

RETENTION-N. FEDERAL
ASSOC. PROPERTY OWNER

LA SERRA
NURSERY

STORM SEWER
MANHOLE

STORM SEWER
OUTFALL TO POND

2 EXISTING LIVE OAKS

6 EXISTING SABAL PALMS

STORM SEWER

STORM SEWER
MANHOLE

SANITARY SEWER
MANHOLE

IRRIGATION SLEEVING TYP.

SEE PLANT LIST 'A'
FOR PLANT MATERIAL SPECIFIED
WEST OF THE WEST ROW LINE
OF NW 51ST TERRACE

CITY WATER TREATMENT

STORM SEWER

STORM SEWER
INLET

7 EXISTING CYPRESS TREES

CARL'S FURNITURE/
SEVEN HILLS MULTI-CENTER

MATCHLINE A SEE BELOW LEFT

BOULEVARD PROFESSIONAL
CENTER/HILLSBORO

LONG PINES

WATERMAIN

WATERMAIN

SANITARY
SEWER

STORM SEWER
MANHOLE

STORM SEWER
MANHOLE

STORM SEWER

STORM SEWER
MANHOLE

STORM SEWER

IRRIGATION SLEEVING TYP.

STORM SEWER

STORM SEWER

SWALE #1

SWALE #2

SWALE #3

STORM SEWER

WATERMAIN

WATERMAIN
GATE VALVE

SANITARY
SEWER

SANITARY
SEWER

SANITARY
SEWER
MANHOLE

SANITARY
SEWER

SANITARY
SEWER
MANHOLE

WATERMAIN

SANITARY
SEWER
MANHOLE

WATERMAIN

SEE PLANT LIST 'A'
FOR PLANT MATERIAL SPECIFIED
WEST OF THE WEST ROW LINE
OF NW 51ST TERRACE

ELITE ALUMINUM CORP

JOHNSON ROAD
COMMERCE CENTER

MATCHLINE A SEE ABOVE RIGHT

MATCHLINE B SEE SHEET L-2
TOP LEFT

Project:
coconut creek 69th street
greenway improvements

coconut creek
florida

dave bodker
landscape architecture/planning inc.

601 n. congress ave., suite 105-a
delray beach, florida 33445
561-276-6311

#LA000999

sheet title:

planting
plan

project number:
12816

date: 3-31-17
scale: 1" = 20'
drawn by: ah

revisions:

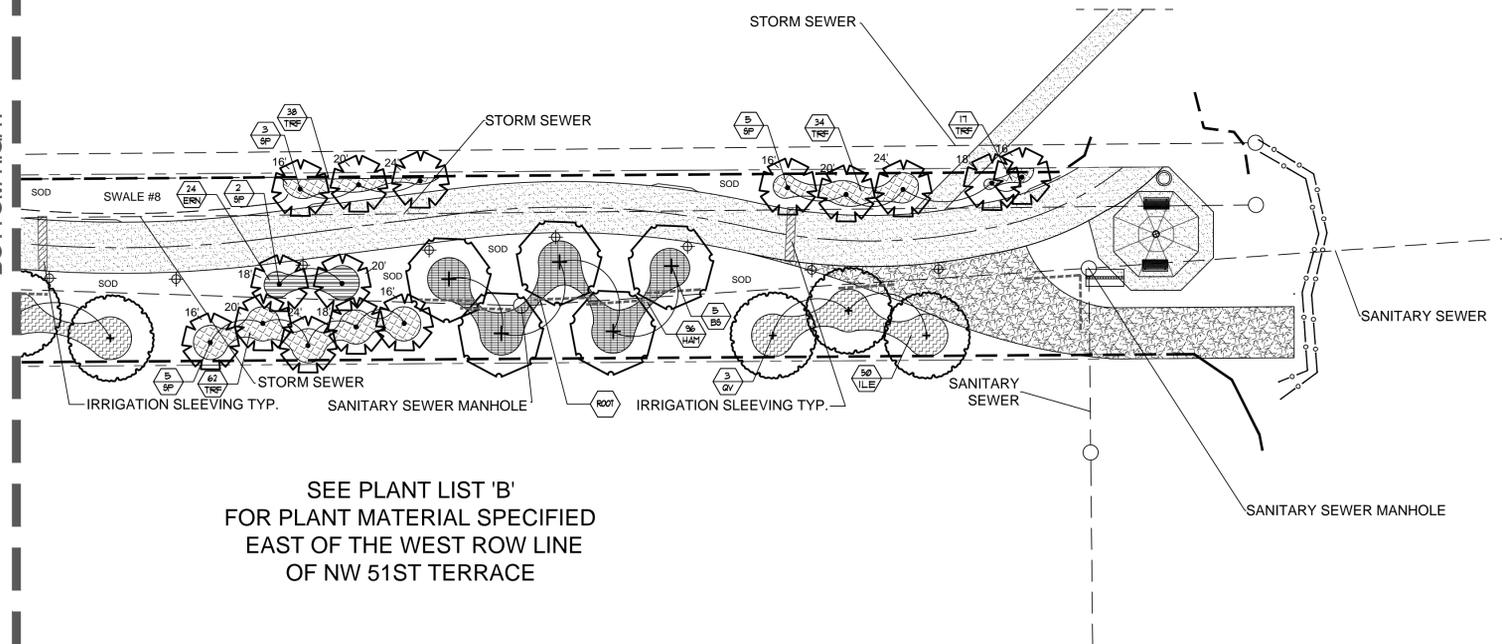
- ▲ 8-11-17
- ▲
- ▲
- ▲
- ▲

sheet:

L-1

COUNTY-CONSERVATION
PRESERVE AREA

MATCHLINE D SEE SHEET L-2
BOTTOM RIGHT



LEGEND

- EXISTING TREES TO REMAIN
- EXISTING PALMS TO REMAIN
- BOLLARD LIGHT

SEE PLANT LIST 'B'
FOR PLANT MATERIAL SPECIFIED
EAST OF THE WEST ROW LINE
OF NW 51ST TERRACE

PLANT LIST 'A'

SYM	BOTANICAL/COMMON NAME	SPECIFICATIONS	QTY
BS	Bursera simaruba Gumbo Limbo	12' ht. x 5' spr., 2" cal.	15
PE	Pinus elliotii Slash Pine	o.a. ht. as noted on plan	23
QV	Quercus virginiana Live Oak	12' ht. x 6' spr., 2" cal.	24
SP	Sabal palmetto Sabal Palm	o.a. ht. as noted on plan	20
ALA	Pentalinon luteum Wild Allamanda	18" ht. x 18" spr., 24" o.c.	148
CAP	Capparis cynophallophora Jamaican Caper	24" ht. x 24" spr., 24" o.c.	34
CHH	Chrysobalanus icaco 'horizontal' Horizontal Cocoplum	16" ht. x 16" spr., 24" o.c.	207
ERN	Ernodea littoralis Golden Creeper	12" ht. x 10" spr., 18" o.c.	40
HAM	Hamelia patens 'compacta' Dwarf Firebush	24" ht. x 18" spr., 24" o.c.	267
ILE	Ilex vomitoria Yaupon Holly	16" ht. x 16" spr., 24" o.c.	194
MUH	Muhlenbergia capillaris Muhly Grass	18" ht. x 18" spr., 24" o.c.	188
TRF	Tripsacum floridana Dwarf Fakahatchee Grass	24" ht. x 18" spr., 24" o.c.	143
SOD	Stenotaphrum secundatum St. Augustine	full, fresh sod	4,246 S.F.
ROOT	Root Barrier	36" depth 'BioBarrier'	533'

Note: The ground is to be prepared to receive new sod, trees, shrubs and ground cover by removing the existing weeds that currently cover the Greenway area. This is an approximately 60 foot wide by approximately 2,400 foot long area less the 8 foot wide existing concrete path. The weeds are to be removed from this area by spraying 'Round Up' herbicide to the area on a sunny and hot day. This procedure is to be repeated two weeks later. After the weeds are sufficiently dead the area is to be back bladed. The dead weeds are to be removed from the area and disposed of. The area is then to be tilled.

PLANT LIST 'B'

SYM	BOTANICAL/COMMON NAME	SPECIFICATIONS	QTY
BS	Bursera simaruba Gumbo Limbo	12' ht. x 5' spr., 2" cal.	19
PE	Pinus elliotii Slash Pine	o.a. ht. as noted on plan	20
QV	Quercus virginiana Live Oak	12' ht. x 6' spr., 2" cal.	22
SP	Sabal palmetto Sabal Palm	o.a. ht. as noted on plan	44
ALA	Pentalinon luteum Wild Allamanda	18" ht. x 18" spr., 24" o.c.	212
CHH	Chrysobalanus icaco 'horizontal' Horizontal Cocoplum	16" ht. x 16" spr., 24" o.c.	196
ERN	Ernodea littoralis Golden Creeper	12" ht. x 10" spr., 18" o.c.	116
HAM	Hamelia patens 'compacta' Dwarf Firebush	24" ht. x 18" spr., 24" o.c.	423
ILE	Ilex vomitoria Yaupon Holly	16" ht. x 16" spr., 24" o.c.	166
MUH	Muhlenbergia capillaris Muhly Grass	18" ht. x 18" spr., 24" o.c.	120
TRF	Tripsacum floridana Dwarf Fakahatchee Grass	24" ht. x 18" spr., 24" o.c.	386
SOD	Stenotaphrum secundatum St. Augustine	full, fresh sod	5,404 S.F.
ROOT	Root Barrier	36" depth 'BioBarrier'	390'

Note: The ground is to be prepared to receive new sod, trees, shrubs and ground cover by removing the existing weeds that currently cover the Greenway area. This is an approximately 60 foot wide by approximately 2,400 foot long area less the 8 foot wide existing concrete path. The weeds are to be removed from this area by spraying 'Round Up' herbicide to the area on a sunny and hot day. This procedure is to be repeated two weeks later. After the weeds are sufficiently dead the area is to be back bladed. The dead weeds are to be removed from the area and disposed of. The area is then to be tilled.

