditures (1)	Tier 2 Horse-Days	Tier 2 Expenditures (2)	Total Expenditures
Jan	69,378	\$6,868,422	0	\$0	\$6,868,422
Feb	66,472	\$6,580,728	0	\$0	\$6,580,728
Mar	68,073	\$6,739,227	1,467	\$42,836	\$6,782,063
Apr	1,141	\$112,959	1,592	\$46,486	\$159,445
May	430	\$42,570	553	\$16,148	\$58,718
Jun	533	\$52,767	1,840	\$53,728	\$106,495
Jul	0	\$0	246	\$7,183	\$7,183
Aug	0	\$0	565	\$16,498	\$16,498
Sep	1,855	\$183,645	1,137	\$33,200	\$216,845
Oct	208	\$20,592	352	\$10,278	\$30,870
Nov	1,929	\$190,971	3,805	\$111,106	\$302,077
Dec	34,038	\$3,369,762	0	\$0	\$3,369,762
Total	244,057	\$24,161,643	11,557	\$337,464	\$24,499,107

(1) \$99.0 per horse per day  
(2) \$29.2 per horse per day

### Total Direct Expenditures Littlewood Farm and Littlewood Fences

Littlewood Farm and Littlewood Fences conducted their events at the Palm Beach Polo Equestrian Club in 1996 and the horse count for those events for the three quarters that they were at the Club (April-January, 1996) are included in Table 18. In 1997, Littlewood Farm and Littlewood Fences conducted their Tier 1 events on leased vacant land abutting the Palm Beach Polo Equestrian Club. A survey of the Littlewood organization resulted in an estimate of 100 horses stabled in tent facilities from January through March of 1997 associated with shows which Littlewood put on over that period. This would translate into 9,000 horse days which, at \$99 per horse per day, would account for \$891,000 in event participant expenditures.

### Summary Of Total Direct Expenditures Associated With Events Held At The Palm Beach Polo Club, The Palm Beach Polo Equestrian Club and Littlewood

Table 20 summarizes the direct spending associated with events held at the Palm Beach Polo Club, the Palm Beach Polo and Equestrian Club, and Littlewood facilities in 1996. Total direct spending was \$30.0 million.

Table 20: Total Direct Expenditures Associated With Facilities At The Palm Beach Polo Club, The Palm Beach Polo Equestrian Club, And Littlewood

Palm Beach Polo Club Events	\$4,632,750
Palm Beach Polo Equestrian Club Events*	\$24,499,107
Littlewood First Quarter 1997 Events	\$891,000
<b>Total Direct Expenditures</b>	<b>\$30,022,857</b>
*Includes Littlewood Events for last three quarters of 1996.	

### Non-Resident Owner Visitor-Related Expenditures

Polo and Tier 1 event participants who reside out of state and who board their horses at the Palm Beach Polo and the Palm Beach Polo Equestrian Club travel to Wellington with a travel party and spend their money on a variety of visitor-related goods and services. There were too few out-of-state polo respondents to be reported separately and so their responses were combined with those of the Stadium Jumping respondents to determine visitor-related expenditures.

### Visitor Expenditures

Table 21 gives visitor related expenditures by out-of-state residents who participated in Palm Beach Polo and Stadium Jumping WEF events in 1996.

Table 21: Out-Of-State Horse Owner-Visitor Daily Expenditures

GENERAL	
Sample Size	82
Average Nights In Wellington*	62.3
Average Days In Wellington	8.6
Average Size Of Party	2.6
EXPENDITURES PER OWNER GROUP	
Transportation	\$7.4
Gasoline/Fuel	\$8.3
Alcoholic Beverages	\$7.5
Food (grocery)	\$21.1
Food (restaurant)	\$39.0
Lodging**	\$56.5
Entertainment	\$14.9
Shopping/Gifts	\$25.1
Other	\$7.5
<b>Total</b>	<b>\$187.3</b>
*The average nights spent in Wellington were 84.8 for those who owned their own dwelling, and 53.9 for those who didn't.	
**Lodging was \$81 per night for those who did not own their own dwelling. Lodging includes condominium, hotel/motel, time share, owner-dwelling, ...	

In total, visitor-related expenditures were \$187.3 per day in Wellington in 1996. This lies in the range of expenditures of \$103 per day for air visitors to Florida in 1995 and \$222 per day for air visitors who stayed in hotels or motels.<sup>13</sup> Visitor expenditures were not computed for out-of-state Tier 2 event participants which were a much smaller number than the Tier 1 participants.

Table 22 gives the total expenditures by quarter based on expenditures per day and on owner-days at the Palm Beach Polo, the Palm Beach Polo Equestrian Club, or Littlewood leased property. Owner days are computed as the number of horse-days divided by the number of horses per household. The product of owner-days for horses at the non-EPA facilities listed above, and the average spending per owner (and associated travel group) per day yields the estimates of total expenditures in the table.

<sup>13</sup> Florida Department of Commerce, Bureau of Economic Analysis, 1995 Florida Annual Visitor Study.

**Table 22: Event Participant Travel Party Visitor-Related Expenditures**

	Tier 1 Owner-Days(1)	Tier 1 Expenditures(2)	Polo Owner-Days (3)	Polo Expenditures(2)	Total Travel Party Visitor Expenditures
Q1	52,110	\$9,744,570	1,694	\$316,778	\$10,061,348
Q2	515	\$96,305	1,742	\$325,754	\$422,059
Q3	454	\$84,898	202	\$37,774	\$122,672
Q4	8,853	\$1,655,511	1,146	\$214,302	\$1,869,813
<b>Total</b>	<b>61,932</b>	<b>\$11,581,284</b>	<b>4,784</b>	<b>\$894,608</b>	<b>\$12,475,892</b>

(1) 93% of event participants listed residence outside Wellington. Owner days computed as horse-days x 0.93 + 3.8 horses per household. Owner-days include Littlewood shows first quarter of 1997 (9,000 horse-days)

(2) \$187.3

(3) 66% of event participants listed residence outside Wellington. Owner days computed as horse-days x 0.66 + 15 horses per household.

### Spectator Expenditures

There are many spectators at the polo and equestrian events held at the Palm Beach Polo Club and the Palm Beach Polo Equestrian Club. An estimate of the number of spectators and their spending was not determined for this report. In an earlier study (Thalheimer Research Associates, 1994) it was estimated that there were 38,000 spectators for events held by Stadium Jumping, Inc., largely in the first three quarters of the year. The Palm Beach Polo Club estimated that about 20,000 spectators attended their weekend matches over the five month season.

### Summary Direct Equine-Related Expenditure Impact

Table 23 gives a summary of direct equine-related expenditures associated with horses boarded at EPA and non-EPA locations in 1996.

**Table 23: Summary Direct Equine-Related Expenditures-Wellington**

Property Owners With Horses In The EPA	\$82,440,618
Horse Owners At Palm Beach Polo	\$4,632,750
Horse Owners At Palm Beach Polo Equestrian Club(1)	\$24,499,107
Horse Owners At Littlewood Farm and Littlewood Fences (Q1 1997)	\$891,000
Out-Of-State Horse Owner Visitor-Expenditures(2)	\$12,475,892
<b>Total</b>	<b>\$124,939,367</b>
(1) Includes Littlewood event associated expenditures for Q2-Q4, 1996	
(2) Palm Beach Polo, Palm Beach Polo Equestrian Club, Littlewood (Q1, 1997)	

Non-visitor related spending by horse owners with horses at the Palm Beach Polo Equestrian Club and Littlewood represented 85% of total spending with the Palm Beach Polo Club included. Direct expenditure by owners of horses who were maintained in the Village of Wellington totaled \$124,939,367 in 1996.

## Total Horse Count By Quarter

To get an idea of the seasonal variation of the Wellington equine industry, the number of horses in the EPA, at Palm Beach Polo, at Palm Beach Polo Equestrian Club, and at Littlewood's leased operation (one quarter) is aggregated from tables given earlier in this report and presented in Table 24.

Table 24: Summary Average Horse Count By Quarter

Quarter	EPA	PB Polo Club*	PB Equestrian Club*	Total
Horses Q1	4,782	433	2,282	7,497
Horses Q2	2,962	433	67	3,462
Horses Q3	1,850	50	41	1,941
Horses Q4	3,519	283	438	4,240
Average	3,278	300	707	4,285

\*Includes 100 horses per month stabled at Littlewood, 1st Quarter 1997. Horse count adjusted for days on grounds.

There were an average of 4,285 horses in Wellington over the four quarter period ranging from a low of 1,941 in the third, or summer quarter, to a high of 7,497 in the winter quarter.

## DIRECT EMPLOYMENT IMPACT

Total Direct Employment associated with horses maintained in the Village of Wellington was measured using information from the surveys discussed above. Following is a discussion of the computations involved in determining the Wellington-related equine industry employment in 1996.

### Direct Employment Impact By Owners Of Horses In The EPA, Excluding PBPCC

Respondents to the EPA property owner survey indicated that, on average, they spent 29 hours per week, 49 weeks per year in their equestrian operation. This is equivalent to 0.7 unpaid fte persons per household. Table 25 gives the average employment per household.

Table 25: Average Employment

Employees	Number	Months	Full-Time-Equivalent
Full-Time	0.833	12.0	0.833
Part-Time (1/2 time)	0.333	10.4	0.144
Seasonal	0.250	5.4	0.112
Total FTE Per Household			1.089

There were approximately 330 full-time workers, 132 part-time workers, and 99 seasonal workers, in addition to the owner, employed in equine operations in the EPA at those properties surveyed in the EPA sample. Converting this to a year-round equivalent, there were 431 full-

time-equivalent (fte) workers employed by the horse owners in the EPA, excluding four large polo operations, one large equestrian operation and the PBPCC, surveyed separately.<sup>14</sup>

The four large polo fields and one large commercial equestrian operation in the EPA, surveyed separately, employed 20 full-time workers, 32 part-time workers and 110 seasonal workers. Using the average months worked by employment category given in the table above, this is equivalent to 83 fte workers.

In total, in addition to the non-paid owner time spent in equine operations in the EPA, there were an estimated 350 full-time workers, 164 part-time workers, and 209 seasonal workers. This was equivalent to 515 paid fte employees in 1996.

### Direct Employment Impact By Owners Of Horses At The Palm Beach Polo Club And The Palm Beach Polo Equestrian Club

For polo event participants, there were 2.1 fte employees per household.<sup>15</sup> At an average of 14 polo ponies per household, there would be 0.15 fte employees per horse. For Stadium Jumping event participants there were 1.4 fte employees per horse.<sup>16</sup> At an average of 4.2 horses per household, there would be 0.33 employees per horse. The annualized (fte) employment associated with owners of horses at Palm Beach Polo and Palm Beach Polo Equestrian Clubs is given in Table 26.

Table 26: Palm Beach Polo And Palm Beach Polo Equestrian Club Event Participant Employees

Event	FTE Employees Per Horse	Horse-Days	FTE Employment*
Palm Beach Polo	0.15	108,750	45
Palm Beach Equestrian Club	0.33	244,057	221
<b>Total</b>			<b>266</b>

\*Computed as (FTE Employees Per Horse x Horse-Days)/365

In addition to employment by horse owners who participated in events at the Palm Beach Polo Club, the Palm Beach Polo Club itself employed 6 full-time and 75 seasonal employees in 1996-97. Stadium Jumping, Inc. at the Palm Beach Polo Equestrian Club employed 12 full-time year-round workers and 120 seasonal workers in Wellington. The total of these two operations was 18 full-time and 195 seasonal employees for an fte employment total of 106.<sup>17</sup> There were a

<sup>14</sup> A simple example of full-time-equivalent is as follows. The full time equivalent to 12 workers, each working one month per year is one full-time-equivalent employee.

<sup>15</sup> Employment per operation was: 1.75 full-time, 0.46 part-time for 8.6 months, and 0.54 seasonal for 5.1 months.

<sup>16</sup> Employment per operation was: 1.08 full-time, 0.50 part-time for 10 months, and 0.31 seasonal for 4 months.

<sup>17</sup> It should be noted that Littlewood Farm and Littlewood Fences, have full-time contract labor of 10 and 4, respectively, and part-time contract labor of 21 and 26, respectively. These employees are in Wellington for the period of the year when the Littlewood organizations hold there shows there. All of the labor is on a contract basis and are not employed directly by the Littlewood organizations.

total of 372 fte employees at the Palm Beach Polo Club and the Palm Beach Polo Equestrian Club in 1996.

### Summary Direct Equine-Related Employment Impact

A summary of the employment impact of the equine industry in Wellington is given in Table 27.

Table 27: Summary Direct Equine-Related Employment-Wellington

Location	FTE Employment
EPA	515
Events At The Palm Beach Polo Club & Palm Beach Polo Equestrian Club*	372
<b>Total</b>	<b>887</b>
*Excludes employees associated with Tier 2 Equestrian Club event participants.	

It is important to note that excluded from this impact is the non-paid time spent by the owner of the equine operation. From the survey, those owners with horses in the EPA indicated that they spent about 29 hours per week, 49 weeks per year in their equine operations. This is equivalent to 0.7 fte employees per operation.<sup>18</sup> Palm Beach Polo participants indicated that they spent about 42 hours per week, 48 weeks per year in their equine operations. This is equivalent to 1.0 fte employees per operation. Stadium Jumping participants at the Palm Beach Polo Equestrian Club indicated that they spent about 36 hours per week, 48 weeks per year in their equine operations.

### TOTAL ANNUAL IMPACT - DIRECT PLUS INDIRECT

In addition to the direct economic impact of the equine industry in terms of expenditures, there is an additional indirect, or "ripple", effect, created by the initial introduction of expenditures into the economy. For example, total spending by horse owners for labor, for services such as veterinarian, farrier, and shipping, and for inputs such as feed and bedding, create employment and income for businesses in those sectors. Expenditures for items such as insurance, equine clothing, tack and subscriptions also create employment and income in those and related sectors. A portion of the income to labor, other industries and government created by the initial round of expenditures by horse owners into the Wellington economy is diverted to savings and investment. The remainder is spent by recipients on additional goods and services such as food, clothing, shelter, wholesale and retail goods, services, and so forth. Successive rounds of spending for purchases of Wellington goods and services occur at a decreasing rate until spending stops at the point where the money withheld for savings in the last round leaves no more to be spent on subsequent rounds. At the end of the process, the initial injection of employment and spending into the Wellington economy, through the indirect "ripple" effect results in total employment and spending greater than

<sup>18</sup> Assuming a standard 40 hour work week.

the initial direct injection by the equine industry. The total spending created by the direct injection of employment and spending into the Wellington economy is, therefore, some multiple of the initial injection and is equal to the direct effect plus the induced indirect effect.

