

CEDAR COMMONS TREE AND SHRUB ASSESSMENT

For

COSMO MARFIONE

MANAGING PARTNER, THE BDC GROUP

For Service At

**41-45 Cedar Street
Dobbs Ferry, NY**

Prepared by

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CONTENTS

| | |
|---|---|
| Why did SavATree perform the tree assessment at 41-45 Cedar Street? | 1 |
| How did SavATree perform the assessment? | 1 |
| What did Savatree find? | 1 |
| Site description | 2 |
| Church property plants | 2 |
| What does Savatree recommend? | 4 |
| Appendix A: Site Map | 5 |
| Appendix B: Site plan | 6 |
| Appendix C: Plant inventory data | 7 |

WHY DID SAVATREE PERFORM THE TREE ASSESSMENT AT 41-45 CEDAR STREET?

Cedar Commons, LLC. is planning a construction project at the subject property that will involve the installation of a retaining wall along the western property line. The neighboring property, Zion Episcopal Church, has expressed concern about the impact of trees and shrubs on their property that is growing along the property line and may be impacted by excavation.

The SavATree Consulting Group was retained by Cedar Commons, LLC to perform an inventory and assessment of plant material growing in or near the limits of excavation in order to determine their species and current conditions. SavATree performed the assessment on April 22, 2020.

HOW DID SAVATREE PERFORM THE ASSESSMENT?

SavATree deployed a Registered Consulting (#534), International Society of Arboriculture (ISA) Certified (#NJ-1065A) Arborist who is also ISA Tree Risk Assessment Qualified to perform the inventory and assessment. I met with Cosmo Marfione at the site in order to confirm scope and gain an understanding of the work that was to occur. The property border line had been staked prior to my assessment. It showed that the property line is approximately five feet west of the existing chain link fence.

I used ArcGIS Online on an iPad to collect the data. I started working from the northern edge of the property (closest to Cedar St) and assessed plants to the west of the fence line first. I first worked north along the fence (plant numbers 2-22), then inventoried the trees within the fence line on my way back south (plant numbers 23-38). The following data points were collected for each plant: species, diameter at breast height (dbh), condition, whether the tree can and should be preserved during construction, management recommendations, and the property the plant grows on. A photo was taken of each tree.

The data was exported to Excel for QA/QC.

WHAT DID SAVATREE FIND?

SavATree inventoried and assessed 37 plants near the western property border. A map of the inventory can be found here: <https://arcg.is/00fLLS>

Plants are color-coded based upon whether they are recommended for removal, where red = remove and green = preserve. The map can be searched by plant ID number by using the text box at the top of the page. Clicking on an icon will bring up a table with the collected information for that tree/shrub and a link to its photo. A screen shot of the map is included in Appendix A at the end of this report. The portion of the site plan that includes the study area is included in Appendix B. Appendix C contains all of the data collected during the assessment.

Site description

Of the 37 plants that were assessed, 11 are shrubs and 26 are trees. The following shrub species were in the inventory: Manhattan euonymus, rose, privet (five plants), forsythia (two plants), viburnum, and honeysuckle. The 26 trees consist of one each of: arborvitae, blue spruce, black locust, holly, snowbell, and sugar maple; 2 each of mulberry, Canadian hemlock, and Japanese maple; and fourteen Norway maple. Black locust, mulberry, and Norway maple are all invasive species.

Sixteen of the 37 plants are growing east of the existing chain link fence. Eight of the plants are growing between the chain link fence and the staked property line. Three appeared to be growing directly on the staked property line (#3, 11, and 15). Ten plants included were growing west of the staked property line on church property. These are plant numbers 6, 7, 17, 18, 19, 20, 21, 22, 23, and 24.

Church property plants

Observations for the 24 trees that are on Cedars Commons property can be found in Appendix B of this report and the online map. Below are my observations for the 13 plants on Church property and on the property line.

ID #3: This plant is a rose bush growing on the staked property line adjacent to the driveway entrance. It been sheared to provide clearance from the driveway. Aside from being sheared for clearance, it does not appear to have been maintained as it grows into the other nearby shrubs. Excavation is planned to occur at the property line; therefore this plant cannot be preserved during construction. It is good health and small enough that it can be transplanted to another location on church property prior to construction if the church wants to retain it.

