N.T.S. SCALE: DATE MAY 2010

SHT. NO. REVISIONS:

LEGEND DESCRIPTION MODEL NO. SYMBOL 570S-FB-100PC TORO FLOOD BUBBLER 570S-SB-90 TORO STREAM BUBBLEF 570S-SB-2S-180 TORO STREAM BUBBLER 570Z-10V 570Z-100 TORO SHRUB SPRAY TORO SHRUB SPRAY TORO SHRUB SPRAY 570Z-10H 570Z-10F TORO SHRUB SPRAY 570Z - 120TORO SHRUB SPRAY TORO SHRUB SPRAY 570Z-6P-XF-10V TORO 6" POP-UP SPRAY/X-FLOW 570Z-6P-XF-10Q TORO 6" POP-UP SPRAY/X-FLOW (10T 570Z-6P-XF-10T TORO 6" POP-UP SPRAY/X-FLOW 570Z-6P-XF-10H TORO 6" POP-UP SPRAY/X-FLOW 570Z-6P-XF-12Q TORO 6" POP-UP SPRAY/X-FLOW 570Z-6P-XF-12T TORO 6" POP-UP SPRAY/X-FLOW 570Z-6P-XF-12H TORO 6" POP-UP SPRAY/X-FLOW 5707-06-XF-15V TORO 6" POP-UP SPRAY/X-FLOW 570Z-06-XF-150 TORO 6" POP-UP SPRAY/X-FLOW 570Z-06-XF-15T TORO 6" POP-UP SPRAY/X-FLOW 570Z-06-XF-15H TORO 6" POP-UP SPRAY/X-FLOW TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-10Q TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-10T 570Z-12P-XF-10H TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-4LCS TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-4RCS TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-4SST TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-4SSST TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-15V TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-15Q TORO 12" POP-UP SPRAY/X-FLOW TORO 12" POP-UP SPRAY/X-FLOW 570Z-12P-XF-15H ××× TLCV912 TECHLINE NETAFIM DRIP PIPE 400 LF ☐ DF TLDF075-120 TECHLINE DISC FILTER TECHLINE PRESSURE REGULATOR VALVE TLPRV075LF25 TLFV TECHLINE FLUSH VALVE TLS6 NOT SHOWN TECHLINE SOIL STAPLES AS REQUIRED NOT SHOWN TLACC AS REQUIRED TECHLINE ACCESSORIES 252-26-06 TORO 1 1/2" SOLENOID VALVE PAIGE DIRECT BURIAL UF WIRE AS REQUIRED #14 AWG VALVE CONTROL #12 AWG VALVE COMMON AS REQUIRED SCH 40 GALVANIZED STEEL SCH 40 PVC AS REQUIRED SLEEVES SHRUB RISERS PVC FITTINGS NOT SHOWN SDR 21, CLASS 200 PVC AS REQUIRED LATERALS (3/4") SDR 26, CLASS 160 PVC AS REQUIRED LATERALS (1"+LARGER) GATE VALVE (TO LINE SIZE)

> NOTES: ABOVE QUANTITIES ARE FOR COMPARISON ONLY. CONTRACTOR SHALL VERIFY PRIOR TO SUBMITTING BID.

POINT-OF-CONNECTION

VALVE BOX

IRRIGATION NOTES & SPECIFICATIONS

AUTOMATIC IRRIGATION SYSTEM WATER DEMAND / ZONE WATER SOURCE

PRESSURE REQUIRED

REFER TO PLAN MASTER SYSTEM 50 PSI

<u>GENERAL</u>

IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, CONTRACT DRAWINGS, AND CONTRACT SPECIFICATIONS.

IRRIGATION DESIGN BASED ON IDG "LANDCAPE PLAN" DATED JUNE 2010. 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. IRRIGATION SHALL BE INSTALLED TO MATCH ON SITE CONDITIONS AND TO OVERCOME THE INHERENT INACCURACIES THAT RESULT WHEN DESIGNING FROM BASE PLANS SCALED AT 1"= 20'.

THIS IRRIGATION HAS BEEN DESIGNED AS A TYPICAL BLOCK VALVE TYPE USING TORO SPRAY SPRINKLERS AND IN-LINE VALVE AND NETAFIM DRIP EQUIPMENT.

