



22 December 2023

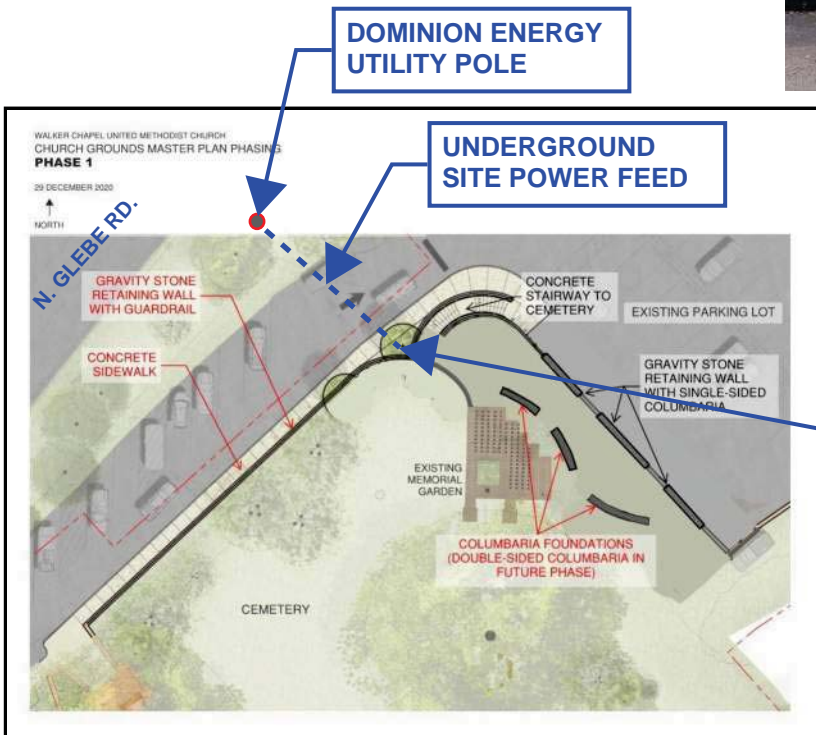
Arlington County Historical Affairs and Landmark Review Board, Design Review Committee
January 2024 Pre-Meeting Letter

REQUESTED REVISIONS TO HALRB CERTIFICATE OF APPROPRIATENESS
17 March 2021, Case 19-27A (HPCA21-00007)

**WALKER CHAPEL HISTORIC CEMETERY PROJECT (HCP)
RE-INSTALLATION OF SITE ELECTRICAL EQUIPMENT**

INTRODUCTION

Prior to the current Historic Cemetery Project (HCP), Walker Chapel's parking lot and access driveway were illuminated for after-dark usage. The site lighting was served by an under-grounded electrical feed from a nearby Dominion Energy utility pole on N. Glebe Road.; the 120-amp electric meter and distribution panel were surface-mounted to the failing treated-timber cemetery retaining wall along the parking lot access drive.



The location of the new site electrical equipment is indicated on the HCP Phase 1 site plan, left.

GENERAL LOCATION OF ORIGINAL SITE ELECTRICAL METER/PANELS, AS WELL AS THE AS-BUILT NEW LOCATION



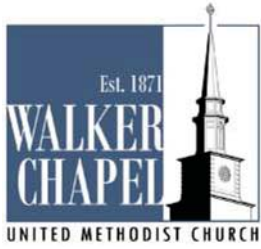
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Pastor
Rev. Teer Hardy
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The mission of Walker Chapel is to befriend, nurture, and serve all of God's children

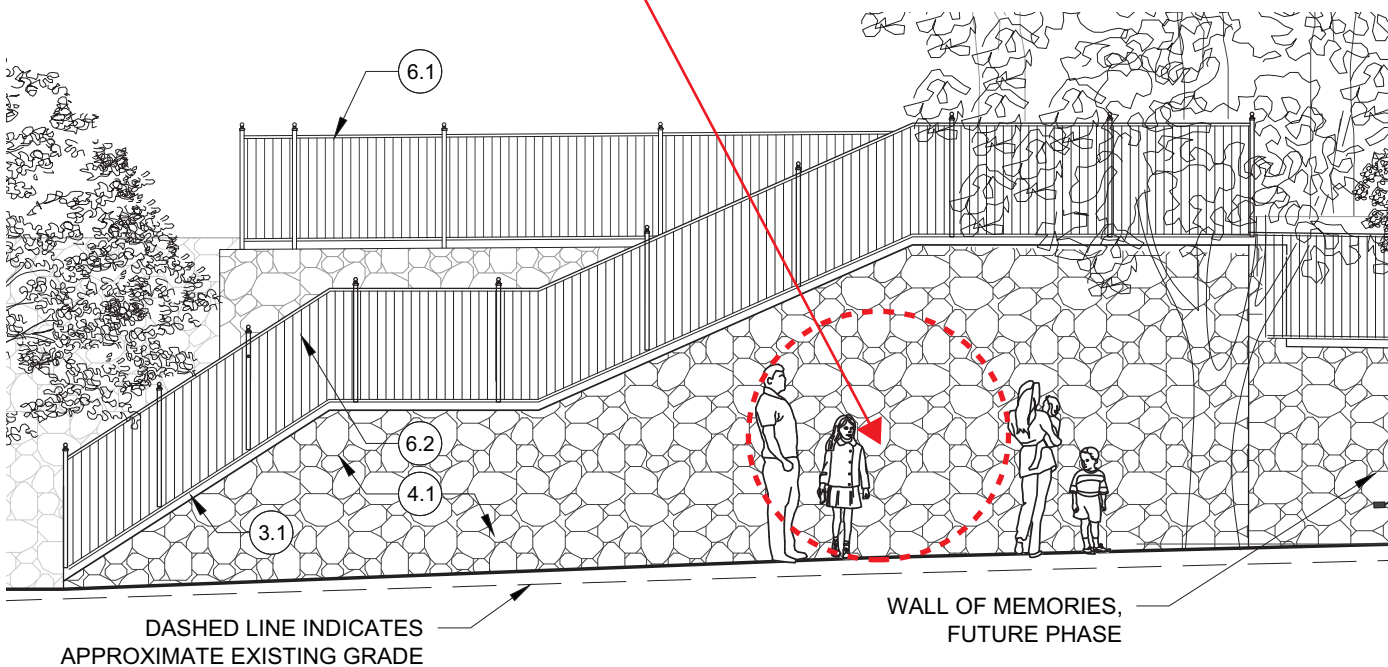
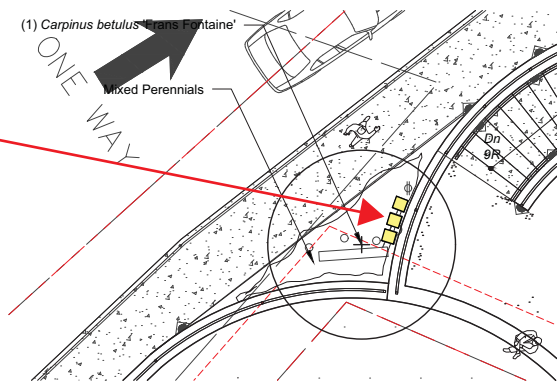


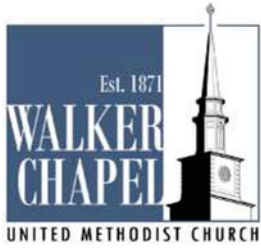
The re-installation of electrical service panels and meter serving existing parking lot lighting and new retaining wall lighting was evaluated once construction of the new retaining wall and new driveway sidewalk (to the point of the underground electrical service) were both complete.