Project:
**coconut creek 69th street
greenway improvements**

coconut creek
florida

dave bodker
landscape architecture/planning inc.

601 n. congress ave., suite 105-a
delray beach, florida 33445
561-276-6311

#LA000999

sheet title:

**planting
plan**

project number:
12816

date: 3-31-17
scale: 1" = 20'
drawn by: ah

revisions:

- ▲ 8-11-17
- ▲
- ▲
- ▲
- ▲

sheet:

L-3

Applicable Documents:

A. These Specifications and the requirements hereafter will govern this project during the installation, guarantee and maintenance period.

Scope of Work:

A. The work specified by this section of the Specifications and on the Plans consists of meeting all labor, machinery, tools, apparatus, means of transportation, supplies, equipment, materials, services and incidentals necessary to complete the work as indicated on the Plans and in the Specifications, as well as all other related responsibilities, including all change and repairs incident thereto.

B. The work shall include, but not be limited to, furnishing material, root pruning where required, layout, protection to the public, grading, installation, backfilling, grading, fertilizing, mulching, staking and guying where required, watering, pruning where required, sod installation, seeding, cleanup, maintenance and guarantee.

C. Quantities and Location. The Landscape Architect reserves the right to adjust the numbers and locations of the designated types and species to be used at any of the locations shown in order to provide for any modifications which might be necessary.

D. Investigation of Subsurface Condition: The Contractor shall be responsible for making site subsurface investigations and excavations as he or she chooses in order to become familiar with the character of the existing material and the construction conditions under which he or she will work. These subsurface investigations and excavations shall be included in the bid. The Contractor shall not receive separate, additional compensation for this.

E. The Landscape Contractor shall be paid for only those units which are installed at the time requested for payment. The contractor's unit prices shall be the basis for final payment. The amount of work installed and payment shall be based on the contract depending on the number of units installed.

F. Ten percent (10%) of the total contract price will be held as retainer for 90 days after final writing acceptance.

G. The Landscape Contractor will coordinate his work with all other trades at the job site.

Quality Assurance:

A. The Landscape Architect may inspect trees, shrubs, and groundcover either at the place of growth or at the site before planting for compliance with the requirements for name, variety, size and quality. The Landscape Architect retains the right to further inspect trees and shrubs for size and condition of balls and root system, insects, injuries, and latent defects, and try to reject unsatisfactory plant material at any time during the progress of work. The Landscape Contractor shall remove rejected trees or shrubs within 7 days from the project site.

B. Responsibility for Assuring Quality Work:

(1) The Contractor's Superintendent shall speak English and will be versed in Florida plant material, planting operations, Plan and Specification interpretation, coordination with other contracts or services in the project area and coordination between the nursery and the project.

(2) All employees shall be competent and highly skilled in their particular job in order to properly perform the work assigned to them. The Contractor shall be responsible for maintaining the quality of the material on the project.

(3) The Contractor will comply with applicable Federal, State, County and local requirements governing landscape materials and work.

C. Grade Standards:

(1) Plant material shall be Florida #1 or better as set forth in the latest edition of the Florida Department of Agriculture's Grades and Standards for Nursery Plants.

(2) All plant material will be subject to the approval of the Landscape Architect for quality, size and color. Plants lacking the proper proportion, proportions, plants which are weak or thin and plants injured by frost or other causes will not be accepted. Plant material which has been cut back from larger grades to meet certain specification requirements will be rejected.

(3) Plant material shall have normal, well developed branches and shall be vigorous plants, free from defects, decay, burns, debilitating roots, non-scaled stems, abrasion of the stems, plant diseases, insect pest, eggs, barers, and all forms of infestations or objectionable infestations.

Delivery, Handling and Storage:

A. Delivery and Handling:

(1) Movement of nursery stock shall comply with all Federal, State, and local laws, regulations, ordinances, codes, etc.

(2) Protect during delivery to prevent damage to root ball or desiccation of leaves. Remove unacceptable plant material and store it separately from the job site. Maintain and protect while stored at the site.

(3) Transport materials on vehicles large enough to allow plants not to be crowded and damaged. Plans shall be covered to prevent wind damage during transit.

B. Sod:

(1) Deliver sod on pallets with root system protected from desiccation. Sod shall be delivered in quantities capable of being installed within 48 hours of cutting.

Submittals 4 Approvals:

A. Written request for approval to substitute a plant species or a plants designation (B&B, UB&B, CG, etc.), type, grade, quality, size, quantity, etc. due to the non-availability of the material specified. Approval must be given by the Landscape Architect before the material is delivered and installed on the project. The Contractor must provide written proof that the specified plant material is unavailable.

B. Any request for the approval of an equal shall be in writing. Approval shall be given by the Landscape Architect before the material is delivered and installed on the project.

C. Submit three prints of shop drawings for any special conditions not covered in the details indicated. This shall be for approval by the Landscape Architect before they are implemented in the project.

D. If requested by the Owner or Landscape Architect submit a schedule of all specimen plant material and collected plant material indicating the sources or suppliers of these materials and their locations for approval by the Landscape Architect before they are delivered and installed on the project. Also, two color photographs of each different item, showing different side views of the item shall be submitted with the schedule. Additional color photographs shall be submitted, if requested.

E. If requested by the Owner or Landscape Architect, submit a letter indicating the sources or suppliers of all sod and the grade to be applied for approval by the Landscape Architect before it is delivered and installed on the project.

F. If requested by the Owner or Landscape Architect, submit a sample and analysis of all planting soil types for approval by the Landscape Architect before the material is delivered and installed on the project.

H. If requested by the Owner or Landscape Architect, submit a Architect before the material is delivered and installed on the project.

I. Submit three prints of shop drawings for all staking and guying methods to be used if the ones indicated in these Specifications and on the Plans are not to be implemented, staking and guying methods before they are implemented in the Landscape Architect will approve all shop drawings of project.

J. Submit in writing any hindrance to the owners routine maintenance or lack of, that may affect installed plant materials growth or survival. This avoids affect the guarantee of plant material.

K. Submit in writing any hindrance to the timely completion of the installation.

L. Submit and Certificates of Inspection of plant material as may be required by State, local or Federal Authorities.

Substitutions:

A. When the specifies plant designation (B&B, UB&B, CG, etc.), type, grade, quality, etc. and if a material is not available, the Contractor shall submit a written request, to the Landscape Architect, for a substitution along with the material is delivered and installed on the project (B&B, UB&B, CG, etc.), type, grade, quality, size, quantity, etc. of material is not available. The Landscape Architect shall approve all substitutions before they are delivered and installed.

B. Do not deliver and install any material which is not approved in writing and approved by the Landscape Architect in advance. The extended time shall be negotiated between all parties concerned but must receive final approval by the Landscape Architect.

C. Any change or any to the contract amount, because of an approved substitute shall be established in writing between the Owner and the Contractor before the material substitute is delivered and installed on the project.

(1) Replacement plant material shall be one of the same species quality and grade as that of the plant to be replaced. The size of the replacement shall not necessarily be the required excavation depth for the plant hole in order to plant.

(2) Below is a question to its ability to survive after the end of the guarantee period that would render it below the minimum quality indicated in the Specifications.

(3) It is dead.

(4) The 3 calendar days may be extended due to seasonal conditions, availability, preparation time such as root pruning, etc., only if approved by the Landscape Architect in advance. The extended time shall be negotiated between all parties concerned but must receive final approval by the Landscape Architect.

(5) The Contractor shall be responsible for performing all work in accordance with all applicable codes and specifications and code requirements from the appropriate city, county, state and/or Federal jurisdiction the project is located in.

Changes and Additional Work:

A. The Contractor shall not start on any changes or additional work in the project until a written agreement setting forth the adjusted contract amount has been executed by the Owner and the Contractor. Any work performed on any changes or additional work prior to the execution of a written agreement may or may not be compensated for.

*Job Site, *Project Site Etc.:

A. The words "job site," "project site," "job," "project" and "site" shall be defined as follows:

Safety On and Off the Job Site:

A. In performing the scope of work all safety on or off the job site shall be the sole responsibility of the Contractor. The Landscape Architect shall not be responsible for safety on or off the job site.

Guarantee:

A. The guarantee shall not begin until the day final writing acceptance is given.

B. All plant material, except sod, trees and palms, shall be guaranteed for a minimum of 1 year from the time of final acceptance. All sod shall be guaranteed for a minimum of 60 days from the time of final acceptance. All trees and palms are to be guaranteed for one year from the time of final acceptance.

C. The guarantee shall be null and void if plant material which is damaged or dies as a result of "Acts of God" limited to hail, freeze, lightning, and winds which exceed hurricane force, provided the plant was in a healthy growing condition prior to these "Acts of God".

