SCOPE OF WORK

EV Charging Hub at Trenton Office Complex Garage

225 East State Street
Trenton, Mercer County, NJ

Project No. A1416-00

STATE OF NEW JERSEY

Honorable Philip D. Murphy, Governor
Honorable Tahesha L. Way, Lt. Governor

DEPARTMENT OF THE TREASURY

Elizabeth Maher Muoio, Treasurer

DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Christopher Chianese, Director

Date: October 10, 2024

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I. OBJECTIVE

The objective of this project is to construct thirty (30) dual port level 2 charging stations serving a total of sixty (60) parking spaces at the Trenton Office Complex Garage at 225 East State Street in Trenton. A feasibility study prepared by Gannett Fleming, dated December 2023, is shown in **Exhibit 'C'**.

II. CONSULTANT QUALIFICATIONS

A. CONSULTANT & SUB-CONSULTANT PRE-QUALIFICATIONS

The Consultant shall be a firm pre-qualified with the Division of Property Management & Construction (DPMC) in the following discipline(s):

- **P002 Electrical Engineering**

The Consultant shall also have in-house capabilities or Sub-Consultants pre-qualified with DPMC in:

- **P007 Structural Engineering**
- **P025 Estimating/Cost Analysis**

As well as, **any and all** other Architectural, Engineering and Specialty Disciplines necessary to complete the project as described in this Scope of Work (SOW).

III. PROJECT BUDGET

A. CONSTRUCTION COST ESTIMATE (CCE)

The initial Construction Cost Estimate (CCE) for this project is $2,023,069.

The Consultant shall review this Scope of Work and provide a narrative evaluation and analysis of the accuracy of the proposed project CCE in its technical proposal based on its professional experience and opinion.

B. CURRENT WORKING ESTIMATE (CWE)

The Current Working Estimate (CWE) for this project is $2,716,981.

The CWE includes the construction cost estimate and all consulting, permitting and administrative fees.

The CWE is the client agency's financial budget based on this project Scope of Work and shall not be exceeded during the design and construction phases of the project unless DPMC approves the change in Scope of Work through a Contract amendment.

C. CONSULTANT'S FEES

The construction cost estimate for this project ***shall not*** be used as a basis for the Consultant's design and construction administration fees. The Consultant's fees shall be based on the information contained in this Scope of Work document and the observations made and/or the additional information received during the pre-proposal meeting.

IV. PROJECT SCHEDULE

A. SCOPE OF WORK DESIGN & CONSTRUCTION SCHEDULE

The following schedule identifies the estimated design and construction phases for this project and the estimated durations.

PROJECT PHASE	ESTIMATED DURATION (Calendar Days)
1. Site Access Approvals & Schedule Design Kick-off Meeting	**14**
2. Design Development Phase	**42**
• *Project Team & DPMC Plan/Code Unit Review & Comment*	14
3. Final Design Phase	**42**
• *Project Team & DPMC Plan/Code Unit Review & Approval*	14
4. Final Design Re-Submission to Address Comments	**7**
• *Project Team & DPMC Plan/Code Unit Review & Approval*	14
5. DCA Submission Plan Review	**30**
6. Permit Application Phase	**7**
• *Issue Plan Release*	
7. Bid Phase	**42**
8. Award Phase	**28**

9. Construction Phase	**450***
10. Project Close Out Phase	**30**

B. CONSULTANT'S PROPOSED DESIGN & CONSTRUCTION SCHEDULE

*Equipment lead times, such as transformers and panel boards, are expected to be 12 to 15 months. Construction phase duration to be adjusted accordingly dependent upon equipment lead times.

The Consultant shall submit a project design and construction schedule with its technical proposal that is similar in format and detail to the schedule depicted in **Exhibit 'A'**. The schedule developed by the Consultant shall reflect its recommended project phases, phase activities, activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Consultant.

This schedule and narrative will be reviewed by the Consultant Selection Committee as part of the evaluation process and will be assigned a score commensurate with clarity and comprehensiveness of the submission.

V. PROJECT SITE LOCATION & TEAM MEMBERS

A. PROJECT SITE ADDRESS

The location of the project site is:

Trenton Office Complex Garage
225 East State Street
Trenton, NJ 08618

See **Exhibit 'B'** for the project site location map.

B. PROJECT TEAM MEMBER DIRECTORY

The following are the names, addresses, and phone numbers of the Project Team members.

1. DPMC Representative:

Name: William Golubinski, Manager
Energy Initiatives Unit
Address: Division of Property Management & Construction
20 West State Street, 3rd Floor
P.O. Box 235
Trenton, NJ 08625
Phone No: (609) 306-9854
E-Mail: william.golubinski@treas.nj.gov

2. Department of Treasury Representative:

Name: Amanda Truppa, Director, Division of Administration
Department of Treasury
Address: Division of Administration
P.O. Box 211
Trenton, NJ 08625-0211
Phone No: (609)633-2826
E-Mail: Amanda.Truppa@treas.nj.gov

VI. PROJECT DEFINITION

A. BACKGROUND

On January 17, 2020, Governor Phil Murphy signed comprehensive legislation (S2252) that establishes goals and incentives for the increased use of plug-in electric vehicles and infrastructure in New Jersey. NJ law will require 25% of state-owned non-emergency light duty vehicles to be plug in electric vehicles by 2025 and for 100% of vehicles to be plug in EV's by 2035. To meet these requirements, the State of New Jersey has initiated several projects to install EV chargers at various locations. One of those locations is at the Trenton Office Complex Garage at 225 East State Street in Trenton, New Jersey.

The NJ Department of Property Management and Construction procured the services of Gannett Fleming to provide a feasibility study to add EV charging stations to the site. The study by Gannett Fleming is shown in **Exhibit 'C'**.

The Division of Purchase and Property (DPP), under the State of New Jersey Treasury Department, has a working contract for the purchase of equipment with associated service contracts. Term Contract T3138 Electric Vehicle Service Equipment – Statewide is the title of the contract. The service agreement as part of the term contract with DPP enables the sharing of data even if a state vehicle uses a commercial charger (like the ones by eVgo or Chargepoint located throughout the State). Chargers shall be networked. "Dumb" chargers with no network capabilities will not be used. Chargepoint equipment will be the basis of design.

B. FUNCTIONAL DESCRIPTION OF THE SITE

The Trenton Office Complex Garage has approximately 1265 parking spaces. The 30 dual port level 2 charging stations will be added on level 4. For a further description of the site, see the Gannett Fleming study shown in **Exhibit 'C'**.

This project will be eligible for multiple EV incentives under programs by the utility company (PSEG) and NJ DEP.

At least 5% of the charging parking spaces to receive a level 2 charger shall be made accessible for people with disabilities. One of the level 3 charging spots shall be accessible. See the following link for guidelines.

https://dep.nj.gov/wp-content/uploads/drivegreen/ippi/accessibilityguidelines.pdf

VII. CONSULTANT DESIGN RESPONSIBILITIES

A. DESIGN REQUIREMENTS

The Consultant shall review the feasibility study by Gannett Fleming shown in **Exhibit 'C'** as a guide and provide design, specification, permit, bid/award and construction administration services to install thirty (30) dual port level 2 charging stations serving a total of 60 parking spaces on level 4 of the Trenton Office Complex Garage. This is expected to include all associated electrical equipment as identified in the study.

The Consultant shall be responsible for the following:

Coordination with utility company for new services as required.
Load calculations for use in designing load center, switchgear, distribution equipment etc.
Pedestal details to support charging stations.
Restriping of parking spaces as necessary.
Appropriate signage indicating EV charging spaces.
Restoration details.

Bollard design for equipment protection.

At least five percent (5%) of the parking spaces served by the new EV chargers shall be accessible for people with disabilities.

In reviewing the Gannett Fleming study, in order to comply with Chapter 91, C.52:34-6.9, Consultant shall evaluate the electrical supply requirements of the proposed chargers and consider the feasibility of using fuel cells to satisfy this new electrical load. See **Exhibit 'D'**.

B. DESIGN MEETINGS & PRESENTATIONS

1. Design Meetings:

Conduct the appropriate number of review meetings with the Project Team members during each design phase of the project so they may determine if the project meets their requirements, question any aspect of the contract deliverables, and make changes where appropriate. The Consultant shall describe the philosophy and process used in the development of the design criteria and the various alternatives considered to meet the project objectives. Selected studies, sketches, cost estimates, schedules, and other relevant information shall be presented to support the design solutions proposed. Special considerations shall also be addressed such as: Contractor site access limitations, utility shutdowns and switchover coordination, phased construction and schedule requirements, security restrictions, available swing space, material and equipment delivery dates, etc.

It shall also be the responsibility of the Consultant to arrange and require all critical Sub-Consultants to be in attendance at the design review meetings.

Record the minutes of each design meeting and distribute within three (3) calendar days to all attendees and those persons specified to be on the distribution list by the Project Manager.

2. Design Presentations:

The minimum number of design presentations required for each phase of this project is identified below for reference:

Design Development Phase: One (1) oral presentation at phase completion.

Final Design Phase: One (1) oral presentation at phase completion.

C. EXISTING DOCUMENTATION

Copies of the following documents will be provided to each Consulting firm at the pre-proposal meeting to assist in the bidding process.

- DPMC Project A1251-03: **Trenton Office Complex Parking Garage Lighting Replacement**, As-Built August 31, 2020, Gannett Fleming

Review these documents and any additional information that may be provided at a later date such as reports, studies, surveys, equipment manuals, as-built drawings, etc. The State does not attest to the accuracy of the information provided and accepts no responsibility for the consequences of errors by the use of any information and material contained in the documentation provided. It shall be the responsibility of the Consultant to verify the contents and assume full responsibility for any determination or conclusion drawn from the material used. If the information provided is insufficient, the Consultant shall take the appropriate actions necessary to obtain the additional information required.

All original documentation shall be returned to the provider at the completion of the project.

VIII. PERMITS & APPROVALS

A. NJ UNIFORM CONSTRUCTION CODE PLAN REVIEW AND PERMIT

The project construction documents must comply with the latest adopted edition of the NJ Uniform Construction Code (NJUCC).

The latest NJUCC Adopted Codes and Standards can be found at:

http://www.state.nj.us/dca/divisions/codes/codreg/

1. NJ Uniform Construction Code (NJUCC) Plan Review

Consultant shall estimate the cost of the NJUCC Plan Review by DCA and include that amount in their fee proposal line item entitled **"Plan Review and Permit Fee Allowance"**, refer to paragraph X.A.

Upon approval of the Final Design Phase Submission by DPMC, the Consultant shall submit the construction documents to the Department of Community Affairs (DCA), Bureau of Construction Project Review to secure a complete plan release.

As of July 25, 2022, the Department of Community Affairs (DCA) is only accepting digital signatures and seals issued from a third party certificate authority.

