



EDMUND G. ARCHULETA, P.E.

MEMORANDUM

TO: Diana Nunez
Mayor's Office

FROM: Edmund G. Archuleta, P.E.
General Manager

A handwritten signature in black ink, appearing to read "Ed Archuleta".

SUBJECT: Nomination of Candidates for PSB Member

DATE: February 11, 2009

At its February 11, 2009, meeting, the Public Service Board unanimously approved the nomination of the following three candidates for selection by City Council of a PSB Member in accordance with Ordinance 752, as amended:

Maria F. Teran

Margarita A. Licon

Stella A. Quinones, Ph.D.

The individual selected by City Council will fill the position held by Ms. Teran, who has completed her first four-year term, but is eligible for re-appointment. Under the Ordinance, City Council must either select one or reject all three and ask the Board for three new candidates.

Please have this item, as a request from the Mayor, placed on the next available City Council agenda. Attached are biographical sketches for each candidate.

If you have any questions or need further information, please let me know.

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Attachments

cc: Mayor and City Council Representatives
Public Service Board
Joyce Wilson, City Manager
Richarda Momsen, City Clerk
Robert Andron, PSB General Counsel

Maria F. Teran

Work Experience:

- 1970 - 1974 Office Manager for Major Law Firm
- 1974 - 1981 Various part time tutoring and teaching piano.
Full-time mother of two sons.
- 1981 - Present Sierra Machinery, Inc.
President/General Manager
Co-Founder & Stockholder

Appointments:

- Member, *Metropolitan Planning Organization*, (Technical Advisory Committee)
- Member, Board of Managers - Thomason/Texas Tech (9/1998-11/2001)
- Appointed by former Texas Governor Ann Richards; and Texas Governor George W. Bush, to State Boards (1994 - 1997)
- Appointed by President William Jefferson Clinton to the *American Heritage Rivers Advisory Committee* (May 1998 - Present)
- Member, Bank of the West Board
- Member, National Associated of General Contractors
International Committee
Equipment Committee

Civic Involvement:

- Member – Public Service Board
- Board of Directors - El Paso Greater Chamber of Commerce
- Co-Chair - El Paso Chapter, Association of General Contractors
- Executive Committee - Texas Good Roads/Transportation Association
- Technical Advisory Committee, El Paso MPO

- Transportation Committee, El Paso Greater Chamber of Commerce

Professional Organizations:

- Associated Equipment Distributors
- Association of Ingersoll-Rand Distributors
- New Mexico Mining Association
- Associated General Contractors of America
- Good Roads Association of Texas
- Associated International Contractors
- Texas Association of General Contractors
- New Mexico Association of General Contractors
- National Associated Contractors
Equipment Committee
International Committee

Awards:

- SBA District *Women in Business Advocate of the Year* (1996)
- SBA District *Minority Small Business Advocate of the Year* (1996)
- *Paso Del Norte Award* - For Extraordinary and Exemplary Leadership resulting in Discretionary Transportation Funding for this region - Presented by El Paso County Judge and Commissioners Court
- *1999 Emerging 30 Award* - El Paso Chamber of Commerce (1999)



LICON ENGINEERING CO.

MARGARITA A. LICON

EDUCATION:

Bachelor of Science in Civil Engineering, University of Texas at El Paso, 1987
Master of Science in Civil Engineering, University of Texas at El Paso, 1999.

EMPLOYMENT HISTORY:

Licon Engineering Co., Inc., President, 2002-present.
Licon Industries, Inc., Construction Manager, 1997-2001
International Boundary and Water Commission, Construction and Design Engineer, 1992-1997
City of El Paso Engineering Department, Design and Construction Engineer, 1987-1992
Texas Department of Transportation, Design Engineer, 1984-1986

HONORS

The Senate of the State of Texas selected Margarita Licon as a role model for the City of El Paso, April 2003
Future 15 Awards, El Paso Hispanic Chamber of Commerce, August 2005

SELECTED PROJECT EXPERIENCE:

Ms. Licón has extensive experience in every area of construction design and project management for a variety of public sector projects. She also has experience in the area of environmental engineering and regulatory compliance, and geotechnical engineering design.

Her engineering career began with the Texas Department of Transportation (TxDOT-formerly the Texas Highway Department), managing the design and construction phases of various transportation and commercial projects owned by TxDOT in the San Benito District and later the El Paso District.

Later, she joined the City of El Paso Engineering Department as a Design and Construction Engineer, conducting structural distress evaluations on residential buildings referred by City of El Paso residents. She also conducted construction inspections for the Central Business District improvements program, which involved the rehabilitation of buildings and pavements in the downtown area of El Paso. She spent the last year of employment with the City of El Paso in the Design Section of the Engineering Department, preparing plans and specifications for several library buildings, and street and drainage improvement projects.

