

September 22, 2013

Donald Berger Jr.
Township Manager
Springfield Township
1510 Paper Mill Road
Wyndmoor, Pa 19038

RE: SPRINGFIELD TOWNSHIP MUNICIPAL CAMPUS MASTER PLAN

Dear Mr Berger:

VITETTA Architects and Engineers is proud to forward our summary report and recommendations for the Springfield Township Municipal Campus Master Plan. This report summarizes our work with the Township and the Advisory Committee to review the previously prepared plan and help developed a consensus plan for how best to meet the now and future needs of the Township government and its ability to provide services to the Township.

From our beginning in October 2012, we have confirmed the space the Township needs, evaluated the continued use or re-purposing of the existing buildings, creating a plan that appears to satisfy the goals expressed at the outset of this project.

We express our thanks to the Advisory Committee for their commitment to the task at hand, the efforts made to clearly understand the issues and the time to be so completely involved. We thank the Township Officials and the Staff for their support of the process, their guidance and direction and hopefully for a decision to move forward with a recommendation that represents the efforts of all.

We have prepared this report as a summary to record the steps of the process, to remind all of where we have been and serve as the foundation to move forward. VITETTA would very much like to continue with this project until the completion of the recommendations. We feel very much a part of this.

I will make this report available electronically so that it can be made available on the web-site to help others in the Township, who were not able to participate to understand the need and agree with the recommendation to address those needs.

Please don't hesitate to call me if you have questions or Comments.

Sincerely

Albert M. Comly, Jr., AIA, LEED AP

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EXECUTIVE SUMMARY

VITETTA Architects & Engineers was retained by Springfield Township to review and update an earlier program and plan for the Paper Mill Road Municipal Campus.

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Work began in early 2012 to review the previous plan prepared by Kimmel Bogrette Architects. The Committee, assisted by Township staff, provided direction, and assessed progress toward the development of a conceptual master plan to meet the goals set for the project.

GOALS

The project began with the Conceptual Site Master Plan as developed by Kimmel Bogrette. The goal is to prepare an updated Conceptual Master Plan that will:

- Address the opportunities and challenges of the current township site at 1510 Paper Mill Road
- Develop a concept that meets the service needs for the township for at least two decades
- Recognize the sense of place and the campus' role as a destination for township residents
- Respect the site neighbors and the township budget.

PROJECT SCOPE

The Township Campus on Paper Mill Road is comprised of 6 parcels of land totaling just over nine (9) acres. The Township departments housed at the Municipal Campus are: Administration, Police Department, Public Works and Library. The Kimmel Bogrette Master Plan also included a community building to house gymnasium space and several conference/ meeting rooms. VITETTA was tasked with confirming the programs for each of the program components, evaluating the potential of the existing buildings on the campus for re-use, developing an inventory of the site opportunities and constraints, and based on this information, developing a conceptual master plan for the site.

SUMMARY

The Project was organized into four task areas:

- Program Review and Confirmation
- Facility Condition Assessment
- Site Characteristics Inventory
- Development of the Master Concept Plan

The Program Review and Confirmation began with the program developed in the Kimmel Bogrette study. Each component was reviewed, the supervising staff interviewed and the space toured to confirm the current operational configuration and to project future needs for the next twenty years. Space standards were presented to apply uniformity to the space utilization for the township components. The Library study also included the input of Library Consultant Richard Bowra. The results of this inquiry can be summarized as follows:

Administration

VITETTA found that personnel were not projected to grow in number and that space needs were about 3% less than in the previous study. The organizational layout is the most notable shortcoming.

Police

VITETTA found that additional space was needed to accommodate records storage—slightly less than 3% when compared to the previous study. The space configuration is a serious deficiency in the layout of the police department with no separation of persons in custody from non-sworn staff or in some cases the general public.

Public Works

VITETTA found that Public Works lacked basic accommodations for staff such as locker room space, meeting/ organizational space. The garage space was undersized and under capacity, leaving expensive equipment outside exposed to the elements. Core and common space grew from the previous study, and a range of parking and weather enclosure options was identified (from fully heated and enclosed to open air sheds). The personnel numbers remain constant based on the fact that the range and area of services is established.

Library

VITETTA worked with Richard Bowra to review the needs of the Library. The previous study had been performed with a different librarian and did not reflect the current operations and programs that the library now offers. After some considerable discussion it was also decided that the additional meeting rooms that had been part of the Community Center program be moved to the Library Program. It was noted that the Library staff will most likely administer and manage these spaces, and that many of the groups using the meeting rooms would be related to library. Library interviews emphasized the need for this additional meeting space. The library program calls for growth from 8,300 square feet (sf) to 20,500 sf based on the increase in the usage and the addition of the meeting space.

Community Building

The Township does not currently operate a building of the type envisioned in the Kimmel Bogrette study. That study had developed a program comprised of a gymnasium, with locker rooms and a group of meeting rooms for use by community groups. The program review reduced the Community Building program to approximately 7,000 sf for the gym and some administrative space after moving the meeting rooms to the Library Program.

CONDITIONS

Facilities Conditions Assessment was performed on the current structures at the Municipal Campus by the architects and engineers from VITETTA, with assistance from Jack Connors and Don Sirianni of the Public Works Department.

Administration and Police Building

Original construction was 1955, with significant renovations in 1972 to add more space for the Police Department and to reverse the entry of the building from the Paper Mill Road side to the parking lot side. The building is well maintained. Windows have been updated and the roof was replaced in 1998, though it is now approaching the end of its service life. The main issue with the Administration/ Police Building is the interior layout. It does not maintain the needed separation of uses that is basic to a modern police station today.

Administration is less impacted by the configuration. However, those with the highest frequency of public use must travel to the far of the building to reach code enforcement. Accessibility for the disabled is marginal. The interior walls are a combination of concrete block and gypsum plaster construction—which is not very flexible for renovation. In general, the building would be adaptable for other purposes with major renovation.

Public Works Buildings

Original construction was concurrent with the Administration/ Police Building. While properly maintained, the building of insufficient size for the equipment now being used and does not contain up-to-date locker, shower and storage space. Electrical distribution within the building is also in need of considerable upgrading. Roof is approaching the end of its service life. The building is not a primary asset for the renovation of the campus.

Library Building

The Library was constructed in 1966 as an open plan design. The building lacks space for meetings and programs. The roof is nearing the end of its serviceable life. Roof flashings and other exterior details have been noted as the cause of leaks in the building. This building would require major renovation and addition to continue to serve the needs of the Library.

Community Building

Township does not currently operate a Community Building of the type proposed in the Kimmel Bogrette study

SITE CHARACTERISTICS REVIEW

Urban Engineers reviewed the site to provide the basic information for the conceptual master plan, assisted by members of the advisory committee. Site is 9.08 acres, split into two parts by Hawthorne Lane. The site area includes the parcel occupied by the Ambulance garage, but the Ambulance was not part of this study and no recommendations have been made regarding the Ambulance operation or the building.

Zoning

was reviewed as an advisory influence, based on Township Solicitor's opinion that compliance by the Township was not mandatory. It was noted that the site immediately abuts residential property on the south and the east, and faces residential property across Paper Mill Road to the west. Setbacks adjacent to residential property were considered as a priority concern.

Topography

available information was used as the basis for the master plan. A metes and bounds survey with 1 or 2 foot topographic intervals would be expected in the next phase of the project.

Storm water

the existing topography is the most influential characteristic on the site storm water. No calculations were made for retention, but a high priority was placed on using the site to capture all on-site run-off and to address some of the run-off that comes down Hawthorne Lane from the properties at higher elevations to the east of the property. No percolation or other subsurface testing was done—again to be part of the next project phase.

Traffic

no traffic study was done. Only increase in trip generation will be the Library.

No changes in curb cuts on Paper Mill Road and no change to traffic light configuration at Hawthorne and Paper Mill to avoid a possible confrontation with the State over the presence of the light (possible lack of warrants), or the curb-cut.

Circulation

A review of the internal on-site circulation was performed. VITETTA worked with the Committee to acknowledge the pedestrian and vehicular circulation to the site from the various parts of the Township.

Vegetation

the presence of several large trees on the site was noted by the committee and the design team. While all shared the desire to retain as many full growth trees as possible, a higher priority was given to the placement of the buildings. Finalization of landscape will follow the confirmation of the site plan layout in the next phase.

Environmental Characteristics

The Committee cataloged the primary wind and sun angles for the site.

CONCEPTUAL MASTER SITE PLAN

The Conceptual Master Site Plan is the culmination of the previous tasks in the Master Plan for the Municipal Campus. The process of reaching a site plan that reflects the project goals and objectives involved a series of meetings and sketch plans with the Advisory Committee and the Township Staff. Many of the meetings dealt with options and configurations that did not produce the desired overall result. Some items which proved to be unfeasible:

- Changing the alignment of Hawthorne Lane,
- Changing the configuration of the traffic light and the intersection with Fraser Road
- Moving or renovating the Ambulance Garage
- Changing the access to the LaSalle playing fields
- Trying to re-use the existing Library Building or the Public Works garages for any purpose

THE FINAL CONCEPTUAL MASTER SITE PLAN

The Final Plan represents the plan that most closely presented the goals and objectives that had been stated by the Advisory Committee and the Township Staff at the start of this project. It is comprised of three major nodes of development which establish the basis for the plan. Everything else was dictated by these location decisions:

Public Works

on the northern parcels of the site adjacent to the Ambulance Garage and farthest from the residential neighbors

Library

on the eastern parcel slightly uphill from the current Public Works location

Administration and Police

remaining in the same location on the site with the option to either renovate and add to the existing building or demolish and build new. Renovation would require more building space to address the inefficiencies while new construction would cost more but produce a more efficient building.

The Final Plan does not include the Community Building. The meeting rooms were added to the Library, leaving only the gymnasium and support spaces. The amount of parking that would be needed for the Community Building was a serious concern given the potential for overlapping events at the Community Building, the Library and the Township Building. The final result was the recommendation of the Committee that the Community Building not be included on the site. The Final Plan follows that recommendation.

Parking

was a major consideration in the development of the Final Plan. With the Community Building removed from the site program, it reduced the potential need and allowed the determination of parking need based on the existing uses. The Final Plan shows 185 parking spaces, which is the consensus of the Advisory Committee and supported by VITETTA. Adjacent parking on the LaSalle Property (approximately 17 spaces) and behind the Ambulance Garage (approximately 9 spaces) is not included in the parking total.

Storm Water Management and Control

was another key concern in the development of the Final Plan. Components were arranged on the site to maximize green areas making them as large as possible within the overall plan. Parking areas will be interrupted by green spaces resulting in no more than 10 parking spaces in a line without a green area. The rows of parking will be separated by green rows of at least 15 feet to serve as initial rain water receptors or "rain gardens". This system will be supplemented with underground storage at selected areas beneath the parking to contain the rain volumes that overrun the "rain gardens" and to serve the larger paved areas. It is the intention of the plan to also capture and detain some of the water from above the site to further reduce the storm water impact along Paper Mill Road and other downstream areas.

Landscaping

is conceptual at this level of planning, but the intention is that it be largely indigenous and that it not require irrigation. Trees that are removed will be replaced with native species.

Phasing

The Final Plan for the Municipal Campus was developed on the basis of phased development to assure that services are available to the Township residents during the renovation period. The most likely phasing plan consists of the following:

FIRST PHASE:	Construct new Library behind Public Works
SECOND PHASE:	Demolish existing Library Construct new Public Works
THIRD PHASE:	Demolish existing Public Works Construct parking improvements down to Administration/ Police Building
FOURTH PHASE:	Renovate or replace Administration/ Police Building

Schedule

The four phases will take between five and ten years to fully complete, depending on how the design and construction tasks are organized.

Cost

The overall cost of the four phases will be between \$16 million and \$20 million. Lengthening the construction period will increase the overall cost due to cost escalation over time. This cost assumes that design work will proceed to allow construction to begin by early Spring 2014. This cost does not include tools or equipment in Public Works, Furniture Fixtures and Equipment (FFE) in the Library or Administration/ Police Buildings. Fees for design and testing are also not included.

BACKGROUND METHODOLOGY

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VITETTA Architects and Engineers were retained by Springfield Township, Montgomery County to review a master plan that had been developed by Kimmel Bogrette Architects several years previous to the VITETTA's involvement in the project.

The project site of approximately 9.1 acres is the current location of the Springfield Township Municipal Campus at 1510 Paper Mill Road in the Wyndmoor section of the Township. All proposed uses are already located at the site—Administration, Public Works, Police and Library. VITETTA's task was to review the space needs for each of the groups, beginning with the program that had been prepared by Kimmel Bogrette and update the needs as necessary. VITETTA was also tasked with reviewing the existing buildings on site to determine which could be used in efficiently throughout the future of the master plan, and which would need to be replaced. Using this information, VITETTA would then work with the Township Advisory Committee to develop a master plan that would address the Township' needs and would best reflect the Township's desired image.

PROGRAM

VITETTA began with the Kimmel Bogrette program analysis dated November 2008. Each user group was identified and a component list developed. VITETTA then met with each user group supervisor to determine what, if any changes had occurred since the Kimmel report. In the Library, the current director Marycatherine McGarvey, had not been involved in the Kimmel plan and had made operational changes that needed to be reflected in the space needs. VITETTA supplemented its team with Richard Bowra, Pennsylvania Library consultant, to review the specific library needs. His report is found in the appendix of this report.

The program update began with a review of personnel projections for a twenty year planning threshold. A space standard with reviewed with Township staff to provide a consistent space use for each group. That space standard follows this section. It was noted that the Township was largely built out, and that very few parcels of land remained that would substantially change the need for services beyond those currently provided. Each space was visited after the interview with the supervisor. Storage needs were noted and updated.

The information from the interviews and the tours was combined with the space standards, resulting in a program package showing the needs for each user group, with a summary assembling the data by potential building. These user areas were developed as net user needs, then internal circulation was added as a factor. The factored user total was then adjusted to add construction area, and space for building circulation, toilets and mechanical space. The full program is found later in this section of the report.

EXISTING CONDITIONS

VITETTA architects and engineers reviewed each of the existing buildings. Urban Engineers reviewed existing conditions of the site. In each case, the review and inspection was based on visual observation. Destructive testing or other additional non-visual investigations were not part of the program. The full report on each building is found in the Assessment of Existing Conditions section of this report. Generally, the buildings have been maintained well, but major components of the buildings are now reaching the end of useful life.

The Administration/ Police Building, the Library and Public Works will all need new roofs, or at minimum, major roof renovations, to continue being serviceable throughout the planning threshold period. In addition, other key considerations by user building:

Administration

HVAC at replacement or needing substantial upgrade
Interior composed of bearing walls that complicate interior modification

Police Wing

Same items as noted for Administration
Functionally inadequate and potentially unsafe

Public Works

Electrical and Mechanical at Replacement
Inadequate facilities for personnel
Inadequate height for repair work being performed

Library

Water Infiltration issues (in addition to the roof)
Windows need replacement
HVAC and lighting use a technically obsolete distribution system
Inadequate Functional Space

MASTER PLAN DEVELOPMENT

The program, space standards and existing building and site information became the baseline information for the development of the Master Plan. A series of meetings and workshops were held with the Township Advisory Committee to develop, review and re-consider the process to create a master plan for the Municipal Campus that addressed the major issues:

- Provided Needed Space for Township User Groups
- Presented a plan that minimized the impact of the Municipal Campus on surrounding residential property
- Presented a plan that recognized the need for parking and circulation, but preserved as much open space and green area on the site as possible

The planning process looked at both the measurable and the subjective aspects of how the Municipal Campus would be planned and used. Consideration of the measurable includes:

Site Description and Boundaries

A full metes and bounds survey was not included in the scope of work for this project. Available information, including the deed descriptions of all parcels comprising the Campus (copies can be found in the appendix), a information from existing site plans for the library, the playing fields and other parcels was used as the basis for confirming the boundaries. This information was compared against available GIS information to confirm the other available information

Topography

A full topographic survey will be done in the next phase of the project. As with the metes and bounds, available information was used to provide an appropriate level of information for master plan development.

Geotechnical and Subsurface Investigation

A full geotechnical and subsurface investigation is planned for the next phase of work, allowing that work to be coordinated with the planned location of the buildings. Review of available information and observation of the site did not indicate evidence of any unusual subsurface conditions that would impact the master plan or initial building locations

Zoning

The site is zoned "institutional". The current use is an allowable use in the Institutional zone. The site is abutted on all sides by residential property, which requires a landscape buffer between the Institutional zoning and the residential zoning of 75 feet. Street setbacks of 75 feet are also dictated. Site impervious coverage is limited to 40 percent. A more complete summary is found in the site description section of this report. The zoning requirements were used as advisory for this study, based on the opinion of the Township Solicitor. Significant importance was given to the relationship of the Municipal Campus to its residential neighbors.

Adjacent Properties

The relationship with the adjacent and abutting properties was addressed by inserting scale drawings of the concepts into existing aerial photographs. The Zoning review also addressed the allowable uses and the relationship of those uses to the adjacent properties

Utilities

The site is fully served by water (Aqua PA), sanitary and storm sewer (Springfield Township), electric and natural gas (both From PECO distribution). Service letters for each utility will be secured in the initial building design phase, once the utility load requirements have been calculated. Development of the site does not anticipate significant off-site costs for utility improvement.

Traffic

A traffic study was not done as part of this work. The focus of the work was on-site. The understanding was that any changes to the traffic light at Hawthorne Lane and Paper Mill Road could lead to its removal for inadequate warrants. The Police access to Paper Mill Road is moved to the south to better accommodate the layout, but no other changes were made on Paper Mill Road to reduce the potential for problems relating to highway access from PennDOT. The elimination of the Community Building from the site also reduced the potential trip and parking needs.

Storm Water

No calculations for storm water were prepared as part of the master plan. The design incorporates many best practices. Rain gardens to reduce the velocity of run-off and on-site storage are anticipated in the master plan. The plan also anticipates capturing some of the off-site run off coming from areas of Hawthorne Lane above the site and holding that in the on-site system. The goal will be to substantially reduce the run-off that now reaches the intersection at Hawthorne and Paper Mill Road.

Other planning factors were also considered in the development of the master plan:

Vegetation

Mature trees stand along the Paper Mill Road edge of the current Administration Building and the Library parcels. The final plan will result in the loss of some of those trees, but most can be retained. New trees of species that are indigenous to the climate will be incorporated in future landscape plans. No other unique vegetation was noted on the remaining portion of the site. The planned landscape barriers will be planted with material that is appropriate

for the climate and does not require unusual care.

Sun Angle and Wind Approach

The site generally faces Paper Mill Road, which runs southwest to northeast in front of the site. The section that faces Hawthorne Lane has a northwest to southeast orientation. The sun rises on the site over Hawthorne Lane and moves through the day to the southwest near Paper Mill Road. The planned entrances to Police and Administration, including the pedestrian areas immediately exterior to those entrances are positioned to gain the maximum advantage from the sunlight. Deciduous trees are envisioned in this area to provide shade in the summer, but allow the light and warmth to reach the walkways and the building in the winter months. The Library will receive late afternoon sun and does face the primary wind direction. Care will be taken in the design of the entry area to provide refuge. Public Works will also face away from the sun and toward the wind. This is a result of the size of the building and its orientation to the site. It will create shade on the overhead door side of the building during the summer months.

The prevailing fair weather wind direction is from the northwest. The Police and Administration Buildings are turned to place the entrances alee of that flow. As noted above, the Library and Public Works face the prevailing winds. Buffering is recommended to minimize the impact of winter winds on those elevations.

MASTER PLAN EVALUATION

An important part of the master plan process was the identification of goals and objectives, followed by the means to assess the importance or value of each in determining the final recommendation. The goals were distilled to a few very important issues:

- **Build the minimum necessary to meet the needs**
- **Provide maximum green space and in the largest sections possible**
- **Accommodate storm water**
- **Minimize impact on the neighbors**
- **Stay within the bounds of the site**

It is noteworthy that cost is not among the goals. It was agreed that the cost at this stage of development was largely based on the size of the buildings. It was agreed that the program would be the building size and that the same program was used for all concepts. Therefore, the major cost component was fixed for all concepts. Several key decisions were involved in reaching agreement on the master plan that is recommended in our study, specifically:

The agreement to eliminate the Community Building from the proposed uses. The meeting spaces were added to the Library, since they would most likely be managed by the Library staff and would more closely relate to the programs and needs of the Library activities. It is assumed for this study that the Community Building program will be accommodated at some other undetermined location.

The agreement to reduce the parking provided to a level below the Zoning Ordinance, with the understanding that there are some green areas that could be re-purposed if parking need was found. Elimination of the Community Building and its potential parking need was a key factor in that overall reduction to the 188 spaces shown on the site.

The existing Ambulance Garage would not change. Some of the parking immediately in front of the apparatus doors has been eliminated to provide more green area.

The final plan must be accomplished within the existing property. No additional property was to be considered for purchase or any other agreement. The access easement for the LaSalle playing fields remains unchanged. The final site plan will maximize the buffers and landscaping abutting the residential areas to the east, up Hawthorne Lane from the site and to the south, behind the houses that front on Cheltenham Avenue.

MASTER PLAN CONSENSUS

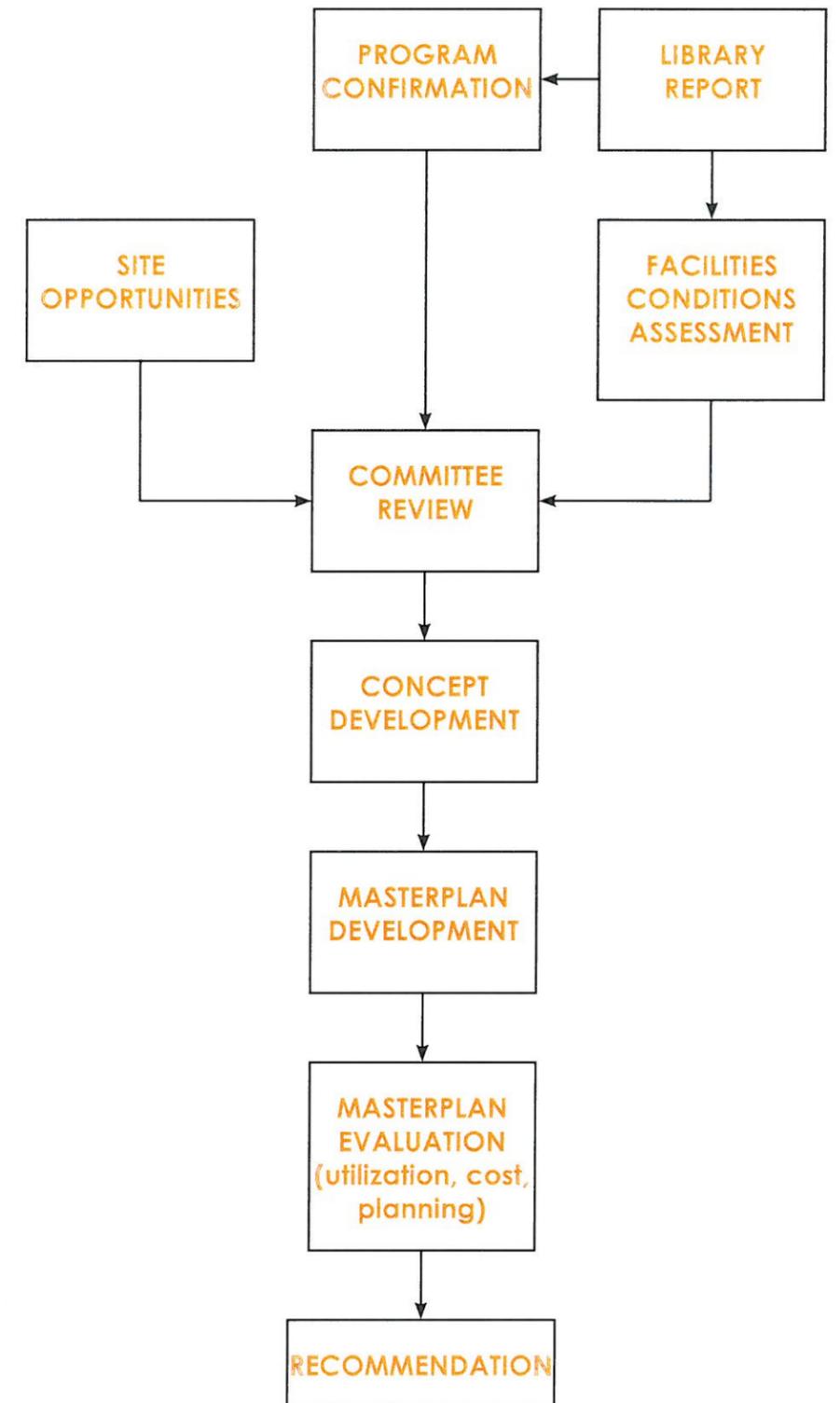
The consensus for the master plan for the Springfield Township Municipal Campus presented in this study developed through a series of concepts and reviews with the design team, the Township Advisory Committee and the Township Staff. Meetings were held between November 2012 and May 2013 that were open to the public for comment. The appendix of this study includes a sampling of those concepts, showing the path of review and development. We believe that the recommended plan represents a consensus that responds favorably to the comments and concerns expressed by all who participated.

MASTER PLAN COST

A budget cost was developed for the master plan. The program served as the basis for the building area. Each building was estimated in a range to create a high and low end to the range. The level of finishes and accommodations within those buildings could further affect these costs by 10 to 15%. A cost for the site development was then estimated. This is also based on a standard approach. It does not include unusual features. An unusual feature would be the relocation of a significant sized tree. It does not account for road improvements on boundary streets, because those requirements have not been established. It does assume that all on-site storm water will be accommodated and will also detain a significant amount of the flow coming down Hawthorne Lane today. We included a lower construction range for the Public Works storage buildings. A decision may be made to re-locate and re-use some of the existing units to reduce cost. The building and site subtotal should include general conditions and overhead and profit for multiple prime contractors.

A Design Contingency was added to accommodate unknowns that may appear and be required as the design process proceeds. The percentage of this contingency can usually be reduced as the design phases proceed until the construction documents are complete and the scope is fully known. Escalation has been included for a year at 1% per month. A construction contingency has been included at 5% based on the large percentage of new construction. We have also provided estimates for Furniture Fixtures and Equipment that are based on the program area, rather than any equipment list.

The Overall Funding Budget is a total of all preceding costs. It is intended to define the upper end of the project cost, based on the facts as we presently know them.



PROGRAM

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VITETTA began with the program analysis that had been prepared by Kimmel Bogrette in 2008. The purpose of this task was to confirm the area needed to house the Township Staff for a twenty year planning threshold, or identify where changes to the Kimmel analysis needed to be made. A component user group list was prepared for each of the groups to anticipate the organization of these groups for their being housed in buildings. A space standard was reviewed with the Township Staff to serve as a consistent basis for assigning space.

STAFF—CURRENT AND PROJECTED

The basic component of the program is the staff count. The space standard and all other factors are applied to the current and projected staff. The Township as a whole is not expected to grow or develop much further. The services projected for the next twenty years are expected to be very similar in staff impact to the current need. Staffing was confirmed against existing personnel. Projected personnel was provided by the division supervisors or directors.

SPACE STANDARD (SEE APPENDIX FOR COPY)

The space standard was based upon other standards that VITETTA has applied for similar uses and clients. It accounts for offices, conference areas, storage and other generally planned spaces. The Space Standard uses Net Useable space in the dimensions. It was reviewed with staff to assure that the sizes used reflected the operations of the Township. The space standard was used selectively for the Library and Public Works. The Library study prepared by our Library Consultant, Richard Bowra, was the basis for the majority of the library space needs. It was also the component that changed the most from the Kimmel Study, since the Kimmel Study had been done with a previous library director.

COMPONENT OR DIVISIONS TABLES

were established using the component listing as the organizing principal. Sub-headings were established for identified groups within the users outlined in the Kimmel Study. No reason for modification was found. The five component or divisions were: Police, Administration, Public Works, Library and Community Center

NET USEABLE SPACE

The actual area of the room, work station or piece of equipment. No allowance is provided for circulation between rooms or work stations.

EXISTING

The current areas of the groups in the existing buildings

SPACE STANDARD

The twenty year projection factored with the applicable space standard

KIMMEL BOGRETTE

The Kimmel Study projected needs organized to match the VITETTA components

VARIANCE

The difference between the Kimmel numbers and the VITETTA numbers. Positive numbers indicating growth from the Kimmel numbers, negative showing a reduction.

CALCULATED GROSSING

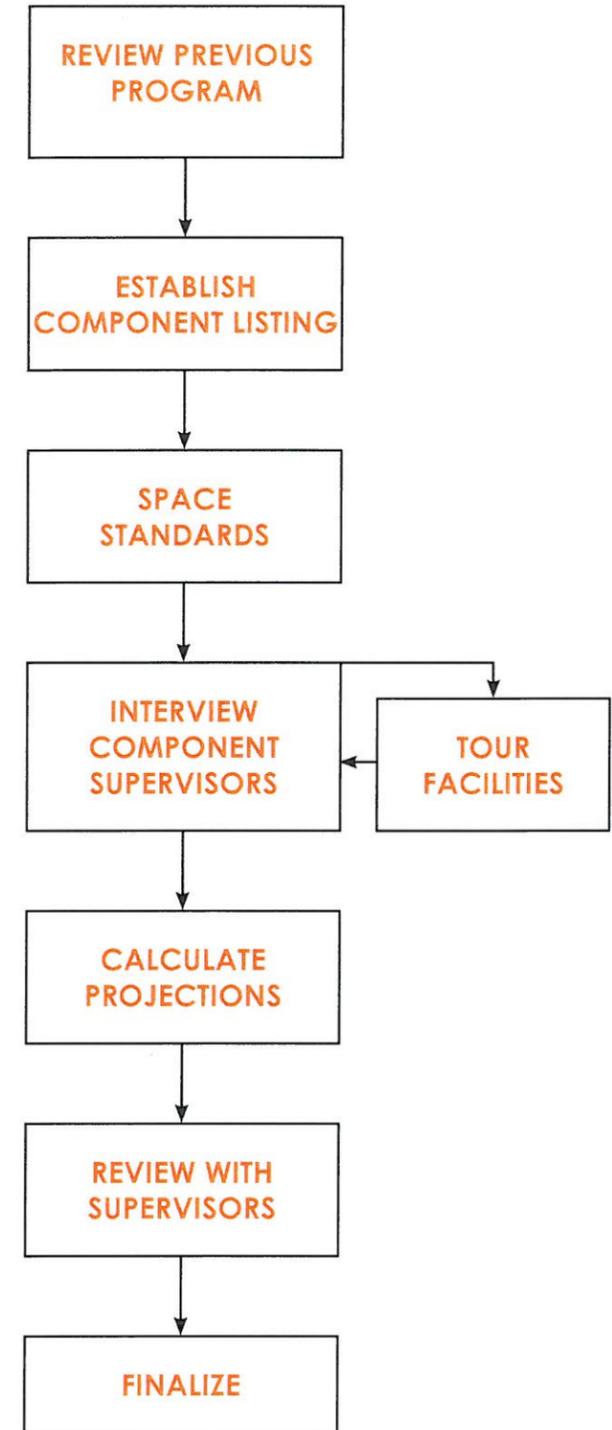
The Net Useable Area (in square feet) was adjusted to allow for space that is not included in the component listing. Examples include, corridors, toilet rooms, mechanical rooms and similar spaces that are needed for the building. Also included in that grossing factor is a 10% factor for the actual construction space (wall thickness, etc) needed to produce the needed space. The factors were done assuming all new space, on the basis that all but portions of Police and Administration will be new.

TOTAL GROSS SQUARE FEET

The total number of square feet needed to house the Township staff and identified services is 64,666 sf. Kimmel Bogrette had identified 63,727, and increase of 1.5% in the twenty year projection.

