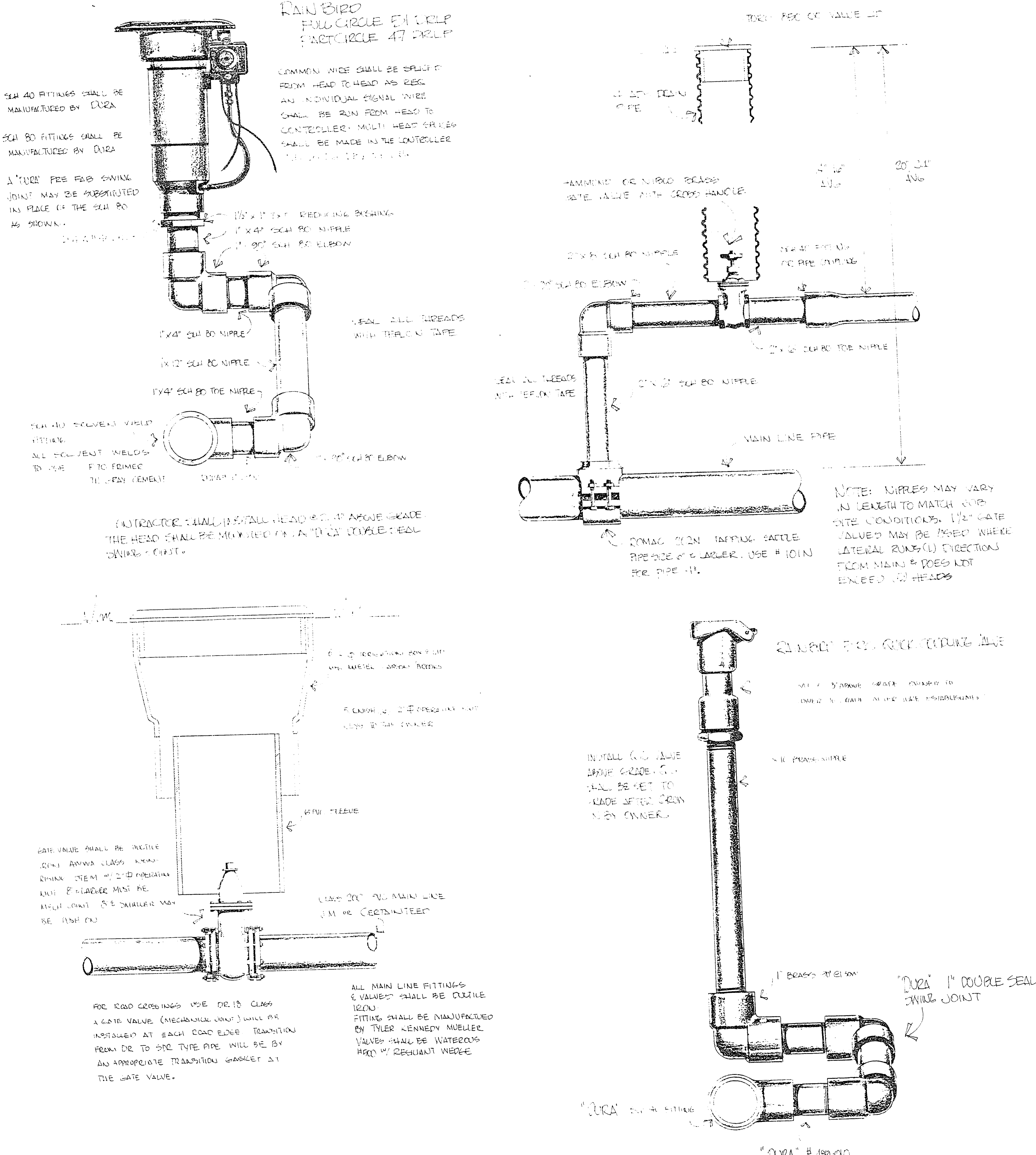


IRRIGATION PLANS

DETAILS



**PALMER COURSE
DESIGN COMPANY**
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RAINBIRD MAXI III COMPUTER CONTROL

THE MAXI III COMPUTER WILL BE INSTALLED AT THE SUTPS OFFICE. THE OWNER MUST PROVIDE THE PROPER FACILITY TO HOUSE THE MAXI III IF THE SUTPS OFFICE IS NOT COMPLETE. THE MAXI III COMPUTER SHALL BE COMPLETE WITH ALL REQUIRED EQUIPMENT TO PROVIDE A COMPLETE INSTALLATION. THE POWER TO THE COMPUTER MAY BE SUPPLIED FROM THE MAINBARS SUPPLY OR FROM BOOSTER PUMP 15. THE POWER MUST PASS THRU ALL REQ. SURGE PROTECTION & BATTERY BACKUP EQUIPMENT BEFORE CONNECTION TO THE COMPUTER. THE LOCAL (RINBIRD) DISTRIBUTOR SHALL PROVIDE OWNER/OPERATOR TRAINING TO INSURE A COMPLETE UNDERSTANDING OF THE CONTROL SYSTEM. THE WEATHER STATION SHALL BE LOCATED IN THE FIELD BY THE SUTP & RAINBIRD DIST. PUMP STATIONS MONITORING DECODERS SHALL BE FURNISHED BY THE PUMP STATIONS MFR. (KUL) & MOUNTED IN THE IRRIGATION CONTROL PANEL. RAINBIRD COMMUNICATION WIRE SHALL BE INSTALLED AS SHOWN ON THE CONTROL ROUTING PLAN. (2) MTW-4 SHALL BE SUPPLIED.

RAINBIRD - P/N: 1220255

RAINBIRD CON-123005

THE BOM NOZZLE SHALL BE MOUNTED ON A 4" THICK CONCRETE MOUNTING BLOCK. THE BLOCK SHALL HAVE A 4" Ø OPENING TO ALLOW FOR ELECTRICAL ENTRANCE. THE 120 VOLT POWER SUPPLY WILL COME FROM LOCATIONS AS SHOWN ON THE PLAN. THE LOCATIONS ARE FOR ELECTRICAL ENTRANCE. THE 120 VOLT POWER SUPPLY