SOURCE M-1 WATER METER AND RPZ

EXISTING RAINBIRD ESP IRRIGATION CONTROLLER FOR SOURCE M-1

SOURCE M-1 MAIN LINE

CONNECT HEADS TO EXISTING ZONE 7 OF SOURCE M-1

CONNECT HEADS TO EXISTING ZONE 8 OF SOURCE M-1

CONNECT HEADS TO EXISTING ZONE 7 OF SOURCE M-1

CONNECT HEADS TO EXISTING ZONE 7 OF SOURCE M-1

CONNECT HEADS TO EXISTING ZONE 8 OF SOURCE M-1

CONNECT HEADS TO EXISTING ZONE 9 OF SOURCE M-1 SIZE LATERAL PIPE APPROPRIATELY PROVIDE NEW SLEEVES UNDER DRIVES AS REQUIRED

CONNECT HEADS TO EXISTING ZONE 11 OF SOURCE M-1

CONNECT HEADS TO EXISTING ZONE 10 OF SOURCE M-1

MATCH LINE A-A'

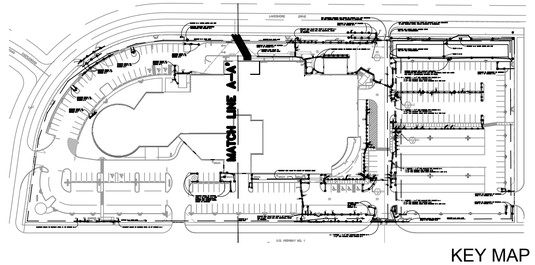
20'A.F.F.

25'A.F.F.

CASTLEWOOD

N87°31'46"W 142.89'

N05°29'05"W 597.13'



KEY MAP
N.T.S.

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Earl Stewart Toyota

Lake Park, FL
Irrigation Plan - Phase I & II

Drawing name: H:\JOBS\Earl Stewart Toyota_03-002.EST_Expansion_SPR_.004\Drawings\Irrigation Plan\2015-02-18-IR.dwg

NORTH

0 10' 20' 40'

Scale: 1" = 20'-0"

Date:	03.28.2014
Project No.:	03-002.004
Designed By:	JWB
Drawn By:	JWB
Checked By:	DM/AB

Revision Dates:
10.30.14 Updated Site & Landscape Plans

IR-1
of 4

LAKESHORE DRIVE

S05°03'16"E 327.02'

S05°03'16"E 275.00'

S84°30'25"W 352.64'

N05°29'05"W 275.00'

05"W 597.13'

U.S. HIGHWAY NO. 1

MATCH LINE A-A'

CUT SOUTHERN MAINLINE AND WIRES ON SOURCE M-1 AND RELOCATE TO NEW SLEEVED ROUTE. SHOWN LOCATION IS SCHEMATIC.

CONNECT TO REMAINDER OF EXISTING ZONE 6 OF SOURCE M-1

PROVIDE NEW VALVE FOR ZONE 5 OF SOURCE M-1 USE 1-1/2" VALVE AND ADD ADDITIONAL HEADS AS REQUIRED

SOURCE M-1 MAIN LINE

CONNECT TO REMAINDER OF EXISTING ZONE 6 OF SOURCE M-1

CONNECT NEW VALVE TO CENTER OF EXISTING ZONE

CONNECT HEADS TO EXISTING ZONE 5 OF SOURCE M-1

6M-1 80 2"

20'A.F.F.

25'A.F.F.

27'A.F.F.

CUT NORTHERN MAINLINE AND WIRES ON SOURCE M-2 AND RELOCATE TO NEW SLEEVED ROUTE. SHOWN LOCATION IS SCHEMATIC.

REMOVE ONE ROTOR ALONG JASMINE DRIVE AND CAP FOR CONSTRUCTION

SOURCE M-2 MAIN LINE

M-2

ZONE 6 M-2

SOURCE M-2 WATER METER AND RPZ

REMOVE ONE ROTOR ALONG JASMINE DRIVE AND CAP FOR CONSTRUCTION

ZONE 5 M-2

EXISTING RAINBIRD ESP MODULAR IRRIGATION CONTROLLER FOR SOURCE M-2 AND ADD ADDITIONAL ZONE AND WIRES FOR ZONE 7 (CONTROLLER MOUNTED ON POLE).

CONNECT TO REMAINDER OF EXISTING ZONE 4 OF SOURCE M-2

3 - SLEEVES - 1-4" FOR MAINLINE FOR SOURCE M-1
-1-3" FOR MAINLINE FOR SOURCE M-2
-1-2" FOR CONTROL WIRES BOTH SOURCES M-1 AND M-2

7 M-2 31.8 1½"

3 - SLEEVES - 1-4" FOR MAINLINE FOR SOURCE M-1
-1-3" FOR MAINLINE FOR SOURCE M-2
-1-2" FOR CONTROL WIRES BOTH SOURCES M-1 AND M-2

1 M-2 46.7 1½"

3 - SLEEVES - 1-4" FOR MAINLINE FOR SOURCE M-1
-1-3" FOR MAINLINE FOR SOURCE M-2
-1-2" FOR CONTROL WIRES BOTH SOURCES M-1 AND M-2

CONNECT NEW VALVE TO CENTER OF EXISTING ZONE

3 M-1 25.6 1½"

CONNECT TO REMAINDER OF EXISTING ZONE 4 OF SOURCE M-2

3 - SLEEVES - 1-4" FOR MAINLINE FOR SOURCE M-1
-1-3" FOR MAINLINE FOR SOURCE M-2
-1-2" FOR CONTROL WIRES BOTH SOURCES M-1 AND M-2

