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TYPE OF RECORD:	NON-PERMANENT
CATEGORY OF RECORD:	CONTRACT
NAME OF CONTRACTOR:	MESA COUNTY VALLEY SCHOOL DISTRICT NO. 51
SUBJECT/PROJECT:	INTERGOVERNMENTAL AGREEMENT FOR CHIPETA ELEMENTARY SCHOOL GYMNASIUM AT 950 CHIPETA AVENUE
CITY DEPARTMENT:	ADMINISTRATION
YEAR:	2008
EXPIRATION DATE:	12/31/2107
DESTRUCTION DATE:	01/01/2114

Mesa County Valley School District No. 51

Intergovernmental Agreement With City of Grand Junction
Chipeta Elementary School Gymnasium

Board of Education Resolution: 08-09:26

Adopted: September 24, 2008

WHEREAS, the District is the owner of real property situated in Mesa County, Colorado, known East Middle School, Washington Park, and adjacent property being the site of the new Chipeta Elementary School, together to be referred to as ("Property" or "Properties"); and

WHEREAS, in 2002, the City of Grand Junction adopted a ten year Strategic Plan with a goal of supporting the Comprehensive Parks and Recreation Master Plan, which Plan supports the development of neighborhood parks and specifically school/park recreational development when deemed in the best interest of the City and the District; and

WHEREAS, Construction of The Chipeta Elementary School was completed in August 2008; and

WHEREAS, In support of the Strategic Plan initiatives and the District's desire to make its recreational facilities available for public use, the District has altered its Chipeta Elementary School construction plans to provide a gymnasium and multipurpose room larger than originally designed, and the City agreed to pay for the costs of the expansion; and

WHEREAS, the City and the School District wish to establish an arrangement for the shared use and operation of the Gymnasium with the objective of maximizing public access consistent with its primary function as a public educational facility on the terms more fully set forth in the agreement attached hereto entitled "INTERGOVERNMENTAL AGREEMENT"; and

WHEREAS, an intergovernmental agreement for such purpose is authorized pursuant to Section 18, Article XIV of the Colorado Constitution, Section 29-1-203, C.R.S., Section 22-32-110(1)(f), C.R.S., and other applicable laws.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the INTERGOVERNMENTAL AGREEMENT and authorizes and directs the Superintendent of School and the Board President to execute the same on behalf of the Board.

I hereby certify that the information contained in the above resolution is accurate and was adopted by the Mesa County Valley School District No. 51 Board of Education on September 24, 2008.

Jamie Sidanycz
Secretary, Board of Education

INTERGOVERNMENTAL AGREEMENT

THIS INTERGOVERNMENTAL AGREEMENT ("herein IGA"), made and entered into this 24th day of September 2008, by and between THE CITY OF GRAND JUNCTION, a Colorado home rule municipality, hereinafter called "City," and MESA COUNTY VALLEY SCHOOL DISTRICT NO. 51, a Colorado Public School District, hereinafter called "District;" collectively the "Parties."

RECITALS

The District is the owner of real property situated in Mesa County, Colorado, known as East Middle School, Washington Park, and adjacent property being the site of the new Chipeta Elementary School, together to be referred to as ("Property" or "Properties"), as described on Exhibit A attached hereto. Construction of The Chipeta Elementary School was completed in August 2008.

In 2002, the City adopted a ten year Strategic Plan with a goal of supporting the Comprehensive Parks and Recreation Master Plan. Strategic Plan objectives support the development of neighborhood parks and specifically school/park recreational development, when deemed in the best interests of the Parties.

In support of the Strategic Plan initiatives and the District's desire to make its recreational facilities available for public use, the District has altered its Chipeta Elementary School construction plans to provide a gymnasium and multipurpose room larger than originally designed (as shown on Exhibit B), the City agrees to pay for the costs of the expansion, and the parties agree to a joint use arrangement of the Chipeta gymnasium and multipurpose room (herein collectively referred to as the "Gymnasium") for recreation programming and activities as more fully described herein. In furtherance of the allowed use of the Gymnasium, the City agrees to provide landscape maintenance and upkeep for the Properties, as more fully set forth below.

The Gymnasium will, by this Agreement, be dedicated to and reserved for public use pursuant to an arrangement for shared use and with the objective of maximizing public access consistent with the Parks and Recreation Master Plan and the City's Strategic Plan and with their its primary function as a public educational and recreational facility, as is more fully described herein.

An intergovernmental agreement for such purpose is authorized pursuant to Section 18, Article XIV of the Colorado Constitution, Section 29-1-203, C.R.S., Section 22-32-110(1)(f), C.R.S., and other applicable laws.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein and other valuable consideration the sufficiency of which is acknowledged, the Parties agree as follows:

1. This IGA shall be for a term beginning, August 22, 2008, and ending December 31, 2107, subject to termination only as provided in paragraphs 9 and 10.

2. In furtherance of this Agreement, the District will construct the enlarged Gymnasium. Costs of the construction shall be borne by the District, but the City agrees to pay the District the sum of five hundred sixty-five thousand four hundred thirty-six ($565,436.00) dollars, as follows:

a) On October 1, 2008 - $188,478.66 (interest free);

b) On October 1, 2009 - $188,478.67 (interest free); and

c) On October 1, 2010 - $188,478.67 (interest free)

3. During the term of this IGA the District will, at its own expense, operate, repair and maintain the Properties and their amenities, including but not limited to the Designated Facilities, to standards observed by the District in maintenance and operation of other District facilities to include, without limitation, all utilities and custodial services.

4. During the term of this IGA, the City will, at its own expense and except as otherwise provided herein, maintain and operate all landscaping, for the Properties following specifications observed by the City in maintenance and operation of its other park facilities. The City will also provide for removal of snow from the sidewalks when the schools are not in session. The City will be allowed to use the existing irrigation facilities at East Middle School and Washington Park; however, the District agrees to install irrigation, landscaping and equipment upgrades, as specified in Exhibit C, attached hereto and incorporated by reference to this IGA, to bring the existing irrigation facilities up to the specifications observed by the City for maintenance and operation of its other park facilities. The City will not accept maintenance responsibilities of the Properties unless and until irrigation systems meet the City's minimum specifications.

5. The District shall have priority use of the Gymnasium during school hours and for District-wide basketball and volleyball tournaments (on at least six (6) months' advance notice to the City's Parks and Recreation Director and/or designee). The City's Parks and Recreation Director and/or designee will be responsible for the scheduling, supervision, use and operation of the Gymnasium during periods not reserved for School use. The parties, through their designated representatives, shall mutually agree upon fee schedules for non-Party users of the Gymnasium. All fees shall inure to the benefit of the District. Community use and recreational activities scheduled for the City's Parks and Recreation Department when the Gymnasium is not reserved for School use shall have priority over all other uses; however, with City approval, which shall not be unreasonably withheld, and on at least 48 hours' notice, at times when the Gymnasium is not otherwise reserved for School, community or City use, the District shall be free to use the Gymnasium for its after-school educational, extracurricular and co-curricular activities, without charge. With District Approval, which shall not be unreasonably withheld, and on at least 48 hours' notice, the District will allow the City priority use of the Gymnasium during school hours and on days when school is not in session and in accordance with existing District Building Use Policies, but without charge. The City will be responsible for extraordinary cleanup and repair necessitated by its usage and by community users occupying the Gymnasium under City authorization. In addition, the City may continue to use the East Middle School gymnasium by scheduling it according to the District's Community Use of Facilities Policy and Regulation, but without charge and without priority over school and other community users.

6. The City will provide one (1) recreation staff member to work at the Chipeta Elementary School site. Office space and storage will be provided and maintained by the District as shown on Exhibit B. The City's recreation staff facilities will be wired for telephone and computer access. The City's designated recreation staff member at the Chipeta Elementary School site shall use the assigned office space, storage, telephone and computer access only for Parks and Recreation Department functions.

7. The District agrees to involve a representative from the City's Parks and Recreation Department in the decision-making process involving alterations to the landscaping and/or irrigation of the Properties that materially affect the City's obligations hereunder.

8. In order to preserve the tax-exempt status of District General Obligation Bonds, the City agrees to make the Gymnasium available to the general public, to not grant any long-term contracts on the Properties and to allow only limited private business use of the facilities.

9. Either party may terminate this IGA without cause on not less than twelve (12) months' written notice to the other party after August 22, 2013, provided that full payment of sums due under paragraph 2 has been made, and except as provided in paragraph 10. Such notice shall set a termination date not less than 12 months from the date of the notice. Termination shall free the Parties their obligations hereunder from and after the termination date, provided that if the District elects termination and termination is without cause, the District shall pay the City as follows:

If the termination date is after August 22, 2013, but before August 22, 2014	The District will Pay the City $360,000
If the termination date is after August 22, 2014, but before August 22, 2015	The District will Pay the City $ 320,000,
If the termination date is after August 22, 2015, but before August 22, 2016	The District will Pay the City $ 280,000,
If the termination date is after August 22, 2016, but before August 22, 2017	The District will Pay the City $ 240,000,

If the termination date is after August 22, 2017, but before August 22, 2018	The District will Pay the City $200,000,
If the termination date is after August 22, 2018, but before August 22, 2019	The District will Pay the City $160,000,
If the termination date is after August 22, 2019, but before August 22, 2020	The District will Pay the City $120,000,
If the termination date is after August 22, 2020, but before August 22, 2021	The District will Pay the City $80,000,

After August 22, 2021	The District will Pay the City $0.00

Upon termination the Gymnasium improvements, as then existing, together with fixtures associated therewith shall remain the property of the District. All Gymnasium moveable equipment purchased or provided by the City shall then remain the property of the City.

