COUNTY OF SAN JOAQUIN

DEPARTMENT OF PUBLIC WORKS
P.O. BOX 1810-1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000
FAX # (209) 468-9324

Permit No: **PS-1602799**
Date Issued: 09/09/2016
Start Date: 09/12/2016
Exp. Date: 12/29/2016
Project No: PWP7110005
Quad:

ENCROACHMENT PERMIT

To: RAMSEY MEDEIROS
GOODFELLOW TOP GRADE CONSTRUCTION
94551

Encroachment Type:

Road Widening	SW, C&G	Traffic Signal	

Location:
Thornton Road from Bear Creek to Pershing Ave

In compliance with your request of **09/06/2016** , permission is hereby granted to do work in County right-of-way as shown on attached application and subject to all the terms, conditions and restrictions written below or printed as general or special provisions on any part of this form. See reverse side and attached sheet, if any.

Trench excavations for service connections will not be permitted within ten feet (10') of pavement centerline unless otherwise approved by the Director. Surface of trench patches shall match in kind and be smooth and even with that of abutting surface. Special attention shall be given to depth of utilities through roadside area in anticipation of future drainage facilities, road profile and/or frontage development. All underground utility facilities are to be established and accurately dimensioned on sketches from surveyed centerline of road right of way, or from right of way (border) lines.

Permittee shall call the Department of Public Works, Field Engineering Division (Permit Inspections) at (209)953-7421 at least forty-eight hours prior to beginning any work within the County right of way. All work performed under this permit shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety and Cal-OSHA.

The jobsite shall be kept in a safe condition at all times by the daily removal of any excess dirt or debris which might be a hazard to either pedestrian or automobile traffic. All necessary traffic convenience and warning devices and personnel shall be provided, placed and maintained by and at the sole expense of the Permittee in accordance with the latest edition of the CALTRANS Manual of Traffic Control.

After completion of the work permitted herein, all debris, lumber, barricades, or any excess material shall be removed and the jobsite left in a neat workmanlike manner. Immediately following completion of construction permitted herein, Permittee shall fill out and mail notice of completion (see attached post card) provided by Grantor.

Special Comments:

Traffic Control Per MUTCD and approved plans.
See attached Special Conditions.

FORMS:

SS/WW, R-29		

Est. Permit Fee: $0.00

KRIS BALAJI, Director
Department of Public Works

By: _____
Permit Section

WHITE	-Permittee
GOLDENROD	-PWD Central File
YELLOW	-Field Inspection
PINK	-Permit Section

ENCROACHMENT PERMIT GENERAL PROVISIONS

13-1

1. This permit is issued under and subject to all laws and ordinances of agencies governing the encroachment herein permitted. See the following references:
   STREETS AND HIGHWAYS CODE
   1. Division 1, Chapter 3
   2. Division 2, Chapter 2, Section 942
   3. Division 2, Chapter 4, Section 1126
   4. Division 2, Chapter 5.5 and Chapter 6

   SAN JOAQUIN COUNTY ORDINANCES NUMBERED: 324, 441, 648, 662, 672, 695, 700, 860, 892, 3359, and 3675.

2. It is understood and agreed by the Permittee that the performance of any work under this permit shall constitute an acceptance of all the provisions contained herein and failure on the Permittee's part to comply with any provision will be cause for revocation of this permit. Except as otherwise provided for public agencies and franchise holders, this permit is revocable on five days notice.

3. All work shall be done subject to the supervision of and the satisfaction of the grantor. The Permittee shall at all times during the progress of the work keep the County Highway in as neat and clean condition as is possible and upon completion of the work authorized herein, shall leave the County Highway in a thoroughly neat, clean and usable condition.

4. The Permittee also agrees by the acceptance of this permit to properly maintain any encroachment structure placed by the Permittee on any part of the County Highway and to immediately repair any damage to any portion of the highway, which occurs as a result of the maintenance of the said encroachment structure, until such time as the Permittee may be relieved of the responsibility for such maintenance by the County of San Joaquin.

5. The Permittee also agrees by the acceptance of this permit to make, at its own expense, such repairs as may be deemed necessary by the County Department of Public Works.

6. It is further agreed by the Permittee that whenever construction, reconstruction or maintenance work upon the highway is necessary, the installation provided for herein shall, upon request of the County Department of Public Works, be immediately moved or removed by and at the sole expense of the Permittee.

7. No material used for fill or backfill in the construction of the encroachment shall be borrowed or taken from within the County right of way.

8. All work shall be planned and carried out with as little inconvenience as possible to the traveling public. No material shall be stacked within eight feet (8') of the edge of the pavement or traveled way unless otherwise provided herein. Adequate provision shall be made for the protection of the traveling public. Traffic control standards shall be utilized including barricades; approved signs and lights; and flagmen, as required by the particular work in progress.

9. The Permittee, by the acceptance of this permit, shall assume full responsibility for all liability for personal injury or damage to property which may arise out of the work herein permitted or which may arise out of the failure of the part of the Permittee to properly perform the work provided under this permit. In the event any claim of such liability is made against the County of San Joaquin or any department, official or employee thereof, the Permittee shall defend, indemnify, and hold each of them harmless for such claim.

10. All backfill material is to be moistened as necessary and thoroughly compacted with mechanical means. If required by the County Director of Public Works, such backfill shall consist of gravel or crushed rock. The Permittee shall maintain the surface over structures placed hereunder as may be necessary to insure the return of the roadway to a completely stable condition and until relieved of such responsibility by the County Department of Public Works. Wherever a gravel, crushed rock or asphalt surface is removed or damaged in the course of work related to the permitted encroachment, such material shall either be separately stored and replaced in the roadway as nearly as possible in its original state or shall be replaced in kind, and the roadway shall be left in at least as good a condition as it was before the commencement of operations of placing the encroachment structure.

