

IRRIGATION NOTES & 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 a state of FLORIDA LICENSED LANDSCAPE IRRIGATION CONTRACTOR and/or as required by local municipal code and 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 the 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% coverage of landscape areas with 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 the project's regional Water Management District restrictions and regulations. 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.

Irrigation 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 Landscape Architect. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions performed.

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 through walls, under roadways and paving, etc.

The Irrigation Contractor shall notify General Contractor of any damage to existing utilities immediately. All costs involved in disruption of service and repairs due to negligence on the part of the irrigation contractor shall be their responsibility.

LAYOUT

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to insure 100% coverage. Irrigation plans are diagrammatic and should not be scaled. Locations of sprinklers are approximate, refer to the "IRRIGATION HEAD LAYOUT DETAIL" on the Irrigation Detail Sheet for proper placement near edges of pavement and walls.

Pipe locations shown on the plan are schematic and shall be adjusted in the field. Layout irrigation system mainlines and lateral lines by placing them a maximum of 1' 0" 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. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches. Install pipes in shared trenches to the appropriate depths and separations as shown on the "TYPICAL IRRIGATION TRENCH DETAIL".

Locate existing 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. NOTE: Once sod is installed top of box should be flush with sod, if installing in shrub beds top of box should be flush with mulch. VALVE BOXES HIGHER THAN 1/2" ABOVE SOD OR MULCH ARE A TRIP HAZARD AND WILL NOT BE ACCEPTED AT TIME OF INSPECTION. Install valve boxes in shrub beds when possible. Never install in sport field areas.

POINT OF CONNECTION (P.O.C.)

The P.O.C. is an existing irrigation system. Contractor shall modify existing system to incorporate new spray and bubbler zones, shown on plans.

THE PIPE

All pipes are to be installed within landscape areas, unless shown sleeved. Pipes shown in paved areas is only for graphic clarity, irrigation contractor shall install in landscape areas nearest to the location shown. If it is necessary to have piping under hardscapes, such as roads, walks, and patios, the pipes must be sleeved using 5ch 40 PVC with the inside diameter being two sizes larger than the size of the pipe it is carrying with a minimum sleeve size of 2".

Piping Size: The size of all main and lateral piping (indicated in inside diameters) shall be as indicated on the plan. If the diameter of the pipe is not indicated on the plan, the pipe shall be sized not to exceed a velocity of 5' (feet) per second.

Zone lines shall be PVC Class 200 SDR 21 pipe with Schedule 40 fittings, NO MALE ADAPTERS WILL BE USED. NO PIPE SMALLER THAN 3/4" SHALL BE USED ON ZONE LINES.

REMOTE CONTROL VALVE 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. Install along mainline as shown on the "TYPICAL IRRIGATION TRENCH DETAIL".

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:

- # 16 white for common
- # 16 spare black common
- # 16 red for hot wires
- # 16 spare blue hot wire

Spare wires

If spare wires reaching existing controller are discovered, they shall be utilized to install new Remote Control Valves for the new irrigation laterals shown on plan.

EQUIPMENT

All pop-up heads shall be pressure compensating, as per schedule.

All sprinkler equipment not otherwise detailed or specified shall be installed as per manufacturer's recommendations and specifications of the sprinklers being provided, 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 sits 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 4" 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.

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. 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.

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, splice boxes, controllers, mainline, and sleeving. 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. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart will 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.

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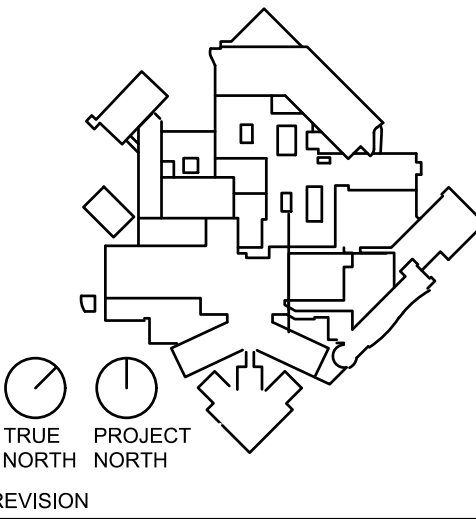
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TELECOM & EQUIPMENT
SMITH SECKMAN REID, INC.
2995 SISCO DRIVE
NASHVILLE, TN 37204

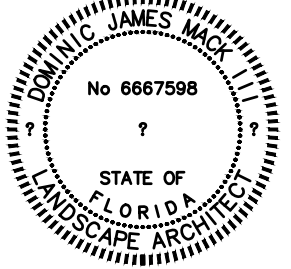
OWNER
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KEY PLAN



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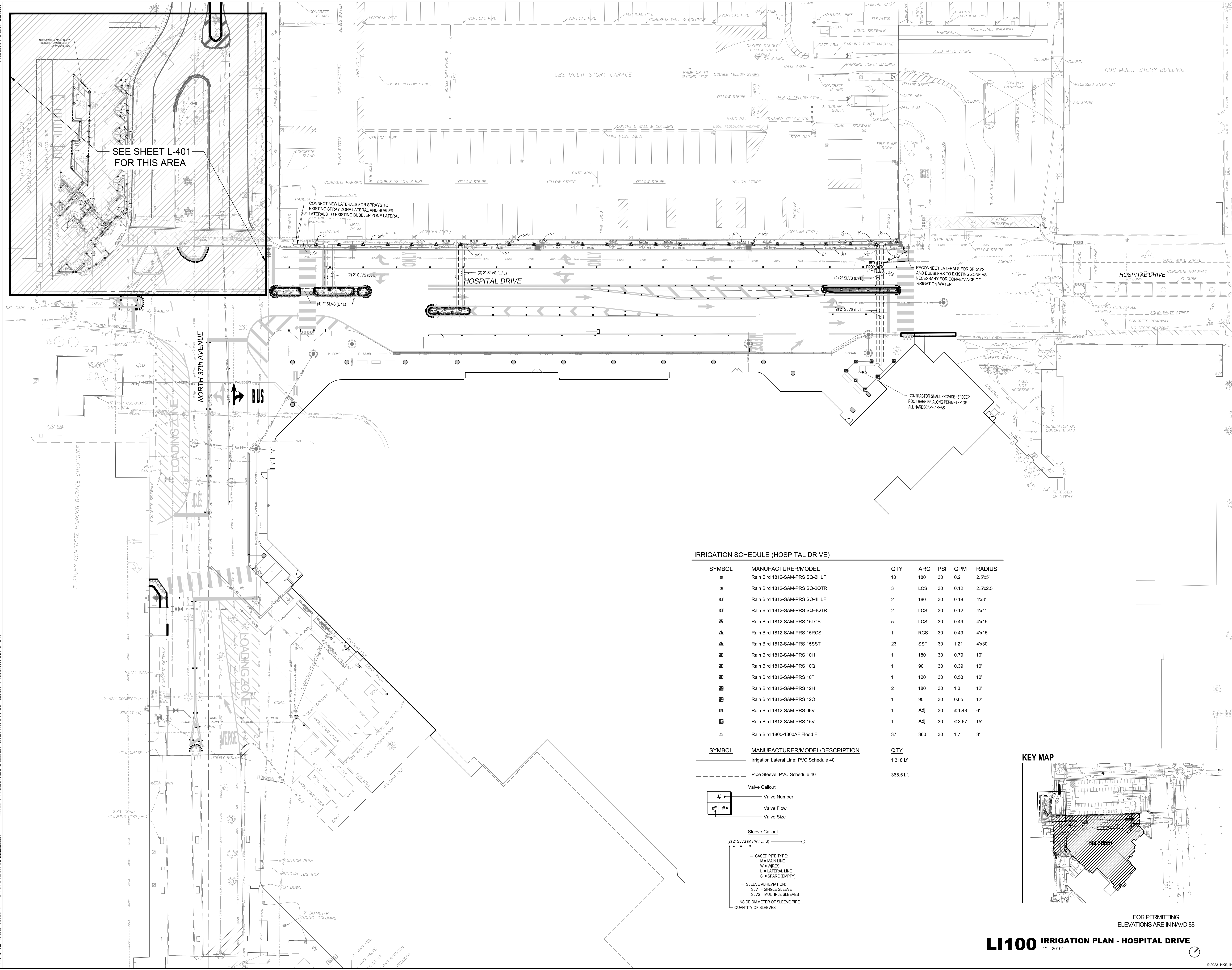
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SHEET TITLE

IRRIGATION NOTES

SHEET NO.

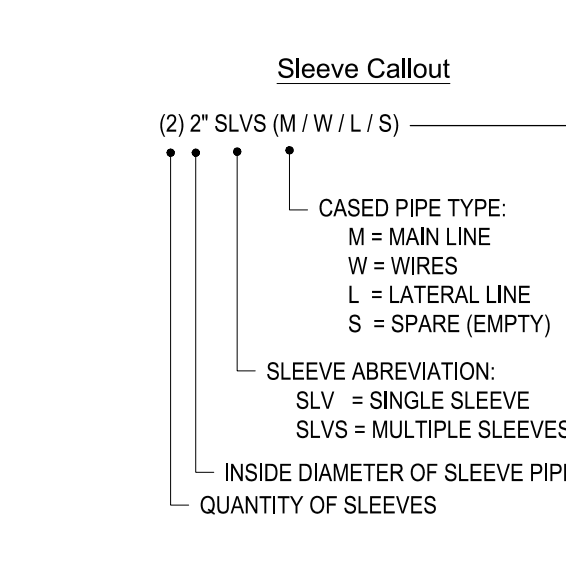
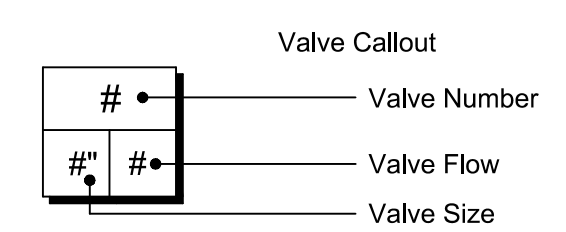
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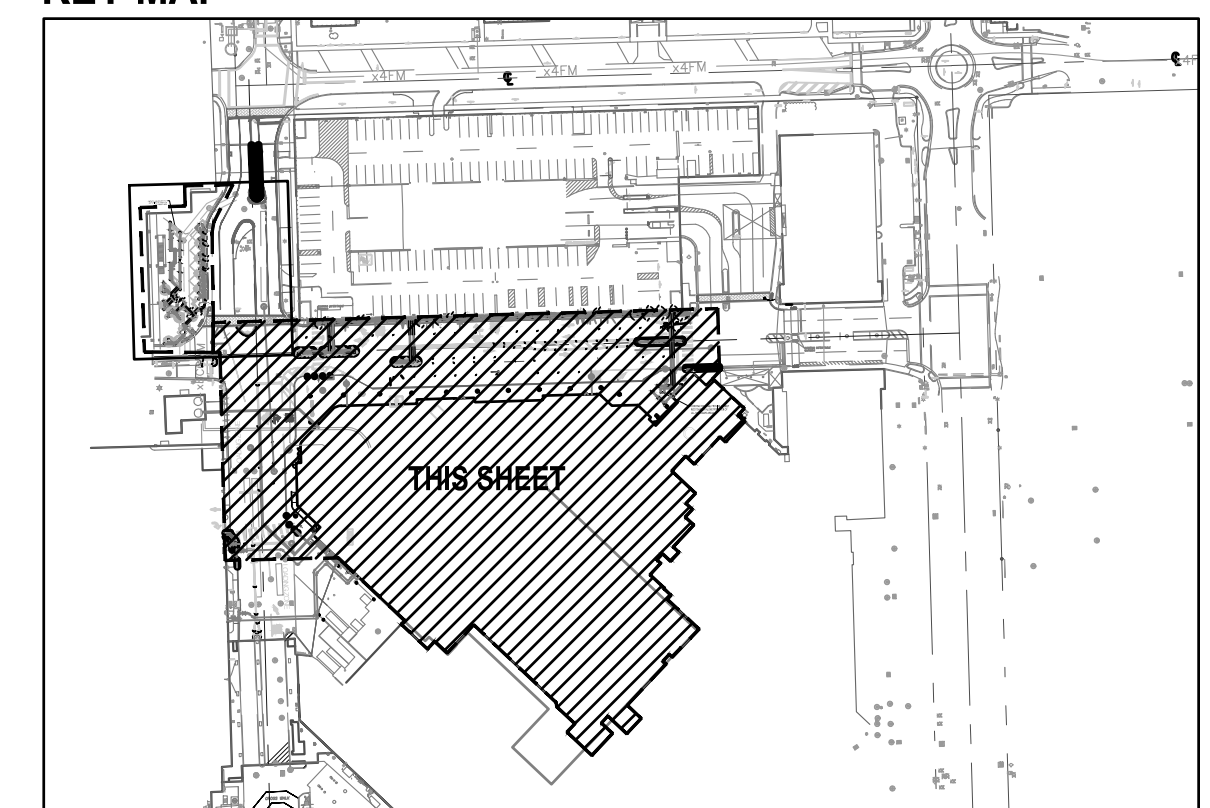
IRRIGATION SCHEDULE (HOSPITAL DRIVE)

