

December 9, 2019

Mary Nichols California Air Resources Board Clerk's Office 1001 I Street Sacramento, CA 95814

Dear Chairperson Nichols:

SUBJECT:

COMMENTS ON THE PROPOSED REGULATION ORDER, "AIRBORNE TOXIC CONTROL MEASURE FOR AUXILIARY DIESEL ENGINES OPERATED ON OCEAN-GOING VESSELS AT-BERTH IN A CALIFORNIA PORT"

The Port of Long Beach (Port) appreciates this opportunity to provide additional comments on the California Air Resources Board (CARB) proposed regulation order, "Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port" released in the Initial Statement of Reasons (ISOR). Concluding the Board Hearing on December 6, 2019 in West Oakland, the Port would like to make additional comments on the ISOR and CARB staff's presentation.

The proposed revised framework and timeline presented at the Board Hearing aligned well with the direction CARB staff has communicated in recent meetings. However, the emissions benefits and state of technology described in the meeting were overstated, and the presentation minimized the technology challenges the industry faces to comply with the proposed rule.

The Port would like to clarify a few items that were discussed during the staff presentation:

The presentation implied that roll-on, roll-off (RoRo) vessels could utilize the
current emission capture and control technology. This is not true. The technology
for RoRo vessels will need to be engineered to accommodate the greater reach
requirements of the RoRo vessels and different stack configurations. A technology
capable of scrubbing RoRo emissions has never been demonstrated to date.

- The T121 Marathon terminal does have shore power capability that is being utilized by one tanker vessel. The single vessel capable of shore power is unique, using diesel-electric engines. The rest of the current tanker fleet visiting the Ports are not capable of shore power retrofits, as their boilers cannot be electrified. Thus, it is inappropriate to point to this example and extrapolate the possibility to the rest of the tanker fleets in California.
- The Port disagrees the staff work to date constitutes a robust feasibility assessment. As stated in the joint Port of Los Angeles and Port of Long Beach comment letter dated July 2, 2019, the berth analysis developed by CARB is not a technical document. It is an aggregation of terminal operator and harbor pilot opinions, and Google Maps research. The ISOR states that it is also founded upon port conversations; however, the analysis does not reflect Port of Long Beach input. The berth analysis should have been founded upon an engineering assessment of the infrastructure required at the terminals. Further, the costs used by CARB in the ISOR are based on conversations with technology developers, rather than real quotes. The Port provided CARB invoices from previous shore power construction projects and cost estimates for future shore power work required by the rule in the joint Port of Los Angeles and Port of Long Beach comment letter dated May 20, 2019. CARB staff overlooked the engineering assessment, which was based upon real data. In addition, the CARB OGV Technology Assessment referenced in the Board Hearing looked at the technologies available to date - and did not include a formal engineering assessment to address the readiness to control emissions from other vessel types. Previous letters from the ports, provided in the attachments, described the information that should be included in a feasibility assessment.
- Technology advancement for the RoRo and tanker technologies will be critical, and the industry needs more than the proposed \$10 million for a tanker demonstration to foster market growth and acceptance for alternative emission capture and control technologies. It is clear from the hearing and from discussions with industry that there are considerable engineering and safety hurdles, and across California, the operational constraints are different from port to port. As we have requested in our previous comment letter, we believe \$200 million will be needed statewide to support technology advancement and deployment, which is on the scale of the Prop 1B funds allocated to support the 2007 At-Berth Regulation. The Ports have significant experience successfully managing grant dollars and pushing technology innovation with the support of state grant funds.

The Port would like to provide the following comments to improve the integrity of the ISOR:

- The ISOR utilizes a report by the Mercator International in 2016, which estimates activity at the Port of Los Angeles and Port of Long Beach will grow by 57% between 2021 and 2032 as measured in 20-foot equivalent units (TEU). CARB staff used this to estimate emissions without the implementation of the new At-Berth Regulation. The results are a significant overestimation, as the TEU growth metric does not account for the fact that while cargo increases, the ships are getting larger and fewer ships are calling the Port. Since 2005, container throughput is up 21% at the Port of Long Beach, while containership calls are down 25% according to the 2018 Emissions Inventory. TEUs per call are up 60%.
- The ISOR does not adequately capture the emissions benefits associated with RoRo vessels. The Port in partnership with the Port of Los Angeles and the Pacific Merchant Shipping Association (PMSA) asked a third party consultant to develop a cost-effectiveness analysis for RoRo ships in the San Pedro Bay Ports (SPBP) which must comply with the proposed regulation. Given CARB's assumption that the RoRo industry will opt for barge-based emission capture and control technology, the analysis considers the emissions benefits of this technology, and the additional emissions produced from the harbor craft responsible for moving and placing the barge-based system. The anticipated benefits are shown below. The analysis identified that greenhouse gases and sulfur oxides will increase as a result of this regulation. The NOx and DPM benefits are small considering the respective Ports emissions inventories. Overall, auto carrier and RoRo at-berth emissions made up approximately 1% of all OGV emissions in the SPBP's 2018 inventory, or between 2-4.5% of all at-berth emissions. Furthermore, the analysis estimates cost effectiveness to range between \$115k and \$200k for the utilization for four, third party barge-based emission capture and control systems. The analysis is included in the attachments and a summary of the results is available in Table A1 below.

Table A1: RoRo Vessel Reductions from Barge-Based at-Berth Capture and Control, tpy

Port	PM ₁₀	PM _{2.5}	DPM	NO _x	so,	HC	со	CO ₂ e
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	mt/yr
Emission F	Reductions (or increase	s)					
POLB	0.40	0.38	0.38	19.61	-0.66	-0.73	-5.04	-1,615
POLA	0.22	0.20	0.18	8.98	-0.37	-0.43	-3.30	-1,005
Total	0.62	0.58	0.56	28.59	-1.03	-1.15	-8.33	-2,620
Percent Re	duction (or	increase)						
POLB	36%	36%	38%	40%	-28%	-44%	-113%	-49%
POLA	39%	38%	39%	40%	-35%	-52%	-151%	-53%
Total	37%	37%	38%	40%	-30%	-47%	-125%	-50%

• The emissions inventory for the ISOR takes credit for Prop 1B emissions benefits which are already anticipated to occur. 12 berths at the Port of Long Beach

- received Prop 1B funding for shore power installations, and thus, must meet the strict requirement that 90% of vessels visiting these berths control at berth emissions. The ISOR should only take credit for incremental emission reductions above and beyond the requirements in place today.
- The ISOR assumes the regulated terminals at the Port of Long Beach will not require any additional shore power upgrades to meet the proposed regulation. This does not align with information submitted by the Port of Long Beach in our May 20, 2019 comment letter. Port staff provided CARB with an engineering assessment of the infrastructure needed to maximize shore power at the regulated terminals. The Port would need to build an additional 42 shore power outlets and invest an additional \$106 million in infrastructure to ensure nearly every vessel plugs in. This estimate was informed by previous shore power cost estimates and design, and the invoices utilized were provided to CARB staff. It is important to note that even with the additional infrastructure, we recognize that not every vessel would plug in 100% of the time. For example, some vessels which have not been retrofitted for shore power may still arrive. Given the uncertainty of the new framework, which regulates on a per vessel call basis, rather than fleet averaging, it is clear the terminals will need additional shore power outlets to mitigate the risk of noncompliance. It is disappointing that CARB did not utilize the engineering assessment nor the invoices providing true shore power costs. This information was developed based upon the knowledge and expertise of the Ports and our engineering experts. The Ports have more experience with shore power installation than any other entity.
- Some of the costs incorporated into the ISOR were gathered from casual conversations with terminal operators, technology developers, and vessel operators. In many cases, these parties were not briefed that the estimates would be used in the rule development, nor were the estimates verified. Additional vetting is necessary to ensure the cost analysis is robust and defensible.

Fundamentally, the ISOR package should be founded upon real data. It is understood that much of this data does not exist today because the technologies either do not exist, or have not been demonstrated. For this reason, we support the additional evaluation that will be completed for the 2023 feasibility assessment proposed in the regulation.

It is essential that CARB staff communicate the data gaps, the status of the technology, and the true public health benefits to the CARB Board and the public. The ISOR as it stands today overstates the emission and public health benefits of the proposed At-Berth Regulation, and utilizes unvetted data. While the Port of Long Beach supports reducing emissions from vessels at-berth, we do not support the ISOR package due to its limited data sources, and unrealistic assumptions.

We look forward to continued and productive coordination between the staffs of the Port of Long Beach and CARB over the next few months, and we anticipate that the final regulatory package will better reflect the true state of technology, associated costs, and projected emissions benefits.

Please feel free to reach out to Morgan Caswell, Port of Long Beach Manager of Air Quality Practices at (562) 283-7138 or via email at morgan.caswell@polb.com with any specific questions.

Sincerely,

MARIO CORDERO **Executive Director** Port of Long Beach

cc: Bonnie Soriano, CARB (via email Bonnie.Soriano@arb.ca.gov) Angela Csondes, CARB (via email Angela.Csondes@arb.ca.gov) Nicole Light, CARB (via email Nicole.Light@arb.ca.gov)

Attachments:

POLA/POLB At-Berth Regulation Comment Letter February 6, 2019 POLA/POLB At-Berth Regulation Comment Letter May 20, 2019 POLA/POLB At-Berth Regulation Comment Letter July 1, 2019

POLA/POLB At-Berth Regulation Comment Letter December 3, 2019 CARB At-Berth Regulation Cost Effectiveness Analysis for Auto Carriers and RoRo Ships at Port of Long Beach & Port of Los Angeles

SAN PEDRO BAY PORTS

CLEAN AIR ACTION PLAN

February 6, 2019

Bonnie Soriano Chief, Freight Activity Branch California Air Resources Board 1001 "I" Street Sacramento, CA 95814

SUBJECT: PORT OF LOS ANGELES AND PORT OF LONG BEACH COMMENTS ON PROPOSED DRAFT REGULATORY LANGUAGE, "CONTROL MEASURE FOR OCEAN-GOING VESSELS OPERATING AT BERTH AND AT ANCHOR"

Dear Ms. Soriano:

The Port of Long Beach and Port of Los Angeles (Ports) appreciate this opportunity to provide comments on the California Air Resources Board (CARB) proposed draft regulatory language, "Control Measure for Ocean-Going Vessels Operating At Berth and At Anchor."

We value the partnership we have built with CARB and credit this positive relationship in large part to helping us achieve very significant emissions reductions at the Ports and throughout the freight industry over the last decade. Likewise, we appreciate CARB's willingness to continue to work with us to find solutions for overcoming the various challenges to meet our common emissions goals.

As described in the 2017 Clean Air Action Plan (CAAP) Update, the Ports' support increased efforts to capture at-berth emissions from ships and to obtain more emissions reductions from non-regulated vessels, and we are committed to working with CARB to achieve these goals.

The purpose of this comment letter is to assist CARB in the development of a feasible at-berth regulation that maximizes public health benefits, and also to communicate the challenges associated with implementing the draft regulatory language as currently proposed.





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The following summarizes comments of the Ports regarding proposed components of the draft regulation:

- A Requirement to Control 100% of Visits Is Not Realistic Requiring 100% of vessel visits to use at-berth controls will require redundant systems to ensure coverage at all times, leading to skyrocketing costs for Ports, terminal operators, and ship owners with little additional emissions benefit. We urge reconsideration of such an absolute goal, even in light of your proposed use of exceptions, including terminal safety and emergency events, equipment failure, and physical and spatial constraints.
- The Proposed Implementation Timelines Are Too Aggressive Of particular concern to the Ports, and our respective engineering staffs, is the implementation timeline for the proposed at-berth regulation. Expansion of shore power infrastructure, either through additional shore power outlets (SPOs) or via cable reel management systems, to meet the updated regulation requirement of 100% compliance for container, refrigerated cargo (reefer vessels) and cruise ships by 2021 will be a near impossible task for the Ports or the terminal operators to achieve due to the requisite planning and construction process for capital construction projects. The Port of Long Beach has estimated both the cost and timeline required to maximize compliance with the proposed draft regulation in the attached document, "Potential Strategies and Costs to Address the At-Berth Regulation" (Attachment A). The potential completion date for infrastructure required at the Port of Long Beach to accommodate the proposed regulations for container terminals is December 2025 at the earliest, depending on the extent of infrastructure required. Port of Los Angeles Engineering staff estimates the timelines and costs would be similar.

Further, given the lack of proven and available shore power or alternative options for atberth controls that can be utilized by Tankers and Auto/Ro-Ros, it is highly unlikely that technically feasible, cost-effective technologies will be available for implementation by 2025. Additional time is needed to allow for the necessary capital improvements and/or technology advancements that will be required.

The Ports also believe that adequate time should be built into the schedule for submittal of terminal operator and Port plans, well in advance of the compliance deadline, in order to provide ample opportunity to adjust their plan given CARB feedback. It would also be helpful to see more details on what the required elements of such plans would be in the regulation.

- A Technology Feasibility Assessment Process Is Needed As you know, the CAAP relies on a process for preparing regular feasibility assessments to assess the state of technology development and its readiness to be deployed in the marketplace to support efforts to achieve air quality benefits consistent with our CAAP goals. Given the reliance of the proposed regulatory amendment on emerging technologies, we believe a similar process would be appropriate and helpful for understanding the state of the technologies that would be needed to meet the requirements of the proposed regulatory language. This feasibility assessment should include an evaluation of:
 - (i) The state of technology for both shore power and alternative emission control devices and deployment readiness;
 - (ii) the requisite timeline for design, build, testing, and deployment of shore power and alternative control technologies for each California port and identification of any associated constraints such as wharf space;
 - (iii) safety and navigation of harbor waters space due to applications of new technologies for unregulated vessel types;
 - (iv) number and types of alternative control technologies, which would be needed at each California port;
 - (iv) and the availability of incentives to encourage early demonstration of such technologies.

Attachment A provides very useful information about the many technical challenges associated with the compliance options available today. These include immaturity of shore power for the non-container fleet, the safety concerns associated with using shore power and alternative emission control technologies to control emissions from tankers, and the navigability, space, and wharf integrity challenges associated with alternative emission control technologies. It is our finding that alternative compliance options may increase greenhouse gases, and cable reel management systems, which are needed for instances where ships do not line up with their requisite shore power outlet, are not in the shore power standard today (IEC/IEEE-80005), posing safety risks to ships and terminal equipment.

In order to accelerate the development and deployment of shore power and alternative control options, including infrastructure, for non-container terminals and vessels, the Ports would like to see CARB prioritize funding in their investment plan, as they did for the currently regulated fleet through Proposition 1B in 2006. This funding would assist with economic feasibility and ensure this regulation is not an unfunded state mandate.

• A Cost Effectiveness Assessment Is Needed — An increase in at-berth control levels for currently regulated fleets and the addition of at-berth control requirements for other vessel categories will result in considerable costs to ports, terminals, and shipping lines. The Ports of Long Beach and Los Angeles have already spent more than \$400M in infrastructure to meet the current shore power rule. Both Ports estimate that it would take at least another \$100M per port to bring their container terminal infrastructure to a level to meet the 100% requirement proposed by the at-berth rule. Additional costs, which have not yet been defined, will be associated with implementing at-berth controls for Tankers and Auto/Ro-Ros. In addition, millions more dollars would be needed to outfit unregulated ships for shore power.

While we fully support the goal of increased control of ocean-going ship emissions, we recommend a study be undertaken to determine how the marginal cost of bringing container ship emission controls from 80% to 100% under the proposed rule compares with other potential efforts to reduce emissions from ocean-going ships, including transiting or maneuvering movements. We also wonder whether emissions reductions from other sources at ports could be identified as more cost-effective investments for control programs, such as incentive programs to retrofit or replace harbor craft engines as an example. Further, we encourage a discussion among stakeholders to determine the sequencing of emission control programs for all of the key source categories that operate in and around ports, in order to identify where money should be spent first to move forward with cleaning the air regionally and throughout California.

- <u>Compliance Comes First</u> The proposed At-Berth Regulatory language imposes a substantial infrastructure obligation on the Ports and their tenants. As a result, should the regulation be adopted as is, the Ports and their tenants will need to align their priorities and resources to ensure compliance with the regulation is achieved. As a result, the Ports may need to divert funds from other CAAP commitments, including zero-emissions terminal equipment and near-zero and zero-emissions trucks. We urge a discussion among key stakeholders to consider the trade-offs of investing in one program versus another, based on overall local, regional and state air quality needs.
- The Best Practices Checklist Is a Concept Worth Pursuing The Ports acknowledge that a major goal of this rule-making is to assign roles and responsibilities so that CARB may apportion compliance enforcement if multiple parties are at fault when a vessel fails to connect to shore power. Previously, CARB had suggested development of a "best

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practices checklist" which the vessel owner, the terminal operator, and the Ports would follow to maximize compliance. The Ports support exploration of this concept.

The Ports thank CARB staff for the consideration of our comments. The Ports agree that more can be done to increase at-berth emission reductions over the next decade in parallel to our efforts to advance zero-emissions terminal equipment and trucks; it is a matter of finding the balance among all of these CAAP commitments by establishing realistic timeframes and implementation objectives with approved and verified technologies.

We look forward to meeting with the CARB in the future to further discuss the proposed amendments to the At-Berth Regulation. Please feel free to contact us with any questions or concerns regarding this letter.

Sincerely,

CHRISTOPHER CANNON

Director of Environmental Management

Port of Los Angeles

HEATHER TOMLEY

Acting Managing Director of Environmental

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Port of Long Beach

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Potential Strategies and Costs to Address the At-Berth Regulation

Background

In August 2018 the California Air Resources Board (CARB) released draft regulatory concepts and the associated preliminary cost analysis for the Control Measure for Ocean Going Vessels At Berth and At Anchor Regulation (At-Berth Regulation). If adopted, CARB would require control of emissions from container and refrigerated cargo vessels for 100% of visits to the Port of Long Beach beginning in 2021. Roll-on roll-off (RoRo) vessels will need to reduce auxiliary engine emissions for 100% of visits beginning January 1, 2025. Tanker vessels must control auxiliary engine emissions through an interim CARB approved technology beginning January 1, 2025. All vessel visits for tankers must control auxiliary engine emissions through a CARB approved emission control beginning January 1, 2031. In addition to the auxiliary engine reduction requirements for all tankers, tanker vessels with steam driven product pumps are required to reduce their tanker auxiliary boiler emissions.

About This Assessment

In response to the proposed regulatory amendments, the Port of Long Beach (Port) has conducted a preliminary analysis of the infrastructure needed at each container terminal, the assumptions and caveats related to each method proposed to maximize compliance, the time required to design and install the necessary infrastructure, and the costs for each solution. The Port also estimated the hours of control required and operational costs for both container and non-container vessels visits to meet the proposed regulatory language requirements should alternative compliance strategies such as barge and land-based emission control technologies be utilized. This document outlines the Port's findings, which includes content from a third party analysis and in-house expertise.

Assumptions

In assessing the potential options for complying with the proposed regulation, the Port made several assumptions. First, the Port assumed that ships would meet the following requirements:

- All ships calling the Port will have shore power equipment available on both sides of the vessel.
- All shipside shore power equipment meets the IEC/IEEE 80005-01 standard, including "sufficient cable length to reach the shore side supply point (considering the tide loading conditions, etc.) plus 10 meters."
- Vessels calling the Port are equipped with 60 Hertz (Hz) operation.¹

Ships not meeting these requirements may not be able to plug into shore power; however, this is outside of the Port's control.

Additionally, the Port assumed that all potential strategies must comply with the IEC/IEEE 80005-01 shore power standard and the National Electrical Code at least by the time the

¹ To provide infrastructure for 50 Hz ships would require complete duplication of the 60 Hz shore power infrastructure, including installation of transformers, substations, and SPOs. This solution is cost and operationally prohibitive. It is estimated only 1-2% of vessels which call the Port are equipped with 50 Hz operation.

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -2-

regulation takes effect, that is, by January 1, 2020. Only strategies that have been proven and certified by these standards agencies have been deemed fit for deployment.

Potential Shore Power Compliance Strategies for Container Vessels

The Port evaluated three potential strategies for maximizing shore power usage.

- Installation of additional shore power outlets (SPOs)
- Cable-reel management system currently under development and assumed to be approved and certified by 2021
- A combination of the above

Although other potential strategies exist, including cable chains with SPOs mounted on the face of the wharf and moveable transformers, these technologies are unproven and cost prohibitive.

Shore Power Outlet (SPOs) Installations

Installing additional shore power outlets is the only strategy that fully complies with IEC/IEEE 80005-1 and National Electrical Code, and it is the only strategy that is proven and ready for execution today. The Port already has installed 78 SPOs at all of its container terminals. At some terminals, these SPOs are spaced approximately every 200 feet. At other terminals, the SPOs are spaced at varying intervals according to berthing analyses performed several years ago based on the strings of vessels information provided by the terminal operators and shipping lines.

Per the IEC/IEEE 80005-1 code, ships at berth must provide enough cable to reach the SPO plus 10 meters. Given this requirement, the Port would need to install SPOs every 64 feet at container terminals in order to ensure that every compliant ship can meet an SPO.

Unfortunately, this solution is implausible. Each SPO vault measures roughly 12 feet across and requires significant cuts into the wharf's edge. Additionally, the placement of SPO vaults has limitations, such as the presence of mooring anchors and fender systems or vaults for water lines. Thus, installing SPOs every 64 feet would compromise the structural integrity of the wharf and pose significant operational and safety impacts. In other words, there is a physical limit to the number of new SPOs the Port can install.

As stated earlier, additional SPOs do not solve connectivity issues for ships with inadequate cable length, cables on the opposite side of the vessel, or 50 Hz ships. Further, upstream electrical constraints may impede connection. One transformer serves multiple SPOs; only one ship can connect to that transformer at any given time. Thus, while additional SPOs may appear to provide more opportunities for ships to connect, as long as those SPOs are tied to a single transformer, the connectivity is limited by the upstream equipment. Each new SPO requires additional equipment at the substation. Each substation can only accept a limited amount of additional equipment at which point another substation need be installed. The space requirements along the wharf and inside the terminal along with the costs make this option unfeasible.

In summary, even with additional SPOs, there are likely to be instances in which a ship cannot connect.

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -3-

A potential strategy to maximize shore power compliance at container terminals is a cable reel management system. Cable reel management systems provide additional cable length between the SPO and ship-side connection point. In theory, these systems should be able to close the gap between a ship and an SPO that is out of reach. The Port and its operators have purchased a few 100' cable management systems. These systems were limited to 100' in length due to space constraints; however, these systems have not yet been successfully deployed due to limitations of the technology and conflicts with current code.

First, 100' of cable is not long enough to facilitate ship connections 100% of the time. In order to achieve 100% compliance, cable reels of up to 600' would be required.

Second, the cable reel system is not a proven, approved technology in the shore power standard (IEC/IEEE 80005-1). The system also does not comply with the National Electrical Code, which does not allow for exposed high-voltage cables. This lack of certification raises issues about safety and labor's willingness to employ the system. It is unclear when the cable reel management system will be adopted under the shore power standard. If this system has not been adopted by January 1, 2020, the Port will be unable to use this strategy.

Third, if the cable reel management system is approved, some terminals may not have sufficient space between the cranes and guard timber to accommodate the cable reel system. This will necessitate wharf upgrades and cable-containment strategies. Custom cable extensions may need to be fabricated for a ship that does not line up with an existing SPO, which could require additional cable extensions at each berth.

Lastly, cable reel management systems may interfere with shore power communications systems, and thus, some ships may not be able to connect.

The Port analyzed the cost and timeframe for deploying cable reel management systems. Additional costs will be incurred by the tenant each time the cable reel system is deployed, removed and stored and are not included in the table below.

Costs and anticipated timeline per pier for cable reel systems are summarized in Table 3 below.

Table 3. Deployment of Cable Reel Management Systems

	Cost	Expected Completion Date
Pier A	\$3,000,000	May 2021
Pier C	\$2,000,000	May 2021
Pier E	\$3,000,000	May 2021
Pier G	\$3,000,000	May 2021
Pier J	\$4,000,000	May 2021
Pier T	\$4,000,000	July 2021
All Container Terminals	\$19,000,000	July 2021

^{*}This table estimates a start date for design as January 1, 2020 when the regulation would go into effect.

^{**}Assume \$1 million per each 200 linear foot Cable Reel Management System and 1 per berth were used for the estimates which includes equipment, additional mobile platform for the existing wharf, and soft costs.

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -4-

In summary, absent changes to the National Electrical Code and IEC/IEEE 80005-1 standard, cable reel management systems are not a solution port-wide, and even with these changes, require significant infrastructure improvements and may not be a solution for every terminal

SPOs and Cable Reel Management Systems

The Port analyzed a combination of new SPOs and cable reel management systems. This option utilizes additional SPOs to ensure a maximum of 200 feet between SPO installations and one 100-foot, cable reel management system at each berth to provide the needed extension from the shipside shore power equipment to the designated terminal SPOs.

A major challenge with this option is that it still would require the installation of an additional 67 SPOs. This strategy does not eliminate the challenges detailed above under the subsection "Shore Power Outlet (SPOs) Installations" nor subsection "Cable Reel Management Systems." Therefore, issues such as a limited upstream transformation and lack of standardization for cable reel management systems will also interfere with successful deployment of this strategy. Therefore at this time this option is not feasible.

Costs and anticipated timeline per pier for SPOs every 200 feet, combined with one 100-foot cable reel system at each berth are summarized in Table 4 below.

Table 4. Deployment of SPOs approximately every 200 feet, combined with one 100-foot cable

reel system

Deployment of SPO every	Cost	Expected Completion Date
200 feet and one cable reel		
per berth		
Pier A	\$15,750,000	Dec. 2025
Pier C	\$10,500,000	Dec. 2025
Pier E	\$13,450,000	Dec. 2025
Pier G	\$17,050,000	Dec. 2025
Pier J	\$13,800,000	Dec. 2025
Pier T	\$23,300,000	Dec. 2025
All Container Terminals	\$93,850,000	Dec. 2025

^{*}This table estimates a start date for design as January 1, 2020 when the regulation would go into effect.

Additional Strategies

The Port also evaluated additional strategies not related to landside infrastructure that could improve shore power compliance. These strategies are likely to be undertaken by the terminal operators and shipping lines, not the Port itself.

- Worker training
- Alternative compliance systems for ships not capable of connecting to the landside infrastructure

^{**} Costs include construction cost and soft cost to plan, design, and construct additional SPOs at each terminal. Pier G includes a new transformer to provide the power to one berth.

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -5-

The Port believes training of workers responsible for plugging and unplugging ships will improve shore power compliance. Assuming a ship can make a physical connection, with the requisite training, workers would be more likely to successfully troubleshoot connection problems as they occur, and provide the needed adjustment of the circuit breaker settings and other components involved in connection.

With or without training, Port terminals are going to continue to face situations where shore power connection is simply not possible, even after implementation of any of the pathways described above.

Alternative Compliance

Terminal operators may opt to invest in emission capture and control devices, rather than investing in additional shore power.

Container Terminals

It is estimated the container terminals will require an additional 15,000 hours of emissions control time.

Annual operating costs alone could be \$23.2 million² dollars per year.

Non-Container Terminals

It is estimated the non-container terminals will require an additional 42,000 hours of emission control time.

Annual operational costs alone could be \$39.4 million dollars per year.

The terminal operators may decide to design and construct their own emissions capture and control system to ensure the system is always available, and there will be significant upfront costs on the order of \$5,000,000-\$10,000,000.

Limitations of Alternative Control Systems

Alternative control systems face two key challenges for deployment in the timeframe proposed by CARB:

- Lack of available units
- Lack of wharf space for barge-based system berthing

Lack of Available Units

As of today, only two barge-based systems have been certified and a land-based system has yet to be tested. Many more systems would be required to help meet the 100% compliance deadline of 2021 for the regulated fleet and 2025 for the unregulated fleet. There are currently no production

² Operating costs used in this document only include the hourly labor cost to operate the emission capture and control systems. The Port assumed \$1,000 per hour for barge-based systems, and \$1,100 per hour for land-based systems, which is consistent with CARB assumptions. Any increases in these costs over time are not accounted for, nor are any capital or other operational/maintenance costs.

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -6-

facilities manufacturing these systems. It is doubtful such systems can be certified, cost effective, and commercially available in such a short amount of time.

Lack of Wharf Space

One significant barrier to deploying barge-based systems is the lack of berth space for units that are not in use. The Port of Long Beach only has 2,000 linear feet of wharf space – equivalent to two berths – that are open and could be available for barge-based systems:

- D52, which is used for temporary berthing. 600' linear feet.
- T124, which is really designed for OGVs and thus would require fender installations and wharf modifications to accommodate barges. 1,400 linear feet.

All other space is leased out, which means the Port will be limited in its storage capacity for emissions capture and control systems.

Summary of Findings

The Port cannot identify a single method to ensure 100% shore power, but has established internal consensus that a mix of methods may be required to maximize shore power compliance for container vessels.

The most promising way to maximize compliance at a container terminal is for the Port to install additional SPOs with additional support from cable reel management systems.

Table 5. Comparison of Three Strategies to Maximize At-Berth Compliance

Strategy	Cost for all Container Terminals	Timeline (Design, Bid and Award, Construction)	State of Technology	Remaining Challenges
Additional SPOs Every 64 Feet			Established/Proven	Wharf IntegrityOperation and safetyPhysically impossible to install at 64'
Cable Reel Management System	Approx. \$20 million	2 Years	Unproven	 No Standard Electrical Code Issues Requires additional mobile platform to the existing wharves Moderate Cost
SPOs + 1 Cable Reel System	Approx. 94 million	5 Years	Unproven	 Timeline High Cost No Standard Electrical Code Issues Requires additional mobile platform to the existing wharves

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -7-

In all of these scenarios, the Port is apt to spend millions of dollars on infrastructure beyond the roughly \$200 million already spent on shore power. Additionally, the timeframe for completing these projects is likely to go well past January 1, 2021.

It is unclear what strategy non-container terminal operators will choose for regulatory compliance. Given shore power is an unproved technology for the proposed non-container vessel categories and the stringent timeline proposed, the Port assumed in this assessment that ships and terminals would opt for alternative compliance through emission capture and control systems. Should the non-container industry choose this strategy, it is clear industry will bear millions of dollars in operating costs per year.

Path Forward

The Port will need to produce a more detailed berthing analysis prior to entering the formal design process upon adoption of the proposed At-Berth Regulation. This analysis will directly inform decision-makers, including terminal operators and Port staff, and the design of each container terminal shore power compliance plan. In addition, the Port should continue to work with IEC/IEEE on the effort to update the current shore power regulation for container ships to ensure the cable reel management systems are safe, and standardized pieces of equipment

Potential Strategies and Costs to Maximize Compliance with the At-Berth Regulation Page -8-

SAN PEDRO BAY PORTS

CLEAN AIR ACTION PLAN

May 20, 2019

Bonnie Soriano Chief, Freight Activity Branch California Air Resources Board 1001 "I" Street Sacramento, CA 95814

SUBJECT: PORT OF LOS ANGELES AND PORT OF LONG BEACH COMMENTS ON FEBRUARY 22-23 2019 WORKSHOPS FOR THE "CONTROL MEASURE FOR OCEAN-GOING VESSELS OPERATING AT BERTH AND AT ANCHOR"

Dear Ms. Soriano:

The Port of Long Beach and Port of Los Angeles (Ports) appreciate this opportunity to provide comments on the concepts and berth analyses presented at the California Air Resources Board (CARB) February 22-23, 2019 workshops regarding the, "Control Measure for Ocean-Going Vessels Operating At Berth and At Anchor".

We want to thank CARB for continuing to work with the Ports and our tenants during this regulatory process to obtain the best available data and to craft a regulation which achieves significant public health benefits.

The purpose of this comment letter is to respond to the Regulatory Concepts and Berth Analyses provided at the February workshops. In the appendices, CARB will find specific information and data relative to each Port.

The following summarizes the Ports' comments regarding the regulatory concepts presented at the February 2019 workshops:

- We agree that 100% compliance cannot be met by vessels in any category— We want to thank CARB staff for adjusting the concepts to reflect the impossible goal of 100% compliance. It remains unclear whether or not terminals and vessel operators can meet the new minimum of 95% compliance. We urge CARB to produce a feasibility assessment to better inform this regulation, described below.
- The Proposed Implementation Timelines are Still Too Aggressive In the updated concepts, container terminals are still required to control ship emissions for every visit, with 5% flexibility for Terminal Incident Events (TIEs), by 2021. This timeline is unreasonable based on lack of infrastructure needed to support such a high level of plugin so quickly. In addition, there is considerable doubt regarding the ability of terminal operators, and/or third party vendors to develop and deploy a sufficient number of alternative emission control devices on a stringent time line of one year.
- A Technology Feasibility Assessment Process Is Needed The Ports still urge CARB to develop a technology feasibility assessment, which would look at the state of technology development and its readiness to be deployed in the marketplace to support efforts to achieve public health benefits. Through conversations with stakeholders, it is clear there are challenges associated with the technologies upon which this regulation depends that may be too costly, technologically and operationally infeasible in some cases, or unsafe to use. For example, the Los Angeles/Long Beach Harbor Safety Committee has many substantial concerns regarding the use of barge-based emission capture systems for tankers.

This feasibility assessment should include an evaluation of: (i) state of technology for both shore power and alternative emission control devices and deployment readiness (ii) the requisite timeline for design, build, testing, and deployment of shore power and alternative control technologies for each California port to achieve at minimum 95% compliance, and identification of any associated constraints such as wharf space (iii) safety and navigation of harbor waters space due to applications of new technologies for unregulated vessel types (iv) number and types of alternative control technologies, which would be needed at each California port (v) and the cost of the various types of technologies and availability of incentives to encourage early demonstration of such technologies.

As stated in our previous letter, in order to accelerate the development and deployment of shore power and alternative control options, including infrastructure, for non-container terminals and vessels, the Ports would like to see CARB prioritize funding as they did for the currently regulated fleet through Proposition 1B in 2006. CARB has not prioritized funding for shore power in their latest Cap-and-Trade Auction Proceeds Third Investment Plan, posted in January 2019. We urge CARB to work cross-divisionally on finding opportunities to invest in the nascent technology required for tankers and RoRos.

The Berth-Level Analyses report too few ship calls, and do not accurately reflect the infrastructure needed at each port- CARB provided berth—level analyses of the infrastructure which will be required for each terminal to meet the new proposed concepts at the February 2019 workshops. These analyses are founded upon Google Maps research, interviews with port tenants, and discussion with piloting companies. The analysis is not based on any engineering assessment of what it would take to expand shore power or to accommodate alternative capture and control technologies. Unfortunately, none of the analysis provided by POLB related to container terminal infrastructure was included in this berth-level analysis either. Subsequently to the February workshops, the POLB has updated and refined its estimate. The analysis utilizes costs from previous shore power projects, states the design requirements a terminal would need to maximize plug-in while ships are at-berth, and uses these metrics to quantify the anticipated costs to maximize connection at POLB container terminals. In this letter, POLB has provided more granular detail around the basis of the cost estimates, photographs which demarcate the existing shore power infrastructure, and improved vessel call data from the 2017 Wharfinger Report in Appendix B. In the Ports' previous letter to CARB POLA engineering staff had agreed with the POLB engineering analysis. Subsequently, POLA developed their own assessment of the infrastructure they will need, the associated cost and timeline, and additional edits to the CARB Berth-Level Analyses, which are included in Appendix A. In summary, the POLB and POLA estimates approximately \$106 million and \$147-\$193 million respectively for additional electrical infrastructure. These estimates are rough orders of magnitude, with many exclusions and limitations, so the actual cost could be much higher. We are hopeful CARB will utilize this information, particularly in a feasibility assessment, as it is the most informed reflection of the current infrastructure at the POLA/POLB terminals today. The feasibility assessment should go into greater depth than the calculations provided herein.

CARB's Berth-Level Analyses as written today are not founded upon the requisite design and engineering expertise, and should therefore, not be used today to quantify the costs of

the newly proposed concepts. These costs can be more adequately captured through the process of a feasibility assessment.

<u>Compliance may hinder CAAP efforts</u> – Lastly, the Ports are still concerned the cost of these proposed concepts will hinder the ability to meet their goals under the 2017 CAAP Update given the significant upfront costs of an At-Berth Infrastructure Program. In addition, the staff who are currently designing the near-zero and zero-emission terminal infrastructure for technology demonstration projects, and future full-scale deployments are the same staff members who would be responsible for designing the infrastructure to support the new At-Berth Regulation. This underscores the need for prioritizing programs and funding, as described in the Feasibility Assessment bullet above, in order to determine how to most effectively allocate our resources to participate in the development of your regulatory program.

The Ports thank CARB staff for hosting additional workshops, engaging with us directly, and their consideration of the comments contained in this letter as well as in the attached appendices.

We look forward to meeting with the CARB in the future to further discuss the proposed amendments to the At-Berth Regulation. Please feel free contact us with any questions or concerns regarding this letter.

Sincerely,

CHRISTOPHER CANNON

Director of Environmental Management

Port of Los Angeles

MATTHEW ARMS

Acting Director of Environmental Affairs

Martha form

and Planning

Port of Long Beach

Attachments: Appendix A, Appendix B

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APPENDIX A

Port of Los Angeles Response to CARB At Berth Regulation Berth Analysis Matrices

The Port of Los Angeles (POLA or Port) appreciates this opportunity to provide more detailed comments on the California Air Resources Board (CARB) Berth Analysis Matrices presented on February 22, 2019. Below are our comments on the various "CARB Staff Analysis of Potential Emission Reduction Strategies" for POLA.

Container and Refrigerated Cargo (Reefer) Vessels

POLA would like to reiterate that the timeline for container terminals is still too aggressive. The specific reasons why the deadline to meet 2021 is listed below.

The container shipping industry is going through tremendous changes including the consolidation of shipping lines and the emergence of new alliances, resulting in larger ships calling to POLA. The shore power vaults at the Port were designed for the average vessel size calling to POLA in the early 2000's, which were 10,000 to 12,000 TEU vessels. The vessels calling to POLA now are closer to 14,000 to 16,000 TEU. From our latest 2017 POLA Emissions Inventory, NOx emissions reduced from ocean-going vessels from 3,204 tons per year in 2016 to 3,061 tons per year, which is a 4% reduction in NOx. The number of TEUS increased by 5% from 2016 to 2017 (8,856,783 TEU vs. 9,343,193 TEU), but the number of container ship calls decreased by 8% from 2016 to 2017 (1,251 vs. 1,154). Our El reports have shown that these larger container vessels have improved efficiency and helped to reduce emissions at POLA.

Unfortunately, the larger ships calling a terminal can limit the berth availability of shore power especially when multiple ships call the same terminal as the shore power cables are not lining up with the vault containing the shore power outlet. Cable management extension systems (cable reels) allow a vessel to plug into shore power without having the vessel's cables to be directly aligned to the vault. The cable reels currently available for purchase are 8 feet wide and the wharfs at five out of our seven container terminals only have 4-5 feet of space.

Fenix Marine Services and APM Terminals have a "vendor lane" which runs between the ship to shore cranes and the edge of the wharf, providing the necessary clearance to place a cable reel. At the moment, a narrower cable reel system is being designed for use on terminals without a vendor lane. However, there is currently no prototype and the system will require structural modifications to the wharf, the extent of which are unknown at this time. The cost for this narrower system is also unknown at this time. The current cable reel system is estimated to cost \$550,000. If a narrower system cannot be designed, then the wharfs will need to be extended.

Extending wharfs creates a host of issues. The Army Core of Engineers will not allow the wharfs at POLA to be extended any further into the water, as there would not be enough space to navigate the vessels in the water. This means that the wharfs have to be extend on the landside. The cranes and the cranes' rail management would need to be pushed back. Moving all the cranes back requires the crane arms to be extended in order to reach a vessel's cargo. Assuming funding is procured for the construction at a terminal, it would take at least 18 months to design the construction, 18-24 months for environmental assessment, 6 months to go to bid, and then 18 months to build. The total estimated time per a project would be 60 to 66 months or 5 to 5.5 years on average, but it may take longer as each terminal is unique. The estimated cost to extend one container berth could be between \$35-40 million. In addition to all the construction, the terminal would not be able use of their berth during the construction. The terminal would be operating at a decreased capacity and would be losing revenue during the construction and diverting cargo to other ports outside of California.

The Port preliminary responsibilities as indicated by CARB is to "install and maintain any necessary emissions control infrastructure and/or equipment needed for compliance with the regulation that is outside of a terminal's contractual ability to provide." In order to meet our responsibility outlined by CARB, POLA engineering staff has estimated that a vault would be needed every 200 feet apart per a berth with at least one 100-foot mobile cable reel at every berth. This is the same assessment as Port of Long Beach engineers had determined in the Ports' first joint letter to CARB. This would be a total of six vaults per a berth. The cost per a new vault is estimated to be \$500,000. The cost to provide the necessary power to the terminals is approximately \$2.5 million (\$2 million for electrical equipment and \$500,000 for installation). For purposes of POLA engineering assessment the cost of the cable reel system is estimated at \$550,000 based on the currently available system. The cost for a narrower system for five of our terminals could be higher as the actual cost is unknown at this time.

Table 1 summarizes POLA engineering staff evaluation of just electrical infrastructure and costs for POLA to meet the Port's obligation under the current draft language for existing container terminal berths.

Table 1: POLA Container Terminal Electrical Infrastructure Evaluation

Tenant	Berth	# Existing	# New Vaults	Total Cost of	Cost of	Cost of	Total Overall
		Vaults	Needed	New Vaults	Equipment	Cable Reel	Cost
WBCT - China	100	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
Shipping	102	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
WBCT - Yang Ming	121	2	4	\$2,000,000	\$2,500,000	\$550,000	\$5,050,000
,	126	2	4	\$2,000,000	\$2,500,000	\$550,000	\$5,050,000
TraPac	136	2	4	\$2,000,000	\$2,500,000	\$550,000	\$5,050,000
	139	2	7	\$2,000,000	\$2,500,000	\$550,000	\$5,050,000
Yusen Terminals Inc.	212	2	7	\$2,000,000	\$2,500,000	\$550,000	\$5,050,000
	216	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	220	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
Everport ¹	228	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	230	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
Fenix Marine Services	302	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	303	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	304	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	305	3	3	\$1,500,000	\$2,500,000	\$550,000	\$4,550,000
APM Terminals	401	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	402	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	403	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	404	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
	405	4	2	\$1,000,000	\$2,500,000	\$550,000	\$4,050,000
						Subtotal =	\$95,600,000
					20% C	20% Contingency =	\$19,120,000
						Subtotal =	\$14,720,000
			28	28% Soft Cost (Engineering & Construction)	gineering & Co	nstruction) =	\$32,121,600
						Total Cost =	\$146,841,600

¹ As of 2019 there are only two vaults each at Berths 228 & 230. Two additional vaults at each berth have already being designed and construction is scheduled to begin within the next 18 months. This cost assessment only added two more vaults to Berths 228 & 230 in order to meet the Port's obligations estimated to be six vaults per a berth.

Table 2 summarizes POLA engineering staff evaluation of just electrical infrastructure and costs for POLA to meet the Port's obligation under the current draft language for berths that may be used as container terminals in the future.

Table 2: Future POLA Container Terminal Electrical Infrastructure Evaluation

Tenant	Berth	#	# New Vaults	# New Vaults Total Cost of	Cost of	Cost of	Total Overall
		Existing	Needed	New Vaults	Equipment	Cable Reel	Cost
		Vaults			-		
Fenix Marine Services	306	0	9	\$3,000,000	\$6,000,000	\$550,000	\$9.550,000
Unknown	206	0	တ	\$3,000,000	\$7,000,000	\$550,000	\$10,550,000
Pasha	174	0	9	\$3,000,000	\$7,000,000	\$550,000	\$10,550,000
						Subtotal =	1
					50% (20% Contingency =	\$6,130,000
						Subtotal ==	\$36,780,000
			28	28% Soft Cost (Engineering & Construction) =	ngineering & C	onstruction) =	\$10,298,400
T TOTAL PROPERTY CONTRACTOR CONTR						Total Cost =	\$47,078,400

Grand Total = \$193,920,000 for only electrical infrastructure costs.

As shown, the estimated cost for the Port to meet our obligations for our container terminals would be \$147-\$193 million. Similar to wharf extensions, the estimated time from start to finish for installing this infrastructure would be approximately 5-5.5 years per a project. Even if the Port could procure this funding and start working on providing electrical infrastructure at all our terminals instantly, the soonest that this undertaking would be completed is 2024-2025, well beyond CARB's proposed deadline of 2021. POLA does not have the resources to undertake that many projects at the same time, so some terminals' electrical infrastructure would not be completed before 2025.

Landside shore power electrical infrastructure life cycle appears to be 15-20 years with required updates, annual maintenance, and frequent cleaning of the equipment during this period. Currently Port staff costs are about \$500,000 a year for maintenance and about \$125,000 a year for recordkeeping for a total annual cost of approximately \$625,000. This cost is so far for the currently regulated fleet of container, reefers, and cruise vessels. With the increased infrastructure, the staff cost for maintenance would increase to approximately \$866,000 and recordkeeping would be around \$135,000 for an estimated total staff cost of over \$1 million.

Shipside infrastructure appears to have a much lower life cycle. Conversations with various shipping lines have found that the shipside electrical infrastructure life cycle is about five years with equipment needing to be fully replaced in the fifth year. The cost to install shore power onto container and reefer vessels is estimated to be \$750,000 to \$1 million. This five-year cost for shipping lines may cause them to see the alternative at berth emissions control technology as a more attractive option than having to invest close to \$1 million every five years for shore power. This would be counterproductive to the regulation as shore power has been shown to have higher emissions reduction rate than use of the alternative emission control systems.

As for alternative emission control systems, there are currently only two certified barge based systems operating at both POLA and Port of Long Beach for container vessels. A land-based system is still being demonstrated at this time. There is serious doubt that more of these systems can be developed and deployed by 2021. The two San Pedro Bay Ports had solicited proposals for alternative emission control systems for ocean going vessels in 2018 as part of our Technology Advancement Program. In January 2019, the two Ports did not award any of the proposals as none met the requirements fo the solicitation satisfactorily. This highlights the need for a CARB feasibility assessment on these technologies and their use at each California port.

Passenger Vessels

POLA has on average about 110 cruise vessels call to our World Cruise Center on an annual basis. The assessment CARB has for passenger vessels is lower than our average number. POLA asks that CARB adjust the assessment with our annual average number of cruise vessels.

As cruise vessels increase in size, the amount of power drawn by these larger cruise vessels increase as well. The World Cruise Center underwent electrical upgrade construction to allow cruise vessels to draw 6.6 KV and 11 KV of power when at berth from June 2017 to April 2018. This upgrade took about three years to complete from initial planning to completion of the construction. Cruise vessels could not plug into both berths during the construction period. No new vaults were added to the berths for this upgrade. The cost of the upgrade was about \$11 million. Table 3 lists the number of vaults currently at the World Cruise Center.

Table 3: POLA World Cruise Center Electrical Infrastructure

World Cruise Center (Berths 90-93)	# of Vaults	Power Provided
Berth 92	2	11 kV (2)
Berth 93A	4	6.6 kV (2); 11 kV (2)

After the electrical upgrade, the Port has seen an increase in the use of shore power by cruise vessels that call to our World Cruise Center. POLA Engineers have determined that Berth 92 would need an additional two vaults and a cable reel system to ensure the Port meets our infrastructure obligations per the current draft regulation. The cable reel for the cruise vessel is estimated to cost more than one for containers, as it will need to be able to operate at both 6.6 kV and 11 kV. Table 4 is an estimate of the cost for the added electrical infrastructure at Berth 92.

Table 4: Estimated Additional Infrastructure Cost at Berth 92

Berth	# of	# New	Total	Cost	Cost of	Cost of	Total
	Existing	Vaults	of	New	Equipment	Cable Reel	Overall Cost
	Vaults	Needed	Vaults	;			
92	2	2	\$1,400	0,000	\$5,000,000	\$1,000,000	\$7,400,000
	\$1,480,000						
						Subtotal =	\$8,880,000
		28%	Soft Co	st (Eng	gineering & C	onstruction) =	\$2,486,400
						Total Cost =	\$11,366,400

The cost to install shore power onto a cruise vessel is estimated to be between \$1 to \$1.5 million. The cost of maintaining and recordkeeping for Port staff was included in the container/reefer section above. Construction for this project would probably take between 3-5 years.

Auto/Ro-Ro Vessels

POLA only has one automotive terminal, Wllenius Wilhelmsen Solutions (WWS) Vehicle Services America (Berths 195-199). Automotive carriers/Ro-Ros mainly call to berths 197-199. Table 5 shows vessel activity at WWS for the last 3 years.

Table 5: Vessel Activity at WWS 2016-2018

Berth #	# Auto & Ro-Ro	# Auto & Ro-Ro	
	Calls 2016	Calls 2017	Calls 2018
195	0	0	0
196	0	0	0
197	4	4	0
198	80	101	71
199	20	17	2
Total =	104	122	73

As shown by Table 5, the number of calls to WWS vary year by year. There is no real set average as the number of vessels is dependent on the market demand for automotive vehicles. Very few of the vessels calling are what CARB would define as "frequent" visitors (calling to the terminal four or more times in a calendar year) from year to year. A vessel may be in the string for a couple years, and then pulled from rotation if there is not enough demand or it is sent to a different string. For example, the "Pearl Ace" had five calls to WWS in 2016, one call in 2017, and no calls in 2018. Another example is the "Viking Sea." The "Viking Sea" had called WWS six times in 2016, three calls in 2017, and no calls in 2018.

Due to the infrequency of the automotive and Ro-Ro vessels to the Port, it is unlikely that the automotive shipping lines will invest the time and money to install shore power onboard their vessels. However, POLA engineers have calculated the cost of installing the necessary infrastructure for shore power at WWS if our tenant and the shipping lines it serves decides to use shore power, see Table 6. POLA assumes only one berth would require electrical infrastructure installed. Estimated time of completion is again approximately five years. The cost of these vaults are estimated to be slightly less at \$400,000 per a vault due to the lower power needs of these types of vessels.

