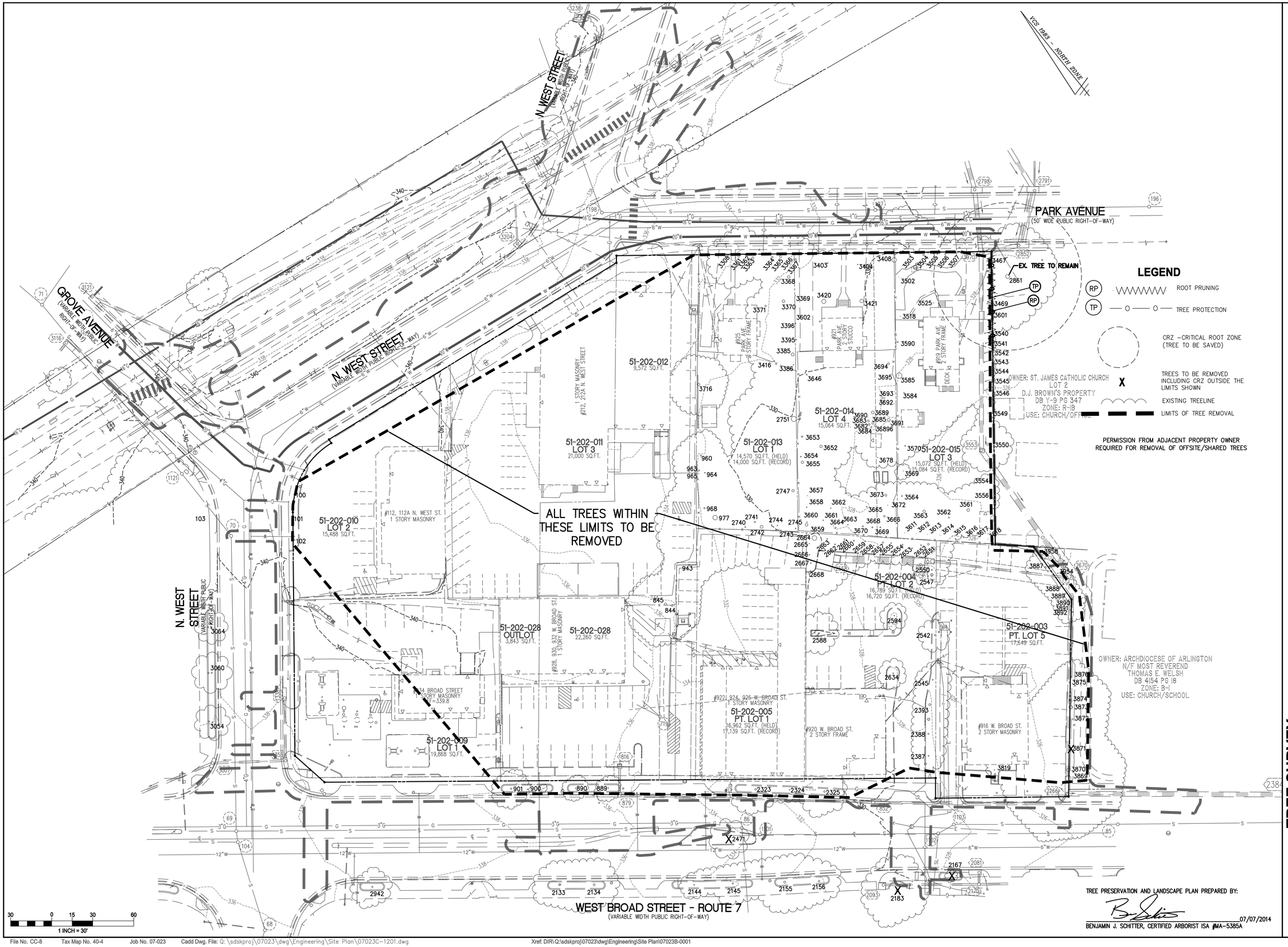

TREE PRESERVATION AND LANDSCAPE PLAN PREPARED BY:

BENJAMIN J. SCHITTER, CERTIFIED ARBORIST ISA #MA-5385A 07/07/2014

WALTER L. PHILLIPS INCORPORATED
ESTABLISHED 1945
Engineers • Surveyors • Planners
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COMMONWEALTH OF VIRGINIA
KAREN L. S. WHITE
Lic. No.041850
PROFESSIONAL ENGINEER
9/23/16

DRAWN:	CHECKED:
DATE: 9/23/2016	
SCALE: 1" = 30'	

REVISION APPROVED BY					
NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

TREE SURVEY

MASON ROW

AT THE INTER SECTION OF WEST BROAD STREET, NORTH WEST STREET & PARK AVENUE
CITY OF FALLS CHURCH, VIRGINIA

SHEET: C-1201

File No. CC-8 Tax Map No. 40-4 Job No. 07-023 Cadd Dwg. File: Q:\sdskproj\07023\dwg\Engineering\Site Plan\07023C-1201.dwg

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TREE PRESERVATION PROCEDURES AND SPECIFICATIONS
City of Falls Church, VA – Urban Forestry / Development Services

1. Prior to allowing any vehicle or construction equipment to enter the site, the construction foreman and project arborist (also foreman of company doing actual tree work if different from project arborist) is to meet the City Arborist to mark the location of the *limits of clearing/ tree preservation fencing*, erosion control fabric, and root pruning line (where required), access routes, storage areas, and parking areas. The location of the LIMITS OF CLEARING/TREE PRESERVATION FENCING is to be installed in accordance with the approved plan and field located from existing benchmarks, landmarks, and building stakeout survey markers. All work procedures and tree preservation measures are to be discussed at this time. An appointment must be made with the arborist for the City a minimum of three days prior to the establishment of the tree preservation measures is required by City Code (Sec. 35-15 (b), see enclosed. Contact the City Arborist for an appointment at 703-248-5183.

2. Trees to be removed shall be clearly marked and approved by the City Arborist prior to demolition or entry of any equipment on site. A tree contractor licensed and bonded to work in the City shall perform all tree work, including all tree removals. Check with the City Arborist for a copy of the most recent list of Tree Contractors.

3. *Tree preservation fencing* shall be either of the following:

   a. Six (6) foot high chain link fence sections attached to one and five eights (1 5/8) inch outside diameter pipe with eleven (11) -gauge mesh in a two (2) inch diamond pattern. The fencing noted above may be temporary panels set in concrete blocks at the base and secured at the top with saddle clamps
   or
   b. Four (4) foot high fourteen (14) gauge welded wire fence supported by six (6) foot long metal stakes (2" width) to be spaced eight (8) feet on center and sunk into the ground.