CONNECT TO REMAINDER OF EXISTING ZONE 2 OF SOURCE M-2

CONNECT HEADS TO EXISTING ZONE 1 OF SOURCE M-1

PROVIDE NEW VALVE FOR ZONE 2 OF SOURCE M-1 USE 1-1/2" VALVE AND ADD ADDITIONAL HEADS AS REQUIRED

SOURCE M-1 MAIN LINE

CONNECT HEADS TO EXISTING ZONE 2 OF SOURCE M-2

SOURCE M-2 MAIN LINE

2 - SLEEVES - 1-4" FOR MAINLINE FOR SOURCE M-1
-1-2" FOR CONTROL WIRES SOURCE M-1

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Earl Stewart Toyota

Lake Park, FL
Irrigation Plan - Phase I & II

Drawing name: K:\JOBS\Earl Stewart Toyota_03-002\DD1_Expansion_IP\PL_004\Drawings\Irrigation Plan\2015-02-18 IR.dwg

NORTH

0 10' 20' 40'

Scale: 1" = 20'-0"

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	JWB
Drawn By:	JWB
Checked By:	DM/AB

Revision Dates:

10.30.14 Updated Site & Landscape Plans
02.18.15 Resubmit SP Admendment

IR-2

of 4

IRRIGATION SCHEDULE

2015-02-18 10:54

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1804 15 Strip Series	9	CST	30	1.21	4'x30'
	Rain Bird 1804 15 Strip Series	7	EST	30	0.61	4'x15'
	Rain Bird 1804 15 Strip Series	1	RCS	30	0.49	4'x15'
	Rain Bird 1804 15 Strip Series	15	SST	30	1.21	4'x30'
	Rain Bird 1804 15 Series MPR	40	180	30	1.85	15'
	Rain Bird 1804 15 Series MPR	8	90	30	0.92	15'
	Rain Bird 1804 VAN Series	2	Adj	30		18'
	Rain Bird 1804 HE-VAN Series	1	Adj	30		15'
	Rain Bird 1800-PA-80 15 Strip Series	1	CST	30	1.21	4'x30'
	Rain Bird 1800-PA-80 15 Strip Series	1	EST	30	0.61	4'x15'
	Rain Bird 1800-PA-80 15 Strip Series	2	SST	30	1.21	4'x30'
	Rain Bird 1800-PA-80 10 Series MPR	7	180	30	0.79	10'
	Rain Bird 1800-PA-80 10 Series MPR	2	90	30	0.39	10'
	Rain Bird 1800-PA-80 12 Series MPR	1	180	30	1.30	12'
	Rain Bird 1800-PA-80 15 Series MPR	9	180	30	1.85	15'
	Rain Bird 1800-PA-80 15 Series MPR	3	90	30	0.92	15'
	Rain Bird 1800-PA-80 VAN Series	2	Adj	30		6'
	Rain Bird 1800-PA-80 VAN Series	1	Adj	30		18'
	Rain Bird 1800-PA-80 HE-VAN Series	3	Adj	30		15'
	Rain Bird 1806 15 Strip Series	2	EST	30	0.61	4'x15'
	Rain Bird 1806 15 Strip Series	1	SST	30	1.21	4'x30'
	Rain Bird 1806 5 Series MPR	2	90	30	0.10	5'
	Rain Bird 1806 15 Series MPR	5	180	30	1.85	15'
	Rain Bird 1806 15 Series MPR	1	90	30	0.92	15'
	Rain Bird 1806 VAN Series	5	Adj	30		4'
	Rain Bird 1806 HE-VAN Series	1	Adj	30		10'
	Rain Bird 1812 15 Strip Series	1	EST	30	0.61	4'x15'
	Rain Bird 1812 15 Strip Series	3	SST	30	1.21	4'x30'
	Rain Bird 1812 8 Series MPR	22	180	30	0.52	8'
	Rain Bird 1812 8 Series MPR	16	90	30	0.26	8'
	Rain Bird 1812 15 Strip Series	21	SST	30	1.73	9'x18'
	Rain Bird 1812 10 Series MPR	1	360	30	1.58	10'
	Rain Bird 1812 12 Series MPR	2	180	30	1.30	12'
	Rain Bird 1812 12 Series MPR	7	90	30	0.65	12'
	Rain Bird 1812 15 Series MPR	12	180	30	1.85	15'
	Rain Bird 1812 15 Series MPR	18	90	30	0.92	15'
	Rain Bird 1812 VAN Series	3	Adj	30		18'
	Rain Bird 1812 HE-VAN Series	3	Adj	30		8'
	Rain Bird 1812 HE-VAN Series	2	Adj	30		12'
	Rain Bird 1812 HE-VAN Series	12	Adj	30		15'
▲	Rain Bird 1804-1400 Flood	4	360	30	1.00	1'

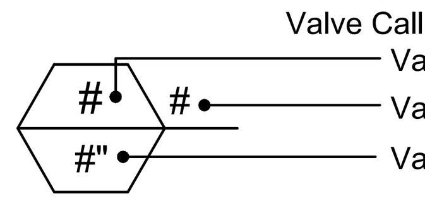
Existing On Property

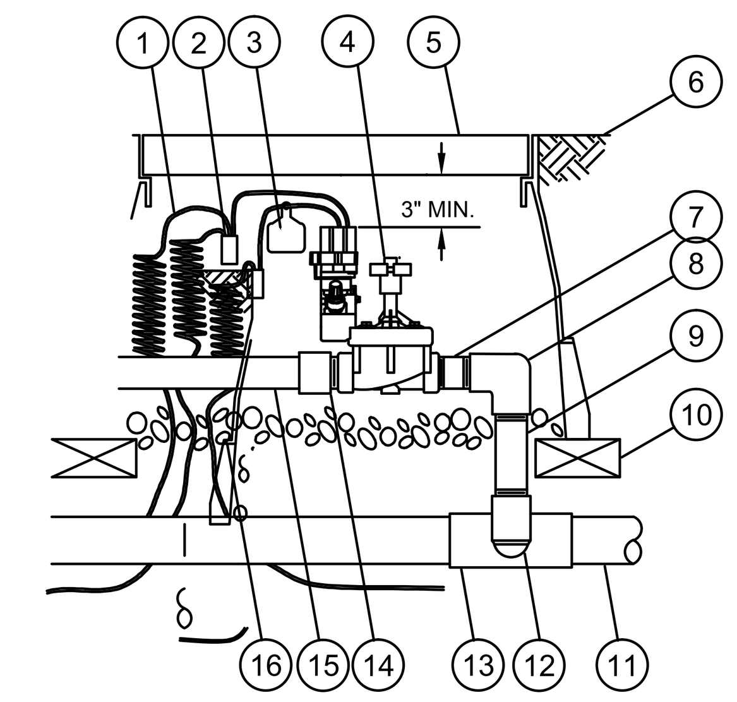
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
	Hunter PGP-ADJ Turf Rotor, 4.0" Pop-Up. Adjustable and Full Circle. Standard Angle Red Nozzle. Lower Precipitation Rate.	14	50	3.90	41'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	8
	Irrigation Lateral Line: PVC Class 160 SDR 26 PVC Class 315 for 1/2" pipe, PVC Class 200 for 3/4" pipe, PVC Class 160 SDR 26 for 1" and above.	3,678 l.f.
	Irrigation Mainline: PVC Schedule 40 PVC Schedule 40 irrigation pipe.	3,166 l.f.
	Pipe Sleeve: PVC Schedule 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.	572.1 l.f.