ID #6 is a privet shrub growing just west of the staked property line adjacent to the driveway edge. As with the prior plant, it has been pruned to provide clearance from the driveway. It is unclear if this shrub was planted or a volunteer as privet is known to escape cultivation. The shrub may be able to survive construction as it is fairly small and in fair health. Excavation will remove approximately 40% of its root zone. Transplanting the shrub prior to construction will give it the greatest likelihood of survival.

ID#7 is a privet shrub growing just west of the staked property line that has also been pruned for driveway clearance. The shrub may be able to survive construction as it is fairly small and in fair health. Excavation will remove approximately 40% of its root zone. Transplanting the shrub prior to construction gives it the greatest likelihood of survival.

ID#11 is honeysuckle shrub growing on the staked property line. This is an invasive species. It can be transplanted if the church wants to keep it, but cannot be preserved under the current plan.

ID#15 is a small privet that grows on the staked property line. It would be easy to transplant prior to construction if the church wants it retained.

ID #17 is viburnum in fair condition. Small deadwood and minor dieback are present. It grows just west of the property line. Excavation would remove approximately 40% of the its root zone. Transplanting prior to construction will give the greatest likelihood of survival.

ID #18 is a 2 inch in diameter holly. It was likely planted and is growing approximately 3 feet from the staked line. Excavation impacts to its root zone will be minimal.

ID #19 is a clump of three privet plants. It is unclear if these were planted but is likely that at least two are root spouts/volunteer. These are fair enough from the proposed limit of excavation that they should survive.

ID #20 is a small forsythia growing just west of staked line. Forsythia are hardy plants and I do not anticipate a significant impact to its health by the proposed construction.

ID #21 is a 32-inch sugar maple tree. It grows approximately three feet from the staked line. The top of tree has been previously broken at approximately 35-40 feet. There is large deadwood in its canopy and large cavity with significant decay from 12-16 feet along its trunk. It does not appear as though the tree has been maintained. The trunk and canopy lean slightly toward the driveway. This tree currently represents an elevated risk to person and property on church property due the level of decay and large deadwood. This tree should be removed prior to construction regardless of whether the project progresses.



Photos taken 4/22/2020 showing ID #21. Note the broken top and large cavity in its trunk (yellow arrows).

ID #22 is a five-inch dbh Norway maple growing just west of the staked property line. It is a volunteer tree and invasive species. It should be removed prior to construction.

ID #23 is 25-inch standing dead Norway maple. It appears to have been dead for awhile as the top and large scaffold limbs have failed from the tree. It should be removed.

ID #24 is a 9-inch mulberry tree growing two feet behind (north) of the last property line stake. The tree is covered in vines and has not been maintained. This is an invasive species.

WHAT DOES SAVATREE RECOMMEND?

Based upon my assessment of the current condition and likely impacts of construction on the trees and shrubs on church property, there are only six that can be preserved.

ID #6, 7, and 17 should be transplanted prior to construction in order to provide the greatest likelihood of survival.

