

**Laura Dickeson**

---

**From:** RosannTaylor@lowerchurchillproject.ca  
**Sent:** Thursday, November 23, 2017 5:25 AM  
**To:** Ducey, BJ; Chris Armstrong; Pandiak, Joe; Gray, Adam; Adam Squires  
**Cc:** PeteJWhelan@lowerchurchillproject.ca; denes.bajzak@bajzaklaw.com;  
StephenFollett@lowerchurchillproject.ca; SnehalParmar@lowerchurchillproject.ca;  
johnwalsh@lowerchurchillproject.ca  
**Subject:** CT0319 Executed Amending Agreement #1 - CONFIDENTIAL  
**Attachments:** CT0319 Executed Amending Agreement #1.pdf  
**Categories:** Profiled

Please find attached fully executed Amending Agreement for your records.

**Rosann Taylor**  
Senior Contracts Coordinator  
PROJECT DELIVERY TEAM  
Lower Churchill Project  
t. 7097786666  
e. [RosannTaylor@lowerchurchillproject.ca](mailto:RosannTaylor@lowerchurchillproject.ca)  
w. [nalcorenergy.com](http://nalcorenergy.com)

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?

**AMENDING AGREEMENT NUMBER 1**

**THIS** Amending Agreement is made as of the 17<sup>th</sup> day of November, 2017.

**BETWEEN:**

**LABRADOR TRANSMISSION CORPORATION**, a body corporate constituted pursuant to the *Corporations Act*, RSNL 1990, c. C-36, as amended, and having its head office at the City of St. John's, Province of Newfoundland and Labrador, Canada (hereinafter referred to as "**Company**");

- and -

**VALARD CONSTRUCTION LP**, a limited partnership formed pursuant to the laws of the Province of Alberta, Canada, represented by its general partner Valard Construction 2008 Ltd., (hereinafter referred to as "**Contractor**").

**WHEREAS** an Agreement Number CT0319 entitled Construction of 315kV HVac Transmission Line (MF to CF) (hereinafter called the "CT0319") dated 17 December 2013, was entered into between Company and Contractor;

**AND WHEREAS** the Parties have resolved various commercial and technical issues that have arisen between them during the performance of CT0319;

**AND WHEREAS** the Parties wish to amend CT0319 as hereinafter set forth in this Amending Agreement;

**NOW THEREFORE THIS AMENDING AGREEMENT WITNESSES** that, in consideration of the premises and mutual covenants and agreements hereinafter set forth and contained, the Parties hereto agree as follows:

**Contract Price**

1. Subject to any Change Order issued after November 17, 2017, the Contract Price for CT0319 is Two Hundred Seventy Million Dollars (\$270,000,000) (the "Contract Price"), inclusive of all direct and in-direct costs of performing the Work, plus applicable value added taxes. All payments to Contractor made by Company for invoices issued by Contractor in accordance with the terms and conditions of CT0319 up to and including November 17, 2017, form part of and are included in the Contract Price. Company shall pay the balance of the Contract Price as described in paragraph 4.
2. Article 1.2(x) of CT0319 is deleted in its entirety and replaced with the following:
  - (x) "**Contract Price**" means the sum of money specified in the Agreement, as the same may be adjusted from time to time by agreement between the Parties or in accordance with the terms of the Agreement, being the

consideration for the satisfactory performance of the Work by Contractor in accordance with the Agreement and as specified in Amending Agreement Number 1.

3. For greater certainty, the Contract Price set out in paragraph 1 includes:
  - (a) compensation to Contractor for the Work as described in Exhibit 1- Scope of Work of CT0319, as amended in this Amending Agreement;
  - (b) compensation for the Work described in Change Order No. 043 (water course diversion) and Change Order No. 054 (slope stabilization), as identified in paragraph 20;
  - (c) compensation for the corrections and Work described in paragraphs 16 to 19 inclusive;
  - (d) compensation for the Punch List Work;
  - (e) all Claims, Changes, Change Orders, costs and expenses, whether known or unknown, arising from Contractor's performance of the Work prior to and including November 17, 2017, which are or could be the subject of Change Requests and Change Orders; and
  - (f) all back charges for costs which Company has or could have incurred, whether known or unknown, prior to and including November 17, 2017.
4. The remaining balance of the Contract Price shall be paid in accordance with Attachment A to this Amending Agreement. All invoicing and payment procedures set out in Article 12 of CT0319 shall apply to such payments.
5. Notwithstanding the amendment to the Contract Price in paragraph 1, Company shall not be required to increase the value of the insurance obtained by Company that is in place as of November 17, 2017, in satisfaction of Article 20 of CT0319.

#### **Final Completion**

6. The scheduled date for Final Completion is hereby stated to be November 20, 2017, and Contractor shall achieve Final Completion on or before such date.
7. For the purposes of CT0319, the Punch List shall be as stated in Attachment B to this Amending Agreement and shall be performed by Contractor to the satisfaction of Engineer by July 31, 2018.
8. For the purposes of Final Completion referenced in paragraph 6:
  - (a) Article 25.6(a) is hereby deleted.
  - (b) As further requirements of such Final Completion, and in addition to Articles 25.6(b) to (i) inclusive:



- (i) Contractor shall remove all Contractor's Items, Contractor's Personnel, supplies, equipment, materials, rubbish and temporary facilities from the Worksite so that the Worksite is neat, clean and safe; and
- (ii) Contractor shall assign to Company all representations, warranties, guarantees and obligations which Contractor received from Subcontractors, manufacturers or suppliers.

9. Article 25.7 of CT0319 is deleted in its entirety and replaced with the following:

25.7 When Contractor believes the requirements of Final Completion have been satisfied, Contractor shall request by Notice a Final Completion Certificate. Such Notice shall contain a declaration by Contractor that all the requirements of Final Completion have been met, except those items described in paragraphs (a) to (c) inclusive below. If all requirements of **Article 25.6** have been met to the satisfaction of Engineer, except:

- (a) the requirement of **Article 25.6(f)**, which shall be performed by Contractor to the satisfaction of Engineer by July 31, 2018;
- (b) the requirements of **Articles 25.6(d)** and **(e)**; and
- (c) the Work described in Change Order No. 043 (water course diversion) and Change Order No. 054 (slope stabilization), as identified in paragraph 20, which shall be performed by Contractor to the satisfaction of Engineer by July 31, 2018;

the date of Final Completion shall be the later of (i) the date specified in Contractor's request, and (ii) the date when the requirements of **Article 25.6** (except those items described in paragraphs (a) to (c) inclusive above) are met to the satisfaction of Engineer. Promptly after such date of Final Completion, Company shall issue a Final Completion Certificate to Contractor, which states the date of Final Completion.

