

Boccatola, 1962

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WESTCHESTER ETHICAL SOCIETY

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"A THESIS PRESENTED FOR THE DEGREE
OF BACHELOR OF LANDSCAPE ARCHITECTURE,
UNIVERSITY OF GEORGIA
ATHENS, GEORGIA."

DECEMBER 1962

H.B. Owens Resource Center
School of Environmental Design
Caldwell Hall
University of Georgia

WESTCHESTER ETHICAL SOCIETY

New York

35

1963

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By

Everett A. Boccardo - Carmen R. Govello

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LIST OF PLATES

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The Westchester Ethical Society recently purchased a new site on Saxon Wood Road in Boardman, New York, and will move from its present location in New Rochelle, N. Y. The site includes 7.5 acres, part of which is lowland.

Master Plan ----- 1

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PROBLEM STATEMENT

The Westchester Ethical Society has recently purchased a new site on Saxon Wood Road in Scarsdale, New York, and will move from its present location in New Rochelle, N. Y. The site includes 7.5 acres, part of which is lowland.

This organization plans to build a new Meeting House on this newly acquired property. It will consist of two large classrooms with adjustable partitions, an auditorium, a conference room, two offices and toilet facilities. This new building has been preliminarily sited by architect Harry Wenning, AIA.

There is an existing structure on the site, an old field stone farmhouse. The long range plan calls for this house to be renovated and used for offices or for any other purpose deemed necessary for the proper functioning of the Society.

The landscape development shall include:

1. Location of driveway, walks and parking lot. The parking lot shall have stalls.
2. Relocation of the amphitheater in order to better integrate it with the existing topography and orient it with its surroundings.
3. Screening of nearby public swimming pool adjacent to the southeast property line.
4. A childrens recreational area.
5. Location of a small pond in a low area.
6. Appropriate plantings of trees, shrubs and herbaceous material.
7. Location of open lawn area.
8. Outdoor sitting areas.

Certain areas such as parking and the adjoining city pool should be screened

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ANALYSIS OF PROBLEM

This site is a natural woodland with open meadows & a meandering stream, which seems suitable for the architecture. The old farmhouse & the meeting house seem to blend into a natural landscape which helps to unify the two different architectural styles. The Flora, Fauna, and stone walls create an analogous picture of New England, which is disappearing from the metropolitan New York area. The primary problem is the incorporation of the above amenities into a landscape that will complement the buildings.

A minimum cost being the keynote, a design remaining aesthetic and functional is required. The site is swampy and water logged in certain spots, but existing drainage could carry away excess water. Grading is kept to a minimum for reasons of cost and to preserve the integrity of the existing landscape.

Parking is required for a minimum of forty eight cars, but they often become obtrusive to the balance of the landscape. Cars often cut into the site and become an eyesore to the individual. Certain areas such as parking and the adjoining city pool should be screened

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Parking is required for a minimum of forty eight cars, but they often become obtrusive to the balance of the landscape. Cars often cut into the site and become an eyesore to the individual. Certain areas such as parking and the adjoining city pool should be screened

2.

with plants or other features which can contribute to the attractiveness of the landscape.

attr A natural walk, sitting areas, and play areas would bring the person into the landscape, and the site could serve a dual purpose in that it would be both passive and active. The person should be brought into the landscape instead of being deposited on an island to view his surroundings.

JUSTIFICATION OF PROBLEM

POND - Since the area is low & boggy, a pond was formed to alleviate the situation & create an attractive landscape feature. The extra fill from the excation of the pond can be used on the play mounds. Use of walls & rocks will stabilize the stream & will also create landscape features.

PARKING - The planting around the parking area shall serve a dual purpose. It will screen out the neighborhood pool and will also hide the parking from the view of the city pool. The parking area has been screened from the meeting house and the rest of the landscape. The planting has been designed to look pleasing from all sides, yet screened out the parking.

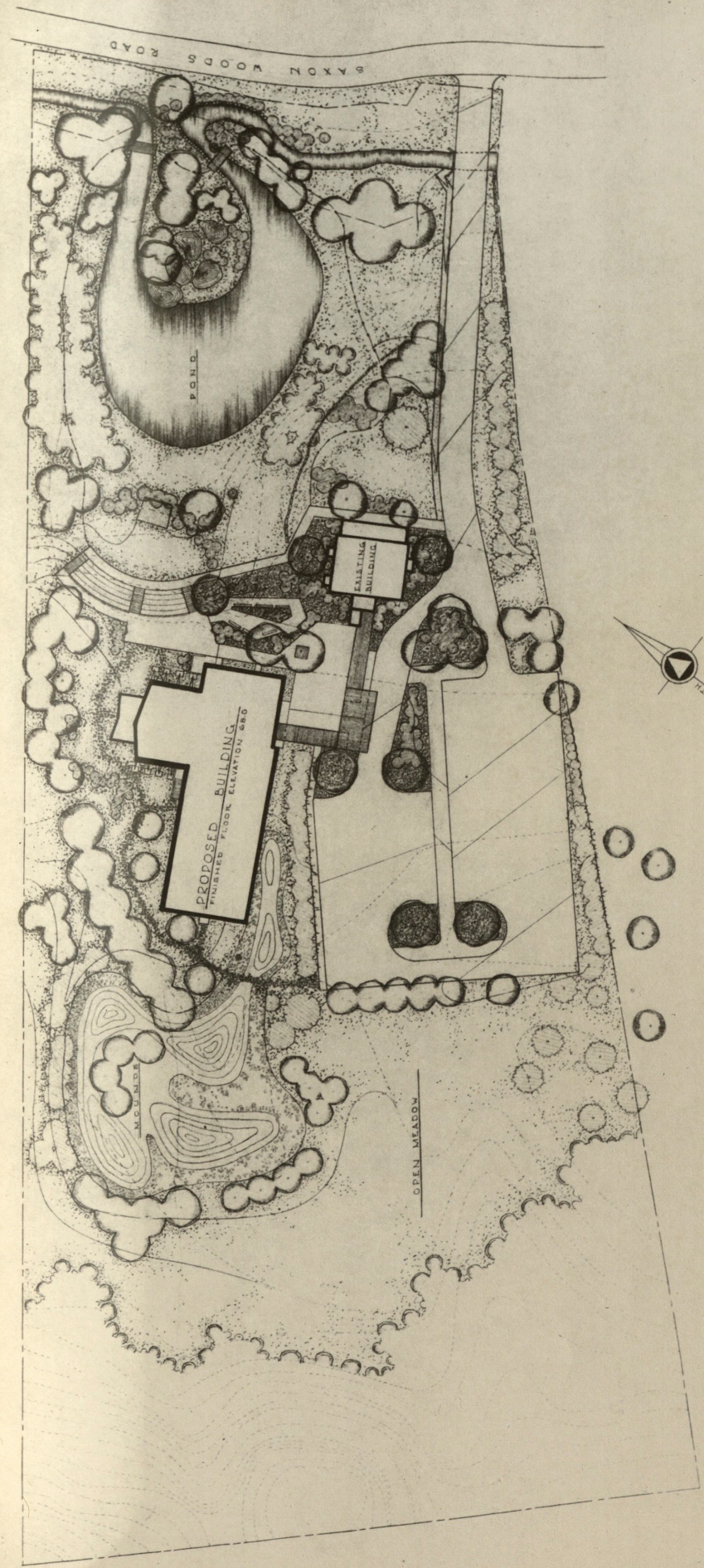
MOUNDS - The fill picked up from the pond & amphitheater can be disposed of on the mounds. The mounds will serve as play areas for children yet be skulptured to become part of the landscape. We again have double use that achieves an aesthetic effect.

SITTING AREA AND NATURAL PATH - The sitting area & natural path will bring the congregation into the landscape and allow them to enjoy the natural setting of the site.