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
▲	Rain Bird 1812-SAM-PRS SQ-2HLF	10	180	30	0.2	2.5x5'
▲	Rain Bird 1812-SAM-PRS SQ-2QTR	3	LCS	30	0.12	2.5x2.5'
▲	Rain Bird 1812-SAM-PRS SQ-4HLF	2	180	30	0.18	4x8'
▲	Rain Bird 1812-SAM-PRS SQ-4QTR	2	LCS	30	0.12	4x4'
▲	Rain Bird 1812-SAM-PRS 15LCS	5	LCS	30	0.49	4x15'
▲	Rain Bird 1812-SAM-PRS 15RCS	1	RCS	30	0.49	4x15'
▲	Rain Bird 1812-SAM-PRS 15SST	23	SST	30	1.21	4x30'
■	Rain Bird 1812-SAM-PRS 10H	1	180	30	0.79	10'
■	Rain Bird 1812-SAM-PRS 10Q	1	90	30	0.39	10'
■	Rain Bird 1812-SAM-PRS 10T	1	120	30	0.53	10'
■	Rain Bird 1812-SAM-PRS 12H	2	180	30	1.3	12'
■	Rain Bird 1812-SAM-PRS 12Q	1	90	30	0.65	12'
■	Rain Bird 1812-SAM-PRS 06V	1	Adj	30	≤ 1.48	6'
■	Rain Bird 1812-SAM-PRS 15V	1	Adj	30	≤ 3.67	15'
▲	Rain Bird 1800-1300AF Flood F	37	360	30	1.7	3'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
---	Irrigation Lateral Line: PVC Schedule 40	1,318 Lf.
---	Pipe Sleeve: PVC Schedule 40	365.5 Lf.



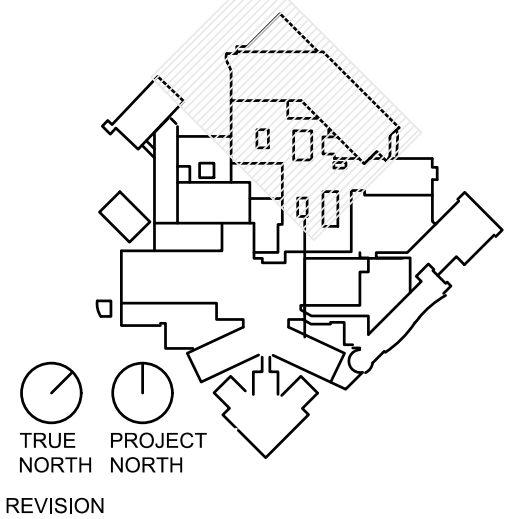
KEY MAP



FOR PERMITTING
ELEVATIONS ARE IN NAVD 88

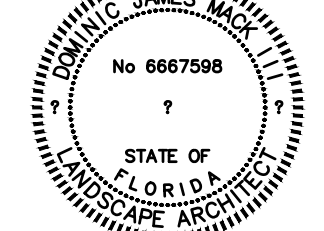
LI100 IRRIGATION PLAN - HOSPITAL DRIVE
1" = 20'-0"

KEY PLAN



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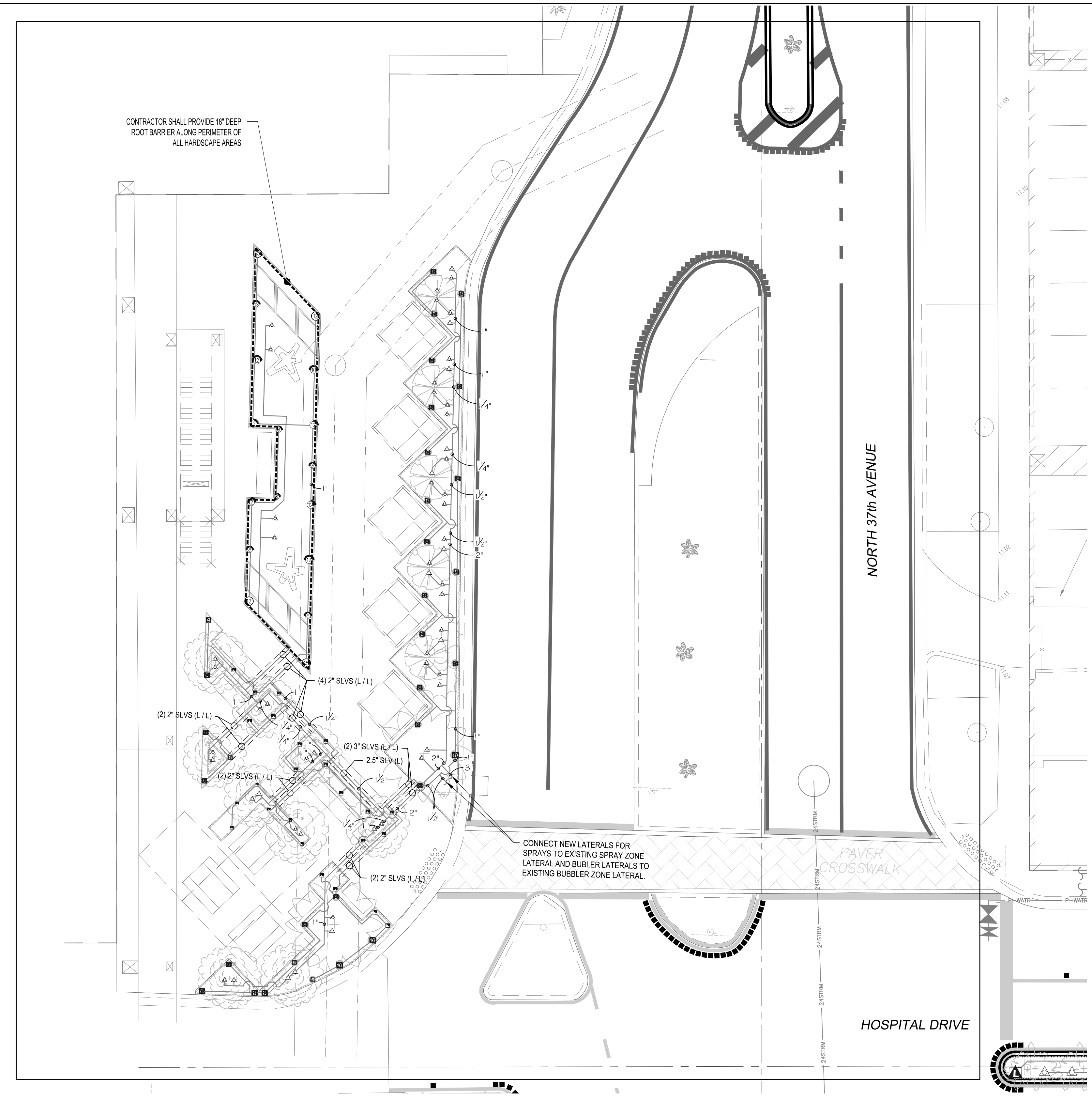
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IRRIGATION PLAN - HOSPITAL DRIVE

SHEET NO.
LI100

IRRIGATION SCHEDULE (CORNER PLAZA)

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
☉	Rain Bird 1806-SAM-PRS 08H	4	180	30	0.52	8'
☉	Rain Bird 1806-SAM-PRS 08Q	2	90	30	0.26	8'
☉	Rain Bird 1806-SAM-PRS 10H	1	180	30	0.79	10'
☉	Rain Bird 1806-SAM-PRS 12H	2	180	30	1.3	12'
☉	Rain Bird 1806-SAM-PRS 12Q	4	90	30	0.65	12'
☉	Rain Bird 1806-SAM-PRS 12V	2	Adj	30	≤2.38	12'
☉	Rain Bird 1806-SAM-PRS 15V	2	Adj	30	≤3.67	15'
■	Rain Bird 1812-SAM-PRS SQ-2HLF	20	180	30	0.2	2.5x5'
■	Rain Bird 1812-SAM-PRS SQ-2QTR	4	LCS	30	0.12	2.5x2.5'
■	Rain Bird 1812-SAM-PRS 05H	2	180	30	0.2	5'
■	Rain Bird 1812-SAM-PRS 05Q	1	90	30	0.1	5'
■	Rain Bird 1812-SAM-PRS 08H	17	180	30	0.52	8'
■	Rain Bird 1812-SAM-PRS 08Q	2	90	30	0.26	8'
■	Rain Bird 1812-SAM-PRS 10H	1	180	30	0.79	10'
■	Rain Bird 1812-SAM-PRS 10Q	2	90	30	0.39	10'
■	Rain Bird 1812-SAM-PRS 04V	1	Adj	30	≤1.15	4'
■	Rain Bird 1812-SAM-PRS 06V	4	Adj	30	≤1.48	6'
■	Rain Bird 1812-SAM-PRS 08V	3	Adj	30	≤2.88	8'
△	Rain Bird 1800-1300AF Flood F	56	360	30	1.7	3'

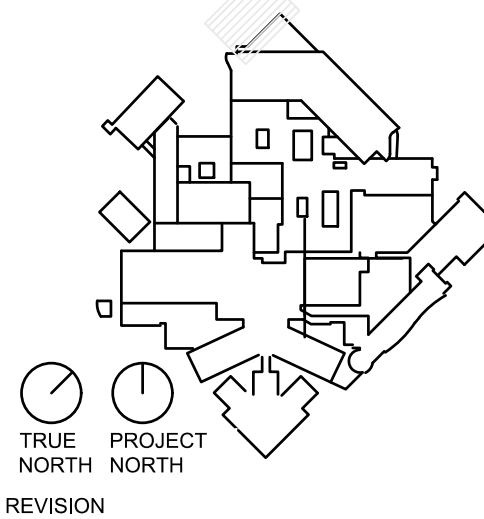
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
---	Irrigation Lateral Line: PVC Schedule 40	869.8 L.F.
---	Pipe Sleeve: PVC Schedule 40	86.4 L.F.