10. Should either party fail to substantially perform its obligations hereunder, the other party may give written notice of the exact nature of the default. The party in default shall correct the default or provide written schedule of when and how the default will be corrected within forty-five (45) days from receiving such notice. Failure to perform shall entitle the nondefaulting party to terminate this IGA and to pursue any other remedy in law or equity to enforce the terms hereof. In the event of termination, all Gymnasium improvements, as then existing, together with fixtures associated therewith, shall remain the property of the District. All Gymnasium moveable equipment purchased or provided by the City shall then remain the property of the City.

11. Nothing contained herein shall be construed as a limitation upon the District's right to make additions or alterations to the Properties or any portion thereof, to change the character of the use, or to discontinue the use of the same, so long as such activity does not materially interfere with the City's rights to use the Gymnasium as provided in paragraphs 5 and 6, and further provided that any such activity which materially expands or interferes with City's landscaping and maintenance functions as set forth in paragraph 4 shall free the City from any such functions as applies to those portions of the Properties materially affected.

12. Should the District elect to dispose of any portion of the Properties, and shall have obtained a bona fide third party offer to purchase the same, which offer the District's Board of Education deems acceptable, the District hereby grants the City a right to purchase the subject portion on the same terms as contained in said offer. Nothing contained herein shall be construed as a waiver of any reserved property rights afforded to the City or others.

13. This IGA shall be binding upon and inure to the benefit of the successors in interest of the respective parties.

14. The City's rights and obligations hereunder may not be assigned without the District's written consent, and any attempt to do so will be deemed a default by the City for failure to substantially perform a material covenant and obligation hereunder.

15. The District's rights and obligations hereunder may not be assigned without the City's written consent, and any attempt to do so will be deemed a default by the District for failure to substantially perform a material covenant and obligation hereunder.

16. General Provisions.

a. Entire Agreement – Merger- Modifications – No Waiver. This IGA contains the entire understanding of the Parties and is intended as a complete and final expression of their agreement and of the terms thereof. All prior statements and representations, including those which may have been negligently made, and all prior understandings and agreements are merged herein. The Parties specifically waive any claims they may have for negligent misrepresentations in the formation of this IGA. This IGA shall not be modified except by a writing signed by the Parties hereto or their duly authorized representatives. No waiver by either Party of any default shall be deemed a waiver of any subsequent default.

b. Time of the Essence. Time is of the essence of this IGA, and in the event of the failure of either Party to perform any term or condition hereof, including but not limited to terms pertaining to delivery and payment, such party shall be in default and the other party shall be entitled to all remedies provided by law and the terms of this IGA.

c. Governing Law. This IGA shall be governed by and construed in accordance with the laws of the City of Grand Junction, State of Colorado. Venue for all actions connected herewith shall be in Mesa County, State of Colorado.

d. Invalidity. If any clause or provision of this IGA be determined to be illegal, invalid or unenforceable under present or future laws, then it is the intention of the parties that the other terms and provisions of this IGA shall not be affected thereby.

e. Captions. Article titles and paragraph titles or captions contained in this IGA are inserted only as a matter of convenience and for reference and in no way define, limit, extend or describe the scope of this IGA or the intent of any provisions thereof.

f. Pronouns. All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person, persons, entity or entities may require.

g. Attorney's fees. If, on account of any breach or default by a Party hereto under the terms and conditions hereof, it shall become necessary or appropriate for the other Party to employ or consult with an attorney concerning the enforcement of defense of its rights or remedies hereunder, the Party breaching or in default hereunder shall pay all reasonable attorney's fees so incurred by the other Party.

CITY OF GRAND JUNCTION, a Colorado home rule municipality,

BY _____
Laurie M. Kadrich, City Manager

ATTEST:

Stephanie Tuin
City Clerk

MESA COUNTY VALLEY SCHOOL DISTRICT NO. 51

By _____
J. Tim Mills, Superintendent of Schools

ATTEST:

Secretary of The Board of Education

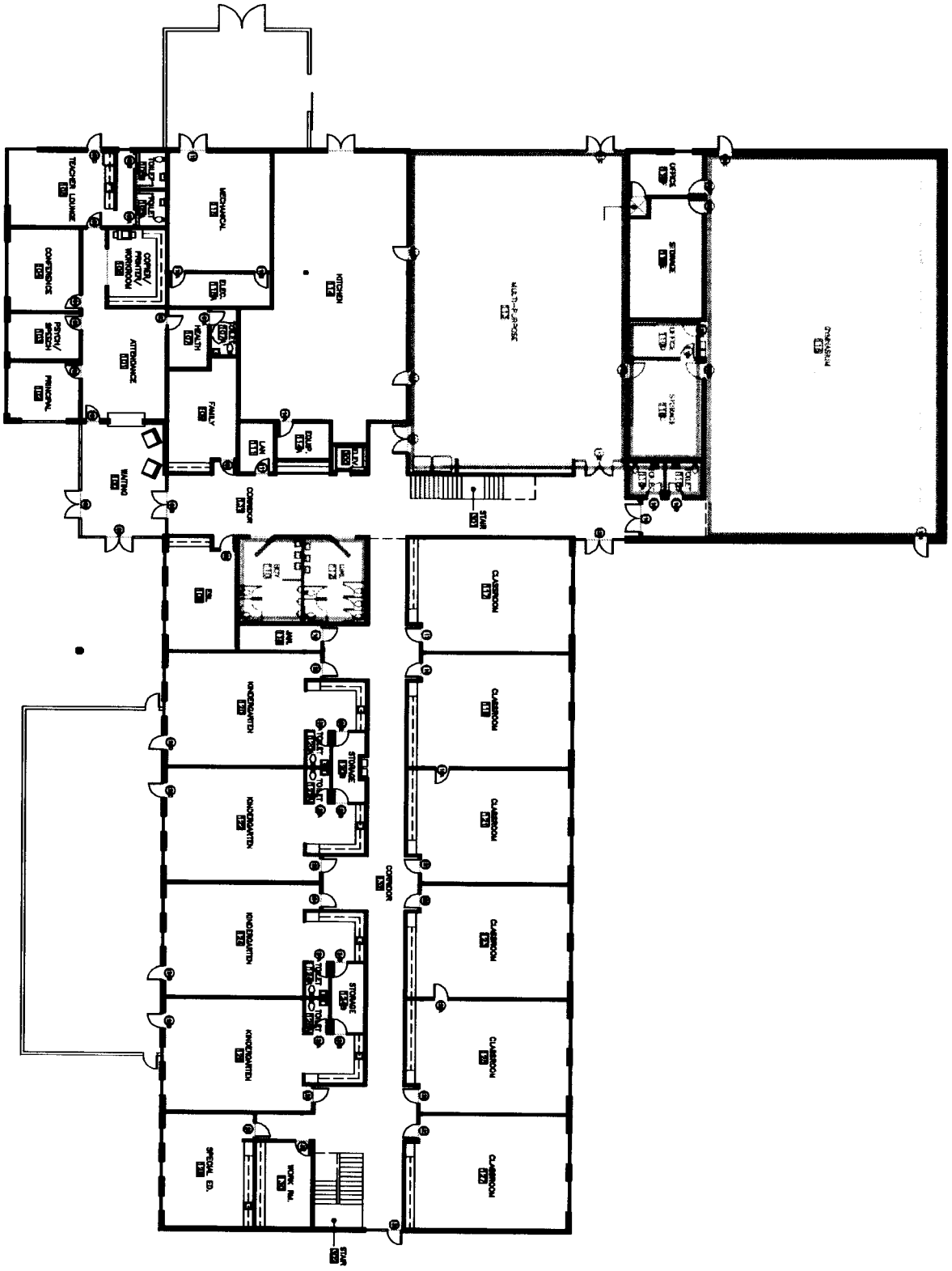
Leslie Kissler
Board President

EXHIBIT A

East Middle School –Block 41 in the City of Grand Junction.

Washington Park - Block 42 in the City of Grand Junction.

Chipeta Elementary School - Block 47 in the City of Grand Junction.


