

Deanna Stockton, P.E., C.M.E.
Municipal Engineer
Municipality of Princeton
400 Witherspoon Street
Princeton, NJ 08540

July 11, 2025

Re: Municipality of Princeton - SRTS FY 2018
Rosedale Road & General Johnson Drive Intersection and
Upgrades to Sidepath along Rosedale Road
Safe Routes to School Design Assistance
Updated Final Design Proposal

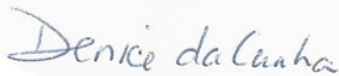
Dear Ms. Stockton:

For concurrent review by the Municipality of Princeton (Princeton) and NJDOT, attached please find our updated Final Design proposal for the Princeton SRTS - 2018 Rosedale Road (CR 604) & General Johnson Drive Intersection and Upgrades to Side Path along Rosedale Road project. We have addressed comments received on our May 28, 2025 draft proposal submission.

These services will modify the Final Design proposal included in our original July 2020 proposal. It is noted that this updated proposal reflects updates to the project including modifications directed during the Preliminary Engineering Phase (PE) as coordinated after the PE Public Information Center and includes expanded survey services, geotechnical services for stormwater management, anticipated environmental permits and ROW engineering services. As documented in our September 2023 PE Zero Cost Modification, this updated scope includes select PE services initiated in PE that will be completed in Final Design, such as wetland delineation services. In addition, extra efforts associated with coordination to bring this Design Assistance project to Construction Authorization that we not originally anticipated have been included, based upon NV5 recent experience with other projects. Please note our Construction Support Proposal will be updated during the Final Design Phase.

We look forward to the acceptance of this updated proposal and advancing the project to Construction Authorization. Please let us know if you have any questions.

Very truly yours,



Denice daCunha, P.E.
Project Manager

cc:

Princeton: James Purcell
NJDOT: Arnab Biswas, Komila Pandit, Marquis McEwen, Mahmood Khandakar
Mercer County: Basit Muzaffar
NV5: Drew Markewicz

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CONSTRUCTION QUALITY ASSURANCE - INFRASTRUCTURE - UTILITY SERVICES AND TECHNOLOGY - PROGRAM MANAGEMENT - ENVIRONMENTAL

Municipality of Princeton SRTS - 2018
Rosedale Road & General Johnson Drive Intersection and
Upgrades to Sidepath Along Rosedale Road
Updated Final Design Scope of Services
July 2025

Completion of Preliminary Engineering (PE) Services conducted in Final Design per our September 28, 2023 PE Zero Cost Modification Proposal

Original PE Tasks that will be completed in FD are listed below and respective efforts are discussed in proposal scope:

- Preliminary Drainage/SWM report will be postponed to FD Phase to account for the results of the Geotechnical Investigation.
- NV5 will no longer perform the ten (10) hand auger for soils evaluation as NJDEP will no longer accept this for the design of porous pavement. The FD scope will be revised to account for additional soil test pits/borings to comply with the NJDEP soils testing criteria.
- Pre-Application meetings were not conducted in PE Phase to allow for an updated wetland delineation and to account for the revised sidewalk limits.
- Final evaluation of impacts to existing drainage/utilities by the porous pavement section will be performed as part of the FD Scope once the final stone reservoir depth has been designed. The existing drainage needs to be cleaned and supplemental survey performed to fill in missing information (pipe size, inverts, etc) on the basemap.

Utility Design Services

The intent is to avoid utility impacts. If impacts are unavoidable, the following services can be provided as items of extra work:

- Develop Alternatives of Accommodation (4050)**
- Prepare Utility Owner Design Authorization Checklist (4055)**
- Prepare Utility Agreement Plans, Specifications and Estimates (4060)**
- Incorporate Utility Design in Contract Documents (4090)**

Prepare Jurisdictional Limit Maps and Agreements (4100)

Once the ROW is determined, a draft jurisdiction agreement map will be prepared. It is assumed the Municipality of Princeton will maintain the shared use path within Mercer County ROW. Preparation of the Agreement with the County is not included.

Conduct Supplemental Surveys (4215) – See AmerCom Proposal

Complete Lighting Design (4230) - not included. Path lighting is not proposed.

Complete Traffic Signal, Signing and Striping Plans (4240) (Signal improvements not applicable)

This effort includes side path signage and associated striping at unsignalized intersections (crosswalks) s.

Previously anticipated traffic signal involvement at the below intersections are no longer included for reasons cited:

- Rosedale Road (CR 604) & General Johnson Road / Park Access

- Mercer County has constructed a roundabout at this location. Improvements with this SRTS project will tie into the County's recently constructed improvements at this location
- Elm Road (CR 604) & Rosedale Road (CR 604) / Cleveland Lane
 - As coordinated during the PE Phase, Mercer County will improve this intersection as part of a separate project to meet ADA and MUTCD standards. Improvements with this SRTS project will tie into the County's improvements at this location. NV5 will coordinate tie in with Mercer County prior improvements and it is assumed that curb ramp design is outside the SRTS project limits.

Stormwater Management Field Testing – See AmerCom Proposal

Conduct Geotechnical Foundation, Roadway and Rock Slope Design (4320)

These efforts are associated with pavement design recommendations for side path improvements and to also identify the estimated bearing capacity to be used for the design of low height landscape walls.

