



RESOLUTION NO. U-11376

1 A RESOLUTION related to Tacoma Water, authorizing participation in City of
2 Tacoma, Department of Environmental Services' contract for the
3 Larchmont District Green Infrastructure Project, for water main
4 replacement.

5 WHEREAS the City of Tacoma, Department of Public Utilities, Water
6 Division (d.b.a. "Tacoma Water"), requests authorization to participate in the
7 City of Tacoma, Department of Environmental Services' ("ES") contract for the
8 water main replacement for the Larchmont District Green Infrastructure Project
9 ("Project"), and

10 WHEREAS Tacoma Water is partnering with ES to reconstruct the
11 existing roadway and replace approximately 7,600 feet of 12-inch, 8-inch, and
12 6-inch water main, constructed circa 1955 to 1970, along the following streets:

- 13 • Along "A" St., between E. 84th Street and E. 96th St.
- 14 • E. "B" St., between E. 84th St. and Larchmont Elementary School
- 15 • E. 88th St., between "A" St. and E. "B" St., and
- 16 • S. Walters Rd., between S. 19th St. and S. 18th St., and

17 WHEREAS the overall project will minimize long-term road maintenance
18 by improving roadway surface with pervious pavement, upgrade underground
19 utilities, and bring ramps into ADA compliance, and

20 WHEREAS project partner contributions are referenced in the
21 "Secondary Agreement for Joint Project" in the materials on file with the Clerk of
22 the Board; Tacoma Water's water-related project construction costs are
23 \$1,607,170.70, plus a fifteen percent contingency, for a cumulative total of
24 \$1,848,246.31, plus applicable taxes, and
25

26



WHEREAS Tacoma Water believes it is in the best interests of the utility and its customers to include the water main work in ES' project and will improve project delivery, reduce project costs, improve system reliability, an consolidate construction disturbance to adjacent businesses and the general public; Now, Therefore,

BE IT RESOLVED BY THE PUBLIC UTILITY BOARD OF THE CITY OF TACOMA:

That Tacoma Water is authorized to participate in the Environmental Services, Larchmont District Green Infrastructure Project, to replace water main as referenced above, with Tacoma Water's contribution of \$1,607,70.70, plus a 15 percent contingency, for a cumulative total of \$1,848,246.31, plus applicable taxes, and the proper officers of the Department of Public Utilities and Tacoma Water are authorized to execute the proposed Agreement substantially in the form as approved by the City Attorney.

Approved as to form:

/s/

Chief Deputy City Attorney

Chair

Secretary

Clerk

Adopted _____



Board Action Memorandum

TO: Jackie Flowers, Director of Utilities ^{DS} *JS*
COPY: Charleen Jacobs, Director and Board Offices
FROM: Scott Dewhirst, Utilities Dir Dep. Water Superintendent ^{DS} *SD*
Troy Saghafi, Professional Engineer, Tacoma Water ^{DS} *TS*
MEETING DATE: April 12, 2023
DATE: March 28, 2023

STRATEGIC DIRECTIVE ALIGNMENT (select as many that apply):

Please indicate which of the Public Utility Board's Strategic Directives is supported by this action.

- | | |
|--|---|
| <input type="checkbox"/> SD1 – Equity & Inclusion | <input type="checkbox"/> SD8 – Telecom |
| <input type="checkbox"/> SD2 – Financial Sustainability | <input type="checkbox"/> SD9 – Economic Development |
| <input type="checkbox"/> SD3 – Rates | <input type="checkbox"/> SD10 – Government Relations |
| <input type="checkbox"/> SD4 – Stakeholder Engagement | <input type="checkbox"/> SD11 – Decarbonization/Electric Vehicles |
| <input type="checkbox"/> SD5 – Environmental Leadership | <input type="checkbox"/> SD12 – Employee Relations |
| <input type="checkbox"/> SD6 – Innovation | <input type="checkbox"/> SD13 – Customer Service |
| <input checked="" type="checkbox"/> SD7 – Reliability & Resiliency | <input type="checkbox"/> SD14 – Resource Planning |

SUMMARY:

Authorize Tacoma Water to participate in the City of Tacoma, Department of Environmental Services, Larchmont District Green Infrastructure Project. Tacoma Water proposes to replace approximately 7,600 feet of 12-inch, 8-inch, and 6-inch water main along A St., between E. 84th St. and E. 96th St., E. B St., between E. 84th St. and Larchmont Elementary School, E. 88th St., between A St. and E. B St, and S. Walters Rd., between S. 19th St. and S. 18th St.

Total project cost is \$1,607,170.70 plus a 15 percent contingency, for a cumulative total of \$1,848,246.31 plus applicable taxes.

Tacoma Water believes it is in the best interest of the utility and its customers to include the water main work in the Environmental Services project. This project partnership will improve project delivery, reduce project costs, improve system reliability, and consolidate construction disturbance to residents and businesses.

BACKGROUND:

Tacoma Water is partnering with the Environmental Services Department to reconstruct the existing roadway and replace approximately 7,600 feet of existing water main, constructed circa 1955 to 1970 along the said streets.



Board Action Memorandum

The overall project will minimize long-term road maintenance by improving roadway surface with pervious pavement, upgrade underground utilities, and bring ramps into ADA compliance.

Project partner contributions are summarized in the attachment “Secondary Agreement for Joint Project Environmental Services - Tacoma Water”.

ISSUE: The existing water main in this area is approximately 50 to 70 years old, with sections near the end of its operational life.

ALTERNATIVES: Rehabilitating the existing water main is cost prohibitive. It is more cost effective to mitigate the risk of future water main breaks under a new roadway by replacing the water main now.

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes

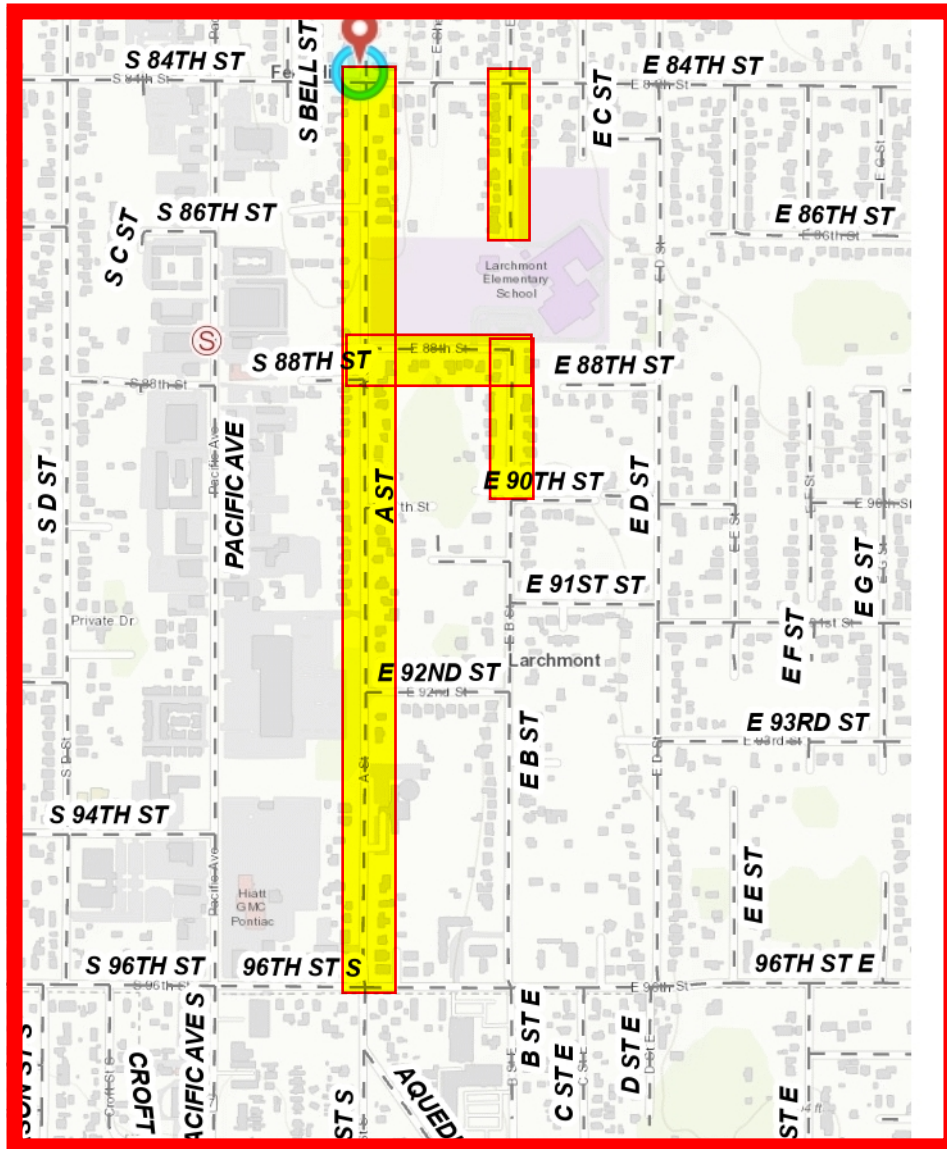
IF THE ACTION REQUESTED IS APPROVAL OF A CONTRACT, INCLUDE LANGUAGE IN RESOLUTION AUTHORIZING \$200,000 INCREASE IN ADMINISTRATIVE AUTHORITY TO DIRECTOR? Yes.

