

CITY OF NEWMAN **LOW IMPACT DEVELOPMENT (LID)** **PROJECTS AND BENEFITS**

APRIL 30, 2015

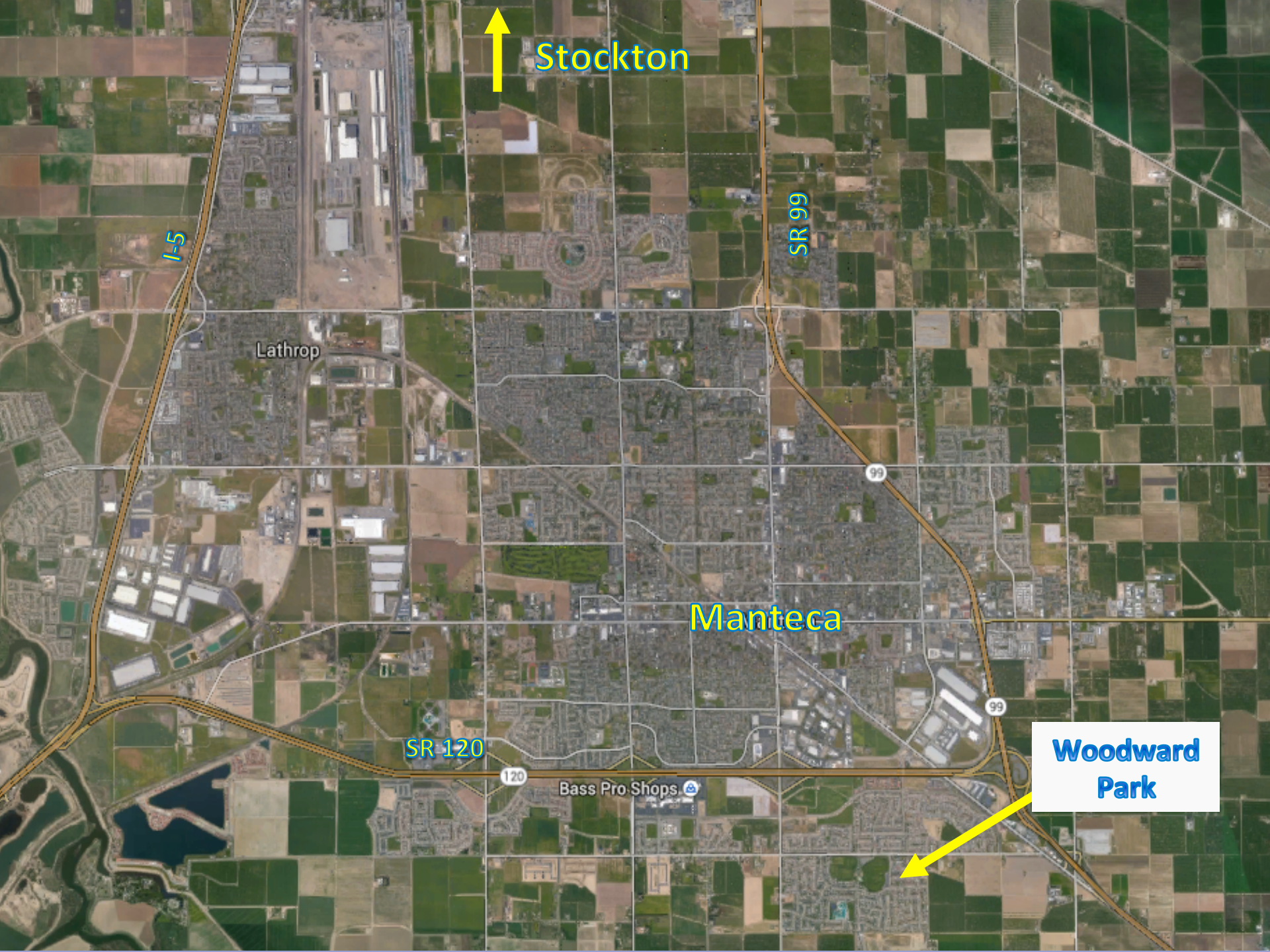
KOOSUN KIM, PE, QSD
PUBLIC WORKS DIRECTOR





Woodward Park Parking Lot Project

- 2.4-acre New Parking Lot**
 - 164 New Parking Stalls**
 - ADA Access Ramp to the existing Parks**
 - LED Lights and AB 1881 Compliance**
 - No Direct Storm Discharge to Drainage System**
 - No Storm Drainage Filtering System**
- = Low Impact Development (LID) System**