In dealing with as-built conditions, it became apparent that surface-mounting the panels to the curved portions of the new stone wall in an orderly fashion would be difficult due to the natural deviations in the stone wall surface, as both the wall surface geometry and the joints between stones were irregular by design. Concerns also grew about the limitations the wall-mounted electrical service equipment would impose on future wall maintenance, as periodically the stone joints will require re-pointing in order to maintain the long term integrity of the wall. Installing the equipment on a freestanding support frame would address these difficulties and provide the opportunity to separate incoming and outgoing distribution conduits from below and from the rear of the electrical meter enclosure and the power distribution panel.

Re-installation as shown in CoA Landscape Lighting and Planting Plan drawings

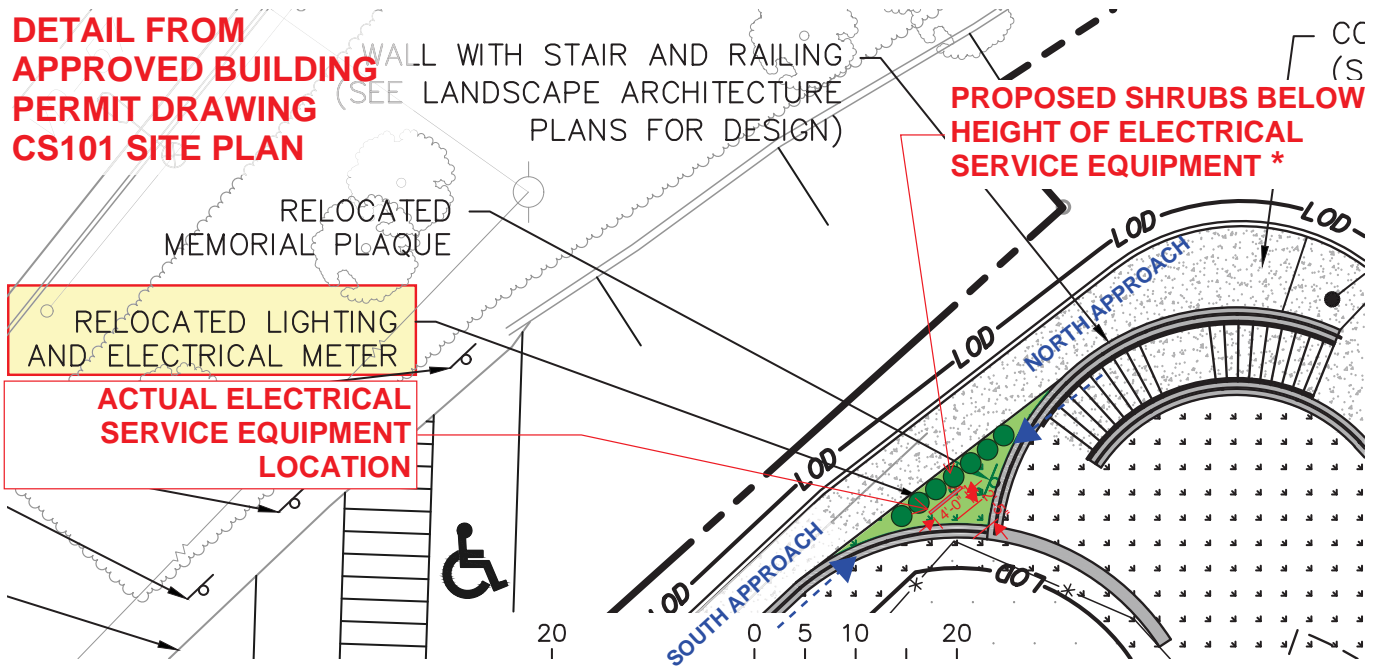
However, no indication of re-installed site electrical panels on CoA Landscape Elevations drawing





AS- CONSTRUCTED CONDITION

The Owner Construction Phase Representative approved installation of the electrical service equipment on a freestanding support frame permitting continuity of maintenance access to the new stone retaining wall. The as yet-unconnected electrical service equipment is mounted on a frame consisting of narrow, premium quality stainless steel channels. The electrical service panels are either stainless steel or soft-gray factory painted metal, and the flexible and rigid conduits from the panels to the underground conduits are also gray in color. The entire installation blends well with the new natural stone retaining wall behind it and since the equipment is not attached to the wall, it is more respectful of it.



*** NOTE:** Only during recent conversations with Dominion Energy did we learn of their strict clearance requirements around their electrical meter; shrub planting as shown here is not permissible under this criteria.

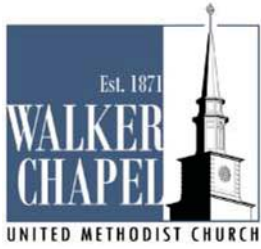
VIEWS OF IN-PROGRESS CONSTRUCTION
NORTH APPROACH



As-constructed new site electrical equipment frame

SOUTH APPROACH





The freestanding frame allows for panels to be mounted on both sides of the frame and more importantly, allows for best-practice separation of incoming and outgoing power feeds (more than one panel box surface is used).

Main circuit breaker box on back side of frame with back feeds to both the meter box and the distribution panel box.

The new equipment is functionally the same (or similar) as the original electric meter, power panel, and mechanical parking lot lights timer. The physical difference is that the new equipment meets current code and power company requirements, and is of commercial quality. In addition to the meter cabinet and the power distribution panel box, there will be a small, stainless steel low-voltage transformer and photocell cabinet controlling operation of the parking lot lights and the wall and step lights. Unlike the original installation, there is now a fourth component--a main power feed shut-off switch box.

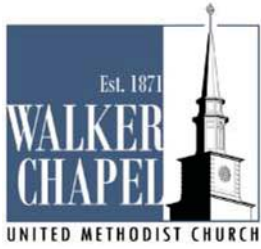
Once construction in this area is complete, we propose **two ways** to landscape this portion of the project in order to partially conceal and draw visual attention from the electrical distribution equipment.

OPTION 1: Plant shallow-root shrubbery to between the frame supports and the new sidewalk; this will partially conceal the frame vertical supports and the exposed electrical conduits. Plant ground cover in the remaining bed area.



