



CITY OF DORAL COUNCIL MEETING MEMORANDUM

ITEM TITLE:

A RESOLUTION OF THE MAYOR AND THE CITY COUNCIL OF THE CITY OF DORAL, FLORIDA, PURSUANT TO SECTION 2-323 OF THE CITY'S CODE OF ORDINANCES, APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH XYGO USA INC., IN SUBSTANTIALLY THE FORM PROVIDED; TO PROVIDE A 3D DIGITAL TWIN MODEL OF THE CITY'S PUBLIC RIGHT-OF-WAY, WHICH WILL ALLOW THE PUBLIC WORKS DEPARTMENT TO DIGITALLY IDENTIFY, ANALYZE, AND MANAGE RIGHT-OF-WAY ANOMALIES, FOR A TWO (2) YEAR PERIOD WITH THE OPTION TO RENEW FOR AN ADDITIONAL ONE (1) YEAR TERM UNDER THE SAME TERMS AND CONDITIONS, IN AN AMOUNT NOT TO EXCEED ANNUAL BUDGETED FUNDS; AUTHORIZING THE CITY MANAGER TO TRANSFER \$100,000.00 FROM ACCOUNT #101.80005.500633 TO ACCOUNT #101.80005.500340, TO PROVIDE SUFFICIENT FUNDING FOR THIS REQUEST; PROVIDING FOR IMPLEMENTATION; PROVIDING FOR INCORPORATION OF RECITALS; AND PROVIDING FOR AN EFFECTIVE DATE

DEPARTMENT RECOMMENDATION:

Approval

BRIEF HISTORY:

The Public Works Department (PWD) is continuously looking for ways to improve services, efficiency and proactiveness to provide the best possible level of service to the community.

In December 2021, XYGO USA Inc. (XYGO) approached the Public Works Department (PWD) to offer their services for a complete 3D digital twin survey package that would allow for the detection, quantification, and measurements of right-of-way anomalies through a Digital Twin – Point Cloud Analysis, which can provide measurements of up to 2 cm of accuracy. These services allow for an automated survey and analysis of the public right-of-way, and the creation of a GIS based 3D model of the environment through Lidar technology. The data and information acquired is used for the issuance of work orders through the XYGO system that helps organize, schedule, track, and budget to address the identified anomalies.

After a long analysis, which included multiple meetings with various departments, and final product samples demonstrating XYGO's capacity; the services provided by XYGO were vetted through the PWD, the IT Department, and the Procurement Division. The PWD requested a proposal from XYGO to implement a pilot program for the services mentioned.

On August 9, 2023, the Mayor and the City Councilmember adopted Resolution No. 23-130 authorizing a one-year pilot program with XYGO. The services included the development of a 3D digital twin model applied to the detection of cracks and unevenness along the ground, specifically along the sidewalks, that result from tree roots intrusion and/or other causes. The digital twin model is created through a survey performed with lidar sensors, 360 degrees high resolution images, and the Digital Twin platform for its detection and analysis. The Digital Twin platform can also be used to carry out other inspections in a systematic and automated way, such as determining street lighting that is in poor condition or is not working, and creating a street sign inventory. The Digital Twin platform and Data Model was also used to update and add new data to the City's GIS Database. These services support the City's Smart Cities initiatives. It should be noted that the data obtained is owned by the City and is stored and managed in XYGO's cloud-based system. This program allows the PWD to proactively identify, record, analyze, and address potential tripping hazards along the public sidewalks without having the need to walk the entire City's infrastructure. The program allows for a more proactive approach rather than a reactive one.

The Pilot program was performed on a center-line mile basis. The proposal included a one-time setup fee of \$12,000.00, a one-time optional fee of \$39,250.00 to create a Citywide signal inventory, and a cost of \$465.58 per center-line mile. The estimated center-line miles operated by the City totals approximately 83 miles. The total cost for these services did not exceed \$100,000.00. The Pilot Program expired in September of 2023.

At the request of the PWD, XYGO provided the attached proposal to continue providing the services mentioned. XYGO is a sole source provider as approved by the Procurement & Asset Management Department on May 27, 2023.

On September 2, 2025, the Procurement & Asset Management Department issued a Public Notice of Sole Source Procurement for the services mentioned to confirm XYGO is still a sole source and no one else provides all the included services in one process. The City received no responses by the Response Deadline of September 17, 2025.

The City Staff respectfully requests the Mayor and the City Councilmembers to authorize the City Manager to enter into a two (2) year contract with XYGO USA Inc. with the option to renew for an additional one (1) year term under the same terms and conditions, pursuant to Sec. 2-323 of the City Code, in an amount not to exceed annual budgeted funds. In addition, the PWD respectfully requests authorization for the City Manager to transfer \$100,000.00 from Account No. 101.80005.500633 to Account No. 101.80005.500340 to provide sufficient funding for these services in the current Fiscal Year.

It should be noted that the PWD intends to issue a work order to XYGO to identify anomalies in each City section in order to address them. At no point will another work order be issued without addressing first the anomalies identified in the previous work order.

LEGISLATIVE ACTION: (IF APPLICABLE)

Date:	Resolution/Ordinance No.	Comments
8/9/2025	Resolution No. 23-130	XYGO Pilot Program approval

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FINANCIAL INFORMATION: (IF APPLICABLE)

No.	Amount	Account No.	Source of Funds
1.	\$100,000.00	101.80005.500340	Transportation Fund
2.	\$0		
Total:	\$100,000.00		
Fiscal Impact Statement: The proposed item has an estimated fiscal impact on expenditures of \$100,000.00 per year.			

STRATEGIC PLAN ALIGNMENT:

The proposed item follows the City's Public Safety Strategic Goals.

ATTACHMENT(S):

- A. Agreement.
- B. XYGO Proposal
- C. Draft Resolution.