SECTION Nos.:	**86028000, 86120000, 86100000, 86130000**
S.R. Nos.:	**834, 810, 7, 814**
FM Nos.:	**409222-1-74-01**
	423268-1-58-01
	423270-1-58-01
WPI Nos.:	**4119110**
	4110332
RESOLUTION No.:	**96-72**

DISTRICT FOUR (4)
MAINTENANCE MEMORANDUM OF AGREEMENT
INCLUSIVE AGREEMENT

THIS AGREEMENT, made and entered into this 27 day of May 2009, by and between the **STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION**, a component agency of the State of Florida, hereinafter called the DEPARTMENT and the **CITY OF COCONUT CREEK**, a municipal corporation of the State of Florida, existing under the Laws of Florida, hereinafter called the AGENCY.

W I T N E S S E T H:

WHEREAS, **the DEPARTMENT** has jurisdiction over State Roads 834, 810, 7, and 814 as part of the State Highway System as described in Exhibit A; and

WHEREAS, the AGENCY seeks to install and maintain certain landscape improvements within the right-of-way of State Road 7 as described within Exhibit B; and

WHEREAS, the AGENCY and the DEPARTMENT have entered into previous agreements for the AGENCY to maintain landscape improvements on DEPARTMENT right-of-way; and

WHEREAS, as part of the continual updating of the State of Florida Highway System, the DEPARTMENT, for the purpose of safety, protection of the investment and other reasons, has constructed and does maintain the highway facilities as State Roads 834, 810, 7, and 814 described further in Exhibit A attached hereto and incorporated by reference herein; and

WHEREAS, the AGENCY/ DEPARTMENT is of the opinion that highway facilities within the AGENCY'S limits that contain landscape improvements to medians and areas outside the travel way to the right of way line and areas within the travel way containing specialty surfacing (concrete pavers, stamped asphalt or stamped concrete), including any hardscape, but excluding standard concrete sidewalk, shall be maintained by periodic pruning, mowing, fertilizing, weeding, litter pick-up, necessary replanting, irrigation repair and any median concrete replacements associated with the specialty surfacing as needed; and

WHEREAS, it is the intent of the AGENCY and the DEPARTMENT that the AGENCY shall maintain all right of way within the medians, outside the travel way and improvements

made to the travel way that were made at the request of the AGENCY; and

WHEREAS, the AGENCY and DEPARTMENT intend for this agreement to replace and supersede the agreements described in Exhibit C except as otherwise provided in this Agreement; and

WHEREAS, the parties hereto mutually recognize the need for entering into an Agreement designating and setting forth the responsibilities of each party; and

WHEREAS, the AGENCY by Resolution No. 2009-112 dated April 30, 2009, attached hereto and by this reference made a part hereof, desires to enter into this Agreement and authorizes its officers to do so;

NOW THEREFORE, for and in consideration of the mutual benefits to flow each to the other, the parties covenant and agree as follows:

1. The recitals set forth above are true and correct and are deemed incorporated herein.

2. INSTALLATION OF FACILITIES BY AGENCY

The AGENCY has installed, or will install certain landscape improvements including: plantings, irrigation and/or hardscape on the highway facilities substantially as specified in plans and specifications hereinafter referred to as the Projects and incorporated herein as referenced as State Roads 834, 810, and 7 in Exhibits B, C and D. Hardscape shall mean, but not limited to: any non-standard landscape lighting, fountain, tree grates, decorative free standing wall, and/or sidewalk or median specialty surfacing such as but not limited to: concrete pavers, stamped asphalt or stamped concrete.

When the AGENCY is installing or will install the PROJECT, they shall comply with the following criteria.

(a) All plant materials shall be installed and maintained in strict accordance with sound nursery practice prescribed by the International Society of Arboriculture (ISA); all plant materials installed shall be Florida #1 or better according to the most current edition of Florida Department of Agriculture, *Florida Grades and Standards for Nursery Stock;* and all trees shall meet Florida Power & Light, *Right Tree, Right Place, South Florida.*

(b) Trees and palms within the right-of-way shall be installed and pruned to prevent encroachment to roadways, clear zones and sidewalks. Definition of these criteria is included in the most current editions of FDOT standards for design, construction, maintenance, and utility operations on the state highway system.

(c) Tree and palm pruning shall be supervised by properly trained personnel trained in tree pruning techniques and shall meet the most current standards set forth by the International Society of Arboriculture (ISA) and the American National Standard Institute (ANSI) Part A-300 and be licensed by Broward County Environment Protection Department to perform this work.

(d) Irrigation installation and maintenance activities shall conform to the standards set forth by the Florida Irrigation Society (FIS) latest edition of FIS, *Standards and Specifications for Turf and Landscape Irrigation Systems.*

(e) The AGENCY shall provide the DEPARTMENT accurate as-built plans of the system so if in the future there is a need for the DEPARTMENT to perform work in the area, the system can be accommodated as much as possible.

(f) If it becomes necessary to provide utilities (water/electricity) to the median or side areas, it shall be the AGENCY'S responsibility to obtain a permit for such work through the local maintenance office and the AGENCY shall be responsible for all associated fees for the installation and maintenance of these utilities.

(g) All hardscape shall be installed and maintained in strict accordance with the most current edition of the *Florida Accessibility Code for Building Construction* and the *Interlocking Concrete Pavement institute (ICPI).*

(h) All activities, including project installation and future maintenance operations performed on State highway right-of-way, must be in conformity with the most current edition of the *Manual on Uniform Traffic Control* (MUTCD) and *FDOT Design Standards,* Index 600 Series, *Traffic Control through Work Zones.*

(i) The most current edition of *FDOT Design Standards,* Index 546 must be adhered to.

(j) Horizontal Clearance and Clear Zone as specified in the *FDOT Plans Preparation Manual,* Volume 1, Chapters 2 and 4 and *FDOT Design Standards,* Index 700 must be adhered to.

(k) Landscape improvements shall not obstruct roadside signs or permitted outdoor advertising signs, (see Florida Administrative *Code* [F.A.C.] Rule Chapter 14-40, Part 1 and Part III.)

(l) The AGENCY shall provide the local FDOT Operation Center, located at Broward Operations, 5548 NW 9th Avenue, Ft. Lauderdale, FL 33309 (954) 776-4300a twenty-four (24) hour telephone number and the name of a responsible person that the DEPARTMENT may contact. The AGENCY shall notify the local maintenance office forty-eight (48) hours prior to the start of the project.

(m) If there is a need to restrict the normal flow of traffic, it shall be done on off-peak hours (9 AM to 3 PM), and the party performing such work shall give notice to the local law enforcement agency within whose jurisdiction such road is located prior to commencing work on the project. The DEPARTMENT'S Public Information Office shall also be notified.

(n) The AGENCY shall be responsible to clear all utilities within the project limits.

(o) The AGENCY shall follow the minimum level of maintenance guidelines as set forth in FDOT'S Rule Chapter 14-40 *Highway Beautification and Landscape*

Management, in the FDOT *Guide to Roadside Mowing and Maintenance Management System,* and Exhibit F, the Maintenance Plan for maintenance activities for landscape projects along with the Maintenance Plans attached to the superceded agreements.

3. MAINTENANCE OF FACILITIES

A. The AGENCY agrees to maintain the landscape improvements, as existing and those to be installed, within the physical limits described in Exhibit A and as defined as: plantings, irrigation, and / or hardscape within the medians and areas outside the travel way to the right of way line and areas within the travelway containing specialty surfacing as existing and as described in Exhibits B and D. The non-standard improvements to the travelway shall be maintained by the AGENCY regardless if the said improvement was made by the DEPARTMENT, the AGENCY, or others by periodic pruning, mowing, fertilizing, weeding, curb and sidewalk edging, litter pickup, necessary replanting, and / or repair following the DEPARTMENT'S landscape safety and maintenance guidelines and Exhibit E, the Maintenance Plan. The AGENCY'S responsibility for maintenance shall include all landscaped / turfed and hardscape areas within the median and areas outside the travelway to the right-of-way and areas within the travelway containing specialty surfacing. It shall be the responsibility of the AGENCY to restore an unacceptable ride condition of the roadway caused by the differential characteristics of non-standard surfacing and the associated header curb and concrete areas on the DEPARTMENT right-of-way within the limits of this Agreement.

B. Such maintenance to be provided by the AGENCY is specifically set out as follows: to maintain, which means the proper watering and fertilization of all plants and keeping them as free as practicable from disease and harmful insects; to properly mulch the planting beds; to keep the premises free of weeds; to mow the grass to the proper height; to properly prune all plants which at a minimum includes: (1) removing dead or diseased parts of plants, (2) pruning such parts thereof to provide clear visibility to signage or for those using the roadway and or sidewalk; (3) preventing any other potential roadway hazards. Plants shall be those items which would be scientifically classified as plants and include but are not limited to trees, shrubs, groundcover and sod. To maintain also means removing or replacing dead or diseased plants in their entirety, or removing or replacing those that fall below original project standards. Palms must be kept fruit free year round. To maintain also means keeping the header curbs that contain the surfacing treatment in optimum condition. To maintain also means keeping the hardscape areas free from weeds and repairing said hardscape as is necessary to prevent a safety hazard. To maintain also means keeping litter removed from the median and areas outside the travel way to the right of way line. All plants removed for whatever reason shall be replaced by plants of the same species type, size, and grade as specified in the original plans and specifications. Any changes to the original plans shall be submitted by permit application to the DEPARTMENT for review and approval.

C. If it becomes necessary to provide utilities (water/electricity) to the medians or areas outside the travelway for these improvements, all costs associated with the utilities associated with landscape accent lighting and/or irrigation including, but not limited to the impact and connection fees, and the on-going cost of utility usage for water and electrical, are the maintaining AGENCY'S responsibility.

(1) The AGENCY shall become responsible for the above named utility costs upon final acceptance of the construction project by the DEPARTMENT and thereafter. The construction project is accepted prior to the start of the Plant Establishment and Contractor's Warranty Period.

AND

(2) The AGENCY shall be responsible for all the improvements immediately after final acceptance of the construction project by the DEPARTMENT except for plants. The AGENCY shall be responsible for the maintenance of all improvements after the completion of the Plant Establishment and Contractor's Warranty Period.

D. The above named functions to be performed by the AGENCY may be subject to periodic inspections by the DEPARTMENT at the discretion of the DEPARTMENT. Such inspection findings will be shared with the AGENCY and shall be the basis of all decisions regarding, repayment, reworking or agreement termination. The AGENCY shall not change or deviate from said plans without written approval of the DEPARTMENT.

4. SUPERSEDED PRECEDING AGREEMENTS

This Agreement shall replace and supersede any and all preceding agreements as listed in Exhibit C except as specifically excepted out. The landscape improvement plans attached to the referenced agreements shall by reference become a part of this agreement as if they were attached hereto. The AGENCY shall have the same duty to maintain those landscape improvements under this Agreement as the Agency did under the previous agreements, and as more specifically detailed in this Agreement.

This writing embodies the entire Agreement and understanding between the parties hereto and there are no other Agreements and understanding, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby except as specifically reference in Exhibit C.

5. NOTICE OF MAINTENANCE DEFICIENCIES

A. If at any time after the AGENCY has undertaken the landscape improvement installation and/or maintenance responsibility mentioned above, it shall come to the attention of the DEPARTMENT'S District Secretary that the limits, or a part thereof, are not properly maintained pursuant to the terms of this Agreement, said District Secretary, may at his/her option, issue a written notice that a deficiency or deficiencies exist(s), by sending a certified letter to the AGENCY, to placing said AGENCY on notice thereof. Thereafter, the AGENCY shall have a period of thirty (30) calendar days within which to correct the cited deficiencies. If said deficiencies are not corrected within this time period, the DEPARTMENT may, at its option, proceed as follows:

(1) Complete the installation, or part thereof, with DEPARTMENT or Contractor's personnel and deduct the cost of such work from the final payment for said work or part thereof, or

(2) Maintain the landscape improvements or any part thereof, with the DEPARTMENT or Contractor's personnel and invoice the AGENCY for expenses incurred, or

(3) At the discretion of the DEPARTMENT terminate the Agreement in accordance with Paragraph 12, and remove, by the DEPARTMENT or private Contractor's personnel, all of the landscape improvements installed under this Agreement or any preceding Agreements except as to trees and palms and charge the AGENCY the reasonable cost of such removal.

B. The AGENCY agrees to reimburse the DEPARTMENT all monies expended by the DEPARTMENT for the projects listed in Exhibits B and C in the amounts listed in those agreements should the landscape improvement areas fail to be maintained in accordance with the terms and conditions of this Agreement in the amounts listed in those agreements.

6. FUTURE DEPARTMENT IMPROVEMENTS

In the event the DEPARTMENT decides to construct additional landscape improvements or modify these improvements within the limits of the rights of way herein previously identified, the DEPARTMENT and the AGENCY shall agree in writing and require signature from the responsible AGENCY (*Chairperson/Mayor/City Manager/City Engineer/Director of Public Works/Director of Parks and Recreation approval signature*) to the new landscape improvements and maintenance plan thereof. If the AGENCY and the DEPARTMENT are unable to come to an agreement, the DEPARTMENT, in its sole discretion, may install sod and the agency shall be required, pursuant to this Agreement, to continue maintaining said landscape improvements. It is understood between the parties hereto that the landscape improvements covered by this Agreement may be removed, relocated, or adjusted at any time in the future, as determined to be necessary by the DEPARTMENT in order that the adjacent state road be widened, altered, or otherwise changed to meet with future criteria or planning of the DEPARTMENT. The AGENCY shall be given sixty (60) calendar day's notice to remove said landscape/hardscape after which time the DEPARTMENT may remove same. All permits (including tree permits), fees, and any mitigation associated with the removal, relocation or adjustments of these improvements are the maintaining AGENCY'S responsibility.

7. FUTURE AGENCY IMPROVEMENTS

The AGENCY may construct additional landscape improvements within the limits of the rights of ways identified as a result of this document, subject to the following conditions:

(a) Plans for any new landscape improvements shall be subject to approval by the DEPARTMENT. The AGENCY shall not change or deviate from said plans without written approval by the DEPARTMENT.

(b) The AGENCY shall procure a permit from the DEPARTMENT.

(c) All landscape improvements shall be developed and implemented in accordance with appropriate state safety and roadway design standards.

(d) The AGENCY agrees to comply with the requirements of this Agreement with regard to any additional landscape improvements installed at no cost to the DEPARTMENT.

8. ADJACENT PROPERTY OWNER IMPROVEMENTS

The DEPARTMENT may allow an adjacent property owner to construct additional landscape or hardscape improvements within the limits of the right of-way identified in Exhibit A of this document that the AGENCY shall be responsible for maintaining under this agreement subject to the following conditions:

(a) Plans for any new landscape improvements shall be subject to approval by the DEPARTMENT and shall require a valid permit attached with a letter of consent to said plans by the AGENCY. The plans shall not be changed or deviated from without written approval by the DEPARTMENT and the AGENCY.

(b) All landscape improvements shall be developed and implemented in accordance with appropriate state safety and roadway design standards.

(c) The AGENCY agrees to comply with the requirements of the Agreement with regard to any additional landscape improvements installed by an adjacent owner.

9. PROJECT COST

The DEPARTMENT may enter into a separate contract with the AGENCY for the installation of the Project (Phase I) for an amount not to exceed $200,000.00 and for the installation of the Project (Phase II) for an amount not to exceed $250,000.00 as defined in Exhibit F. This amount may be reduced or eliminated at the sole discretion of the DEPARTMENT or due to budgetary constraints of the DEPARTMENT.

The AGENCY shall be invited to assist the DEPARTMENT in final inspection upon completion of the Plant Establishment and Contractor's Warranty Period.

10. AGENCY REIMBURSEMENT

The DEPARTMENT and the AGENCY intend to enter into a separate agreement(s) as further described in Exhibit E attached hereto and made a part hereof. Reimbursement is limited as provided in those agreements. The DEPARTMENT shall be invited to assist the AGENCY in final inspections before acceptance of the job by the AGENCY

11. AGREEMENT TERMINATION

This Agreement may be terminated under any one (1) of the following conditions:

(a) By the DEPARTMENT, if the AGENCY fails to perform its duties under this Agreement, following ten (10) days written notice.

(b) By the DEPARTMENT, for refusal by the AGENCY to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the AGENCY in conjunction with this Agreement.

12. AGREEMENT TERM

A. The term of this Agreement commences upon execution by all parties. The term of this Agreement shall last as long as the landscape improvements exist.

B. If the DEPARTMENT cancels one or all the project(s) described in Exhibit B, this Agreementshall still be valid.

13. LIABILITY AND INSURANCE REQUIREMENTS

A. With respect to any of the AGENCY'S agents, consultants, sub-consultants, contractors, and/or sub-contractors, such party in any contract for this project shall agree to indemnify, defend, save and hold harmless the DEPARTMENT from all claims, demands, liabilities, and suits of any nature arising out of, because of or due to any intentional and/or negligent act or occurrence, omission or commission of such agents, consultants, subconsultants, contractors and/or subcontractors. The AGENCY shall provide to the DEPARTMENT written evidence of the foregoing upon the request of the DEPARTMENT. It is specifically understood and agreed that this indemnification clause does not cover or indemnify the DEPARTMENT for its own negligence.

B. In the event that AGENCY contracts with a third party to provide the services set forth herein, any contract with such third party shall include the following provisions:

(a) AGENCY'S contractor shall at all times during the term of this Agreement keep and maintain in full force and effect, at contractor's sole cost and expense, Comprehensive General Liability with minimum limits of $1,000,000.00 per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability and provide Worker's Compensation Insurance in accordance with the laws of the State of Florida and in amounts sufficient to secure the benefits of the Florida Worker's Compensation Law for all employees. Coverage must be afforded on a form no more restrictive that the latest edition of the Comprehensive General Liability and Worker's Compensation policy without restrictive endorsements, as filed by the Insurance Services Office and shall name DEPARTMENT as an additional insured.

(b) AGENCY'S contractor shall furnish AGENCY with Certificates of Insurance of Endorsements evidencing the insurance coverages specified herein prior to the beginning performance of work under this Agreement.

(c) Coverage is not to cease and is to remain in full force and effect (subject to cancellation notice) until all performance required of AGENCY'S contractor is completed. All policies must be endorsed to provide the DEPARTMENT with at least thirty (30) days notice of cancellation and or/or restriction. If any of the

insurance coverages will expire prior to the completion of work, copies of renewal policies shall be furnished at least (30) days prior to the date of expiration.

14. The DEPARTMENT, during any fiscal year, shall not expend money, incur any liability, nor enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The DEPARTMENT shall require a statement from the Comptroller of the DEPARTMENT that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verbatim in all contracts of the DEPARTMENT which are for an amount in excess of TWENTY-FIVE THOUSAND DOLLARS ($25,000.00) and which have a term for a period of more than one year.

15. The DEPARTMENT'S District Secretary shall decide all questions, difficulties, and disputes of any nature whatsoever that may arise under or by reason of this Agreement, the prosecution or fulfillment of the service hereunder and the character, quality, amount and value thereof; and his decision upon all claims, questions, and disputes shall be final and conclusive upon the parties hereto.

16. This Agreement may not be assigned or transferred by the AGENCY, in whole or in part, without the prior written consent of the DEPARTMENT.

17. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. In the event of a conflict between any portion of the contract and Florida law, the laws of Florida shall prevail. The Agency agrees to waive forum and venue and that the Department shall determine the forum and venue in which any dispute under this agreement is decided

18. EXCEPTION TO SUPERSEDED PRECEDING AGREEMENTS

    This Agreement constitutes the complete and final expression of parties with respect to the subject matter hereof and supersedes all prior agreements, understanding, or negotiations with respect thereto, with the exception of the landscape improvements plans incorporated by reference in Exhibit B, Exhibit C and the Agreement "Excepted Out" in Exhibit C.

19. NOTICES

    Any and all notices given or required under this Agreement shall be in writing and either personally delivered with receipt acknowledgement or sent by certified mail, return receipt requested. All notices shall be sent to the following addresses:

If to the DEPARTMENT:

State of Florida Department of Transportation
Planning & Environmental Management
3400 West Commercial Blvd.
Ft. Lauderdale, FL 33309-3421
Attention: Elisabeth A. Hassett, R.L.A.
FDOT District IV Landscape Architect

If to the AGENCY:

City of Coconut Creek
4800 West Copans Road
Coconut Creek, Florida 33063
Attention: Ms. Pamela Stanton
City Landscape Architect

21. LIST OF EXHIBITS

Exhibit A: City of Coconut Creek Limits & Agreement Status Graphic
Exhibit B: Project(s) Pending Agreements
Exhibit C: Preceding Project Agreements and Lease Agreement(s) Descriptions
Exhibit D: Pending Agency Project(s) Landscape Improvement Plans
Exhibit E: Maintenance Plan (s)
Exhibit F: Pending Agency Project(s) Cost Estimates

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective the day and year first above written.

AGENCY CITY OF COCONUT CREEK

By: _____
City Manager David J. Rivera

Attest: _____ (SEAL)
Clerk

Approval as to Form Date

_____ 4/28/09
Attorney
NANCY A. COUSINS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

By: _____
Transportation Development Director

Attest: _____ (SEAL)
Executive Secretary

Approval as to Form Date

_____ 5/27/2009
District General Counsel

SECTION Nos. :	**86028000, 86120000, 86100000, 86130000**
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	4110332
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EXHIBIT A

CITY OF COCONUT CREEK CITY LIMITS

All state right of way within the limits of the City of Coconut:

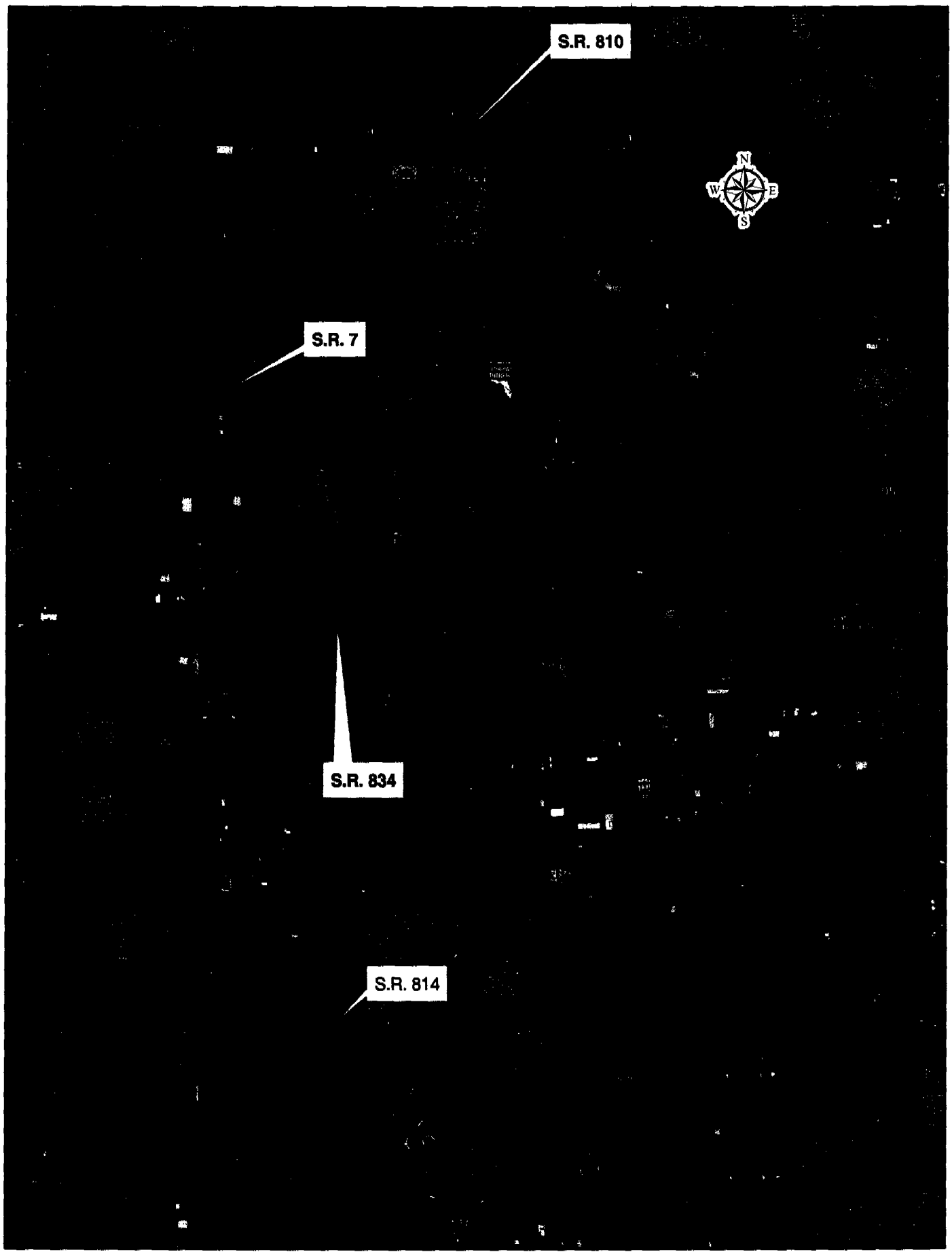
SR 834 (Sample Road)
M.P. 3.008 (SR 91) to M.P. 5.030 (West of SR 7)

SR 810 (Hillsboro Boulevard)
M.P. 0.000 (East of SR 7) to M.P. 1.997 (East of SR 91)

SR 7 (US 441)
M.P. 20.861 (Winston Park/Creekside Drive) to M.P. 24.591 (Broward/Palm Beach County Line)

SR 814 (Atlantic Boulevard)
M.P. 0.753 (East Hemingway Court) to M.P. 1.715 (SR 91)

Coconut Creek.Docx



CITY OF COCONUT CREEK

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EXHIBIT B

PROJECT(S) PENDING AGREEMENT(S)

All state right of way on SR 7 (US 441) within the limits of the City of Coconut Creek

AGENCY INSTALLED PROJECT:

Phase I - South Median SR 7 (US 441) from the first median north of SR 869 (MP 22.700) through the fourth median north of SR 869 (MP 24.445).

Phase II - North Median SR 7 (US 441) from the fifth median north of SR 869 (MP 24.445) to the Broward/Palm Beach County Line (MP 24.591).

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	4110332
RESOLUTION No.:	**96-72**

EXHIBIT C

PRECEDING PROJECT AGREEMENT DESCRIPTIONS AND LEASE AGREEMENT DESCRIPTIONS

The following agreements have been executed for projects that have been installed, in accordance with the plans and specifications attached hereto and incorporated herein but not exclusive to the following agreement descriptions:

AGREEMENTS SUPERSEDED BY THIS AGREEMENT

4/12/01 - State Road 834 (Sample Road) from west of the **SR 7 (M.P. 5.030) to Turnpike (M.P. 3.008)** maintenance shall include all landscaped/turfed areas and areas covered with hardscape within the median and areas outside the travel way to the ROW line. Resolution No. 2001-40 (4/12/01), FIN No. 4092221, Section No. 86028.

8/8/91 - State Road 834 (Sample Road) from **SR 7 (M.P. 5.030) to Turnpike (M.P. 3.008)** maintenance shall include all landscaped and /or turfed areas on FDOT ROW within project limits. Resolution No. 91-54 (6/27/91).

1/11/95 - State Road 810 (Hillsboro Blvd.) from just east of **SR 7 (M.P. 0.010)**to just east of the **Turnpike (M.P. 2.029)** maintenance shall include all landscape/turfed areas and areas covered with interlocking pavers (hardscape) on FDOT ROW and within project limits. Resolution No. 94-75 (9/8/74).

10/24/96 East side of State Road 7 (US 441) adjacent to **Winston Park/Creekside Drive [(M.P. 22.234)**east to **M.P. 22.390]** maintenance shall include all landscape/turfed areas and areas covered with interlocking pavers (hardscape) on FDOT ROW and within project limits. Resolution No. 96-72 (10/24/96), Section No. 86100.

EXHIBIT C (continued)

AGREEMENTS EXCEPTED OUT OF THIS AGREEMENT

1/25/2005 - Local Agency Program Agreement Coconut Creek Education Corridor is a two mile section of Coconut Creek parkway between the Florida Turnpike and SR 7 (US 441) within the City of Coconut Creek. Phase I will consist of work at the intersection of Coconut Creek Parkway and Lyons Road. (565 ft. in each direction). FM #416319-1-A8-01.

The requirements of this agreement shall apply in addition to the requirements of this Inclusive Agreement.

This Agreement, pursuant to paragraph number 19, shall supersede all other above agreements except as to the actual landscape plans that have not been replanted by subsequent FDOT approved projects. The terms of this agreement shall apply to those landscape plans.

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EXHIBIT D

PENDING AGENCY PROJECT(S) LANDSCAPE IMPROVEMENT PLANS

Please see attached plans by:

Phase I - State Road 7 (US 441) South Medians

Brian Shore, RLA/Miller Legg — Dated: June 4, 2008

Phase II - State Road 7 (US 441) North Medians

Brian Shore, RLA/Miller Legg — Dated: February 25, 2009

CONTRACT PLANS

BROWARD COUNTY

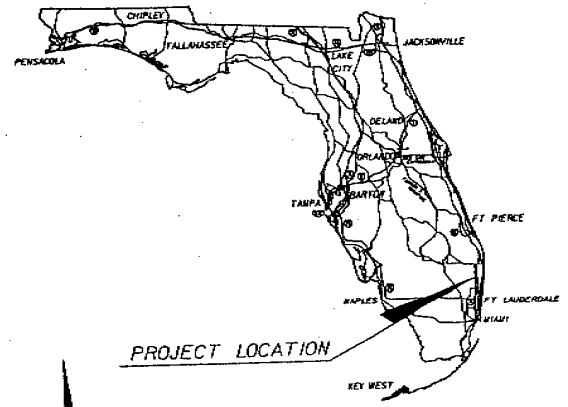
STATE ROAD NO. 7/US 441

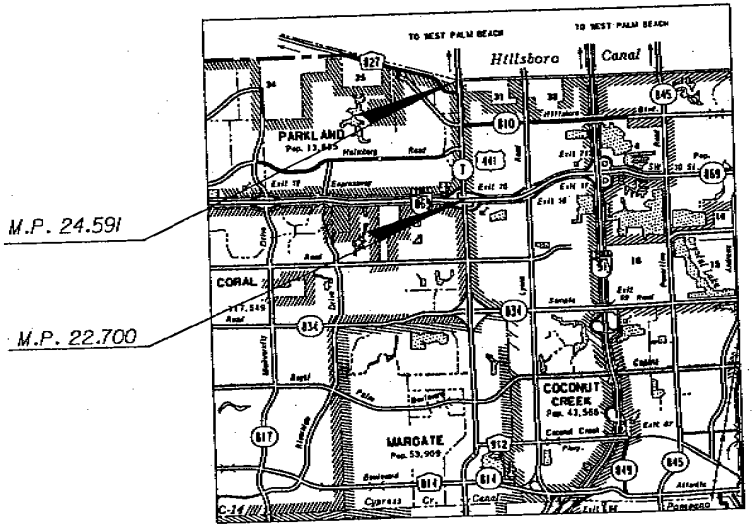
NORTH OF SAWGRASS EXPRESSWAY (M.P. 22.700)
TO BROWARD/PALM BEACH COUNTY LINE (M.P. 24.591)

LANDSCAPE BEAUTIFICATION PROJECT

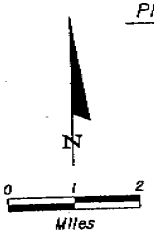
INDEX OF LANDSCAPE PLANS

SHEET NO.	SHEET DESCRIPTION
LD-1	KEY SHEET
LD-2 thru ~~LD-3~~	TABULATION OF QUANTITIES/PLANT SCHEDULE
LD-4	LANDSCAPE NOTES
LD-5 thru LD-8	EXISTING CONDITION CHART
LD-9 thru ~~LD-29~~ LD-A	EXISTING CONDITION PLAN
LD-30 and LD-31	HARDSCAPE NOTES AND DETAILS
LD-32 thru ~~LD-52~~ LD-F2	LANDSCAPE/HARDSCAPE PLAN
LD-53 thru LD-54	IRRIGATION NOTES
LD-55	IRRIGATION NOTES & DETAILS
LD-56 thru LD-58	IRRIGATION DETAILS
LD-59 thru ~~LD-79~~ LD-G1	IRRIGATION PLAN
LD-80	TRAFFIC CONTROL NOTES
LD-81 and LD-82	TRAFFIC CONTROL DETAILS





PROJECT LENGTH: 1.891 MILES



PLANS PREPARED BY:

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Certification of Authorization: LC0000337

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

DESIGN SPEED: 50 MPH

MEDIANS 1-4
STA: 0.00 TO 96+20
06-04-2008

City of Coconut Creek
4800 West Copans Road
954-973-6770 - Fax: 954-973-6794
www.coconutcreekgov.net

Mayor: Lou Sarbone
Vice Mayor: Becky Tooley
Commissioner: Marilyn Gerber
Commissioner: Leonard Freund
Commissioner: Ron Dearing, Jr.
City Manager: John P. Kelly

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED 2008, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2007, SECTION 580 LANDSCAPE INSTALLATION, AS AMENDED BY CONTRACT DOCUMENTS

SOUTHERN HALF FM# 423268-1-58-01
NORTHERN HALF FM# 423270-1-58-01

CITY OF COCONUT CREEK PROJECT MANAGER: PAMELA STANTON, RLA
MILLER LEGG PROJECT MANAGER: BRIAN R. SHORE, RLA

SHEET NO.
LD-1

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TABULATION OF QUANTITIES / PLANT SCHEDULE

PAY ITEM NO.	PAYSIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAX. MAINTAINED SIZE	SPACING	REMARKS	NATIVE	DROUGHT TOLERANCE	UNIT	SHEET NUMBERS												TOTAL THIS SHEET	
												LD-32		LD-33		LD-34		LD-35		LD-36		LD-37			
												PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
580-1-1 SHRUBS & GROUND COVERS (SMALL)																									
1	SMALL	BSS	Bougainvillea spectabilis 'sanderiana'	Bougainvillea 'Barbara Karst'	MIN. 24"x24", 3 GAL. Bush Form	Natural Size	24" O.C.	FULL	N	VERY	EA	98												98	
2	SMALL	GAL	Galphemia gracilis	Thryallis	MIN. 24"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	N	VERY	EA			245										245	
3	SMALL	HAM	Hamelia patens 'compacta'	Dwarf Firebrush	MIN. 20"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA	35		401										436	
4	SMALL	IVD	Ilex vomitoria 'Stokes Dwarf'	Stokes Dwarf Yaupon	MIN. 24"x20", 1 - 3 GAL.	18"	24" OC	FULL	Y	MODERATE	EA														
5	SMALL	TRI	Tripsacum floridanum	Florida Gama Grass	MIN. 18"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA							335						335	
6	SMALL	TRD	Tripsacum dactyloides	Fakahatchee Grass	MIN. 30"x24", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA	280												280	
7	SMALL	ZAM	Zamia maritima	Cardboard Palm	MIN. 24" x 24", 3 Gal.	Natural Size	36" O.C.	FULL	Y	VERY	EA	120												120	
GROUND COVERS																									
8	SMALL	JAS	Jasminum volubile	Wax Jasmine	MIN. 14"x14", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA	220		700		35		405		385				1745	
9	SMALL	LCN	Lantana camara 'New Gold'	Lantana New Gold	MIN. 12"x12", 1-3 GAL. Sterol Variety	Natural Size	18" O.C.	FULL	N	MODERATE	EA	645		340										985	
10	SMALL	RIA	Raphiolepis indica 'alba'	Dwarf Indian Hawthorn	MIN. 12"x12", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
11	SMALL	TRA	Trachelospermum asiaticum	Confederate Jasmine	MIN. 12"x12", 4" Liner	Natural Size	18" O.C.	FULL	N	VERY	EA	250								121				371	
580-1-2 TREES & PALMS (LARGE)																									
1	LARGE	BA	Bulnesia arborea	Verawood	MIN. 10' ht. x 5' spr., 4" CT.	Natural Size	As Shown	FULL	Y	VERY	EA	2		4										6	
2	LARGE	HP	Hamelia patens	Firebrush	MIN. 3' ht. x 2' spr., 7 GAL., FULL	Natural Size	As Shown	FULL	Y	VERY	EA	2						6		9				17	
3	LARGE	LI	Lagerstroemia indica 'Watermelon'	Crepe Myrtle	MIN. 14' ht. x 8' spr., 4" CT Multi	Natural Size	As Shown	B&B, Full	N	VERY	EA			12										12	
4	LARGE	LJ	Ligustrum japonicum	Wax Privet	MIN. 10' ht. x 6' spr., 3" CT	Natural Size	As Shown	B&B, Full	N	VERY	EA														
5	LARGE	QV	Quercus virginiana	Live Oak	MIN. 16' ht. x 8' spr., 5" CT Matched	Natural Size	As Shown	B&B, Full	Y	VERY	EA	2		4				4		1				11	
PALMS																									
6	LARGE	RE	Roystonea elata	Florida Royal Palm	MIN. 10' GW.	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA	10												10	
7	LARGE	SP	Sabal palmetto	Sabal Palm	MIN. 14' GW, 22 - 28' O.A.H. SLICK TRUNK	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA	2												2	
575-1-1		SOD									SY	409		1029		547		1021		396		609		4011	
526-1-1			CONCRETE PAVER								SY	129								30		4		163	

PAY ITEM NO.	PAYSIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAX. MAINTAINED SIZE	SPACING	REMARKS	NATIVE	DROUGHT TOLERANCE	UNIT	SHEET NUMBERS												TOTAL THIS SHEET	
												LD-38		LD-39		LD-40		LD-41		LD-42		LD-43			
												PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
580-1-1 SHRUBS & GROUND COVERS (SMALL)																									
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2	SMALL	GAL	Galphemia gracilis	Thryallis	MIN. 24"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	N	VERY	EA														
3	SMALL	HAM	Hamelia patens 'compacta'	Dwarf Firebrush	MIN. 20"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA														
4	SMALL	IVD	Ilex vomitoria 'Stokes Dwarf'	Stokes Dwarf Yaupon	MIN. 24"x20", 1 - 3 GAL.	18"	24" OC	FULL	Y	MODERATE	EA														
5	SMALL	TRI	Tripsacum floridanum	Florida Gama Grass	MIN. 18"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA							1360						1360	
6	SMALL	TRD	Tripsacum dactyloides	Fakahatchee Grass	MIN. 30"x24", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA														
7	SMALL	ZAM	Zamia maritima	Cardboard Palm	MIN. 24" x 24", 3 Gal.	Natural Size	36" O.C.	FULL	Y	VERY	EA														
GROUND COVERS																									
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10	SMALL	RIA	Raphiolepis indica 'alba'	Dwarf Indian Hawthorn	MIN. 12"x12", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
11	SMALL	TRA	Trachelospermum asiaticum	Confederate Jasmine	MIN. 12"x12", 4" Liner	Natural Size	18" O.C.	FULL	N	VERY	EA	548		35		388		255						1226	
580-1-2 TREES & PALMS (LARGE)																									
1	LARGE	BA	Bulnesia arborea	Verawood	MIN. 10' ht. x 5' spr., 4" CT.	Natural Size	As Shown	FULL	Y	VERY	EA														
2	LARGE	HP	Hamelia patens	Firebrush	MIN. 3' ht. x 2' spr., 7 GAL., FULL	Natural Size	As Shown	FULL	Y	VERY	EA														
3	LARGE	LI	Lagerstroemia indica 'Watermelon'	Crepe Myrtle	MIN. 14' ht. x 8' spr., 4" CT Multi	Natural Size	As Shown	B&B, Full	N	VERY	EA														
4	LARGE	LJ	Ligustrum japonicum	Wax Privet	MIN. 10' ht. x 6' spr., 3" CT	Natural Size	As Shown	B&B, Full	N	VERY	EA	2												2	
5	LARGE	QV	Quercus virginiana	Live Oak	MIN. 16' ht. x 8' spr., 5" CT Matched	Natural Size	As Shown	B&B, Full	Y	VERY	EA	2												2	
PALMS																									
6	LARGE	RE	Roystonea elata	Florida Royal Palm	MIN. 10' GW.	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA														
7	LARGE	SP	Sabal palmetto	Sabal Palm	MIN. 14' GW, 22 - 28' O.A.H. SLICK TRUNK	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA							3						3	
575-1-1		SOD									SY	466				410		469		904		492		2741	
526-1-1			CONCRETE PAVER								SY	97		25		50		35				55		263	

NOTE: GALLON SIZE IS FOR REFFERENCE ONLY.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: LC0000037 - L.A. of Record: Brian R. Shoes LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TABULATION OF QUANTITIES/ PLANT SCHEDULE

SHEET NO. LD-2

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OJECT GENERAL NOTES:
The Contractor shall visit the site prior to placing his bid to assess the amount of planting required for : general conditions as they relate to traffic control, access to the site and other challenges of the oject.

All base survey sketch information shown is the best available information available at the time of eparation of plans. The Contractor shall notify the City of any discrepancies in the information provided. se map is a sketch of corridor and data is not geographically located within any survey datums. Features ch as right of way lines, and utilities, have been compiled and incorporated from as-built data obtained m various sources. Geometric survey of median has been conducted to aide contractor in construction of ndscape features. Contractor to use back of curb dimensions as reference. Baseline shown on plans is ovided for reference only and is an assumed centerline of corridor.

All Public land corners and monuments within the limits of construction are to be protected by ntractor as follows: Corners and monuments in conflict with the work and in danger of being damaged, stroyed or covered shall be properly referenced by a registered-land surveyor in accordance with the nimum technical standards of the Florida Board of Professional Land Surveyor prior to beginning work at e site. The Contractor shall retain the land surveyor to reference, and restore upon completion of the rk, all such corners and monuments and shall furnish to Florida Department of Transportation (FDOT) a gned and sealed copy of the Land Surveyor's reference drawing.

The Contractor shall comply with all state codes and ordinances. Contractor shall be responsible for taining all applicable permits unless otherwise directed by the City.

The Contractor shall submit a an inventory list of the existing signs including photos to the City at the e-Construction Conference. Any existing signs damaged by the contractor during construction, shall be placed by the Contractor at no additional cost to the City or FDOT.

Contractor is to notify the City/FDOT, who shall notify the State Permits Office at 850-488-4961 at ist 7 calendar days in advance of a MOT Set-up that will impact Overweight/Overheight Vehicles.

Contractor shall remove and dispose of existing sod and surplus materials off-site or as directed by the ty.

. CLEARING and GRUBBING:
TREE REMOVAL: Includes cut, removal & stump grinding to a 18" minimum depth.

SHRUBS & GROUNDCOVERS: includes removal of existing shrubs and groundcovers within areas where oposed plant material is specified unless otherwise noted.

. IRRIGATION: includes protection of existing irrigation systems within the right of way. Contractor shall be sponsible for repair of damaged systems.

0. SIGHT VISIBILITY CLEAR ZONES: on the main travel/through lanes for this project are based on a design eed of 50 mph.

NVIRONMENTAL NOTES:
. The Contractor shall review environmental requirements of any proposed staging areas with the City and bmit to the City and submit to the FDOT District Environmental Permits Coordinator at least seventy-two 72) hours prior to use.

. Contractor shall submit to City a Stormwater Prevention Pollution Protection Plans (S.W.P.P.P.) to City r review and submittal to appropriate agencies with copies to FDOT.

. Any material to be stockpiled for periods greater than 24 hours shall be protected by appropriate osion control devices. No material shall be stockpiled between silt fences and water bodies.

. All excess material as designated by the City is to be disposed by the Contractor in areas provided by m within 72 hours of being deposited in the construction area and at the Contractor's expense.

. The Contractor is responsible for keeping existing and new inlets clean of planting soil, debris, etc. uring the construction at no additional cost to the City. Contractor shall submit plan for protection of lets and /or erosion during construction.

. If necessary the Contractor shall use a street sweeper (using water) or other equipment capable of ontrolling and removing dirt or dust. Approval of the use of such equipment is contingent upon its emonstrated ability to do the work.

UTILITIES GENERAL NOTES:
1. Two full business days prior to digging, the Contractor shall call Sunshine State One Call of Florida, telephone number 1-800-432-4770, and the utility owner and request utility locations. A Contractor's representative must be present when utility companies locate their facilities.

2. All existing utilities are to remain.

3. Contractor shall explore by hand digging and expose all utilities located within 5' of all proposed trees and palms.

GOVERNING STANDARDS:
Florida Department of Transportation (FDOT) DESIGN STANDARDS and SPECIFICATIONS: Contractor to refer to the following:

1. FDOT Standard Specifications for Road and Bridge construction 2007

2. FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System 2008 (English Units)

3. Federal Highway Administration ASSHTO 'A Policy On Geometric Design of Highways and Streets, 2001', Chapter 9, INTERSECTION SIGHT DISTANCE, CASE B and F, and Department practices for channelized median openings (left turns from major roadways).

CALL TWO FULL BUSINESS DAYS BEFORE YOU DIG IN FLORIDA

IT'S THE LAW!
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

LANDSCAPE GENERAL NOTES:
1. Landscape including but not limited to, pruning and installation work shall be performed by a Contractor Certified by the Florida Nurserymen, Growers and Landscape Association (FNGLA) as a Certified Landscape Contractor.

2. PLANTING SOIL: Contractor shall provide a consitent mix of 40% General Topsoil / 50% Sand / 10% Peat. The planting soil mix shall be blended with the loosened native soil backfill at a 50/50 ratio. A "non-soluble wetting agent" shall be added to all trees and palms at time of planting.

3. SOD: Provided specified species of sod as shown on plans. All existing turf areas within the medians shall be removed and replaced as indicated on plans. All existing areas within swale areas shall remain unless otherwise specified. Contractor shall only remove existing turf and miscellaneous scrub material from proposed planting bed areas. The Contractor shall be responsible to re-sod any damaged areas and restore the existing grade due to installation activities impacted during landscape removal and/or new installation activities with the same species of sod. Cost of replacement material shall be included within Mobilization and at the Contractor's expense.

4. MULCH: A consistent 3" layer of shreded Grade A mulch or better shall be spread over all planting beds. All mulch beds shall extend to bedline shown on plans. Contractor to submitt sample of mulch to City for acceptance.

5. FERTILIZATION: Contractor shall provide at a minimum, one (1) application at time of planting. A schedule of fertilization based upon the Manufacturer's recommended rates shall be submitted by the Contractor at the pre-construction meeting.

AT TIME OF PLANTING: Fertilize with planting tablets 20-10-5 plus minors. Do not place tablets in bottom of hole; tablet shall be 1/3 from the bottom of the rootball.

ESTABLISHMENT PERIOD OF PLANT MATERIAL: Fertilizer for dicot trees, shrubs and ground covers shall be of 6% nitrogen, 6% phosphorus and 6% potassium with minor elements composition analysis. Fertilizer for palms shall be "palm fertilizer" of 13% nitrogen, 3% phosphorous, and 13% of potassium composition analysis with minor elements. Contractor shall apply granular fertilizer at the manufacturer's recommended rates. Contractor reserves the right to modify N-P-K ratio and shall submit product data sheets for review and acceptance prior to any installation of plant material consistent with the above criterias.

6. WATERING: At a minimum, the Contractor shall provide the following recommended watering schedule beginning immediately after installation of plant material. At the pre-construction meeting, the Contractor shall submit a watering schedule based upon the following recommended rates:

All watering applications required during Plant Establishment Period and Warranty Period and it's source shall be included as part of the unit price for each plant material. Contractor shall adjust watering schedule during heavy rain season upon approval by Project Engineer.

7. WARRANTY: Install, establish and maintain landscapeing as indicated in the contract documents. Take responsibility for the proper maintenance, survival and condition of all plants for a period of one year after final acceptance in accordance with FDOT Standard Specifications for Road and Bridge Construction Section 580.

8. REPLACEMENT MATERIAL: shall be subject to all the requirements of the FDOT Standard Specifications for Road and Bridge Construction Section 580.

9. MAINTENANCE: Begin maintenace of all plants immediately after each planting as indicated in the contract documents and in accordance with Standard Specifications Section 580.

A. Keep all plants watered, fertilized, mulched, prined and staked and guyed as necessary to assure specified minimum grade of Florida No. 1 througight the duration of the project construction period and establishment period.

B. During the establishment period, keep the individual planting locations and planting beds free of litter and undesirable vegetation.

C. Ensure that the plants are maintened so that they are healthy, vigorous, and undamaged throughout the duration of the project construction period and establishment period.

D. for the duration of the establishment period, operate and maintain in good operating condition, all components of any irrigation system installed in compliance with the Contract Documents.

E. During the establishment period, replace any plants that fall below specified minimum grade. Use replacement plants of the same species, size and planting medium as the plant being replaced and as specified in the Contract Documents.

10. The Contractor shall furnish to the City a unit price breakdown for all materials. The City may, at its discretion, add or delete from the materials utilizing the unit price breakdown submitted. This unit price breakdown shall be provided by the Contractor at the Pre-Construction meeting. 12. No plant material will be accepted showing evidence of cable, chain marks, equipment scars, or when the ball of earth surrounding its roots has been cracked, broken or otherwise damaged.

REVISIONS					
TE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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954-436-7000 · Fax: 954-436-8664 · www.millerlegg.com
Cert. of Auth.: LC0000337 · L.A. of Record: Brian R. Sharr LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE NOTES

SHEET NO. LD-4

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DATE OF VERIFICATION: 10/11/07

	TREE NUMBER	COMMON NAME	BOTANICAL NAME	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN	Notes/Condition
	1	live oak	*Quercus virginiana*	Y	5	6	28.3		X	corrective pruning and fertilizer needed
	2	live oak	*Quercus virginiana*	Y	5	15	176.6	X		co-dominant leader
	3	live oak	*Quercus virginiana*	Y	4	8	50.2		X	corrective pruning and fertilizer needed
	4	live oak	*Quercus virginiana*	Y	6	12	113.0	X		co-dominant leader
	5	live oak	*Quercus virginiana*	Y	6	18	254.3		X	
	6	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	
	7	cabbage palm	*Sabal palmetto*	Y	15	-	-		X	
	8	cabbage palm	*Sabal palmetto*	Y	15	-	-		X	
	9	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
	10	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
	11	cabbage palm	*Sabal palmetto*	Y	8	-	-		X	
	12	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	13	cabbage palm	*Sabal palmetto*	Y	15	-	-		X	
	14	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	15	cabbage palm	*Sabal palmetto*	Y	8	-	-		X	
	16	cabbage palm	*Sabal palmetto*	Y	18	-	-		X	Leaning, adjust as needed.
	17	live oak	*Quercus virginiana*	Y	3	6	28.3		X	
	18	live oak	*Quercus virginiana*	Y	4	8	50.2	X		leader removed
	19	live oak	*Quercus virginiana*	Y	5	10	78.5	X		co-dominant leader, trunk scaring of 3"-5"
*	20	live oak	*Quercus virginiana*	Y	4	6	28.3	X		
	21	live oak	*Quercus virginiana*	Y	4	12	113.0		X	
*	22	live oak	*Quercus virginiana*	Y	6	10	78.5	X		
*	23	live oak	*Quercus virginiana*	Y	8	15	176.6		X	corrective pruning and fertilizer needed
*	24	live oak	*Quercus virginiana*	Y	5	8	50.2	X		co-dominant leader
*	25	live oak	*Quercus virginiana*	Y	7	18	254.3	X		co-dominant leader
*	26	live oak	*Quercus virginiana*	Y	8	15	176.6	X		within a taper or sight line
*	27	live oak	*Quercus virginiana*	Y	6	15	176.6	X		within a taper or sight line
	28	live oak	*Quercus virginiana*	Y	6	15	176.6	X		leader snapped
	29	live oak	*Quercus virginiana*	y	8	18	254.3		X	corrective pruning and fertilizer needed
	30	live oak	*Quercus virginiana*	y	6	15	176.6	X		within a taper or sight line
	31	live oak	*Quercus virginiana*	Y	7	18	254.3	X		co-dominant leader
	32	live oak	*Quercus virginiana*	y	6	15	176.6	X		within a taper or sight line
	33	live oak	*Quercus virginiana*	y	7	16	201.0	X		within a taper or sight line
	34	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
	35	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	36	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
*	37	cabbage palm	*Sabal palmetto*	Y	12	-	-	X		
	38	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
*	39	cabbage palm	*Sabal palmetto*	Y	12	-	-	X		
	40	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	41	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	42	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	43	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
	44	cabbage palm	*Sabal palmetto*	Y	10	-	-		X	
	45	live oak	*Quercus virginiana*	Y	6	18	254.3		X	
	46	live oak	*Quercus virginiana*	Y	3	6	28.3	X		trunk scars
	47	live oak	*Quercus virginiana*	Y	10	20	314.0	X		co-dominant leader, trunk scaring

* VARIANCE UNDER CONSIDERATION

REVISIONS					
BY	DESCRIPTION	DATE	BY	DESCRIPTION	

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-7001 - www.millerlegg.com
Cert. of Auth.: LC0000531 - L.A. of Russell Baker N. Sikes LA-6666670

CITY OF COCONUT CREEK			EXISTING CONDITION CHART	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-5

rpatraz 8/4/2008 9:09:36 AM n:\projects\2007\07-00239-s-7us42_landscape_plans\0702390000\landscape\TABLE004.dgn

DATE OF VERIFICATION: 10/11/07

	TREE NUMBER	COMMON NAME	BOTANICAL NAME	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN	Notes/Condition
	48	live oak	*Quercus virginiana*	Y	6	15	176.6		X	
	49	live oak	*Quercus virginiana*	Y	5	15	176.6		X	
	50	live oak	*Quercus virginiana*	Y	8	18	254.3	X		co-dominant leader, trunk scaring
*	51	live oak	*Quercus virginiana*	Y	7	12	113.0	X		within a taper or sight line
*	52	live oak	*Quercus virginiana*	Y	6	15	176.6	X		within a taper or sight line, leader snapped
*	53	live oak	*Quercus virginiana*	Y	8	28	615.4	X		
*	54	live oak	*Quercus virginiana*	Y	8	15	176.6	X		within a taper or sight line
	55	live oak	*Quercus virginiana*	Y	6	12	113.0		X	
	56	live oak	*Quercus virginiana*	Y	8	15	176.6		X	corrective pruning and fertilizer needed, within 15 feet of over head electrical lines
*	57	live oak	*Quercus virginiana*	Y	6	18	254.3	X		within a taper or sight line
*	58	live oak	*Quercus virginiana*	Y	8	20	314.0	X		co-dominant leader, within a taper or sight line
*	59	live oak	*Quercus virginiana*	Y	6	15	176.6	X		within a taper or sight line, Corrective pruning and fertilizer needed
*	60	live oak	*Quercus virginiana*	Y	8	15	176.6	X		within a taper or sight line, Corrective pruning and fertilizer needed
*	61	live oak	*Quercus virginiana*	Y	8	20	314.0	X		severe trunk damage
*	62	live oak	*Quercus virginiana*	Y	8	12	113.0	X		Located between 3.5' and 4'+ from back of curb., Corrective pruning and fertilizer needed, within a taper or sight line
*	63	live oak	*Quercus virginiana*	Y	10	15	176.6	X		within a taper or sight line, Corrective pruning and fertilizer needed
*	64	live oak	*Quercus virginiana*	Y	7	15	176.6	X		co-dominant leader, within a taper or sight line
*	65	live oak	*Quercus virginiana*	Y	8	15	176.6	X		co-dominant leader, within a taper or sight line
*	66	live oak	*Quercus virginiana*	Y	8	10	78.5	X		co-dominant leader, corrective pruning and fertilizer needed.
*	67	live oak	*Quercus virginiana*	Y	8	20	314.0	X		within a taper or sight line, Corrective pruning and fertilizer needed
	68	live oak	*Quercus virginiana*	Y	8	15	176.6	X		co-dominant leader, some bark damage
	69	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
	70	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
*	71	cabbage palm	*Sabal palmetto*	Y	20	-	-	X		
	72	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	
	73	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	
	74	cabbage palm	*Sabal palmetto*	Y	15	-	-		X	
	75	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	
	76	cabbage palm	*Sabal palmetto*	Y	15	-	-		X	
*	77	cabbage palm	*Sabal palmetto*	Y	20	-	-	X		
*	78	cabbage palm	*Sabal palmetto*	Y	20	-	-	X		
	79	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	
	80	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
*	81	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
*	82	cabbage palm	*Sabal palmetto*	Y	20	-	-	X		within a taper or sight line
*	83	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
*	84	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	
*	85	cabbage palm	*Sabal palmetto*	Y	30	-	-	X		within a taper or sight line

* VARIANCE UNDER CONSIDERATION

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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1000 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
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Cert. of Auth.: LC0000337 - L.A. of Record: Brian R. Shaw LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-6

npa/ez 6/4/2008 9:05:39 AM v:\projects\2007\07-00239-s-7us441_landscape_plans\07023900000\landscp\TABOLD05.dgn

DATE OF VERIFICATION: 10/11/07

	TREE NUMBER	COMMON NAME	BOTANICAL NAME	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN	Notes/Condition
*	86	cabbage palm	*Sabal palmetto*	Y	20	-			X	
*	87	cabbage palm	*Sabal palmetto*	Y	15	-		X		within a taper or sight line
*	88	cabbage palm	*Sabal palmetto*	Y	30	-			X	
*	89	cabbage palm	*Sabal palmetto*	Y	15	-		X		within a taper or sight line
*	90	live oak	*Quercus virginiana*	Y	8	15	176.6	X		co-dominant leader, within a taper or sight line
*	91	live oak	*Quercus virginiana*	Y	3	4	12.6	X		within a taper or sight line
*	92	live oak	*Quercus virginiana*	Y	6	15	176.6	X		co-dominant leader, within a taper or sight line
*	93	live oak	*Quercus virginiana*	Y	6	10	78.5	X		co-dominant leader, trunk scars of 3'6", Located between 3' and 4' from back of curb.
	94	live oak	*Quercus virginiana*	Y	10	10	78.5	X		within a taper or sight line
*	95	live oak	*Quercus virginiana*	Y	6	10	78.5	X		Located between 3.5' and 4'+ from back of curb., corrective pruning and fertilizer needed
*	96	live oak	*Quercus virginiana*	Y	6	12	113.0	X		co-dominant leader, Located between 3.5' and 4'+ from back of curb.
*	97	live oak	*Quercus virginiana*	Y	6		0.0	X		Located between 3.5' and 4'+ from back of curb.
*	98	live oak	*Quercus virginiana*	Y	8	15	176.6	X		under over head electrical lines
*	99	live oak	*Quercus virginiana*	Y	8	15	176.6	X		corrective pruning and fertilizer needed, within a taper or sight line
*	100	live oak	*Quercus virginiana*	Y	6	20	314.0	X		co-dominant leader, corrective pruning and fertilizer needed.
*	101	live oak	*Quercus virginiana*	Y	10	15	176.6	X		corrective pruning and fertilizer needed.
*	102	live oak	*Quercus virginiana*	Y	8	15	176.6	X		corrective pruning and fertilizer needed.
*	103	live oak	*Quercus virginiana*	Y	6	15	176.6	X		co-dominant leader, within a taper or sight line
*	104	live oak	*Quercus virginiana*	Y	8	15	176.6	X		corrective pruning and fertilizer needed, within a taper or sight line
*	105	live oak	*Quercus virginiana*	Y	8	18	254.3	X		leaning, straightening needed, corrective pruning and fertilizer needed, within a taper or sight line
*	106	live oak	*Quercus virginiana*	Y	6	18	254.3	X		co-dominant leader, within a taper or sight line
*	107	live oak	*Quercus virginiana*	Y	8	20	314.0	X		co-dominant leader
	108	live oak	*Quercus virginiana*	Y	6	10	78.5	X		Leader snapped, Located between 3.5' and 4'+ from back of curb.
	109	live oak	*Quercus virginiana*	Y	8	15	176.6		X	
*	110	live oak	*Quercus virginiana*	Y	8	18	254.3	X		leaning, straightening needed, Located between 3.5' and 4'+ from back of curb.
*	111	live oak	*Quercus virginiana*	Y	12	20	314.0	X		co-dominant leader
*	112	live oak	*Quercus virginiana*	Y	8	18	254.3	X		within a taper or sight line
*	113	live oak	*Quercus virginiana*	Y	6	15	176.6	X		trunk damage, 90% dead
	114	live oak	*Quercus virginiana*	Y			0.0	X		6' stump
	115	live oak	*Quercus virginiana*	Y	6	15	176.6		X	corrective pruning and fertilizer needed
	116	live oak	*Quercus virginiana*	Y	4	8	50.2	X		corrective pruning and fertilizer needed, within a taper or sight line
	117	live oak	*Quercus virginiana*	Y	6	15	176.6	X		dead
	118	live oak	*Quercus virginiana*	Y	8	15	176.6	X		
	119	live oak	*Quercus virginiana*	Y	6	12	113.0		X	

