Stand 1C Description (43.60 Acres)

This stand of oak is broken out because it has some differences to the overall stand. This stand is a younger age class with most trees in the 50 to 60 year age group. This stand also has evidences-stumps from more recent selection harvesting into the late 1970's. While oak is more dominant in this area as well, the primary differences is the average tree is in the 6 inch dbh class and the stocking levels are higher. This oak group simply isn't as open or mature as the remainder of the stand. Management for this compartment is a described for the overall stand. The selection harvest will produce 129 cords of wood over this management period. This stand will have one, 4-acre contoured, irregularly-shaped clear cut also to produce +/- 56 cords of oak.

Stand Projection: Over the next ten to forty years, this stand will develop into an uneven-aged, mature oak-pine stand. It will be important to annually monitor the stand for insect and disease issues and tree regeneration to evaluate what adaptive management actions may be needed, if any.

Stand Two **Pine/Disturbed (40.60 Acres)**

Compartment	Acres	Compartment	Acres
A	8.00	B	12.60
C	3.10	D	1.60
E	4.30	F	11.00

This stand is made up of six compartments scattered about the forest. These areas are primarily pitch pine that have recaptured prior disturbed areas. These areas were used for agricultural use earlier in the last century and are typically designated as old field pine. Both pitch and shortleaf pine typically regenerated and captured these areas soon after the abandonment of agriculture use and/or a disturbance. The age classes vary across the groups.

The pine had a closed canopy and shaded out the regeneration of a native understory for several decades. With natural stem exclusion beginning, oaks and native shrubs have begun to regenerate to some extent. This is the case in most of these overstocked old field pine compartments.

These stands are young and have regenerated randomly over the last fifty years or so. Understory regeneration has begun in most groups.

Some groups have significant advanced oak in the understory and midstory with scattered development of shrubs such as huckleberry and some laurel. There are also a few groups of black cherry and red cedar and other tree species that are remnant of the early successional stand.

Crown closure is 100 percent and growth rates have stagnated. Natural stem exclusion is occurring at a very slow rate. Tree quality is moderate and the dominant trees have potential for growing into much larger, older trees of moderately good timber quality as well.

These stands remain at high risk to loss from southern pine beetle infestations. These groups of overstocked, stressed stands are the type of condition that attract bark beetles. Since beetle activity is presently near this forest, the thinning of this stand is a priority.

The best approach to protecting and perpetuating these groups is to initiate a commercial pine thinning to reduce the overall basal area down to 60 to 70 feet in the pine. The scattered oak component will be left as part of the stand to retain a diverse forest and habitat structure.

This thinning approach will be in both the crown class trees, as well as suppressed trees. The healthiest, largest trees will be targeted for retention in the stand. This thinning will reduce competition for growing space and allow more vigorous trees to sustain themselves against beetle attacks. The spacing of the trees also will minimize impacts of beetles being able to move easily from tree to tree. This work will also allow these pine "groves" to grow into older age class groups and have a safer wildfire condition.

Reducing the stocking of the stand will also allow increased sunlight to the forest floor, thus enhancing growth and regeneration of both the increasing natural understory and midstory.

This work should be done early in this management period to avoid the loss of the stand and the expense of restoring them if southern pine beetle eliminates the pine overstory.

It's planned to harvest thin up to 75 cords of low-grade pulpwood over this ten year management period. Again, fire will be reintroduced to these groups once over this management period to the extent practical in a post-harvest year. Average wood removal per acre will be 1 - 3 cords.

Stand Projection: This stand will grow into an older age class pine stand over the next ten to forty years. It will likely develop a midstory of oak and pine. The stand's development will also depend on what fire may be able to be placed on the ground in this stand. Prescribed fire events may keep the stand as an open, mature pine stand with a shrub understory. Without management, the pine will likely be lost to insect damage and the stand will gradually convert to a more oak dominated stand.

Stand Three **Pine/Oak (280.40 Acres)**

Compartment	Acres	Compartment	Acres
A	14.40	B	15.00
C	159.00	D	16.00
E	5.80	F	7.90
G	13.50	H	21.50
I	13.80	J	8.80
K	4.70		

This stand, as with Stand One, is supported by well-drained, upland soils. The primary difference from Stand One is that pitch pine and shortleaf pine are dominant in the canopy and in numbers as opposed to the groups of oak species as described in Stand One. Disturbance events earlier in the last century likely allowed pine to be more dominant on these areas. Past harvesting and fire histories have both caused this mosaic of stand structure difference.

The stand is mature in the 70 to 80 year age class. Crown closure is 90 percent and growth rates remain moderate. Tree quality and conditions are moderate to good on the pine; and poor in the oak component. There are a few older and younger trees scattered about.

The understory is similar to Stand One with a slight increase in mountain laurel groups and scrub oak groups. Tree regeneration is limited and insufficient at this time. Both oak and sassafras can also be found scattered in the midstory.

Tree mortality is low with a few dead trees scattered about the stand. A high portion of the stand remains overstocked with significant crown competition. The oak is co-dominant where found in the crown. Areas that had received prescribe burning have open understories while other areas are extremely dense. Fire exclusion has resulted in much denser understories in this pine stand as opposed to the more open oak in Stand One.

This stand will be managed to mitigate potential loss from southern pine beetle, enhance the growth and vigor of these maturing pine, begin to encourage both oak and pine regeneration and reduce concerns for uncontrolled wildfire. The proposed single tree and small group selection harvesting will also enhance the diversity of forest structure, as well as opportunities for natural understory regeneration.

In concert with harvesting in Stand One, this stand will receive a treatment with the single tree and small group selection harvesting of overcrowded and suppressed trees, as well as defective or diseased trees. The retained stand will include trees of all species and diameter classes with the healthiest trees selected for retention.

This selection removal will remove no more than 3 - 4 cords/acre to reduce the basal area down to 65 to 75 feet. Trees to be removed will be in all species composition.

This work will be done by trees to be removed being marked individually by a professional forester who can evaluate the target retention standards.

In addition to the selection forest improvement treatments, there will be six, 3-acre irregularly contoured clearcut patches. The only trees to be retained in these patches will be dead or dying trees. These harvests will be done to initiate pine and oak regeneration and again, begin to restore a more balanced distribution of age and size class structure across the woodland. These patch harvests will be done over this management period and only be 18 acres in total (see forest stand map for distribution).

Natural pine oak regeneration will occur as a result of the scarification by the harvesting activity. All natural plant and shrub species will be allowed to naturally resprout or regenerate. Thinning of the young groups will be considered in the next ten year management plan. Total wood removal will be 1,048 cords from the selection work and 360 cords from the selection patches.

Stand Projection: This stand will develop into an uneven-aged, older growth pine stand if managed. It's likely a tree regeneration in both oak and pine will develop in the midstory. The ability to apply fire will be a major determinant of how this stand develops. Without management, the stand remains at risk from wildfire and/or converting to oak as a result of the loss of the pine overstory to southern pine beetle infestations. Over the next ten to forty years, this stand will be managed to become and older growth pine/oak forest type with regeneration developing in an uneven-aged structure.

Stand Four Mixed/Disturbed (57.60) Pine/Hardwood

Compartment	Acres	Compartment	Acres
A	31.60	B	5.50
C	0.60	D	3.10
E	16.80		

These areas are stands that are found on land that had been previously disturbed for human use in the last century. These areas are regenerating into a mixed stand with trees from one to fifty years old. There is little defined structure at this time.

These areas have an uneven structure and can best be described as regenerating with upland tree species as described for Stand One and Three. Pine is dominating in places. There are areas of red cedar, and black cherry as well as nonnative invasive plants such as stiltgrass. A few areas are maintained. This area will be managed to monitor and remove nonnative plants to the extent practical and allow natural tree regeneration to continue.

Nonnative plants will be removed by hand when found either by pulling or a small spade. A few areas of the quality trees will receive some tree pruning efforts to improve tree quality and create conditions from natural understory regeneration. No tree removal for wood use is planned at this time.

Stand Five Pitch Pine Lowland (245.00 Acres)

Compartment	Acres	Compartment	Acres
A	2.40	B	85.30
C	1.80	D	0.40
E	0.30	F	1.70
G	1.30	H	18.50
I	50.80	J	45.70
K	7.20	L	6.10
M	3.20	N	13.70
O	6.40	P	0.20

The pitch pine lowland patches can be found on 16 compartments scattered across this forest. This stand is typically associated with both red maple and cedar stands on wetland soil types, but soils that are less saturated than the other stands.

The overstory species composition is a mix of mature pitch pine and red maple with a component of black gum and a few occasional swamp white oak and sweetgum. There is a significant midstory of suppressed blackgum and red maple, as well as scattered groups of American holly. There are a few occasional white cedar single trees or small groups but very limited in this stand.

The stand is an excellent representation of an older age class fire excluded pine lowland. The stand's overstory is even-aged in the 80 to 90 year age class with a few scattered older trees.

The suppressed hardwood midstory is younger in the 50 to 60 year age class. Crown closure is 100 percent in most areas and growth rates have slowed. Tree condition and quality is moderate to good.

Tree regeneration is absent from the understory at this time. The understory is a mix of open areas to areas of a mixture of laurel, highbush blueberry, magnolia and greenbriar and other native shrubs.

This mature lowland stand of pitch pine is typical of high southern pine beetle risk stands that are presently being lost throughout this region of southern New Jersey. Recent summers of drought conditions may be contributing to the spread of southern pine beetle into these types of stands.

The overstocked conditions of the stand remains a concern. This overstocked condition is likely a result of the exclusion of fire over the entire life of the present stand.

Under more historic fire regimes, much of the hardwood would have been eliminated from this stand over time. If the mature overstory pine is lost to beetle outbreaks, this stand will become a black gum/red maple stand almost immediately. There is little chance the pine could regenerate in the thick duff on the forest floor or in the shade of the dense hardwood. This condition, in large part, is the result of the lack of fire in the stand's development over the last century.

This stand will be managed to allow the stand to continue to mature and, at the same time try to minimize the risk of losing the pine component to bark beetles. If the pine overstory is lost, it would be cost prohibitive to restore this pine component. The maturing pine stand is of high ecological value in the overall diversity of this forest.

The stand will receive an initial weeding to slash the suppressed, stagnated gum and maple midstory by 80 percent of the stems. The midstory holly and shrubs will be left intact. Most of the hardwood will be left as dead or down wood on the forest floor.

In concert with the weeding activity, the overstory pine will receive a single tree selection harvest to remove less than 15 percent of the pine in the trees that are overcrowded and/or suppressed. This proposed prescription will improve the health and vigor of the stand to minimize risk to its loss from southern pine beetle and allow it to grow to a much older age class. The objective is to improve the growing space for the best quality overstory pine.

This work will occur across the stand periodically throughout this management period. Total wood removed will not exceed 175 cords of pine, and 50 cords of hardwood. Most hardwood will be left on the forest floor.

Once an area is treated, it will be considered to begin to allow a backing prescribe fire into that area when weather conditions allow. Fire will be used once over this management period.

Although getting pine regeneration back at this time is not a primary objective, setting the stand up in this condition is setting the stage for this stand to be in a condition to begin to allow pine regeneration to occur and avoid having the stand convert to a hardwood dominated forest type in the long term.

This stand needs to be monitored closely for southern pine beetle infestation and mitigation action will need to be implemented in any outbreak area first.