Table 6: POLA Engineering Electrical Infrastructure Costs at WWS

Terminal	# New	Total Cost of	Cost of	Cost of Cable	Total Overall
	Vaults	New Vaults	Equipment	Reel	Cost
	Needed				
WWS (Berths	4	\$1,600,000	\$9,000,000	\$500,000	\$11,100,000
195-199)					
	\$2,220,000				
	•			Subtotal =	\$13,320,000
		28% Soft Cost	(Engineering	& Construction) =	\$3,729,600
			, ,	Total Cost =	\$17,049,600

This leaves the use of an alternative emissions capture and control system. Currently there is no certified alternative emissions capture and control system for automotive or

Ro-Ro vessels. As stated in the joint cover letter, POLA believes a feasibility study of this technology's utilization, including potential increased greenhouse gas emissions generated by this technology, is needed.

Port Engineers have determined the berths at WWS would likely be structurally sound enough to hold the weight of a land-based control system. In addition, there is likely enough room on the dock for a land-based control system. This is solely based on the currently demonstrating land-based control system at our Pasha terminal. As there is currently no certified system for use on automotive/Ro-Ro vessels, this assessment may change in the future if a land-based system is significantly different from the current land-based system being tested on Pasha's container steamships. The current cost to build the land-based system at Pasha is approximately \$5 million. This does not include any labor or maintenance costs. These costs are hard to determine at this time, as there are still negotiations on the type of labor that will be used to operate and maintain the equipment.

POLA Port Pilots have determined it would be best to avoid a barge-based system for vessels that call to WWS. Ro-Ro vessels fuel when calling to WWS via a bunker barge. For safety reasons, the current barge-based system cannot be connected to a container vessel when the container vessel is fueling or bunkering. Similar safety concerns would prevent barge-based systems to connect to an automotive/Ro-Ro vessel when the vessel is fueling or bunkering. Automotive/Ro-Ro vessels are at WWS for less than 24 hours. A disconnected barge system may not have enough time to reconnect to the vessel before it is ready for departure.

On rare occasions, there are two vessels dock at WWS at the same time. When that happens, Port Pilots sometimes are required to sail a vessel around the one forward of the departing vessel. The Port Pilots require the offshore side of the forward vessel to be clear of any obstructions. A barge-based system connected to the forward vessel would have to be disconnected and moved in order for the Port Pilots to move the other vessel. Again, there may not be enough time for a disconnected barge system to reconnect to the vessel prior to its departure.

Tanker Vessels

The CARB Tanker Berth Analysis listed six liquid bulk terminals. POLA currently has seven liquid bulk terminals. Kinder Morgan is expected to leave Berths 118-119 by 2024. Table 7 is a list of POLA liquid bulk terminals with vessel calls for the last three years.

Table 7: Vessel Activity at POLA Liquid Bulk Terminals 2016-2018

Terminal	Berths	# Tanker	# Tanker	# Tanker
,		Calls 2016	Calls 2017	Calls 2018
Kinder Morgan	Berths 118-119	38	34	37
NuStar Energy LP	Berth 163	4	6	13
PBF Energy	Berths 238-240C	30	46	33
Phillips 66	Berths 148-151	30	49	41
Shell Oil Products	Berths 167-169	45	60	34
Valero	Berths 164	28	40	27
Vopak Terminals	Berths 187-190	111	118	111

Wharfs for tanker terminals are currently being redesigned to meet California State Lands Commission requirements, Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). The new terminal design will be a pier that goes out into the water. The platform at the end of the pier will be only large enough to hold the necessary equipment for pumping tanker product in/out of the tanker. The tanker will be moored by tying up at nearby dolphin moors. POLA has already provided an example engineering drawing of the new terminal design in prior communications with CARB. There would not be any space to place shore power or a land based alternative system on these new piers.

Below is a list of future plans for the marine oil terminals at POLA.

- Berth 118-119 Kinder Morgan Terminal Berths are scheduled for demolition in the next few years.
- Berths 148-149 Phillips 66 Terminal This berth will cease operations as a marine oil terminal when the new berth at 150-151 is completed
- Berths 150-151 Phillips 66 Terminal This berth will be demolished and reconstructed as a typical modern marine oil terminal, with a minimal unloading platform and independent mooring and berthing dolphins connected by catwalks. A land-based emissions capture system will not be feasible. A barge-mounted emissions capture system could be used, but may be difficult due to the terminal's location on one of the main turning basins for the Port. The tenant will be required to conduct a feasibility study for a barge-based system as a condition of their environmental document, which is currently underway.
- Berth 163 Nustar Terminal This berth will be demolished and reconstructed as a typical modern marine oil terminal, with a minimal unloading platform and independent mooring and berthing dolphins connected by catwalks. A land-based emissions capture system will not be feasible. A barge-mounted emissions capture system could be used, and would be largely free of impacts from large passing vessels. The tenant will be required to conduct a feasibility study for a

barge-based system as a condition of their environmental document, which is currently underway.

- Berth 164 Valero Terminal This berth will be demolished and reconstructed as a typical modern marine oil terminal, with a minimal unloading platform and independent mooring and berthing dolphins connected by catwalks. A land-based emissions capture system will not be feasible. A barge-mounted emissions capture system could be used, but would be impacted by the narrow channel and vessels entering and exiting Berth 163. The tenant will be required to conduct a feasibility study for a barge-based system as a condition of their environmental document, which is currently underway.
- Berths 167-169 Shell Terminal This berth will be demolished and reconstructed as a typical modern marine oil terminal, with a minimal unloading platform and independent mooring and berthing dolphins connected by catwalks the tenant is required to conduct a feasibility study for a barge-based system as a condition of their environmental document, which is complete.

As was stated in our email to CARB dated on March 8, 2019, our Port Pilots had determined that if the barge-based system is employed at Shell Berth 167 for a panamax size vessel (228M x 32M) or larger and there is a bulk vessel at Berths 154-155, access to the northern berths in the slip (Berths 165, 164, 163, & 161) will be restricted. Tugs and barges may be able to get by; however, if a barge-based system is also placed alongside a vessel at Berths 154-155 or the tanker at Berths 167-169 then access to the northern berths may not be adequate for a ship to pass.

This would be a hindrance to three of our tenants' terminal operations past Shell: US Borax (Berth 165) that does dry bulk, Valero (Berth 164) that does tanker operations, and Nustar (Berth 163) that does tanker operations. This gives other terminals that would not be effected by this restriction an economic competitive edge over these terminals. In addition, our Construction and Maintenance (C&M) division is located at Berth 161. C&M does maintenance of the docks and wharfs for the Port and could be hindered as well. Our C&M division needs to have unrestricted access to enter and leave Berth 161 to conduct any emergency repairs that may arise at any time at the Port.

• Berths 187-189 – Vopak Terminal – This terminal consists of a full width, full length wharf that will be upgraded to comply with MOTEMS standards instead of being reconstructed. The tenant has chosen this option, and will be performing the design and construction themselves, in order to minimize impacts to ongoing operations. However, the existing timber wharf has deteriorated vertical load carrying capacity, which will not be fully restored by the planned upgrade. Upgrading the capacity of the wharf to HS-20 (highway) capacity would cost approximately \$8.8 million. This cost estimate is based on the restoration of a very

similar wharf at Berths 196-199 that was completed in 2018. The project cost for this wharf, including contingency, was approximately \$5,300 per lineal feet. The wharf at Berths 187-189 is approximately 1660 lineal feet. The tenant is required to conduct a feasibility study for a capture and control system as a condition of their environmental document, which has not yet commenced.

POLA Port Pilots have determined that if a barge based system is placed alongside a panamax or larger size tanker at Vopak Berth 189 it will restrict ship access to Berth 187 for the duration of the vessel's stay alongside Berth 189. Tug and barge traffic will be able to continue; however, there will not be enough room in the slip (Slip #5) for a ship of any size to access Berth 187. This would limit Vopak's operational capability and lower its economic competitiveness with other tanker terminals.

 Berths 238-239 – PBF Terminal – This berth will be demolished and reconstructed as a typical modern marine oil terminal, with a minimal unloading platform and independent mooring and berthing dolphins connected by catwalks. A bargemounted emissions capture system is feasible, as the terminal is on the wide Main Channel of the Port. The tenant is required to conduct a feasibility study for a barge-based system as a condition of their environmental document, which is complete.

We again stress the need for a CARB technology feasibility assessment on the state of alternative emission control technology. POLA is requiring our marine oil terminals to conduct feasibility studies on the use of alternative emission control systems. However, these feasibility studies will be terminal specific and could not be used by other terminals to determine the feasibility of the technology for their purposes.

An email from CARB staff dated March 28, 2019 requested information on the cost estimate and duration for routing the tanker vessel auxiliary engine and boiler emissions to a land based emissions control system. This question should be asked to the tanker ship manufacturers and the alternative emissions control system companies. The Port does not have expertise in this field. We are unable to provide a cost estimate, but we can provide CARB with general information about what this project could entail.

Many of the tanker vessels that call to POLA would not be defined by CARB as a "frequent" visitor (calling to the terminal four or more times in a calendar year). Due to this infrequency, it is unlikely that shipping lines with tankers would spend the time and money to change an existing tanker's exhaust system to be able to be treated in this fashion. If a shipping line did decide to undergo this type of project, the tanker would have to be taken out of service and dry docked. The Port does not have the knowledge to provide an estimate of how long the retrofitting would take. It would be more cost effective to design and build a new tanker to have this feature rather than try to retrofit an existing tanker.

The Port thank CARB staff for the consideration of our comments. We look forward to meeting with the CARB in the future to further discuss the proposed amendments to the At-Berth Regulation.

APPENDIX B

Port of Long Beach Response to CARB's February 22-23rd, 2019 Workshops and Additional Cost Estimate Detail

Background

February 22-23rd, 2019, the California Air Resources Board (CARB) held workshops for the Control Measure for Ocean Going Vessels At Berth and At Anchor Regulation (At-Berth Regulation). In the newly proposed regulatory concepts, CARB would require control of auxiliary engine emissions from container, passenger, and refrigerated cargo vessels for every vessel visit to the Port of Long Beach beginning in 2021. Each terminal would have an allocated number of acceptable Terminal Incident Events (TIEs) to provide flexibility. These TIEs equate to 5% of total container vessel visits received during the previous year. Roll-on roll-off (RoRo) vessels will need to reduce auxiliary engine emissions for every vessel visit beginning January 1, 2025, with TIEs flexibility, calculated as 10% of the vessel calls of the previous year. Beginning January 1, 2027, acceptable TIEs for RoRos drop to 5%. Tanker vessels must control auxiliary engine emissions through a CARB approved technology beginning January 1, 2027, with the equivalent TIEs allocation calculation as the RoRos (10% of the previous year's calls). In 2029, tanker acceptable TIEs will drop to 5%. Tanker vessels with steam driven product pumps are no longer required to reduce their tanker auxiliary boiler emissions. Lastly, CARB provided stakeholders with berth analyses of the necessary infrastructure for each vessel type to meet these proposed requirements.

About This Response

The Port of Long Beach (Port) is providing supplementary information per CARB request on the estimates provided in the joint comment letter the Ports of Los Angeles and Long Beach, "Potential Strategies and Costs to Address the At-Berth Regulation", submitted on February 6th, 2019. Importantly, these cost estimates were developed using data from previous shore power installations, such as progress payments, bid analyses, and maps of the shore power infrastructure at the container terminals. Those documents are provided in the attachments to this appendix. The attachments also provide vessel call data as reported in the 2017 Wharfinger Reports to better inform the berth analyses CARB distributed at the February workshops. The estimated hours of control required and operational costs for both container and non-container vessels visits should alternative compliance strategies such as barge and land-based emission control technologies be utilized has been revised. Lastly, this appendix provides documentation of the costs associated with the Prop 1B shore power installations – specifically at Piers A, G, T, and G. Under the Prop 1B program, the Port was required to tease out hard costs from the progress payments. These hard costs have been provided to help inform future CARB analyses of infrastructure costs. It's important to note that these costs are in 2012 dollars, and future estimates should account for escalation.

Shore Power Outlets Calculation & Locations

The proposed concepts explained in the February 2019 workshops are written in such a way that terminals would need to make a reasonable effort to control emissions for every vessel visit. The Port would like to highlight that terminals would not plan a compliance strategy, which meets a

95% control criteria, as TIEs can occur due to reasons out of their control. They would plan to meet 100% emission control while ships are at berth, knowing unforeseen circumstances will hinder their success, hopefully, within the 5% threshold.

To maximize shore power connection at the container terminals, Port staff established design criteria, which requires shore power outlets (SPOs) every 200 feet, combined with a 100-foot cable reel system. This design criteria was used to calculate the minimum number of SPOs required at each pier. As demonstrated in Table 1, staff divided the wharf length for each berth by 200 feet, providing the optimal number of SPOs given 200-foot spacing. Staff then subtracted the existing number of SPOs at each berth to determine the additional shore power outlets required.

Table 1.

Taule 1.						
Location	Existing SPOs	Number of Berths	Length of Wharf (ft)	SPO @200'	Additional SPOs required for 200' spacing given current infrastructure	Number of Cable Reel Management Systems Required
				·		
Pier A Berths A88-A96	9	3	3556	18	9	3
Pier C SSA Terminals	8	2	1797	9	1	2
Pier E	15	3	4369	22	7	3
Pier G						
Berth G232	5	2	1337	7	2	2
Berth G236	6	2	1290	6	0	2
Berths G234, G235	1	1	1243	6	5	1
Pier J						
Berth J245-J247	9	2	2019	10	1	2
Berth J266-J270	11	3	2694	13	2	3
Pier T	11	4	5022	25	14	4
Total	75	22		-	42	22

The total count of functional SPOs today is 75, however, Pier E will be installing 5 SPOs as part of Phase 3 of the Middle Harbor Project at Long Beach Container Terminal. These SPOs are included in the Pier E calculation above. SPOs which have been abandoned or de-energized are not included in the calculation in Table 1. As far as cable-reel management systems, staff made an assumption that each berth would require one, 100-foot cable reel management system. Because the Port has 22 berths, it is assumed 22 cable reel management systems are required.

Cost Estimates & Timeline

The updated estimate for all six piers is approximately \$107 million. To prepare this estimate, Port staff analyzed three previous shore power installation projects at Pier A, Pier J, and Pier T,

initiated in 2012, in order to develop a combined average cost per shore power outlet (SPO). Staff calculated the average SPO cost at each pier using progress payment documentation and tracked staff hours specific to these projects, and then averaged the average SPO cost of each project in order to get the combined average SPO cost. The total cost estimate is based on the average SPO cost multiplied by the number of new SPOs in Table 1, plus one cable reel per berth. The narrative describing the average SPO cost calculation is provided in ATTACHMENT A, Supporting Documentation for Container Terminal Cost Estimates.

The timeline to complete each pier is approximately 5.25 to 5.75 years, which includes 15 to 18 months to do preliminary design and environmental clearances, 15 to 18 months for design, 7 months for bid and award of a construction contract, and 26 months for construction and commissioning.

Exclusions and Limitations

The various existing wharves were built at different times and have different configurations and structural limitations. Wharf modifications may be necessary to accommodate the density of SPOs, which is not included in the cost estimate.

The estimated total number of additional SPOs does not account for the exact location of the current SPOs, so additional SPOs may be necessary to meet the functional requirement.

Many wharves do not have sufficient space at the edge of the wharf to accommodate the current cable reel design. It is unclear if a narrow cable reel can be designed to fit the specific space constraints at each pier, and wharf modifications may still be necessary to be able to safely use cable reel in the narrow space. If that is not possible, more extensive wharf modifications would be required. The cost estimate does not include any wharf modifications to accommodate the cable reel, and assumes a narrow cable reel is roughly the same cost as the current design.

The combined average cost per SPO does not include transformer costs nor any contingency. Staff removed the transformer costs from the bids on the previous SPO projects used to calculate the average SPO cost, making an assumption each container terminal has enough power today. If any terminal requires additional power, the total cost for additional shore power at the Port could increase on the scale of millions of dollars.

POLB resources, both money and staff, are finite, and the POLB is in the midst of a significant capital improvement program. There is not sufficient staff to complete all piers simultaneously within the existing capital program, and there may not be financial capacity to accommodate all of the additional capital expense within the timeframe. Therefore, it is highly likely some of the piers would take longer to complete, resulting in additional cost escalation not included in the current estimate.

Updated Alternative Emission Control Hours

The Port has updated the additional emission control time required if container, passenger, refrigerated cargo, RoRo, and tanker ships must control emissions for every visit. Updates

include refined detail on which berths received Prop 1B funding, and thus are subject to higher shore power connection requirements earlier and consideration of the minimum and maximum number of additional applicable ships that will require emission control technology on a given day. The findings utilize the 2017 Ports of Los Angeles and Long Beach Emissions Inventory data and are as follows:

- 1) There will need to be at least 26 barge-based systems online in the San Pedro Bay to meet the 2029 requirements (95% of calls must be controlled with an exception of 5% TIEs for all regulated ship types) assuming vessel traffic remains at 2017 levels. At the Port of Long Beach, the maximum number of applicable ships that are not using shore power is 14 per day, the average is 8, and the minimum is 2 ships. In 2017, 147 days occurred where the number of barges needed if the proposed regulation were in place exceeded the average. Looking at the San Pedro Bay Complex, the average number of applicable ships which would require a barge-based system is 15 per day, with a maximum of 26, and a minimum of 4 ships per day. The Ports would be required to have 26 barge-based systems to meet the requisite emission control requirement from ships on a peak day.
- 2) An additional 40k-52k hours per year of emissions will need to be controlled via alternative capture and control technology to meet the every vessel, every visit requirement for the proposed ship types. 12
- 4) To keep a fleet of at least 26 barges "viable" the operational cost per hour will have to double to at least \$2,000 per hour. This is due to the costs associated with both active and inactive barges. The operational cost is estimated to be \$81-\$105 million dollars per year³.

These estimates assume that a barge-based system will be used for ships, which do not utilize shore power. It is, however, more likely that tankers will strongly consider land-based systems. Given the Port has not demonstrated land-based alternative control technologies for the proposed vessel types, and the potential steep costs associated with a land-based device (wharf upgrades, increased power consumption, etc.) the Port decided assuming the use of the barge-based system provides a more conservative estimate of the costs associated with this regulation. It is also important to note that accommodating a fleet of 26 barge-based emission capture and control systems would require significant berthing space at both ports, which have limited wharf availability.

Attachment A - Supporting Documentation for Container Terminal Shore Power Infrastructure
Cost Estimates

Attachment B – Prop 1B Shore Power Infrastructure Costs

Attachment C – Maps of Container Terminal Shore Power Infrastructure

Attachment D – Port of Long Beach Vessel Visits by Berth

¹ The lower additional emission control hours reflect a scenario in which all currently unregulated ship calls which will be subject to the new At-Berth Regulation are controlled via barge-based systems and all currently controlled ship-types are handled by additional shore power infrastructure. The higher emission control value reflects a scenario in which all currently unregulated and regulated ship types will be controlled by a barge-based system, and no additional shore power infrastructure will be installed.

²These estimates assume a requirement of 1.5 hours per arrival and departure for connecting and disconnecting times where there will be no emission reductions.

³ This cost does not include costs related to barge movements, anchorages, lay berths, etc.

ATTACHMENT A

Supporting Documentation for Container Terminal Shore Power Infrastructure Cost Estimates

Average Cost per Shore Power Outlet (SPO) Calculation Narrative

- Staff used the actual contract bid and change order prices from three separate Port construction contracts to install SPOs in 2012. The contracts were for Pier J, Pier T, and Pier A.
- For each contract, the cost of providing and installing transformers was deducted from the total contract amount. This assumes that if SPOs are added in the future, there is already adequate capacity at the terminals for additional SPOs. Therefore, the cost of transformers should not be included in the average cost of future SPOs. If there is not adequate capacity, the cost per SPO would increase.
- The cost of installing SPOs includes all design, permit, and management costs (as referred to as soft costs). The costs for each project are tracked in the City's cost accounting system (also known as FAMIS or EZFAMIS). The EZFAMIS report for each project was run to acquire the soft costs for each project.
- The total project cost (construction contract plus soft costs, less transformer costs) was then escalated using 2.5% per year from the construction contract award date (2012) to the midpoint of earliest possible future SPO construction contract award (2022).
 - The earliest possible future SPO construction contract date is based on a January 1, 2020 regulation start date, and includes the time necessary to do design, bid, and award.
 - o If the regulation date is pushed out, the cost per SPO would increase to reflect the additional cost escalation.
 - o The 2.5% is a relatively low average cost escalation, and is much lower than what we have seen in the local market the last 2-3 years. The average cost per SPO would increase if the cost escalation is higher than 2.5%.
- The escalated total project cost was then divided by the number of SPOs installed, providing an average escalated cost per SPO per project.
- We averaged the combination of each projects' average cost per SPO to get the combined average cost per SPO in 2022 of \$2,272,609.

Pier J Shore to Ship Power Project

- The work under the Pier J project included retrofitting of four berths of the existing north wharfs (J245-J247) and south wharfs (J266-J270), including the installation of twenty (20) shore power outlet vaults on the wharf face, all associated conduit, electrical cables and connections, and four electrical substations to supply power to each individual berth. (SPO location Exhibit attached)
- The original construction contract amount awarded to Helix Electric Inc. was \$25,200,000 (Analysis of Bids Exhibit dated February 7, 2012 attached)
- Transformer costs are from Bid Items 22, 23, 24, and 25 (Progress Payment#27) and are excluded from the SPO cost calculations.
- Project soft cost included planning, design and construction management costs (EZFAMIS Report of Work Order HA1316) and are incorporated in the SPO cost calculation.

- Costs related to SCE work to bring the power to Pier J, installation of 66KV Substation and Site Preparation for the substation (Griffith Contract) is excluded from the cost calculations (SCE related cost items were highlighted in orange in the attached EZFAMIS Report).
- Average cost per SPO is calculated based on 20 SPO Vaults.

Pier T Shore to Ship Power Project

- The work under the Pier T project included retrofitting four berths of the existing south wharfs (T132-T140), including the installation of eleven (11) shore power outlet vaults on the wharf face, all associated conduit, electrical cables and connections, and four electrical substations to supply power to each individual berth. (SPO location Exhibit attached).
- The original construction contract amount awarded to The Ryan Company is \$20,559,112 (Analysis of Bids Exhibit dated February 14, 2012 attached)
- Transformer costs are from Bid Items 18, 19, 20, and 21 (Progress Payment#19) and were not included in this calculation.
- Project soft costs included planning, design and construction management costs (EZFAMIS Report of Work Order HA1317 attached)
- Costs related to SCE work is excluded from the cost calculations.
- Average cost per SPO is calculated based on 11 SPO Vaults.

Pier A Shore to Ship Power Project

- The work under the Pier A project included retrofitting of four berths of the existing south wharfs (A88-A96), the installation of nine (9) shore power outlet vaults on the wharf face, all associated conduit, electrical cables and connections, and two electrical substations to supply power to each individual berth. Substation A provides power to Berth A94-96 and Substation B provides power to berths (A88-A90) and (A92-A94), respectively. (SPO location Exhibit attached)
- The original construction contract amount awarded to Schimmick Construction Company is \$11,513,850 (Analysis of Bids Exhibit dated January 31, 2012 attached)
- Transformer costs are from Bid Items 20, 21 and 22 (Progress Payment#15 attached)
- Project soft cost included planning, design and construction management costs (EZFAMIS Report of Work Order HA1314 attached)
- Costs related to SCE work is excluded from the cost calculations.
- Average cost per SPO is calculated based on 9 SPO Vaults.

Summary of the Average SPO Costs (2022)

	Ave	erage \$/SPO (2022)
Pier J	\$	2,221,185.36
Pier T	\$	2,303,100.04
Pier A	\$	2,293,541.56
Combined Average Cost Per SPO	\$	2,272,608.98

The cost of the 100-foot cable reel management system is expected to be \$500,000 each. The Port estimated that each berth would require one 100-foot cable reel management system. Today there are 22 berths. The estimated total cost for cable reel management systems \$11,000,000.

<u>Cost Estimate for Six Piers to Install Additional Required SPOs</u> \$2,272,608.98 x 42 SPOs +\$11,000,000 = **\$106,449,577.16**.



SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berths 1245-2247 and J256-270

DATE OPENED: February 7, 2012

NO, HD-S2341

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	Helk Eled 8260 Cam San Dlego Phone: (8 Fax: (858)	Helx Electric, Inc. 8260 Carnino Santa Fo #A San Diego, CA 92121 Phone: (858) 535-0505 F2x: (858) 535-0738	₹	Shamilck Construction Company 2001 Eogeweier Orive Oakand, CA 92818 Phone: (848) 333-1500 Fax: (949) 333-1510		Sully-Miller Contracting Company 135 E. State College Bivd #400 Brea, CA 9284 Prove: (714) 578-960 Fax (714) 449-8775	S Company Blvd #400 20	The Ryan Company 15 Commerce Way Noron, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540		Griffith/Rosendin JV 12200 Bloomfaid Avenue Santa Fe Springs, CA 90670 Phone: (562) 829-1128 Fax (562) 884-7936	90470 90470
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Helix Electric, Inc. LOWEST RESPONSIBLE BIDDER

483309/Exp.11/30/2013

\$25,200,000.00 AMOUNT

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SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berths J245-J247 and J255-J270

NO, HD-S2341

DATE OPENED: February 7, 2012

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483309/EXp.11/30/2013 LICENSE NUMBER

Helix Electric, Inc. LOWEST RESPONSIBLE BIDDER



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ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berths J246-J247 and J265-J270

NO. HD-S2341

DATE OPENED: February 7, 2012

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IBM NO. 14 - Furnish and Places Pevernent Striping; Furnish sul- abor, malerish is roots, equipment, and incidentals necessary to turnish and place A-Inch wide passement striping complete as specified, for the unit price per linear foot of -	2,80	12,000.00	8,1	00'000'9	o o	83 80 80 80 80		7.260.00		Social
ITEM NO. 15 Furnish and Place Pervement Markingar. Furnish all labor, malerial, took, equipment, and indentals necessary to turnish and place pavereant markings, complete as specified, for the unit price per equate foot of	e w	86 \$	8	800		3				
TOYA!	-	201000		30000		D1,000*,c1	20:0	00.0ZT,BT	2,40	14,400,00
CERTIFIED CHECK OR BOND:	-									

Helix Electric, Inc. LOWEST RESPONSIBLE BIDDER

453309/Exp.11/30/2013 LICENSE NUMBER

\$25,200,000.00 AMOUNT

File: Bid Analysis NO-82341 Bandamaka (sop)(BiD And, YSIS) 27/2012 123 PM



SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berths J245-J247 and J265-J270

NO. HD-S2341

DATE OPENED: February 7, 2012

	:	Helix Electro, Inc. 8280 Cemino Santo Fo #A San Diego, CA 92121 Phone: (858) 535-0505 Fac (858) 535-0738	. ∀# \$9	Shimmlek Construction Company 2001 Eogewaler Dive Oakland, CA 92818 Phone: (848) 333-1500 Fax: (948) 333-1510		Sully-Miller Contracting Company 115 E. State College Blvd 4400 Brea, CA 9202. Phone: (714) 449-8775	1	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (\$08) 742-2540 Fax: (\$08) 742-2540		Griffin/Rosendin JV. 72200 Bloomfact Avenue Sanz Fe Springs, CA 50670 Phone: (682) 929-1128 Fax: (582) 884-7938	enue A 90670 28
WELL	ESTIMATED	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ain Link Fence and Gates: ilpment, and incidentals anent chain link fence and or the lump sum price of	Lump Sum	00'000'09	00,000,00	35,000.00	36,000,00	292,631,00	292,631,00	72,300,00	72.350.00	35,000,00	35,000,00
TEM NO. 17 - Sieel Guard Poster. Furnish all labor, malerials, looks, equipment, and incidentals necessary to furnish and install ninety-five (85) steel guard posts, fixed and removable, including concrete footings for the unit price per each of :	Late Price	1,400.00	00.000.00	1,200.00	114,000.00	1,785.00	00:375:00	1,568.35	148,803.25	1,470.00	03.058.00
TEM NO. 18 - Short Power Outlet Vaults for Berth 1245 (SPO 1, SPO 2, SPO 3, SPO 3, SPO 3, SPO 3, SPO 4, SPO 5). Provide all labor, material, equipment, and incleantals necessary to perform dentitition and construction of shore to attip power for the lump sum price of -	mag dunn	400,000,00	00'000'007	550,000,00	550,000.00	818,045.00	018,048,00	Z48,506.00	248,506,00	\$45,000.00	645,000.00
ITEM NO. 19 - Shore Power Outet Vauts for Berth 1247 (SPO 6, SPO 7, SPO 8, SPO 9; Provide all abor, maerial; equipment, and incidentabs necessary to perform demolition and construction of abore to stilp power for the lump sum price of	Lump Sum	200,000,00	00°000°00s	450,000,00	450,000,00	00:929'969	496,425.00	85,546,00	65,546.00	518,000.00	518,000.00
TEEN NO. 20 - Share Power Outlet Vaults for Berth 1266 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 15). Provide all abor, material, equipment, and incidentals necessary to perform demotion and construction of shore to for the lump sum price of		580,000.00	00'000'085	0 750,000.00	C5000,087	969,828.00	00.828,00	. 283,167.00	283,167,00	750,000.00	750,000.00
TOTAL:											
CERTIFIED CHECK OR BOND:									(
				-					/		

TOWEST RESPONSIBLE BIDDER

483309/Exp.11/30/2013

File Be Annyale HD-62341 Bendefinake (act/SIO ANALYSIS) 27/2012 1:23 PM



SPECIFICATIONS FOR: Shore to Ship Power Retrafit at Pier J, Berths J245-J247 and J265-J270

DATE OPENED: February 7, 2012

NO. HD-S2341

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		Hetx Electric, Inc. 8260 Carnino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax (858) 535-0738		Shinmick Construction Company 2201 Ecgewater Drive Ostoffand, CA 92618 Phone: (949) 333-1500 Fex (948) 333-1510		Suly-Miller Commacting Company 135 E. State College Bhd #400 Blera, CA 92821 Phone: (714) 578-9500 Fax: (714) 448-8775		The Ryan Company 15 Commerce Way Notion, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540		Gulfüth/Rosendin JV 12200 Bioomfield Avenue Sartus Fe Sprivgs, CA 80670 Phonei (562) 929-1128 Fax. (562) 864-7939	venue A 80670 128
-	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	a a	Figure	1		-	
TEM NO. 21 - Store Power Outes Vaults for Barth 1270 (SPO 16, PSPO 18, PSP 018, SPO 20); Provide all labor, material, equipment, and inclorate receiving to perform demolition and obstantial receiving to perform demolition and construction of shore to ship powers for the furns sumpore of the perform service of the powers							150		NACCORA	A.	AMOUNT
	Lump Sum	550,000,00	650,000,00	600,000.00	500,000,00	681,001,00	881,001.00	218,699,00.	218,699,00	630,000.00	830.000.00
ITEM NO. 22. Transformer(s) for Serth J245 (SPO 1, SPO 2, SPO 3, SPO 5). SPO 500 SPO 5											
	Lump Sum	800,000,00	600,000,00	800,000,00	800,000,00	617 070 00	617 070 00	54 5 584 DO	00.403.78	2011111	
ITEM NO. 23 - Transformet(s) for Borth, 1247 (SPQ 6, SPO 7, SPO 8, SPO 91 Provide at labor, material, evolponent, and incidentals required to furnish, install, and tast the fransformet(s) as part of a compilete system For the turns sum price of										<u> </u>	Orote, esc
	Lump Sum	600,000,000	600,000,000	800,000.00	800,000.00	817,070,00	617.070.00	541 584 00	541 584 DO	505 209 00	00 67E 303
ITEM NO. 24 - Transformer(s) for Berth J258 (SPO 10, SPO 11, SPO 13, SPO 13, SPO 10); Provide all lanor, materiati, sport part and incidentatis required to familiar), install, and fast the lansformer(s) as part of a., for the larmp sum price of -					-					<u> </u>	
	Lump Sum	800,000,00	600,000,000	600,000,00	600,000,00	817.070.00	817.070.00	641 584 00	541 584 PM	200 AAB AAB	202
TIEM NO. 25 - Transformers for Borth 1270 (SPO 16, SPO 17, SPO 18, SPO 20); Provide at labor, material, equipment, and indefenals require to formerly, install, and test the (rensformer(s) as part of a complete for the lump sum price of						ļ				<u> </u>	3
	Lump Sum	600,000,00	800,000,00	900,000,00	900,000,00	617,070.00	617.070.00	641.584.00	641.584.00	595.348.00	OU 871 583
TOTAL								L		L	
CERTIFIED CHECK OR BOND:											
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Helix Electric, Inc. LOWEST RESPONSIBLE BIDDER

, 483309/Exp.11/30/2013 LICENSE NUMBER

\$25,200,000.00 AMOUNT

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SPECIFICATIONS FOR: Shore to Ship Power Retrofft at Pier J, Berths J245-J247 and J266-J270

NO. HD-S2341

DATE OPENED: February 7, 2012

		Helix Electric, Inc. 8260 Camino Sanle Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	# +	Shimmick Construction Company 8201 Edgewater Drive Oakland, CA 92618 Phone: (949) 333-1500 Fox (949) 332-1510		Suby-Miller Contracting Company 136 E. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-9775		The Ryan Company 15 Commerce Way Norton, MA 02765 Phone: (508) 742-2500 Fax: (508) 742-2540		Griffith/Rosendin JV 12200 Bloomlieid Avenue Santa Fe Sorings, CA 90870 Phone: (\$62) 926-1128 Fax. (\$62) 884-7338	enue A 90670 28
TEK	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	ZATE	AMOUNT	RATE	AMOUNT	RATE	ARGUNT
TEM NG, 26 - Switzngaar Assembly(s) for Bath J245 (SPO 1, SPO 2, SPO 2, SPO 3, Provide all labor, material, equipment, and inclidentals required to furnish, install, and test the switchgear assembly as part of a for the kmp aum price of -	eng denti	1,112,440,00	1,112,440.00	1,950,000,00	1,950,000,00	2.257,118.00	2.257.118.00	1,983,333.00	1,963,333.00	1,803,184.00	1,803,164,00
TEM NO. 27 - Switchgear Assembly(s) for Berth 1347 (SPO 6, SPO 7, SPO 7, SPO 9): Provide all labor, material, equilyment, and fredontals required to funital, helts!, and test the widdyser seembly as part of a complete for the lump sum price of -	<u> </u>	1,000,000.00	1,000,000.00	2,000,000,00	2,000,000.00	2,180,872.00	2,180,872.00	1,983,333,00	1,982,333.00	1,839,865.00	1,839,865.00
ITEM NO. 28 - Switzigaar Assambly(s) for Banh 1286 (SPO 10, SPO 11, SPO 11, SPO 13, SPO 14, SPO 15) Provide all labor, imaterial, ocupment, and incidentals required fortunish, install, and test the switzigear assembly as for the lump turn price of -	nd Lump Sum	2,000,000.00	2,000,000.00	2,000,000.00	2,000,000,00	2,313,947.00	2,313,947.00	0,000,000,000,000	1,943,333.00	1,852,170.00	1,852,170.00
TEM NO. 25 - Switchgear Assembly(s) for Berth 1270 (SPO 16, SPO 17, SPO 17, SPO 18, SPO 17, SPO 18, SPO 20); Provide all labor, material, equipment, and incidentials required to furnish, install; and test the withchear assembly as patk of a for the lump sum price of a		<u> </u>	2,200,000.00	0 2,190,000,00	2,190,000.00	2,380,042.00	2,350,042.00	1,983,333.00	1,985,233.00	2,028,687.00	2,026,687.00.
TTEN NO. 30 - Ductbank and Racaways for Berth 1245 (SPO 1, SPO 2, SPO 2, SPO 3, SPO 4, SPO 6); Provide all labor, material, equipment, and incidentals required to tumbst, install and test the ductbanks and deceways as part of a for the lump sum price of	- Lemp Sum	1,500,000.00	1,500,000,00	0 2,000,000,00	2,000,000.00	0 1,014,150.00	1,014,160.00	1,148,820,00	1,146,620.00	1,150,000.00	1,150,000.00
TOTAL:											
CERTIFIED CHECK OR BOND:											
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Helix Electric, Inc. LOWEST RESPONSIBLE BIDDER

483309/Exp.11/30/2013 LICENSE NUMBER

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SPECIFICATIONS FOR: Shore to Ship Power Retrofft at Peler J, Berths 1245-1247 and 1285-1270

DATE OPENED: February 7, 2012

NO. HD-S2341

		Helix Electric, Inc. 8280 Carnino Sarta Fe 8A Sart Diego, CA 82121 Phone: (858) 535-0505 Fext (858) 535-0738	₩ .	Shinmick Construction Company 8201 Edgewater Drive Cockland, CA 92618 Phone: (949) 332-1500 Parc (949) 332-110	1 Company	Sub-Maler Contracting Company 135 E. State College Brut #400 Sibra, CA 92621 Phone: (714) 449-8775		The Ryan Company 15 Commerce Way Nortan, MA 02766 Phone: (508) 742-2500 Fac (508) 742-2540		Grifflt/Rosandin JV 12200 Bloomfield Avenue Santz Fe Sphings, CA 90670 Phone: (562) 929-1128 Faz: (562) 864-7939	onue A 90670 28
тем .	ESTIMATED QUANTITES	RATE	AMOUNT	RATE	FALIONA	27.40	Futons	100	1		
TEM NO. 31 - Ducthank and Raceways for Berth 1247 (SPO 6, SPO 9, SPO 7, SPO 9, SPO 9) Provide all abov, malendi, equipment, and rodertals required to furnish, Install, and test the ducthanks and adeways as part of a complete for the lump sum price of seaways as part of a complete for the lump sum price of seaways.								¥	AACOON	n Ay	AMOUNT
	Lump Sum	1,500,000.00	1,500,000,00	1,000,000.00	1,600,000.00	814,440.00	814,440.00	928.874.00	928 874 00	00 000 031	4 4 50 000 00
TEM NO. 32 - Duclabant and Raceways for Berth L266 (SPO 10, SPO 11, SPO 14, SPO 15). Provide all labor, material, equipment, and incidentals required furnish, install, and exist the ductbenks and raceways as for the furn sum price of the furnish of the furnish and the offer sets.											Postoria i
	Lump Sum	2,000,000.00	2,000,000,00	1.800,000.00	1,800,000,00	1,278,178,00	1,278,178,00	1.835.453.00	1 835 453 00	on non non t	1 420 000
TEN NO. 33 - Ducthank and Raceways for Beth L270 (50.15, SPO 14, SPO 18, SPO 20). Provide all labor, material, equipment, and incidentals required to furnish, Install, and test the duchanks and raceways as part of for the lump sum price of the second state.	Lump Sum	1,500,000.00	1,500,000.00	1,300,000.00	1,300,000.00	1,176,073,00	00,576,073,00		086 532 PG	00 000 0EF	AU (000 DEF 2
If EM. No. 34 - Concurtons for Bent, 1245 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 5, SPO 4, SPO 5, S	ć				·					<u> </u>	
	Ens dwn	400,000.00	400,000,00	550,000.00	550,000,00	637,91B,00	537,918.00	556,501,00	556,501.00	604,764.00	604,784.00
ITEM NO. 35 - Conductors for Bett, 1247 (SPO 8, SPO 3, SPO 8, SPO 9, SPO											
	Lump Sum	200,000,00	200,000,00	400,000,00	400,000,00	451,610,00	451,610.00	400,827.00	400,827.00	457,211,00	457,211,00
TOTAL:										L	
centified check or bond:									(

Helix Electric, Inc. LOWEST RESPONSIBLE BIODES

\$25,200,000.00 AMOUNT

File: 01d Analysis MC-32341 Bandenhour (scp)(810 ANALY815) 27/2012 1:23 PM



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CITY OF LONG BEACH, HARBOR DEPARTMENT **ANALYSIS OF BIDS**

at Pier J, Berths J245-J247 and J266-J270 Share to Ship Power Retroff SPECIFICATIONS FOR:

NO. HD-S2341

DATE OPENED: February 7, 2012

559,717,00 475,401.00 390,978.00 531,086,00 755,811.00 AMOUNT Santa Fe Springs, CA 90670 Phone: (582) 928-1128 12200 Bloomfield Avenue 559,717,00 Fax: (562) 884-7938 475,401.00 Griffin/Rosendin JV 390,978,00 631,085,00 756,811,00 RATE 442,719,00 354,175.00 531,252,00 798,446.00 813,159.00 AMOUNT Norian, MA 02755 Phone: (508) 742-2500 Fax: (508) 742-2540 354,175.00 531,262,00 442,719.00 The Ryan Company 15 Commerce Way 798,445.00 813,159.00 RATE 208,083.00 173,403.00 138,722.00 887,968,00 852,570.00 AMOUNT Sully-Miller Contracting Company 135 E. State College Bivd #400 Phone: (714) 578-9600 Fax: (714) 449-8775 208,083,00 173,403,00 138,722.00 852,670,00 887,968.00 Bres, CA 92821 RA TH 175,000.00 175,000.00 175,000.00 800,000,00 850,000,00 AMOUNT Shimmick Construction Company Phone: (949) 333-1500 8201 Edgewater Drive Fax: (949) 333-1510 Oakland, CA 92818 175,000.00 175,000.00 175,000.00 800,000,00 650,000.00 RATE 100,000.00 170,000,001 150,000.00 500,000.00 400,000,00 AMOUNT 8260 Camino Santa Fe #A Phone: (858) 535-0505 San Diego, CA 92121 Facc (858) \$35-0738 100,000,00 170,000.00 150,000,00 400,000.00 500,000,00 Helix Electric, Inc. RATE ESTIMATED QUANTITIES Lump Sum Lumb Sum Lump Sum Lump Sum тиз дти TEM NO. 39 - SPO Assambles for Both 1247 (SPO 6, SPO 7, SPO 8, SP TEM NO. 38 - SPO Assembles for Berth J245 (SPO 1, SPO 2, SPO 2, SPO 3, SPO 4, SPO 31: Provide all labor, material, equipment, and incidentals required to furnish, install, and test the SPO sessembles as part of a complete system... (or the lump sum price of -ITEM NO. 40 - SPO Assembles for Barth 1266 (SPO 10, SPO 11, SPO 12, SPO 12, SPO 14, SPO 16); Proxdes all labor, material, equipment, and indentate required to kimish, lostell, and tast the SPO assembles as part of a... for the lump sum price of the sport of a... for the lump sum price of the sport of a... for the lump sum price of the sport of a... for the lump sum price of the sport of a... for the lump sum price of the sport of a... for the lump sum price of the sport of a... for the lump sum price of the sport of a... for the sum parts of the sport of a... for the sum parts of the sport of the TEM NO. 38 - Conductors for Berth JOSE (SPO 10, SPO 11, SPO 11, SPO 12, SPO 13, SPO 15); Provide all babor, material, equipment, and holdentals required to funish, install, and test the 16, SPO 19, SPO 20): Provide all labor, material, equipment, and incidentals required to fumilish, install, and test the conductor(s) as TEM NO. 37 - Conductors for Berth 1270 (SPO 16, SPO 17, SPO conductor(s) as part of a complete... for the tump sum price of sen of a complete system... for the lump sum price of -CERTIFIED CHECK OR BOND:

Helb Electric; Inc. LOWEST RESPONSIBLE BIDDER

483309/Exp.11/30/2013

\$25,200,000.00 AMOUNT

Fig. Bio Annytis NO-122241 (Bendemaker (epyylet) ANALYBIS) 27(2011 1:23 Pin



SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berthe J245-J247 and J266-J270

NO. HD-S2341

DATE OPENED: February 7, 2012

• .		Helix Electric, Inc. A250 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0509 Fax: (858) 535-0738		Shimmick Constauction Company 8201 Edgewater Drive Caxians, CA 92518 Phone: (849) 333-1500 Fax (849) 333-1510		Sully-Miller Contracting Company 135 E. State College Stvd #400 Brae, CA 92821 Prione: (714) 578-9500 Fax. (714) 449-8775	ng Company Blvd #400 ico	The Ryan Company . 15 Commerce Way Norton, MA 02756 Phore: (508) 742-2500 Fax: (508) 742-2540		Grifffth/Rosendin JV 12200 Bloomfreid Avenue Santa Fe Springs, CA 80670 Phone; (552) 929-1128 Fax (552) 884-7938	venue A 80670 126
	ESTIMATED										
WEIL	COARTHES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TEM NO. 41 - SPO Assembles for Bern UZTO (SPO 15, SPO 17, SPO 17, SPO 18, SPO 17, SPO 48, SPO 20). Provide all fabor, material, equipment, and soddentals required to furthe, hastal, and test the SPO was embles as part of a complete (or the lump sum price of -	- 1										
	Lump Sum	150,000.00	150,000,00	175,000,00	175,000,00	173,403.00	173 403.00	447 719 00	ON 917 C27	475 401 PR	775 175
TEM NO. 42 - MI Other Electrical Work for Berth 1245 (SPO 1, SPO 2, SPO 4, SPO 5, SPO 4, SPO 6); Provide all about material studies during in the speciment and fordentals required to furthsh, install, and test all other electrical work for Berth for the furmp our price of -			,								
	Lump Sum	150,000,00	150,000.00	300,000,00	300,000,00	197,589,00	197 589 00	127 895 00	127 895 00	5	5
TEM NO. 43 - All Other Electrical Work for Betth 1247 (SPO 6, 1980 7,	, <u>1</u> 2										ACT.
	Lump Sum	150,000.00	150,000,00	250,000.00	250.000.00	167.008.00	187 008 00	270 414 00	720 414 00		
TEM NO. 44 - All Other Electrical Work for Benth 1266 (SPO 10, SPO 11, SPO 14, SPO 15, Previde all labor, material, equipment, and inclentels required to furnish, ineltall, and test all other electrical work for the lump sum price of -	Pure duer 1	150,000,00	150,000,00	275.000.00	275 000.00		495 201 83		80286		
TEM NO. 45 Au Omer-Electrical Word for Senth 1270 (SPO 16, SPO 17, SPO 18, SPO 19, SPO 20). Provide all teach material, equipment, and inodemiza, required to funitish, brasall, and test all joher electrical work for for the lump sum price of v											8:1
	mns dum	150,000,00	150,000.00	250,000.00	250,000,00	167,008.00	167,008.00	127,696.00	127,895.00	00,1	100
TOTAL:											
CERTIFIED CHECK OR BOND:											
									1		

483309/Exp.11/30/2013 LICENSE NUMBER

\$25,200,000.00

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SPECIFICATIONS FOR: Shore to Ship Power Retroft at Dian | Barbs 1945, 1947 and

NO. HD-S2341

DATE OPENED: February 7, 2012

at Pier J, Berths J245-J247 and J266-J270	and J266-J	270			,						
		Helk Electro, Inc. 8260 Camino Sarta Fe #A San Diego, CA 92121 Phone: (868) 535-0505 Fax: (868) 535-0738		Shimniek Construction Company S2D1 Edgewater Drive Ookland, CA 92816 Pronat (845) 333-1500 Fax: (845) 335-1510	!	Sully-Miler Contracting Company 135 E. State College Blvd #400 145 E. State College Blvd #400 Phone: (714) 449-8775	ig Company Blvd #400 00	The Ryan Company 15 Commerce Way Notion, MA 02765 Phone: (508) 742-2500 Fax: (508) 742-2540	,	Griffith/Rosendin JV 12200 Bloomfeet Avenue Sarta Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	enue A 90570 28
NALI	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
THEM NO. 46 - All Other Work: Funish all abor, mareriask, tools, guitipment, and indebenials necessary to perform all other work not induced in the other Bir liems as indicated in Paragraph SC-22 or fine Special Conditions for the tump sum price of .											
	Lump Sum	200,000,00	200,000,00	0	o	530,989,00	630,999,00	3,142,993.00	3,142,993.00	4,310,000,00	4,310,000.00
ITEM NO. 47 - Extended Contractor Overhead: Furnish all labor, material, tobe, equipment, and incidentals necessary to complete libe work beyond the infisit Contact Time due to Excusable Contract Time due to Excusable Contact so indicated in the unit price per day of compensative Delays as indicated., for the unit price per day of											
	Unit Pries	1,000.00	80,000,00	1,500.00	90,000,00	144.00	8,540.00	3,137,70	188,252.00	1,145.00	68,700.00
TTEM NO. 48 - Standby Time. Period of time dufing which work is interrupted and the Contractor and the Contractor is aboversomel and equipment in a state of reachiness as indicated in Paragraph SC-30 of the for the unit price per man hour of -	Unit Price	00.08	240,000.00	90:09	240,000,00	172.00	688,000.00	03.08	322,000.00	72.57	290,000,00
TEM NO. 49 - Commissioning for Berths 1245-1247. Furnish all tabor, materiast tools equipment, and incidentals necessary to commission Berths 1245-1247 complete as specified in Section 118999 "Commissioning" for the unit price per man hour of the commissioning for the unit price per man hour of the commissioning of the unit price per man hour of the commissioning of the unit price per man hour of the commissioning of the unit price per man hour of the commissioning of the unit price per man hour of the commissioning of the commission of the commissioning of the commission of the commi	Unit Price	200.00	200,000.00	400.00	400,000.00	358.00	358,500.00	132.54	132,540,00	237.91	207,910,00
ITEM NO. 50 - Commissioning for Berths J265-J270: Furnish all labor, materials, tooks, equipment, and indicinitis mecasary to commission Berths J266-J270 complete as specified in Section 16999 "Commissioning" for the unit price per man hour of	Uolt Price	200.00	200,000,00	400,00	400,000.00	358.00	00'000'898	132.54	132,540.00	237,91	237,910,00
TOTAL:		\$25,20	\$25,200,000.00	528,48	528,485,050.00	\$28,89	\$28,881,481,00	\$29,28	\$29,290,225.10	531,33	551,333,185.00
CERTIFIED CHECK OR BOND:		10%	10% Bond	10%	10% Bond	201	10% Bond	40%	10% Bond	10%	10% Bond
									ŕ		