### Expenditure Impact

In order to determine the total (direct plus indirect) effect of the initial injection of spending into the Wellington economy, results from an economic input-output table were used. An input-output table is a matrix of sectors in a region's economy showing purchases and sales of each sector of the economy from every other sector as well as sales to final demand for the good or service. Using these tables it is possible to obtain total expenditures for all industries for each \$1 of direct expenditures from a particular industry into a locale's economy. The ratio of total expenditures to direct expenditures results in a multiplier. If a multiplier is available from an input-output table, it can be applied to direct expenditures to determine total (direct plus indirect) expenditures created by the direct spending of that sector. For example, if an industry generates direct expenditures of \$1 billion and the multiplier for that industry is 2.0, then \$2.0 billion in total expenditures are created by the industry: \$1.0 billion in direct expenditures and \$1.0 billion in indirect or induced expenditures.

The multiplier effect is applicable only to that portion of expenditures that is "new money" or money that is associated with the industry that would locate elsewhere if the industry were not there. From the EPA survey, it was determined that 90% of those equine owners with property in the EPA would locate outside Wellington if there were no equine facilities or events in Wellington. In this case we count 90% of all expenditures made by EPA property owners as subject to the multiplier effect attributable to the Wellington equine industry. With respect to expenditures by those who board their horses at Palm Beach Polo, the Palm Beach Polo Equestrian Club, or the Littlewood leased location, 95% of those surveyed indicated that they would leave Wellington for other locations if there were no equine facilities or events there.

Input-output model multipliers for Florida were available from the U.S. Department of Commerce.<sup>19</sup> The agricultural sector expenditure multiplier was 1.87. Total (direct plus indirect) expenditures are given in Table 28.

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<sup>19</sup> Source: Regional Multipliers: A User Handbook For The Regional Input-Output Modeling System (RIMS II), U.S. Department Of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis.

Table 28: Total Expenditure Impact

Expenditures	Expenditures			
	Direct (\$mill.)	Amount Subject To Multiplier (\$mill.) (1)	Indirect (\$mill.)	Total (Direct + Indirect) (\$mill.) (2)
EPA, Excluding PBPCC	\$82.4	\$74.2	\$56.4	\$138.8
Palm Beach Polo Club, Palm Beach Polo Equestrian Club(3)	\$30.0	\$28.5	\$23.3	\$53.3
Non-Resident Owners-Travel Party	\$12.5	\$11.9	\$9.7	\$22.2
<b>Total</b>	<b>\$124.9</b>	<b>\$114.6</b>	<b>\$89.4</b>	<b>\$214.3</b>

(1)90% of EPA and 95% of Other  
(2)Expenditure Multiplier=1.87  
(3)Includes Littlewood Events at separate location first quarter 1997 (\$0.9 mill.).

Direct spending by the equine industry in Wellington was \$124.9 million in 1996. This created an additional \$89.4 million in indirect spending, for total spending of \$214.3 million.

To get an idea of the size of the business community which is impacted by these expenditures, the Wellington Chamber of Commerce provided a list of names of businesses in Wellington. The list contained 725 names of businesses located in Wellington. Not on this list are many small equine properties which board horses for others, many trainers and riding instructors and others who perform services for the equine industry. Many equine-related businesses can be found in equine publications such as The Barn Book, The South Florida Horseman, and Sidelines.

### Employment Impact

In order to determine the total employment impact of the equine industry in Wellington the procedure for determination of indirect employment was the same as that used for indirect expenditures in the preceding section. The only difference is that in this case, an employment multiplier is used rather than an expenditure multiplier. The employment multiplier for agriculture was reported to be 1.84.<sup>20</sup> Total (direct plus indirect) employment is given in Table 29.

<sup>20</sup> Source: Regional Multipliers: A User Handbook For The Regional Input-Output Modeling System (RIMS II), U.S. Department Of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis.

Table 29: Total Employment Impact

Location	Employment			
	Direct (fte)	Amount Subject To Multiplier (fte) (1)	Indirect (fte)	Total (Direct + Indirect) (fte) (2)
EPA, Excluding PBPCC	515	464	339	854
Palm Beach Polo Club, Palm Beach Polo Equestrian Club(3)	372	353	277	649
<b>Total</b>	<b>887</b>	<b>817</b>	<b>616</b>	<b>1,503</b>

(1)90% of EPA and 95% of Other  
(2)Expenditure Multiplier=1.84

The Wellington equine industry creates 887 full-time equivalent jobs directly and 616 full-time equivalent jobs indirectly for a total of 1,503 fte jobs.

### ADDITIONAL CONSIDERATIONS

Owners of acreage in the EPA, who also owned horses, were asked if they rode, ponied<sup>21</sup> or trailered their horses to events in Wellington. To pony a horse means to lead a horse or several horses to the event while on another horse. In Wellington this would be likely limited to polo ponies. Of those responding to the question, 61% indicated that they rode their horses to equine events in Wellington, 9% said they ponied their horses, and 59% said they trailered their horses to equine events. In many responses, an owner would indicate that his or her horses would be transported in more than one of these ways.

The relationship of horse owners in the EPA to the PBPCC facilities is indicated in their response to questions on where they participated in events. Of those responding, 71% said they participated in events at the Palm Beach Polo Equestrian Club in 1996, 18% participated in other events in the EPA such as trail riding and fox hunting, and 21% participated in polo events at the Palm Beach Polo Club. As can be seen, the total is greater than 100% due to multiple responses for some horse owners. Rodeo events have recently been held in Wellington although not mentioned in the survey responses since these events were not introduced until 1997.

In an earlier study of the economic impact of the equine industry on Palm Beach County (Thalheimer Research Associates, 1994) it was estimated that there was \$132.7 million in direct spending in 1993. In that study, Wellington was not separated from the rest of Palm Beach County. The estimated direct expenditures of \$124.4 million in Wellington in 1996 seems to be large relative to the 1993 figure for Palm Beach County until a number of factors are taken into account. First is inflation in costs from 1993 through 1996. For example, the cost per horse for Tier 1 equestrian event participants increased 13.5% from \$87.2 per horse per day in 1993 (Thalheimer Research Associates, 1994) to \$99.0 per horse per day in 1996. More importantly,

<sup>21</sup> To pony a horse means to lead a riderless horse to another location by holding its reins or bridle while astride another horse.

it would appear that equine activity has increased greatly in Wellington from 1993 to 1996. Historical information is not readily available on building permit activity in the EPA but it appears from conversations with individuals with horses there and from Wellington officials that there has been a great deal of equine-related construction activity in the EPA in recent years.

### SUMMARY

The equine industry in the Village of Wellington is an important contributor to the Village economy. Horses are boarded on residences or land in the equestrian preservation area (EPA) in the southern part of the village and at the Palm Beach Polo and Country Club, also located in the EPA. The Palm Beach Polo and Country Club is home to two world-class equine operations - the Palm Beach Polo Club and the Palm Beach Polo Equestrian Club. The latter is operated by Stadium Jumping, Inc. under a lease-purchase arrangement with the Palm Beach Polo and Country Club. Most of the equine activity in Wellington takes place "in season" which runs from December through May for polo and December through March for world-class equestrian events at the Palm Beach Polo Equestrian club.

In 1996, the equine industry generated \$124.9 million in direct annual expenditures and \$89.4 million in indirect expenditures for total expenditures in Wellington of \$214.3 million. The direct expenditure impact can be further separated into \$82.4 million spent by property owners with horses in the EPA and \$42.5 million spent by horse owners who board their horses and participate in events at the Palm Beach Polo Club, the Palm Beach Polo Equestrian Club and (in 1997) at Littlewood Farm and Littlewood Fences events.

It is interesting to note that wages and contract labor accounted for 26% of direct equine-related expenditures in the EPA. Expenditures for board, feed, bedding, training fees and lessons accounted for an additional 18% of total expenditures. These expenditures are lumped into one group since in many cases training fees and riding lessons are included in board fees and are not billed separately. Other major expenses (more than 5% of the total each) were for veterinarian and farrier (blacksmith) services which represented 14% of total spending.

In 1996, the equine industry in Wellington at all locations created 887 full-time-equivalent jobs directly and 616 full-time-equivalent jobs indirectly for a total of 1,503 fte jobs. This can be further separated into 854 fte jobs created by equine activity in the EPA and 649 jobs by equine activity at the polo and equestrian event facilities located outside the EPA.

At the time the survey of the EPA was conducted, based on 1996 information, there were an estimated 2,169 properties in the EPA. Of these, 342, or 16%, had less than one acre of land, leaving 1,827 parcels where horses were potentially located. These 1,827 parcels were owned by 991 entities. From the property owner survey it was estimated that there were 396 property owners in the EPA who owned horses which were boarded either on their own property or elsewhere in the EPA. There was an average of 1.9 equine owners of 6 horses per equine owner

household. The number of horses on EPA properties varied from a high of 6.1 at the height of the season (January through March) to a low of 3.3 during the third quarter (July-September).

Horse owners also boarded horses for other owners who lived in the EPA, or outside the EPA, on their properties. The number of outside horses varies from a high of 3.9 in the first quarter to a low of 1.0 in the summer quarter. Adjusting for seasonal variations, there were 4.7 horses owned by EPA property owners and maintained on their property and 2.3 "outside" horses boarded on their properties. In all, there were 7.0 horses on EPA properties in 1996, 4.7 owned by the property owner and 2.3 owned by "outside" boarders".

The principal uses of horses in the EPA are for show/competition or polo events with 37% of the horses used for polo and 35% for show/competition. Polo event participants own about 14 polo ponies while show participants own about 4 horses for their events. Since there are many more horses per polo participant than show horse participant, it can be inferred that there are more show/competition horse owners than polo horse owners in Wellington. Only 17% of horses in the EPA are used for pleasure or sport. This contrasts with an earlier survey of all of Palm Beach County which found that 44% of resident-owned horses were used for pleasure or sport.

The equine industry with its associated employment and spending is very seasonal in Wellington. A count of horses at all locations in the EPA, is as follows: 8,995 horses in the first quarter, 4,767 in the second quarter, 1,992 in the third quarter and 4,328 in the fourth quarter. As can be seen, by far the greatest amount of equine activity occurs from January-March and the least amount in the summer months of July-September.

The importance of the equine industry to the Village is indicated by horse owners with horses in the EPA. Of those responding to the survey, 90% said they would move to other locations outside Wellington if there were no equine events or facilities in the Village. Of those participants in events at Palm Beach Polo, Palm Beach Equestrian Club, 95% said that they would not come to Wellington if there were no equine events there.

The ability to be able to ride their horses from their properties to events is important to Wellington EPA residents. Owners of horses in the EPA were asked if they rode, ponied or trailered their horses to events in Wellington. Of those responding to the question, 61% indicated that they rode their horses to equine events in Wellington, 9% said they ponied their horses, and 59% said they trailered their horses to equine events. In many responses, an owner would indicate that his or her horses would be transported in more than one of these ways.

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The Wellington Chamber of Commerce.

U.S. Department Of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis, Regional Multipliers: A User Handbook For The Regional Input-Output Modeling System (RIMS II).

U.S. Polo Association Directory.

**APPENDICES**

**SURVEY FORMS**

- Where was your permanent residence in 1996? State \_\_\_\_\_, County \_\_\_\_\_, City \_\_\_\_\_, Zip \_\_\_\_\_
- Did you (or any member of your household) own horses in 1996 in Wellington?  Yes  No
- If you did not own horses, was your property used by someone else for equine purposes?  Yes  No

*If you answered yes to question 3 please have the person who used your property for equine purposes fill out those parts which are equine-related. If you answered yes to question 2, please continue. If more than one member of your at-home family own horses please have only one person fill this out for the family unit. If you answered no to questions 2 and 3 above, please stop here and return the questionnaire in the stamped self-addressed return envelope.*

- Indicate the number of household family members who owned horses in 1996 (include yourself) \_\_\_\_\_.
- In addition to owning horses were you or members of your family involved in any of the following equine activities in 1996 (check more than one box if applicable)?  Trainer  Polo Player  Breeder  Hunter/Jumper  Exhibitor  Other \_\_\_\_\_
- Which of the following best describes your reporting unit in Wellington in 1996?

<input type="checkbox"/> Private Residence-Horses Boarded Off Property	<input type="checkbox"/> Commercial Boarding/Training Facility
<input type="checkbox"/> Private Residence-Horses Kept On Property	<input type="checkbox"/> Commercial Breeding Facility

- How was your property zoned in 1996?  Ag.,  Ag-Residential,  Rural-Residential,  Residential,  Commercial

- Which of the following best describes your property in Wellington?  
 No Improvements(vacant)  Residence and Equine Outbuildings  
 Equine Outbuildings Only (barn, shed, ...)  Other \_\_\_\_\_  
 Residence only

- If your horses were kept on property you own, how many acres were involved and what was the estimated value of your property?

Acres:	Assessed Value:\$	Estimated Market Value:\$
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- How many horses did you typically own each quarter in 1996?

	Jan.-March	April-June	July-Sept.	Oct.-Dec.
Horses Kept In Wellington				
Horses Kept In Palm Beach County Outside Wellington				
Horses Kept Outside Palm Beach County				

- How many horses owned by others were typically boarded on your property in Wellington each quarter in 1996?

Horses Owned By Others	Jan.-March	April-June	July-Sept.	Oct.-Dec.

- Indicate the breed or type of horse you owned and kept in Wellington in 1996.

Breed/Type	Horse Count	Breed	Horse Count
Appaloosa		Standardbred	
Arabian		Thoroughbred	
Morgan		Warmblood	
National Show Horse		Other Registered	
Quarter Horse		Other	
Saddlebred		TOTAL HORSES	

- Indicate the primary use of your horses in the county. Enter the number of horses in the appropriate categories.