Ms. Licón's employment with the United States Section of the International Boundary and Water Commission (IBWC), afforded her the opportunity to expand

her project and construction management skills into large-scale public works projects such as the Americas Dam and International Dam systems. These projects consisted of massive concrete lining and refurbishing of several miles of water conveyance systems linked to the Rio Grande river and associated service buildings and pump houses. She was also responsible for the management and accounting of the water distribution along the Rio Grande corridor, from Elephant Butte in New Mexico to the Amistad Dam near Del Rio, Texas.

At Licon Industries, Ms. Licon was the construction engineer for the company. She was responsible for the design and construction of several single dwelling residential projects. As the construction and project engineer, her duties included everything from securing financing for the projects to the procurement of construction materials. Her experience in managing construction projects and supervising the different trade subcontractors resulted in highly profitable projects.

In 2002, she incorporated Licon Engineering Company, Inc. As the sole owner of this corporation, Ms. Licon is the first woman engineer to own and manage an engineering and construction company of its kind in El Paso. She is not only responsible for all areas of the business including marketing, business development, human resources, finances, and operations, but she is also in charge of the company's construction projects. She has engineers, field technicians, and clerical staff under her direct project supervision.

COMMUNITY ACTIVITIES:

Board member of El Paso Hispanic Chamber of Commerce, Board member of Texas Society of Professional Engineers, Founding Board member of the UTEP Alumni Academy of Civil Engineers, Board member of Brownfields Redevelopment Board, Greater El Paso Chamber of Commerce Leadership El Paso Class XXVI, American Society of Civil Engineers; Latinas 100, El Paso 8a and Government Contractors Association, Past board member - Magoffin Home, Past board member - Christmas Street, Past President - ASCE/TSPE Auxiliary.

Stella A. Quiñones, Ph.D.
Assistant Professor
Forest O. and Henrietta Lewis Professorship in Electrical Engineering
The University of Texas at El Paso

Professional Preparation

- B.S., Metallurgical Engineering, University of Texas at El Paso, 1986
- M.S., Metallurgical and Materials Engineering, University of Texas at El Paso, 1993
Thesis: Micro-Particle Impact and Related Surface-Phenomena For Aluminum 6061-T6 Exposed to Low-Earth Orbit, UTEP Engineering and University Graduate Thesis Award
- Ph.D., Materials Science and Engineering, University of Texas at El Paso, 1996
Dissertation: Microstructural Characterization of Low and Hypervelocity Impact Crater Cross-Sections in OFHC Copper targets

Employment

- Sept 2004 – Present. Assistant Professor, Electrical and Computer Engineering, University of Texas at El Paso
- Sept 1998 – June 2004. Full-Time Lecturer, Metallurgical and Materials Engineering, University of Texas at El Paso
- January 1997 – May 1998. Part-Time Lecturer, Metallurgical and Materials Engineering, University of Texas at El Paso
- September 1990 – December 1996. Research Assistant, Metallurgical and Materials Engineering, University of Texas at El Paso
- June 1986 – November 1988. Resource Engineer, El Paso Electric Co., El Paso, TX.

Research Interests

- Fabrication and Materials Characterization of CdTe Films Grown by Close-Spaced Sublimation (CSS)
- Microstructural Characterization of Ti-6Al-4V by Electron Beam Melting (EBM) Direct Digital Manufacturing Technique
- Reinforcement of Rapid Prototype Structures by Selective and Planar Metal Deposition
- Retention of Female and Minority Engineering Students

Teaching

- ENGR1401 – Intro to Engineering and Design, ENGR1300 – Intro to Engineering, ENGR1100 – Engineering Seminar, UNIV1301 – University Seminar, MME3306 – Transport Processes in Materials Systems, MME3308 – Applied Chemical Thermodynamics, MME4309 – Corrosion, EE3329 – Electronic Devices, EE4350 – Integrated Circuits and Semiconductor Devices, EE5311 – Semiconductor Devices, EE4195 – Senior Professional Orientation

Publications (Referred Journals)

- A. Escobedo, S. Quinones, M. Adame, J. McClure, D. Zubia, G. Brill, 2008, **Characterization of Smooth High Quality CdTe(111) Films by Conventional Close Spaced Sublimation (CSS) Technique**, submitted to Journal of Electronic Materials.
- L.E. Murr, S.A. Quinones, S.M. Gaytan, M.I. Lopez, A. Rodela, E.Y. Martinez, D.H. Hernandez, E. Martinez, F. Medina, R.B. Wicker, 2008, **Microstructure and Mechanical Behavior of Ti-6Al-4V Produced by Rapid-Layer-Based Manufacturing, for Biomedical Applications**, in press, Journal of the Mechanical Behavior of Biomedical Materials.
- L. E. Murr, E. V. Esquivel, S. A. Quinones, S. M. Gaytan, M. I. Lopez, E. Y. Martinez, F. Medina, D. H. Hernandez, E. Martinez, J. L. Martinez, S. W. Stafford, D.K. Brown, T. Hoppe, W.