Stockton

I-5

Lathrop

SR 99

Manteca

SR 120

120

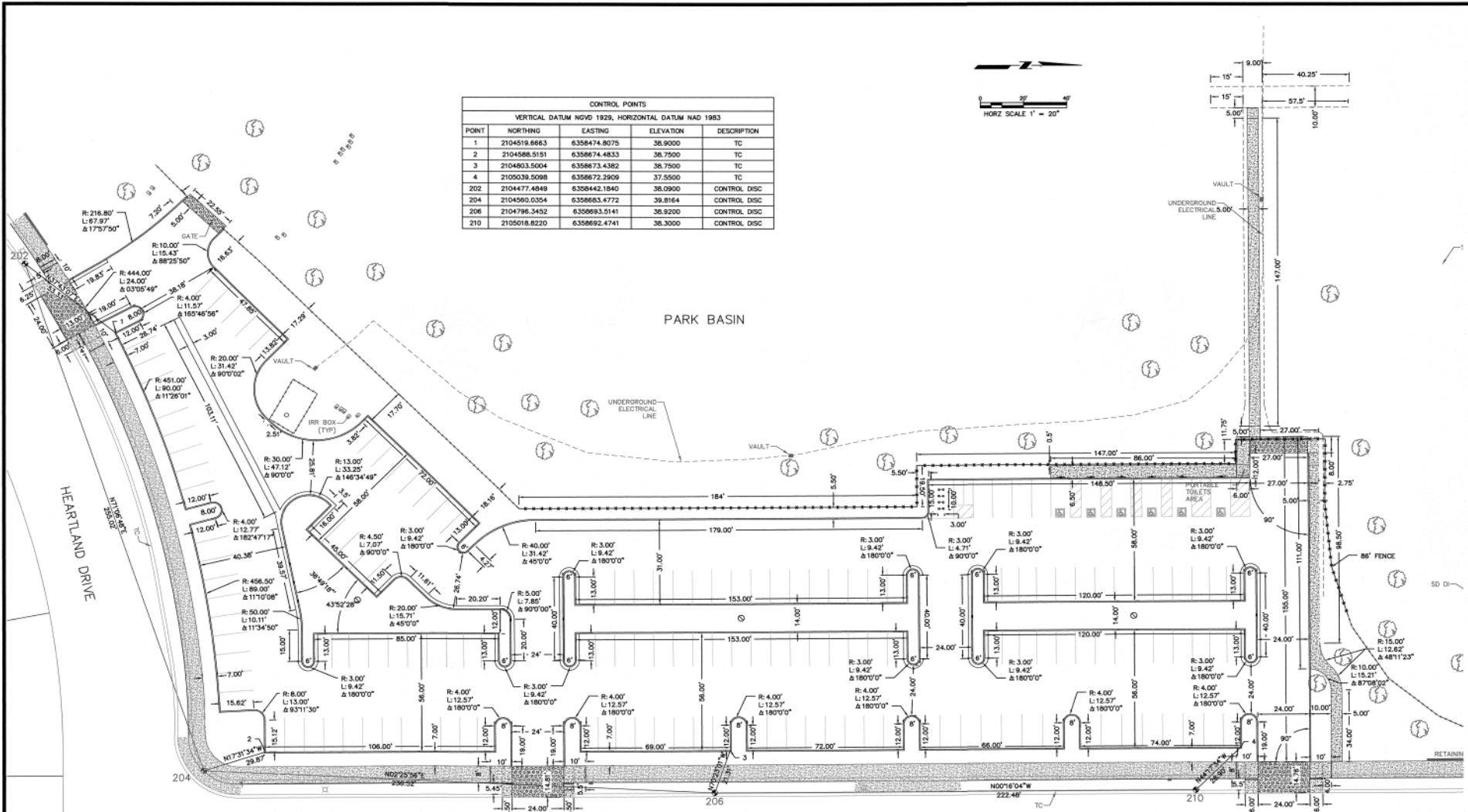
Bass Pro Shops

99

99

**Woodward
Park**

Woodward Parks New Parking Lot



CONTROL POINTS			
VERTICAL DATUM NGVD 1929, HORIZONTAL DATUM NAD 1983			
POINT	NORTHING	EASTING	DESCRIPTION
1	2104519.6663	6358474.8075	38.9000 TC
2	2104588.5151	6358674.4833	38.7500 TC
3	2104803.5004	6358673.4362	38.7500 TC
4	2105039.5098	6358672.3909	37.5500 TC
202	2104777.4849	6358442.1840	38.0900 CONTROL DISC
204	2104560.0354	6358663.4772	39.8164 CONTROL DISC
206	2104796.3452	6358693.5141	38.9200 CONTROL DISC
210	2105018.8220	6358692.4741	38.3000 CONTROL DISC