Procedures for submission to the DCA Plan Review Unit can be found at:

https://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_app_guide.pdf

Consultant shall complete the "Project Review Application" and include the following on Block 5 as the "Owner's Designated Agent Name":

Trevor M. Dittmar, DPMC
PO Box 235
Trenton, NJ 08625-0235
Trevor.Dittmar@treas.nj.gov 609-984-5529

The Consultant shall complete the NJUCC "Plan Review Fee Schedule", determine the fee due and pay the NJUCC Plan Review fees, refer to Paragraph X.A.

The NJUCC "Plan Review Fee Schedule" can be found at:

http://www.state.nj.us/dca/divisions/codes/forms/pdf_bcpr/pr_fees.pdf

2. NJ Uniform Construction Code Permit

Upon receipt of a complete plan release from the DCA Bureau of Construction Project Review, the Consultant shall complete the NJUCC permit application and all applicable technical sub-code sections. The "Agent Section" of the application and certification section of the building sub-code section shall be signed. These documents, with **six (6) sets of DCA approved, signed and sealed construction documents** shall be forwarded to the DPMC Project Manager.

The Consultant may obtain copies of all NJUCC permit applications at the following website:

https://www.nj.gov/dca/divisions/codes/resources/constructionpermitforms.html

All other required project permits shall be obtained and paid for by the Consultant in accordance with the procedures described in Paragraph VIII.B.

3. Prior Approval Certification Letters:

The issuance of a construction permit for this project may be contingent upon acquiring various "prior approvals" as defined by N.J.A.C. 5:23-1.4. It is the Consultant's responsibility to determine which prior approvals, if any, are required. The Consultant shall submit a general certification letter to the DPMC Plan & Code Review Unit Manager during the Permit Phase of this project that certifies all required prior approvals have been obtained.

In addition to the general certification letter discussed above, the following specific prior approval certification letters, where applicable, shall be submitted by the Consultant to the DPMC Plan & Code Review Unit Manager: Soil Erosion & Sediment Control, Water & Sewer Treatment Works Approval, Coastal Areas Facilities Review, Compliance of Underground Storage Tank Systems with N.J.A.C. 7:14B, Pinelands Commission, Highlands Council, Well Construction and Maintenance; Sealing of Abandoned Wells with N.J.A.C. 7:9D, Certification that all utilities have been disconnected from structures to be demolished, Board of Health Approval for Potable Water Wells, Health Department Approval for Septic Systems. It shall be noted that in accordance with N.J.A.C. 5:23-2.15(a)5, a permit cannot be issued until the letter(s) of certification is received.

4. Multi-building or Multi-site Permits:

A project that involves many buildings and/or sites requires that a separate permit shall be issued for each building or site. The Consultant must determine the construction cost estimate for *each* building and/or site location and submit that amount where indicated on the permit application.

5. Special Inspections:

In accordance with the requirements of the New Jersey Uniform Construction Code N.J.A.C. 5:23-2.20(b), Bulletin 03-5 and Chapter 17 of the International Building Code, the Consultant shall be responsible for the coordination of all special inspections during the construction phase of the project.

Bulletin 03-5 can be found at:

http://www.state.nj.us/dca/divisions/codes/publications/pdf_bulletins/b_03_5.pdf

a. Definition:

Special inspections are defined as an independent verification by a certified special inspector for **Class I buildings and smoke control systems in any class building**. The special inspector is to be independent from the Contractor and responsible to the Consultant so that there is no possible conflict of interest.

Special inspectors shall be certified in accordance with the requirements in the New Jersey Uniform Construction Code.

b. Responsibilities:

The Consultant shall submit with the permit application, a list of special inspections and the agencies or special inspectors that will be responsible to carry out the inspections required for the project. The list shall be a separate document, on letter head, signed and sealed.

B. OTHER REGULATORY AGENCY PERMITS, CERTIFICATES AND APPROVALS

The Consultant shall identify and obtain all other State Regulatory Agency permits, certificates, and approvals that will govern and affect the work described in this Scope of Work. An itemized list of these permits, certificates, and approvals shall be included with the Consultant's Technical Proposal and the total amount of the application fees should be entered in the Fee Proposal line item entitled, **"Plan Review and Permit Fee Allowance."**

The Consultant may refer to the Division of Property Management and Construction "Procedures for Architects and Engineers Manual", Paragraph "**9. REGULATORY AGENCY APPROVALS"** which presents a compendium of State permits, certificates, and approvals that may be required for this project.

The Consultant shall determine the appropriate phase of the project to submit the permit application(s) in order to meet the approved project milestone dates.

Where reference to an established industry standard is made, it shall be understood to mean the most recent edition of the standard unless otherwise noted. If an industry standard is found to be revoked, or should the standard have undergone substantial change or revision from the time that the Scope of Work was developed, the Consultant shall comply with the most recent edition of the standard.

IX. ENERGY REBATE AND INCENTIVE PROGRAMS

The Consultant shall review any and all programs on the State and Federal level to determine if any proposed upgrades to the mechanical and/or electrical equipment and systems for this project qualify for approved rebates and incentives.

The Consultant shall review the programs available on the "New Jersey's Clean Energy Program" website at: http://www.njcleanenergy.com as well as federal websites and New Jersey electric and gas utility websites to determine if and how they can be applied to this project.

The Consultant shall identify all applicable rebates and incentives in their technical proposal and throughout the design phase.

The Consultant shall be responsible to complete the appropriate registration forms and applications, provide any applicable worksheets, manufacturer's specification sheets, calculations, attend meetings, and participate in all activities with designated representatives of

the programs and utility companies to obtain the entitled financial incentives and rebates for this project.

All costs associated with this work shall be estimated by the Consultant and the amount included in the base bid of its fee proposal.

X. ALLOWANCES

A. PLAN REVIEW AND PERMIT FEE ALLOWANCE

The Consultant shall obtain and pay for all of the project permits in accordance with the guidelines identified below.

1. Permits:

The Consultant shall determine the various permits, certificates, and approvals required to complete this project.

2. Permit Costs:

The Consultant shall estimate the application fee costs for all of the required project permits, certificates, and approvals (excluding the NJ Uniform Construction Code permit) and include that amount in its fee proposal line item entitled **"Plan Review and Permit Fee Allowance"**. A breakdown of each permit and application fee shall be attached to the fee proposal for reference.

NOTE: The NJ Uniform Construction Code permit is excluded since it will be paid for by the State.

3. Applications:

The Consultant shall complete and submit all permit applications to the appropriate permitting authorities and the costs shall be paid from the Consultant's permit fee allowance. A copy of the application(s) and the original permit(s) obtained by the Consultant shall be given to the DPMC Project Manager for distribution during construction.

4. Consultant Fee:

The Consultant shall determine what is required to complete and submit the permit applications, obtain supporting documentation, attend meetings, etc., and include the total cost in the base bid of its fee proposal under the "Permit Phase" column.

Any funds remaining in the permit allowance will be returned to the State at the close of the project.

XI. SOW SIGNATURE APPROVAL SHEET

This Scope of Work shall not be considered a valid document unless all signatures appear in each designated area below.

The client agency approval signature on this page indicates that they have reviewed the design criteria and construction schedule described in this project Scope of Work (including the subsequent contract deliverables and exhibits) and verifies that the work will not conflict with the existing or future construction activities of other projects at the site.

SOW APPROVED BY: James Wright 10/10/2024
JAMES WRIGHT, MANAGER DATE
DPMC PROJECT PLANNING & INITIATION

SOW APPROVED BY: 12/12/2024
WILLIAM GOLUBINSKI, PROJECT MANAGER DATE
DPMC PROJECT MANAGEMENT GROUP

SOW APPROVED BY: Amanda Truppa 1/21/25
AMANDA TRUPPA, DIRECTOR DATE
DEPARTMENT OF TREASURY

SOW APPROVED BY: Jeanette M Barnard 3.3.25
JEANETTE M. BARNARD, DEPUTY DIRECTOR DATE
DIV PROPERTY MGT & CONSTRUCTION

XII. CONTRACT DELIVERABLES

The following are checklists listing the Contract Deliverables that are required at the completion of each phase of this project. The Consultant shall refer to the DPMC publication entitled "Procedures for Architects and Engineers," 3.0 Edition, dated September 2022 available at https://www.nj.gov/treasury/dpmc/Assets/Files/ProceduresforArchitectsandEngineers.pdf for a detailed description of the deliverables required for each submission item listed. References to the applicable paragraphs of the "Procedures for Architects and Engineers" are provided.

Note that the Deliverables Checklist may include submission items that are "S.O.W. Specific Requirements". These requirements will be defined in the project specific scope of work and included on the deliverables checklist.

This project includes the following phases with the deliverables noted as "Required by S.O.W" on the Deliverables Checklist:

- **DESIGN DEVELOPMENT PHASE**
- **FINAL DESIGN PHASE**
- **PERMIT APPLICATION PHASE**
- **BIDDING AND CONTRACT AWARD**
- **CONSTRUCTION PHASE**
- **PROJECT CLOSE-OUT PHASE**

XIII. EXHIBITS

A. SAMPLE PROJECT SCHEDULE FORMAT
B. PROJECT SITE LOCATION MAP
C. FEASIBILITY STUDY
D. FUEL CELL LAW

END OF SCOPE OF WORK

DPMC Project No.: A1416-00

Deliverables Checklist
Design Development Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
14.4.1.	A/E Statement of Site Visit						
14.4.2.	Narrative Description of Project						
14.4.3.	Building Code Information Questionnaire						
14.4.4.	Space Analysis						
14.4.5.	Special Features						
14.4.6.	Catalog Cuts						
14.4.7.	Site Evaluation						
14.4.8.	Subsurface Investigation						
14.4.9.	Surveys						
14.4.10.	Arts Inclusion						
14.4.11.	Design Rendering						
14.4.12.	Regulatory Approvals						
14.4.13.	Utility Availability						
14.4.14.	Drawings (6 Sets)						
14.4.15.	Specifications (6 Sets)						
14.4.16.	Current Working Estimate/Cost Analysis						
14.4.17.	Project Schedule						
14.4.18.	Formal Presentation						
14.4.19.	Plan Review/Scope of Work Compliance Statement						
14.4.20.	Design development Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: A1416-00

Deliverables Checklist
Final Design Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
15.4.1.	A/E Statement of Site Visit						
15.4.2.	Narrative Description of Project						
15.4.3.	Building Code Information Questionnaire						
15.4.4.	Space Analysis						
15.4.5.	Special Features						
15.4.6.	Catalog Cuts						
15.4.7.	Site Evaluation						
15.4.8.	Subsurface Investigation						
15.4.9.	Surveys						
15.4.10.	Arts Inclusion						
15.4.11.	Design Rendering						
15.4.12.	Regulatory Approvals						
15.4.13.	Utility Availability						
15.4.14.	Drawings (6 Sets)						
15.4.15.	Specifications (6 Sets)						
15.4.16.	Current Working Estimate/Cost Analysis						
15.4.17.	Project Schedule						
15.4.18.	Formal Presentation						
15.4.19.	Plan Review/Scope of Work Compliance Statement						
15.4.20.	Final Design Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: A1416-00