COMMUNITY CENTER

The Community Center program was changed by taking the meeting rooms and incorporating them in the Library Program. During the concept development phase, it was determined that the Community Center would not be included in the final plan. The final gross square feet is reduced to 54,340 and the cost was commensurately adjusted



1.2 Police - Patrol Operations
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Shift Supervisor		0	0	4	256	4 workstations @ 64 sf each for Sergeants	
Support Space							
Squad Room		0	0	1	650	Meeting place for officers before shift, 10 work stations	
Staff Meeting/Conference Rm.		1	450	1	450	Pre-Operations / Organization meetings, seating for 12-15 people shared space with Squad Room	
Employee Restroom		1	90	2	200	1 male, 1 female	
Men's Locker Room		1	240	1	500	20 person capacity, 2 showers, benches between locker rows	
Women's Locker Room		0	0	1	200	6 person capacity, 1 showers, benches between locker rows	
Armory		1	5	1	100	Contains work bench and storage area	
Evidence Locker - Temporary storage to be logged in		0	0	1	100	Temporary secure evidence storage	
Property Storage		0	0	1	100	Storage of guns to be destroyed, non evidence items.	
Secure Evidence Storage (Permanent)		1	56	1	300	Including refrigerator	
Evidence Processing		1	24	1	80	Well ventilated, sink, bench space, eye wash	
Detention Facility							
Holding Cell		2	30	2	160	Minimum of 2 (1 male, 1 female) fully equipped	
Juvenile Detention Cell		1	56	1	100		Separated from Holding Cells
Processing Room		0	0	1	120	Including camera, fingerprinting, breathalyzer	
Janitor / Utility Closet		0	0	1	45		
Sally Port		0	0	2	500	Minimum 2 vehicles capacity (secure), emergency shower/wash down, storage for tires/flares/bicycles	
Bike Storage		0	0	10	200	Garage type storage area for bikes, large evidence	Near Secured Vehicle Storage
Net Useable Square Feet		0	951	4	4,061		

1.3 Police - Service
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Support Space							
General Storage		0	240	1	400		
Telecommunications Room		0	0	1	100	Contains computer server, telephone, other	
Police Vehicle Parking						12-15 vehicle capacity, well - lighted	
Secured Vehicle Storage						Minimum 5 vehicle capacity, fenced area	
Police department entrance, separate from Administrative Dept.						Use as waiting area for 6-8 people	
Public Restroom		0	0	1	60		Near to entrance / waiting
Net Useable Square Feet		0	240	0	560		
Total Police Net Useable Square Feet			1,738		6,110		
Additional Service							
Existing Mechanical, Corridor / Circulation			1,342				
Mechanical Space Allowance				10%	611	Percentage of Police Dept. Subtotal	
Corridor / Circulation Allowance				25%	1,680	Percentage of Police Dept. Subtotal & Mechanical Space	
Total Departmental Gross Useable Square Feet			3,080	1	8,401		

**2.1 Administrative - Township Administration
Workstation and Space Requirements Database**

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Township Manager	Donald E. Berger, Jr.	1	96	1	175	Separate / enclosed with visual connections to office. Existing files: One 2-drawer lateral file 30"H x 36"W and One 5-shelf bookcase - 72" H x 36" W.	
Assistant Manager	A. Michael Taylor	1	96	1	150	Existing files; One 5-drawer lateral file cabinet, 64"H x 42" W and One 5-shelf book case, 72"H x 36"W.	Township Manager
Office Manager	Carol	1	90	1	100	Visibility to public. Existing files; One 2-drawer lateral file, 28" H x 42" W and One 4-shelf bookcase, 54"H x 36"W.	Township Manager
Finance		1	204	1	150	Separate / enclosed with visual connection to office. Existing files; One 4-drawer fire proof safe, 54"H x 20" W and Four 4-drawer lateral files, 53"H x 42" W and Four 5-drawer lateral files, 67"H x 42"W.	Township Secretary
Department Reception (Part-time)		1	64	1	80	workstation with visibility to public	
Payroll (future part-time)		0	0	1	48	1 workstation	
Tax Collector		0	0	1	200	2 workstations with public counter. To be separate	
Support Space							
Public Meeting / Multi-Purpose Room		1	748	1	1,200	Possible divisions (2 or 3) for multipurpose uses at the same time, needs dais for Commissioners so presentations are made while standing, curved table for commissioners - easier for presentations to be seen	
Conference Room		1	144	1	150	10-12 seats	
Active File Storage		1	80	1	150	Needs 5 - 6 individual cabinets	
Break Room		1	77	1	175	to accommodate 12 people, sink, counter, microwave, refrigerator	
Lobby		0	0	1	250	Large area for public access to Meeting Room and Main Receptionist, Code Enforcement Counter, Parks and Rec. window, 4-6 seats.	
Computer Room		0	0	1	80	secure and appropriate lighting, server rack(s), conditioned space, and storage for spare parts	
Storage		0	0	1	50	Shelving (No sliding doors), for paper storage, etc.	
Archive File Storage		0	0	1	150	Fire-proof	
Public Restroom (Men and Women)		0	0	2	300	Sized for Public Meeting Room requirements	
Net Useable Square Feet		5	1,599	7	3,408		

2.2 Administrative - Parks and Recreation
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty,	Space Std. (nsf)	Qty,	Space Std. (nsf)		
Staff							
Director Office	Charles Carabba	0	0	1	150	Existing files; Two 5-drawer lateral cabinets, 64"H x 30"W.	
Staff / Receptionist Office		1	120	1	175	Open office, 1 workstation for receptionist and 1 workstation for utility clerk, transaction counter	Admin. Receptionist
Future Office		0	0	1	120	Office for future Program Director	
Support Space							
Equipment Storage		0	0	1	200	Unheated space - Would consolidate current off site storage with expansion space	
Net Useable Square Feet		1	120	3	645		

2.3 Administrative - Code Enforcement
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Code Enforcement Officer	Robert S. Dunlop	1	312	1	150	Existing files: Three 5-drawer flat plan files, 16"H x 44"W and Two 2-drawer lateral files, 28"H x 36" W.	
Code Inspector	Charles	1	102	1	150		
Building / Zoning (Clerk)	Robin	1	96	1	150		
Engineer / Municipal Inspector	Mark W. Eisold	1	104	1	100	For use 1/2 day 2 times per week	
Secretary, for code inspector		0	0	1	64	Workstation	Code Inspector
Support Space							
Transaction Counter / Walk-in visit		0	0	1	125	public access is important, layout space for large format plots	
Conference Room			0	1	150	layout space	
General storage / filing		0	0	1	140	Existing files: Sixteen 5-drawer flat plan files, 16" H x 54" W, Six 5-drawer lateral files, 54"H x 36" W, Three 3-drawer lateral files, 40"H x 36"W, Five 3-drawer standard file cabinets, 40"H x 15"W and One 2-drawer lateral cabinet, 28"H x 30"W	
Net Useable Square Feet		4	614	5	1,029		
Total Administrative Net Useable Square Feet		2,333		5,082			
Additional Services							
Existing Mechanical, Corridor / Circulation Mechanical Space Allowance			587	10%	508	Percentage of Administrative Dept. Subtotal	
Corridor / Circulation Allowance				25%	1,398	Percentage of Administrative Dept. Subtotal & Mechanical Space	
Total Departmental Gross Useable Square Feet		2,920		6,988			

3.1 Public Works - Core/Common Space
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Mangager	John F. Connor	1	205	1	150		
Assistant Manager	Don Sirianni	1	151	1	100		
Highway Foreman	Ed	1	70	1	100		
Fleet Supervisor	Mike	1	70	1	100		
Receptionist - future		0	0	1	48		
Support Space							
Men's Locker and Rest Room		1	202	1	600	28 employees (18"x18"Xfull height lockers) + 10 summer staff (half height lockers)	
Women's Locker and Rest Room		0	0	1	200	2 employees	
Break Room		1	364	1	200	Capacity for 12 people, contains kitchenette	
Staff Restroom		2	90	1	80	with shower	
Net Useable Square Feet		4	1,152	5	1,578		

3.2 Public Works - Special Needs (Interior)
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Support Space							
Road & Street Sign Room		1	0	1	225		
Repair Bay / Shop		1	1,080	3	1,750	2 large (trucks) / 1 small (police vehicles and other emergency - related vehicles), oil & filter storage, vehicle life (1 bay only), oil traps & drains, ceiling mounted air/water hoses. Sufficient ceiling space to lift trucks.	
Wash Bay		0	0	1	600	To wash salt from trucks after snow storms	
Garage / Equipment Bay		3	3,250	6	8,550	Pull thru bays: bays to be two vehicles deep (one w/ snow plow), heated spaces (50-60 degrees). Trucks to be stored: Front-end loader, Street Sweeper, Sewer Truck.	
Small Equipment Storage		0	0	1	120	For compactors, chainsaws, etc.	
Storage / Tool Room		0	0	1	80	Road closed signs, sign posts, tools	
Net Useable Square Feet		0	4,330	0	11,325		
Total Public Works Net Useable Square Feet			5,482		12,903		
Additional Services							
Existing Mechanical, Corridor / Circulation Mechanical Space Allowance		10%	548	10%	1,290	Percentage of Road Dept. Subtotal	
Corridor / Circulation Allowance		25%	1,508	25%	3,548	Percentage of Road Dept. Core / Common Space	
Total Departmental Net Useable Square Feet			7,538		17,742		

4.1 Library - Public Space
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Support Space							
Entry Vestibule				1	150		
Lobby				1	200		
Service Desk (circulation)				1	250		
Self Checkout Terminals				2	90		
Service Desk Workroom				1	350		
Adult Services							
Adult print materials				1	2,659	Refer to Bowra report for itemized breakdown	
Adult CD				1	106	Refer to Bowra report for itemized breakdown	
Adult DVD				1	96		
Adult back periodicals				1	160		
Adult current periodicals				1	111	On display	
Adult Seating				1	800	8 tables / 32 seats @ 25 sf	
Adult lounge seating				1	720	20 seats @36 sf	
Adult PCs				1	720	20 terminals @ 36 sf	
Reference / Adult Services staff				1	250	Can be attached to the man service desk area	
Printer				1	25		
Teen Services							
Teen print materials				1	324	Refer to Bowra report for itemized breakdown	
Teen CDs					2		
Teen current periodicals					?		
Teen Seating				1	800	8 tables / 32 seats @ 25 sf	
Teen lounge seating				1	360	10 seats @ 36 sf	
Teen PCs				1	288	8 terminals @ 36 sf	
Online Kiosk Computer				1	45		
Game cabinet				1	15		
Printer				1	25		
Children Services							
Juvenile print materials				1	1,749	Refer to Bowra report for itemized breakdown	
Juvenile DVDs					35		
Juvenile current periodicals					40		
Juvenile PCs				1	216	6 @ 36 sf	
Juvenile PCs - Early Learning				1	108	3 @ 36 sf	
Juvenile seating				1	600	6 tables / 24 seats @ 25 sf	
Parent / Child lounge seating				1	360	10 seats @ 36 sf	
Children's Program Room				1	300	60 people	
Family restroom				1	-	In grossing multiplier calculation	
Storage room				1	120		
Net Useable Square Feet		0	5,141	0	12,074		

4.2 Library - Administrative Operations / Support Areas
 Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
Director	Marycatherine McGarvey			1	175		
Administrative Assistant				1	120		
IT / Technology Office / Work Area				1	360		
Kathy Lenahan				1	80	awaiting additional information	
Processing				1	250		
Meeting Space							
Small conference / meeting room				3	750	3 @ 250 sf	
Large multipurpose room				1	1,200	capacity of 100	
Kitchen				1	150	to support multipurpose room	
Support Space							
Staff Lounge w/ small kitchen				1	250		
Net Useable Square Feet							
		0	909	10	3,335		
Total Library Net Useable Square Feet							
			6,050		15,409		
Additional Services							
Existing Mechanical, Corridor / Circulation							
Mechanical Space Allowance		10%	605	10%	1,541		
Corridor / Circulation Allowance		25%	1,664	25%	4,237		
Total Departmental Net Useable Square Feet							
			8,319		21,187		

5.0 Community Center
Workstation and Space Requirements Database

Description Position	Name	Existing		Space Standard		Comments	Adjacencies
		Qty.	Space Std. (nsf)	Qty.	Space Std. (nsf)		
Staff							
	Staff Office with reception counter	0	0	1	120	Provide reception counter outside of office in main corridor / lobby	
Support Space							
	Community Meeting Rooms	0	0	-	-	Meeting area to seat up to 50 people for presentations, seminars, and programs. Rooms should be 450 sf. And connected with dividable walls to allow for configurations for larger groups. (Originally 4 @ 3800 sf total)	
	Multi-purpose Room	0	0	1	6,500	Should be large enough to use as gym space for 1 basketball court and dividable for meeting space	
	Conference Room	0	0	-	-	Smaller meeting / conference rooms for 25. (Originally 2 @ 500 sf total)	
	Catering Kitchen	0	0	1	300	Kitchen equipped with appliances for warming and finishing catered food for events.	Should be attached to community meeting room with pass through window.
	Storage	0	0	1	350	Areas for hold equipment for multipurpose room and tables / chairs for various room setups.	
	Public Toilet Rooms	0	0	2	240	Number of fixtures will be based on code capacity needed.	
Net Useable Square Feet		0	0	1	7,510		
Additional Services							
Existing Mechanical, Corridor / Circulation							
Mechanical Space Allowance		10%	0	10%	751		
Corridor / Circulation Allowance		25%	0	25%	2,065		
Total Departmental Net Useable Square Feet		0	0	1	10,326		

EXISTING CONDITIONS

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This section will present the existing conditions at the site, including zoning, impervious coverage and access. The discussion of the opportunities and constraints of the site are presented in the Site section of this report. This section also presents the summary of the assessment of the conditions of the existing buildings and the site. The Springfield Township Municipal Campus currently includes four buildings:

- **Administration/ Police**
- **Public Works (group of buildings)**
- **Library**
- **Ambulance**

The Ambulance was not part of the project scope of work, leaving the other three buildings, or building groupings to be inspected.

VITETTA Architects and Engineers inspected the three buildings. Urban Engineers inspected the existing site conditions. A report was done for each building. It was organized by engineering discipline, in the same manner for each building. The site conditions assessment was then combined to provide a building based report.

Generally, the buildings were found to be well maintained, but becoming outdated and approaching the end of useful life for many components. The theme across almost all of the buildings was roof replacement, mechanical upgrades and electrical switchgear and component replacement.

Existing Site Conditions

The Springfield Township Municipal Campus site is approximately 9.1 acres located at the intersection of Hawthorne Lane/ Fraser Road and Paper Mill Road in the Wyndmoor section of the Township; officially 1510 Paper Mill Road. The site currently accommodates the Police and Administration components are collocated in one building, the Library in another separate building, and Public Works in one main building and a series of open sided sheds and small storage buildings. The Springfield Township Ambulance garage is also located on one of the parcels, but that was not included in the study. The following sheets present the existing conditions

Property and Zoning

The site is zoned "I" Institutional. It is surrounded by "AA" Residential except for a minor adjacency with the Institutional sites of the Springfield Township High School and the LaSalle College High School athletic fields. The plan shows the parcels and the zoning distribution. The general topography of the site is also shown. The following table summarizes the existing site areas and coverage

Storm Water Flows

The Municipal Campus is located at the lower end of a significant slope that extends 50 feet higher than the campus site. Hawthorne Lane is a major conduit for storm water from the residential areas up and behind the site. The storm water management systems for the campus must be designed to accommodate this flow and divert it from the Paper Mill Road and Hawthorne Lane intersection and detain it on site.

Vehicular and Pedestrian Circulation

The Municipal Campus is almost solely accessed by motor vehicle. The main pedestrian flow is from the school to the library.

Pedestrian Circulation

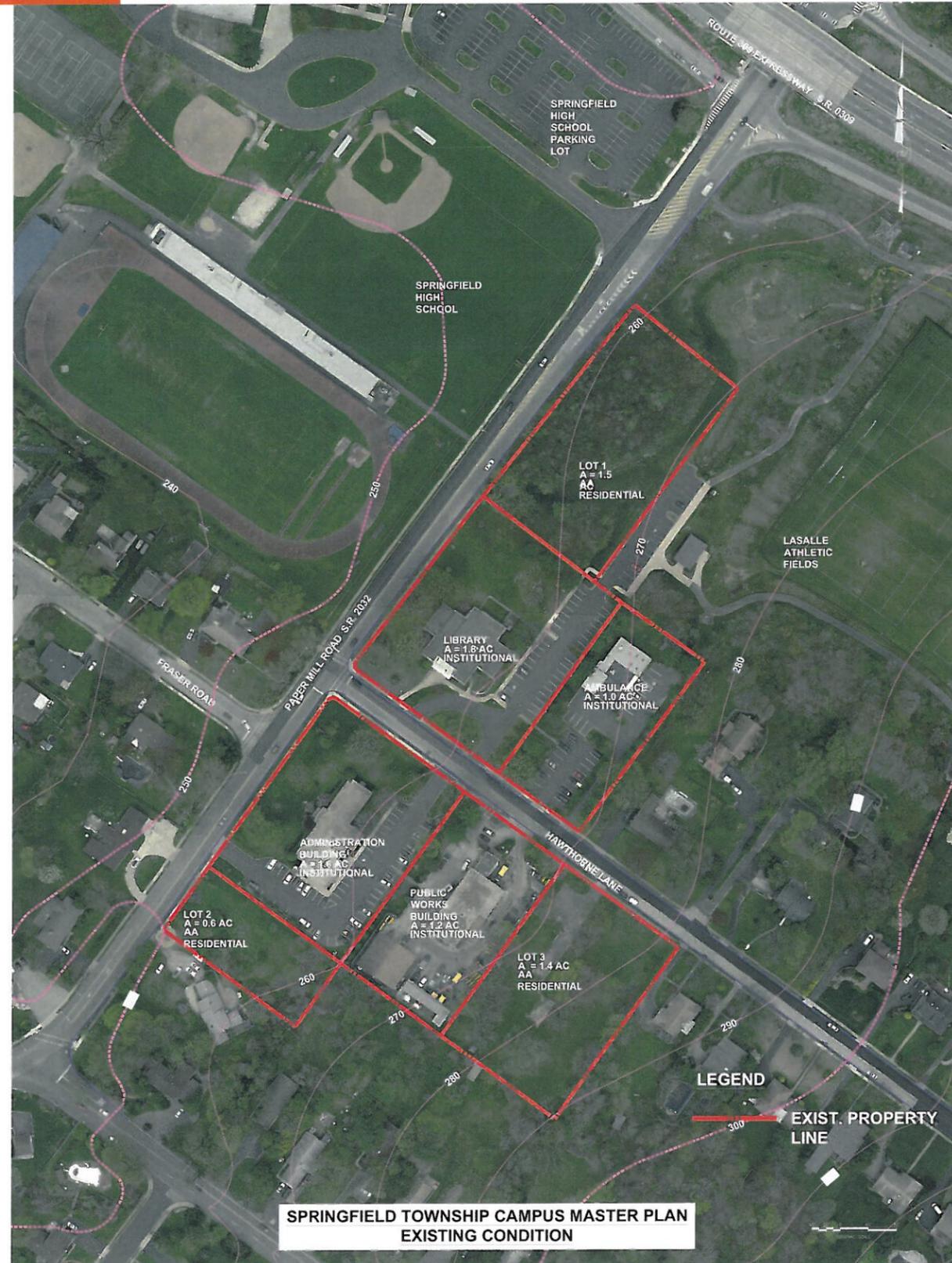
Very little on-site pedestrian circulation occurs, other than that resulting from a need for additional event parking for the Library or for the Meeting Room at the Administration Building. Proposed design should separate pedestrian and vehicular traffic to the maximum extent possible to encourage shared used of parking and allow an overall reduction in on-site parking.





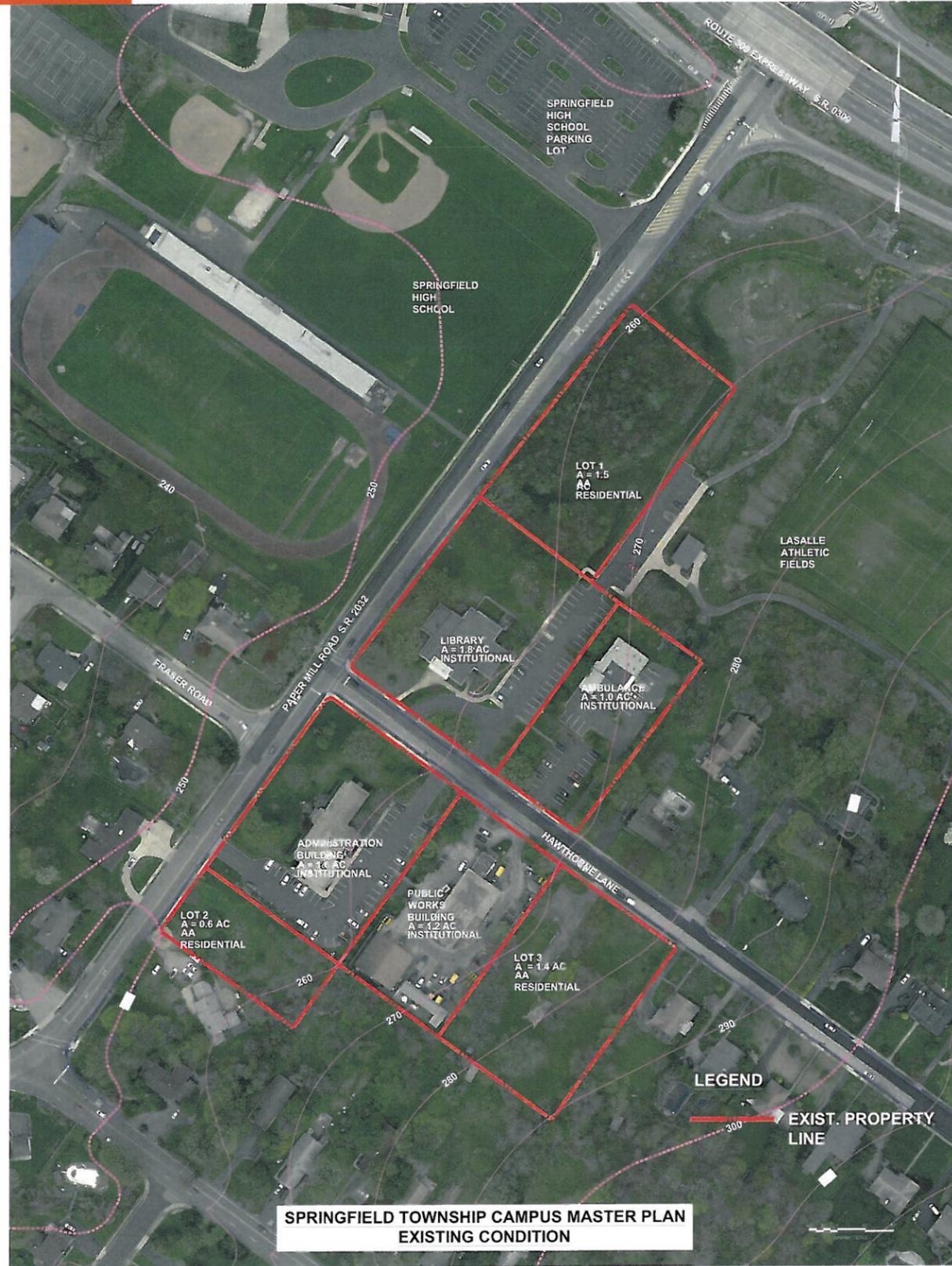
**PEDESTRIAN & VEHICLE
CIRCULATION**

***arrows indicate primary
pedestrian and vehicular
directions**



**PROPERTY LINES
& LOT AREAS**

***boundary lines are
indicated in red**



SPRINGFIELD TOWNSHIP CAMPUS MASTER PLAN
EXISTING CONDITION

**PEDESTRIAN TRAVEL
CORRIDORS**





**VEHICULAR TRAFFIC
CIRCULATION**



BUILDING CONDITIONS ASSESSMENT--TABLE OF CONTENTS

CIVIL—SITE CONDITIONS

Public Works

Open Space East of Public Works Site

Administration Building:

Open Space South of Administration Building Site

Library Building

Ambulance Building

Open Space North of Library Site

ADMINISTRATION BUILDING

Architectural

Structural

Mechanical

Electrical

LIBRARY BUILDING

Architectural

Structural

Mechanical

Electrical

PUBLIC WORKS BUILDING

Architectural

Structural

Mechanical

Electrical

CIVIL/SITE

PUBLIC WORKS BUILDING

Description of Existing Site:

ORIGINAL CONSTRUCTION:

The existing public work building site includes driveways and parking areas around the one-story, 5 bay garage structure, a large wood framed salt and materials storage barn and other structures and support facilities that include sheds, salt-brine tanks, and generators.

The ramp between the Administration Building and the Public Works Building is not ADA compliant. The ADA path between the Administration Building and the Public Works Building requires walking within the parking lot of the Administration Building to the Hawthorne Lane sidewalk.

Detectable Warning Strips (DWS) should be installed on the sidewalk where the entrance and exit driveways cross the sidewalk to alert handicapped pedestrians of the driveway opening. This is not typical on most driveways, but considering the volume of traffic and the types of traffic, the DWS installations are necessary.

DRIVEWAYS AND PARKING AREAS:

The existing buildings are surrounded by bituminous and concrete pavement in various states of distress that range from satisfactory to poor. The circulation for Public Works equipment is off Hawthorne Lane to the east of the Public Works building. The circulation for vehicles is clockwise around the building with an exit onto Hawthorne lane west of the entrance. The site is surrounded on the east and south sides by a wooden fence.

The driveways around the facility support parking in various locations for Township vehicles ranging from pickup trucks to large single unit dump trucks. Paving extends up to the building walls/foundations along the inside of the driveway and to either walls or structures around the exterior edge of the driveway around the Public Works site. Most vehicles are parked parallel to the drive on the east and west sides of the building with vehicles parked perpendicular to the driveway along the rear of the south side of the site at the storage barn.

A small parking area is located between the entrance and exit for the Public Works building near Hawthorne Lane.

Storage of materials and equipment is placed around the exterior of the site between the fence and parking areas or the circulation driveway around the building.

Condition:

The existing bituminous and concrete pavements are in various states of distress that range from satisfactory to poor.

Circulation around the building is adequate, however, the layout is confined and access to materials requires pre-staging or moving of the larger trucks to get to equipment.

The driveway does not permit passing in most areas and therefore is inefficient in cases where equipment or materials are being loaded or other operations are occurring that prevent vehicles from traveling around the facility or exit the facility.

The location of the front door and offices is poor and the location of curb cuts and entrances/exits onto Hawthorne Lane are too wide and don't adequately convey the paths of travel for vehicles.

Recommendations:

The storage of materials needs to be relocated or better defined so as not to impact the circulation around the facility. The parking of vehicles is efficient given the space, but more space is needed for the vehicles to allow easy use of the vehicles or equipment stored behind most of the parking spaces. Clearing of old or unused equipment, and relocation of irregularly or seasonally used equipment to other locations should be investigated.

PEDESTRIAN PATHS:

The existing site is accessed by the sidewalk on Hawthorne Lane and a steep ramp that connects the west side of the driveway of the Public Works site to the east side of the parking lot for the Administration Building.

There is a minimal need for the public to access the Public Works Building, however, Township employees may need to cross between the Public Works Building and the Administration Building.

Employee parking for the Public Works facility appears to occur in the small parking lot across from the Public Works entrance on the Ambulance Building site across Hawthorne Lane and the small parking lot on the open space to the east of the Public Works Site.

Recommendations:

A dedicated sidewalk connection that does not cross through parking lots is needed. This would require connecting the existing sidewalk along the east side of the Administration Building to the Hawthorne Lane sidewalk.

A striped crosswalk across Hawthorne Lane to connect pedestrians to the Public Works Building should be provided to visually identify this for pedestrians and vehicles on Hawthorne Lane. A Yield Delineator may be needed to be placed in Hawthorne Lane.

If there are a significant amount of employees that use the steep sloped ramp on a daily basis to move between the Administration and Public Works buildings, a striped crosswalk from the Administration Building entrance to the ramp is needed to visually identify this for pedestrians and vehicles. One parking space on the east side of the Administration Building parking lot may need to be restriped for no parking to permit pedestrians to access the ramp so it is not blocked by parked vehicles.

GRADING AND DRAINAGE:

The existing site is drained toward inlets within the driveway east and south of the building and along the west curb on the west side of the building. The drainage from uphill of the site to the east flows under the wooden fence and onto the site. The property to the east of the site is approximately 5 to 6 feet higher in elevation than the driveway of the public works site. Slopes with grades of 5 to 10 percent and a retaining wall are located along the east edge of the site from the existing wooden fence to the vehicle parking areas and

driveways. Runoff from uphill of the Public Works site including the Township owned property to the east of the Public Works facility and residences further uphill along the south side of Hawthorne Lane contribute runoff that ends up on the Public Works site.

The grades within the Public Works site on the driveways are generally flat (less than 1%) and drain toward the middle of the driveway east and south of the building. The inlets extend around the building in the roadway or along the west edge of the roadway and drain into the Hawthorne Lane stormwater system. Drainage problems during heavy storms along the Hawthorne Lane drainage system have been noted. Water flowing out of the inlets and manholes has been observed and is most likely due to the volume and velocity of the water traveling down Hawthorne Lane as it connects into the Paper Mill Road drainage system.

The slope from the Public Works building to the parking lot of the Township Administration Building to the West is between 5% and 10% with a small retaining wall around the storage barn to the south.

It is believed that an oil-water separator is located near the fuel pumps on the west side of the facility; however, cleanouts were not located.

No water quality or stormwater storage facilities are located within the Public Works site. Traps are observed in inlets to the south end of the site, however, they appear to only trap large objects and gravel.

Condition:

The amount of runoff from uphill of the Public Works site has eroded some of the areas between the fence and the parking areas and driveways.

Localized flooding of the drainage is found during heavy storms and in the parking area near the boiler room of the facility where runoff ponds outside the building and then enters the building due to slow or poor drainage.

Recommendations:

The stormwater system around the building is minimal in size and most likely is sized for less than a 10 year storm.

There appear to be no water quality type inlets or runoff storage within the site. The maintenance of equipment and storage of materials such as salts or soil/gravel necessitate the implementation of a stormwater management system that removes solids from the stormwater and has the ability to attenuate, or flatten out, the impact of large storms on the stormwater systems downstream at the intersection of Paper Mill Road and Hawthorne Lane, and along Fraser Drive.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Pedestrian Circulation: The site needs to be accessible by the employees and clear lines and paths of travel should be included in the planning and design to accommodate movements to and from parking areas and the other buildings on the campus.

Vehicular Parking and Circulation: The proposed site needs to provide areas for parking that do not block other equipment or materials and allow for adequate turning of trucks and trailers along with access for materials or equipment storage. Well defined driveways and entrances/exits are necessary.

Grading and Drainage: The proposed site needs to significantly use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets will improve the runoff and flooding on this site as well as downstream.

OPEN SPACE EAST OF PUBLIC WORKS SITE

Description of Site:

Original Construction: The existing site was previously a residence and a day care. It was purchased by the Township in 2001. There are no existing buildings on the site.

DRIVEWAYS AND PARKING AREAS:

The site has a small parking lot that remains from its previous use as a residence and day care for approximately 8 vehicles. The entrance is located near the west edge of the property and within 50 feet of the entrance to the Public Works site to the west.

Condition:

The existing bituminous pavements are in poor and failed condition.

Recommendations:

The existing bituminous pavements are only usable as a stabilized surface.

PEDESTRIAN PATHS:

The existing site is accessed by the sidewalk on Hawthorne Lane. For its present or future use, the sidewalk on Hawthorne Lane is adequate for employee and pedestrian traffic.

GRADING AND DRAINAGE:

The existing site is sloped consistently from the east to the west and southwest toward the middle and rear of the Public Works site to the west. The grades on the site channel flow from properties up hill of the site toward a large tree near fence of the property adjacent to the Public Works site.

The slopes on the property range from 0% to 1% in the vicinity of the former residence and parking area to over 5% in the southern half of the property.

Condition:

The amount of runoff from uphill of the property and onto the Public Works site has formed channels and eroded the ground in some areas, particularly under the fence.

Recommendations:

A significant amount of off site runoff onto this property in addition to the runoff of this property contributes to the drainage issues at the Public Works site.

Grading and construction of bio-swales or stormwater management ponds on the east side of the property to capture and divert uphill runoff and the west

side of the property near the fence line to capture and divert the open space property toward the Hawthorne Lane drainage would slow down the runoff and meter out the peak flows off the site, greatly improving the existing drainage downstream and downhill of the property.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Vehicular Parking and Circulation: As this site is incorporated into the remainder of the campus and development is proposed, the site planning needs to utilize the existing topography and provide buildings and driveways or parking areas that provide an efficient use of the land.

Grading and Drainage: Similar to the Public Works site, the proposed site needs to significantly use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets will improve the runoff and potential flooding on this site as well as downstream.

ADMINISTRATION BUILDING:**Description of Existing Site:****ORIGINAL CONSTRUCTION:**

The existing administration building is a one-story structure constructed around 1955 with an addition constructed in 1972. The Administration Building site sits in elevation approximately 8 feet below the elevation of the Public Works site and approximately 6 feet above the elevation of Paper Mill Road to the West.

The ramp between the Administration Building and the Public Works Building is not ADA compliant. The ADA path between the Administration Building and the Public Works Building requires walking within the parking lot of the Administration Building to the Hawthorne Lane sidewalk.

