

September 10, 2021

TO: HOLDERS LIST

SUBJECT: SIM Yard Charging Stations Project

CONTRACT NO. 071514

ADDENDUM NUMBER # 02

This addendum is issued to add, remove, clarify, and amend the following:

SPECIFICATIONS

SECTION 00 11 13 - Advertisement for Bids

- Added transformer vault and bollard installation to scope of work description.
- Extended question deadline from September 8, 2021 to September 14, 2021.

SECTION 00 10 00 - Summary

• Added transformer vault and bollard installation to scope description.

SECTION 00 20 00 - Price and Payment Procedures

• Added transformer vault and bollard installation to Bid Item #3 description.

DRAWINGS

SHEET G0.0 – Cover Sheet

Revised drawing list to identify affected sheets.

SHEET D2.0 - Civil Site Plan Demolition

- Revised Detail 1 to depict additional demolition in transformer area.
- Added contractor verification symbol to drawing Legend.
- Added Keyed Notes 9 & 10 with excavation requirements.

SHEET C2.0 - Civil Site Plan

- Revised Detail 1 to depict additional civil work in transformer area.
- Added Keyed Notes 5 & 6 with vault requirements, bollard requirements, and identification of applicable Tacoma Power standards.

SHEET C2.1 - Structural Details

Added Detail 4 to depict removable bollard design for new transformer area.

SHEET D3.0 - Electrical Site Plan - Demolition

 Revised Detail 1, Detail 2, and Electrical Note 1 to add and clarify electrical system demolition work.



SHEET E1.0 – Electrical General Notes and Symbols

 Added General Note 10 with requirement to obtain applicable Tacoma Power standards prior to construction.

SHEET E2.0 - Electrical Site Plan

- Revised Detail 1 and Detail 2 to depict additional conduit and cabling work required to accommodate upgraded Tacoma Power transformer.
- Revised Electrical Note 5 to clarify cabling requirements.
- Added Electrical Notes 6 & 7 with reference to relevant civil sheet and requirement to provide backup generator.

SHEET E3.0 - One Line Diagram Electrical Distribution

- Revised 480V One-Line Diagram to add Feeder ID 11.
- Revised Conduit and Conductor Schedule to increase length of Feeder 1 and add Feeder 11.

SIM YARD CHARGING STATIONS PROJECT

PROJECT NO. 201119.01 | CONTRACT NO. 071514

Scope of Work: The Work required for this Project includes:

Installation of six (6) electric truck charging stations including concrete foundations; modification of existing electrical system infrastructure on the South Intermodal (SIM) Yard; <u>transformer vault and bollard installation</u>; roller-compacted concrete demolition and repair; trenching and restoration by asphalt paving; and miscellaneous metal work.

The Port has been awarded an Environmental Protection Agency (EPA) Grant for the work. Pursuant to 40 CFR, Section 33.301, the prime contractor shall make good faith efforts to award subcontracts to the fullest extent practicable to Disadvantaged Business Enterprises (DBEs). The winning contractor shall maintain all records documenting good faith efforts and provide to the Port when requested. See Section 00 72 00, Article 5.02 for additional detail.

Bid Estimate: Estimated cost range is \$223,000 to \$258,000,

plus Washington State Sales Tax (WSST).

Sealed Bid Date/ Bids will be received at the Front Reception Desk, Port

Administration Office, One Sitcum Plaza, Tacoma, Washington

98421 until **11:00 A.M. on September 21, 2021**, at which time they will be publicly opened and read aloud and the apparent low bid will be determined.

Pre-Bid A pre-Bid conference and site visit have been set for 9/01/2021 at 9:00am.

Conference and Site Tour:

Time/Location:

meeting.

The site visit will convene at the Port's Administrative building, located at One Sitcum Plaza and will travel to the site after a brief

The following Personal Protective Equipment

is required for the site visit: sturdy shoes, reflective vest, and hardhat.

Due to the current COVID-19 concerns, there will be no carpooling personnel in Port vehicles during the site visit. Contractors will be escorted in their own vehicles on the facility. Everyone attending must bring identification.

Attendees will be required to sign a Release and Acceptance of Responsibility and Acknowledgement of Risks Form prior to entering the site and shall provide their own Personal Protection Equipment (PPE) as required above.

Bid Security: Each Bid must be accompanied by a Bid security in an amount

equal to five (5) percent of the Base Bid in a form allowed by the Instructions

to Bidders.

Contact Any questions to the Port may be emailed to

Information: procurement@portoftacoma.com. No oral responses will be binding

by the Port.

Questions will not be accepted after close of business (COB) on September

814, 2021.

Bidding Plans, Specifications, Addenda, and Plan Holders List for this

Project are available on-line through The Port of Tacoma's Website portoftacoma.com. Click on "Contracts," "Procurement," and then the

Procurement Number 071514. Bidders must subscribe to the Holder's List on

the right hand side of the screen in order to receive automatic email notification of future addenda and to be placed on the Holder's List.

Contact procurement@portoftacoma.com with questions. Holder's Lists will be updated regularly. Additional Instructions available in Section 00 21 00 - $\,$

Instructions to Bidders.

Public Works Training

Documents:

Requirements:

Effective July 1, 2019, all businesses are required to have training before bidding on public works projects and prevailing wage under RCW 39.04.359 and RCW 39.12, or is on the list of exempt

businesses maintained by the Department of Labor and Industries. The bidder must designate a person or persons to be trained on these requirements. The training will be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the Department of Labor and Industries.

Please refer to Labor and Industries' web site

(https://www.lni.wa.gov/TradesLicensing/PrevWage/Contractors/Training.asp? utm_medium=email&utm_source=govdelivery) for more information and training dates, requirements, and exemptions. Failure to attend this training could result in a determination of "not responsible" and the bidder not being awarded a public works contract.

END OF SECTION

PART 1 - GENERAL

1.01 SCOPE

- A. The accompanying Drawings and Specifications show and describe the location and type of Work to be performed under this project. Work is more specifically defined on the drawings listed in Section 00 01 15.
 - The Work under this contract is to provide, furnish and install all labor, materials and equipment required to complete the work, installed, tested, and ready for use, and as described in these documents.
 - The SIM Yard Charging Stations Project consists of: Installation of six (6) electric truck charging stations including concrete foundations; modification of existing electrical system infrastructure on the South Intermodal (SIM) Yard; <u>transformer vault and bollard</u> <u>installation</u>; roller-compacted concrete demolition and repair; trenching and restoration by asphalt paving; and miscellaneous metal work.

