

MEMORANDUM

TO: CITY OF PEARLAND PLANNING & ZONING COMMISSION

FROM: MIKE HODGE, ASSISTANT CITY MANAGER

DATE: APRIL 28, 2014

SUBJECT: FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM 2015 - 2019

Pursuant to City Charter, the Planning & Zoning Commission (P&Z) is to “*submit annually to the City Manager, not less than ninety (90) days prior to the beginning of the budget year, a list of recommendations for capital improvements, which, in the opinion of the commission, are necessary or desirable to be constructed during the forthcoming five (5) years. Such list shall be arranged in order of preference, with recommendations as to which projects shall be constructed in which year.*”

Seven years ago the City modified its process for preparing and presenting its Capital Improvement Plan that brought the City into compliance with the City’s Charter and provided for an orderly process in implementing the Five-Year CIP. The process has not changed, and what is presented to the Planning & Zoning Commission is in the same format as the previous years.

Attached is a list of capital improvement projects for fiscal years 2015 – 2019 by major CIP category in preference order and identifying the fiscal years in which appropriation is needed. Staff took great care in reviewing project timing and made adjustments to the timing of projects where it made sense and where feasible to do so. Years of appropriation in future CIP programs may change based on needs and fiscal constraints. Project Name, Project Description, and Project Justification are included for each project.

The City of Pearland’s Capital Improvement Program (CIP) has been developed in order to further our commitment to the citizens of Pearland by working to meet today’s needs, as well as those of the future. The development of the CIP is a continuous process and, consequently, should be viewed as a working document. Therefore, while the list covers a five-year planning horizon, it is revised every year in order to accommodate new projects and reflect changing needs. The first year of the CIP is incorporated into the City’s annual budget to appropriate funds. Improvements identified in subsequent years are approved only on a planning basis and do not receive appropriation of funds.

Projects included in the CIP are either City managed projects or those projects managed by other agencies that require City participation. Major changes from last year are highlighted. Projects highlighted in yellow are new projects; projects highlighted in purple reflect timing changes; projects highlighted in green are projects that were in the previous 5-Year CIP, however it is anticipated that additional funds will be needed, and projects highlighted in blue reflect reductions in project budgets. Staff will be present at the May 5, 2014 P&Z meeting to review the list with the Commission and will be requesting formal recommendation to the City Manager on May 19, 2014.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENT PROGRAM
DRAINAGE

PREFERENCE NO.	PROJECT NO.	PROJECT NAME	YEAR OF APPROPRIATION	
1	DR0602	Cowart Creek Diversion*	2015	Construction
2	DR1301	Lower Kirby Urban Center Regional Detention	2016-2017	ROW/Construction
3	DR1103	Cullen/FM 518 Detention Pond	2015-2016	Design/Construction
4	DR1302	Old Townsite Drainage	2015-2016	Design/Construction
5	DR2002	D. L. Smith Detention Pond Expansion Phase I**	2016-2018	Design/Construction
6	DR1701	PER for Future Bond Referendum	2017	PER

*Additional monies needed in current year.

**Pushed back a year.

Some projects are color coded to reflect major differences from last year's CIP.	
Timing	
Additional money needed	
Project Budget Reduced	
New Project	

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **DRAINAGE**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
1	DR0602	Cowart Creek Diversion	Cowart Creek Diversion and Regional Detention for the Bailey Road corridor between FM 1128 and Wells Road Phase II of this project scheduled for 2015 consists of regrading the north-south ditches along all of the roads between Harkey and Veterans from CR101 to CR100. The ditch maintenance and improvement project entails re-grading the drainage ditches along Holland, Harkey, Wayne, Berry, McLean and Wellborn roads between CR 101 (Bailey Rd) and CR 100 as part of the cooperative drainage improvements for Bailey Road and the Cowart Creek Diversion. Driveway culverts will also be replaced/reset at the proper elevation as necessary based on the hydraulic evaluation.	The basis of this diversion and detention project is to separate the drainage corridor out of the Bailey Road (FM1128 to Veterans) transportation corridor, thereby allowing for the development of both the ultimate transportation and drainage facilities in adequately sized, separate corridors.
2	DR1301	Lower Kirby Urban Center Regional Detention	This project will provide regional storm water detention for the area bounded by BW8 to the north, Clear Creek to the south, Kirby Drive to the west, and SH288 to the east. Based on preliminary studies, the system will consist of one detention pond near Clear Creek, combined with a widening of the TxDOT ditch to provide conveyance and storage between BW8 and Clear Creek. The initial construction phase in FY2014/2015 will consist of the inflow and outflow structures between the ditch and pond, which will provide approximately 95 acre feet of storage. Subsequent projects will be developer driven.	This project was one of the highest priority projects from the City's Regional Detention Study conducted in 2010. The concept is also supported by the Lower Kirby Urban Center Master Plan and Implementation Strategy. The project will allow properties within the sub-watershed boundaries to contribute to the construction of the system or buy-in to the detention system in-lieu of constructing individual ponds on each property, increasing the amount of developable land. The City has agreements in place with the Pearland Municipal Management District and the Lower Kirby Pearland Management District which will reimburse the City to construct the regional system.
3	DR1103	Cullen/FM 518 Detention Pond	Future storm water regional detention pond located at the southwest quadrant of FM 518/Cullen Parkway intersection. The project will include construction of detention pond, existing ditch improvements and possible underground storm sewer improvements required to convey development runoff.	This project was one of the highest priority projects from the City's Regional Detention Study conducted in 2010. The proposed detention pond will provide the required detention for future development of approximately 155 acres of undeveloped land, allowing future development along FM 518 without the need for individual detention ponds. The development of this regional detention facility is a City Council goal.
4	DR1302	Old Townsite Drainage	The City's Sub-Regional Detention Master Plan identified an area located within the City's Old Townsite as a potential location for a sub-regional detention pond. The 41-acre service area is located at the southwest corner of Walnut and Galveston and extends to SH35 and FM518, which is within the southeast quadrant of the Old Townsite. The scope of the project will be to develop a drainage and detention plan for serving the area with a sub-regional detention pond and will include the development of a PER that determines pond location, pond size, and conveyance to the sub-regional facility.	The need for sub-regional detention has been a priority set by Council which led to the development of the Sub-Regional Detention Pond Master Plan. One of the short-term priority projects was a pond located within the southeast quadrant of the Old Townsite. Phase one focuses on the area located between Walnut St. and FM518. Re-development of this portion of the Old Townsite has been difficult primarily because of the inability to construct on-site detention. Implementation of this project will help alleviate that issue allowing for approximately 15 acres to develop and will also provide regional detention for the re-development or expansion of approximately 20 acres. In addition to this, the detention pond will also serve and mitigate the impacts of the expansion of the roadway network within this portion of the Old Townsite.