Detectable Warning Strips (DWS) should be installed on the sidewalk where the entrance and exit driveways cross the sidewalk to alert handicapped pedestrians of the driveway opening. These should be installed on Paper Mill Road at the Police entrance and on Hawthorne Lane for the parking lot entrance/exit.

The ramps and ramp handrails into and out of the Administration Building do not appear to be ADA compliant. The main entrance ramp and the police entrance ramp slope and handrail height need to be verified to identify if modifications to the ramps are needed.

DRIVEWAYS AND PARKING AREAS:

The existing building parking lot is accessed from a 24 foot wide Emergency Vehicle Only driveway off Paper Mill Road south of Hawthorne Lane for police vehicles. The main public access to the Administration Building is off Hawthorne Lane and through a 24 foot wide entrance to the parking lot to the east of the building.

The parking lot to the east of the building has public parking for approximately 32 vehicles with two additional handicapped accessible spaces. The parking to the south of the building has space for approximately 20 vehicles that include public or employee vehicles and police or emergency vehicles. It has been noted that more parking for police and Township vehicles is needed.

The site is surrounded on the south side by a wooden fence that is missing in some sections.

The driveways and parking lot around the building support parking for the public, employee, and Township vehicles. Adjacent to the parking lot is a sidewalk that connects pedestrians to the parking lot.

Condition: The existing bituminous pavements are good condition.

Circulation around the building is adequate and the drive aisle within the parking lot accommodates two way traffic.

Recommendations: The driveways and parking lot for the Administration Building function efficiently. More space is needed for Police and Township vehicles.

PEDESTRIAN PATHS:

The existing site is accessed by the sidewalk on Hawthorne Lane or Paper Mill Road through the parking lot.

Access between the Administration Building and the Public Works Building is by a steep ramp that connects the west side of the driveway of the Public Works site to the east side of the parking lot for the Administration Building. There is a minimal need for the public to access the Public Works Building, however, Township employees may need to cross between the Public Works Building and the Administration Building.

Recommendations: A dedicated sidewalk connection that does not cross through parking lots is needed. This would require connecting the existing sidewalk along the east side of the Administration Building to the Hawthorne Lane sidewalk.

If there are a significant amount of employees that use the steep sloped ramp on a daily basis to move between the Administration and Public Works buildings, a striped crosswalk from the Administration Building entrance to the ramp is needed to visually identify this for pedestrians and vehicles. One parking space on the east side of the Administration Building parking lot may need to be restriped for no parking to permit pedestrians to access the ramp so it is not blocked by parked vehicles.

GRADING AND DRAINAGE:

The existing site is drained toward inlets within the parking lot east and south of the building. Runoff to the north of the building drains across the grass areas and sidewalk to the inlets in Hawthorne Lane near the intersection with Paper Mill Road. Runoff to the west of the building drains across the grass areas and sidewalk to the inlets in Paper Mill Road.

The drainage from the west edge of the Public Works site flows down the slope and onto the parking lot.

The grades within the parking lot on the driveways are generally flat (between 1% and 2%) and drain toward the middle of the parking lot east and south of the building. The inlets extend around the building in the roadway or along the west edge of the roadway and drain into the Hawthorne Lane stormwater system. Drainage problems during heavy storms in the Hawthorne Lane stormwater system have been noted. Water flowing out of the inlets and manholes has been observed and is most likely due to the volume and velocity of the water traveling down Hawthorne Lane as it connects into the Paper Mill Road drainage system.

The slope from the Public Works building to the parking lot of the Township Administration Building to the West is between 5% and 10% with a small retaining wall around the storage barn to the south.

No water quality or stormwater storage facilities are located within the Township Administration Building site.

Condition: No erosion was noted on the site.

Recommendations: The stormwater system around the building is minimal in size and most likely is sized for less than a 10 year storm.

There appear to be no water quality type inlets or runoff storage within the site.

The maintenance of equipment and storage of materials such as salts or soil/gravel necessitate the implementation of a stormwater management system that removes solids from the stormwater and has the ability to attenuate, or flatten out, the impact of large storms on the stormwater systems downstream at the intersection of Paper Mill Road and Hawthorne Lane, and along Fraser Drive.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Pedestrian Circulation: The site needs to be accessible by the public and Township employees. Sidewalks should connect from Hawthorne Lane to the main Administration Building entrance on the east side of the building. Clear paths of travel should be included in the planning and design to accommodate movements to and from parking areas and the other buildings on the campus.

Vehicular Parking and Circulation: The proposed site needs to provide areas for public parking, police vehicles, and Township vehicles.

Grading and Drainage: The proposed site needs to use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets will improve the runoff and potential flooding on this site as well as downstream.

OPEN SPACE SOUTH OF ADMINISTRATION BUILDING SITE**Description of Site:****ORIGINAL CONSTRUCTION:**

The existing site was previously a residence.

DRIVEWAYS AND PARKING AREAS:

The site does not contain any buildings or other features. A curb cut exists to the south of the Administration Building Curb Cut off Paper Mill Road.

Condition: NA.

Recommendations: If the site is not going to be used in the future, the curb cut and driveway apron between the sidewalk and Paper Mill Road should be removed and a standard curb installed.

PEDESTRIAN PATHS:

The existing site is accessed by the sidewalk on Paper Mill Road. For its present or future use, the sidewalk on Paper Mill Road is adequate for pedestrian traffic.

GRADING AND DRAINAGE:

The existing site is sloped consistently from the east to the west toward Paper Mill Road. Along the north side of the property, a small drainage swale channels flow from properties up hill of the site toward the curb and into a curb inlet in Paper Mill Road.

The slopes on the property range from 0% to 1% in the vicinity of the former residence and parking area to 3% to 5% along the western edge of the property.

Condition: The amount of runoff from uphill of the property and into Paper Mill Road has formed a channel along the north edge of the property and eroded the ground in some areas.

Recommendations: A significant amount of off site runoff onto this property in addition to the runoff of this property contributes to the drainage issues along Paper Mill Road and west onto Fraser Road.

Grading and construction of bio-swales or stormwater management ponds on the property to capture and slow down the runoff and meter out the peak flows off the site would significantly improve the existing drainage downstream and downhill of the property.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Grading and Drainage: Similar to the Public Works site, the proposed site needs to significantly use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets will improve the runoff and potential flooding downstream of this site.

LIBRARY BUILDING:**Description of Existing Structure:****ORIGINAL CONSTRUCTION:**

The existing library building is a one-story structure constructed around 1966 and is cruciform shape in plan. The Library site sits in elevation approximately 4 feet below the elevation of the Ambulance Building site and approximately 6 feet to 8 feet above the elevation of Paper Mill Road to the West.

DRIVEWAYS AND PARKING AREAS:

The existing Library parking lot is accessed from a 24 foot wide driveway off Hawthorne Lane to the parking lot to the east of the building. The entrance also has a southern turn that leads into a turn-around area in front of the main entrance.

The parking lot to the east of the building has public parking for approximately 35 vehicles with two additional handicapped accessible spaces.

The driveways and parking lot to the east of the building support parking for the public and employee vehicles.

The parking lot for the LaSalle athletic fields is accessed through the Library parking lot driveway.

Condition:

The existing bituminous pavements are good condition.

Circulation within the parking lot is adequate and the drive aisle within the parking lot accommodates two way traffic.

Recommendations:

The driveways and parking lot for the Library function efficiently.

PEDESTRIAN PATHS:

The existing building main entrance is accessed by the sidewalk off Hawthorne Lane. Additional sidewalks are located along the west side of the parking lot adjacent to the building.

Adjacent to the parking lot is a sidewalk that connects pedestrians to the parking lot of the Ambulance Building

The existing sidewalk along Paper Mill Road ends at the north end of the Library site. For its present or future use, the sidewalk on Paper Mill Road needs to be extended for pedestrian traffic.

Access between the Administration Building and the Library is by crossing Hawthorne Lane. There is minimal existing need for public or employee pedestrian traffic between the Administration Building and the Library, however, if warranted a striped crosswalk across Hawthorne Lane to connect pedestrians between the buildings should be provided to visually identify this for pedestrians and vehicles on Hawthorne Lane. A Yield Delineator may be needed to be placed in Hawthorne Lane.

Recommendations: None. Pedestrian connections are adequate.

GRADING AND DRAINAGE:

The existing site is drained toward inlets within the parking lot along the west edge of the parking lot. Runoff to the north and west of the building drains across the grass areas and sidewalk to the inlets in Paper Mill Road. Runoff to the south of the building drains across the grass areas and sidewalk to the inlets in Hawthorne Lane near the intersection of Paper Mill Road. Drainage problems during heavy storms at this location have been noted. Water flowing out of the inlets and manholes has been observed and is most likely due to the volume and velocity of the water traveling down Hawthorne Lane as it connects into the Paper Mill Road drainage system.

The grades within the parking lot on the driveways are generally flat (between 1% and 2%) and drain toward the west side of the parking lot and then toward Hawthorne Lane. The inlets extend around the building in the roadway or along the west edge of the roadway and drain into the Hawthorne Lane stormwater system.

No water quality or stormwater storage facilities are located within the Library site.

Condition: No erosion was noted on the site.

It was noted that the garden area near the southeast corner of the building has flooded.

Recommendations: The stormwater system around the building is minimal in size and most likely is sized for less than a 10 year storm.

There appear to be no water quality type inlets or runoff storage within the site. The maintenance of equipment and storage of materials such as salts or soil/gravel necessitate the implementation of a stormwater management system that removes solids from the stormwater and has the ability to attenuate, or flatten out, the impact of large storms on the stormwater systems downstream at the intersection of Paper Mill Road and Hawthorne Lane, and along Fraser Drive.

Rerouting of surface flows and any roof drainage in the area of the garden should be performed. Additionally, a small yard inlet should be installed and drained out to Hawthorne Lane.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Pedestrian Circulation: This is the most used public building on the campus and needs maintain its accessibility. Sidewalks should connect from Hawthorne Lane to the Library entrance and clear paths of travel should be included in the planning and design to accommodate movements to and from parking areas and the other buildings on the campus.

Vehicular Parking and Circulation: The proposed site needs to provide adequate public and employee parking.

Grading and Drainage: The proposed site needs to use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets will improve the runoff and potential flooding on this site as well as downstream.

AMBULANCE BUILDING:**Description of Existing Structure:****ORIGINAL CONSTRUCTION:**

The existing ambulance library is a one-story structure constructed in the late 1970s. The Ambulance Building site sits in elevation approximately 4 feet above the Library site to the West.

The site is separated in to two parts: the Ambulance Building site and parking and an employee parking lot for Township employees.

DRIVEWAYS AND PARKING AREAS:

The existing Ambulance Building is accessed by a single lane driveway off Hawthorne Lane along the east property line of the site. The driveway extends back to the public and employee parking lot for the building which accommodates seven parking spaces and one handicapped parking space. The driveway branches off to the west to access the apron area for the three ambulance bays. The Ambulance Building site is a flag lot with the township parking lot in the front on Hawthorne Lane.

The employee parking lot is to the east of the building has parking for approximately 20 vehicles. This parking lot has a single lane entrance off Hawthorne Lane. This parking lot is separated from the Ambulance Building driveway and site by curbs and landscape buffers.

Condition: The existing bituminous pavements are good condition.

Circulation within the Ambulance Building parking lot is adequate and the drive aisle within the parking lot accommodates two way traffic. The circulation within the employee parking lot is poor and tight.

Recommendations: The employee parking lot should have a shared entrance/exit with the ambulance driveway and reconfiguration of the entrances/exits could provide more efficient use of the site.

PEDESTRIAN PATHS:

The existing building main entrance is accessed from the parking lot to the east of the building.

Adjacent to the ambulance bays and the employee parking lot is a sidewalk that connects pedestrians to the Library parking lot.

Access between the employee parking lot and the Public Works or Administration Building is by crossing Hawthorne Lane. A striped crosswalk across Hawthorne Lane to connect pedestrians between the parking lot and the buildings should be provided to visually identify this for pedestrians and vehicles on Hawthorne Lane. A Yield Delineator may be needed to be placed in Hawthorne Lane.

Recommendations: None. Pedestrian connections are adequate.

GRADING AND DRAINAGE:

The existing site is drained toward inlets within the parking lot along the west

edge of the parking lot. Runoff to the north and west of the building drains across the grass areas and sidewalk to the inlets in the Library parking lot. Runoff from the employee parking lot drains to the south and into the inlets in Hawthorne Lane. Drainage problems during heavy storms at the intersection of Hawthorne Lane and Paper Mill Road have been noted. Water flowing out of the inlets and manholes has been observed and is most likely due to the volume and velocity of the water traveling down Hawthorne Lane as it connects into the Paper Mill Road drainage system.

The grades within the parking lot on the driveways are generally flat (between 1% and 2%) and drain toward the south and west side of the parking lot and then toward Hawthorne Lane.

An underground storage system is noted on plans for the Ambulance Building, but the size and function is not known.

Condition: No erosion was noted on the site.

Recommendations: The stormwater system around the building is unknown.

While an underground storage system is noted on plans, no other water quality type inlets are noted on the site. The use of bio-swales or other storage features will reduce the impact of large storms on the stormwater systems downstream at the intersection of Paper Mill Road and Hawthorne Lane, and along Fraser Drive.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Pedestrian Circulation: This is the least used public building on the campus and needs minimal pedestrian access that would include a dedicated sidewalks to connect from the building to Hawthorne Lane.

Vehicular Parking and Circulation: The reconfiguration of the entrances/exits could provide more efficient use of the site for the Township.

Grading and Drainage: The proposed site needs to use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets on the parking lot portion of the site will improve the runoff and potential flooding on this site as well as downstream.

OPEN SPACE NORTH OF LIBRARY SITE**Description of Site:****ORIGINAL CONSTRUCTION:**

The existing site has been undeveloped and consists of sloped land.

DRIVEWAYS AND PARKING AREAS:

The site does not contain any buildings or other features and abuts Paper Mill Road from the Library north to the Route 309 right of way. To the east of the site is the recent LaSalle College athletic field and parking lot development.

Condition: NA.

Recommendations: NA

PEDESTRIAN PATHS:

The existing site is accessed by the parking lot for the athletic fields or the sidewalk on Paper Mill Road that ends at this property. For its present or future use, the sidewalk on Paper Mill Road needs to be extended for pedestrian traffic.

GRADING AND DRAINAGE:

The existing site is sloped consistently from the east to the west toward Paper Mill Road and also to the south toward the Library.

The slopes on the property range from 0% to 5% with some localized steep areas.

Condition: NA.

Recommendations: This property could be used to reduce the runoff from the LaSalle or uphill site through the use of bio-swales or stormwater management ponds to capture and slow down the runoff and meter out the peak flows off the site. This would reduce ponding on Paper Mill Road and potentially reduce any downstream and downhill flooding.

PLANNING AND FUTURE DEVELOPMENT CONSIDERATIONS:

The future site planning and design needs to incorporate the following:

Grading and Drainage: Similar to the other open space recommendations, the proposed site needs to significantly use the grades to reduce downhill/downstream flow and reduce the off-site runoff components from the stormwater drainage systems. The use of underground storage, bio-swales or ponds, and the use of water quality inlets will improve the runoff and potential flooding downstream of this site.

ADMINISTRATION BUILDING--ARCHITECTURAL

GENERAL DESCRIPTION

Original building was constructed in 1955 as a one story brick masonry structure. The building has served as the administrative and police center for the Township from that time forward. Two major changes have occurred since the construction as part of a 1972 renovation. First, the layout of the building was reversed from the Paper Mill Road front entrance to having the main entrance from the parking lot on the south side of the building. A substantial addition, including a partial basement area was also added in 1972 to increase the Police area of the building.

The Administration Building houses the following functions:

- Administration (Township Manager, Assistant Township Manager and Administrative Assistant and Finance Department)
- Code Enforcement (Code Enforcement Officer, Fire Marshal)
- Parks and Recreation Director
- Meeting Space (Commissioners Meeting Room and smaller Caucus Room)
- Police Department (Administration—Chief, Lieutenant, Supervisors, Detectives)
- Police Processing, Arraignment, and Holding
- Police Locker area and Training space
- Archive Storage for Police and Township Administrative Records

ROOF AND FLASHING

The Administration Building is a low slope to flat roof structure. The roof system is an EPDM single ply membrane ballasted system installed in 1984. The flashings were updated and revitalized in 1998. The Township does have a maintenance contract for roof maintenance, but leaks have been observed in multiple locations. The roof is approaching the end of its service life. The flashings and edges have been rehabilitated once. The roof does not meet the current code requirements for secondary roof drainage. Two mechanical units area also located on the roof, set on curbs—a package unit for the Police area and a smaller split system for Township Administration area.

EXTERIOR WALLS

The exterior material of the Administration Building is a red brick, with limestone lintels at some openings. It is in generally good condition, with no major distress areas. See structural report for recommendations regarding some corrosion of lintels at window and door openings.

WINDOWS

The exterior windows in the Administrative and the Police areas were replaced with thermally broken anodized bronze aluminum frames and double panel one inch insulating glazing within the last ten years.

EXTERIOR DOORS

The exterior doors at the public entrance to the Administration Building and the Police entry from the parking lot are anodized aluminum to match the windows. Basement door is a storefront type aluminum door that was not part of the window replacement program. Exit doors behind Code Enforcement and from the Large Meeting Room are hollow metal type doors and frames

INTERIOR SPACES—General

The finishes in the Administrative area of the Township Building are similar in all spaces—2 x 4 suspended acoustical tile ceilings, painted plaster on concrete masonry unit walls, carpeted floors. All are maintained well. The Assistant Manager's space is located in what was the original front entrance—which has a brick wall matching the building exterior. Otherwise see variations in the Administrative area.

The finishes on the Police side of the Administration Building are similar to the Administrative area. In the older section of the building, walls are painted plaster on concrete masonry units. In the newer addition, a combination of exposed brick that had been the exterior and gypsum board on metal stud partitions are found. Ceiling is 2 x 2 tegular tile suspended acoustical ceiling in the newer section, with 2 x 4 suspended acoustical tile in the older section. Floor finishes are generally vinyl tile. If area is to be re-used, the statistical sample should be tested to confirm lack of asbestos containing material

INTERIOR SPACES—ADMINISTRATION PUBLIC ENTRY

Public enters the Administration Building by using a ramp from the parking lot to the lobby level. The Lobby is a corridor that has been converted to a space for a receptionist and a few chairs for waiting. It is separated from the Police area by a controlled door. It is separated from the Administration area by an aluminum sliding door, glazed with wire glass. All administration functions are beyond this sliding glass door from the Lobby. Lobby finishes are painted gypsum walls, a 2 by 2 tegular suspended acoustical tile ceiling with lighting in the grid. Floor is commercial carpet. All are in reasonable condition

INTERIOR SPACES—ADMINISTRATIVE PUBLIC TOILETS

Located just inside the sliding glass door. Non-compliance with current accessibility standards includes inadequate door width and adjacent space along side the doors, insufficient internal circulation space, non-accessible fixtures. Finishes are tile floor and wainscot, painted gypsum plaster walls. Both toilet rooms have windows to the exterior. Number of fixtures is not compliant with current code when considering the meeting rooms.

INTERIOR SPACES—ADMINISTRATIVE OFFICES TOWNSHIP MANAGER, ADMINISTRATIVE ASSISTANT AND FINANCE DEPARTMENT

Suite of rooms at the end of the Administrative corridor—across from the Code Enforcement offices. The busiest destination in the Administrative section is directly across from offices that need more controlled or selective access. Minimal waiting area in the Manager's area, necessitating that the wait take place in the main lobby. Human Resources and other sensitive files are also held in this part of the building with minimal security

INTERIOR SPACES—ASSISTANT TOWNSHIP MANAGER, ENGINEER AND PARKS AND RECREATION

These rooms were configured to re-use the existing room spaces from the original building. Visitors to the Assistant Manager's space must pass through the area used by the engineer. Parks and Recreation is not configured to accommodate walk-ins or small meetings.

INTERIOR MEETING ROOM SPACES

Caucus Room has a capacity of 10 to 12. This is not large enough for many of the meetings involving the Board of Commissioners. The Meeting Room will seat 40-60 depending on arrangement of tables and chairs. Raised platform exists for Commissioners' seating, but no real consideration has been given to audio visual presentation or other current utilizations of the rooms. Caucus Room is the only conference room in the Administrative area of the building

POLICE INTERIOR SPACE—COUNTER

Counter and filing area for police civilian administrative staff. This counter is the arrival point for the Police Department for the general public entering the Police wing from the public lobby. All spaces surround tning counter and are accessed from the counter.

POLICE CHIEF'S OFFICE

Office is large enough for 8 person conference area and desk. Also serves as storage for police supplies. Adjacent closet serves as the armory (with numerous compliance issues).

OFFICES FOR LIEUTENANT, DETECTIVES AND SUPERVISORS

Shared office space currently the standard. No real space for file storage, or retention of evidence.

LOCKER ROOM

No accommodations for female officers. Also not ADA compliant. Finishes: Vinyl tile floor (some are loose from floor. Also should be tested to confirm non-asbestos type.

TRAINING ROOM

Located in basement with outside egress. One wall covered with low quality plywood paneling. Space is functional, but does not anticipate the various media and mechanisms that are now available for police training.

SQUAD ROOM/ BREAK ROOM

Small space that mixes shared need for patrol officers to have a place to complete report with a police lunch room or break room.

POLICE OPERATIONS SPACES

Operations spaces include Processing, Arraignment, Holding and similar areas used for incustody individuals. There is no separation from other officers or from an civilians (those working in the police department or those just visiting. This lack of separation is a major non-conformance with good police practice. The lack of a Sally Port to safely unload incustody persons to come into the police building.

ARCHIVES

Both Police and Administration currently store files and archives in portions of the Basement. Most of this storage involves "banker boxes" or file boxes piled several high, or in some cases, on shelving constructed of 2 x 4s and plywood. These rooms are generally filled, which results in the piling of combustibles in front of electrical panels and other similar non-compliances.

OPERATIONAL COMMENTS—POLICE AND ADMINISTRATION

The following items were noted that impair the functionality of the Police and Administration Areas of the main building:

- Insufficient lobby arrival and waiting space. Serves both Police and Administration
- Public Toilets are not ADA compliant and are undersized for full space utilization
- No control of public in the Administrative section unless escorted. Its as easy to get into the Township Manager's Office as it is Code Enforcement.
- Code enforcement is undersized for the records retained there

- Insufficient conference room space for multiple meetings.
- Police wing does not have the necessary separation for incustody movement within the building. Also required capability to separate adult and juvenile, male or female or acrimonious parties is non-existent. Lack of a Sally Port or controlled transition from vehicle to building is a similar operational deficiency.
- Police lack of secured storage for weapons, ammunition and police stores
- Office space that is not efficiently suited for the number of work stations or people using it.
- Lack of proper storage for Township Records (police and administration) to comply with Pennsylvania Records Retention requirements

ADMINISTRATION BUILDING STRUCTURAL SYSTEMS:

Description of Existing Structure:

ORIGINAL CONSTRUCTION:

The existing administration building is a one-story structure constructed around 1955. The main floor level at the northeast end of the building matches the exterior grade; however, the site slopes such that at the southeast end of the building the grade is about 5 feet below the main floor level. The exterior of the structure is to be constructed of brick masonry walls with limestone accent trim.

ADDITION:

An addition was constructed on the southwest side of the original building around 1972. The addition included a partial basement, including an exterior stair on the south corner. A steel railing is provided at the top perimeter of the areaway; however, the existing railing height does not meet current code requirements. It is our recommendation that height of the existing railing be addressed immediately to provide adequate fall protection.

FOUNDATION:

The foundations of both the original building and the addition are shallow spread footing foundations. The existing foundation likely is adequate to support existing gravity loads.

Condition: The existing foundation walls and masonry walls did not appear to have experienced significant visible distress or settlement.

The existing foundation walls of the stairway from the basement of the addition are suffering from deterioration of the masonry parging placed over the concrete walls. The concrete wall did not appear to be in distress.

Recommendations: Remove loose and delaminated parging from the areaway walls and consider recoating with an elastomeric coating or sealing the plain concrete walls.

FLOOR FRAMING:

The main floor of the original building is a concrete slab on grade. The floor of the partial basement is also slab on grade. The main floor framing of the addition is precast hollow core slabs supported by masonry bearing walls.

Condition: The existing concrete slab on grade appears to have experienced no significant visible settlement.

Recommendations: None.

ROOF FRAMING:

The roof framing of the original building consists of precast concrete roof planks supported by 8 inch deep steel wide flange beams. The steel roof beams are supported steel wide flange girders that are supported by steel wide flange columns. The clear height to the bottom of the roof plank is approximately 13'-0". The steel framing appears to be constructed level. The roof framing of the addition is precast hollow core slabs supported by masonry bearing walls.

Roof drainage is accommodated by several internal roof drains although scuppers are provided at the perimeter to accommodate overflow. Several HVAC units were supported from the roof framing.

Condition: The existing steel roof structure appears adequate to support existing gravity loads. No significant deflections or distress were observed.

Recommendations: At this time there are no required structural repairs to the main roof framing, however, the capacity of the roof framing should be verified. Further, since the roof does not appear to have adequate slope, the framing should be checked to verify that rain water ponding loads are not a concern.

LATERAL LOAD SYSTEM:

The lateral load resisting system consists of the unreinforced masonry walls. The roof framing acts as a diaphragm to distribute the lateral loads to the exterior masonry walls. The anchorage of the walls to the steel framing was not visible, although the exterior columns appear to be built into the masonry.

Condition: Based on the past performance of the structure and the lack of any visible distress, the existing lateral load system will likely continue to be adequate in the future. It is unlikely that the existing facility would meet the current building code requirements for lateral load resisting systems, particularly the seismic requirements. Upgrades to the lateral load resisting system are not required unless the lateral loads on the existing structure are increased by an addition or by a change of use of the building.

Recommendations: Considering the essential use of the facility, future reuse of the existing garage should consider upgrading the lateral load system to meet current code requirements.

EXTERIOR MASONRY:

The structure is constructed of a composite brick and concrete masonry unit wall. The wall is primarily 8 inches thick with a stretcher-header course every sixth course to provide the composite strength. The masonry openings for doors and windows use steel angle lintels. The parapet does have a metal cap which appears to be in good condition.

The wall functions as a barrier wall, utilizing its thickness to resist water infiltration. It does not include a cavity for drainage or insulation for thermal performance.

Condition: The existing masonry did not appear to be suffering significant deterioration or distress considering its age. The mortar joints are sound and show signs of weathering.

The steel-angle lintels exhibited corrosion distress and the associated rust jacking of the masonry was observed, particularly on the southeast elevation facing the parking lot and at the addition. The existing masonry did not appear to have any expansion or control joints to accommodate thermal movement and moisture expansion of the masonry, which is not unusual for a building of this age. However, significant distress as a result of the lack of expansion joints in the masonry was not observed. Some moisture distress to the existing interior finishes was observed at the existing window sills indicating that moisture penetration or condensation is an issue to be addressed

Recommendations: Considering the age of the facility, the mortar joints minor require maintenance pointing and minor repairs. Repairs are also required at all openings to address corrosion of the angle lintels and associated masonry distress from rust jacking. Several course of brick masonry will need to be removed, the steel lintel replaced or cleaned and painted, and a flashing and weep holes installed before the brick masonry is replaced. Consideration should also be given to improving the thermal and moisture vapor performance of the exterior walls. Additional study and investigation is required to identify the cause of the moisture distress observed at the existing window sills.

ADMINISTRATION BUILDING MECHANICAL SYSTEMS:

Description of Existing Building:

The existing administration building is a one-story structure constructed around 1955. An addition was constructed on the southwest side of the original building around 1972. The total floor area is approximately 6000 Square Feet.

POSSIBLE BUILDING RENOVATIONS:

The preliminary program recommended expanding this building to approximately 15,000 Square Feet.

HEATING SYSTEM:

The building is generally heated by two gas fired cast iron hot water boilers installed in 1993. The boilers are Weil McLain units and the nameplate appeared to give a heating capacity of 427 MBH each, as best as could be read. It is likely that by using both boilers together, the preliminary future program could be accommodated. The boiler flues connect to a masonry chimney. Combustion air is provided via two permanently open approximately 1' x 3' louvers located in the exterior doors. The louvers are not located within

12" of the ceiling and floor as required by current codes. The louver sizes appear to be undersized based upon current codes as related to the boiler capacities. Each boiler has a circulator which functions as a primary pump in the primary/secondary pumping configuration.

Heating hot water is circulated throughout the building via fiberglass insulated copper pipe via one in-line constant volume centrifugal secondary pump. There is no backup secondary hot water pump.

No chemical shot feeder or other means of introducing water treatment chemicals into the piping system was noted.

Heating is provided by perimeter baseboard finned tube radiation in most exterior spaces. A hydronic convector serves the Meeting Room.

The Township Administration portion of the building has four (4) heating control zones. One zone is the central heating coil in the air handling unit serving that portion of the building, tempering the air supply to the building in winter. The other three are space temperature control zones. These zones consist of duct mounted hot water heating coils.

The Police portion of the building has four (4) heating space temperature control zones. These zones consist of duct mounted hot water heating coils.

Condition: The existing boiler appeared to be in poor condition, with the top dented, etc. The hot water piping, finned tube radiation and pumps appeared to be in serviceable condition. The pipe insulation in torn or otherwise damaged in some locations in the boiler room.

Recommendations: The boilers appear(deleted) to be approaching the end of their expected useful lifespan. They should be replaced with (deleted) new high efficiency boilers appropriately sized for the final building area and usage as determined during the upcoming programming efforts. The boiler room may need to be relocated based upon any additions to the building, to maintain the PA L&I requirement for two exits from the boiler room, one of which must be directly to exterior. At that time, the combustion air provisions should also be brought up to code. Motorized dampers should be provided to only open the louvers when the boilers are firing, reducing energy loss through the open louvers. The damaged pipe insulation should be repaired.

A second secondary hot water circulating pump should be added to allow system operation upon failure of the first pump. A variable speed pumping regime should be instituted to achieve energy savings by varying the pump horsepower with the heating load.

Provisions should be made for a chemical shot feeder to allow chemical treatment of the piping system.

AIR CONDITIONING:

The Township Administration portion of the building is served by a Trane single zone, constant volume, split system A/C located in the boiler room. The unit was installed in 1990. Air is returned to the unit via an under-floor duct connected to low wall returns in the rooms served. The sensor controlling the air conditioning capacity is located in the return duct. The unit is served by an associated air cooled condensing unit on the roof.

Inadequate cooling for the copy equipment area was reported. This area is served only by approximately 1/8th of a supply diffuser, due to an intervening partition which falls over the face of the diffuser.

The Police Administration portion of the building is served by a single zone, constant volume, cooling only rooftop A/C unit located on the roof above. The unit was installed in 2011.

Inadequate cooling for the server room area was reported. This area was formerly a juvenile holding cell, whose air conditioning capacity was not intended for the heat gain from modern data equipment.

Condition: The Township Administration air handling unit appeared to be in poor condition and is approaching the end of its useful life. Its ventilation air capacity is also suspect (see below).

The Police Administration rooftop unit appeared to be in good condition.

Recommendations: The Township Administration air handling unit should be replaced with a roof mounted variable air volume system. VAV boxes should be provided to allow zone control of the various spaces with different exposures and occupancies based upon in-room temperature sensors, as opposed to controlling the cooling solely via one return air sensor. This should also solve the reported complaints of poor temperature control in the Engineer/Assistant Manager's office.

Consideration may be warranted to converting Police Administration rooftop unit into a variable volume system by adding variable frequency drives to the fan motors. This would require control changes and possibly a motor replacement. This could be arranged as a single zone system, or VAV boxes provided to allow zone control of the various spaces with different exposures and occupancies. This modification would result in fan energy savings and improved humidity control. This should also solve the reported complaints of poor temperature control in the lunchroom.

A central heating coil should be added to temper the winter supply air, rather than potentially circulating too cold air upstream of the zone heating coils.

The A/C systems should be reconfigured to provide adequate cooling for the copy area and police server room.

VENTILATION:

The Administration area air handling unit is supplied with outdoor ventilation air via a louver in the mechanical room wall. The connecting duct had written on it "6.25% OA Max". This quantity of outdoor air seems to be well below what would be required for a building of this type under current codes.

The Police area rooftop air handling unit is supplied with outdoor ventilation air via an intake integral with this unit. The quantity of ventilation air could not be determined. However, due to this system only being about one year old, it is presumed adequate ventilation is provided.

The locker area is not provided with an exhaust system as would be required under current codes.

Condition: The ventilation air provided to the Administration area appears to be inadequate.

Recommendations: An exhaust system, with adequate provisions for make-up air, should be provided for the locker room.

The ventilation airflow to the Administration area should be provided for as part of the replacement of that system..

CONTROLS:

Electric thermostats and other control devices are present. There is no central building management system.

Condition: The controls seem adequate for the limited functionality intended.