   Both of the fencing types noted above shall be flagged with brightly colored surveyor ribbon to improve their visibility. The contractor must maintain fencing in place throughout construction. **In the event fencing must be temporarily removed for any reason, contact must be made first with the arborist at 703-248-5183**. The City Arborist must grant approval before any tree preservation fencing is removed, even temporarily.

4. Erosion and sediment control fencing shall be placed on the inside (toward construction) from the tree preservation fencing and any root-pruning trenches.
   Erosion control devices such as silt fencing, debris basins, and water diversion structures shall be installed to prevent siltation and/or erosion within the tree protection zone.
   Property owners are advised to impose fines in contracts with construction companies if tree preservation measures are violated.

5. Demolition and Site Clearing:

   a. The City Arborist shall be notified a minimum of three (3) days in advance of commencing any form of tree work. Call 703-248-5183 for an appointment.

   b. Trees to be removed shall be felled so as to fall away from tree protection zones and to avoid pulling breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees. This may be accomplished by cutting through the roots by hand, with a vibrating knife, rock saw, and narrow trencher with sharp blades, or other approved root-pruning equipment.
   c. Trees being cut within the tree preservation zone shall be cut near ground level and the stumps ground out with a walk-behind grinding machine.
   d. All downed brush and trees shall be removed from the tree protection zone either by hand or with equipment sitting outside the tree protection zone. Extraction shall occur by lifting the material out, not by skidding it across the ground.
   e. Brush shall be chipped and placed in the tree protection zone to a depth of 6 inches, with no chips against the trunks of trees.
   f. Structures and underground features to be removed within the tree protection zone shall use the smallest equipment possible and operate from outside the tree protection zone. The City Arborist shall be present during all such operations within the tree protection zone to monitor demolition activity. Phone 703-248-5183 at least three (3) days in advance for an appointment.
   g. Any damage to trees due to demolition activities shall be reported to the City Arborist within 6 hours so that prompt remedial action can be taken.
   h. If temporary haul or access roads must pass over the root area of trees to be retained, a roadbed of at least 10 inches of mulch shall be created to protect the soil. The roadbed material shall be replenished as necessary to maintain a10-inch depth. The City Arborist must approve the use of any such temporary road in the tree protection area.

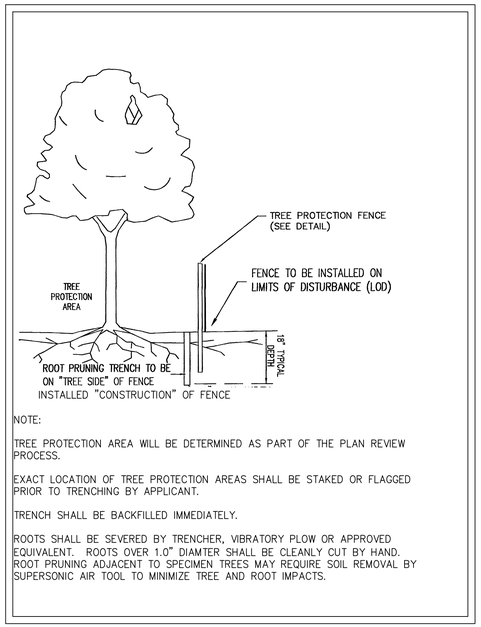
6. Pruning & Other Preservation Measures Specifications:
   a. The City Arborist shall be notified a minimum of three (3) days in advance of commencing any form of tree work. Call 703-248-5183 for an appointment.
   b. Root pruning, where required, shall be mechanically done with a narrow trencher with sharp blades. Once a trench is opened up, approximately 18-24" in depth and 4" wide all exposed roots will be hand pruned so that the clean-cut ends can regrow.
   The tree preservation fencing shall be placed 6-12" outside the root-pruning trench (construction side of the trench). The erosion and sediment fencing shall be placed outside the tree preservation fencing (construction side of the fence).
      - Where required, apply a slow-release complete fertilizer containing major and trace elements, but low in water-soluble nitrogen during the season before the commencement of construction. An application of a *mychorrizae* product may also be required to assist in the preservation of highly stressed trees.
   c. All trees to be saved will be pruned (in accordance with American National Standards Institute (ANSI) Standard Practices for Trees, Shrubs, and Other Woody Plan Maintenance ANSI A300 and adhere to the most recent edition of ANSI Z133.1.
   d. Treat any disease or insect pest as required to reduce stress on trees.
   e. Remove all invasive vines growing on trees and from the area around the trees
   f. Specifications for work to be performed on individual trees shall be indicated under the "maintenance" column of the Tree Survey.
   g. All trees within the project area shall be pruned to:
      - clear the crown of diseased, crossing, weak, and dead wood to a minimum size of 1 ½ inches diameter;
      - provide 14 feet of vertical clearance over streets and 8 feet over sidewalks;
      - remove stubs, cutting outside the woundwood tissue that has formed around the branch;
      - reduce end weight on heavy, horizontal branches selectively removing small diameter branches, no greater than 2 to 3 inches near the ends of the scaffolds.
   h. Where temporary clearance is needed for access, branches shall be tied back to hold them out of the clearance zone. The City Arborist must approve such tying.
   i. Pruning shall not be performed during periods of flight of adult boring insects because fresh wound attract pests. Pruning shall be performed only when the danger of infestation is past.
   j. All work must be performed by a tree contractor licensed and bonded to work in the City and in accordance with the direction of the project certified arborist and the City Arborist.
   k. Interior branches shall not be stripped out.
   l. Pruning cuts larger than 4 inches in diameter, except for dead wood, shall be avoided.
   m. Pruning cuts that expose heartwood shall be avoided whenever possible.
   n. No more than 20 percent of live foliage shall be removed from a tree at on time.
   o. While in the tree, the arborist shall perform an aerial inspection to identify defects that require treatment. Any addition work needed shall be reported to the City Arborist.
   p. Brush shall be chipped and chips shall be spread underneath trees within the tree protection zone to a maximum depth of 6 inches, leaving the trunk and root flare clear of chips.
   q. It may also be necessary to fertilize, aerate and otherwise treat the "trees to be saved" as required by the arborist for the City, following a meeting with the owner's/developer's arborist and approval of the "tree preservation plan". <u>All tree work must be completed prior to construction.</u>
   r. 'Selective clearing' in wooded areas will be allowed only under the direction of the City Arborist. Trees to be removed will be felled by hand so that minimal damage is done to "trees to be saved".
   s. No vehicles or storage of materials of any kind will be allowed inside the limits of clearing. No storage of material or debris will be allowed within the "tree save area". No burning will be allowed on site.
7. Construction Specifications:
   a. Supplemental water shall be supplied to trees being preserved when natural rainfall is less than 1" a week, from early spring until the ground freezes in the fall. Irrigation should be designed to wet the soil to a depth of 2-3 feet. Lacking a source of water early on the construction site, this may be accomplished by constructing a 6" berm around the tree protection zone and filling the basin with a water truck or by injecting the soil using a pressure system from a truck mounted water tank. Shallow frequent watering should be avoided
   b. Have a licensed and bonded tree contractor remove torn, hazardous, or prominent deadwood as it occurs, using ANSI standards noted under # 4 above. .
   c. Where construction traffic must occur in the area of tree roots it shall be necessary to apply the following procedure: cover undisturbed soil with 10-15 inches wood chips and topped with chain link fence pulled taught and anchored or topped with 5/8 to 3/4 inch plywood with non-skid surface.
   d. Where compaction occurs during construction, vertical mulch with good quality compost.
   e. Before grading, pad preparation, or excavation for foundations, footings, walls, or trenching, relevant trees shall be root pruned 1 foot outside the tree protection zone by cutting all roots cleanly to a depth of 24 inches to the maximum depth of root penetration, (usually 3 feet). Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root-pruning equipment. Pruned roots shall be promptly covered with soil.
   f. Any roots damaged during grading or construction shall be exposed to sound tissue and cut leanly with a saw and promptly covered with moist soil.
   g. Soil from trenches, basements or other excavations shall not be placed within the tree protection zone, either temporarily or permanently. Soil stockpiles should be placed only in previously designated areas. No vehicles or construction equipment shall be parked in the tree protection zone.
   h. No burn piles or debris pits shall be placed within the tree protection zone. No ashes, debris or garbage may be dumped or buried within the tree protection zone. No materials of any kind shall be stored in the tree protection zone.
   i. Maintain fire-safe areas around fenced areas. Also, no heat sources, flames, ignition sources, or smoking is allowed near mulch of trees.
   j. A copy of the "approved plan" and TREE PRESERVATION PROCEDURES AND SPECIFICATIONS must be maintained on site at all times.
   k. All underground utilities and drain or irrigation lines shall be routed outside the tree protection zone. If lines must traverse the protection area, they shall be tunneled or bored under the tree(s) with the approval of the City Arborist.
   l. A licensed and bonded tree contractor must perform additional tree pruning required for clearance during construction under the direction of the City Arborist. Construction workers shall not be allowed to prune trees.
   m. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use. Any pesticides used on site must be tree-safe and not easily transported by water.
   n. If injury should occur to any tree during construction, it should be treated as soon as possible under the direction of the City Arborist.
   o. The City Arborist must monitor any grading, construction, demolition, or other work that is expected to encounter tree roots.
   p. At the completion of construction (and all equipment has been removed from site), notify the City Arborist for an inspection before removing the tree preservation fencing. At this time, all trees will be inspected and any repairs needed will be stipulated by the City and promptly made by the Contractor. (Refer to Sec. 35-15(b) of the City Code for guidance on finalizing the requirements of the bond agreement.