CITY OF PEARLAND
 2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
 SUMMARY - **DRAINAGE**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
5	DR2002	D. L. Smith Detention Pond Expansion Phase I	Phase I of the project will expand the existing DL Smith detention facility by approximately 150 acre-feet. The expansion will occur to the west of the existing McHard Road outfall ditch and south of the pipeline easement. A future phase will add an additional 150 acre-feet of detention for further flood plain improvements and regional detention.	In accordance with the City's Master Drainage Plan, there is a need for additional storage capacity along the Clear Creek Watershed to mitigate existing flooding and provide capacity for future development. This expansion will lower the 100-year water surface elevation of Clear Creek, alleviate existing flood plain issues, accommodate future development along McHard Road between Old Alvin and Pearland Parkway, and be able to provide detention for the expansion of the University of Houston Clear Lake - Pearland Campus and other potential city facilities on D.L. Smith site.
6	DR1701	PER for Future Bond Referendum	Provide funding for preliminary engineering on future projects yet to be identified that would be funded with the City's next bond referendum. Preliminary engineering would tighten down scopes and provide for estimated construction dollars that would be needed to take a proposition to the voters.	

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENT PROGRAM
PARKS

PREFERENCE NO.	PROJECT NO.	PROJECT NAME	YEAR OF APPROPRIATION	
1	P50071	Centennial Park Ph 2	2015	Construction
2	P20001	Independence Park Ph I	2015-2017	Design/Construction
3	PK1401	Shadow Creek Ranch Trail	2015-2016	ROW/Construction
4	PK1402	Green Tee Terrace Trail	2015-2016	ROW/Construction
5	P20004	Delores Fenwick Nature Center	2015-2017	Design/Construction
6	P20008	JHEC Nature Trails (Formerly Nature Center Ph II)	2017	Construction/Equipment
7	PK1701	PER for Future Bond Referendum*	2017	PER
8	PK1702	Trail Connectivity Phase III	2017	Design/Construction
9	PK1801	Sports Complex at Max Road Ph. 2	2018-2019+	PER/Design/Construction
10	PK1901	Shadow Creek Ranch Park Ph. II	2019+	PER/Design/Construction

*Pushed out two years.

Some projects are color coded to reflect major differences from last year's CIP.	
Timing	
Additional money needed	
Project Budget Reduced	
New Project	

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **PARKS**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
1	P50071	Centennial Park Ph II	Phase II of Centennial Park includes the demolition of the existing soccer fields, the construction of two new lighted softball fields, the installation of a new picnic pavilion and additional parking for the complex.	Once the Max Road Sports Complex is completed, youth and adult soccer will move from Centennial Park to Max Road where the program can be expanded. The existing soccer fields will be demolished and converted to lighted softball fields. Additional softball fields will allow for the expansion of the girls softball program. Adult softball will ultimately move to the Shadow Creek Ranch Complex once completed to make room for girls softball.
2	P20001	Independence Park Ph I	Phase I Improvements include a reorientation of the entry into the park, relocation and upgrade of the existing playground, improvements to the existing pavilion, the construction of additional parking, an amphitheater for special events and landscaping. Construction will be coordinated with the Trail Phase III project.	Independence Park is one of the oldest and most recognized parks that the City owns. According to the park utilization survey conducted with the master plan, this park had the second highest utilization of all City parks. Most of the current amenities at the park are outdated or in bad condition and are in need of replacement. This project was approved by voters in the 2007 Bond Program. The Master Plan lists improvements to this park as a high priority.
3	PK1401	Shadow Creek Ranch Trail	Extension of a 10-foot hike and bike trail from the future Shadow Creek Ranch Park site along Clear Creek to the existing trail approximately 1,300 feet east of Kirby Drive. Project will include benches, bike racks, trail signage, trash receptacles, water fountains, and shade structures.	The Parks and Recreation Plan that was adopted by Council in December of 2005 lists the hike and bike trails as the number one priority for acquisition and development. This project is included in the 2013-2014 TIP and will be 80% federally funded.
4	PK1402	Green Tee Terrace Trail	Extension of a 10-foot hike and bike trail from the Pearland Library/City Hall to Barry Rose Road along the Clear Creek Corridor. Project includes benches, bike racks, trail signage, trash receptacles, water fountains, shade structures, and a pedestrian bridge over Clear Creek.	The Parks and Recreation Plan that was adopted by Council in December 2005, lists the hike and bike trails as the number one priority for acquisition and development. This project is included in the 2013-2014 TIP and will be 80% federally funded.
5	P20004	Delores Fenwick Nature Center	The project will include a 7,000 sq ft LEED Platinum Certified building with an open air pavilion at one end that would include: environmental educational displays, demonstration gardens, interpretive exhibits, 6 or 7 offices, restrooms, outdoor spray station and hose bibs, a classroom with a 50 seat capacity, 400 sq ft of storage and grass crete parking.	There is a great need in the community to educate the public on the benefit of recycling, green space and trees. This project would give Pearland a unique opportunity to showcase JHEC as a learning opportunity for the entire community. Children/adults would be able to come and take classes and learn about the environment in a hands-on setting. This would be the office for the KPB staff and provide an opportunity to showcase the entire concept of utilizing one site as multi purposing for parks, recreation, detention, education, recycling, and environmental park.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **PARKS**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
6	P20008	JHEC Nature Trails (Formerly Nature Center Ph II)	Project includes 2 miles of 8 ft trails, being a combination of crushed granite and concrete in low lying areas, boardwalk, pedestrian bridge, fishing pier, picnic tables, benches, trash receptacles, drinking fountain, interpretive signage, and a paddle craft launching area.	The overall vision for this particular area was to provide an area that provides access to nature in a suburban setting, provide for recreation opportunities and provide a facility for environmental/nature education and awareness. It will also be a showcase facility displaying the multi-use of both a detention pond and water treatment plant effluent to create a usable park and open space for the community. Because appropriate grant money became available through the County coupled with trails appearing as a number one priority in citizen surveys for many years, the City has proceeded with acting on the vision of creating the trail portion of the project using the money made available.
7	PK1701	PER for Future Bond Referendum	Provide funding for preliminary engineering on future projects yet to be identified that would be funded with the City's next bond referendum. Preliminary engineering would tighten down scopes and provide for estimated construction dollars that would be needed to take a proposition to the voters.	
8	PK1702	Trail Connectivity Phase III	Implement phases of the Hike and Bike Master Plan. Phase III is scheduled in 2017 and will run from SH35 along the south side of Walmart to West of Old Alvin Rd connecting with an existing trail that runs east of Old Alvin to Clear Creek.	The Parks and Recreation Plan that was adopted by Council in December of 2005 lists the hike and bike trails as the number one priority for acquisition and development.
9	PK1801	Sports Complex at Max Road Ph. 2	Proposed improvements include addition of six international sized (11 vs.11) soccer fields, and pavilion. Approximately 1-3 fields will be lighted and the park will be located inside of a detention facility. The parking lot will be expanded, doubling the existing available parking spaces. The sports complex will have a total of 12 fields, 4-6 of those fields will be lighted.	There is a significant need for game soccer fields and sports fields in the City. With the development of this facility Centennial Park will be able to be converted to a facility for youth softball that will allow the youth soccer program, youth softball program and the youth baseball program to expand as the population in the community increases.
10	PK1901	Shadow Creek Ranch Park Ph. II	Phase II project elements based on updated Parks Master Plan.	The Parks and Recreation Master Plan calls for a multipurpose sports complex in this area of the community to serve the anticipated growth of the area.