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JUSTIFICATION OF PROBLEM



MASTER PLAN	SCALE: 1" = 80'-0"	DATE: 11/10/66	SHEET: 1 of 6
FOR: WESTCHESTER ETHICAL SOCIETY SAXON WOODS ROAD SCARSDALE, NEW YORK			
BY: LAR 355 SENIOR DESIGN PROBLEM			
UNIVERSITY OF GEORGIA			
LA ROSSETTOLA C.R. CONIELLO			





SPECIFICATIONS

DIVISION SW - 1

SITE CONSTRUCTION, GRADING AND PAVING AND DRAINAGE STRUCTURE

SW 1.1 GENERAL

(a) Work under this division is indicated on drawings

INDEX

- | | | |
|----|----------------------|---------------|
| A. | General Provisions | SW 1.1 - 1.29 |
| B. | Technical Provisions | TE 1.1 - 1.4 |
| C. | Planting Provisions | PL 1.1 - 1.19 |
- proposed work to acquaint himself with existing conditions pertinent to the execution of all work herein described.

No oral interpretation of the Contract Documents shall be considered binding. Should a bidder find a discrepancy or omission in these specifications, or should he be in doubt as to the meaning of any portion of them, he shall notify the Architect who will then instruct all bidders in the matter by an Addendum.

(c) This Contractor shall protect, and guard against damage to existing work. Any work already completed, that is disturbed or in any way damaged or changed shall be replaced to original condition, or as shown on the drawings.

SW 1.2 SCOPE

(a) The work under this division covers all labor,

material and equipment necessary or required
to provide and complete all Site Work and
related Contract Drawings,
DIVISION SW - 1
SITE CONSTRUCTION, GRADING AND PAVING
AND DRAINAGE STRUCTURE

SW 1.1 GENERAL Specifications, and/or as required by con-

(a) Work under this division is indicated on drawings
(b) titled Grading Plan.

(b) Each bidder shall familiarize himself with the
Contract Documents and shall visit the site or
proposed work to acquaint himself with existing
conditions pertinent to the execution of all work
herein described.

No oral interpretation of the Contract Documents
shall be considered binding. Should a bidder find
a discrepancy or omission in these specifications,
or should he be in doubt as to the meaning of any

(a) portion of them, he shall notify the Architect
who will then instruct all bidders in the matter
by an Addendum.

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damage to existing work. Any work already completed,
that is disturbed or in any way damaged or changed
shall be replaced to original condition, or as
shown on the drawings.

SW 1.2 SCOPE titles.

(a) The work under this division covers all labor,

DIVISION SW - 1 SITE CONSTRUCTION, GRADING AND PAVING AND DRAINAGE STRUCTURES

(a) Work under this division is indicated on drawings titled Grading Plan.

(b) Each bidder shall familiarize himself with the Contract Documents and shall visit the site or proposed work to acquaint himself with existing conditions pertinent to the execution of all work herein described.

No oral interpretation of the Contract Documents shall be considered binding. Should a bidder find a discrepancy or omission in these specifications, or should he be in doubt as to the meaning of any portion of them, he shall notify the Architect who will then instruct all bidders in the matter by an Addendum.

(c) The Contractor shall protect, and guard against damage to existing work. Any work already completed that is disturbed or in any way damaged or changed shall be replaced to original condition, or as shown on the drawings.

(d) The work under this division covers all labor,

(b) Should any utility line be discovered during excavation or the placing of stakes, the Contractor shall promptly notify the Landscape Architect in writing. The Contractor shall be held responsible for any damage to utility lines during the process of work under the Contract.

(b) Without restricting the generality of the foregoing, and for the convenience of the Contractor,

the major items of work are listed as follows:

- (a) The Contractor shall protect all landmarks, monuments and survey points and property lines from disturbance by the following work:

 1. Finish grading of subgrade preparatory to paving
 2. Construction of catch basins, drain lines, curbing as indicated.
 3. Asphaltic Pavement of roads and parking area as indicated.

SW 1.3 GRADE STAKES

- (a) The Contractor shall lay out the work, place grade stakes and maintain them during the course of the entire operation.

SW 1.4 PROTECTION OF EXISTING UTILITIES

- (a) The Contractor shall ascertain the location of all electrical cables, all conduit, all utility lines, oil tanks, seepage pools and supply lines, and take proper precautions not to disturb any existing utilities.

material and equipment necessary or required to provide and fully complete all site work and related items as shown on the Contract Drawings, these specifications, and/or as required by conditions at the site.

(b) Without restricting the generality of the foregoing, and for the convenience of the Contractor, the major items of work are listed as follows:

1. Finish grading of subgrade preparatory to

2. Construction of catch basins, drain lines,

curbing as indicated.

3. Asphaltic pavement of roads and parking areas

as indicated.

1.5 GRADE STAKES

(a) The Contractor shall lay out the work, place grade stakes and maintain them during the course of the entire operation.

1.6 PROTECTION OF EXISTING UTILITIES

(a) The Contractor shall ascertain the location of all electrical cables, all conduits, all utility lines, all tanks, seepage pools and supply lines, and take proper precautions not to disturb any existing utilities.

(b) Should any utility line be uncovered during excavation or the placing of stakes, the Contractor shall promptly notify the Landscape Architect in writing. The Contractor shall be held responsible for any damage to utility lines damaged during the process of work under the Contract.

SW 1.5 PRESERVATION OF SURVEY POINTS

(a) The Contractor shall protect all land monuments, survey points and property lines from disturbance or damage until an authorized agent has referenced their location, if required, and shall not remove, cut, or disturb them without written permission from the Landscape Architect.

SW 1.6 FINISH GRADING OF THE SUBGRADE

(a) Subgrades shall be parallel to and uniform with finished grades.

(b) Before any paving material is placed upon the subgrade, it shall be shaped in line and grade and compacted with an approved self-propelled roller weighing not less than 8 tons. All soft and spongy places shall be dug out from the subgrade and holes filled with sandy material thoroughly tamped. Hard, compacted spots shall be loosened and tamped to provide the same bearing power as the balance of

(c) Should any utility line be uncovered during excavation or the placing of stakes, the Contractor shall promptly notify the Landscape Architect in writing. The Contractor shall be held responsible for any damage to utility lines damaged during the process of work under the Contract.

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the subgrade. All hollows and depressions which develop under rolling shall be filled with suitable material and shall be rolled again. This process of shaping, rolling and filling shall be repeated until no depressions develop. The subgrade shall not be muddy nor otherwise unsatisfactory when the pavement is placed upon it. If the finished subgrade becomes rutted or displaced due to any cause whatsoever, the Contractor shall regrade same without additional payment.

1.8 STORM DRAINAGE

- (a) Catch basins, and any other drainage structures that may be shown on grading, shall be constructed in accordance with detail drawings.
- (b) Castings shall be tough even grained metal and shall be given two coats of pitch at foundry.
- (c) Piping, shall be of size and type shown on plan, and shall meet the requirements of the serial designations of the Standard Specifications of the A.S.T.M.
- (d) Trenching, as required, shall be of sufficient width for proper installation work.
- (e) The Contractor shall grade the bottom of trenches evenly and provide recesses as necessary for joint making and to insure uniform bearing for the full

the subgrade. All hollows and depressions which develop under rolling shall be filled with suitable material and shall be rolled again. This process of shaping, rolling and filling shall be repeated until no depressions develop. The subgrade shall not be muddy nor otherwise unstable. If the finished subgrade becomes rutted or displaced due to any cause whatsoever, the Contractor shall regrade same without additional payment.

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(g) Piping, shall be of size and type shown on plan, and shall meet the requirements of the serial designations of the Standard Specifications of the A.S.T.M.

(h) Trenching, as required, shall be of sufficient width for proper installation work.

(i) The Contractor shall grade the bottom of trenches evenly and provide recesses as necessary for joint taking and to insure uniform bearing for the full

- length of barrel for all pipes. Rock or other material upon which uniform bearing cannot be obtained shall be excavated to an even grade three (3) inches below the lower most part of the pipe or pipe joints. All cuts below grade must be refilled with soil free of stone, firmly compacted.
- (f) The Contractor shall sheet and brace trenches and remove water as necessary to protect workmen and permit proper execution of work. The presence of ground water in soil or the necessity for sheeting or bracing trenches shall not constitute a condition for which any increase may be made in Contract Price.
- (g) Backfill around pipe under pavements shall be hand tamped to top of pipe.