1 ENLARGEMENT PLAN: CORNER PLAZA - IRRIGATION PLAN

1:10

KEY PLAN



TRUE PROJECT NORTH NORTH

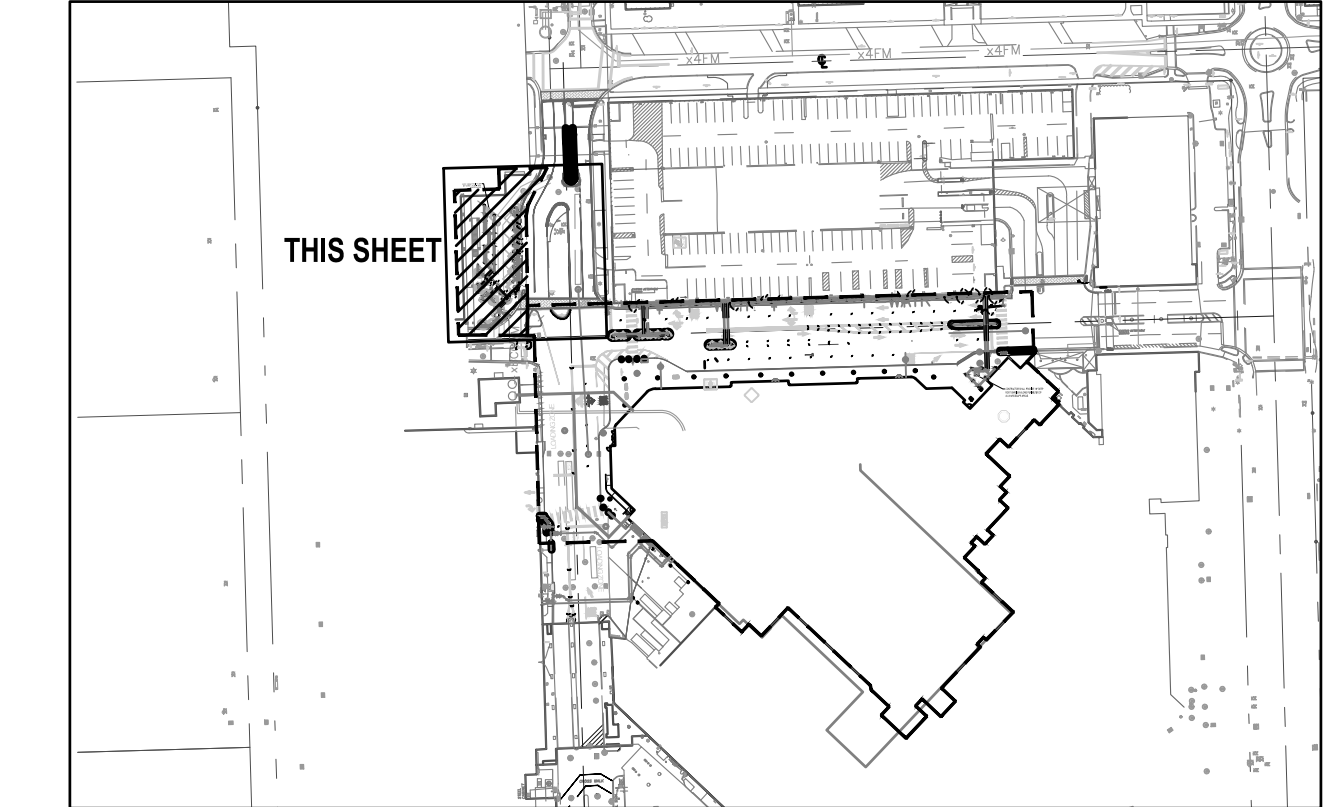
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IRRIGATION PLAN - CORNER PLAZA
SHEET NO.

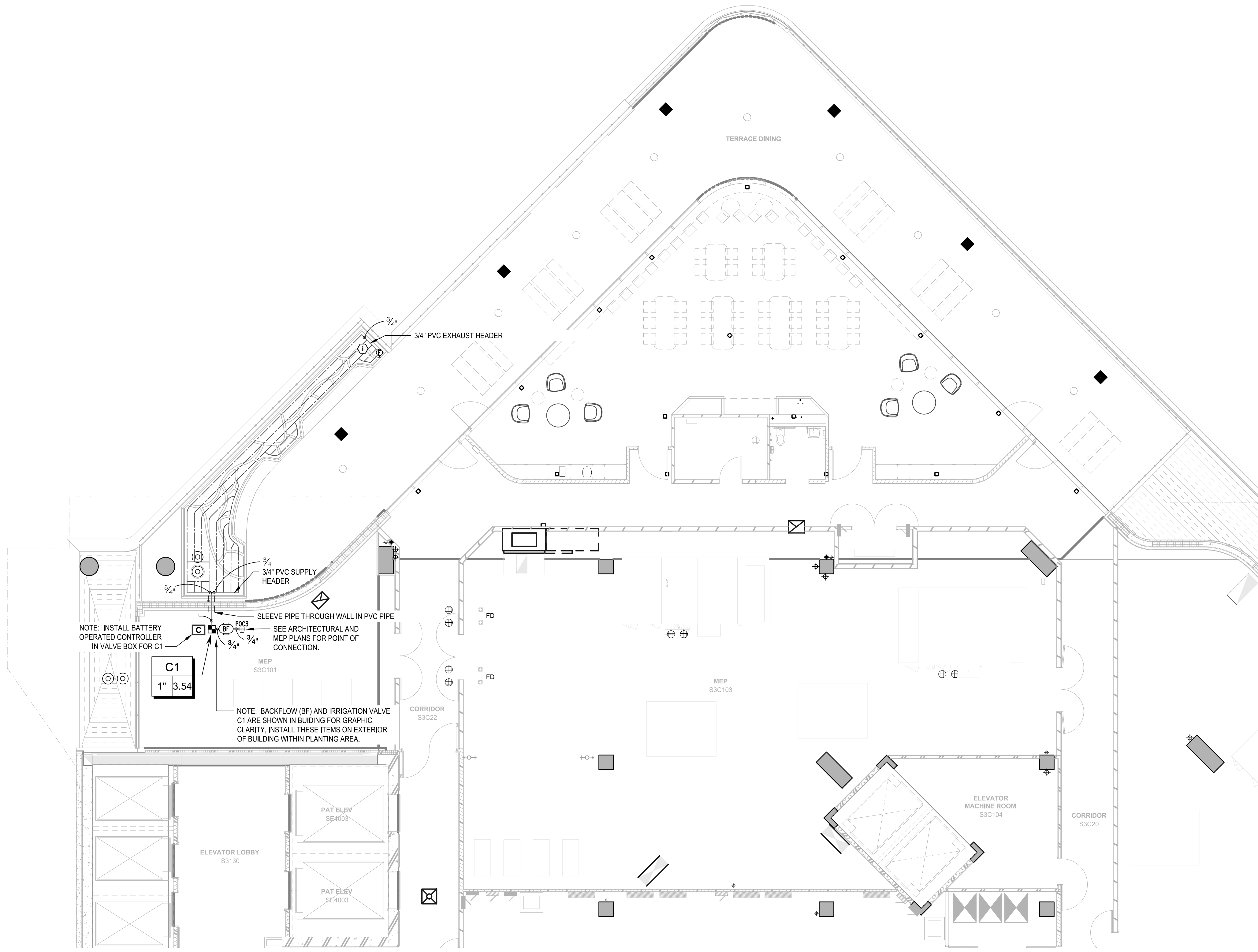
KEY MAP



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LI401 IRRIGATION PLAN - CORNER PLAZA
1" = 20'-0"

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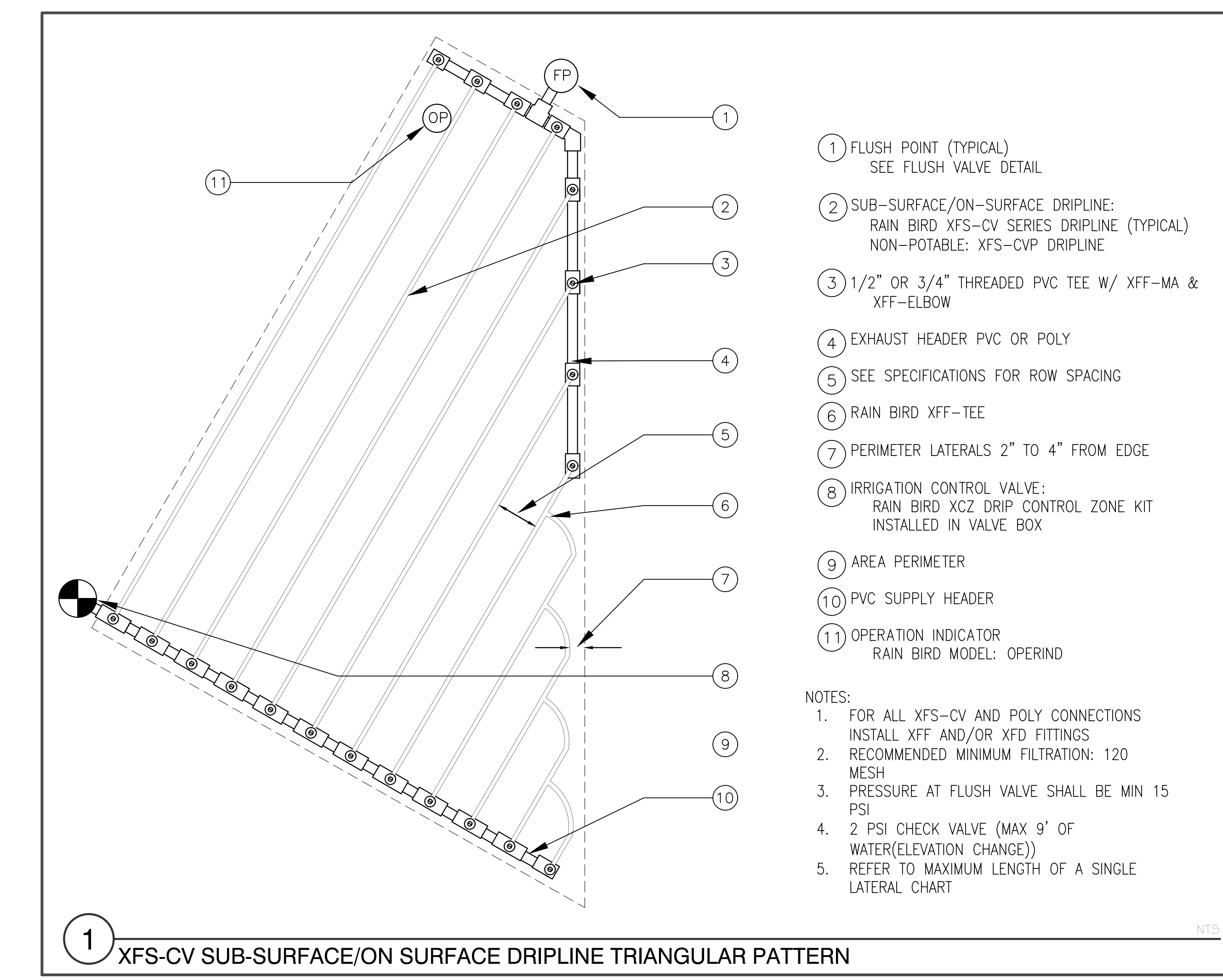
IRRIGATION SCHEDULE LEVEL 3

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
■	Rain Bird XCZLF-100-PRF Low Flow Control Zone, 0.2-10 GPM, with 1in. Low Flow Valve valve and 1in. Pressure Regulating RBY filter and 40psi pressure regulator. Install with DC Latching Solenoid.	1
⊕	Netafim TL050MFV-1 Automatic flush valve, 1/2in. male pipe thread.	1
Ⓢ	Rain Bird OPERIND Drip System Operation Indicator, stem rises 6in. for clear visibility when drip system is charged to a minimum of 20psi. Includes 16in. of 1/4in. distribution tubing with connection fitting pre-installed.	1
---	Rain Bird XFS-09-12 XFS Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.9 GPH emitters at 12" O.C. UV Resistant. Specify XF insert fittings.	210.8 l.f.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
Ⓡ	Watts LF800MAQT 1/2" Standardly equipped with tee handle quarter turn ball valve shutoffs. See specification sheet for more information.	1
Ⓢ	Rain Bird ESP-BAT-BT1 1 Station Bluetooth battery-operated controller with one dedicated master valve/pump output, sensor wire and one common wire. Requires AA batteries for an extended battery life of up to five years. Valves shall be install with TBOSPSOL DC latching solenoid. Controller shall be used with Rain Bird Z.0 app for scheduling and programming.	1
Ⓢ	Point of Connection 1" Building water supply, by others see Architectural and MEP Drawings	1
---	Irrigation Lateral Line: PVC Schedule 40	15.4 l.f.
---	Irrigation Mainline: Type K Copper Pipe	4.1 l.f.
---	Pipe Sleeve: PVC Schedule 40	2.2 l.f.