TEACHER LOUNGE
COUNSELOR
PRINCIPAL
ATTENDANCE
WAITING
MECHANICAL
KITCHEN
HEALTH
FAMILY
LAV
CORRIDOR
MULTI-PURPOSE
OFFICE
STORAGE
STAGE
KINDERGARTEN
STORAGE
CLASSROOM
SPECIAL ED.
WORK RM.
STAIR

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: The extent of landscape irrigation system is shown on the Drawings and is intended to be a schematic representation of the system. Adapt system to field conditions in the most efficient and effective way so as to achieve design objectives. Furnish and install system, complete with all accessories and fittings necessary for proper function.

1.2 OBJECTIVE OF WORK

A. The objective of the system is to provide appropriate amounts of water to each type of vegetation while preventing overspray and wetting of all non-planting area.

1.3 QUALITY ASSURANCE:

A. To the maximum extent possible, provide the landscape irrigation system as a complete unit as produced by Rain Bird, including heads, valves, controls and accessories.

B. Buckner, Nelson, Royal Coach etc. are also acceptable manufacturers. However, if one of these alternative manufacturers is used, provide a system of comparable quality and function as shown on Drawings and submit:

1. Manufacturer's technical data,
2. Installation instructions,
3. Operation and maintenance manuals,
4. Winterizing instructions,
5. Complete design and shop drawings.
6. Final acceptance of alternative system is subject to Architect's approval.

1.4 SUBMITTALS

A. Product Data:

1. Submit manufacturer's technical data and installation instructions for the landscape irrigation system.
2. Transmit a copy of each instruction to the Installer and Architect.
3. Provide operating and maintenance manuals in duplicate including winterizing instructions to Architect, and demonstrate use of manuals in the field.

B. As-Built Drawings: Prepare an accurate as-built drawing of the irrigation system as installation proceeds. Provide Architect with such a drawing in a format, accuracy and orderliness similar to that of Construction Drawings.

PART 2 PRODUCTS

2.1 MATERIALS:

A. Pump: Provide a pump as manufactured by Munro Pumps to provide the pressure and flow indicated on the drawing. Install at location indicated. Piping from inlet sump through filter to be steel. Exterior piping to be galvanized, interior piping to be painted. Piping from pump assembly to filter to be steel, painted.

B. Pump Variable Frequency Drive power supply with pressure control to provide constant pressure for the irrigation system at all times. Contractor is to provide transformer to insure power supply stability at 208 volts.

C. Filter: Provide 2" two pod Netafim Diskleen 80 mesh filter with pressure differential activated automatic flushing. Install at location indicated complete with inlet piping from pump, discharge piping to irrigation main, flush piping to drainage ditch, controller for automated flush, and all wiring necessary for full operation.

D. Pump House: Provide pre-cast concrete "Perma-wall" pump house as shown on drawings and details. Exterior wall finish, roof membrane, vents, doors and openings are to be as shown in drawings and details. Contractor is to provide shop drawings prior to construction. Refer to section 03310 for structural concrete.

E. Inlet Sump: Provide cast in place or pre-cast concrete sump as shown on drawings and details. Include excavation, base, sealed pipe penetrations, headgates complete with inlet piping from existing adjacent piped irrigation source. Refer to section 03310 for structural concrete.

F. Pipes and Fittings:

1. All pipes and pipe fittings shall be polyvinyl chloride (PVC) unless otherwise specified.
2. All lateral lines shall be Class 160 PVC and all pressure lines shall be Class 200.
3. Pipes shall be continuously and permanently marked with the manufacturer's name, size, schedule, type and working pressure.

G. Sleeves: All sleeves shall be Class 200 pipe, sized as shown on drawing.

H. Thrust Blocking, cast in place concrete: Refer to Sections 03200, 03305 and 03310 for concrete specifications which are applicable to concrete required in this Section.

I. Valves: Provide automatic valves, (pressure compensating valves where noted), isolation valves, check valves, foot valves, and manual drain valves as required and as specified on Drawings, complete with Ametek valve boxes for automatic valves and check valves, complete with PVC risers, locking rubber covers, two 2049 keys for rubber covers and two valve keys three (3) feet long for isolation valves and manual drain valves, including gate valve at tap point.

J. Sprinkler Heads: All heads shall conform to specifications set forth on Drawings and shall have Seal-A-Matic (SAM) feature.

K. Head Connections: All spray heads shall be connected to lateral lines with Swing Pipe SP-100 with SBE-075 and SBE-075 fittings at each end of swing pipe. All rotor heads shall be connected with PVC, three-elbow swing joints.

L. Bedding Material: Sand or rock-free soil of a sandy loam structure.

M. Drainage Backfill: Clean gravel, graded from 3/4 inch minimum to 1-1/2 inch maximum.

2.2 AUTOMATIC CONTROL SYSTEM

A. Rainbird ESP-SITE SAT Automatic controller, with telephone hard wire connection. Control system will include flow monitoring hardware and Pulse Decoder to allow system flow to be detected; wiring and connections necessary to fully operate the system.

B. Wires shall be color-coded, copper conductor, types and sized according to manufacturer's recommendations, buried below the irrigation main or placed in 1" min. conduit, unless noted otherwise.

C. Wiring shall enter into designated room through floor slab encased in three (3) inch conduit properly sealed.

PART 3 EXECUTION:

3.1 INSPECTION

A. Installer must examine the areas and conditions under which landscape irrigation system is to be installed and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work.

B. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.

3.2 SYSTEM LAYOUT

A. All heads, valves and drains shall be flagged on site for approval by Architect prior to trenching.

B. Minor adjustment or relocations of system elements are permitted to avoid existing fixed obstructions.

C. All damage done during installation of the irrigation system shall be replaced or repaired by Installer.

D. Utilities:

1. Determine, based on Owner's site survey and Project Record Document, location of underground utilities and perform work in a manner which will avoid possible damage.
2. Hand excavate, as required to minimize possibility of damage to underground utilities.
3. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned.

E. During construction and storage, protect materials from damage and prolonged exposure to sunlight.

3.3 TRENCHING AND BACKFILLING

A. Excavate straight and true with bottom uniformly sloped to low points.

B. Over-excavate trenches three (3) inches and bring back to indicated depth by filling with sand or rock-free materials, as specified.

C. Cover pipes both top and sides with three (3) inches of specified bedding materials. Do not cover joints or fittings until so directed by Architect and until joints have been tested under pressure.

D. Backfill and compact so that the pipes are protected and so there will be no subsequent settling of the trenches. Any settlement that does occur will be repaired by Installer at no added cost.

3.4 INSTALLATION:

A. Unless otherwise indicated, comply with requirements of International Plumbing Code.

B. Irrigation Pump System:

1. Foundation- Install as shown on drawings. Refer to section 03300 Cast-In-Place Concrete and Division 31 for concrete and reinforcing. Coordinate foundation construction with necessary conduit(s) for power, control wiring, irrigation piping, an any other penetrations required.
2. Pump System- Set pre-tested pump system skid on pump house floor. Connect inlet pipe, foot valve, and pipe support as required. Connect outlet from filter to mainline, filter flush to drain. Coordinate all electrical connections from power supply to pump system controls and filter system controls.
3. Install Perma-Wall pump house as per drawings and manufacturer's recommendations. Casting, transportation, erection, door, vents, roofing, and finish is included as part of this work. Coordinate building erection with pump skid installation.

C. Water Supply Tap: Irrigation system shall be tied to irrigation water service for the site. Tap existing 12" supply from a point adjacent to proposed sump location as shown on drawings. Complete all piping and valving as shown on pump house and sump detail.

D. Inlet Sump: see section 03311 Cast-In-Place Concrete for concrete and reinforcing. Contractor is to install sump at elevation shown on drawings and details. Install headgates, overflow and drainage piping as shown.

E. Pipe:

1. Unless otherwise specified, install main lines with a minimum cover of 18 inches below final grade. Install lateral lines with a minimum cover of 12 inches below final grade. Failure to comply with these requirements will be reason for rejection of work. All replacements will be made at expense of Installer.
2. Lay pipe on solid sub-base, uniformly sloped without humps or depressions. For laterals, slope to drain valve at least 1/2 inch in 10 feet of run.

3. No pipe shall be placed in a trench immediately adjacent to concrete or other fixed objects so as inhibit future repairs of pipe or fitting.
4. Cut plastic pipe square. Remove burrs at cut ends. Make solvent weld joints as per manufacturer's recommendations so that unobstructed flow will result. Allow joints to set at least 24 hours before applying pressure to PVC pipes.
5. Coat threaded connections with teflon tape no rectorseal or pipe dope.
6. Install pipe in weather conditions acceptable to manufacturer.
7. Use dielectric fittings at connections where pipes of dissimilar metal are joined.
8. Provide Irrigation Main Line thrust blocking for pipe 4" and larger at all changes in size or direction. Bends reducers, plugs and the opposite side of tee branches all require thrust blocks. Size of the thrust block will be determined by working pressure, size and type of fitting, and soil conditions. Contractor shall provide shop drawings to Owner's Representative prior to installation.