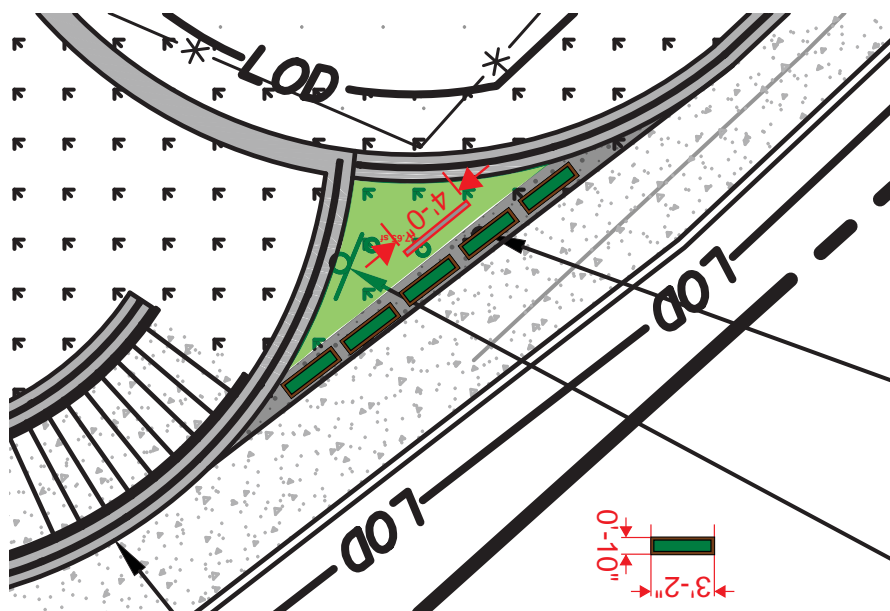
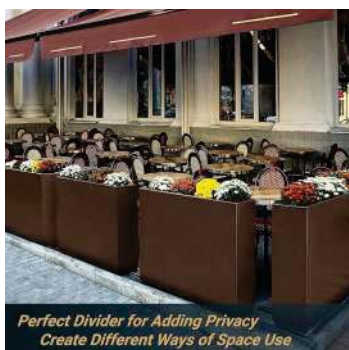
4' 5" Emerald Green Arborvitae

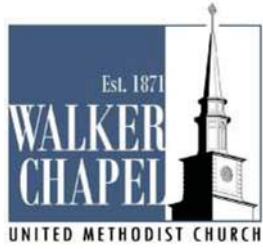




OPTION 2: Procure and position manufactured privacy screen plant boxes set on stone mulch in the 2'-5" area in front of the service panel installation. The Wallowa Metallic Heavy Planters are not fixed; they can be moved for major-task electrical service access.

The metal cabinets are available in four colors: coffee (shown); black; gray; and white.



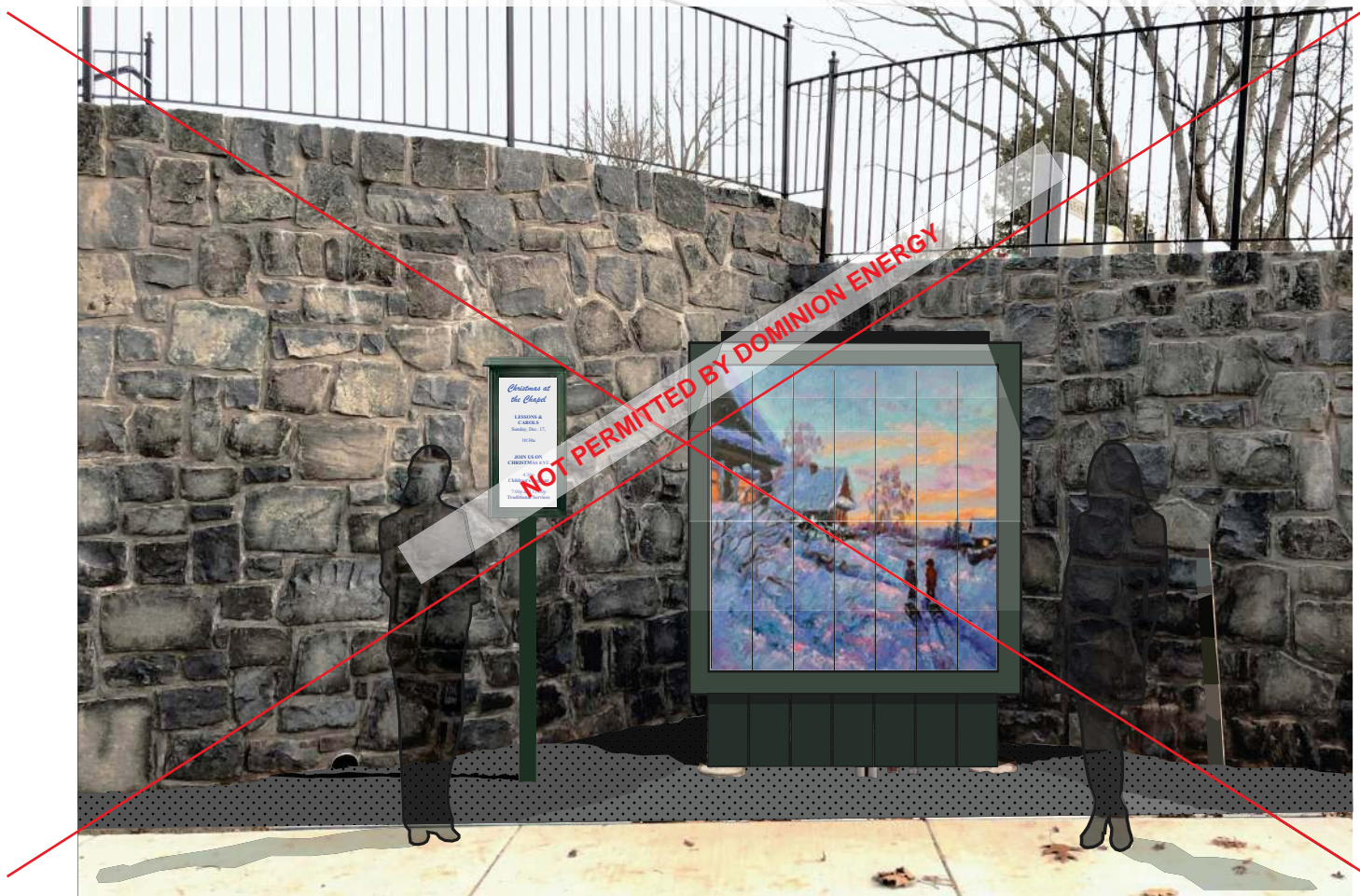


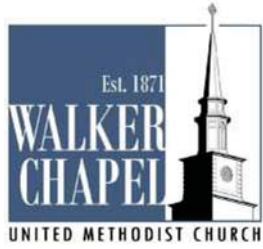
OPTION 3: Approach the current situation as an opportunity to create a meaningful visual "event" along the new driveway sidewalk linking the church and its parking lot.

Conceal the as-constructed electrical equipment frame with a lightweight, non-conductive display frame using fiberglass channels and PVC finish boards and panels. This gravity load of the display frame would be carried by the electrical equipment frame and would not touch the ground, allowing the display frame to act as a floating visual element against the natural stone backdrop of the retaining wall. The display frame would only conceal the electrical equipment frame, and not hinder access to the electrical service cabinets.

Linear LED art lighting will be attached to the top of the display frame. Hanging from inside the head of the display frame will be changeable, printed PVC mesh fabric. Just below the attachment head, the fabric will be cut in strips to allow for access to the electrical equipment; each display strip will have weighted ends to minimized wind-driven fluttering. The church will stock a minimum of four display hangings with graphics depicting the four seasons (or different church seasons). This will also serve as an opportunity to share banner graphics of church and community events, including the work of groups using church facilities such as the McLean Art Society and the Walker Chapel Preschool. It could also be used to hang banners promoting musical concerts and other scheduled community events occurring at Walker Chapel. A PVC panel skirt will be fixed to the base of the support frame, turning the corners at both side edges to conceal conduits.