CITY OF PEARLAND
 2015 - 2019 CAPITAL IMPROVEMENT PROGRAM
FACILITIES

PREFERENCE NO.	PROJECT NO.	PROJECT NAME	YEAR OF APPROPRIATION	
1	FA1401	Fire Station #2	2015	Construction/Equipment
2	FA0904	City Hall Complex Renovations	2015	Construction/Equipment
3	FA1501	Fire Station #8	2015-2016	PER/ROW/Design/Const/Equip
4	F20002	Tom Reid Library Expansion	2015	Design/Construction
5	FA1402/EA1201	Hillhouse Road Annex Phase II	2015-2016	Design/Construction/Equipment
6	FA1403	Orange Street Service Center	2015	Construction/Equipment
7	FA1701	Fire Station #1	2017-2018	Design/Construction/Equipment
8	FA1801	Shadow Creek Library	2018-2019	PER/Design/Const/Equip

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CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - FACILITIES

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
1	FA1401	Fire Station #2	Construction of a 10,726 square foot station to house one 4-person Engine Crew, one 4-person Ladder Crew and one 2-person Ambulance Crew. Station 2 will include 10 dorm rooms, three restrooms with showers, a kitchen dining area, a Captain's and a Lieutenant's office, and an exercise room. The equipment area will include 3-80 feet deep drive-thru apparatus bays, a bunker gear storage area, medical supply storage, and EMS decontamination area. The project will require a minimum of 2 acres in the vicinity of Harkey Rd and Fite Rd.	Rebuild/Relocate Fire Station 2 to accommodate a 24-hour operation and include EMS housing. This existing fire station is almost 40 years old. The location of the facility will help maintain response time and distances. There is no space for crews to stand-by for short-term when other stations are responding to calls or for an extended period during a storm.
2	FA0904	City Hall Complex Renovations	The Project consists of an initial space needs assessment and adjacency programming for the reallocation of departmental spaces and proceeds into design of these limited and specific remodels of portions of City Hall and modifications to the existing spaces in the Community Center. These changes include accommodating Finance Department staff in Utility Billing and all current second floor activities, possible changes to the departmental space within City Hall, and possibly into the Community Center. In the Community Center changes include remodeling to provide a more secure work environment for Permits and Community Development, Planning and Engineering areas, including controlled access from the public areas; remodel of current community room open spaces to provide for additional office space for growing personnel demands.	To provide adequate personnel space to accommodate the City's growth. The project will incorporate the recommendations included in the Business Security Survey performed by the Police Department and modifications or replacement of HVAC systems in the Community Center.
3	FA1501	Fire Station #8	Construction of approximately 15,000 sq. ft. fire station designed to house two 4 person engine crews, one 4 person ladder crew and one 2 person ambulance crew. The station will include 14 dorm rooms, 4 restrooms with showers a kitchen/ dining area a day room, a captain's office and Lieutenant's office, a conference/ training room, an EMS decontamination area and an exercise room along with storage areas for bunker gear, medical supplies. The facility will be constructed to 140 mph 3 second gust wind load standards and will include four 80 feet deep drive through equipment bays and adequate parking for full staffing on 24/7 operation.	Provide Fire and EMS services at a location that will improve response times. In addition, the new station will accommodate a 24-hour operation and will add EMS housing. This station is based on the Fire Station Location Plan approved in February 2012.
4	F20002	Tom Reid Library Expansion	The library expansion will increase the now 20,584 sf building by 11,542 sf for an overall floor plan area of 32,126 sf. This expansion will create new areas in the library such as a bookstore, children's story time room, teen zone, computer labs and additional office/storage space. Renovations and enlargements of existing areas such as the circulation desk and book stacks are also included.	The significant growth of Pearland has created a need for a larger children's area and adult meeting room to conduct activities, more stack area for books, and improved computer access.
5	FA1402/ FA1201	Hillhouse Road Annex Phase II	Phase II will be fully defined after development of a business plan, approval by City Council, and completion of programming for the Hillhouse site. Conceptually, Phase II includes a equipment and material storage facilities, and a small expansion of office space for Public Works/Parks maintenance crews.	Property was acquired in 2004 for a city facility. This work will make best use of the property while reducing time spent by employees in traveling to the service center for fuel, lockers, and equipment. Funds from FY 2013 fund a study to look at both the Hillhouse and Orange Street Public Works sites to determine future use of those sites.

CITY OF PEARLAND
 2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
 SUMMARY - FACILITIES

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
7	FA1701	Fire Station #1	Construction of approximately 8,500 sq-ft. station to house one 4-person Engine Crew and one 2-person EMS Ambulance Crew. Station will include 6 dorm rooms, 2 restrooms with showers, a kitchen dining area, a dayroom, a station command office, and exercise room. Equipment area will consist of 2-80 foot deep drive-thru apparatus bays, a bunker gear storage area, medical supply storage, and an EMS decontamination area. Facility will be located at the northeast corner of McHard and Old Alvin. The building will be designed to add a third 80-foot deep apparatus bay in the future.	Replaces a station that will be approximately 48 years old at a location that will improve response times. In addition, the new station will better accommodate a 24-hour operation and will add EMS housing.
6	FA1403	Orange Street Service Center	Public Works facilities on East Orange and Old Alvin requires updating in order to meet the demands on this facility. Fleet Maintenance facility requires the addition of fluids storage and handling equipment, the remodel of office and parts storage and the addition of a bulk fluids storage area. The storage yard requires completion of the paving to provide all weather access and clean safe operations, addition of covered pipe and bulk material storage areas and covered equipment storage. Remodel Public Works Admin building and adjacent offices and remodel old EMS and Fire Marshal buildings for division staff offices.	The Orange Street facility has not been updated in over ten years. Yard facilities lack covered storage areas to protect stored materials and the hydraulic systems of heavy equipment. Departmental administrative staff levels have changed and grown over this period and staff are being officed out of poorly constructed facilities in the attached areas of the Admin building or in makeshift offices throughout the yard area. Remodel of office facilities will allow consolidation of division superintendents and support staff at this facility.
8	FA1801	Shadow Creek Library	Design and Construct a new permanent County Library facility on the west side totalling approximately 30,000 square feet. Project will include the building, specialized mechanical HVAC systems, staff work and break spaces, both public and staff parking, exterior security lighting, security and fire alarm and fire fighting systems and library furnishings.	In late 2012 the City initiated construction of a temporary (7 to 10 year) County Library Annex in commerical storefront space off of Broadway and Business Center Drive. This consisted of approximately 6000 square feet. The facility has experienced substantial patronage from residents within the west end of the city. Currently the City and County are planning a 4000 square foot expansion for this facility to accommodate high demand. The new library would provide a permanent home for this facility and be sized to accommodate growing demands from citizens throughout the county.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENT PROGRAM
STREETS

