APPENDIX A
PROJECT BUILDOUT ANALYSES

Project Effects Evaluated. The Mitigated Negative Declaration and Initial Study (MND/IS) is intended to evaluate the potential effects of the above-described general plan amendments, which would *theoretically* permit all existing horse boarding facilities (HBFs) to evolve as commercial horse boarding, breeding and training facilities (HBBTFs) and increase the FAR of their agricultural buildings from 0.01 to 0.02. It is acknowledged that any facility or property owner's decision to begin commercial breeding and training, and to expand buildings to exceed an FAR of 0.01 would be subject to many complex factors and that in reality, many, if not most owners, would *not* pursue breeding and training and a larger FAR. However, solely for the purpose of the analysis required by CEQA in this MND/IS, the objective is to identify the potential environmental impacts and consequences of the GPAs, including the maximum possible 'buildout' of HBFs as HBBTFs with an FAR of 0.02 FAR. Although development of new facilities with an FAR of 0.02 could hypothetically occur almost immediately, it is expected that such development or buildout would actually occur over a period of 20 years, which is a standard planning timeline. The analysis therefore focuses on the difference between development of such facilities (HBFs) over a 20-year period with the existing 0.01 FAR – the *baseline* for the analysis, and the maximum possible development of HBBTFs (both existing and some new facilities) with an FAR of 0.02 – the *Project*.

Growth of Existing Facilities. It is important to recognize that because all parcels with the LPA and RM land use designation are allowed a minimum of 20,000 square feet of non-residential uses (hereafter referred to generically as agricultural buildings in this MND/IS), only parcels of larger than 46 acres are able to develop more than that amount of agricultural buildings. Smaller parcels do not "benefit" from an FAR calculation (e.g., 40 x 43,560 = 1,742,400, x 0.01 = 17,424 square feet – or less than the minimum allowed). Under the proposed amendments and a maximum FAR of 0.02, however, parcels larger than 23 acres would be able to exceed 20,000 square feet of agricultural buildings (e.g., 23 x 43,560 x 0.02 = 20,037 square feet). The potential increase in new agricultural buildings anticipated from approval of the GPAs is therefore the difference between potential development of commercial horse breeding and training facilities on parcels of 46 acres and larger under the existing 0.01 FAR limitations, and potential development of such facilities on parcels of 23 acres and larger under amended, 0.02 FAR limitations.

County Planning staff have identified 64 properties that are currently being operated or appear to be operated as horse boarding facilities (without regard to permit status), extending over approximately 3,300 acres, any number of which may be developed for commercial breeding and training. **Table 1** below summarizes the acres, average parcel size and maximum potential buildout of these 64 properties based on their individual acreage and the existing FAR of 0.01.[1] The 64 existing facilities are on parcels ranging in size from about 1.5 to over 300 acres, and as summarized in **Table 1**, have an average size of about 52 acres. Of these 64 facilities, over half – 37 – are on parcels of less than 46 acres with an average size of about 12 acres, and make up less than 450 acres of all HBFs. These small-parcel HBFs would reach maximum allowable buildout at 20,000 square feet of agricultural buildings each, or a combined total of 740,000 square feet. The other 27 HBFs, on parcels larger than 46 acres, make up nearly 3,000 acres of all the HBFs, and have an average size of about 107 acres. Based on the existing FAR of 0.01, each of these large-parcel HBFs would have a potential average buildout of 46,763 square feet of agricultural buildings, and a combined area of approximately ***1.26 million square feet*** (1,262,600). For all HBFs with the existing 0.01 FAR, the average maximum potential is roughly 31,300 square feet per parcel, and an estimated ***2 million square feet*** (2,002,600) for combined buildout.

[1] Several properties contain multiple parcels, but each HBF is generally considered to be on only one parcel.

