

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 2014, by and between the City of Reno and the City of Sparks, hereinafter referred to as the "CLIENT", and Petty & Associates, Inc., hereinafter referred to as "ENGINEER":

WITNESSETH:

WHEREAS, CLIENT desires to provide engineering support services for the #1, #2 and #3 water systems evaluation and improvement Project at TMWRF, hereinafter referred to as "Project";

WHEREAS, public convenience and necessity require the services of a consulting engineer to provide the services required;

WHEREAS, the CLIENT has found ENGINEER qualified and experienced in the performance of said services;

WHEREAS, the CLIENT is desirous of engaging the services of ENGINEER to perform said services; and

NOW, THEREFORE, said CLIENT and said ENGINEER, for the considerations hereinafter set forth, mutually agree as follows:

ARTICLE I - SERVICES

CLIENT agrees to retain and does hereby retain ENGINEER to perform the professional engineering services hereinafter more particularly described, with such services to commence on the date of the execution of this Agreement and to continue until the completion of the work provided for herein.

ENGINEER hereby agrees to perform the professional services as set forth herein and to furnish or procure the use of incidental services, equipment, and facilities necessary for the completion of said engineering services.

ENGINEER has the status of an independent contractor as defined in NRS 333.700 and shall not be entitled to any of the rights, privileges, benefits, and emoluments of either an officer or employee of CLIENT. ENGINEER shall undertake performance of services as independent contractor and shall be wholly responsible for the methods of performance and for their performance.

ARTICLE II - SCOPE OF SERVICES

The Scope of Services is set forth in Exhibit A as attached hereto and incorporated herein by this reference which consists of 9 pages setting forth tasks and the schedule of tasks.

ARTICLE III - COMPENSATION

Payment for the engineering services hereinabove set forth shall be made by the CLIENT to the ENGINEER and shall be considered as full compensation for all personnel, materials, supplies, and equipment used in carrying out the work.

- A. Compensation to the ENGINEER shall be on the basis of time and expense as set forth in Exhibit A attached hereto and incorporated herein by this reference.
- B. Payments shall be made by the CLIENT based on itemized invoices from the ENGINEER which lists costs and expenses. Such payments shall be for the invoice amount.
- C. CLIENT shall pay ENGINEER within 30 days of receipt by CLIENT of ENGINEER's invoice. If CLIENT disputes only portions of an invoice, CLIENT agrees to pay for undisputed items on that invoice within the time provided herein. Payment by CLIENT of invoices or request for payment shall not constitute acceptance by CLIENT of work performed under the Agreement by the ENGINEER. ENGINEER shall invoice the City of Reno for the full amount. The City of Reno will invoice the City of Sparks for reimbursement of their share of fees and costs.
- D. The budget for total charges for services authorized by this Agreement is \$319,560.00 which includes a contingency amount of \$25,000.00 and shall not be exceeded without authorization of the CLIENT. The City of Reno's share is the sum of \$219,314.03 and the City of Spark's share is the sum of \$100,245.97. The budget may be increased by amendment hereto if necessitated by a change in the scope of services which increases the cost of providing the services. ENGINEER is not authorized to provide any additional services beyond the scope of work without having authorized funding pursuant to a written amendment hereto signed by the authorized representative of the governing body.

ARTICLE IV - SCHEDULE OF WORK

ENGINEER will commence the services as described immediately following the Notice to Proceed provided to the ENGINEER by the CLIENT and will proceed with such services in a diligent manner. ENGINEER will not be responsible for delays caused by factors beyond ENGINEER's control and will not be responsible for delays caused by factors which could not reasonably have been foreseen at the time the Agreement was approved.

ARTICLE V - ASSIGNMENT OF AGREEMENT

The ENGINEER SHALL not assign this Contract or any portion of the work without prior written approval of the CLIENT which may be withheld for any reason whatsoever.

ARTICLE VI- OWNER'S RESPONSIBILITY

CLIENT shall provide any information in its possession that is requested by ENGINEER and is necessary to complete the Project. CLIENT shall assist ENGINEER in obtaining access to public and private lands to allow the ENGINEER to perform the work under this Agreement. CLIENT shall examine all studies, reports, sketches, estimates, specifications, drawings, proposals, and other documents presented by the ENGINEER and shall render decisions pertaining thereto within a reasonable time so as not to delay the work of the ENGINEER.

ARTICLE VII - NONDISCLOSURE OF PROPRIETARY INFORMATION

ENGINEER shall consider all information provided by CLIENT to be proprietary unless such information is available from public sources. ENGINEER shall not publish or disclose proprietary information for any purpose other than the performance of the Services without the prior written authorization of CLIENT or in response to legal process or as required by the regulations of public entities.

