DENVER PUBLIC SCHOOLS
2006 LEARNING LANDSCAPE PROJECTS
PP 3712
Cowell Elementary, Fairview Elementary, Greenlee Elementary, & McKinley-Thatcher Elementary Schools

Prepared for:
Denver Public Schools
2800 West Seventh Ave.
Denver, CO 80204

BID DOCUMENTS
FEBRUARY 3, 2006

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NOTE:
CONTRACTOR TO SUBMIT P.E. STAMPED ENGINEERING DRAWINGS, CALCULATIONS, WRITING, SPECIFICATIONS AND FOOTING SPECIFICATIONS FOR APPROVAL PRIOR TO CONSTRUCTION OF THE STRUCTURES.

CENTER PLATE TO BE POWDER COATED BLUE,
OUTER PLATES TO BE POWDER COATED WHITE.
GENERAL IRRIGATION NOTES

1. THE IRRIGATION CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE SPECIFICATIONS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.

2. INSTALL POP-UP TYPE SPRINKLER HEADS INSTALLED IN LAWN AREAS SO THAT TOP OF SPRINKLER HEAD IS FLUSH WITH ADJACENT SIDEWALK OR CURB.

3. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE OF AREA TO BE IRRIGATED UNLESS OTHERWISE INDICATED ON DRAWINGS.

4. WHEN VERTICAL OBSTRUCTIONS (TREE HANGERS, TREES, LIGHTS, ETC.) INTERFERENCE WITH SPRAY PATTERN OF SPRINKLER HEADS SO AS TO PREVENT PROPER COVERAGE, ADJUST SPRINKLER SYSTEM BY INSTALLING A QUARTER CIRCLE, 3/4 CIRCLE, OR ADJUSTABLE CIRCLE SPRINKLER HEAD OR BY INSTALLING A SPRINKLER HEAD WITH A DROP NOZZLE訪问to PREPARE PROPER COVERAGE, PERFORM ADJUSTMENTS AS NO COST TO OWNER WITHIN AUTHORIZED REPRESENTATIVE.

5. SPRINKLER SYSTEM DESIGN IS BASED ON MAXIMUM OPERATING PRESSURE AND MAXIMUM FLOW Rates SHOWN ON IRRIGATION DRAWINGS AT EACH POINT-OF-CONNECTION. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION.

REPORT DIFFERENCES BETWEEN WATER PRESSURE INDICATED ON DRAWINGS AND ACTUAL PRESSURE Read at IRRIGATION POINT-OF-CONNECTION TO OWNER'S AUTHORIZED REPRESENTATIVE IN THE FIELD. PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO START OF CONSTRUCTION, CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REVISIONS.

6. THIS DESIGN IS SCHMIDT-HAGER PIPING VALUES, ETC. MAY BE SHOWN ON PLANNING AREAS ARE FOR DESIGN ERECTION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE AND CONFLICTS BETWEEN SPRINKLER SYSTEM, PLANTING AND AERIAL FEATURES. NO WATER SHOVEL SHALL BE PLACED WITHIN PLANTED AREAS.

7. FLUSH AND ADJUST SPRINKLER HEADS FOR OPTIMUM PERFORMANCES AND TO PREVENT OVER SPROUT INTO WALKS, ROADS, AND BUILDINGS. THIS INCLUDES SELECTING THE BEST SIZE OF NOZZLE TO FIT SITE CONDITIONS AND TO TOLERATE FLOW CONTROL AT EACH VALVE TO OBTAIN OPTIMUM PRESSURE FOR EACH SYSTEM.

8. DO NOT WILLFULLY INSTALL SPRINKLER SYSTEM AS INDICATED ON DRAWINGS WHEN IT IS OBVIOUS IN FIELD THAT CONDITIONS, GRADE DIFFERENCES IN AREA CHANGING ESET THAT MIGHT NOT HAVE BEEN CONSIDERED DURING DESIGN. BRING SUCH OBSERVATIONS OR DIFFERENCES TO THE ATTENTION OF OWNER'S AUTHORIZED REPRESENTATIVE. IN EVENT THIS NOTIFICATION IS NOT PERFORMED, CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REWORK.

