

Factoria Recycling and Transfer Station

Contract C00678C12

CONTRACT VOLUME 13 of 15

Contractor's Best and Final Offer

June 2014



King County

Department of Natural Resources and Parks
Solid Waste Division

TECHNICAL PROPOSAL - Best And Final Offer (BAFO)

King County Solid Waste Divison Factoria Recycling and Transfer Station Project

Contract C00678C12

February 4, 2014



BUILDING a Sustainable FUTURE

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A - Current & Projected Work Load for Key Personnel

A.2.a.i - PCL has selected our key management personnel and subcontractor personnel based on the expertise they will bring to the team to meet the unique challenges of this project. In addition, the current workload of all key personnel was evaluated prior to them being hand picked for this project. Some of the key attributes we sought when building our team was experience working around operating facilities, vast knowledge in large earthwork and dewatering efforts, ability to meet the challenges phasing presents, and communication skills to help coordinate the work among the various stakeholders and neighborhood groups.

Table A.1 presents the key personnel we will be using to complete the project, and the amount of time they will be dedicated to the project.

Table A.1

Key Personnel	Role	% Dedicated to Project	Scope of Work
Tyler Kautz	Project Manager	100%	Startup through closeout, all scopes of work
Scott Ivany	Labor Relations Lead	10%	Implementation & Administration of PLA / Project Labor Relations for all scopes of work, startup through construction
Jeff Luedecker	General Superintendent	100%	Startup through construction, all scopes of work
Jason McLaughlin	Project Engineer	100%	Startup through construction, all scopes of work
Mike Fallon	Project Safety Officer	20%	Safety compliance and oversight for all scopes of work, startup through construction
Kelly Alger	Reinforced Concrete Lead	100%	All phases of concrete work
Troy Berry	Mechanical/HVAC Project Lead	100%	All phases of Mechanical/HVAC/Commissioning
Collin Tuthill	Electrical Project Lead	100%	All phases of Electrical
Bill Feeney	Site Civil/Earthwork Project Lead	100%	All phases of Earthwork and Civil
John Barringer	Plumbing Lead	100%	All phases of Plumbing

* Please refer to original proposal, dated 10/18/2013, for additional information related to this section.

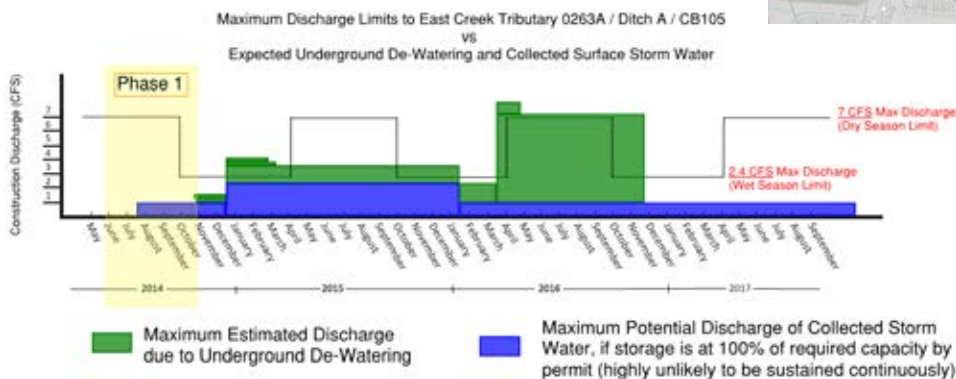
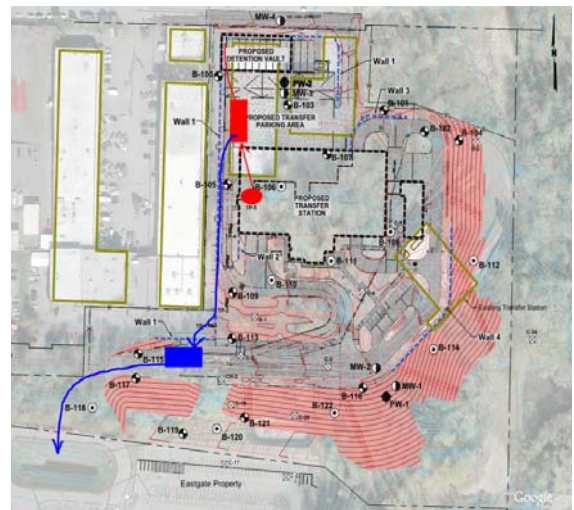
C - Environmental Protection and Mitigation

C.2.a - To minimize environmental impacts, PCL's environmental protection and mitigation approach will address the following:

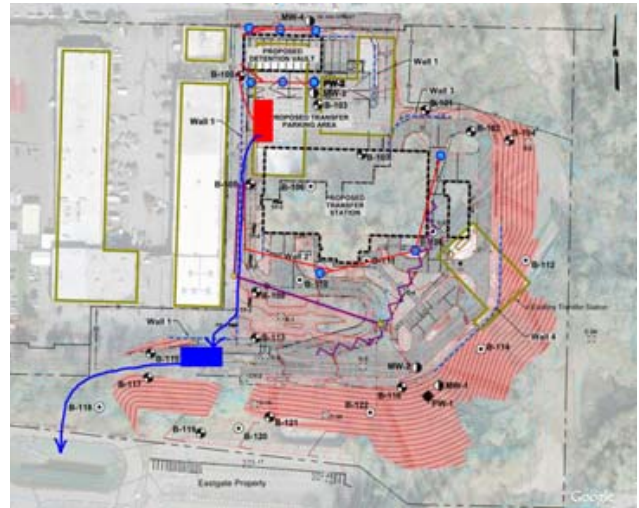
C.2.a.i - Surface Water Management

In order to control surface water flow from exiting the project site, all water discharge will be monitored and controlled with the following measures, not limited to:

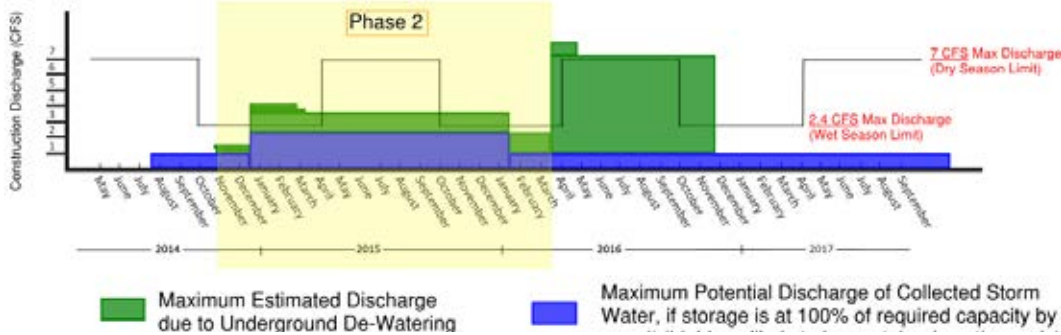
- Cover open areas with plastic during off hours in wet season.
- During all phases, clearing and grubbing will be cleared only as needed. We plan to keep vegetation in place, where allowed, to help reduce storm run-off management.
- We have reviewed the erosion control plans for each phase in the drawings and plan to implement the same measures into our SWPPP including, but not limited to, approximate locations of sediment ponds, discharge locations, outfall stabilization, and monitoring of BMP's by PCL's Construction Erosion and Sediment Control Lead (CESCL).
- Until the permanent storm detention vault is completed and ready to accept water, we will install temporary sediment ponds onsite for surface water storage and conveyance. The capacity of these ponds will comply with the NPDES 402 Construction General Storm Water Permit requirements which are based on actively disturbed total area of project site. Wwater will be routed to the ponds via ditch or by pumping. We have reviewed the erosion control plans for each phase in the drawings and plan to implement the same measures into our SWPPP.
 - Phase 1 - we plan to install a 75'x25' temporary sediment pond on the south side of the east existing warehouse building, and 90'x25' temporary sediment pond south of S.E. 32nd street near the existing weigh station. Both ponds will be connected by piping and pumps so that the total capacity is shared, should it be needed. Once the water has been tested and determined acceptable, it will be discharged to existing Ditch A. Testing will be done for pH level and turbidity. If levels are not within the acceptable range, they will be treated and retested until they are at acceptable discharge levels. Water discharged from the sediment ponds will be pumped from the top surface using floating suction hoses to ensure that sedimentation that has settled to the bottom is not sucked up and discharged.
 - » Means for additional storm water storage capacity and conveyance
 - » Automatic pump for rain event capacity
 - » Installed before 1st wet season
 - » Surface storm runoff (~ CFS)



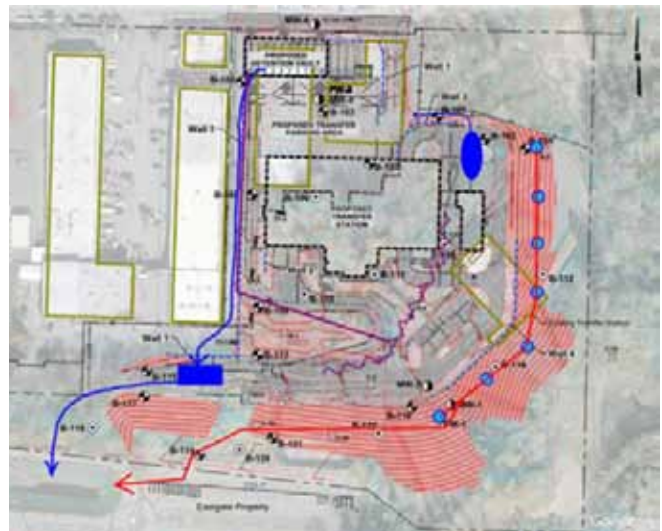
- Phase 2 - we plan to utilize the permanent storm detention vault as a sedimentation tank through the remainder of the Project. Once it is built, we will remove the adjacent sediment pond. From the Detention Vault, storm water will be preferentially discharged to existing CB105. This will occur whenever dewatering flows are combined to equal less than the seasonal discharge limits. If the total discharge will exceed Ditch A seasonal capacities, water will be pumped to the West Sediment Pond in the Eastgate parking lot. From this location, water will be conveyed to Sunset Creek. While the exact discharge limits of this creek need to be determined by the City of Bellevue (COB); past experience with COB indicates this will not be an issue. The combination of the Storm Water Vault capacity and the water conveyance infrastructure established during phase 1 to Sunset Creek will accommodate the flexibility needed to manage Storm Water storage and discharge over the course of the entire project, regardless of Ditch A seasonal discharge limits and project dewatering conditions.
 - » Detention vault wells (0.267 CFS)
 - » Lower station wells (0.267 CFS)
 - » Vacuum well system for temp shoring (1.4 CFS)
 - » Surface storm (2.3 CFS)



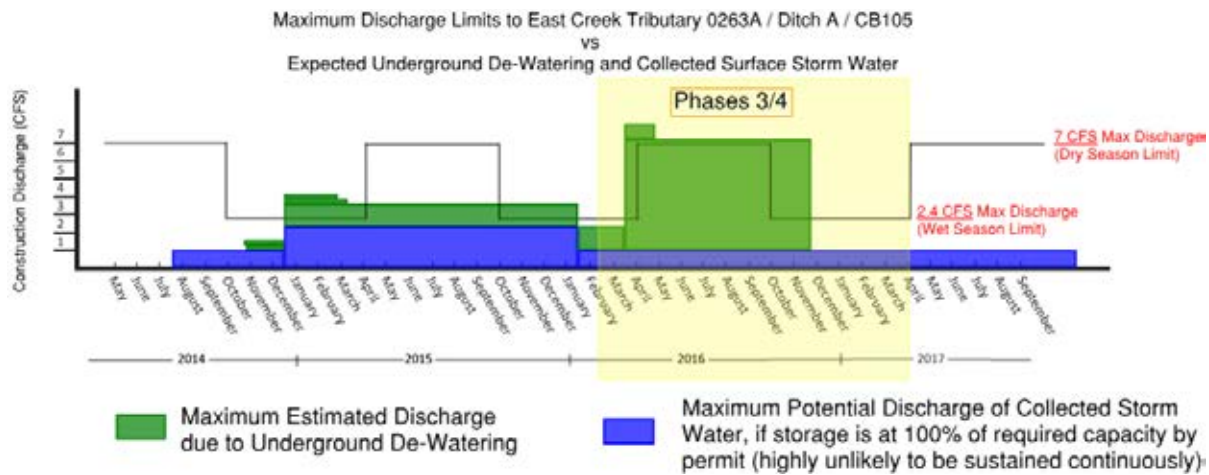
Maximum Discharge Limits to East Creek Tributary 0263A / Ditch A / CB105
VS
Expected Underground De-Watering and Collected Surface Storm Water



- Phase 3 - we plan to install a 75'x20' temporary sedimentation pond east of the new transfer station building. Water will be discharged to the storm system which leads to Storm Detention Vault, and eventually existing CB105. The pond will allow settling of sedimentation before entering the Detention Vault. This approach assumes wall 4 dewatering is primarily conveyed to Sunset Creek. This is because the combination of dewatering and storm discharge volumes would otherwise exceed Ditch A seasonal capacities.



- » Vacuum Well System for Temp Shoring Wall (1.4 CFS)
- » Wall 4 Wells (6.2 CFS)
- » Surface storm (1 CFS)



- Phase 4 – we plan to pump ground and runoff water through the phase 3 sediment pond initially, and as the work in this phase progresses, use of the permanent system will transition into replacing construction water management methods. Because this transition will occur during the dry season, storm water management during this phase is expected to be reduced. Water will be conveyed to the new storm drain system which leads to the storm detention vault and eventually existing CB105.
- If required due to high levels of surface water flow, we will supplement sediment ponds with Baker Tanks as needed.
- We plan to thoroughly investigate the available capacity of the Eastgate Property Storm Detention Pond. The permanent vault construction is planned to take place during the winter months, however we believe the Eastgate Property Storm Detention Pond should have enough capacity, when combined with the additional sediment ponds on site, to accommodate portions of the site and existing water that flows to this pond.
- Stored water will be tested to confirm NTUs are at acceptable levels prior to discharging into the storm system.
- Discharge points will be locations specified in the contract documents. We anticipate our primary discharge point during phase 1 and 2 to be catch basin CB105 at the end of Ditch A. Alternate locations will be utilized as identified and coordinated with the Project Representative on an as-needed basis.
- O’Neil Environmental will perform turbidity monitoring monthly during the dry season, weekly inspections during the wet season, and daily inspections after precipitation events.
- It is not known at this time is a storm runoff filter system is necessary for this project.

D - Staging

Staging and site logistics have an impact on the success of any project. PCL has developed a preliminary phased staging plan for materials and equipment, taking into consideration changing site conditions as we move through the project. All staged materials will be organized for efficient use and accessibility as needed. Throughout this plan, PCL has taken into consideration how we coordinate our work with on-going King County operations. The following **five (5)** drawings illustrate our preliminary phased plan to manage this portion of the project.

Eastgate Parking Lot (September 2014 – May 2017)

The Eastgate Property will be utilized throughout Phases 1-4 for site offices, construction parking and staging. Site offices and parking for King County Representatives, PCL and Subcontractors will be located along south side of parking lot with the balance of the area designated for work zones, equipment access and staging for work associated with this area or for pre-staging prior to installation. Personnel access from this area to the site will be down the job built stair to SE 32nd and then crossing at a designated point to access the site for Phases 1 & 2. If material is staged in this area and is needed for Phase 1 or 2, it will be trucked out of Eastgate Property and then brought in our Phase 1 & 2 main access at SE 30th St.



||||| Pedestrian Access to Site

■ Connex Storage

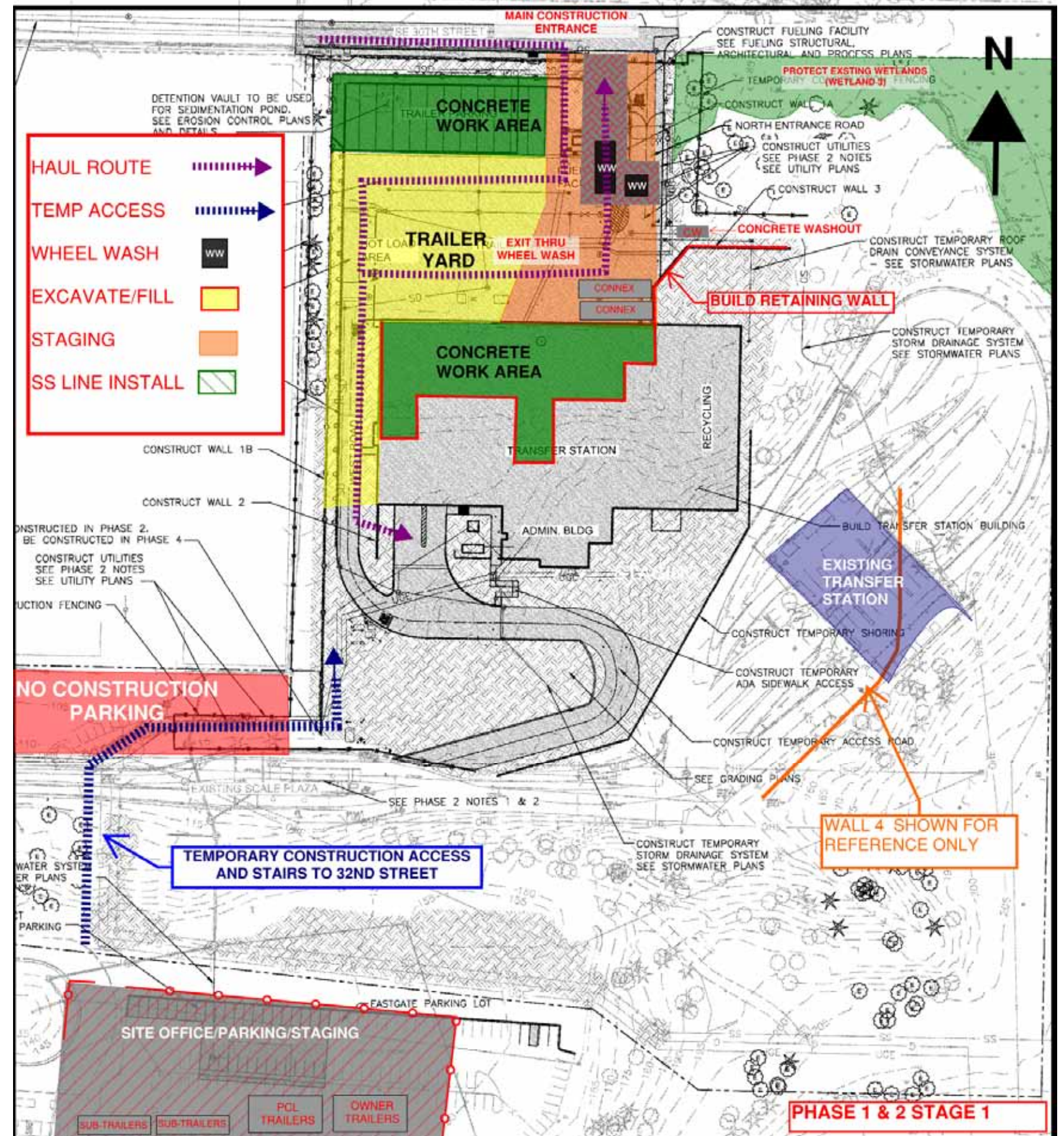
■ Temp Facilities

Phases 1 and 2 - Stage 1 (September 2014 - February 2015)

The main site access will be near the far NE corner of site off SE 30th St where all traffic will enter, loop around and exit thru truck wash in the NE corner. Concrete associated activities and staging will be limited to approximately the east 1/3 of the Trailer Yard while the balance being reserved for earthwork and preloading activities.

Impact to Ongoing Facility Operations

Phase 1 and 2 - Stage 1 has been designed to segregate construction activities (with the exception of construction personnel walking across 32nd Street) from the ongoing facility operations to ensure the impacts to existing King County operations are minimized.



Phases 1 and 2 - Stage 2 (February 2015 - March 2015)

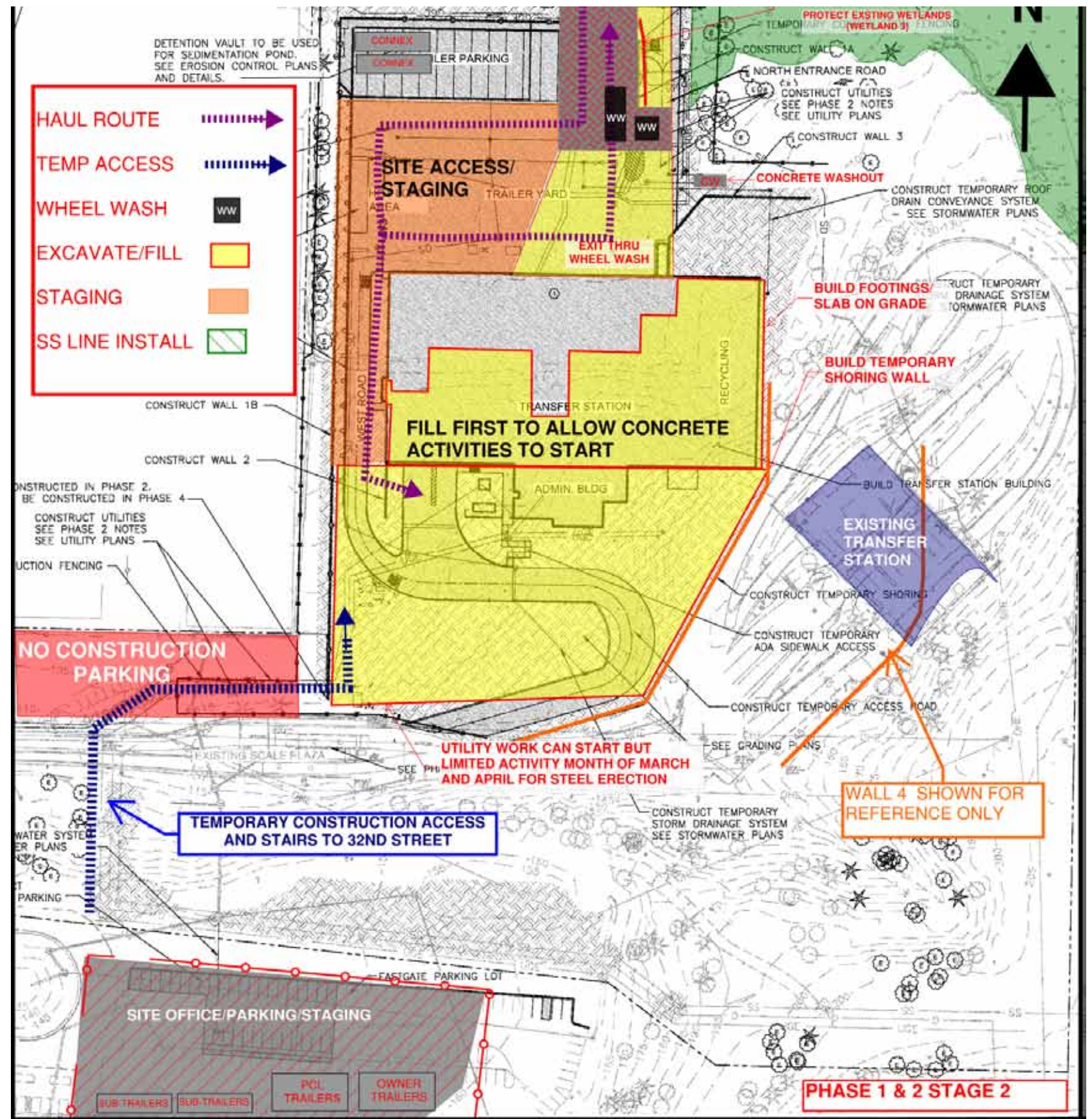
In Phase 1 & 2 Stage 2 the Eastgate Property will be utilized for site offices, construction parking and staging.

The primary change in this stage is we have shifted the site access slightly to the West to allow for construction of North/South portion of wall 1A and the associated fill activities on East 1/3 of Trailer Yard but primary access still remains from SE 30th St. Staging, equipment and construction activities will be concentrated to the west portion of Trailer Yard but will filter up to South end of Transfer Building as fill is placed. It is in this stage we will build temp access from SE 32nd to utilize in next phased staging plan.

Impact to Ongoing Facility Operations

Coordination items with on-going operations during this stage:

- Installation of temporary shoring wall along north side of existing facility - work will be performed during off hours to limit impacts. Construction equipment will be moved out of way during Transfer Station operating hours.
- Tie-in of temporary south entrance road to existing facility road - work will be performed with traffic control measures or performed during off hours.
- Utility crossings at SE 32nd to New Transfer Building - work will be performed with traffic control measures or performed during off hours.



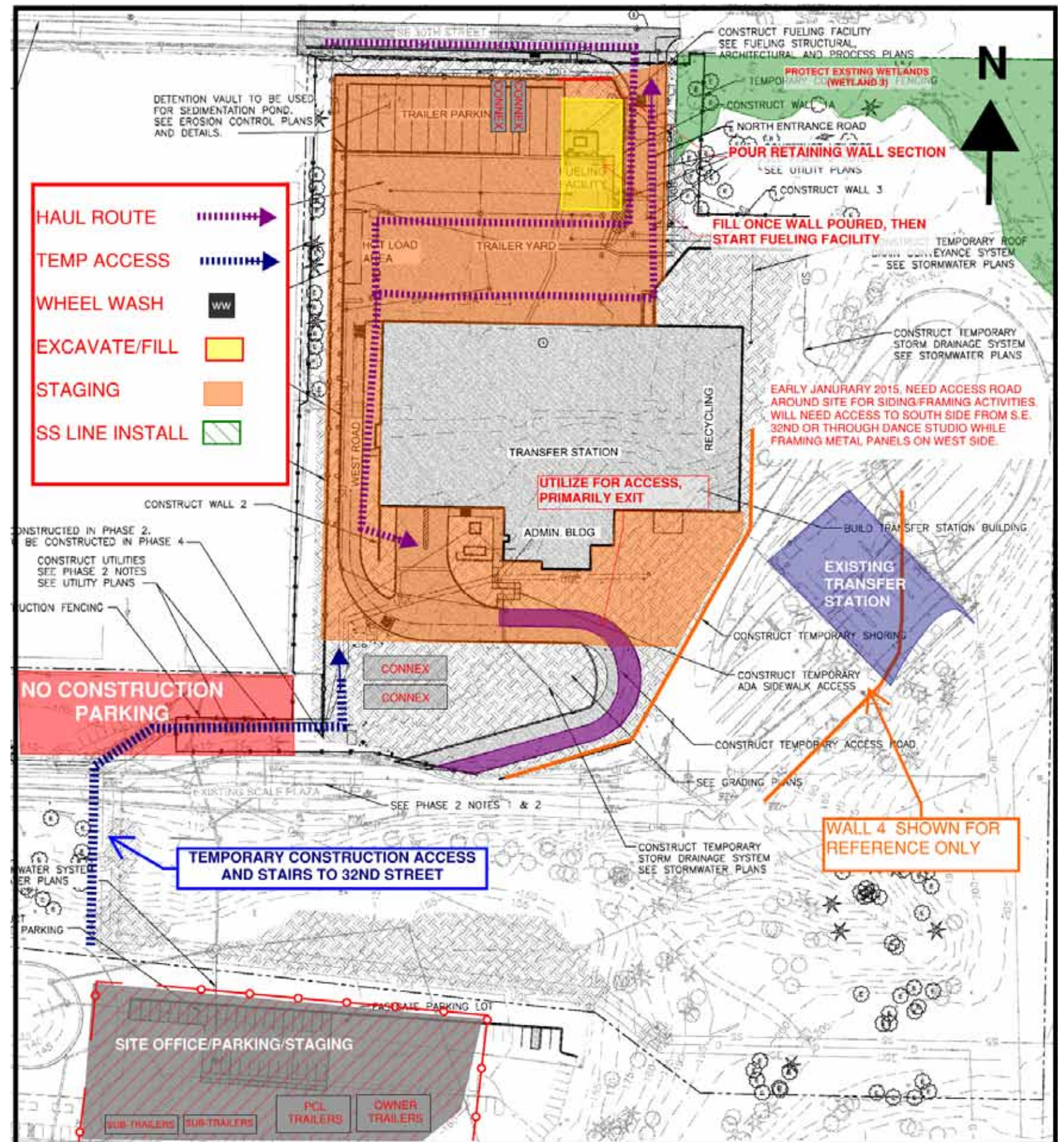
Phases 1 and 2 - Stage 3 (March 2015 - February 2016)

This phased stage occurs once the Trailer Yard and South Entrance areas are filled and can be utilized for all construction activities, staging and equipment. Once structural steel is erected, preload is complete and utilities are installed, we will form and pour east/west portion of wall 1A where we can then fill this area to start Fuel Fill Facility. We will shift our construction access at this point to the North Entrance Road which will remain for the balance of Phase 2. This will likely require a relocation of our truck wash.

Impact to Ongoing Facility Operations

Coordination items with on-going operations during this stage:

- It is our intention to utilize the new West Road to access the South Entrance into the Ground Level of the facility, but we are anticipating the need to bring in material from 32nd. This may occur when we are installing concrete paving in Trailer Yard and West Access Road. We will coordinate with KC well in advance of utilizing this road to ensure safe integration with KC operations. PCL will minimize the impact by scheduling deliveries during Transfer Station off hours. PCL will implement approved traffic control measures to manage construction and facility integration during facility operating hours,
- Utility crossings at SE 32nd to New Transfer Building - work will be performed with traffic control measures or performed off hours.



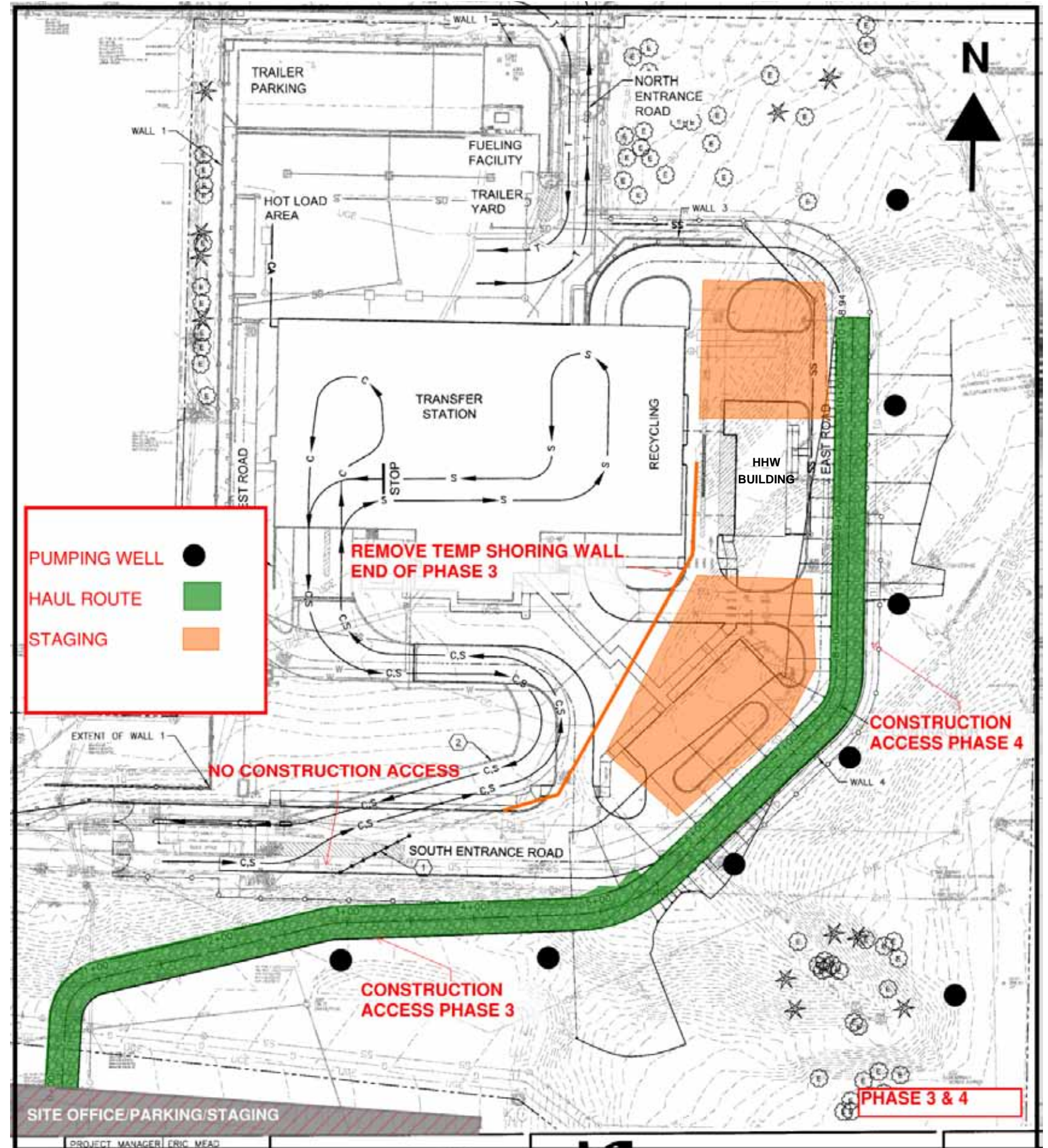
Phases 3 and 4 (April 2016 - May 2017)

During construction Phases 3 & 4 we will access our work area using our temporary road constructed during the Transition Period/Start of Phase 3 for the duration of both Phases. Onsite staging and equipment will be restricted primarily to the east side of the HHW Building. All other staging would be local to the work area or being hauled from the Eastgate Property.

Impact to Ongoing Facility Operations

Coordination items with on-going operations during this stage:

- A minimal number of oversize loads may require the utilization of the facility exit road. The use will be scheduled in advance with KC to minimize the impacts to on-going operation. We anticipate these deliveries will be during off hours.
- In this phase we are closely integrating with ongoing KC operations. We will have traffic control measures and signage in place to direct all traffic and will monitor the need for flaggers. Observation and communication will drive the success of this coordination effort.
- Because our work zone is around the east third of the new facility, we will be installing barricades and signage inside New Transfer Building to prevent any self haulers from accidentally trying to exit into our work zone to the east.
- On occasion, we will need to set up just to the inside of the east, northeast and southeast entrances to perform canopy and sitework activities. We will delineate off our area making it clear that access is restricted to construction personnel only.



E - Approach to Quality Assurance & Quality Control

E.2.a - Approach to QA/QC for the Contractor, Subcontractors, and Suppliers

During Construction on the Project, PCL will implement Quality Management for ourselves as the **Contractor**, and will require **Subcontractors** and **Suppliers** to follow the same program. This Quality Management program for the Factoria Recycling and Transfer Station will not be limited to just QA/QC, but will include a four stage process consisting of the following elements: Quality Planning, Quality Control, Quality Assurance, and Quality Improvement.

Quality Planning will commence upon project award with the development of the detailed project-specific Quality Control Plan (QCP). The QCP will include the means by which PCL will manage Testing and Inspections through the use of BIM 360 for use of all team members; including King County, PCL, the design team, Inspectors, Subcontractors, and Suppliers. The QCP will incorporate the Project Specific QCP's of our Subcontractors and Suppliers. Beyond development of the QCP, work methods will be planned to deliver the highest quality final product. Planning and work methods will be scope specific and will address the influence that site logistics, installation locations, or weather has on work quality. Subcontractors will be required to submit their scope specific quality control plans to PCL so that the overall project QC plan integrates the measures that will be taken by each trade. Each scope will have different primary factors affecting quality; however, using Structural Steel as an example, below is a summary that will illustrate one tool that we will use to ensure successful quality planning.

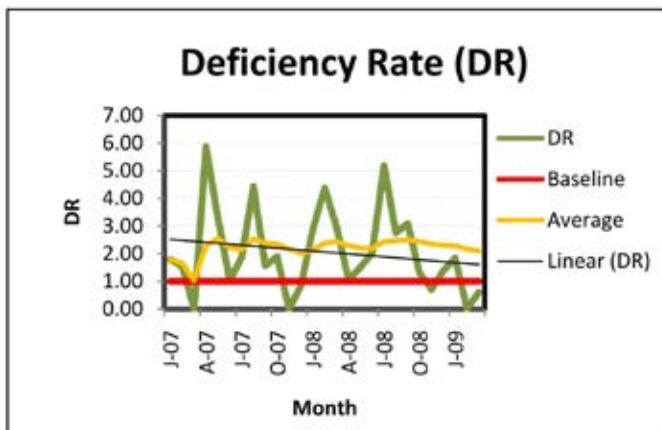
Structural Steel fabrication will be coordinated through the virtual construction model. The 3-D steel fabrication model will be overlaid into the project model that includes other building systems, and run through a clash detection process to identify conflicts. Clash detection software will identify conflict areas, and PCL will work with the steel fabricator and other trades impacted by the clash to determine which scope of work will be best to adjust for clash resolution.

All of this will occur in the planning phase to help prevent timely and costly issues from arising in the field. After all conflicts are resolved, PCL will release them for fabrication.

Quality Control during Construction will be managed using an Inspection and Test Plan (ITP), which will be implemented and tracked using BIM 360 software. PCL will integrate Subcontractors and Suppliers information from the development of their QCP's into the ITP which will include: scope of the inspection or testing activity; stage or frequency of the inspection or testing activity; party responsible for carrying out the inspection or testing activity; hold point, witness point and surveillance point requirements; acceptance criteria; inspection or testing procedure; and the record of acceptance. Subcontractor performance of in-place work will be closely monitored and reported using BIM 360 on iPad tablets. This process creates lists and email notifications in real time of quality items that need correction. Notes and pictures are attached to current drawings and pushed to a shared cloud server for all members of the project team to view, as items are identified. BIM 360 reduces time between quality deficiency identification and correction.



This data is then used to create trends which will help our project management address the needs of the project and employ quality assurance techniques. Quality deficiency ratings will be reviewed at subtrade meetings and also with Senior Management for the various trades. The ratings will include quantity of issues, severity of issues, and times for acceptable resolution.



The Factoria Recycling and Transfer Station team has also been involved throughout this proposal phase with PCL's Corporate Manager of QA/QC, Terry Brickman. Terry will be involved with the Project Team throughout the project from the specific development of the plan through the final project turnover as needed, and will also be involved with our monthly internal QA/QC audits. Terry is available if necessary for the Proposer presentations and clarification meetings should King County so desire.

Quality Assurance practices will be described in the QCP and will include a variety of nonconformance prevention techniques, quality incident tracking, aggressive deficiency tracking tools, construction monitoring reports, mock-ups, and a scoring system for subcontractors and suppliers on their number of quality incidents or deficiencies and ability to close out deficiencies in a timely manner. Additionally, subcontractor quality scoring will be reviewed with each subcontractor/supplier on a monthly basis during pay request reviews. Using deficiency scoring as a payment analysis tool is a proven technique for managing subcontractor quality management.

As clarified in recent addendum during the BAFO Process, PCL will additionally manage 3rd party quality assurance inspectors for various scopes of work including concrete inspections, steel inspections, etc. An inspections matrix has been established to ensure that all special inspections are captured during the course of the Project.

Quality Improvement practices will be managed by PCL, but will flow down to our Subcontractors and Suppliers. Although we strive for zero quality incidents, we recognize the value of learning from quality incidents that may occur. As such, we utilize lessons learned management tools to identify the cause of incidents to help prevent future occurrences, develop quality trend analysis to highlight areas needing additional focus, and sharing of innovative practices used on other projects that will improve quality. Quality Improvement will be an item reviewed at our weekly subtrade meetings to share with the entire construction team how the project is performing from a quality standpoint and also share specific methods to improve.

Post Construction is viewed by PCL as after we have completed work in place, but before we have turned it over to the Owner. There are four stages to post construction QA/QC; protection of finishes, punchlist, final QA/QC reporting, and warranty. There exists another phase to post construction that is not currently part of the base contract requirements, which is Facility Management. This is a phase we can assist with if King County desires.

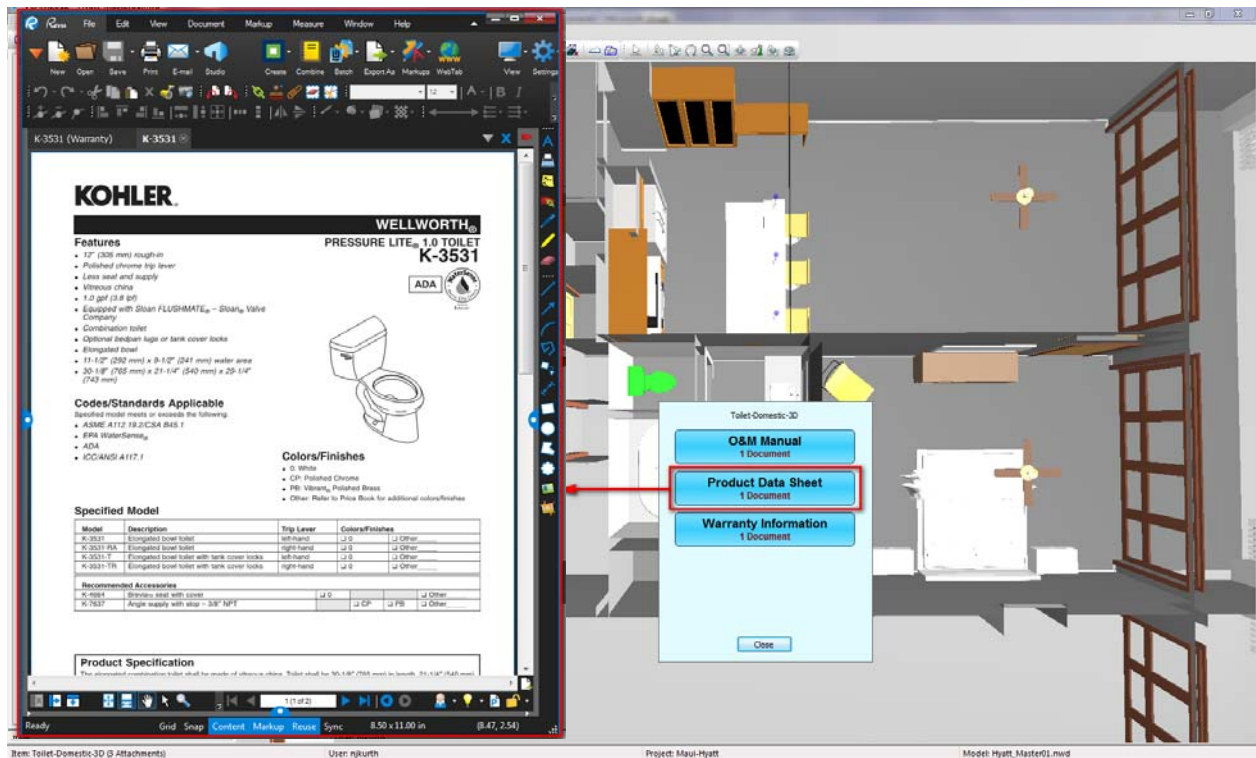
Our construction team will expend great efforts to construct a quality project, and no one benefits from leaving the work in place un-protected until turnover. As such, we require all subcontractors to protect their work in place until turnover to ensure that damage does not occur. Our subcontractors are the scope experts and know the best way to efficiently achieve adequate levels of protection without increasing project costs. With that said, we will assist them by developing protection plans for critical work items that are more susceptible to damage, or may have long leads times should they need replacement due to trade damage.

The second stage to post construction is punchlist, which we break down into three phases. All scopes of work will undergo a three phase punchlist process. The first phase will be for the subcontractor to perform an internal punchlist when they believe their system is available for turnover. Once this is complete, PCL's QA/QC team will perform a punchlist. The final phase is Owner walk thru, and this will not occur until after both the subcontractor and PCL believe the particular area is ready for turnover. Our goal is to have no punchlist items at the time of Owner walkthrough.

Upon turnover, all required QA/QC documents, commissioning reports, as-builts and record documents will be turned over to King County. Accuracy of these documents will be essential for the KC operations staff. As such, all final record documents will undergo a three step review process prior to KC. The three steps will include subcontractor review, PCL engineer review, and PCL's Quality Control Manager Review.

Our team will establish a warranty process for the project that aggressively resolves any issues. Fulfilling the contractual requirements of providing a warranty turnover document that itemizes warranty items, installer names, supplier names, contact information, etc. is only part of the warranty service we will provide. A point of contact from our project team will be designated prior to turnover that will be available to coordinate and handle any warranty issues that may arise. The person will coordinate any warranty issues during the general warranty period for KC, so KC does not have to contact the material suppliers or subcontractors directly. With our offices located only a few miles from the jobsite, we will have personnel available to promptly respond to any critical warranty items that arise. We pride ourselves in turning over projects that exceed Owner expectations, and will take extra steps to ensure warranty issues are as painless as possible.

Setting up facility management plans can be a difficult and time consuming task, but we have developed procedures on previous projects that can significantly decrease the amount of time spent by the facility management group over the life of a building or complex. One way we have been successful in helping clients out is by creating a life cycle model of the project which incorporates warranty, operations and maintenance data, and other valuable information into a 3D project model. If King County desires, we can discuss how we can assist with facility management once the project is awarded.



In summary, we take an approach to QA/QC that is similar to our approach to safety and even use similar tracking tools. Our subcontractors, suppliers, and even management staff are graded on quality performance, which affects their ability to work with PCL on future projects. We have analyzed these quality ratings to develop a team that will exceed quality expectations on the project.

F - Approach to Construction

F.2.b. Construction Means and Methods

Pre-planning of the various scopes is essential to establishing the safest and most efficient means and methods for meeting the needs of the project. For the Factoria RTS, our planning efforts across all scopes of work focused on what we felt were the three biggest specific keys to success for this project; coordination with ongoing operations, environmental responsibility, and neighborhood planning. It goes without saying for PCL though that safety and quality are always at the forefront of our planning efforts, but effective planning that incorporates those three aforementioned items is critical to the success of this project for all stakeholders.

In analyzing the various work elements, we have established the following key scopes of work as having the largest impacts on the success of the project. These activities were identified early on in the proposal development as critical for development of our planning, and we will have continued focus on these activities for the duration of the planning phases.

Structural Steel

Fabricator: To meet the needs of the project, we have selected Precision Iron Works (PIW) as our fabricator. With their SCS certification, fabrication facility located close to the project, and in-house coating facilities, we believe that PIW is the perfect fit for this project. PIW will use their qualified staff of AWS and WABO certified welders for fabrication of all members at their 25,000 SF shop.

PIW employs an in-house quality control manager who is a certified QCI-96 Weld Inspector through the American Welding Society and through ASNT as an "ACCP Level II" Inspector in visual and optical testing. This individual will be included on PCL's Quality Control plan to perform inspections per AISC standards and Precision Iron's internal quality procedures. Additionally, PIW employs a LEED accredited supervisor who will assist our project maximize LEED points for their scope of work. PCL will carry out multiple QA/QC audits of PIW during fabrication to ensure the steel is being fabricated to required standards and quality.

PIW's experience includes the Bellevue Transit Center, Fire Station 17 and SeaTac RAM Structures. PCL and PIW have teamed together on 18 projects including MasterPark, Seattle Public Library Ballard Branch, Murray Morgan Bridge Rehabilitation, and Spokane Street Viaduct. Through these projects, PWI has consistently proven to us that they deliver high quality products on schedule.

Performance Coatings: From our experience at the Houghton Transfer station and other facilities similar in nature, we are well aware of the importance performance coatings have on facility maintenance after construction completion. Keeping this in mind, we have continued to refine our planned approach to performance coatings and believe our finalized approach will provide a high quality coating product while preventing unnecessary costs to King County.

Much like the importance of a strong foundation for a structure, the preparation and priming of performance coatings is key. As a result of concerns we have regarding achievement of adequate coating preparation and compatibility of primers, we plan to have the structural steel, metal decking and joists all shipped to a performance coating specialists bare. The coating facility, Puget Sound Coatings (PSC), will perform surface preparation of the materials to achieve the level of SSPC prep required for the various coating systems, then apply a prime coat that is compatible with the high performance systems we will be utilizing for the mid coat and top coats. We feel that taking these additional steps up front will ensure a solid base for the entire system.

Although we have the option to apply mid and top coats for the performance coating systems at Puget Sound Coatings' facility, we believe this will lead to un-necessary costs to King County under the current project requirements without providing any benefit in quality. Once we are able to work with the design team after project award on a number of constructability and design items, such as pinning of the metal deck in lieu

of puddle welding, application of mid and top coats for the decking and joists at PSC's facility may become feasible and save costs. However, puddle welding of the metal deck under current design requirements will damage coatings and require surface prep to bare metal and all layers of the coating system re-applied in the field. With the frequency of welds required and the need to provide a uniform top coat appearance, virtually the entire roof structure would need to be re-coated if the materials were delivered with top coat. Essentially, application of mid and top coat at Puget Sound Coating's facility will only add unnecessary costs to the project.

We have refined our performance coating approach and developed a plan in which we are able to perform mid and top coatings after erection and still achieve the project requirements for these coating systems. Our site high performance coater has developed a plan for establishing localized controlled environments for coatings application to allow the exterior systems to be installed. Once the exterior system is installed, the entire building will be made into a controlled environment to complete the interior mid and top performance coating applications.

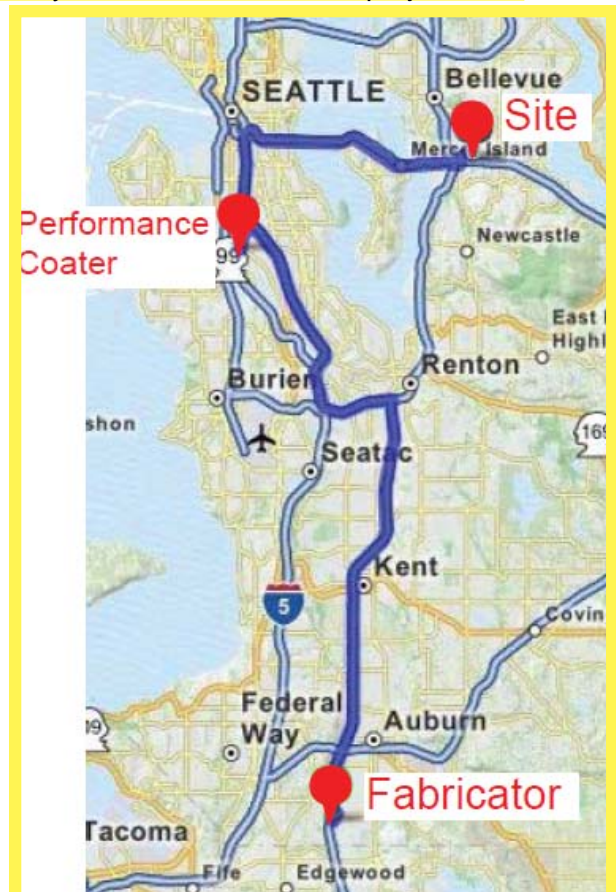
In addition to the QA/QC requirements of the project for performance coatings, PCL intends to employ a 3rd party certified coatings inspector to check the product at key points in the aforementioned process. This inspector will inspect the prep and application of the prime coatings that occur at PSC's facility to ensure that the correct methods, QA/QC procedures, and final product requirements are adhered to. This same inspector would also perform an inspection of the onsite coatings to again ensure that preparation and performance coating requirements are strictly adhered to. Although this additional level of inspection by a 3rd party coatings inspector is not a project requirement, we believe it is a necessary step to ensuring a long lasting coatings system for King County.

Our planning has pulled from our entire teams experience (PCL, PSC, and our site performance coater) to ensure that all the project and manufacturer requirements will be achieved. Specific focus has been spent on surface preparation of the bare materials as well as

achieving the necessary controlled environment relative to humidity and temperature, and we believe that this approach will exceed quality expectations without adding un-necessary costs. This plan will be refined further following project award once we are able to coordinate with the design team on some constructability and design ideas that could further benefit the project for King County.

Similar procedures were recently employed with great success at our Chief Joseph Hatchery project where high performance coatings were applied to both new and retrofitted hydraulic steel structures that reside in submerged and semi-submerged applications.

