

RESOLUTION
of the
BOROUGH OF NEW PROVIDENCE
Resolution No. 2019-168

Council Meeting Date: 06-24-2019

Date Adopted: 06-24-2019

TITLE RESOLUTION AUTHORIZING PROFESSIONAL ENGINEERING
SERVICES OF NV5 FOR SAFE ROUTES TO SCHOOL DESIGN
ASSISTANCE

Councilperson Muñoz submitted the following resolution, which was duly seconded by Councilperson Geoffroy.

WHEREAS, the Borough of New Providence has a need to acquire engineering services to assist in design services for 2016 Safe Routes to School Grant; and

WHEREAS, the New Jersey DOT has approved three (3) engineering firms to provide design assistance to Safe Routes to School Grant recipients; and

WHEREAS, NV5 has submitted a proposal dated May 6, 2019 indicating they will provide preliminary engineering services, final design services and construction support services for the 2016 Safe Routes to School Grant project, for an total amount not to exceed \$185,423.52; and

WHEREAS the Borough Administrator recommends approving the proposal submitted and approved by NJDOT, dated May 6, 2019 for professional engineering services; and

WHEREAS, the maximum amount of the proposal is not to exceed \$185,423.52 will be paid through the grant.

NOW THEREFORE BE IT RESOLVED by the Mayor and Borough Council of the Borough of New Providence they approve the proposal for professional engineering services submitted by NV5, dated May 6, 2019, in an amount not to exceed \$185,423.52, to perform Safe Routes to School Grant design assistance.

APPROVED, this 24th day of June, 2019.

RECORD OF VOTE

	AYE	NAY	ABSENT	NOT VOTING
CUMISKEY			X	
DESARNO	X			
GENNARO	X			
GEOFFROY	X			
MUÑOZ	X			
ROBINSON	X			
MORGAN			TO BREAK COUNCIL TIE VOTE	

I hereby certify that the above resolution was adopted at a meeting of the Borough Council held on the 24th day of June, 2019.

Wendi B. Barry, Borough Clerk

Mr. Douglas R. Marvin
Borough Administrator
Borough of New Providence
360 Elkwood Avenue
New Providence, NJ 07974

May 6, 2019

Re: SRTS 2016 New Providence
SRS-2016-Various Sidewalk Improvements
Safe Routes to School Design Assistance
Revised Proposal for Design Services
NV5 Proposal # P7286181076

Dear Mr. Marvin:

Attached is our revised proposal package for the Preliminary Engineering (PE), Final Design (FD) Services and Construction Support services.

This revised proposal package is based on the scope of improvements included in the Safe Routes to School (SRTS) "SRS-2016-Various Sidewalk Improvements" Grant Application, as well as discussions and direction provided at our May 17, 2018 field meeting with representatives from the New Jersey Department of Transportation (NJDOT) and comments received on our draft September 13, 2018 proposal. We have also separated the design phases, added Construction Support and updated our costs using our 2019 wage rates. Project Assumptions are listed after this cover letter.

The proposed SRTS pedestrian improvements are anticipated to include sidewalk improvements, ADA compliant curb ramps, retaining/landscape walls to accommodate sidewalk and signage to support pedestrian safety and access.

Per discussions with NJDOT upon review of our September 2018 draft proposal, this updated proposal does not include traffic signal improvements, including those at the intersection of Central Avenue and Livingston Avenue, which were considered outside the scope of services. We will include a RR coordination meeting regarding the intersection, but not a proposed signal analysis or signal improvements. We can provide these services to New Providence as extra work. In addition, any ROW needs will require coordination with property owners by New Providence. ROW acquisition costs are not included.

We look forward to finalizing the design services agreement and the opportunity to provide services on this project.

Very truly yours,



Denice daCunha P.E.
Project Manager

Attachments

cc: NJDOT: Julie Seaman
NV5: James Huselton, Drew Markewicz

New Providence Borough
Safe Routes to School Design Assistance
SRS-2016-Various Sidewalk Improvements Limits:
Proposal for Professional Services
Preliminary Engineering, Final Design and Construction Support

Scope of Services – Revised May 5, 2019

About the Project

Problem Statement per SRTS 2016 - New Providence Borough Safe Route Grant Application:

“The high volume of roadway traffic, the pickup/drop-off traffic in areas near the school with missing sidewalks, along with dangerous sidewalks and lack of AD-compliant curb ramps place students at risk when walking to school”

Proposal Assumptions:

1. Our proposal is based upon discussions/direction provided at the May 17, 2018 proposal kickoff meeting and field visit with representatives from the NJDOT and Borough of New Providence.
2. Improvements are located with New Providence Borough, Union County, NJ and summarized below. It is noted that driveway aprons will be provided to grade driveways up to proposed sidewalk level. It is assumed aprons will be concrete.