D. At the option of the Owner and Inspections may be made at the end of the guarantee period, but prior to the last day of the guarantee period.

Replacement:

A. The guarantee of a plant material shall be construed to mean the planting and immediate replacement of plant material within 3 calendar days if it is:

(1) Not in a healthy growing condition and thus renders it below the minimum quality indicated in the Specifications.

(2) There is a question to its ability to survive after the end of the guarantee period that would render it below the minimum quality indicated in the Specifications.

(3) It is dead.

(4) The 3 calendar days may be extended due to seasonal conditions, availability, preparation time such as root pruning, etc., only if approved by the Landscape Architect in advance. The extended time shall be negotiated between all parties concerned but must receive final approval by the Landscape Architect.

(5) The Contractor shall be responsible for performing all work in accordance with all applicable codes and specifications and code requirements from the appropriate city, county, state and/or Federal jurisdiction the project is located in.

Changes and Additional Work:

A. The Contractor shall not start on any changes or additional work in the project until a written agreement setting forth the adjusted contract amount has been executed by the Owner and the Contractor. Any work performed on any changes or additional work prior to the execution of a written agreement may or may not be compensated for.

*Job Site, *Project Site Etc.:

A. The words "job site," "project site," "job," "project" and "site" shall be defined as follows:

Safety On and Off the Job Site:

A. In performing the scope of work all safety on or off the job site shall be the sole responsibility of the Contractor. The Landscape Architect shall not be responsible for safety on or off the job site.

However, if for some reason, the plant to be replaced is smaller than the size originally specified, the replacement shall be at least equal to the originally specified size.

(2) Replacements shall be guaranteed for a period equal to the originally specified guarantee. The guarantee period shall begin at time of acceptable replacement.

(3) Final payment to the Contractor shall not relieve he or she of the guarantee obligations.

Plan and Specification Interpretation:

A. On the Plans, figured dimensions shall govern over scaled dimensions. If any error or discrepancy is found in the Plans and Specifications, the Contractor shall refer the same to the Landscape Architect and in no event shall the Contractor in resolving conflicts between the Plans and Specifications, the Plans SHALL GOVERN over the Specifications. The Landscape Architect shall have the right to correct any apparent error or omission in the Plans and Specifications and to make such interpretations as he or she may deem necessary for the proper fulfillment of the intent of the Plans and Specifications.

Permits and Codes:

A. The Contractor shall procure all necessary permits to accomplish all of the work.

B. The Contractor is responsible for performing all work in accordance with all applicable codes and specifications and code requirements from the appropriate city, county, state and/or Federal jurisdiction the project is located in.

Changes and Additional Work:

A. The Contractor shall not start on any changes or additional work in the project until a written agreement setting forth the adjusted contract amount has been executed by the Owner and the Contractor. Any work performed on any changes or additional work prior to the execution of a written agreement may or may not be compensated for.

***Job Site, *Project Site Etc.:**

A. The words "job site," "project site," "job," "project" and "site" shall be defined as follows:

Safety On and Off the Job Site:

A. In performing the scope of work all safety on or off the job site shall be the sole responsibility of the Contractor. The Landscape Architect shall not be responsible for safety on or off the job site.

(2) Palm frond tying shall be as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants". Tying palms shall be at the option of the Contractor. The Landscape Architect may direct the Landscape Contractor to untie Palm Fronds to accommodate an owner's "grand opening". The Contractor may re-tie the palm after the event. This untieing will not affect the guarantee or represent an additional cost to the owner.

(3) To reduce head volume, Palm Fronds may be taper trimmed by not more than one-third.

(4) Palms with mechanical damage, such as from cables, chains, equipment and nails, shall be rejected.

I. Chlorosis: The allowable level of Chlorosis in foliage shall be as set forth in the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery Plants".

J. Plant material shall not be accepted when the ball of earth surrounding its roots has been cracked, broken or otherwise damaged.

K. Root pruning of plant material, when necessary, shall be done a minimum of 4 weeks, or for a period as determined by the Landscape Architect, prior to planting at the project.

Sod:

A. Sod shall be solid sod and shall be standard quality grade. Note: Quality grade shall be based on the standards of sod quality grades (premium, standard or commercial) as established by the Turf Grass Producers Association of Florida Inc. The sod shall be well matted with roots and of firm loam texture having a compact top growth and uniform root development. Sod shall be free of objectionable gray and broad leaf weeds. Sod shall not accepted if it contains Bermuda Grass. Sod sections shall be strong enough to support when suspended vertically from a firm grasp on the upper 10% of the section. Sod sections shall be harvested or treated when moisture content (excessively dry or wet) may adversely affect its survival. Sod shall be relatively free of thatch, up to one half inch allowable (uncompressed) the soil embedded in the sod shall be a clean, arid, free of stones and debris. The sod shall have been mowed at least three times with a lawn mower with final mowing at no additional seven days prior to the sod being cut for placement. The sod shall be provided in commercial sized measuring not less than 12 inches by 24 inches and shall be live, fresh and unjured at the time of placement. It shall be planted within 48 hours after being cut and shall be protected and kept moist from the time it is cut until it is planted.

Planting Soil:

A. All plant material, unless indicated otherwise, shall be installed with a planting soil composed of sandy loam (50% sand, and 50% muck) typical of the locality. The soil must be taken from ground that has never been topped with a slight acid reaction (5.5 to 6.5 ph) and without an excess of calcium or phosphate. Soil shall be delivered in a loose friable condition.

Water:

A. Potable, from municipal water supplies or other sources which are approved by a public health department.

Mulch:

A. Mulch shall be:

(1) "Floramulch" or other approved recycled mulch (approved by Landscape Architect or other governing agency)

Fertilizer:

A. New and existing Trees and Palms: Fertilize with 8-7-12 palm fertilizer with micronutrients per manufacturer's recommendations.

B. New and existing Shrubs, and Groundcover: Fertilize with 8-7-12 palm fertilizer with micronutrients at a rate of 1/2 lb. per 1000 SF of area.

C. Annuals: Fertilize with Omocote - Sierra blend 14-14-14 or approved equal.

D. Composition and Quality: All fertilizer shall be uniform in composition and dry. Granular fertilizer shall be free flowing and delivered in unopened bags. All liquid containers or boxes shall be fully labeled with the manufacturer's analysis.

E. All fertilizer shall comply with the State of Florida Fertilizer laws.

Staking and Guying:

A. Staking and guying shall be the responsibility of the Landscape Contractors. Staking and guying shall not be attached directly to the plant material with nails. Also, bolsters used in staking and guying shall not be attached to the plant material with nails. Any method of staking and guying other than those indicated in the details, shall require approval from the Landscape Architect prior to their installation. Under no circumstances will approval be given to allow the planting, burying or planting of trees or palms so that the top of the grade, in order to eliminate the need or requirement of staking or guying.

B. The Contractor shall take immediate steps to repair or correct any damage to the project or other facilities which are disrupted due to his or her additional outside services which may be necessary to complete the project or to continue "work for the clock" basis until services are restored. He or she shall also provide and operate any supplemental temporary services to maintain uninterrupted use of the facilities. All costs involved in the repairs and restoring disrupted services resulting from negligence on the part of the Contractor shall be borne by the Contractor and he or she shall be fully responsible for any and all claims resulting from the damage.

C. The Contractor is responsible for performing all staking and guying in accordance with the applicable codes, ordinances and code requirements from the appropriate local jurisdiction the project is located in.

D. Should utilities, structures, etc. be encountered which interfere with the work, the Landscape Architect shall be consulted immediately in order for a decision to be made on the relocation of the work so it will clear the obstruction if the obstruction cannot be relocated.

E. The Contractor shall not purposefully disrupt or disconnect any type of utility whatsoever without first notifying the Landscape Architect and obtaining approval. Requests for disconnection must be in writing and approved by the Landscape Architect at least 72 hours prior to the time of the requested interruption.

F. Excavation of plant holes shall be roughly cylindrical in shape with the sides approximately vertical. The Landscape Architect reserves the right to adjust the size and shape of the plant hole and the location of the plant hole to compensate for unanticipated structures or other site conditions, unless indicated otherwise on the plans.

G. Plant Area Next to Pavement: All planting areas next to pavement areas, such as, but not limited to, curbs, roads, ramps, etc., shall be protected with a concrete curb or the TOP OF THE MULCH IS 1 INCH BELOW THE TOP OF THE PAVEMENT AREA or as indicated otherwise on the plans.

H. Preparation:

A. Staking Plant Locations: Stakes or mark plant material locations prior to pile excavation, based on information from the plans.

(3) Edge and now sod once a week.

(6) Edge and weed all shrubs, groundcover and flower beds once a week.

(7) Remove all litter once a week.

(8) Spraying and Dusting: Contractor shall do all seasonal spraying and/or dusting of all planting, as needed, for complete control of pests and diseases. The materials and methods shall be in accordance with the highest standard horticultural practices and as recommended by the County Agent, and approved by the Landscape Architect, prior to implementation.

(9) Sod: After the sod has been laid, tamped and top dressed, all areas and parts of area which fail to show uniform growth and health shall be reseeded, repeatedly if necessary, until all sodded areas are covered with a satisfactory lawn. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, tamping, reseedling, and reseedling. The Contractor at his or her expense.

(10) Protection: Plant material shall be protected against trespassing and damage. If any plants become damaged or injured, they shall be treated or replaced as directed on the Plans and Specifications and shall be replaced at no additional cost. No work shall be done within or over planting areas until all plants are protected with proper safeguards and protection.

