



2014

**ANNUAL REPORT OF THE
PUBLIC WORKS, WATER AND
DEVELOPMENT SERVICES
DEPARTMENT**

CITY OF VERNON

**SAMUEL KEVIN WILSON, P.E.
DIRECTOR OF PUBLIC WORKS, WATER AND DEVELOPMENT SERVICES**

**Annual Report of the Public Works, Water and Development Services Department
2014**

The Public Works, Water and Development Services Department has prepared this 2014 annual report which briefly summarizes the activities of last year.

The value of private development within the City continues to grow. The reinvestment in the City continues to change the environment of Vernon from a heavy industrialized community to a logistical and light manufacturing hub for the Los Angeles Basin. While the number of permits issued by the department remained relatively the same, the value of construction grew to over \$70,000,000 a 22.5% gain over the previous year.

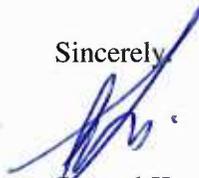
The Engineering division oversaw the construction of a new storm drain line in 55th Street, the rehabilitation of several streets in the former Central Manufacturing District area of the City with a rubberized slurry seal, the reconfiguration of the City Administrator's, City Attorney's, Human Resources and Information Technology offices, earthquake damage repairs that were made to Fire Station No. 1 and the resurfacing of portions of Boyle and Fruitland Avenue. As the new NPDES permit is taking full effect the City worked with neighboring communities to develop watershed management and monitoring plans.

Water production and sales were down approximately 5.45%. The State of California continues to endure a prolong drought. The reduction in water sales could be a result of ongoing water conservation measures the City has enacted and the willingness of business to conserve. The amount of water utilized by the City's customers coincidentally matches the water rights owned by the City.

Department crews continue to maintain the City infrastructure and equipment in good shape. Some of the tasks given to the public works and water crews include maintaining the roadways surfaces in an acceptable manner, keeping the City free of graffiti, maintaining the City's signs and street legends, maintaining the City's water, sewer and storm drain systems, maintaining the City's fleet of vehicles, maintaining the City's buildings and housing and maintaining the City's warehouse.

The Department staff should be congratulated on their accomplishments of this past year. The Department has an excellent team of workers that show a lot of pride in their work. However, given the workload it will continue to be challenging for staff to provide an acceptable service level. The work of the Department continues to be the backbone of the City services provided to the community. Staff members interact daily with the public, ensuring both private development continues to be accomplished in a non-bureaucratic manner and the City's infrastructure is maintained in an acceptable condition. The Department should continue to be given the appropriate resources to meet these goals.

Sincerely,



Samuel Kevin Wilson, P.E.

Director of Public Works, Water and Development Services



**ANNUAL REPORT
OF THE
CITY OF VERNON**

ENGINEERING DIVISION

This report serves as the 2014 Annual Report for the Engineering Division of the Public Works, Water & Development Services Department for the City of Vernon. This report is a comprehensive review of the year's major projects, and includes brief descriptions and illustrations of the public improvement projects for the year 2014. Additional information for each project is available for public review, as needed.

The Engineering Division's goal is to provide sound engineering services that ensures public safety and maximizes the taxpayer's investment. The Engineering Division's functions are geared towards the design, construction, and maintenance of municipal properties and infrastructure. Focus is also given to achieving higher levels of efficiency, effectiveness and productivity for the division.

The Engineering Division provides the following areas of service:

- Capital Improvement Project Design Services include focusing on civil engineering services for the design and contract administration of infrastructure projects such as streets, bridges, traffic signals, storm drains, sewers that lie within the City's right-of-way as well as improvements involving public buildings. These services also include managing and analyzing all right-of-way data for the city.
- Construction and Inspection Services include providing construction management services for construction of projects within the City's right-of-way. These services also include field surveying and inspection to ensure that construction projects are completed at a high level of quality and per engineering specifications and plans.
- Development Services include reviewing private development projects. This entails reviewing grading plans, subdivisions, lot mergers, lot line adjustments, grant deeds, covenant & agreements, utility easements, analyzing impacts that private developments might have on the public right-of-way, plan checking, preparing frontage improvement plans, issuing encroachment permits, acquisition/disposal of public property and performing as the main Public Works liaison to the public at the engineering counter or by telephone.
- Traffic and Transportation Services include designing and maintaining the traffic related infrastructure in the City including traffic signals, striping, traffic investigations, evaluations per public modification requests and volume and speed studies.
- National Pollutant Discharge Elimination System (NPDES) Compliance Services include the implementation of requirements imposed on the City under the Los Angeles County-wide Phase 1 Municipal Separate Storm Sewer System NPDES permit. These services also include the Total Maximum Daily Load imposed on the City to address impairments of water quality standards in the Los Angeles River.



From Left to Right: Felix Saldana, Engineering Aide, Vince Rodriguez, Public Works Project Coordinator, Claudia Arellano, Stormwater & Special Projects Analyst, Rafael Contreras, Project Engineer, Lissette Melendez, Associate Engineer and Felix Velasco, Assistant Engineer

CAPITAL IMPROVEMENT PROJECTS

Project No. 143004: Reconfiguration of City Administration, City Attorney, Human Resources and Information Technology Department Offices

The reconfiguration of the offices in the following departments is part of the 5-year capital improvement plan to improve existing City Building Facilities: City Administration, City Attorney Human Resources and Information Technology. This project consists of the renovation of approximately 5,225 square feet of office space within the current City Hall Building.

The following City contracts were awarded as part of the City Project No. 143004: City Contract No. CS-0412 for the preparation of construction plans and project manual was awarded to Simon Glover Inc., and Victor Palos Development and Construction was awarded Contract No. CS-0428, for all construction activities.

The project included the creation of new offices therefore; new furniture was procured under the existing National Intergovernmental Purchasing Alliance (NIPA) Contract No. 30016.

Project construction began in November 2014 and it is expected to be completed in March 2015. Felix Velasco, Assistant Engineer completed the contract specifications and is responsible for administering this project. This project is scheduled for City Council acceptance in April 2015. The total cost for this project will be approximately \$450,000.00.



City Administration Offices – Before Improvements



City Administration Offices – During Construction

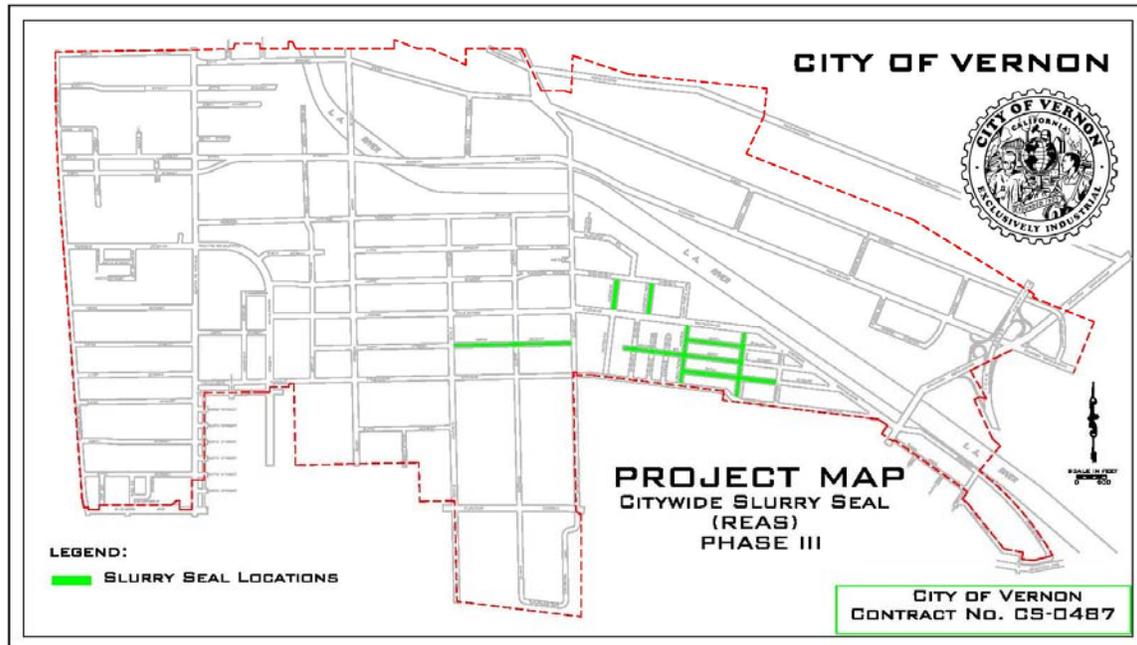
Project No. 143005: Citywide Rubberized Slurry Seal – Phase III

Plans and specifications were developed as part of a six phase plan to place rubberized slurry seal in various streets throughout the City. Rubberized Emulsion-Aggregate Slurry (REAS) Seal is a cost effective maintenance treatment for streets that extends the life of the asphalt pavement. The map below shows the streets improved as part of Phase III of this project.

Each phase of the project also includes some conventional fill and mill asphalt repair on spot locations and the restriping of the streets. The City issued three separate contracts as part of this project. For the material, (Contract No. CS-0025) the City piggybacked onto a current contract that was issued by the City of Los Angeles with Petrochem Manufacturing, Inc. (PMI). Piggybacking is when a public agency uses an existing public contract as a template to form their own contract directly with the vendor to purchase on the same or similar terms. The City of Los Angeles used a competitive bid process to obtain labor and material cost for PMI.

Contract No. CS-0501 was awarded to Superior Pavement Markings for the restriping of the streets slurry as part of phase III. Contract No. CS-0487 was awarded to All American Asphalt for the labor portion of the project.