10. Article 25.10 of CT0319 is deleted in its entirety and replaced with the following:

25.10 Within thirty-five (35) days following issuance of a Final Completion Certificate, Company shall pay the balance of the Contract Price for the Work less:

- (a) the amount of two million Dollars (\$2,000,000), to be withheld until the items described in Articles 25.7(a) to (c) inclusive are performed by Contractor to the satisfaction of Engineer;
- (b) an amount to satisfy any liens registered against the property of Company arising out of Contractor Group's performance of the Work;
- (c) any amount Company is entitled to set off against payment to Contractor;
- (d) any amount payable to Company pursuant to the provisions of this Agreement; and

- (e) any amounts required or permitted to be withheld by Company by Applicable Laws or this Agreement.

**Warranty and Performance Security**

11. Article 7.1 of CT0319 is deleted in its entirety and replaced with the following:

7.1 Contractor shall deliver to Company on or before the Effective Date, a letter of credit issued by a bank listed in Schedule 1 to the *Bank Act*, S.C. 1991, c.46 as security for the proper performance of Contractor's obligations under this Agreement in the form and with the content specified in Exhibit 14 - Performance Security, the value and duration of which shall be:

- (a) equal to fifteen million Canadian dollars (\$15,000,000 CDN) until a Final Completion Certificate has been issued pursuant to Article 25.7; and thereafter
- (b) equal to seven and a half million Canadian dollars (\$7,500,000 CDN) during the warranty period set out in Article 17.1(a); and thereafter
- (c) equal to two million Canadian dollars (\$2,000,000 CDN) during the warranty period set out in Article 17.1(b).

Company and Contractor each agree that, upon the request of the other, it will do all such acts and execute all such further documents and certificates and the like as may be necessary or desirable to effect the purpose of this Article 7.1.

12. For clarification purposes, the provision of the extended letter of credit of two million Canadian dollars (\$2,000,000 CDN) as referenced in paragraph 11 shall be at no cost to Company.

13. Article 17.1 of CT0319 is deleted in its entirety and replaced with the following:

17.1 Contractor agrees that:

- (a) for a period of three (3) years following the date of Final Completion shown on the Final Completion Certificate, it shall at its own expense promptly:
  - (i) correct any Work which is not in accordance with this Agreement;
  - (ii) rectify and make good or cause to be rectified and made good all Defects in the Work which are detected and discovered; and
  - (iii) have available at the Worksites or at a proximate location to the Worksites all necessary equipment, spare parts and labour to comply with the foregoing obligations of this Article 17.1(a); and



- (b) for a further period of three (3) years following the expiry of the warranty period stated in Article 17.1(a), it shall at its own expense promptly:
  - (i) correct any Work relating to the foundations, as such foundations are described in the Final Construction Drawings identified in Exhibit 15 – List of Final Foundation Construction Drawings, (the “Foundation Work”) which is not in accordance with this Agreement;
  - (ii) rectify and make good or cause to be rectified and made good all Defects in the Foundation Work which are detected and discovered, and all Defects in the other Work which are caused in whole or in part by such Defects in the Foundation Work; and
  - (iii) have available at the Worksites or at a proximate location to the Worksites all necessary equipment, spare parts and labour to comply with the foregoing obligations of this Article 17.1(b).

14. Exhibit 15 - List of Final Foundation Construction Drawings, as attached as Attachment D to this Amending Agreement, is hereby incorporated into CT0319 and shall form and be read and construed as an integral part of CT0319.

15. Article 17.2 of CT0319 is deleted in its entirety and replaced with the following:

17.2 Contractor shall provide to Company a products and workmanship warranty on any products, materials, and equipment incorporated into the Work to remain in effect during the warranty period stated in Article 17.1(a). For a further period of three (3) years following the expiry of the warranty period stated in Article 17.1(a), Contractor shall provide to Company a products and workmanship warranty on any products, materials, and equipment incorporated into the Foundation Work. Such warranties shall provide for replacement of the component parts of such products or equipment or replacement of materials and shall cover incidental direct costs incurred by Company arising out of Defects in or failure of the warranted product, materials, or equipment.

**OPGW**

16. In addition and without prejudice to the Warranty, Contractor shall promptly correct at no cost to Company any Work relating to the OPGW which has been identified by the Non-Conformance Report No. 264, and which Company requires within the warranty period stated in Article 17.1(a) to be so corrected, and such correction shall be to the satisfaction of Company. Such correction work shall be considered to be Warranty Work.

**Welding**

17. In addition to the welding deficiencies relating to the foundations as identified by the Non-Conformance Report No. 50, the Parties will use their best efforts to agree on a plan by February 1, 2018 for further welding inspections to be performed jointly by Company and Contractor in 2018 in order to identify any other such welding deficiencies. Each Party shall be responsible for its own costs associated with such inspections. Prior to such inspections, Contractor shall revise Contractor's alternate foundation drawings as identified in Attachment C to this Amending Agreement, and such revisions shall be subject to Engineer's Acceptance.
18. In addition and without prejudice to the Warranty, Contractor shall promptly correct at no cost to Company any Work relating to welding deficiencies referenced in paragraph 17, consistent with the Technical Requirements of CT0319. Such correction work shall be considered to be Warranty Work and the warranty periods stated in Article 17.1(a) and (b) shall apply to such correction work.

**Foundations**

19. Company accepts all strength and air characteristics for all foundations which have been cored up to and including the date of this Amending Agreement. Company, at its sole discretion and cost, may perform additional concrete strength testing on the foundations related to the Work. In addition and without prejudice to the Warranty, if Company discovers through such testing during either of the warranty periods stated in Article 17.1 that any foundation concrete has a strength specification of less than 20mpa cored, Contractor shall promptly correct at no cost to Company any such foundation concrete deficiency. If any new concrete is used to rectify such deficiency, such new concrete shall achieve a strength specification of equal or greater than 30mpa fresh, and as otherwise in accordance with the Technical Requirements of CT0319. Such correction work shall be considered to be Warranty Work and the warranty periods stated in Article 17.1(a) and (b) shall apply to such correction work.

**Change Order Work**

20. Contractor shall perform the Work described in Change Order No. 043 (water course diversion) and Change Order No. 054 (slope stabilization) prior to July 31, 2018.