SW 1.8 BELGIAN BLOCK V CURBS

- (a) Construct Belgian Block Curb in location as shown on the drawings and in the details.
- (b) Block shall be set true to line and grade and all blocks shall extend below pavement grade.
- (c) Block shall be set in mortar with edges touching. Joints shall be slightly raked, top and face, and wiped with burlap to form a sand finish.
- (d) Belgian Block shall be reclaimed paving block

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(b) Block shall be set true to line and grade and all blocks shall extend below pavement grade.

(c) Block shall be set in mortar with edges touching. Joints shall be slightly raked, top and face, and wiped with putty to form a sand finish.

(d) Belgian Block shall be reclaimed paving block

clean of mortar, asphalt and other deleterious matter.

(e) All curved curbs shall be constructed on true radii with radial joints.

SW 1.9 ASPHALTIC CONCRETE PAVEMENT

- (a) "Standard Specifications" in the following Article refers to the "State of New York, Department of Public Works, Division of Construction, Public Works Specifications of January 2, 1957," and all addenda thereto.
- (b) The minimum thickness of the Asphaltic pavement shall be as tabulated below. The specified thickness of the surface course shall be the depth between the uppermost surface of the base course and the proposed final grade after compaction.
- (c) 4" Base course
 1 1/2" loose mix binder course
 1" dense mix top
- (d) The base course shall consist of clean broken stone of 1 1/2" fragments evenly spread and compacted with a ten (10) ton roller to the specified thickness. After proper compaction, heated bituminous material of composition that will satisfactorily bind with the asphaltic binder course shall be spread over the surface by the use of

clean of mortar, asphalt and other deleterious matter.

(e) All curved curbs shall be constructed on true radii with radial joints.

ASPHALTIC CONCRETE PAVEMENT

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(b) The minimum thickness of the Asphaltic pavement shall be as tabulated below. The specified thickness of the surface course shall be the depth between the uppermost surface of the base course and the proposed final grade after compaction.

4" Base course

1 1/2" loose mix binder course

1" dense mix top

(c) The base course shall consist of clean broken stone of 1 1/2" fragments evenly spread and compacted with a ten (10) ton roller to the specified thickness. After proper compaction, heated bituminous material of composition that will satisfactorily bind with the asphaltic binder course shall be spread over the surface by the use of

- an approved pressure distributor, at the rate of 1 1/2 gallons per square yard. The surfaced shall then be immediately chinked with three quarter (3/4") and one half (1/2") inch stone and compacted with a 10 ton roller. During the rolling process one quarter (1/4") inch crushed stone shall be applied and broomed about until the course is entirely filled. The rolling shall be continued until the course is thoroughly compacted and the surface is true and even to the required grade.
- (d) The surface course shall be applied in two courses of the thickness specified, in accordance with the Standard Specifications - item 50M.
- (e) Asphalt shall be spread by means of mechanical self-powered paver, capable of spreading the mixture true to line and grade. Areas inaccessible to the mechanical paver, and areas too narrow for such paver, shall be compressed with heated iron tampers.
- (f) The paving shall be free from depressions, wavers, and other forms of unevenness. In the event that defects in the smoothness of the draining surfaces appear in the completed work, such finished areas shall be removed and the defective paving replaced.

an approved pressure distributor, at the rate of 1/2 gallons per square yard. The surface shall then be immediately chinked with three quarter (3/4") and one half (1/2") inch stone and compacted with a 10 ton roller. During the rolling process one quarter (1/4") inch crushed stone shall be applied and broomed about until the course is entirely filled. The rolling shall be continued until the course is thoroughly compacted and the surface is true and even to the required grade.

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(f) The paving shall be free from depressions, waves, and other forms of unevenness. In the event that defects in the smoothness of the draining surface appear in the completed work, such finished areas shall be removed and the defective paving replaced.

SW 1 - 10 SCOPE OF WORK: The work to be performed will consist of furnishing all materials, labor, supplies, and equipment for specified work or construction in accordance with these specifications and in conformity with the plans.

SW 1 - 11 LOCATION: The site of the proposed work is located at the corner of Willow Street and Bridge Street, Athens, Georgia.

SW 1 - 12 SPECIFICATIONS AND DRAWINGS: The following drawings are a part of and supplementary to these specifications.

<u>TITLE</u> Master Plan	Drawing No. #1
Grading and Staking Plan	#234
Planting Plan	#467
Construction Details	#8

The drawings and these specifications are intended to be mutually explanatory and complete, and all work called for by one, even if not by the other, will be fully executed. In case of difference between drawings and specifications, the specifications will govern. In any case of discrepancy, either in the figures, in the drawings, or in the specifications, the matter will be promptly submitted to the Landscape Architect, who shall

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#234 Master Plan
 #467 Grading and Sinking Plan
 #88 Planting Plan
 Construction Details

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promptly make a determination in writing. Any adjustment by the contractor without this determination shall be at his own risk and expense.

SW 1 - 13 SPIRIT AND INTENT OF SPECIFICATIONS: It is the and intent of these specifications, and of the drawings forming a part of them, to provide that the work and all parts thereof will be fully completed and suitable in every way for the purpose for which they are designed. Mention in these specifications or indication on the drawings of articles or materials, operations, or methods requires that the Contractor will provide each item listed of quality, or subject to qualifications noted; perform according to conditions stated, each operation prescribed, and provide therefore all necessary labor, materials, tools, equipment and incidentals necessary to complete the work.

SW 1 - 14 ERRORS OF OMISSIONS: The contractor will not be allowed to take advantage of errors or omissions in these specifications or contract drawings as full instructions will be given if such errors are discovered. Upon his discovery of any statement or detail which is discrepant or otherwise appears in error, the contractor will immediately

properly make a determination in writing. Any adjustment by the contractor without this determination shall be at his own risk and expense.

11-15 SPIRIT AND INTENT OF SPECIFICATIONS: It is the and intent of these specifications, and of the drawings forming a part of them, to provide that the work and all parts thereof will be fully completed and suitable in every way for the purpose for which they are designed. Mention in these specifications or indication on the drawings of articles or materials, operations, or methods requires that the Contractor will provide each item listed of quality, or subject to qualifications noted; perform according to conditions stated, each operation prescribed, and provide therefore all necessary labor, materials, tools, equipment and incidentals necessary to complete the work.

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call it to the attention of the Landscape Architect.

SW 1 - 15 MEASUREMENTS: Before ordering any material or doing any work, contractor will verify all measurements at the site and shall be responsible for correctness of same. No extra charge or compensation shall be allowed on account of difference between actual dimensions and the measurements indicated on the drawing. Any difference which may be found will be submitted to the Landscape Architect for consideration prior to beginning the work.

SW 1 - 16 EXAMINATION OF SITE: Before submitting bids for the work, each bidder shall be held to have examined the premises and satisfied himself as to the existing conditions under which he will be pledged to operate, or that in any manner shall affect the work under this contract. No allowance shall be made subsequently in this connection in behalf of the Contractor for any error or negligence on his part.

SW 1 - 17 TIMING AND SEQUENCE OF WORK: The Contractor will begin work the first work day after receiving the "Notice to Proceed." The Contractor shall have forty (40) calendar days in which to complete the

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begin work the first work day after receiving the
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work except for extensions approved by the Land-
scape Architect. The Contractor will give due
and adequate notice of all work he proposes to
start to those in control of the properties which
may be affected by his operations. Work is to
proceed in an orderly way. The organization of
these specifications of Contract Drawings do not
necessarily indicate the order of sequence in
which the work is to be performed.
SW 1 - 18 TEMPORARY SUSPENSION OF WORK: The Landscape
Architect shall have the authority to suspend
the work, wholly or in part, for such period as
he may deem to be in the best interest of the owner, due
to conditions which are considered unfavorable to
the suitable carrying out of the work, or for
failure on the part of the contractor to carry
out orders given or to perform any provision of
the contract. The contractor will immediately
respect the written order of the owner to sus-
pend the work wholly or in part. The contrac-
tor will not suspend work without such written
authority, and will immediately resume work when
conditions are favorable or when methods have
been corrected, as approved by the Landscape

work except for extensions approved by the Land-
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respect the written order of the owner to sus-
pend the work wholly or in part. The contrac-
tor will not suspend work without such written
authority, and will immediately resume work when
conditions are favorable or when methods have
been corrected, as approved by the Landscape

Architect in writing.