Recommendations: Considering upgrading to a direct digital control system for improved energy savings and off site monitoring and control. CO2 control for the meeting room should be considered, to potentially save energy by reducing the ventilation airflows rates during lightly occupied periods.

DOMESTIC COLD WATER:

The building is served by a 2" domestic water service with backflow preventor. Water is distributed throughout the building via fiberglass insulated copper piping.

Condition: The piping appears to be in serviceable condition.

Recommendations: None.

DOMESTIC HOT WATER:

The building is supplied with hot water from one electric domestic water heater. A 30 gallon storage capacity, 4.5 kW Bradford White MI Series unit is located in the boiler room.

Domestic hot water is distributed via fiberglass insulated copper piping. No hot water return pumps were provided. However, it appeared that the length of run from the water heater to fixtures was within the maximum length allowed by code before a return pump is required.

Condition: The domestic water heaters and piping appeared to be in good or serviceable condition.

Recommendations: None.

NATURAL GAS:

The building is served by a 2" low pressure (4-14" water column) utility natural gas service with meter located outside of the boiler room near the emergency generator of early 1990's vintage. Gas is distributed via iron pipe.

Condition: The natural gas piping appeared to be in serviceable condition.

Recommendations: None.

SANITARY AND STORM DRAINAGE:

The roof is drained by roof drains and cast iron piping. Scuppers and downspouts provide for secondary roof drainage.

The building floor drains and fixtures are connected to cast iron piping. A sump pump in the basement serves the foundation drains as well as the area drain in the basement egress stairwell.

Condition: The piping and sump pump, as far as could be observed, appeared to be in serviceable condition.

Recommendations: None.

PLUMBING FIXTURES:

ADA compliant fixtures are provided.

The Administration area bathrooms contain one wall mounted sensor operated urinal, three floor mounted tank type water closets, wall mounted lavatories, a trap standard slop sink and a corridor wall mounted bi-level water cooler.

The first floor police unisex toilet room contains one floor mounted water closet and wall hung lavatory. The basement police toilet room contains one water closet, one lavatory and a shower.

There is no sink in the lunchroom.

Condition: The fixtures appeared to be in serviceable condition.

Recommendations: Once the final program is determined, an analysis of the fixtures counts against the code required quantities will need to be made. The bathrooms should be renovated as required for ADA conformance and fixture quantities. Wall mounted flush valve water closets should be provided. A sink should be provided for the lunchroom.

FIRE PROTECTION:

The structure is not provided with a fire protection sprinkler system.

Recommendations: None.

ADMINISTRATION BUILDING ELECTRICAL SYSTEMS:**ELECTRICAL SERVICE:**

The facility was constructed around 1955 with an addition constructed around 1972. The original building service was terminated in the main mechanical electrical room located next to the present receptionist area. This service point has been back-fed from the newer service added with the building addition in 1972. The 1972 service is extended underground from a pole line on PaperMill Road and terminates in a 400A, 208/120 volt panelboard located in the basement of the addition. The service panelboard has more than six breakers feeding various panels throughout the facility with no main service disconnect device.

Condition: The service equipment is 40 years old and in fair condition.

Recommendations: Since the service equipment is very old, and the lack of a main service disconnect is a code violation, it is recommended that the service entrance equipment be replaced with a new service panelboard incorporating a main service disconnect and capacity to accommodate future expansion plans. Although the service ampacity is sufficient for the present building configuration and use, consideration should be given to increasing the ampacity to accommodate anticipated future expansion of the facility.

ELECTRICAL DISTRIBUTION SYSTEM:

The existing electrical distribution system consists of panels mostly dating back to the original construction. Some of the panels utilize out-dated circuit interrupting devices. Most of the wiring is also anticipated to be original to the building.

Condition: The distribution system as previously stated is quite old and some equipment is no longer serviceable.

Recommendations: It is recommended to replace the panels and wiring. If the building is to be renovated and expanded, the electrical distribution system should be replaced and reconfigured at that time. The lack of a main service disconnect device should be addressed immediately.

EMERGENCY POWER SYSTEM:

The facility currently has a 70 KW natural gas fired emergency generator installed in the early 1990's and located outside of the building. This generator feeds egress lighting, fire alarm and AC for all but the Administration area. Additional battery packs are located inside near the exits.

Condition: The generator is in poor condition, and is undersized to feed all desired loads.

Recommendations: Replace the existing generator with a new generator sized to accommodate all current loads and anticipated future loads.

FIRE ALARM SYSTEM:

The existing fire alarm system is a mix of addressable and zone type systems. The original facility had a zoned system which was replaced with a fully addressable "Firelite" head end panel. The new head end panel picks up the zones from the original system through addressable zone modules. There is currently no annunciator panel in the main lobby where the fire department would respond.

Condition: The system is a mix of old and new.

Recommendations: Replace the old zone devices with addressable devices compatible with the existing head end panel.

SECURITY SYSTEM:

The existing security system includes CCTV throughout, including cameras in the other campus buildings.

Condition: Good

Recommendations: None

TELEPHONE/DATA:

The facility is fed from Verizon with fiber and copper. The Library and Public Works Building are fed from the Administration Building. Workstations are fed through an existing floor-duct system. The building utilizes a combination telephone/intercom system.

Condition: Good. The main MDF could be cleaned up and organized better.

Recommendations: Re-organize the MDF and provide proper cooling.

LIGHTING:

The facility currently utilizes T-12 fluorescent fixtures with some T-5 fixtures in selected areas. Some egress doors have single fixture outside with only one lamp.

Condition: Fixtures are old and inefficient.

Recommendations: Replace all fluorescent fixtures with fixtures utilizing energy efficient T-8 lamps and electronic ballasts. Consideration should be given to the application of LED fixtures where appropriate. Replace exterior egress fixtures with either two fixtures or one 2-lamp fixture.

LIBRARY BUILDING—ARCHITECTURAL

GENERAL DESCRIPTION

The Springfield Township Public Library was constructed and opened in 1966. Prior to the opening of this facility, the library had existed as a small public library in the Flourtown section of the Township—housed in a small building that had been an office for a coal yard. The Library is a cruciform configuration with the central area raised and the extensions with lower roof/ ceiling areas. The construction is brick masonry, similar to the Administration and Public Works Buildings.

The Library Building is separate from all other buildings on the municipal campus. While this building is one of the newer buildings on the municipal campus, it was also planned and design to focus on different functions than are now provided to the community by the public library. Among some of these differences:

- Heavy usage by Children and Young Adults for programs
- Reduced importance of books and the collection in the mission of the library
- Lack of adult reading/ lounging area

Roof and Flashing

The Library Building is a low slope to flat roof structure. The roof system is an EPDM single ply membrane ballasted system installed in 1985. The Township does have a maintenance contract for roof maintenance, but leaks have been observed in multiple locations. The roof is approaching the end of its service life. The flashings and edges have been repaired in an effort to eliminate the leaks. The roof does not meet the current code requirements for secondary roof drainage. The building is capped with a limestone type cap/ parapet feature that has been identified as the source of many of the past roof leaks. Two mechanical units were removed from the roof (except for two exhaust fans) and placed on the ground at the nominal southeast corner of the library building.

Exterior Walls

The exterior material of the Library Building is a red brick, with limestone lintels at some openings. It is in generally good condition, however there were spalled bricks noted on several of the building elevations—an indication that water has gotten behind the facing, freezes and pushes off the face of the brick. The structural comments include recommendations for the exterior brickwork.

Windows

The exterior windows in the Library Building are anodized aluminum set in limestone jambs, head and sill. Glazing appears to be single glazing of type found in construction of the mid 1960s time period.

Exterior Doors

The front entrance doors are anodized aluminum frames that match the windows in color. Both doors in the vestibule arrangement are automatic sliding doors—optimal for a high use opening. The presence of public service announcements on bulletin boards in this area is less than optimal.

Interior Spaces—Circulation Desk

Immediately upon entering the visitor is met by the circulation desk. To the right, the visitor goes past a small core. Much of the back-office work is done at the Circulation Desk.

Interior Spaces—Core

The core contains a small meeting room (building has just one) two small toilet rooms (not enough to do male and female) and similar spaces. A fixture was removed in the uni-sex toilet room to make it ADA compliant. Core also contains the Director's Office and a small break room that is also a staff work room.

Interior Spaces—General

The floor plan is an open plan except for the small core as noted. There is minimal separation of the spaces for program presentation. If a Children's Program is being given, most of the spaces in the Library will be aware that it is being given.

Finishes

The Library interior is painted concrete masonry units, with accent materials of gypsum plaster in key locations. The Main central ceiling is a 5 x 5 combination light and ventilation grid installed to create a coffered effect.

Operational Summary Comments

The Library receives the most intensive public use of the buildings on the municipal campus. While several were noted with the assessments above, the following are operational concerns raised during the assessment effort:

- The Library now focuses on programs for Children and Young Adults. There is only a small room for this. Larger programs are held in the open Library with the potential of disturbing all in the building
- Core—office space, storage, toilets—are too small for the level of activity
- Certain areas need separation of space—computer area is an example
- Certain multi-use spaces are insufficient—kitchen/ break room/ staff work room does not provide enough space for ongoing activities that could dominate the space rather than share it
- Leaks impact the interior use on a regular basis.

LIBRARY BUILDING STRUCTURAL SYSTEMS:

Description of Existing Structure:

Original Construction: The existing library building is a one-story structure constructed around 1966 and is cruciform shape in plan. The main floor level is typically matches the exterior grade except on the southeast elevation where grade is several feet higher. The exterior of the structure is to be constructed of brick masonry walls with limestone accent trim and recessed panels for full height windows.

FOUNDATION:

The foundations are shallow spread footing foundations. The existing foundation likely is adequate to support existing gravity loads.

Condition: The existing foundation walls and masonry walls did not appear to have experienced significant visible distress or settlement. Diagonal step cracks were observed in some of the interior masonry walls which may indicate some minor foundation settlement; however the cracks appear to have existed

for some time and do not indicate an active settlement issue.

Recommendations: None.

FLOOR FRAMING:

The main floor of the original building is a concrete slab on grade.

Condition: The existing concrete slab on grade appears to have experienced no significant visible settlement.

Recommendations: None.

ROOF FRAMING:

The roof framing consists of metal roof deck supported by steel joists constructed of cold formed metal. The steel roof joists are supported steel wide flange girders or masonry bearing walls. The steel roof framing appears to be constructed level. Roof drainage appears to be accommodated by several internal roof drains.

A reinforced concrete canopy cantilevered from two columns is located at the main entrance.

Condition: The existing steel roof structure appears adequate to support existing gravity loads. No significant deflections or distress were observed.

No significant visible distress was observed at the concrete canopy.

Recommendations: At this time there are no required structural repairs to the main roof framing, however, the capacity of the roof framing should be verified. Further, since the roof does not appear to have adequate slope, the framing should be checked to verify that rain water ponding loads are not a concern.

LATERAL LOAD SYSTEM:

The lateral load resisting system consists of the unreinforced exterior and interior masonry walls. The metal roof deck acts as a diaphragm to distribute the lateral loads to the exterior masonry walls.

Condition: Based on the past performance of the structure and the lack of any visible distress, the existing lateral load system will likely continue to be adequate in the future. It is unlikely that the existing facility would meet the current building code requirements for lateral load resisting systems, particularly the seismic requirements. Upgrades to the lateral load resisting system are not required unless the lateral loads on the existing structure are increased by an addition or by a change of use of the building.

Recommendations: None, unless building use changes require upgrades. Upgrades could likely be accomplished without significant disruption to the existing structure or masonry walls.

EXTERIOR MASONRY:

The structure is constructed of a brick and concrete masonry unit wall with limestone trim at the jambs and sills of the openings. The wall is 20 inches

thick except at the recessed panels. The masonry openings for doors and windows use steel angle lintels. The parapet is limestone with a limestone coping. The joints in the limestone parapet and coping are sealant joints. Limestone panels are also used in the recessed panels on the exterior above and below the expansive windows.

Condition: The existing masonry did not appear to be suffering significant deterioration or distress, however, localized areas near the top of the wall exhibited signs of moisture infiltration. Spalled brick, deteriorated mortar joints and efflorescence were observed. Localized areas of previous brick repairs were observed. In general, the mortar joints are sound but show signs of weathering. The sealant joints in the limestone panels have been maintained, but need maintenance repairs

No evidence of steel angle lintel corrosion and the associated rust jacking of the masonry was observed. The existing masonry did not appear to have any expansion or control joints to accommodate thermal movement and moisture expansion of the masonry, which is not unusual for a building of this age. However, significant distress as a result of the lack of expansion joints in the masonry was not observed. Some interior masonry wall exhibited isolated diagonal step cracks which could be a result of shrinkage the concrete masonry units wall or minor foundation settlement or both. Some moisture distress to the existing interior finishes was observed at the existing window sills indicating that moisture penetration or condensation is an issue to be addressed

Recommendations: Considering the age of the facility, the mortar joints minor require maintenance pointing and minor repairs. Similarly, sealant joint repair/replacement are required. Repairs are also required at the parapet and coping to mitigate the moisture infiltration into the masonry wall below. Partial disassembly of the parapet or coping may be required to introduce or replace a flashing. Further investigation is required to determine the specific repairs that are required. Additional study and investigation is required to identify the cause of the moisture distress observed at the existing window sills.

LIBRARY BUILDING MECHANICAL SYSTEMS:

Description of Existing Building:

The existing library building was constructed around 1966. The total floor area is approximately 9300 Square Feet.

Possible Building Renovations/Replacement:

The preliminary program recommended expanding this building to approximately 15,000 Square Feet or replacing it with a new building of that size.

HEATING SYSTEM:

The building is generally heated by two gas fired cast iron hot water boilers. The boilers are Weil McLain units and the nameplate appeared to give a heating capacity of 427 MBH each, as best as could be read. It is likely that by using both boilers together, the preliminary future program could be accommodated. Combustion air is provided via two permanently open louvers located in the

exterior wall, each approximately the size of four (4) bricks. The louvers are not located within 12" of the ceiling and floor as required by current codes. The louver sizes appear to be undersized based upon current codes as related to the boiler capacities. Each boiler has a circulator which functions as a primary pump in the primary/secondary pumping configuration.

Heating hot water is circulated throughout the building via fiberglass insulated steel pipe via one in-line constant volume centrifugal secondary pump. There is no backup secondary hot water pump.

The main building air handling unit has a hot water heating coil. The unit serving the children's area has an electric heating coil. A review of the original drawings indicates zone hot water coils in the ductwork.

No chemical shot feeder or other means of introducing water treatment chemicals into the piping system was noted.

Heating is provided by perimeter baseboard finned tube radiation in most exterior spaces. A hydronic convector serves the entry Vestibule.

Condition: The existing boiler appeared to be in serviceable condition, with some corrosion, etc. The hot water piping, finned tube radiation and pumps appeared to be in serviceable condition.

Recommendations: The combustion air provisions should be brought up to code. Motorized dampers should be provided to only open the louvers when the boilers are firing, reducing energy loss through the open louvers.

A second secondary hot water circulating pump should be added to allow system operation upon failure of the first pump. A variable speed pumping regime should be instituted to achieve energy savings by varying the pump horsepower with the heating load.

Provisions should be made for a chemical shot feeder to allow chemical treatment of the piping system.

AIR CONDITIONING:

The Main portion of the building is served by a 20-ton York series LB upright single zone, constant volume, split system A/C unit located in the mechanical room. The unit was installed in 2006. The unit is served by an associated York series HB air cooled condensing unit on exterior grade.

The Children's portion of the building is served by a 15-ton York series LB upright single zone, constant volume, split system A/C unit located in the mechanical room. The unit was installed in 2006. The unit is served by an associated York series HB air cooled condensing unit on exterior grade. This unit also serves the workroom. Per the original drawings, a modicum of zone control was provided by installing two reheat coils in the two main supply duct branches to each space and a motorized damper in the branch serving the workroom.

Air is supplied to the (deleted) spaces from a supply air ceiling plenum via perforated ceiling tiles. Air is returned to the A/C units via transfer grilles opening into the mechanical room.

Inadequate cooling for the PC server and repair area was reported.

Condition: The air handling units appeared to be in good condition.

Recommendations: The current supply air plenum concept should be replaced with a ducted system. This would result in even air distribution throughout the space, as opposed to the uncertain air distribution of the plenum supply. Also, energy savings would accrue due to the elimination of unwanted thermal decay of the supply air temperature in the plenum exposed to the roof above.

Consideration may be warranted to converting the units into (deleted) variable volume systems by adding variable frequency drives to the fan motors. This would require control changes and possibly a motor replacement. This could be arranged as a single zone system, or VAV boxes provided to allow zone control of the various spaces with different exposures and occupancies. This modification would result in fan energy savings and improved humidity control.

The A/C systems should be reconfigured to provide adequate cooling for the PC server and repair area.

VENTILATION:

The air handling units are supplied with outdoor ventilation air via an unducted louver in the mechanical room wall. The mechanical room acts as a mixing plenum where outdoor and return air mix prior to entering the air handlers. This arrangement is in violation of current codes as there is no way to ensure that an adequate quantity of ventilation air enters either air handling unit.

Condition: The ventilation air provisions are inadequate.

Recommendations: The outdoor air louver should be ducted to both air handling units and balanced to the appropriate airflow rates in conformance to code.

CONTROLS:

The original building pneumatic control system has been replaced. Electric thermostats and other control devices are present. There is no central building management system.

Condition: The controls seem adequate for the limited functionality intended.

Recommendations: Consider upgrading to a direct digital control system for improved energy savings and off site monitoring and control. CO2 control should be considered, to potentially save energy by reducing the ventilation airflows rates during lightly occupied periods.

DOMESTIC COLD WATER:

The building is served by a 2" domestic water service with backflow preventor. Water is distributed throughout the building via fiberglass insulated copper piping.

Condition: The piping appears to be in serviceable condition.

Recommendations: None.

DOMESTIC HOT WATER:

The building is supplied with hot water from one gas fired domestic water heater. A 2009 vintage 40 gallon storage capacity, 40 MBH input Bradford White MI Series (deleted) unit is located in the boiler room. The heater has a 3" stainless steel flue connecting to the masonry chimney.

Domestic hot water is distributed via fiberglass insulated copper piping. No hot water return pumps were provided. It was reported that it takes a while for hot water to reach some of the fixtures.

Condition: The domestic water heater and piping appeared to be in good or serviceable condition.

Recommendations: Provide a hot water return pump to improve time lag for hot water at fixtures.

NATURAL GAS:

The building is served by an approximately 1-1/2" low pressure (4-14" water column) utility natural gas service with meter of 2000 vintage. Gas is distributed via iron pipe.

Condition: The natural gas piping appeared to be in serviceable condition.

Recommendations: None.

SANITARY AND STORM DRAINAGE:

The roof is drained by roof drains and cast iron piping.

The building floor drains and fixtures are connected to cast iron piping.

Condition: The piping, as far as could be observed, appeared to be in serviceable condition.

Recommendations: None.

PLUMBING FIXTURES:

ADA compliant fixtures are provided. The former Boy's Room was converted into a unisex ADA bathroom with one water closet and one lavatory.

The Girl's Room contains two water closets and one lavatory.

Exterior hose bibbs are located in the garden area and in the back of the building.

Condition: The fixtures appeared to be in serviceable condition.

Recommendations: Once the final program is determined, an analysis of the fixtures counts against the code required quantities will need to be made. The bathrooms should be renovated as required for ADA conformance and fixture quantities.

FIRE PROTECTION:

The structure is not provided with a fire protection sprinkler system.

Recommendations: None.

LIBRARY ELECTRICAL SYSTEMS:**Electrical Service:**

The facility was constructed in 1966 and is fed underground from the pole line on Paper Mill Road. The service is terminated in two service disconnect switches, a 200A switch for lighting and receptacles, and a 400A switch for A/C. The service is 208/120 volts.

Condition:

The service equipment original to the building and is in poor condition.

Recommendations: If the facility is to remain in operation for any significant length of time, the service entrance equipment should be replaced.

ELECTRICAL DISTRIBUTION SYSTEM:

One panel in the librarian's office has recently been replaced. Most of the wiring is anticipated to be original to the building.

Condition:

Most of the equipment is original and in poor condition.

Recommendations:

If the facility is to remain in operation for any significant length of time, the distribution equipment should be replaced.

EMERGENCY POWER SYSTEM:

The emergency power for this facility consists of battery pack egress lighting fixtures and battery back-up for the fire alarm system. There is no on-site emergency generator for this facility.

Condition: Fair.

Recommendations: If this facility is to remain in use for any extended period of time, it is recommended to install an emergency generator. Otherwise the facility will continue to operate as a "lights out" facility in the event of a power outage.

FIRE ALARM SYSTEM:

The facility has a "Magnum Alert" zone type fire alarm panel which reports back to the Administration Building. The building has coverage with smoke detectors and manual pull stations. There is full annunciation with horns and strobes throughout.

Condition: Good

Recommendations: None

SECURITY SYSTEM:

The security system consists of door contacts, motion sensors and break-glass switches, perimeter access and reports back to the Administration Building.

Condition: Good

Recommendations: None

TELEPHONE/DATA:

The facility is serviced with Fiber and copper from the Administration Building as well as Verizon fiber. There is no MDF room and the fiber switches are not easily accessible.

Condition:

Internal termination and distribution is not very user friendly.

Recommendations:

Create an MDF room and organize the distribution equipment.

LIGHTING:

The facility is primarily lighted with T-12 fluorescent fixtures. Some fixtures have been replaced with fixtures utilizing T-5 lamp and electronic ballasts. Exterior egress fixtures are single lamp type with only one fixture at each location.

Condition:

Most of the fluorescent fixtures are old and are integral with the coffered ceiling system.

Recommendations:

Replace all fluorescent fixtures with fixtures utilizing energy efficient T-8 lamps and electronic ballasts. Consideration should be given to the application of LED fixtures where appropriate. Replace exterior egress fixtures with either two fixtures or one 2-lamp fixture. If generator is not installed in the future, two remote heads fed from the nearest battery pack should be installed at each door.

PUBLIC WORKS BUILDING—ARCHITECTURAL

GENERAL DESCRIPTION

Original Construction Date 1955. One story structure with brick exterior. The majority of the building floor area is used for vehicle repair and vehicle storage. The northeast end of the building toward Hawthorne Lane was originally built to house the Springfield Ambulance. Approximately 20 years ago, a new structure was constructed on an adjacent site for the ambulance and the public works ambulance area was renovated into office space for the Director and the Assistant Director of Public Works. Other small additions were appended to the building to house a lunchroom/ breakroom area and some covered storage.

The primary use of the building is as the headquarters for the Public Works Department. The building houses the following functions:

- Covered parking for Township Vehicles (primarily work trucks)
- Repair of all Township vehicles (police and work trucks)
- Offices for Director, Assistant Director, Supervisor and Mechanic
- Storage for any files related to streets and roads and the condition of same
- Storage of inventory and smaller equipment needed in the course of public works function
- Lockers and support areas for Public Works personnel (lockers, showers, toilets, break area)

ROOF AND FLASHING

The Public Works building is a low slope to flat roof structure. The roof system is an EPDM single ply membrane ballasted system installed in 1984. The flashings were updated and revitalized in 1998. The Township does have a maintenance contract for roof maintenance, but leaks have been observed in multiple locations. The roof is approaching the end of its service life. The flashings and edges have been rehabilitated once, The roof does not meet the current code requirements for secondary roof drainage

EXTERIOR WALLS

The exterior material of the Public Works Building is a red brick, with limestone lintels at openings. It is in generally good condition, with no major distress areas. See structural report for recommendations regarding some corrosion of lintels at window and door openings.

WINDOWS

Public Works Building does not have many windows, other than the small supervisor's office and the Director's area. Director's area windows are aluminum with insulated glazing, done when the ambulance garage to office renovation was completed.

EXTERIOR DOORS

Four aluminum overhead doors are found on the west side of the building. These provide access for Township vehicles to repair, or storage. They are twelve feet in height and twenty feet in width. Current operational standards

for doors of this type would be a minimum of 14 feet, with at least 12 feet of width for each row of vehicles. Main personnel door is a cut-away door in one of the overhead doors. For general use, this cut-away is insufficient in height and presents a tripping hazard at the bottom.

INTERIOR—GARAGE SPACES

Concrete floors with concrete block walls with exposed structure above (see structural report). Additional storage has been found by constructing mezzanines where height allows at the perimeter of the space. These mezzanines area accessed by a variety of make-do type ladders and or stairs. When the trucks are put in the space at night or when stormy weather is expected, there is very little circulation space remaining. Some workers have locker areas that are along the perimeter of the garage, not separated from the vehicles. There is no emission control anywhere in this structure. Vehicle lifts are constructed in the floor, making them vulnerable to salt and other road dirt falling from the vehicles that come inside. Some of the floor space has been enclosed with cyclone type fencing to have a secured area for parts and tool storage.

INTERIOR—OFFICES

Director's office was constructed in a portion of the previous ambulance garage, using mostly "in-house" labor. Director's Office finishes are a combination of wood and gypsum with a suspended acoustical tile ceiling. Outside the Director's Office is a minimal amount of space for waiting or for an administrative desk. Public Works files and office machines line the corridor to the vehicle garage. The corridor and the Assistant Director's work area are finished with gypsum walls and suspended acoustical tile ceilings. A small toilet room is adjacent to the Assistant Director's Office. It is functional, but would not be compliant with current accessibility standards. The Supervisor and the Mechanic share an office that had been the original Public Works Office. Finishes are painted block with exposed concrete block ceiling. Bulletin boards and shelves cover most wall space that is not a window.

INTERIOR—PERSONNEL

The Public Works Building has a small area used by the personnel involved in the trash and garbage collection. Other Public Works personnel hang their gear in another area adjacent to the trucks. Nothing complies with accessibility standards. Toilets are minimal, shower area is usable, but old and dingy. A frame addition was placed on the rear of the Public Works Building for a lunchroom or break-room. It will not seat the entire staff. It serves as a rest area during snow and other emergency operations when Public Works goes into 24 hour operation. Again, space is constructed with gypsum walls and exposed ceiling. It is serviceable, but not sized for the current staffing levels.

OPERATIONAL COMMENTS

The following items were noted that impair the functionality of the Public Works Building:

- Insufficient clear overhead door height—should be minimum of 14 feet
- Insufficient clear space in mechanics area to raise vehicles off the floor Current height is approximately 14 feet clear, should be 20 feet clear
- Building lacks proper staff support facilities: locker rooms, toilet areas, showers—all complying with current codes
- The tightness of the building and its affect on circulation, inside and out, impair proper sightlines, and the associated safety

- Infrastructure is over 50 years old—electrical system is new to the main panel board, then largely original throughout the building distribution. Grounding of system does not comply with current National Electrical Code.
- Outside storage for signs and other non-environmentally sensitive material is generally past its service life and needs replacement
- Current standards for washing vehicles require significant upgrade in wash facilities.
- Emergency Generator is located near the property line. Needs more buffering from neighboring properties
- Vehicle circulation is minimal—narrow, with blind corners and stored equipment on both sides.

PUBLIC WORKS BUILDING STRUCTURAL SYSTEM

Description of Existing Structure:

ORIGINAL CONSTRUCTION:

The existing public work building is a one-story, 5 bay garage structure constructed around 1956. Overhead doors to four of the vehicle or truck bays are located on the northwest elevation. A single bay located on the northeast side has been converted into an office area with a floor elevation several steps above the main floor elevation. A storage mezzanine has been hung from the roof framing over a portion of two bays of the facility. The main floor level is matches the exterior grade around the building. The exterior of the structure is to be constructed of brick masonry walls with limestone accent trim.

ADDITION:

A single story wood frame addition was constructed on the southeast side of the original building and houses a lunch room.

FOUNDATION:

The foundations of both the original garage and the lunch room addition are shallow spread footing foundations. The existing foundation likely is adequate to support existing gravity loads.

Condition: The existing foundation walls and masonry walls appears to have experienced no significant visible distress or settlement. The existing walls did not appear to suffer from "rising damp" due to below grade moisture penetration.

Recommendations: None

FLOOR FRAMING:

The main floor of both the original building and the addition is a concrete slab on grade. The floor of the office area at the northeast end is also slab on grade. A hydraulic truck lift has been added in the slab of a single service bay.

Condition: The existing concrete slab on grade appears to have experienced no significant visible settlement. The finish surface of the slab in the garage bays was weathered and deteriorated such that a significant amount of aggregate was visible on the rough surface. While the condition of the existing slab surface does not present a structural problem, the rough and worn surface makes cleaning and maintenance difficult.

Recommendations: Future reuse of the existing garage bays should consider resurfacing of the existing slab with a polymer modified concrete overlay.

ROOF FRAMING:

The roof framing of the original building consists of precast concrete roof planks supported by 12 inch deep steel channels that span over the vehicle bays. The steel channels are supported by 24 inch deep steel wide flange girders that are supported by steel wide flange columns located between the vehicle bays. Each column line contains two exterior columns located within the exterior wall and a single interior column at the center of the building. The clear height to the bottom of the roof girders is approximately 13'-9". The roof framing also supports several crane rails for overhead cranes. The steel framing appears to be constructed level. Roof drainage is accommodated by several internal roof drains located along the centerline of the facility.

The roof structure over the lunchroom addition is wood frame supported by wood frame stud walls. The wood framing was hidden by existing finishes.

Condition: The existing steel roof structure appears adequate to support existing gravity loads. No significant deflections or distress were observed.

Recommendations: At this time there are no required structural repairs to the main roof framing, however, the capacity of the roof framing should be verified, particularly considering the additional crane and storage mezzanine loads that have been added since the original construction. Further, since the roof does not appear to have adequate slope, the framing should be checked to verify that rain water ponding loads are not a concern. Overflow drains or scuppers should also be considered.

LATERAL LOAD SYSTEM:

The lateral load resisting system of the garage consists of the unreinforced masonry walls. The roof framing acts as a diaphragm to distribute the lateral loads to the exterior masonry walls. The anchorage of the walls to the steel framing was not visible.

Condition: Based on the past performance of the structure and the lack of any visible distress, the existing lateral load system will likely continue to be adequate in the future. It is unlikely that the existing facility would meet the current building code requirements for lateral load resisting systems, particularly the seismic requirements. Upgrades to the lateral load resisting system are not required unless the lateral loads on the existing structure are increased by an addition or by a change of use of the building.

Recommendations: Considering the essential use of the facility, future reuse of the existing garage should consider upgrading the lateral load system to meet current code requirements.

EXTERIOR MASONRY:

The structure is constructed of a composite brick and concrete masonry unit wall. The wall is primarily 8 inches thick with a stretcher-header course every sixth course to provide the composite strength. The masonry openings for doors and windows use steel angle lintels. The parapet does have a metal cap which appears to be in good condition.

The wall functions as a barrier wall, utilizing its thickness to resist water infiltration. It does not include a cavity for drainage or insulation for thermal performance.

Condition: The existing masonry did not appear to be suffering significant deterioration or distress considering its age. The mortar joints are sound but show signs of weathering. The steel-angle lintels exhibited some corrosion distress and associated rust jacking of the masonry was observed throughout. The existing masonry did not appear to have any expansion or control joints to accommodate thermal movement and moisture expansion of the masonry, which is not unusual for a building of this age. However, significant distress as a result of the lack of expansion joints in the masonry was not observed.

Recommendations: Considering the age of the facility, the mortar joints minor require maintenance pointing and minor repairs. Repairs are also required at some openings to address corrosion of the angle lintels and associated masonry distress from rust jacking. Several courses of brick masonry will need to be removed, the steel lintel replaced or cleaned and painted, and a flashing and weep holes installed before the brick masonry is replaced.

PUBLIC WORKS BUILDING MECHANICAL SYSTEMS

Description of Existing Building:

The Public Works Building is a one-story, 5 bay garage structure constructed around 1956. A single bay located on the northeast side which originally served the Township ambulances was subsequently converted into an office area in 1992. A single story wood frame addition was constructed in 1997 on the southeast side of the original building which houses a ready room and kitchen. The total floor area is approximately 6200 Square Feet.

Possible Building Renovations:

The preliminary program recommended expanding this building to approximately 14,000 Square Feet.

HEATING SYSTEM:

The building is generally heated by a single gas fired cast iron hot water boiler. It is presumed that the boiler may be of original (1956) vintage. No nameplate was visible to indicate the age or capacity of the boiler. Combustion air is provided via permanently open louvers located in the exterior wall and doors. The louvers are not located within 12" of the ceiling and floor as required by current codes. The adequacy of the louver sizes could not be determined as the boiler capacity is unknown.

Heating hot water is circulated throughout the building via uninsulated copper pipe via two in-line constant volume centrifugal pumps. It appears one pump operates typically with the other as a standby. It was explained that the pumps circulate water continuously.

No chemical shot feeder or other means of introducing water treatment chemicals into the piping system was noted.