Transportation and Delivery: As mentioned above, we have selected our steel fabricator partially based on their location in close proximity to the project. Upon completion of fabrication, steel will be stored in their warehouse until being delivered to Puget Sound Coatings (PSC) according to the coating schedule. Like our fabricator, PIW, one of the benefits of PSC, aside from their strong reputation and adherence to quality, is their location to the project site.



Following application of the prime coating by PSC, primed steel will be loaded carefully on to the trucks using nylon rigging with wood dunnage and carpet protectors (or equivalent), as required to prevent damage during transportation. The steel will either be stored at PSC's facility or loaded onto trailers and stored at the trucking company's yard until delivery to the jobsite. This allows just-in-time (JIT) delivery for our structural steel, and offers our QA/QC team easy accessibility to perform initial QA/QC checks of the materials at the fabricators shop prior to the materials arriving onsite. A JIT approach when possible will minimize onsite storage where fabricated material would be more likely of getting damaged prior to erection.

For additional information on haul routes and transportation impacts on the neighbor, please reference the additional information in section F.2.J.

Erection: Structural steel will be installed by The Erection Company (TEC) – a company that has a long and successful project history with PCL. In development of our preliminary erection plans, TEC and PCL have established methods that first focus on safety, followed by quality and minimizing damaged during installation.

Our current erection sequence starts on the north elevation installing members, guying, and bracing as required. We will next move to the south elevation installing members, guying, and bracing as required. Erection bolts will be used in all main members, joist trusses and diagonal bracing (erection aids will be removed as required by design criteria). The joist trusses will shipped to the site in 3 pieces with bolted splice connections; these will be preassembled on dunnage to protect the coating prior to being hoisted into final position. TEC will sequence the deliveries to arrive just prior to installation. This will reduce the need to sort pieces on site, which creates a potential source of damaging finished coatings. The steel will be erected with a mobile crane by sequence, bolted, plumbed and then welding and detail work takes place. The sequencing of the work will continue by area.

TEC has completed recent aircraft hangers at Seattle Boeing field of similar size and type of structure in the last two years with similar joist

trusses (one which had a 230' span). Additionally PCL and TEC have completed a total of 11 projects together for a total of \$575M.

Utility Installation along SE 30th Street

SE 30th is an operational street which must remain open. The street has semi deep sewer installation, extensive dewatering, export and import material, and a utility tie-in which will need to be executed with minimal shut downs to existing service. This scope will be accomplished by the following means.

- Identify any discrepancies between the design and existing features by laying out existing utilities and comparing with the design sewer pipe and man holes.
- Traffic control plan reflecting hours and durations which match local routes. Traffic control for one lane closure in isolated areas of work versus constricting SE 30th St to one lane the length of the sewer line.
- Pre-Job Meetings with all stake holders well before work in the road begins.
- Establish dewatering wells with headers on the favorable side of trench. Temporary transformer power will be established in lieu of generators to reduce noise and environmental concerns. The wells will be developed individually and assurance for the NTU's will be achieved prior to discharging from site in accordance with the project SWPP. Anticipated draw down is 2-3 weeks prior installation. See below section F.2.f for additional information on dewatering associated with this work.
- Once draw-down is complete and the traffic configuration is in place, PCL will begin to install the 12" DI line switching from the 8' PVC as shown. The duration is depending on the traffic flow and existing ground conditions encountered. Start at the low end and install MH's one by one as laid out in sheet 01C316 while maintaining the existing sewer.
- If we encounter the existing sewer and it needs to be severed due to the required layout – we will lay test, get buy-off, and tie side sewers in as we work from East to West. In extreme situations we will do bypass pumping for the existing sewer which will be designated with King Co and the COB. It is the preferred method to lay the entire run and have the COB buy off, do a tie in while still maintaining the existing line, and hook the side sewers in one

by one, this method is the standard route. At this time it is more than likely that all material will be exported and re imported per COB.

- Work hours will depend on noise and traffic constraints, PCL will maintain one lane of traffic in each direction during the dewater and sewer install, and during off hours we will open the road to local traffic.
- After 100% tie-in, decommission the dewatering wells and other apparatus.
- Restoration of the roadway according to the updated BAFO documents. This will include complete removal of asphalt and base material, installation of new curbs, and application of new base material and asphalt across the entire roadway.

While the above plan outlines procedures for ductile pipe installation according to current contract requirements, PCL will work with the project team and the City of Bellevue on the potential for substituting ductile iron pipe with HDPE. This would allow the use of trenchless pipe installation (pipe bursting), greatly reduce dewatering needs, and also greatly reduce the impacts to the rest of the neighborhood users.

PCL has extensive experience installing major utilities in metropolitan areas including SR 520 HOV and Transit Improvements, C755 Central Link Light Rail, and numerous other projects.

Building Concrete

PCL will self perform structural concrete. PCL has a long history of self-performing structural concrete on a wide variety of projects ranging in value from several hundred thousand dollars to over \$200M.

- Spread footings and pad footings will be performed using hand-set formwork.
- Walls will be built utilizing gang formwork and a small RT mobile crane.
- Ground Level elevated deck portion will be formed with an engineered shoring system.
- Pre-pour checklists covering every scope involved with the pour will be require for all trades to sign off.
- Pad and spread footings will be tailgated where accessible, and pumped where not.
- Walls, slabs, and decks will be placed using a concrete pump.

PCL's experience self performing concrete includes: Lower Baker Unit 4 Powerhouse project - forming and placement of 7000 cubic yards of mild reinforced structural concrete; the Spokane Street Viaduct Project which included 26,000 cubic yards of concrete; and The Bravern Signature Residences which included 32,000 cubic yards of concrete with 1,146,331 sf of formwork.

F.2.e - Building Information Modeling

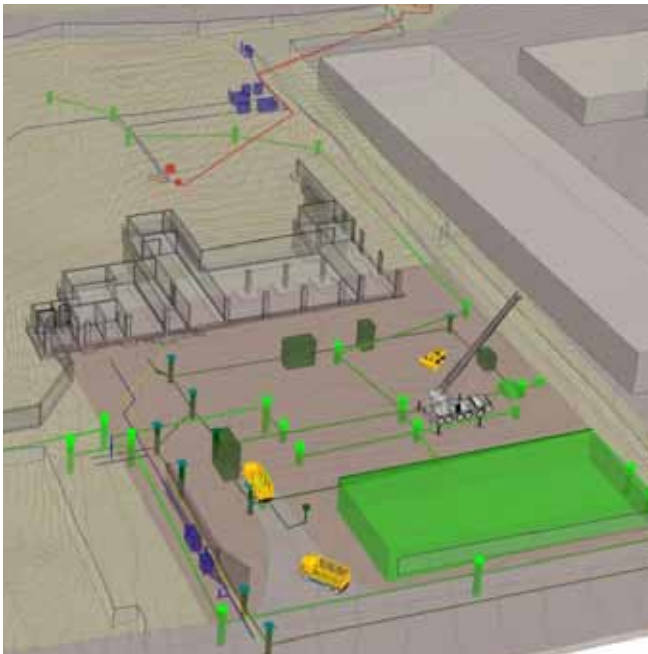
At PCL, we believe BIM to be only one aspect of a broader system of construction tools called Virtual Construction (VC). The use of VC for the Factoria RTS will help by increasing the quality, identifying conflicts/issues early to reduce or eliminate cost impacts, and reducing the risk to the CPM Schedule. Through the use of various virtual design and scheduling programs, our project team will effectively "build the project twice"; once virtually and the second time actually. Conflicts and issues are avoided through the insight provided by VC, and innovative ways to save time and money without sacrificing quality are discovered.

Some of the VC tools we will utilize for this project include:

- Project Document Control (PDC) for project communications, RFIs, submittals, etc. Reference section F.2.h and F.2.i for additional information on this proprietary web based program which we use on nearly all our project, including recent projects with both HDR and King County.
- 3D modeling using Revit
- 3D clash detection using NavisWorks
- 4D scheduling (using Synchro to synchronize the 3D Revit model with the P6 project schedule)
- BIM 360 for QA/QC
- Bluebeam
- Electronic tablets (Ipad) for engineers and select field staff for use in the field. This allows for instant access to all electronic files, plans, inputting QC inspections, etc. from any location onsite where the work is occurring.

Our VC program has a motto that with VC, you are "starting with the end in mind." VC is an

integral part of the PCL's planning process, and as such, we have created a 3D Revit model of the facility for analysis during this Proposal phase. This preliminary model contains the structure, site grading, and phasing. Through the submittal process, shop drawings from our subcontractors will be loaded into the model. We can then virtually inspect and coordinate clash detection as needed between the structure and systems (Underground Utilities, HVAC, Plumbing, Electrical etc.) and between systems. Resolution of potential conflicts before construction begins has many benefits to the project.



After completion of the project 3D model and baseline schedule, Revit and P6 will be synchronized using a program called Syncro to create a 4D schedule. We have found that this is an extremely important tool in helping to identify sequencing issues, identify possible areas to accelerate work, and communicating with the entire team. This 4D schedule will be a huge assist in communicating the upcoming work with King County's ongoing facility operations.



As the project develops, PCL will further utilize VC to communicate with field staff, allowing them the ability to apply VC tools to maximize field production, quality, safety, and minimize field conflicts. All supervisory staff will have tablets so that all drawings, specifications and product data, can be accessed from anywhere on the project without the need to return to the jobsite offices. As-built drawings will be kept up to date electronically using Bluebeam, which will prevent rework due to building off information that isn't current.



BIM 360 will be utilized to streamline the QA/QC process, provide real time notifications to the necessary parties of deficiencies, and track quality issues. We will have a tablet available in the jobsite office trailers for use by King County and the design team. This project tablet that will have access to not only the updated project documents, but also BIM 360 so that the Owner can upload/log any items of concern during jobsite walks and send out email notifications from the field immediately, saving both time in processing the issue and resolving the issue.

Currently not part of the contract requirements, we believe that the Owner's end user operations team could benefit from the use of a life cycle model and facility management planning that we can offer. If desired by the Owner, we have the capabilities to incorporate operations and maintenance data, warranty data, etc. directly into a 3D as-built model. This keeps all the relevant operations information in a single 3D model, would help the facilities maintenance team trouble shoot issues that may arise, and also save time for the end user. Keeping the end in mind, we would need to have discussions early on in the project with the Owner's group to determine if this brings enough value to the end user to be added to the contract.

PCL successfully used BIM and 4D scheduling on the 30-month phased construction of the Amtrak Maintenance Facility.

F.2.f - Dewatering Excavations and Handling Groundwater

PCL has been in regular contact with Bender Consulting LLC to conduct an independent evaluation of the site and evaluate the report provided by King County. Scott Bender will be contracted as our independent hydrologist. Our current plan is to install dewatering wells in the phasing sequence described in schedule 'A' within the dewatering specifications as required; however, independent evaluation by Bender may lead to suggested modifications to the plan. A summary of dewatering and groundwater control efforts are as follows:

Groundwater control at the site is required to:

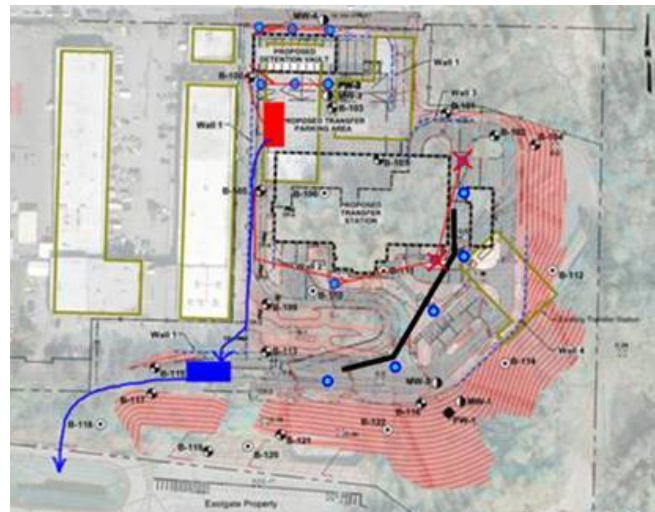
- depressurize aquifers
- lower the groundwater levels to provide a dry and stable excavation
- lower groundwater pressures to facilitate anchor installation
- lower uplift pressures on the base of the excavations

Site Dewatering

The report from Shannon & Wilson shows that the PW-1 and PW-2 wells consist of soils that are well suited for large diameter well dewatering. The PW-1 test stressed pre-Vashon-aged sands that underlie the majority of the site and that dewatering will have site-wide influences. The test results indicate that the aquifer may be truncated, so discharge rates may decline significantly with time. The results from the PW-2 test indicate that the detention vault is likely located in a different aquifer. Though that aquifer may be connected to the regional aquifer below the site, the yields and area of influence from a dewatering system installed in this area will be lower. We will independently analyze the data from both tests for design of the site dewatering systems for construction.

In general, we believe that the Schedule A dewatering system will be sufficient for dewatering all on-site facilities; however, during our continued study of the site and project we have developed a plan that we believe would offer additional benefits to the project. We have continued to refine our dewatering strategy through the proposal process and believe there are particular improvements to

be made to the temporary shoring wall dewatering plan. Although we have included pricing for a completely functional vacuum system per King County requirements, PCL and Bender Consulting believe that this system may approach its limitations to adequately dewater the site. We believe a better option would be to install large diameter deep wells behind the Temporary Wall. The details include placing 5 wells, 60-70 feet deep, at approximately a 50 foot spacing, 5-7 feet from the wall; and they would be expected to produce 200-400gpm. Additionally, these wells would replace the need for two of the station wells originally called for. This would be a net increase of only 3 large diameter deep wells. This approach would be a much more robust system that would better dewater the site and eliminate the need for the vacuum well system at the temporary shoring wall. This is shown in the figure below.



There are coordination issues to consider with the locations of the wells as they will be located near the existing transfer station. To ensure ongoing operations are never effected: the wells would be installed at night, and where necessary, the wells will be covered with road plates and discharge piping trenched and covered with road plates as well.

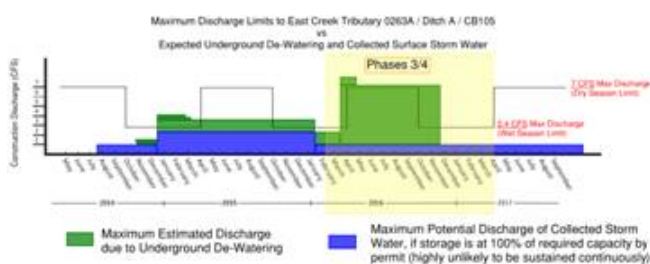
PCL is fully aware that this proposition as an alternate system is not able to be acted on at this stage of the contracting process, however it should demonstrate our continued and ongoing focus to arriving at the best plan for the entire project.

When considering ground water pumping

discharge, sediment is not expected to be an issue after well development. Therefore, ground water can be direct discharged assuming we do not exceed discharge limits. When reviewing discharge limits, ground water needs to be reviewed in conjunction with surface water management and associated discharges. We have performed a detailed analysis of discharge locations considering the allowable limits of wet vs. dry season, project conditions, expected ground water conditions etc. Refer to section C.2.a.i for additional information on water discharge as it relates to both ground and surface water.

During phase 1 and 2 of the project, dewatering discharge will be important to manage as well. The discharge limits for East Creek Tributary 0263A is either 2.4 or 7 CFS, depending on season. As discussed in Section C of this proposal, discharge points are limited to the East Creek (Ditch A) or Sunset creek. From the beginning of phase 1 we will have piping and pumps established to move water as needed up to the Eastgate Parking lot settlement pond to be then discharged into Sunset Creek. During phases 1 and 2, this option will only be likely during the wet seasons.

However, during phase 4 we will likely be discharging water at a rate that will exceed the limitations of the preferred East Creek even during the dry season. This is in combination with potential surface water discharging levels. Due to the scheduled duration of phase 4 dewatering spanning multiple wet seasons, discharge will be directed toward Sunset Creek the entire time. This is shown in the water management graph below.



The wall four wells will effectively dewater the entire site once installed. It is worth mentioning that these wells could potentially replace the needs of any Temporary Shoring Wall dewatering all together. As mentioned previously, our

schedule currently shows the work for Wall 4 can be scheduled for the primarily dry season and that the aquifer boundary conditions are such that discharge rates will significantly decline with time, it is possible that all work can be done within the existing tributary discharge limitations. However, we prefer not to rely on this and will work with the City of Bellevue to increase the site discharge capacity which will also create dewatering and scheduling opportunities for the project.

NE 30th Street Dewatering

NE 30th Street Construction will involve a dewatering system designed with 1450 lf of well points at maximum 8ft on center. This will be installed previous to the sewer installation to achieve maximum draw down prior to trench excavation. Groundwater draw down for NE 30th will be 6 - 10 feet. With low discharge flow rates due to soil permeability. The point system should be less than 100 gpm which should not be a cause of high water and flooding to nearby creek. The system will discharge into adjacent East Creek Tributary 0263 or with approval from City of Bellevue Sunset Creek.

Due to high water table concerns and possible flooding of businesses, we will have alternate discharge locations available such as the detention vault, the sewer system pending permits or the onsite detention ponds with capability of pumping to Eastgate Parking Lot. It will be our ultimate goal not to disturb or create any existing conditions in nearby properties. If conditions are extreme for discharging well points, temporary dewatering can be suspended dependent on existing conditions of open trench until adjacent properties and creeks are stabilized along with discharge being re-routed to different locations.

Our onsite Construction Erosion and Sediment Control Leads (CESCL), Jason McLaughlin and Daniel Roberts, will be performing routine inspection and maintenance on the aforementioned systems, and alternate provisions implemented as necessary. This will be in accompany to routine inspection and maintenance performed by our dewatering contractor. Furthermore, the dewatering pumps will be powered by site temp power systems and backed up by automatic transfer cold start generators. In the event of a power outage, these generators

will kick on and continue to dewater the site. These will also be started weekly to ensure that, if needed, they are ready to go and will not have deferred maintenance problems, or low fuel levels.

PCL's recent dewatering project experience includes our current Seneca Apartment Community project in Seattle; Sound Transit's C755 Central Link Light Rail and Tukwila Station; Lower Baker Unit 4 Powerhouse, and Chief Joseph Fish Hatchery.

F.2.j - Minimizing impacts on the neighboring businesses

Our project team realizes the importance of fostering good relationships with project neighbors, and will implement a number of techniques to help keep open lines of communication. Construction will be planned to minimize impacts to the neighbors to the greatest extent possible, and this plan will be conveyed to the project numbers.

Some of the measures we will implement for the project to minimize neighborhood impacts are as follows:

1. Communication
 - a. PCL will hold a neighborhood outreach meeting prior to the start of construction in order to communicate the plan and impacts to the neighboring businesses.
 - b. Flyers will be distributed periodically to neighbors to keep them informed on project progress.
 - c. Phone calls, door to door contact, flyers, or a combination of all three will be used to communicate upcoming activities that may have significant impacts to their operations (such as paving on 30th).
 - d. Schedule will be communicated by way of the 4D schedule so that neighbors have a better understanding of work progress. A sign will be located at the project entrance that will have snapshots from the 4D schedule to keep neighbors informed of upcoming work.
2. Training - Training will be provided to all trades and workers as part of our Site Specific Safety Plan and introduction to the Project, which includes the sensitivity to neighboring businesses.

3. Parking

- a. All trades will park in designated parking lot at the Eastgate Property. Parking will not be allowed in commercial business parking lots.
- b. Signs will be posted around the site delineating work areas to emphasize parking restrictions, these locations will be designated on our site plans which will be distributed during our safety meetings prior to working on site and be continually addressed at weekly sub-trade meetings.

4. Traffic

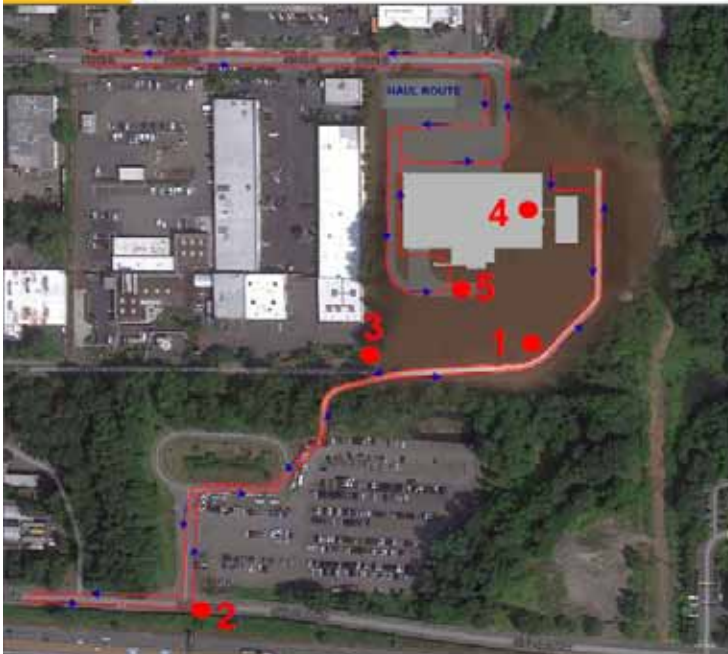
- a. Construction access to the new Transfer Station site will be limited to S.E. 30th Street during Phases 1 and 2. With exception of work associated with connecting the New Station to SE 32nd St.
- b. Traffic control will be provided as required, PCL will coordinate closely with the Owner and Businesses in regards to upcoming construction activities to keep clear line of communication at all times.
- c. No parking or construction traffic will be allowed in the parking lot at the west side of the site on SE 32nd Street, or around businesses adjacent to the site. However, it may be determined necessary to bring large equipment through this area if there are no other safe or feasible options. PCL will coordinate with the project representative and neighboring businesses to collaborate an acceptable plan.

Phase 1 & 2



1. Truck route to Cedar Hills Landfill
2. Entering/exiting Eastgate parking lot
3. Entering/exiting site off SE 30th
4. Utility crossings at SE 32nd

Phase 3 & 4



1. Primary access from Eastgate to site area
2. Entering/exiting Eastgate parking lot
3. Coordinated exiting out to 32nd using bypass lane – if necessary
4. Barricades inside new facility
5. Construction of permanent south entrances to new facility

F.2 – Approach to Managing and Implementation of the PLA (not noted as part of original RFP submittal section)

Following is a list of some of the large projects our construction team has worked on recently that involved a PLA.

Company	Project	Owner
PCL	Statewide Library Archives Museum	State of Alaska DOT
PCL	S440 South Link Light Rail (S200th Street)	Sound Transit
PCL	Terminal 91 Cruise Ship Terminal	Port of Seattle
KLB	U230 Link Light Rail	Sound Transit
KLB	S440 South Link Light Rail (S200th Street)	Sound Transit
KLB	Beacon Hill Tunnel	Sound Transit
Valley	TSA Nationwide New Technology Deployment	TSA
Valley	Children's Hospital Ph1 Expansion	Children's Hospital/COS
Design Air	Seatac International Modernization	Port of Seattle
Design Air	Seatac Mechanical HVAC Open Order	Port of Seattle
JP Francis	Brightwater Treatment Plant	King County
JP Francis	Seatac Rental Car Facility	Port of Seattle
JP Francis	SR 99 Tunnel	WSDOT

*Complete list of PLA projects is available upon request

Approach to PLA Administration

Similar to our approach to SCS, PCL has a designated District Labor Relations Representative, Scott Ivany, who will be responsible for oversight of the PLA and labor relations on the project. Scott will be heavily involved early in the project planning, performing periodic ongoing reviews/audits of the project, and will be available for any labor relations issues that arise. Although he is expected to spend more time upfront on the project, Scott is anticipated to spend an average of 4 hours per week, or 10% of his time, assisting the project through construction.

Day to day responsibility for maintaining labor relations and administering the PLA will be the responsibility of Tyler Kautz, Project Manager, and Jeff Luedecker, Project Superintendent. We believe that Tyler and Jeff will have the biggest impact on the success of maintaining a harmonious labor force as they will be responsible for the overall construction group on a daily basis. Daily administration of the PLA will start with Tyler and all his dealings internally and with subcontractors, while Jeff will have a significant impact on the moral of the workforce. With Scott overseeing the process and ensuring the PLA requirements are upheld, Tyler and Jeff will perform the leg work associated with successful PLA administration.

Approach to Apprenticeship Utilization

PCL and major subcontractors held work sessions during the proposal phase to review apprenticeship utilization for the project. Our entire team realizes the importance of growing our skilled labor pool, and is committed to meeting or exceeding apprenticeship utilization goals. In addition to the goals of performing at least 50% of all first year apprentice hours by minority and women apprentices, performing 21% of all apprentice hours by minorities, and 12% of all apprentice hours by women, our key team members have established the below apprenticeship commitments:

- Valley Electric – 20%
- JP Francis – 20%
- PCL – 15%
- The Erection Company – 15%
- KLB Construction – 15%
- Design Air – 15%

G - Project Schedule

G.2.a - PCL's preliminary project schedule is attached.

G.2.b - Schedule Narrative

Schedule for the Factoria Recycling and Transfer Station Replacement Project was created using Primavera P6, Release 7.0. In addition to using Primavera as our baseline scheduling software, we will be using Synchro software to synchronize the project schedule with the 3D project Revit model to create a 4D schedule. Synchro will allow us to update our 4D schedule with every schedule update, which will assist in identifying sequencing issues as well as communicating the upcoming work to all the Project Stakeholders.

Overall schedule durations in milestone sections are shown in calendar days in accordance with the RFP. However, this project will be primarily only working Monday through Friday and thus individual work activities are scheduled by work days.

Phase 1 & 2

PCL's preliminary baseline schedule is based on an anticipated Milestone 1 (Preconstruction) start date of July 16, 2014. The preliminary schedule has the critical path of Phases 1 & 2 running primarily through the construction of the New Transfer and Administration Buildings. Associated sitework and utility work become critical at the end of Phase 2. The critical path items are shown in red bars on the attached preliminary schedule.

Preconstruction

Prior to the anticipated Milestone 1 date of July 16, 2014, we intend to have a preconstruction team start working on subcontract buyout, finalize construction plans, and develop applicable submittals. By getting a head start on these activities, we hope to save time on the actual 70 calendar day preconstruction phase. Although this is not shown in our current construction schedule, this approach should allow us to start onsite earlier and specifically accelerate the start of detention vault work.

Compactors

Updates to the project schedule have been made to indicate manufacturer and model numbers for

both compactors that are anticipated to be used on the project. At the time of the BAFO technical write-up submission we intend to procure the trash compactors from Harris, Inc. The single bale compactor from Harris is model number TP-500, and the two-bale compactor is model number TP-250. Refer to the updated project schedule which reflects the procurement process specific to these compactor units.

Transfer & Administration Building

Our first major task will be the demolition of the West warehouse building. This provides access to the south end of phase 1 & 2 work to clear and grub for the Transfer Building lower level building pad and install dewatering wells. The focus will be to get the lower level building pad ready for construction of the foundations.

Construction of perimeter lower level foundation walls and retaining wall 3 will be first so when completed we can start structural backfill for ground level foundation work. While structural fill is being placed we will be constructing the balance of interior walls and columns. Ground level elevated deck and footing/SOG construction will then start and are currently scheduled to be completed by early March 2015. Note that we intend to backfill the walls prior to placement of the elevated concrete slab; our internal structural engineer has reviewed the wall design and provided a preliminary report on additional wall thickness and reinforcing that we will need to install for this construction means and methods sequencing. Upon project award, we will review our plan with the Engineer or Record to confirm acceptability.

The Transfer and Administration building structural steel will begin in June 2015 and will be completed with detailing in July 2015.

Exterior sheathing and metal panel installation starts late July 2015 with installation starting on the east elevation and continuing clockwise. As work proceeds to the south elevation, we will

begin to enclose the Administration building. We will have the Administration building enclosed by **October 2015** and the Transfer Building enclosed by mid **December 2015**.

MEP system installations will start in **July 2015** and completed by **January 2015** along with interior finishes of both Transfer and Administration Building.

MEP systems startup and commissioning will begin in mid December 2015 and complete by **early January 2016**. City of Bellevue inspections will start in **early February** and complete by **late February**. Our preliminary schedule has a substantial completion date of **March 1, 2016**.

Transfer Site

Installation of dewatering wells for the Storm Detention Vault will start directly after installation of Transfer Building wells. Excavation and construction of the vault will start in **December** and complete **April 2015**. With that said, our goal is to improve on these dates through **early development of submittals prior to the preconstruction phase**. After the south and east detention vault walls are poured, structural fill for trailer yard will begin. The trailer yard will be filled and preloaded where it will then set for its potential 90 day settlement period. We anticipate the preloaded being completed **early July 2015**.

Trailer yard utilities will start **early August 2015**. Construction of the Fuel Fill Facility will begin in **November 2015** and concrete **pavement placement early December 2015**. The preliminary schedule shows construction of the Trailer Yard completed by **January 2016**.

South Entrance Area

The temporary shoring wall **will** be installed in **mid December 2014** after we have cleared and rough graded the area. After the structural fill is placed behind Transfer Building lower level foundation walls and the building pad is constructed, we will start utility installations and substantially completing them prior to steel erection. South Entrance final grading and concrete paving activities will start once the metal siding is completed on the west side and be completed by **December 2015**.

Eastgate Property

In **mid October 2014**, after the Transfer Building site is cleared and grubbed, we begin the clearing easements for relocated OHE and underground sewer, electrical and HP gas. PSE will relocate the OHE **early through late January 2015**. After PSE completes the OHE relocation, we will install the new sewer line from top of hill down to 32nd. Once this is complete, PSE will install the underground power and HP gas lines in **late February 2015**. PCL has contacted PSE and they have confirmed our schedule is acceptable.

PCL will begin installing amended sand vault and associated piping late March 2015. This work is dependent on PSE work and mitigation of storm runoff during the easement work and Phase 4.

Site improvements of the area are planned to be completed along with improvements at South Entrance area of the Transfer Building site, but we may choose to complete this work in Phase 4 depending on the final dewatering plan.

Phase 3 & 4

Having just successfully completing the Transition Period, the phase 3 & 4 work will kick off with the demolition of the Old Transfer Station. While demolition is proceeding, we will install Wall 4 dewatering wells so they are completed prior to mass excavation. Mass excavation is the critical activity in completing this phase. We will establish the HHW Building foundations, which will start **early August 2016**. The critical path of this phase then flows through the construction of the HHW Building which will be completed by **March 2017**. Start up and Commissioning activities will occur in **March** and City of Bellevue inspections **April 2017**.

Work in the Scale House building will start **February 2017** once we have completed metal panel activities at the HHW building. Once mass excavation is far enough along we will start one sided Wall 4 in **mid August 2016** and have the artwork scheduled to go in starting **late November 2016**. Site utility work will begin in **late August** and completed by **early December 2016**. We will then start concrete paving and site finish work completing all sitework **April 2017**.

Our preliminary schedule reflects a substantial completion date of **May 1, 2017, over one month**

earlier than if we utilized all the specified contract days.

Following this schedule review walk, the monthly schedule update will be finalized and submitted.

G.2.c.i – Schedule Updates and Progress Documentation

Development of the schedule goes hand in hand with planning the work, which is why the Project Superintendent, Jeff Luedecker, is vital in development and updating of the schedule. With this approach in mind, Jeff created the initial project schedule for this proposal using the Critical Path Method (CPM). As we transition to the detailed schedule development, which will further develop the SMART ID structure, provide resource loading, and also provide additional details so as not to exceed 10 working day durations for activities, our Corporate Scheduler, Ernie Benson, will take the schedule through the establishment and approval of the Project baseline schedule. A summary of scheduling responsibilities will be as follows:

- Initial Project Schedule – Jeff Luedecker
- Resource Definitions – Ernie Benson
- Detailed Schedule Creation - Ernie Benson
- Project Baseline Schedule - Ernie Benson
- Weekly Look Ahead Schedules – Jeff Luedecker
- Monthly Schedule Updates - Jeff Luedecker

PCL has a regimented routine for schedule updating, which will be used on this project. Each week our Superintendent, Jeff Luedecker, and a Field Engineer will walk the project and inspect the work completed to update the schedule. These revisions are entered into P6 and then synchronized with the project 3D model to develop the schedule update in 4D. The critical path is then evaluated in conjunction with any sequencing issues that the 4D schedule might identify. If work is falling behind, a recovery plan is developed and put in place.

Prior to finalizing the monthly project update, Jeff Luedecker and the Project Manager, Tyler Kautz, will perform a job walk with the Owner's group to discuss the status of the Project and the schedule moving forward. We find that this approach fosters a collaborative environment and also allows us to make adjustments that may not impact the critical path, but will allow better sequencing relative to ongoing operations.

In addition to providing a master schedule update to King County, PCL will provide monthly Progress Reports including a schedule section of a summary of work completed, key milestones and achievements for that month as well as a narrative of any issues with the schedule.

Based off the master project schedule, the Superintendent will update detailed 3-week look ahead schedules. We will work with King County representatives to determine the acceptable format for the 3-week look ahead schedules, but we would prefer the look ahead schedules to be created using a spreadsheet program with the Smart ID in the master project schedule referenced as applicable. This will allow for the look ahead schedules to be expanded into much greater detail than is desired in the master project schedule, with durations possibly shown by the hour. If necessary for the look ahead schedules to be generated in P6 from the master project schedule, spreadsheet based schedules may be utilized as supplement during certain phases of the work in which additional detail is desired by the field staff. The 3-week look ahead schedule will be distributed to the project team at our Monday morning meetings to communicate the upcoming work to the team. The upcoming week's activities are reviewed to ensure the team is prepared and working towards the same goal.

Additionally, at the weekly subtrade meeting, the same 3-week look ahead schedule is distributed and reviewed with all subcontractors on the project. This allows for coordination of upcoming work along with providing the project with a finite path forward. The 3-week look ahead schedule will also be reviewed with King County weekly at Owner/Designer/Contractor coordination meetings.

G.2.c.ii – Integration of Subcontractor and Major Suppliers

Our current project schedule was constructed based off schedule input from our key subcontractors and vendors. During collaborative sessions, we have developed and integrated their specific activities, durations and logic

to develop the current project schedule to maximize efficiency while keeping the goals of the entire project in mind. In addition, each major subcontractor will be required to provide PCL with a resource loaded schedule prior to starting work. These resource loaded schedules for the various trades will then be incorporated in to the master project schedule.

Throughout the life of the project, our Subcontractors and Suppliers are integral members of our team, and so we are in constant contact with them regarding status of their work, procurement, etc. This then leads to them being part of our overall schedule updating. We greatly trust and value the scheduling input of our subcontractors, but will also take additional measures to progress their work ourselves to ensure that they are able to meet their schedule commitments. Through the use of quantity tracking tools and techniques, we will be able to project work progress for early signs that schedule may be slipping. If this is noticed, measures will be taken with the particular trade to get them back on track and ensure on-time or early completion.

Not only do we find that it is important to collaborate with each trade to develop a schedule that all can buy into, we also find that early and often communication of schedule performance with their team and Senior Management is important. Each subcontractor will be assessed on a periodic basis on schedule adherence, and this assessment will be review with the Senior Management staff of each firm.

Preliminary Overall Project Schedule - BAFO Update

Activity ID	Activity Name	Original Duration	Start	Finish	2014-2017																													
					14	2015					2016					2017																		
					Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D
ACTORIA TRANSFER STATION BAFO SCHEDULE					02-Oct-17																													
MILESTONE SUMMARY					02-Oct-17																													
MS1000	Milestone 1, Preconstruction	70	16-Jul-14*	23-Sep-14	Milestone 1, Preconstruction																													
MS2000	Milestone 2, Phases 1 & 2	525	24-Sep-14	01-Mar-16	Milestone 2, Phases 1 & 2																													
MSTP10	Transition Period	45	02-Mar-16	15-Apr-16	Transition Period																													
MS3000	Milestone 3, Phases 3 & 4	415	16-Apr-16	04-Jun-17	Milestone 3, Phases 3 & 4																													
MS4000	Milestone 4, Final Acceptance	120	05-Jun-17	02-Oct-17	Milestone 4																													
MSPC10	Project Complete	0		02-Oct-17*	Project Co																													
MILESTONE 1 - PRECONSTRUCTION					23-Sep-14, MILESTONE 1 - PRECONSTRUCTION																													
MS1010	Milestone 1 - Preconstruction	70	16-Jul-14	23-Sep-14	Milestone 1 - Preconstruction																													
SUBMITTALS					09-Sep-14, SUBMITTALS																													
M1PRSB0000	Schedule of Values	5	23-Jul-14	27-Jul-14	Schedule of Values																													
M1PRSB0010	Surveyor Qualifications	28	23-Jul-14	19-Aug-14	Surveyor Qualifications																													
M1PRSB0020	TESC Plan	28	30-Jul-14	26-Aug-14	TESC Plan																													
M1PRSB0030	Baseline Schedule	28	30-Jul-14	26-Aug-14	Baseline Schedule																													
M1PRSB0040	Quality Control Plan	28	30-Jul-14	26-Aug-14	Quality Control Plan																													
M1PRSB0050	Wastewater Handling & Disposal Plan	28	30-Jul-14	26-Aug-14	Wastewater Handling & Disposal Plan																													
M1PRSB0060	Waste Management Plan	21	30-Jul-14	19-Aug-14	Waste Management Plan																													
M1PRSB0070	Pollution Prevention & Spill Contingency Plan	28	30-Jul-14	26-Aug-14	Pollution Prevention & Spill Contingency Plan																													
M1PRSB0080	Site Specific Safety Plan	28	06-Aug-14	02-Sep-14	Site Specific Safety Plan																													
M1PRSB0090	HAZWOPER Certifications	28	13-Aug-14	09-Sep-14	HAZWOPER Certifications																													
M1PRSB0100	Testing Agency Certifications	28	13-Aug-14	09-Sep-14	Testing Agency Certifications																													
M1PRSB0110	Contractor Letter of Acceptance of Owner Survey	7	13-Aug-14	19-Aug-14	Contractor Letter of Acceptance of Owner Survey																													
M1PRSB0120	Temp Facilities & Controls	21	13-Aug-14	02-Sep-14	Temp Facilities & Controls																													
M1PRSB0130	Emergency Response Contact Info	28	13-Aug-14	09-Sep-14	Emergency Response Contact Info																													
M1PRSB0140	Demolition Plan	28	13-Aug-14	09-Sep-14	Demolition Plan																													
MILESTONE 2 - PHASE 1 & 2					01-Mar-16, MILESTONE 2 - PHASE 1 & 2																													
MS2010	Milestone 2 - Phase 1 & 2	525	24-Sep-14	01-Mar-16	Milestone 2 - Phase 1 & 2																													
MOBILIZATION					21-Oct-14, MOBILIZATION																													
M2MB000010	Set Up Trailers	15	03-Sep-14	23-Sep-14	Set Up Trailers																													
M2MB000020	Build Site Access Stairs from Eastgate to SE32nd	12	03-Sep-14	18-Sep-14	Build Site Access Stairs from Eastgate to SE32nd																													
M2MB000030	Perform Locates	5	24-Sep-14	30-Sep-14	Perform Locates																													
M2MB000040	Initial Site Survey	5	24-Sep-14	30-Sep-14	Initial Site Survey																													
M2MB000050	Mobilize to Site	0	24-Sep-14		Mobilize to Site																													
M2MB000060	Install Initial TESC Measures	15	01-Oct-14	21-Oct-14	Install Initial TESC Measures																													
M2MB000070	Construction Entrance & Truck Wash	8	01-Oct-14	10-Oct-14	Construction Entrance & Truck Wash																													
SITE DEVELOPMENT					08-Feb-16, SITE DEVELOPMENT																													
NEW TRANSFER SITE TRAILER YARD					08-Feb-16, NEW TRANSFER SITE TRAILER YARD																													
DEWATERING					13-Apr-15, DEWATERING																													
M2TYDW0010	Install Transfer Station Dewatering Wells	5	14-Nov-14	24-Nov-14	Install Transfer Station Dewatering Wells																													
M2TYDW0020	Install Detention Vault Dewatering Wells	5	25-Nov-14	01-Dec-14	Install Detention Vault Dewatering Wells																													
M2TYDW0030	Activate Transfer Station Dewatering Wells	5	25-Nov-14	01-Dec-14	Activate Transfer Station Dewatering Wells																													
M2TYDW0040	Activate Detention Vault Dewatering Wells	5	02-Dec-14	08-Dec-14	Activate Detention Vault Dewatering Wells																													
M2TYDW0050	Install Vacuum Dewatering at Temp Shore Wall	10	16-Dec-14	02-Jan-15	Install Vacuum Dewatering at Temp Shore Wall																													
M2TYDW0060	Deactivate Transfer Station Dewatering Wells	5	17-Mar-15	23-Mar-15	Deactivate Transfer Station Dewatering Wells																													
M2TYDW0070	Deactivate Detention Vault Dewatering Wells	5	07-Apr-15	13-Apr-15	Deactivate Detention Vault Dewatering Wells																													
DEMOLITION					15-Dec-14, DEMOLITION																													
M2TYDE0010	Abandon Existing Utilities at Bldgs	7	24-Sep-14	02-Oct-14	Abandon Existing Utilities at Bldgs																													
M2TYDE0020	Demo West Warehouse	15	03-Oct-14	23-Oct-14	Demo West Warehouse																													

█ Actual Work
 █ Critical Remaining Work
 █ Remaining Work
 ◆ Milestone



ACTORIA RECYCLING AND TRANSFER STATION



Preliminary Overall Project Schedule - BAFO Update

Activity ID	Activity Name	Original Duration	Start	Finish	2015 2016 2017																																																							
					2015							2016							2017																																									
					Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	J	F	M	Apr	M	J	Jul	A	S	Oct	N	D														
M2BTBC0020	Submittals & Approvals (Two Bale)	90	24-Sep-14	04-Feb-15	Submittals & Approvals (Two Bale)																																																							
M2BTBC0030	Design, Procure Compactor Parts (Single Bale)	90	05-Feb-15	11-Jun-15	Design, Procure Compactor Parts (Single Bale)																																																							
M2BTBC0040	Design, Procure Compactor Parts (Two Bale)	90	05-Feb-15	11-Jun-15	Design, Procure Compactor Parts (Two Bale)																																																							
M2BTBC0050	Fabricate Compactor Unit (Single Bale)	60	12-Jun-15	03-Sep-15	Fabricate Compactor Unit (Single Bale)																																																							
M2BTBC0060	Fabricate Compactor Unit (Two Bale)	60	12-Jun-15	03-Sep-15	Fabricate Compactor Unit (Two Bale)																																																							
M2BTBC0070	Startup & Test Unit at Facility (Single Bale)	10	04-Sep-15	17-Sep-15	Startup & Test Unit at Facility (Single Bale)																																																							
M2BTBC0080	Startup & Test Unit at Facility (Two Bale)	10	04-Sep-15	17-Sep-15	Startup & Test Unit at Facility (Two Bale)																																																							
M2BTBC0090	Deliver & Install Compactor Unit (Single Bale)	20	27-Nov-15	24-Dec-15	Deliver & Install Compactor Unit (Single Bale)																																																							
M2BTBC0100	Deliver & Install Compactor Unit (Two Bale)	20	11-Dec-15	07-Jan-16	Deliver & Install Compactor Unit (Two Bale)																																																							
M2BTBC0110	MEP Terminations to Compactor Unit (Single Bale)	15	25-Dec-15	14-Jan-16	MEP Terminations to Compactor Unit (Single Bale)																																																							
M2BTBC0120	MEP Terminations to Compactor Unit (Two Bale)	15	08-Jan-16	28-Jan-16	MEP Terminations to Compactor Unit (Two Bale)																																																							
M2BTBC0130	Startup & Commission (Single Bale)	10	15-Jan-16	28-Jan-16	Startup & Commission (Single Bale)																																																							
M2BTBC0140	Startup & Commission (Two Bale)	10	29-Jan-16	11-Feb-16	Startup & Commission (Two Bale)																																																							
MEP SYSTEMS		120	28-Jul-15	11-Jan-16	11-Jan-16, MEP SYSTEMS 																																																							
M2TBBL0160	Fire Booster Pump Skid/Pump Controller/Diesel Tank	20	28-Jul-15	24-Aug-15	Fire Booster Pump Skid/Pump Controller/Diesel Tank																																																							
M2TBBL0170	Backflow/Water Heater/Filters/Pumps Install	30	28-Jul-15	07-Sep-15	Backflow/Water Heater/Filters/Pumps Install																																																							
M2TBBL0180	Install Transformer & Panelboards in Mech Room	15	28-Jul-15	17-Aug-15	Install Transformer & Panelboards in Mech Room																																																							
M2TBBL0190	Overhead Ductwork RI	17	28-Jul-15	19-Aug-15	Overhead Ductwork RI																																																							
M2TBBL0220	Systems Conduit RI	20	04-Aug-15	31-Aug-15	Systems Conduit RI																																																							
M2TBBL0240	Lighting Conduit RI	10	01-Sep-15	14-Sep-15	Lighting Conduit RI																																																							
M2TBBL0250	Building Controls Conduit/Panels/Valves/Wiring	10	08-Sep-15	21-Sep-15	Building Controls Conduit/Panels/Valves/Wiring																																																							
M2TBBL0260	Pull Feeders & Branch Wiring to Panels & Terminate	10	01-Dec-15	14-Dec-15	Pull Feeders & Branch Wiring to Panels & Terminate																																																							
M2TBBL0270	Control System Programming	10	15-Dec-15	28-Dec-15	Control System Programming																																																							
M2TBBL0280	Lower Level Complete	0		11-Jan-16																																																								
GROUND LEVEL		134	30-Jul-15	02-Feb-16	02-Feb-16, GROUND LEVEL 																																																							
M2TBGG0060	Paint Structure (Intermediate/Top Coat)	30	30-Jul-15	09-Sep-15	Paint Structure (Intermediate/Top Coat)																																																							
M2TBGG0010	Overhead Ductwork RI	15	06-Aug-15	26-Aug-15	Overhead Ductwork RI																																																							
M2TBGG0020	Install Sprinklers	15	06-Aug-15	26-Aug-15	Install Sprinklers																																																							
M2TBGG0030	Install Dust and Odor System Piping	60	06-Aug-15	28-Oct-15	Install Dust and Odor System Piping																																																							
M2TBGG0040	Gutter /Rain Leader Piping & Insulation	30	06-Aug-15	16-Sep-15	Gutter /Rain Leader Piping & Insulation																																																							
M2TBGG0050	System & Lighting Conduit RI	30	06-Aug-15	16-Sep-15	System & Lighting Conduit RI																																																							
M2TBGG0070	Overhead Doors	10	07-Sep-15	18-Sep-15	Overhead Doors																																																							
M2TBGG0080	Install Lighting	20	17-Sep-15	14-Oct-15	Install Lighting																																																							
M2TBGG0090	Hose Reels & Piping	15	17-Sep-15	07-Oct-15	Hose Reels & Piping																																																							
M2TBGG0100	Interior Liner Panels - East	21	08-Oct-15	05-Nov-15	Interior Liner Panels - East																																																							
M2TBGG0110	Install Hangar Doors	10	29-Oct-15	11-Nov-15	Install Hangar Doors																																																							
A1000	Paint Interior Steel/Joists/Touchup	30	29-Oct-15	09-Dec-15	Paint Interior Steel/Joists/Touchup																																																							
M2TBGG0120	Erect & Detail Appliance Platform	5	06-Nov-15	12-Nov-15	Erect & Detail Appliance Platform																																																							
M2TBGG0130	Interior Liner Panels - South	15	06-Nov-15	26-Nov-15	Interior Liner Panels - South																																																							
M2TBGG0140	Interior Liner Panels - West	15	27-Nov-15	17-Dec-15	Interior Liner Panels - West																																																							
M2TBGG0150	Place Ecology Blocks	3	27-Nov-15	01-Dec-15	Place Ecology Blocks																																																							
M2TBGG0160	Interior Liner Panels - North	15	18-Dec-15	07-Jan-16	Interior Liner Panels - North																																																							
M2TBGG0170	Fire Alarm & Security Devices	15	18-Dec-15	07-Jan-16	Fire Alarm & Security Devices																																																							
M2TBGG0180	Install Smoke Curtain Panels	10	08-Jan-16	21-Jan-16	Install Smoke Curtain Panels																																																							
M2TBGG0190	Electrical Trim	14	08-Jan-16	27-Jan-16	Electrical Trim																																																							
M2TBGG0200	Striping	4	28-Jan-16	02-Feb-16	Striping																																																							
M2TBGG0210	Ground Level Complete	0		02-Feb-16																																																								
ADMINISTRATION BUILDING		197	08-Apr-15	07-Jan-16	07-Jan-16, ADMINISTRATION BUILDING 																																																							
STRUCTURE		79	08-Apr-15	27-Jul-15	27-Jul-15, STRUCTURE 																																																							
M2ABST0010	Excavate Footings/Grade Beams	3	08-Apr-15	10-Apr-15	Excavate Footings/Grade Beams																																																							

█ Actual Work █ Critical Remaining Work Milestone
█ Remaining Work Milestone



FACTORIA RECYCLING AND TRANSFER STATION



Preliminary Overall Project Schedule - BAFO Update

Activity ID	Activity Name	Original Duration	Start	Finish	2014							2015							2016							2017																				
					Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	J	F	M	Apr	M	J	Jul	A	S	Oct	N	D
M2TBSC0020	Start Up & Commission Storm Water System	20	21-Dec-15	15-Jan-16																																										
M2TBSC0030	Start Up & Commission Security & Data System	20	22-Dec-15	18-Jan-16																																										
M2TBSC0050	Start Up & Commission Mechanical System	20	30-Dec-15	26-Jan-16																																										
M2TBSC0060	Start Up & Commission Electrical Systems	15	30-Dec-15	19-Jan-16																																										
M2TBSC0080	Building Controls Programming	15	05-Jan-16	25-Jan-16																																										
M2TBSC0090	Air/ Water Flush and Balance	10	05-Jan-16	18-Jan-16																																										
M2TBSC0100	Start Up & Commission Sprinkler System	15	08-Jan-16	28-Jan-16																																										
M2TBSC0110	Start Up & Commission Fire Alarm System	15	08-Jan-16	28-Jan-16																																										
M2TBSC0070	Start Up & Commission Fuel Filling System	10	13-Jan-16	26-Jan-16																																										
M2TBSC0120	Test and Air Balance	10	20-Jan-16	02-Feb-16																																										
INSPECTIONS/TURNOVER			72	18-Nov-15	25-Feb-16	<p>25-Feb-16 INSPECTIONS/TURNOVER</p>																																								
M2TBIT0010	Transition Period Preplanning	90	18-Nov-15	15-Feb-16																																										
M2TBIT0030	Mechanical Inspections	5	27-Jan-16	02-Feb-16																																										
M2TBIT0040	Electrical Inspections	5	28-Jan-16	03-Feb-16																																										
M2TBIT0020	Utility Inspections	5	02-Feb-16	08-Feb-16																																										
M2TBIT0050	Punchlist	10	03-Feb-16	16-Feb-16																																										
M2TBIT0060	Fire Department Inspection	5	04-Feb-16	10-Feb-16																																										
M2TBIT0070	Building Inspection	5	10-Feb-16	16-Feb-16																																										
M2TBIT0080	Certificate of Occupancy	7	17-Feb-16	25-Feb-16																																										
M2TBIT0090	Transfer/ Recycling/Admin Substantial Completion	0		25-Feb-16*																																										
TRANSITION PERIOD			33	02-Mar-16	15-Apr-16	<p>15-Apr-16 TRANSITION PERIOD</p>																																								
MSTP0010	Transition Period	45	02-Mar-16	15-Apr-16																																										
SITE ACTIVITIES			33	02-Mar-16	15-Apr-16	<p>15-Apr-16 SITE ACTIVITIES</p>																																								
M2TBTC0150	King County Training (Single Bale Compactor)	10	02-Mar-16	15-Mar-16																																										
MMTPSW0010	Facility Training	45	02-Mar-16	15-Apr-16																																										
MMTPSW0020	KC Install Packer Crane	45	02-Mar-16	15-Apr-16																																										
MMTPSW0030	Complete Phase 3 Access Road	10	02-Mar-16	15-Mar-16																																										
MMTPSW0040	Contractor Assistance	45	02-Mar-16	15-Apr-16																																										
M2TBTC0160	King County Training (Two Bale Compactor)	10	02-Mar-16	15-Mar-16																																										
MILESTONE 3 - PHASE 3 & 4			271	16-Apr-16	01-May-17	<p>01-May-17 MILESTONE 3 - PHASE 3 & 4</p>																																								
M30010	Milestone 3 - Phase 3 & 4	381	16-Apr-16	01-May-17																																										
EXISTING TRANSFER BLDG & SITE DEMO			37	18-Apr-16	07-Jun-16	<p>07-Jun-16 EXISTING TRANSFER BLDG & SITE DEMO</p>																																								
M3ETDE0010	MEP Bldg Demo	5	18-Apr-16	22-Apr-16																																										
M3ETDE0020	PSE Remove Transfer Station Feeders	2	18-Apr-16	19-Apr-16																																										
M3ETDE0030	Bldg & Site Structure Demo	25	20-Apr-16	24-May-16																																										
M3ETDE0040	Remove Exstg Underground Utilities	10	25-May-16	07-Jun-16																																										
EARTHWORK/UTILITIES			182	18-Apr-16	27-Dec-16	<p>27-Dec-16 EARTHWORK/UTILITIES</p>																																								
M3ETSW0010	Install TESC Measures	5	18-Apr-16	22-Apr-16																																										
M3ETSW0020	Clear and Grub	5	11-May-16	17-May-16																																										
M3ETSW0040	Mass Excavation/Rough Grade	65	01-Jun-16	30-Aug-16																																										
M3ETSW0390	Remove Temp Shoring Wall	20	01-Jun-16	28-Jun-16																																										
M3ETSW0050	Install Cistern Tanks 1 & 2	10	24-Aug-16	06-Sep-16																																										
M3ETSW0060	HHW Trench Drain/Piping/Containment Tank	10	24-Aug-16	06-Sep-16																																										
M3ETSW0070	Install Cistern Tank 3	10	07-Sep-16	20-Sep-16																																										
M3ETSW0080	Cistern 1 & 2 Piping/Electrical	15	07-Sep-16	27-Sep-16																																										
M3ETSW0090	Cistern 3 Piping/Electrical	10	21-Sep-16	04-Oct-16																																										
M3ETSW0100	Storm System (Areas 1-3)	15	12-Oct-16	01-Nov-16																																										
M3ETSW0110	Underground Water and Hyrants (Areas 1 & 3)	20	02-Nov-16	29-Nov-16																																										
M3ETSW0120	Sewer System (Area 1)	10	02-Nov-16	15-Nov-16																																										