SW 1 - 19 OTHER CONTRACTS: The Landscape Architect may
undertake or award other contracts for addi-
tional work, and the contractor shall fully
cooperate with such other contractors and the
owner of his employees and carefully fit his
own work to such additional work as directed
by the Landscape Architect. The contractor
will not commit or permit any act which will
interfere with the performance of work by any
other contractor or employee of the owner.

SW 1 - 20 MATERIALS AND WORKMANSHIP: Workmanship and
materials will be as prescribed by these speci-
fications and the Contract Drawings. When ever
not explicitly described, all workmanship used
or employed in carrying out the work will be
the best of the respective grades and qualities.
Where equipment, materials, or articles are
referred to in the specifications as "Equal To"
any particular standard, the Landscape Archi-
tect shall decide the question of equality.

When required by the specifications, or when
called for by the Landscape Architect, the
contractor will furnish for approval full in-

Architect in writing.

SW 1 - 19 OTHER CONTRACTS: The Landscape Architect may

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the best of the respective grades and qualities.

Where equipment, materials, or articles are

referred to in the specifications as "Equal To"

any particular standard, the Landscape Archi-

tect shall decide the question of equality.

When required by the specifications, or when

called for by the Landscape Architect, the

contractor will furnish for approval full in-

formation concerning the materials or articles

which he contemplates incorporating in the work.

Samples of materials will be submitted for ap-

proval when so directed. Machinery, equipment,

materials, and articles installed or used with-

out such approval will be at the risk of subse-

quent rejection.

SW 1 - 21 MINOR MODIFICATIONS: The contractor will make

such minor changes in the execution of the work

to be done under these specifications as, in the

judgment of the Landscape Architect, may be

necessary or expedient to carry out the intent

of the contract. No increase over the contract

price will be paid to the contractor on account

of such minor modifications, provided that at the

time the change is to be made the work involved

has not already been executed. Work which ma-

terially increases the cost to the contractor will

not be ordered under the provision of this para-

graph.

SW 1 - 22 GUARANTEE: The contractor will guarantee all work

under this contract for one year from the date of

acceptance by the Landscape Architect, except as

otherwise agreed upon in writing by the parties to

the contract.

Wherever work is required to be

guaranteed, the contractor, when notified by the

Landscape Architect must immediately

place in satisfactory condition in every

particular of the guaranteed work and

make good all damage to the structures and

formation concerning the materials or articles which he contemplates incorporating in the work. Samples of materials will be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval will be at the risk of subsequent rejection.

11-21 MINOR MODIFICATIONS: The contractor will make such minor changes in the execution of the work to be done under these specifications as, in the judgment of the Landscape Architect, may be necessary or expedient to carry out the intent of the contract. No increase over the contract price will be paid to the contractor on account of such minor modifications provided that at the time the change is to be made the work involved has not already been executed. Work which necessarily increases the cost to the contractor will not be ordered under the provision of this paragraph.

11-22 GUARANTEE: The contractor will guarantee all work under this contract for one year from the date of acceptance by the Landscape Architect, except as otherwise agreed upon in writing by the parties to

the contract. Wherever work is required to be guaranteed, the contractor, when notified by the Landscape Architect must immediately.

A. Place in satisfactory condition in every particular of the guaranteed work and

B. Make good all damage to the structures and grounds or equipment and contents thereof if such unsatisfactory condition or damage develop within the stipulated period and is due to the use of materials or workmanship which are inferior, defective, or not in accordance with this contract, and must make good any work or material or grounds which are disturbed in fulfilling the requirements of this guarantee.

SW 1 - 23 PAVEMENT: Payment of 45 per cent of bid will be made upon submission by the contractor of certification that 50 per cent of contracted work has been completed. A second payment of 45 per cent of bid will be made upon completion of all work and approval of the Landscape Architect. The remaining 10 per cent will be held until expiration of the guarantee.

SW 1 - 24 REJECTION: All materials which do not meet these specifications or the requirements of the Contract Drawings shall be rejected by the Landscape

the contract. Wherever work is required to be guaranteed, the contractor, when notified by the Landscape Architect must immediately.

A. Place in satisfactory condition in every particular of the guaranteed work and

B. Make good all damage to the structures and grounds or equipment and contents thereof if such unsatisfactory condition or damage develops within the stipulated period and is due to the use of materials or workmanship which are inferior, defective, or not in accordance with this contract, and must make good any work or material or grounds which are disturbed in fulfilling the requirements of this guarantee.

11-23 PAYMENT: Payment of 45 per cent of bid will be made upon submission by the contractor of certification that 50 per cent of contracted work has been completed. A second payment of 45 per cent of bid will be made upon completion of all work and approval of the Landscape Architect. The remaining 10 per cent will be held until expiration of the guarantee.

11-24 REJECTION: All materials which do not meet these specifications or the requirements of the Contract Drawings shall be rejected by the Landscape

Architect and will be removed from the site and replaced by proper materials by the contractor at his own expense.

SW 1 - 25 CONTRACTOR'S RESPONSIBILITIES: The Contractor will, without additional expense to the owner, obtain all insurance, licenses and permits required for the prosecution of the work. The contractor will provide and maintain all temporary roadways and utilities which may be authorized, and all barriers, colored lights, danger signals and other devices necessary to provide for the traffic and safety. The contractor will keep his equipment, operations, and materials confined to the limits indicated on the Contract Drawings. The contractor will restore, at his expense, any damage to any property and will take such action to insure protection of any existing materials, trees, structures, or utilities in, on, or over the site. The contractor will conduct his operations and leave the site so as to in no way endanger the health or lives of anyone. He will be responsible for all damages to persons or property that occur as a result of his fault or rock, wood debris, metal objects, and similar materials uncovered during operations will

Architect and will be removed from the site and replaced by proper materials by the contractor at his own expense.

11-25 CONTRACTOR'S RESPONSIBILITIES: The Contractor will, without additional expense to the owner, obtain all insurance, licenses and permits required for the prosecution of the work. The contractor will provide and maintain all temporary roadways and utilities which may be authorized, and all barriers, colored lights, danger signals and other devices necessary to provide for the traffic and safety. The contractor will keep his equipment, operations, and materials confined to the limits indicated on the Contract Drawings. The contractor will restore, at his expense, any damage to any property and will take such action to insure protection of any existing materials, trees, structures, or utilities in, on, or over the site. The contractor will conduct his operations and leave the site so as to in no way endanger the health or lives of anyone. He will be responsible for all damages to persons or property that occur as a result of his fault or

negligence in connection with the prosecution of the work. He shall also be responsible for all materials delivered and work performed until completion and final acceptance. The contractor will, at all times, be responsible for the safety and conduct of his employees. The Landscape Architect may in writing require the contractor to remove from the work such employees as he deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work is deemed by the Landscape Architect to be contrary to the owner's interest.

SW 1 - 26 SPACE FOR STORAGE OF MATERIALS: The contractor will provide suitable storage for materials and equipment on the site and will maintain all storage space in a safe and orderly condition. The owner assumes no liability for loss or damage to materials or equipment due to improper storage, lack of protection from the elements or from any other cause. Inflammable materials will be inclosed in safe containers.