NOTE: All Pipe Lengths are estimates.

Valve Callout

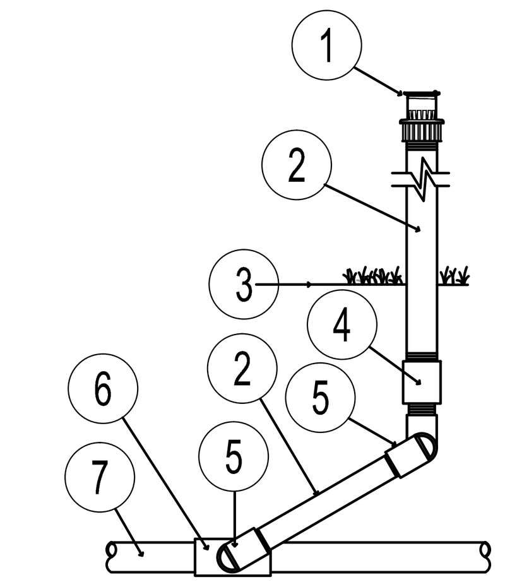




RAIN BIRD PEB SERIES VALVE

NOT TO SCALE

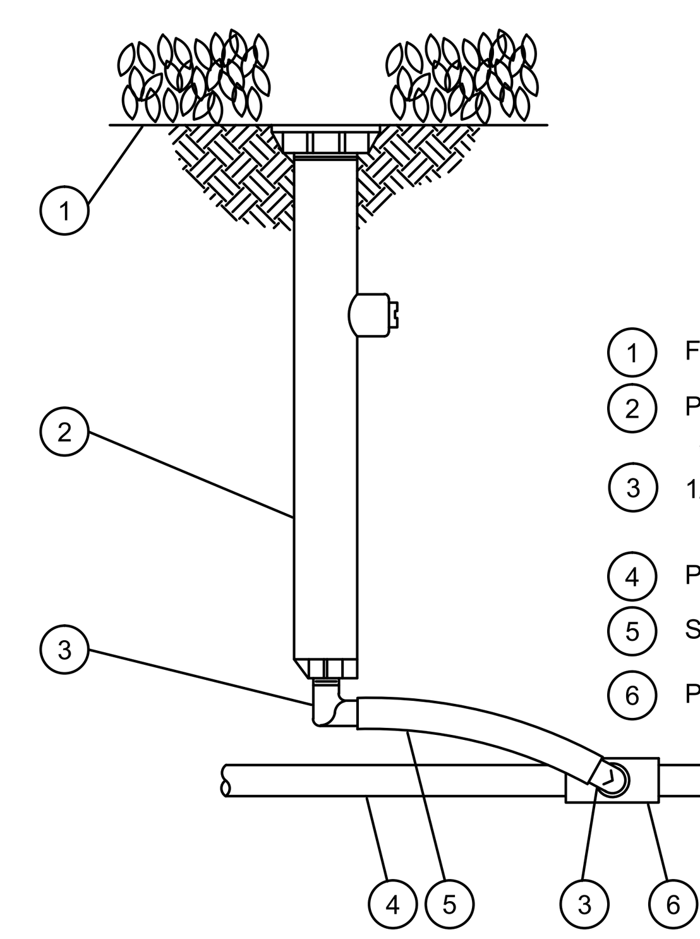
1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PEBB WITH GATE VALVE
5. VALVE BOX WITH COVER: ARMOR 10" PLASTIC VALVE BOX
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 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 1800 NOZZLE ON RISER SPRAY HEAD

NOT TO SCALE

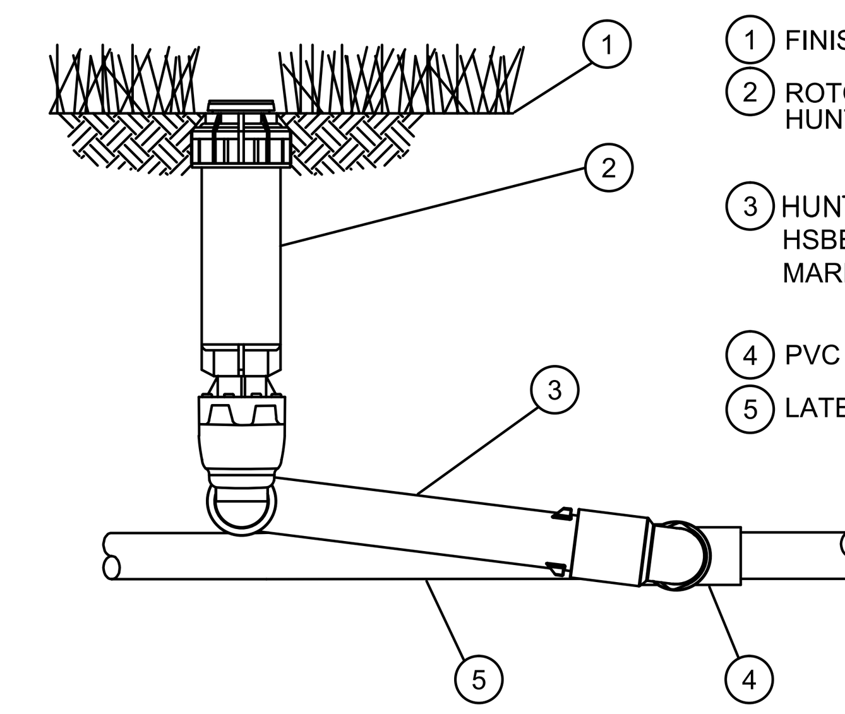
1. RAIN BIRD 1800 SERIES PLASTIC NOZZLE AND SHRUB ADAPTER MODEL PA-82
2. SCH 80 NIPPLE
3. FINISH GRADE
4. SCH 80 THREADED COUPLER
5. 1/2" PVC STREET ELLS (3)
6. LATERAL TEE OR ELL
7. LATERAL PIPE