**Access Road Reclamation**

21. Notwithstanding anything to the contrary in Exhibit 1 – Scope of Work, Contractor shall not be responsible to perform any further removal of access roads, bridges and/or culverts related to the Work.

**Mutual Release and Waiver of Claims**

22. Except for Claims Company may have regarding OPGW, welding and/or foundations (as referenced in paragraphs 16 to 19 inclusive), and any Warranty claim regarding guy wire



tensioning, and/or for Defects in the Work, each Party hereto irrevocably and unconditionally releases and forever discharges the other Party and its Affiliates and each of their respective directors, officers, employees, agents, representatives, insurers, consultants, successors and assigns (collectively, the "Releasees") from any and all manner of actions, causes of action, claims, demands, costs, damages, expenses, losses, liabilities and obligations, whether express, implied or otherwise, known or unknown or ought to have known, which a Party now has or may hereafter have against a Releasee respecting or arising out of the performance or non-performance, up to and including the date of this Amending Agreement, of a Party's obligations under CT0319 including, without limiting the generality of the foregoing, claims arising from or relating to:

- (a) Change Requests;
- (b) extensions of time;
- (c) extras;
- (d) backcharges;
- (e) damages for delay; and
- (f) liquidated damages.

23. Except for Claims Company may have regarding OPGW, welding and/or foundations (as referenced in paragraphs 16 to 19 inclusive), and any Warranty claim regarding guy wire tensioning, and/or for Defects in the Work, a Party will not make any claim or take any proceedings against any individual, partnership, corporation, insurer, financing entity or any other incorporated or unincorporated entity or association (each a "Third Party") for any act or omission known to the Party, up to and including the date of this Amending Agreement, relating to CT0319 which Third Party might claim contribution, indemnity or other relief from or against a Releasee under any provisions of any statute, at law or otherwise.

**General**

24. This Amending Agreement shall be effective from the date hereof and, unless subsequently amended, shall remain in full force and effect from such date.
25. Unless otherwise defined, all capitalized terms and expressions used herein shall have the meaning respectively ascribed thereto in CT0319. Unless otherwise stated, references to a paragraph number are references to that numbered paragraph in this Amending Agreement.
26. This Amending Agreement includes Attachments A to E inclusive.
27. This Amending Agreement is supplementary to CT0319 and is read with and construed in accordance with CT0319, as the case may be, as if this Amending Agreement and CT0319, as amended, constitute one (1) agreement.
28. In the event of any conflict between the provisions of this Amending Agreement and CT0319, the provisions of this Amending Agreement shall prevail.



- 29. Except as this Amending Agreement otherwise provides, CT0319 is in all respects ratified and confirmed and all terms, provisions and covenants thereof shall remain in full force and effect.
- 30. This Amending Agreement shall be binding upon and enure to the benefit of each of the Parties and their respective successors and assigns.
- 31. Notwithstanding execution of this Amending Agreement by the Parties, this Amending Agreement shall be subject to and conditional upon all written consents from parties to the LCP financing agreements that are required by the terms of those agreements.
- 32. This Amending Agreement may be executed in any number of counterparts and any Party may transmit by facsimile or email in portable document format to the other Party a copy of this Amending Agreement executed by that Party, the receipt of which shall have the same force and effect as if the original thereof had in fact been delivered at the same time. Any original, facsimile copy, portable document format or photocopy of this Amending Agreement bearing one or more signatures on behalf of a Party shall be admissible against that Party in any legal proceeding as evidence of the execution and delivery of this Amending Agreement by that Party and without the requirement to produce an executed original of the Amending Agreement.
- 33. Each person signing this Amending Agreement as an authorized representative of a Party hereby represents and warrants that he or she is duly authorized to sign this Amending Agreement for that Party and that this Amending Agreement will, upon having been so executed, be binding on that Party in accordance with its terms.

IN WITNESS WHEREOF the Parties hereto have executed and delivered this Amending Agreement as of the day and year first above written.

For and on behalf of Labrador Transmission Corporation

Signature of Authorized Representative

Derrick Sturge  
Name of Authorized Representative  
CFO, Nalcor

Signature of Authorized Representative

John MacIsaac  
Name of Authorized Representative

For and on behalf of Valard Construction LP, by its general partner Valard Construction 2008 Ltd.

Signature of Authorized Representative

Gerald A. Duca Jr.  
Name of Authorized Representative

H. Stanley Marshall  
President & CEO  
Nalcor

Execution Page to an Amending Agreement between Labrador Transmission Corporation and Valard Construction LP dated as of the 17th day of November, 2017.

Agreement CT0319 Amendment No. 1

*Handwritten initials/signature*

ATTACHMENT A

Payment Milestones

Balance of Contract Price as of November 17, 2017

As of November 17, 2017 the balance of the Contract Price available for Payment Milestones to complete the Work is as follows:

Total Contract Price	\$ 270,000,000.00
Less amounts paid to date	<u>(\$ 243,322,049.23)</u>
Balance of Contract Price	\$ 26,677,950.77

The balance of the Contract Price payable to Contractor for Work performed from November 17, 2017 until:

- (a) the requirement of Article 25.6(f) of the Agreement has been met to the satisfaction of Engineer;(b) the requirements of Articles 25.6(d) and (e) have been met to the satisfaction of Engineer; and
- (c) the Work described in Change Order No. 043 (water course diversion) and Change Order No. 054 (slope stabilization) has been performed to the satisfaction of Engineer;

shall be as follows:

- (i) 35 days following issuance of a Final Completion Certificate: \$ 24,677,950.77
- (ii) Items (a) to (c) inclusive above have been met: \$ 2,000,000

Contractor shall issue a separate Payment Certificate for each of items (a) to (c) inclusive, all in accordance with the procedures and requirements of Article 12 of the Agreement.