Stand Projection

This stand provides a unique and quality representation of an older age class pitch pine lowland forest type. With management, this stand will be allowed to continue to develop into an older age class stand over the next 10 to 40 years. With the reintroduction of fire, a second age class of pine may develop throughout the stand. The pine will retain its association in the stand with a hardwood component and a shrub-holly understory remaining intact.

Stand Six Atlantic White Cedar (36.20 Acres)

Compartment	Acres	Compartment	Acres
A	16.30	B	1.70
C	12.70	D	5.50

The Stockton forest has some excellent representations of quality Atlantic white cedar forest stands. As would be expected, these stands are found along the stream drainages of wetland stands and are found in patches associated with red maple stands. These patches are supported by a muck soil that remains saturated.

The species composition is almost pure Atlantic white cedar in most cases with a very modest component of red maple, pitch pine, magnolia, and a few black gum. Tree quality is excellent in the cedar. Crown closure is 100 percent and growth rates have slowed.

The understory is open in many areas while a few areas contain highbush blueberry, laurel and minimal greenbriar. As would be expected, tree regeneration is absent at this time.

These patches are of high quality in both their ecological and economic values. It is recommended these stands be conserved for their high ecological values.

These stands were likely regenerated very early in the last century. There are a few trees over 100 years of age while most patches and groups are in the 65 to 85 year old age class.

These patches are remnant of once larger stands. It is likely cedar harvesting did occur across all of these stands many times since colonial settlement. A few trees exhibit limby characteristics that clearly show they once grew in more open conditions caused by past high-grade cutting.

No harvesting or physical management activity will occur within the cedar patches across the forest. All existing cedar trees will be conserved and retained as part of the forest structure at this time.

However, these patches need to be monitored into the future to evaluate the following:

1. Are the patches declining in health?
2. Will the stand lose the pure cedar integrity and begin to breakup?
3. Is hardwood or brush encroachment increasing and/or a problem?
4. Are beavers impacting the stand's health?

In terms of long-term research, these cedar patches should be inventoried in great detail with a 100 percent inventory. This would allow for long-term evaluation in terms of managing for old growth characteristics as the stand continues to grow.

Atlantic white cedar is a subclimax species and over time, will succeed to lowland deciduous hardwood or become further fragmented on their landscape through natural disturbances such a wind storms, ice storms, fire or beaver flooding to mention a few.

The long term goal for these stands is to expand them into some of the adjacent, younger maple groups that had previously supported Atlantic White cedar stands. This goal will allow for the development of larger, contiguous areas of cedar with stands of different ages present. This will allow for a full representation of the total spectrum of cedar stand age and size classes with some diversity in composition and structural parameters. The cedar regeneration in adjacent maple patches is described in detail in Stands 8F maple.

Conservation and scientific study are the objectives for these unique stable cedar patches. At present, the cedar is very stable. With some natural stem exclusion, natural thinning, and the stand is doing well. No physical activity to manage these patches into older age class cedar is needed at this time.

These patches also will provide critical seed sources for natural regeneration in adjacent restoration efforts.

Stand Seven Maple/Gum (24.60 Acres)

Compartment	Acres	Compartment	Acres
A	0.30	B	17.50
C	4.50	D	1.60
E	0.20	F	0.50

This compartment is made up of almost pure red maple/black gum and supported by wetland soils. These stands provide some exemplary representation of maturing red maple forest types. Red maple is the dominant overstory tree growing in association with black gum. The stand is even-aged in the 80 plus age class. Tree regeneration is not an issue at this time. The understory is a rich mix of woody shrubs such as highbush blueberry and herbaceous cover. Greenbriar has encroached in a few areas. Stand 7B does have a fringe of large, mature pitch pine associated with it. Crown closure is 90 to 100 percent and growth rates have slowed. Tree condition and health is good. Conservation and study are the only plans for these compartments over this management period. No physical activity will occur in this stand.

Stand Projection: This stand will simply be allowed to continue to develop into an older age class of red maple forest types over the next 10 to 40 years. There will be consideration of restoring Atlantic white cedar back to these areas if and when the red maple overstory begins to break up. If this occurs, a forest plan amendment will be prepared and submitted for proper approvals at this time. This stand provides unique diversity and important wildlife habitat to the overall forest.

Stand Eight Pine/Maple/Cedar (94.80 Acres)

Compartment	Acres	Compartment	Acres
A	4.20	B	8.00
C	16.40	D	23.00
E	8.50	F	25.50
G	9.20		

This stand is closely associated with Stand Five (pitch pine lowland), Stand Six (Atlantic white cedar) and Stand Seven (maple/gum). White cedar is a minimal component in these compartments. Dominance of any one species varies greatly across these groups and the stand is a very diverse mosaic of species composition.

The overstory is a rich mix of dominant pitch pine, red maple, and black gum with very scattered sassafras, sweet gum and very few white cedar. Tree regeneration is absent from these compartments. The understory is typically dense with laurel, highbush blueberry, greenbriar, and a wide variety of native shrubs. American holly is also present in the midstory in areas. Crown closure if 100 percent and growth rates have slowed. This stand is even-aged in the 80 to 90 year age class. Tree condition and quality is moderate to good.

However, there are a few younger groups of almost pure red maple associated with the Atlantic white cedar in compartment 8F. These maple groups appear to have captured some areas after failed cedar regeneration earlier in the last century. These groups are even-aged in the 50 year age class.

This stand likely regenerated 80 years ago as a result of arbitrary tree harvesting and all species regenerated together in this mosaic. This stand provides an excellent representation of typical species association after disturbance. This stand will simply be allowed to continue to mature and develop.

The only management attention will be to allow fire to back into this stand when conditions permit and monitor the pine groups for southern pine beetle infestations. If bark beetle show up, those infected trees will be harvested immediately. The stand will then be allowed to continue to develop into a hardwood stand without the pine component. Pine restoration is not planned in these groups. If the pine component is lost, this stand will be allowed to develop into a mature hardwood stand.

One management effort will be to locate all individual white cedar trees and girdle surrounding trees that may be suppressing the cedar's health. The girdled trees will be left as standing dead snags in the stand. There is a goal for this stand not to lose the small Atlantic white cedar component. These seed sources may be critical to future cedar restoration considerations. The cedar trees also provide some unique habitat diversity to this stand overall.

Compartment 8F, in association with cedar patch 6C, will have two individual 3-acre maple clearcuts in the smaller, younger maple groups. The purpose of this is to allow cedar to naturally regenerate and recapture these areas that once supported Atlantic white cedar. Each area will have all trees slashed and left on the ground. This slash will be important to impede deer browse on the new cedar seedlings that develop.

Each three-acre regeneration plot will receive one treatment with an approved herbicide to reduce the competitive nature of the hardwood that will quickly resprout. The two patches will be monitored; and if deer browse impedes seedling growth, each area will be protected with a deer exclosure fence until the cedar grows above the deer browse line.

Regeneration of this cedar will increase the overall acreage of cedar on this forest by around 20 percent. Additionally, this regeneration will provide a more balanced representation of size and age class from sapling to mature cedar with the creation of variation from the present level of middle age classes. This will allow the cedar component to perpetuate itself and the species that depend on it sustainably through time.

Stand Projection: This diverse stand will be allowed to continue to mature. Over the next 10 to 40 years, the native species component will develop more older growth structures. Insects and natural disturbances will determine what management actions may be needed in the future.

Stand Nine Pitch Pine Upland (64.50 Acres)

Compartment	Acres	Compartment	Acres
A	24.20	B	40.30

Stand Nine is a unique upland stand of almost pure pitch pine. There is also scarlet oak, white oak, sassafras component. This stand is an even-aged stand of pitch pine found on well-drained soils. Pitch pine is the dominant overstory tree. There are a few black oak, scarlet oak, and white oak scattered about in the midstory. Sassafras can also be found in limited numbers. The understory is a carpet of huckleberry with a few scattered laurel component. The stand is supported by well-drained, upland soils.

Crown closure is 95 percent and the stand is even-aged in the 50 to 60 year age class. It is evident this stand was regenerated as a result of a clear cut regeneration harvest 50 to 60 years past. There are a few scattered older trees in the stand as well. These older trees may have been left as seed trees. Again, tree regeneration is absent from the understory. Tree quality is moderate to good. However, this stand remains at very high risk to bark beetle due to its overstocking and growth rates have begun to stagnate.

This stand has had recent management in the form of a prescribed fire in recent years. This burn has caused the die back of significant number in the hardwood component. The huckleberry understory has vigorous resprouted with some laurel.

Tree quality remains moderate to good with several individual trees of exceptional form and quality.

This unique pitch pine stand provides some overall diversity to this forest. It is important to avoid the loss of this stand from bark beetles. In its present overstocked condition, burning is only providing minimal benefits. This stand will be commercially thinned to reduce the stressed conditions of the stand and release trees for crown growth and development.

This stand will receive a forest stand improvement commercial thinning to reduce the basal area to 60 feet. Trees to be removed will be primarily suppressed and defective trees, although some codominants in the overstory that are overcrowded will also be removed. To the extent practical, the dead hardwood and legacy older trees will be retained to provide diverse forest structure.

Although this silvicultural prescription is not initially intended to result in pine regeneration, it will over time. The scarification resulting from the tree harvesting activity will begin to establish advanced pine regeneration. Once the stand is thinned, prescribe fire treatments will consider impacts to tree regeneration as the stand responds to the thinning.

Although the fire treatments will limit the hardwood, it will remain a small component of the stand. This thinning effort will produce 150 cords over this management period. This thinning is a priority to avoid losing this stand of maturing pitch pine to pine beetles.

In addition to the stand improvement selection work, this stand will receive a patch regeneration harvest on two irregularly shaped, three-acre patches that retain a 150 foot mature stand between them. These harvests will remove all but dead and/or dying trees. Total wood removed will be 102 cords. these areas will be left to regenerate naturally.

Stand Projection: Over the next ten to forty years, this stand will develop into an uneven-aged pitch pine stand with a mixed species oak component. This stand will mature into a much older age class stand depending upon natural disturbances and long term, landowner's goals.

Stand Ten **Endangered Floral Areas (5.00 Acres)**

Compartment	Acres	Compartment	Acres
A	1.40	B	3.60

These are two areas that have been provided long-term protection for the two threatened and endangered plants found on this woodland.

Stand Eleven **Conservation Areas (83.40 Acres)**

Compartment	Acres	Compartment	Acres
A	35.10	B	17.90
C	12.60	D	17.80

These are environmentally sensitive areas that have been protected to sustain habitat for a wide range of species. Conservation is the primary objective and management activity is limited to backing prescribed fire.

Stand Twelve **Fields (19.90 Acres)**

This is just open areas associated with developed areas. This area will remain fallow. These field areas have been maintained periodically with a mowing application. This mowing activity will continue; however, both oak and pine will be allowed to regenerate over time, such that this area will be sustained as an open field/wooded savannah type habitat.

STANDS OF THE NORTHERN FOREST

Stand Thirteen **Oak/Pine - North (91.20 Acres)**

Compartment	Acres	Compartment	Acres
A	12.50	B	78.70

This is a 91.20 acre stand of mixed species oak supported by well-drained, upland soils. Species composition includes white oak, scarlet oak, black oak and chestnut oak with scattered, mature groups of pitch/shortleaf pine.

The understory is a carpet of huckleberry with groups of laurel and scrub oak. Tree regeneration is abundant in some areas. Crown closures is 80 percent and growth rates remain moderate. Tree quality is moderate to poor.