SW 1--27 CLEAN UP: The Contractor will remove all debris from his operation each evening of every workday to the satisfaction of the owner. All brickbats, rock, wood debris, metal objects, and similar materials uncovered during operations will be

SW - 1.28 CONCRETE SIDEWALKS, STEPS, AND CURBS:

A. Materials:

- a. Portland Cement: Portland cement shall comply with the standard specifications for Portland Cement (ASTM C 150) and shall be Type 1.
- b. Fine Aggregate: Fine aggregate shall consist of natural sand, manufactured sand, or a combination thereof and shall be graded within the following limits:

<u>Sieve</u>	<u>% Passing 100</u>
3/8 in	100
No 4	95 to 100
No 8	80 to 100
No 16	50 to 85
No 30	25 to 60
No 50	10 to 30
No 100	2 to 10

- (1) The fine aggregate shall have not more than 45 per cent retained between any two consecutive sieves and its fineness modulus shall be not less than 2.3 nor more than 3.1.
- (2) Fine aggregate shall be free of injurious amounts of organic impurities and not darker than the standard set by the Portland Cement Association in "Design

CONCRETE SIDEWALKS, STEPS, AND CURBS:

Materials:
 a. Portland Cement: Portland cement shall comply with the standard specifications for Portland Cement (ASTM C 150) and shall be Type I.

b. Fine Aggregate: Fine aggregate shall consist of natural sand, manufactured sand, or a combination thereof and shall be graded within the following limits:

Sieve	% Passing
No. 100	100
No. 80	95 to 100
No. 60	80 to 100
No. 40	50 to 85
No. 30	25 to 60
No. 20	10 to 30
No. 10	2 to 10

(1) The fine aggregate shall have not more than 45 per cent retained between any two consecutive sieves and its fineness modulus shall be not less than 2.3 nor more than 3.1.

(2) Fine aggregate shall be free of injurious amounts of organic impurities and not darker than the standard set by the Portland Cement Association in "Design

A. d. (2) and Control of Concrete Mixtures" tenth edition; Table 1 Limits for Deleterious Substances in Fine Aggregate

f. Storage: Fine Aggregate for use in Concrete that will be frequently wet shall be free of material that could react harmfully with alkalis in the cement.

c. Course Aggregate: Course aggregate shall consist of crushed stone, gravel, or air-cooled

a. iron blast furnace slag or a combination thereof, and shall conform to the requirements prescribed in Table II - Grading requirements for Course Aggregates as published by Portland Cement Association in "Design and Control of Concrete Mixes" Tenth Edition.

(1) Course aggregate shall be clean and free of material that could react harmfully with alkalis in the cement.
 (2) Course aggregate tested for abrasion shall have a loss of not more than 50 percent.

d. Water: The water used shall be clean and free from oil, acid, and injurious amounts of vegetable matter, alkalis or other salts.

e. Metal Reinforcement: Reinforcing bars used in

and Control of Concrete Mixtures" (2) Tenth Edition; Table I Limits for Deflection Substances in Fine Aggregate for Concrete.

(3) Fine Aggregate for use in Concrete that will be frequently wet shall be free of material that could react harmfully with alkalis in the cement.

Course Aggregate: Course aggregate shall consist of crushed stone, gravel, or air-cooled from blast furnace slag or a combination thereof, and shall conform to the requirements prescribed in Table II - Grading requirements for Course Aggregates as published by Portland Cement Association in "Design and Control of Concrete Mixes" Tenth Edition.

(1) Course aggregate shall be clean and free of material that could react harmfully with alkalis in the cement.

(2) Course aggregate tested for abrasion shall have a loss of not more than 50 per cent.

Water: The water used shall be clean and free from oil, acid, and injurious amounts of vegetable matter, alkalis or other salts.

Reinforcing Bars: Reinforcing bars used in

A. e. all steps shall be as below listed:

No 2 Bar - placed 2' -0" on center running length of steps.
No 3 Bar - placed 8' -0" on center running width of steps.

f. Storage of Materials: Cement and aggregates shall be stored at the work in such manner as to prevent deterioration of intrusion of foreign matter. Any material which has been damaged shall not be used and shall immediately be removed from the site.

B. Concrete Mix and Placement:

a. Concrete Mix:

- (1) Concrete mix shall be a 1:2 1/4:4 mix calculated by absolute volume.
- (2) No concrete exposed to the action of freezing weather shall have a water content exceeding 6 gal. per sack of portland cement.
- (3) The proportions of aggregate to cement shall be such as to produce a mixture which will work readily into the corners and angles of the forms and around reinforcement bars, but without permitting the materials to segregate or excess free water to collect on the surface.
- (4) The methods of measuring concrete materials shall be such that the proportion

all steps shall be as below listed:

No 5 Bar - placed 2' - 0" on center running
length of steps.
No 5 Bar - placed 8' - 0" on center running
width of steps.

Storage of materials: Cement and aggregates shall be stored at the work in such manner as to prevent deterioration or intrusion of foreign matter. Any material which has been damaged shall not be used and shall immediately be removed from the site.

Concrete Mix and Placement:

a. Concrete Mix:

(1) Concrete mix shall be a 1:2 1/4:4 mix calculated by absolute volume.

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(4) The methods of measuring concrete materials shall be such that the proportions

is a uniform distribution of the water-
tations can be accurately controlled and easily checked at any time during the work.

(3) Concrete shall be conveyed from the mixer

(5) During the progress of the work Slump Tests for consistency of concrete shall be made in accordance with the "Standard Method of Slump Test for Consistency of Portland Cement Concrete" and kept on record. Not less than one test for each 250 cubic yards of concrete shall be made.

b. Mixing and Placing Concrete:

(1) Before placing concrete, all equipment for mixing and transporting the concrete shall be cleaned, all debris and ice shall be removed from the places to be occupied by the concrete, forms shall be thoroughly wetted (except in freezing weather) or oiled, and the reinforcement shall be thoroughly cleaned of ice or other coatings.

(5) When the section is completed, Any water shall be removed from places of deposit before concrete is placed.

(2) The concrete shall be mixed until there is a uniform distribution of the water-
tations can be accurately controlled and easily checked at any time during the work.

(2) The concrete shall be mixed until there
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 Any water shall be removed from places of
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 be made in accordance with the "Standard
 Tests for consistency of concrete shall
 (2) During the progress of the work slump

work.
 easily checked at any time during the
 tions can be accurately controlled and

- is a uniform distribution of the materials and shall be discharged completely before the mixer is recharged.
- (3) Concrete shall be conveyed from the mixer to the place of final deposit by methods which will prevent the separation or loss of the materials.
 - (4) Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to rehandling or flowing. The concreting shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the space between the reinforcement. No concrete that has partially hardened or been contaminated by foreign material shall be deposited on the work, nor shall retempered concrete be used.
 - (5) When concrete is once started, it shall be carried on as a continuous operation until the section is completed. When
 - (1) construction joints are necessary they shall be made as shown on Detail Sheet #1.
 - (6) All concrete shall be thoroughly compacted by suitable means during the operation

is a uniform distribution of the material and shall be discharged completely before the mixer is recharged.

(3) Concrete shall be conveyed from the mixer to the place of final deposit by methods which will prevent the separation or loss of the materials.

(4) Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to handling or flowing. The concreting shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the space between the reinforcement. No concrete that has partially hardened or been contaminated by foreign material shall be deposited on the work, nor shall retempered concrete be used.

(5) When concrete is once started, it shall be carried on as a continuous operation until the section is completed. When construction joints are necessary they shall be made as shown on Detail Sheet #1.

(6) All concrete shall be thoroughly compacted by suitable means during the operation

of placing, and shall be thoroughly worked around reinforcement and embedded fixtures and into the corners of the forms.

- (7) Provision shall be made for maintaining concrete in a moist condition for at least five days after the placement of the concrete.
- (8) Adequate equipment shall be provided for protecting the concrete during freezing or near freezing weather. No frozen materials or materials containing ice shall be used. All concrete materials and all reinforcement, forms, fillers, and ground with which the concrete is to come in contact shall be free from frost. No dependence shall be placed on salt or other chemicals for the prevention of freezing.

c. Forms and Details of Construction:

- (1) Forms shall conform to the shape, lines, and dimensions of the members as called for on the Contract Drawings and shall

of placing, and shall be thoroughly
worked around reinforcement and embedded
fixtures and into the corners of the
forms.

(7) Provision shall be made for maintaining
concrete in a moist condition for at
least five days after the placement of
the concrete.