ATTACHMENT B

Punch List



Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-010	PL-101509	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Reclamation has not been completed.	Accepted
L3101-091	PL-101844	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Severe erosion, to be addressed. Efforts to date not adequately addressing erosion.	Accepted
L3101-447	PL-102259	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Site cleanup required. Although reported Complete, erosion has occurred around base of tower requiring further mitigation.	Accepted
L3101-463	PL-107110	5.12: Is the Optical Ground Wire (OPGW) loop secured and in its hanger at the splice box?	B	Fibre chafing on structure webbing. Secure OPGW loop to eliminate chafing.	Accepted
L3101-484	PL-102342	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Site cleanup required. Although reported Complete, erosion occurring inside base of tower requiring further mitigation.	Accepted
L3102-010	PL-101513	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Reclamation has not been completed	Accepted
L3102-033	PL-112219	NCR MFA-VA-SD-6140-TL-Q10-0332-01.	B	Correct items associated with third party climbing inspections as per NCR.	Accepted
L3102-070	PL-101860	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Erosion damage to be addressed. Efforts to date not adequately addressing erosion so additional work required.	Accepted
L3102-091	PL-101866	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	Severe erosion, to be addressed. Efforts to date not adequately addressing erosion.	Accepted
L3102-114	PL-100522	6.1: Has site cleanup, grading and mounding (as appropriate) been completed?	B	A lot of run off and build up of material around site. Large revieve opened up due to run off. Erosion control efforts have been compromised. More remediation required.	Accepted
L3102-196	PL-112220	NCR MFA-VA-SD-6140-TL-Q10-0333-01.	B	Climb structure, produce report, and address any structural issues.	Accepted
L3102-509	PL-107109	4.4: Are all structure members installed correctly and undamaged (no bent steel or visible corrosion)?	B	Replace damaged member (3A CB415) as per image provided.	Completed
AR-50	PL-110448	3.5: Hydrocarbon/contaminant staining removed and properly disposed of?	B	Will have to be removed.	Accepted
AR-50	PL-110449	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted



Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
AT-140	PL-110507	3.1: All construction related waste/debris removed from site and properly disposed of?	B	Will have to be removed.	Accepted
AT-140	PL-110508	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted
AT-152	PL-110510	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted
AT-7	PL-110241	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Access is open to public from highway . Barricades will need to be set up .	Accepted
AT-76	PL-110502	3.1: All construction related waste/debris removed from site and properly disposed of?	B	Will have to be removed.	Accepted
AT-76	PL-110503	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted
Bus 4 Str 1	PL-114895	3.7: Access trails/roads have all cross drainage culverts removed/ditched to establish suitable drainage, with specific attention paid to the intersection with Provincial Roadways.	B	4 cross drain culverts noted in 8 span structure. One access point off TLH, one access point off CFLCO service road, 2 more in RoW road network.	Accepted
Camp AC1	PL-112421	1.1 Have all wells associated with the project been decommissioned as per the Water Resources Management Division Guidelines for Sealing Groundwater Wells?	B	Well to be decommissioned.	Accepted
Camp AC2	PL-110228	3.5: Hydrocarbon/contaminant staining removed and properly disposed of?	B	Staining east end of camp area . Will have to be removed.	Accepted
Camp AC2	PL-110230	2.7: No staining or odor present where fueling and/or storage of hazardous material took place?	B	Staining east end of camp area . Contaminated ground will have to be removed.	Accepted
Camp AC2	PL-110231	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage?	B	Grubbings piles left west end of camp .	Accepted
Camp AC2	PL-110234	1.5: All sewage treatment infrastructure has been emptied, decommissioned and removed from the laydown area?	B	Sewer line pipes left in place . Will have to be removed.	Accepted
Camp AC2	PL-110237	1.11: All pumps and associated infrastructure for water withdrawal have been removed from the laydown area?	B	Water line left in ground . Will have to be removed.	Accepted
Camp AC3-B	PL-110291	1.15: All buildings and associated infrastructure (water lines, electrical conduit, foundations, etc.) have been removed and/or disposed of from laydown area?	B	Office trailers , electrical conduit wiring and signs left on site . Will have to be removed.	Accepted

Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
Diver Brook	PL-110505	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted
Diver Brook	PL-110506	3.13: All compacted surfaces have been roughened, to encourage water penetration and vegetation re-growth?	B	Will have to be completed.	Accepted
HWY-187	PL-110445	3.1: All construction related waste/debris removed from site and properly disposed of?	B	Rig mat left on site. Will have to be removed.	Accepted
HWY-187	PL-110446	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted
L3101-004	PL-106874	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Silt fence associated with crossing still here	Accepted
L3101-004	PL-106880	1.1: All pit and quarry slopes graded to slopes less than 20 deg or to the slope existing prior to quarrying.	B	Slope ditch.	Accepted
L3101-004	PL-106882	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Remove bridge, this is a post removal punch list item, some rip rap available	Accepted
L3101-005	PL-106865	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Establish drainage at borrow site.	Accepted
L3101-006	PL-106899	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Some materials, rig mats and splintered lumber ubiquitous in structure box.	Accepted
L3101-009	PL-106969	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Some dunnage and spare bolts in row and at towers.	Accepted
L3101-010	PL-106946	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Serious erosion issues and sedimentation require addressing.	Accepted
L3101-014	PL-106954	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Some dunnage left near structures.	Accepted
L3101-014	PL-106957	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Some construction materials nearby in large grubbed Laydown	Accepted
L3101-014	PL-106958	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction material in grubbing piles	Accepted



Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-027	PL-100312	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Required to access to the existing 138 kV transmission line. 450 mm culvert, silt fence, sandbags, and 1.5 m of road fill still in stream channel. Channel is >2 m high and steep.	Accepted
L3101-027	PL-100314	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Required to access the existing 138 kV transmission line. 25 m downchain of tower. 450 mm culvert and silt fence still in place. 2 m of road material on crossing. Silt fence in the channel and not effective. Sand eroded into channel.	Accepted
L3101-033	PL-100308	1.1: All pit and quarry slopes graded to slopes less than 20 deg or to the slope existing prior to quarrying.	B	Remediate sloping	Accepted
L3101-073	PL-106633	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Remove wood waste at Str L1-73 and close to watercourse . East side .	Accepted
L3101-073	PL-106634	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Bank stabilization to stop sediment from entering watercourse . Sediment source is road material and exposed material from road material .	Accepted
L3101-084	PL-106649	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Need drainage established .	Accepted
L3101-090	PL-106673	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Need drainage established .	Accepted
L3101-091	PL-106674	2.9: Areas adversely affected by the project restored to a state that resembles local natural conditions.	B	Banks east of stream require stabilization to prevent sediment entering stream . Large area east of stream consists of clay uphill from stream . Sediment is entering stream from hill runoff .	Accepted
L3101-099	PL-109651	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Rig mat bridge and culverts removed from stream but left on access Road . Will have to be removed.	Accepted
L3101-114	PL-107179	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Need banks stabilized next to Str to prevent erosion . Sediment running down to highway .	Accepted
L3101-117	PL-101186	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Broken culvert and pallet left at mouth of access road. To be removed.	Completed
L3101-126	PL-101184	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Several loads of fill in the area. Likely for backfill around the foundation. To be spread.	Completed
L3101-141	PL-106748	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Pcs of rigmat , plywood , waste wood , steel left on ROW .	Accepted

Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-141	PL-106763	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Need protective measures put in place to prevent sediment entering stream downhill from disturbed area at Str 142 .	Accepted
L3101-142	PL-106762	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Plastic delineator and crate of tower hardware on site . Will have to be removed .	Accepted
L3101-142	PL-106767	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Erosion west of Str .	Accepted
L3101-146	PL-106785	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Pc of culvert left on ROW to be removed .	Accepted
L3101-162	PL-106848	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Need drainage established . Small borrow pit .	Accepted
L3101-215	PL-109640	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-224	PL-109642	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-227	PL-109648	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-227	PL-109650	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Bridge section left by access road.	Accepted
L3101-232	PL-109632	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Pc of culvert left on ROW access Road west of Str . Will have to be removed.	Accepted
L3101-235	PL-109636	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Disturbed area north west side of Str depositing sediment into stream . Will require remediation.	Accepted
L3101-235	PL-109638	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Delineator and silt fence left northwest side of Str .	Accepted
L3101-274	PL-102017	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Stream diverted around tower. IWC-87. SILT FENCE needs To be removed/remediated.	Accepted
L3101-299	PL-102033	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Base of borrow pit is solid rock. Water is pooling. <30 cm deep. Requested some of access road be pushed into pit to help refill and allow drainage.	Accepted
L3101-308	PL-109590	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal	Accepted
L3101-309	PL-109593	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-316	PL-106990	1.1: All pit and quarry slopes graded to slopes less than 20 deg or to the slope existing prior to quarrying.	B	Quarry slopes need to be pulled down from tree line .	Accepted



Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-339	PL-107034	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Grubbing pile left . Need to be spread .	Accepted
L3101-339	PL-107038	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Plastic debris need to be picked up	Accepted
L3101-344	PL-109596	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste requires removal.	Accepted
L3101-346	PL-109580	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-347	PL-109589	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-348	PL-109478	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-349	PL-109479	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste requires removal.	Accepted
L3101-350	PL-109473	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste requires removal	Accepted
L3101-351	PL-109485	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste requires removal.	Accepted
L3101-352	PL-109482	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste requires removal.	Accepted
L3101-353	PL-109484	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Garbage requires removal.	Accepted
L3101-354	PL-109494	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste on access road requires removal.	Accepted
L3101-355	PL-109491	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-357	PL-109507	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-359	PL-109502	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Rig mats requires removal.	Accepted
L3101-360	PL-109509	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Road is eroding into stream. Requires mitigation.	Accepted
L3101-386	PL-108634	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Road built next to south edge of small pond between Str's. Road material pushed into pond . Will require remediation.	Accepted

Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-388	PL-108642	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Disturbed area next to small pond closet to Str L1-388 causing sediment to enter pond . Area will require remediation .	Accepted
L3101-401	PL-109538	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Silt fence requires removal.	Accepted
L3101-405	PL-109532	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Silt fence requires removal.	Accepted
L3101-409	PL-107403	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Remove garbage.	Accepted
L3101-412	PL-109544	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Waste requires removal. Wood.	Accepted
L3101-423	PL-107464	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Drainage needs to be established. Borrow off of ROW.	Accepted
L3101-431	PL-107456	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Remove timber blocking.	Accepted
L3101-431	PL-107461	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Remove construction timber waste.	Accepted
L3101-434	PL-107471	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Ditch is eroding soil into pond . Mitigation measures are required.	Accepted
L3101-436	PL-107476	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction timbers need removal .	Accepted
L3101-437	PL-107493	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal. By 3102-434.	Accepted
L3101-437	PL-107501	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Soil eroding into stream. No mitigation measures taken.	Accepted
L3101-437	PL-107508	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Rig mat requires removal.	Accepted
L3101-440	PL-107509	2.7: The bed, banks and floodplains of watercourses affected by the project adequately protected from erosion by seeding, sodding or placing of rip-rap.	B	Banks inside structure box eroding toward river. Not in stream yet	Accepted
L3101-441	PL-107513	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted



Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-441	PL-107514	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Grading required to stop soil eroding into waterbody. By I3101 441.	Accepted
L3101-443	PL-107482	2.9: Areas adversely affected by the project restored to a state that resembles local natural conditions.	B	Soil eroding into stream.	Accepted
L3101-443	PL-107483	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Silt fence left in .	Accepted
L3101-450	PL-103107	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Silt fencing remains in place along field identified watercourse AWC-L1-449_L1-450.	Accepted
L3101-459	PL-103115	2.5: Stream channel restored to natural grade and dimensions.	B		Accepted
L3101-463	PL-107520	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Scrap culvert left on ROW . Will have to be removed .	Accepted
L3101-466	PL-107518	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Rig mats left around Str box .	Accepted
L3101-469	PL-109554	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Silt fence requires removal.	Accepted
L3101-473	PL-103117	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	See section 2.1.	Accepted
L3101-491	PL-101181	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Broken rig mat left at access road and ROW. To be removed.	Accepted
L3101-494	PL-109564	2.9: Areas adversely affected by the project restored to a state that resembles local natural conditions.	B	Stream bed requires restoration.	Accepted
L3101-503	PL-109569	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction waste requires removal.	Accepted
L3101-505	PL-109566	2.5: Stream channel restored to natural grade and dimensions.	B	Stream bed not restored. Filter fabric to be removed and channel to be widened to natural width.	Accepted
L3101-505	PL-109568	2.3: All waste, silt fencing, filter fabric, wood debris, damaged culverts, etc. removed from site and disposed as per the Waste Management Plan.	B	Remove silt fence / geotextile	Accepted
L3101-512	PL-107489	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Garbage from project on line .I3102-509	Accepted
L3101-512	PL-107492	2.5: Stream channel restored to natural grade and dimensions.	B	Stream channel has been rutted up. Needs restored to natural drainage.	Accepted