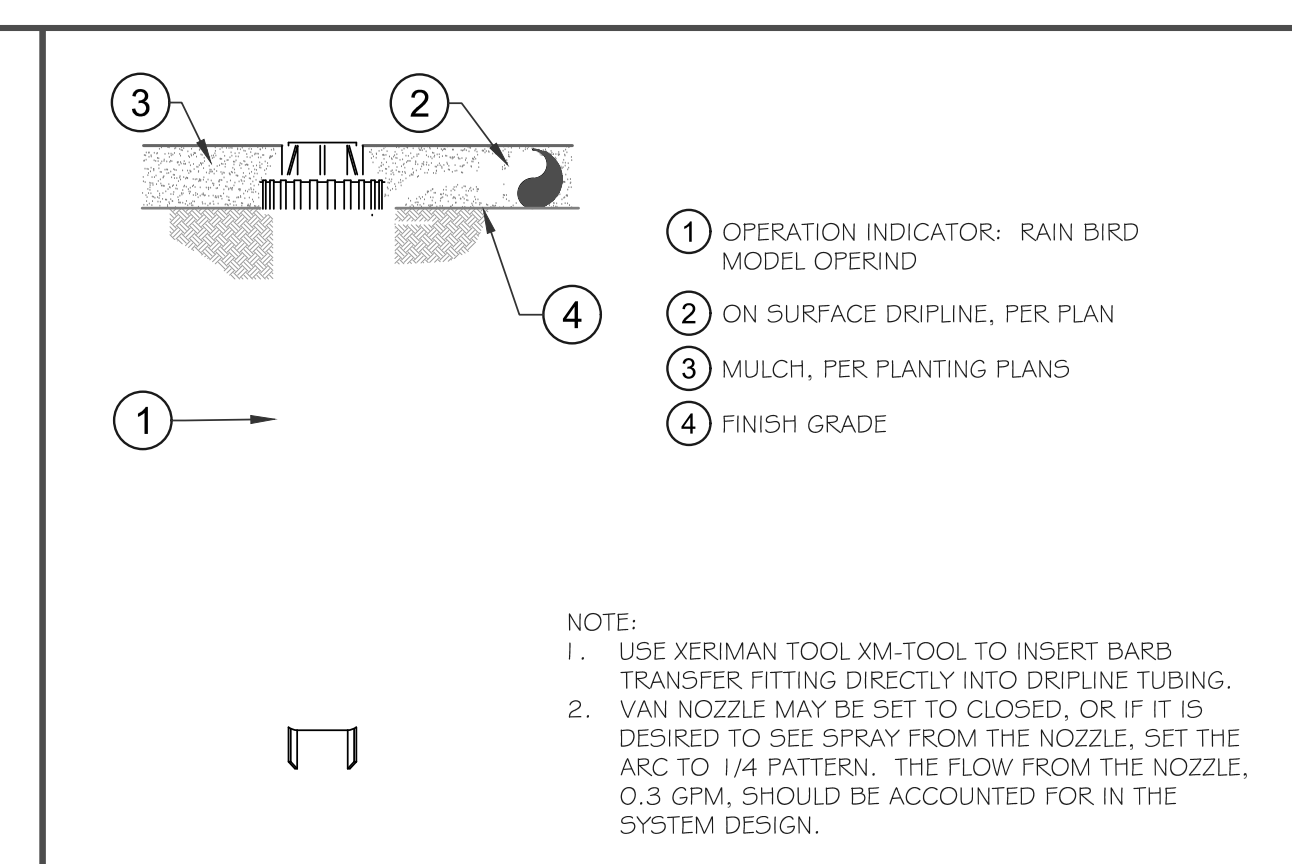
1 IRRIGATION PLAN: LEVEL 3 COURTYARD

1/8"=1'-0"



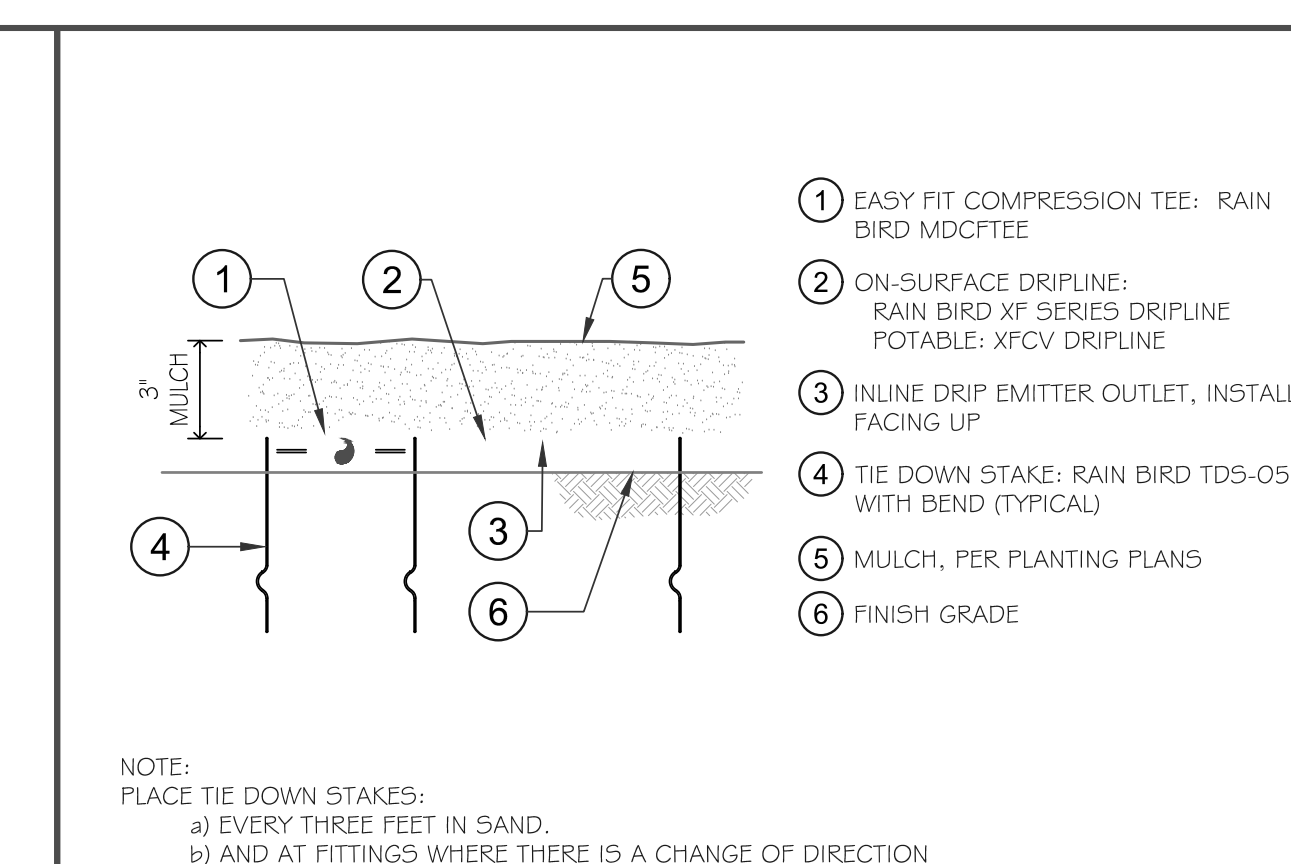
- 1 FLUSH POINT (TYPICAL)
SEE FLUSH VALVE DETAIL
 - 2 SUB-SURFACE/ON-SURFACE DRIPLINE:
RAIN BIRD XFS-CV SERIES DRIPLINE (TYPICAL)
NON-POTABLE: XFS-CVP DRIPLINE
 - 3 1/2" OR 3/4" THREADED PVC TEE W/
XFF-MA & XFF-ELBOW
 - 4 EXHAUST HEADER PVC OR POLY
 - 5 SEE SPECIFICATIONS FOR ROW SPACING
 - 6 RAIN BIRD XFF-TEE
 - 7 PERIMETER LATERALS 2" TO 4" FROM EDGE
 - 8 IRRIGATION CONTROL VALVE:
RAIN BIRD XCZ DRIP CONTROL ZONE KIT
INSTALLED IN VALVE BOX
 - 9 AREA PERIMETER
 - 10 PVC SUPPLY HEADER
 - 11 OPERATION INDICATOR
RAIN BIRD MODEL: OPERIND
- NOTES:
- FOR ALL XFS-CV AND POLY CONNECTIONS
INSTALL XFF AND/OR XFD FITTINGS
 - RECOMMENDED MINIMUM FILTRATION: 120
MESH
 - PRESSURE AT FLUSH VALVE SHALL BE MIN 15
PSI
 - 2 PSI CHECK VALVE (MAX 9' OF
WATER/ELEVATION CHANGE)
 - REFER TO MAXIMUM LENGTH OF A SINGLE
LATERAL CHART