Deliverables Checklist
Permit Application Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
16.1.	N.J. UCC Permit Application						
16.4.	Drawings, Signed and Sealed (6 Sets)						
16.5.	Specifications, Signed and Sealed (6 Sets)						
16.6.	Current Working Estimate/Cost Analysis						
16.7.	Project Schedule						
16.8.	Plan Review/Scope of Work Compliance Statement						
16.9.	Permit Application Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC Project Manager the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: A1416-00

Deliverables Checklist
Bidding and Contract Award Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
17.1.1.	Notice of Advertising						
17.1.2.	Bid Proposal Form						
17.1.3.	Bid Clearance Form						
17.1.4.	Drawings (6 Sets)						
17.1.5.	Specifications (6 Sets)						
17.1.6.	Construction Schedule						
17.3	Pre-Bid Conference/Mandatory Site Visit						
17.3.1.	Meeting Minutes						
17.4	Bulletins						
17.5	Post Bid Meeting						
17.6.	Contract Award "Letter of Recommendation"						
17.8.	Bid Protests - Hearings						
17.9.	Bidding and Contract Award Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: A1416-00

Deliverables Checklist
Construction Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
18.2.	Pre-Construction Meeting						
18.3.	Submittal Log						
18.4.	Construction Schedule						
18.5.	Project Progress Meetings						
18.7.	Contractor's Invoicing and Payment Process						
18.8.	Contractor Submittals						
18.10.	Testing						
18.11.	Shop Drawings (6 Sets)						
18.12.	As-Built & Record Set Drawings (6 Sets)						
18.13.	Change Orders						
18.14.	Construction Photographs						
18.15.	Field Observations						
18.17.	Construction Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

DPMC Project No.: A1416-00

Deliverables Checklist
Project Close-Out Phase

A/E Name: _____

A/E Manual Reference	Submission Item	Required by S.O.W.		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
19.3.	Development of Punch List and Inspection Reports						
19.5.	Determination of Substantial Completion						
19.6.	Correction/Completion of Punch List						
19.7.	Submission of Close-Out Documentation						
19.7.1.	As-Built and Record Sets of Drawing (6 Sets)						
19.8.	Final Payment						
19.9.1.	Contractors Final Payment						
19.9.2.	A/E's Final Payment						
19.10.	Project Close-Out Phase Deliverables Checklist						
S.O.W. Reference	**S.O.W. Specific Requirements**						

This checklist shall be completed by the Design Consultant and included as the cover sheet of this submission to document to the DPMC the status of all the deliverables required by the project specific Scope of Work.

_____ _____

Consultant Signature Date

February 7, 1997
Rev.: January 29, 2002

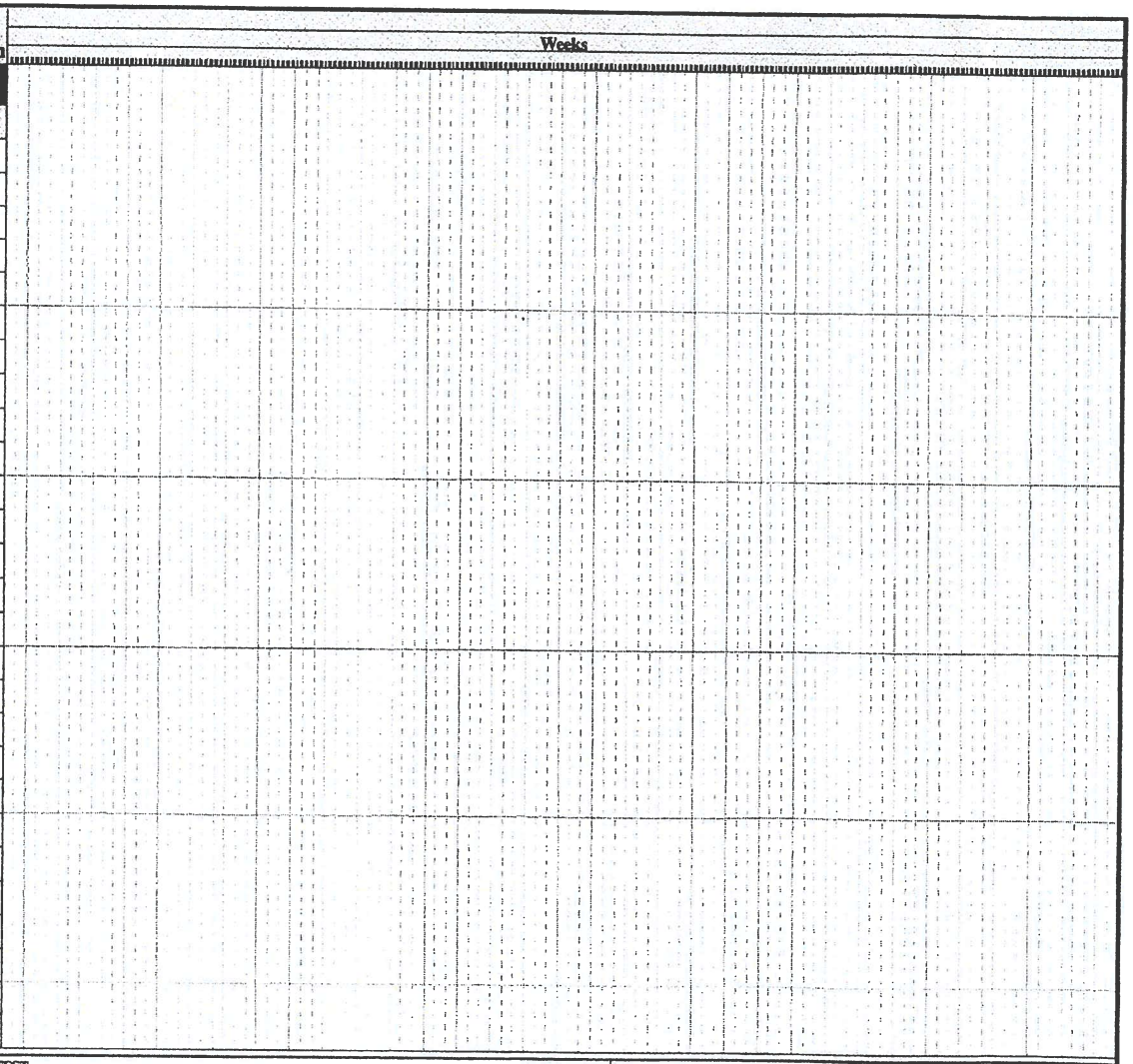
Responsible Group Code Table

The codes below are used in the schedule field "GRP" that identifies the group responsible for the activity. The table consists of groups in the Division of Property Management & Construction (DPMC), as well as groups outside of the DPMC that have responsibility for specific activities on a project that could delay the project if not completed in the time specified. For reporting purposes, the groups within the DPMC have been defined to the supervisory level of management (i.e., third level of management, the level below the Associate Director) to identify the "functional group" responsible for the activity.

CODE	DESCRIPTION	REPORTS TO ASSOCIATE DIRECTOR OF:
CM	Contract Management Group	Contract Management
CA	Client Agency	N/A
CSP	Consultant Selection and Prequalification Group	Technical Services
A/E	Architect/Engineer	N/A
PR	Plan Review Group	Technical Services
CP	Construction Procurement	Planning & Administration
CON	Construction Contractor	N/A
FM	Financial Management Group	Planning & Administration
OEU	Office of Energy and Utility Management	N/A
PD	Project Development Group	Planning & Administration

EXHIBIT 'A'

Activity ID	Description	Rspn
<PROJ>		
Design		
CV3001	Schedule/Conduct Predesign/Project Kick-Off Mtg.	CM
CV3020	Prepare Program Phase Submittal	AE
CV3021	Distribute Program Submittal for Review	CM
CV3027	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3022	Review & Approve Program Submittal	CA
CV3023	Review & Approve Program Submittal	PR
CV3024	Review & Approve Program Submittal	CM
CV3025	Consolidate & Return Program Submittal Comments	CM
CV3030	Prepare Schematic Phase Submittal	AE
CV3031	Distribute Schematic Submittal for Review	CM
CV3037	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3032	Review & Approve Schematic Submittal	CA
CV3033	Review & Approve Schematic Submittal	PR
CV3034	Review & Approve Schematic Submittal	CM
CV3035	Consolidate & Return Schematic Submittal Comment	CM
CV3040	Prepare Design Development Phase Submittal	AE
CV3041	Distribute D. D. Submittal for Review	CM
CV3047	Prepare & Submit Project Cost Analysis (DPMC-38)	CM
CV3042	Review & Approve Design Development Submittal	CA
CV3043	Review & Approve Design Development Submittal	PR
CV3044	Review & Approve Design Development Submittal	CM
CV3045	Consolidate & Return D.D. Submittal Comments	CM
CV3050	Prepare Final Design Phase Submittal	AE
CV3051	Distribute Final Design Submittal for Review	CM
CV3052	Review & Approve Final Design Submittal	CA
CV3053	Review & Approve Final Design Submittal	PR
CV3054	Review Final Design Submitl for Constructability	OCS



NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 1 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Activity ID	Description	Rspn	Weeks
CV3055	Review & Approve Final Design Submittal	CM	
CV3056	Consolidate & Return Final Design Comments	CM	
CV3060	Prepare & Submit Permit Application Documents	AE	
CV3068	Prepare & Submit Bidding Cost Analysis (DPMC-38)	CM	
Plan Review-Permit Acquisition			
CV4001	Review Constr. Documents & Secure UCC Permit	PR	
CV4010	Provide Funding for Construction Contracts	CA	
CV4020	Secure Bid Clearance	CM	
Advertise-Bid-Award			
CV5001	Advertise Project & Bid Construction Contracts	CP	
CV5010	Open Construction Bids	CP	
CV5011	Evaluate Bids & Prep. Recommendation for Award	CM	
CV5012	Evaluate Bids & Prep. Recommendation for Award	AE	
CV5014	Complete Recommendation for Award	CP	
CV5020	Award Construction Contracts/Issue NTP	CP	
Construction			
CV6000	Project Construction Start/Issue NTP	CM	
CV6001	Contract Start/Contract Work (25%) Complete	CON	
CV6002	Preconstruction Meeting	CM	
CV6003	Begin Preconstruction Submittals	CON	
CV6004	Longest Lead Procurement Item Ordered	CON	
CV6005	Lead Time for Longest Lead Procurement Item	CON	
CV6006	Prepare & Submit Shop Drawings	CON	
CV6007	Complete Construction Submittals	CON	
CV6011	Roughing Work Start	CON	
CV6012	Perform Roughing Work	CON	
CV6010	Contract Work (50%+) Complete	CON	
CV6013	Longest Lead Procurement Item Delivered	CON	
CV6020	Contract Work (75%) Complete	CON	

NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 2 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Activity ID	Description	Rspn	Weeks
CV6014	Roughing Work Complete	CON	
CV6021	Interior Finishes Start	CON	
CV6022	Install Interior Finishes	CON	
CV6030	Contract Work to Substantial Completion	CON	
CV6031	Substantial Completion Declared	CM	
CV6075	Complete Deferred Punch List/Seasonal Activities	CON	
CV6079	Project Construction Complete	CM	
CV6080	Close Out Construction Contracts	CM	
CV6089	Construction Contracts Complete	CM	
CV6090	Close Out A/E Contract	CM	
CV6092	Project Completion Declared	CM	

NOTE:
Refer to section "IV Project Schedule" of the Scope of Work for contract phase durations.