ARTICLE VIII - NOTICE

Any notice, demand, or request required by or made pursuant to this Agreement shall be deemed properly made if personally delivered in writing or deposited in the United States mail, postage prepaid, to the address specified below:

To ENGINEER:
William R. Petty
President
Petty & Associates, Inc.
1375 Greg Street, Suite 106
Sparks, NV 89431

To: CLIENT
Neil C. Krutz, P.E.
Community Services Director
City of Sparks
If by personal service
431 Prater Way
Sparks, NV 89431
If by mail
PO Box 857
Sparks, NV 89432

To CLIENT:
John Flansberg, P.E.
Director of Public Works
City of Reno
If by personal service
1 East First Street
Reno, NV 89501
If by mail
P.O. Box 1500
Reno, NV 89505

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of ENGINEER and CLIENT.

ARTICLE IX - UNCONTROLLED FORCES

Neither CLIENT nor ENGINEER shall be considered to be in default of this Agreement, if delays in or failure of performance shall be due to uncontrollable forces the effect of which, by the exercise of reasonable diligence, the non-performing party could not avoid and is not reasonably foreseeable at the time of entering into this Agreement. The term "uncontrollable forces" shall mean any event which results in the prevention or delay of performance by a party of its obligations under this Agreement and which is beyond the control of the non-performing party. It includes, but is not limited to, fire, flood, earthquakes, storms, lightning, epidemic, war, riot, civil disturbance, sabotage, inability to procure permits, licenses, or authorizations from any state, local, or federal agency or personal for any of the supplies, material, accesses, or services required to be provided by either CLIENT or ENGINEER under this Agreement, strikes, work slowdowns or other labor disturbances, and judicial restraint. ENGINEER shall be paid for services performed prior to the delay.

Neither party shall, however, be excused from performance if nonperformance is due to uncontrollable forces, which are removable. The provisions of this Article shall not be interpreted or construed to require ENGINEER or CLIENT to prevent, settle, or otherwise avoid a strike, work slowdown, or other labor action. The non-performing party shall upon being prevented or delayed from performance by an uncontrollable force immediately give written notice to the other party describing the circumstances and uncontrollable forces preventing continued performance of the obligation of this Agreement.

ARTICLE X- GOVERNING LAW

This Agreement shall be governed by and construed pursuant to the laws of the State of Nevada. In the event suit is commenced hereunder and in accordance with the Dispute Resolution Procedures of Article XXII, the suit shall be brought in the appropriate court in Washoe County, State of Nevada. In the event of an arbitration or mediation pursuant to Article XXII, such arbitration or mediation shall be held in Reno, Nevada.

ARTICLE XI - SUCCESSORS AND ASSIGNS

CLIENT and ENGINEER each binds itself and their successors, and assigns to the other party to this Agreement and to the successors, and assigns of such other party, in respect to all covenants, agreements and obligations of this Agreement.

ARTICLE XII - ASSIGNMENT

Neither CLIENT nor ENGINEER shall assign, sublet, or transfer any rights under interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of the other, except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent ENGINEER from employing such independent consultants, associates, and subconsultants as she may deem appropriate to assist her in the performance of the Services hereunder.

ARTICLE XIII - INDEMNIFICATION

To the fullest extent permitted by law, ENGINEER shall defend, indemnify and hold harmless CLIENT and its officers, employees and agents (collectively "Indemnitees") from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees, that are caused by the negligence, errors, omissions, recklessness or intentional misconduct of the ENGINEER or employees or agents of the ENGINEER in the performance of this Agreement.

ENGINEER assumes no liability for the negligence or willful misconduct of any indemnitee or other consultants of indemnitee.

ENGINEER'S indemnification obligations for claims involving Professional Liability (claims involving acts, error, or omissions in the rendering of professional services and Economic Loss Only (claims involving economic loss which are not connected with bodily injury or physical damage to property) shall be limited to the proportionate extent of ENGINEER'S negligence or other breach of duty.

If CLIENT's personnel (engineers or other professionals) are involved in defending such legal action, ENGINEER shall also reimburse CLIENT for the time spent by such personnel at the rate charged for such services by private professionals. These provisions shall survive termination of this agreement and shall be binding upon ENGINEER, her legal representatives, heirs, successors and permitted assigns.

If ENGINEER'S insurer does not so defend the CLIENT and the ENGINEER is adjudicated to be liable, reasonable attorney's fees and costs shall be paid to CLIENT in an amount proportionate to the liability of ENGINEER.

ARTICLE XIV - INTELLECTUAL PROPERTY INDEMNITY

To the fullest extent permitted by law, ENGINEER shall defend, protect, hold harmless, and indemnify CLIENT and the CLIENT'S related Parties from and against any and all liability, loss, claims, demands, suits, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants), by whomsoever brought or alleged, for

infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by CLIENT in writing. If ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, ENGINEER shall be responsible for such loss unless such information is promptly given to CLIENT. This Indemnity Covenant shall survive the termination of this Agreement.

ARTICLE XV – PAYMENT OF TAXES

Any and all Federal, State and local taxes, charges, fees, or contributions required by law to be paid with respect to ENGINEER'S performance of this Agreement (including, without limitation, unemployment insurance, social security, and income taxes).