11. Whenever it becomes necessary to secure permission from abutting property owners for the proposed work, such authority must be secured by the Permittee prior to starting work.

12. The current and future safety and convenience of the traveling public shall be given every consideration in the location and methods of construction utilized.

13. The Permittee is responsible for the preservation of survey monuments located within the area of work herein permitted. Prior to the start of construction, survey monuments that potentially may be disturbed shall be located and referenced by a Licensed Land Surveyor, and a Corner Record filed with the County Surveyor. Any Survey Monuments disturbed during the course of construction shall be reestablished by a Licensed Land Surveyor and another Corner Record filed with the County Surveyor. (Land Surveyors' Act Section 8771)

14. Prior to any excavation, the Permittee shall notify USA North (Underground Service Alert of Northern California and Nevada) at 811 or 800-227-2600 forty-eight (48) hours in advance.

SPECIAL CONDITIONS FOR ENCROACHMENT PERMIT

1. Maintain traffic controls for all roads. Traffic control delays shall not exceed 15 minutes. Two-way traffic shall be maintained during non-working hours with excavated areas backfilled or plated. During working hours, two-way traffic control shall be maintained with one lane open and appropriate flaggers.

2. Access to all properties shall be maintained at all times except when work is occurring at the access point. Minimal delays will be allowed to provide access within the work zone area. Driveway access shall be fully restored at the end of each workday. Driveways disturbed by the contractor shall be replaced with in-kind or better materials.

3. Residents and businesses shall be notified in writing, as approved by the County, 48 hours in advance of any impacts to their access.

4. Any areas where parking is to be restricted shall have signs noting the restrictions in place at least 48 hours in advance.

5. Existing fences shall not be removed without written consent of the property owner. Such consent shall be submitted to the County prior to the removal. Fences removed shall be restored with in-kind or better materials. Restored fences shall not encroach into County right-of-way.

6. All destroyed or obliterated pavement markings must be replaced in kind by the permittee. Typical pavement markings include but not limited to lane lines, centerlines, stop and stop ahead legends, limit lines, raised pavement markers and miscellaneous delineators.

7. The Permittee is responsible for the preservation of survey monuments located within the area of work herein permitted. Prior to the start of construction, survey monuments that potentially may be disturbed shall be located and referenced by a Licensed Land Surveyor, and a Corner Record filed with the County Surveyor. Any Survey Monuments disturbed during the course of construction shall be reestablished by a Licensed Land Surveyor and another Corner Record filed with the County Surveyor. (Land Surveyors' Act Section 8771)

8. All future maintenance of the pipeline and related facilities within the County right-of-way will require a San Joaquin County Encroachment Permit.

9. Trenches shall be maintained in a smooth and even condition to the satisfaction of the County throughout the project limits at all times.

10. All trenches shall be completely backfilled or shored and plated at the end of each workday, and the roadway restored to two-way traffic. If plating is to be used, a trench shoring and plating plan suitable for traffic loadings shall be prepared by a registered civil engineer and submitted for prior approval by the County.

11. The contractor shall use San Joaquin County Improvement Standard R-29 when backfilling trenches within the County right-of-way. Where the existing road structural section is below standard, a minimum section of 3 inches of asphalt concrete over 8 inches of aggregate base shall be required.

12. Areas of Thornton Road subject to pavement cuts shall be repaired per San Joaquin County Department of Public Works Improvement Standards Section 2-5.0 Trench Cut Policy.

13. Final paving for trench repair or road resurfacing shall be per Caltrans' specifications and shall not occur between November 1 and March 31, without prior authorization from the San Joaquin County Department of Public Works Field Engineering Division, contact them at 209-953-7421.

14. No paving joints are allowed within paved shoulder; contractor shall pave all the way to outer edge of paved shoulder.

15. All standard roadway striping and signage shall be clearly visible, maintained and restored throughout the construction zone during and after the project.

16. In addition to standard dust control measures, streets shall be maintained in a clean condition, free of dirt, mud and debris during construction activities. The contractor shall provide daily, or as needed, street sweeping using a modern mechanical or vacuum-assisted street sweeper.

17. The contractor shall not conduct construction operations in rain or heavy fog conditions.

APPLICATION FOR ENCROACHMENT PERMIT

PLEASE PRINT:

Date 8/1/2016

To: San Joaquin County
Department of Public Works

Ramsey Medeiros
(Applicant Name)

50 Contractors St
(Mailing Address)

Livermore, CA, 94551
(City, State, Zip Code)

(925) 580-0148
(Area Code - Telephone Number)

Permit?

OFFICE USE ONLY

JOB#	PS-1602799	REF #	PWP 7616.01
APN		CR #	
EXP. DATE			
VALID	9/12/16 TO 12/29/17		DRIVEWAYS:
STREET	Thornton Rd		*
AREA	QUAD		*
TYPE			*
FORMS			
NOTES			

Sketch (Detailed plans may be submitted)

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the east/west side of Thornton Road & Bear Creek approximately 1.6 feet/(mile) South of Bear Creek/Estate Dr, _____, by performing the following work (description of work):

Demo Asphalt/Concrete Curb & Gutter, Grading, Paving, Landscaping, Sign Relocation

Work will commence on or about ~~8/10/2016~~ 9/12/16 for approximately 280 working days.

I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.