Tower / Structure	Punch Number	Punch Description	Punch Category	Required Action	Status
L3101-517	PL-109721	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Drainage requires to be established .	Accepted
L3101-521	PL-108898	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Rig matting left . Requires removal.	Accepted
L3101-537	PL-107384	3.3: Disturbed areas, grubbing piles, regraded to control erosion and establish suitable drainage.	B	Watercourse , small non nts. Has eroded soil in structure box.	Accepted
L3101-579	PL-109891	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Borrow pit , need drainage established.	Accepted
L3101-600	PL-107248	3.1: All construction related waste/debris removed from site and properly disposed of.	B	Construction sign left on ROW , Would have picked up but very soft ground .	Accepted
L3101-610	PL-107211	1.3: Drainage established to prevent standing or ponding of water in any part of the quarry.	B	Need drainage established.	Accepted
TLH KM 297	PL-110512	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted
VAL-58	PL-110451	3.1: All construction related waste/debris removed from site and properly disposed of?	B	Will have to be removed.	Completed
VAL-58	PL-110452	3.11: All access trails/roads have been barricaded (large swale, berm, boulders, ect.) at the entrance to deter public from entering?	B	Will have to be completed.	Accepted



ATTACHMENT C

List of Alternate Foundation Drawings Drawings



**315 kV HVac Weld Drawings List**

MFA-VA-SD-6140-TL-D99-0002-01	DRIVEN PILE GENERAL NOTES
MFA-VA-SD-6140-TL-D99-0003-01	DRIVEN PILE-NO BEDROCK TYPE A-4 AND B-4
MFA-VA-SD-6140-TL-D99-0004-01	DRIVEN PILE-BEDROCK TYPE A-4 AND B-4
MFA-VA-SD-6140-TL-D99-0005-01	DRIVEN PILE- NO BEDROCK TYPE C-4
MFA-VA-SD-6140-TL-D99-0006-01	DRIVEN PILE - WITH BEDROCK TYPE C-4
MFA-VA-SD-6140-TL-D99-0007-01	DRIVEN PILE- NO BEDROCK TYPE D-4
MFA-VA-SD-6140-TL-D99-0008-01	DRIVEN PILE- WITH BEDROCK TYPE D-4
MFA-VA-SD-6140-TL-D99-0009-01	DRIVEN PILE- NO BEDROCK TYPE E-4
MFA-VA-SD-6140-TL-D99-0010-01	DRIVEN PILE - WITH BEDROCK TYPE E-4
MFA-VA-SD-6140-TL-D99-0011-01	DRIVEN PILE- NO BEDROCK TYPE AA-6
MFA-VA-SD-6140-TL-D99-0012-01	DRIVEN PILE - WITH BEDROCK TYPE AA-6
MFA-VA-SD-6140-TL-D99-0013-01	DRIVEN PILE- NO BEDROCK TYPE EE-6
MFA-VA-SD-6140-TL-D99-0014-01	DRIVEN PILE-WITH BEDROCK TYPE EE-6
MFA-VA-SD-6140-TL-D99-0017-01	MICROPILE GENERAL NOTES (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0018-01	MICROPILE TOWER STRUCTURES A-4 & B-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0019-01	MICROPILE TOWER STRUCTURE C-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0020-01	MICROPILE TOWER STRUCTURE D-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0021-01	MICROPILE TOWER STRUCTURE E-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0022-01	MICROPILE TOWER STRUCTURE AA-6 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0023-01	MICROPILE TOWER STRUCTURE EE-6 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0024-01	DETAILS AND SCHEDULE
MFA-VA-SD-6140-TL-D99-0036-01	DRIVEN PILE-NO BEDROCK TYPE A-4 AND B-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0037-01	DRIVEN PILE-BEDROCK TYPE A-4 AND B-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0038-01	DRIVEN PILE- NO BEDROCK TYPE C-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0039-01	DRIVEN PILE - WITH BEDROCK TYPE C-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0040-01	DRIVEN PILE- NO BEDROCK TYPE D-4 POOR SOIL CONDITION



MFA-VA-SD-6140-TL-D99-0041-01	DRIVEN PILE- WITH BEDROCK TYPE D-4 (GENERIC) POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0042-01	DRIVEN PILE- NO BEDROCK TYPE E-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0043-01	DRIVEN PILE - WITH BEDROCK TYPE E-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0044-01	DRIVEN PILE- NO BEDROCK TYPE AA-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0045-01	DRIVEN PILE - WITH BEDROCK TYPE AA-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0046-01	DRIVEN PILE- NO BEDROCK TYPE EE-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0047-01	DRIVEN PILE - WITH BEDROCK TYPE EE-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0048-01	Decision Tree Table Page 1 of 1
MFA-VA-SD-6140-TL-D99-0050-01	Driven Pile With Bedrock Type D-4 At Tower L2-84
MFA-VA-SD-6140-TL-D99-0052-01	Driven Pile with Bedrock at Tower L2-191
MFA-VA-SD-6140-TL-D99-0053-01	Driven Pile - Tower L2-248 Leg A Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0054-01	Driven Pile - Tower L2-248 Leg B Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0055-01	Driven Pile - Tower L2-248 Leg C Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0056-01	Driven Pile - Tower L2-248 Leg D Pile Cap Stiffeners

A handwritten signature or set of initials in black ink, located in the bottom right corner of the page. The signature is stylized and appears to consist of several overlapping loops and lines.



ATTACHMENT D

Exhibit 15 – List of Final Foundation Construction Drawings

A handwritten signature or set of initials, possibly 'FB', is located in the bottom right corner of the page.