The stand has a more recent history of tree cutting. It appears that selection firewood and pulpwood cutting occurred in the 1960's and early 1970's. This cutting created a diverse mosaic of age classes, species distribution and stocking levels.

Early in the 2000's, some select stand improvement occurred in the southern areas of the stand under an approved forest plan.

Unlike the oak stands in the southern forest, this stand has significant, advanced oak regeneration.

A few of the residual pine are old trees in the 80 to 100 year age class while most trees are only in the 50+ age class.

The stand has a wide diverse physical structure.

The approved pine harvest was not completed in the last management period.

This new plan will take a different approach and retain all of the older legacy trees.

This stand will continue to receive a modest forest stand improvement approach to remove both pine and oak by the single tree and small group selection method. This has enhanced oak regeneration in the past.

This work will be done in concert with allowing a backing prescribed fire through this stand once over this management period.

All dead trees will be retained as standing snags.

Trees to be removed will be suppressed or overcrowded trees or trees that may release the advanced regeneration. The residual basal area will average 70 to 80 feet.

The mosaic character of this stand will be perpetuated by this management approach. The pine component will be allowed to regenerate as well.

Stand Projection: This stand will be perpetuated as an oak/pine stand over the next ten to forty years. The older legacy trees will be retained to optimize diversity in forest structure. Natural disturbance events may impact overall stand structure.

Stand Fourteen Pine/Oak - North (36.20 Acres)

Compartment	Acres	Compartment	Acres
A	7.60	B	7.30
C	18.30	D	3.00

This stand is a 36.20 acre stand of pine/oak that is found on four compartment around the northern forest. This is a mature stand in the 80 to 90 year age class. Species composition is the mixed oak as in Stand 13 with a dominant, mature dominant, or codominants pitch pine/shortleaf pine overstory. Areas of the oak in 14A and 14B are younger in the 40 to 50 year age class. Crown closure is 80 to 90 percent on average and growth rates have slowed. The understory is a carpet of huckleberry and tree regeneration is very limited at this time.

In stands 14A and 14B, the oak will be harvested by the selection method to release the pine to improved growing conditions. The residual, mature pine overstory will be retained and allowed it to mature. Once the oak harvesting is completed, this stand will be prescribed burnt periodically to allow for the development of a more open, native pine stand. This harvest will be a modified shelterwood.

Tree regeneration is not an objective at this time; however both oak and pine regeneration will be stimulated by the proposed actions. This stand (14A & 14B) will produce 84 cords of firewood over this management period. All dead oak snags will be retained in the stand. No work is planned in stands 4C and 4D at this time.

Stand Projection: If the oak is harvested and fire is returned to this stand, it will develop into a more open mature pine stand with advanced regeneration in patches throughout the understory. Both oak and pine will regenerate in the understory over time.

Stand Fifteen Pine/Maple/Cedar - North (82.00 Acres)

Compartment	Acres	Compartment	Acres
A	2.40	B	79.60

This 82 acre stand is found along the drainage of Clark's Mill Stream in the northern forest section.

This stand is a rich mosaic of a mixed species composition. This stand had been an Atlantic white cedar stand earlier in the last century. It is evident groups, single trees, and patches of cedar had been periodically harvested from this cedar area.

Today, white cedar groups can be found throughout this larger stand growing in association with a diverse mix of hardwood and pitch pine. Cedar stumps still remain from a few cut patches from the early 1970's. There is now a wide diverse mix of patches throughout this stand.

There are two mixed age classes. These are groups of older maple and pine scattered in the stand that are in the 70 to 80 year age class. Most groups are stable with little decline or breakup. The cedar can be found in groups scattered throughout this drainage. The cedar is in the 50 to 70 year age class where found. Within the cedar patches are areas of dense brush of highbush blueberry and/or pepperbush that were previously harvested of the overstory cedar.

Tree regeneration is all but absent from this stand. There are very few scattered young cedar that remain being suppressed by adjacent hardwood. Greenbriar is also encroaching into much of the stand.

Tree quality remains moderate to good. There are many groups of high quality cedar throughout this stand.

Both pine and maple are slowly taking over this stand.

In the coming decades, this stand will continue a slow conversion to maple/pine composition type.

The last approved forest plan had a ten acre cedar restoration approved that was not initiated.

This cedar regeneration/restoration project is still a part of this updated plan.

It is planned to work on a 15 acre section on the south side of the stream. All cedar will be retained and protected within this 15 acre project. All pine and hardwood and brush will be slashed and/or harvested. Additionally, the brush cover will be cut back. This work will optimize conditions for cedar regeneration to capture the larger gaps and openings between the residual cedar patches.

This will allow for restoration of cedar and another increase in cedar acreage. Long term, it is planned to restore cedar back to other areas of this stream drainage in future management periods.

Once the 15 acre area is prepared, it will be fenced with a deer exclosure fence. This area will be treated with an approved herbicide once in the post-slashing years.

This regeneration project will produce 25 cords of pine and 25 cords of maple while most trees will be slashed and left in the project area.

The residual, mature cedar will be more than adequate to allow natural seeding to occur throughout this 15 acre treatment area. This work will allow for further significant increase in net cedar forest types on this land and reverse the trend of long-term decline.

Stand Projection: The stand will be restored to a natural cedar forest type and be managed to grow long term into an older age class cedar stand.

F-1759: Stand 1: Oak/Pine **337.70 Acres**

Volume estimations and stock tables.

Oak

	Per Acre			337.70-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	124.5	24.4	4.28	42,043	1,446.28
8	54.1	18.9	3.47	18,274	1,173.51
10	32.6	17.8	3.23	11.008	1,090.72
12	15.6	12.2	2.16	5,255	730.58
14	3.1	3.3	0.57	1,053	193.76
16	0.8	1.1	0.19	269	62.90
Total	230.7	77.7	13.90	77,902	4,697.75

Pine

	Per Acre			337.70-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	5.7	1.1	0.22	1,911	75.94
8	15.9	5.6	1.18	5,375	397.60
10	4.1	2.2	0.47	1,376	157.59
12	5.7	4.4	0.91	1,911	308.47
14	1.0	1.1	0.22	351	75.33
Total	32.4	14.4	3.00	10,924	1,014.93

Stand Summary

	Per Acre			337.70-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Oak	13.90	230.7	77.7	4,694	77,907
Pine	3.00	32.4	14.4	1,013	10,941
Total	16.90	263.1	92.1	5,707	88,849

F-1759: Stand 1C: Oak/Pine **43.60 Acres**

Volume estimations and stock tables.

Oak

	Per Acre			43.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	213.9	42.0	7.36	9,326	320.83
8	68.8	24.0	4.42	2,998	192.51
10	18.3	10.0	1.82	799	79.21
12	2.5	2.0	0.35	111	15.43
Total	303.5	78.0	13.95	13,234	607.98

Pine

	Per Acre			43.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
10	3.7	2.0	0.42	160	18.31
12	2.5	2.0	0.41	111	17.92
Total	6.2	4.0	0.83	271	36.23

Stand Summary

	Per Acre			43.60-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Oak	13.95	303.5	78.0	608	13,233
Pine	0.83	6.2	4.0	36	270
Total	14.78	309.7	82.0	644	13,503

F-1759: Stand 2: Pine/Disturbed **40.60 Acres**

Volume estimations and stock tables.

Pine

	Per Acre			40.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	186.7	36.7	6.42	7,582	260.82
8	66.8	23.3	4.29	2,714	174.28
10	18.3	10.0	1.82	744	73.76
12	17.0	13.3	2.36	689	95.82
Total	288.8	83.3	14.89	11,729	604.68

Oak

	Per Acre			40.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	17.0	3.3	0.58	689	23.71
10	6.1	3.3	0.61	248	24.59
Total	23.1	6.6	1.19	937	48.30

Stand Summary

	Per Acre			40.60-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pine	14.89	288.8	83.3	605	11,725
Oak	1.19	23.1	6.6	48	938
Total	16.08	311.9	89.9	653	12,663

F-1759: Stand 3: Pine/Oak **280.40 Acres**

Volume estimations and stock tables.

Pine

	Per Acre			280.40-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	55.2	10.8	2.19	15,471	614.75
8	50.1	17.5	3.71	14,058	1,039.93
10	30.6	16.7	3.50	8,569	981.41
12	24.4	19.2	3.94	6,843	1,104.56
14	6.2	6.7	1.34	1,749	375.30
16	2.4	3.3	0.65	669	183.51
Total	168.9	74.2	15.33	47,359	4,299.46

Oak

	Per Acre			280.40-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	72.2	14.2	2.48	10,231	695.96
8	14.3	5.0	0.92	4,017	257.93
10	12.2	6.7	1.21	3,427	339.62
12	10.6	8.3	1.48	2,975	413.60
14	1.6	1.7	0.29	437	80.44
Total	110.9	35.9	6.38	31,087	1,787.55

Stand Summary

	Per Acre			280.40-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pine	15.33	168.9	74.2	4,299	47,360
Oak	6.38	110.9	35.9	1,789	31,096
Total	21.71	279.8	110.1	6,087	78,456

F-1759: Stand 4: Mixed/Disturbed **57.60 Acres**

Volume estimations and stock tables.

Pitch Pine

	Per Acre			57.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	50.9	10.0	2.02	2,934	116.57
8	19.1	6.7	1.41	1,100	81.38
10	12.2	6.7	1.40	704	80.64
12	21.2	16.7	3.43	1,222	197.30
Total	103.4	40.1	8.26	5,960	475.89

Oak

	Per Acre			57.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	101.9	20.0	3.50	5,867	201.83
8	9.5	3.3	0.61	550	35.32
10	12.2	6.7	1.21	704	69.76
Total	123.6	30.0	5.32	7,121	306.91

Stand Summary

	Per Acre			57.60-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pitch Pine	8.26	103.4	40.1	476	5,956
Oak	5.32	123.6	30.0	306	7,119
Total	13.58	227.0	70.1	782	13,075

F-1759: Stand 5: Pitch Pine lowland **245.00 Acres**

Volume estimations and stock tables.

Pitch Pine

	Per Acre			245.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
8	28.6	10.0	2.40	7,019	587.72
10	24.4	13.3	3.18	5,989	778.53
12	19.1	15.0	3.51	4,679	860.12
14	14.0	15.0	3.44	3,438	843.06
16	3.6	5.0	1.13	877	275.69
18	0.9	1.7	0.37	231	90.31
Total	90.6	60.0	14.03	22,233	3,435.43

Red Maple

	Per Acre			245.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	93.4	18.3	3.71	22,877	909.00
8	14.3	5.0	1.06	3,509	259.61
10	9.2	5.0	1.05	2,246	257.25
12	10.6	8.3	1.71	2,600	419.62
14	3.1	3.3	0.67	764	163.96
Total	130.6	39.9	8.20	31,996	2,009.44

Blackgum

	Per Acre			245.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
4	210.1	18.3	2.03	51,472	496.19
6	84.9	16.7	2.92	20,797	715.41
8	14.3	5.0	0.92	3,509	225.36
10	6.1	3.3	0.61	1,497	148.37
Total	315.4	43.3	6.48	11,275	1,585.33

White Oak

	Per Acre			245.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	17.0	3.3	0.67	4,159	165.27
8	9.5	3.3	0.71	2,340	173.08
10	3.1	1.7	0.35	749	85.75
12	4.2	3.3	0.69	1,040	167.85
Total	33.8	11.6	2.42	8,288	591.95

F-1671: Stand 5: Pitch Pine lowland **245.00 Acres (Cont.)**

Volume estimations and stock tables.