ATTACHMENTS: Project Map
Contract and Award Letter
Secondary Agreement for Joint Project Environmental Services - Tacoma Water

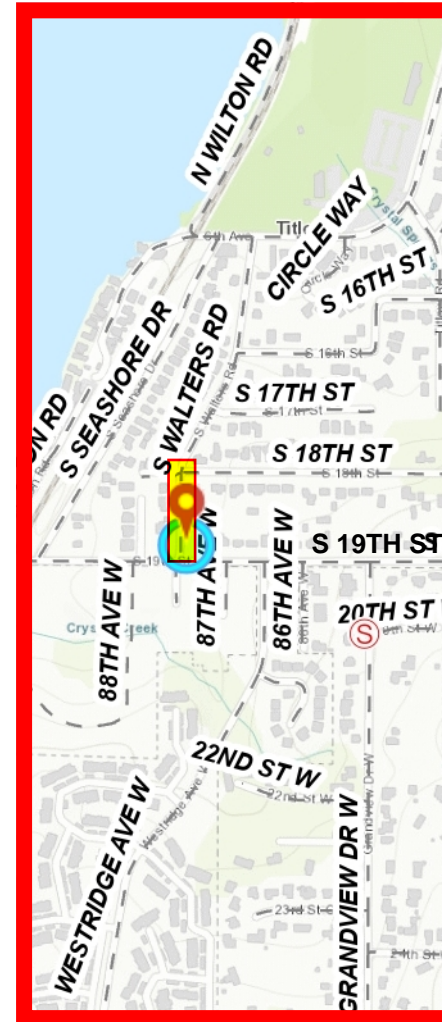
CONTACT: Troy Saghafi, Professional Engineer, 253-345-8445
Ali Polda, Principal Engineer, 206-687-8602

MRP 2020-06 LARCHMONT DISTRICT GREEN INFRASTRUCTURE MAP LOCATION









LOCATION 1: A ST. & B ST.



LOCATION 2: S. WALTERS RD.



Legend

- Cathodic Protection**
-  Test Station
 -  Rectifier
 -  Anode
- Sample Stations**
-  Sample Stand
 -  Chart Box
 -  Sample Stand/Chart Box
-  Fence Gates
-  Super Fund Sites

LOCATION 2: S. WALTERS Rd.



Notes

2,489.6	0	1,244.78	2,489.6	Feet
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WGS_1984_Web_Mercator_Auxiliary_Sphere
Tacoma Water Maps

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



City of Tacoma

Resolution No.: _____

Meeting Date: _____

**Contract and Award Letter
Purchase Resolution —Exhibit "A"**

TO: Board of Contracts and Awards
FROM: Michael P. Slevin III, P.E., Director, Environmental Services
Jordan Ennis, P.E., Project Manager, Environmental Services
COPY: City Council, City Manager, City Clerk, EIC Coordinator, LEAP Coordinator, and
Dawn DeJarlais, Finance/Purchasing
SUBJECT: Larchmont District Green Infrastructure Project
Request for Bids, Specification No. ES20-0144F, Contract No. CW2256735 –
April 11, 2023 City Council
DATE: March 28, 2023

RECOMMENDATION SUMMARY:

The Environmental Services Department recommends a contract be awarded to R.L. Alia Company, Renton, WA, in the amount of \$8,836,288.25, plus a 15 percent contingency, for a projected contract amount of \$10,161,731.49, plus applicable taxes, budgeted from various funding sources, for the construction of the Larchmont District Green Infrastructure Project. This project is funded in part by the Washington State Department of Ecology, Agreement No. WQC-2020-TacoES-00070.

STRATEGIC POLICY PRIORITY:

- Strengthen and support a safe city with healthy residents.
- Assure outstanding stewardship of the natural and built environment.

BACKGROUND:

Environmental Services received a grant and Clean Water State Revolving Fund (SRF) loan from the Washington State Department of Ecology and has partnered with Public Works and Tacoma Water to replace the failing streets, resolve drainage problems, and replace the aging utilities in the Larchmont District.

In addition to replacing approximately 18 blocks of residential roadway with permeable pavement, this project will provide a better pedestrian and bicyclist network, and a safer environment for those living and going to school in this neighborhood. "A" Street will become a bicycle boulevard, designed as a low speed and low volume street with traffic calming measures to provide increased comfort for bicyclists. And lastly, the project will improve the City's Urban Canopy, which is a key element in minimizing stormwater impacts in a developed urban environment.

ISSUE: Existing roadways in the Madison District are in poor or failing condition and experience recurring drainage issues, plus there are safety and accessibility concerns due to a lack of sidewalks and curb ramps in the area. This project aims to mitigate these issues by replacing the failing streets with permeable pavement and ballasted sidewalks, which will improve water quality and provide better pedestrian mobility within the neighborhood.

ALTERNATIVES: Environmental Services could opt to not move forward with this project; however, that would continue to put the City at risk of addressing ongoing roadway failures and localized flooding. Additionally, it would require the forfeiture of the \$7,797,752 in combined grant and SRF funding from the Department of Ecology, potentially impairing the City's standing and negatively affecting future grant applications.



COMPETITIVE SOLICITATION:

Request for Bids Specification No. ES20-0144F was opened February 21, 2023. Nine submittals were received.

R.L. Alia Company submitted a bid that resulted in the lowest evaluated submittal after consideration of EIC requirements. The table below reflects the amount of the base award.

<u>Respondent</u>	<u>Location</u> <i>(city and state)</i>	<u>Submittal Amount</u>
R.L. Alia Company	Renton, WA	\$8,836,288.25
Ceccanti, Inc.	Tacoma, WA	\$9,085,609.00
Miles Resources, LLC	Puyallup, WA	\$9,098,246.00
Reed Trucking & Excavation, Inc.	Puyallup, WA	\$9,199,346.25
Tucci & Sons, Inc.	Tacoma, WA	\$9,318,649.00
Northwest Cascade, Inc.	Puyallup, WA	\$9,340,955.00
Johansen Construction, LLC	Buckley, WA	\$10,017,573.00
Pivetta Brothers Construction, Inc.	Sumner, WA	\$10,277,522.30
Active Construction, Inc.	Puyallup, WA	\$11,350,907.78

Pre-bid Estimate: \$9,392,702

The recommended award is approximately 6 percent below the pre-bid estimate.

CONTRACT HISTORY: New contract.

SUSTAINABILITY: Permeable pavement will allow stormwater runoff to infiltrate and recharge the local aquifer, while acting as a filter for contaminants that would otherwise flow into the City's collection system and discharge into Puget Sound, resulting in a positive environmental impact.

EQUITY IN CONTRACTING (EIC) COMPLIANCE: The recommended contractor is in compliance with the EIC requirements, per memorandum dated December 20, 2022. The EIC requirements for this project are 6 percent for MBE, 3 percent for WBE, and 7 percent for SBE. The EIC utilization levels of the recommended contractor, R.L Alia Company, are 8 percent for MBE, 3 percent for WBE, and 8 percent for SBE.

LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP)

COMPLIANCE: The LEAP requirements for this project are 15 percent of the project labor hours must be worked by Local Employees and an additional 15 percent of the labor hours must be worked by Apprentices, per TMC 1.90.040.

**FISCAL IMPACT:****EXPENDITURES:**

FUND NUMBER & FUND NAME	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300 ES Wastewater Fund	ENV-04023-15-04	5330100	\$522,009.44
4301 ES Stormwater Fund	ENV-03031-13-04	5330100	\$7,346,226.45
1085 PW Streets Initiative Fund	PWK-00438-32-03	5330100	\$496,402.10
4600 Tacoma Water Capital Reserve Fund	WTR-00604-01-11 WTR-00641-07-02	5330100	\$1,797,093.50
TOTAL			Up to \$10,161,731.49

REVENUES:

FUNDING SOURCE	COST OBJECT (CC/WBS/ORDER)	COST ELEMENT	TOTAL AMOUNT
4300 ES Wastewater Fund	524700	6310010	\$522,009.44
4301 ES Surface Water Fund	529700	6310010	\$7,346,226.45
1085 PW Streets Initiative Fund	663020	6311139	\$496,402.10
4600 Tacoma Water Capital Reserve Fund	587501	6311170	\$1,797,093.50
TOTAL			Up to \$10,161,731.49

FISCAL IMPACT TO CURRENT BIENNIAL BUDGET: \$10,161,731.49, plus applicable taxes.

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes

IF EXPENSE IS NOT BUDGETED, PLEASE EXPLAIN HOW THEY ARE TO BE COVERED. N/A



TO: John Burk, P.E., Division Manager, Science & Engineering Division, Environmental Services

Terry Forslund, P.E., Assistant Division Manager, Planning & Engineering, Tacoma Water

FROM: Jordan Ennis, P.E., Science & Engineering Division, Environmental Services

Troy Saghafi, P.E., Professional Engineer, Planning & Engineering, Tacoma Water

SUBJECT: Secondary Agreement for Joint Project ES-TW for Larchmont District Green Infrastructure ES20-0144F/ MRP 2020-06

DATE: March 22, 2023

City of Tacoma Science & Engineering Division and City of Tacoma Water, Planning & Engineering Division are collaborating to add water related infrastructure to the Larchmont District Green Infrastructure Project.

The following summarizes the construction cost allocations for the project and other commitments.

1. The project is located along A St., between E. 84th St. and E. 96th St, E. B St., between E. 84th St. and Larchmont Elementary School, E. 88th St., between A St. and E. B St (Schedules A, B-1, C-1, and D-1); and S. Walters Rd., between S. 19th St. and S. 18th St. (Schedules A, B-2, C-2, D-2).


Water infrastructure improvements include installing new 12-inch, 8-inch, and 6-inch water main and associated appurtenances along the project extents.

2. The project has been combined into a single construction contract administered by Environmental Services. Environmental Services has the responsibility to lead and coordinate the compilation of contract plans & specifications and advertise & award the construction contract. The project was advertised, and bids opened on 02/21/2023, R.L. Alia Company is the low bidder.
3. Tacoma Water will be responsible for the cost of water distribution main work, valves, hydrants, trench excavation, trench backfill and compaction to subgrade elevation, mobilization, traffic control, and other appurtenant items directly related to the installation of new water main. Costs for these items are in "Schedule D-1" and "Schedule D-2" of the contract bid proposal. The estimated cost of "Schedule D-1 & D-2", including force account is \$1,509,655.00, plus taxes.
4. Tacoma Water will be responsible for selected Roadway bid items in Schedule A, as noted in the Project Breakdown Estimate worksheet (see exhibit A). Tacoma Water's portion of the shared cost is based on the proportion of costs combined in Schedules D-1 and D-2 relative to the total project costs, based on the contractors bid pricing. The proportional amount of costs to be shared by Water is 21% of items R2, R5, R39, R40, R43, and R44. Tacoma Water will contribute with the costs of intersection improvements by paying for nine (9) Concrete Curb Ramps (Bid Item R65) and 25% of Bid Item R29 HMA Cl. 1/2" PG 58H-22. The total shared cost of Tacoma Water's responsibility from Section A of the Roadway bid items is \$53,035.00. The quantities on the Project Breakdown Estimate worksheet are contractor bid prices, the Departmental actual bid quantities and costs will be separated by the same percentage as the per bid item estimate reflected on the Project Breakdown Estimate worksheet.



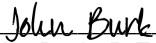
5. The Department of Environmental Services will administer the construction contract and provide construction management (contract administration and construction inspection assistance). Tacoma Water will pay the Environmental Services Department contract administration fees associated with Tacoma Water's scope of work. Tacoma Water will compensate the Environmental Services Department in the amount of 3% of the combined costs noted in paragraphs 3 and 4 above less Schedule's D-1 and D-2 force account of \$80,000 (\$1,509,655.00 - \$80,000 + \$53,035.00). The estimated cost for the Tacoma Water portion of contract administration is \$44,480.70. This amount will be adjusted based on actual construction costs and transferred to the Department of Environmental Services via journal entry at the completion of the project. This method is consistent with how construction management and overhead costs were addressed on previous projects.
6. Tacoma Water will be responsible for the daily inspection, surveying, and project redline drawings of the water main construction. Use of Force Account items in Schedule D-1 and Schedule D-2 will be as agreed to by Tacoma Water. Tacoma Water, Public Works and Environmental Services inspections will be a cooperative and coordinated effort.
7. Tacoma Water has provided the following WBSE for charging these construction costs:
 - WTR-00604-01-11-03 Construction Payments
8. Project participation is subject to Public Utility Board Approval. Presentations to the Public Utility Board are anticipated in April 2023.

We look forward to continuing our spirit of coordination and cooperation to accomplish this and future projects of mutual benefit to the citizens of Tacoma, the Department of Environmental Services, and Tacoma Water. Tacoma Water's water-related project construction costs is \$1,562,690.00 plus a contract administration cost of \$44,480.70 for a cumulative total of \$1,607,170.70 plus applicable taxes and contingencies. Payment by Tacoma Water will be made for the actual quantities and costs incurred during project closeout. By signature, please indicate your approval to proceed with this joint project.

DocuSigned by:

Terry Forslund, P.E., PMP
Planning & Engineering Assistant Division Manager
Tacoma Water

03/28/2023

Date

DocuSigned by:

John Burk, P.E.
Science & Engineering Division
Environmental Services

03/28/2023

Date

Attachment: Exhibit-A Project Breakdown Estimate

Cc: Geff Yotter, Construction Inspector Manager, Planning & Engineering, Tacoma Water
Phill Ringrose, Construction Manager, Planning & Engineering, Tacoma Water
Julie Louviere, Water Budget and Financial Analysis, Tacoma Water