1.02 LOCATION

- A. The work is located at:
- 1. 1821 Milwaukee Way
- 1. Tacoma, WA 98421

1.03 PORT PROVIDED MATERIALS

- A. Port of Tacoma will furnish the Contractor with the following material:
 - 1. Charging Stations
 - 2. Charging Cables
 - 3. Cable Hangars
- B. Reference Section 01 64 00 Owner Provided Materials for coordination.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Procedures for preparation and submittal of applications for progress payments.

1.02 PAYMENT PROCEDURES

- A. Monthly pay estimates shall clearly identify the work performed for the given time period based on the approved Schedule of Values.
 - 1. At the Pre-construction meeting, the Engineer and the Contractor shall agree upon a date each month when payment applications shall be submitted.
- B. For each pay estimate the Contractor shall submit the following:
 - 1. Completed Contractor invoice and updated Schedule of Values tracking sheet as required by Division 01 or as established by the Engineer.
 - 2. Baseline Project Schedule and narrative updated as required by Section 01 32 16 of the Project Manual.
 - 3. Completed "Amounts Paid to Subcontracts and Suppliers" showing total contract amount, amount paid this estimate, total paid to date, and balance owing.
 - 4. Completed "Conditional Release and Waiver of Liens and Claims."
 - 5. An estimated cashflow statement projecting the Contractor's monthly billings on the project shall be submitted with each payment application.
- C. Prior to submitting a payment application, the Contractor and Engineer shall meet each month to review the work accomplished to determine the actual quantities including labor, materials and equipment charges to be billed.
 - Prior to the payment application meeting, the Contractor shall submit to the Engineer all measurement documentation as referenced in these contract documents; to include all measurement by weight, volume or field.
 - For all change work being done on a force account basis, the Contractor shall submit prior
 to meeting with Engineer all Force Account back-up documentation as required to process
 the payment application where Force Account work is being billed. The Engineer and the
 Contractor shall review the documentation at the payment application meeting to verify
 quantities and review the work accomplished.
 - 3. The Contractor shall bring a copy of all documentation to the pay application meeting with the Engineer.
 - 4. The Contractor shall submit the updated baseline project schedule for review prior to submitting the payment application to ensure the payment processing is not held up due to necessary schedule revisions.
- D. Following the Engineers' review, the Contractor shall submit the agreed upon pay estimate electronically, with complete supporting documentation, using e-Builder®.

1.03 PAYMENT PRICING

A. Pricing for the various lump sum or unit prices in the Bid Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to

- the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Documents.
- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- C. No separate payment will be made for any item that is not specifically set forth in the Bid Form, and all costs therefore shall be included in the prices named in the Bid Form for the various appurtenant items of work.
- D. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices bid. Payment for work under one item will not be paid for under any other item
- E. The Port of Tacoma reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes shall govern the compensation.

1.04 LUMP SUM MEASUREMENT

- A. Lump sum measurement will be for the entire item, unit of Work, structure, or combination thereof, as specified and as indicated in the Contractor's submitted bid.
 - 1. If the Contractor requests progress payments for lump sum items, such progress payments will be made in accordance with an approved Schedule of Values. The quantity for payment for completed work shall be an estimated percentage of the lump sum amount, agreed to between the Engineer and Contractor, payable in monthly progress payments in increments proportional to the work performed in amounts as agreed between the Engineer and the Contractor.

1.05 MEASUREMENT OF QUANTITIES FOR UNIT PRICES

A. Measurement Standards:

1. All Work to be paid for at a contract price per unit measurement, as indicated in the Contractor's submitted bid, will be measured by the Engineer in accordance with United States Standard Measures.

B. Measurement by Weight:

- 1. Reinforcing steel, steel shapes, castings, miscellaneous metal, metal fabrications, and similar items to be paid for by weight shall be measured by scale or by handbook weights for the type and quantity of material actually furnished and incorporated into the Work.
- 2. Unless shipped by rail, material to be measured and paid for by weight shall be weighed on sealed scales regularly inspected by the Washington State Department of Agriculture's Weights and Measures Section or its designated representative. Measurement shall be furnished by and at the expense of the Contractor. All weighing, measuring, and metering devices shall be suitable for the purpose intended and shall conform to the tolerances and specifications as outlined in Washington State Department of Transportation Standard Specifications, Division 1, General Requirements, Article 1-09.2, Weighing Equipment.
- 3. Provide or utilize platform scales of sufficient size and capacity to permit the entire vehicle or combination of vehicles to rest on the scale platform while being weighed. Combination vehicles may be weighed as separate units provided they are disconnected while being

Project No. 201119.01 Contract No. 071514

- weighed. Scales shall be inspected and certified as often as the Engineer may deem necessary to ascertain accuracy. Costs incurred as a result of regulating, adjusting, testing, inspecting, and certifying scales shall be borne by the Contractor.
- 4. A licensed weighmaster shall weigh all Contractor-furnished materials. The Engineer may be present to witness the weighing and to check and compile the daily record of such scale weights. However, in any case, the Engineer will require that the Contractor furnish weight slips and daily summary weigh sheets. In such cases, furnish a duplicate weight slip or a load slip for each vehicle weighed, and deliver the slip to the Engineer at the point of delivery of the material.
- 5. If the material is shipped by rail, the certified car weights will be accepted, provided only actual weight of material will be paid for and not minimum car weights used for assessing freight tariff. Car weights will not be acceptable for material to be passed through mixing plants. Material to be measured by weight shall be weighed separately for each bid item under which it is to be paid.
- 6. Trucks used to haul material being paid for by weight shall be weighed empty daily and at such additional times as the Engineer may require. Each truck shall bear a plainly legible identification mark. The Engineer may require the weight of the material be verified by weighing empty and loaded trucks on such other scales as the Engineer may designate.

C. Measurement by Volume:

- Measurement by volume will be by the cubic dimension indicated in the Contractor's submitted bid. Method of volume measurement will be by the unit volume in place or removed as shown on the Contract Drawings or as specified.
- When material is to be measured and paid for on a volume basis and it is impractical to determine the volume by the specified method of measurement, or when requested by the Contractor in writing and accepted by the Engineer in writing, the material may be weighed in accordance with the requirements specified for weight measurement. Such weights will be converted to volume measurement for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Resident Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities will be accepted.
- D. Measurement by Area: Measurement by area will be by the square dimension shown on the Contract Drawings or as specified. Method of square measurement will be as specified.
- E. Linear Measurement: Linear measurement will be by the linear dimension listed or indicated in the Contractor's submitted bid. Unless otherwise indicated, items, components, or Work to be measured on a linear basis will be measured at the centerline of the item in place.

F. Field Measurement for Payment:

- The Contractor shall take all measurements by providing equipment, workers, and survey crews as required to measure quantities in accordance with the provisions for measurement specified herein. No allowance will be made for specified tolerances.
- 2. The Engineer will verify all quantities of Work performed by the Contractor on a unit-price basis, for progress payment purposes.