* VARIANCE UNDER CONSIDERATION

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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Cert. of Auth.: LC0000337 - L.A. of Record: Brian R. Shore LA 6666710

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT NO
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-7

jperez 5/4/2008 9:09:21 AM Y:\Projects\2007\07-00239-S-Tuskany_Landscape_Plans\07023900D01\landscp\TABLE005.dgn

DATE OF VERIFICATION: 10/11/07

TREE NUMBER	COMMON NAME	BOTANICAL NAME	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN	Notes/Condition
120	live oak	*Quercus virginiana*	Y	8	18	254.3	X		
121	live oak	*Quercus virginiana*	Y	8	20	314.0		X	corrective pruning and fertilizer needed
122	live oak	*Quercus virginiana*	Y	6	18	254.3	X		
123	live oak	*Quercus virginiana*	Y	6	12	113.0	X		stump
124	live oak	*Quercus virginiana*	Y	6	15	176.6	X		co-dominant leader,
125	live oak	*Quercus virginiana*	y	6	12	113.0		X	
126	live oak	*Quercus virginiana*	Y	8	18	254.3	X		co-dominant leader
127	live oak	*Quercus virginiana*	Y	6	12	113.0		X	
128	live oak	*Quercus virginiana*	Y	6	12	113.0		X	leaning, straightening needed

* VARIANCE UNDER CONSIDERATION

REVISIONS					
	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-8

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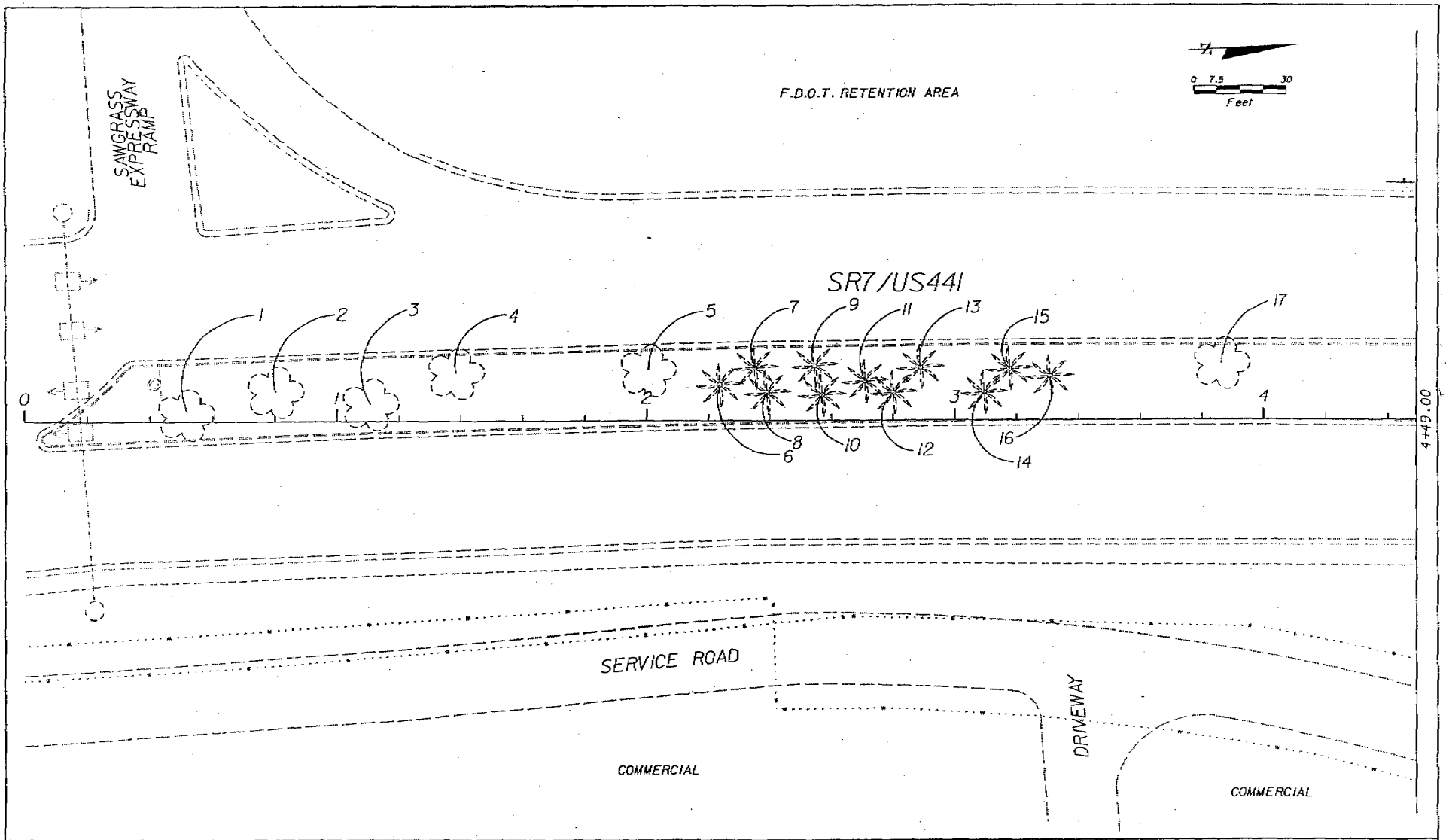

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-9

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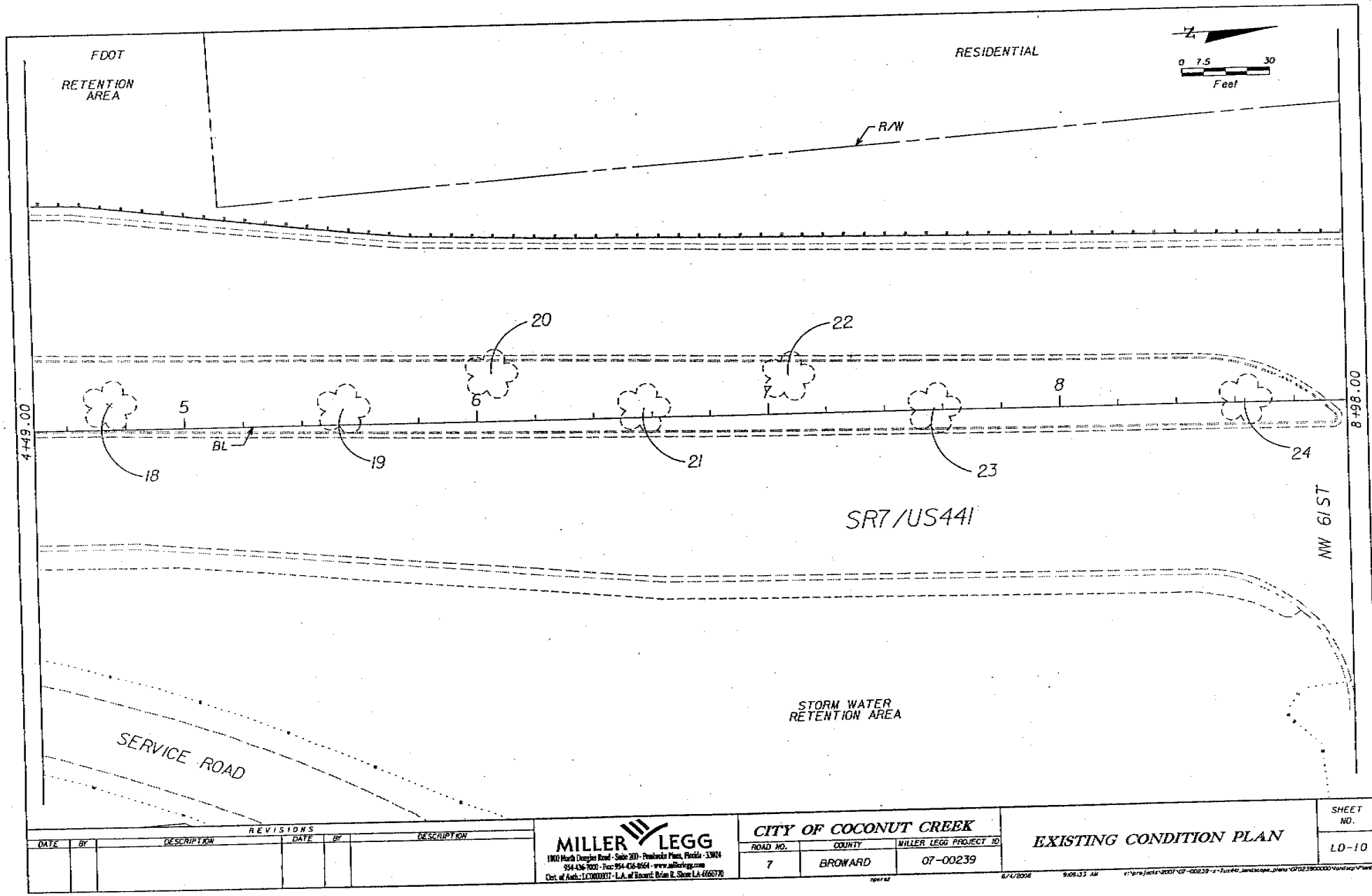

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-10

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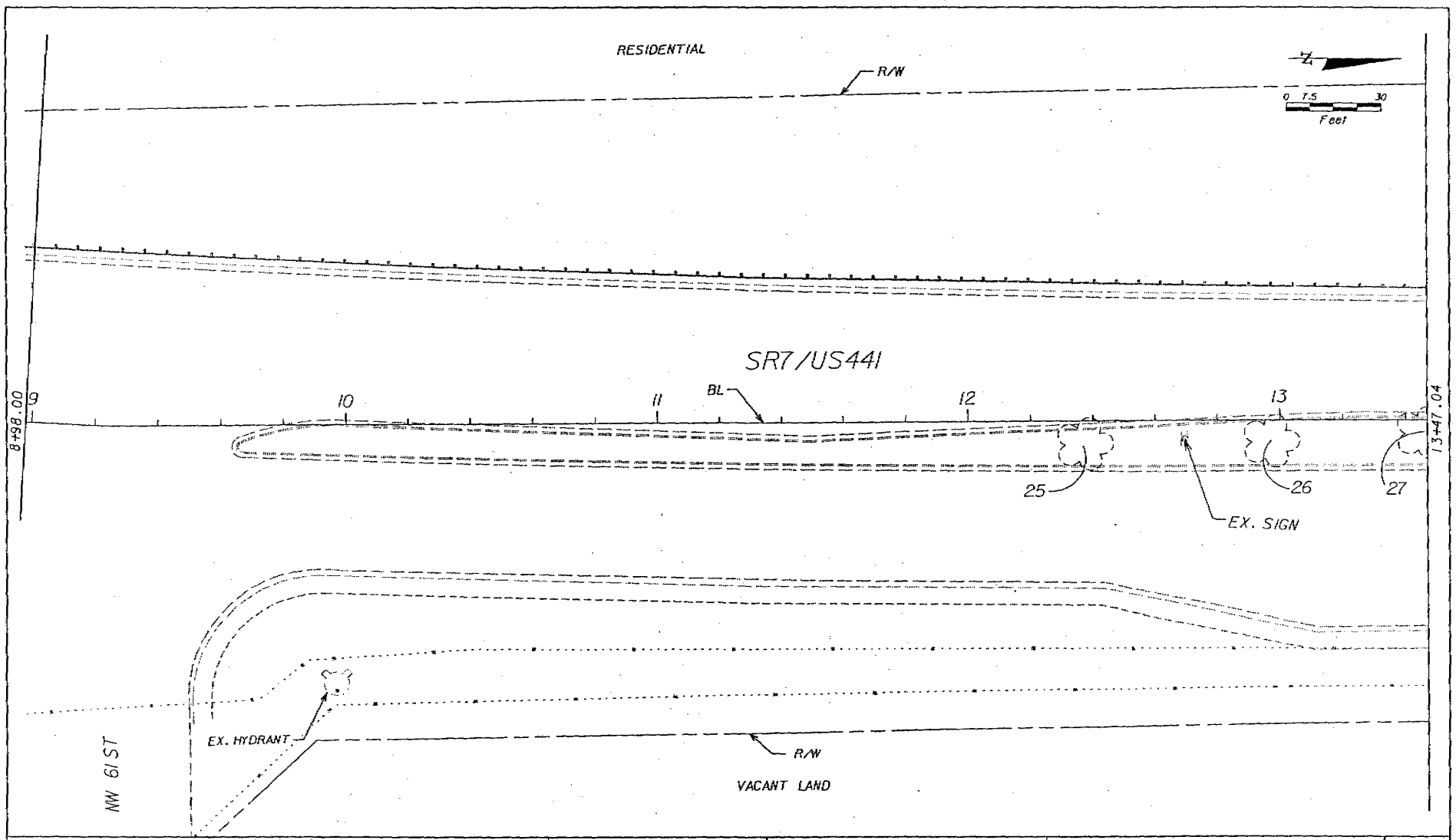

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-11

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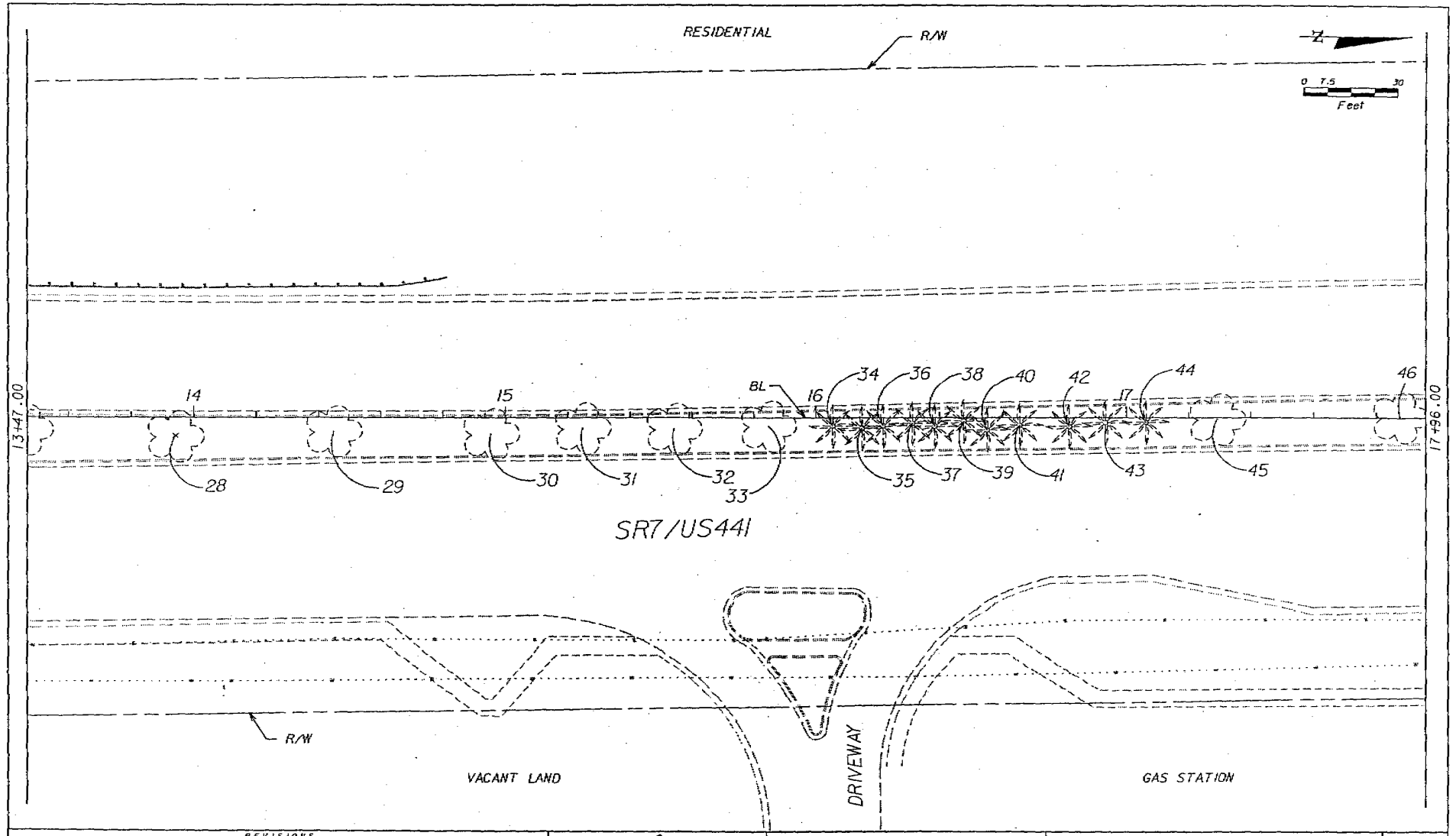

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

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LD-12

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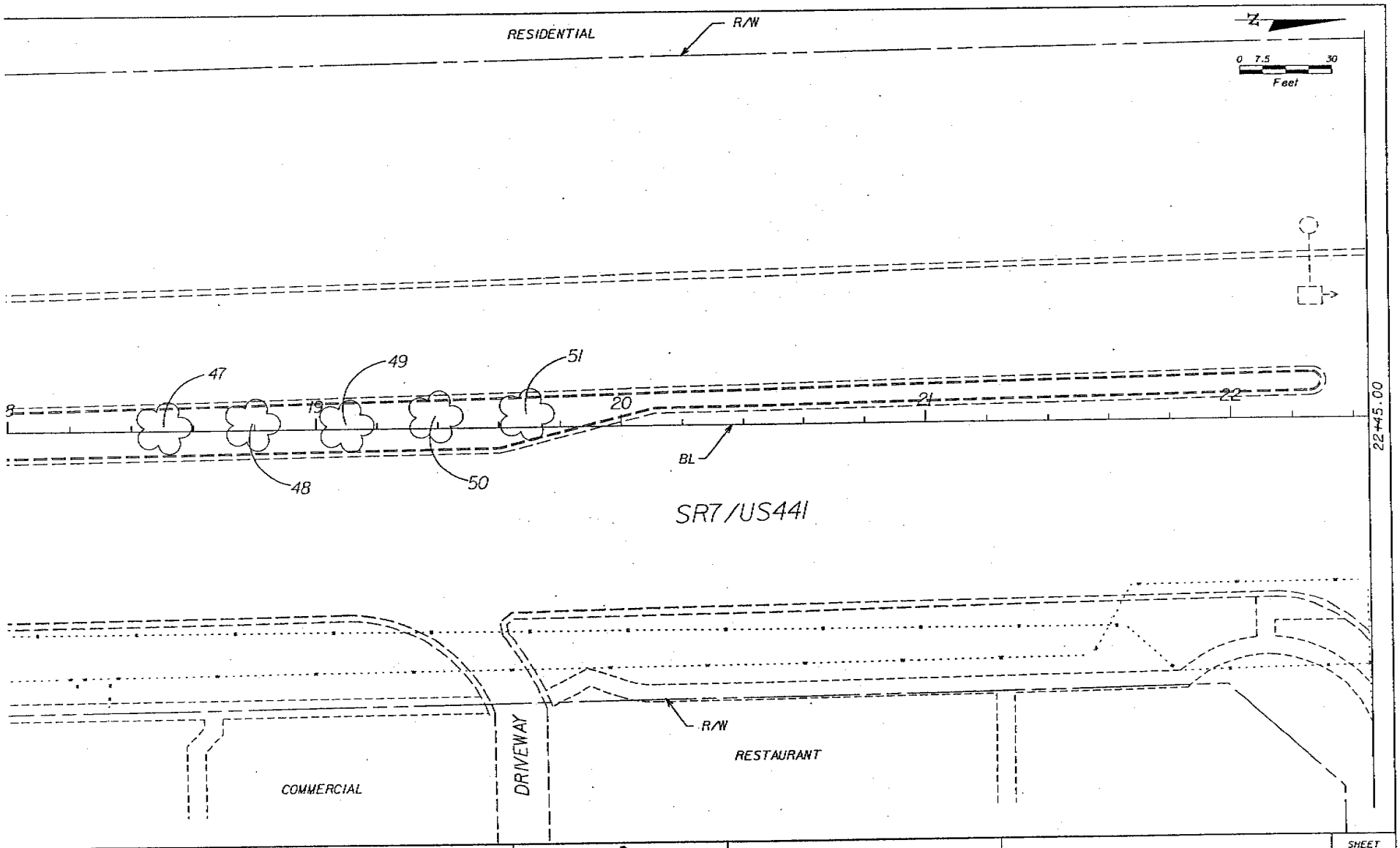

REVISIONS					
E	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO.
LD-13

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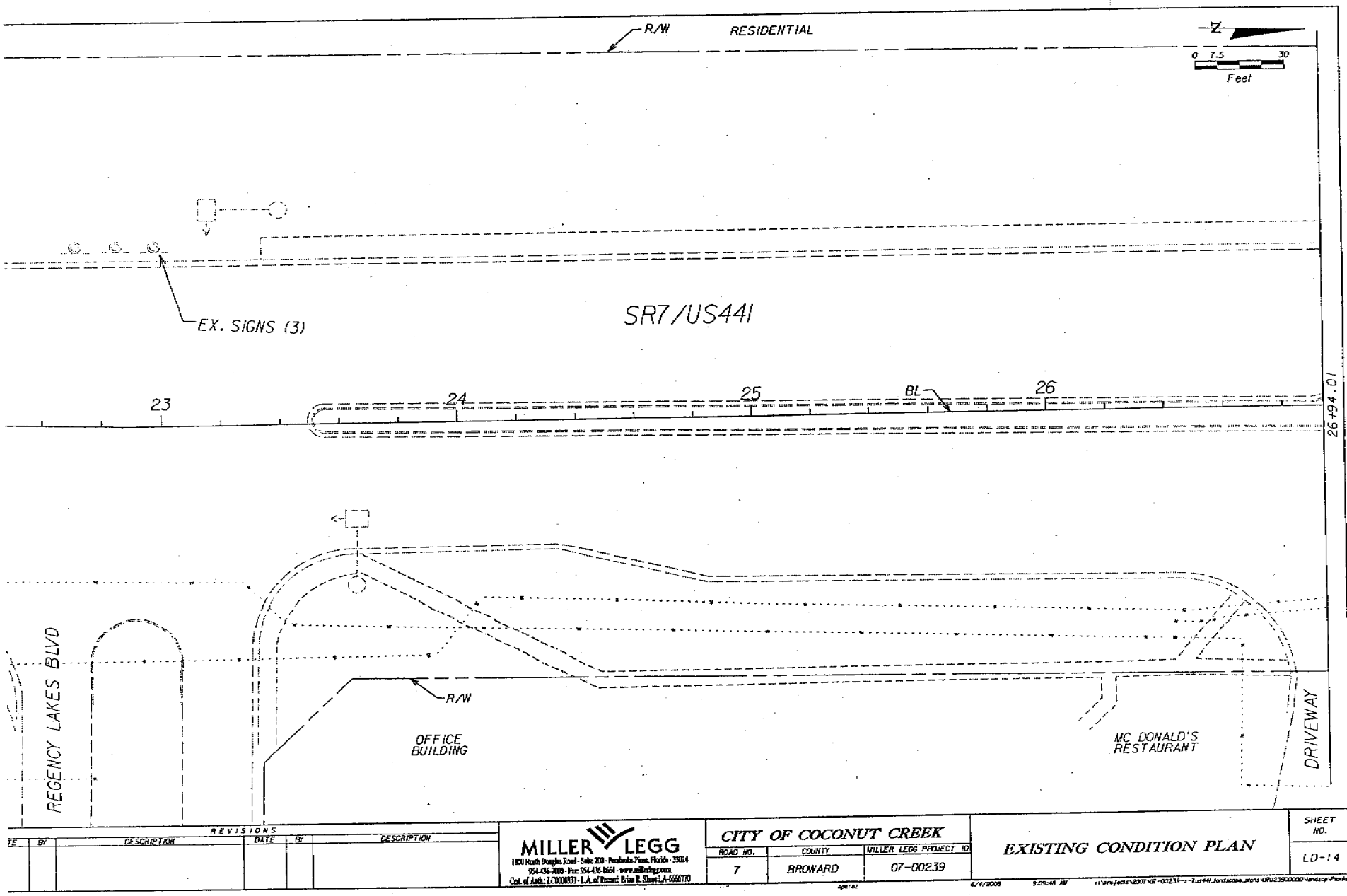

REVISIONS					
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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT NO.
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-14

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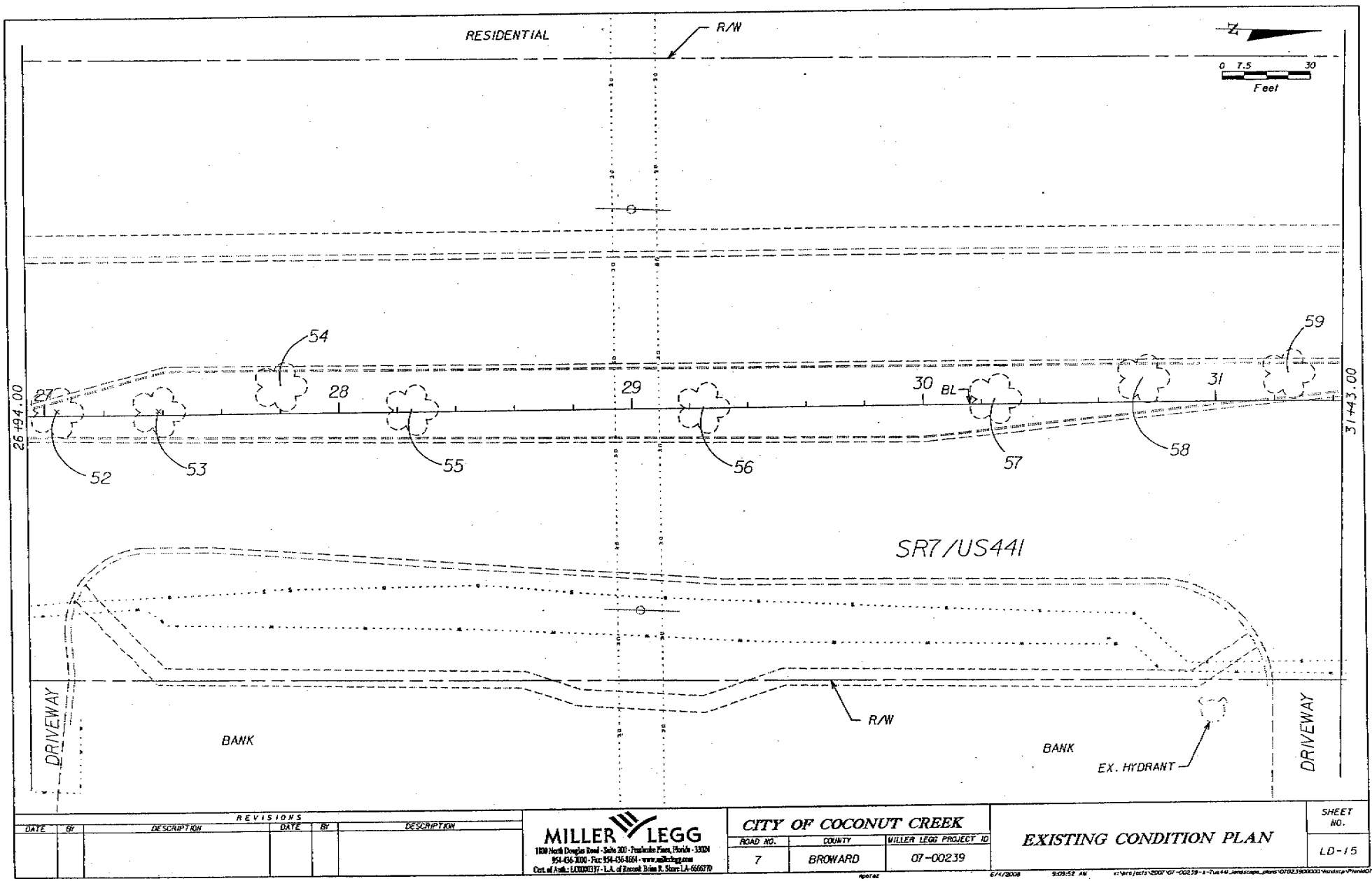

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-3000 - Fax: 954-436-8664 - www.millerlegg.com
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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-15

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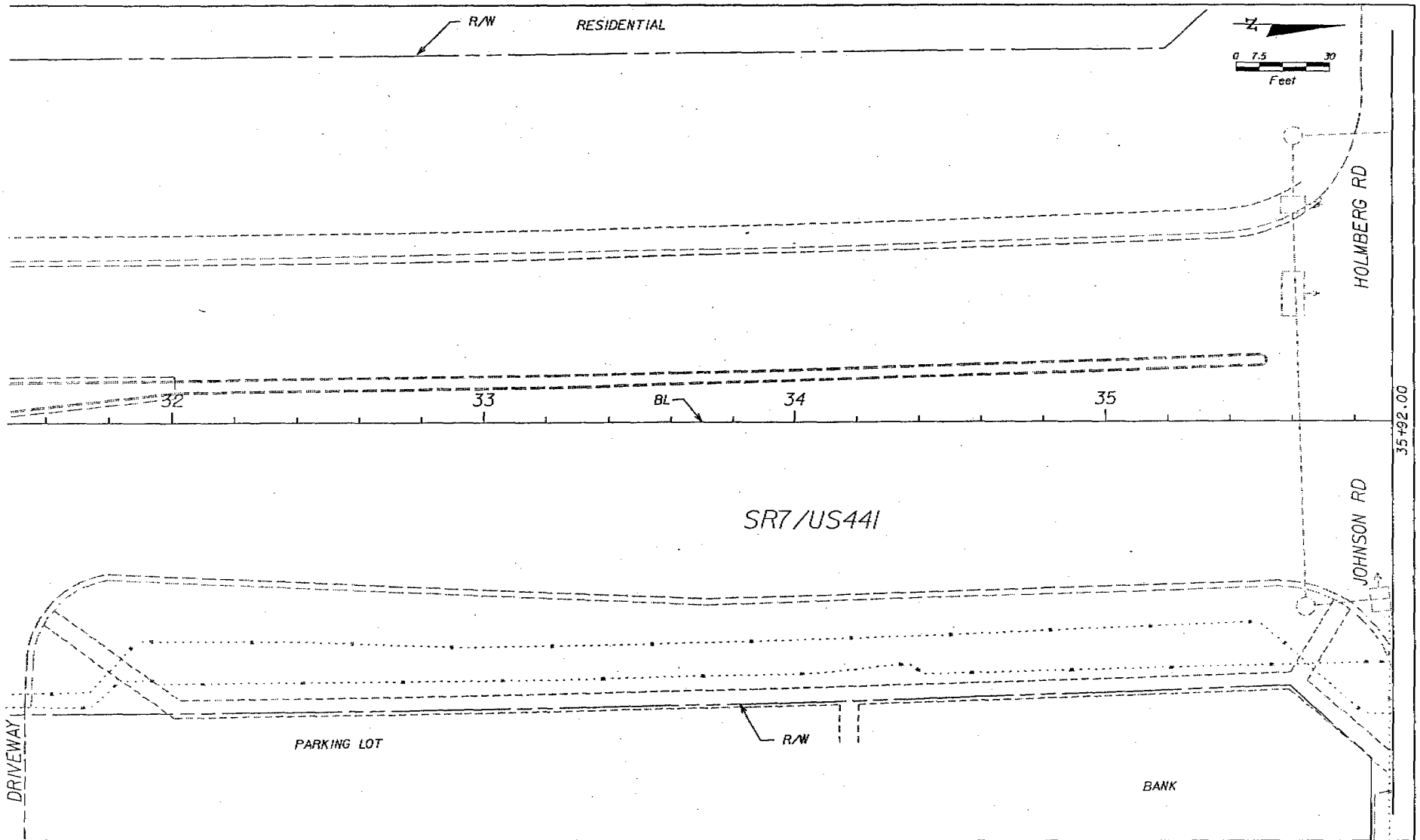

REVISIONS					
	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-16

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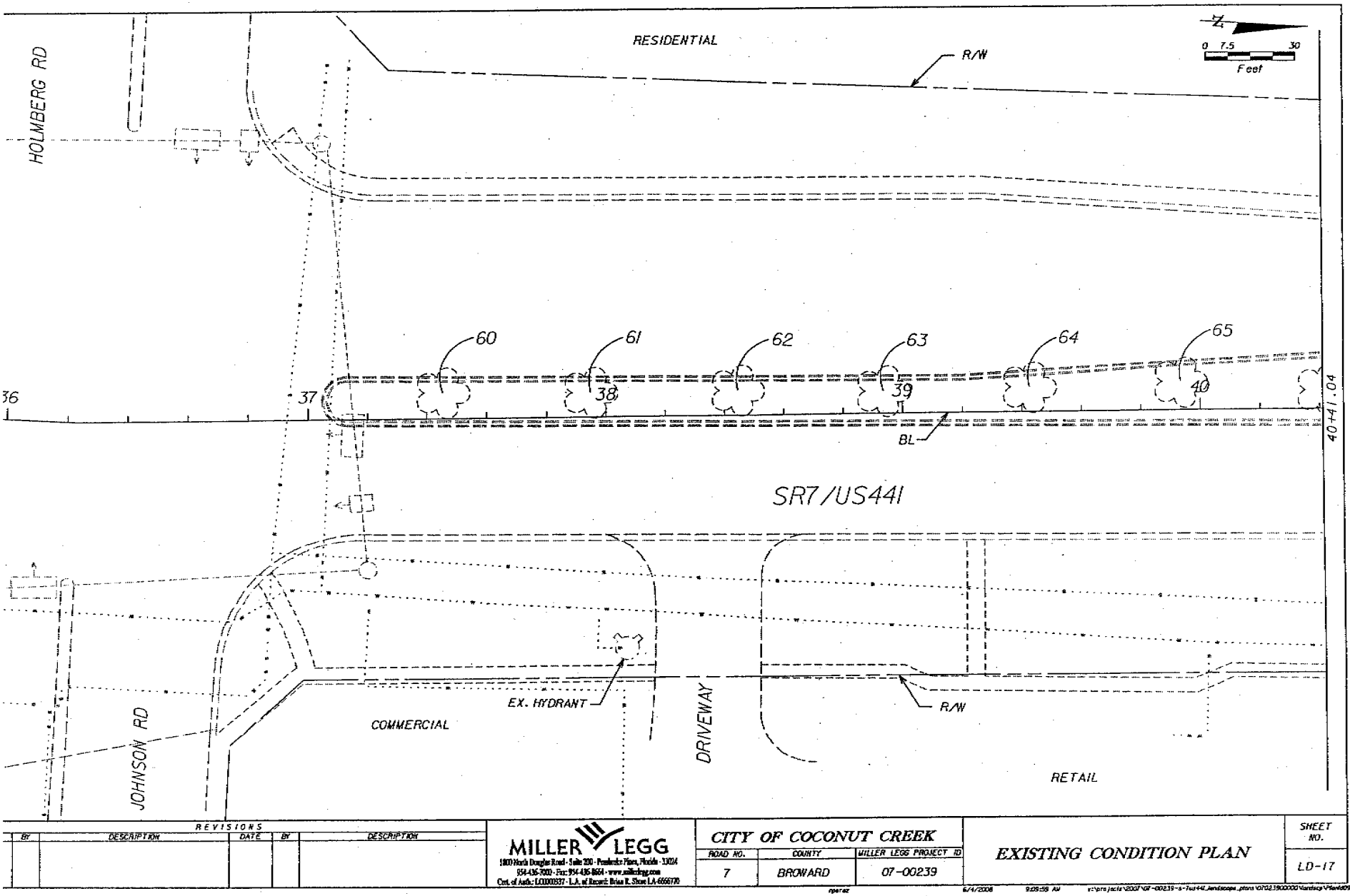

REVISIONS					
BY	DESCRIPTION	DATE	BY	DESCRIPTION	

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-17

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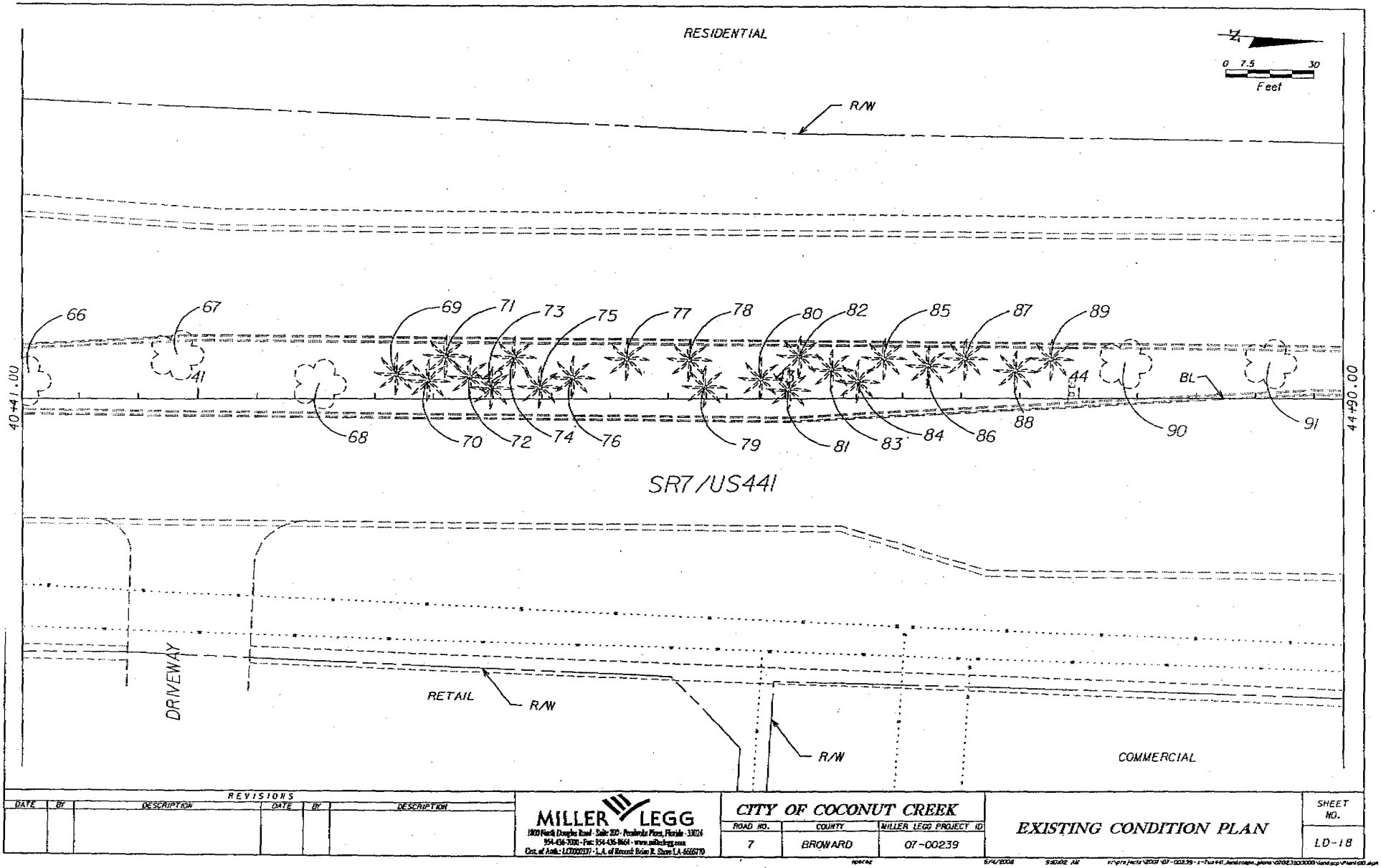

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-18

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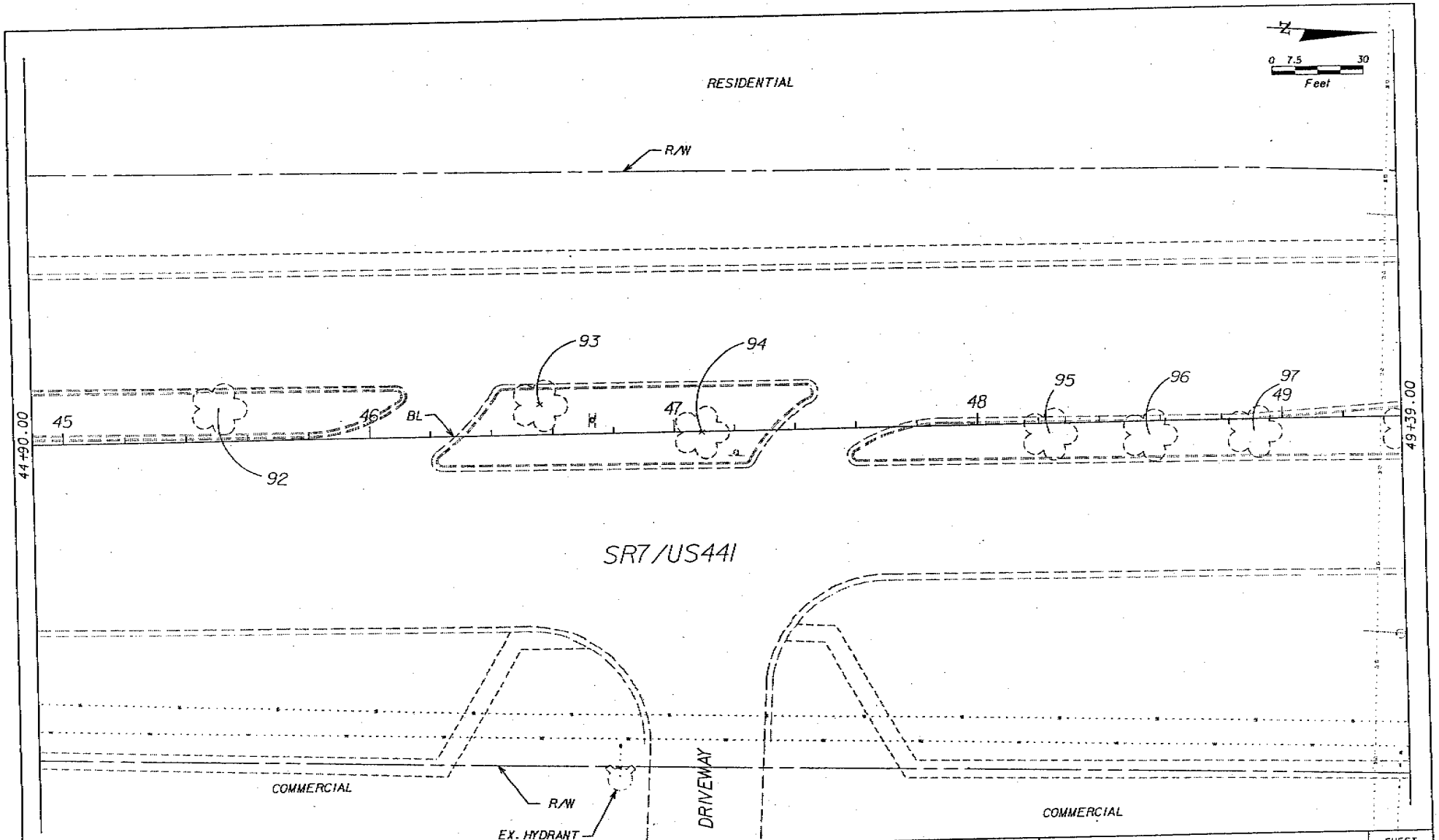

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: LC0000037 - L.A. of Record: Brian R. Shore LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-19

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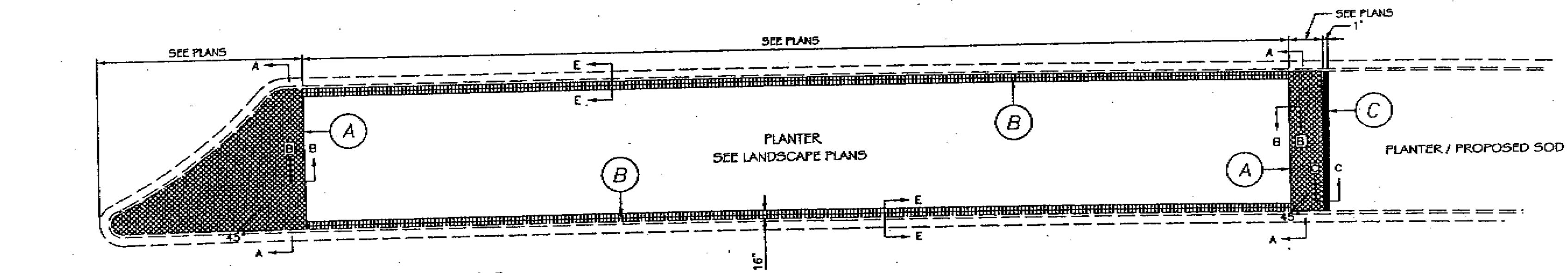
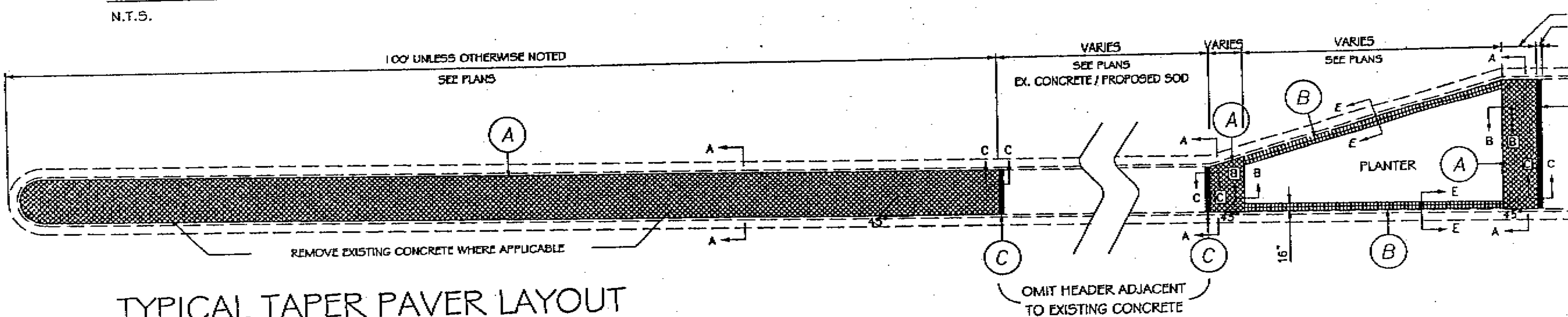


TYPICAL PAVER LAYOUT

N.T.S.



TYPICAL TAPER PAVER LAYOUT

N.T.S.

PAVING LEGEND

(A) SPECIALTY PAVING FIELD TO BE 8" X 8" 'CITY SQUARE' CONCRETE PAVERS BY HANSON PAVERS (OR APPROVED EQUAL) ON 1-1/2" SAND SETTING BED ON COMPACTED SUBGRADE. COLOR TO BE P-16 'CITY SQUARE' PINK/NATURAL GRAY COLOR MIX COMBINATION. PAVERS TO BE LAID IN A 45 DEGREE ANGLE TO THE NON-ANGLED ADJACENT CURB.

(B) 16" WIDE SPECIALTY PAVING BANDING TO BE DOUBLE ROW OF 8" X 8" 'CITY SQUARE' CONCRETE PAVERS BY HANSON PAVERS (OR APPROVED EQUAL) ON 1-1/2" SAND SETTING BED OVER COMPACTED SUBGRADE. COLOR TO BE P-16 'CITY SQUARE' PINK/NATURAL GRAY COLOR MIX COMBINATION. PAVER BANDING TO BE LAID PARALLEL TO THE ADJACENT CURB.

(C) 12" WIDE BROOM FINISH CONCRETE HEADER.

SPECIALTY PAVING GENERAL NOTES

1. SPECIALTY PAVERS AVAILABLE THROUGH HANSON PAVERS (954) 972-7400 OR (800) 273-7084
2. HIDDEN CONCRETE BACKFILL SHALL BE REQUIRED BETWEEN 16" WIDE PAVER BANDING AND THE ADJACENT PLANTER
3. CONTRACTOR TO PRESSURE CLEAN ALL EXISTING CONCRETE SURFACES AFTER COMPLETION OF PAVER AND/OR PLANT MATERIAL INSTALLATION. CONTRACTOR TO PROVIDE TWO (2) COATS OF SEALANT ON ALL CONCRETE PAVERS. CONTRACTOR TO SUBMIT SAMPLE OF SEALANT FOR APPROVAL BY CITY BEFORE INSTALLATION.
4. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIR AND/OR REPLACEMENT OF ALL EXISTING CURBING AND/OR CONCRETE SURFACES DAMAGED DURING PAVER AND/OR PLANT MATERIAL INSTALLATION.
5. CONTRACTOR TO SUBMIT SAMPLES OF PAVERS FOR REVIEW.
6. CONTRACTOR SHALL CONSTRUCT A SAMPLE LAYOUT AREA TO BE REVIEWD BY CITY / AND OR CITY REPRESENTATIVE.
7. CITY / AND OR CITY REPRESENTATIVE SHALL REVIEW AND HAVE THE RIGHT TO ADJUST PAVERS FOR CUTS AND LAYOUT.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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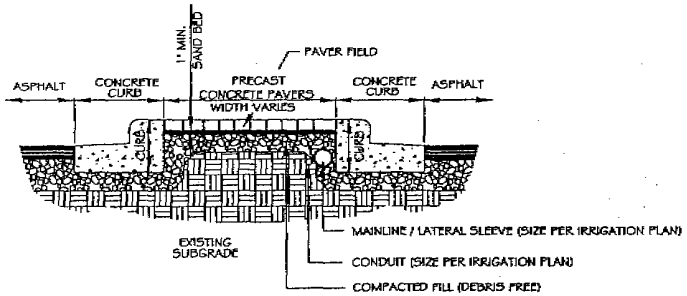
CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

HARDSCAPE NOTES AND DETAIL

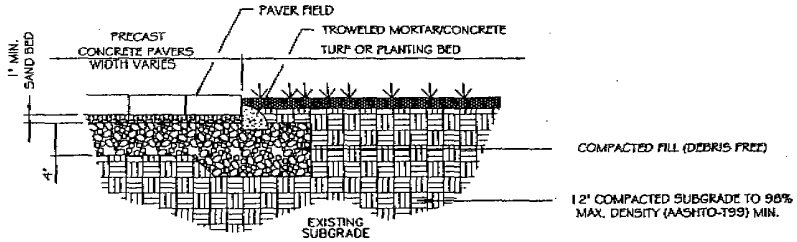
SHEET NO. LD-30

rperez 5/4/2008 9:10:43 AM



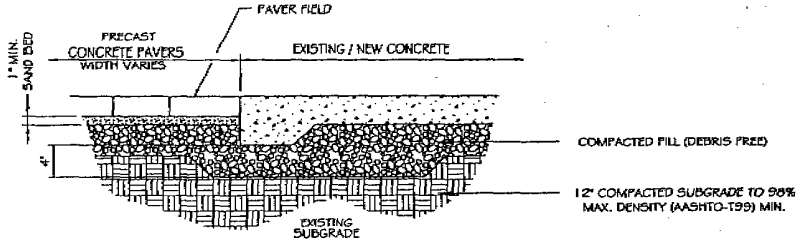
PAVER INSTALLATION DETAIL

N.T.S. SECTION A-A



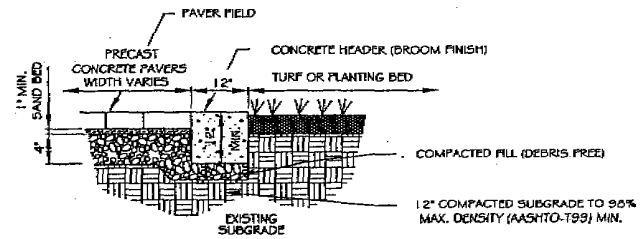
PAVER TRANSITION TO TURF OR PLANTING BED

N.T.S. SECTION B-B



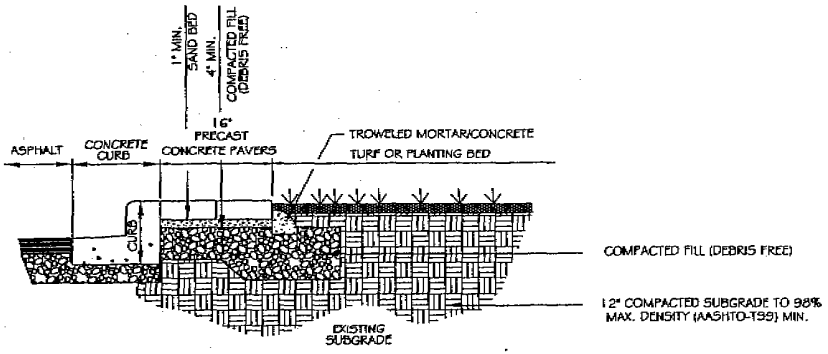
PAVER TRANSITION TO CONCRETE

N.T.S. SECTION D-D



CONCRETE BANDING DETAIL

N.T.S. SECTION C-C



PAVER BANDING DETAIL

N.T.S. SECTION E-E

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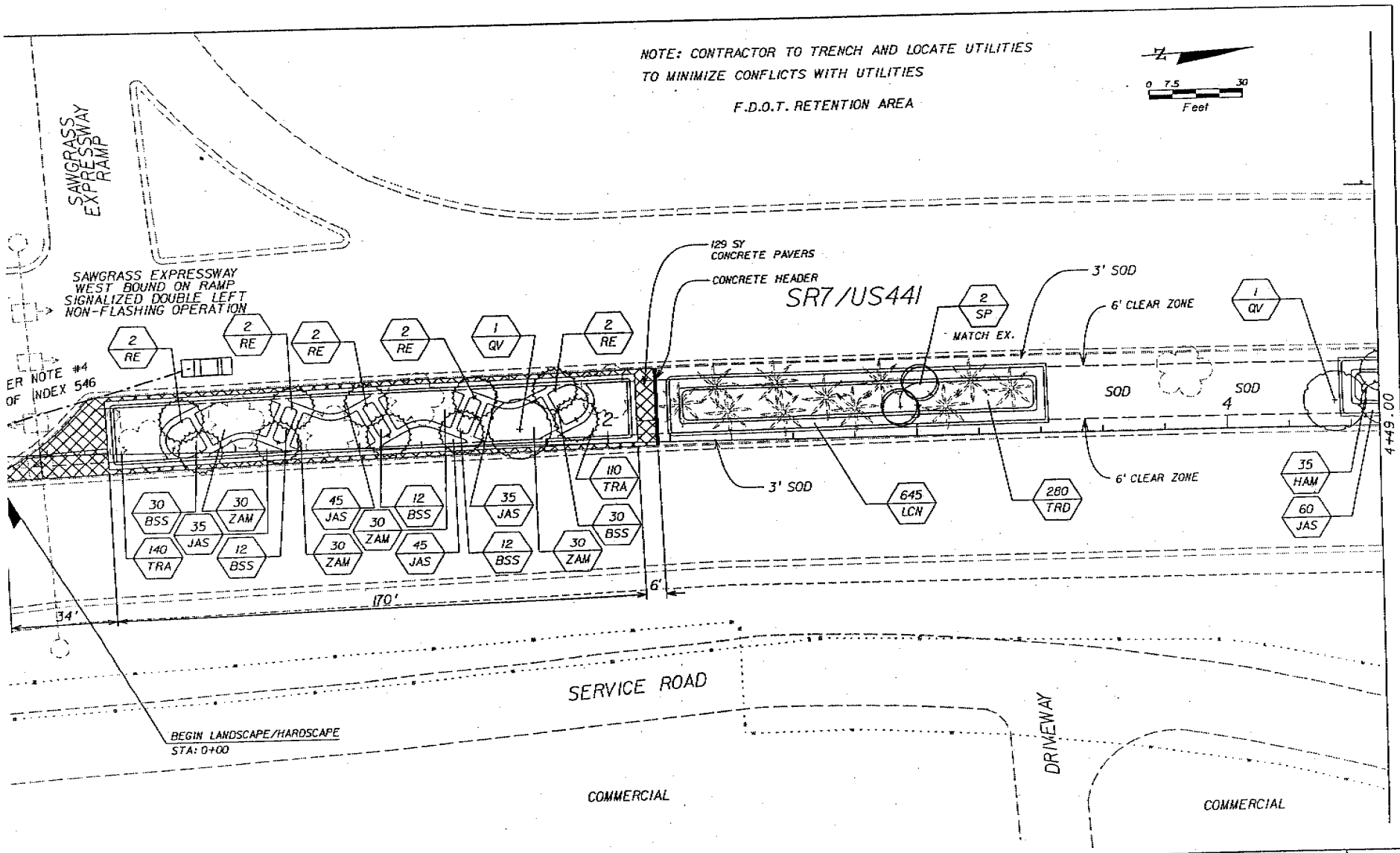
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

HARDSCAPE NOTES AND DETAILS

SHEET NO. LD-31

6/4/2008 9:30:48 AM



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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-32

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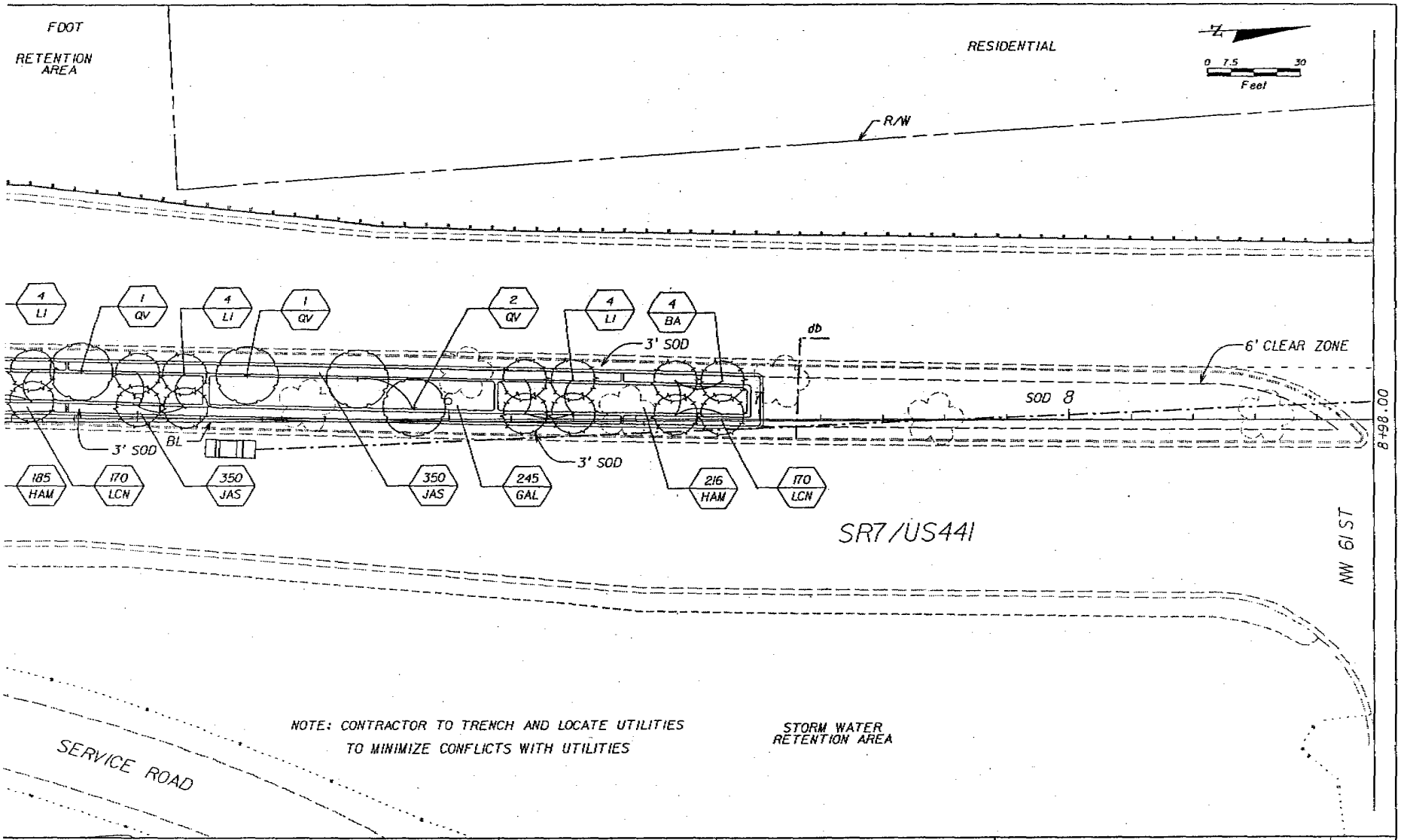