Meyers, R. B. Wicker, and U. Lindhe, 2008, **Microstructures and Mechanical Properties of Electron Beam-Rapid Manufactured Ti-6Al-4V Biomedical Prototypes Compared to Wrought Ti-6Al-4V**, in press, *Materials Characterization*.

- S.A. Quiñones, S.M. Ammu, A. Escobedo, M. Rodriguez, Jose Cruz-Campa, J. McClure, D. Zubia, **SEM Characterization of CdTe Growth on CdTe(111) by Close-Spaced Sublimation**, *J Mater Sci: Mater Electron* 18 (2007): 1085-1091.
- D. Zubia, C. Lopez, M. Rodriguez, A. Escobedo, S. Oyer, L. Romo, S. Rogers, S. Quinones, J. McClure, **Ordered CdTe/CdS Arrays for High-Performance Solar Cells**, *J. Electronic Materials* 36 (2007): 1599-1603.
- S.L. Lair, W.C. Herndon, L.E. Murr, S.A. Quiñones, **End Cap Nucleation of Carbon Nanotubes**, *Carbon* 44 (2006): 447-455
- O. L. Valerio-Flores, L. E. Murr, V. S. Hernandez, S. A. Quiñones, **Observations and Simulations of the Low Velocity-to-Hypervelocity Impact Crater Transition for a Range of Penetrator Densities into Thick Aluminum Targets**, *Journal of Materials Science* 39 (2004): 6271 – 6289.

Conference Papers and Proceedings

- S.M. Gaytan, L.E. Murr, D.H. Hernandez, E. Martinez, S.A. Quinones, F. Medina, R.B. Wicker, **Structure-Property-Process Optimization in the Rapid-Layer Manufacturing of Ti-6Al-4V Components by Electron Beam Melting**, in *Collected Proceedings: Materials Issues in Additive Powder-Based Manufacturing Processes, 2009 TMS Annual Meeting and Exhibition, 2009*, (CD only).
- S. Joseph, S. Quiñones, F. Medina, R. Wicker, **Effect of Surface Preparation Methods on Mechanical Properties of 3D Structures Fabricated by Stereolithography and 3D Printing for Electroless Ni Plating** in *Proceedings of the 2007 Solid Freeform Fabrication Symposium, Austin, TX, August 6-8, 2007*.
- W.W. Fisher, P. Golding, S. Quiñones, R. Osegueda, B. Benedict, **Three Strategies for Improving the Graduation of Engineering Minorities** in *Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition, Portland, OR, June 12-15, 2005*.

Conference Presentations

- L. Murr, E. Esquivel, S. Quinones, S. Gaytan, M. Lopez, E. Martinez, D. Hernandez, E. Martinez, J. Martinez, T. Hoppe, W. Meyers, S. Stafford, R. Wicker, F. Medina, U. Lindhe, **Microstructures and Mechanical Properties of Electron Beam – Rapid Manufactured Ti-6Al-4V Biomedical Prototypes Compared to Wrought Ti-6Al-4V** presented at the TMS 2008 Annual Meeting & Exhibition, New Orleans, LA, March 9-13.
- S. Quinones, K. Puebla, L. Ochoa, J. Flores, D. Barroso, M. Ingle, S. Wise, R. Quintana, F. Medina, R. Wicker, **Systematic Study of the Mechanical Properties of Stereolithography Resins Plated with Nickel and Copper Coatings** presented at the 2007 Solid Freeform Fabrication Symposium, Austin, TX, August 6-8, 2007.
- S. Quinones, A. Escobedo, J.L. Cruz-Campa, B. Aguirre, M. Adame, J. McClure, D. Zubia, **Epitaxial Growth of CdTe Films Via Close-Spaced Sublimation** poster presented at the 2007 MRS Spring Meeting, San Francisco CA, April 9-13, 2007.
- Jacob Rascon, Luis Romo, Scott Rogers, Stella Quinones, John McClure and David Zubia, **New Sublimation Reactor for Epitaxial Growth of II-VI Films**, poster presented at the American Vacuum Society 53rd International Symposium, San Francisco, California, November 14th, 2006. This poster won 1st place in the student-built vacuum system competition.
- S.M. Ammu, J. Rascon, A. Escobedo, M. Rodriguez, J. Cruz-Campa, D. Zubia, J. McClure, **S.A. Quiñones. Growth And Characterization of CdTe on CdTe(111), CdTe(211)/Si(211) and CdTe(211) Substrates Using Conventional and Novel CSS Techniques**, *invited talk*, presented at the International Material Research Congress, Cancun, Mexico August 21 – 25, 2006.
- Arev Escobedo, Mario Rodríguez, Luis Romo, Jose Cruz-Campa, Cesar López, Sandra Oyer, Scott Rogers, Stella Quiñones, John McClure, and David Zubia, **CdTe/CdS-Based Photodiode Arrays Via Selective-Area, Close-Spaced Sublimation** poster presented at the International Material Research Congress, Cancun, Mexico August 21 – 25, 2006.