(11) Keep sidewalks, curbs and gutters, driveway, parking areas, streets, terraces, decks, and pavers free of plant cuttings, debris and staks.

D. Material rejected during the course of construction shall be removed from the project and replaced before an inspection for completion will be scheduled.

E. Survival and Conditions: The Contractor shall be responsible for the proper maintenance and the survival and condition of all landscaping items from the time a landscape item is installed until final acceptance.

F. Replacement: Replacement of plant material shall be the responsibility of the Contractor including the possible replacement of plants resulting from removal by theft or vandalism or acts of negligence on the part of others. All plant material shall be alive and in good growing condition for each specific kind of plant at the time of final acceptance.

G. Rating: The rating of plant material according to Florida Grades and Standards shall be equal to or better than called for in the Plans and in these Specifications at the time of final acceptance.

(1) All plant material shall be seeded once a week in the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, the weeds shall be removed as directed by the Landscape Architect. If necessary, the plant material, mulch sand and/or planting soil shall be replaced as needed to eliminate the weeds or undesirable vegetation at the expense of the Contractor.

However, no guarantee is implied that the Plans are accurate or complete. It shall be the responsibility of the Contractor to ensure that all such utilities, structures, etc. are properly located and that all such structures or property. The Contractor shall make a diligent effort to locate all such utilities, structures, etc. before work is commenced in any particular location.

(2) The Contractor shall take immediate steps to repair or correct any damage to the project or other facilities which are disrupted due to his or her additional outside services which may be necessary to complete the project or to continue "work for the clock" basis until services are restored. He or she shall also provide and operate any supplemental temporary services to maintain uninterrupted use of the facilities. All costs involved in the repairs and restoring disrupted services resulting from negligence on the part of the Contractor shall be borne by the Contractor and he or she shall be fully responsible for any and all claims resulting from the damage.

(3) Should utilities, structures, etc. be encountered which interfere with the work, the Landscape Architect shall be consulted immediately in order for a decision to be made on the relocation of the work so it will clear the obstruction if the obstruction cannot be relocated.

(4) The Contractor shall not purposefully disrupt or disconnect any type of utility whatsoever without first notifying the Landscape Architect and obtaining approval. Requests for disconnection must be in writing and approved by the Landscape Architect at least 72 hours prior to the time of the requested interruption.

(5) Excavation of plant holes shall be roughly cylindrical in shape with the sides approximately vertical. The Landscape Architect reserves the right to adjust the size and shape of the plant hole and the location of the plant hole to compensate for unanticipated structures or other site conditions, unless indicated otherwise on the plans.

(6) Plant Area Next to Pavement: All planting areas next to pavement areas, such as, but not limited to, curbs, roads, ramps, etc., shall be protected with a concrete curb or the TOP OF THE MULCH IS 1 INCH BELOW THE TOP OF THE PAVEMENT AREA or as indicated otherwise on the plans.

(7) Preparation:

A. Staking Plant Locations: Stakes or mark plant material locations prior to pile excavation, based on information from the plans.

(3) Edge and now sod once a week.

(6) Edge and weed all shrubs, groundcover and flower beds once a week.

(7) Remove all litter once a week.

(8) Spraying and Dusting: Contractor shall do all seasonal spraying and/or dusting of all planting, as needed, for complete control of pests and diseases. The materials and methods shall be in accordance with the highest standard horticultural practices and as recommended by the County Agent, and approved by the Landscape Architect, prior to implementation.

(9) Sod: After the sod has been laid, tamped and top dressed, all areas and parts of area which fail to show uniform growth and health shall be reseeded, repeatedly if necessary, until all sodded areas are covered with a satisfactory lawn. Damage resulting from erosion, gullies, washouts, or other causes shall be repaired by filling with topsoil, tamping, reseedling, and reseedling. The Contractor at his or her expense.

(10) Protection: Plant material shall be protected against trespassing and damage. If any plants become damaged or injured, they shall be treated or replaced as directed on the Plans and Specifications and shall be replaced at no additional cost. No work shall be done within or over planting areas until all plants are protected with proper safeguards and protection.

(11) Keep sidewalks, curbs and gutters, driveway, parking areas, streets, terraces, decks, and pavers free of plant cuttings, debris and staks.

D. Material rejected during the course of construction shall be removed from the project and replaced before an inspection for completion will be scheduled.

E. Survival and Conditions: The Contractor shall be responsible for the proper maintenance and the survival and condition of all landscaping items from the time a landscape item is installed until final acceptance.

F. Replacement: Replacement of plant material shall be the responsibility of the Contractor including the possible replacement of plants resulting from removal by theft or vandalism or acts of negligence on the part of others. All plant material shall be alive and in good growing condition for each specific kind of plant at the time of final acceptance.

G. Rating: The rating of plant material according to Florida Grades and Standards shall be equal to or better than called for in the Plans and in these Specifications at the time of final acceptance.

(1) All plant material shall be seeded once a week in the event that weeds or other undesirable vegetation becomes prevalent to such an extent that they threaten plant material, the weeds shall be removed as directed by the Landscape Architect. If necessary, the plant material, mulch sand and/or planting soil shall be replaced as needed to eliminate the weeds or undesirable vegetation at the expense of the Contractor.

B. Setting of Plants:

(1) All plants shall be set at the proper level so that after settlement, a normal or natural relationship between the crown of the plant and the surrounding ground surface will exist. The plants shall be set vertically. After excavation of planting pits and prior to placement of the plant material, fill the planting pits with water. The plant hole shall be backfilled with topsoil mixture placed in layers around the roots or ball. Each layer shall be carefully tamped in place. When partially backfilled and compacted, the hole shall be filled with water and the soil allowed to settle around the roots of the ball. The soil shall be set and the burip peel down 1/3 from the top of the rootball and cut or adjusted to prevent the formation of air pockets before applying the water. After the water has been absorbed the plant hole shall be filled with topsoil mixture and backfill removed from tree pit shall not be mixed or used in any way with the topsoil mixture.

(2) All eabal and queen palms shall be backfilled with clean thoroughly washed in during the planting operation.

(3) Water Saucer: A 4-inch high water saucer shall be located around the rim of each individual tree or palm pit and maintained in place.

(4) Plant material of the shrub category and smaller must be handled by the ball only. Plant material too large for hand handling, if moved by winch or crane, must be thoroughly protected from chain, rope or cable marks. Ground work slings, wire, cable marks and other damage that might occur by improper handling or negligence.

(5) All trees and palms shall be handled by both the trunk and rootball at the same time and by the trunk only. Trunks shall be thoroughly protected.

(6) Container group plant material shall be carefully removed from the container so as not to disturb the root system.

(7) Soil Preparation: Within 24 hours prior to placing sod, prepare the soil as follows:

A. Uniformly apply 100 lbs 8-8-8 fertilizer over the area at a rate of 25 pounds per 1000 square feet.

B. Remove stones and foreign matter over two inches in diameter from the top two inches of soil.

C. Grade the sod areas so that the top of the sod will be at finished grade after rolling and tamping.

(1) General:

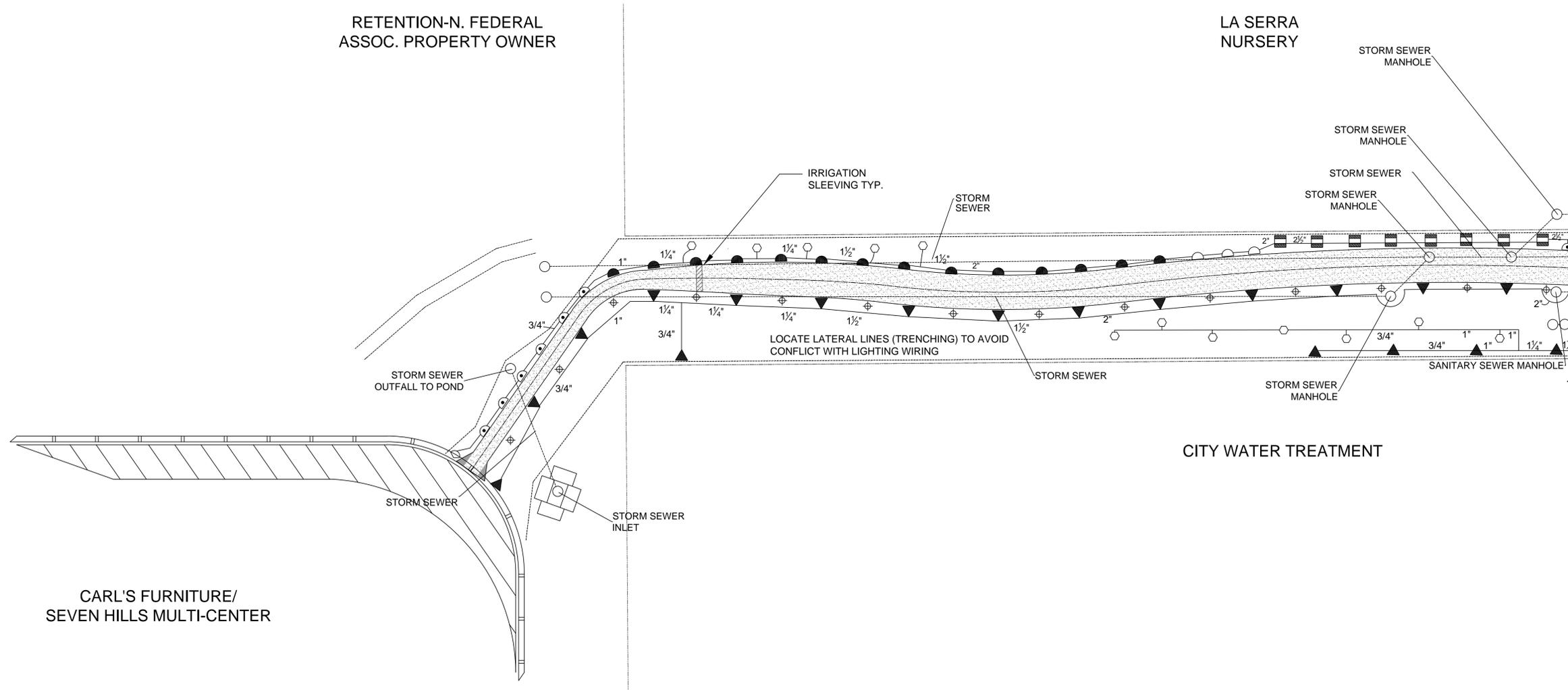
A. Excavation of plant holes shall be roughly cylindrical in shape with the sides approximately vertical. The Landscape Architect reserves the right to adjust the size and shape of the plant hole and the location of the plant hole to compensate for unanticipated structures or other site conditions, unless indicated otherwise on the plans.