Show/Competition	Polo	Racing	Pleasure/Sport	Breeding	Other(Specify)

- Indicate the facilities and events in Wellington at which your horses competed in 1996, if applicable:

- Palm Beach Polo Equestrian Club (Winter Equestrian Festival)
- Palm Beach Polo Equestrian Club (Other Equestrian Events) - Event name \_\_\_\_\_
- Other Locations in Wellington (Equestrian Events) - Facility/event name \_\_\_\_\_
- Other Locations in Palm Beach County (Equestrian Events) - Facility/event name \_\_\_\_\_
- Palm Beach Polo Club (Polo)
- Other Locations in Wellington (Polo) - Facility/event name \_\_\_\_\_
- Other Locations in Palm Beach County (Polo) - Facility/event name \_\_\_\_\_

15. Do you usually ride, pony or trailer your horses to Wellington's equestrian events?  Ride  Pony  Trailer

16. If you could not keep your horses in Wellington would you remain there?  Yes  No  
 If you answered no, where would you move? \_\_\_\_\_

How much time do you spend in your equine operation? \_\_\_\_\_ hours per week, \_\_\_\_\_ weeks per year

18. If you had any full-time or part-time employees in 1996 please fill out the following:

	Number Of Employees	Months
Full Time Year-Round Employees		
Part-Time Year-Round Employees		
Part-Time Seasonal Employees (full-time for part-year)		

19. a). What were total operating expenditures for your horse operation (exclude purchases of horses, land, buildings and capital equipment)? \$ \_\_\_\_\_  
 b). Give the approximate percent of total expenditures above made in Wellington \_\_\_\_\_ %

20. a). Indicate the value of your 1996 equine-related Wellington investment.

Investment Category	New Investment-1996	Estimated Market Value-Total Investment
Horses: Number Bought In 1996: _____, Total Number Owned: _____	\$	\$
Equipment (Over One Year Life)	\$	\$
Structures And Improvements	\$	\$

b). Of the horses purchased in 1996, how many were purchased:  
 In Wellington \_\_\_\_\_ In Palm Beach County \_\_\_\_\_ Outside Wellington \_\_\_\_\_ Outside Palm Beach County \_\_\_\_\_

If possible, please itemize your equine operation expenditures by major category given below. Answer as many as you can and put the remainder in the category "all other". The "total" at the end of the table should match that in question 19a above. If you don't have information on these important individual categories please return this survey in the enclosed return envelope.

21. Please indicate the expenses by category for your equine operation in 1996.

Gross Wages And Salaries(excluding polo players)	\$	Membership Dues	\$
Contract Labor (excluding polo players)	\$	Nominations/Entry Fees/Registrations	\$
Salaries Or Contract Wages-Polo Players	\$	Riding Lessons	\$
Advertising	\$	Subscriptions/Publications	\$
Board/Stabling	\$	Tack and Supplies	\$
Depreciation-Horse	\$	Taxes-Local Property	\$
Depreciation-Facilities	\$	Taxes-Local Other	\$
Equine Clothing	\$	Training Fees	\$
Farrier	\$	Travel/Entertainment	\$
Feed and Bedding	\$	Utilities	\$
Gasoline/Fuel	\$	Vanning/Shipping	\$
Insurance-Equine	\$	Veterinarian/Medication	\$
Insurance-Other	\$	All Other Expenses	\$
Land/Facility (for equine) Lease Payments	\$	Total Expenses	\$
Maintenance and Repair	\$		

Thank you for completing this survey and providing essential information on the economic impact of the equine industry in Wellington. If you have any comments please indicate when you return your survey to:

Thalheimer Research Associates  
 107 West Short St.  
 Lexington, KY 40507  
 Telephone: (606) 255-3073, FAX: (606) 254-8103, e-mail: rthal@gte.net

# **EQUESTRIAN TRAFFIC SURVEY**

Prepared by

**Village of Wellington  
Planning, Zoning & Building Staff  
March 1997**



**130TH AND 50TH STREET**  
**FRIDAY JANUARY 24, 1997**

TIME	DIRECTION VEHICULAR		DIRECTION EQUESTRIAN					
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
6:30-7:00	20	10	1	1	0	0	0	0
7:00-7:30	9	12	2	1	0	0	0	0
7:30-8:00	13	21	2	2	0	0	0	0
8:00-8:30	18	19	1	0	0	0	7	0
<b>TOTAL</b>	<b>60</b>	<b>62</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>

NOTES: LIMITED EQUESTRIAN AND VEHICULAR ACTIVITY AT THIS INTERSECTION. SHELL ROCK SURFACE OF 130TH MAY DISCOURAGE USE AS EQUESTRIAN TRAINING ROUTE. THE VILLAGE MAY WANT TO CONSIDER THE INSTALLATION OF TRAFFIC CONTROL DEVICES TO LIMIT SPEEDS ON THIS ROADWAY.

**130TH AND INDIAN MOUND ROAD**  
**JANUARY 28, 1997**

TIME	DIRECTION VEHICULAR		DIRECTION EQUESTRIAN			
	WEST	EAST	SOUTH	WEST	EAST	SOUTH
6:30-7:00	4	12	1	0	0	0
7:00-7:30	6	5	0	0	0	1
7:30-8:00	7	16	1	0	0	0
8:00-8:30	8	24	0	0	0	0
<b>TOTAL</b>	<b>25</b>	<b>57</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>

**SOUTH SHORE BOULEVARD AND PIERSON ROAD  
FRIDAY JANUARY 31, 1997**

TIME	DIRECTION VEHICULAR			DIRECTION EQUESTRIAN		
	WEST	EAST	SOUTH	WEST	EAST	SOUTH
7:00-7:30	N.A.	N.A.	223	0	0	4
7:30-8:00	N.A.	N.A.	264	1	1	2
8:00-8:30	N.A.	N.A.	236	3	2	2
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>723</b>	<b>4</b>	<b>3</b>	<b>8</b>

NOTES: PEAK VEHICULAR TRAFFIC HOURS OCCUR BETWEEN 7:00 A.M. AND 9:00 WITH EQUESTRIANS ARRIVING AT THE SHOW FACILITIES. EQUESTRIAN TRAFFIC TENDS TO BE MORE DISPERSED AS THESE ARE GENERALLY SINGLE ANIMALS HEADED TO THE SHOW GROUNDS.

**PIERSON ROAD AND ACME FACILITY  
SUNDAY FEBRUARY 2, 1997**

TIME	DIRECTION VEHICULAR		DIRECTION EQUESTRIAN (N.S. INDICATES STP)					
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
7:00-7:30	161	25	N.A.	N.A.	1	1	3	4
7:30-8:00	135	28	N.A.	N.A.	0	1	0	0
8:00-8:30	N.A.	N.A.	N.A.	N.A.	0	2	1	4
<b>TOTAL</b>	<b>296</b>	<b>53</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>8</b>

NOTES: PEAK VEHICULAR TRAFFIC HOURS OCCUR BETWEEN 7:00 A.M. AND 9:00 WITH EQUESTRIANS ARRIVING AT THE SHOW FACILITIES. EQUESTRIAN TRAFFIC TENDS TO BE MORE DISPERSED AS THESE ARE GENERALLY SINGLE ANIMALS HEADED TO THE SHOW GROUNDS.

**SOUTH SHORE BOULEVARD/40TH STREET  
TUESDAY FEBRUARY 4, 1997**

TIME	DIRECTION VEHICULAR				DIRECTION EQUESTRIAN (N.S. INDICATES STP)			
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
6:45-7:00	0	0	7	31	15	0	0	0
7:00-7:30	0	0	28	65	36	23	0	0
7:30-8:00	0	0	20	51	28	23	0	0
TOTAL	0	0	55	147	79	46	0	0

NOTES: MUCH OF THE EQUESTRIAN TRAFFIC CONTINUED NORTH ON THE WEST SIDE OF S.S. BLVD. CROSSING THE C-24 CANAL WITH A STRING OF PONIES HEADED NORTH REQUIRES THE HORSES TO GET INTO THE PAVEMENT DUE TO THE NARROWNESS OF THE CULVERT. RECOMMEND UPGRADING THE CULVERT TO ALLOW THE HORSES TO CROSS ON THE WEST SIDE OF SOUTH SHORE WITHOUT ENTERING THE RIGHT OF WAY. TRAFFIC IN THIS AREA IS HIGH AND THE SPEEDS ARE HIGH. THIS MAY BE AN AREA WHERE A TRAFFIC LIGHT OR OTHER TRAFFIC CONTROL DEVICE IS WARRANTED. WHEN LAKE WORTH ROAD IS EXTENDED THIS AREA WILL BECOME A MAJOR POINT OF CONFLICT.

**120TH AVENUE AND 40TH STREET**  
**FRIDAY FEBRUARY 7, 1997**

TIME	DIRECTION VEHICULAR		DIRECTION EQUESTRIAN (N.S. INDICATES STP)					
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
7:30-8:00	0	0	6	9	8	16	1	2
8:00-8:30	0	0	4	7	0	24	0	1
TOTAL	0	0	10	16	8	40	1	3

NOTES: BOTH THE NORTH AND SOUTH SIDE OF THE C-24 CANAL ARE USED FOR EXERCISE PURPOSES. THERE IS A SIGNIFICANT AMOUNT OF EQUESTRIAN TRAFFIC CROSSING FUTURE LAKE WORTH ROAD AT THIS LOCATION.

**PIERSON ROAD/SOUTHFIELDS ROAD  
TUESDAY FEBRUARY 11, 1997**

TIME	DIRECTION VEHICULAR		DIRECTION EQUESTRIAN					
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
6:45-7:00	4	13	0	0	0	0	0	0
7:00-7:30	13	23	1	0	0	0	0	0
7:30-8:00	38	40	8	1	0	0	0	0
<b>TOTAL</b>	<b>55</b>	<b>76</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

NOTES: THERE ARE OVER 306 HORSE STABLED AT THIS LOCATION. MOST USE THE TRACT LOCATED ON THE PROPERTY FOR EXERCISE. CROSSING OF PIERSON ROAD AT THIS LOCATION WOULD OCCUR ON DAYS WHEN MATCH PLAY IS SCHEDULED.

**PIERSON ROAD AND ACME FACILITY**  
**THURSDAY FEBRUARY 13, 1997**

TIME	DIRECTION VEHICULAR				DIRECTION EQUESTRIAN			
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
12:40-1:00	N.A.	N.A.	N.A.	N.A.	5	1	6	3
1:00-1:10	N.A.	N.A.	N.A.	N.A.	3	1	2	4
1:10-1:20	N.A.	N.A.	N.A.	N.A.	0	0	2	3
1:20-1:30	N.A.	N.A.	N.A.	N.A.	2	0	0	3
1:30-1:40	N.A.	N.A.	N.A.	N.A.	2	1	1	4
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>3</b>	<b>11</b>	<b>17</b>

SOUTH SHORE BOULEVARD AND 50TH STREET  
TUESDAY FEBRUARY 18, 1997

TIME	DIRECTION VEHICULAR				DIRECTION EQUESTRIAN			
	WEST	EAST	NORTH	SOUTH	WEST	EAST	NORTH	SOUTH
6:45-7:00	6	12	3	32	0	0	0	0
7:00-7:15	6	9	3	26	0	0	0	0
7:15-7:30	5	2	4	13	0	0	9	0
7:30-7:45	3	6	5	12	0	0	0	0
7:45-8:00	N.A.	N.A.	N.A.	N.A.	0	0	13	0
<b>TOTAL</b>	<b>20</b>	<b>29</b>	<b>15</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>

NOTES: THERE IS A HIGH DEGREE OF EQUESTRIAN LAND USE IN THIS AREA AND SIGNIFICANT PHYSICAL EVIDENCE OF EQUESTRIAN USE ON THE TRAILS ADJACENT TO SOUTH SHORE BOULEVARD. THE THREE STRINGS OF PONIES THAT PASSED ALL WERE NORTH BOUND ON SOUTH SHORE BOULEVARD THEN WENT WEST ALONG THE ACCESS ROAD ADJACENT TO THE C-25 CANAL.

**FINAL REPORT**

**Evaluation of Equestrian Circulation  
Village of Wellington**

**Future Equestrian Circulation Map**

Prepared by :

***INTERNATIONAL EQUESTRIAN DESIGN***

**Robert Jolicoeur, President I.E.D.  
Robert Murphy, Project Manager I.E.D.**

Presented to :

**Mr. Keith Stahley  
Village of Wellington  
14000 Greenbriar Boulevard  
Wellington Florida  
33414**

**September 24 1997**

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## **1.0 Description of Mandate**

This mandate came about following The Village of Wellington's request for assistance in compiling a comprehensive Master Plan for the Equestrian Trail system.

The goal of the mandate was to determine how to best modify the existing trail system taking into account existing and future sources of equestrian traffic and equine based development. Certain road crossings were of concern due to vehicular speed and the potential risk of accidents. Strategic canal crossings needed to be identified in relation to the proposed main equestrian trails so that efficient and safe access to major event venues and pleasure riding areas could be enjoyed by all.

## **2.0 Information Gathering**

Data for the purpose of Master Planning was provided by Mock•Roos and Associates. The following Plans were used in the completion of this mandate:

Equestrian Trail System, Village of Wellington / May 1997

Village of Wellington Transportation Map / no date

Village of Wellington Interim Future Land use Map / Jan 15 1997

Equestrian Circulation Observation Points/Survey / Jan 24-Feb18 1997

## **3.0 Introduction**

Presently, the Village of Wellington is one of the most dynamic equestrian communities in North America. It serves as an example of how a rural lifestyle based on equestrian activities can thrive adjacent to typical residential and municipal development. The Village of Wellington wishes to preserve this dynamic component of the population by ensuring that the equestrian trail system meets the

short and long term needs of users. The potential danger of mixing vehicles and horses at certain intersections has become cause for concern given increases in both vehicular and equestrian traffic. The Future Equestrian Circulation Map identifies conflict areas at Road/Trail intersections, identifies required culvert crossings, and defines heavy, moderate, and light use Equestrian Trails. Additionally, several conceptual engineering solutions for crossings and trail locations within available easements have been suggested in this report.

#### 4.0 Study Zone

##### 4.1 *South Village*

Following a review of the Summary South End Land Use Inventory we observed that the majority of land use in the southern Village consists of single family homes on properties of five acres or greater, however, a great deal of properties zoned as single family homes are actually small farms dedicated to equestrian activities. Much of the development is oriented towards an equestrian lifestyle providing one of the most significant equestrian communities in North America. This is confirmed in the Thalheimer Report which studied the Economic Impact of the Equine Industry on the Wellington Economy. The other component of land use in southern Village is the trend toward the development of private training facilities. These facilities are used to keep and exercise horses during the Winter Equestrian Festival held each year. These "Farmettes" permit owners to stable and train horses on their own facility rather than paying board at the equestrian center. On average 5-15 horses are stabled on each Farmette. We believe that this trend will continue in the areas labeled as Future Equestrian Based Development on the Plan. The development of these farms is essentially due to events hosted at the PBPCC Polo Grounds and the PBPCC Equestrian Center.