PREFERENCE NO.	PROJECT NO.	PROJECT NAME	YEAR OF APPROPRIATION	
1	TR1205	Max Road ¹	2015	Construction
2	TR1202	Fite Road ¹	2015	Construction
3	TR1405	McHard Road Extension (Mykawa Road to Cullen Parkway)	2015, 2017-2018	ROW/Construction
4	T08002	Bailey Road - Veterans to FM 1128*	2015-2016	Construction
5	TR1404	Kirby Drive Expansion	2015	Construction
6	TR1501	Smith Ranch Road Extension (CR 94)	2015-2018	ROW/Design/Construction
7	TR1201	Hughes Ranch Road (CR 403)	2015-2017	Design/Construction
8	TR1402	Regency Park Subdivision Paving	2015	Construction
9	TR1602	Safe Routes to School Improvements**	2015-2019+	Design/Construction
10	TR1502	Industrial Drive Realignment	2015	PER/Design/Construction
11	TR1503	Hooper Road Extension	2015-2016	ROW/Design/Construction
12	TR1603	Park-N-Ride	2016-2018	PER/ROW/Design/Construction
13	TR1601	Traffic Signal Intersection Improvements	2016-2019	Design/Construction
14	TR0601	Mykawa Road Widening (BW8 to FM 518)***	2017-2019	ROW/Design/Construction
15	T20002	Old Alvin Road Widening (Plum Street to McHard Road)***	2017-2019	ROW/Design/Construction
16	TR1701	Old Alvin Road Rehabilitation (McHard to Knapp)***	2017-2018	Design/Construction
17	TR0803	Old Town Area Sidewalks	2015-2017	Design/Construction
18	TR1702	PER for Future Bond Referendum***	2017	PER
19	TR1703	Grand Boulevard Reconstruction**	2017-2018	PER/ROW/Design/Construction
20	TR1801	Hughes Ranch Road (Cullen to Stone Rd)**	2018-2019	ROW/Design/Construction
N/A	TR1406	SH288 Tollway ²	2016-2017	Design/Construction

*Moved forward a year.

**Pushed out a year.

***Pushed out two years.

¹Additional money in current year.

²Not a city managed or funded project, though significant impact.

Some projects are color coded to reflect major differences from last year's CIP.	
Timing	
Additional money needed	
Project Budget Reduced	
New Project	

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **STREETS**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
1	TR1205	Max Road	Widen Max Road from the future Hughes Ranch alignment and connecting with Reid Boulevard, just west of the Food Town shopping center. The roadway will be four lanes, divided, with concrete curb and gutter, including storm sewers, outfalls and detention. A traffic signal will be installed at the intersection of Hughes Ranch Road and Max Road, and a new bridge will be constructed over Hickory Slough. A 10-ft multi-use path will be incorporated on the west side of the roadway from Hughes Ranch to Broadway per the Trail Master Plan.	New residential development in the area, as well as the development of the City's Sports Complex adjacent to the proposed project, increase the demand for reliable access to the area. Improvements to this roadway will reduce maintenance, improve mobility, and increase public safety.
2	TR1202	Fite Road	An extension of Fite Road approximately 2,500 feet east of McLean, running adjacent to Centennial Park, tying into Veterans Drive. The project includes four lanes, undivided, of concrete curb and gutter including storm sewers, outfalls and detention, a traffic signal at McLean Road and other related improvements.	This extension will reduce the large amount of traffic that is currently diverted to Walnut Street, which is primarily residential. The completion of this segment will allow traffic to continue on Fite beyond its current termination point, which will improve transportation efficiency and safety. The roadway is heavily used as an alternative route to FM 518 and serves residential, commercial, and school traffic.
3	TR1405	McHard Road Extension (Mykawa Road to Cullen Parkway)	A new extension of approximately 3.5 miles of McHard Road, from Cullen Parkway to Mykawa Road, constructing a 4-lane, concrete, curb and gutter, divided roadway with raised medians. Includes storm sewers, outfalls and detention, traffic signals, sidewalks and related items. This project will be coordinated with the McHard Road Trunk Sewer extension and McHard Road Water Line Extension.	This project is in accordance with the City's Thoroughfare Plan to alleviate traffic on FM518 by providing an alternate east/west route between SH288 and SH35.
4	T08002	Bailey Road - Veterans to FM 1128	Bailey Road will be improved to a four-lane concrete curb and gutter boulevard from approximately 1,000 feet west of FM 1128 to Veterans Drive, a distance of 2.76 miles. The project includes the full build out of the Bailey Intersections.	Four lane boulevard segment will provide traffic an additional east/west connector to major highways, accommodate increasing school traffic, and complete drainage improvements along this area of the Cowart Creek corridor. This project is included in the City's Thoroughfare Plan and was approved by voters in the 2007 Bond election.
5	TR1404	Kirby Drive Expansion	Four lanes of Kirby Drive exist from Broadway to the Pearland Town Center north entrance. Two lanes continue south to CR 59. The limits of this project include extending the remaining two lanes from the Pearland Town Center entrance to CR 59. The proposed cross section is concrete curb and gutter with sidewalks. The Kirby Drive Water Line project will occur in coordination with this project.	Expansion of Alvin ISD with two schools in the area will require improved and greater access for traffic circulation. This project fills a gap between Broadway and CR 59.
6	TR1501	Smith Ranch Road Extension (CR 94)	Expansion of Smith Ranch Road from 2-lanes of asphalt into 4-lanes, divided, with raised medians, concrete curb and gutter, landscaping, and storm sewer. Limits are from Hughes Ranch Road to 2,040 ft north of Broadway.	Continued increase in new development will increase traffic on this roadway. A strong demand for better access to this area calls for the expansion of this roadway.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - STREETS