Actual Work Critical Remaining Work Milestone
 Remaining Work Milestone



FACTORIA RECYCLING AND TRANSFER STATION



Preliminary Overall Project Schedule - BAFO Update

Activity ID	Activity Name	Original Duration	Start	Finish	2014														2015														2016														2017														
					Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D			
M3ETSW0130	Fine Grade Site	20	30-Nov-16	27-Dec-16																																																									■ Fine Grade Site
M3ETSW0140	UG Water Tie-ins by Scale House (Area 2)	5	30-Nov-16	06-Dec-16																																																									■ UG Water Tie-ins by Scale House (Area 2)
DEWATERING		160	27-Apr-16	06-Dec-16																																																									▶ 06-Dec-16, DEWATERING
M3ETSW0150	Install Wall 4 Dewatering Wells	10	27-Apr-16	10-May-16																																																									■ Install Wall 4 Dewatering Wells
M3ETSW0160	Activate Wall 4 Dewatering Wells	5	11-May-16	17-May-16																																																									■ Activate Wall 4 Dewatering Wells
M3ETSW0170	Deactivate Vacuum Dewatering @ Temp Shore Wall	5	18-May-16	24-May-16																																																									■ Deactivate Vacuum Dewatering @ Temp Shore Wall
M3ETSW0180	Deactivate Wall 4 Dewatering Wells	5	30-Nov-16	06-Dec-16																																																									■ Deactivate Wall 4 Dewatering Wells
SITework		235	25-May-16	18-Apr-17																																																									▶ 18-Apr-17, SITEWORK
M3ETSW0190	Concrete Pavement (Area 1)	15	28-Dec-16	17-Jan-17																																																									■ Concrete Pavement (Area 1)
M3ETSW0200	Guardrails	15	28-Dec-16	17-Jan-17																																																									■ Guardrails
M3ETSW0210	Concrete Pave Employee Parking	15	01-Feb-17	21-Feb-17																																																									■ Concrete Pave Employee Parking
M3ETSW0220	FRP Curb/Gutter Areas 2 & 3	15	15-Feb-17	07-Mar-17																																																									■ FRP Curb/Gutter Areas 2 & 3
M3ETSW0230	Concrete Pave South Entrance (East 1/2)	15	22-Feb-17	14-Mar-17																																																									■ Concrete Pave South Entrance (East 1/2)
M3ETSW0240	FRP Curb/Gutter Area 1	10	22-Feb-17	07-Mar-17																																																									■ FRP Curb/Gutter Area 1
M3ETSW0250	Asphalt (Areas 1-3)	10	22-Feb-17	07-Mar-17																																																									■ Asphalt (Areas 1-3)
M3ETSW0260	FRP Sidewalks	15	22-Feb-17	14-Mar-17																																																									■ FRP Sidewalks
M3ETSW0270	Striping & Signage	10	08-Mar-17	21-Mar-17																																																									■ Striping & Signage
M3ETSW0280	Concrete Pave South Entrance (West 1/2)	15	15-Mar-17	04-Apr-17																																																									■ Concrete Pave South Entrance (West 1/2)
M3ETSW0290	Irrigation	15	15-Mar-17	04-Apr-17																																																									■ Irrigation
M3ETSW0300	Landscape	25	15-Mar-17	18-Apr-17																																																									■ Landscape
M3ETSW0310	Fence/Gates	15	29-Mar-17	18-Apr-17																																																									■ Fence/Gates
WALL 4		175	25-May-16	24-Jan-17																																																									▶ 24-Jan-17, WALL 4
M3ETSW0320	Drill Wall 4 Piles	5	25-May-16	31-May-16																																																									■ Drill Wall 4 Piles
M3ETSW0330	Wall 4 Lagging	15	01-Jun-16	21-Jun-16																																																									■ Wall 4 Lagging
M3ETSW0340	FRP Wall 4 One Sided Wall	40	17-Aug-16	11-Oct-16																																																									■ FRP Wall 4 One Sided Wall
M3ETSW0350	Grade Back Slope	15	12-Oct-16	01-Nov-16																																																									■ Grade Back Slope
M3ETSW0360	Install Finger Drains	20	02-Nov-16	29-Nov-16																																																									■ Install Finger Drains
M3ETSW0370	Wall 4 Artwork Installation	40	30-Nov-16	24-Jan-17																																																									■ Wall 4 Artwork Installation
M3ETSW0380	Restoration and Plantings Back of Wall	15	30-Nov-16	20-Dec-16																																																									■ Restoration and Plantings Back of Wall
HOUSEHOLD WASTE BLDG		178	27-Jul-16	31-Mar-17																																																									▶ 31-Mar-17, HOUSEHOLD WASTE BLDG
STRUCTURAL		63	27-Jul-16	21-Oct-16																																																									▶ 21-Oct-16, STRUCTURAL
M3HWST0010	Grade Bldg Pad & Excavate Footings	10	27-Jul-16	09-Aug-16																																																									■ Grade Bldg Pad & Excavate Footings
M3HWST0020	Plumbing Underground	10	10-Aug-16	23-Aug-16																																																									■ Plumbing Underground
M3HWST0040	Electrical Underground	10	10-Aug-16	23-Aug-16																																																									■ Electrical Underground
M3HWST0050	FRP Grade Beams/Footings/ Pits	20	10-Aug-16	06-Sep-16																																																									■ FRP Grade Beams/Footings/ Pits
M3HWST0060	FRP Slab on Grade	10	07-Sep-16	20-Sep-16																																																									■ FRP Slab on Grade
M3HWST0070	Erect Structural Steel Bldg/Canopy	3	21-Sep-16	23-Sep-16																																																									■ Erect Structural Steel Bldg/Canopy
M3HWST0080	Plumb/Detail Structural Steel	15	26-Sep-16	14-Oct-16																																																									■ Plumb/Detail Structural Steel
M3HWST0090	FRP Perimeter Stem Walls	10	10-Oct-16	21-Oct-16																																																									■ FRP Perimeter Stem Walls
EXTERIOR ENCLOSURE		45	24-Oct-16	23-Dec-16																																																									▶ 23-Dec-16, EXTERIOR ENCLOSURE
M3HWEN0010	Frame Exterior Walls/Sheathing	25	24-Oct-16	25-Nov-16																																																									■ Frame Exterior Walls/Sheathing
M3HWEN0020	Exterior Metal Siding & Flashings	25	14-Nov-16	16-Dec-16																																																									■ Exterior Metal Siding & Flashings
M3HWEN0030	Sylights	5	28-Nov-16	02-Dec-16																																																									■ Sylights
M3HWEN0040	Windows	10	28-Nov-16	09-Dec-16																																																									■ Windows
M3HWEN0050	Exterior Doors	5	28-Nov-16	02-Dec-16																																																									■ Exterior Doors
M3HWEN0060	Membrane Roofing	10	05-Dec-16	16-Dec-16																																																									■ Membrane Roofing
M3HWEN0070	Paint Canopy	5	19-Dec-16	23-Dec-16																																																									■ Paint Canopy
INTERIOR CONSTRUCTION		90	28-Nov-16	31-Mar-17																																																									▶ 31-Mar-17, INTERIOR CONSTRUCTION
M3HWBI0010	Frame Walls & Ceilings	15	28-Nov-16	16-Dec-16																																																									■ Frame Walls & Ceilings
M3HWBI0020	MEP Wall RI	10	05-Dec-16	16-Dec-16																																																									■ MEP Wall RI

█ Actual Work
█ Critical Remaining Work
 Milestone



FACTORIA RECYCLING AND TRANSFER STATION



Preliminary Overall Project Schedule - BAFO Update

Activity ID	Activity Name	Original Duration	Start	Finish	14	2015												2016												2017																							
					Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	Jan	F	M	Apr	M	J	Jul	A	S	Oct	N	D	J	F	M	Apr	M	J	Jul	A	S	Oct	N	D							
M40100	O & M's	120	02-May-17	29-Aug-17																																																	
M40110	As Builts	120	02-May-17	29-Aug-17																																																	
M40120	Warranties	120	02-May-17	29-Aug-17																																																	
M40130	Project Complete	0		29-Aug-17*																																																	

█ Actual Work █ Critical Remaining Work

█ Remaining Work ◆ Milestone



FACTORIA RECYCLING AND TRANSFER STATION



K - Financial Resources

PCL Construction Services Financial Information

PCL Construction Services, Inc., our operating group who will be performing all the work associated with the Factoria RTS, is a subsidiary of PCL Construction Group Inc.. PCL Construction Group Inc. and the PCL family of companies have successfully been in operation for over 107 years and have an annual construction volume in excess of \$7.5 billion. Our corporate offices are located in Edmonton, Canada, where our Canadian operations are ranked as the largest contractor in all of Canada, and our US head office is located in Denver, Colorado. Our US operations rank PCL as the 5th largest contractor in the United States.

As a result of the financial reporting structure to our parent organization and how bonuses have been allocated in the past, financial statements from recent years for PCL Construction Services, Inc. indicate a net loss. However, PCL Construction Group and the PCL family of companies continue to be a very financially strong organization. As part of this updated technical proposal for the BAFO, we have included financial statements for both PCL Construction Services, Inc. and PCL Construction Group Inc, which must be reviewed in conjunction with one another in order to understand the true financial position of our company. As additional security for this project, if required, PCL Construction Group Inc. can provide a Parent Company Guarantee with mutually acceptable terms and conditions in support of PCL Construction Services Inc.'s proposal for this project.

With over 500 projects each in excess of \$50 million successful completed in the past, we are confident that there will be no financial issues with successfully completing the Factoria RTS for King County.

K.2.a - Financial Statements

PCL's three most recent audited financial statements are included in the Appendix under Tab K - Financial Resource. **PCL request's that these not be disclosed** under exception 11 of the public records statute (RCW 42.56.370(11)) and Washington's uniform trade secrets act (RCW 19.180). As noted above, we have enclosed financials for both PCL Construction Services, Inc. and PCL Construction Group, Inc., which must be reviewed in conjunction with one another.

K.2.b - Anticipated or Pending Claims

PCL Construction Services, Inc. ("PCL") does not have any outstanding judgments or liens against it, but does become involved in legal claims and actions from time to time in the normal course of its business. PCL strives to avoid legal claims and actions wherever possible, but in the unusual event that one does occur, PCL works very hard to resolve any disputed issues proactively and in a manner that is fair to all involved. PCL takes pride in its record of avoiding disputes and there are no claims that could impede PCL ability to perform this Project. There are outstanding legal claims and actions pending against PCL at this time. Many of these are covered by policies of insurance and are adjusted in the ordinary course. If you would like a listing of these insured claims, we will be happy to provide it upon request. Other than insured claims, there exist six uninsured legal actions currently pending against PCL, the details of which are described in the Litigation History below. **There is no change to this status with the BAFO.**

LITIGATION HISTORY FOR PCL CONSTRUCTION SERVICES, INC. (PENDING CASES)

Type of Legal Matter	Date of Action	Docket/Citation Number	Name of Court/Forum	Names of Parties	Description/Statement of Matter	Statement of Outcome
DENVER						
Subcontractor Dispute	August 2, 2013	13-cv-020059	United States District Court for the District of Colorado	<i>United States of America for the Use and Benefit of Heritage Roofing LLC, etc. v. PCL Construction Services, Inc.; Fidelity and Deposit Company of Maryland, et al.</i>	PCL was the Contractor on the Mesa Verde National Park Visitor and Research Center project, which is a public building or public work. The U.S. on behalf of Heritage, subcontractor, asserted claims against PCL for alleged non-payment of \$74,518.02 for project work.	Case pending.
LOS ANGELES						
Project Wage Dispute	April 8, 2013	BC505185	Los Angeles County Superior Court, California	<i>William T. Stevenson, Jr. v. Huntington Glazing, Inc.; PCL Construction Services, Inc.; et al.</i>	PCL's subcontractor, Huntington Glazing, failed to pay prevailing wages to its employees. PCL has tendered its defense and indemnity to Huntington Glazing.	Case pending.
Insurance Subrogation Dispute	August 23, 2013	BC519542	Los Angeles County Superior Court, California	<i>Chartis Property Casualty Co. v. The Lee Group d/b/a Lee Homes, PCL Construction Services, Inc., et al.</i>	Water damage to insured property due to the alleged improper discharging of a sprinkler head in a utility closet at the Flower Street Lofts when there was no fire or smoke.	Case pending.

LITIGATION HISTORY FOR PCL CONSTRUCTION SERVICES, INC. (PENDING CASES)

Type of Legal Matter	Date of Action	Docket/Citation Number	Name of Court/Forum	Names of Parties	Description/Statement of Matter	Statement of Outcome
SEATTLE						
Subcontractor Dispute	March 18, 2009	09-2-12930-4	King County Superior Court of the State of Washington	<i>Northwest Infrastructures Inc. v. PCL Construction Services, Inc.; Fidelity & Deposit Company of Maryland; and Central Puget Sound Regional Transit Authority</i>	Northwest Infrastructures Inc. claimed additional costs due to unforeseen site conditions. NWI has appealed the superior court decisions, including denial of their claim for additional funds.	Case is pending.
Subcontractor Dispute	April 10, 2013	2:13-cv-00647	United States District Court for the Western District of Washington	<i>Adams & Smith, Inc. v. PCL Construction Services, Inc.; et al.</i>	Subcontractor alleges it is entitled to additional payment on project. PCL disputes claims and has asserted counterclaims for delays on project caused by Subcontractor due to late steel deliveries.	Case pending.
Subcontractor Dispute	July 25, 2013	13-2-27089-7	Pierce County Superior Court, Washington	<i>Trenchless Construction Services, LLC v. Eastside Corridor Constructors, Granite Construction Company, PCL Construction Services, Inc.; et al.</i>	Subcontractor, Trenchless asserted claims for non-payment against PCL for work performed and standby costs in the amount of \$68,547.14 as part of the SR 520 project.	Case pending.

K.3 - Submittal Information from Subcontractors

KLB Construction - Site/Civil Earthwork Subcontractor

Financial Statements

KLB's three most recent audited financial statements **were** included in the supplemental Section K binder; **they have no significant changes from previously provided documents.**

Anticipated or Pending Claims

KLB does not have any anticipated, pending or unsettled claims; **there is no change to this with the BAFO.**

Lines of Credit

KLB's Line of Credit is based on receivables and used as part of normal business operations; **there is no significant change to this with the BAFO from what was previously provided.**

Bankruptcy, re-organization and/or receivership

KLB has not been involved in any bankruptcy, re-organization, or receivership proceedings; **there is no change to this with the BAFO.**

Design Air - Mechanical/HVAC Subcontractor

Financial Statements

Design Air's 3 most recent audited financial statements **were** included in the Supplemental Section K binder; **they have no significant change from previously provided documents.**

Anticipated or Pending Claims

Design Air does not have any anticipated, pending or unsettled claims; **there is no change to this with the BAFO.**

Lines of Credit

Design Air holds a line of credit through Harris Bank - information regarding the line of credit can be found on page 27 of their financial statement; **there is no significant change to this with the BAFO from what was previously provided.**

Bankruptcy, re-organization and/or receivership

Design Air has not been involved in any bankruptcy, re-organization, or receivership proceedings; **there is no change to this with the BAFO.**

Valley Electric - Electrical Subcontractor

Financial Statements

Valley Electric's 3 most recent audited financial statements **were** included in the supplemental Section K binder; **they have no significant change from previously provided documents.**

Anticipated or Pending Claims

Valley Electric does not have any current claims anticipated/pending/unsettled at this time; **there is no change to this with the BAFO.**

Lines of Credit

Valley Electric maintains a \$5 Million Collateralized LOC secured by our Accounts Receivable. The full \$5 Million is available with \$0 in use; **there is no change to this with the BAFO.**

Bankruptcy, re-organization and/or receivership

Valley Electric has not been involved in any bankruptcy, re-organization, or receivership proceedings; **there is no change to this with the BAFO.**

PCL Construction Services, Inc. - Reinforced Concrete Subcontractor

PCL will be self-performing the concrete scope of work, reference documents for PCL Construction Services, Inc. and PCL Construction Group, Inc. discussed above.

JP Francis & Associates - Plumbing Subcontractor

Although we had previously provided financial statements, line of credit information, etc. for our project Plumber, SCS certified firm JP Francis and Associates (JPF), this information is not part of the stipulated scoring requirements as their scope of work, Plumbing, does not fall into the scopes of work defined by either the original or BAFO RFP. JP Francis' information was provided for reference only and it is understood based on the scoring criteria provided by King County that their financial position should not be reflected in the proposal scoring. With that said, we acknowledge there exists financial concerns with JPF, and we have implemented measures, such as a risk mitigation plan (RMP) as well as Subguard bonding, to mitigate the risks associated with their financial position. Some of the RMP measures that will be implemented on the Project to ensure JP Francis' success are as follows:

- Monitoring of JPF's accounts payables
- Monitoring of JPF's procurement to ensure delivery schedules are met, including direct correspondence with vendors
- Re-occurring risk mitigation meetings with JPF Ownership
- Possible assistance with cash flow issues if they are encountered
- PCL purchased Subguard bonding on JPF

L. Small Contractors and Suppliers (SCS) Participation, Subcontracting Plan and Outreach Plan

L.3.a - SCS Commitment

PCL's level of SCS commitment, expressed as a percentage of the Total Contract Dollar Amount, is 25%.

The PCL Team understands King County's desire to enhance opportunities for Small Contractors and Suppliers (SCS) to participate in the performance of public works contracts.

During construction of the Factoria Recycling and Transfer Station project, PCL's level of SCS commitment expressed as a percentage of the Total Contract Dollar Amount is 25% Small Contractors and Suppliers (SCS). However, we are striving to exceed 30% SCS participation. Unfortunately due to the timing of submitting the BAFO technical proposal updates in advance of the BAFO price proposal has limited our ability to commit with complete confidence to SCS participation levels beyond what is noted above.

As part of our plan to achieve the above percentage, we have partnered with JP Francis and Associates (an SCS subcontractor) for Plumbing and Precision Iron Works (an SCS fabricator).

It takes a diverse team to achieve innovative solutions to complex problems and small business subcontractors and suppliers are an integral component of this process. We are committed to meeting or exceeding the projects goals. We have incorporated our outreach efforts and commitment to SCS with these in mind.

Experience and Approach in Managing Diverse Teams

We are committed to this goal and as evidence, have completed a number of significant public works projects, including the Lakewood Commuter Rail Station and the Kent Parking Garage Design-Build, where we exceeded the small business goals. To exemplify even further, on the \$280 million C755/C410 Central Link Project, PCL exceeded the project goals and achieved 25% SBE and 16% DBE participation.

PCL has a long history of managing diverse project teams on its projects. In order to successfully manage diverse teams, we work closely with all project stakeholders, including SCS and M/WBE firms, to maintain regular open communication and provide assistance where appropriate. Areas we will help out include:

Scheduling: we meet with SCS and M/WBE firms to assist them in understanding our schedule.

Safety: we review all subcontractors' safety plans, provide access to our safety procedures and forms, and offer training to assist SCS and M/WBE firms build their safety program.

Resource-sharing: to include crane time, use of forklifts and other equipment items to assist with material handling and other agreed upon circumstances.

PCL's Subguard program: an insurance product we provide in lieu of requiring subcontractors to provide bonds.

Mentor/protégé relationships: PCL provides these firms access to our general business management operations, including financial, personnel, marketing, business development, contract administration, and overall business planning.

Ongoing tracking of participation: we continuously monitor SCS and M/WBE percentages achieved from project inception to completion

L.3.b - Project Specific SCS Subcontracting Performance Plan

As part of our SCS subcontracting performance plan, we have identified three (3) distinct phases which will exist during the project. The phases are estimating, buyout, and execution. A summary of what each phase includes is as follows:

Estimating

- Holding outreach events to engage SCS participation
- SCS marketing (advertisements, postings, etc.)

- Strategy meetings with major subcontractors
- Identification of target scopes for increasing SCS participation
- Utilizing King Counties SCS list to solicit SCS firms
- Personal phone calls to SCS firms
- One on one meetings with SCS firms to assist in planning

Buyout

- Re-assessing SCS participation percentage
- Reviewing SCS percentage at internal weekly meetings to ensure percentage is maintained
- Engaging additional SCS firms for scopes of work not bought out or yet committed
- Assisting SCS firm with processes in order to encourage and maximize participation

Execution Phase

- Internal (PCL) monitoring
 - Achieved SCS percentages reviewed at weekly staff meetings
 - Reassessing SCS subcontracting Performance Plan on periodic and as needed basis
 - Review SCS plan monthly with PCL Senior Management
- Sub-Tier Monitoring
 - SCS percentage commitments to be expressly noted in contracts as requirements with subcontractors and suppliers
 - SCS percentages to be reviewed bi-weekly with each trade
 - Sub/supplier SCS percentages achieved through each period to be provided with monthly pay requests
- Assistance
 - Assisting in development of subcontractor operations plans as needed for SCS firms (safety, quality, etc.)
 - Risk mitigation plans to be implemented for higher risk firms
 - Assist non-SCS firms in certification process

L.3.b.i - Subcontract Package Structuring

During initial SCS planning meetings, PCL determined that teaming with an SCS firm for one or more of the larger scopes of work would be key to exceeding minimum SCS goals for the project. As such, we selected to work with JP Francis (JPF) as the project plumbing subcontractor and

Precision Iron Works (PIW) as the project steel fabricator. PCL has worked with both PIW and JPF successfully on numerous projects in recent years, and we frequently team together. However, there are risks to the project that can arise as a result of contracting large portions of a project to a smaller SCS firm that may not have as strong of a financial position. One way we mitigate this risk is by utilizing a Subguard program in which we (PCL, not the subcontractor or supplier) purchase a subcontractor/supplier bond for all subcontracts and purchase orders over a particular dollar value. Along with this, risk mitigation plans are established to ensure subcontractor payments to vendors are current, possibly assist with cash flow, and help ensure schedule adherence among other things. By utilizing Subguard and establishing risk mitigation plans up front, we have been successful in not only increasing SCS and small business participation on our projects, but also helping SCS and small business firms successfully complete our projects together. We have taken this same approach for the Factoria RTS.

Along with identifying large scopes of work to team with SCS firms on, PCL has identified through compressive work plans and a detailed schedule the work packages that align with the skills of the SCS firms. We packaged certain Subcontracts in smaller sizes which are related to specific and manageable scopes of work for SCS Subcontractors. For instance, pavement striping, which could be included under a larger non-SCS asphalt paving subcontract, may be broken out of to allow SCS companies who perform striping the opportunity to complete this work.



In essence, we have structured our SCS subcontract packaging from both the top down as well as bottom up. Top down meaning we identified large scopes in which we could utilize established relationships with SCS firms to perform the work, and bottom up by breaking out small scopes of work from our non-SCS firms to allow additional SCS participation at the smallest level.

L.3.ii - Potential Work Items

We have identified Major scope elements to solicit to SCS and M/WBE firms. The scopes below will be considered for SCS and M/WBE inclusion. Additionally we are working with our Major Subcontractors to encourage them to utilize sub-tier SCS firms and suppliers. Potential work items where we hope to utilize SCS participation are as follows:

- Asphalt paving
- Cleaning
- Concrete flatwork
- Curb and gutter
- Concrete paving
- Concrete placement
- Doors and hardware
- Erosion control
- Fire protection
- Glazing
- Landscaping
- Painting
- Plumbing (teamed with JPF)
- Roofing
- Signage
- Site furnishings
- Site work
- Striping
- Structural Steel Supply (teamed with PIW)
- Survey
- Trucking
- Temporary Facilities

L.3.b.iii - Conveyance of the SCS Goal to Major Subcontractors

PCL has conducted multiple SCS strategy meetings with our key subcontractors. The SCS strategy meetings focused on sub-tier outreach and sub-tier SCS work packages. Our key subcontractors are committed to bringing the maximum practical amount of SCS participation. To ensure our goals are met through the course of the project, subcontractors who commit to providing partial SCS participation will be contractually bound to their commitments by PCL. Sub-tier subcontractors will be evaluated based on lowest responsive bid with a weighting applied based on SCS participation.

L.3.b.iv - Criteria the Proposer will Utilize to select Sub-Tier Subcontracts

PCL teamed with two SCS firms to complete larger scopes of work. As mentioned previously, these firms are JP Francis and Precision Iron

Works. These firms were selected based on our past performance with them and the level of expertise they have in their fields. We are not accepting other bids for the scopes of work that JPF and PIW are providing.

For all other scopes, subcontractors and suppliers will be primarily selected based on lowest responsive bid. However, second and third lowest responsive bids will be reviewed to determine if they are SCS firms. If so, the project team, along with Senior Management, will weigh the cost premium for the SCS firm to determine if it would be in the projects best interest to utilize and SCS firm for the higher cost.

PCL is committed to encouraging and maximizing the participation of SCS firms. To help achieve this goal we have identified the following options to help support SCS firms:

1. Not require subcontractor bonding. Instead, we utilize a program called Subguard. Subguard is directly paid for by PCL and therefore helps to even the playing field for SCS and non-SCS firms in a competitive bidding environment.
2. Make the project documents easily accessible online and in person in our main office.
3. Review contract terms and conditions with SCS and M/WBE firms to improve clarity.
4. Support early mobilization payments and consider compensation during the proposal phase.
5. Consider supporting third party financing efforts to help improve cash flow.
6. The criteria for selecting subcontractors has been structured to maximize the number of work packages that can be competitively bid by SCS firms.

L.3.b.v - Person Responsible for Ensuring SCS Compliance

Due to the amount of projects we construct with SCS and M/WBE requirements and goals, PCL has a designated district compliance officer, Greg Yourechuk, to oversee SCS and M/WBE contracting compliance. Greg will assist the project team as needed, and oversee to ensure compliance with the contract. However, the Project Manager, Tyler Kautz, will be the primary person responsible for SCS compliance on this Project.

L.3.b.vi - Monitoring Progress

PCL will review on a bi-weekly schedule, during the procurement stage, and throughout the life of the project, that the SCS commitments established in the contract are being met by tracking SCS subcontracts by value as a percentage of total contract value. This calculated percentage will be compared to our project SCS goals, to ensure the SCS commitments are on track. The SCS subcontracting plan will be continuously reviewed and updated from award of contract until all subcontracts and change orders are executed.

L.3.c - Outreach Plan

PCL Construction Services, Inc. has a successful history of achieving impressive small business subcontracting goals along with multiple awards for Small Business Utilization. As prime contractor for this important project, we will engage in substantial good faith efforts to provide opportunities to SCS, Minority and Women owned business concerns. This narrative describes those efforts and identifies specific commitments we have already made to designated small businesses and intend to make over the course of the contract award and project execution.

It should be noted that outside the outreach plan summarized below, PCL first started our outreach at the preliminary planning stages by identifying two large scopes of work in which to team with SCS firms. Additional information can be found above in section L.3.b regarding how PCL has teamed with the SCS firms JP Francis and Associates as well as Precision Iron Works.

L.3.c.i - Communication with SCS subcontractors

PCL has approached communication with SCS firms using four main methods detailed below for the Factoria RTS:

1. PCL hosted an outreach event to establish new and maintain existing relationships with members of the SCS, Minority and Women owned business community.
2. PCL sent invitations to bid through fax and email using our company's source lists that are continually updated from the OMWBE Directory, King County SCS Directory of Certified Firms, and the SBA Dynamic Small

Business Search website.

3. PCL has made personal phone calls to all the relevant SCS firms on the King County SCS Directory.
4. PCL has met with interested SCS firms to review project scope in detail.

Please find attached our Outreach List of SCS subcontractors and subcontractors pending SCS approval.

L.3.c.ii – Orientation Meetings

PCL hosted an outreach event to establish new and maintain existing relationships with members of the SCS, Minority and Women owned business community. During the outreach event PCL highlighted the Factoria Recycling and Transfer Station project. Attendees were given an overview of the project and had an opportunity to discuss specific scopes and their participation in the project with the Lead Estimator and project management team.

After the meeting PCL followed up with interested SCS firms to match them with partnered subcontractors, with a goal to find work packages they can partner on.

On an as needed basis to meet the SCS subcontracting commitment, PCL may hold future outreach events.

L.3.c.iii – Aggressive Marketing

We have advertised Invitations to Bid for the Factoria RTS in industry resources, including the following. In all such advertisements, we encourage SCS and M/WBE businesses to submit proposals.

- Daily Journal of Commerce
- Contracts & Careers
- Builder's Exchange
- OMWBE Website

Additionally, PCL identified specific scopes of work likely to attract interest by local qualified SCS, Minority and Women owned business concerns and conducted targeted and personalized outreach to such firms. Workshops were held with interested SCS firms prior to bid day to help them better understand the project, and also to help us (PCL) understand better understand how we can help them be successful.

L.3.c.iv – Outreach Plan Understanding

PCL's corporate policy and practice is to promote small businesses. To foster this corporate value, we conduct and maintain internal motivational training to help project management and purchasing personnel identify, recruit and engage small business concerns as valued teaming partners. We monitor our staff to ensure compliance with this corporate value. Examples of guidelines which support this objective include:

- Requiring staff to allow sufficient time for interested bidders to prepare bids.
- Beginning each project with a sit down strategy meeting to maximize small business participation
- Seeking to broaden our database of small business firms.
- Using sign-in sheets at pre-bid meetings to find new subs for this and future projects.
- Continue to review a wide network of sources to identify potential SCS, minority and women owned businesses.
- Making direct contact with subcontractors at the time of pricing to determine their interest in working with PCL.
- Associating with industry associations that target minority business concerns.

The PCL and major subcontractor team held a proposal planning meeting for Factoria RTS early in the solicitation process to reiterate the importance of outreach and procuring work with SCS, Minority, and Women owned business concerns. We discussed our outreach efforts and solicitation of all subcontractors and sub-tiers in order to achieve or exceed our goal. All team members and major subcontractors attended and will be held accountable.

Not only were the expectations for vertically maximizing SCS participation clearly conveyed to all our team members (both internal and external to PCL), but recap cards for all scopes of work had a line item identifying level of SCS participation and a separate spreadsheet was kept updated on bid day so Senior Management could track real time our level of achieved SCS participation compared to the SCS goals we had initially established.

L.3.c.v – Communication Sub-tier Subcontractor Selection Process

The following was implemented to ensure that all interested parties understand the sub-tier subcontractors selection process:

- We have discussed PCL's sub-tier subcontractor selection process to interested SCS firms through telecommunications and in person meetings.
- During PCL's outreach event we presented the specific methods we use to lower the barriers for SCS firms as identified above in the SCS Subcontracting Plan.

L.3.c.vi – SCS Firm Solicitation Lists

PCL sent written invitations to bid via fax and email using our company's source lists that are continually updated from the OMWBE Directory, all applicable King County SCS Certified Firms, and the SBA Dynamic Small Business Search website. These invitations were sent in sufficient time to enable any interested firms to respond.

Additionally, the PCL Factoria RTS team made personal phone calls to firms on the King County SCS who were non-responsive to the written notifications.

L.3.c.vii – Collaborating and Utilizing Organizations

We have collaborated with an extensive local network of industry agencies which are utilized as advocates to recruit and provide assistance to small business concerns, particularly businesses owned by minorities, women, and other special interest business stakeholders:

- National Association of Minority Contractors (NAMC)
- Northwest Minority Supplier Development Council (NWMSDC)
- Tabor 100
- Minority Business Development Center (MBDA)
- State of Washington Office of Minority & Women Business Enterprises
- Native PTAC

A small business consultant was also recently retained part-time by PCL in the Pacific NW to assist in reaching out to small businesses on current and future work, which will include the Factoria RTS.

Past PCL Small Business Subcontracting Performance

The following table lists past project experience with the clients' small business goals and our corresponding achievements. The table and our statistics clearly demonstrate that PCL consistently achieve and exceed small business targets.

Project	S/DBE Goal	Participation Achieved
Sound Transit, C755 / C410 Central Link Light Rail Project, Seattle, WA	SBE goal: 20%, DBE goal: 12%	SBE achieved: 25%, DBE achieved: 16%
Sound Transit, Kent Parking Garage Design-Build, Kent, WA	SBE goal: 22%,	SBE achieved: 36.50%,
Sound Transit, Kent Pedestrian Bridge, Kent, WA	SBE goal: 22%,	SBE achieved: 29.27%,
Sound Transit, Federal Way Transit Center, Federal Way, WA	SBE goal: 20%, DBE goal: 13%	SBE achieved: 24%, DBE achieved: 12%
Sound Transit, Lakewood Commuter Rail Station, Lakewood, WA	SBE goal: 15%, DBE Goal: none	SBE achieved: 24%, DBE Achieved: 4%
Sound Transit, Auburn Parking Garage Design-Build, Auburn, WA	SBE goal: 22%	SBE achieved: 31.4%
Sound Transit, Auburn Pedestrian Bridge, Auburn, WA	SBE goal: 22%	SBE achieved: 60.4%
NAVFAC NW, Small Arms Training Center	SBE goal: 65%, DBE goal: 17.8%	SBE achieved: 69.9%, DBE achieved: 24.6%
Veterans Administration, Community Living Center, Tacoma, WA	SBE goal: 23% DBE goal: 23%	SBE achieved: 30%, DBE achieved: 30.1%
WSDOT, I5 to 12th Avenue Seismic Retrofit, Seattle, WA	DBE goal: 2%	DBE achieved: 8%



King County

List of SCS Subcontractors and Suppliers

Instructions: Complete this form and submit with your BAFO for Contract C00678C12.

Proposer Subcontracting Plan Administrator	PCL Construction Services, Inc. Tyler Kautz, Project Manager	Today's Date February 4, 2014	Contract No C00678C12
			Phone Number 425-454-8020

Company Name	SCS Certification Number	Contact Name	Phone	Indicate		\$ Amount of work	Scope of Work
				Subcontractor / Supplier			
NW Asphalt, Inc.	#814	Josh Gill	425-254-1820	Subcontractor		\$ 587,328.00	Asphalt
Castle Walls, Inc.	#797	Roger Coates	425-228-1458	Subcontractor		\$ 310,163.00	Structural Earthwalls
Kasey Construction Co.	#1040	Gene Kasey	503-267-7904	Subcontractor		\$ 1,748,770.00	Landscape
Grady Excavating, Inc.	#778	Kim Grady	425-508-9766	Subcontractor		\$ 1,530,000.00	Excavation
Precision Iron Works	#1042	Steve Leighton	253-887-5555	Subcontractor		\$ 1,898,917.00	Metals
NW Grating Products, Inc.	#1059	Mike Luiten	206-767-3000	Subcontractor		\$ 11,995.00	Roof Walk Grating
Lacey Glass, Inc.	#1058	Phil Zeutenhorst	360-459-8411	Subcontractor		\$ 561,392.00	Glass & Glazing
JP Francis & Associates, Inc.	#1296	Pat Francis	253-872-8950	Subcontractor		\$ 2,066,896.00	Plumbing
Mobile Electrical Distributors	#268	Colleen Hallett	206-363-2400	Supplier		\$ 568,333.00	Electrical Supplies
Commercial Fence	#1259	Collin Duke	206-767-7433	Subcontractor		\$ 161,966.00	Fencing & Gates
O'Neill	Pending**	Dennis O'Neill	425-429-7800	Subcontractor		\$ 237,631.00	Special Inspection & Testing
CGI	Pending**	Erwin K. Day	425-487-2618	Subcontractor		\$ 91,485.00	Waterproofing
RSB Construction, Inc.	Pending**	Harry Visker	253-905-2667	Subcontractor		\$ 1,921,261.00	Metal Roofing and Siding
Gibson Door & Millwork Inc	Pending**	Bryna Gibson	503-788-8080	Subcontractor		\$ 105,922.00	Door Installation
Zesbaugh, Inc.	Pending**	Greg Hendricks	206-547-1900	Subcontractor		\$ 96,420.00	Hanger Door
Magnum Crane LLC	#1210	Janet Tulare	253-630-6244	Subcontractor		\$ 153,707.00	Mobile Crane Services
Columbia Fire, Inc.	#1599	John Golderg	206-232-8569	Subcontractor		\$ 415,285.00	Fire Protection
Kolkay Electric	#832	Laura Richardson	360-886-1743	Subcontractor		\$ 315,743.00	Electrical

** Bidders appear to meet SCS requirements at bid time and will begin certification process.



Potential SCS Packages by Scope of Work

Work Description	Approx. Scope Value	SCS Contribution	Firm Name	Notes
Asphalt Paving	\$ 587,238	100%	NW Asphalt	
Cleaning	\$ 30,000	100%	Aaron's Janitorial, Buenavista, Lupo's Prof. Cleaning	Firms to be contacted for further opportunity during buyout
Concrete Flatwork	\$ 70,000	100%	King Concrete	King is believed to qualify for SCS, need to confirm
Curb and Gutter	\$ 160,000	100%	Franklin Pacific, Garner	Firms to be contacted for further opportunity during buyout
Concrete Paving	\$ 1,130,000	100%	Franklin Pacific, Garner	Firms to be contacted for further opportunity during buyout
Doors and Hardware - Supply	\$ 230,000	60%		
Doors and Hardware - Install	\$ 70,000	100%	M.L. Fox, MAD Const, Finishing Carp LLC.	Firms to be contacted for further opportunity during buyout
Erosion Control	\$ 30,000	100%	Bag Lady	
Fire Protection	\$ 415,000	100%	Columbia Fire	
Glazing	\$ 800,000	100%	Columbia Pacific, Lacey Glass	
Landscaping	\$ 1,700,000	100%	Kasey Landscaping	Not registered, but they believe they qualify and will register
Painting	\$ 406,000	100%	Metro Painting	
Plumbing	\$ 2,067,000	100%	JP Francis & Associates	
Roofing	\$ 1,933,000	100%	RSB	RSB qualifies, but is not registered yet.
Roofing - TPO	\$ 118,000	100%	Queen City	
Striping and Precast Curbs	\$ 25,000	100%	NW Asphalt, Duncan, Stanley	
Structural Steel Supply	\$ 1,700,000	100%	Precision Iron Works	
Survey	\$ 110,000	100%	CTS Engineers, Coastal Construc Survey	Firms to be contacted for further opportunity during buyout
Misc. Earthwork SCS Packages	\$ 1,300,000	100%		Various misc scopes held w/ KLB, large portion SCS
Trucking w/ PCL	\$ 55,000	100%	FTR Pacific, GFI, REED, JMR	Firms to be contacted for further opportunity during buyout
Fencing	\$ 162,000	100%	Commercial Fencing Contractors	
Structural Earth Walls	\$ 142,000	100%	Castle Walls	
Demolition	\$ 456,000	100%	3 Kings Environmental	
Appliances	\$ 8,000	100%		



Potential SCS Packages by Scope of Work

Work Description	Approx. Scope Value	SCS Contribution	Firm Name	Notes
Specialties	\$ 45,000	100%		
Bird Control	\$ 62,000	100%	Bird Be Gone	
Special Inspections	\$ 238,000	100%	O'Neill Environmental	
Casework	\$ 75,000	100%	M.L. Fox, MAD Const, Finishing Carp LLC.	Firms to be contacted for further opportunity during buyout
Waterproofing	\$ 91,000	100%	CGI	
GWB and Framing	\$ 542,000	100%	Enderis	Not registered, but they believe they qualify and will register
Flooring	\$ 56,000	100%	MAD Const, CRJ Const, West Coast Flooring	Firms to be contacted for further opportunity during buyout
Acoustical Ceiling Tile	\$ 11,000	100%		
Roller Shades	\$ 16,000	100%		
Entrance Floor Grates	\$ 26,000	100%		
HVAC	\$ 1,225,000	100%	JP Francis/Design Air	If Design Air is a subtier subcontractor to JP Francis, not yet determined
Misc. Electrical Supply	\$ 341,000	60%	Mobile Electric	
Misc. Subtier Electrical Work	\$ 316,000	100%	Kolkay Electric	

Current Potential SCS Value \$ 16,748,238

Note 1 - Spreadsheet compiled prior to all bids were received, this spreadsheet is for reference only

Note 2 - Reference SCS Contractor List provided with BAFO indicating SCS firms currently intending to be used. Subcontractors and values listed above were largely compiled prior to receipt of bids, while SCS Contractor List was updated immediately prior to BAFO technical proposal submission

Note 3 - Firms listed may or may not be carried in BAFO. For a number of scopes there exists additional SCS potential during buyout phase for firms that may or may not have been fully engaged up to the time of BAFO submission



Tyler Kautz, LEED AP, Assoc. DBIA, STS Project Manager



CONSTRUCTION LEADERS

For the majority of his career in commercial construction, Tyler has worked on complex phased projects that required extensive coordination with multiple stakeholders to meet the goals and objectives of the projects. Combined with organizational and leadership skills gained as a Sergeant in the United States Marine Corp, Tyler brings a unique set of management skills that have proven affective time and again in being able to work through difficult challenges. His positive attitude, attention to detail, and solution provider approach have gained the admiration and respect of those he has worked with.

EDUCATION, CERTIFICATION AND REGISTRATIONS

B.S., Construction
Management, 2007,
University of Washington

LEED, AP, 2008

Associate DBIA, 2010

On the Factoria RTS project, Tyler will be located on site and will be responsible for Project Management and the daily operations. This will include establishing and managing subcontracts, procurement, schedule oversight, facilitating and running project meetings, LEED documentation, managing the virtual construction and BIM process, cost controls and forecasting, change negotiations, closeout and turnover.

YEARS OF EXPERIENCE

8

EMPLOYED BY PCL SINCE
2005

PRIOR EMPLOYMENT

United States Marine Corps

SELECTED INDIVIDUAL PROJECT EXPERIENCE

Chief Joseph Fish Hatchery Phase II, Bridgeport, Washington

As overall Project Manager, Tyler was responsible for construction of this fish hatchery that ties into the Chief Joseph Dam. Construction consisted of a housing site, five fish rearing ponds, 40 concrete raceway cells, office, storage and hatchery buildings, an effluent waste structure, a water head box structure, an in-water fish ladder, three separate temporary cofferdams, an adult salmon holding facility, a high production well field system, diving operations on the reservoir side of the dam, and over 8 miles of underground large diameter HDPE piping. This complex project was turned over to the Bonneville Power Administration (BPA) in five phases in order to minimize impacts to dam operations and allow for early use by the Owner of portions of the facility.



Tyler's leadership helped the project team overcome a variety of unique challenges that included stringent environmental regulations, coordination with numerous governmental agencies (including BPA, the US Army Corps of Engineers, Washington State Parks, EPA, Department of Ecology, Colville Tribe Fish and Wildlife, and the Colville Tribal Employment Rights Office), workforce hiring requirements, and subcontracting requirements. Some of Tyler's notable accomplishments were achieving over 70% tribal workforce employment, 34% tribally subcontracted work and zero safety incidents.



PROJECT DETAILS

Start: June 2010 End: May 2013 Contract Value: \$51M

REFERENCE

Linda Hermeston, Project Manager, Bonneville Power Administration
503-230-4764, llhermeston@bpa.gov

Portland Bulk Terminals Expansion - Preconstruction, Portland, Oregon

Tyler served as Project Manager for preconstruction of this complex material transfer facility. Construction will consist of a 130,000 SF storage building, an extensive ground improvements package including stone columns, wick drains and shoring, structural steel towers, conveyors, ship loader replacement, and various other components. His duties included developing a schedule that minimally impacted the existing potash transfer facility, assisting with the design to find creative ways to construct the project while still maintaining operations, assisting with ground water planning and the permit process of working over the river, establishing procurement procedures for overseas vendors, coordinating with existing facility operators, and estimating. The plans established are anticipated to help the Owner get this project underway in May 2014.

PROJECT DETAILS

Start: May 2013 End: Sept. 2013 Anticipated Contract Value:\$80M

REFERENCE

Jack Waller, Terminal Manager, SSA Marine
503-285-4200, Jack.Waller@SSAMarine.com

Alaska Airlines Ground Covered Walkways, SeaTac, Washington

During this initial design assist phase of the project, Tyler oversaw the management of schedule, budget and sequencing development. This project is one of the first phases of the large North Star project for Alaska Air Group (AAG), and involved extensive coordination with AAG and the Port of Seattle to ensure ongoing port operations are minimally impacted. Tyler helped the project team develop a 4D schedule utilizing Primavera P6 and Revit that has been vital to coordinating interfaces with other contractors as well as the various Port operations groups.

PROJECT DETAILS: (TYLER'S PROJECT INVOLVEMENT DATES - THE PROJECT IS ONGOING)

Start September 2013 - End November 2013 Contract Value: \$6.5M

REFERENCE

Kim Somvongsiri, Project Manager, Alaska Airlines Group
206-392-5144, Kim.Sonmvongsiri@AlaskaAir.com

The Bravern Signature Residences Towers 3 & 4, Bellevue, WA

As lead engineer, Tyler was responsible for day to day operations of the structural elements as well as being integral to the efforts of the project commissioning. Tyler was responsible for day to day coordination of work activities with the designers and Owners, procurement of materials, coordination between numerous subcontractors and PCL workforce, permit coordination with the City of Bellevue, and logistics coordination with two other general contractors operating on site. Following completion of the structure, Tyler was responsible for the MEP and Commissioning including day to day management of the MEP installation and startup activities as well as coordination of the three phase turnover. Commissioning was capped with a month long smoking control phase that entailed balancing the two towers and the retail space below that was already open to the public.

PROJECT DETAILS

Start April 2008 End May 2010 Contract Value: \$246M

REFERENCES

Anish Talati, DCI Engineers 206-787-8903, atalati@dc-engineers.com



Scott Ivany Labor Relations Lead



CONSTRUCTION LEADERS

Scott will serve as the project Labor Relations Lead. As Seattle District Operation Manager he is responsible for all labor relations in the region as well as Alaska. To this role, he brings over 16 years of construction experience including experience with labor negotiations and Project Labor Agreements. Scott is well versed in many different types of construction and provides leadership and oversight to make ensure the execution of the project will run smoothly.

EDUCATION, CERTIFICATION AND REGISTRATIONS

B.S., Civil Engineering, 1997,
Purdue University

YEARS OF EXPERIENCE

17

EMPLOYED BY PCL SINCE

1997

REFERENCES

John Faunce
University of Alaska
907-786-4900
jfaunce@uaa.alaska.edu

Dave Eberle
Former Director Anchorage
International Airport
907-266-2596

SELECTED INDIVIDUAL PROJECT EXPERIENCE

WSDOT Traffic Management Center, Shoreline, WA

Scott currently serves as Project Executive responsible for overall project operations. This design-build project will construct a 17,850 sf facility, which will house operators that control the regions traffic management system. The building is designed to achieve LEED Silver. Special features include daylighting as well as heightened acoustic requirement to ensure the comfort of the operators.

PROJECT DETAILS

Start: October 2013 End: Anticipated March 2015 Contract Value:\$8.9M

SeaTac Airport Concourse D - Passenger Loading Bridge, SeaTac, WA

This project refurbished and replaced the passenger loading bridges at SeaTac Airport's Concourse D. As District Operations Manager, Scott was in charge of all project labor including subcontractor oversight.

PROJECT DETAILS

Start: October 2013 End: Anticipated March 2015 Contract Value:\$8.9M

Verizon Cellular Mobile Switching Center, Anchorage, AK

Scott served as Construction Manager in charge of overall project operations including project labor and labor relations. This project consisted of a new 22,570 SF mobile switching center. The structure is a single story steel frame with exterior precast panels. Standby power generators were placed in a separate 3,151 SF building of similar construction. The electrical and HVAC systems in the facility were designed to be fully redundant, and able to stay running through most natural disasters.

PROJECT DETAILS

Start: October 2010 End: Nov. 2012 Contract Value:\$21.8M

Kodiak Near Island Research & Administration Facility, Kodiak, AK

Scott served as construction manager for the 42,700 SF research facility on Near Island, Alaska. The facility is predominantly office space, with several laboratory rooms. The facility contains a 12,000 SF parking garage underneath the facility. The work includes blasting and leveling of a bedrock embankment, typical concrete footings and tall concrete stem walls. The level one slab above the parking garage is post-tensioned concrete construction.

PROJECT DETAILS

Start: July 2011 End: Feb. 2013 Contract Value:\$17.8M

Alaska State Library, Archives & Museum, Juneau, AK

Scott serves as Project Executive responsible for overall project operations. The 3 phase construction project is a 124,000 SF facility which will replace 5 existing buildings and consolidate the state of Alaska's Library, Archive and Museum. The new facility will provide greater efficiency to the three branches. PCL is completed with the first two phases and will begin the next phase mid 2014.

PROJECT DETAILS

Start: October 2011 End: Jan. 2016 Contract Value:\$78M

Warrior in Transition Complex, Ft. Wainwright, AK

The Warrior in Transition facility provides temporary housing for soldiers while they are recuperating from injuries sustained during their service in the United States and overseas fighting the Global War on Terror. At Ft. Wainwright, the complex includes three separate buildings. The 20,000 SF primary facility includes a 32 bed barracks, 8,200 SF Administrative and Operations Facility, and a 6,600 SF Soldier and Family Assistance Center, site work, and demolition of existing buildings. The project received LEED Silver certification in February 2012.

PROJECT DETAILS

Start: March 2010 End: Nov. 2011 Contract Value:\$22M

Anchorage International Airport Concourse A & B Renovations Phases I and 2, Anchorage, AK

These project provides seismic upgrades and a 300,000 SF remodel and retrofit of the A & B Concourses. The scope of work included abatement of hazardous materials and demolition of portions of the existing structure, seismic upgrades, interior and exterior architectural finishes, roofing, and mechanical and electrical system upgrades and the installation of a state-of-the-art baggage handling system. The upgrades were designed to bring the terminal and systems up to code, and to revise the architectural aspects to more closely match the C Concourse.