8. The planting of the new tree(s) specified on the plan shall take place after the completion of construction. The City Arborist must inspect the trees prior to planting (see Arborist Notification) and also inspect the placement and installation of the tree(s). All products and workmanship related to the planting of the tree(s) must be in accordance with the **Tree Planting Specifications** attached. The Contractor/Owner must present the City with a copy of a one-year guarantee from the landscape contractor for the newly planted tree(s). The tree will need to be thriving and in good condition one year from the date of planting or will need to be replaced.

If you have questions on any of the "procedures" or "specifications" noted above or concerns that may arise during construction, please contact the City Arborist at (703) 248-5183 or the Senior Urban Forester at (703) 248-5016.

ARBORIST NOTIFICATION AND VERIFICATION:

PRIOR TO THE SIGN OFF AND SUBSEQUENT RELEASE OF THE GRADING PLAN ALL PRESERVATION MEASURES REQUIRED, AS PART OF THE *LANDSCAPE CONSERVATION PLAN*, MUST BE INSPECTED AND APPROVED BY THE CITY OF FALLS CHURCH ARBORIST. THIS MAY INCLUDE BUT IS NOT LIMITED TO TREE WORK, FENCING, MULCHING AND ROOT PRUNING. <u>VIOLATIONS</u> OF THE *LANDSCAPE CONSERVATION PLAN* SHALL RESULT IN FINES, STOP WORK ORDERS AND/OR THE RESUBMISSION OF A "MITIGATION PLAN".
THE REQUIRED REPLACEMENT VEGETATION SHALL BE INSPECTED PRIOR TO PLANTING BY THE CITY ARBORIST. VEGETATION THAT IS INSTALLED UN INSPECTED WILL BE REJECTED. TO ARRANGE AN APPOINTMENT CALL THE SENIOR URBAN FORESTER (703) 248-5016.



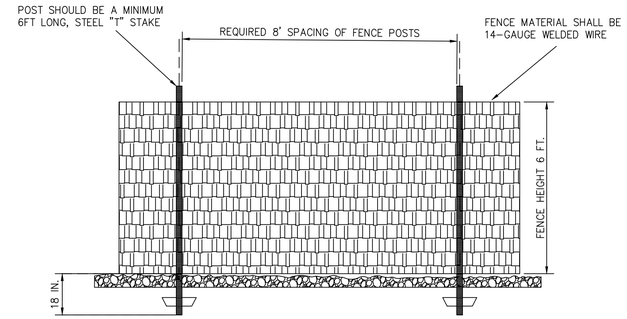
NOTE:

TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS.

EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING BY APPLICANT.

TRENCH SHALL BE BACKFILLED IMMEDIATELY.

ROOTS SHALL BE SEVERED BY TRENCHER, VIBRATORY PLOW OR APPROVED EQUIVALENT. ROOTS OVER 1.0" DIAMTER SHALL BE CLEANLY CUT BY HAND. ROOT PRUNING ADJACENT TO SPECIMEN TREES MAY REQUIRE SOIL REMOVAL BY SUPERSONIC AIR TOOL TO MINIMIZE TREE AND ROOT IMPACTS.



NOTE: TREE PROTECTION FENCING SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION

TREE PROTECTION FENCE INSTALLATION DETAIL
NOT TO SCALE

TYPICAL SIGNAGE FOR TREE PRESERVATION AREA
REFERENCE DETAIL II.A.5

ATTACHMENT TO TREES OR VEGETATION IS PROHIBITED

SIGNS TO BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION

SIGN POSTS MAY BE WOOD OR METAL BUT MUST MAKE THE SIGN VISIBLE FROM A STANDING POSITION

SIGNS MUST BE PLACED SUCH THAT A SIGN CAN BE SEEN BY ALL PARTICIPANTS IN THE LAND DISTURBING ACTIVITY AT ALL TIMES, A MINIMUM OF EVERY 50'.