ARTICLE XVI - INSURANCE

GENERAL REQUIREMENTS

The CLIENT requires that ENGINEER purchase Industrial Insurance, General Liability, and Engineer's Errors and Omissions Liability Insurance as described below against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, its agents, representatives, employees or subconsultants. The cost of such insurance shall be borne by ENGINEER unless otherwise agreed.

INDUSTRIAL INSURANCE

It is understood and agreed that there shall be no Industrial Insurance coverage provided for ENGINEER or any Subconsultant by the CLIENT and in view of NRS 616.280 and 617.210 requiring that ENGINEER complies with the provisions of Chapters 616 and 617 of NRS, ENGINEER shall, before commencing work under the provision of this Agreement, furnish to the CLIENT a certificate of insurance from the Worker's Compensation Insurer certifying that the ENGINEER and each Subconsultant have complied with the provisions of the Nevada Industrial Insurance Act, by providing coverage for each and every employee, subconsultants, and independent contractors.

Upon completion of the project, the contractor shall provide the CLIENT with a Final Certificate for itself and each Subconsultant which is prepared by the State of Nevada Industrial Insurance System. If the ENGINEER or Subconsultants are unlicensed and are a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

It is further understood and agreed by and between the CLIENT and ENGINEER that ENGINEER shall procure, pay for, and maintain the above mentioned industrial insurance coverage at the ENGINEER'S sole cost and expense.

MINIMUM SCOPE OF LIABILITY INSURANCE

Coverage shall be at least as broad as: *

Insurance Services office Commercial General Liability Coverage Occurrence form CG0001 11/85 or Insurance Services Office Comprehensive General Liability form CG0002 Ed 01/73 with the Board Form Comprehensive General Liability Endorsement GL0404.

Insurance Services Office Business Auto Coverage form number CA00 01 12/90 covering Automobile Liability code 1 any auto with changes in Business Auto and Trucker's Coverage forms - Insured Contract Endorsement form number CA00 29 12/88.

*Coverages may be excluded only with prior approval of the CLIENTS' Risk Managers.

Professional Errors and Omissions Liability applying to all activities performed under this Agreement in a form acceptable to CLIENT. ENGINEER will maintain professional liability insurance during the term of this Agreement and for a period of six (6) years from the date of substantial completion of the project. In the event the ENGINEER goes out of business during the term of this Agreement or the six (6) year period described above, ENGINEER shall purchase Extended Reporting coverage for claims arising out of ENGINEER's negligence acts, errors and omissions committed during the term of the Professional Liability Policy.

MINIMUM LIMITS OF INSURANCE

ENGINEER shall maintain limits no less than:

1. General Liability: \$2 million combined single limit per occurrence for bodily injury, personal injury and property damage and \$2 million annual aggregate.
2. ENGINEER's Errors and Omissions Liability: \$2 million per claim and \$2 million as an annual aggregate during the term of this Agreement and for six years after the completion of the project, with each subsequent renewal having a retroactive date which predates the date of this Agreement. The ENGINEER may purchase project insurance or obtain a rider on her normal policy in an amount sufficient to bring ENGINEER's coverage up to minimum requirements, said additional coverage to be obtained at no cost to the CLIENT. Should the CLIENTS' Risk Managers require project insurance, project insurance shall be purchased and premium costs shall be borne by the CLIENT. CLIENT retains option to purchase project insurance through the ENGINEER's insurer or through its own source.

DEDUCTIBLES

Any deductibles must be declared to and approved by the CLIENT Risk Management Divisions. The CLIENT reserves the right to request additional documentation, financial or otherwise prior to giving its approval of the deductibles. Any changes to the deductible made during the term of this Agreement or during the term of any policy, must be approved by the CLIENTS' Risk Managers.

OTHER INSURANCE PROVISIONS

General Liability Coverages

The CLIENT, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the ENGINEER including the insured's general supervision of the ENGINEER; products and completed operations of the ENGINEER; or premises owned, occupied or used by the ENGINEER. The coverage shall contain no special limitations on the scope of protection afforded to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance coverage shall be primary insurance as respects the CLIENT, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CLIENT, its officers, officials, employees or volunteers shall be excess of the ENGINEER's insurance and shall not contribute with it in any way.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the CLIENT, its officers, officials, employees or volunteers.

The ENGINEER's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

The ENGINEER's insurance coverage shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the CLIENT.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with an A.M. Best and Company rating level of A - Class VII or better, or otherwise approved by the CLIENT in its sole discretion. CLIENT reserves the right to require that ENGINEER'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted lists.

VERIFICATION OF COVERAGE

ENGINEER shall furnish the CLIENT with certificates of insurance, including but not limited to the Certificate of Compliance in NRS 616B.627 and with original endorsements affecting coverage required by this article. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf and must be countersigned by a duly appointed and licensed resident agent in this state. The certificates are to be on forms approved by the CLIENT. All certificate and endorsements are to be received and approved by the CLIENT before work commences. The CLIENT reserves the right to require complete, certified copies of all required insurance policies, at any time.

SUBCONSULTANTS

ENGINEERS shall require all subconsultants to be insured on their own or under its policies and shall furnish separate certificates and endorsement for each subconsultant. Coverages for subconsultants shall be subjected to all of the requirements stated herein.