\$25,200,000.00 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Retroff

NO. HD-\$2341

DATE OPENED: February 7, 2012

מין זיפן טי ספונונא אלקאראלי אוום ארפסירעיע	and Jebb	7/7									
		Dynabectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone; (714) 828-7000 Fax (714) 484-2385	Ner Drive 0720 000 5	Cornet Electric, Inc. 7780 Deering Avenue Canoga Park, CA 91304 Phone; (818) 340-0365 Fax. (818)	6 1304 155						
	ESTRIATED QUANTITIES	RATE	AMOUNT	RATE	AMOLOUT	3476	FULLOTIA	F S	Parions		
TEM NO. 1 - Progress Scheduter; Furnish sil tebor; metentale, post, equal post, emish, post, equal post, emish, updale, revise and melintelin the cost and resource loaded casheduling. For the lump sum price (mbinum amount of \$25,000)									-	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	AMOUNT
	Lump Sum	192,500,00	192,500.00	93,324,00	93,324,00						
THEN NO. 2" VIEW SPECIFIC SEREY YEAR. THIRST SITE SOON, MISIERIES, BOOK SQUIPMENT, AND INCIDENTES RECORSENY TO GEWING, SURILL, IMPRIENT AND MISIERIES SEREY PLEN, TRIBUING FOR the turne suring price (mislmum amouge of \$50,000) of -											
7.	Lump Sum	34,000.00	34,000.00	33,330.00	33,330,00						
ITEM NO. 3 - Furnish and Place Temporary K-Reil and Chain Link Fence: Funish all abor, methins, took, equipment, and incidentals necessary to furnish, place, more, relocate, store, Immove and dispose of hamporary K-Reil for the lomp sum price of -	Eng own	305.500	00 005 808	00 024 22	77. 00 00 00 00						
TEX NO. 4 - Moditation/Demoistration: Furnish all labor, materials, tode, equipment, and incidentals necessary for Modifization and Delanostication as specified and shown for the											
fump sum price (flood amount of \$1,200) of -	Lumo Sum	1.200.000.30	1200 000 00	1 200 000 00	1 200 000 00						
TEN NO. 5 - Interin Demoblization/Remobilization. Funish 21 labor, materiats, bods, equipment an inchenials necessary to benooning demoblize from the stove-whatf work area, including ampionary At the talk price pte section combined event of											
	Unit Price	5,000.00	75,000.00	02:000:51	225,300,00			_			
TOTAL:											
CERTIFIED CHECK OR BOND;											

Hellx Electric, Inc. LOWEST RESPONSIBLE BIDDER

483309/Exp.11/30/2013

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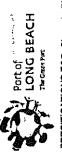


SPECIFICATIONS FOR: Shore to Ship Power Refront at Pier J, Berthe J245-U247 an

NO. HD-S2341

DATE OPENED: February 7, 2012

: 	<u> </u>	Dynatectric 4462 Corporate Center Driva Los Alamitos, CA 80720 Phone: (714) 428-7000 Fax. (714) 484-2385		Comet Electro, Inc. 7780 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0953 Fax. (818) 340-4033	1304 65						
	<u> </u>		:								
O . Wall	ESTIMATED	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
evention Plan(s) (SW/PPP) 1 #1 jabor, materials, tools, to develop, provide, mun amount of \$150,000) of	Lump Sum	316,300.00	316,300,00	166,650,00	166,650,00						
TEM NO. 7 - City Ordinance Construction Weste Management Plan: Fursh all abov, material, tools, equipment, logistics, forms, and inclosussisty (exchashe of the maximum \$50,000 desposit) for the lump aum price (minimum amount of \$5,000) of -	Lump Sum	6.700.00	5,700.00	72,215,00	72.215.00						
TEM NO. 8 - Soil Handing and Disposal, Non-Hazardous Waste. Furnish at labor, materials, took, equipment, and incidentals recessary to excerving, stockpile approximately seventiven- thousand alsk-fundred (17,500) tons for the unit price per ton of-	Unit Price	28.16	236,460.00	28.33	237,872,00						
TEM NO. 9 - Shoring for Excavations: Fumids all short materials, tools, equipment, and inclemes necessary to design, place, maintain, store, and remove excavation shoring adequate for worker for the tump sum pirice (minimum amount of \$30,000) of -	ພ ብያ ታ ውሮን	287,000,00	DO.000.78Z	122,390.00	122,390,00						
FIEM NO. 10 - import Soil : Purish all labor, male/als, took, equipment, and incidentals necessary to lest, carify, bad, transport, stockple, place approximately at thousand eight hundred ten (9,310) tons for the unit price per tan of -	טחל פאר	42.78	291,331,80	0 45.33	308,597,30						
TOTAL:											
CERTIFIED CHECK OR BOND:									7	<u>(</u>	



Trigot Desirent Windshort Trigot Desirent Trigot	SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berths J245-J247 and J286-J270	ofit and J266-J	270			_	NO. HD-S2341			DATE	DATE OPENED: February 7, 2012	oruary 7, 2012
Patimetro Pate AMOCHIT RATE AM	,		Dynatectric 4452 Corporate Cer Los Alamitos, CA B Phone: (714) 828-7 Fax: (714) 484-2385	nter Drive 0720 000 5	Comet Elecaric, Inc. 7760 Deering Averu Canoga Park, CA 9: Phone: (818) 340-09 Fac (818) 340-6033	ne 1304 855						
Unit Price 33.6 225,150.00 28.33 70,835.00	, PI3.1.1	ESTIMATED		Pro Advisor						9 0000000000000000000000000000000000000		
Unit Price 90.06 225,130.00 28.33 77 Unit Price 93.48 1,252,632.00 65.73 88 Talk Talk Unit Price 31.51 178,976.80 47.60 21 Unit Price 3.38 20,280.00 0.57 Corr Unit Price 3.38 20,280.00 3.31	TEM NO. 11 - 3/4-inch. Cruthed Rook: Furnish all labor, materials, toobs, equipment, and incidentals necessary to load, transport, astrockie, labes, compare and grade approximately we boustand fine bundred (2.200) tems. (or for und order sort or or.)		<u> </u>	NO.		NO CONTRACTOR OF THE PROPERTY	Ž	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
Table 93.46 1,252,632.00 65.73 88 1416		Unit Price	90.06	225,150.00		70.825.00	,- - -					
Unit Price 53.48 1,252,632.00 65.73 88 Unit Price 31.51 178,976,80 47.60 27 Unit Price 3.58 20,280.00 6.57 Unit Price 3.59 20,280.00 3.31	TIEM NO. 12 - Disposal of Non-Hazardous Washs: Fumish all labor, malands, look, addigment, and incloemtals neessany to profile, (ead. transport approximately blicken thousand four hundred (13,400) four for the unit pilce per (on or -											
Unit Price 31.51 178,576.50 47.50 27 Unit Price 3.39 20,280.00 0.57 Unit Price 4.50 27,000.00 3.31		Crist Price	93.48	1,252,632.00		880,782,00						_
Unit Price 3.38 20,280.00 0.57	ITEM NO. 13 - Crushed Miscellaneous Base from Port Crusher Silas: Furnish af labor, nasariala, jools, equipment, and incidentals, necessary to load, weight, approximately five thousend six hundred eighty (5,880) lons for the unit price per ton of v		ř	178 975 80		00 83E 07C						,
Unit Prize 4.50 27.000.00 3.31	IFEM NO. 14 - Fumin and Place Pevenent Streing. Furnish sit Inbot, marerials, bools, equipment, and indentish necessary to furnish and place 4-firch wide pavement stripling complete as specified, for the unit price per linear foot of -	ļ	8			Se se se						
Unit Price 4.50 27.000.00 3.31	ITEM NO. 16 - Fumish and Place Pavenent Markings: Fumish all labor, malerials, tools, equipment, and incidentist necessary to litmish and piece pervenent mankings, complete as specified, for the unit price per square foot of	 				3						
TOTAL: CERTIFIED CHECK OR BOND:		Unit Price	4,50			19,880.00						
CERTIFIED CHECK OR BOND:	TOTAL											
	CERTIFIED CHECK OR BOND:									•		
											ļ	

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Helly Electric, Inc. LOWEST RESPONSIBLE BIODER



SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J, Berths J245-J247 and J266-J270

NO. HD-S2341

DATE OPENED: February 7, 2012

at Pier J, Bertis 3245-324, and 3266-32/0	APG 2200-	0/2						,			
.		Dynalectric 4462 Cotpotate Center Drive Los Alamitos, CA 90720 Prone: (714) 828-7000 Pax: (714) 484-2385	er Drive 720 00	Comet Electric, Inc. 7780 Desking Avenue Canoga Part, CA 91304 Phore: (818) 340-40365 Fax (818) 340-4033	304	, 					
ITEM	QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO, 18. Furnish and Place Chain Link Fenos and Gates; Furnish at labor, materials, tools, equipment, and incidentals researany to furnish and place permanent chain fink lence and gates including all facultys, chain for the furny sum price of -	eng aeur	92.728	00 022 6C	01.615.15	31.473.00						
ITEM NO. 17 - Steel Guard Poets: Fumish all lation, materials, footle, equipment, and indentials necessary to furnish and install interpreted (99) steel guard posts, fixed and ramovable, including concerts footlings for the unit pido per each of											
	Unit Price	1,687.47	160,309,65	1,784.82	169,557.90						
TIEM NO. 15 - Shore Power Outlet Veuts for Benth J245 (SPO 1, SPO 2, SPO 4, SPO 8): Provide all labor, material, equipment, and incidentals necessary to perform demolition and construction of shore to ship powers. for the lump sum price of -	mus gum	\$57,250.00	557,250.00	679.322.00	879,322,00						-
ITEM NO. 19 - Sinore Power Outlet Vauts for Berth 1247 (SPO 6, SPO 7, SPO 8, SPO 9); Provide at labor, material, equipment, and incidentals necessary to perform demoltion and construction of shore to aftip power for the lump sum price of -	Eng deary	467.200.00	467,200.00	704,410,00	704,410,00						
TIEM NG. 20 - Shore Power Outer Vaults for Berlin 1296 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 15). Provide all labor, material, equipment, and inddentals necessary to perform demolition and construction of shore to for the lump sum price of			688,700.00	0 1,187,501,00	1,187,501.00	·					
TOTAL:											
CERTIFIED CHECK OR BOND:		-							1	ŀ	
Helix Electric, inc. LOWEST RESPONSIBLE BIDDER		483309/EX	183309/EXp.11/30/2013 License number			\$25,20 AM	\$25,200,000.00 AMOUNT	ı	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	NATIONALED SIGNATURE	NOTA ATTERE
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7.



The complete Compl	at Pler J, Berths J245-J247 and J258-J270	and J256~J	270			- -	NO. HD-S2341			DATE	DATE OPENED: February 7, 2012	bruary 7, 2013
CLAMPTTITES PATE AMOUNT RATE AMOUNT RATE AMOUNT RATE AMOUNT RATE AMOUNT RATE AMOUNT			Dynalectric 4452 Corporale Cer Los Alamicos, CA 98 Phone: (714) 828-76 Fax: (714) 484-2385	720 720 X0	Comet Electric, Inc. 7780 Deering Aven Canoga Park, CA & Phone: (818) 340-0 Fex: (818) 340-403:							
CAUANTTITIES PATE AMOUNT RATE AMOUNT												
Lump Sum Se0,000,00 Se0,000,00 Se4,741,00 Se4,7	пен	ESTIMATED QUANTITIES		AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	TANDUM	24.0	Halione
1,	TEM NO. 21 - Shore Power Outlet Vaulte for Berth 1270 (SPO 16, SPO 17, SPO 19). Provide all labor, material, stophyment, and incidentals necessary to perform demolition and construction of gloom for the powers. For the lump sum prices of a site powers. For the lump sum prices of a										Š	200
\$PO			580,000,00	580,000,00		994.741.00						
Lump Sum 650,000,00 650,000,00 630,00 630,00 6	TEM NO. 22. • Transformer(s) for Berth "Dets (SPO 1, SPO 2, SPO 3, SPO 4); Produce as labor, materials, equipment, and nocidants required to furthst, itstall, and tast the bransformer(s) as not of a complete system for the lump sum pitce of -											
Lump Sum 650,000,00 655,000,00 630,00 630,			650,000,00	650,000,00		630,000,00	-4-					
Lump Sum 650,000,00 650,000,00 630,000,00 630,000,00 630,000,00 630,000,00 630,000,00 630,000,00 630,000,00 630,000,00	TEM NO. 23 - Transformer(s) for Berth, Lz47 (SPD 6, SPO 7, SPO 9,											
Lump Sum 650,000,00 650,000,00 530,000.00 Lump Sum 650,000,00 650,000,00 630,000.00 Lump Sum 650,000,00 650,000,00 630,000.00		Lump Sum	_	650,000.00	_	630,000,00						
14 Lump Sum 650,000,00 650,000,00 630,000,00 Lump Sum 650,000,00 630,000,00 630,000,00	TEM NO. 24 - Transformet(s) for Berth 1256 (SPO 10, SPO 11, SPO 11, SPO 11, SPO 14, SPO 16, SPO 17, SP											
00:000:009 00:000:059 00:000:059 00:000:059			_	650,000,00								
10000000 830'000'00 830'000'00 830'000'00 100 100 100 100 100 100 100 100	ITEM NO. 25 - Transformers for Barth 1270 (SPO 16, SPO 17, SPC 14, 3PO 12, SPO 20); Provide all leave, material, equipment, and incidentals required to fundal, install, and her the transformer(s) as part of a complete for the lump surn price of	S O										
TOTAL: CERTIFIED CHECK OR BOND:		Lump Sum		850,000,00							·	
CERTIFIED CHRCK OR BOND.	TOTAL:											
	CERTIFIED CHECK OR BOND:											

Helix Electric, Inc. LOWEST RESPONSIBLE BIODER

483309/EXp.11/30/2013

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SPECIFICATIONS FOR: Shore to Ship Power Retrofit

NO. HD-S2341

DATE OPENED: February 7, 2012

					_						
	<u> </u>	Dynalectric 4452 Corporate Center Drive Lot Alamitos, CA 90720 Phone: (714) 828-7000 إقعد: (714) 434-2385		Comet Electric, Inc. 7750 Deering Avenue Canoga Park, CA 91304 Phone: (918) 340-0965 Fax: (818) 340-4033	75 730 765						
	<u>!</u>										
NG11	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
8) for Berth 1245 (SPO 1, Mode all labor, material, Chimish, install, and test the or the lump sum price of -	6	0000	50 500	6	04.60.000.00						
ITEM NO. 27 - Switchgear Assemby(s) for Benth 1247 (SPO 6. SPO 7, SPO 8, SPO 9); Provide all labor, malerfal, equipment, and incridentals required to furthat, insult, and test the switchgear arranged by so part of a complete for the lump sum price of -		2.032.000.00	2.032.000.00		2,193,000,00						
TEM NO. 23 - Switchgear Assembly(s) for Berth J266 (SPO 10, SPO 11, SP		2,045,300,00			2.244,000.00						
TEM NO. 29 - Switchgear Assembly(s) for Berth 1276 (SPO 16, SPO 17, SPO 18, SPO 20). Provide all labor, material, equipment, and incidentals required to furnish, install, and text the switchgear assembly as part of a for the lump sum price of -	Lump Sum	2,235,400.00			2,519,000,00						
TEM NO. 30 - Ductbenk and Razeways for Berth (2A6 (3PO 1, SPO 2, SPO 3, SPO 3, SPO 3). Provide all abor, material, aquipment, and incidentals required to furnish, install and test the ductbanks and receways as part of a for the furnp sum price of	Lump Sum	1,920,500.00	1,920,500.00	0 1,928,000,00	1,928,000.00						
TOTAL											
CERTIFIED CHECK OR BOND:									7	_	

483309/Exp.11/30/2013 LICENSE NUMBER

\$25,200,000,00 AMOUNT

PRE BIG Analysis HD-62041 Denominates (accyttic ANALYSIS) 2/7/2012 1/25 PM



SPECIFICATIONS FOR: Share to Ship Power Retrofit

NO. HD-S2341

DATE OPENED: February 7, 2012

at Pier J, Berths J245-J247 and J266-J270	and J266-J	270								2012 OF ENERGY () 2018	100) / , 2016
		Dynalectric 442 Corporate Center Drive Los Alamitos, CA 80720 Phone: (714) 828-7000 Fax: (714) 484-2385	nter Drive 0720 500	Cornel Electric, inc. 7760 Deciring Avenue Canoga Park, CA 91304 Phone: (818) 340-0985 Fax. (818) 340-0933	e 1304 65						
							i i				
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	PATE	AMOUNT	14 4 12	Dilony	į	L		
If EM NO. 31 • Duchank and Receverys for Berth 1247 (SPO 6, 280 v. 5, 290 s) is provide all black material, equipment, and brodernial required for furnish install, and that the ducharies and receverys as part of a complete, for the king sum price of v.								n n	e constant de la cons	4	AMOUNT
	Lump Sum	774,500.00	774,500.00	1,723,000,00	1.723,000,00						-
ITEM NO. 32 - Ductaznik and Receivinys for Berth. 1266 (SPO 10, SPO 14, SPO 14, SPO 15, SPO 16, SPO 15, SPO 16, SPO 15, SPO 15, SPO 16, SPO 15, SPO 15											
	Lump Sum	2,857,500.00	2,657,500,00	3.006.000.00	3,008,000,00		_	~~~			
ITEM NO. 33 - Ductionix and Raceways tor Benth. 1270 (\$0.16, ISPO 17, SPO 16, SPO 19, SPO 200; Provides all tabot, material, equipment, and wolderhale required to furnish, instati, and best the ductionalize and proceways as perif ci for the himp sum price of -											
	Ltump Sum	1,234,590,00	1,234,500.00	2.897,000.00	2,897,000,00						
ITEM NO. 34 - Conditions for Berth, 1243 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 2, SPO 3, SPO 4, SPO 5). Provided all labor, material, equipment, and incidentais required to furnish, install, and they the conductor(s) as part of a complete system as for the lump aum price of:											
	Lump Sum	619,250.00	619,250 DO	627,000,00	627,000,00						
ITEM NO. 35 - Conductors for Berth 1247 (SPO 6, SPO 9, SPO 8, SPO 9, SPO											
	Lump Sum	371,200,000	371,200,00	450,000.00	460,000,00						
TOTAL:											
CERTIFIED CHECK OR BOND:											
									 		

483309/EXP.11/30/2013 LICENSE NUMBER

File: Bid Analysis HD-823-41 Bencammeur (Locy/BID ANALYSIS) 27/2012 1,23 File



SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Pier J. Berths J245-J247 and J265-J270

NO, HD-S2341

DATE OPENED; February 7, 2012

at Pier J, Berths J245-J247 and J266-J270	and J266-J2	70					•				
		Oynsioctric 4482 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax (714) 484-2385	Drive	Comet Electric, Inc. 7760 Deering Avenue Canoga Perk, CA. 91304 Phone: (818) 340-0965 Fax: (818) 340-4033	1304 1304 985						
W3.1)	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TTEM NO. 36 - Conductors for Berth 1298 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 15); Provide all labor, material, courbment, and incidentals, required to furnish, install, and test the conductor(s) as part of a completa for the lump sum price of	Lump Sum	765,400,00	756,400.00	00'000'276	00:000;778						
TEM NO. 37 - Condudors for Berth 1270 (SPO 15, SPO 17, SPO 18, SPO 19, SPO 20); Provide all labor, material, equipment, and incidentals required to furnish, ineral, and text the conductor(s) as part of a complete system for the lump sum price of -	mns cum	00,257,253	633,725.00	00:000:223	822,000.00						
ITEM NO. 38 - SPO Assembles for Berth J245 (SPO 1, SPO 2, SPO 2, SPO 3, SPO 3, SPO 6, SPO 6). Provide all back, malarial, equipment, and incidentals required to furnish, install, and test the SPO essembles as part of a complete system for the lump sum price of -		188,200.00	188,200.00	628,000.00	00.000,008						
THEM NO. 39 - SPO Assombles for Berth 4247 (SPO 6, SPO 7, SPO 8, SPO 9): Provide all labor, material, equipment, and incidentals required to furnish, install, and test the SPO assembles as part of a complete system as for the lump sum price of -	Lump Sum	150,600.00	00.003,021	392,000.00	392,000,00						·
ITEM NO. 40 - SPO Assembles for Beth J266 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 13; Provide all labor, material, equipment, and indentals required to furnish, install, and text the SPO assemblids as part of a for the fump sum price of		230,800.00	230,800.00	586,000,00	00'000'985						
TOTAL: GENTIFIED CHECK ON BOND:											
 Helk Electric, Inc. LOWEST RESPONSIBLE BIDDER	į	483309/Ex LICENS	483309/Exp.11/30/2013 LICENSE HUMBER	ı		\$25,20 A	\$25,200,680,00 AMOUNT			A W One	ON ATURE

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SPECIFICATIONS FOR: Shore to Ship Power Retrofit at Plants: I Marths: 1245, 1247 and

NO, HD-S2341

DATE OPENED: February 7, 2012

		Dynalectric 4452 Corporate Center Drive Los Alamitos, CA 30720 Phone: (714) 828-7000 Fax: (714) 484-2385	-	Comet Electric, Inc. 7760 Deering Avenus Canoga Park, CA 91304 Phone: (818) 340-4985 Fax: (818) 340-4933	200. A con						
									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
N3LI	QUANTITIES	RATE	TMOONA	7486	PULICAR	l l	E I I I	3			
TEM NO. 41 - SPO Assemblies for Borth 1270 (SPO 15, SPO 17, SPO 19, SPO 19, SPO 20). Provide all labor, material, equipment, more interdentals required to formish, install, and test the SPO assemblies as part of a complete In this lump aum price of									Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	ž Ž	AROUNT
	tump Sum	192,400,00	192,400,00	489,000,00	489,000,00						
ITEM NO. 42 - All'Other Electrical Work for Benth 1245 (SPO 1, SPO 3, SPO 4, SPO 5). Provide all alloof, material. Sequipment, and incidental required to tlumbs, install, and incidental sequipment, and incidental sequipment for the lump sum price of the electrical work for Benth for the lump sum price of the securical work for Benth for the lump sum price of the securical work for Benth for the lump sum price of the securical work for Benth											
	Lump Sum	265,250,00	265,250,00	162,000,00	162,000,00				-		
TTEM NO. 43 – All Other Electrical Work for Barth 1247 (SPO 6; SPO 7, SPO 7, SPO 8; SPO 8); Provides all tabor, marerial equipment, and incidentate required to furnish, Instal, and test all other electrical work for Berth 1247 as for the lump sum price of -	, G			·							
	mns dwn	151,050.00	151,050,00	162,000.00	162,000,00						
ITEM.NO. 44 - All Other Bearvas Workfor Benth 1266 (SPO 10, SPO 11, SPO 14, SPO 14, SPO 14, SPO 15, Provide at Boor, Imminiarial, equipment, and inclematis required to furmbh, install, and least all other electrical works. (For the lump stom price of -	. 13		·								
	Lump Sum	183,000.00	183,000.00	194,000.00	194,000,00				,		
ITEM NO. 45 - All Other Electrical Work for Berth. 1270 (SPO 16, SPO 17, SPO 18, SPO 19, SPO 20); Provide all libror, malerial, equipment, and indicertails required to funish, instell, and iced all obser electrical work for for the lump sum price of -											
	Lump Sum	158,000.00	158,000,00	175,000,00	176,300,00						
TOTAL:											-
CERTIFIED CHECK OR BOND:											

Hellx Electric, Inc. LOWEST RESPONSIBLE BIODER

Fire Ista Andysis HD-52041 Denominator (exp\810 ANALYSIS) 20;2012 1:23 Ph

\$25,200,000.00 AMGUNT

483309/Exp.11/30/2013



SPECIFICATIONS FOR: Shore to Ship Power Retroff: at Pier J. Berths J245-J247 and J266-J270

DATE OPENED; February 7, 2012

NO. HD-\$2341

	<u></u>	Dynalectric 4452 Corporato Center Drive Los Alamtros, CA 90720 Phone: (714) 828-7000 Fax. (714) 484-2385		Cornel Electric, Inc. 7760 Desring Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-4033	965					•	
ES MELL	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
in all labor, materials, tools, to perform all other work not tested in Paragraph SC-22 of um price of	ung dung	2,928,804,00	2.928,804.00	12.633.00	12,533,00						
TEMNO. 47. Extended Contrator Overhead: Furnish all labor, material, tools, equipment, and incidentus necessary to complete the work beyond the initial Configed Time due to Excusable Compensable Delays as indicated,, for the unit price per day of	Unit Price	1,125.67	67,600.20	6,743,00	404,580.00						
TTEM NO. 48 - Standby Time. Parked of time during which work is interrupted and the Contractor shall had Contractors about personnel and equipment in a state of readiness as indicated in Paragraph SC-30 of the for the unit price per man hour of -	Und Price	306.79	1,227,160.00	800,00	3200,000.00						
TEM NO, 49 - Commissioning for Bottrs J245-2247. Furnish all labor, matarfast, bois, squipment, and indefental necessary to commission Berths J245-J247 complete as specified in Section 16399 "Commissioning" for the unit price per main hour of -	Unit Price	268.50	269,500.00	0 269.00	269,000.00						·
ITEM NO. 50 - Cormissioning for Bertins 1266-1270: Furnish all labor, malerinia, took, equipment, and inclointain necessary to commission Bertins 1286-1270 complete as specified in Sedion 1989 "Commissioning" for the unit price per man hour of	Unit Price	268.50	268,500.00	269.00	269,000.00					·	
TOTAL:		\$33,29	\$33,295,249.45	1,882	\$38,770,551.20						
CERTIFIED CHECK OR BOND:		% 01	10% Bond	19.	10% Bond		-		7		
										10 11	1/2

Pie Bić Arikjals HD-62241 Endamana (regjon) namana (second) się jak na

RECEIVED P.O.L.B. FINANCE AM 11: 23 15 APR 22 ACCTS PAYABLE

(80,072.61)

evious Retention: Earned This Period:

Previous Payments

Gross Eamings:

\$ 28,303,786,75

28,129,694,69

(4,699.97)

93,999,45

89,299,48

88,299,48

93,999,45 \$ (4,669.37) \$

210009

Pay Amount

Retention

Amount

Subabject Code

PROJ DET 1142341

PROJ

BPO No. RPHA12000174

HA1318

HACACMEN INDEX CODE

AMOUNT DUE THIS ESTIMATE:

Less Retention: E

LBHD Contract No: HD-7972
Original Bitd Amt: \$25,200,000
Previous Qty or Total % of lem TOTAL Comp Amount to Data 28,303,766.75 100.00% 99.67% 43,592.73 \$ 43,592.73 3,407.00 \$ 3,407.00 J245 S Amount This Month Oty This Month WITHOLDS %0 25,200,000.00 Bid Amount Progress Payment No. 27
Pendo Ending. 1/15/2015
Pendo Ending. 1/15/2015
PAYMENT DUE. 5/6/17
Specification: HD-52244. Shore to Ship Power Retroft at Pier J. Borths J245-J247 and J266 - J270.
Contractor. Helix Electric, Inc. 3,103,785.75 28,303,766.75 Unit Price Est aty. 5 NEW CONTRACT AMOUNT TOTALS TOTALCHANGE ORDERS Rem No. Rem

THIS IS TO CERTIFY THAT FUNDS ARE APPROVED RETENTION BY BOARD OF HARBOR COMMISSIONERS.

4/7/15 MIS TELEON 9. Word My ON MINES Desper Uponings

21/6/12

Suzzanne C. Plezia, P.E. Director of Construction Management

Date

REGEIVED BY DEEPEN UPADHYAY ON 4/6/15.

Page 1 of 4

. Progress Payment No. 27
Penod Endrag: \(\text{1/92/015}\)
Penod Endrag: \(\text{1/92/015}\)
Specification: \(\text{5/61}\)
Specification: \(\text{1/92/015}\)
Contractor: \(\text{4/91}\)
Fig. Endrago: \(\text{1/91}\)
Contractor: \(\text{4/91}\)
Fig. End. \(\text{1/91}\)
Contractor: \(\text{4/91}\)
Fig. End. \(\text{1/91}\)
Contractor: \(\text{4/91}\)
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Fig. \(

PAYMENT Specificati Contractor	PAYMENT DUE: SIGMS Specification: HD-\$2341 - Shore ta Ship Power Retroff Contractor: Helix Electric, Inc.		Berths J	at Pier J, Berths J245-J247 and J265 - J276.	- J270.						LBHD Contract No: HD-7972 Original Bid Amt:	: No: HD-7972 nt:	\$25,200,000
Item No.	ltem	Unit	Est. Oty.	Unit Price	Bid Amount	Qty This Month	J245 \$ Amount This Month	J247 \$ Amount This Month	Jzes \$ Amount This Month	J270 \$ Amount This Month	Previous Qty or Total % of Item TOTAL % Comp Amot	Total % of Item Comp	TOTAL \$ Amount to Date
,,	Progress Schadoles	Ситр бит	-	100,000.00	100,000,00	%0	1	•	•	•	. 100%	100%	100,000.00
7	Site Specific Safety Plan	Lump Sum	,	150,000,00	150,000,00	%0	•	•	,	•	100%	100%	150,000.00
3	Furnish and Place Temporery K-Rail and Chein Link Fence	Lump Sum	,	1,400,000.00	1,490,900.00	%0	,	-			100%	100%	1,400,000,00
*	Mobilization/Demobilization	Tans gmail	ţ	1,200,000.00	1,200,000.00	9%	-	,	-	•	100%	100%	1,200,600.00
หา	Interim Demobilization/Remobilization	Unit Prica	43	9,000,00	135,000.00	9%0	•	•	•	•	100%	100%	135,000.00
s	Storm Water Pollution Prevention Plan(s) (SWPPP) Development and Compliance	Lump Sum	r	300,000,00	300,000,000	%0	-	-	- د	•	100%	100%	300,000.00
۲.	City Ordinance Construction Waste Management Plan	եսոր Sum	Ţ	10,000,00	10,000.00	%0	•	•	•	•	. %00%	100%	10,000.00
80	Soil Handing and Disposal, Non-Hazardous Waste	Unit Price	8,40B	12.00	100,800,00	,	•	•	•	-	100%	100%	100,800,00
ø	Shoring for Excavations	Lump Sum	-	150,000,00	150,000.03	%0	1	•	•	•	100%	100%	150,000,00
ŧ	Import Soil	Unit Price	6,810	26,00	177,060,00		,	•		,	100%	100%	177,060.00
Ε	3/4-Inch Crushed Rack	Unit Price	2,500	25.00	62,500.00	-		•		•	100%	100%	62,500,00
12	Disposal of Non-Hazardous Waste	Unit Price	13,400	10.00	134,000.00	-		•	•		. %001	100%	134,000.00
13	Crushed Miscellaneous Base from Part Crusher Site	Unit Price	5,680	40.00	227,200.00	1	1	•	-		100%	100%	227,200,00
14	Furnish and Place Pavement Striping	Unit Price	2009	2,00	12,000.00	,		,	1	•	100%	100%	12,000,00
15	Fumish and Place Pavement Markings	Unit Price	0008	9,00	38,000.00	1	•	•	•	•	100%	1,00%	36,000,00
91	Fumish and Place Chain Link Fence and Gates	Lump Sum	1	60,000.00	80,000.00	%0	•	•	•	-	100%	100%	60,000.00
11	Steet Guard Posts	Unit Prica	35	1,400.00	133,000.00	1	•	,	•		100%	100%	133,000.00
ŧ	Shore Power Outlet Vaulis for Berth J245 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 5)	Lump Sam	-	400,000.00	400,000,00	27%	•	N/A	NA	N/A	150%	%001	400,000,00
19	Shore Power Outlet Vaults for Berth J247 (SPO 8, SPO 7, SPO 8, SPO 9)	Lump Sum	1	500,000.00	500,000.00	%0	N/A	٠	N/A	NJA	100%	100%	500,906,00
50	Shore Power Outlet Vaulis for Berth J256 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 16)	Lump Sum	-	580,000,00	580,000,00	%0	N/A	NA	•	NIA	100%	100%	580,000,00
24	Shore Power Outlet Vaults for Barth ,1270 (SPO 16, SPO 17, SPO 18, SPO 20)	Титр Sum	-	550,000.00	550,000.00	0%	NIA	MA	N/A	•	100%	100%	860,000.00
. 22	Transforments) for Berth J246 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 5)	Lump Sum	-	800,000.00	800,000,008	%0	•	M/A	N/A	N/A	100%	100%	600,000.00
R	Transformer(s) for Borth J247 (SPO 6, SPO 7, SPO 8, SPO 9)	Lump Sum	-	500,000,00	600,000,00	0%	N/A	-	NIA	ΝΊΑ	130%	100%	600,000,00

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Progress Payment No. 27 Period Ending: 1/15/2015 PAYMENT DUE: 5/6/15 Specification: KD-S2341 • 5

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341 • Shore to Ship Power Retrofit at Pier J, Berths J245-J247 and J265 - J276.		
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on: HD-S2341	tractor. Helix Electric	
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Sign	trac	
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]& &	ontractor. He	Contractor Helix Electric, Inc.	o in well as	i Dennis v	er e, beruis acesacker and oces - 5270.	- 72/0.			-			LBHD Confract No: HD-7972 Original Bid Amt:	o: HD-7972	\$25.200.000
≝	Items No.		ž	Est Oly.	Unit Price	Bld Amount	Oty This Month	J245 \$ Amount This Month	\$ Amount	J268 \$ Amount	\$ Amount	Previous Gty or Total % of Item TOTAL.	at % of Item Comp	FOTAL 6
	34	Transformer(s) for Berth J268 (SPO 10, SPO 11, SPO 12, SPO 12, SPO 14, SPO 14	Lump Sum	-	800,000,00	800,000.00	8	N/A	NA	,	N/A	100%	100%	600,000,00
L	25	Transformers for Berth J270 (SPO 16, SPO 17, Lump Sum SPO 18, SPO 19, SPO 20)	Lump Sum	-	900,000,00	600,000,00	%0	N.A	N/A	NA	,	100%	100%	600,000,00
	35	Switchgear Ascambly(s) for Berth J245 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 6)	Lump Sum	-	1,112,440.00	1,112,440.00	%0		NA	N/A	NA	100%	100%	1.172,446.00
	27	Switchgear Assembly(s) for Berth J247 (SPO 6, SPO 7, SPO 8, SPO 9)	Lump Sum	-	1,000,000.00	1,000,000,00	%0	N.A.	-	N/A	NA	100%	4004	1,000,000,00
	85	Switchgoar Assembly(s) for Barth J265 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 15)	Lump Sum.	-	2,900,960.50	2,000,000.00	%0	NIA	N/A	1	A'N	100%	100%	2,000,000.00
	R	Switchgear Assembly(s) for Berth J276 (SPO 16, SPO 17, SPO 18, SPO 19, SPO 20)	Lump Sum	-	2,200,000.00	2,200,600.00	%D .	N/A	NA	NA		100%	100%	2,200,000.00
	ន	Ductbank and Raceways for Berth J245 (SPC) 1, SPO 2, SPO 3, SPO 4, SPO 6)	Lump Sum	-	1,500,000.00	1,500,000.00	%0	,	NIA	N/A	AIN	100%	100%	1,509,000.00
	. 5	Ductbank and Raceways for Berth J247 (SPO B, SPO 7, SPO 8, SPO 9)	Lump Sum	-	1,500,000.00	1,500,000.00	%0	AN	-	MA	NIA	100%	100%	1,500,000.00
	32	Durchank and Rapeways for Bedh 1285 (SPO 10, SPO 11, SPO 12, SPO 18, SPO 14, SPO (6)	Lump Sum		2,000,000,06	2,000,000.00	%0	ΝΆ	NA	•	NIA	100%	100%	2,000,000.00
L	8	Ductbank and Recevays (or Berth J270 (SO 16, SPO 17, SPO 18, SPO 19, SPO 20)	Lump Sum	-	1,500,000.00	1,500,000.00	. %0	NA	N/A	NiA	•	100%	100%	1,500,000,00
	35	Conductors for Barth J245 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 6)	Lump Sum	۳-	400,000.00	400,000,00	%0		N/A	NA	NIA	100%	100%	400,000,00
	35	Conductors for Berth J247 (SPO 6, SPO 7, SPO 3, SPO 9)	Lump Sum	۲	200,000,00	200,000.00	%0	N/A		NA	NA	100%	100%	200,000,00
	36	Conductors for Berth J288 (SPO 10, SPO 11, SPO 11, SPO 12, SPO 12, SPO 13, SPO 14, SPO 15)	Lump Sum	-	200'000'00	500,000,00	%o	N/A	N/A	,	N/A	100%	100%	500,000,00
L	37	Conductors for Berth J270 (SPO 16, SPO 17, SPO 18, SPO 18, SPO 20)	птр Sum	-	400,000,00	400,000.00	%0	N/A	A'A		-	130%	100%	400,000,00
	38	SPO Assombiles for Borth J245 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 5)	Lump Sum	+-	150,000,00	150,000,00	%0		N.A	NA	NIA	190%	100%	150,000,00
	88	SPO Assemblies for Berth 1247 (SPO 6, SPO 7, SPO 8, SPO 9)	тық дыст	۴	100,000,00	120,000,00	%0	N/A		A'N	N/A	100%	100%	100,000.00
	6	SPO Assemblies for Berth J266 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 15)	mas duan	+	170,000.00	170,000.00	%0	N/A	N/A	,	N.A	100%	100%	170,000.00
	Į.	SPO Assembles for Berts J270 (SPO 16, SPO 14, SPO 14, SPO 18, SPO 19, SPO 20)	1. ump Sum	+	150,000.00	150,000.00	%0	ΝΆ	N/A	N/A	ī	100%	100%	160,000,00
]	42	All Other Electrical Work for Berth J245 (SPO 1, SPO 2, SPO 3, SPO 4, SPO 5)	Lump Sum.	1	150,006.00	150,000.00	%	,	N/A	NA	NA	400%	100%	150,000.00
<u></u>	3	All Other Electrical Work for Barth J247 (SPO 8, SPO 7, SPO 8, SPO 9)	пить Сип	1	150,006.00	160,000.00	%5	N/A	1	N/A	ΨN	100%	100%	150,000,00
	4	All Other Electrical Work for Berth J266 (SPO 10, SPO 11, SPO 12, SPO 13, SPO 14, SPO 15)	Lump Sum	+	150,000.00	150,000,00	%0	N/A	N/A	,	NA	100%	100%	150,000.60
	85	All Other Electrical Work for Berth 1270 (SPO 16, SPO 17, SPO 19, SPO 20)	Limp Sum	~	160,000,00	150,000,00	360	N/A	N/A	\$,	100%	100%	150.000.00

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Progress Payment No. 27 Period Ending: 4/15/2015 PAYMENT DUE: 5/6/15 Specification: 11-16/22/41 - Shore to Ship Power Retrofit at Pier J. Berths J245-J247 and J256 - J270. Contractor Helix Electric, Inc.

PAYMEN DUE: "5675 Specification: HD-S2341 Contractor, Helix Electri	Specification 1915-2524 - Shore to Ship Power Retroff at Plor J, Bertins J248-J247 and J266 - J270. Contractor Helix Electric, Inc.	Af at Pler J	Berths J.	245~J247 and J266	- J270,						Original Bid Amt:	mt:	\$25,200,000
tem No.	ilem	Unit	Est. Oty.	Unit Price	Bld Amount	Oty This Month	J245 S Amount This Month	J247 \$ Amount This Month	J266 S Amount This Month	J270 5 Arrount This Month	Previous Qty or Total % of Itam TOTAL.	Total % of Item Comp	TOTAL S Amount to Date
46	All Other Work	Lump Sum	ţ	200,000,00	200,000.00	%0	•	•	•	,	100%	100%	200,000,00
47	Extended Contractor Overfreed	Unit Pdoe	69	1,000,00	90'000'09	-	,	-	-	,	100%	100%	90,000,00
48	Standby Time	Unit Price	4000	90.00	240,000,00	_		•	-	,	400%	100%	240,000.00
67	Commissioning for Berths 1245-1247	Unit Price	1000	200,00	200,000.00	_	38,850,00	48,850,00	N/A	NA	100%	100%	200,000.00
05	Commissioning for Berths 1256-1270	Unit Price	1000	200.00	200,000.00	843	N.A	NIA	64,300.00	84,300.00	100%	100%	200,600.00
	CHANGE ORDER #1 - TIME EXT												
	CHANGE ORDER #2- R14A - ACCELERATION	եսութ Ֆար	-	. 60,000,00		%0	-	•	1	,	100%	100%	00'000'08
	CHANGE ORDER # 2 - SCE GROUNDING	шпу бшп	1	10,427.00		%0		1	•	•	100%	100%	10,427.00
	CHANGE ORDER #3	Lump Sum	-	61,497,00		%0	ı	-	-	,	100%	100%	81,497.00
	Change order #4	шиз сти	٠	1,371,684,00		% <u>0</u>		-		1	100%	100%	1,371,884,00
	CHANGE ORDER #5	титр Sum	1	(11,053.00)		%a	•		•	1	100%	100%	(11,053.00)
	CHANGE ORDER # 6	Lump Sum	-	75,000.00		2%	•	•	-	,	100%	100%	75,000.00
	CHANGE ORDER # 7	Lump Sum	٦	88,932,00		0%	NIA	N/A	*	,	100%	100%	86,932.00
	CHANGE ORDER # 8	Tuent Sum	۳-	58,720.00		%0			NIA	W.A	100%	100%	58,719,98
	CHANGE ORDER#9	Cump Sum	٠-	59,147.00		%0	•	<i>.</i> *	-	,	100%	100%	59,147,00
	CHANGE ORDER # 10	mns dunn		57,179.00		%0	٠	•	•	•	- 100%	100%	57,179.00
	CHANGE ORDER #11	пир бит	-	24,752.00		%0	-	•			100%	100%	24,752.00
	CHANGE ORDER #12	по Вит	~ -	1,621,113.00		%9	-		40,185,73	40,185.73	96%	160%	1,521,113.06
	CHANGE ORDER #13	Lump Sum	1	(38,959.25)		90	•	•		·	100%	100%	(38,959,29)
	CHANGE ORDER #14	Lump Sum	1	(332,672.00)		100%	(85,443.00)	(85,443.00)	(80,893,00)	(80,893,00)	100%	100%	(332,672.00)

Project & Grant Revenue/Expenditure Financial Summary Criteria: As Of = 3/21/2019 (47% of Year Elapsed)

Vendor	Title	ITD Adjusted Budget	Month-To-Date Actual Activity	Quarler-To-Date Activity	ITD Actual	ITD Encumbrance Incl Pre-Encumb	ITD Adjusted Budget - Actuals	ITD % Actuals to Adjusted Budget
Project HA1316	Project HA1316 - CLOSED- NCK-PIER J 243-270 SHORE TO SHIP							
1B2341 - 1B.	182341 182341/ENV PLANNING/SHORE TO SHIP PWR							
(None)	(None)	755.27	0.00		239.31	0.00	515.96	31.7%
V046804	SOUTH COAST AIR QUALITY MANAGEMENT	0.00	0.00		515.96	0.00	(515.96)	%0.0
Total Projet	Total Project Detail 182341/ENV PLANNING/SHORE TO SHIP PWR	755.27	0.00	00'0	755.27	00'0	00'0	100.0%
102341 - 10	IC2341 - 1C2341/DESIGN/SHORE TO SHIP POWER			1				
(None)	(None)	5,780,229.59	00'0	0.00	597,829.78	0:00	5,182,399,81	10.3%
V051095	AMERICAN REPROGRAPHICS COMPANY	0.00	0.00	0.00	4,141,89	0.00	(4.141.89)	%00
V054954	BIGGS CARDOSA ASSOCIATES INC	0.00	0.00		50,735.00	0.00	(50.735.00)	%00
V054853	C BELOW INC	0.00	0.00		5.500.00	00:00	(5:500 00)	, U U
V005746	CADSTAR INC	0.00	0.00		6,820.00	0.00	(6.820.00)	%00
V047448	EASTERN GROUP PUBLICATION INC	0.00	0.00		1,168,50	0.00	(1 168 50)	%00
V046782	JOHNSON-FRANK & ASSOC INC	0.00	0.00		26,604.56	0.00	(26.604.56)	%00
V041706	KPFF CONSULTING ENGINEERS	00:00	0.00		97,429.59	0.00	(97.429.59)	%0.0
V021514	LONG BEACH PUBLISHING COMPANY	0.00	0.00		2,945.70	0.00	(2.945.70)	%00
V002113	LONG BEACH TIMES NEWSPAPER INC	0.00	0.00	79	4,286.08	0.00	(4 286.08)	%U U
V030466	OUR WEEKLY LLC	0.00	0.00		1,000.00	0.00	(1,000.00)	%U C
V025229	P2S INC	0.00	00'0		4.308.690.08	0.00	(4 306 691) 08)	%0.U
V012651	PIRNIE, MALCOLM INC	0.00	0.00		72.104.52	0.00	(72 104 52)	%0.0
V025943	SAF-R-DIG UTILITY SURVEYS, INC	0.00	0.00		37,823,08	00 0	(37 823 08)	7600
V045271	TMAD TAYLOR & GAINES ENGINEERS	0.00	0.00		106.154.00	00 0	(106 154 00)	0.0%
V043513	URS CORPORATION	00'0	000	00:00	461 953 91	00 0	(461 953 91)	%0.0 %0.0
Total Projec	Total Project Detail 1C2341/DESIGN/SHORE TO SHIP POWER	5,780,229,59	0:00	0.00	5,783,186,69	000	(0. 457 10)	100 1%
1H2341 FUI	1H2341 - FUNDING FOR S.C.E.							
(None)	(None)	43,929,507,56	0.00	0.00	1,768,774,28	0.00	42 160 733 28	A 0%.
V051095	AMERICAN REPROGRAPHICS COMPANY	0.00	0.00	00:00	23.325.85	000	(29 326 95)	20.4
V035098	ARCADIS US INC	00'0	00'0	00:0	1,015,00	000	(1,015,00)	20.0
V054954	BIGGS CARDOSA ASSOCIATES INC	0.00	0.00	000	7.000.00	000	(2000 00)	2000
V046257	BUBALO, STEVE CONSTRUCTION COMPANY	0.00	0.00	000	77,220.84	0.00	(77 220 84)	%0.0
V050028	COMPUTER 1 PRODUCTS OF AMERICA INC	0.00	0.00	0.00	4,087,90	0.00	(4.087.90)	%0.0
V060783	CRISP ENTERPRISES	0.00	00'0	0.00	81.75	0.00	(81.75)	%00
V042936	CUTTING EDGE CONCRETE SERVICES INC	00'0	0.00	0.00	1,598.94	0.00	(1,598.94)	%0.0
V037752	D WOOLLEY & ASSOCIATES INC	00'0	00'0	0.00	9,577,50	0.00	(9,577.50)	0.0%
V045696	EDISONESI	0.00	0.00	0.00	7,490,000,00	0.00	(7,490,009.00)	%0.0
V044431	GRIFFITH COMPANY	00:00	0.00	00.0	516,058,52	00'0	(516,058.52)	0.0%
V024035	HELIX ELECTRIC INC	00'0	0.00	00'0	28,303,766.78	0.00	(28,303,786,78)	%0'0
V006703	IMPREST - HA ADMIN CKG ACCT	00'0	0.00	00.0	138.84	0.00	(138.84)	0.0%
V062479	KCEI CONSTRUCTION INC	0.00	0.00	0.00	90,000,00	0.00	(90,000,00)	0.0%
V025942	KOURY ENGINEERING & TESTING INC	00'0	00'0	00'0	180,342.50	0.00	(180,342.50)	0.0%
V024652	LOVCO CONSTRUCTION INC	00'0	0.00	0.00	227,69	0.00	(227.69)	0.0%
V053486	NETWORK INTEGRATION COMPANY PARTNERS	0.00	0.00	00.0	372,14	0.00	(372.14)	0.0%
V025229	P2S INC	00.0	0.00	00:00	1,061,424.53	0.00	(1,061,424,53)	0.0%
V039001	PACIFIC EH&S SERVICES INC	0.00	0.00	00'0	30,293.78	0.00	(30,293,78)	0.0%
Orlleria: Revenue	Criteria: Revenue/Expenditure = E; Project = HA1316; Project Detail = 190							

Run: 3/21/2019 11:25 AM Includes transactions posted through: 3/20/2019

Project & Grant Revenue/Expenditure Financial Summary Criteria. As Of = 3/2/12019 (47% of Year Elapsed)

		<u>e</u>	Month-To-Date	Quarter-To-Date	<u>P</u>	ITD Encumbrance	ITD Adjusted Budget -	ITD % Actuals to
Vendor	Title	Adjusted Budget	Actual Activity	Actual Activity	Actual	incl Pro-Encumb	Actuals	Adjusted Budget
Project HA1316	Project HA1316 - CLOSED- NCK-PIER J 243-270 SHORE TO SHIP							
1H2341 - FUL	H2341 - FUNDING FOR S.C.E.							
V053796	PACIFIC PRODUCTS & SERVICES INC	0.00	00:00	00'0	1,075.06	0.00	(1,075,06)	0.0%
V048468	PC SPECIALISTS INC	0.00	0.00	0.00	4,804.59	0.00	(4.804.59)	0.0%
V021557	SHI INTERNATIONAL CORPORATION	00:00	0.00	00'0	222.08	0.00	(222.08)	%0.0
V026541	SIMPLUS MANAGEMENT COMPANY, LLC	0.00	0.00	0.00	52,852.80	0.00	(52,852,80)	0.0%
V044553	SMITH EMERY CORP	0.00	00:00	00'0	1,923,40	0.00	(1,923.40)	0.0%
V045804	SOUTH COAST AIR QUALITY MANAGEMENT	0.00	000	00:00	1,058.94	0.00	(1,058,94)	%0.0
V044555	SOUTHERN CALIFORNIA EDISON COMPANY	0.00	0.00	00:00	1,500,000.00	0.00	(1.500,000.00)	%0.0
V045074	TWINING INC	0.00	0.00	00:00	5,527.50	0,00	(5,527.50)	%0.0
V043513	URS CORPORATION	0.00	0.00	00:0	4,893.75	0.00	(4,883,75)	0.0%
V047884	VANIR CONSTRUCTION MANAGEMENT INC	0.00	00.00	0.00	2,788,885.09	0.00	(2,788,885.09)	%0.0
V012285	WSP USA INC	0.00	0.00	0.00	3,062,60	00'0	(3,062.60)	%0.0
Total Projec	Total Project Detail FUNDING FOR S.C.E.	43,929,507.56	0.00	00'0	43,929,612,75	00'0	(105.19)	100.0%
Total Project	Total Project HA1316	49,710,492.42	00:00	00:00	49,713,554.71	0.00	(3,062.29)	100.0%
Total		49,710,492.42	0.00	00:0	49,713,554.71	0.00	(3.062.29)	100.0%