B. The excavated material from the plant holes shall not be used to backfill around the plant material. Such material shall be disposed of either on the project site or off the site, as directed by the Landscape Architect.

C. Sod:

RETENTION-N. FEDERAL
ASSOC. PROPERTY OWNER

LA SERRA
NURSERY

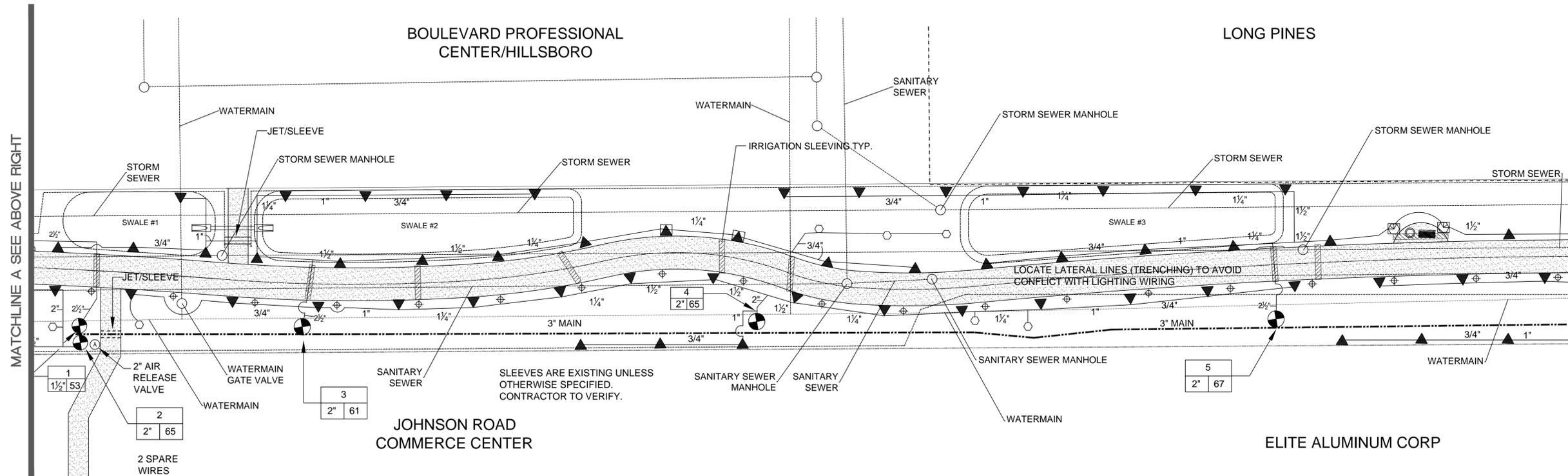


CARL'S FURNITURE/
SEVEN HILLS MULTI-CENTER

CITY WATER TREATMENT

BOULEVARD PROFESSIONAL
CENTER/HILLSBORO

LONG PINES



JOHNSON ROAD
COMMERCE CENTER

ELITE ALUMINUM CORP

Project:
coconut creek 69th street
greenway improvements

coconut creek
florida

dave bodker
landscape architecture/planning inc.

601 n. congress ave., suite 105-a
delray beach, florida 33445
561-276-6311

#LA000999

sheet title:

irrigation
plan

project number:

12816

date:

5-18-17

scale:

1" = 20'

drawn by:

R.H.

revisions:

8-11-17

▲

▲

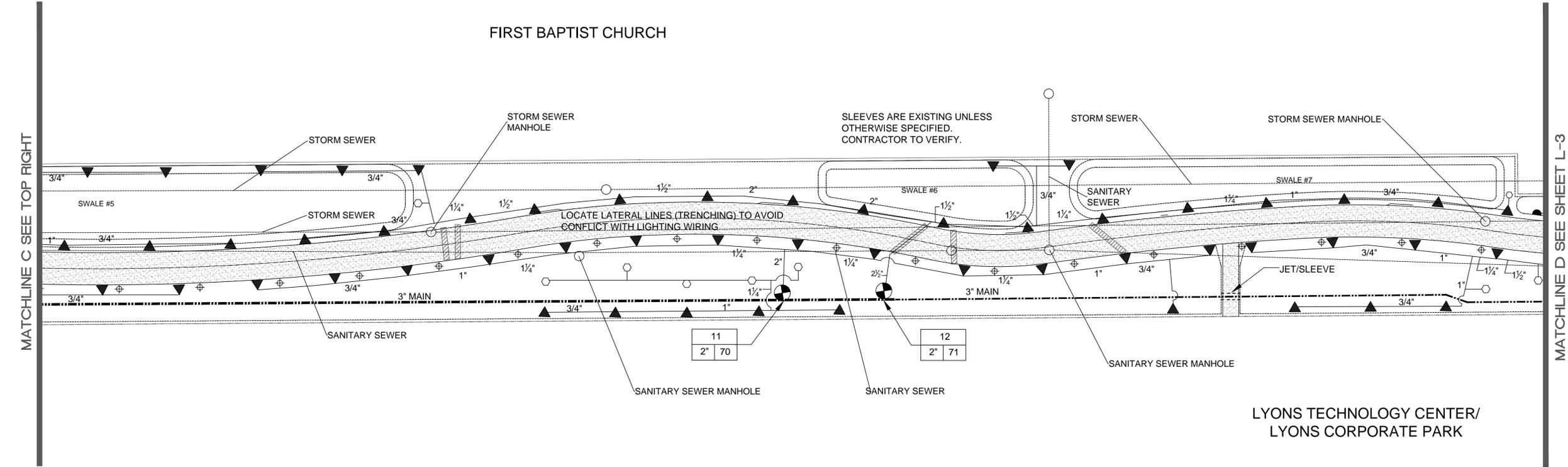
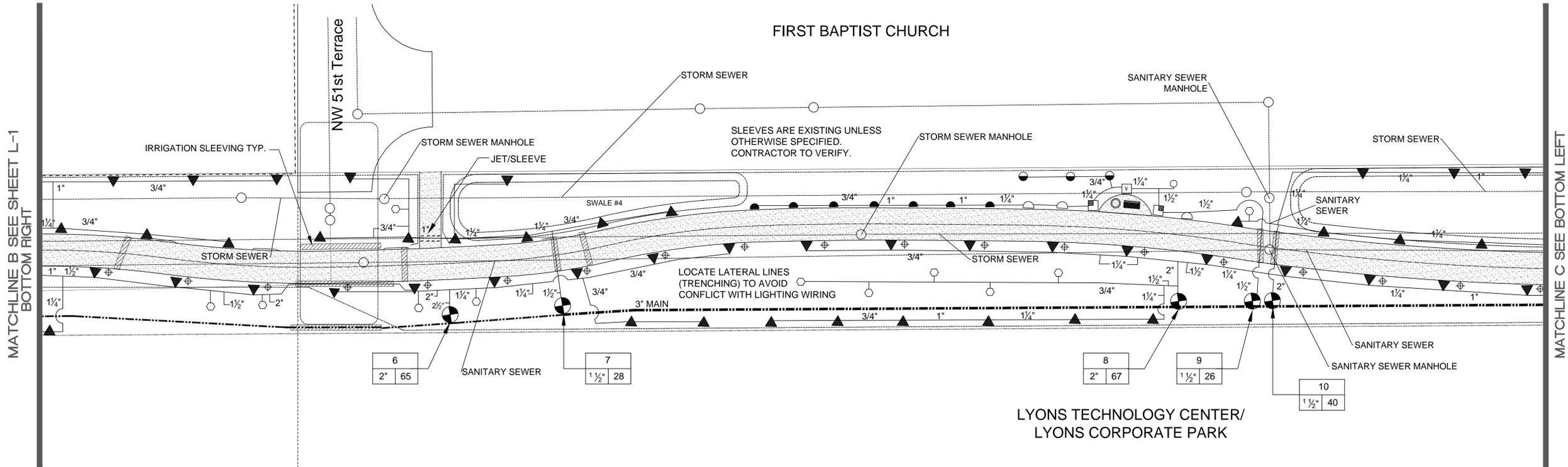
▲