## 5.0 Concept and Objectives

The concept behind the Future Equestrian Circulation Map is based on the following objectives:

### *Security*

- To create a safe and secure trail system which horses and riders may enjoy fully by employing trail design criteria.
- To separate vehicular corridors and intersections from the equestrian trail system when routing equestrian trails.

### *Reduction*

- To reduce the number of road crossings and equine circulation corridors by directing equestrian flow to 130th & 140th Avenues thereby avoiding South Shore Blvd.

### *Cost effectiveness*

- To use existing Easements and Right-Of-Ways as a practical and cost effective means to route and link equestrian trail systems.

### *Distinctive Image*

- To create a distinctive trail image recognizable at an international level through the use of efficient trail routing, landscaping, signage and high quality footing.

### *Community use*

- To encourage the use of the equestrian trail system by a wide variety of user groups through the installation of proper surfacing and sufficient planting thereby allowing the trail system to double as a linear park for the community.

## 6.0 Recommendations based on Traffic survey 03/04/97

### 6.1 *Pierson & South Shore Blvd.*

Based on the survey and planning we recommend that East /West crossing at this intersection of Pierson and South Shore Blvd. be eliminated in the long term by establishing a crossing in front of the Municipal Park on South Shore Blvd. Crossing at the corner of Pierson and South Shore Blvd. will always remain dangerous regardless of the traffic calming devices, therefore we recommend avoiding it altogether in the long term. The proposed route to the Show Grounds would be via the Preservation Area west of the Municipal Park. A certain number of horses would have to use a trail adjacent to the practice polo fields on the east side of South Shore Blvd. to arrive at the proposed main crossing further south.

It should be noted that fewer horses cross this intersection in a North/South direction than in an East-West/West-East direction due to the number of stables located East and North East of the intersection. Crossing for North/South circulation should be rerouted to existing culvert crossing located approximately 500' west of the intersection.

### 6.2 *Indian Mound & 130th Avenue*

Based on the survey and planning we recommend establishing 130th Avenue as a main North/South equestrian corridor. Crossings would intensify across Indian Mound Road as the jump off point to the Show Grounds would become Southfields Road. The majority of the crossing at this intersection appears to be North/South indicating the popularity of 130th Avenue as an equestrian trail. 130th Avenue is recommended as the major north / south equestrian corridor east of South Shore Blvd and serves the PBPC's polo fields.

### *6.3 140th Avenue*

This avenue has great potential to bring horses to the PBPCC from the west sector of the south Village. This avenue has no major vehicular traffic and is recommended as the major north / south equestrian corridor west of South Shore Blvd.

### *6.4 130th Avenue & 50th Street*

Equestrian crossing is light at this intersection and traffic control measures are less of a priority at this intersection than others. 50th Street will eventually be paved which will increase vehicular traffic and the need for a proper crossing.

### *6.5 South Shore Blvd. & 50th Street*

South Shore Blvd. is flanked by a narrow canal on its west side making the only possible circulation on the east side. 50th Street is flanked by canal C-25 on its south side. Crossing occurs on an angle across this intersection. A culvert crossing is required to avoid this situation. This would provide safer crossing to the trail on the south side of C-25 Canal. The vehicular traffic at this intersection is generally light, and traffic control measures are less of a priority at this intersection than others. 50th Street will eventually be paved which will increase traffic as mentioned above.

### *6.6 Pierson Road & ACME Facility*

There appears to be more equine traffic in a North/South direction rather than East West. This would support the feasibility of reducing the importance of the East/West flow on Pierson Road by rerouting the heavy use trail via the conservation area in the long term. This crossing would still be fed from barns at the intersection of Pierson Road and South Shore Blvd. The future land use on the North East corner of Pierson and South Shore Blvd. is likely to change due to the value of this land designated as commercial, therefore, equestrian traffic from the barns is likely to diminish in the long term when they are replaced by another higher commercial land use such as a hotel for example.

#### *6.7 40th Street & 120th Avenue*

40th Street is heavily used by Polo ponies. Centralizing equine traffic to the south side only would enable an efficient connection to the heavy use trails on the south side of C-24 canal opposite the South Polo fields. The majority of equestrian circulation was observed in an easterly direction. Crossing safety and traffic calming measures at future Lake Worth Road extension should be a priority.

#### **7.0 Signage and traffic calming suggestions**

Traffic signs and road markings to reduce vehicular speeds at equestrian crossings are suggested to reduce the potential hazards of a trail crossing a road. At strategic entries to the south Village we suggest the implementation of traffic circles. The proposed locations of these traffic circles is shown on the master plan. We suggest a general reduction of the speed limit in the south Village coupled with signage at all traffic circles advising motorists "slow down you are now entering horse country". We also suggest that vehicles are advised of why the speed limit has decreased at specific trail / road crossings by indicating "equestrian crossing ahead" painted on pavement just before arriving at the crossing. Identifying equestrian trails and crossings by fencing, signage and landscape is also suggested. Creating a safe holding / waiting area for equestrians planning to cross the road is also strongly recommended. These holding areas would allow horses to wait and turn around comfortably in a planted and fenced environment thereby reducing the probability of horses bolting across an intersection or roadway due to inadequate space at the crossing. A comprehensive program of signage will be important to warn riders of potential hazards and upcoming obstacles, identify directions, and to accent access to trails.

# ROAD AND CANAL CROSSING PRIORITIES MAP

## Canal crossing priorities

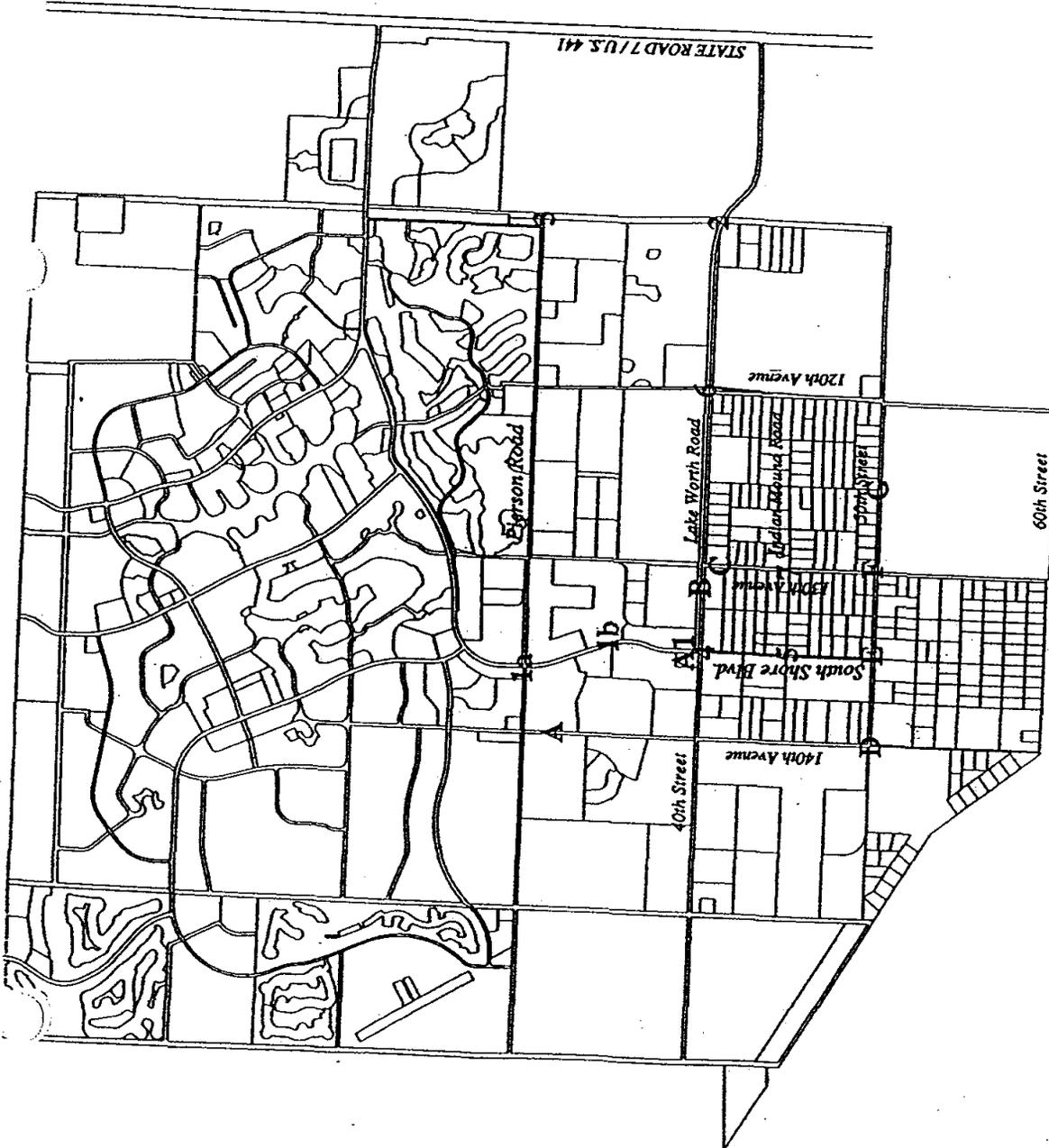
- A : Culvert crossing to Stadium Jumping ( PBP & CC equestrian center)
- A1 : South Shore & 140th culvert expansion
- B & C : Canal C-24 & 130th South Shore & East-West
- D : 140th & 50th
- E : South Shore & 50th
- F : 130th & 50th to future trail
- G : 125th & 50th to future trail

## Road crossing priorities

- 1a : Pierson & South Shore Interim
- 1b : Pierson & South Shore longterm
- 2 : LakeWorth Road Extension
- 3 : Pierson Road & Water Canal
- 4 : South Shore & 40th
- 5 : South Shore & Indian Mound
- 6 : Lake Worth & 120th Avenue
- 7 : Indian Mound & 130th

Date: September 24th 1997

Scale: 1: 3400 approx.



# FUTURE EQUESTRIAN CIRCULATION MAP

Equestrian based development

Future equestrian based development

Major equine destination

Parks natural preserves

Existing culvert crossings

Proposed culvert crossings

Major road / trail intersection

Proposed Road and trail Intersections / Conflict areas

Proposed traffic circle

Proposed road crossings

Access point to trails

Crossing Direction

Heavy use equestrian trail

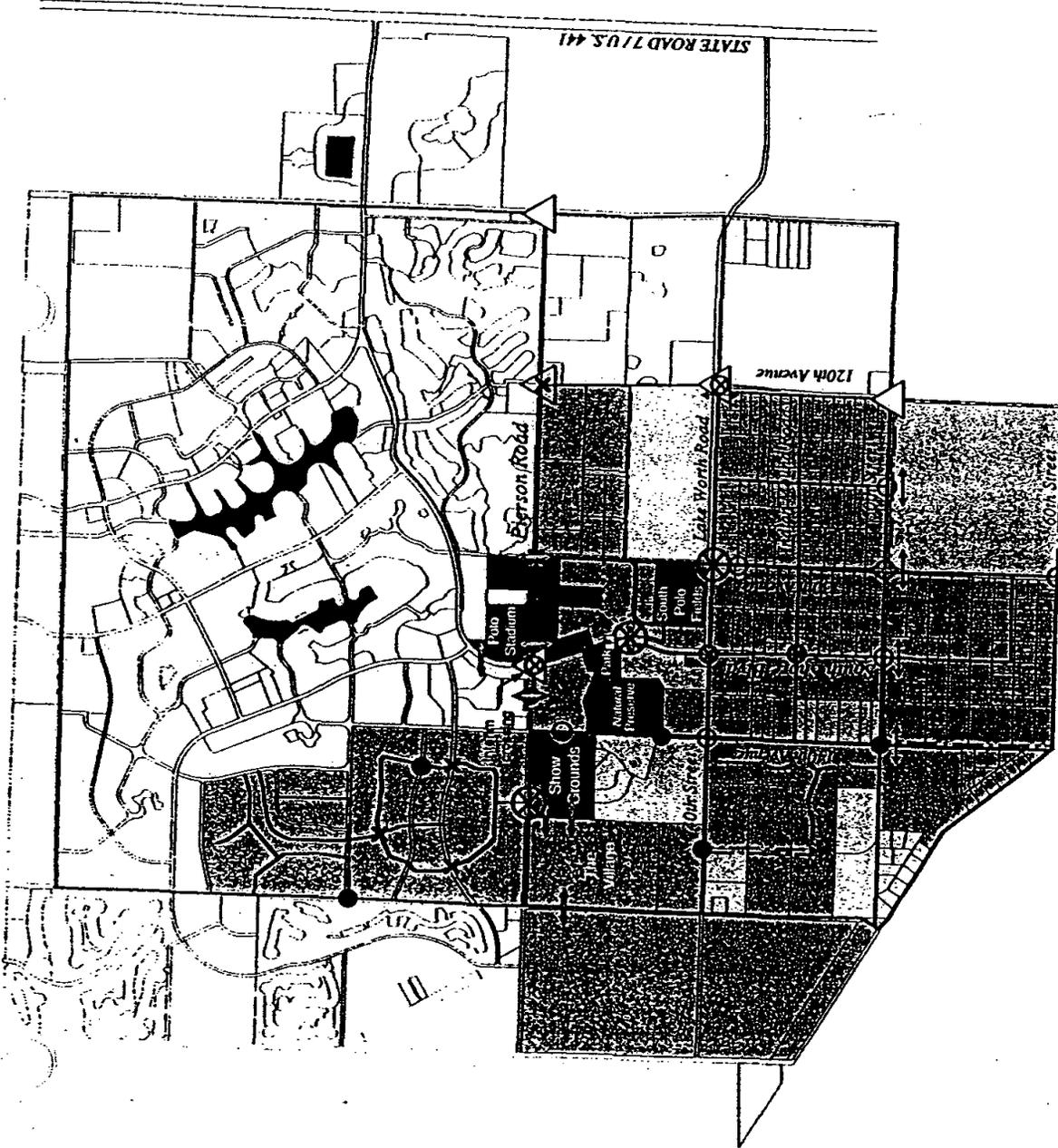
Moderate use equestrian trail

Light use equestrian trail

Proposed alternate trail

Proposed fire station location

Lakes



Date: September 24th 1997

Scale: 1: 3400 approx.