(8) Adequate equipment shall be provided for
protecting the concrete during freezing
or near freezing weather. No frozen
materials or materials containing ice
shall be used. All concrete materials
and all reinforcement, forms, fillers,
and ground with which the concrete is
in contact shall be free from
frost. No dependence shall be placed
on salt or other chemicals for the pre-
vention of freezing.

c. Forms and Details of Construction:

(1) Forms shall conform to the shape, lines,
and dimensions of the members as called
for on the Contract Drawings and shall

be substantial and sufficiently tight
to prevent leakage of mortar. They shall
be properly braced or tied together so as
to maintain position and shape,

(2) Forms shall be removed in such a manner
as to insure the complete safety of the
structure, and may be removed after 24
hours providing the concrete is sufficiently
hard.

(3) Metal reinforcement, at the time concrete is
placed shall be free from rust scale or other
coatings that will destroy or reduce the bond.

Metal reinforcement shall be accurately placed
in accordance with the Contract Drawings and
shall be adequately secured in position by
concrete or metal chairs and spacers. The
metal reinforcement shall be protected by
thickness of concrete at least equal to
the diameter of round bars and one
half times the side dimension of the square
bars.

(4) Joints shall be made and
located so as to least impair the strength
of the structure. Where a joint is to be

be substantial and sufficiently light
to prevent leakage of mortar. They shall
be properly braced or tied together so as
to maintain position and shape.

(2) Forms shall be removed in such a manner
as to insure the complete safety of the
structure, and may be removed after 24
hours providing the concrete is sufficiently
hard.

(3) Steel reinforcement, at the time concrete is
placed shall be free from rust scale or other
coatings that will destroy or reduce the bond.
Steel reinforcement shall be adequately placed
in accordance with the Contract Drawings and
shall be adequately secured in position by
concrete or metal chairs and spacers. The
steel reinforcement shall be protected by
thickness of concrete at least equal to
the diameter of round bars and one and one
half times the side dimension of the square
bars.

(4) Construction joints shall be made and
located as to least impair the strength
of the structure. Where a joint is to be

made the surface of the concrete shall
be thoroughly cleaned and all laitance
removed.

d. Concrete Finishing:

(1) Screedings shall be done to bring the
top surface to proper contour and eleva-
tion. Soon after screeding and while the
concrete is still plastic, the surface
shall be floated and brought to true site
grade. After concrete has partially har-
dened, floating shall be done a second
time to provide a desired finished texture.

SECTION 1.27 MAINTENANCE:

(a) The Contractor shall be held responsible for the
maintenance of all work and parts thereof prior
to the issuance of the Certificate of Final Ac-
ceptance.

TE - 1.1 CLEARING AND GRUBBING:

- a. The area within the limit of construction as shown on the Contract Drawings shall be cleared of trees indicated, brush, stumps, large roots, buried logs, and other objectionable material to a depth as follows:
- For paved areas - 2' below subgrade.
- For lawn areas - 2' below finished grade.
- The materials shall be removed from the site.
- b. To insure proper bond and prevent slipping between original ground and fill, the surface of the original ground shall be scarified to the necessary depth.

TE - 1.2 DRAINAGE STRUCTURE:

- a. Drainage inlets shall consist of two types Curb and Gutter as manufactured by or equal to those of the Lembo Concrete Products Corporation, 145 West 11th Street, Huntington Station, Long Island, New York as follows:
- Curb Inlet Structure 701
- Gutter Type Structures 501
- b. All catch basins, manholes, drain pipes shall be installed and connected with proper outlets disposed, leaving the completed work in a neat, policed manner.

1.1.1 CLEARING AND GRUBBING:

a. The area within the limit of construction as shown on the Contract Drawings shall be cleared of trees indicated, brush, stumps, large roots, buried logs, and other objectionable material to a depth as follows:
For paved areas - 2' below subgrade.
For lawn areas - 2' below finished grade.
The materials shall be removed from the site.
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1.1.2 DRAINAGE STRUCTURE:

a. Drainage inlets shall consist of two types: Curb and Gutter as manufactured by or equal to those of the Lembo Concrete Products Corporation, 145 West 11th Street, Huntington Station, Long Island, New York as follows:
Curb Inlet Structure 701
Gutter Type Structures 501
b. All catch basins, manholes, drain pipes shall be installed and connected with proper outlets disposed, leaving the completed work in a neat, polished manner.

to provide adequate runoff of storm water as shown on Contract Drawings. All outlets shall be approved by the local authorities having jurisdiction.

TE - 1.3 EARTHWORK:

- a. Grading and drainage shall be performed so that water will drain away from the buildings on all sides in a manner which will provide reasonable freedom from erosion.
- b. Stripping and Storage of Topsoil:
Suitable topsoil on the site shall be stripped and be piled in convenient location for storage during construction and shall be used to complete finished grading operations.
- c. Material for Fill:
Material used for fill shall be free from vegetable matter, wood, and other objectionable substances and shall not contain large rocks or soil lumps.
- d. Placing, Spreading, and Compacting Fill Materials:
Fill material shall be placed in layers which when compacted shall not exceed 6 inches. Each layer shall be spread evenly

to provide adequate runoff of storm water as shown on Contract Drawings. All outlets shall be approved by the local authorities having jurisdiction.

1.3 EARTHWORK:

a. Grading and drainage shall be performed so that water will drain away from the building on all sides in a manner which will provide reasonable freedom from erosion.

b. Stripping and Storage of Topsoil:
Suitable topsoil on the site shall be stripped and be piled in convenient location for storage during construction and shall be used to complete finished grading operations.

c. Material for Fill:
Material used for fill shall be free from vegetable matter, wood, and other objectionable substances and shall not contain large rocks or soil lumps.

d. Placing, Spreading, and Compacting Fill Materials:
Fill material shall be placed in layers which when compacted shall not exceed 6 inches. Each layer shall be spread evenly

f. Weather:
and shall be uniformly blade mixed. No fill material shall be placed, spread, during spreading to insure uniformity of material in each layer. The moisture content of fill material shall be maintained so that it can be compacted to maximum practical density. Compacting shall be by means of tamping or other types of roller equipment which shall compact the fill to

1.4 FINAL ACCEPTANCE:

Upon notification of the completion of the contract work, the Landscape Architect shall make an inspection of the site and any unsatisfactory work shall be repaired, replaced, or corrected at the expense of the contractor.

e. Grading Tolerance:

(1) Rough Grading: Areas to be graded by cutting and filling shall be rough graded to within 0.2 of a foot of the required elevation after necessary allowance has been made for thickness of topsoil, paved areas, and any other installations.

(2) Finished Grading: Shall be completed to conform to lines, grades, slopes, as shown on Contract Drawings. Applications of topsoil shall be made where there is no paving shown on Contract Drawings and seeding shall be done on areas to be established as lawn.

and shall be uniformly blade mixed during spreading to insure uniformity of material in each layer. The moisture content of fill material shall be maintained as that it can be compacted to maximum practical density. Compacting shall be by means of tamping or other types of roller equipment which shall compact the fill to the required density. All fill material in excess to that needed on the site shall be hauled away.

e. Grading Tolerances:

- (1) Rough Grading: Areas to be graded by cutting and filling shall be rough graded to within 0.2 of a foot of the required elevation after necessary allowance has been made for thickness of topsoil, paved areas, and any other installations.
- (2) Finished Grading: Shall be completed to conform to lines, grades, slopes, as shown on Contract Drawings. Applications of topsoil shall be made where there is no paving shown on Contract Drawings and seeding shall be done on areas to be established as lawn.

f. Weather: PL - 1.1

No fill material shall be placed, spread,

or rolled while ground or fill is frozen

- (a) Work in any other unfavorable condition.

When work is interrupted by heavy rain,

- (b) Backfill shall not be resumed until moisture

content of material is of satisfactory condition.

TE - 1.4 FINAL ACCEPTANCE:

Upon notification of the completion of the contract work, the Landscape Architect shall make an

- (c) inspection of the site and any unsatisfactory work shall be repaired, replaced, or corrected at the expense of the contractor.

Any portion of the work which is not satisfactory to the Architect shall be corrected by the Contractor.

- (d) This Contractor shall protect, and guard against damage to existing work. Any work already completed, that is disturbed or in any way damaged or changed shall be replaced to original condition, or as shown on the drawings.

- (e) The Contractor shall obtain all permits, approvals, and other requirements for the project from the appropriate authorities.