PROJECT DETAILS

Start: Nov. 2007 End: Oct. 2009 Contract Value:\$143M

Ernie Benson – Chief Scheduler



Ernie has more than 20 years of field experience developing and managing schedules on highly complex construction projects. He is skilled at developing detailed resource loaded design and construction schedules and preparing status reports and performance of earned value analysis.

Ernie's scheduling and controls experience project with values over \$2 billion. His exceptional knowledge, backed up with experience of the critical path method of scheduling and the ability to analyze schedules to identify issues with logic, durations, risk and trends ensures our clients have an accurate and precise schedule.

EDUCATION,
CERTIFICATION AND
REGISTRATIONS
BS, Industrial
Construction
Management
Colorado State
University

Planning and
Scheduling
Professional
AACE International

YEARS OF EXPERIENCE
30 Years

Employed by PCL since
1986

RELEVANT CURRENT PROJECT EXPERIENCE

Disney Springs Retail Expansion, Orlando, Florida

This \$185 Million project is a Renovation and new build of Downtown Disney. The project consists of five main retail zones with new Buildings totaling more that 500,000 GSF. Ernie assisted the project team in establishing the baseline schedule that has an Intelligent Activity ID structure and multiple activity codes including phase, building number, trade work type and responsibility.

PROJECT DETAILS

Start: May 2013 End: May 2016 Contract Value: \$185M

REFERENCE

Bill Sheerin
Walt Disney Creative
407-716-7171
William.C.Sheerin@disney.com

Universal Studios Florida – Project 722, Orlando Florida

Project 722 is a highly confidential expansion at Universal Studios Orlando. The project consists of a new themed ride building and themed retail/restaurant area, and an elevated cable train and two train stations to connect the new attraction to the existing Wizarding World of Harry Potter. Ernie assisted the project team in Establishing the baseline schedule that has an Intelligent Activity ID structure, defining multiple activity codes and man hour loading the theming work.

PROJECT DETAILS

Start: June 2012 End: June 2014 Contract Value: \$147M



REFERENCE

Rick Parker
Universal Studios
407-224-3178
Richard.parker@nbcuni.com

PAST PROJECT EXPERIENCE

San Diego International Airport, Terminal 2 Expansion, San Diego, CA	\$475M
NAVFAC 2 nd MAW Command Ops Facility, Cherry Point, NC	\$20M
Evervail, Vail, CO	\$805M
The Viceroy @ Snowmass Village, Snowmass, CO	\$129M
One Ski Hill Place, Breckenridge, CO	\$94M
The Residences @ Ritz Carlton Club at Kapalua Bay, Maui, HI	\$385M
The Bravern Signature Residences, Bellevue, WA	\$257M
Keola Lai Condominium Tower, Honolulu, HI	\$145M
I-595 Roadway Improvement Project, Ft Lauderdale, FL	\$2.0B
Central Link Light Rail, Seattle, WA	\$299M
New Terminal Development Program, Toronto International Airport	\$2.3B
Consolidated Rental Facility, Las Vegas NV	\$141M
Micron Technology Test & Probe Facility, Lehi, Utah	\$110M
Main Terminal and Parking Structures, Denver International Airport	\$500M
Domestic and International Concourses, Sky Harbor Airport, Phoenix, AZ	\$95M

**Details on these past projects available upon request*





File No: 2A

PCL Construction Services, Inc.

Transmittal Sheet

To: King County Procurement & Contract Services
Procurement & Contract Services
401 Fifth Avenue, 3rd Floor
Seattle, WA 98104

Delivery Method: Hand-Delivered

Date: 12/16/2013

Our Job No: P0012267

Fax #: 206-296-7675

Phone #: 206-263-9321

Series:

Tracking:

Attn: Mr. Darren Chernick

Re: Thumb Drive Containing Post Technical Interview Deliverables

Colleagues:

We are submitting (with this transmittal)

the following documents which are: For Your Records

Copies	Doc. Type	Doc. Number	Rev	Title or Description
1	USB Drive			Post Technical Interview Deliverables

Remarks:

This USB Drive contains the deliverables requested following PCL's Technical Interview on Wednesday, December 11, 2013.

The following items are contents of this USB drive:

- Power point presentation (pptx and pdf format)
- Comments Regarding Plans and Specs (pdf)
- Handout 1 - coatings QC checklist (pdf)
- Handout 2 - prejob/PLA checklist (pdf)
- Board 1 graphic for coordination discussion (pdf)
- Board 2 graphic for dewatering discussion (pdf)
- Scheduler's Resume: Ernie Benson (pdf)

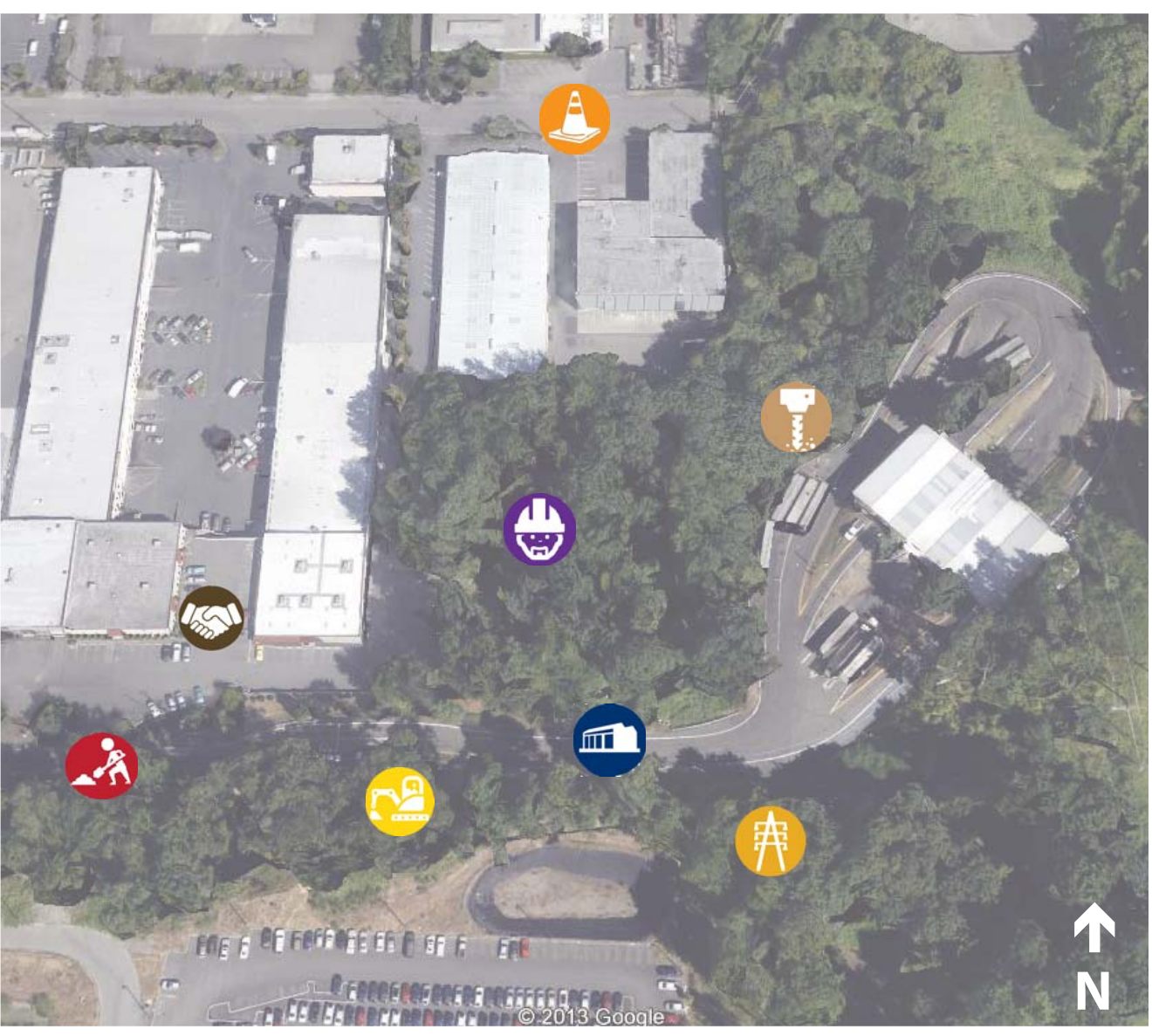
CC: PCL Const Srvs (S. Culbertson)

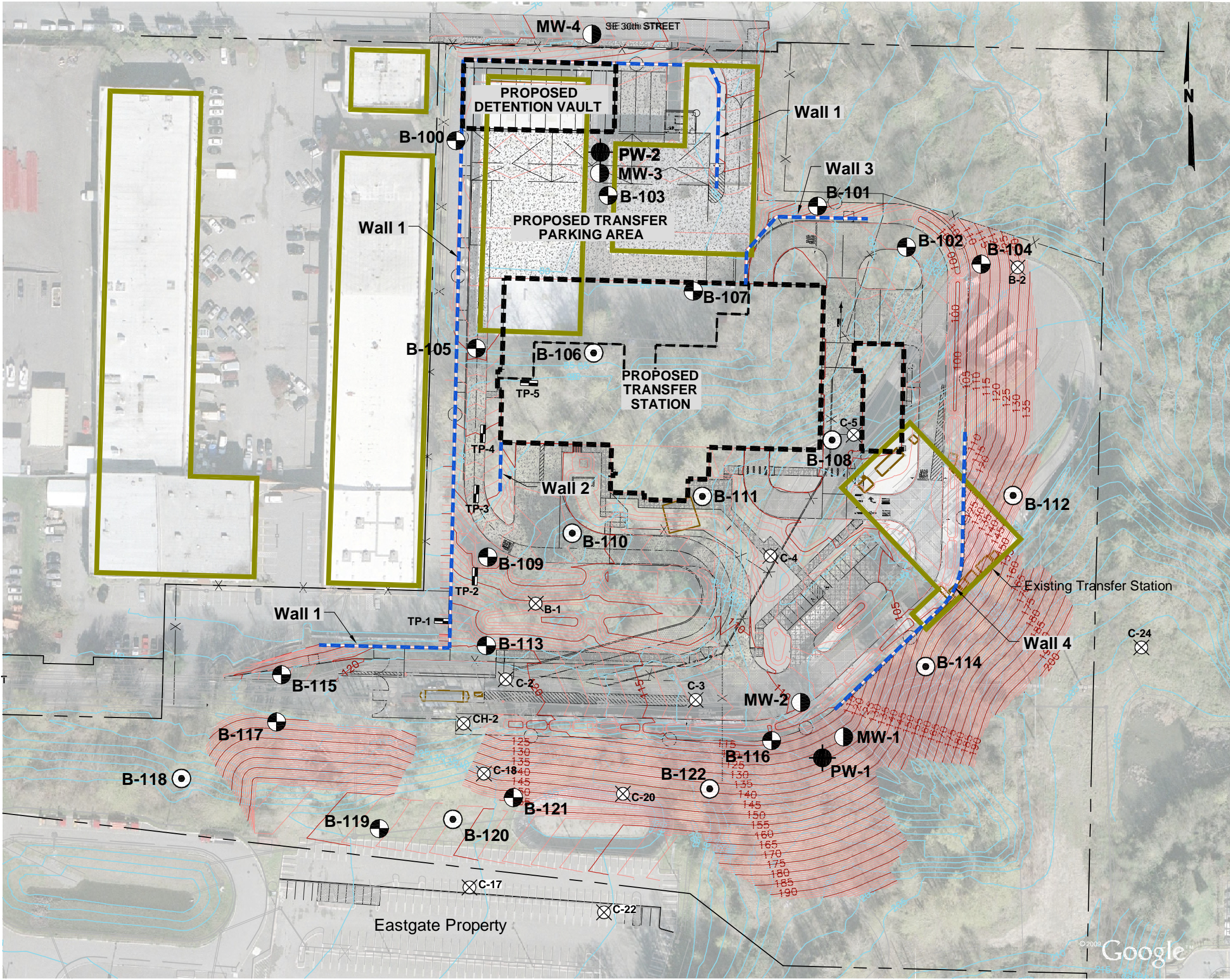
Transmittal #: 00001

Per: Daniel M Roberts

REC'D PROCUREMENT DIV
13 DEC 16 AM 10:45

[Signature]
Admin Specialist





MW-4 SE 30th STREET

PROPOSED
DETENTION VAULT

Wall 1

B-100

PW-2

MW-3

B-103

Wall 3

B-101

PROPOSED TRANSFER
PARKING AREA

B-102

B-104

B-2

Wall 1

B-107

PROPOSED
TRANSFER
STATION

B-105

B-106

TP-5

C-5

B-108

Wall 2

B-111

B-112

B-110

B-109

C-4

Existing Transfer Station

Wall 1

TP-1

B-1

B-113

C-24

Wall 4

B-114

B-115

C-2

MW-2

B-117

CH-2

MW-1

B-116

PW-1

B-118

B-122

C-20

B-119

B-121

B-120

C-17

C-22

Eastgate Property

HIGH PERFORMANCE INDUSTRIAL COATINGS SCHEDULE

HPIC SYSTEM	APPLICATION	Location ID #1	Location ID #2	Prime Coat Mils	Finish Coat #1 Mils	Finish Coat #2 Mils	Total Mils
#1	Structural Steel and misc. ferrous metals	Non-Corrosive Environment	Interior	3.0	3.0	3.0	9.0
#1	Structural Steel and misc. ferrous metals	Non-Corrosive Environment	Exterior	3.0	3.0	2.5	8.5
#2	Ferrous metals	Corrosive Environment	Interior	3.5	6.0	None	9.5
#2	Ferrous metals	Corrosive Environment	Exterior	3.5	6.0	2.5	12.0
#3	Copper, brass and assembled galvanized steel items; aluminum and aluminum flashings	As Indicated On Drawings	Interior	5.0	5.0	None	10.0
#3	Copper, brass and assembled galvanized steel items; aluminum and aluminum flashings	As Indicated On Drawings	Exterior	5.0	2.5	None	7.5
#4	Field Painting of Factory Finished Ferrous Metal	Non-Corrosive Environment	Interior	2.0	2.5	None	4.5
#4	Field Painting of Factory Finished Ferrous Metal	Non-Corrosive Environment	Exterior	2.0	2.0	None	4.0
#5.1	Hollow Metal doors and frames	Corrosive Environment	N/A	10.0	3.0	None	13.0
#6	Steel Joists Not Under System #9	N/A	Interior	3.0	4.0	None	7.0
#6	Steel Joists Not Under System #9	N/A	Exterior	3.0	3.0	None	6.0
#7	Structural Steel and Misc. Structural Steel Items not Under System #9	Corrosive Environment	Interior	2.5	5.0	None	7.5
#7	Structural Steel and Misc. Structural Steel Items not Under System #9	Corrosive Environment	Exterior	2.5	3.0	None	5.5
#8	Blower and air piping systems subject to max high temps of 400 degrees	Areas subject to max high temps of 400 degrees	N/A	2.0	2.0	None	4.0
#9	Interior Structural Steel, Steel bar joists, other ferrous metal surfaces, Misc structural steel items	Non-Corrosive Environment	(Factory Applied Prime Coat)	3.0	N/A	None	3.0
#10	Areas subject to temperatures in excess of 500 degF.	N/A	N/A	4.0-5.0	2.5-3.0	None	0.0
#12	Surface of pipe and Duct Insulation	N/A	Interior	2.5	2.5	None	5.0
#14	Interior Dry areas	Over Gypsum Wall Board	Interior	1.5	6.5-7.5	6.5-7.5	1.5
#19	Adjoining Dissimilar Metals or Aluminum in Concrete	N/A	N/A	5.0	N/A	None	5.0
#21	Touch Up pipe threads and other aluminum colored finishes where no top coat is required	N/A	N/A	5.0	N/A	None	5.0
#41	Touch Up Galvanized Surfaces Not Requiring a Top Coat	SEE METAL FABRICATIONS	N/A	X	X	X	0.0
#43	Field Painting Factory Coated Fusion Bonded Epoxy Piping, Valves, Etc.	N/A	N/A	2.5	3.0	None	5.5

Factoria Recycling and Transfer Station Coatings QC Checklist

Coating Type: HPIC #7 - Exterior				
Member ID:			Date:	
Location:			Time:	
Coat Type: Prime		Product: TNEME-ZINC Series 90-70		
		Acceptable		Verified By:
		Yes	No	
Surface Prep Required: SSPC-SP6/NACE 3				
Profile Required: Minimum 1.5 mils				
Clean and Dry:				
Relative Humidity: Min 20% to Max 90%				
Ambient Temperature: Min 35 degF - Max 120 degF				
Surface Temperature: 5 degF above dew				
Dew Point:				
Wet Mil Thickness of Primer: 4.0 - 5.5 mils				
Dry Mil Thickness of Primer: 2.5 - 3.5 mils				
All surface prep conditions acceptable?				
All primer applied acceptable?				

Subcontractor QC

Signature

Name (Print)

PCL QA/QC

Signature

Name (Print)

3rd Party QA

Signature

Name (Print)



TNEME-ZINC SERIES 90-97

PRODUCT PROFILE

GENERIC DESCRIPTION	Aromatic Urethane, Zinc-Rich
COMMON USAGE	An advanced technology, two-component, moisture-cured, zinc-rich primer providing extraordinary performance. It's user friendly and rapid curing so chemical- and corrosion-resistant topcoats can be applied the "same-day." Also used for field touch-up of inorganic zinc coating. Application methods include "dry-fall" under certain conditions (see Application).
COLORS	90-97 Reddish-gray
ZINC PIGMENT	83% by weight in dried film
SPECIAL QUALIFICATIONS	Series 90-97 meets AISC requirements of Class B surface with a mean slip coefficient no less than 0.50 and a tension creep not in excess of .005 inches (.13mm). Tnemec-Zinc uses a zinc pigment which meets the requirements of ASTM D 520 Type III and contains less than .002% lead. This level qualifies it to be classed as "non-lead" (less than 0.009% lead by weight) as defined in 16 CFR Part 1303 of the Consumer Product Safety Commission regulations. Conforms to SSPC Paint 20, Type II .
PERFORMANCE CRITERIA	Extensive test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

TOPCOATS	Series 1, 6, 27, 27WB, 46H-413, 66, L69, L69F, N69, N69F, V69, V69F, 73, 104, 113, 114, 115, 135, 161, 394, 1028, 1029, 1074, 1074U, 1075, 1075U Note: Certain topcoat colors may not provide one-coat hiding depending on method of application. Contact your Tnemec representative. Note: Series 90-97 must be exterior exposed for three days prior to topcoating with Series 1028 or 1029. Note: Series 90-97 must be exterior exposed for one day prior to topcoating with Series 27WB.
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SURFACE PREPARATION

Severe Exposure: SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
Moderate Exposure: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

TECHNICAL DATA

VOLUME SOLIDS	63.0 ± 2.0% (mixed)
RECOMMENDED DFT	2.5 to 3.5 mils (65 to 90 microns) per coat.
CURING TIME	Without 44-710

Temperature †	To Handle	To Recoat
75°F (24°C)	1 hour	4 hours
65°F (18°C)	1 1/2 hours	5 hours
55°F (13°C)	2 hours	6 hours
45°F (7°C)	2 1/2 hours	7 hours
35°F (2°C)	3 hours	8 hours

† 50% relative humidity. Curing time will vary with surface temperature, humidity and film thickness.
Note: For faster curing, low humidity and low-temperature applications, add No. 44-710 Urethane Accelerator (see separate product data sheet).

VOLATILE ORGANIC COMPOUNDS	Unthinned: 2.68 lbs/gallon (321 grams/litre) Thinned 2.5% (No. 2 or No. 3 Thinner): 2.79 lbs/gallon (334 grams/litre) Thinned 10% (No. 2 or No. 3 Thinner): 3.10 lbs/gallon (371 grams/litre)
HAPS	Unthinned: 5.12 lbs/gal solids Thinned 2.5%: 5.41 lbs/gal solids (No. 2 Thinner); 5.13 lbs/gal solids (No. 3 Thinner) Thinned 10%: 6.27 lbs/gal solids (No. 2 Thinner); 5.16 lbs/gal solids (No. 3 Thinner)
THEORETICAL COVERAGE	1,011 mil sq ft/gal (24.8 m ² /L at 25 microns). See APPLICATION for coverage rates.
NUMBER OF COMPONENTS	Two: Part A and Part B
PACKAGING	Four-Gallon and One-Gallon Kits: Consist of one premeasured container of liquid (Part A) and one premeasured container of powder (Part B). When mixed, yields four gallons (15.1L) or one gallon (3.79L).
NET WEIGHT PER GALLON	23.94 ± 0.60 lbs (10.86 ± .27 kg)
STORAGE TEMPERATURE	Minimum 20°F (-7°C) Maximum 110°F (43°C)
TEMPERATURE RESISTANCE	Dry (Continuous) 250°F (121°C) Intermittent 300°F (149°C)
SHELF LIFE	Part A: 12 months at recommended storage temperature. Part B: 24 months at recommended storage temperature.
FLASH POINT - SETA	Part A: 78°F (26°C) Part B: N/A
HEALTH & SAFETY	Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product. Keep out of the reach of children.

TNEME-ZINC | SERIES 90-97

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	3.0 (75)	5.0 (125)	337 (31.3)
Minimum	2.5 (65)	4.0 (100)	404 (37.5)
Maximum	3.5 (90)	5.5 (140)	289 (26.9)

Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance.

MIXING

Always use the entire contents of A and B components. Use an air-driven power mixer and keep material under constant agitation while mixing. Slowly sift powder (Part B) into liquid (Part A).

-Do Not Reverse This Procedure- Adjust mixer speed to break up lumps and mix until the two components are thoroughly blended. Strain through a 35 to 50 mesh (300 to 600 microns) screen before using. For spray application, keep under low RPM agitation to prevent settling. For brush or roller application, stir frequently to prevent settling. Do not use mixed material beyond pot life limits.

THINNING

For spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 Thinner if temperatures are below 80°F (27°C). Thin up to 10% or 3/4 pint (380 mL) per gallon with No. 3 Thinner if temperatures are above 80°F (27°C). For brush or roller, thin up to 10% or 3/4 pint (380 mL) with No. 3 Thinner.

POT LIFE

8 hours at 77°F (25°C) and 50% R.H.

Caution: This product cures with moisture acting as a catalyst. Incorporation of moisture or moisture laden air (humidity) during use will shorten pot life. Avoid continual agitation at high RPM. When feasible keep containers of mixed material covered during use.

APPLICATION EQUIPMENT

Note: When finish coats are white or light colors, best hiding of this dark color primer can be achieved by spray application.

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA †	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	40-50 psi (2.8-3.4 bar)	10-20 psi (0.7-1.4 bar)

† (with heavy mastic spring) Low temperatures or longer hoses will require additional pressure. Use pressure pot equipped with an agitator and keep pressure pot at same level or higher than the spray gun. Compressed air must be dry.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.017"-0.021" (430-535 microns) Reversible Tip	2400-3000 psi (165-207 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Keep material agitated to prevent settling.

Roller: Use 1/4" or 3/8" (6.4 mm or 9.5 mm) synthetic woven nap roller covers. Stir material frequently or keep under agitation to prevent settling.

Brush: Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 120°F (49°C) Maximum for Brush & Roller 100°F (38°C)

The surface should be dry and at least 5°F (3°C) above the dew point. **Note:** Series 44-710 Accelerator must be used if the surface temperature is 35°F to 60°F (2°C to 16°C) and 20% to 40% relative humidity.

AMBIENT HUMIDITY

Minimum 20% Maximum 90%

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or xylene.

CAUTION

Dry overspray can be wiped or washed from most surfaces. Satisfactory dry-fall performance depends upon height of work, weather conditions and equipment adjustment. Low temperature is of particular concern. Test for each application as follows: Spray from 15 to 25 feet towards paint container. The material then should readily wipe off. **Note:** Heat can fuse-dry overspray to surfaces. Always clean dry overspray from hot surfaces before fusing occurs. Be aware that surface temperatures can be higher than air temperatures.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.

Factoria Recycling and Transfer Station Coatings QC Checklist

Coating Type: HPIC #7 - Exterior				
Member ID:			Date:	
Location:			Time:	
Coat Type: Finish Coat		Product: ENDURA-SHIELD SERIES 180		
		Acceptable		Verified By:
		Yes	No	
Surface Prep Required: Clean, dry, free of oil/grease				
Profile Required: NA				
Clean and Dry:				
Relative Humidity:				
Ambient Temperature: Min 35 degF - Max 102 degF				
Surface Temperature: 5 degF above dew				
Dew Point:				
Wet Mil Thickness of Primer: 3.5 - 5.0 mils				
Dry Mil Thickness of Primer: 2.0 - 3.0 mils				
All surface prep conditions acceptable?				
All primer applied acceptable?				

Subcontractor QC _____
Signature

Name (Print)

PCL QA/QC _____
Signature

Name (Print)

3rd Party QA _____
Signature

Name (Print)



ENDURA-SHIELD® SERIES 1080

PRODUCT PROFILE

GENERIC DESCRIPTION Waterborne Acrylic Polyurethane

COMMON USAGE A waterborne polyurethane coating that provides color and gloss retention for exterior applications to steel, concrete and other miscellaneous substrates. It features low VOC content, low odor, high gloss finish and easy cleanup.

COLORS Refer to Tnemec Color Guide. **Note:** Certain colors may require multiple coats depending on method of application and finish coat color. When feasible, the preceding coat should be in the same color family, but noticeably different.

FINISH Gloss

PERFORMANCE CRITERIA Contact your Tnemec representative for specific test results.

COATING SYSTEM

PRIMER **Steel:** Series 20, 22, 27, 27WB, 66, N69, N69F, L69, L69F, V69, V69F, 84, 104, 115, 135, N140, N140F, L140, L140F, V140, V140F, 141, 161, 287
Non-Ferrous Metal: Series 66, N69, N69F, L69, L69F, V69, V69F, 115, 135, 161
Concrete: Series 20, 66, N69, N69F, L69, L69F, V69, V69F, 84, 104, 141, 161, 270, 273, 280, 287, 1254
CMU: L69, L69F, N69, N69F, V69, V69F, 130, 1254. Intermediate coat required (any of the above primers for concrete).
Note: Epoxy primers exterior exposed for more than 30 days require an epoxy intermediate coat or scarification prior to topcoating with Series 1080.

INTERMEDIATE Series 13, 14, 15, 20, 21, 102, 100

SURFACE PREPARATION

ALL SURFACES Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 58.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 3.0 mils (50 to 75 microns) per coat. **Note:** Number of coats and thickness requirements will vary with substrate, application method and exposure. **Caution: Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating aesthetics and performance. Excessive film thicknesses will cause microbubbling. Contact your Tnemec representative.**

CURING TIME

Temperature	To Touch	To Handle	To Recoat
75°F (24°C)	45 minutes	6 hours	6 hours

Curing time varies with surface temperature, air movement, humidity and film thickness.

VOLATILE ORGANIC COMPOUNDS

Unthinned: 0.81 lbs/gallon (97 grams/litre)
Thinned 5% (No. 66 Thinner): 1.31 lbs/gallon (158 grams/litre) †

HAPS

Unthinned: 0 lbs/gal solids
Thinned 5% (No. 66 Thinner): 0 lbs/gal solids

THEORETICAL COVERAGE

930 mil sq ft/gal (24.4 m²/L at 25 microns). See APPLICATION for coverage.

NUMBER OF COMPONENTS

Two: Part A and Part B

MIXING RATIO

By volume: Four (Part A) to one (Part B)

PACKAGING

	PART A (Partially filled)	PART B (Partially filled)	When Mixed Yield
Large Kit	5 gallon pail	1 gallon can	3 gallons (11.4L)
Small Kit	1 gallon can	1 quart can	1 gallon (3.79L)

NET WEIGHT PER GALLON

10.98 ± 0.25 lbs (4.98 ± .11 kg) †

STORAGE TEMPERATURE

Minimum 40°F (4°C) Maximum 110°F (43°C)
 Protect from freezing.

TEMPERATURE RESISTANCE

(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE

12 months at recommended storage temperature.

FLASH POINT - SETA

Part A: 108°F (42°C) Part B: >200°F (93°C)

HEALTH & SAFETY

Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

Does not appear to be compatible with Tnemec-Zinc 90-97 primer

ENDURA-SHIELD® | SERIES 1080

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	2.5 (65)	4.5 (115)	372 (34.6)
Minimum	2.0 (50)	3.5 (90)	465 (43.2)
Maximum	3.0 (75)	5.0 (125)	310 (28.8)

Note: Coverage rates based on unthinned material. Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating aesthetics and performance. †

MIXING

Stir contents of the container marked Part A, making sure no pigment remains on the bottom. Add the contents of the container marked Part B to Part A **while under mechanical agitation**. Continue agitation until the two components are thoroughly mixed. Continue mechanical agitation and thin according to the thinning instructions. Do not use mixed material beyond pot life limits. **Caution: Part B is moisture-sensitive and will react with atmospheric moisture. Keep unused material tightly closed at all times. Do not reseal mixed material. An explosion hazard may be created.** Unused mixed material should be thinned with equal amounts of water by volume and disposed of properly.

THINNING

Thinning is required for proper application. Thin up to 15% by volume with clean water. For warm temperature applications, product can be thinned with a combination of 5% No. 66 Thinner and 10% water. **Note:** Thin with mechanical agitation only after Part B has been thoroughly mixed with Part A according to mixing instructions.

POT LIFE

2 hours at 77°F (25°C)

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	50-80 psi (3.4-5.5 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.013"-0.017" (330-430 microns)	3000-4000 psi (207-275 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Use 1/4" (preferred) or 3/8" (6.4 mm to 9.5 mm) synthetic woven nap roller cover. Do not use medium or long nap roller covers. Two coats are required to obtain dry film thickness above 3.0 mils (75 microns).

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes. Two coats are required to obtain recommended film thickness.

APPLICATION CONDITIONS

Minimum 40°F (4°C) Maximum 120°F (49°C)

The surface should be dry and at least 5°F (3°C) above the dew point. **Caution: Protect from high humidity, dew and direct moisture contact during application and curing.** Application and/or curing in humidities above maximum, or exposure to moisture from rain or dew may result in a loss of gloss and/or microbubbling of the product.

CLEANUP

Flush and clean all equipment immediately after use with water and flush with xylene.

† Values may vary with color.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.



South 200th Link Extension Pre-Start Requirements

Subcontractor: _____

Start Date: _____

The following items are required to be submitted or completed before construction start. All PLA requirements need to be coordinated with Sound Transit’s PLA specialist.

- 1. Signed Contract: Yes: _____ No: _____
- 2. Certificate of Insurance: Yes: _____ No: _____
- 3. Pre Job Safety Review- Requirements (See attached): Yes: _____ No: _____
- 4. Statement of Intent to Pay Prevailing Wages: Yes: _____ No: _____
- 5. PLA Trade Assignment Submitted to Sound Transit: Yes: _____ No: _____
- 6. PLA Trade Conference Scheduled: Yes: _____ No (ST pre-job waiver): _____
If Yes, what date was it held on?: Date: _____
- 7. Letter of Assent- Attachment I (Submitted to ST): Yes: _____ No: _____

Submitted By: _____



SUBCONTRACTOR COMPLIANCE CHECKLIST

Subcontractor:

Project:

Start Date

Required Document	Y/N	Comments
Submit Site Specific Safety Plan		
Subcontractor Safety Program Sign Off		
Competent Person Designations		
Job Hazard Analysis(s)		
Submit Completed Fall Protection Work Plan		
Submit Hazard Communication Program		
Submit MSDS for Products On Site		
List of First Aid/CPR Personnel		
Safety Start up Checklist (PRE CON MEETING)		

Attach above listed documents to this cover sheet



SUBCONTRACTOR SAFETY PROGRAM SIGN-OFF

Project Name: _____

After reviewing the policies and practices as outlined in this plan, please sign-off this sheet and return to PCL Project Manager. The Company Owner or Principle, Superintendent and on-site supervisors are to sign off this sheet. The sign off sheet must be returned to the PCL before commencement of work-related activities on the jobsite.

I have read and understand this Project Environmental Health and Safety Plan and will carry out my work within these guidelines.

Company Name: _____

Company Owner/Principle

Name: _____	Date: _____
Signature: _____	Date: _____

Company Superintendent

Name: _____	Date: _____
Signature: _____	Date: _____

Company On Site Foreman

Name: _____	Date: _____
Signature: _____	Date: _____

PROJECT COMPETENT PERSON DESIGNATION

Project Name: _____
Project Location: _____

Project No.: _____
Company: _____

THE DESIGNATED *COMPETENT PERSON* FOR (indicate N/A when appropriate):

- 296-155-001 General Safety and Health _____
- 296-155-150 Ionizing Radiation _____
- 296-155-176 Lead _____
- 296-817 Hearing Protection _____
- 296-842 Respiratory Protection _____
- 296-155-325 Material Handling _____
- 296-155-426 Electrical (Assured Grounding) _____
- 296-874 Scaffolds _____
- 296-155-200 Fall Restraint and Fall Arrest _____
- 296-155-525 Cranes, Derricks, Hoists, Elevators, Conveyors _____
- 296-155-650 Excavation, Trenching, Shoring _____
- 296-155-675 Concrete, Concrete Forms, Shoring, Masonry _____
- 296-155-701 Steel Erection _____
- 296-155-725 Underground Construction _____
- 296-155-775 Demolition _____
- 296-52 Possession, Handling use of explosives _____
- 296-155-475 Stairways _____
- 296-876 Ladders, portable and fixed _____
- 296-656 Asbestos _____
- 296-809 Confined Space _____

DESIGNATED EMPLOYEE: _____
(Signature)

DATE: _____

DESIGNATED BY: _____
(Project Superintendent Signature)

DATE: _____

(Safety Manager Signature)

DATE: _____

List the training and/or experience that qualifies the above-named competent person:
(Additional documentation can be attached to this form as needed.) _____

Basic Definition of Competent Person as Listed in 29 CFR 1926.32(f)
One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Job Hazard Analysis

Project Number:	Project Name:
Work Activity/Work Task: Blank JHA	JHA

Steps	Hazards <i>Considerations to: People, Equipment, Material, Environment, Tools,(Chemical, Biological, Physical, Hygiene and Ergonomics)</i>	Pre-control Risk Rating	Control	Post Control Risk Rating	Controls Verified Yes / No

Review By:

Special Review By:

Project Superintendent	Date: Day Month Year	Required:						
Foreman	Date: Day Month Year	Engineer		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Date: Day Month Year
Project HSE	Date: Day Month Year	District HSE Manager		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Date: Day Month Year

Crew Reviewed with Signatures:

	Date: Day Month Year		Date: Day Month Year
	Date: Day Month Year		Date: Day Month Year
	Date: Day Month Year		Date: Day Month Year

Probability					
Category	Term	Definition			
4	Very Frequent	Possibility of repeated activities (many times in the course of a task)			
3	Frequent	Possibility of isolated activities (several times in the course of a task)			
2	Occasional	likelihood of activity occurring sometime (likely in overall task and/or project)			
1	Infrequent	Possible it will occur but not likely to			
Severity – Consequences					
Consequence Category		People	Property	Environment	Public Image, Reputation & Disruption
4	Major	Fatality	Impact >\$10,000	Reportable Occurrence	Government intervention
3	Critical	Permanent, long-term injury or illness	Impact < \$10,000 but > \$5000	Client Standards Not Met	Owner Intervention
2	Serious	Recordable Injury	Impact < \$5000 but > \$ 1000	Site Conditions Unacceptable	Community Attention
1	Minor	On-site/ No Treatment	Impact < \$1000	No Impact	Individual or none

		4	3	2	1
Severity	4	16	12	8	4
	3	12	9	6	3
	2	8	6	4	2
	1	4	3	2	1

Risk Category		
“A”	High (8-16)	Situation must be corrected immediately. Approval to continue at current level of risk by District Manager, Senior Construction Manager and District HSE Manager.
“B”	Medium (4-6)	Approval to continue at current level of risk by 2 senior supervisory project team members.
“C”	Low (1-3)	Managed appropriately at field level.



SUBCONTRACTOR SAFETY MANAGEMENT

Pre Job Safety Review/Safety Requirements

CONSTRUCTION LEADERS

PROJECT NAME:

PROJECT #:

CONTRACTOR:		DATE:	(mm/dd/yy)
REPRESENTATIVE:		TITLE:	
REPRESENTATIVE:		TITLE:	
REPRESENTATIVE		TITLE	

The PCL **Project Superintendent, Project Manager, and Project Engineer** shall review the following requirements with the subcontractor **Project Manager, Superintendent and Foreman** prior to the start of work. Subcontractor's **Project Manager** shall initial in the space provided after each item is discussed and agreed to.

This form must be filled out, in its entirety and the required attachments submitted before work can commence.

2.0	LEADERSHIP & ADMINISTRATION	Initial
2.1	Subcontractor accepts the responsibility of providing a safe working environment for its employees.	
2.2	Advise their workers of the project specific HSE plan and verify compliance through personal observations.	
2.3	Cooperate with all PCL representatives having jurisdiction at the jobsite pertaining to HSE issues.	
2.4	Demonstrate commitment to the PCL HSE policies and goal for ZERO incidents.	
2.5	Review the list of Zero Tolerance activities.	
3.0	ORIENTATION & TRAINING	Initial
3.1	Subcontractor management, employees, sub-tier trades and suppliers will attend project specific orientation prior to starting work on this project.	
3.2	Subcontractors will provide all required safety training to their employees and furnish documentation or certifications to PCL management. (Subcontractor to provide listing of competent person designations, blank attached).	
3.3	Subcontractor shall furnish an interpreter for all non English speaking employees to help facilitate orientations.	
4.0	HSE COMMUNICATIONS	Initial
4.1	Weekly safety meetings are to be held with all subcontractor employees. Subcontractor attendance is mandatory at the weekly all hands PCL Safety Meeting.	
4.2	Project safety committee meetings will be held monthly. Required attendance is mandatory for designated contractors. Meeting minutes will be forwarded to all contractors to review during weekly project safety meetings.	
4.3	Project monthly safe action plans will be communicated to subcontractors for review at their weekly safety meetings.	
4.4	If any subcontractor employees do not speak English, then the subcontractor must have a bi-lingual contact at all times overseeing this scope of work.	
5.0	HAZARD IDENTIFICATION & CONTROL	Initial
5.1	Subcontractor agrees to comply with all elements of the Pre Job Safety Instruction (PSI) program. Training for full compliance with this program can be arranged with PCL management. A Subcontractor's form can be used if it complies with PCL's PSI requirements.	
5.2	Subcontractor shall submit a well developed Job Hazard Analysis (JHA) for all high hazard activities, significant non-routine or major scopes of work on this project. JHA shall be reviewed with all workers affected by this activity.	
5.3	Subcontractor shall submit their hazard communication program, list of project specific chemicals, and pertaining MSDS sheets to PCL management. This must be updated as new chemicals are substituted or brought onto site.	
6.0	INSPECTIONS & AUDITS	Initial
6.1	Subcontractors are required to complete a weekly safety inspection of their work areas. Documentation of this inspection shall be forwarded to PCL management weekly. Inspections shall meet the requirements as specified in the project specific HSE plan. (Subcontractors may conduct a joint safety inspection with PCL staff of their immediate work area and have their participation noted on the inspection form).	
6.2	Inspections of all equipment, scaffolds, confined space, excavations etc. shall be completed daily and inspection documentation shall be submitted weekly to PCL management.	
6.3	Subcontractor shall cooperate fully with any Government, Owner, or other third party inspections that may occur on this project.	
7.0	PERSONAL PROTECTIVE EQUIPMENT	Initial
7.1	Subcontractor employees, at a minimum, will be required to have the following PPE before they are allowed to enter the jobsite (hard hats, safety glasses, prescription eyewear that meets ANSI standards and is equipped with side shields, sturdy leather footwear with a	



SUBCONTRACTOR SAFETY MANAGEMENT

Pre Job Safety Review/Safety Requirements

CONSTRUCTION LEADERS

PROJECT NAME:

PROJECT #:

	safety toe, hi-visibility class 2 vest or class 2 shirt with minimum 4 inch sleeves, and gloves at all times.	
7.2	All subcontractor employees exposed to working heights greater than four feet shall be required to submit a site specific fall protection work plan. All fall protection equipment shall be furnished by the subcontractor.	
7.3	Subcontractors are responsible to provide proper PPE that is in good condition, as well as the training regarding PPE to their employees.	
7.4	Subcontractors shall identify additional PPE required for specific job activities and furnish. (respirators, face shields, hearing protection, etc.)	
8.0	EMERGENCY RESPONSE PLAN	Initial
8.1	Subcontractor on site supervisor has reviewed the emergency action plan for this project and is knowledgeable of its content and changes there to (alarms, evacuation areas, emergency exits, fire procedures, earthquake procedures, medical facilities, crisis reporting, and participation in mock emergency drill is mandatory).	
8.2	Subcontractor is responsible for providing an adequate number of First Aid/CPR personnel on this project. List to be provided to PCL management.	
8.3	Subcontractor to submit emergency contact list including 24 hour contact to PCL management prior to starting work.	
8.4	Subcontractor employees will be familiar with the Project Crisis Management Plan and direct all inquiry to the Project Spokesperson.	
9.0	SECURITY	Initial
9.1	Project superintendent has reviewed the project security plan with subcontractor.	
9.2	All visitors, deliveries and vendors must sign in at PCL project office prior to visiting subcontractor on-site. Visitor PPE requirements are the same as workers.	
9.3	All after hour activity must be approved by project superintendent.	
9.4	Project superintendent will discuss subcontractor parking arrangements.	
10.0	ENVIRONMENTAL MANAGEMENT	Initial
10.1	Project superintendent has reviewed with the subcontractor the site environmental action plan.	
10.2	Reviewed subcontractor's responsibility regarding environmental spills and reporting procedures.	
10.3	Review removal of waste/disposal of hazardous chemical procedures.	
11.0	SUBCONTRACTOR HSE PROGRAM	Initial
11.1	Subcontractor must provide their own project specific HSE plan at the worksite while work is being conducted. This plan must be in compliance with PCL's HSE requirements. Subcontractor must also adopt the PCL project specific HSE plan.	
11.2	Subcontractor will designate a qualified person to coordinate their project specific HSE plan.	
11.3	Subcontractors are expected to maintain discipline sufficient to obtain compliance with the Project Specific HSE Plan and PCL's Zero Tolerance Policy.	
12.0	PREVENTATIVE MAINTENANCE	Initial
12.1	Subcontractor is responsible for providing a suitable number of appropriate first aid kits, fire extinguishers, and drinking water for their employees. (Per regulatory requirements)	
12.2	All tools and equipment brought on-site by the subcontractor shall be maintained in good working condition as specified by the manufacturer.	
12.3	Good housekeeping and orderliness shall be maintained at all times on this project. PCL will enforce this by issuance of 24 hour cleanup notice to all subcontractors who do not comply with daily cleanup requirements.	
13.0	INCIDENT INVESTIGATION	Initial
13.1	All subcontractor incidents including first aid will be reported to PCL management immediately. Incidents involving treatment beyond first aid shall be documented and investigated with a report submitted to PCL management within 24 hours.	
13.2	All incidents including first aid shall be investigated and documentation of findings along with action to prevent reoccurrence will be submitted to PCL management. All property damage will follow the same protocol.	
13.3	All near miss incidents shall be reported immediately and investigated by subcontractor management. The report shall be submitted to PCL within 24 hours.	
13.4	All subcontractor employees shall participate to the extent needed in incident investigations.	
14.0	INJURY MANAGEMENT	Initial
14.1	Project superintendent will explain PCL's injury management procedures with subcontractor.	



SUBCONTRACTOR SAFETY MANAGEMENT

Pre Job Safety Review/Safety Requirements

CONSTRUCTION LEADERS

PROJECT NAME:

PROJECT #:

14.2	Subcontractor shall adhere to the modified work duty program as outlined in the project specific HSE plan.	
14.3	Subcontractors shall make prior arrangements for potential medical treatment needs.	
15.0	PROJECT SPECIFIC HSE PLAN	Initial
15.1	Subcontractor has received a copy of the project specific HSE plan and agrees to comply with the requirements of this plan and the terms and conditions of the subcontract.	
15.2	Subcontractor has signed the safety program sign off document and submitted to PCL management.	

A competent person is defined as one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Subcontractor competent person identified for this project is _____

Competent person contact information _____

Each person to provide their signature below

Subcontractor Project Manager _____ Date _____

Subcontractor Superintendent _____ Date _____

Subcontractor Safety Representative _____ Date _____

Subcontractor Foreman _____ Date _____

PCL Project Manager _____ Date _____

PCL Superintendent _____ Date _____

PCL HSE Representative _____ Date _____

PCL Project Engineer _____ Date _____

**SOUND TRANSIT PROJECT LABOR AGREEMENT Pre-Job Jurisdictional
“PROPOSED TRADE ASSIGNMENTS”**

CONTRACTOR: _____

CONTRACT #: _____

PROJECT: _____

BID AMOUNT: _____

PURPOSE: To make proposed jurisdictional trade assignments, broken down by craft and classification, as well as to discuss details and answer questions relating to the project’s scope of work, safety and job assignments.

MEETING PLACE:

MEETING DATE:

MEETING TIME:

UNION RESPONSE DATE:

CONTRACTOR RESPONSE DATE:

SCOPE OF WORK (work you are contracted to do):

Sound Transit PLA
(Attachment I)

ESTIMATED WORK SCHEDULE:

START DATE:

COMPLETION DATE:

ADDRESSES

JOB LOCATION: _____

COMPANY'S LOCAL MAILING ADDRESS: _____

TRUST FUND BILLING

ADDRESS(ES)(where can the trust send the billing for contributions):

CONTRACTOR PERSONNEL- INCLUDE PHONE AND FAX NUMBERS

Sound Transit PLA
(Attachment I)

PROJECT MANAGER: _____

SUPERINTENDENT: _____

SAFETY REP: _____

DISPATCH CONTACT: _____

Dispatch procedures: Please list the Contractor Personnel who will be responsible for contacting the hiring halls to have craft workers dispatched to this project. Referral procedures will be in accordance with the provisions contained within the Sound Transit Project Labor Agreement.

SCOPE OF PREFABRICATION:

CURRENT UNION AGREEMENTS:

Sound Transit PLA
(Attachment I)

Apprenticeship:

Are you currently a training agent? _____Yes _____No

Have you received the workforce goals (Article 6 & 7) of the PLA?

Please indicate in which Trades you will utilize apprentices.

Contractor Registration Number (WA State) :

Sound Transit PLA
(Attachment I)

CRAFT DEMAND

PEAK

AVERAGE

Asbestos workers

Boilermakers

Bricklayers

Carpenters

Cement Masons

Electrical Workers- Wiremen

Electrical Workers-Linemen

Elevator Constructors

Glaziers

Insulators

Ironworkers-Structural/
Rebar

Ironworkers-Ornamental/
Architectural

Laborers

Millwrights

Operating Engineers

Painters

Pile Drivers

Pipefitters

Plasterers

Roofers

Sheet Metal Workers

Teamsters

PROPOSED TRADE ASSIGNMENTS

Please detail proposed trade assignments by each specific craft. Include scopes of work for each craft. If additional space is needed, please attach additional sheets.

UTILIZATION OF EQUIPMENT

List each piece of equipment planned for use and the proposed trade assignment for full time use or operation of each piece. Additionally, detail proposed “tools of the trade”, or part time use of equipment.

Sound Transit PLA
(Attachment I)

SUBCONTRACTORS

Detail all subcontractors and their scopes of work. All subcontractors must submit proposed trade assignments and participate in pre-job meetings if required.

**Sound Transit
Central Puget Sound Regional Transit Authority**

**PLA PRE-JOB JURISDICTIONAL CONFERENCE
CONTRACTOR REQUEST FOR WAIVER**

To request a waiver from attending this conference, please complete this form and submit it with (Attachment I) a signed Letter of Assent and a Proposed Trade Assignment form to the Seattle Building and Construction Trades Council and the PLA Specialist at Sound Transit. Work cannot commence until waiver is approved by the Seattle Building & Construction Trades Council and Sound Transit.

Contractor Name: _____ Contractor Phone _____
Business Address _____ Sub to: _____
Contract #: _____ Project Name: _____

Please describe the Scope of Work to be performed:

Please specify proposed Trade Assignment(s) and list Craft Union(s) and Local #

Please list other project contract(s) performed under the Sound Transit PLA, list and describe any jurisdictional, dispatch, grievance, substance abuse, and/or PLA compliance disputes:

<u>CONTRACT #</u>	<u>DISPUTE DESCRIPTION</u>
_____	_____
_____	_____
_____	_____

The contractor listed above requests a waiver of the Pre-job Jurisdictional Conference attendance requirement contained within the Sound Transit PLA. The contractor recognizes and agrees that the Seattle Building and Construction Trades Council and the Affiliated Local Unions signatory to the PLA, retain their rights as stipulated in the Sound Transit PLA to deny this waiver request, and to challenge any proposed trade assignment. A contractor working for the first time under this PLA cannot waive attendance.

Signed: _____ Title: _____ Date: _____

Request reviewed by:

Seattle Building Trades Council: Initials: _____ Date: _____ Approved: Yes No

Sound Transit: Initials: _____ Date: _____ Approved: Yes No

**Sound Transit Central Puget Sound Regional Transit Authority
Project Labor Agreement (PLA)
Letter of Assent**

ATTACHMENT I

CONTRACTOR/SUBCONTRACTOR AGREEMENT TO BE BOUND

_____ Contractor/Subcontractor has been awarded construction work within the scope of the Sounder Commuter and Link Light Rail PLA and hereby agrees to be bound by all its terms and conditions.

For the Contractor/Subcontractor:

Signature Title Date

Coordinator receipt Date Contract Number

CONTACT ADDRESS:

1st -NAME: _____

PHONE NUMBER(S): _____

2nd.

NAME: _____

PHONE NUMBER(S): _____

Contact Info:

Dallas DeLay – PLA Specialist

Sound Transit
Union Station
401 S. Jackson Street
Seattle, WA 98104-2826
Office: 206-689-4982
Fax: 206-398-5220
Cell: (206) 255-0209
E-mail dallas.delay@soundtransit.org

Dillon Cook – HSE Supervisor

PCL Civil Constructors, Inc.
19815 International Blvd
SeaTac, WA 98188
Office: 253-246-6116
Fax: 253-246-6196
Cell: 206-595-3189
E-mail dcook@pcl.com

Jeff Thomas – Accounting/Office Manager

PCL Civil Constructors, Inc.
19815 International Blvd
SeaTac, WA 98188
Office: 253-246-6114
Fax: 253-246-6196
Cell: 206-604-9544
E-mail jhthomas@pcl.com



Factoria Recycling and Transfer Station Project
 Comments Regarding Technical Plans and Specifications within the RFP

Item	Specification	Section	Drawing	Detail	Comments
1	01 21 00 31 23 19	1.04G 2.01	n/a n/a	n/a n/a	<p>Additional Dewatering covers work beyond the scope identified in section 31 23 19 – Temporary Dewatering. This spec section is mentioned here to reference to items 2 and 3 of this list.</p> <p>This section details the size and quantity of wells included in the base contract. Section 2.02 states the contractor will be compensated for work beyond the base contract scope. Based on the phasing of the project, every well will not all be operational simultaneously.</p> <p>This section defines the scope of dewatering for the base contract for bidding purposes. This section does not define the operational duration of dewatering required for each of the 14 wells. Operating durations for each of the wells is needed to provide a basis of uniform bidding.</p> <p>Please confirm the scope outlined in section 2.01 is the cumulative amount of dewatering wells for the project. For example, 14 wells are detailed in the base scope, if 4 wells are used in phase 1&2 and then 11 wells are needed in phase 3&4. Will the 15th overall well be covered by the allowance even though only 11 wells are being used at one time?</p>
2	33 40 00 40 20 16	n/a	01C119 01C120	n/a	The 12” sanitary sewer in SE 30 th Street is identified as DI (ductile iron), and various other pipelines on the project identify HDPE as an acceptable product. As additional clarification, please confirm HDPE pipe and ductile iron are both acceptable products to be utilized for the 12” sanitary sewer in SE 30 th street.
3	n/a	n/a	01C117 01C306 01C524	n/a	Please provide additional details for the amended sand filter vault. With these details, requested are structural details for the foundation, walls and roof, and details for how the removable grate interfaces with the asphalt parking lot.
4	00110 00120	1.03, L,2 1.03, A	n/a	n/a	The minimum SCS percentage is defined as 15% in these specifications. Please confirm that the Contractor stated SCS commitment included with the proposal will become the contractual minimum.