RAIN BIRD 1812 SPRAY HEAD

NOT TO SCALE

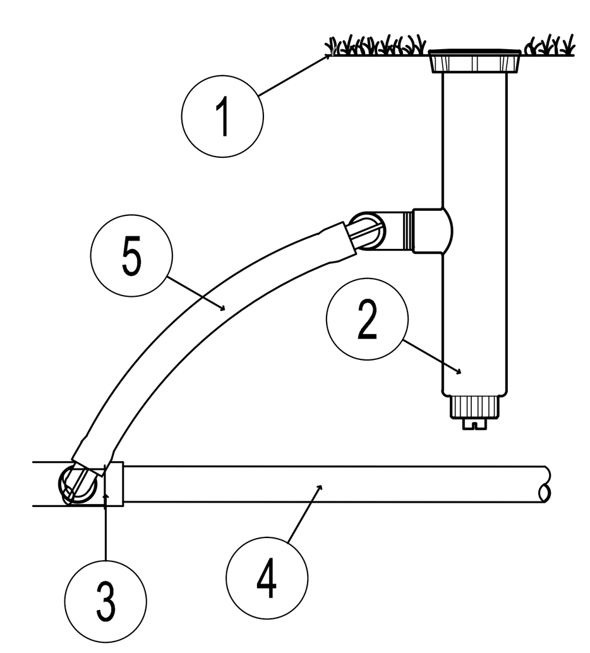
1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD 1812 WITH RAIN BIRD ROTARY NOZZLE
3. 1/2-INCH MALE NPT x .490 INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
4. PVC LATERAL PIPE
5. SWING PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
6. PVC SCH 40 TEE OR ELL



HUNTER PGP ROTOR HEAD

NOT TO SCALE

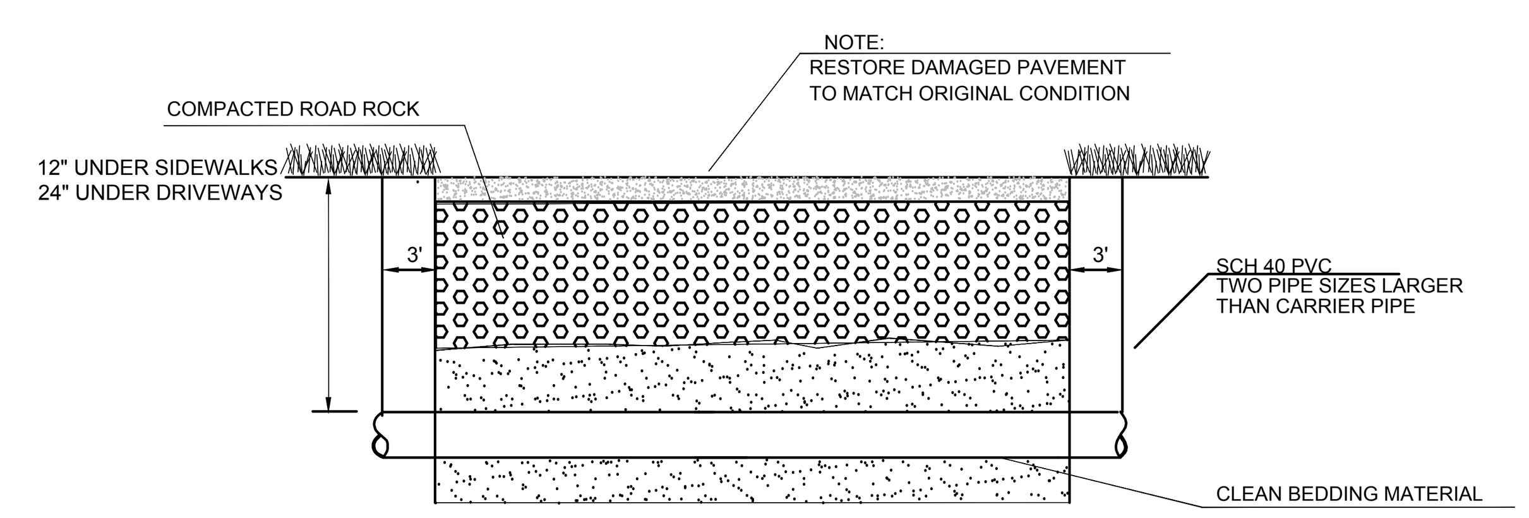
1. FINISH GRADE
2. ROTOR POP-UP SPRINKLER: HUNTER PGP
3. HUNTER SWING PIPE: HSBE-05O ELBOWS (2), & MARLEX STREET ELBOW (1)
4. PVC SCH 40 TEE OR ELL
5. LATERAL PIPE



RAIN BIRD 1804 SPRAY HEAD

NOT TO SCALE

1. FINISH GRADE
2. RAINBIRD 1804 4" POP-UP SPRAY HEAD
3. LATERAL TEE OR ELL
4. LATERAL PIPE
5. RAIN BIRD SWING PIPE: MODEL SP-100, HSBE-05O ELBOWS (2), & MARLEX STREET ELBOW (1)