The service bays are served by hydronic unit heaters which are not provided with control valves. The control concept is to circulate the hot water continuously and cycle the unit heater fans as required to heat the space under control of the thermostats.

The 1992 converted main office area is heated by a hot water coil located in the split system A/C unit serving that space, fed from the boiler plant.

The 1997 ready room addition is served by a split system A/C unit with a direct fired gas furnace located in the wood construction attic space above. This attic space has three roof ventilators which function similarly to a roof vent, relieving air as the space gets hot. Other than that, no code required provisions for combustion air were noted.

Condition: The existing boiler appeared to be in poor condition. The hot water piping, unit heaters and pumps appeared to be in serviceable condition.

Recommendations: The boiler appears to have long outlived its expected useful lifespan. It should be replaced with a new high efficiency boiler appropriately sized for the final building area and usage as determined during the upcoming programming efforts. The boiler room may need to be relocated based upon any additions to the building to maintain the PA L&I requirement for two exits from the boiler room, one of which must be directly to exterior. At that time, the combustion air provisions should also be brought up to code. Motorized dampers should be provided to only open the louvers when the boilers are firing, reducing energy loss through the open louvers.

Provisions should be made for a chemical shot feeder to allow chemical treatment of the piping system.

The control concept in the service bays should also be revised to improve energy efficiency. Control valves should be added at the unit heaters to allow the water flow rate to vary with the heating load. A variable speed pumping regime should be instituted to achieve energy savings by varying the pump horsepower with the heating load. The hot water piping should also be insulated to reduce heat waste due to unwanted radiation from the piping.

The gas fired heating system in the wood construction ready room attic should be removed and that area, should it survive the renovations, be served by the central boiler plant. To keep the current system and update it to meet current codes would require provisions for combustion air. Introducing raw winter outdoor air into that attic space would not be advised. Similarly, the presence of a gas fired unit in the cramped combustible construction of the attic is not ideal.

AIR CONDITIONING:

The service area is not air conditioned. This area is provided with ceiling fans for air circulation and through wall exhaust fans for summer ventilation.

The 1992 converted main office area is served by a constant volume, single zone split system A/C unit located above the ceiling. The unit is served by an associated air cooled condensing unit on the roof. Inadequate cooling for the hallway containing the copy equipment was reported.

The 1997 ready room addition is served by a constant volume, single zone split system A/C unit located in the attic space above. The unit is served by an associated air cooled condensing unit on the roof.

The Foreman/Fleet office is served by a small (deleted) window air conditioning unit.

Condition: The existing equipment, while getting on in years, appeared to be in serviceable condition.

Recommendations: Consideration may be warranted to converting the two existing split systems into variable volume, single zone systems by adding variable frequency drives to the fan motors. This would require control changes and most likely motor replacements. This modification would result in fan energy savings and improved humidity control.

The A/C systems should be reconfigured to provide adequate cooling for the copy area.

VENTILATION:

The service areas have adequately sized exterior operable openings to meet the code requirements for naturally ventilated spaces.

The 1992 renovated main office area and 1997 ready room addition split system A/C units were not provided with means for mechanical ventilation. These spaces do not have sufficient exterior operable openings to where they would qualify as naturally ventilated spaces under the current code. The codes currently in effect would require mechanical means of providing outdoor ventilation air to these rooms.

The locker area is not provided with an exhaust system as would be required under current codes.

Condition: The existing equipment appears to be in serviceable condition.

Recommendations: An exhaust system, with adequate provisions for make-up air, should be provided for the locker room.

Means of providing mechanical outdoor ventilation air to the main office and ready room areas will be required to conform to current codes. Analysis will need to be made to determine if the existing systems can accommodate the increased heating and cooling loads or if system replacement is warranted.

CONTROLS:

Electric thermostats and other control devices are present. There is no central building management system.

Condition: The controls seem adequate for the limited functionality intended.

Recommendations: Consider (deleted) upgrading to a direct digital control system for improved energy savings and off site monitoring and control

DOMESTIC COLD WATER:

The building is served by a 1" domestic water service with backflow preventor. Water is distributed throughout the building via uninsulated copper piping.

The exterior truck wash area contains a post type yard hydrant. It was explained that the piping serving this hydrant is susceptible to freezing and to prevent freezing, the piping is blown out with compressed air after each winter use.

Condition: The piping appears to be in serviceable condition.

Recommendations: If summer sweating of the piping has been an issue, consideration should be given to insulating the piping.

The yard hydrant should be replaced with a non-freeze type and the supply piping lowered or heat traced if necessary to preclude any possibility of winter freezing.

DOMESTIC HOT WATER:

The building is supplied with hot water from two electric domestic water heaters. A 19 gallon storage capacity, 1.5 kW Bradford White MI Series unit of 2012 vintage is located in the boiler room and serves the service bays. A second unit is located above the ceiling of the main office area and serves the bathrooms in that area. No nameplate was visible for the second water heater, so its capacity and age could not be determined. It appeared to be about 30 gallons storage capacity. A third gas fired water heater integral with the pressure wash system is located in the boiler room.

Domestic hot water is distributed via uninsulated copper piping. No hot water return pumps were provided. However, it appeared that the length of run from the water heaters to fixtures was within the maximum length allowed by code before a return pump is required.

Condition: The domestic water heaters and piping appeared to be in good or serviceable condition.

Recommendations: Consideration should be given to insulating the piping to conserve energy.

NATURAL GAS:

The building is served by a 2" low pressure (4-14" water column) utility natural gas service with meter located outside of the boiler room. Gas is distributed via iron pipe.

Condition: The natural gas piping appeared to be in serviceable condition.

Recommendations: None.

SANITARY AND STORM DRAINAGE:

The roof is drained by roof drains and cast iron piping.

The building floor drains and fixtures are connected to cast iron piping. There is no oil interceptor. The floor drains in the service bays connect to an exterior sand/grit interceptor. The area drain the exterior truck wash area connects to the sanitary waste system via a second exterior sand/grit interceptor.

Condition: The piping and interceptors, as far as could be observed, appeared to be in serviceable condition.

Recommendations: An oil/sand interceptor should be provided for the floor drains in the service bays.

An investigation should be done to determine if connecting the exterior truck wash area drain to the storm rather than sanitary system would be advisable per the local authority.

PLUMBING FIXTURES:

ADA compliant fixtures are not provided. The service area bathroom contains one floor mounted urinal, one floor mounted water closet, one two-compartment sink and an emergency eyewash. The main office toilet rooms each contain one floor mounted water closet and wall hung lavatory.

Condition: The fixtures appeared to be in serviceable condition.

Recommendations: Once the final program is determined, an analysis of the fixtures counts against the code required quantities will need to be made. The bathrooms should be renovated as required for ADA conformance and fixture quantities. Wall mounted water closets and urinals should be provided.

The eyewash should be relocated from the bathroom to a central, accessible location in the service bays so a user need not navigate through doorways, etc. during an emergency.

FIRE PROTECTION:

The structure is not provided with a fire protection sprinkler system.

Recommendations: None.

PUBLIC WORKS BUILDING ELECTRICAL SYSTEMS:

Electrical Service:

The facility was constructed around 1956. It is currently serviced from a pole-mounted 208/120 volt Utility owned transformer along the SW boundary of the property. Service conductors are extended from the pole through an under-ground duct-bank to the SW end of the building where it terminates in a 400A service disconnect switch, mounted on the exterior of the building. The Utility meter and CT cabinet are mounted on the exterior of the building along side of the service switch.

Condition: The existing service is relatively new and in good condition. The original service was run underground from the Administration Building, and was abandoned when the new service was installed. The existing service back-feeds the original distribution system, and has enough capacity to serve any anticipated future loads.

Recommendations: None

ELECTRICAL DISTRIBUTION SYSTEM:

The majority of the existing distribution system is located in the garage area where the original service panel was located. Additional sub-panels are located throughout the building to service various loads.

Condition: Most of the existing panels have been replaced, but the feeder conductors and branch circuit wiring is original to the building. The original wiring did not include a ground conductor; the conduit system was used as the ground path.

Recommendations: Although the existing conduit system is mostly rigid steel, which provides an adequate ground path, the conductors are all old and therefore it is recommended to replace all feeders and branch wiring with new to include insulated ground wire.

EMERGENCY POWER SYSTEM:

A 100 KW Diesel powered generator was installed along the SW property line when the new Utility service was installed. The emergency service conductors from the generator are extended in a common trench with the Utility service to a transfer switch in the building. The transfer switch serves the entire building with normal and emergency power.

Condition: The generator is fairly new and in good condition. It has the capacity to serve any anticipated future loads.

Recommendations: None

FIRE ALARM SYSTEM:

The existing fire alarm system is "Firelite" 2-zone system with heat detectors in the service and storage bays. The only annunciation is at the fire alarm panel. There also are no manual pull stations at the exits from the building.

Condition: The panel is in good condition, however, the system has inadequate detection and annunciation.

Recommendations: The facility has enough individual spaces to justify a fully addressable fire alarm system. We recommend replacing the system with a new fully addressable system, installing full coverage of smoke and heat detectors, installing horn/strobes throughout the facility and manual pull stations at all exits. We also recommend connecting the system to the Administration Building.

SECURITY SYSTEM:

The only security system at the building is the placement of four CCTV surveillance cameras which are monitored from the Administration Building. There is no intrusion detection at this facility.

Condition: Cameras are fairly new and in good condition.

Recommendations: Since the Administration Building is not occupied 24/7, it is recommended to install an intrusion detection system at the facility which would report both to the Administration Building and the Police.

TELEPHONE/DATA:

The facility is serviced by fiber run underground from the Administration Building.

Condition: Good
Recommendations: None

LIGHTING:

The existing facility has a mix of fixture types and lamps. The main service bay has been retrofitted with Industrial Metal Halide high-bay fixtures. All other areas are lighted by T-12 fluorescent fixtures.

Condition: Other than the new industrial high-bay fixtures, the fluorescent fixtures are all old and inefficient.

Recommendations: Replace all fluorescent fixtures with fixtures utilizing energy efficient T-8 lamps and electronic ballasts. Consideration should be given to the application of LED fixtures where appropriate.

SITE

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SPRINGFIELD TOWNSHIP

Site Description

The Springfield Township Municipal Campus is comprised of seven (7) properties with a combined area of slightly over nine (9) acres (9.09 acres). The following spread sheet summarizes the areas of each site,

The initial site purchase for the Municipal Campus was made in 1954, with subsequent additional land purchases made in 1963, 2001, 2007 and 2010 to achieve the current total site area. Deeds and descriptions of each purchase are included in the Appendix of this report.

Zoning and Surrounding Uses

The Springfield Township Municipal Campus is located at the corner of Paper Mill Road and Hawthorne Lane in the Wyndmoor section of the Township. Paper Mill Road has a south-west to north-east declination

The Municipal Campus site is zoned Institutional and has been used in that manner since the original construction in the 1950s. The size of the site has grown as the Township has purchased properties adjoining the original site of the Township Police/ Administration Building and Township Public Works Garage. The most recently adopted Township Zoning map (dated 1962) shows the northeast corner of Hawthorne and Paper Mill as also zoned Institutional. On this parcel are located the Township Library and the Ambulance Building.

Abutting the northwest corner at the intersection of Hawthorne and Paper Mill is the Springfield Township High School, also on land zoned Institutional. The original school structure here was opened in 1954.

All other property abutting and adjoining the Municipal Campus is zoned "AA" Residential. This zoning is primarily intended for single family detached dwellings on 25,000 square foot minimum sized lots. Elementary schools, churches and chapels are allowable by special exception.

To the south, but not directly abutting the Municipal Campus site is LaSalle College High School, The LaSalle site is zoned "Institutional", but is generally separated from the Municipal Campus by "AA" Residential property.

The requirements for the "Institutional District" zoning include the following key items:

- **Municipal buildings, community recreational facilities, playgrounds, libraries and museums, as well as schools and athletic fields**
- **Minimum lot area: 3 acres**
- **Building area: not exceed 20%**
- **Front yard of 75 feet**
- **Side yard abutting residential zoning: 75 feet**
- **Rear Yard: 75 feet**
- **Impervious Coverage: not to exceed 40%**
- **Landscape buffers to be provided along property boundaries. Parking areas to be landscaped to meet Subdivision/ Land Development requirements**

In Summary, the Township Municipal Campus is on land currently zoned for its use, but is almost entirely surrounded by residential zoning for half acre properties and single family detached dwellings. The requirements were discussed with the Township staff who directed that township counsel had provided an opinion that the listed requirements were not applicable to this project, but that all efforts should be made to attain the buffers and setbacks at property boundaries.

The following Property and Zoning Plan illustrates this layout on an annotated aerial photograph.

Topography

A topographic survey of the Municipal Campus was not included in the scope of this Municipal Campus Master Plan. Available information from the US Department of Interiors Geological Survey Map (Germantown Quadrangle) and other information from abutting properties shows a slope change of approximately 40 feet. The high point is behind the existing municipal garage and falls on a northerly axis to the northwest corner of the site beyond the library building. This slope continues upward at approximately the same rate through the residential area on Hawthorne Lane to the southeast of the property.

The following Property and Zoning plans also shows the overall topography for the site and the surrounding area

The following annotated aerial photograph—Stormwater-- illustrates the overall slope conditions and the general flow of stormwater

ENVIRONMENTAL CHARACTERISTICS

Solar Direction

The Paper Mill Road elevation of the site is on the northwest side of the Municipal Campus site. The existing Police and Administration Building main entrance faces southeast.

Wind Direction

The primary fair weather wind direction for the site comes from the north west, across Paper Mill Road to the site. The Police and Administration Building will be well suited, with entrances alee of the prevailing winds. Public Works will face the prevailing winds as will the Library. In each case, this will be addressed through design features, wind breaks, landscape or similar elements.

Vegetation

The site is generally a developed site. Most areas are grass covered, with some canopy trees along the Paper Mill Road and Hawthorne Lane edges. The current site boundaries to residential areas have some buffering from landscaping. The undeveloped parcel to the north of the library is overgrown with scrub indigenous plant materials. The canopy trees were noted as a site asset, but they will not take priority over final building placement.

DEVELOPMENT CHARACTERISTICS

Vehicular Access

Vehicular access and circulation has a significant impact on the overall site. Most visitors and staff drive to the site. There are multiple levels of traffic and circulation at the site, noting:

- **General Public to Administration and Library for services**
- **Staff to all buildings on site**
- **Emergency Police and Ambulance access and egress**
- **Public Works access and egress for all township maintenance and operations services and for suppliers**

Each access user group has unique operational needs. The Public is looking for clear direction and parking. The Staff needs parking. Emergency vehicles of the Police and Ambulance must have clear access and egress that is not limited by other site users. Public Works operates trash trucks, snow plows and other larger vehicles in and out of the site. Public Works maintains all Township vehicles. Public works also has traffic from suppliers of fuel and road materials. Each access user can be on a different schedule with a different mission. Clear circulation and access will be important to the overall success of the site.

Pedestrian Access

Pedestrian access to the Springfield Township Municipal Campus site occurs primarily from the Township High School property across Paper Mill Road. The students will walk to the Library for afternoon programs and for home work assistance. The primary pedestrian access will be the on-site paths between the buildings. Care must be taken to make these routes clear and inviting.

**SEE SECTION 4 FOR
SITE DIAGRAMS**

PARKING

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PARKING

The Springfield Township Municipal Campus includes several parking areas that currently accommodate 129 vehicles. The Township Zoning Ordinance requirements for parking vary based upon the specific use:

Office 1 per 200 sf
Assembly 1 per 50 sf
Library 1 per 800 sf

Much discussion centered on the amount of parking needed to accommodate the components and vehicles on this site. Township legal counsel advised that the Township was not bound to strict adherence to the requirements of the Zoning Ordinance, but that reason should also be considered in the final plan.

The Matrix on the following page was developed after discussion with the component directors and supervisors. It shows the parking need that was ultimately used in the preparation of the recommended master plan.

The parking space numbers do not include the parking that is shared with LaSalle High School on the LaSalle site adjacent to their playing fields.



BUILDING AREA	CURRENT SPACES	TWP VEHI-CLES	CURRENT EMPLOYEES	PROJECTED EMPLOYEES	PROJECTED PARKING NEED					
ADMINISTRATION--PUBLIC USE	39	2	5	7	60					
ADMINISTRATION--POLICE USE	15	15	11	16	30					
PUBLIC WORKS at BUILDING	3	3	3	4						
PUBLIC WORKS LOT	20	0	38	38	40					
LIBRARY (TOWNSHIP SECTION)	37	0	8		40					
LIBRARY (SHARED AREA)	15	0	0	0	18					
COMMUNITY BUILDING	n/a	0	0	0	0					
TOTAL	129	20	65	65	188					

RECOMMENDATIONS

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The Master Plan Recommendation for the Springfield Township Municipal Campus was developed by VITETTA Architects and Engineers with strong participation from the Township Advisory Committee and support from Township staff. The process began with confirming the space needs for the operation of the Township. An earlier program was reviewed and confirmed, establishing the building area needed by each of the Township component user groups to house personnel and operations. A twenty year planning horizon was used.

The existing buildings were reviewed and their condition assessed to determine what work would be necessary for the buildings to be serviceable for the planning horizon time period. Concurrently, the site opportunities, constraints, assets and shortcomings were reviewed to define how the site could best be utilized for the project.

Goals for the project were established by the Committee and the Staff, working with the design team, simply:

- The best use of the site
- Appropriate Impact of the campus to residents and others
- Best possible interaction with the site neighbors

The Master Plan Recommendation achieved a significant sense of the goals, after many trial concepts and schemes. The following plans show this plan and its components. Advantages of this scheme of most others:

- It can be constructed in Phases to allow continuous operation of the Township during the work
- It offers the potential for a positive design image that will not overpower its surroundings in height or size of structure.

The largest section, Public Works, is separated from the remaining site and the adjacent residential areas. While no buildings were designed, belief is that Public Works can be given a comfortable style and image on this site. The Library will be the most noticeable structure and probably the most visited structure.

The Master Plan allows all buildings to be a single story, the most operationally efficient. The use of two story space could result in some additional green space, but should be carefully considered to assure that the value of the green space makes the loss of efficiency worthwhile.

The Master Plan increases the parking available on the site to reflect the increase in service and use opportunities that will be on the site. At the same time, the parking areas will become part of the learning and environmental improvement story. Rain gardens will be used within the parking areas to capture rain fall and reduce the speed and turbulence of run off. On site detention will be used to reduce the run off currently leaving the site, either from the site directly, or run off down Hawthorne Lane.

Site Coverage was not completely given over to impervious cover. Parking count was developed to maximize the impact of usage diversity on the site and keep the number of spaces to an appropriate number.

The Master Plan Recommendation was developed to maximize the buffering against the abutting residential areas, and to separate Public Works from most of the residential properties. By placing the most complimentary use, improving the buffer dimension and using the right landscaping, this plan will

improve the interaction between the campus and its surroundings.

There were a couple important decisions made during the development of the Recommendation Plan that advanced the plan, specifically:

- Eliminate the Community Building from the program. The meeting space was added to the Library Program and placed in the Library building envelope.
- The Gymnasium/ Multipurpose Space and its associated parking was deferred with a recommendation that either an arrangement be made with the School District to use their existing facilities, or consider another site
- Configuration of Public Works into a linear building. This facilitated the placement of Public Works on the north side of Hawthorne Lane and served to clarify and simplify the traffic circulation

We believe this recommendation for the master plan represents a consensus among all groups involved in its preparation. It will serve as a firm basis for the continuation of design

PROPERTY	SITE AREA IN ACRES	TOTAL AREA (SQ. FT)	APPROX BUILD-ING AREA (SQ. FT.)	IMPER-VIOUS SURFACE AREA (SQ. FT)	TOTAL BUILDING + IMPERVI-OUS AREA (SQ. FT)	% OF THE OVER-ALL
ADMINISTRATION BUILD-ING	1.61	70,230	8,143	24,489	32,632	46.46%
PUBLIC WORKS BUILDING	1.21	52,750	12,322	39,812	52,134	98.83%
LIBRARY	1.76	76,585	9,705	20,677	30,382	39.67%
AMBULANCE BUILDING	0.99	43,140	5,199	16,374	21,573	50.01%
LOT 1	1.54	67,050			-	0.00%
LOT 2	0.60	25,970			-	0.00%
LOT 3	1.39	60,340		5,718	5,718	9.48%
EXISTING TOTALS	9.09	396,065	35,369	107,070	142,439	35.96%

PHASING

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One primary concern for any renovation project at the Springfield township Municipal Campus will be the continuity of operations during any period of renovation. As the final plan configuration was developed, consideration was given to implementation, and continued operation. The plans that follow illustrate how the renovation presented in the recommendation can be completed, while maintaining normal services. All are based on the recommended plan.

PHASE 1

Construction of the new library behind existing Public Works and partial construction of the New Public Works north of the existing library. This represents a significant portion of the overall project. It addresses the two user groups that have strong cases for new buildings and can be done without serious interruption to the overall operations.

PHASE 2

The new Library is complete and is occupied. The existing Library is demolished so Public Works can be completed.

PHASE 3

New Public Works is complete and is occupied. This phase is largely to demolish previous Public Works buildings and to complete the sitework north of the new Public Works area.

PHASE 4

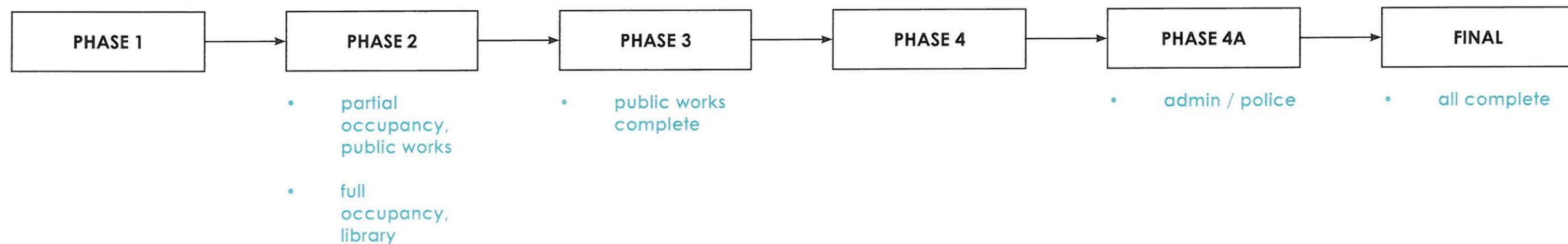
Construction begins on the renovation/ addition to the existing Administration/ Police Building. Internal sub-phases would be required to maintain police and administrative operations. The parking between the library and the Administration Building is complete. The existing parking in front of the Ambulance is removed to make more green space

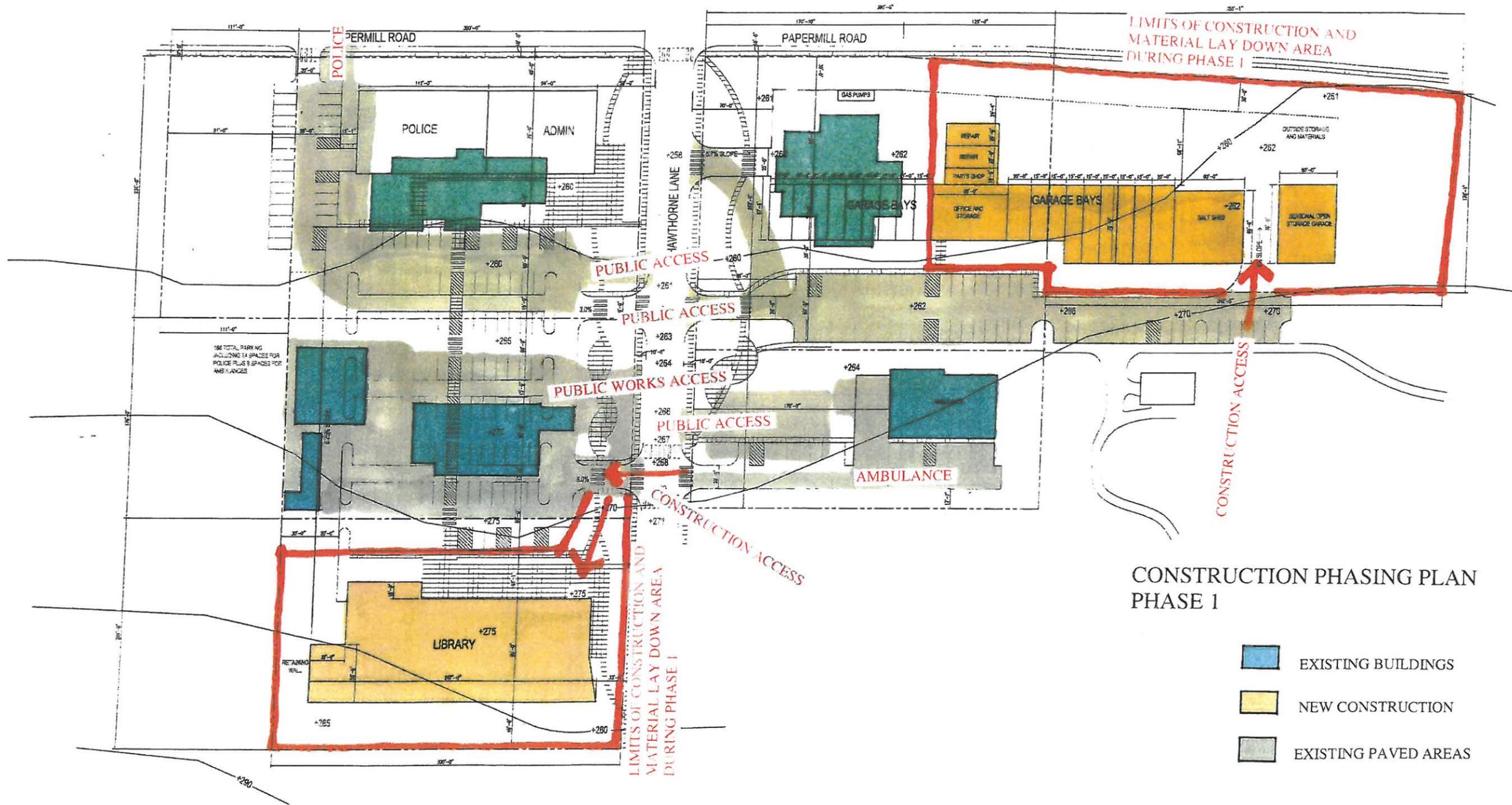
PHASE 4A

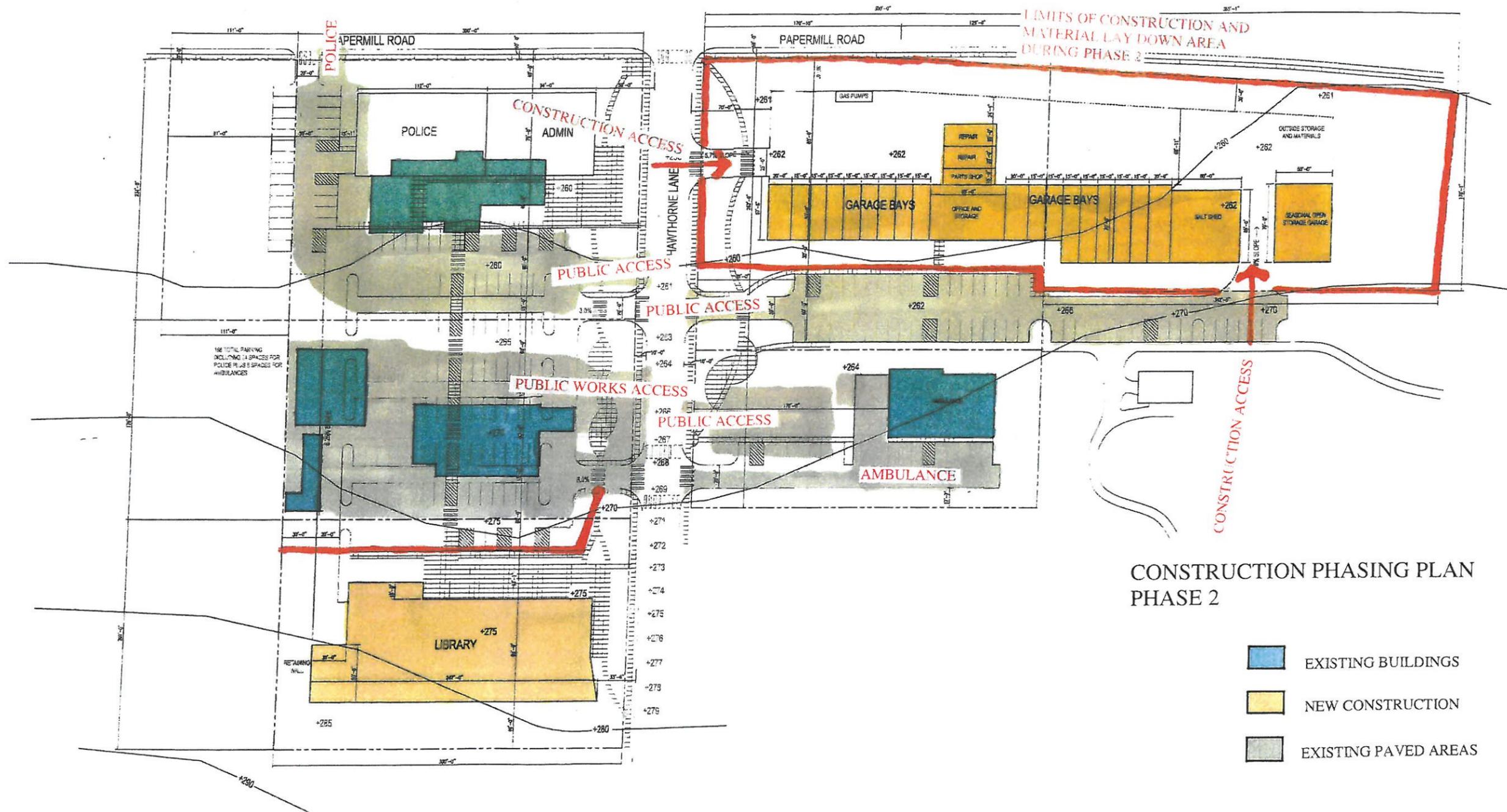
This phase is an alternate to Phase 4—presenting the option of demolishing the Police/ Administration Building and construction of a new building for those component user groups. A temporary structure is shown in an adjacent parking area to accommodate some operations. Others could be accommodated in the planned meeting rooms at the Library.

FINAL

All construction is completed. The buildings have all been completed and the sitework is also complete.

