August 20, 2024
Ms. Novella Randall
Department of Enterprise Services
1500 Jefferson Street SE
PO Box 41476
Olympia, WA 98504-1476

SUBJECT: ESP A Change Order - Final Design
City of Lynden WWTP–Oxidation Ditch MLE Upgrade

Dear Ms. Randall:

We are pleased to submit this Change Order Proposal for energy improvements at City of Lynden's Wastewater Treatment Plant (WWTP) located at 800 S 6th St, Lynden, WA 98264. This change order will add scope for final design to ESP A for the City of Lynden Oxidation Ditch MLE Upgrade to satisfy WA State Dept. of Ecology SRF loan requirements.

Trane has sub-contracted with BHC Consultants and will provide design services which will provide documents and information necessary for construction and approval of the project by the Washington State Department of Ecology (Ecology). This proposal is to take preliminary design, which was completed in the investment grade audit (IGA) and RFQ dated 5/22/24, to final design which includes development of the construction drawings and work scope narrative. Additional tasks include project management and quality control, design modifications and updates, site visits and project meetings, and permitting support. Trane will also provide construction support services through the final design process.

The facilities will be designed in accordance with the requirements of the City, WAC 173-240-070, and Ecology.

Primary Scope of Work

ECM-1. Upgrade Oxidation Ditch:

The intent of this measure is to upgrade the existing Oxidation Ditches system with new equipment to increase biological treatment capacity and nitrogen removal within the existing oxidation ditch footprints using a non-proprietary MLE process. The current brush rotor aerators have reached their load capacity. The new blowers will be more energy efficient than the existing brush rotor aerators and will allow for variable airflow control to further improve performance and efficiency in comparison to expanding the oxidation ditch process. A new facility will be constructed to house the blowers and electrical gear. The electrical gear will include a replacement for existing motor control center (EMCC #1) with a new MCC #1 located in the new blower building. Trane will select new blowers and diffusers to satisfy the 20-year load projections for the plant and that optimize future energy use and maintenance costs.

1. Scope of Work Development
    a. Procure and manage sub-consultants
    b. Conduct a design review workshop with the City and DES to review design features, equipment options, and operational requirements
    c. Work with City staff on ensuring that requirements for the SRF loan are met.
    d. Conduct meetings and site visits throughout the final design to provide information to the City, Ecology, and DES at key points: design review meeting with the City and DES, and contractor collaboration.
    e. The final design documents will include the following drawings, however the actual drawing index may vary during the course of final design:

Sheet No.	Dwg. No.	Drawing Title
1	G-1	COVER, LOCATION, AND VICINITY MAP
2	G-2	INDEX OF DRAWINGS AND ABBREVIATIONS
3	G-3	LEGEND AND DESIGNATIONS
4	G-4	EXISTING SITE MAP AND GENERAL NOTES, SURVEY CONTROL, AND NOTES
5	G-5	DESIGN CRITERIA AND MAJOR EQUIPMENT LIST
6	G-6	PROCESS FLOW DIAGRAM
7	G-7	HYDRAULIC PROFILE
8	D-1	TESC AND DEMOLITION SITE PLAN
9	D-2	OXIDATION DITCHES DEMOLITION PLAN
10	D-3	OXIDATION DITCHES DEMOLITION SECTION
11	D-4	BIOTOWER AND CHLORINE CONTACT TANK DEMOLITION PLAN AND SECTION
12	D-5	BIOTOWER FOUNDATION DEMOLITION PLAN AND SECTION
13	D-6	BIOTOWER FOUNDATION DEMOLITION SECTIONS
14	D-7	MAINTENANCE BUILDING DEMOLITION PLAN AND ELEVATIONS
15	D-8	OPERATIONS PUMP ROOM DEMOLITION PLAN AND SECTION
16	D-9	TESC NOTES AND DETAILS
17	C-1	SITE PLAN - WEST
18	C-2	SITE PLAN - EAST
19	C-3	SITE DETAILS 1 OF 2
20	C-4	SITE DETAILS 2 OF 2
21	A-1	BLOWER BUILDING CODE SUMMARY
22	A-2	BLOWER BUILDING ARCHITECTURAL PLAN
23	A-3	BLOWER BUILDING ARCHITECTURAL ROOF PLAN
24	A-4	BLOWER BUILDING ELEVATIONS
25	A-5	TYPICAL DOOR AND LOUVER DETAILS
26	A-6	BLOWER BUILDING TYPICAL ARCHITECTURAL DETAILS
27	S-1	STRUCTURAL GENERAL NOTES
28	S-2	STRUCTURAL GENERAL NOTES AND ABBREVIATIONS
29	S-3	BLOWER BUILDING STRUCTURAL FLOOR AND FOUNDATION PLAN
30	S-4	BLOWER BUILDING STRUCTURAL ROOF FRAMING PLAN
31	S-5	AERATION BASIN UPGRADES STRUCTURAL PLAN
32	S-6	AERATION BASIN UPGRADES STRUCTURAL PARTIAL PLANS AND SECTIONS
33	S-7	CLARIFIER SPLITTER BOX STRUCTURAL PLAN AND SECTIONS
34	S-8	EFFLUENT STRUCTURE AND SELECTOR STRUCTURAL PLANS AND
35	S-9	TYPICAL CONCRETE DETAILS 1 OF 2
36	S-10	TYPICAL CONCRETE DETAILS 2 OF 2
37	S-11	TYPICAL MASONRY DETAILS 1 OF 2
38	S-12	TYPICAL MASONRY DETAILS 2 OF 2
39	M-1	SELECTOR MECHANICAL PLAN AND SECTION
40	M-2	AERATION BASIN NO. 1 MECHANICAL PLANS
41	M-3	AERATION BASIN NO. 2 MECHANICAL PLANS
42	M-4	AERATION BASINS MECHANICAL SECTIONS 1 OF 2
43	M-5	AERATION BASINS MECHANICAL SECTIONS 2 OF 2
44	M-6	CLARIFIER SPLITTER BOX MECHANICAL PLAN AND SECTIONS
45	M-7	EFFLUENT STRUCTURE MECHANICAL PLAN AND SECTIONS
46	M-8	BLOWER BUILDING MECHANICAL PLAN
47	M-9	BLOWER BUILDING MECHANICAL SECTION
48	M-10	MECHANICAL DETAILS 1 OF 2
49	M-11	MECHANICAL DETAILS 2 OF 2
50	H-1	HVAC LEGEND, ABBREVIATIONS, AND GENERAL NOTES BLOWER BUILDING
51	H-2	MECHANICAL PLAN BLOWER BUILDING