PANELS ON EACH OF 4) RIMP LOCATIONS. THE 120VOLT SUPPLY SHALL BE 1/2" Ø BLACK, 1/2" Ø WHITE, 1/2" Ø BLUE. THE SIZE SHALL BE AS SHOWN ON THE PLAN. THE 120VOLT POWER SHALL BE INSTALLED IN APPROVED PVC CONDUIT. WHERE POSSIBLE THE POWER SUPPLY SHALL BE INSTALLED IN THE MAIN LINE TRENCH. EACH BOM OR GROUP OF BOMS SHALL BE GROUNDING AS REQ BY RAINBIRD MANUFACTURING INSTALLATION PROCEDURES. THE GROUNDING DEVICES MUST HAVE A RESISTANCE OF 10 OHMS OR LESS TO THE GROUND IN MANUFACTURING INSTALLATION PROCEDURES. THE GROUNDING DEVICES MUST HAVE A RESISTANCE OF 10 OHMS OR LESS TO THE GROUND IN WHICH IT IS INSTALLED. THE LOCAL MATERIALS SUPPLIER OR MANUFACTURERS REP. MUST TEST, INSPECT & APPROVE ALL GROUNDING PRIOR TO THEIR INSTALLATION. THE LOCAL MATERIALS SUPPLIER OR MANUFACTURERS REP. MUST TEST, INSPECT & APPROVE ALL GROUNDING PRIOR TO THEIR INSTALLATION. THE SYSTEM. ALL BOM MODULES SHALL BE EQUIPPED WITH ALL MANUFACTURERS SURGE & LIGHTNING PROTECTION EQUIPMENT. ALL PRICES FOR THE POWER SUPPLY PULSE AND REMOTE IN THE BOM CONTROL BOX. FIELD SPRINGS ON THE POWER & COMMUNICATION WIRE SHALL NOT BE ALLOWED. EACH BOM MAY CONTROL OF INDICATIONS. ALL COMMAND & SIGNAL WIRE SHALL BE UF#14. THE COMMON WIRE SHALL BE SPliced FROM HEAD TO HEAD AS REQ. THE SIGNAL WIRE SHALL BE AN INDIVIDUAL WIRE FROM EACH HEAD TO THE BOM. ALL MULTI HEAD STATIONS WILL BE SPliced TOGETHER IN THE BOM CONTROL CABINET. ALL SPRINGS AT THE HEADS SHALL BE BY SCOTCH DBY SPRUCE.