Signature of Applicant - Title

8/25/16
Date

GENERAL PROVISIONS
GOVERNING INSTALLATION OF SUBSURFACE STRUCTURES AND PIPELINES WITHIN COUNTY ROAD RIGHTS-OF-WAY

PUBLIC CONVENIENCE AND SAFETY:

A. Before obstructing any private driveway entrance or County road traveled way with a trench, spoil bank, equipment or other barrier permitted for any prolonged period of time, the Permittee shall notify the known users of the respective thoroughfare(s) involved, and shall provide access for vehicular and pedestrian traffic to and from the road.
   1. Unless otherwise permitted, all work shall be conducted in such a manner that no less than one lane of the existing County road traveled way will be maintained open to public traffic during working hours in a smooth and safe riding condition(s). Two lanes shall be open after working hours.
   2. In cases where road closure is permitted, the permission to close the road will be granted under the condition that the Permittee notify the following persons and/or agencies of the time, the period of closure, and the detour route at least twenty-four (24) hours prior to said road closure.
      a. The County of San Joaquin Public Works Department
      b. The County of San Joaquin Sheriff's Office
      c. The local postal service
      d. The local fire district
      e. The local school district
      f. The local residents involved

B. Should hazardous conditions relative to the installation operations warrant flagmen, as many capable flagmen as may be necessary shall be provided by the Permittee and stationed in advance of work to warn and direct traffic.

C. Lights, signs and barricades shall be furnished, erected and maintained by the Permittee for the adequate warning and convenience of the public, with particular attention to be taken in this regard after dark.

D. Any excess dirt and/or debris which might be a hazard to either automobile or pedestrian traffic, uncontrollable by lights, signs and barricades, shall be removed from the jobsite daily.

STRUCTURES:

A. Walls of structures shall be such quality and strength that they will resist all pressures and will not crack or be deformed in such a way as to create a hazard or maintenance problem at any time. Therefore, the minimum structural requirements for concrete pipe placed under county road rights-of-way shall conform to the following American Association of State Highway and transportation Officials (AASHTO) designations.
   1. For concrete pipe up to and including thirty-three inches (33") inside diameter, extra strength concrete conforming to AASHTO Designation M 170M.
   2. For concrete pipe thirty-six inches (36") inside diameter and larger, reinforced concrete pipe conforming to AASHTO Designation M 170M Class III.
   3. Plastic pipe conforming to AASHTO Designation M294.

B. All concrete pipe joints with County road rights-of-way shall be sealed against leakage and/or infiltration with rubber gasket in conformance with Section 65-1:06 of the California Standard Specifications, or with other methods as may be permitted under the Special Provisions.

C. Cast-in-place concrete pipe, vitrified clay pipe, spiral welded steel pipe, or corrugated aluminum alloy pipe shall not be installed within the County road rights-of-way unless specifically so stated in the Special Provisions, and only under the conditions as provided.

D. All structures to be buried within the County rights-of-way shall be set at such elevations as to allow minimum coverage of thirty inches (30") to the centerline of the roadways and twelve inches (12") at the bottoms of borrow ditches each side of the roadways. The depths of structures shall be established below a flat plane extending across the rights-of-way, no part of which shall extend above the elevations stated above; manholes, lampholes, valves, etc. not included. Future surface elevations shall be anticipated as nearly as possible and structure elevations shall be established for future adjustments accordingly.

E. The County hereby reserves the right to specify in the Special Provisions the gage and surface treatment of any galvanized corrugated metal pipe that is to be installed.

F. All longitudinal utility facilities are to be established (and dimensioned on sketches) from surveyed centerline of road right-of-way, not from right-of-way (border) lines.

REPAIRS OF THE COUNTY RIGHT-OF-WAY:

A. All excavations shall be backfilled and compacted immediately after work therein has been completed.

B. Trenched shall not be left open farther than 300 feet in advance of pipe laying operations, or 200 feet to the rear thereof, unless otherwise permitted by the Engineer.

C. Unless otherwise permitted under the Special Provisions, backfill shall be placed and mechanically compacted in such a manner that the relative compaction throughout the entire fill within the County road right-of-way shall conform to the percentages of compaction as shown on the Trench detail.

D. Backfill material shall be placed in horizontal uniform layers not to exceed in thickness, before compaction, 0.67 foot in the bedding region, one –foot where 90% compaction is required, and two-feet where 80% compaction is required.

E. No portion of the excavation(s) shall be compacted by ponding or jetting unless a maintenance bond is provided.

F. Gravel backfill material shall be utilized only where specifically so stated on the face of the permit. It shall be compacted by means of a high-frequency internal vibrator, the compactor to be a size and type approved by the Engineer. Points of compaction shall not be greater than 18" centers and to the full depth of the lift.

G. All pavements, curbs, gutters, sidewalks, borrow ditches, pipes, head walls, road signs, trees, shrubbery, and/or other permanent road facilities impaired by or as a result of construction operations at the construction site(s) occupied by materials and/or equipment, shall be restored immediately upon backfilling of the excavation to the original grades and cross sections, and to a condition as good as, or better than existing prior to construction.

H. All surfacing materials of roadways and driveway approaches cut or damaged by or as a result of construction operations, shall be replaced within ONE WEEK following the backfilling of excavation, weather permitting, with compacted layers of surfacing materials at least as thick as the existing, and no less than two inches (2") of asphalt concrete over six inches (6") of aggregate base, both as specified below.
   1. Asphalt Concrete: Combined mineral aggregate shall conform to the quality and gradation requirements for Type "B" one-half inch(1/2) maximum aggregate, coarse or medium gradation as specified in Section 39 of the California Standard Specifications. The bituminous binder to be mixed with mineral aggregate shall be paving asphalt having (Grade PG 64-10), unless otherwise directed by the Engineer. Placement of asphalt concrete surfacing shall conform to the applicable provisions of Section 39 of the California Standard Specifications.
   2. Aggregate Base: Combined mineral aggregates shall conform to the quality and the grading for three-quarter inch (3/4") maximum size aggregate Class 2 Aggregate Base specified in Section 26 of the California Standard Specifications.