Additionally, this proposal would include the installation of a second freestanding element, a manufactured outdoor message center as suggested below. This might be an all-weather way to offer leaflets or other publications to passersby.



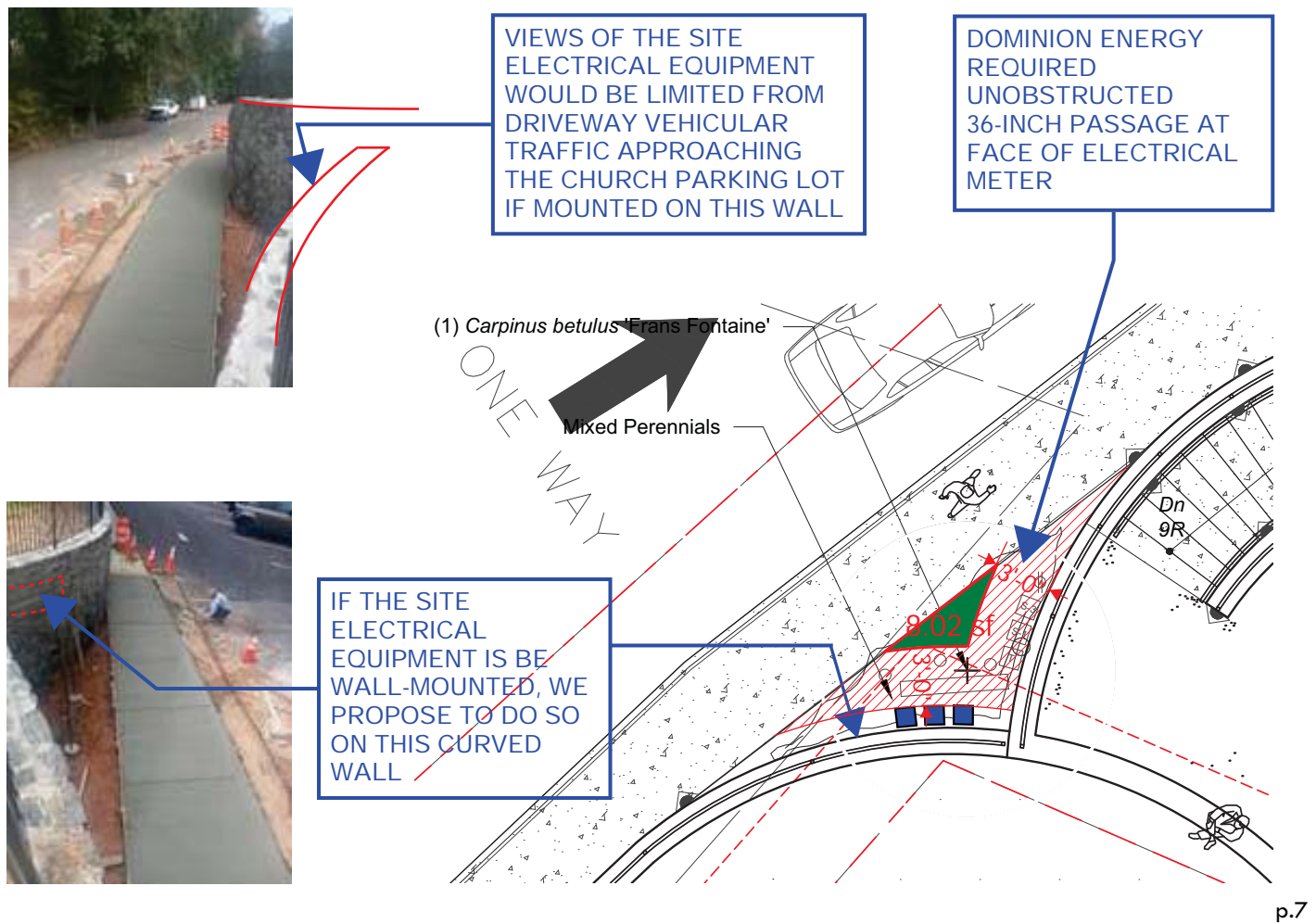


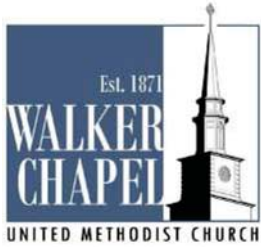
OPTION 4: This option relocates the site electrical equipment to the face of the new retaining wall (but in a different location than shown in the originally approved CoA--more about this below).

This means the freestanding service panel rack will be removed and the service panel components will be attached to supporting channels behind the equipment. The conduit-enclosed circuits, both incoming from Dominion Energy and distribution circuits into the cemetery, will be moved so that they terminate in ground-level junction boxes. The wall-mounted components will then be re-connected to their circuits within the junction boxes.

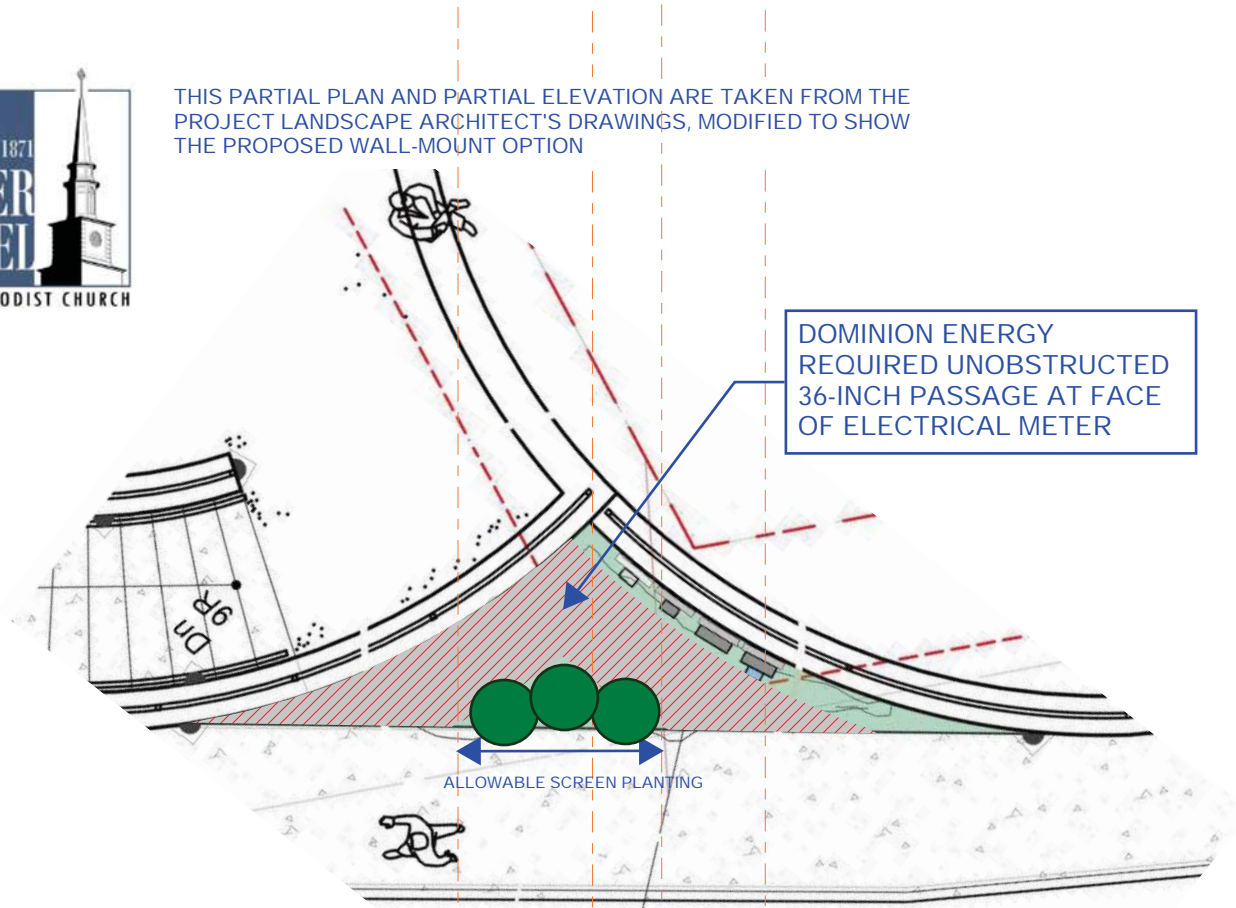
The graphic below shows the proposed location of the wall-mounted equipment components. This location is proposed because the driveway vehicular traffic flow is from left to right in the plan image; by placing the electrical equipment on the cemetery wall rather than the staircase wall, views of the equipment are better blocked. Once installed, consideration will be given to using plants to further obscure the equipment from view.