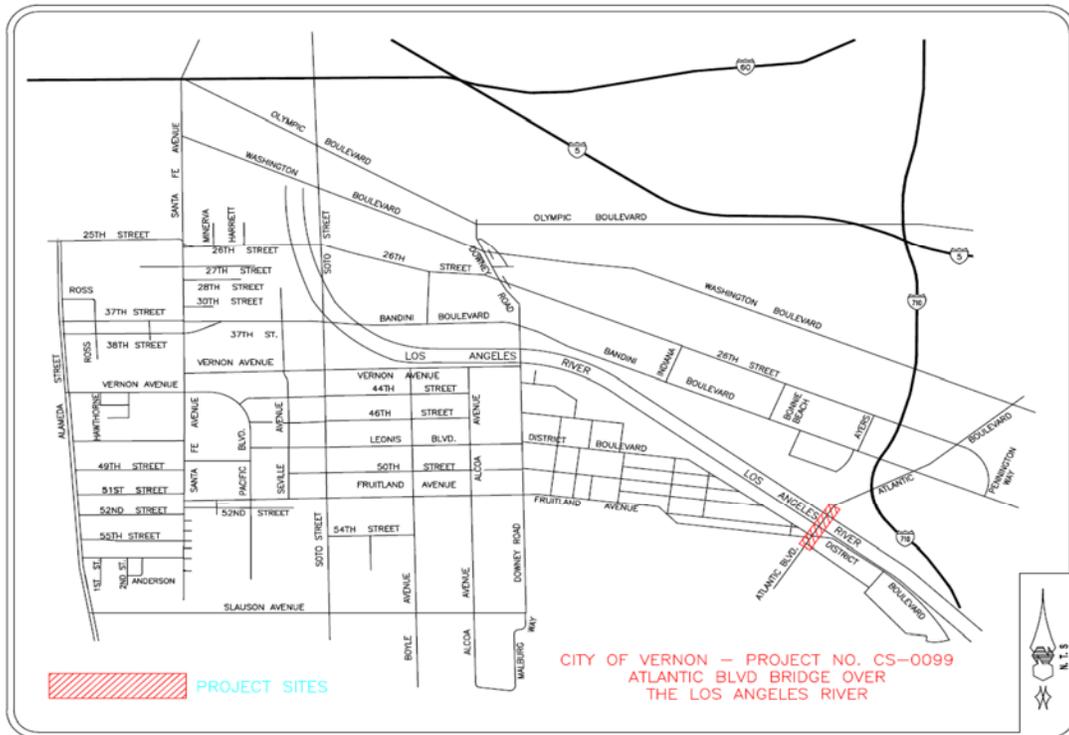
The Project Specifications were completed by Rafael Contreras, Project Engineer and Vince Rodriguez, Public Works Project Coordinator. Striping plans were completed by Lissette Melendez, Associate Engineer and Felix Velasco, Assistant Engineer. The project was approved by City Council in August 2014. PMI and the City of Vernon entered into a contract agreement in September 2014 (CS-0025). All American Asphalt and the City of Vernon entered into a contract agreement in September 2014 (CS-0487). Construction began in September 2014. The project was managed and inspected by Vince Rodriguez, Public Works Project Coordinator. The project was completed in October and was accepted by Vernon City Council in November 2014. Total budgeted funds for both projects were \$204,123.00. Work was completed under budget at a cost of \$194,568.24.



CS-0099 - Atlantic Boulevard Bridge over the Los Angeles River - Design

The scope of work for the Atlantic Boulevard Bridge over the Los Angeles River project will include the development of plans for the proposed widening and rehabilitation of the bridge. The bridge widening will increase the width of the roadway through lanes, add a new right turn only lane in the southbound direction, a center median, traffic shoulders, and standard sidewalks. To accommodate the widening of the proposed roadway, the bridge piers and footings will be modified and enlarged. The two nearest traffic signals, one at the Atlantic Boulevard and District Boulevard intersection, and one at the entrance to the 3030 Atlantic Boulevard property, will be modified as part of this project. The adjacent railroad signals for the at-grade crossings on the north and south sides of the bridge will require the installation of California Public Utilities Commission (PUC) approved devices and the two previously mentioned vehicular traffic signals on both sides of the bridge will also be preempted when the railroad movements cross Atlantic Boulevard.

The project area begins north of District Boulevard and extends north-eastward along Atlantic Boulevard, crossing over the Los Angeles River and ends near the railroad tracks on the north side of the river.

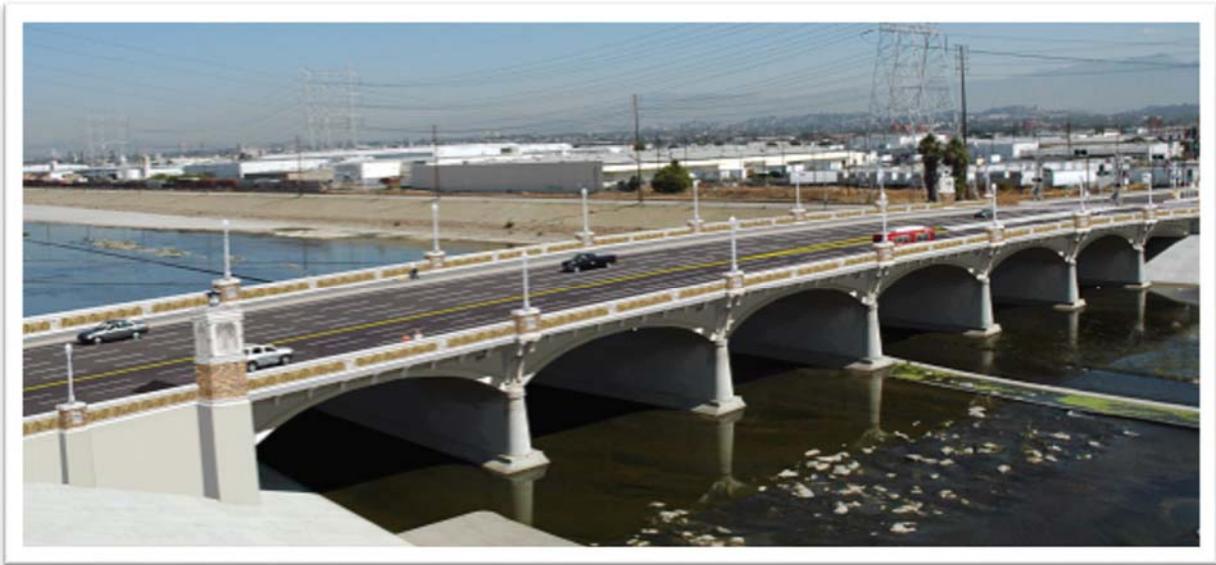


Initial funding was provided by earmark funds secured by Congresswoman Lucille Roybal-Allard for the early design engineering and environmental study. Federal funding for the right of way activities and construction is provided by the Highway Bridge Program (HBP). Additional funding is also provided by the Metropolitan Transportation Authority (MTA) from the voter approved Measure R funds. The City of Vernon also provides matching funds for the federal funding sources.

During the course of the final design development, some project elements required modifications in order to streamline the project needs and permitting. The modified or added project elements are related to the rail crossing safety improvements, PUC Permitting Requirement, U.S. Army Corps of Engineers (USACE) Permitting Requirement, and structure safety improvements. The final design is scheduled to be completed by the end of 2015. The City will finalize the right of way acquisition process and obtain easements to accommodate the bridge widening. The engineering cost estimate for the construction is \$19 million and it is anticipated to commence in the summer of 2016.



Atlantic Boulevard Bridge – Existing Condition



Atlantic Boulevard Bridge – Proposed

CS-0012 – Citywide Concrete Repair & Replacement Project 2014

For a few years the City of Vernon has implemented an annual Concrete Repair Program. This project entails repairing or replacing damaged concrete at various locations within the City of Vernon. This contract primarily focuses on damaged sidewalk with vertical displacements that can be trip hazards and also attempts to fix other deteriorated concrete infrastructure such as curb, gutter, driveways and tree root shaving when necessary.

Plans and specifications are currently being developed. This project is scheduled to go out to bid in the summer of 2015.

CS-0192 – Citywide Pedestrian Countdown Head Upgrade Project

The project replaced dated existing pedestrian signal heads with new pedestrian countdown signal heads and some signal head framework housings at 41 signalized street intersections. These upgrades improve the overall safety of pedestrians, bicyclists, and traffic in the City of Vernon. The City obtained funds for this project from two sources: Highway Safety Improvement Program (HSIP) and the Transportation Development Act (TDA) Article 3 Bicycle and Pedestrian. The Highway Safety Improvement Program (HSIP) Cycle-4 Federal Fund covered approximately 90% of the cost for the project. The remaining 10% funds were a mixture of Transportation Development Act (TDA) Article 3 Bicycle and Pedestrian funds and local City funds.

The City Council awarded the project in May 2013 to PTM General Engineering Services for \$44,935. During the replacement of the pedestrian signal heads, the contractor encountered approximately 56 irregular pedestrian signal head frameworks that did not accommodate the standard pedestrian countdown signal head module size. The irregular framework housings had to be replaced at an additional cost of \$39,181.68, which brought the new contract total amount to \$84,116.68. The additional work was authorized by the City Council on February 2014, due to the delay encountered securing additional federal funds from Caltrans. The project was completed and accepted by City Council in May 2014. The final contract amount was completed for the contract cost of \$84,116.68.

CS-0352 – Signalized Intersection Improvements Project 2014-2015

This project consists of complete re-wiring of two existing signalized intersections. The intersections are selected based on the existing conditions. The two intersections selected for the 2014-2015 year were Santa Fe Avenue at 28th Street and Bandini Boulevard at the I-710 off ramp. In addition to rewiring, the project also includes various improvements at the selected intersections.

Lissette Melendez, Engineering Associate, Felix Velasco, Assistant Engineer and Vince Rodriguez, Public Works Project Coordinator, continue to finalize plans and specifications. The project is expected to go out to bid in the summer of 2015.