- Skanda Ammu, Cesar Lopez, Arev Escobedo, Mario Rodriguez, Jacob Rascon, Shalayna Lair, David Zubia, John McClure and Stella Quiñones, **Fabrication and Characterization of Patterned ITO-CdS-SiO₂-CdTe Solar Cells by the Close-Spaced-Sublimation Technique**, talk presented at the TEXMEMS VII International Conference, El Paso, Texas, USA and Ciudad Juarez, Chihuahua, Mexico, September 21-22, 2005.
- David Zubia, Cesar Lopez, Aaron Rodriguez, Javier Terrazas, Arev Escobedo, Jacob Rascon, Mario Rodriguez, Shalayna Lair, Stella Quiñones and John McClure, **Selective-Area Deposition Of Ordered CdTe Polycrystal Arrays On SiO₂/CdS Via Close-Spaced Sublimation**, invited talk, presented at the International Material Research Congress, Cancun, Mexico August 21 – 25, 2005.
- W.W. Fisher, P. Golding, S. Quiñones, R. Osegueda, B. Benedict, **Three Strategies for Improving the Graduation of Engineering Minorities**, talk presented at the 2005 American Society for Engineering Education Annual Conference & Exposition, Portland, OR, June 12-15, 2005.

Books

- Walter W. Fisher, Peter Golding, and Stella A. Quiñones, **Basic Engineering Analysis Design and Problem Solving**, Pearson Custom Publishing, Needham Heights, MA, 2001.

Academic/Professional Activities

Ph.D. Manufacturing Proposal Committee, 2007
 NanoMIL , Assistant Director, *Sept 2004 - present*
 NCN NanoHUB Partnership Collaborator, *2006 - present*
 ECE Ph.D. Student Recruitment Committee, *Spring 2005 – present*
 ECE Student Advisory Board Coordinator, *2006 – present*
 UTEP – Chapin Engineering Magnet High School Partnership, *2006-present*
 UTEP Graduate Assembly, *Fall 2004 - present*
 UTEP AGEP Committee, *Spring 2004 - present*
 ECE Probation Student Advisor, *Fall 2004 - present*
 ECE Electric Fields and Devices Curriculum Committee, *Fall 2004 - present*
 Key Strategic Direction "Enhancing Student Success" Committee, *Fall 2005 - 2006*
 Society of Women Engineers (SWE), (Advisor) *Fall 2004 – Fall 2006*
 Tau Beta Pi Engineering Honor Society (Co-Advisor), *Fall 2003 - present*
 Advance Impact Program, *May 2004 – May 2005*
 UNIV 1301 Proposal Evaluation Committee, *2003-2004*
 K-16 Mathematics Working Group – El Paso Collaborative *Fall 2002 – Fall 2004*
 Study Abroad Scholarship Committee *Fall 2002 – Fall 2004*
 American Society for Engineering Education (ASEE), *Spring 2004 - present*
 Dean's Advisory Board on Quality Management (DABQM) *Spring 2001 – 2003*
 Alpha Sigma Mu Metallurgical Engineering Honor Society

Grants

- Co-PI, Sandia National Labs (SNL), "Nanotexturing of Surfaces to Reduce Melting Point", \$50,000, 10/1/08 – 9/30/2009.
- PIs:R. Wicker, S. Quinones, L.Murr, M. Cooke, S. Stafford
 University of Texas System, "Acquisition of Metals Based Direct Digital Manufacturing System", \$991,700, 9/2007-8/2008
- PI – NSF ADVANCE GRA Award, \$3,200, Spring 2007
- Co-PI, Department of Education (DOE) Minority Science and Engineering Improvement Program (MSEIP), \$226,695, PI – Peter Golding, UTEP, 10/1/03 – 9/30/06.
- PI – University Research Institute Grant (URI), 12/2005 – 08/2006, Selective Area Heteroepitaxy of CdTe on patterned CdTe Single Crystal Substrates by Close-Space Sublimation (CSS), \$2,600.
- PI - NSF ADVANCE GRA Award , \$4,397, Summer 2005
- PI - NSF ADVANCE GRA Award , \$4,612, Spring 2004