SIGNS MUST BE LAMINATED OR A DURABLE, WEATHERPROOF MATERIAL

TREE PRESERVATION TECHNIQUES
(Both techniques described below can be combined with the pruning of roots that may occur beyond the area of treatment).

#1 – For Use in Areas Where Equipment Must Operate in Areas That Will Remain at Existing Grade:

- In the woodchip and plywood or chainlink fence area shown in figure 1 below, spread 10-15" of wood chips by hand.
- On top of the wood chips, lay 5/8 to ¾ inch plywood or heavy-gauge chain link fence to provide a path for equipment and workers to operate.

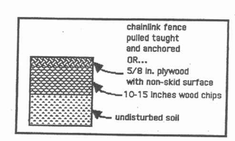


Figure 1

#2 – For Use in Areas Where Fill Soil Will Be Placed Over the Root Zone:

- An aeration system shall be installed in the area shown in figure 2 below prior to grading. The aeration system (see diagram below) shall consist of *geotextile* fabric laid on top of the undisturbed ground; with not less than six inches of river rock on top of it; and with a second layer of *geotextile* fabric laid on top of the rock.
- Fill dirt can then be placed on top of the *geotextile* fabric.

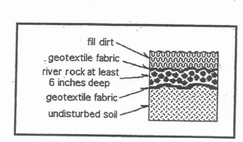


Figure 2

Engineers • Surveyors • Planners
Landscape Architects • Arborists
207 PARK AVENUE
FALLS CHURCH, VIRGINIA 22046
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www.WLPINC.com
WALTER L. PHILLIPS INCORPORATED
ESTABLISHED 1945

DRAWN: CHECKED:
DATE: 9/23/2016
SCALE: NONE

COMMONWEALTH OF VIRGINIA
KAREN L. S. WHITE
Lic. No.041850
9/23/16
PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

REVISION APPROVED BY

TREE PRESERVATION NOTES AND DETAILS

MASON ROW

AT THE INTER SECTION OF WEST BROAD STREET, NORTH WEST STREET & PARK AVENUE CITY OF FALLS CHURCH, VIRGINIA

SHEET: C-1202

Tree Inventory - West and Broad St. - Falls Church, VA

Tree Survey Information Completed by Walter Phillips, Inc - Arborist Ben Schitter- ISA # MA-5385A #07-023 30 July 2013, 18 December 2014

Tree #	Botanical Name	Common Name	Size DBH (in)	Critical Root Zone (CRZ) Radius (ft)	Species Rating (%)	Condition%	Removal	Activities: Tree Protection Fence/ Super Silt Fence	Root Prune	Remove Vines	Hand Removal/ Selective Removal	Notes
100	Lagerstroemia indica	Crape Myrtle	12	12'	80%	56%	X					Multi-stem
101	Lagerstroemia indica	Crape Myrtle	11	11'	80%	56%	X					Multi-stem
102	Lagerstroemia indica	Crape Myrtle	13	13'	80%	56%	X					Multi-stem
103	Platanus hybrida x acerifolia	London plane tree	19	19'	80%	56%						Offsite street tree, Multi-stem
844	Acer Rubrum	Red maple	16	16'	80%	50%	X					
845	Morus rubra	Red mulberry	21	21'	40%	47%	X					
889	Quercus rubra	Northern red oak	8	8'	85%	44%	X					
890	Quercus rubra	Northern red oak	10	10'	85%	53%	X					
900	Quercus rubra	Northern red oak	9	9'	85%	53%	X					Girdled roots
901	Quercus rubra	Northern red oak	12	12'	85%	53%	X					Girdled roots; deadwood
943	Acer Rubrum	Red maple	12	12'	80%	44%	X					grown into fence; girdled roots
960	Prunus serotina	Black cherry	12	12'	65%	47%	X					
963	Morus rubra	Red mulberry	12	12'	40%	44%	X					grown into fence
964	Prunus serotina	Black cherry	8	8'	65%	47%	X					Vines
965	Morus rubra	Red mulberry	4	8'	40%	44%	X					grown into fence
2133	Quercus rubra	Northern red oak	17	17'	85%	50%						Offsite street tree, Girdled roots
2134	Quercus rubra	Northern red oak	18	18'	85%	53%						Offsite street tree, Girdled roots
2144	Quercus rubra	Northern red oak	8	8'	85%	44%						Offsite street tree, Girdled rts; deadwood
2145	Quercus rubra	Northern red oak	13	13'	85%	53%						Offsite street tree, Girdled roots
2155	Quercus rubra	Northern red oak	19	19'	85%	47%						Offsite street tree, Girdled rts; deadwood
2156	Quercus rubra	Northern red oak	13	13'	85%	50%						Offsite street tree, Girdled roots
2167	Platanus hybrida x acerifolia	London plane tree	2	8'	80%	56%	X					Offsite street tree
2183	Quercus phellos	Willow oak	26	26'	80%	53%	X					Offsite street tree
2323	Quercus rubra	Northern red oak	15	15'	85%	53%	X					Girdled roots
2324	Quercus rubra	Northern red oak	9	9'	85%	53%	X					Girdled roots
2325	Quercus rubra	Northern red oak	17	17'	85%	53%	X					Girdled roots
2387	Quercus rubra	Northern red oak	9	9'	85%	53%	X					
2388	Gleditsia triacanthos	Honeylocust	13	13'	70%	50%	X					deadwood
2393	x Cupressocyparis leylandii	Leyland cypress	18	18'	40%	50%	X					vines
2471	Quercus rubra	Northern red oak	13	13'	85%	53%	X					Offsite street tree, Girdled roots
2542	Gleditsia triacanthos	Honeylocust	9	9'	70%	47%	X					Girdled roots; deadwood
2545	Gleditsia triacanthos	Honeylocust	10	10'	70%	50%	X					Girdled roots; deadwood
2547	Albizia julibrissin	Mimosa	5	8'	30%	41%	X					Split trunk; grirdled roots
2550	Gleditsia triacanthos	Honeylocust	10	10'	70%	50%	X					Girdled roots; deadwood
2588	Gleditsia triacanthos	Honeylocust	13	13'	70%	50%	X					Girdled roots
2594	Gleditsia triacanthos	Honeylocust	7	8'	70%	50%	X					Girdled roots
2634	Gleditsia triacanthos	Honeylocust	8	8'	70%	50%	X					Girdled roots
2651	Malus spp.	Crabapple	16	16'	70%	47%	X					Vines
2652	Ilex x Nellie Stevens	Nellie Stevens holly	8	8'	80%	50%	X					Multi-stem
2653	Ilex x Nellie Stevens	Nellie Stevens holly	9	9'	80%	50%	X					Multi-stem
2654	Ilex x Nellie Stevens	Nellie Stevens holly	11	11'	80%	50%	X					Multi-stem
2655	Quercus rubra	Northern red oak	7	8'	85%	53%	X					deadwood
2657	Ilex x Nellie Stevens	Nellie Stevens holly	12	12'	80%	50%	X					Multi-stem
2658	Ilex x Nellie Stevens	Nellie Stevens holly	8	8'	80%	50%	X					Multi-stem
2659	Ilex x Nellie Stevens	Nellie Stevens holly	8	8'	80%	50%	X					Multi-stem
2660	Quercus rubra	Northern red oak	12	12'	85%	53%	X					Deadwood
2661	Ilex x Nellie Stevens	Nellie Stevens holly	10	10'	80%	50%	X					Multi-stem
2662	Ilex x Nellie Stevens	Nellie Stevens holly	10	10'	80%	50%	X					Multi-stem
2663	Ilex x Nellie Stevens	Nellie Stevens holly	8	8'	80%	50%	X					Multi-stem
2664	Quercus palustris	Pin oak	42	63'	80%	53%	X					Vines; deadwood
2665	x Cupressocyparis leylandii	Leyland cypress	5	8'	40%	47%	X					
2666	x Cupressocyparis leylandii	Leyland cypress	7	8'	40%	47%	X					
2667	x Cupressocyparis leylandii	Leyland cypress	8	8'	40%	47%	X					
2668	x Cupressocyparis leylandii	Leyland cypress	4	8'	40%	47%	X					
2739	Juglans nigra	Black walnut	40	60'	80%	50%	X					Vines
2740	Juglans nigra	Black walnut	10	10'	80%	47%	X					Vines
2741	Juglans nigra	Black walnut	12	12'	80%	53%	X					Vines
2742	Juglans nigra	Black walnut	26	26'	80%	47%	X					Vines
2743	Acer negundo	Boxelder	14	14'	50%	44%	X					Vines; deadwood