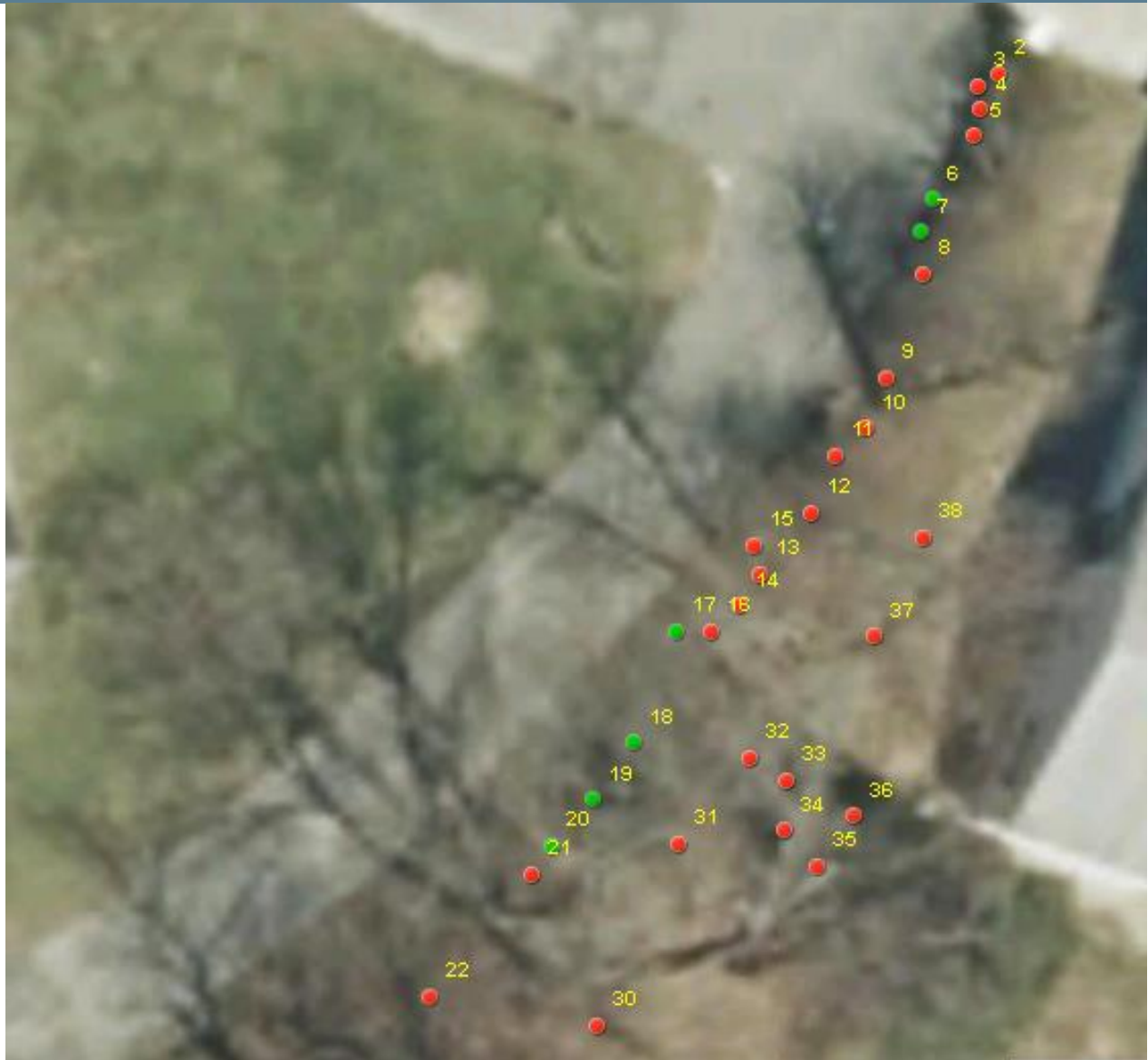
ID # 18, 19, and 20 can be preserved during construction. I recommend that they be monitored for a three-year period post-construction and be replaced if any die.

All of the shrubs along the property line, including the six above, are small enough that they can be transplanted to another location on the site if the church wants to retain them.

The large sugar maple (#21) is the only tree species on church property that is not invasive. It has significant structural concerns and is in poor condition. If the tree is not removed prior to construction, excavation will remove a large portion of its critical root zone and increase its likelihood of failure.