PIPE SLEEVE DETAIL

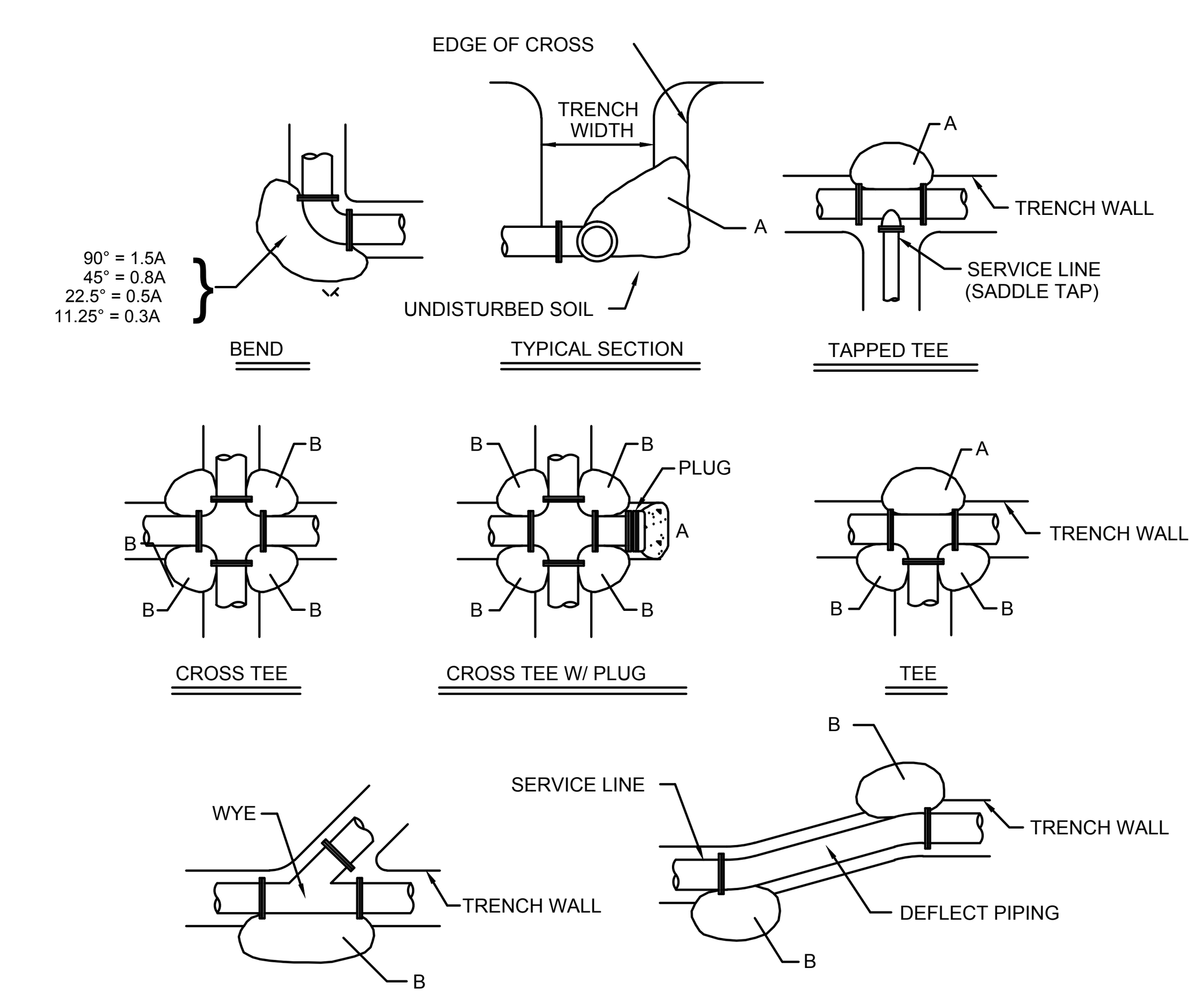
THRUST BLOCK SCHEDULE

PIPE SIZE	2"	4"	6"	8"	10"	12"	14"
A *	1	3	5.5	10	15	22	30
B *	1	2	4.5	7.5	12	17	23

* DENOTES CHART NUMBERS ARE SQ. FT. BEARINGS ON UNDISTURBED SOIL.

GENERAL NOTES :

1. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED EXCAVATE ALL LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL.
2. ON BENDS AND TEES EXTEND THRUST BLOCKS TO THE FULL LENGTH OF THE FITTING.
3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCK.
4. BACKFILL SHALL CONSIST ENTIRELY OF CLEAN SAND AND SMALL ROCK FRAGMENTS. ANY MUCK FOUND AROUND THE EXCAVATION SHALL BE REPLACED WITH COMPACTED ACCEPTABLE MATERIAL.
5. DESIGN CRITERIA : SOIL BEARING = 1000 LBS./SQ. FT.
   PRESSURE = 150 PSI
6. CONCRETE SHALL BE 2500 PSI MINIMUM.
7. CONTRACTOR SHALL WRAP ALL FITTINGS IN POLYETHYLENE FILM (8 MILS) MINIMUM THICKNESS, PROVIDING MINIMUM OF ONE (1) FOOT OVERLAP, EACH SIDE OF FITTING.



THRUST BLOCK DETAIL

NOT TO SCALE

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Earl Stewart Toyota

Lake Park, FL
Irrigation Details

Date:	03.15.2014
Project No.:	03-002.004
Designed By:	JWB
Drawn By:	JWB
Checked By:	DM/AB

Revision Dates:

10.30.14 Updated Site & Landscape Plans
02.18.15 Resubmit SP Admendment

GENERAL

IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL , STATE AND FEDERAL CODES, AND SHALL BE PERFORMED BY QUALIFIED INSTALLERS SUPERVISED BY A LICENSED IRRIGATION CONTRACTOR.

IRRIGATION DESIGN BASED ON "LANDSCAPE PLAN". CONTRACTOR SHALL REFER TO THIS PLAN TO COORDINATE SPRINKLER LOCATIONS AND PIPE ROUTING WITH NEW AND EXISTING PLANT LOCATIONS.

THIS IRRIGATION PLAN SHALL BE USED AS A GUIDE ONLY. CONTRACTOR SHALL INSTALL IRRIGATION TO MATCH ON SITE CONDITIONS AND TO OVERCOME THE INHERENT INACCURACIES THAT RESULT WHEN DESIGNING FROM BASE PLANS SCALED AT 1" = 30'.