Sheet No.	Dwg. No.	Drawing Title
52	H-3	MECHANICAL SCHEDULES BLOWER BUILDING
53	P-1	PLUMBING LEGEND, ABBREVIATIONS, AND GENERAL NOTES BLOWER
54	P-2	PLUMBING PLAN BLOWER BUILDING
55	P-3	PLUMBING SCHEDULES BLOWER BUILDING
56	E-1	ELECTRICAL SYMBOLS AND ABBREVIATIONS
57	E-2	ELECTRICAL SITE PLAN
58	E-3	AERATION BASINS ELECTRICAL SITE PLAN - EAST
59	E-4	AERATION BASIN NO. 1 ELECTRICAL PLAN
60	E-5	AERATION BASIN NO. 2 ELECTRICAL PLAN
61	E-6	BLOWER BUILDING ELECTRICAL POWER PLAN
62	E-7	BLOWER BUILDING LIGHTS AND RECEPTACLE PLAN
63	E-8	MCC ELEVATIONS
64	E-9	ELECTRICAL SCHEDULES
65	E-10	LIGHTING SCHEDULE
66	E-11	SCHEMATIC DIAGRAMS 1 OF 11
67	E-12	SCHEMATIC DIAGRAMS 2 OF 11
68	E-13	SCHEMATIC DIAGRAMS 3 OF 11
69	E-14	SCHEMATIC DIAGRAMS 4 OF 11
70	E-15	SCHEMATIC DIAGRAMS 5 OF 11
71	E-16	SCHEMATIC DIAGRAMS 6 OF 11
72	E-17	SCHEMATIC DIAGRAMS 7 OF 11
73	E-18	SCHEMATIC DIAGRAMS 8 OF 11
74	E-19	SCHEMATIC DIAGRAMS 9 OF 11
75	E-20	SCHEMATIC DIAGRAMS 10 OF 11
76	E-21	SCHEMATIC DIAGRAMS 11 OF 11
77	E-22	ELECTRICAL SUGGESTED CONSTRUCTION SEQUENCE
78	E-23	ONE-LINE DIAGRAM 1 OF 2
79	E-24	ONE-LINE DIAGRAM 2 OF 2
80	E-25	RISER DIAGRAMS
81	E-26	AREA CLASSIFICATIONS
82	I-1	PROCESS AND INSTRUMENTATION SYMBOLS AND ABBREVIATIONS
83	I-2	SELECTORS AND AERATION BASIN NO. 2 PROCESS AND INSTRUMENTATION DIAGRAM
84	I-3	AERATION BASIN NO. 1 AND SPLITTER BOX PROCESS AND INSTRUMENTATION DIAGRAM
85	I-4	RAS AND WAS PUMPING SYSTEMS PROCESS AND INSTRUMENTATION DIAGRAM
86	I-5	AERATION BLOWERS PROCESS AND INSTRUMENTATION DIAGRAM

City Responsibilities:

1. Provide access to record drawings, O&M data, submittals, startup/TAB reports, etc. as required to allow Trane to fully develop the baseline operation of the existing systems to be studied.
2. Provide access to staff and occupants with knowledge of history and operation of the systems to be studied as part of this IGA.
3. Provide access to the sites, buildings, and systems to be studied as required.
4. Provide access to City stakeholders during the final design phase.

Fixed Fee for design services before tax (all fees subject to WSST):

BHC Design Fee:……..…..$649,068
Trane Technologies Project Development:……..…….……....$87,003

Total Fixed Design Fee:..... $736,071

The above price remains valid for 30 days after the date of the proposal. After that time, Trane reserves the right to change the price. The design fee will be billed regardless of whether the project moves to construction or not, the Trane project development fee will be billed based on whether the project meets the cost effectiveness criteria below.

Schedule Final Design:

Substantial completion of Final Design will be within 240 calendar days, and full completion within 300 calendar days, of Notice to Proceed. Milestones include:

- 60 calendar days after NTP: Building permit set to be delivered
- 180 calendar days after NTP: Process permit set delivered for review
- 60 calendar days provided for Ecology review

We at Trane appreciate the opportunity to provide these services. If this Final Design proposal is satisfactory, please forward contract documents.

Sincerely,

Angie Estey
Senior Account Executive
Trane Technologies