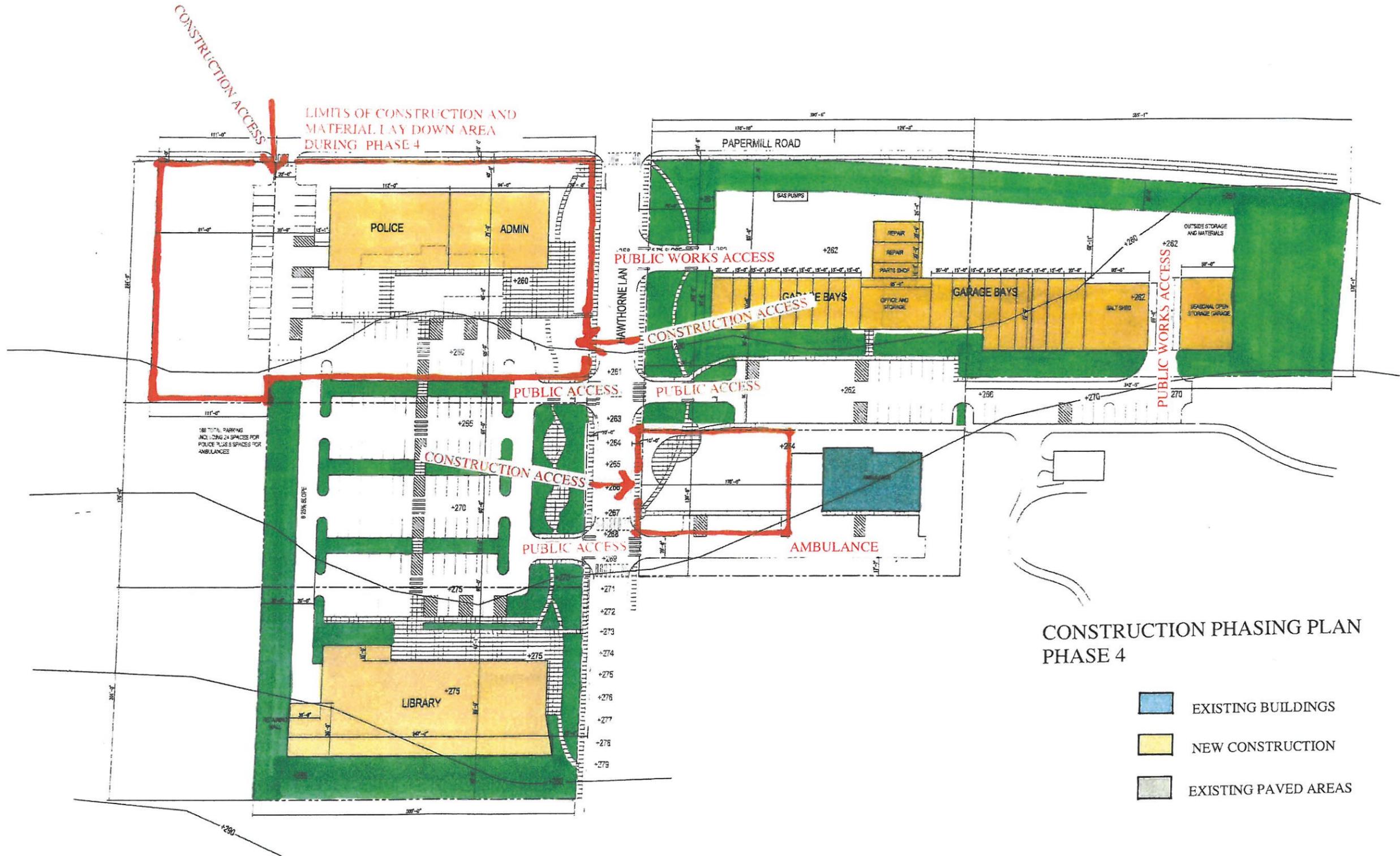






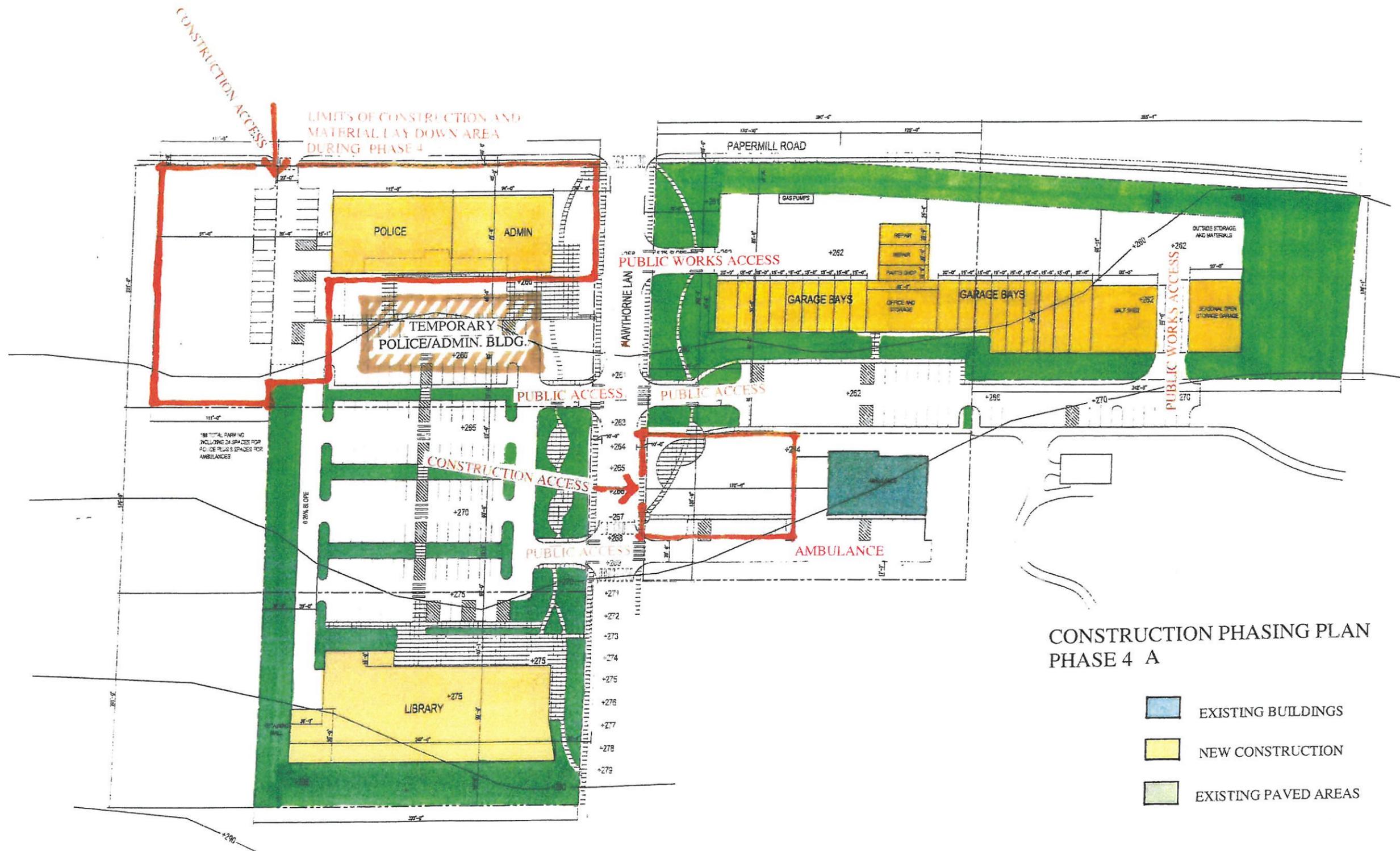
CONSTRUCTION PHASING PLAN
PHASE 2

- EXISTING BUILDINGS
- NEW CONSTRUCTION
- EXISTING PAVED AREAS



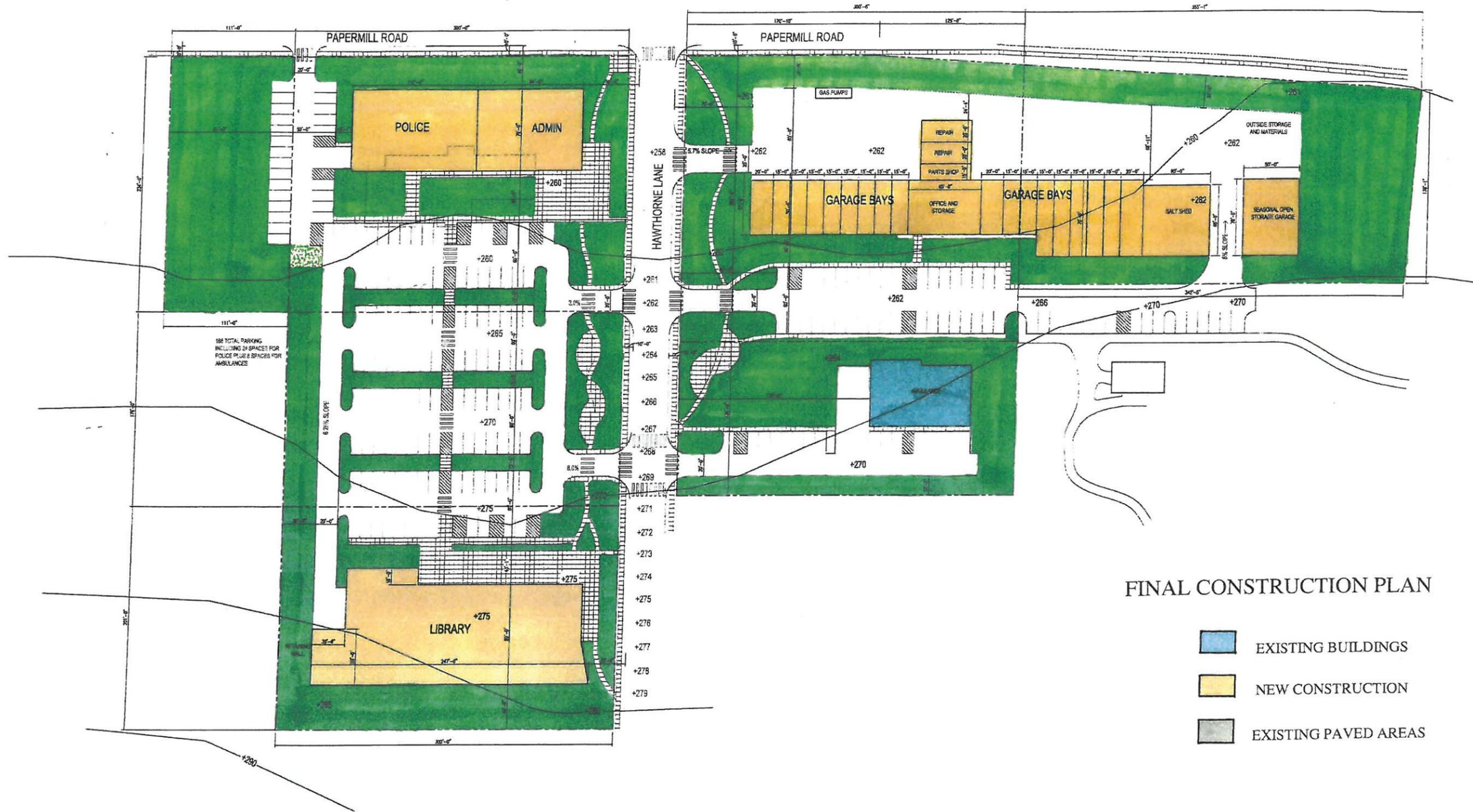
CONSTRUCTION PHASING PLAN
PHASE 4

- EXISTING BUILDINGS
- NEW CONSTRUCTION
- EXISTING PAVED AREAS



CONSTRUCTION PHASING PLAN
PHASE 4 A

- EXISTING BUILDINGS
- NEW CONSTRUCTION
- EXISTING PAVED AREAS



FINAL CONSTRUCTION PLAN

COST

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INITIAL PROJECT BUDGET

A project Budget Cost was developed to accompany the Recommendation master plan. This budget was developed on the basis of building square footage, making it program driven—change the program and the cost will be adjusted.

The unit costs, or cost per square foot, for each of the buildings is a range, to address the number of open decisions that could have cost impact. Each of the building units considered the type of building, anticipated finishes in the building and the type or nature of built in equipment that might be dictated by the program. Consideration was given to renovation versus all new construction in the case of the Administration Building. An overall site construction cost was added to the building budget. Site work begins 5 feet outside the face of the building. These cost ranges do not include:

- Road improvements or Upgrades to boundary roads (storm water is the exception as noted in other sections of this report)
- Unusual site or foundation conditions (if encountered)
- LEED certification (although much of that process involves good practice, there is still an initial cost premium)
- Furniture Fixtures & Equipment (addressed in a later portion of the budget process)

Added to the base cost were the following:

- Site Civil (as described above)
- Public Works (for sheds and open storage buildings)

The subtotal at this point covers the unfactored hard construction cost. This subtotal includes the contractors overhead and profit, and general conditions. Pennsylvania law will require the use of the Separations Act for this work, resulting in a minimum of four prime contractors for this work. It is possible to add prime contractors, but the number cannot be reduced to less than four.

A Design Contingency is added to the project to reflect a series of decisions that can have cost impact as the development of the buildings and spaces occurs.

Escalation is added to the construction and contingency total to reflect the possible increase in cost from today until the project is actually bid. We have chosen a bid date in September 2014 and escalated at 1% per month. A delay in bidding or an increase in inflation could add to that number.

Construction Contingency is added to address the unknown that could arise during the construction of the buildings. The 5% number has been used because the majority of the space will be new construction, which should reduce the potential for unknowns. In renovation, a number between 10 and 15% would be more reasonable.

Furniture, Fixtures and Equipment (FF&E) is the equipment that is traditionally not part of the construction budget, but is needed for the building to perform its intended function. In developing a master plan, very little emphasis was placed on the equipment. This number could change

significantly based on the amount of equipment that is re-used in lieu of purchasing new. Without having specific information on intended equipment, a range based on other projects was used and related to the program area.

The overall funding number is intended to establish a level of funding that would be required for the project. We have identified actions that could increase this number, like extending the schedule, increasing the finish level, purchase of all new FF&E are examples. The final cost can also be reduced by managing these variables effectively.

Soft Costs were not included in this budgeting. Soft costs would include the following:

- Design Professional Fees
- Legal Fees
- Studies (traffic, geotechnical, subsurface)
- Permit fees (usually not paid by municipalities)
- Testing (construction phase testing required by Chapter 17 of Bldg Code)
- Construction Management Fees
- On Site Representative(s) (clerk of the works)

PHASED OR PARTIAL BUDGET

We recognize that the \$20 to \$25 million budget range may represent a challenge. We have also provided a budget that would address only the Library and Public Works portion of the project, leaving the remaining work to a future group to discern and decide.

BUILDING/ SECTION	PROGRAM GSF	BUDGET RANGE PER SF		COST RANGE	
		LOW	HIGH	LOW RANGE	HIGH RANGE
LIBRARY	21,210	\$225	\$260	\$4,772,250	\$5,514,600
PUBLIC WORKS	17,741	\$160	\$200	\$2,838,560	\$3,548,200
SUBTOTAL	38,951			\$7,610,810	\$9,062,800
SITE AND CIVIL	(using construction cost as basis)			\$1,500,000	\$1,800,000
PUBLIC WORKS OPEN STORAGE	8,000	\$100	\$110	\$800,000	\$880,000
SUBTOTAL BUILDING and SITE				\$9,910,810	\$11,742,800
DESIGN CONTINGENCY		10%		\$991,081	\$1,174,280
ESCALATION	BID 9-1-14	1%	PER MONTH	\$1,308,227	\$1,550,050
CONSTRUCTION CONTINGENCY		5%		\$610,506	\$723,356
CONSTRUCTION COST				\$12,820,624	\$15,190,486
FF&E LIBRARY		\$50	\$100	\$1,060,500	\$2,121,000
FF&E PUBLIC WORKS		\$50	\$90	\$887,050	\$1,596,690
FUNDING BUDGET				\$14,768,174	\$18,908,176

library & public works only

BUILDING/ SECTION	PROGRAM GSF	BUDGET RANGE PER SF		COST RANGE	
		LOW	HIGH	LOW RANGE	HIGH RANGE
LIBRARY	21,210	\$225	\$260	\$4,772,250	\$5,514,600
PUBLIC WORKS	17,741	\$160	\$200	\$2,838,560	\$3,548,200
ADMINISTRATION	6,988	\$175	\$210	\$1,222,900	\$1,467,480
POLICE	8,401	\$200	\$235	\$1,680,200	\$1,974,235
SUBTOTAL	54,340			\$10,513,910	\$12,504,515
SITE AND CIVIL	(using construction cost as basis)			\$2,000,000	\$2,200,000
PUBLIC WORKS OPEN STORAGE	8,000	\$100	\$110	\$800,000	\$880,000
SUBTOTAL BUILDING and SITE				\$13,313,910	\$15,584,515
DESIGN CONTINGENCY		10%		\$1,331,391	\$1,558,452
ESCALATION	BID 9-1-14	1%	PER MONTH	\$1,757,436	\$2,057,156
CONSTRUCTION CONTINGENCY		5%		\$820,137	\$960,006
CONSTRUCTION COST				\$17,222,874	\$20,160,129
FF&E LIBRARY		\$50	\$100	\$1,060,500	\$2,121,000
FF&E PUBLIC WORKS		\$50	\$90	\$887,050	\$1,596,690
FF&E ADMINISTRATION		\$40	\$60	\$279,520	\$419,280
FF&E POLICE		\$75	\$95	\$630,075	\$798,095
OVERALL FUNDING BUDGET				\$20,080,019	\$25,095,194

overall funding buget

NEXT STEPS

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ACCEPTANCE OF THE MASTER PLAN RECOMMENDATION

The Plan was developed as a consensus effort of the Advisory Committee, staff and the design team, making it unique from previous efforts at developing a plan for the campus.

ESTABLISH THE BUDGET

The Budget should be established before the design team is retained, to allow a clear statement about scope. The budget does not have to be published for the design request for proposal, but the requested scope of work should have a clear relationship to the scope and budget. Establishment of the budget will also dictate the strategy as to whether to move forward with design as a whole, or just some portion. The strategy should also address later stages of the work and what interim measures may be required until the renovations can be done.

DELIVERY METHOD

Commonwealth Law will require that the project be done using the Separations Act—by means of multiple prime contracts. This process is necessary for all publicly funded work in Pennsylvania, but it has coordination and management challenges associated with it. The use of a Construction Manager, or Project Manager or Clerk of the Works should be understood before the selection of a design team. While the decision does not need to be final, it will help avoid duplication of services by different members of the design and construction team

RETAIN A DESIGN TEAM

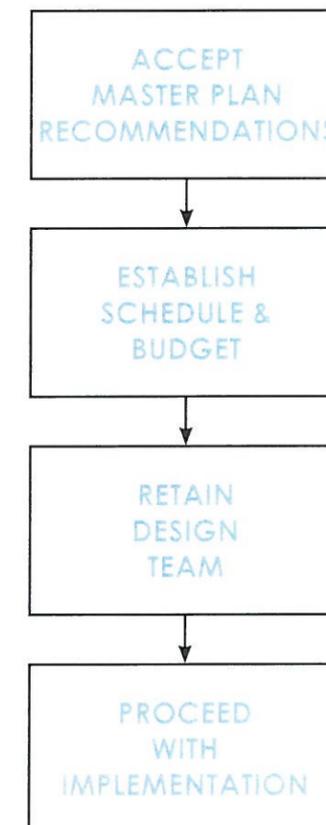
The design process was begun with the programming and siting of the buildings. The development of the boxes into buildings that achieve the impact and image expressed in the project goals is essential. A reasonable case could be made for having a single team do the design to create a vocabulary and consistency among the buildings. Differences relating to the use of the buildings would be expected, attempting to create an outdoor museum of different design approaches does not seem consistent with stated goals

SCHEDULE

With the design and construction specialists on board, the schedule strategy can be formulated. Faster completion may provide benefits. Slowing the schedule may reduce the annualized cost of the facility to the taxpayers.

IN THE END

The Plan Recommended reflects a real need for the Township. It should be implemented.



APPENDIX

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Springfield Township Municipal Campus Master Plan
November 2012 concepts

The following plans illustrate the concepts initially developed by VITETTA for the first meeting with the Springfield Township Campus Plan Advisory Committee. These concepts for the future utilization of the Township property at 1510 Paper Mill Road were the first ones shown to the Advisory Committee as a starting point for discussion.

Each concept was prepared to explore the possibilities associated with the use of the Township Campus, the image of the Township that it projects, and the relationship to the community, both adjacent properties and the Township as a whole. Size of the buildings, environmental sensitivity, relationship to topography, pedestrian approach, vehicular approach and management of stormwater were also considered.

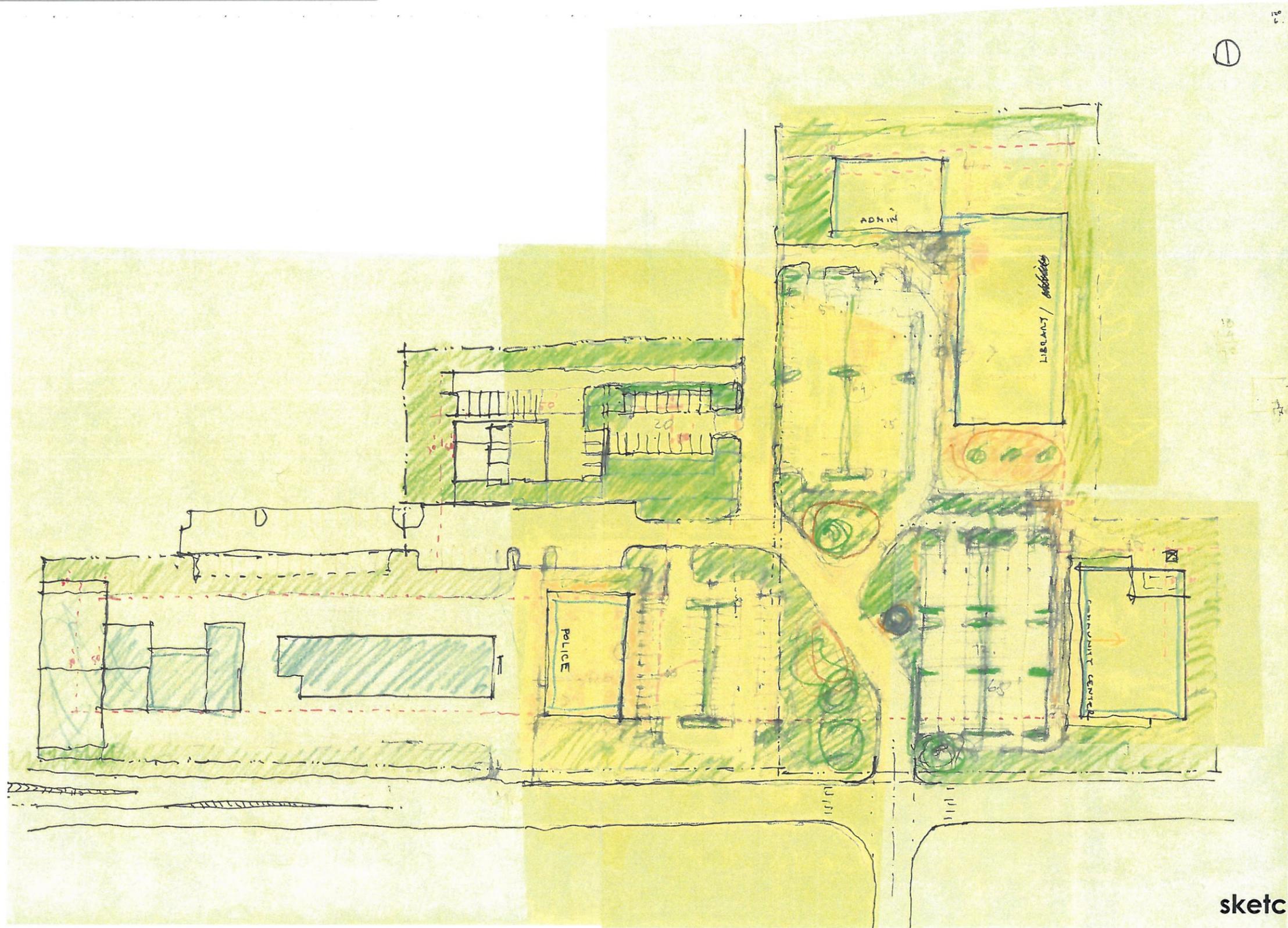
The following concepts are attached—each including some possible advantages or disadvantages. We have included concepts that show the public works facility move to another location. This was not part of the original direction, but was added at the recent workshop:

1 & 1A Relocates the road. Arranges police and public works on the northeast part of the site. The location of Administration, Library and Community Building and relationship of parking are flexible within the southern part of the site. The outlet from police and public works is an important component of this concept. Modification 1A relates to the choices of possible building locations on the site

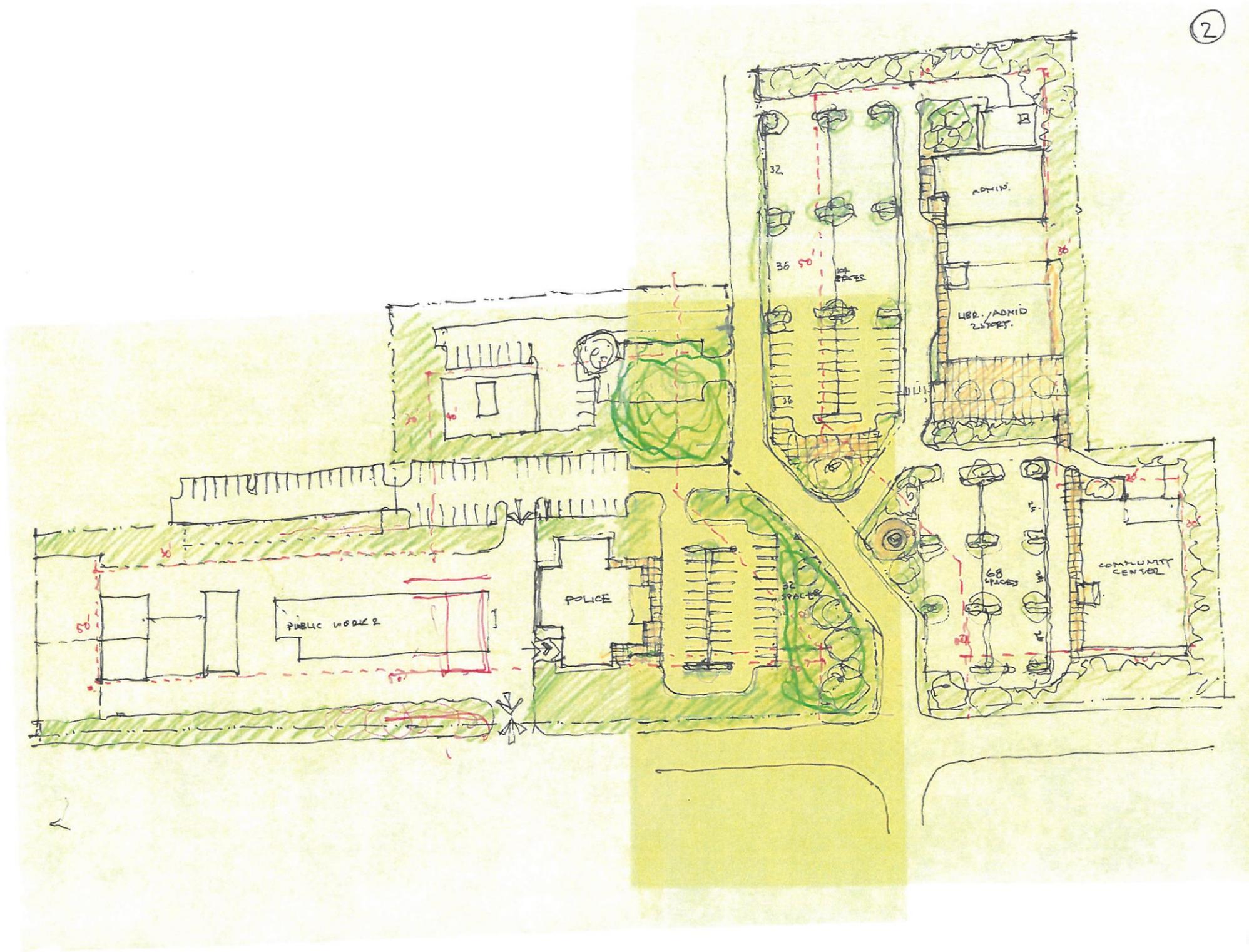
2 This concept again relocates the road. The Community Building is brought to the front edge along Paper Mill Road, the Library and the Administration Building, without Police, is moved toward the rear. Police, Public Works and the Ambulance are across the relocated Hawthorne Lane. Possible re-purposing of the Library Building as the Police Building is considered in this scheme

3 In this concept, Hawthorne Lane is re-aligned. Police and Public works are located in the southern section, with a separate access from Paper Mill Road close to the location of the current police driveway. Public Works stays where it had been and enlarged. The building for the administration, library and community space could be configured in many ways, including using multiple stories to reduce the footprint size. It enhances the use of shared parking. The difference between Concept 4 and 4 A is the final location of the library, the Community Building and the administration relative to one another. Concept 4 is as shown, in Concept 4A, the Community Center is adjacent to the administration section and parking is at the farthest point of the site.

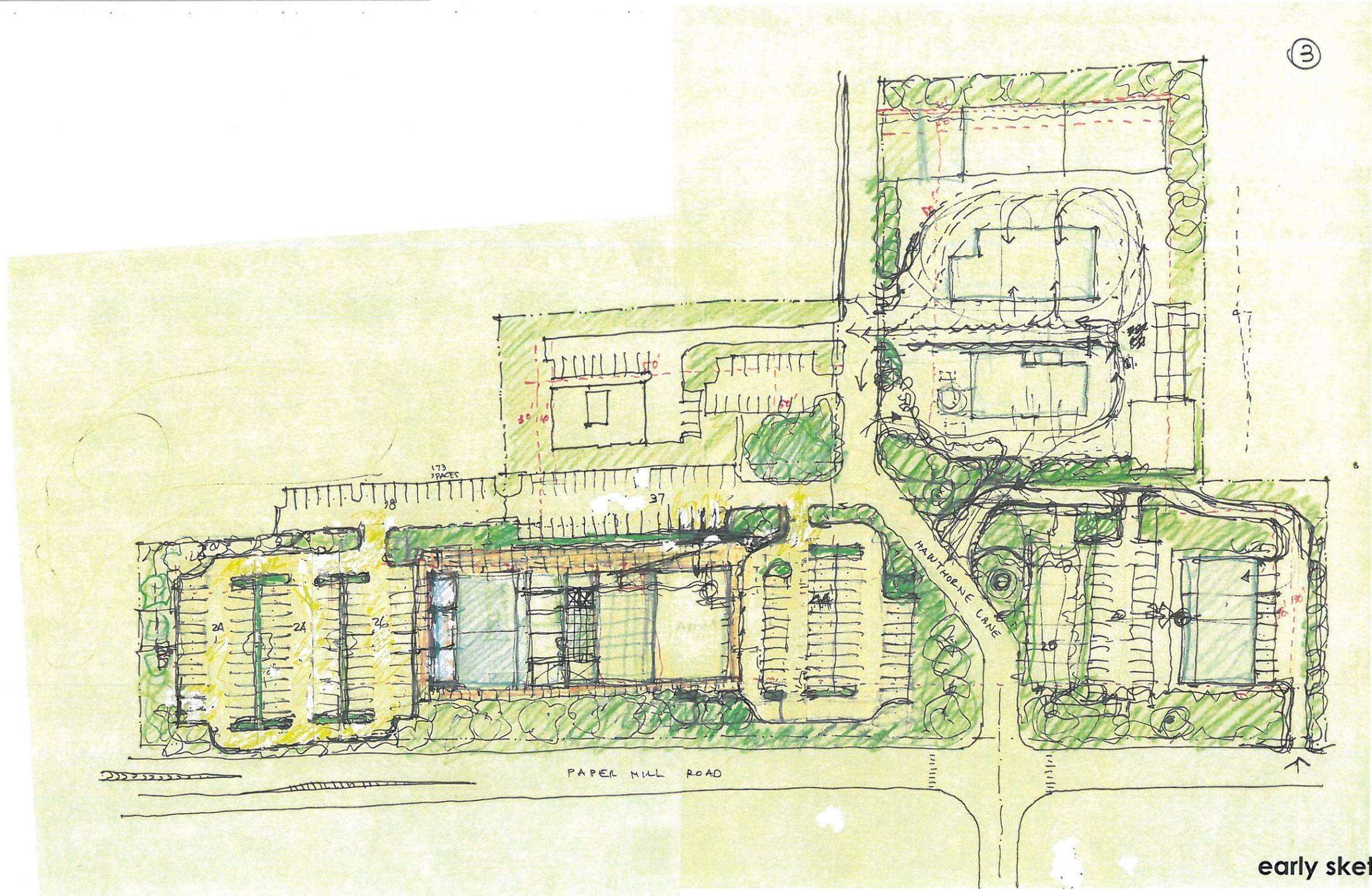
4 In Concept 4, Hawthorne lane is again relocated. Public Works remains in its current location and is enlarged to its program need. The Police are in a separate building on Paper Mill Road and the other uses are grouped together on the library side of Hawthorne Lane.



sketches 1 & 1A

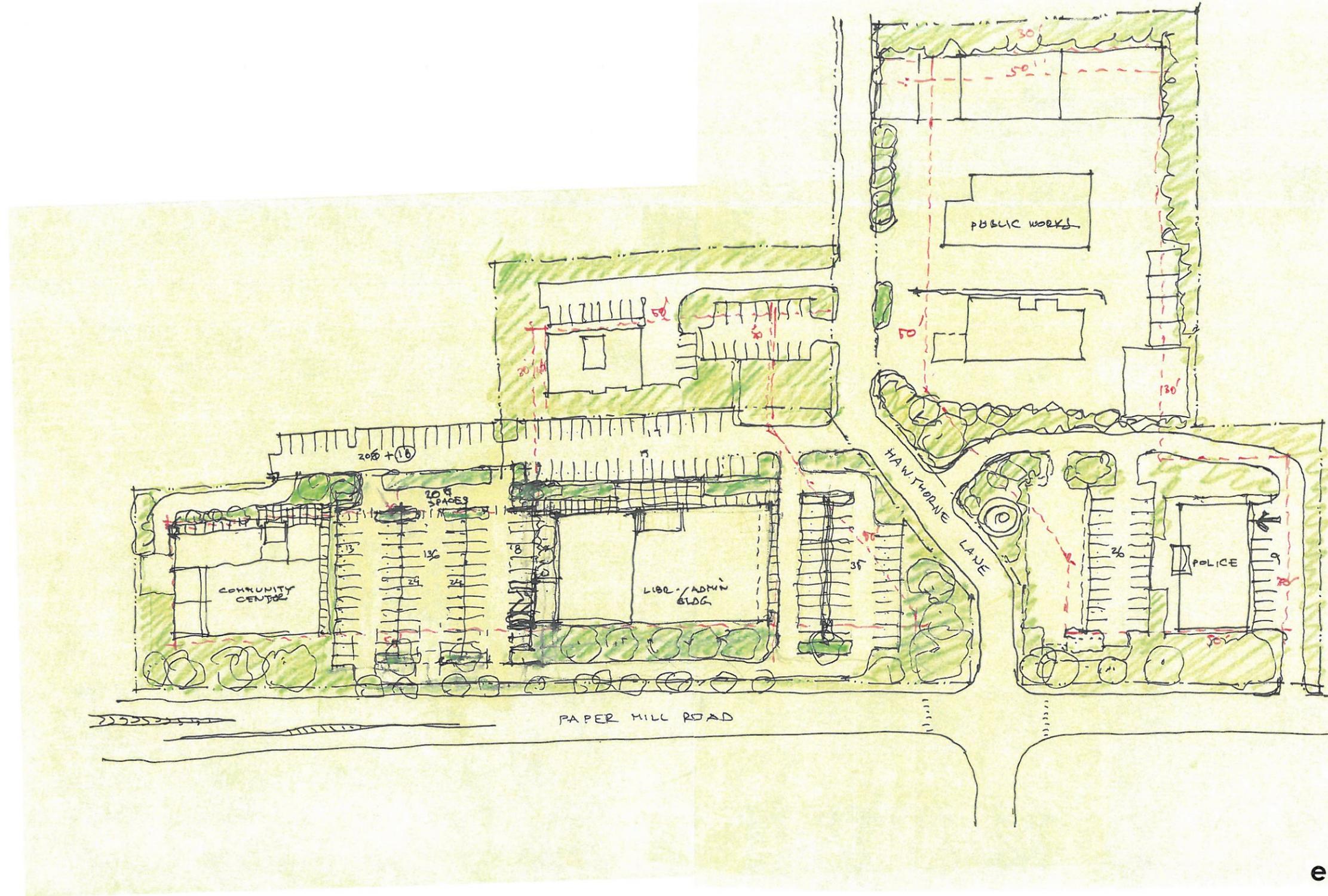


early sketch 2



early sketch 3

4



early sketch 4

SPRINGFIELD TOWNSHIP MUNICIPAL CAMPUS MASTER PLAN DECEMBER 2012 CONCEPTS

The following plans show the concepts initially developed by VITETTA and the Springfield Township Campus Plan Advisory Committee for the future utilization of the Township property at 1510 Paper Mill Road. This property is the current location of the Township Municipal Services—Administration, Police, Public Works and the Springfield Township Library.