Environmental Services

Complete Drainage Design (4270)

The project will be considered a “Major Development” per the Statewide Stormwater Management Regulations (NJAC 7:8), since it is anticipated there will be more than one acre of disturbance associated with the reconstruction of the existing asphalt path/new path construction and the net increase in impervious area associated with the existing path widening and new path areas will exceed ¼ acre. Based coordination with the Municipality of Princeton, the paths are to be construct with porous asphalt.

The porous asphalt system will be designed in accordance with Chapter 9.7 of the New Jersey Best Practices Manual (NJBMP). It is anticipated that the porous pavement system can be designed to meet the Statewide Stormwater Management Regulations for peak flow control and groundwater recharge. New impervious area associated with non-motorized traffic is exempt from the water quality requirements of the stormwater management regulations.

NV5 will complete the drainage/SWM design following the NJDOT Drainage Design Manual. Final evaluation of impacts to existing drainage/utilities by the porous pavement section will be performed as part of the FD Scope once the final stone reservoir depth has been designed. The existing drainage networks will need to be cleaned and supplemental survey performed to fill in missing information (pipe size, inverts, etc) on the basemap. Drainage information will be identified on the plan sheets, as necessary, and details prepared with specifications for non-standard items. Drainage items and quantities will be called out and the associated costs included within the project's construction cost estimate. A final drainage design/SWM report will be prepared.

Complete Hydrologic and Hydraulic Analysis (4310)

Although a Flood Hazard Area Permit is anticipated due to impacts within regulated areas, we do not anticipate the need for H&H watercourse modeling. Refer to Activity 4385 for clarification as to why H&H modeling is not anticipated.

Delineate Wetlands (3008)

NV5 performed wetland delineations during the PE Project Phase.

Supplemental wetland delineations will be performed during the FD Phase for the reasons listed below. The wetland delineation will be performed according to the methodology outlined in the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands. The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region will be referenced for wetland plant indicator status and regional soil characteristics.

- Wetlands delineated during the PE Phase were surveyed and located on a wetland survey plan. Several wetland flags demarking the A, C, D, E wetlands were not present in the field and do not appear on the wetland survey plan. The missing wetland flags will be reestablished in the field.
- Wetlands in the vicinity of Stony Brook need to be reevaluated since part of the wetland delineation was performed prior to several storm events. The character of land in the vicinity of Stony Brook changed dramatically following storm event necessitating a reevaluation and re-delineation.
- A preliminary wetland investigation will be performed for the entire study area. and if present, wetlands will be delineated.
- A new sidewalk is proposed on the south side of Rosedale Road. NV5 will perform a preliminary wetland investigation within 150-feet of the proposed sidewalk on the south side of Rosedale Road. If present, wetlands will be delineated.

Data sheets documenting the basis for the wetland delineation and photographs documenting existing conditions will be prepared as required by the NJDEP.

A wetland investigation summary document will be prepared.

Conduct Ecology Study (3765)

Threatened and Endangered Species Habitat Assessment

NV5 will perform a threatened and endangered species habitat assessment in the study area. The field assessment will focus on the list of Federal and State threatened and endangered species reported from several secondary resources including but not limited USFWS IPaC, USFWS community lists, NJDEP Landscape Project mapping and NHP letter. A visual assessment of vegetation community types and composition, tree size and condition, forest fragmentation, invasive species, soils, hydrology, and evidence of disturbance will be evaluated. The cover types will be compared to the habitat requirements for the study species to determine suitable habitat.

The threatened and endangered species habitat assessment is necessary to support environmental permitting.

A threatened and endangered species habitat assessment summary document will be prepared.

Agency Coordination

A pre-application conference request package will be assembled by NV5 and submitted to NJDOT for review prior to submission. The package will consist of a project description, meeting agenda, figures/maps depicting environmental constraints project photographs, and proposed improvement plans. NV5 will attend the pre-application conference with NJDOT and prepare meeting minutes.

Prepare Permit Applications (4385)

The following environmental permits/approvals are anticipated for this project:

- Freshwater Wetlands GP17A or Individual Permit
- NJDEP Flood Hazard Area Individual Permit
- D&R Canal Commission Approval
- Mercer County SCD Plan Certification
- NJPDES General Permit for Construction Activities

If a Section 4(f) Programmatic Agreement is required for this project, and if requested all associated work will be performed as extra work. Otherwise it is assumed NJDOT BEPR will take the lead in securing the Section 4(f) Programmatic Agreement.

Freshwater Wetlands Permitting:

Upon completion of the wetland field delineation and subsequent wetland flag location survey, NV5 Environmental staff will prepare an NJDEP Freshwater Wetland Permit application package for submittal to NJDEP. Given that the intent is to build the trail within the existing public right-of-way, if it can be shown that the 10' width of the trail (in certain areas) is due to ADA compliance, then NJDEP may allow the use of a GP-17, which has no impact acreage requirements. If that compliance requirement cannot be met to NJDEP's satisfaction, and provided impacts to wetlands, waters and/or wetland transition areas do not exceed 0.25 acres, then a Statewide General Permit No. 17A may be applicable. Based on the final disturbance limits of the trail, if the 0.25 acre maximum is exceeded, an NJDEP Individual Freshwater Wetland Permit (FWW-IP) will be required. The FWW-IP will require compensatory wetland mitigation. During the Pre-Application meeting with NJDEP during the Preliminary Design Phase, NV5 senior environmental staff and NJDOT environmental staff will discuss the listed permitting options with NJDEP to determine the correct permitting approach.

As mentioned above, while wetland mitigation is not required for an NJDEP Statewide General Permit No. 17A, it would be required if an NJDEP Individual Freshwater Wetland Permit is ultimately required. However, mitigation is only required for permanent wetland impacts. Based on field visit observations, NV5 anticipates relatively minor permanent impacts to wetlands and therefore the most economical method of mitigation would be to go to an NJDEP approved Wetland Mitigation Bank. Therefore, within this proposal NV5 has provided time for coordination with the Municipality of Princeton, NJDOT, NJDEP and an NJDEP-approved Wetland Mitigation Bank administrator to determine mitigation credit availability and cost per credit. It is anticipated that the Project Sponsor would then continue negotiations with the Mitigation Bank owner independently.

Flood Hazard Area (FHA) Permitting:

The path runs along Rosedale Road that crosses Stoney Brook to the west of General Johnson Road. Stoney Brook is a State Studied (FW2-NTC1) watercourse with a delineated floodway and flood hazard area. NV5 proposes to utilize the available study/mapping for this project. The existing path is located within the regulated floodway and flood hazard area of Stony Brook. However, based on the understanding that no modifications to the existing bridge over Stoney Brook is anticipated and the proposed path widening will not change the overtopping elevation within the regulatory floodway/floodplain, we do not anticipate the need for H&H modeling. To construct the path, there may be impacts to the riparian zone and/or regulated floodplain associated with Stoney Brook that will require a FHA Individual Permit as Permit-by-Rules and General Permits do not apply to Major Developments. It is NV5's expectation that the path improvements can be designed to comply with the FHA-IP allowable riparian impacts of 10 sf/lf. Since this project primarily involves the reconstruction of an existing path within the riparian zones, limited anticipated vegetation removal is required. NV5 believes that no riparian mitigation will be required and NV5 will prepare the necessary LURP application and all supporting documents.

D&R Canal Commission (DRCC) Approval:

Given that the project falls within Zone B of the Delaware and Raritan Canal Commission jurisdiction and meets the criteria of a "Major Project", DRCC approval will be required. Since the project does not fall within one of the Commission's General Permits, the proposed project will need an Individual Approval from the DRCC. The proposed improvements will therefore have to comply with Subchapters 8, 9 and 10 of the DRCC's regulations. Since the project will be considered a Major Project, the D&R

Canal Commission will review stormwater management calculations, the stream corridor impact, and possibly visual impacts. We do not believe that an assessment of traffic impacts will be required.

Mercer County SCD Plan Certification:

Since disturbance will exceed 5,000 square feet, soil erosion and sediment control plan certification will be required by the Mercer County Soil Conservation District. NV5 will submit the documents prepared under Activity 4410 and submitted to the SCD under Activity 4430, along with an application to the District for approval.

NJPDES General Permit for Construction Activities:

Since disturbance will exceed one (1) acre, a NJPDES general permit for construction activities will be required from NJDEP. NV5 will complete and submit the online application, following SCD plan certification from Mercer County SCD.

Below we have identified Environmental Permitting Clarifications:

- Municipality of Princeton is responsible for all permit application fees. (Permit/Application Fees are NOT included in this proposal. An assumed budget of \$12,000 to \$20,000 will be needed to cover the wetland permit; FHA permit; D&R Commission review; SCD Plan Certification and NJPDES permit).
- The design and permitting of an onsite or offsite wetland mitigation area or riparian mitigation area is not anticipated.
- The following environmental efforts ARE NOT anticipated: Green Acres involvement; Hazardous Waste; Air/Noise studies.
- NV5 will incorporate permit conditions within the Final Design Documents, yet no other efforts associated with Permit Conditions are anticipated.
- Any additional Hazardous or Cultural Resources services are not included within this scope. Assuming the alignment/LOD doesn't change to include areas that were previously unsurveyed, there should be no further need for Cultural Resources services during Final Design, other than summaries of completed services/findings for permit application.

Review and Submit Permit Application (4390)

NV5 will revise the draft applications based on review comments provided by the Municipality/County/NJDOT. NV5 will submit the permit applications to NJDEP. NV5 will monitor the review process and follow up with the NJDEP to respond to any questions in order to expedite the issuance of the permit.

Secure Permits (4395)

The permitting agencies will review the permit applications for completeness and will provide comments. NV5 will provide any necessary additional information as requested by the permitting agencies, revise the applications as necessary, and monitor the progress of the permitting agencies reviews. Upon receipt of the approved permits, NV5 will incorporate permit conditions into the Final Design Documents.

Prepare Soil Erosion and Sediment Control Report and Plans (4410)

NV5 will prepare the soil erosion and sediment control (SESC) report, which identifies the areas requiring temporary and permanent erosion control and identifies the type of controls to be most effective. NV5 will also prepare the SESC plans based on engineering/design needs, incorporating the controls and features identified in the SESC report. We will develop associated SESC notes, sequence of construction, details and specifications. NV5 will submit the SESC Report and Plans to the Municipality/County/NJDOT for review and comment.

Review Soil Erosion and Sediment Control Report and Plans (4430)

Upon revising the plans based on Municipality/County/NJDOT comments, NV5 will submit the SESC Report and Plans to Mercer County Soil Conservation District (SCD) for review and approval. NV5 will address any comments from Mercer County SCD.

Complete Environmental Plans (4585)

NV5 will prepare the environmental plan sheets, incorporating environmental constraints, impacts, mitigation, commitments and permit conditions into the contract documents.

Pre-Application Meetings

Two (2) Pre-Application meetings are anticipated, one with NJDEP and one with DRCC/NJWSA. The pre-application meetings will be conducted to confirm permit requirements. NV5 will coordinate these meetings (Municipality of Princeton, Mercer County and NJDOT can attend) and prepare associated meeting minutes.

Structure Plans (4160) (Effort limited to Landscape Walls)

There are no proposed structures with the acceptance of landscape walls to avoid/minimize environmental, slope of ROW impacts. We have assumed that low retaining wall / landscape design would be conducted by the Contractor or others and reviewed as part of Construction Engineering Support Services. Specifications would indicate the preferred appearance and design parameters.

We have not included geotechnical or structural design services related to structural elements such as retaining walls for engineered designed walls as wall needs are more similar to landscape type walls as summarized below with final length and height determined in this phase:

- Starting point 450LF± east of Preservation Plan (Private) to 800LF± west of Constitution Hill West (Private)
- Estimated length: Sta. 51+00± to Sta. 59+00± = 800LF±
- Estimated height: 2'± – 3'± depending on location

Complete Horizontal/Vertical Geometry (4210)

Services include a digital terrain model of the proposed improvements, cross section evaluation, and development of driveway profiles to establish a limit of disturbance considering topography, site constraints, and strict compliance to design standards. In order to minimize impacts, at certain locations multiple iterations (horizontally and vertically) are required, for example where slopes or wetland areas are near the side path locations and to avoid / minimize ROW and utility impacts.

The total length of the project limits is approximately 7030LF (1.33 Miles) and the layout involves:

- Approximately 6450 LF of proposed side path
- Approximately 2600 LF of sidewalk
- 18 driveways requiring evaluation / profiles
- 20 curb ramp designs and details for adherence to ADA curb ramp design compliance
- 1600 LF of proposed landscape walls

Prepare Final Roadway Plans (4220)

The improvements proposed in the PE Submission will be advanced into final roadway plans. There are an estimated 9 constructions plans at 30 scale

The final roadway plans are anticipated to include:

- Key Sheet
- Plan Sheet Index

- Estimate – Distribution of Quantities
- Typical Sections
- Construction Plans & Profiles
- Structural Plans
- Traffic Control and Staging Plans
- Environmental Plans
- Construction Details
- Landscape Plans
- Traffic Striping and Signing Plans
- Traffic Signal / Electrical Plans (not included, Mercer County to improve Em Road intersection)

Develop Construction Cost Estimate (4275)

NV5 will develop the construction estimate per NJDOT latest procedures.

Develop Specifications (4280) (Special Provisions)

NV5 will need Princeton's "front end" specifications. The project will be bid out by Princeton and must meet NJDOT Local Aid federal requirements.

Special Provisions (specifications) - Based on recent directions from NJDOT Local Aid, specifications for the Design Assistance contracts must be in a consolidated format that combines the LPA's bid requirements with the NJDOT Special Provisions.

Develop Construction Schedule (4285)

NV5 will develop a construction schedule for the project

ROW Services (If needed, see AmerCom proposal)

The below can be provided, if needed for up to nine properties. It is understood that Princeton may have initiated securing of some ROW. NV5 will coordinate with Princeton on status. It is noted that the preparation of ROW documents are reimbursable through Design Assistance but the coordination with property owners and any acquisition costs will be the responsibility of Princeton.

Conduct Title Search (4600)

Prepare ROW Plans and Documents (4605)

Prepare Pre-Final ROW Submission (4615)

Prepare Final ROW Submission (4625)

Prepare Final Design Submission Package (4290)

NV5 will prepare the Final Design (FD) Submission package for Municipality of Princeton, Mercer County and NJDOT Local Aid.

The package will include:

- Transmittal letter indicating the distribution of all FD Submission deliverables
- Design Communications Report (DCR)
- Final Plans
- Special Provisions - show all revisions required to the current Standard Input (SI)
- Construction Cost Estimate
- Construction Schedule

Resolve Final Design Submission Comments (4830)

NV5 will update the contract documents based on the Final Design Submission (FDS) review comments.

Coordination with Princeton for Required Certifications, HOP for PS&E and optional CM/CI

NV5 will coordinate with Princeton regarding required certifications including: ROW, Utility, Permit, RR and CFO. It is anticipated the a Highway Occupancy Permit from Mercer County will be coordinated by Princeton with supporting documents such as MPT plans provided by NV5. Since there is no involvement with roadways under NJDOT jurisdiction, an HOP from NJDOT is not applicable.

CI/CM RFP (Construction Management / Construction Inspection Request for Proposals) approval – Through Design Assistance, NV5 will be providing Construction Support Services under a separate proposal. Should Princeton want to request reimbursable services for Construction Inspection, the optional CM/CI process requires the LPA to prepare a draft RFP for review by NJDOT. Support documentation, such cost estimate and estimated project schedule with milestones, will be provided by NV5.

Submit PS&E Package (4840)

NV5 will prepare and submit the Plans, Specifications and Estimate (PS&E) package.

In addition to the project plans, specifications and estimate, the PS&E package will include:

- Designer PS&E Certification
- Construction Schedule
- Design Communications Report
- Quantity Calculations and Design Calculations

FD Status Meetings / Meeting Summary

During Final Design, we anticipate a total of 4 meetings:

- Project Status Meetings (4)
- FD Phase Public Information Center (PIC) - One (1) PIC will be conducted during FD. NV5 will prepare the meeting invite/flyer, stakeholder list, newspaper notice for Princeton to post in 2 local newspapers and meeting presentation boards. It is assumed that the Princeton will arrange the meeting place and send out notices and invitations. NV5 will attend and prepare meeting materials and a meeting summary. It is assumed the format will be an open meeting format where representatives from the Municipality of Princeton and NV5 will be available to answer questions and take comments. A comment resolution summary will be prepared. For the PE, NV5 prepared meeting notices in three languages (Chinese, Koren, Spanish) and Princeton provided translators. If needed, these services can be provided for up to three languages

FD Project Management, Schedule, DCR's

NV5 coordination / management services will include the coordination of design tasks, as well as with the in-house design departments; scheduling design efforts and monitoring project budgets to ensure the successful completion of scope tasks identified. Also included is the preparation of progress reports, evaluation of potential issues that could impact the project budget/schedule, review of expense charges, quality assurance and control, and review of monthly invoices.

For the duration of the project, NV5 will submit a progress report each month with the invoice. This report will include, but not be limited to the following:

- A detailed progress report of the work completed to date with the current invoice period highlighted.
- A summary of the costs incurred to date, amount remaining, and percentage complete.
- Any anticipated costs/tasks not initially included in the scope of work.
- Confirmation of upcoming submittals and any possible scheduling conflicts.
- A discussion of any impacts to the project schedule

Municipality of Princeton SRTS - 2018
Rosedale Road & General Johnson Drive Intersection
and Upgrades to Sidepath Along Rosedale Road
Construction Support (CS) Scope of Services

NOTE – Our previously submitted March 4, 2020 CS proposal will be updated during the Final Design Phase as needed to address current Final Design / Support Needs at that time and anticipated wage rates.



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NV5, Inc.
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May 28, 2025

Re: SRTS Princeton
Final Design Proposal

Dear Denice:

Our scope of work detailed below will provide for Final Design services. Work will be completed in accordance with current NJDOT Design Phase Guidelines. Specific work activities required are detailed below.

Conduct Supplemental Surveys (4215)

AmerCom will conduct a supplemental survey for any areas not addressed in previous surveys or requiring update including extra survey for the extension of the project to include the westerly intersection of Lambert Lane, approximately 450LF from current coverage limits along with survey at recently constructed round-about at Rosedale Road and General Johnson Drive. Supplemental survey information obtained will be added to the base maps. A maximum of 5 crew days have been allotted for this task. Included with this effort is survey of wetland flags which is estimated to take one day.

Stormwater Management Testing

AmerCom will complete stormwater management (SWM) field testing services through the project limits as detailed below by the specific work activities:

Prepare Testing Program

AmerCom will develop the subsurface exploration program contract documents for Stormwater Management testing in coordination with NV5. We will prepare subsurface exploration contract documents detailing the exploration program and requirements expected from the contractor. We will solicit prices for the program from qualified boring contractors. We are budgeting for the following subsurface exploration program will be required:

- *SWM Test Pits* – 12 test pits
 - *SWM borings* – 11 @ 9' deep
 - *SWM borings* – 12 additional @ 9' deep if required
- A maximum total of 23 borings will be completed if required.

Storm Water Management Field Testing

Stormwater Management Test Pits and Borings will be completed according to the following:

- *Stormwater Management Test Pits* – A total of 12 SWM test pits will be conducted. Permeability testing and groundwater table observations in each pit will be conducted as defined in Chapter 12 of the NJ Stormwater BMP Manual at proposed SWM facility locations. It is noted the maximum depth of the test pits will be 9'. Permeability testing will be conducted at a maximum depth of 4' to limit significant site disturbance and potential OSHA restrictions. If the soil permeability testing is required at a depth greater than 4' or if groundwater/mottling is not observed, soil borings and testing will be conducted as detailed below.
- *Stormwater Management Soil Borings* – Eleven (11) soil borings will be conducted per the BMP Manual for linear infiltration systems. In addition, two (2) soil borings will be conducted adjacent to each test pit only if the required depth and permeability testing requirement of the test pits as per the manual are not achieved as stated above. The boring will be completed to a maximum depth of 9'. One undisturbed soil sample (Shelby tube) from each boring will be collected to perform the tube permeability test as per Chapter 12 subsection "a2" of the NJ Stormwater BMP Manual. We have assumed that six (6) of the twelve (12) test pits will need supplemental borings.

Installation of monitoring wells is not anticipated.

Laboratory Testing

Laboratory testing will be completed on selective soil samples as needed.

Analysis and the testing for hazardous materials is not included in this scope.

SWM Memorandum

Prepare an SWM memorandum that will include the following:

- SWM Boring logs
- SWM Test pit logs
- SWM Boring and test pit location plan
- Groundwater conditions and readings
- Soil permeability testing results

Conduct Geotechnical Foundation, Roadway and Rock Slope Design (4320)

We will initially review any existing available subsurface (soil boring logs, soil lab testing data, in-situ testing data), data available through the project limits. Utilizing this data, we will prepare a pavement design recommendation for sidepath improvements. We will also identify the estimated bearing capacity to be used for the design of low height landscape walls. A letter report will be developed that will contain the following information:

- Reference data found
- Sidepath treatment recommendations
- Bearing capacity for design of low height landscape walls

ROW

Conduct Title Search (4600)

30 year title searches will only be completed for 9 properties. This work will include a review of the title search data and plotting of the property boundaries based on data received.

It is noted certain properties typically publicly owned and large corporations require extensive research to complete full title searches due to their large amount of property holdings. The deed and title search costs are limited to the total expense shown in the cost summary. Should costs for the title searches exceed the allotted budget the work required will be considered extra and outside this scope.

Prepare ROW Plans and Documents (4605)

AmerCom will prepare and submit ROW documents. ROW impacts are anticipated at a total of 9 parcels. Documents required for Final ROW are as shown below.

- Individual Parcel Maps (9 plans)
- Parcel Descriptions (9)

It is noted survey of the entire properties to develop IPM's will not be completed. Plans to be developed will be based on existing aerial imagery traced into CAD and field edited to reflect current site features that may affect ROW acquisitions.

Prepare Final ROW Submission (4625)

AmerCom will review and update the right of way documents as per comments received from the Pre-Final submittal. AmerCom will prepare final documents.

Our cost for this work is shown on the attached hourly cost breakdown. Thank you for this opportunity and please feel free to contact me with any questions.

Very truly yours,

AmerCom Corporation

A handwritten signature in blue ink, appearing to read 'Mark V. Sheptock', is written over the printed name and title.

Mark V. Sheptock, P.E.
Vice President



WORK ACTIVITY	Description of Tasks	Surveyor P-IV	Principal Engineer P-IV	Senior Engineer P-III	Engineer P-II	Jr. Engineer P-I	Princ. Tech ET-4	Total
		HRS.	HRS.	HRS.	HRS.	HRS.	HRS.	HRS.
4215	Conduct Supplemental Survey							
	Topographic/Planimetric Survey	4			40	40		84
	Update Base Mapping and DTM	16					16	32
	Stormwater Management Testing							
	Prepare Testing Program		4	32				36
	Gather Subsurface Information		24		120			144
	Boring & test pit logs		1	12	56			69
	Coordinate Lab Testing of soil samples		1	20				21
	Analyze results & prepare Memo		16	64				80
4320	Conduct Geotechnical Foundation, Roadway and Rock Slope Design							
	Path and wall recommendations		32	40				72
4600	Conduct Title Search							
	Coordinate title search	4						4
	Review title searches/Deeds & plot boundary	2		32				34
4605	Prepare ROW Plans and Documents (4605)							
	IPM (9 plans)	1	8				72	81
	Descriptions (9)	4	27					31
4625	Prepare Final ROW Submission							
	Prepare Final ROW	1	4				16	21
TOTAL MAN-HOURS		32	117	200	216	40	104	709
HOURLY RATE		\$ 75.50	\$ 69.49	\$ 55.76	\$ 39.07	\$ 32.83	\$ 48.52	
SUB TOTAL COST		\$ 2,416.00	\$ 8,130.33	\$ 11,152.00	\$ 8,439.12	\$ 1,313.20	\$ 5,046.08	\$ 36,496.73

COST SUMMARY

<u>Labor</u>	
Direct Labor	\$ 36,496.73
Overhead @ 161.14%	\$ 58,810.83
Fee @ 18% of DTL	\$ 6,569.41
Labor subtotal	\$101,876.97
<u>Expenses</u>	
Mileage & tolls	\$ 1,000.00
Postage, Reproduction	\$ 500.00
*Boring Contractor & Lab costs	\$ 77,200.00
Title Search	\$ 4,500.00
Expense subtotal	\$ 83,200.00
TOTAL =	\$185,076.97

* Detailed Breakdown of Estimated Boring Contractor and Laboratory Expenses					
ITEM OF WORK	Quantity	Depth/boring	Unit	UNIT PRICE	AMOUNT
Mobilization	1		L.S.	\$15,000.00	\$15,000.00
Test Pit w/Single ring Infiltration test (9' deep max)	12		Each	\$1,800.00	\$21,600.00
3-1/2" I.D. Casing, Standard Borings - SWM	23	9	Feet	\$55.00	\$11,385.00
Shelby Tubes	23		Each	\$350.00	\$8,050.00
Test Pit ground restoration	12		Each	\$800.00	\$9,600.00
Lab Testing Allowance (SWM Permeability tests)	23		each	\$500.00	\$11,500.00
				SUBTOTAL	\$77,135.00
				Say \$	77,200.00

FIXED FEE CALCULATION

8/13/2024	Princeton Safe Routes to School Program
CONSULTANT:	AmerCom Corp.
AGREEMENT OR CAM NO.	
PREPARED BY:	Mark Sheptock
DATE:	5/28/2025

EVALUATE PROJECT SPECIFICS:

Directions:

Prime Consultant will use Total Project Design Cost (or Task Order Design Cost) for the SIZE criteria

Each Subconsultant will assign points for SIZE, COMPLEXITY, DURATION, & DEGREE OF RISK based on its specific project tasks.

SPECIFICS	CRITERIA	POINTS	RATING
SIZE:	SMALL - Total Fee (Project Design Cost) < \$1,250,000	15	15
	LARGE - Total Fee (Project Design Cost) > \$1,250,000	20	
COMPLEXITY:	SIMPLE - Limited Scope of Work; Deck Patching, Resurfacing, Restoration, Inspection, Concept Development Services	10	10
	STANDARD - Moderate Scope; Rehabilitation, New, or Reconstruction	15	
	COMPLEX - Multi-disciplined, Highly Specialized, or Major Unusual	20	
DURATION:	STANDARD - Appropriate Schedule	15	15
	AGGRESSIVE - Designers Schedule Reduced > 10 %	20	
DEGREE OF RISK:	LEVEL 1 - Low Risk of Claims; Studies, Surveys, Landscape, Inspections	20	20
	LEVEL 2 - Average Risk of Claims; Standard Complexity or Level 1 with High Public Exposure	30	
	LEVEL 3 - High Risk of Claims; Hazardous, Experimental, or Bonus/Penalty Clauses	40	
TOTAL RATING =			60

CALCULATE FEE:

PROJECT SPECIFICS FACTOR (Total Rating /100) =	0.60
FEE FACTOR (Project Specifics Factor x 0.30) =	0.18
DIRECT LABOR COSTS	\$ 36,496.73
TOTAL FEE (Direct Labor Costs x Fee Factor) =	\$ 6,569

VERIFY THAT FEE FALLS WITHIN RANGE OF 6% TO 15%:

CONSULTANT'S INTERIM OVERHEAD RATE (%) =	161.14%
OVERHEAD (Labor x Overhead Rate) =	\$ 58,810.83
FIXED FEE RANGE [Fee/(Labor + Overhead)] =	6.9%

Municipality of Princeton SRTS - 2018

Rosedale Road & General Johnson Drive Intersection and Upgrades to Side path Along Rosedale Road

FINAL DESIGN PHASE

Updated July 11, 2025 - NV5 PROPOSAL

Note: all services are Participating, BEPR comments on draft proposal incorporated

TASK	ACTIVITY NO.	P6 PROJECT MANAGER / SUPERVISING ENGINEER	P7 DIRECTOR QA / QC	P6 SUPERVISING ENGINEER	P5 PRINC. ENGINEER	P6 SUPERVISING ENV SPECIALIST / DIRECTOR CULTURAL RESOURCES UNIT	P4 SENIOR ENGINEER	P3 ENGINEER	P6 SUPERVISING ENV SPECIALIST	P4 SENIOR ENV SPECIALIST	P3 ENV SPECIALIST	TOTAL HOURS
PHASE II - FINAL DESIGN												
Utility Design Services - Not included, If needed, extra work												not included
Prepare Jurisdictional Limit Maps and Agreements (Map Only. Agreement not included)	4100	2					12					14
Conduct Supplemental Surveys / Base Map [Coordination with AmerCom]	4215	2					10					12
Complete Traffic Signal, Signing and Striping Plans Side path signage and associated striping at unsignalized intersections (crosswalks) County Coordination for connections at Elm Road	4240	2			10		25	10				47
Conduct Geotechnical Foundation, Roadway and Rock Slope Design (4300) – See AmerCom Proposal [Coordination with AmerCom]	4320	2					6					8
Environmental Services												0
Complete Drainage Design	4270			30			180	100				310
Complete Hydrologic & Hydraulic Analysis	4310						10					10
Delineate Wetlands	4360		1						6	62	56	125
Prepare Permit Application (NJDEP FHA-IP, NJDEP FWW, DRCC Approval, MCSCD, NJPDES GP)	4385	3		15			120	55	20	16	50	279
Conduct Ecology Study	4390		1						6	52	36	95
Review and Submit Permit Application	4390	2	2	8			20	20	40	40	20	152
Secure Permits	4395	1	2	5			10	10	5	10	5	48
Prepare Soil Erosion and Sediment Control Report and Plans	4410			10			25	20				55
Review Soil Erosion and Sediment Control Report and Plans	4430			5			10					15
Develop Cultural Resources Mitigation Measures (not applicable)	4550											Not required
Complete Environmental Plans	4585	1		1					2	4		8
Pre-Application Meetings (2)			2				8		10			20
Structure Services -none - location, height, length of landscape type retaining walls to be indicated	4160											no applicable
Complete Horizontal and Vertical Geometry	4210	10	6		40		50	50				156
Prepare Final Roadway Plans (9 Construction Plans at 1"= 30' scale)	4220											
Key Sheet, Legend & Notes, EQ, Plan Reference. Tie Sheets		4			5		40	30				79
Typical Sections, Side Path Cross Sections as needed		2			5		30					37
Side Path Profiles		1			2		20					23
Construction Plans including Grading & Drainage		20			40		80	220				360
Driveway Profile (limits) (18 driveways)		2	10	10			20	40				82
Curb Ramp Details (20)		6		24			80	70				180
Earthwork Summary				4			6	20				30
MPT Plans		2		10			40					52
Develop Construction Cost Estimate	4275				6		20	20				46
Develop Specifications	4280	4		10	40		20					74
Develop Construction Schedule	4285			4			6					10
Prepare ROW Plans and Documents - Coordination with AmerCom (See AmerCom proposal)	4605	4			6		10					20
Prepare Final Design Submission Package (Pre-PS&E)	4290	5	4		24		40	10				83
Resolve Final Design Submission Comments	4830	3	4	10			20					37
Coordination of LPA Certifications and HOP	4840	2			2		20					24
Submit PS&E Package and Coordination to Construction Authorization	4840	10		10	10		10					40
FD Status Meetings with Princeton, Mercer County & NJDOT (Assume 4 Status, 1 PIC)	~	40		26			24		6			96
FD Project Management, Schedule, DCRs	~	50					30					80
FD Work-Hour Totals		180	32	182	190	0	1002	675	95	184	167	2707
May 2025 Wage Rates		\$99.92	\$106.13	\$100.82	\$72.08		\$60.11	\$40.77	\$59.94	\$50.25	\$47.33	
FD Phase Totals	FD Direct Labor (Salary)	\$17,985.60	\$3,396.16	\$18,349.24	\$13,695.20	\$0.00	\$60,230.22	\$27,519.75	\$5,694.30	\$9,246.00	\$7,904.11	\$164,020.58

Municipality of Princeton SRTS - 2018
Rosedale Road & General Johnson Drive Intersection and Upgrades to Side path Along Rosedale Road

FINAL DESIGN PHASE

Updated July 11, 2025 - NV5 PROPOSAL

Direct Expense Summary

Mileage (Personal Vehicles)	\$	200.00
Reproduction Services (Color Plots, Copies presentation boards, etc.)	\$	500.00
Permit Fees: Not anticipated. Assume covered by others		not included
Certified mailings for permit Public Notification	\$	250.00
Translation Services for PIC flyer (up to 3 languages)	\$	450.00
<u>Miscellaneous</u>		
Express Mail	\$	120.00
Assume PIC mailing invitations from Princeton		not included
<u>Total</u>		<u>\$ 1,520.00</u>

Municipality of Princeton SRTS - 2018
Rosedale Road & General Johnson Drive Intersection and Upgrades to Side path Along Rosedale Road

FINAL DESIGN PHASE

Updated July 11, 2025 - NV5 PROPOSAL

Fee Summary

	<u>Design Services</u>
NV5 Salaries.....	\$ 164,020.58
Overhead Rate (through July 2025)	
Overhead @ 144.82%	\$ 237,534.60
FCCM (Facilities Capitol Cost of Money) @ 0.019%	\$ 31.82
total overhead (144.84%) = interim+FCCM	\$ 237,566.42
Fixed Fee (Fee Factor =0.195).....	\$ 31,984.01
Fee Factor Calculation: Size = small project = 15, Complexity = standard = 15, Duration = standard = 15, Risk level = Level 1 = 20 (15+15+15+20) = 65, 65/100 = 0.65*30 =19.5% of direct labor	
	\$ 433,571.01
Direct Expenses	\$ 1,520.00
NV5 Fee	\$ 435,091.01
 <u>Subconsultants:</u>	
AmerCom (Survey, ROW & Geotechnical)	
(it is noted that extra soil testing borings and ROW services for up to 9 properties are included if needed)	
	\$ 185,076.97
Total Subconsultant Fee	\$ 185,076.97
Total Fee - FD Services	\$ 620,167.98



State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
Trenton, New Jersey 08625-0600

PHILIP D. MURPHY
Governor

FRANCIS K. O'CONNOR
Commissioner

TAHESHA L. WAY
Lt. Governor

July 24, 2024

Mr. Robert Ellis
Regional Controller
NV5, Inc.
800 Lanidex Plaza, Suite 300
Parsippany, NJ 07054

Dear Mr. Ellis,

Based on our review of AE U.S. Operations of NV5 Global, Inc.'s submitted Statement of Direct Labor, Fringe Benefits and General Overhead for the year ended December 30, 2023, we have determined overhead rates of 134.14 percent should be used for construction inspection projects, 144.82 percent should be used for home-office projects, and 143.66 percent should be used for additional work modifications for contracts entered into prior to your firm selecting to use split rates or the time split rates were required on all new contracts and extra work modifications. In addition, in accordance with current Department policy, if FCCM is specifically identified in the cost proposals relating to the contract under which the cost is to be claimed, the audited FCCM rate of 0.0194 percent should be used. The above rates should be used for funding purposes on future contracts with the Department.

In addition, the overhead rates proposed on this overhead letter expire on July 1, 2025.

These rates are subject to audit verification. Our acceptance of these rates does not extend beyond contracts with the New Jersey Department of Transportation. Any other entity contracting with the firm is responsible for determining the acceptability of the overhead statement.

If you have any questions, feel free to contact Elkins Larkins at (609) 963-2364, or at elkins.larkins@dot.nj.gov.

Sincerely,

Richard Temmer

Richard Temmer
Manager, Bureau of External Audit