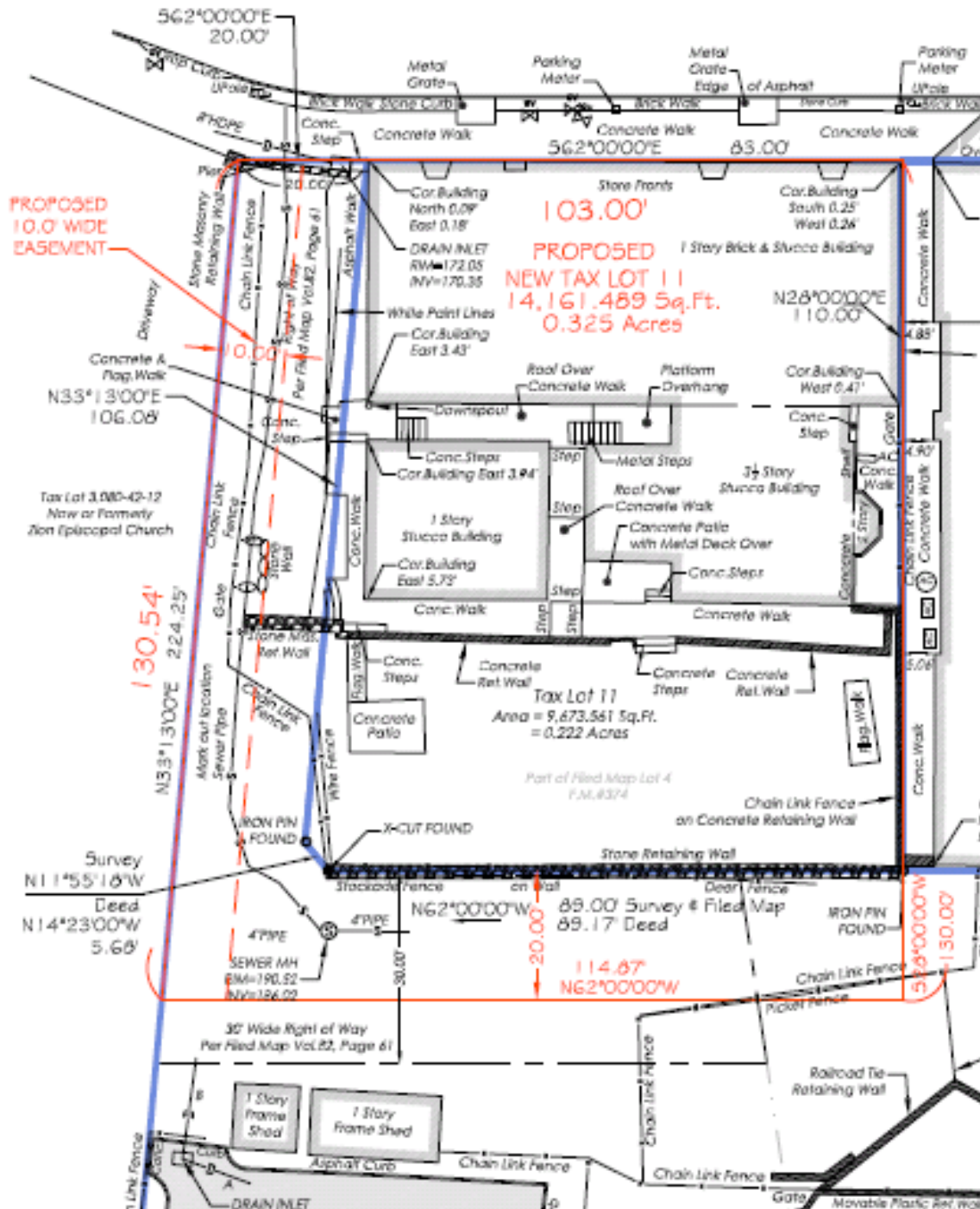
All of the plants on Cedar Commons property will need to be removed for the project.

APPENDIX A: SITE MAP



Screen shot from ArcGIS Online of the tree inventory map. Red icons are tree/shrubs that will need to be removed; green icons are shrubs that can be preserved during construction.

APPENDIX B: SITE PLAN



Close up section of the site plan showing the study area along the left side. The property line is marked to the west (left) of existing chain link fence.

APPENDIX C: PLANT INVENTORY DATA

| ID | Common Name | DBH | Cond. | Preserve | Defects | Recommendations | Property | Notes |
|----|--------------------|-----|-------|----------|---|----------------------------------|------------------|--|
| 2 | Manhattan euonymus | 3 | Good | No | None | Remove | Cedar Commons | Grows against fence line within 5 foot property buffer |
| 3 | Rose | 3 | Good | No | None | Remove | On property line | Grows on property line. Has been sheered for road clearance. Transplant prior to construction an option. |
| 4 | Mulberry | 6 | Fair | No | Invasive species. Codominant at base | Remove | Cedar Commons | Grows between fence and staked property line |
| 5 | Forsythia | 2 | Fair | No | None | Remove | Cedar Commons | Grows uncontrolled along fence line |
| 6 | Privet | 3 | Good | Yes | Is pruned to maintained clearance from driveway | Transplant prior to construction | Church | Grows against staked property line. If not transplanted: Monitor for three years post construction and replace if any die. |
| 7 | Privet | 2 | Fair | Yes | Is pruned to maintained clearance from driveway. Deadwood. Suppressed | Transplant prior to construction | Church | Grows against staked property line. If not transplanted: Monitor for three years post construction and replace if any die. |
| 8 | Norway maple | 2 | Fair | No | Invasive species. Vines along trunk and canopy. Not maintained. | Remove | Cedar Commons | Between fence and property stakes |
| 9 | Norway maple | 15 | Poor | No | Invasive species. Top 15 feet dead. Prior broken top. Dead and missing bark | Remove | Cedar Commons | Between fence and property stakes |
| 10 | Norway maple | 2 | Fair | No | Invasive species. Volunteer trees. Suppressed | Remove | Cedar Commons | Between fence and property stakes. Two trees next to each other |
| 11 | Honeysuckle | 3 | Fair | No | Invasive species | Remove | On property line | Grows on staked property line |
| 12 | Snowbell | 5 | Fair | No | Unmaintained. Vines along trunk into canopy | Remove | Cedar Commons | Between fence and staked property line |
| 13 | Norway maple | 13 | Fair | No | Invasive species. Calloused wound along trunk | Remove | Cedar Commons | Between fence and staked property line |

