WORK ORDER No. 5 FOR PROFESSIONAL SERVICES

DATE: October 8, 2015

TO: R.J. Behar & Company, Inc. 6861 SW 196th Avenue, Suite 302 Pembroke Pines, Florida 33332 (954) 680-7771

The City of Doral authorizes the firm of R.J. Behar & Company, Inc. to proceed with the Traffic Impact Study for the Doral Police Substation as of the date of this Work Order. The work should be performed in accordance with the contract provisions contained in the Continuing Professional Services Final Agreement between R.J. Behar & Company, Inc. and the City of Doral dated February 2, 2015, and the attached Proposal submitted by your firm for the above referenced project.

SCOPE OF SERVICES AND SCEHDULE:

The scope of the project will be as described in the attached proposal from R.J. Behar & Company, Inc, for the performance of the Traffic Impact Study for the Doral Police Substation. The schedule requires the draft report to be submitted within 35 calendar days of the notice to proceed. All limitations of time set forth in this Work Order are of the essence. The performance of services associated with this Work Order will be executed on a time and materials basis with a not to exceed amount of \$13,646.72.

You are required by the Continuing Service Agreement to begin work subsequent to the execution of this Work Order, or as directed otherwise. If you fail to begin work subsequent to the execution of this Work Order, the City of Doral will be entitled to disqualify the Proposal, and revoke the award.

The Work Order incorporates the terms and conditions set forth in the Continuing Services Agreement dated February 2, 2015 between the parties as though fully set forth herein. In the event that any terms or conditions of this Work Order conflict with the Continuing Services Agreement, the provisions of this specific Work Order shall prevail and apply.

Work Order is not binding until the City of Doral agrees and approves this Work Order.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first above written, in three (3) counterparts, each of which shall, without proof or accounting for the other counterpart be deemed an original Contract.

CONSULTANT: R.J. Behar & Company, Inc.			WITNESSES:	SEAL:	a series and a
BY: NAME: TITLE:	Robert J. Behar, P.E. President	1. 2.	- Had-	-	
OWNER:	City of Doral		AUTHENTICATION:	~	
BY:	- CElantlers)	BY:	mauth		
NAME:	Edward Rojas	NAME:	Conme Diaz	6	
TITLE:	City Manager	TITLE:	City Clerk		
APPROVED	AS TO FORM:				
BY:	Olde				
NAME:	WEISS, SEROTA, HELFMAN, COLE,				
	& BIERMAN, PL				
TITLE:	City Attorney				

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CITY OF DORAL Proposed Police Sub-Station and Civic Building Traffic Impact Study Scope of Services – Fee Proposal

October 7th, 2015

Introduction

The City of Doral desires to build a Police sub-station, a Civic / public building, a recreational area and a jogging trail among other amenities on a vacant parcel located on the east side of NW 97th Avenue between approximately south of NW 38th Street and approximately north of NW 33rd Street. Therefore, the City will perform a traffic analysis to determine the impacts to the surrounding roadways as the result of the proposed project's generated vehicular traffic.

The study will develop future vehicular traffic generation and determine the increase in vehicular trips resulting from the proposed project. It will assess existing and future capacity, level-of-service (LOS) and traffic operations at the project's driveways, the selected study intersections and roadway segments. Potential roadway improvements and measures will be developed to mitigate identified deficiencies.

Task 1. Review of existing information

- a. Review of readily available previous similar traffic impact studies (TIS).
- b. Review and identified readily available trip generation data on police facilities.

Task 2. Data Collection and Field observations

- a. Collect 72-hours bi-directional vehicular volume counts using automated traffic recorders at the locations identified below. The number of vehicles will be identified by each hour of the day. The counts will be collected during typical commuting days (Tuesday, Wednesday & Thursday).
- b. Collect vehicular Turning Movement Counts (TMCs) at the intersections identified below. TMCs will be collected on a week day (Tuesday, Wednesday or Thursday) during 7:00 to 9:00 AM and from 4:00 to 6:00 PM peak-hours. TMCs will include passenger vehicles, trucks, pedestrians and bicycles.
- c. After completion of Task 2a, perform field observations during the AM and PM peak-hour at the intersections and roadway segments indicated below to assess pedestrian, bicycle and vehicular operations and safety. Observations will include obvious deficiencies with existing traffic signs, pavement markings, roadway surface conditions, sidewalks and drainage.