TABLE 1
POTENTIAL BUILDOUT OF AGRICULTURAL BUILDINGS
WITH EXISTING 0.01 FLOOR AREA RATIO (FAR)

	On Parcels Under 46 acres	On Parcels of 46 acres or more	**Totals/ Averages**
Existing Facilities	37	27	64
Total Acreage	436.79	2,898.53	3,335.32
Average Parcel Size	11.81	107.35	52.11
Average Max. Bldg. Area at Buildout	20,000	46,763	**31,291**
Total Max. Ag. Bldg. Area at Buildout	740,000	1,262,600	**2,002,600**

To estimate potential buildout of the HBFs that could develop as HBBTFs at the maximum FAR of 0.02 that the GPAs would permit, the 37 HBFs on parcels of less than 46 acres were divided between those of less than 23 acres (33) and those of between 23 and 46 acres (4), because while the smaller parcels would remain limited to 20,000 square feet of agricultural building development, the "mid-sized" parcels could increase in proportion to their lot size with a 0.02 FAR. This enables the four parcels of 23 to 46 acres to be combined with the parcels over 46 acres, and show potential buildout under the proposed GPAs for all affected parcels. The potential maximum development of agricultural buildings, with both existing and proposed FARs, is summarized below in **Table 2**, with separate columns for the small, mid-size and larger facilities, and columns that combine all of those over 23 acres (in *italics*), and a total for all parcels.

As shown in **Table 2**, for the 27 parcels that are over 46 acres, the average maximum potential buildout under the proposed GPAs could be doubled, from 46,763 square feet to 93,526 square feet. Including the four HBFs on parcels of 23 acres and larger, the average maximum buildout for these medium to large HBFs would be about 85,000 square feet. The combined building development buildout on these 31 medium to large HBFs with the existing 0.01 FAR ceiling would be an estimated ***1,342,600 square feet***; buildout with the proposed 0.02 FAR on the same group of parcels if developed as HBBTFs would be almost double that, or ***2,637,114 square feet***. Combined with buildout of the smaller parcels, potential development with the higher FAR could reach roughly ***3.3 million square feet***, or about 1.3 million more than with the existing FAR limitations, which is projected to reach buildout at over 2 million square feet. However, while the objective of the MND/IS is to evaluate the hypothetical maximum buildout of HBBTFs with an FAR of 0.02, it must also be recognized that such a buildout – an overall total buildout of 3.3 million square feet – is not realistic, and that the conceptual buildout "model" must be moderated to reflect a more viable and realistic projection of development. Planning staff have determined that this magnitude of development is not viable for the following reasons:

- An increase in building area from about 2 million to nearly 3.3 million square feet over 20 years represents an *average* annual increase of more than 2.5 percent per year; however, population and service business growth in unincorporated areas is not expected to exceed 1.0 percent per year.

- Although growth in the horse population at HBFs or HBBTFs may be noticeably slower than 1.0 percent per year – perhaps only 0.5 percent – 1.5 percent per year may be considered as an "aggressive" growth rate that could reasonably reflect maximum potential development, but which could not result in the potential buildout shown in **Table 2**

TABLE 2
PROJECTIONS FOR 20-YEAR BUILDOUT OF EXISTING HORSE FACILITIES: MAXIMUM BUILDOUT WITH EXISTING GENERAL PLAN POLICIES AND PROPOSED GENERAL PLAN AMENDMENTS

	Parcels < 23 acres	Parcels 23-46 acres	Parcels > 46 acres	*Parcels > 23 acres* (combined two columns to left)	**Totals** (or averages) of 1st & 4th columns
Existing Facilities	33	4	27	*31*	**64**
Average HBF Parcel Acres	9.34	32.12	107.35	*97.64*	**52.11**
Average Max. Bldg. Area					
Existing FAR	20,000	20,000	46,763	*43,310*	**31,291**
Proposed FAR	20,000	27,979	93,526	*85,068*	**51,517**
Difference	0	7,979	46,763	*41,758*	**20,226**
Total Area of Buildout					
Existing FAR	660,000	80,000	1,262,600	*1,342,600*	**2,002,600**
Proposed FAR	660,000	111,914	2,525,200	*2,637,114*	**3,297,114**
Difference	0	31,914	1,262,600	*1,294,514*	**1,294,514**