1.06 REJECTED, EXCESS, OR WASTED MATERIALS

A. Quantities of material wasted or disposed of in a manner not called for under the Contract; rejected loads of material, including material rejected after it has been placed by reasons of the

failure of the Contractor to conform to the provisions of the Contract; material not unloaded from the transporting vehicle; material placed outside the lines indicated on the Contract Drawings or established by the Engineer; or material remaining on hand after completion of the Work, will not be paid for, and such quantities shall not be included in the final total quantities. No additional compensation will be permitted for loading, hauling, and disposing of rejected material.

1.07 MEASUREMENT AND PAYMENT

A. Item #1: Mobilization and Demobilization

- 1. Payment for Mobilization and Demobilization shall be for preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to and from the project site; temporary facilities and controls; for the establishment and removal of its offices, buildings and other facilities necessary for work on the project; for other work and operations which it must perform or costs it must incur before beginning production work on the various items on the project site, and for removal of personnel, equipment, supplies, offices, building facilities, sheds, fencing, and other incidentals from the site.
- Mobilization and Demobilization shall be paid at the lump sum price listed in the Contractor's submitted bid. Incremental payment shall be made for each location as follows:
 - a. 40% after completion of 5% of the total contract amount of other bid items have been earned.
 - b. 40% after completion of 20% of the total contract amount of other bid items have been earned.
 - c. 20% after completion of all work on the project has been completed, including cleanup and acceptance of the project by the Port.

B. Item #2: Project Administration

- 1. Item Description: The Work of this item includes all administrative costs associated with administering and supervising the project including, but not limited to supervision of personnel, coordination of all work activities, coordination of subcontractors and/or suppliers, preparation and transmittal of submittals, permit acquisitions, for premiums on bonds and insurance for the project, and project overhead.
- 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
- 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.

C. Item #3: SIM Yard Charging Stations

 Item Description: The Work of this item encompasses all activities required to complete the SIM Yard Charging Stations Project including but is not limited to roller-compacted concrete demolition and repair; trenching and restoration by asphalt paving; construction of concrete pedestals and protective bollards; installation of Port-provided charging stations; miscellaneous metal work; installation of transformer vault and bollards; and modification of existing electrical system infrastructure.

- 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
- 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXEUCTION - NOT USED

END OF SECTION

PORT OF TACOMA

SIM YARD CHARGING STATIONS PROJECT PROJECT NO. 201119.01 CONTRACT NO.071514

PORT COMMISSIONERS:

RICHARD P. MARZANO
DON MEYER
JOHN MCCARTHY
KRISTIN ANG
DEANNA KELLER

PORT STAFF:

JOHN WOLFE
NWSA Chief Executive Officer

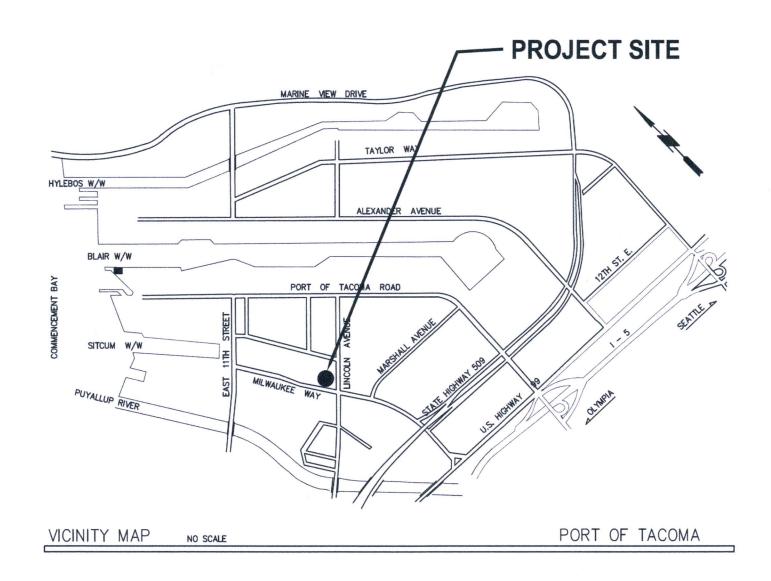
ERIC JOHNSONPort of Tacoma Executive Director

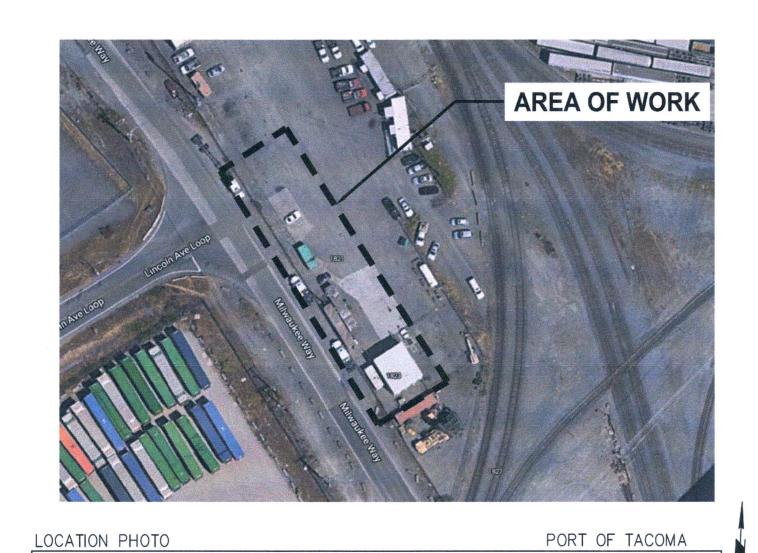
THAIS HOWARD, P.E. Director of Engineering

HUGHES WIKE, P.E. Project Manager

CONSULTANT:

MOHAMMAD Q. AZEEM Harris Group Project Manager





	SHEET SHEET # SHEET TITLE								
SHEET DESIGNATION	SHEET TITLE	REVISION							
G0.0	1	COVER SHEET	1						
D2.0	D2.0 2 CIVIL SITE PLAN - DEMOLITION								
C1.0 3 GENERAL CIVIL AND STRUCTURAL NOTES									
C2.0	4	CIVIL SITE PLAN	1						
C2.1	5	STRUCTURAL DETAILS	1						
C2.2	6	STRUCTURAL DETAILS							
		STRUCTURAL DETAILS							
		STRUCTURAL DETAILS							
D3.0	9	ELECTRICAL SITE PLAN - DEMOLITION	1						
E1.0 10 ELECTRICAL GENERAL NOTES AND SYMBOLS									
E2.0	E2.0 11 ELECTRICAL SITE PLAN								
E3.0 12 ONE LINE DIAGRAM ELECTRICAL		ONE LINE DIAGRAM ELECTRICAL DISTRIBUTION	1						
E4.0	13	ELECTRICAL DETAILS							
E4.1	14	ELECTRICAL NAMEPLATE SCHEDULE							