For the trail system we recommend a comprehensive program of tree planting designed and installed to provide shade, separation and screening. An environmentally friendly approach to softening engineered easements by planting low maintenance drought tolerant trees would help to extend and link municipal parks and natural preserves through the creation of a linear park which could be enjoyed by a wide range of groups.

#### **8.0 Conceptual trail sections and crossing solutions**

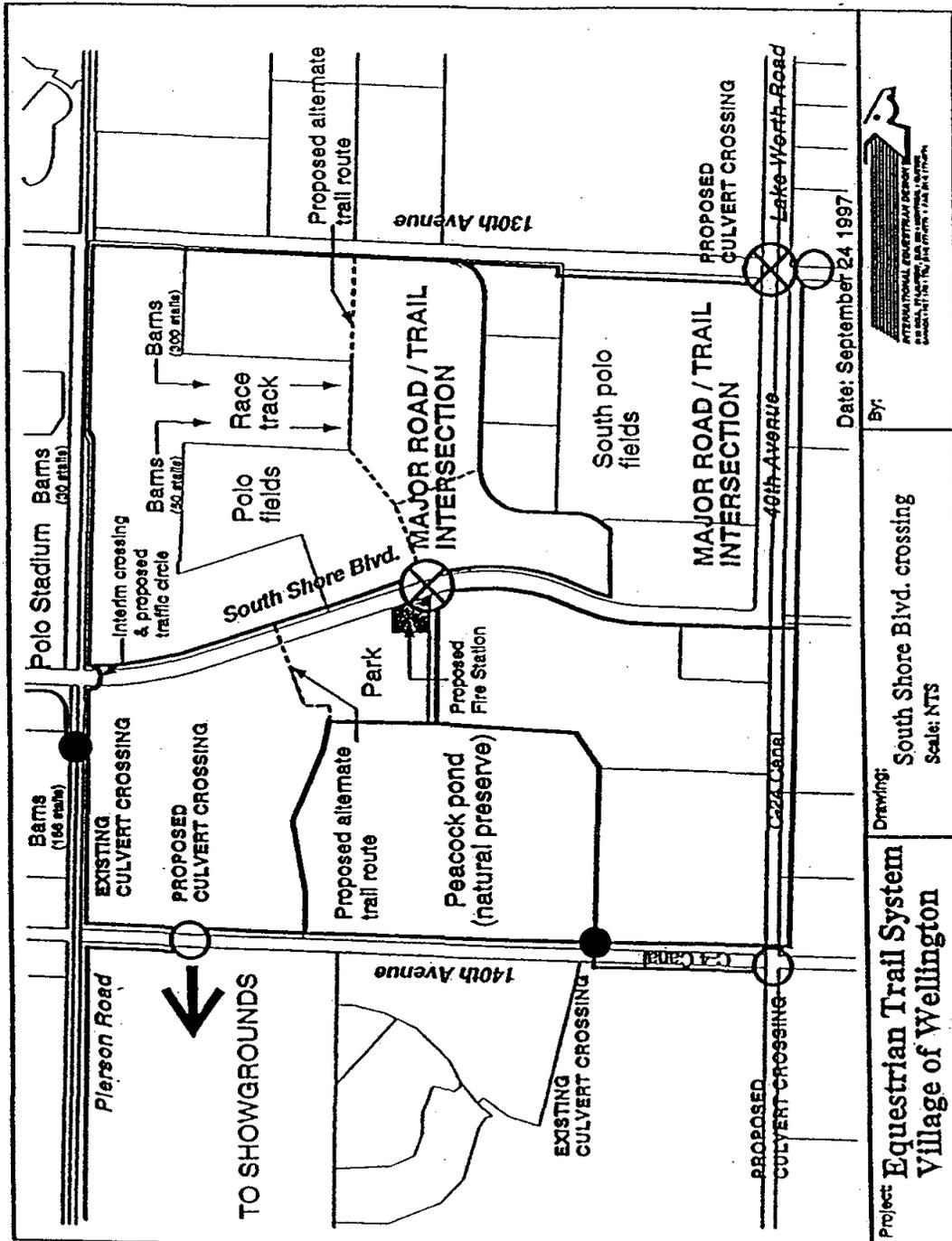
The following conceptual drawings attempt to demonstrate the types of interventions possible which would help to create safe, high quality equestrian trails and crossings. Equestrian trail cross sections were developed based on the available easements in proposed strategic equestrian corridors. The typical equestrian trail cross sections demonstrate the suggested separations between roadways, trails, and canals.

Additionally, the intersection at South Shore Blvd. and Pierson Road has been studied in detail and certain conceptual engineering solutions are outlined on the following pages.

The following plans are not construction drawings, but purely a graphic demonstration of the principals we believe should be applied to planning the Equestrian Trail System. We suggest that each equestrian crossing and intersection be treated individually with the direct involvement of the Equestrian Subcommittee.

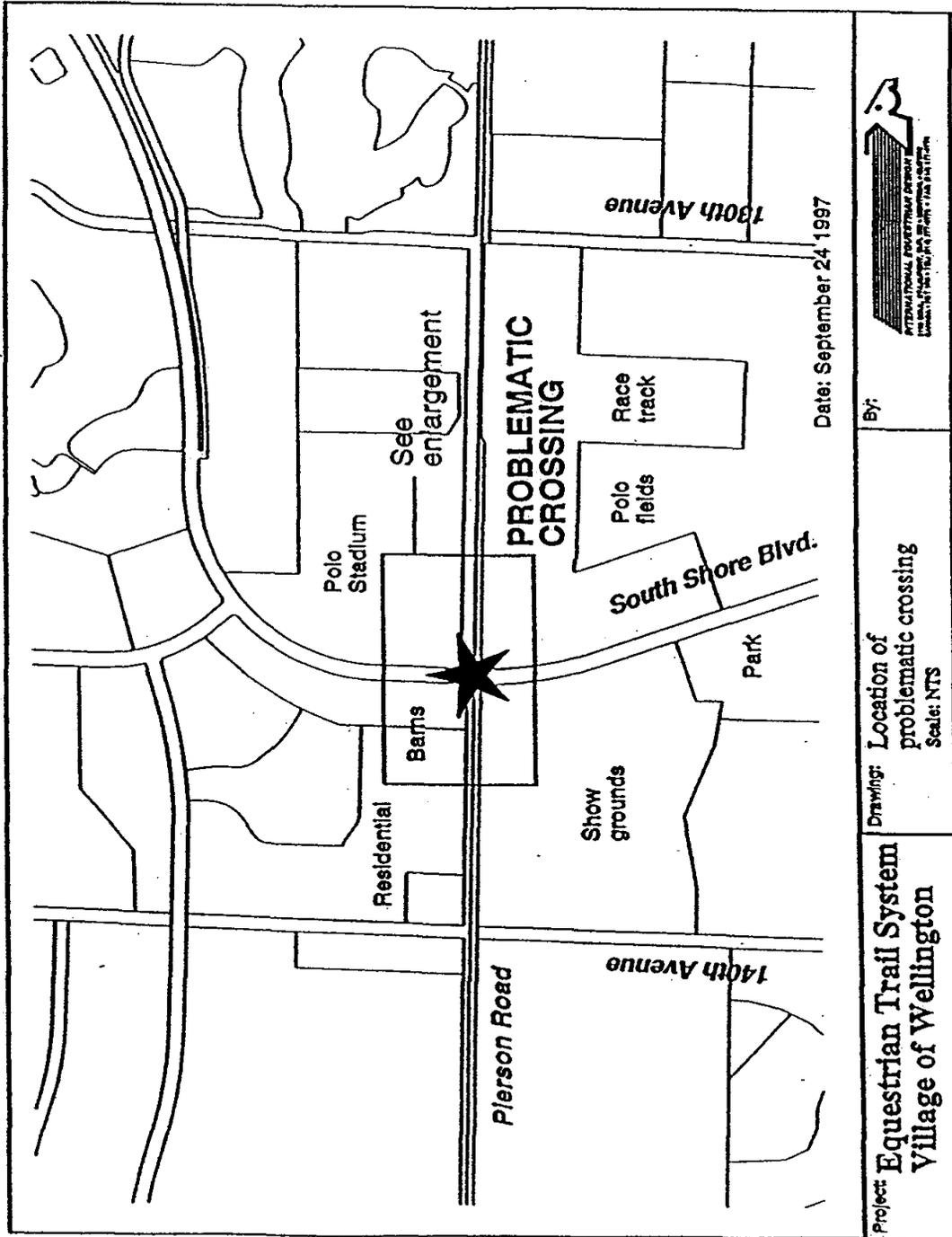
Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

South Shore Blvd. Crossing



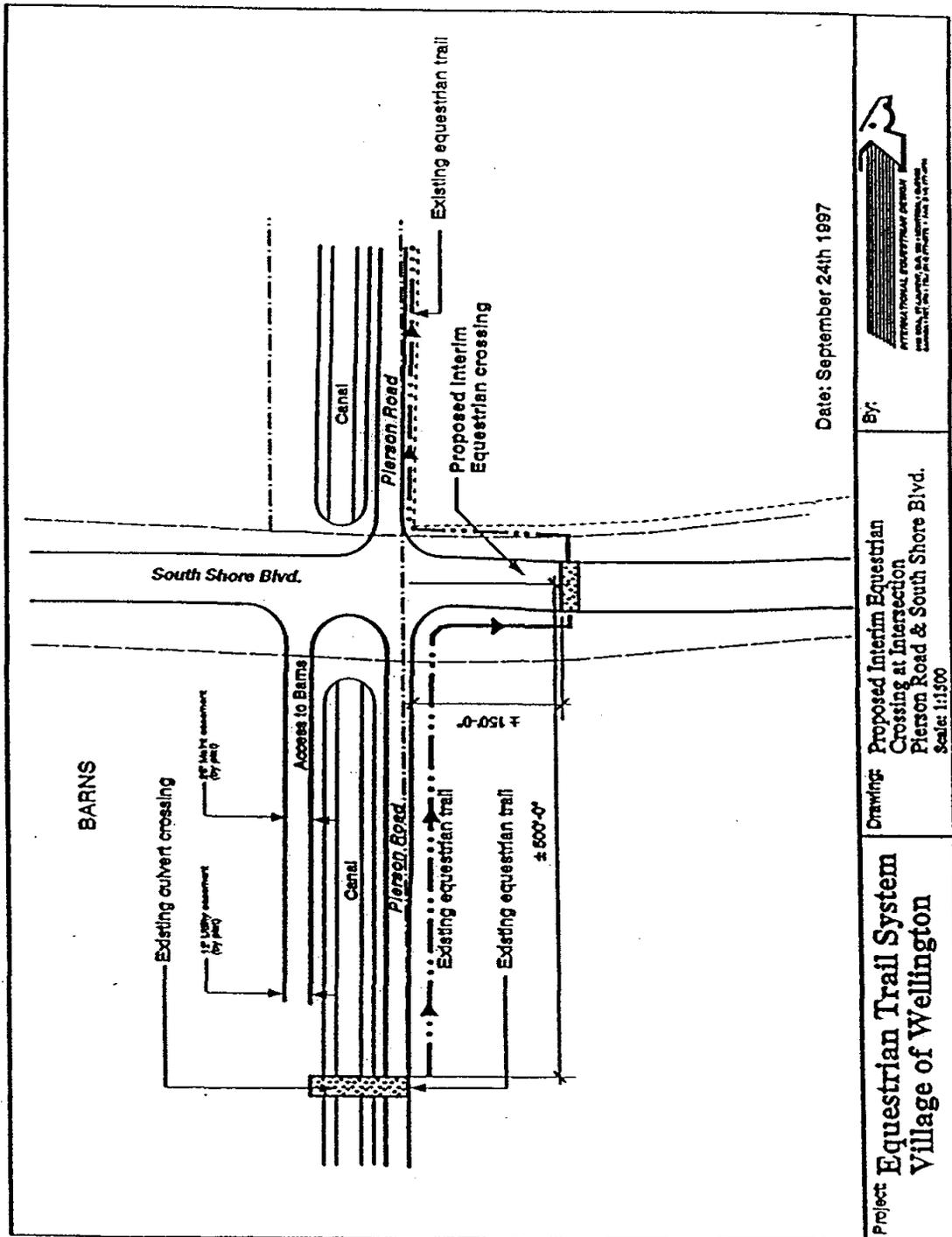
Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

Location of problematic crossing



Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

Interim solution for Pierson & South Shore Blvd.