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- A number of HBFs on relatively very large parcels, notably seven parcels of more than 115 acres (including one on more than 300 acres), would together have a potential *average* buildout with a 0.02 FAR of *165,850 square feet* of agricultural building development *per parcel*, and about *1.1 million square feet* of total buildout, which is disproportionate and roughly 44% of the entire potential buildout of all 31 potential HBBTFs with an FAR of 0.02 (2.6 million square feet).
- A sampling of 30 existing HBFs indicate an average of about 26,500 square feet of horse-related buildings per facility, and even the five largest HBFs of these, including some that were fully developed prior to the adoption of Measure D, do not have more than about 72,000 square feet of horse-related, agricultural (non-residential) buildings; in contrast, the average building area at buildout for all medium to large facilities (31 with over 23 acres) would be over 85,000 square feet.
- The 30 sampled HBFs have an average of 581 square feet of building area per horse, a ratio that, if applied to the existing estimated horse population at HBFs – 2,620 – would represent "demand" of 1,522,220 square feet on all 64 HBFs, or only about 76% of the projected buildout shown in **Table 2** with the existing 0.01 FAR (2,002,600), or 46% of buildout with the proposed 0.02 FAR (3,297,114).
- An aggressive growth rate of 1.5 percent per year, applied to the estimated horse population or capacity of 2,620 horses at all 64 existing HBFs would result in only about 3,500 horses, whereas the maximum buildout shown in **Table 2** with a 0.02 FAR (3,297,114 square feet) at a ratio of 581 square feet per horse would accommodate nearly 5,700 horses, or over two-thirds more horses than projected with a 1.5 percent per year growth rate (and over double the existing number of horses).
- The majority of horse owners would be expected to prefer to board, breed or train their horses at small to medium-sized facilities with fewer than 100 horses, and more personal service, rather than at very large facilities (serving over 100 to 150 horses).
- Many facilities may have site-specific topographical, environmental or other constraints that would prevent them from expanding their building area to the maximum 0.02 FAR.

The above factors are evident from a combination of research, observation and analyses by Planning staff, discussed in further detail below. Predicting a realistic potential level of development that could result from the GPAs cannot be exclusively a function of buildout of any HBF to a maximum FAR of 0.02, but must also acknowledge reasonable rates of growth in horse population and proportionate expansion of agricultural building area. Such growth should therefore be based on a combination of the maximum permitted buildout (3.3 million square feet), business, human and horse population growth rates (1.0 to 1.5 percent per year over 20 years), and the estimated average building area actually needed to accommodate projected horse population (1.9 million square feet as suggested above).

Although a 0.02 FAR on some larger parcels could enable development of agricultural- and horse-related buildings of over 150,000 square feet, it is assumed that the building area of even the largest sampled HBFs, about 72,000 square feet, will increase in size by no more than 35 percent over 20 years (1.5 percent per year, to 97,200). Rounded up roughly to 100,000 square feet, it is therefore assumed that no single HBF or HBBTF would develop more than 100,000 square feet of agricultural buildings. As shown in Table 3 below, which summarizes potential buildout under both existing and proposed FAR limits but with an assumed maximum development of 100,000 square feet, the average potential buildout on HBF parcels over 46 acres, with an FAR of 0.02, would be approximate¬ly 76,500 square feet (76,454) per parcel, compared to about 93,500 square feet shown in Table 2, and which is still more than any known existing HBF. On this basis, the total potential buildout over 20 years with the GPAs would be about 2.84 million square feet, rather than 3.3 million square feet. It should be noted that this 'moderated' result is still nearly one million more square feet than the alternative of using only the estimated growth rate of 1.0 percent per year, and the projected total "demand" noted above – 1,856,000 square feet. However, compared to poten-tial buildout with the existing FAR – about 2.0 million square feet, it best represents the maximum potential develop¬ment assumptions necessary for the environmental analysis, and lies on the conservative side midway between 1.9 and 3.3 million square feet. It may also be noted that maximum buildout with existing FAR limitations would also be lower with an assumption that no HBF would exceed 100,000 square feet of agricultural building area per site.

