



# Project Approach

## Project Understanding:

V3 offers a highly qualified construction engineering team prequalified with IDOT for Phase III construction. We have extensive experience with IDOT's construction documentation requirements and procedures. The Phase III engineering services offered in this engineering proposal include coordination with IDOT LaGrange Road Projects, working closely with Norris Design during bidding and construction, inspection of contractor's work, material testing, measurement, documentation and compilation of quantities. We are confident that our team has the experience and technical skills to exceed the expectations of the Village. Our vision for the desired outcome of the project is a completed roadway facility that all stakeholders are happy with and can take pride in. These stakeholders include the motoring public, pedestrian and bicycle users, the Village of Orland Park, the contractor, the designer and those residents and businesses affected during the construction process. V3's philosophy of coordination, communication and inclusion, as well as our experienced staff, will drive the project to the desired outcome. Below, we have detailed the approach V3 will use to achieve the success of the Village of Orland Park LaGrange Road – 179<sup>th</sup> to 131<sup>st</sup> Enhancements project.

### ➤ *Pre-construction Phase*

V3 intends to approach this project proactively, in advance of the Pre-construction phase of the project. Through the experience that we have gained in providing resident engineering services for the Village of Orland Park on the 143<sup>rd</sup> St. and LaGrange Rd. Intersection Improvements Project we see a number of opportunities to improve the contract documents for the LaGrange Rd. – 179<sup>th</sup> to 131<sup>st</sup> Village of Orland Park LaGrange Road Enhancements Project. Since the resident engineering services would commence prior to the bidding process, V3 will work with the Village of Orland Park and Norris Design to improve plans and specifications before they go out for bid. This would add value to the project by avoiding potential problems, errors and omissions, especially the ones that were encountered on the previous project.

V3 will review the Village Enhancement contract documents and compare them with the IDOT widening and reconstruction plans. This will be a very critical process to not only find conflicts, but also highlight opportunities to take advantage of IDOT's construction staging to advance the progress of the Village Enhancement Project. There will be a continuous struggle to work with and around the IDOT contracts throughout the corridor. It will be important to coordinate with IDOT right from the beginning, prior to the start of construction to use every possible opportunity.

V3 will document the existing site conditions with digital photographs with special attention to private property and existing conditions along the right of way. V3 will attend preconstruction meetings with the contractor, Village and all other applicable parties. This review task is vital to meeting project milestones and avoids potential delays. Additionally, V3 will request to be involved with the IDOT project meetings, especially the ones that relate to the contractor staging plans. V3 will study the traffic and business impacts due to the maintenance of traffic.

It is expected that the final bid documents for the Village Enhancement will include adequate specifications, plan quantities, detailed grading plans, and structural plans for successful contract execution and oversight by V3. If it is determined that certain design elements need to be developed further prior to letting, V3 is well qualified to assist the Village and its designers with civil and structural engineering services. V3 will request access to the electronic cadfiles for the IDOT reconstruction plans and all underground utility survey information to assist with planning and coordination.



# Project Approach

## ➤ Constructability Review

In performing a cursory constructability review of the provided Norris corridor improvement plans as compared to the partial IDOT widening and reconstruction plans, we have determined that there are several coordination issues and inconsistencies that should be addressed ahead of the letting process in order to avoid rework and needless expense for the proper execution of all design elements. We offer the following observations:

- Most notably, the provided IDOT plans do not make provisions for any of the Village's desired design improvements. Norris's plans should be incorporated into IDOT's plans as soon as possible to allow IDOT engineers to detail the planned improvements (by others), modify their design elements to reflect the Village's intended improvements, and remove significant quantities and associated pay items that would otherwise be included in the scope of the IDOT contract (e.g. PCC sidewalk, concrete median, detectable warning tiles, sodding and topsoil; some of which may already be covered by Village funds).
- Regarding the conduits for irrigation systems within IDOT's planned roadway reconstruction, it should be considered that these conduits be installed under the IDOT contract using Village funds to ensure that they get installed within the contractor's timeline and do not get inadvertently overlooked. V3 would coordinate the sizing and required location of the conduits with IDOT.
- It has been our experience that the correct location of fire hydrants and valves is critical to the aesthetic execution of the Village's enhancement plan. V3 will perform a thorough review of the watermain plans and make the necessary suggestions to IDOT on the location of these appurtenances so that they do not interfere, thus eliminating costly relocation.
- There will be electrical requirements for irrigation controllers and lighting in the primary monument cap. V3 will coordinate with IDOT to secure the necessary conduit runs and power feeds for these items.
- It would be advantageous to coordinate the required location and finish elevations of traffic signal equipment (mast arm foundations and handholes) with IDOT for the construction of intersection hardscape features compliant with ADA design requirements. A detailed grading plan of these areas including the desired location for equipment could prove beneficial and would help avoid potential issues.
- The enhancement plans make reference to civil and structural plans for the construction of the various architectural design elements (retaining walls, primary and secondary monuments). These plans were not made available for review but will be critical for aesthetic execution and construction coordination. If these are not available, V3 can offer additional design services to create the necessary information for inclusion into the Village's contract documents.
- A review of how the planned sidewalk underdrain would connect to the municipal storm sewer system should be performed and a drawing detailing tile lengths and connection locations should be created. This will most likely require a pay item for a connection to an existing storm structure.
- Our experience has shown that the finish of poured-in-place landscape and planter curb suffers because the concrete aggregate (CA-7) causes air bubbles and voids and makes it difficult to achieve the desired concrete finish. V3 would work with Norris on specifying a more suitable aggregate.
- Our experience has shown that for the tree pit locations, structural soil is a better product in lieu of the specified planting mix in order to construct the concrete grate footings on a stable medium and prevent long term settlement.
- A detail is needed for the planter urns, specifically a method for providing drainage so that the urns do not hold water.
- Details may be needed for smooth and rock faced limestone veneer blocks. There are calls for limestone veneers at the primary and secondary monuments, however there is only a detail for precast concrete veneer blocks.





# Project Approach

- A detail is needed for masonry requirements of electrical feeds to the primary monuments. Additionally, assuming that the Village is satisfied with the lighting system within the monument cap, we would suggest specifying the identical system.
- We do not consider the median splashblock connections to IDOT median curb to be reasonably constructible. V3 has insight to a more viable and economic solution, pending final IDOT comments for this design element.

## ➤ *Construction Management, Inspection and Documentation*

During construction, V3 will observe the progress and quality of the contractor's work and determine if the work is proceeding in accordance with the contract documents. All work will be documented following IDOT Documentation Guidelines. Weekly progress meetings will be conducted and meeting minutes will be prepared. Inspectors Daily Reports, quantity book records and a project diary will be maintained and kept up to date. We will prepare and process pay estimates and changes orders following the Village of Orland Park's guidelines and coordinate the review and processing of shop drawings.

Coordination and communication will drive the project to the desired outcome. To attain this, V3 will maintain daily contact with Village personnel and inform them of the progress on the project as well as and cost or quality related issues that may develop. We will maintain daily contact with the contractor as well as IDOT LaGrange Road project personnel to determine work schedules and concrete placement dates and adherence to the overall project schedules. Should the project fall behind, V3 will work with the contractor and the Village to determine an appropriate action to get back on schedule. Regular progress meetings will be conducted with all interested parties and the minutes of which will be recorded and distributed.

Maintenance of traffic information and progress updates will be coordinated with the Village of Orland Park and IDOT public relations staff to be distributed to the public. Project status newsletters will be prepared twice a month per the Village of Orland Park's guidelines. V3 will also reach out to local businesses that will be impacted by enhancement work prior to construction. Our experience has shown that people are much more willing to endure the inconvenience of road construction if they are informed and feel they have an open line of communication to air their concerns. Therefore, communication and public relations will be an emphasis in the pre-construction phase and throughout the construction process. If it is amenable to the Village, V3 will set up and maintain a Twitter feed for real time dissemination of managed Village communications and project updates whereby interested parties can track the construction progress through social media. V3 would also be able to assist the Village if they intend to use PCMS messaging boards and OxBlue construction cameras on this project as we are well versed in the setup and operation of both of these tools.

V3 will also maintain communication and coordinate with IDOT LaGrange Road project personnel to monitor the installation of Village of Orland Park utilities such as water main, sanitary force main and fiber optic conduit that will be part of the IDOT widening and reconstruction project. Critical times of construction such as water main shut downs for water main work will be shared with stakeholders to help minimize the inconveniences associated with construction. Our philosophy to keep open and thorough communication open can help lessen inconveniences when those affected are aware and informed of what to expect.