F. Sleeves:

1. Specified sleeve material shall be placed in all areas to be hard surfaced, including driveways, sidewalks and curbs, where it is necessary, according to the Drawings, to extend elements of the landscape irrigation system, specifically piping and electric wires for remote valves.
2. Separate sleeves shall be provided for wires and pipes, but such sleeves may be placed side by side in the same trench. Sleeves for pipes shall be placed at 18 inches for main lines and 12 inches for lateral lines. Sleeves for wires shall be placed at the same depth as the pipe if sharing a common trench, and otherwise shall be placed at a minimum depth of 18 inches.
3. Sleeves shall be bedded in the same fashion as piping with specified bedding material.
4. Where wire penetrates building wall or floor, install three (3) inch conduit, at a location determined by Architect. Pack opening around pipe with non-shrink grout or approved equal, so that penetration is watertight. Repair below grade dampproofing disturbed by this work.

G. Automatic Controller System: Controller shall be wall mounted at a location inside the pump house as shown on drawing, and shall be installed according to recommendation of manufacturer. Connection to electrical service shall be made with an approved junction box.

H. Remote Automatic Valves and Wires:

1. Install valves and wires according to recommendations of manufacturer. Place remote valves in specified valve boxes so that cover of valve box is 1/2 inch above finished grade of mulch surface. Install valve over nine (9) inches of approved drainage backfill. Arrange valve in box for easy adjustment and removal. Provide union on downstream side. Adjust valves to provide proper amount of water to each type of vegetation served.
2. Install controller/valve wires in trench with pipe wherever possible. Place wire loosely into trench, but do not tape to pipe. Waterproof wire connectors shall be installed at all splices. Form strain relief loops at a minimum of every 200' using a minimum of 18" of wire to form loop.

I. Pressure Reduction Valves: Adjust all pressure reduction valves to levels recommended by manufacturer for maximum efficiency of system.

J. Sprinkler Heads:

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: The extent of landscape irrigation system is shown on the Drawings and is intended to be a schematic representation of the system. Adapt system to field conditions in the most efficient and effective way so as to achieve design objectives. Furnish and install system, complete with all accessories and fittings necessary for proper function.

1.2 OBJECTIVE OF WORK

A. The objective of the system is to provide appropriate amounts of water to each type of vegetation while preventing overspray and wetting of all non-planting area.

1.3 QUALITY ASSURANCE:

A. To the maximum extent possible, provide the landscape irrigation system as a complete unit as produced by Rain Bird, including heads, valves, controls and accessories.

B. Buckner, Nelson, Royal Coach etc. are also acceptable manufacturers. However, if one of these alternative manufacturers is used, provide a system of comparable quality and function as shown on Drawings and submit:

1. Manufacturer's technical data,
2. Installation instructions,
3. Operation and maintenance manuals,
4. Winterizing instructions,
5. Complete design and shop drawings.
6. Final acceptance of alternative system is subject to Architect's approval.

1.4 SUBMITTALS

A. Product Data:

1. Submit manufacturer's technical data and installation instructions for the landscape irrigation system.
2. Transmit a copy of each instruction to the Installer and Architect.
3. Provide operating and maintenance manuals in duplicate including winterizing instructions to Architect, and demonstrate use of manuals in the field.

B. As-Built Drawings: Prepare an accurate as-built drawing of the irrigation system as installation proceeds. Provide Architect with such a drawing in a format, accuracy and orderliness similar to that of Construction Drawings.

PART 2 PRODUCTS

2.1 MATERIALS:

A. Pump: Provide a pump as manufactured by Munro Pumps to provide the pressure and flow indicated on the drawing. Install at location indicated. Piping from inlet sump through filter to be steel. Exterior piping to be galvanized, interior piping to be painted. Piping from pump assembly to filter to be steel, painted.

B. Pump Variable Frequency Drive power supply with pressure control to provide constant pressure for the irrigation system at all times. Contractor is to provide transformer to insure power supply stability at 208 volts.

C. Filter: Provide 2" two pod Netafim Diskleen 80 mesh filter with pressure differential activated automatic flushing. Install at location indicated complete with inlet piping from pump, discharge piping to irrigation main, flush piping to drainage ditch, controller for automated flush, and all wiring necessary for full operation.

D. Pump House: Provide pre-cast concrete "Perma-wall" pump house as shown on drawings and details. Exterior wall finish, roof membrane, vents, doors and openings are to be as shown in drawings and details. Contractor is to provide shop drawings prior to construction. Refer to section 03310 for structural concrete.

E. Inlet Sump: Provide cast in place or pre-cast concrete sump as shown on drawings and details. Include excavation, base, sealed pipe penetrations, headgates complete with inlet piping from existing adjacent piped irrigation source. Refer to section 03310 for structural concrete.

F. Pipes and Fittings:

1. All pipes and pipe fittings shall be polyvinyl chloride (PVC) unless otherwise specified.
2. All lateral lines shall be Class 160 PVC and all pressure lines shall be Class 200.
3. Pipes shall be continuously and permanently marked with the manufacturer's name, size, schedule, type and working pressure.

G. Sleeves: All sleeves shall be Class 200 pipe, sized as shown on drawing.

H. Thrust Blocking, cast in place concrete: Refer to Sections 03200, 03305 and 03310 for concrete specifications which are applicable to concrete required in this Section.

I. Valves: Provide automatic valves, (pressure compensating valves where noted), isolation valves, check valves, foot valves, and manual drain valves as required and as specified on Drawings, complete with Ametek valve boxes for automatic valves and check valves, complete with PVC risers, locking rubber covers, two 2049 keys for rubber covers and two valve keys three (3) feet long for isolation valves and manual drain valves, including gate valve at tap point.

J. Sprinkler Heads: All heads shall conform to specifications set forth on Drawings and shall have Seal-A-Matic (SAM) feature.

K. Head Connections: All spray heads shall be connected to lateral lines with Swing Pipe SP-100 with SBE-075 and SBE-075 fittings at each end of swing pipe. All rotor heads shall be connected with PVC, three-elbow swing joints.

L. Bedding Material: Sand or rock-free soil of a sandy loam structure.

M. Drainage Backfill: Clean gravel, graded from 3/4 inch minimum to 1-1/2 inch maximum.

2.2 AUTOMATIC CONTROL SYSTEM

A. Rainbird ESP-SITE SAT Automatic controller, with telephone hard wire connection. Control system will include flow monitoring hardware and Pulse Decoder to allow system flow to be detected; wiring and connections necessary to fully operate the system.

B. Wires shall be color-coded, copper conductor, types and sized according to manufacturer's recommendations, buried below the irrigation main or placed in 1" min. conduit, unless noted otherwise.

C. Wiring shall enter into designated room through floor slab encased in three (3) inch conduit properly sealed.

PART 3 EXECUTION:

3.1 INSPECTION

A. Installer must examine the areas and conditions under which landscape irrigation system is to be installed and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work.

B. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.

3.2 SYSTEM LAYOUT

A. All heads, valves and drains shall be flagged on site for approval by Architect prior to trenching.

B. Minor adjustment or relocations of system elements are permitted to avoid existing fixed obstructions.

C. All damage done during installation of the irrigation system shall be replaced or repaired by Installer.

D. Utilities:

1. Determine, based on Owner's site survey and Project Record Document, location of underground utilities and perform work in a manner which will avoid possible damage.
2. Hand excavate, as required to minimize possibility of damage to underground utilities.
3. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned.

E. During construction and storage, protect materials from damage and prolonged exposure to sunlight.

3.3 TRENCHING AND BACKFILLING

A. Excavate straight and true with bottom uniformly sloped to low points.

B. Over-excavate trenches three (3) inches and bring back to indicated depth by filling with sand or rock-free materials, as specified.

C. Cover pipes both top and sides with three (3) inches of specified bedding materials. Do not cover joints or fittings until so directed by Architect and until joints have been tested under pressure.

D. Backfill and compact so that the pipes are protected and so there will be no subsequent settling of the trenches. Any settlement that does occur will be repaired by Installer at no added cost.

3.4 INSTALLATION:

A. Unless otherwise indicated, comply with requirements of International Plumbing Code.

B. Irrigation Pump System:

1. Foundation- Install as shown on drawings. Refer to section 03300 Cast-In-Place Concrete and Division 31 for concrete and reinforcing. Coordinate foundation construction with necessary conduit(s) for power, control wiring, irrigation piping, an any other penetrations required.
2. Pump System- Set pre-tested pump system skid on pump house floor. Connect inlet pipe, foot valve, and pipe support as required. Connect outlet from filter to mainline, filter flush to drain. Coordinate all electrical connections from power supply to pump system controls and filter system controls.
3. Install Perma-Wall pump house as per drawings and manufacturer's recommendations. Casting, transportation, erection, door, vents, roofing, and finish is included as part of this work. Coordinate building erection with pump skid installation.

C. Water Supply Tap: Irrigation system shall be tied to irrigation water service for the site. Tap existing 12" supply from a point adjacent to proposed sump location as shown on drawings. Complete all piping and valving as shown on pump house and sump detail.