VITETTA reviewed and confirmed the space and facilities needs for each of these groups through a planning threshold of 2032; a twenty year projection. These projections serve as the basis for the building sizes and the parking needs that are shown on the Concepts. The Township has also projected the need for a Community Building, supporting various potential Parks and Recreation programs. The Concepts shown include the Community Building.

Springfield Township currently owns approximately 9.1 acres at the Paper Mill Road site. Not all is presently in use. The acreage also includes the Ambulance Station, which is owned by the Ambulance Association. It was not included in the master plan for that reason.

The Township site is bisected by Hawthorne Lane, a public street which serves residents to the east of the Township site. One consideration is to re-align Hawthorne Lane to meet Fraser Road, simplifying that intersection in the process. Several of the concepts were developed using the site with a re-aligned Hawthorne Lane. Concepts were also developed keeping Hawthorne Lane in its current location and leaving the Fraser Road intersection unchanged. The location of Hawthorne Lane impacts the potential building sites, which is illustrated by the concepts. If re-alignment is chosen, it will assure the demolition of the existing administration/ police building.

Each concept was prepared to explore the possibilities associated with the use of the Township Campus, the image of the Township that it projects, and the relationship to the community, both adjacent properties and the Township as a whole. Size of the buildings, environmental sensitivity, relationship to topography, pedestrian approach, vehicular approach and management of stormwater were also considered.

The following concepts are attached—each including some possible advantages or disadvantages. We have included concepts that show the public works facility move to another location. This was not part of the original direction, but was added at the recent workshop:

1, 1A & 1B

Relocates the road. Arranges police and public works on the northeast part of the site. The location of Administration, Library and Community Building and relationship of parking are flexible within the southern part of the site. The outlet from police and public works is an important component of this concept. Modifications 1A and 1B relate to the choices of possible building locations on the site

1C

Addresses how the site could be used if public works were moved to another location. This was discussed at the workshop.

2 & 2A

The road remains in its current location, with public works and the police in the northeast section of the site. As in Concept 1, the separate driveway access to Paper Mill Road for police and public works is important to this scheme. Concept 2A would re-use the library building with renovation for the police. Concept 2 assumes a new building for the police

3

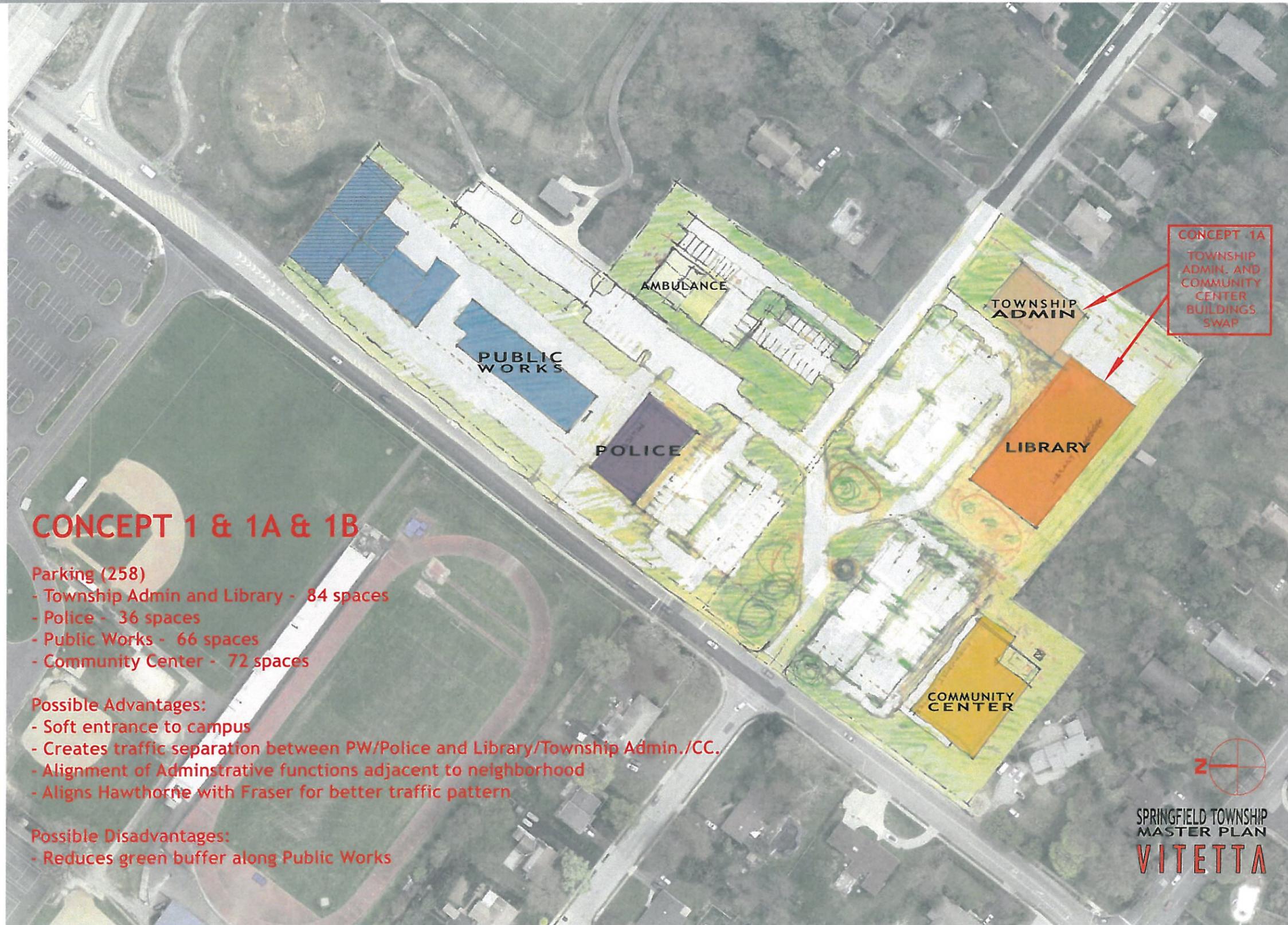
This concept keeps the groups using the site in the same locations as they are currently located. It maximizes the potential re-use of the existing building

4 & 4A

In this concept, Hawthorne Lane is re-aligned. Police and Public works are located in the southern section, with an separate access from Paper Mill Road close to the location of the current police driveway. The building for the administration, library and community space could be configured in many ways, including using multiple stories to reduce the footprint size. It enhances the use of shared parking. The difference between Concept 4 and 4 A is the final location of the library, the Community Building and the administration relative to one another. Concept 4 is as shown, in Concept 4A, the Community Center is adjacent to the administration section and parking is at the farthest point of the site.

4B

This concept removes public works to another undetermined site. It, separates the police from the other uses on site similar to Concept 4 & 4A. It offers a public face to Paper Mill Road and maximizes the separation between the Campus and the neighbors to the south and east.



CONCEPT 1 & 1A & 1B

Parking (258)

- Township Admin and Library - 84 spaces
- Police - 36 spaces
- Public Works - 66 spaces
- Community Center - 72 spaces

Possible Advantages:

- Soft entrance to campus
- Creates traffic separation between PW/Police and Library/Township Admin./CC.
- Alignment of Administrative functions adjacent to neighborhood
- Aligns Hawthorne with Fraser for better traffic pattern

Possible Disadvantages:

- Reduces green buffer along Public Works





CONCEPT 1C

Parking (226)

- Township Admin - 64 spaces
- Police - 66 spaces
- Community Center and Library- 76 spaces
- Ambulance - 20 spaces

Possible Advantages:

- Soft entrance to campus
- Creates traffic separation between Police and Library/Township Admin./CC.
- Alignment of Administrative functions adjacent to neighborhood
- Aligns Hawthorne with Fraser for better traffic pattern

Possible Disadvantages:

- Very little reuse for existing buildings



CONCEPT 2 & 2A

Parking (280)

- Township Admin, Library and C.C. - 222 spaces
- Public Works and Police - 58 spaces

Possible Advantages:

- Semi-soft entrance to campus
- Public building with good street frontage
- Separation of Public Works / Police traffic away from Library / Township Admin. / Community Center
- Combines all public parking to adjacent neighborhood

Possible Disadvantages:

- Hawthorne Lane intersection is not improved
- Possible reuse of library for Police



CONCEPT 3

- Parking (277)**
- Township Admin and Police - 87 spaces
 - Public Works - 20 spaces
 - Library and Community Center - 170 spaces

- Possible Advantages:**
- Public building with good street frontage
 - Reuse of Public Works and Township Admin. buildings

- Possible Disadvantages:**
- Public Works adjacent to neighborhood
 - Traffic flow is not separated



CONCEPT 4 & 4A

Parking (227)

- Township Admin and Library - 74 spaces
- Police - 35 spaces
- Public Works - 20 spaces
- Community Center - 98 spaces

Possible Advantages:

- Soft entrance to campus
- Public building with good street frontage
- Separation of Public Works / Police traffic away from Library / Township Admin. / Community Center
- Aligns Hawthorne with Fraser for better traffic pattern
- Shares parking with Community Center and Township Admin.

Possible Disadvantages:

- Public Works adjacent to neighborhood
- Very little reuse possibilities for existing buildings



SPRINGFIELD TOWNSHIP
MASTER PLAN
VITETTA



CONCEPT 4B

Parking (207)

- Township Admin and Library - 74 spaces
- Police - 35 spaces
- Community Center - 98 spaces

Possible Advantages:

- Soft entrance to campus
- Public building with good street frontage
- Separation of Police traffic away from Library / Township Admin. / Community Center
- Aligns Hawthorne with Fraser for better traffic pattern
- Shares parking with Community Center and Township Admin.

Possible Disadvantages:

- Very little reuse possibilities for existing buildings

SPRINGFIELD TOWNSHIP MUNICIPAL CAMPUS MASTER PLAN JANUARY 2013 CONCEPTS

The following plans show the concepts initially developed by VITETTA and the Springfield Township Campus Plan Advisory Committee for the future utilization of the Township property at 1510 Paper Mill Road. This property is the current location of the Township Municipal Services—Administration, Police, Public Works and the Springfield Township Library.

VITETTA reviewed and confirmed the space and facilities needs for each of these groups through a planning threshold of 2032; a twenty year projection. These projections serve as the basis for the building sizes and the parking needs that are shown on the Concepts. The Township has also projected the need for a Community Building, supporting various potential Parks and Recreation programs. The Concepts shown include the Community Building.

Springfield Township currently owns approximately 9.1 acres at the Paper Mill Road site. Not all is presently in use. The acreage also includes the Ambulance Station, which is owned by the Ambulance Association. It was not included in the master plan for that reason.

The Township site is bisected by Hawthorne Lane, a public street which serves residents to the east of the Township site. One consideration is to re-align Hawthorne Lane to meet Fraser Road, simplifying that intersection in the process. Several of the concepts were developed using the site with a re-aligned Hawthorne Lane. Concepts were also developed keeping Hawthorne Lane in its current location and leaving the Fraser Road intersection unchanged. The location of Hawthorne Lane impacts the potential building sites, which is illustrated by the concepts. If re-alignment is chosen, it will assure the demolition of the existing administration/ police building.

These concepts and options built on the previous sketches to further explore the possibilities associated with the use of the Township Campus, the image of the Township that it projects, and the relationship to the community, both adjacent properties and the Township as a whole. Size of the buildings, environmental sensitivity, relationship to topography, pedestrian approach, vehicular approach and management of stormwater were also considered.

The following concepts are attached—each including some possible advantages or disadvantages:

Option 1 Sketch Sites

Public Works on the site north on Paper Mill Road. It would be linear with back to Paper Mill Road. A large multi-purpose building is placed in the rear of the property along Hawthorne Lane for the Library and the Community Building. Police would have a separate building on the current Library site.

Option 1

Option 1 formalizes the plan sketched as the option. In this option, the Administration Building faces Hawthorne Lane with parking away from the street.

Option 2

Option 2 modifies Option 1 to turn the Administration Building toward Paper Mill Road, with parking between the road and the building.

Sketch 0122.01

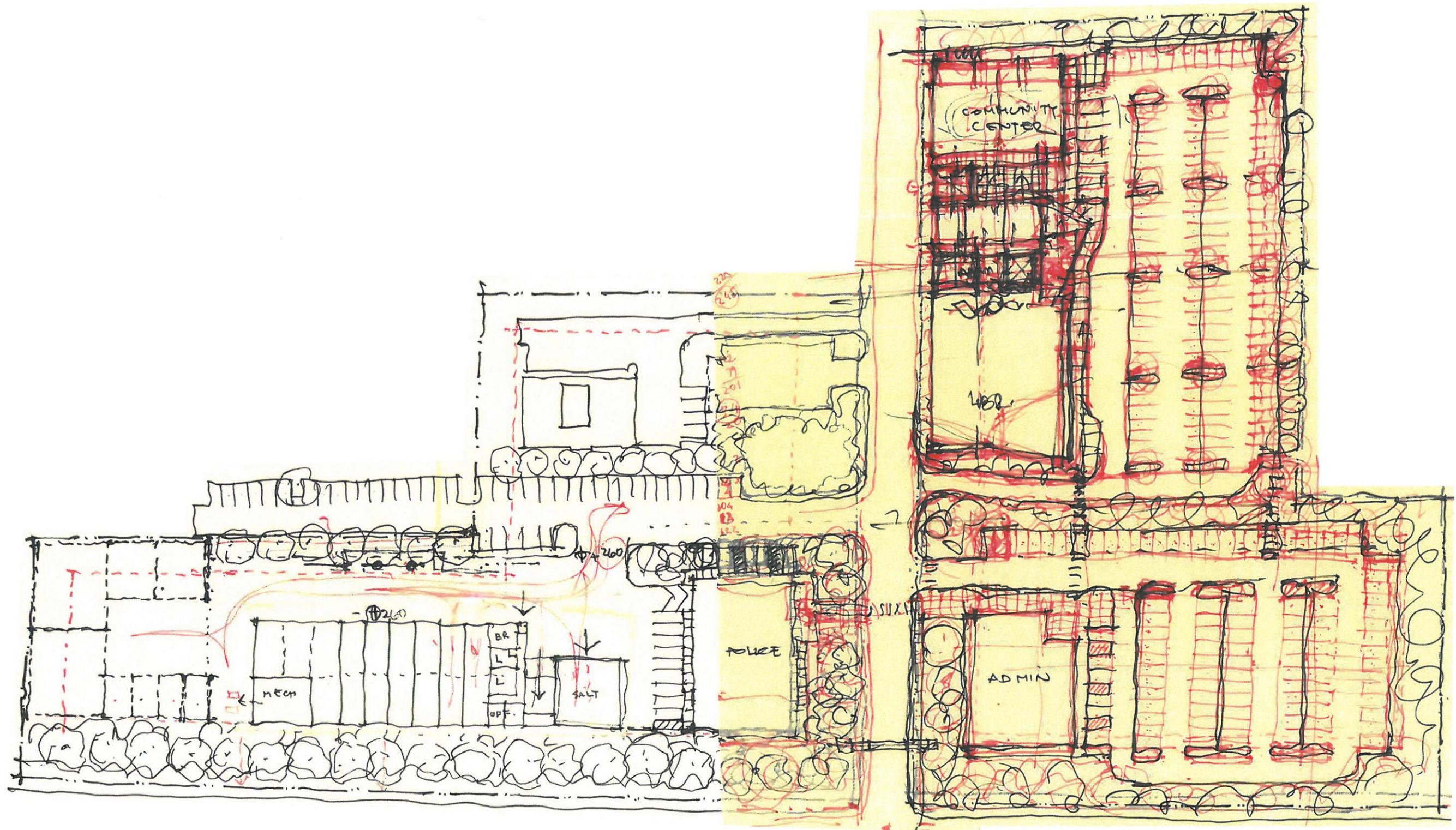
Considers the placement of the Public Works facility on its current site, retaining the existing building.

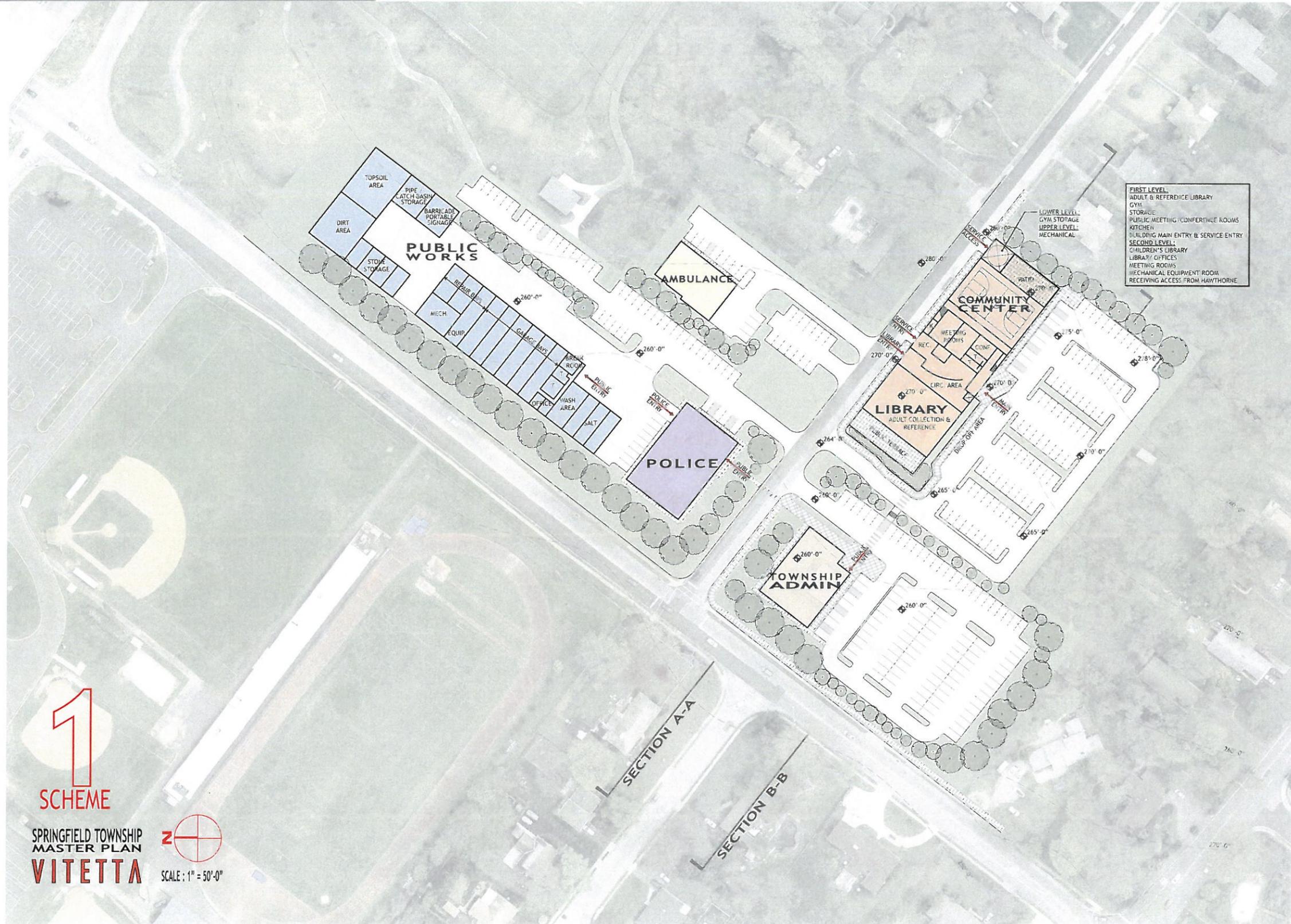
Sketch 0122.02

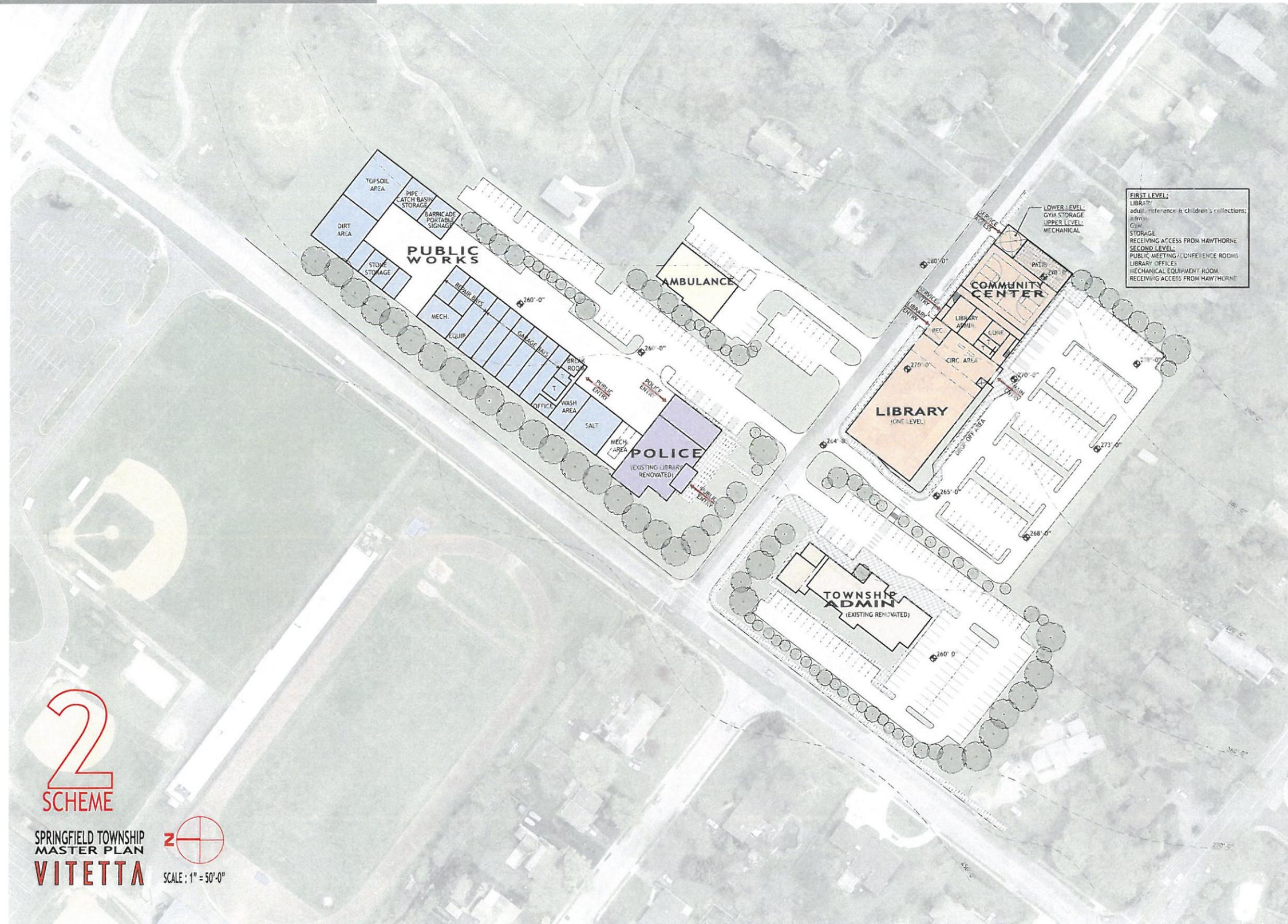
Considers placement of Public Works along Paper Mill Road to the north of the site, without a police building as was shown in Options 1 and 2

Sketch 0122.03

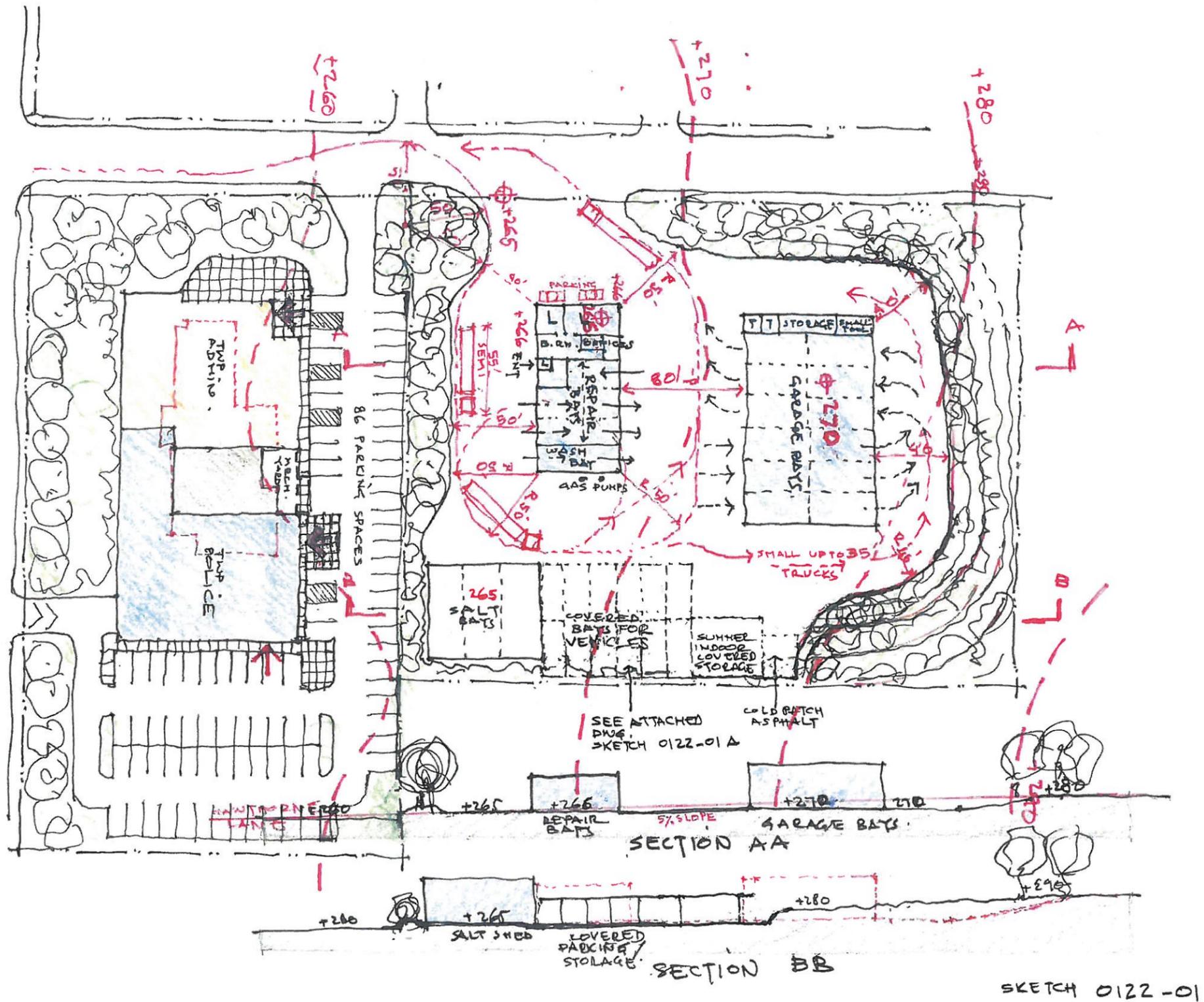
Considers the development of a mega-structure on the library site for the library, administration and the community center. Parking would be north of the main building. This concept required multiple stories and moved parking away from the buildings.