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
Schedule A: Roadway Improvements Bid Items R1 through R80										
R1	Project Red Line Drawings	LS	1	\$ 2,000	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00			
R2	SPCC Plan	LS	1	\$ 1,000	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00		21.00%	\$ 210.00
R3	Mobilization	LS	1	\$ 800,000	\$ 800,000.00	\$ 700,000.00	\$ 700,000.00			
R4	Project Temporary Traffic Control	LS	1	\$ 500,000	\$ 500,000.00	\$ 600,000.00	\$ 600,000.00			
R5	Pedestrian Traffic Control	LS	1	\$ 30,000	\$ 30,000.00	\$ 20,000.00	\$ 20,000.00		21.00%	\$ 4,200.00
R6	Clearing and Grubbing	LS	1	\$ 50,000	\$ 50,000.00	\$ 75,000.00	\$ 75,000.00			
R7	Certified Arborist	FA	1	\$ 20,000	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00			
R8	Removal of Structures and Obstructions	LS	1	\$ 100,000	\$ 100,000.00	\$ 25,000.00	\$ 25,000.00			
R9	Remove and Reinstall Existing Fences	FA	1	\$ 30,000	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00			
R10	Repair Existing Irrigation Systems	FA	1	\$ 10,000	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00			
R11	Roadway Excavation, Incl. Haul	CY	23000	\$ 40	\$ 920,000.00	\$ 36.00	\$ 828,000.00			
R12	Construction Geotextile for Separation	SY	30000	\$ 3	\$ 90,000.00	\$ 2.65	\$ 79,500.00			
R13	Remove Tree, Class 0	EA	9	\$ 300	\$ 2,700.00	\$ 500.00	\$ 4,500.00			
R14	Remove Tree, Class I	EA	2	\$ 300	\$ 600.00	\$ 500.00	\$ 1,000.00			
R15	Remove Tree, Class II	EA	4	\$ 300	\$ 1,200.00	\$ 500.00	\$ 2,000.00			
R16	Remove Stump, Class II	EA	4	\$ 300	\$ 1,200.00	\$ 500.00	\$ 2,000.00			
R17	Remove Tree, Class III	EA	1	\$ 300	\$ 300.00	\$ 500.00	\$ 500.00			
R18	Remove Stump, Class III	EA	1	\$ 300	\$ 300.00	\$ 500.00	\$ 500.00			
R19	Remove Shrub	EA	26	\$ 100	\$ 2,600.00	\$ 75.00	\$ 1,950.00			
R20	Remove Brush	SY	40	\$ 100	\$ 4,000.00	\$ 50.00	\$ 2,000.00			
R21	Remove Existing Pavement, Type II, Class A4	SY	18750	\$ 7	\$ 131,250.00	\$ 7.00	\$ 131,250.00			
R22	Remove Existing Pavement, Type II, Class C6	SY	1120	\$ 15	\$ 16,800.00	\$ 10.25	\$ 11,480.00			
R23	Remove Curb and Gutter	LF	1300	\$ 5	\$ 6,500.00	\$ 5.00	\$ 6,500.00			
R24	Crushed Surfacing Top Course	TN	380	\$ 50	\$ 19,000.00	\$ 48.00	\$ 18,240.00			
R25	Crushed Surfacing Base Course	TN	2750	\$ 50	\$ 137,500.00	\$ 48.00	\$ 132,000.00			
R26	Permeable Ballast	TN	20500	\$ 45	\$ 922,500.00	\$ 55.50	\$ 1,137,750.00			
R27	Asphalt Treated Permeable Base, PG 70-22ER	TN	2300	\$ 120	\$ 276,000.00	\$ 130.00	\$ 299,000.00			
R28	Fiber Reinforced PHMA Cl. ½" PG 58V-22	TN	3200	\$ 150	\$ 480,000.00	\$ 130.00	\$ 416,000.00			
R29	HMA Cl. ½" PG 58H-22	TN	820	\$ 130	\$ 106,600.00	\$ 130.00	\$ 106,600.00		25.00%	\$ 26,650.00
R30	HMA for Approach Cl. ½" PG 58H-22	SY	800	\$ 50	\$ 40,000.00	\$ 60.00	\$ 48,000.00			
R31	Planing Bituminous Pavement	SY	840	\$ 10	\$ 8,400.00	\$ 10.00	\$ 8,400.00			
R32	Adjust Existing Manhole	EA	22	\$ 800	\$ 17,600.00	\$ 1,250.00	\$ 27,500.00			
R33	Adjust Existing Manhole, Remove and Reinstall Cone/Flat Top	EA	6	\$ 5,000	\$ 30,000.00	\$ 2,000.00	\$ 12,000.00			
R34	Adjust Existing Manhole, Furnish and Install New Cone/Flat Top	EA	1	\$ 7,000	\$ 7,000.00	\$ 2,500.00	\$ 2,500.00			
R35	Adjust Existing Catch Basin	EA	2	\$ 800	\$ 1,600.00	\$ 750.00	\$ 1,500.00			
R36	Adjust Existing Valve Chamber to Grade	EA	6	\$ 600	\$ 3,600.00	\$ 900.00	\$ 5,400.00			
R37	Adjust Existing Utility to Grade	EA	2	\$ 600	\$ 1,200.00	\$ 1,000.00	\$ 2,000.00			
R38	Residential Storm Drain	EA	10	\$ 2,000	\$ 20,000.00	\$ 2,000.00	\$ 20,000.00			
R39	Stormwater Pollution Prevention Plan (SWPPP)	LS	1	\$ 1,000	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00		21.00%	\$ 210.00
R40	NPDES Construction Stormwater General Permit	LS	1	\$ 1,000	\$ 1,000.00	\$ 1,500.00	\$ 1,500.00		21.00%	\$ 315.00
R41	Inlet Protection	EA	63	\$ 100	\$ 6,300.00	\$ 40.00	\$ 2,520.00			
R42	Street Cleaning	HR	200	\$ 200	\$ 40,000.00	\$ 200.00	\$ 40,000.00			

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
R43	Erosion/Water Pollution Control	FA	1	\$ 20,000	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00		21.00%	\$ 4,200.00
R44	Tree Protection	LS	1	\$ 5,000	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00		21.00%	\$ 1,050.00
R45	Landscape Restoration	FA	1	\$ 50,000	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00			
R46	Plant Selection Type American Hornbeam (Carpinus Caroliniana)	EA	58	\$ 750	\$ 43,500.00	\$ 450.00	\$ 26,100.00			
R47	Plant Selection Type Japanese White Pine (Pinus Parviflora)	EA	55	\$ 750	\$ 41,250.00	\$ 450.00	\$ 24,750.00			
R48	Plant Selection Type Cascara (Rhamnus Purshiana)	EA	56	\$ 750	\$ 42,000.00	\$ 450.00	\$ 25,200.00			
R49	Plant Selection Type Japanese Zelkova (Zelkova Serrata)	EA	20	\$ 750	\$ 15,000.00	\$ 450.00	\$ 9,000.00			
R50	Plant Selection Type Deodar Cedar (Cedrus Deodara)	EA	21	\$ 750	\$ 15,750.00	\$ 500.00	\$ 10,500.00			
R51	Plant Selection Type Garry Oak (Quercus Garryana)	EA	18	\$ 750	\$ 13,500.00	\$ 500.00	\$ 9,000.00			
R52	Plant Selection Type Dawn Redwood (Metasequoia Glyptostroboides)	EA	1	\$ 750	\$ 750.00	\$ 600.00	\$ 600.00			
R53	Plant Selection Type London Plane (Platanus X Acerfolia)	EA	1	\$ 750	\$ 750.00	\$ 600.00	\$ 600.00			
R54	Soil Amendment Option 4	CY	2630	\$ 75	\$ 197,250.00	\$ 70.00	\$ 184,100.00			
R55	Bark or Wood Chip Mulch	CY	70	\$ 40	\$ 2,800.00	\$ 70.00	\$ 4,900.00			
R56	Seeded Lawn Installation	SY	6020	\$ 3	\$ 18,060.00	\$ 1.60	\$ 9,632.00			
R57	Cement Conc. Traffic Curb and Gutter	LF	1000	\$ 35	\$ 35,000.00	\$ 24.00	\$ 24,000.00			
R58	Cement Conc. Traffic Curb	LF	10370	\$ 35	\$ 362,950.00	\$ 19.00	\$ 197,030.00			
R59	Pavement Separation Barrier Curb	LF	400	\$ 35	\$ 14,000.00	\$ 40.00	\$ 16,000.00			
R60	Cement Conc. Driveway Entrance Type 1	SY	1720	\$ 85	\$ 146,200.00	\$ 63.00	\$ 108,360.00			
R61	Cement Conc. Driveway Entrance Type 2	SY	350	\$ 85	\$ 29,750.00	\$ 63.00	\$ 22,050.00			
R62	Raised Pavement Marker Type 2	HN	1	\$ 1,000	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00			
R63	Poured Monument	EA	6	\$ 800	\$ 4,800.00	\$ 500.00	\$ 3,000.00			
R64	Cement Conc. Sidewalk	SY	4500	\$ 60	\$ 270,000.00	\$ 42.00	\$ 189,000.00			
R65	Cement Conc. Curb Ramp	EA	48	\$ 2,500	\$ 120,000.00	\$ 1,800.00	\$ 86,400.00	9		\$ 16,200.00
R66	Detectable Directional Tile	LF	100	\$ 65	\$ 6,500.00	\$ 5.00	\$ 500.00			
R67	Relocate Mailbox	EA	106	\$ 500	\$ 53,000.00	\$ 300.00	\$ 31,800.00			
R68	Traffic Infrastructure	LS	1	\$ 40,000	\$ 40,000.00	\$ 190,000.00	\$ 190,000.00			
R69	Permanent Signing	LS	1	\$ 20,000	\$ 20,000.00	\$ 60,000.00	\$ 60,000.00			
R70	Paint Line	LF	540	\$ 2	\$ 1,080.00	\$ 4.00	\$ 2,160.00			
R71	Plastic Stop Line	LF	115	\$ 10	\$ 1,150.00	\$ 25.00	\$ 2,875.00			
R72	Plastic Crosswalk Line	LF	750	\$ 10	\$ 7,500.00	\$ 12.00	\$ 9,000.00			
R73	Plastic Traffic Arrow	EA	2	\$ 750	\$ 1,500.00	\$ 300.00	\$ 600.00			
R74	Plastic Traffic Letter	EA	36	\$ 400	\$ 14,400.00	\$ 180.00	\$ 6,480.00			
R75	Plastic Bicycle Lane Symbol	EA	1	\$ 750	\$ 750.00	\$ 500.00	\$ 500.00			
R76	Plastic Sharrow Symbol	EA	35	\$ 750	\$ 26,250.00	\$ 360.00	\$ 12,600.00			
R77	Plastic Chevron	EA	2	\$ 750	\$ 1,500.00	\$ 600.00	\$ 1,200.00			
R78	Green Durable Product	SF	50	\$ 15	\$ 750.00	\$ 60.00	\$ 3,000.00			
R79	Traffic Circle	EA	1	\$ 15,000	\$ 15,000.00	\$ 8,000.00	\$ 8,000.00			
R80	Traffic Diverter	EA	1	\$ 15,000	\$ 15,000.00	\$ 8,000.00	\$ 8,000.00			
SubTotal, Schedule A Unit Bid Item Nos. R1 through R80					\$ 6,493,440.00		\$ 6,199,027.00			\$ 53,035.00