I. Before acceptance of repairs to the County road rights-of-way, all unsightly and detrimental dirt, dust and/or debris shall be removed and the construction areas left in a neat and presentable condition(s).
   1. If necessary, County road traveled way and driveway pavements shall be washed with water to remove dirt and dust.
   2. Driveway approaches and field entrance pavements damaged by equipment or spoil banks shall be repaired as directed by the Engineer.

J. Upon request by the County, any settlement, sagging of surface, or cracking of pavement shall be repaired immediately by and at the sole expense of the Permittee for a period of one year following acceptance of the work.

SPECIAL PROVISIONS

Winter Weather Utility Work

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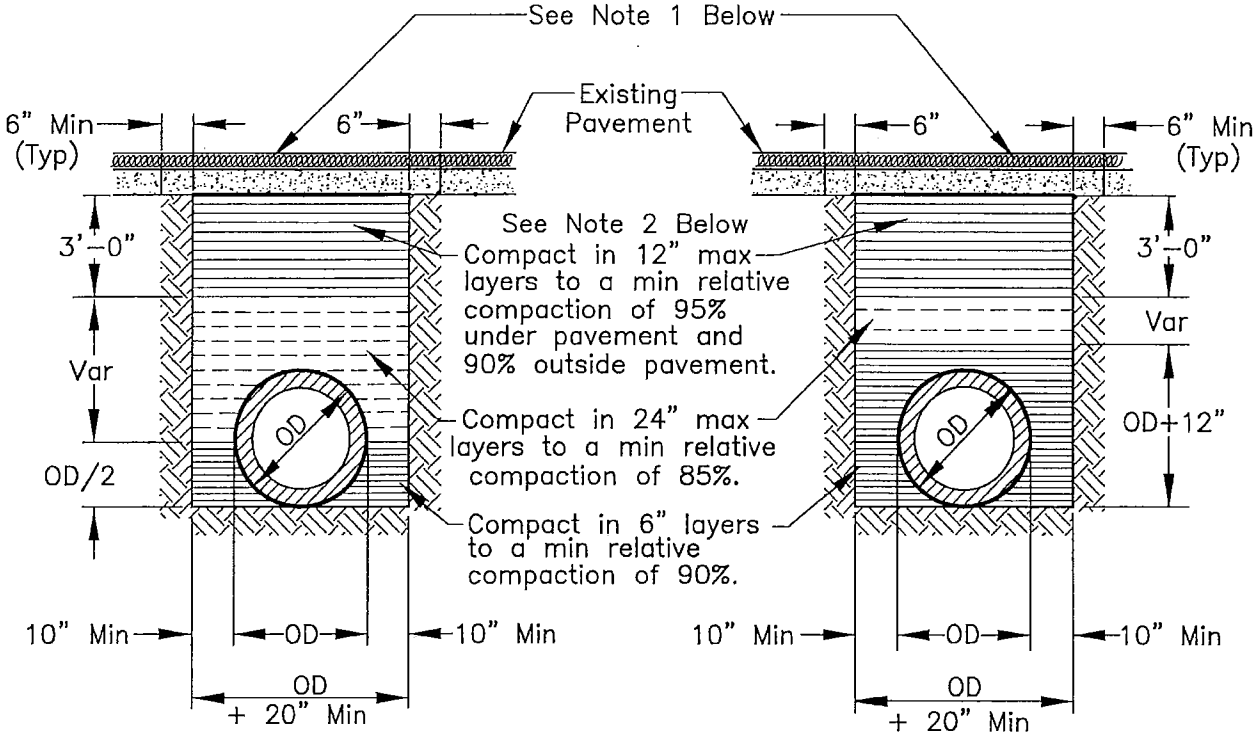
1. **SUPERVISION:** The utility company (**permittee**) shall furnish full-time supervision of all work to insure compliance with the permit provision.

2. **START OF WORK:** No work within the County right-of-way shall be started until the utility company representative has made an evaluation of weather conditions and has determined the work can be accomplished under the provisions of the permit.

3. **CLEAN PAVEMENT:** Dirt and mud shall not be deposited on the pavement outside the area of work, and if inadvertently tracked onto the road travel way shall be removed immediately.

4. **DAILY RESTORATION:** Private driveways and road intersections shall be restored daily.

5. **WEATHER-TIGHT CONDITIONS:** All trenches shall be filled and compacted, ditches and other drainage facilities regarded and opened, and the entire work area restored to weather-tight condition prior to any rain.



RIGID CONDUIT

FLEXIBLE CONDUIT

NOTES:

1. New pavement shall be 1" thicker than existing pavement, minimum of 0.25 Ft. New base shall be 1" thicker than existing base, min of 0.50 Ft.
2. Select native material or imported granular material as approved by the Director of Public Works. Backfill with materials equal to or better than the existing pavement and base in quality.
3. Relative compaction of materials shall be tested in accordance with the State of California, Dept. of Transportation Testing Manuals, test method No. California 216 or 231.
4. All existing pavement shall be neatly cut to line prior to trench excavation.
5. Jetting or ponding will be permitted within the street right-of-way with a 3 year bond, when approved by the Director of Public Works.
6. When shown by soil composition and compactability, ninety percent (90%) compaction may be used, when approved by the Director of Public Works.
7. Special bedding and backfill requirements may be shown on the plans or specified in the special provisions.