The MND/IS therefore does not evaluate conditions with the theoretical maximum buildout of 3.3 million square feet of development with a 0.02 FAR (the results in **Table 2**), but is instead based on development of about 2.8 million square feet (the results in **Table 3**), based on a 0.02 FAR on all parcels of up to about 115 acres; larger parcels are not expected to exceed 100,000 square feet. As shown in **Table 3**, the small HBFs of less than 23 acres would see no difference in potential buildout, whereas buildout on the 31 facilities on parcels larger than 23 acres would be substantially increased under the proposed GPAs, with the average maximum potential buildout per parcel increasing from roughly 40,000 square feet to over 70,000 square feet (but not, as in **Table 2**, to over 85,000 square feet). Total potential buildout on these 31 medium to large parcels would also increase from about 1.27 million square feet to around ***2.18 million square feet***. Combined with buildout on the smaller parcels, the total buildout on HBFs and HBBTFs with the proposed GPAs, by comparison, would be an estimated ***2.84 million square feet***, or an increase of roughly ***0.9 million square feet*** (906,116) over maximum buildout with the existing FAR. This represents an average maximum agricultural building capacity of approximately 44,300 square feet per parcel, or about 14,000 additional square feet per parcel on average (all of which additional square feet would be only on parcels of larger than 23 acres) over the average potential buildout with the existing FAR.

Growth of New Facilities. It is generally expected that new facilities will develop gradually at a moderate to aggressive growth rate, consistent with other growth rates in the Bay Area, and over time with modest buildings and typically not exceed 40,000 to 50,000 square feet of building area for over ten years. County records indicate that in the 20-year period between 1985 and 2005, the number of horse boarding facilities that were newly approved increased from about 20 to 50, at a rate of about 5 percent or 1.5 facilities per year. However, between 1990 and 2000, the middle portion of that period, the population of unincorporated Alameda County increased by only 1.24 percent per year (by 15,750 persons), and from

2000 to 2010, the entire County population increased by an average of only 0.86 percent per year.[2] The unincorporated area includes the urbanized areas of Ashland, Cherryland, Castro Valley, etc., as well as the rural residential and agricultural areas of the Castro Valley Canyonlands and the East County. The Association of Bay Area Governments estimated in 2009 that the population of the unincorporated areas would increase by about 0.75 percent per year between 2000 and 2010, but predicted the rate would increase slightly to about 0.8 percent per year overall between 2010 and 2030. For the non-urbanized areas of Alameda County, the population increase in the decade before 2001 was estimated to be about 900 persons, at a growth rate of nearly 1.5 percent per year. Between 2000 and 2008, however, this increase slowed noticeably to about 1.05 percent per year.[3]

TABLE 3
PROJECTIONS FOR 20-YEAR BUILDOUT OF EXISTING HORSE FACILITIES:
MAXIMUM BUILDOUT WITH EXISTING AND PROPOSED FARs –
WITH 100,000 S.F. MAXIMUM AGRICULTURAL BUILDING DEVELOPMENT