## ➤ *Construction Layout Verification*

V3 will verify and, if need be, assist in contractor layout for the construction of this project and will closely monitor the grading of the sidewalks and pedestrian crossings for ADA compliance. V3 will also monitor the construction of the curb and gutter by the IDOT contractors at the ADA ramp locations, because the curb and gutter will be critical in constructing ADA compliant ramps and sidewalk.



## Project Approach

In addition, V3 will monitor and coordinate with the IDOT contracts and the various utility companies in regard to their improvements and relocation work. We have learned from our experience from the 143<sup>rd</sup> St. and LaGrange Road Intersection Improvements project that the construction of the ornamental enhancements such as the brick pavers, tree pits and grates, columns, monuments and median walls requires careful attention, especially in the limited space between the back of curb and the right-of-way. It doesn't take much to affect the location of a tree, monument or brick pattern. Our experience has shown that avoiding conflicts with utilities before they are installed is of great benefit to the overall success of the project.

➤ *Material Testing and Coordination*

Complementing our team for materials testing will be Material Service Testing (MST). MST is qualified with IDOT for QA HMA & Aggregate and QA PCC & Aggregate and is a certified Disadvantage Business Enterprise. V3 will coordinate with MST and schedule necessary inspections in order to keep the work proceeding in a timely fashion. A materials meeting will be conducted with the contractor and materials testing firms to identify aggregate and concrete mix sources and develop an overall plan for materials acceptance. The QC and QA test results will be compared to be sure testing results meet specifications and that QC and QA results are within allowable tolerances.

➤ *Final Contract Documents and As-Built Drawings*

Upon completion of the project, V3 will prepare and monitor the completion of the final punch list. A final inspection of the contractor's work will be made. Final measurements and calculations of all pay items will be completed. The required back-up documentation will be obtained and a final payment request will be prepared and submitted. A review of the contractor's completed project as-built drawings will be performed for Village acceptance. V3 will also assist the Village in verifying IDOT final measurements for the various items to be reimbursed by the Village to IDOT as part of the Intergovernmental Agreement.



## Rate Schedule & Fee

The estimated fee for engineering services is tabulated in the following pages.

We have estimated and distributed our staff hours and expenses based on information obtained in pre-proposal meetings, correspondence from the Village of Orland Park, estimates proposed by Norris Design for their expected services and our experience on similar recent projects. In addition, a nominal fee for Materials Testing is included.

Our total estimated fee for services for V3 Companies and all other team members is \$727,770.00.

Our fee is based on billing rates that we commit to hold steady throughout the duration of the 2 year project. Hours per period are estimates only. We are committed to redistributing these proposed hours in a manner that best fits the contractors' schedules and the project needs.

Village of Orland Park - LaGrange Road Enhancements Project - 179th Street to 131st Street



Estimate of Engineering Fees

		Billing Rate	Hours for Period Ending (typically 4 week periods)																												Total Estimated Hours	Total Estimated Cost	
Role	Individual																																
			6/13/2013	7/11/2013	8/8/2013	9/5/2013	10/3/2013	10/31/2013	11/28/2013	12/26/2013	1/23/2014	2/20/2014	3/20/2014	4/17/2014	5/15/2014	6/12/2014	7/10/2014	8/7/2014	9/4/2014	10/2/2014	10/30/2014	11/27/2014	12/26/2014	1/22/2015	2/19/2015	3/19/2015	4/16/2015	5/14/2015	6/11/2015	7/9/2015			
Senior Construction Technician	Jamie Cullen	\$100.00					120	160							120	160				120	160							120	160		1120	\$112,000.00	
Resident Engineer P.E.	Peter Sathissarat	\$135.00	40	100	160	160	180	180	160	40	40	40	40	120	180	180	160	160	160	180	180	160	160	40	40	40	160	160	160	160		3540	\$477,900.00
Director - Quality Control	Tom Valaitis - Lou Gallucci	\$200.00																													0	\$0.00	
V3 Companies Reimbursables																																	
Vehicles	per day	\$45.00	5	10	20	20	38	40	20	5	5	5	5	15	38	40	20	20	20	38	40	20	20	5	5	5	20	35	40	20	574	\$25,830.00	
Phones	per month	\$100.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	\$2,800.00	

V3 Total Estimated Fee: \$618,530.00

Norris Design Estimated Fee (see Attached tabulation): \$84,240.00

Material Testing Fee Estimate: \$25,000.00

Total Estimated Fees for V3 Companies Team: \$727,770.00