Associated School: Allen W. Roberts School

Project Corridors:

- Location 1 - Hawthorne Drive: from Cameron Road to Central Avenue
 - Approximate Length = 1285 LF
 - Anticipated: new sidewalk segments, 4 curb ramps and 18 driveway aprons
- Location 2 - Crane Circle: from Jones Drive to Morris Avenue
 - Approximate Length = 525 LF
 - Anticipated new sidewalk segments, 2 curb ramps and 5 driveway aprons

Associated School: Salt Brook Elementary School

Project Corridors:

- Location 3 - Central Avenue: from Livingston Avenue to Verona Road
 - Approximate Length = 360 LF
 - Anticipated: sidewalk segments, 2 curb ramps and 3 driveway aprons.
 - NJ Transit RR coordination, since current installation not ADA compatible. It is noted that signal improvements are not included as per direction from NJDOT (April 2019) after review of our September 2018 proposal. We will be prepared to discuss existing conditions.
- Location 4 - Central Avenue: from east of Salem Road to Maple Street
 - Approximate Length = 1735 LF
 - Anticipated sidewalk segments, 8 curb ramps and 2 driveway aprons.
 - It is noted several trees may require removal or the sidewalk will slightly meander to limit removal, if right-of way permits.
 - It is noted that an existing drainage inlet behind the curblin may be impacted. It is also noted that no signal improvements are included at Maple Street intersection or improvements associated with the South Fork Salt Brook Culvert structure, unless requested as an item of extra work.

- Location 5 - Willow Street: from Springfield Avenue to the southern terminus, which is direct access to Salt Brook Elementary School.
 - For this segment, proposed sidewalks on both sides are assumed unless prohibited by ROW or utility impacts.
 - Anticipated 2300 LF new sidewalk, 2 curb ramps and 5 driveway aprons

We recommend reviewing project constraints; assessing impacts and necessary improvements so that the construction needs and the related cost estimate can be updated.

3. The Grant Application included a Construction Cost Estimate (June 2016) of \$500,822.83.
4. The “Responsible Charge” for this project will be Douglas R. Marvin Borough Administrator, Borough of New Providence.
5. The NJDOT Bureau of Local Aid main contacts for both NV5 and New Providence Borough will be: Julie Seaman and Mamum Rashid. Regional office is NJDOT Local Aid District 2).
6. Environmental Coordination: As part of this proposal preparation NV5 has performed a cursory evaluation of environmental constraints within the five (5) project locations. Due to the proximity to existing watercourses (Location 1: West Branch Salt Brook; Location 2: Tributary to West Branch Salt Brook; Location 4: South Fork Salt Brook; and Location 5: Salt Brook), we anticipate work occurring within regulated floodplain and wetland transition areas and potentially within riparian buffers as well as wetlands. The impacts to floodplain and potentially to riparian zones is expected to fall under NJDOT’s Statewide Flood Hazard Area (FHA) Individual Permit (0000-18-0010.1 FHA180001) approved on August 9, 2018. However, the potential wetland/transition area impacts would require a freshwater wetland statewide general permit. Since the cumulative increase in impervious area is estimated to be upwards of 0.71 acres, there is a potential need to construct porous concrete sidewalk or linear infiltration areas to meet the de minimis stormwater impact requirements (at each stormwater outfall), per the Statewide FHA permit. Approval is also required from the Somerset-Union Soil Conservation District, since project disturbance will exceed 5,000 square feet.

Since there are no significant environmental impacts anticipated, the expected Environmental Document is a Categorical Exclusion Document (CED), which will be prepared by NJDOT with the associated input/project description prepared by NV5.

7. A railroad crossing is located at Central Avenue and Livingston Avenue. Project improvements include the installation of sidewalk on the south side of Central Avenue to Livingston Avenue. The intersection is in need of ADA compliance improvements. A Diagnostic Team Review will be required and additional safety improvements may be required. If so, they will be considered extra work from that identified in this proposal.
8. Public Involvement will include a Public Information Center (PIC) in Preliminary Engineering. It is also anticipated that residential property owners may have concerns with proposed sidewalk even though sidewalks will be in Borough ROW.
9. NV5 may provide Construction Engineering Support Services, but not inspection. These services would be separate from this project proposal.

New Providence Borough
Safe Routes to School Design Assistance
SRS-2016-Various Sidewalk Improvements Limits:
Proposal for Professional Services
Preliminary Engineering Phase

Scope of Services – Revised May 5, 2019

The following scope is based upon Activities from NJDOT's procedures and follows the respective activity numbers. Proposal assumptions are included with the proposal letter.

Phase I - Preliminary Engineering (PE)

Note: This project is currently starting in the PE Phase. Concept Development (CD) services were not conducted.

Initiate Preliminary Engineering (3005)

NV5 will attend a kickoff meeting attended by New Providence Borough and NJDOT Local Aid to discuss the project scope of services and commence Preliminary Engineering (PE).

NV5 will gather any additional data and information needed. The data may include the following:

- Base Maps
- Jurisdictional Maps and Agreements
- ROW and Access
- Utility, NJ Transit, RR information
- Environmental Data

Prepare Control Survey Report (3015)

NV5 will request a waiver from this activity since the Client is New Providence Borough, not NJDOT. The horizontal datum will be NAD83(2011) in the NJ projection. The vertical datum will be the NAVD88 datum with elevation derived from GEOID12B and verified by local vertical monument.