Public Works San Joaquin County
Working for YOU

TYPICAL TRENCH BACKFILL

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS

Date: DEC 2014

Approved by: Thomas M. Flinn

No.	Revision Description	Date

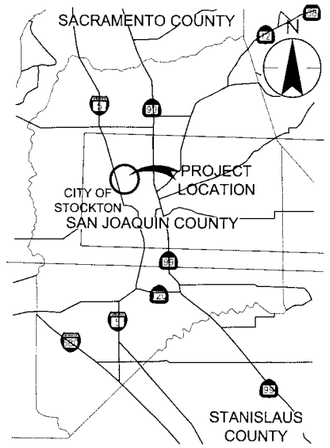
Std. Dwg. No. **R-29**

CITY OF STOCKTON
DEPARTMENT OF PUBLIC WORKS

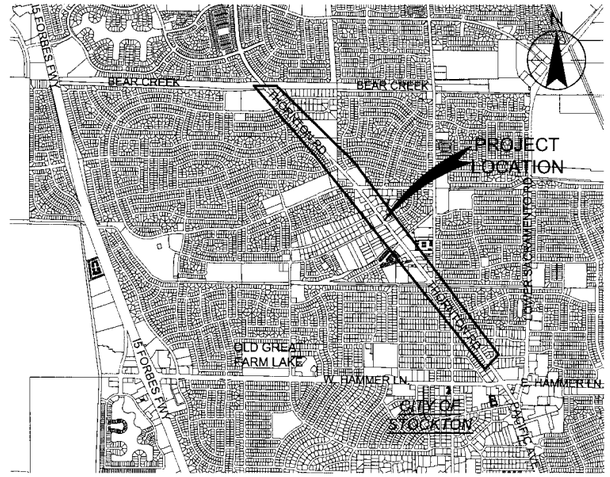
PLANS FOR THE CONSTRUCTION OF

THORNTON ROAD WIDENING PROJECT

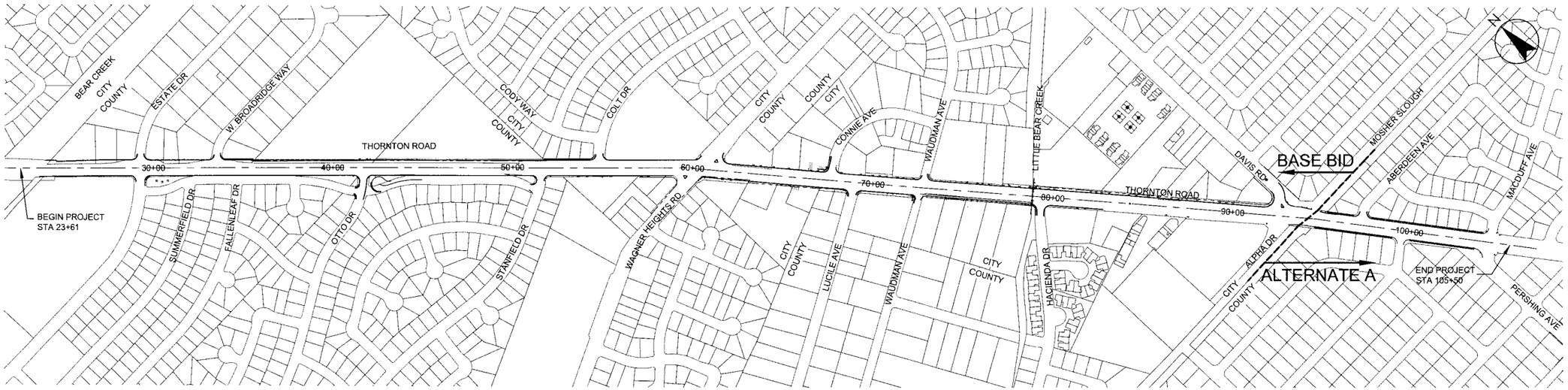
CITY OF STOCKTON, CALIFORNIA
PROJECT No. 14-28



VICINITY MAP
SCALE: N.T.S.



LOCATION MAP
SCALE: N.T.S.



Stantec
Stantec Consulting Inc.
1340 Treat Blvd. Suite 300
Walnut Creek, CA U.S.A. 94597
Tel. 925.941.1400
Fax. 925.941.1401
www.stantec.com

No.	M/D/YY	Revision / Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TITLE SHEET

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
C59758
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

TITLE SHEET

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No.	Revision
G-1	0
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JOB NO. 183910142	

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53	SR-16	SITE RECONSTRUCTION APN 080-300-15, APN 080-300-14 APN 080-180-19
54	SR-17	SITE RECONSTRUCTION APN 080-310-20
55	CD-1	CONSTRUCTION DETAILS
56	CD-2	CONSTRUCTION DETAILS
57	CD-3	CONSTRUCTION DETAILS
58	CD-4	CONSTRUCTION DETAILS
59	CD-5	CONSTRUCTION DETAILS
60	CD-6	CONSTRUCTION DETAILS
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81	SC-4	STAGE 1 – CONSTRUCTION PLAN STA. 65+50.00 TO STA. 84+50.00
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87	SC-10	STAGE 2 – CONSTRUCTION PLAN STA. 65+50.00 TO STA. 84+50.00
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89	SC-12	STAGE 2 – CONSTRUCTION PLAN STA. 103+50.00 TO STA. 112+50.00
90	SC-13	STAGE 3 – CONSTRUCTION PLAN STA. 18+00.00 TO STA. 27+50.00
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124	TTS-5	TEMPORARY TRAFFIC SIGNAL PLAN THORNTON RD. AT ESTATES DR.
125	TTS-6	TEMPORARY TRAFFIC SIGNAL PLAN THORNTON RD. AT WAGNER HEIGHTS RD.
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145	L-07	SOILS AND WATER USE CALCULATIONS