DBCA - TEST

Sheet 3 of 3

Bureau of Design & Construction Services

EXHIBIT 'A'

Project Site Location Map

Trenton Office Complex Garage

EXHIBIT ‘B’

Submitted to:

New Jersey Department of Treasury
Division of Property Management and Construction

NJDPMC No. J0390-00/TO 5
Electric Vehicle Charging Stations Feasibility Study

Trenton Office Complex Garage

Trenton, NJ

Submitted by:

GANNETT FLEMING

Excellence Delivered As Promised

December 2023

EXHIBIT 'C'

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1.0 Introduction 1
2.0 Background 1
3.0 Proposed Electric Vehicle Charging Feeder Distribution 2
4.0 Cost Estimate 3
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SK-2 TYPICAL PANELBOARD SCHEDULE
SK-3 GARAGE – LEVEL A - ELECTRICAL
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SK-5 GARAGE – LEVEL 4 (EAST) – ELECTRICAL
SK-6 DETAILS

Appendix B - EV Charging Station Cut Sheets

1. Level 2 ChargePoint CT4000 (Dual Port: (2) 40A independent circuit breakers)

Appendix C – Cost Estimate

1. DPMC-38 and Cost Estimate

EXHIBIT 'C'

1.0 INTRODUCTION

Trenton Office Complex Garage 225 East State Street Trenton, NJ 08618. The parking structure has approximately 1265 parking spaces. NJDPMC is looking to add 30 dual port Level 2 charging stations serving a total of 60 parking spaces. These spaces will have the potential to be used for fleet vehicles and personal employee vehicles. Currently there are no charging stations or infra-structure on site to support the charging of electric vehicles. The proposed EV layout will utilize the parking spaces on level 4. The intent is to bring in a new utility feed to support the EV charging stations.

The objective of this study is to provide a concept for electric vehicle charging stations and determine what is required to construct the associated electrical infrastructure to support proposed and future demand. This study also provides installation costs for the conceptual design. The goal is to provide the owner with a safe and transparent system which efficiently delivers energy for staff and visitors to utilize. The summary below lists the proposed overall scope and requirements:

1. Provide and install (30) Level 2 dual port electric vehicle chargers, 7.2kW per port.
2. Provide and install (1) Service Entrance Utility/Meter Section and 2000A Main Circuit Breaker Section with a 2000AF/1000AT circuit breaker (LSIG)
3. Provide and install (1) 2000A 480Y/277V, 3PH, 4W NEMA 3R enclosure switchboard 2000A MCB (LSIG).
4. Provide and install 500kVA transformer NEMA 3R enclosure.
5. Provide and install (1) 1600A 208Y/120V, 3PH, 4W NEMA 3R enclosure switchboard with a 1600A MCB.
6. Provide and install (3) 600A, 208Y/120V, 3PH, 4W NEMA 3R enclosure branch panelboards, each with a 600A MCB.
7. Provide and install concrete equipment pads and stainless-steel strut support.
8. Provide and install bollards to protect all equipment that may be subjected to car damage.
9. Provide and install oversized utility vault in sidewalk.
10. New utility service.

2.0 BACKGROUND

EV charging stations for commercial applications are available in Level 2 and level 3 options with either single port or dual port to charge one or two electric vehicles. Level 2 charging stations are designed for lower power draw and slower charging speeds. Level 3 stations, also called DCFC or fast charging stations are designed for higher power draw and faster charging speeds. Depending on manufacturer and model each charging station

EXHIBIT 'C'

could require a single or dual power feed. Some dual port stations can use a single circuit breaker to power both ports but the total charging capacity would be split between the 2 ports. A Level 2 single port EV charging station typically ranges from 40A to 80A charging capacity based on manufacturer and model. A Level 2 dual port EV charging station typically ranges from 40A to 60A in charging capacity based on manufacturer and model. A Level 3 single and dual port EV charging station typically ranges from 100A to 300A in charging capacity based on manufacturer and model. Refer to Appendix B for more information on typical EV charging stations approved for installation by the state.

Charging times may vary greatly depending on the electric vehicle, battery charge (availability and total capacity), and EV charging station. Charging a battery from empty to full could range anywhere between a few hours to over 24 hours, but since most users are just looking to top off their battery, typically 1 to 4 hours can usually fully charge a battery.

3.0 PROPOSED ELECTRIC VEHICLE CHARGING FEEDER DISTRIBUTION

1. A new utility service will provide power to a Service Entrance Utility/Meter Section and 2000A Main Circuit Breaker Section with a 2000AF/1000AT circuit breaker (LSIG) located on Garage Level A. Power will then feed to a Switchboard HMDP EV rated for 2000A, 480Y/277V, 3PH, 4W with a 2000AF/1000AT MCB (LSIG). Power will then feed through a 500kVA transformer to Switchboard LMDP EV rated for 1600A, 208Y/120V, 3PH, 4W with a 1600A MCB which will distribute power to (3) branch Panelboards labeled EV# each rated 600A, 208Y/120V, 3PH, 4W with a 600A MCB. The branch panelboards will distribute power to the Level 2 charging stations. All equipment not specifically mention are located on Garage Level 4. Refer to appendix A for suggested one-line diagram, typical panelboard, and floor plan layouts of charging equipment.

2. Switchboard HMDP EV and LMDP EV will both have 498kVA connected load. Based on 1000A utility Switchboard HMDP EV will have approximately 333kVA spare capacity. Switchboard LMDP EV will have approximately 2kVA spare capacity. The branch panelboards EV# will have approximately 6kVA spare but are maxed out with space.

3. Switchboard HMDP EV and the Service Entrance Utility/Meter Section and 2000A Main Circuit Breaker Section are both oversized and provide with an LSIG main circuit breaker to allow for some future EV power expansion. The raceway and conductors from the 2000A Main Circuit Breaker Section to Switchboard HMDP EV has been sized to allow for Switchboard HMDP EV to be fully powered in the future. Spare raceway has been provided from the transformer vault to garage Level A for future expansion.

EXHIBIT 'C'

4. Coordinate scope and requirements of work with PSE&G. Provide oversized utility vault in sidewalk, raceway, and transformer pad per PSE&G requirements. Field coordinate final locations with PSE&G prior to work starting.

4.0 COST ESTIMATE

Based on all the new utility service and associated ancillary equipment required as mentioned above, a summary of construction costs is provided in the table below.

Table 1. – Summary of Construction Costs	
	Construction Cost Estimate (CCE)
Option	$2,720,061

A breakdown of the above costs is included within this report in Appendix C.

5.0 CONCLUSIONS

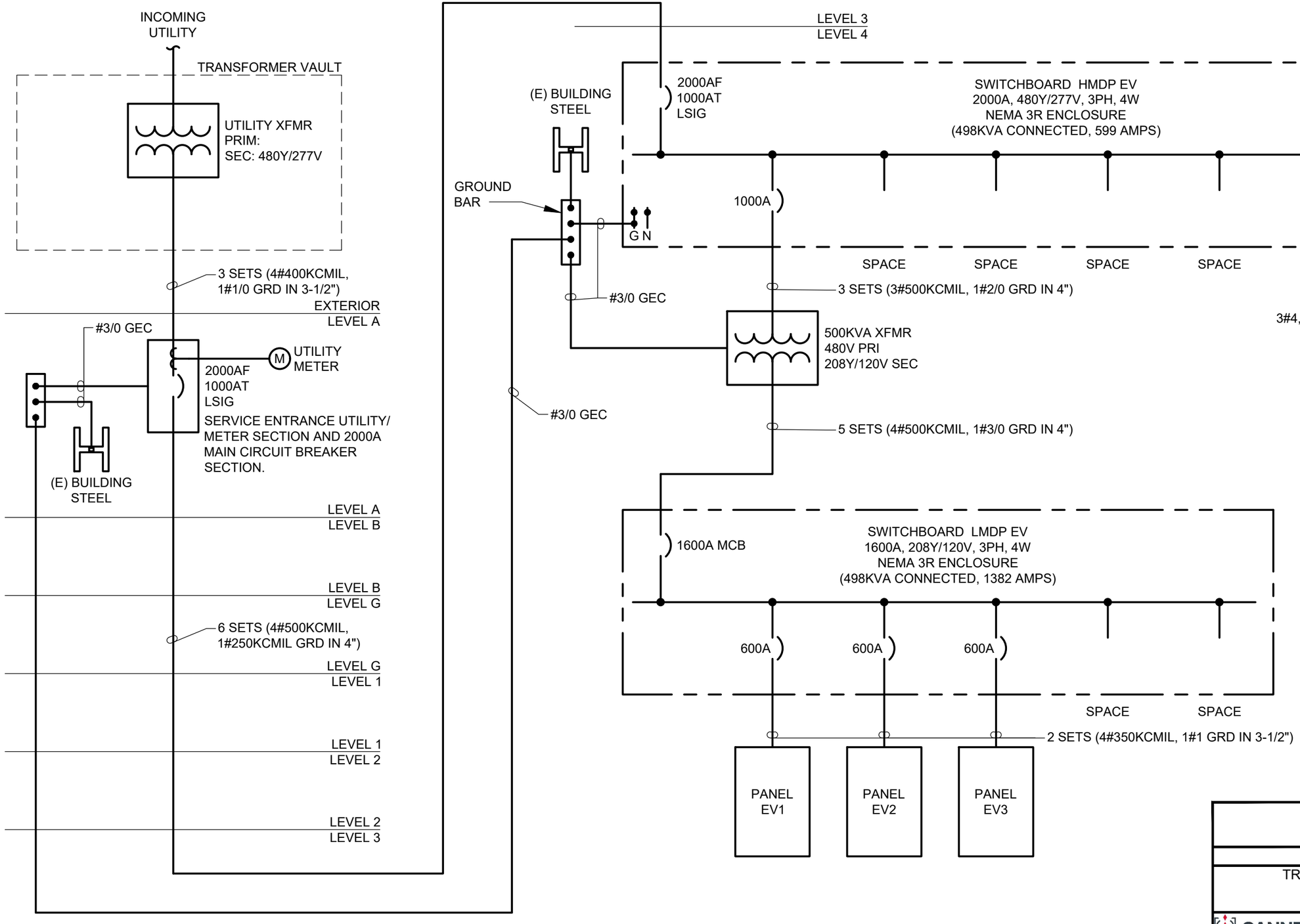
In accordance with the NJ Electric Vehicle Law, NJ is committed to electrifying 25% of the non-emergency fleet vehicles owned by the state by 2025. The non-emergency fleet shall be 100% electric by year end 2035. To meet this objective; infrastructure improvements including additional electrical distribution equipment and electrical vehicle charging stations are required.

This project will help meet the plan goals by providing charging for 60 vehicles Level 2 chargers. The chargers will be made available for personal vehicle charging. To meet the power demands from the charging units, Gannett recommends a new utility service be provided to the site. This will require direct coordination with PSE&G.