Port of Ma	P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841	DATE:	09/01/21	
Ta	P.O. BOX 1837 TA	APPR:	MQA	
JP eople Project No: 12646.04		BY:	HG	
HARRIS GROUP Big Capabilities * Dedicated People 2601 4th Avenue, Suite 400 Secttle, Washington 98121 (206) 494–9400 Project No		REVISION:	ADDENDUM #1	1



		17/10/60
	CHECKED BY	BY DATE
wad 9/9/21	MWD	09/01/21
ENG. DATE	PROJ. ENGR	GR DATE
3Y: hester, nate Sep	nate Sep	7, 2021
NOTICE TANDALA DA	T JO TOOC	CO VINCOV

CTION: SE 1/4 35 PRINTED BY: hester (MLLW = 0.0) PORT ADDRESS:1815

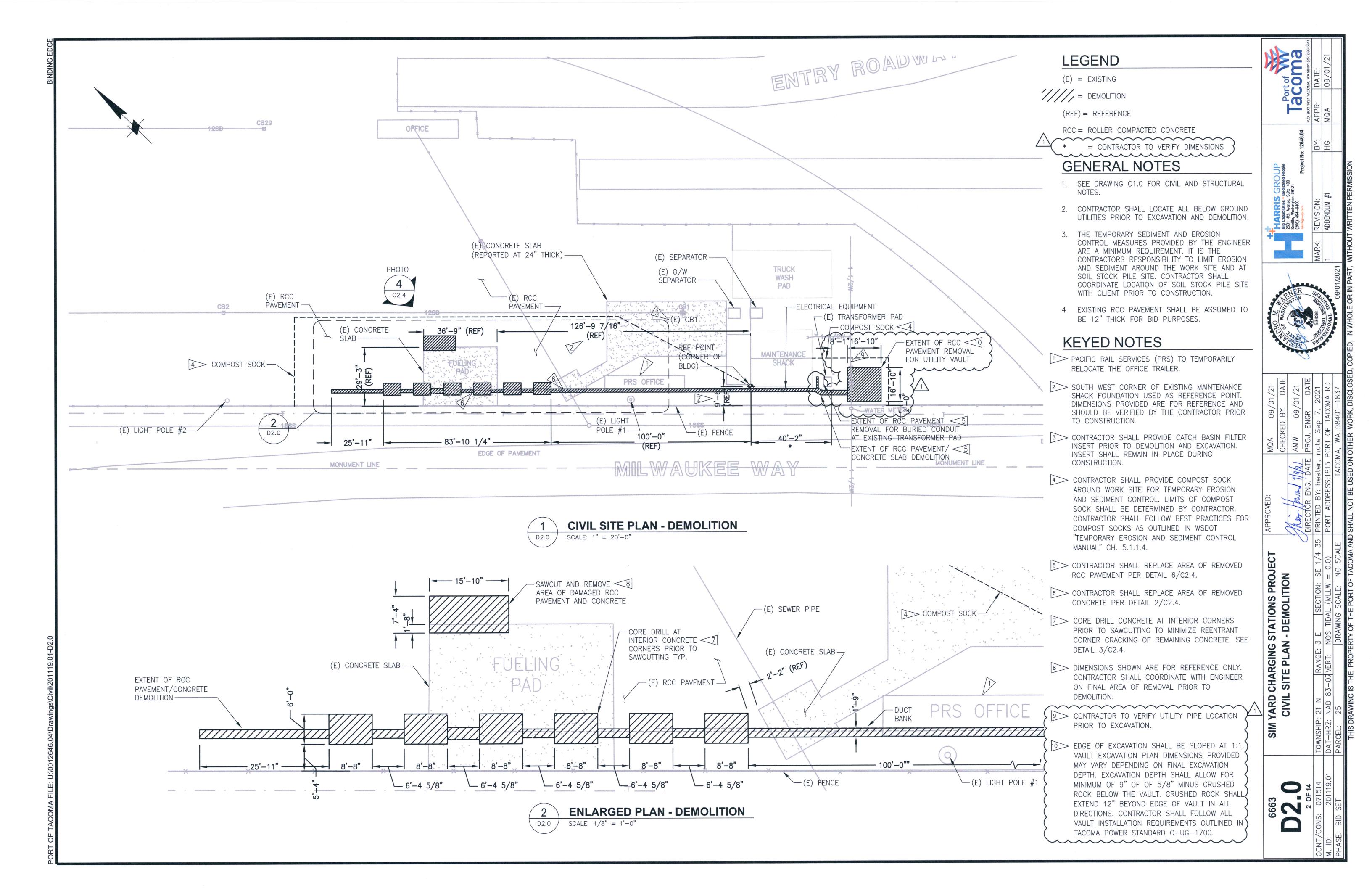
COVER SHEET

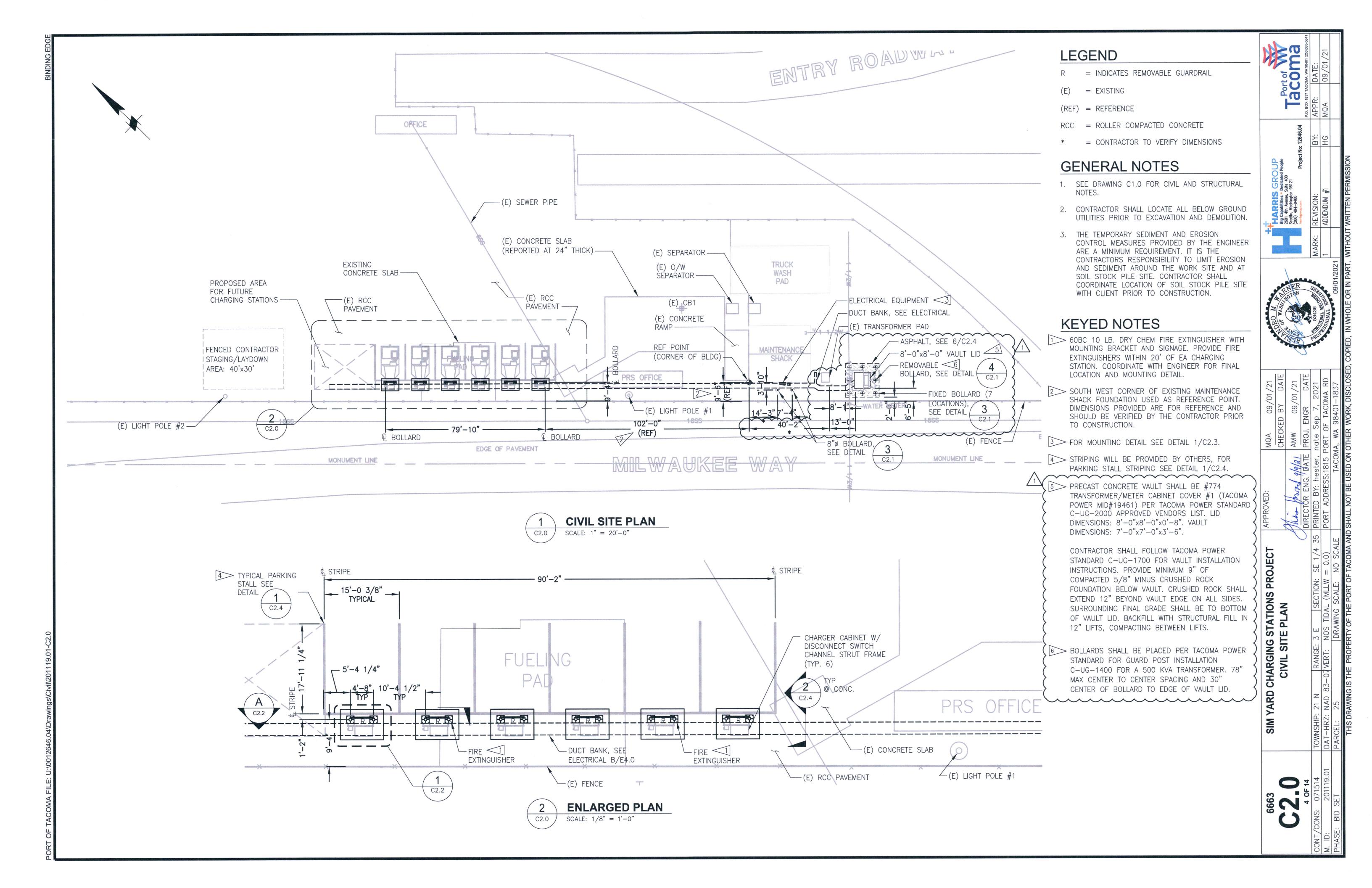