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-33

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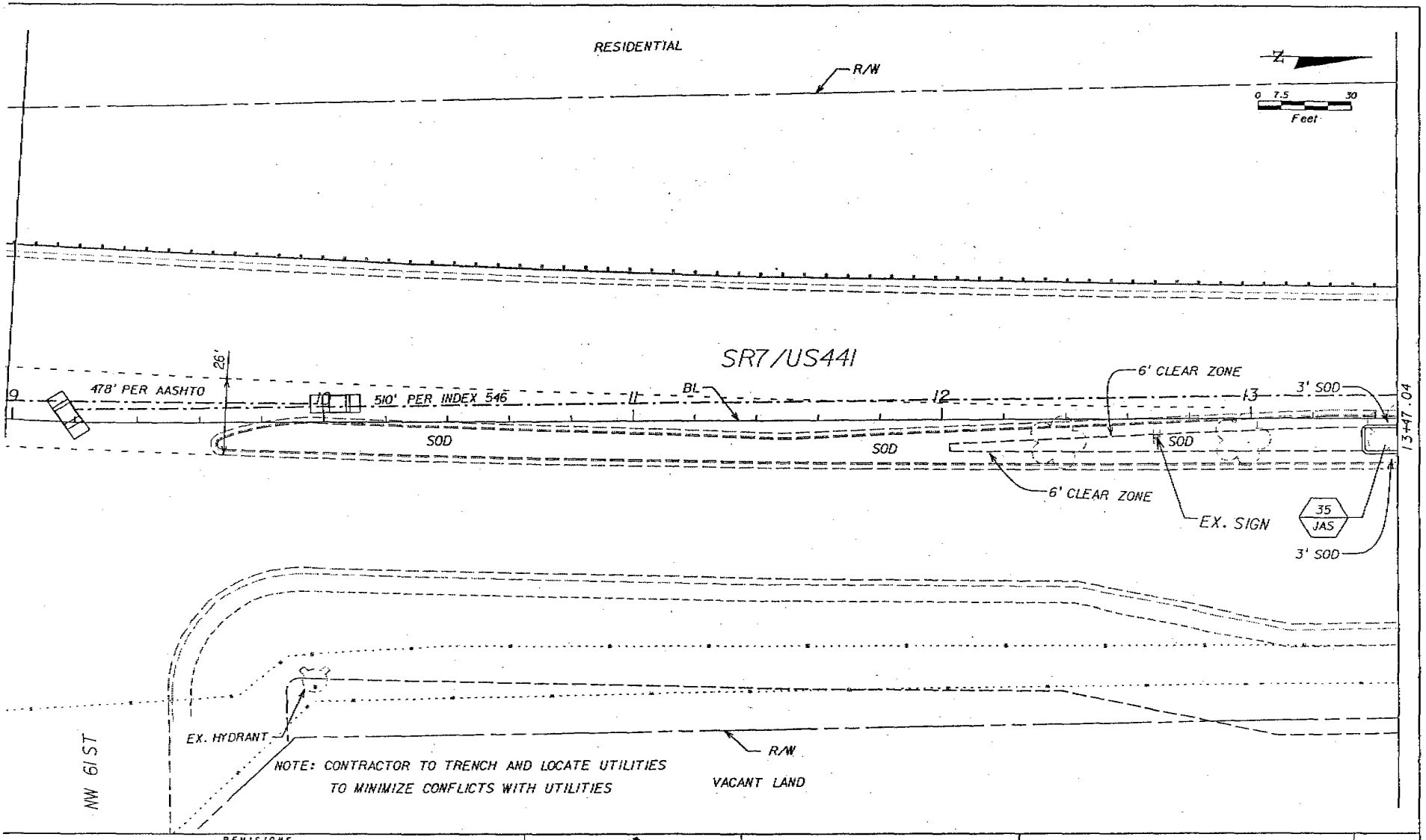

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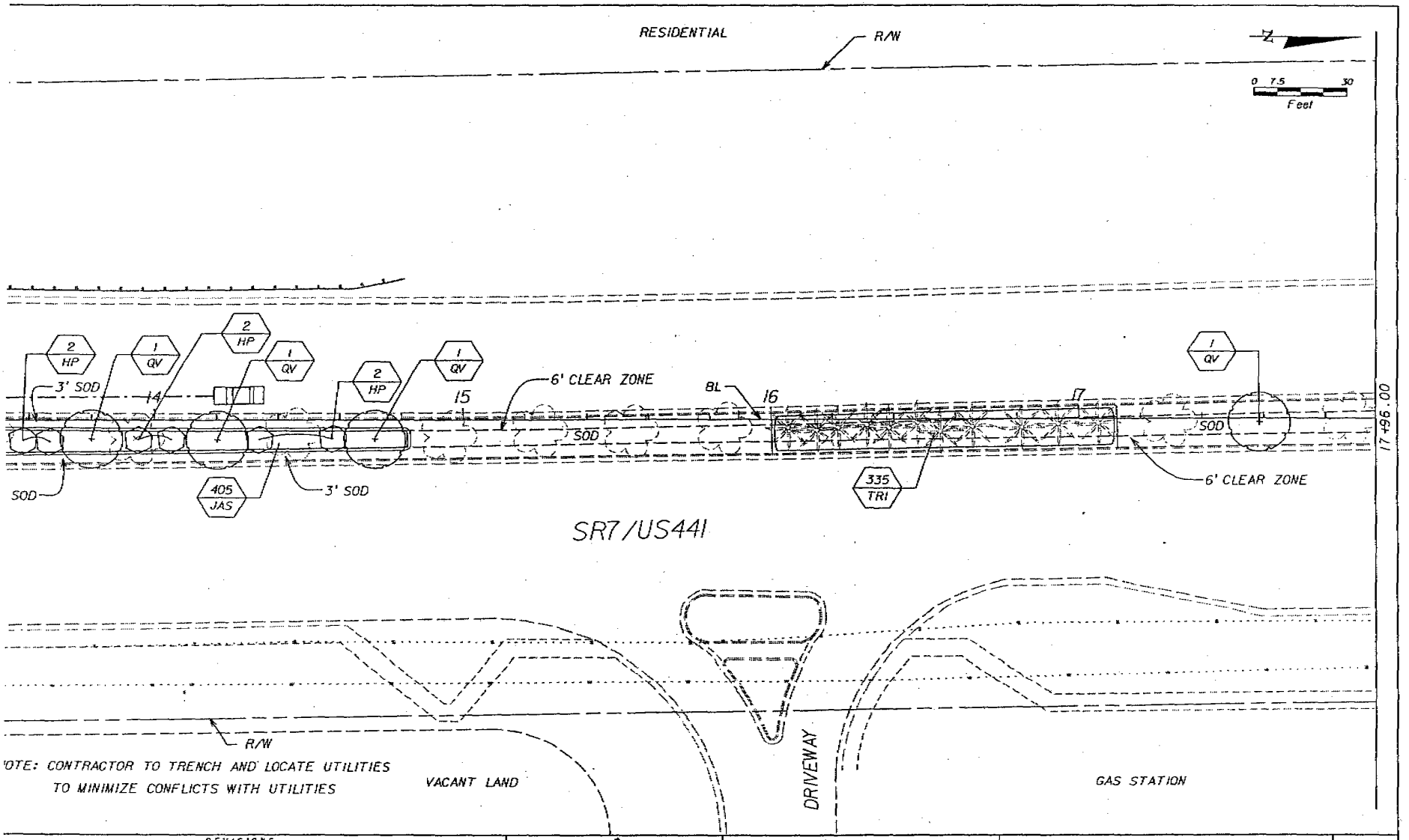
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-34

6/4/2008 9:11:05 AM



'OTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES
TO MINIMIZE CONFLICTS WITH UTILITIES

REVISIONS				
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-35

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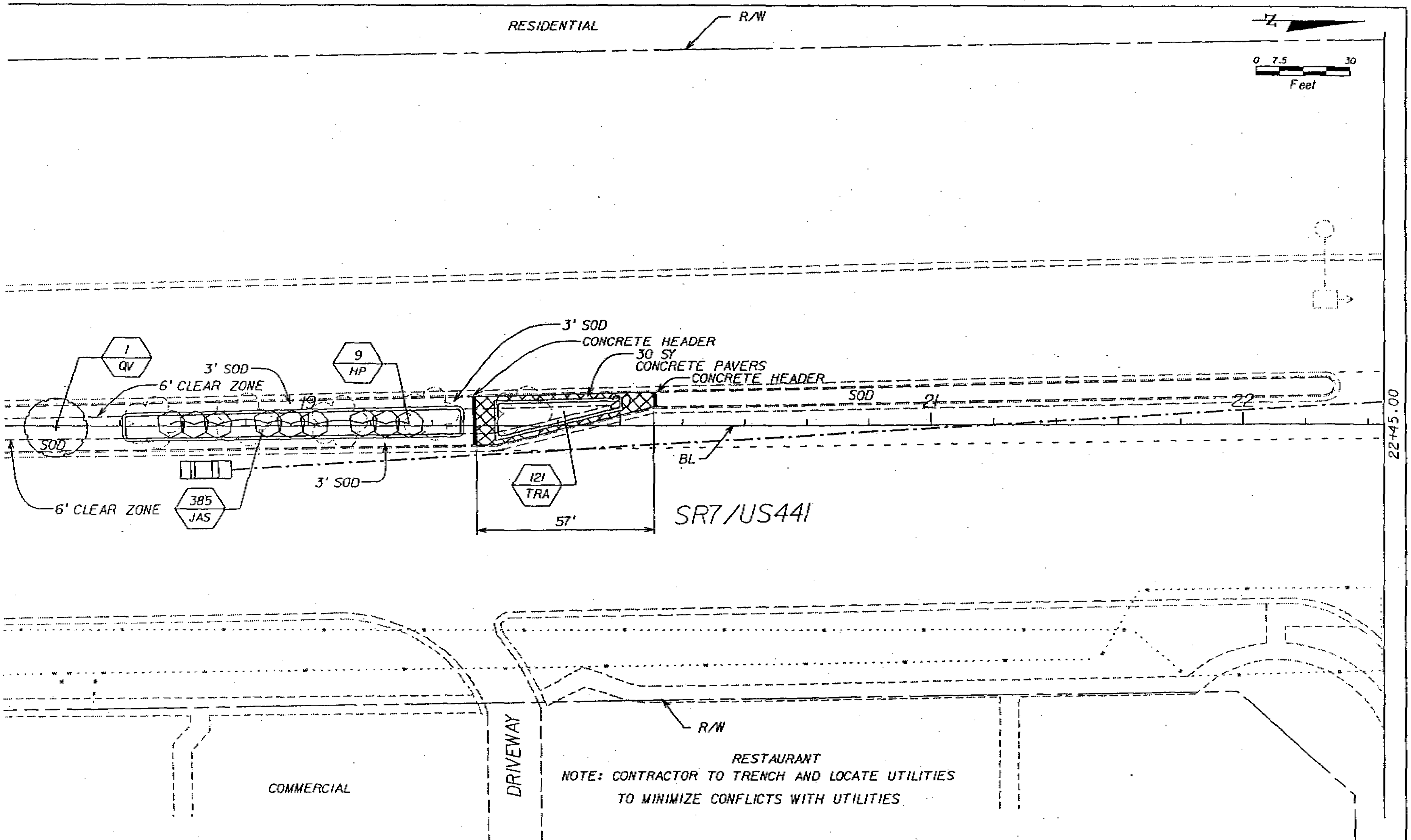

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO.
LD-36

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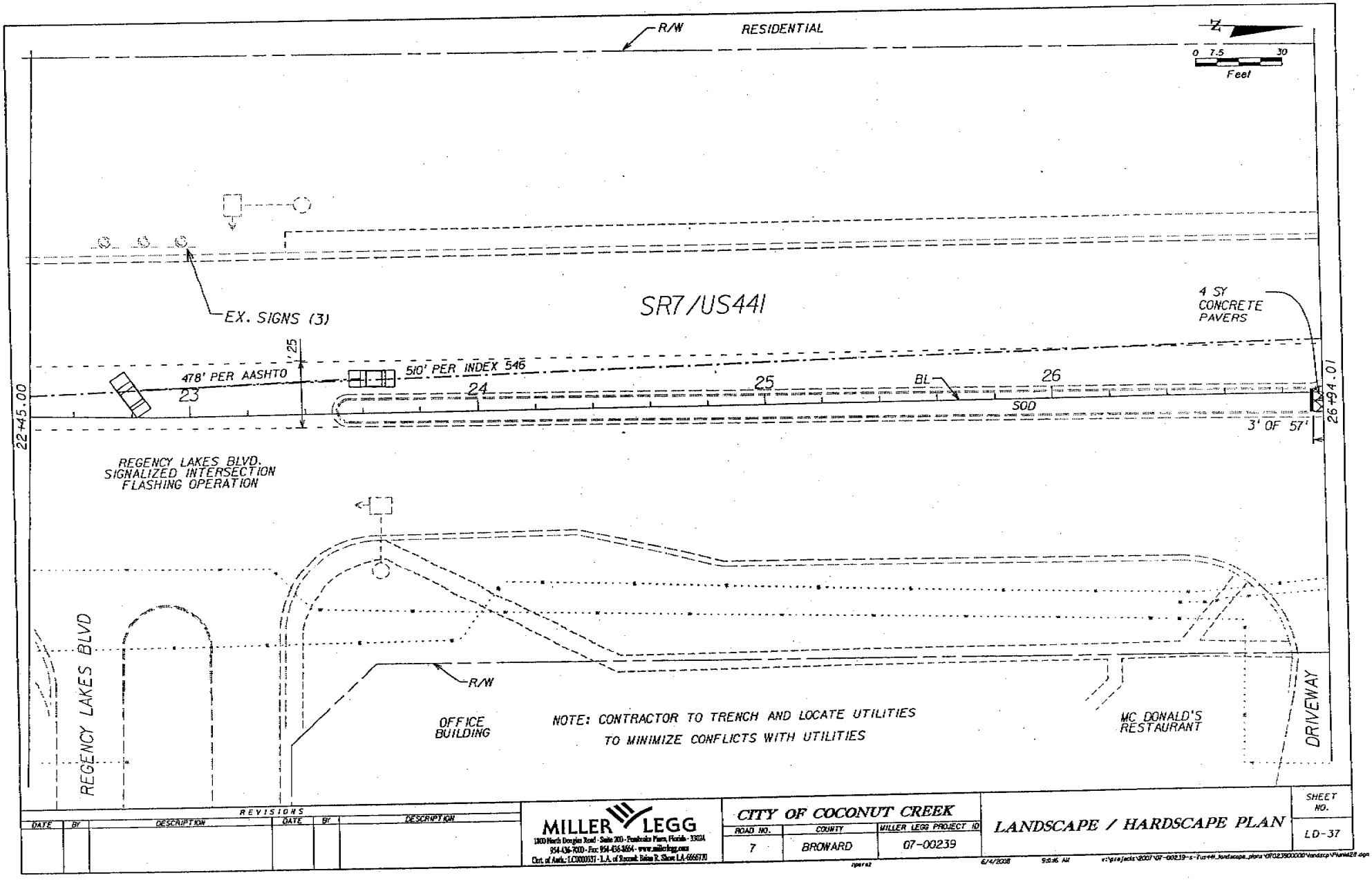

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO.
LD-37

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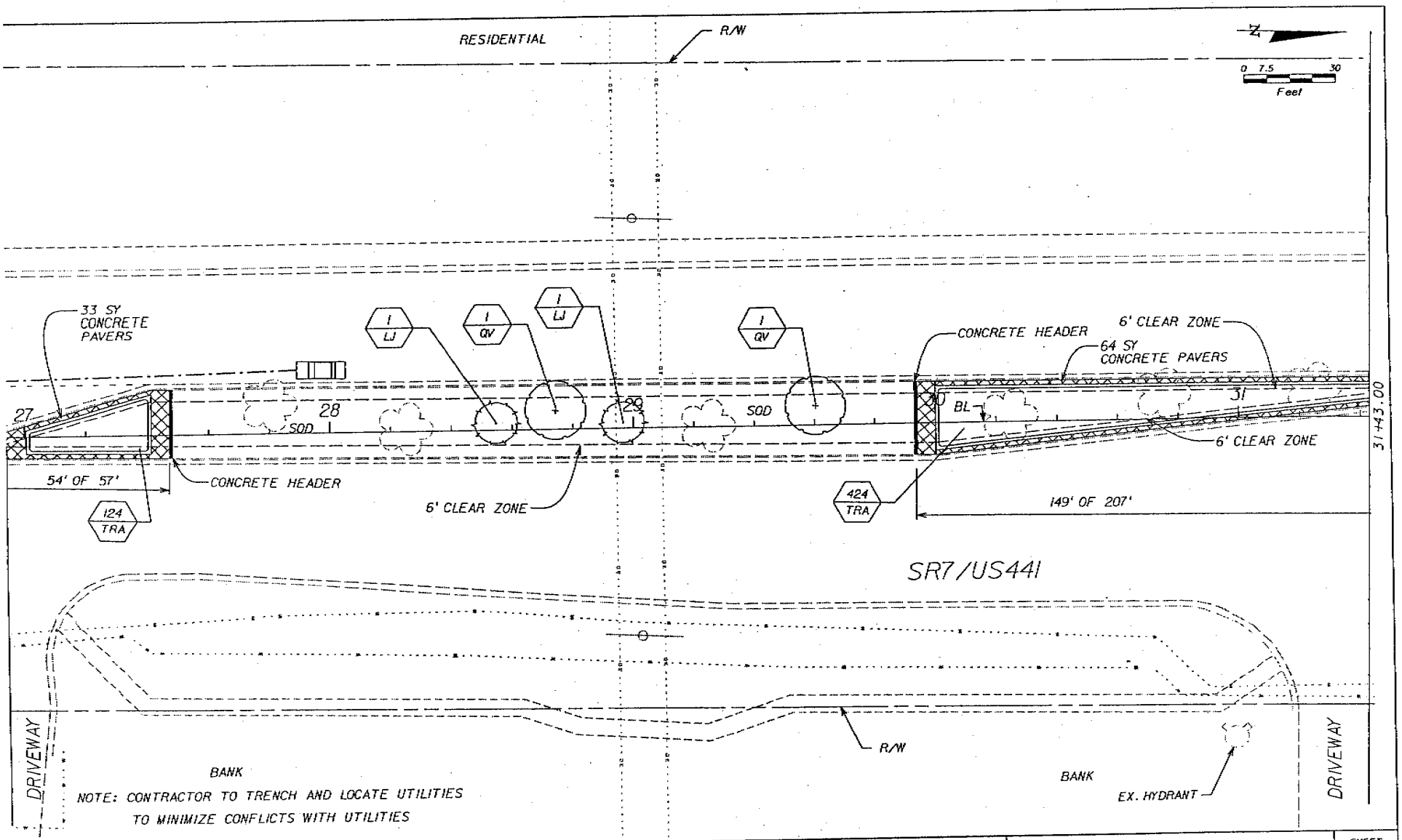

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-38

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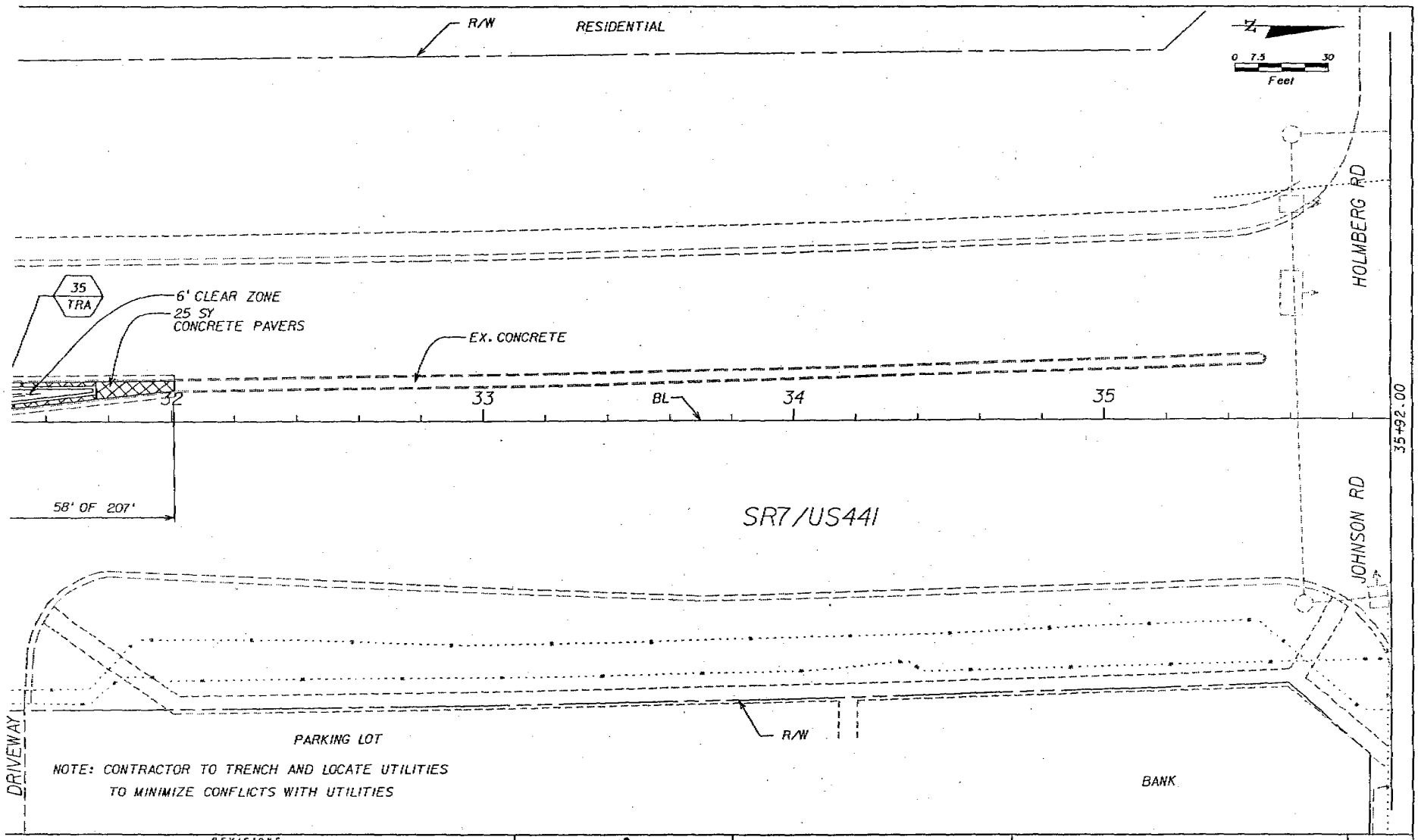

REVISIONS					
BY	DESCRIPTION	DATE	BY	DESCRIPTION	

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CITY OF COCONUT CREEK			LANDSCAPE / HARDSCAPE PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-39
7	BROWARD	07-00239		

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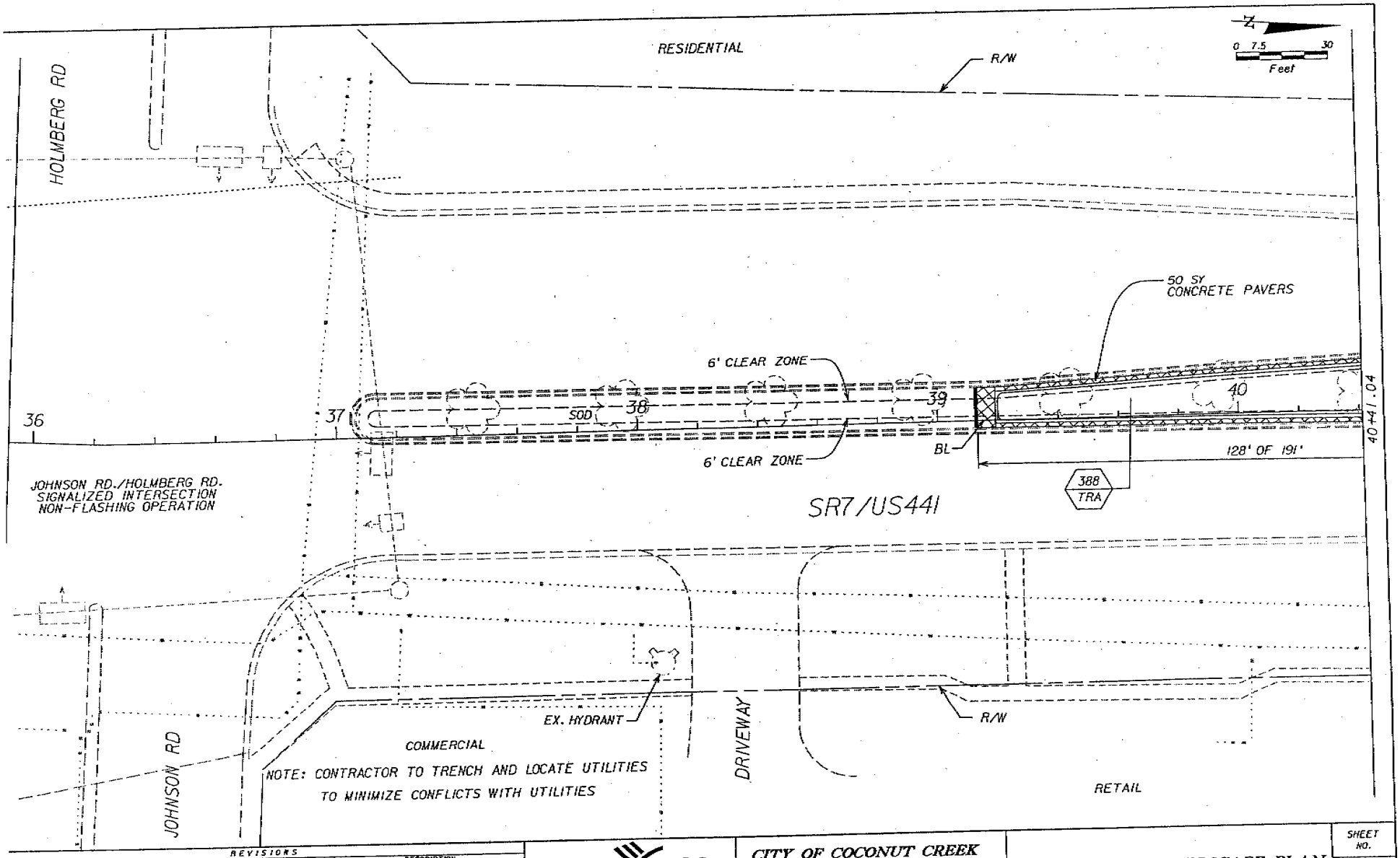

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-40

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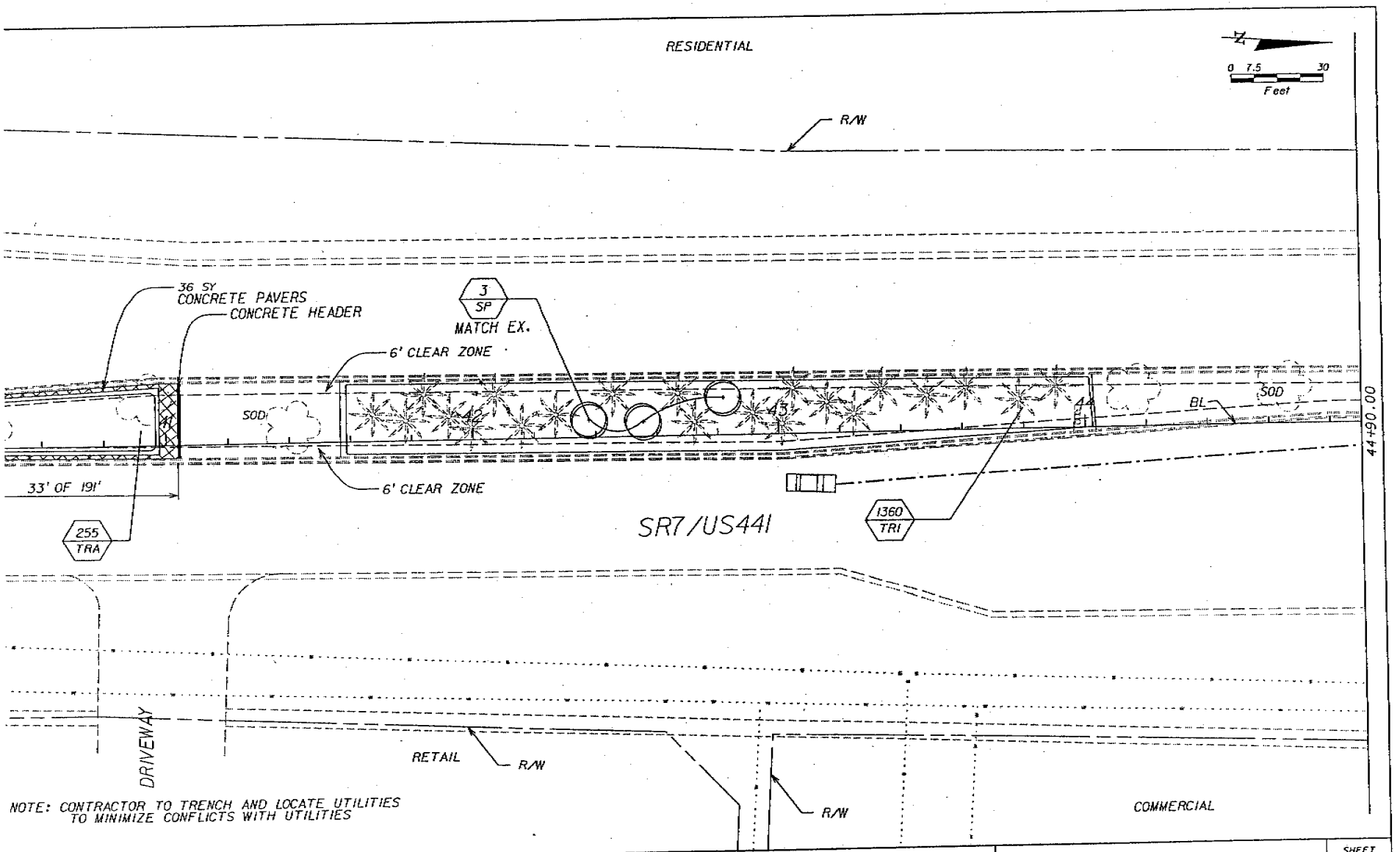

NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-41

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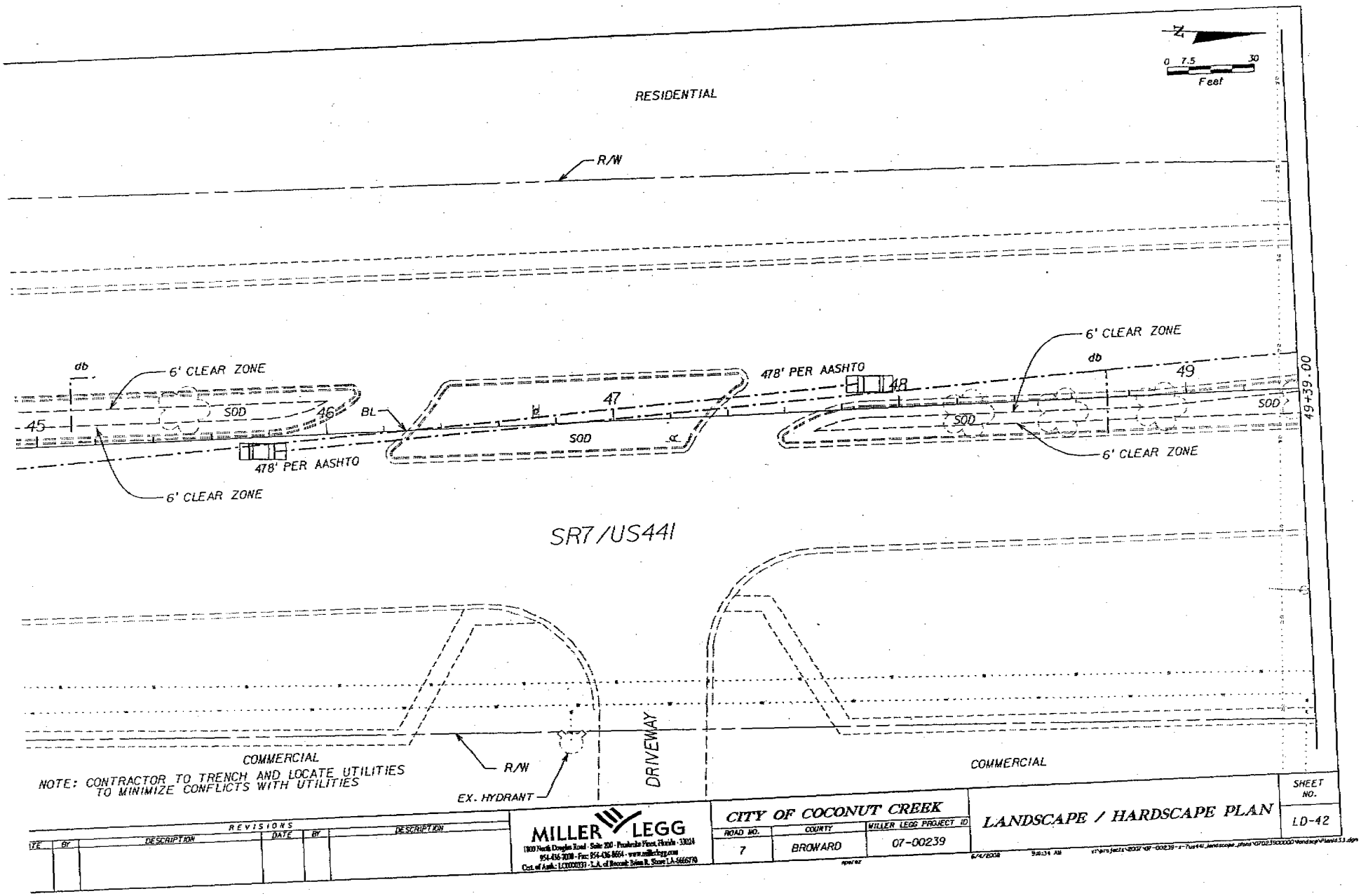

REVISIONS					
TE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-42

6/4/2008 9:41:34 AM

IRRIGATION GENERAL NOTES and SPECIFICATIONS
The system has been designed to conform with the requirements of all applicable codes. Should any conflict exist, the requirements of the codes shall prevail. It is the responsibility of the owner/installation contractor to insure the entire system is installed according to all applicable laws, rules, regulations and conventions. Irrigation contractor responsible for obtaining all required permits according to federal, state and local laws.

The scope of work is shown on the plans, notes and details. The Irrigation Contractor shall be certified as a CERTIFIED IRRIGATION CONTRACTOR by the Irrigation Association. The certification shall be current and in good standing.

THE WORK
The work specified in this section consists of furnishing all components necessary for the installation, testing, and delivery of a complete, fully functional automatic landscape irrigation system that completely complies with the irrigation plans, specifications, notes, details and all applicable laws, regulations, codes and ordinances. This work shall include, but not be limited to, the providing of all required material (pipe, valves, fittings, controllers, wire, primer, glue, etc.), layout, protection to the public, excavation, assembly, installation, back filling, compacting, repair of road surfaces, controller and low voltage feeds to valves, cleanup, maintenance, guarantee and as-built plans.

All irrigated areas shall provide 100% head-to-head coverage from a fully automatic irrigation system with a rain sensor. The rain sensor shall be installed to prevent activation of rain sensor by adjacent heads. All watering procedures shall conform to local codes, as well as this project's regional Water Management District restrictions and regulations. Zones are prioritized first by public safety and then by hydraulic concerns. This sequencing will be a mandatory punch list item. These plans have been designed to satisfy/exceed the Florida Building Code (FBC) Appendix F and the Florida Irrigation Society Standards and Specifications for Turf and Landscape Irrigation Systems, fourth edition.

Contractor shall verify all underground utilities 72 hours prior to commencement of work.

It is the responsibility of the irrigation contractor to familiarize themselves with all grade differences, location of walls, retaining walls, structures and utilities. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that unknown obstruction, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions, or differences, should be brought to the attention of the owner' authorized representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

Irrigation Contractor shall repair or replace all items damaged by their work. Irrigation Contractor shall coordinate their work with other Contractors for the location and installation of pipe sleeves and laterals under roadways and paving, etc.

The contractor shall take immediate steps to repair, replace, or restore all services to any utilities which are disrupted due to their operations. All costs involved in disruption of service and repairs due to negligence on the part of the contractor shall be their responsibility.

POINT OF CONNECTION (P.O.C.)
The P.O.C.'s are new Hoover Pumping Stations (Pump A Model HCF-10PD-230/3-A,E-16,M,W and Pump B Model HCF-10PD-230/3-A,E-12,M,W) utalizing proposed wells. Each P.O.C. must be capable of delivering a minimum of 80 GPM at 178 TDH. Contractor shall verify these minimum conditions can be met prior to the begin irrigation system installation.

If the conditions can not be met, the contractor must notify the designer prior to proceeding with the work. If the Contractor does not do so, the contractor proceeds at their own risk and becomes responsible for any future work required to make the system perform as required.

THE PIPE
Pipe locations shown on the plan are schematic and shall be adjusted in the field. When laying out mainlines place a 18"-24" away from either the back of curb, front of walk, back of walk, or other hardscape to allow for ease in locating and protection from physical damage. Install all lateral pipe near edges of pavement or against buildings whenever possible to allow space for plant root balls. Always install piping inside project properties boundary.

Pipe sizes shall conform to those shown on the plans. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged / rejected pipe shall be removed from the site at the time of said rejection.

All pipes are to always be placed in planting beds. If it is necessary to have piping under hardscapes, such as roads, pavers, and walks, the pipes must be sleeved using High Density Polyethelene (HDPE) under existing roadways and sidewalks where directional bore is utilized and Sch 40 PVC elsewhere with the sleeve diameter being twice the size of the pipe it is carrying with a minimum sleeve size of 2".

Mainline shall be Class 200 gasketed 'O' ring PVC with Harco ductile iron fittings (sized per plans).

Contractor to ensure all mainline piping is properly restrained using mechanical joint fittings, restraining collars, threaded rods, thrust blocks, etc., as and where required. Contractor shall refer to pipe manufacturers recommended installation practices for further direction.

PVC pipe joint compound and primer: slow-drying, heavy duty cement and tinted (purple) primer that is compatible with the cement. The PVC cement shall be Weld-On 2711 grey and the primer shall be Weld-On P70 purple primer, or approved equals.

ELECTRICAL POWER SUPPLY
Electrical supply and phone line for pumps and controllers to be provided by irrigation contractor. Contractor to coordinate with local utilities for the installation of, and connection to, site available power supply's for required electrical components as set forth in the irrigation plans.

All electrical to comply with the National Electrical Code and any, and all, other applicable electrical codes, laws and regulations. A licensed electrician shall perform all electrical hook-ups. Power for the controllers shall be 120 volts. Power for Pumps A & B shall be 208 volts Phase 3.

WIRING
Irrigation control wire shall be thermoplastic solid copper, single conductor, low voltage irrigation controller wire; suitable for direct burial and continuous operation at rated voltages.

Tape and bundle control wires every 10' and run alongside the mainline. At all turns in direction make a 2' coil of wire. At all valve boxes coil wire around a 3/4" piece of PVC pipe to make a coil using 30 linear inches of wire. Make electrical connections with 3M-DBY,DBR connectors.

Number all wires, using an electrical book of numbers, according to the plans. Number wires in all valve boxes, junction boxes and at the controller.

Wire sized, numbered and colored as follows:
- #12 white for common
- #12 spare black common
- #14 red for hot wires
- #14 spare yellow hot wire

SPARE WIRES
Run spare wires into every RCV valve box. Install a minimum of 2 common and 4 hot wires, in all directions, to every RCV connected to its respective controller.

CONTROLLER GROUNDING
Contractor to utilize 4"X8"X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD wells at all connection points, #6 bare copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller location, and test results. Each controller shall be so grounded and tested.

LAYOUT
Lay out irrigation system mainlines and lateral lines. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches.

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to insure 100% head to head coverage. Refer to the Edge of Pavement Detail on the Irrigation Detail Sheet.

Spray heads shall be installed 4" from sidewalks or curbed roadways and 12" from uncurbed roadways and building foundations. Rotors shall be installed 4" from sidewalks or curbed roadways, 12" from building foundations, and 36" from uncurbed roadways.

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will be installed from a reuse water system with purple PVC risers.

REVISIONS						
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CITY OF COCONUT CREEK			IRRIGATION NOTES	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-53
7	BROWARD	07-00239		

6/4/2008 9:32:12 AM

SATION GENERAL NOTES and SPECIFICATIONS (CONTINUED)
ite valves prior to excavation. Insure that their location provides for easy access and that there is no interference with ical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the s of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf s without approval by the irrigation designer - only in shrub beds. Never install in sport field areas.

VES
uence all valves so that the farthest valve from the P.O.C. operates first and the closest to the P.O.C. operates last. closest valve to the P.O.C. should be the last valve in the programmed sequence.

ist the flow control on each RCV to ensure shut off in 10 seconds after deactivation by the irrigation controller.

VE BOXES

e boxes shall be standard unless otherwise noted to be traffic rated boxes.

ig 3" high number stencils paint the valve number in white on the lid of each valve box.

JIPMENT
blers shall be installed using Sch 80 nipples and shall be placed at the base of trees for low level watering.

pop-up heads and shrub risers shall be pressure compensating. All pop-up heads shall be mounted on flex-type swing ts.

sprinkler equipment not otherwise detailed or specified shall be installed as per manufacturer's recommendations and cifications, and according to local and state laws.

NCHING
avate straight and vertical trenches with smooth, flat or sloping bottoms. Trench width and depth should be sufficient to w for the proper vertical and horizontal separation between piping as shown in the pipe installation detail on the detail et.

tect existing landscaped areas. Remove and replant any damaged plant material upon job completion. The replacement erial shall be of the same genus and species, and of the size of the material it is replacing. The final determination as to it needs to be replaced and the acceptability of the replacement material shall be solely up to the owner or owner's resentative.

STALLATION
all pipe square and deburr. Clean pipe and fittings of foreign material; then apply a small amount of primer while ensuring t any excess is wiped off immediately. Primer should not puddle or drip from pipe or fittings. Next apply a thin coat of C cement; first apply a thin layer to the pipe, next a thin layer inside the fitting, and finally another very thin layer on the e. Insert the pipe into the fitting. Insure that the pipe is inserted to the bottom of the fitting, then turn the pipe a 1/4 n and hold for 10 seconds. Make sure that the pipe doesn't recede from the fitting. If the pipe isn't at the bottom of the ing upon completion, the glue joint is unacceptable and must be discarded.

es must cure a minimum of 30 minutes prior to handling and placing into trenches. A longer curing time may be required; er to the manufacturer's specifications. The pipe must cure a minimum of 24 hours prior to filling with water.

CK FILL
Back fill 6" below and 6" above all piping shall be of clean sand and anything beyond that in the trench can be of native terial but nothing larger than 2" in diameter.

in line pipe depth measured to the top of pipe shall be 36" minimum, including at vehicular crossings.

eral line depths measured to top of pipe shall be:
18" minimum for 3/4"-3" PVC with a 36" minimum at vehicular crossings;
24" minimum for 4" PVC and above with a 36" minimum at vehicular crossings.

ntractor shall backfill all piping, both mainline and laterals, prior to performing any pressure tests. The pipe shall be ckfilled with the exception of 2' on each side of every joint (bell fittings, 90's, tees, 45's, etc.). These joints shall not be ckfilled until all piping has satisfactorily passed its appropriate pressure test as outlined below.

FLUSHING
Prior to the placement of heads, flush all lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving. TESTING
Remove all remote control valves and cap using a threaded cap. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent-welded pipe. Gasketed piping shall lose no more water than allowed per the Florida State Building Code, Volume II Plumbing, Part VI, Appendix 'F'. Refer to this section for the formula to be used to calculate the maximum allowable water loss during the testing time. If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

The lateral lines must be filled and visually checked for leaks. Any leaks detected must be repaired. No pressure test of the lateral lines is required.

Once the mainline and lateral lines have passed their respective tests, and the system is completely operational, a coverage test and demonstration of the system is required. The irrigation contractor must demonstrate to the owner, or his/her representative that proper coverage is obtained and that the system works automatically from the controller. This demonstration requires that each zone is turned on, in the proper sequence as shown on the plans, from the controller. Each zone will be inspected for proper coverage and function. The determination of proper coverage and function is at the sole discretion of the owner or owner's representative.

Operational Testing - Upon completion of back filling, finish grading and contouring, test the entire system for proper operation; including electrically actuating the remote control valves. Run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In sandy soils no puddling will occur, instead; calculate the required run times.

SUBMITTALS
The contractor must submit for approval, prior to installation, copies of the manufacturer's cut sheets/specifications for all components to be used in the irrigation system.

Record Drawings - After project completion, and as a condition of final acceptance, the irrigation contractor shall provide the owner with a high quality, accurate, and legible set of as-built drawings. The as-builts must identify all remote control valves, gate valves, ball valves, splice boxes, controllers, mainline, sleeving, and low voltage wiring. Each of these items is to be located using a submeter GPS system. The irrigation contractor must also provide accurate, informative, and easy to follow and understand operation and maintenance manuals for all components of the irrigation system.

Controller charts - Upon completion of "as-built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2ml pieces of clear plastic.

Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Include tools to service these products.
1. Sprinkler Units: Five of each unit for each type and size installed, but no fewer than two units.
2. Emitter Units: Five of each unit for each type and size installed, but no fewer than two units.
3. Drip Tube Units: Five of each unit for each type and size installed, but no fewer than two units.

FINAL ACCEPTANCE
Final acceptance of the irrigation system will be given after the following documents and conditions have been completed and approved. Final payment will not be released until these conditions are satisfied.
1. Final walk-thru and correction of all punch list items.
2. Completion and acceptance of 'as-built' drawings.
3. Acceptance of required controller charts and placement inside of controllers.
4. Turn over of all required parts and tools as outlined in the project specifications.

GUARANTEE
The irrigation systems shall be guaranteed for a minimum of one calendar year from the time of final acceptance.

REVISIONS					
BY	DESCRIPTION	DATE	BY	DESCRIPTION	

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954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: LC0000331 - L.A. of Record: Brian R. Shore LA 6666770

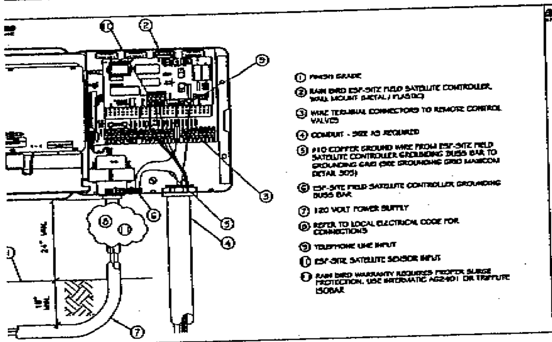
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

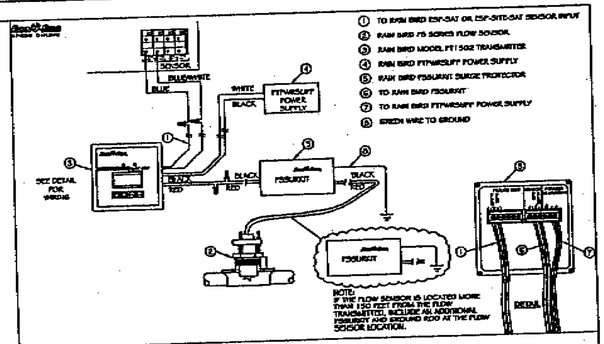
IRRIGATION NOTES

SHEET NO. LD-54

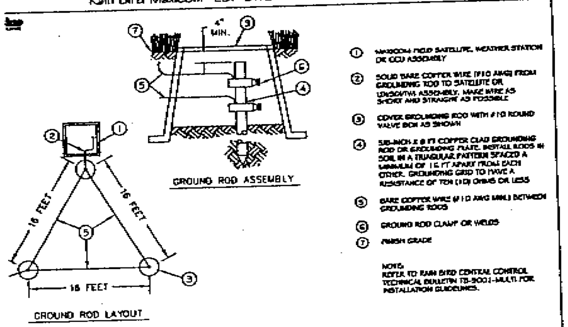
6/4/2008 9:52:28 AM



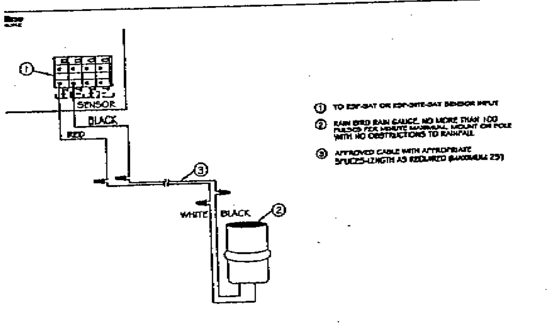
Rain Bird Maxicom² ESP-SITE Field Satellite Controller



Rain Bird Maxicom² Flow Sensor



Rain Bird Maxicom² Grounding Rod Grid Detail



Rain Bird Maxicom² Variable Rain Shut-Down

RAIN BIRD MAXICOM² ESP-SITE SATELLITE CONTROLLER

The irrigation system controller shall be a Maxicom²® Site Satellite. The central computer shall be able to send schedule instructions and receive logs of operation directly from the satellite controller. No other interface will be required. As specified in the drawings and associated documents, communication from the central computer shall be via standard dial-tone telephone, cellular phone, point-to-point radio (450-470 MHz), or direct connection serial cable as a communication link to the central computer.

The controller shall be a single unit containing a telephone modem card (dial-tone telephone or cellular telephone) and an RS- 232 serial connection card (radio or direct connect), and the encoder module.

The controller shall be of a hybrid type that combines electromechanical and microprocessor-based circuitry capable of fully automatic and manual operation. The controller will be housed in a weatherproof, lockable, 16-gauge seamless steel cabinet suitable for wall mounting, a plastic NEMA-4 rated wall mount cabinet, or free-standing stainless steel pedestal mounting.

The controller shall operate on a 117 VAC ± 10% power input and be capable of actuating up to two 24 VAC, 7VA solenoid valves per station plus a master valve or pump start relay. The controller shall be capable of operating four stations plus the master valve simultaneously. Controller output shall be protected against severe electrical surge.

As a stand-alone the controller shall have four separate irrigation programs (A, B, C, & D) which can have different start times, watering days, day cycles, and station timing. Each program shall have eight start times per day.

Controller A shall have 16 stations; controller B shall have 12 stations, with each station capable of an operating time of 0 to 2 hours in one-minute increments and 2 to 12 hours in 10-minute increments. Controller station operation shall be of automatic sequential stacking to avoid overlapping operation unless programmed to overlap.

The controller shall have a 365-day calendar with day-of-the-month OFF feature. Programs will run on an ODD/EVEN day cycle, day-of-the-week ON/OFF cycle, or in cycles from 1 to 99 days. In addition, the controller shall have a programmable rain shutdown from 1 to 99 days.

The controller shall have two master valve/remote pump start circuits for use with a master valve to pressurize the system when the irrigation cycle starts or to activate a remote pump start relay to run the pump during the irrigation cycle. One master valve/pump start circuit shall be programmable by station; the other shall function at all times.

The controller shall be capable of being operated manually at any time. A manual single station, a group of stations, or a program can be selected to run for the programmed time without affecting the normal program. This controller shall be capable of running a variable system test program without affecting the normal program.

The controller shall have Cycle+Soak™ water management software which is capable of operating each station for a maximum cycle time and a minimum soak time to reduce water run-off and puddling. The maximum cycle time shall not be extended by water budgeting.

The controller shall have an internal nonvolatile memory which will retain the irrigation program and the programmed date and time for a minimum of 100 years without power. A 9 VDC rechargeable battery and recharging circuit shall also be included for counting down the program-in-progress during a power outage and shall allow programming of the controller when it is disconnected from the main power supply.

As a satellite the controller shall indicate when it is operating under central control. It shall also display which station and channel is in operation at such time. There shall be a station status indicator light and a master valve status indicator light. These lights will indicate station operation and circuit integrity. An indicator for sensor-stand-alone status will be found on the front panel along with a switch to suspend sensor operation. This indicator and override will work with a sensor wired to the controller's sensor terminals. The controller shall be as manufactured by Rain Bird Corporation, Glendora, California.

REVISIONS					
BY	DESCRIPTION	DATE	BY	DESCRIPTION	

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION NOTES & DETAILS

SHEET NO. LD-55

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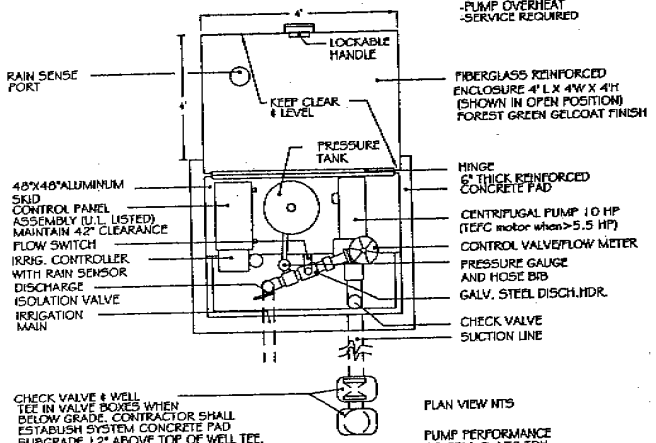
NOTE: SUCTION PIPE AND FITTINGS SHALL BE HDPE HEAT FUSED. CHECK VALVES 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE. ALL PIPE EXPOSED TO THE SUN AT THE PUMP SYSTEM SHALL BE GALVANIZED STEEL WITH GALVANIZED GROOVE FITTINGS.

WELL DRILLER SHALL NOTIFY THE PUMP SYSTEM MANUFACTURER IN WRITING WITHIN 24 HOURS OF DEVELOPING THE WELL IF THE WELL PUMPING LEVEL IS GREATER THAN 10' BELOW FINISHED GRADE AFTER 8 HOURS OF CONTINUOUS PUMPING AT 125% OF THE DESIGN FLOW BELOW.

* OPTIONAL FEATURES ARE INCLUDED IF MARKED WITH AN "X"
X PRESSURE CONTROL VALVE
X IRRIGATION CONTROLLER RAIN BIRD ESP-16SITE-W, 16 STATIONS, WITH RAIN SENSOR
X PRESSURE TANK FOR PRESSURE DEMAND SYSTEMS

SAFETY FEATURES:
PRESSURE DEMAND:
-TRANSIENT SURGE
-LOSS OF PRIME
-LOW PRESSURE
-PUMP OVERHEAT
-SERVICE REQUIRED



CHECK VALVE & WELL TEE IN VALVE BOXES WHEN BELOW GRADE. CONTRACTOR SHALL ESTABLISH SYSTEM CONCRETE PAD SUBGRADE 12" ABOVE TOP OF WELL TEE. ANTICIPATED DEPTH OF WELL 150' TO REACH CLEAN SULFER / IRON FREE GROUND SOURCE WATER.

PLAN VIEW NTS

PUMP PERFORMANCE
80 GPM @ 178 TDH

HOOVER PUMPING MODEL: HCF-10PD-23013-A,E-16,M,W
Pompano Beach, Florida, Tel: 954-971-7350

FILE FN#9554.DWG 11/07

FDOT SR7 COCONUT CREEK PUMP A CENTRIFUGAL PUMP SYSTEM DETAIL

FIBERGLASS ENCLOSED SINGLE WELL SUCTION PRESSURE DEMAND

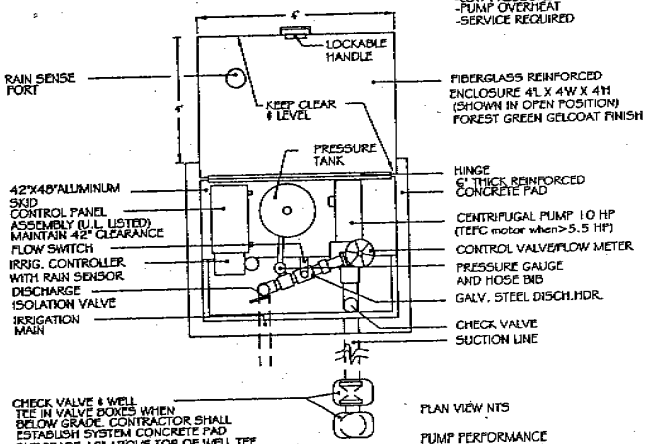
Hoover Pumping Station: Pump A - STA 37+64.17

NOTE: SUCTION PIPE AND FITTINGS SHALL BE HDPE HEAT FUSED. CHECK VALVES 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE. ALL PIPE EXPOSED TO THE SUN AT THE PUMP SYSTEM SHALL BE GALVANIZED STEEL WITH GALVANIZED GROOVE FITTINGS.

WELL DRILLER SHALL NOTIFY THE PUMP SYSTEM MANUFACTURER IN WRITING WITHIN 24 HOURS OF DEVELOPING THE WELL IF THE WELL PUMPING LEVEL IS GREATER THAN 10' BELOW FINISHED GRADE AFTER 8 HOURS OF CONTINUOUS PUMPING AT 125% OF THE DESIGN FLOW BELOW.

* OPTIONAL FEATURES ARE INCLUDED IF MARKED WITH AN "X"
X PRESSURE CONTROL VALVE
X IRRIGATION CONTROLLER RAIN BIRD ESP-SITE-W 12 STATIONS, WITH RAIN SENSOR
X PRESSURE TANK FOR PRESSURE DEMAND SYSTEMS

SAFETY FEATURES:
PRESSURE DEMAND:
-TRANSIENT SURGE
-LOSS OF PRIME
-LOW PRESSURE
-PUMP OVERHEAT
-SERVICE REQUIRED



CHECK VALVE & WELL TEE IN VALVE BOXES WHEN BELOW GRADE. CONTRACTOR SHALL ESTABLISH SYSTEM CONCRETE PAD SUBGRADE 12" ABOVE TOP OF WELL TEE. ANTICIPATED DEPTH OF WELL 150' TO REACH CLEAN SULFER / IRON FREE GROUND SOURCE WATER.