Stand Summary

	Per Acre			245.00-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pitch Pine	14.03	90.6	60.0	3,437	22,197
Red Maple	8.20	130.6	39.9	2,009	31,997
Blackgum	6.48	315.4	43.3	1,588	77,273
White Oak	2.42	33.8	11.6	593	8,281
Total	31.13	570.4	154.8	7,627	139,748

F-1759: Stand 6: Atlantic White Cedar **36.20 Acres**

Volume estimations and stock tables.

Atlantic White Cedar

	Per Acre			36.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	76.4	15.0	3.85	2,766	139.40
8	114.6	40.0	10.71	4,148	387.84
10	41.3	22.5	6.00	1,493	217.18
12	19.1	15.0	3.94	691	142.57
14	14.0	15.0	3.87	508	140.12
16	1.8	2.5	0.63	65	22.97
18	2.8	5.0	1.25	102	45.24
20	1.1	2.5	0.62	41	22.31
22	1.9	5.0	1.22	69	44.08
Total	273.0	122.5	32.09	9,883	1,161.71

Pitch Pine

	Per Acre			36.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
10	9.2	5.0	1.19	332	43.14
12	6.4	5.0	1.17	230	42.36
Total	15.6	10.0	2.36	562	85.50

Red Maple

	Per Acre			36.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
8	14.3	5.0	0.92	519	33.30
10	9.2	5.0	0.91	332	32.88
Total	23.5	10.0	1.83	851	66.18

Stand Summary

	Per Acre			36.20-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Atlantic White Cedar	32.09	273.0	122.5	1,162	9,883
Pitch Pine	2.36	15.6	10.0	85	565
Red Maple	1.83	23.5	10.0	66	851
Total	36.28	312.1	142.5	1,313	11,298

F-1759: Stand 7: Maple/Gum **24.60 Acres**

Volume estimations and stock tables.

Red Maple

	Per Acre			24.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	67.9	13.3	2.70	1,671	66.38
8	38.2	13.3	2.83	940	69.51
10	30.6	16.7	3.50	752	86.10
12	21.2	16.7	3.43	522	84.27
14	9.4	10.0	2.01	230	49.39
16	4.8	6.7	1.31	117	32.20
Total	172.1	76.7	15.78	4,232	387.85

Sweetgum

	Per Acre			24.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	84.9	16.7	3.37	2,088	82.97
8	19.1	6.7	1.41	470	34.76
10	18.3	10.0	2.10	451	51.66
12	8.5	6.7	1.37	209	33.71
14	9.4	10.0	2.01	230	49.39
Total	140.2	50.1	10.26	3,448	252.49

Pitch Pine

	Per Acre			24.60-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
12	4.2	3.3	0.69	104	16.85
14	3.1	3.3	0.67	77	16.46
Total	7.3	6.6	1.36	181	33.31

Stand Summary

	Per Acre			24.60-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Red Maple	15.78	172.1	76.7	388	4,234
Sweetgum	10.26	140.2	50.1	252	3,449
Pitch Pine	1.36	7.3	6.6	33	180
Total	27.40	319.6	133.4	674	7,862

F-1759: Stand 8: Pine/Maple/Cedar **94.80 Acres**

Volume estimations and stock tables.

Pitch Pine

	Per Acre			94.80-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
8	23.9	8.3	1.77	2,263	167.42
10	18.3	10.0	2.10	1,738	199.08
12	14.9	11.7	2.40	1,408	227.31
14	10.9	11.7	2.34	1,035	222.05
Total	68.0	41.7	8.61	6,444	815.86

Red Maple

	Per Acre			94.80-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	42.4	8.3	1.69	4,024	159.88
8	28.6	10.0	2.12	2,716	200.91
10	15.3	8.3	1.75	1,448	165.90
12	14.9	11.7	2.40	1,408	227.31
14	6.2	6.7	1.34	591	126.88
16	1.2	1.7	0.33	113	31.02
Total	108.6	46.7	9.63	10,300	911.90

Atlantic White Cedar

	Per Acre			94.80-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	17.0	3.3	0.58	1,609	55.36
12	2.1	1.7	0.34	201	32.47
14	1.6	1.7	0.33	148	31.72
Total	20.7	6.7	1.25	1,958	119.55

Gum

	Per Acre			94.80-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
4	114.6	10.0	1.10	10,864	104.72
6	424	8.3	1.46	4,024	138.41
8	14.3	5.0	0.92	1,358	87.20
10	6.1	3.3	0.61	579	87.20
12	10.6	8.3	1.48	1,006	139.83
14	1.6	1.7	0.29	148	27.20
Total	189.6	36.6	5.86	17,979	554.77

F-1759: Stand 8: Pine/Maple/Cedar **94.80 Acres (Cont.)**

Volume estimations and stock tables.

Stand Summary

	Per Acre			94.80-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pitch Pine	8.61	68.0	41.7	816	6,446
Red Maple	9.63	108.6	46.7	913	10,295
Atlantic White Cedar	1.25	20.7	6.7	119	1,962
Gum	5.86	189.6	36.6	556	17,974
Total	25.35	386.9	131.7	2,403	36,678

F-1759: Stand 9: Pitch Pine upland **64.50 Acres**

Volume estimations and stock tables.

Pitch Pine

	Per Acre			64.50-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	67.9	13.3	2.70	4,380	174.04
8	95.5	33.3	7.06	6,159	455.65
10	30.6	16.7	3.50	1,971	225.75
12	17.0	13.3	2.74	1,095	176.75
14	3.1	3.3	0.67	201	43.16
Total	214.1	79.9	16.67	13,806	1,075.35

Oak

	Per Acre			64.50-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	17.0	3.3	0.58	1,095	37.67
8	9.5	3.3	0.61	616	39.55
10	6.1	3.3	0.70	394	45.15
Total	32.6	9.9	1.89	2,105	122.37

Stand Summary

	Per Acre			64.50-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pitch Pine	16.67	214.1	79.9	1,075	13,809
Oak	1.89	32.6	9.9	122	2,103
Total	18.56	246.7	89.8	1,197	15,912

F-1759: Stands 10 & 11 **5 Acres & 83.40 Acres**

- No samples were taken since these areas are protected areas with no activity expected.

F-1759: Stand 12: Field **19.90 Acres**

- This is an open grassy field with no trees. No samples were taken.

F-1759: Stand 13: Oak/Pine North **91.20 Acres**

Volume estimations and stock tables.

Oak

	Per Acre			91.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	193.5	38.0	6.66	17,651	607.18
8	22.9	8.0	1.47	2,090	134.22
10	18.3	10.0	1.82	1,672	165.69
12	12.7	10.0	1.77	1,161	161.43
Total	247.4	66.0	11.72	22,574	1,068.52

Pine

	Per Acre			91.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	40.7	8.0	1.62	3,716	147.65
8	17.2	6.0	1.27	1,568	115.97
10	11.0	6.0	1.26	1,003	114.91
12	5.1	4.0	0.82	464	74.98
14	3.7	430	0.80	341	73.24
16	1.4	2.0	0.39	131	35.81
Total	79.1	30.0	6.16	7,223	562.56

Stand Summary

	Per Acre			91.20-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Oak	11.72	247.4	66.0	1,069	22,563
Pine	6.16	79.1	30.0	562	7,214
Total	17.88	326.5	96.0	1,631	29,777

F-1759: Stand 14: Pine/Oak North **36.20 Acres**

Volume estimations and stock tables.

Pine

	Per Acre			36.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
6	101.9	20.0	4.05	3,687	146.52
8	57.3	20.0	4.24	2,074	153.44
10	18.3	10.0	2.10	664	76.02
12	12.7	10.0	2.06	461	74.40
14	9.4	10.0	2.01	339	72.68
Total	199.6	70.0	14.46	7,225	523.06

Oak

	Per Acre			36.20-Acre stand	
DBH	**Trees**	**Basal Area**	**Cords**	**Trees**	**Cords**
4	57.3	5.0	0.55	2,074	19.99
6	76.4	15.0	2.63	2,766	95.14
8	14.3	5.0	0.92	519	33.30
10	18.3	10.0	1.82	664	65.77
12	12.7	10.0	1.77	461	64.08
Total	179.0	45.0	7.69	6,484	278.28

Stand Summary

	Per Acre			36.20-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Pine	14.46	199.6	70.0	523	7,226
Oak	7.69	179.0	45.0	278	6,480
Total	22.15	378.6	115.0	802	13.705

F-1759: Stand 15: Pine/Maple/Cedar North **82.00 Acres**

Volume estimations and stock tables.

Red Maplee

	Per Acre			82.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	81.5	16.0	2.80	6,682	229.87
8	17.2	6.0	1.10	1,410	90.51
10	22.0	12.0	2.18	1,804	178.77
12	10.2	8.0	1.42	835	116.12
14	1.9	2.0	0.34	153	28.23
Total	132.8	44.0	7.84	10,884	643.50

Atlantic White Cedar

	Per Acre			82.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	91.7	18.0	3.75	7,517	307.62
8	17.2	6.0	1.27	1,410	104.27
10	11.0	6.0	1.26	902	103.32
12	7.6	6.0	1.35	626	110.47
14	1.9	2.0	0.52	153	42.32
Total	129.4	38.0	8.15	10,608	668.00

Pitch Pine

	Per Acre			82.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	40.7	8.0	1.62	3,341	132.76
8	40.1	14.0	2.97	3,289	243.29
10	14.7	8.0	1.68	1,203	137.76
12	5.1	4.0	0.82	418	67.41
Total	100.6	34.0	7.09	8,251	581.22

Gum

	Per Acre			82.00-Acre stand	
DBH	Trees	Basal Area	Cords	Trees	Cords
6	40.7	8.0	1.40	3,341	114.93
8	5.7	2.0	0.37	470	30.17
10	7.3	4.0	0.73	601	59.59
Total	53.7	14.0	2.50	4,412	204.69

F-1759: Stand 15: Pine/Maple/Cedar North **82.00 Acres (Cont.)**

Volume estimations and stock tables.

Stand Summary

	Per Acre			82.00-Acre stand	
Species	**Cords**	**Trees**	**Basal Area**	**Cords**	**Trees**
Red Maple	7.84	132.8	44.0	643	10,890
Atlantic White Cedar	8.15	129.4	38.0	668	10,611
Pitch Pine	7.09	100.6	34.0	581	8.249
Blackgum	2.50	53.7	14.0	205	4,403
Total	25.58	416.5	130.0	2,098	34,153

V. TEN-YEAR ACTIVITY SCHEDULE

General

- Monitor annually for southern pine beetles, gypsy moths and other pathogens.
- Inspect annually for hazardous trees.