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
7	TR1201	Hughes Ranch Road (CR 403)	Reconstruction of CR403 from Cullen to Smith Ranch Road from a two lane asphalt open ditch roadway to a four lane concrete curb and gutter boulevard for a distance of 2 miles. Brazoria County will be completing the design, environmental clearance, and relocating the utilities. The project includes approximately 13,000 LF of Noise Barrier. Installation of additional water line infrastructure will be constructed in coordination with this project to fill in the gaps of the current system.	The roadway will provide enhanced safety and access to Dawson High School located on Cullen Blvd. and enhance access to SH 288 and the SH288 Tollway, in conformance with the City Thoroughfare Plan.
8	TR1402	Regency Park Subdivision Paving	Replace all concrete paving within Regency Park Subdivision. Project will include an evaluation of the existing drainage system within the subdivision, and recommendations to improve drainage. Replacement of existing water line infrastructure throughout the neighborhood will be done in coordination with this project.	Regency Park is the oldest concrete-paved subdivision in the City. Currently, the pavement condition throughout the subdivision has become increasingly unacceptable. Because of the nature of the failures, it is not fiscally efficient to replace individual concrete slabs.
9	TR1602	Safe Routes to School Improvements	As identified in the Safe Routes to School Plan, sites may include the installation of sidewalks, drainage improvements, roadway widening, crosswalk enhancements/improvements and other traffic improvements. City staff is working to prioritize and produce cost estimates that will include detailed scopes of work required and a project schedule.	Facilitate safe pedestrian mobility to schools and encourage reduced driving, traffic calming and other safety measures. Locations are to be coordinated with the Safe Routes to School Study. Grant funds to be applied for.
10	TR1502	Industrial Drive Realignment	Reconstruct Industrial Drive approximately 950 feet to align directly opposite each side of SH 35. Each side will include tapers to create dedicated left turn lanes and right through option lanes. Pavement will be three lanes wide tapering to the existing two lane roadway. Realignment will require drainage adjustments to both side of SH35 including culverts and safety end treatments as well as modifications to drainage ditches in the area. Pipeline relocation/ mitigation will be required.	TxDOT has secured safety funding to add a turn lane on SH 35 at this intersection. They will also conduct a traffic signal warrant study to determine if a signal is necessary. In order for TxDOT to move forward with these improvements East and West Industrial Drive must realign to eliminate the existing off-set. The completed project will provide a safer intersection.
11	TR1503	Hooper Road Extension	Extension of Hooper Road from Beltway 8 for approximately 3,200 LF to the south property line of MHI. Work will include concrete curb and gutter, streetlights, sidewalks, landscaping and irrigation. Storm sewer, detention, associated water and sanitary sewer infrastructure will be included as well.	Provide a roadway designed to handle the truck traffic associated with the industrial traffic in the Lower Kirby Area. The project will be funded by the PEDC and through a developer agreement.
12	TR1603	Park-N-Ride	The SH288- Brazoria County Park & Ride project was identified in the 2003 METRO Solutions plan for managing traffic congestion on the SH288 corridor. The proposed 15.6 acre site is located along the east right of way of SH288 south of Hughes Ranch Road and west of Smith Ranch Road. As currently proposed, the facility would consist of three bus bays, parking for 1000 vehicles and include pedestrian facilities and bicycle accommodations. The site was purchased in November, 2011 at the cost of \$3.97 million dollars by METRO and an Environmental study was completed in July, 2011) providing a Categorical Exclusion for the site. METRO has withdrawn from the project and wishes to divest the land for \$800,000 totaling their share of the 80/20 split with federal funding.	SH288 has become a heavily traveled corridor during morning and afternoon peaks. Traffic ADT's will likely continue to grow even after the toll lanes are completed in 2016/17 due largely to economic growth in the southern county area. Originally, the 12 bus service for weekdays projected an annual fare revenue of \$772,000 with 228,600 annual riders and was considered to be better than average patronage. A feasibility and funding study is underway with results expected in November, 2014.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **STREETS**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
13	TR1601	Traffic Signal Intersection Improvements	The City encounters intersections that are in need of signalization as we continue to grow in population not necessarily due to a new development. We need to be able to have annual projects that enable us to address the traffic congestion and safety needs caused by the unsignalized intersection if not improved. Funds in 2016 to be used for a traffic signal at Business Center Drive and Discovery Bay.	Through the 2013 citizens survey, it was made apparent that the citizens are concerned with traffic and congestion issues. This project will allow us a funded project to address their concerns and the needs of the City to maintain or improve mobility efficiency throughout the City, while improving safety. We collect prorata fees from developers which pay for a portion of intersection improvements.
14	TR0601	Mykawa Road Widening (BW8 to FM 518)	Construct approximately 3 miles of 4-lane concrete curb and gutter divided boulevard section roadway, including storm sewers, outfalls and detention, traffic signals and related items. A detailed Drainage Study, Environmental Assessment, and 95% Construction Plans were created for the segment between BW8 and McHard Rd from a previous design effort.	This proposed roadway is included in the City's Thoroughfare Plan and the 2007 Bond Program to alleviate traffic headed south from the Beltway 8 to FM 518.
15	T20002	Old Alvin Road Widening (Plum Street to McHard Road)	Reconstruction of approximately 1.0 mile of Old Alvin Rd from Plum St to McHard Rd from a 2-lane asphalt to a 4-lane undivided curb and gutter roadway. East side from McHard to Knapp to have 6' sidewalks. Funds allocated in 2013 will be used for drainage adjacent to the Old Alvin Water line project.	This proposed roadway was part of the 2007 Bond Referendum and will provide another north-south route between McHard Road and FM518.
16	TR1701	Old Alvin Road Rehabilitation (McHard to Knapp)	Rehabilitate pavement and widen subgrade to 26 feet, widen pavement from 21 to standard 24 feet for the length of 3150 linear feet from McHard Road to Knapp Road. Install sidewalks, drainage, and turn lanes.	Rehabilitate and widen Old Alvin Road from McHard to Knapp Road. Install sidewalks, drainage, and turn lanes.
17	TR0803	Old Town Area Sidewalks	Enclose ditches and install sidewalks in the Old Town area between Houston St. and Grand Ave., from FM 518 to Orange St. N. Houston and E. Orange will be completed in 2015.	Sidewalks are part of and constructed in coordination with the Old Townsite Master Plan. In order to install sidewalks without acquiring additional right of way, the roadside ditches must be enclosed. There are currently no sidewalks in the Old Town area; the work described here includes work we expect to complete within the next five years. The Old Town Drainage Project in the northeast quadrant is complete.
18	TR1702	PER for Future Bond Referendum	Provide funding for preliminary engineering on future projects yet to be identified that would be funded with the City's next bond referendum. Preliminary engineering would tighten down scopes and provide for estimated construction dollars that would be needed to take a proposition to the voters.	
19	TR1703	Grand Boulevard Reconstruction	Reconstruct approximately 1,300 feet of Grand Boulevard from Broadway to Walnut Street from one lane each direction to a Boulevard with one lane each direction with angled parking. A water line will be constructed in coordination with this project.	This proposal will implement the goals and objectives of the Old Townsite Plan. This proposal will be critical for the success of the City of Pearland's Old Townsite.

CITY OF PEARLAND
 2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
 SUMMARY - **STREETS**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
20	TR1801	Hughes Ranch Road (Cullen to Stone Rd)	An expansion of Hughes Ranch Road from Cullen Parkway to Stone Road, approximately 3300lf. Includes 4-lanes undivided concrete curb and gutter, sidewalks, and drainage. A new water line will be constructed in coordination with this project.	In conformance with the City's Thoroughfare Plan, this roadway will provide enhanced safety and access to Dawson High School, SH 288, and the Max Road Sports Complex. Project will complete the improvements between current construction from Stone to Max Rd and anticipated improvements between SH288 and Stone.
N/A	TR1406	SH288 Tollway	Construction of a four-lane tollway (two lanes in each direction) within the existing median of the SH288 corridor from County Road 58 in Brazoria County to US59 near downtown Houston. The existing lanes will remain free lanes. The Harris County segment will be managed and constructed by TxDOT and the Brazoria County segment will be managed and constructed by the Brazoria County Tollroad Authority. The project will include entrances and exits within Pearland north of FM518 and direct access from a T-ramp at Hughes Ranch Road on the east and Discovery Bay Drive on the west. The Harris County segment is projected to include a minimum of four (4) direct connectors to the Sam Houston Tollway. Construction is projected to start in 2015.	The SH288 corridor has become very congested with the significant growth in Brazoria County and southern Harris County. A traditional highway expansion would not be possible for many years based on existing state funding levels. Providing additional lanes with a tollway project will significantly accelerate completion of the highway expansion.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENT PROGRAM
WATER