LEGEND

EXISTING

- EXISTING (AS NOTED)
- RIGHT-OF-WAY LINE
- EXISTING GUARDRAIL
- EXISTING FENCE
- EXISTING MANHOLE, SAND TRAP
- EXISTING TRAFFIC SIGNAL POLE
- EXISTING UTILITY POLE
- EXISTING STREET LIGHT POLE
- EXISTING PIPES
- EXISTING UTILITY CABINETS
- EXISTING DRAINAGE INLETS
- EXISTING STREET SIGNS
- EXISTING BILLBOARD SIGNS
- EXISTING ELEVATION
- EXISTING FIRE HYDRANT
- EXISTING BLOCK WALL
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING ELECTRICAL LINE
- CONTOUR LINE
- GAS LINE
- SANITARY SEWER
- STORM DRAIN
- GAS VALVE
- BLOW OFF VALVE
- TELECOMMUNICATIONS MANHOLE
- SS OR ST MANHOLE

PROPOSED

- CITY / COUNTY LIMITS
- PROPOSED FENCE
- PROPOSED SIGN
- FLOW LINE DIRECTION
- REMOVE EXISTING ASPHALT AND AB
- XX.XX PROPOSED ELEVATION
- (X) (X) DETAIL REFERENCE NUMBER SHEET NUMBER
- CONIFER OAK NON-OAK TREE REMOVAL
- KEYSTONE WALL
- (7) DRAINAGE SYSTEM NUMBER
- (J) STORM DRAIN COMMON POINT
- SAWCUT LINE
- DRIVEWAY PAVING, AC OR PCC (SEE SR-SHEETS)
- DRIVEWAY CONFORM
- SOUNDWALL
- PROPOSED CATCH BASIN
- HANDICAPPED RAMP
- T1 STORMWATER TREATMENT DEVICE LAYOUT
- STORM DRAIN MANHOLE
- STORMWATER TREAMENT DEVICE

BENCHMARK

VERTICAL CONTROL IS NGVD29, HORIZONTAL CONTROL IS CCS 83, ZONE 2 COORDINATES

ELEVATION = 14.43 FEET, NGVD29

DESCRIPTION:
CITY OF STOCKTON BENCHMARK NO. 8, A SAN JOAQUIN COUNTY BRASS DISK IN MONUMENT WELL AT THE INTERSECTION OF THORNTON ROAD AND DAVIS ROAD.

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACP	ASBESTOS CONCRETE PIPE
APC	ALTERNATE PIPE CULVERT
AP	ANGLE POINT
APN	ASSESSOR'S PARCEL NUMBER
BC	BEGIN CURVE
C	CUT
C/F	CUT/FILL
CF	CUBIC FEET
CG&S	CURB, GUTTER AND SIDEWALK
CL	CONSTRUCTION LINE, CENTERLINE, OR CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CT	CALTRANS, CA DEPT OF TRANSPORTATION
DIA OR ø	DIAMETER
DWY	DRIVEWAY
EG	EXISTING GRADE
EL, ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELWAY
EX.ETW	EXISTING EDGE OF TRAVELWAY
EX.EP	EXISTING EDGE OF PAVEMENT
EX, EXIST, (E)	EXISTING
F	FILL
F/C	FILL/CUT
FES	FLARED END SECTION
FF	FILTER FENCE
FG	FINISHED GRADE
FL	FLOW LINE
GA	GAUGE
GB	GRADE BREAK
H, HORIZ	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HP	HINGE POINT
IE	INVERT ELEVATION
LC	LENGTH OF CHORD
LF	LINEAR FEET
LOL	LAYOUT LINE
LT	LEFT
MH	MANHOLE
MIN	MINIMUM
MAX	MAXIMUM
MPH	MILES PER HOUR
NGVD	NATIONAL GEODETIC VERTICAL DATUM (1929)
N.T.S.	NOT TO SCALE
OC	ON CENTER
OG	ORIGINAL GRADE
PC	POINT OF CURVE
PCC	PORTLAND CEMENT CONCRETE
PG	PROFILE GRADE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCEMENT FABRIC
PROP	PROPOSED
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECT
R	RADIUS
R/W	RIGHT OF WAY
RAC	RUBBERIZED ASPHALT CONCRETE
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RW	RETAINING WALL
S	SEWER
SC	SAWCUT
SD	STORM DRAIN
SF	SQUARE FEET
SHT	SHEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TOT	TOTAL
TOW	TOP OF WALL
TYP	TYPICAL
V, VERT	VERTICAL
VC	VERTICAL CREST
W	WATER OR WEST
W.S.E.	WATER SURFACE ELEVATION

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No.	Revision	By	Appd.
1	MM/YY	Description	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SHEET INDEX, LEGEND, AND ABBREVIATIONS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER — JOSEPH A. MACTUTIS — C59768 — EXP 12/31/17 — CIVIL — STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis

Submitted Date: April 18, 2016

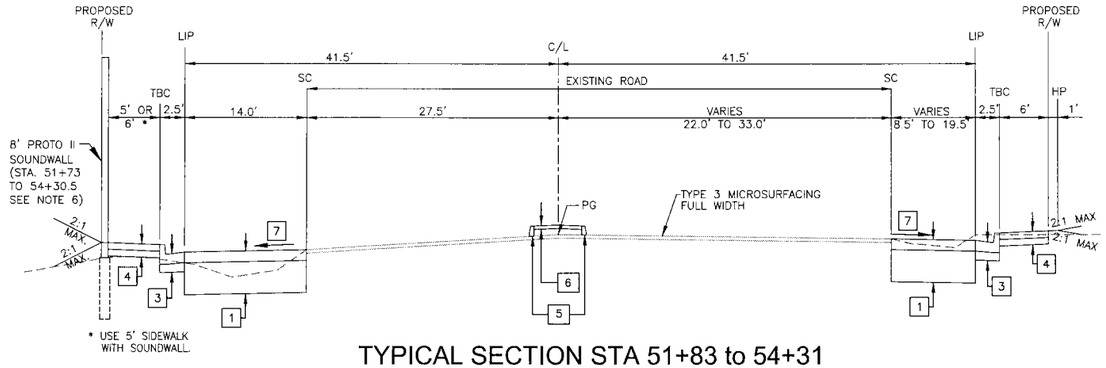
THORNTON ROAD WIDENING
PROJECT
Stockton, California