Stand No.	No. of Acres	Recommended Action	Year of Recommended Action
1	381.30	- Prescribe burn	Once/10 years
		- Single tree/group selection harvest: produce 965 cords of oak except 1C is an additional 129 cords.	Once/10 years
		- 6, four-acre irregular regeneration harvests: total cordage from patch harvests = 338 cords	Once/10 years
2	40.60	- Commercial thin: produce 75 cords wood	Once/10 years
		- Prescribe burn	Once/10 years
3	280.40	- Single tree/small group selection: produce 1,048 cords wood	Once/10 years
		- 6, three-acre irregularly shaped, patches: produce 360 cord wood	Once/10 years
		- Prescribe burn	Once/10 years

Stand No.	No. of Acres	Recommended Action	Year of Recommended Action
4	57.60	- Prescribe burn to control invasive plant species. Hand pull plants. Prune trees randomly.	Ongoing/10 years
5	245.00	- Weed hardwood: 50 cords - Single tree selection: 175 cords pine - Allow prescribe fire to back in stand	Once/10 years Once/10 years Once/10 years
6	36.20	- Conservation and study - General monitoring	Ongoing Ongoing
7	24.60	- Conservation and study - General monitoring	Ongoing Ongoing
8	94.80	- 6 acres maple slashing: 2, three-acre patches (no wood production) -Cedar regeneration deer fencing & herbicide - Conservation and study (remove infected pine trees if bark beetle occur)	Once/10 years Once/10 years Ongoing

Stand No.	No. of Acres	Recommended Action	Year of Recommended Action
9	64.50	- Selection thinning, produce 150 cords - 6 acre patch harvest, 102 cords - Prescribe burn	Once/10 years Once/10 years Once/10 years
10	5.00	- Conservation/protection - Prescribed fire	Once/10 years
11	83.40	- Conservation/protection - Backing prescribed fire	Once/10 years
12	19.90	- Allowing natural regeneration	Ongoing/10 years
13	91.20	- Forest stand improvement: Selection work 100 cords - Prescribe burn	Once/10 years Once/10 years

Stand No.	No. of Acres	Recommended Action	Year of Recommended Action
14	36.20	- Shelterwood oak in 14A & 14B: produce 84 cords of wood	Once/10 years
		- Prescribe burn	Once/10 years
15	82.00	- Slash 15 acres hardwood: south side of stream	Once/10 years
		- Glean 25 cords pine; 25 cords maple	Once/10 years
		- Deer fence/herbicide	Once/10 years

Note: ***This schedule is intended to be a guideline or framework to work within. It is not, nor should it be taken, as a lockstep schedule. With any forest management plan, things change and schedules need to be flexible. Some things may even be extended into the next management period.***

APPENDIX:

A. Location Map

B. Atlantic County Road Map

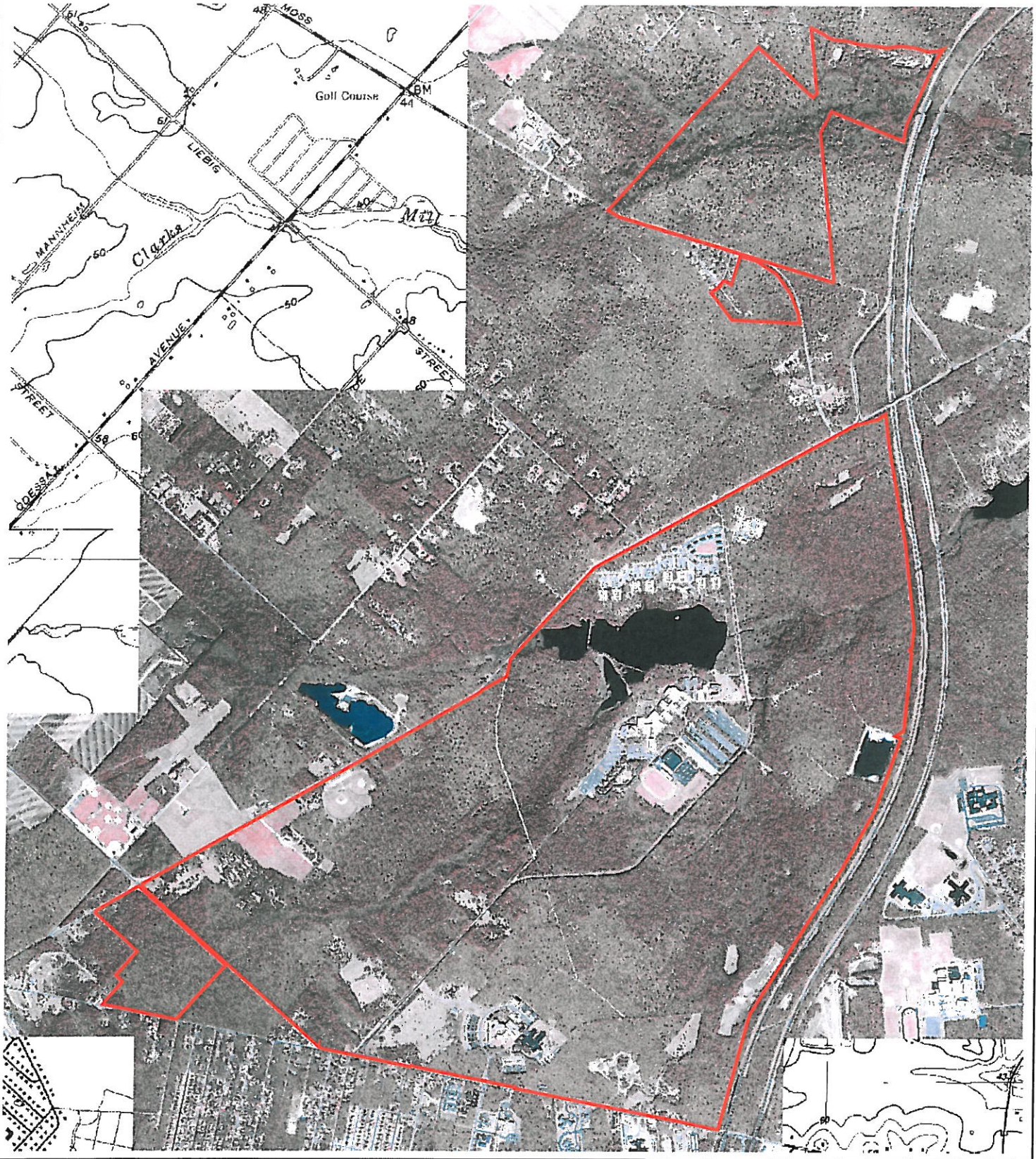
C. Galloway Township Tax Maps (4)

D. Green Bank & Pleasantville, New Jersey USGS Quadrangle Map

E. Atlantic County Soil Survey Map

F. Atlantic County Soils Information

G. Forest Stand Map



B 645, LS 3,5,&6; B 663.01, L 55.27 B 681.01, L 10; B 875.04, LS 1.01-1.08
GALLOWAY TOWNSHIP
ATLANTIC COUNTY, NJ

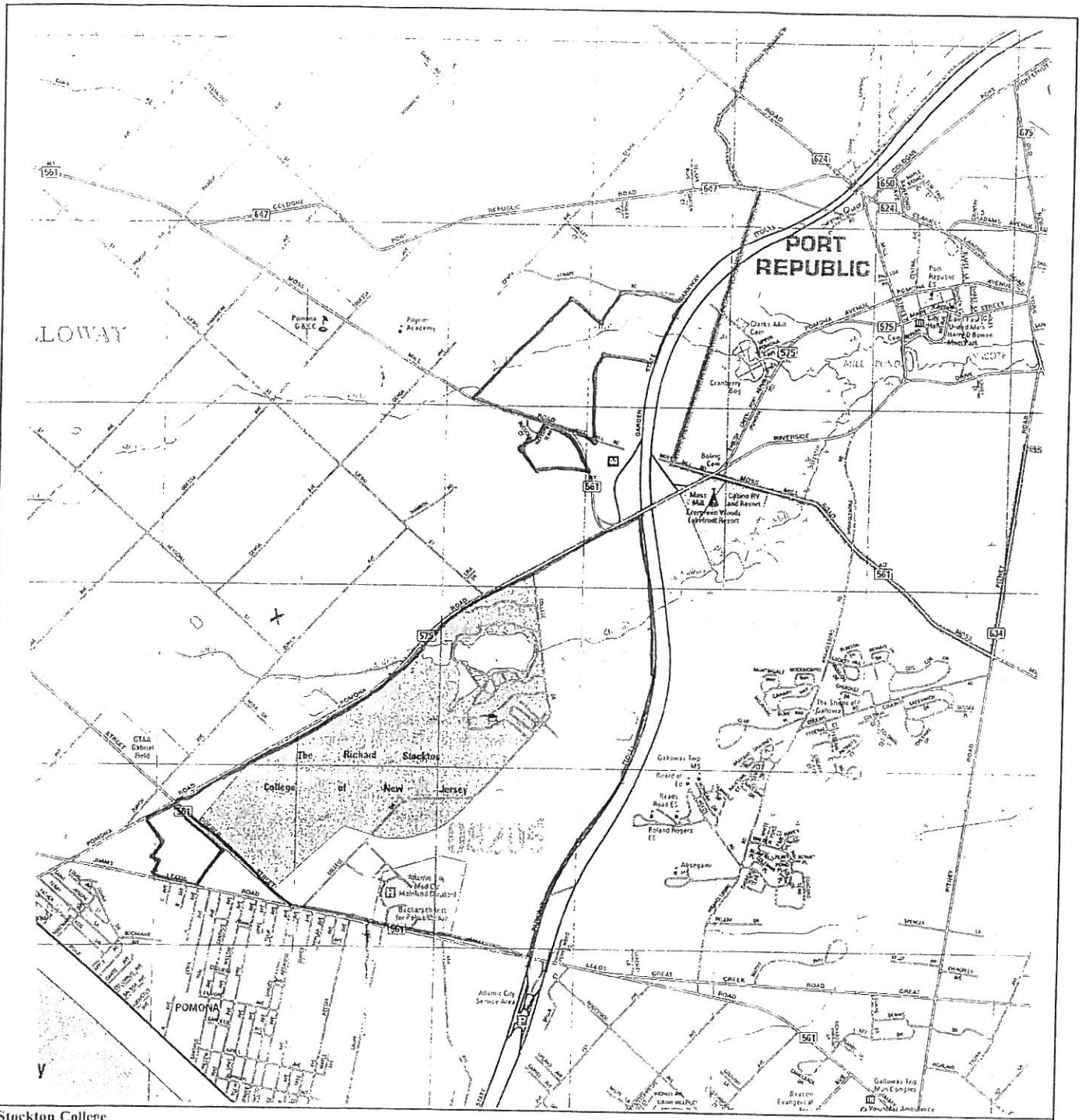
LOCATION MAP

SCALE: 1"=2000'

LAND DIMENSIONS ENGINEERING
PROFESSIONAL ENGINEERS, PLANNERS, LAND SURVEYORS,
LANDSCAPE ARCHITECTS, & ENVIRONMENTAL SCIENTISTS
6 EAST HIGH STREET, GLASSBORO, NJ 08028