D. Inlet Sump: see section 03311 Cast-In-Place Concrete for concrete and reinforcing. Contractor is to install sump at elevation shown on drawings and details. Install headgates, overflow and drainage piping as shown.

E. Pipe:

1. Unless otherwise specified, install main lines with a minimum cover of 18 inches below final grade. Install lateral lines with a minimum cover of 12 inches below final grade. Failure to comply with these requirements will be reason for rejection of work. All replacements will be made at expense of Installer.
2. Lay pipe on solid sub-base, uniformly sloped without humps or depressions. For laterals, slope to drain valve at least 1/2 inch in 10 feet of run.

3. No pipe shall be placed in a trench immediately adjacent to concrete or other fixed objects so as inhibit future repairs of pipe or fitting.
4. Cut plastic pipe square. Remove burrs at cut ends. Make solvent weld joints as per manufacturer's recommendations so that unobstructed flow will result. Allow joints to set at least 24 hours before applying pressure to PVC pipes.
5. Coat threaded connections with teflon tape no rectorseal or pipe dope.
6. Install pipe in weather conditions acceptable to manufacturer.
7. Use dielectric fittings at connections where pipes of dissimilar metal are joined.
8. Provide Irrigation Main Line thrust blocking for pipe 4" and larger at all changes in size or direction. Bends reducers, plugs and the opposite side of tee branches all require thrust blocks. Size of the thrust block will be determined by working pressure, size and type of fitting, and soil conditions. Contractor shall provide shop drawings to Owner's Representative prior to installation.

F. Sleeves:

1. Specified sleeve material shall be placed in all areas to be hard surfaced, including driveways, sidewalks and curbs, where it is necessary, according to the Drawings, to extend elements of the landscape irrigation system, specifically piping and electric wires for remote valves.
2. Separate sleeves shall be provided for wires and pipes, but such sleeves may be placed side by side in the same trench. Sleeves for pipes shall be placed at 18 inches for main lines and 12 inches for lateral lines. Sleeves for wires shall be placed at the same depth as the pipe if sharing a common trench, and otherwise shall be placed at a minimum depth of 18 inches.
3. Sleeves shall be bedded in the same fashion as piping with specified bedding material.
4. Where wire penetrates building wall or floor, install three (3) inch conduit, at a location determined by Architect. Pack opening around pipe with non-shrink grout or approved equal, so that penetration is watertight. Repair below grade dampproofing disturbed by this work.

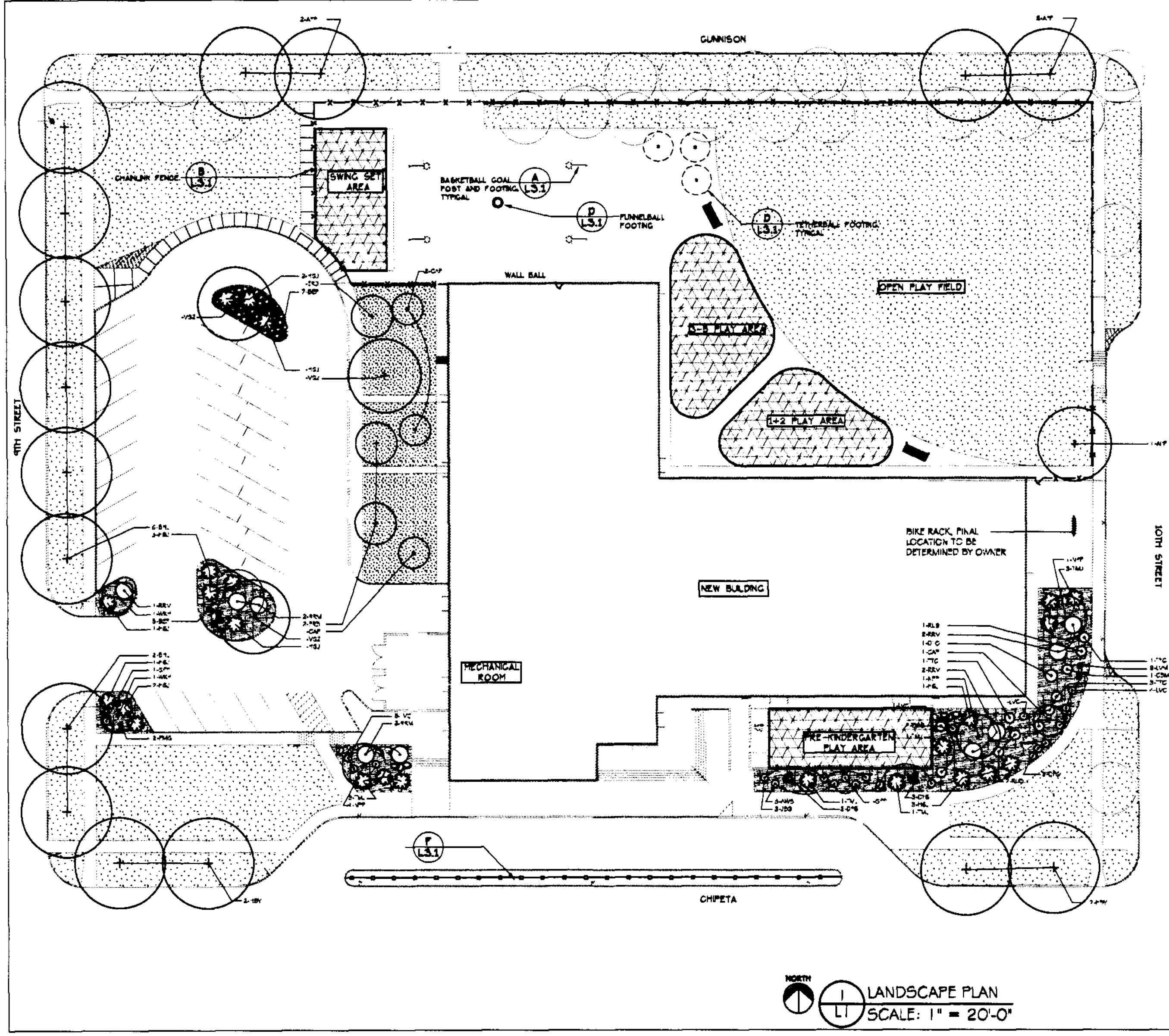
G. Automatic Controller System: Controller shall be wall mounted at a location inside the pump house as shown on drawing, and shall be installed according to recommendation of manufacturer. Connection to electrical service shall be made with an approved junction box.

H. Remote Automatic Valves and Wires:

1. Install valves and wires according to recommendations of manufacturer. Place remote valves in specified valve boxes so that cover of valve box is 1/2 inch above finished grade of mulch surface. Install valve over nine (9) inches of approved drainage backfill. Arrange valve in box for easy adjustment and removal. Provide union on downstream side. Adjust valves to provide proper amount of water to each type of vegetation served.
2. Install controller/valve wires in trench with pipe wherever possible. Place wire loosely into trench, but do not tape to pipe. Waterproof wire connectors shall be installed at all splices. Form strain relief loops at a minimum of every 200' using a minimum of 18" of wire to form loop.

I. Pressure Reduction Valves: Adjust all pressure reduction valves to levels recommended by manufacturer for maximum efficiency of system.

J. Sprinkler Heads:



LANDSCAPE LEGEND

- BLUEGRASS LAWN
- ENGINEERED PLAY FIBER
- SHRUB BED
- DECIDUOUS SHRUBS
- EVERGREEN SHRUB
- DECIDUOUS TREE
- EXISTING DECIDUOUS TREE
- CHAIN LINK FENCE
- TUBE STEEL FENCE, PAINTED, COLOR TO BE SELECTED BY ARCHITECT
- (E) CHAIN LINK FENCE
- BENCH, 2 TOTAL BY OWNER
- BOULDERS, 3.5 X 2 MINIMUM SIZE
- 6" CONCRETE MOWSTRIP