9. INSTALL PIPE MATERIALS AND EQUIPMENT AS SHOWN IN DETAILS. USE TEFLON TAPE ON PVC NUTS AND PIPE THREADS ON SPRINKLER SWING ARM AND VALVE ASSEMBLIES.

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH GRADING, HANDS, WATER VALVES, ETC. COORDINATE WORK WITH GENERAL CONTRACTOR AND OTHER SUB- CONTRACTORS FOR LOCATION AND INSTALLATION OF PIPE SLEEVE THROUGHER WALLS, UNDER ROADS, FENCES, STRUCTURES, ETC.

11. IN ADDITION TO SLEEVE SHOWN ON DRAWINGS, CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF PIPE SLEEVING AND SEPARATE CONTROL VALVES SLEEVE OF SUFFICIENT SIZE UNDER PAVED AREAS.

12. THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING. IF A SECTION OF UNGATED LATERAL IS LOCATED BETWEEN TWO IDENTICALLY SIZED SECTIONS THE UNDATED SECTION SHALL BE THE SMALLER ONE, OR NO SMALLER THAN A PIPE SMALLER THAN ANY DOWNSTREAM SECTION LOCATED ON THE SAME LATERAL RUN.

13. THE IRRIGATION CONTRACTOR SHALL TURN OVER THE DRAIN, TWO EACH OF ALL OPERATING KEYS AND SERVING TOOLS NEEDED FOR COMPLETE INSTALLATION, ADJUSTMENT, AND REPAIR OF ALL IRRIGATION SYSTEM COMPONENTS. THIS INCLUDES SPECIALIZED TOOLS REQUIRED FOR COMPLETE DISASSEMBLY OF EACH SPRINKLER VALVE.

14. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT WITH ANY DISCREPANCIES.

EQUIPMENT SCHEDULE

SYMBOL DESCRIPTION
A POINT-OF-CONNECTION
\( A \)
SLEEVEN CLASS 200 PVC PIPE SLEEVE 3/4" SLEEVE FOR WIRING
\( A \)
PVC CLASS 315 PVC PIECE (1/2" NPS UNLESS OTHERWISE INDICATED)
\( A \)
LATERAL PVC CLASS 200 PVC PIPE 1/2" NPS UNLESS OTHERWISE INDICATED
\( A \)
UNIVERSAL PVC ELBOWING
\( a \)
NOZZLE PRECISION ASSEMBLY, ELBOWING
\( A \)
EQUAL TEE, VALVE ASSEMBLY
\( A \)
QUICK COUPLING VALVE ASSEMBLY, MAX BIRD 46DP
\( A \)
REMOTE CONTROL VALVE ASSEMBLY FOR SPRINKLER LATERAL
\( A \)
(1-1200 PSI 1/2" NPS 40 NPS)
\( A \)
FLOW METER (1-1200 PSI 1/2" NPS 40 NPS)
\( A \)
INDICATOR VALVE ASSEMBLY FOR SPRINKLER LATERAL
\( A \)
(1-1200 PSI 1/2" NPS 40 NPS 40 NPS)

SPRINKLER SCHEDULE

SYMBOL DESCRIPTION NAME MODEL HOLE D.P.M. P.S.I. PATTERN
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-17ET 1.58 30 PSI FULL CIRCLE
\( a \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-14ET 0.76 30 PSI FULL CIRCLE
\( b \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-7ET 0.26 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-17LT 1.43 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1T 2.32 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1N 1.50 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1S 0.60 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1L 1.33 30 PSI VARIABLE ARC
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.10 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1N 1.05 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 0.92 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 2.00 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.05 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.00 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.00 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.00 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.00 30 PSI FULL CIRCLE
\( A \)
POP-UP SPRAY HEAD RANGER 1000-PSP-5AM-1C 1.00 30 PSI FULL CIRCLE

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