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

		The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	yy y 2500	Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	Construction 18 31 00	Velluthi Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100 Fax: (916) 226-2150	toyal Electric 100	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90020 Phone: (714) 828-7000 Fax: (714) 484-2384	alectric nter Drive 80720 '000	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-8600 Fax: (714) 449-8775	thg Company e Bivd #400 600
MELL	ESTIMATED QUANTITIES	RATE	TNIIOMA	11 V C	HALLOWAY	į					
ITEM NO. 1 - Mobilization and Demobilization: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform mobilization and demobilization, as shown and specified (including, but for the lump sum price of -					NOON NOON NOON NOON NOON NOON NOON NOO	A A	AMOUNI	RAIE	AMOUNT	RATE	AMOUNT
	Lump Sum	1,161,050,43	1,161,050.43	70,000.00	70.000.00	320.000.00	320,000,000	שטט טטט טט	600,000	00 800	00 700 000
ITEM NO. 2 - Excavation Support Systems: Per Section 6707 of the California Labor Code, furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide bracing for the lump sum price of (not less than \$10,000)								0000		00.00	993,884,00
The state of the s	Lump Sum	18,240.49	18,240.49	15.000.00	15.000 00	52 000 00	20000	44	2000	20,000	
ITEM NO. 3 - SWITH Development and Compilance: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to develop the Stormwater Pollution Prevention Plan and for the lump sum price of (not less than \$14.0 non).											
TEM NO 4 - Demolition of Chair Trive Community Community	Lump Sum	16,772.86	16,772.86	50,000,00	50,000.00	68,000,00	68,000.00	60,000.00	60,000.00	12,878,00	12.878.00
and Paving: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to remove existing 8-foot chain link fence and for the lump sum price of -	mng dwn-1	33,632,23	33,632,23	177 000 00	777 000 00	G G	6000				
ITEM NO. 5 - Soil Handling and Disposal, Non-Hazardous Waste: Funish all labor, materials, power, equipment, tools, transportation and supervision necessary to handle and dispose of approximately the estimated for the unit price per ton of -								00000	00.000	00.886,871	00.886,871
	Unit Price	40,26	106,085.10	20.00	131,750.00	78 00	128 480 00	ć c	300 010 000	ć	44
TOTAL:					22.25	2002	20,004,021	0.50	220,312,35	7.8.50	75,361.00
CERTIFIED CHECK OR BOND:											

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112,22 AMOUNT

AUTHORIZED SIGNATURE

File: Bid Analysis HD-S2348 Gordon[BID ANALYSIS] 2/14/2012 12:48 PM

Port of LONG BEACH The Green Port

ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO, HD-S2348

DATE OPENED: February 14, 2012

		The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	.500 0	Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404		Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100 Fax (916) 226-2160	Royal Electric 5828 1100 0	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2384	alectric enter Drive 90720 7000	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-8775	ing Company s Blvd #400 S00
	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TTEM NO. 6 - Soil Handling and Reuse, Fill Material: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to handle and dispose as backfill approximately the for the unit price per cubic yard of -											
	Unit Price	22.36	136,843.20	50.00	306,000,00	44.00	269,280,00	45.66	279,439,20	45.20	276,624.00
TTEM NO. 7 - Import Material: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to load, haul, place and compact as backfill approximately the estimated quantity of Import for the unit price per ton of -	Call Pige	2. 39. 30.	9.396.00	20,00	12,000.00	29.00	17,400.00	38.55	23,106.00	39.16	23,496.00
TTEM NO. 8 - 8-Foot Chain Link Fence with Barbed Wire: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to furnish and install approximately the estimated quantity of for unit price per linear foot of -											
	Unit Price	44.73	33,547.50	100.00	75,000,00	50.00	37,500.00	55,01	41,257.50	49.20	36,900,00
ITEM NO. 9 - Chain Link Single Gate with Barbed Wire: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of chain for the unit price per each of -	Unit Price	670.92	7,380.12	1,000.00	11,000.00	00.056	10,230.00	990.18	10,891,98	1,455.00	16,005.00
TEM NO. 10 - Chain Link Double Gates with Barbed Wire: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of chain for the unit price per each of -											
	Unit Price	1,677.29	6,709.16	1,000.00	4,000.00	2,130,00	8,520.00	2,750.50	11,002.00	2,909.00	11,636.00
TOTAL:											
CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T. Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

at Pier I, Berths T132-T140	01										
		The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	, ,500 0	Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	Construction .8 1100	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100 Fax: (916) 226-2150	toyal Electric 7828 100	KDC, Inc. dba Dynalectric 4482 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2384	alectric inter Drive 20720 '000	Sully-Miller Contracting Company 136 S. State College Blvd #400 Brea. CA 92821 Phone: (714) 578-9800 Fax: (714) 449-8775	ting Company le Blvd #400 600
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	TNIIOMA	774	TMILOMA	n V V	TMICHA
ITEM NO. 11 - Pipe Bollards, 12-Inch: Furnish all labor, materials, power, edupment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of 12-inch diameter pipe for the unit price per each of											
	Unit Price	1,341.83	183,830.71	1,770.00	242,490.00	1,570.00	215,090,00	2.090.31	286.372.47	2.338.00	320 306 00
I EM NO. 12 - Removable Pipe Botlands, 12-Inch: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of 12-inch for the unit price per each of -	0 0 2 1										
	OUIT PTICE	1,677.29	41,932.25	3,700.00	92,500.00	1,410.00	35,250,00	3,502.52	87,563.00	3,435.00	85.875.00
I can two. 19 - Snanow ripe bollards, 14-inch: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of 12-inch for the unit price per each of -											
II THE WIND STATE STATE OF THE PARTY OF THE	Onit Price	1,341.83	42,938.56	1,770.00	56,640.00	1,570.00	50,240,00	3,190.47	102,095.04	3,172.00	101,504.00
In two in the new reventent comping and warkings: Furnish all subort, materials, power, equipment, toots, transportation and supervision necessary to install new paint striping and markings, complete as shown and specified and for the lump sum price of -	Lump Sum	8,386,43	8,386,43	00'000'2	7.000.00	00 009 9	A 600	60	44 000 000 000		6.00
ITEM NO. 15 - Replacement of Existing Pavement Striping: Funish all labor, materials, power, equipment, tools, transportation and supervision necessary to replace approximately the estimated quantity of existing for the unit price per linear foot of -											200
A COMMITTED AND ADDRESS OF THE PARTY OF THE	Unit Price	0.95	3,325.00	1.00	3,500.00	0.85	2.975.00	1.10	3.850.00	62.0	2 555 00
TOTAL:											2000
CERTIFIED CHECK OR BOND:											

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

The Ryan Company 15 Commerce Way Noton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540 GUANTITIES RATE AM d by the	AMOUNT	Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404		Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA, 95828	oyal Electric	KDC, Inc. dba Dynalectric 4482 Corporate Center Drive	ilectric nter Dríve	Sully-Miller Contracting Company 135 S. State College Blvd #400	ting Company e Blvd #400
ESTIMATED RATE AM	AMOUNT			Phone: (916) 226-2100 Fax: (916) 226-2150	100	Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2384	10720 000 4	Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	5
ESTIMATED RATE AM	AMOUNT								
TTEM NO. 16 - Removal of Existing Pavement Striping: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to replace and remove approximately the		RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
estimated quantity of for the unit price per linear toot of -	1.141.20	10.00	1.200.00	000	1,068.00	85.00 0.00	6,601.20	16.80	2.016.00
26,836.58	26,836.58	70,000,00	70,000.00	76,000.00	76,000.00	48,000.00	48,000.00	81,692.00	81,692.00
ITEM NO. 18 - Transformers (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) medium for the lump sum price of -	709,593.23	677,000.00	677,000.00	00.000,089	680,000.00		694,000.00	728,653.00	728,653.00
ITEM NO. 19 - Transformers (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) medium for the lump sum price of -	709,593.23	677,000.00	00.000,779	00:000:00	00.000,089	694,000.00	694,000.00	728,653.00	728,653.00
TEM NO. 20 - Transformers (for Berth 136 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) medium for the lump sum price of - Lump Sum 709,593.23 705	. 593.23	00.000,575	677,000,00	680,000.00	680,000.00	694,000.00	694,000.00	728,653.00	728,653.00
TOTAL:									
CERTIFIED CHECK OR BOND:									

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T. Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

The Right Company 15 comments which the Right Company 15 comments which the Right Company 15 comments why 15 comments which the Right Read	The Ryan Company 15 Commerce Way Norton, MA 02766 Norton, MA 02766 Phone: (508) 742-2540 Fax: (508) 742-25	53	struction AMOUNT 677,000,00	allutini Corp dba Royal RIC Carbide Ct acramento, CA 95828 none: (916) 226-2100 xx. (916) 226-2150		CDC, Inc. dba Dyna H62 Corporate Cer Los Alamitos, CA 9	lectric hter Drive 0720	Sully-Miller Contracting Company 135 S. State College Blvd #400	ting Company e Blvd #400
CLIMP Sum TOS_583.23 TOS_	ESTIMATED RATE	R	AMOUNT 677,000,00			Phone: (714) 828-71 ax: (714) 484-2384	000	Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	00 %
Fert, Lump Sum 709,593.23 709,593.23 677,000.00 677,000.00 680,000.00 680,000.00 684,000.00 677,000.00 677,000.00 677,000.00 4,125,000.00 680,0	bectal ent. tall Lump Sum 709,593.23 Jin Lump Sum 3,939,255.79 Jin Lump Sum 1,939,255.79		00 000 229	•	TNITON	RATE	TNIIOMA	BATE	TALICINA
Lump Sum 708,583.23 709,583.23 677,000.00 680,000.00 680,000.00 684,000.00	Lump Sum 709,593.23 f. Lump Sum 3,939,255.79 f	_	677.000.00					5	
d in Lump Sum 3,939,265.79 3,939,265.79 3,777,000.00 4,125,000.00 4,125,000.00 3,876,000.00 din Lump Sum 1,921,221.76 1,921,221.76 2,077,700.00 1,830,000.00 1,830,000.00 1,830,000.00 1,890,000.00 1,750,000.00 1,777,000.00 1,777,000.00 1,694,000.00 1,750,000.00 2,007,000.00 2,00	1 in Lump Sum 3,939,255.79			680,000.00	280,000.00	694,000.00	694,000,00	728.653.00	728.653.00
Lump Sum 3,939,265.79 3,939,265.79 3,777,000.00 4,125,000.00 4,125,000.00 3,777,000.00	Lump Sum 3,339,255.79								
of Interpolation	ITEM NO. 23 - Switchgear Assembly(s) (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) for the lump sum price of -		3,777,000.00		125.000.00	3.876.000.00	3 876 000 00	3 975 075 00	2 975 075 00
d in Lump Sum 1,921,221,76 1,921,221,76 2,077,700.00 2,077,700.00 1,830,000.00 1,830,000.00 1,890,000.00 1,890,000.00 1,890,000.00 1,890,000.00 1,890,000.00 1,750,000.00 1,777,000.00 1,777,000.00 1,694,000.00 1,694,000.00 1,750,000.00 1,75								·	
d in Lump Sum 1,779,834.87 1,777,000.00 1,777,000.00 1,694,000.00 1,794,000.00 1,750,000.00 1,750,000.00 1,750,000.00 1,750,000.00 1,750,000.00 1,750,000.00 1,750,000.00 2,007,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,000.00 2,00	Lump Sum 1,921,221.76		2.077,700,00		830,000,00	1.890 000 00	1 890 000 00	2 019 779 00	2 019 779 00
Lump Sum 1,779,834.87 1,777,000.00 1,777,000.00 1,694,000.00 1,750,000	ui p								
art, Lump Sum 2,105,417.86 2,105,417.86 2,100,000.00 2,007,000.00 2,007,000.00 2,073,220,00	Lump Sum 1,779,834,87		1,777,000.00		594,000,00	1,750,000,00	1.750.000.00	1.851.000.00	1 851 000 00
Lump Sum 2,105,417,86 2,100,000,00 2,100,000,00 2,007,000,00 2,007,000,00 2,073,220,00	ITEM NO. 25 - Switchgear Assembly(s) (for Berth 132-134 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one for the tump sum price of .								
	2,105,417.86		2,100,000.00		00,000,700	2.073,220,00	2.073.220.00	2 202 840 00	2 202 840 00
TOTAL:	TOTAL:							L	0.00
CERTIFIED CHECK OR BOND:	CERTIFIED CHECK OR BOND:								

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22



SPECIFICATIONS FOR: Shore to Ship Power Project at Pierr Berths 1132-1140

NO. HD-S2348

DATE OPENED: February 14, 2012

at Pier T, Berths T132-T140	0										
		The Ryan Company 15 Commerce Way		Minako dba Minco Construction 522 E. Airline Way		Vellutini Corp dba Royal Electric 8481 Carbide Ct Sarramento, CA, 95828	toyal Electric	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos CA 90720	ilectric nter Drive	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821	ting Company a Blvd #400
		Phone: (508) 742-2500 Fax: (508) 742-2540	,	Phone; (310) 516-8100 Fax: (310) 516-7404		Phone: (916) 226-2100 Fax: (916) 226-2150	100	Phone: (714) 828-7000 Fax: (714) 484-2384	000	Phone: (714) 578-9600 Fax: (714) 449-8775	800 5
		The state of the s		and complete and description of the complete and the comp		end Committee of Benefit of Matthews of Committee of Comm					
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 26 - Ductbanks and Raceways (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and functioning for the lump sum price of -		349,501,65	349,501.65	717,000.00	717,000.00	645,000.00	645,000.00	621,000.00	621,000.00	491,569.00	491,569.00
ITEM NO. 27 - Ductbanks and Raceways (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and functioning for the lump sum price of -	Lump Sum	599,461.62	599,461.62	337,000.00	337,000,00	710,000.00	710,000.00	590,000,00	. 590,000,0	707,185.00	707,185.00
ITEM NO. 28 - Ductbanks and Raceways (for Berth 136 as noted in Special Condition SC-25): Furnish all abort, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and functioning for the lump sum price of -	Lump Sum	394,105.50	394,105.50	437,000.00	437,000.00	492,000.00	492,000.00	471,000.00	471,000.00	532,209.00	532,209,60
ITEM NO. 29 - Ductbanks and Raceways (for Berth 132-134 as noted in Special Condition SC-25); Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and for the lump sum price of -	Lump Sum	765.573.51	765,573.51	00:000:25	737,000.00	833,000,00	833,000.00	845,621.00	845,621.00	00.088,880.00	00.086,880.00
ITEM NO. 30 - Conductors (for Berth 140 as noted in Special Condition SC-25): Furnish all tabor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect all conductors and for the lump sum price of -	Lump Sum	413,138.96	413,138.96	277,000,00	277,000.00	1,312,000,00	1,312,000.00	1,045,000.00	1,045,000.00	769.437.00	769,437.00
TOTAL: CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T. Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

		The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	, ,500 0	Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	struction	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (316) 226-2100 Fax: (915) 226-2150	Royal Electric 5828 100	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2384	alectric inter Drive 90720 '000	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	ting Company s Blvd #400 500
	ESTIMATED QUANTITIES	RATE	-AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOIINT	RATE	TMIOMA
TIEM NO. 31 - Conductors (for Berth 138 as noted in Special Condition 8C-25): Furnish all labor, materials, power, equipment, tools transportation and supervision necessary to provide, install and connect all conductors and for the lump sum price of -											
	Lump Sum	518,338.89	518,338.89	777,000.00	777,000.00	324,000,00	324,000.00	450,000,00	450,000,00	378.954.00	378.954.00
ITEM NO. 32 - Conductors (for Berth 13s as noted in Special Condition 8C-25): Furnish all labor, materials, power, equipment, took, transportation and supervision necessary to provide install and connect all conductors and for the lump sum price of -											
	Lump Sum	471,591.80	471,591.80	277,000.00	277,000.00	247,000,00	247,000.00	300,000,00	300,000,00	555.850.00	555 850 00
ITEM NO. 33 - Conductors (for Berth 132-134 as noted in Special Condition 80-25): Furnish all labor, materials, power, equipment, looks, transportation and supervision necessary to provide, install and connect all conductors for the lump sum price of											
	Lump Sum	692,948.22	692,948.22	277,000.00	277,000,00	507,000,00	507.000.00	610,000.00	610.000.00	708.920.00	708 920 00
ITEM NO. 34 - SPO Receptacles (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of two for the lump sum price of	ung awn T	20 9 PG 7 F	726 050 75	777	00 000	6					
ITEM NO. 35 - SPO Receptacles (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of three for the lump sum price of -									000000000000000000000000000000000000000	OCESO TEST	00.00.00.00.00.00.00.00.00.00.00.00.00.
THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPER	Lump Sum	340,439.63	340,439.63	637,000.00	637,000.00	356,000.00	356,000.00	475,000,00	475,000,00	317,068.00	317,068.00
TOTAL:										L	
CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT

CHAPTER STORY



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

at Pier T, Berths T132-T140	0										
		The Ryan Company 15 Commerce Way Norlon, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	, 5500 0	Minake dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	Sonstruction 8 100	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2150 Fax: (916) 228-2150	oyal Electric 1828 100	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2384	lectric nter Drive 0720 500	Sully-Miller Contracting Company 135 S, State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-8775	ing Company Blvd #400 S00
ITEM ·	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 35 - SPO Receptacles (for Berth 136 as noted in Special Conditions SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of wo for the lump sum price of -											
	Lump Sum	226,959.75	226,959,75	477,000.00	477,000.00	238,000.00	238,000.00	300,000,00	300,000,00	191,099.00	191,099.00
ITEM NO. 37 - SPO Receptacles (for Berth 122-134 as noted in Special Condition SC-25). Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of for the lump sum price of-											
	Lump Sum	453,919.50	453,919.50	877,000,00	877,000.00	475,000.00	475,000,00	550,000,00	550,000.00	443,067.00	443,067.00
ITEM NO. 38 - All Other Electrical Work (for Berth 140 as noted in Special Condition SC-25); Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of											:
	Lump Sum	86,714,11	86,714.11	177,000.00	177,000,00	313,000.00	313,000.00	200,000,00	200,000.00	100,715,00	100,715.00
ITEM NO. 39 - All Other Electrical Work (for Berth 138 as noted in Special Condition SC-25). Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of -	mnS dun	81,156.80	81,158,80	00'000'2/2	00.000.77	26.000.00	76 000.00	102 002 00	102 002 00	50 865.00	50 865 00
ITEM NO. 40 - All Other Electrical Work (for Berth 136 as noted in Special Condition SC-25); Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of -											
	Lump Sum	79,665.13	79,665.13	77,000.00	77,000.00	77,000.00	77,000.00	95,000.00	95,000.00	48,770.00	48,770.00
TOTAL:											
CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112,22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

The The TS TIME Electrical Work (for Berth 132-134 as noted in Special Conditions SC-25). Furnish all abov, materials, hower equipment hole transportation and emoderate the special conditions of the special conditions.	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2540 Fax: (508) 742-2540 RATE RATE	AMOUNT 89,190.97	Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	struction	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828	łoyal Electric 5828	KDC, Inc. dba Dynaledric 4462 Corporate Center Drive Los Alamitos, CA 90720	alectric inter Drive 90720	Sully-Miller Contracting Company 135 S. State College Bivd #400	ing Company Blvd #400
ESTIMATED	ron, MA 02766 or (508) 742-250 c (508) 742-2540 RATE	AMOUNT 89,190.97	ardena, CA 90248 hone: (310) 516-81 ax: (310) 516-7404 RATE		Sacramento, CA 96	5828	Los Alamitos, CA	90720		
ESTIMATED QUANTITIES	RATE RATE 89,190.97	AMOUNT 89,190.97	hone: (310) 516-81 ax: (310) 516-7404 RATE						Brea, CA 92821	
—	RATE 89,150.97	AMOUNT 89,190.97	RATE		Phone: (916) 226-2100 Fax: (916) 226-2150	7100 0	Phone: (714) 828-7000 Fax: (714) 484-2384	7000	Phone: (714) 578-9600 Fax: (714) 449-8775	00
	RATE 89,190.97	89,190,97	RATE		- Although				Allaharan Interpretations	
ITEM NO. 41 - All Other Electrical Work (for Berth 132-134 as noted in Special Condition SC-28): Tunish all all abof, materials, nower entimment hole transmuration and ennowing mesoscopy.	89,190.97	89,190.97	-	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
notwer entitlement fools franchontation and supervision peopsessor	89,190.97	89,190.97	to the second se							
fo construct reinforced concrete for the lump sum price of	89,190.97	89,190.97								
Lump Sum			137,000.00	137,000.00	82,000.00	82,000,00	130,000.00	130,000,00	45,652.00	45,652.00
ITEM NO. 42 - Paving at Switchgear MTS4 and MTS5 and at SSP Substations: Furnish tall abort, materials, power, equipment, tools, transmirtation and equanomic at the processor of the processor o										
	•		•							
Fumb Sum	135,862.43	135,862,43	177,000.00	177,000.00	94,000.00	94,000.00	135,000.00	135,000.00	201,168.00	201,168.00
ITEM NO. 43 - Standby Time: Furnish all labor, materials, power, equipment, tools, transportation and subervision necessary to										
provide approximately the estimated hours of standby time for crew.										
land-based equipment and for the unit price per hour of -			-							
Unit Price	377.42	37,742.00	250.00	25,000.00	1,400.00	140,000.00	750.00	75,000.00	1,334.00	133,400.00
ITEM NO. 44 - Scheduling: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to										
develop and update all schedules, complete as specified and as	•									
ביו בכובסייי זכן ווים וחווף פחוון הווכם כן (חסו ופנים חשוו פיכס'ססס) -	000000	000	i i	1						
ITEM NO. 45 - Ship Commissioning: Furnish all labor, materials	700000	70.000.07	00.000,77	00.000,77	100,000,001	00,000,001	35,000,00	ດດາດດາ່ວຂ	20,823,00	20,923.00
equipment, tools, transportation and personnel necessary to										
provide approximately the estimated crew hours for ship										
Continues bound for work in an phases for the unit price per cew	***									
	(6/,63	101,327,16	250.00	33,000.00	235.00	31,020.00	727.27	29,999.64	722.00	95,304.00
TOTAL:										
CERTIFIED CHECK OR BOND:										

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T. Rerths 1132-1140

NO. HD-S2348

DATE OPENED: February 14, 2012

					,						
		The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540		Minako dba Minco Construction 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	Construction 18 3100	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2150 Fax: (915) 226-2150	Royal Electric 5828 2100	KDC, Inc. dba Dynalectric 4452 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714)	alectric enter Drive 90720 7000	Sully-Miller Contracting Company 135 S. State College Bivd #400 Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-8775	ting Company e Bivd #400 1600 5
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 46 - Power for Acceptance Testing: Reimburse the Tenant for the cost of all electrical power used by the Contractor for all specified acceptance testing	Allowance		אט טטט טט	70 DD DD	20.000.00	GC GC	00 000 05	90 000 09	00'000'05	20.000.00	00.000.05
							- - - -				
TOTAL:		\$20,55	\$20,559,112.22	\$20,89	\$20,898,780.00	\$21,14	\$21,144,653.00	\$21,76	\$21,767,333.38	\$21,99	\$21,995,975.00
CERTIFIED CHECK OR BOND:		10%	10% Bond	10%	10% Bond	10%	10% Bond	%01	10% Bond	10%	10% Bond

The Ryan Company	WEST RESPONSIBLE BIDDER
The Ryan Co	LOWEST RESPONS

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

at Pier T, Berths T132-T140	_										
		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	tion Company ive #202 2 500 0	Helix Electric 8280 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	⊒Fe#A 121 505 8	Griffith/Comet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fex: (562) 864-7938	venue A 90670 128			i de la companya de l	
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	TMOINT	RATE	AMOUNT
ITEM NO. 1 - Mobilization and Demobilization: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform mobilization and demobilization, as shown and specified (including, but for the lump sum price of -	wns dwn	300,000	300.000	1.253.000.00	1.253.000.00	1.058 000.00	1 068 000 00				
ITEM NO. 2 - Excavation Support Systems: Per Section 6707 of the California Labor Code, furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide bracing for the lump sum price of (not less than \$10,000)											
	Lump Sum	150,000,00	150,000.00	70,000.00	70,000.00	350,000.00	350,000.00				
ITEM NO. 3 - SWPPP Development and Compliance: Furnish all labor, materials, power, equipment, tools, transportation and suspervision necessary to develop the Stormwater Poliution Prevention Plan and for the lump sum price of (not less than \$10,000)	шир Sum	10,000.00	10,000.00	50,000.00	90'000'09	12,000.00	12,000.00				
ITEM NO. 4 - Demolition of Chain Link Fence and Gates, Bollards, and Paving: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to remove existing 8-foot drain link fence and for the lump sum price of -	րուց dum	100,000.00	100,000.00	150,000.00	150,000.00	112.000.00	112.000.00				
ITEM NO. 5 - Soil Handling and Disposal, Non-Hazardous Waste: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to handle and dispose of approximately the estimated for the unit price per ton of -	Unit Price	50.00	131,750.00	42.00	110,670.00	75.00	197,625.00				
TOTAL:	·										
CERTIFIED CHECK OR BOND:											

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project

NO. HD-S2348

DATE OPENED: February 14, 2012

	Shimmick Construction Com 8201 Edgewater Drive #202	Dany	Helix Electric							
	Oakland, CA 94612 Phone: (949) 333-1500 Fax: (949) 333-1510		2500 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	¥	Griffith/Comet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1126 Fax. (562) 864-7938	venue ,A 90670 128	Action to the commence of the			
ESTIMATED QUANTITIES	TED RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 6 - Soil Handling and Reuse, Fill Material: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to handle and dispose as backfill approximately the for the unit price per cubic yard of -	35.00	214,200.00	5.00	30,000,00	25.00	153,000.00	,			
ITEM NO. 7 - Import Material: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to load, haul, place and compact as backfill approximately the estimated , quantity of import for the unit price per ton of -	. 35.00	21,000.00	48,00	28,800.00	35.00	21,000.00				· · · · · · · · · · · · · · · · · · ·
TTEM NO. 8 - 8-Foot Chain Link Fence with Barbed Wire: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to furnish and install approximately the estimated quantity of for unit price per linear foot of -	69.00	37,500.00	55.00	41,250.00	56.00	42,000.00				
ITEM NO. 9 - Chain Link Single Gate with Barbed Wire: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of chain for the unit price per each of -	(ce 1,000.00	11,000.00	1,050.00	11,550,00	1,300.00	14,300.00				-
ITEM NO. 10 - Chain Link Double Gales with Barbed Wire: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of chain for the unit price per each of -	ice 2,500,00	10.000.00	2,300.00	9,200,00	2,300,00	9,200.00				
TOTAL:										
CERTIFIED CHECK OR BOND:										

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

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		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	tion Company tive #202 2 500	Helix Electric 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	₹	Griffth/Comet JV 12200 Bloomfield Avenue Sarta Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	wenue 2.4. 90670 128	The second secon			
Mali	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	TNIIOMA	15 P	HMIOMA	U +	Title	, , , , , , , , , , , , , , , , , , ,	
TEM NO. 11 - Pipe Bollards, 12-inch: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of 12-inch diameter pipe for the unit price per each of						5		2	NOOR C	אַל	AMOON
THE PROPERTY OF THE PROPERTY O	Unit Price	2,500.00	342,500.00	1,900.00	260,300.00	2,200.00	301,400,00				
I LEM NO. 12 - Removable Pipe Bollards, 12-Indi: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of 12-inch for the unit price per each of-											
	Unit Price	4,000.00	100,000.00	2,800.00	70.000.00	3.250.00	81,250,00				
ITEM NO. 13 - Shallow Pipe Bollards, 12-Inch: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide and install approximately the estimated quantity of 12-inch for the unit price per each of -								·			
FEM NO 44 Nave Dayloward States and Manager Francisco		00.0005,2	80,000.00	3,000.00	96,000.00	3,560.00	117,120.00				
in Law No. 14 - New Tavenieri Surping and markingsi. Furnish ali labor, materials, power, equipment, tools, transportation and supervision necessary to install new paint striping and markings, complete as shown and specified and for the lump sum price of	Гитр Sum	6,500.00	8,500.00	00.000.7	00'000'2	223000	5 230 00				
11EM NO. 15 - Replacement of Existing Pavement Striping: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to replace approximately the estimated quantity of existing for the unit price per linear foot of.											
	Unit Price	1.00	3,500.00	2,00	7,000,00	1.10	3,850,00				
TOTAL:											
CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

at Pier I, Bertns 1132-1140	.										
		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	tion Company ive #202 2 500	Helix Electric 8280 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	¥#	Griffith/Cornet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 84-7938	venue 2A 90670 128 8				
ITEM	GUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TTEM NO. 16 - Removal of Existing Pavement Striping: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to replace and remove approximately the estimated quantity of for the unit price per linear foot of		e e	00000	4	000	9 9 9	4 200 00				
ITEM NO. 17 - Relocation of Waler Lines and Power/Telephone/Water ("PTW") Vaults. Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to relocate water lines and PTW vaults for the lump sum price of -		100,000.00	100,000.00	100,0	100,000.00	300'000	300,000.00				
TEM NO. 18 - Transformers (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) medium for the lump sum price of	Lump Sum	625,000.00	625,000.00	640,000.00	640,000.00	715,585.00	715,585.00				
ITEM NO. 19 - Transformers (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) medium for the lump sum price of -	Lump Sum	625,000.00	625,000.00	640,000.00	640,000.00	715,585.00	715,585.00				
TTEM NO. 20 - Transformers (for Berth 136 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) medium for the lump sum price of -	Lump Sum	625.000.00	625,000.00	640,000.00	640,000.00	715,585.00	715,585.00				
TOTAL: CERTHED CHECK OR BOND:		-									

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-7140

NO. HD-S2348

DATE OPENED: February 14, 2012

		Shinmick Construction Con 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	tion Company rive #202 2 500 0	Helix Electric 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	a Fe #A 121 1505 8	Griffith/Comet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90570 Phone: (562) 929-1128 Fax: (562) 864-7938	wenue 2A 90670 128		***************************************		
_	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	TT A CT	TATIONS	五十人口	TALLOMA	n + d	THEOLOGY
ITEM NO. 21 - Transformers (for Berth 132-134 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) for the lump sum price of -						4		2	2000	n n	AMOON
	Lump Sum	625,000.00	625,000.00	640,000.00	640,000.00	715.585.00	715.585.00				
TIEM NO. 22 - Switchgaar Assembly(s) (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect two (2) for the tump sum price of-											
	Lump Sum	3,250,000.00	3,250,000.00	3,600,000.00	3,600,000,00	4.038.100.00	4.038.100.00				
ITEM NO. 23 - Switchgear Assembly(s) (for Berth 138 as noted in Special Condition 50-25); Furnish all labor, materials, power, aquipment, tooks, transportation and supervision necessary to provide, install and connect one (1) for the lump sum price of -											
	Lump Sum	1,750,000.00	1,750,000.00	1,800,000.00	1,800,000.00	1,938,685,00	1.938.685.00				
TEM NO. 24 - Switchgaar Assembly(s) (for Berth 135 as noted in Special Condition SC-25); Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one (1) for the lump sum price of -	<u>s</u>	60									
1	Luisip outi	00.000,000,1	1,650,000,000	1,700,000.00	1,700,000.00	1,783,458.00	1,783,458.00	-			
The VC 22 - Varinges Assembly(s) for Berth 132-134 as noted to Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect one for the lump sum price of											
	Lump Sum	1,950,000.00	1,950,000.00	1,900,000.00	1,900,000.00	2,130,242,00	2,130,242,00				
OTAL:											
SERTIFIED CHECK OR BOND:								-			

The Ryan Company LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT

AUTHODIZED SIGNATI

File: Bid Analysis HD-S2348 Gordon[BID ANALYSIS] 2/14/2012 12:48 PM



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

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		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1510 Fax: (949) 333-1510		Helix Electric 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fex: (858) 535-0738	***	Griffith/Comet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	лепие .А. 90670 128				
ITEM	ESTIMATED	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 28 - Ductbanks and Raceways (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and functioning for the lump surn price of -	·										
	Lump Sum	700,000,00	700,000.00	847,000.00	847,000.00	750,000,00	750,000.00				
ITEM NO. 27 - Ductbanks and Raceways (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and functioning for the lump sum price of -											
	Lump Sum	200,000,000	200,000,007	1,346,000.00	1,346,000,00	890,000,00	890,000,00				
ITEM NO. 28 - Ductbanks and Raceways (for Berth 136 as noted in Special Condition SC-26): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and functioning for the lump sum price of -	Lump Sum	00'000'009	800,000,008	1,195,000.00	1.195,000.00	550,000,00	550,000,00				
ITEM NO. 29 - Ductbanks and Raceways (for Berth 132-134 as noted in Special Condition SC-29). Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct a complete and for the lump sum price of -	mnS dmn-	1,050,000.00	1,050,000,00	2.092,000,00	2,092,000,00	1,165,000.00	1,165,000.00				
ITEM NO. 30 - Conductors (for Berth 140 as noted in Special Condition SC-28): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect all conductors and for the lump sum price of-	mns dmn7	600,000,009	00'00'009	300,000,00	300,000	1,286,952.00	1,286,952.00				
TOTAL:						***					
CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

at Pier I, Berths 1132-1140	0										
		Shimmick Çonstruction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1510 Fax: (949) 333-1510	Company F202	Helix Electric 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	¥#	Griffith/Comet.JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 884-7938	venue :A 90670 128			- milyanin . i finalamina	manyoor recumbonaries
MELL	ESTIMATED	RATE	AMOUNT	RATE	TATIOMA	T A C	TMIONA	π+2α π+2	TNIIOMA	3T A CI	TATIONA
ITEM NO. 31 - Conductors (for Berth 138 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect all conductors and for the lump sum price of											
	Lump Sum	650,000.00	650,000,00	400,000.00	400,000,00	449,167.00	449,167.00				
TEM NO. 32 - Conductors (for Berth 135 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to provide, install and connect all conductors and for the lump sum price of in-											
	Lump Sum	400,000.00	400,000,00	300,000,00	300,000.00	369,902.00	369,902.00				
ITEM NO. 33 - Conductors (for Berth 132-134 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, fools, transportation and supervision necessary to provide, install and connect all conductors for the lump sum price of -											
	Lump Sum	1,025,000.00	1,025,000.00	500,000,00	500,000.00	790,446.00	790,446.00				
ITEM NO. 34 - SPO Receptacles (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of two… for the lump sum price of -		00 000		60							The state of the s
TEM NO 35 - CDO December (for Death 439 or Letter 30 or L	+	00000000	00,000,000	וסה'חחח'חסו	00,000,00	320,714,00	32U, / 14.00				
Condition \$2.29 - or neceptatures (to bettir is as trace in special Condition \$2.29): Furnish all labor, markarish, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of three for the lump sum price of							-				
	Lump Sum	450,000.00	450,000.00	270,000.00	270,000.00	489,653.00	489,653.00	_			
TOTAL:											
CERTIFIED CHECK OR BOND:											
•											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT

CITTANOIS COMISSION



SPECIFICATIONS FOR: Shore to Ship Power Project

NO. HD-S2348

DATE OPENED: February 14, 2012

·		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	ş	Helix Electrio 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	#\	Griffith/Comet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 884-7938	venue A 90670 128				
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 36 - SPO Receptacles (for Berth 136 as noted in Special Conditions SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of two for the lump sum price of -											
	Lump Sum	350,000.00	350,000.00	180,000.00	180,000.00	322,894,00	322,894,00				
ITEM NO. 37 - SPO Receptacles (for Berth 132-134 as noted in Special Condition SC-23): Furnish all abor, materials, power, equipment, tools, transportation and supervision necessary to perform demolition and construction of for the lump sum price of -	mns dwn7	525,000.00	525,000.00	360,000,00	00'000'096	646,189.00	646,189.00				
ITEM NO. 38 - All Other Electrical Work (for Berth 140 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of -											
	Lump Sum	400,000.00	400,000.00	300,000.00	300,000.00	80,000.00	80,000.00				
ITEM NO. 39 - All Other Electrical Work (for Berth 138 as noted in Special Condition SC-28). Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of -	Lump Sum	350,000.00	350,000.00	333,000.00	333,000.00	90,000,00	90,000,00				·
ITEM NO. 40 - All Other Electrical Work (for Berth 136 as noted in Special Condition SC-25). Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of -										-	
	шлу дшп	350,000.00	350,000.00	326,000.00	326,000.00	52,000.00	52,000.00				
TOTAL:	·					-					
CERTIFIED CHECK OR BOND:											

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT

AUTHORIZED SIGNATURE

File: Bld Analysis HD-S2346 Gordon[BID ANALYSIS] 2/14/2012 12:48 PM



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T, Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

							-				
		Shimmlck Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1510 Fax: (949) 333-1510	mpany 2	Helix Electric 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	a Fe #A 121 505 8	Griffth/Comet JV 12200 Bioomfield Avenue Santa Fe Sptings, CA 90570 Phone: (562) 929-1128 Fax: (562) 864-7938	renue A 90570 128				·
	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	TWOONA	A # 7 4 4	TMOLINE	BATTE	AMOLINT	DA ATE	- Case
ITEM NO. 41 - All Other Electrical Work (for Berth 132-134 as noted in Special Condition SC-25): Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to construct reinforced concrete for the lump sum price of -								5	NO CONTRACTOR OF THE CONTRACTO	3,00	ANCOUNT
	Lump Sum	600,000.00	600,000.00	396,000.00	396,000,00	80.000.00	80.000.00	_			
ITEM NO. 42 - Paving at Switchgear MTS4 and MTS5 and at SSP Substations: Furnish all lator, materials, power, equipment, tools, transportation and supervision necessary to construct paving at the Switchgear MTS4 and MTS5 for the lump sum price of	, .										
i	Lump Sum	100,000,00	100,000,00	20,000.00	20.000.00	250.000.00	250 000 00	_			
ITEM NO. 43 - Standby Time: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to broad a poproximately the estimated hours of standby time for crew, land-based equipment and for the unit price per hour of -											·
	Unit Price	350,00	35,000.00	500.00	50,000.00	200.00	20,000,00	_			
ITEM NO. 44 - Scheduling: Furnish all labor, materials, power, equipment, tools, transportation and supervision necessary to develop and update all schedules, complete as specified and as directed for the lump sum price of (not less than \$20,000) -	ć										
+	mns dun	20,000.00	20,000.00	40,000,00	40,000,00	20,000.00	20,000.00	-			
I I EM NO. 45 - Ship Commissioning: Furnish all labor, materials, equipment, tools, transportation and personnel necessary to provide approximately the estimated crew hours for ship manifesioning for work in all phases for the unit price per cew hours of											
	Unit Price	315.00	41,580.00	900.00	118,800.00	272.50	35,970.00				
TOTAL:											
CERTIFIED CHECK OR BOND:											-

The Ryan Company
LOWEST RESPONSIBLE BIDDER

774698/Exp. 02/28/2014 LICENSE NUMBER

\$20,559,112.22 AMOUNT



SPECIFICATIONS FOR: Shore to Ship Power Project at Pier T. Berths T132-T140

NO. HD-S2348

DATE OPENED: February 14, 2012

		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, CA 94612 Phone: (949) 333-1510 Fax: (949) 333-1510	tion Company ive #202 2 500	Helix Electric 8260 Camino Santa Fe #A San Diego, CA 92121 Phone: (858) 535-0505 Fax: (858) 535-0738	a Fe #A 121 3505 88	Griffith/Comet JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	wenue CA 90670 1128 8				
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 46 - Power for Acceptance Testing: Reimburse the Tenant for the cost of all electrical power used by the Contractor for all specified acceptance testing -											
***************************************	Allowance	50,000,00	50,000,00	50,000.00	50,000,00	50,000.00	50,000.00				
	·										
							:				
TOTAL:		\$22,065,730.00	,730.00	\$23,460	\$23,460,850.00	\$24,213	\$24,213,887.00				
CERTIFIED CHECK OR BOND:		10% Bond	Sond	10%	10% Bond	10%	10% Bond				

File: Bid Analysis HD-S2348 Gordon[BID ANALYSIS] 2/14/2012, 12:48 PM

The Ryan Company LOWEST RESPONSIBLE BIDDER

AUTHORIZED SIGNATURE

\$20,559,112.22 AMOUNT

774698/Exp. 02/28/2014 LICENSE NUMBER

Progress Payment No. 19
Period Ending: 11/30/14
PAYMENT DUE: 3/3/2015
Specification: HD-52348 Shore to Ship Power Project at Pier T, Berths 132-140
Contractor: The Ryan Commany

Specifi	Specification: HD-S2348 Shore to Ship Power Project at Pier T, Berths 132-140 Contractor: The Ryan Company	oject at Pier	r T, Berths	, 132-140	į						LBHD Contract No: HD-7928 Original Bid Amt:	lo: HD-7928	S20 559 412 22
Itam No.	lo, Item	Unit	Est Oty.	Unit Price	Bid Amount	Qty This Month	T140 \$ Amount This Wonth	T138 \$ Amount This Month	\$ Amount This Month	T132 \$ Amount This Month	Previous Qty or %	Total % of Item Comp	TOTAL \$ Amount to Date
-	Mobilization and Demobilization	Lump Sum	-	1,161,050.43	1,161,050.43	1	•	•	,	1	100%	100%	1,161,050.43
7	Excavation Support Systems	Lump Sum	1	18,240.49	18,240.49	%0	1	The state of the s	0	0	100%	100%	18,240.49
ຕ	SWPPP Development and Compliance	wns dŵn	1	16,772.86	16,772.86			0.	0	0	100%	100%	16,772.86
4	Demolition of Chain Link Fence and Gates, Bollards, and Paving	Lump Sum	7	33,632.23	33,632.23	0.00%	•	•			100%	100%	33,632.23
ю	Soil Handling and Disposal, Non- Hazardous Waste	Unit Price	2,635	40.28	106,085.10	J	•	1	-	1	6,430.43	244%	258,889.12
9	Soil Handling and Reuse, Fill Material	Unit Price	6,120	22.36	136,843.20		4				2,265.00	37%	50,645.40
7	Import Material	Unit Price	009	15.66	9,396.00						%0	%0	
60	8-Foot Chain Link Fence with Barbed Wire	Unit Price	750	44.73	33,547.50	,	٠	1	-	· ·	100%	100%	33,547.50
on .	Chain Link Single Gate with Barbed Wire	Unit Price	11	670.92	7,380.12	-	0	0	0		100%	100%	7,380.12
5	Chain Link Double Gates with Barbed Wire	Unit Price	4	1,677.29	6,709.16	•	0	0	0		100%	100%	6,709.16
£	Pipe Bollards, 12-Inch	Unit Price	137	1,341.83	183,830.71	-	•	3	,		100%	100%	183,830.71
12	Removable Pipe Bollards, 12-inch	Unit Price	25	1,677.29	41,932.25	l.	,	-	,	•	100%	100%	41,932.25
t,	Shallow Pipe Bollards, 12-Inch	Unit Price	32	1,341.83	42,938.56	•	4	•	•		100%	100%	42,938.56
4	New Pavement Striping and Markings	Lump Sum	1	8,386.43	8,386.43	%0	0	0	0	0	100%	20%	8,386.43
<u>1</u>	Replacement of Existing Pavement Striping	Unit Price	3500	96.0	3,325.00	•		•	•	-	7,665.00	219%	7,281.75
9	Removal of Existing Pavement Striping	Unit Price	120	9.51	1,141.20			PROPERTY				-	ı
17	Relocation of Water Lines and Power/Telephone/Water ("PTW") Vaults	Lump Sum	~	26,836.58	26,836.58	0.00%	0	-	0	,	100%	100%	26,836,58
\$2	Transformers (for Berth 140 as noted in Special Condition SC-25)	Lump Sum	٢	709,593.23	709,593.23	1		N/A	N/A	N/A	100%	100%	709,593,23
τ	Transformers (for Berth 138 as noted in Special Condition SC-25)	Lump Sum	-	709,593.23	709,593.23	%0	N/A	1	NIA	ΝΑ	100%	100%	709,593.23
20	Transformers (for Berth 136 as noted in Special Condition SC-25)	Lump Sum	1	709,593.23	709,593.23	%0	N/A	N/A		N/A	100%	100%	709,593,23
24	Transformers (for Berth 132-134 as noted In Special Condition SC-25).	Lump Sum	-	709,593.23	709,593.23	%0	N/A	N/A	N/A		100%	100%	709,593.23
22	Switchgear Assembly(s) (for Berth 140 as noted in Special Condition SC-25)	Lump Sum	1	3,939,255.79	3,939,255.79	r		N/A	N/A	N/A	100%	100%	3,939,255.79
12	Switchgear Assembly(s) (for Berth 138 as noted in Special Condition SC-25)	Lump Sum	۲.	1,921,221.76	1,921,221.76	ı	N/A	# # #		N/A	100%	100%	1,921,221.76
24	Switchgear Assembly(s) (for Berth 136 as noted in Special Condition SC-25)	Lump Sum	-	1,779,834.87	1,779,834.87	%0	N/A	N/A		N/A	100%	100%	1,779,834.87
25	Switchgear Assembly(s) (for Berth 132-134 as noted in Special Condition SC-25)	Lump Sum	-	2,105,417.86	2,105,417.86	%0	N/A	N/A	N/A	4	100%	100%	2,105,417.86
26	Ductoanks and Raceways (for berth 140 as noted in Special Condition, SC-25)	Lump Sum	*-	349,501.65	349,501.65	%0	•	N/A	N/A	N/A	100%	100%	349,501.65

Contractor: The Ryan Company	Contractor: the typic company										Original Bid Amt:		44.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
Item No.	ltem	Unit	Est. Otty.	Unit Price	Bid Amount	Oty This Month	7140 \$ Amount This Month	T138 \$ Amount This Month	T136 \$ Amount This Month	T132 \$ Amount This Month	Previous Qty or %	Total % of Item Comp	TOTAL \$ Amount to Date
27	Ductbanks and Raceways (for Berth 138 as noted in Special Condition SC-25)	Lump Sum	1	599,461.62	599,461.62	%0	N/A	,	N/A	N/A	100%	100%	599,461.62
28	Ductbanks and Raceways (for Berth 136 as noted in Special Condition SC-26)	Lump Sum	-	394,105.50	394,105.50	%0	N/A	N/A	•	N/A	100%	100%	394,105.50
29	Ductbanks and Raceways (for Berth 132- 134 as noted in Special Condition SC-25)	Lump Sum	-	765,573.51	765,573.51	%0	N/A	N/A	ΝΆ		100%	100%	765,573.51
30	Conductors (for Berth 140 as noted in Special Condition SC-25)	Lump Sum	-	413,138.96	413,138.96	%0	,	N/A	N/A	N/A	100%	100%	413,138.96
31	Conductors (for Berth 138 as noted in Special Condition SC-25)	Lump Sum	·-	518,338.89	518,338.89	%0	N/A		N/A	N/A	100%	100%	518,338.89
32	Conductors (for Berth 136 as noted in Special Condition SC-25)	Lump Sum	-	471,591.80	471,591.80	%0	N/A	N/A		N/A	100%	100%	471,591.80
33	Conductors (for Berth 132-134 as noted in Special Condition SC-25)	Lump Sum		692,948.22	692,948.22	%0		N/A	N/A	ī	100%	100%	692,948.22
34	SPO Receptacles (for Berth 140 as noted in Special Condition SC-25)	Lump Sum	-	226,959.75	226,959.75	%0	1	N/A	N/A	NIA	100%	100%	226,959.75
35	SPO Receptacles (for Berth 138 as noted in Special Conditon SC-25)	Lump Sum	~	340,439.63	340,439.63	%0	NA	•	N/A	N/A	100%	100%	340,439.63
36	SPO Receptacles (for Berth 136 as noted in Special Conditions SC-25)	Lump Sum	V	226,959.75	226,959.75	%0	N/A		•	N/A	100%	100%	226,959.75
37	SPO Receptacles (for Berth 132-134 as noted in Special Condition SC-25)	Lump Sum		453,919.50	453,919.50	%0		N/A	ΝΑ		- 100%	100%	453,919.50
38	All Other Electrical Work (for Berth 140 as noted in Special Condition SC-25)	Гитр Ѕит	1	86,714.11	86,714.11	%0	•	N/A	N/A	N/A	100%	100%	86,714,11
39	All Other Electrical Work (for Berth 138 as noted in Special Condition SC-25)	Lump Sum	-	81,156.80	81,156.80	%0	N/A	•	N/A	N/A	100%	100%	81,156.80
40	All Other Electrical Work (for Berth 136 as noted in Special Condition SC-25)	Lump Sum	1	79,665.13	79,665.13	%0	N/A	N/A	•		- 100%	100%	79,665.13
₽	All Other Electrical Work (for Berth 132- 134 as noted in Special Condition SC-25)	Lump Sum	ŀ	89,190.97	89,190.97	%0		N/A	N/A	1	. 100%	100%	89,190.97
42	Paving at Switchgear MTS4 and MTS5 and at SSP Substations	Lump Sum	-	135,862.43	135,862.43	%0	•	0			100%	100%	135,862,43
43	Standby Time	Unit Price	100	377.42	37,742.00	48.34	•	9,123.10	9,123,10	•	- 48%	%96	36,362.37
44	Scheduling	Lump Sum	-	22,363.82	22,363.82	%0	-	,	-	•	- 100%	. 100%	22,363.82
45	Ship Commissioning	Unit Price	132	767.63	101,327.16			1		16143.63	25%	41%	41,475.42
46	Power for Acceptance Testing	Allowance	Υ-	50,000.00	50,000.00	%0	-	,	-	•	- 18.00%	18%	00.000,8
co 1	CHANGE ORDER #1	Lump Sum	γ-	2,160,000.00		0%	1	τ		•	100%	4001	2,160,000.00
CO 2	CHANGE ORDER #2	Lump Sum	τ-	38,008.63				•	•	•	- 100%	100%	38,008.63
003	CHANGE ORDER #3	Lump Sum	۲-	(2,155.00)							100%	100%	(2,155.00)
CO 4	CHANGE ORDER #4	Lump Sum	-	26,737.00			•	-	•	,	. 100%	100%	26,737.00
S 00	CHANGE ORDER #5	гитр Sum	1	2,290,790.00		%88	767,776.70	53,400.33	57,235.47		- 61.65%	100%	2,290,790.00
900	SH CHOULD HONATO	mis ami I		00 870 V		/80							

Page 3 of 3

TOTAL \$ Amount to Date \$ 25,105,236.25 \$20,559,112.22 Total % of Item Comp LBHD Contract No: HD-7928 Original Bid Amt: 100% 100% Previous Qty or % %00.0 %96 17,500.00 80,023.43 \$ 83,858.58 \$ 33,643.63 T132 \$ Amount This Month 17,500.00 T136 \$ Amount This Month 17,500.00 T138 \$ Amount This Month \$ 785,276.70 \$ 17,500.00 T140 \$ Amount This Month Oty This Month 100% 4% 20,559,112,22 Bid Amount 70,000.00 4,588,329.63 25,147,441.85 Unit Price Progress Payment No. 19
Period Ending: 1/1/30/14

PAYMENT DUE: 3/3/2015
Specification: HD-S2348 Shore to Ship Power Project at Pier T, Berths 132-140
Contractor: The Ryan Company Est Oty. Lump Sum Unit NEW CONTRACT AMOUNT HERE HANGE ORDER #7 SIGN.