PLANT LIST

Qty	Key	Common Name	Scientific Name	Size	Mature Height
Trees					
5	APP	Aristocrat Pear	Pyrus calleryana 'Aristocrat'	1 1/2"	35-50
4	CAP	Capital Pear	Pyrus calleryana 'Capital'	1 1/2"	30-35
3	ERD	Eastern Redbud	Cercis canadensis	1 1/2"	16-23
4	HBY	Hackberry	Celtis occidentalis	1 1/2"	35-60
2	NPP	Newport Plum	Prunus cerasifera 'Newport'	1 1/2"	15-20
6	SHL	Shademaster Honeylocust	Gleditsia triacanthos 'Shademaster'	1 1/2"	40-50
5	VSZ	Village Green Zelkova	Zelkova serrata 'Village Green'	1 1/2"	45-50
2	WSH	Winter King Hawthorn	Crataegus viridis 'Winter King'	1 1/2"	15-20
Deciduous Shrubs					
5	AWS	Anthony Waterer Spirea	Spiraea bumalda 'Anthony Waterer'	5 gal	3-4'
1	CBM	Compact Butterfly Bush	Buddleia davidii nanhoensis 'Petite Plum'	5 gal	4-5'
2	GFP	Gold Finger Potentilla	Potentilla fruticosa 'Gold Finger'	5 gal	2-3'
8	RRV	Rose Red Velvet	Rosa 'Red Velvet'	5 gal	1.5-2'
3	RUS	Russian Sage	Perovskia atriplicifolia	5 gal	3-4'
5	TTC	Tom Thumb Cotoneaster	Cotoneaster apiculatus	5 gal	1.5-2'
Evergreen Shrubs					
2	EVG	Emerald and Gold Euonymus	Euonymus fortunei 'Emerald and Gold'	5 gal	1.5-2'
3	HGJ	Hughes Juniper	Juniperus horizontalis 'Hughes'	5 gal	[illegible]
9	TMJ	Tammy Juniper	Juniperus sabina 'Tamariscifolia'	5 gal	2-3'
Perennials/Ground Covers					
9	DFG	Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	1 gal	.5-3'
1	DFO	Desert Four O'clock	Mirabilis multiflora	1 gal	[illegible]
3	JSG	Japanese Silver Grass	Miscanthus sinensis 'Adagio'	1 gal	2-3'
8	LVC	Lavender Cotton	Santolina chamaecyparissus	1 gal	1-2'
2	LVM	Munstead Lavender	Lavandula 'Munstead'	1 gal	1-1.5'
2	PMG	Purple Maiden Grass	Miscanthus sinensis 'Purpurascens'	1 gal	3-4'
7	SEP	[illegible]	[illegible] 'Sunset'	1 gal	3-4'

NOTE:
PLANT GROWTH CHARACTERISTICS VARY DUE TO ENVIRONMENTAL CONDITIONS, THEREFORE A RANGE OF AVERAGE MATURE HEIGHTS ARE INDICATED.

SEE SHEET L3.1 FOR LANDSCAPE NOTES AND DETAILS

NORTH

1 / L1 LANDSCAPE PLAN
SCALE: 1" = 20'-0"

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DOWNTOWN ELEMENTARY
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PROJECT NUMBER

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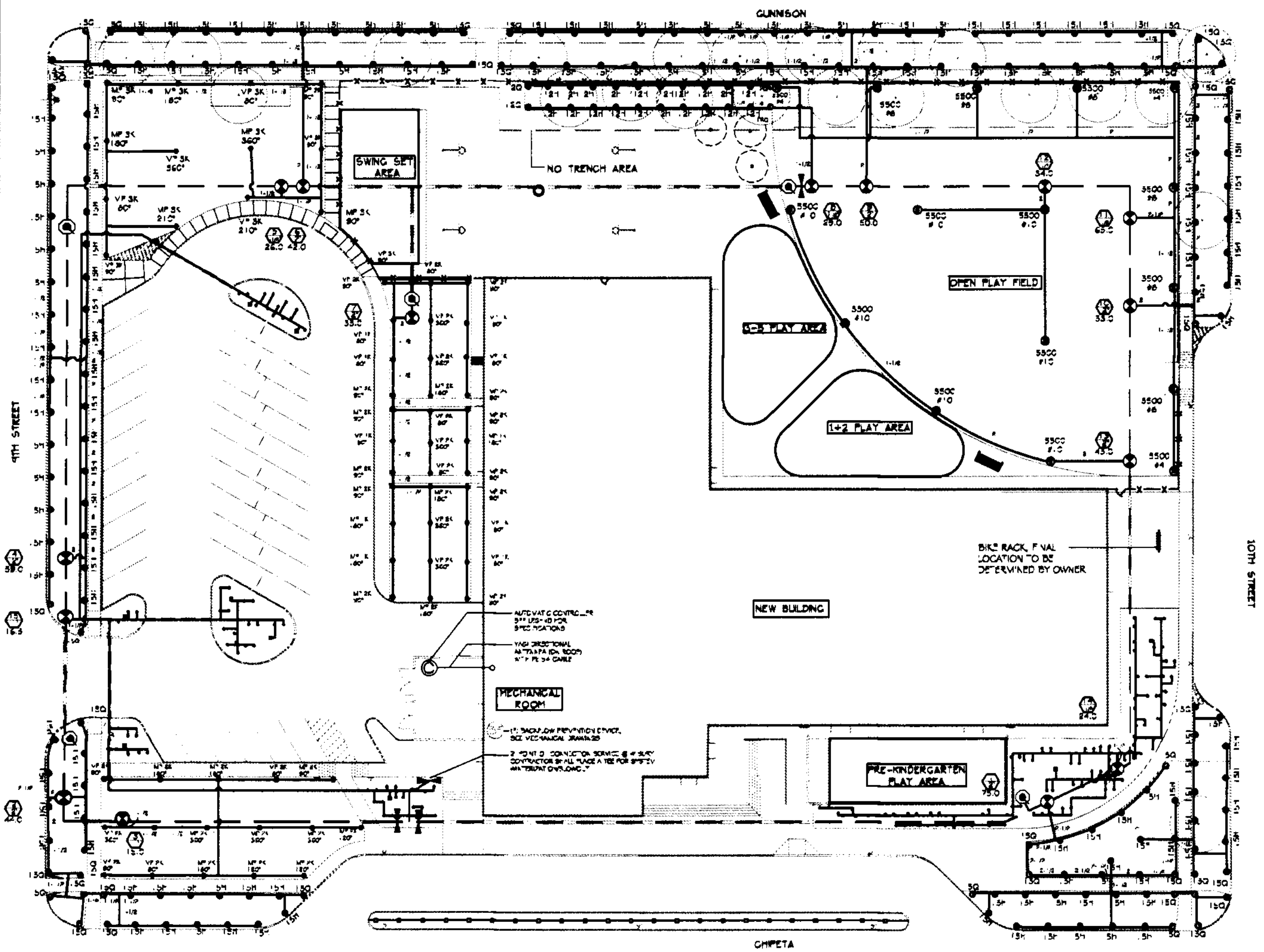
Revisions

Sheet No.
L1



NORTH

2 / L2 IRRIGATION PLAN
SCALE: 1" = 20'-0"

IRRIGATION LEGEND

Symbol	Description
MP 3K / MP 1K	MP ROTATOR 3000 SERIES ROTOR, FULL, PART, THIRD, AND QUARTER NOZZLES ON RAINBIRD 1806 SAM BODY
#4	RAINBIRD 5500 SS SERIES ROTOR NOZZLE SIZES 4 AND 8
15	RAINBIRD 1806 SAM SERIES SPRAY HEAD WITH NOZZLE SIZES 15, 10, 12, AND 8
•	RAINBIRD SHRUB BUBBLER 1400, 2 PER SHRUB, ONE PER PERENNIAL (AS SHOWN). SEE DETAIL SHEET L3.2
•	RAINBIRD TREE BUBBLER 1400, 2 PER TREE (ONLY ONE SHOWN) SEE DETAIL SHEET L3.2
solid line	CLASS 200 PVC LATERAL PIPE. ALL UNSIZED PIPE SHALL BE 1 IN. SIZE. ALL PIPE UNDER PAVING SHALL BE SLEEVED AND AT A DEPTH OF 24", 18" DEPTH UNDER UNPAVED AREAS
dashed line	CLASS 200 PVC MAINLINE, ALL 3 IN. UNLESS OTHERWISE NOTED. ALL PIPE UNDER PAVING SHALL BE SLEEVED AND AT A DEPTH OF 24", 18" DEPTH UNDER UNPAVED AREAS
dotted line	EXISTING SLEEVES
	(E) BACKFLOW PREVENTION DEVICE PROVIDED BY OTHERS, SEE MECHANICAL DRAWINGS FOR EXACT LOCATION
	ISOLATION VALVE, LINE SIZE IN BOX FLUSH TO FINISH GRADE
	RAINBIRD PEB-PRSB VALVE, SIZE AS INDICATED, IN BOX FLUSH TO FINISH GRADE
	RAINBIRD QUICK COUPLER, MODEL 33D IN BOX FLUSH TO FINISH GRADE
	RAINBIRD ESP-LX SAT 16 WITH RMD 450 MA RR RADIO MODEM KIT IN PED-30-16 PEDESTAL, DATA INDUSTRIAL FLOW METER TO BE INCLUDED. RAINBIRD FT 1502 FLOW MONITOR AT THE PEDESTAL, COMMUNICATION CABLE PE 54 (TWISTED PAIR) FROM FLOW TRANSMITTER TO FLOW MONITOR. FLOW TRANSMITTER (METER SENDING UNIT) 2" PVC T TYPE FLOW SENSOR PS 200 PL 1 2, YAGI DIRECTIONAL ANTENNA
	NO TRENCH AREA, CONTRACTOR SHALL BORE PIPE
2 / 1" / 23.0	VALVE NUMBER / VALVE SIZE / GALLONS PER MINUTE