Tree Inventory - West and Broad St. - Falls Church, VA

Tree Survey Information Completed by Walter Phillips, Inc - Arborist Ben Schitter- ISA # MA-5385A #07-023 30 July 2013, 18 December 2014

Tree #	Botanical Name	Common Name	Size DBH (in)	Critical Root Zone (CRZ) Radius (ft)	Species Rating (%)	Condition%	Removal	Activities: Tree Protection Fence/ Super Silt Fence	Root Prune	Remove Vines	Hand Removal/ Selective Removal	Notes
2744	Acer negundo	Boxelder	7	8'	50%	44%	X					Vines
2745	Prunus serotina	Black cherry	7	8'	65%	50%	X					Vines
2747	Morus rubra	Red mulberry	21	21'	40%	53%	X					Twin; deadwood; vines
2751	Morus rubra	Red mulberry	45	68'	40%	44%	X					Twin; deadwood; vines
2861	Quercus palustris	Pin oak	36	54'	80%	47%		X	X			offsite
2942	Quercus rubra	Northern red oak	12	12'	85%	53%						Offsite street tree, girdled roots
3054	Quercus rubra	Northern red oak	10	10'	85%	56%						Offsite street tree, girdled roots
3060	Quercus rubra	Northern red oak	12	12'	85%	56%						Offsite street tree
3064	Quercus rubra	Northern red oak	10	10'	85%	56%						Offsite street tree
3308	Juniperus virginiana	Eastern redcedar	14	14'	85%	47%	X					deadwood
3361	Juniperus virginiana	Eastern redcedar	18	18'	85%	50%	X					deadwood; vines
3362	Juniperus virginiana	Eastern redcedar	15	15'	85%	50%	X					deadwood; vines
3363	Juniperus virginiana	Eastern redcedar	19	19'	85%	50%	X					deadwood; vines
3364	Juniperus virginiana	Eastern redcedar	15	15'	85%	50%	X					deadwood; vines
3365	Juniperus virginiana	Eastern redcedar	18	18'	85%	50%	X					deadwood; vines
3366	Quercus rubra	Northern red oak	3	8'	85%	47%	X					lean
3367	Acer platanoides	Norway maple	17	17'	30%	50%	X					triple trunk
3368	Acer platanoides	Norway maple	23	23'	30%	50%	X					multi-stem (4)
3369	Acer platanoides	Norway maple	6	8'	30%	50%	X					deadwood
3370	Prunus serotina	Black cherry	24	24'	65%	47%	X					deadwood
3371	Ilex opaca	American holly	14	14'	85%	56%	X					vines
3385	Catalpa speciosa	Northern catalpa	27	27'	60%	53%	X					Multi-stem (6); vines
3386	Acer platanoides	Norway maple	6	8'	30%	53%	X					
3395	Acer platanoides	Norway maple	7	8'	30%	50%	X					deadwood
3396	Acer platanoides	Norway maple	9	9'	30%	53%	X					deadwood
3403	Pinus nigra	Austrian pine	8	8'	70%	56%	X					
3404	Pinus nigra	Austrian pine	6	8'	70%	56%	X					
3408	Quercus palustris	Pin oak	40	60'	80%	50%	X					vines
3416	Malus spp.	Crabapple	12	12'	70%	47%	X					vines
3420	Juniperus virginiana	Eastern redcedar	37	56'	85%	50%	X					twin; deadwood
3421	Juniperus virginiana	Eastern redcedar	31	47'	85%	44%	X					deadwood
3467	Lagerstroemia indica	Crape Myrtle	10	10'	80%	56%	X					multi-stem (4)
3469	Prunus caroliniana	Carolina laurelcherry	5	8'	0%	50%	X					
3502	Prunus spp.	Ornamental Cherry	2	8'	70%	53%	X					
3503	Lagerstroemia indica	Crape Myrtle	12	12'	80%	56%	X					multi-stem (4)
3504	Lagerstroemia indica	Crape Myrtle	12	12'	80%	56%	X					multi-stem (4)
3505	Lagerstroemia indica	Crape Myrtle	12	12'	80%	56%	X					multi-stem (4)
3506	Lagerstroemia indica	Crape Myrtle	12	12'	80%	56%	X					multi-stem (4)
3507	Lagerstroemia indica	Crape Myrtle	12	12'	80%	56%	X					multi-stem (4)
3518	Juniperus virginiana	Eastern redcedar	3	8'	85%	47%	X					lean
3525	Acer palmatum	Japanese maple	4	8'	80%	50%	X					twin
3540	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3541	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3542	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3543	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3544	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3545	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3546	x Cupressocyparis leylandii	Leyland cypress	6	8'	40%	59%	X					
3549	Magnolia Spp.	Magnolia	5	8'	NONE	56%	X					
3550	Diospyros virginiana	Common persimmon	20	20'	85%	56%	X					
3554	Cornus Spp.	Dogwood	3	8'	NONE	59%	X					
3556	Lagerstroemia indica	Crape Myrtle	6	8'	80%	59%	X					twin
3561	Betula nigra	River birch	26	26'	80%	59%	X					Triple trunk
3562	Lagerstroemia indica	Crape Myrtle	10	10'	80%	53%	X					Multi-Stem
3563	Betula nigra	River birch	22	22'	80%	59%	X					Triple trunk
3564	Lagerstroemia indica	Crape Myrtle	10	10'	80%	56%	X					Multi-Stem
3569	Prunus spp.	Ornamental Cherry	3	8'	70%	59%	X					
3570	Betula nigra	River birch	9	9'	80%	56%	X					
3584	Cornus florida	Flowering dogwood	6	8'	80%	56%	X					