Schedule B-1: Storm Water Improvements Bid Items S1 through S30										
S1	Structure Excavation Class B	CY	1745	\$ 10	\$ 17,450.00	\$ 36.00	\$ 62,820.00			
S2	Shoring or Extra Excavation Class B	SF	18180	\$ 1	\$ 18,180.00	\$ 0.25	\$ 4,545.00			

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
S3	Remove Catch Basin	EA	29	\$ 400	\$ 11,600.00	\$ 400.00	\$ 11,600.00			
S4	Remove Manhole	EA	1	\$ 650	\$ 650.00	\$ 750.00	\$ 750.00			
S5	HMA Cl. ½” PG 58H-22 for Pavement Patch	TN	70	\$ 200	\$ 14,000.00	\$ 150.00	\$ 10,500.00			
S6	Temporary Pavement Patch	TN	135	\$ 150	\$ 20,250.00	\$ 130.00	\$ 17,550.00			
S7	Manhole 48-In. Diam. Type 1	EA	12	\$ 7,000	\$ 84,000.00	\$ 4,500.00	\$ 54,000.00			
S8	Manhole 48-In. Diam. Type 3	EA	4	\$ 7,000	\$ 28,000.00	\$ 4,300.00	\$ 17,200.00			
S9	Manhole Additional Height 48-In. Diam. Type 1	LF	2	\$ 200	\$ 400.00	\$ 500.00	\$ 1,000.00			
S10	Catch Basin Type 1	EA	8	\$ 2,200	\$ 17,600.00	\$ 1,900.00	\$ 15,200.00			
S11	Catch Basin Type 1 with Combination Inlet	EA	16	\$ 2,200	\$ 35,200.00	\$ 2,300.00	\$ 36,800.00			
S12	Catch Basin Type 2 48-In. Diam.	EA	3	\$ 7,000	\$ 21,000.00	\$ 3,300.00	\$ 9,900.00			
S13	Concrete Inlet with Frame and Hood	EA	1	\$ 2,200	\$ 2,200.00	\$ 2,000.00	\$ 2,000.00			
S14	Connect New Sewer Pipe 12-In. Diam. to Existing Structure	EA	6	\$ 2,000	\$ 12,000.00	\$ 1,800.00	\$ 10,800.00			
S15	Connect New Sewer Pipe 18-In. Diam. to Existing Structure	EA	1	\$ 2,000	\$ 2,000.00	\$ 2,500.00	\$ 2,500.00			
S16	Reconnect Existing Sewer Pipe 4-In. Diam. to New Structure	EA	1	\$ 1,000	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00			
S17	Reconnect Existing Sewer Pipe 8-In. Diam. to New Structure	EA	8	\$ 2,000	\$ 16,000.00	\$ 2,500.00	\$ 20,000.00			
S18	Reconnect Existing Sewer Pipe 10-In. Diam. to New Structure	EA	2	\$ 2,000	\$ 4,000.00	\$ 3,000.00	\$ 6,000.00			
S19	Reconnect Existing Sewer Pipe 12-In. Diam. to New Structure	EA	2	\$ 3,000	\$ 6,000.00	\$ 3,000.00	\$ 6,000.00			
S20	Reconnect Existing Sewer Pipe 18-In. Diam. to New Structure	EA	4	\$ 3,000	\$ 12,000.00	\$ 3,600.00	\$ 14,400.00			
S21	Plugging Existing Pipe	EA	4	\$ 500	\$ 2,000.00	\$ 150.00	\$ 600.00			
S22	CDF for Pipe Abandonment	CY	6	\$ 1,000	\$ 6,000.00	\$ 300.00	\$ 1,800.00			
S23	Underground Utility Potholing	EA	5	\$ 650	\$ 3,250.00	\$ 600.00	\$ 3,000.00			
S24	Temporary Storm Sewer Bypass Plan	LS	1	\$ 1,000	\$ 1,000.00	\$ 500.00	\$ 500.00			
S25	Temporary Storm Sewer Bypass	LS	1	\$ 10,000	\$ 10,000.00	\$ 2,500.00	\$ 2,500.00			
S26	PVC Storm Sewer Pipe 12-In. Diam.	LF	745	\$ 120	\$ 89,400.00	\$ 125.00	\$ 93,125.00			
S27	PVC Storm Sewer Pipe 18-In. Diam.	LF	30	\$ 140	\$ 4,200.00	\$ 165.00	\$ 4,950.00			
S28	Ductile Iron Sewer Pipe 12-In. Diam.	LF	2175	\$ 150	\$ 326,250.00	\$ 150.00	\$ 326,250.00			
S29	Removal and Replacement of Unsuitable Material	CY	955	\$ 50	\$ 47,750.00	\$ 18.00	\$ 17,190.00			
S30	Testing Sewer Pipe	LF	2950	\$ 3	\$ 8,850.00	\$ 3.00	\$ 8,850.00			
SubTotal, Schedule B-1 Unit Bid Item Nos. S1 through S30					\$ 822,230.00		\$ 763,330.00			\$ -

Schedule B-2: Storm Water Improvements Bid Items S1 through S4										
S1	Structure Excavation Class B	CY	10	\$ 10	\$ 100.00	\$ 100.00	\$ 1,000.00			
S2	Temporary Pavement Patch	TN	2	\$ 150	\$ 300.00	\$ 250.00	\$ 500.00			
S3	Ductile Iron Sewer Pipe 8-In. Diam.	LF	55	\$ 120	\$ 6,600.00	\$ 100.00	\$ 5,500.00			
S4	Removal and Replacement of Unsuitable Material	CY	1	\$ 50	\$ 50.00	\$ 100.00	\$ 100.00			
SubTotal, Schedule B-2 Unit Bid Item Nos. S1 through S4					\$ 7,050.00		\$ 7,100.00			\$ -

Schedule C-1: Waste Water Improvements Bid Items WW1 through WW20										
WW1	Structure Excavation Class B	CY	1035	\$ 10	\$ 10,350.00	\$ 36.00	\$ 37,260.00			
WW2	Shoring or Extra Excavation Class B	SF	6135	\$ 1	\$ 6,135.00	\$ 0.25	\$ 1,533.75			