	Parcels < 23 acres	Parcels 23-46 acres	Parcels > 46 acres	*Parcels > 23 acres* (combined two columns to left)	**Totals/ Averages**
Existing Facilities	33	4	27	*31*	**64**
Average HBF Parcel Acres	9.34	32.12	107.3	*97.64*	**52.11**
Average Maximum Sq. Ft. Building Area per HBF					
Existing FAR	20,000	20,000	44,076	*40,969*	**30,157**
Proposed FAR	20,000	27,979	76,454	*70,199*	**44,315**
Difference	0	7,979	32,378	*29,230*	**14,158**
Total Sq. Ft. Area of Buildout					
Existing FAR[4]	660,000	80,000	1,190,052	*1,270,052*	**1,930,052**
Proposed FAR	660,000	111,916	2,064,258	*2,176,174*	**2,836,174**
Difference	0	31,916	874,206	*906,122*	**906,122**

Although the number of HBFs appeared to increase by 5 percent per year between 1985 and 2005, considers it likely that some or many of the use permits that appeared to have been newly issued between 1985 and 2005 were for facilities that had in fact been long-established and were just then obtaining use permits. Furthermore, at the present time there are an estimated 15 to 20 more boarding facilities that have for various reasons never obtained use permits but appear to have continued to operate (the year they began operations is unknown), and the number of new facilities added since 2005 to the present is also

[2] California, State of, Department of Finance, *E-1: City/County/State Population Estimates with Annual Percent Change, January 1, 2010 and 2011*, and *E-2: California County Population Estimates and Components of Change by Year — July 1, 2000–2010*, Sacramento, California, May 2011.

[3] Association of Bay Area Governments, *Projections and Priorities 2009 – San Francisco Bay Area Population, Household and Job Forecasts*, September 2009, p. 43.

[4] Two HBF parcels are larger than 230 acres and thus have a theoretical potential under the existing 0.01 FAR to build well over 100,000 square feet; however, for comparison purposes a buildout of 100,000 is also assumed.

not well known.[5] It is assumed that most facilities without permits will eventually either obtain such permits or cease operations. In any case, Planning staff does not expect the rate of approval of new horse boarding facilities to continue at a rate of 5% per year, primarily because it would represent unsustainable growth from about 64 facilities at present to over 170 facilities, or more than two-and-a-half times more than at present.

Between 2000 and 2010, employment growth in California for professional, business and other services has increased or is projected to increase on average by less than half of one percent (0.3 % for professional and business services; 0.5 % for other services).[6] In the context of the population increases in the past 20 years, and as projected through 2030, for the purpose of the MND/IS a very conservative growth rate (i.e., anticipating the most intensive degree of development) is adopted of *one percent per year* in new facilities with *existing* 0.01 FAR limitations. However, for *Project* conditions, with provisions allowing an FAR of 0.02 on parcels larger than 23 acres, there would be an increased opportunity to develop new horse facilities, and an accelerated rate of growth would be expected. A very conservative, but not aggressive, growth rate of *one-and-a-half percent per year* is therefore assumed.

The results of the two projections for development of new HBFs and/or HBBTFs over 20 years are shown in **Table 4** below, for conditions with existing and proposed FARs, and divided into the three affected size categories (under 23 acres, 23 to 46 acres, and over 46 acres). The projections assume the same average parcel size and agricultural building area in each parcel size category, and that no single HBF or HBBTF will develop more than 100,000 square feet of agricultural buildings. As shown in **Table 4**, for *baseline* conditions with the existing FAR and a moderate 1 percent growth over 20 years, the result would be a projected 14 facilities with a total estimated agricultural building area of ***424,456 square feet***, based on about 30,000 square feet per HBF. Consistent with the existing distribution of HBFs by parcel size, the 14 new facilities would be split evenly between seven on properties under 23 acres and seven over 23 acres (including one in the 23-46-acre category). In contrast, assuming a 1½ percent growth rate over 20 years for *Project* conditions, the total projected number of facilities would be 18 facilities, with the difference – four additional HBBTFs – occurring only on medium to large parcels (greater than 23 acres); facilities on smaller parcels are assumed to increase at the same, slower growth rate of one percent per year, increasing by seven under either existing or *Project* conditions. Based on the higher FAR and an average of 70,199 square feet per HBBTF, the result is an estimated maximum total buildout of ***932,519 square feet*** on all 18 projected new facilities, or about half a million more square feet than are projected with the 14 facilities anticipated with the existing FAR.