WALTER L. PHILLIPS INCORPORATED
ESTABLISHED 1945
Engineers • Surveyors • Planners
Landscape Architects • Arborists
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SCALE: NONE
DATE: 9/23/2016
DRAWN:
CHECKED:

COMMONWEALTH OF VIRGINIA
KAREN L. S. WHITE
Lic. No.041850
9/23/16
PROFESSIONAL ENGINEER

REVISION APPROVED BY			
NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

TREE INVENTORY

MASON ROW

AT THE INTER SECTION OF WEST BROAD STREET, NORTH WEST STREET & PARK AVENUE
CITY OF FALLS CHURCH, VIRGINIA

SHEET: C-1203

Tree Inventory - West and Broad St. - Falls Church, VA

Tree #	Botanical Name	Common Name	Size DBH (in)	Critical Root Zone (CRZ) Radius (ft)	Species Rating (%)	Condition%	Removal	Activities: Tree Protection Fence/ Super Silt Fence	Root Prune	Remove Vines	Hand Removal/ Selective Removal	Notes
Tree Survey Information Completed by Walter Phillips, Inc - Arborist Ben Schitter- ISA # MA-5385A #07-023 30 July 2013, 18 December 2014												
3585	Acer saccharinum	Silver maple	50	75'	60%	47%	X					signs of decay, twin, deadwood
3590	Acer negundo	Boxelder	13	13'	50%	47%	X					lean
3600	Prunus spp.	Ornamental Cherry	3	8'	70%	56%	X					
3601	Juniperus virginiana	Eastern redcedar	6	8'	85%	47%	X					
3602	Acer platanoides	Norway maple	4	8'	30%	53%	X					lean
3646	dead	Dead	10	0'	0%	0%	X					
3652	Juglans nigra	Black walnut	23	23'	80%	53%	X					
3653	dead	Dead	14	0'	0%	0%	X					
3654	Morus rubra	Red mulberry	9	9'	40%	47%	X					
3655	Morus rubra	Red mulberry	22	22'	40%	47%	X					
3657	Pinus strobus	Eastern white pine	3	8'	75%	56%	X					
3658	Ligustrum amurense	Amur privet	7	8'	0%	50%	X					
3659	Morus rubra	Red mulberry	24	24'	40%	47%	X					Vines
3660	Morus rubra	Red mulberry	6	8'	40%	47%	X					Vines
3661	Ilex opaca	American holly	7	8'	85%	50%	X					Multi-stem
3662	Malus spp.	Crabapple	6	8'	70%	53%	X					deadwood
3663	Chamaecyparis obtusa	Hinoki falsecypress	6	8'	80%	56%	X					deadwood
3664	x Cupressocyparis leylandii	Leyland cypress	10	10'	40%	50%	X					deadwood
3665	Malus spp.	Crabapple	8	8'	70%	53%	X					deadwood
3666	Catalpa speciosa	Northern catalpa	15	15'	60%	50%	X					lean
3668	x Cupressocyparis leylandii	Leyland cypress	11	11'	40%	50%	X					deadwood
3669	x Cupressocyparis leylandii	Leyland cypress	10	10'	40%	50%	X					deadwood
3670	x Cupressocyparis leylandii	Leyland cypress	12	12'	40%	50%	X					deadwood
3672	Juniperus spp.	Juniper	3	8'	0%	44%	X					
3673	Ilex opaca	American holly	18	18'	85%	53%	X					
3678	Cercis canadensis	Eastern redbud	5	8'	85%	56%	X					deadwood
3682	Juglans nigra	Black walnut	16	16'	80%	50%	X					vines
3683	Juglans nigra	Black walnut	18	18'	80%	50%	X					vines
3684	Juglans nigra	Black walnut	13	13'	80%	47%	X					vines
3685	Juglans nigra	Black walnut	19	19'	80%	47%	X					vines
3686	Morus rubra	Red mulberry	18	18'	40%	44%	X					vines
3689	Juglans nigra	Black walnut	25	25'	80%	47%	X					twin; vines
3690	Ilex opaca	American holly	3	8'	85%	50%	X					
3691	Morus rubra	Red mulberry	26	26'	40%	50%	X					
3692	Cercis canadensis	Eastern redbud	3	8'	85%	53%	X					
3693	Cercis canadensis	Eastern redbud	3	8'	85%	53%	X					
3694	Prunus serotina	Black cherry	18	18'	65%	50%	X					
3695	Ilex cornuta	Chinese holly	2	8'	0%	50%	X					
3716	Morus rubra	Red mulberry	22	22'	40%	44%	X					twin; deadwood
3819	Cornus florida	Flowering dogwood	6	8'	80%	56%	X					
3869	Ulmus americana	American elm	34	51'	65%	53%	X					Co-Dominant, Girdled Roots
3870	Ulmus americana	American elm	30	45'	65%	53%	X					Co-Dominant, Girdled Roots
3871	Morus rubra	Red mulberry	8	8'	40%	53%	X					lean
3872	Catalpa speciosa	Northern catalpa	10	10'	60%	59%	X					Girdled roots
3873	Ulmus americana	American elm	26	26'	65%	53%	X					Co-Dominant, Girdled Roots
3874	Ulmus americana	American elm	24	24'	65%	53%	X					Co-Dominant, Girdled Roots
3875	Catalpa speciosa	Northern catalpa	10	10'	60%	59%	X					Girdled roots
3876	Catalpa speciosa	Northern catalpa	13	13'	60%	59%	X					Girdled roots
3887	Quercus rubra	Northern red oak	14	14'	85%	56%	X					Girdled roots, lean
3888	Catalpa speciosa	Northern catalpa	10	10'	60%	59%	X					Girdled roots
3889	Catalpa speciosa	Northern catalpa	10	10'	60%	59%	X					Girdled roots
3890	Catalpa speciosa	Northern catalpa	9	9'	60%	59%	X					Girdled roots
3891	Catalpa speciosa	Northern catalpa	8	8'	60%	59%	X					Girdled roots
3892	Catalpa speciosa	Northern catalpa	9	9'	60%	59%	X					Girdled roots
3954	Acer Rubrum	Red maple	7	8'	80%	56%	X					grown into fence, offsite
3958	Catalpa speciosa	Northern catalpa	4	8'	60%	66%	X					lean, girdled roots, offsite

DBH = Diameter at Breast Height (measured 4.5 feet above ground)

CRZ = Critical Root Zone = 1 foot radius per inch of tree diameter, trees over 30" DBH= 1.5 foot radius per inch of tree diameter

CRZ values for trees with multiple stems were calculated using the diameter of a tree with the basal area equivalent to the sum of the basal areas for all stems.