Factoria Recycling and Transfer Station Project
 Comments Regarding Technical Plans and Specifications within the RFP

5	00700	4.6,A	n/a	n/a	Specifications Section 00700 Paragraph 4.6, A states "...The Contractor shall bear all related costs of tests, inspections, and approvals." However, other specification sections outline that the Owner will hire independent testing agencies to provide testing and inspections. For example, Specifications Section 030505 Paragraph 1.02, A states "Owner will hire an independent Testing Agency/Service Provider to perform the following testing and inspection and provide test results..." Please clarify the delineation between costs and responsibilities for tests, inspections and approvals that are to be carried by the Owner vs. Contractor.
6	33 56 16	2.02, G	01C144 01C508	n/a	The Hydrostatic Leak Monitoring System specified for the Underground FRP Storage Tank adjacent to the HHW building does not have sufficient details for construction. It is not indicated if this detection system is integrated into a supervisory system or what local controls or indicators are required. Please clarify this system's parameters.
7	28 31 50	n/a	n/a	n/a	This specification details a toxic gas monitoring system. It references possible toxic gases to be monitored and notes to be installed in accordance with the Drawings. There is no mention of this system within the drawings. Please confirm if this specification is to be incorporated into the project. If so, please indicate on the drawings where system components are to be used.
8	n/a	n/a	02S101	n/a	When modeling the Station concrete, Footing labels were not consistently scaling to the footing table dimensions shown. Recommend re-confirming footing labels match scaling on Lower Level of station.
9	n/a	n/a	02S106- 02S108	n/a	Station Ground Level footings on these drawings are not identified per the Pad Footing Schedule. Need labels to quantify more accurately
10	n/a	n/a	01C508	n/a	Drawing 01C508 shows a 4000gal holding tank. There is no detail for venting this tank, please provide detail if venting is required.

December 11, 2013

Interview

Factoria Recycling and Transfer Station Project Contract C00678C12



BUILDING a Sustainable FUTURE

Together we build success.

Note: Project planning and approach has been updated as a result of the BAFO process; where contradictions occur between technical presentation material and updated BAFO technical proposal, information in BAFO technical proposal will take precedence.



Introduction

- Tom Doig – Vice President and District Manager
- Tyler Kautz* – Project Manager
- Scott Ivany – Labor Relations Lead
- Jeff Luedecker* – General Superintendent
- Jason McLauchlin* – Project Engineer
- Daniel Roberts* – Construction QC Manager
- Matt Glassman – Virtual Construction Manager
- Bryce Gardner – Project Estimator

**Denotes full time on the project*





Introduction

- Bill Grady, KLB Construction
- Jane Mason, KLB Construction
- Scott Bender, Bender Consulting
- Steve Leighton, Precision Iron Works

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Agenda

1. Overall Presentation of the Project
2. Construction Means and Methods
3. Water Management
4. BIM Usage
5. Traffic Management
6. Coordination with the County
7. Project Schedule
8. QA/QC
9. Staging Plan
10. Comments on Technical Plans and Specs
Lunch Break
11. Current Financial Status
12. Small Contractors and Suppliers (SCS)
13. Project Labor Agreement

Together we build success.



Overall Project Approach

- Coordination with operations
- Environmental responsibility
- Neighborhood planning

* Safety and quality are always at forefront of our planning

Together we build success.





Construction Means and Methods

- Steel Fabrication
- Performance Coatings
- Transportation and Hauling
- Transfer Building Erection
- Concrete Elevated Slab

Together we build success.



Fabrication

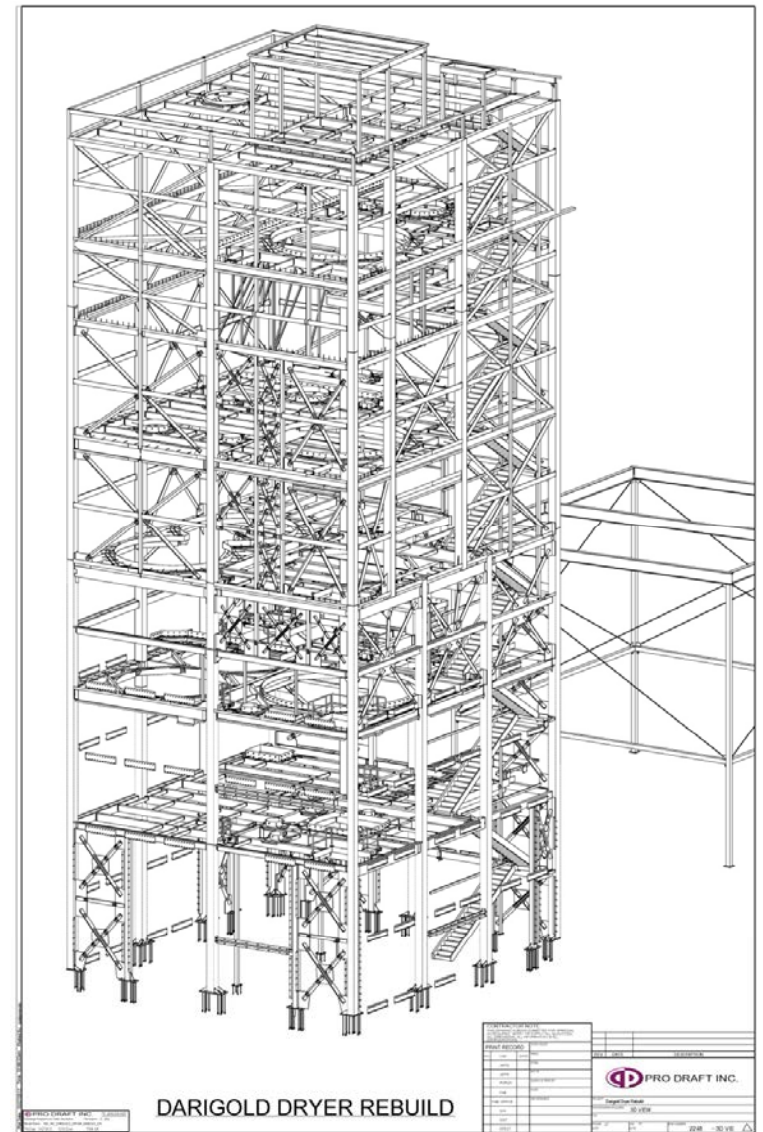
- Fabricator – Precision Iron Works
 - Located in Pacific, WA
 - AISC Certified Facility
 - 25,000 square foot fabrication shop
 - AWS and WABO certified welders and fitters
 - Worked with PCL successfully on 18 projects



Fabrication

- 3-D Shop Drawings
 - clash detection
 - incorporated into as-builts

Together we build success.



Fabrication



Together we build success.



Performance Coatings

- Puget Sound Coatings (PSC)
- PSC will prep steel required SP rating for various finishes
- Third party coatings inspector

BAFO Note: Reference BAFO update for technical proposal section F.2.a.i for approach to coatings based on increased understanding of project scope.



Performance Coatings

- Develop QA/QC procedures

HIGH PERFORMANCE INDUSTRIAL COATINGS SCHEDULE

HPIC SYSTEM	APPLICATION	Location ID #1	Location ID #2	Prime Coat Mils	Finish Coat #1 Mils	Finish Coat #2 Mils	Total Mils
#1	Structural Steel and misc. ferrous metals	Non-Corrosive Environment	Interior	3.0	3.0	3.0	9.0
#1	Structural Steel and misc. ferrous metals	Non-Corrosive Environment	Exterior	3.0	3.0	2.5	8.5
#2	Ferrous metals	Corrosive Environment	Interior	3.5	6.0	None	9.5
#2	Ferrous metals	Corrosive Environment	Exterior	3.5	6.0	2.5	12.0
#3	Copper, brass and assembled galvanized steel items; aluminum and aluminum flashings	As Indicated On Drawings	Interior	5.0	5.0	None	10.0
#3	Copper, brass and assembled galvanized steel items; aluminum and aluminum flashings	As Indicated On Drawings	Exterior	5.0	2.5	None	7.5
#4	Field Painting of Factory Finished Ferrous Metal	Non-Corrosive Environment	Interior	2.0	2.5	None	4.5
#4	Field Painting of Factory Finished Ferrous Metal	Non-Corrosive Environment	Exterior	2.0	2.0	None	4.0
#5.1	Hollow Metal doors and frames	Corrosive Environment	N/A	10.0	3.0	None	13.0
#6	Steel Joists Not Under System #9	N/A	Interior	3.0	4.0	None	7.0
#6	Steel Joists Not Under System #9	N/A	Exterior	3.0	3.0	None	6.0
#7	Structural Steel and Misc. Structural Steel Items not Under System #9	Corrosive Environment	Interior	2.5	5.0	None	7.5
#7	Structural Steel and Misc. Structural Steel Items not Under System #9	Corrosive Environment	Exterior	2.5	3.0	None	5.5
#8	Blower and air piping systems subject to max high temps of 400 degrees	Areas subject to max high temps of 400 degrees	N/A	2.0	2.0	None	4.0
#9	Interior Structural Steel, Steel bar joists, other ferrous metal surfaces, Misc structural steel items	Non-Corrosive Environment	(Factory Applied Prime Coat)	3.0	N/A	None	3.0
#10	Areas subject to temperatures in excess of 500 degF.	N/A	N/A	4.0-5.0	2.5-3.0	None	0.0
#12	Surface of pipe and Duct Insulation	N/A	Interior	2.5	2.5	None	5.0
#14	Interior Dry areas	Over Gypsum Wall Board	Interior	1.5	6.5-7.5	6.5-7.5	1.5
#19	Adjoining Dissimilar Metals or Aluminum in Concrete	N/A	N/A	5.0	N/A	None	5.0
#21	Touch Up pipe threads and other aluminum colored finishes where no top coat is required	N/A	N/A	5.0	N/A	None	5.0
#41	Touch Up Galvanized Surfaces Not Requiring a Top Coat	SEE METAL FABRICATIONS	N/A	X	X	X	0.0
#43	Field Painting Factory Coated Fusion Bonded Epoxy Piping, Valves, Etc.	N/A	N/A	2.5	3.0	None	5.5

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Performance Coatings

**Factoria Recycling and Transfer Station
Coatings QC Checklist**

Coating Type: HPIC #7 - Exterior				
Member ID:			Date:	
Location:			Time:	
Coat Type: Prime		Product: TNEME-ZINC Series 90-70		
	Acceptable		Verified By:	
	Yes	No		
Surface Prep Required: SSPC-SP6/NACE 3				
Profile Required: Minimum 1.5 mils				
Clean and Dry:				
Relative Humidity: Min 20% to Max 90%				
Ambient Temperature: Min 35 degF - Max 120 degF				
Surface Temperature: 5 degF above dew				
Dew Point:				
Wet Mil Thickness of Primer: 4.0 - 5.5 mils				
Dry Mil Thickness of Primer: 2.5 - 3.5 mils				
All surface prep conditions acceptable?				
All primer applied acceptable?				

Subcontractor QC _____ Signature _____ Name (Print) _____

PCL QA/QC _____ Signature _____ Name (Print) _____

3rd Party QA _____ Signature _____ Name (Print) _____



Performance Coatings

- Items to be coated prior to transport to jobsite:
 - Structural Steel
 - Joists
 - Decking
- Items to be coated onsite:
 - Structural Steel connections
 - Concrete embedded materials (as req.)

BAFO Note: Reference BAFO update for technical proposal section F.2.a.i for approach to coatings based on increased understanding of project scope.

Performance Coatings

- Field coating application
 - Once building enclosed to create controlled environment
 - Heat and/or de-humidifiers to be utilized as necessary to achieve required conditions for various coatings
 - Third party coatings inspector will spot review prep and coatings onsite

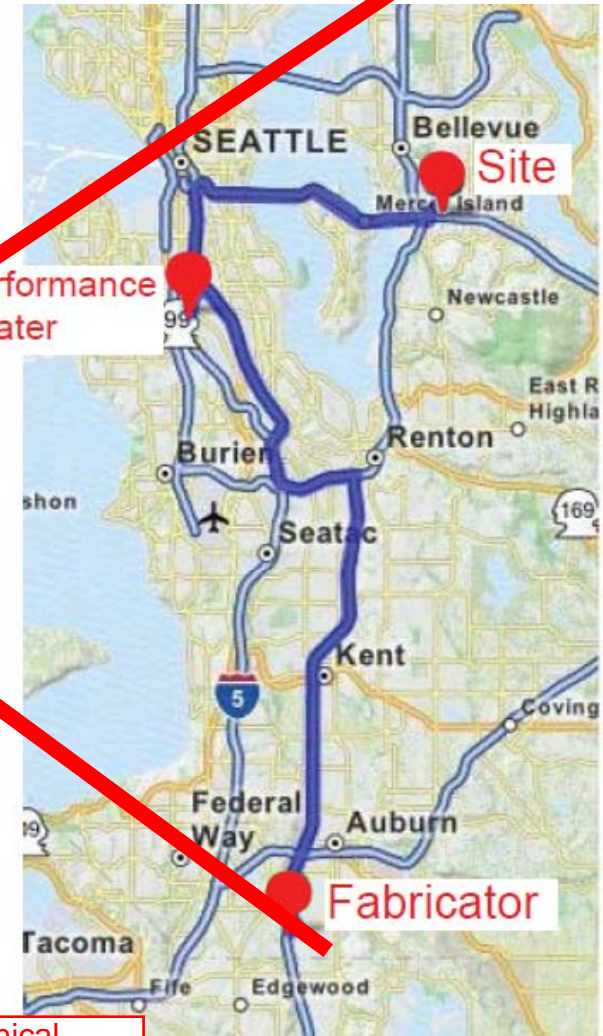


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Transportation and Hauling

- PSC selected partially for proximity to project site
- Handled with padding in place to prevent/minimize damage
- Transported with “soft sided” dunnage
- Just-In-Time delivery to project site



BAFO Note: Reference BAFO update for technical proposal section F.2.a.i for approach to coatings based on increased understanding of project scope.



STEEL ERECTION

- Installation by The Erection Company (TEC)
- PCL and TEC have successfully completed 19 Projects together

Together we build success.

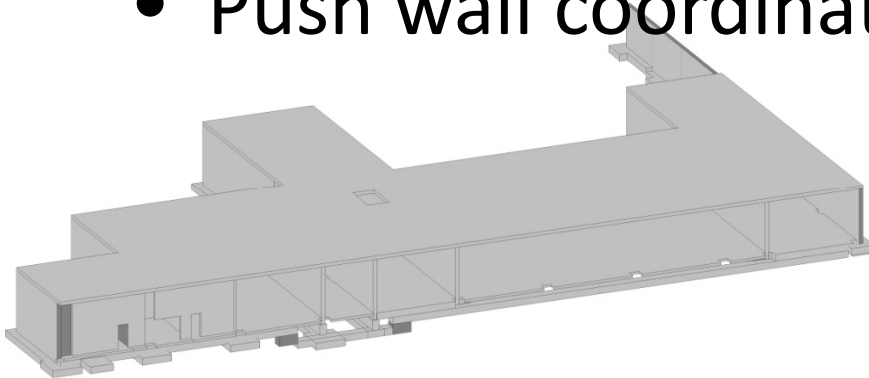


ERECTION PLAN

- Use of softeners with rigging
- Modular Joist Sections - 3 Sections
Each Assembled Onsite
- Steel Deliveries – “Just in Time”
- Mobile Crane - Flexibility

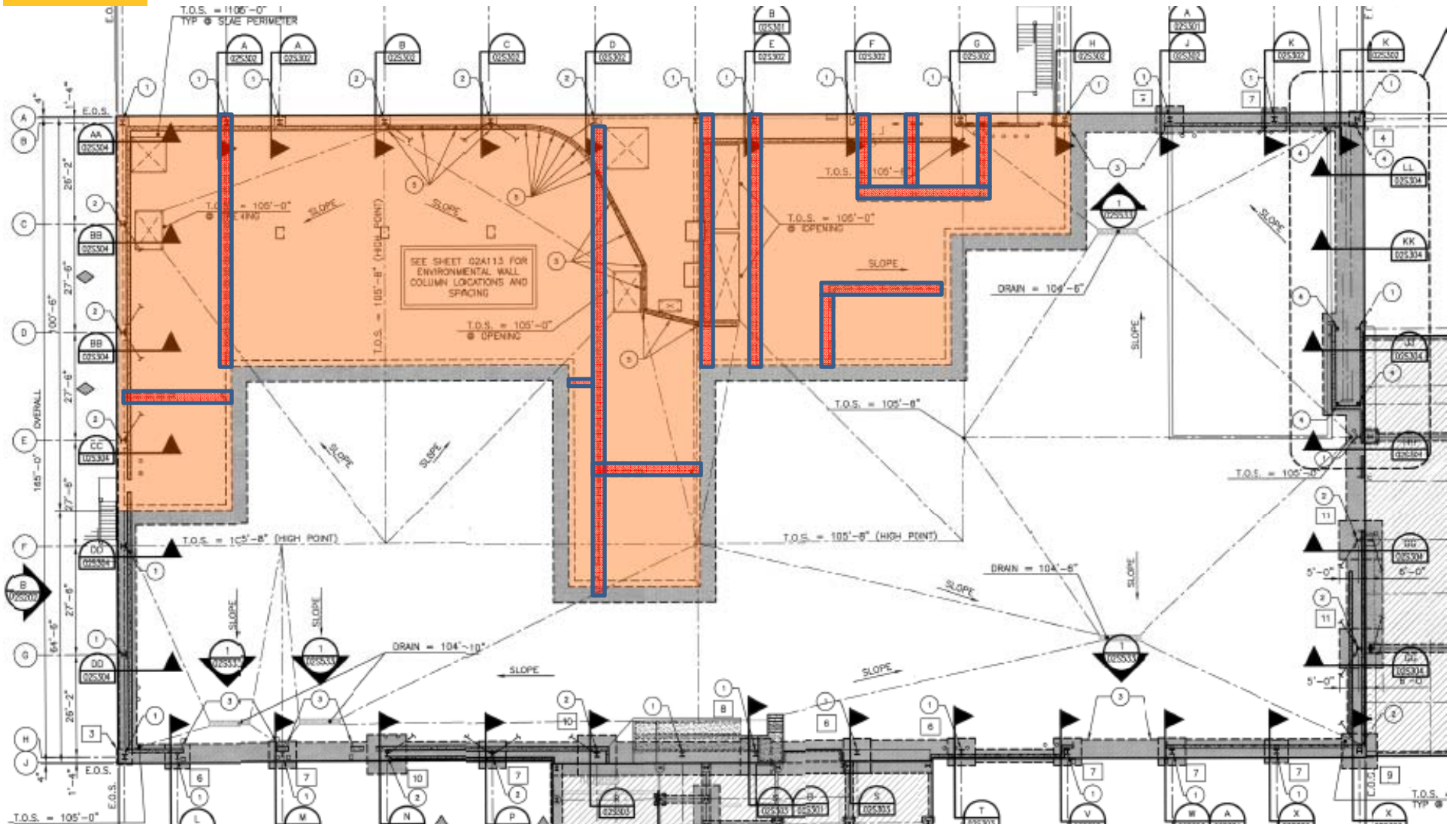
Elevated Slab Plan

- 3-D Model of structure for planning and clash detection
- Engineered shoring system
 - Verification by manufacturer
- Installation of system
- Key Components
- Push wall coordination with deck



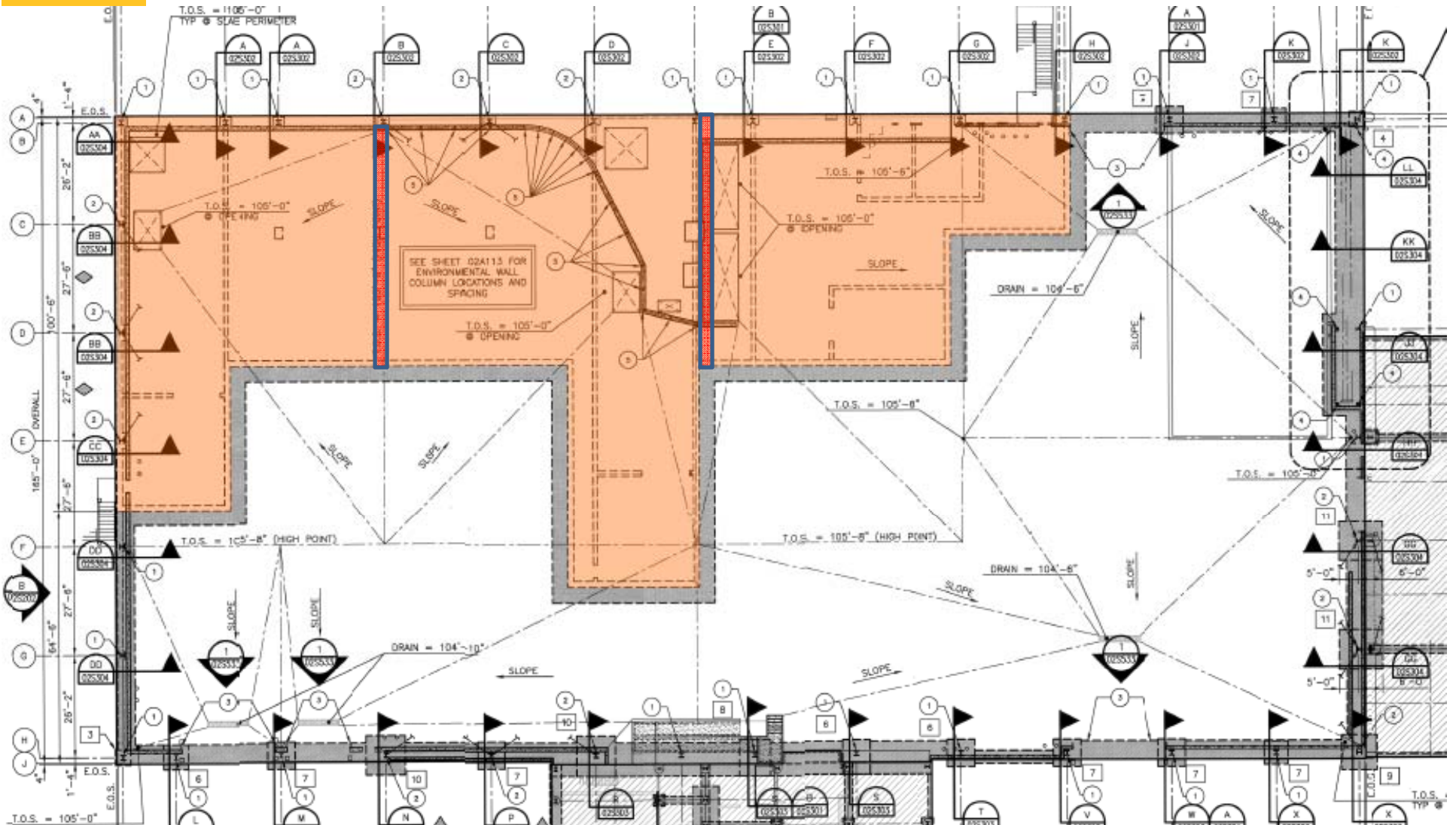
Elevated Slab Plan

Concrete wall vs. CMU option



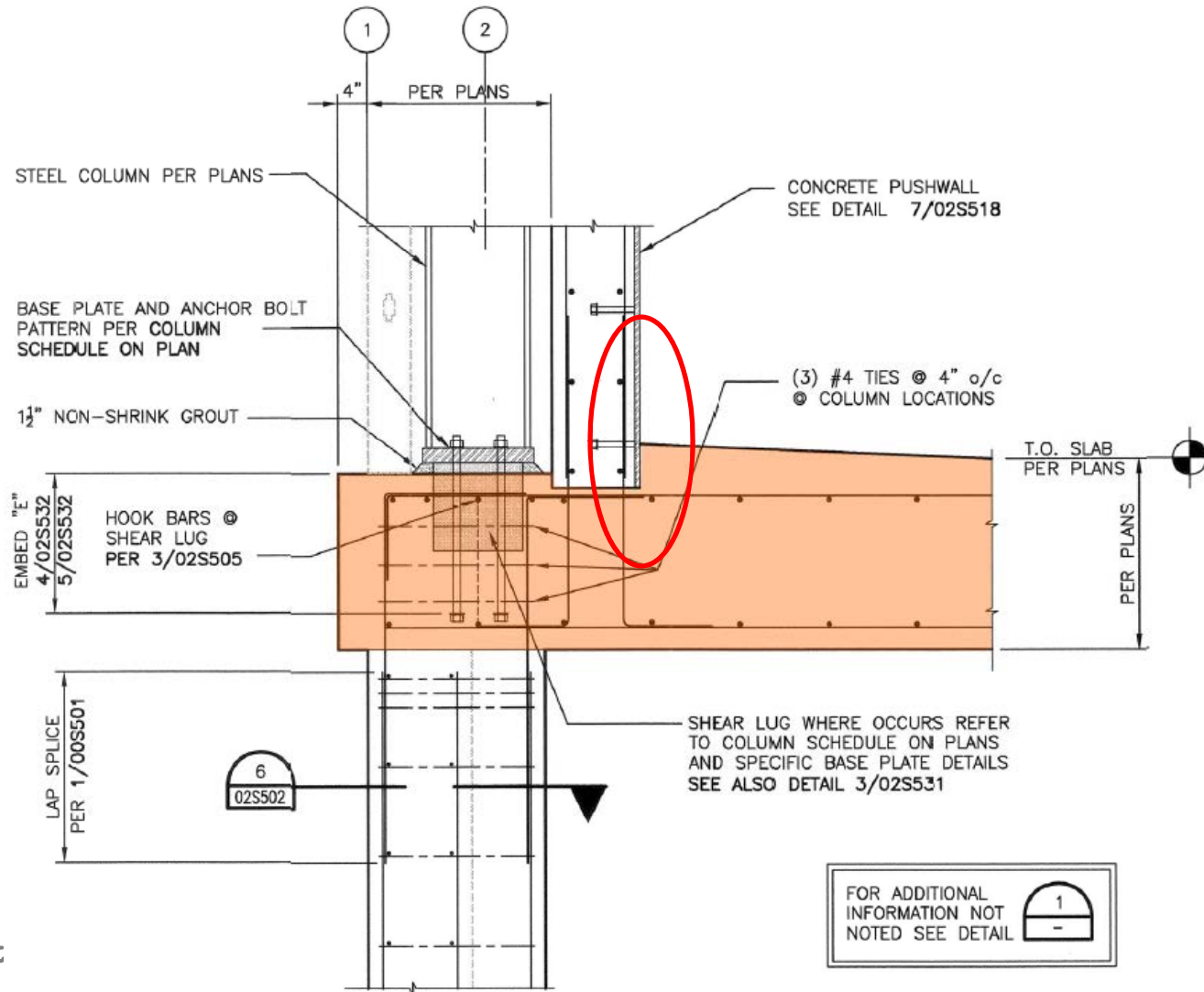
Elevated Slab Plan

Construction Joints



Elevated Slab Plan

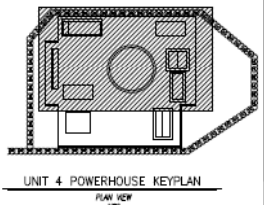
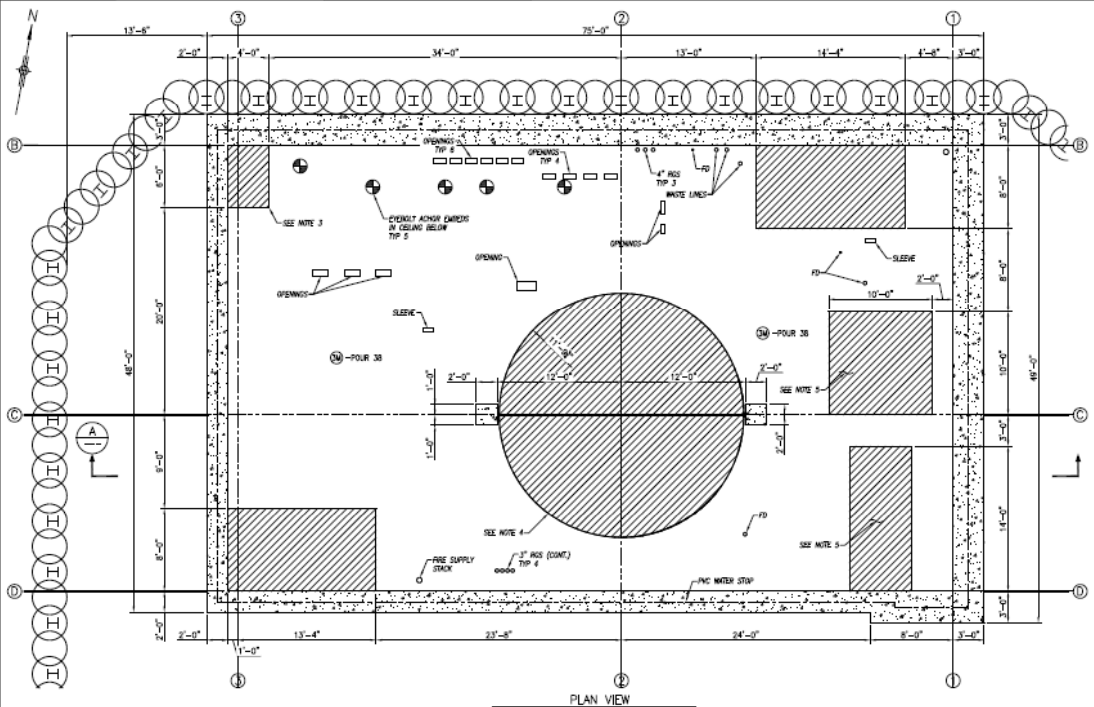
Push Wall Embed Interface



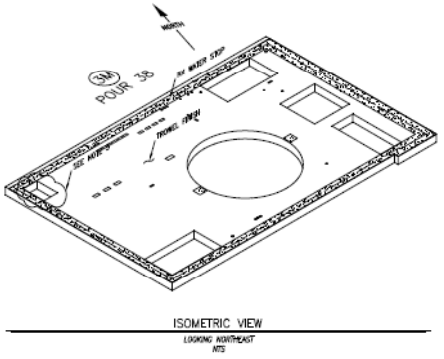
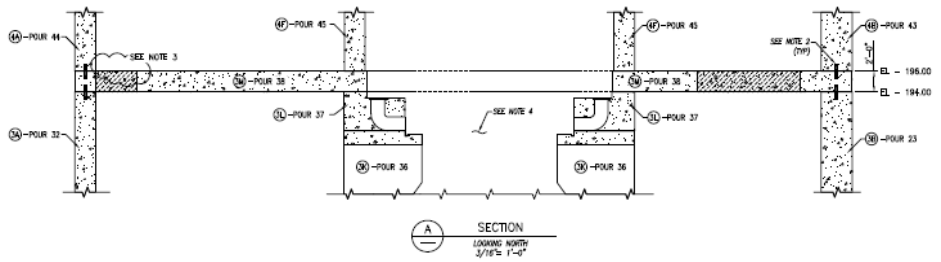
Toget



PCL Lift Drawings (Lower Baker example)



- NOTES:
1. REFER TO BLACK & VEATCH DRAWINGS LWB-U4-S-1100 THRU 1127 FOR ADDITIONAL INFORMATION.
 2. INSTALL INTERSTOP PER TYPICAL DETAILS ON BLACK & VEATCH DRAWING LWB-U4-S-1002.
 3. DEVIATION - INSTALL MOUNT HANG RAIL @ LEAD LEVEL PER BIDDY MARKUP NOTES.
 4. SEE DWG'S LWB-U4-M-2104/2105/2107/2111/2133/2125 FOR ADDITIONAL INFORMATION ON THE SPIRAL CASE, FIT LINE, TURBINE RUNNER, BOTTOM RING, & TURBINE SHAFT. FIELD VERIFY LAYOUT PRIOR TO CONSTRUCTION.
 5. INSTALL HATCH PER TYPICAL DETAIL C ON DRAWING S-1205.



BILL OF MATERIAL		
Mat. No.	QTY	DESCRIPTION

WORK QUANTITIES	
Total Concrete (yd ³)=	220
Slab Concrete (yd ³)=	220
Slab Edge Form Work (ft ²)=	342
Deck Form Work (ft ²)=	3010
Slab Block Outs (ft ²)=	522.82
RX Water Stop (ft)=	492
Joint Prep (ft ²)=	590

ISSUED FOR CONSTRUCTION

REV	DATE	DESCRIPTION	REV. BY	CHK. BY	APP. BY
1	6/8/11	ISSUED FOR REVIEW	AGD	XXX	XXX
2	6/8/11	UPDATED PER BIDDY AND FIELD REVIEW COMMENTS (RE-ISSUED FOR REVIEW)	AGD	XXX	XXX
3	4/2/12	UPDATED PER FIELD REVIEW COMMENTS ISSUED FOR CONSTRUCTION	AGD	XXX	XXX

<p>VERIFY SCALES FOR EACH BLOCK ON ORIGINAL DRAWING</p> <p>IF NOT ONE INCH ON SCALE, CHECK AS NOTED</p>	<p>PCL PCL CONSTRUCTION, INC. 1711 W. Riverchase Dr., Suite 201 Tomball, TX 77375 Phone: 281.428.2333 Fax: 281.428.4233</p>	<p>DESIGNED BY: AGD DRAWN BY: AGD CHECKED BY: --- DATE: --- SCALE: AS NOTED</p>	<p>LOWER BAKER HYDRO PROJECT LOWER BAKER UNIT 4 UNIT 4 POWERHOUSE LIFT DRAWING POUR 38 PCL-S-POUR 38-3M-001</p>
---------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------

<p>DATE: 6/8/11 JOB: 22 x 34 SHEET: 1 of 1</p>

2'-0" Thick Generator Level Elevated Slab



Together we build success.



Elevated Slab Shoring System



Toget



Elevated Slab Shoring System

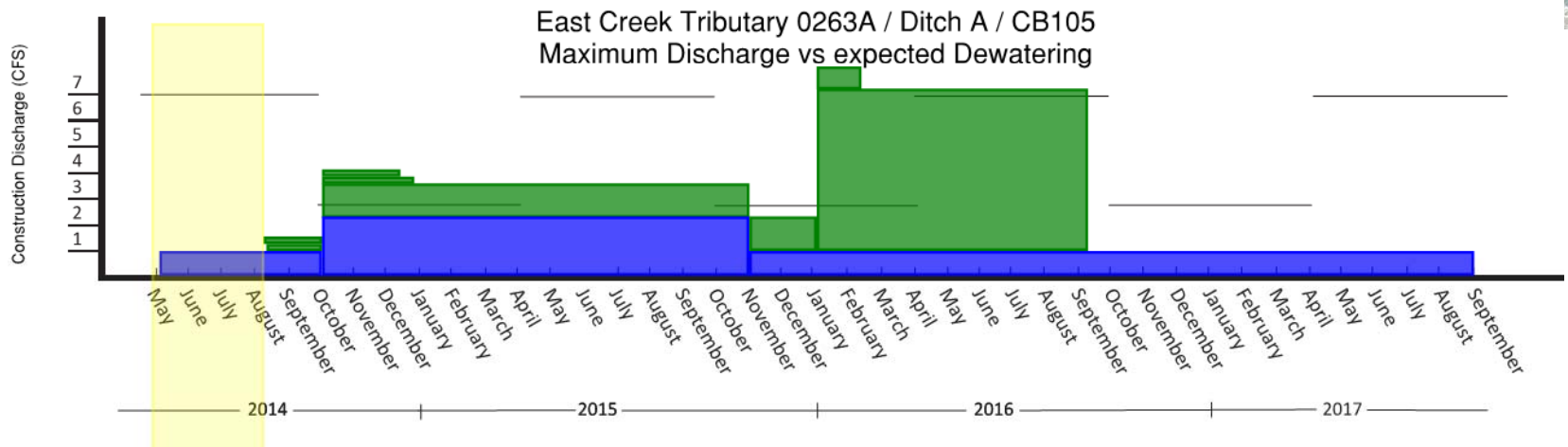
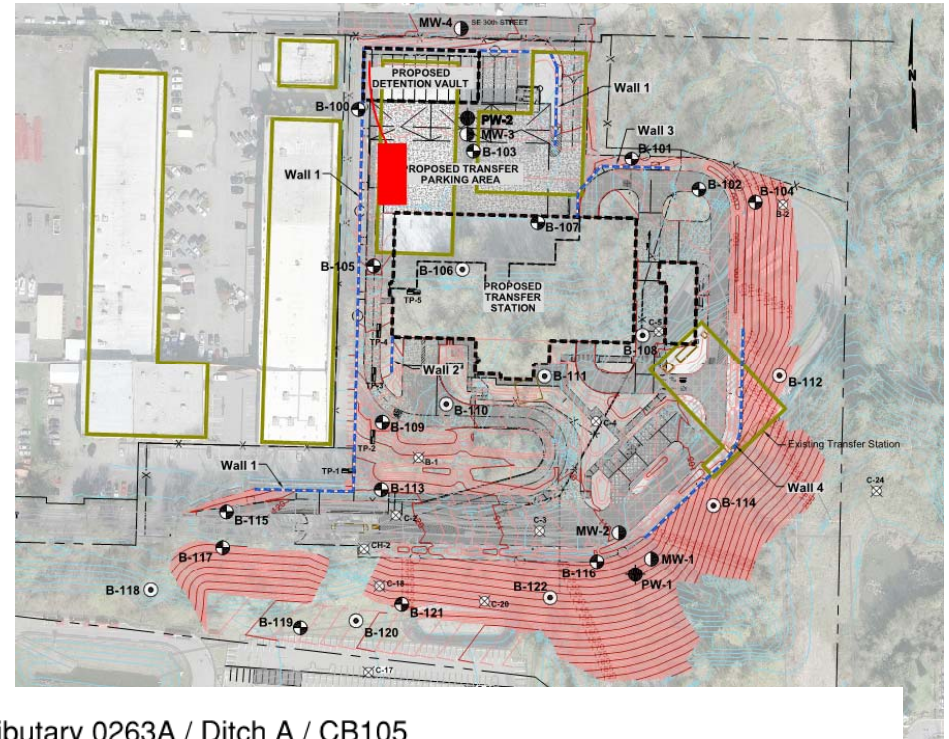
Key Items for Success

- Addressing sloped slab
- Slab interface with push wall embeds
- Curing to maximize durability
- Setting of wear indicators/top of slab embeds

BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information. Updated information is based primarily on new schedule information received with BAFO.

Surface Water Management – Phase 1

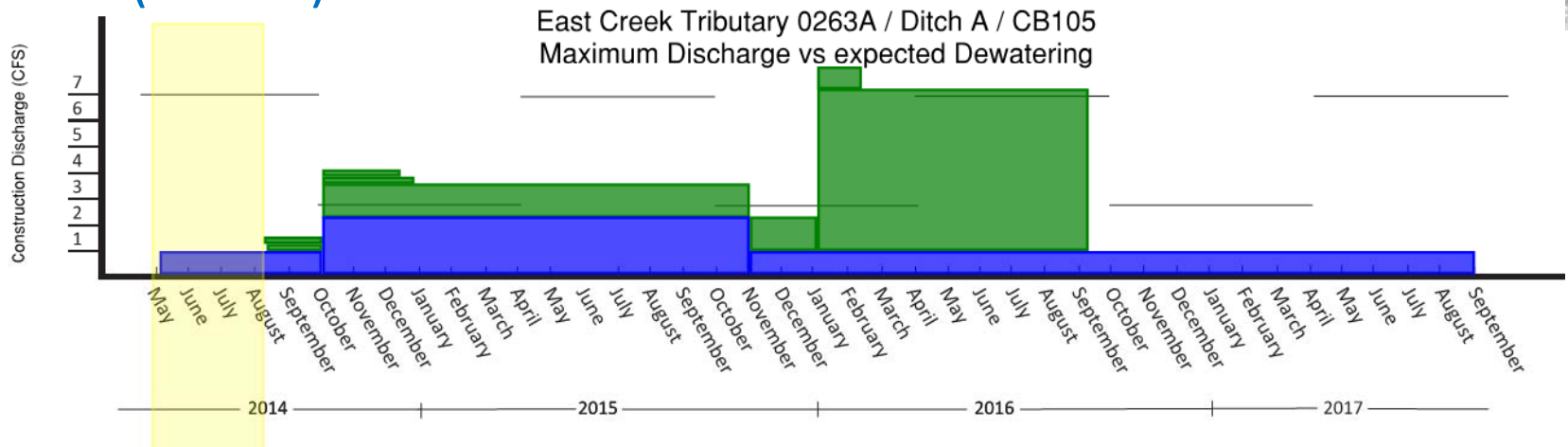
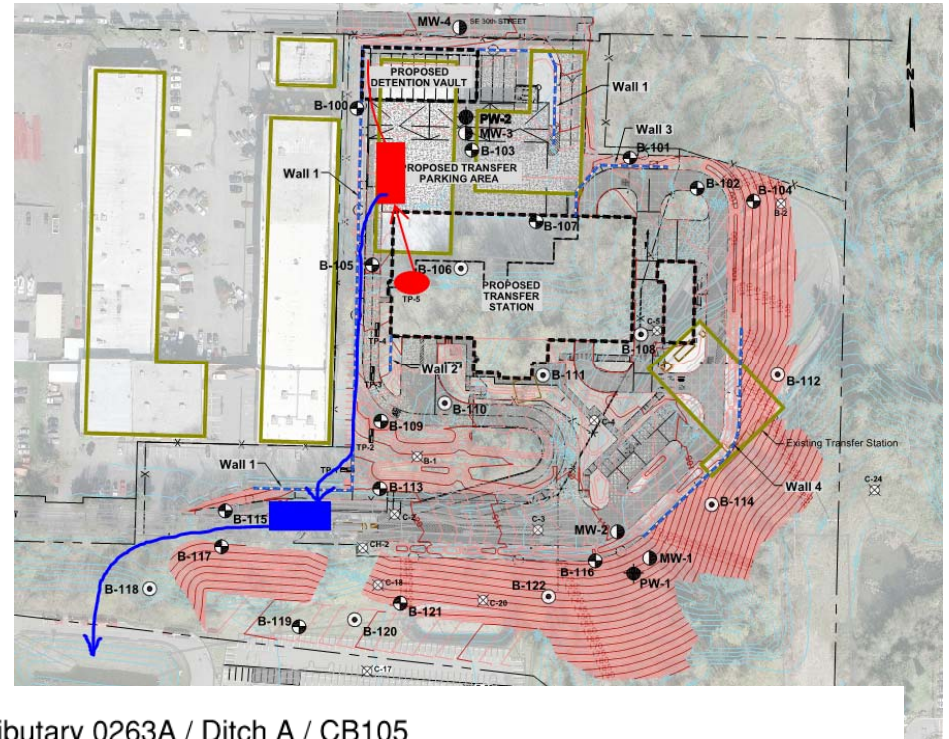
- Metered Sediment Pond for Surface water
- Surface Storm Runoff (~1 CFS)



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information. Updated information is based primarily on new schedule information received with BAFO.

Surface Water Management – Phase 1

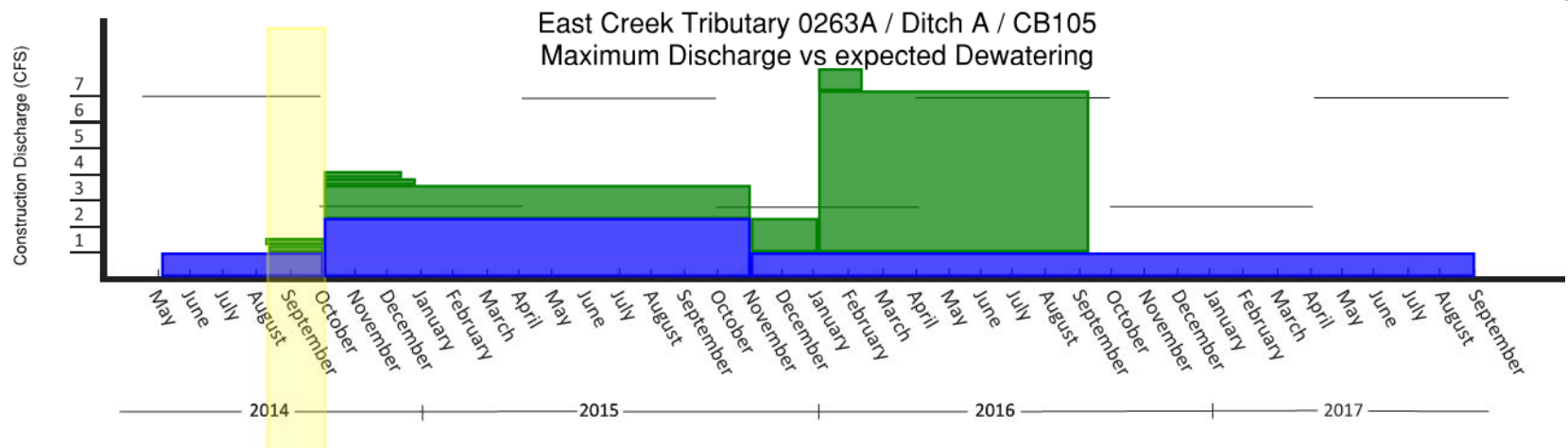
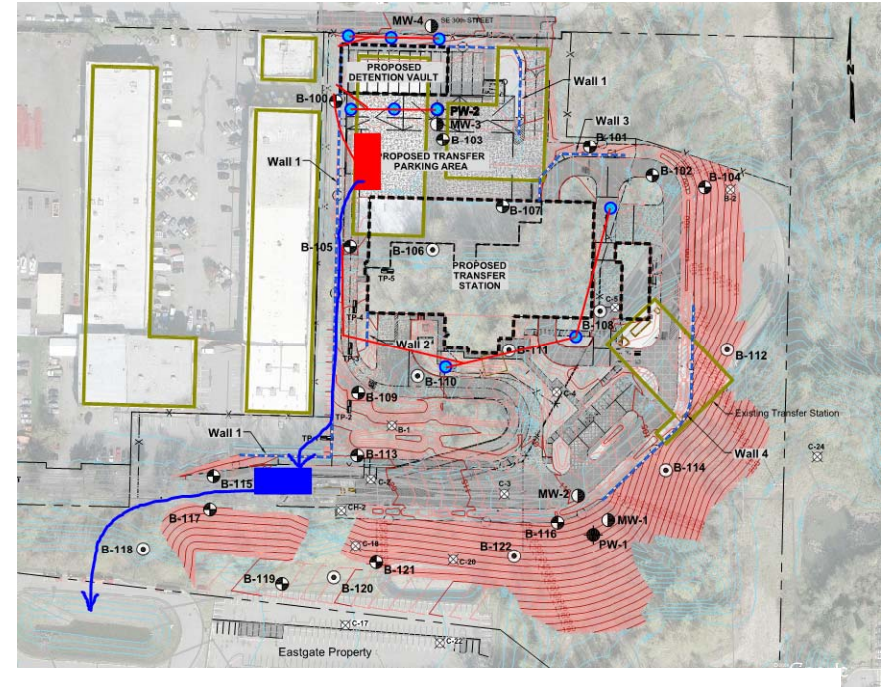
- Means for additional Storm Water storage capacity and conveyance
- Automatic pump for rain event capacity
- Installed before first wet season
- **Surface Storm Runoff (~1 CFS)**



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – Phase 2

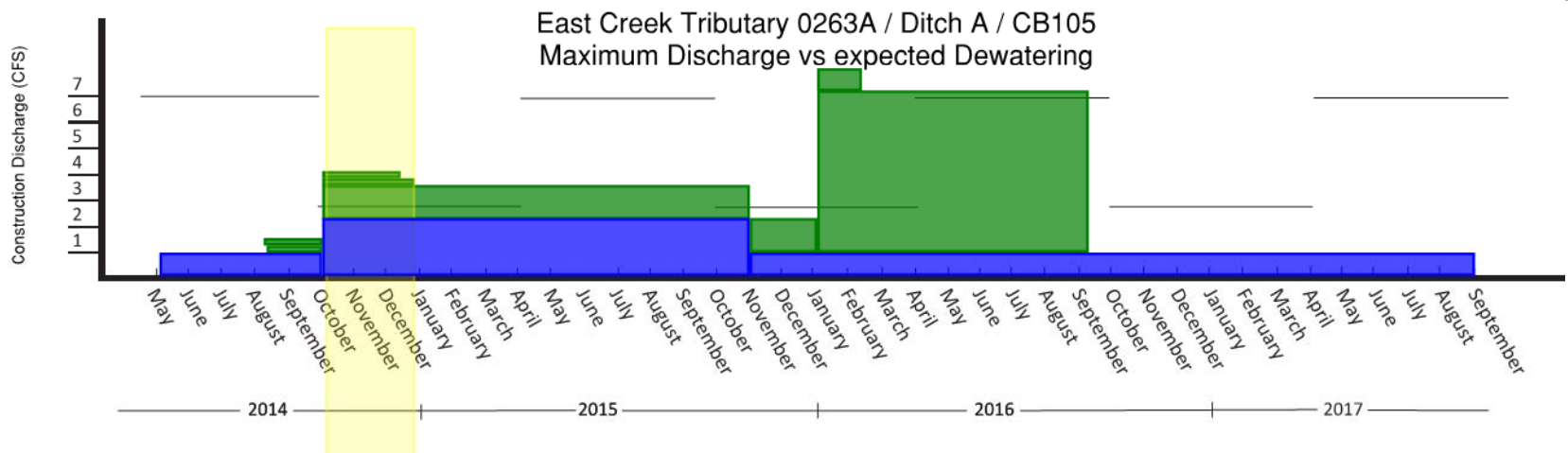
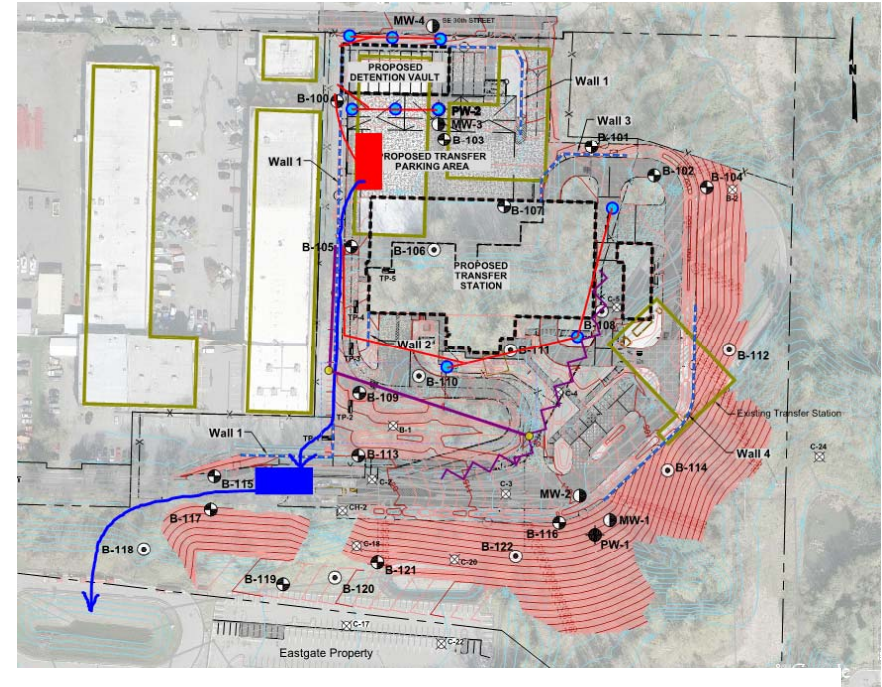
- Detention Vault Wells (0.267 CFS)
- Lower Station Wells (0.267 CFS)
- Surface Storm (1 CFS)



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – Phase 2

- Detention Vault Wells (0.267 CFS)
- Lower Station Wells (0.267 CFS)
- Vacuum Well System for Temp Shoring Wall (1.4 CFS)
- Surface Storm (2.3 CFS)



Dewatering

- Pervious aquifer to east and high discharge dewatering
- Transition to lower permeability aquifer to west and vault, decreasing well yields
- Pumping tests indicate pervious aquifer that is truncated = easier dewatering with time, decreasing discharge with time
- Discharge limitations (7 – 10cfs) can be met

BAFO Note: Addenda received after technical interview changed some dewatering scope. Reference BAFO technical proposal, specifically section F.2.c.