WARNING CAUTION
 EXISTING UNDERGROUND UTILITIES
 CONTACT: UNDERGROUND SERVICE
 ALERT PHONE: (800) 642-2444
 FOR MARKING PRIOR TO DIGGING

THE CITY OF MANTECA SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REVISIONS	APPROVED



CITY OF MANTECA
 DEPARTMENT OF PUBLIC WORKS
 1001 WEST CENTER STREET, MANTECA, CALIFORNIA 95337

SCALE AS SHOWN	TITLE
DESIGNED: AM	BRIDEWELL PARKING LOT PROJECT LAYOUT PLAN
DRAWN: DS	
CHECKED: KK	
DATE: NOVEMBER 2012	

BRIDEWELL PARKING LOT PROJECT
LAYOUT PLAN

SHEET
C8



Woodward Park Parking Lot Project





Woodward Park Parking Lot Project (2013)





Woodward Park Parking Lot Project (2015)





Woodward Park Parking Lot Project (2013)





Woodward Park Parking Lot Project (2015)





Woodward Park Parking Lot Project (2013)





Woodward Park Parking Lot Project (2015)





Woodward Park Parking Lot Project (2015)





Woodward Park Parking Lot Project (2015)





Woodward Park Parking Lot Project (2015)





Woodward Park Parking Lot Project

**Traditional Storm Drain Systems
With Storm Filters or CDS Unit**





Woodward Park Parking Lot Project

LID System
No Storm Filters / CDS Unit

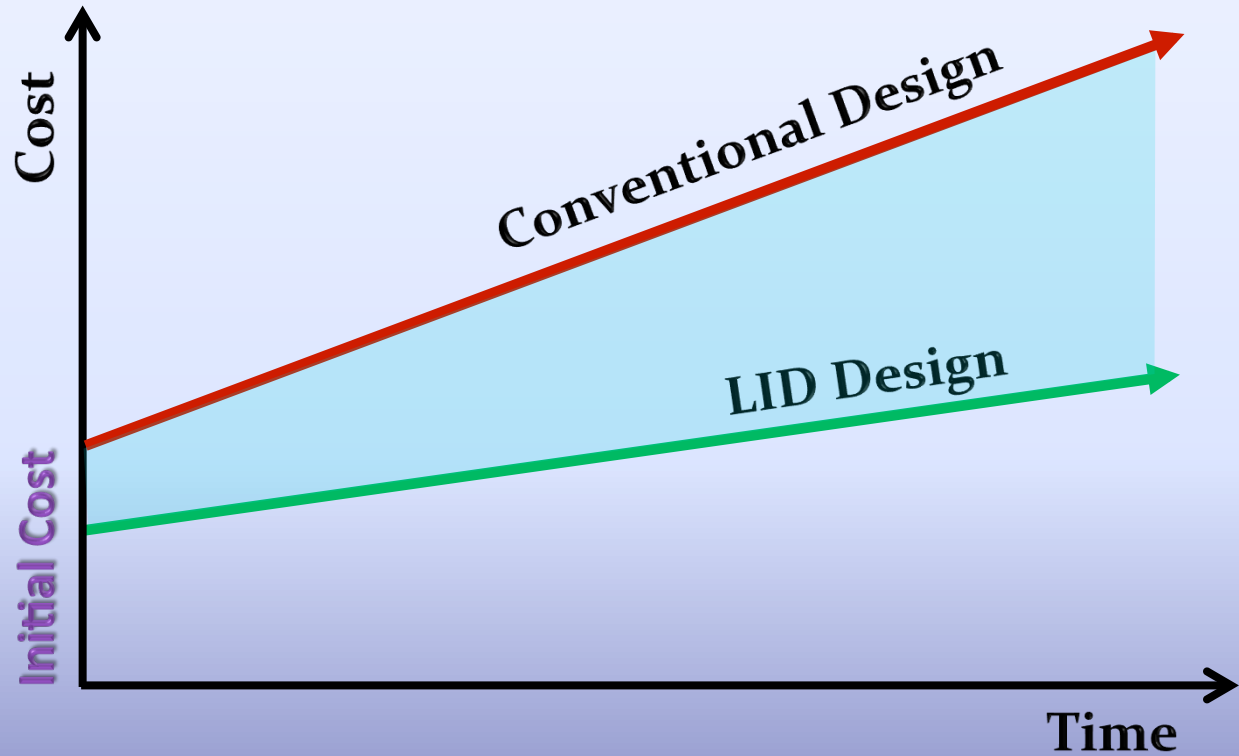




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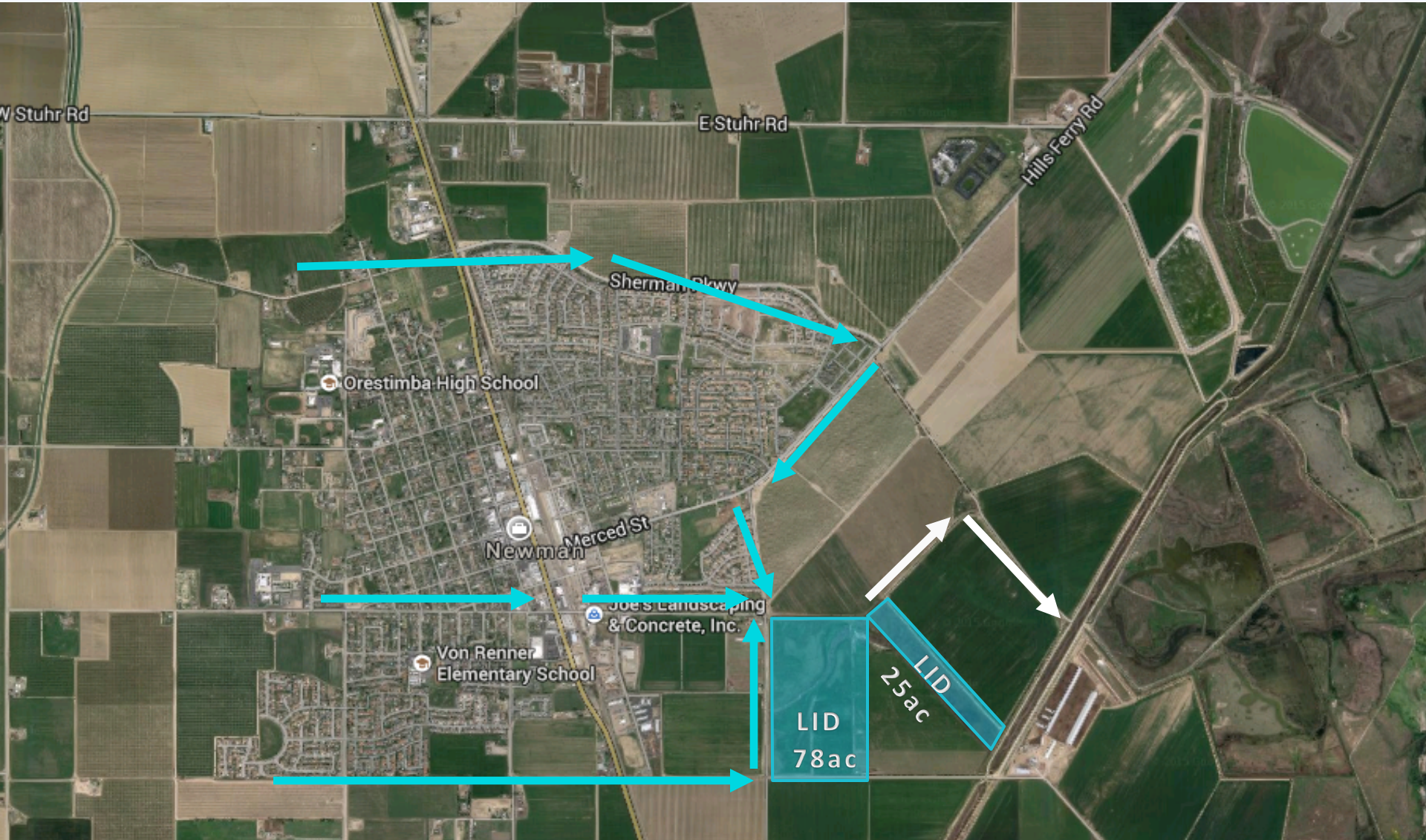
LID BENEFITS