| ID | Common Name | DBH | Cond. | Preserve | Defects | Recommendations | Property | Notes |
|----|--------------|-----|-------|----------|--|---|------------------|---|
| 14 | Norway maple | 14 | Poor | No | Invasive species. Cavity with significant decay at 3 to 6 feet. Leans over driveway. Calloused wound along upper trunk | Remove | Cedar Commons | Between fence and staked property line |
| 15 | Privet | 1 | Fair | No | None | Remove and replace or transplant to another location | On property line | Grows on staked property line |
| 16 | Norway maple | 13 | Dead | No | Standing dead tree | Remove | Cedar Commons | Between fence and staked property line |
| 17 | Viburnum | 2 | Fair | Yes | Deadwood. Dieback | Transplant prior to construction | Church | Grows just beyond property line. If not transplanted: Monitor for three years post construction and replace if any die. |
| 18 | Holly | 2 | Good | Yes | None | Minimal impact from excavation. Monitor for three year period post construction and replace if dies | Church | Approx 3 feet from staked property line. Transplant prior to construction an option |
| 19 | Privet | 2 | Fair | Yes | None | Monitor for three years post construction and replace if any die. | Church | Clump of three plants. |
| 20 | Forsythia | 2 | Fair | Yes | None | Monitor for three years post construction and replace if any die. | Church | Just beyond staked property line. |
| 21 | Sugar maple | 32 | Poor | No | Prior broken top. Large deadwood. Cavity with significant decay from 12 to 16 feet. Tree does not appear to have been maintained | Remove | Church | Approximately 3 feet from staked property line. Significant impacts to root zone from proposed excavation. |
| 22 | Norway maple | 5 | Fair | No | Invasive species. Suppressed. Volunteer tree | Remove | Church | Just beyond staked property line |
| 23 | Norway maple | 25 | Dead | No | Standing dead tree | Remove | Church | Approximately 3 feet from staked property line |
| 24 | Mulberry | 9 | Fair | No | Invasive species. Broken top. Vines cover canopy. Not maintained | Remove | Church | Approximately 2 feet behind last property line stake |

| ID | Common Name | DBH | Cond. | Preserve | Defects | Recommendations | Property | Notes |
|----|------------------|-----|-------|----------|---|-----------------|---------------|---|
| 25 | Norway maple | 6 | Fair | No | Invasive species. Volunteer tree | Remove | Cedar Commons | In line with extended fence line. Photo shows group of next 5 trees |
| 26 | Norway maple | 9 | Fair | No | Invasive species. Volunteer tree | Remove | Cedar Commons | In line with extended fence line |
| 27 | Norway maple | 10 | Fair | No | Invasive species. Volunteer tree | Remove | Cedar Commons | In line with extended fence line |
| 28 | Norway maple | 12 | Fair | No | Invasive species. Volunteer tree | Remove | Cedar Commons | In line with extended fence line |
| 29 | Norway maple | 15 | Fair | No | Invasive species. Volunteer tree | Remove | Cedar Commons | Between extended fence line and staked property line |
| 30 | Black locust | 9 | Poor | No | Suppressed. Covered in vines. Invasive species | Remove | Cedar Commons | In line with extended fence line |
| 31 | Norway maple | 10 | Fair | No | Invasive species. Volunteer tree. Vines along trunk | Remove | Cedar Commons | In line with extended fence line |
| 32 | Privet | 2 | Fair | No | None | Remove | Cedar Commons | Inside fence line |
| 33 | Blue spruce | 4 | Fair | No | Suppressed | Remove | Cedar Commons | Inside fence |
| 34 | Canadian hemlock | 5 | Poor | No | Suppressed. Dieback | Remove | Cedar Commons | Inside fence |
| 35 | Canadian hemlock | 12 | Fair | No | Shaded on one side. Deadwood | Remove | Cedar Commons | Inside fence |
| 36 | Arborvitae | 9 | Fair | No | Shaded on two sides | Remove | Cedar Commons | Inside fence |
| 37 | Japanese maple | 5 | Fair | No | None | Remove | Cedar Commons | Inside fence |
| 38 | Japanese maple | 4 | Fair | No | None | Remove | Cedar Commons | Inside fence |