1. Weather:

No fill material shall be placed, spread, or rolled while ground or fill is frozen or in any other unfavorable condition. When work is interrupted by heavy rain, fill shall not be resumed until moisture content of material is of satisfactory condition.

1.1.4 FINAL ACCEPTANCE:

Upon notification of the completion of the contract work, the Landscape Architect shall make an inspection of the site and any unsatisfactory work shall be repaired, replaced, or corrected at the expense of the contractor.

any DIVISION PL - 1
proper: PLANTING WORK

PL 1.1 GENERAL Contractor shall have the responsibility

(a) Work under this division is indicated on drawings entitled "Planting Plant".

(b) Each Bidder shall familiarize himself with the Contract documents and shall visit the

PL 1.2 WORK site of proposed work to acquaint himself

(a) with existing conditions pertinent to the execution of all work described herein.

(c) No oral interpretations of the contract shall be considered binding. Should a Bidder find a discrepancy or omission in the Specifications, or should he be in doubt as to the meaning of any portion of them, he shall notify the Architect matter by an Addendum.

(d) This Contractor shall protect, and guard against damage to existing work. Any work already completed, that is disturbed or in any way damaged or changed shall be replaced to original condition, or as shown on the drawings.

(e) The Contractor shall obtain all permits, approvals, meet all requirements and pay all fees if any, connected with this project for

PLANTING WORK

PL 1.1 GENERAL

- (a) Work under this division is indicated on drawings entitled "Planting Plan".
- (b) Each Bidder shall familiarize himself with the Contract documents and shall visit the site of proposed work to acquaint himself with existing conditions pertinent to the execution of all work described herein.
- (c) No oral interpretations of the contract shall be considered binding. Should a Bidder find a discrepancy or omission in the Specifications, or should he be in doubt as to the meaning of any portion of them, he shall notify the Architect in writing by an Addendum.
- (d) The Contractor shall protect, and guard against damage to existing work. Any work already completed, that is disturbed or in any way damaged or changed shall be replaced to original condition, or as shown on the drawings.
- (e) The Contractor shall obtain all permits, approvals, meet all requirements and pay all fees if any, connected with this project for

any portion of the work that is outside the property lines.

- (f) The Contractor shall have the responsibility of contacting the concerned utility company, and the town or village authorities when their structures or lines are to be altered, or in any way affect the course of construction.

PL 1.2 WORK INCLUDED

- (a) The work covered by this Specification consists of furnishing all labor, materials, equipment and appliances necessary for Planting of Major and Minor Trees, as shown on drawings and schedules and as specified herein, including but not limited to the following:
 - Excavating for all tree shrub and vine pits and beds.
 - Furnishing and preparing of topsoil for backfilling of all shrub tree and vine pits and beds.
 - Furnishing and incorporating fertilizer and peat.
 - Furnishing and planting trees and plants as shown.
 - Furnishing and spreading topsoil, as needed beyond that furnished on site.

PL 1.4 INSPECTION

(a) Planting

PL 1.5 FERTILIZER

(a) General

any portion of the work that is outside the property lines. (1) The Contractor shall have the responsibility of contacting the concerned utility company, and the town or village authorities when their structures or lines are to be altered, or in any way affect the course of construction.

PL 1.3 PROTECTION OF EXISTING UTILITIES

(a) The work covered by this Specification consists of furnishing all labor, materials, equipment and appliances necessary for planting of Major and Minor Trees, as shown on drawings and schedules and as specified herein, including but not limited to the following:

Excavating for all tree shrub and vine pits and beds.

Furnishing and preparing of topsoil for backfilling of all shrub tree and vine pits and beds.

Furnishing and incorporating fertilizer and peat.

Furnishing and planting trees and plants as shown.

Furnishing and spreading topsoil, as needed beyond that furnished on site.

Mulching.

Maintenance inspection.

Replacements of unsatisfactory plant materials.

PL 1.3 PROTECTION OF EXISTING UTILITIES

(a) The Contractor shall ascertain the location of all electrical cables, all conduit, all utility lines, oil tanks, seepage pools and supply lines, and take proper precautions

PL 1.6 PEAT MOSS

(a) Peat moss shall be domestic, incorporated into

(b) Should any utility line be uncovered during the progress of the work, the Contractor shall

PL 1.7 TOPSOIL

(a) Contractor shall be held responsible for any damage to utility lines incurred during the process of work under this Contract.

PL 1.4 INSPECTION

(a) Plants shall be subject to inspection and approval at place of growth, or upon delivery, for quality, size, variety, and health.

PL 1.5 FERTILIZER

(a) Commercial fertilizer shall be thoroughly incorporated with topsoil and loam planting mixture at the rate of three (3) lbs. per inch caliper of tree (approximately three shovels) per tree.

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(b) Plants shall be subject to inspection and approval at place of growth, or upon delivery, for quality, size, variety, and health.

(c) Should any utility line be uncovered during the progress of the work, the Contractor shall promptly notify the Architect in writing. The Contractor shall be held responsible for any damage to utility lines incurred during the process of work under this Contract.

(d) The Contractor shall ascertain the location of all electrical cables, all conduit, all utility lines, oil tanks, seepage pools and supply lines, and take proper precautions not to disturb any existing utilities, or sewers.

PL 1.5 PROTECTION OF EXISTING UTILITIES

Materials.

Replacements of unsatisfactory plant

Maintenance inspection.

Watering.

PL 1.8 GUARANTEE OF PLANT GROWTH

(a) All plants shall be typical of their species or variety and shall have a normal habit of growth. No trees which have had their leaders cut, or so damaged that cutting is necessary will be accepted.

PL 1.7 TOPSOIL AND LOAM

(a) Mixture to be used in plantings shall consist of 50% clean topsoil and 50% clay loam. 50% of clay loam shall consist of clay. To this mixture add prescribed amounts of peat moss and fertilizer.

PL 1.6 PEAT MOSS

(a) Peat moss shall be domestic, incorporated into soil planting mixture in sufficient quantity to provide a friable planting mixture.

(c) Contractor shall provide weather-proof storage space for fertilizer until its use.

(five) 5% Nitrogen
(ten) 10% Phosphoric Acid
(five) 5% Potash

ments: All plant material shall be guaranteed

and shall meet the following minimum requirements:

(b) Fertilizer shall be complete, shall bear manufacturer's guaranteed statement of analysis,

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5% Nitrogen	(five)
10% Phosphoric Acid	(ten)
5% Potash	(five)

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(a) All plants shall be typical of their species or variety and shall have a normal habit of growth. No trees which have had their leadership, or so damaged that cutting is necessary will be accepted.

(b) All plants and plant materials shall be guaranteed by the Planting Contractor to be true to name and size, and in vigorous growing condition. All plant material shall be guaranteed for at least one year after acceptance. Replacements shall be made at the beginning of the first succeeding planting season.

PL 1.9 EXCAVATION, HANDLING AND PLANTING OPERATIONS

(a) All plants shall be handled so that roots are adequately protected at all times. During shipment they shall be protected by tarpaulin or other suitable covering. All balled and burlapped plants which cannot be planted immediately upon delivery shall be set on the ground and be well protected with soil. Bare rooted plants shall be planted or heeled in trenches immediately after removal from bundles. Care shall be taken to prevent air pockets among the roots.

(b) A plants shall be set plumb, and shall stand, after settlement, slightly lower than their previous growing conditions. All debris shall be removed from the pit and shrub beds before backfilling.

(c) Pits for trees shall be filled with a topsoil and clay loam mixture to a depth of 6" minimum below

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(b) A plant shall be set plumb, and shall stand after settlement, slightly lower than their previous growing conditions. All debris shall be removed from the pit and shrub beds before backfilling.

(c) Pits for trees shall be filled with a topsoil and clay loam mixture to a depth of 6" minimum below

ball, and have a diameter equal in feet to the caliper of the tree trunk in inches but not less than 24" wider than the root spread, or root diameter.

- (d) For free standing specimen shrubs, topsoil shall be provided at least 18" deep and at least 6" wider than the root or spread of root ball.
- (e) No planting shall be done in frozen soil, or during unfavorable weather conditions.