VICINITY MAP AND DRAWING INDEX

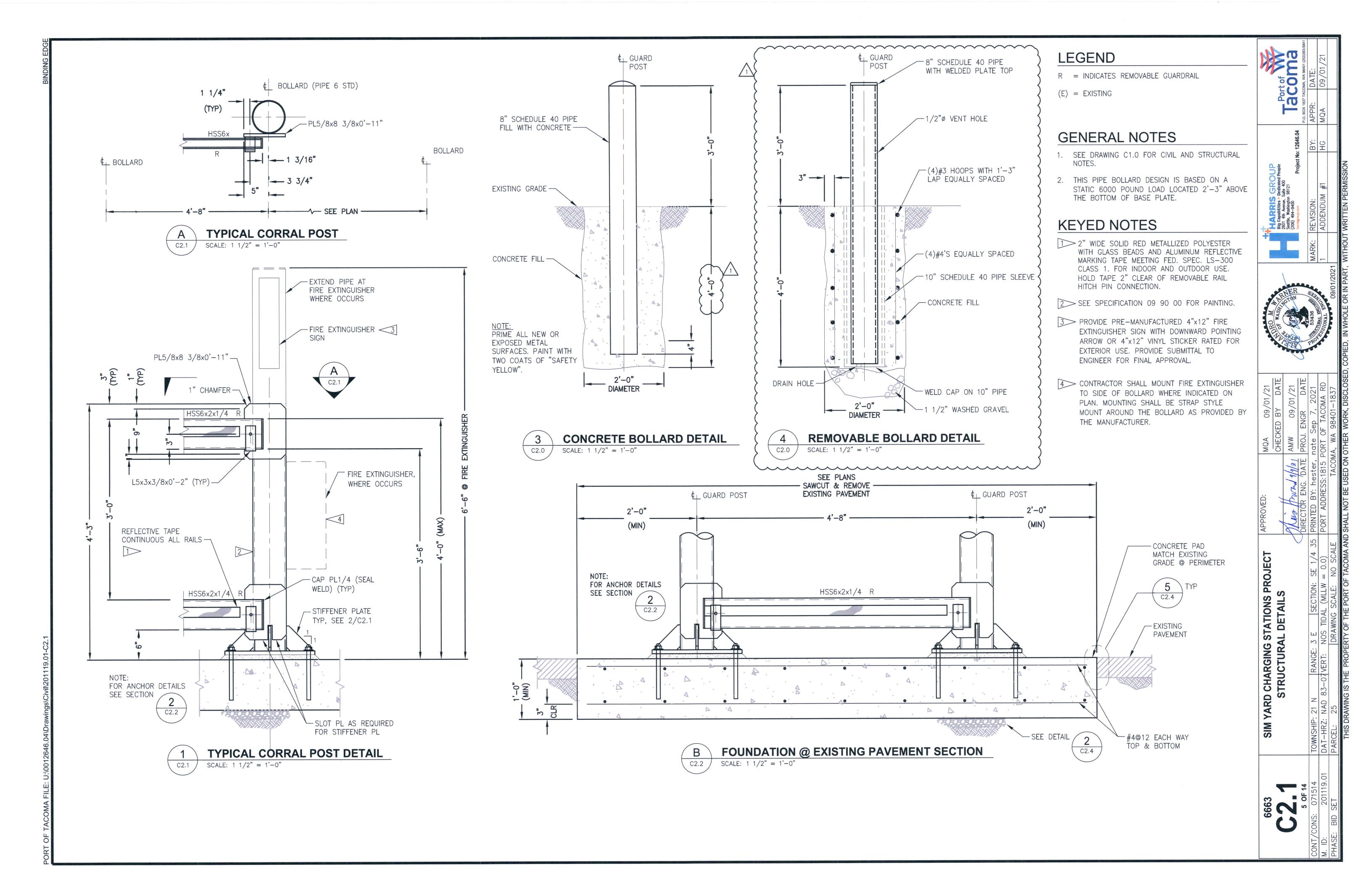
VICINITY MAP AND

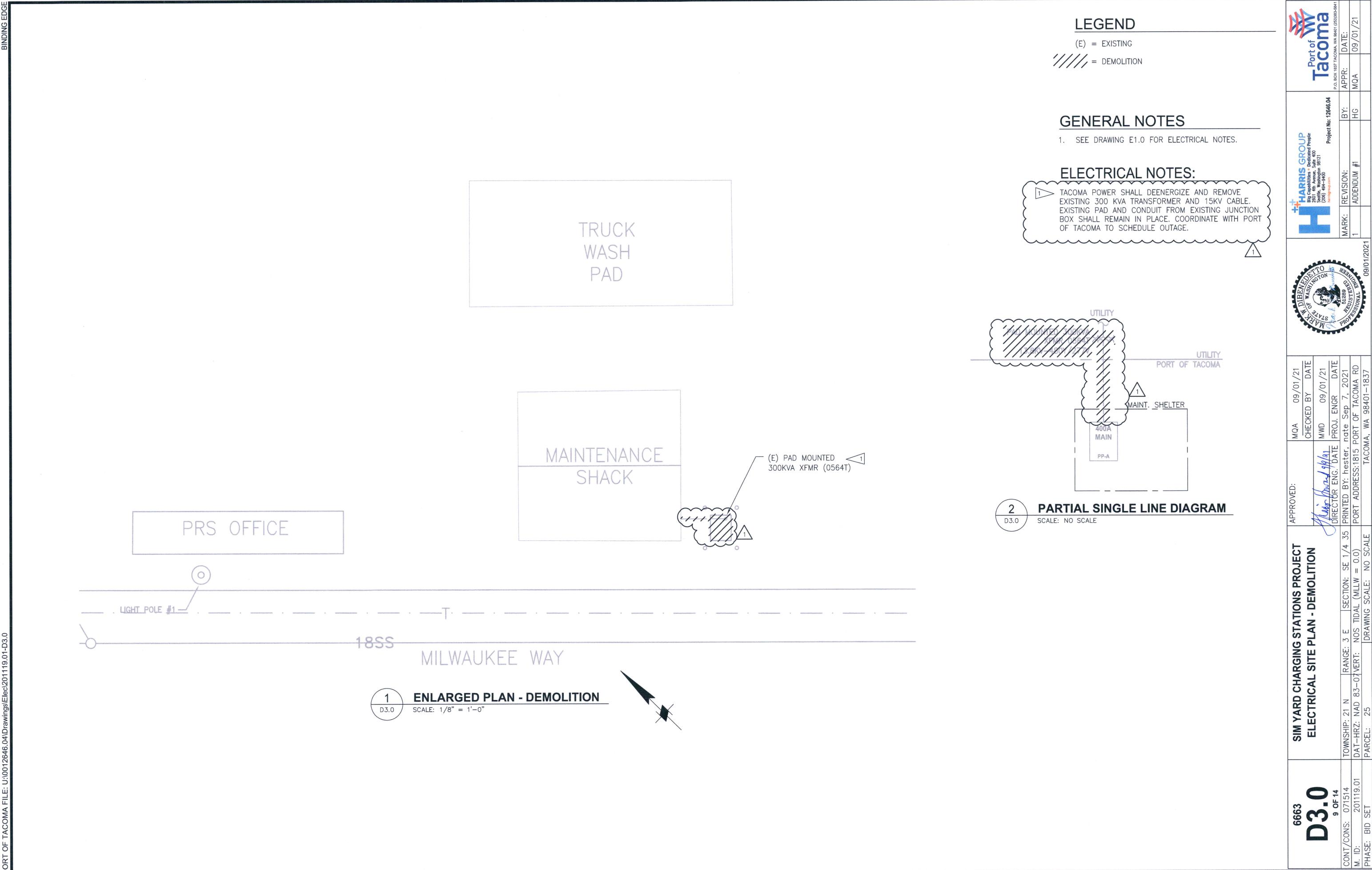
G0.0 1 of 14 /CONS: 071514 TOWNSHIF 201119.01 DAT—HRZ

PORT OF TACOMA FILE: U:\0012646.04\Drawings\Gen\2011







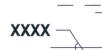




DISCONNECT SWITCH

CONDUIT CAP & SEAL

GROUND PER NEC



CONDUIT IDENTIFICATION. SEE CONDUIT AND CONDUCTOR SCHEDULE

DRAWINGS E3.0.



PAD MOUNTED TRANSFORMER

PULLBOX

PARTIAL ABBREVIATION LEGEND:

A = AMPS

AFG = ABOVE FINISHED GRADE

= AMPERE INTERRUPTING CAPACITY

= COMMUNICATIONS

= CONTROLLED DENSITY FILL

CKT = CIRCUIT