PREFERENCE NO.	PROJECT NO.	PROJECT NAME	YEAR OF APPROPRIATION	
1	WA1001	General Engineering/CIP Administration	2015-2018	Administration
2	WA1608	McHard Water Line Phase II*	2016	Design/Construction
3	WA1203	Tom Bass Park Loop	2015	Construction
4	WA1505	FM 521 Waterline (Broadway to Mooring Pointer)	2015-2016	PER, ROW, Design, Construction
5	WA1503	Regency Park Subdivision 8" Water Line	2015	Design/Construction
6	WA1504	Hooper Road Water Line	2015-2016	Design/Construction
7	WA1602	Hughes Ranch Road West 12" Water Line	2016-2017	Design/Construction
8	WA1601	Water Meter Changeout	2016-2017	Equipment
9	WA0812	Surface Water Plant	2017-2019+	PER, Design, Construction
10	WA1502	AC Water Line Replacement	2015-2019	Design/Construction
11	WA1702	Grand Boulevard Waterline - Old Townsite Southeast Quadrant	2017-2018	Design/Construction
12	WA1701	Far Northwest Ground Storage Tank Expansion	2017-2018	PER, Design, Construction
13	WA1402	Southeast Water Plant Improvements	2018-2019	Design/Construction
14	WA1603	FM 1128 16" Waterline	2016-2017	PER, ROW, Design, Construction
15	WA1604	CR 100 Waterline	2016-2017	Design, Construction
16	WA1605	Harkey Rd. Waterline from CR100 to CR128 & CR128 from Harkey to Veterans	2016-2017	PER, ROW, Design, Construction
17	WA1606	Veterans Dr. Bailey Rd. to CR 128 16" Waterline	2016-2017	PER, ROW, Design, Construction
18	WA1801	Hughes Ranch Road East 12" Water Line Phase II	2018-2019	Design/Construction

*Pushed out two years.

Some projects are color coded to reflect major differences from last year's CIP.	
Timing	
Additional money needed	
Project Budget Reduced	
New Project	

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **WATER**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
1	WA1001	General Engineering/CIP Administration	This project provides services necessary for the entire CIP and not project specific but is specific to the water or wastewater projects. The Wastewater and Water Models will be updated and any special studies will be completed as necessary.	The Wastewater Model was last updated in 2007 and a partial update to the Water Model in 2012, and most of the high priority projects identified at that time have been completed. Additionally the model updates will ensure that projects included in the CIP are based upon priority and the special studies will include cost estimates for the projects.
2	WA1608	McHard Rd. 16" Waterline Phase II	Phase II extends from Cullen Parkway to Mykawa a total of 17,340 linear feet. This portion of the project is timed to coincide with Right of Way approval and acquisition for the McHard Road project.	This will be a second continuous connection between the east and west sides of the City. It will allow for more efficient water flow, better fire protection and the movement of water from the expanded Alice Street Water Plant. This will reduce monthly average payments for water supplied to the west side from the Far North West plant where purchase prices are much higher.
3	WA1203	Tom Bass Park Loop	To install approximately 950 feet of 12" waterline to loop from the termination of the existing waterline along the feeder road of BW 8 through Tom Bass Park, connecting to the Lakes of Country Place subdivision. Approximately 1,250 feet of 12" waterline completed by Public Works in 2012.	Looping of the distribution system per the water model in a location where we have a 12" main that dead ends along the Beltway.
4	WA1505	FM 521 Waterline (Broadway to Mooring Pointer)	7,500 feet of 16" water line along Alameda Rd from Broadway to Mooring Pointer.	Looping of transmission lines based on the City's water model.
5	WA1503	Regency Park Subdivision 8" Water Line	Installation of 8" water line throughout the Regency Park Subdivision. Existing lines in the neighborhood are Ac Pipe and are deteriorating. They will be left in place to avoid the added cost of containment, removal and proper disposal. This project will be done in coordination with the Regency Park Subdivision Paving & Drainage Project.	Existing lines in this subdivision are AC Pipe, deteriorating and are placed along the back of the properties, making it difficult for maintenance.
6	WA1504	Hooper Road Water Line	Installation of approximatey 3,200 LF of 8" PVC water line from Beltway 8, south along Hooper Road. The project will be constructed with the Hooper Road Extension project.	Provide water service in the Lower Kirby Area currently not served.
7	WA1602	Hughes Ranch Road West 12" Water Line	Installation of approximately 5200' of 12" water line along Hughes Ranch Road from CR 94 to Cullen Parkway. This water line connection will be done in coordination with the Hughes Ranch Road Expansion from CR 94 to Cullen Parkway.	There is currently several missing sections of water line totaling approximately 5200' along Hughes Ranch Road. The water line will connect existing City lines to acquired MUD water lines.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **WATER**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
8	WA1601	Water Meter Changeout	Change out of approximately 33,000 water meters and drive-by reading system with a wireless remote read and addition of Customer Portal Technology. The change out will include, remote antennae, meters, external antennae on meter lids, installation, hardware and software, and vaults as needed.	AWWA standards recommends that residential meters are replaced when over 10 years old or more than 1.0 mill gallons have passed through the meter. By 2017 approximately 22,000 meters in Pearland will be older than 10 years old or have 1.0 mill. gallons that has passed through the meters. The AWWA standard is based on .25 gallons per min. The newer meters will register .03 gallons per minute, thus measuring more water, increasing revenues and reducing water loss. Newer technology will allow for remote turn on's and offs and capture water and loss associated with a given area. Customer expectations are also higher wanting information more readily to view (graphs, etc.) and the customer portal would provide.
9	WA0812	Surface Water Plant	Phase I began with the purchase of property for the plant. Interim work to protect erosion of neighboring property was constructed in 2010. In FY 2017, plant design will begin with a schedule to have the plant online in 2022. 10 MGD surface water plant is Phase I of ultimate 20 MGD plant.	The Water Model Update completed in 2007 recommended the completion of the Surface Water Plant in 2015. Due to the economy, growth has slowed down as compared to the original assumptions of water use. The timing for the Surface Water Plant was evaluated when the Water Model was updated in 2012.
10	WA1502	AC Water Line Replacement	Replace approximately 50 miles of failing AC water lines (over 30 years old) in the City with PVC water lines. The project will replace the water line infrastructure in the following locations over a period of years - Corrigan Subdivision, Old Towne, Summerset / Shrine, Country Place, Green Tee, Westminster, Brookside Acres, Shadycrest, Creek View, Parkview, Wood Creek, Heritage Green, Clear Creek Estates, Twin Creek Woods. In 2015, the City will start in the Old Town area and work out from there laying approximately 58,000 LF of pipe annually.	AC water line has a failure rate significantly higher than that of comparable and like sized PVC. This project will in time replace the failing AC infrastructure with more robust PVC which was not prevalent in the industry at the time the AC lines were installed. The AC lines are responsible for a higher percentage of work orders per foot than comparable PVC lines and require an inordinate amount of resources to maintain relative to PVC. The projects will also provide the opportunity to resolve dead end water line issues in the effected areas which will improve water quality.
11	WA1702	Grand Boulevard Waterline - Old Townsite Southeast Quadrant	This project is estimated to replace 1300 lf of 8" water line, fire hydrants, service connections, and main line valves along Grand Boulevard. Construction will be completed in conjunction with the reconstruction of Grand Blvd.	Existing waterlines in the Old Town area are a hodgepodge of galvanized steel, ductile iron, AC, and PVC. In many cases, sizes and locations of pipe are unknown. Valves do not generally exist in necessary areas. This has created havoc within the Old Townsite southeast quadrant.
12	WA1701	Far Northwest Ground Storage Tank Expansion	Installation of a third 1.66 MGD ground storage tank, a second 15,000 gallon pressure tank, and related piping and controls.	This expansion will be for future developments outside of Shadow Creek Ranch.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - **WATER**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
13	WA1402	Southeast Water Plant Improvements	In FY14 the water well at the southeast water production facility was taken off line due to its higher than acceptable levels of organic magnesium. Elevated levels of organic magnesium cause taste, odor and appearance issues though the water product itself remains safe for consumption. This project will install a distribution line at the facility that will improve water quality by providing adequate water flow within the tank which will significantly reduce or eliminate the odor, taste and appearance issues. The project also includes the installation of green sand filter, automatic backwash control, a 30,000 gallon backwash equalization tank, disposal pumps, 4" backwash line. Funding in FY 2014 is for re-piping and reconfiguration of elevated storage to alleviate stagnation.	The City of Pearland has maintained a log of customer complaints regarding "dirty water". Complaints regarding brown/rusty colored water that would indicate problems with iron and manganese have been consistently occurring in the winter months.
14	WA1603	FM 1128 16" Waterline	To install approximately 5,300 feet of 16-inch water line along FM 1128 (Manvel Rd) from Bailey Rd. to CR100.	This will loop the system from Veterans to FM1128 for pressure and fire protection based on 2007 Water Model Update and is developer driven.
15	WA1604	CR 100 Waterline	To install approximately 13,160 feet of 16-inch water line along CR 100 from Veterans Dr. to FM 1128 (Manvel Rd).	This will supply water for future development along this corridor based on the 2007 Water Model update, projected growth for 2016 demand and is developer driven.
16	WA1605	Harkey Rd. Waterline from CR100 to CR128 & CR128 from Harkey to Veterans	To install approximately 13,300 feet of 12-inch waterline from Harkey Rd/CR100 south to CR128 then east to Veterans Dr.	This will loop the system between Harkey Rd. and Veterans from CR100 to CR128 for pressure and fire protection based on 2007 Water Model Update for 2016 demand and is developer driven.
17	WA1606	Veterans Dr. Bailey Rd. to CR 128 16" Waterline	To install approximately 5,300 feet of 16-inch water line on Veterans Dr. from Bailey Rd, south to CR 100 and continue an additional 5,300 feet with a 12-inch line from CR 100 to CR 128.	This will supply to the city limits and ETJ south of Bailey Rd. for future development based on 2007 Water Model Update for 2016 demand and is developer driven.
18	WA1801	Hughes Ranch Road East 12" Water Line Phase II	Installation of approximately 3,300 LF of 12" water line, extending along Hughes Ranch Road from Cullen Parkway to Max Road, near the Sports Complex. This water line extension will be completed in coordination with the Hughes Ranch Road Expansion from Cullen to Stone Road.	The water line extension will tie dead end water line on Max Road into the transmission line on Cullen. Existing lines along Max and this segment of Hughes Ranch Road are MUD lines, 980LF of this line would be in the ETJ and will not be extended by future development.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENT PROGRAM
WASTEWATER