Dewatering Wells

- Drilled with bucket auger
- Robust well that will handle all pumps required for this work
- PVC well casings and screens, design of wells specific to each site and required flow rate
- Well depths: 40 feet at vault, 40 to 60 feet at Transfer Station, 70 to 100 feet for Wall 4

BAFO Note: Addenda received after technical interview changed some dewatering scope. Reference BAFO technical proposal, specifically section F.2.c.

Discharge

- Vault Pumping Rates: 100 down to 20 gpm per well, 6 hp pumps
- FRTS Pumping Rates: 100 down to 40 gpm per well, 6 hp pumps
- Wall 4 Pumping Rates: possibly 700 down to 400 gpm per well, 15 hp pumps

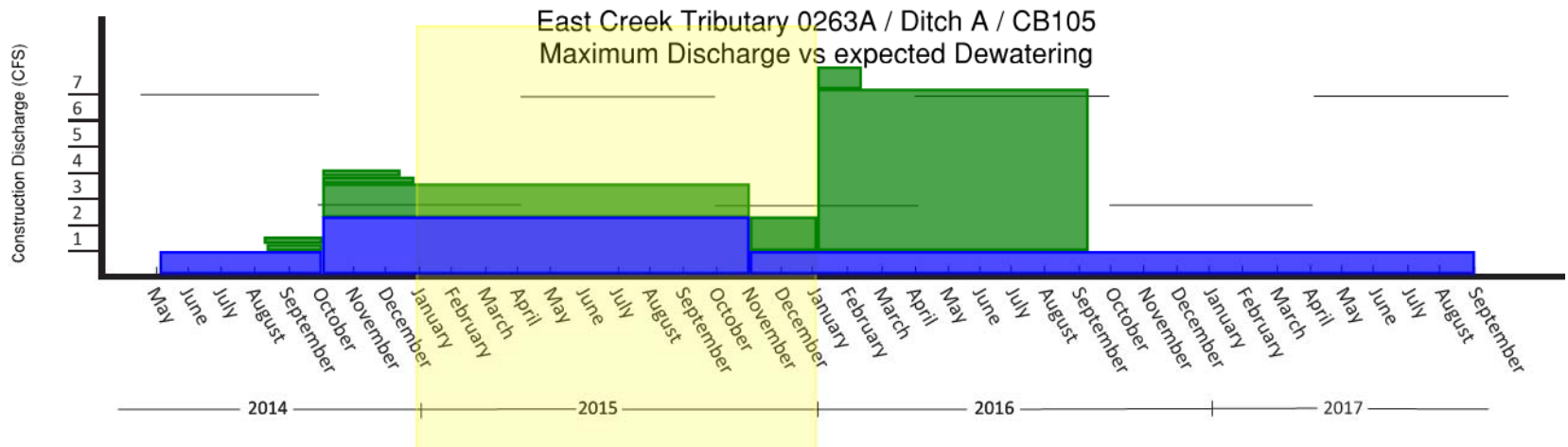
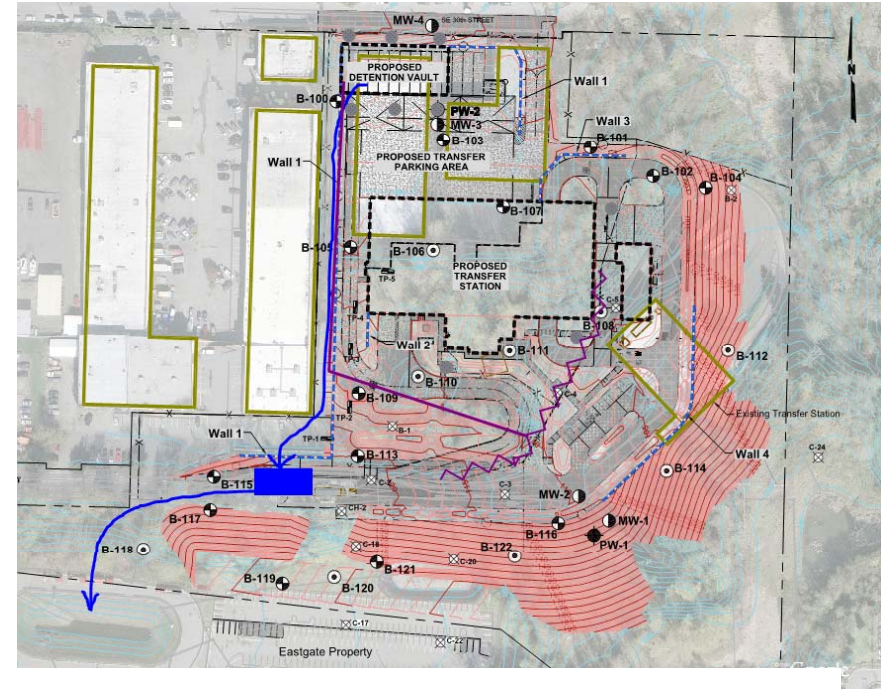
- Wells will be developed to ensure clean discharge
- Discharge to East Creek Tributary
- Sampling ports on discharge header
- Flow diffuser into creek to eliminate erosion and turbidity

BAFO Note: Addenda received after technical interview changed some dewatering scope. Reference BAFO technical proposal, specifically section F.2.c.

BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – Phase 2

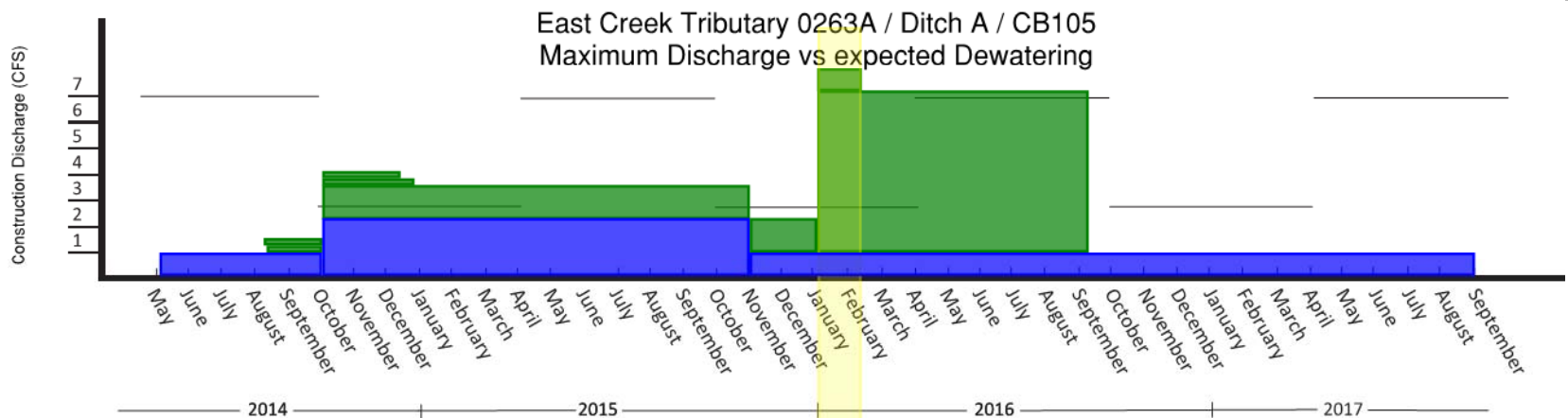
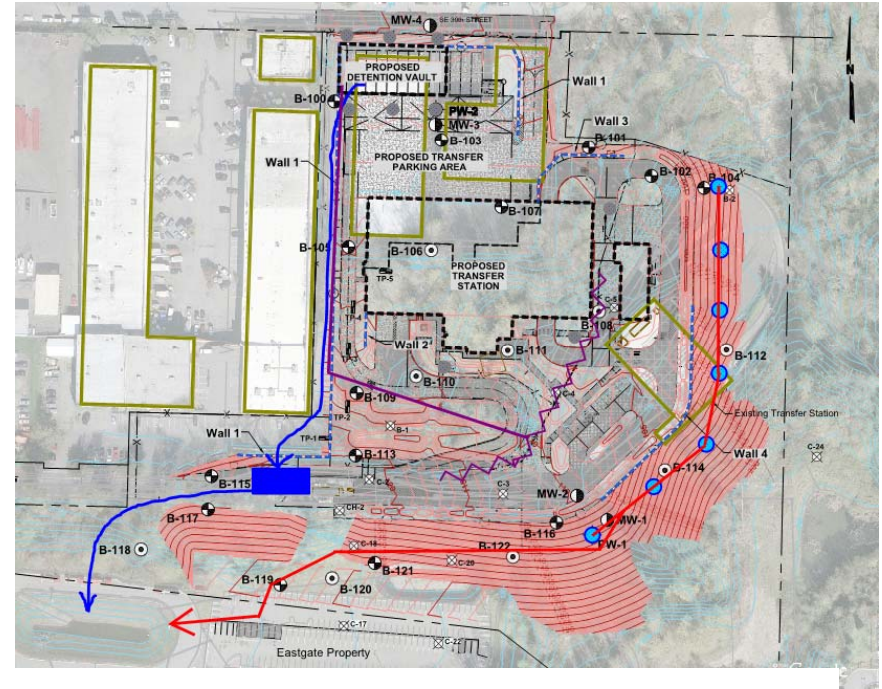
- Detention Vault and Lower Station Wells Deactivated
- Detention Vault Utilized
- Vacuum Well System for Temp Shoring Wall (1.4 CFS)
- Surface Storm (2.3 CFS)



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – Phase 3 / 4

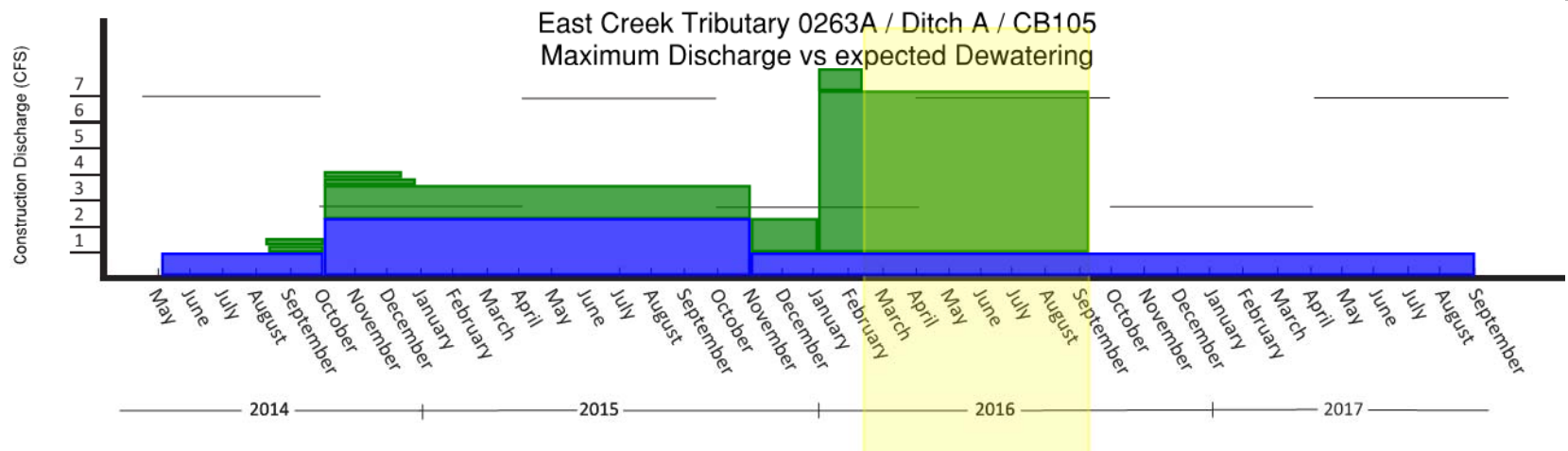
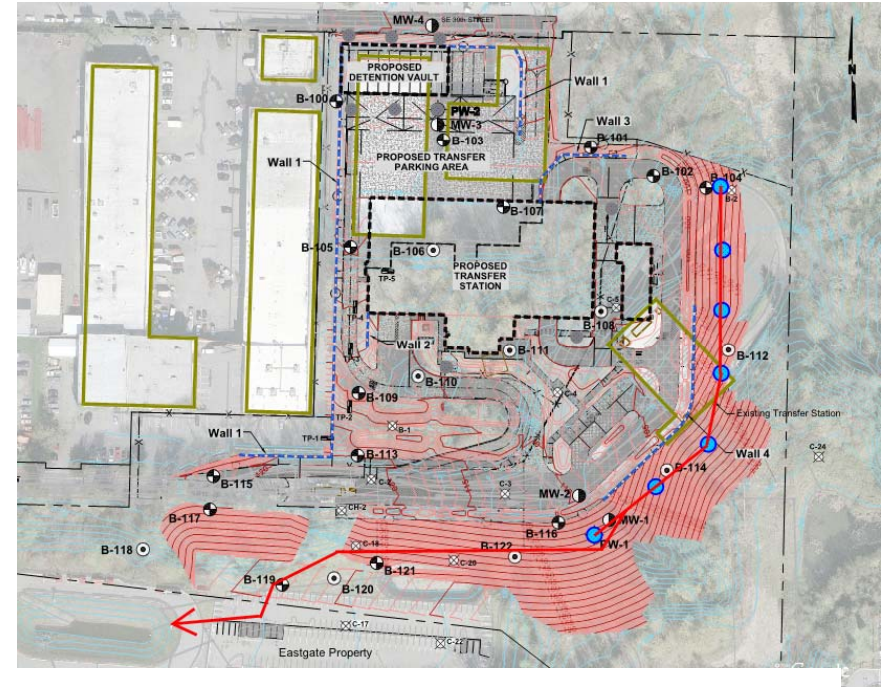
- Vacuum Well System for Temp Shoring Wall (1.4 CFS)
- Wall 4 Wells (6.2 CFS)
- Surface Storm (1 CFS)



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – Phase 4

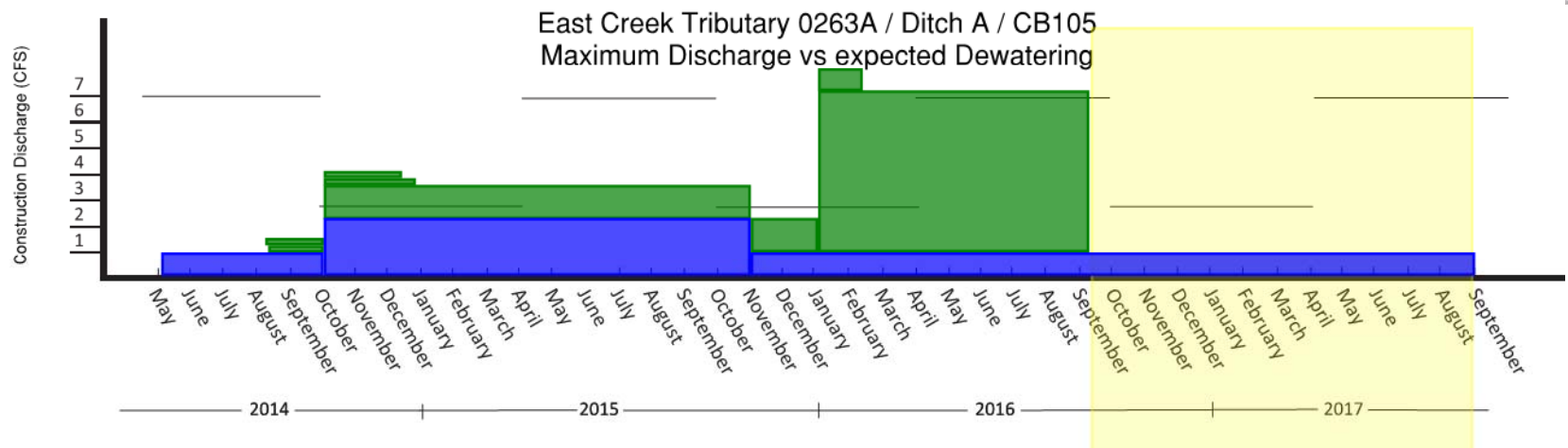
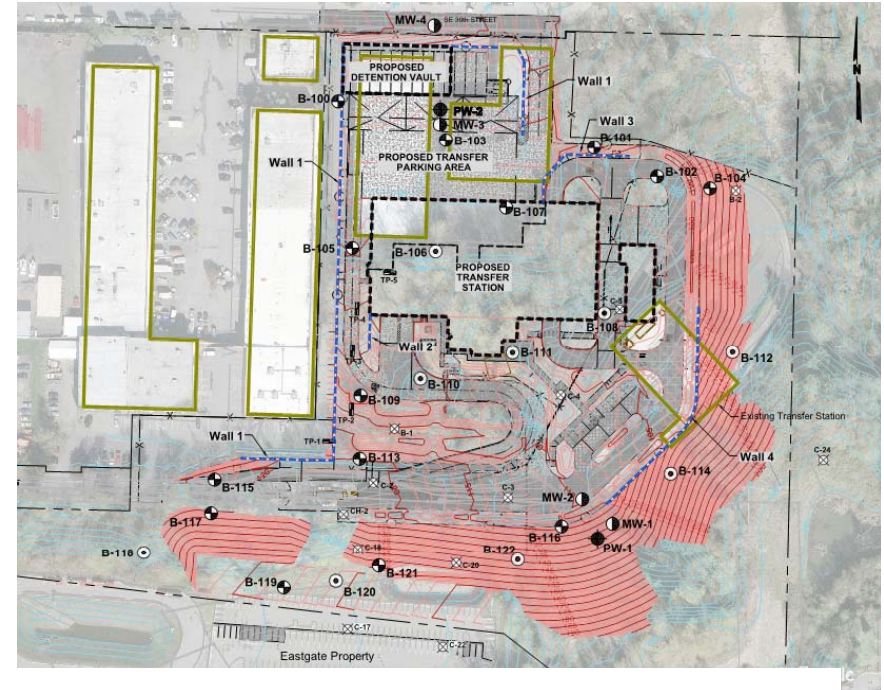
- Vacuum Pump wells removed with Temp Wall
- Wall 4 Wells (6.2 CFS)
- Surface Storm (1 CFS)



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – Phase 4

- Wall 4 Wells removed when permanent drainage is completed
- Surface Storm (<1 CFS)
- Storm water managed 100% through permanent design



BAFO Note: Reference BAFO update for technical proposal section C.2.a.i for updated information on surface water and section F.2.c for updated info on ground water. Updated information is based primarily on new schedule information received with BAFO.

Surface & Ground Water Management – 30th Street

- Not enough geotechnical information provided
- Alternate construction methods to minimize disturbance to be discussed in Section 10



Building Information Modeling (BIM)

Starting With the End in Mind

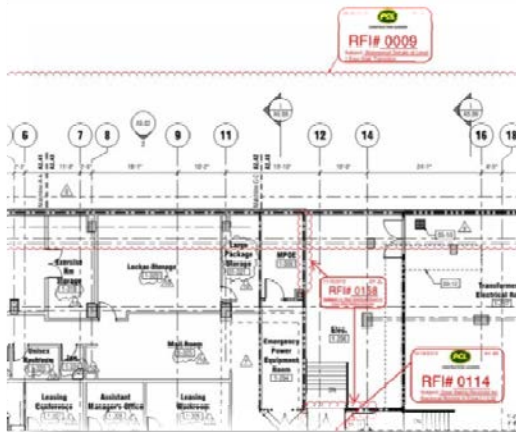


Together we build success.

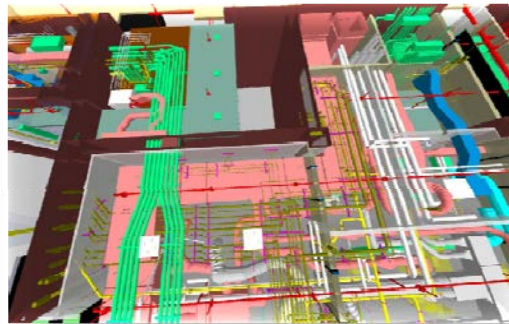


Virtual Construction Approach

Manage Information



Coordinate



Communicate



KOHLER

WELLWORTH
PRESSURE LITE™, 1.6 TOILET
K-3531

Features

- 1.6 GPF (6.0 L) flush
- Polished chrome trip lever
- Luster coat and enamel
- Ultrasonic action
- 1.2 gpm (4.5 LPM)
- Equipped with Silent Flush™ (SFL™) - Quiet, Water Conserving
- Combination toilet
- Optional stainless steel or black enamel toilet
- Flangeless bowl
- 19.12" (242 mm) x 34.12" (244 mm) water inlet
- 30.19" (768 mm) x 21.87" (556 mm) x 28.12" (714 mm)

Colors/Finishes

- S - White
- CP - Polished Chrome
- PB - Polished Brushed Bronze
- Other: Refer to Price Book for additional information.

Specified Model

Model	Description	Top Layer	Center/Bottom
K-3531-001	Standard toilet	Left hand	Left hand
K-3531-002	Standard toilet	Right hand	Right hand
K-3531-003	Standard toilet with tank cover toilet	Left hand	Left hand
K-3531-004	Standard toilet with tank cover toilet	Right hand	Right hand

Recommended Accessories

K-4500	Stainless steel toilet brush	1.00	1.00
K-3531-001	Single flush toilet brush	1.00	1.00

Product Specification



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Managing Information - PDC

PCL Projects > 5701085

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5701085 - Chief Joseph Fish Hatchery Phase 2

All Sites Enter search terms... Advanced

5701085 PDC Status SMC Status Site Actions

5701085 > Requests For Information (RFIs)

Requests For Information (RFIs)

1 - 100 Next Page View: All Items

Phase	ID	Title	Initiated By	Assigned To	Due Date	Days Overdue	Status	Modified By
Phase 2	831	HMI Screen Relocation - DS2Q to Control Room	Colville Electrical C (J. Wagstaff)	Colville Electrical C (J. Wagstaff)	4/3/2013	1	Closed	Tyler Kautz
Phase 2	830	Upper Fish Lift Fall Potential	PCL Const Svcs (T. Kautz)	PCL Const Svcs (T. Kautz)	3/28/2013	19	Closed	Chris Davis
Phase 2	829	Leakage at Broodstock and Irrigation Room	PCL Const Svcs (B. Engen)	PCL Const Svcs (B. Engen)	3/19/2013	1	Closed	Bryce Engen
Phase 2	828	Leakage at Broodstock and Irrigation Room	Colville Electrical C (J. Wagstaff)	Colville Electrical C (J. Wagstaff)	3/8/2013	5	Closed	Tyler Kautz
Phase 2	827	Leakage at Broodstock and Irrigation Room	Colville Electrical C (K. Breuer)	PCL Const Svcs (C. Davis)	3/13/2013	1	Closed	Bryce Engen
Phase 2	826	Fish Lift Infill at Gate	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	3/6/2013	0	Closed	Chris Davis
Phase 2	825	Sidewalk Details at Broodstock	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	3/6/2013	0	Closed	Chris Davis
Phase 2	824	Outstanding Pipe Painting Clarifications	PCL Const Svcs (B. Engen)	PCL Const Svcs (B. Engen)	2/28/2013	0	Closed	Bryce Engen
Phase 2	823	Grout Product at RW Pipe Supports	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	2/28/2013	0	Closed	Chris Davis
Phase 2	822	Broodstock Post Hydrant and Bollard Layout Confirmation	PCL Const Svcs (B. Engen)	Selland Const (A. Brizendine)	2/27/2013	1	Closed	Bryce Engen
Phase 2	821	Spawn Building Deck Support Angle	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	2/22/2013	0	Closed	Chris Davis
Phase 2	820	Well 8 Restart After Power Failure	Tetra Tech (D. Nice)	Colville Electrical C (J. Wagstaff)	2/21/2013	27	Closed	Bryce Engen
Phase 2	819	Intake Screen Support Beams Installation Issues	PCL Const Svcs (B. Engen)	PCL Const Svcs (B. Engen)	2/11/2013	64	Closed	Bryce Engen
Phase 2	818	Notch Grating Panels for Gate Operation	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	2/6/2013	0	Closed	Chris Davis
Phase 2	817	Backfill at Broodstock Retaining Wall	Tetra Tech (D. Nice)	PCL Const Svcs (T. Kautz)	2/21/2013	7	Closed	Tyler Kautz
Phase 2	816	Work Platform Slab on Metal Deck	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	1/15/2013	28	Closed	Chris Davis
Phase 2	815	#8 Embedment at Intake Chamber Beams and Knockout Details	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	1/7/2013	36	Closed	Chris Davis
Phase 2	814	Maintenance Gate Remediation	PCL Const Svcs (C. Davis)	Tetra Tech (B. Connelly)	1/9/2013	98	Closed	Chris Davis
Phase 2	813	Epoxy Bonding Compound Usage	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	1/7/2013	1	Closed	Chris Davis
Phase 2	812	Topping Slab Elevations at Irrigation Room	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	1/7/2012	367	Closed	Chris Davis
Phase 2	811	Details at Concrete Beams in Intake Chamber	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	12/20/2012	19	Closed	Chris Davis
Phase 2	810	Finalization of Proximity Sensor at Broodstock Fish Lift	PCL Const Svcs (C. Davis)	PCL Const Svcs (C. Davis)	12/19/2012	26	Closed	Chris Davis
Phase 2	809	Broodstock Spawning Building Plumbing	PCL Const Svcs (B. Engen)	PCL Const Svcs (B. Engen)	12/11/2012	28	Closed	Bryce Engen
Phase 2	808	Pond Liner Termination and Surface Water Runoff	PCL Const Svcs (T. Kautz)	Selland Const (A. Brizendine)	1/22/2013	23	Closed	Tyler Kautz
Phase 2	807	Fiber Optic Patch Panels & Distribution Devices Clarification	PCL Const Svcs (B. Engen)	Colville Electrical C (J. Wagstaff)	12/12/2012	0	Closed	Tyler Kautz
Phase 2	806	Restraint Rods for Well Pump 10 Flange Coupling Adapter	PCL Const Svcs (B. Engen)	PCL Const Svcs (B. Engen)	12/12/2012	49	Closed	Bryce Engen
Phase 2	805	Operations During Final Facility Startup	PCL Const Svcs (T. Kautz)	PCL Const Svcs (B. Engen)	11/27/2012	120	Closed	Tyler Kautz

View All Site Content

Project Management

- File Cabinet
- Work Zone
- Contract Documents
- Requests For Information (RFIs)**
- Owner Punchlist
- Punch List
- Submittals V2
- NCR Log
- SI Log
- Special Inspections
- Tt Field Orders
- Tt Site Issues
- CRX Files
- Warranty Log

Dispatch

- Transmission Records
- Create a Transmittal

Safety

- Behavior Based Observations
- Incident Investigations
- Inspections
- Safety Meetings
- Trade Contractor Hours
- PSI Counts
- PSI Audits
- HSE Action Plans
- Safety Reports

Pictures

Managing Information - PDC

PCL Projects > 5701085

PCL PDC Solutions Site 5701085 - Chief Joseph Fish Hatchery Phase 2

5701085 PDC Status SMC Status

5701085 > Requests For Information (RFIs) > Broodstock Post Hydrant and Bollard Layout Confirmation

Requests For Information (RFIs): Broodstock Post Hydrant and Bollard Layout Confirmation

[New Item](#) | [Edit Item](#) | [Delete Item](#) | [Manage Permissions](#) | [Workflows](#) | [Alert Me](#) | [Version History](#) | [Merge Item](#)

Title	Broodstock Post Hydrant and Bollard Layout Confirmation
Phase	Phase 2
Sub RFI #	PCL
Date Initiated	2/20/2013
Response Requested	2/27/2013
Initiated By	PCL Const Svcs (B. Engen)
Sent to Arch	2/20/2013
Due Date	2/27/2013
Date Returned	2/28/2013
Assigned To	Selland Const (A. Brizendine)
Send Alerts To	PCL Const Svcs (B. Engen); PCL Const Svcs (T. Kautz); Selland Const (A. Brizendine); Selland Const (C. Eden)
Priority	High
Impact	Schedule
Ref. Contract Documents	HC181, HC 183
Information Request	Per conversations with Tetra Tech- Darrel Nice PCL reviewed bollard and post hydrant locations at the broodstock for clarification proposes. The plans show general locations, however PCL wanted to confirm locations for the bollards and post hydrants to best suit the end user's needs. Please see attached PDF markup for proposed locations discussed with Tetra Tech and confirm the layout of this scope of work.
Contractor's Proposed Solution	
Comments	Bryce Engen (3/8/2013 7:50 AM); Becky Connelly (2/28/2013 12:32 PM); Bryce Engen (2/20/2013 11:34 AM);
Information Response	Response is attached. Darrel Nice. 2.28.13
Status	Closed
Attachment History	Becky Connelly (2/28/2013 12:32 PM): Added: RFI 822 Response Cover Sheet.pdf Bryce Engen (2/20/2013 11:34 AM): Added: Post Hydrant and Bollard Layout.pdf
ID	822
Attachments	Post Hydrant and Bollard Layout.pdf RFI 822 Response Cover Sheet.pdf

Version: 3.0
 Created at 2/20/2013 11:34 AM by Bryce Engen
 Last modified at 3/8/2013 7:50 AM by Bryce Engen

To



Managing Information - PDC

PCL Projects > 5701085

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PCL PDC Solutions Site 5701085 - Chief Joseph Fish Hatchery Phase 2

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5701085 PDC Status SMC Status Site Actions

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- Contract Documents**
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- PSI Counts
- PSI Audits
- HSE Action Plans
- Safety Reports

Pictures


- Progress Photographs
- Owner

My Active Tasks

Type	Description	Title	Status	Due Date
Workflow Name : RFI	Request for Information (1)			
		ar WH6	In Progress	8/31/2011
		Review or input req	In Progress	10/1/2012
		Rip Rap at Fish Ladder	In Progress	10/1/2012

(More Items...)

Image Web Part



Links

There are no items to show in this view of the "Links" list. To add a new item, click "New".

[Add new item](#)

Managing Information - PDC

P.D.C. Solutions Site 5701085 - Chief Joseph Fish Hatchery Phase 2

All Sites Advanced Search

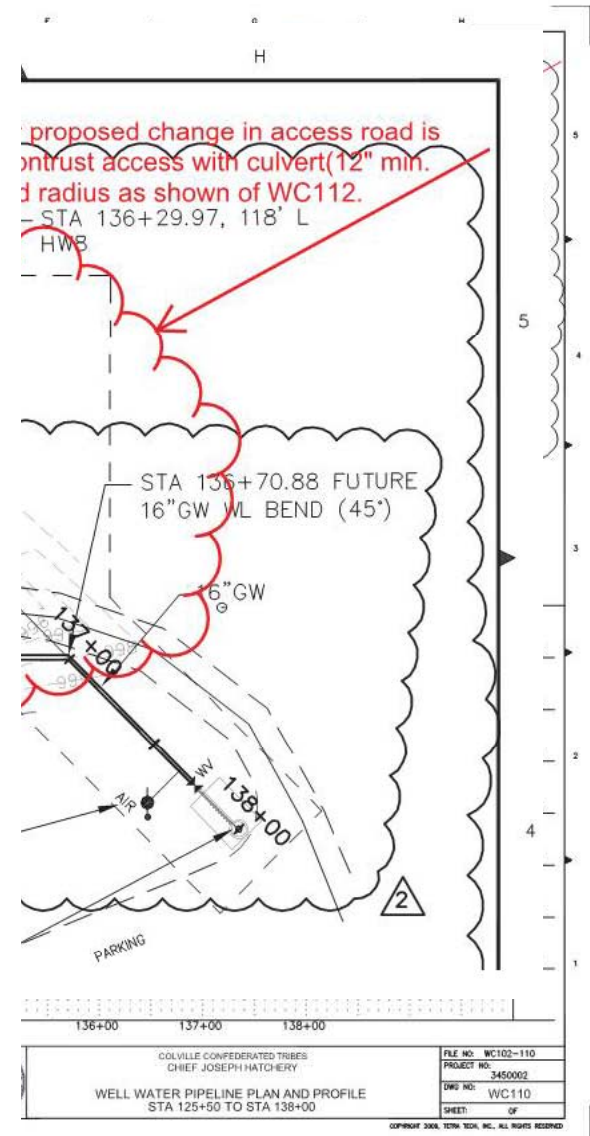
5701085 > Requests For Information (RFIs) > Access road to WH8

Requests For Information (RFIs): Access road to WH8

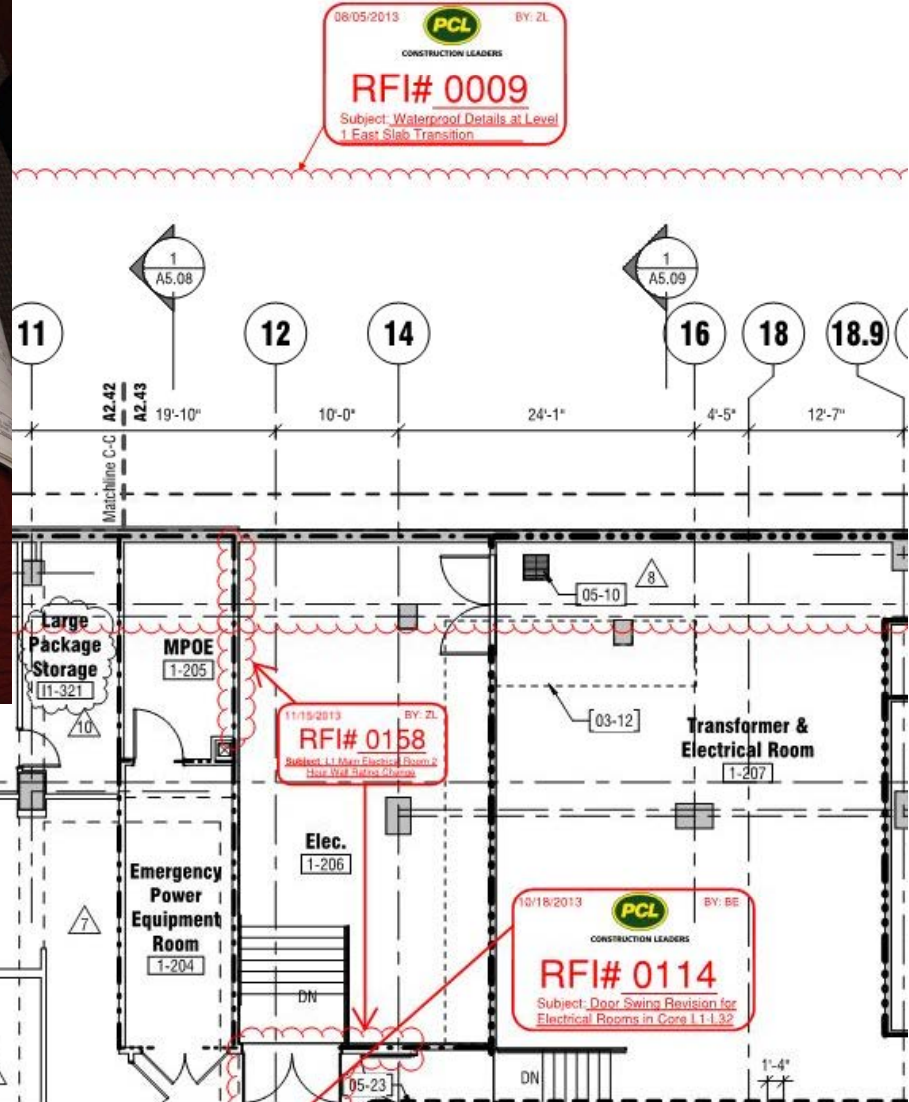
[New Item](#) | [Edit Item](#) | [Delete Item](#) | [Manage Permissions](#) | [Workflows](#) | [Alert Me](#) | [Version History](#) | [Merge Item](#)

Title	Access road to WH8
Phase	Phase 2
Sub RFI #	658
Date Initiated	3/2/2012
Response Requested	3/6/2012
Initiated By	Selland Const (C. Eden)
Sent to Arch	3/2/2012
Due Date	3/9/2012
Date Returned	3/19/2012
Assigned To	Selland Const (C. Eden)
Send Alerts To	
Priority	Medium
Impact	Schedule
Ref. Contract Documents	WC110
Information Request	Selland would like to use the current access road to WH8 in the final grading of this area. The access road layout shown on WC110 does not fit the current topography as well as the entrance that is in use now. Please verify that the current access road will be acceptable for final grading/permanent entrance.
Contractor's Proposed Solution	
Comments	Nick Saraniecki (4/2/2012 1:22 PM); Becky Connelly (3/19/2012 3:16 PM); Nick Saraniecki (3/2/2012 4:06 PM); Chris Eden (3/2/2012 3:53 PM);
Information Response	Response is attached. Darrel Nice. 3.19.12
Status	Closed
Attachment History	Becky Connelly (3/19/2012 3:16 PM): Added: RFI 658 RESPONSE Cover Sheet.pdf Chris Eden (3/2/2012 3:53 PM): Added: Access Road.jpg
ID	658
Attachments	Access Road.jpg RFI 658 RESPONSE Cover Sheet.pdf

Version: 4.0
Created at 3/2/2012 3:53 PM by Chris Eden
Last modified at 4/2/2012 1:22 PM by Nick Saraniecki

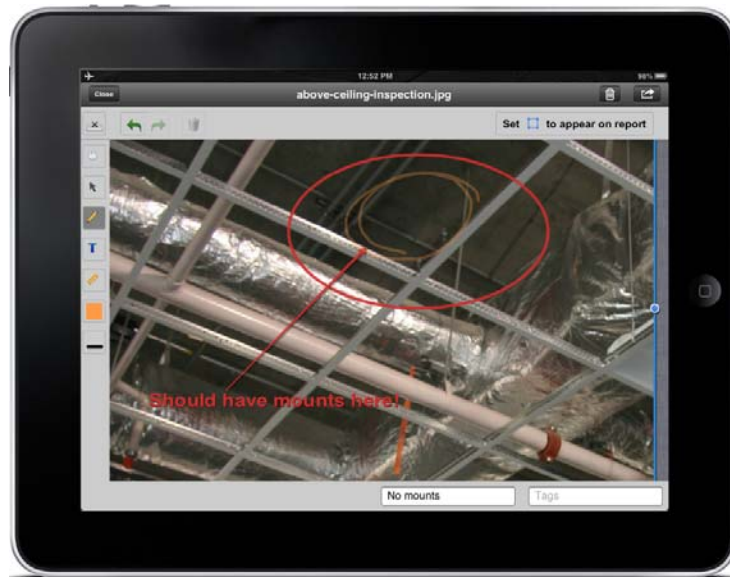
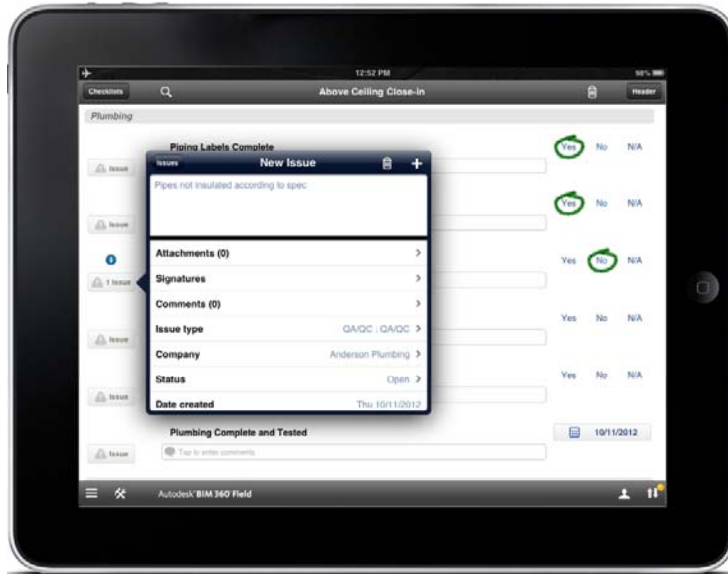


Managing Information – Blue Beam



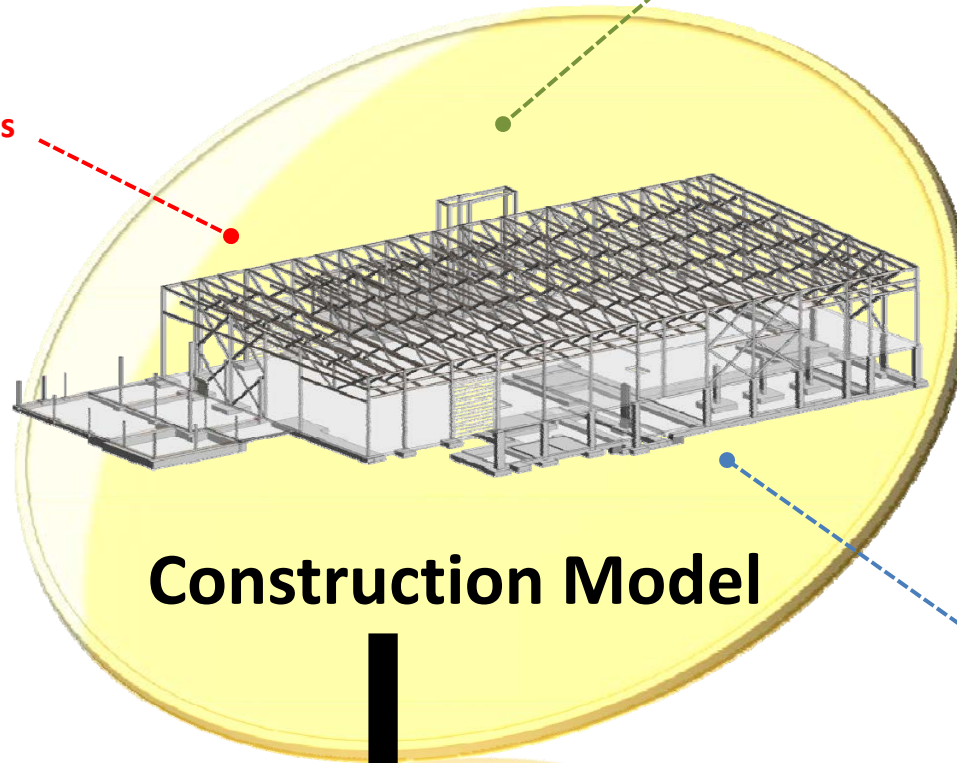
Together we build success.

Managing Information – BIM 360



Coordinate Creating a BIM Model

- Design Changes



- BIM Management
- Data Sets
- Document Links

Mech/Plumb

- M/P Model

Electrical

- Electrical Model

Fire Protection

- Fire Protection Model

Site Work

- Utility Model

Steel Structure

- Steel Model

Concrete Structure

- Concrete Model

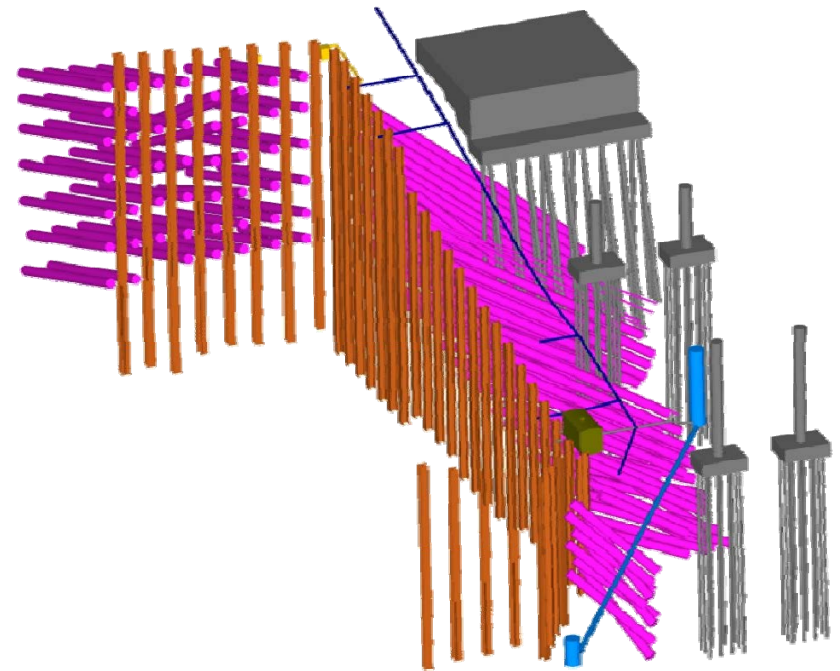
Construction Model

- Schedule Visualization
- Clash Detection
- Construction Drawings
- Record Model
- Facility Management Integration

Note: Facility Management Integration is something PCL can work with King County on integrating if desired, but is not part of the base Contract Requirements



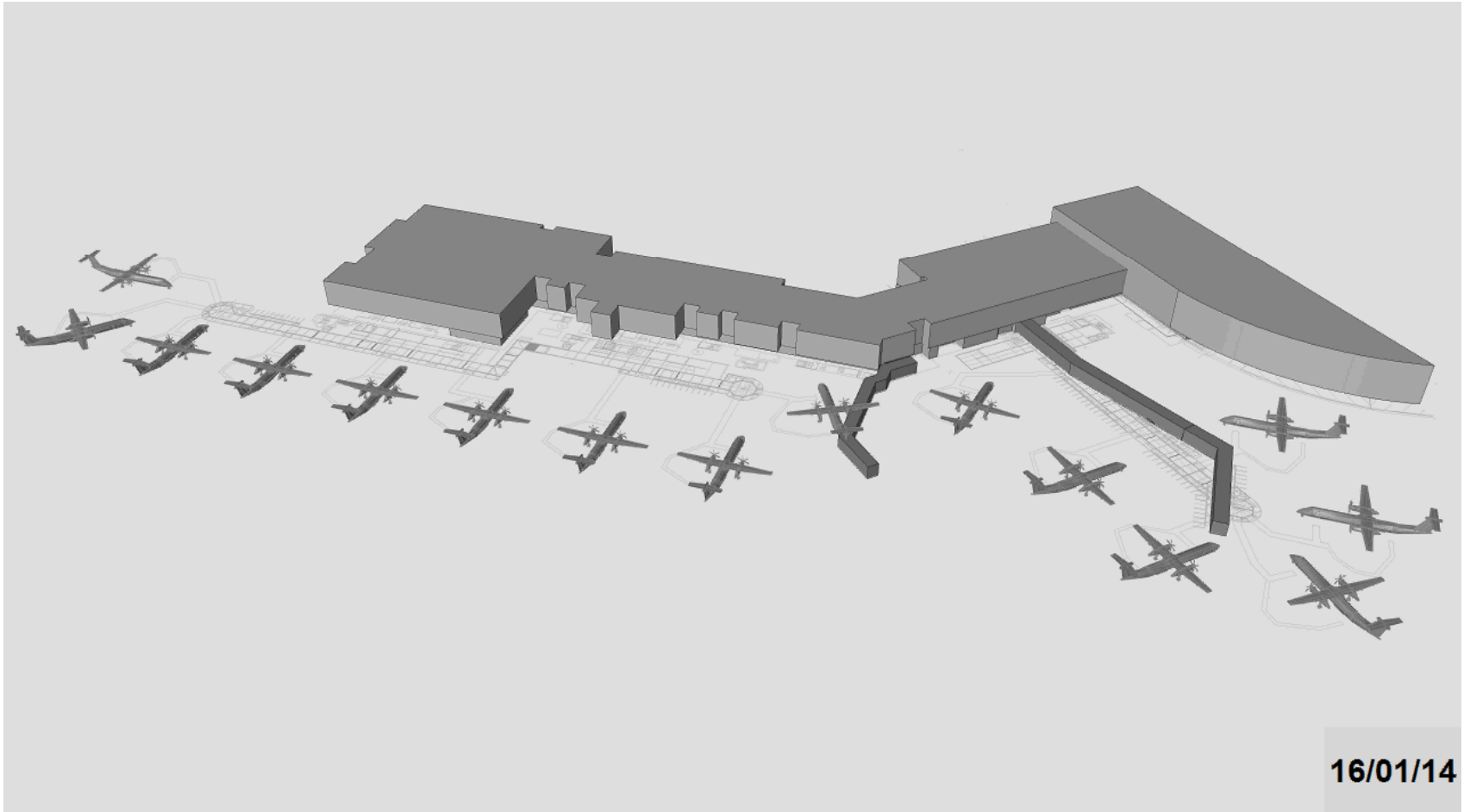
Coordinate – 3D Mockups



Together we build success.