CP = CRANE POWER

CSB = CRANE SERVICE VAULT

= COMMUNICATIONS VAULT

= EXISTING

FT = FEET

GND = GROUND

ID = IDENTIFICATION

NEC = NATIONAL ELECTRICAL CODE

NEMA = NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION

PB = PULLBOX

POT = PORT OF TACOMA

RGS = RIGID GALVANIZED STEEL

SCCR = SHORT CIRCUIT CURRENT RATING

SD = SECONDARY DISTRIBUTION

SP = SPARE CONDUIT

SWBD = SWITCHBOARD

TPU = TACOMA POWER UTILITIES

TPUV = TACOMA PUBLIC UTILITIES VAULT

TPUM = TACOMA PUBLIC UTILITIES MANHOLE

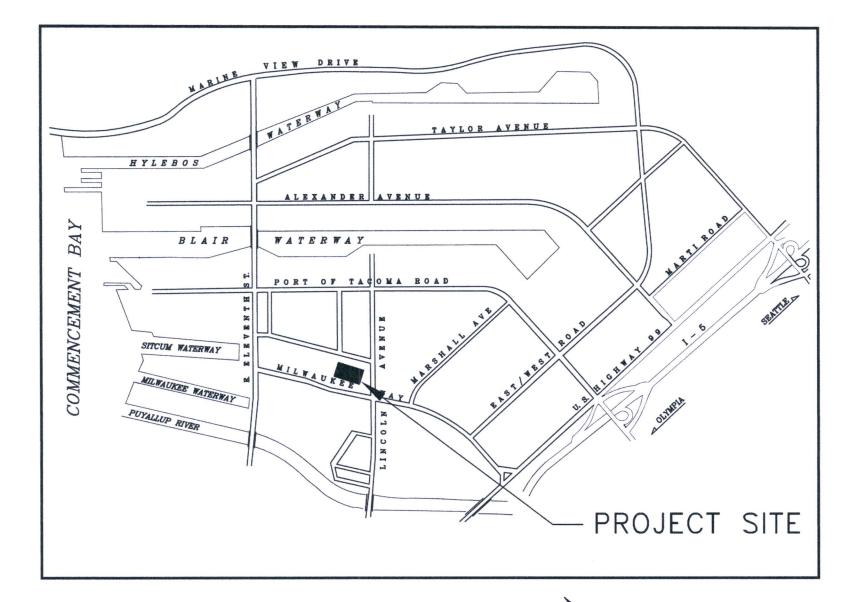
WAC = WASHINGTON ADMINISTRATIVE CODE

= WEATHERPROOF

XFMR = TRANSFORMER

GENERAL NOTES:

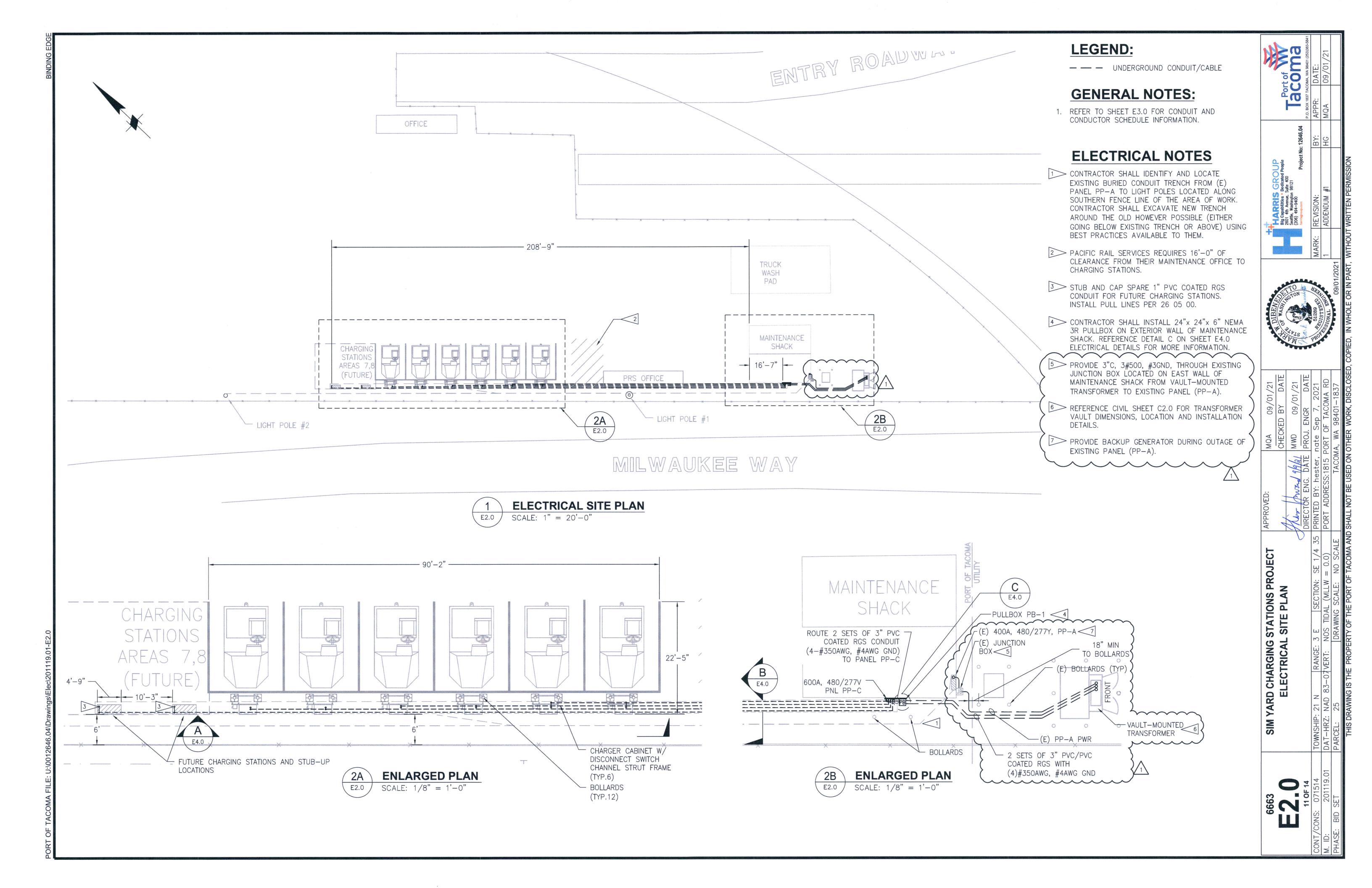
- 1. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO CIVIL AND STRUCTURAL DRAWINGS TO COORDINATE EXACT LOCATION OF ALL ELECTRICAL EQUIPMENT, STRUCTURES, CONDUITS, ETC. NOTIFY ENGINEER IN THE EVENT OF A CONFLICT.
- 2. SEE DRAWING E3.0 FOR CONDUIT AND CONDUCTOR SCHEDULE. SEE SITE PLANS, AND DETAILS FOR ADDITIONAL CONDUIT AND CONDUCTOR REQUIREMENTS. COUPLINGS AND JOINTS OF CONDUITS EMBEDDED IN CONCRETE OR ASPHALT SHALL BE TAPED OR OTHERWISE MADE WATERTIGHT TO PREVENT INTRUSION OF MORTAR, WATER OR OTHER MATERIALS. TEST CONDUIT FOR ABSENCE OF ANY BLOCKAGE PRIOR TO AND WITHIN 24 HOURS OF COMPLETING A CONCRETE POUR OR ASPHALT PAVING.
- 3. PROVIDE PULL STRINGS WITH DISTANCE INCREMENTS (FEET) IN ALL CONDUITS. CONTRACTOR SHALL PROVIDE CONDUIT LABELS FOR ALL EXPOSED CONDUIT GRÉATER THAN 208V AS PER SPECIFICATION 26 05 33.
- 4. CONTRACTOR SHALL INCLUDE IN THE BID ALL COSTS TO HAVE A DEPARTMENT OF LABOR AND INDUSTRIES APPROVED FIRM TO FIELD EVALUATE THE INSTALLATION, SAFETY, AND COMPLIANCE REQUIRED PER TACOMA POWER ELECTRICAL INSPECTION AND/OR PER W.A.C. 296-46B-901 FOR ANY EQUIPMENT SPECIFIED OR FURNISHED THAT IS NOT UL LABELED.
- 5. FOR ALL TRENCHING IN EXISTING ASPHALT AREAS. CONTRACTOR SHALL SAWCUT AND PATCH EXISTING ASPHALT PER CIVIL REQUIREMENTS IN SPECIFICATION 32 12 16. SEE CIVIL DRAWINGS FOR ASPHALT AREAS.
- 6. PROVIDE 1" PVC COATED RGS CONDUIT FOR RISER AND SWEEP BEFORE TRANSITION TO 1" SCHED. 40 PVC CONDUIT IN TRENCH.
- 7. CONTRACTOR IS REQUIRED TO FIELD WALK THE WORK AREA TO LOCATE AND ASSESS FIELD CONDITIONS OF EQUIPMENT INCLUDED IN THIS PROJECT, REFER TO ELECTRICAL DRAWINGS.
- 8. ALL EXPOSED RIGID GALVANIZED STEEL CONDUIT SHALL BE PVC COATED OR PAINTED WITH A MINIMUM 3 MIL COATING OF PAINT FOR CORROSION PROTECTION AND TO PREVENT ZINC RUNOFF TO THE STORMWATER SYSTEM. PAINT APPLICATION BY MANUFACTURER IS PREFERRED TO FIELD PAINTING FOR COVERAGE AND QUALITY.
- 9. REFER TO DIVISION 26 ELECTRICAL SPECIFICATION FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 10. OBTAIN A COPY OF THE FOLLOWING TACOMA POWER STANDARDS PRIOR TO CONSTRUCTION: A-UG-1200, C-UG-1100, C-UG-1300, C-UG-1400, C-UG-1700, AND C-UG-2000.