Conduct Topographic Survey (3020)

NV5 will set a survey baseline consisting of PK nails with swing ties and benchmarks set at regular intervals not to exceed 500'. Our crews will run a conventional traverse through the points and a closed level loop. They will take GPS observations in RTK mode on points with a clear view of the sky. All data will be processed in a least-squares adjustment with GPS weighted by their standard deviation at the 95% confidence level.

NV5 will conduct a topographic survey at each of the 5 proposed sidewalk locations. The extents will be from the centerline of the roadway to the 5' beyond the property line and extending at least 50' past the limits of proposed construction. Our crews will locate plainly-visible surface features within the extents (e.g. trees with DBH (tree diameter measured at 4.5 feet above the ground), utility hardware, curbs, fences, striping, etc).

In addition, the survey will include spot elevations at corners of all existing sidewalk ramp slabs, utility foundations within 20 feet of ramps impacting ADA ramp design, and at least 5 feet in front of the curb to be able to design compliant ramps and landing areas. Wetland flags located by NV5 environmental staff will also be field surveyed.

Prepare Base Maps (3025) (ROW efforts)

NV5 proposes to use the data gathered in Activity 3020 and plotted at 20 scale to adequately map the project area. The base maps will also include the construction baselines, bench marks, and existing right of way results shown on those plans. NV5 will research deeds, tax maps and other publicly-available records over the subject area. Our staff will plot records, resolve differences and correlate to the record title to found evidence. This

will determine the location of the right-of-way and adjacent properties. The purpose being to reasonably locate the right-of-way for the purposes of design and for the development of required easement parcel maps. Scale will be 1"=20' with spot grades as needed for design, except for curb ramps details, which will be at 1"=10'. Existing right-of-way (ROW) lines will be shown per available deeds, surveys, right-of-way plans of record any corner markers found during field survey work.

Prepare Utility Base Plans (3035)

The intent is to avoid utility impacts. Utility base plan effort will be limited to areas of potential conflict. Utility owners with facilities within New Providence Borough will be identified.

Utility base plans will be prepared from field survey data to show existing surface utility facilities. A field review will be conducted to depict the overhead facilities on the utility base plans. These plans will serve as the base plans for the alternatives of accommodation and the Utility Agreement Plan. Utility base plans will be prepared as part of Activity 3025 above.

Establish Utility Engineering Funding (3040)

If applicable, to be conducted by NJDOT

Send Utility Verification Request Letter (3045)

NV5 will confirm the utility companies serving the study area through a field investigation (Letter No. 1). We will identify the Regional utility owner contacts and send "Letter No. 2" and two sets of the utility base plans to each utility company to identify their existing facilities.

Prepare Utility Agreement (3050)

A Utility Agreement is not anticipated for this project.

Update Base Plans & Identify Conflicts (3055)

We will coordinate with the affected utility companies and incorporate the collective utility company comments onto the base maps. We will identify potential utility conflicts between existing utility facilities and proposed design.

Execute Utility Agreement (3060)

Utility Agreements may be required. If required, conducted by others.

Hold Diagnostic Team Meeting (3075)

NV5 will contact the Railroad Engineering and Safety Unit at NJDOT to request a Diagnostic Team Meeting (DTM) be scheduled for the intersection of Central Avenue & Livingston Avenue, which includes the at grade rail crossing for the NJ Transit Gladstone Branch. It is noted that the SRTS Central Avenue improvements were intended to start at Livingston Avenue to Verona Road. NV5 will provide available concept plans for the planned improvements at the intersection to Railroad Engineering prior to the DTM and attend the DTM as appropriate. Upon receipt of the Memorandum of Record, NV5 will incorporate requirements into the preliminary design documents as appropriate.

Conduct Subsurface Utility Engineering (3080)

If a conflict is discovered, subsurface utility engineering (SUE) would be an item of extra work.

There may be cases where existing valves and manholes are located where pavement grading and/or new sidewalk is proposed. If applicable, valves/manholes will need to be reset (extensions).

Prepare Preliminary Drainage Design (3085)

Existing drainage will not be modified except in the locations where impacts cannot be avoided. Project improvements are anticipated to be limited to sidewalk/curb ramp reconstruction/construction. However, any

inlets impacted will be replaced with NJPDES compliant curb pieces and inlet grates. The increase in impervious area will be reviewed for each project location and stormwater outfall. Based upon approximate calculations using proposal assumptions, the proposed improvements would result in upwards of 0.71-acre increase in impervious area. NV5 anticipates that these improvements can be permitted under NJDOT's recently approved Statewide FHA permit, however we will need to determine that the increase in impervious surface will result in a de minimus increase in offsite runoff at each outfall location. Due to the large amount of sidewalk being proposed, NV5 believes that it may be necessary to consider the use of porous sidewalk or linear infiltration trenches to achieve de minimus runoff at 3 of the 5 improvement locations. As a result, we have allocated time to perform the necessary H&H calculations and analysis to determine if and where stormwater controls would be required as well as the type of controls recommended, if necessary. Hand soil augers are anticipated to evaluate subsoils within potential stormwater control areas.