- ❑ Over 20% Cost Saving
- ❑ No Maintenance Costs for Storm Filters/CDS Unit
- ❑ Combination of LID: Bioswale and Bioretention
- ❑ LCC





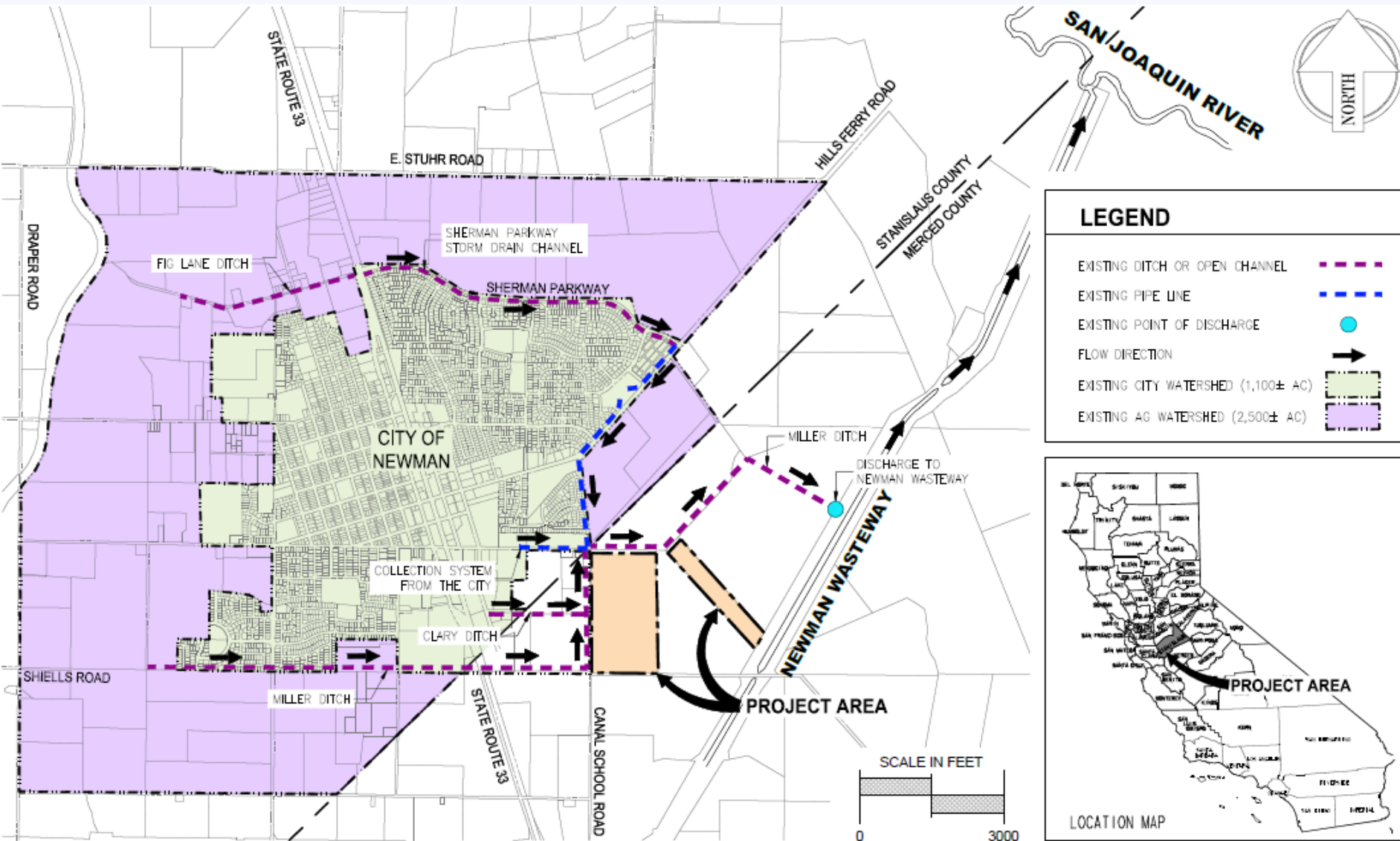
Newman Low Impact Development Project





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Newman Low Impact Development Project





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Newman Low Impact Development Project



