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|---------------------|----------------|------------------|--------------|----------|
| F.A.U. RTE.         | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO |
| 1545                | 00-00115-00-BR | DUPAGE           | 97           | 86       |
| STA. 1+31.77        |                | TO STA. 5+50.00  |              |          |
| FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |          |

CONTRACT 83961

**TREE SHRUB AND EVERGREEN PRESERVATION REQUIREMENTS**

- 1) TREE SURVEY SHALL SHOW LAYOUT OF ALL EXISTING AND PROPOSED TRANSMISSION STRUCTURES OR UNDER GROUND CONDUIT AND MANHOLE WORK, FOUNDATION WORK AND SET UP AREAS
- 2) LOCATE ALL TREES WITHIN THE WORK AREA FOR EACH STRUCTURE SET-UP, FOUNDATION, SWITCH GEAR, CONDUIT AND MANHOLE TRENCH, HANDHOLE, TRANSFORMER VAULT AND ALL EXCAVATIONS PROJECTS BY THE CONTRACTOR, SHOW DISPOSITION OF EACH TREE AND SHRUB.

THIS CONDITION MAY BE WAIVED BY THE CITY IN CASES WHERE THE COST OF PREPARING A TREE SURVEY IS NOT APPROPRIATE GIVEN THE COST OF IMPROVEMENT PROPOSED MAY WAIVE THIS CONDITION. IN SUCH CASES, AN INDIVIDUAL TREE REMOVAL PERMIT MAY BE REQUESTED IN WRITING TO THE CITY. AN APPROVED TREE REMOVAL PERMIT MUST BE OBTAINED PRIOR TO PERFORMING ANY WORK.

THE CITY WILL REVIEW THE SURVEY AND MAY RECOMMEND APPROVAL OR DENIAL FOR THE REQUESTED REMOVALS. AN ARBORIST REPORT IS REQUIRED FOR TREES BEFORE RECOMMENDATION ARE MADE. THE CONTRACTOR'S CONSULTING ARBORIST AT THE EXPENSE OF THE CONTRACTOR WILL PREPARE ALL ARBORIST ANALYSIS.

**ARBORIST'S ANALYSIS REPORT STANDARDS:**

AN ARBORIST ANALYSIS REPORT IS REQUIRED TO MAKE A MORE DETAILED ASSESSMENT OF AN INDIVIDUAL TREE'S SUITABILITY FOR PRESERVATION. THE REPORT SHALL BE PREPARED BY AN ARBORIST CERTIFIED BY THE ISA (INTERNATIONAL SOCIETY OF ARBORICULTURE) AND APPROVED BY THE CITY.

THE ARBORIST REPORT WILL INCLUDE, AT A MINIMUM, THE FOLLOWING FACTORS IN THE EVALUATION OF SUITABILITY FOR PRESERVATION:

**TREE HEALTH:** HEALTHY, VIGOROUS TREES ARE BETTER ABLE TO TOLERATE IMPACTS SUCH AS ROOT INJURY, DEMOLITION OF EXISTING STRUCTURES, CHANGES IN SOIL GRADE AND MOISTURE, AND SOIL COMPACTION, THAN ARE NON-VIGOROUS TREES.

**STRUCTURAL INTEGRITY:** TREES WITH SIGNIFICANT AMOUNTS OF WOOD DECAY AND OTHER STRUCTURAL DEFECTS THAT CANNOT BE CORRECTED ARE LIKELY TO FAIL. SUCH TREES WILL NOT BE PRESERVED IN AREAS WHERE DAMAGE TO PEOPLE OR PROPERTY IS LIKELY TO OCCUR.

**SPECIES RESPONSE:** THERE IS A WIDE VARIATION IN THE RESPONSE OF INDIVIDUAL SPECIES TO CONSTRUCTION IMPACTS AND CHANGES IN THE ENVIRONMENT.

**TREE AGE AND LONGEVITY:** OLD TREES, WHILE HAVING SIGNIFICANT EMOTIONAL AND AESTHETIC APPEAL, SOMETIMES HAVE LIMITED PHYSIOLOGICAL CAPACITY TO ADJUST TO AN ALTERED ENVIRONMENT. YOUNG TREES ARE BETTER ABLE TO GENERATE NEW TISSUE AND RESPOND TO CHANGE. OLDER TREES MAY REQUIRE MODIFICATIONS TO THE DEVELOPMENT PROPOSAL, TO ACHIEVE PRESERVATION.

**SHRUBS AND EVERGREENS:** ALL SHRUBS SHALL BE IDENTIFIED, GRADED AND REPLACED LIKE OR BETTER-CONDITIONED SPECIES.

EACH TREE SHALL BE GIVEN A RATING REGARDING SUITABILITY FOR PRESERVATION BASED UPON ITS AGE, HEALTH, STRUCTURAL CONDITION AND ABILITY TO SAFELY COEXIST WITH THE DEVELOPMENT ENVIRONMENT.