Miscellaneous Conditions

If the ENGINEER or any Subconsultant fails to maintain any of the insurance coverages required, the CLIENT may terminate this Agreement for cause.

ENGINEER shall be responsible for and remedy all damage or loss to any property, including property of CLIENT, caused in whole or in part by the ENGINEER, any subconsultant, or any employee, directed or supervised by ENGINEER, except damage of loss attributable to faulty drawings or specifications.

Nothing herein contained shall be construed as limiting in any way to the extent to which the ENGINEER may be held responsible for payment for damages to persons or property resulting from her operations or the operations of any subconsultant under her.

If ENGINEER's failure to maintain the required insurance coverage results in a breach of this Agreement, CLIENT may purchase the required coverage, and without further notice to ENGINEER, deduct from sums due to ENGINEER any premium cost advanced by CLIENT for such insurance.

ARTICLE XVII - LITIGATION

This Agreement does not require the ENGINEER to prepare for or appear in litigation on behalf of The CLIENT, or as agent of the CLIENT, other than specified herein, except in consideration of additional reasonable compensation.

ARTICLE XVIII - TERMINATION OF WORK

Either party to this Agreement may terminate the Agreement for cause upon giving the other party thirty (30) days prior written notice. Cause may include, failure to perform through no fault of the party initiating the termination. In addition, CLIENT may terminate the Agreement for any one of the following causes: performance by ENGINEER which CLIENT deems unsatisfactory in CLIENT's sole judgment; and CLIENT's lack of funds to complete the work. Cause for ENGINEER may include, failure of CLIENT to make timely payment to ENGINEER without good cause, following a demand for payment.

In addition, CLIENT may terminate any or all of the work covered by this Agreement by notifying ENGINEER in writing. In the event such termination occurs at the conclusion of services pursuant to an executed task order, then ENGINEER shall be entitled to receive compensation for all work satisfactorily completed and performed through the conclusion of that

task order. No other changes or costs incurred for services or materials other than pursuant to an executed task order shall be reimbursed by CLIENT pursuant to this Agreement. In the event such termination occurs during the performance of services pursuant to an authorized task order, then ENGINEER and CLIENT shall need to determine what, if any additional services should be performed by ENGINEER in order to close out the work in progress and provide any such unfinished materials to CLIENT. ENGINEER and CLIENT shall agree upon the additional amount of work to be performed following the termination notice and the amount payable by CLIENT for such work. In the event that the parties cannot otherwise agree on the amount to be paid pursuant to this provision, then the matter may be referred to the Dispute Resolution Procedure in ARTICLE XXII .

In the event the Agreement is terminated by CLIENT for cause, including performance deemed unsatisfactory by CLIENT, or ENGINEER failure to perform, or other cause created by ENGINEER, CLIENT may withhold and offset against any payments otherwise due and/or seek recovery from ENGINEER for amounts already paid, including without limitation: amounts paid for unsatisfactory work or work not done in accordance with this Agreement; value of CLIENT's time spent in correcting the work or problem; any increase in cost resulting from the problem or work; and any other costs which result from such termination.

ENGINEER expressly agrees that this Agreement shall be terminated immediately if for any reason local, federal and/or State Legislature funding ability to satisfy this Agreement is withdrawn, limited, or impaired.

ARTICLE XIX - PROFESSIONAL SERVICES

ENGINEER shall be responsible for the professional quality and technical accuracy of all services furnished by ENGINEER and their subconsultants under this Agreement. Without limiting the effect of any other provision of this Agreement and in addition to any other provision contained herein, ENGINEER shall, without additional compensation, correct or revise any errors or omissions in their services.

ENGINEER and their subconsultants retained pursuant to this Agreement are considered by CLIENT to be skilled in their profession to a degree necessary to perform the services and duties contained in this Agreement, and CLIENT hereby relies upon those skills and the knowledge of ENGINEER and their subconsultants. ENGINEER and their subconsultants shall perform such professional services and duties as contained in this Agreement in conformance to and consistent with the standards generally recognized as being employed by professionals of their caliber in the State of Nevada. ENGINEER makes no warranty, either expressed or implied, as to their findings, recommendations, specifications or professional advice other than as provided herein.

Neither CLIENTS' review, approval, or acceptance of nor payment for any of the professional services or work required under this Agreement shall be construed to operate as a waiver of any of CLIENTS' rights under of this Agreement. The rights and remedies of CLIENT provided for under this Agreement are in addition to any other rights and remedies provided by law.

Project information including but not limited to reports, written correspondence, and verbal reports will be prepared for the use of the CLIENT. The observations, findings, conclusions and recommendation made represent the opinions of the ENGINEER. Reports, records, and information prepared by others will be used in the preparation of the report. The ENGINEER has relied on the same to be accurate and does not make any assurances, representations, or warranties pertaining to the records or work of others, except for its subconsultants, nor does the ENGINEER make any certifications or assurances except as explicitly provided in writing. No responsibility is assumed by the ENGINEER for use of reports for purposes of facility design by others.