Tacom:





480V ONE LINE DIAGRAM

CHARGING | CHARGING | CHARGING | CHARGING | CHARGING | CHARGING STATION #1 STATION #2 STATION #3 STATION #4 STATION #5 STATION #6 $(CS-1)^{n}$ || $(CS-2)^{n}$ || $(CS-3)^{n}$ || $(CS-4)^{n}$ || $(CS-5)^{n}$ || $(CS-6)^{n}$

NO SCALE

			NO SCALE						
FEEDER			CONDUIT	LOCA	TION		CONDUCTORS	LENGTH	
ID.	QTY.	SIZE	TYPE	FROM	ТО	VOLTAGE	NUMBER OF WIRES	(FT)	
(1)	2	3"	PVC COATED RGS/PVC	XFMR (0564T)	480V PANEL - PP-C	480Y/277V	4-#350 + #4G	70'	
2	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C DISCONNECT SWITCH DS-1		480	3-#4 + #10G	135'	
3	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	DISCONNECT SWITCH DS-2	480	3-#4 + #10G	150'	
4	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	DISCONNECT SWITCH DS-3	480	3-#4 + #10G	165'	
(5)	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	DISCONNECT SWITCH DS-4	480	3-#4 + #10G	180'	
6	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	DISCONNECT SWITCH DS-5	480	3-#4 + #10G	195'	
7	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	DISCONNECT SWITCH DS-6	480	3-#4 + #10G	210'	
8	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	FUTURE CHARGING STATION CS-7	480	_	225'	
9	1	1"	PVC COATED RGS/PVC	480V PANEL - PP-C	FUTURE CHARGING STATION CS-8	480	_	240'	
(10)	6	1"	PVC COATED RGS	DISCONNECT SWITCHES DS-1-DS-6	CHARGING STATIONS	480	3-#4 + #10G	5'	
(11)	1	3"	PVC COATED RGS/PVC	XFMR (0564T)	480V PANEL - PP-A	480Y/277V	3-#500 + #3G	60'	

SPARE

(CS-7)

SPARE

(CS - 8)

CONDUIT AND CONDUCTOR SCHEDULE

NO SCALE

PANELBOARD SCHEDULE

				DE			
*	LOAD SUMMARY	CL	DF	Α	В	С	TOTAL
L	Lighting	0.0	0	0.0	0.0	0.0	0.0
R	Convenience Recept	0.0	0	0.0	0.0	0.0	0.0
Н	Heating	0.0	0	0.0	0.0	0.0	0.0
С	Cooling	0.0	0	0.0	0.0	0.0	0.0
Α	HVAC	0.0	0	0.0	0.0	0.0	0.0
Р	Process	0.0	0	0.0	0.0	0.0	0.0
0	Other Continuous	287.4	1	95.8	95.8	95.8	287.4
N	Other Noncontinuous	0.0	0	0.0	0.0	0.0	0.0
	Total	287.4		95.8	95.8	95.8	287.4

Min. Feeder Ampacity	432.1
Spare Feeder Ampacity	25%
Calc. Feeder Ampacity	540

4/22/	20	21	

FF-C
PANELBOARD DESIGNATION

AL		
.0	VOLTAGE	480Y/277V
0	PHASING	3
.0	SYSTEM	NORMAL
.0	BUS SIZE	600A
.0	MAINS	600A MCB
.0	FEEDER NO	
7.4	FEEDER SIZE	
.0	FEEDER PROT	
7.4	FEEDER LENGTH	
	FEEDER V. DROP	
	FAULT CURRENT	
	ENCLOSURE	3D

, LLDLIVI IVO	
FEEDER LENGTH	
FEEDER V. DROP	
FAULT CURRENT	
ENCLOSURE	3R
MOUNTING/FEED	

	DESCRIPTION	*	СВ	KVA	Α	В	С	KVA	СВ	DESCRIPTION	*	
1		0		11.98	23.95			11.98			0	2
3	Charging Station CS-1	0	60A-3P	11.98		23.95		11.98	60A-3P	Charging Station CS-2	0	4
5		0		11.98			23.95	11.98			0	6
7		0		11.98	23.95			11.98			0	8
9	Charging Station CS-3	0	60A-3P	11.98		23.95		11.98	60A-3P	Charging Station CS-4	0	10
11		0	Name	11.98			23.95	11.98			0	12
13		0		11.98	23.95			11.98			0	14
15	Charging Station CS-5	0	60A-3P	11.98		23.95		11.98	60A-3P	Charging Station CS-6	0	16
17		0		11.98			23.95	11.98			0	18
19		0		11.98	23.95			11.98			0	20
21	Charging Station CS-7 (FUTURE)	0	60A-3P	11.98		23.95		11.98	60A-3P	Charging Station CS-8 (FUTURE)	0	22
23		0		11.98			23.95	11.98			0	24
25	(space)				0					(space)		26
27	(space)					0				(space)		28
29	(space)						0			(space)		30
31	(space)				0					(space)		32
33	(space)					0				(space)		34
35	(space)						0			(space)		36
37	(space)				0					(space)		38
39	(space)					0				(space)		40
41	(space)						0			(space)		42
	SUB-FEED PANEL(S) KVA											
		Total	Connecte	d Load	95.8	95.8	95.8					

PP-C PANEL SCHEDULE

NO SCALE

ELECTRICAL NOTES:

PROVIDE 600A, 3-POLE, 480Y/277V, 35KAIC RATED, NEMA 3R, 20" WIDE X 60" TALL PANELBOARD. EATON CATALOG # PRL3A. PROVIDE WITH 100% RATED 600A MAIN BREAKER TYPE LGE WITH (8) 60A, 3-POLE CIRCUIT BREAKERS TYPE FDB.

PROVIDE 60A RATED, 600V, 3-POLE, HEAVY DUTY, NON-FUSED, NEMA 3R DISCONNECT SWITCH WITH LOCKABLE HANDLE.