PLAN VIEW NTS

PUMP PERFORMANCE
80 GPM @ 178 TDH

HOOVER PUMPING MODEL: HCF-10PD-23013-A,E-12,M,W
Pompano Beach, Florida, Tel: 954-971-7350

FILE FN#9555.DWG 11/07

FDOT SR7 COCONUT CREEK PUMP B CENTRIFUGAL PUMP SYSTEM DETAIL

FIBERGLASS ENCLOSED SINGLE WELL SUCTION PRESSURE DEMAND

Hoover Pumping Station: Pump B - STA 80+61.32

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK			IRRIGATION DETAILS	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-56
7	BROWARD	07-00239		

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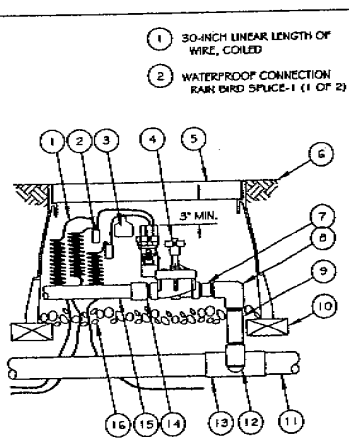


1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PESB-PRS-D WITH NP-HAN
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD or equal In areas that are subject to vehicle traffic, valve boxes to be traffic-rated.
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

Rain Bird PEB-PRS-D Remote Control Valve

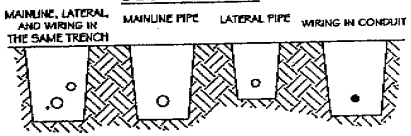
ELECTRICAL SPECIFICATIONS

- 24 VAC 50/60 Hz (CYCLES/SEC.) SOLENOID
- INRUSH CURRENT: 0.41 A (9.84 VA) AT 60 Hz
- HOLDING CURRENT: 0.28 A (6.72 VA) AT 60 Hz
- COIL RESISTANCE: 30-39 OHMS

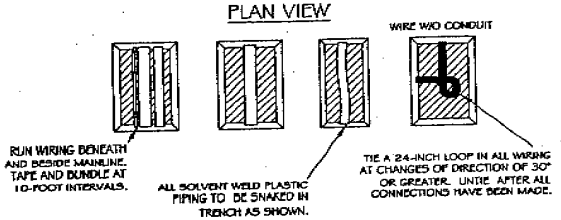
PEB SERIES VALVE PRESSURE LOSS

FLOW GPM	100-PEB PSI LOSS	150-PEB PSI LOSS	200-PEB PSI LOSS
5	1.7		
10	1.8		
20	2.9		
30	5.6	3.6	
40		3.5	
50		3.6	
75		5.4	4.5
100			5.2
125			8.2

SECTION VIEW

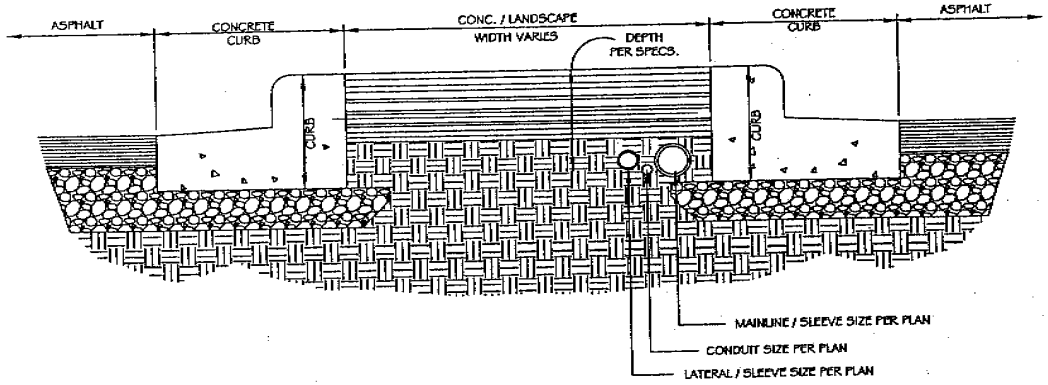


PLAN VIEW



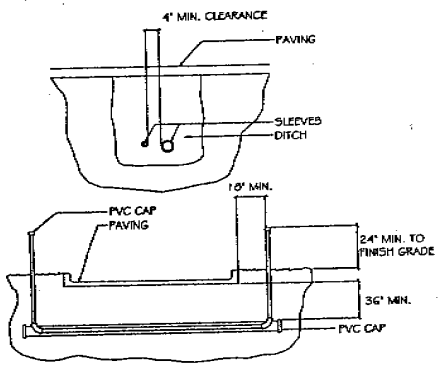
NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.

Pipe and Wire Trenching



SECTION VIEW N.T.S.

Curb to Curb Section



NOTES:
1. ALL PVC IRRIGATION SLEEVING TO BE SCHEDULE 40.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.

Irrigation Sleeving Detail

REVISIONS

BY	DESCRIPTION	DATE	BY	DESCRIPTION

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954-436-7000 - Fax: 954-436-7661 - www.millerlegg.com
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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION DETAILS

SHEET NO. LD-57

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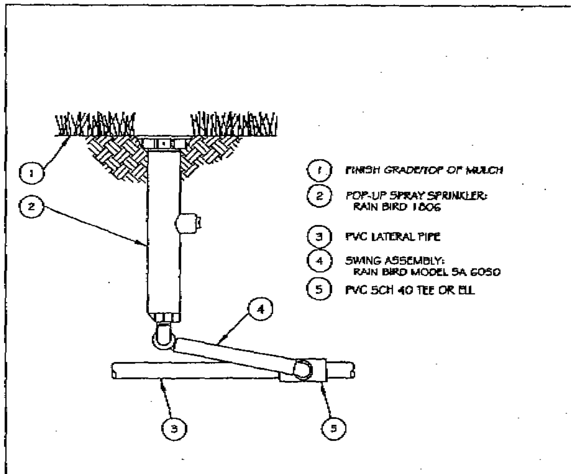
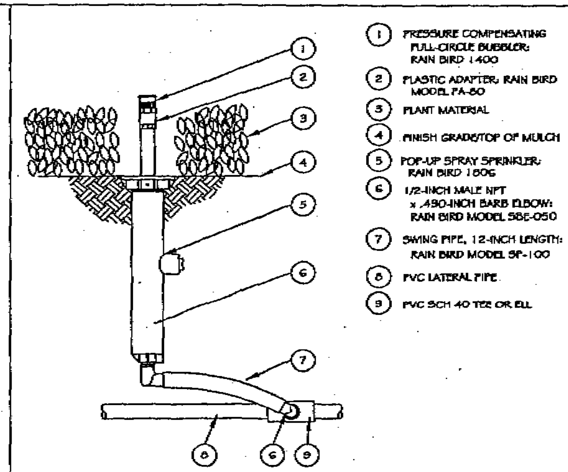
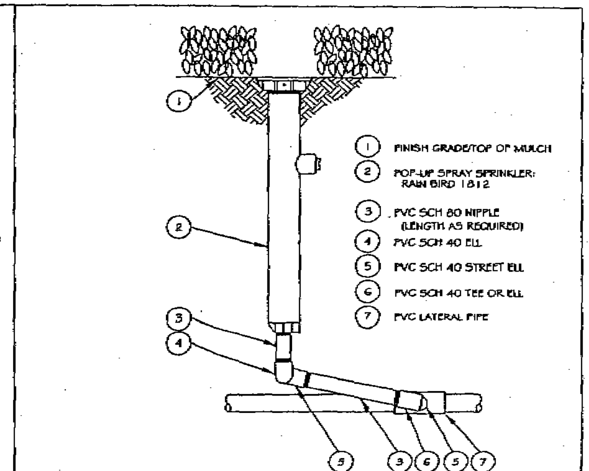


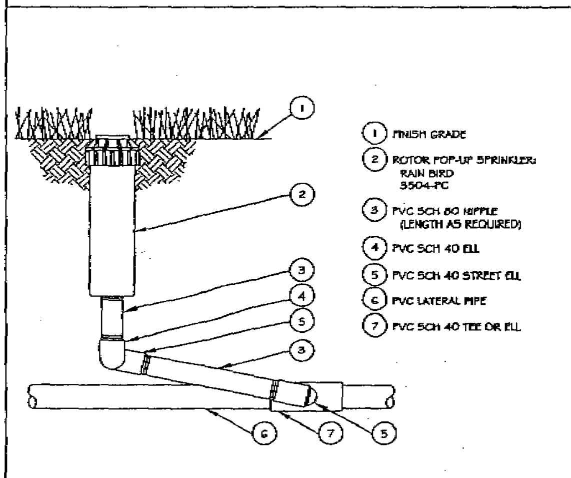
Rain Bird 1806-SAM-PRS-NP Pop-up Spray



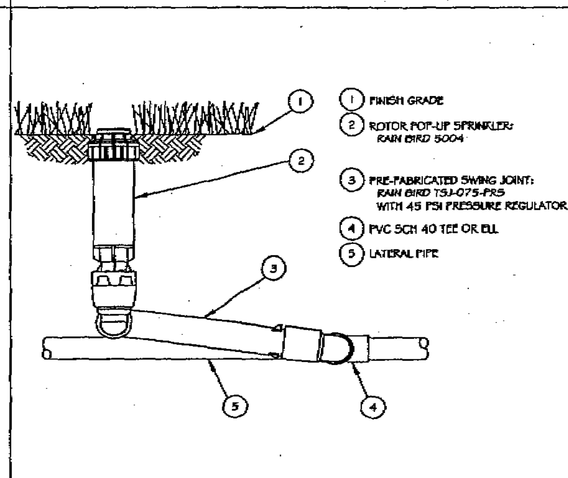
Rain Bird 1806-SAM-PRS-1400 FLOOD Pop-up Spray



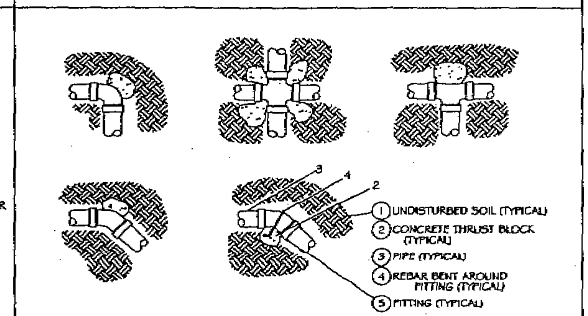
Rain Bird 1812-SAM-PRS-NP Pop-up Spray



Rain Bird 3504-PC-SAM-NP Rotor



Rain Bird 5004-MPR-SAM-NP Rotor



NOTES:

1. SUPPLY LINES 3-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. REFER TO PIPE MANUFACTURER'S SPECIFICATIONS FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK
3. ALL MAINLINE FITTINGS SHALL BE HARCO DUCTILE IRON FITTINGS.

Thrust Block Details

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION DETAILS

SHEET NO. LD-58

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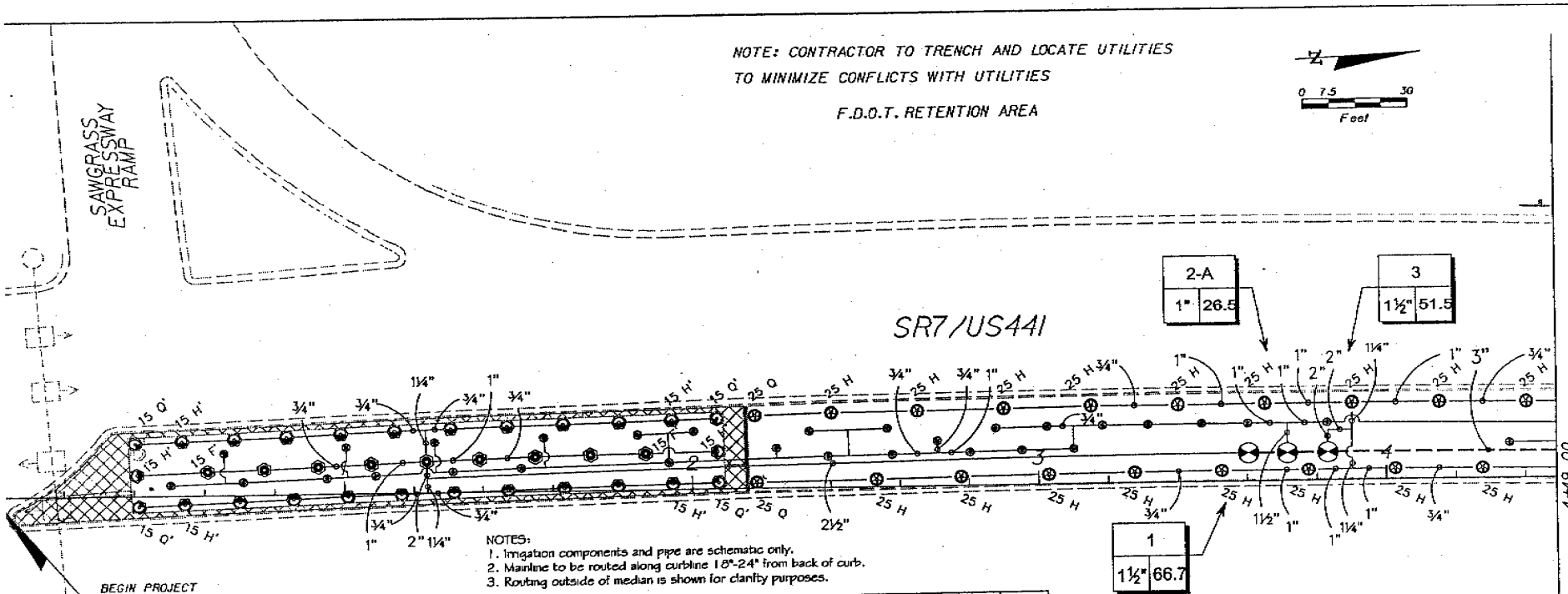

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	9	360	30	2.6	12'
	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	180	30	1.3	12'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	20	180	30	1.9	15'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	4	90	30	0.9	15'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	30	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige.	2		45	1.0	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	17		45	2.0	25'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY				
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1				
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	2				
	Irrigation Lateral Line: PVC Class 200 3/4"	1166				
	Irrigation Lateral Line: PVC Class 200 1"	340				
	Irrigation Lateral Line: PVC Class 200 1 1/4"	36				
	Irrigation Lateral Line: PVC Class 200 1 1/2"	9				
	Irrigation Lateral Line: PVC Class 200 2"	18				
	Irrigation Lateral Line: PVC Class 200 2 1/2"	236				
	Irrigation Mainline: PVC Class 200 3"	85				

REVISIONS					
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Cert. of Auth.: LC0000337 - L.A. of Record: Brian R. Shore LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

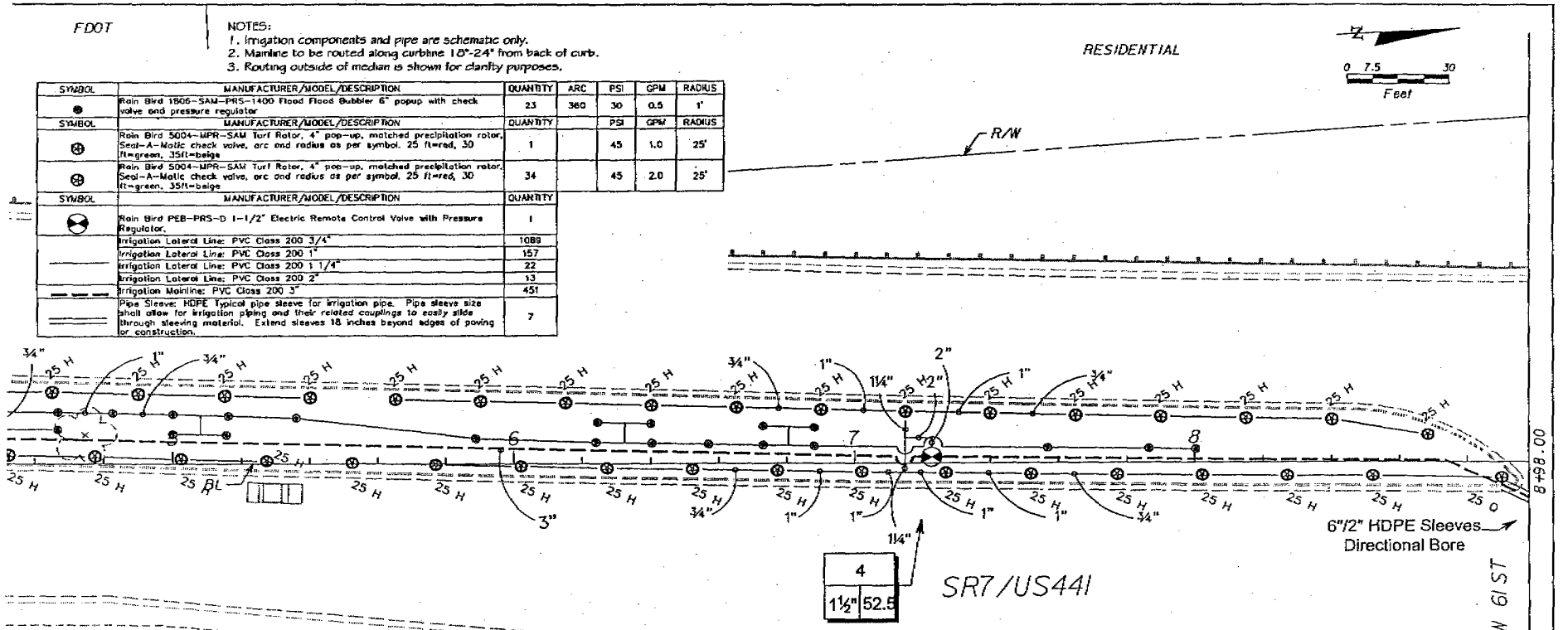
SHEET NO. LD-59

6/4/2008 9:13:19 AM v:\projects\2007\07-00239-s-7us441_landscape_plans\07023900000\landscp\Plan1d44.dgn

FDOT

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
●	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	23	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
⊛	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	1		45	1.0	25'
⊛	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	34		45	2.0	25'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY				
⊛	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	1				
	Irrigation Lateral Line: PVC Class 200 3/4"	1089				
	Irrigation Lateral Line: PVC Class 200 1"	157				
	Irrigation Lateral Line: PVC Class 200 1 1/4"	22				
	Irrigation Lateral Line: PVC Class 200 2"	13				
	Irrigation Mainline: PVC Class 200 3"	451				
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	7				



NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain, Restore with same sod species.

REVISIONS					
TE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

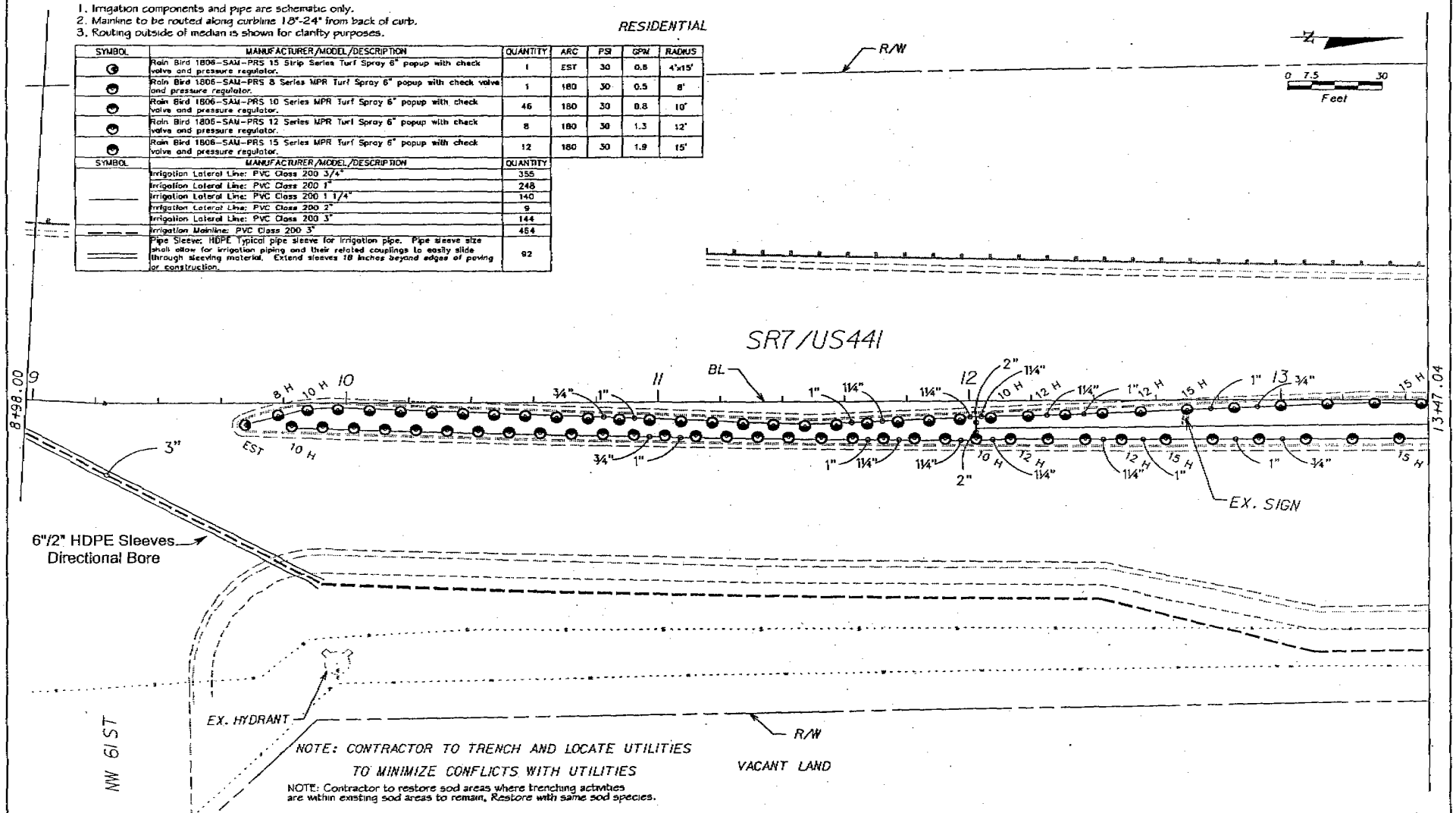
SHEET NO. LD-60

6/4/2008 9:31:25 AM

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	1	EST	30	0.8	4'x15'
	Rain Bird 1806-SAM-PRS 8 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	1	180	30	0.5	8'
	Rain Bird 1806-SAM-PRS 10 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	46	180	30	0.8	10'
	Rain Bird 1806-SAM-PRS 12 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	8	180	30	1.3	12'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	12	180	30	1.9	15'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Irrigation Lateral Line: PVC Class 200 3/4"	355
	Irrigation Lateral Line: PVC Class 200 1"	248
	Irrigation Lateral Line: PVC Class 200 1 1/4"	140
	Irrigation Lateral Line: PVC Class 200 2"	9
	Irrigation Lateral Line: PVC Class 200 3"	144
	Irrigation Mainline: PVC Class 200 3"	464
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	92



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same sod species.

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

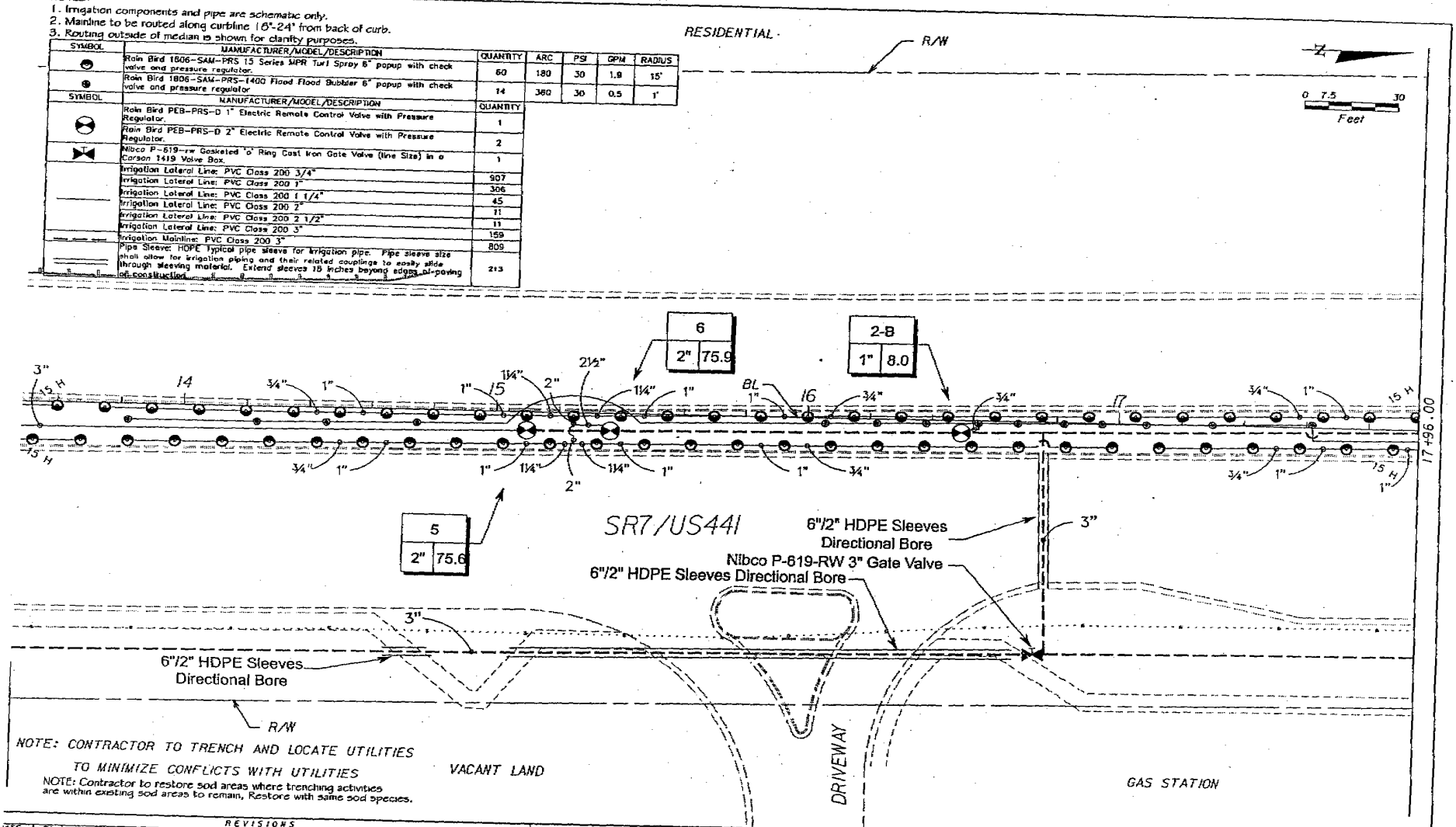
SHEET NO. LD-61

6/4/2008 9:13:32 AM

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	60	180	30	1.9	15'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	14	360	30	0.5	1'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1
	Rain Bird PEB-PRS-D 2" Electric Remote Control Valve with Pressure Regulator.	2
	Nibco P-619-rw Gasketed 'o' Ring Cast Iron Gate Valve (line Size) in a Carson 1419 Valve Box.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	907
	Irrigation Lateral Line: PVC Class 200 1"	306
	Irrigation Lateral Line: PVC Class 200 1 1/4"	45
	Irrigation Lateral Line: PVC Class 200 2"	11
	Irrigation Lateral Line: PVC Class 200 2 1/2"	11
	Irrigation Lateral Line: PVC Class 200 3"	159
	Irrigation Mainline: PVC Class 200 3"	809
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving of construction	213



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain, Restore with same sod species.

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-62

6/4/2008 9:13:37 AM

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
●	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 8" popup with check valve and pressure regulator.	13	CST	30	1.2	4'x30'
◐	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	2	EST	30	0.8	4'x15'
◓	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	19	180	30	1.9	15'
◔	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	2	90	30	0.9	15'
◐	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	1	EST	30	0.6	4'x15'
◒	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	2	SST	30	1.2	4'x30'
◓	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	180	30	1.3	12'
◔	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	90	30	0.7	12'
◉	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	2	360	30	0.5	1'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
⊕	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1
	Rain Bird PEB-PRS-D 2" Electric Remote Control Valve with Pressure Regulator.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	560
	Irrigation Lateral Line: PVC Class 200 1"	185
	Irrigation Lateral Line: PVC Class 200 1 1/4"	113
	Irrigation Lateral Line: PVC Class 200 1 1/2"	7
	Irrigation Lateral Line: PVC Class 200 2"	13
	Irrigation Lateral Line: PVC Class 200 3"	9
	Irrigation Mainline: PVC Class 200 3"	483
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	65

RESIDENTIAL

R/W

0 7.5 30
Feet

8-A
1" | 6.9

7
2" | 79.2

3" 2½" 1¼" 2" 1½" 1¼" 15 H 15 Q 12 Q' 12 H' SST 1" ¾" 1¼" 1" 1" ¾" CST EST SST EST EST CST BL 15 H 15 Q 12 Q' 12 H' 3" 2" 1¼" 1" 1" ¾"¾"

SR7/US441

6"/2" HDPE Sleeves
Directional Bore

6"/2" HDPE Sleeves
Directional Bore

R/W

DRIVEWAY

COMMERCIAL

RESTAURANT

NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain, Restore with same sod species.

22+45.00

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

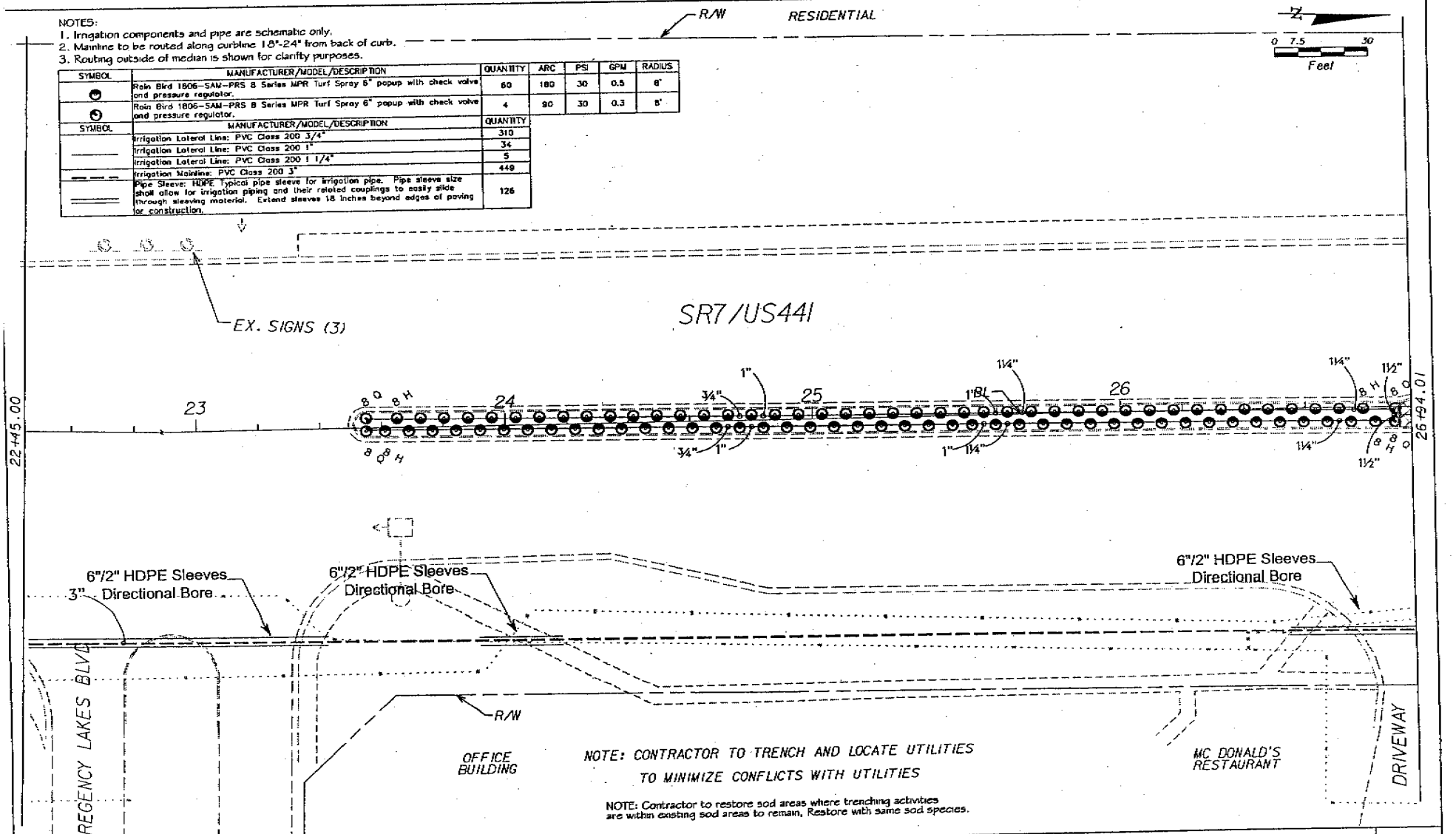
SHEET NO. LD-63

6/4/2008 9:43:43 AM

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarifty purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 8 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	60	180	30	0.5	8'
	Rain Bird 1806-SAM-PRS 8 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	4	90	30	0.3	8'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Irrigation Lateral Line: PVC Class 200 3/4"	310
	Irrigation Lateral Line: PVC Class 200 1"	34
	Irrigation Lateral Line: PVC Class 200 1 1/4"	5
	Irrigation Mainline: PVC Class 200 3"	449
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	126



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same sod species.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-64

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SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	5	180	30	0.5	8'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	1	90	30	0.3	8'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	3	180	30	0.8	10'
	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	7	180	30	1.3	12'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	10	180	30	1.9	15'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	4	90	30	0.9	15'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	10	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	4		45	1.0	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	17		45	2.0	25'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	3
	Nibco P-519-rw Gasketed "a" Ring Cast Iron Gate Valve (line Size) In a Carson 1419 Valve Box.	2
	Hoover Pumping Station Model: HCF-10PD-230/3-A,E-16,M,W	1
	Rain Bird ESP-16SAT Satellite Controller - 16 Stations	1
	Rain Bird Maxicom Rain Gauge	1
	Irrigation Lateral Line: PVC Class 200 3/4"	1186
	Irrigation Lateral Line: PVC Class 200 1"	12
	Irrigation Lateral Line: PVC Class 200 1 1/4"	198
	Irrigation Lateral Line: PVC Class 200 1 1/2"	145
	Irrigation Lateral Line: PVC Class 200 2"	24
	Irrigation Mainline: PVC Class 200 3"	576
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	110

0 7.5 30
Feet

OTES:
. Irrigation components and pipe are schematic only.
. Mainline to be routed along curbline 18"-24" from back of curb.
. Routing outside of median is shown for clarity purposes.

Hoover Pumping Station "A"

2"/2" Conduits Directional Bore

ELECTRICAL / PHONE CONNECTION:
1. Florida Power and Light and AT&T connection location to be determined.
2. Contractor to provide wire, conduit and hand hole box to source.

10	
1½"	37.7

8-B	
1½"	39.5

9	
1½"	44.7

2-C	
1"	5.0

6"/2" HDPE Sleeves Directional Bore

6"/2" HDPE Sleeves Directional Bore

6"/2" HDPE Sleeves Directional Bore

SR7/US441

Nibco P-619-RW 3" Gate Valve

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same sod species.

BANK

NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

R/W

BANK

EX. HYDRANT

DRIVEWAY

3143.00

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

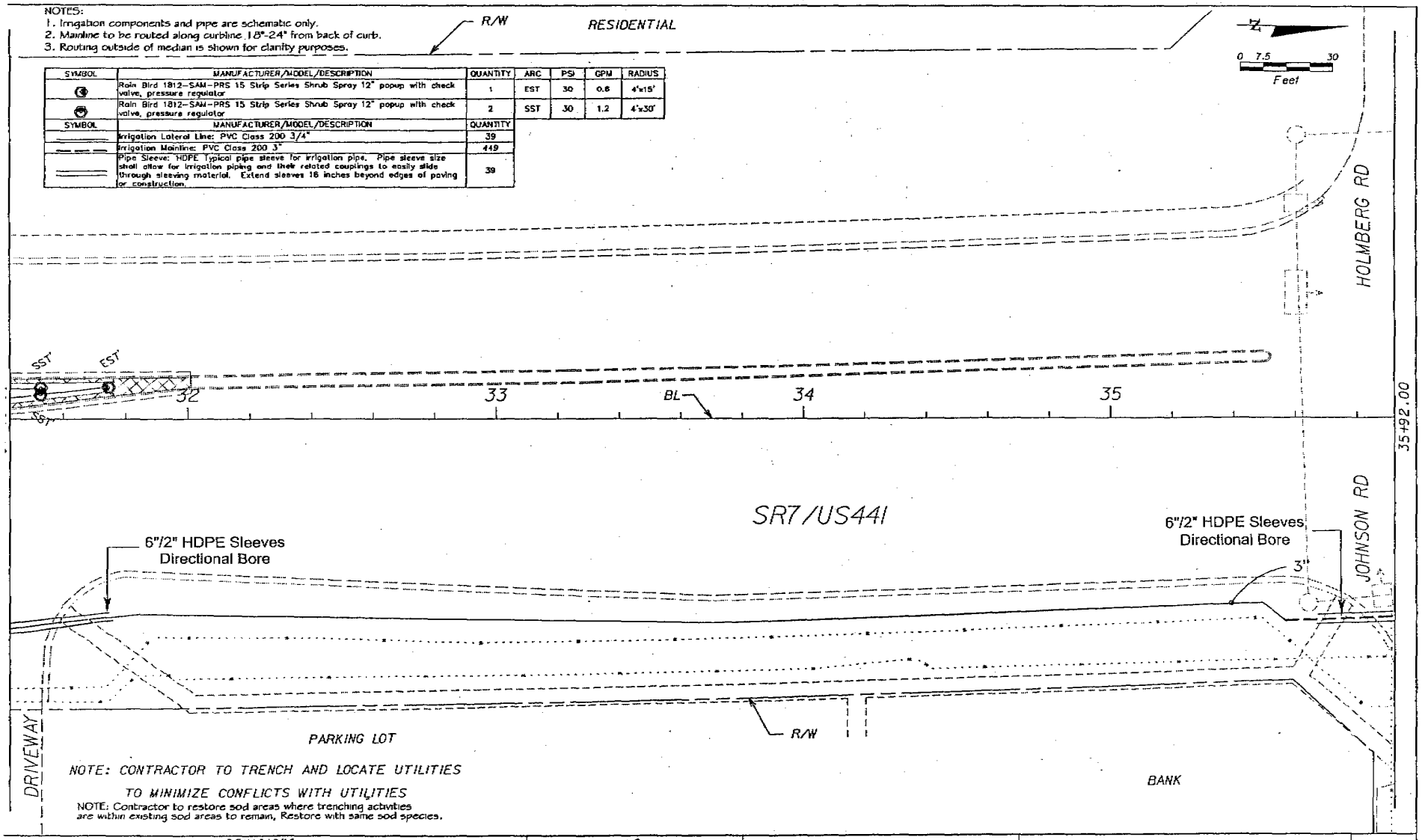
SHEET NO. LD-65

6/4/2008 9:43:53 AM

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	1	EST	30	0.6	4'x15'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	2	SST	30	1.2	4'x30'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Irrigation Lateral Line: PVC Class 200 3/4"	39
	Irrigation Mainline: PVC Class 200 3"	449
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving for construction.	39



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain, Restore with same sod species.

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-66

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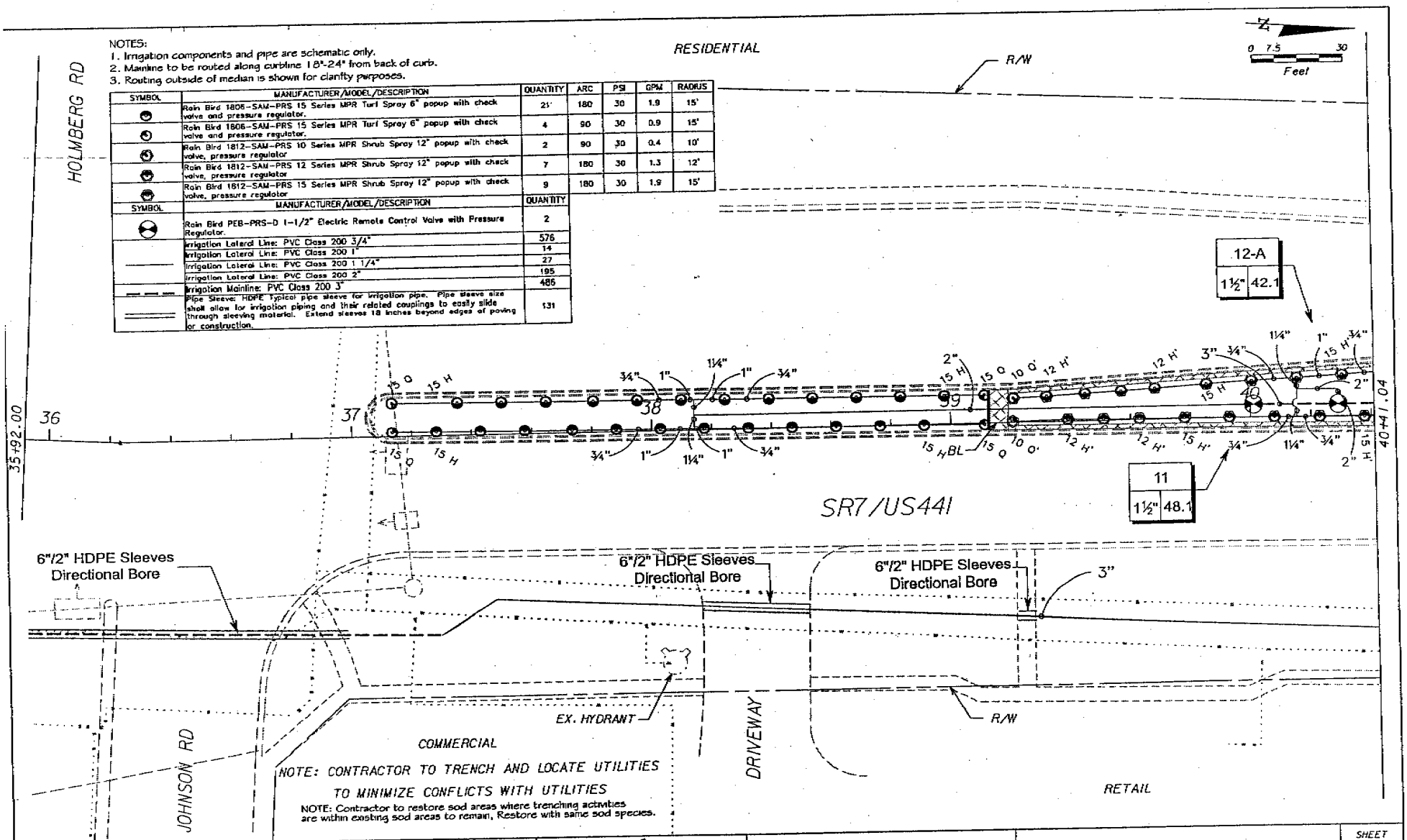
NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	21	180	30	1.9	15'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	4	90	30	0.9	15'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	90	30	0.4	10'
	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	7	180	30	1.3	12'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	9	180	30	1.9	15'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	2
	Irrigation Lateral Line: PVC Class 200 3/4"	576
	Irrigation Lateral Line: PVC Class 200 1"	14
	Irrigation Lateral Line: PVC Class 200 1 1/4"	27
	Irrigation Lateral Line: PVC Class 200 2"	195
	Irrigation Mainline: PVC Class 200 3"	486
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	131



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain, Restore with same sod species.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-67

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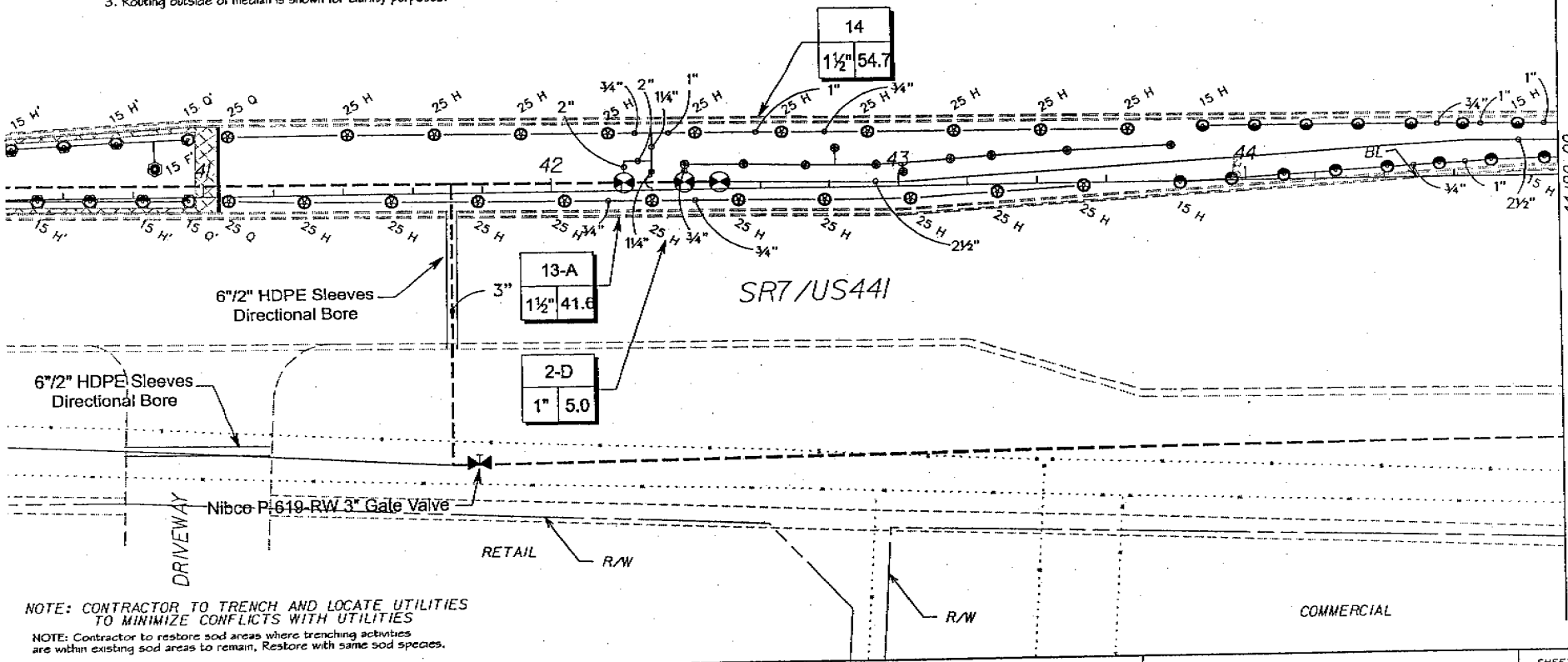
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	15	180	30	1.9	15'
	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	1	360	30	2.6	12'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	6	180	30	1.9	15'
	Rain Bird 1812-SAM-PRS 15 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	90	30	0.9	15'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	10	360	30	0.5	1"
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft-rad, 30 ft-green, 35ft-beige	2		45	1.0	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft-rad, 30 ft-green, 35ft-beige	20		45	2.0	25'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	2
	Nibco P-619-rw Gasketed "o" Ring Cast Iron Gate Valve (line Size) in a Carson 1419 Valve Box.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	767
	Irrigation Lateral Line: PVC Class 200 1"	95
	Irrigation Lateral Line: PVC Class 200 1 1/4"	248
	Irrigation Lateral Line: PVC Class 200 1 1/2"	24
	Irrigation Lateral Line: PVC Class 200 2"	14
	Irrigation Lateral Line: PVC Class 200 2 1/2"	256
	Irrigation Mainline: PVC Class 200 3"	732
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	83

0 7.5 30
Feet

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same sod species.

REVISIONS					
TE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-7664 - www.millerlegg.com
Cert. of Auth.: EC0000237 - L.A. of Record: Brian K. Shore LA-6666170

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

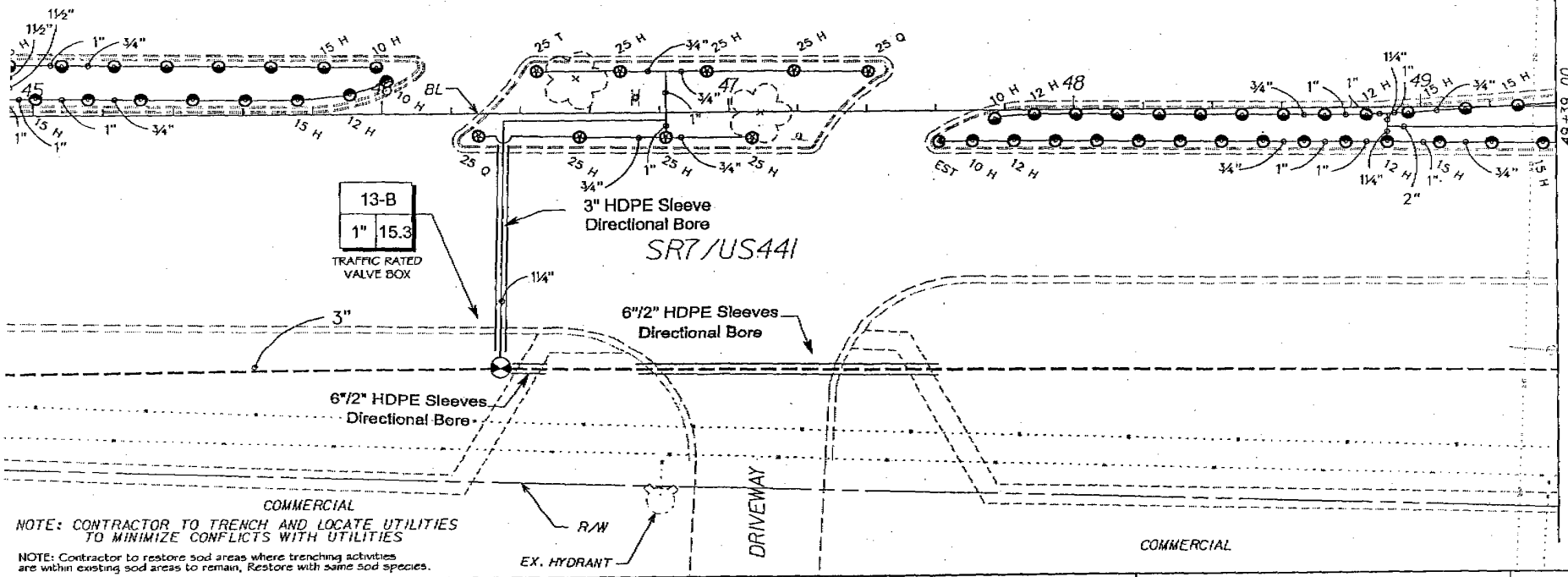
SHEET NO.
LD-68

6/4/2008 9:44:10 AM

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	1	EST	30	0.6	4'x15'
	Rain Bird 1806-SAM-PRS 10 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	4	180	30	0.8	10'
	Rain Bird 1806-SAM-PRS 12 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	20	180	30	1.3	12'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	19	180	30	1.9	15'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	2		45	1.0	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	1		45	1.4	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	6		45	2.0	25'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	619
	Irrigation Lateral Line: PVC Class 200 1"	144
	Irrigation Lateral Line: PVC Class 200 1 1/4"	164
	Irrigation Lateral Line: PVC Class 200 1 1/2"	12
	Irrigation Lateral Line: PVC Class 200 2"	48
	Irrigation Lateral Line: PVC Class 200 2 1/2"	3
	Irrigation Mainline: PVC Class 200 3"	449
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	101

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.



NOTE: CONTRACTOR TO TRENCH AND LOCATE UTILITIES TO MINIMIZE CONFLICTS WITH UTILITIES

NOTE: Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same sod species.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax 954-436-8664 - www.millerlegg.com
Cert. of Auth.: LC0000337 - L.A. of Record: Brian R. Shore LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

NIC

SHEET NO. LD-69

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OJECT SPECIFIC GENERAL NOTES:
Traffic controls shall be in accordance with the project plans, the current edition of the Florida Department of nsportation (FDOT) Design Standards (600 series), the Standard Specification for Road and Bridge Construction, and : current Manual on Uniform Traffic Control Devices as minimum criteria.

Notification of lane closures shall be accompanied 14 working days prior to closure submitting the required lane closure m, sketches, calculations, and other data through the Engineer to the District Traffic Operations Office.

Traffic disruptions which are not shown by the traffic control plan, but which are necessary to construct the project shall submitted in writing to the engineer 14 days prior to the commencement of work. Submittal material shall include etches, calculations and other data required by the Engineer.

The traffic and travel ways shall not be altered by the Contractor to create a work zone until all labor and material are ailable for the construction in that area.

Lane closings shall occur only during non-peak hours. Peak hours are from: 7:00-9:00am and 4:00-6:00pm.

The regulatory speed shall be 55 mph.

As approved by the Engineer, the Contractor shall cover work zone signs when conditions no longer warrant their use. ost of covering and uncovering the signs shall be included in maintenance of traffic.

. Contractor shall remove, relocate or cover any existing or proposed signs that conflict with the traffic control plans. hen the conflict no longer exists, the contractor shall restore the signs to their original position. Cost of temporarily moving, relocating,covering and restoring the signs shall be included in maintenance of traffic.

. Uniformed, off-duty law enforcement officers can be used only as approved by the Engineer and use is limited to onstruction operations for setting and removing traffic control devices, night work, moving operations, or other situations pecifically authorized by the Engineer. All cost for the officer(s) shall be included in the maintenance of traffic.

0. All existing signage shall be maintained in an appropriate location for the duration of the project.

1. The contractor shall maintain a minimum of one lane of traffic at all times for minor side streets. During one lane peration a flag man shall be used. If operation exceeds one work period, contractor shall cover excavation and return two lay traffic at the end of each work period.

2. If temporary lane closure causes extended congestion, the contractor shall, at the direction of the Engineer, reopen he closed lane(s) at no additional cost until such time the traffic flow has returned to an acceptable level.

3. Provisions for traffic control plan which are not anticipated in the traffic control plans, but are necessary for project onstruction shall be submitted to the engineer at least 72 hours prior to using such provisions.

14. A certified maintenance of traffic supervisors shall be available to the project at all times when the contractor is working and shall be on call for emergencies when the Contractor is not working. All work shall cease when MOT Supervisor s not present.

15. Access shall be provided to all places of business and residences whenever construction interferes with the existing means of access. Adequate accommodations for intersecting and crossing traffic shall be provided and maintained by the contractor. No road or street crossings within the project shall be blocked or unduly restricted as determined by the engineer.

16. Contractor shall be responsible for the immediate removal of storm water from roadways utilized for maintaining traffic in a manner approved by the Engineer. Cost for removing the water shall be included in maintenance of traffic.

17. Arrows provided on details denote direction of traffic only and do not reflect pavement markings unless specifically noted.

Markings:
1. The contractor shall maintain all existing pavement markings during construction. If necessary, Contractor shall submit to the Engineer any modifications or temporary markings to the existing pavement markings during construction. Cost of removal of temporary pavement markings, regardless of method, is included in the related pavement marking maintenance of traffic. Use of black paint to cover existing and/or temporary pavement markings is prohibited.

Drop offs:

1. For drop offs, the contractor's attention is directed to fdot standard index no. 600, sheet 6 of 10..

Signals:
1. The contractor shall have full responsibility for the normal maintenance of existing traffic signal(s) within the project limits. All signals shall remain in full operation unless deemed necessary for construction activities. The contractor shall notify Broward County Traffic Engineering Division (BCTED) (Telephone number (954) 847-2600) a minimum of 10 working days prior to any modification and/or changes of an existing traffic signal (i.e. Taking signals off-line, removing or replacing loop assemblies or rearranging traffic signal heads). The contractor shall install the temporary signalization system and have the system in operation before taking the existing system out of service. Portable temporary units shall not be used. The temporary signal system shall be adjusted to the traffic needs of each construction phase. Signal heads are to be located with respect to approach lanes. Cost of adjusting temporary signal for the required tcp phases shall be included in maintenance of traffic.

2. The contractor shall utilize the existing signal equipment or provide all necessary signalization components and appurtenances, including but not limited to; poles, temporary electric service connections, temporary conduits and wires, relocation of existing controllers or temporary controllers, and necessary signal timing coordination with Broward County Traffic. The contractor shall provide maintenance of the temporary signal system until the permanent system is installed and functional. Cost to be included in maintenance of traffic.

Pedestrian, bicycles & wheelchairs:
1. The contractor shall maintain pedestrian, bicycle, and wheel chair traffic on at least one side of the roadway at all times during construction. This shall be done in accordance to index 660 10f1

2. At the end of each work day or whenever the work zone becomes inactive, any drop-off adjacent to pedestrian travel paths shall be backfilled flush with the travel path or shall be protected with barricades, temporary barrier wall or approved handrail.

3. Pedestrian, bicycles, and wheelchair traffic shall be guided and maintained using approved warning lights, signing, markings, and channelization devices. Such control devices shall be installed and maintained in accordance with, fdot standards and the current mutcd. All ada requirements must be maintained.

4. The contractor shall maintain access and signs for existing bus stop locations within the project limits. If existing bus stops need to be relocated, provisions to accomodate bus stops must be coordinated with the Broward County Mass Transit Agency, telephone number (954) 357-8400.

5. The maintenance of traffic shall include provisions for school pedestrian traffic with the following minimum requirements: The safe walk route for all schools within the vicinity of the construction zone shall be maintained during the times students are arriving at or leaving school. All construction equipment around any designated crosswalk shall cease to operate during the times students are arriving at or leaving school. All construction equipment adjacent to a designated walk route shall cease operating unless satisfactorily barricaded from the walk route. In the case that a designated crossing or any portion of the designated walk route cannot be maintained. Then the contractor shall notify the 'school safety coordinator' at bro ward county traffic engineering division, (954.' 847-2600, a minimum of ten (10) working days prior to closing that route so that an alternate crossing/route can be established. Thirty (30) days prior to the beginning of construction the contractor shall notify the school safety coordinator' at broward county traffic division, (954) 847-2600, to arrange a 'pre-construction school safety' meeting.

Landscape plan specific notes:
1. SR-7 Southbound and Sawgrass Expressway Westbound Ramp Signal Operation
a. Contractor to cover signal heads or make signal head revisions where impacted as required due to maintnance of traffic per FDOT standard index 600 and fdot traffic operations office.

2. INTERSECTIONS: Sawgrass Expressway Westbound Ramp; N.W. 61st Street; Regency Lakes Blvd.; Johnson Rd./Holmberg Rd.; Hillsboro Blvd.; Loxahatchee Rd.:
a. FDOT standard index 616 must be implemented when median work near intersection condition exists.
b. Traffic control at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely.