SHEET INDEX, LEGEND, & ABBREVIATIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

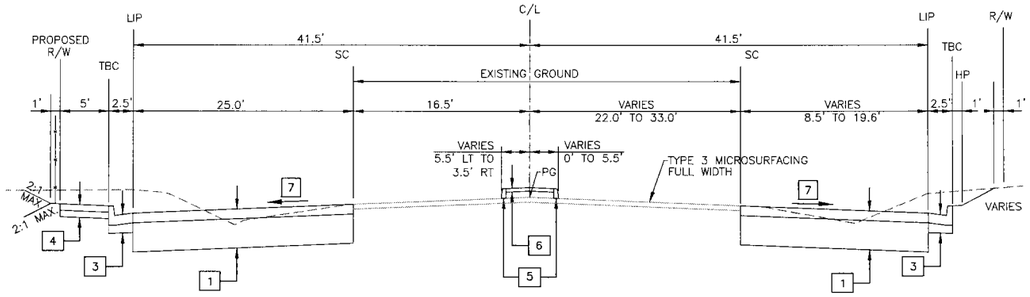
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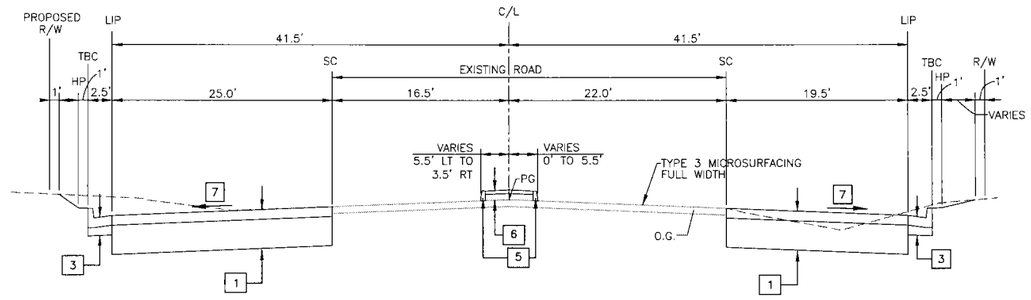
TYPICAL SECTION STA 51+83 to 54+31

N.T.S. (SEE NOTE 3)



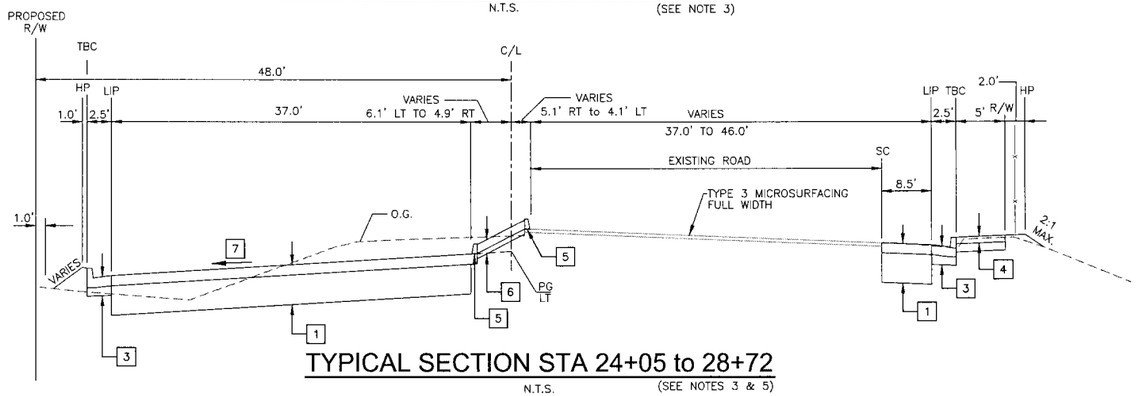
TYPICAL SECTION STA 42+22 to 51+83

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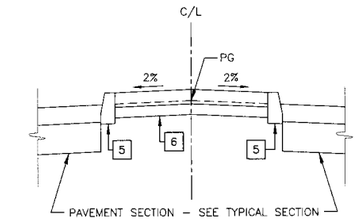
TYPICAL SECTION STA 29+85 to 41+21

N.T.S. (SEE NOTE 3)



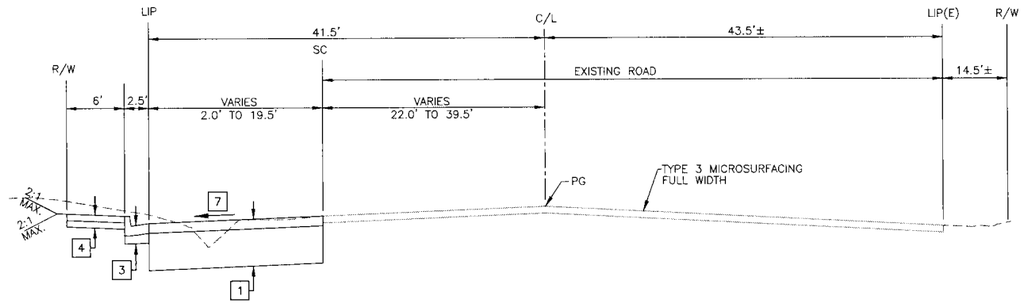
TYPICAL SECTION STA 24+05 to 28+72

N.T.S. (SEE NOTES 3 & 5)