EXHIBIT 'C'

Appendix A
Drawings

EXHIBIT 'C'



PROPOSED EV CHARGING

ONE-LINE DIAGRAM

TRENTON OFFICE COMPLEX GARAGE
225 EAST STATE STREET
TRENTON, NJ 08618

GANNETT FLEMING
Excellence Delivered As Promised
MARLTON, NEW JERSEY

DATE: DEC 2023

SCALE: AS NOTED

SK-1

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EXHIBIT 'C'

(TYPICAL) PANEL DESIGNATION		
EV_	TYPE: NQ NUMBER OF POLES: 42 MAIN BUS RATING: 600A MAIN RATING: 600A MCB	LOCATION: EXTERIOR VOLTAGE: 208Y/120V, 3-PHASE, 4-WIRE PANEL MOUNTING: SURFACE PANEL ENCLOSURE (NEMA): 3R SHORT CIRCUIT: 22kA

CIR. No.	CIR. BKR.	DESCRIPTION	WIRE	GROUND	CONDUIT	LOAD - KVA ΦA	ΦB	ΦC	LOAD - KVA ΦA	ΦB	ΦC	WIRE	GROUND	CONDUIT	DESCRIPTION	CIR. BKR.	CIR. No.
1	50/2	EV STATION 1A (LEVEL 2)	2#6	1#10	1"	4.15			4.15			2#6	1#10	1"	EV STATION 1B (LEVEL 2)	50/2	2
3							4.15			4.15							4
5	50/2	EV STATION 2A (LEVEL 2)	2#6	1#10	1"			4.15			4.15	2#6	1#10	1"	EV STATION 2B (LEVEL 2)	50/2	6
7						4.15			4.15								8
9	50/2	EV STATION 3A (LEVEL 2)	2#6	1#10	1"		4.15			4.15		2#6	1#10	1"	EV STATION 3B (LEVEL 2)	50/2	10
11								4.15			4.15						12
13	50/2	EV STATION 4A (LEVEL 2)	2#6	1#10	1"	4.15			4.15			2#6	1#10	1"	EV STATION 4B (LEVEL 2)	50/2	14
15							4.15			4.15							16
17	50/2	EV STATION 5A (LEVEL 2)	2#6	1#10	1"			4.15			4.15	2#6	1#10	1"	EV STATION 5B (LEVEL 2)	50/2	18
19						4.15			4.15								20
21	50/2	EV STATION 6A (LEVEL 2)	2#6	1#10	1"		4.15			4.15		2#6	1#10	1"	EV STATION 6B (LEVEL 2)	50/2	22
23								4.15			4.15						24
25	50/2	EV STATION 7A (LEVEL 2)	2#6	1#10	1"	4.15			4.15			2#6	1#10	1"	EV STATION 7B (LEVEL 2)	50/2	26
27							4.15			4.15							28
29	50/2	EV STATION 8A (LEVEL 2)	2#6	1#10	1"			4.15			4.15	2#6	1#10	1"	EV STATION 8B (LEVEL 2)	50/2	30
31						4.15			4.15								32
33	50/2	EV STATION 9A (LEVEL 2)	2#6	1#10	1"		4.15			4.15		2#6	1#10	1"	EV STATION 8B (LEVEL 2)	50/2	34
35								4.15			4.15						36
37	50/2	EV STATION 10A (LEVEL 2)	2#6	1#10	1"	4.15			4.15			2#6	1#10	1"	EV STATION 8B (LEVEL 2)	50/2	38
39							4.15			4.15							40
41																	42
					TOTAL	29.05	29.05	24.90	29.05	29.05	24.90	*TOTAL*					

PANEL CONNECTED LOAD

ΦA	58.10	
ΦB	58.10	
ΦC	49.80	
	166.00	*TOTAL*

TOTAL CONNECTED AMPS 461

X SOLID NEUTRAL BUS
X EQUIPMENT GROUND BUS
___ EXTERNAL 120KA SPD

PROPOSED EV CHARGING

TYPICAL PANELBOARD SCHEDULE

TRENTON OFFICE COMPLEX GARAGE
225 EAST STATE STREET
TRENTON, NJ 08618

GANNETT FLEMING
Excellence Delivered As Promised
MARLTON, NEW JERSEY

DATE: DEC 2023
SCALE: AS NOTED
SK-2

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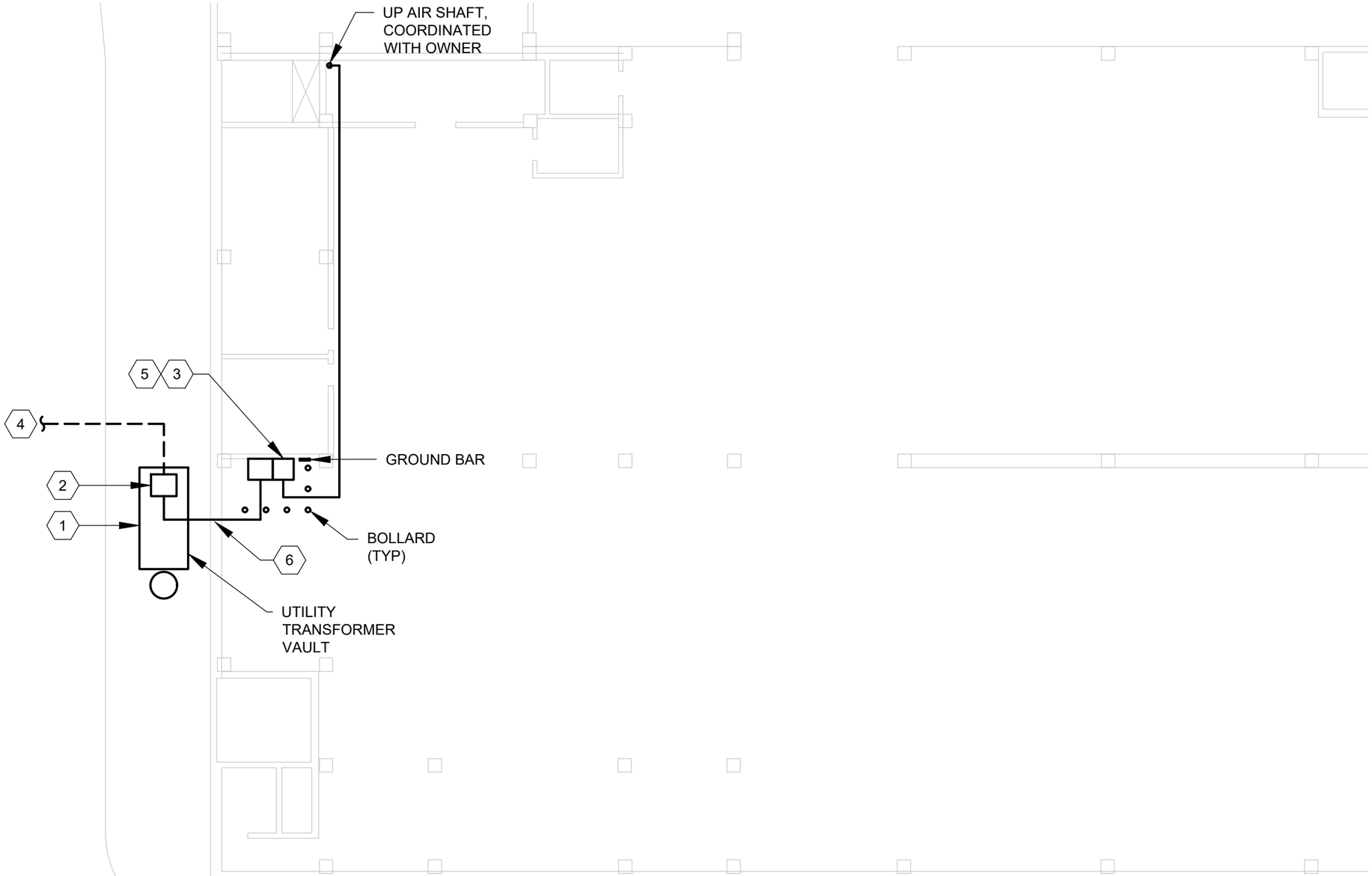
EXHIBIT 'C'



DRAWINGS NOTES:

1. UTILITY TRANSFORMER VAULT IN SIDEWALK WITH MANHOLE ACCESS, FIELD VERIFY EXACT LOCATION. PROVIDE PER PSE&G REQUIREMENTS. UTILITY VAULT SHALL BE OVERSIZED FOR FUTURE EXPANSIONS, COORDINATE WITH PSE&G.
2. UTILITY TRANSFORMER, PROVIDE MOUNTING AND SUPPORT PER PSE&G REQUIREMENTS.
3. INCOMING UTILITY AND METER SECTION AND SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER.
4. TRENCH FOR INCOMING MEDIUM VOLTAGE UTILITY, COORDINATE WITH PSE&G. PROVIDE RACEWAY PER PSE&G REQUIREMENTS.
5. PROVIDE EQUIPMENT PAD, COORDINATE SIZE WITH PROVIDED EQUIPMENT. PAD SHALL BE 4" HIGH WITH 4" REVEAL AROUND EQUIPMENT.
6. PROVIDE (8) SPARE 4" RACEWAY WITH PULL CORD BETWEEN TRANSFORMER VAULT AND LEVEL A. CAP RACEWAY ON BOTH ENDS.

GENERAL NOTES:

1. EXISTING CONDITIONS AND BACKGROUNDS ARE BASED OFF EXISTING DRAWINGS DATED 7/16/1990 AND LIMITED FIELD INVESTIGATION.

1 TRENTON GARAGE - LEVEL A - ELECTRICAL

SCALE: 1/16" = 1'-0"

0' 16' 32'

PROPOSED EV CHARGING

GARAGE - LEVEL A - ELECTRICAL

TRENTON OFFICE COMPLEX GARAGE
225 EAST STATE STREET
TRENTON, NJ 08618

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Excellence Delivered As Promised
MARLTON, NEW JERSEY