CS-0403 – Boyle Avenue and Fruitland Avenue Street Improvements

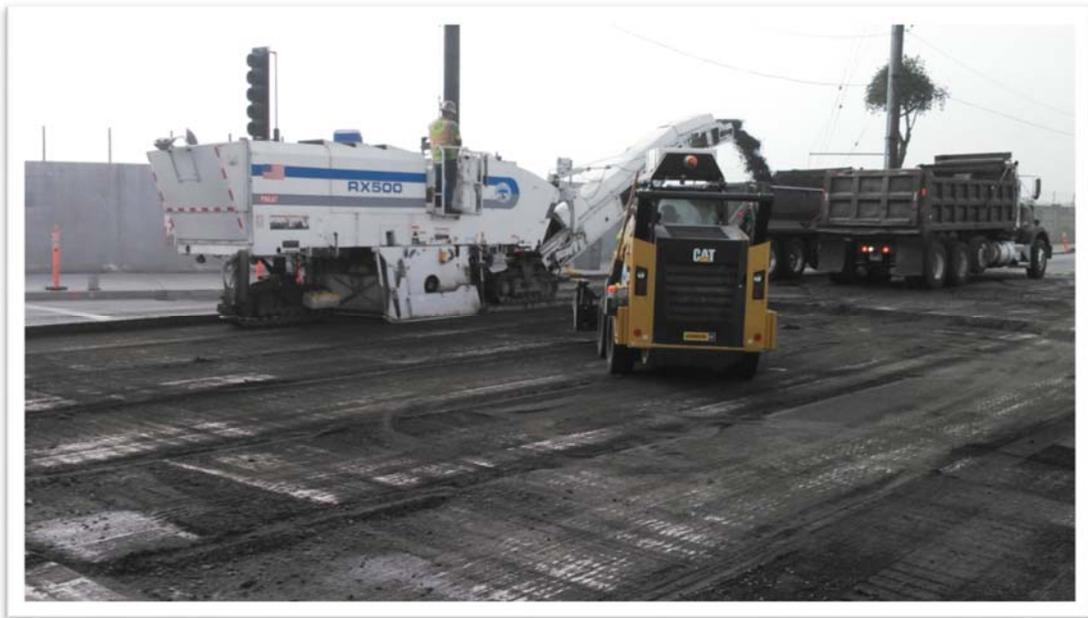
This project consisted of cold recycling of the existing deteriorated asphalt concrete pavement, repaving with a 2” thick new asphalt overlay, re-stripping of traffic markings, installation of access ramps, and the repair of deteriorated concrete improvements on Boyle Avenue from Leonis Boulevard to Slauson Avenue and on Fruitland Avenue from Soto Street to Downey Road.

This project also included traffic signal re-wiring and minor modifications at the intersections of Boyle Avenue at Leonis Boulevard and Boyle Avenue at Fruitland Avenue. Additionally, crack seal repairs were completed on Santa Fe Avenue from the north City boundary to the south City boundary and on Bandini Boulevard from Soto Street to the I-710 Freeway.

Construction plans and specifications were completed by staff in February 2014. City Council approved to advertise the project in February 2014. Sully Miller Contracting Company and the City of Vernon entered into a contract agreement in April 2014. Construction began in May 2014. The project was managed and inspected by Vince Rodriguez, Public Works Project Coordinator. The project was completed in September 2014 and was accepted by the Vernon City Council in October 2014. The total budgeted funds for the completion of the project were approximately \$1,583,363.70. Work was completed under budget at a cost of \$ 1,543,273.33.



Boyle Avenue – Before Improvements



Corner of Fruitland & Boyle Avenue – During Construction



Boyle Avenue – After Improvements

CS-0421 – 55th Street Storm Drain Improvements

This project consisted of the installation of 1,400 feet of 30”-36” storm drain on 55th Street from Alameda Street towards Santa Fe Avenue. The project alignment began at the intersection of 55th Street and Alameda Street where it connected to the existing Los Angeles County Flood Control Districts’ 72” storm drain system.

Six (6) new maintenance manholes and six (6) new catch basins were constructed along the alignment as part of the project. The invert depth for the storm drain varied from approximately eight (8) feet to ten (10) feet below the existing ground surface. A sewer manhole was removed and relocated as part of this project.

Construction plans and specifications were completed by Felix Velasco, Assistant Engineer and Vince Rodriguez, Public Works Project Coordinator in May 2014. City Council approved to advertise the project in May 2014. Ramona Inc. Company and the City of Vernon entered into a contract agreement in June 2014. Due to the limited availability of reinforced concrete pipe (RCP), construction did not begin until October 2014. The project was managed and inspected by Vince Rodriguez, Public Works Project Coordinator. The project was completed in December 2014 and is expected to be accepted by Vernon City Council in January 2015. Total budgeted funds for this project were \$628,390.00. Due to unforeseen conditions, work was completed at a cost of \$653,672.73.



55th Street – Existing conditions



55th Street – Storm Drain Construction

CS-0425: Reroofing of City Hall Mechanical Room

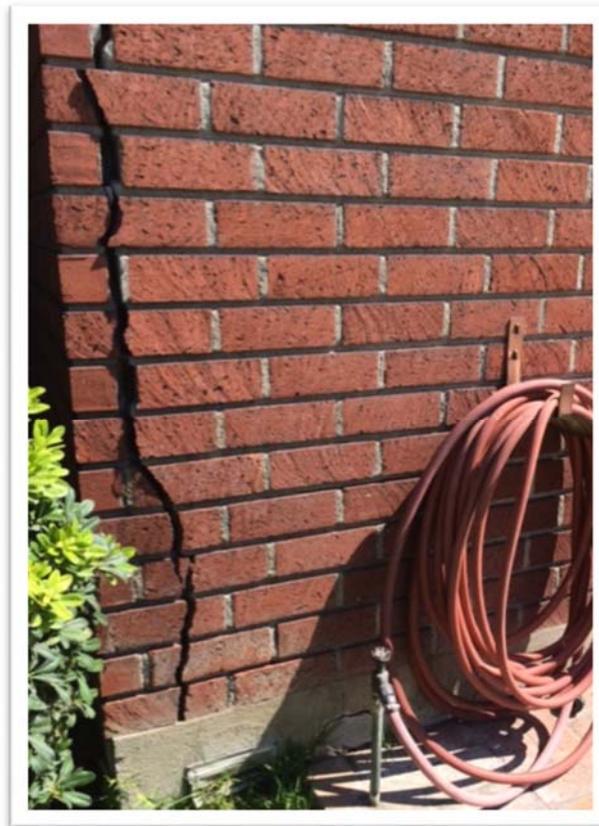
The project included the removal and replacement of the roofing material system on the City Hall Penthouse Mechanical structure. The existing roof was in extremely poor condition, which included rust and leaks throughout the structure. In compliance with the purchasing expenditure thresholds shown on the City of Vernon's recently approved Ordinance No. 1221, the Public Works' Engineering Division obtained informal quotes for the Reroofing of City Hall Penthouse Mechanical Room Project.

Contract No. CS-0425 was awarded to Letner Roofing Co. Inc. in December 2014 in the amount of \$41,433.00. Work is scheduled to commence in January 2015 and it is estimated to be completed that same month.

CS-0426 – Fire Station No. 1 Repairs

Fire Station No. 1 is located at 3375 Fruitland Avenue. The repairs completed as part of this project included brick repair and replacement work at the four building columns on both interior and exterior sides as well as minor concrete repairs to the column foundations.

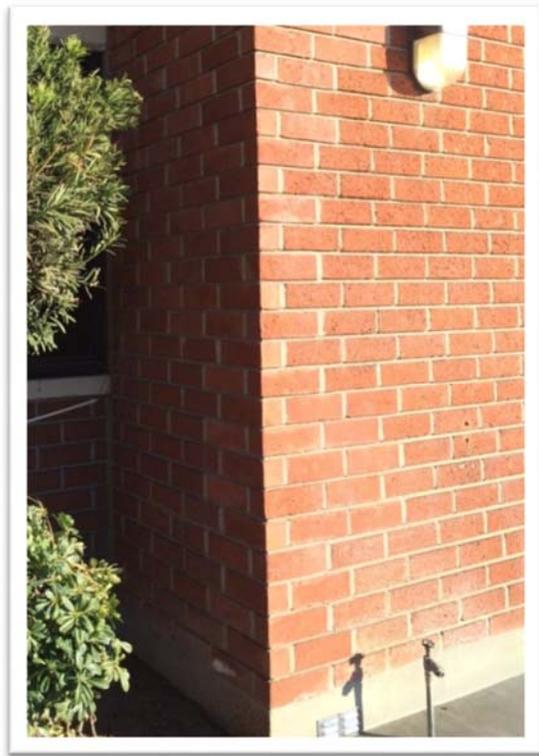
Plans for the repairs were developed by the City's structural engineering consultant. Lissette Melendez, Associate Engineer, completed the specifications as well as contract management for the project. The contract was awarded to Frank S. Smith Masonry, Inc. in November 2014. Construction was completed in December 2014 for a final contract amount of \$38,900.00.



Southwest Column – Before Repairs



Southwest Column – During Repairs



Southwest Column – After Repairs

Bridge Preventative Maintenance Program

Los Angeles County Public Works Department advised the City of Vernon that the County had applied for and received funding from the Federal Highway Administration (FHWA) under the Federal Bridge Preventative Maintenance Program (BPMP). The County offered to administer the funding and maintenance of the three following bridges in Vernon:

<u>County Bridge No.</u>	<u>State Bridge No.</u>	<u>Location</u>
1852	53C0827	BANDINI BL / LOS ANGELES RV
2333	53C0867	SOTO ST / LOS ANGELES RV
1455	53C0786	26 th ST / DOWNEY RD

The proposed preventative maintenance activities for the bridge structures have been derived based on biannual bridge inspection reports performed by the County. The overall project design and construction costs for repairs to the three bridges are estimated by the County to be \$1,249,000. Of that total, the City’s cost share is estimated at \$149,000. Included in the requested amount is the cost for preliminary engineering, to include environmental findings and approvals/permits, design survey, soils report, traffic index and geometric investigation, preparation of plans, specifications, and cost estimates, right-of-way engineering, utility engineering, and all other necessary work prior to award of a construction contract. The County will also perform construction engineering management services, which include administering the bidding, construction contract award, and the construction of the project.

Via City Resolution No. 2012-183 in 2012, the City Council authorized the City to participate in the BPMP. On April 2014, the City Council approved and entered into cooperative agreement for the Bridge Preventative Maintenance Program with the County of Los Angeles.