ARTICLE XX - RIGHTS OF ENGINEERS AND EMPLOYEES

No personnel employed by ENGINEER shall acquire any rights or status in the CLIENT services and ENGINEER shall be responsible in full for payment of its employees, including insurance, deductions, and all the like.

ARTICLE XXI - SERVICES BY CLIENT

It is understood and agreed that the CLIENT shall, to the extent reasonable and practicable, assist and cooperate with the ENGINEER in the performance of ENGINEER's services hereunder. Such assistance and cooperation shall include, but not necessarily be limited to, environmental approval, right of access to work sites; providing material available from the CLIENT's files such as maps, As-Built drawings, records, and operation and maintenance information; serving all notices, holding all hearings, and fulfilling legal requirements in connection therewith; and rendering assistance in determining the location of existing facilities and improvements which may be affected by the project.

ARTICLE XXII - DISPUTE RESOLUTION PROCEDURE

1. If disputes arise under this Agreement, the parties agree to attempt to resolve such disputes through direct negotiations or if such negotiations are not successful, by non-binding mediation conducted in accordance with the rules and procedures to be agreed upon by the parties.
2. The prevailing party in an action to enforce the Agreement shall be entitled to recover its reasonable attorney's fees and costs. It is specifically agreed that a reasonable attorney's fee shall be \$125 per hour.

ARTICLE XXIII - NO UNFAIR EMPLOYMENT PRACTICES

1. In connection with the performance of work under this Agreement, Engineer agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation or age. Such Agreement shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment

advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. ENGINEER further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

3. Any violation of these provisions by ENGINEER shall constitute a material breach of contract.

4. As used in this Article, sexual orientation means having or being perceived as having an orientation for heterosexuality, homosexuality or bi-sexuality.

ARTICLE XXIV - AMERICANS WITH DISABILITIES ACT

1. ENGINEER and its subconsultants shall comply with the terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.

ARTICLE XXV - GENERAL PROVISIONS

1. Integration. This Agreement, including the Exhibits and the Recitals, all of which are true and correct and are incorporated by reference as a part of this Agreement, constitutes the complete and integrated Agreement between the parties with respect to the matters recited herein, and supersedes any prior or contemporaneous written or oral agreements or understandings with respect thereto.

2. Severability. The legality of any provision or portion of this Agreement shall not affect the validity of the remainder.

3. Amendment. This Agreement shall not be modified, amended, rescinded, canceled, or waived, in whole or in part, except by written amendment signed by duly authorized representatives of the parties.

4. No Third Party Benefit. This Agreement is a contract between CLIENT and ENGINEER and nothing herein is intended to create any third party benefit.

5. Governing Law and Jurisdiction. This Agreement shall be administered and interpreted under the laws of the State of Nevada. Any action at law, suit in equity or judicial proceeding for the enforcement of this Agreement or any provision thereof shall be instituted only in the district courts of the State of Nevada, County of Washoe.

ARTICLE XXVI - DUE AUTHORIZATION

Each party represents that all required authorizations have been obtained to execute this grant and for the compliance with each and every term hereof. Each person signing this Agreement warrants and represents to the other party that he or she has actual authority to execute this Agreement on behalf of the party for whom he or she is signing. A facsimile signature on this Agreement shall be treated for all purposes as an original signature.

Duplicate originals. This Agreement is executed in one duplicate original for each party hereto, and is binding on a party only when all parties have signed and received a duplicate original.

IN WITNESS WHEREOF, CLIENT has caused this Agreement to be executed by the City of Reno and ENGINEER have caused this Agreement to be executed, all as of the day and year first above written.

CITY OF RENO

ATTEST:

By: _____
Robert A. Cashell, Sr., Mayor

By: _____
Lynnette Jones, City Clerk

APPROVED AS TO FORM:

By: _____
Susan Ball Rothe
Deputy City Attorney

CITY OF SPARKS

ATTEST:

By: _____
Geno Martini, Mayor

By: _____
Sparks City Clerk

APPROVED AS TO FORM:

By: _____
Chet Adams, Sparks City Attorney

ENGINEER

By: _____
William R. Petty, President



EXHIBIT A

PETTY & ASSOCIATES, INC.

MECHANICAL
ENGINEERING

December 13, 2013

Joe Coudriet, P.E.
City of Reno
Public Works Department
1 E. First Street, 7th Floor
Reno, NV 89505

Re: TMWRF #1, #2, and #3 Water Systems Upgrade
Scope of Work

Dear Mr. Coudriet,

This project is to assess the configuration and condition of the existing #1, #2, and #3 water systems at the Truckee Meadows Water Reclamation Facility, and to implement the appropriate modifications in response to the findings. The project is to be broken down into three phases as follows:

Phase 1a – Immediate corrective actions for high risk and critical components.

Phase 1b – Discovery, analysis, recommendations, development of preliminary budgetary construction costs, and identification of preliminary phasing of construction efforts.