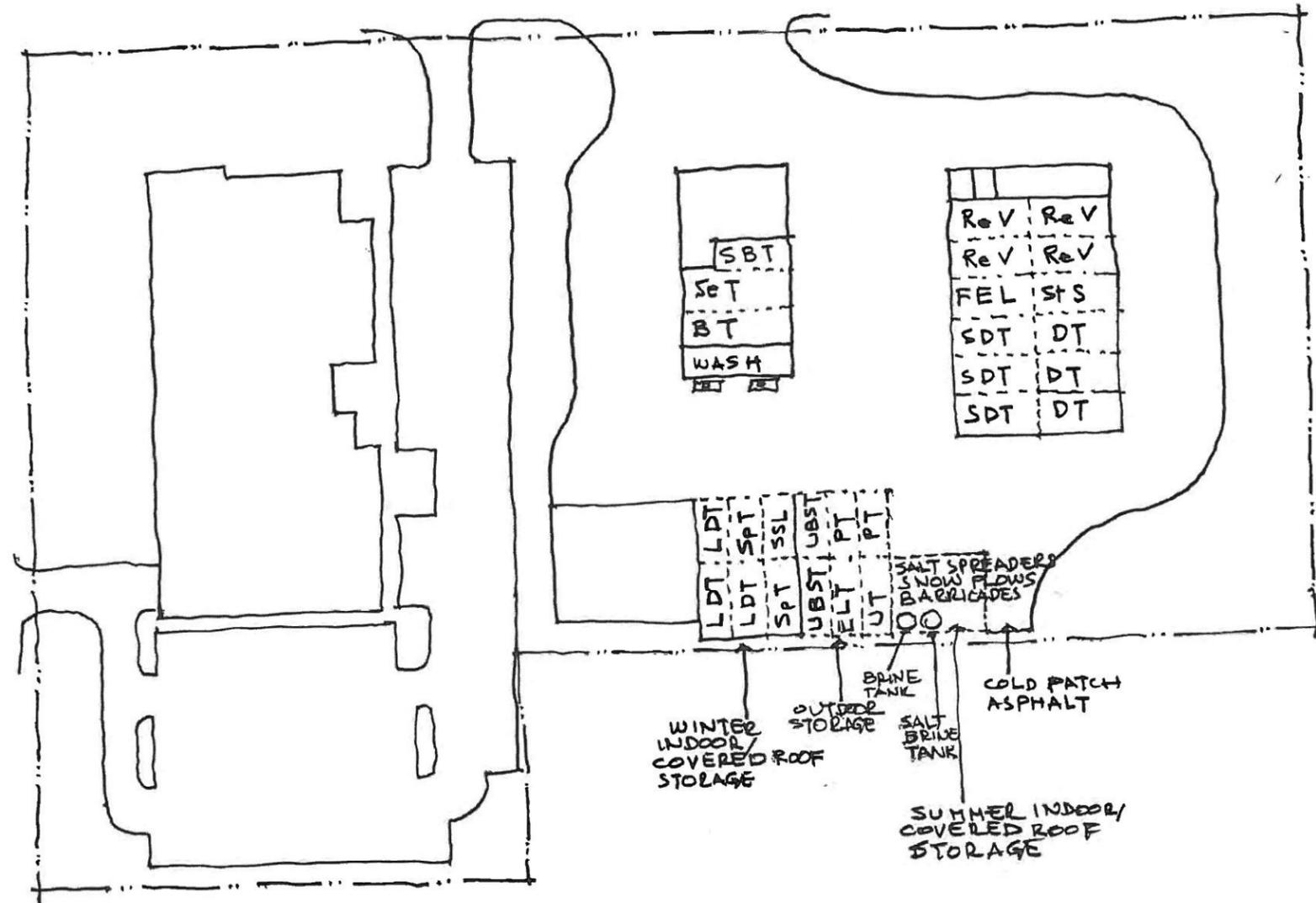




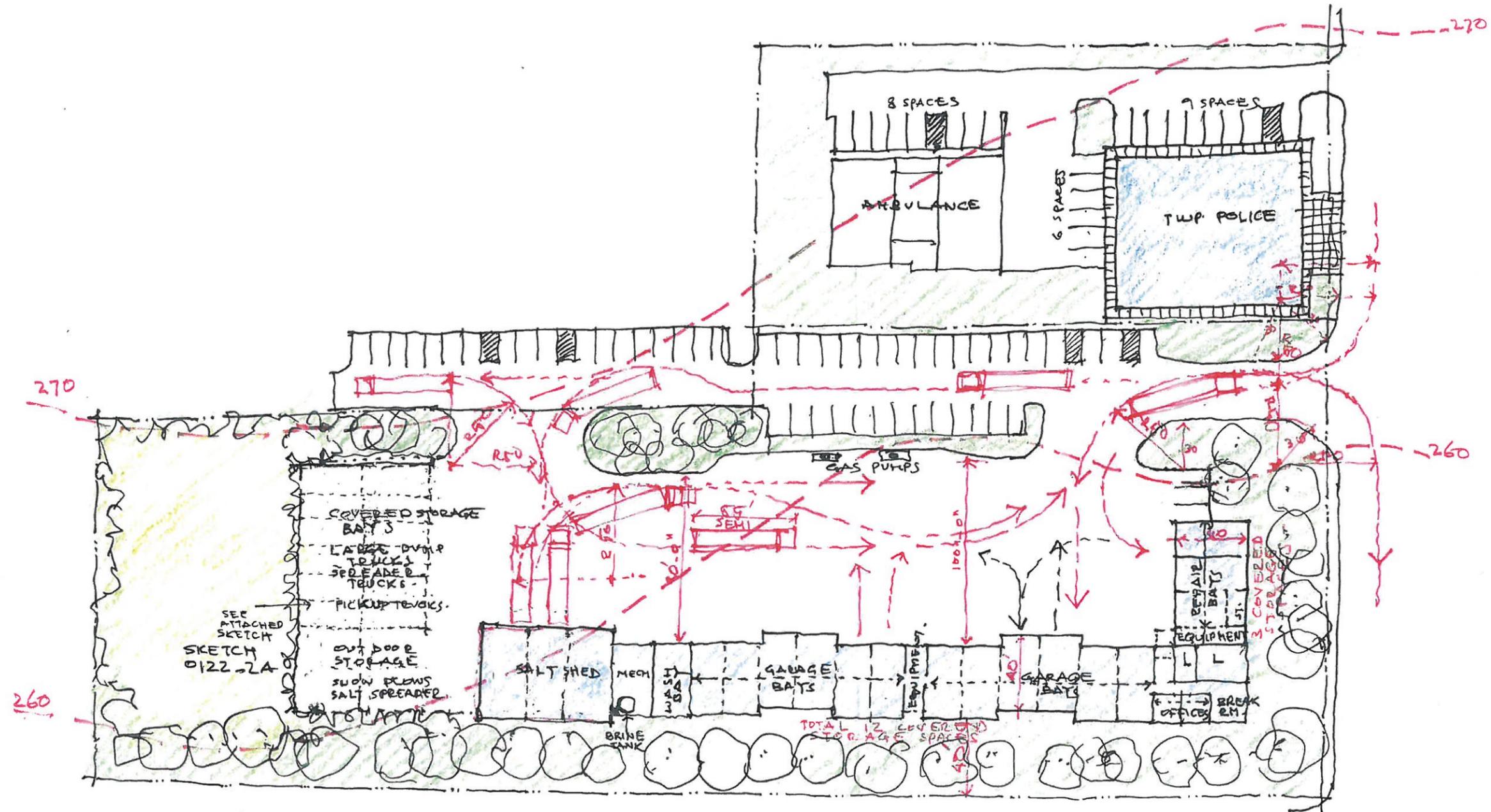


PARTIAL SITE PLAN & SECTIONS
SC 1:60 = 1" = 8'



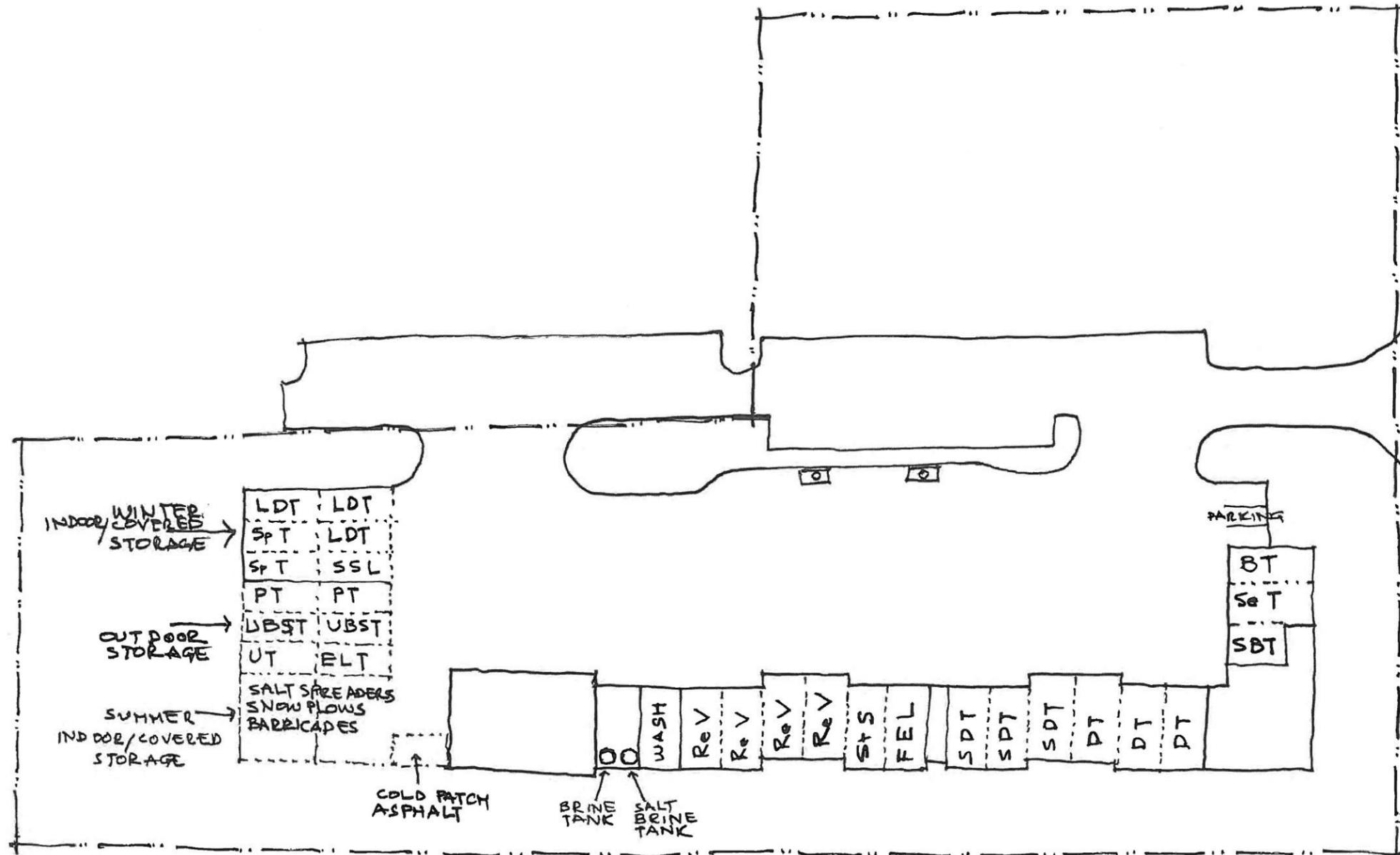


SKETCH 0122 -01A

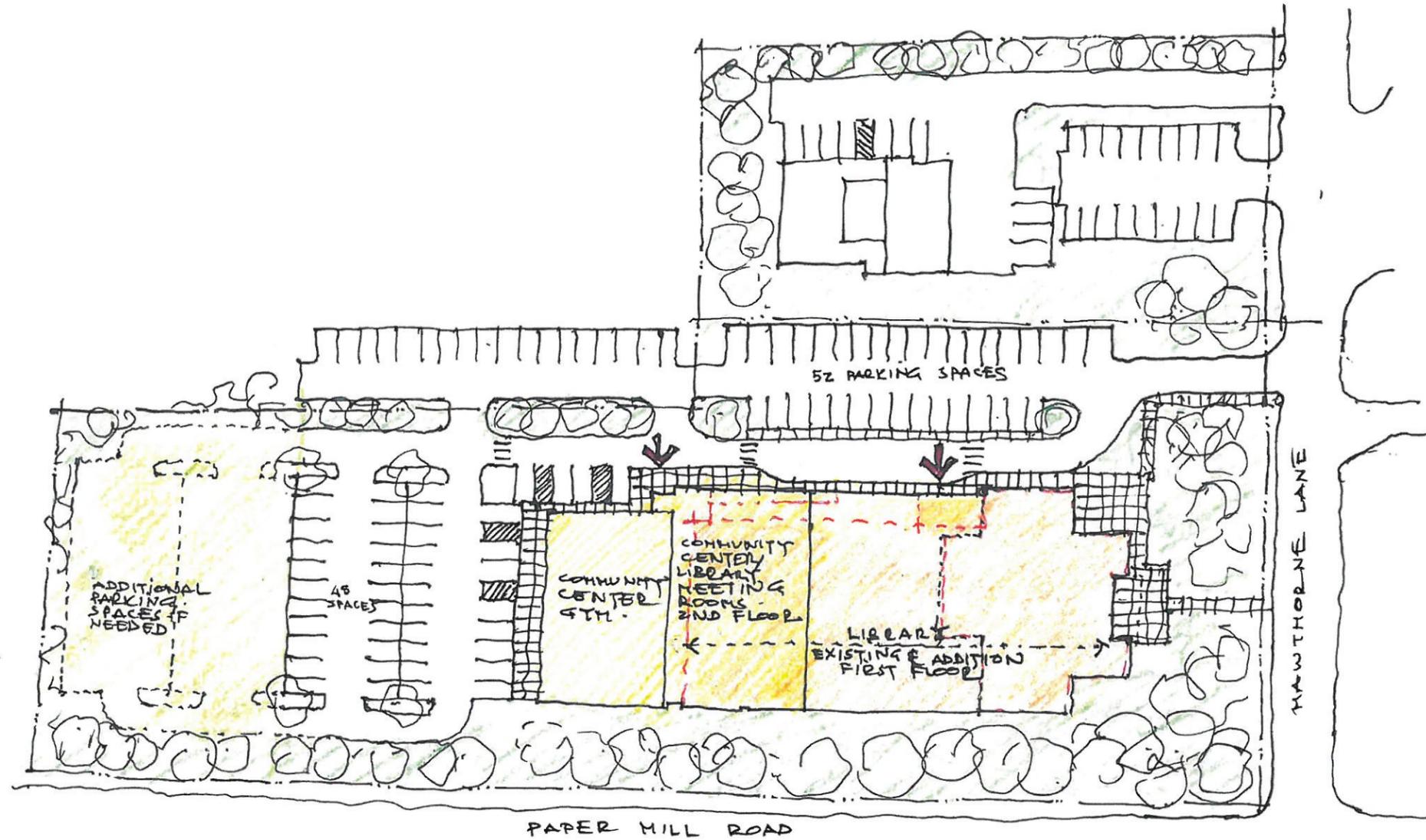


PARTIAL SITE PLAN
ALTERNATE SCHEME
SC' 1:50"=1'-0" PUBLIC WORKS/POLICE

SKETCH 0122-2



SKETCH 0122-2A



PARTIAL FLOOR PLAN
SC. 1:60 = 1'-0"

LIBRARY & COMMUNITY CENTER

SKETCH 0122-3

**SPRINGFIELD TOWNSHIP MUNICIPAL CAMPUS MASTER PLAN
MARCH 2013 CONCEPTS**

The following plans show the concepts initially developed by VITETTA and the Springfield Township Campus Plan Advisory Committee for the future utilization of the Township property at 1510 Paper Mill Road. This property is the current location of the Township Municipal Services—Administration, Police, Public Works and the Springfield Township Library.

VITETTA reviewed and confirmed the space and facilities needs for each of these groups through a planning threshold of 2032; a twenty year projection. These projections serve as the basis for the building sizes and the parking needs that are shown on the Concepts. The Township has also projected the need for a Community Building, supporting various potential Parks and Recreation programs. The Concepts shown include the Community Building.

Springfield Township currently owns approximately 9.1 acres at the Paper Mill Road site. Not all is presently in use. The acreage also includes the Ambulance Station, which is owned by the Ambulance Association. It was not included in the master plan for that reason.

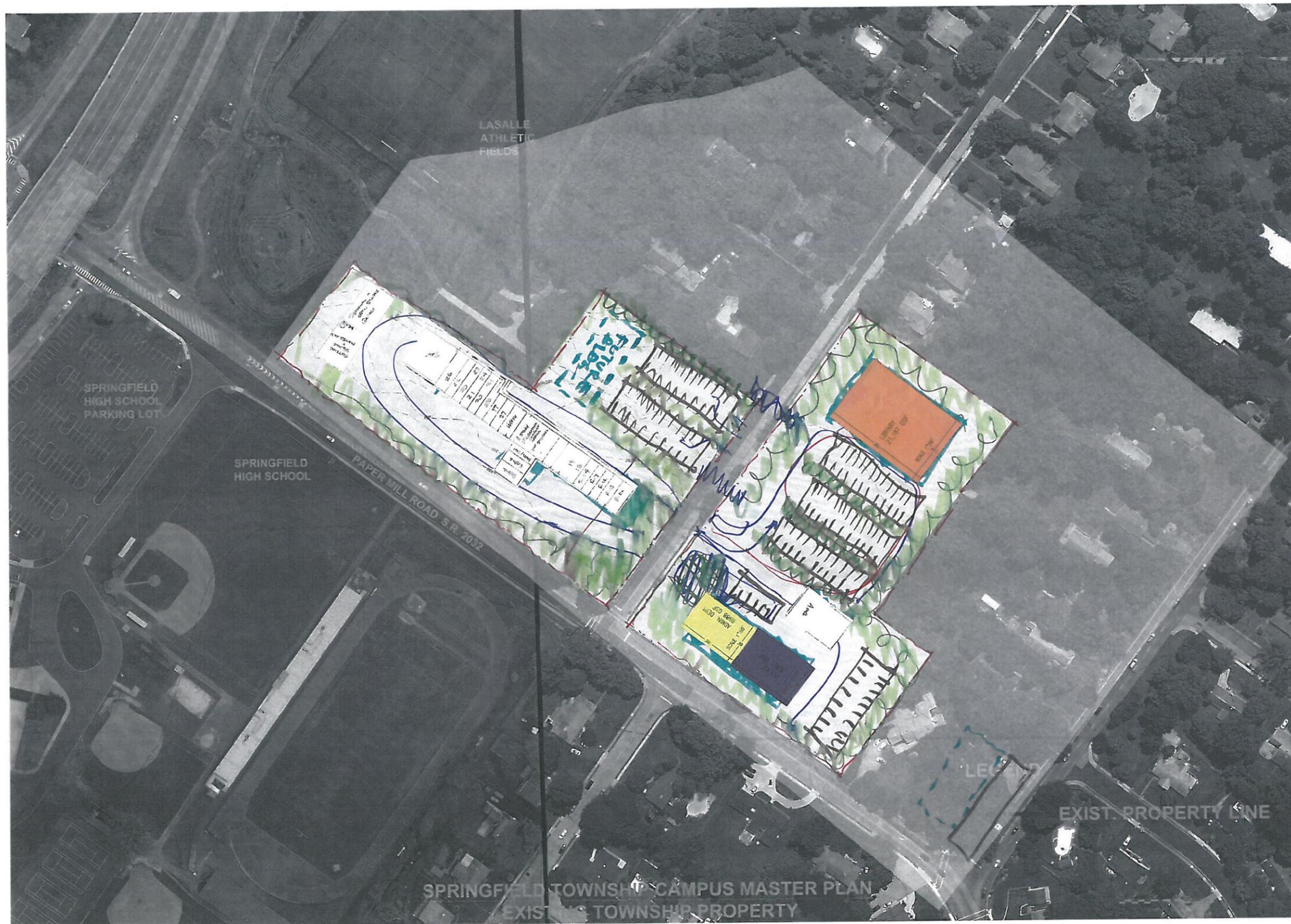
The Township site is bisected by Hawthorne Lane, a public street which serves residents to the east of the Township site. The issues associated with a relocation of Hawthorne Lane were too complicated and provided minimal advantage for the plan, including potential loss of the traffic signal at the intersection with Paper Mill Road.

This concept as this all the others was prepared to explore the possibilities associated with the use of the Township Campus, the image of the Township that it projects, and the relationship to the community, both adjacent properties and the Township as a whole. Size of the buildings, environmental sensitivity, relationship to topography, pedestrian approach, vehicular approach and management of stormwater were also considered.

The following concept is attached—representing the acceptance of a linear public works facility and placing it along Paper Mill Road. This is also the first scheme after the decision to delete the Community Building:

2013 March 27 Sketch

Sites Public Works on the site north on Paper Mill Road. It would be linear to Paper Mill Road but facing the road and set back from it. Administration would remain with the Police and the Library would be to the east of the current Public Works. A large multi-purpose building is placed in the rear of the property along Hawthorne Lane for the Library and the Community Building. Police would have a separate building on the current Library site.



SPRINGFIELD TOWNSHIP MUNICIPAL CAMPUS MASTER PLAN APRIL 2013 CONCEPTS

The following plans show the concepts developed by VITETTA and the Springfield Township Campus Plan Advisory Committee for the future utilization of the Township property at 1510 Paper Mill Road as it approached a final agreed.

VITETTA reviewed and confirmed the space and facilities needs for each of these groups through a planning threshold of 2032; a twenty year projection. These projections serve as the basis for the building sizes and the parking needs that are shown on the Concepts. The Township has also projected the need for a Community Building, supporting various potential Parks and Recreation programs. The Concepts shown include the Community Building.

Springfield Township currently owns approximately 9.1 acres at the Paper Mill Road site. Not all is presently in use. The acreage also includes the Ambulance Station, which is owned by the Ambulance Association. It was not included in the master plan for that reason.

Each concept developed upon discussions of earlier ones. For this group of concepts, the Community Center had been deleted from the program. It had been agreed that relocating Hawthorne Lane provided no real benefit to the Township and that the Public Works would be on the northern part along Paper Mill Road.

This concept as this all the others was prepared to explore the possibilities associated with the use of the Township Campus, the image of the Township that it projects, and the relationship to the community, both adjacent properties and the Township as a whole. Size of the buildings, environmental sensitivity, relationship to topography, pedestrian approach, vehicular approach and management of stormwater were also considered.

The following concepts are attached—representing the acceptance of a linear public works facility and placing it along Paper Mill Road:

4-24-12

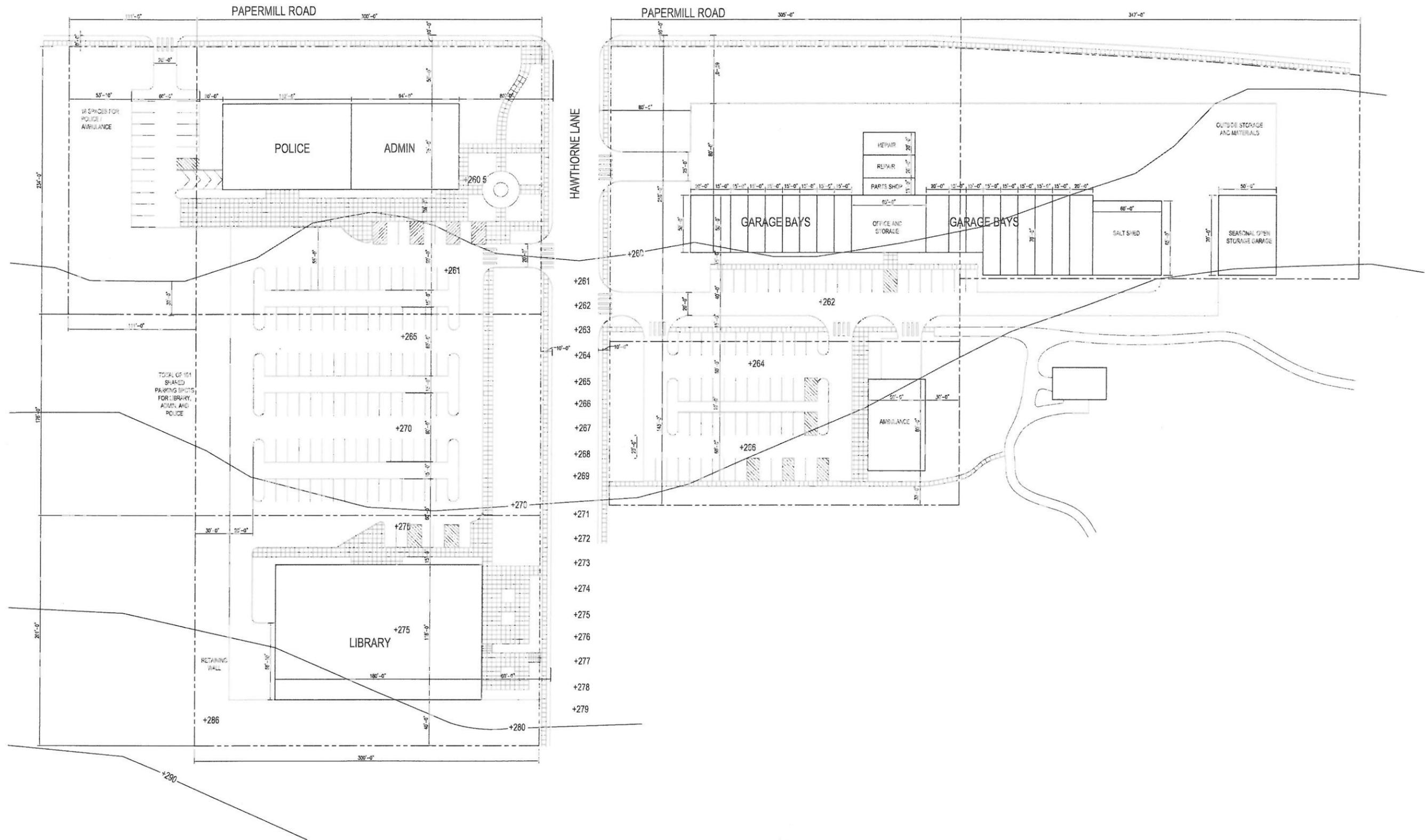
Dimensioned plan that sites Public Works on the site north on Paper Mill Road. It would be linear to Paper Mill Road but facing the road and set back from it. Administration would remain with the Police and the Library would be to the east of the current Public Works. A large multi-purpose building is placed in the rear of the property along Hawthorne Lane for the Library and the Community Building. Police would have a separate building on the current Library site.

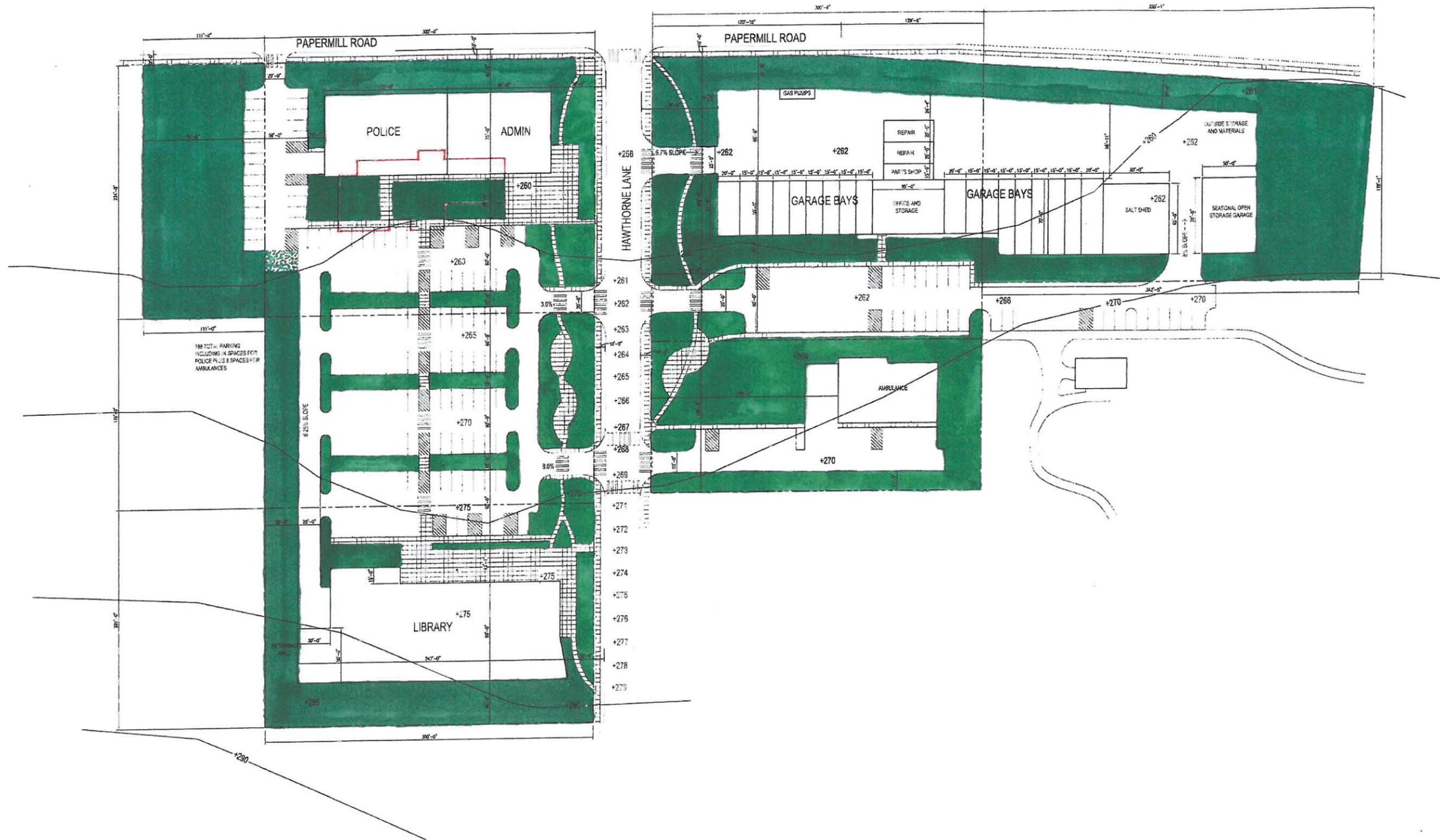
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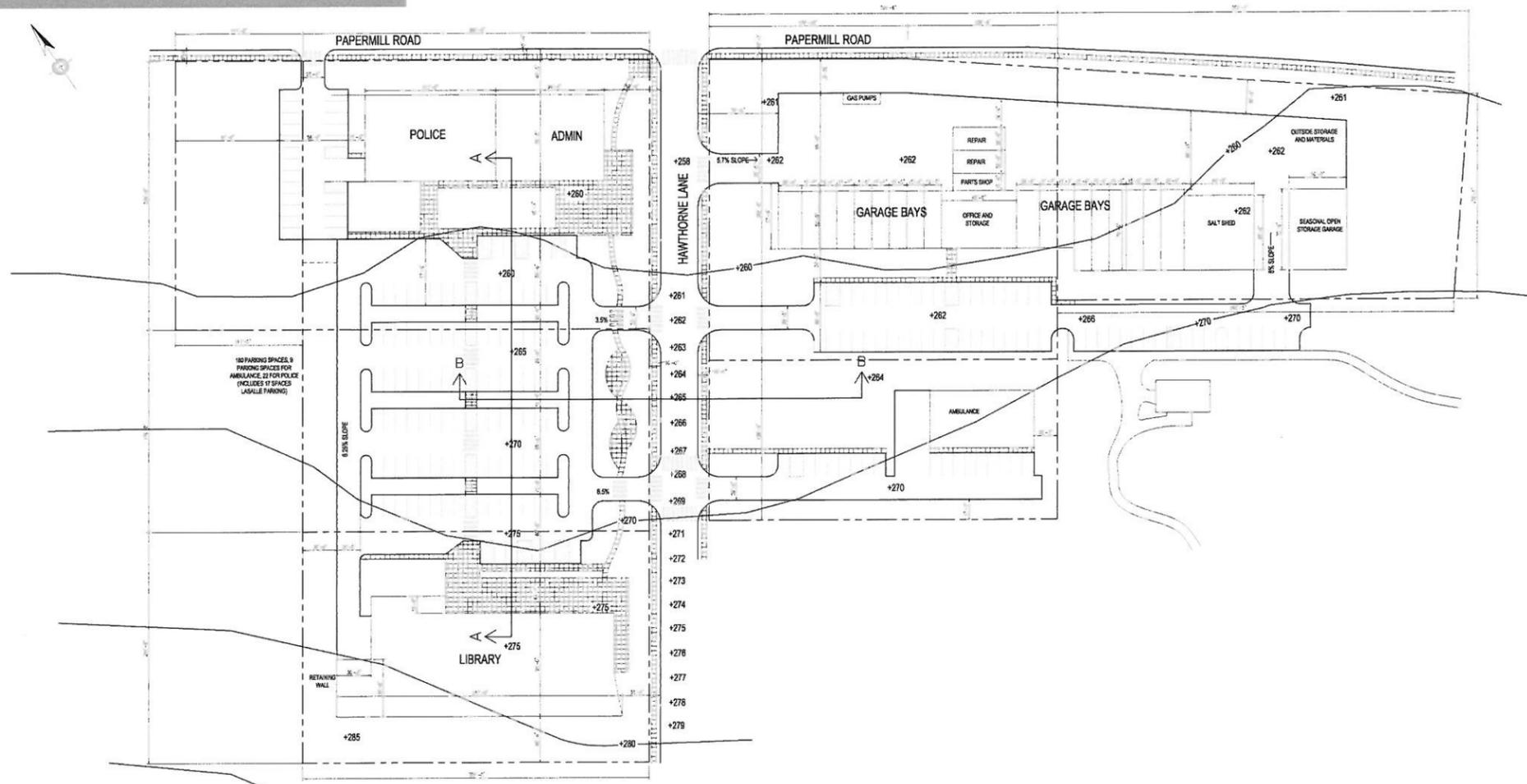
Dimensioned plan, rendered to show green space

Springfield Township Site Plan

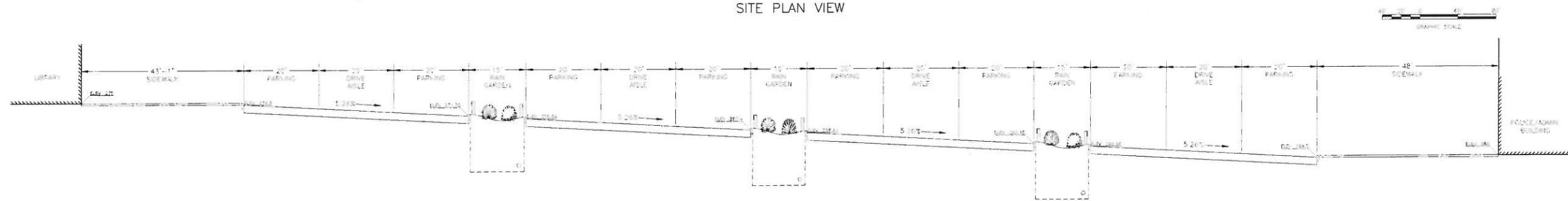
The 4-24-12 Site plan with site sections to show the parking area slopes and proposed rain garden features.







SITE PLAN VIEW



SECTION A-A



SECTION B-B