N
W E
S

F1759



Stockton College
Galloway Township

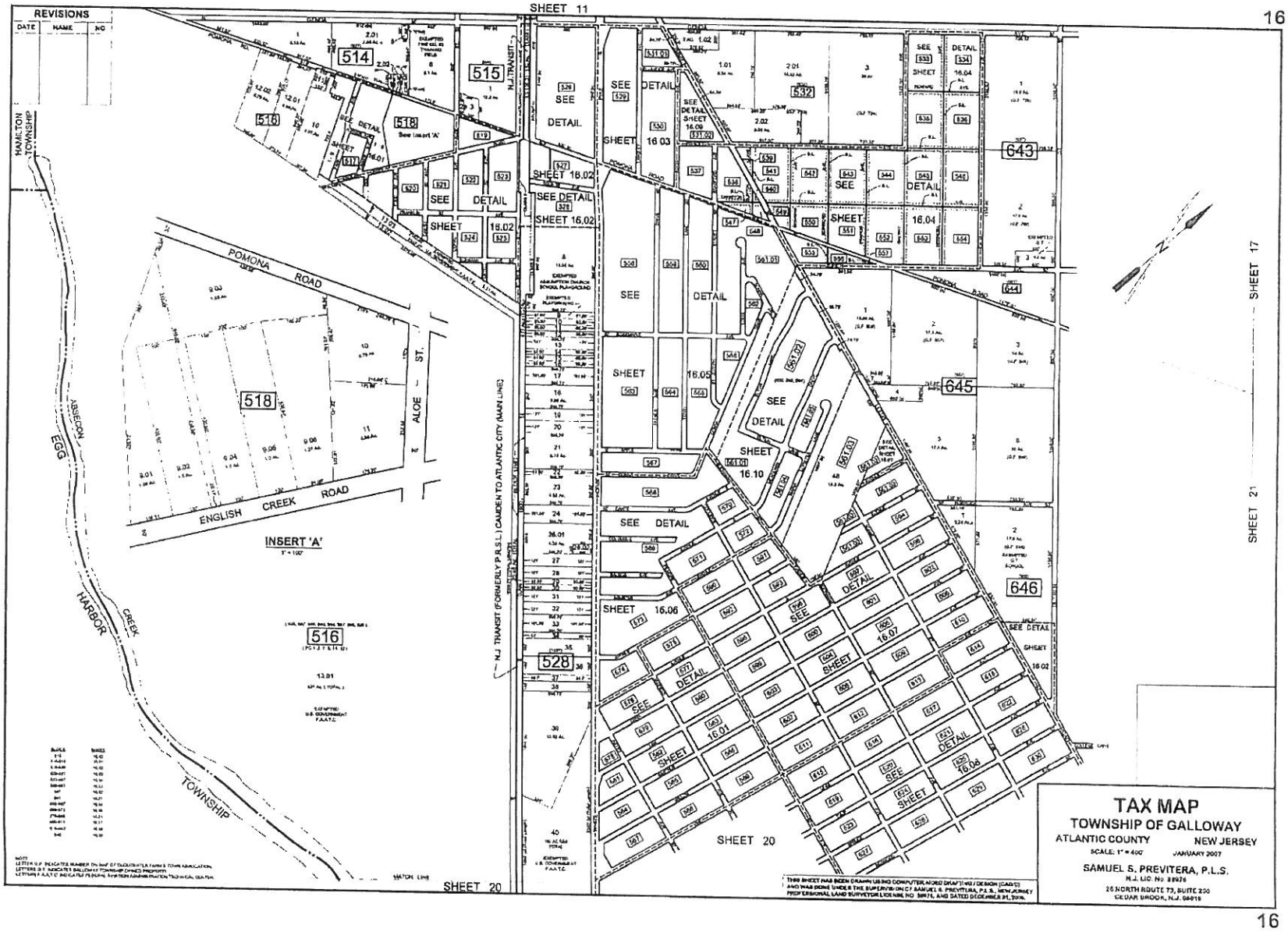
ATLANTIC COUNTY ROAD MAP

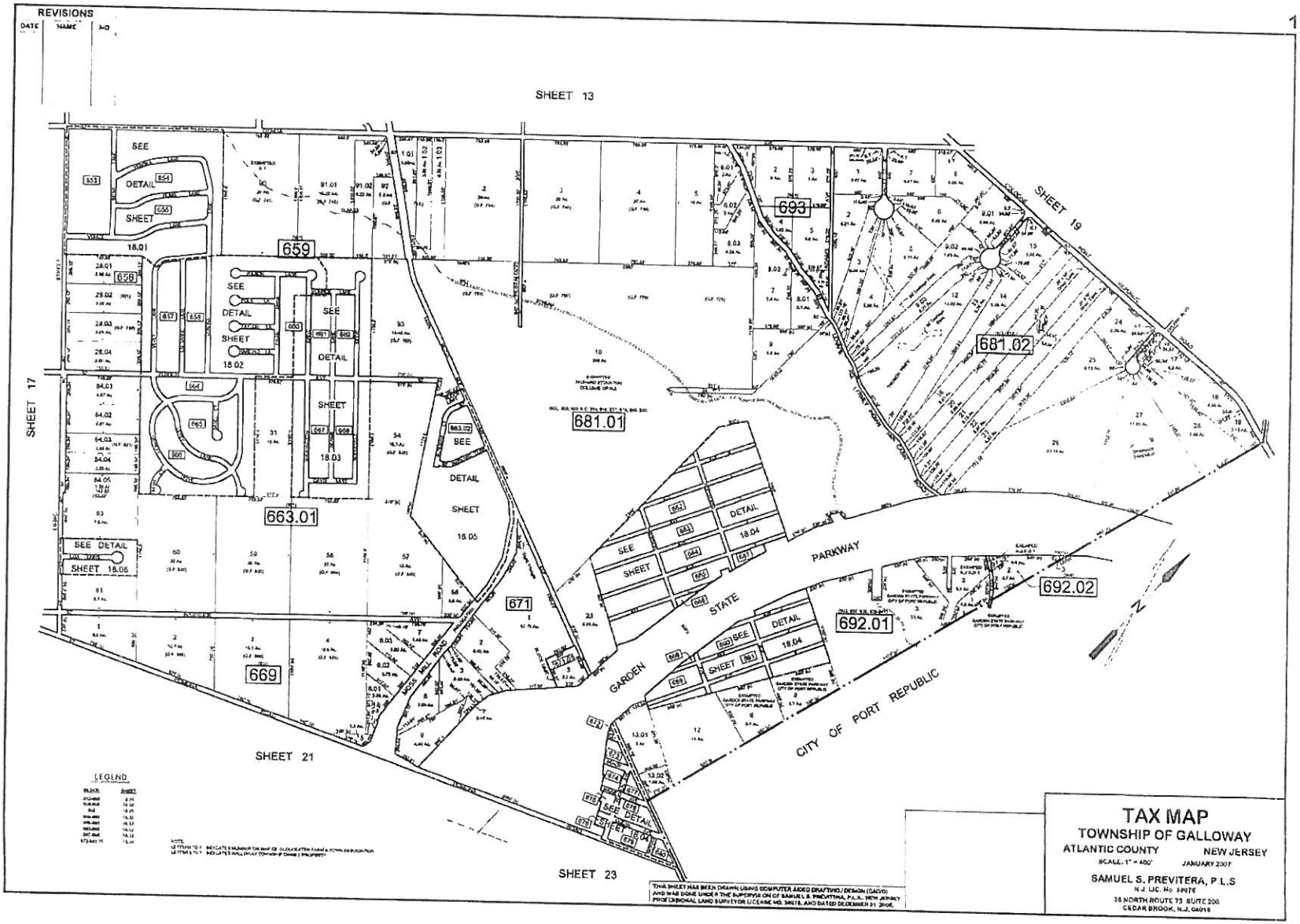
SCALE: NTS

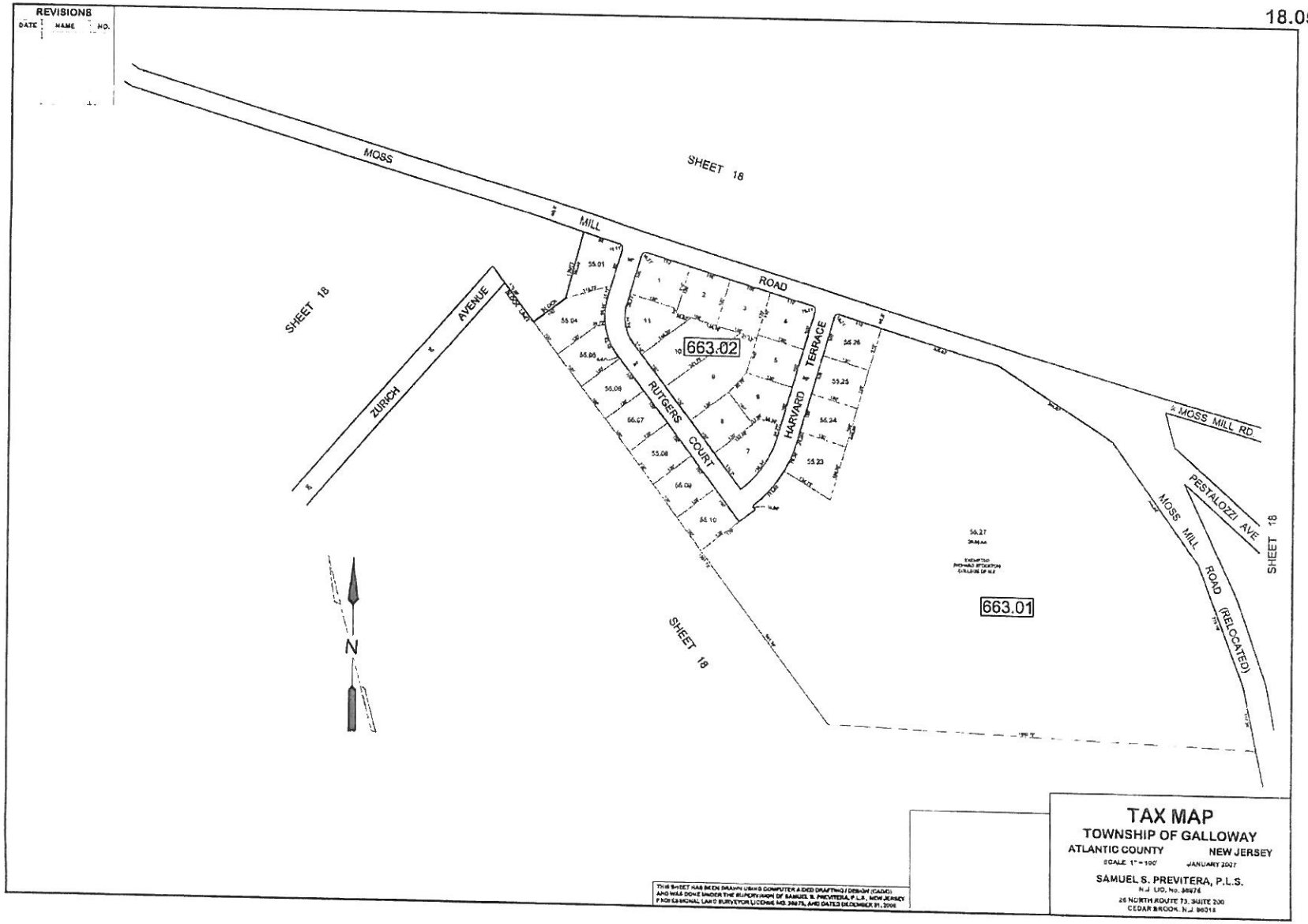
LAND DIMENSIONS ENGINEERING
PROFESSIONAL ENGINEERS, PLANNERS, LAND SURVEYORS,
LANDSCAPE ARCHITECTS, & ENVIRONMENTAL SCIENTISTS
6 EAST HIGH STREET, GLASSBORO, NJ 08028