Exhibit 15 – List of Final Foundation Construction Drawings

315 kV HVac Foundations Drawings List

MFA-SN-CD-6140-TL-DD-0006-01	315 kV HVac Lines Steel Foundation Type A -1 250 kPa Soil Design and Details
MFA-SN-CD-6140-TL-DD-0008-01	315kV HVac Lines Steel Foundation Type B-1 250 kPa Soil Design and Details
MFA-SN-CD-6140-TL-DD-0010-01	Lower Churchill Project - 315 kV HVac Lines Steel Foundation Type D-1 250 kPa Soil Design and Details
MFA-SN-CD-6140-TL-DD-0011-01	Lower Churchill Project - 315 kV HVac Lines Steel Foundation Type E-1 250 kPa Soil Design and Details
MFA-SN-CD-6140-TL-DD-0054-01	315 kV HVac Lines Steel Foundation Type A-2 100 kPa Soil Design and Details Sheet 1 of 2
MFA-SN-CD-6140-TL-DD-0054-02	315 kV HVac Lines Steel foundation Type A-2 100 kPa Soil Design and Details Sheet 2 of 2
MFA-SN-CD-6140-TL-DD-0055-01	315 kV HVac Line Steel Foundation Type B-2 100 kPa Soil Design and Details Sheet 1 of 2
MFA-SN-CD-6140-TL-DD-0055-02	315 kV HVac Lines Steel Foundation Type B-2 100 kPa Soil Design and Details Sheet 2 of 2
MFA-SN-CD-6140-TL-DD-0056-01	Lower Churchill Project - 315 kV HVac Lines Steel Foundation Type C-1 250 kPa Soil Design and Details
MFA-SN-CD-6140-TL-DD-0057-01	315 kV HVac Lines Steel Foundation Type C-2 100 kPa Soil Design and Details Sheet 1 of 3
MFA-SN-CD-6140-TL-DD-0057-02	315 kV HVac Lines Steel Foundation Type C-2 100 kPa Soil Design and Details Sheet 2 of 3
MFA-SN-CD-6140-TL-DD-0057-03	315 kV HVac Lines Steel Foundation Type C-2 100 kPa Soil Design and Details Sheet 3 of 3
MFA-SN-CD-6140-TL-DD-0058-01	315 kV HVac Lines Steel Foundation Type D-2 100 kPa Soil Design and Details Sheet 1 of 3
MFA-SN-CD-6140-TL-DD-0058-02	315 kV HVac Lines Steel Foundation Type D-2 100 kPa Soil Design and Details Sheet 2 of 3
MFA-SN-CD-6140-TL-DD-0058-03	315 kV HVac Lines Steel Foundation Type D-2 100 kPa Soil Design and Details Sheet 3 of 3
MFA-SN-CD-6140-TL-DD-0059-01	315 kV HVac Lines Steel Foundation Type E-2 100 kPa Soil Design and Details Sheet 1 of 3
MFA-SN-CD-6140-TL-DD-0059-02	315 kV HVac Lines Steel Foundation Type E-2 100 kPa Soil Design and Details Sheet 2 of 3
MFA-SN-CD-6140-TL-DD-0059-03	315 kV HVac Lines Steel Foundation Type E-2 100 kPa Soil Design and Details Sheet 3 of 3
MFA-SN-CD-6140-TL-DD-0064-01	315 kV HVac Lines Rock Foundation Type A-3 and B-3 Design and Details
MFA-SN-CD-6140-TL-DD-0066-01	315 kV HVac Line Rock Foundation Type C-3 Design and Details - Sheet 1 of 4
MFA-SN-CD-6140-TL-DD-0066-02	315 kV HVac Lines Rock Foundation Type C-3 Design and Details - Sheet 2 of 4
MFA-SN-CD-6140-TL-DD-0066-03	315 kV HVac Line Rock Foundation Type C-3 Design and Details - Sheet 3 of 4



MFA-SN-CD-6140-TL-DD-0066-04	315 kV HVac Lines Rock Foundation Type C-3 Design and Details - Sheet 4 of 4
MFA-SN-CD-6140-TL-DD-0068-01	315 kV HVac Lines Rock Foundation Type D-3 Design and Details - Sheet 1 of 4
MFA-SN-CD-6140-TL-DD-0068-02	315 kV HVac Lines Rock Foundation Type D-3 Design and Details - Sheet 2 of 4
MFA-SN-CD-6140-TL-DD-0068-03	315 kV HVac Lines Rock Foundation Type D-3 Design and Details - Sheet 3 of 4
MFA-SN-CD-6140-TL-DD-0068-04	315 kV HVac Lines Rock Foundation Type D-3 Design and Details - Sheet 4 of 4
MFA-SN-CD-6140-TL-DD-0070-01	315 kV HVac Lines Rock Foundation Type E-3 Design and Details - Sheet 1 of 4
MFA-SN-CD-6140-TL-DD-0070-02	315 kV HVac Lines Rock Foundation Type E-3 Design and Details - Sheet 2 of 4
MFA-SN-CD-6140-TL-DD-0070-03	315 kV HVac Lines Rock Foundation Type E-3 Design and Details - Sheet 3 of 4
MFA-SN-CD-6140-TL-DD-0070-04	315 kV HVac Lines Rock Foundation Type E-3 Design and Details - Sheet 4 of 4
MFA-SN-CD-6140-TL-DD-0097-01	315 kV HVac LINES SURFACE ROCK FOUNDATION TYPE A-3 AND B-3 DESIGN AND DETAILS
MFA-SN-CD-6140-TL-DD-0140-01	315 kV HVac LINES DRIVEN PILE FOUNDATION TYPE A-4 AND B-4 CONCEPTUAL DESIGN
MFA-SN-CD-6140-TL-DD-0154-01	315 kV HVac LINES DRIVEN PILE FOUNDATION TYPE C-4 CONCEPTUAL DESIGN
MFA-SN-CD-6140-TL-DD-0154-03	315 kV HVac Lines Driven Pile Foundation Type C-4 Conceptual Design Sheet 3 of 3
MFA-SN-CD-6140-TL-DD-0155-01	315 kV HVac LINES DRIVEN PILE FOUNDATION TYPE D-4 CONCEPTUAL DESIGN Sheet 1 of 3
MFA-SN-CD-6140-TL-DD-0155-03	315 kV HVac Lines Driven Pile Foundation Type D-4 Conceptual Design Sheet 3 of 3
MFA-SN-CD-6140-TL-DD-0156-01	315 kV HVac LINES DRIVEN PILE FOUNDATION TYPE E-4 CONCEPTUAL DESIGN Sheet 1 of 3
MFA-SN-CD-6140-TL-DD-0156-03	315 kV HVac Lines Driven Pile Foundation Type E-4 Conceptual Design Sheet 3 of 3
MFA-SN-CD-6140-TL-DD-0157-01	315 kV HVac Lines Surface Rock Foundation Type C-3 Design and Details
MFA-SN-CD-6140-TL-DD-0161-01	315 kV HVac Lines Surface Rock Foundation Type D-3 Design and Detail
MFA-SN-CD-6140-TL-DD-0162-01	315 kV HVac Lines Surface Rock Foundation Type E-3 Design and Details
MFA-SN-CD-6140-TL-DD-0163-01	315 kV HVac Lines Double Circuit Tower Type AA Driven Pile Foundation Type AA-6 Conceptual Design Shee1 of 2
MFA-SN-CD-6140-TL-DD-0163-02	315 kV hVac Lines Double Circuit Tower Type AA Driven Pile Foundation Type AA-6 Conceptual Design Sheet 2 of 2
MFA-SN-CD-6140-TL-DD-0164-01	315 kV HVac Lines Double Circuit Tower Type EE Driven Pile Foundation Type EE-6 Conceptual Design
MFA-SN-CD-6140-TL-DD-0164-02	315 kV HVac Lines Double Circuit Tower Type EE Driven Pile Foundation Type EE-6 Conceptual Design Sheet 2 of 2
MFA-SN-CD-6140-TL-DD-0165-01	315/138 kV HVac Lines Double Circuit Rock Foundation Type AA-7 Design and Details



