

INSTALLATION GENERAL NOTES

- 1. THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 75 PSI DOWNSTREAM OF THE PUMP STATION, AT A 6. PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE DESIGN FLOW OF 50 GPM AT THE 2-INCH IRRIGATION POINT-OF-CONNECTION (POC). TAP, METER, BACKFLOW PREVENTER, MASTER VALVE AND FLOW METER SHALL BE SIZED AS INDICATED IN THE DRAWING LEGEND. VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION.
- 2. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
- 3. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- 4. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND. NOTES, OR SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- 5. THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD
- A. ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
- B. TREE AND SHRUB LOCATIONS AS SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.
- C. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF TEES IN THE BULLNOSE CONFIGURATION, OR USE OF CROSS TYPE FITTINGS IS NOT ALLOWED.

- COMPLETION OF THE PROJECT:
- A. TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES.
- B. TWO (2) OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE
- ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
- 7. SELECT NOZZLES FOR SPRAY AND ROTARY SPRINKLERS WITH ARCS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY FOR THE SITE CONDITIONS. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF COVERAGE OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST
- 8. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. PIPE SLEEVES SHALL BE SIZED TWICE THE NOMINAL SIZE OF THE PIPE PASSING THROUGH.
- 9. INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
- 10. THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
- 11. INSTALL TWO (2) #14 AWG CONTROL WIRES ON STANDARD WIRE SYSTEMS OR ONE (1) #14 AWG TWO-WIRE PAIR ON TWO-WIRE SYSTEMS, FOR USE AS SPARES. INSTALL SPARE WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE. COIL 3 FEET OF WIRE IN VALVE BOX.

IRRIGATION LEGEND

- POINT-OF-CONNECTION ASSEMBLY
- IRRIGATION MAINLINE CAP ASSEMBLY
- MAINLINE PIPE: PURPLE CLASS 200 PVC 2 1/2-INCH SIZE UNLESS OTHERWISE INDICATED
- SLEEVES: CLASS 200 PVC
- c IRRIGATION CONTROL WIRES IN CONDUIT OR WITH WARNING TAPE — LATERAL PIPE TO SPRINKLERS: **PURPLE CLASS 200 PVC**

1-INCH SIZE UNLESS OTHERWISE INDICATED

- REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER LATERALS: HUNTER ICV-FS (SIZED PER PLAN) W/ HUNTER ICD DECODER
- QUICK COUPLING VALVE ASSEMBLY: HUNTER HQ-5-LRC-R W/ PURPLE LOCKING LID HK-55 QUICK COUPLER KEY AND HS-1 SWIVEL FOR 3/4" HOSE
- ISOLATION GATE VALVE ASSEMBLY: MATCO 514
- BACKFLOW PREVENTION ASSEMBLY: **FEBCO 825YA (1.5")**

PS PUMP ASSEMBLY: **SEE SHEET IR-201 FOR SPECIFICATIONS**

INDICATES CONTROLLER AND STATION NUMBER INDICATES LATERAL DISCHARGE (GPM)



(A) IRRIGATION CONTROLLER UNIT WITH WR-CLIK SENSOR A2C-LTE CELL CARTRIDGE **HUNTER A2C-75D-SS TWO WIRE CONTROLLER**

18 NOZZLE

20 NOZZLE

23 NOZZLE

25 NOZZLE

28 NOZZLE

POP-UP ROTOR SPRINKLER: HUNTER I-25-04-SS-R PRESSURE: 50 PSI 04 NOZZLE RADIUS: 41' FLOW: 4.3 GPM 05 NOZZLE RADIUS: 44' FLOW: 4.8 GPM 07 NOZZLE RADIUS: 47' FLOW: 7.0 GPM 08 NOZZLE RADIUS: 49' FLOW: 8.3 GPM 10 NOZZLE RADIUS: 52' FLOW: 10.1 GPM 13 NOZZLE RADIUS: 53' FLOW: 11.2 GPM 15 NOZZLE RADIUS: 56' FLOW: 13.4 GPM

RADIUS: 58' FLOW: 14.5 GPM

RADIUS: 62' FLOW: 17.8 GPM

RADIUS: 64' FLOW: 21.9 GPM

RADIUS: 66' FLOW: 23.5 GPM

RADIUS: 68' FLOW: 26.9 GPM

CONSTRUCTION NOTES

- THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE IRRIGATION WATER TAP AND METER INSTALLED BY OTHERS AT THE APPROXIMATE LOCATION SHOWN. INSTALL BACKFLOW PREVENTION UNIT AND MASTER VALVE ASSEMBLY AS INDICATED. VERIFY **EXACT LOCATION OF POC WITH OWNER'S REPRESENTATIVE.**
- PEDESTAL / WALL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL POWER TO THE CONTROLLER WITH THE OWNER'S REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL. FINAL LOCATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- (3) VALVES LABELED 'A' ARE PART OF THE BASE BID PACKAGE. VALVES LABELED 'B' ARE PART OF THE ALTERNATE BID PACKAGE.
- (4) POTABLE FILL VALVE AND FLOW SENSOR TO BE MOUNTED IN ENCLOSURE ON EXTERIOR BUILDING WALL.

BASE BID ESTIMATED ANNUAL WATER USE

THE IRRIGATION SYSTEM AS SHOWN ON THIS PLAN HAS AN ESTIMATED ANNUAL WATER USE OF 2,179,444 GALLONS. TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION, THE OWNER SHALL COMPARE THIS ESTIMATED IRRIGATION WATER USE WITH ACTUAL WATER USE, AS RECORDED ON SITE, AFTER ALL PLANT MATERIAL HAS BEEN ESTABLISHED.

THE ESTIMATED ANNUAL IRRIGATION WATER USE OF THIS SYSTEM IS BASED ON 30-YEARS AVERAGE EVAPOTRANSPIRATION RATES (ET) FOR THE LOCAL AREA AND TYPICAL NEW IRRIGATION SYSTEM EQUIPMENT EFFICIENCIES. MAJOR DEVIATIONS FROM THIS ESTIMATE USE SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER AND CURRENT IRRIGATION MAINTENANCE COMPANY AT THE TIME OF THE DEVIATION.

TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION AND WATER USE, AN IRRIGATION SYSTEM EVALUATION AND AUDIT SHOULD BE PERFORMED.

ALTERNATE BID ESTIMATED ANNUAL WATER

THE IRRIGATION SYSTEM AS SHOWN ON THIS PLAN HAS AN ESTIMATED ANNUAL WATER USE OF 1,170,650 GALLONS. TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION, THE OWNER SHALL COMPARE THIS ESTIMATED IRRIGATION WATER USE WITH ACTUAL WATER USE, AS RECORDED ON SITE, AFTER ALL PLANT MATERIAL HAS BEEN ESTABLISHED.

THE ESTIMATED ANNUAL IRRIGATION WATER USE OF THIS SYSTEM IS BASED ON 30-YEARS AVERAGE EVAPOTRANSPIRATION RATES (ET) FOR THE LOCAL AREA AND TYPICAL NEW IRRIGATION SYSTEM EQUIPMENT EFFICIENCIES. MAJOR DEVIATIONS FROM THIS ESTIMATE USE SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER AND CURRENT IRRIGATION MAINTENANCE COMPANY AT THE

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TIME OF THE DEVIATION.

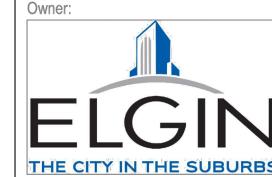
HAND WATERING ESTIMATED ANNUAL **WATER USE**

THE IRRIGATION SYSTEM AS SHOWN ON THIS PLAN HAS AN ESTIMATED ANNUAL WATER USE OF 1,773,499 GALLONS. TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION, THE OWNER SHALL COMPARE THIS ESTIMATED IRRIGATION WATER USE WITH ACTUAL WATER USE, AS RECORDED ON SITE, AFTER ALL PLANT MATERIAL HAS BEEN ESTABLISHED.

THE ESTIMATED ANNUAL IRRIGATION WATER USE OF THIS SYSTEM IS BASED ON 30-YEARS AVERAGE EVAPOTRANSPIRATION RATES (ET) FOR THE LOCAL AREA AND TYPICAL NEW IRRIGATION SYSTEM EQUIPMENT EFFICIENCIES. MAJOR DEVIATIONS FROM THIS ESTIMATE USE SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER AND CURRENT IRRIGATION MAINTENANCE COMPANY AT THE TIME OF THE DEVIATION.

TO VERIFY EFFICIENT IRRIGATION SYSTEM OPERATION AND WATER USE, AN RRIGATION SYSTEM EVALUATION AND AUDIT SHOULD BE PERFORMED.

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<u>1 4/11/2024</u> ISSUE FOR BID 100% CONSTRUCTION DOCUMENTS

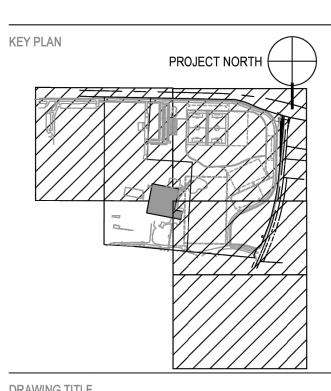
90% CONSTRUCTION DOCUMENTS ______01/31/2024

REV DATE

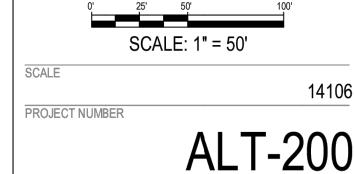
SEALS AND SIGNATURES

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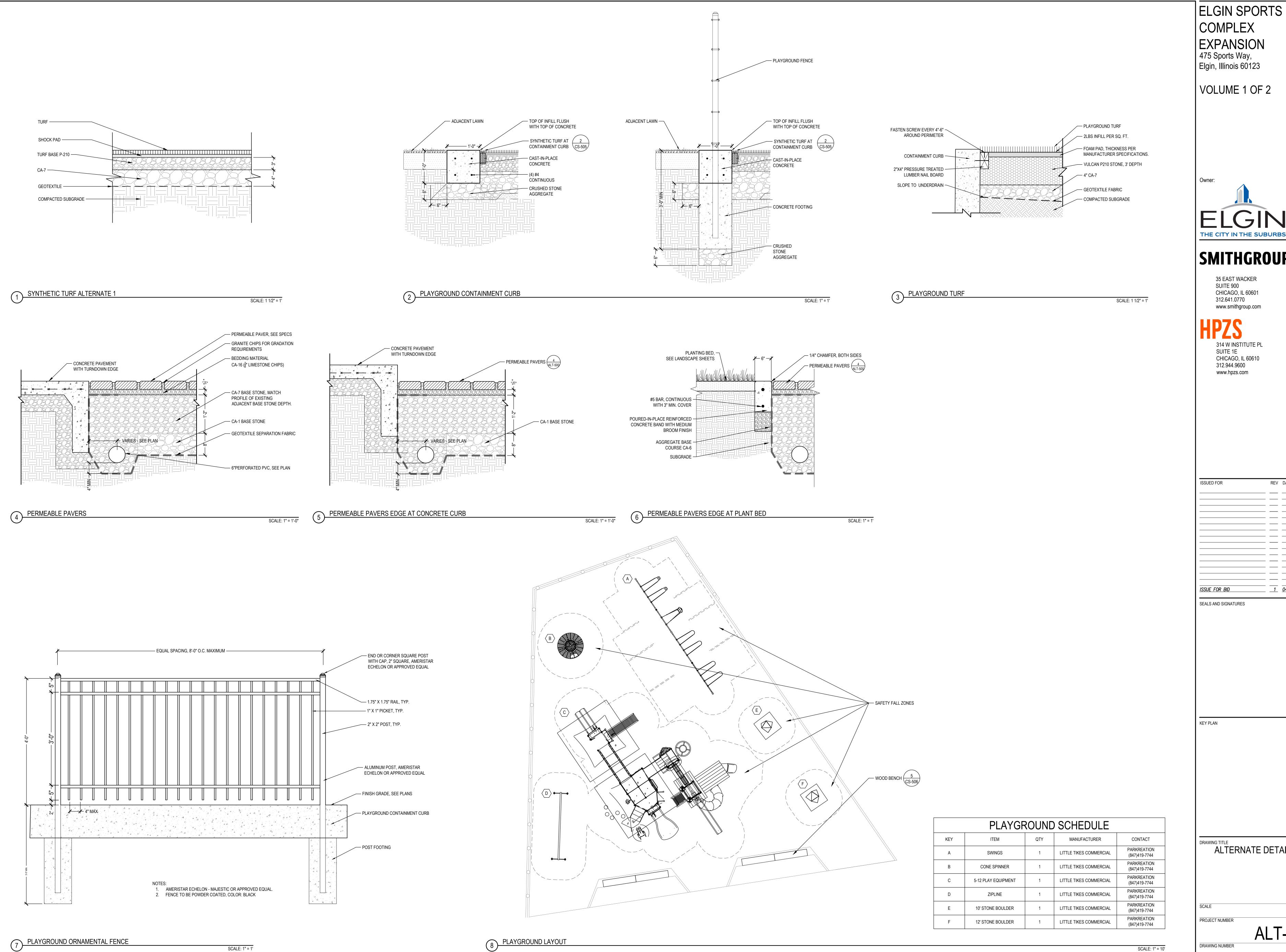


ALTERNATE 2 - ATHLETIC FIELD 3 IRRIGATION



DRAWING NUMBER





ELGIN SPORTS COMPLEX **EXPANSION** 475 Sports Way, Elgin, Illinois 60123

VOLUME 1 OF 2

Owner:

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REV DATE ____ ISSUE FOR BID SEALS AND SIGNATURES

DRAWING TITLE
ALTERNATE DETAILS

PROJECT NUMBER

ALT-500 DRAWING NUMBER