**TREE SHRUB AND EVERGREEN PRESERVATION REQUIREMENTS**

**CONTRACTOR/ARBORIST'S STANDARD TREE PRESERVATION (SURVEY):**

PLANS MUST SHOW THE REMOVAL, RELOCATION, OR PRESERVATION OF TREES (E.G., DEMOLITION PLANS, GRADING PLANS, ETC.) BY INCLUDING THE FOLLOWING:

1. PLANS SHALL SHOW ALL EXISTING TREES, SHRUBS AND EVERGREENS REGARDLESS OF DISPOSITION, WITH ACCURATE TRUNK LOCATION, TREE CANOPY, SPECIES AND CALIPER SIZE. GROVES OF EXISTING TREES, SHRUBS AND EVERGREENS OF THE SAME SPECIES TO BE PRESERVED MAY BE SHOWN WITH A COMBINED CANOPY LINE AND NO TRUNK LOCATIONS. EACH INDIVIDUAL TREE, SHRUB AND EVERGREEN, HOWEVER, MUST BE LISTED BY SPECIES AND DBH SIZE.
2. ALL SPECIES MUST BE IDENTIFIED.
3. FENCING AT TREES TO BE PRESERVED MUST BE SHOWN ON THE PLAN.
4. ALL TREES, SHRUBS AND EVERGREENS TO BE REMOVED SHALL BE CLEARLY IDENTIFIED WITH AN "X" AND CALLED OUT FOR REMOVAL. PLAN IDENTIFICATION MUST INCLUDE SPECIES AND CALIPER SIZE.
5. CALL OUT ON THE PLAN EACH TREE, SHRUB AND EVERGREEN TO BE PRESERVED, BY SPECIES AND CALIPER SIZE.
6. CALL OUT ON THE PLAN EACH TREE, SHRUB AND EVERGREEN TO BE RELOCATED, BY SPECIES AND CALIPER SIZE. THE PLAN SHALL CLEARLY SHOW EXISTING LOCATION OF EACH TREE, SHRUB AND EVERGREEN AND THE FUTURE LOCATION OF THE SAME TREE. TREE, SHRUB AND EVERGREEN RELOCATION NOTES AND DIRECTIONS SHALL BE DEVELOPED BY A CERTIFIED ARBORIST AND INCLUDED ON THE PLAN WHERE THE TREE, SHRUB AND EVERGREEN RELOCATION IS SHOWN. RELOCATION NOTES SHALL INCLUDE THE NAME AND PHONE NUMBER OF THE CERTIFIED ARBORIST IN CHARGE OF THE TREE LOCATION AND SHALL STATE THAT THE CONTRACTOR IS REQUIRED TO HAVE THE CERTIFIED ARBORIST MONITOR ALL WORK ASSOCIATED WITH THE TREE, SHRUB AND EVERGREEN RELOCATION.
7. ARBORIST TO COORDINATE LOCATION OF EXISTING SHRUBS, TREES AND EVERGREENS WITH STRUCTURE ERECTION, STRUCTURE FOUNDATION, WIRE SET-UP, CONDUIT AND MANHOLE EXCAVATIONS AND TRANSFORMER VAULT AND HANDHOLE INSTALLATIONS BY SHOWING AREA REQUIRED FOR INSTALLATION AND HOW THE TREES ARE TO BE CONSIDERED.

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|----------------------------------------|------------------------------------------------------------|---------------------------------|
| NAPERVILLE PUBLIC UTILITIES DEPARTMENT | <b>TREE, SHRUB AND EVERGREEN PRESERVATION REQUIREMENTS</b> | DATE 05-01-05                   |
| ELECTRIC STANDARDS                     |                                                            | Page 5 of 5<br><b>58199-105</b> |

**TREE SHRUB AND EVERGREEN PRESERVATION REQUIREMENTS**

**CONTRACTOR/ARBORIST REQUIREMENTS FOR STANDARD TREE PRESERVATION:**

THE FOLLOWING ARE MINIMUM REQUIREMENT FOR PROJECTS THAT HAVE EXISTING TREES THAT WILL BE PRESERVED OR RELOCATED AS DETERMINED BY THE CONTRACTOR'S ARBORIST. THE CITY RECOGNIZES THAT TREE PRESERVATION MEASURES THAT TAKE INTO ACCOUNT THE UNIQUE REQUIREMENTS OF THE TREE SPECIES, AGE, CONDITION, AND SITE CONDITIONS ACHIEVE THE BEST RESULTS. PROJECTS WHERE PRESERVATION OF EXISTING TREES IS REQUIRED APPROVAL WILL NOT BE GIVEN FOR INSTALLATION, UNTIL WORK PLANS, PLANTING PLANS INCLUDE THE FOLLOWING ARE COMPLETED IN THE FIELD.