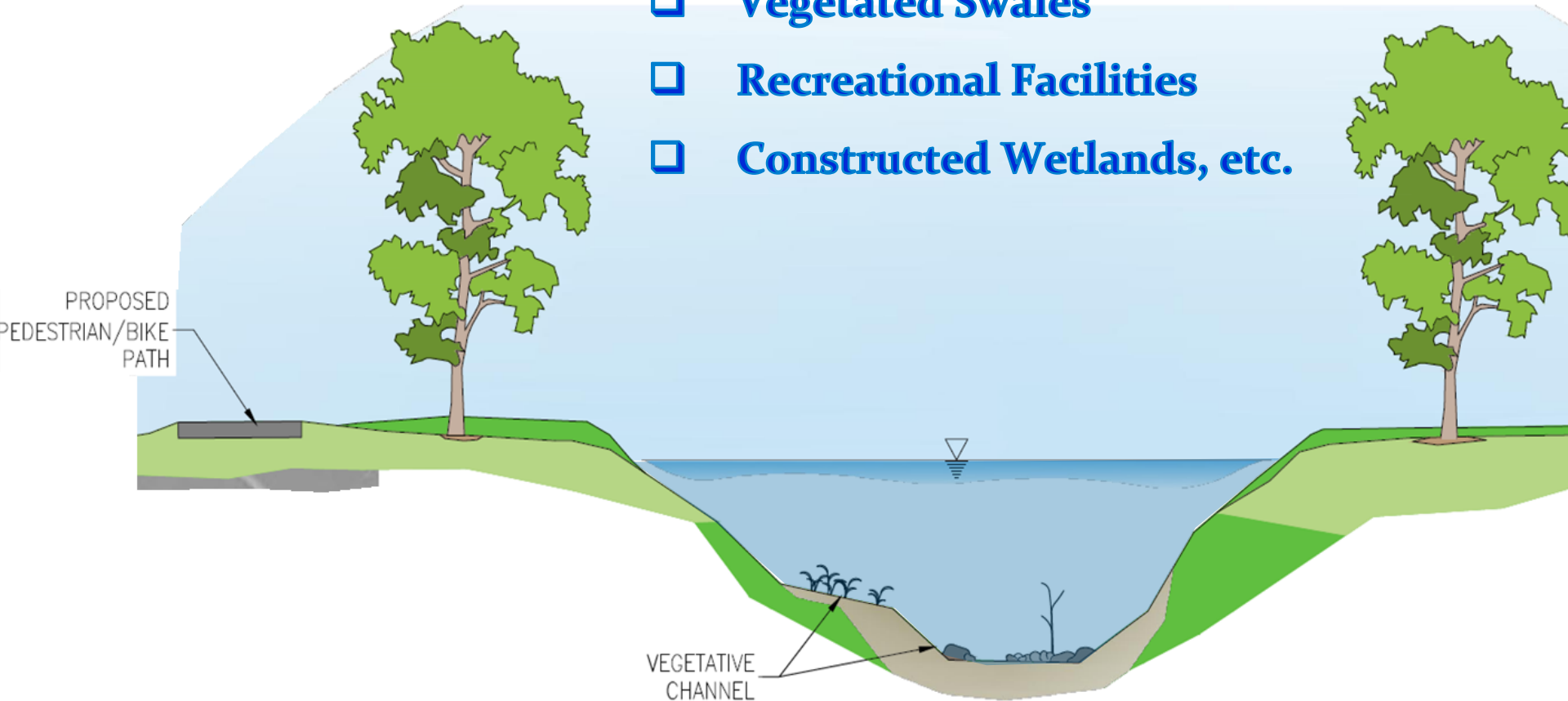


CITY OF NEWMAN

Newman Low Impact Development Project

LID PROJECT COMPONENTS

- Bioretention Basins
- Vegetated Swales
- Recreational Facilities
- Constructed Wetlands, etc.





CITY OF NEWMAN

LID BENEFITS

- Reduce discharge of sediment and pollutants into SJ River**
- Improve quality of municipal and AG drainage discharge water**
- Reuse treated water for irrigation of City properties or sale**
- Preserve Open Space and Improve flood protection**
- Provide recreational enhancements for bike, pedestrian and other recreational uses**
- Pubic Outreach and Education**
- Solar System per RES-BCT (Renewable Energy Self-Generation Bill Credit Transfer) Program**



CITY OF NEWMAN

LID FRIENDLY

Q & A