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
WW3	Remove Existing Pavement, Type II, Class A4	SY	500	\$ 7	\$ 3,500.00	\$ 10.00	\$ 5,000.00			
WW4	Crushed Surfacing Top Course	TN	225	\$ 50	\$ 11,250.00	\$ 48.00	\$ 10,800.00			
WW5	Temporary Pavement Patch	TN	35	\$ 150	\$ 5,250.00	\$ 150.00	\$ 5,250.00			
WW6	Manhole 48-In. Diam. Type 1	EA	2	\$ 7,000	\$ 14,000.00	\$ 5,000.00	\$ 10,000.00			
WW7	Manhole Additional Height 48-In. Diam. Type 1	LF	1	\$ 200	\$ 200.00	\$ 300.00	\$ 300.00			
WW8	Connect New Sewer Pipe 8-In. Diam. to Existing Structure	EA	2	\$ 2,000	\$ 4,000.00	\$ 2,000.00	\$ 4,000.00			
WW9	Reconnect Existing Sewer Pipe 8-In. Diam. to New Structure	EA	1	\$ 2,000	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00			
WW10	Plugging Existing Pipe	EA	5	\$ 500	\$ 2,500.00	\$ 150.00	\$ 750.00			
WW11	CDF for Pipe Abandonment	CY	4	\$ 1,000	\$ 4,000.00	\$ 300.00	\$ 1,200.00			
WW12	Underground Utility Potholing	EA	1	\$ 650	\$ 650.00	\$ 800.00	\$ 800.00			
WW13	Temporary Sanitary Sewer Bypass Plan	LS	1	\$ 500	\$ 500.00	\$ 1,000.00	\$ 1,000.00			
WW14	Temporary Sanitary Sewer Bypass	LS	1	\$ 2,000	\$ 2,000.00	\$ 5,000.00	\$ 5,000.00			
WW15	C900 PVC Sanitary Sewer Pipe 6-In. Diam.	LF	125	\$ 150	\$ 18,750.00	\$ 225.00	\$ 28,125.00			
WW16	PVC Sanitary Sewer Pipe 6-In. Diam.	LF	55	\$ 150	\$ 8,250.00	\$ 200.00	\$ 11,000.00			
WW17	PVC Sanitary Sewer Pipe 8-In. Diam.	LF	415	\$ 180	\$ 74,700.00	\$ 115.00	\$ 47,725.00			
WW18	Removal and Replacement of Unsuitable Material	CY	870	\$ 50	\$ 43,500.00	\$ 18.00	\$ 15,660.00			
WW19	Testing Sewer Pipe	LF	1025	\$ 3	\$ 3,075.00	\$ 3.00	\$ 3,075.00			
WW20	Sewer Cleanout	EA	7	\$ 1,000	\$ 7,000.00	\$ 900.00	\$ 6,300.00			
SubTotal, Schedule C-1 Unit Bid Item Nos. WW1 through WW20					\$ 221,610.00		\$ 196,778.75			\$ -

Schedule C-2: Waste Water Improvements Bid Items WW1 through WW14										
WW1	Structure Excavation Class B	CY	925	\$ 10	\$ 9,250.00	\$ 36.00	\$ 33,300.00			
WW2	Shoring or Extra Excavation Class B	SF	5210	\$ 1	\$ 5,210.00	\$ 0.25	\$ 1,302.50			
WW3	Remove Existing Pavement, Type II, Class A4	SY	450	\$ 7	\$ 3,150.00	\$ 10.00	\$ 4,500.00			
WW4	Crushed Surfacing Top Course	TN	205	\$ 50	\$ 10,250.00	\$ 60.00	\$ 12,300.00			
WW5	Temporary Pavement Patch	TN	30	\$ 150	\$ 4,500.00	\$ 200.00	\$ 6,000.00			
WW6	Connect New Sewer Pipe 12-In. Diam. to Existing Structure	EA	2	\$ 2,000	\$ 4,000.00	\$ 2,000.00	\$ 4,000.00			
WW7	Underground Utility Potholing	EA	1	\$ 650	\$ 650.00	\$ 1,000.00	\$ 1,000.00			
WW8	Temporary Sanitary Sewer Bypass Plan	LS	1	\$ 500	\$ 500.00	\$ 250.00	\$ 250.00			
WW9	Temporary Sanitary Sewer Bypass	LS	1	\$ 2,000	\$ 2,000.00	\$ 5,000.00	\$ 5,000.00			
WW10	PVC Sanitary Sewer Pipe 6-In. Diam.	LF	45	\$ 150	\$ 6,750.00	\$ 200.00	\$ 9,000.00			
WW11	PVC Sanitary Sewer Pipe 12-In. Diam.	LF	370	\$ 200	\$ 74,000.00	\$ 150.00	\$ 55,500.00			
WW12	Removal and Replacement of Unsuitable Material	CY	780	\$ 50	\$ 39,000.00	\$ 30.00	\$ 23,400.00			
WW13	Testing Sewer Pipe	LF	415	\$ 3	\$ 1,245.00	\$ 3.00	\$ 1,245.00			
WW14	Sewer Cleanout	EA	4	\$ 1,000	\$ 4,000.00	\$ 900.00	\$ 3,600.00			
SubTotal, Schedule C-2 Unit Bid Item Nos. WW1 through WW14					\$ 164,505.00		\$ 160,397.50			\$ -

Schedule D-1: Water Improvements Bid Items W1 through W54										
W1	Mobilization	LS	1	\$ 135,000	\$ 135,000.00	\$ 25,000.00	\$ 25,000.00		100.00%	\$ 25,000.00