N
W E
S

F 1759

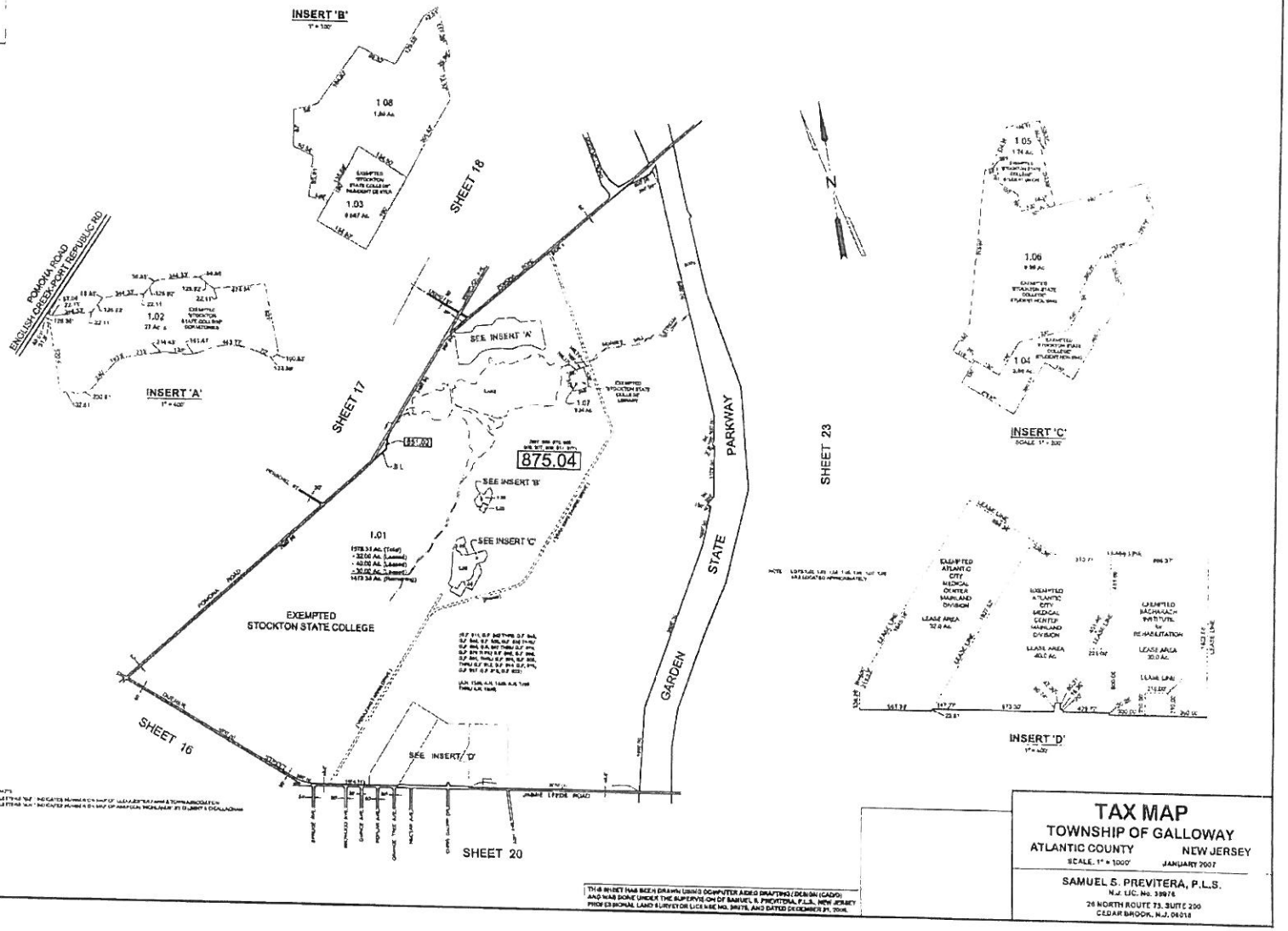

REVISIONS
DATE
NAME
NO
SHEET 11
16
SHEET 17
SHEET 21
SHEET 20
HAMILTON TOWNSHIP
NJ TRANSIT
NJ TRANSIT (FORMERLY P.R.S.L.) CAMDEN TO ATLANTIC CITY (MAIN LINE)
POMONA ROAD
ENGLISH CREEK ROAD
ALOE ST.
EGG HARBOR CREEK
TOWNSHIP
INSERT 'A'
514
515
516
518
528
532
643
644
645
646
SEE DETAIL SHEET 16.01
SEE DETAIL SHEET 16.02
SEE DETAIL SHEET 16.03
SEE DETAIL SHEET 16.04
SEE DETAIL SHEET 16.05
SEE DETAIL SHEET 16.06
SEE DETAIL SHEET 16.10
SEE DETAIL
SHEET 16.01
SHEET 16.02
SHEET 16.03
SHEET 16.04
SHEET 16.05
SHEET 16.06
SHEET 16.10
MATCH LINE
TAX MAP
TOWNSHIP OF GALLOWAY
ATLANTIC COUNTY
NEW JERSEY
SCALE: 1" = 400'
JANUARY 2007
SAMUEL S. PREVITERA, P.L.S.
N.J. LIC. No. 28976
26 NORTH ROUTE 73, SUITE 200
CEDAR BROOK, N.J. 08018


REVISIONS
DATE
NAME
NO
SHEET 13
SHEET 17
SHEET 19
SHEET 21
SHEET 23
659
693
681.02
681.01
663.01
671
669
692.01
692.02
18.01
18.02
18.03
18.04
18.05
18.06
SEE DETAIL SHEET
PARKWAY
STATE
GARDEN
CITY OF PORT REPUBLIC
LEGEND
TAX MAP
TOWNSHIP OF GALLOWAY
ATLANTIC COUNTY
NEW JERSEY
SCALE: 1" = 400'
JANUARY 2007
SAMUEL S. PREVITERA, P.L.S
N.J. LIC. No. #####
28 NORTH ROUTE 73, SUITE 200
CEDAR BROOK, N.J. 08018


REVISIONS
DATE
NAME
NO.
MOSS MILL ROAD
SHEET 18
SHEET 18
ZURICH AVENUE
RUTGERS COURT
HARVARD TERRACE
663.02
663.01
MOSS MILL RD.
PESTALOZZI AVE
MOSS MILL ROAD (RELOCATED)
SHEET 18
SHEET 18
N
55.01
55.04
55.05
55.06
55.07
55.08
55.09
55.10
55.26
55.25
55.24
55.23
56.27
TAX MAP
TOWNSHIP OF GALLOWAY
ATLANTIC COUNTY
NEW JERSEY
SCALE 1" = 100'
JANUARY 2007
SAMUEL S. PREVITERA, P.L.S.
N.J. LIC. No. 36674
26 NORTH ROUTE 73, SUITE 200
CEDAR BROOK, N.J. 08018

REVISIONS

DATE	NAME	NO.



TAX MAP

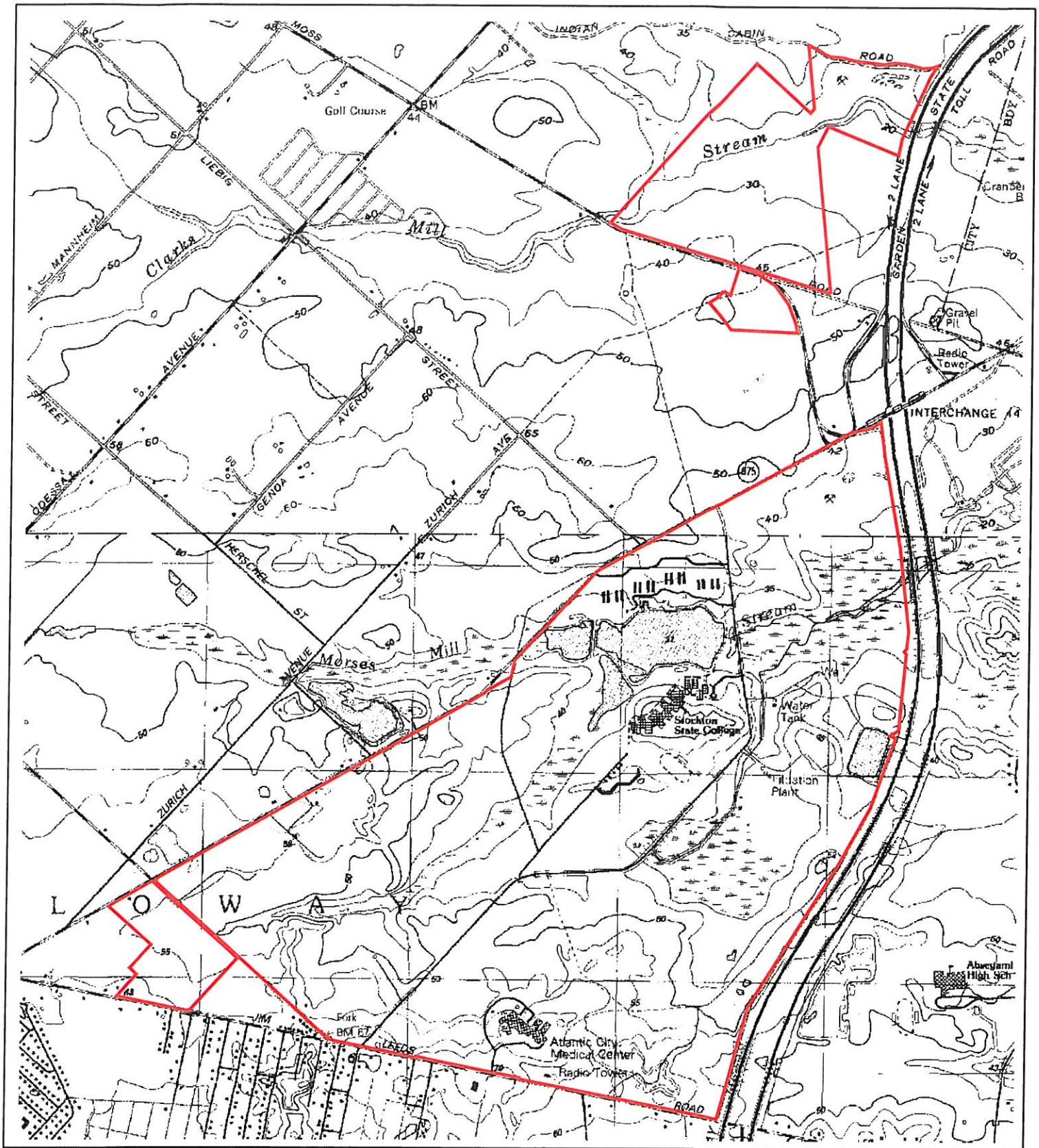
TOWNSHIP OF GALLOWAY

ATLANTIC COUNTY NEW JERSEY

SCALE: 1" = 1000' JANUARY 2007

SAMUEL S. PREVITERA, P.L.S.
N.J. LIC. No. 39976
26 NORTH ROUTE 73, SUITE 200
CEDAR BROOK, N.J. 08018

THIS SHEET HAS BEEN DRAWN USING COMPUTER AIDED DRAFTING (CADD) AND WAS DONE UNDER THE SUPERVISION OF SAMUEL S. PREVITERA, P.L.S., NEW JERSEY PROFESSIONAL LAND SURVEYOR LIC. NO. 39976, AND DATED DECEMBER 31, 2006.