▲

sheet:

1-1

1 of 4 sheets



Project:
**coconut creek 69th street
 greenway improvements**
 coconut creek
 florida

dave bodker
 landscape architecture/planning inc.
 601 n. congress ave., suite 105-a
 delray beach, florida 33445
 561-276-6311

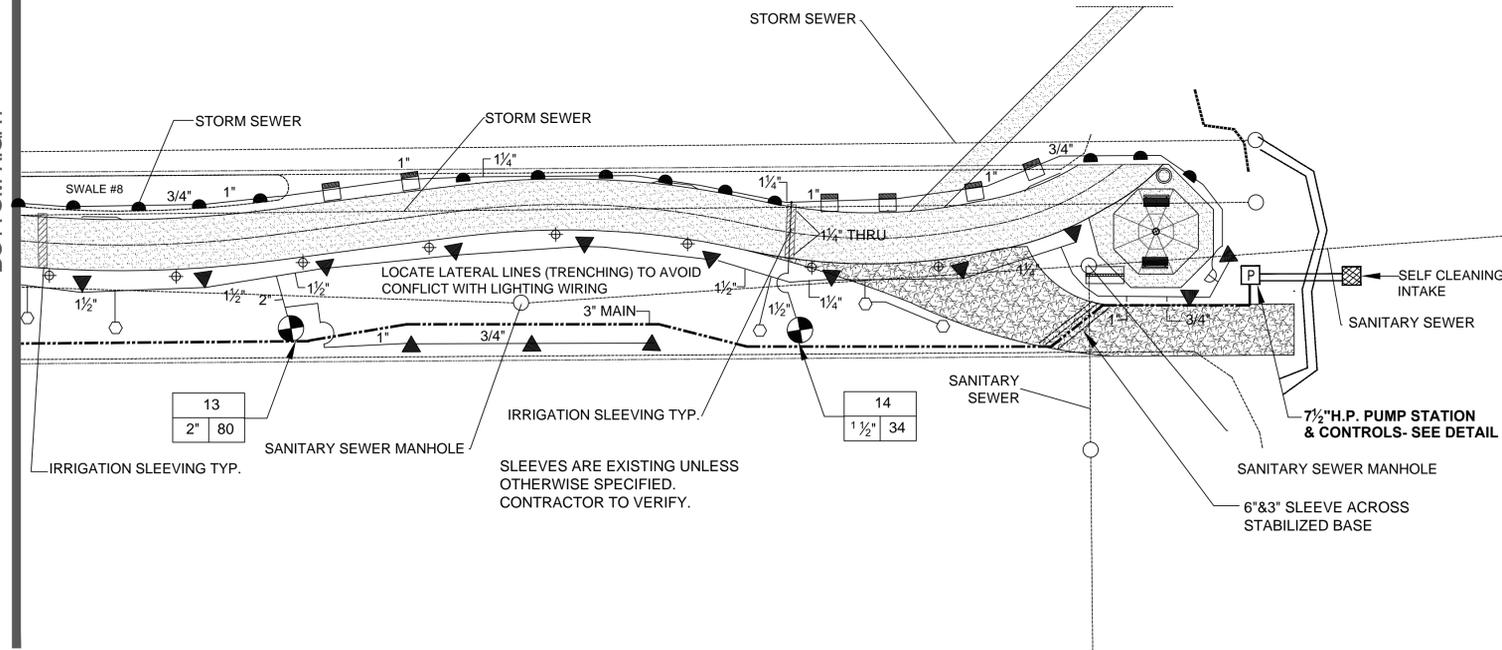
#LA000999
 sheet title:
**irrigation
 plan**
 project number:
 12816
 date: 5-18-17
 scale: 1" = 20'
 drawn by: R.H.

revisions:
 ▲ 8-11-17
 ▲
 ▲
 ▲
 ▲

sheet:
1-2
 2 of 4 sheets

COUNTY-CONSERVATION
PRESERVE AREA

MATCHLINE D SEE SHEET L-2
BOTTOM RIGHT



MATERIAL LIST "A"

ITEM:	UNITS:	QUAN:
6" POP UP ROTORS	EA.	17
12" POP UP ROTORS	EA.	2
12" POP UP SPRAYS/ROTORYS	EA.	2
6" POP UP SPRAYS	EA.	25
12" POP UP SPRAYS	EA.	8
SHRUB RISER SPRAYS	EA.	-
BUBBLERS	EA.	17
1-1/2" ZONE VALVES W/ BOX	EA.	1
2" ZONE VALVES W/ BOX	EA.	4
3" MAINLINE	LF.	640
6" SLEEVES	LF.	10
3" SLEEVES	LF.	10
2" SLEEVES	LF.	-
1-1/4" CONDUIT	LF.	640
1-1/2" CONDUIT	LF.	-
#14 AWG IRRIGATION WIRE	LF.	1100
#12 AWG IRRIGATION WIRE	LF.	700
AIR RELEASE VALVE	EA.	1
% OF PUMP/CONTROL STATION	LS.	44%

NOTE: SPRINKLER HEADS TO INCLUDE ALL LATERAL PIPING
LOW VOLTAGE WIRING/ VALVES TO INCLUDE ALL WIRE CONNECTORS

MATERIAL LIST "B"

ITEM:	UNITS:	QUAN:
6" POP UP ROTORS	EA.	111
12" POP UP ROTORS	EA.	-
12" POP UP SPRAYS/ROTORYS	EA.	-
6" POP UP SPRAYS	EA.	26
12" POP UP SPRAYS	EA.	9
SHRUB RISER SPRAYS	EA.	3
BUBBLERS	EA.	26
1-1/2" ZONE VALVES W/ BOX	EA.	4
2" ZONE VALVES W/ BOX	EA.	5
3" MAINLINE	LF.	1320
6" SLEEVES	LF.	60
3" SLEEVES	LF.	60
2" SLEEVES	LF.	10
1-1/4" CONDUIT	LF.	320
1-1/2" CONDUIT	LF.	1000
#14 AWG IRRIGATION WIRE	LF.	8000
#12 AWG IRRIGATION WIRE	LF.	1400
AIR RELEASE VALVE	EA.	-
% OF PUMP/CONTROL STATION	LS.	66%

NOTE: SPRINKLER HEADS TO INCLUDE ALL LATERAL PIPING
LOW VOLTAGE WIRING/ VALVES TO INCLUDE ALL WIRE CONNECTORS

project:
coconut creek 69th street
greenway improvements

coconut creek
florida

dave bodker
landscape architecture/planning inc.

601 n. congress ave., suite 105-a
delray beach, florida 33445
561-276-6311

#LA000999

sheet title:

irrigation
plan

project number:
12816

date: 5-18-17
scale: 1" = 20'
drawn by: R.H.

revisions:

8-11-17
Δ
Δ
Δ
Δ
Δ

sheet:

1-3

**CITY OF COCONUT CREEK 69TH STREET GREENWAY
HOOVER GREEN
SPECIFICATIONS
SINGLE CENTRIFUGAL PUMP SYSTEM**

CLOCK START VFD
PURPOSE:
To provide a complete prefabricated variable frequency drive skid mounted fiberglass enclosed clock start centrifugal pump system from a sole source company, herein after referred to as the "manufacturer", whose primary business is the manufacture of prefabricated pump systems. The manufacturer will manufacture, flow test, install and warrant the system to meet all specified operating requirements described below and in the system detail. The system shall be a Model HCF-7-353V-230/3-0.E-24L.S.Z as manufactured by Hoover Pumping Systems of Pompano Beach, Florida USA 954-971-7350 specified below and shown on the plan details. This specification describes the general components and minimal operating requirements and shall not be construed as a manufacturing guide or complete list of required system components and appurtenances.

The contractor shall submit seven (7) complete copies of the shop drawings to the designer for approval, prior to system order placement. The submittal shall contain cut sheets for all system components. To be considered an equal, the contractor must submit the following 12 days prior to bid opening: manufacturer brochure showing prefabricated pump systems manufacturing is the primary business of the manufacturer or division proposed to manufacture the system, written specifications, dimensioned layout detail, electrical schematic, product sheets for all main components, Underwriters Laboratory electrical control panel and "Packaged Pumping System" manufacturer's file numbers, list of 6 projects with similar operating systems with current name and phone number of person responsible for system operation, manufacturer's insurance certificate for general liability showing minimum coverage of \$1 million, and written certification from the manufacturer stating the proposed system meets all requirements described in this specification, the detail and the bid documents.

If the data submitted is determined to be an equal by the designer the bidder will be notified prior to the bid date.
FIBERGLASS ENCLOSURE: The pump station shall be protected by a fiberglass enclosure with chemical and ultraviolet resistant open mold resin with exterior finish that is uniform in color and texture, reinforced with fiberglass and stiffeners for rigidity. The enclosure shall open clear of the equipment for ease of service with the aid of gas filled struts, a stainless steel hinge and latching lockable handle. The enclosure shall be of dimensions adequate to contain the pump system mounted on the skid as shown on the system detail.

MOUNTING ASSEMBLY:
The pump station shall be mounted on a prefabricated aluminum or hot dipped galvanized skid. Pedestals shall be provided to mount the pump motor and control panel assemblies. The entire station shall be installed on a reinforced concrete slab sized as noted on the system detail.