SEE SHEET L3.2 FOR SPRINKLER IRRIGATION NOTES AND DETAILS

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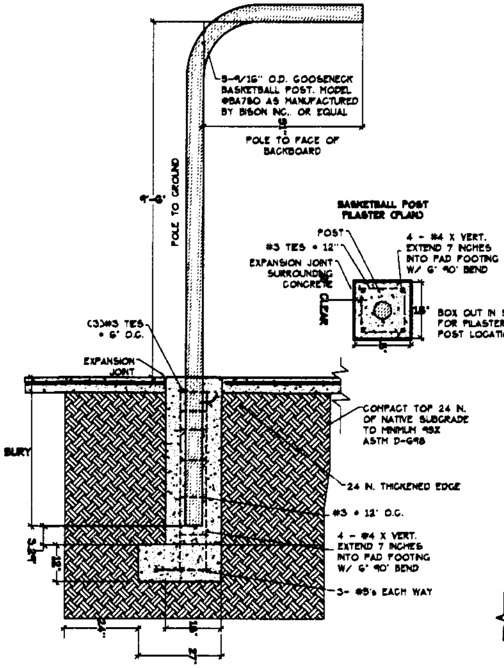
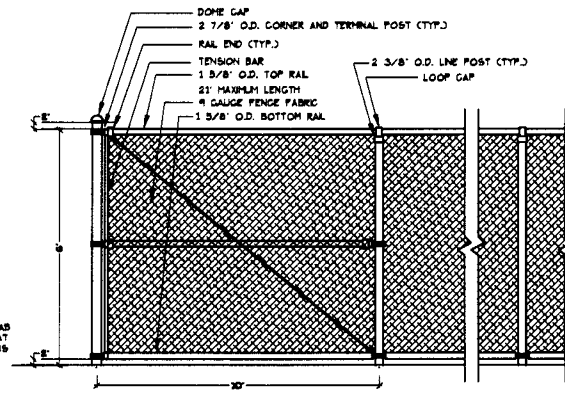
Sheet No.
L2

A — BASKETBALL GOAL POST AND FOOTING
L3.1 — NOT TO SCALE



B — CHAIN LINK FENCE
L3.1 — NOT TO SCALE

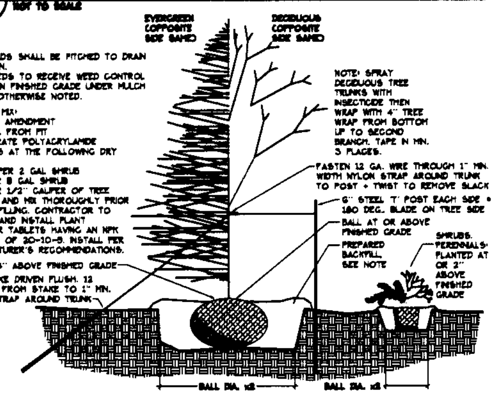
NOTE:
1. PROVIDE BRACE AND TRUSS ASSEMBLIES AT ALL TERMINAL POSTS.



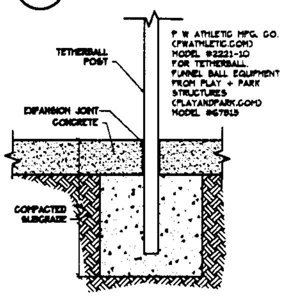
C — PLANTING DETAIL (TYP.)
L3.1 — NOT TO SCALE

NOTES:
1. ALL BEDS SHALL BE PITCHED TO DRAIN AT 3% MIN.
2. ALL BEDS TO RECEIVE WEED CONTROL FABRIC ON FINISHED GRADE UNDER MULCH UNLESS OTHERWISE NOTED.

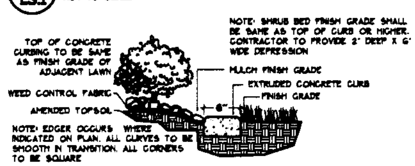
BACKFILL MIX:
1/3 SOIL AMENDMENT
2/3 SOIL FROM PIT
INCORPORATE POLYACRYLAMIDE CRYSTALS AT THE FOLLOWING DRY RATES:
1/2 OZ PER 2 GAL SHRUB
1 OZ PER 5 GAL SHRUB
1 OZ PER 1/2" CALIPER OF TREE
HYDRATE AND MIX THOROUGHLY PRIOR TO BACKFILLING. CONTRACTOR TO PROVIDE AND INSTALL PLANT FERTILIZER TABLETS HAVING AN NPK ANALYSIS OF 20-10-5. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



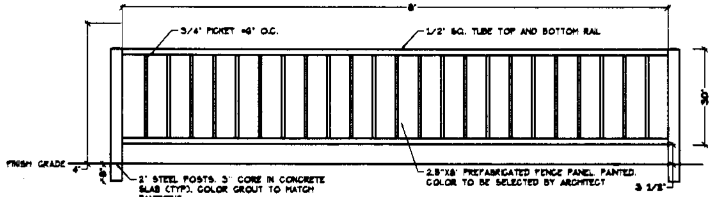
D — TETHERBALL/FUNNELBALL FOOTING
L3.1 — NOT TO SCALE



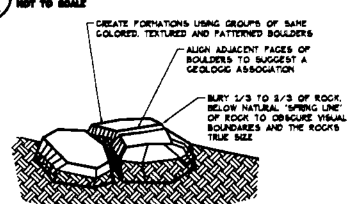
E — CONCRETE EDGER (TYP.)
L3.1 — NOT TO SCALE



F — TUBE STEEL FENCE DETAIL
L3.1 — NOT TO SCALE



G — DECORATIVE BOULDER PLACEMENT
L3.1 — NOT TO SCALE



PLANTING NOTES

1. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL LANDSCAPING AND IRRIGATION TO CONFORM TO CURRENT ASSOCIATED LANDSCAPE CONTRACTORS OF COLORADO STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
3. FOLIAR PART MIXTURE OF ROUND-UP AND 2-4-D DILUTED AS PER MANUFACTURER'S RECOMMENDATIONS SHALL BE APPLIED TO ALL ACTIVELY GROWING WEEDS TWO WEEKS PRIOR TO ANY OPERATIONS.
4. ALL SHRUB BEDS AND LAWN AREAS TO RECEIVE SOIL AMENDMENT. SHRUB BEDS TO RECEIVE WEED FABRIC AND 3 INCH DEPTH OF MULCH.
5. EXCAVATE AREAS TO BE PLANTED (AS PER DRAWINGS) TO A SUFFICIENT DEPTH TO RECEIVE AMENDED SOIL, AND TO REMOVE UNSATISFACTORY MATERIAL (INCLUDING ROAD BASE, ASPHALT, CONCRETE AND TRASH) AND REMOVE FROM SITE. ALL LANDSCAPE AREAS TO RECEIVE 6" MINIMUM OF AMENDED SOIL. SCARIFY ALL AREAS TO RECEIVE AMENDED SOIL TO A DEPTH OF 6".
6. SOIL AMENDMENT IS TO CONSIST OF 50% GROUND WELL-AGED MANURE, 50% FINELY GROUND AND AGED WOOD CHIPS. AMENDMENT IS TO BE INCORPORATED WITH FERTILIZER BY TILLING AT THE RATE OF 6 CUBIC YARDS/1000 SF INTO ALL LAWN AND SHRUB AREAS.
7. CONTRACTOR SHALL BACKFILL EXCAVATED SHRUB BEDS WITH SPECIFIED AMENDED SOIL.
8. SOIL IS TO BE COMPACTED TO 85% MODIFIED PROCTOR (WHEEL ROLL) TO MINIMIZE SETTLING. BEDS ARE TO BE FILLED TO A DEPTH OF 6" ABOVE ADJACENT EDGE OF CURB, SHAPED TO FORM MOUNDED PLANTING AREA. SHRUB BED TO BE FINISHED WITH A 4:1 SLOPE FROM 2" BELOW ADJACENT CONCRETE TO FINISH GRADE. SHRUB BEDS ADJACENT TO BUILDINGS ARE TO DRAIN AWAY FROM BUILDING.
9. A FERTILIZER PROVIDING 2 LBS PER 1000 SF PHOSPHATE AND 1 LB PER 1000 SF POTASH IS TO BE SPREAD AND DISCED INTO ALL SHRUB AREAS.
10. WEED FABRIC IS TO BE 3.5 OZ. SPINBOND, PERMEABLE MATERIAL BY LANDMASTER, OR EQUAL. WEED FABRIC IS TO OVERLAP 6 INCHES AT SEAMS WITH NO GAPS AT EDGES. FABRIC IS TO BE PINNED IN PLACE WITH SOD STAPLES ON CENTER AND IN ALL CORNERS.
11. SHRUBS AND TREES ARE TO SPACED AS SCALED FROM THE PLANTING PLAN.
12. PERENNIALS ARE SPACED FOR 1 GALLON MATERIAL SPACED AT 2' O' SPACING.
13. MULCH FOR SHRUB BEDS SHALL BE PER CITY REQUIREMENTS.
14. DI-AMMONIUM PHOSPHATE (18-46-0) SHALL BE SUPPLIED IN QUANTITY NECESSARY TO APPLY LB/1000 SF TO ALL LAWN SEED AREAS.
15. LAWN AREAS ARE TO BE HYDROSEEDED WITH SPECIES AND RATES SHOWN ON THIS SHEET AND HYDROMULCHED WITH DYE TO ALLOW INSPECTION FOR COVERAGE. CONTRACTOR IS RESPONSIBLE FOR CLEANING ANY NON-LAWN SURFACES.
16. CONTRACTOR IS TO GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF WORK. CONTRACTOR IS TO MAINTAIN LAWN AREAS AFTER EACH AREA IS SEEDED AND CONTINUE FOR 30 DAYS OR UNTIL FINAL ACCEPTANCE, WHICHEVER IS LONGER.