While this approach will partially screen the site electrical equipment, it will be the most expensive option to implement. As for maintaining the integrity of the new retaining wall and preserving the sanctity of the cemetery, there is a difference of opinion amongst church leaders; some feel that the site electrical equipment is best handled as a freestanding but screened element not touching the historic cemetery and others who feel that the wall-mounted option is more appropriate.

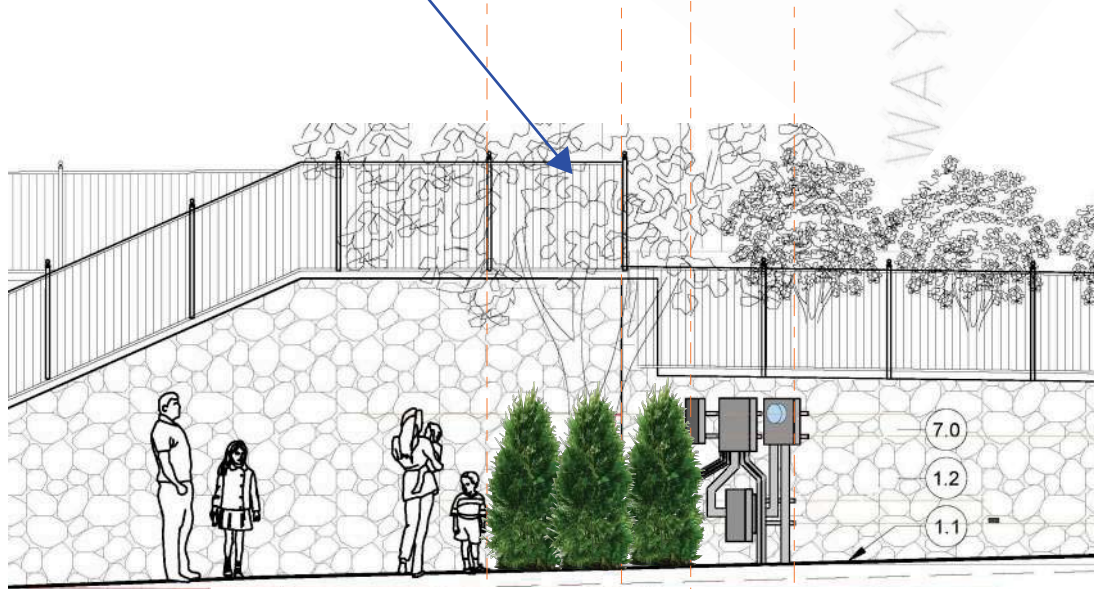




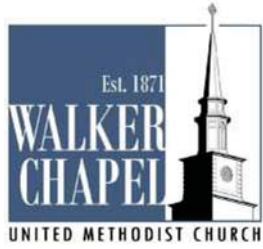
THIS PARTIAL PLAN AND PARTIAL ELEVATION ARE TAKEN FROM THE PROJECT LANDSCAPE ARCHITECT'S DRAWINGS, MODIFIED TO SHOW THE PROPOSED WALL-MOUNT OPTION



TREE PLANTING NOT POSSIBLE DUE TO UNDERGROUND ELECTRICAL CONDUITS



TRUE ELEVATION FROM DRIVEWAY AND SIDEWALK
 (ACTUAL CONFIGURATION OF PANEL BOXES MAY VARY DEPENDING ON
 ELECTRICAL CONTRACTOR'S JUDGMENT RELATED TO EFFICIENCY AND
 NATIONAL ELECTRICAL CODE MINIMUM REQUIRED CLEARANCES)



POST-DRC MEETING: Acting on a suggestion voiced at the 6 December HALRB DRC meeting, we studied the installation of the electrical meter and related panel boxes on the rear of the existing support frame. This might allow the installation of a "trptych" type of flat art screen panel.



Dominion Energy rejected the proposal illustrated above in which we requested mounting the electric meter on the back side of the support frame, which would allow us more flexibility in screening the front side of the installation.