PUMP AND MOTOR:
The pump shall be a single-stage end-suction centrifugal type, with the liquid end mounted directly to the motor enclosure to allow rear pull out of the entire motor. A pressure sensor for loss of prime protection shall be mounted on the pump volute.

The system will be designed for operation at 3,450 RPM. The pump driving motor shall be of the squirrel cage induction type. The motor shall be suitable for full voltage starting at 60 Hz. The motor enclosure shall be totally enclosed fan cooled for all motors configured to allow direct mounting of the pump's liquid end.

The motor shall be rated at 7.5 HP at 60 Hz.
PUMP STATION PERFORMANCE:
The required pump performance with a maximum of 12feet of suction lift is as follows: a) discharge pressure of 65 psi, b) maximum required flow of 70 GPM, and c) minimum required flow of 25 GPM.

IRRIGATION PUMP CONTROL PANEL:
The control panel assembly shall be Underwriters Laboratories listed in accordance with section 508A for "enclosed industrial control panels." All control devices and electronic auto-sensory circuitry shall be housed in a self-contained weather-resistant NEMA 4 control cabinet. An electrical schematic shall be permanently mounted inside the cabinet. The control cabinet shall contain the following protection and control equipment:
Operation
This station operates as a Variable Frequency Drive (VFD) clock start, clock retirement system. The station automatically maintains a constant discharge pressure from a pressure transducer input regardless of varying flow demands within the station operating range. The operator interface allows for viewing of system setup parameters.

Hoover-Flow Software features include flow Loss of Prime/No-flow protection, diagnostic information, Phase Loss protection, Phase Unbalance protection, Voltage monitoring and protection, Hoover Drive control.

Clock Start
The pump starts when the irrigation controller (clock) begins a watering sequence.

Clock Retirement
The pump shuts off when the clock completes a watering sequence.
Loss of Prime Protection
If the system pressure remains below the start pressure, and there is no flow of water through the system during pump operation the pump will shut off. The system will remain off until "Reset".

No Flow Protection
If no flow is detected for 60 seconds during pump operation, the pump will shut off. The pump will remain off for 12 minutes and then will restart.

Drive Fault
In case of a drive fault, including under or over voltage, over current, heatsink thermal, and ground fault, the affected pump will shut off, the operator interface will display "Drive Fault". The pump will remain off until the system is "Reset".

Protection Equipment
- Front operated main power disconnect
- Motor fuses for motor and drive short circuit and ground fault protection
- Metal oxide varistors (MOV) for transient voltage suppression per phase
- Fused control circuitry with blown fuse lighted indicator for each circuit

Specification
Electric service to be, in order of preference:
460V 3-Phase (A, B, C, Ground)
230V Closed-Delta 3-Phase (A, B, C, Neutral, Ground)
208V Wye 3-Phase (A, B, C, Neutral, Ground)
230V 1-Phase (A, B, Neutral, Ground)
208V 1-Phase (A, B, Neutral, Ground)
230V Open-Delta 3-Phase (A, B, C, Neutral, Ground).
Selection of 230V Open-Delta 3-Phase may require an increase in electrical equipment size to meet desired performance criteria.

PRESSURE TRANSMITTER:
A 4-20mA-pressure transmitter shall provide a feedback signal to drive PID loops and for system pressure control. The transmitter shall be CE & UL recognized and built with an all stainless steel housing and pressure port, rated to NEMA 4, and able to withstand shock and vibration levels to MIL-STD-810E.

DISCHARGE PIPE MANIFOLD:
The pipe discharge manifold shall be constructed of galvanized steel pipe with galvanized roll groove fittings. A flow-switch, pressure gauge and hose bib will be provided on the station discharge. A wafer type butterfly valve will be provided at pump station discharge.

SUCTION LINE:
The minimum size suction line shall be 3" diameter or larger as required for a maximum of 5 feet per second velocity flow. If a reducing fitting is required at the pump suction, an eccentric reducer shall be installed. Any above ground pipe at the pump system exposed to sunlight shall be schedule 40 galvanized steel with galvanized roll groove fittings. Suction pipe and fittings shall be HDPE heat fused.

SELF-CLEANING SUCTION SCREEN:
The screen assembly frame will be heavy gauge galvanized steel with standard flange connection and threaded connection for the self-cleaning water supply. The jets shall rotate on a bearing while spraying water outward with sufficient force to minimize required service. The intake screen will be 10 mesh 316 stainless steel. The basket assembly will be removable for service. The return line will connect to the intake assembly with a quick release barjo fitting.

The pump system shall include circuitry to integrate the self-cleaning screen into the pump system controls. A 2" tee upstream of the control valve will connect to a 2" brass ball valve, followed by a 2" 150 PSI rated normally closed pressure regulating solenoid valve and 40 mesh 2" disk filter. The control logic will open the solenoid when the pump operates allowing water to return to the intake and flush the screen. The solenoid will close when the pump retires.

IRRIGATION CONTROLLER:
A Rain Bird ESP-Site W with built in CCU model 24 station wall mount controller connected to a Rain Bird rain gauge on 8' pole, flow sensor and master valve shall be mounted on the pump system. The controller shall be powered from a fuse block in the pump system control panel. The controller shall activate the pump via a relay in the control panel on clock start systems.

WARRANTIES:
Prior to shipping, the manufacturer shall flow test the system and submit a certified report to the designer stating the system is within 1% + or - of the specified flow rate and pressure, and meets the operational requirements.

The manufacturer of the pumping station shall warrant all components for a period of one (1) year from date of manufacture. **PN13696**

VARIABLE FREQUENCY DRIVES (VFD):
Variable Frequency Drives with the following characteristics shall be provided for each main pump motor: 32-bit microprocessor controlled Pulse Width Modulated output, IGBT transistors, line reactors, built-in adjustable PID control, acceleration ramp up and down, forced-air ventilation, variable torque control, 32 character alphanumeric English full text parameter display, single function keys, block parameter access, dual analog outputs, automatic and manual reset, opto-isolated outputs, log of last 30 events retained in memory.

MASTER VALVE:
The valve shall be 230 psi working pressure with the following features:
- Continuous duty industrial solenoid
- Large capacity disk filter on pilot control tubing
- 220 psi polyethylene control tubing with prest-o-lock fittings
- Cast iron body and bonnet with polymer coating
- 316 Stainless steel nuts, bolts, washers, shaft and spring
- Stainless steel seat
For Irrigation controller use, the solenoid shall be energized to open, the valve wires will be stubbed into a NEMA 4X junction box on the back of the pump system for connection to the controller by the irrigation contractor.

FLOW SENSOR:
The flow sensor for Rain shall be a Data Industrial model 220B brass insertion type installed as shown in the system details. Install flow sensor 10 pipe diameters downstream and 5 diameters upstream of any fittings.

The following design information should be given to the engineering professional responsible for the design of the electrical supply to the pump system.
The system will be manufactured based on one of the following electrical configurations (listed in order from most preferred to least preferred):

VOLTAGE	PHASE	HERTZ	Panel Connections
460	Three	60	4 Wires (A,B,C,Ground)
230	Three	60	5 Wires (A,B,C,Neutral,Ground)
208	Three	60	5 Wires (A,B,C,Neutral,Ground)
230	Open-Delta Three	60	5 Wires (A,B,C,Neutral,Ground)

The Hoover Pumping Systems pump system is supplied with an Underwriters Laboratory = listed enclosed Industrial Control Panel assembly. The Control Panel assembly contains all of the pump system controls, a main disconnect, and a ground connection. All panel penetrations by the installing electrician must use fittings and methods rated NEMA 4 or NEMA 4X. A separate service disconnect is required for system less than 40 total horsepower.

The pump station will include the following pump motor loads :

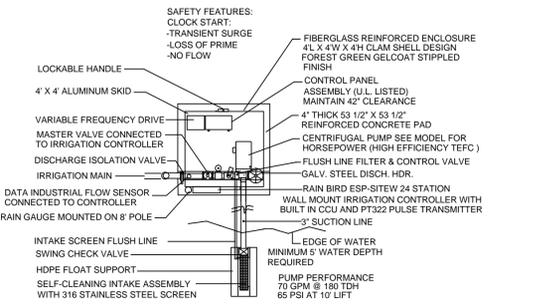
Load	Horsepower	Amps	Service Factor
Pump#1	7.5	Based on voltage/phase	1.15
Control Panel	N/A	4	N/A

The data here maybe used for selection of appropriate electrical supply equipment, including feeder, branch circuit protection, and disconnects.

Please contact Hoover Pumping Systems at (954) 971-7350 for assistance with voltage drop or other application considerations. Thank You.

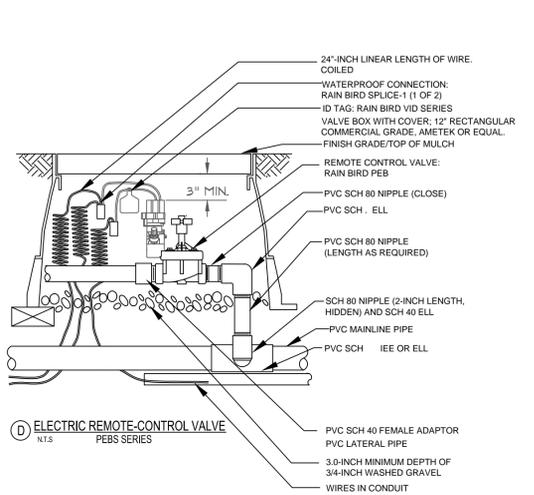
Pump motor Full Load Amps, (FLA), larger of variable frequency drive rated input current (ref. N.E.C. 430-122), or motor FLA per N.E.C.