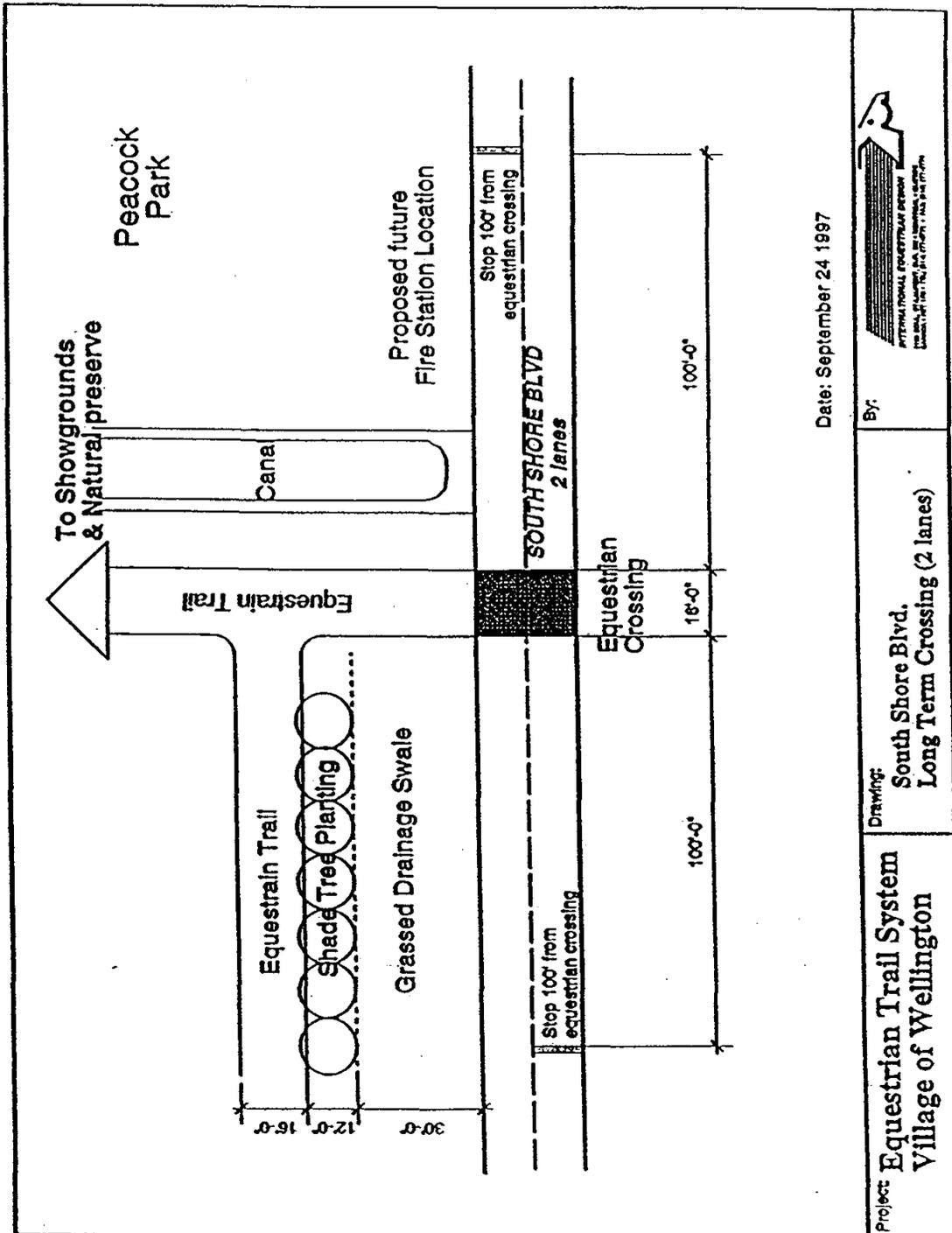


Date: September 24th 1997  
 By:  
 Drawing: Proposed Interim Equestrian Crossing at Intersection Pierson Road & South Shore Blvd.  
 Scale: 1:1500

Project: Equestrian Trail System  
 Village of Wellington

Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

Long term solution for South Shore Blvd. crossing (2 lanes)



Date: September 24 1997

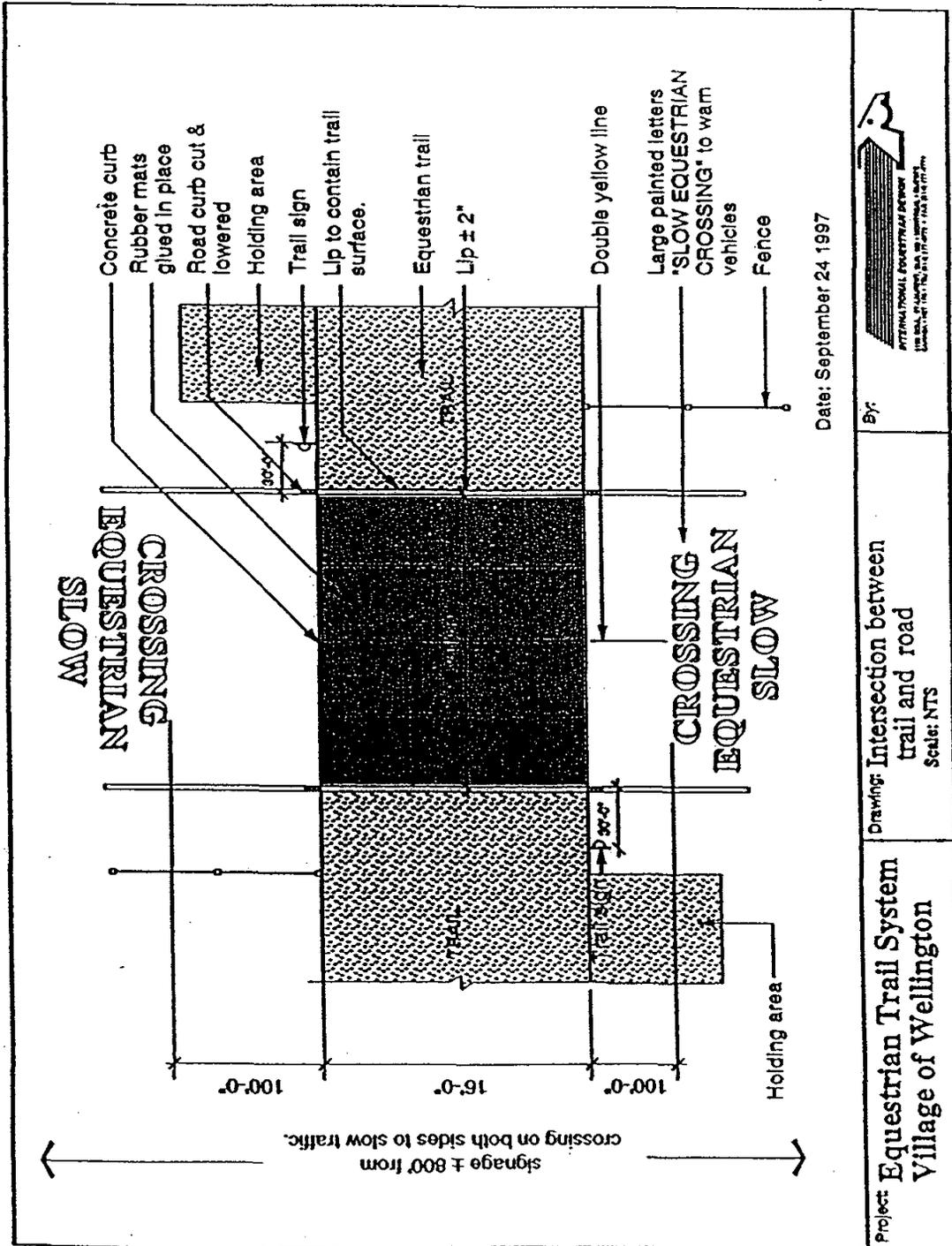


By:

Drawing:  
 South Shore Blvd.  
 Long Term Crossing (2 lanes)

Project: Equestrian Trail System  
 Village of Wellington

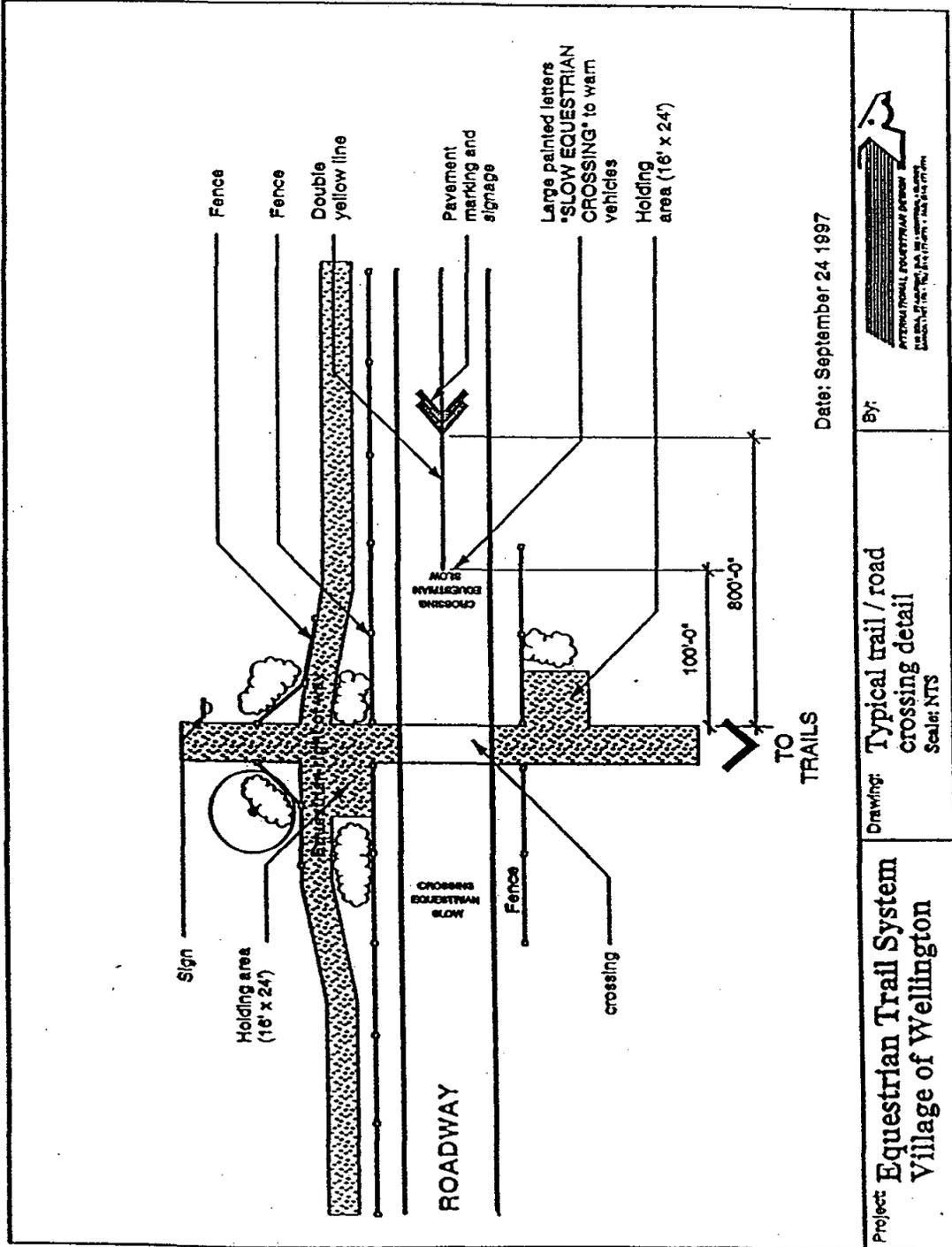
Intersections between Trail and Road



By: \_\_\_\_\_  
 Drawing: Intersection between trail and road  
 Scale: NTS

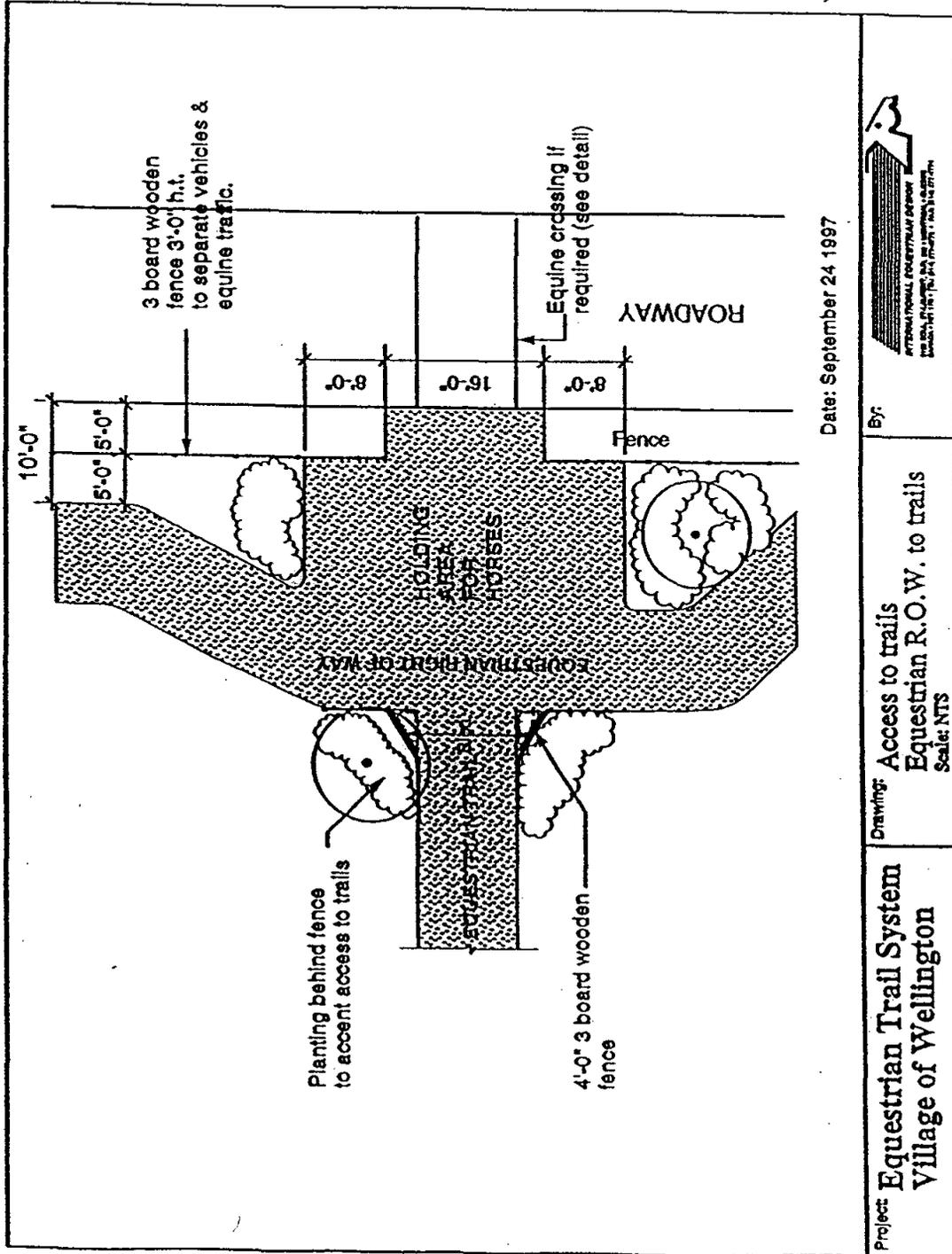
Project: Equestrian Trail System  
 Village of Wellington