3. INTERSECTION: Johnson Rd./Holmberg Rd.
a. Maintenance of traffic shall include provisions for pedestrians and / or school traffic as well as vehicular traffic. Contractor to comply with all school safety requirements as outlined in the BCTED Maintenence of traffic school / pedestrian criteria.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: EB0007318 - Registered Records Eric S. Czerniejewski PE: 58002

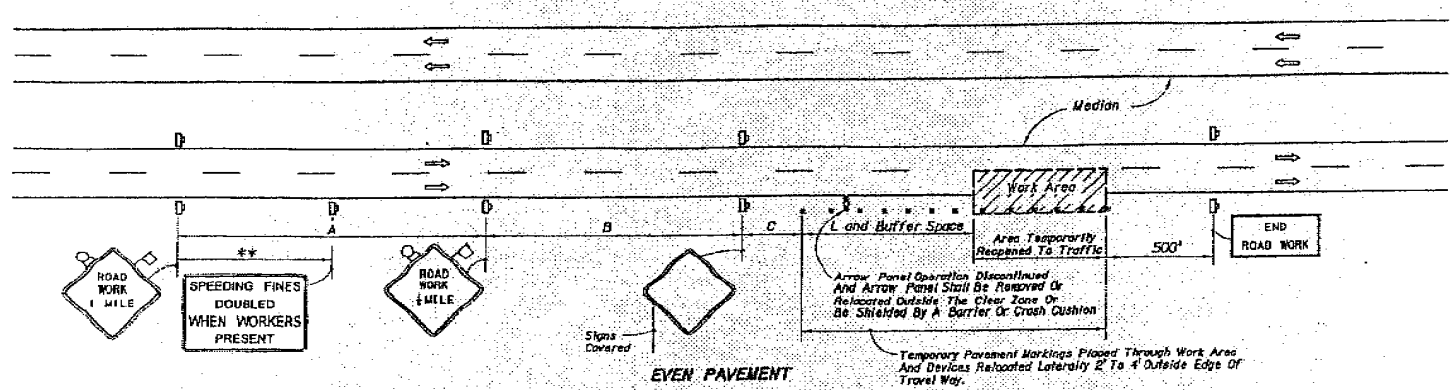
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

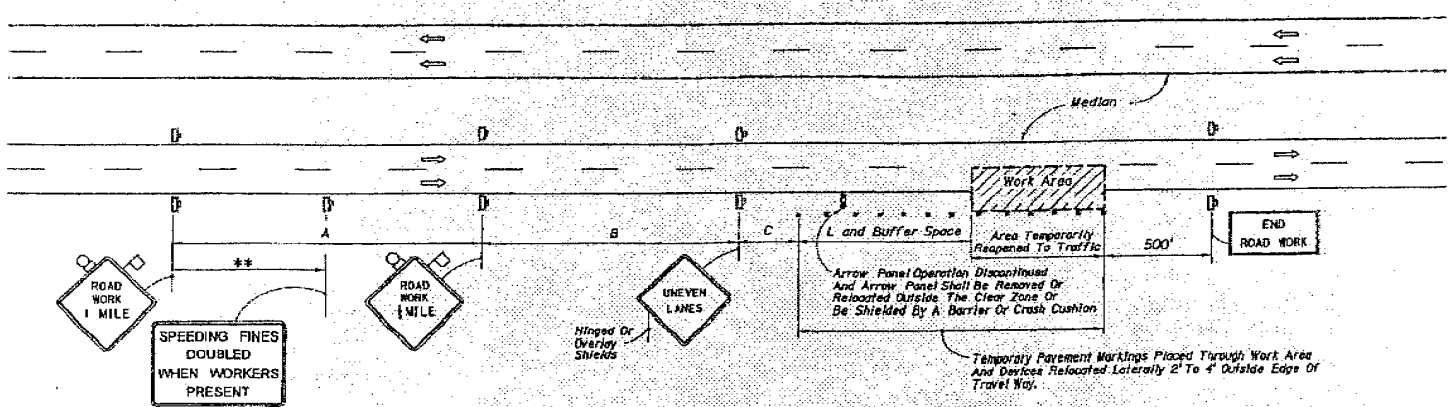
TRAFFIC CONTROL NOTES

SHEET NO. LD-80

6/4/2008 9:45:30 AM



EVEN PAVEMENT



UNEVEN PAVEMENT

INTERMITTENT WORK STOPPAGE - LANE REOPENED TO TRAFFIC

REVISIONS				
BY	DESCRIPTION	DATE	BY	DESCRIPTION

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1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: EB0007318 - Engineer of Record: Eric S. Czerniejewski PE-58002

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TRAFFIC CONTROL DETAILS

SHEET NO. LD-81

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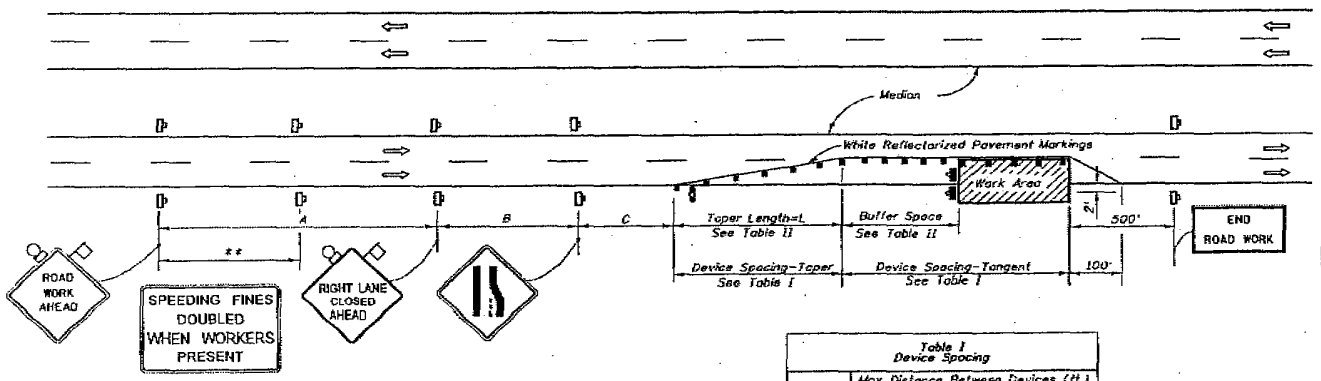


Table II
Buffer Space and Taper Length

Speed (mph)	Buffer Space Dist. (ft.)	Taper Length (12' Lateral Transition)* L (ft.)	Notes (Merge)
25	155	125	$L=\frac{WS^2}{60}$
30	200	180	
35	250	245	
40	305	320	
45	360	540	
50	425	600	L=WS
55	495	660	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use formula for L shown in the notes column.
Where:
L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.) Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS			
Speed	Spacing (ft.) A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
55 mph or greater	2640	1320	1000

* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.

** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

SYMBOLS

- Work Area
- Sign With 18"x 18" (Min.) Orange Flag And Type B Light
- Channelizing Device (See Index No. 600)
- Type I Type II Or Type III Barricade Or Vertical Panel Or Drum (With Flashing Light)
- Work Zone Sign
- Advance Warning Arrow Panel

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
2. On undivided highways the median signs as shown are to be omitted.
3. When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

   The same applies to undivided highways with the following exceptions:
   (a) Work shall be confined within one median lane.
   (b) Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

   When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.
4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travelway. See Index No. 612 for shoulder taper formulas.
7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.
9. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. Temporary white edgeline may be omitted for work operations less than 3 days.
2. Signs, arrow panel and buffer space may be omitted if all of the following conditions are met:
   a) Work operations are 60 minutes or less.
   b) Speed limit is 45 mph or less.
   c) No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
   d) Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
   e) Volume and complexity of the roadway has been considered.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-7664 - www.millerlegg.com
Cert. of Auth.: EB0007518 - Engineer of Record: Eric S. Czerniejewski PE-58102

CITY OF COCONUT CREEK			TRAFFIC CONTROL DETAILS	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-62

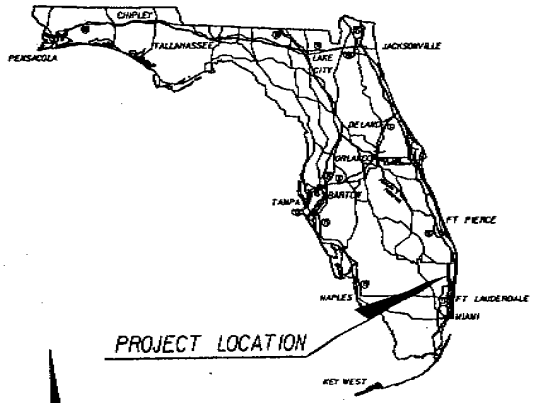
CONTRACT PLANS

BROWARD COUNTY

STATE ROAD NO. 7/US 441

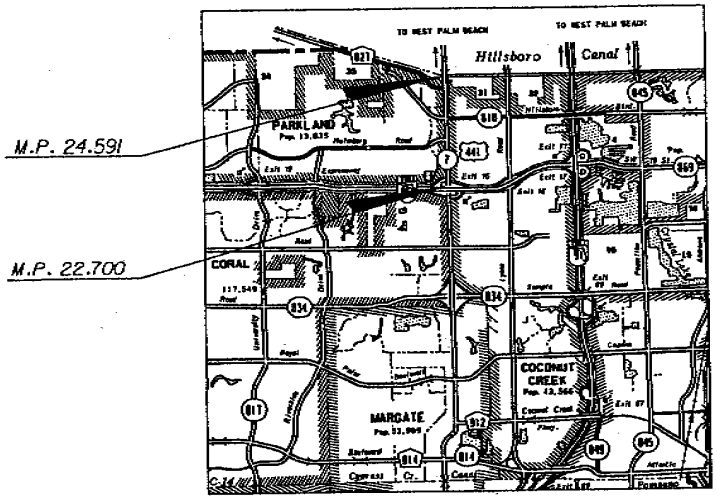
NORTH OF SAWGRASS EXPRESSWAY (M.P. 22.700)
TO BROWARD/PALM BEACH COUNTY LINE (M.P. 24.591)

LANDSCAPE BEAUTIFICATION PROJECT

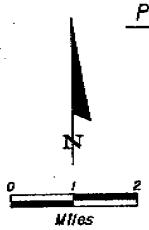


INDEX OF LANDSCAPE PLANS

SHEET NO.	SHEET DESCRIPTION
LD-1	KEY SHEET
LD-2 thru LD-3	TABULATION OF QUANTITIES/PLANT SCHEDULE
LD-4	LANDSCAPE NOTES
LD-5 thru LD-8	EXISTING CONDITION CHART
LD-19 ~~LD-9~~ thru LD-29	EXISTING CONDITION PLAN
LD-30 and LD-31	HARDSCAPE NOTES AND DETAILS
LD-42 ~~LD-32~~ thru LD-52	LANDSCAPE/HARDSCAPE PLAN
LD-53 thru LD-54	IRRIGATION NOTES
LD-55	IRRIGATION NOTES & DETAILS
LD-56 thru LD-58	IRRIGATION DETAILS
LD-69 ~~LD-59~~ thru LD-79	IRRIGATION PLAN
LD-80	TRAFFIC CONTROL NOTES
LD-81 and LD-82	TRAFFIC CONTROL DETAILS



PROJECT LENGTH: 1.891 MILES



City of Coconut Creek
4800 West Copans Road
954-973-6770 · Fax: 954-973-6794
www.creekgov.net

Mayor: Lou Sarbone
Vice Mayor: Becky Tooley
Commissioner: Marilyn Gerber
Commissioner: Leonard Freund
Commissioner: Ron Dearing, Jr.

City Manager: John P. Kelly

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED 2008, AND STANDARD
SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
DATED 2007, SECTION 580 LANDSCAPE INSTALLATION,
AS AMENDED BY CONTRACT DOCUMENTS

SOUTHERN HALF FM# 423268-1-58-01
NORTHERN HALF FM# 423270-1-58-01

CITY OF COCONUT CREEK PROJECT MANAGER: PAMELA STANTON, RLA
MILLER LEGG PROJECT MANAGER: BRIAN R. SHORE, RLA

PLANS PREPARED BY:
MILLER LEGG
1800 North Douglas Road · Suite 200 · Pembroke Pines, Florida · 33024
954-436-7000 · Fax: 954-436-8664 · www.millerlegg.com
Certification of Authorization: LC0000337

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

DESIGN SPEED: 50 MPH

MEDIANS 5-11
STA: 46+20 - 93+00
02-25-2009

Brian R Shore
02-25-2009
6666770

SHEET NO.
LD-1

12/29/2008 10:27:42 AM V:\Projects\2007\07-00239-5-7us441_Landscape_Plans\07023900000\landscape\KEYSLD01.DGN

TABULATION OF QUANTITIES / PLANT SCHEDULE

PAY ITEM NO.	PAYSIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAX. MAINTAINED SIZE	SPACING	REMARKS	NATIVE	DROUGHT TOLERANCE	UNIT	SHEET NUMBERS												TOTAL THIS SHEET	
												LD-32		LD-33		LD-34		LD-35		LD-36		LD-37			
												PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
580-1-1 SHRUBS & GROUND COVERS (SMALL)																									
1	SMALL	BSS	Bougainvillea spectabilis 'sanderiana'	Bougainvillea 'Barbara Karst'	MIN. 24"X24", 3 GAL. Bush Form	Natural Size	24" O.C.	FULL	N	VERY	EA	99												99	
2	SMALL	GAL	Galphimia gracilis	Thryallis	MIN. 24"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	N	VERY	EA			245										245	
3	SMALL	HAM	Hamelia patens 'compacta'	Dwarf Firebrush	MIN. 20"X20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA	35		401										436	
4	SMALL	IVD	Ilex vomitoria 'Stokes Dwarf'	Stokes Dwarf Yaupon	MIN. 24"x20", 1 - 3 GAL.	18"	24" OC	FULL	Y	MODERATE	EA														
5	SMALL	TRI	Tripsacum floridanum	Florida Gama Grass	MIN. 18"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA							335						335	
6	SMALL	TRD	Tripsacum dactyloides	Fakahatchee Grass	MIN. 30"x24", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA	280												280	
7	SMALL	ZAM	Zamia integrifolia	Cardboard Palm	MIN. 24" x 24", 3 Gal.	Natural Size	36" O.C.	FULL	Y	VERY	EA	120												120	
GROUND COVERS																									
8	SMALL	JAS	Jasminum volubile	Wax Jasmine	MIN. 14"x14", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA	220		700		35		405		385				1745	
9	SMALL	LCN	Lantana camara 'New Gold'	Lantana New Gold	MIN. 12"x12", 1-3 GAL. Sterol Variety	Natural Size	18" O.C.	FULL	N	MODERATE	EA	845		340										985	
10	SMALL	RIA	Raphiolepis indica 'alba'	Dwarf Indica Hawthorn	MIN. 12"x12", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
11	SMALL	TRA	Trachelospermum asiaticum	Confederate Jasmine	MIN. 12"x12", 4" Liner	Natural Size	18" O.C.	FULL	N	VERY	EA	250								121				371	
580-1-2 TREES & PALMS (LARGE)																									
1	LARGE	BA	Bulnesia arborea	Verawood	MIN. 10' ht. x 5' spr., 4" CT.	Natural Size	As Shown	FULL	Y	VERY	EA	2		4										6	
2	LARGE	HP	Hamelia patens	Firebrush	MIN. 3' ht. x 2' spr., 7 GAL., FULL	Natural Size	As Shown	FULL	Y	VERY	EA	2						6		9				17	
3	LARGE	LJ	Lagerstroemia indica 'Watermelon'	Crape Myrtle	MIN. 14' ht. x 6' spr., 4" CT Multi	Natural Size	As Shown	B&B, Full	N	VERY	EA			12										12	
4	LARGE	LJ	Ligustrum japonicum	Wax Privet	MIN. 10' ht. x 6' spr., 3" CT	Natural Size	As Shown	B&B, Full	N	VERY	EA														
5	LARGE	QV	Quercus virginiana	Live Oak	MIN. 15' ht. x 6' spr., 5" CT Matched	Natural Size	As Shown	B&B, Full	Y	VERY	EA	2		4				4		1				11	
PALMS																									
6	LARGE	RE	Roystonea elata	Florida Royal Palm	MIN. 10' GW	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA	10												10	
7	LARGE	SP	Sabal palmetto	Sabal Palm	MIN. 14' GW, 22 - 28' O.A.H. SLICK TRUNK	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA	2												2	
575-1-1		SOD									SY	409		1028		547		1021		396		609		4011	
526-1-1			CONCRETE PAVER								SY	129								30		4		163	

PAY ITEM NO.	PAYSIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAX. MAINTAINED SIZE	SPACING	REMARKS	NATIVE	DROUGHT TOLERANCE	UNIT	SHEET NUMBERS												TOTAL THIS SHEET	
												LD-38		LD-39		LD-40		LD-41		LD-42		LD-43			
												PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
580-1-1 SHRUBS & GROUND COVERS (SMALL)																									
1	SMALL	BSS	Bougainvillea spectabilis 'sanderiana'	Bougainvillea 'Barbara Karst'	MIN. 24"x24", 3 GAL. Bush Form	Natural Size	24" O.C.	FULL	N	VERY	EA														
2	SMALL	GAL	Galphimia gracilis	Thryallis	MIN. 24"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	N	VERY	EA														
3	SMALL	HAM	Hamelia patens 'compacta'	Dwarf Firebrush	MIN. 20"X20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA														
4	SMALL	IVD	Ilex vomitoria 'Stokes Dwarf'	Stokes Dwarf Yaupon	MIN. 24"x20", 1 - 3 GAL.	18"	24" OC	FULL	Y	MODERATE	EA														
5	SMALL	TRI	Tripsacum floridanum	Florida Gama Grass	MIN. 18"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA							1360						1360	
6	SMALL	TRD	Tripsacum dactyloides	Fakahatchee Grass	MIN. 30"x24", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA														
7	SMALL	ZAM	Zamia integrifolia	Cardboard Palm	MIN. 24" x 24", 3 Gal.	Natural Size	36" O.C.	FULL	Y	VERY	EA														
GROUND COVERS																									
8	SMALL	JAS	Jasminum volubile	Wax Jasmine	MIN. 14"x14", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
9	SMALL	LCN	Lantana camara 'New Gold'	Lantana New Gold	MIN. 12"x12", 1-3 GAL. Sterol Variety	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
10	SMALL	RIA	Raphiolepis indica 'alba'	Dwarf Indica Hawthorn	MIN. 12"x12", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
11	SMALL	TRA	Trachelospermum asiaticum	Confederate Jasmine	MIN. 12"x12", 4" Liner	Natural Size	18" O.C.	FULL	N	VERY	EA	349		35		368		255						1229	
580-1-2 TREES & PALMS (LARGE)																									
1	LARGE	BA	Bulnesia arborea	Verawood	MIN. 10' ht. x 5' spr., 4" CT.	Natural Size	As Shown	FULL	Y	VERY	EA														
2	LARGE	HP	Hamelia patens	Firebrush	MIN. 3' ht. x 2' spr., 7 GAL., FULL	Natural Size	As Shown	FULL	Y	VERY	EA														
3	LARGE	LJ	Lagerstroemia indica 'Watermelon'	Crape Myrtle	MIN. 14' ht. x 6' spr., 4" CT Multi	Natural Size	As Shown	B&B, Full	N	VERY	EA														
4	LARGE	LJ	Ligustrum japonicum	Wax Privet	MIN. 10' ht. x 6' spr., 3" CT	Natural Size	As Shown	B&B, Full	N	VERY	EA	2												2	
5	LARGE	QV	Quercus virginiana	Live Oak	MIN. 15' ht. x 6' spr., 5" CT Matched	Natural Size	As Shown	B&B, Full	Y	VERY	EA														
PALMS																									
6	LARGE	RE	Roystonea elata	Florida Royal Palm	MIN. 10' GW	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA														
7	LARGE	SP	Sabal palmetto	Sabal Palm	MIN. 14' GW, 22 - 28' O.A.H. SLICK TRUNK	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA							3						3	
575-1-1		SOD									SY	466				410		469		904		492		2741	
526-1-1			CONCRETE PAVER								SY	97		25		50		36				55		263	

NOTE: GALLON SIZE IS FOR REFFERENCE ONLY.

12-23-09

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7800 - Fax: 954-436-7664 - www.millerlegg.com
Cert. of Auth.: LC0000197 - L.A. of Record: Brian R. Shaw LA-666676

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TABULATION OF QUANTITIES/ PLANT SCHEDULE

SHEET NO. LD-2

TABULATION OF QUANTITIES / PLANT SCHEDULE
(CONTINUED)

PAY ITEM NO.	PAYSIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAX. MAINTAINED SIZE	SPACING	REMARKS	NATIVE	DROUGHT TOLERANCE	UNIT	SHEET NUMBERS LD-44 PLAN	LD-44 FINAL	LD-45 PLAN	LD-45 FINAL	LD-46 PLAN	LD-46 FINAL	LD-47 PLAN	LD-47 FINAL	LD-48 PLAN	LD-48 FINAL	LD-49 PLAN	LD-49 FINAL	TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL
580-1-1 SHRUBS & GROUND COVERS (SMALL)																									
1	SMALL	BSS	Bougainvillea spectabilis 'sanderiana'	Bougainvillea 'Barbara Karst'	MIN. 24"x24", 3 GAL. Bush Form	Natural Size	24" O.C.	FULL	N	VERY	EA														
2	SMALL	GAL	Galphemia gracilis	Thryallis	MIN. 24"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	N	VERY	EA														
3	SMALL	HAM	Hamelia patens 'compacta'	Dwarf Firebrush	MIN. 20"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA							169						169	
4	SMALL	IVD	Ilex vomitoria 'Stokes Dwarf'	Stokes Dwarf Yaupon	MIN. 24"x20", 1 - 3 GAL.	18"	24" OC	FULL	Y	MODERATE	EA														
5	SMALL	TRI	Tripsacum floridanum	Florida Gama Grass	MIN. 18"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA					340								340	
6	SMALL	TRD	Tripsacum dactyloides	Fakahatchee Grass	MIN. 30"x24", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA														
7	SMALL	ZAM	Zamia maritima	Cardboard Palm	MIN. 24" x 24", 3 Gal.	Natural Size	36" O.C.	FULL	Y	VERY	EA														
GROUND COVERS																									
8	SMALL	JAS	Jasminum volubile	Wax Jasmine	MIN. 14"x14", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
9	SMALL	LCN	Lantana camara 'New Gold'	Lantana New Gold	MIN. 12"x12", 1-3 GAL. Sterol Variety	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
10	SMALL	RIA	Raphiolepis indica 'alba'	Dwarf Indian Hawthorn	MIN. 12"x12", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA														
11	SMALL	TRA	Trachelospermum asiaticum	Confederate Jasmine	MIN. 12"x12", 4" Liner	Natural Size	18" O.C.	FULL	N	VERY	EA			113						345	-	131		589	
580-1-2 TREES & PALMS (LARGE)																									
1	LARGE	BA	Bulnesia arborea	Verawood	MIN. 10' ht. x 5' spr. 4" CT.	Natural Size	As Shown	FULL	Y	VERY	EA														
2	LARGE	HP	Hamelia patens	Firebrush	MIN. 3' ht. x 2' spr., 7 GAL., FULL	Natural Size	As Shown	FULL	Y	VERY	EA														
3	LARGE	LI	Lagerstroemia indica 'Watermelon'	Crepe Myrtle	MIN. 14' ht. x 8' spr., 4" CT Multi	Natural Size	As Shown	B&B, Full	N	VERY	EA							5		1				6	
4	LARGE	LJ	Ligustrum japonicum	Wax Privet	MIN. 10' ht. x 6' spr., 3" CT	Natural Size	As Shown	B&B, Full	N	VERY	EA							4						4	
5	LARGE	QV	Quercus virginiana	Live Oak	MIN. 16' ht. x 8' spr., 5" CT Matched	Natural Size	As Shown	B&B, Full	Y	VERY	EA							5						5	
PALMS																									
6	LARGE	RE	Roystonea elata	Florida Royal Palm	MIN. 10' GW.	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA														
7	LARGE	SP	Sabal palmetto	Sabal Palm	MIN. 14' GW, 22 - 28' O.A.H. SLICK TRUNK	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA					9								9	
575-1-1		SOD									SY			358				712		37		50		1157	
526-1-1			CONCRETE PAVER								SY			60						72		16		148	

PAY ITEM NO.	PAYSIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAX. MAINTAINED SIZE	SPACING	REMARKS	NATIVE	DROUGHT TOLERANCE	UNIT	SHEET NUMBERS LD-50 PLAN	LD-50 FINAL	LD-51 PLAN	LD-51 FINAL	LD-52 PLAN	LD-52 FINAL					TOTAL THIS SHEET PLAN	TOTAL THIS SHEET FINAL	GRAND TOTAL PLAN	GRAND TOTAL FINAL
580-1-1 SHRUBS & GROUND COVERS (SMALL)																									
1	SMALL	BSS	Bougainvillea spectabilis 'sanderiana'	Bougainvillea 'Barbara Karst'	MIN. 24"x24", 3 GAL. Bush Form	Natural Size	24" O.C.	FULL	N	VERY	EA													85	
2	SMALL	GAL	Galphemia gracilis	Thryallis	MIN. 24"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	N	VERY	EA													245	#REF!
3	SMALL	HAM	Hamelia patens 'compacta'	Dwarf Firebrush	MIN. 20"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA													604	
4	SMALL	IVD	Ilex vomitoria 'Stokes Dwarf'	Stokes Dwarf Yaupon	MIN. 24"x20", 1 - 3 GAL.	18"	24" OC	FULL	Y	MODERATE	EA					25						25		25	
5	SMALL	TRI	Tripsacum floridanum	Florida Gama Grass	MIN. 18"x20", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA	285										285		2320	
6	SMALL	TRD	Tripsacum dactyloides	Fakahatchee Grass	MIN. 30"x24", 1 - 3 GAL.	Natural Size	24" O.C.	FULL	Y	VERY	EA													280	
7	SMALL	ZAM	Zamia maritima	Cardboard Palm	MIN. 24" x 24", 3 Gal.	Natural Size	36" O.C.	FULL	Y	VERY	EA													120	
GROUND COVERS																									
8	SMALL	JAS	Jasminum volubile	Wax Jasmine	MIN. 14"x14", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA					85						85		1630	
9	SMALL	LCN	Lantana camara 'New Gold'	Lantana New Gold	MIN. 12"x12", 1-3 GAL. Sterol Variety	Natural Size	18" O.C.	FULL	N	MODERATE	EA													886	
10	SMALL	RIA	Raphiolepis indica 'alba'	Dwarf Indian Hawthorn	MIN. 12"x12", 1-3 GAL.	Natural Size	18" O.C.	FULL	N	MODERATE	EA					165						165		165	
11	SMALL	TRA	Trachelospermum asiaticum	Confederate Jasmine	MIN. 12"x12", 4" Liner	Natural Size	18" O.C.	FULL	N	VERY	EA	161										161		2347	
580-1-2 TREES & PALMS (LARGE)																									
1	LARGE	BA	Bulnesia arborea	Verawood	MIN. 10' ht. x 5' spr. 4" CT.	Natural Size	As Shown	FULL	Y	VERY	EA													8	
2	LARGE	HP	Hamelia patens	Firebrush	MIN. 3' ht. x 2' spr., 7 GAL., FULL	Natural Size	As Shown	FULL	Y	VERY	EA													6	
3	LARGE	LI	Lagerstroemia indica 'Watermelon'	Crepe Myrtle	MIN. 14' ht. x 8' spr., 4" CT Multi	Natural Size	As Shown	B&B, Full	N	VERY	EA													17	
4	LARGE	LJ	Ligustrum japonicum	Wax Privet	MIN. 10' ht. x 6' spr., 3" CT	Natural Size	As Shown	B&B, Full	N	VERY	EA													18	
5	LARGE	QV	Quercus virginiana	Live Oak	MIN. 16' ht. x 8' spr., 5" CT Matched	Natural Size	As Shown	B&B, Full	Y	VERY	EA													8	
PALMS																									
6	LARGE	RE	Roystonea elata	Florida Royal Palm	MIN. 10' GW.	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA													10	
7	LARGE	SP	Sabal palmetto	Sabal Palm	MIN. 14' GW, 22 - 28' O.A.H. SLICK TRUNK	Natural Size	As Shown	B&B, Full	Y	MODERATE	EA	7										7		19	
575-1-1		SOD									SY	262				127						389		8288	
526-1-1			CONCRETE PAVER								SY	54				56						110		684	

NOTE: GALLON SIZE IS FOR REFFERENCE ONLY.

[signature] 02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road · Suite 200 · Pembroke Pines, Florida · 33024
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Cert. of Auth.: LC0000177 · L.A. of Record: Brian R. Shore LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TABULATION OF QUANTITIES/
PLANT SCHEDULE

SHEET NO. LD-3

12/29/2008

PROJECT GENERAL NOTES:

1. The Contractor shall visit the site prior to placing his bid to assess the amount of planting required for the general conditions as they relate to traffic control, access to the site and other challenges of the Project.

2. All base survey sketch information shown is the best available information available at the time of preparation of plans. The Contractor shall notify the City of any discrepancies in the information provided. Base map is a sketch of corridor and data is not geographically located within any survey datums. Features such as right of way lines, and utilities, have been compiled and incorporated from as-built data obtained from various sources. Geometric survey of median has been conducted to aide contractor in construction of hardscape features. Contractor to use back of curb dimensions as reference. Baseline shown on plans is provided for reference only and is an assumed centerline of corridor.

3. All Public land corners and monuments within the limits of construction are to be protected by Contractor as follows: Corners and monuments in conflict with the work and in danger of being damaged, destroyed or covered shall be properly referenced by a registered-land surveyor in accordance with the minimum technical standards of the Florida Board of Professional Land Surveyor prior to beginning work at that site. The Contractor shall retain the land surveyor to reference, and restore upon completion of the work, all such corners and monuments and shall furnish to Florida Department of Transportation (FDOT) a signed and sealed copy of the Land Surveyor's reference drawing.

4. The Contractor shall comply with all state codes and ordinances. Contractor shall be responsible for obtaining all applicable permits unless otherwise directed by the City.

6. The Contractor shall submit a an inventory list of the existing signs including photos to the City at the Pre-Construction Conference. Any existing signs damaged by the contractor during construction, shall be replaced by the Contractor at no additional cost to the City or FDOT.

7. Contractor is to notify the City/FDOT, who shall notify the State Permits Office at 850-488-4961 at least 7 calendar days in advance of a MOT Set-up that will impact Overweight/Overheight Vehicles.

8. Contractor shall remove and dispose of existing sod and surplus materials off-site or as directed by the City.

9. CLEARING and GRUBBING:

a. TREE REMOVAL: Includes cut, removal & stump grinding to a 18" minimum depth.

b. SHRUBS & GROUNDCOVERS: includes removal of existing shrubs and groundcovers within areas where proposed plant material is specified unless otherwise noted.

9. IRRIGATION: includes protection of existing irrigation systems within the right of way. Contractor shall be responsible for repair of damaged systems.

10. SIGHT VISIBILITY CLEAR ZONES: on the main travel/through lanes for this project are based on a design speed of 50 mph.

ENVIRONMENTAL NOTES:

1. The Contractor shall review environmental requirements of any proposed staging areas with the City and submit to the City and submit to the FDOT District Environmental Permits Coordinator at least seventy-two (72) hours prior to use.

2. Contractor shall submit to City a Stormwater Prevention Pollution Protection Plans (S.W.P.P.P.) to City for review and submittal to appropriate agencies with copies to FDOT.

3. Any material to be stockpiled for periods greater than 24 hours shall be protected by appropriate erosion control devices. No material shall be stockpiled between silt fences and water bodies.

4. All excess material as designated by the City is to be disposed by the Contractor in areas provided by him within 72 hours of being deposited in the construction area and at the Contractor's expense.

5. The Contractor is responsible for keeping existing and new inlets clean of planting soil, debris, etc. during the construction at no additional cost to the City. Contractor shall submit plan for protection of inlets and for erosion during construction.

6. If necessary the Contractor shall use a street sweeper (using water) or other equipment capable of controlling and removing dirt or dust. Approval of the use of such equipment is contingent upon its demonstrated ability to do the work.

UTILITIES GENERAL NOTES:

1. Two full business days prior to digging, the Contractor shall call Sunshine State One Call of Florida, telephone number 1-800-432-4770, and the utility owner and request utility locations. A Contractor's representative must be present when utility companies locate their facilities.

2. All existing utilities are to remain.

3. Contractor shall explore by hand digging and expose all utilities located within 5' of all proposed trees and palms.

GOVERNING STANDARDS:

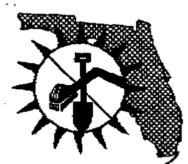
Florida Department of Transportation (FDOT) DESIGN STANDARDS and SPECIFICATIONS: Contractor to refer to the following:

1. FDOT Standard Specifications for Road and Bridge construction 2007

2. FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System 2008 (English Units)

3. Federal Highway Administration ASSHTO 'A Policy On Geometric Design of Highways and Streets, 2001', Chapter 9, INTERSECTION SIGHT DISTANCE, CASE B and F, and Department practices for channelized median openings (left turns from major roadways).

CALL TWO FULL BUSINESS DAYS BEFORE YOU DIG IN FLORIDA



IT'S THE LAW

1-800-432-4770

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

LANDSCAPE GENERAL NOTES:

1. Landscape including but not limited to, pruning and installation work shall be performed by a Contractor Certified by the Florida Nurserymen, Growers and Landscape Association (FNGLA) as a Certified Landscape Contractor.

2. PLANTING SOIL: Contractor shall provide a consistent mix of 40% General Topsoil / 50% Sand / 10% Peat. The planting soil mix shall be blended with the loosened native soil backfill at a 50/50 ratio. A "non-soluble wetting agent" shall be added to all trees and palms at time of planting.

3. SOD: Provided specified species of sod as shown on plans. All existing turf areas within the medians shall be removed and replaced as indicated on plans. All existing areas within swale areas shall remain unless otherwise specified. Contractor shall only remove existing turf and miscellaneous scrub material from proposed planting bed areas. The Contractor shall be responsible to re-sod any damaged areas and restore the existing grade due to installation activities impacted during landscape removal and/or new installation activities with the same species of sod. Cost of replacement material shall be included within Mobilization and at the Contractor's expense.

4. MULCH: A consistent 3" layer of shreded Grade A mulch or better shall be spread over all planting beds. All mulch beds shall extend to bedline shown on plans. Contractor to submitt sample of mulch to City for acceptance.

5. FERTILIZATION: Contractor shall provide at a minimum, one (1) application at time of planting. A schedule of fertilization based upon the Manufacturer's recommended rates shall be submitted by the Contractor at the pre-construction meeting.

AT TIME OF PLANTING: Fertilize with planting tablets 20-10-5 plus minors. Do not place tablets in bottom of hole; tablet shall be 1/3 from the bottom of the rootball.

ESTABLISHMENT PERIOD OF PLANT MATERIAL: Fertilizer for dicot trees, shrubs and ground covers shall be of 6% nitrogen, 6% phosphorus and 6% potassium with minor elements composition analysis. Fertilizer for palms shall be "palm fertilizer" of 13% nitrogen, 3% phosphorous, and 13% of potassium composition analysis with minor elements. Contractor shall apply granular fertilizer at the manufacturer's recommended rates. Contractor reserves the right to modify N-P-K ratio and shall submit product data sheets for review and acceptance prior to any installation of plant material consistent with the above criterias.

6. WATERING: At a minimum, the Contractor shall provide the following recommended watering schedule beginning immediately after installation of plant material. At the pre-construction meeting, the Contractor shall submit a watering schedule based upon the following recommended rates:

All watering applications required during Plant Establishment Period and Warranty Period and it's source shall be included as part of the unit price for each plant material. Contractor shall adjust watering schedule during heavy rain season upon approval by Project Engineer.

7. WARRANTY: Install, establish and maintain landscapeing as indicated in the contract documents. Take responsibility for the proper maintenance, survival and condition of all plants for a period of one year after final acceptance in accordance with FDOT Standard Specifications for Road and Bridge Construction Section 580.

8. REPLACEMENT MATERIAL: shall be subject to all the requirements of the FDOT Standard Specifications for Road and Bridge Construction Section 580.

9. MAINTENANCE: Begin maintenace of all plants immediately after each planting as indicated in the contract documents and in accordance with Standard Specifications Section 580.

A. Keep all plants watered, fertilized, mulched, pruned and staked and guyed as necessary to assure specified minimum grade of Florida No. 1 thruought the duration of the project construction period and establishment period.

B. During the establishment period, keep the individual planting locations and planting beds free of litter and undesirable vegetation.

C. Ensure that the plants are maintened so that they are healthy, vigorous, and undamaged throughout the duration of the project construction period and establishment period.

D. for the duration of the establishment period, operate and maintain in good operating condition, all components of any irrigation system installed in compliance with the Contract Documents.

E. During the establishment period, replace any plants that fall below specified minimum grade. Use replacement plants of the same species, size and planting medium as the plant being replaced and as specified in the Contract Documents.

10. The Contractor shall furnish to the City a unit price breakdown for all materials. The City may, at its discretion, add or delete from the materials utilizing the unit price breakdown submitted. This unit price breakdown shall be provided by the Contractor at the Pre-Construction meeting. 12. No plant material will be accepted showing evidence of cable, chain marks, equipment scars, or when the ball of earth surrounding its roots has been cracked, broken or otherwise damaged.

BmA8hue
02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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954-436-7000 · Fax: 954-436-8664 · www.millerlegg.com
Cert. of Auth.: LC0000337 · L.A. of Record: Brian R. Shore LA 6666770

CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE NOTES

SHEET NO. LD-4

rperez 12/29/2008 10:27:44 AM V:\Projects\2007\07-00239-5-7ue40_Landscape_Plans\0702390000\landscp\SHT LD01.DGN

DATE OF VERIFICATION: 10/11/07

TREE NUMBER	COMMON NAME	BOTANICAL NAME	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN	VARIANCE	Notes/Condition
1	live oak	*Quercus virginiana*	Y	5	6	28.3		X		
3	live oak	*Quercus virginiana*	Y	4	8	50.2		X		
5	live oak	*Quercus virginiana*	Y	6	18	254.3		X		
6	cabbage palm	*Sabal palmetto*	Y	20	-	-		X		
7	cabbage palm	*Sabal palmetto*	Y	15	-	-		X		
8	cabbage palm	*Sabal palmetto*	Y	15	-	-		X		
9	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
10	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
11	cabbage palm	*Sabal palmetto*	Y	8	-	-		X		
12	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
13	cabbage palm	*Sabal palmetto*	Y	15	-	-		X		
14	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
15	cabbage palm	*Sabal palmetto*	Y	8	-	-		X		
16	cabbage palm	*Sabal palmetto*	Y	18	-	-		X		
17	live oak	*Quercus virginiana*	Y	3	6	28.3		X		
20	live oak	*Quercus virginiana*	Y	4	6	28.3		X	X	within a taper or sight line
21	live oak	*Quercus virginiana*	Y	4	12	113.0		X		
22	live oak	*Quercus virginiana*	Y	6	10	78.5		X	X	within a taper or sight line
23	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
24	live oak	*Quercus virginiana*	Y	5	8	50.2		X	X	within a taper or sight line
25	live oak	*Quercus virginiana*	Y	7	18	254.3		X	X	within a taper or sight line
26	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
27	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
29	live oak	*Quercus virginiana*	y	8	18	254.3		X		
34	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
35	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
36	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
37	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	X	within a taper or sight line
38	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
39	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	X	within a taper or sight line
40	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
41	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
42	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
43	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
44	cabbage palm	*Sabal palmetto*	Y	10	-	-		X		
45	live oak	*Quercus virginiana*	Y	6	18	254.3		X		

Brian R. Shuee
02-29-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-5

12/29/2008 10:30:29 AM V:\Projects\2007\07-00239-5-7ws4\Landscape_Plans\07023900000\Vendscp\TABOLD04.dgn

DATE OF VERIFICATION: 10/11/07

TREE NUMBER	COMMON NAME	BOTANICAL NAME	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN		Notes/Condition
48	live oak	*Quercus virginiana*	Y	6	15	176.6		X		
49	live oak	*Quercus virginiana*	Y	5	15	176.6		X		
51	live oak	*Quercus virginiana*	Y	7	12	113.0		X	X	within a taper or sight line
52	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
53	live oak	*Quercus virginiana*	Y	8	28	615.4		X	X	within a taper or sight line
54	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
55	live oak	*Quercus virginiana*	Y	6	12	113.0		X		
56	live oak	*Quercus virginiana*	Y	8	15	176.6		X		
57	live oak	*Quercus virginiana*	Y	6	18	254.3		X	X	within a taper or sight line
58	live oak	*Quercus virginiana*	Y	8	20	314.0		X	X	within a taper or sight line
59	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
60	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
61	live oak	*Quercus virginiana*	Y	8	20	314.0		X	X	within a taper or sight line
62	live oak	*Quercus virginiana*	Y	8	12	113.0		X	X	within a taper or sight line
63	live oak	*Quercus virginiana*	Y	10	15	176.6		X	X	within a taper or sight line
64	live oak	*Quercus virginiana*	Y	7	15	176.6		X	X	within a taper or sight line
65	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
66	live oak	*Quercus virginiana*	Y	8	10	78.5		X	X	within a taper or sight line
67	live oak	*Quercus virginiana*	Y	8	20	314.0		X	X	within a taper or sight line
69	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
70	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
71	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	X	within a taper or sight line
72	cabbage palm	*Sabal palmetto*	Y	20	-	-		X		
73	cabbage palm	*Sabal palmetto*	Y	20	-	-		X		
74	cabbage palm	*Sabal palmetto*	Y	15	-	-		X		
75	cabbage palm	*Sabal palmetto*	Y	20	-	-		X		
76	cabbage palm	*Sabal palmetto*	Y	15	-	-		X		
77	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	X	within a taper or sight line
78	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	X	within a taper or sight line
79	cabbage palm	*Sabal palmetto*	Y	20	-	-		X		
80	cabbage palm	*Sabal palmetto*	Y	12	-	-		X		
81	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	X	within a taper or sight line
82	cabbage palm	*Sabal palmetto*	Y	20	-	-		X	X	within a taper or sight line
83	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	X	within a taper or sight line
84	cabbage palm	*Sabal palmetto*	Y	12	-	-		X	X	within a taper or sight line
85	cabbage palm	*Sabal palmetto*	Y	30	-	-		X	X	within a taper or sight line

Brian R Shore
02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-6

12/29/2008 10:30:40 AM V:\Projects\2007\07-00239-S-7us441_Landscape_Plans\07023900000\landscp\TABQLD05.dgn

DATE OF VERIFICATION: 10/11/07

TREE NUMBER	COMMON NAME	*BOTANICAL NAME*	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN		Notes/Condition
86	cabbage palm	*Sabal palmetto*	Y	20	-			X	X	within a taper or sight line
87	cabbage palm	*Sabal palmetto*	Y	15	-			X	X	within a taper or sight line
88	cabbage palm	*Sabal palmetto*	Y	30	-			X	X	within a taper or sight line
89	cabbage palm	*Sabal palmetto*	Y	15	-			X	X	within a taper or sight line
90	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
91	live oak	*Quercus virginiana*	Y	3	4	12.6		X	X	within a taper or sight line
92	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
93	live oak	*Quercus virginiana*	Y	6	10	78.5		X	X	within a taper or sight line
[redacted]										
95	live oak	*Quercus virginiana*	Y	6	10	78.5		X	X	within a taper or sight line
96	live oak	*Quercus virginiana*	Y	6	12	113.0		X	X	within a taper or sight line
97	live oak	*Quercus virginiana*	Y	6		0.0		X	X	within a taper or sight line
98	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
99	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
100	live oak	*Quercus virginiana*	Y	6	20	314.0		X	X	within a taper or sight line
101	live oak	*Quercus virginiana*	Y	10	15	176.6		X	X	within a taper or sight line
102	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
103	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
104	live oak	*Quercus virginiana*	Y	8	15	176.6		X	X	within a taper or sight line
105	live oak	*Quercus virginiana*	Y	8	18	254.3		X	X	within a taper or sight line
106	live oak	*Quercus virginiana*	Y	6	18	254.3		X	X	within a taper or sight line
107	live oak	*Quercus virginiana*	Y	8	20	314.0		X	X	within a taper or sight line
[redacted]										
109	live oak	*Quercus virginiana*	Y	8	15	176.6		X		
110	live oak	*Quercus virginiana*	Y	8	18	254.3		X	X	within a taper or sight line
111	live oak	*Quercus virginiana*	Y	12	20	314.0		X	X	within a taper or sight line
112	live oak	*Quercus virginiana*	Y	8	18	254.3		X	X	within a taper or sight line
113	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
[redacted]										
115	live oak	*Quercus virginiana*	Y	6	15	176.6		X		
116	live oak	*Quercus virginiana*	Y	4	8	50.2		X	X	within a taper or sight line
[redacted]										
119	live oak	*Quercus virginiana*	Y	6	12	113.0		X		

Brian R Shore
02-25-09

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-7

DATE OF VERIFICATION: 10/11/07

TREE NUMBER	COMMON NAME	*BOTANICAL NAME*	NATIVE?	DBH (in) for trees / Clear Trunk Height (ft). for palms	SPREAD (ft.)	CANOPY AREA (sq. ft.)	TO BE REMOVED	TO REMAIN		Notes/Condition
120	live oak	*Quercus virginiana*	Y	8	18	254.3		X	X	within a taper or sight line
121	live oak	*Quercus virginiana*	Y	8	20	314.0		X		
124	live oak	*Quercus virginiana*	Y	6	15	176.6		X	X	within a taper or sight line
125	live oak	*Quercus virginiana*	Y	6	12	113.0		X	X	within a taper or sight line
127	live oak	*Quercus virginiana*	Y	6	12	113.0		X	X	within a taper or sight line
128	live oak	*Quercus virginiana*	Y	6	12	113.0		X	X	within a taper or sight line

02-25-09

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

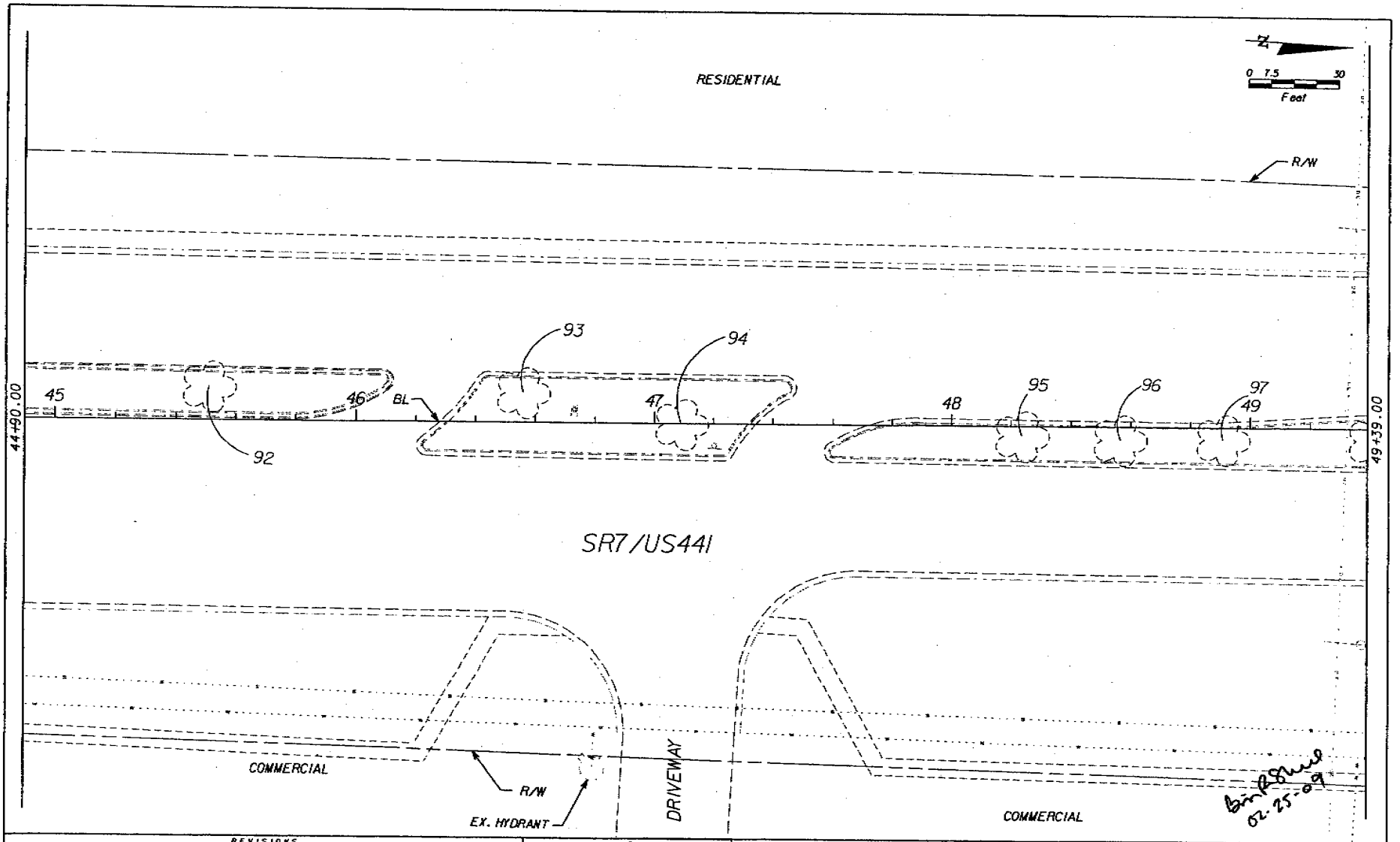
MILLER LEGG

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION CHART

SHEET NO. LD-8



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-19

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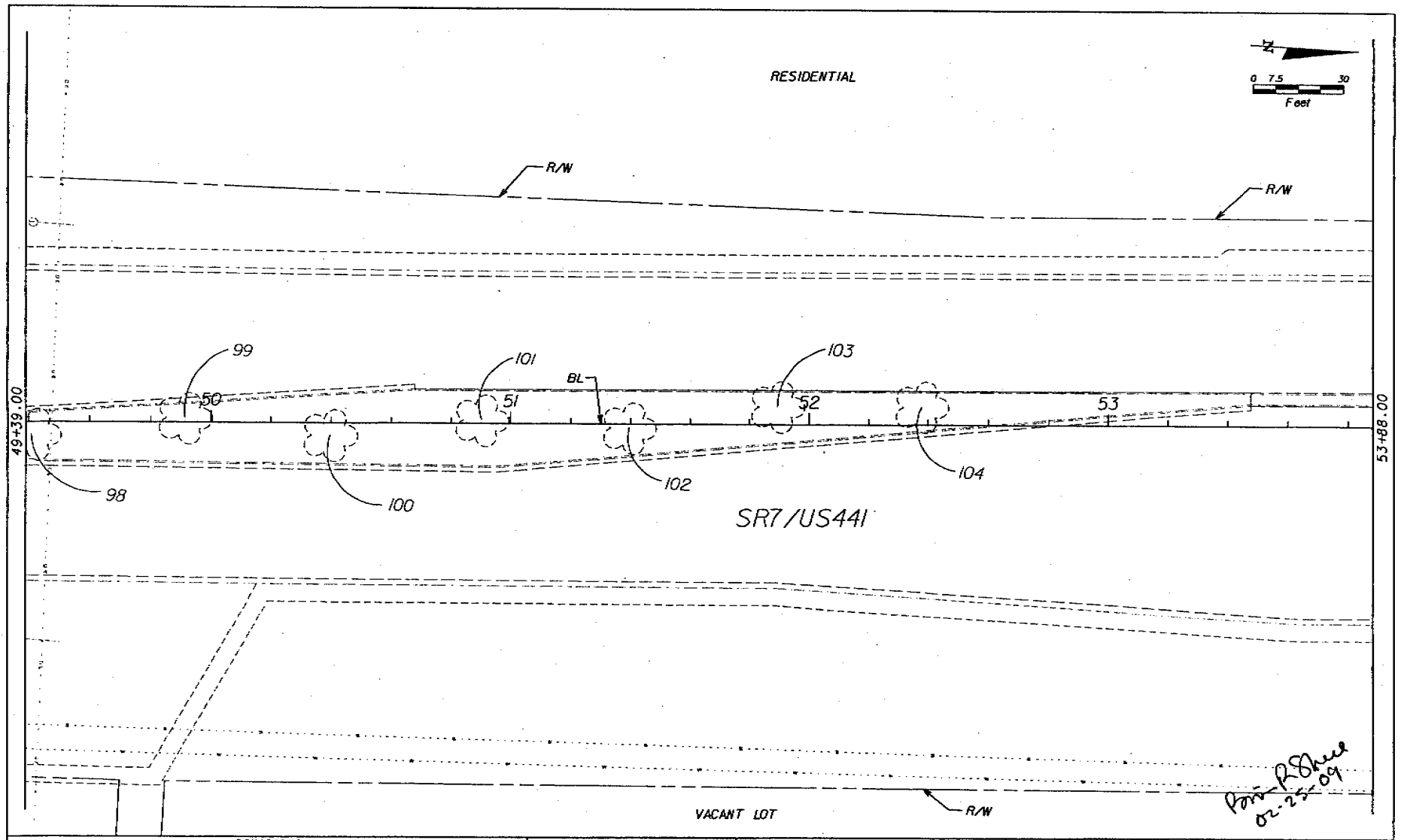

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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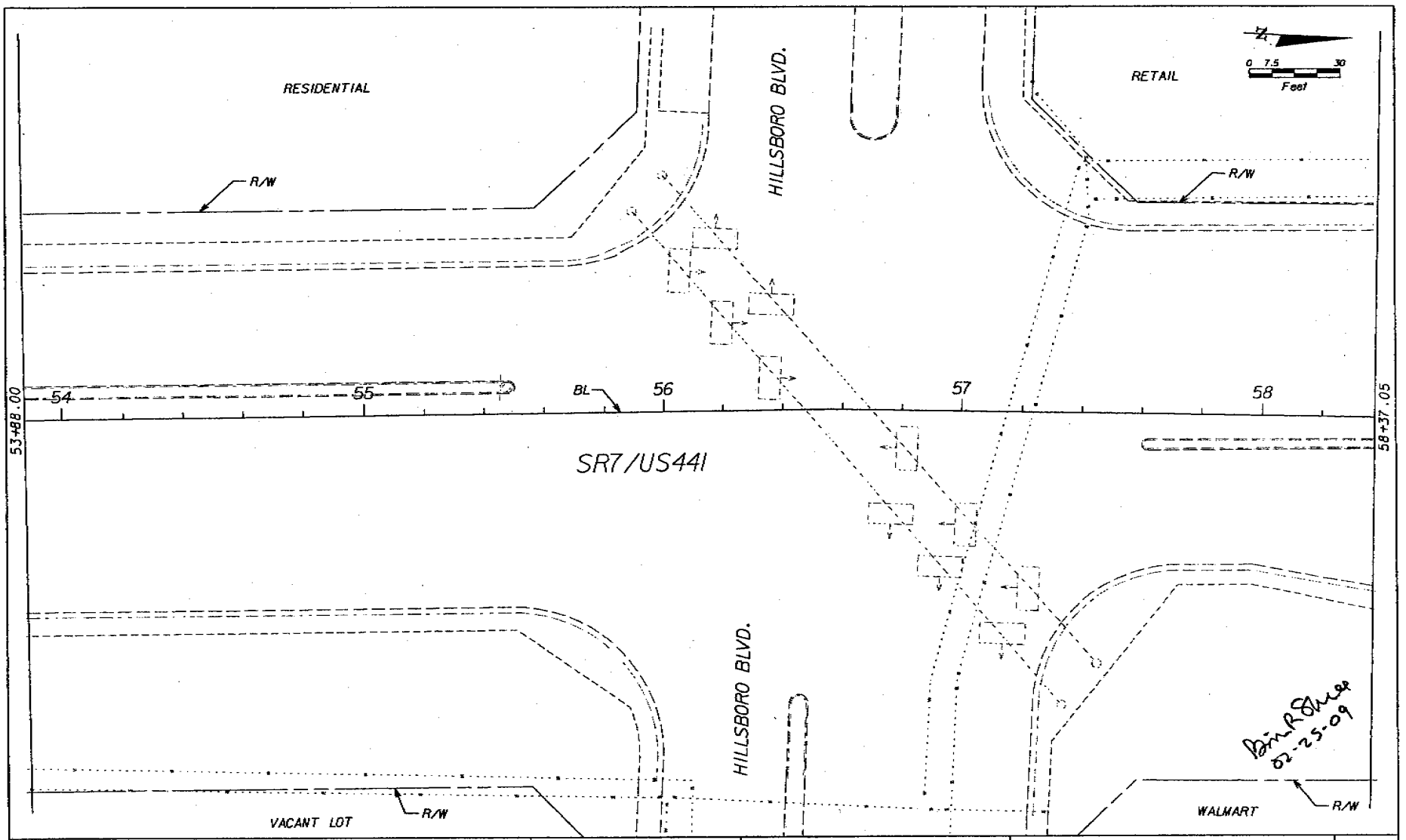
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-20



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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-21

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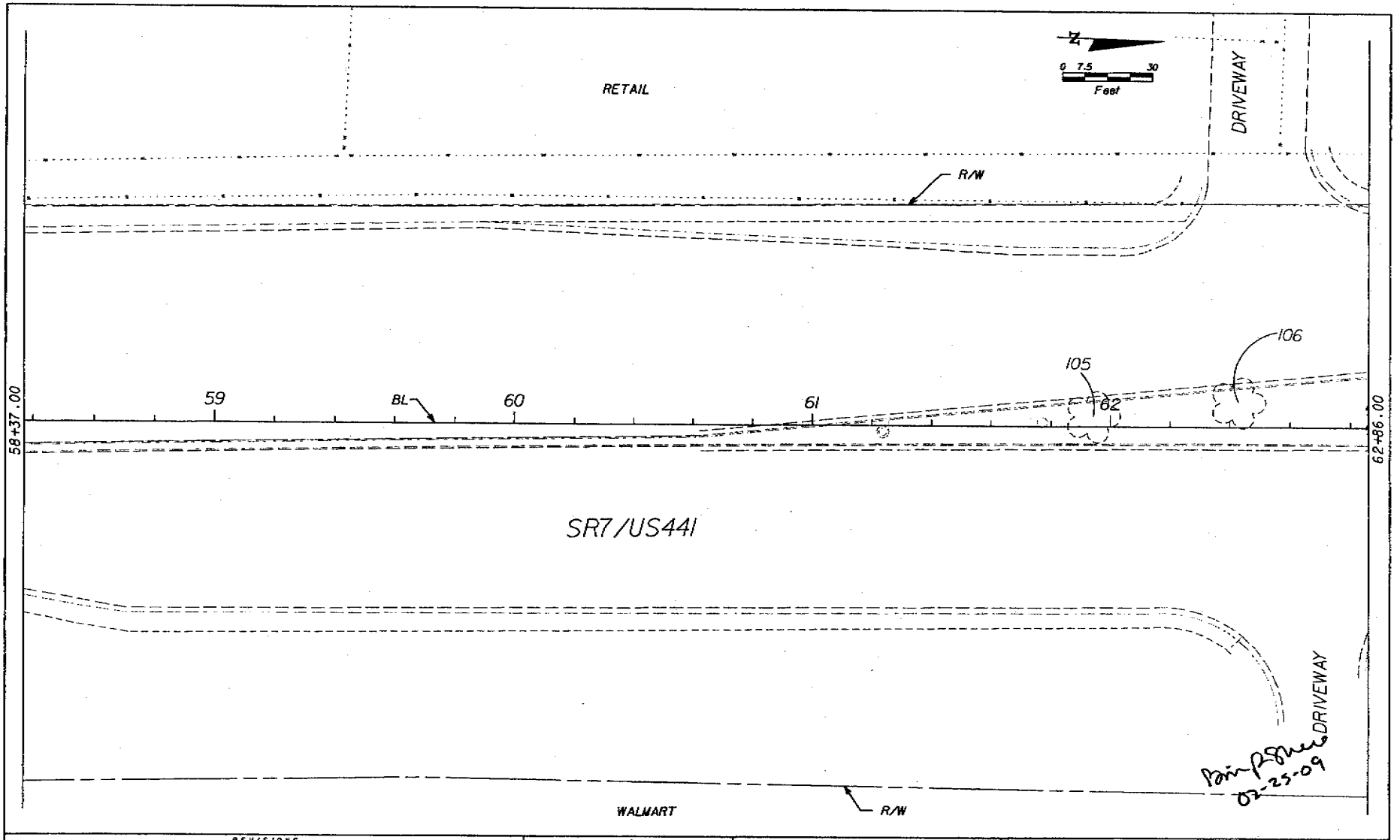