Condition Ratings provided as percentages based on methods outlined in the 9th edition of the Guide for Plant Appraisal, published by the I.S.A.

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9/23/16
PROFESSIONAL ENGINEER

REVISION APPROVED BY					
NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

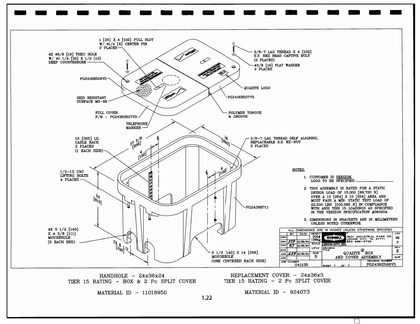
TREE INVENTORY

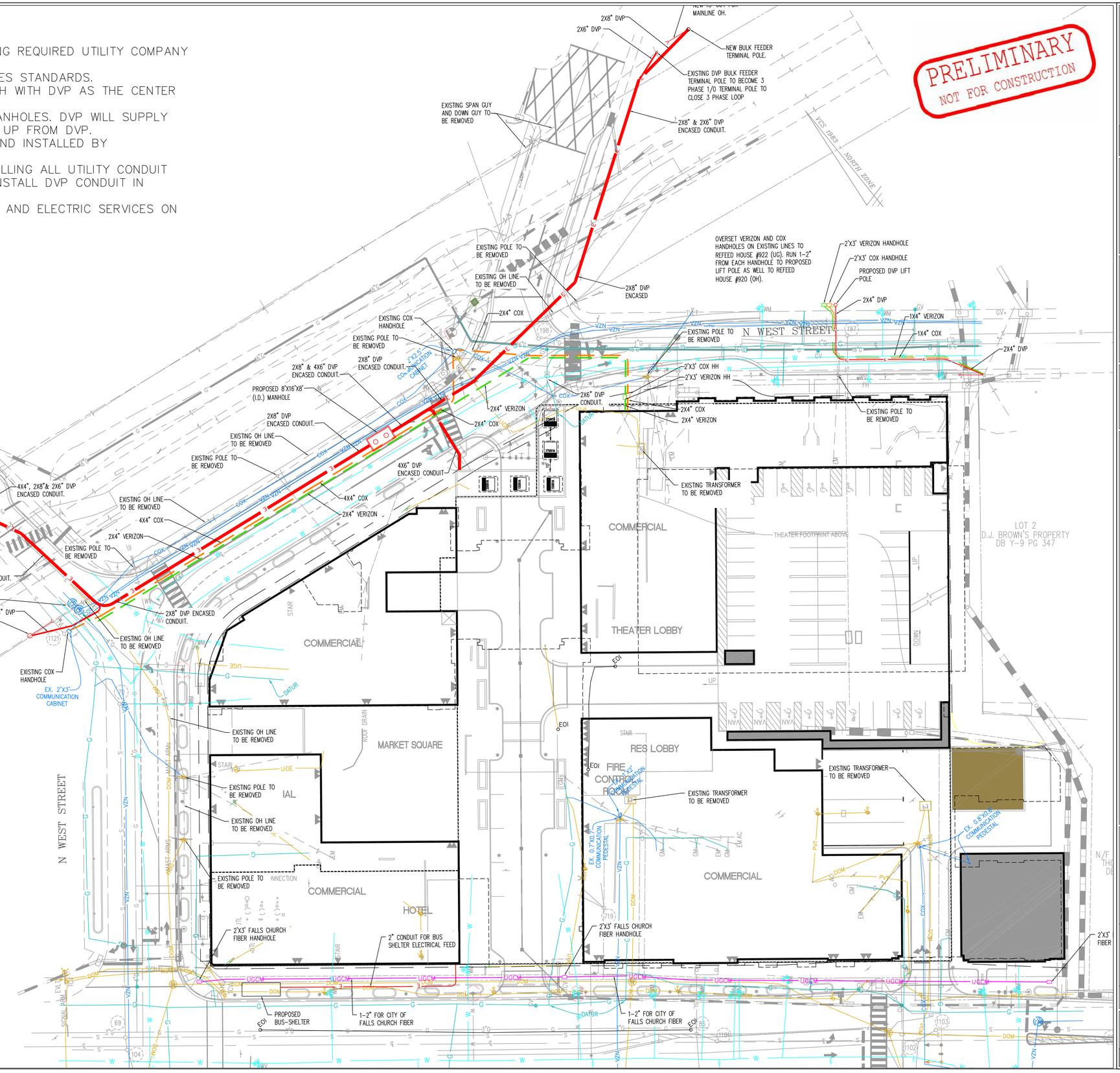
MASON ROW

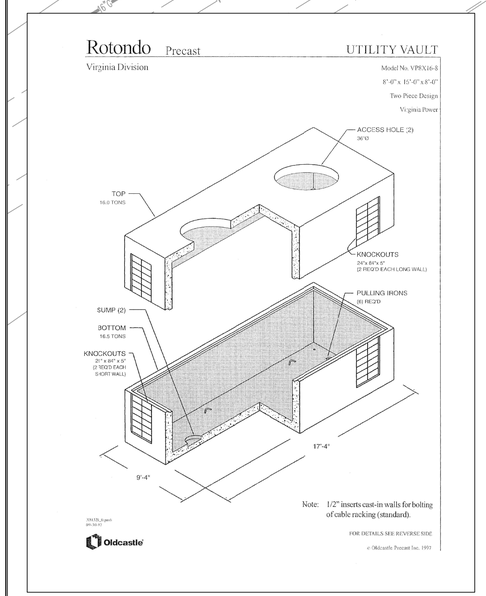
AT THE INTER SECTION OF WEST BROAD STREET, NORTH WEST STREET & PARK AVENUE
CITY OF FALLS CHURCH. VIRGINIA

NOTES:

- CONTRACTOR IS RESPONSIBLE FOR COORDINATING REQUIRED UTILITY COMPANY INSPECTIONS.
- CONTRACTOR TO INSTALL PER UTILITY COMPANIES STANDARDS.
- COX & VERIZON ARE TO BE IN COMMON TRENCH WITH DVP AS THE CENTER LINE.
- CONTRACTOR TO FURNISH AND INSTALL DVP MANHOLES. DVP WILL SUPPLY THE FRAME AND COVER. CONTRACTOR TO PICK UP FROM DVP.
- ALL UTILITY SPLICE BOXES TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
- GENERAL CONTRACTOR RESPONSIBLE FOR INSTALLING ALL UTILITY CONDUIT
- DVP ENCROACHMENT PERMIT IS REQUIRED TO INSTALL DVP CONDUIT IN TRANSMISSION RIGHT OF WAY.
- ALL OVERHEAD AND UNDERGROUND GAS, COMM AND ELECTRIC SERVICES ON SITE TO BE REMOVED AT TIME OF DEMOLITION.