THE WATER SOURCE SHALL BE THE MASTER SYSTEM FOR THE MALL. THE LOCATION OF THE POINT-OF-CONNECTION TO THE CAPPED MAIN LINE AND CONTROL WIRES SHALL BE DETERMINED ON SITE.

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

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

PIPE ROUTING IS SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND PIPE MANUFACTURER'S INSTRUCTIONS.

PIPE ROUTED UNDER HARDSCAPED AREAS SHALL BE SLEEVED IN SCH 40 PVC. EACH SLEEVE SHALL: (1) BE BURIED TO A MINIMUM DEPTH OF 18", (2) BE TWO PIPE SIZES LÀRGER THAN CARRIER PIPE, AND (3) EXTEND 3' BEYOND HARDSCAPED AREA ON EACH END. CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING SLEEVES.

MAIN LINE AND LATERALS SIZED 3/4" SHALL BE SDR 21, CLASS 200. LATERALS SIZED 3/4" SHALL BE SDR 26, CLASS 160. FITTINGS SHALL BE SCH 40. PIPE AND FITTINGS SHALL BE TYPE 1120 PVC.

PIPE SIZED TO LIMIT FLOW VELOCITIES TO 5 FEET/SECOND AND TO LIMIT FRICTION LOSS IN THE PIPING NETWORK.

PIPE SHALL BE INSTALLED AT SUFFICIENT DEPTH BELOW GROUND TO PROTECT IT FROM HAZARD SUCH AS VEHICULAR TRAFFIC OR ROUTINE OCCURRENCES WHICH OCCUR IN THE NORMAL USE AND MAINTENANCE OF THE PROPERTY. DEPTHS OF COVER SHALL MEET OR EXCEED SCS CODE 430-DD. REFER TO THE APPLICABLE DETAILS FOR ADDITIONAL INFORMATION.

BACKFILL SHALL BE OF SUITABLE MATERIAL, FREE OF ROCKS, STONES, AND OTHER DEBRIS THAT WOULD DAMAGE IRRIGATION SYSTEM COMPONENTS. CLEAN SAND SHALL BE REQUIRED IF BACKFILL IS UNSUITABLE.

A GATE VALVE SHALL BE INSTALLED FOR ISOLATION. EACH VALVE SHALL BE TO LINE SIZE AND INSTALLED IN A VALVE BOX. POROUS MATERIAL SHALL BE INSTALLED PER BOX TO PROMOTE DRAINAGE.

<u>SPRINKLERS</u>

SPRINKLER LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR LANDSCAPING, SITE LIGHTING, PREVAILING WIND, MOUNDING, UTILITIES, WALLS, ETC., TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. A PRIME OBJECTIVE SHALL BE TO ELIMINATE UNDESIRABLE OVERTHROW. SPRAY HEADS SHALL BE TORO 570 SERIES. SIX INCH POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH SOD AND MULCH, TWELVE INCH POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH GROUND COVER AND LOW SHRUBS, SHRUB HEADS SHALL BE INSTALLED IN AREAS LANDSCAPED WITH TALL SHRUBS, AND BUBBLERS SHALL BE INSTALLED IN NARROW LANDSCAPED AREAS AND AT ROYAL PALMS.

POP-UP TYPE LOCATED IN SOD, MULCH, AND GROUND COVER SHALL BE INSTALLED ON FLEXIBLE SWING JOINTS CONSISTING OF THICKWALLED POLY PIPE AND 1/2" INSERT ELBOWS.

POP-UP TYPE LOCATED IN SHRUBS SHALL BE INSTALLED ON 1/2" SCH 40 PVC RISERS TO A HEIGHT SO SPRINKLERS ARE CONCEALED FROM VIEW EXCEPT

SHRUB TYPE AND BUBBLERS SHALL BE INSTALLED ON 1/2" SCH PVC RISERS. SHRUB HEADS SHALL BE INSTALLED A STANDARD HEIGHT OF 6" ABOVE PLANTS AND SHALL BE INSTALLED WITHIN PLANTS TO BE CONCEALED FROM VIEW. BUBBLERS SHALL BE INSTALLED AT THE BASE OF TALL SHRUBS AND PALMS FOR LOW LEVEL WATERING. RISERS SHALL BE BLACK TO BE LESS VISIBLE.