PRIVATE DEVELOPMENT REVIEW

In conjunction with a Building Permit, Conditional Use Permit and/or the recordation of a final map, frontage improvements are often required as an exaction (condition) for private development. The City of Vernon Engineering Division designs the frontage improvement plans or reviews and approves plans submitted by a private engineer. Improvements are constructed per City of Vernon Standards, inspected by a City inspector, and paid for by the developer. An encroachment permit is required for construction. The Engineering Division then provides surveying and inspection of the improvements.

Along with a Grading Permit, the contractor may be required to implement low impact development (LID) post-construction controls to mitigate potential stormwater pollution which shall be in accordance with the City's LID Guidance Manual. The developer's proposal is reviewed and approved by the Engineering Division.

The Developer may also adjust the property lines to fit the development in accordance with the Subdivision Map Act. Additionally, the Developer may be required to dedicate property to the City to widen roadways in accordance with the City of Vernon Master Plan of Streets. This may entail property dedications to the City, utility easements, lot line adjustments, and/or lot mergers along with the required improvements. These legal documents are typically submitted by the Developer and are reviewed and approved by the Engineering Division.

Frontage Improvement Plans Prepared by City Staff

- District Boulevard east of Atlantic Boulevard

Frontage Improvement Plans Reviewed by City Staff

- None in 2014

Grading, Hydrology & Hydraulic Plans Reviewed by City Staff

- 3294 26th Street
- 3480 26th Street
- 3636 26th Street
- 3000 46th Street
- 4675 52nd Drive
- 5820 Alameda Street
- 3305 Bandini Boulevard
- 5119 District Boulevard
- 1669 Downey Road
- 5000 Pacific Boulevard
- 3250 Saco Street
- 5332 Santa Fe Avenue
- 5041 Santa Fe Avenue
- 5190 Santa Fe Avenue
- 4900 Soto Street

Low Impact Development Reviewed by City Staff

- 3294 26th Street
- 3480 26th Street
- 3636 26th Street

- 4675 52nd Drive
- 5119 District Boulevard
- 5000 Pacific Boulevard
- 3250 Saco Street
- 5332 Santa Fe Avenue
- 5041 Santa Fe Avenue

Frontage Improvement Construction Inspected by City Staff

- 5332 Santa Fe Avenue
- 3250 Washington Boulevard
- 3480 26th Street
- 2910 Ross Street

Legal documents reviewed by City Staff

Grant Deeds

- 3492 26th Street

Quitclaim Deeds

- 3250 Saco Street
- 2825 Santa Fe Avenue

Easement Deeds

- 3250 Saco Street – Fire Lane Easement
- 2825 Santa Fe Avenue – Fire Lane Easement
- 3222 Washington Blvd. – Electrical Easement
- 3232 Washington Blvd. – Electrical Easement
- 5000 Pacific Blvd. – Public Road Easement
- 3480 26th Street – Electrical Easement

Voluntary Lot Mergers

- 5000 Pacific Boulevard
- 4675 52nd Drive

Lot Line Adjustments

- 3636 26th Street
- 3305 Bandini Boulevard

Covenants and Agreements

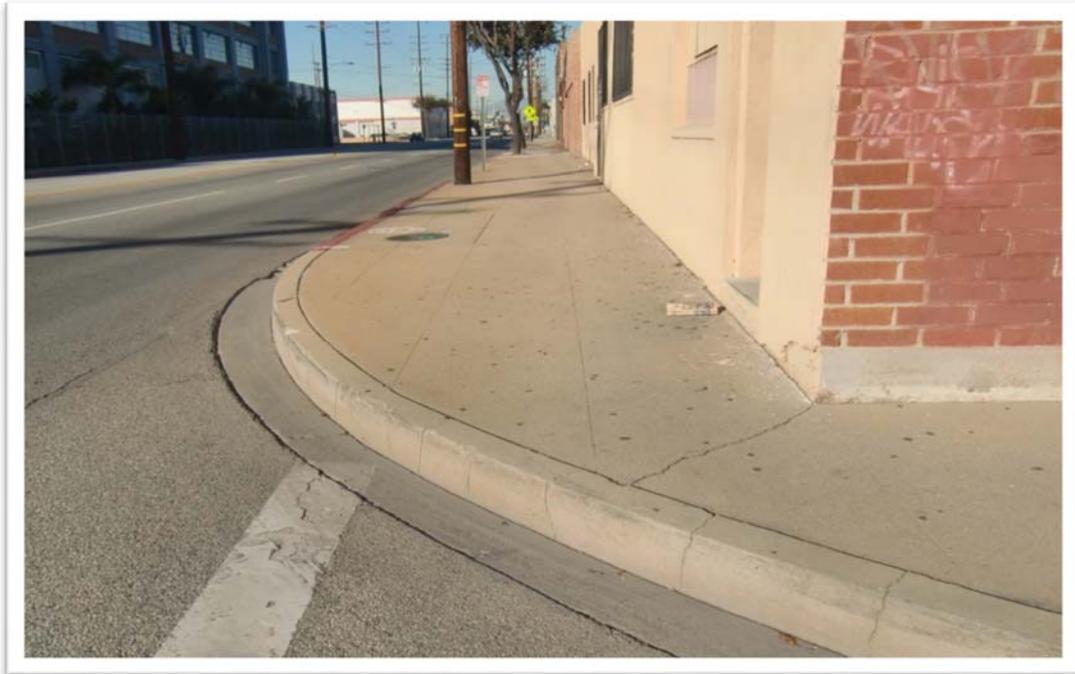
- 4950 49th Street
- 4833 Fruitland Avenue
- 5030 Gifford Street

Tentative Parcel Maps

- None in 2014

Final Parcel Map

- None in 2014



5332 Santa Fe Avenue – Before Frontage Improvements



5332 Santa Fe Avenue – After Frontage Improvements

TRAFFIC IMPROVEMENTS

CS-0461: Traffic Signal Maintenance

The City contracted with Aegis ITS to conduct the citywide traffic signal maintenance. Aegis ITS monitors and maintains the functions of the traffic signals at an optimum level. They also perform routine maintenance on forty-one (41) signalized intersections including all extraordinary

work and emergency repairs required throughout the year. For 2014, the total maintenance cost for all routine activities including all extraordinary maintenance was **\$78,822.01**.

The routine maintenance activities consist of a thorough monthly inspection, cleaning of all signal cabinets and verification of the function of the traffic signal equipment at each intersection. The extraordinary maintenance activities consist of responding to events related to traffic signal damage caused by traffic accidents, repair or replacement of any malfunctioning components, replacement of burnt out lamps, damaged traffic detector loops and replacement of deteriorated wiring and other traffic signal equipment. Aegis ITS is on call 24-hours a day, seven days a week.

CS-0234: Traffic Control System Project (TCS)

The Engineering Division has been working with the Los Angeles County Department of Public Works (LACDPW) on the installation of a Gateway Cities Traffic Forum funded Traffic Control System in the City of Vernon to monitor traffic signals, integrate intelligent traffic signal systems and exchange real-time data among ITS systems located across jurisdictional boundaries.

There are 49 signalized intersections within City boundaries. Five (5) traffic signal locations are owned and maintained by City of Los Angeles; one (1) traffic signal is owned and maintained by the Los Angeles County; and one (1) is maintained by City of Maywood. The new Traffic Control System will connect 35 City owned and maintained signalized intersections via a combination of wireless and fiber optic cable network to a central traffic control system located at City Hall.

The project was awarded to TransCore ITS, LLC. Cooperation Agreement with the Los Angeles County were finalized and work on signal improvements commenced in mid-2014. Improvements included the replacement of existing Econolite controllers with 170-type controllers at 10 signalized intersections and 7 existing controller cabinets were replaced with 332-type cabinets. The existing timing data at 35 signalized intersections will be reviewed and modified to comply with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD).

The total cost of the project is estimated to be \$966,000. Project completion is scheduled for June 2015.

CS-0422: Street Sweeping Services

CleanStreet was responsible for sweeping all curbs and gutters along paved public streets, alleys, street medians and islands within the corporate limits of the City for 2014. Per the approved cleaning schedule, each street was cleaned once a week. The annual cost for this service was **\$110,396.64**. In 2014, the Contractor removed **582** tons of trash and debris from the City's streets and disposed of the material. The street sweeping takes place Sunday through Thursday from late evening until 5 in the morning in order to minimize the impact on the traffic in the City.

ENCROACHMENT PERMITS

An Encroachment Permit is required for all work performed within the City's street right-of-way or easement, by governmental agencies, utility companies, property owners and private contractors, as well as closing of traffic lanes, detouring traffic, interfering with the normal parking or the pedestrian use of the sidewalk. Typical examples of work include:

- Trenching across public right-of-way for installation of water, sewer, storm drain, cable and other underground utilities.

- Construction of curb, gutter, sidewalk, driveway, and roadway pavement
- Water monitoring and extraction wells, soil sample borings.

With each Encroachment Permit Application, a site-specific plan and appropriate insurance is submitted along with payment of fees. In 2014, a total of 270 Encroachment Permits were processed and 232 were issued.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM COMPLIANCE

Stormwater and non-stormwater discharges are regulated under the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program. There are several types of activities regulated under the NPDES program such as construction, municipal, and industrial activities. Municipalities that have separate stormwater and sewer infrastructure and that are within urban areas with populations over 100,000 are subject to a Phase I Municipal Separate Storm Sewer System (MS4) NPDES permit. Since 1996, the City was covered under the county-wide Phase 1 Municipal NPDES permits until a new Municipal NPDES permit was adopted in 2012.

Watershed Management Program Plan and Coordinated Integrated Management Program Plan

During the 2014 calendar year Public Works Department staff continued to work with the Los Angeles River Upper Reach 2 (LAR UR2) Watershed Management Area Committee on the development of the draft Watershed Management Program (WMP) Plan and the draft Coordinated Integrated Monitoring Plan (CIMP). The WMP and CIMP Plans remain in draft form until such time as the Los Angeles Regional Water Quality Control Board (LARWQCB) approves the plans.