MFA-SN-CD-6140-TL-DD-0168-01	315/138 kV HVac Lines Double Circuit Rock Foundation Type EE-7 Design and Details
MFA-SN-CD-6140-TL-DD-0174-01	315 kV HVac LINES BOG FOUNDATION TYPE 5 FOR TOWER TYPE A AND B CONCEPTUAL DESIGN
MFA-SN-CD-6140-TL-DD-0175-01	315 kV HVac LINES BOG FOUNDATION TYPE 5 FOR TOWER TYPE C, D AND E CONCEPTUAL DESIGN
MFA-SN-CD-6140-TL-DD-0183-01	315/138 kV HVac LINES 100 kPa SPREAD FOOTING FOUNDATION FOR THE DOUBLE CIRCUIT TOWER TYPE AA DESIGN AND DETAILS
MFA-SN-CD-6140-TL-DD-0184-01	315/138 kV HVac LINES SPREAD FOOTING FOUNDATION FOR THE DOUBLE CIRCUIT TOWER TYPE EE DESIGN AND DETAILS
MFA-VA-SD-6140-TL-D99-0002-01	DRIVEN PILE GENERAL NOTES
MFA-VA-SD-6140-TL-D99-0003-01	DRIVEN PILE-NO BEDROCK TYPE A-4 AND B-4
MFA-VA-SD-6140-TL-D99-0004-01	DRIVEN PILE-BEDROCK TYPE A-4 AND B-4
MFA-VA-SD-6140-TL-D99-0005-01	DRIVEN PILE- NO BEDROCK TYPE C-4
MFA-VA-SD-6140-TL-D99-0006-01	DRIVEN PILE - WITH BEDROCK TYPE C-4
MFA-VA-SD-6140-TL-D99-0007-01	DRIVEN PILE- NO BEDROCK TYPE D-4
MFA-VA-SD-6140-TL-D99-0008-01	DRIVEN PILE- WITH BEDROCK TYPE D-4
MFA-VA-SD-6140-TL-D99-0009-01	DRIVEN PILE- NO BEDROCK TYPE E-4
MFA-VA-SD-6140-TL-D99-0010-01	DRIVEN PILE - WITH BEDROCK TYPE E-4
MFA-VA-SD-6140-TL-D99-0011-01	DRIVEN PILE- NO BEDROCK TYPE AA-6
MFA-VA-SD-6140-TL-D99-0012-01	DRIVEN PILE - WITH BEDROCK TYPE AA-6
MFA-VA-SD-6140-TL-D99-0013-01	DRIVEN PILE- NO BEDROCK TYPE EE-6
MFA-VA-SD-6140-TL-D99-0014-01	DRIVEN PILE-WITH BEDROCK TYPE EE-6
MFA-VA-SD-6140-TL-D99-0017-01	MICROPILE GENERAL NOTES (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0018-01	MICROPILE TOWER STRUCTURES A-4 & B-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0019-01	MICROPILE TOWER STRUCTURE C-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0020-01	MICROPILE TOWER STRUCTURE D-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0021-01	MICROPILE TOWER STRUCTURE E-4 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0022-01	MICROPILE TOWER STRUCTURE AA-6 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0023-01	MICROPILE TOWER STRUCTURE EE-6 (BEDROCK @ 6M Max)
MFA-VA-SD-6140-TL-D99-0024-01	DETAILS AND SCHEDULE
MFA-VA-SD-6140-TL-D99-0036-01	DRIVEN PILE-NO BEDROCK TYPE A-4 AND B-4 POOR SOIL CONDITION



MFA-VA-SD-6140-TL-D99-0037-01	DRIVEN PILE-BEDROCK TYPE A-4 AND B-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0038-01	DRIVEN PILE- NO BEDROCK TYPE C-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0039-01	DRIVEN PILE - WITH BEDROCK TYPE C-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0040-01	DRIVEN PILE- NO BEDROCK TYPE D-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0041-01	DRIVEN PILE- WITH BEDROCK TYPE D-4 (GENERIC) POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0042-01	DRIVEN PILE- NO BEDROCK TYPE E-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0043-01	DRIVEN PILE - WITH BEDROCK TYPE E-4 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0044-01	DRIVEN PILE- NO BEDROCK TYPE AA-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0045-01	DRIVEN PILE - WITH BEDROCK TYPE AA-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0046-01	DRIVEN PILE- NO BEDROCK TYPE EE-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0047-01	DRIVEN PILE - WITH BEDROCK TYPE EE-6 POOR SOIL CONDITION
MFA-VA-SD-6140-TL-D99-0048-01	Decision Tree Table Page 1 of 1
MFA-VA-SD-6140-TL-D99-0050-01	Driven Pile With Bedrock Type D-4 At Tower L2-84
MFA-VA-SD-6140-TL-D99-0052-01	Driven Pile with Bedrock at Tower L2-191
MFA-VA-SD-6140-TL-D99-0053-01	Driven Pile - Tower L2-248 Leg A Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0054-01	Driven Pile - Tower L2-248 Leg B Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0055-01	Driven Pile - Tower L2-248 Leg C Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0056-01	Driven Pile - Tower L2-248 Leg D Pile Cap Stiffeners
MFA-VA-SD-6140-TL-D99-0057-01	Rock Foundation With Added Grillage A-3(AG) and B-3(AG)
MFA-VA-SD-6140-TL-D99-0058-01	Encased Concrete Rock Foundation A-3(ECR) and B-3(ECR)
MFA-VA-SD-6140-TL-D99-0059-01	Encased Concrete Rock Foundation D-3(ECR)
MFA-VA-SD-6140-TL-D99-0064-01	315 kV HVac Line L1-142 Micropile Detail
MFA-VA-SD-6140-TL-D99-0065-01	315 kV HVac Line L1-142 Steel Pile Cap Detail
MFA-VA-SD-6140-TL-D99-0066-01	315 kV HVac Line L1-142 Steel Pile Cap Connection Details
MFA-VA-SD-6140-TL-D99-0067-01	315 kV HVac Line L1-142 Foundation Schedule