A summary of our H&H analysis, findings and recommendations will be prepared and submitted. An H&H assessment of the existing drainage collection/conveyance system or spread analysis is not anticipated.

Determine Traffic Engineering Facility Locations (3090)

NV5 will conduct weekday morning (6 AM to 9 AM) weekday evening (2 PM to 7 PM) and Saturday mid-day (10 AM to 3 PM) traffic counts at the intersection of Central Avenue and Livingston Avenue to assess existing conditions and facilitate the determination of the traffic signal timing. Existing intersection analysis will be completed using Synchro. Proposed improvements regarding signal modifications are outside the project scope, such as determination of signal pole locations for any signal equipment proposed to be relocated as part or identifying any underground or overhead utility conflicts for the proposed signal equipment. These services can be provided as extra work outside the Design Assistance.

Prepare Structural Design Recommendation Summary (3100)

These efforts are limited to landscape/retaining walls to accommodate sidewalk. It is noted that signal improvements to meet ADA requirements are not included as considered outside the scope of services. Needs are anticipated for proposed sidewalk along Central Avenue in the vicinity of Livingston Avenue (landscape retaining wall included but not for upgraded signal equipment).

NV5 will prepare a structural design recommendation summary that documents the recommended structure and aesthetic treatments, and utility, right of way and environmental impacts. This activity is only the level of structural design required to obtain an approved environmental document. We will develop general structural plans and elevations to assess the retaining wall needs. The final design will be designed by the Contractor.

Prepare ROW Report (3110) and Initiate ROW Impact Plan (3115)

NV5 will prepare a ROW impact plan and summary of ROW documents used to assess the potential for impacts to adjacent properties. The project goal is to avoid ROW impacts, however, some properties may be impacted to accommodate proposed improvements such as retaining wall needed to accommodate sidewalk along Central Avenue near the intersection of Livingston Avenue. We will identify the need for potential ROW takings or easements such as along Central Avenue in the vicinity of Livingston Avenue (landscape retaining wall or upgraded signal equipment).

It is assumed that New Providence will coordinate with adjacent property owners for any ROW needs (right of entry, easements). Permanent ROW needs are outside the project scope.

Hold ROW Kickoff Meeting (3120)

This task is not anticipated and is not included in this Phase.

Prepare Initial ROW Estimate (3125)

This task is not anticipated and is not included in this Phase. If required, it is assumed NJDOT will complete this Task.

Prepare Preliminary Roadway Plans (3070)

In order to support obtaining an approved CED, NV5 will prepare preliminary roadway plans of the proposed improvements.

Dialog and decisions will be needed during design development to address the following:

- Improvements at the intersection of Central Avenue and Livingston Avenue. The project goal is for SRTS improvements as identified in the grant application, however, this intersection, which involves a RR crossing does not have ADA compatible pedestrian signal equipment and a Diagnostic Team Review will be required. If the design of other safety improvements are needed, NV5 can provide services as an item of extra work.

The preliminary roadway plans are anticipated to include the following sheets:

- Key Sheet
- Plan Sheet Index
- Construction Plans
- General Plan and Elevation (limited - landscape/retaining wall)
- Traffic Signing & Striping Plans
- Traffic Signal Plan (not included, unless added as extra work)
- Traffic Control and Staging Plans

Update Preliminary Detour and Construction Staging Plans (3130)

NV5 will prepare preliminary construction staging plans that reflect Preliminary Engineering (PE) design. Shoulder and single lane closings are anticipated. Roadway detours are not anticipated. We will prepare a construction sequence narrative and prepare a preliminary construction schedule with anticipated construction stage durations. It is noted that scheduling will be coordinated with school schedule to minimize conflicts. Pedestrian staging and/or detour plans will be required.

Prepare Construction Cost Estimate (3135)

NV5 will prepare a Construction Cost Estimate using NJDOT software and utilizing the plans developed during preliminary engineering activities.

Finalize Project Plan (3165)

NV5 will coordinate with NJDOT Local Aid and meet with respective Subject Matter Experts (if needed) to review project plan and address comments.

Prepare Final Design Scope Statement (3170)

This task is not applicable since it is a Local Aid Project.

Public Information Center (PIC) (3865)

We will facilitate one PIC. Borough will provide mailing and meeting place.

Prepare CED (3870)

NV5 will provide the project description to NJDOT (BLAES) for use in completing the CED.

Coordination Meeting with Borough and NJDOT

We assume one (1) meeting.

PE 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.

New Providence Borough
Safe Routes to School Design Assistance
SRS-2016-Various Sidewalk Improvements Limits:
Proposal for Professional Services
Final Design Phase

Scope of Services – Revised May 5, 2019

Phase II - Final Design (FD) Services

The following scope is based upon Activities from NJDOT's procedures and follows the respective activity numbers. Proposal assumptions are included with the proposal letter.