B 645, LS 3,5,&6; B 663.01, L 55.27 B 681.01, L 10; B 875.04, LS 1.01-1.08
GALLOWAY TOWNSHIP
ATLANTIC COUNTY, NJ

GREEN BANK & PLEASANTVILLE NJ USGS MAPS

SCALE: 1"=2000'

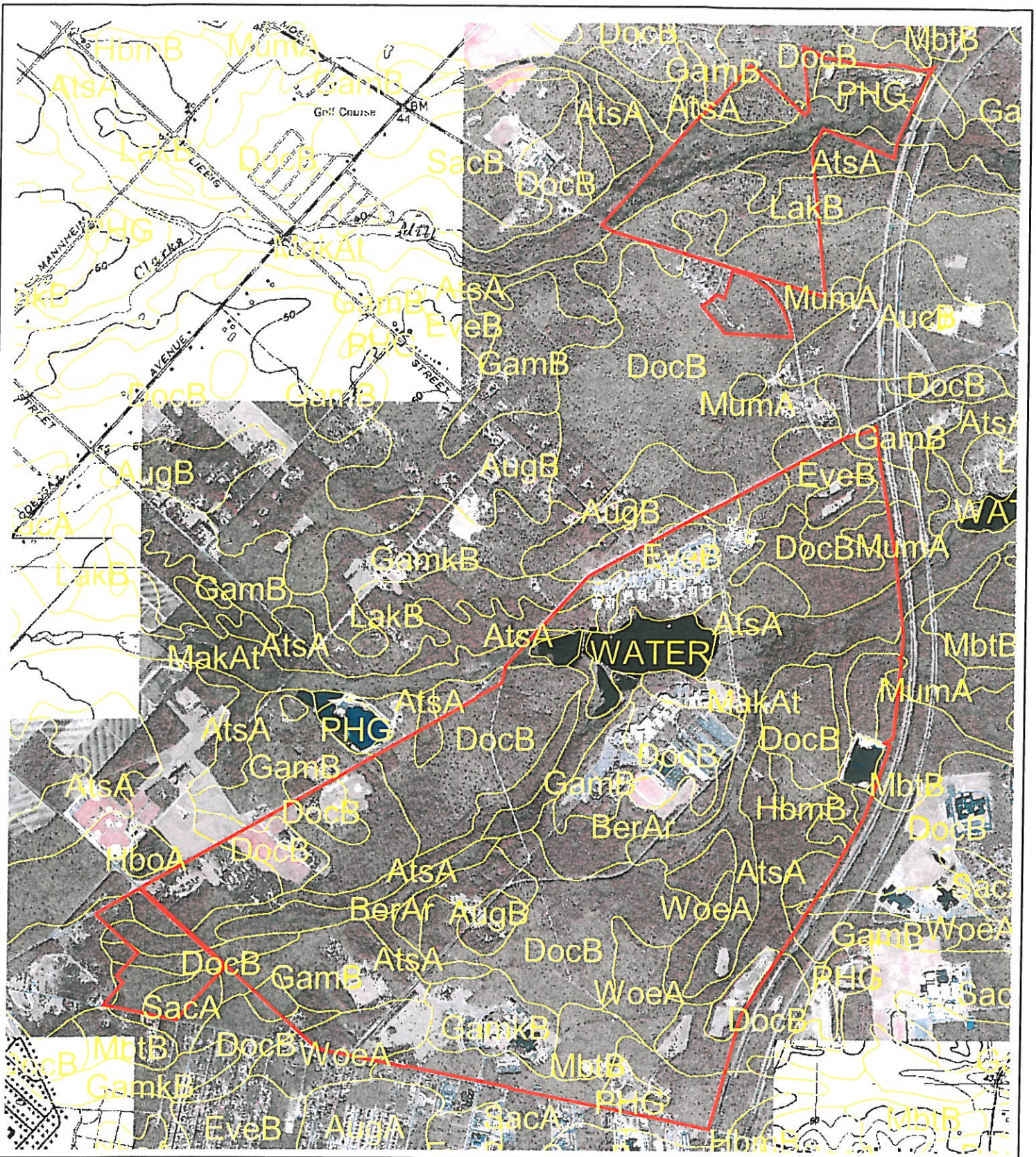
LAND DIMENSIONS ENGINEERING

PROFESSIONAL ENGINEERS, PLANNERS, LAND SURVEYORS,
LANDSCAPE ARCHITECTS, & ENVIRONMENTAL SCIENTISTS
6 EAST HIGH STREET, GLASSBORO, NJ 08028

EASTING: 482,000
NORTHING: 240,000

N W E S

F1759



B 645, LS 3,5,&6; B 663.01, L 55.27 B 681.01, L 10; B 875.04, LS 1.01-1.08
GALLOWAY TOWNSHIP
ATLANTIC COUNTY, NJ

ATLANTIC COUNTY SOIL SURVEY MAP

SCALE: 1"=2000'

LAND DIMENSIONS ENGINEERING

PROFESSIONAL ENGINEERS, PLANNERS, LAND SURVEYORS,
LANDSCAPE ARCHITECTS, & ENVIRONMENTAL SCIENTISTS
6 EAST HIGH STREET, GLASSBORO, NJ 08028

N
W E
S

F1759

NORTH SECTION

SOUTH SECTION

STAND NO.	STAND DESCRIPTION (ACREAGE)	
1.	OAK/PINE (381.30 ACRES)	
	A =	33.70 ACRES
	B =	8.70 ACRES
	C =	43.60 ACRES
	D =	2.30 ACRES
	E =	185.70 ACRES
	F =	2.60 ACRES
	G =	37.90 ACRES
	H =	30.90 ACRES
	I =	35.90 ACRES
	TOTAL:	381.30 ACRES
2.	PINE/DISTURBED (40.60 ACRES)	
	A =	8.00 ACRES
	B =	12.60 ACRES
	C =	3.10 ACRES
	D =	1.60 ACRES
	E =	4.30 ACRES
	F =	11.00 ACRES
	TOTAL:	40.60 ACRES
3.	PINE/OAK (280.40 ACRES)	
	A =	14.40 ACRES
	B =	15.00 ACRES
	C =	159.00 ACRES
	D =	16.00 ACRES
	E =	5.80 ACRES
	F =	7.90 ACRES
	G =	13.50 ACRES
	H =	21.50 ACRES
	I =	13.80 ACRES
	J =	8.80 ACRES
	K =	4.70 ACRES
	TOTAL:	280.40 ACRES
4.	MIXED/DISTURBED (57.60 ACRES)	
	A =	31.60 ACRES
	B =	5.50 ACRES
	C =	0.60 ACRES
	D =	3.10 ACRES
	E =	16.80 ACRES
	TOTAL:	57.60 ACRES
5.	PITCH PINE LOWLAND (245.00 ACRES)	
	A =	2.40 ACRES
	B =	85.30 ACRES
	C =	1.80 ACRES
	D =	0.40 ACRES
	E =	0.30 ACRES
	F =	1.70 ACRES
	G =	1.30 ACRES
	H =	18.50 ACRES
	I =	50.80 ACRES
	J =	45.70 ACRES
	K =	7.20 ACRES
	L =	6.10 ACRES
	M =	3.20 ACRES
	N =	13.70 ACRES
	O =	6.40 ACRES
	P =	0.20 ACRES
	TOTAL:	245.00 ACRES
6.	ATLANTIC WHITE CEDAR (36.20 ACRES)	
	A =	16.30 ACRES
	B =	1.70 ACRES
	C =	12.70 ACRES
	D =	5.50 ACRES
	TOTAL:	36.20 ACRES
7.	MAPLE/GUM (24.60 ACRES)	
	A =	0.30 ACRES
	B =	17.50 ACRES
	C =	4.50 ACRES
	D =	1.60 ACRES
	E =	0.20 ACRES
	F =	0.50 ACRES
	TOTAL:	24.60 ACRES
8.	PINE/MAPLE/CEDAR (94.80 ACRES)	
	A =	4.20 ACRES
	B =	8.00 ACRES
	C =	16.40 ACRES
	D =	23.00 ACRES
	E =	8.50 ACRES
	F =	25.50 ACRES
	G =	9.20 ACRES
	TOTAL:	94.80 ACRES
9.	PITCH PINE UPLAND (64.50 ACRES)	
	A =	24.20 ACRES
	B =	40.30 ACRES
	TOTAL:	64.50 ACRES
10.	ENDANGERED FLORAL AREAS (5.00 ACRES)	
	A =	1.40 ACRES
	B =	3.60 ACRES
	TOTAL:	5.00 ACRES
11.	T&E CRITICAL AREAS (83.40 ACRES)	
	A =	35.10 ACRES
	B =	17.90 ACRES
	C =	12.60 ACRES
	D =	17.80 ACRES (NORTH)
	TOTAL:	83.40 ACRES
12.	FIELD (19.90 ACRES)	
13.	OAK/PINE NORTH (91.20 ACRES)	
	A =	12.50 ACRES
	B =	78.70 ACRES
	TOTAL:	91.20 ACRES
14.	PINE/OAK NORTH (36.20 ACRES)	
	A =	7.60 ACRES
	B =	7.30 ACRES
	C =	18.30 ACRES
	D =	3.00 ACRES
	TOTAL:	36.20 ACRES
15.	PINE/MAPLE/CEDAR NORTH (82.00 ACRES)	
	A =	2.40 ACRES
	B =	79.60 ACRES
	TOTAL:	82.00 ACRES

TOTAL ACREAGE OF WOODLANDS =1,522.80 ACRES
TOTAL ACREAGE OF FIELD = 19.90 ACRES
TOTAL ACREAGE OF WATER = 54.48 ACRES
TOTAL ACREAGE OF ARBORETUM =9.00 ACRES
TOTAL ACREAGE OF CAMPUS/BUILDINGS = 246.30 ACRES
TOTAL ACREAGE OF PROPERTY = 1,852.48 ACRES

GRAPHIC SCALE

FOREST MANAGEMENT PLAN

NOTE: THIS PLAN IS TO BE USED FOR FOREST MANAGEMENT PURPOSES ONLY AND NOT FOR LAND SURVEY

OWNER:
RICHARD STOCKTON COLLEGE
P.O. BOX 483
10 WEST JIMMIE LEEDS ROAD
POMONA, NJ 08240

4-26-12	REVISED PER PINELANDS REVIEW LETTER	RRW
10-10-12	Revised/remove Stewardship	RRW

BRIAN R. KIEFFER
N. J. STATE APPROVED FORESTER
DATE 12-13-12

ROBERT R. WILLIAMS
REGISTERED PROFESSIONAL FORESTER, RFP NO. 341
S.A.F. CERTIFIED FORESTER
N.J. STATE APPROVED FORESTER
DATE 12-13-12

STAND 1 oak patch harvests (6)

STAND 8F maple (2) clearcuts

STAND 15B (1)

STAND 3 PINE Patch harvests (6)

STAND 9 (1)

Log Landing

STOCKTON COLLEGE FORESTRY MAP

B 645, LS 3, 5, 6; B 663.01, L 55.27;
B 681.01, L 10; B 875.04 LS 1.01-1.08

SITUATE
GALLOWAY TOWNSHIP
ATLANTIC COUNTY, NEW JERSEY

DATE: JANUARY, 2011 SCALE: 1" = 600'

PREPARED BY:
LAND DIMENSIONS ENGINEERING
PROFESSIONAL ENGINEERS, PLANNERS, & LAND SURVEYORS
STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION NO. GA 276703
6 EAST HIGH STREET
GLASSBORO, NEW JERSEY 08028
(856) 307-7800
FAX (856) 307-7805

F1759