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO.
LD-22

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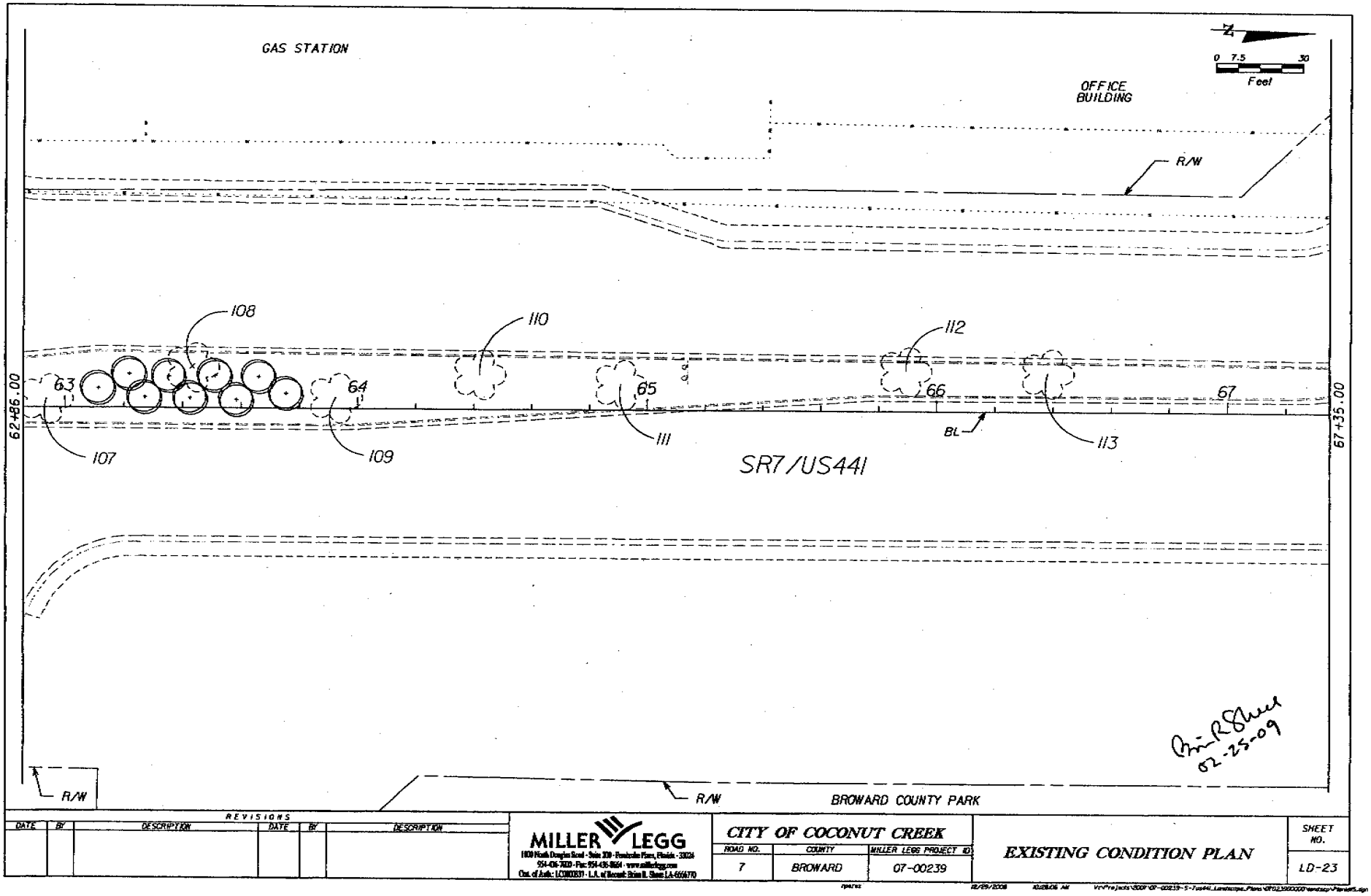

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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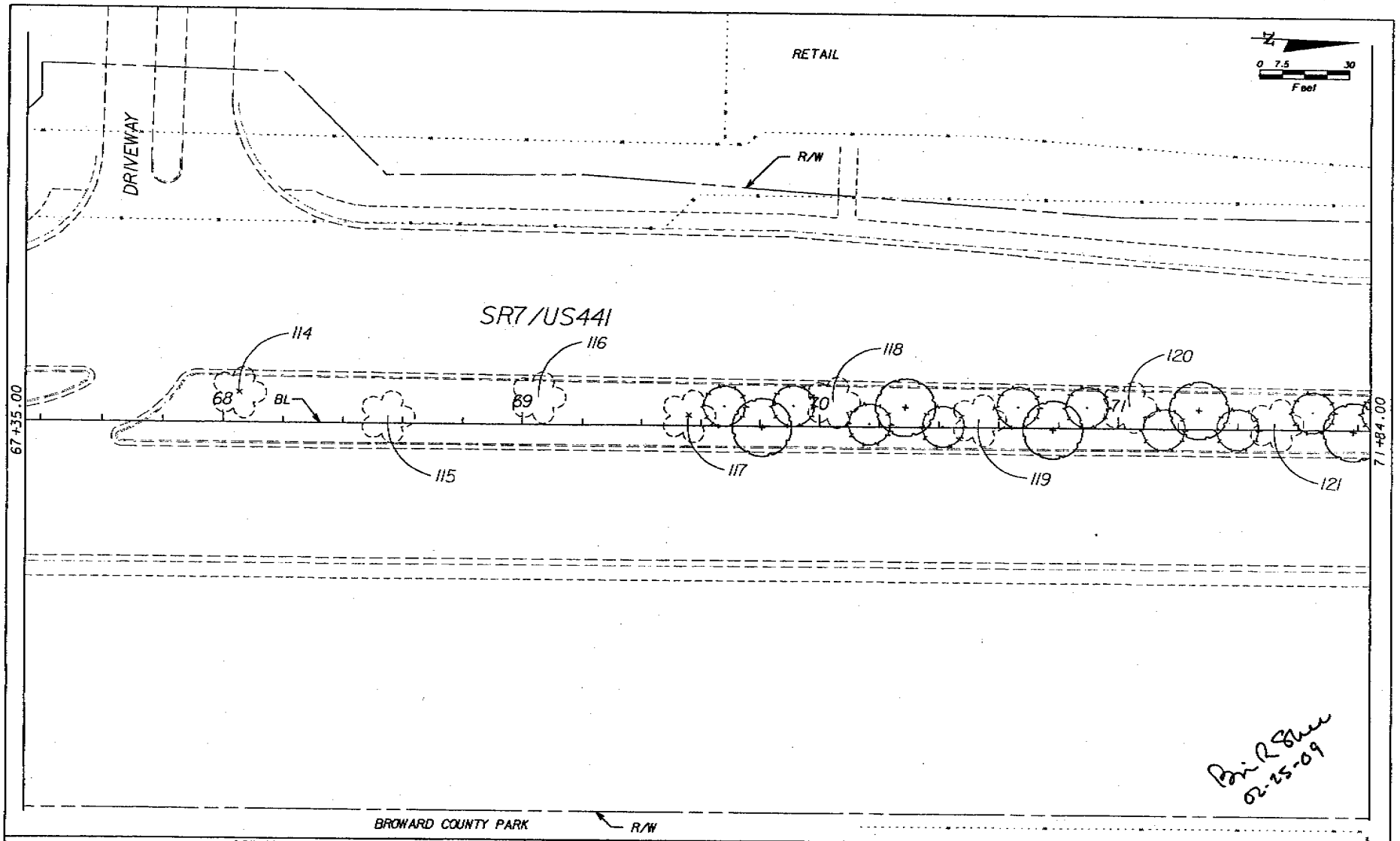
CITY OF COCONUT CREEK			EXISTING CONDITION PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-23

02/09/2008



02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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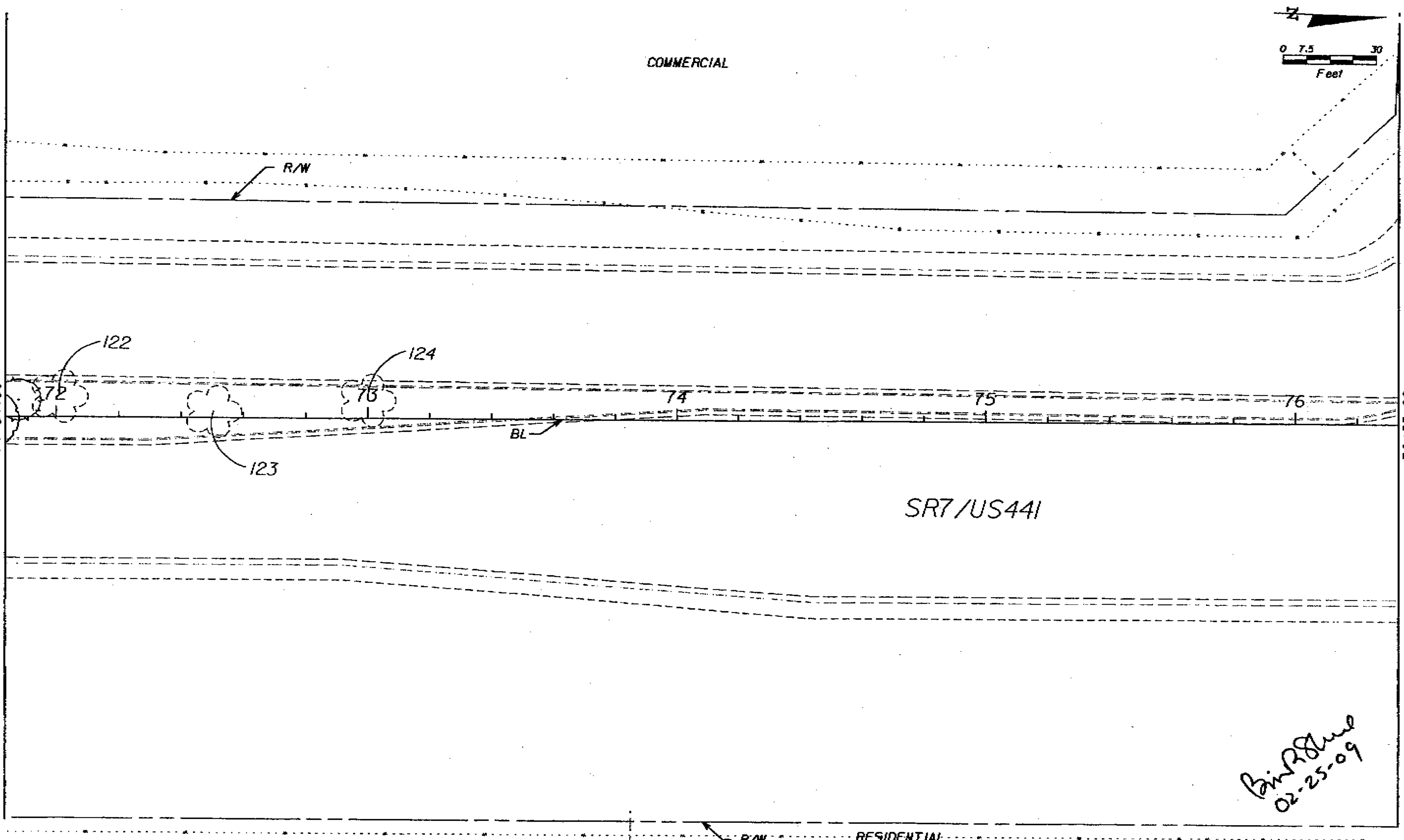
CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-24



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

REVISIONS

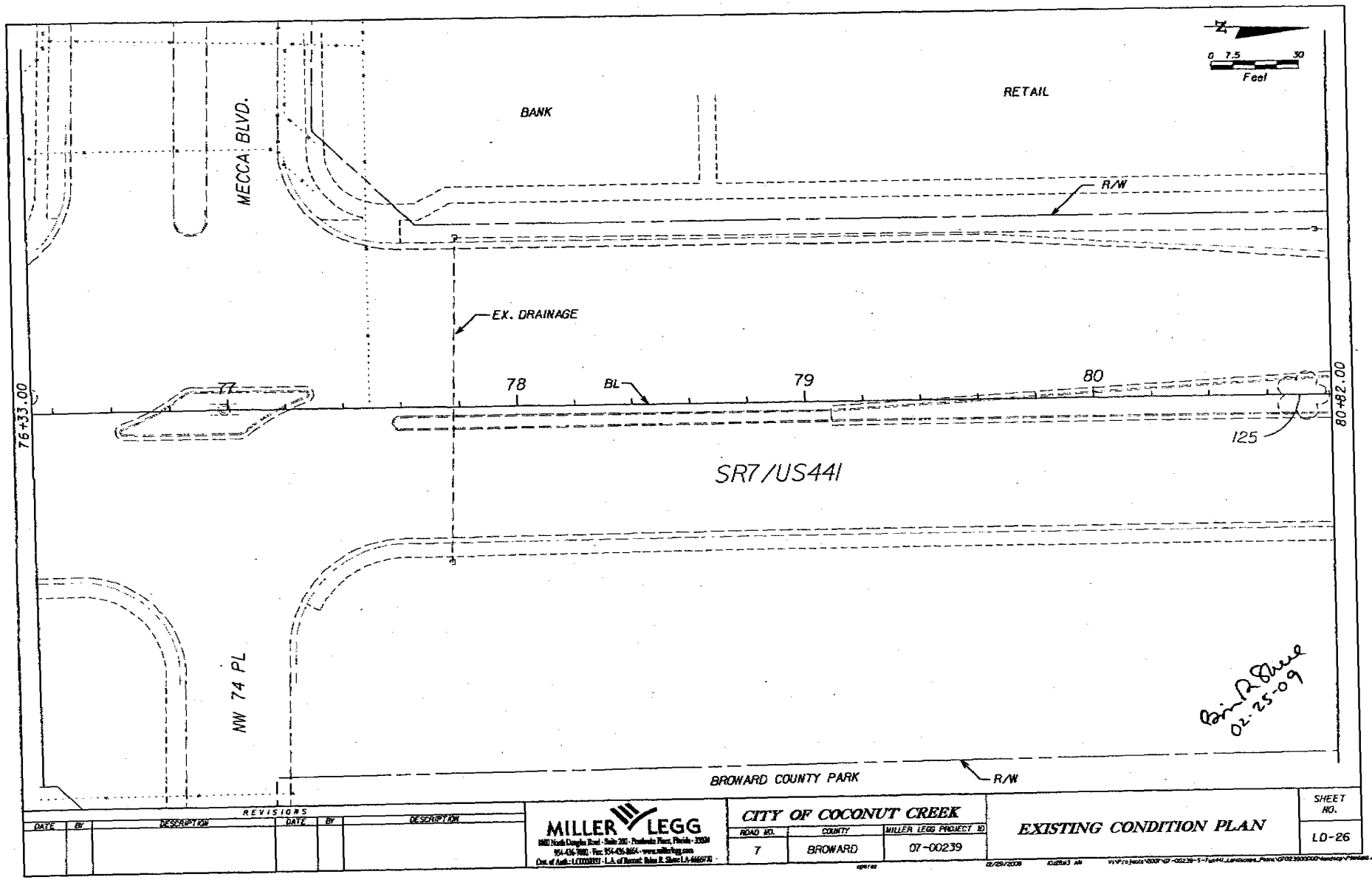
MILLER LEGG

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-25



Brian R. Bruce
02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

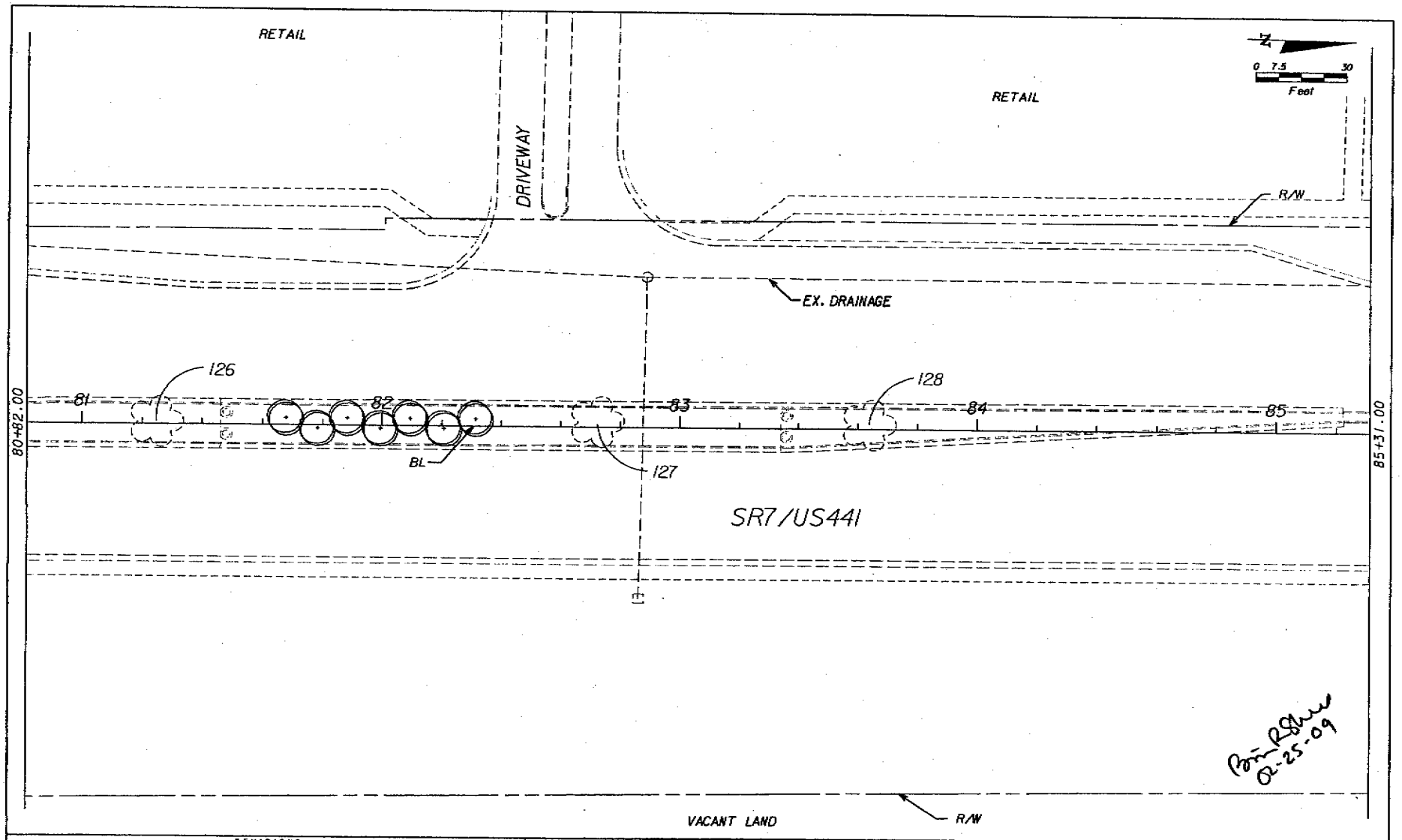
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-26

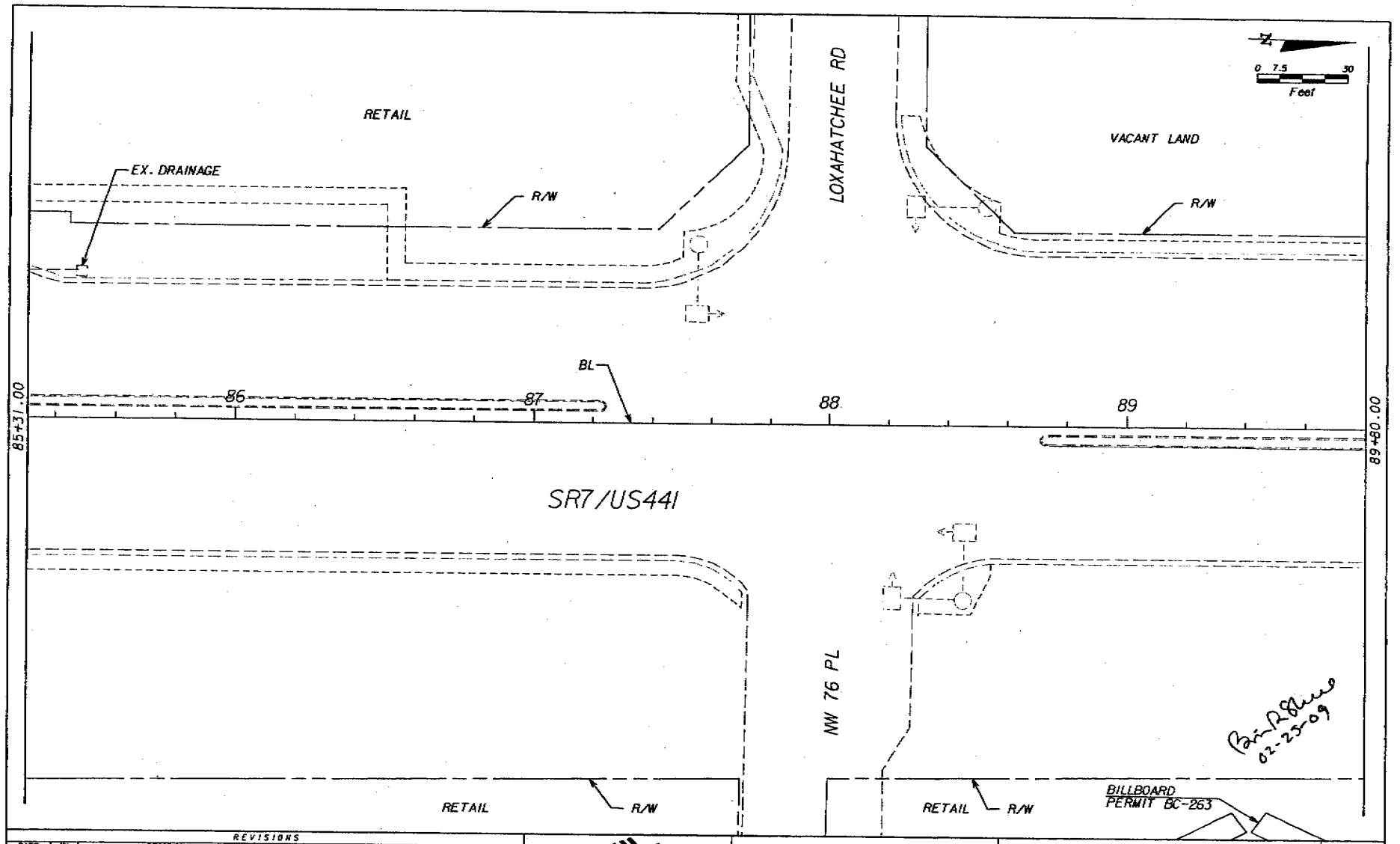
12/29/2008



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

CITY OF COCONUT CREEK			EXISTING CONDITION PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-27
7	BROWARD	07-00239		



REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

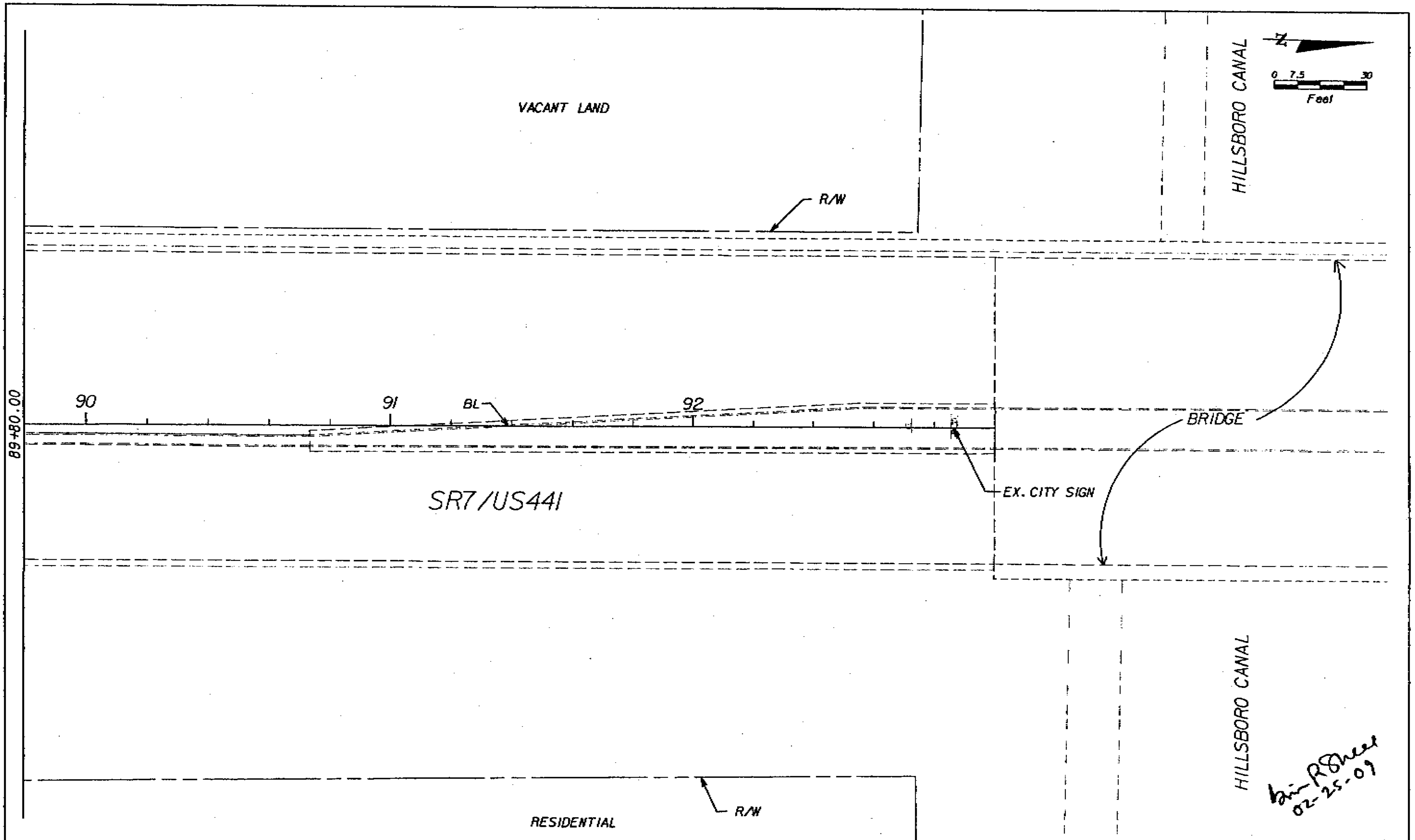
MILLER LEGG

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

SHEET NO. LD-28



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

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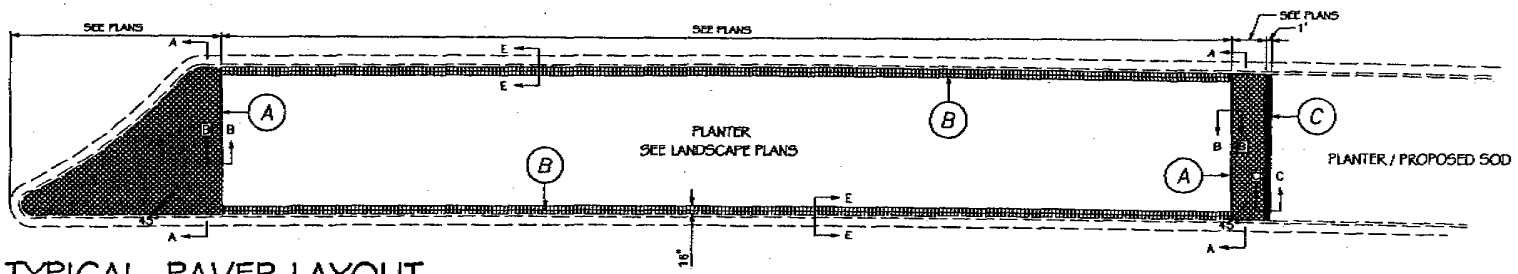
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

EXISTING CONDITION PLAN

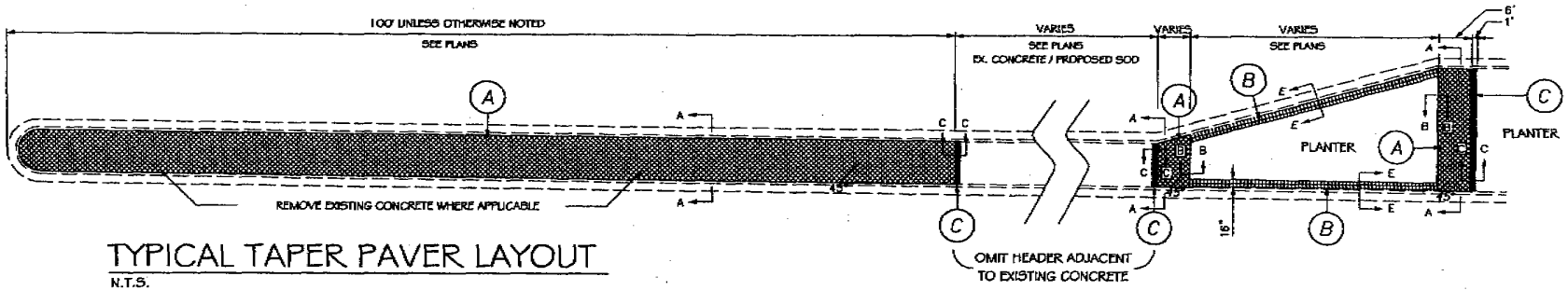
SHEET NO. LD-29

12/29/2008 10:28:17 AM



TYPICAL PAVER LAYOUT

N.T.S.



TYPICAL TAPER PAVER LAYOUT

N.T.S.

PAVING LEGEND

(A) SPECIALTY PAVING FIELD TO BE 8" X 8" 'CITY SQUARE' CONCRETE PAVERS BY HANSON PAVERS (OR APPROVED EQUAL) ON 1-1/2" SAND SETTING BED ON COMPACTED SUBGRADE. COLOR TO BE P-16 'CITY SQUARE' PINK/NATURAL GRAY COLOR MIX COMBINATION. PAVERS TO BE LAID IN A 45 DEGREE ANGLE TO THE NON-ANGLED ADJACENT CURB.

(B) 16" WIDE SPECIALTY PAVING BANDING TO BE DOUBLE ROW OF 8" X 8" 'CITY SQUARE' CONCRETE PAVERS BY HANSON PAVERS (OR APPROVED EQUAL) ON 1-1/2" SAND SETTING BED OVER COMPACTED SUBGRADE. COLOR TO BE P-16 'CITY SQUARE' PINK/NATURAL GRAY COLOR MIX COMBINATION. PAVER BANDING TO BE LAID PARALLEL TO THE ADJACENT CURB.

(C) 12" WIDE BROOM FINISH CONCRETE HEADER.

SPECIALTY PAVING GENERAL NOTES

1. SPECIALTY PAVERS AVAILABLE THROUGH HANSON PAVERS (954) 972-7400 OR (800) 273-7064
2. HIDDEN CONCRETE BACKFILL SHALL BE REQUIRED BETWEEN 16" WIDE PAVER BANDING AND THE ADJACENT PLANTER.
3. CONTRACTOR TO PRESSURE CLEAN ALL EXISTING CONCRETE SURFACES AFTER COMPLETION OF PAVER AND/OR PLANT MATERIAL INSTALLATION. CONTRACTOR TO PROVIDE TWO (2) COATS OF SEALANT ON ALL CONCRETE PAVERS. CONTRACTOR TO SUBMIT SAMPLE OF SEALANT FOR APPROVAL BY CITY BEFORE INSTALLATION.
4. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIR AND/OR REPLACEMENT OF ALL EXISTING CURBING AND/OR CONCRETE SURFACES DAMAGED DURING PAVER AND/OR PLANT MATERIAL INSTALLATION.
5. CONTRACTOR TO SUBMIT SAMPLES OF PAVERS FOR REVIEW.
6. CONTRACTOR SHALL CONSTRUCT A SAMPLE LAYOUT AREA TO BE REVIEWD BY CITY / AND OR CITY REPRESENTATIVE.
7. CITY / AND OR CITY REPRESENTATIVE SHALL REVIEW AND HAVE THE RIGHT TO ADJUST PAVERS FOR CUTS AND LAYOUT.

02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

CITY OF COCONUT CREEK			HARDSCAPE NOTES AND DETAIL	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-30

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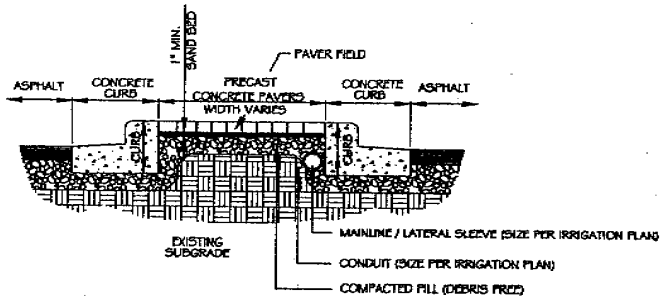

PAVER INSTALLATION DETAIL

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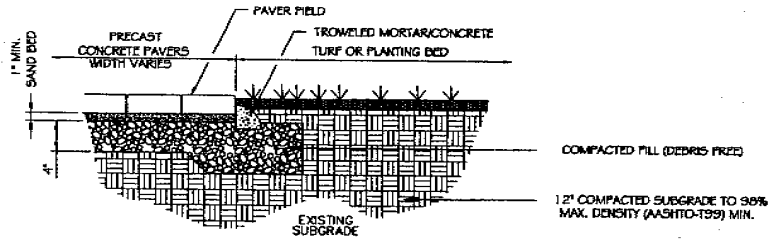

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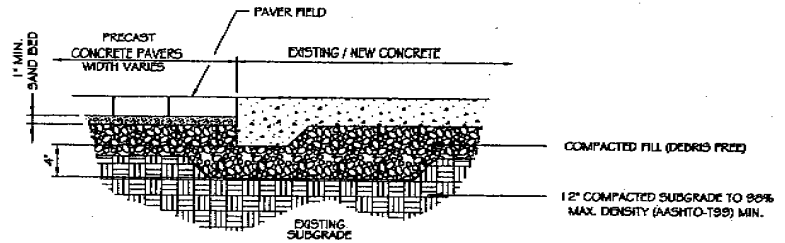

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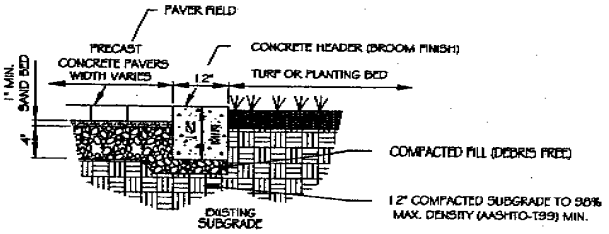

CONCRETE BANDING DETAIL

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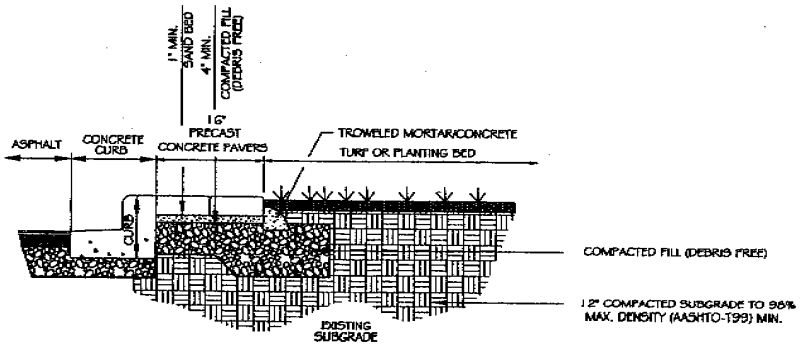

PAVER BANDING DETAIL

N.T.S. SECTION E-E

02-25-09

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CITY OF COCONUT CREEK			HARDSCAPE NOTES AND DETAILS	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-31

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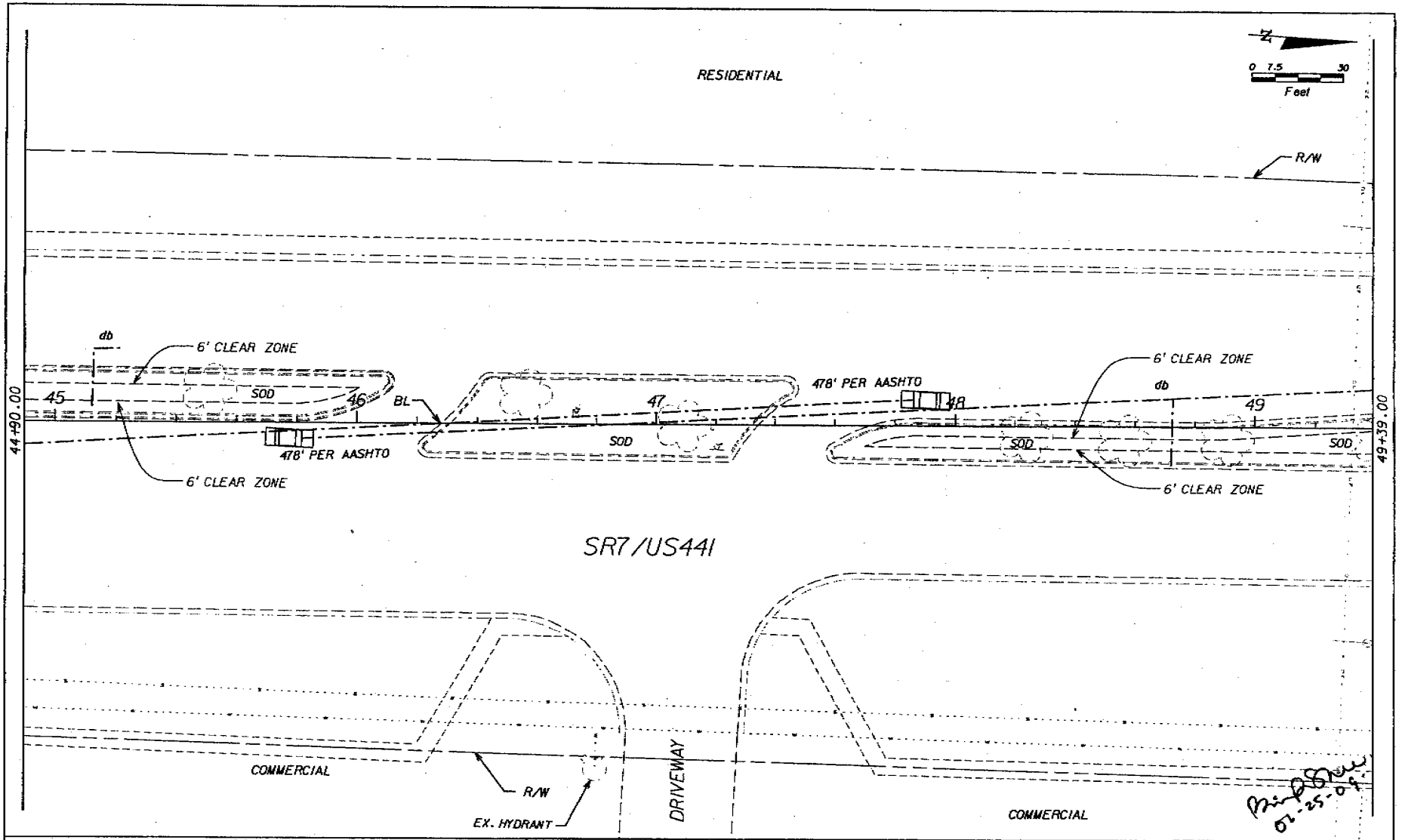

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK			LANDSCAPE / HARDSCAPE PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-42

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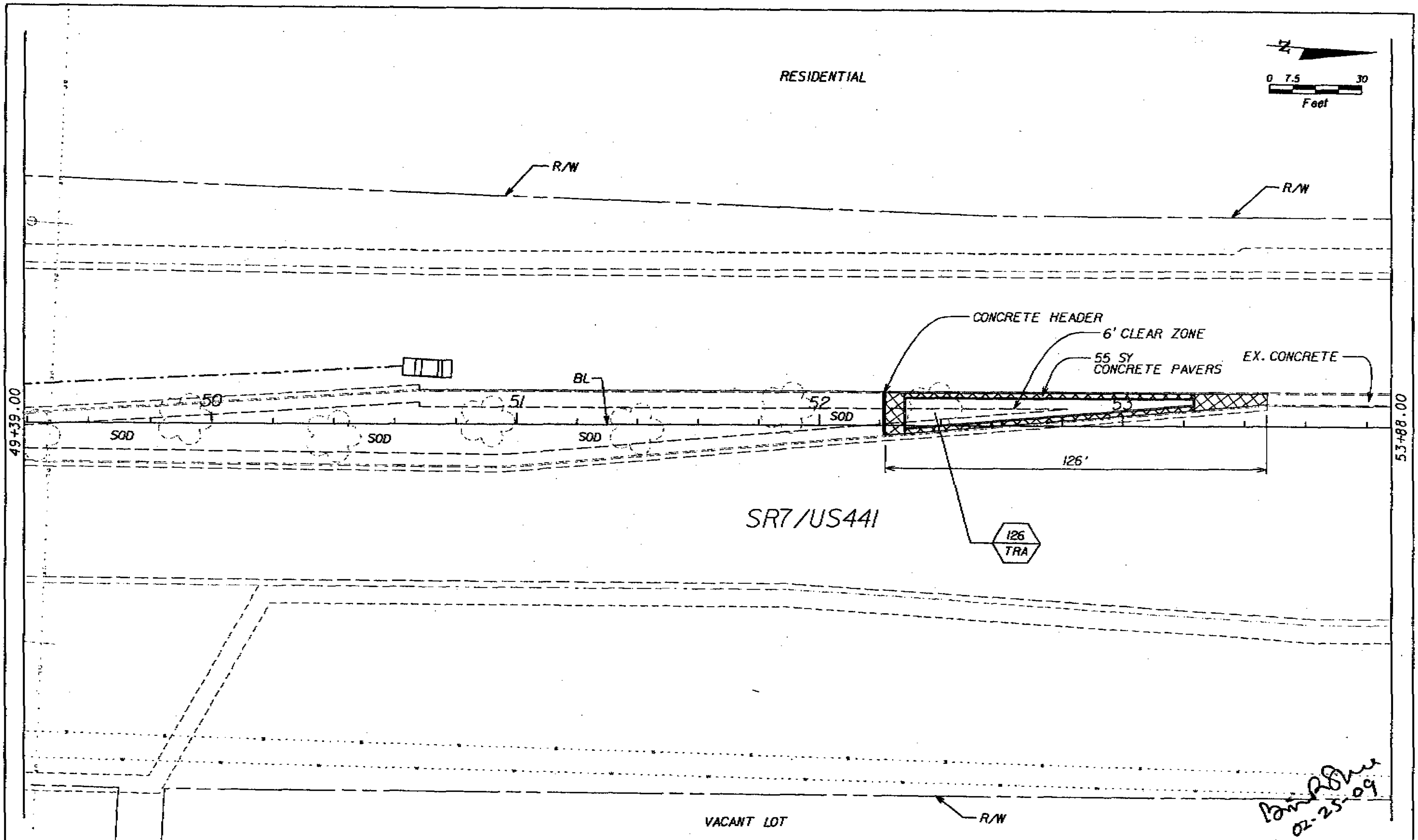

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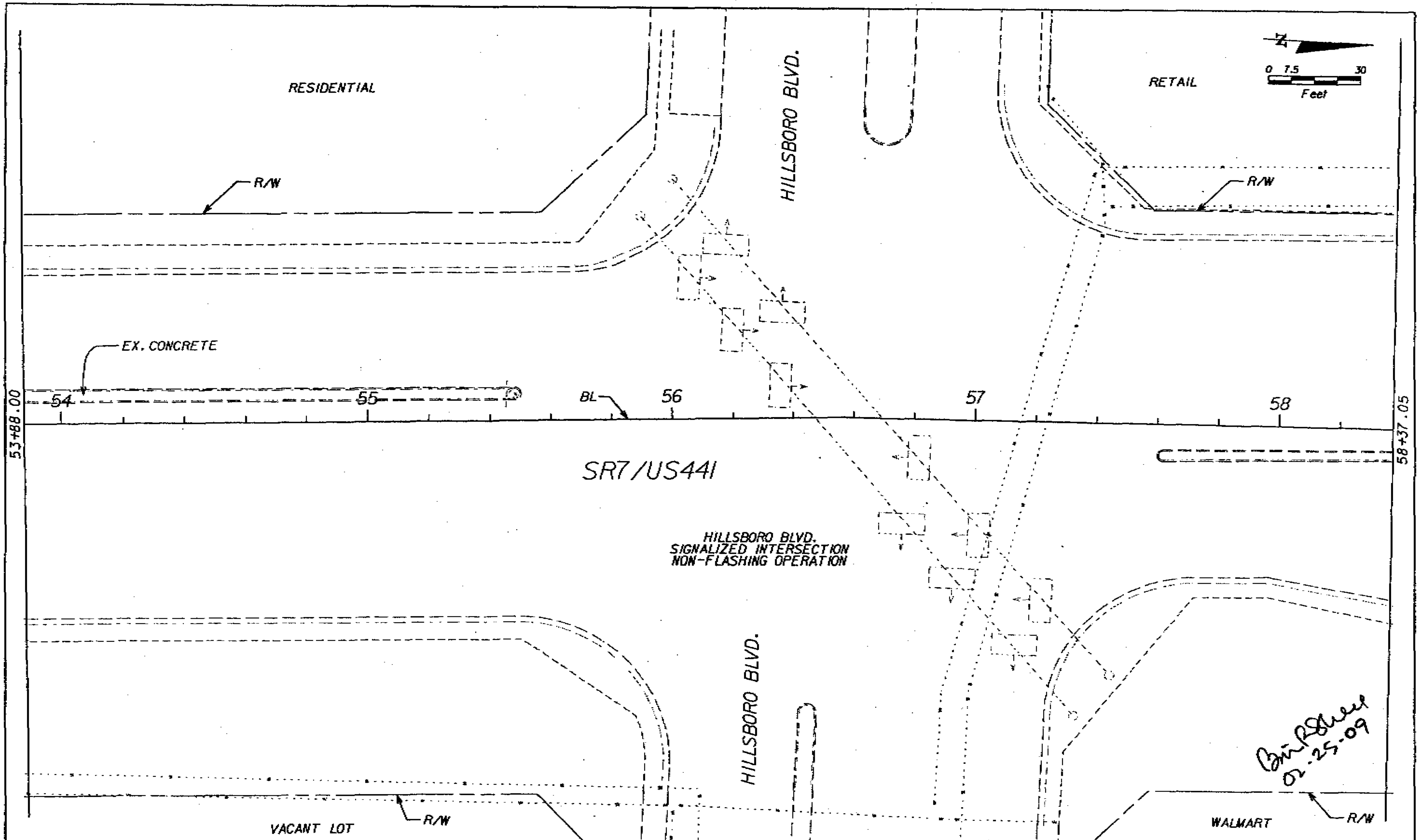
CITY OF COCONUT CREEK			LANDSCAPE / HARDSCAPE PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LO-43



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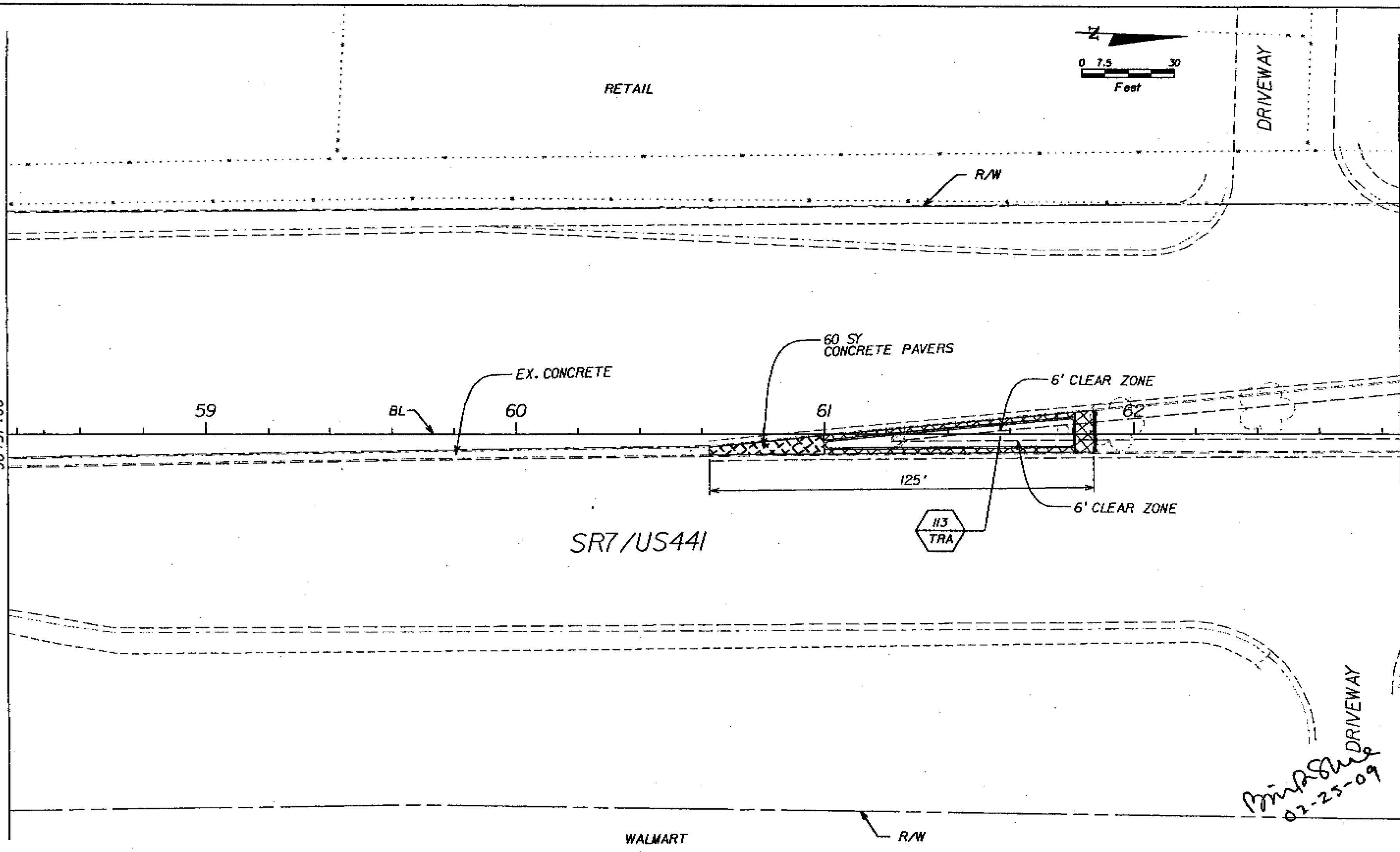
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-44



REVISIONS					
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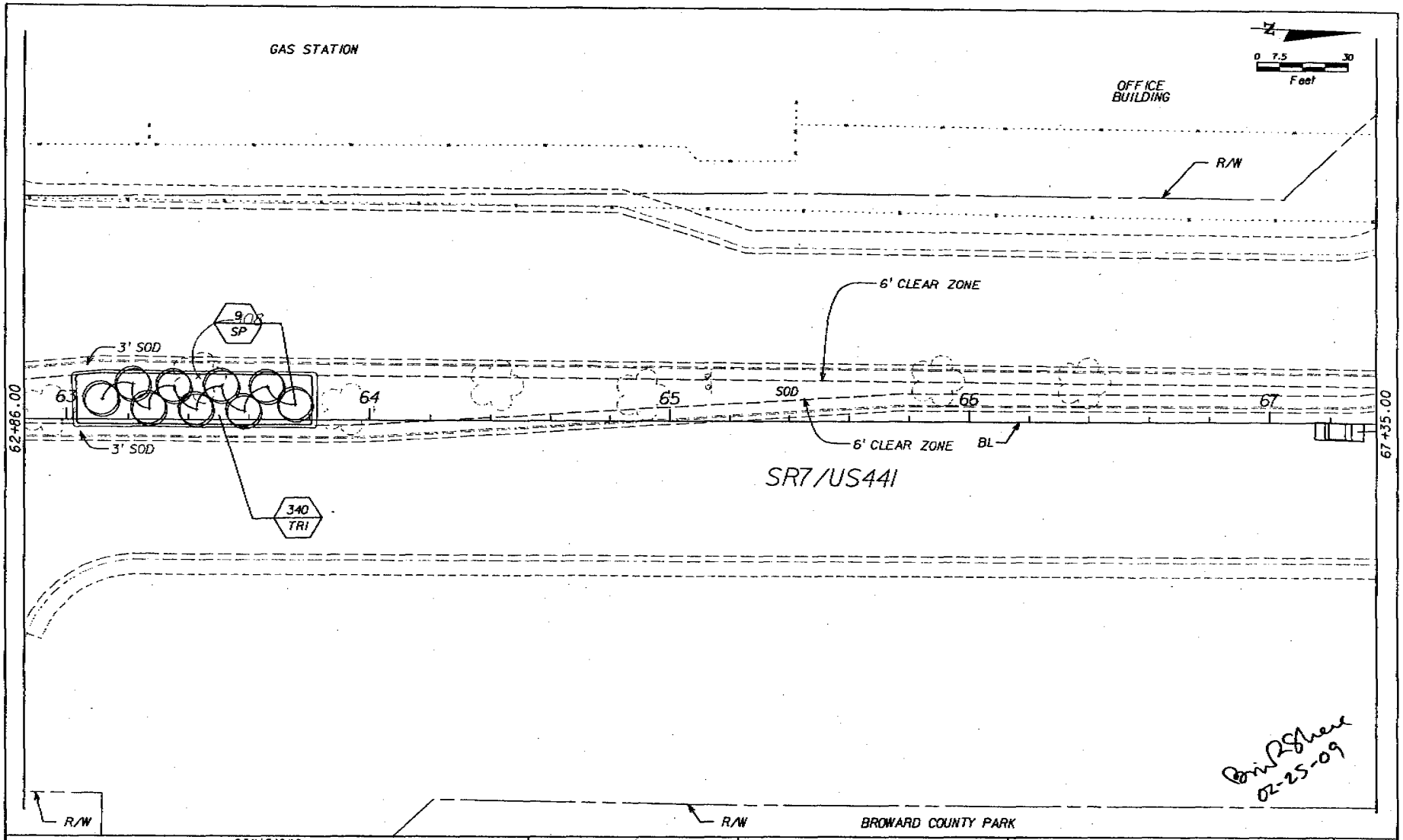
CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-45



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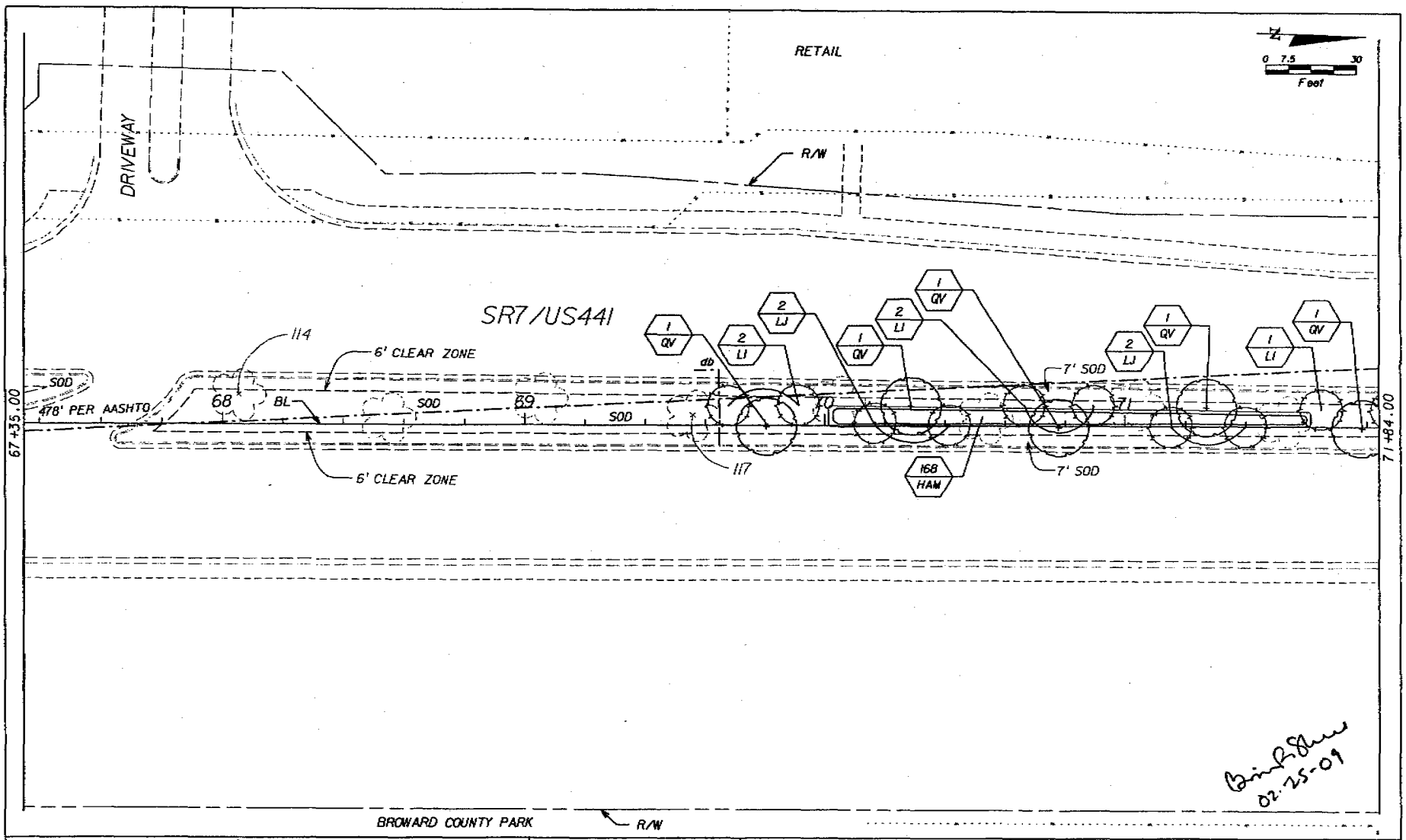
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-46



02.25-09

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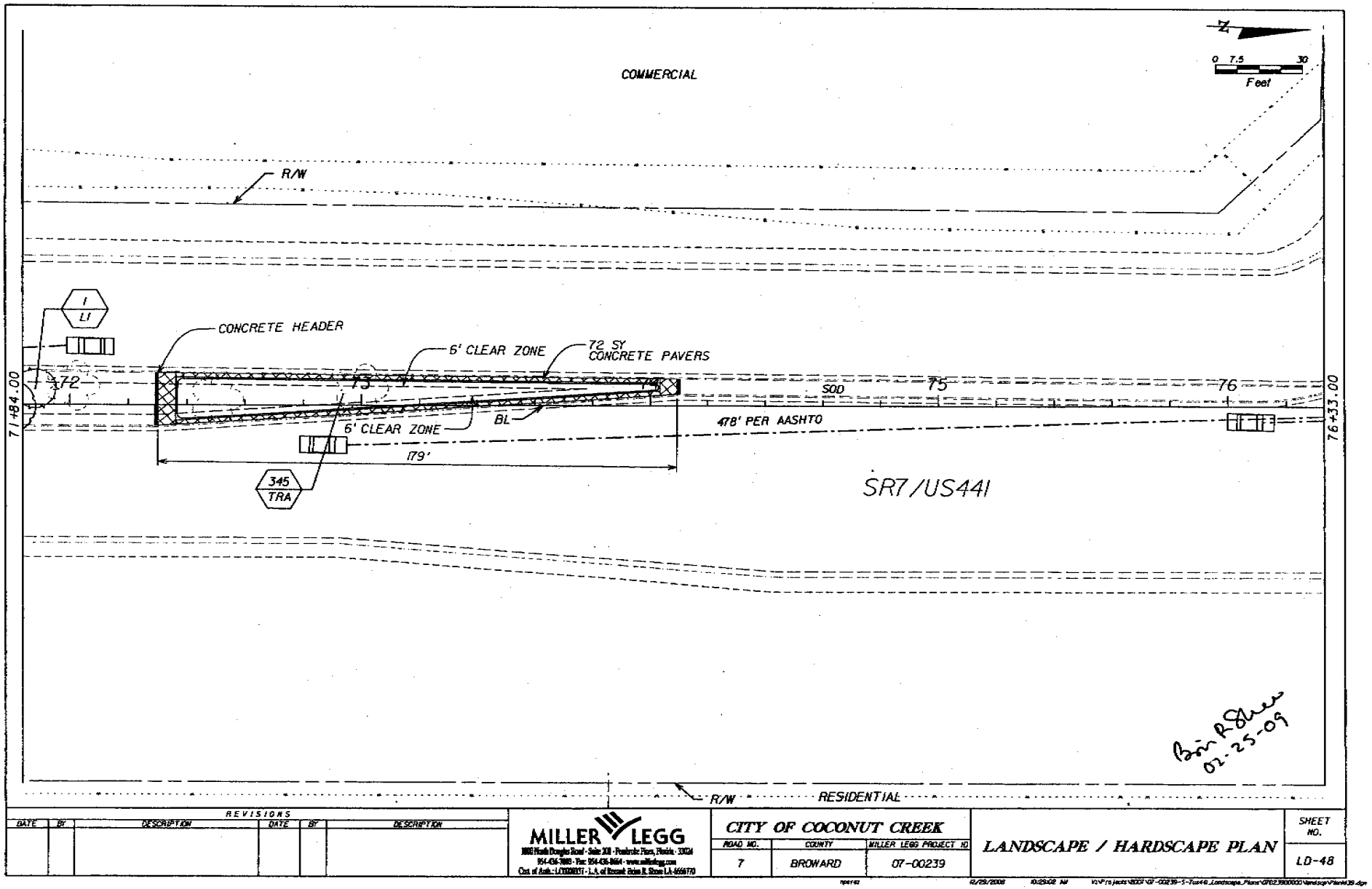
CITY OF COCONUT CREEK			LANDSCAPE / HARDSCAPE PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LO-47