70,000.00

SIGN	SIG
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BPO No.	INDEX CODE	PROJ	PROJ DET	Subobject Code
PHA12000127	HACDCMCN	HA1317	1H2348	210009

Gross Earnings:	မာ	\$ 25,105,236,25
Previous Payments:	ю	\$ 23,906,498.34
Previous Retention:	69	(72 220 53)
STOP NOTICE HARDY & HARPER,INC. \$23,750 + 25%	69	(29,687.50)
STOP NOTICE HAMPTON TEDDER TECHNICAL SERVICES, INC. \$91,221.02 + 25%	ь	(114,027.51)
Earned This Period:	69	982,802.35
Less Retention: ESCROW #2	ь	(49,140.12)
\$10P NOTICE ROBERTSON'S \$1,885.99 + 25%	€9	(2,357,49)
STOP NOTICE ABC RESOURCES INC \$8,000.00 + 25%	ю	(10,000.00)
AMOUNT DUE THIS ESTIMATE:	ь	921,304.75

Date

Suzanne C. Plezia, P.E. Director of Construction

George Gordon Project Manger

Project & Grant Revenue/Expenditure Financial Summary Criteria: As Of = 3/26/2019 (48% of Year Elapsed)

Project Detail	Tille	ITD Adjusted Budget	Month-To-Date Actual Activity	Quarter-To-Date Actual Activity	ITD Actual	ITD Encumbrance incl Pre-Encumb	ITD Adjusted Budget - Actuals	ITD % Actuals to Adjusted Budget
Revenue		¥						
Project HA1314 - CLOSED-	Project HA1314 - CLOSED-PIER A SHORE TO SHP PWR RETROFIT 142342 CONSTRUCTION PROGRAM-WIDE	00.00	0.00	00:0	6.207,535,72	00:0	(6,207,535,72)	%0.0
Total Project HA1314		00.0	00.00	00:00	6,207,535.72	00:00	(6,207,535.72)	%0.0
Project HA1317 - CLS-PIER 1H2348	Project HA1317 - GLS-PIER 1,1132-1140 SHORE TO SHIP POWER 142348	0.00	0.00	00:0	10,000,000,00	00:00	(10,000,000,00)	%0.0
Total Project HA1317		0000	0.00	00:0	10,000,000,00	0.00	(10,000,000,000)	%0.0
Total		0,00	00'0	00:0	16,207,535.72	0.00	(16,207,535.72)	%0.0
Total Revenue	I	00'0	00'0	00'0	16,207,535.72	0000	(16,207,535,72)	%0.0
Expenditures								
Project HA1314 - CLOSED-	Project HA1314 - CLOSED-PIER A SHORE TO SHP PWR RETROFIT					**		
182342	ENVIRONMENTAL, PROGRAM-WIDE	76,955.40	00'0	00.0	76,955,40	00:0	0.00	100.0%
102342	DESIGN, PROGRAM-WIDE	2,313,600.40	0.00	00.0	2,313,600,40	00:0	0.00	100.0%
1H2342	CONSTRUCTION, PROGRAM-WIDE	16,162,985.63	0.00	0000	16,163,251.75	00:0	(266.12)	100.0%
Total Project HA1314		18,553,541.43	00'0	00:0	18,553,807,55	00.0	(266.12)	100.0%
Project HA1317 - CLS-PIEF	Project HA1317 - CLS-PIER T,T132-T140 SHORE TO SHIP POWER		n.					
182348	182348/PERMITTING/ELECT INFRASTRUCTURE	291,851,12	0.00	0.00	291,851,12	00'0	0.00	100.0%
102348	1C2348/DESIGN/ELECTRICAL INFRASTRUCTURE	4,709,455.06	0.00	0.00	4,709,456.06	0.00	0.00	100.0%
1H2348	1H234B/CONST/ELECTRICAL INFRA	29,415,926,69	0.00	0.00	29,416,228.51	00'0	(301.82)	100.0%
Total Project HA1317		34,417,233.87	0.00	0.00	34,417,535.69	00:00	(301.82)	100.0%
Total		52,970,775.30	0.00	0.00	52,971,343.24	00'0	(567.94)	100.0%



SPECIFICATIONS FOR: Pier A, Berths A88-496, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

0.00	onstruction ater Drive : 94612) 333-1500 33-1510	mpany 2	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive		Griffith/Neubauer JV		Minako America Corporation	orporation	Sully-Miller Contracting Company	tino Company
ESTIMATED QUANTITIES (4,		<u> </u>	Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2385	9 O	12200 Bloomfield Avenue Santa Fe Springs, CA 90570 Phone: (562) 929-1128 Fax: (562) 864-7938	venue 2A 90670 128 3	522 E. Airline Way Gardena, CA. 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	.8 1100 4	135 S, Smith College Blvd #400 Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	600 5
iany		FMION	r i	2000						
iary		NO CONTRACTOR OF THE PARTY OF T	7 1	AMCON	KAJE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
		•								
Lump Sum	130,000.00	130,000,00	100,000.00	100,000,00	670,000,00	670,000,00	377.000.00	377 000 00	1 250 000 00	1 250 000 00
ITEM NO. 2 - Site Specific Safety Plan: Provide and implement an approved Site Specific Safety Plan for the lump sum price of -									O CONTRACTOR OF THE CONTRACTOR	000000000000000000000000000000000000000
Eng Gunt	15 000 00	15 000 00	000	0000						
_	2000	3,000,00	00.000.00	00.000,01	00:000,01	10,000.00	17,000.00	17,000.00	22,106.00	22,106.00
labor, equipment, materials and incidentals necessary to perform demolition, removal and disposal of existing asphalt pavement and as shown and specified for the lump sum price of										
Lump Sum	150,000.00	150,000.00	105 000 00	105 000 00	100 000 00	100,000,00	107 000 00	107 000 00	200	i de la companya de l
IT EM NO. 4 - Soil Handing and Disposal of Surplus Soil: Provide all labor, equipment, materials and incidentals necessary to stockpile approximately one thousand one hundred (1,100) tons as specified and shown for the unit price per ton of-			· Anna					000	00.100.100	DO 700, 102
Unit Price	10,00	11.000.00	33.00	36 300 00	19.50	21 150 00	79 00	27 00 00	6	6
TIEM NO. 5 - Soil Handling and Disposal of Non-Hazardous Waste. Provide all labou, equipment, materials and incidentals necessary to approximately six hundred fifty (660) tons of Non-Hazardous as specified and shown for the unit price per ton of -									70.00	On Process
Unit Price	80.00	52,000,00	71.00	46,150.00	58.00	37,700.00	56.92	35 998 70	78 37	50 024 00
TOTAL:							1 70:00	00.056,00	100	00.126,00
CERTIFIED CHECK OR BOND:										

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

AUTHORIZED SIGNATURE

File: 8id Analysis HD-S2342A Sagredo[BID ANALYSIS] 1/31/2012 3:04 PM



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

	ľ										ú
	n ee c	8201 Edgewater Drive #202	Jon Company ve #202	KUC, Inc. doa Dynalectric 4462 Corporate Center Drive	ø	Griffith/Neubauer JV 12200 Bloomfield Avenue	venue	Minako America Corporation 522 E. Airline Way	rporation	Sully-Miller Contracting Company 135 S. State College Blvd #400	ing Company Blvd #400
	<u> </u>	Oaklano, Ca. 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	000	Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2385	0	Santa Fe Springs, CA, 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	.A 90670 128 3	Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	100	Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-8775	000
								And for the first of a comment of a first comment of the following comment of the following of the first comment o			A 10 Color of the
ES ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 6 - Port Furnished Crushed Miscellaneous Base: Provide all labor, equipment, materials and incidentals necessary to											
mix, load approximately two thousand six hundred fifty (2,650) tons as specified and shown for the unit price per ton of ~											
	Unit Price	15.00	39,750.00	42.00	111,300.00	40.00	106,000,00	40.38	107,007.00	34,14	90,471,00
ITEM NO. 7 - Asphalt Concrete Pavement: Provide all labor, equipment, materials and incidentals necessary to construct approximately two thousand five hundred fifty (2,550) tons of											
	Unit Price	89.00	226,950.00	213,00	543,150.00	108.00	275.400.00	108.63	277.006.50	118.60	302,430,00
ITEM NO. 8 - 8-Foot Chain Link Fence with Barbed Wire: Provide all labor, material, equipment and incidentials approx four hundred eighth (400) linear feet of 8-foot chain link as specified and shown for the unit price per linear foot of -											
	Unit Price	40.00	19,200.00	71.00	34,080.00	41.00	19,680.00	77.09	37,003.20	44.70	21,456.00
ITEM NO. 9 - Chain Link Gates: Provide all labor, material, equipment and incidentals necessary to furnish and install all chain link gates as specified and shown for the lump sum price of -											
ITEM NO. 10 - Pipe Bollards, 12-inch: Provide all labor, equipment, materials and incidentals necessary to furnish, install, accord fifty seven (57) 12-inch diameter pipe bollards, as specified and shown for the unit price ner each of	wns dwn	15,000.00	15,000.00	10,000.00	10,000.00	14,200.00	14,200.00	17,000.00	17,000.00	10,301.00	10,301,00
	Unit Price	1,200.00	68,400.00	1,700.00	96,900.00	1,320.00	75,240.00	1,877.20	107,000.40	1,707.00	97,299,00
TOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-496, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

Simmed Control of Simmed Simmed Control of Simmed Simmed Control of Simmed Simmed Control of Simmed	ESTIMATED QUANTITIES Lump Sum	nick Construction Comps Edgewater Drive #202 nd, Ca 94612 r: (949) 333-1500 949) 333-1510		nalectric	Criffith Manhanar 1		Column A malantin	1.00		
ESTIMATES RATE AMOUNT	ESTIMATED QUANTITIES Lump Sum		445.2 Corporate C Los Alamitos, CA Phone: (714) 828. Fax: (714) 484-23	enter Drive 90720 7000 85	Communication 12200 Bloomfield A Santa Fe Springs, C Phone: (562) 929-1 Fax: (562) 864-7938	/ venue .A 90670 128 3	Millako Amerika ka 522 E. Airline Way Gardena, CA 9024 Phone: (310) 516-8 Fax: (310) 516-740	riporation 8 100 4	Sully-Miller Contracting Compar 135 S. State College Blvd #400 Brea, CA 92621 Phone: (714) 578-9600 Fax: (714) 449-8775	Ing Company Blvd #400 S00
Lump Sum 250,000,00 2 250,000,00 365,000,00 340,000,00 340,000,00 377,000,00 377,000,00 343,6	Lump Sum	4		AMOUNT	RATE	TMICHA	0 4	FINIOCEN	ar v o	A STATE OF THE STA
Lump Sum 0<	Ги тр Ѕчт						1	NO CONTRACTOR OF THE PROPERTY		N DO
Unit Pricie 1.00 3,800.00 2.50 9,500.00 1.15 4,370.00 1.86 7,030.00 Unit Pricie 50.00 7,750.00 142.00 22,010.00 46.00 7,130.00 109.68 17,000.40 Lump Sum 250,000.00 250,000.00 365,000.00 340,000.00 340,000.00 377,000.00 377,000.00 343,6	TEM NO. 12 - Repair of Existing Striping: Provide all labor, equipment, materials and incidentials necessary to repair announcement and incident incident for only income.		0	0	0	0	o	c		c
Unit Pricie 1.00 3,800.00 2.50 9,500.00 1.15 4,370.00 1.85 7,030.00 Unit Pricie 50.00 7,750.00 142.00 22,010.00 46.00 7,130.00 109.68 17,000.40 Lump Sum 250.000.00 250,000.00 365,000.00 340,000.00 340,000.00 377,000.00 343,000.00 Lump Sum 250,000.00 365,000.00 365,000.00 340,000.00 377,000.00 377,000.00 343,000.00	approximately into another equitation of coopy intention of as specified and required for the unit price per linear foot of -									
Unit Pricie 50.00 7,750.00 142.00 22,010.00 46.00 7,130.00 109.68 17,000.40 Lump Sum 250,000.00 365,000.00 365,000.00 340,000.00 340,000.00 377,000.00 377,000.00 377,000.00 343,6 Lump Sum 250,000.00 365,000.00 365,000.00 340,000.00 340,000.00 340,000.00 377,000.00 377,000.00 377,000.00 343,6 343,6			********		1.15	4.370.00	88	7 030 00		A 258 A
Unit Pricie 50.00 7,750.00 142.00 22,010.00 48.00 7,130.00 109.68 17,000.40 17,000.40 Lump Sum 250,000.00 250,000.00 365,000.00 340,000.00 340,000.00 377,000.00 377,000.00 343,6 Lump Sum 250,000.00 365,000.00 365,000.00 340,000.00 377,000.00 377,000.00 343,6	7									
Lump Sum 250,000,00 250,000.00 365,000,00 340,000,00 340,000,00 377,000,00 377,000,00 343,6 Lump Sum 250,000,00 365,000,00 365,000,00 365,000,00 340,000,00 340,000,00 347,000,00 347,000,00 343,6	_			22,010.00	46.00	7,130.00	109.68	17,000.40		6 975 00
Lump Sum 250,000.00 250,000.00 365,000.00 365,000.00 340,000.00 377,000.00 377,000.00	Lump Sum			365.000.00	340.000.00	340 000 00	277 000 00	377 000 00	6.00	0.000
Lump Sum 250,000.00 365,000.00 365,000.00 340,000.00 377,0	TTEM NO. 15 - Shore Power Outlet Vaults for Berth 82 (SPD 4, SPO 6 & SPO 8). Provide all abor, material equipment and indefentals necessary to perform demolition and construction of shore, to ship as specified and shown for the lump sum price of -									
ED CHECK OR BOND:	Lump Sum	,		365,000.00	340,000.00	340,000,00	377,000,00	377,000,00		343.615.00
CERTIFIED CHECK OR BOND:	TOTAL:								L	
	CERTIFIED CHECK OR BOND:									

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

AUTHORIZED SIGNATURE

File: Bid Analysis HD-S2342A Sagredo(BID ANALYSIS) 1/31/2012 3;04 PM



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, Ca 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	tion Company rive #202 2 500	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2385	WB	Griffith/Neubauer JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90570 Phone: (562) 929-1128 Fex: (562) 884-7936	V wenue DA 90570 128	Minako America Corporation 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	srporation 8 1100	Sully-Miller Contracting Company 136 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9900 Fax: (714) 449-8775	ting Company e Blvd #400 600
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 16 - Shore Power Outlet Vaults for Berth 94 (SPO 1, SPO 2 & SPO 3): Povide all labor, material, equipment and incidentials necessary to perform denoilition and construction of shore to ship as specified and shown for the lump sum price of	.										
	Lump Sum	250,000.00	250,000,00	365,000.00	365,000.00	340,000,00	340,000.00	377,000.00	377,000.00	343,615,00	343,615.00
ITEM NO. 17 - Cut-Off Wall Plug/Penetrations: Provide all labor, materials, equipment and incidentals necessary to perform demotition, coring and construction of four (4) cut-off wall plug as specified and shown for the unit price per each of -	Unit Price	2,000.00	28,000,00	6,000.00	24,000.00	5.400.00	21.600.00	4.250.00	17,000.00	00'008'6	37,200.00
TENSON OF THE PROPERTY OF THE			22122212	2012010	20:010(2000	20,200,10		2000.1.	200000	2000
I all abov. To save. Or up your contraction support: provide all abov. materials, tools, equipment and incidentals necessary to support approximately four (4) ship-side "day as specified and directed by the Engineer for the unit price per each of											
	Unit Price	3,000.00	12,000.00	1,500.00	6,000.00	2,180.00	8,720.00	1,750.00	7,000.00	2,122.00	8,488.00
ITEM NO. 19 - Ship Testing and Commissioning: Provide all labor, materials, tools, equipment and indidentials necessary to support approximately four (4) ship-side commissioning as specified and directed by the Engineer for the unit price per each of -	Unit Price	15.000.00	00.000.09	17.500.00	70.000.07	20.437.50	81 750 00	17.500.00	00 000 02	18.392.00	73 568 00
ITEM NO. 20 - Transformer for Berth 90: Provide at labor, material, equipment, and incidentals required to furnish, install, test and commission the transformer(s) as part of a complete system as specified and shown for the lump sum price of -											
	Lump Sum	650,000.00	650,000.00	600,000.00	660,000.00	654,000,00	654,000,00	477.000.00	477,000.00	599,982.00	599,982.00
TOTAL;											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Terminal	iai										
		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, Ca 94612 Phone: (949) 333-1510 Fax: (948) 333-1510	cton Company rive #202 2 1500	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2385	alectric riter Drive 90720 0000 5	Griffth/Neubauer JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90570 Phone: (562) 929-1128 Fex: (562) 664-7936	renue A 90670 128	Minako America Corporation 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	ration	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	ting Company e Blvd #400 600
тем	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	TNIONA	BATE	TMIOWA
TEM NO. 21 - Transformer for Berth 92: Provide al labor, material, equipment, and incidentals required to furnish, install, test and commission the transformer(s) as part of a complete system as specified and shown for the lump sum price of -											
TEM NO. 22 - Transformer for Barth 94: Provide a labor material	Lump Sum	650,000,00	650,000.00	00'000'009	600.000.00	654,000.00	654,000.00	477,000.00	477,000.00	599,982.00	599,982.00
component, and incidentals required to furnish, install, test and commission the transformer(s) as part of a complete system as pecified and shown for the lump sum price of											
	Lump Sum	650,000.00	650,000.00	600,000.00	600,000,00	654,000,00	654,000,00	477,000.00	477,000,00	599,982,00	599 982 00
TEM NO. 23 - Switchgear Assembly for Berth 80: Provide all labor, naterial, equipment and incidentals required to funish, install, test and commission the switchgear assembly as part of a complete is specified and shown for the lump sum price of	шир Sum	1,750,000.00	1,750,000.00	1,690,000.00	1,690,000.00	1,744,000,00	1,744,000,00	00'000'222'1		1.582.989.00	1 582 989 00
TEM NO. 24 - Switchgear Assembly for Berth 92: Provide all labor, naterial equipment and incidentals required to funish, install, lest and commission the switchgear assembly as part of a complete is specified and shown for the lump sum price of	Lums gum	1,475,090.00	1,475,000.00	1,516,000,00	1,510,000.00	1.417.800.00	1.417.000.00	1.777.000.00	777 000 00	1 448 485 00	1 448 485 00
TEM NO. 25 - Switchgear Assembly for Berth 94: Provide all labor, naterial, equipment and incidentals required to furnish, install, test nd commission the switchgear assembly as part of a complete s specified and shown for the lump sum price of -											
	Lump Sum	1,500,000,00	1,500,000.00	1,600,000.00	1,600,000.00	1,471,500.00	1,471,500.00	1,377,000.00	1,377,000.00	1,469,022,00	1,469,022,00
OTAL;											
ERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

. 594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

AUTHORIZED SIGNATURE

File: Bid Analysis HD-S2342A Sagredo[BID ANALYSIS] 1/31/2012 3:04 PM



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, Ca 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	mpany 2	KDC, Inc. dba Dynalectric 4482 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2385	.v.e	Griffith/Neubauer JV 12200 Bioomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	/renue A 90670 28	Minako America Corporation 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	ation	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-8775	ing Company Blvd #400 S00
NEL	ESTIMATED	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 28 - Ductbanks and Raceways for Berth 90: Provide all labor, material, equipment and incidentals required to furnish and install the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of -	1	500,000.00	200,000,00	581,000.00	581,000.00	435,000.00	435,000.00	00.000,778	577,000,00	384.754.00	384,754.00
TTEM NO. 27 - Ductbanks and Raceways for Berth 92: Provide all labor, material, equipment and incidentals required to furnish and install the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of -	Lump Sum	450,000.00	450,000.00	537,000.00	537,000.00	435,000.00	435,000.00	577,000,00	577.000.00	374,855.00	374,855.00
ITEM NO. 28 - Ductbanks and Raceways for Berth 94: Provide all labor, material, equipment and incidentals required to furnish and install the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of -	mng dunn	325,000.00	325,000.00	436,000.00	436,000.00	355,000.00	365,000.00	477,000.00	477,000.00	342,606.00	342,606.00
ITEM NO. 29 - Conductors for Berth 90: Provide all labor, material, equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown for the lump sum price of -	Fump Sum	300,000,000	300,000	250,000.00	250,000.00	332,450.00	332,450.00	377,000.00	377,000.00	331,972.00	331,972.00
ITEM NO. 30 - Conductors for Berth 92: Provide all labor, material, equipment and incidentials required to furnish, install and test the conductors as part of a complete system as specified and shown for the lump sum price of -		300,000.00	900000000000000000000000000000000000000	260,000.00	260,000,00	332,450.00	332,450.00	277,000,00	277,000,00	345,359.00	345,359.00
TOTAL: CERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

NO. HD-S2342A

at Pier A Container Terminal						47. H2-525-42.	t		UAI	DATE OPENED: January 31, 2012	uary 31, 2012
		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, Ca 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	pany	KDC. Inc. dba Dynalectric 4482 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2365	alectric inter Drive 90720 '000	Grifffth/Neubauer JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	V. wenue 2A 90670 128 3	Minako America Corporation 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	orporation 18 3100	Sully-Miller Contracting Company 159 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9500 Fax: (714) 449-8775	ifing Company le Bivd #400 le00
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	H TAG	TMOTA	T + Y C	1000	unida 4 K.			
ITEM NO. 31 - Conductors for Berth 94: Provide all labor, material, equipment and incldentals required to fumish, install and test the conductors as part of a complete system as specified and shown for the lump sum price of							NOODE TO THE TOTAL OF THE TOTAL	Z XX	AMOON	- XAIE	AMOUNT
TEM NO 90 CED Boomball of Lands and Co.	Lump Sum	325,000.00	325,000.00	180,000.00	180,000.00	332,450.00	332,450.00	377,000.00	377,000.00	400.643.00	400.643.00
material, equipment and includes for before 30. Provide all abort, martial, equipment and includentials required to furnish, install, test and commission the SPO receptacles as part of a complete system as specified and shown for the lump sum price of a		-									
	Lump Sum	100,000,00	100,000.00	110,000,00	110.000.00	88 000 00	88.000.00	177 000 00	177 000 00	90.00	000
In the No. 34 - 54' Creedpacks for Berth 32'. Provide all labor, material, equipment and incidentals required to funish, install, test and commission the SPO receptacks as part of a complete system as specified and shown for the lump sum price of -											
TEM NO 34 - SPO Becentacios for Borth 64 - Booker of Inter-	Lump Sum	100,000.00	100,000.00	110,000.00	110,000.00	88,000.00	88,000.00	177,000,00	177,000.00	108,158.00	108,158.00
material, equipment and incidentals required to funish, install, test and commission fire SPO receptacles as part of a complete system as specified and shown for the lump sum price of -	Lump Sum	100,000.00	100,000.00	110.000.00	. 110.000.00	000088	COO COO	77.	77.70	, c	
I EM NO. 35 - All Other Electrical Work for Berth 90: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission all other electrical work for Berth 90 as specified and shown for the lump sum price of -										000000000000000000000000000000000000000	108, 128, U
	Lump Sum	475,000,00	475,000.00	230,750.00	230,750.00	456,000.00	456,000.00	177,000.00	177,000,00	433,504,00	433.504.00
TOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp, 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

AUTHORIZED SIGNATURE

File: Bid Analysis HD-S2342A Sagredo[BID ANALYSIS] 1/31/2012 3:04 PM

Port of CONG BEACH The Green Port

ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, Ca 94612 Phoner (949) 333-1500 Fax: (949) 333-1510	pany	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 828-7000 Fax: (714) 484-2385	e v	Griffith/Neubauer JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90570 Phone: (562) 929-1128 Fax: (562) 884-7938	/ venue .A 90670 128 }	Minako America Corporation 522 E. Airline Way Gardena, CA 90248 Phone: (310) 516-8100 Fax: (310) 516-7404	rporation 8 100	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	ing Company Blvd #400 S00
MJLI	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 36 - All Other Electrical Work for Berth 92: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission all other electrical work for Berth 92 as specified and shown for the lump sum price of -	Lump Sum	00.000.07	00'000'02	100,000.00	100,000.00	107,000.00	107,000.00	177,000.00	177,000.00	47,341.00	47,341.00
ITEM NO. 37 - All Other Electrical Work for Berth 94: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission all other electrical work for Berth 94 as specified and shown for the lump sum price of -	шпѕ дшп	105,000.00	105,000.00	150,000.00	150,000.00	126,000.00	126,000.00	177,000.00	177,000.00	50,750.00	50.750.00
ITEM NO. 38 - Allowance for Load Bank Test Energy Usage: Provide all labor, materials, tools, equipment and incidentals necessary to reimburse the Tenant for energy The limits and use of the Allowance shall be solely as directed by the Engineer -	Allowance	50,000.00	50,000.00	50,000.00	50,000.00	00'000'09	50,000.00	50,000,00	50,000.00	50,000.00	20,000,02
ITEM NO. 39 - Stand-by Time: Provide all labor, equipment, materials and incidentals necessary to provide approximately twenty-five (25) hours of stand-by time for personnel and equipment, including, but not limited to for the unit price per hour of -	Unit Price	1,000.00	25,000.00	720.00	18,000.00	2,100.00	52,500.00	680.00	00.000,71	1,268.00	31,700.00
ITEM NO. 40 - Environmental Protection Plan (E.P.P) Compliance: Provide all labor, equipment, materials and incidentals necessary to develop Environmental Protection Plan, including SWPPP (see Appendix as specified and shown for the lump sum price of -	Lump Sum	20,000.00	20,000.00	72,000.00	72,000.00	34,500.00	34,500.00	00:000'22	77,000.00	22,106.00	22,106.00
TOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Terminal	iinal						ζ			DATE OF ENED. Salidary 51, 2012	ary 51, 2012
		Shimmick Construction Company 8201 Edgewater Drive #202 Oakland, Ca 94612 Phone: (949) 333-1500 Fax: (949) 333-1510	ction Company brive #202 12 1500	KDC, Inc. dba Dynalectric 4462 Corporate Center Drive Los Alamitos, CA 90720 Phone: (714) 628-7000 Fax: (714) 484-2385	nalectric enter Drive 90720 7000 35	Griffith/Neubauer JV 12200 Bloomfield Avenue Santa Fe Springs, CA 90670 Phone: (562) 929-1128 Fax: (562) 864-7938	V Wenue CA 90670 1128 8	Minako America Corporation 522 E. Airline Way Gardena, CA 90248 Phone: (310), 516-7404 Fax: (310), 516-7404	orporation / / 48 8100	Sully-Miller Contracting Company 135 S. State College Blvd #400 Brea, CA 92821 Phone: (714) 578-9600 Fax: (714) 449-8775	ing Company Blvd #400 000
ITEM	ESTIMATED	RATE	AMOUNT	RATE	TAMONA	E V	ENITOMY	DA-TE	1010	1	
ITEM NO. 41 - Schedule: Provide all labor, equipment, materials and incidentials necessary to develop and update all schedules complete as specified for the lump sum price of -									NOOP	# F	AMOUN
	Гитр 8ит	5,000.00	5,000.00	50,000.00	50,000.00	15,000.00	15,000.00	7,000.00	7.000.00	50.363.00	50 363 00
			ĝ.								
				•						·	
TOTAL:		\$11.513.850.00	.850.00	791 013	£42 464 440 00	10000	20				
CERTIFIED CHECK OR BOND:		10% Bond	Bond	10% Bond	Bond	414,395,090.00 10% Bond	on nan-	\$12,506	512,506,049.50	\$12,772,784.00	84.00
					***************************************		200	18/0	Dioc	DUOS SOLO	pud

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO, HD-S2342A

DATE OPENED: January 31, 2012

		Cupertino Electric, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 641-2400		Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100	Electric	Comet Electric 7760 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965	ue 71304 965	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500	500	Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone; (619) 276-4401 Fav. (619) 276-0717	on Company d - 01
		Tax. (302) 840-3860	The state of the s	C17-077 (216)		ray (a 1a) 040400		1000) 131 1000 1000 1000 1000 1000 1000			Contraction of Laboratory Communications of
fTEM	ESTIMATED QUANTITIES	RATE	TNUOMA	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TTEM NO. 1 - Mobilization and Demobilization. Furnish all labor, materials, tools, equipment, incidentals and supervision necessary to perform as specified and shown for the lump sum price (of which only 50% may be applied to mobilization) of -	Lump Sum	150,000.00	150,000.00	150,000.00	150,000,00	651,217.00	651,217.00	1,472,000.00	1,472,000.00	511,322.00	511,322.00
TEM NO. 2 - Site Specific Safety Plan: Provide and implement an approved Site Specific Safety Plan for the lump sum price of -	Lump Sum	60,000.00	00'000'09	50,000,00	50,000.00	175,982.00	. 175,982.00	12,000.00	12,000.00	15,000.00	15,000.00
ITEM NO. 3 - Asphalt Concrete Pavement Demolition: Provide all labor, equipment, materials and incidentals necessary to perform demolition, removal and disposal of existing asphalt pavement and as shown and specified for the lump sum price of -	Lump Sum	113,156.00	113,156.00	101,000.00	101,000.00	351,965.00	351,965.00	54,000.00	54,000.00	215,000.00	215,000.00
TTEM NO. 4 - Soil Handling and Disposal of Surplus Soil: Provide all labor, equipment, materials and incidentals necessary to stockpile approximately one thousand one hundred (1,100) tons as specified and shown for the unit price per ton of -		34.91	38,401.00	20.10	22,110.00	44.00	48,400.00	66.30	72,930.00	40.00	44,000.00
TEM NO. 5 - Soil Handling and Disposal of Non-Hazardous Waste. Provide all abor, equipment, materials and incidentals necessary to approximately six hundred fifty (650) tons of Non-Hazardous as specified and shown for the unit price per ton of -	Unit Price	53.00	34,450.00	110.00	71,500.00	57.00	37,050.00	42.20	27,430.00	75.00	48,750.00
TOTAL:											
CERTIFIED CHECK OR BOND:		_		_							

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-496, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Terminal	ıal						•			Daile of Either, Sailuaiy 31, 2012	ualy 31, 2012
		Oupertino Electrio, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 541-2400 Fax: (562) 946-9988	Inc treet 12 2400 8	Vellutini Corp dba Royal Electrio 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2150 Fax: (916) 226-2150	Royal Electric 5828 1100	Comet Electric 7786 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-033	ue 11304 965 3	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	y , 5500 .0	Marathon Construction Company 10108 Riverford Road Lateside, CA 92040 Phone: (619) 276-4401 Fax: (619) 278-0717	tion Company sad to 401
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	TNUCMA	3TA.93	TANIOMA	DF & C	FAILORS	L	11100
ITEM NO. 6 - Port Furnished Crushed Miscellaneous Base: Provide all labor, equipment, materials and incidentals necessary to mix, load approximately two thousand six hundred fifty (2,650) tons as specified and shown for the unit price per ton of -						1100		3180	NACONT.	Ž	AMCOON
	Onit Price	42.00	111,300.00	42,00	111,300.00	42.00	111,300.00	36.15	95,797.50	40.00	106,000,00
The most of the state of the st											
	Unit Price	204.50	521,475.00	124.00	316,200,00	106.00	270.300.00	112 00	285 800 00	130.00	334 500 00
I fam NO. 3- 8-Foot Chain Link Fence with Barbed Wire: Provide lil Bobr, material, equipment and incidentals approx four hundred eighty (480) linear feet of 8-foot chain link as specified and shown for the unit price per linear foot of -											
	Unit Price	77.00	36,960.00	42,00	20.160.00	36.00	17 280 00	41.00	40 880 05	なりいか	00 000
I EM NO. 9 - Chain Link Gates: Provide all labor, material, equipment and incidentals necessary to furnish and Install all chain link gates as specified and shown for the lump sum price of -	Eng Sena	1.436.00	1 43 00	44 00 00 00	0000	6					
ITEM NO. 10 - Pipe Bollards, 12-inch: Provide all labor, equipment, materials and incidentals nacessary to furnish, install, and coat fifty seven (57) 12-inch diameter pipe bollards, as specified and shown for the unit price per each of						00.015(3)	00.01 0.251	0,489,00	3,455.00	00:000,6T	15,000.00
	Unit Price	1,800.00	102,600,00	1,350.00	77,520.00	1.161.00	66 177.00	1 579 00	00 003 00	2 000 00	00000
TOTAL:								200	מימסמימים	7,000,00	00.000.4
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

AUTHORIZED SIGNATURE

File: Bid Analysis HD-S2342A Segredo[BID ANALYSIS] 1/31/2012 3:04 PM

Port of LONG BEACH The Circuit Port

ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Cupertino Electric, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 641-2400	nc. reet 2 400	Vellutini Corp dba Royai Electrio 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100		Cornet Electric 7760 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965	ue 11304 965	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500		Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone: (619) 276-4401	on Company Id)
		Fax: (562) 946-9988	8	Fax: (916) 226-2150		Fax: (818) 340-4033	2	Fax; (508) 742-2540		Fax: (619) 276-0717	
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 11 - Bid Item Removed: Bid item removed per Addendum No. 1 issued January 4, 2012.						4			c	c	
	Lump Sum	0	. 0	0	0	0	0	ð	9		0
ITEM NO. 12 - Repair of Existing Striping: Provide all labor, equipment, materials and incidentals necessary to repair approximately three thousand eight hundred (3,800) linear feet of as specified and required for the unit price per linear foot of	Unit Pricie	2.40	9,120.00	3.40	12,920.00	2.25	8,550.00		13,870.00	2,00	7,600,00
ITEM NO. 13 - Repair of Existing Pavement Markings: Provide all labor, equipment, materials and incidentals necessary to repair approximately one hundred fifty five (155) existing markings, as specified and required for the unit price per each of -					•						
	Unit Pricie	120.00	18,600.00	90.00	13,950.00	315.00	48,825.00	18.10	2,805.50	71,00	11,005.00
ITEM NO. 14 - Shore Power Outlet Vaults for Berth 90 (SPO 7, SPO 8 & SPO 9): Provide all labor, material, equipment and incidentais necessary to perform demolition and construction of shore to ship as specified and shown for the lump sum price of	Lump Sum	463,458.00	463,458.00	353,666.00	363,666.00	389,124,00	389,124.00	232.000.00	232,000.00	600,000,00	600,000.00
ITEM NO. 15 - Shore Power Outlet Vaults for Berth 92 (SPO 4, SPO 5 & SPO 6): Provide all labor, material, equipment and incidentals necessary to perform demolition and construction of shore to ship as specified and shown for the tump sum price of -	En so	468 4 68 00 00	463 458 00	989 989 989	353 666.00	389.124.00	389.124.00	142,000.00	142,000.00	600.000.00	00'000'009
TOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Cupertino Electric, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 641-2400 Fax: (562) 946-9988	nc. reet 2 400 }	Vellutni Corp dba Royal Electric 848' Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100 Fax: (916) 226-2150	toyal Electric 5828 100)	Cornet Electric 7760 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-033	ue 11304 965 3	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	00	Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone: (619) 276-4401 Fax: (619) 276-0717	ilon Company ad 0 401
TEM ITEM	ESTIMATED	RATE	AMOUNT	RATE	TMIOMA	n k	Figure	L			
ITEM NO. 16 - Shore Power Outlet Vaults for Berth 94 (SPO 1, SPO 2 & SPO 3): Povide all labor, material, equipment and incidentals necessary to perform demolition and construction of shore to ship as specified and shown for the lump sum price of -						2	THOUSE THE	1	AMOONA	¥.	AMOUNT
+	Lump Sum	463,458.00	463,458.00	353,666.00	353,666.00	389,124.00	389,124,00	142,000.00	142,000.00	90000000	600.000.00
In Eavi NO. 11 - CLR-CAT Wall Fuggirenetrations: Provide all labor, material, equipment and incidentals necessary to perform demolition, coning and construction of four (4) cut-off wall plug as specified and shown for the unit price per each of -											
	Unit Price	7,223.00	28,892.00	6.200.00	24.800.00	4 180 00	46 720 00	77 200 00	00 000	7	000
ITEM NO. 18 - SPO "Dry Run" Cable Connection Support: Provide all fabor, materials, tooks, equipment and incidentals necessary to support approximately four (4) ship-side "dry as specified and directed by the Engineer for the unit price per each of -										200	
	Unit Price	621.00	2,484.00	640.00	2,560.00	519.00	2,076.00	775.00	3.100.00	1.400.00	5 600 00
	Unit Price	17,915,00	71.680.00	14 000 00	000	47 c		000			
ITEM NO. 20 - Transformer for Berth 90: Provide al labor, material, coupment, and incidentals required to furnish, install, test and commission the transformer(§) as part of a complete system as specified and shown for the lump sum price of .								0000	לאם מתחיחם	ממיממימב	00.000,08
lul	Lump Sum	625,700.00	625,700.00	809.000.00	00,000,009	1,208,972,00	1 208 972 00	662 000 00	982 000 00	740 000 00	00 000 072
TOTAL:								1 22:002,200	207,000,000	00,000,010	00,000,047
CERTIFIED CHECK OR BOND:											
	-										

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS

CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

	ā										
		Cupertino Electric, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 641-2400 Fax: (562) 946-9988	nc. eet 2 2 400	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100 Fax: (916) 226-2150	Electric	Comet Electric 7760 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-4033	ue গ1304 965 3	The Ryan Company 15 Commerce Way Nordon, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540		Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone: (619) 276-4401 Fax: (619) 276-0717	on Company d
		AMBIANTA MANAGEMENT AND		100000000000000000000000000000000000000							
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TEM NO. 21 - Transformer for Berth 92: Provide al labor, material, equipment, and incidentals required to furnish, install, test and commission the transformer(s) as part of a complete system as specified and shown for the lump sum price of	ung dun	625,700.00	625,700.00	00.000,009	00'000'609	1,211,997.00	1.211,997.00	662,000.00	662,000.00	665,000.00	665,000.00
TEM NO. 22 - Transformer for Berth 94: Provide al labor, material, equipment, and incidentals required to funish, install, test and commission the transformer(s) as part of a complete system as specified and shown for the lump sum price of	mng dwn	625,700.00	625,700.00	609,000.00	609,000.00	1,215,296.00	1,215,296.00	00'000'299	662,000.00	710,000,00	710,000.00
TEM NO. 23 - Switchgear Assembly for Berth 90: Provide all labor, naterial, equipment and incidentals required to furnish, install, test and commission the switchgear assembly as part of a complete is specified and shown for the lump sum price of -	Lump Sum	1,648,325.00	1,648,325.00	1,655,000.00	1,655,000.00	1,232,346.00	1,232,346.00	2,008,000,00	2,008,000,00	1,790,000.00	1,790,000.00
TEM NO. 24 - Switchgear Assembly for Berth 92: Provide all labor, naterial equipment and incidentals required to fumish, install, test and commission the switchgear assembly as part of a complete is specified and shown for the lump sum price of	Lump Sum	1,384,637.00	1,384,637.00	1,396,000.00	1,396,000.00	1,232,346.00	1,232,346,00	1,475,000,00	1,475,000.00	1,600,000.00	1,800,000,00
TEM NO. 25 - Switchgear Assembly for Berth 94: Provide all labor, naterial, equipment and incidentals required to furnish, instail, test and commission the switchgear assembly as part of a complete as specified and shown for the lump sum price of	Lump Sum	1,418,089,00	1,418,089.00	1,438,000,00	1,439,000.00	1,237,462,00	1,237,462.00	1,507,000.00	1,507,000.00	1,635,000.00	1,635,000.00
rotal:											
SERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

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SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Lerminal	ıai										
		Cupertino Electric, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 641-2400 Fax: (562) 946-9988	Inc. treet 12 4400 8	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2100 Fax: (916) 226-2150	Yoyal Electric 5828 100 0	Comet Electric 7780 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-4033	ue 1304 965	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	500	Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone: (619) 276-4401 Fax: (619) 276-0717	on Company id
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	TWOUNT	7- 17-	TAHOMA	⊒TA G	FALICAA	11 V O	FALCINA
ITEM NO. 26 - Ductbanks and Raceways for Berth 90: Provide all labor, material, equipment and incidentals required to furnish and install the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of						5			T T T T T T T T T T T T T T T T T T T	u W	NOOMA
TEM NO 27 - Distinguished Baconson for Bods On Backs and	mas dmn	762,606,00	762,606.00	750,000.00	750,000,00	507,835.00	507,835.00	578,000.00	578,000.00	745,000.00	745,000.00
There is a complete and the complete service all install the ductbanks and receways as part of a complete system as specified and shown for the lump sum price of -				4 (1)							
	Lump Sum	678,099.00	678,099.00	576,000.00	575,000.00	505,492,00	505.492.00	449.000.00	449 000 00	860 000 00	560 000 00
ITEM NO. 28 - Ductoarks and Raceways for Berth 94: Provide all labor, material, equipment and incidentals required to furnish and install the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of -	Lump Sum	559,890.00	559,890,00	443.000.00	443.000.00	473.340.00	473 340 00	353 000 00	343 000 00	# X A D D O D	00000
ITEM NO. 29 - Conductors for Berth 90: Provide all labor, material, equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown for the lump sum price of -	en so den	376 841 OO	476 476 400	00 000 076	07.000.000					00.000	
ITEM NO. 30 - Conductors for Berth 92: Provide all labor, material, equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown for the lump sum price of -		-			00001		20.000	00.000,470	9/4,000,00	940,000,00	340,000.00
	Lump Sum	381,578.00	381,578.00	369,000.00	369,000,00	304,540.00	304 540.00	425.000.00	425 000 00	340 000 00	340 000 00
TOTAL:								2000000	2000	00.000.00	00000
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS

CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

160,000.00 160,000.00 160,000,00 525,000.00 340,000.00 Warathon Construction Company AMOUNT Phone: (619) 276-4401 10108 Riverford Road Lakeside, CA 92040 Fax: (619) 276-0717 525,000.00 160,000.00 160,000.00 160,000.00 340,000.00 RATE 257,000,00 510,000.00 336,000.00 257,000.00 257,000,00 AMOUNT Phone: (508) 742-2500 Fax: (508) 742-2540 The Ryan Company 15 Commerce Way Norton, MA 02766 510,000.00 257,000.00 257,000.00 257,000.00 336,000.00 RATE 243,810.00 269,943,00 243,880.00 128,770.00 359,649.00 AMOUNT Canoga Park, CA 91304 Phone: (818) 340-0955 7760 Deering Avenue Fax: (818) 340-4033 243,810.00 269,943.00 243,880.00 128,770.00 359,649,00 Comet Electric RATE 102,000.00 102,000.00 102,000.00 883,000,00 431,000.00 AMOUNT Vellutini Corp dba Royal Electric Sacramento, CA 95828 Phone: (916) 226-2100 Fax: (916) 226-2150 883,000.00 102,000.00 102,000.00 431,000.00 102,000.00 8481 Carbide Ct RATE 117,737.00 385,757.00 114,664.00 114,664.00 204,842.00 AMOUNT 1132 N. Seventh Street Phone: (562) 641-2400 Supertino Electric, Inc. San Jose, CA 95112 Fax: (562) 946-9988 114,654.00 117,737,00 204,842.00 385,757,00 114,664.00 RATE ESTIMATED QUANTITIES Lump Sum Lump Sum Lump Sum Lump Sum Lump Sum ITEM NO. 32 - SPO Receptacles for Berth 90: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission the SPO receptacles as part of a complete system ITEM NO. 33 - SPO Receptacles for Berth 92: Provide all labor, material, equipment and incidentals required to furnish, install, test TEM NO. 34 - SPO Receptacles for Berth 94; Provide all labor, naterial, equipment and incidentals required to fumish, install, test and commission the SPO receptacles as part of a complete system and commission the SPO receptacles as part of a complete system ITEM NO. 35 - All Other Electrical Work for Berth 90. Provide all labor, material, equipment and incidentals required to furnish, install, test and commission all other electrical work for Berth 90 ... as specified and shown for the lump sum price of -TEM NO. 31 - Conductors for Berth 94: Provide all labor, material equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown as specified and shown for the lump sum price of as specified and shown for the lump sum price of as specified and shown for the lump sum price of -CERTIFIED CHECK OR BOND: or the lump sum price of -

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

TOTAL:

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

	<u> </u>										
		Cuperfino Electric, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 941-2400 Fax: (562) 946-9988	Inc. treet 12 400 8	Vellutini Corp dba Royal Electrio 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2150 Fax: (916) 226-2150	toyal Electric 5828 100	Cornet Electric 7760 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-033	ue 11304 965 3	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	y (:500 0	Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone: (619) 276-4401 Fax: (619) 276-0717	tion Company and 40 401 7
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	TNICOMA	7. V C	ASSOCIAT	DI-YO	FINITORIA	2440	1000
ITEM NO. 36 - All Other Electrical Work for Berth 92: Provide all abor, material, equipment and incidentals required to furnish. Install, test and commission all other electrical work for Berth 92 as specified and shown for the lump sum price of -										E CONTRACTOR DE	18000 N
	Lump Sum	108,225.00	108,225.00	91,000,00	91,000.00	51.957.00	51.957.00	272,000.00	272.000.00	00 000 88	A8 000 00
TEM NO. 37 - All Other Electrical Work for Berth 94: Provide all abov, material, equipment and noidentials required to furnish, mateli, test and commission all other electrical work for Berth 94 as specified and shown for the lump sum price of -											a control of the cont
	Lump Sum	130,900,00	130,900,00	64.000.00	64 000 00	59 268 OO	40 288 AA	455 000 00	455 000 00	100 000 001	400 000
TEM NO. 38 - Allowance for Load Bank Test Energy Usage: Provide all labor, materials, tools, equipment and incidentals recessary to reimburse the Tenant for energy The limits and use of the Allowance shall be solely as directed by the Engineer-			<i>'</i>								
	Allowance	50,000,00	50,000.00	50,000,00	50,000.00	50,000,00	50.000,00	50.000.00	50.000.00	50 000 00	50 000 00
TEM NO. 39 - Stand-by Time: Provide all labor, equipment, naterials and incidentals necessary to provide approximately earlief yet (25) hours of stand-by time for personnel and equipment, including, but not limited to for the unit price per hour of -	Unit Price	725.00	18,125.00	1.350.00	33.750.00	85 00 00	21 375 00		19 000 00	ood t	00 000 ¥C
TEM NO. 40 - Environmental Protection Plan (E.P.P.) Compliance: *Tovide all labor, equipment, materials and incidentals necessary to *tevelop Environmental Protection Plan, including SWPPP (see *topendix as specified and shown for the lump sum price of *											
	Lump Sum	77,042,00	77,042.00	53,000,00	53,000.00	70,394,00	70,394,00	25,000,00	25,000,00	50.000.00	50.000.00
OTAL:		,									
SERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS

CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Cupertino Electrio, Inc. 1132 N. Seventh Street San Jose, CA 95112 Phone: (562) 641-2400 Fax: (562) 946-9988	inc. treet 12 1400 8	Vellutini Corp dba Royal Electric 8481 Carbide Ct Sacramento, CA 95828 Phone: (916) 226-2160 Fax: (918) 226-2150	Royal Electric 5828 2100 50	Comet Electric 7760 Deering Avenue Canoga Park, CA 91304 Phone: (818) 340-0965 Fax: (818) 340-4033	nue 91304 0965 33	The Ryan Company 15 Commerce Way Norton, MA 02766 Phone: (508) 742-2500 Fax: (508) 742-2540	ny sy -2500	Marathon Construction Company 10108 Riverford Road Lakeside, CA 92040 Phone: (619) 276-4401 Fax: (619) 276-0717	ilon Company ad 0 401
ПЕМ	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 41 - Schedule: Provide all labor, equipment, materials and incidentals necessary to develop and update all schedules complete as specified for the lump sum price of -	Lump Sum	50,000.00	50,000.00	163,000.00	163,000.00	35,196,00	35.196.00				250,000.00
						·					
TOTAL:		\$13,159	\$13,159,999.00	\$13,007	\$13,007,368.00	\$13,98	\$13,982,989.00	\$14,34	\$14,345,271.00	\$14,998	\$14,999,777.00
CERTIFIED CHECK OR BOND:		10%	10% Bond	10%	10% Bond	10%	10% Bond	10%	10% Bond	10%	10% Bond

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

AUTHORIZED SIGNATURE

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ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Terminal	ial										
		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0612	, 1004 49							The state of the s	
		NON-RESPONSIVE	Æ				- The state of the				A COLOR OF THE PROPERTY OF THE
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	TMITOMA	- 37 A C	TAHOMA
TEM NO. 1 - Mobilization and Demobilization: Furnish all labor, materials, tools, expulpment, indobinate and supervision necessary to perform, as specified and shown for the lump sum price (of which only 50% may be applied to mobilization) of -											
	Lump Sum	300,000.00	300,000.00								
ITEM NO. 2 - Site Specific Safety Plan: Provide and implement an approved Site Specific Safety Plan for the lump sum price of -			-	,							
	Lump Sum	10,000,00	10.000.00					-			
TEM NO. 3 - Asphalt Concrete Pavement Demolition: Provide all											
labor, equipment, materials and incidentals necessary to perform demolition, removal and disposal of existing asphalt pavement and as shown and specified for the lump sum price of -		-									
	Lump Sum	126,206.00	126,206.00								
ITEM NO. 4 - Soil Handling and Disposal of Surplus Soil: Provide all labor, equipment, materials and incidentals necessary to accopie, approximately one thousand one hundred (1,100) tons as specified and shown for the unit price per ton of -											
	Unit Price	38.94	42,834.00								
ITEM NO. 5 - Soil Handling and Disposal of Non-Hazardous Waste: Provide all labor, equipment, materials and incidentals necessary for, approximately six hundred fifty (650) tons of Non-Hazardous as specified and shown for the unit price per ton of -			e e e e e e e e e e e e e e e e e e e								
The state of the s	Unit Price	59.08	38,402,00								
TOTAL;											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp, 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