DATE: DEC 2023

SCALE: AS NOTED

SK-3

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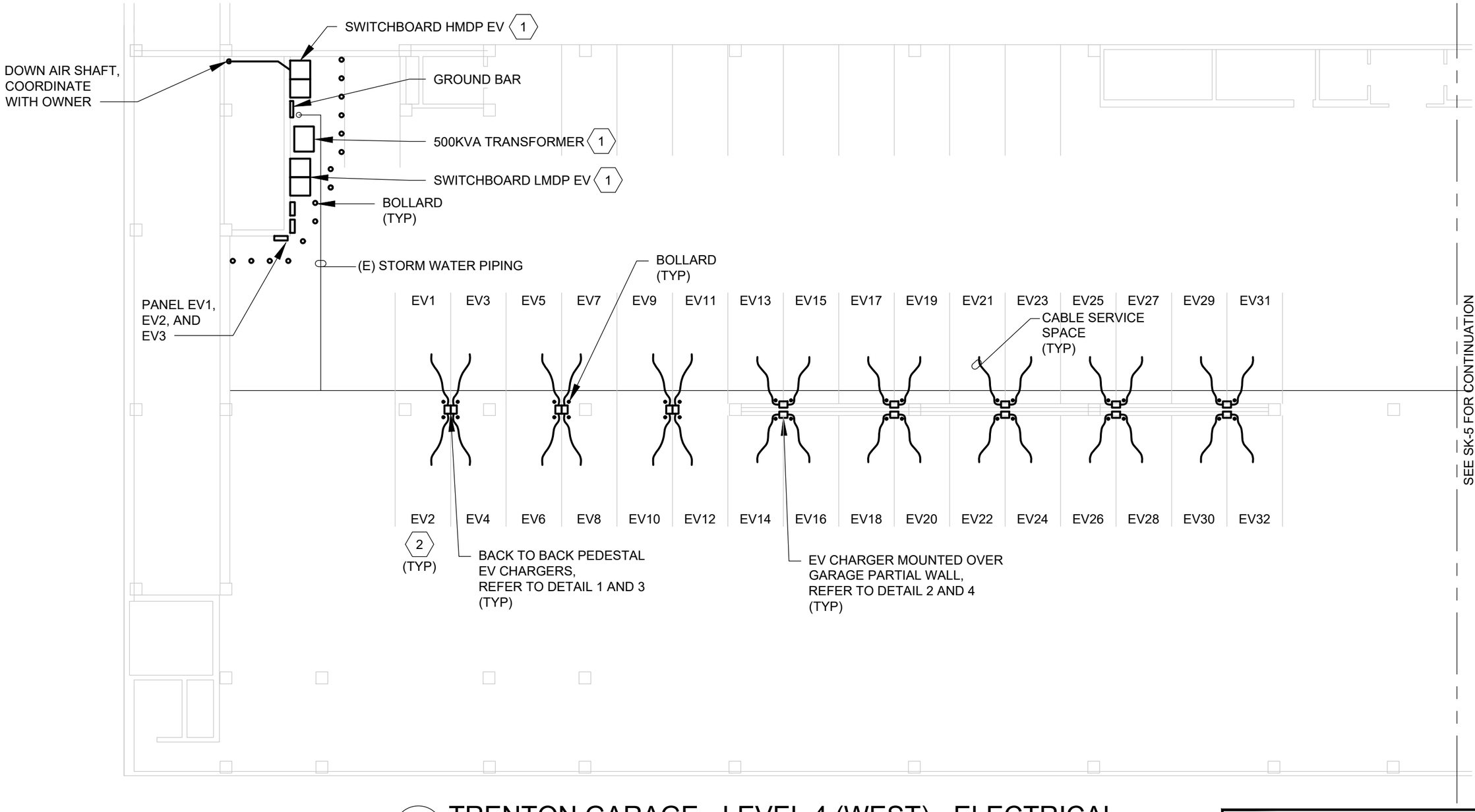

DRAWINGS NOTES:

1. PROVIDE EQUIPMENT PAD, COORDINATE SIZE WITH PROVIDED EQUIPMENT. PAD SHALL BE 4" HIGH WITH 4" REVEAL AROUND EQUIPMENT.
2. PROVIDE SPACE AND TRAFFIC PAINTING AS REQUIRED. EACH SPACE SHALL BE PROVIDED WITH EV SYMBOLS AND SIGNAGE.

1 TRENTON GARAGE - LEVEL 4 (WEST) - ELECTRICAL

SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. EXISTING CONDITIONS AND BACKGROUNDS ARE BASED OFF EXISTING DRAWINGS DATED 7/16/1990 AND LIMITED FIELD INVESTIGATION.

0' 16' 32'

PROPOSED EV CHARGING

GARAGE - LEVEL 4 (WEST) - ELECTRICAL

TRENTON OFFICE COMPLEX GARAGE
225 EAST STATE STREET
TRENTON, NJ 08618

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MARLTON, NEW JERSEY

DATE: DEC 2023

SCALE: AS NOTED

SK-4

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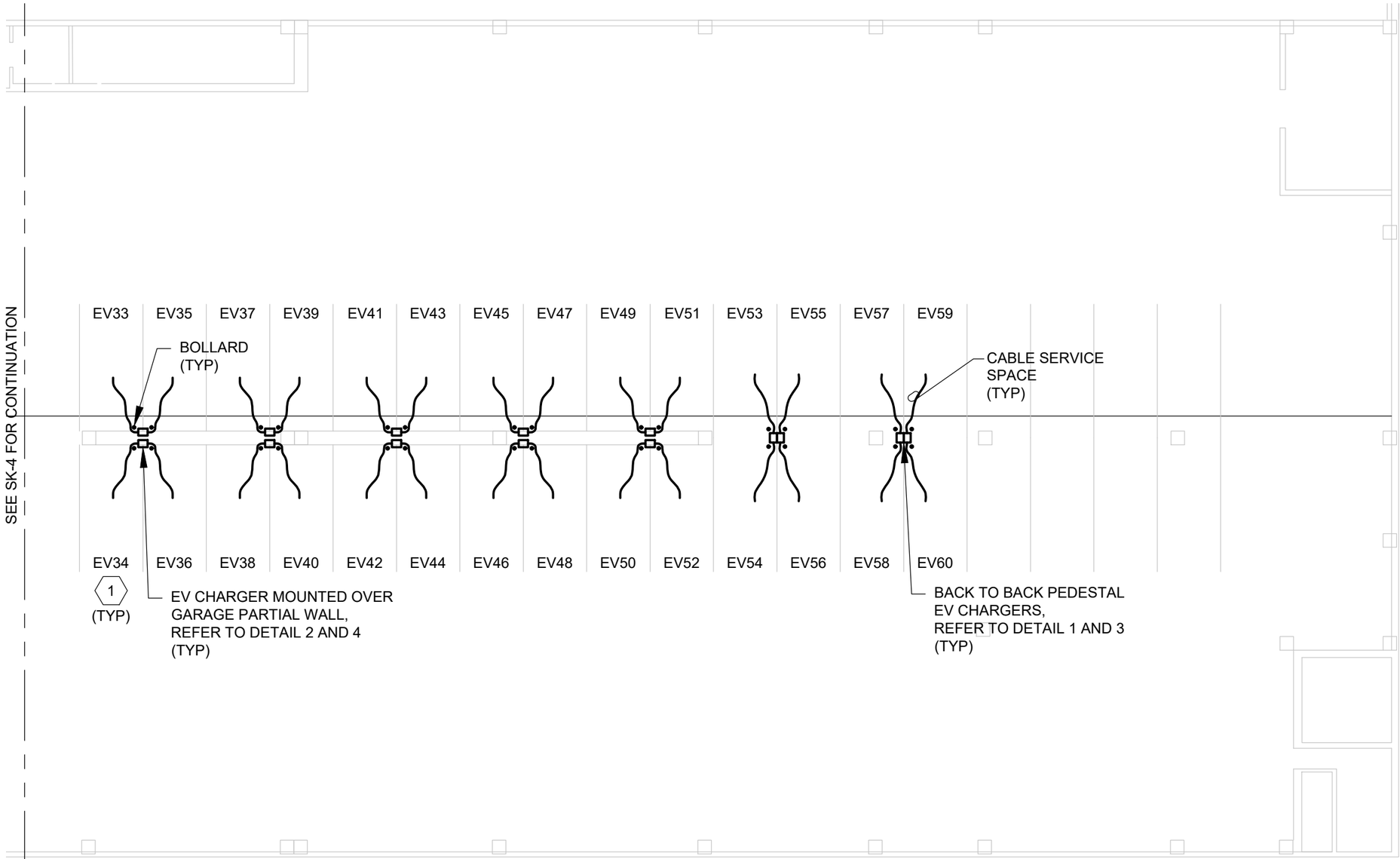

1 TRENTON GARAGE - LEVEL 4 (EAST) - ELECTRICAL

SCALE: 1/16" = 1'-0"

DRAWINGS NOTES:

1. PROVIDE SPACE AND TRAFFIC PAINTING AS REQUIRED. EACH SPACE SHALL BE PROVIDED WITH EV SYMBOLS AND SIGNAGE.

GENERAL NOTES:

1. EXISTING CONDITIONS AND BACKGROUNDS ARE BASED OFF EXISTING DRAWINGS DATED 7/16/1990 AND LIMITED FIELD INVESTIGATION.

0' 16' 32'

PROPOSED EV CHARGING

GARAGE - LEVEL 4 (EAST) - ELECTRICAL

TRENTON OFFICE COMPLEX GARAGE
225 EAST STATE STREET
TRENTON, NJ 08618

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MARLTON, NEW JERSEY

DATE: DEC 2023

SCALE: AS NOTED

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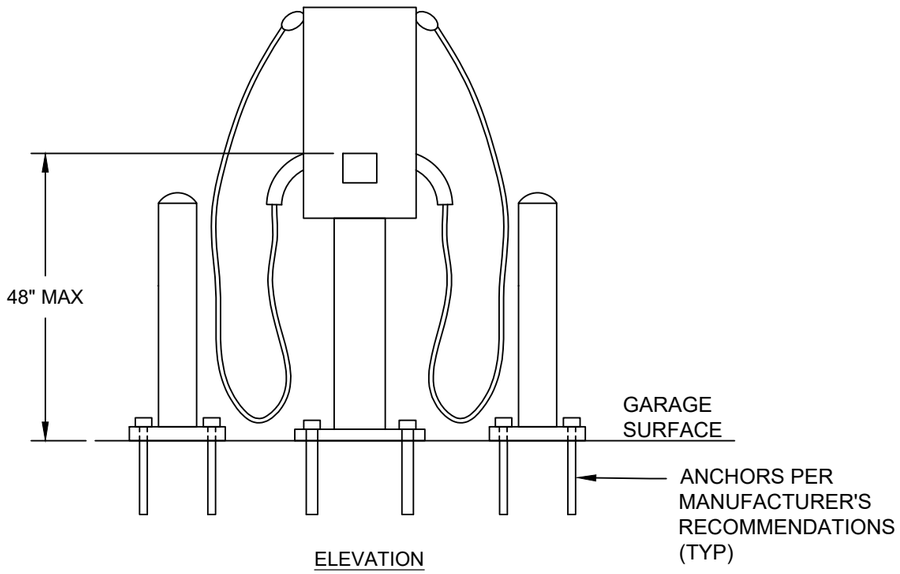
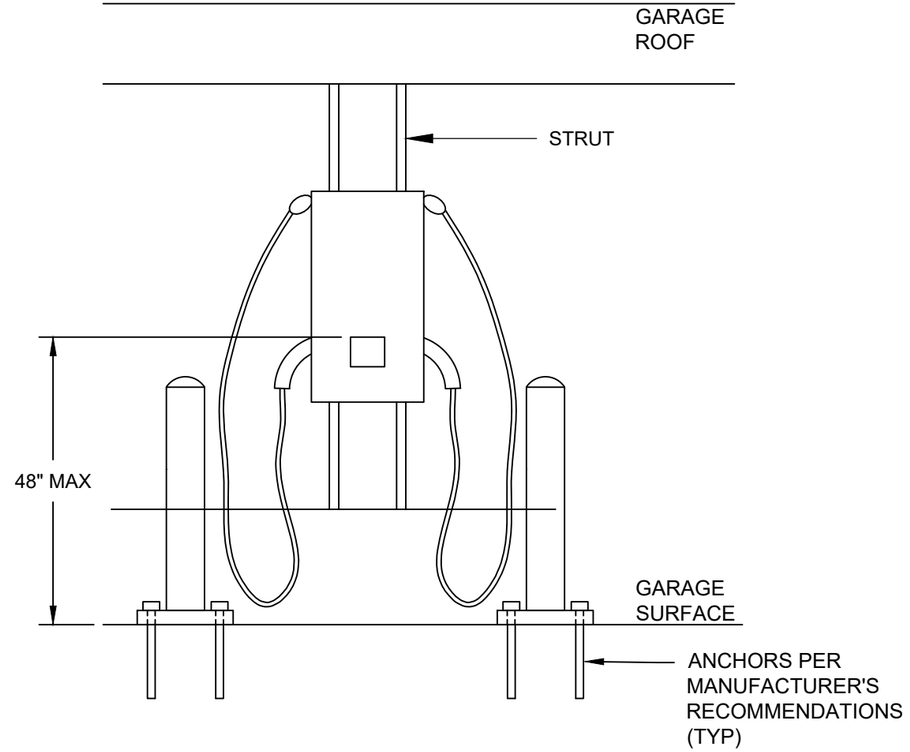