THIS IRRIGATION HAS BEEN DESIGNED AS A TYPICAL BLOCK VALVE TYPE USING RAIN BIRD IRRIGATION SPRINKLERS, IN-LINE VALVES, AND CONTROLLER SYSTEM. A RAIN SENSOR SHALL BE INCLUDED TO CONSERVE WATER.

CONTRACTOR IS ADVISED TO STUDY THE PLANS FOR ADDITIONAL INFORMATION AND TO VISIT THE SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS.

TO ENSURE PROPER OPERATION, PRESSURE REQUIRED, SOURCE SIZE, VALVE SIZES, ZONE CAPACITIES, SPRINKLER SPACING, PIPE AND WIRE SIZES, INSTALLATION NOTES AND DETAILS, AND SPECIFICATIONS SHALL BE FOLLOWED AS SHOWN.

SPRINKLERS

SPRINKLER LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR LANDSCAPING, SITE LIGHTING, PREVAILING WIND, MOUNDING, ETC. TO INSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. A PRIME OBJECTIVE SHALL BE TO ELIMINATE OVERTHROW ONTO PAVEMENT AND BUILDINGS.

SPRAY HEADS SHALL BE RAIN BIRD 1800 SERIES SPRINKLERS WITH VAN ADJUSTABLE NOZZLES. FOUR INCH POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH SOD AND MULCH, POP-UP TYPE SHALL BE INSTALLED ON FLEXIBLE SWING JOINTS CONSISTING OF THICK WALLED POLY PIPE AND 1/2" INSERT ELBOWS. EACH SPRAY HEAD SHALL BE EQUIPPED WITH THE APPROPRIATE MPR NOZZLE ADJUSTMENT FEATURES OF SPRINKLERS SPECIFIED SHALL BE UTILIZED TO INSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. SPRINKLERS LOCATED ADJACENT TO HARDSCAPED AREAS SHALL BE INSTALLED AWAY FROM HARDSCAPED AREAS TO MINIMIZE OVERTHROW AND THE CHANCE OF DAMAGE BY VEHICLES, PEDESTRIANS, AND LAWN MAINTENANCE PERSONNEL.

PRESSURE PIPE & SLEEVES: PROVIDE SCHEDULE 40 PLASTICIZED POLYVINYL CHLORIDE PIPE FOR ALL MAINS OR OWNER APPRROVED EQUAL. THE MAINLINE PIPE SHALL BE MANUFACTURED FROM CLEAN, VIRGIN, NSF APPROVED TYPE 1, GRADE 1 PVC, CONFORMING TO ASTM DESIGN SPECIFICATIONS D1785 AND D2655. ALL LATERAL PIPE SHALL BE CLASS 160 PIPE MEETING THE SAME ASTM D2241 AND SDR26 SPECIFICATIONS. ALL SLEEVING SHALL BE SCHEDULE 40 UNPLASTICIZED POLYVINYL CHLORIDE PIPE CONFORMING TO ASTM DESIGN SPECIFICATIONS D1785 AND D2655. SIZE ALL SLEEVES SHALL BE A MINIMUM 2 PIPE SIZES LARGER THAN THE CARRIER PIPE, AND EXTEND 3' BEYOND HARDSCAPE AREAS.

PIPE FITTINGS: PIPE FITTINGS SHALL BE PVC, MINIMUM OF SCHEDULE 80 PIPE. MAKE ALL TAPS ON MAINS OR BRANCH MAINS WITH TEES. PROVIDE ALL NON-THREADED TYPE JOINTS OF SOCKET TYPE, DESIGNED FOR SOLVENT-CEMENT TYPE APPLICATION. PRIOR TO THE CONNECTION OF ANY JOINT WITH PVC GLUE, TREAT ALL FITTINGS AND PIPES 1" AND LARGER WITH A HIGH ETCH (PURPLE) PVC CLEANER. A MEDIUM BODY, GRAY IN COLOR, CEMENT SHALL BE USED BOND EACH SECTION OF THE PVC PIPE. USE ONLY CLEANER AND SOLVENT COMPATIBLE WITH THE PVC PIPE USED. UPON COMPLETION OF THE GLUE JOINTS, KEEP IRRIGATION SYSTEM OUT OF SERVICE FOR THE PERIOD OF TIME SPECIFIED BY THE GLUE MANUFACTURER. MAKE SCREW JOINTS WITH AN ACCEPTABLE SCREW JOINT PIPE JOINT COMPOUND.

TRENCHING AND BACKFILLING

TRENCHING: PERFORM ALL EXCAVATION NECESSARY TO INSTALL THE SYSTEM AS INDICATED ON DRAWINGS, INCLUDING ALL NECESSARY CLEARING AND GRUBBING OF ANY FOREIGN SUBSTANCE ENCOUNTERED IN TRENCH AREA. PILE EXCAVATION MATERIAL SUITABLE FOR BACKFILL AT A SUFFICIENT DISTANCE FROM TRENCH TO AVOID OVERLOADING, SLIDES AND/OR CAVE-INS. DISPOSE OF, OFF SITE, ALL ORGANIC OR UNSUITABLE FOREIGN MATERIALS REMOVED DURING EXCAVATION. PROVIDE ADDITIONAL SUITABLE FILL MATERIALS REQUIRED FOR BACKFILLING OF EXCAVATED AREAS.

TRENCHES: MAKE TRENCH BOTTOMS SMOOTH, CLEAN AND FREE OF ALL STONES, STUMPS AND ROCK. IF SUCH MATERIALS ARE ENCOUNTERED IN TRENCHING, EXCAVATE TRENCH 6 INCHES DEEPER THAN ORDINARILY REQUIRED AND SPREAD A 6" LAYER OF SAND TO PROVIDE A FIRM BEDDING OF THE PIPE.

TRENCH DEPTH: PROVIDE 24" MINIMUM DEPTH OF COVER OVER PIPING 2-½" AND LARGER AND 18" MINIMUM DEPTH OF COVER OVER PIPING 2" SMALLER.