1 XFS-CV SUB-SURFACE/ON SURFACE DRIPLINE TRIANGULAR PATTERN



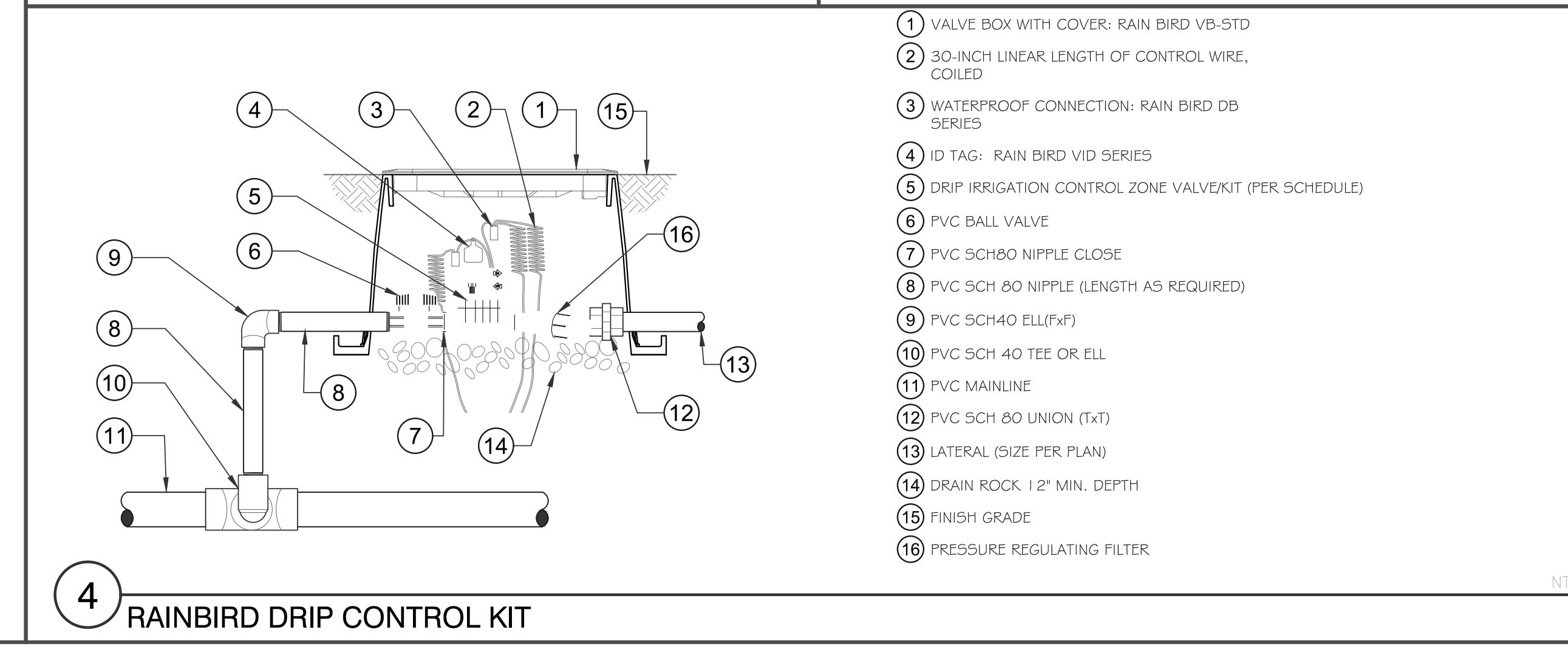
- 1 OPERATION INDICATOR: RAIN BIRD
MODEL OPERIND
 - 2 ON SURFACE DRIPLINE, PER PLAN
 - 3 MULCH, PER PLANTING PLANS
 - 4 FINISH GRADE
- NOTE:
- USE KERIMAN TOOL XM-TOOL TO INSERT BARB
TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.
 - VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS
DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE
ARC TO 1/4 PATTERN. THE FLOW FROM THE NOZZLE,
0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE
SYSTEM DESIGN.

2 DRIP OPERATION INDICATOR



- 1 EASY FIT COMPRESSION TEE: RAIN
BIRD MDCFTTE
 - 2 ON-SURFACE DRIPLINE:
RAIN BIRD XF SERIES DRIPLINE
POTABLE: XFCV DRIPLINE
 - 3 INLINE DRIP EMITTER OUTLET, INSTALL
FACING UP
 - 4 TIE DOWN STAKE, RAIN BIRD TDS-050
WITH BEND (TYPICAL)
 - 5 MULCH, PER PLANTING PLANS
 - 6 FINISH GRADE
- NOTE:
- EVERY THREE FEET IN SAND.
 - AND AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION,
SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH
LEG OF THE CHANGE OF DIRECTION.

3 XFCV ON-SURFACE DRIPLINE AT GRADE



- 1 VALVE BOX WITH COVER: RAIN BIRD VB-STD
- 2 30-INCH LINEAR LENGTH OF CONTROL WIRE,
COILED
- 3 WATERPROOF CONNECTION: RAIN BIRD DB
SERIES
- 4 ID TAG: RAIN BIRD VID SERIES
- 5 DRIP IRRIGATION CONTROL ZONE VALVEKIT (PER SCHEDULE)
- 6 PVC BALL VALVE
- 7 PVC SCH80 NIPPLE CLOSE
- 8 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 9 PVC SCH40 ELL(XFF)
- 10 PVC SCH 40 TEE OR ELL
- 11 PVC MAINLINE
- 12 PVC SCH 80 UNION (X-T)
- 13 LATERAL (SIZE PER PLAN)
- 14 DRAIN ROCK 1 1/2" MIN. DEPTH
- 15 FINISH GRADE
- 16 PRESSURE REGULATING FILTER

4 RAINBIRD DRIP CONTROL KIT

FOR PERMITTING
ELEVATIONS ARE IN NAVD 88



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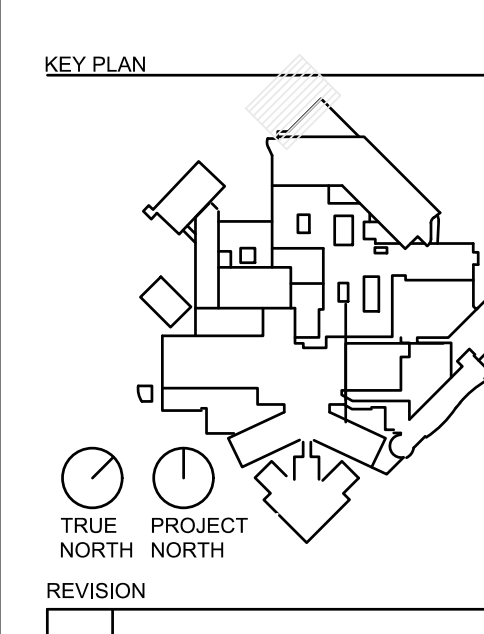
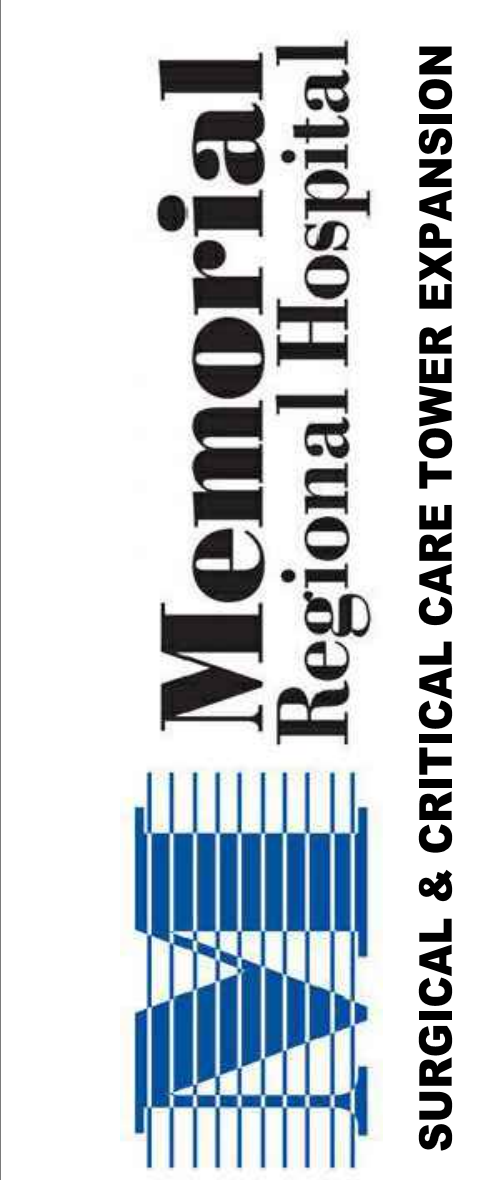
CIVIL & LANDSCAPE
CGA SOLUTIONS
1800 ELLER DRIVE, SUITE 600
FORT LAUDERDALE, FL 33316

STRUCTURAL ENGINEER
GMS STRUCTURAL ENGINEERS
14335 COMMERCE WAY
MIAMI LAKES, FL 33016

MEP & FIRE PROTECTION
TLC ENGINEERING SOLUTIONS, INC.
800 FAIRWAY DRIVE
DEERFIELD BEACH, FL 33441

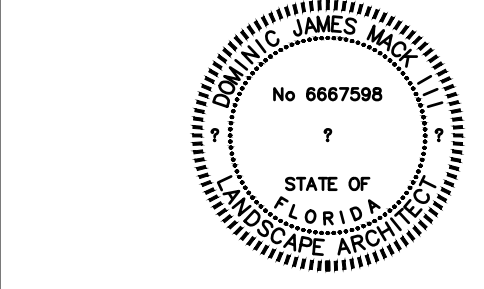
TELECOM & EQUIPMENT
SMITH SECHMAN REID, INC.
2995 SISCO DRIVE
NASHVILLE, TN 37204

OWNER
MEMORIAL HEALTHCARE SYSTEM
3501 JOHNSON STREET
HOLLYWOOD, FL 33021



DOMINIC JAMES MACK III, R.L.A., STATE OF FLORIDA,
REGISTERED LANDSCAPE ARCHITECT, LICENSE NO.
LA6667598.

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HKS PROJECT NUMBER
23459.000

DATE
MARCH 21, 2025

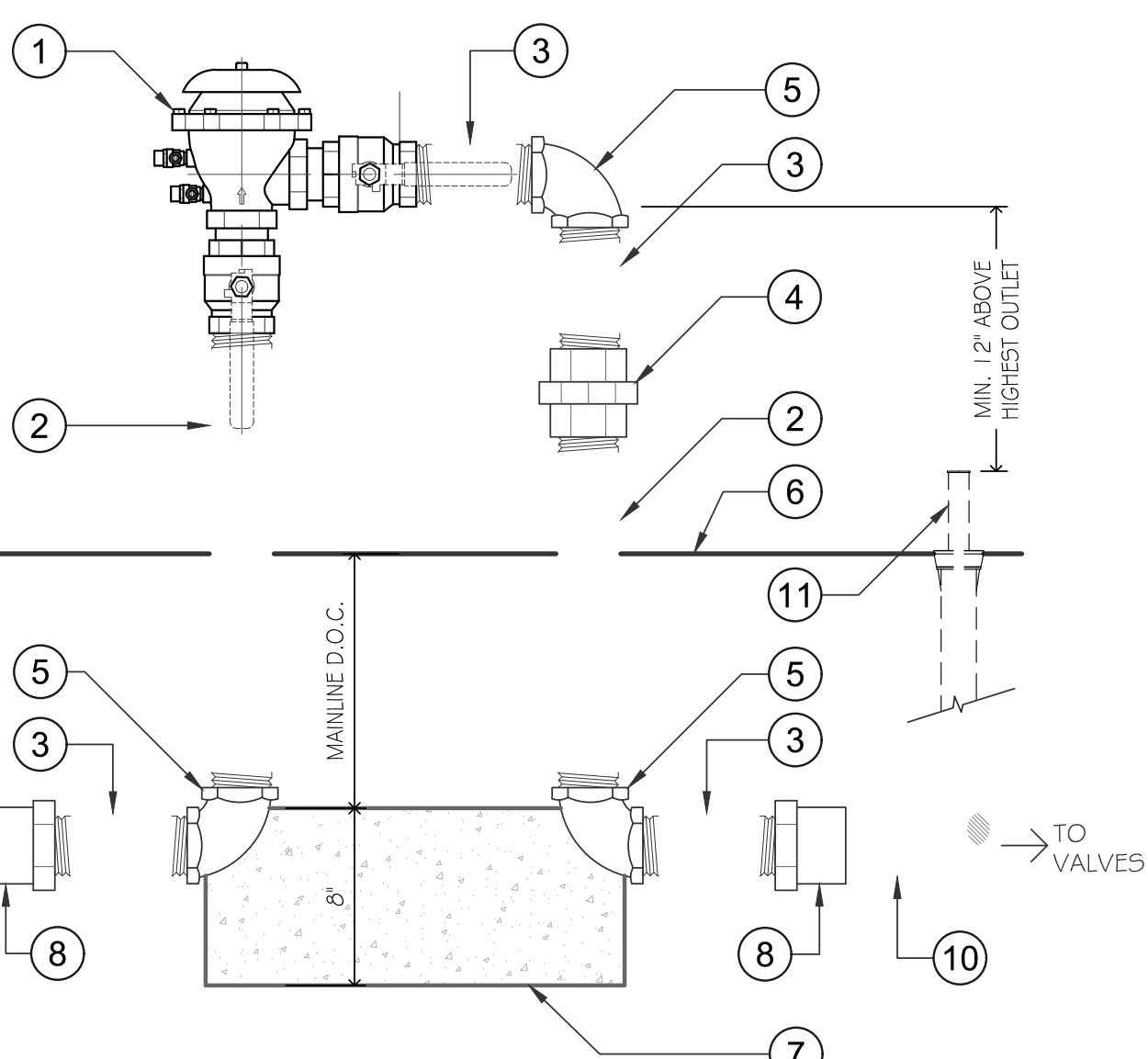
ISSUE
ISSUED FOR CONSTRUCTION

SHEET TITLE
IRRIGATION PLAN - LEVEL 3 COURTYARD

SHEET NO.
LI402

TITLE BLOCK VERSION: 20210502
 MODEL: P:\PROJECTS\2021\1500\IRRI OR EXPANSION\CADD\FILES\DRAWINGS\211500-IRRI-PLAN
 PRINT DATE: 05/20/23 10:55:56 AM TEMPLATE VERSION: 21.03.2020(081)