Brian R Shea
02-25-09

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ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO.
LD-48

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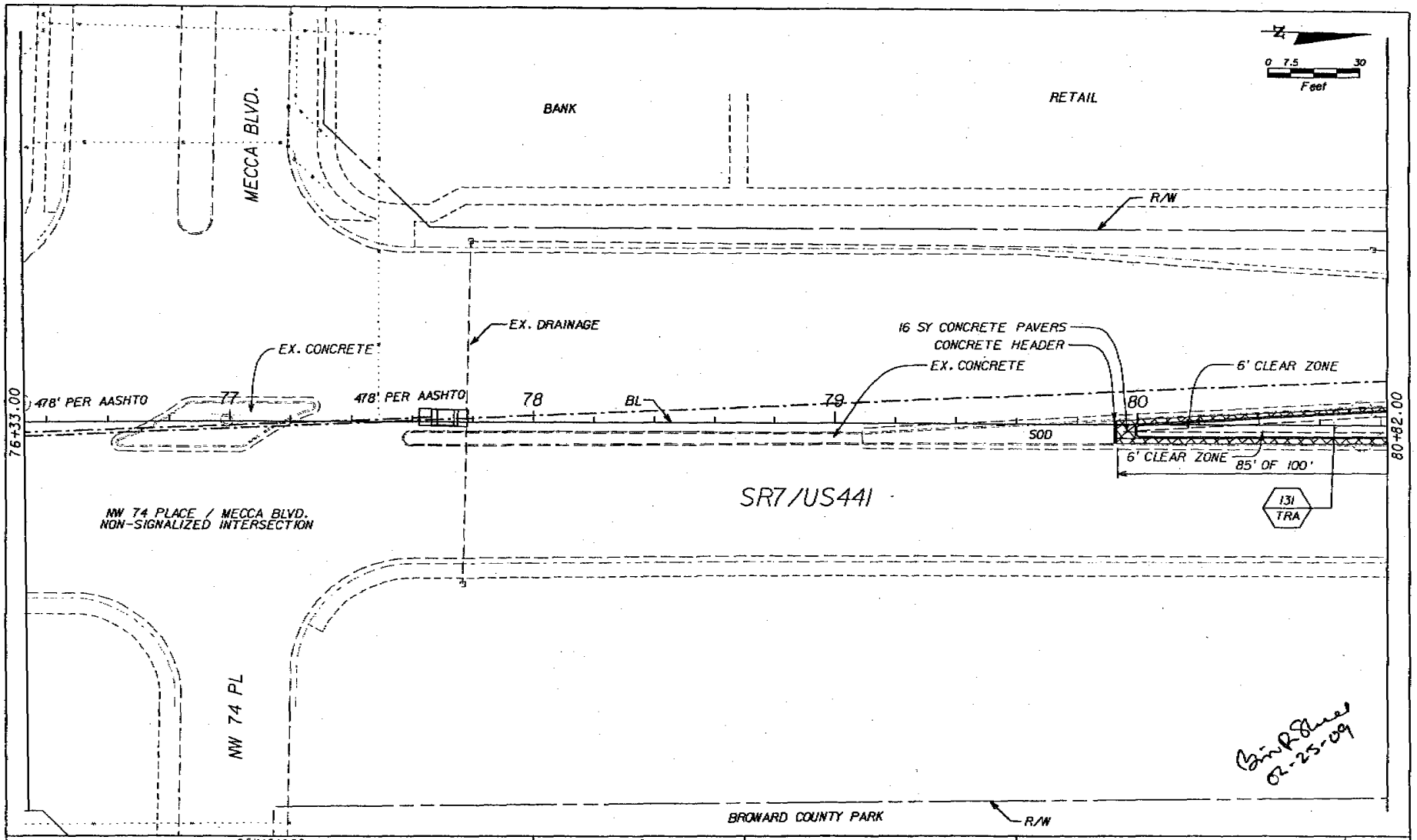

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ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-49

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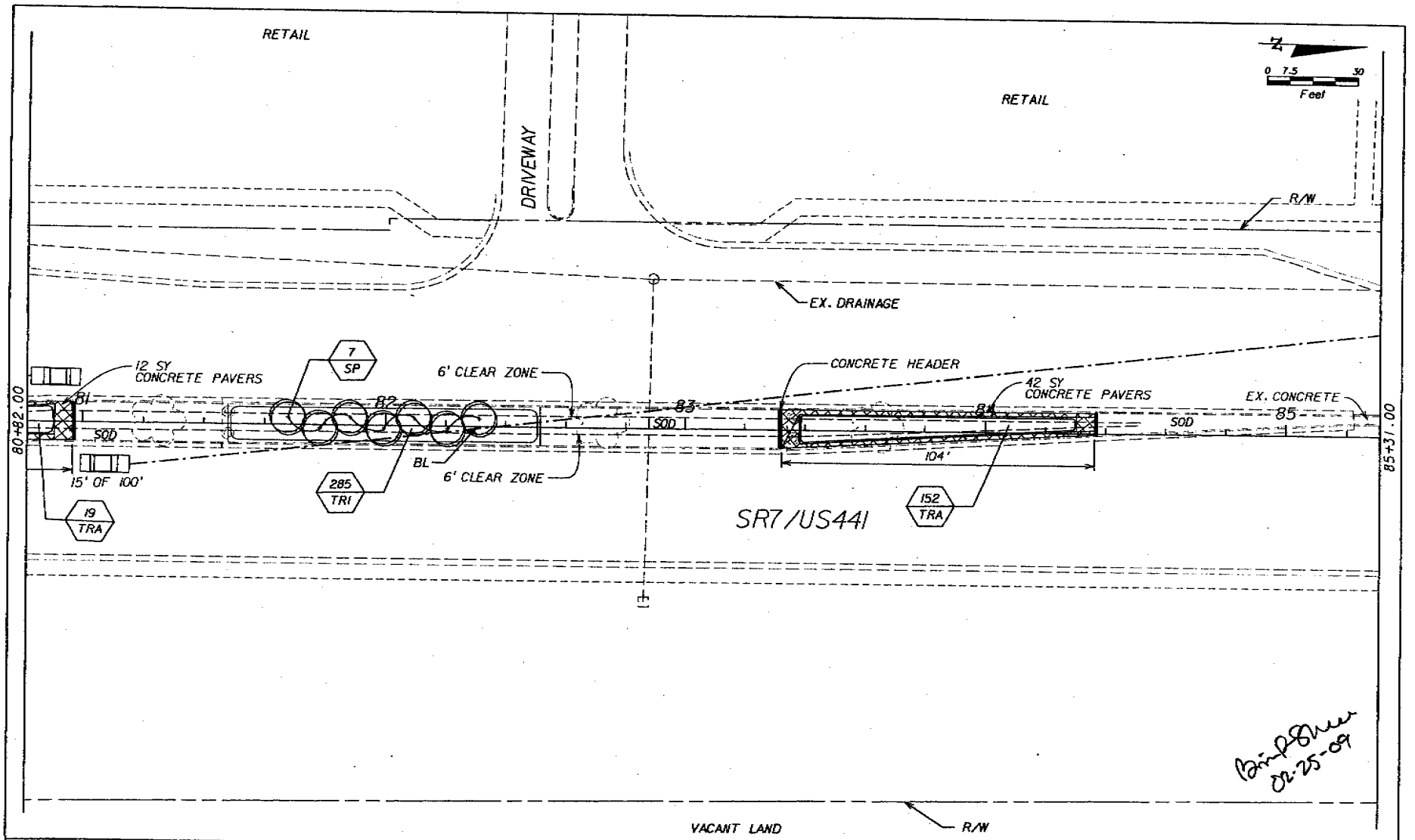

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK			LANDSCAPE / HARDSCAPE PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-50
7	BROWARD	07-00239		

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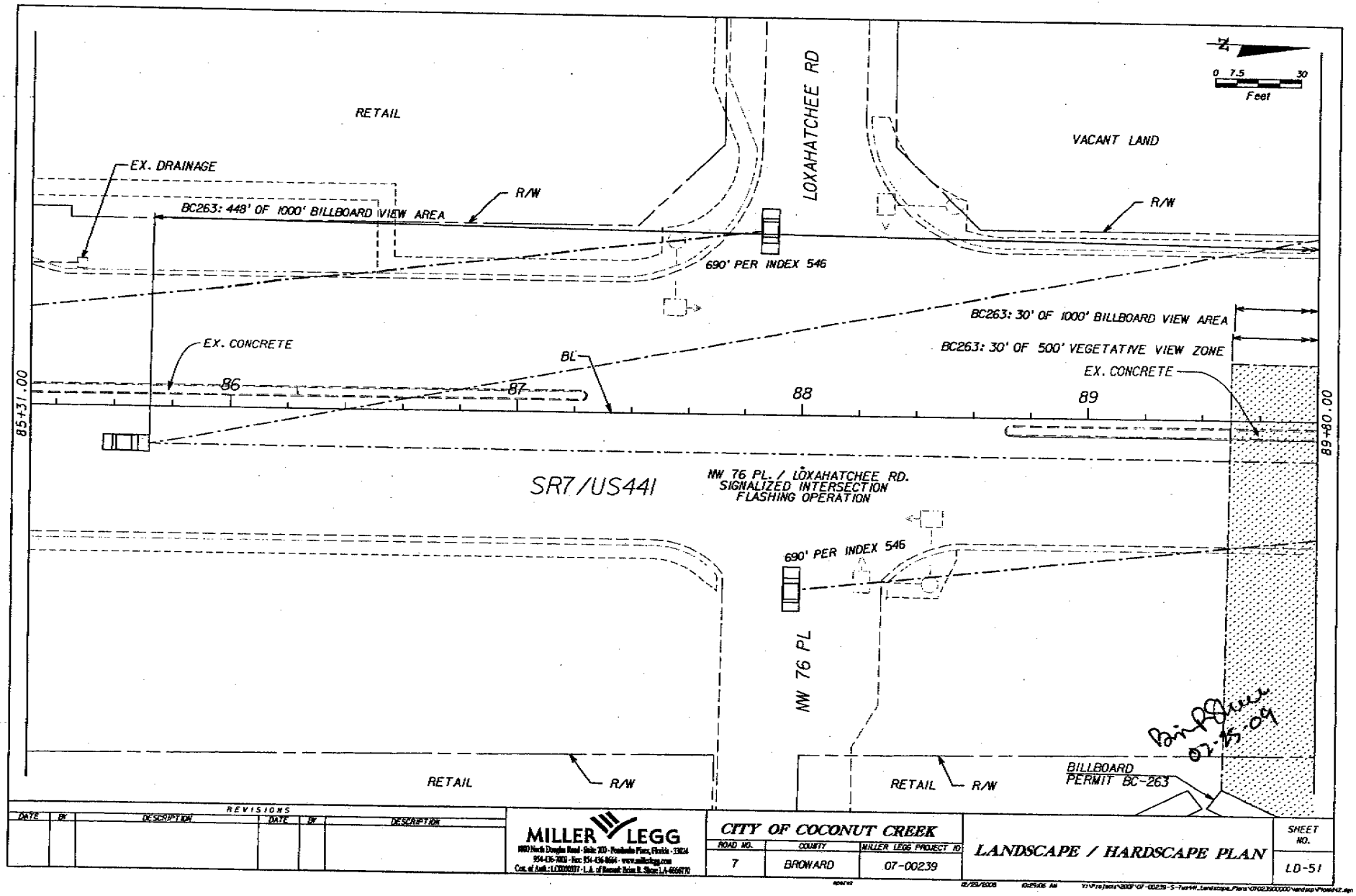

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-5.1

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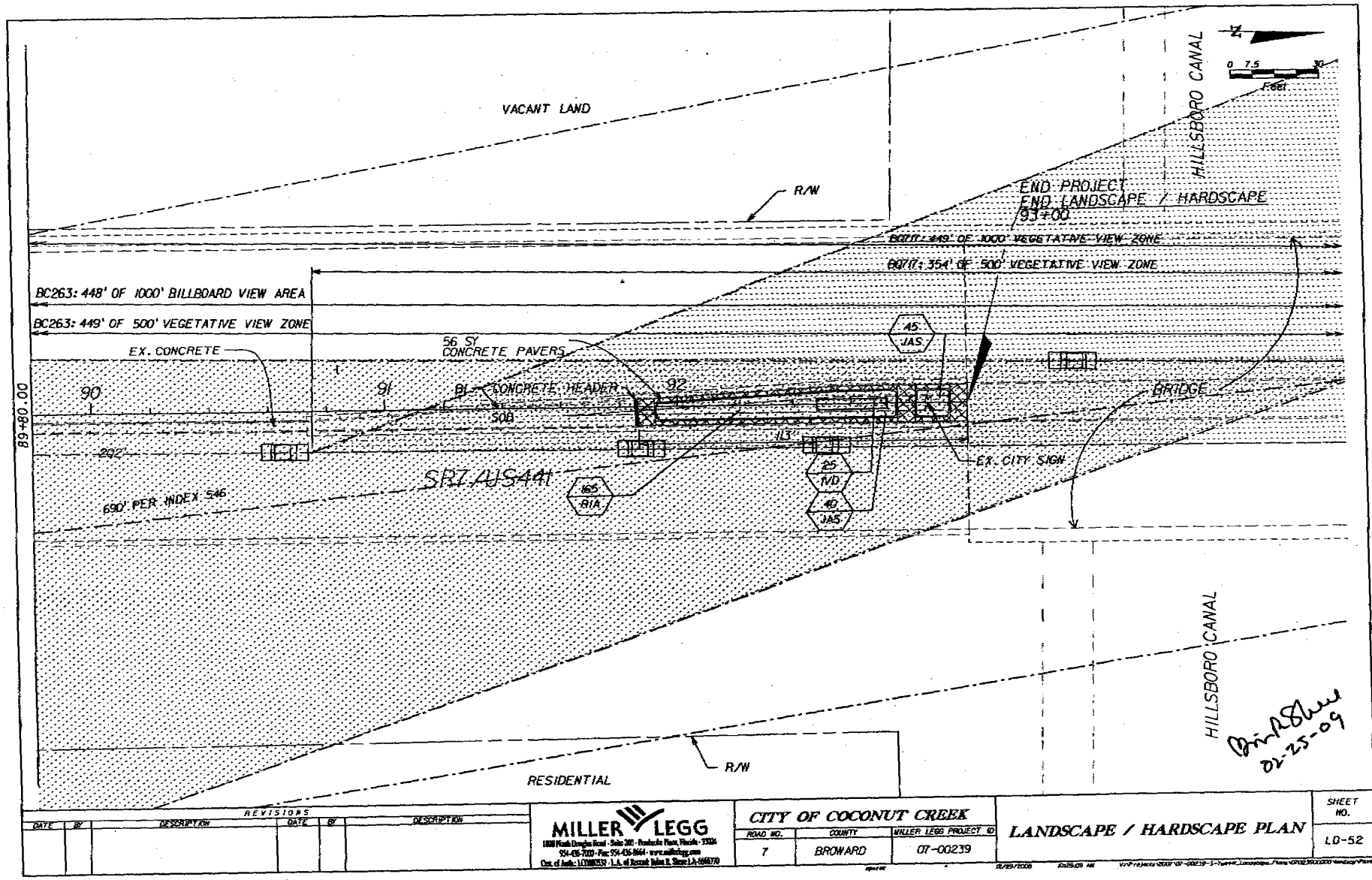

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

LANDSCAPE / HARDSCAPE PLAN

SHEET NO. LD-52

12/29/2008

IRRIGATION GENERAL NOTES and SPECIFICATIONS

The system has been designed to conform with the requirements of all applicable codes. Should any conflict exist, the requirements of the codes shall prevail. It is the responsibility of the owner/installation contractor to insure the entire system is installed according to all applicable laws, rules, regulations and conventions. Irrigation contractor responsible for obtaining all required permits according to federal, state and local laws.

The scope of work is shown on the plans, notes and details. The Irrigation Contractor shall be certified as a CERTIFIED IRRIGATION CONTRACTOR by the Irrigation Association. The certification shall be current and in good standing.

THE WORK

The work specified in this section consists of furnishing all components necessary for the installation, testing, and delivery of a complete, fully functional automatic landscape irrigation system that completely complies with the irrigation plans, specifications, notes, details and all applicable laws, regulations, codes and ordinances. This work shall include, but not be limited to, the providing of all required material (pipe, valves, fittings, controllers, wire, primer, glue, etc.), layout, protection to the public, excavation, assembly, installation, back filling, compacting, repair of road surfaces, controller and low voltage feeds to valves, cleanup, maintenance, guarantee and as-built plans.

All irrigated areas shall provide 100% head-to-head coverage from a fully automatic irrigation system with a rain sensor. The rain sensor shall be installed to prevent activation of rain sensor by adjacent heads. All watering procedures shall conform to local codes, as well as this project's regional Water Management District restrictions and regulations. Zones are prioritized first by public safety and then by hydraulic concerns. This sequencing will be a mandatory punch list item. These plans have been designed to satisfy/exceed the Florida Building Code (FBC) Appendix F and the Florida Irrigation Society Standards and Specifications for Turf and Landscape Irrigation Systems, fourth edition.

Contractor shall verify all underground utilities 72 hours prior to commencement of work.

It is the responsibility of the irrigation contractor to familiarize themselves with all grade differences, location of walls, retaining walls, structures and utilities. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that unknown obstruction, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions, or differences, should be brought to the attention of the owner' authorized representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

Irrigation Contractor shall repair or replace all items damaged by their work. Irrigation Contractor shall coordinate their work with other Contractors for the location and installation of pipe sleeves and laterals under roadways and paving, etc.

The contractor shall take immediate steps to repair, replace, or restore all services to any utilities which are disrupted due to their operations. All costs involved in disruption of service and repairs due to negligence on the part of the contractor shall be their responsibility.

POINT OF CONNECTION (P.O.C.)

The P.O.C.'s are new Hoover Pumping Stations (Pump A Model HCF-10PD-230/3-A,E-16,M,W and Pump B Model HCF-10PD-230/3-A,E-12,M,W) utalizing proposed wells. Each P.O.C. must be capable of delivering a minimum of 80 GPM at 178 TDH. Contractor shall verify these minimum conditions can be met prior to the begin irrigation system installation.

If the conditions can not be met, the contractor must notify the designer prior to proceeding with the work. If the Contractor does not do so, the contractor proceeds at their own risk and becomes responsible for any future work required to make the system perform as required.

THE PIPE

Pipe locations shown on the plan are schematic and shall be adjusted in the field. When laying out mainlines place a 18"-24" away from either the back of curb, front of walk, back of walk, or other hardscape to allow for ease in locating and protection from physical damage. Install all lateral pipe near edges of pavement or against buildings whenever possible to allow space for plant root balls. Always install piping inside project properties boundary.

Pipe sizes shall conform to those shown on the plans. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged / rejected pipe shall be removed from the site at the time of said rejection.

All pipes are to always be placed in planting beds. If it is necessary to have piping under hardscapes, such as roads, pavers, and walks, the pipes must be sleeved using High Density Polyethelene (HDPE) under existing roadways and sidewalks where directional bore is utilized and Sch 40 PVC elsewhere with the sleeve diameter being twice the size of the pipe it is carrying with a minimum sleeve size of 2".

Mainline shall be Class 200 gasketed 'O' ring PVC with Harco ductile iron fittings (sized per plans).

Contractor to ensure all mainline piping is properly restrained using mechanical joint fittings, restraining collars, threaded rods, thrust blocks, etc., as and where required. Contractor shall refer to pipe manufacturers recommended installation practices for further direction.

PVC pipe joint compound and primer: slow-drying, heavy duty cement and tinted (purple) primer that is compatible with the cement. The PVC cement shall be Weld-On 2711 grey and the primer shall be Weld-On P70 purple primer, or approved equals.

ELECTRICAL POWER SUPPLY

Electrical supply and phone line for pumps and controllers to be provided by irrigation contractor. Contractor to coordinate with local utilities for the installation of, and connection to, site available power supply's for required electrical components as set forth in the irrigation plans.

All electrical to comply with the National Electrical Code and any, and all, other applicable electrical codes, laws and regulations. A licensed electrician shall perform all electrical hook-ups. Power for the controllers shall be 120 volts. Power for Pumps A & B shall be 208 volts Phase 3.

WIRING

Irrigation control wire shall be thermoplastic solid copper, single conductor, low voltage irrigation controller wire; suitable for direct burial and continuous operation at rated voltages.

Tape and bundle control wires every 10' and run alongside the mainline. At all turns in direction make a 2' coil of wire. At all valve boxes coil wire around a 3/4" piece of PVC pipe to make a coil using 30 linear inches of wire. Make electrical connections with 3M-DBY,DBR connectors.

Number all wires, using an electrical book of numbers, according to the plans. Number wires in all valve boxes, junction boxes and at the controller.

Wire sized, numbered and colored as follows:

- #12 white for common
- #12 spare black common
- #14 red for hot wires
- #14 spare yellow hot wire

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SPARE WIRES

Run spare wires into every RCV valve box. Install a minimum of 2 common and 4 hot wires, in all directions, to every RCV connected to its respective controller.

CONTROLLER GROUNDING

Contractor to utilize 4"X5"X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD wells at all connection points, #6 bare copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller location, and test results. Each controller shall be so grounded and tested.

LAYOUT

Lay out irrigation system mainlines and lateral lines. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches.

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to insure 100% head to head coverage. Refer to the Edge of Pavement Detail on the Irrigation Detail Sheet.

Spray heads shall be installed 4" from sidewalks or curbed roadways and 12" from uncurbed roadways and building foundations. Rotors shall be installed 4" from sidewalks or curbed roadways, 12" from building foundations, and 36" from uncurbed roadways.

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will be installed from a reuse water system with purple PVC risers.

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CITY OF COCONUT CREEK			IRRIGATION NOTES	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		
7	BROWARD	07-00239		LD-53

IRRIGATION GENERAL NOTES and SPECIFICATIONS (CONTINUED)
Locate valves prior to excavation. Insure that their location provides for easy access and that there is no interference with physical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the edge of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf areas without approval by the irrigation designer - only in shrub beds. Never install in sport field areas.

VALVES
Sequence all valves so that the farthest valve from the P.O.C. operates first and the closest to the P.O.C. operates last. The closest valve to the P.O.C. should be the last valve in the programmed sequence.

Adjust the flow control on each RCV to ensure shut off in 10 seconds after deactivation by the irrigation controller.

VALVE BOXES

Valve boxes shall be standard unless otherwise noted to be traffic rated boxes.

Using 3" high number stencils paint the valve number in white on the lid of each valve box.

EQUIPMENT
Bubblers shall be installed using Sch 80 nipples and shall be placed at the base of trees for low level watering.

All pop-up heads and shrub risers shall be pressure compensating. All pop-up heads shall be mounted on flex-type swing joints.

All sprinkler equipment not otherwise detailed or specified shall be installed as per manufacturer's recommendations and specifications, and according to local and state laws.

TRENCHING
Excavate straight and vertical trenches with smooth, flat or sloping bottoms. Trench width and depth should be sufficient to allow for the proper vertical and horizontal separation between piping as shown in the pipe installation detail on the detail sheet.

Protect existing landscaped areas. Remove and replant any damaged plant material upon job completion. The replacement material shall be of the same genus and species, and of the size of the material it is replacing. The final determination as to what needs to be replaced and the acceptability of the replacement material shall be solely up to the owner or owner's representative.

INSTALLATION
Cut all pipe square and deburr. Clean pipe and fittings of foreign material; then apply a small amount of primer while ensuring that any excess is wiped off immediately. Primer should not puddle or drip from pipe or fittings. Next apply a thin coat of PVC cement; first apply a thin layer to the pipe, next a thin layer inside the fitting, and finally another very thin layer on the pipe. Insert the pipe into the fitting. Insure that the pipe is inserted to the bottom of the fitting, then turn the pipe a 1/4 turn and hold for 10 seconds. Make sure that the pipe doesn't recede from the fitting. If the pipe isn't at the bottom of the fitting upon completion, the glue joint is unacceptable and must be discarded.

Pipes must cure a minimum of 30 minutes prior to handling and placing into trenches. A longer curing time may be required; refer to the manufacturer's specifications. The pipe must cure a minimum of 24 hours prior to filling with water.

BACK FILL
The Back fill 6" below and 6" above all piping shall be of clean sand and anything beyond that in the trench can be of native material but nothing larger than 2" in diameter.

Main line pipe depth measured to the top of pipe shall be 36" minimum, including at vehicular crossings.

Lateral line depths measured to top of pipe shall be:
18" minimum for 3/4"-3" PVC with a 36" minimum at vehicular crossings;
24" minimum for 4" PVC and above with a 36" minimum at vehicular crossings.

Contractor shall backfill all piping, both mainline and laterals, prior to performing any pressure tests. The pipe shall be backfilled with the exception of 2' on each side of every joint (bell fittings, 90's, tees, 45's, etc.). These joints shall not be backfilled until all piping has satisfactorily passed its appropriate pressure test as outlined below.

FLUSHING
Prior to the placement of heads, flush all lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving.TESTING
Remove all remote control valves and cap using a threaded cap. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent-welded pipe. Gasketed piping shall lose no more water than allowed per the Florida State Building Code, Volume II Plumbing, Part VI, Appendix "F". Refer to this section for the formula to be used to calculate the maximum allowable water loss during the testing time. If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

The lateral lines must be filled and visually checked for leaks. Any leaks detected must be repaired. No pressure test of the lateral lines is required.

Once the mainline and lateral lines have passed their respective tests, and the system is completely operational, a coverage test and demonstration of the system is required. The irrigation contractor must demonstrate to the owner, or his/her representative that proper coverage is obtained and that the system works automatically from the controller. This demonstration requires that each zone is turned on, in the proper sequence as shown on the plans, from the controller. Each zone will be inspected for proper coverage and function. The determination of proper coverage and function is at the sole discretion of the owner or owner's representative.

Operational Testing - Upon completion of back filling, finish grading and contouring, test the entire system for proper operation; including electrically actuating the remote control valves. Run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In sandy soils no puddling will occur, instead; calculate the required run times.

SUBMITTALS
The contractor must submit for approval, prior to installation, copies of the manufacturer's cut sheets/specifications for all components to be used in the irrigation system.

Record Drawings - After project completion, and as a condition of final acceptance, the irrigation contractor shall provide the owner with a high quality, accurate, and legible set of as-built drawings. The as-builts must identify all remote control valves, gate valves, ball valves, splice boxes, controllers, mainline, sleeving, and low voltage wiring. Each of these items is to be located using a submeter GPS system. The irrigation contractor must also provide accurate, informative, and easy to follow and understand operation and maintenance manuals for all components of the irrigation system.

Controller charts - Upon completion of "as-built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2mil pieces of clear plastic.

Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Include tools to service these products.
1. Sprinkler Units: Five of each unit for each type and size installed, but no fewer than two units.
2. Emitter Units: Five of each unit for each type and size installed, but no fewer than two units.
3. Drip Tube Units: Five of each unit for each type and size installed, but no fewer than two units.

FINAL ACCEPTANCE
Final acceptance of the irrigation system will be given after the following documents and conditions have been completed and approved. Final payment will not be released until these conditions are satisfied.
1. Final walk-thru and correction of all punch list items.
2. Completion and acceptance of "as-built" drawings.
3. Acceptance of required controller charts and placement inside of controllers.
4. Turn over of all required parts and tools as outlined in the project specifications.

12-25-09

GUARANTEE
The irrigation systems shall be guaranteed for a minimum of one calendar year from the time of final acceptance.

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION NOTES

SHEET NO. LD-54

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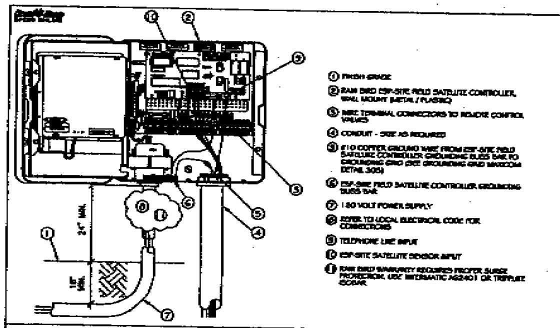
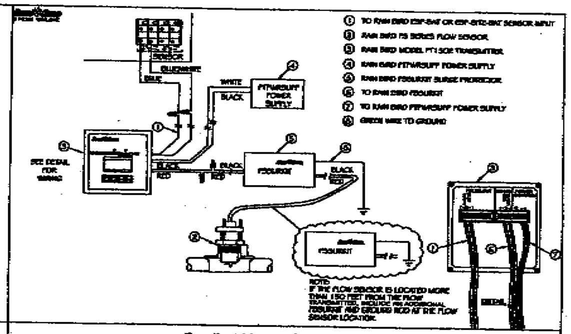
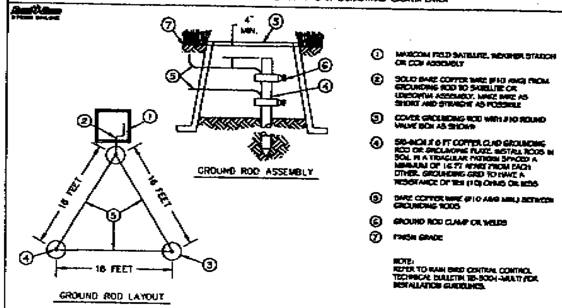


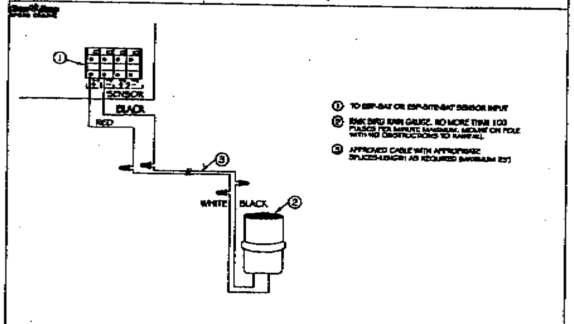
Rain Bird Maxicom² ESP-SITE Field Satellite Controller



Rain Bird Maxicom² Flow Sensor



Rain Bird Maxicom² Grounding Rod Grid Detail



Rain Bird Maxicom² Variable Rain Shut-Down

RAIN BIRD MAXICOM² ESP-SITE SATELLITE CONTROLLER

The irrigation system controller shall be a Maxicom²® Site Satellite. The central computer shall be able to send schedule instructions and receive logs of operation directly from the satellite controller. No other interface will be required. As specified in the drawings and associated documents, communication from the central computer shall be via standard dial-tone telephone, cellular phone, point-to-point radio (450-470 MHz), or direct connection serial cable as a communication link to the central computer.

The controller shall be a single unit containing a telephone modem card (dial-tone telephone or cellular telephone) and an RS- 232 serial connection card (radio or direct connect), and the encoder module.

The controller shall be of a hybrid type that combines electromechanical and microprocessor-based circuitry capable of fully automatic and manual operation. The controller will be housed in a weatherproof, lockable, 16-gauge seamless steel cabinet suitable for wall mounting, a plastic NEMA-4 rated wall mount cabinet, or free-standing stainless steel pedestal mounting.

The controller shall operate on a 117 VAC ± 10% power input and be capable of actuating up to two 24 VAC, 7VA solenoid valves per station plus a master valve or pump start relay. The controller shall be capable of operating four stations plus the master valve simultaneously. Controller output shall be protected against severe electrical surge.

As a stand-alone the controller shall have four separate irrigation programs (A, B, C, & D) which can have different start times, watering days, day cycles, and station timing. Each program shall have eight start times per day.

Controller A shall have 24 stations; controller B shall have 12 stations, with each station capable of an operating time of 0 to 2 hours in one-minute increments and 2 to 12 hours in 10-minute increments. Controller station operation shall be of automatic sequential stacking to avoid overlapping operation unless programmed to overlap.

The controller shall have a 365-day calendar with day-of-the-month OFF feature. Programs will run on an ODD/EVEN day cycle, day-of-the-week ON/OFF cycle, or in cycles from 1 to 99 days. In addition, the controller shall have a programmable rain shutdown from 1 to 99 days.

The controller shall have two master valve/remote pump start circuits for use with a master valve to pressurize the system when the irrigation cycle starts or to activate a remote pump start relay to run the pump during the irrigation cycle. One master valve/pump start circuit shall be programmable by station; the other shall function at all times.

The controller shall be capable of being operated manually at any time. A manual single station, a group of stations, or a program can be selected to run for the programmed time without affecting the normal program. This controller shall be capable of running a variable system test program without affecting the normal program.

The controller shall have Cycle+Soak™ water management software which is capable of operating each station for a maximum cycle time and a minimum soak time to reduce water run-off and puddling. The maximum cycle time shall not be extended by water budgeting.

The controller shall have an internal nonvolatile memory which will retain the irrigation program and the programmed date and time for a minimum of 100 years without power. A 9 VDC rechargeable battery and recharging circuit shall also be included for counting down the program-in-progress during a power outage and shall allow programming of the controller when it is disconnected from the main power supply.

As a satellite the controller shall indicate when it is operating under central control. It shall also display which station and channel is in operation at such time. There shall be a station status indicator light and a master valve status indicator light. These lights will indicate station operation and circuit integrity. An indicator for sensor-stand-alone status will be found on the front panel along with a switch to suspend sensor operation. This indicator and override will work with a sensor wired to the controller's sensor terminals. The controller shall be as manufactured by Rain Bird Corporation, Glendora, California.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road · Suite 200 · Pembroke Pines, Florida · 33024
954-436-7000 · Fax: 954-436-8664 · www.millerlegg.com

CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION NOTES & DETAILS

SHEET NO. LD-55

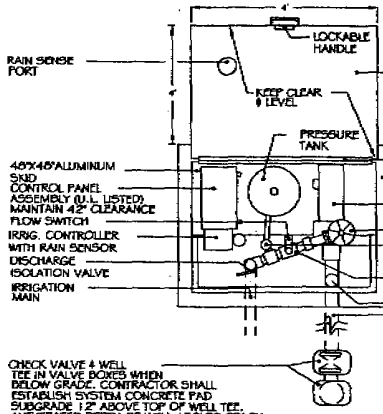
12/29/2008

NOTE: SUCTION PIPE AND FITTINGS SHALL BE HDPE HEAT FUSED. CHECK VALVES 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE. ALL PIPE EXPOSED TO THE SUN AT THE PUMP SYSTEM SHALL BE GALVANIZED STEEL WITH GALVANIZED GROOVE FITTINGS.

WELL DRILLER SHALL NOTIFY THE PUMP SYSTEM MANUFACTURER IN WRITING WITHIN 24 HOURS OF DEVELOPING THE WELL IF THE WELL PUMPING LEVEL IS GREATER THAN 10' BELOW FINISHED GRADE AFTER 8 HOURS OF CONTINUOUS PUMPING AT 125% OF THE DESIGN FLOW BELOW.

* OPTIONAL FEATURES ARE INCLUDED IF MARKED WITH AN "X"
X PRESSURE CONTROL VALVE
X IRRIGATION CONTROLLER RAIN BIRD ESP-16SITE-W, 16 STATIONS, WITH RAIN SENSOR
X PRESSURE TANK FOR PRESSURE DEMAND SYSTEMS

SAFETY FEATURES:
PRESSURE DEMAND:
-TRANSIENT SURGE
-LOSS OF PRIME
-LOW PRESSURE
-PUMP OVERHEAT
-SERVICE REQUIRED



PLAN VIEW NTS

PUMP PERFORMANCE
80 GPM @ 178 TDH

HOOVER PUMPING MODEL: HCF-10PD-2303-A,E-16,M,W
Pompano Beach, Florida, Tel: 954-971-7350

FILE PN#9554.DWG 11/07

FDOT SR7 COCONUT CREEK PUMP A CENTRIFUGAL PUMP SYSTEM DETAIL

FIBERGLASS ENCLOSED SINGLE WELL SUCTION
PRESSURE DEMAND

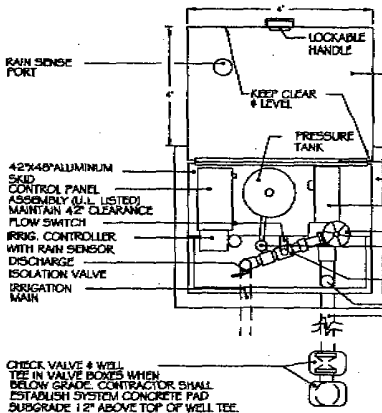
Hoover Pumping Station: Pump A - STA 37+64.17

NOTE: SUCTION PIPE AND FITTINGS SHALL BE HDPE HEAT FUSED. CHECK VALVES 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE. ALL PIPE EXPOSED TO THE SUN AT THE PUMP SYSTEM SHALL BE GALVANIZED STEEL WITH GALVANIZED GROOVE FITTINGS.

WELL DRILLER SHALL NOTIFY THE PUMP SYSTEM MANUFACTURER IN WRITING WITHIN 24 HOURS OF DEVELOPING THE WELL IF THE WELL PUMPING LEVEL IS GREATER THAN 10' BELOW FINISHED GRADE AFTER 8 HOURS OF CONTINUOUS PUMPING AT 125% OF THE DESIGN FLOW BELOW.

* OPTIONAL FEATURES ARE INCLUDED IF MARKED WITH AN "X"
X PRESSURE CONTROL VALVE
X IRRIGATION CONTROLLER RAIN BIRD ESP-SITE-W 12 STATIONS, WITH RAIN SENSOR
X PRESSURE TANK FOR PRESSURE DEMAND SYSTEMS

SAFETY FEATURES:
PRESSURE DEMAND:
-TRANSIENT SURGE
-LOSS OF PRIME
-LOW PRESSURE
-PUMP OVERHEAT
-SERVICE REQUIRED



PLAN VIEW NTS

PUMP PERFORMANCE
80 GPM @ 178 TDH

HOOVER PUMPING MODEL: HCF-10PD-2303-A,E-12,M,W
Pompano Beach, Florida, Tel: 954-971-7350

FILE PN#9555.DWG 11/07

FDOT SR7 COCONUT CREEK PUMP B CENTRIFUGAL PUMP SYSTEM DETAIL

FIBERGLASS ENCLOSED SINGLE WELL SUCTION
PRESSURE DEMAND

Hoover Pumping Station: Pump B - STA 80+61.32

Bimal Patel 12-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-435-2000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: LC0000057 - L.A. of Record: Brian E. Miller LA-0666778

CITY OF COCONUT CREEK			IRRIGATION DETAILS	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-56
7	BROWARD	07-00239		

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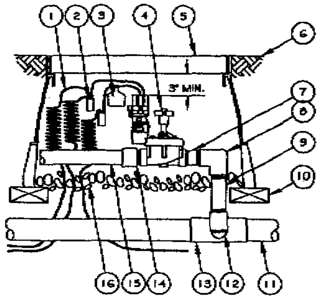


1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PESB-PRS-D WITH NP-HAN
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD or equal. In areas that are subject to vehicle traffic, valve boxes to be traffic-rated.
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

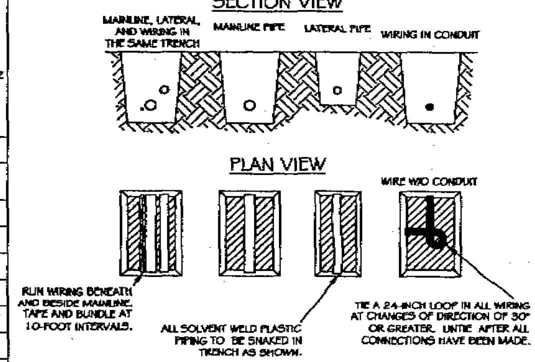
ELECTRICAL SPECIFICATIONS

- 24 VAC 50/60 Hz (CYCLES/SEC.) SOLENOID
- INRUSH CURRENT: 0.41 A (9.84 VA) AT 60 Hz
- HOLDING CURRENT: 0.28 A (6.72 VA) AT 60 Hz
- COIL RESISTANCE: 30-39 OHMS

PEB SERIES VALVE PRESSURE LOSS

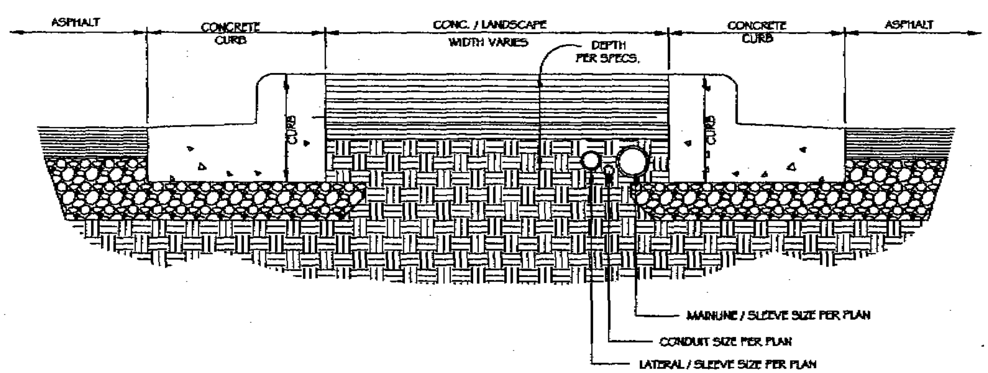
FLOW GPM	100-PEB PSI LOSS	150-PEB PSI LOSS	200-PEB PSI LOSS
5	1.7		
10	1.8		
20	2.9		
30	5.6	3.6	
40		3.5	
50		3.6	
75		5.4	4.5
100			5.2
125			8.2

Rain Bird PEB-PRS-D Remote Control Valve



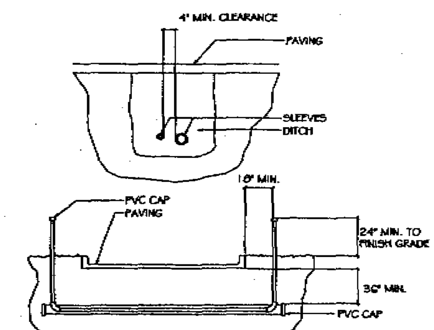
NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE SPECIFICATIONS.

Pipe and Wire Trenching



SECTION VIEW N.T.S.

Curb to Curb Section



NOTES:
1. ALL PVC IRRIGATION SLEEVING TO BE SCHEDULE 40 OR H.P.P.E. (PER PLAN).
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.

Irrigation Sleeving Detail

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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Cert. of Auth.: LC0000232 · L.A. of Record: Brian R. Shore LA 6666870

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION DETAILS

SHEET NO. LD-57

02-10

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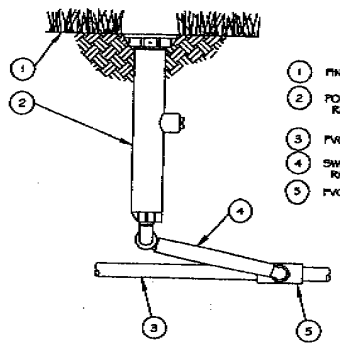
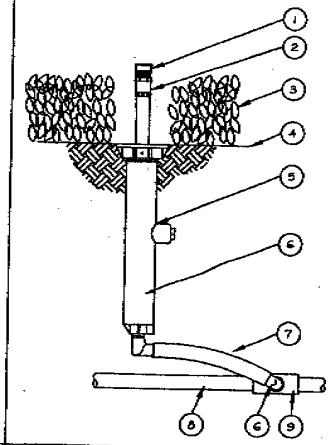


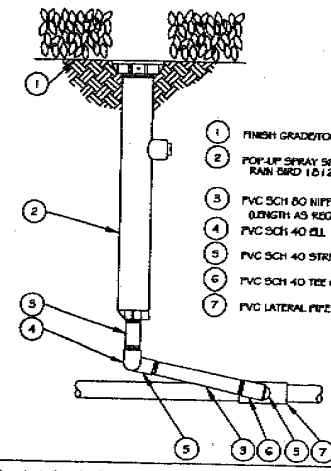
1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD 1806
3. PVC LATERAL PIPE
4. SWING ASSEMBLY: RAIN BIRD MODEL SA 6050
5. PVC SCH 40 TEE OR ELL

Rain Bird 1806-SAM-PRS-NP Pop-up Spray



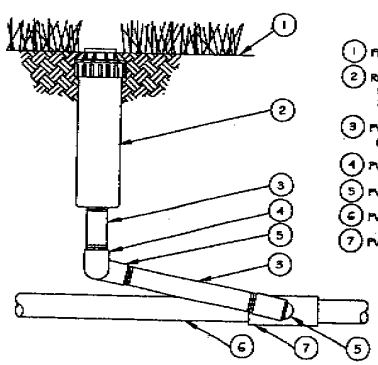
1. PRESSURE COMPENSATING FULL-CIRCLE BUBBLER: RAIN BIRD 1400
2. PLASTIC ADAPTER: RAIN BIRD MODEL PA-80
3. PLANT MATERIAL
4. FINISH GRADE/TOP OF MULCH
5. POP-UP SPRAY SPRINKLER: RAIN BIRD 1806
6. 1/2-INCH MALE NPT x .490-INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
7. SWING PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
8. PVC LATERAL PIPE
9. PVC SCH 40 TEE OR ELL

Rain Bird 1806-SAM-PRS-1400 FLOOD Pop-up Spray



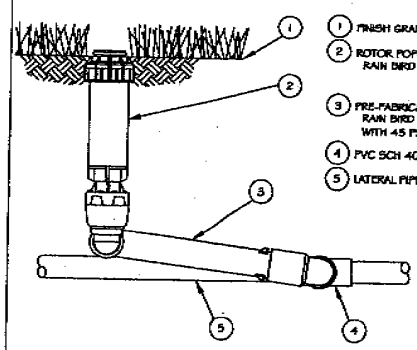
1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD 1812
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 40 STREET ELL
6. PVC SCH 40 TEE OR ELL
7. PVC LATERAL PIPE

Rain Bird 1812-SAM-PRS-NP Pop-up Spray



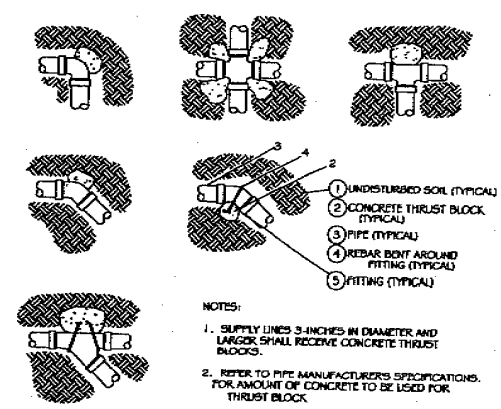
1. FINISH GRADE
2. ROTOR POP-UP SPRINKLER: RAIN BIRD 3504-PC
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 40 STREET ELL
6. PVC LATERAL PIPE
7. PVC SCH 40 TEE OR ELL

Rain Bird 3504-PC-SAM-NP Rotor



1. FINISH GRADE
2. ROTOR POP-UP SPRINKLER: RAIN BIRD 5004
3. PRE-FABRICATED SWING JOINT: RAIN BIRD TSJ-075-PRS WITH 45 PSI PRESSURE REGULATOR
4. PVC SCH 40 TEE OR ELL
5. LATERAL PIPE

Rain Bird 5004-MPR-SAM-NP Rotor



1. UNDISTURBED SOIL (TYPICAL)
2. CONCRETE THRUST BLOCK (TYPICAL)
3. PIPE (TYPICAL)
4. REBAR BENT AROUND FITTING (TYPICAL)
5. FITTING (TYPICAL)

NOTES:

1. SUPPLY LINES 3-INCHES IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.
2. REFER TO PIPE MANUFACTURER'S SPECIFICATIONS. FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK
3. ALL MAINLINE FITTINGS SHALL BE HARCO DUCTILE IRON FITTINGS.

Thrust Block Details

02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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Cert. of Auth.: LC0000337 · L.A. of Record: Brian R. Shaw LA-4666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION DETAILS

SHEET NO. LD-58

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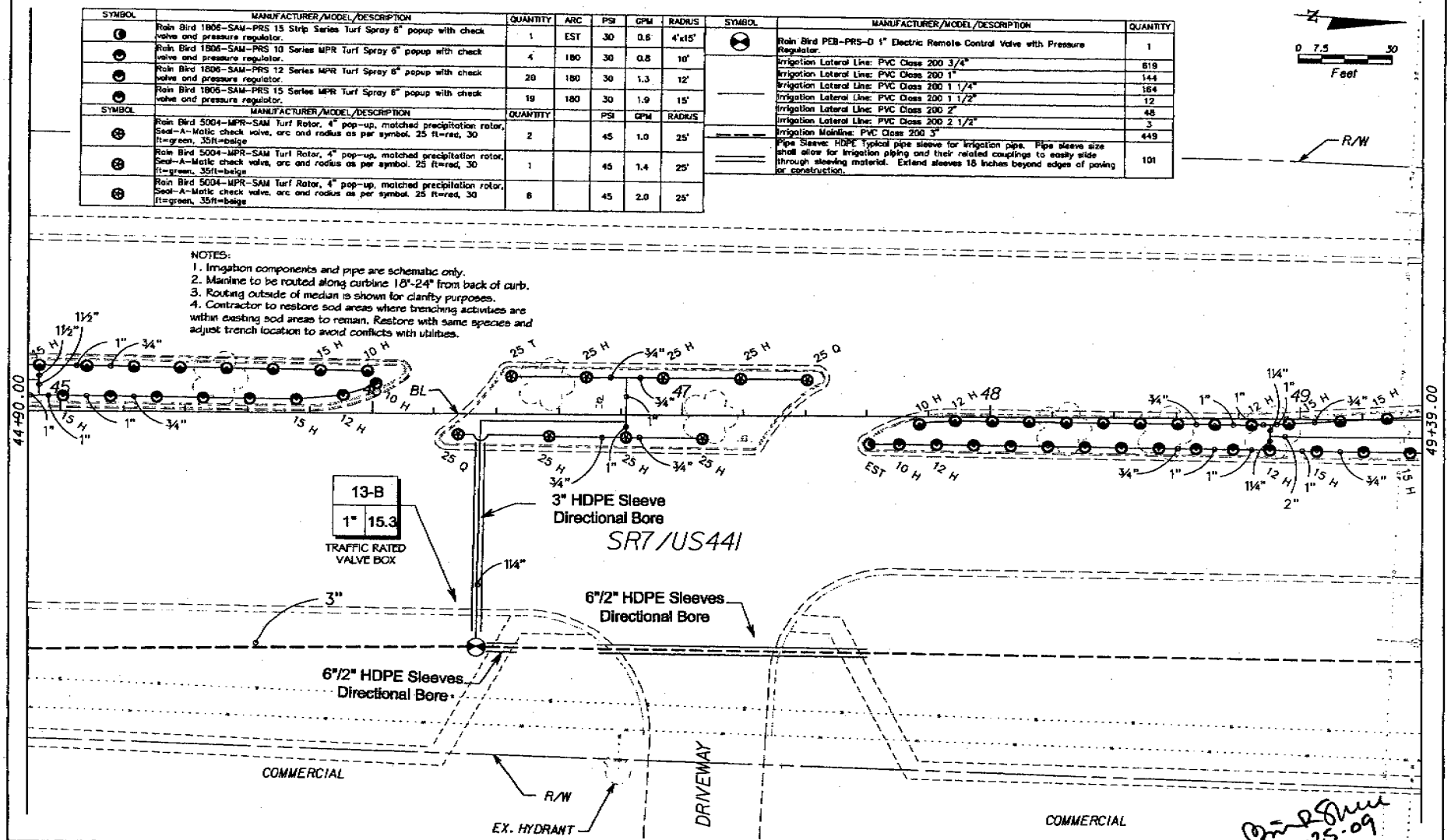
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	1	EST	30	0.6	4'x15'
	Rain Bird 1806-SAM-PRS 10 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	4	180	30	0.8	10'
	Rain Bird 1806-SAM-PRS 12 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	20	180	30	1.3	12'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	19	180	30	1.9	15'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	2		45	1.0	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	1		45	1.4	25'
	Rain Bird 5004-MPR-SAM Turf Rotor, 4" pop-up, matched precipitation rotor, Seal-A-Matic check valve, arc and radius as per symbol. 25 ft=red, 30 ft=green, 35ft=beige	6		45	2.0	25'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	619
	Irrigation Lateral Line: PVC Class 200 1"	144
	Irrigation Lateral Line: PVC Class 200 1 1/4"	164
	Irrigation Lateral Line: PVC Class 200 1 1/2"	12
	Irrigation Lateral Line: PVC Class 200 2"	48
	Irrigation Lateral Line: PVC Class 200 2 1/2"	3
	Irrigation Mainline: PVC Class 200 3"	449
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	101

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.
4. Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same species and adjust trench location to avoid conflicts with utilities.



02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-69

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SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	11	180.0	30	1.9	15'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	2	90.0	30	0.9	15'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	1	EST	30	0.6	4'x15'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	3	SST	30	1.2	4'x30'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	5	180	30	0.5	8'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	4	180	30	0.8	10'
	Rain Bird 1812-SAM-PRS 12 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	90	30	0.7	12'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	6	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	9		45	1.1	21'
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	7		45	1.5	24'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	3
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	854
	Irrigation Lateral Line: PVC Class 200 1"	272
	Irrigation Lateral Line: PVC Class 200 1 1/4"	23
	Irrigation Lateral Line: PVC Class 200 2"	114
	Irrigation Lateral Line: PVC Class 200 2 1/2"	6
	Irrigation Mainline: PVC Class 200 3"	250
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	54
	Pipe Sleeve: SCH 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	7

N

0 7.5 30

Feet

R/W

15 | 1½" | 60.2

12-B | 1" | 11.3

2-E | 1" | 3.0

16 | 1" | 19.9

49+39.00

53+68.00

SR7/US441

2" SLEEVE

6"/2" HDPE Sleeves Directional Bore

6"/2" HDPE Sleeves Directional Bore

VACANT LOT

R/W

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.
4. Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same species and adjust trench location to avoid conflicts with utilities.

02-25-09

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

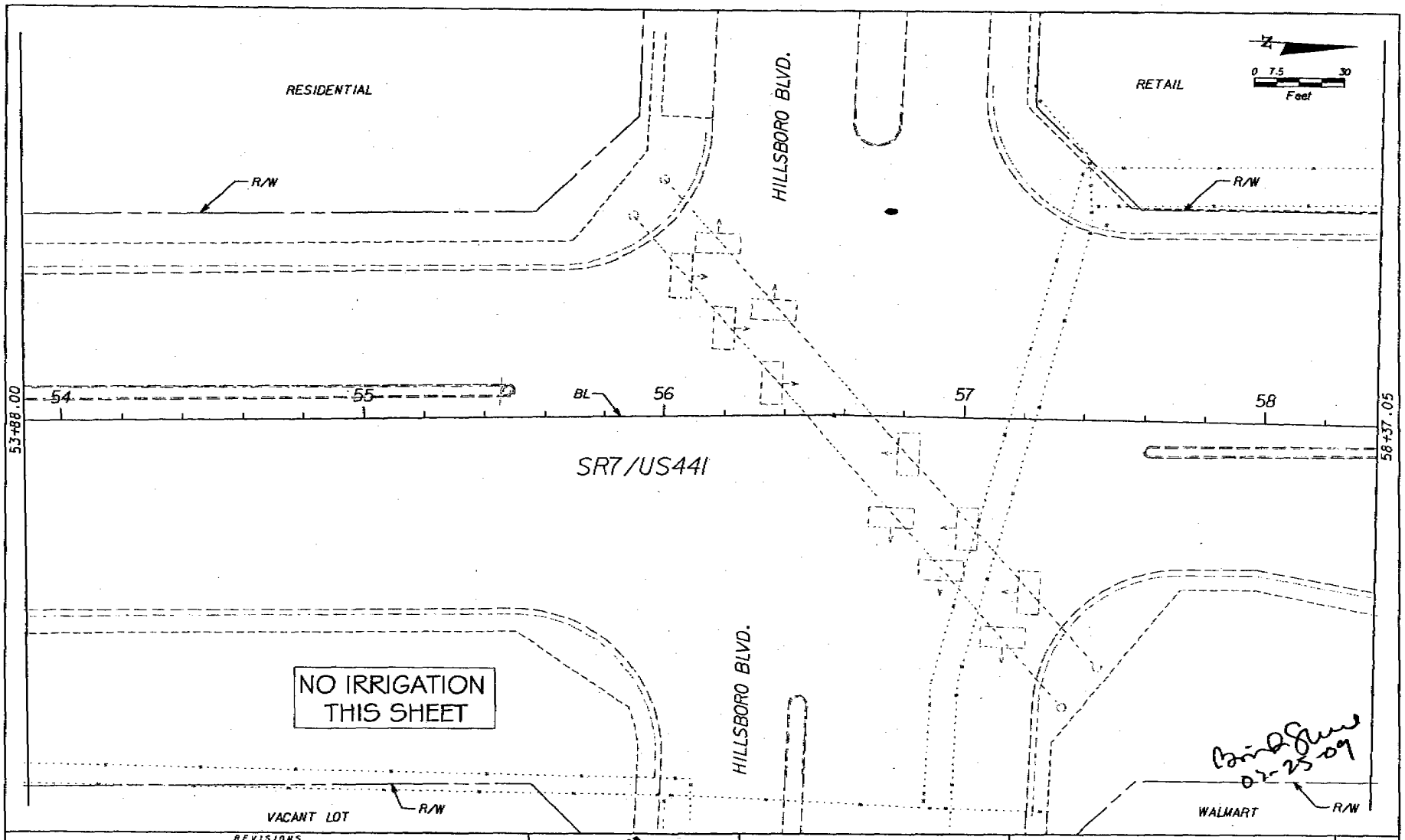
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT NO.
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-70

12/23/2008



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

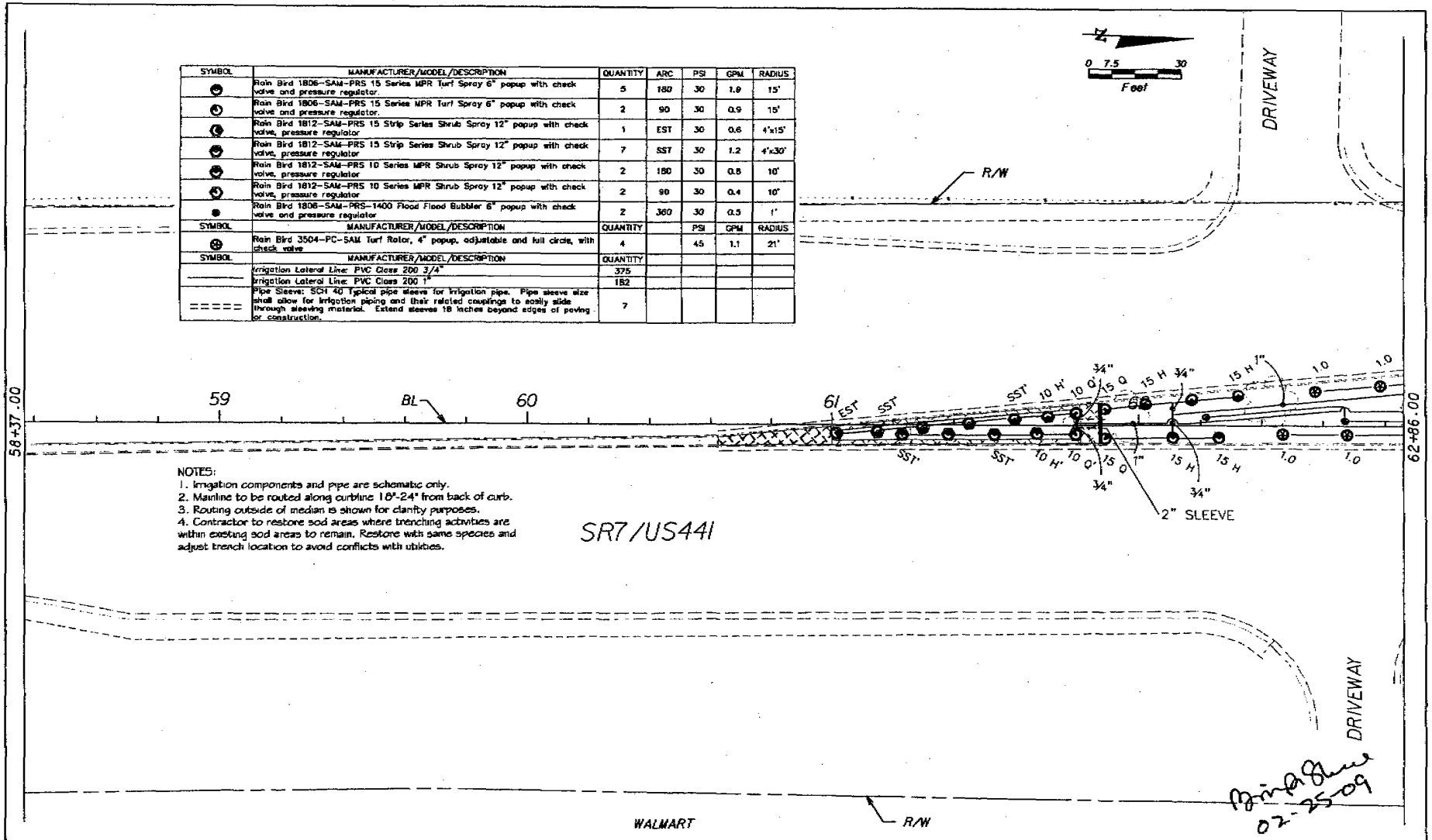
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-7 I

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	5	180	30	1.9	15'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	2	90	30	0.9	15'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	1	EST	30	0.6	4'x15'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	7	SST	30	1.2	4'x30'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	180	30	0.8	10'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	90	30	0.4	10'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	2	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	4		45	1.1	21'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY				
	Irrigation Lateral Line: PVC Class 200 3/4"	375				
	Irrigation Lateral Line: PVC Class 200 1"	182				
=====	Pipe Sleeve: SCH 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	7				



NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.
4. Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same species and adjust trench location to avoid conflicts with utilities.