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571-334-8717 www.davisutilityconsulting.com Fax: 703-631-3057

DIG CARE — KEEP VIRGINIA SAFE — Call Miss Utility 811

DATE: 9/23/16

DRAWN BY: Calvin Oesterblad

P.M.:Joe Harpine

PHONE: (703) 407-4016

PLAN DATE

OVERALL DRY UTILITY PLAN

MASON ROW

FALLS CHURCH, VIRGINIA

#	DATE	REVISION

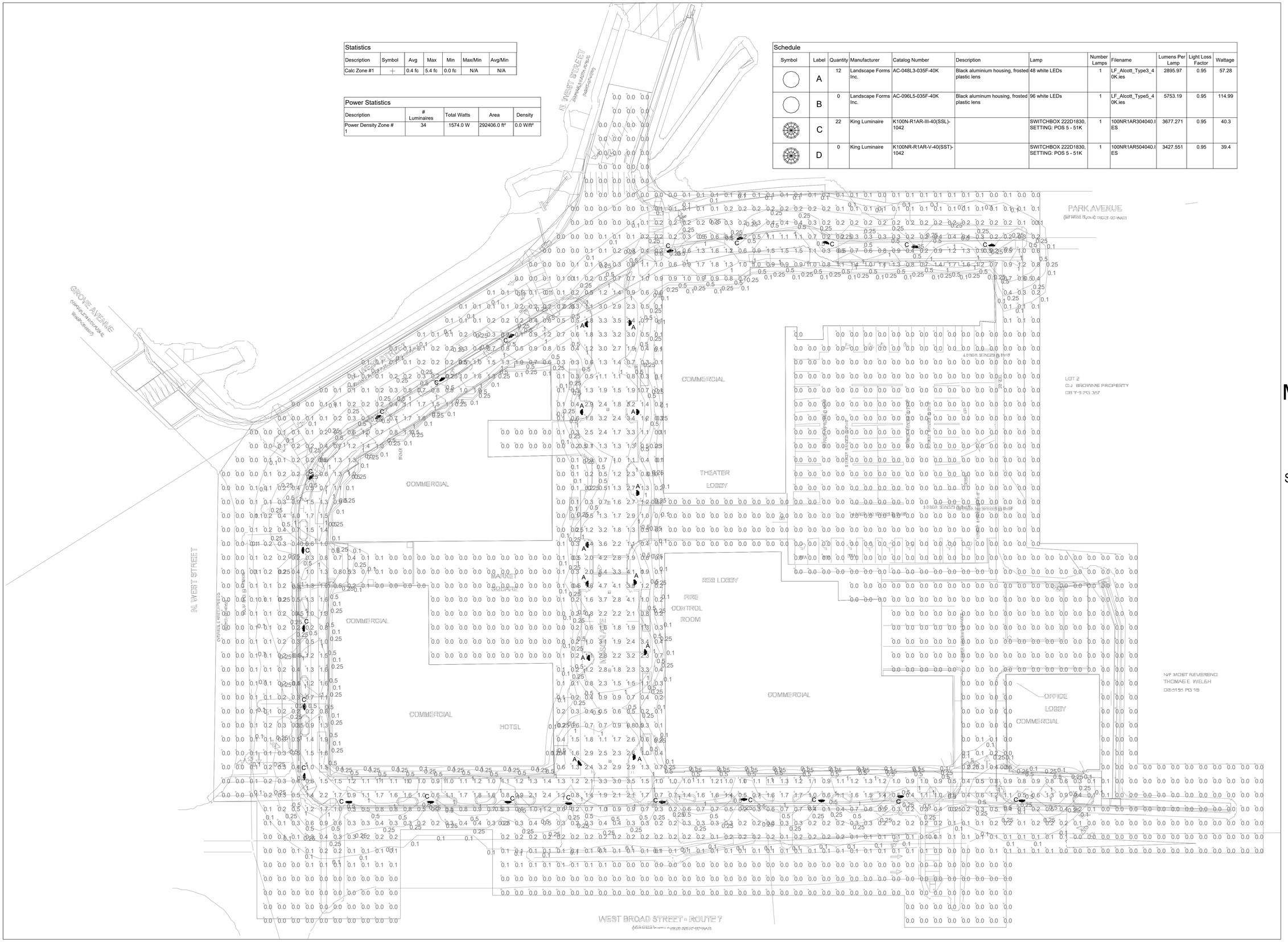
SHEET C-1401

SCALE: 1:30

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.4 fc	5.4 fc	0.0 fc	N/A	N/A

Power Statistics				
Description	# Luminaires	Total Watts	Area	Density
Power Density Zone # 1	34	1574.0 W	292406.0 ft²	0.0 W/ft²

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	12	Landscape Forms Inc.	AC-048L3-035F-40K	Black aluminium housing, frosted plastic lens	48 white LEDs	1	LF_Alcott_Type3_40K.ies	2895.97	0.95	57.28
	B	0	Landscape Forms Inc.	AC-096L5-035F-40K	Black aluminum housing, frosted plastic lens	96 white LEDs	1	LF_Alcott_Type5_40K.ies	5753.19	0.95	114.99
	C	22	King Luminaire	K100N-R1AR-III-40(SSL)-1042		SWITCHBOX 222D1830, SETTING: POS 5 - 51K	1	100NR1AR304040.IES	3677.271	0.95	40.3
	D	0	King Luminaire	K100NR-R1AR-V-40(SST)-1042		SWITCHBOX 222D1830, SETTING: POS 5 - 51K	1	100NR1AR504040.IES	3427.551	0.95	39.4



WDG ARCHITECTURE

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RWS

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COMMONWEALTH OF VIRGINIA
MICHAEL DAVID TRICKETT
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9.22.16

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SITE LIGHTING CALCULATIONS

Scale: 1" - 30'-0"

E1