EACH SPRAY HEAD SHALL BE EQUIPPED WITH THE APPROPRIATE MPR NOZZLE AND X-FLOW FEATURE.

ADJUSTMENT FEATURES OF SPRINKLERS SPECIFIED SHALL BE UTILIZED TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. LOW ANGLE, FLAT SPRAY, AND ADJUSTABLE ARC NOZZLES SHALL BE USED TO MINIMIZE 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. AS A GENERAL RULE, 6" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 4" AND SHRUB HEADS AND 12" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 12".

DRIP IRRIGATION

DRIP IRRIGATION SHALL BE INSTALLED TO IRRIGATE LANDSCAPING ADJACENT TO THE BUILDING.

DRIP IRRIGATION SHALL CONSIST OF TECHLINE NETAFIM DRIP PIPE, DISC FILTER, PRESSURE REGULATOR VALVE, FLUSH VALVES, AIR/VACUUM RELIEF VALVE, SOIL STAPLES, AND ACCESSORIES.

DRIP PIPE WITH EMITTERS 12" ON-CENTER WHICH DELIVER 0.9 GPH SHALL BE INSTALLED.

DRIP EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECT. LINE FLUSH VALVES SHALL BE INSTALLED AS RECOMMENDED FOR ROUTINE MAINTENANCE.

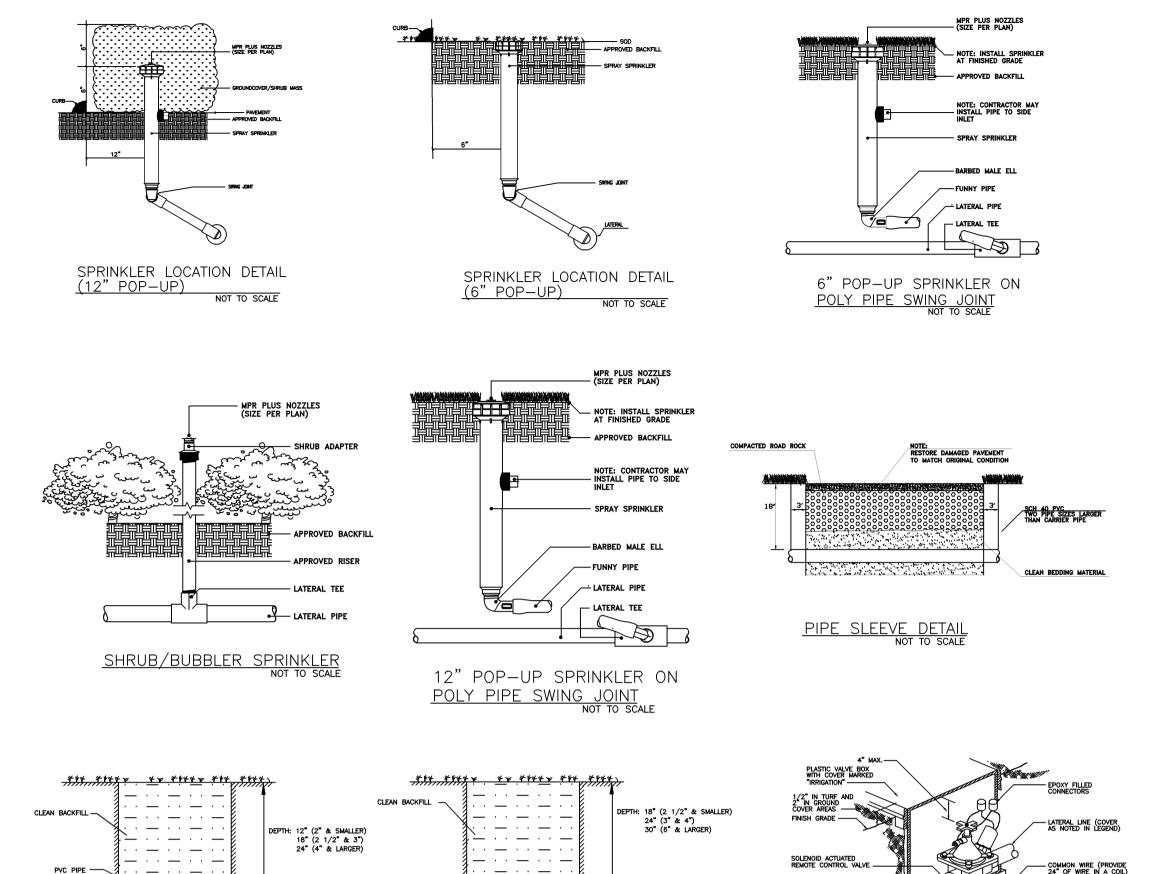
AIR/VACUUM RELIEF VALVE, PRESSURE REGULATOR VALVE, AND DISC FILTER SHALL BE INSTALLED TO INSURE PROPER OPERATION.

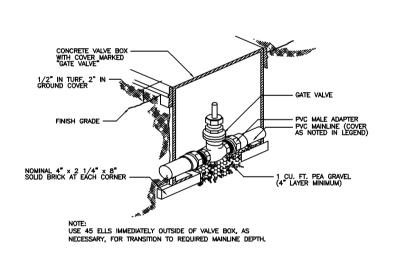
CONTROL SYSTEM

SPARE STATIONS ON THE CONTROL SYSTEM FOR THE SITE SHALL BE USED TO CONTROL THIS IRRIGATION.

CONTROL LINES (IF REQUIRED) FROM AUTOMATIC CONTROLLER TO IN-LINE AUTOMATIC VALVES SHALL BE DIRECT BURIAL UNDERGROUND FEED TYPE WHICH SHALL BE: (1) INSTALLED IN ACCORDANCE WITH LOCAL CODES, (2) SLEEVED WHEN ROUTED UNDER PAVEMENT, (3) BURIED TO THE DEPTH OF THE MAIN LINE, (4) COLOR CODED TO FACILITATE TROUBLESHOOTING, AND (5) SPLICED AT VALVE LOCATIONS. SPLICES SHALL BE MADE WATERPROOF USING APPROVED METHODS.

AUTOMATIC VALVE LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS. EACH VALVE SHALL BE INSTALLED IN A VALVE BOX. A MINIMUM OF ONE CUBIC FOOT OF GRAVEL SHALL BE PROVIDED PER BOX TO PROMOTE DRAINAGE.



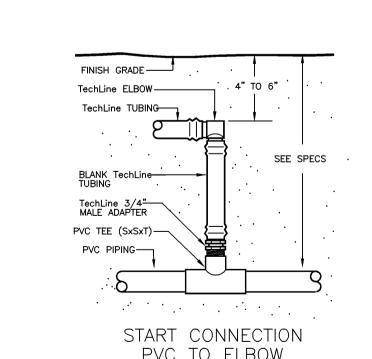


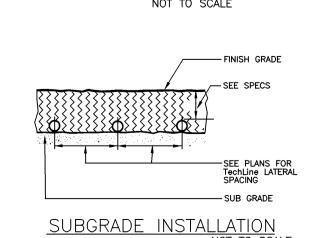
GATE VALVE DETAIL
NOT TO SCALE

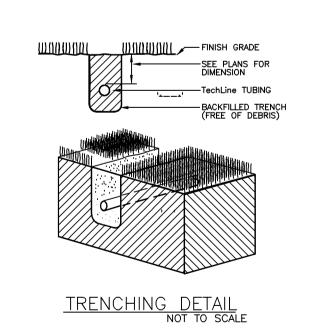
TechLine TUBING-

BRICK SUPPORTS —

PVC PIPE .



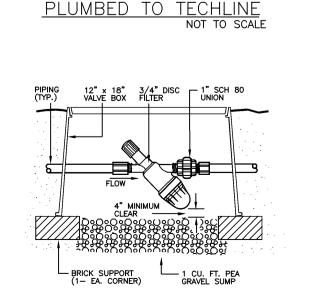




NOTE:
USE 45 ELLS IMMEDIATELY OUTSIDE OF VALVE BOX, AS
NECESSARY, FOR TRANSITION TO REQUIRED LATERAL LINE DEPTH.

REMOTE CONTROL VALVE DETAI

- MAINLINE (COVER AS NOTED IN LEGEND



LINE FLUSHING VALVE