ELEVATION

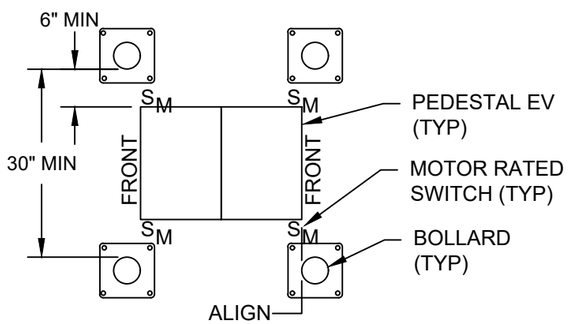
TYPICAL PEDASTAL EV CHARGER BOLLARD ELEVATION LAYOUT

1 NOT TO SCALE



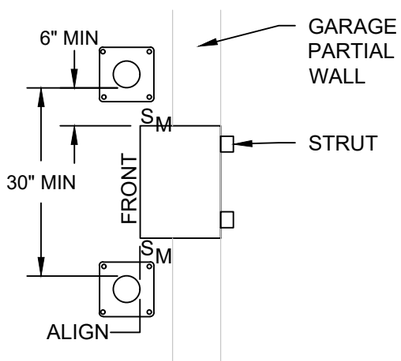
TYPICAL GARAGE PARTIAL WALL EV CHARGER BOLLARD ELEVATION LAYOUT

2 NOT TO SCALE



TYPICAL PEDASTAL EV CHARGER BOLLARD LAYOUT

3 NOT TO SCALE



TYPICAL GARAGE PARTIAL WALL EV CHARGER BOLLARD LAYOUT

4 NOT TO SCALE

PROPOSED EV CHARGING

DETAILS

TRENTON OFFICE COMPLEX GARAGE
225 EAST STATE STREET
TRENTON, NJ 08618

GANNETT FLEMING
Excellence Delivered As Promised
MARLTON, NEW JERSEY

DATE: DEC 2023

SCALE: AS NOTED

SK-6

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EXHIBIT 'C'

Appendix B
EV Charging Station Cut Sheets

EXHIBIT 'C'

CT4000 Level 2 Commercial Charging Station

Specifications and Ordering Information

CT4021

EXHIBIT 'C'

Ordering Information

The order codes below represent specific product configurations. Other product options are available. Please contact ChargePoint Sales for information and order codes.

Specify model number followed by the applicable code(s).
The order code sequence is: **Model-Options**. **Software**, **Services** and **Misc** are ordered as separate line items.

Hardware

Description		Order Code
Model	1830 mm (6 ft) Single Port Bollard Mount	CT4011-GW1
	1830 mm (6 ft) Dual Port Bollard Mount	CT4021-GW1
	1830 mm (6 ft) Single Port Wall Mount	CT4013-GW1
	1830 mm (6 ft) Dual Port Wall Mount	CT4023-GW1
	2440 mm (8 ft) Dual Port Bollard Mount	CT4025-GW1
	2440 mm (8 ft) Dual Port Wall Mount	CT4027-GW1
Included	Integral Modem – North America	-GW1
Misc	Power Management Kit Bollard Concrete Mounting Kit	CT4000-PMGMT
	Bollard Concrete Mounting Kit	CT4001-CCM

*Note: ALL CT4000 stations include Integral Modem -GW1.

Software & Services

Description	Order Code
ChargePoint Commercial Service Plan	CPCLD-COMMERCIAL-*n**
ChargePoint Enterprise Plan	CPCLD-ENTERPRISE-*n**
ChargePoint Assure	CT4000-ASSURE*n**
Station Activation and Configuration	CPSUPPORT-ACTIVE
ChargePoint Station Installation and Validation	CT4000-INSTALLVALID

Note: All CT4000 stations require a network service plan per port.

*Substitute *n* for desired years (1, 2, 3, 4 or 5 years)

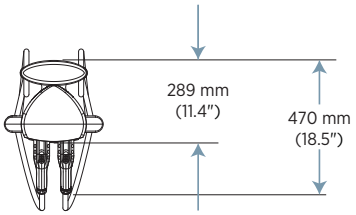
EXHIBIT 'C'

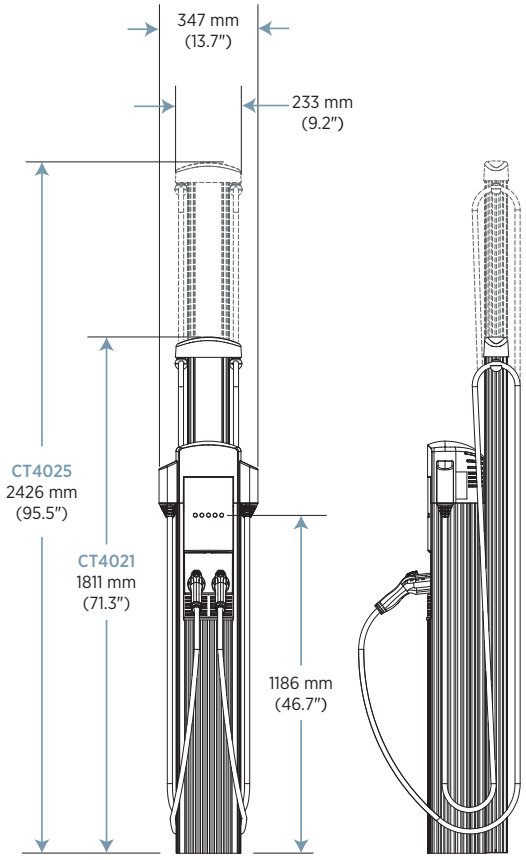
Order Code Examples

If ordering this…	…the order code is
1830 mm (6 ft) Dual Port Bollard Networked Station with Concrete Mounting Kit	CT4021-GW1 CT4001-CCM
ChargePoint Commercial Service Plan, 3 Year Subscription	CPCLD-COMMERCIAL-3
ChargePoint Station Installation and Validation	CT4000-INSTALLVALID
3 Years of Assure Coverage	CT4000-ASSURE3
1830 mm (6 ft) Single Port Wall Mount Networked Station	CT4013-GW1
ChargePoint Commercial Service Plan, 5 Year Subscription	CPCLD-COMMERCIAL-5
5 Years of Assure Coverage	CT4000-ASSURE5
Station Activation and Configuration	CPSUPPORT-ACTIVE

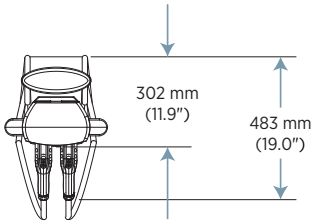
Architectural Drawings (Dimensions)

CT4021 1830 mm (6')
CT4025 2440 mm (8')
Bollard





CT4023 1830 mm (6')
CT4027 2440 mm (8')
Wall Mount



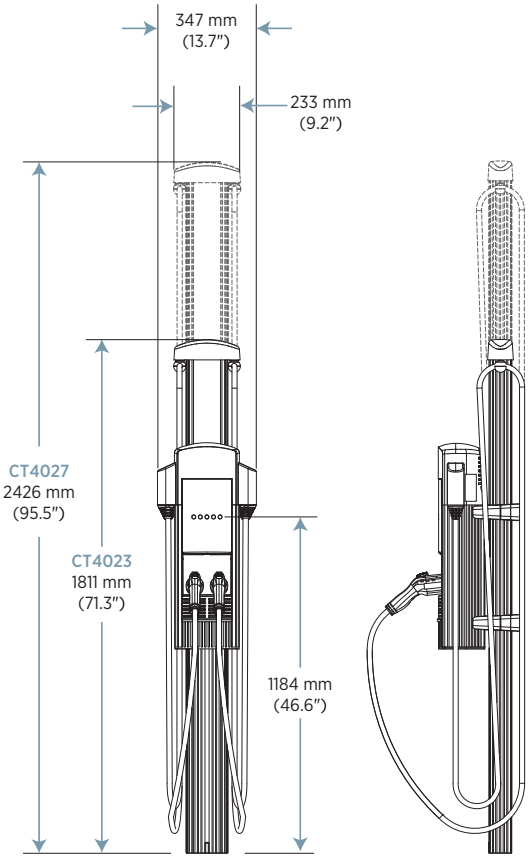


EXHIBIT 'C'

General Specifications

Electrical Input

Electrical Input	Single Port (AC Voltage 208 / 240V AC)			Dual Port (AC Voltage 208 / 240V AC)		
	Input Current	Input Power Connection	Required Service Panel Breaker	Input Current	Input Power Connection	Required Service Panel Breaker
Standard	30A	One 40A branch circuit	40A dual pole (non-GFCI type)	30A x 2	Two independent 40A branch circuits	40A dual pole (non-GFCI type) x 2
Standard Power Share	n/a	n/a	n/a	32A	One 40A branch circuit	40A dual pole (non-GFCI type)
Power Select 24A	24A	One 30A branch circuit	30A dual pole (non-GFCI type)	24A x 2	Two independent 30A branch circuits	30A dual pole (non-GFCI type) x 2
Power Select 24A Power Share	n/a	n/a	n/a	24A	One 30A branch circuit	30A dual pole (non-GFCI type)
Power Select 16A	16A	One 20A branch circuit	20A dual pole (non-GFCI type)	16A x 2	Two independent 20A branch circuits	20A dual pole (non-GFCI type)
Power Select 16A Power Share	n/a	n/a	n/a	16A	One 20A branch circuit	20A dual pole (non-GFCI type)
Service Panel GFCI	Do not provide external GFCI as it may conflict with internal GFCI (CCID)					
Wiring – Standard	3-wire (L1, L2, Earth)			5-wire (L1, L1, L2, L2, Earth)		
Wiring – Power Share	n/a			3-wire (L1, L2, Earth)		
Station Power	8 W typical (standby), 15 W maximum (operation)					