Locations of 72-hours traffic counts:

- NW 97th Ave south of 38th St.
- NW 97th Ave south of 33rd St.
- NW 33rd St west of 97th Ave.
- NW 33rd St east of 97th Ave.

Locations of intersection TMCs:

- NW 97th Ave / 41st St-Doral Blvd.
- NW 97th Ave / 33rd St.

Task 3. Determine Trip Generation

Determine vehicular trip generation rates for the land-uses shown below. Identify the number of future vehicular volumes entering and exiting the proposed project's site during the AM and PM peak hour of the adjacent street traffic. Except as indicated otherwise, trip generation rates will be based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th edition.

- Police station: based on the results of Tasks 1a & 1b.
- Civic building: ITE 730 Government Office Building. AM = 5.88 trips per 1,000 square feet (SF) of gross floor area (GFA). PM = 1.21 trips per 1,000 SF of GFA.
- Recreational area with jogging trail: ITE 411 City Park. AM = 4.5 trips per acre. PM = 3.5 trips per acre.

Task 4. Traffic Volume Projections including committed developments in the area. Project completion is the year 2017

Annual growth rate(s) will be established based on current and past Average Annual Daily Traffic (AADTs) from traffic count stations D41 and D42 on NW 97th Ave. and stations D11 and D12 on NW 33rd St. AADTs for the years 2009, 2011 and 2013 from the "*City of Doral – Roadway Traffic Data – Year 2013*" data source will be used in the analysis. If the resulting growth rate(s) are negative, then an average annual growth rate of +0.50% will be used as a conservative approach.

To obtain future year 2017 vehicular volumes (at project completion), the growth rate(s) will be applied to existing vehicular volumes converted to their annual equivalents using the appropriate seasonal factors from the FDOT traffic information data sources. Future vehicular volumes with and without the proposed site expansion will be developed. Applicable vehicular trips from approved and committed land development projects will be provided by the City of Doral, which will be added to the projected traffic volumes.

Task 5. Trip Distribution and Assignment

Vehicular trips generated as the result of the proposed project, will be distributed and assigned using the latest available traffic zone directional trip distribution summary tables from the MPO's Long Range Transportation Plan applicable report and knowledge of the local roadway network.

Task 6. Analysis

- a. Existing conditions
- b. Future conditions <u>without</u> the proposed expansion project.
- c. Future conditions with the proposed expansion project.
- d. Improvement alternatives.
- e. Determine Concurrency.

Capacity / LOS analyses will be performed during the selected AM & PM peak-hour at the two intersections and four roadway segments indicated above plus the site's proposed two driveways (future condition analysis with site's generated traffic)

From the results of the analyses and field observations determine potential improvements and measures to mitigate identified traffic impacts and / or deficiencies. The intent is to concentrate mainly on relatively low-cost and feasible to implement improvement recommendations. Up to two improvement alternatives will be considered.

Concurrency will be determined on the above indicated roadway segments using two-way peak-hour vehicular volumes converted to their equivalent annual basis using seasonal factors from the most currently available FDOT's traffic data base.

Intersection analysis results will be presented in tabular form reflecting vehicular delays and LOS for each lanegrouping, intersection approach and for the whole intersection as applicable. Vehicular queue lengths will be also depicted by tables. Roadway segment analyses will depict two-way peak-hour vehicular volumes, LOS D standard volume threshold and Concurrency determination.

Intersection analyses will use HCS+ software based on the methodologies of the 2010 Highway Capacity Manual (2010 HCM). However, HCM 2010 has certain analysis limitations; consequently, HCS+ based on the HCM 2000 may need to be used instead and will be documented in the report.

Roadway segment analyses will use the applicable LOS standard volume thresholds from the FDOT's 2012 Quality / Level of Service Handbook.

Task 7. Technical Memorandum

Based on the results of Tasks 1 through 6 above a draft technical memorandum will be prepared and submitted to the City of Doral for their review. A final technical memorandum will be prepared and submitted considering input received from the City.

Task 8. Coordination

Total of two meetings are anticipated with City staff.

Applicable Notes:

- 1. Additional meetings and/or presentations in addition to the ones identified in Task 8 above are to be scoped/priced separately.
- 2. Additional data collection and / or analyses required by the reviewing/permitting agencies beyond the ones indicated by the above tasks are to be scoped and priced separately.

Schedule

Submit draft Technical Memorandum to City within five weeks after written receipt of the notice to proceed by the City.

Submit final Technical Memorandum to City within three weeks after receipt of review comments by the City.

The above schedule assumes timely submittal of comments by reviewing agencies and no major unforeseen delays beyond the control of R.J. Behar & Company, Inc.

Fees = \$ 13,646.72



CITY OF DORAL TRAFFIC IMPACT STUDY FOR THE POLICE SUB STATION / CIVIC BLDG PROJECT

10/7/2015

STAFF HOURS & FEE ESTIMATE

TASK	DESCRIPTION	Project Manager	Project Engineer	Engineering Technician	COMMENTS
1	Review of existing information.				
1a	Review readily available previous TISs & similar studies.		2		(Refer to scope)
1b	Identify & review add'I available trip generation data on police facilities.	1	2		(Refer to scope)
2	Data Collection & Field Observations				
2a	Directional 72-hours machine traffic counts at 4 locations.		2	5	Set-up = 1.0 hr travel time + (0.5 hr install machine per location x 4 locations = 2.0 hrs) = 3.0 hrs. Pick-up = 1.0 hr travel + (25 hr remove machine x 4 locations = 1.0 hr) = 2.0 hrs. Total hrs = 5.0 + 2.0 hrs download / check data = 7.0 hrs
2b	Intersection Turning Movement Counts (TMCs) at 2 intersections. 2 hours AM and 2 hours PM peak periods.		4	24	(1.0 hr travel / set-up + 2.0 hr count = 3.0 hrs) x 2 time- periods = 6.0 hrs x 2 persons = 12.0 hrs x 2 intersections = 24.0 hrs+ 4.0 hrs download & checking = 28.0 hrs
2c	Field observations + visual inventory.		5		(1.0 hrs travel time) + (0.5 hr observations x 2 time-periods x 2 intersections = 2.0 hrs) = 3.0 hrs + (1.0 hr visual inventory x 2 intersections = 2.0 hrs) = 5.0 hrs
3	Trip Generation	1	2		(Refer to scope)
4	Traffic volume projections	1	4		(Refer to scope)
5	Trip Distribution & Assignment	1	4		(Refer to scope)
6	Analyses				
6a	Existing conditions	1	4		1.0 hr per intersection x 2 time-periods x 2 intersections = 4.0 hrs + 1.0 hr QA/QC = 5.0 hrs
6b	Future conditions Without project traffic.	1	4		1.0 hr per intersection x 2 time-periods x 2 intersections = 4.0 hrs + 1.0 hr QA/QC = 5.0 hrs
6c	Future conditions With project traffic.	1	8		1.0 hr per intersecion/driveway x 2 time-periods x 4 intersections/DWs = 8.0 hrs + 1.0 hr QA/QC = 9.0 hrs
6d	Improvement alternatives	1	4		1.0 hr x 2 time-periods x 2 alternatives = 4.0 hrs + 1.0 hr QA/QC = 5.0 hrs
6e	Concurrency determination		3		(Refer to scope)
7	Draft & final Technical memoramdum	2	17	4	(Refer to scope)
8	Coordination	4			2 mtgs with Doral staff (1.0 hr travel time + 1.0 hr x 2 meetings) = 4.0 hrs
	TOTAL HOURS	14	65	33	112

FEE ESTIMATE

RATE	s	187.48	s	132.00	s	74.00		
FEES	s	2,624.72	s	8,580.00	\$	2,442.00	s	-
							\$	13,646.72