Combined Development. **Table 5** below shows the combined projected buildout of existing and new facilities, and that with the existing 0.01 FAR, there would be an increase from 64 existing facilities to a total of 78 horse facilities, with a maximum buildout of approximately ***2.35 million square*** feet of non-residential/agricultural buildings; the equivalent combined potential buildout of existing and new facilities with a 0.02 FAR is roughly ***3.77 million square feet***. The net increase in building area for horse breeding and training facilities over 20 years with the amended FAR limitations is therefore almost ***1.42 million square feet***. Viewed alternatively over time, the projected increment between the current and proposed FAR limit represents an average annual increase of nearly 98,000 square feet per year on 42 existing and projected facilities on parcels over 23 acres in size. However, it bears repeating that these are conservative projections of an extreme level of development that is possible, but which is very unlikely to be reached within the 20-year time frame.

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[5] Enforcement of Zoning Ordinance requirements is unrelated to the current project.

[6] California State Department of Finance, Economic Research Unit, *California Economic Forecast — Annual & Quarterly*, http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/FS_Forecasts.htm , November 2010.

TABLE 4
PROJECTIONS FOR 20-YEAR BUILDOUT OF FUTURE NEW FACILITIES
WITH EXISTING AND PROPOSED AMENDMENTS TO FLOOR AREA RATIOS

	Parcels < 23 acres	Parcels 23-46 acres	Parcels > 46 acres	*Parcels > 23 acres* (combined two columns to left)	**Totals** (or average, of 1st & 4th columns)
New Facilities					
Existing FAR	7	1	6	*7*	**14**
Proposed FAR	7	1	10	*11*	**18**
Difference	0	0	4	*4*	**4**
Average Max. Bldg. Area					
Existing FAR	20,000	20,000	44,076	*40,969*	**30,157**
Proposed FAR	20,000	27,979	76,454	*70,199*	**44,315**
Total Area of Buildout					
Existing FAR	140,000	20,000	264,456	*284,456*	**424,456**
Proposed FAR	140,000	27,979	764,540	*792,519*	**932,519**
Difference	0	7,979	500,084	*508,063*	**508,063**

Horse Population. According to the 2010 Alameda Crop Report (or agricultural commodity report), there are approximately 9,500 horses in the County, including about 5,000 horses kept for recreation and pleasure, 1,500 ranch horses, 2,000 race horses, and about 1,000 other competition horses.[7] Based on past permits and some aerial photo observation, the 64 identified existing HBFs have an estimated total capacity, permitted or otherwise, of 2,620 horse stalls (or other capacity, such as paddocks with shelters), which would represent about one-quarter of the estimated County horse population. The number of horse stalls on these facilities vary widely, from as few as 7 up to a maximum of 125 horses, but the overall average is 41 stalls per facility, as shown below in **Table 6**.

The potential increase in horse population within the 20-year planning horizon may vary widely, from around half a percent per year, which is moderately slower than the rate of human population increase in the unincorporated areas of the County (0.75 percent), to one to one-and-a-half percent per year – the same growth rates used respectively to project the increase in HBFs and HBBTFs with and without the proposed GPAs. To be conservative and consistent, the latter rates will be used in this MND/IS – *one percent per year with the existing 0.01 FAR*, and *one-and-a-half percent per year with the proposed 0.02 FAR*. As shown in **Table 6** below, the horse population in HBFs is projected to increase over twenty years from 2,620 to 3,197 with the 0.01 FAR and the slower rate (about a 22 percent increase), and 3,529 with a 0.02 FAR and a faster growth rate (about 35 percent more).

Table 6 also shows the total area of agricultural building buildout and estimated potential horse capacity that would be possible in each of the three size categories with such buildout, based on a ratio of 522 square feet of agricultural building area per horse that appears to best represent existing facilities. Lastly, **Table 6** shows the "inverse" of the prior calculation, and the actual building area that would be needed to accommodate the projected horse population increases under the existing and proposed FARs.