- 1 ANTI-SIPHON PRESSURE VACUUM BREAKER (P.V.B.) PER SCHEDULE
- 2 BRASS OR TYPE K COPPER RISER, SAME SIZE AS P.V.B.
- 3 BRASS OR TYPE K COPPER NIPPLE, SAME SIZE AS P.V.B. (MIN. 6" LENGTH)
- 4 BRASS OR COPPER UNION, SAME SIZE AS P.V.B.
- 5 BRASS OR COPPER - 90° ELBOW
- 6 FINISH GRADE
- 7 CONCRETE THRUST BLOCK (MIN. 18" X 12" X 8" HT.)
- 8 SUPRTHREAD ADAPTER AS NEEDED
- 9 MAINLINE FROM SERVICE (PER SCHEDULE)
- 10 MAINLINE TO IRRIGATION SYSTEM (PER SCHEDULE & PLAN)
- 11 HIGHEST (ELEVATION) IRRIGATION SPRAY HEAD OR OUTLET

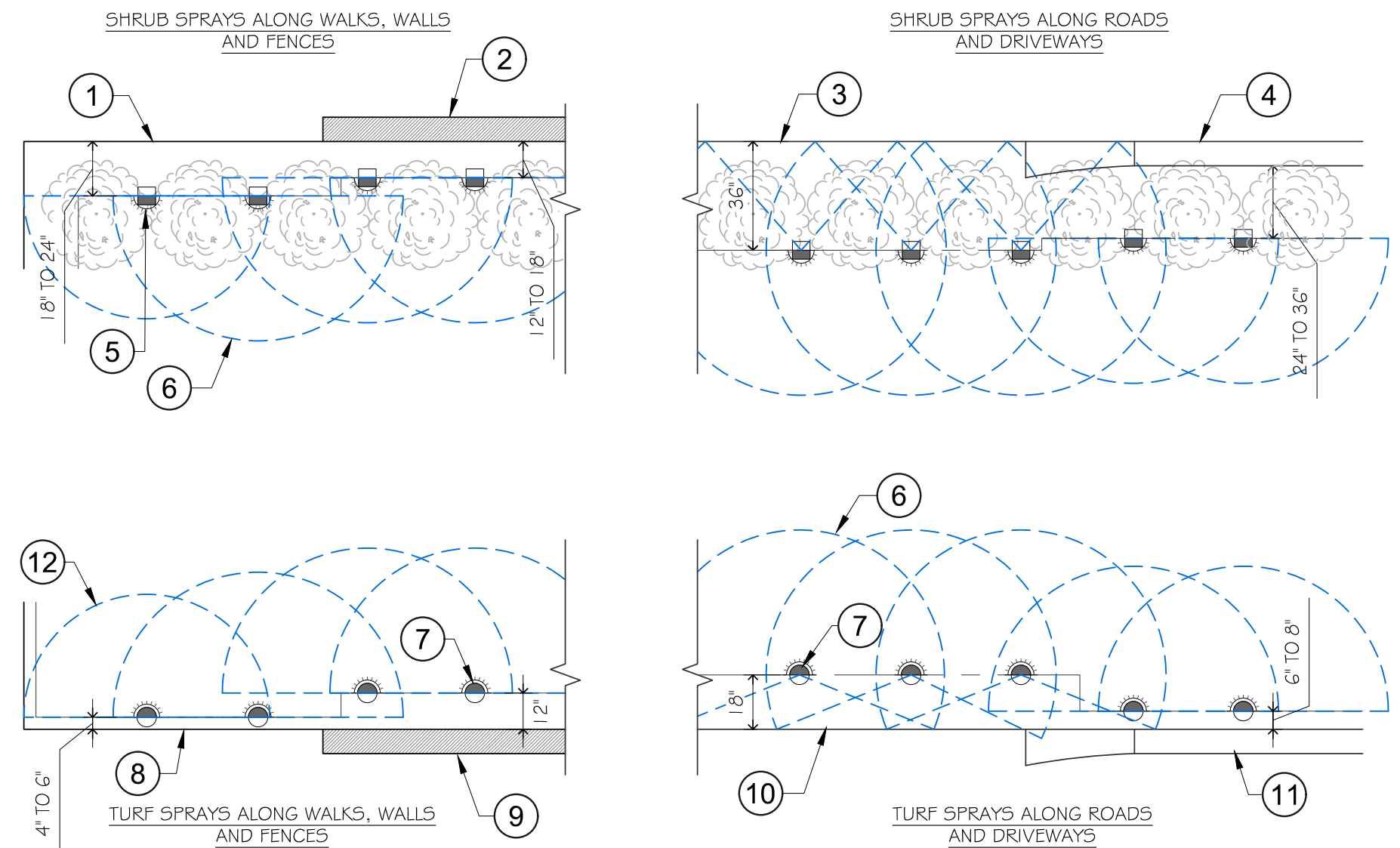


NOTES:

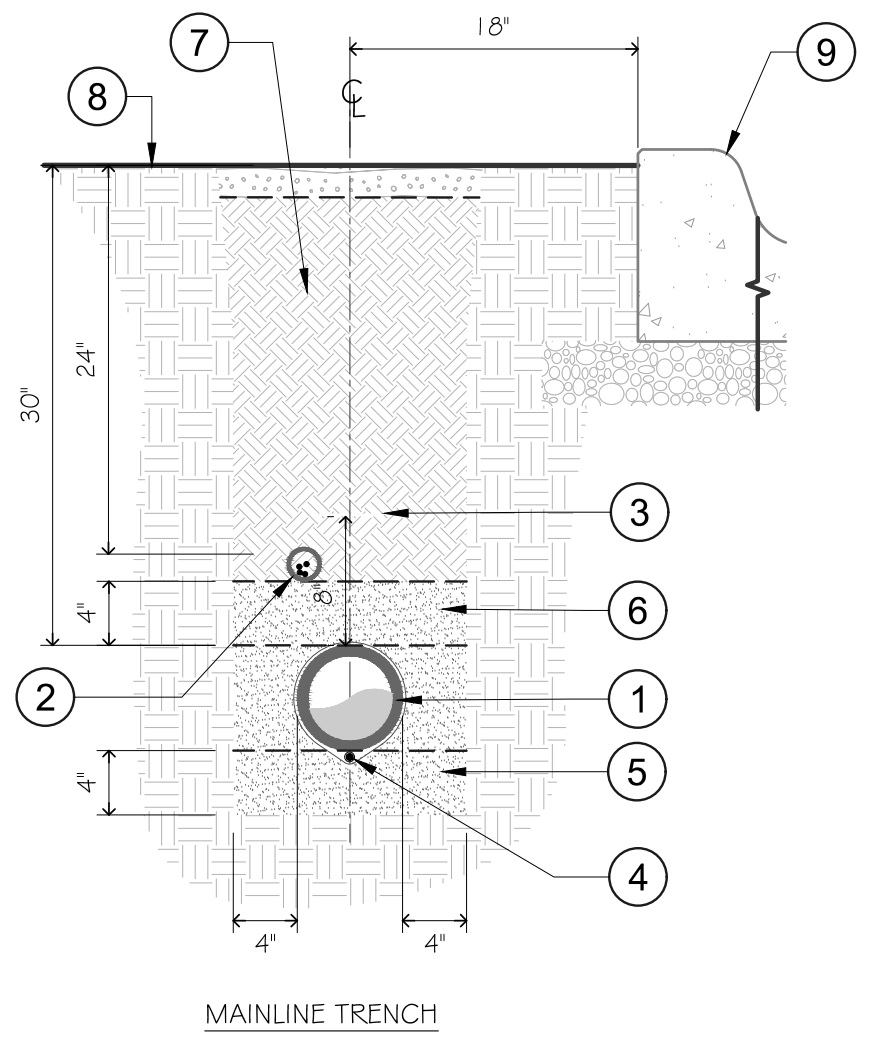
- CONTRACTOR SHALL HAVE BACK FLOW PREVENTER TESTED AND CERTIFIED AFTER INSTALLATION BY A CERTIFIED BACK FLOW PREVENTER TECHNICIAN, PRIOR TO OPERATING IRRIGATION SYSTEM.
- ALL ABOVE GROUND PIPE & FITTINGS SHALL BE MADE OF BRASS, BRONZE OR COPPER. NO EXPOSED PVC ABOVE GROUND.
- FLUSH SUPPLY LINE OF ALL FOREIGN MATERIAL PRIOR TO INSTALLING P.V.B.
- TEST COCKS ON P.V.B. SHALL BE ACCESSIBLE TO ALLOW CONNECTION OF TEST UNIT.
- MAINLINE SHALL BE BURIED AS SPECIFIED IN TRENCHING DETAIL.
- CONTRACTOR SHALL REFER TO IRRIGATION PLAN & SCHEDULE FOR ALL PIPE SIZING AND MATERIAL SPECIFICATIONS.
- REFER TO IRRIGATION SCHEDULE FOR P.V.B. MODEL
- THIS DETAIL DOES NOT REFLECT ALL INSTALLATION REQUIREMENTS. INSTALLER SHALL ALSO REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS/RECOMMENDATIONS.