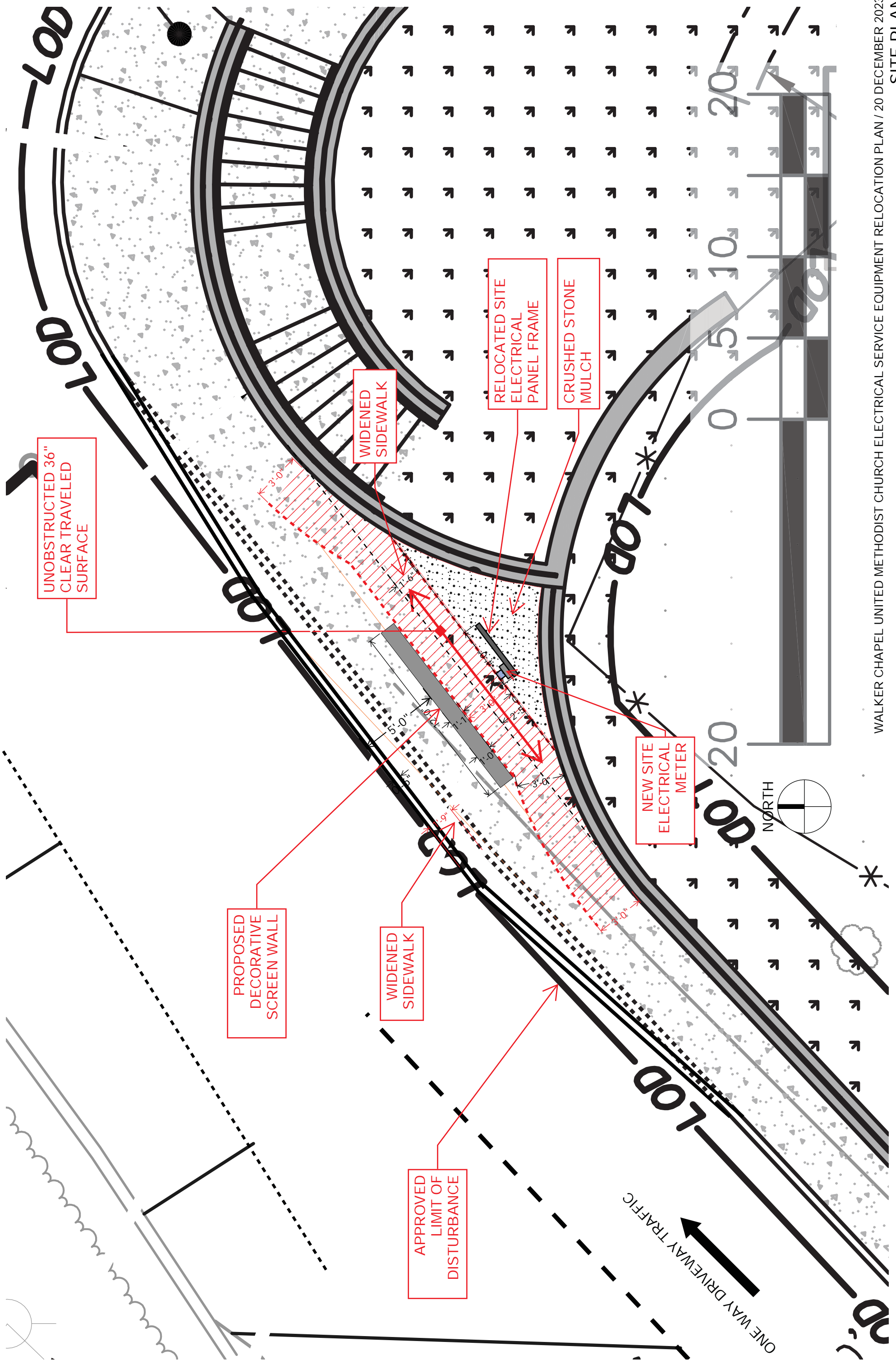
OPTION 5: NEW PROPOSAL

Under Dominion Energy design criteria, it is virtually impossible to completely screen the site electrical equipment. Given the questionable effectiveness of a severely limited screening approach, Walker Chapel requests HALRB acceptance of the as-constructed condition as it is not visible from off-site public views.

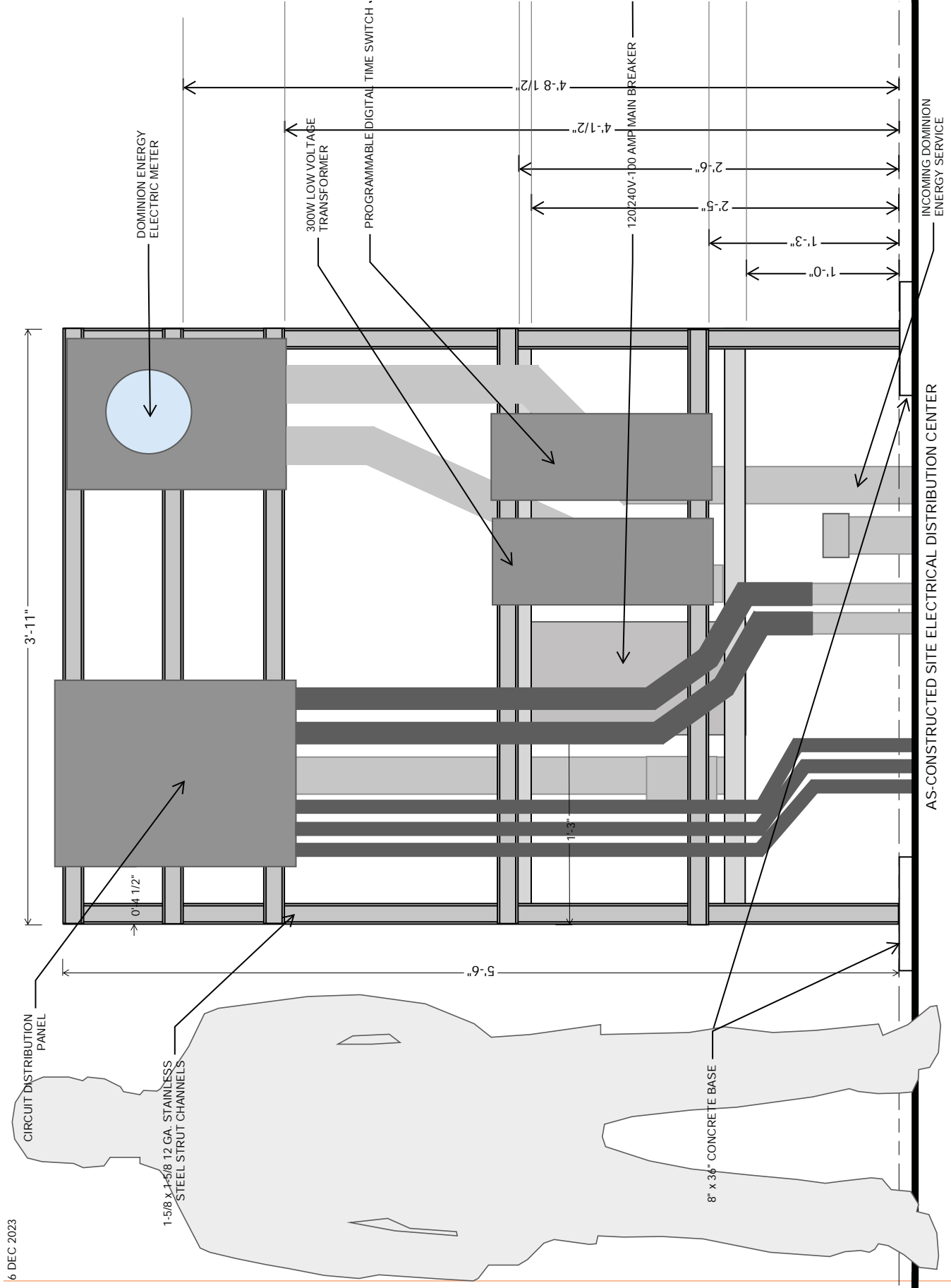
However, in order to expedite HALRB approval allowing us to provide site nighttime lighting and the conclusion of the project, we offer a limited screening approach should the HALRB not be willing to accept the as-constructed situation.

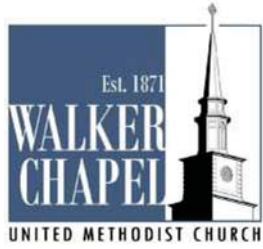
It should be possible to lessen the visual impact of the as-constructed electrical gear with a partial screen device that offers its own attention-getting quality, making the exposed electrical gear secondary in nature.

The following approach complies with Dominion Energy's electric meter physical clearances. Furthermore, nothing is attached to the site electrical support frame other than the meter and related electrical panel boxes--therefore, the proposed screen wall should not be reviewable by Dominion Energy.