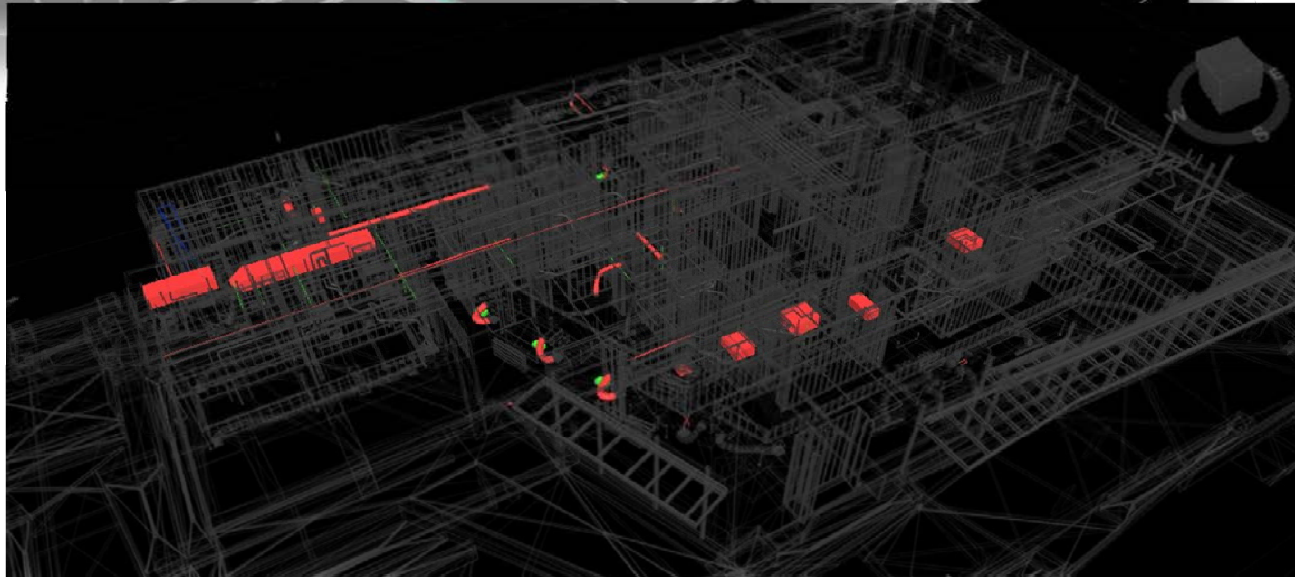
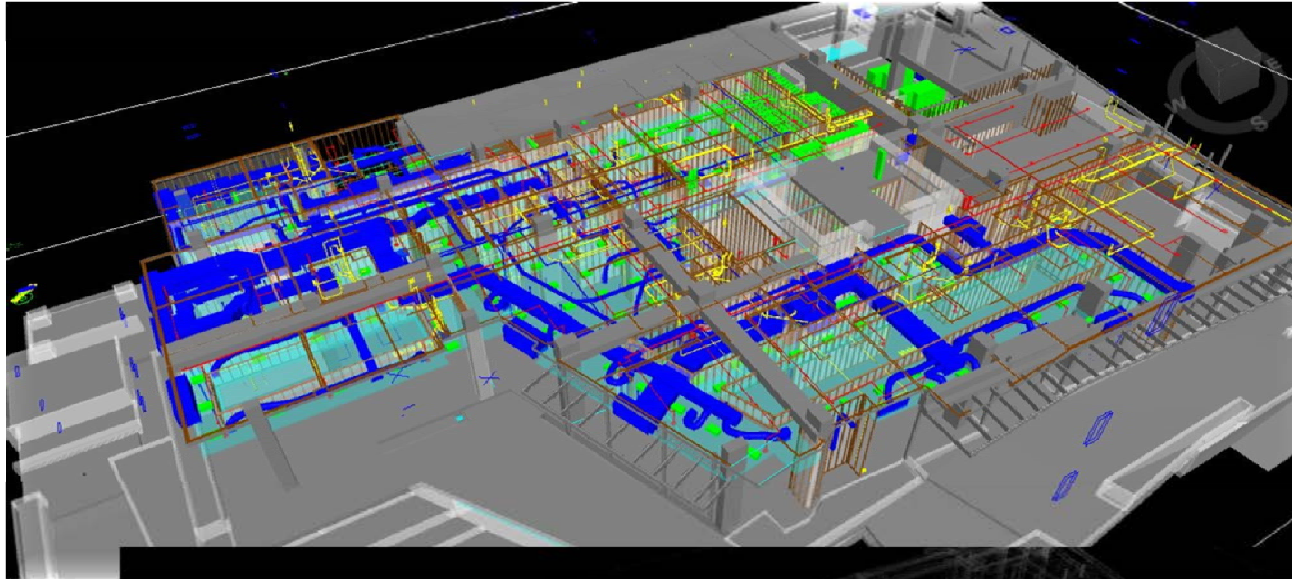
Coordinate – 4D Schedule Visualization



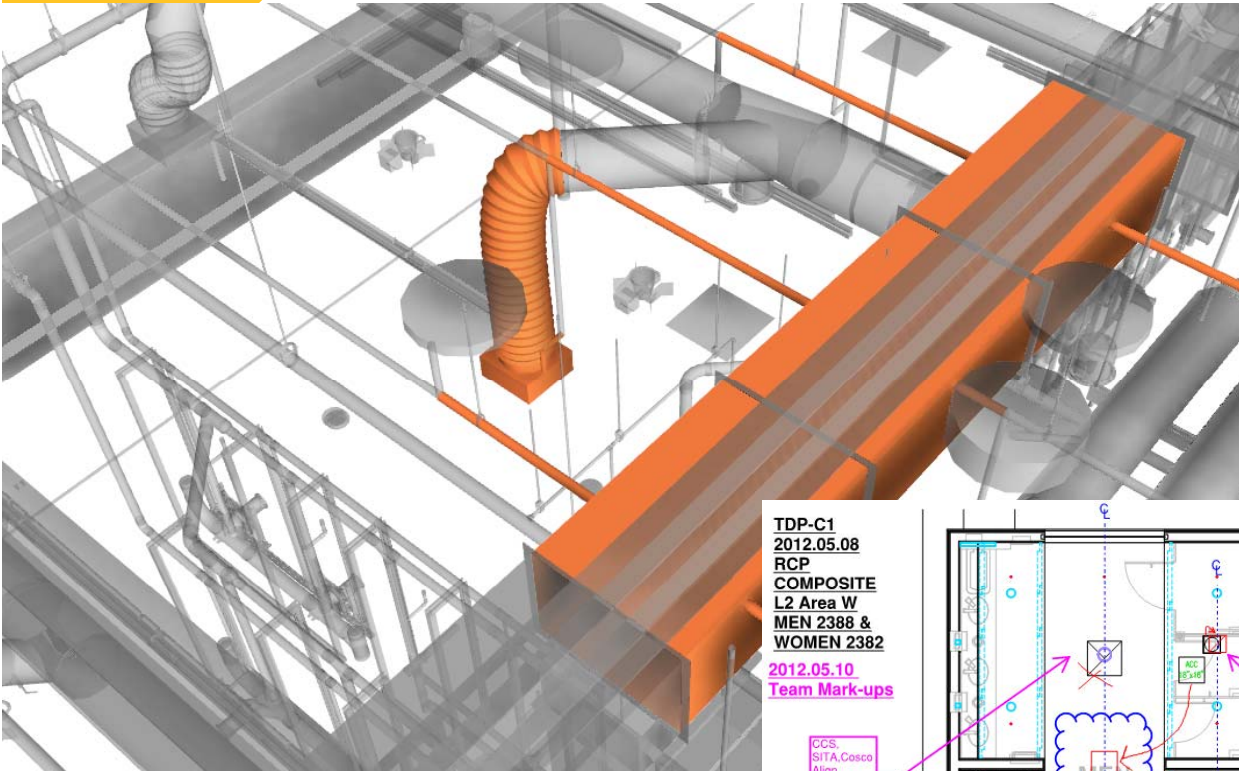
Together we build success.



Coordinate – Clash Detection



Coordinate – Clash Detection

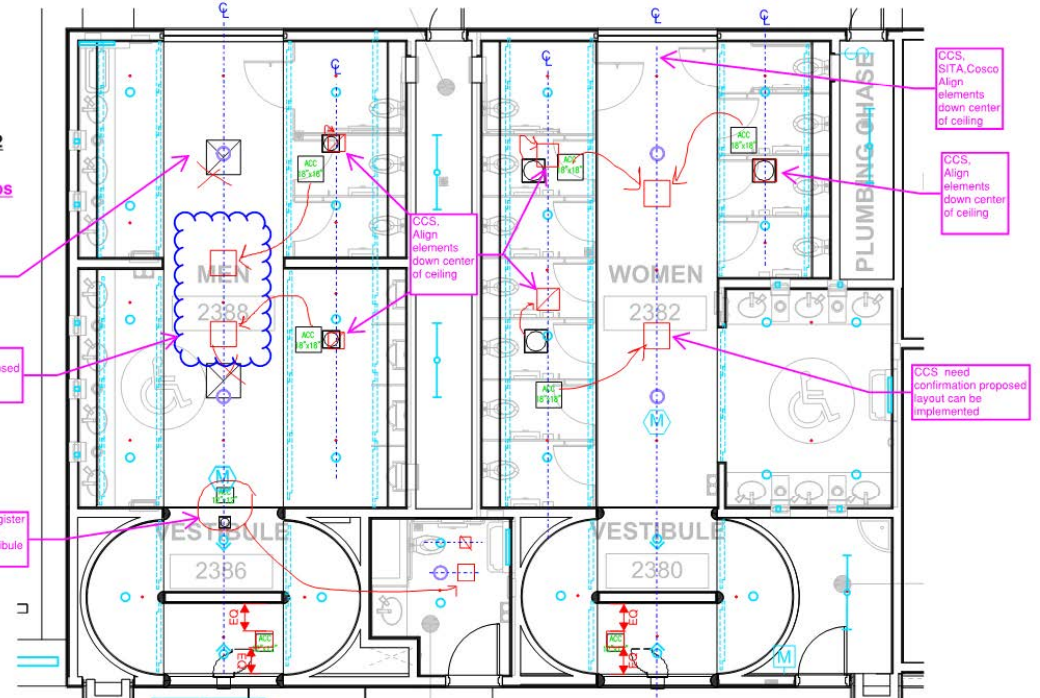


TDP-C1
2012.05.08
RCP
COMPOSITE
L2 Area W
MEN 2388 &
WOMEN 2382
2012.05.10
Team Mark-ups

CCS, SITA, Cosco
Align
elements
down center
of ceiling

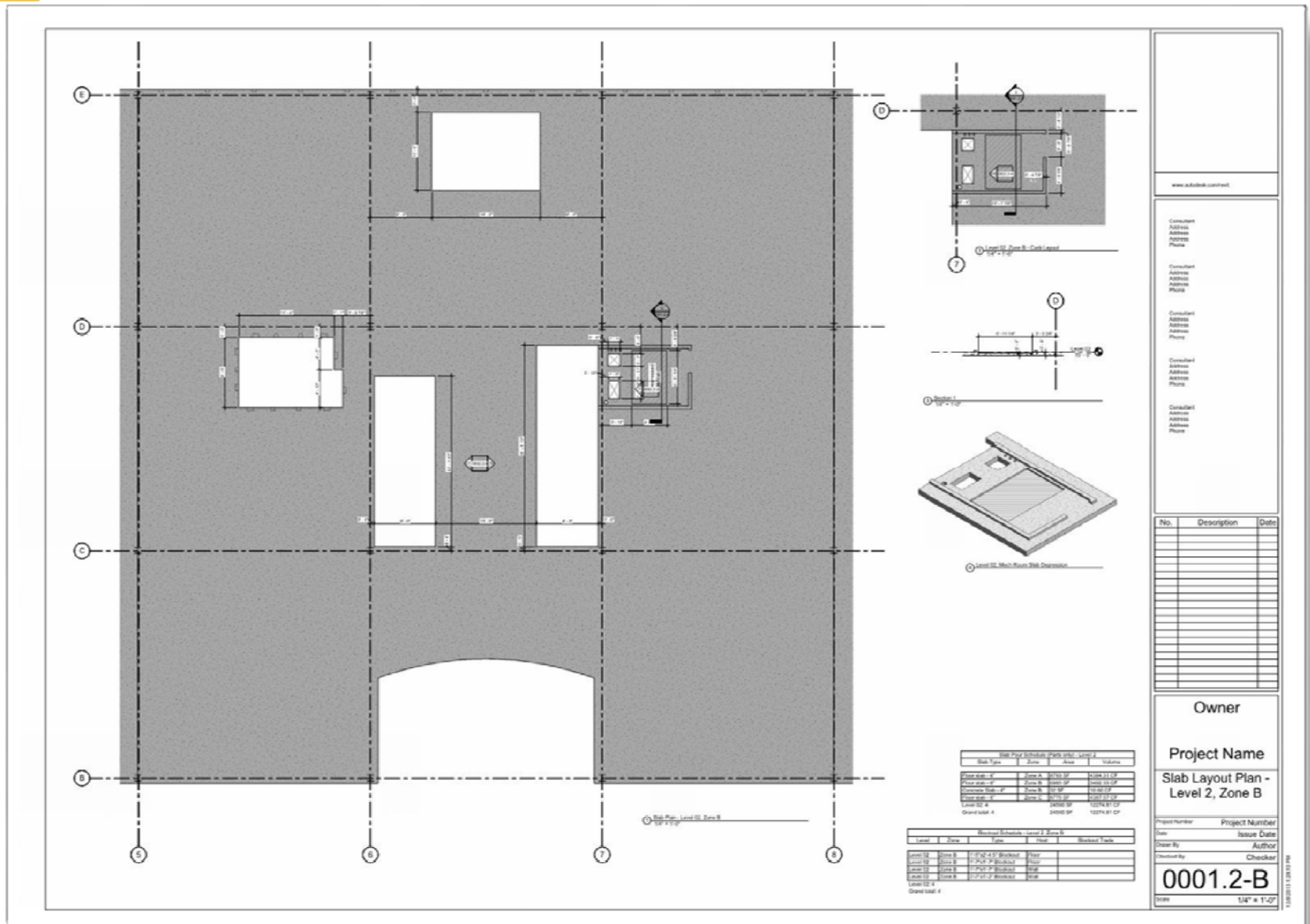
CCS need
confirmation proposed
layout can be
implemented

CCS Exhaust register
should be Family
restroom no Vestibule
2386

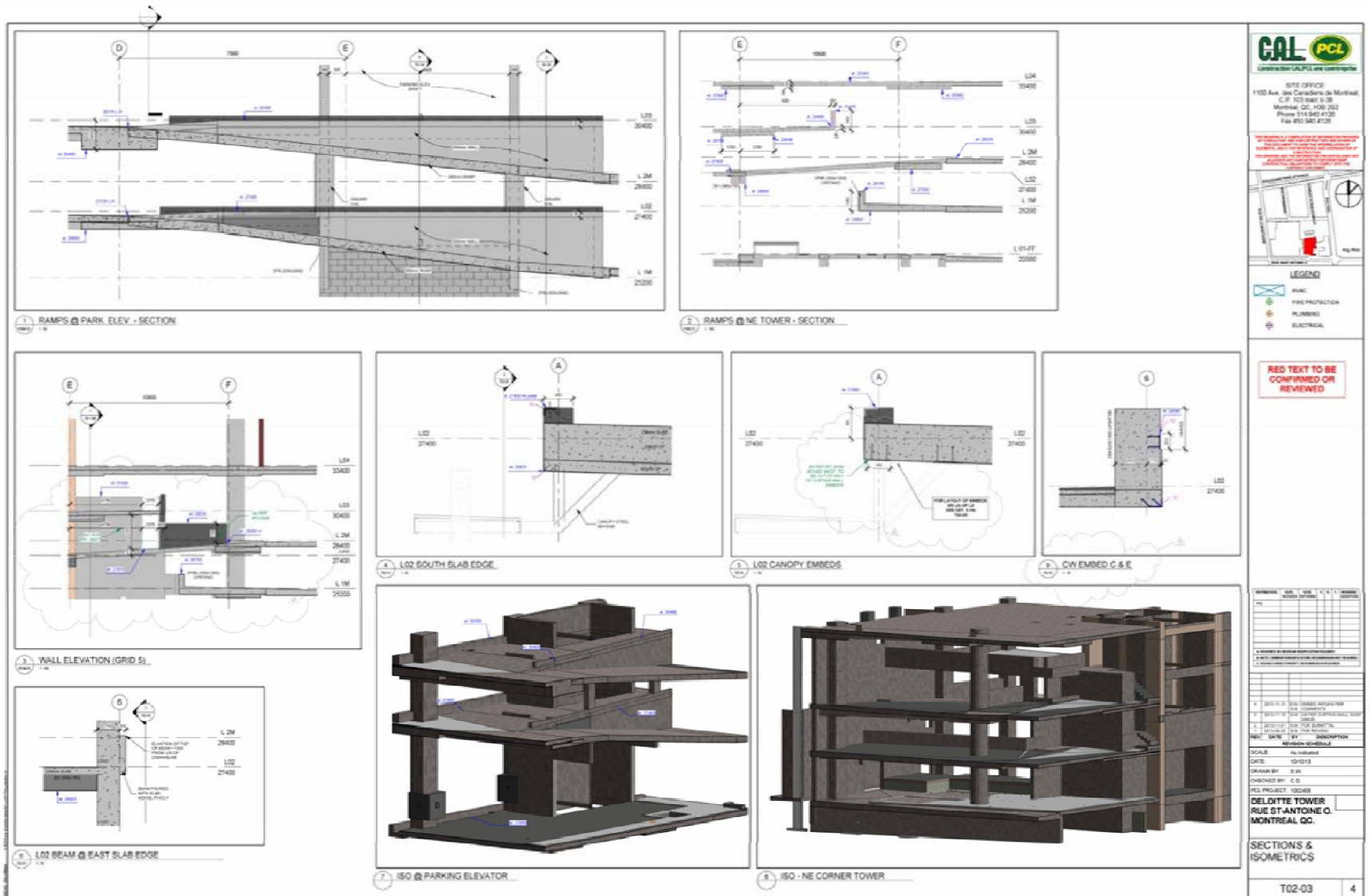


Together we build success

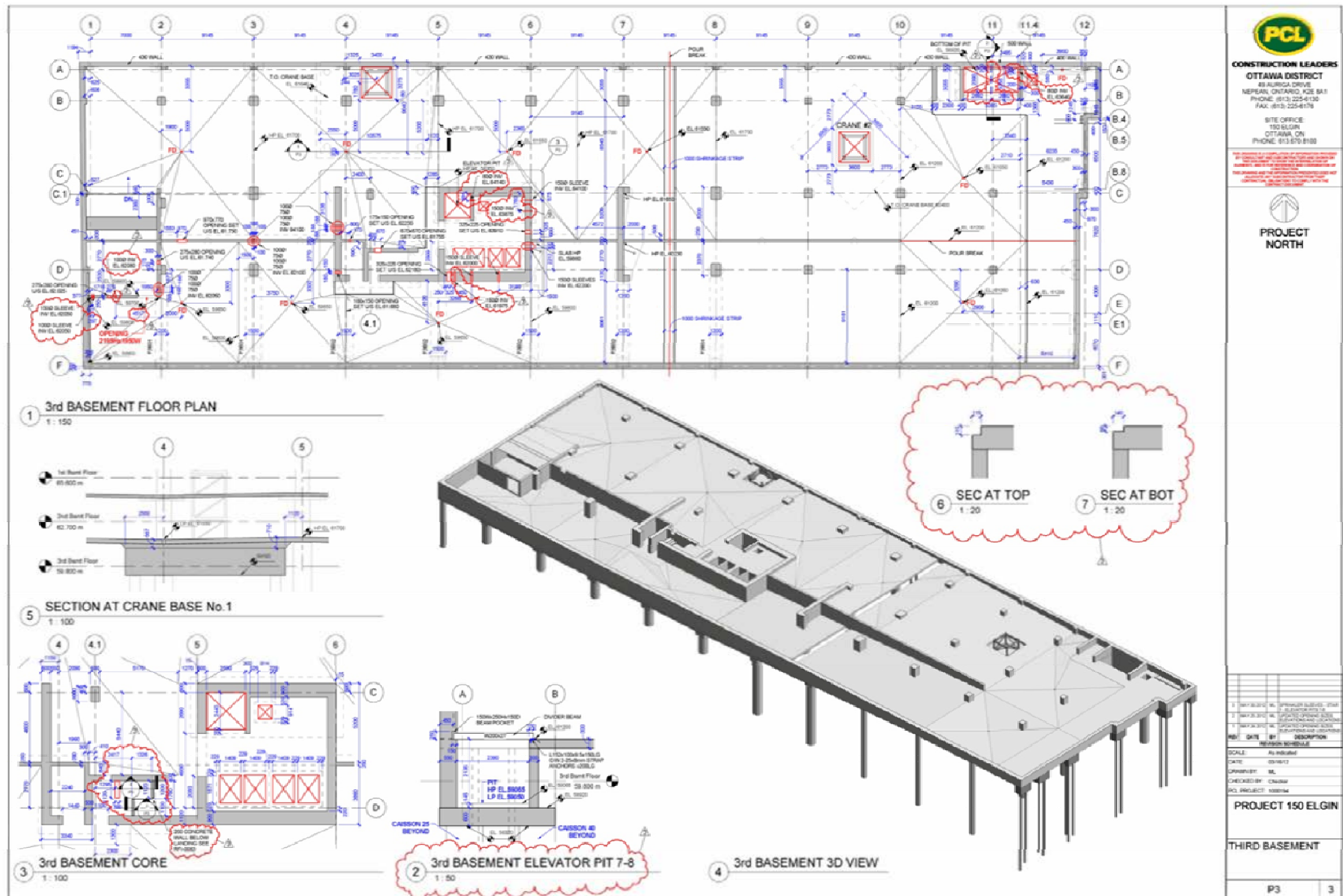
Coordinate – Construction Drawings



Coordinate – Construction Drawings



Coordinate – Construction Drawings



Communicate – BIM on the Jobsite



Note: Facility Management Integration is something PCL can work with King County on integrating if desired, but is not part of the base Contract Requirements

Managing Information – 6D (vCAM), – Life Cycle Model and Facility Management

The image displays a software interface for managing information in a 6D (vCAM) environment. On the right, a 3D model of a bathroom is shown with a large red 3D text overlay that reads "Select Geometry". A light blue dialog box is open over the model, titled "Toilet-Domestic-3D", and contains three buttons: "O&M Manual 1 Document", "Product Data Sheet 1 Document" (which is highlighted with a red border), and "Warranty Information 1 Document". A red arrow points from the "Product Data Sheet" button to the left, where a product data sheet for a Kohler toilet is displayed.

KOHLER

WELLWORTH
PRESSURE LITE[®] 1.0 TOILET
K-3531

Features

- 12" (305 mm) rough-in
- Polished chrome trip lever
- Less seat and supply
- Vitreous china
- 1.0 gpf (3.8 lpf)
- Equipped with Sloan FLUSHMATE[®] – Sloan[®] Valve Company
- Combination toilet
- Optional bedpan lugs or tank cover locks
- Elongated bowl
- 11-1/2" (292 mm) x 9-1/2" (241 mm) water area
- 30-1/8" (765 mm) x 21-1/4" (540 mm) x 29-1/4" (743 mm)

Codes/Standards Applicable
Specified model meets or exceeds the following:

- ASME A112.19.2/CSA B45.1
- EPA WaterSense[®]
- ADA
- ICC/ANSI A117.1

Colors/Finishes

- 0: White
- CP: Polished Chrome
- PB: Vibrant[®] Polished Brass
- Other: Refer to Price Book for additional colors/finishes

Specified Model

Model	Description	Trip Lever	Colors/Finishes
K-3531	Elongated bowl toilet	left-hand	<input type="checkbox"/> 0 <input type="checkbox"/> Other
K-3531-RA	Elongated bowl toilet	right-hand	<input type="checkbox"/> 0 <input type="checkbox"/> Other
K-3531-T	Elongated bowl toilet with tank cover locks	left-hand	<input type="checkbox"/> 0 <input type="checkbox"/> Other
K-3531-TR	Elongated bowl toilet with tank cover locks	right-hand	<input type="checkbox"/> 0 <input type="checkbox"/> Other

Recommended Accessories

K-4664	Brevin [®] seat with cover	<input type="checkbox"/> 0	<input type="checkbox"/> Other
K-7637	Angle supply with stop – 3/8" NPT	<input type="checkbox"/> CP <input type="checkbox"/> PB	<input type="checkbox"/> Other

Product Specification
The elongated combination toilet shall be made of vitreous china. Toilet shall be 30-1/8" (765 mm) in length, 21-1/4" (540 mm)

Approach to Traffic Management

1. Public (consumer) Safety
2. Commercial and self-haulers
3. Trailer Storage after temp wall
4. Limited construction traffic on SE 32nd St – Scheduled use only



Approach to Traffic Management Phase 1 & 2












1. Truck route to Cedar Hills Landfill
2. Entering/exiting Eastgate parking lot
3. Entering/exiting site off SE 30th
4. Utility crossings at SE 32nd
5. Use of SE 32nd and bypass lane
6. Turning left at Richards Road from SE 30th St
7. Utility and road work on SE 30th

Coordination with King County

- Consistent Communication
 - Meetings, schedules, door is always open
- Preplanning
- Develop Relationships with King County facility staff and project representatives

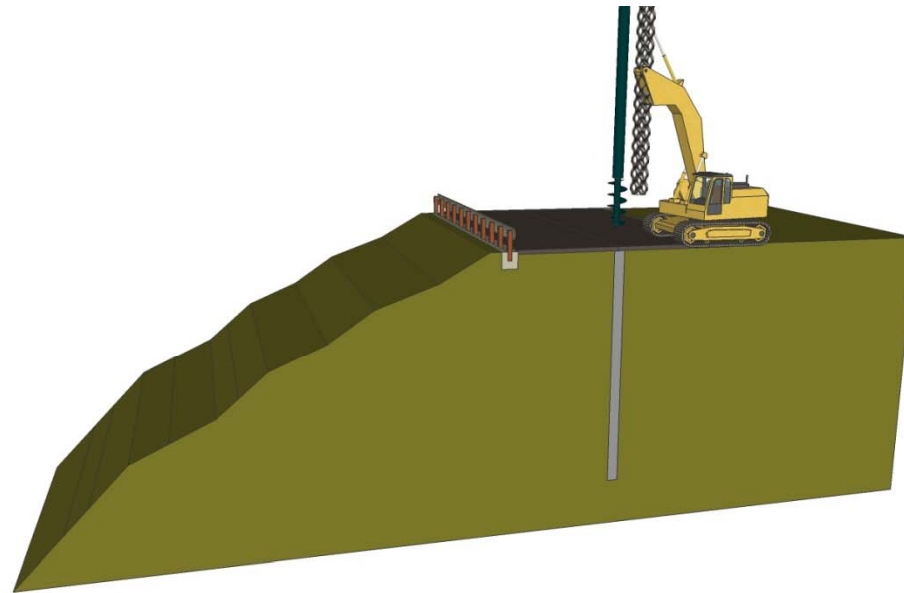
Coordination of Activities During Ongoing Operations

	Stakeholder Coordination: Potential impacts to existing facilities and stakeholder coordination.	PCL will inform the community of potential project impacts through neighborhood outreach meetings, project update flyers, emails, signage, door-to-door, etc.	» Provides a “win-win” for all parties involved.
	Shoring Wall: The construction for the temporary shoring wall is in close proximity to the FTS operation activity. The drilling must not impact their operations. The excavated site	PCL will perform the primary drilling component of this shoring system on night shifts in order to eliminate interaction with FTS. To protect traffic from the edge of the wall after excavation, the	» FTS operations and users not effected by drilling. » Integral guardrail maximizes space for ongoing KC operations.
	Utilities: Utility work on SE 32 nd St has a potential to impact FTS traffic. Relocating utilities will require trenching	PCL will coordinate with our subcontractors as well as Puget Sound Energy to perform the trenching and utility work at night	» FTS operations and customers will have minimal disruptions and safer continued access.
	Overhead electrical power line easement: Grubbing activities and electrical pole installation may impact the	PCL will access the work from the Eastgate parking lot. When this work near SE 32 nd St, barriers will be placed along the	» FTS traffic on SE 32 nd St is minimally impacted while ensuring safety to County personnel, staff
	Construction Workers: Minimize the potential for construction workers to migrate into FTS areas of operation.	PCL will incorporate an explanation of boundaries into all site orientations explaining the separation of construction and FTS	» No impact to FTS operations.
	Transfer Station Road: Construction in phase 4 may impact FTS on-going operations.	PCL will minimize the impacts during road construction by coordinating with King County, clearly defining the traffic	» Safe and efficient transition of roads. » Coordinated work will minimize impact to FTS
	Maintenance of Traffic: Construction traffic will potentially intermingle with public traffic during the initial phases of the project.	Construction traffic will access the construction site from SE 30 th St.	» Minimize disruptions to FTS traffic on SE 32 nd St.
	impact FTS on-going operations.	coordinating with King County, clearly defining the traffic routing and using flaggers for maintenance of traffic.	» Coordinated work will minimize impact to FTS patrons and operations.
	Maintenance of Traffic: Construction traffic will potentially intermingle with public traffic during the initial phases of the project.	Construction traffic will access the construction site from SE 30 th St.	» Minimize disruptions to FTS traffic on SE 32 nd St.

Together we build success.



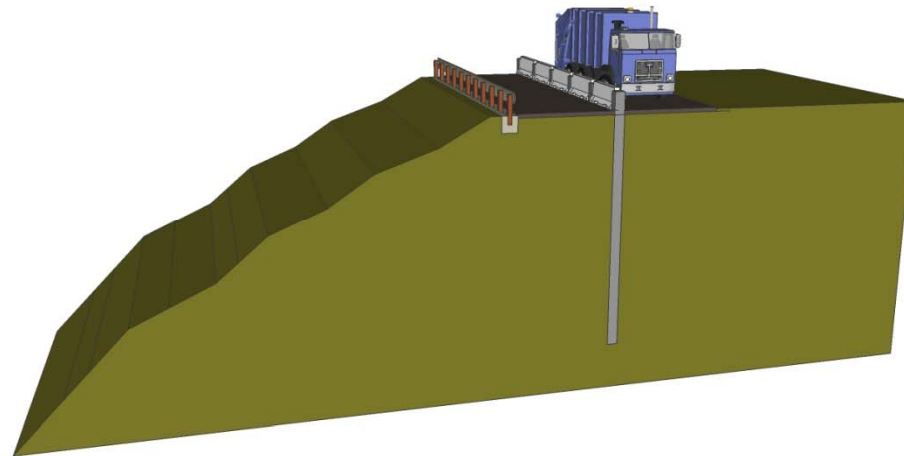
Coordination of Activities During Ongoing Operations



Together we build success.



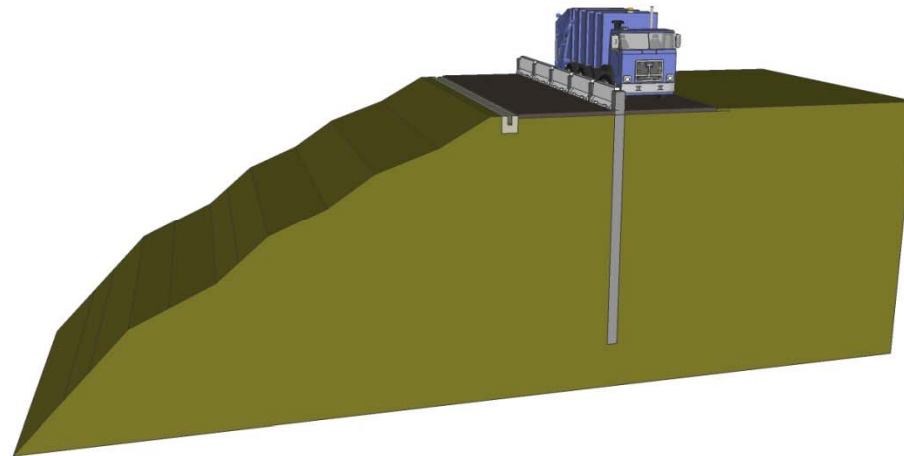
Coordination of Activities During Ongoing Operations



Together we build success.



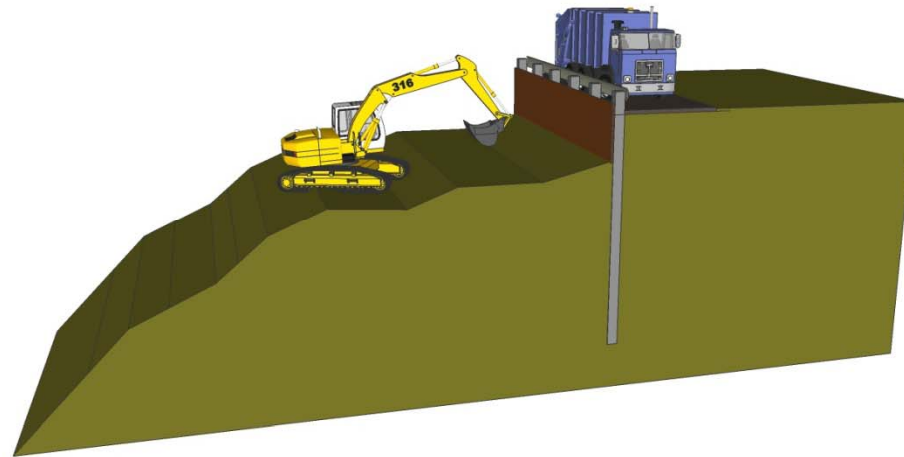
Coordination of Activities During Ongoing Operations



Together we build success.



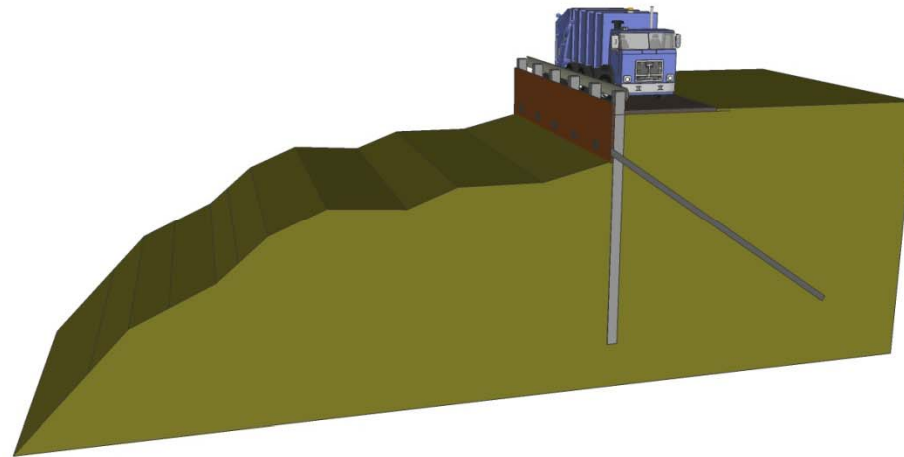
Coordination of Activities During Ongoing Operations



Together we build success.



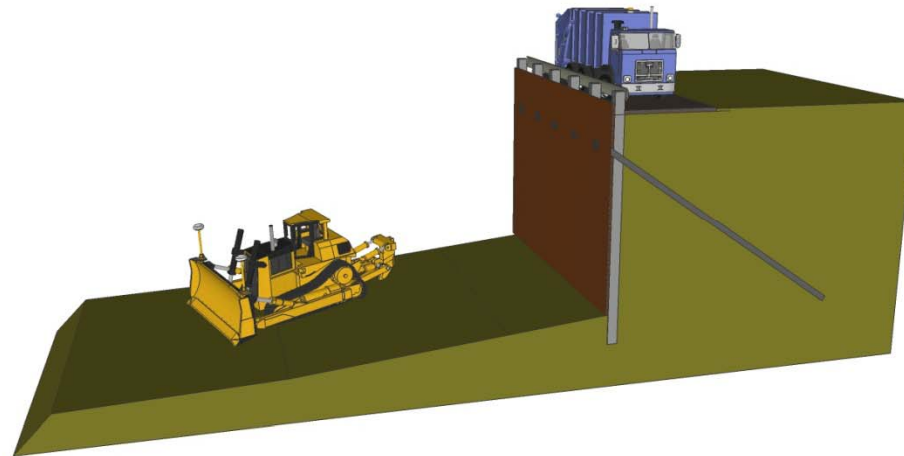
Coordination of Activities During Ongoing Operations



Together we build success.



Coordination of Activities During Ongoing Operations



Together we build success.





Project Schedule

- Scheduling Responsibilities
- Overview of format/organization
- Trash compactor procurement
- Overview of construction schedule

Scheduling Responsibilities

- Initial Project Schedule – Jeff Luedecker
- Resource Definitions – Ernie Benson
- Detailed Schedule Creation - Ernie Benson
- Project Baseline Schedule - Ernie Benson
- Weekly Look Ahead Schedules – Jeff Luedecker
- Monthly Schedule Updates - Jeff Luedecker



Format Overview

- Primavera P6 Version 7.0
- Draft Smart ID System Established
- Cost loaded
- Resource loaded based on crew sizes
- Schedule based on five (5) – eight (8) hour days work week

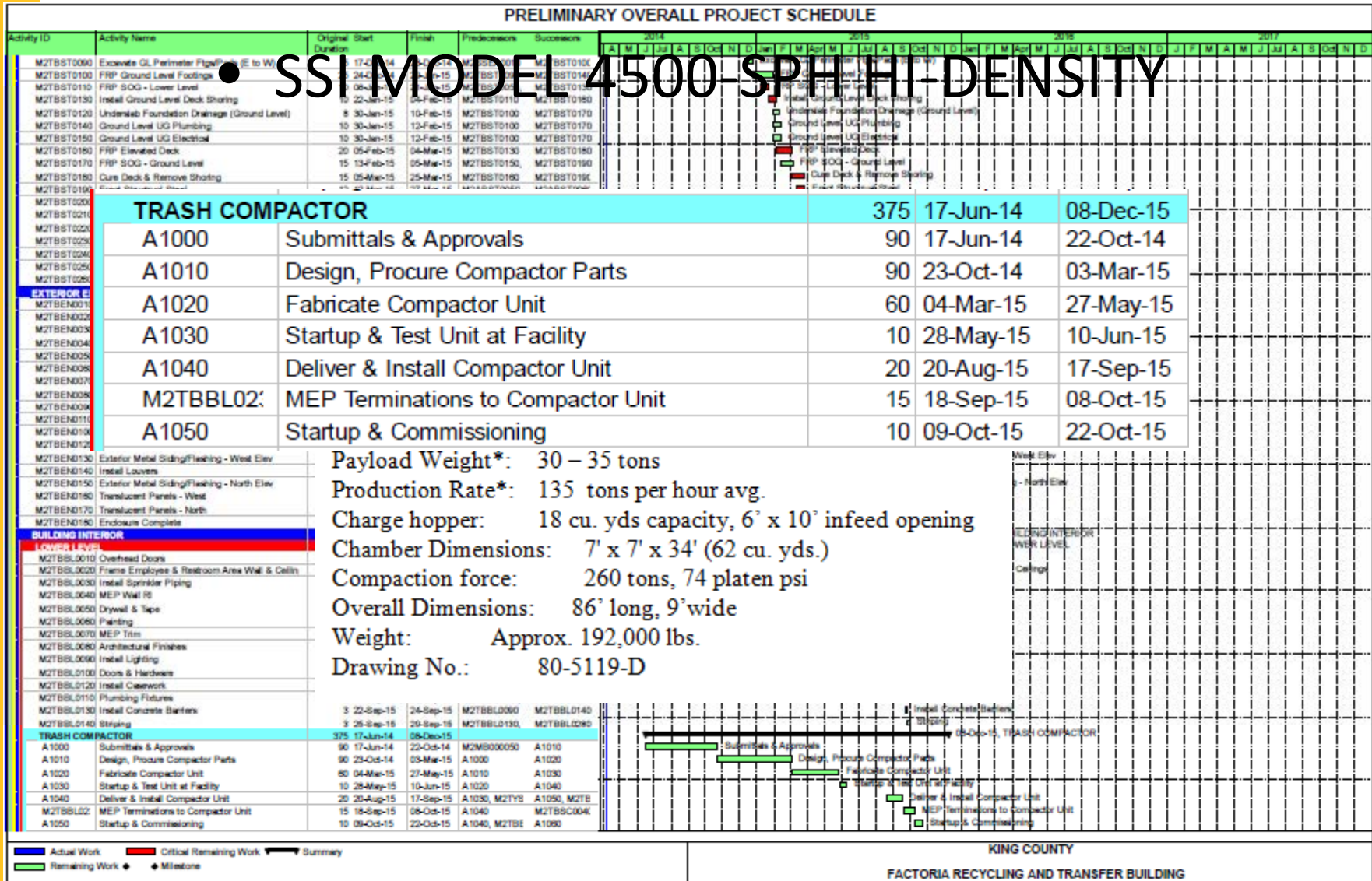
Format Overview

- Updated weekly for construction team use
- Monthly schedule walks with Owner
- Monthly update submission to Owner
- 4D model synchronized with updates
 - Model in Revit
 - Synchronizing with P6 using Synchro software



Trash Compactor Procurement

• SSI MODEL 4500-SPH HI-DENSITY



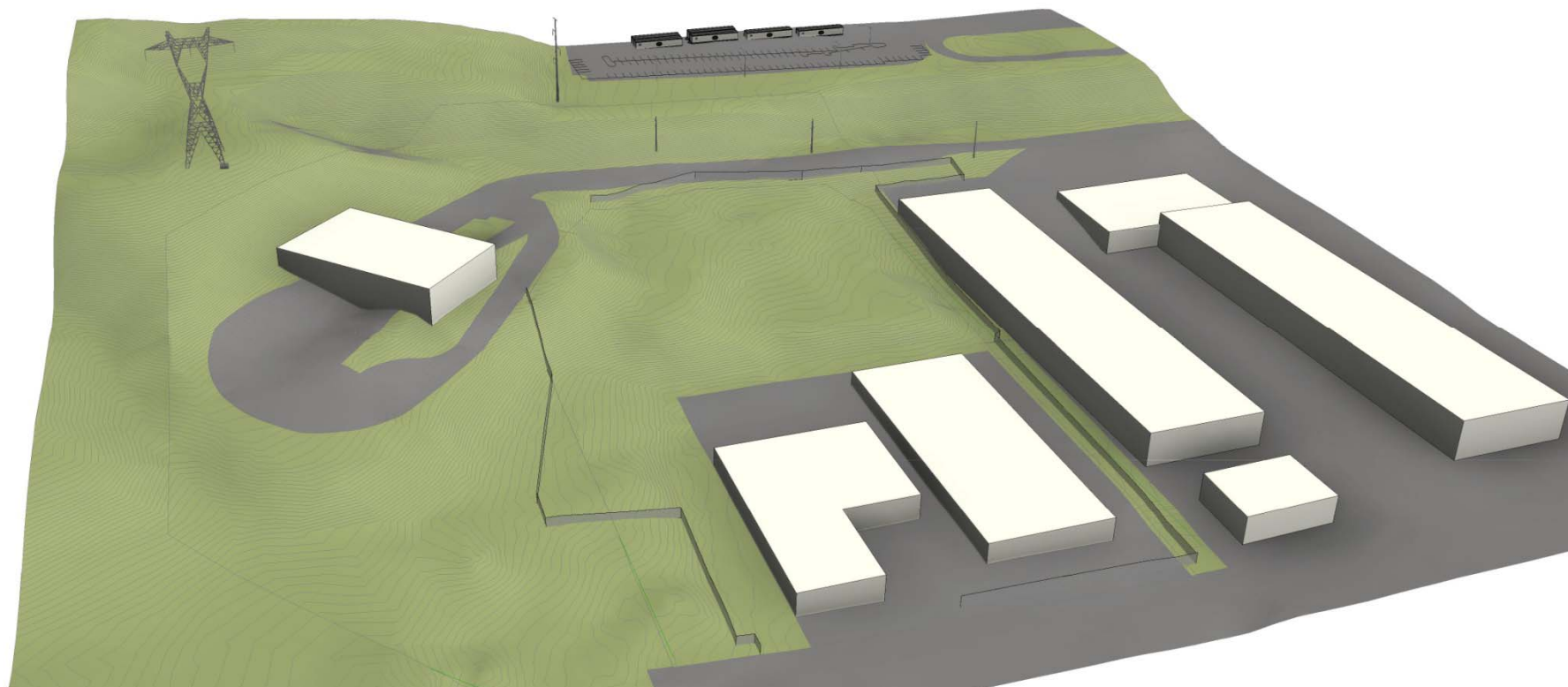
2014

2015

2016

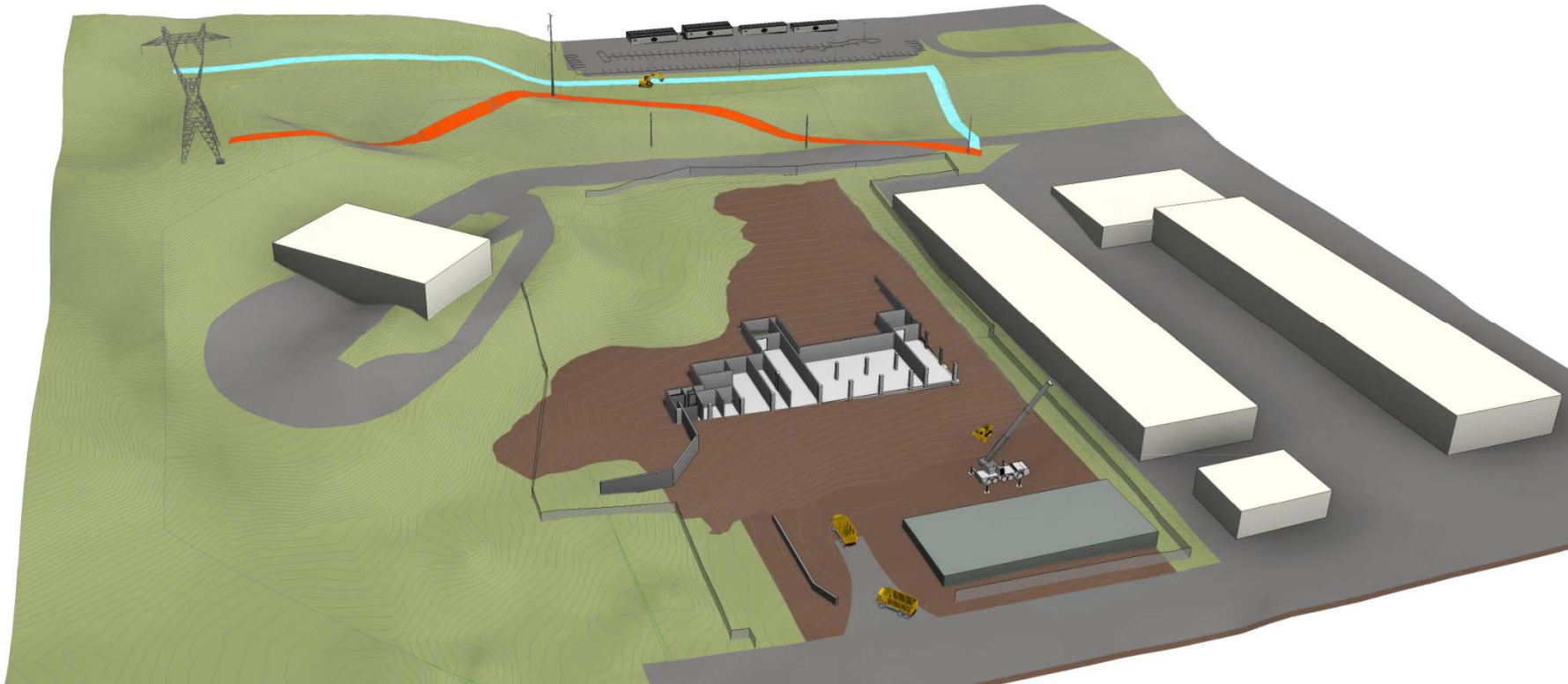
2017

JUNE





JANUARY



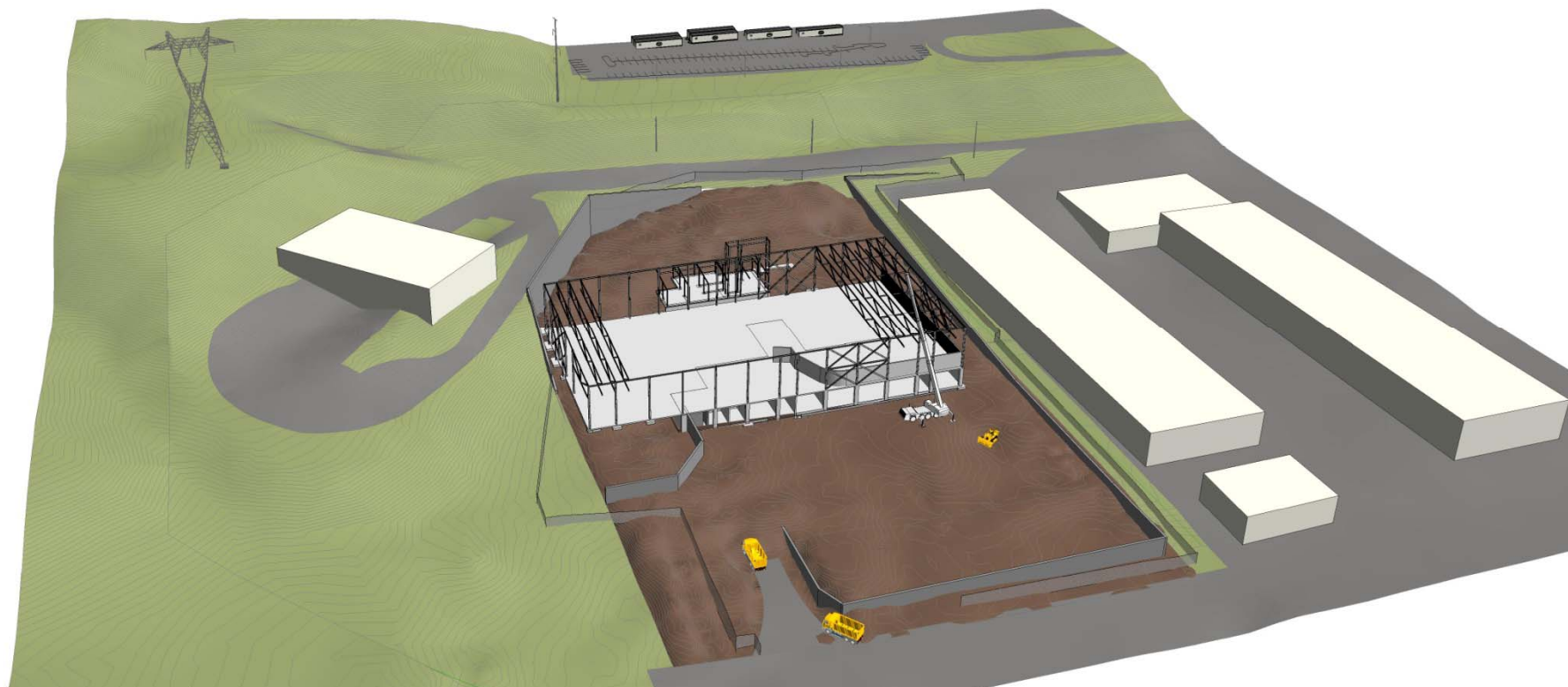
2014

2015

2016

2017

MARCH



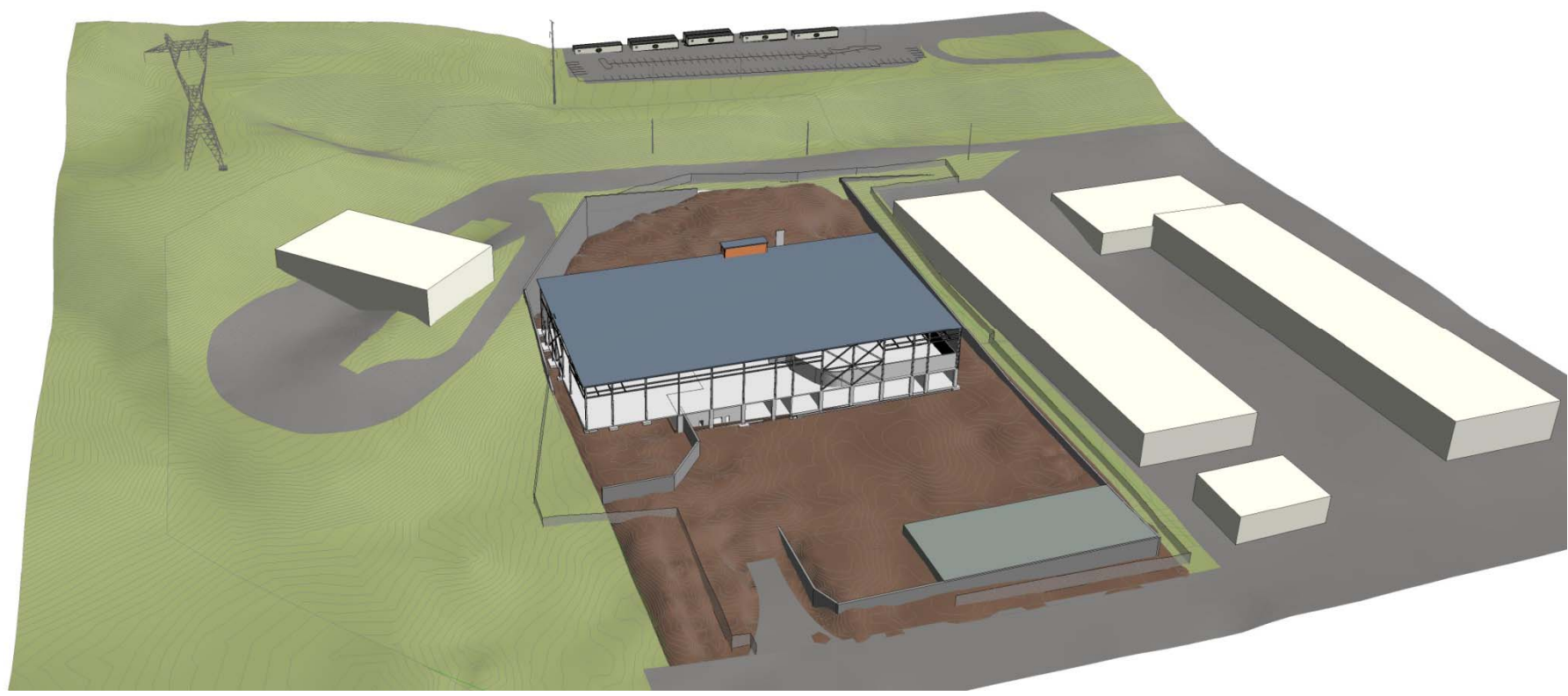
2014

2015

2016

2017

APRIL



2014

2015

2016

2017

NOVEMBER



2014

2015

2016

2017

JUNE



2014

2015

2016

2017

FEBRUARY



PCL's Approach to QA/QC



- Build it right, build it once
- Customer Focus
- Involvement of entire project team
- Documentation
- Product and process review
- Testing and Inspections
- Subcontractor Accountability

Together we build success.