PL 1.10 PREPARATION OF TOPSOIL FOR PLANT PITS AND BEDS

(a) Where plant material is to be placed in beds of topsoil laid down by the grading contractor in accordance with the Grading Plan and under the terms of the grading contract, the Planting Contractor shall be responsible for reworking the planting beds until they are friable, free from mortar and debris, accurate as to line and grade, and otherwise in a suitable condition for planting.

(b) Topsoil for planting pits and beds, except ericaceous plants shall be prepared by mixing with peat moss in the proportions of one (1) of peat moss to seven (7) of topsoil by volume. The mixture shall be thoroughly blended before use.

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mixture shall be thoroughly blended before use.

PL 1.11 (c) Topsoil for beds of ericaceous plants shall be prepared by mixing topsoil with peat moss in the proportion of one (1) of peat to five (5) parts topsoil by volume, thoroughly mixed.

PL 1.11 MULCHING

(a) A 2" mulch of hyperhumus or peat shall be applied on all planting beds, tree pits and shrub pits after planting.

(b) All evergreens, broadleaved evergreens, ground cover plants and ericaceous material shall be mulched to a depth of 2" with a mixture consisting of 50% leaf mold, and 50% peat moss. A portion of this shall be scratched into the top 1½" of soil.

PL 1.12 PLANTING SEASON

(a) Planting of plant materials shall be done during the season or seasons which are normal for such work as determined by weather conditions and by accepted practice in the locality.

(b) At the option of and on responsibility of the Contractor, planting of plant materials may be done under unseasonable conditions, without extra compensation, subject to approval as to time of work and methods of operation.

(c) Topsoil for beds of ericaceous plants shall be prepared by mixing topsoil with peat moss in the proportion of one (1) of peat to five (5) parts topsoil by volume, thoroughly mixed.

PL 1.13 MULCHING

- (a) A 2" mulch of hypernuma or peat shall be applied on all planting beds, tree pits and around pits after planting.
- (b) All evergreens, broadleaved evergreens, ground cover plants and ericaceous material shall be mulched to a depth of 2" with a mixture consisting of 50% leaf mold, and 50% peat moss. A portion of this shall be incorporated into the top 1 1/2" of soil.

PL 1.14 PLANTING SEASON

- (a) Planting of plant materials shall be done during the season or seasons which are normal for such work as determined by weather conditions and by accepted practice in the locality.
- (b) At the option of and on responsibility of the Contractor, planting of plant materials may be done under unreasonable conditions, without extra compensation, subject to approval as to time of work and methods of operation.

PL 1.13 STAKING, GUYING, WRAPPING

- (a) All trees over 3" caliper shall be guyed by wire guys encased in water hose at the trunk.

PL 1.14 MAINTENANCE OF PLANTING UNTIL ACCEPTANCE

- Guys shall be securely stalked or otherwise secured in an approval manner. All wire shall be of steel and properly watered until acceptable. Replacement and pruning shall be done as soon as dead material appears. If any wood of uniform size, capable of standing in ground at least two years. They shall be at least 2" actual dimension and not less than 8' in length, unless otherwise specified.
- (c) Stakes shall be placed a minimum of 12" from

PL 1.15 CLEANING UP

- the trunk of the tree, taking care to clear the roots. They shall be driven into the ground to the depth shown.
- (d) Wrapping material shall be first quality burlap or waterproofed crepe-paper not less than 6" or more than 10" in width, and of suitable length.
- (e) The trunks of all trees of three inch caliper or greater shall be wrapped, and the material securely tied at top and bottom, and at two foot intervals. Bandaging shall start at base, and shall cover the entire surface of the trunk to the first branches.

PL 1.13 STAKING, GUYING, WRAPPING

- (a) All trees over 3" caliper shall be gayed by wire guys encased in water hose at the trunk. Guys shall be securely staked or otherwise secured in an approved manner. All wire shall be visible from of ss. shown on guying details.
- (b) Stakes for supporting trees shall be of sound wood of uniform size, capable of standing in ground at least two years. They shall be at least 2" actual dimension and not less than 8' in length, unless otherwise specified.
- (c) Stakes shall be placed a minimum of 12" from the trunk of the tree, taking care to clear the roots. They shall be driven into the ground to the depth shown.
- (d) Wrapping material shall be first quality paper or waterprooled crepe-paper not less than 6" or more than 10" in width, and of suitable length.
- (e) The trunks of all trees of three inch caliper or greater shall be wrapped, and the material securely tied at top and bottom, and at two foot intervals. Bandaging shall start at base, and shall cover the entire surface of the trunk to the first branches.

- (f) All guying, staking and wrapping shall be done immediately after planting. All plants shall stand plumb after guying and staking.

PL 1.14 MAINTENANCE OF PLANTING UNTIL ACCEPTANCE

- (a) Areas around trees shall be kept cultivated, free of weeds and grass, and properly watered until acceptance. Replacement and pruning shall be done as soon as dead material appears. If any tree, shrub or plant bed settles more than three (3) inches below the established grade, it shall be raised to the proper level, and not merely filled with additional topsoil.

PL 1.15 CLEANING UP

- (a) The Contractor shall dispose of, on the site or as directed by the Architect, all subsoil excavated from his work. All other debris including branches, paper and rubbish resulting from his work shall be removed from the site as work proceeds.
- (b) All areas shall be kept in a neat and orderly condition at all times. Prior to final acceptance the Contractor shall clean up his work areas to the satisfaction of the Architect.

PL 1.16 INSPECTION FOR ACCEPTANCE

- (a) Inspection by the Architect shall be made upon completion of all work, at the notification of

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(b) All areas shall be kept in a neat and orderly condition at all times. Prior to final acceptance the Contractor shall clean up his work areas to the satisfaction of the Architect.

PL 1.16 INSPECTION FOR ACCEPTANCE

(a) Inspection by the Architect shall be made upon completion of all work, at the notification of

the Contractor.

(b) Payment shall be made after acceptance by the Architect. Such payment shall not relieve Contractor of responsibility of guarantees, or of conformance with provisions for plant replacement as specified below. (1.18)

PL 1.17 GUARANTEE OR WARRANTY

(a) This Contractor warrants that all work executed under this division will be free from defective plant material or workmanship for a period of one year after Architect's acceptance of the work.

(b) This Contractor shall guarantee to replace all defective plants and workmanship by approved methods and at his own expense whenever such defects may appear prior to the conclusion of this guarantee.

PL 1.18 REPLACEMENTS

(a) Any trees, shrubs or vines not found to be in a healthy growing condition, at any time during the period of guarantee, shall be removed from the site and replaced as soon as weather and seasonal conditions permit, as determined by the Architect.

(b) Plant replacements shall be the same kind and size as specified in the itemized plant list.

All replacements shall be furnished, planted, and mulched as specified, at the Contractor's expense.

- (c) The Contractor shall be liable for any damage to property including lawns, sprinkler systems, pavements, curbs etc., caused by replacing operations.
- Abbott, W. W., Engineering Contracts & Specifications, New York.
Rausey & Sleeper, Architectural Graphic Standards, New York.
PL 1.19 COOPERATION

- (a) This Contractor shall agree to complete cooperation and coordination with the General Contractor engaged in all adjacent work.
- (b) This contractor shall maintain free access to church building and existing parking area at all times. All barriers and other necessary precautions shall be taken for public safety, and no materials or equipment, etc. shall be placed or stored on the existing pavement.
- If necessary, lighted barriers shall be placed at all disturbed areas as directed on Sundays, and at other times as directed.

BIBLIOGRAPHY

Seelye, Elwyn El, Design, John Wiley & Sons, Inc., New York.

Ramsey & Sleeper, Architectural Graphic Standards, John Wiley & Sons, Inc., New York.

Abbett, Robert W., Engineering Contracts & Specifications, John Wiley & Sons, Inc., New York.

Portland Cement Association, Design & Control of Concrete Mixtures.

American Bitumuls & Asphalt Company, Paving Handbook.

Trees for American Gardens, Donald Wyman
The MacMillan Company, New York.

Shrubs and Vines for American Gardens,
Donald Wyman, The MacMillan Company, New York.