	3										
		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0612	.y. e 0004 149								
		NON-RESPONSIVE	VE								
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 6 - Port Furnished Crushed Miscellaneous Base: Provide all labor, equipment, materials and incidentals necessary to mix, load approximately two thousand six hundred fifty (2,650) tons as specified and shown for the unit price per ton of -		00.74	124,650.00								
TIEM NO. 7 - Asphalt Concrete Pavement: Provide all labor, equipment, materials and incidentals necessary to construct approximately two thousand five hundred fifty (2,550) tons of asphalt as specified and shown for the unit price per ton of -					***************************************						,
	Unit Price	230,00	586,500.00								
ITEM NO. 8 - 8-Foot Chain Link Fence with Barbed Wire: Provide all labor, material, equipment and incidentals approx four hundred eighty (480) linear feet of 8-foot chain link as specified and shown for the unit price per linear foot of -	Unit Price	86.00	41,280.00								
ITEM NO. 9 - Chain Link Gates: Provide all labor, material, equipment and incidentals necessary to furnish and install all chain link gates as specified and shown for the lump sum price of -			"								
	Lump Sum	12,754,00	12,754.00								
ITEM NO. 10 - Pipe Bollards, 12-inch: Provide al labor, equipment, materials and inddentals necessary to funish, install, and coat fifty seven (57) 12-inch diameter pipe bollards, as specified and shown for the unit price per each of -											
	Unit Price	2,014.00	114,798.00								
TOTAL:											
CERTIFIED CHECK OR BOND:											
									-		
		-									

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

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		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0612	y 0004 149								
		NON-RESPONSIVE	VE.		MANAA A A A A A A A A A A A A A A A A A				Annual of the second of the se		
ІТЕМ	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	TNIIOMA	RATE	TMOUNT	al vo	List Care
ITEM NO. 11 - Bld Item Removed: Bld Item removed per Addendum No. 1 issued January 4, 2012.								1			NOON
	Lump Sum	0	0								
ITEM NO. 12 - Repair of Existing Striping: Provide all labor, equipment, materials and incidentals necessary to repair approximately three thousand eight hundred (3,800) linear feet of as specified and required for the unit price per linear foot of -											
	Unit Pricie	269.00	1,022,200,00								
ITEM NO. 15 - Repair of Existing Pavement Markings: Provide all labor, equipment, materials and incidentals necessary to repair approximately one hundred fifty five (155) existing markings, as specified and required for the unit price per each of -											
	Unit Pricle	134.25	20.808.75	•							
ITEM NO. 14 - Shore Power Outlet Vaults for Berth 90 (SPO 7; SPO 8 & SPO 9): Provide all labor, material, equipment and incidentals necessary to perform demolition and construction of shore to ship as specified and shown for the lump sum price of -											
TEM NO 45 Share Barres Call 455 to 5 to 5	Lump Sum	516,911.00	516,911.00								
The state of the s											
	Lump Sum	516,911,00	516,911,00	•							
TOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0612	9004 149		-						
		NON-RESPONSIVE	Æ			The second secon					
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
ITEM NO. 16 - Shore Power Outlet Vaults for Berth 94 (SPO 1, SPO 2 & SPO 3).* Povide all labor, material, equipment and incidentals necessary to perform demolition and construction of shore to ship as specified and shown for the lump sum price of -											
	Lump Sum	516,911,00	516,911.00								
ITEM NO. 17 - Cut-Off Wall PlugPenetrations: Provide all labor, material, equipment and incidentals necessary to perform demofition, coring and construction of four (4) cut-off wall plug as specified and shown for the unit price per each of-							-				
	Unit Price	8,055,05	32,220,20								
ITEM NO. 18 - SPO "Dry Rur" Cable Connection Support. Provide all labor, materials, tools, equipment and incidentals necessary to support approximately four (4) ship-side "dry as specified and directed by the Engineer for the unit price per each of	Unit Price	1.250.00	5.000.00	-							
		20:00	00.000,0								
ITEM NO. 19 - Ship Testing and Commissioning: Provide all labor, materials, tools, equipment and incidentals necessary to support approximately four (4) ship-side commissioning as specified and directed by the Engineer for the unit price per each of -	5 	17 796 05	71 184.20								
TEM NO 20 Transformer for Borth 90: Drawids of Johan material											
The No. 25 - Hansonine in bern 30 - Trovde a labor, mareral, equipment, and incidentals required to furnish, install, test and commission the transformer(s) as part of a complete system as specified and shown for the lump sum price of -											
	Lump Sum	707,440.00	707,440.00								
TOTAL:											
CERTIFIED CHECK OR BOND;											

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO, HD-S2342A

DATE OPENED: January 31, 2012

		Steiny and Company 221 N. Ardmore Ave	× -: -								
-		Los Angeles, CA 90004 Phone: (213) 341-2149	149		·						
	•	Fax: (213) 382-0612									*******
		NON-RESPONSIVE	VE					**************************************	The Contract of the Contr	THE PARTY OF THE P	
	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMORINI
ITEM NO. 21 - Transformer for Berth 92: Provide al labor, material, equipment, and incidentals required to furnish, install, lest and commission the transformer(s) as part of a complete system as sneedied and shown for the lumn sum nice of											
	Lump Sum	707,440.00	707,440.00		-						
ITEM NO. 22 - Transformer for Berth 84: Provide al labor, material, equipment, and inclodentals required to fumish, install, lest and commission the transformer(s) as part of a complete system as specified and shown for the lump sum price of -	-										
	Lump Sum	707,440.00	707,440.00								
ITEM NO. 23 - Switchgear Assembly for Berth 90: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission the switchgear assembly as part of a complete as specified and shown for the lump sum price of -	g G S S										
4	mns dun	1,781,839.00	1,781,839.00								
ITEM NO. 24 - Switchgear Assembly for Berth 92: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission the switchgear assembly as part of a complete as specified and shown for the lump sum price of -	was awn	1.465.896.00	2.00 808 808 00 00 00 00 00 00 00 00 00 00								
ITEM NO. 25 - Switchgear Assembly for Berth 94: Provide all labor, material, equipment and incidentals required to furnish, install, lest and commission the switchgear assembly as part of a complete as specified and shown for the lump sum price of											
	Lump Sum	1,501,827.00	1,501,827.00		,						
TOTAL:											
CERTIFIED CHECK OR BOND:											
Shimmick Construction Company		594575/EVD 05/34/2010	04/34/9042			044 FA4	000				

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Terminal	ıal										
		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0512	y 2004 149							7	
		NON-RESPONSIVE	<u> </u>			And a manufacture of the state		A STATE OF THE STA			
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	TNDOMA	RATE	AMOUNT
TEM NO. 26 - Ductbanks and Raceways for Berth 90: Provide all abor, material, equipment and incidentals required to furnish and nstall the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of -	E S	727 888 00	707								
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	בחווה לוווים	00.000,121	00,000,127								
I EM NO. 27 - DUCDanks and Raceways for Berth 32: Provide all about material, equipment and incidentals required to furnish and rastall the ductoranks and raceways as part of a complete system as specified and shown for the lump sum price of a											
	Lump Sum	777,400.00	777,400.00		•						
TEM NO. 28 - Ductbanks and Raceways for Berth 94: Provide all abov, material, equipment and incidentials required to furnish and restall the ductbanks and raceways as part of a complete system as specified and shown for the lump sum price of .											
	Lump Sum	569,505.00	569,505.00								
TEM NO. 29 - Conductors for Berth 90: Provide all labor, material, equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown or the lump sum price of -											
	Lump Sum	407,685.00	407,685.00								
TEM NO. 30 - Conductors for Berth 92? Provide all labor, material, equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown or the lump sum price of -											
	Lump Sum	570,934.00	570,934.00								
NOTAL:											
SERTIFIED CHECK OR BOND:											
Shimmick Conctmination Communic		200	0.4001.401.00				70 010 021				

Shimmick Construction Company
LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850,00 AMOUNT



CITY OF LONG BEACH, HARBOR DEPARTMENT **ANALYSIS OF BIDS**

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

at Pier A Container Lermina	ial										
		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0612	yy e 0004 148								
The state of the s		NON-RESPONSIVE	VE	The state of the s				The state of the s		The same of the sa	
ITEM	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	TNIIOMA	##.4G	TMICMA	D A T	TMOTORY	2440	1,100
ITEM NO. 31 - Conductors for Berth 84: Provide all labor, material, equipment and incidentals required to furnish, install and test the conductors as part of a complete system as specified and shown for the lump sum price of -									L DOOR T	- Iwi	NOOMY .
	Lump Sum	347,513.00	347,513.00					_			
ITEM NO. 32 - SPO Receptacles for Berth 90: Provide all labor, material, equipment and incidentals required to funish, install, test and commission the SPO receptacles as part of a complete system as specified and shown for the lump sum price of:											
	Lump Sum	259,726.00	259,726.00					_			
ITEM NO. 33 - SPO Receptacles for Berth 92: Provide all labor, material, equipment and incidentals required to funish, install, test and commission the SPO receptacles as part of a complete system as specified and shown for the lump sum price of:											
	Lump Sum	259,726,00	259,726.00	,				_			
ITEM NO. 34 - SPO Receptactes for Berth 94: Provide all labor, material, equipment and incidentals required to furnish, install, test and commission the SPO receptactes as part of a complete system as specified and shown for the lump sum price of -											
	Lump Sum	259,726.00	259,726.00				-			-	
ITEM NO. 35 – All Other Electrical Work for Berth 90; Provide all labor, material, equipment and incidentals required to furnish, install, test and commission all other electrical work for Berth 90 as specified and shown for the lump sum price of.											
	Lump Sum	660,975.00	860,975.00								
TOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit

NO. HD-S2342A

DATE OPENED: January 31, 2012

	N C	Steiny and Company 221 N. Ardmore Ave	_			_					
	<u> </u>	Los Angeles, CA 90004 Phone: (213) 341-2149	004 49								
	43.	Fax: (213) 382-0612							THE RESIDENCE OF THE PROPERTY		
	***	NON-RESPONSIVE	The state of the s								
EST ITEM CUA	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT
TEM NO. 36 - All Other Electrical Work for Berth 92: Provide all abor, material, equipment and incidentals required to furnish, nstall, least and commission all other electrical work for Berth 92 sopedified and shown for the lump sum price of -	-										
	гишь Зиш	153,354,00	153,354.00								
TEM NO. 37 - All Other Electrical Work for Berth 94: Provide all abor, material, equipment and incidentals required to furnish, notall, test and commission all other electrical work for Berth 94 as specified and shown for the lump sum price of											
	Lump Sum	223,576,00	223,576.00								
TEM NO. 38 - Allowance for Load Bank Test Energy Usage: Provide all labor, materials, tools, equipment and incidentals necessary to reimburse the Tenant for energy The limits and use of the Allowance shall be solely as directed by the Engineer -											
	Aflowance	50,000,00	50,000,00								
	Unit Price	805.52	20,138.00								
TEM NO. 40 - Environmental Protection Plan (E.P.P) Compliance: Provide all labor, equipment, materials and incidentals necessary to develop Environmental Protection Plan, including SWPPP (see Properdix as specified and shown for the lump sum price of -											
	Lump Sum	75,928.00	75,928.00								
FOTAL:											
CERTIFIED CHECK OR BOND:											

Shimmick Construction Company LOWEST RESPONSIBLE BIDDER

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

ALITHODISCO CICKIATIO



ANALYSIS OF BIDS CITY OF LONG BEACH, HARBOR DEPARTMENT

SPECIFICATIONS FOR: Pier A, Berths A88-A96, Shore to Ship Power Retrofit at Pier A Container Terminal

NO. HD-S2342A

DATE OPENED: January 31, 2012

		Steiny and Company 221 N. Ardmore Ave Los Angeles, CA 90004 Phone: (213) 341-2149 Fax: (213) 382-0612	77 e 10004 1149								
THE PROPERTY OF THE PROPERTY O		NON-RESPONSIVE	VE	The second secon	Part of the control o		The second control of the second control of the second sec	· · · · · · · · · · · · · · · · · · ·			#
	ESTIMATED QUANTITIES	RATE	AMOUNT	RATE	AMOUNT	7747	TMIOMA	T V O	TIMITODAY	14 4 6	
ITEM NO. 41 - Schedule: Provide all labor, equipment, materials and incidentals necessary to develop and update all schedules complete as specified for the lump sum price of -								5	The state of the s	and	NO DESCRIPTION OF THE PROPERTY
	Lump Sum	20,000.00	20,000.00			-					
											T THE PARTY OF THE
				·							
											THE PARTY OF THE P
TOTAL:		\$16,355,204,15	204,15								
CERTIFIED CHECK OR BOND:		10% Bond	lond								
Shimmick Construction Company		EDAETEIEUM DEIDAIDDAD	0513419040								

594575/Exp. 05/31/2012 LICENSE NUMBER

\$11,513,850.00 AMOUNT

TIME AND CONTRACTOR

File: 8id Analysis HD-S2342A Sagredo[BID ANALYSIS] 1/31/2012 3:04 PM

Specification: HD-S2342A Shore to Ship Retrofit at Pier A, Berths A88-A96 Contractor Shimmick Construction Company	Confractor Shimmick Construction Company									Original Bid Amt:		\$11,513,850
Item No.	Item	Unit	Est. Otty.	Unit Price	Bld Amount	Qty This Month	A90 \$ Amount This Month	A92 \$ Amount This Month	A94 \$ Amount This Month	Previous Qty or %	% of Item Comp	TOTAL \$ Amount to Date
-	Mobilization and Demobilization	Lump Sum	•	130,000.00	130,000.00	%0) P		100%	100%	130,000.00
2	Site Specific Safety Plan	Lump Sum	-	15,000.00	15,000.00	%0	•	Е	*	100%	100%	15,000.00
ь	Asphalt Concrete Pavement Demolition	Lump Sum	-	150,000.00	150,000.00	%0	T	6	, i Ti	100%	100%	150,000.00
4	Soil Handling and Disposal of Surplus Soil	Tons	1100	10.00	11,000.00	-113		•		862.43	78%	8,624.30
so.	Soil Handling and Disposal of Non- Hazardous Waste	Tons	920	80.00	52,000.00		·	î	1	2,000.56	308%	160,044.64
9	Port Furnished Crushed Miscellaneous	Tons	2,650	15.00	39,750.00	1	ı	*	1	2,137.65	81%	32,064.75
7	Asphalt Concrete Pavement	Tons	2,550	89.00	226,950.00	r:		-	7-6	2,291.07	%06	203,905.23
60	8-Foot Chain Link Fence with Barbed Wire	J.	480	40.00	19,200.00		9	5		480.00	4001	19,200.00
σ	Chain Link Gates	Lump Sum	-	15,000.00	15,000.00	%0	1	•		100%	4001	15,000.00
10	Pipe Bollards, 12-inch	Each	57	1,200.00	68,400.00	1.			-	00.00	105%	72,000.00
£	Bid Item Removed	i	+	•	•	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	Repair of Existing Striping	в.	3,800	1.00	3,800.00	1	1			5,747.00	151%	5,747.00
13	Repair of Existing Pavement Markings	Each	155	90.00	7,750.00		1	1	,	148.00	95%	7,400.00
4	Shore Power Outlet Vaults for Berth 90	Lump Sum	-	250,000.00	250,000.00	%0	1)	N/A	W/A	100%	100%	250,000.00
15	Shore Power Outlet Vaults for Berth 92 (SPO 4, SPO 5 & SPO 6)	Lump Sum	-	250,000.00	250,000,00	%0	N/A	•	N/A	100%	100%	250,000.00
16	Shore Power Outlet Vaults for Berth 94 (SPO 1, SPO 2 & SPO 3)	Lump Sum	1	250,000.00	250,000.00	%0	N/A	N/A	*	100%	100%	250,000.00
11	Cut-Off Wall Plug/Penetrations	Each	4	7,000.00	28,000.00	ť	Ŷ.	ř.		4.00	100%	28,000.00
18	SPO "Dry Run" Cable Connection Support	Each	4	3,000.00	12,000.00	, t	90			2.00	20%	6,000.00
19	Ship Testing and Commissioning	Each	4	15,000.00	60,000.00	1	1			3.00	75%	45,000.00
20	Transformer for Berth 90	Lump Sum	+	650,000.00	650,000.00	0.00%	1	N/A	N/A	100%	100%	650,000.00
21	Transformer for Berth 92	Lump Sum	1	650,000.00	650,000.00	%00'0	-	2	N/A	100%	100%	650,000.00
22	Transformer for Berth 94	Lump Sum	1	00'000'059	650,000,00	%00'0	1.0	N/A	•	100%	100%	650,000.00
23	Switchgear Assembly for Berth 90	Lump Sum		1,750,000.00	1,750,000.00	%00'0	•	N/A	N/A	100%	100%	1,750,000.00
24	Switchgear Assembly for Berth 92	Lump Sum	-	1,475,000.00	1,475,000.00	%00'0	N/A		N/A	100%	100%	1,475,000.00
25	Switchgear Assembly for Berth 94	Lump Sum	-	1,500,000.00	1,500,000.00	%00'0	N/A	N/A	-	100%	100%	1,500,000.00
30								The state of the s				

Progress Payment No. 15
Peniod Ending: OCTOBER 1 THRU NOVEMBER 13, 2014

PAYMENT DUE: 12-14-14
Specification: HD-52342A Shore to Ship Retrofit at Pier A, Berths A88-A96
Contractol Shimmick Construction Company

LBHD Contract No: HD-7912

•												
								12,002,392.04			NEW CONTRACT AMOUNT	
\$ 11,992,257.57	100%	97.82%	83,971.14	83,971.13	83,971.13	2.19% \$	11,513,850.00	488,542.04				TOTALS
251,913.40	100%	%0	83,971.14	83,971.13	83,971.13			251,913.40		Lump Sum	CHANGE ORDER #6	
38,737.84	100%	100%	a	- 1	•			38,737.84	1	Lump Sum	CHANGE ORDER#5	
10,230.67	100%	100%	Е	С	1307			10,230.67	-	د	CHANGE ORDER #4	
185,000.00	100%	100%		1	· ·	%0		185,000.00	-	Lump Sum	CHANGE ORDER #3L	
	-								2		CHANGE ORDER #2 - WORK	
2,660.13	100%	100%	6		1	%0		2,660.13	1	Lump Sum	CHANGE ORDER #1	
				J.	•						CHANGE ORDERS	
5,000.00	100%	100%	0	0	0	%0	5,000.00	5,000.00	+	Lump Sum	Schedule	41
20,000.00	100%	100%	ar.	19	i	%0	20,000.00	20,000.00	1	Lump Sum	Environmental Protection Plan (E.P.P) Compliance	40
5,000.00	20%	so.	,			5 1 0	25,000.00	1,000.00	25	Hour	Stand-by Time	39
707.61	1%	1%	0	0	0		50,000.00	50,000.00	-	Allowance	Allowance for Load Bank Test Energy Usage	38
105,000.00	100%	100%	3	1	N/A	%0	105,000.00	105,000.00	1	Lump Sum	All Other Electrical Work for Berth 94	. 48
70,000.00	100%	100%	N/A	1	N/A	%0	70,000.00	70,000.00	-	Lump Sum	All Other Electrical Work for Berth 92	36
475,000.00	100%	100%	N/A	N/A	1	%0	475,000.00	475,000.00	1	Lump Sum	All Other Electrical Work for Berth 90	35
100,000.00	100%	100%		N/A	N/A	%0	100,000,00	100,000.00	1	Lump Sum	SPO Receptacles for Berth 94	34
100,000.00	100%	100%	N/A	a a	N/A	%0	100,000,00	100,000.00	1	Lump Sum	SPO Receptacles for Berth 92	33
100,000.00	100%	100%	N/A	N/A	•	%0	100,000.00	100,000.00	-	Lump Sum	SPO Receptacles for Berth 90	32
325,000.00	100%	100%		N/A	N/A	%0	325,000.00	325,000.00	-	Lump Sum	Conductors for Berth 94	34
300,000.00	100%	100%	N/A		N/A	%0	300,000.00	300,000.00	1	Lump Sum	Conductors for Berth 92	30
300,000.00	100%	100%	N/A	N/A		%0	300,000.00	300,000.00	1	Lump Sum	Conductors for Berth 90	29
325,000.00	100%	100%		N/A	N/A	%0	325,000.00	325,000.00	-	Lump Sum	Ductbanks and Raceways for Berth 94	28
450,000.00	100%	100%	N/A	٠	N/A	%0	450,000.00	450,000.00	•	Lump Sum	Ductbanks and Raceways for Berth 92	27
TOTAL \$ Amount to Date	% of Item Comp	Previous Qty or %	A94 \$ Amount This Month	\$ Amount This Month	\$ Amount This Month	Qty This Month	Bld Amount	Unit Price	Est. Oty.	Unit	Item	Item No.
\$11,513,850	1	Original Bid Amt:									Contractor Shimmick Construction Company	Contracto

Progress Payment No. 15
Period Ending: OCTOBER 1 THRU NOVEMBER 13, 2014
PAYMENT DUE: 12-14-14
Specification: HD-S2342A Shore to Ship Retrofit at Pier A, I Contractol Shimmick Construction Company

Item No.

fication: HD-S2342A Shore to Ship Retrofit at Pier A, Berths A88-A96	trofit at Pier A,	Berths A88-A9	91						LBHD Contract No: HD-791: Original Bid Amt:	: HD-7912	\$11,513,850
No. Item	Unit	Est. Oty.	Unit Price	Bid Amount	Qty This Month	\$ Amount	A92 \$ Amount This Month	A94 \$ Amount This Month	Previous Qty or %	% of Item Comp	TOTAL \$ Amount to Date

	12	Dat
0	Muls	
7	Muley	ctor Sagredo



SIGN





Date

Suzanne C. Plezia P.E. Director of Construction Management

INITIAL

9	SI(G R		
	T		L	

Gross Earnings:	ь	\$ 11,992,257.57
Previous Payments:	ь	\$ 11,670,247.87
Previous Retention:	69	(70,096.32)
Earned This Period:	69	251,913.40
STOP NOTICE R J NOBLE \$13,310.88+25%	69	(16,638.60)
Less Retention: E	69	4
RELEASE STOP NOTICE R J NOBLE \$13,310.88+25%	69	16,638.60
AMOUNT DUE THIS ESTIMATE:	S	251,913.40

BPO No.	INDEX CODE	PROJ	PROJ DET	Subobject Code
3PH412000128	HACDCMCN	HA1314	1H2342A	210009

ATTACHMENT B Prop 1B Shore Power Infrastructure Costs

0				2.2	CONTRACTOR INCIDENTIAL												
Contract Cost Category Description Categor	Contract Cost Cor Category No. 8id	Corresponding C. Bid Item No. (S	Cost Estimates (Submitted 11-2012)	+	2	æ	ų.	s	9	7	50	6	10	11	77	13	TOTAL TO DATE
	1	П	\$43,333,33	\$21,666.00	i ×				32-6								\$21,666.00
n-Link Fence and Gates	2 0	6,9	\$11,400.00											\$1,300,00	52,880,00		50.00
Pipe Bossicos Pavement (Including striping)	4	3, 7, 12, 13	579,500.00		\$12,951.71	\$34,389.23	\$26,685.00	\$18,382.50	\$26,407.14	\$550.00	\$1,530.00	\$1,585.00				\$3,415.52	\$125,896,10
	5	n/a	Sold					000000000000000000000000000000000000000		663.750.00				\$4.500.00	\$20,500,00	\$750.00	\$649,500.00
Iranstormors Switcheau assembly(s)	2 0	3 2	\$1,750,000.00						\$81,000.00	\$1,339,600.00			\$6,000.00	\$48,000.00	\$247,200,00	\$6,000.00	\$1,727,800.00
e	89	36	\$500,000.00	\$6,053,54	\$11,275.42	\$86,538.14	\$159,127,61	\$91,580.97			\$22,000,00	\$25,000.00				\$500.00	\$497,522.00
8	6	29	\$300,000,00										\$16,000.00	\$22,853.00	\$198,750.00	\$50,250.00	\$287,853.00
SPO Receptacles	10	32	\$100,000.00			\$85,000.00	24 00 200 200	1	00 300 00	0000000	0.000000	511,400.00	0000000			00 000 35	596,400,00
	= = =	14	5250,000,00	20 233 644	60 777 78	CG 777 78	5180,700.00 Co 777 78	54 777 78	92,777 AC#2	56 777 78	SR 777 78	SR 777 78	58 777 78	\$109 377.78	\$7.7577.78	\$27.797.78	\$427.208.92
All other electrical work	77 57	4 e	C30 000 003	91/20209	36,17,10	30,111,10	20,111,18	L	21000000	00/1/1/00	201111100	2000	200	-	\$200.00	\$1,400.00	\$1,600,00
		n/a	\$50,000.00														\$0,00
Soil, excavation, fill and waste handling		4,5,6	\$34,250.00			\$3,957.75	\$29,616,60		\$28,290,00							\$30,826.67	\$92,691.02
		, 39, 40, 41, 17,			- Parents			C. 0000	6000 200		22000	520033	6740 33	674033	6740 33	er orth	674 374 86
	15	18	551,665,67	51,488.00	5740.33	5740.33	5740.33	5/40.33	514,/40,33	5/40,33	5/40,33	5740.33	3740.33	3/40.33	2/40,33	5/40.33	C. 1099 C.
To Just at	İ																50,00
Secretary of the Control of the Cont	l											\$35,000,00		\$7,500.00			\$42,500.00
Total Berth Cost		100	54,337,950	546.763.10	533.745.24	\$219,403,23	\$385.647.32	\$697,706,58	5372,736,57	51,459,418,11	\$43,548,11	585,163,24	539,018.11	\$194,171,11	\$547,848,11	\$126,680.30	\$4,251,849.13
			Cost Brankdown	arran of the													
			abor (S)	COLOS	623 658 89	\$15,005,18	203 666 76	\$37.575.SE	533 990 52	OF 305 AFS	427.354.00	522,160,27	80.00	\$45,262,70	\$15.458.86	\$18.031.25	
			abor (man-houre)	0000		Т	843.00	344.50		684.25	508.40	387.50	00.0	856.50	281.50	305.00	
			Astoriole (manufactorio)	C 300 35		1	6150 000 31	285 286 252		C1 983 738 DE	47 699 24	\$7.07A 26	00.05	\$18 588.43	596.163.74	\$1.780.25	
			oulpment	20.02		1	\$18.026.20	\$7,750.53		\$6,709.60	\$563.55	80.00	\$0.00	52,743.65	\$1,193.40	\$754.40	
			Other	\$0.00	\$0.00	\$0.00	\$0,00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	20.00			
						1 1											
				Pre	Progress Payment No	1											
	Contract Cost Co	Corresponding	Cost Estimates				v					c	ç			:	TOTAL TO DATE
Contract Cost Category Description Catego	ory No.		(Submitted 11-2012)	T	7	,	-			,			2	1	1	3	521 666 00
itation and Demodification			049,033,33	344,000,00										C1 300 00			\$1 300 00
-thy rence and cates		0,5	C12 RD0 00														SD.05
Pavement (including striping)	4	3, 7, 12, 13	\$79,500,00							7	\$73,864,43	\$45,746.00		\$5,450.00		\$3,415,52	\$128,475,95
Relocation of utilities	LS.	n/a	\$0.00													- Company	80.00
ormers	9	z	\$650,000.00					\$560,000.00		\$63,750.00				\$4,500.00	\$20,500,00		5648,750.00
hgear assembly(s)	7	24	\$1,475,000.00							\$1,222,300.00					\$226,500.00	\$6,000.00	\$1,454,800.00
sanks and raceways	8	27	\$450,000.00			\$12,000.00	\$17,800.00	\$25,200.00			\$266,300.00	\$83,700,00		\$39,820.00	\$2,680.00		\$447,500.00
Conductors	6	OE OE	\$300,000,00										\$7,500.00		\$212,000.00	\$67,700.00	\$287,200.00
	10	33				\$85,000.00							\$10,800.00	1	\$600.00	THE PERSON NAMED IN COLUMN	596,400.00
		15	-				\$152,000,00		1	100000000000000000000000000000000000000	\$85,500.00	100000000000000000000000000000000000000		100000000000000000000000000000000000000	\$7,500.00	\$4,700,00	\$249,700.00
		36	\$70,000.00	\$7,792.00	\$3,888.00	\$3,888.00	\$3,888,00	\$3,888.00	\$3,888.00	53,888,00	\$3,888,00	\$3,888,00	\$3,888.00	\$3,888.00	\$3,888,00	\$9,721.00	\$60,281.00
	13	19, 38	1												\$200.00	51,400,00	51,600.00
		n/a									000 000 000	200 0000	20.000.00	00000000			50.00
excavation, fill and waste handling		4,5,6	1								542,815,00	55,425,00	28,626.30	5104,382.80		230,825.67	5191,973,7
Othermas	16	18	\$51,666,67	\$1,488.00	\$740,33	\$740.33	\$740.33	\$740.33	\$740.33	\$740.33	\$7,740.33	\$740.33	\$740.33	\$740.33	\$740.33	\$740.33	517,371,96
1.73	L																30.00
e Order #2																	\$0.00
Change Order #3												\$90,000,00		\$7,500,00		\$8,200,00	\$106,300.00
Berth Cost	10000	一大大学 一大	53,607,950	\$30,946,00	\$4,628.33	\$101,628.33	\$174,428.33	5589,828.33	\$4,628.33	\$1,290,678.33	\$480,107.76	\$229,399,33	531,552.63	\$167,581.13	5474,608.33	\$133,303,52	53,713,318.68
THE PERSON NAMED IN COLUMN		The state of the s	Cost Breakdown														
		STAN	Labor (S)	\$0.00	\$0.00	\$0.00		П	80.00	\$847.81	\$76,398,39	\$15,851.64	20.00	\$25,622.31	\$20,113.49	\$18,270.80	
			Labor (man-haurs)	000		100		1	000	15.25	1,442.50	27930	000	432.10	372,00	308.00	
		STEP CONTRACTOR	Materials	3772.00		200	1	Н	23,720.00	24,040,40	00 101 00	51 444 30	10,100,00	20,2000	61 679 00	טר טרט	
			Other	00'00			00.08	\$0.00	20.00	aurane o	20.00	Sp.00	20.00	2000	-		
							1										
		- 1		Pr	Progress Payment No	0.											
Contract Cost Category Description Category	Category No. Bi	Sid Item No.	Cost Estimates (Submitted 11-2012)		2	m	4	s	9	7	89	6	10	п	12	13	TOTAL TO DATE
	1		\$43,333.33	\$23,666.00													\$21,666.00
Chain-Link Fence and Gates	2	6,8	\$11,400.00										\$4,120.00		\$4,380.00		\$8,500.00
Pipe Bollards	m	10	\$22,800.00									Section 2	200000000000000000000000000000000000000	000000000000000000000000000000000000000		\$12,000.00	\$12,000.00
Pavement (including striping)	4	3, 7, 12, 13	\$79,500.00									83,300,00	\$24,876,19	\$35,760.18		\$3,415,52	\$67,351.89
ation of utilities	5	0/0	50.00							00 000 000				04 500 00	000000000		5649 760 0
Stormers -hann accombility	0 1	27 22	51 500 000 00							51 201 050 00			535 500:00	\$12.500.00	\$223.750.00	\$6.000.00	51.478.800.0
Ducthanks and raceways	8	3 82	\$325,000.00			\$12,000.00	\$17.800.00	\$25,200,00		200000000000000000000000000000000000000		\$39,323,00	\$93,467,00	\$92,050.00	\$40,460.00	\$2,200,00	\$322,500.0
Conductors	6	H	\$325,000.00										\$10,000.00		\$192,000.00	\$54,000.00	\$256,000.0
SPO Receptacles	10	34	\$100,000.00			\$85,000,00						\$3,600,00			\$7,800.00		\$96,400.00
Vaults	11	16	\$250,000.00	П			\$152,000.00					\$42,299.00	\$34,135.00	\$14,566.00	\$2,000.00	\$4,700.00	\$249,700.0
All other electrical work	12	37	\$105,000.00	\$11,672,00	\$5,833.00	\$5,833.00	\$5,833.00	55,833,00	55,833.00	\$5,833.00	\$5,833.00	\$5,833.00	\$5,833.00	\$5,833.00	\$5,833.00		\$75,835.0
missioning and testing	13	19, 38	\$20,000.00												\$200,00	\$1,400.00	\$1,600.0
	S.	e/u	\$50,000.00										4	00000000		Can and dry	50.00
	15	4, 5, 6	534,250.00										2720.00	5115,932,80		230,828.67	5147,505,4

		2, 39, 40, 41, 17,	100														
Other costs*	16	18	\$51,666,67	\$1,488.00	\$740,33	\$740.33	5740.33	\$740.33	5740.33	\$740,33	5740.33	\$1,740,33	5740 33	SE 740 33	51 440 33	62 740 23	200000
Change Order #1														The same of the sa	Contraction of the Contraction o	33,740,33	057766976
Change Order 13							-										\$0.00
																	COLOR
Change Order #3																	
Total Book Cost			400000000000000000000000000000000000000	100 00000000000000000000000000000000000	100000000000000000000000000000000000000	1	1			л							20.00
rotal pertit cost	-		04,104,104	\$34,826.00	\$6,573.33	\$103,573,33	\$176,373,33	\$31,773,33	\$6,573,33	\$1,831,373.33	\$6,573.33	\$96,095.33	\$209,421.52	\$285,382,31	5498,363,33	\$118.282.52	C2 405 184 32
THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN C			Cost Breakdown														
The state of the s			Labor (S)	80.00	\$0.00	20.00	\$21,833.38	\$0.00	\$0.00	\$1,766,13	20.00	\$37.472.27	80.00	C37.176.00	\$20.272.89	616 131 30	
THE PROPERTY OF			Labor (man-hours)	000	000	00.00	421.50	00'0	00'0	32.00	000	703.00	000	05 573	374 50	305.50	
			Materials	\$772.20	00'600'95	599,972.79	\$137,740.31	\$30,251,90	\$5,773,72	\$1,980,795,16	\$5,973.20	\$7.904.60	\$5.440.52	S31 711 66	\$62.056.72	2000	
The state of the s			Equipment	\$0.00	\$0.00	80.00	59,084,60	\$0.00	\$0.00	\$2,250.52	20.00	\$2,853.50	\$0.00	\$4,989.29	\$2.093.55	S153.68	
Company of the last of the las	District of the latest	The second second	Other	\$0.00	\$0.00	20.00	00'05	\$0.00	\$0,00		20.00	20.00	\$0.00			One of the last	Ī

Statistical Stat		8/30/2012	9/30/2012	2102/06/01	11/30/2012	12/31/2012	П	2/28/2013	3/31/2013	4/30/2013	5/31/2013	6/30/2013		7/31/2013
State	A90	\$44,424.94	\$32,057.98	\$208,433.07	\$366,364.95	\$662,821.25	\$347,294,90	\$1,386,447.20	\$41,370,70	587,710,31	_	\$184.462.5	9	6 SS20 ASS 71
Siziologo	A92	529,398.70	54,396.91	\$96,546.91	\$165,706.92	\$560,336,92		\$1,226,144,42	\$456.102.38	\$217.979.36		5159 303 07	11	\$450 877 01
Study 006, 34 S40, 549, 256 S40, 374, 344 S495, 246, 257 S41, 377, 344 S41, 374, 374, 374, 374, 374, 374, 374, 374	ASA	\$33,084.70	\$6,244.66	\$98,394,66	\$167,554.66	\$30,184,66		\$1,739,804,66	56 244.55	591 390 56	ľ	6271 11 10	9	SATA ARE 16
Feriod Field Fie	Total	\$106,908.34	\$42,699.56	\$403,374,64	\$699,626,53	\$1,253,342.83	5357,936,47	\$4,352,396.28	\$503,717,74	\$396,930,23		\$614,777.82	51.44	8.77R 7R
Ferford Ferford Folia		8									ļ			
Encline				A90				. A	22			64	9	l
Ending		Perlod												l
\$\frac{8100}{201} \text{Content of the No.} \text{Amount Chee No.}	Progress Payment No.	Ending	ď	ald	Roter	tion	Pas	70	Retent	rlon	Pai		Re	Retention
\$\(\) \$\(\)\$			Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.		\vdash
1900/0012 \$100.0029 \$100	1	8/30/2012	544,424,94	1010292	\$2,338,16	1010294	\$29,398.70	1010292	\$1,547.30	1010294	533.084.70	1010292	St 741 30	1
1000A07012 \$566.844.85 1007805 \$510.02.27 1007806 \$150.256.52 1007807 \$510.02.27 1007806 \$150.256.52 1007807 \$150.02.27 1007806 \$150.02.27 1007807 1007807	2	9/30/2012	\$32,057.98	1011437	\$1,687.26	1011438	\$4,396,91	1011437	\$231,42	1011438	\$6.244.66	1011437	5328.67	
11/00/2012 5965.6455 102202 201	m	10/30/2012	\$208,433.07	1017592	\$10,970.16	1017593	\$96,546,91	1017592	\$5,081,42	1017593	\$98.394.65	1017592	\$5,178 G7	
1721/2013 5662-251-25 1027259 5546-551 1027279 5546-552 102779 5546-551 1027279 1027279 5546-551 1027279 5546	4	11/30/2012	\$366,364,95	1023063	519,282,37	1023064	\$165,706.92	1023063	\$8,721.42	1023064	\$167,554,56	1023053	\$8.818.67	
1212/2013 1512-254-50 1037255 1516-5645 1037250 1512-564-75 1037250 10	ın	12/31/2012	\$662,821.25	1027973	\$34,885,33	1027972	\$560,336.92	1027973	\$29,491,42	1027972	\$30,184,66	1027973	\$1.588.66	
2/20/021 5/20/021	ú.	1/31/2013	\$347,294.90	1033258	\$18,636.85	1033260	\$4,396.91	1033258	\$231.42	1033260		1033258	\$328.66	
470,02031 543,7021 1049372 54,254,45 1040302 1049373 54,254,45 1040303 1049373	7	2/28/2013	\$1,386,447.20	1037109	\$72,970.91	1037110	\$1,226,144,42	1037109	\$64,553.92	1037110		1037109	591.568.66	1
440,0021 450,003 450	œ	3/31/2013	\$41,370,70	1039225	52,177,40	1039226	\$456,102,38	1039225	\$24,005.39	1039226		1039225	5328.67	ш
\$\text{\$\}\$\$}}}\$\text{\$\tex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$	6	4/30/2013	\$87,710,31	1043037	\$4,258.16	1043038	\$217,929.36	1043037	\$11,469,97	1043038	\$91,290,56	1043037	\$4,804.77	
# # # # # # # # # #	10	5/31/2013	\$37,067.21	1045328	51,950,90	1045329	\$29,975.00	1045328	51,577,63	1045329	\$198,950,44	1045328	\$10,471,08	
7731,7023 SSDA,SSS,71 1054403 SSD,34A.22 1055404 SSDA,7759, 1055404 SSDA,34A.23	11	6/30/2013	\$184,462,56	1051035	59,708.55	1051036	\$159,202.07	1051035	58,379.06	1051036	\$271,113.19	1051035	\$14,269,12	
## ## ## ## ## ## ## ## ## ## ## ## ##	12	7/31/2013	\$520,455.71	1054083	\$27,392.40	1054084	\$450,877,91	1054083	\$23,730,42	1054084	\$473,445,15	1054083	\$24,918.17	
5.11.592.47 \$15.00.000.000.000.000.000.000.000.000.00	13	8/31/2013	\$120,346.29	1059186	56,334.02	1059187	\$126,638.39	1059186	\$6,665.18	1059187	\$112,368,39	1059186	\$5,914,12	ı
\$211582,47 \$15.57,657 \$0 \$1416,686.07														
\$212.592,47 \$15.572.657.20 \$160.000.000.000.000.000.000.000.000.000.														
2 (2) 282 (2) (2) (2) (2) (2) (2) (2) (2) (2) (2														
\$212.592.47 \$3.577.652.80 \$496.656.97														
	TOTAL		\$4,039,257.07		\$212,592,47		\$3.527.652.80		\$185,685,97		Canada Bac ne		CH DOC OFFIC	1

6236				Prog	Progress Payment No.	0.											
Contract Cost Category Description	Contract Cost Category No.	Corresponding Bld Item No.	Cost Estimates (Submitted 11-2012)	1	2	3	4	5	9	7	60	9	10	11	12	13	TOTAL
Mobilization and Demobilization	-	4,5	\$ 350,000.00	S 169,998.00 S	\$ 3,000.04 \$	\$ 6,000,07	3,000.04 \$	3,000.04	\$ 3,000.04	S 3,000.04	\$ 3,000.04	\$ 3,000,04	E0'0000'E S	\$ 3,000.04	\$ 58,930.70	61,670,72	323,599.84
Chain-Link Fence and Gates	2	3, 16, 17	\$ 260,000.00 \$	\$ 102,142.86 \$	s	\$ 40,000,00 \$	\$	33,571,43 \$,	\$ 29,285.71		5 20,000,00	20,000.05 27,300.00	5 7,283,33	\$ 415.67		260,000.00
Pipe Bollards	e	n/a	S	. \$		s . s		*								20	
Pavement (Including striping)	4	15	\$ 15,000.00 \$	5		s s	s . s	\$	\$ 4,950.00	\$ 4,950.00		\$ 5,100.00					15,000,00
Relocation of utilities	25	n/a	S			\$. \$										34	
Transformers	10	19	\$ 650,000,00	. 5	\$		\$ 00'000'5E9 \$	7			\$ 7,500.00	00'005'4 \$				37	00'000'059
Switchgear assembly(s)	7	20,24	\$ 3,195,000,00 \$		\$ \$	\$ 1,517,500.00	321,998,30 \$	146,854,96 \$		\$ 45,245,90 \$	\$ 844,525.00 \$	\$ 483,875,84	483,875,84 \$ 90,000,00	\$ 3,500,00	\$ 76,500.00	*	\$ 3,530,000.00
Ductbanks and raceways	80	. 21	\$ 1,300,000.00	\$ 50,500.00	\$ 76,913,46	\$ 170,315,01 \$	3 201,817.70 \$	171,727.91	\$ 259,572,60 \$	\$ 195,170.07 \$	\$ 145,693.03 \$	\$ 28,290.19				0,	1,299,999.97
Conductors	6	22	\$ 600,000,000				s .			5 5,000.00	00'000'5 \$	s	171,000.00 \$ 332,000.001	\$ 87,000.00			600,000,000
SPO Receptacles	10	23	\$ 350,000,00 \$	4	\$ 272,000.00 \$	\$ 20,000,00 \$	10,000.00	**		\$ 20,000.00 \$	S 10,000,00		1	\$ 18,000.00			350,000,00
SPO Vaults	11	18	\$ 500,000,002		S 6,000,00	\$ 204,583,33 \$	84,916.67 \$	*	\$ 118,750.00	\$ 64,750.00	\$ 21,000,00						00'000'005
All other electrical work	12	25	\$ 535,000.00 \$	\$ 47,969.88 \$	•	\$ 21,718.59 \$	10,859,29 \$	10,859.29	\$ 10,859,29	5 10,859,29	\$ 10,859.28	\$ 10,859.29	\$ 10,859.30	\$ 10,859.29	\$ 32,577.88	3	199,999.94
Commissioning and testing	13	26	\$ 187,500.00 \$	24		s . s	S .	4						\$ 1,085.65	S 30,000.00 S	11,250.00	\$ 42,335.65
Demolition	24	c/u				\$. \$											
Soil, excavation, fill and waste handling	15	8, 9, 10, 11, 12,	\$ 295,400.00	s	\$ 16,588.00 \$	\$ 24,112,54 \$	34,496.13 \$	48,600.25	\$ 22,650.74 \$	S 47,287.37 S	33,652,58	\$ 29,356.37		\$ 100.00	\$ (12,109.00)		\$ 244,734.98
Other costs*	16	1, 2, 6, 7, 13, 27, 28, 29	310,000.00	\$ 34,815.80	\$ 7,870,31	\$ 43,064,50 \$	9,193.84 \$	7,870.31 \$	\$ 7,870.31	\$ 20,370,31 \$	\$ 12,870,31	1E.078,7 2	\$ 7,870.30	\$ 12,664,65	\$ 21,280,50	\$ 3,406.86	5 197,018,31
Change Order 1																	
Change Order 2						\$	24,725.82										34,725,32
Change Order 3																	
Change Order 4											\$ 20,138,44						20,138.44
Total Berth Cost		THE PERSON	8,547,900.00	\$ 405,426,54	\$ 393,231.08	\$ 2,047,294,04	\$ 1,336,007,79 \$	422,484,19	\$ 427,652,98	\$ 445,918.69	445,918.69 \$ 1,114,238.68	s	765,852.04 \$ 471,029,63	\$ 143,492,96	\$ 207,596.75	\$ 76,327.58	\$ 8,257,552.95
Section and Market Section 1997	THE PARTY OF THE P	THE PERSON NAMED IN	Cost Breakdown						7								
			Labor (S)	57,272,59	\$12,827.76	55,503,95	594,544.61	556,838.11	\$82,809.64	578,928.94	\$141,743.04	588,905.63	\$42,895.98	\$68,206.99	533,322.71	\$16,527.70	\$800,327.65
The State of the S			Labor (man-hours)	00'66	275,75	1,513.50	1,673.00	00'966	950.70	1,430.50	2,511,00	1,572.00	826.00	1,181,50	00.882	282.50	13,900.45
THE RESERVE TO SERVE			Materials	\$69,181.54	\$285,375,31	\$1,561,028,21	5738,870.99	\$216,772.90	\$123,909.57	\$110,219,21	\$572,256.82	\$243,134.87	\$259,784.60	\$113,883,30	\$151,748.49	\$462.31	\$4,446,628,12
The state of the s			Equipment	55,456.46	\$14,875.66	\$5,642.23	\$2,607.32	\$15,544.75	\$8,254.61	\$10,908.59	\$6,213.98	\$6,524.54	\$1,356.88	\$10,206.64	\$300.48	\$1,001.60	\$89,893.74
The same of the last of the la					1000000	10000000	1000000			1000000	2000000						

	Payment 1 (October 2012)	Payment 2 (January 2013)	Payment 3 (January Pa 2013) (1.	Payment 4 (12/31/2013)	Payment 5 (1/31/2013	Payment 6 (2/282013)	Payment 7 (3/31/2013)	Payment 8 (4/30/2013)	Payment 9 (5/31/2013)	Payment 10 (S/31/2013)	Payment 11 (7/31/2013)	Payment 12 (8/31/2013)
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount
G236	\$405,426,54	\$393,231.08	\$2,047,294,04	\$ 1,336,007.78	\$422,484.19	\$427,652.98	\$445,918.69	\$1,114,238.68	\$766,852,04	\$471,029.63	\$143,492.96	\$207,596.7
Contractor involce Amount (less retentions)	\$385,155,21	1 \$373,569.52	\$1,944,929.34	51,269,207.39	86'658'068\$	\$415,770.33	\$419,622.76	\$1,062,526,75	\$727,709.44	5419,278,15	\$130,418,31	\$214,616.9
Port Payment to Contractor	\$385,155,21	1 \$373,569.52	\$1,944,929.34	\$1,269,207.39	\$390,859.98	\$415,770.33	\$419,622.76	\$1,062,526.75	\$727,709.44	\$419,278.15	\$130,418,31	5214,616.9
Part Set Aside for Retention	\$20,271.33	\$19,661.5	\$ \$102,364,70	\$66,800,39	\$21,124.21	\$21,382.65	\$22,295.93	\$55,711.93	\$38,342.60	\$23,551.48	\$7,174.65	\$10,379.8
Check Totals	\$405,426.54	\$393,231.08	\$2,047,294,04	\$1,336,007,78	\$411,984,19	\$438,152.98	\$441,918,69	\$1,118,738,68	\$766,052,04	\$442,829,63	\$137,592.96	\$224,996.7