PREFERENCE NO.	PROJECT NO.	PROJECT NAME	YEAR OF APPROPRIATION	
1	WW1405	Far NW WWTP Expansion	2015	Construction
2	WW1306	Riverstone Ranch Oversizing	2015-2016	Design/Construction
3	WW1201	Southdown (North Central) WWTP Rehabilitation -WWM Project 31A	2015	Construction
4	WW1502	Barry Rose WWTP Expansion	2015-2017	PER, Design, Construction
5	WW1501	Roy/Max/Garden Roads Basin Sewage System - WWM Project 12	2015-2016	ROW, Design, Construction
6	WW1406	McHard Rd Trunk Sewer (Garden to Southdown WWTP)	2015 & 2017	Design/Construction
7	WW1503	Green Tee 1 to Riverstone Wastewater Diversion (Longwood Service Area Phase 1)	2015	Design/Construction
8	WW1504	(JHEC) SWEC Filter and Bar Screen Improvements	2015	Design/Construction
9	WW1505	Hooper Road Sanitary Sewer	2015-2016	Design/Construction
10	WW1603	JHEC WWTP Expansion - WWM Project 29A	2016-2019	PER, Design, Construction
11	WW1602	Relocation Mykawa/Scott LS - WWM Project 5*	2016-2017	PER, ROW, Design, Construction
12	WW1601	Orange Mykawa Lift Station Retirement - WWM Project 33	2016-2017	PER, ROW, Design, Construction
13	WW1701	Veterans Drive Lift Station Service Area - WWM Project 11	2017-2018	PER, ROW, Design, Construction
14	WW1506	Springfield Lift Station Abandonment	2015-2016	Design/Construction
15	WW1507	Sanitary Sewer Rehabilitation	2015-2019+	Design/Construction

*Pushed out two years.

Some projects are color coded to reflect major differences from last year's CIP.	
Timing	
Additional money needed	
Project Budget Reduced	
New Project	

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - WASTEWATER

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
1	WW1405	Far NW WWTP Expansion	Expand the existing 2.0 MGD wastewater treatment plant serving the area west of SH 288 to 4.0 MGD. Project includes addition of effluent pumping capability to provide irrigation to Shadow Creek Ranch Park. The PER for the project is underway. One of the items identified early in the PER was the need for a belt press operation at the plant. The centrifuge which currently assists in the management of solids, is undersized and in need of replacement. Staff is proposing to design and construct a belt press at the facility to improve solids management at the facility.	During early 2013, existing flows to this plant reached 75% of the capacity on several occasions. TCEQ requires design of capacity increases to begin when flows reach 75% capacity for three consecutive months. *The centrifuge at the FNW WWTP is not capable of managing the solids at the facility. This project will install a belt press of sufficient size and capacity to address the future needs of the FNW WWTP. Essentially this project will build the belt press before the other components of the project to avoid the need to expend funding on the aging and insufficiently sized centrifuge.
2	WW1306	Riverstone Ranch Oversizing	Oversizing of the Riverstone Ranch development's sewer infrastructure in order to incorporate into the City's larger system.	This project accomplishes a portion of the overall plan developed in the Longwood Wastewater Basin study to eliminate the need for an expansion or long-term operation of the Longwood Wastewater Treatment Plant. This project also eliminates three lift stations in the Green Tee Subdivision.
3	WW1201	Southdown (North Central) WWTP Rehabilitation -WWM Project 31A	Rehabilitate influent lift station wet well, replace pump discharge piping within the wet well, retrofit and rehab the two existing Parkson rotating fine screens, replace sludge airlift pump boxes in aeration basins with stainless steel, install process Water Sprayer Assembly at existing clarifier, drain clarifier and replace corner sweeps on clarifier mechanism; install stamford baffles on square clarifiers, repair sand filter.	Extend the life of the Southdown WWTP and improve operations.
4	WW1502	Barry Rose WWTP Expansion	Complete a Preliminary Engineering Report to evaluate the timing and alternatives to expand the Barry Rose WWTP Plant from the existing 3.1 mgd to 4.5 mgd to serve expanding population in this service area. Ultimately expansion would take plant to 8 mgd.	The TCEQ rules require the initiation of engineering and financial planning to upgrade a wastewater treatment plant when the flows reach 75% of the plant capacity. The plant is currently treating approximately 50% of the capacity.
5	WW1501	Roy/Max/Garden Roads Basin Sewage System - WWM Project 12	This project proposes approximately 4,940 feet of 18" trunk sewer along Broadway St. from Food Town's Lift Station to O'Day Rd, approximately 1,300 feet of 15" trunk sewer along Garden Rd from Broadway to the lift station and 1,200 feet of 12" sewer line along Roy / Max Rd from Broadway to Hickory Slough.	This project will eliminate modeled overflows and two existing lift stations (Food Town's, Garden Rd.) and serve areas that are currently not serviced.
6	WW1406	McHard Rd Trunk Sewer (Garden to Southdown WWTP)	Install, along McHard Rd, approximately 4,500 feet of 24" trunk sewer from Cullen to Southdown WWTP; 5,800 feet of 18" trunk sewer from Cullen to Max Road; and approximately 4,000 lf of 15" trunk sewer from Max Road to Garden Road.	This project will provide gravity sewer and is called for in the wastewater model. Extends Southdown service area to the east, picking up areas not currently served by City system.