[7] Alameda County Department of Agriculture –Weights and Measures, *Crop Report 2010*, p 9.

TABLE 5
PROJECTIONS FOR 20-YEAR BUILDOUT OF EXISTING PLUS FUTURE NEW FACILITIES WITH EXISTING GENERAL PLAN POLICIES AND WITH PROPOSED AMENDMENTS

	Parcels < 23 acres	Parcels 23-46 acres	Parcels > 46 acres	*Parcels > 23 acres* (combined two columns to left)	**Totals** (or average, of 1st & 4th columns)
Combined Existing and New Facilities					
Existing Facilities	33	4	27	*31*	**64**
With New Facilities					
Existing FAR	40	5	33	*38*	**78**
Proposed FAR	40	5	37	*42*	**82**
Difference	0	0	4	*4*	**4**
Total Area of Buildout					
Existing Facilities					
Existing FAR	660,000	80,000	1,190,052	*1,270,052*	**1,930,052**
Proposed FAR	660,000	111,916	2,064,258	*2,176,174*	**2,836,174**
New Facilities	140,000	20,000	264,456	*284,456*	**424,456**
Existing FAR	140,000	27,979	764,540	*792,519*	**932,519**
Proposed FAR					
Existing & New Facilities	800,000	100,000	1,454,508	*1,554,508*	**2,354,508**
Existing FAR	800,000	139,895	2,828,798	*2,968,693*	**3,768,693**
Proposed FAR	0	39,895	1,374,290	*1,414,185*	**1,414,185**
Difference					

Although the proportion of agricultural building area to horse keeping capacity is highly variable, the actual development of horse boarding, breeding and training facilities is expected to be a function of many factors, including demand, financial and economic conditions, suitability of the property, and the actual increase in horse population. Important property factors include its acreage (as capacity for paddocks, arenas and other features that may require large amounts of space, open and enclosed), the number of horses kept and the proportion of stall barns, paddock shelters, covered walkers, equipment or other barns, manure management or storage buildings the owner chooses to provide. Physical and environmental constraints may also be very substantial. Nonetheless, although there is no established correlation or ratio between the extent of buildings and the number of horses managed on a site, for the purpose of planning and analyses in the MND/IS, including traffic, air quality, noise and land use policies, it is useful to calculate an estimated ratio of horse boarding capacity to agricultural building area. Such a ratio is needed because vehicle trips are normally calculated on a per horse basis, and the ratio enables the number of horses to be estimated on the basis of the building area. The key factors in estimating such a ratio include a determination of existing and projected numbers of horses boarded (or increases in horse population, or demand for horse boarding, breeding and training), and both existing and projected quantities of the floor area of horse-related agricultural buildings.

TABLE 6
EXISTING AND PROJECTED COUNT OF HORSE STALLS OVER 20-YEAR BUILDOUT WITH EXISTING GENERAL PLAN POLICIES AND WITH PROPOSED AMENDMENTS

	Parcels < 23 acres	Parcels 23-46 acres	Parcels > 46 acres	*Parcels > 23 acres* (combined two columns to left)	**Totals** (or average, of 1st & 4th columns)
Estimated Horse Population	971	153	1,496	*1,649*	**2,620**
Average No. of Horse Stalls/ Other Capacity	29	38	55	*53*	41
Projected Horse Population over 20-year Period	1,185	187	1,825	*2,012*	**3,197**
Existing FAR–1% growth	1,185	206	2,015	*2,221*	**3,406**
Proposed FAR–1.5% growth[1]	0	19	190	*209*	**209**
Difference					
Total Area of Future Buildout *(Including New Facilities)*	800,000	100,000	1,454,501	*1,554,501*	**2,354,501**
Existing FAR	800,000	139,893	2,828,787	*2,968,680*	**3,768,680**
Proposed FAR					
Potential Horse Capacity at 522 sq. ft. per horse					
Existing FAR	1,533	192	2,786	*2,978*	**4,511**
Proposed FAR	1,533	268	5,419	*5,687*	**7,220**
Difference	0	76	2,633	*2,709*	**2,709**
Building Area Need for Projected Horse Population at 522 sq. ft. per horse	618,570	97,614	952,650	*1,050,264*	**1,668,834**
Existing FAR	618,570	108,054	1,056,528	*1,164,582*	**1,783,152**
Proposed FAR	0	10,440	103,878	*114,318*	**114,318**
Difference					