Typical Trail-Road Crossing Detail



Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

Access to Trails & Equestrian ROW's



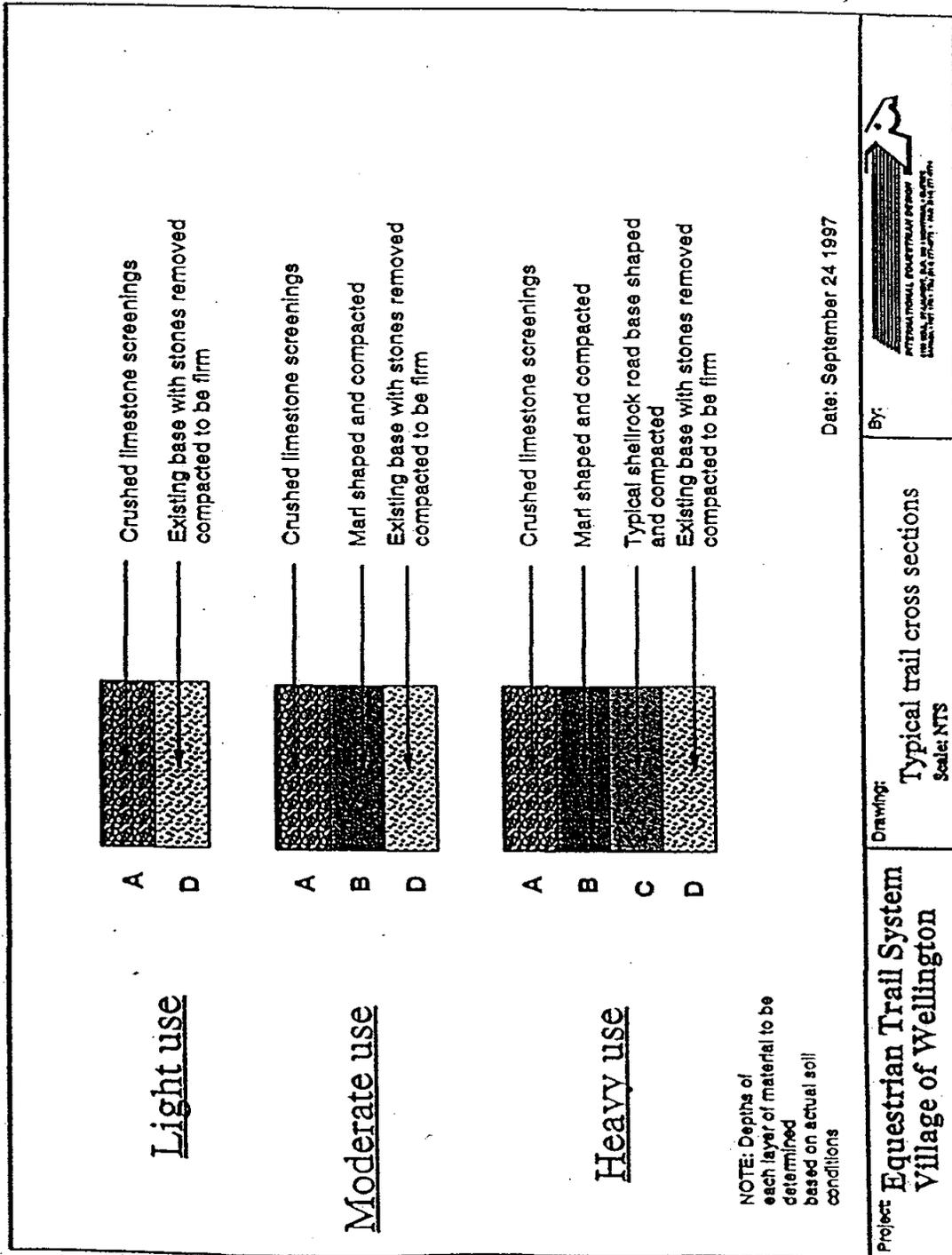
Date: September 24 1997

By:

Drawing: Access to trails  
 Equestrian R.O.W. to trails  
 Scale: NTS

Project: Equestrian Trail System  
 Village of Wellington

Typical Trail Cross Sections (footing)



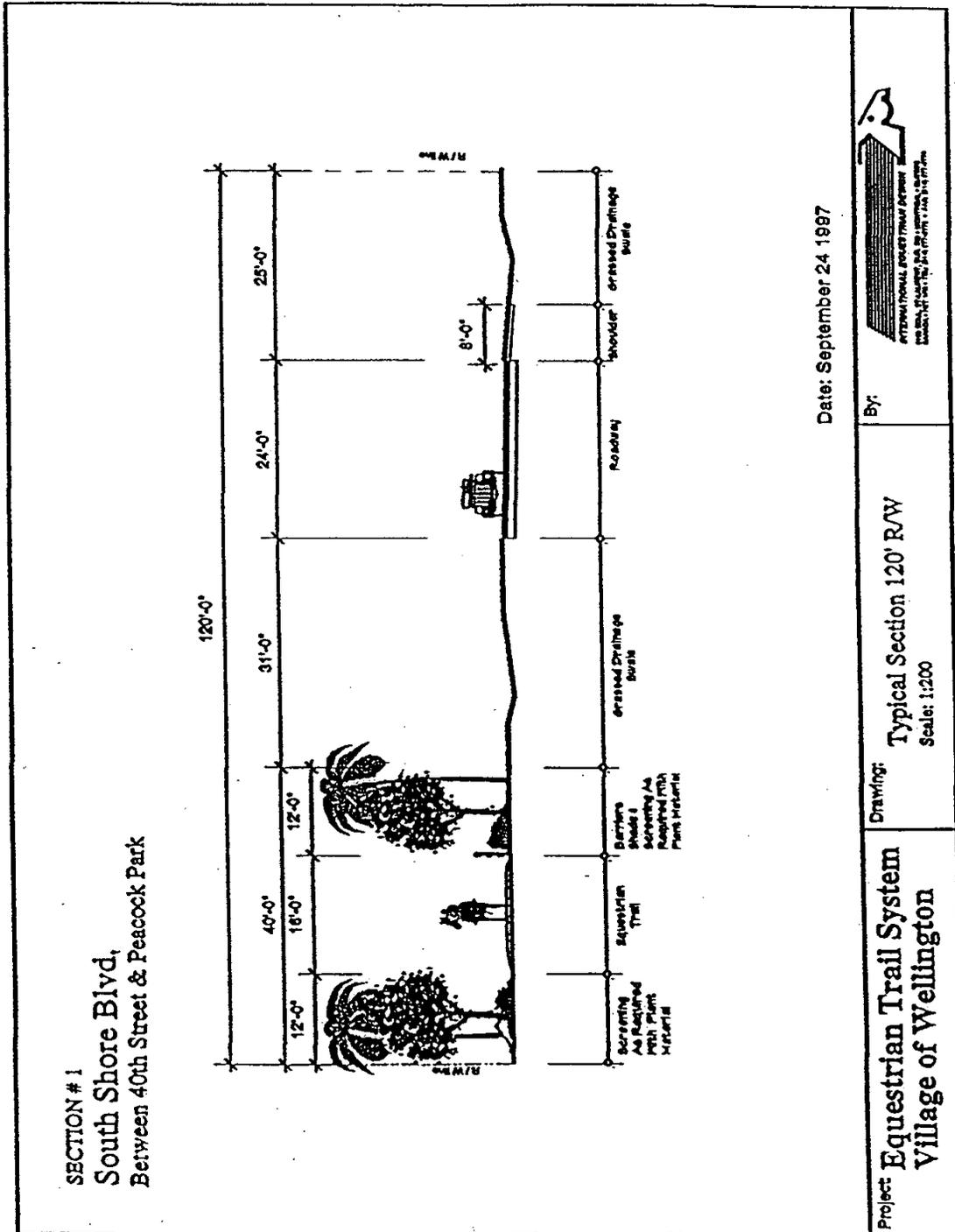
Equestrian Trail System  
Future Equestrian Circulation Map  
Village of Wellington

Section Key Plan for typical Equestrian Trail Cross Sections



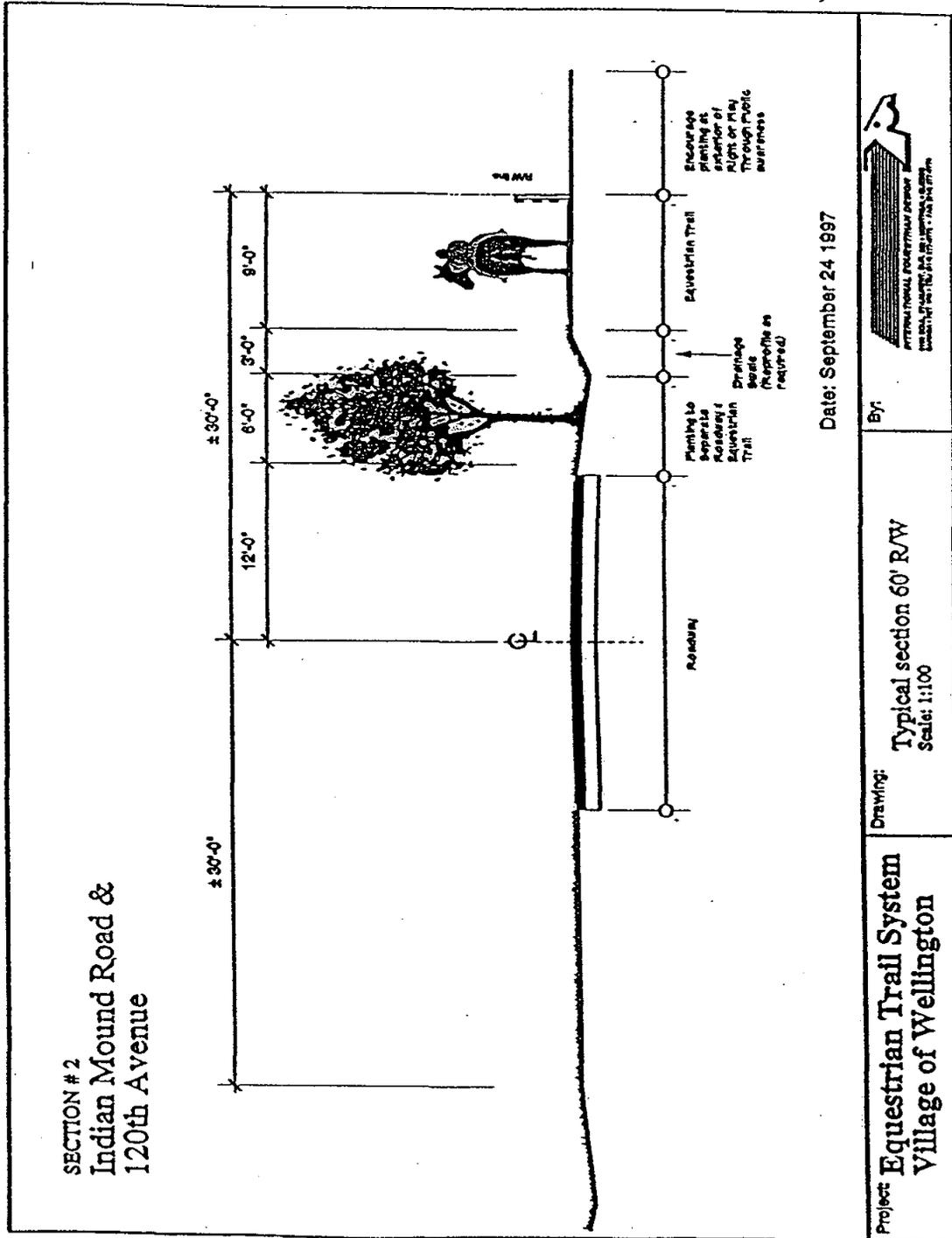
Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

SECTION #1 / South Shore Blvd. (between 40th Street & Peacock Park)



Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

SECTION #2  
 Indian Mound Road & 120th Avenue



Date: September 24 1997



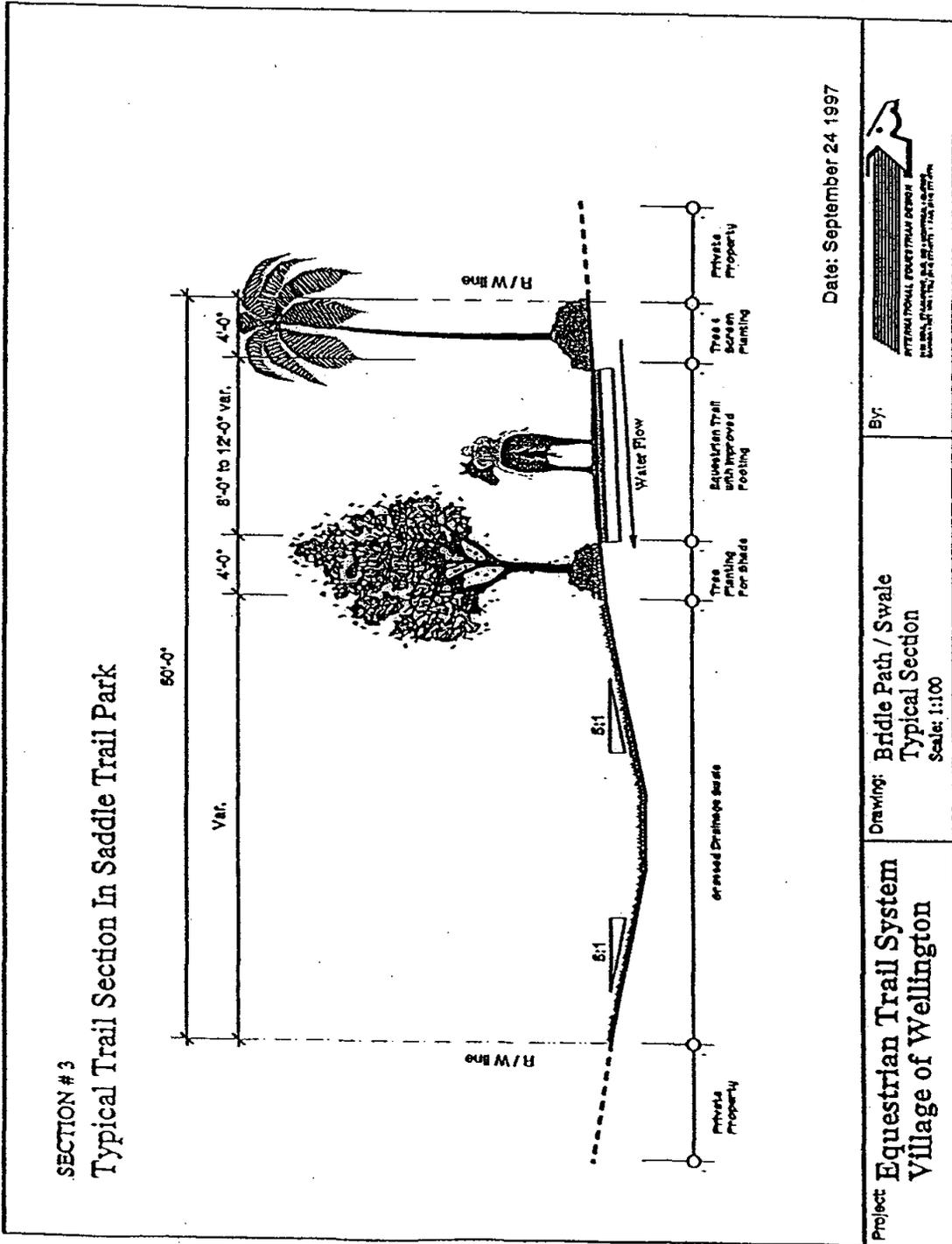
By:

Typical section 60' R/W  
 Scale: 1:100

Drawing:

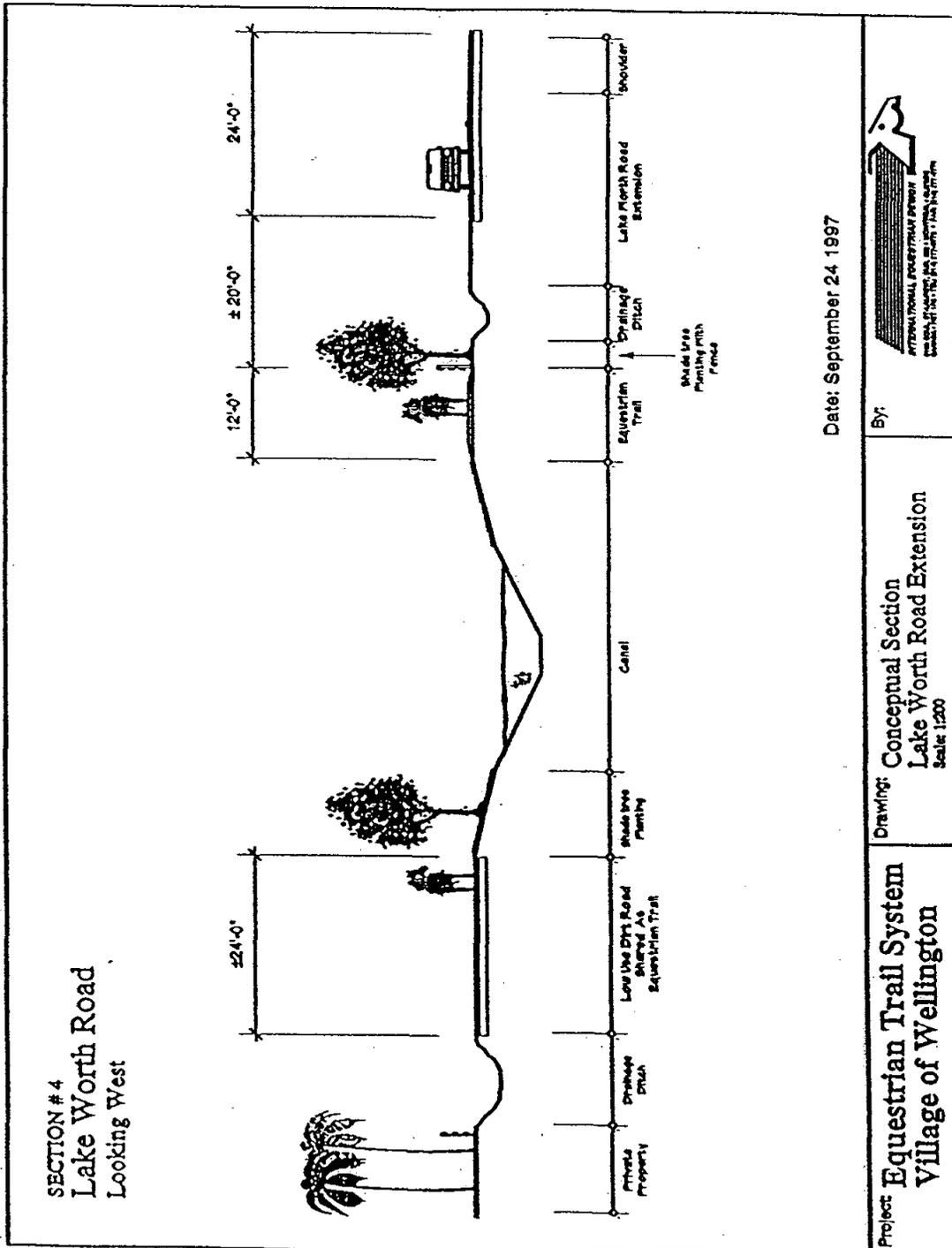
Project: Equestrian Trail System  
 Village of Wellington

SECTION #3  
 Typical trail section in Saddle Trail Park



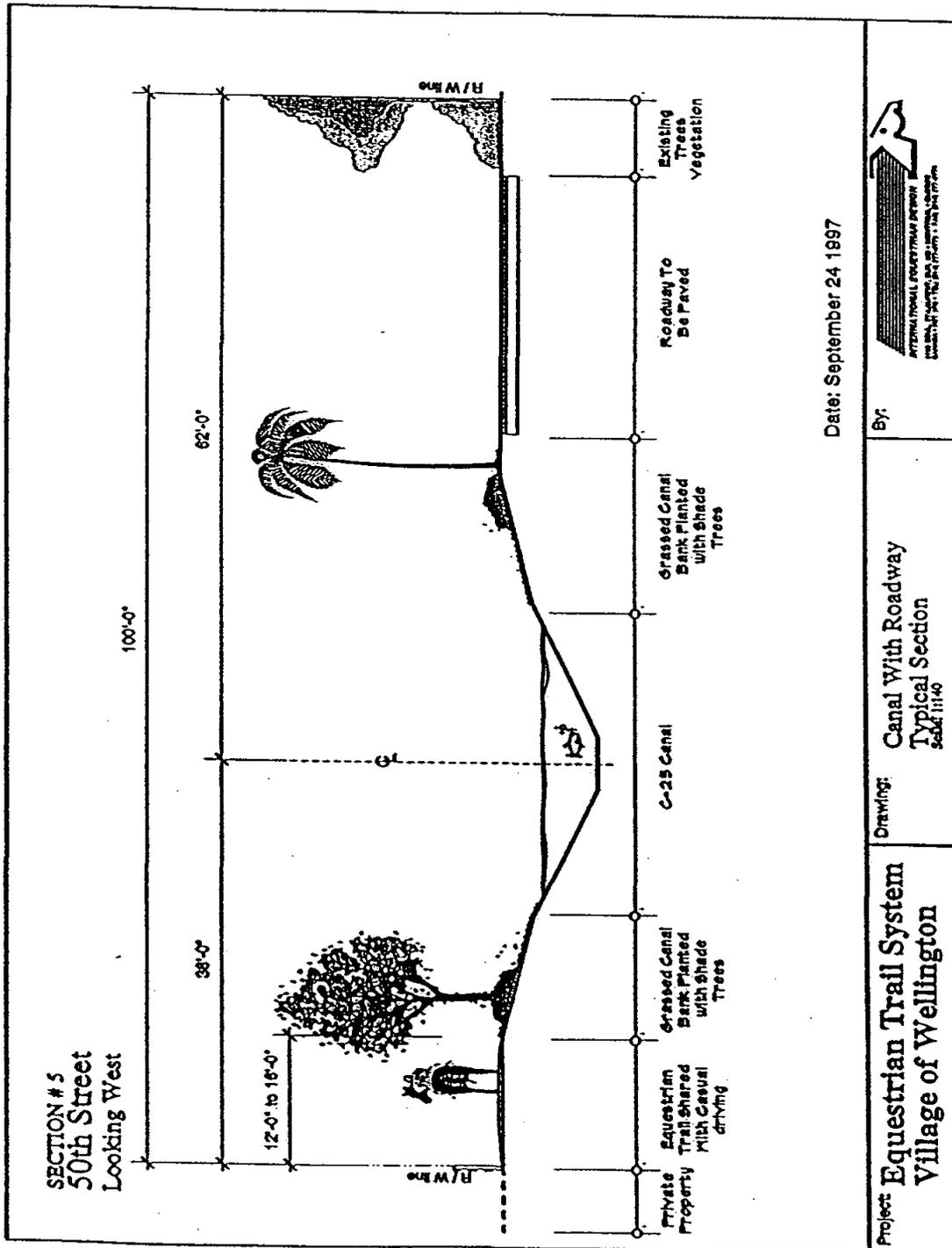
Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

SECTION #4  
 Lake Worth Road looking east



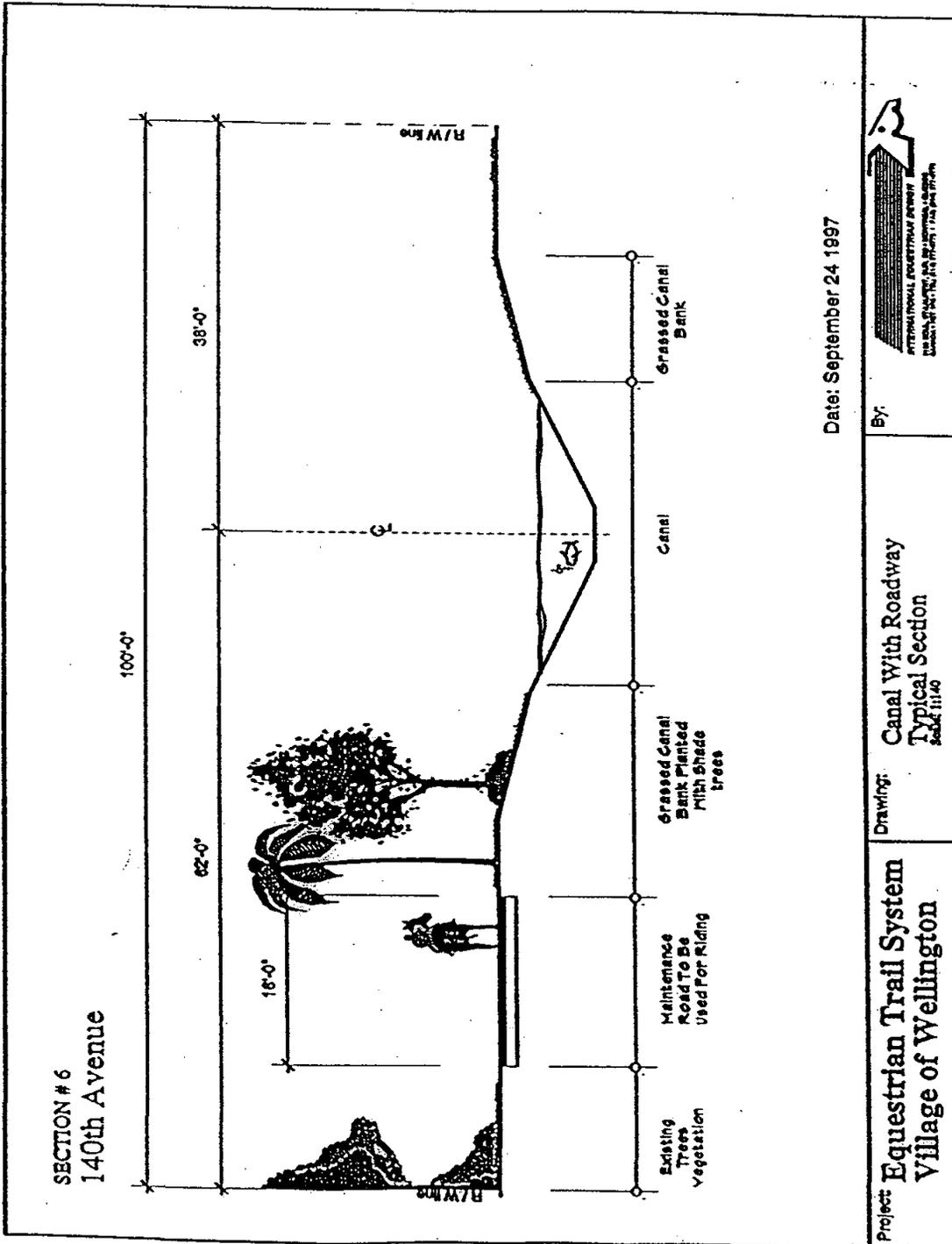
Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

SECTION #5  
 50th Street looking west



Equestrian Trail System  
 Future Equestrian Circulation Map  
 Village of Wellington

SECTION #6  
 140th Avenue



## 9.0 Final Observations and Recommendations

- 9.1 Plan to reduce the potential danger of Road and Trail intersections by employing the following measures:
- .1 Keep number of road crossings to strict minimum.
  - .2 Safe surfacing for horses across asphalt intersections.
  - .3 Traffic circles at all major vehicular access to south Village.
  - .4 Overall speed reduction to 30 mph zone in south Village.
  - .5 Equestrian holding areas on both sides of intersections.
  - .6 Fencing and screen planting to separate equine traffic from vehicular traffic.
  - .7 Trail signage to visually identify equine crossings, trails and access to trails. Create a distinctive international level image.
- 9.2 Plan for future major crossing across South Shore Blvd. approximately one half mile south of Pierson & South Shore intersection. Invest in a crossing more central to the south Village rather than a crossing at the extreme northern limit.
- .1 If South Shore Blvd. changes to four (4) lanes the proposed long term equestrian crossing will require an equestrian tunnel and special treatment to ensure function and safety.
  - .2 Perform an impact study on the effects the forecasted location of the municipal Fire Station proposed by The Village of Wellington may have on the South Shore crossing and equestrian trail system.
- 9.3 Plan for safe interim crossing just south of Pierson and South Shore until the feasibility of the future major crossing improves due to land use change or increased traffic flow. This should be of high priority.

Equestrian Trail System  
Future Equestrian Circulation Map  
Village of Wellington

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- 9.4 Plan for footing upgrades (trail surface improvements) on all Heavy Use Equestrian Trails, especially on the proposed North / South corridors (130th & 140th Avenues) and in Saddle Trail Park. These upgrades should be of high priority.
- 9.5 Plan for culvert additions and upgrades to allow the proposed North / South corridors (130th & 140th Avenues) to work efficiently
- 9.6 Plan for typical culvert crossings at least 16' wide across all canals where required.
- 9.7 Approve detailed engineering solutions for specific equestrian crossings with the Equestrian Subcommittee before implementation.
- 9.8 Plan to renaturalize engineered easements by implementing a tree planting program.
- 9.9 Plan a maintenance program that ensures the long term quality of the footing on main equestrian trails.
- 9.10 Establish priorities for expenditures related to trail development based on requirements for better and safer access to major equine destinations.