Conduct Supplemental Topographic Survey

We have assume 10 hours of a two person crew for any supplemental survey needs not anticipated in PE

FD Utility Activities

The project goal 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) - not anticipated, not included

Prepare Railroad 60% Submission (4110)

NV5 will prepare and submit the project plans to the railroad company at the 60% point of design. We assume one resubmission to address any comments.

Revisit Railroad Diagnostic Team Meeting (4130) Assume not needed. If required, will be an item of extra work
Activity per NJDOT: If the NJDOT Diagnostic Team Leader (DTL) determines that the design of the roadway has been altered significantly after the Diagnostic Team Meeting (DTM) was held or strong public opposition or comments are presented, the DTL reconvenes the attendees of the DTM held in Preliminary Engineering to address a possible amendment to the Memo of Record or Order.

Prepare Railroad 100% Submission (4120) Effort limited to Traffic Signal Improvements

This task involves preparing submitting completed roadway plans to the railroad company and a master bill of material, which quantifies every component within every assembly detail. It is assumed for this project that RR involvement is only associated with the traffic signal (if added as extra work) and ADA improvements.

Prepare Final Structures Documents (4160)

Retaining walls / landscape walls as needed to accommodate sidewalk and avoid impacts are assumed to be designed by a New Jersey Professional Engineer retained by the contractor. The plans and specifications prepared by NV5 will indicate that any walls specified on the project will include the cost of design, excavation, base, reinforcement, backfill, caps, corners, returns, etc. as part of the wall item. Wall designs will be reviewed as part of the construction support phase (not included in the scope of work). Retaining walls requiring an engineered design can be designed by NV5 as an extra work item.

Prepare Final Roadway Plans (4220)

NV5 will update the preliminary roadway plans that were prepared in Preliminary Engineering to produce the Final roadway plans. The final roadway plans may include:

- Key Sheet
- Typical Sections
- Construction Plans
- ADA Ramp Construction Plans (1'-10')
- Traffic Control and Staging Plans (vehicular & pedestrian)
- Profiles and sections in areas of new sidewalks and modified driveways
- Wall plan and profile (if required, Final Design by Contractor)
- Environmental Plans
- Ties & Grades
- Construction Details
- Traffic Signal Plan and Signal Timing (Not Included: No improvements to Central Ave / Livingston Ave signal are included, can be provided as extra work outside this proposal if requested)
- Electrical Plans (N. A.)
- Landscape Plans (not separate plans, replanting of grass to be shown on construction plans)
- Traffic Striping and Signing Plans
- Utility Construction Staging Plans (not anticipated)
- Estimate – Distribution of Quantities
- Electrical Details
- Plan Sheet Index

This scope assumes ADA ramps, sidewalk, driveway aprons and signal improvements (only id added as extra work) as discussed in proposal assumptions and above discussions.

Complete Traffic Signal, Signing and Striping Plans (4240)

It is noted that modifications to the traffic signal at the intersection of Central Avenue and Livingston Avenue in response to the Railroad Memorandum of Record as well as signal modifications required to achieve ADA compliance are NOT included. Signing and Striping plans can be included as an item of extra work outside of this proposal.

Complete Drainage Design (4270)

NV5 will complete the drainage/SWM design for compliance with NJDEP and NJDOT criteria. Final revisions to drainage/SWM plans will be made, if necessary, and details and specifications prepared for non-standard items. Drainage item quantities will be added to plans and an engineering cost estimate prepared. A Final Drainage/SWM Design Report will be prepared and submitted to the Project Manager.

Develop Construction Cost Estimate (4275)

NV5 will develop the construction estimate utilizing the Construction Cost Estimating Guide.

Develop Specifications (4280)

NV5 will develop input for the Special Provisions using guidance provided by the NJDOT latest Baseline Document Changes and Standard Specifications as modified if applicable by New Providence Borough's 'boilerplate' specifications, which will be provided by New Providence Borough.

Develop Construction Schedule (4285)

NV5 will develop schedule.

Prepare Final Design Submission Package (4290)

NV5 will prepare the Final Design (FD) Submission package for the Borough of New Providence and NJDOT Local Aid. The package will include:

- Transmittal letter indicating the distribution of all FD Submission deliverables
- Design Communications Report (DCR)

- Final Plans (prints only) with copies to the appropriate review units. Mylar sheets will be held by the designer so that any necessary revisions can be made as required by the FD Review and Plans, Specifications and Estimate (PS&E) processing activities
- Special Provisions - show all revisions required to the current Standard Input (SI)
- Engineer's Certification
- Utility Certification
- Right of Way Certification
- Railroad Certification
- Design Exception (not anticipated)
- NJDOT Access Permit
- Soil Erosion & Sediment Control Permit
- NJDEP Wetland Permit
- Construction Cost Estimate
- Construction Schedule

Develop Subsurface Exploration Program (4300) and Gather Subsurface Information (4305) not anticipated, not included.

Complete Hydrologic & Hydraulic Analysis (4310)

NV5 does not anticipate the need to perform any hydrologic and hydraulic stream analysis for this project.