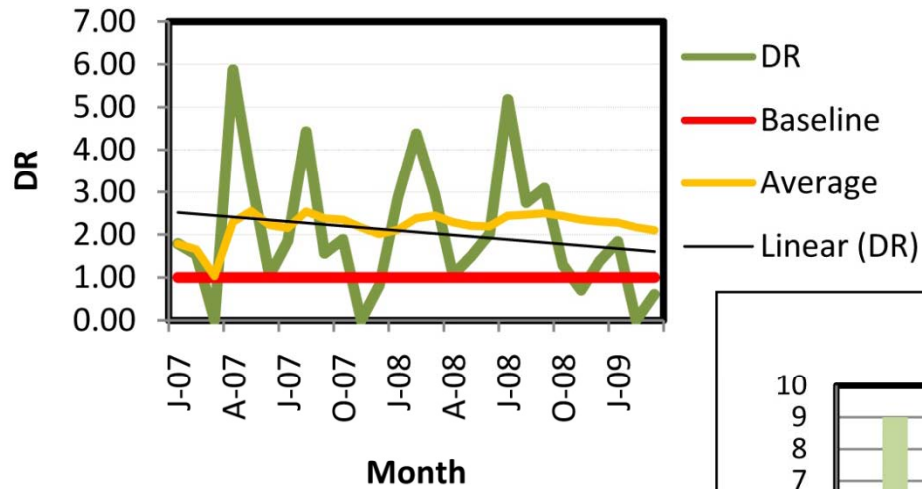
Quality Assurance

- **Process Oriented** and focuses on defect *prevention*.
- District Quality Team
- Creating Quality Management Plan (QMP)
 - Includes King County's standards, templates, policies, procedures
- Subcontractor responsibility and selection
 - Preparatory Meetings
- All specified submittals approved

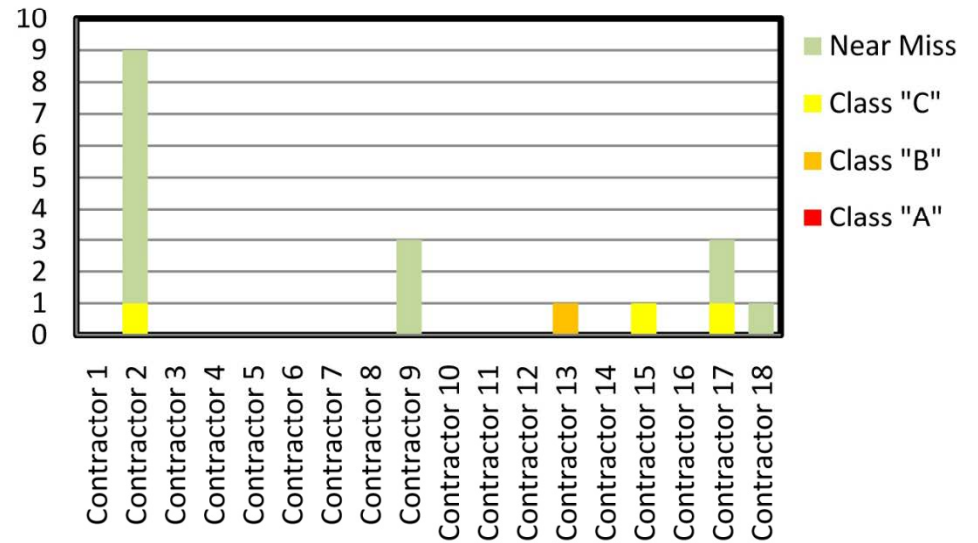


Tracking Quality

Deficiency Rate (DR)



Subcontractor Deficiency Trend



Together we build success.

Quality Process on Every Project

- **Project Specific Quality Management Plan:**
 - Client's quality expectations
 - Inspection & Test Plan (ITP)
 - Pre-installation meetings with all subtrades
 - 100% Material Inspections
 - 1st work in place inspections
 - On-going Inspections
 - Written Inspections & Photos



Together we build success.

Quality Control

- **Product Oriented** and focuses on defect *identification*
- Implementation of the QMP
- Testing
 - Welding
 - Coatings
 - Concrete
 - Soils Compaction
 - Water Quality
 - Electrical Insulation



Together we build success.

Key Performance Indicators (KPI)

- Monthly Project Audit & Metrics
 - One Project per district per month
 - Use as a planning tool
- QIR's
 - Re-work > \$5,000
 - Schedule Impact ?
- Annual District Audit
 - Ranking of performance



Elevated Slab QC - Step 1

- Prior to beginning work
 - Ensure Required Submittals are Approved for shoring system, rebar shop drawings, concrete design
 - Ensure Clash detection items have been resolved
 - Current Drawings are in use
 - Schedule Preconstruction Meeting with King County to establish quality concerns
 - Deliver all anchor bolts and chute collars and inspect for accuracy and material certification
 - Coordinate subcontractor sequencing through weekly foreman meetings

Elevated Slab QC - Step 2

- As work is being performed
 - Initiate plan for survey control points
 - Inspect work daily for conformity and accuracy
 - Rebar, blockouts, embeds, MEP, anchor bolts, formwork
 - Proper survey points are being used and maintained
 - Mobile Documentation of quality issues with BIM360, focusing on immediate corrective action
 - Ensure work is conforming to project model
 - Ensure PCL team members are managing their subs adequately
 - Track Quality deficiencies and corrective actions taken
 - Schedule inspections identified in the QMP, communicate any issues promptly



Elevated Slab QC - Step 3

- Prior to Placing Concrete
 - Meet with finishers and review finish plan
 - Review screeds, areas of finish, block-out details
 - Internal QC walk
 - Engineer walk
 - Pre-pour check list – PCL, SUBS
 - Obtain sign-off from every company that has work in slab, large or small
 - Tent lower level and heat underside of formwork (if necessary)
 - Double check elevations on all anchor bolts
 - Monitor weather forecast for Pour Day

Elevated Slab QC - Step 4

- Placing Concrete
 - Close supervision of finishing crew
 - Monitor Field Engineers measuring elevation of anchor bolts and embeds for movement during and after placement
 - Inspect 100% of concrete truck batch tickets
 - Write on tickets where in the slab each truck was placed
 - Sample concrete per the QMP requirements for slump, air entrainment, take cylinder samples
 - Cure cylinders in same condition as placed concrete
 - Blanket concrete likely – use of temperature probes under blankets

Conclusion

- Documentation mostly complete, as this was done mobile with tablets as the work was performed
- Update concrete log
- Lessons learned

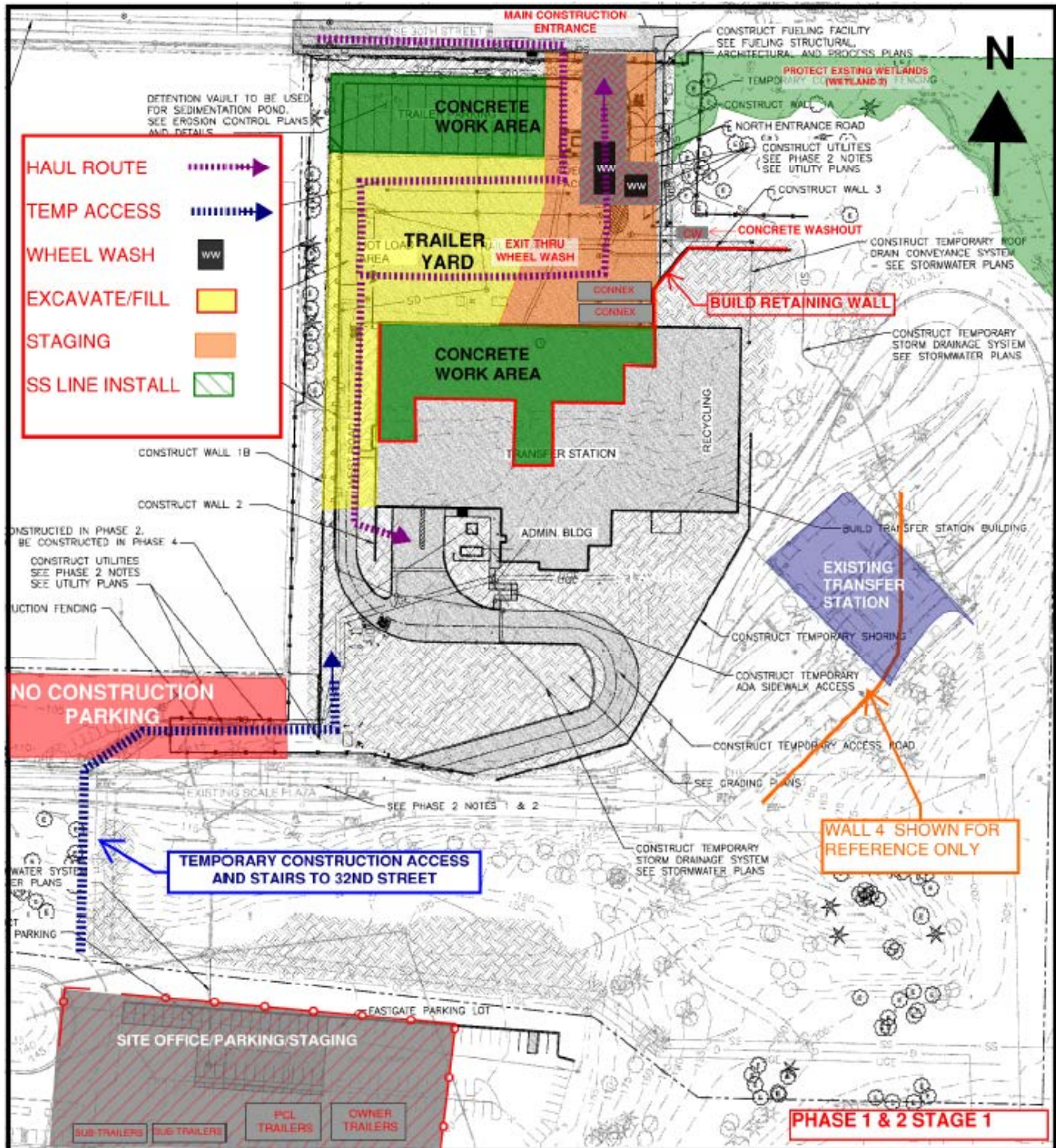


Staging Plan

- Phase 1 & 2 - Stage 1
- Phase 1 & 2 - Stage 2
- Phase 1 & 2 - Stage 3
- Phase 3 & 4

Together we build success.





- HAUL ROUTE →
- TEMP ACCESS →
- WHEEL WASH WW
- EXCAVATE/FILL
- STAGING
- SS LINE INSTALL

DETENTION VAULT TO BE USED FOR SEDIMENTATION POND. SEE EROSION CONTROL PLANS AND DETAILS.

CONSTRUCT FUELING FACILITY. SEE FUELING STRUCTURAL, ARCHITECTURAL, AND PROCESS PLANS.

PROTECT EXISTING WETLANDS (WETLAND 3)

CONSTRUCT WALL 3

CONSTRUCT UTILITIES. SEE PHASE 2 NOTES. SEE UTILITY PLANS.

CONSTRUCT WALL 3

CONCRETE WASHOUT

CONSTRUCT TEMPORARY ROOF DRAIN CONVEYANCE SYSTEM. SEE STORMWATER PLANS.

BUILD RETAINING WALL

CONSTRUCT TEMPORARY STORM DRAINAGE SYSTEM. SEE STORMWATER PLANS.

TRAILER YARD

CONCRETE WORK AREA

TRANSFER STATION

RECYCLING

ADMIN BLDG

EXISTING TRANSFER STATION

BUILD TRANSFER STATION BUILDING

CONSTRUCT TEMPORARY SHORING

CONSTRUCT TEMPORARY ADA SIDEWALK ACCESS

CONSTRUCT TEMPORARY ACCESS ROAD

SEE GRADING PLANS

CONSTRUCT TEMPORARY STORM DRAINAGE SYSTEM. SEE STORMWATER PLANS.

NO CONSTRUCTION PARKING

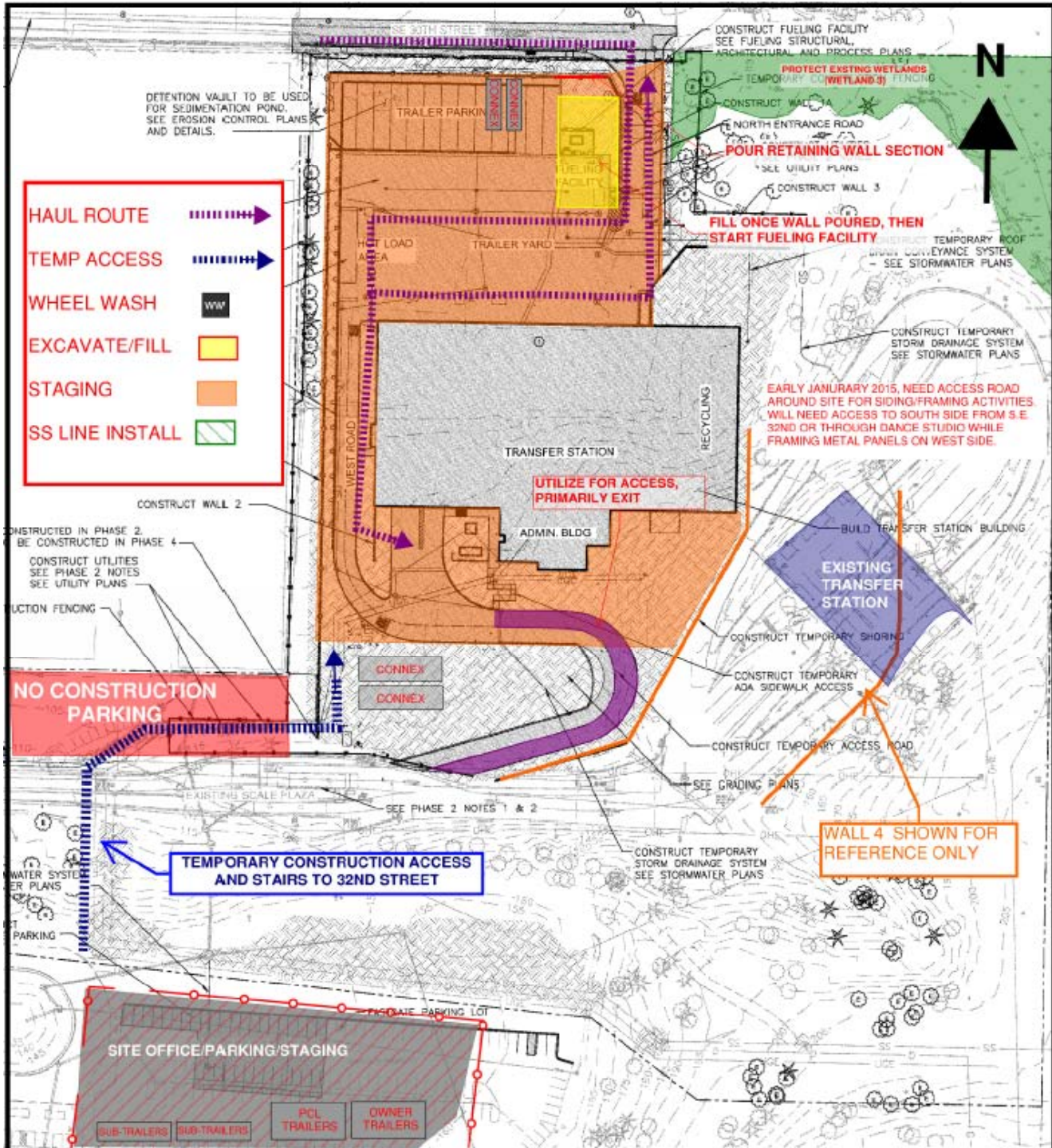
TEMPORARY CONSTRUCTION ACCESS AND STAIRS TO 32ND STREET

WALL 4 SHOWN FOR REFERENCE ONLY

SITE OFFICE/PARKING/STAGING

SUB-TRAILERS SUB-TRAILERS PCL TRAILERS OWNER TRAILERS

PHASE 1 & 2 STAGE 1



- HAUL ROUTE →
- TEMP ACCESS →
- WHEEL WASH
- EXCAVATE/FILL
- STAGING
- SS LINE INSTALL

DETECTION VAULT TO BE USED FOR SEDIMENTATION POND. SEE EROSION CONTROL PLANS AND DETAILS.

CONSTRUCT FUELING FACILITY
SEE FUELING STRUCTURAL, ARCHITECTURAL AND PROCESS PLANS

PROTECT EXISTING WETLANDS (WETLAND 3)
TEMPORARY CONSTRUCTION FENCING

CONSTRUCT WALL 2
NORTH ENTRANCE ROAD
POUR RETAINING WALL SECTION
SEE UTILITY PLANS
CONSTRUCT WALL 3

FILL ONCE WALL POURED, THEN START FUELING FACILITY

CONSTRUCT TEMPORARY ROOF
WITH CONVEYANCE SYSTEM
SEE STORMWATER PLANS

CONSTRUCT TEMPORARY STORM DRAINAGE SYSTEM
SEE STORMWATER PLANS

EARLY JANUARY 2015, NEED ACCESS ROAD AROUND SITE FOR SIDING/FRAMING ACTIVITIES. WILL NEED ACCESS TO SOUTH SIDE FROM S.E. 32ND OR THROUGH DANCE STUDIO WHILE FRAMING METAL PANELS ON WEST SIDE.

TRANSFER STATION

UTILIZE FOR ACCESS, PRIMARYLY EXIT

ADMIN. BLDG

EXISTING TRANSFER STATION

CONSTRUCT TEMPORARY SHORING

CONSTRUCT TEMPORARY ADA SIDEWALK ACCESS

CONSTRUCT TEMPORARY ACCESS ROAD

SEE GRADING PLANS

WALL 4 SHOWN FOR REFERENCE ONLY

CONSTRUCT TEMPORARY STORM DRAINAGE SYSTEM
SEE STORMWATER PLANS

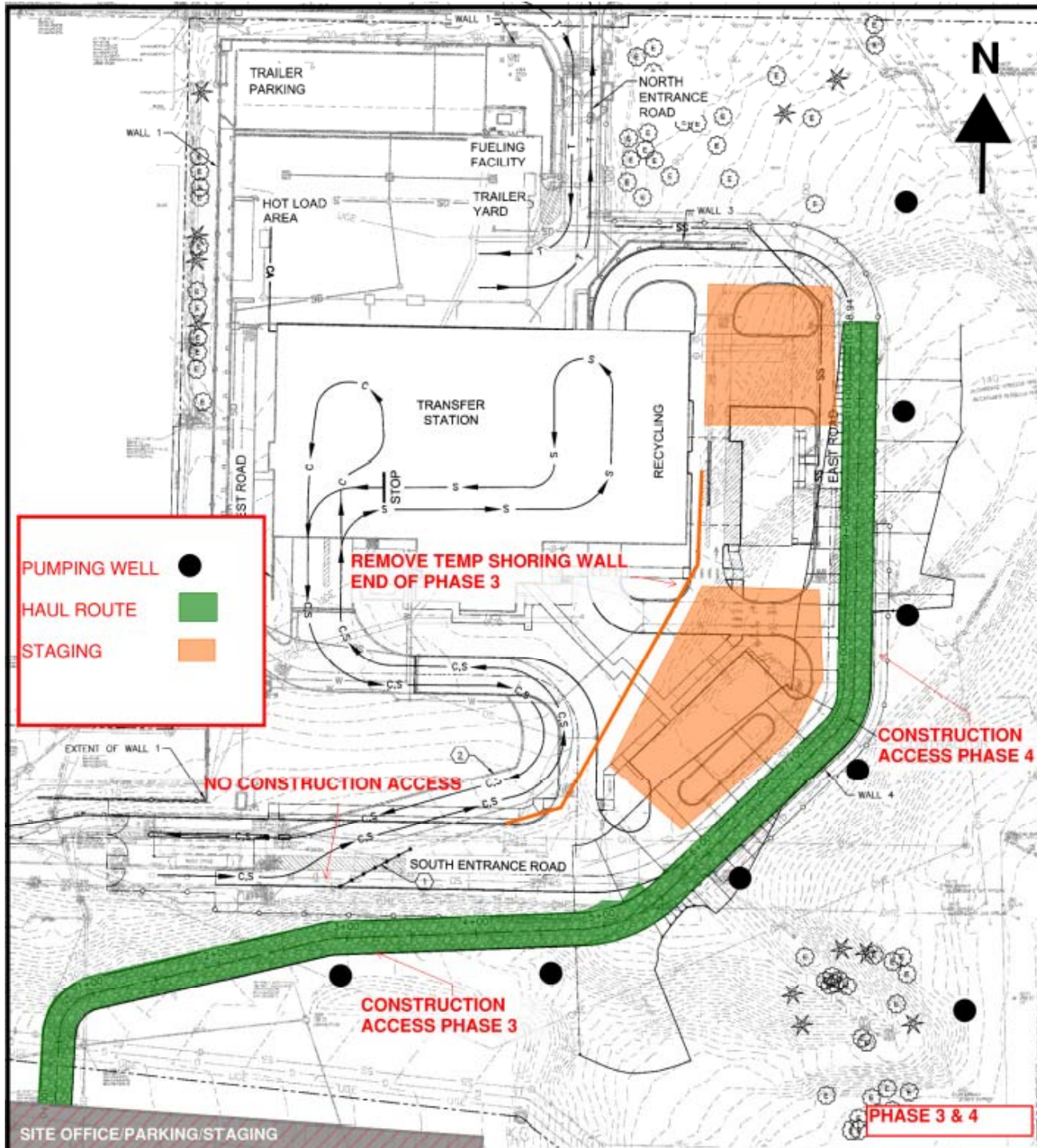
NO CONSTRUCTION PARKING

TEMPORARY CONSTRUCTION ACCESS AND STAIRS TO 32ND STREET

SITE OFFICE/PARKING/STAGING

SUB-TRAILERS SUB-TRAILERS PCL TRAILERS OWNER TRAILERS





Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.

Pipe Bursting Pipe Installation on SE 30th St

- A method of replacing buried pipelines without the need for a traditional construction trench. "Launching and receiving pits" replace the trench needed by conventional pipe-laying.
- City of Bellevue has allowed use of this method in the past.



Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.

Pipe Bursting Pipe Installation on SE 30th St

Pros

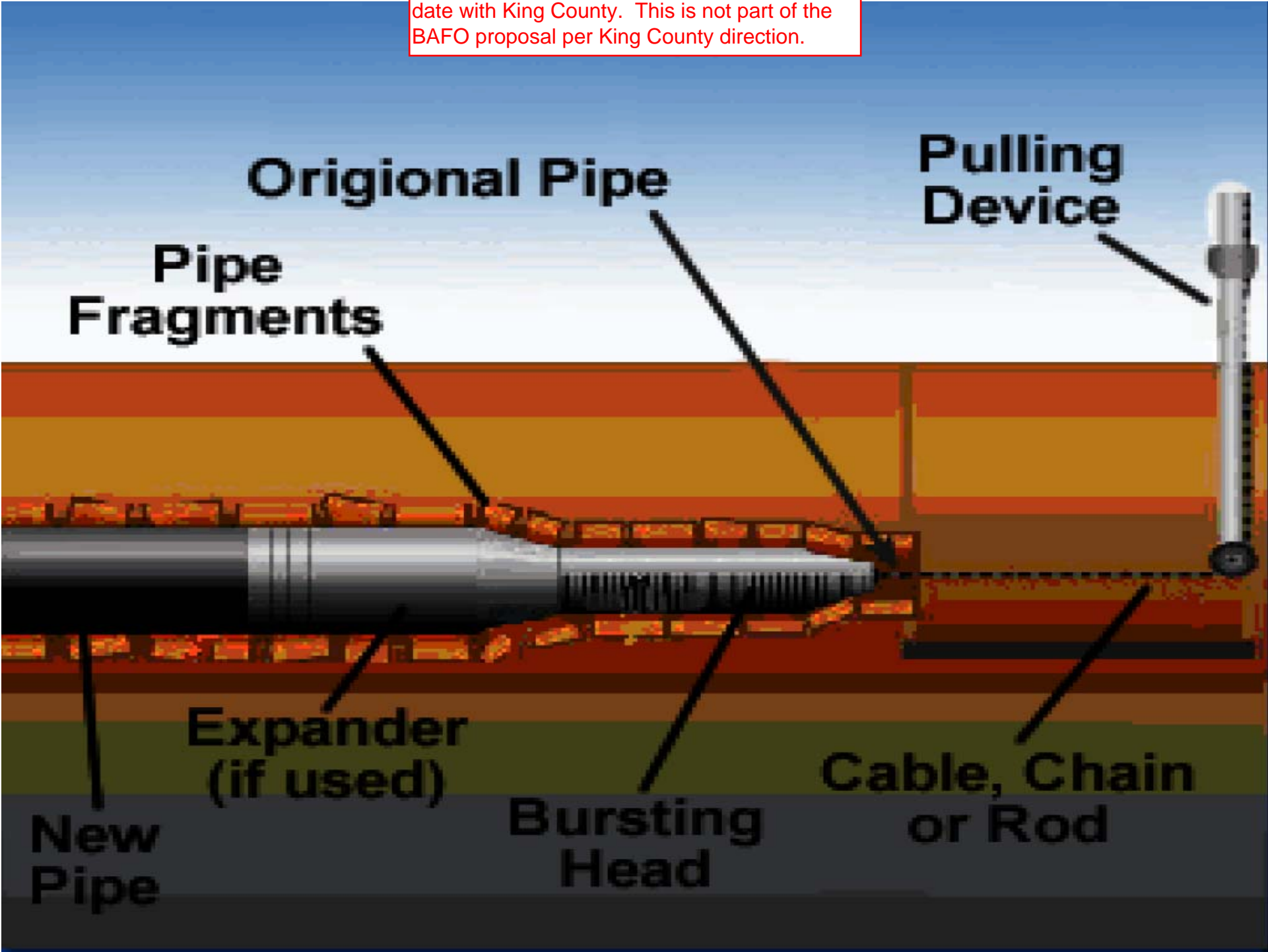
- Safer than trenching
- Substantially reduced neighborhood impacts
- Reduced dewatering
- Faster installation
- Reduces potential for unforeseen conditions during traditional trenching


Cons

- Requires material substitution
- Need approval from COB (historically been approved)



Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.



A large yellow arrow graphic pointing to the right, positioned on the left side of the page.

<http://www.youtube.com/watch?v=HX5beh0ubGY>

Together we build success.

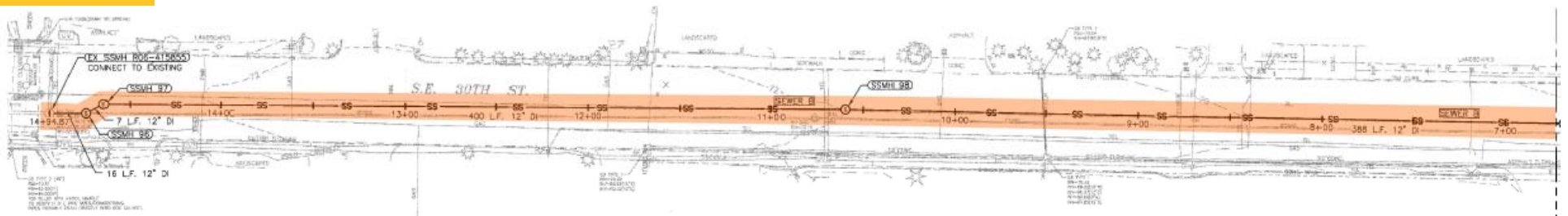
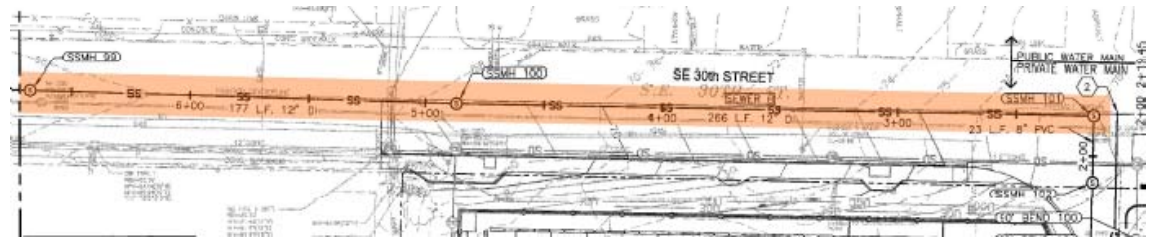


Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.

Conventional Pipe Installation

Requirements:

- Would require 1500lf of total trench
- Sequenced shorter trenches to reduced community impacts
- Traffic management and outreach when crossing driveways
- Dewatering the entire length of new installation



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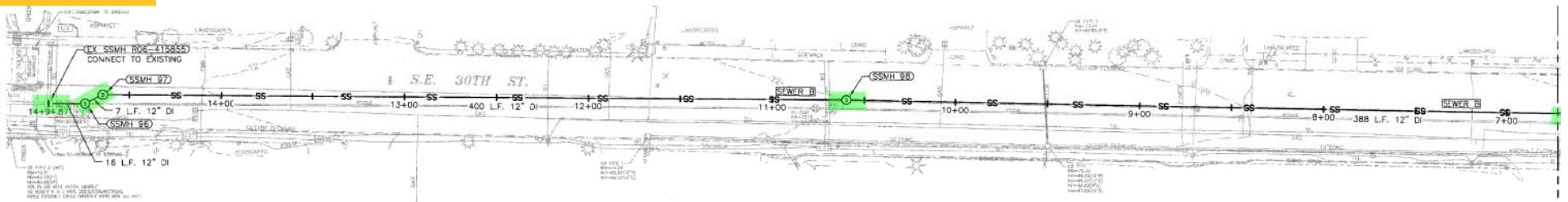
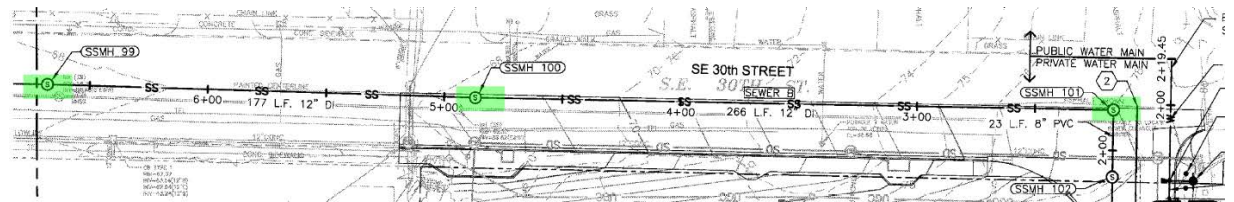


Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.

Trenchless Installation

Requirements:

- Five “launching and receiving” pits
- Dewatering in these areas only
- Minimal Traffic management



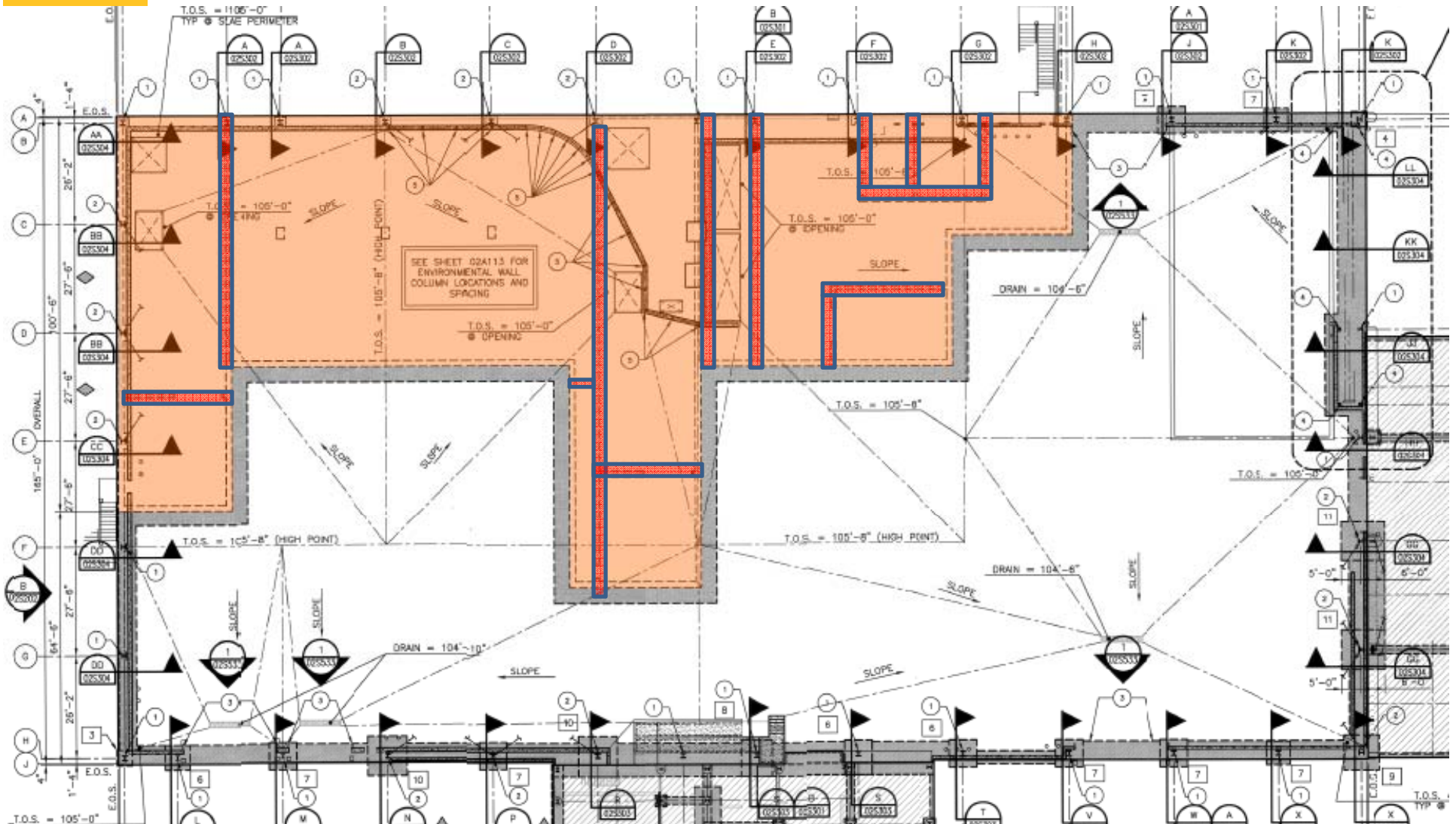
Together we build success.



Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.

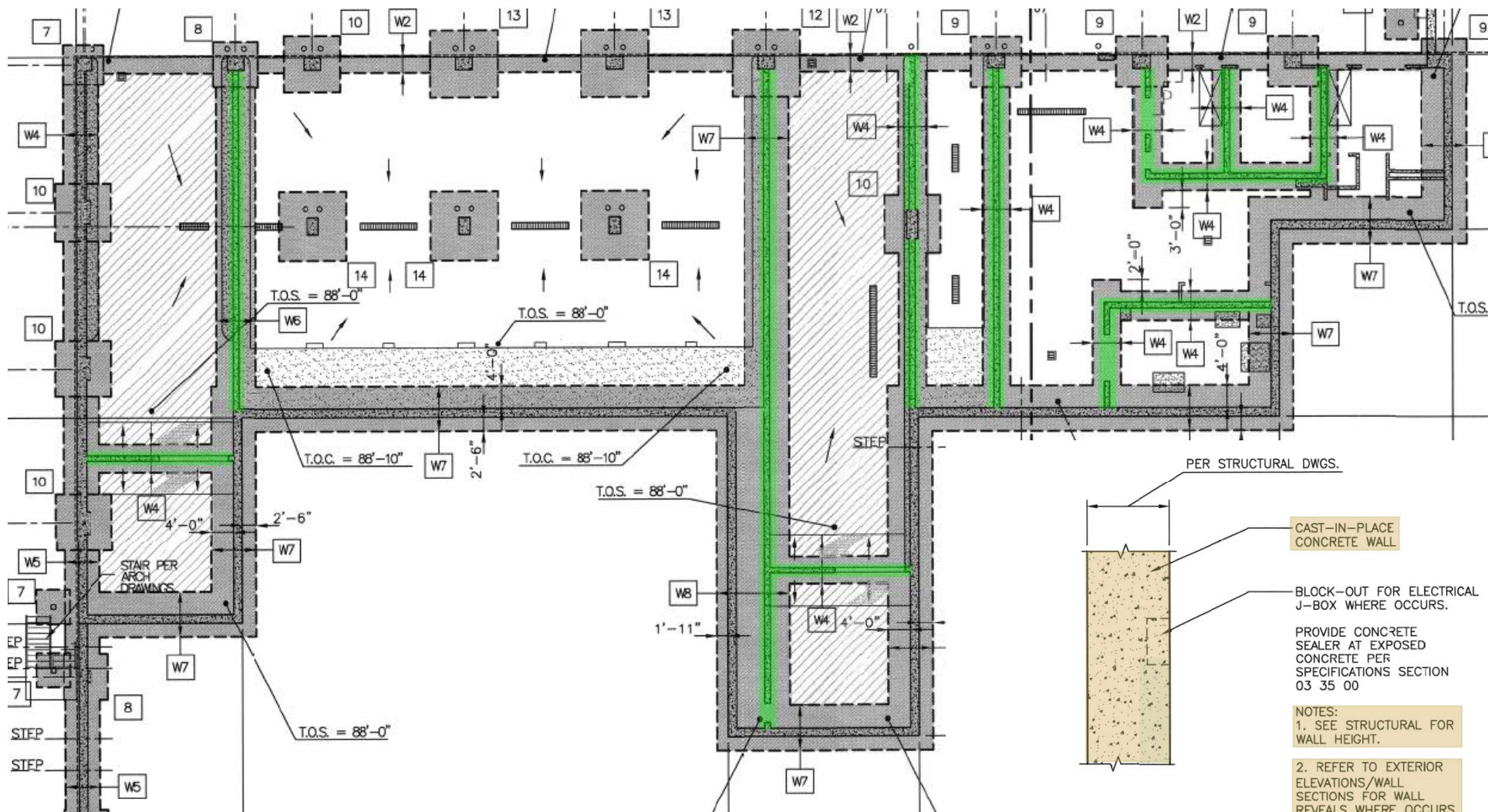
Concrete to CMU Walls

Concrete wall vs. CMU



Note: VE item that will be discussed at later date with King County. This is not part of the BAFO proposal per King County direction.

7,035 square Feet of Wall



- PER STRUCTURAL DWGS.
- CAST-IN-PLACE CONCRETE WALL
 - BLOCK-OUT FOR ELECTRICAL J-BOX WHERE OCCURS.
 - PROVIDE CONCRETE SEALER AT EXPOSED CONCRETE PER SPECIFICATIONS SECTION 03 35 00
- NOTES:
- SEE STRUCTURAL FOR WALL HEIGHT.
 - REFER TO EXTERIOR ELEVATIONS/WALL SECTIONS FOR WALL REVEALS WHERE OCCURS

CONCRETE WALL

1 1/2" = 1'-0"

Amended Sand Filter Vault

Priced as size in documents

- Figured as concrete, cast-in-place walls
- Assumed 6" walls
- Precast plank lid system
- Rebar at 150#/cy



INVITATION TO BID

Factoria RTS

Section 4 – Prequalification Form

Project:			
Subcontractor:			
Definition of Work:			
Contract Type:		Contact Name:	
Contractors State License # (US Only)			

A1 Corporation Information			
Legal Name of Firm (in full)			
Other Trade Name(s)			
Parent Company			
Dunn & Bradstreet #			
Business Address		Phone	
		Fax	
City	Province/State	PC/Zip	
Email Address			

Form of Business	Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Proprietorship <input type="checkbox"/> Limited Liability Corp <input type="checkbox"/>		
Date Business Commenced		Date Incorporated	

A2 Bonding & Insurance			
Name of Broker Reference		Bonding Company	Phone:
			Contact Name:
Insurance Provider(s)			
Auto Liability limits			
General Liability limits			
E&O limits (if design/build)			
Could subcontractor provide a performance bond if required?		Yes <input type="checkbox"/> No <input type="checkbox"/>	Bond Rate \$ _____/1000

A3 Financial Information			
Primary Bank		Account #	Phone:
Address		Account Manager	
Will parent company provide a guarantee?		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Audited financial statements provided?		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Financial reports for period ending?			
Working Capital?			
Equity?			

A4 Supplier References			
1. Name		Acct #	Phone
Address		Contact Name	
2. Name		Acct #	Phone
Address		Contact Name	
3. Name		Acct #	Phone
Address		Contact Name	
4. Name		Acct #	Phone
Address		Contact Name	

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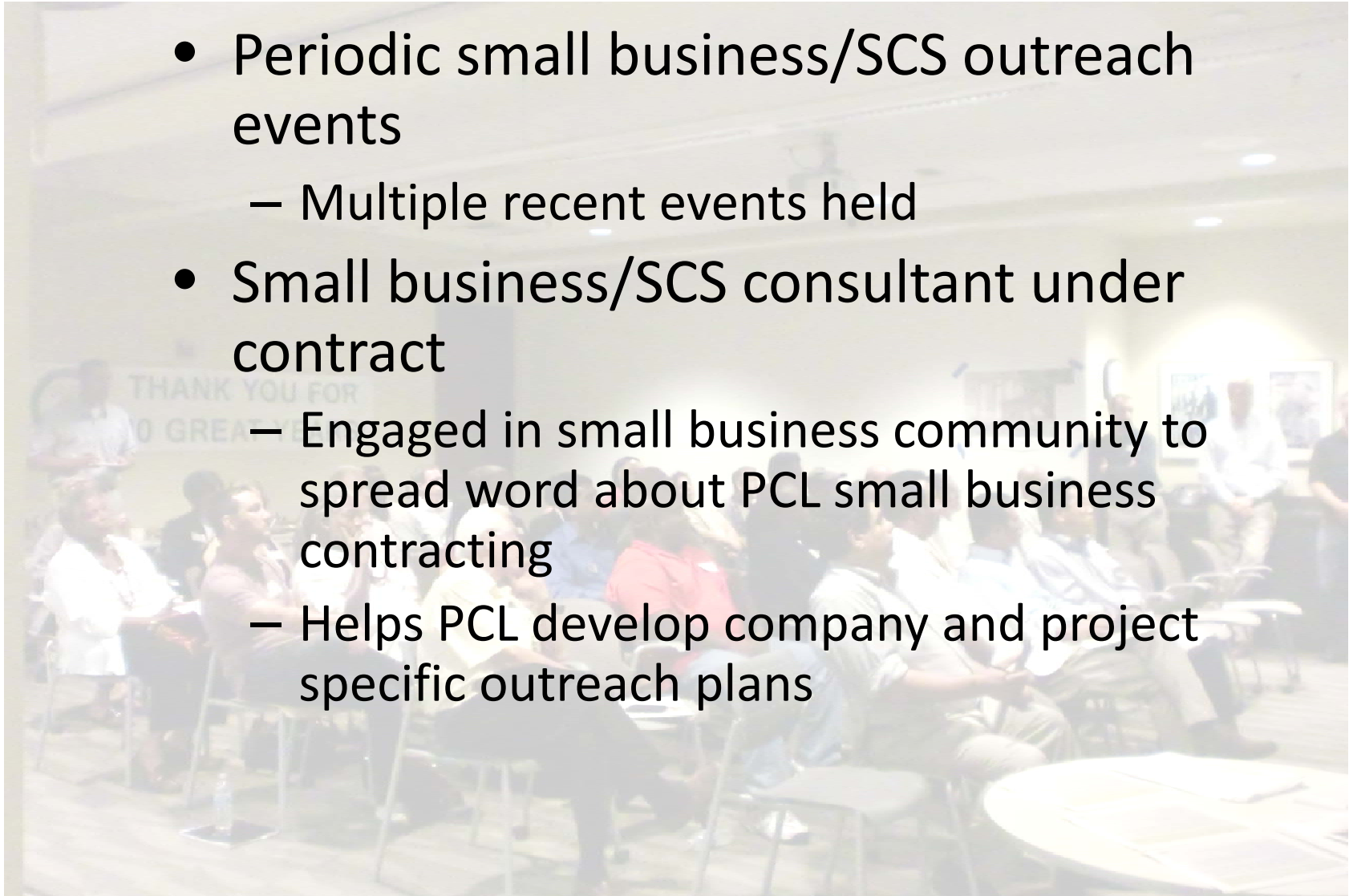
SCS Utilization

- Company SCS Overview
- Factoria RTS 20% breakdown
- SCS and PLA impacts
- Subcontracting Performance Plan
- Outreach for Factoria RTS
- SCS process during project execution



Company Approach

- Periodic small business/SCS outreach events
 - Multiple recent events held
- Small business/SCS consultant under contract
 - Engaged in small business community to spread word about PCL small business contracting
 - Helps PCL develop company and project specific outreach plans



Factoria 20% Committed SCS Breakdown

- Mechanical SCS firm – 5.3%
- Landscape SCS firm – 3.4%
- Earthwork sub-tier SCS firms – 3.3%
- Roofing and siding SCS firms – 2.8%
- Steel supply SCS firm – 2.2%
- Painting SCS firm – 1.3%
- Glazing SCS firm – 1.2%
- Low-voltage electrical SCS firm – 0.9%
- Crane rental SCS firm – 0.3%
- Miscellaneous SCS firms – 0.4%
- Additional Potential SCS – 2.5%



SCS and PLA Impacts

- Numerous SCS firms did not propose due to PLA
- Compactor vendor (not SCS) initial refusal to sign PLA; however, plan implemented and SSI has now agreed



Subcontracting Performance Plan

3 Phases to SCS Subcontract Plan

1. Estimating phase
2. Buyout phase
3. Execution phase

Subcontracting Performance Plan – Buyout Phase

- Re-assess SCS participation % when shift from estimating to buyout phase
- SCS % reviewed at PCL weekly project meetings
- Engage additional SCS firms for scopes not bought out
 - Applies to our subtrades as well



Subcontracting Performance Plan – Buyout Phase

Assist SCS firms with processes in order to maximize/encourage participation

- Making documents more readily available
- Explain subcontracting process and specially tailor contracts to meet SCS firm needs/processes
- Implement plans to assist SCS firms with financials necessary to participate



Subcontracting Performance Plan – Execution Phase

Sub-Tier Monitoring

- SCS percentage commitments to be expressly noted in contract with major subcontractors/suppliers
- SCS percentages to be reviewed bi-weekly with each trade
- Sub/supplier SCS percentages achieved through each period to be provided with pay requests



Subcontracting Performance Plan – Execution Phase

PCL Monitoring

- Achieved SCS percentages reviewed at weekly staff meetings
- SCS Subcontracting Performance Plan re-assessed on periodic and as needed basis to address issues
- SCS plan reviewed monthly with PCL Senior Management



Subcontracting Performance Plan – Execution Phase

Assistance

- Assist in developing subcontractor operations plans for SCS firms (safety, quality, etc.)
- Risk mitigation plans to be implemented for higher risk firms
- Assist non-SCS firms in certification process



SCS Success

- 4 recent projects all met or exceeded

Project	S/DBE Goal	Participation Achieved
Sound Transit, C755 / C410 Central Link Light Rail Project, Seattle, WA	SBE goal: 20%, DBE goal: 12%	SBE achieved: 25%, DBE achieved: 16%
Sound Transit, Kent Parking Garage Design-Build, Kent, WA	SBE goal: 22%,	SBE achieved: 36.50%,
Sound Transit, Kent Pedestrian Bridge, Kent, WA	SBE goal: 22%,	SBE achieved: 29.27%,
Sound Transit, Federal Way Transit Center, Federal Way, WA	SBE goal: 20%, DBE goal: 13%	SBE achieved: 24%, DBE achieved: 12%
Sound Transit, Lakewood Commuter Rail Station, Lakewood, WA	SBE goal: 15%, DBE Goal: none	SBE achieved: 24%, DBE Achieved: 4%
Sound Transit, Auburn Parking Garage Design-Build, Auburn, WA	SBE goal: 22%	SBE achieved: 31.4%
Sound Transit, Auburn Pedestrian Bridge, Auburn, WA	SBE goal: 22%	SBE achieved: 60.4%
NAVFAC NW, Small Arms Training Center	SBE goal: 65%, DBE goal: 17.8%	SBE achieved: 69.9%, DBE achieved: 24.6%
Veterans Administration, Community Living Center, Tacoma, WA	SBE goal: 23% DBE goal: 23%	SBE achieved: 30%, DBE achieved: 30.1%
WSDOT, I5 to 12th Avenue Seismic Retrofit, Seattle, WA	DBE goal: 2%	DBE achieved: 8%

(tracked as percentage of total subcontracted/major supplier work)

Together we build success.



Recent Projects with PLA in effect

PCL

- Statewide Library Archives Museum (State of Alaska Department of Transportation)
- Seatac 8th Floor Weatherproofing (Port of Seattle)
- South 200th Station (Sound Transit)
- Terminal 91 Cruise Ship Terminal (Port of Seattle)
- Lakewood Commuter Rail Station (Sound Transit)
- Central Link Light Rail, C755 (Sound Transit)





Recent Projects with PLA in effect

KLB Construction

- Terminal 30 - Port of Seattle
- S-200th - Sound Transit
- U-230 - Sound Transit
- Beacon Hill Tunnel - Sound Transit



Recent Projects with PLA in effect

Valley Electric

- Children's Hospital Phase 1 Expansion
- Port of Seattle Access Control Door Additions
- TSA Nationwide New Technology Deployment
- West Point Treatment Plant Power Generation Facility

Recent Projects with PLA in effect

JP Francis

- SR99 Tunnel Project
- Sound Transit Northgate Link
- 520 Bridge Maintenance Facility & Pier
- Strander Blvd Extension, Renton
- Brightwater Treatment Plant
- Brightwater Conveyance System West
- SeaTac Rental Car Facility





Recent Projects with PLA in effect

Design Air

- SeaTac International Modernization Project
- Main Terminal AHU-8 Acoustic Upgrade and Misc. HVAC Mods – Port of Seattle
- Engineering Modular Office Relocation
- MT-1 Replacement Elevator
- Mechanical HVAC SeaTac Open Order

Administration of the PLA

- All subcontractors must sign PLA
- Monthly Project Administrative Committee
- Pre-Job Jurisdictional Mark-up Meeting
- Hours of Work
- Apprenticeship Utilization Plan
- Helmets to Hardhats
- Drug and Alcohol Policy



Apprenticeship Plan

- PCL
 - Committed to 15%
- Valley Electric
 - Committed to a 20% minimum
- Erection Company
 - Committed to 15% minimum
- JP Francis
 - Committed to 20%
- KLB Construction
 - Committed to 15%
- Design Air
 - Committed to 15% minimum

Together we build success.



PCL Construction Services, Inc.
15405 SE 37th Street, Suite 200
Bellevue, WA 98006
P 425.454.8020
F 425.454.5924




BAFO Price Form

SEALED BAFO PRICE FORM

PCL Construction Services, Inc. (Name of Firm) agrees to provide the following Total Contract Price for all Preconstruction, Construction, and Post Construction Services for the Factoria Recycling and Transfer Station Project, C00678C13. Finalist shall submit their Price based on all documents specified in the RFP, addenda 1 – 7, and as modified by the Request for BAFO. This Total Contract Price does not include the Washington State Retail Sales Tax. This Sealed BAFO Price Form shall be submitted by **4:00 PM, February 5, 2014**. This Total Contract Price shall be more fully described within the Completed Price Breakdown Form which is due by **4:00 PM, February 6, 2014**.

The Total Contract Price for this Contract is: \$ 49,649,999.00

The person executing this Form is an authorized representative of the Finalist named above.

Signature: 

Name: Thomas R. Doig

Title: Vice President and District Manager

Date: February 5, 2014