Phase 2 – Phase 2 is not included in this scope of work but is projected to consist of Mechanical Engineering services for the design and preparation of construction drawings, specifications and construction estimates through construction closeout for the final scope of work as determined by the City based on the findings and recommendations identified in Phase 1.

The services of sub-consultants such as Structural and Electrical Engineering, Water Quality or Subsurface Utility Exploration Firms as deemed necessary are included as needed.

Phase 1a

Immediate Corrective Actions

- Task 1: Review the proximity of the #1/#2/#3 piping systems to the MCC and critical computer/electrical equipment, and make recommendations for minimizing the

potential for damage from pipe failures. The 13 site locations listed below will be addressed for analysis and design based on the Risk Register Water Lines vs. Electrical Communication TMWRF.xlsx document prepared by TMWRF staff.

<u>ID #</u>	<u>Description</u>
13	Denite at MCC-25, 26 and 27 – Heat loop and #3 water directly over and nearby.
14	Nitrification – Plastic sample line over MCC-17, and check on heat loop over capacitor box (Westinghouse).
15	Nitrification – Downstairs switchboard and east-west water line.
19	Dewatering Building MCC's – HWS and HWR too close and too old.
20	Dewatering – Multiple hot water loops over MCC-13 and 14.
21	Headworks – MCC-1 and PCU-1 completely surrounded by hot water loop lines.
9	Secondary Sludge Collector #2 – Plastic pipe over MCC-EC 51851 at A Gallery east and H Gallery.
10	Water line at A and PCU-10 midway down A Gallery for flushing system #1 moat drain line is impinging PC-10 and EP 54621 next to ARAS drives.
6	TWAS Room – HWS and HWR over sole control for TWAS pumps.
7	2D primary room piped in PVC.
11	Chemical Building #1 – Active #2 water line in room housing PCU-14.
12	A Gallery and F Gallery – Piping over PCU-3 and piping running length of F gallery is rusty, and also impinging system #1 RAS drives.
18	Bleach Sprinkler in Control Room – Water type fire sprinkler system in control room is putting control equipment at risk.

- Task 2: As may be directed based on findings and discussions with the City of Reno and plant staff; design solutions for deficiencies found, so that City can advertise a contract for this work in advance of the other Phase 2 work, including all PS&E documents as required.

Phase 1b

General

- Develop a detailed, CAD based, schematic drawing depicting the existing #1, #2, and #3 water piping layout using geographic coordinate system as provided by City. The schematic will be developed based on field research, available construction documents from previous projects, and limited subsurface investigations. The schematic will use the geographic coordinate system as provided by the City to allow for compatibility with other data. Any survey required for this job will also use control points as provided by the City. This schematic will include location, size, material, valves, date or age of elements (if available), nozzles, pumps, shutoffs, etc. (The schematic will not include the landscape irrigation system but will include the shutoff points for the landscape irrigation system.) Abandoned 1#/#2/#3 pipes will be shown. It is anticipated that 15 potholes will be required at \$4230/each. This pricing reflects completing one pothole at a time, the existing piping being located below concrete slabs, and all finishes being repaired to conditions existing prior to the start of work. The pricing will be adjusted based on actual surface conditions and the number of potholes completed concurrently. Each pothole and associated #1, #2, and #3

water piping shall be located by a land surveyor licensed by the State of Nevada, based on the geographic coordinates system referenced above.

- Conduct an assessment of the physical condition of the existing #1, #2, and #3 water piping system using visual and destructive/non-destructive methods, including valves and other system components. As approved by the City of Reno, Petty and Associates will indicate key locations where pipes need to be examined by dismantling installations, or by other destructive methods. This work will be performed by a contractor as directed and paid for by TMWRF. If available, the analysis shall also include the inspection of any sections of piping that have been previously removed from the system. The intent of this analysis is to assess the internal condition of the piping with regards to erosion, corrosion, or constriction due to scaling or mineral deposit build-up, and their potential effect on the life expectancy and performance of the systems.
- Assess the condition of the #2 water tank on the hill to the south of TMWRF and make recommendations as appropriate. An assessment of use of existing booster pumps (for the #3 system) and their operational parameters and other potential system improvements or enhancements as may be needed or appropriate to maintain system pressure are also a part of this scope. The use of additional variable speed pumps as may be appropriate/effective is also included in this scope. (Note: The replacement of the #2 water line which supplies the storage tank on the hill to the south of TMWRF is currently scheduled for early 2014 by others).
- For the #2 system, review the water quality, in particular the levels/variability of sodium hypochlorite and its effect on the #2 piping systems, and make recommendations for improvement. TMWRF lab data on effluent will be used as needed. Automatic controls or other improvements will be recommended as appropriate.
- The review of the build-up in the pipes will also include the potential for similar build-up within the heat exchangers serving various pieces of equipment and the related effect on their performance and efficiency. The analysis will also consider what, if any, effect the water chemistry has or has had on valves or pump seals which are flushed and lubricated by the #2 and #3 process water. As part of this analysis, Petty & Associates will provide recommendations and budgetary estimates for alternate systems to curtail direct use of #2 water in heat exchangers, blowers, and compressors by installing closed loop cooling systems or other alternatives.
- Review overall configuration of systems and consider options for reconfiguring the systems to better serve user's needs, and provide for isolation of portions of the systems while leaving all others in operation (looped piping, etc.).
- Review systems susceptible to freezing and identify methods of protecting the piping (automatic drains, heat tape, etc.).
- The non-destructive testing proposed for the project includes ultrasonic testing of the piping in a number of sample locations throughout the facility for the #1, #2, and #3 water