247,236.56

that			A		Progress Payment No.															
Contract Cost Category Description	Contract Cost Category No.	Cortesponding Bid Item No.	Cost Estimates (Submitted 13-2012)	1	2	3		*	(6	7		a	я	я	п	я		a	91	a tor
Mobitzation and Demobilization		8.8	\$ 33,730.00 \$	\$ 120,500.00	49,300.02	•		•								27,000,00	A 202 CA	***************************************	20 00000	200 200
Chain-Unit Fence and Gates	7	3,16,17	\$ 198,250.00			5 3,000.00 5	24,750.00	\$ 3,000.00 \$	3,000.00	3,300.00	3,000.00 5	3,000.00	3,000,00	3,000.00	52.000.00 5	10.052.00	16.000.00	- ACCOUNT	2000000	00.020.00
Pipe Bellards	1	n/a	**																	ON DECEME
Pavement (Including striping)	,	34,15	\$ 12,000.00			\$ 1,034,00 \$	3,540.00	\$ 1,531.50 \$			-		3,38,35 5	14.342.005	**	3,404.50				0.000.00
Relocation of utilities	\$	n/a																		POTON
Transformers	9	a	\$ 00,000,000			\$									563 000 00 5	22-500.00	2,000.00			CAN GOOD ON
Switchgear assemblyfs!	1	20	\$ 1,112,440,00											1,094,940,00		7,500,00	40.000.00			OTONIO OTO
Burthanks and receways		30	\$ 1,500,010,00 \$	S 187,080.00	5 00,012,001 2	\$ 00.007,720 \$	361,765,00 \$	23,962,00	\$ 154,001,000 \$	154,015,00 5 105,760.00 5	78 900 00 5 238 350 00	238.150.00	80 tag 08							1,112,440,00
Conductors	6	34	\$ 400,000,00	•			5				100	1,500.00		e	2 000000	7 500 00	2 520 00			1,500,000,00
SPO Receptacies	10	38	5 150,000,00			3	\$ 00.000,851		3*			\$,000.00			2 100.00	. 00000	2 550 00			00'00'00'
SPO Vaults	11	1.0	\$ 400,000,00				250,000,00			25.000.00	65.000.00		00.000.00							OU DOUGH
All other electrical work	13	D)	\$ 150,000.00 \$	\$ 70,000,00			70,050.00	-										5 000000	2 50000	44764044
Commissioning and testing	11	49	\$ 100,000.00 \$						*										20000000	DOCUME THE
Demolston	11	8/4																		
Soil, excavation, ill and wante handling	22	6,9,10,11,12,13	\$ 215,390,00 \$	\$ 3,280.50 \$	\$ 00.000.st \$	2 00.002.00 5	2 25.572.34	21,296,75 5	14,601.50 \$	20,793,25 \$	28.574.00 \$	2 228.00 \$	2 2000	18.754.561 C	01390.001	20 00.4 00	25900			
Other costs*	10	3, 3, 6, 7, 46, 47, 48	\$ 262,500,00 \$	\$ 40,875,00 \$	5 6,437.50	\$ 6,437.50 \$	6,437.50	\$ 06,705,01	6,437.50 \$	1	2 05-22-50	2 07.27.0	2 02 779 75	6.472.50 4	0.000	AA. 477 40. 1 e	a assista	9 014540	20000	100.000.000
Change Order #2 - #344.						**	30,090,05												2,000000	DIVINOUS CONTRACTOR
Change Order #2 (SEE grounding)							3100.31													20,000,00
Change Order #2								***	0,317.00							İ				2,000,00
Change Order #4									22.542.10 3	30 00 210 S	30.000.10	30.000.10	in acting	TH 042.10 T	30 000 10	S. 01-625-02	20.00.30.00	A. 450.44		and the same of th
Charles Order #5										**	38.997.50									and the state of t
Change Order #5													15.700.00							10,000,000
Change Onlier #7																				TOTAL PROPERTY.
Change Order #2		9											13 197 00 5	2.183.00			17 194 64			
Chunge Order #3																		44.486.48		TOTAL STREET
Change Order #10																		4		10,720,00
Total Berth Cost			\$ 3,634,330.00	3.634,336.00 \$ 613,735.00 \$	220,326,50	5 385,403.50 S	720.613.50	5 60.993.73 4	260.013.10	200 410 ms	4-01-05 TO C 200 010-02		* ** *** ***	A 1144 POST CO.	* ***	and desired				
											-	1	The state of the s	- The state of the	-		1	22,402,00	46,346,73	3,903,348.45
		THE REAL PROPERTY.	Cost Bresidown										-			İ				
			Labor [5]	\$11,398.38	\$28,229,28	\$60,406.67	547,445.81	538,485,03	\$21,549.95	568,740.17	\$ 525,572,23	\$270,248.52	5191,535,07	STREETS	552,360,89	56338534	22458828	533956	\$13. April 28	CLOSS CO.C.
			Lebor (men-hours)	STATE	503.38	543.57	30,101,1	026.10	85GA5	1,160.06	1,257,20	3,646.13	3,060.15	283.40	808.25	3,191,00	483.63	7.00	40.00	THE ACT
STATE OF THE PARTY			Materials	\$19,406.14		\$125,142.06	\$260,313.03	5199,546.64	\$24,345.95	\$21,688.36		\$250,174.41	П	\$1,222,308.18	\$551,450.02	5458237.67	556,755,55	\$21.552.83	\$2,274.16	13.708.717.80
			Coulpment	\$3,046,85	524,	517,106.61	52,730,36	20.00	\$20.00	524,812,52	526,639,64	\$35,442,01	\$57,524.33	\$41.65	\$0.00	20.00	\$0.00			C10171013
		THE PERSON NAMED IN	Other	50.00		50.00	50.00	50.03	20.00	20.00	80.05	20.00			Salda		20.03			50.00
Management of the Company of the Com																				į

1247					Progress Payment No.															
Contract Cost Category Description No.	Contract Cost Category No.	Cent Extraster Carresconding Bid Item No. (Scalminer 11-2013)	Cest Estimates (Submittee 11-2012)				,		es es			6	R	,,	п	n	3	88	4	TOTAL
Mobilisation and Demobilization		9	S 133,750,00	2 00.000,001 2 00.007,001	49,500.30				,	-115					٠	2 100 100 11	2 00 352 57	* *******		
Chain-Link Fence and Gates	2	3, 36, 17	\$ 196,250.00	398,230.00 \$ 212,000.00 \$		\$ 3,000.00	\$ 34,750.00 \$	3,000,00	3,000,00	3.000.00 \$	3,000,00	3,000.00	1 000.00	3,000,00	\$2,000.00	20 000000	36,000,00	- manage	C CONTRACTOR	275,025,00
Pipe Bollards		1/4				,		,	l						200000000000000000000000000000000000000	- Constitution	and and and and and and and and and and			dayaca'sac
Pavement (Including stripling)	*	14,13	2,000.00			5 1,004.00 5	5 3,540,00 5	5 02.120.50	,				3,382.50 5	14.541.003	41	1.404.50				A men a
Relocation of utilities	,,	r/u		*																6,150,1,2
Transformers	0	n	\$ 600,000,000												2. 20,000 023	* 100 000 61	4 000 46			
Switchgrar attemble(s)	7	22	\$ 1,000,000,00			,								on sperior	To con no.	7 60000 4	OH OHO OF		,	CONTROL
Ductbanks and raceways	4	32	2,1500,000,00	2 00.007,021 2 00.000,002.1	5 48,330.00	\$ 224,990,00	\$ 247,465.00 \$	202228000	\$ 40,425.00 \$	10.000.00	37,730.00 \$	42 450.00 5	20.000.00	200 000 000	40.100.00		2000			1,000,000,00
Conductors	9	35	\$ 300,000,00	,				*			ш				36.500.00	5	3,000,00			2,300,000,000
SPG Receptacies	10	39	2 300,020,00	* 50		,	\$ 90,000.00 \$		2,505,00		-				7.500.00	4 000 00 5	0 000 00			00'000'00'
SPCI Vaults	11	19	2 300,000,00			\$ 57,500.00	\$ 257,500.00 \$	35,000.00	ı			2	2 115,000,001 5	35 000 00						No con con
All other electrical work	11	9	\$ 150,000.00 \$	2 3 70.000.00 \$			\$ 70,000,00 \$,									* 00000		or or or or or or or or or or or or or o
Commissioning and testing	13	40	\$ 100,000,00 \$,									2000000	o manacia	347,500,0
Demolition	34	1/4																		
Soil, excavation, fill and waste handling	n	8, 9, 10, 11, 12, 13	\$ 215,390.00 \$	\$ 3,285.00 \$	\$ 00.609.00	\$ 00.002.00	\$ 46.577.25	21,296,75 \$	2 24.601.50 \$	20,701.25	20 574 05	23 788.00 4	11 601 74. 6	10 75.4.001 0	A 100 000 10	2000	0.000		,	
Other costs*	91	2,2,6,7,46,47,48	\$ 262,500.00 \$	2 40,875.00 \$					1	1		т	* 00 440 47	A 477 GO C	S. STATE OF	44 457 63	Canada Ca			10:222.44
Change Order #2 - #34A										1							47750	2007000	A SOURCE A	239,200,00
							O THOUSAND												**	30,000,00
Change under 54 Co. granding							2,406,75												64	2,000,2
Chings Order #2								41	41,197.00										37	43,357.0
Owner Order at								**	\$ 22,942,10 S	30,047,10 5	20,04210 5	30.042.10.0	30,042,10 8	21,042,10 5	20,542,10 \$	30,542,10	20,040,12 \$	22,042,10	41	342 901.0
Change Grider #5										*5	18.397.50		~						**	18,087.5
CONDEC CORPE PS												in	10,000,00						44	13,000,0
Change Order #7																	-			
Clange Order #5												sá.	2,577,00	3.183.00		**	11 704 51			*****
Change Order #6																		10 780 98.		Contract of the Contract of th
Change Order #30																		3	24 305 25	200000
Yatal Berth Cost			\$ 5,371,1190.00	5,371,380.00 S 546,415,00 S	\$ 358,036.50 \$	\$ 361,193,50 \$	\$ 02.178,625 \$		S OLCOSOMI S STREAM	83,572,65	\$ 256,753,30 \$	25.248.80 S 3	\$ 304312.ED 5	1,220,567.54 \$	701209.60 5	297 348 10 5	140.040.11	26 400 80	PE 252 PE	4 0mm 420 a
CONTRACT TO THE			Cest Bresislaven																	The state of the s
THE REAL PROPERTY.			Labor [5]	\$11,398.38	536,325,28	200,406,67	572,441.76	\$38,692.23	\$2,940.20	08.758.062	558,533,48	521,128.53	592,510.04	5343,781.91	540,979.03	\$35,842.80	91 D00 055	2033.04	521 507 21	
			Labor [man-hours]	92,422			1,211.30	652.30	38.1	530.4	871.9	315.9	1,458.7	2,336.3	1,258.3	678.0	402.5	\$5	0.001	
THE REAL PROPERTY.			Materials	\$29,006.14	521,605,79		\$215,958.52	\$156,487,77	\$2.00	511,207.73		\$225,475.24	\$57,997,38	\$672,956.13	\$2,226,226,25	\$4,945,40	545,519.07	519,541.83	\$2,274.16	
			Equipment	53,046.88		237,306,62	\$1,759.16	30.00	\$6.00	П		S18,507.73	\$6.558.36		20.00	20.00	20.02			

2000					Progress Payment No.	-														
Centract Cost Calagory Description	Contract Cost Calegory No.	Corresponding 3id from No. [Submitted 31-2012]	Cost Catimates (Submitted 11-2011)	A	20	9		6	9	,	ū		R		12	a	35		01	MT.
Mobilization and Demobilization		4.5	\$ 133,750.00 \$	\$ 100,500.00	20 49,500.00		**									27 000 00 2	- W. M. W. W.	* ******	200000	1
Chain-Unk Fence and Gates	2	3,16,17	\$ 398,250,00	\$ 212,000,00	\$ 45,250.00	3,000.00	\$ 24,750.00	3,000.00	3,000.00	2 1,000,00	3,000,00	3.000.00	3 00000	17350.00 6	24.760.60	20 000 00	26,000,00	-	-	Dicher in
Pipe Botlands	1	N/a	**	**													Paramana a			200,000,000
Pavement (Including striping)	,	34,35	\$ 12,000.00			3 1,034.00	3.540.00	2 1511 50					2 320 60 6	14 841 000						
Relocation of utilities	*	rya	,				.,,						2000000	1		The state of the s				8,001,00
Transformers	9	34	\$ 600,000,00								A 503 500 00		2 500 00	-						The sales
Switchgrar assembly(s)	2	28	2,000,000,00								000000000000000000000000000000000000000	1	1							00'000'000
Ducthanks and recessor		13	9 3300 0000 0	00 000 000 0	200 000 000			Į.	ŀ	I	No. of the last	1	W.DOCAL						-	2,000,000,00
- The state of the			1	A STOCKHOOL			140,470,00	3 111,030,00	277,520,00	5 363,220,50 5	\$17,600.00 \$	23,630.00 \$	50,920,00		48,005,00				**	2,000,000,00
Companion		30	200,000,000				,	•••		•••	\$ 401,300,00 \$	44,900.00	15,400.00 5	34,400.00						Ann den nov
3PO Receptacies	10	9	\$ 170,000,00	,			141,000,00				14,000.00			12 000 00		*	3 000 00			2000000
SPO Vaults	11	30	\$ \$40,000,00			*	200,000,00			25 000 00 5	2 000000 2	24.000.00								1000000
All other electrical work	11	**	\$ 150,000,00	\$ 70,000,00			20 2005.00				-	-								350,000,00
Commissioning and testing	11	30	2 150,000.00											-				3,000,00	2,300.00	147,500,50

Demoltion	34	*/0	41	44	**				•				1						-	-	
Soil, excavation, lill and watter handlore	2	6,9,10,11,12,13	\$ 235,390.	2 00.085.1 2 00.005,255	8	18,659.80	18,232.00 \$	46,572.25	21,296.75	5 14,601.50	\$ 20,793.25 \$	28,574.00 \$	2 00'684,11	2 27,000.01	(0,754.0G) S	21,290,001 \$	29,014.00 \$	1000015,0		- 14	192,221.44
Other cotts	91	2, 2, 6, 7, 46, 47, 48	\$ 242,500.60		40.875.00 \$	6,437,50 \$	6,437.50 \$	6,437.50 \$	31,207.50	5 18,937.50	\$ 41,937.50 5	6,437.50 \$	6.437.50 \$	6,437,50 \$	6,437,50 \$	6,437,56 \$	66,437.50 \$	\$ 05,555,61	0,167.50 \$	3,550.00 \$	259,500.00
Change Order wit 1976 actuminations				1				2,000,75					The second second	The second	The second second					46	3,606.75
										5 201 30										**	621150
Change Order All										or and or	AL PERSON A	2000000	The cart ting	Most to	20 000 000 00	20.000.10				41	242,704,70
Change Order #4					1	1			1	-		-						A 01 11 0 00	40.000.00		20 200 20
Change Grader #5											01	CASSAGO.					A DESCRIPTION OF THE PERSON OF	S CONTRACTOR S	The state of the s		1000000
Change Onfer 80												10	23,000.00	5,500.00						40.	27,500,00
Charles of Paris and														10	43,460,00					44	43,446.00
																				+4	4
Change Organie																			14.285.00		An GRA 154
Change Order #9													1								
Chase me Clerical IIII					_	_													M.	24,298,75	042347
Total Berth Cost	THE REAL PROPERTY.	The Part of the Pa	\$ 7,322,090.	7,321,090.00 5 632,835.00	\$ 003	\$ 00,380,000	345,113.50 5	744,376,30 \$	130,003.75	\$ 291,912.60	\$ 442,992.85 \$	\$ 3,342,429.40 \$ 173,748.80	171,788.00 \$	137,415,815 5	130,000.54 5	59,439.60	\$ 177,348.1G \$	\$ 127,344.60 \$	63,293.60 \$	44,544,75 \$	7,531,449,94
THE REAL PROPERTY AND PERSONS NAMED IN	The Party of the P	The state of the s	Cost Sreekdown																		
			(Sports)	\$23,398,38	4.38	\$16,325.28	560,406,67	12.270,772	545,309,71	\$1,957.25	5176,117.91	5110,384.11	519,777,03	\$2,000,050	\$54,724.27	519,527.81	57,683,12	\$17,936.03	\$12,340,79	\$12,358.49	
			Labor (man-hours)		337.39	101.1M	543,67	1,225.53	744.80	38.05	3,038.95	3,029,60	361.33	409.70	105,23	128.00	130.00	354.00	250,30	30,001	
THE PARTY OF THE P			Materials	8	614	\$21,665.79	\$125,142,06	\$304,263.53	\$232,505,35	50.00	\$52,998,15	\$2,010,879,30	5393,336.43	5191,426.25	565,432,01	\$8,803.82	\$18,012.96	76,082	548,703,99	52,274.16	
			Equipment	ST. DIG. ES	0.88	524,946,50	\$17,106.61	\$1,759.16	23.00	20.00	££,110,502	\$10,270,76	53,520.00	\$6,333,00	5529,74	20.00	\$0.00	20.00			
			alle.		49.00	60.00	50.05	to co	90.05	50.00	20.00	20.00	20.00			50.00	50.00	20.00			

2					Progress Paym	WIDOUT NO.					-	-			-						
Contract Cost Category Description No.	Contract Cost Category No.	Corresponding that term No. (Submitted 11-2012)	Cost Estimates (Submitted 11-2012)	4	*	et.	,	,	3	w		· a		10	348	12	10	2	n	10***	TOTAL
Mobilization and Demobilization	7	4.5	2 333,750,0	2 00.005.001 2 00.087,011		49,500.00										**	27,000.50	\$ 67,875.00	\$ 4,500.00	\$ 26,250.00	275,425.00
Chain-Link Fence and Gates		1,16,17		\$ 00,000,011 \$ 00		45,250,00 \$	3,000.00	24,750.00 \$	3,000.00 \$	3.000.00	3,000.00	3,000.00	3,000.00	3,000.00 \$	17,250.00 \$	36,250.00	19.950.00	5 16,000.00			312,450.00
Pipe Dollards		4/11							*	***								a construction			4
Avernent (Including striping)		14.15	2 13,000.00				1,934.00 \$	3,540.00 \$	1,533.50 \$				**	3,332,50 \$	(4,541.00)		3,404.50				05.150,8
elocation of utilities		4/4					*														
ransformers.	4	n	\$ 600,000,00	2 00			**			0.00	45	\$92,500.00	**	7,500.00							00'000'009
witchpear assembly(s)	2	22	\$ 2,200,000,00						*		**	\$ 2,182,500.00	es	37,500.00							2,200,000.00
Suctibanks and raceways	· P	я	\$ 1,500,000.0	5,500,000.00 \$ 131,220.00 \$		128,400.00 \$	283,560.00 5	335,600.00	\$5,580.00 \$	372,220,00 5	203,480,00 \$ 150,248,00	150,240.00 \$	3,460.00 \$	9,240.00		2,000.00					1,590,000,00
Contract	٥	27	\$ 400,000.00	5 00							**	\$ 00.000,010	2,950,00 \$	11,250.00 \$	32,900.05						400,000,00
PO Receptades	01	27	\$ 150,000.00 \$	5 00	,			125,000.00 \$	**		45	12,500.00		**	7,500.00			00:000:5			120,000,00
20 Vaults	11	R	\$ 550,000,00 \$	5 00	5			250,000,00	\$ 00'005'55	\$ 00'000'99 3	\$ 52,500.00	116,000.00	20,000.00								550,000,00
lother electrical work	22	45	250,000	2 20.000.00 \$	5 92			70,000.00											\$ 5,000.00	2,500.00	147,500.00
Commissioning and testing	13	95	\$ 00'000'001 \$. 8	41									5					The state of the s		
emolition	3.4	s _{tu}	.,	*					44												
oil, excession, fill and waste	*	4.9.10.11.12.13	2 215,390,00		A1 2 00.081.8	18.009.00	18.232.00 \$	46,577.25 \$	21,796.75	3 14,601.50 \$	20,791.25 \$		24,574.00 \$ 11,780.00 \$	13,013,75	(8,754,00) S	(31,200.00)	79,014.00	(0)31000)			102,221.44
ther costs*	16	1, 2, 6, 7, 46, 47, 48	\$ 262,500.00 \$	\$ 00.278,00 \$ 00.		6,437.50 \$	2 06,700.0	6,437.50 5	2 00.705,11	\$ 18,937.50 \$	\$ 05,766,65	6,437.50 \$	6,437.50 \$	6,417.50 \$	£ 627.30 \$	6,437.59 5	66,437.50	05,759,01 2	5 0,167,50	3,500,00	259,500.00
Commercial Commercial							59	17,605.77								100					2,000
anne Destuc #2								-	**	1,353,250										8	00725270
Anna Deder #4									55	5 72542.10 5	30,047,10	20,042,00	30,042,10 5	\$ 01.590,01	20,042,20 15	22,042.10					252,794.2
0.000											15	(34.534.00)					30,043.0	DE.200.0E 2	\$ 30,642.35		1 65,400,00
arvie Order #5												64	\$3,000,00	00'00'''							27,550.0
ange Order #2														45	47,455.02						43,440
atron Order #3																					
water Order #2										-					94				21,151,10		21,161,
Anne Dicher #10																				\$ 54,294,75	14,254
fotal Berth Cost	STREET, SQUARE	The Contract of the last	\$ 6,871,090.	\$ 00.878,850.00 \$ 557,875.00 \$		346,196,50 \$	312,283,50 \$	684,356,30 5	110,115,75 \$		\$ 353,752.RS \$	S STATEMENT S DAMPAGES S SAMPAGES S STATEMENT S STATEMENT S	214,678,80 \$	106,883.83 5	124,000.54 5	53.459.60 \$	5 173,848.10	\$ 129,344.60	\$ 69,010,60	5 66,344.75	5 7.106.064.94
Contract of the last		A STATE OF THE PARTY OF THE PAR	Cost Bresidown																		
			Labor (5)	SILBRILL		\$36,325,28	500,400,67	\$102,361.41	\$43,014.65	\$75,058.54	543,743,17	17,578,582	550,003.00	56,748,35	544,101,78	\$14,925.86	\$6,390.82	514.364.02	2129.56	\$11,412.81	
			Labor (man-hours)		.39	591.18	29 676	1,685,38	714.30	1,343.05	1,160.06	1,463.115	709.13	135.75	730.34	260,45	208.00		7,00	175.50	
			Materials	\$590,606.34			\$125,142,00	\$260,111.02	5195,046.53	524,003,90	\$23,688.36	82,259,023,38	5396,117,85	5219,922.50	\$56,502,35	\$10,497.05	\$9,738.78	567.47	\$30,054,00	\$2,274.18	
			Caupment	23,046.ES		\$24,946.50	\$27,306.61	53,759.16	\$0.00	50.00	534,512.52	526,639,64	\$22,290.59	\$2,400.00	5443.45	50.00	\$0.00				
			Other	9	2000	50.00	60.00	40.00	20.00	20.00	20.00	20.00	20.00			5000	20.00	20.00			

			1245				1247				1766				CI.	1270	
gress Payment No.	Period Ending	Pred .		Rate	Retention	pled		Reference	100	Paid		Retention	ion	Paid	0	References	ton
		Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check Na,	Amount	Check No.	Amount	Check No.
	8/31/2013	SSR3,046.25	3030183	\$30,686.75	10:0102	\$557,094.25	1010101	\$20,022,052	1010127	\$2,000,000\$	tatotot	\$22,043,75	1010102	\$529,001,25	1010101	527,893,755	1010102
3	57307013	520931017	1011927	\$31,016.33	3021928	\$159.625.17	1011927	\$4,401.32	1011028	\$334,636,68	1011937	516,559.82	1011928	\$233,786.63	1011927	512,409.82	1011928
	10/11/2012	5367,013.33		\$1932017	3017405	5343,133,83	1017464	518,059.67	1017465	5327,857,83	3017464	\$17,235.68	1017465	5296,650.33	1017464	\$15,613.18	1017465
,	11/30/2012	5624.580.92	1021977	\$36,030.54	1021978	\$775,677.92	1021977	\$250,192,58	1021978	\$706,967,68	1021977	\$27,208.52	1021978	\$650,281.18	102:977	\$34,225,32	1021978
4	12/31/2013	\$57.945.96	1024872	51,049,79	1025171	\$346,099,56	102-6872	\$18,215.79	1025371	5143,341,47	3024872	57,544.28	1025171	5112,209.95	1024872	\$5,005.79	1025171
d	1/33/2013	\$247,012,45	2027700	\$11,000.66	1027783	\$472,457.95	1027702	\$9,045.16	ERET 501	5277,354,87	1027782	\$24,597.63	1027783	5544,020,937	1027782	528,022,03	1027783
7	2/28/2011	\$197,356.21	1033075	\$10,176.64	1012275	571,194,21	1032029	SA,TTR. 85	1012275	5453,493,20	1022025	\$24,299.54	1033275	\$227,865.21	1032025	517,687.64	1022275
10	2/33/2013	5523,403.55	1013020	\$27.547.56	1033023	\$208,223.05	1023020	524,238.06	1033023	53,401,009.12	1033020	\$170,123.42	1031021	\$3,265,061,31	1033020	\$172,003.47	1031021
e	4/30/2013	5256122.67		\$14,795.93	204005	\$100,966.17	1040057	\$4,762,43	1040058	\$173,708.67	1040057	\$8,589.93	1040058	5115,444.67	1040237	55,723.93	1040058
at	1,105/15/8	11,00,0102	1065607	\$13,416.65	1045601	\$275,272,33	1045407	\$15,205.64	1045404	\$129,426,36	1045/07	57,034.79	1045601	585,387,66	1045607	55,543,29	1045608
13	27772013	51,067,389.00	1050202	\$56,200.38	3050000	\$2,156,721.06	1050792	501,428,38	1050260	\$123,002.42	1050702	56,550.02	1050060	\$117,382,40	1050792	56,200.03	303000
21	8/9/2013	2660,564.71	1054167	\$76,309,48	3034168	17,000,1172	1054187	\$29,364,4E	1054168	\$65,157.21	1054167	54,973.98	1054163	\$21,452.21	1054167	52,673.98	1054108
a	8/31/2013	\$223,274.10	1060205	510,212,40	1060206	5225,199.11	5020901	59,867.41	1000206	5202,874.33	2000205	\$2,692.40	3050208	\$202,874,53	3060205	58,692,41	1060206
**	C102/11/6	5144,06932	1064295	58,102,45	1064296	5242,769.32	1054295	58,5557.46	1064296	\$111,700.53	1054795	56,367,23	3054296	\$213,650,63	1064295	56,467.23	1054296
22	10/11/2013	\$43,946.45	1069014	\$2,974.48	1000015	\$43,046.45	1069034	52,974,48	1000015	\$49,167.15	3063634	\$1,259.78	1069015	\$53,753,39	1069034	53,490.53	1069035
10.0	1190/10/61	\$46,544,75		AC.755,C2		546,544.75	Tion and the second	\$2,222,24		546,344,75		52,337,34		\$46,544.75		22,332,34	
741		55.567.013.21		5205.267.49		\$5,357,185,22		\$203,385,50		\$7,346,708,70		52572,5752		56,722,597.93		FC COC'5655	
ANDIOTAL			55.803.180.70	П			55,640,540,72	72			\$7,524,282,47	41.17			10,072	\$7,070,896,15	

T132/134				Prog	Progress Payment No.	No.										
Contract Cost Category Description	Contract Cost Category No.	Corresponding Bid Cost Estimates Item No. (Submitted II-	Cost Estimates (Submitted 11-2012)	1	2	3	ā	S	10	7	90	G	10	11	13	Torrai
Mobilization and Demobilization	-		\$290,262.61 \$	145,131,30 \$			s								77 565 66	20100
Chain-Link Fence and Gates	2	8, 9, 10	\$11,909.20 \$	1,087.09 \$	2,183.82					FP.970.5	5 419 32			3,600,00	5 5000000	CE'050'177
Pipe Bollards	æ	11, 12, 13	\$67,175.38 \$,			\$ 17,781,68	17	\$ 28,430,04					C 17 684 97	0 0373 60	3,400,41
Pavement (including striping)	7	14, 15, 16, 42	\$ 77,178,77 \$,	961.87	S	\$ 59,38	5 181.69				S 419 33	419.22		o colorado	02,470,30
Relocation of utilities	5	17	\$ \$1,607,62	s						500.00				, ,	0 210 30	17.755.50
fransformers	9	27	\$709,593.23 \$,								5 632,247.57			77345 65 6	200 002
witchgear assembly(s)	7	25	\$2,105,417.86 \$, S	,							S 2 105 417 86	0000000	3 106 417 96
Ductbanks and raceways	89	29	\$765,573,51 \$	- 8		\$ 24,242.11	\$ 12,856.35							S AGB GNG AG	250 955 59	700 573 575
Conductors	0	33	\$692,948.22 \$, ,	\$ 73,622.29	\$ 453,871.78						S 10751 A1	148 497 34 6	500 510 22
SPO Receptacles	10	37	\$453,919.50 \$	5			\$ 107,933.60							20001350	2 22 700 011	452 004 54
SPO Vaults	11	n/a	\$ 08			5									0 00'170'011	103,00,00
All other electrical work	12	41	\$ 76,091,688												S 47 EUP 08	80 003 47
Commissioning and testing	13	45, 46	\$37,831.79 S	- 8	780										9	1500000
Demolition	14		58,408.06 5	,	3	, s	S						24 1 105 25	03 CAAA 3	2 27 67 55	44 4000
Soil, excavation, fill and waste handling	15	2,5,6,7	\$67,641.20 \$		9	\$ 631.67 \$	\$ 2,672.02			\$ 7,702.15 \$	3.052.14	5 559.00	1 297 50	, ,	A AND CE C	0,300,30
Other costs*	16	3, 43, 44	\$19,219,67 \$	262.08 \$	1,048.30	\$ 611.52	\$ 988.94	\$ 611.52	\$ 611.52	\$ 611.52 \$		5 61151	S CF 57E S	, ,	2 202 00 5	11 305 41
hange order #1									S 54.000.00				30 CAL VL 3		0 34 514 54	11,533,41
nange order #2										0	1539 751		200		(4,144,63 3	100 A 200 A
Total Berth Cost	1	STATE PARTY	\$5,362,979.10	145,480.47 S	4,193.99	\$ 25,485,30	\$ 215,914.27	\$ 454,664.39	\$ 83,041.56	\$ 10.893.60 \$	3 194.79	2 17 758 553 2		77 985 74 5 3 008 970 67	C 246 357 80 C	000000000000000000000000000000000000000
	THE PERSON NAMED IN		Cost Breakdown			- Comments				The same of the sa					1	Chicago and
			Labor (S)	20.00	\$0.00	\$0.00	\$0.00		20.00	\$0.00	\$0.00			\$284.182.74	5361 657.80	SEAS RAD SA
			Labor (man-hours)	0.00	00'0	00'0	00:00		00'0	00.0	000			4,307.50	5.114.50	9,477
			Materials	20.00	20.00	50.00	\$111,012.00	\$337,365.00	80.00	80.00	80.00	\$632,236,00	\$632,236.00	\$2,192,548.46	\$99,012.00	\$4.004.409.46
			Equipment	20.00	20.00	50.00	80.00		00:05	20.00	\$0.00			\$134,039,34	540.860.00	S17A 899 34
			Other	0000	00.00	00 00	0000		00 00	-						

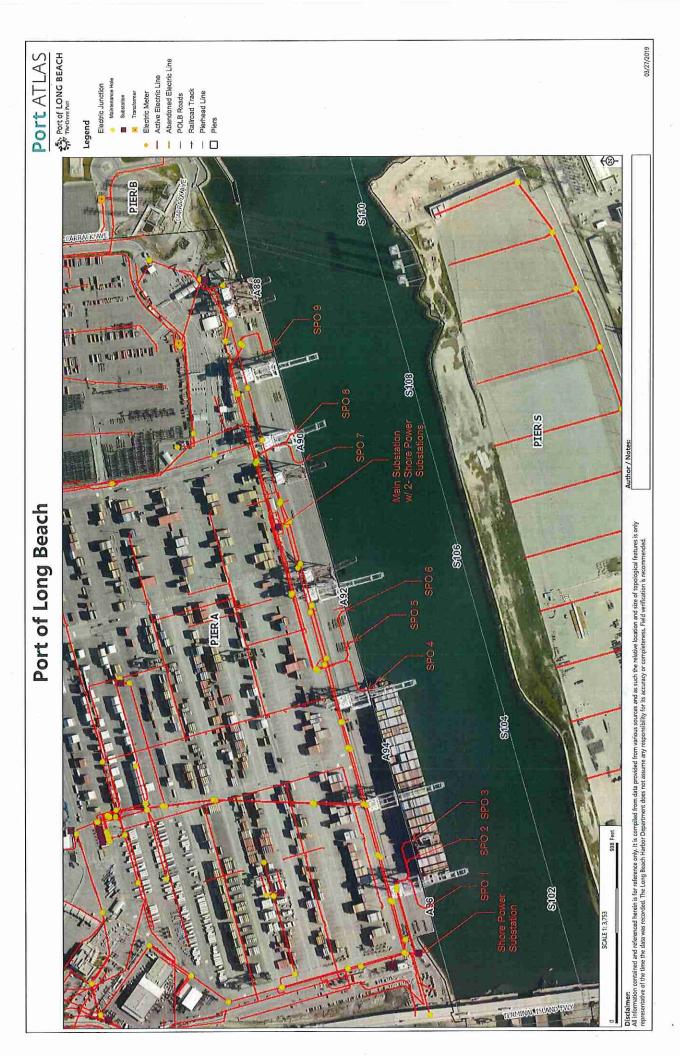
1136				Pro	Progress Payment No.	No.										
Contract Cost Category Description	Contract Cost Category No.	Corresponding Bil Item No.	Corresponding Bid Cost Estimates Item No. (Submitted 11-2012)		2	m	9	5	ve	2	٥	o	ç	;		To Augus
Mobilization and Demobilization		п	\$290,262.61	\$ 145,131,30	5	s	S					,	2	-	2 Th East or	JAN CACAL
Chain-Unk Fence and Gates	2	8.9.10	\$11,909.30	2 1087 08 6	18 581 5 3											5 21/,656,95
Pine Bollards	3	44 69 43	00 171 170	-	1					5 20/9/33	5 419.32				5 5,501.79	5 11,271,93
A CONTRACTOR OF THE PROPERTY O	,	14, 15, 15			I	•	5 T/1		\$ 28,430,04				\$ 3,186,85	\$ 3,186.85	5 5,346.24	\$ 57,931.66
Favement [Including striping)	4	14, 15, 15, 42			\$ 961.87		\$ 59.38	\$ 181.69				\$ 419.32	\$ 419.32	5 733,81		\$ 2775.30
Relocation of utilities	ıc	17	\$ \$1.607,9\$		s					\$ 500.00						20000
Transformers	9	- 30	\$ 52.592,593.23			s						5 709 593 33				treet.
Switchgear assembly(s)	7	24	\$1,779,834.87		s	S	v					C 1 779 834 87				5 102,023,03
Ductbanks and raceways	8	28	\$394,105.50		, s	\$ 22,252.90	5 12,632,40					1	6 207 355 GD	09 30 80 3	93 7007 99	2 TO 1 10 10 10
Conductors	6	32	\$471,591.80			S	\$ 60,230,87	\$ 312.140.78						,	L	1
SPO Receptacles	10	36	\$226,959.75		,		\$ 71,485.25								20,744,00	0 4/1/304.30
SPO Vaults	п	e/u	os			s									TC'W/W'CCT C	9/766/977
All other electrical work	12	40	\$79,665.13	,	S	s						S 64 090 13			03 181 9	
Commissioning and testing	13	45, 46	\$37,831,79		· ·	s						-				3 /1,3//,03
Demolition	14	4	58,408,06		S	S	5					02 5117 50	00 3000			
Soil, excavation, fill and waste handling	15	2,5,6,7	\$67,641.20			5 631.67 5	5 267203			31 505 7 3	2 052 14	202504	, ,	00 345 00	40.00	2,842,50
Other costs*	16	3, 43, 44	\$ 19,219,67	\$ 262.08	5 1.048.30	\$ 611.52	L	5 61152	53163		30.50	l	2000	, ,	5 5,543,03	5 85,440,24
Change order #1									1	-	200.000		243.44	,	5 4,203,98	5 11,395,45
Chones order #3									5 54,000,00			29,107,00	5 39.553.50	\$ 307,582,50	\$ 184,897,88	5 665,140,88
The state of the s											\$ (538,75)					(\$28,75)
iodi seru cast		The same of the sa	\$4,208,086.09	\$ 146,480,46	\$ 4,193.98	\$ 23,496.09	\$ 165,850.54	\$ 312,933.99	\$ 83,041.56	\$ 10,893.60	\$ 3,194.79	\$ 2,699,033.74	\$ 256,879.30	\$ 433,867,76	\$ 571,057,99	S 4.710.928.80
			Cost Breakdown													
			Labor (S)	20,00	\$0.00	\$0.00	0 80.00		20.00	\$0.00	20.00	\$55,296.00	\$84,151,00	\$61,236.00	\$240.434.00	S441.127.00
THE PARTY OF THE P			Labor (man-hours)	00'0	0.00	0.00	0.00		00:0	00.00	00'0	875.00	L	922.00		S6 486.00
			Materials	20.00	\$0,00	50.00	0 \$111,012.00	5337,365.00	20.00	80.00	\$0.00	\$980,643,00	s			\$1.458 674 nn
			Equipment	20.00	\$0.00	\$0.00	00:05		\$0.00	80.00	20.00				522 400 nn	C86 390 nn
			Other	00.05	50.00	00 00	00.00		00.00	0000						

138				Pri	Progress Payment No.	70										
Contract Cost Category Description	Contract Cost Category No.	Corresponding Bid Cost Estimates Item No. (Submitted 11-)	Cost Estimates (Submitted 11-2012)		2	en	9	v	\L	r	0		Ş			
Aobilization and Demobilization	e		3 13 636 0063	145 121 30					,			7	3	77	77	TOTAL
C 7			C TOTTOTOCHO	DETTOTION										-16	\$ 72,565.65	\$ 217,696.95
Chain-Link rence and dates	2	8, 9, 10	\$11,909.20 \$	1,087.08	\$ 2,183,81	s	·			5 2.079.93	33 \$ 419.32	32	89 250 6 5			44 072 03
Ipe Bollards	m	11, 12, 13	\$67,175.38 \$		S		\$ 17,781.68		NO 050 85 2		-	C C 372 CO				201707107
Pavement (Including striping)		14, 15, 16, 42	\$37.178.77 \$		S 196		C CD 30	201 01	1			01000	2			5 62,961.69
despite of utilities					20700		23.30	O TOTO				5 419.32	32 5 419.32	5 733.81		\$ 2,775.40
POTENTIAL OF GUILLIES	0	77	\$6,709.15 \$							\$ 500,00	2	\$ 6,000.00	00			650000
ransformers.	9	19	\$709,593.23 \$,	·			FC 787 0F3 2	82	O 28 805 O	ş				200000000000000000000000000000000000000
Switchgear assembly(s)	2	23	C 201 171 70 P								100000	3				5 709,593.23
		3	21,321,421,70 3			2					\$ 1,921,221,76	76				\$ 1,921,221,76
Ductoanks and raceways	8	22	5599,461.62 \$			\$ 54,000.00	0 \$ 12,763.20		5 16,341.92	\$ 76,146,78	78 \$ 264,709,72	72 \$ 20.448.00	00 036800.00	C 18757 00		C 500 AE1 E3
Conductors	es.	31	\$ 518,338,89 \$				5 43,910,07	S 337 611 54			20 35 34 3					107000
SPO Recentacles	υι	×	S CS OES CASES				Т	2000			70,200	2	^	5 61,145,19		5 518,338.88
	2	2			,		5 71,485.25					5 59,684,22	22 \$ 209,271.16			\$ 340.440.63
PO Vaults	11	n/a	S IS			•	,									
All other electrical work	12	39	\$81,156.80 \$							EN EUN CC >	r	. 41070	35 62 4 4 6 4 4 6 5 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.0000		

Commissioning and testing	E	45,46	\$37,831.79 \$			S									\$ 25,331.79	5 25,331,79
Demolition	14	7	\$8,408.05 \$. · s			\$ 6,413,55	\$ 663.15	\$ 663.15				3 7,739.85
Soil, excavation, fill and waste handling	15	2,5,6,7	\$67,641.20 \$			\$ 631.67	\$ 2,672,02			\$ 9,982.21	\$ 5,332,19	\$ 559.00	\$ 1,397.50		\$ 3,549.65	5 24,124.24
Other costs*	16	3, 43, 44	\$ 19,219,67 \$	262.07 \$	1,048,31	\$ 611.52	\$ 988.94	\$ 611.52	\$ 611.52	\$ 611.52	\$ 262.08	\$ 611.53	\$ 349.44 S	\$ 1,223.02	\$ 4,203.98	5 11,395.45
Change order #1									\$ 54,000.00	\$ 75,738.07	\$ 229,568.21	5 167,154.96	\$ 117,932.76			\$ 645,394,00
Change order #2											(538.75)					\$ (538.75
Total Berth Cost	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWI		\$4,716,547.74 \$	146,480,45 \$	4,194,00 \$	55,243,19	\$ 149,660.54	\$ 333,404.75	333,404.75 \$ 730,170.71	\$ 195,075.69	\$ 2,516,803.89	\$ 352,755.65	352,755.65 S 505,196.15	\$ 89,541.52	\$ 109,794.82	\$ 5,188,421.36
THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COL	THE STREET		Cost Breakdown													
			Labor (S)	00:00	S0.00	80.00	20.00	20.00	\$0.00	\$50,304,00	20.00	\$56,707,73	\$72,835,00	567,948,60	\$16,565,00	\$264,360,33
			Labor (man-hours)	0.00	00'0	00'0	00'0	000	00.0	780.00	00:0	844,50	1,132.00	968,50	83.00	\$3,808.00
			Materials	80.00	80,00	20.02	598,312,00	\$337,365.00	\$0.00	\$3,300,00	\$1,560,128.00	\$16,704.00	\$16,352,17			\$2,032,161.17
			Equipment	\$0.00	50,00	20.00	S0.00	30.00	\$0.00	\$11,736.00	\$0.00	\$24,728.56	\$5,859.12	\$14,780.00	52,060,00	\$59,163.68
		UXU	Other	\$0.00	20.00	\$0.00	80.00	80:00	\$0.00	\$0.00	\$0.00	80.00	80.00			80.00
140				Progr	Progress Payment No.	ó									10	
Contract Cost Category Description	Contract Cost Category No.	Corresponding Bid Cost Estimate Item No. (Submitted 12	Cost Estimates (Submitted 11-2012)	1	2	3	4	.5	9	7	8	6	10	11	22	TOTAL
Mobilization and Demobilization	1	1	\$290,262.61 \$	145,131.30 \$				5							\$ 72,565.65	\$ 217,696,95
Chain-Link Fence and Gates	2	8, 9, 10	\$ 11,909.20 \$	1,087.08	2,183.81	· s				5 2,079.93	8,962.79					\$ 14,313.61
Pipe Bollards	3	11, 12, 13	\$ \$57,175.38	s	(8)		\$ 17,781.68	. · s	\$ 28,430,04	5 20,963,67						5 67,175,39
Pavement (including striping)	7	14, 15, 16, 42	\$37,178,77 \$		961.88		\$ 59.38	\$ 181.69		\$ 27,172.49		\$ 54,764.29	\$ 419.32	\$ 27,906.30	\$ 27,172.49	\$ 138,637.84
Refocation of utilities	5	17	\$6,709.15 \$		•					\$ 500.00	\$ 2,000.00					\$ 2,500.00
ransformers	9	18	\$ 5209,593.23		9	,		\$ 709,593.23								\$ 709,593,23
Switchgear assembly(s)	7	22	\$3,939,255.79	· ·	Ŷ	S		\$ 3,939,255.79								\$ 3,939,255.79
Ductbanks and raceways	89	52	\$349,501,65 \$	S	27,978.60	\$ 171,418.70	\$ 71,690.70	\$ 15,839.94	\$ 14,400.00	\$ 33,200.00	\$ 7,636.36	5 7,337,35				\$ 349,501.65
Conductors	6	30	\$413,138.96 \$	•	*		\$ 60,019.96	\$ 269,851.81		\$ 44,170.98			31	\$ 39,096.22		\$ 413,138.97
SPO Receptacles	10	34	\$226,959.75 \$	\$ - 5	(e)	\$	\$ 71,485.25			\$ 50,839,26	\$ 33,150.00		\$ 71,485.25			\$ 226,959.76
SPO Vaults	11	n/a	\$ 05	5 - 5	*	S -										•
All other electrical work	12	38	\$86,714.11 \$		10,520.87	\$ 7,013,91	\$ 63,125.21				\$ (10,520.87)	\$ 14,917.49		\$ 1,657.50		\$ 86,714,11
Commissioning and testing	13	45,46	\$37,831,79 \$			\$.			7							·
Demolition	14	7	\$8,408.06 \$	•		5										
Soff, excavation, fill and waste handling	15	2, 5, 6, 7	\$67,641.20 \$		3,420.09	\$ 1,087,68	\$ 3,356.04			5 7,702.15	5 46,839,32	\$ 559.00	\$ 1,397.50		\$ 3,549.65	\$ 67,911.43
Other costs*	16	3, 43, 44	\$ 19,219,67 \$	262.07 \$	4,193.21	\$ 611.52	\$ 988.94	\$ 611.52	\$ 611.52	\$ 611.52	\$ 262.08	\$ 611.53	\$ 349.44	\$ 1,223.02	\$ 4,203.98	\$ 14,540.35
Change order #1									\$ 322,607.18	\$ 125,957,90	\$ 48,051,03					\$ 496,615,11
Change order #2											\$ 37,469,88					S 37,469.88
Total Berth Cost	State of the last	a Marine District	\$6,271,499.30	\$ 146,480.45 \$	m	\$ 180,131.81	\$ 288,507.16	49,258,46 \$ 180,131.81 \$ 288,507.16 \$ 4,935,333.98 \$ 366,048,74 \$	\$ 366,048,74	313,197.90	\$ 173,850.59 \$		78,189.66 \$ 73,651.51 \$	\$ 69,883.04	S 107,491.77	\$ 6,782,025.07
			Cost Breakdown													
			Labor (S)	\$0.00	\$50,213.00	\$83,884.00	\$112,676.45	\$9,223.00	\$18,706.00	\$81,661.70	\$78,025.00	\$1,525.00	51,603.00	\$102,950.80	\$12,790.00	\$553,257.95
			Labor (man-hours)	0.00	806.00	1315.00	1781.00	142.00	288.00	485775.25	1625.50	24.00	24,00	983.00	209.00	\$492,972.75
			Materials	20.00	\$57,192,02	\$234,135.00	\$209,862,30	53,283,875.00	\$633,225.00	\$9,724.00	00:00				\$15,519.42	\$4,443,532.74
			Equipment	20.00	\$14,329.00	\$12,861.00	526,711.80	\$2,087.00	\$7,001.00	\$20,809.32	\$48,121.29	\$1,365.00		\$30,480.00	\$11,430,00	\$175,195.4
			- 100	0000	40.00	0000	0000	00.00	40.00	90.00	40.00					

	_		AET/CETT		2		F	7136			T120	-			1140		
Progress Payment No.	Period Ending		Pald	Retention	ion	Paid		Retention	uoi	Pald		Retention	. uoi	Pald		Retention	ug
		Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.	Amount	Check No.
	8/31/2012	\$139,156,45	1013550	57,324.02	1013369	\$139,156.44	1013550	57,324.02	1013369	\$139,156.43	1013550	\$7,324,02	1013369	\$139,156.43	1013550	57,324,02	1013369
2	9/30/2012	\$3,984.29	7517101	\$209.70	1017158	\$3,984.28	1017157	\$209.70	1017158	\$3,984.30	1017157	\$209.70	1017158	\$46,795.54	1017157	\$2,462.92	1017158
æ	10/31/2012	\$24,211,30	1018355	\$1,274.26	1018356	\$22,321.28	1018355	\$1,174.80	1018356	\$52,481,02	1018355	\$2,762.16	1018356	\$171,125.20	1018355	\$9,006.60	1018356
4	11/30/2012	\$205,118,56	1025282	\$10,795.70	1025283	\$157,558.00	1025282	\$8,292.53	1025283	\$142,177.50	1025282	\$7,483.03	1025283	\$274,081.79	1025282	\$14,425,36	1025283
S	12/31/2012	\$431,931,73	1027736	522,733.25	1027737	\$297,287.29	1027736	\$15,646.70	1027737	\$316,734.52	1027736	\$16,670,24	1027737	\$4,688,567,28	1027736	\$246,766.70	1027737
9	1/31/2013	\$78,889,48	1032234	\$4,152.08	1032235	578,889,48	1032234	\$4,152.08	1032235	\$693,662,16	1032234	\$36,508,54	1032235	\$347,746,30	1032234	\$18,302,44	1032235
7	2/28/2013	\$10,348.91	1038592	\$544,68	1038593	\$10,348.90	1038592	\$10,893.59	1038593	\$185,321.91	1038592	\$9,753,78	1038593	\$297,538.00	1038592	\$15,659,89	1038593
80	3/31/2013	\$3,035.05	1042462	\$159.74	1042463	\$3,035.05	1042462	\$159.74	1042463	\$2,390,963.70	1042462	\$125,840,19	1042463	\$165,158.06	1042462	\$8,692,53	1042463
6	4/30/2013	\$602,145,54	1046397	531,691.87	1046398	\$2,564,082.05	1046397	\$134,951.69	1045398	\$335,117.86	1046397	\$17,637.78	1046398	574,280.17	1046397	\$3,909,48	1046398
10	5/31/2013	574,084,55	1052050	53,899.19	1052051	\$244,035,33	10522050	\$12,843.96	1052051	\$479,936.35	1052050	525,259.81	1052051	\$69,968,94	1052050	\$3,682.57	1052051
11	6/30/2013	\$2,858,522.08	1059654	\$150,448.53	1059655	\$412,174,36	1059654	\$21,693.39	1059655	\$85,159,44	1059654	\$4,482.09	1059655	\$66,388.90	1059654	\$3,494.14	1059655
12	9/30/2013	\$796,744,51	1069922	\$42,408.14	1069923	96'969'8ESS	1069922	\$28,552,90	1069923	\$95,294,96	1069922	\$5,489.74	1069923	\$93,107.06	2266901	\$5,374,59	1069923
																	Γ
TOTAL		\$5,228,172,45		\$275,641.16		\$4,466,367.42		\$245,895.10		\$4,919,990.15		\$259,421.08		\$6,433,913,67		\$339,101.24	
GRAND TOTAL			\$5,503,813,6	1			\$4,712,	\$4,712,262.52			\$5,179,411,23	111,23			\$6,773,014,91	4.91	

ATTACHMENT C Maps of Container Terminal Shore Power Infrastructure



Shore Power Outlet ,000 Feet 500 250 0

PORT OF LONG BEACH PIER C



Maintenance Hole

Transformer

Active Electric Line

Substation

various sources and as such the relative location and size of topological features is only representative of the time the data was recorded. The Long Beach Harbor Department does not assume any responsibility for its accuracy or completeness. Field verification is recommended. Disclaimer: All information contained and referenced herein is for reference only. It is complied from data provided from

Inc. will be considered unauthorized and may be punishable by law. Permission for external use may be given with written permission from Eagle View Technologies, Inc. written pression from Eagle View Technologies Aerial Photo: This is a proprietary dataset provided courtesy of the Los Angeles Region Imagery Acquisition Consortium (LAR-IAC), than what is allowable under license or by Eagle View Technologies, Inc. Use other



NDSR 19-1010 JLT 4/3/19 Aerial Photo: LARIAC March 2017 4-in

Port of Long Beach Port ATLAS Port of LONG BEACH Legend Electric Junction ■ Substation Electric Meter Active Electric Line Abandoned Electric Line Railroad Track Pierhead Line ☐ Piers (DE)(A) PIER T SCALE 1: 5,000 All information contained and referenced herein is for reference only. It is compiled from data provided from various sources and as such the relative location and size of topological features is only representative of the time the data was recorded. The Long Beach Harbor Department does not assume any responsibility for its accuracy or completeness. Field verification is recommended. SPOs 11 thru 15 on Phase 3 not complete

Port of Long Beach





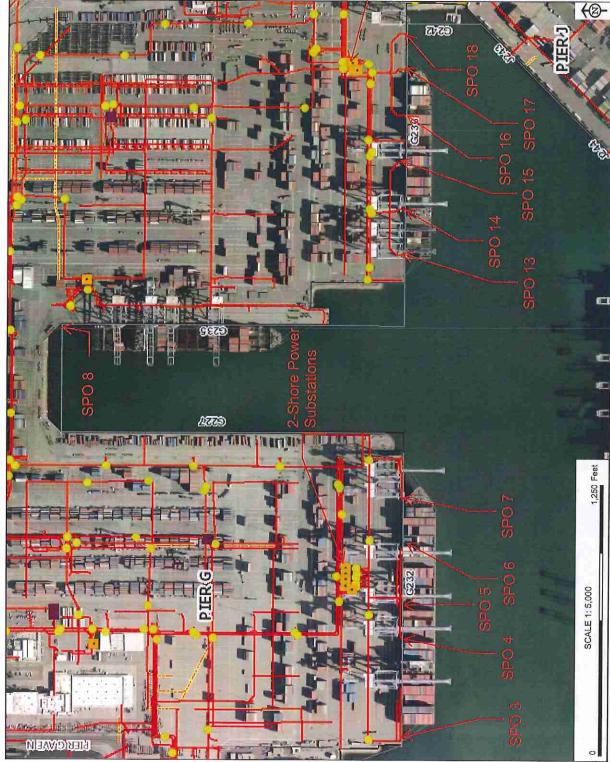
Legend

Maintenance Hole Electric Junction

- Substation
- Electric Meter Transformer
- Active Electric Line
- Abandoned Electric Line POLB Roads
- Railroad Track Pierhead Line

Piers

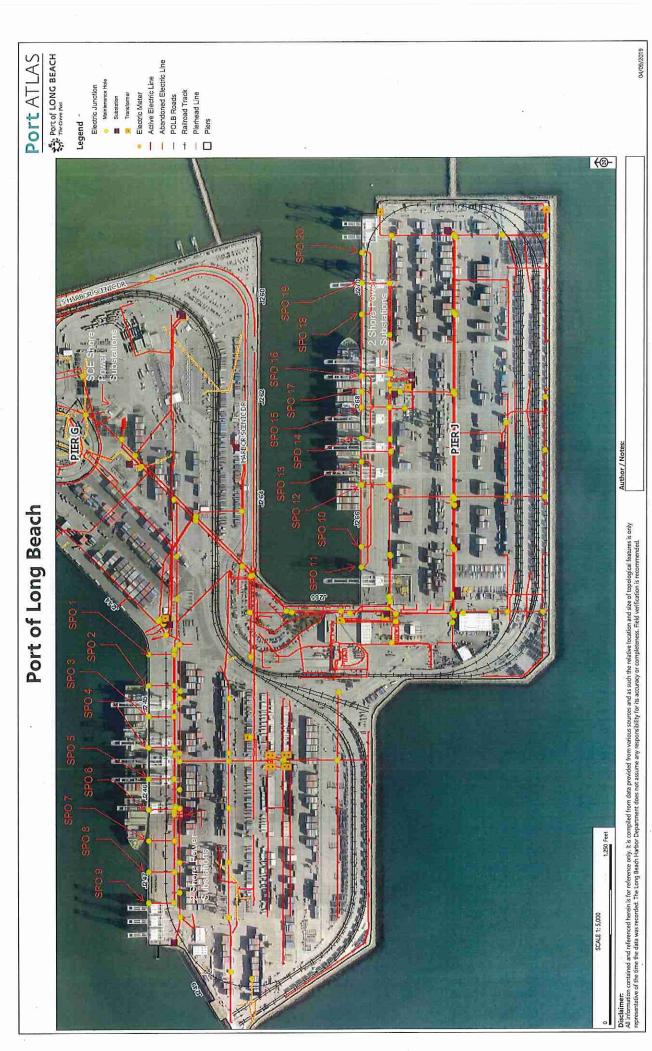
2-Shore Power Substations



Disclaimer:

All information contained and referenced herein is for reference only. It is compiled from data provided from various sources and as such the relative location and size of topological features is only representative of the time the data was recorded. The Long Beach Harbor Department does not assume any responsibility for its accuracy or completeness. Field verification is recommended.