In developing the draft WMP Plan, a Reasonable Assurance Analysis (RAA) was prepared to ensure the draft WMP Plan attains the Municipal NPDES Permit goals and objectives, through an iterative adaptive management process (AMP) identified within the Municipal NPDES Permit. The RAA identified zinc and *E. coli* (indicator bacteria) as controlling contaminants that must be addressed through the WMP adaptive management process. To meet the Total Maximum Daily Load (TMDL) thresholds the City must implement costly new pollutant source and watershed control measures (including Minimum Control Measures), Low Impact Development (LID) and Green Streets projects, Low Flow Diversions (LFDs), scientific studies, enforcement, and structural Best Management Practices (BMPs). Staff believes there is no proven technology to treat bacteria; therefore, to meet the TMDL criteria, stormwater must be captured and infiltrated into the earth rather than be allowed to flow to the river.

The RAA and draft WMP Plan identified six (6) regional structural BMP projects, estimated to cost between \$80 and \$210 million, and an additional \$73 million in residential and commercial LID street renovations that may need to be implemented over the next two decades. The six conceptual structural BMPs were located under public lands, such as parks and easements, to avoid land acquisition costs, but construction of the regional projects lower in the subwatershed, and closer to the outfall, could result in smaller facilities with lower costs. More specifically, a regional structural BMP is proposed in the City of Vernon. The regional structural BMP is identified as the Los Angeles Department of Water and Power (LADWP) transmission easement. The LADWP Transmission Easement is an infiltration trench project. The water quality design volume of the planned infiltration trench was modeled as an infiltration basin as identified via a structural BMP prioritization and analysis tool called SBPAT. The planned LADWP Transmission Easement project is estimated to cost \$20 million plus maintenance and operation.

Below is a table listing the six regional structural BMP projects:

LAR UR2 WMA Regional BMP Cost Estimate		
Name	Low Cost	High Cost
Randolph Street Green Rail Trail	\$4,300,000	\$10,800,000
LADWP Transmission Easement	\$7,600,000	\$19,600,000
John Anson Ford Park	\$36,800,000	\$91,300,000
Rosewood Park	\$14,000,000	\$36,800,000
Lugo Park	\$6,700,000	\$17,200,000
Salt Lake Park	\$12,600,000	\$33,200,000
Total:	\$82,000,000	\$209,000,000

Note: Estimates are based on 2014 dollars.

In order to design and construct these regional structural BMP projects, the LAR UR2 Committee will have to devise a cost sharing formula and enter into a separate or amended Memorandum of Understanding (MOU). The City of Vernon's share of the cost for these six regional structural BMP projects is estimated to be over \$35 million in the next 23 years.

It is still possible that after all these structural and non-structural BMPs are installed, the receiving waters may still carry pollutant exceedances due to unavoidable occurrences such as air disposition and wildlife. While the draft WMP Plan encourages the agencies to begin applying for grant funding support to construct these facilities, the draft WMP Plan also encourages cities and regional management to consider undertaking studies or efforts to more accurately characterize pollutant loads, preparing a zinc water effects ratio site specific objective study, and re-designating the beneficial use threshold.

The LARWQCB staff provided comments to the draft WMP Plan in October 2014 and the comments focused on the polluted runoff from the General Industrial Permittees and non-permitted facilities such as the railroads and the recently submitted special studies for the results of the Los Angeles River copper water-effect ratio and lead recalculation studies. The revised WMP Plan is scheduled for re-submittal to the LARWQCB and the revisions have a potential to carry additional costs to the City of Vernon.

The draft WMP Plan was submitted to the LARWQCB in June 2014 as required under the Municipal NPDES Permit.

The draft CIMP Plan was prepared and submitted to the LARWQCB in June 2014. The draft CIMP Plan will allow implementation of an integrated approach to support the AMP as intended in the Municipal NPDES Permit. The LAR UR2 Committee proposes to implement a dry and wet-weather receiving water monitoring station along the Los Angeles River at Tweedy Avenue in the City of South Gate, just downstream of the largest storm drains from the area.

Seven stormwater outfall based monitoring sites are proposed, that would allow water quality to be collected annually, from over 70% of the LAR UR2 watershed management area, based on Los Angeles County subwatershed delineations. Since the Rio Hondo is normally dry, the Ford Park outfall site would be sampled during three storm events per year to develop watershed management area trend data and compliment data that might be needed to support regional wet-weather receiving water assessments. The remaining six outfall sites would be split into two groups, with similar land

use characteristics, of three each and monitored annually. This strategy is proposed to facilitate annual characterization of most discharges from the LAR UR2 watershed management area.

The LAR UR2 draft CIMP Plan also proposes a non-stormwater outfall based monitoring approach that will complement the Illegal Discharge/Illicit Connection (IC/ID) Elimination Minimum Control Measure (MCM) watershed control measure component of the draft WMP Plan and Municipal NPDES Permit. Similarly, the New and Redevelopment Effectiveness Tracking MCM, should support the anticipated demonstration of steady progress in reducing pollutant loads and concentrations observed at the LAR UR2 watershed management area outfalls and in adjacent receiving waters. Regional studies, through the (Southern California) Stormwater Monitoring Coalition (SMC), or more locally focused special studies, such as the contemplated zinc Water Effects Ratio (WER) Site Specific Objective (SSO) study could also be coordinated through the AMP and implemented through modifications of the CIMP, to prioritize evolving water quality exceedances and priorities that develop. Effective CIMP implementation will present difficult hurdles for all of the involved stakeholder groups.

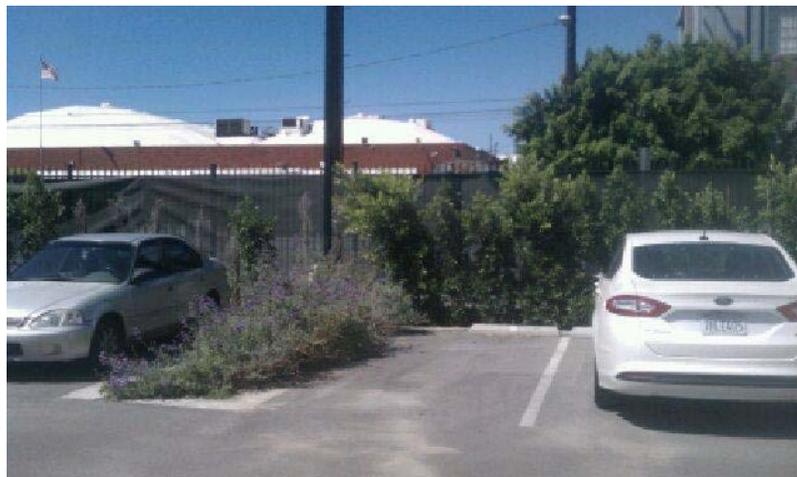
Comments from the LARWQCB staff on the revised draft CIMP Plan were received in November 2014 and focused on the inclusion of toxicity monitoring. The revised draft CIMP Plan is scheduled for re-submittal to the LARWQCB in February 2015. The revisions to the draft CIMP Plan also have potential to carry additional costs to the City of Vernon. Upon receipt of an approved CIMP Plan, implementation of the CIMP Plan is required to commence within 90 days. Such tasks under the CIMP plan will be contracted out through a formal bidding process.

In anticipation of an approved CIMP Plan the LAR UR2 Committee advertised the contract work for the implementation of the CIMP Plan in October 2014. In November 2014 the LAR UR2 Committee received proposals for the contract work and anticipate award of a contract to the most qualified contractor in the early part of 2015.

As of year-end 2014 the City of Vernon's share of expenditures for the development of the draft WMP Plan and draft CIMP Plan has equaled \$115,003.13.

Low Impact Development (LID) Projects

The first Planning Priority Project subject to LID implementation has been constructed in the City of Vernon. Joie Jeans located at 5332 Santa Fe Avenue installed an infiltration trench on their property.



Total Maximum Daily Load (TMDL)

A Total Maximum Daily Load (TMDL) as defined by the United States Environmental Protection Agency is the sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources and natural background, and a margin of safety (MOS). TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measures that relate to a state's water quality standard.

The City of Vernon is subject to compliance under several TMDLs (Trash, Metals, Nutrients, and Bacteria).

The Los Angeles River Trash TMDL required that at least 90% of the catch basins and grates be equipped with full capture devices by the compliance date of September 30, 2014. The City of Vernon met the compliance deadline with a total of 92% catch basins retrofitted with a full capture device.

The City of Vernon is slated to retrofit the remaining catch basins in the City's jurisdiction in 2015.

The Los Angeles River Metals TMDL is in effect and the City of Vernon continued to participate in the Coordinated Monitoring Plan to measure the metals in the stormwater and non-stormwater with a group of Los Angeles County cities that drain into the Los Angeles River as required under the Municipal NPDES Permit. The results of the dry and wet weather sampling and testing are being considered by a Committee and submitted to the LARWQCB for review. As of this date there have been few exceedances during dry weather but a number of exceedances in wet weather.

A City Managers group was formed in 2010 to seek funds for the investigation into the source of the metals in the stormwater. Two studies were considered: 1) A WER study which determines the allowable concentration in the river versus that found in the laboratory based on the toxicity of the concentration, and; 2) Aerial deposition study to determine the contribution of pollutants carried from non-point sources into the waters of the watershed. The City of Vernon contributed funds to the WER study. The complete implementation report of the WER Study was submitted to the LARWQCB in 2014. The adoption process will take approximately 2 years.

The Los Angeles River Nitrogen TMDL's principal source of ammonia and nitrogen compounds to the Los Angeles River is discharges from the water reclamation plants (WRP). The WRPs are located in the upper Los Angeles River. Although the City is not a major point source of nutrients, the LARWQCB requires that a CMP be implemented by all cities that drain into the Los Angeles River. The City continued participation during 2014 with several Los Angeles County cities that drain into the Los Angeles River and contracted with the City of Los Angeles to conduct the monitoring activities of the Coordinated Monitoring Plan as required by the LARWQCB.

The Los Angeles River Watershed Bacteria compliance target for 2014 was to submit a Load Reduction Study (LRS) and identify priority outfalls with relatively consistent, problematic discharges that drive storm drain loading rates above the wasteload allocation and outlier outfalls that exhibit infrequent high loading rates and are subject to follow up investigations. As such, the LAR UR2 Committee pursued proposals from contractors to complete an LRS. The final LRS determined that there are four (4) outlier outfalls which drain portions of the LAR UR2 watershed management area. The 4 outlier outfalls will be investigated via the CIMP Plan to determine potential sources of E. coli which will be reported to the LARWQCB by March 2019.