RAINBIRD 5" QCP VALVE IN HEAD FULL CIRCLE
RAINBIRD 4" QCP VALVE IN HEAD PART CIRCLE
THE IRRIGATION HEADS SHALL BE SPACED AT 60" TRIANGULAR MAX. AND MOUNTED AT 2'-3" ABOVE GRADE ON A "DUZ" 1"
DOUBLE LEX TYING JOINT SEE DETAIL
RAINBIRD 5" QCP QUICK COUPLING VALVE
DOUBLE LEX TYING JOINTS ACCORDING TO THE DETAIL 2" ABOVE GRADE.

THE FOLLOWING COUPLING VALUES SHALL BE MONITORED IN A DURING JOINT INSPECTIONS IN THIS WELL:

WELL PUMP & PANEL AS PER A/C EFFECT FIELD TIONS.	
K/C 8/ 204H 25/ 90 10 AP	VERTICAL TURBINE PUMP STATION
K/C 9/ 204H 25/ 25 AP	BOOSTER PUMP STATION
K/C 6/ 104H 25 AP	BOOSTER PUMP STATION

THE PUMP STATIONS SHALL BE INSTALLED BY THE IRIGATING CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NET WELL INTAKE PIPE (SCREEN BY K/C). CONCRETE PADS, RECEIVING & SETTING THE STATIONS, (PUMP, SUPERFUND), PIPING CONNECTIONS FROM METER TO STATION & FROM STATIONS TO IRRIGATION SYSTEM, ELECTRICAL PIPING AND FROM PUMP/METER TO STATION DISCONNECT. WELDER SHALL SUPPLY TRANSFORMER & METER DISCONNECT 25' FROM THE STATION. K/C WILL NOT A DEEPER DITCH DEEP DRAINING FOR CORRECT INSTALLATION. PROCEEDURES

THE PRESSURE REGULATING & LAKE FILL VALVE SHALL BE EQUIPPED BY KIC. OPERATE COMPATIBLE WITH THE OTHER KIC EQUIP. THE EQUIP. SHALL BE INSTALLED BY THE IRRIGATION CONTRACTOR.

MAIN LINE GATE VALVES & MAIN LINE FITTINGS. THE VALVE SHALL HAVE A 2" Ø OPERATING NUT. VALVES 6 AND SMALLER MAY BE PUSH ON TYPE. VALVES 8 AND LARGER SHALL BE MECHANICAL JOINT TYPE. EACH VALVE SHALL BE ENCLOSED IN A VALVE BOX AND BE DETAIL. CONCRETE SHALL BE ENOUGH A OPERATING LEYS TO THE OWNER. ALL MAIN LINE FITTING SHALL BE DUCTILE IRON. FITTINGS 6" AND SMALLER MAY BE THE PUSH ON TYPE, FITTINGS 8" LARGER SHALL BE MECHANICAL JOINT TYPE. APPROPRIATE THRUST BLOCKS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

[illegible]

ALL ELECTRICAL POWER SUPPLY WIRE SHALL BE OF COPPER & INSTALLED IN APPROVED PVC CONDUIT. THE GROUND WIRE SHALL BE BARE COPPER. THE COMMUNICATION CABLE SHALL BE MIN. (COMMUNICATION) CABLE 1/2 ARMORED. THE 24 VOLT WELD / REMOTE VALVE VALVE STREET WIRE SHALL BE OF COPPER SIZE AS SHOWN. WHERE POSSIBLE THE WIRE SHALL FOLLOW THE MAIN LINE TRENCH. THE POWER SUPPLY SHALL COME FROM THE LOCATION. THE AT RMP LOCATION. A SEPARATE (RECOMMENDED) IS SUPPLIED BY (KIC) FOR EACH SOURCE. AN INDIVIDUAL ISAMP BREAKER IS SUPPLIED FOR EACH POWER (E.G. THE POWER SHALL BE IDENTIFIED ~~XXXXXXXXXX~~ AND BY S/N WIRE, (1) BLACK (1) WHITE (1) BARE. THE COMMUNICATION CABLE IS IDENTIFIED ~~XXXXXXXXXX~~. THE 24 VOLT WIRE ALL GROUND IS IDENTIFIED ~~XXXXXXXXXX~~. FIELD SPRICES SHALL NOT BE PERMITTED, EXCEPT THE 24 VOLT WIRE CONNECTION AT EACH HEAD. THE SPRICES (2) AT EACH HEAD SHALL BE SCOTCH DRY TYPE. ALL OTHER SPRICES SHALL BE MADE IN THE 5PM CABINET. ALL 24 VOLT WIRE SHALL BE #14 UF. THE COMMON WIRE SHALL BE SPRICED FROM HEAD TO HEAD AS REQ. THE SIGNAL WIRE SHALL BE AN INDIVIDUAL WIRE FROM EACH HEAD TO THE 5PM. ALL MULTI-HEAD STATIONS WILL BE SPRICED TOGETHER IN THE 5PM CABINET. FIELD SPRICES SHALL BE DETERMINED AS FIELD CONDITIONS REQ.

1" AIR RELIEF VALVES (MANUAL) SHALL BE INSTALLED AT ALL MAIN LINE HIGH SPOTS. LOCATIONS SHALL BE DETERMINED BY THE ENGINEER. THE VALVE SHALL BE ISOLATED FROM THE SYSTEM WITH A 1" MANUAL GATE OR BALL VALVE. THE VALVE SHALL BE ENCLOSED IN A VALVE BOX. FURNISH (20)

PIPE SCHEDULE

ALL MAIN LINE & LATERAL PIPE SHALL BE 8" J.M. MANUFACTURING.

- MAIN LINE PIPE SHALL BE CLASS 200 PVC 50R TYPE, RING RITE, AVERAGE BURIAL (20") MIN COVER, SIZE AS SHOWN ON PLAN.
- LATERAL LINE PIPE SHALL BE CLASS 315 OR SCH 40 SDR TYPE WITH JOINTLESS WELD JOINTS. ALL FITTING SHALL BE SCH 40 "DURA" SOLVENT WELD. ALL JOINTLESS WELD JOINTS SHALL BE WITH 10% P.T.O. PRIMER & 7% CEMENT, APPLIED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS.
- LATERAL LINE PIPE SHALL BE CLASS 315 OR SCH 40 SDR TYPE WITH JOINTLESS WELD JOINTS. ALL FITTING SHALL BE SCH 40 "DURA" SOLVENT WELD. ALL JOINTLESS WELD JOINTS SHALL BE WITH 10% P.T.O. PRIMER & 7% CEMENT, APPLIED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS.
- BRIDGE CROSSINGS SHALL BE SCH 40 STEEL & HUNG AS REQ.
- ROAD CROSSINGS SHALL BE DRIP TYPE PVC. TRANSITION TO SDR TYPE WILL BE WITH MECHANICAL JOINT VALVES w/ APPROPRIATE TRANSITION GASKETS.
- ROAD CROSSINGS SHALL BE DRIP TYPE PVC. TRANSITION TO SDR TYPE WILL BE WITH MECHANICAL JOINT VALVES w/ APPROPRIATE TRANSITION GASKETS.

THRUST BLOCKS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

BACK FILL: ALL TRENCHES SHALL BE BACKFILLED w/ CLEAN MATERIALS & WATER SETTLED. TRENCH COMPACTION IS THE RESPONSIBILITY OF THE CONTRACTOR.

AS BUILT PLAN
 AS BUILT RECORDS. REFER TO GENERAL SPECIFICATIONS FOR AS BUILT & RETENTION REQUIREMENTS

KEEP ACCURATE AS BUILDING, ETC.
UNLESS OTHERWISE INSTRUCTED THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STAKING OF HEADS, PIPE ROUTING & OTHER REQ. LAYOUTS.
DRAIN SYSTEM : THE DRAIN SHALL BE LOCATED AS SHOWN FOR FUTURE DRAIN. THE CONTRACTOR SHALL INSTALL THE DRAIN IN THE SPAN

(3) #14 OF WIRES FROM THE VALVE TO THE NEAREST BPM MODULE.

THE MAXI III PROGRAMS ARE NEVER ENDING. THE RAINBIRD REPRESENTATIVE SHALL ASSIST IN PREPARING THE PROGRAMS. THE SYSTEM IS PLANNED TO OPERATE AT 1/2 THE HEADS THE FIRST HALF OF THE WATERING TIME & 1/2 THE HEADS THE LAST HALF OF THE WATERING TIME. PUMP LIMITS ARE (A) 1300 GPM, (B) 1500 GPM, (C) 900 GPM