1 P-CO-MH-215560-03
P.V.B. BACK FLOW PREVENTION DETAIL

- 1 SHRUB SPRAYS ALONG WALKS, WALLS AND FENCES
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12



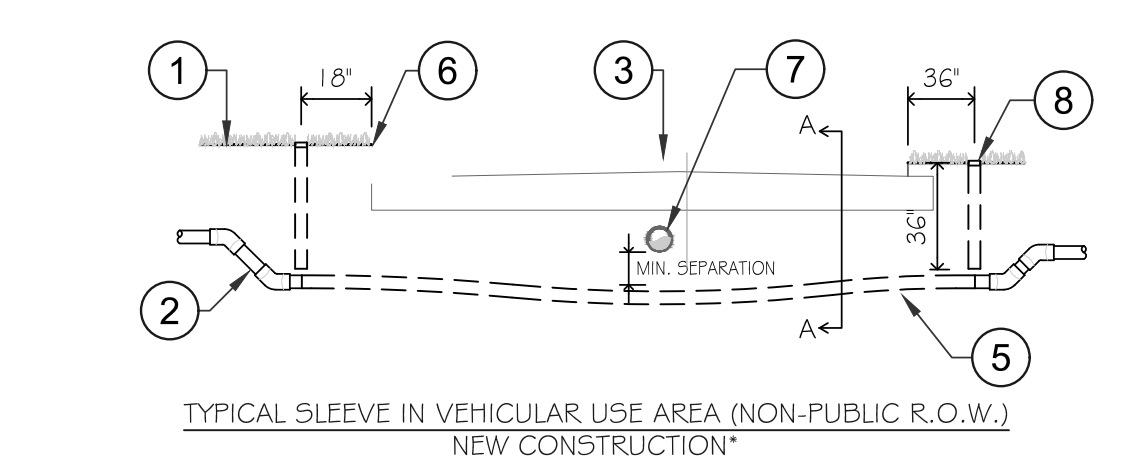
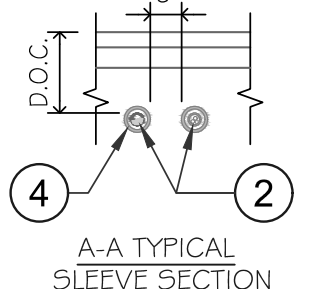
2 **IRRIGATION SPRAY HEAD LAYOUT**



3 **MAINLINE AND WIRE CONDUIT TRENCH**

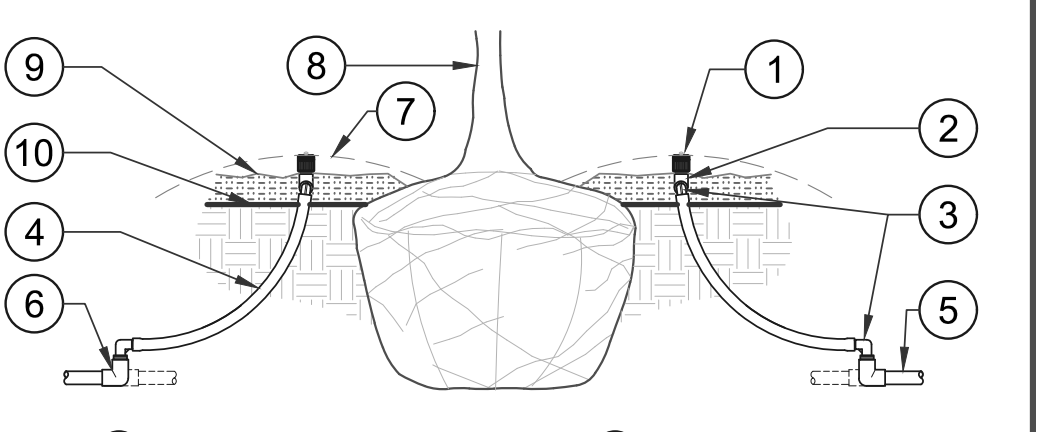
- 1 PRESSURIZED MAINLINE: 3-INCH I.D. OR LESS SHALL HAVE A MINIMUM OF 24 INCHES OF COVER, 4-INCH I.D. OR GREATER SHALL HAVE A MINIMUM OF 30 INCHES OF COVER.
- 2 LOW VOLTAGE IRRIGATION CONTROL WIRE (CONVENTIONAL) INSIDE SCH40 PVC CONDUIT WITH LONG SWEEP ELLS, WHERE REQUIRED, SEE PLANS
- 3 MAINLINE WARNING/DETECTABLE LOCATOR TAPE
- 4 TRACER WIRE
- 5 3 TO 4-INCH BEDDING SAND BELOW PIPE
- 6 INITIAL BACKFILL FOR MAINLINES SHALL BE CLEAN SAND UNTIL 3 TO 4-INCHES OF COVER IS ACHIEVED, COMPACTED TO 95% MAXIMUM DRY DENSITY STANDARD PROCTOR.
- 7 BACKFILL TRENCH WITH EXCAVATED SOIL FREE OF ROCKS AND DEBRIS 1-INCH IN DIAMETER AND LARGER. NEW SOILS SHALL BE ADDED ON TOP AS NEEDED. SEE SPECIFICATIONS FOR APPROVED SOILS AND COMPACTION.
- 8 FINISH GRADE
- 9 INSTALL MAINLINE 18" FROM BACK OF CURB OR EDGE OF PAVEMENT

- NOTE:**
1. SLEEVES WITHIN EXISTING ROADWAYS OR PAVEMENT (THAT ARE NOT RESURFACED AS PART OF THIS PROJECT) SHALL BE INSTALLED BY DIRECTIONAL BORE WITH NO DAMAGE TO EXISTING PAVEMENT
 2. SLEEVES SHALL BE A MINIMUM OF 2" I.D. AND AT LEAST 2 SIZES LARGER THAN THE COATED PIPE CARRIED IN THE SLEEVE. SIZES NOTED ON PLAN ARE MINIMUM.
 3. SLEEVES: 2" TO 4" SHALL BE PVC SCHEDULE 40 & 6" AND GREATER SHALL BE PVC CLASS 200



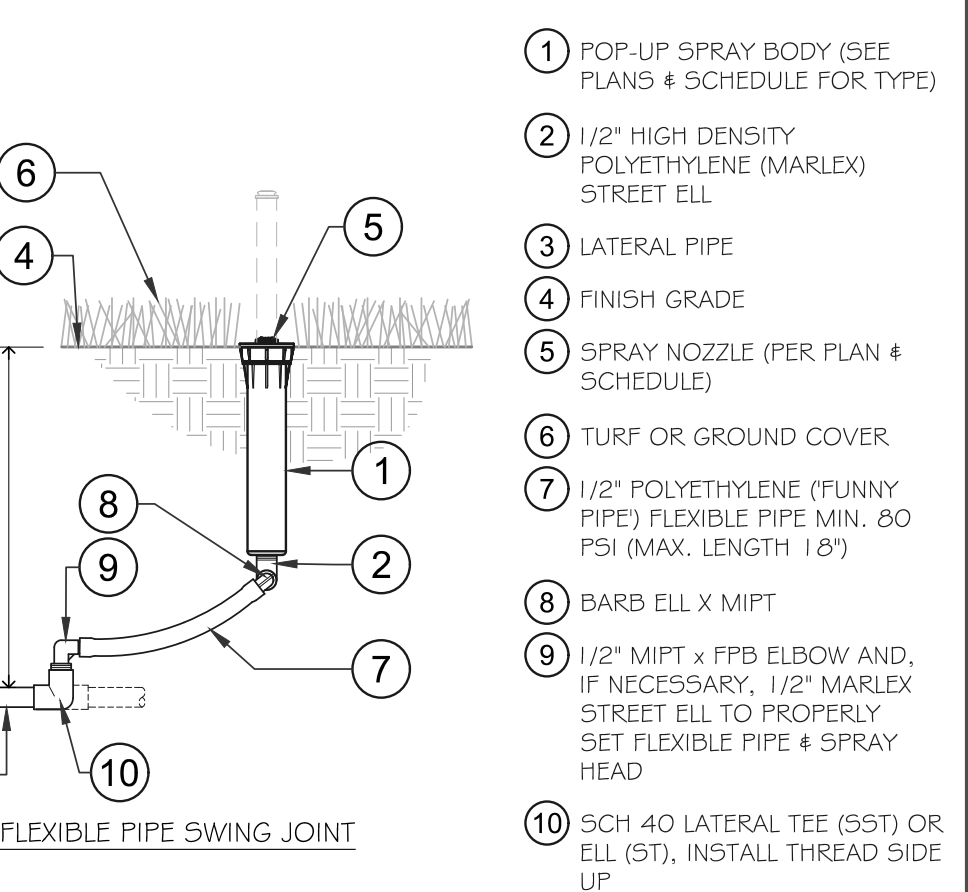
- 1 FINISH GRADE
- 2 IRRIGATION PIPE (MAINLINE, LATERAL OR WIRE CONDUIT), MAINTAIN A MINIMUM OF 6" (HORIZONTAL) SEPARATION BETWEEN SLEEVES.
- 3 PAVED VEHICULAR USE AREA (IE. ROADS, PARKING, DRIVEWAYS)
- 4 SECTION VIEW OF SLEEVES, MAINTAIN A MINIMUM OF 6" (HORIZONTAL) SEPARATION BETWEEN ALL SLEEVES.
- 5 SLEEVES BELOW VEHICULAR USE AREAS SHALL HAVE A MINIMUM DEPTH OF COVER OF 36".
- 6 BACK OF CURB
- 7 UTILITY PIPE CONFLICT, IRRIGATION SLEEVES SHALL BE INSTALLED WITH THE MINIMUM PIPE SEPARATIONS AS PER THE FLORIDA BUILDING CODE, AND ALL LOCAL APPLICABLE CODES/ORDINANCES. CONTRACTOR SHALL VERIFY ALL UTILITIES WITH THE GOVERNING AGENCIES PRIOR TO COMMENCING WORK.
- 8 SLEEVE MARKER, 1" ABOVE FINISH GRADE (2" VERT. PVC PIPE, W/ YELLOW CAP), SHALL BE USED WHEN COVERING EMPTY OR SPARE SLEEVES.

5 **IRRIGATION ROAD & DRIVEWAY SLEEVES**

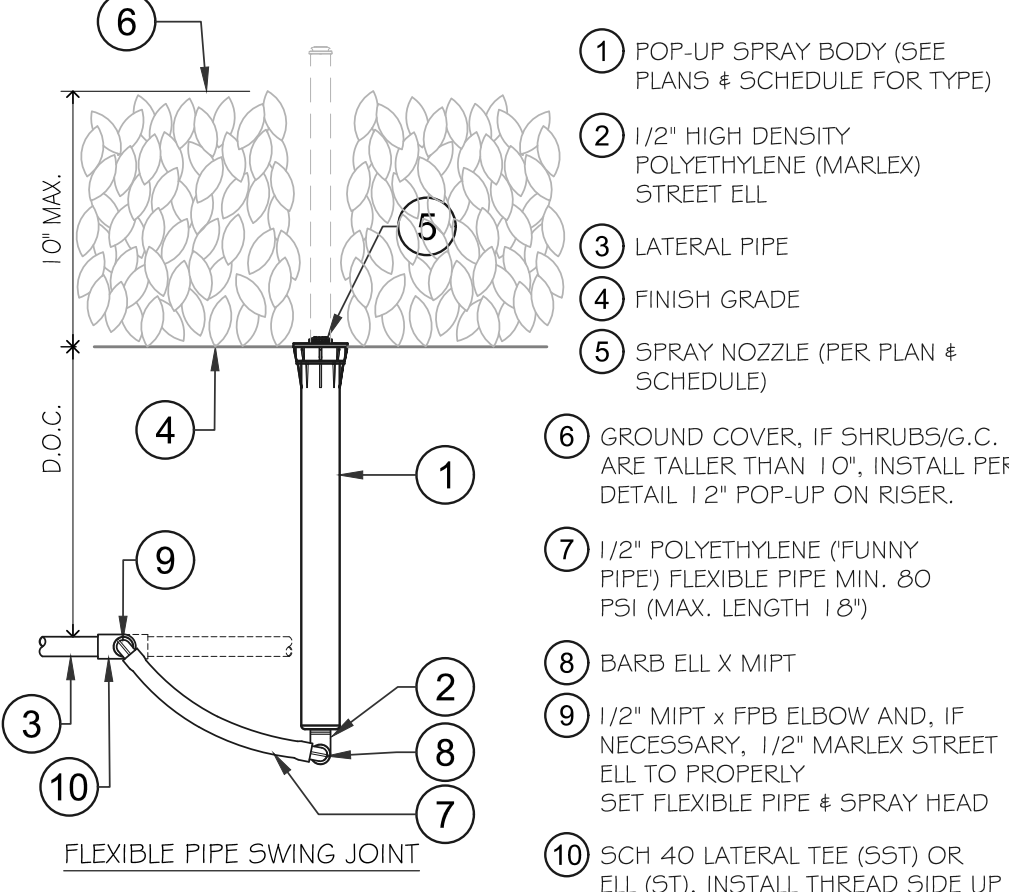


- 1 BUBBLER NOZZLE, PER PLAN & SCHEDULE.
- 2 1/2" HIGH DENSITY POLYETHYLENE (MARLEX) STREET ELL
- 3 1/2" HIGH DENSITY POLYETHYLENE (MARLEX) MIPT x FPB (FUNNY PIPE BARB) ELBOW
- 4 1/2" POLYETHYLENE (FUNNY PIPE) FLEXIBLE PIPE MIN. 80 PSI (MAX. LENGTH 5 FEET)
- 5 LATERAL PIPE
- 6 TEE (SST) OR ELL (ST), INSTALL THREAD SIDE UP
- 7 BUBBLER WATERING UMBRELLA (APPROXIMATE)
- 8 TREE OR PALM
- 9 MULCH OR GROUND COVER
- 10 FINISH GRADE (TYPICAL)