Please note all TMDLs will be addressed in the WMP Plan and CIMP Plan.

Several TMDLs for the Los Angeles River had deadlines of 2012 which were established in the 1999 consent decree entered into by the US Environmental Protection Agency and the environmental groups. An accelerated program of TMDL establishment was implemented by the LARWQCB and the State Water Resources Control Board to meet this deadline.

Non-Stormwater Discharges

Part III, Discharge Prohibitions of the Municipal NPDES Permit requires Permittees to prohibit non-stormwater discharges through the MS4 to receiving waters with some exceptions (i.e. authorized non-stormwater discharges separately regulated by an individual or general NPDES permit, authorized non-stormwater discharges from emergency firefighting activities, etc.).

Discharges from drinking water supplier distribution systems such as the City of Vernon's Water Department are also conditionally exempted provided appropriate BMPs are implemented. As such, the Water Department reported a total of twenty (20) planned non-stormwater discharges greater than 100,000 to the Los Angeles County Flood Control District as required under the Municipal NPDES Permit.

Proposition 84 Grant Funding

The City of Vernon is participating with the cities of Bell Gardens, Downey, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, and Whittier in the Proposition 84 grant funding application to install stormwater treatment systems (Project). The Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (GWMA) contracted with a consultant to lead the coordination on behalf of the aforementioned cities and was awarded \$1,073,820 in grant funds with a local match of \$270,220.

The Project includes stormwater pollution prevention devices (i.e. Tree box LID BMPs; Bioswale LID BMPs, and; Bioretention Tree box LID BMPs) to be installed along transportation corridors. Such devices will assist the aforementioned cities in meeting water quality standards. As previously reported, the Municipal NPDES Permit incorporated a number of enforceable TMDLs. To attempt to achieve TMDL compliance with the water quality standards the Municipal NPDES Permittees are required to implement and install non-structural and structural BMPs.

The City of Vernon's portion of grant funds is for two (2) tree box LID BMPs. The tree box LID BMPs are slated to be installed on 26th Street: 1) one tree box will be installed west of Indiana Avenue, and; 2) one tree box will be installed east of Indiana Avenue. The tree box LID BMPs will be the City's first pilot project to achieve compliance with the Los Angeles River Metals TMDL. The value of the two (2) tree box LID BMPs to be installed in the City's jurisdiction is \$92,185.45, including construction, project management and monitoring with a total local match of \$18,565.45.

GWMA entered into a Grant Agreement with the State Water Resources Control Board to assist in facilitating the receipt, processing, and reimbursement of the Grant Agreement funding. The timeline for construction of the Project is scheduled to commence in July 2015 and completed no later than March 31, 2017.



**ANNUAL REPORT
OF THE
CITY OF VERNON**

BUILDING & SAFETY DIVISION

The City of Vernon experienced a dramatic increase in building development in 2014. The total valuation of permits issued in 2014 was \$70,520,524 as compared with \$57,555,724 in 2013. Fire permits are excluded from the numbers in 2014. The number of permits issued in 2014 remained relatively the same from the previous year, 681 permits compared to 676 permits in 2013. The total fees collected in 2014 for these permits was \$1,011,344.17 compared to \$834,859.19 in 2013. During 2014, 192 businesses received a Certificate of Occupancy compared to 149 in 2013.

Year	Number of Permits	Valuation
2006	903	\$99,178,058
2007	1064	\$98,944,554
2008	987	\$62,484,626
2009	887	\$55,748,122
2010	742	\$40,313,125
2011	743	\$35,769,877
2012	746	\$28,146,648
2013	676	\$57,555,724
2014	681	\$70,520,524

Out of the 681 permits issued, four new buildings totaling 406,124 square feet were developed in 2014. To allow for this and future developments, demolition of existing facilities is necessary. Eight buildings or structures, totaling 515,354 square feet, were demolished in 2014. In addition to the new buildings, there were many other major projects that included improvements such as: interior office additions, remodeling, equipment platforms, grading, paving, re-roofing and electrical, mechanical and plumbing equipment installations. This amount of new construction continues to signify that the City of Vernon is a very desirable location for new and existing businesses.

The Building & Safety Division is responsible for enforcing California Building Codes and regulations. To meet these challenges, under the direction and encouragement of the Director of Public Works, Water & Development Services, Kevin Wilson, the departmental staff is committed to continually improving their knowledge and qualifications. During 2014 Pepe Reynoso, Sr. Building Inspector, maintained his ICC Plans Examiner and Building Inspector (for Commercial & Residential) Certifications, attended several seminars on the California Building Code, CALBO 2014 Education Week, and ICC monthly meetings; James Moore, Electrical Inspector, maintained his IAEI Electrical Plans Examiner and Electrical Inspector Certifications; Wesley Cruz, Plumbing & Mechanical Inspector, maintained his Certification as a Plumbing Inspector and Mechanical Inspector from the International Code Council, obtained a Safety Assessment Inspector Certificate, and obtained an ICC Building Inspector Certification. Wesley participates in regularly scheduled monthly IAPMO meetings and several seminars on the 2014 California Plumbing & Mechanical Codes including CALBO's 2014 Education Week.



Left to right: Pepe Reynoso, Sr. Building Inspector, James Moore, Electrical Inspector, and Wesley Cruz, Plumbing & Mechanical Inspector



Left to right: Cynthia Mireles, Permit Technician, Anthony Zarate, Permit Technician, and Yesenia Ramirez, Senior Administrative Assistant

**BUILDING DEPARTMENT
2014 ANNUAL REPORT**

TYPE	JOB VALUE	# of PERMITS
Commercial – Remodel	\$465,000.00	4
Demolition	\$847,000.00	8
Electrical	\$11,504,736.00	198
Grading	\$3,537,242.00	9
Industrial - Addition	\$87,000.00	3
Industrial - New	\$22,751,666.00	3
Industrial – Remodel	\$8,273,171.00	90
Mechanical	\$6,440,640.00	102
Miscellaneous Permit	\$7,635,062.00	160
Multi/Residential – New	\$5,000,000.00	1
Plumbing	\$2,171,324.00	83
Roofing	\$1,807,683.00	20
TOTALS	\$70,520,524.00	681
TOTAL ANNUAL FEES COLLECTED	\$1,011,344.17	

Certificate of Occupancy – New Buildings	4
Certificate of Occupancy – Existing Buildings	188

2014 NEW BUILDING PERMITS

Whole Foods
5000 Pacific Blvd.
New Cold Storage Distribution Center
130,204 sq. ft.

City of Vernon
4675 52nd Drive
New residential building
44,171 sq. ft.

Dedeaux Properties
3305 Bandini Blvd.
Core & Shell of storage warehouse
142,436 sq. ft.

Dedeaux Properties
3480 26th Street
New one story concrete tilt-up building
89,313 sq. ft.

2014 DEMOLITION PERMITS

BNSF Railway Company
4212-14 26th Street
Demo building
185,600 sq. ft.

BNSF Railway Company
4139 Bandini Blvd.
Demo building
83,937 sq. ft.

Steve Kelsler
3636 26th Street
Demo building
600 sq. ft.

Metro Tract, LLC
2065 Ross Street
Demo building
13,900 sq. ft.

Metro Tract, LLC
2920 Ross Street
Demo building
900 sq. ft.

Metro Tract, LLC
3575 Ross Street
Demo building
11,800 sq. ft.

Whole Foods
5050 Pacific Blvd.
Demo building & Slab
131,269 sq. ft.

Whole Foods
4900 Pacific Blvd.
Demo building 1 & part of building 2
87,348 sq. ft.



**ANNUAL REPORT
OF THE
CITY OF VERNON
PLANNING DIVISION**

The Planning Division is responsible for the development and oversight of the City's General Plan and Zoning Ordinance. The General Plan establishes a long-range plan that serves as a guide for the physical development of the City. The City of Vernon's Zoning Ordinance was enacted to establish development rules for the community in compliance with the goals and policies of the General Plan. The Zoning Ordinance contains the development standards including parking and loading standards, minimum lot size, and setback requirements. Section 26.4.1 thru 26.4.4 of the Zoning Ordinance establishes the permitted uses and those uses requiring a Conditional Use Permit for each of the zones.

The Planning Division is also responsible for the processing of Conditional Use Permits, Variances, and Subdivisions. As part of the permit process, Planning and Building & Safety staff perform a review for every project to confirm conformity with the City's regulations. Planning Division staff also provide public assistance for planning and zoning issues by phone and at the public counter.

CONDITIONAL USE PERMITS

The City has determined that certain uses have the potential to be detrimental to the surrounding community. The City therefore only allows these uses subject to a Conditional Use Permit; the City Council at its discretion may place conditions on the use in order to protect the environment and neighboring properties. As part of the application process the proponent must provide an operations plan, hazardous waste inventory plan, a traffic report and an environmental checklist. City staff evaluates the application for completeness. All Conditional Use Permits are subject to the California Environmental Quality Act (CEQA). Through the guidelines established by the State the City determines if the project could potentially produce significant impacts to the environment. After the appropriate CEQA document is developed City staff prepares a report and schedules a public hearing for input from the community. After the public hearing is concluded the City Council must make a determination to either deny, approve or approve with conditions the Conditional Use Permit.