TRENCH WIDTH: EXCAVATE TRENCHES TO A SUFFICIENT WIDTH TO ALLOW A MINIMUM OF 6" BETWEEN PARALLEL PIPE LINES.

BACKFILLING

BACKFILLING: BACKFILL OVER-EXCAVATION OF TRENCHES UNDER PIPE WITH CLEAN SANDY FILL MATERIAL, FREE OF ORGANIC MATERIALS AND OBJECTS LARGER AND ¼" DIAMETER.

BACKFILL TRENCHES: FROM PIPE FLOW LINE TO 2" ABOVE TOP OF PIPE WITH CLEAN SANDY FILL MATERIAL FREE OF ORGANIC MATERIALS AND OBJECTS LARGER THAN ½" DIAMETER.

BACKFILL TRENCHES: FROM 2" ABOVE TOP OF PIPE UP TO FINISH GRADE WITH CLEAN SANDY FILL MATERIAL REMOVED BY EXCAVATION.

PAVEMENTS: NO PAVEMENT SHALL BE CUT TO INSTALL IRRIGATION WORK. IRRIGATION CONTRACTOR SHALL COORDINATE WITH PAVING OPERATION TO ASSURE ALL SLEEVES ARE INSTALLED UNDER DRIVES AND SIDEWALKS PRIOR TO THEIR INSTALLATION.

EXCAVATE: TRENCH TO REQUIRED DEPTH AND WIDTH.

INSTALLATION

GENERAL: INSTALL ALL MATERIALS AND EQUIPMENT IN A NEAT AND WORKMANLIKE MANNER FOLLOWING THE RECOMMENDATIONS OF THE MANUFACTURERS OF THE MATERIALS. THE OWNER RETAINS THE RIGHT TO ORDER REMOVAL OR REPLACEMENT OF ANY ITEMS WHICH, IN HIS OPINION, DO NOT PRESENT A REASONABLE NEAT AND WORKMANLIKE APPEARANCE. PERFORM AND COMPLETE ANY REQUIRED REMOVAL AND REPLACING OF MATERIALS WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

MAIN AND LATERAL PIPING: ALL PIPE SHALL BE INSTALLED AND BURIED AT THE FOLLOWING MINIMUM DEPTHS:

- ALL MAIN LINE PIPING SHALL BE INSTALLED AT A MINIMUM OF 24" BELOW FINISHED GRADE.
- ALL LATERAL PIPING SHALL BE INSTALLED AT A MINIMUM OF 18" BELOW FINISHED GRADE.

SLEEVE INSTALLATION: INDIVIDUALLY SLEEVE ALL PVC PIPING THAT CROSSES ROADWAYS OR PAVEMENT MORE THAN 5' IN WIDTH. PLACE ALL SLEEVES UNDER ROADWAYS A MINIMUM OF 30" BELOW GRADE.

VALVE BOXES : INSTALL ARMOR 10" GREEN PLASTIC VALVES BOXES OR OWNER APPROVED EQUAL FOR ALL REMOTE CONTROL VALVES, ISOLATION VALVES, SPLICES OR ANY OTHER MISCELLANEOUS MARKER OR ACCESS BOX SO THE TOP OF SAID STRUCTURE IS AT FINISHED GRADE AFTER SODDING. USE PENTEK VALVE BOX EXTENSIONS WHERE REQUIRED.

ISOLATION VALVES: INSTALL LEEMCO, INC. LMV-BB SERIES (BELL X BELL) MAINLINE GATE VALVES, OR OWNER APPROVED EQUAL TO ISOLATE VARIOUS SECTIONS OF THE MAINLINE WHERE SHOWN ON THE PLANS.

ADJUSTMENTS: ADJUST AUTOMATIC CONTROL VALVES TO PROVIDE FLOW RATE OF RATED OPERATING PRESSURE REQUIRED FOR EACH SPRINKLER CIRCUIT.

INSTALL ELECTRIC REMOTE CONTROL VALVES: AS INDICATED ON THE DRAWINGS AND ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

FLOW CONTROL: ADJUST FLOW CONTROL STEM ON ALL REMOTE CONTROL ZONE VALVES DOWNWARD TO MINIMIZE ANY OVER PRESSURIZATION BEFORE ANY INDIVIDUAL NOZZLE ADJUSTMENTS ON THE SPRINKLERS ARE PERFORMED.

TESTING: NOTIFY OWNER IN WRITING WHEN TESTING WILL BE CONDUCTED. CONDUCT TESTS IN PRESENCE OF OWNER.

HYDROSTATIC TEST: UPON COMPLETION OF THE IRRIGATION MAIN AND AFTER SUFFICIENT TIME HAS BEEN ALLOWED FOR SOLVENT WELD JOINTS TO CURE, TEST ENTIRE OR PORTIONS OF THE MAIN FOR PROPER OPERATION. FLUSH ALL AIR FROM THE MAIN AND CHECK ALL COMPONENTS FOR PROPER OPERATION. AFTER COMPLETION OF THE FLUSHING OPERATION, TEST IRRIGATION MAIN WITH 125 PSI HYDROSTATIC PRESSURE FOR A MINIMUM OF 4 HOURS. AFTER THE PRESSURE HAS BEEN STABILIZED, NO PRESSURE LOSS SHALL BE RECORDED OVER THE ENTIRE PERIOD OF THE TEST SHALL BE PERMITTED. REMOVE AND/OR REPLACE ANY ITEM OR COMPONENT OF THE SYSTEM WHICH DOES NOT COMPLY WITH TEST AND TEST THE ENTIRE SYSTEM AGAIN UNTIL SATISFACTORY TEST RESULTS ARE OBTAINED. ALL TESTING SHALL BE DONE IN THE PRESENCE OF THE OWNER AND A MINIMUM OF 48 HOURS NOTICE SHALL BE AFFORDED THE OWNER PRIOR TO CONDUCTING THE HYDROSTATIC PRESSURE TEST.