Electrical Output

Electrical Output	Single Port (AC Voltage 208 / 240V AC)	Dual Port (AC Voltage 208 / 240V AC)
Standard	7.2 kW (240V AC @ 30A)	7.2 kW (240V AC @ 30A) x 2
Standard Power Share	n/a	7.2 kW (240V AC @ 30A) x 1 or 3.8 kW (240V AC @ 16A) x 2

EXHIBIT 'C'

Power Select 24A	5.8 kW (240V AC @ 24A)	5.8 kW (240V AC @ 24A) x 2
Power Select 24A Power Share	n/a	5.8 kW (240V AC @ 24A) x 1 Or 2.9 kW (240V AC @ 12A) x 2
Power Select 16A	3.8 kW (240V AC @ 16A)	3.8 kW (240V AC @ 16A) x 2
Power Select 16A Power Share	n/a	3.8 kW (240V AC @ 16A) x 1 Or 1.9 kW (240V AC @ 8A) x 2

Functional Interfaces

	Single Port (AC Voltage 208 / 240V AC)	Dual Port (AC Voltage 208 / 240V AC)
Connector Types	SAE J1772™	SAE J1772™ x 2
Cable Length — 1.8 m (6 ft) Cable Management	5.5 m (18 ft)	5.5 m (18 ft) x 2
Cable Length — 2.4 m (8 ft) Cable Management	n/a	7 m (23 ft)
Overhead Cable Management System	Yes	
LCD Display	145 mm (5.7 in) full color, 640 x 480, 30 fps full motion video, active matrix, UV protected	
Card Reader	ISO 15693, ISO 14443, NFC	
Locking Holster	Yes	Yes x 2

Safety and Connectivity Features

Ground Fault Detection	20 mA CCID with auto retry
Open Safety Ground Detection	Continuously monitors presence of safety (green wire) ground connection
Plug-Out Detection	Power terminated per SAE J1772™ specifications
Power Measurement Accuracy	+/- 2% from 2% to full scale (30A)
Power Report/Store Interval	15 minute, aligned to hour. Vehicle to grid connected and responsive to TOU signals
Local Area Network	2.4 GHz WiFi (802.11 b/g/n)
Wide Area Network	LTE Category 4

EXHIBIT 'C'

Safety and Operational Ratings

Station Enclosure Rating	Type 3R per UL 50E
Safety and Compliance	UL and cUL listed; complies with UL 2594, UL 2231-1, UL 2231-2, and NEC Article 625
Station Surge Protection	6 kV @ 3,000A. In geographic areas subject to frequent thunder storms, supplemental surge protection at the service panel is recommended.
EMC Compliance	FCC Part 15 Class A
Operating Temperature	-40°C to 50°C (-40°F to 122°F)
Non-Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Terminal Block Temperature Rating	105°C (221°F)
Operating Humidity	Up to 85% @ 50°C (122°F) non-condensing
Non-Operating Humidity	Up to 95% @ 50°C (122°F) non-condensing
Network	All stations include integral LTE modem and will be automatically configured to operate as gateway or non-gateway as needed

ChargePoint, Inc. reserves the right to alter product offerings and specifications at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document

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Listed by Underwriters Laboratories Inc.

EXHIBIT 'C'

Appendix C
DPMC-38 and Cost Estimate

EXHIBIT 'C'

PROJECT COST ANALYSIS

DPMC NUMBER: J0390-00/TO 5

Date: 12/22/2023

Project Phase: **Schematic**

Project Name: **EV Charging Station Installation**

Location: **Trenton Office Complex Garage**

Cost Phase "C" - Construction			
1 General Construction		500,000	
2 Structural Steel		0	
3 Plumbing		0	
4 HVAC		0	
5 Electrical		1,523,069	
6.a Other Trades (specify):		0	
6.b Other Trades (specify):		0	
7 TOTAL CONSTRUCTION COST ESTIMATE (CCE) (Lines 1 thru 6)			**2,023,069**
Cost Phase "D" - Design			
8 Consultant Design Fee		161,845	
9 Consultant Construction Administration Fee		101,153	
10 Asbestos Remediation Design Fee		0	
11 Asbestos Monitoring Fees		0	
12 Survey Services		0	
13 Testing Services		0	
14 Roofing Inspection		0	
15 Other (specify):	Permit Fee Allowance	2,800	
16 TOTAL DESIGN SERVICES (Lines 8 thru 15)			**265,798**
Cost Phase "K" - Affirmative Action			
17 Affirmative Action	(1/2 % of Line 7)		**10,115**
Cost Phase "M " - Management Fees			
18 DPMC Management Fee	(8% of Line 7)		**161,846**
Cost Phase "N" - Construction Management			
19 Construction Management Services (CM/CPM)			**0**
Cost Phase "O" - Contingency			
20 Construction	(10% of Line 7)	202,307	
21 Design	(10% of Line 16)	26,580	
22 TOTAL PROJECT CONTINGENCY (Lines 20 & 21)			**228,887**
Cost Phase "P" - Permits			
23 U.C.C. (DCA or DPMC) Plan Review Fee		15,173	
24 U.C.C. Permit/Field Inspection/C.O. Fee		15,173	
25 Soil Conservation		0	
26 Other (specify):		0	
27 TOTAL PERMIT FEES (Lines 23 thru 26)			**30,346**
Cost Phase "R" - Arts Inclusion			
28 Arts Inclusion Allowance			**0**
Cost Phase "B" - Other Costs			
29 Other (specify):		0	
30 Other (specify):		0	
31 TOTAL OTHER COSTS (Lines 29 & 30)			**0**
32 CURRENT WORKING ESTIMATE (CWE) (Lines 7+16+17+18+19+22+27+28+31)			**$2,720,061**

DPMC-38 Revised 6/4/18

EXHIBIT 'C'

Contract No.:	J0390-00/TO 5	TRENTON OFFICE COMPLEX GARAGE	Discipline:	Electrical	Sheet:	1	
Charge Code:	68597	225 EAST STATE STREET	Prepared by:	RLP	Date:	12/22/2023	
Project Mgr:	Teresa Peterson	TRENTON, NJ 08618	Checked by:	GDW	Date:	12/22/2023	
Project Title:	EV CHARGING STATION INSTALLATION						
	Consultant Name:	Gannett Fleming Inc.		Consultant Contact:	856-396-2226		

Item #	Description	Quantity	Unit	Unit Price $		Total $		Total $	Remarks
				Material	Labor	Material	Labor		
1	Mobilization	1	LS		15000.00	$0.00	$15,000.00	$15,000.00	
2	New Utility	1	LS	$100,000.00	$0.00	$100,000.00	$0.00	$100,000.00	
3	Transformer Vault	1	EA	$75,000.00	$50,000.00	$75,000.00	$50,000.00	$125,000.00	
4	2000A Switchboard	1	EA	$100,000.00	$5,000.00	$100,000.00	$5,000.00	$105,000.00	
5	1600A Switchboard	1	EA	$100,000.00	$5,000.00	$100,000.00	$5,000.00	$105,000.00	
6	500kVA Transformer	1	EA	$32,000.00	$5,000.00	$32,000.00	$5,000.00	$37,000.00	
7	Utility Meter	1	LS	$500.00	$500.00	$500.00	$500.00	$1,000.00	
8	Panelboard 600A, 208Y/120V, 3PH, 4W, 600A MCB	3	EA	$12,000.00	$3,000.00	$36,000.00	$9,000.00	$45,000.00	
9	Surge Protection Device	1	EA	$3,550.00	$132.00	$3,550.00	$132.00	$3,682.00	
10	2000A Service Entrance Enclosed Circuit Breaker	1	EA	$55,500.00	$3,500.00	$55,500.00	$3,500.00	$59,000.00	
11	Conductors	1	LS	$120,000.00	$60,000.00	$120,000.00	$60,000.00	$180,000.00	
12	Raceway	1	LS	$60,000.00	$40,000.00	$60,000.00	$40,000.00	$100,000.00	
13	Trenching	1	LS	$5,000.00	$15,000.00	$5,000.00	$15,000.00	$20,000.00	
14	Surface Repair	1	LS	$20,000.00	$10,000.00	$20,000.00	$10,000.00	$30,000.00	
15	Concrete Pads	1	LS	$10,000.00	$5,000.00	$10,000.00	$5,000.00	$15,000.00	
16	Supports and Misc	1	LS	$6,000.00	$2,000.00	$6,000.00	$2,000.00	$8,000.00	
17	Grounding	1	LS	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$4,000.00	
18	EV Charging Station: Level 2, Dual Port	30	EA	$8,000.00	$1,000.00	$240,000.00	$30,000.00	$270,000.00	
19	EV Charging Station Software	30	EA	$250.00	$250.00	$7,500.00	$7,500.00	$15,000.00	
20	Motor Rated Swtich: 40A, 240V, 2P, NEMA 3R ENCLOSURE	60	EA.	$297.00	$241.00	$17,820.00	$14,460.00	$32,280.00	
21	Bollards	71	EA	$800.00	$750.00	$56,800.00	$53,250.00	$110,050.00	
22	Traffic Striping, Space Repair, EV Painting	1	LS	$1,000.00	$2,000.00	$1,000.00	$2,000.00	$3,000.00	
	SUB TOTALS					**$1,048,670.00**	**$334,342.00**		
	TOTAL BARE COST							**1,383,012.00**	
	OVERHEAD	**15%**						**$207,451.80**	
	SUBTOTAL							**$1,590,463.80**	
	PROFIT	**6%**						**$95,427.83**	
	SUBTOTAL							**$1,685,891.63**	
	CONTINGENCY	**20%**						**$337,178.33**	
	TOTAL TASK							**$2,023,069.95**	

PA Form Rev. 9/4/03

EXHIBIT 'C'

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EXHIBIT 'C'

CHAPTER 91

AN ACT requiring State agencies that award contracts for the purchase of items that require a power source to consider items powered by fuel cells and supplementing Title 52 of the Revised Statutes.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

C.52:34-6.9 State agency contracts, consideration of items powered by fuel cells.

1. A State agency that seeks to purchase any item requiring the use of a power source, including but not limited to motor vehicles, material and cargo-handling equipment such as forklifts, harbor craft, generators, power systems, portable floodlights, microgrids, and telecommunications equipment, shall include in the request for proposals provisions that allow for the consideration of items that are powered by fuel cells.

As used in this section:

“fuel cell” means a device or system that is designed to provide heating or cooling, or electrical or mechanical power, by converting the chemical energy of a fuel and an oxidant into electricity through a non-combustive electrochemical process; and

"State agency" means any of the principal departments in the Executive Branch of the State Government, and any division, board, bureau, office, commission or other instrumentality within or created by such department and any independent State authority, commission, instrumentality or agency which is authorized by law to award contracts.

2. This act shall take effect immediately.

Approved May 12, 2021.

EXHIBIT 'D'