6 DEC 2023





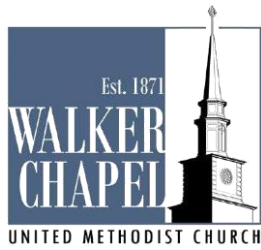
There is precedence for this decorative "art" panel approach on the Walker Chapel grounds. The HALRB recently approved the removal of an unnecessary second floor exit door and exterior metal stairway, with the original door opening being infilled with a bas relief panel depicting the Christian cross; this overlooks the church cemetery.



OPTION 6: Of the preceding five options, only two options (Option 4 and Option 5) are viable in terms of adherence to Dominion Energy electric meter installation criteria. Both of these options will add unbudgeted costs to the project, a factor the church cannot overlook.



Since neither of the viable options would result in a complete screening of the site electrical equipment, the church's preference is to leave the as-constructed condition in place. Once all of the panel boxes are mounted (there are two small boxes yet to be installed), the church will have its landscaping contractor fill the triangular area between the driveway sidewalk and the curved stone retaining walls with a low groundcover plant material that will not run afoul of Dominion Energy or National Electrical Code criteria. After the electrical meter panel box is painted a darker gray, the panels and the supporting frame blend with the new stone retaining wall and will result in an improvement over the original site electrical equipment installation.

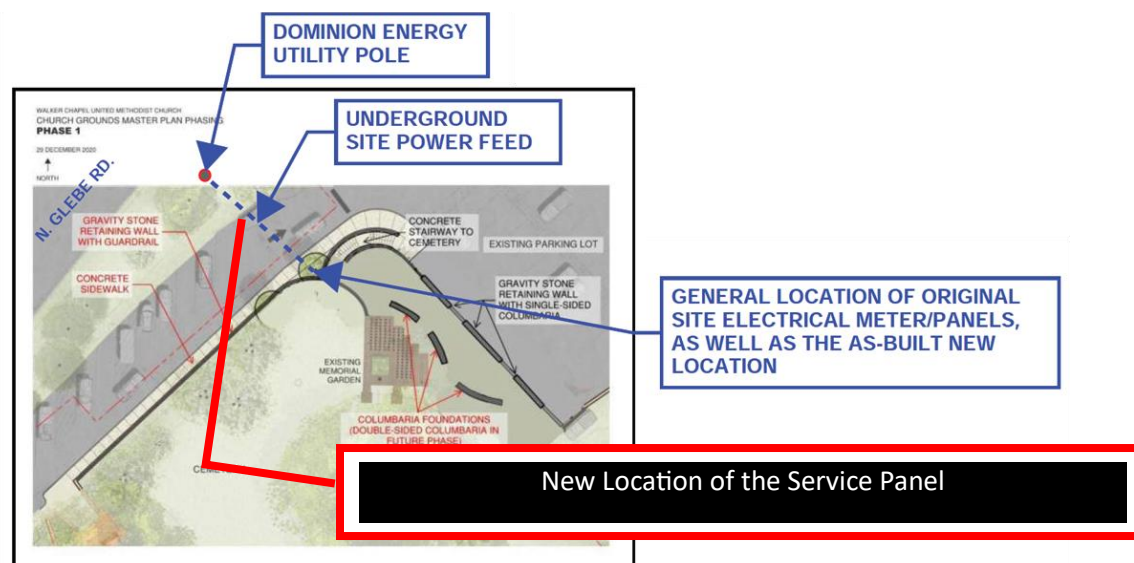


CoA REVISION FOR THE ELECTRICAL SERVICE PANEL

Option #4

The three options documented and discussed to date each present their own problems, but in every case the electrical service panel in one way or another impacts negatively on the beauty and serenity of the historic cemetery. Each also presents issues in acceptance by Dominion Electric, the HALRB, the Arlington County Permit division, the Chapel Architect, and/or the Cemetery Manager.

The only solution that has no issues, is acceptable to everyone and does not deface the historic cemetery is to locate the service panel away from the cemetery. The recommended location is on the line of the underground site power feed but across the driveway from the cemetery.

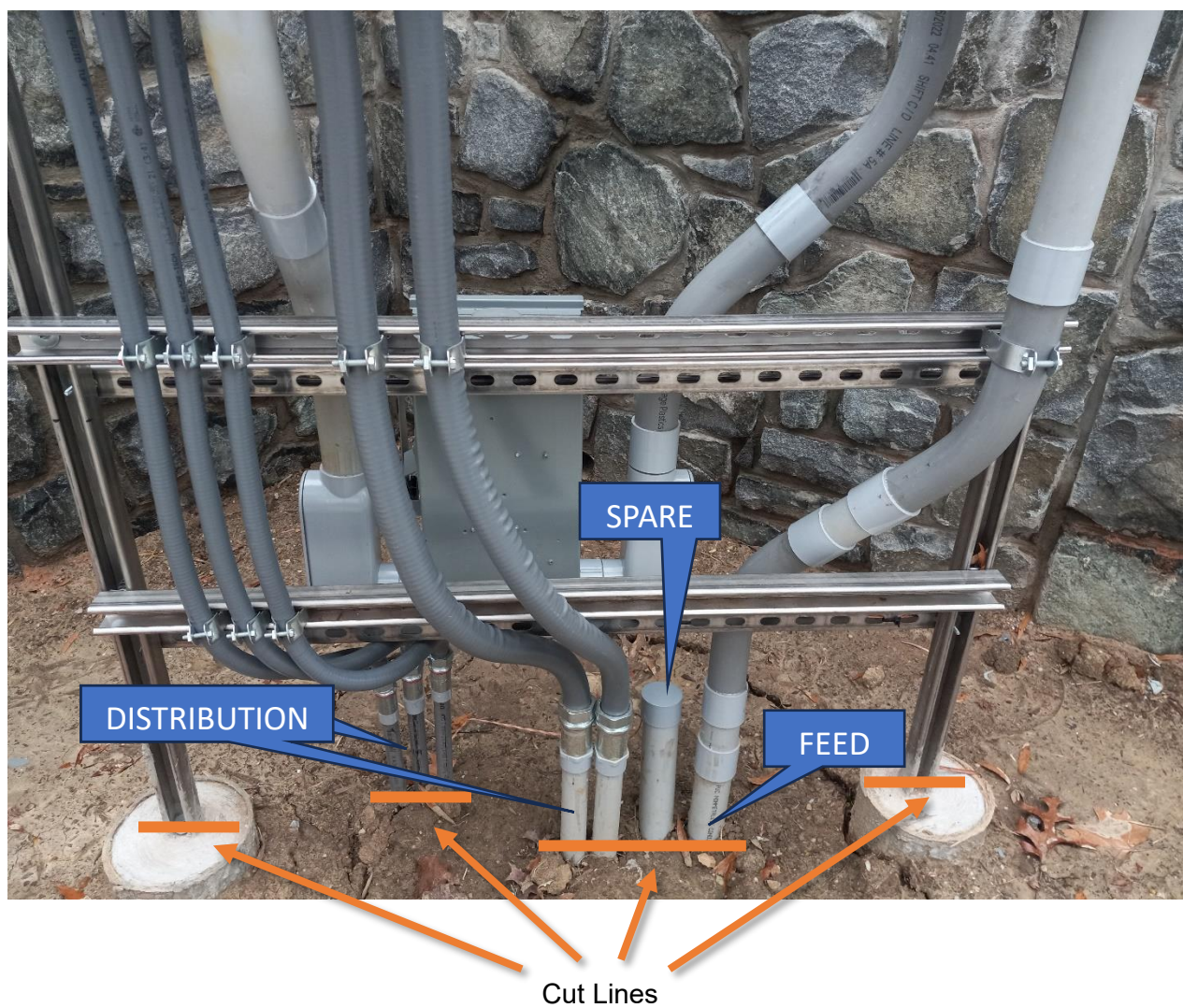


It presents an easy installation:

1. The asphalt is only a few inches thick at this point,
2. The conduit for the power feed is within a short distance below the surface,
3. The main feed line only needs to be cut to size...not re-pulled.
4. The existing large conduit under the driveway can easily accommodate the much lighter distribution wires to the electrical fixtures (in fact, there are two conduit runs and one is an empty spare),
5. The existing light gauge distribution wires can easily be placed in a quazite box on the cemetery side of the driveway and spliced into new wires pulled across and under the road,
6. There would be 360-degree access to the components that exceeds Dominion Electric's distance requirements,
7. The meter height can be set exactly to Dominion Electric's requirements,
8. The location is out of the line of traffic and there will be no loss of parking places,
9. It provides a large space to install the triptych, and
10. The entire rack can be protected with two bollards sunk vertically into the ground and filled with concrete.

One way to install the rack at the new location:

1. Remove the asphalt in the new location,
2. Use the auger to dig two new holes and insert in concrete two new 4" vertical rails; 3' below ground and 1' above ground,
3. Cut the existing rack and conduits at ground level as shown below in orange,
4. Move the rack in one piece to the new location and bolt the rack vertical pieces to the new 4" vertical supports,
5. Redo the conduit to fit cutting the main feed line to fit and pulling new distribution lines across the street using the existing buried large conduits,
6. Install a quartzite box in the current location of the rack, and
7. Connect the distribution wires.



View from across the driveway:



Two new parking spaces

If the new location takes up a parking place, there is room for two parking spaces parallel to the edge of the parking lot just past the "one-way" sign. We could also move the "one-way" sign to yield more room.



View looking up the driveway:

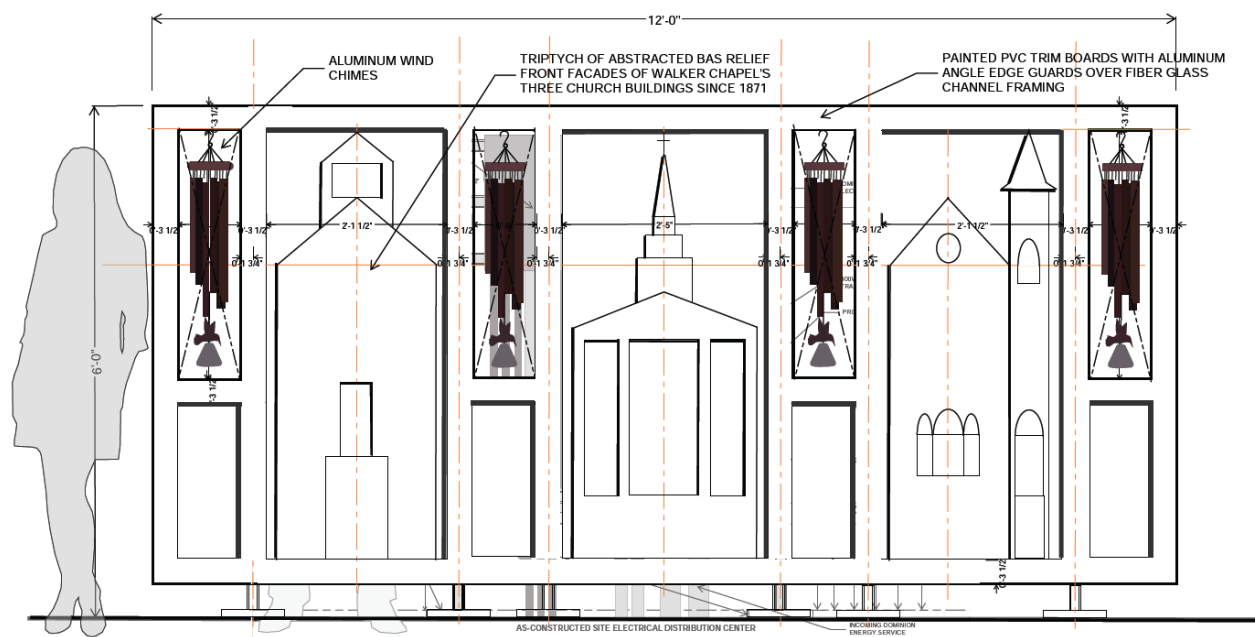


This option has been sent to Alison Smith Holland in DES for her review and comments including any required setback from the line between the church and the wooded property managed by VDOT.

We are open to constructing a raised island in this area to further delineate and protect the area from vehicular traffic.

If this option is selected and approved, we would like to install an artistic screen around the electric service panel as shown below.

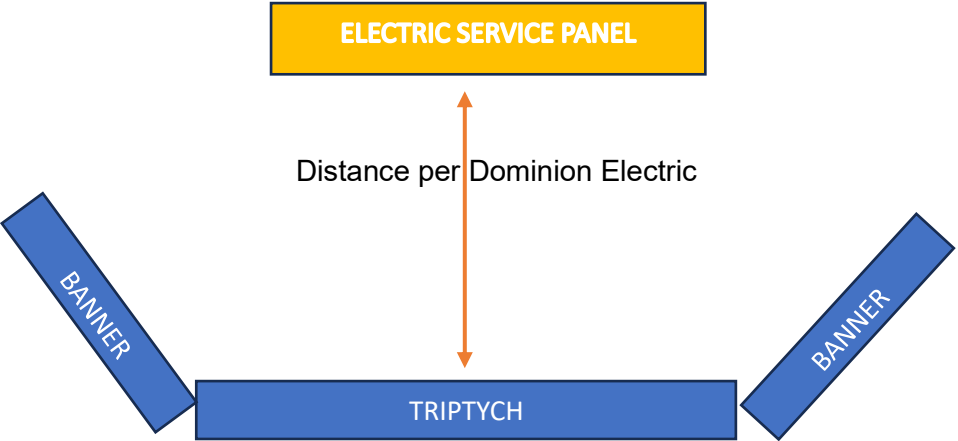
A triptych depicting the three chapels in the 150-year history of Walker Chapel has been designed by our architect, James Wright.



We would like to place the triptych as a screen in front of the electrical service as shown below:



We would additionally like to place two frames for hanging banners on each end of the triptych to provide a curved screen while providing needed space to promote Chapel activities. Lighting for dark days and dusk would be provided for the two banners and the triptych and controlled by dawn-to-dusk sensors with a cutoff at 10:00pm.



Respectfully submitted,

Larry Danforth
Walker Chapel Cemetery Director
Historic Cemetery Project Planning Phase Owner's Representative

James M. Wright, FAIA, NCARB
Historic Cemetery Project Construction Phase Owner's Representative
Member, Walker Chapel Leadership Board

copy: Rev. Teer Hardy, Pastor, Walker chapel United Methodist Church