Delineate Wetlands (4360)

NV5 will delineate wetland areas within 150 feet of the five project locations and the survey department will survey the delineated wetland line and incorporate into the construction plans. NV5 will also obtain NHP database review for T&E species and will confirm surface water classification to determine the wetland transition area widths. A wetland delineation report will be prepared and submitted to NJDEP for review and approval.

Prepare Permit Application (4385)

NV5 will prepare the necessary application form, plans and report for the anticipated freshwater wetland GP-10. Since impacts are expected to be less than 0.10 acres, no wetland mitigation is anticipated. The draft permit application package will be prepared and submitted to NJDOT BLAES for review and NV5 will make any necessary edits.

Secure Permits (4395)

NV5 will provide any necessary additional information as requested by NJDEP in review of the permit application and will revise the application as necessary. Upon receipt of the approved permit, an evaluation of the conditions of the permit will be performed and these conditions will be incorporated into the construction documents.

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

NV5 will prepare the SESC plans and report to address areas requiring temporary and permanent erosion controls

Conduct Contamination Site Investigation (Initial Sampling) (4520) - not anticipated and are not included

Complete Environmental Plans (4585)

NV5, in consultation with the Bureau of Landscape Architecture and Environmental Solutions, will prepare the environmental plan sheets, incorporating environmental constraints, impacts, mitigation, commitments and permit conditions into the contract documents.

Prepare ROW Plans and Documents (4605)

This scope assumes traffic signal easements may be required at one property (associated with the SRTS improvements) in the vicinity of the traffic signal at the intersection of Central Avenue and Livingston Avenue as well as retaining wall needs in this area. However, the traffic signal improvements are not included unless added as extra work. Easement plans and associated property description will be prepared for the up to three properties anticipated as part of this task. For proposal purposes, we are assuming that ROW coordination with respective property owners will be coordinated by New Providence and up to three (3) ROW/easement parcels will be required including legal descriptions for each parcel to be conveyed for use in the preparation of deeds of dedication. Maps will be prepared in accordance with the NJDOT Right of Way Engineering Manual.

Review Access Cut-Outs (4710)

The project does involve several driveways but the intent is sidewalk construction. NV5 will assume existing driveway configuration will remain and driveways will not be modified beyond the public right of way unless directed otherwise by New Providence Borough. NJDOT type cut-outs are not anticipated.

Resolve Final Design Submission Comments (4830)

NV5 will update the contract documents, utilizing the Final Design Submission (FDS) comments.

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 may include:

- Pre-bid Final Submission
- Signed Mylars
- 2 sets of signed & sealed prints
- Specifications
- Designer PS&E Certification
- Construction Schedule
- Approved Design Communications Report
- Quantity Calculations and Design Calculations
- Digital data including all cad files (.dwg format), pdfs of all reports, .tif files of final contract plans

Coordination Meetings with Borough and NJDOT

Assume two (2) meetings

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.

FD Status Meetings / Meeting Summary

We anticipate a total of 4 status meetings, a Local Officials and/or school board meeting a stakeholder/property owner meeting and a presentation before Borough Council during final design.

New Providence Borough
Safe Routes to School Design Assistance
SRS-2016-Various Sidewalk Improvements Limits:
Proposal for Professional Services
Construction Support Phase

Scope of Services – Revised May 5, 2019

Phase III - Construction Engineering Support (CE) Services

The following scope is based upon Activities from NJDOT's procedures and follows the respective activity numbers. Proposal assumptions are included with the proposal letter.

This Construction Support Services effort consists of the following tasks:

Bid Support (5030)

During the bid period, NV5 will review Contractor inquiries and prepare responses. All inquiries will be documented and responded to via addenda.

Review of Contractor Submittals (5120)

NV5 will review shop and working drawings and product submittals for general conformance with the contract documents.

Review of Contractor's Progress Schedules (5100)

NV5 will review the Contractor's preliminary CPM schedule and provide our comments to the Borough. Additional submittals (2 anticipated) of the preliminary schedule will be reviewed until approval and establishment of the Baseline CPM schedule. Schedule updates (5 anticipated) will also be reviewed and comments forwarded to the Borough.

Construction Consultation and Support (5100)

NV5 will provide consultation and recommendations in the interpretation of the contract documents and assist in developing solutions to unforeseen field conditions. For estimating purposes, we have assumed 40 hours for support services. Site meetings are considered separate and detailed below.

Pre-Construction Meeting (5080)

NV5 will attend one pre-construction meeting.

Site Meetings (5100)

NV5 will attend site meetings as requested by the Borough. Three (3) total meetings are anticipated. It is noted that these meetings may involve meetings with the contractor to address site issues or with residents regarding the work on the project.

Final Inspection (5170)

NV5 will attend one final inspection walk-through and prepare a corrective action list of noted deficiencies.

As-Built Plan Preparation (5170)

NV5 will provide the required coordination, CADD services and reproduction services associated with the transfer of as-built information onto the plan sheet mylars.

Project Coordination

Project coordination tasks will consist of the following:

- Establish and monitor project budgets.

- Prepare monthly progress reports.

- Coordinate with Borough staff to ensure timely responses to submissions and requests for information.