6 **ADJUSTABLE FLOOD BUBBLER**

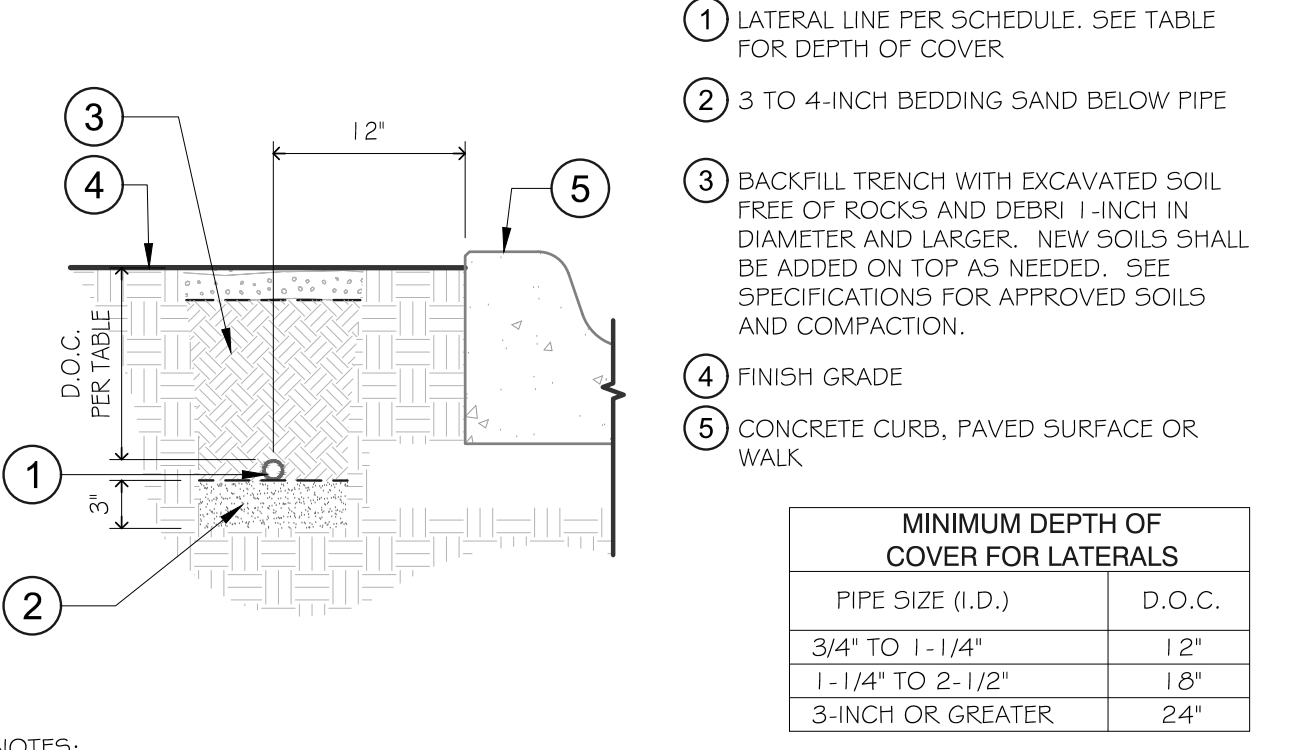


7 **4" & 6" POP-UP DETAIL**



8 **12" POP-UP DETAIL**

- 1 POP-UP SPRAY BODY (SEE PLANS & SCHEDULE FOR TYPE)
- 2 1/2" HIGH DENSITY POLYETHYLENE (MARLEX) STREET ELL
- 3 LATERAL PIPE
- 4 FINISH GRADE
- 5 SPRAY NOZZLE (PER PLAN & SCHEDULE)
- 6 TURF OR GROUND COVER
- 7 1/2" POLYETHYLENE (FUNNY PIPE) FLEXIBLE PIPE MIN. 80 PSI (MAX. LENGTH 10')
- 8 BARB ELL X MIPT
- 9 1/2" MIPT x FPB ELBOW AND, IF NECESSARY, 1/2" MARLEX STREET ELL TO PROPERLY SET FLEXIBLE PIPE & SPRAY HEAD
- 10 SCH 40 LATERAL TEE (SST) OR ELL (ST), INSTALL THREAD SIDE UP
- 1 POP-UP SPRAY BODY (SEE PLANS & SCHEDULE FOR TYPE)
- 2 1/2" HIGH DENSITY POLYETHYLENE (MARLEX) STREET ELL
- 3 LATERAL PIPE
- 4 FINISH GRADE
- 5 SPRAY NOZZLE (PER PLAN & SCHEDULE)
- 6 GROUND COVER, IF SHRUBS/GRASS ARE TALLER THAN 10", INSTALL PER DETAIL 12" POP-UP ON RISER.
- 7 1/2" POLYETHYLENE (FUNNY PIPE) FLEXIBLE PIPE MIN. 80 PSI (MAX. LENGTH 10')
- 8 BARB ELL X MIPT
- 9 1/2" MIPT x FPB ELBOW AND, IF NECESSARY, 1/2" MARLEX STREET ELL TO PROPERLY SET FLEXIBLE PIPE & SPRAY HEAD
- 10 SCH 40 LATERAL TEE (SST) OR ELL (ST), INSTALL THREAD SIDE UP

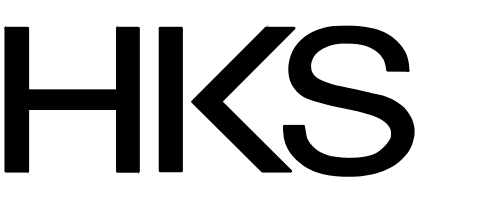


- 1 LATERAL LINE PER SCHEDULE. SEE TABLE FOR DEPTH OF COVER.
- 2 3 TO 4-INCH BEDDING SAND BELOW PIPE
- 3 BACKFILL TRENCH WITH EXCAVATED SOIL FREE OF ROCKS AND DEBRIS 1-INCH IN DIAMETER AND LARGER. NEW SOILS SHALL BE ADDED ON TOP AS NEEDED. SEE SPECIFICATIONS FOR APPROVED SOILS AND COMPACTION.
- 4 FINISH GRADE
- 5 CONCRETE CURB, PAVED SURFACE OR WALK

MINIMUM DEPTH OF COVER FOR LATERALS	
PIPE SIZE (I.D.)	D.O.C.
3/4" TO 1-1/4"	12"
1-1/4" TO 2-1/2"	18"
3-INCH OR GREATER	24"

- NOTES:**
1. SNAKE PIPE HORIZONTALLY IN TRENCH TO ALLOW ONE (1) FOOT OF EXPANSION AND CONTRACTION PER 100 FEET OF STRAIGHT RUN.
 2. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXCAVATED ROCK AND DEBRIS UNSUITABLE FOR BACKFILL.
 3. SOD AREAS SHALL RECEIVE 2" OF #0/20 (SAND/SOIL) MIX ON TOP OF TRENCH. INSTALL NEW ST AUGUSTINE FLORITAM SOD OR BERMOUDA SOD AS DIRECTED BY OWNERS REPRESENTATIVE.
 4. PLANTING AREAS SHALL BE RESTORED TO THEIR PREVIOUS STATE. BACKFILL TOP 6-INCHES OF TRENCH WITH #0/20 PLANTING SOIL AND REPLACE ANY SHRUBS OR GROUND COVER DAMAGED DURING CONSTRUCTION.
 5. MAINTAIN 8" HORIZONTAL SEPARATION BETWEEN LATERALS AND MAINLINES, 4" HORIZONTAL SEPARATION BETWEEN PARALLEL LATERAL PIPES, AND 8" HORIZONTAL SEPARATION BETWEEN PIPES OF OTHER TRADES.

4 **LATERAL PIPE TRENCH DETAIL**



ARCHITECT
 HKS ARCHITECTS, INC.
 2020 SALZEDO STREET, 4TH FLOOR
 CORAL GABLES, FL 33134

INTERIOR DESIGNER
 HKS ARCHITECTS
 225 EAST ROBINSON ST, SUITE #405
 ORLANDO, FL 32801

CIVIL & LANDSCAPE
 CGA SOLUTIONS
 1800 ELLER DRIVE, SUITE 600
 FORT LAUDERDALE, FL 33316

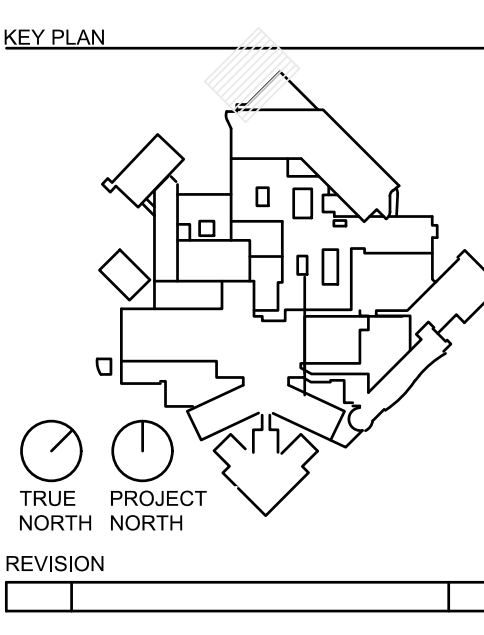
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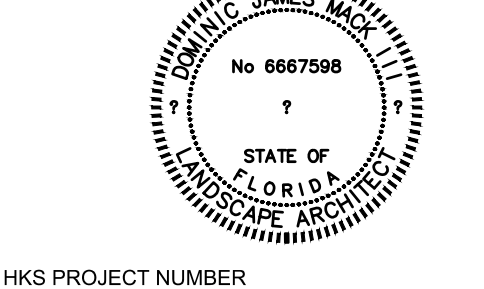
OWNER
 MEMORIAL HEALTHCARE SYSTEM
 3501 JOHNSON STREET
 HOLLYWOOD, FL 33021

Memorial Regional Hospital
SURGICAL & CRITICAL CARE TOWER EXPANSION
 3501 JOHNSON STREET, HOLLYWOOD, FL 33021



DOMINIC JAMES MACK III, R.L.A., STATE OF FLORIDA, REGISTERED LANDSCAPE ARCHITECT, LICENSE NO. LA6667598.

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DATE
MARCH 21, 2025

ISSUE
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SHEET TITLE
IRRIGATION DETAILS

SHEET NO.
LI501

FOR PERMITTING
 ELEVATIONS ARE IN NAVD 88