In the calendar year of 2014, the City Council approved two (2) Conditional Use Permits, which are outlined below:

- Merco Group – 2529 Santa Fe Avenue, LLC (Merco Group) submitted an application to amend their existing conditional use permit granted for a retail/commercial restaurant facility. The Merco Group requested that all businesses at the Santa Fe Plaza to be open Sundays. In addition, they also requested that the conditional use permit be revised to extend the permissible business hours from 4:00 a.m. to 12:00 a.m. (midnight), 7 days a week. City staff determined that the proposed amendment would not result in any significant environmental changes to Merco Group's existing operation. Therefore, the original notice of exemption was in accordance with the California Environmental Quality Act ("CEQA") as provided in Section 15301, Class 1, Existing Facilities, and was adequate for this amendment. The City Council of the City of Vernon approved the conditional use permit amendment on May 6, 2014.
- Jia Hui Resources, LLC submitted an application for a conditional use permit to operate a recycling facility located at 4726 Everett Court. Jia Hui Resources, LLC proposes to operate a business that will purchase bales of used/new carpet scraps. They intend to store, sort and process carpet scraps. The carpet scraps are received in approximately 1,000 lbs. bales. Each bale of carpet is broken down and sorted by fiber type. Once sorted by fiber type, the carpet scraps are then fed into a shredding machine which removes the top layer of the carpet (the nylon) from the bottom layer. Once separated, the top and bottom layers are placed into separate boxes. The finished product (the top layer) is placed into another machine to pressure press the finished product into another box. Once

boxed, the finished product is shipped overseas for further processing. The bottom layer is picked up by the same company that originally delivered the bales of carpet. The Planning Division performed an Initial Study, to determine whether the proposed project would have adverse impacts on the environment and determined that the proposed project would not have a significant adverse effect on the environment. It was recommended that a Notice of Intent be filed, and a Negative Declaration be adopted in compliance with the CEQA. The City Council of the City of Vernon approved the conditional use permit on July 1, 2014.

2014 CONGESTION MANAGEMENT PLAN (CMP)

In 2003, the Metropolitan Transportation Authority Board authorized a Short Range Transportation Plan that authorized a Nexus Study to evaluate the feasibility of implementing a congestion mitigation fee. The fee would help ensure that new growth directly mitigated traffic impacts on the regional transportation system by helping fund needed local transportation improvements. Said fees would mirror mitigation fees implemented in Orange and Riverside Counties. The purpose of the Nexus Study was to identify and justify a mitigation fee that would meet CMP Deficiency Plan requirements. As part of this Nexus Study, a new reporting form was created called the Local Development Report (“LDR”). Based on the Local Implementation Report from previous reporting cycles, the new form only calls for information on new development activity, which represents new net development after subtracting for building permit revocations or demolitions. In spite of this, cities are no longer required to maintain the “positive credit balance”.

To date, work on the Study continues, the CMP Countywide Deficiency Plan requirement for maintaining a positive credit balance will continue to be suspended. As a result, cities will not have to report their transportation improvement strategies for the 2014 cycle. However, cities must continue to report their new net development activity and adopt a resolution in conformance with all elements of the CMP just as in prior years. The City of Vernon adopted the CMP Local Development Report on August 5, 2014.

COMPREHENSIVE ZONING ORDINANCE AND GENERAL PLAN

The City retained the services of Hogle Ireland to assist City staff in the preparation of an update to the City’s General Plan and Zoning Ordinance and prepare an environmental document in compliance with the California Environmental Quality Act. The proposed revisions consisted of: 1) an update to the Land Use Element of the General Plan to expand the locations where commercial uses and trucking and freight terminals can be established in the City; 2) updates to the Land Use, Resources, Safety, and Noise Elements to comply with recently adopted State laws and to update pertinent information; 3) an update to the Implementation Plan with new applicable policies related to the policy changes; 4) revisions to the Zoning Ordinance and Zoning Map to establish and apply a new Truck and Freight Terminal overlay (TF); 5) revisions to the Zoning Ordinance and Zoning Map to replace and expand the existing Commercial Overlay with the new C-1 and C-2 Commercial Overlays; 6) establishing new definitions to address the revisions and other minor amendments to the Zoning Ordinance; 7) establishing a new Minor Conditional Use Permit application; 8) providing standards for digital billboards; and 9) performing additional clean-up, non-substantive revisions to the Zoning Ordinance that do not affect any prior policy directives. Final approval is scheduled at end of April 2015.

Proposed Residential Project at 4675 52nd Drive

Construction of the proposed 45-unit affordable housing development began in early 2014, with completion scheduled in May of 2015.



Sergio Canales, Assistant Planner

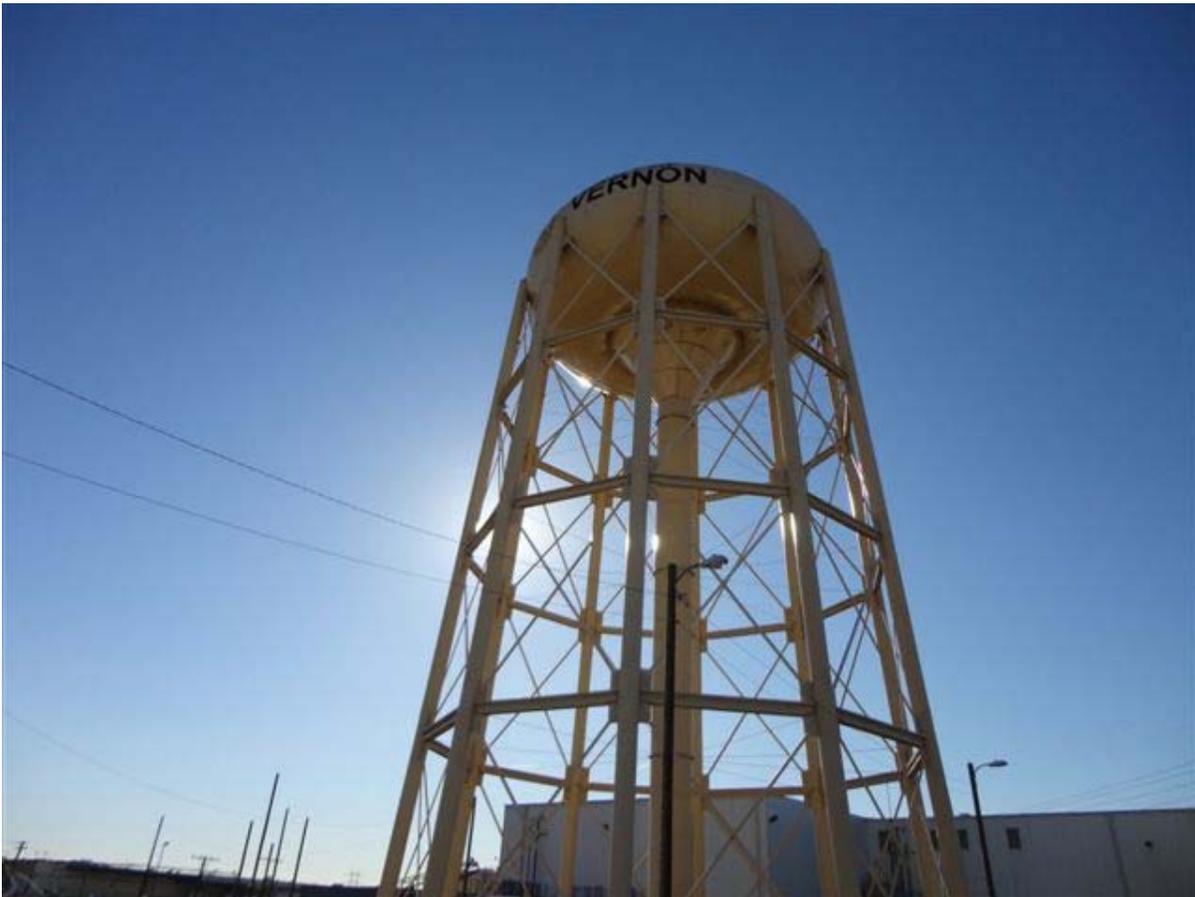


**ANNUAL REPORT
OF THE
CITY OF VERNON**

WATER DEPARTMENT AND PUBLIC WORKS DIVISION

2014 was a productive year for the City of Vernon Water Department. Departmental improvements have continued to flourish and a new quest for professionalism has continued to emerge. This report will outline various departmental goals and objectives accomplished in 2014.

The Water Department consists of the Water Distribution, Water Production, Meter, and Meter Reading Sections. The Water Distribution and Production Sections are tasked with ensuring the City's eight reservoirs, eight wells, and three booster plants are kept in optimal operating condition. These sections also specialize in waterline construction, repair, and water quality monitoring activities. In addition, the Meter Section performs a variety of functions including the installation and repair of water meters, as well as locating underground utilities. The Meter Reading Section reads nearly three thousand water and electrical meters on a monthly basis. This section also reports any leaks or damage that may have occurred to City property during the course of their meter reading duties.



Elevated Tank

WATER DEMAND

A total of over 2.45 billion gallons of water was delivered during 2014, which equates to approximately 7,546 acre-feet. This represents a 5.45% decrease in water delivered from 2013. The decrease in water consumption is likely the result of conservation measures implemented by the City in 2014. On July 15, 2014, the State Water Resources Control Board approved Resolution No. 2014-0038 that adopted mandatory water restrictions. The Resolution required that each urban water supplier to implement mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water. In response the City declared a Phase I Water Supply Shortage consistent with Vernon Municipal Code Section 25.103.

Table 1 - AF

Year	Total AF	Percent Change From Previous Year
2008	10,461	-5.00% (Change from 2007)
2009	8,653	-17.28%
2010	8,162	-5.67%
2011	8,035	-1.55%
2012	7,959	-0.94%
2013	7,981	+0.27
2014	7,546	-5.45%

The City's water demand has decreased by 27.86% since 2008 as reflected in Table 1. However, water demand over the past five years has remained relatively uniform in terms of total annual water produced. The City currently has 7,539 acre-feet per year of adjudicated water rights that covers a large portion of the City's water demand.



Reservoirs 2-2 and 2-3.

WATER QUALITY

Water quality within the City of Vernon water system remained high in 2014. Out of 780 water samples taken none were found to be coliform positive. The low occurrence of coliform bacteria is due to the outstanding efforts put-forth by our water production staff in maintaining adequate chlorine residuals and flushing fire hydrants within the distribution system on a continuing basis.



Jonathan Gonzales taking a bacteriological sample from a sample station.

DISTRIBUTION SYSTEM CONSTRUCTION

A total of 14 work orders were issued for the construction of new water services in 2014. Fees were also collected from developers for several other cut and plug projects and minor hydrant relocations as well, bringing the total amount collected from developers to approximately \$115,600 for 2014.

METERING

Since revenue for the Water Department is heavily dependent on accurate meter reading at the service connections, a special emphasis is placed on ensuring that meters are in good working order. A comparison of water produced and metered deliveries revealed a water loss of just 1.4%. A total of 7 new meters were installed at individual service sites during 2014.