OPERATIONAL TESTING: PERFORM OPERATIONAL TESTING AFTER HYDROSTATIC TESTING IS COMPLETED, BACKFILL IS IN PLACE, AND SPRINKLER HEADS ADJUSTED TO FINAL POSITION. DEMONSTRATE TO OWNER THAT SYSTEM MEETS COVERAGE REQUIREMENTS AND THAT AUTOMATIC CONTROLS FUNCTION PROPERLY. COVERAGE REQUIREMENTS ARE BASED ON OPERATION OF ONE CIRCUIT AT A TIME.

ADJUSTMENT: AFTER COMPLETION OF GRADING, SEEDING OR SODDING, AND ROLLING OF GRASS AREAS, CAREFULLY ADJUST LAWN SPRINKLER HEADS SO THAT THEY WILL BE FLUSH WITH FINISH GRADE.

BALANCE: ADJUST THE VARIOUS COMPONENTS OF THE SPRINKLER SYSTEM SO THE OVERALL OPERATION OF THE SYSTEM IS EFFICIENT. BALANCING AND ADJUSTMENT SHALL INCLUDE A SYNCHRONIZATION OF THE CONTROLLERS, WATER QUALITY CONTROL EQUIPMENT, SPRINKLER HEADS, AND INDIVIDUAL STATION ADJUSTMENTS ON THE CONTROLLERS.

TRAINING OF MAINTENANCE PERSONNEL: UPON COMPLETION OF THE WORK AND FINAL ACCEPTANCE BY THE OWNER, SYSTEM INSTALLER TRAIN MAINTENANCE PERSONNEL IN THE OPERATION, MAINTENANCE, AND REPAIR OF THE SYSTEM. PROVIDE COPIES OF ALL PARTS LIST, TROUBLE SHOOTING LISTS, SPECIFICATIONS SHEETS, AND CATALOG SHEETS TO THE SCHEDULES AND PROGRAMMING OF THE AUTOMATIC CONTROLLERS IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR IRRIGATION DRAWINGS.

GUARANTEE: INSTALLER TO FURNISH A GUARANTEE PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE SYSTEM AND WITH A SIXTY (60) DAYS OF FREE SERVICE. FULL COVERAGE MUST BE ATTAINED FROM THE COMPLETE SYSTEM IN THE PRESENCE OF THE OWNER BEFORE FINAL PAYMENT CAN BE MADE.

NOTE:

THE IRRIGATION SYSTEM USES POTABLE SEACOAST UTILITY AUTHORITY WATER FOR IRRIGATION.

THERE ARE TWO SEPARATE IRRIGATION SYSTEMS WITH TWO SEPARATE WATER SOURCES ALONG LAKE SHORE DRIVE EASTERN PERIMETER. SHEET IR-1 SHOWS WATER SOURCE M-1 FOR THE NEW VEHICLE DEALERSHIP. SHEET IR-2 SHOWS THE WATER SOURCE M-2 FOR THE USED VEHICLE DEALERSHIP.

PVC MAINLINES ARE LOCATED ALONG THE NORTHERN AND SOUTHERN PERIMETERS OF JASMINE DRIVE FOR EACH IRRIGATION SYSTEM. THESE TWO MAINLINES SHALL BE CUT AND CAPPED PRIOR TO DEMOLITION TO KEEP THE MAINLINES OUT OF AREAS OF CONSTRUCTION. IT IS THE INTENT TO PROVIDE IRRIGATION TO ALL AREAS NOT WITHIN THE CONSTRUCTION WORK ZONES TO KEEP ALL EXISTING LANDSCAPING VIABLE AND ALIVE DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO CUT AND CAP M-1 MAINLINE LOCATED ALONG U.S. HIGHWAY 1 WHEN NEW ENTRY IS CREATED AND ANY M-2 MAINLINE AND ZONE LATERAL PIPING WHEN JASMINE DRIVE IS REMOVED. ANY MAINLINES OR LATERAL LINES IN ZONES THAT ARE CUT DURING CONSTRUCTION SHALL BE CAPPED.

IRRIGATION PLANS OR AS-BUILT IRRIGATION PLANS OF THE EXISTING IRRIGATION SYSTEM ARE NOT AVAILABLE. PRIOR TO DEMOLITION THE CONTRACTOR SHALL LOCATE ALL EXISTING VALVES IN THE FIELD. VALVES THAT CAN REMAIN SHALL BE PLACED IN A NEW 10" PLASTIC ARMOR VALVE WITH COVER PER SHEET IR-3. LOCATED EACH VALVE WITH GPS FOR FUTURE CREATION OF RECORD DRAWINGS.

RECORD DRAWINGS

CONTRACTOR SHALL PROVIDE RECORD DRAWINGS SHOWING "AS-BUILT" LOCATIONS AT 100' INTERVALS FOR MAINLINE PIPING 1" AND ABOVE. RECORD DRAWINGS SHALL DEPICT AREAS OF EXISTING IRRIGATION SYSTEM DISCOVERED DURING CONSTRUCTION INCLUDING MAINLINE AND LATERAL PIPE LOCATIONS/SIZING, SLEEVE LOCATIONS, VALVE LOCATIONS WITH GPS INCLUDED ON PLANS. NEWLY INSTALLED AREAS OF IRRIGATION SHALL IDENTIFY HEAD AND NOZZLE TYPES, PIPE SIZES AND LOCATIONS, VALVE LOCATIONS (WITH GPS), AND SLEEVE SIZES AND LOCATIONS. THE RECORD DRAWINGS SHALL ALSO IDENTIFY THE AREAS IRRIGATED BY EACH ZONE. RECORD DRAWINGS SHALL BE SUBMITTED IN HARD COPY AND DIGITAL FORMAT (MINIMUM AUTOCAD VERSION 2010) PROVIDED ON A CD.

NOTE: PHASE III IRRIGATION PLANS SHALL BE SUBMITTED AT THE TIME OF BUILDING PERMIT.

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Earl Stewart Toyota

Lake Park, FL
Irrigation Specifications

Date:	03.28.2014
Project No.:	03-002.004
Designed By:	JWB
Drawn By:	JWB
Checked By:	DM/AB

Revision Dates:

10.30.14 Updated Site & Landscape Plans
02.18.15 Resubmit SP Admendment