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
W2	Project Temporary Traffic Control	LS	1	\$ 81,000	\$ 81,000.00	\$ 12,000.00	\$ 12,000.00		100.00%	\$ 12,000.00
W3	Removal/Disposal of existing asphalt, concrete sidewalk/curbing & concrete pavement (includes all thicknesses and combinations)	SY	2300	\$ 30	\$ 69,000.00	\$ 7.00	\$ 16,100.00		100.00%	\$ 16,100.00
W4	Temporary HMA Class ½" PG58-22, 2-inch minimum depth, installed & removed	SY	2300	\$ 35	\$ 80,500.00	\$ 5.00	\$ 11,500.00		100.00%	\$ 11,500.00
W5	Storm, Sanitary, Side Sewer Restoration	EA	10	\$ 1,500	\$ 15,000.00	\$ 300.00	\$ 3,000.00		100.00%	\$ 3,000.00
W6	Trench Shoring	LF	6570	\$ 1	\$ 6,570.00	\$ 1.00	\$ 6,570.00		100.00%	\$ 6,570.00
W7	12-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (Unit price to include Trench Excavation, Trench Backfill, and 8 mil. V-Bio Enhanced Polyethylene Encasement)	LF	1500	\$ 147.50	\$ 221,250.00	\$ 146.00	\$ 219,000.00		100.00%	\$ 219,000.00
W8	8-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (Unit price to include Trench Excavation, Trench Backfill, and 8 mil. V-Bio Enhanced Polyethylene Encasement)	LF	5299	\$ 107.50	\$ 569,642.50	\$ 135.00	\$ 715,365.00		100.00%	\$ 715,365.00
W9	6-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (Unit price to include Trench Excavation, Trench Backfill, and 8 mil. V-Bio Enhanced Polyethylene Encasement)	LF	400	\$ 97.50	\$ 39,000.00	\$ 125.00	\$ 50,000.00		100.00%	\$ 50,000.00
W10	12-inch x 8-inch Ductile Iron Tee, 3-B, M.J., installed	EA	1	\$ 835	\$ 835.00	\$ 1,000.00	\$ 1,000.00		100.00%	\$ 1,000.00
W11	12-inch x 8-inch Ductile Iron Cross	EA	1	\$ 975	\$ 975.00	\$ 1,000.00	\$ 1,000.00		100.00%	\$ 1,000.00
W12	12-inch x 6-inch Ductile Iron Tee, 3-B, M.J., installed	EA	1	\$ 785	\$ 785.00	\$ 900.00	\$ 900.00		100.00%	\$ 900.00
W13	12-inch Ductile Iron Tee, 3-B, M.J., installed	EA	3	\$ 1,100	\$ 3,300.00	\$ 900.00	\$ 2,700.00		100.00%	\$ 2,700.00
W14	8-inch x 6-inch Ductile Iron Tee, 3-B, M.J., installed	EA	10	\$ 425	\$ 4,250.00	\$ 475.00	\$ 4,750.00		100.00%	\$ 4,750.00
W15	8-inch x 4-inch Ductile Iron Tee, 3-B, M.J., installed	EA	2	\$ 400	\$ 800.00	\$ 475.00	\$ 950.00		100.00%	\$ 950.00
W16	8-inch Ductile Iron Tee, 3-B, M.J., installed	EA	5	\$ 500	\$ 2,500.00	\$ 475.00	\$ 2,375.00		100.00%	\$ 2,375.00
W17	12-inch Ductile Iron Ell, M.J., 45°, installed	EA	10	\$ 675	\$ 6,750.00	\$ 550.00	\$ 5,500.00		100.00%	\$ 5,500.00
W18	8-inch Ductile Iron Ell, M.J., 45°, installed	EA	12	\$ 275	\$ 3,300.00	\$ 425.00	\$ 5,100.00		100.00%	\$ 5,100.00
W19	8-inch Ductile Iron Ell, M.J., 22 1/2°, installed	EA	2	\$ 275	\$ 550.00	\$ 425.00	\$ 850.00		100.00%	\$ 850.00
W20	8-inch Ductile Iron Ell, M.J., 11 1/4°, installed	EA	4	\$ 275	\$ 1,100.00	\$ 425.00	\$ 1,700.00		100.00%	\$ 1,700.00
W21	6-inch Ductile Iron Ell, M.J., 45°, installed	EA	6	\$ 200	\$ 1,200.00	\$ 350.00	\$ 2,100.00		100.00%	\$ 2,100.00
W22	8-inch x 6-inch Ductile Iron Reducer, 2-B, M.J., w/ anchor, installed	EA	1	\$ 225	\$ 225.00	\$ 325.00	\$ 325.00		100.00%	\$ 325.00
W23	12-inch x 8-inch Ductile Iron Reducer, 2-B, M.J., w/ anchor, installed	EA	1	\$ 500	\$ 500.00	\$ 375.00	\$ 375.00		100.00%	\$ 375.00
W24	8-inch Ductile Iron Solid Sleeve (Long Pattern) M.J., installed	EA	3	\$ 265	\$ 795.00	\$ 350.00	\$ 1,050.00		100.00%	\$ 1,050.00
W25	12-inch Ductile Iron Solid Sleeve (Long Pattern) M.J., installed	EA	1	\$ 535	\$ 535.00	\$ 500.00	\$ 500.00		100.00%	\$ 500.00
W26	16-inch x 12-inch Tapping Sleeve	EA	1	\$ 1,500	\$ 1,500.00	\$ 12,000.00	\$ 12,000.00		100.00%	\$ 12,000.00
W27	12-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, C.I. to D.I., installed	EA	6	\$ 1,700	\$ 10,200.00	\$ 1,600.00	\$ 9,600.00		100.00%	\$ 9,600.00
W28	8-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, C.I. to D.I., installed	EA	3	\$ 800	\$ 2,400.00	\$ 1,500.00	\$ 4,500.00		100.00%	\$ 4,500.00
W29	6-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, C.I. to D.I., installed	EA	4	\$ 750	\$ 3,000.00	\$ 1,500.00	\$ 6,000.00		100.00%	\$ 6,000.00
W30	12-inch Ductile Iron Cap, M.J., tapped 2", installed and removed	EA	5	\$ 325	\$ 1,625.00	\$ 500.00	\$ 2,500.00		100.00%	\$ 2,500.00
W31	8-inch Ductile Iron Cap, M.J., tapped 2", installed and removed	EA	6	\$ 250	\$ 1,500.00	\$ 500.00	\$ 3,000.00		100.00%	\$ 3,000.00
W32	6-inch Ductile Iron Cap, M.J., tapped 2", installed and removed	EA	2	\$ 175	\$ 350.00	\$ 500.00	\$ 1,000.00		100.00%	\$ 1,000.00
W33	4-inch Ductile Iron Cap, M.J., tapped 2", installed and removed	EA	2	\$ 125	\$ 250.00	\$ 500.00	\$ 1,000.00		100.00%	\$ 1,000.00
W34	4-inch Ductile Iron Plug, M.J., tapped 2", installed and removed	EA	2	\$ 145	\$ 290.00	\$ 500.00	\$ 1,000.00		100.00%	\$ 1,000.00
W35	8-inch Ductile Iron Plug, M.J., tapped 2", installed and removed	EA	1	\$ 250	\$ 250.00	\$ 500.00	\$ 500.00		100.00%	\$ 500.00

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
W36	Temporary 2-inch Blow-Off Assembly, installed and removed (Dwg. 17-56-1)	EA	16	\$ 1,000	\$ 16,000.00	\$ 400.00	\$ 6,400.00		100.00%	\$ 6,400.00
W37	4-inch Mechanical Joint Restraining Glands	EA	4	\$ 90	\$ 360.00	\$ 50.00	\$ 200.00		100.00%	\$ 200.00
W38	6-inch Mechanical Joint Restraining Glands	EA	42	\$ 100	\$ 4,200.00	\$ 75.00	\$ 3,150.00		100.00%	\$ 3,150.00
W39	8-inch Mechanical Joint Restraining Glands	EA	9	\$ 125	\$ 1,125.00	\$ 90.00	\$ 810.00		100.00%	\$ 810.00
W40	12-inch Mechanical Joint Restraining Glands	EA	18	\$ 150	\$ 2,700.00	\$ 125.00	\$ 2,250.00		100.00%	\$ 2,250.00
W41	Concrete Thrust Anchor, installed	EA	47	\$ 1,000	\$ 47,000.00	\$ 75.00	\$ 3,525.00		100.00%	\$ 3,525.00
W42	Temporary Concrete Thrust Anchor, installed and removed	EA	16	\$ 750	\$ 12,000.00	\$ 30.00	\$ 480.00		100.00%	\$ 480.00
W43	Trench Compaction Test (as directed by the Inspector)	EA	131	\$ 150	\$ 19,650.00	\$ 75.00	\$ 9,825.00		100.00%	\$ 9,825.00
W44	Test Holes (See Special Provisions)	LS	1	\$ 5,000	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00		100.00%	\$ 5,000.00
W45	12-inch Butterfly valve, M.J., ANSI/AWWA, C504, with C.I. valve box	EA	10	\$ 2,100	\$ 21,000.00	\$ 3,000.00	\$ 30,000.00		100.00%	\$ 30,000.00
W46	12-inch Tapping Gate Valve, M.J.	EA	1	\$ 2,100	\$ 2,100.00	\$ 1,000.00	\$ 1,000.00		100.00%	\$ 1,000.00
W47	8-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box	EA	15	\$ 1,600	\$ 24,000.00	\$ 2,400.00	\$ 36,000.00		100.00%	\$ 36,000.00
W48	6-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box	EA	13	\$ 1,250	\$ 16,250.00	\$ 2,100.00	\$ 27,300.00		100.00%	\$ 27,300.00
W49	4-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box	EA	2	\$ 1,100	\$ 2,200.00	\$ 1,600.00	\$ 3,200.00		100.00%	\$ 3,200.00
W50	6-inch Hydrant, M.J., 3.5-ft bury, with 4-inch Tacoma Standard Threads & 3-inch Quick Couplings	EA	9	\$ 4,850	\$ 43,650.00	\$ 5,250.00	\$ 47,250.00		100.00%	\$ 47,250.00
W51	6-inch Hydrant, M.J., 6.0-ft bury, with 4-inch Tacoma Standard Threads & 3-inch Quick Couplings	EA	2	\$ 5,000	\$ 10,000.00	\$ 5,350.00	\$ 10,700.00		100.00%	\$ 10,700.00
W52	Removal and disposal of hydrant guard post	LS	1	\$ 500	\$ 500.00	\$ 250.00	\$ 250.00		100.00%	\$ 250.00
W53	Street cleaning with Self-propelled Pickup and Vacuum Street Sweeper Equipment	HR	79	\$ 150	\$ 11,850.00	\$ 200.00	\$ 15,800.00		100.00%	\$ 15,800.00
W54	Force Account	FA	1	\$ 70,000	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00		100.00%	\$ 70,000.00
	SubTotal, Schedule D-1 Unit Bid Item Nos. W1 through W55				\$ 1,576,312.50		\$ 1,403,950.00			\$ 1,403,950.00
	10.3% Sales Tax on Water Main Bid Items				\$ 162,360.19		\$ 144,606.85			\$ 144,606.85
	TOTAL of BID Schedule D-1				\$ 1,738,672.69		\$ 1,548,556.85			\$ 1,548,556.85