Author / Notes:



ATTACHMENT D Port of Long Beach Vessel Visits by Berth

Container v	Container Vessel Visits Subject to the New At-Berth and At Anchor Regulation	New At-Berth an	id At Anchor Regulati	<u> </u>							
ITS		LBCT		Pacific Container Terminal	erminal	SSA Terminals Pier A		SSA Terminals Pier C		111	
Berth	Visits	Berth	VISITS	Berth	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Berth	Visits	. —	Visits	Berth	Visits
				J245 (includes		THE PROPERTY OF THE PROPERTY O					
G232	SS	53 E24	34	1 reefer)	52	A92		43 C60	***	1 7132	*
6235	25	25 E26	45	9 1266	65	A94		104 C62	81	81 7134	124
G236	89	68 F3	18	9 1270	21	A96		78 Total Visits	8	82 7136	55
: :						•					
Total Visits	146	146 Total Visits	102	2 Total Visits	138	138 Total Visits	14	225		1138	12
										1140	43
										Total Visits	235

RoRo Vesse	Visits Subject	to the New	At-Berth a	nd At Anchor Regulation	
Toyota Logi:	stics		SSA-Cresce	nt	
Berth	Visits		Berth	Visits	
B83		104	F204		3
Total Visits		104	F205	-	44
			F207		60
			Total Visits		104

Tanker Vess	ol Visita Subject t					
Tanker Vess	al Visita Subject t					
Tankor Voca	ol Visita Subject t	.1				
Tankar Vacc	al Micita Cubiaat t					
Talikei vess	ei visits subject t	o the New At-B	erth and At A	Anchor Regula	ation	
Tesoro Pier	В	Tesoro Pier T		Chemoil		
Berth	Visits	Berth	Visits	Berth	Visits	
B77	6	T121	204	F209		65
B78	65	Total Visits	204	Total Visits	1	65
B84	-					
	7/	5				
B84A	76					
B84A B86	49	-				

SAN PEDRO BAY PORTS

CLEAN AIR ACTION PLAN

July 1, 2019

Bonnie Soriano Chief, Freight Activity Branch California Air Resources Board 1001 "I" Street Sacramento, CA 95814

SUBJECT: PORT OF LOS ANGELES AND PORT OF LONG BEACH COMMENTS ON MAY 14 & 16, 2019 WORKSHOPS FOR THE "CONTROL MEASURE FOR OCEAN-GOING VESSELS OPERATING AT BERTH AND AT ANCHOR"

Dear Ms. Soriano:

The ports of Los Angeles and Port of Long Beach (Ports) appreciate this opportunity to provide comments on the concepts and draft regulation language presented at the California Air Resources Board's (CARB) May 14 and 16, 2019 workshops regarding the "Control Measure for Ocean-Going Vessels Operating At Berth and At Anchor."

We want to thank CARB for continuing to work with the Ports and our tenants during this regulatory development process to obtain the best available data and to craft a regulation that achieves significant public health benefits. The Ports continue to appreciate the open dialog with CARB staff to discuss the regulatory concepts and share our comments and concerns.

The purpose of this comment letter is to respond to the May 8, 2019 version of the Draft Regulation Order provided at the May workshops. In Appendix A, CARB will find specific information relative to Port of Los Angeles.

The following summarizes the Ports' comments regarding the regulatory concepts presented at the May 2019 workshops:

• The Proposed Implementation Timelines Are Still Too Aggressive – In the May 8, 2019 draft regulation, container terminals are still required to control ship emissions for every





visit by 2021, with 10% flexibility split evenly between Terminal Incident Exception (TIEs) and Vessel Incident Exception (VIEs), by 2021, with further reduction to 6% flexibility split between TIEs and VIEs for 2022 and beyond. This timeline is unreasonable. While the TIEs and VIEs provide some flexibility for terminals and vessels to avoid compliance action for a limited number of unforeseen circumstances that result in a vessel not being able to plug in, that flexibility does not avoid the need for infrastructure to be installed to allow for access to shore power for 100% of all calls. Given the anticipated schedule for finalization of the proposed regulation, there will be less than a year from adoption to when this implementation requirement comes into effect, which does not allow for any of the necessary shore power improvements to be constructed.

If CARB hopes terminals and fleets will opt for shore power, a greenhouse gas reduction strategy, to meet their increased compliance requirements rather than the alternative emission control devices, which are known to increase greenhouse gases, this timeline does not allow for that compliance path to materialize for at least several years. The Ports have provided documentation in their previous letter dated May 20, 2019 that shore power projects take 5 years on average to complete. In addition, there are still considerable feasibility concerns regarding the ability of terminal operators, and/or third party vendors to develop and deploy alternative emission control devices on a stringent time line of one year.

The Ports are encouraged that CARB plans to have an interim evaluation in 2023 for tankers and Ro-Ros, but this evaluation should not replace a technical feasibility assessment to better inform this regulation, as described below. We also believe more than one evaluation maybe necessary. We ask that a feasibility assessment be updated in 2025 and beyond to evaluate the state of the technology and industry's ability to comply with the regulation. The Port of Los Angeles has specific concerns for tanker terminals as detailed in Appendix A.

• A Technology Feasibility Assessment Process Is Needed – The Ports continue to urge CARB to develop a technology feasibility assessment of the alternative At Berth technologies, which would look at the state of technological development and their readiness to be deployed in the marketplace to support efforts to achieve public health benefits. The berth analysis developed by CARB should not be misconstrued as a technical document at the level of detail upon which regulation should be formed. It is an aggregation of terminal operator and harbor pilot opinions (no data), and Google Maps research, and is not founded upon any engineering assessment of the infrastructure required at the terminals. Further, there are challenges associated with the technologies upon which this regulation depends which, by all appearances, are too costly, technologically and operationally infeasible in some cases, and/or unsafe to use.

In addition, this necessary feasibility assessment should include an evaluation of: (i) state of technology and deployment readiness for both shore power and alternative emission control devices; (ii) the requisite timeline to design, build, test, and deploy shore power and alternative control technologies for each California port to achieve at minimum 95% compliance, and identification of any associated constraints such as wharf space; (iii) safety and navigation of harbor waters space due to applications of new technologies for unregulated vessel types; (iv) number and types of alternative control technologies, which would be needed at each California port; (v) the cost of the various types of technologies and availability of incentives to encourage early demonstration of such technologies; and importantly, (vi) the appropriate remediation fee to encourage investment in ship- and shore-side infrastructure and alternative emission control devices, while not driving business out of California.

• All Terminals Should Be Required to Submit Terminal Plans — The proposed regulation language allows terminals to have the ports submit plans on their behalf. The Ports should not be responsible for the submission of each terminal's plans on their terminal operators' behalf. All terminals should submit their own terminal plans. Ports do not have control over the financial and operational decisions terminals will have to make in order to comply with the regulation, and Ports cannot be liable for terminal infrastructure deployment under the new rule. In addition, if the terminal operator intends to install the shore power infrastructure themselves, they should be required to provide the elements outlined in the proposed port plan requirements rather than the Port.

In the past, the Ports have supported shore power deployment by providing the design, bid, build, and services. In some cases, the investment was recouped through terminal leases. This was a service to our terminals, particularly for the initial installations under the original 2007 shore power regulation, but is not necessarily the path forward given the Ports' current capital project commitments and the extensive electrical infrastructure required to achieve the zero emission goals of the Clean Air Action Plan (CAAP) at the terminals.

If the Ports are still required to submit port plans in the proposed regulation update, then the terminal plan deadlines must be set at least six months prior to port plan deadlines to allow the Ports sufficient time to review the submitted terminal plans, negotiate lease terms with their terminals, and compile the necessary information CARB has requested for the Ports to submit port plans. There is no guarantee that agreements will be reached in time to meet the timeline for this part of the proposed regulation. Many of these leases have several years remaining and terminals may be reluctant to renegotiate lease terms, especially for strategies that have no CARB certification.

If terminals determine they need to construct more infrastructure, project initiation will not commence until the proposed At Berth Regulation goes into effect. It is unrealistic to

expect terminals or the ports to have design or schedules for equipment installation completed by June 2020. The earliest date according to CARB's timeline for project initiation is January 2020, assuming terminals do not use the first six months to evaluate their best compliance option. Given that project initiation, consultant selection for design, preliminary design, CEQA approval, and final design can take 23-30 months, it does not make sense to anticipate a schedule and estimation of the electrical infrastructure required at a terminal in just six months. If the terminals/Ports submitted plans solely based on preliminary design, which is a vastly premature estimate of project scope and timeline, it would take 11-15 months. This challenge once again points to the impossibility of meeting the 2021 timeline with shore power, the most mature, emission-efficient, technological solution.

- Exceptions to Delays in Port Plan Schedules If ports are still required to submit port plans, then CARB should provide exceptions to any possible enforcement action if port plan schedules are not met. The port plans can only provide an estimated schedule of installing equipment and/or necessary construction projects. Delays can and will happen outside of the control of the Ports. For example, delays due to permitting, equipment acquisition, environmental assessment, and other events that may cause schedules to not be met should be given exemptions to enforcement action in this regulation. It is unfair to hold the Ports liable for mobile source operators' actions and emissions outside of our direct control.
- Specifics on Remediation Fund The Ports request that CARB revise the fees for payment into the remediation fund for longer-term outages due to construction projects or repairs. CARB has set remediation fee costs as shown below in Table XVIII of the "Control Measure for Ocean-Going Vessels At Berth Cost Analysis Inputs and Assumptions for Standardized Regulatory Impact Assessment."

Table XVIII. Remediation Fee Costs

Data Input	Value			Basis
Hourly remediation fee for terminal and for vessel, for each vessel type	Vessel Type	Vessel Hourly Fee	Terminal Hourly Fee	Staff analysis using Carl Moyer formula to calculate average emissions in tons per hour by vessel category. Product and crude tanker values were averaged for cost estimation purposes, however the fee would be dependent on the vessel type. Note that these values are estimates based on current Staff analyses at the time this document was prepared, and do not necessarily represent the exact fees that would apply.
	Container/ Reefer	\$2,395	\$2,395	
	Cruise	\$12,879	\$12,879	
	Auto/Ro-Ro	\$1,515	\$1,515	
	Product Tankers	\$1,783	\$1,783	
	Crude Tankers	\$9,873	\$9,873	
Which terminals would offer the remediation fee as an option?	All (100%)			Staff assumes that all terminals would offer the remediation fee as an option.

CARB has set the remediation fee cost at an unreasonable level for long term construction projects. Appendix A gives an example of how the remediation fees using Table XVIII would have more than doubled the cost of a recent Port of Los Angeles construction project,

which increased shore power capabilities, by upgrading electrical infrastructure at their World Cruise Center. If terminals decide that their strategy to meet this regulation is to install more shore power infrastructure, then similar situations are likely.

The Ports are also concerned that unforeseen repairs that may take several months or more could occur. In these types of prolonged incidences, the remediation fund fees set per hour will become so prohibitively high that terminals may have to shut down or turn away vessels during the repair. Ports again encourage CARB to conduct a feasibility study that would help set the rates for the remediation fund and determine the state of alternative emission control technology.

There are currently a total of two certified alternative emissions control systems in use at this time, and those systems are only certified for use on container vessels. The Ports are uncertain in how many, if any, additional systems will be deployed in the next few years. This limited number of options makes it difficult for terminals or shipping lines to secure exclusive service of these systems, which would mean most construction or repairs would cause the payment of large fines pursuant to the remediation fee fund.

The Ports encourage CARB staff to set up the remediation funds for use specifically in technology research, development, demonstration, and deployment of emissions reduction technologies specific to ocean going vessels rather than for general emission reduction use. As stated in our previous letters, in order to accelerate the development and deployment of shore power and alternative control options, including infrastructure for non-container terminals and vessels, the Ports request that CARB prioritize funding as they did for the currently regulated fleet through Proposition 1B in 2006. The remediation fund can be better utilized to accelerate emission reductions from this under-represented category.

• Compliance May Hinder CAAP Efforts – Lastly, the Ports remain concerned that the cost to comply with CARB's proposed Rule will affect our ability to meet the goals under the 2017 CAAP Update given the significant upfront costs of an At Berth Infrastructure Program. The costs shown in the May presentation were annualized, but much of the costs will be upfront rather than spread over the ten years. CARB staff has also assumed that minimal infrastructure changes will be needed to meet the regulation. Our joint letters to CARB have included cost estimates that we feel are representative of the infrastructure costs that would be necessary to meet compliance and fulfill the Ports' obligations as currently written in this draft regulation. CARB has not included any of these costs in their revisions, even with the provision of invoices and information directly from the Port of Long Beach financial system.

In addition, Port staff resources are limited. The staff that are currently designing the zeroemission terminal infrastructure for technology demonstration projects, and future fullscale deployments are the same staff members who would be responsible for designing the infrastructure to support the new At Berth Regulation. This underscores the need for prioritizing programs and funding, as described above and in previous letters, in order to determine how to most effectively allocate our resources to participate in the development and implementation of CARB's regulatory program.

The Ports thank CARB staff for hosting additional workshops, engaging with us directly, and their consideration of the comments contained in this letter as well as in the attached Appendix.

We look forward to continuing to meet with CARB staff in the future to further discuss the proposed amendments to the At Berth Regulation. Please feel free contact us with any questions or concerns regarding this letter.

Sincergly

CHRISTOPHER CANNON

Director of Environmental Management

Port of Los Angeles

MATTHEW ARMS

Acting Director of Environmental Affairs

Martha form

and Planning

Port of Long Beach

Attachment

cc: CARB, Cynthia Marvin (Cynthia Marvin@arh.ca.gov)

CARB, Angela Csondes (Angela Csondes (@arb.ca.gov)

CARB, Nicole Light (Nicole Light@arb.ca.gov)

CARB: Kaylin Huang (Kaylin.Huang@arb.ca.gov)

CC:LW:TD:AC:yo APP No.: 010227-517



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Lucia Moreno-Linares
Commissioner

Anthony Pirozzi, Jr.
Commissioner

Edward R. Renwick Commissioner

Eugene D. Seroka

Executive Director

APPENDIX A Port of Los Angeles Response to CARB At Berth Regulation Berth Draft Regulation (version May 8, 2019)

The Port of Los Angeles (POLA or Port) appreciates this opportunity to provide more detailed comments on the California Air Resources Board (CARB) draft regulation "Control Measure for Ocean-going Vessels At Berth" (version May 8, 2019). The Port has some concerns regarding tankers and the remediation fees.

Tankers

POLA had provided specific information about our tanker terminals in our previous joint letter with Port of Long Beach on May 20, 2019. Many of our tanker terminals are being redesigned to meet California State Lands Commission (CSLC) Chapter 31.F 2016 California Building Code, Title 24, Part 2, Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) requirement. MOTEMS is a comprehensive set of codes and standards for analysis, design, inspection/maintenance, and operation of existing and new marine oil terminals in the State of California. MOTEMS requirements will ensure better resistance to earthquakes, protect the public and the environment, and reduce the potential of an oil spill, while maintaining the operation and viability of the marine oil facility.

The new terminal designs will limit the number of emission control strategies that our tanker terminals will be able to utilize. A majority of the new designs do not leave any space for a land-side alternative emission control technology strategy. There is also no shore power infrastructure in the design drawings at this time, nor have there been any discussion from our tanker terminals to install shore power. Finally, as stated in POLA's appendix in the joint letter to CARB on May 20, 2019, there are various areas throughout the Port where navigation of the waterways would preclude the use of a barge-based system.

Two of our terminals have completed their environmental document and design (Shell and PBF). Construction will soon begin at these terminals and is unlikely to be halted due to this regulation to redesign the terminals. CSLC would be averse to any delays to these construction projects as they are meant to protect the public and the environment. Other terminals currently working on their environmental documents and designs are also unlikely to redesign their terminals for CARB's At Berth regulation as there is currently no CARB certified emission control technology for tankers. The terminals would not be able

to wait for the technology to become available in order to design their terminals as they already need to meet MOTEM standards.

The Port stresses the need for CARB to conduct a feasibility assessment to better inform this regulation, especially for tankers due the many variables and restrictions associated with this industry.

Remediation Fund

CARB has set remediation fees in Table XVIII of the "Control Measure for Ocean-Going Vessels At Berth Cost Analysis Inputs and Assumptions for Standardized Regulatory Impact Assessment," that would be used for construction and repair projects.

Table XVIII. Remediation Fee Costs

Data Input	Value			Basis
Hourly remediation fee for terminal and for vessel, for each vessel type	Vessel Type	Vessel Hourly Fee	Terminal Hourly Fee	Staff analysis using Carl Moyer formula to calculate average emissions in tons per hour by vessel category. Product and crude tanker
	Container/ Reefer	\$2,395	\$2,395	values were averaged for cost estimation
	Cruise	\$12,879	\$12,879	purposes, however the fee would be
	Auto/Ro-Ro	\$1,515	\$1,515	dependent on the vessel type. Note that
	Product Tankers	\$1,783	\$1,783	these values are estimates based on current
	Crude Tankers	\$9,873	\$9,873	Staff analyses at the time this document was prepared, and do not necessarily represent
				the exact fees that would apply.
Which terminals would offer the remediation fee as an option?	All (100%)			Staff assumes that all terminals would offer the remediation fee as an option.

POLA owns and maintains shore power infrastructure at our terminals. Construction and repairs to shore power infrastructure are conducted through the Port. We are concerned that the mechanism used to determine the amount paid to the remediation fund is unreasonable for long construction or repair projects. There are instances where unforeseen repairs may take longer than a few months due to the need to order equipment, coordinate times for terminal shutdown during repairs, or other issues that may come up. The current scheme for calculating payment to the remediation fund is based on an hourly basis per a call. For extended periods where shore power will not be accessible, the cost will be extraordinarily high for industry or the Port as shown in the example provided below.

The Port recently upgraded our World Cruise Center to allow for 11 kV and 6.6 kV shore power connections for cruise vessels. This construction required a new transformer at the Cruise Center. The goal of the construction was to provide enough power for the large cruise ships to plug into shore power at POLA. The construction occurred from June 30, 2017 through April 23, 2018, and during the electrical upgrade no visiting cruise vessels were able connect to shore power. Alternative shore power was not an option either since there are no CARB-certified alternative emission control technologies for cruise vessels. The total number of hours for cruise vessels berthed at the World Cruise Center during the construction was 1,056.55 hours. Based on the hourly fee for cruise in Table XVIII, the hypothetical remediation fee for this construction project would have cost \$13,607,307 (1,056.55 hour x \$12,879/hour). The total cost of the electrical upgrade itself

was about \$11 million. This hypothetical remediation fee would have more than doubled the cost of this construction project that took less than a year to complete.

Since there are currently only two CARB-certified alternative emission control systems available at the Ports of Los Angeles and Long Beach, for long periods of construction or repair, there is uncertainty with respect to the availability of these systems in the future. In cases where a system cannot be secured, the remediation fee compliance mechanism would have to be utilized. As shown in our example above, the fee could increase to amounts that are not sustainable to industry or the Port. In our previous and current comment letters, the Ports request that CARB conduct a feasibility assessment. This will help determine the rate for the remediation fund as the current remediation fee costs will be too high for these prolonged instances of shore power construction or repair.





December 3, 2019

Richard Corey California Air Resources Board Clerks' Office 1001 I Street Sacramento, CA 95814

Dear Mr. Corey:

SUBJECT: PORT OF LOS ANGELES AND PORT OF LONG BEACH COMMENTS ON THE PROPOSED REGULATION ORDER, "AIRBORNE TOXIC CONTROL MEASURE FOR AUXILIARY DIESEL ENGINES OPERATED ON OCEAN-GOING VESSELS AT-BERTH IN A CALIFORNIA PORT"

The Port of Long Beach and Port of Los Angeles (Ports) appreciate this opportunity to provide comments on the California Air Resources Board (CARB) proposed regulation order, "Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port" released in the Initial Statement of Reasons (ISOR) on October 15, 2019. The Ports also appreciate you and your staff's willingness to meet with us throughout the rulemaking process. We found those meetings productive and helpful, and we hope to continue this cooperative relationship going forward.

The Ports support the changes incorporated into the latest regulatory proposal, specifically:

- The new rule would go into effect in 2021, but additional emission reduction requirements of the regulated fleet would be delayed until January 1, 2025.
- Bifurcating the cruise vessels into two categories, one for vessels which carry less than 1,500 combined passengers and crew, and one for vessels which carry more than 1,500 combined passengers and crew, and providing different hourly remediation fees for each.
- Tier III ships would have lower remediation fees than other Tier 0 to Tier II ships.

The Ports remain concerned with the following key elements of the proposed regulation:

• Future compliance with the timelines remains too difficult for the Roll-on/roll-off (RoRo) vessels and tanker vessels, which are currently proposed to comply with a

Mr. Corey Page 2

90% control requirement in 2025 and 2027, respectively. Given the technology to control emissions from RoRos and tanker vessels does not exist today, and the significant safety concerns associated with tanker vessels, we request at a minimum two additional years with each category. RoRos should be required to comply in 2027 at the earliest, and tankers at the San Pedro Bay Port should be required to comply in 2029 at the earliest.

- The industry has raised significant concerns regarding the potential alternative emission capture and control technologies upon which this regulation depends, including cost, operational viability, safety,and the reality that utilizing these technologies will increase greenhouse gas emissions. The technology for controlling at-berth emissions for RoRo vessels or tanker vessels has never been demonstrated and a prototype does not exist. The technology feasibility assessment proposed for 2023 should require CARB staff assess the state of technology, the readiness to deploy it at each port, safety considerations, and cost-effectiveness. The rule should specifically call out these elements as required components of the feasibility assessment. In addition, there should be a mechanism for staff, without returning to the CARB Board for approval, to make the necessary changes to the implementation timeline should the feasibility assessment demonstrate the technology is not feasible or the costs too great per ton of emissions reduction.
- CARB previously provided funding on the scale of hundreds of millions of dollars through Prop 1B to support shorepower investment for the currently regulated fleet. The ISOR estimates compliance under the proposed regulation will cost the shipping industry \$2.2 billion. To reduce the likelihood of cargo diversion, which could result in greater emissions overall, and to support the development and deployment of the requisite alternative emission capture and control technologies for tanker and RoRo vessels, the Ports request CARB allocate at least \$200 million for tanker and RoRo emission capture and control technology or shore power statewide.
- The Ports support including Alternative Compliance Plans for the currently unregulated fleet including Tankers and RoRos in the regulation.
- Lastly, the Ports recommend that the Air Districts maintain responsibility for implementation of the remediation fund. Our local air district, the South Coast Air Quality Management District, has the greatest local experience in evaluating technology, developing solicitations, and building air quality programs.

This regulation sets an important precedent not only for California, but also for ports worldwide. Success will be dependent upon reasonable timelines, feasible technology, and public and private funds, which drive technology commercialization. The Ports appreciate the opportunity to work with CARB on this important effort to develop an effective regulation to reduce air emissions from vessels and public health impacts in our communities.

Mr. Corey Page 3

Please feel free to reach out to Teresa Pisano, Port of Los Angeles Marine Environmental Supervisor at (310) 732-3057 or via email at teresa.pisano@portla.org, or Morgan Caswell, Port of Long Beach Manager of Air Quality Practices at (562) 283-7138 or via email at morgan.caswell@polb.com with any specific questions.

Sincerely,

EUGENE SEROKA Executive Director Port of Los Angeles MARIO CORDERO Executive Director Port of Long Beach

cc: Bonnie Soriano, CARB (via email <u>Bonnie.Soriano@arb.ca.gov</u>)
Angela Csondes, CARB (via email <u>Angela.Csondes@arb.ca.gov</u>)
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CARB At-Berth Regulation Cost Effectiveness Analysis for Auto Carriers and RoRo Ships at Port of Long Beach & Port of Los Angeles







December 2019



CARB AT-BERTH REGULATION COST EFFECTIVENESS ANALYSIS FOR AUTO CARRIERS AND RORO SHIPS AT PORT OF LONG BEACH & PORT OF LOS ANGELES

Starcrest developed an emission reduction evaluation for CARB's proposed amendments to the atberth regulation for Auto Carrier and RoRo ships at the Port of Long Beach (POLB) and the Port of Los Angeles (POLA), also referred to as the San Pedro Bay Ports (SPBP). Using this evaluation, Starcrest developed an Excel calculation tool (the Auto/RoRo Tool) to assess the emission reductions and cost-effectiveness of the proposed amendments for these vessels based on the SPBP 2018 Annual Emissions Inventories and Carl Moyer Program methodology. Based on this assessment, the cost of the proposed amendments as they relate to Auto Carrier and RoRo ships at the SPBPs is significant compared to other emission-reduction projects with similar benefits, and alternative more cost-effective emission reduction approaches should be explored.

The Auto/RoRo Tool currently utilizes the SPBP 2018 Annual Emissions Inventories for the emissions reduction analysis and the cost assumptions/information provided in Standardized Regulatory Impact Assessment (SRIA) for CARB's Proposed Control Measure for Ocean-Going Vessels at Berth released on August 20, 2019, for the cost effectiveness analysis. This tool was designed with flexibility to allow input modifications to explore alternative cost inputs. Two financing approaches are included in the tool: (1) hourly rental of barge-based emission capture and control (C&C) systems, and (2) capital investment of four barge-based C&C systems dedicated to treat Auto Carrier and RoRo ships The need for four (4) barge-based systems to control 100 percent of calls was established by an evaluation of 2018 calls from these vessel types. This evaluation is included as a worksheet in the Auto/RoRo Tool.

Project Goals

- Estimate emission reductions that may be achieved by barge-based C&C systems applied to the auto carrier and RoRo vessels calling at the SPBP.
- Assess cost effectiveness (CE) for barge-based treatment options to meet the requirements of the proposed amendments.
- Estimate the portion of auto carrier/RoRo at-berth emissions to all at-berth emissions in both mass and percent.
- Estimate the portion of auto carrier/RoRo at-berth emissions to all OGV emissions in both mass and percent.

Key Assumptions

- This review assumes that 100 percent of calls are treated by a barge-based C&C system (based on an evaluation of 2018 calls from these vessel types in the SPBP).
- ➤ Barge-based emission C&C systems will control 80% of NOx, ROG and DPM emissions.

Key Findings

Reduction of PM (including PM₁₀, PM_{2.5}, and DPM) and NO_x emissions in the 36%-40% range could be achieved from auto carrier and RoRo vessel control, but emissions of other pollutants (CO2e, SOx and CO) are estimated to increase in the range of 28% to 151% due to emissions from increased bunkering activities at anchorage and supporting activities such as tugs and generators needed to operate barge-based C&C systems. A summary of the proposed regulation's emission reduction benefits, based on the auto carrier and RoRo calls made at SPBP in 2018, is provided in Table A1 (tons per year (tpy)) and Table A2 (tons per day (tpd)). Negative numbers indicate increased emissions.

Table A1: Reductions from Barge-Based at-Berth Capture and Control, tpy

Port	PM ₁₀	$PM_{2.5}$	DPM	NO_x	SO_x	HC	CO	CO ₂ e
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	mt/yr
Emission Re	ductions (or increase	s)					
POLB	0.40	0.38	0.38	19.61	-0.66	-0.73	-5.04	-1,615
POLA	0.22	0.20	0.18	8.98	-0.37	-0.43	-3.30	-1,005
Total	0.62	0.58	0.56	28.59	-1.03	-1.15	-8.33	-2,620
Percent Red	uction (or i	increase)						
POLB	36%	36%	38%	40%	-28%	-44%	-113%	-49%
POLA	39%	38%	39%	40%	-35%	-52%	-151%	-53%
Total	37%	37%	38%	40%	-30%	-47%	-125%	-50%

Table A2: Reductions from Barge-Based at-Berth Capture and Control, tpd

Port	PM10	PM2.5	DPM	NOx	SOx	HC	CO	CO2e
	tpd	tpd	tpd	tpd	tpd	tpd	tpd	mt/yr
Emission F	Reductions (or increase	es)					
POLB	0.0011	0.0010	0.0010	0.0537	-0.0018	-0.0020	-0.0138	-4.4
POLA	0.0006	0.0006	0.0005	0.0246	-0.0010	-0.0012	-0.0090	-2.8
Total	0.0017	0.0016	0.0015	0.0783	-0.0028	-0.0032	-0.0228	-7.2
Percent Re	eduction (or	increase)						
POLB	36%	36%	38%	40%	-28%	-44%	-113%	-49%
POLA	39%	38%	39%	40%	-35%	-52%	-151%	-53%
Total	37%	37%	38%	40%	-30%	-47%	-125%	-50%

To place these reductions in context, Tables B1 (tpy) and B2 (tpd) summarize the 2018 SPBP auto carrier and RoRo emissions at berth, all OGVs at berth, and all OGVs in all modes (at berth, maneuvering, transit). The tables also show the percentages that the auto carrier and RoRo emissions make up of all OGV emissions at berth and of the entire 2018 OGV inventory. **Overall, auto carrier and RoRo at berth emissions made up approximately one percent (1%) of all OGV emissions in the SPBPs' 2018** inventory or between 2% to 4.5 % of all at-berth emissions.

Table B1: Auto Carriers and RoRo At-berth Emissions Contribution in CY 2018, tpy

Port Vessel Type	PM	PM2.5	DPM	NOx	SOx	HC	CO	CO2e
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	mt/y
SPBP Auto and RoRo at Berth	1.7	1.6	1.4	69.9	3.4	2.4	6.5	5,001
SPBP All vessels at Berth	60.1	56.3	31.4	1894.8	169.7	72.7	188.7	264,414
SPBP All vessels	142.0	133.0	106.1	7078.5	323.3	270.9	590.3	503,286
SPBP Percent of all OGV at Berth	2.8%	2.8%	4.5%	3.7%	2.0%	3.3%	3.5%	1.9%
SPBP Percent of all OGV	1.2%	1.2%	1.3%	1.0%	1.0%	0.9%	1.1%	1.0%

Table B2: Auto Carriers and RoRo At-berth Emissions Contribution in CY 2018, tpd

Port Vessel Type	PM10	PM2.5	DPM	NOx	SOx	HC	CO	CO2e
	tpd	tpd	tpd	tpd	tpd	tpd	tpd	mt/d
SPBP Auto and RoRo at Berth	0.0045	0.0043	0.0039	0.1916	0.0092	0.0066	0.0179	14
SPBP All vessels at Berth	0.1648	0.1543	0.0861	5.1914	0.4649	0.1993	0.5170	724
SPBP All vessels	0.3891	0.3642	0.2907	19.3931	0.8857	0.7421	1.6172	1,379
SPBP Percent of all OGV at Berth	2.8%	2.8%	4.5%	3.7%	2.0%	3.3%	3.5%	1.9%
SPBP Percent of all OGV	1.2%	1.2%	1.3%	1.0%	1.0%	0.9%	1.1%	1.0%

A utilization analysis evaluated how many auto carrier or RoRo vessels were at berth in one of the ports during each day of 2018. A maximum of four concurrent calls took place on five days during the year, and three concurrent calls took place on 12 days. This indicates that four barge-based C&C systems would have been needed to accommodate all SPBP auto carrier and RoRo calls in 2018 and would be needed going forward assuming 2018 was representative of future call frequency at these two ports. Because three or four concurrent calls occur so infrequently, the C&C barge fleet would be utilized about 19 percent of the time.

Cost effectiveness (CE) calculations, discussed below, result in cost effectiveness between \$115k and \$200k for the barge rental scenario (varies based on effective hourly rate) and \$54,987 for the scenario that includes the purchase of four barge-based C&C systems to serve 100% of calls made to SPBP. Both scenarios are far less cost effective than CARB's Carl Moyer Program (CMP), which has an upper CE limit of \$30,000 per weighted ton of emissions reduced.

It should be noted that the CMP also allows for a second tier CE limit for the higher cost of advanced/emerging technology projects; this second tier CE limit is \$100k per weighted ton. The \$100k/ton limit is only applied to the small increment between today's technology and the advanced technology level, which in practice is zero-emission or near-zero emission (i.e., 90% cleaner than current technology). Since barge-based C&C systems are not using technology that is 90% cleaner than today's clean-up technology, these systems should be evaluated at the \$30k/weighted ton CE limit.

Emissions Assessment

The key elements and the sources of information included in the emissions reduction evaluation include:

- ➤ OGV at-berth emissions for auxiliary and boiler engines are based on auto carrier and RoRo vessels that visited POLA and POLB in 2018 and are consistent with both Ports' 2018 annual emissions inventory. The average at-berth hours and emissions (in grams per hour) by port, by terminal and by anchorage are shown in Tables 1 and 2 of the Auto/RoRo Tool under the tab "2018 Data Summary".
- The frequency of auto carrier and RoRo calls per day in 2018 was analyzed and it was determined that four dedicated barges would be required to treat emissions for the entire auto carrier and RoRo fleet arriving at SPBP. Importantly, four barges would have been needed to ensure ALL calls were serviced in 2018, but for a large percentage of the year, most of the barges would have been idle because four (4) vessels were in port simultaneously on only five days. In addition, more than four vessels may call simultaneously in future years so having four barges available would not guarantee full coverage. This analysis is provided in the Auto/RoRo Tool on the "Utilization" tab.
- The emissions analysis scenario assumes that the use of a barge system would require additional emission-producing activities that would reduce the overall effectiveness of the system. These activities include the following:
 - Additional trips from harbor craft (HC) as follows:
 - 1. HC home base to barge home base
 - 2. Barge home base to terminal
 - 3. HC home base
 - 4. HC home base to terminal
 - 5. Terminal to barge home base
 - 6. Barge home base to HC home base
 - Harbor craft idling time during this process. The average emissions in g/hr for assist tugs and the average time per trip are shown in Tables 3 and 5 of the Auto/RoRo Tool under tab "2018 Data Summary." These values are based on SPBP 2018 EI data.
 - Two small generator sets to provide electrical power to the system. It was assumed that the generator sets will be similar to those used by the Alternative Maritime Emission Control System (AMECS) barge currently being operated at the SPBP ports. Table 4 of the Auto/RoRo Tool under tab "2018 Data Summary" shows the emission factors in g/hr for these generators.
 - Additional time at anchorages for bunkering. Currently most of the auto carrier and RoRo ships bunker while operating at berth. If C&C barges are utilized during at-berth operations, bunkering will most likely take place at anchorage resulting in increases in emissions at anchorage.

Control efficiencies of 80% for PM/DPM and NOx were assumed, based on CARB's SRIA. It was assumed that barge system will treat auxiliary as well boiler engines exhaust.

Cost Effectiveness Assessment

The CE assessment is based on CARB's CMP methodology. This methodology combines the annual emission reductions in terms of "weighted emission reductions," or WER, in tons per year (tpy) as follows:

$$WER = NOx + ROG^1 + (20 * PM2.5^2)$$

The WER is applied to the project cost, which is annualized by multiplying by the capital recovery factor (CRF), which is based on a discount rate and the project life. Cost-effectiveness is calculated under the CMP as follows:

$$CE (tpy) = Project Cost (\$) * CRF / WER (tpy)$$

Below is a summary of the two scenarios included in the Auto/RoRo tool, based on CARB's SRIA:

➤ Hourly Rental: As determined in the "Emissions Summary" worksheet of the Auto/RoRo tool and based on 2018 SPBP EI data, a total of 4,934 hours per year of RoRo operation would need to be treated by the rented barge-based C&C systems to fully comply with the proposed regulation.

In the Auto/RoRo tool, hourly rate is a variable to determine CE at different hourly rates for the estimated emissions reductions. Attachment A provides excerpts of four actual C&C service transactions that demonstrate the effective hourly rate is greater than CARB's assumption of \$900 an hour. Two invoices in attachment A show that the vendor required a 24-hour minimum usage time, which effectively raises the hourly rate if the barge system is used for anything less. The CE at each of the four hourly rates documented in Attachment A, as well as both CARB's \$900 assumption and our application of the 24-hour minimum to the lowest hourly rate that we could document, \$1,100, is provided below in Table C.

Table C: Cost Effectiveness at Different Hourly Rates

Hourly Rate	Cost- Effectiveness	Rate Source (assumes/indicated all inclusive)
	(\$/weighted ton)	
\$900	\$115,707	CARB SRIA Excel - "Cost Input Tab"
\$1,100	\$141,419	Receipt #2, Attachment A
\$1,208	\$155,304	Receipt #1, Attachment A
	\$163,275	\$900/hr for 17 hr call (avg.), includes 24-hr min. charge
\$1,270		(Receipt #4)
\$1,422	\$182,816	Receipt #3
\$1,552	\$199,530	\$1,100/hr for 17 hr call (avg.), includes 24-hr min. charge

¹ CMP uses ROG for CE evaluation. Since EI tracks HC, not ROG, HC is converted to ROG using this formula: ROG = HC * 1.26639, per 2017 CMP Guidelines, CARB

² PM2.5 is used in this CE evaluation to be consistent with CARB's methodology.

Using CARB's assumption of a \$900/hr rental rate, the CE to reduce the estimated 38.76 weighted tons per year (discount rate of 1%, project life of 1 year), is estimated as \$115,707 per weighted ton. Note that at the rate of \$900 per hour for 4,934 hours/year, a total annual investment of \$4.4M would be required to reduce 38.76 weighted tons of emissions (as calculated by CMP as WER) per year from Auto carrier/RoRo vessels (based on 2018 data).

As shown in Table C, the CE of the hourly rental scenario is highly sensitive to the effective hourly rental rate, which fluctuates for each transaction based on how the billing is structured for each client. For each \$100 over the estimated rental rate of \$900/hr, the project CE increases by \$12,856/weighted ton. For an average 17-hour call serviced at a rate of \$1,100/hr, the effective rate is \$1,552/hr to account for the 24-hour minimum charge, which results in a CE of nearly \$200,000 per weighted ton.

As documented in Attachment A, C&C system pricing depends on a key factor that drives the hourly cost higher. The vendor requirement to apply a 24-hour minimum charge skews costs higher than those based on CARB's assumed hourly rate (\$900/hr) for all vessels with calls less than 24 hours. Note that the average call length in 2018 across Auto carrier/RoRo vessels is approximately 17 hours – the need to pay for these additional hours that were not used will drive the hourly rental service costs higher than projected by CARB.

- Purchase and Operate: As determined by the Utilization analysis (see Utilization tab), for the 2018 calls by RoRo/Auto carriers, a total of four (4) barge-based C&C systems would be required to cover all SPBP calls. There are limited data on the capital cost to purchase and operate barge-based C&C systems.
 - In the SRIA, CARB assumes³ the capital cost to purchase a barge-based system is \$4.9 million. While not provided for barge-based C&C systems, CARB estimates the land-based C&C system operating costs as follows: annual maintenance cost of \$17,500 and an hourly operating rate of \$100. No additional terminal labor costs were included, an assumption that merits further review. Using these values over a 20-year project life and a 5% discount rate (CARB's assumptions) the CE of purchasing and operating four units is estimated as \$54,987 per ton, nearly double CARB's CMP limit of \$30k per ton.
 - However, the only publicly available documentation of a barge-based C&C system is the Bay Area Air Quality Management District (BAAQMD) contract with Advanced Environmental Group, LLC for a project to design, build and operate a barge-based C&C system in Benicia. The total project cost is \$8.844M. At this total project cost, assuming that this cost includes operation pursuant to contract requirements, the CE exceeds \$73,012 per ton, well beyond the CMP limit of \$30k per ton.

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³ CARB SRIA, page 80, https://ww3.arb.ca.gov/regact/2019/ogvatberth2019/appc-1.pdf

Discussion Based on Data and Assumptions Currently Included in the Auto/RoRo tool

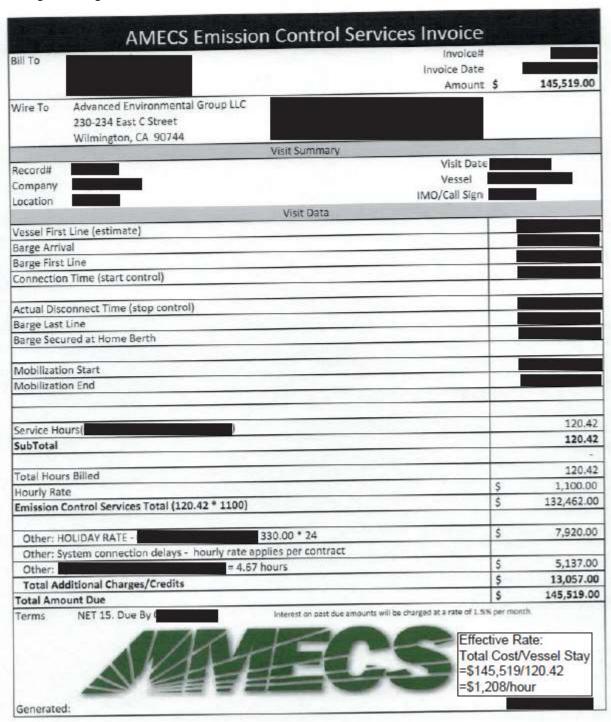
- ➤ CARB uses the CMP cost effectiveness methodology to evaluate the CE of the proposed amendment. While this methodology accounts for the increase in hydrocarbon (and therefore ROG) emissions, it does not take into consideration the increase in CO2e, SOx and CO. The regulatory amendment should address associated increases in other pollutants.
- ➤ CARB estimates that just nine C&C systems would be needed statewide (seven of them barge-based), but 2018 call frequency analysis indicates four of these systems would need to be assigned to the Ports of Los Angeles and Long Beach to assure full compliance.
- ▶ Based on SPBP EI 2018 EI data, and a conservative estimate of 80% reduction in NOx and DPM emissions from Barge based C&C, it is estimated that 100% compliance with CARB's proposed amendments to the at-berth regulation would result in the reduction of approximately 38.76 weighted tpy.
- These reductions come at a very significant cost. As discussed above, the CE of the proposed amendments far exceeds the CMP CE limit of \$30k/weighted ton. Under the CMP, emission reductions are achieved at far better CE levels. For example, repowering harbor craft such as tug, work and crew+supply boats (from Tier 2 to Tier 3) is far more cost-effective than including auto carriers and RoRo vessels under this proposed regulatory amendment. Specifically, at a one-time cost of about \$800k-\$900k, a tugboat repower will reduce from 4 to 15 weighted tpy of emissions⁴ at a 10-year CE that ranges from \$9k \$25k per weighted ton. This investment is well below the CMP CE limit of \$30k/ton.

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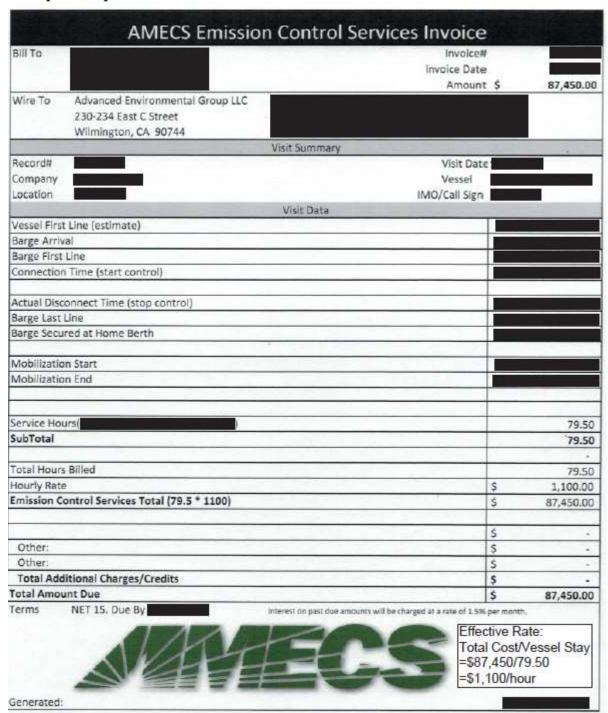
⁴ This range is a function of engine horsepower, annual hours of operation, vessel type etc.

Attachment A

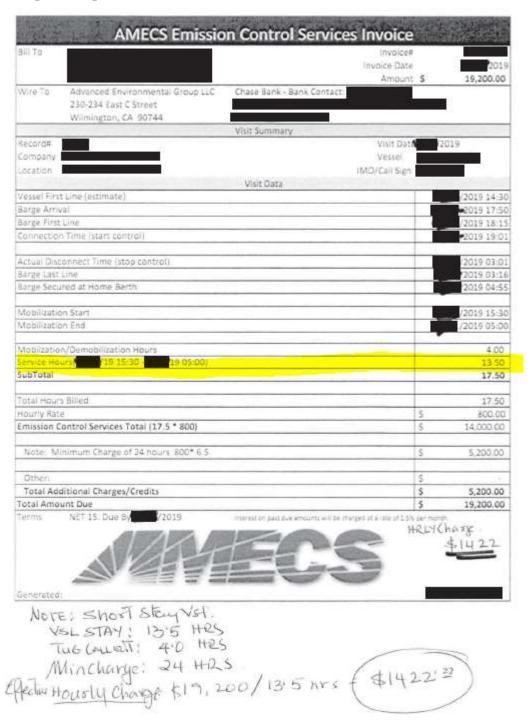
Receipt Excerpt #1:



Receipt Excerpt #2:



Receipt Excerpt #3:



Receipt Excerpt #4:

HOURLY CHARGE	\$900 USD per hour. The Hourly Charge is inclusive of all tug services and/or other 3rd party services required for mobilizing, de-mobilizing, and positioning System to Customer's vessel. Notwithstanding the above, any and all charges for "Spacer Barges," "Fenders" and/or supplemental 3rd party crew boats are not included in the Hourly Charge and will be passed through to Customer at the actual cost to Operator + 20%. Additional charges may only be added upon written authorization by Customer. In the event Terminal may require a Spacer Barge between the
EMISSION CONTROL SERVICE CHARGES	Service hours will be charged from the beginning of the mobilization to the end of the mobilization. Customer understands that Operator has a minimum charge of twenty-four (24) hours per vessel.

At an hourly rate of \$900, applied across the minimum 24 hour billing requirement, the total cost is $24 \times \$900$) / 17 hours (avg. call time) = \$1,270 effective hourly rate.