[1] 1.5% growth assumed only for facilities over 23 acres; 1.0% growth assumed for [1] 1.5% growth assumed

Using a combination of permit data and aerial photograph observation Planning staff reviewed 30 HBFs of various sizes to establish an understanding of existing conditions, including the approximate ratio of agricultural, non-residential building area to numbers of horses. The analysis indicates that the existing HBFs have an average of 30,676 square feet of horse-related buildings serving an average of 63 horses. The largest facilities contained between 50,000 and 72,000 square feet of agricultural buildings appearing to be directly related to the horse facility. The ratio of horses to building area appears to vary widely, from as little as 57 to well over 1,000 square feet per horse, but 22 of the 30 had between 200 and 1,000 square feet per horse; the gross average ratio was 581 square feet per horse; the median ratio was notice-

ably lower at 462. For the purposes of this Initial Study, although it is recognized as highly variable according to the type of facility, not field-verified and generally hypothetical, an average of the gross and median averages will be used: ***522 square feet per horse***.

It is notable from **Table 6** that with buildout of all HBFs shown under the *existing* FAR limits – about 2.35 million square feet – the result of this ratio would be "capacity" for over 4,500 horses, which is about 40 percent more than the approximately 3,200 horses projected with the one percent rate of growth assumed for buildout with the existing FAR. Still more striking is that the maximum projected buildout of all HBBTFs with the *proposed* 0.02 FAR – 3,768,693 square feet – would yield a "capacity" for 7,220 horses, which is about 212 percent more than the 3,406 horses projected with the "aggressive" 1.5 percent per year growth rate assumed for the proposed 0.02 FAR. It is clearly evident from **Table 6** that the probable actual need for agricultural buildings for HBFs and HBBTFs would be substantially less than the potential maximum buildout estimated in **Table 5**.

It is recognized that there is an extraordinary difference between the results for total potential buildout of facilities shown in **Table 5** (about 3.77 million square feet) and the results of projected demand shown in **Table 6** (about 1.78 million square feet) for around 3,400 horses with a net increase over 20 years of 35 percent – about 800 additional horses. Although some individual, commercial-scale HBBTF facility operators could provide a much higher floor area per horse – 1,000 square feet for example, that if applied to the entire estimated projected horse population of about 3,400 would require 3.4 million square feet for such "demand" – it is very unlikely the average for all facilities would reach that ratio. Even if the average building area per horse were to increase to 800 square feet for example, the maximum buildout of 3.77 million square feet would still accommodate over 4,700 horses, which is about 38 percent higher than the maximum estimated horse population projected with 20 years of compounded growth at 1.5% per year (3,406).

It is more important, however, to recognize that the *Project* being evaluated is the potential development of commercial horse breeding and training facilities with an increased FAR of 0.02. Again, while many existing or potential individual facility owners may not choose to seek an increased FAR, the option would remain, and the MND/IS must anticipate such development and identify the potential impacts of that scenario. In the context of County-wide impacts, therefore, and for the purpose of the MND/IS, the maximum buildout of 3.77 million square feet of agricultural, horse-related building is assumed to be the result of the *Project*, of which about 1.41 million square feet – the difference between buildout with and without the proposed GPAs – would be for commercial breeding and training facilities.