Schedule D-2: Water Improvements Bid Items W1 through W24										
W1	Mobilization	LS	1	\$ 9,000	\$ 9,000.00	\$ 5,000.00	\$ 5,000.00		100%	\$ 5,000.00
W2	Project Temporary Traffic Control	LS	1	\$ 18,000	\$ 18,000.00	\$ 12,500.00	\$ 12,500.00		100%	\$ 12,500.00
W3	Removal/Disposal of existing asphalt, concrete sidewalk/curbing & concrete pavement (includes all thicknesses and combinations)	SY	117	\$ 30	\$ 3,510.00	\$ 10.00	\$ 1,170.00		100%	\$ 1,170.00
W4	Temporary HMA Class ½" PG58-22, 2-inch minimum depth, installed & removed	SY	117	\$ 35	\$ 4,095.00	\$ 20.00	\$ 2,340.00		100%	\$ 2,340.00
W5	Trench Shoring	LF	335	\$ 1	\$ 335.00	\$ 1.00	\$ 335.00		100%	\$ 335.00
W6	8-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (Unit price to include Trench Excavation & Trench Backfill)	LF	369	\$97.50	\$ 35,977.50	\$ 135.00	\$ 49,815.00		100%	\$ 49,815.00
W7	8-inch x 6-inch Ductile Iron Tee, 3-B, M.J., installed	EA	1	\$ 425	\$ 425.00	\$ 475.00	\$ 475.00		100%	\$ 475.00
W8	8-inch Ductile Iron Ell, M.J., 45°, installed	EA	4	\$ 275	\$ 1,100.00	\$ 425.00	\$ 1,700.00		100%	\$ 1,700.00
W9	8-inch x 6-inch Ductile Iron Reducer, 2-B, M.J., w/ anchor, installed	EA	1	\$ 225	\$ 225.00	\$ 500.00	\$ 500.00		100%	\$ 500.00
W10	8-inch Ductile Iron Solid Sleeve (Long Pattern) M.J., installed	EA	1	\$ 265	\$ 265.00	\$ 350.00	\$ 350.00		100%	\$ 350.00
W11	8-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, C.I. to D.I., installed	EA	1	\$ 800	\$ 800.00	\$ 1,500.00	\$ 1,500.00		100%	\$ 1,500.00
W12	6-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, C.I. to D.I., installed	EA	1	\$ 750	\$ 750.00	\$ 1,500.00	\$ 1,500.00		100%	\$ 1,500.00
W13	8-inch Ductile Iron Cap, M.J., tapped 2", installed and removed	EA	3	\$ 250	\$ 750.00	\$ 500.00	\$ 1,500.00		100%	\$ 1,500.00
W14	Temporary 2-inch Blow-Off Assembly, installed and removed (Dwg. 17-56-1)	EA	3	\$ 1,000	\$ 3,000.00	\$ 400.00	\$ 1,200.00		100%	\$ 1,200.00
W15	6-inch Mechanical Joint Restraining Glands	EA	7	\$ 100	\$ 700.00	\$ 75.00	\$ 525.00		100%	\$ 525.00

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05
Description: Larchmont District Green Infrastructure Project
Specification No.: ES20-0144F
Bid Opening: 2/21/2023

				ENGINEER'S ESTIMATE		Low Bidder R.L. Alia		Water Department Responsibility		
Item	Description	Unit	QTY	Unit Price	Amount	Unit Price	Amount	QTY	(%)	Amount
W16	8-inch Mechanical Joint Restraining Glands	EA	12	\$ 125	\$ 1,500.00	\$ 90.00	\$ 1,080.00		100%	\$ 1,080.00
W17	Concrete Thrust Anchor, installed	EA	4	\$ 1,000	\$ 4,000.00	\$ 75.00	\$ 300.00		100%	\$ 300.00
W18	Temporary Concrete Thrust Anchor, installed and removed	EA	3	\$ 750	\$ 2,250.00	\$ 30.00	\$ 90.00		100%	\$ 90.00
W19	Trench Compaction Test (as directed by the Inspector)	EA	7	\$ 150	\$ 1,050.00	\$ 75.00	\$ 525.00		100%	\$ 525.00
W20	8-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box	EA	1	\$ 1,600	\$ 1,600.00	2,400.00	\$ 2,400.00		100%	\$ 2,400.00
W21	6-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box	EA	1	\$ 1,250	\$ 1,250.00	2,100.00	\$ 2,100.00		100%	\$ 2,100.00
W22	6-inch Hydrant, M.J., 4.5-ft bury, with 4-inch Tacoma Standard Threads & 5-inch Quick Coupling	EA	1	\$ 4,250	\$ 4,250.00	5,200.00	\$ 5,200.00		100%	\$ 5,200.00
W23	Street cleaning with Self-propelled Pickup and Vacuum Street Sweeper Equipment	HR	18	\$ 150	\$ 2,700.00	200.00	\$ 3,600.00		100%	\$ 3,600.00
W24	Force Account	FA	1	\$ 10,000	\$ 10,000.00	10,000.00	\$ 10,000.00		100%	\$ 10,000.00

SubTotal, Schedule D-2 Unit Bid Item Nos. W1 through W24				\$ 107,532.50		\$ 105,705.00			\$ 105,705.00
10.3% Sales Tax on Water Main Bid Items				\$ 11,075.85		\$ 10,887.62			\$ 10,887.62
TOTAL of BID Schedule D-2				\$ 118,608.35		\$ 116,592.62			\$ 116,592.62

Schedule A: Roadway Improvements Bid Items TOTAL				\$ 6,493,440.00		\$ 6,199,027.00			\$ 53,035.00
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Schedule B-1: Storm Water Improvements Bid Items TOTAL				\$ 822,230.00		\$ 763,330.00			\$ -
Schedule B-2: Storm Water Improvements Bid Items TOTAL				\$ 7,050.00		\$ 7,100.00			\$ -

Schedule C-1: Wastewater Improvements Bid Items TOTAL				\$ 221,610.00		\$ 196,778.75			\$ -
Schedule C-2: Wastewater Improvements Bid Items TOTAL				\$ 164,505.00		\$ 160,397.50			\$ -

Schedule D-1: Water Main Improvements Bid Items TOTAL (less tax)				\$ 1,576,312.50		\$ 1,403,950.00			\$ 1,403,950.00
Schedule D-2: Water Main Improvements Bid Items TOTAL (less tax)				\$ 107,532.50		\$ 105,705.00			\$ 105,705.00

TOTAL BASE BID (SCHEDULE A, B, C & D)				\$ 9,392,680.00		\$ 8,836,288.25			\$ 1,562,690.00
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Tacoma Water Estimated Cost Share Summary	
Item	Description
A	Water Bid Group D1
B	Water Bid Group D2
	Total Water Costs (Less Tax)
C	Shared Roadway Bid Group
D	Total Construction Costs (Less Tax)
	(A + B + C)
E	Total Construction Costs with 15% Contingency (C&A Document Water Total)
	(D x 1.15)
F	Admin Costs (3% excluding FA)
	(D - \$80,000) x 3%
I	Cumulative Total (less tax, less contingency)
	(D + F)

Amount
\$ 1,403,950.00
\$ 105,705.00
\$ 1,509,655.00
\$ 53,035.00
\$ 1,562,690.00
\$ 1,797,093.50
\$ 44,480.70
\$ 1,607,170.70