systems. Destructive testing of key portions of these systems for the purpose of calibration of non-destructive methods will be accommodated as described above. It is anticipated that the destructive testing will be performed at 3 locations for the #2 system and 3 locations for the #3 system.

- Review preventative maintenance work orders, interview plant staff for any known issues, and incorporate into evaluation and recommendations.
- Assess potential for water hammer and recommend improvements as appropriate throughout the plant. One known location where water hammer is an issue is in the scum trough spray at the gravity thickener (per Mike Bailey).
- Address the replacement or potential removal of the portions of the systems that have failed or are out of service for various reasons.
- Evaluate the adequacy of the current water delivery of the #1, #2, and #3 systems, including those facilities currently under design and including TMWRF staff input (i.e., maintenance needs and known deficiencies for #2 and #3 system). Facilities currently under design include Septage Receiving, Gas Scrubbing, and the Ostara Process.

Specific Items Identified for Consideration

- Elimination of all non-metallic piping (both exposed and direct-bury), except for the nonmetallic piping used internal to individual unit processes such as in the polymer blend units. (However, the PVC at the Gravity Thickener shall also be eliminated). Potholing/SUE services to be incorporated into Phase 1 as needed for locating direct-bury lines.
- Conduct system testing to identify all cross connections to #1 system. Water quality testing to be included as appropriate.
- Verify that #2 water is being used for landscape irrigation.
- #2 water should be used for cleaning in grit removal. Verify #2 water is being used, and/or make recommendations as appropriate.
- Address the failure of piping systems located exterior to the building including, but not limited to, the upper deck wash down stations and the spray nozzle systems within the aeration basins.
- Make recommendations to augment, upgrade, reconfigure, or otherwise address the deficient existing screens/ strainers for #2/#3 systems
- Convert #2 water system to #3 water in acid phase digester basement (existing PVC will have to be replaced with metallic piping).
- Review cross connection condition in piping located in digester D gallery/digester 1 basement. Propose corrections (such as disconnections) to minimize potential of

contamination of the #2 water system. Identify any other similar conditions that may be discovered in other portions of the facility and address.

- Identify extent and cost to address needs for color coding and labeling of #1, #2, and #3 water piping systems throughout the entire plant using the 10 state standard color codes.
- Upgrade the remaining sprayers on the primary basins, secondary basins, and aeration basins which have not been converted to the Viega Propress system crimped pipe.

Report and Deliverables

General: Petty & Associates will provide meeting agendas and meeting minutes for all key meetings (via email or other).

Phase 1a:

- Task 1:
 - Draft Technical Memo on the findings of Phase 1a for City/TMWRF comment.
 - Final Technical Memo on the findings of Phase 1a.
- Task 2:
 - Plans, Specifications and Estimate for final design of Phase 1a improvements for the 13 sites as detailed for Phase 1a. The specifications shall include the City's standard front end pages with modifications by Petty & Associates as required.
 - Design documents shall be submitted for review and comment at the 30%/60%/90% stages of the design work.
 - Conformed sets of construction documents.

Phase 1b:

- A short and concise report of all findings and recommendations from the efforts listed herein. The report will utilize lists, bullet points, tables, and figures rather than narrative as much as possible.
- An opinion of budgetary construction costs for each individual corrective item identified in report. Additional breakdowns of budgetary estimates will be developed and presented as may be required by the City.
- A schematic drawing depicting the existing #1, #2, and #3 water piping layout.
- Draft reports (30%, 60%, 90%) from Phase 1b to the City and TMWRF staff for review and discussion.
- Final report from Phase 1b to the City and TMWRF staff.
- Risk Ranking/Prioritization of proposed work based on meetings with TMWRF and City of Reno staff.

Anticipated Meetings

Four meetings are anticipated with City of Reno and TMWRF staff.

Project Duration and not to exceed amount

The estimated duration in calendar days for tasks for this project are as follows:

Phase 1a:

Task 1:

Gather Information	30 days
Draft Technical Memo	30 days
City/TMWRF Comment	5 days
Final Technical Memo	<u>5 days</u>
Sub Total	70 Days

Task 2:

Construction Documents for Phase 1a	45 days
City/TMWRF Review and Comment (7 days each for 30%/60%/90%)	<u>21 days</u>
Sub Total	66 Days

Phase 1b:

Gather Information	30 days
As-Builts	60 days
Analysis of Existing Conditions	60 days
Draft Report of Findings and Recommendations	30 days
City/TMWRF Review and Comment (7 days each for 30%/60%/90%)	21 days
Final Report	<u>14 days</u>
Sub Total	215 Days

Note: It is assumed that the majority of the work associated with Phase 1a will be completed concurrently with the efforts identified for Phase 1b. Therefore, the total estimated duration for the entire project is 215 calendar days.