02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-8664 - www.millerlegg.com
Cert. of Auth.: LC0000337 - L.A. of Record: Brian R. Shaw LA-6666718

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-72

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GAS STATION

NOTES:
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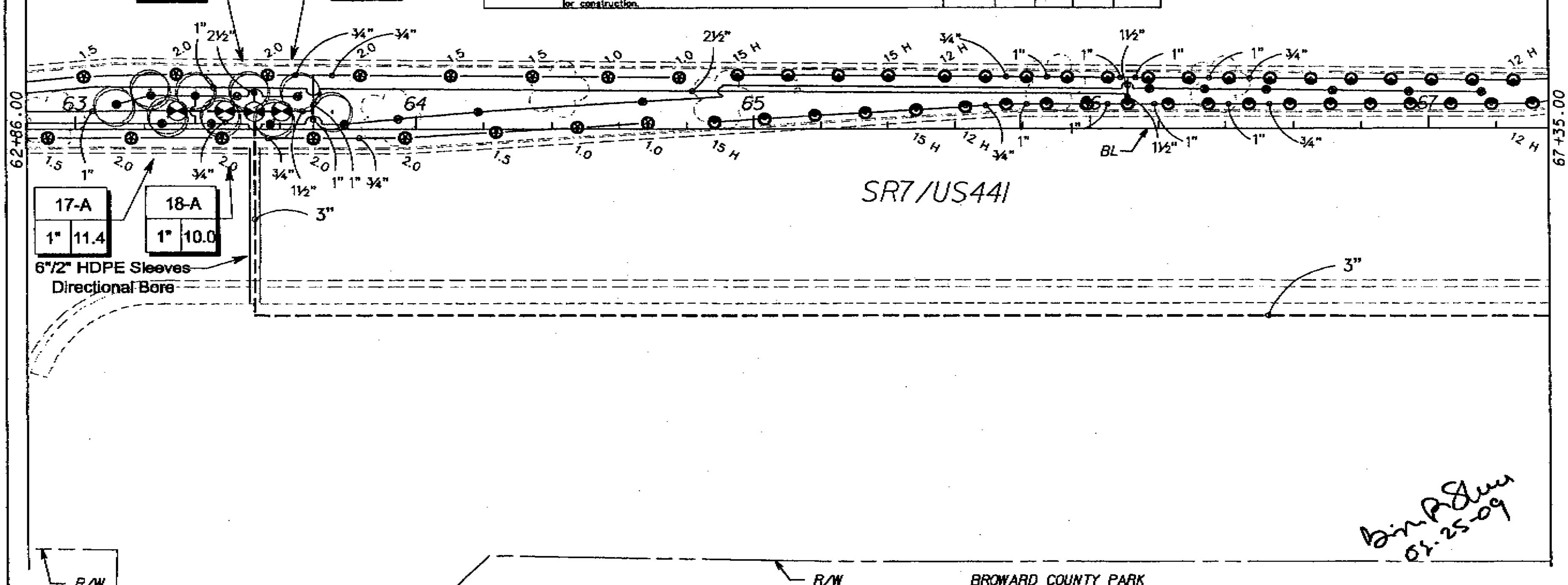
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 12 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	30	180	30	1.3	12'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	9	180	30	1.9	15'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	18	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	4		45	1.1	21'
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	5		45	1.5	24'
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	7		45	1.9	27'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY				
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	2				
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	2				
	Irrigation Lateral Line: PVC Class 200 3/4"	1220				
	Irrigation Lateral Line: PVC Class 200 1"	261				
	Irrigation Lateral Line: PVC Class 200 1 1/2"	19				
	Irrigation Lateral Line: PVC Class 200 2 1/2"	266				
	Irrigation Mainline: PVC Class 200 3"	475				
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	47				



Brian P Shaw 02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road · Suite 200 · Pembroke Pines, Florida · 33024
954-436-7000 · Fax: 954-436-8664 · www.millerlegg.com

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

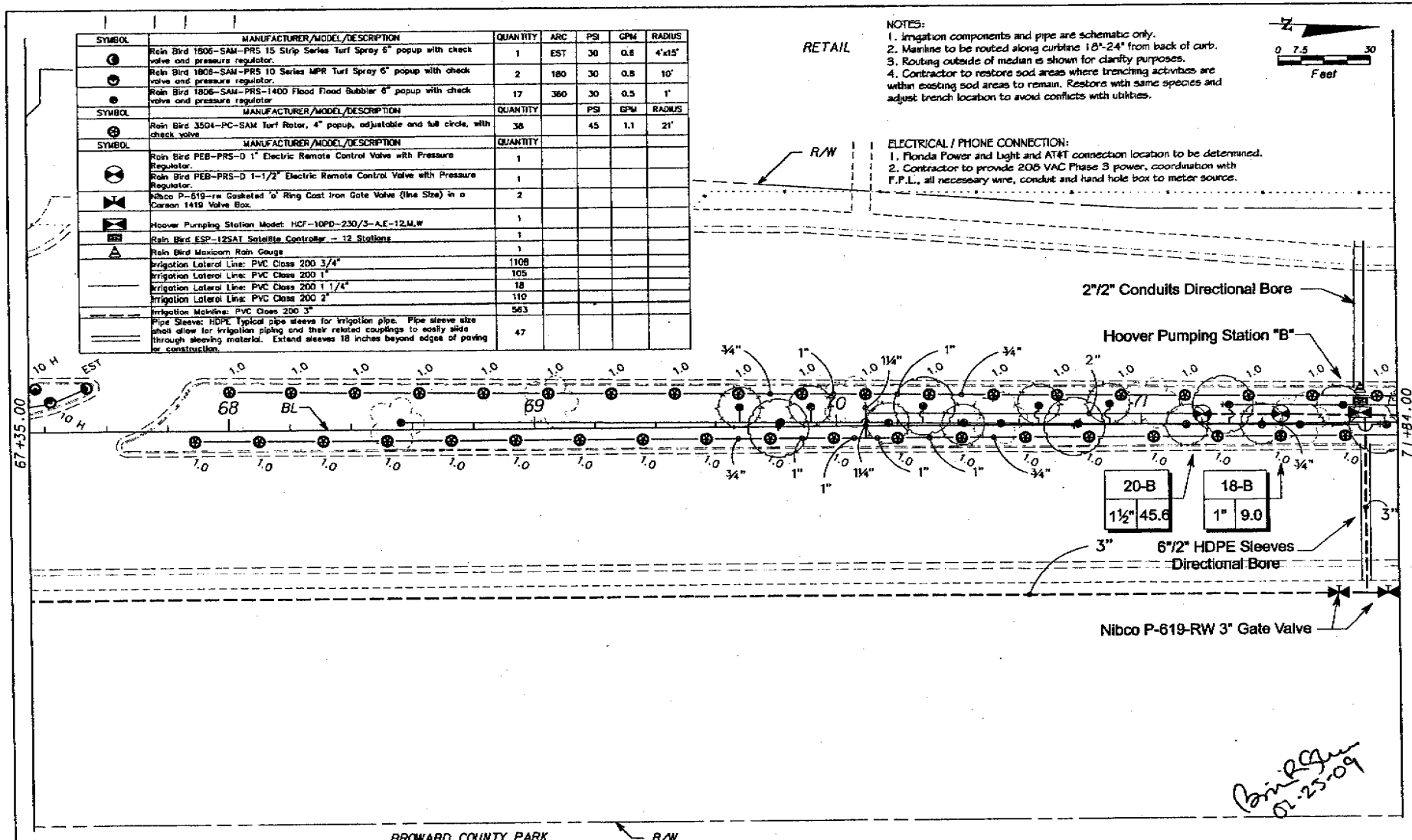
SHEET NO. LD-73

12/29/2008

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	1	EST	30	0.6	4'x15'
	Rain Bird 1806-SAM-PRS 10 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	2	180	30	0.8	10'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	17	360	30	0.5	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY		PSI	GPM	RADIUS
	Rain Bird 3504-PC-SAM Turf Rotor, 4" popup, adjustable and full circle, with check valve	38		45	1.1	21'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY				
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	1				
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	1				
	Nibco P-619-rw Gasketed 'o' Ring Cast Iron Gate Valve (line Size) in a Carson 1419 Valve Box.	2				
	Hoover Pumping Station Model: HCF-10PD-230/3-A,E-12,M,W	1				
	Rain Bird ESP-12SAT Satellite Controller - 12 Stations	1				
	Rain Bird Maxicom Rain Gauge	1				
	Irrigation Lateral Line: PVC Class 200 3/4"	1108				
	Irrigation Lateral Line: PVC Class 200 1"	105				
	Irrigation Lateral Line: PVC Class 200 1 1/4"	18				
	Irrigation Lateral Line: PVC Class 200 2"	110				
	Irrigation Mainline: PVC Class 200 3"	563				
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	47				

NOTES:
1. Irrigation components and pipe are schematic only.
2. Mainline to be routed along curbline 18"-24" from back of curb.
3. Routing outside of median is shown for clarity purposes.
4. Contractor to restore sod areas where trenching activities are within existing sod areas to remain. Restore with same species and adjust trench location to avoid conflicts with utilities.

ELECTRICAL / PHONE CONNECTION:
1. Florida Power and Light and AT&T connection location to be determined.
2. Contractor to provide 208 VAC Phase 3 power, coordination with F.P.L., all necessary wire, conduit and hand hole box to meter source.



02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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954-436-7800 · Fax: 954-436-8664 · www.millerlegg.com
Cert. of Auth.: LC0000337 · L.A. of Record: Brian R. Shore LA-6666778

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-74

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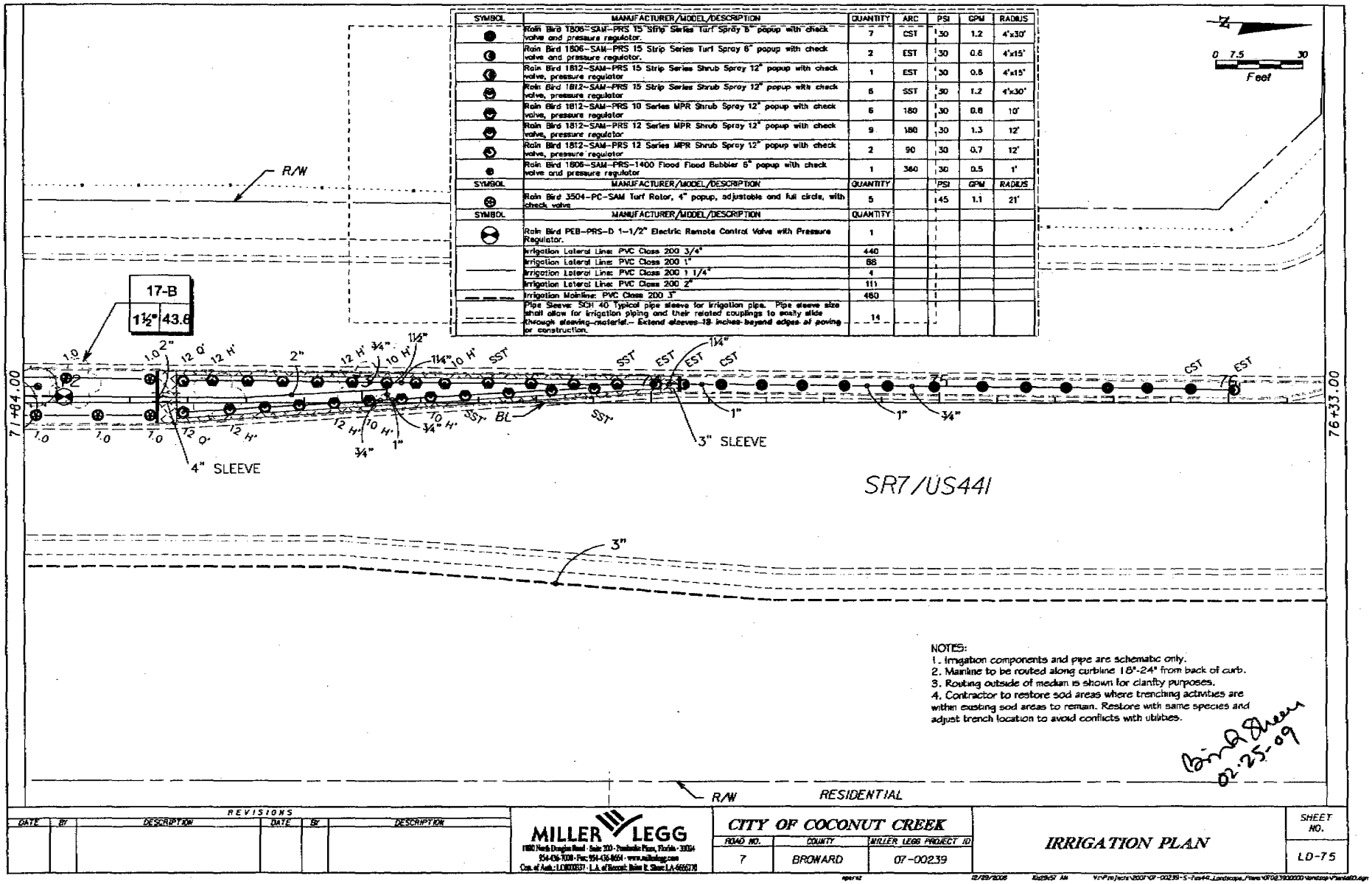

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02.25.09

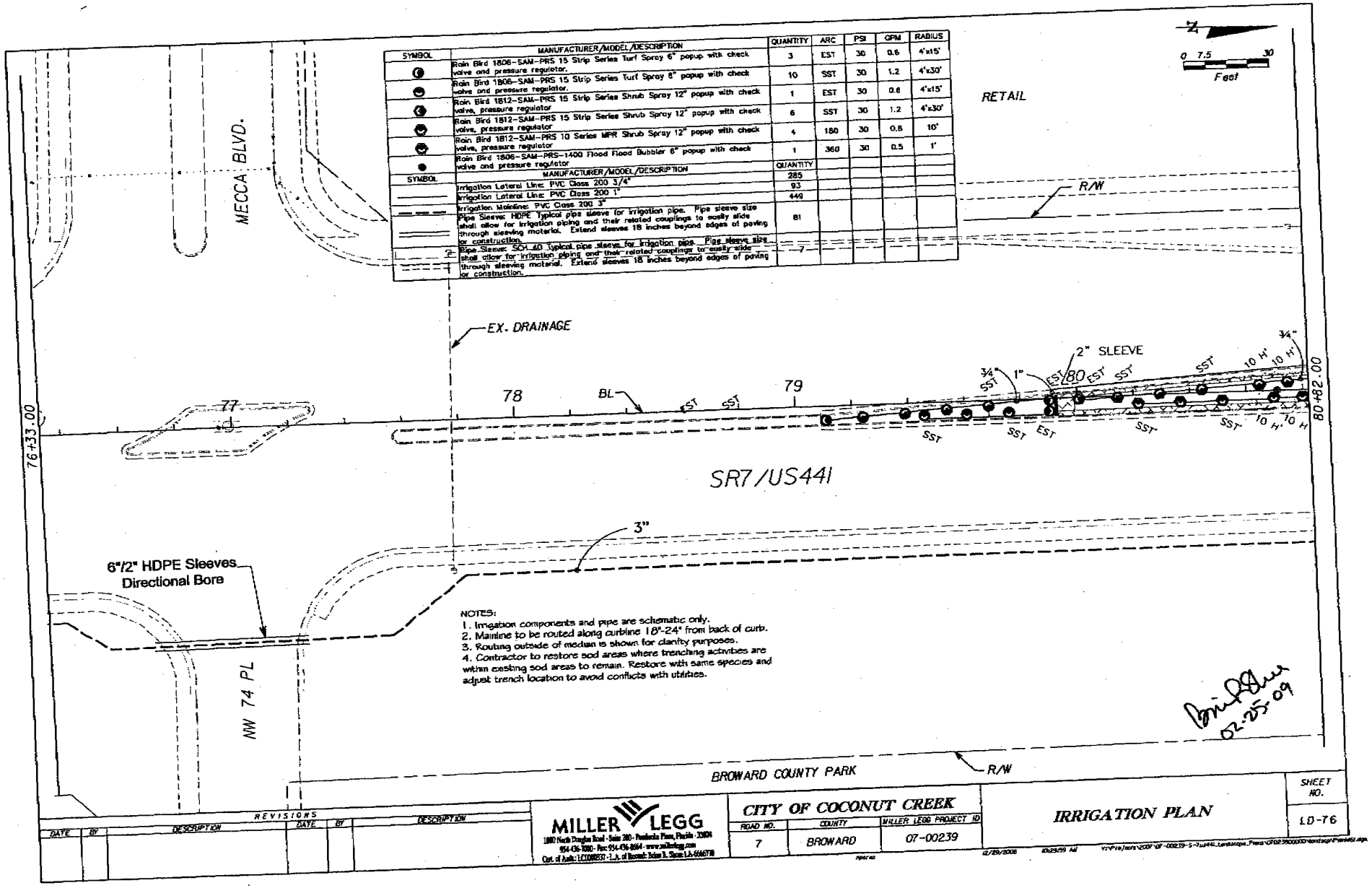
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-75



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02-25-09

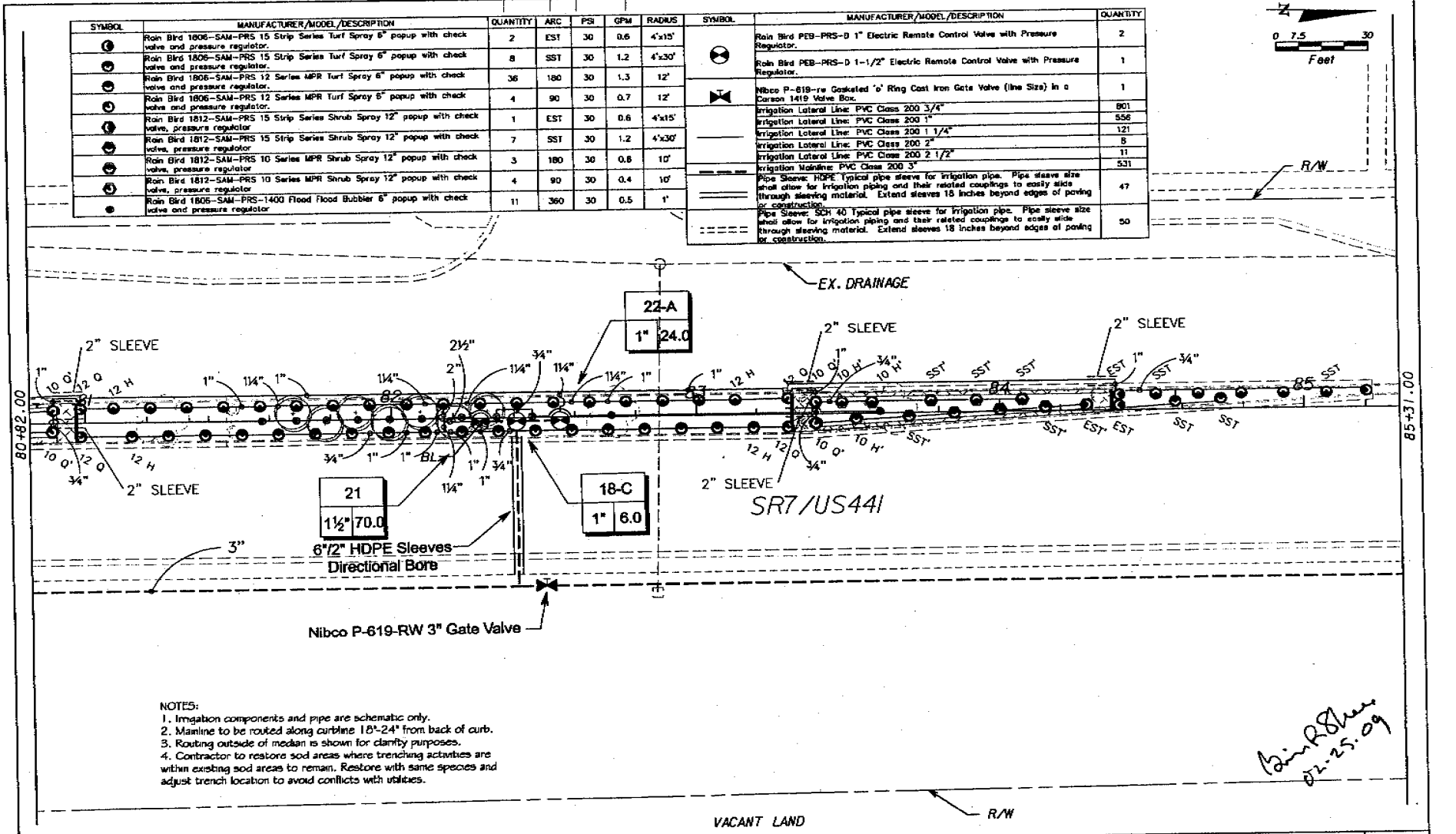
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

CITY OF COCONUT CREEK			IRRIGATION PLAN	SHEET NO.
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID		LD-76
7	BROWARD	07-00239		

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	2	EST	30	0.6	4'x15'
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	8	SST	30	1.2	4'x30'
	Rain Bird 1806-SAM-PRS 12 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	36	180	30	1.3	12'
	Rain Bird 1806-SAM-PRS 12 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	4	90	30	0.7	12'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	1	EST	30	0.6	4'x15'
	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12" popup with check valve, pressure regulator	7	SST	30	1.2	4'x30'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	3	180	30	0.8	10'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	4	90	30	0.4	10'
	Rain Bird 1806-SAM-PRS-1400 Flood Flood Bubbler 6" popup with check valve and pressure regulator	11	360	30	0.5	1'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	2
	Rain Bird PEB-PRS-D 1-1/2" Electric Remote Control Valve with Pressure Regulator.	1
	Nibco P-619-rw Gasketed 'o' Ring Cast Iron Gate Valve (line Size) in a Carson 1419 Valve Box.	1
	Irrigation Lateral Line: PVC Class 200 3/4"	801
	Irrigation Lateral Line: PVC Class 200 1"	556
	Irrigation Lateral Line: PVC Class 200 1 1/4"	121
	Irrigation Lateral Line: PVC Class 200 2"	8
	Irrigation Lateral Line: PVC Class 200 2 1/2"	11
	Irrigation Mainline: PVC Class 200 3"	531
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	47
	Pipe Sleeve: SCH 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	50



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02-25-09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7800 - Fax: 954-436-8664 - www.millerlegg.com
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-77

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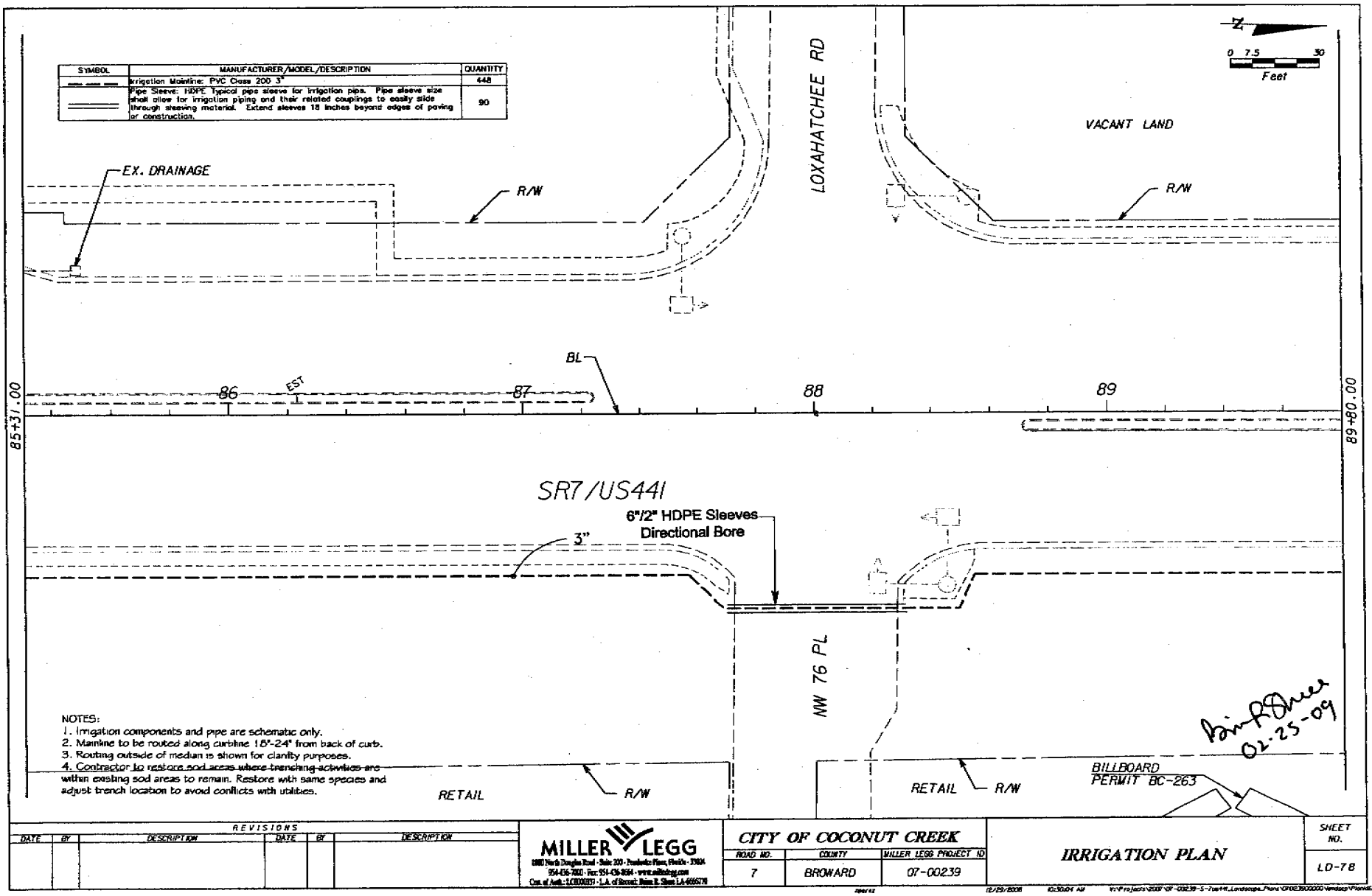

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-78

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	1	EST	30	0.6	4'x15'
	Rain Bird 1806-SAM-PRS 15 Strip Series Turf Spray 6" popup with check valve and pressure regulator.	11	SST	30	1.2	4'x30'
	Rain Bird 1806-SAM-PRS 10 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	1	180	30	0.8	10'
	Rain Bird 1806-SAM-PRS 10 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	2	90	30	0.4	10'
	Rain Bird 1806-SAM-PRS 15 Series MPR Turf Spray 6" popup with check valve and pressure regulator.	2	90	30	0.9	15'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	6	180	30	0.5	8'
	Rain Bird 1812-SAM-PRS 8 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	2	90	30	0.3	8'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	9	180	30	0.8	10'
	Rain Bird 1812-SAM-PRS 10 Series MPR Shrub Spray 12" popup with check valve, pressure regulator	6	90	30	0.4	10'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QUANTITY
	Rain Bird PEB-PRS-D 1" Electric Remote Control Valve with Pressure Regulator.	2
	Irrigation Lateral Line: PVC Class 200 3/4"	580
	Irrigation Lateral Line: PVC Class 200 1"	63
	Irrigation Lateral Line: PVC Class 200 1 1/4"	194
	Irrigation Lateral Line: PVC Class 200 1 1/2"	4
	Irrigation Lateral Line: PVC Class 200 2"	47
	Irrigation Mainline: PVC Class 200 3"	420
	Pipe Sleeve: HDPE Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	44
	Pipe Sleeve: SCH 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	20

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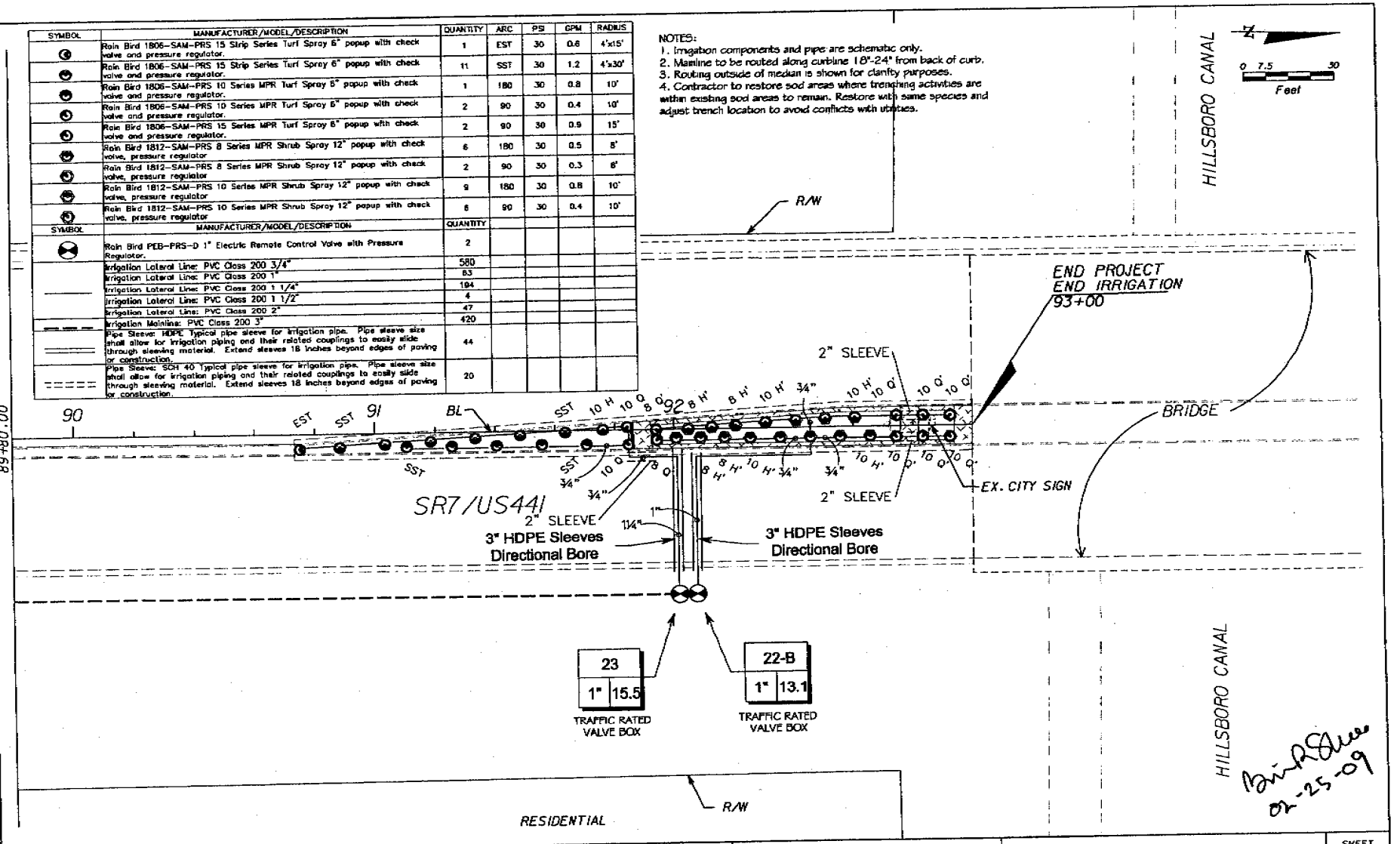

02-25-09

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MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
954-436-7000 - Fax: 954-436-8654 - www.millerlegg.com
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

IRRIGATION PLAN

SHEET NO. LD-79

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PROJECT SPECIFIC GENERAL NOTES:

1. Traffic controls shall be in accordance with the project plans, the current edition of the Florida Department of Transportation (FDOT) Design Standards (600 series), the Standard Specification for Road and Bridge Construction, and the current Manual on Uniform Traffic Control Devices as minimum criteria.

2. Notification of lane closures shall be accompanied 14 working days prior to closure submitting the required lane closure form, sketches, calculations, and other data through the Engineer to the District Traffic Operations Office.

3. Traffic disruptions which are not shown by the traffic control plan, but which are necessary to construct the project shall be submitted in writing to the engineer 14 days prior to the commencement of work. Submittal material shall include sketches, calculations and other data required by the Engineer.

4. The traffic and travel ways shall not be altered by the Contractor to create a work zone until all labor and material are available for the construction in that area.

5. Lane closings shall occur only during non-peak hours. Peak hours are from: 7:00-9:00am and 4:00-6:00pm.

6. The regulatory speed shall be 55 mph.

7. As approved by the Engineer, the Contractor shall cover work zone signs when conditions no longer warrant their use. Cost of covering and uncovering the signs shall be included in maintenance of traffic.

8. Contractor shall remove, relocate or cover any existing or proposed signs that conflict with the traffic control plans. When the conflict no longer exists, the contractor shall restore the signs to their original position. Cost of temporarily removing, relocating,covering and restoring the signs shall be included in maintenance of traffic.

9. Uniformed, off-duty law enforcement officers can be used only as approved by the Engineer and use is limited to construction operations for setting and removing traffic control devices, night work, moving operations, or other situations specifically authorized by the Engineer. All cost for the officer(s) shall be included in the maintenance of traffic.

10. All existing signage shall be maintained in an appropriate location for the duration of the project.

11. The contractor shall maintain a minimum of one lane of traffic at all times for minor side streets. During one lane operation a flag man shall be used. If operation exceeds one work period, contractor shall cover excavation and return two way traffic at the end of each work period.

12. If temporary lane closure causes extended congestion, the contractor shall, at the direction of the Engineer, reopen the closed lane(s) at no additional cost until such time the traffic flow has returned to an acceptable level.

13. Provisions for traffic control plan which are not anticipated in the traffic control plans, but are necessary for project construction shall be submitted to the engineer at least 72 hours prior to using such provisions.

14. A certified maintenance of traffic supervisors shall be available to the project at all times when the contractor is working and shall be on call for emergencies when the Contractor is not working. All work shall cease when MOT Supervisor is not present.

15. Access shall be provided to all places of business and residences whenever construction interferes with the existing means of access. Adequate accommodations for intersecting and crossing traffic shall be provided and maintained by the contractor. No road or street crossings within the project shall be blocked or unduly restricted as determined by the engineer.

16. Contractor shall be responsible for the immediate removal of storm water from roadways utilized for maintaining traffic in a manner approved by the Engineer. Cost for removing the water shall be included in maintenance of traffic.

17. Arrows provided on details denote direction of traffic only and do not reflect pavement markings unless specifically noted.

Markings:

1. The contractor shall maintain all existing pavement markings during construction. If necessary, Contractor shall submit to the Engineer any modifications or temporary markings to the existing pavement markings during construction. Cost of removal of temporary pavement markings, regardless of method, is included in the related pavement marking maintenance of traffic. Use of black paint to cover existing and/or temporary pavement markings is prohibited.

Drop offs:

1. For drop offs, the contractor's attention is directed to fdot standard index no. 600, sheet 6 of 10.

Signals:

1. The contractor shall have full responsibility for the normal maintenance of existing traffic signal(s) within the project limits. All signals shall remain in full operation unless deemed necessary for construction activities. The contractor shall notify Broward County Traffic Engineering Division (BCTED) (Telephone number (954) 847-2600) a minimum of 10 working days prior to any modification and/or changes of an existing traffic signal (i.e. Taking signals off-line, removing or replacing loop assemblies or rearranging traffic signal heads). The contractor shall install the temporary signalization system and have the system in operation before taking the existing system out of service. Portable temporary units shall not be used. The temporary signal system shall be adjusted to the traffic needs of each construction phase. Signal heads are to be located with respect to approach lanes. Cost of adjusting temporary signal for the required tcp phases shall be included in maintenance of traffic.

2. The contractor shall utilize the existing signal equipment or provide all necessary signalization components and appurtenances, including but not limited to; poles, temporary electric service connections, temporary conduits and wires, relocation of existing controllers or temporary controllers, and necessary signal timing coordination with Broward County Traffic. The contractor shall provide maintenance of the temporary signal system until the permanent system is installed and functional. Cost to be included in maintenance of traffic.

Pedestrian, bicycles & wheelchairs:

1. The contractor shall maintain pedestrian, bicycle, and wheel chair traffic on at least one side of the roadway at all times during construction. This shall be done in accordance to index 660 10f1

2. At the end of each work day or whenever the work zone becomes inactive, any drop-off adjacent to pedestrian travel paths shall be backfilled flush with the travel path or shall be protected with barricades, temporary barrier wall or approved handrail.

3. Pedestrian, bicycles, and wheelchair traffic shall be guided and maintained using approved warning lights, signing, markings, and channelization devices. Such control devices shall be installed and maintained in accordance with, fdot standards and the current mutcd. All ada requirements must be maintained.

4. The contractor shall maintain access and signs for existing bus stop locations within the project limits. If existing bus stops need to be relocated, provisions to accomodate bus stops must be coordinated with the Broward County Mass Transit Agency, telephone number (954) 357-8400.

5. The maintenance of traffic shall include provisions for school pedestrian traffic with the following minimum requirements: The safe walk route for all schools within the vicinity of the construction zone shall be maintained during the times students are arriving at or leaving school. All construction equipment around any designated crosswalk shall cease to operate during the times students are arriving at or leaving school. All construction equipment adjacent to a designated walk route shall cease operating unless satisfactorily barricaded from the walk route. In the case that a designated crossing or any portion of the designated walk route cannot be maintained. Then the contractor shall notify the 'school safety coordinator' at bro ward county traffic engineering division, (954.' 847-2600, a minimum of ten (10) working days prior to closing that route so that an alternate crossing/route can be established. Thirty (30) days prior to the beginning of construction the contractor shall notify the school safety coordinator' at broward county traffic division, (954) 847-2600, to arrange a 'pre-construction school safety' meeting.

Landscape plan specific notes:

1. SR-7 Southbound and Sawgrass Expressway Westbound Ramp Signal Operation

a. Contractor to cover signal heads or make signal head revisions where impacted as required due to maintnance of traffic per FDOT standard index 600 and fdot traffic operations office.

2. INTERSECTIONS: Sawgrass Expressway Westbound Ramp; N.W. 61st Street; Regency Lakes Blvd.; Johnson Rd./Holmberg Rd.; Hillsboro Blvd.; Loxahatchee Rd.:

a. FDOT standard index 616 must be implemented when median work near intersection condition exists.

b. Traffic control at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely.

3. INTERSECTION: Johnson Rd./Holmberg Rd.

a. Maintenance of traffic shall include provisions for pedestrians and / or school traffic as well as vehicular traffic. Contractor to comply with all school safety requirements as outlined in the BCTED Maintenence of traffic school / pedestrian criteria.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
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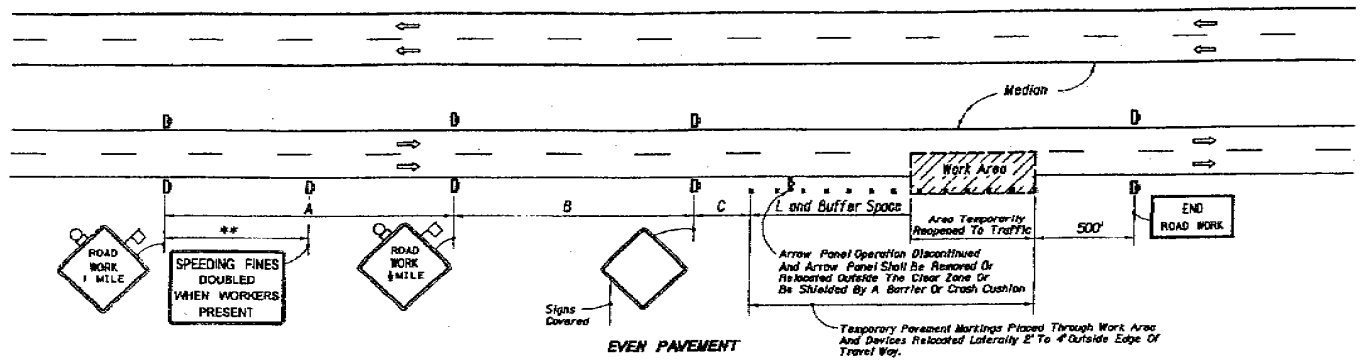
Cert. of Auth.: EB0000318 · Engineer of Record: Eric S. Czerniejewski PE-58002

CITY OF COCONUT CREEK

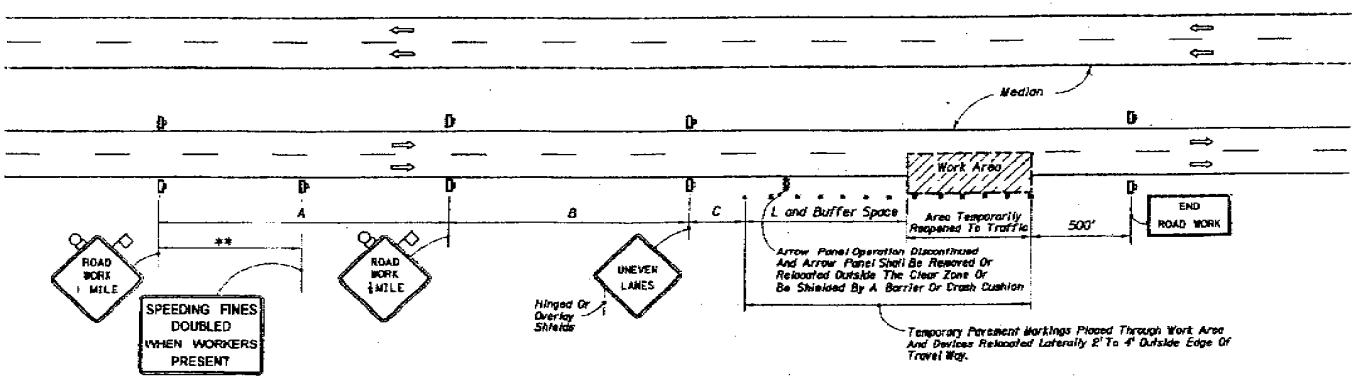
ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TRAFFIC CONTROL NOTES

SHEET NO.
LD-80



EVEN PAVEMENT



UNEVEN PAVEMENT

INTERMITTENT WORK STOPPAGE - LANE REOPENED TO TRAFFIC

02/26/09

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

MILLER LEGG
1800 North Douglas Road - Suite 200 - Pembroke Pines, Florida - 33024
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TRAFFIC CONTROL DETAILS

SHEET NO. LD-81

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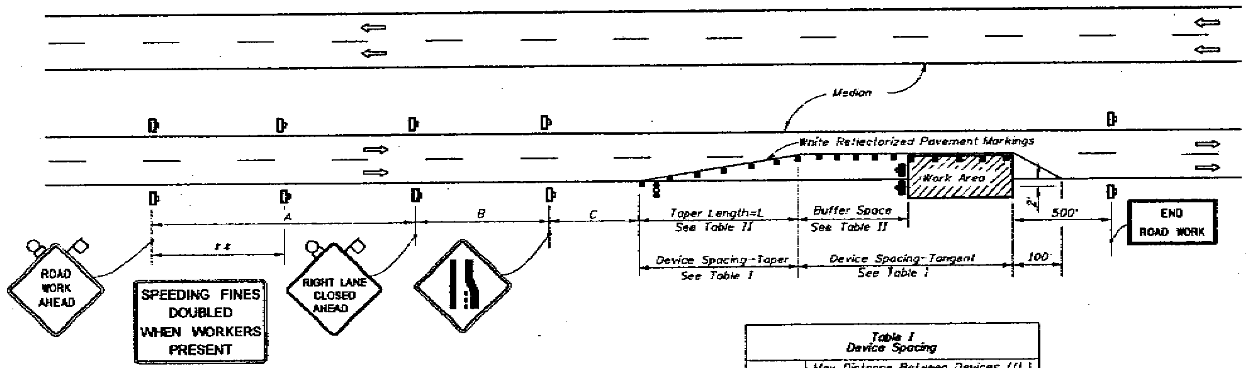

Table II
Buffer Space and Taper Length

Speed (mph)	Buffer Space Dist. (ft.)	Taper Length (12' Lateral Transition) L (ft.)	Notes (Merge)
25	155	125	$L=\frac{WS^2}{60}$
30	200	180	
35	250	245	
40	305	320	
45	360	540	L=WS
50	425	600	
55	495	660	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use formula for L shown in the notes column.
Where:
L= Length of taper in feet
W= Width of lateral transition in feet
S= Posted speed limit (mph)

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.) Cones or Tubular Markers Taper	Cones or Tubular Markers Tangent	Type I or Type II Barricades or Vertical Panels or Drums Taper	Type I or Type II Barricades or Vertical Panels or Drums Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS Speed	Spacing (ft.) A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.

** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
2. On undivided highways the median signs as shown are to be omitted.
3. When work is performed in the median lane or divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

   The same applies to undivided highways with the following exceptions:
   (a) Work shall be confined within one median lane.
   (b) Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

   When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.
4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.
7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.
9. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. Temporary white edgeline may be omitted for work operations less than 3 days.
2. Signs, arrow panel and buffer space may be omitted if all of the following conditions are met:
   a) Work operations are 60 minutes or less.
   b) Speed limit is 45 mph or less.
   c) No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
   d) Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
   e) Volume and complexity of the roadway has been considered.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

SYMBOLS

- Work Area
- Sign With 18"x 18" (Min.) Orange Flag And Type B Light
- Channelizing Device (See Index No. 600)
- Type I Type II Or Type III Barricade Or Vertical Panel Or Drum (With Flashing Light)
- Work Zone Sign
- Advance Warning Arrow Panel

REVISIONS DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	MILLER LEGG PROJECT ID
7	BROWARD	07-00239

TRAFFIC CONTROL DETAILS

SHEET NO. LD-82

12/25/2008

SECTION No.(s):	**86028000, 86120000, 86100000, 86130000**
S.R. No.(s):	**834, 810, 7, 814**
FM No.(s):	**409222-1-74-01**
	423268-1-58-01
	423270-1-58-01
WPI Nos.:	**4119110**
	4110332
RESOLUTION No.:	**96-72**

EXHIBIT E

MAINTENANCE PLAN(S)

See Attached

MAINTENANCE PLAN

Project Name: State Road 7 – US-441
Project Limits: First median North of SR869 (Sawgrass Expressway) to the Broward/Palm Beach County Line
Maintenance Limits: First median North of SR869 (Sawgrass Expressway) to the Broward/Palm Beach County Line
FM Funding Nos.: 423268-1-58-01 (South) & 423270-1-58-01 (North)
Maintaining Agency: City of Coconut Creek

Landscape, Irrigation and Hardscape Plans

The purpose for the following performance based descriptions of landscape maintenance practices is to allow the plant material on your project to thrive in a safe and vigorous manner. Plantings shall be maintained to conform to all of the requirements, but not limited to the following: sight visibility, horizontal setbacks, and vertical clearances as set forth by Florida Department of Transportation's governing standards and specifications; FDOT Design Standards (Most Current Date) and Standard Specifications for Road and Bridge Construction (Most Current Date), as amended by contract documents.

1.0 Watering Requirements:

a. Watering is probably the most critical concern regarding the maintenance of healthy plant material. The amount of water to apply at any one time varies with the weather, drainage conditions and water holding capacity of the soil.

b. Proper watering techniques should provide even and thorough water dispersal to wet the entire root zone, but not to saturate the soil, and should avoid over-spray onto travel lanes. Furthermore, the Agency should maintain the rain sensors (if on an irrigation system), to ensure that they are functioning properly and that the system does shut down when there is sufficient rainfall.

c. Avoid extremes in watering. Light, frequent watering is ineffective and produces shallow root systems. Excessive watering that keeps the root zones saturated may kill the plant material due to the lack of available air to the root zone. A typical rule of thumb is that turf areas should receive on an average, a minimum of 1" of water per week, with an equal or lesser amount for trees and shrubs, depending on their individual water usage.

2.0 Irrigation:

a. The system should be checked periodically for proper operation. Ensure there is no overspray onto roadways and sidewalks. All irrigation activities should not be scheduled during the daytime hours (most notably rush hour traffic periods).

3.0 Fertilization/Insecticides/Fungicides:

a. Due to the poor shallow root soils of the South Florida area, coupled with heavy rainfall during the growing season, available nutrient levels for landscape materials are very low, therefore nutrient amendments are essential. A soil analysis of each planting site should be completed to determine the nutrient levels needed for vigorous plant growth.

b. Trees, palms, shrubs, groundcovers and turf areas should be fertilized in such a manner and frequency to ensure that the plant material remains healthy, without under or over nourishing them. An integrated plant management program is required to ensure healthy plants, free of disease and pests. Insecticides and fungicides shall be applied as needed to ensure that plants and grass remain pest and disease free.

4.0 Mulching:

a. Planting beds should be mulched in such a manner as to: prevent weed growth, retain moisture for use by plants, protect soil from erosion and the loss of nutrients, maintain a more uniform soil temperature and maintain a manicured appearance. Mulch should always be kept away from the trunks of trees, shrubs and palms to prevent rotting and susceptibility to disease. No mulch from a native source should be utilized.

5.0 Pruning:

a. All pruning shall adhere to ANSI A300 standards (and safety criteria adhered to) and shall be overseen by an ISA Certified Arborist. The older fronds on the Royal Palms, if applicable, shall be routinely pruned to insure that fronds do not fall onto any travel lanes. All pruning shall be done with the health and natural growth of the plant materials in mind. Specific pruning heights of the landscape material shall be determined in order to maintain clear site windows and vertical clearances for pedestrian and truck traffic where applicable. Visibility windows must be free of obstructions.

b. The desired growth habit in landscape planting beds shall be such that shrubs of the same species shall develop into a single mass and be kept separate from adjacent masses of other species.

6.0 Staking and Guying:

a. All staking material (except for replacements) will be removed at the completion of the one-year warranty period before the City takes over maintenance of the plantings.

7.0 Turf Mowing:

a. All grassed areas are to be mowed and trimmed with sufficient frequency to maintain a neat and clean appearance.

8.0 Litter Control:

a. The project site shall remain litter free.

9.0 Weeding/Herbicide:

a. All planting areas shall be maintained to be as weed free as possible with mechanical and/or chemical weeding. When utilizing herbicide, extreme care should be taken to avoid any overspray onto plant materials. Any damage resulting from overspray will be the applicator's responsibility to restore per approved plan.

10.0 Plant Replacement

a. Plant replacement shall be the same species and specification as the approved plan. Only plants graded Florida #1 per the Florida Department of Agriculture and Consumers Services, Grades and Standards for Nursery Plants is permitted on FDOT roadways. Should it become necessary to change the species, a general use permit is required from FDOT for approval by the FDOT District Landscape Architect.

11.0 Hardscape:

a. The hardscape areas located within the medians shall be maintained to be as clean and weed free as possible. Periodic pressure cleaning or similar method is required to maintain a clean surface. Any damage and/or repair should be done in a timely manner to maintain a clean appearance.

12.0 Maintenance Traffic Control:

a. Reference the FDOT website regarding the selection of the proper traffic control requirements to be provided during routine maintenance and / or new installations of this DOT roadway.

Website: Series 600 Traffic Control through Work Zones
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.htm

REFERENCES

American National Standard Institute, *ANSI A300, (Part 1) for Tree Care Operations – Trees, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning)*, available for purchase http://webstore.ansi.org/ansidocstore/find.asp?

Florida Department of Agriculture and Consumer Services, Division of Plant Industry, *Florida Grades and Standards for Nursery Stock*, available for purchase http://www.doacs.state.fl.us/pi/plantinsp/publications.html

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 544 Landscape Installation*

http://www.dot.state.fl.us/rddesign/rd/RTDS/06/544.pdf

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 546 Sight Distance at Intersections*
http://www.dot.state.fl.us/rddesign/rd/RTDS/06/546.pdf

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 700 Roadside Offsets*
http://www.dot.state.fl.us/rddesign/rd/RTDS/06/700.pdf

Florida Department of Transportation, *FDOT Plans Preparation Manual (PPM) Vol. I Chapters 2.11.5, Horizontal Clearance to Trees; Table 2.11.9 Horizontal Clearance and Clear Zone; Figure 4.1.2 Clear Zone; and Table 25.4.11.1 Clear Zone Width (feet) and Table 25.4.14.6 (for existing) trees*
http://www.dot.state.fl.us/rddesign/PPMManual/2007/Volume1/2007Vol1.htm

Florida Department of Transportation, *FDOT Standard Specifications for Road and Bridge Construction, Section 580 Landscape Installation*
http://www.dot.state.fl.us/specificationsoffice/2007BK/580.pdf

Florida Department of Transportation, *Maintenance Rating Program Handbook*
http://infonet.dot.state.fl.us/statemaintenanceoffice/MRPHandbook2007Edition.pdf

Florida Department of Transportation, Landscape Architecture Website
http://www.dot.state.fl.us/emo/beauty/FLA.htm

International Society of Arboriculture (ISA)
www.isa-arbor.com

Manual on Uniform Traffic Control Devices
http://www.mutcd.fhwa.dot.gov

Florida Irrigation Society
http://www.fisstate.org

Florida Department of Community Affairs (FCA), *Florida Board of Building Codes & Standards, Florida Accessibility Code for Building Construction*
http://www.dca.state.fl.us/fbc/publications/1_publications.htm

Guide to Roadside Mowing and Guide to Turf Management, available for purchase http://infonet.dot.state.fl.us/SupportServicesOffice/plist.htm

END OF SECTION

SECTION No.(s):	**86028000, 86120000, 86100000, 86130000**
S.R. No.(s):	**834, 810, 7, 814**
FM No.(s):	**409222-1-74-01**
	423268-1-58-01
	423270-1-58-01
WPI Nos.:	**4119110**
	4110332
RESOLUTION No.:	**96-72**

EXHIBIT F

PENDING AGENCY PROJECT(S) COST ESTIMATE

I. Phase I - State Road 7 (US 441) South Medians

FDOT PARTICIPATION: **Via Separate Agreement**	$200,000.00
AGENCY PARTICIPATION:	$200,000.00

II. Phase II- State Road 7 (US 441) North Medians

FDOT PARTICIPATION: **Via Separate Agreement**	$250,000.00
AGENCY PARTICIPATION:	$250,000.00

III. TOTAL APPROXIMATE PROJECT COST: $900,000 .00

All Amounts are approximate

MILLER LEGG
IMPROVING COMMUNITIES. CREATING ENVIRONMENTS.

LANDSCAPE PLANS - OPINION OF PROBABLE COST

423268-1-58-01 & 423270-1-58-01 - State Road 7 / US 441

State Road 7 - City of Coconut Creek

Landscape Architect of Record: Brian R. Shore, RLA
RLA# LA-6666770
Date: February 25, 2009

SUMMARY OF LANDSCAPE PLANS - OPINION OF PROBABLE COST

423268-1-58-01 & 423270-1-58-01 - State Road 7 / US 441

SUMMARY OF PROJECT

TOTAL - 101-1 MOBILIZATION	$38,224.95
TOTAL - 102-1 MAINTENANCE OF TRAFFIC	$15,289.98
TOTAL - 110-1-1 CLEARING AND GRUBBING	$15,208.09
TOTAL 347-1 PORTLAND CEMENT CONCRETE-CLASS 1(NONSTRUCTURAL)	$542.40
TOTAL - 526-1-1 ARCHITECTURAL PAVERS	$59,490.00
TOTAL - 575-1-1 SOD	$49,548.00
TOTAL - 580-1-1 LANDSCAPE COMPLETE (SMALL)	$94,262.72
TOTAL - 580-1-2 LANDSCAPE COMPLETE (LARGE)	$50,318.78
TOTAL - 590-70 IRRIGATION SYSTEM COMPLETE	$495,129.00
SUB-TOTAL PROJECT	$818,013.92
10% Contingency fee	$81,801.39
2% Permits	
TOTAL PROJECT - OPINION OF PROBABLE COST	$899,815.32

SUMMARY BY MEDIAN

SUBTOTAL - State Road 7 - Median #1 - City of Coconut Creek	$140,071.32
SUBTOTAL - State Road 7 - Median #2 - City of Coconut Creek	$130,771.71
SUBTOTAL - State Road 7 - Median #3 - City of Coconut Creek	$100,991.77
SUBTOTAL - State Road 7 - Median #4 - City of Coconut Creek	$94,627.09
SUBTOTAL - State Road 7 - Median #5 - City of Coconut Creek	$17,291.52
SUBTOTAL - State Road 7 - Median #6 - City of Coconut Creek	$55,485.02
SUBTOTAL - State Road 7 - Median #7 - City of Coconut Creek	$79,354.59
SUBTOTAL - State Road 7 - Median #8 - City of Coconut Creek	$112,073.42
SUBTOTAL - State Road 7 - Median #9 - City of Coconut Creek	$0.00
SUBTOTAL - State Road 7 - Median #10 - City of Coconut Creek	$60,318.16
SUBTOTAL - State Road 7 - Median #11 - City of Coconut Creek	$27,029.33

PLANT MATERIAL - LABOR / PROFIT / OVERHEAD - FACTOR: 1.25

ABBREVIATIONS

cal.	caliper	ht.	height
c.t.	clear trunk	min.	minimum
c.y.	cubic yards	o.a.h.	overall height
d.b.h.	diameter breast height	o.c.	on center
gal.	gallon	s.f.	square foot
g.w.	gray wood	spr.	spread

Note: Opinion of Probable Cost based upon MOA Submittal.

February 25, 2009

SECTION No.(s):	**86028000, 86120000, 86100000, 86130000**
S.R. No.(s):	**834, 810, 7, 814**
FM No.(s):	**409222-1-74-01**
WPI No(s):	**4119110 4110332**
RESOLUTION No.:	**96-72**

EXHIBIT F

PENDING AGENCY PROJECT(S) COST ESTIMATE

I. Phase I - State Road 7 (US 441) South Medians

FDOT PARTICIPATION: Via Separate Agreement	$200,000.00
AGENCY PARTICIPATION:	$200,000.00

II. Phase II- State Road 7 (US 441) North Medians

FDOT PARTICIPATION: Via Separate Agreement	$250,000.00
AGENCY PARTICIPATION:	$250,000.00

III. TOTAL APPROXIMATE PROJECT COST: $900,000 .00

All Amounts are approximate

MILLER LEGG
IMPROVING COMMUNITIES. CREATING ENVIRONMENTS.

LANDSCAPE PLANS - OPINION OF PROBABLE COST

423268-1-58-01 & 423270-1-58-01 - State Road 7 / US 441

State Road 7 - City of Coconut Creek

Landscape Architect of Record: Brian R. Shore, RLA
RLA# LA-6666770
Date: February 25, 2009