**SRTS 2016 Borough of New Providence
SRTS Design Assistance
Proposal for Professional Design Services**

Revised May 6, 2019 - NV5

TASK	ACTIVITY NO.	P7 PROJECT MANAGER	P7 DIRECTOR, TRAFFIC ENGINEERING	P6 SUPERVISING ENGINEER	P7 CHIEF OF SURVEY	P4 SENIOR SURVEYOR/ PARTY CHIEF	P4 SENIOR ENGINEER/ PRINC/ENV SPEC	P3 ASSISTANT ENGINEER / ENV SPECIALIST	(2,ET4) 2 MAN SURVEY CREW	ET5 PRINCIPAL ENG TECH / CADD	TOTAL HOURS
PHASE I - PRELIMINARY ENGINEERING											
Initiate Preliminary Engineering /Project Kickoff Meeting	3005	4					4				8
Survey Services											
Prepare Control Survey Report (Not included -Waiver will be requested)	3015										
Conduct Topographic Survey (Construction Baseline/Bench Mark Set-Up)	3020				14	25			100		139
Prepare Base Maps .	3025				17	50				70	137
Prepare Utility Base Plans	3035						20				20
Send Utility Verification Request Letter	3045							6			6
Update Base Plans & Identify Conflicts	3055						10	12			22
Hold Diagnostic Team Meeting	3075	4	4								8
Prepare Preliminary Drainage Design - Limited	3085	3		10			30	20			63
Determine Traffic Engineering Facility Locations	3090		4				10			10	24
Prepare Structural Design Recommendation Summary (3100	3100	2		6			20				28
Prepare ROW Report and Impact Plan	3110 &3115	2					20	20			42
Prepare Preliminary Roadway Plans	3070	4	2	4			50	10			70
Update Preliminary Detour and Construction Staging Plans	3130		2				10				12
Prepare Construction Cost Estimate	3135	1					8				9
Finalize Project Plan / Project Team Meeting	3165	5					5				10
Prepare CED - DOT Task - only coordination	3870						1				1
Coordination Meeting with Borough, NJDOT (Assume 1)		5	5								10
Hold Public Information Center	3865	8					12				20
PE Project Management, Schedules, DCRs		14									14
	Work-Hour Totals	52	17	20	31	75	200	68	100	80	643
	June 2019 Wage Rates	\$84.99	\$74.53	\$86.50	\$81.71	\$50.69	\$45.45	\$31.90	\$77.51	\$52.42	
	Direct Labor (Salary)	\$4,419.48	\$1,267.01	\$1,730.00	\$2,533.01	\$3,801.75	\$9,090.00	\$2,169.20	\$7,751.00	\$4,193.60	\$36,955.05

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PHASE II - FINAL DESIGN											
Supplemental Topographic Survey					2				10		12
Prepare Railroad 60% Submission	4110	1	2	4			12				19
Prepare Railroad 100% Submission (4120)	4120	1	2	4			12				19
Prepare Final Structures Documents (Limited)	4160	1		8			16				25
Prepare Final Roadway Plans	4220	6		4			48	20			78
Complete Traffic Signal, Signing and Striping Plans (No signal improvements)	4240		2	2			25				29
Complete Drainage Design	4270	2		10			20	15			47
Develop Construction Cost Estimate	4275	1					4				5
Develop Specifications	4280	1	1				8				10
Develop Construction Schedule	4285						4				4
Prepare Final Design Submission Package	4290	4	2				22	10			38
Delineate Wetlands	4360			4			20	20			44
Prepare Permit Applications	4385			4			15	36			55
Secure Permits	4395		1				2	4			7
Prepare Soil Erosion and Sediment Control Report and Plans	4410	1		2			5	20			28
Complete Environmental Plans	4585			2			5	10			17
Prepare ROW Plans and Documents	4605	1			10	6	40				57
Resolve Final Design Submission Comments	4830	1					10				11
Submit PS&E Package	4840	2					12				14
Coordination Meeting with Borough, NJDOT (Assume 2)		12	4				4				20
FD Project Management, DCRs		12					15				27
	Work-Hour Totals	43	10	28	10	6	259	135			491
	June 2019 Wage Rates	\$84.99	\$74.53	\$86.50	\$81.71	\$50.69	\$45.45	\$31.90	\$77.51	\$52.42	
	Direct Labor (Salary)	\$3,654.57	\$745.30	\$2,422.00	\$817.10	\$304.14	\$11,771.55	\$4,306.50			\$24,021.16

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Additional Services Beyond SRTS Grant

TASK	ACTIVITY NO.	P7 PROJECT MANAGER	P7 DIRECTOR, TRAFFIC ENGINEERING	P6 SUPERVISING ENGINEER	P7 CHIEF OF SURVEY	P4 SENIOR SURVEYOR PARTY CHIEF	P4 SENIOR ENGINEER	P3 ASSISTANT ENGINEER	ET4 (SURVEY)	ET5 PRINCIPAL ENG TECH / CADD	TOTAL HOURS
None Anticipated											None
	Work-Hour Totals										
	June 2019 Wage Rates	\$84.99	\$74.53	\$86.50	\$81.71	\$50.69	\$45.45	\$31.90	\$77.51	\$52.42	
	Direct Labor (Salary)										