**TREE PRESERVATION:**

1. TREE PRESERVATION REQUIRED BEFORE DEMOLITION OR CONSTRUCTION BEGINS
2. TREES CALLED OUT FOR PRESERVATION SHALL BE FENCED AT THE DRIP LINE. FENCING MAY OCCUR AT THE COMBINED DRIP LINES OF GROVES OF TREES. PLACE 3" BARK MULCH BENEATH DRIP LINES OF TREES TO BE PRESERVED
3. FENCING SHALL BE 6 FEET TALL SNOW FENCING WITH STEEL POSTS EMBEDDED IN THE GROUND.
4. NO GRADING SHALL OCCUR WITHIN THE DRIP LINES/FENCED AREA OF EXISTING TREES
5. NO CONSTRUCTION MATERIALS OR CONSTRUCTION VEHICLES MAY BE STORED WITHIN THE DRIP LINES/FENCING AREA OF EXISTING TREES.
6. CONSTRUCTION VEHICLES OR MACHINERY MAY NOT PASS BETWEEN TWO OR MORE EXISTING TREES IDENTIFIED FOR PRESERVATION IF THEIR CANOPIES ARE WITHIN 10 FEET OF TOUCHING. ADDITIONAL FENCING MAY BE REQUIRED BY THE CITY TO ENFORCE THIS.
7. TREE PRESERVATION MEASURES MUST BE IN PLACE BEFORE CONSTRUCTION, DEMOLITION OR GRADING ACTIVITIES COMMENCE. CITY WILL STOP CONSTRUCTION IF TREE PRESERVATION MEASURES ARE NOT IN PLACE AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
8. THE CONTRACTOR IS REQUIRED TO HAVE AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) ON SITE IF SITE CONSTRUCTION EFFORTS REQUIRE PLANTING OR REMOVAL OF EXISTING ROOTS OR BRANCH PRUNING. A CERTIFIED ARBORIST, PROVIDED BY THE CONTRACTOR AND APPROVED BY THE CITY SHALL BE ON SITE AND MONITOR ALL ROOT PRUNING AND BRANCH PRUNING OF EXISTING TREES AND INSTALLATION OF ALL LANDSCAPING MATERIALS.
9. UNAUTHORIZED TREES, SHRUBS AND EVERGREENS REMOVED ARE SUBJECT TO REPLACEMENT EQUAL TO THE APPRAISED VALUE OF THE TREE LOST.
10. THE CONTRACTOR IS REQUIRED TO WATER, FERTILIZE AND ATTEND TO OTHER MAINTENANCE NEEDS OF EXISTING TREES AS NEEDED TO MAINTAIN HEALTHY GROWTH THROUGHOUT THE CONSTRUCTION PERIOD. SIX FEET DIAMETER, MINIMUM, BY SIX-INCH TALL EARTH BERMS SHALL BE CONSTRUCTED AT THE BASE OF EACH TREE TO FUNCTION AS TEMPORARY WATERING BASINS DURING THE CONSTRUCTION PERIOD. TREES SHALL BE WATERED ACCORDING TO CITY SPECIFICATION AND WATER CONDITIONS.
11. IF TREES, SHRUBS AND EVERGREENS ARE BEING RELOCATED: RELOCATION OF EXISTING TREES SHALL OCCUR UNDER THE OBSERVATION AND DIRECTION OF A CERTIFIED ARBORIST APPROVED BY THE CITY
12. THE ARBORIST SHALL INCLUDE ALL TREES PRESERVATION TO INSTALL STRUCTURES, STRUCTURE FOUNDATIONS, SET UP AREAS AND CONDUIT AND MANHOLE EXCAVATION WORK
13. WOOD BOARDS ARE REQUIRED TO BE INSTALLED COMPLETELY AROUND THE PERIMETER OF THE TREE WITH 2" THICK LUMBER TO HEIGHT OF 10' AND SECURED. ALL THE TREES WITHIN THE RIGHT-OF-WAY SHALL BE PROTECTED. ALL WORK TO MAINTAIN TREE PROTECTION IS THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL ABIDE BY ALL DIRECTION FROM THE ARBORIST WHEN INSTALLING THE TREE PROTECTION.

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| DATE: 05-01-05                  | <b>TREE, SHRUB AND EVERGREEN PRESERVATION REQUIREMENT</b> | NAPERVILLE PUBLIC UTILITIES DEPARTMENT |
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| NAPERVILLE PUBLIC UTILITIES DEPARTMENT | <b>TREE, SHRUB AND EVERGREEN PRESERVATION REQUIREMENTS</b> | DATE 05-01-05                   |
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|--------------------------------------------------------------|-----------------------------------------|----------------|----------|--------------------------------|----------------|
| CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC |                                         |                |          |                                |                |
| CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION                |                                         |                |          |                                |                |
| PROJECT TITLE                                                | BAILEY RD. BRIDGE DUCTBANK INSTALLATION |                | MAP NO.  | CAD FILE JWB 0036199001C20.DWG |                |
| PROJECT DESCRIPTION                                          | COORDINATED WITH BRIDGE IMPROVEMENT     |                | DRAWN BY | PROJECT NO. EU12-06-04         |                |
| DATE                                                         | 05-15-07                                | WORK ORDER NO. | 58199    | ISSUED BY                      | COMPLETED BY   |
| ISSUED                                                       | RPS                                     | APPROVED       | NTS      | SCALE                          | SHEET 20 OF 23 |