CITY OF PEARLAND
2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
SUMMARY - WASTEWATER

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
7	WW1503	Green Tee 1 to Riverstone Wastewater Diversion (Longwood Service Area Phase 1)	Decommission lift station pump at corner of Country Club Dr. and Golfcrest, convert to manhole and install approximately 2200 feet of 8 to 10 inch gravity line to receiving manhole in first phase of Riverstone Ranch oversized. This includes approximately 80 feet of bored installation, 3 manholes to 12 feet deep coring manholes, sand bedding backfill grade and hydro-mulch.	This is the first of three projects within Green Tee designed to remove wastewater flows from the Longwood Wastewater Treatment Plant through diversion to the Riverstone Ranch Oversized system. (Longwood Phase 2 was scheduled out of sequence for 2014) When completed this and two additional diversion projects within the subdivision will remove 870 equivalent sewer connections from Longwood Plant reducing inflow there by 8.9%
8	WW1504	(JHEC) SWEC Filter and Bar Screen Improvements	This project will provide for another filtration mechanism at the John Hargrove Environmental Center JHEC / SWEC waste water treatment plant. Presently the plant use three filters to manage its daily loading. The additional filter system will enable the operators to take a portion of the plant off line when needed to perform maintenance as needed. The current configuration of three filters does not accommodate for this and therefore prohibits frequent and needed maintenance of the system. The project will also address deficiencies with the bar screen mechanism which is not and has not been operating properly. It is in need of replacement. A new compactor / washer will also be included in this project.	As currently configured, the JHEC / SWEC waste water treatment plant is not flexible enough to accommodate frequent and needed maintenance. This project will allow for that and enable the operators to maintain the plant in a more effective manner. The new bar screen will enable the plan to remove more solids at the head works and therefore provide better effluent.
9	WW1505	Hooper Road Sanitary Sewer	Installation of approximately 3,200 LF of 8" sewer from Beltway 8, south along Hooper Road. The project will be constructed with the Hooper Road Extension project.	Provide water service in the Lower Kirby Area currently not served.
10	WW1603	JHEC WWTP Expansion - WWM Project 29A	A 2-mgd expansion to the existing 4 mgd wastewater treatment plant that will increase the wastewater treatment capacity to 6-mgd facility at the John Hargrove Environmental Center.	This 2-mgd expansion is based on growth projections for the JHEC WWTP service area and additional flows that will be diverted to the JHEC WWTP from the Longwood Service Area. Current flows are at 55% to 60% of capacity.
11	WW1602	Relocation Mykawa Scott LS - WWM Projects 5	Replacement of the existing lift station, a new 12" force main, approximately 2,500 feet, from Mykawa to SH35 and a new 8 - 12" gravity line, approximately 3,430 feet along Mykawa from Scott Street to Shank. Project will be coordinated with Mykawa Rd. construction.	The Mykawa-Scott basin has heavy I/I based on pump run time. Rehabilitation of the basin with the above improvements will reduce flow to the Barry Rose WWTP, reduce surcharging in the McHard 24" trunk sewer, and eliminate one lift station. The project will also remove the existing line from underneath the future widening of Mykawa Road.
12	WW1601	Orange Mykawa Lift Station Retirement - WWM Project 33	Abandonment of lift station and installation of new 12-inch gravity sewer line along Mykawa from Orange to Walnut for approximately 3,386 feet. To be completed in coordination with Mykawa Road construction.	Retirement of an old lift station that pumps wastewater three times before sending to the plant. In addition, this lift station will require a major rehabilitation within the next five years. The project will also eliminate an inverted siphon gravity line and remove the existing lines from being in conflict with the drainage for the Mykawa Road project.
13	WW1701	Veterans Drive Lift Station Service Area - WWM Project 11	This project extends the trunk sewer south along Veterans Dr. as far as Dare Rd., providing gravity sewer service as follows: approximately 1,600 feet of 12" line, 16,680 feet of 18" line, and 4,920 feet of 24" line.	This will allow gravity sewer for development south of Bailey Rd. and eliminate two lift stations (Park Village and Springfield). This project will be developer driven.

CITY OF PEARLAND
 2015 - 2019 CAPITAL IMPROVEMENTS PROGRAM
 SUMMARY - **WASTEWATER**

PREF. NO.	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	JUSTIFICATION
14	WW1506	Springfield Lift Station Abandonment	Convert the Springfield lift station into a manhole and gravity flow all wastewater 1,300 feet south to the Park Village Lift station on the east side of McLean.	The pump at this facility is currently above ground centrifugal pumps that have been in service for 30+ years. The rehab of these facilities would be costly and consist of submersible pump replacements with guide rail systems, raising wet well top to a higher elevation, relining wet well and upgrading the control panels. It is less costly to convert these facilities to gravity flow manholes.
15	WW1507	Sanitary Sewer Rehabilitation	To replace failing waste water lines over thirty years of age in the following areas over a period of years - Corrigan Subdivision, Old Towne, Summerset/Shrine, Country Place, Green Tee, Westminster, Brookside Acres, Shadycrest, Creek View, Parkview, Wood Creek, Heritage Green, Clear Creek Estates, Twin Creek Woods.	Through analysis of Public Works work order history and institutional knowledge, the waste water lines in these older areas are responsible for the majority of line breaks and service interruptions in Pearland. This project will address the areas with the most frequent failures and improve system reliability for the residents. You will note that the list of project locations is the same as that listed for water line rehabilitation. It is recommended that both projects are done simultaneously to limit construction impacts to the residents.

ACRONYMS

ADT - Average Daily Traffic

AWWA – American Water Works Association

BW – Beltway

CIP – Capital Improvement Program

CR – County Road

EMS – Emergency Medical Service

ETJ – Extraterritorial Jurisdiction

FM – Farm to Market Road

HVAC – Heat, Vent & Air Conditioning

ISD - Independent School District

JHEC – John Hargrove Environmental Center

KPB – Keep Pearland Beautiful

LEED - Leadership in Energy & Environmental Design

LF – Linear Feet

MGD – Million Gallons per Day

MUD – Municipal Utility District

PER – Preliminary Engineering Report

PVC – Polyvinyl Chloride

ROW – Right of Way

SF – Square Feet

SH - State Highway

TIP – Transportation Improvement Program