LAWN SEED MIX:

HYDROSEED: 0 lbs/1000 sf.
"ROCKIES BALL PARK MIX"

HYDROMULCH:
FOLLOWING SEED APPLICATION, HYDROMULCH 50 lbs/1000 sf.

3 — LANDSCAPE DETAILS AND NOTES
L3.1 — NO SCALE

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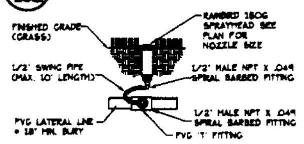
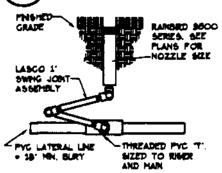
Sheet No.
L3.1

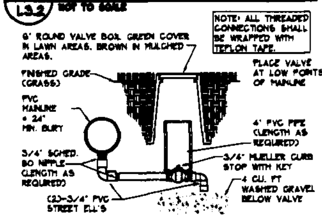
A — RAINBIRD 1806 SPRAYHEAD
L3.2 — NOT TO SCALE



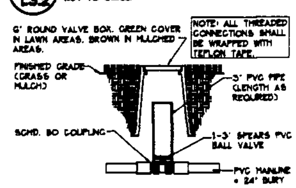
B — RAINBIRD 5500 SERIES POP-UP
L3.2 — NOT TO SCALE



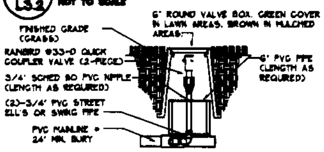
C — MANUAL DRAIN VALVE (TYP)
L3.2 — NOT TO SCALE



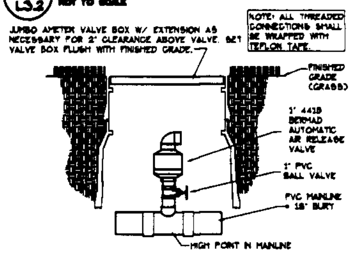
D — ISOLATION VALVE (TYP 1-3" LINE)
L3.2 — NOT TO SCALE



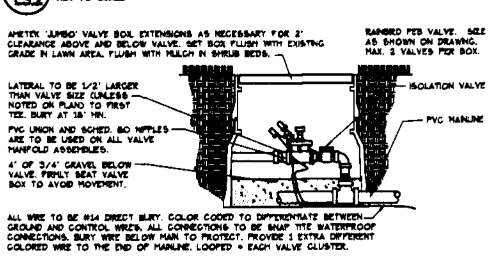
E — QUICK COUPLER
L3.2 — NOT TO SCALE



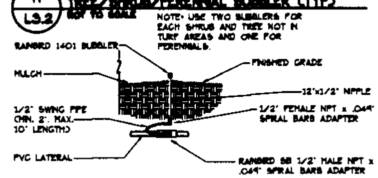
F — AIR RELIEF VALVE
L3.2 — NOT TO SCALE



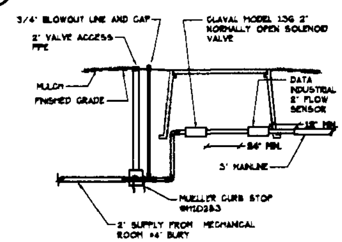
G — RAINBIRD PEB-PRS VALVE
L3.2 — NOT TO SCALE



H — TREE/SHRUB/PERENNIAL BUBBLER (TYP)
L3.2 — NOT TO SCALE



I — TEE FOR SYSTEM BLOWOUT
1 — NOT TO SCALE



VALVE SCHEDULE FOR ESTABLISHED PLANTS

#	size		GPM	PRECIP RATE	TIME SETTING	program	in/ setting	settings per day	Water Days	in/week	precip with water saving at 100%	in/month	% efficiency
1	2"	TURF SPRAY	75.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
2	2"	TURF SPRAY	44.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
3	1"	TURF ROTOR	15.0	.37 in/hr	35min.	A	0.22 in	6	2	2.07	2.1	0	0.8
4	2"	TURF SPRAY	59.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
5	1-1/2"	TURF ROTOR	26.0	.43 in/hr	29min.	A	0.21 in	6	2	2.00	2.0	0	0.8
6	2"	TURF SPRAY	42.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
7	2"	TURF ROTOR	24.0	.43 in/hr	29min.	A	0.21 in	6	2	2.00	2.0	0	0.8
8	1-1/2"	TURF SPRAY	29.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
9	2"	TURF SPRAY	50.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
10	2"	TURF SPRAY	53.0	1.74 in/hr	8min.	A	0.23 in	6	2	2.23	2.2	0	0.8
11	1-1/2"	TURF ROTOR	65.0	.77 in/hr	16min.	A	0.21 in	6	2	1.97	2.0	0	0.8
12	1-1/2"	TURF ROTOR	34.0	.77 in/hr	16min.	A	0.21 in	6	2	1.97	2.0	0	0.8
13	2"	TURF ROTOR	45.0	.77 in/hr	16min.	A	0.21 in	6	2	1.97	2.0	0	0.8
14	1-1/2"	BUBBLER	24.0	NA	5min.	A	0.00 in	6	2	0.00	0.0	0	0.8
15	1"	BUBBLER	16.5	NA	5min.	A	0.00 in	6	2	0.00	0.0	0	0.8
				APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT			
		WATER BUDGET SETTINGS		80%	100%	130%	160%	120%	80%	70%			

NOTES:

1. This chart provides watering schedule recommendations for established plants and turf
2. Contractor is obligated to monitor soil moisture to avoid saturation or drought and adjust schedule accordingly.
3. Turf zones are calculated to 80% efficiency, drip zones to 95% efficiency
4. Optimum pressure for zones:
5. Contractor is responsible for determining irrigation schedule during establishment.
6. See Maintenance manual for established landscape watering times

IRRIGATION NOTES

1. ALL WORK SHALL BE PER EXISTING COUNTY OR STATE CODE AND IS SUBJECT TO INSPECTION AND APPROVAL BY APPROPRIATE INSPECTORS AND THE OWNERS REPRESENTATIVE.
2. POWER TO PUMPHOUSE TO BE PROVIDED BY LICENSED ELECTRICIAN.
3. ALL LATERAL AND MAIN LINES IN SYSTEM WILL BE CONTAINED IN SLEEVES WHEREVER CONCRETE IS TO BE OVERLAID.
4. CLOCK TO BE MOUNTED INSIDE PUMPHOUSE.
5. MAXIMUM LENGTH OF SWING PIPE ON ALL HEADS SHALL BE 10 FT., MINIMUM LENGTH SHALL BE 2 FT.
6. ALL MAINS SHALL BE BURIED AT A MINIMUM DEPTH OF 18 IN. ALL LATERALS AT A DEPTH OF 18 IN. ALL VALVE WIRING SHALL BE BUNDLED BY TAPING AT 25 FT. INTERVALS AND PLACED BELOW IRRIGATION PIPING FOR PROTECTION.
7. CONTRACTOR TO INSTALL MANUAL DRAIN VALVES AT LOW POINT ON ALL MAIN LINES.
8. THRUST BLOCKING TO BE PROVIDED AS NOTED IN SPECIFICATIONS.
9. SEE SHEETS __ FOR DETAILS.
10. SYSTEM IS DESIGNED TO OPERATE AT __PSI, PROVIDING MINIMUM 45 PSI AT HEADS.
11. WHERE IRRIGATION IS TO BE LOCATED ADJACENT TO FENCING, LATERALS SHALL BE LOCATED 12 INCHES FROM BACK OF WALK AND 6 INCHES FROM FACE OF FENCE.
12. DRIP EMITTERS TO BE SET AT 6 GPH UNTIL FINAL FLOW ADJUSTMENT.
13. MAINLINE IS DIAGRAMMATIC. TO BE LOCATED WITHIN IRRIGATION EASEMENT.
14. PIPE FROM CONTROL VALVE TO FIRST TEE TO USE 1/2" LARGER THAN VALVE UNLESS NOTED OTHERWISE.

4 — IRRIGATION DETAILS AND NOTES
L3.2 — NO SCALE

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Grand Junction, CO

PROJECT NUMBER

Date

Revisions

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L3.2