The Programmed Maintenance System continues to aid staff members in improving the overall operational efficiency and productivity of the Water Department. A total of 503 maintenance activities were recorded over the course of 2014. Most of these activities were in preventative maintenance i.e., routine inspections, lubricants, and the cleaning of various mechanical equipment.



Victor Vasquez performing his meter reading duties.

PROJECTS 2014

Well No. 21 Pump Station

The City took possession of a former industrial well, located at 2170 55th Street, and is seeking to convert it to a municipal water supply well. The City retained the services of Richard C. Slade & Associates, LLC (Slade) who performed a hydrogeological evaluation of the subject well. The evaluation consisted of a multi-phase test pumping methodology to ascertain the downwell condition and to access the current production capacity and water quality. The Stage 1 Phase was performed utilizing a normal pumping sequence without the use of a packer. The initial test results of the Stage 1 Phase indicated that the well had elevated levels of Volatile Organic Compounds (VOCs) that exceeded the Maximum Containment Levels (MCLs) for those constituents. In the Stage 2 Phase, a packer was inflated at 500 feet in order to isolate the upper set of perforations from the well. The test results of the Stage 2 Phase determined that the VOC levels are well below established MCLs. The results of the hydrogeological evaluation were submitted to the California Department of Public Health (CDPH) for review. The CDPH findings concluded that the installation of an inflatable packer, combined with water quality monitoring, are reasonable measures to ensure that the subject well is suitable for potable use. Specifications for a fully functional pump station were completed by Cannon Engineering, Inc. in 2014. Construction is scheduled to commence in 2015.



Well No. 21

Elevated Tank Standpipe Repair

The Elevated Tank was originally inspected by Harper & Associates Engineering, Inc. (Harper). Harper's structural report noted corrosion present on the lower portion of the standpipe. The City has entered into an agreement with Cannon Engineering, Inc. (Cannon) who developed specifications and technical bid documents for the work. The repair was completed by Premier Tank, Inc., in 2014, at a cost of \$18,375.00. Premier Tank welded steel bands around the circumference of the corroded portion of the standpipe to improve the structural integrity of the tank and to eliminate the potential of pipe failure due to corrosion.



Elevated Tank Standpipe

Well No. 16 Motor and Pump Replacement

Well No. 16 experienced a significant decrease in its production capacity over the course of 2014. The City contracted with General Pump Company, Inc. to disassemble, diagnose, and recommend a repair methodology for the subject well. General Pump's evaluation determined that the pump unit and motor were in need of replacement. The pump unit and motor were replaced by Weber Water Resources, LLC., in 2014. Subsequent test pumping found that the well will need to be rehabilitated in order to clear perforations to allow for increased production capacity. The well is scheduled to be rehabilitated in 2015.



Well No. 16.

Reservoirs 3-1, 3-2, and 3-3 Interior and Exterior Inspections

Aquatic Inspections, Inc. performed exterior and interior inspections of Reservoirs 3-1, 3-2, and 3-3 in 2014. The results of the inspection concluded that the exterior and interior coatings have begun failing. Aquatic Inspections, Inc. recommended that the interiors and exteriors be recoated to prevent further corrosion of the structural components of the tank.



Reservoirs 3-1, 3-2, and 3-3

WATER SECTION ADMINISTRATION



From left to right Scott Rigg, Public Works & Water Superintendent, Erik Stene, Engineering Aide and Mike DeFrank, Public Works Water Project Coordinator

WATER DISTRIBUTION SECTION

The Water Distribution Section is responsible for the installation, repair and maintenance of all City owned facilities. This section performs a variety of construction related activities including the installation of domestic and fire services connections; fire hydrant installation and maintenance, and transmission line repairs. This section assisted with the installation of 13 new gas services.



Shown left to right: Elias Zepeda, Gabriel Aldrete, Brian Linnert, Anthony Hinojos, Joseph Alvarado and Mauro Trujillo.



Crewmembers performing meter installation



Crewmembers excavating a City street

PRODUCTION SECTION

The Production Section specializes in the maintenance and repair of all City owned booster stations, reservoirs, well sites, and supply lines. This section is responsible for the collection of all routine and source water samples. In addition, this section generates all water production reports.



Shown left to right: Robert Zepeda, Jonathan Gonzales, Ralph Castellanos, and Mauro Trujillo

METER SECTION

The Meter Section's expertise focuses on the installation, repair, and maintenance of all water service connections. This section is also responsible for meter installations, meter change-outs, register repairs, and locating underground water facilities.



Shown left to right: Jonathan Gonzales, Anthony Hinojos and Mauro Trujillo.

METER READING SECTION

The Meter Reading Section reads nearly three thousand water and electric meters each month. The meter reader's check for any unusual conditions including malfunctioning meters, damaged meter boxes, leaks or unsafe conditions that may exist.



Shown left to right: Victor Vasquez, Wilfredo Lopez, and Mauro Trujillo.

PUBLIC WORKS SECTION

The Public Works Section consists of the Sanitation, Street Maintenance, Building Maintenance, Warehouse, and Garage Divisions. This section performs general maintenance and repairs all sewer and storm drain lines; paving and pothole repairs to City streets, maintenance to City owned buildings and City housing; maintains supplies and parts required to support the operations of the Public Works and Water Sections; and is responsible for automotive repair functions.

SANITATION SECTION

The Sanitation Section maintains all City owned sanitation facilities. This section is responsible for the maintenance of 12 miles of storm drains and over 44-miles of sanitary sewer lines.

The City has an agreement with National Plant Services to provide emergency sewer maintenance in the event that the City's vactor truck is unavailable for service. This will provide an additional degree of redundancy to insure sewer service remains uninterrupted at all times. The City has an existing agreement with United Pumping Services to provide cleanup and removal of hazardous wastes in the event of a large scale sewer overflow. In addition, the City entered into an agreement with MNR, Inc., to provide emergency sewer repairs in the event City crews need assistance with large scale repairs.



Shown left to right: Elias Zepeda, Victor Vasquez, Jr., Carlos Gudino and Mauro Trujillo.



Victor Vasquez, Jr. and Carlos Gudino performing sewer jetting maintenance

STREET MAINTENANCE SECTION

The Public Works Street Maintenance crew has been actively involved in a wide variety of public works related projects including the repair of curbs, gutters and sidewalks, asphalt patching, street stenciling, sign replacement, and responding to emergency situations within the public right-of-way. In addition, graffiti removals and curb painting are also duties of this section.

Over the course of 2014 this section was assigned to several special projects including the repair of sidewalks and curb and gutters throughout the City. In 2014, 505 work orders for the repair and maintenance of City facilities were issued and completed.

This section is also responsible for the maintenance and repair of over 47 miles of streets. It is the goal, as always, to keep the City's streets as clean as possible. The Sign Maintenance crew maintains all City owned signs. These signs must be kept in good condition in order for the City's transportation system to operate efficiently.



From left to right Elias Zepeda, Nathan Linnert, Adam Alvarez, Adrian Loya, Jose Zermeno, Victor Vasquez Jr., Gerardo Farias, Carlos Gudino, Andrew Thompson, Martin Sanchez, and Mauro Trujillo.



Street crews making asphalt repairs



Hamm Asphalt Roller

The Graffiti Truck continues to be an asset to the City in terms of its operational flexibility. The Graffiti Truck has a fully functional paint matching work station to address a multitude of different paint combinations typically used by southland gangs. The paint matching equipment consists of a laptop, paint scanner, and paint mixing equipment. Once staff members have identified an area that has been defaced with graffiti they simply take a sample of the existing paint and place it in the scanner which then produces a paint code used to quantify color combinations in order to come up with an equivalent color match. The Graffiti Truck also incorporates other unique features including two generators, roof mounted air-conditioning, counter tops, stainless steel cabinets, and eye wash station just to name a few of its many features. These features have not only served to enhance the appearance of the City, but have also improved the efficiency and effectiveness in which crewmembers can cover up the impacted areas.



Graffiti Truck

BUILDING MAINTENANCE SECTION

The Building Maintenance Section is responsible for the maintenance of City owned buildings, City houses and apartments. This section performs routine maintenance functions including minor remodeling, painting, plumbing, minor heating and air conditioning checks, underground tank maintenance, and electrical work. The section also handles the logistical functions associated with facility upgrades and repairs. This section also oversees the grounds maintenance and janitorial contracts. The City of Vernon has a services agreement with So Cal Land Maintenance, Inc. to perform grounds maintenance functions at City Hall, Fire Station No. 2, Light & Power Building, Petrelli Building, Public Works Yard, and the 50th Street Apartments. Additionally, the City has a services agreement with Santa Fe Building Maintenance to perform janitorial services.



From left to right Dwight Pierce, Kenny Jackson, Steve Hartsfield, Juan Arellano and Mauro Trujillo.

WAREHOUSE & SAFETY SECTIONS

The Warehouse Section maintains the required supplies and parts necessary to support the operations of the Public Works and Water Sections. Refined inventory control procedures and practices insure that adequate supplies are available for routine and emergency situations. A database is used to track and control inventory related requirements. The Warehouse Section also performs a variety of miscellaneous functions including maintaining the fuel pumps, generating monthly partial payments, performing dispatch duties, pick up and deliver inter office mail, prepare vehicle accident reports, and prepare personnel injury reports.



From left to right: Renan Castro, Eric Anderson, Ruben Herrera, Joe Cervantes, and Mauro Trujillo.

GARAGE AND EQUIPMENT MAINTENANCE SECTION

Over the course of 2014, the City Garage Section was responsible for the maintenance of 424 City vehicles and equipment. These vehicles are an integral part of the daily operation of the City. This section does a vast majority of its work in-house and due to an extensive training program has reduced costs associated with sending work out to dealerships whose costs are significantly more than the City's. This section responded to 1,502 work orders relating to various repairs and services.



From left to right: Victor Enciso, Rafael Cortez, Victor Modesto, Jason Tomlinson, and Mauro Trujillo.



Victor Enciso inspecting engine components.



Jason Tomlinson performing automotive maintenance.