Petty & Associates proposes to complete the described Phase 1a and Phase 1b work detailed above for fee based on Time and Materials to not exceed \$294,560.00, plus a contingency of \$25,000.00 for a total amount not to exceed \$319,560.00.

Billing will be based on Fee Schedule dated January 2013.

Project Cost Breakdown Staff Hours Costs

Phase 1a:

Task 1:

Gather Information & review Existing Conditions	70	\$8,400
Draft Report	100	\$12,000
Review w/ Owner and Final Report	40	\$4,800

Task 2:

Design and Construction Documents	216	\$26,000
Bid Support	12	\$1,440

Phase 1b:

Site Investigation/Discovery

Non-Destructive Testing Consultant (Max. 24 locations)		\$4,000
Lab Services for Testing of Pipe Samples (Max. 9 samples)		\$49,500
Subsurface Utility Exploration Contractor (Max. 20 Locations)		\$84,200
Field Investigations and Sub-Consultant Coordination /Support	120	\$14,400
Land Surveyor Services	21	\$2,520

As-Built Documents

Laser Scanning and Modeling Consultant		\$36,900
Visual Verification of Existing Conditions	80	\$ 9,600
Final Document Preparation	80	\$ 9,600

Analysis and Report

Review and Analysis of Information Obtained During Discovery	140	\$16,800
Draft Report	80	\$ 9,600
Review w/ Owner and Final Report	40	\$ 4,800

NOTE: The labor costs listed above reflect a rate of \$120 per hour averaged for all Petty & Associates employees. The actual costs will be based on the billing rates listed in the rate schedule.

Contingency

A contingency fee of \$25,000.00 is included in the budget to cover unforeseen or unexpected costs related to the tasks and deliverables set forth herein. This amount will only be used as requested by the City, and any use of the contingency must be approved by the City in writing prior to its use.

CAD and PDF format

Petty & Associates will provide the CAD Drawings/Schematic (as applicable) and the Specifications (as applicable) in the following formats:

- Five sets of full size hard copy/paper Drawings and Specifications.
- Electronic PDF format of the Drawings and Specifications with the following requirements:
 - PDF Drawings shall be a full size with layering turned on. Minimum 200 DPI (Scanned Drawings to PDF will not be acceptable), and
 - PDF Specifications shall be a minimum 300 DPI and Optical Character Recognition (OCR).
 - Bookmarked Table of Contents.
- CAD Files: All CAD program files will be provided along with all link, support, and reference files.
 - For AutoCAD files, Petty will use the eTransmit tool or, at a minimum, provide the following support files:
 - All XRefs, Data Shortcut Files, Images, PDF's, and any other referenced files used;
 - the current CTB file(s) used for printing;
 - any Data Extraction Files (.dxe) with folder structure, If used, and
 - any Images, if used.

TMWRF #1, #2, and #3 Water Systems Upgrade
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- For other CAD programs, Petty will provide a working set of files with all references, links, and support files.


Two (2) copies of all electronic files will be delivered on CDs, DVDs, or Flash Drives.

PHASE 2 (not a part of this work scope—items below are envisioned for future amendment to scope)

- Final design and PS&E documents for selected alternatives and other work.
- Phase 2 will be negotiated with Client prior to commencement of work.

Please contact me if further information is required at this time.

Sincerely,
PETTY & ASSOCIATES, INC.



Arnold H. Etchemendy, LEED® AP

AHE/kn

Enc.



PETTY & ASSOCIATES, INC.

FEE SCHEDULE

Effective January 2013

MECHANICAL
ENGINEERING
CONSULTANTS

Senior Principal	\$225.00/hr
Principal	\$175.00/hr
Senior Engineer.....	\$150.00/hr
Engineer/Senior Designer.....	\$100.00-\$125.00/hr
Administrative Assistant.....	\$ 90.00/hr
Designer I and II.....	\$ 80.00-\$ 90.00/hr
CAD Operator.....	\$ 50.00-\$ 75.00/hr
Clerical	\$ 50.00/hr

(Overtime will be billed at 1.5 times above scheduled fees)

Outside Professional Services Cost +10%

Printing and Reproduction Services

Photocopies 8½x11 / 11x17	\$.15/.25 ea
Plots – Bond / Mylar	\$.50/1.25/ft ²
Electronic Media	\$5.00
Outside.....	Cost +10%

Travel Expense

Within 30 mile radius of Reno, Nevada.....	No charge
Outside 30 mile radius of Reno, Nevada	
Vehicle Mileage.....	\$.55½/mile
Car Rental/Airfare/Lodging/Meals	Cost +10%

Shipping & Special Handling Charges Cost +10%

Long Distance Communications Cost +10%

Rates are subject to annual adjustment to reflect reasonable increases in direct salaries and overhead.