TASK	ACTIVITY NO.	P7 PROJECT MANAGER / SUPERVISING ENG	P7 DIRECTOR, TRAFFIC ENGINEERING	P5 PRINCIPAL ENGINEER/ SUPERVISING ENV SPECIALIST	P7 CHIEF OF SURVEY	P4 SENIOR SURVEYOR PARTY CHIEF	P4 SENIOR ENGINEER	P3 ASSISTANT ENGINEER / ENV SPECIALIST	(2, ET4) 2 MAN SURVEY CREW	ET5 PRINCIPAL ENG TECH/ CADD	TOTAL HOURS
PHASE III - CONSTRUCTION ENGINEERING SUPPORT (CE) SERVICES											
Bid Support	4410	2	2				4				8
Review of Contractor Submittals	4585	1					8				9
Review of Contractor's Progress Schedules	4710		2				6				8
Construction Consultation and Support	4710	8	2	6			45				61
Pre-Construction Meeting	4710	6					6				12
Site Meetings	4710	18	8				8				34
Final Inspection	4710	6					8	10			24
As-Built Plan Preparation	4710	1					8			6	8
Project Coordination	4710	12									12
	Work-Hour Totals	54	14	6			93	10		6	176
	June 2019 Wage Rates	\$84.99	\$74.53	\$86.50	\$81.71	\$50.69	\$45.45	\$31.90	\$77.51	\$52.42	
	Direct Labor (Salary)	\$4,589.46	\$1,043.42	\$519.00			\$4,226.85	\$319.00		\$314.52	\$11,012.25

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Proposal for Professional Design Services

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Direct Expense Summary

	PE	FD	CE
Mileage (Personal Vehicles)	\$150.00	\$150.00	\$150.00
Reproduction Services (Color Plots, Copies, Mylars, Etc.)	\$400.00	\$500.00	\$250.00
Permit Fees: Not yet determined and not included in this estimate. Assume covered by others	not included		
Miovision Processing (for Traffic Counts)	\$390.00		
<i><u>Miscellaneous</u></i>			
Certified Mailings		\$300.00	
NHP request.		\$70.00	
Express Mail.	\$150.00	\$150.00	\$100.00
Assume PIC mailing invitations from New Providence.	not included		
<u>Total</u>	<u>\$1,090.00</u>	<u>\$1,170.00</u>	<u>\$500.00</u>

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Proposal for Professional Design Services
Fee Summary

SRTS - Preliminary Engineering	
NV5 Salaries.....	\$36,955.05
Overhead @ 134.12%	\$49,564.11
FCCM (Facilities Capitol Cost of Money) @ 0.12%	\$44.35
total overhead (134.24%) = interim+FCCM	\$49,608.46
Fixed Fee (Fee Factor =0.195).....	\$7,206.23
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	
subtotal PE	\$93,769.74
Direct Expenses PE	\$1,090.00
<u>PE Subconsultants:</u>	
None included	\$0.00

Total Preliminary Engineering Fee **\$94,859.74**

SRTS - Final Design	
NV5 Salaries.....	\$24,021.16
Overhead @ 134.12%	\$32,217.18
FCCM (Facilities Capitol Cost of Money) @ 0.12%	\$28.83
total overhead (134.24%) = interim+FCCM	\$32,246.01
Fixed Fee (Fee Factor =0.195).....	\$4,684.13
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	
Subtotal FD	\$60,951.30
FD Direct Expenses.....	\$1,170.00

Total NV5 Fee Final Design **\$62,121.30**

<u>FD Subconsultants:</u>	
None	\$0.00

Total Final Design Fee **\$62,121.30**

<u>Additional Services Beyond SRTS Grant</u>	
NV5 Salaries.....	\$0.00
Overhead @ 134.12%	\$0.00
FCCM (Facilities Capitol Cost of Money) @ 0.12%	\$0.00
total overhead (134.24%) = interim+FCCM	\$0.00
Fixed Fee (Fee Factor =0.105).....	\$0.00
subtotal Additional Services	\$0.00
Direct Expenses.....	\$0.00
<u>Fee - Additional Services</u>	\$0.00

SRTS - Construction Engineering Support (CE)	
NV5 Salaries.....	\$11,012.25
Overhead @ 134.12%	\$14,769.63
FCCM (Facilities Capitol Cost of Money) @ 0.12%	\$13.21
total overhead (0.00%) = interim+FCCM	\$14,782.84
Fixed Fee (Fee Factor =0.195).....	\$2,147.39
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	
subtotal	\$27,942.48
FD Direct Expenses.....	\$500.00

Total NV5 Fee Construction Support **\$28,442.48**

<u>Construction Support Subconsultants:</u>	
None	\$0.00

Total Construction Support Design Fee **\$28,442.48**

Total Fee PE, FD, CE	\$185,423.52
Total Fee PE, FD, CE and Additional Services	\$185,423.52