NOTE: SUCTION PIPES AND FITTINGS SHALL BE HDPE HEAT FUSED. CHECK VALVE 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE. ALL EXPOSED SUCTION & DISCHARGE PIPE ADJACENT TO THE PUMP SYSTEM SHALL BE GALVANIZED STEEL. BUTTERFLY OR BALLVALVE PROVIDED AT EACH PUMP. PROVIDE MINIMUM OF 4" CLEARANCE ON ALL SIDES OF PUMP SYSTEM

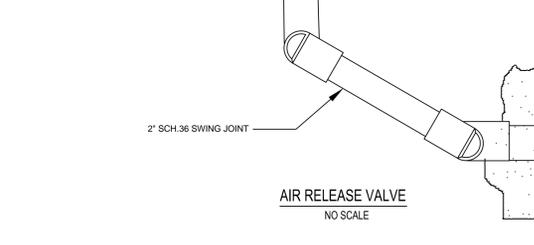
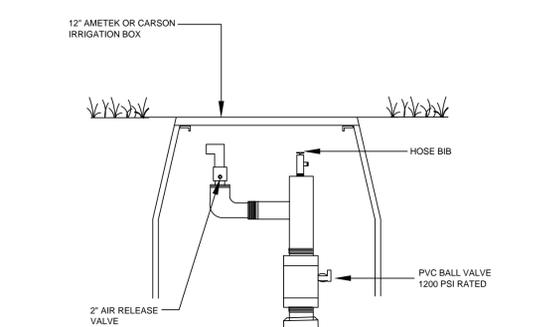


HOOPER PUMPING MODEL: HCF-7-353V-230/3-0E-24L.S.Z
Pompano Beach, Florida, Tel: 954-971-7350
FILE: PN13696.DWG 5/17

**CITY OF COCONUT CREEK 69TH STREET GREENWAY
CENTRIFUGAL PUMP SYSTEM DETAIL
FIBERGLASS ENCLOSED SINGLE LAKE SUCTION
CLOCK START, VARIABLE FREQUENCY DRIVE(VFD)
SELF-CLEANING INTAKE SCREEN**



D ELECTRIC REMOTE-CONTROL VALVE
N.T.S
PEBS SERIES



SPRINKLER HEAD LEGEND

SYM.	TYPE	MODEL #	QTY.
▲	6" POP UP ROTOR	RAINBIRD #5006+PCSR-3.0	189
▣	12" POP UP ROTOR	RAINBIRD #5012+PCSR-3.0	2
▣	12" POP UP ROTORY NZL.	RAINBIRD #RD1812-SAM-R-17	2
●	6" POP UP SPRAY	RAINBIRD #RD1806-SAM-NZL BELOW	38
○		-15"H	
○		-12"F	
○		-12"H	
○		-12"T	
○		-10"H	
▣	12" POP UP SPRAYS	RAINBIRD #RD1812-SAM-NZL BELOW	21
▣		-12"HEVAN	
▣		-12"H	
▣		-12"T	
▣		-15"CS	
○	SHRUB RISER SPRAY	RAINBIRD #RD1804-SAM-12"H	3
○	TREE BUBBLER	RAINBIRD #1404	39

NOTE: USE PROPER SCREENS IN ALL HEADS

NOTES:
PIPING:
MAINLINE: SCH.40 PVC X 18"DEEP MIN.
CONDUITS: SCH.40 GRAY PVC RUN WITH MAIN.
ZONELINES: SCH.40 PVC 3/4" TO 1-1/4" TO BE 12" DEEP. MIN. 1-1/2" & LARGER TO BE 15"DEEP.
FITTINGS: MAINLINES: SCH. 80 PVC, ZONELINES: SCH.40 PVC
SLEEVES: SCH. 40 PVC X 24"DEEP UNDER PAVEMENT W/ NO COUPLINGS
SCH. 40 PVC UNDER WALKS X CARRIER PIPE DEPTH.
FABRICATE WITH SQUARE CUT, DEBURRED AND FULLY ENGAGED JOINTS.
USE PURPLE CLEANER & GREY MEDIUM BODY CEMENT.

CONTROL WIRING:
#14 AWG FOR HOT AND SPARES #12 AWG FOR COMMON, PE IRRIGATION WIRE RUN IN 1-1/2" CONDUIT FROM CONTROLLER TO ZONE #8 AND 1-1/4" CONDUIT FRO ZONE 8 TO END. WITH NEW MAINS AND THRU EXISTING SLEEVED DRIVEWAY CROSSING. USE FULL SIZE MOISTURE PROOF CONNECTORS FOR ALL SPLICES DBY-UL OR EQUAL
SPlice ONLY IN VALVE OR A FULL BOX. COIL 24" OF WIRE AT ALL SPLICES OR SOLENOID CONNECTIONS. RUN 2 SPARES MIN. DO NOT USE MULTI STRAND WIRE.

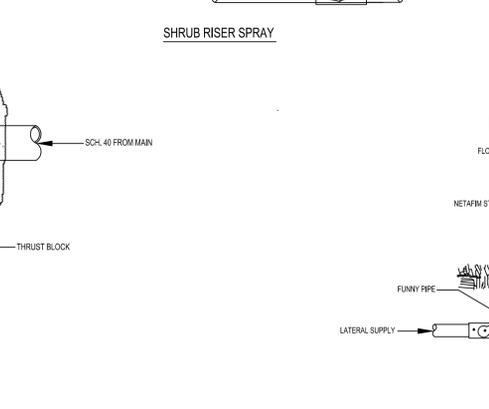
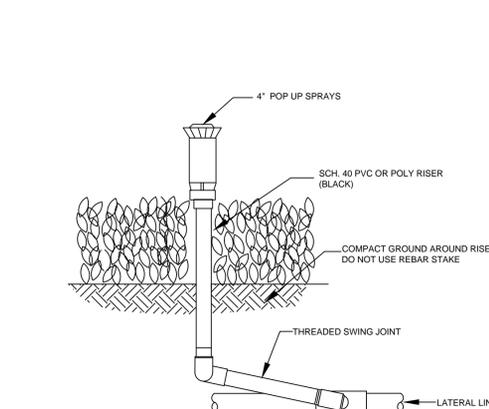
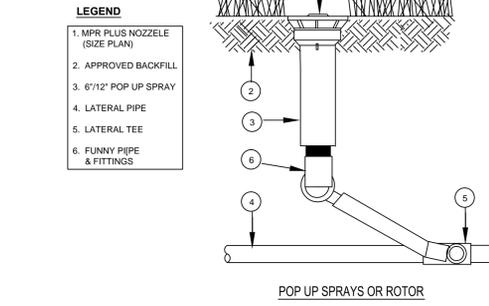
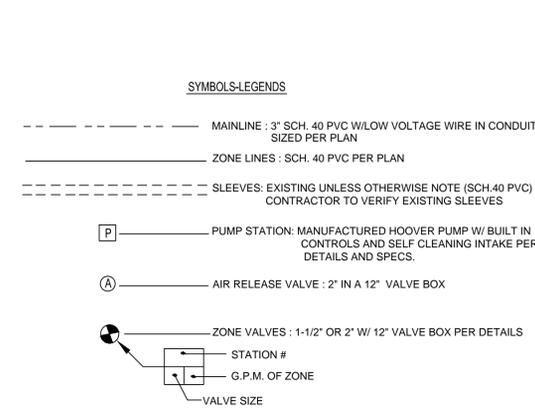
BACKFILL ALL TRENCHES FREE OF DEBRIS. COMPACT TRENCHES TO ORIGINAL DENSITY. FLUSH ALL LINES. USE PROPER SCREENS IN ALL HEADS. ADJUST ALL HEADS AND SYSTEM FOR COMPLETE COVERAGE AVOIDING WATER ON WALLS, WALKS, ROADWAY, ETC.

CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES AS REQUIRED BY FLORIDA LAW.

INSTALLATION SHALL COMPLY TO THE FLORIDA BUILDING CODE, APPENDIX "F" AND LOCAL CODES AND REGULATIONS.

PRESSURE TEST MAILINE AT 100 PSI FOR 2 HOURS WITH NO FLOW ON FLOW METER OR VISUAL LEAKAGE OR TO LOCAL CODES..REPAIR AND RETEST AS REQUIRED.

SYMBOLS-LEGENDS
----- MAINLINE : 3" SCH. 40 PVC W/LOW VOLTAGE WIRE IN CONDUIT SIZED PER PLAN
----- ZONE LINES : SCH. 40 PVC PER PLAN
----- SLEEVES: EXISTING UNLESS OTHERWISE NOTE (SCH 40 PVC) CONTRACTOR TO VERIFY EXISTING SLEEVES



Project:
**coconut creek 69th street
greenway improvements**

coconut creek
florida

dave bodker
landscape architecture/planning inc.

601 n. congress ave., suite 105-a
delay beach, florida 33445
561-276-6311

#LA000999

sheet title:
**irrigation
details**

project number:
12816

date:
5-18-17
scale:
n.t.s.
drawn by:
R.H.

revisions:

- ▲ 8-11-17
- ▲
- ▲
- ▲
- ▲
- ▲

sheet: