GENERAL DESCRIPTION

TO ACCOMODATE THE NEW ADMINISTRATION AND MAINTENANCE BUILDINGS THE EXISTING IRRIGATION IN THOSE AREAS WILL BE DEMOLISHED AND REPLACED.

THE POINT OF CONNECTION WILL BE THE EXISTING MAINLINE.

A NEW CLIMATE BASED CONTROLLED TWO WIRE DECODER SYSTEM WILL BE INSTALLED AND TWO WIRE CABLE WILL BE ROUTED TO ALL OF THE EXISTING REMOTE CONTROL VALVES. ALL OF THE EXISTING LEIT SOLAR CONTROLLERS WILL BE REMOVED.

ISOLATION GATE VALVES ARE TO BE FURNISHED AND INSTALLED TO PERMIT THE ISOLATION OF SECTIONS OF THE SYSTEM FOR REPAIRS OR MAINTENANCE.

QUICK COUPLING VALVES ARE TO BE FURNISHED AND INSTALLED THROUGHOUT THE RENOVATED AREA FOR INCIDENTAL WATERING NEEDS BY THE MAINTENANCE STAFF.

INOPERATIVE EXISTING REMOTE CONTROL VALVES WILL BE REPLACED.

GENERAL NOTES

1. THE SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 70 PSI AT A MINIMUM DISCHARGE OF 80 GPM AT THE POTABLE POINT OF CONNECTION. NOTIFY THE RESIDENT ENGINEER IF THERE IS A DISCREPANCY IN PRESSURE OR FLOW, TEST FOR BOTH IMMEDIATELY UPON COMPLETION OF THE STUBOUT BY THE UTILITY CONTRACTOR.
2. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION. CONFIRM EXACT LIMITS OF IRRIGATED AREA AND ALL EXISTING AND FUTURE HARDSCAPE AND BURIAL AREAS PRIOR TO CONSTRUCTION.
3. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND CONDITIONS BEFORE EXCAVATING. CONTRACTOR WILL NEED TO EMPLOY A PRIVATE LOCATOR TO LOCATE PRIVATE VETERANS ADMINISTRATION UTILITIES ON SITE. (EXAMPLE: UNDERGROUND ELECTRIC)
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, OR IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES, OR SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE RESIDENT ENGINEER.
5. THE DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
   A. IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY.
   B. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, ARCHITECTURAL FEATURES, AND UNDERGROUND UTILITIES.
   C. INSTALL IRRIGATION PIPE AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE.
   D. UTILIZE DIRECTIONAL BORING EQUIPMENT UNDER ALL HARDSCAPE SURFACES.
6. SELECT NOZZLES FOR ROTARY SPRINKLERS WHICH PROVIDE COMPLETE AND ADEQUATE COVERAGE IF SITE CONDITIONS ARE NOT AS SHOWN. CAREFULLY ADJUST THE RADIUS OF THROW AND ARC OF EACH ROTARY SPRINKLER TO PROVIDE THE BEST PERFORMANCE AND MINIMIZE OVER SPRAY.
7. CONNECT ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES AND AS PER DEPARTMENT OF VETERANS AFFAIRS SPECIFICATIONS.
8. WITH REGARD TO PIPE SIZING, THE FOLLOWING SHOULD BE NOTED: 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.
9. CONTRACTOR MUST SUPPLY A SYSTEM THAT PROVIDES FULL COVERAGE TO EACH SECTION. IF ADDITIONAL SPRINKLERS ARE NEEDED, THEY ARE TO BE PROVIDED AT NO ADDITIONAL COST TO THE GOVERNMENT.
10. PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
    A. TWO OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVE.
    B. TWO OF EACH SERVICING WRENCH OR TOOL NEEDED FOR COMPLETE ACCESS, ADJUSTMENT, AND REPAIR OF ALL ROTARY SPRINKLERS.
    C. TEN OF EACH TYPE OF SPRINKLER HEAD ASSEMBLY AS SHOWN ON THE DRAWINGS.
    C. TWO QUICK COUPLING KEYS FOR MANUAL QUICK COUPLING VALVES.
11. PROVIDE AND INSTALL FOURTEEN 1-1/2 INCH REMOTE CONTROL VALVE ASSEMBLIES TO REPLACE THE EXISTING REMOTE CONTROL VALVES AT LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

    DUE TO THE DYNAMIC NATURE OF MAINTAINING A LARGE IRRIGATION SYSTEM, SOME VALVES THAT ARE SHOWN BROKEN MAY HAVE BEEN REPLACED BEFORE CONSTRUCTION STARTS. AND THE LOCATION OF THE VALVES TO BE REPLACED MAY CHANGE. A TOTAL OF FOURTEEN REMOTE CONTROL VALVE ASSEMBLIES WILL BE REPLACED UNDER THIS CONTRACT.
12. PROPERLY DISPOSE OF IRRIGATION EQUIPMENT REMOVED DURING DEMOLITION OFF SITE.

DEMOLITION LEGEND

- EXISTING MAINLINE PIPE
- CAP EXISTING MAINLINE PIPE
- CAP EXISTING LATERAL PIPE
- EXISTING LATERAL PIPE
- EXISTING SHORT RADIUS SPRINKLER
- EXISTING ROTARY SPRINKLER
- EXISTING STORM DRAIN
- EXISTING REMOTE CONTROL VALVE ASSEMBLY
- DEMOLITION BOUNDARY

NOTE: ALL IRRIGATION EQUIPMENT WITHIN THE DEMOLITION BOUNDARY AREA SHALL BE REMOVED AND EXCAVATION FILLED AND COMPACTED TO MATCH ADJOINING.

DEMOLITION FLAG NOTES

(D1) UNKNOWN LATERAL PIPE ROUTING. VERIFY LOCATION IN FIELD.

(D2) EXCAVATE AND EXPOSE LATERAL PIPE IN APPROXIMATE LOCATION INDICATED. CAP PIPE FOR FUTURE USE.

(D3) EXCAVATE AND EXPOSE MAINLINE AND CAP PIPE FOR UNTIL CONNECTION TO NEW IRRIGATION.

(D4) REMOVE ABANDONED VALVE BOX AT LOCATION INDICATED, FILL THE HOLE WITH SOIL AND COMPACT TO MATCH SURROUNDING CONDITIONS. REPLACE THE SOD IN THE DISTURBED AREA PER THE LANDSCAPE PLANTING SPECIFICATIONS.

(D5) REMOVE ALL IRRIGATION COMPONENTS WITHIN DEMOLITION BOUNDARY. PROPERLY DISPOSE OF CONTROLLERS AND SOLENOIDS OFF SITE. ABANDON EXISTING CONTROL WIRE UNDERGROUND IN PLACE. REMOVE AND DISPOSE OF CONTROL WIRE WITHIN TWO FEET OF REMOTE CONTROL VALVE BOXES.

(D6) REMOVE EXISTING LEIT SOLAR CONTROLLERS AND DISPOSE OF OFF SITE, REPAIR DEMOLITION AREA TO MATCH SURROUNDING CONDITIONS, REFER TO LANDSCAPE PLANTING DRAWINGS AND SPECIFICATIONS FOR SOD TYPE. SHOWN ON SHEETS I1.4 AND I1.5.

CONTROLLER LEGEND

- EXISTING MAINLINE PIPE
- EXISTING REMOTE CONTROL VALVE ASSEMBLY
- (E) EXISTING CONTROLLER
- (1) NEW CONTROLLER
- NEW TWO-WIRE CABLE PATH
- NEW SLEEVES FOR TWO-WIRE PATH
- [P] NEW PULL BOX
- NEW REMOTE CONTROL VALVE
- NEW DRIP REMOTE CONTROL VALVE
- [R] RAIN SENSOR
- BORE MACHINE AND BORE PIT POSITIONS
- [1-14] INDICATES CONTROLLER AND CONTROLLER STATION NUMBER

CONTROLLER FLAG NOTES

(C1) POT HOLE EXISTING MAINLINE PRIOR TO CONTROL WIRE BORE. REPLACE SOD DISTURBED DURING DIRECTIONAL BORING OPERATIONS WITH NEW SOD.

(C2) INSTALL CONTROL WIRE IN 1-1/2 INCH CL 200 PVC SLEEVE. DO NOT PARK DIRECTIONAL BORING EQUIPMENT ON GRAVESITES. BORES TO BE 30-INCHES DEEP. CONTRACTOR IS RESPONSIBLE FOR REMOVING BORE SLURRY AND DISPOSING OFF SITE.

(C3) CONNECT THE NEW TWO WIRE CONTROL CABLE TO THE EXISTING VALVES IN THE SAME MANNER AS THE NEW VALVES PER THE IRRIGATION DETAILS. REPLACE THE SOLENOID FOR FOR ALL EXISTING VALVES.

(C4) REMOVE EXISTING REMOTE CONTROL VALVE AND REPLACE WITH NEW REMOTE CONTROL VALVE ASSEMBLY PER THE IRRIGATION DETAILS.

(C5) REMOVE EXISTING REMOTE CONTROL VALVES NOT REQUIRED THIS PHASE.

(C6) GROUND REMOTE CONTROL VALVE INDICATED PER THE REMOTE CONTROL VALVE DETAILS SHEET I1.7.

(D6) REMOVE EXISTING LEIT SOLAR CONTROLLERS AND DISPOSE OF OFF SITE, REPAIR DEMOTION AREA TO MATCH SURROUNDING CONDITIONS, REFER TO LANDSCAPE PLANTING DRAWINGS AND SPECIFICATIONS FOR SOD TYPE.

LEGEND

- SLEEVING: CL200 PVC PIPE REFER TO SPECIFICATIONS
- EXISTING MAINLINE PIPE
- CAPPED EXISTING MAINLINE PIPE
- EXISTING LATERAL PIPE
- CAPPED EXISTING LATERAL PIPE
- CONNECT EXISTING CAPPED LATERAL PIPE TO NEW LATERAL PIPE
- EXISTING REMOTE CONTROL VALVE
- MAINLINE PIPE: CLASS 200 PVC 3-INCH SIZE
- LATERAL PIPE: CLASS 160 PVC (1-INCH SIZE UNLESS OTHERWISE INDICATED)
- UNCONNECTED PIPE CROSSING
- DRIP LATERAL PIPE TO EMITTERS
- MANIFOLD TO ZONE CONTROL VALVES
- POINT-OF-CONNECTION (P.O.C.)
- ISOLATION GATE VALVE ASSEMBLY
- REMOTE CONTROL VALVE ASSEMBLY
- DRIP REMOTE CONTROL VALVE ASSEMBLY
- ZONE CONTROL VALVE ASSEMBLY
- FLUSH CAP ASSEMBLY
- QUICK COUPLING VALVE ASSEMBLY
- [H] YARD HYDRANT ASSEMBLY
- POP-UP SPRAY SPRINKLER ASSEMBLY WITH RAIN BIRD 15 SERIES NOZZLE
  PRESSURE: 30 PSI RADIUS: 15 FEET
  FLOW: Q = 0.92 GPM, H = 1.85 GPM
- POP-UP SPRAY SPRINKLER ASSEMBLY WITH RAIN BIRD 12 SERIES NOZZLE
  PRESSURE: 30 PSI RADIUS: 12 FEET
  FLOW: H = 1.30 GPM
- POP-UP SPRAY SPRINKLER ASSEMBLY WITH RAIN BIRD 10 SERIES NOZZLE
  PRESSURE: 30 PSI RADIUS: 10 FEET
  FLOW: Q = 0.39 GPM, H = 0.79 GPM, F = 1.58 GPM
- POP-UP SPRAY SPRINKLER ASSEMBLY WITH RAIN BIRD 8 SERIES NOZZLE
  PRESSURE: 30 PSI RADIUS: 8 FEET
  FLOW: Q = 0.26 GPM, H = 0.52 GPM, F = 1.05 GPM
- POP-UP SPRAY SPRINKLER ASSEMBLY WITH RAIN BIRD 5 SERIES NOZZLE
  PRESSURE: 30 PSI RADIUS: 5 FEET
  FLOW: Q = 0.10 GPM, H = 0.20 GPM

POP-UP ROTOR SPRINKLER: RAIN BIRD 5500 SERIES, PRESSURE: 60 PSI

FC	PC	NOZZLE	FLOW(GPM)	RADIUS
–	②	2.0	1.90	37 FT.
–	⑥	6.0	6.00	47 FT.

POP-UP ROTOR SPRINKLER: RAIN BIRD 6504SS SERIES, PRESSURE: 60 PSI

FC	PC	NOZZLE	FLOW(GPM)	RADIUS
10	⑩	10.0	10.10	55 FT.
–	⑫	12.0	13.20	57 FT.

(1) IRRIGATION CONTROLLER ASSEMBLY
CONTROLLER 1: REFER TO SPECIFICATIONS,
200 STATIONS AVAILABLE, 83 STATIONS USED

1-1 / 33 / 1" / - INDICATES CONTROLLER AND CONTROLLER STATION NUMBER (REFER TO CONTROLLER PLAN FOR MORE NUMBERING INFORMATION)
INDICATES LATERAL DISCHARGE IN GPM
INDICATES REMOTE CONTROL VALVE SIZE IN INCHES

FLAG NOTES

(1) USE DIRECTIONAL BORING EQUIPMENT TO INSTALL ROAD CROSSING SLEEVES. ALL MEDFORD WATER COMMISSION WATERLINE EASEMENT CROSSINGS MUST BE OBSERVED BY MEDFORD WATER COMMISSION. CALL LESTER MCFALL AT 541-944-3690 AND CALL 48 HOURS IN ADVANCE OF ANY CONSTRUCTION IN THIS AREA.

(2) EXCAVATE AND EXPOSE EXISTING IRRIGATION MAINLINE PIPE AT APPROXIMATE LOCATION INDICATED. CONNECT EXISTING MAINLINE PIPE TO NEW MAINLINE OR NEW REMOTE CONTROL VALVE ASSEMBLY USING PVC SCH 40 SOLVENT WELD FITTINGS AND REPAIR COUPLINGS AS NECESSARY. FILL HOLE AND COMPACT TO MATCH SURROUNDING CONDITIONS.

(3) EXCAVATE AND EXPOSE EXISTING LATERAL PIPE CAPPED DURING DEMOLITION. CONNECT TO NEW LATERAL PIPE USING PVC SCH 40 SOLVENT WELD. REPAIR COUPLINGS AS NECESSARY. BACKFILL HOLES AND COMPACT TO MATCH SURROUNDING CONDITIONS.

(4) INSTALL IRRIGATION CONTROLLER IN THE ROOM INDICATED. COORDINATE EXACT PLACEMENT OF THE CONTROLLER WITH THE RESIDENT ENGINEER ON SITE PRIOR TO CONSTRUCTION. COORDINATE ELECTRICAL CONNECTION AND INSTALLATION OF POWER WIRE WITH THE ELECTRICAL CONTRACTOR ON SITE PRIOR TO CONSTRUCTION. CONTROL WIRE CONDUIT HAS BEEN COORDINATED WITH THE ELECTRICAL PLANS. REFER TO THE IRRIGATION CONTROLLER ASSEMBLY DETAIL FOR ADDITIONAL INFORMATION.

BID DOCUMENTS 7/1/2011

Revisions	Date

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NATIONAL CEMETERY ADMINISTRATION

Drawing Title: IRRIGATION NOTES AND LEGEND	Project Title: REPLACE ADMINISTRATION AND MAINTENANCE BUILDING AND SITE IMPROVEMENTS		Date: 5-13-2011
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