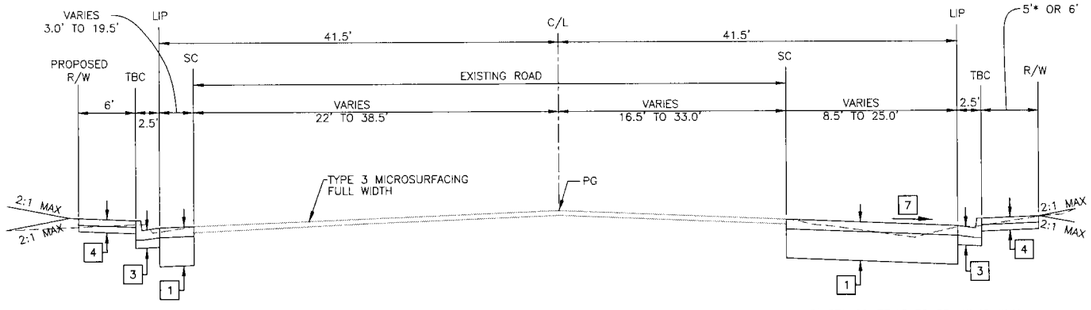
STAMPED CONCRETE MEDIAN DETAIL 2

N.T.S.



TYPICAL SECTION STA 83+00 to 87+62, STA 90+20 to 91+72

N.T.S.



* 5' STA 60+77.15 TO 68+42.29 ONLY

TYPICAL SECTION STA 54+31 to 83+00

N.T.S. (SEE NOTE 3)

TYPICAL STRUCTURAL SECTIONS:

1. 0.5' AC (TYPE A) 1.92' CL2 AB
2. 0.35' AC (TYPE A) 0.17' MIN COLD PLANE
3. VERTICAL CURB & GUTTER CITY OF STOCKTON STD DWG 25B
4. SIDEWALK IS 0.5' CONC. OVER 0.33' CL2 AB CITY OF STOCKTON STD DWG 25B
5. CALTRANS TYPE A1-8 CURB STD DWG A87A
6. 0.5' STAMPED CONCRETE IS 0.5' OVER 0.33' CL2 AB (SEE DETAIL 2)
7. PAVEMENT SLOPES ARE FROM SAWCUT LIMITS TO LIP OF GUTTER PROFILE GRADES AS SHOWN ON C-SHEETS

SECTION NOTES:

1. THE DIMENSION OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. PROFILE GRADE IS AT TOP OF AC
3. FOR PAVEMENT TRANSITIONS, TAPERS, MEDIANS AND CURB DETAILS – SEE LAYOUTS AND CONSTRUCTION DETAIL SHEETS.
4. FOR WALL DETAILS, SEE PROTO II WALL OR EQUAL.
5. PROFILE GRADE LT & RT ARE GIVEN AT THE CENTERLINE.
6. APPLY ANTI-GRAFFITI COATING TO STREET SIDE OF WALL ONLY.
7. PAVEMENT SECTION IS BASED ON TI=10.0
8. NO COLD PLANE ON MOSHER SLOUGH CULVERT.

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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1	MALYY			

Client/Project: CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title: TYPICAL CROSS SECTIONS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

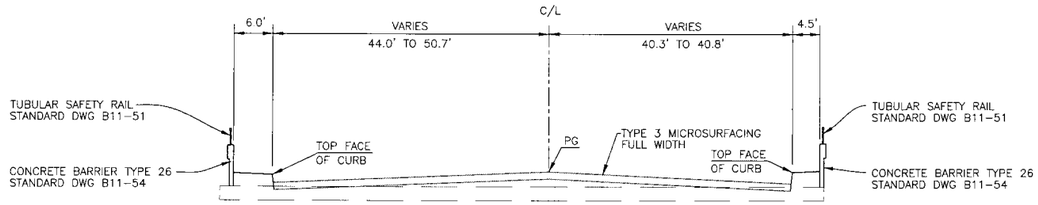
THORNTON ROAD WIDENING PROJECT
Stockton, California

TYPICAL CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

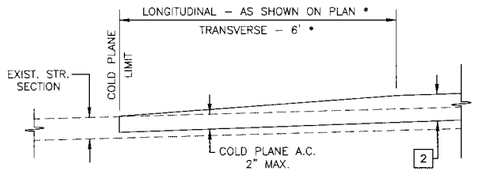
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CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
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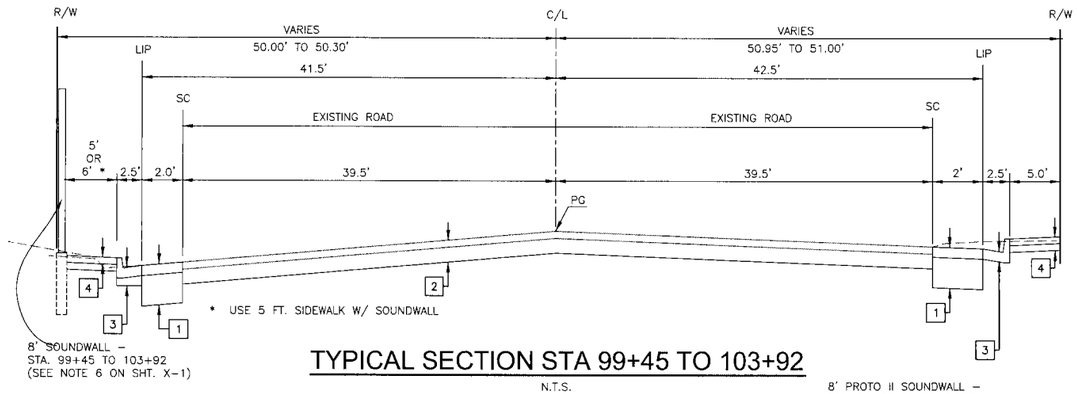
MOSHER CREEK CULVERT
TYPICAL SECTION STA 93+98.00 TO 94+50.00

N.T.S. (SEE NOTE 8 ON SHT X-1)



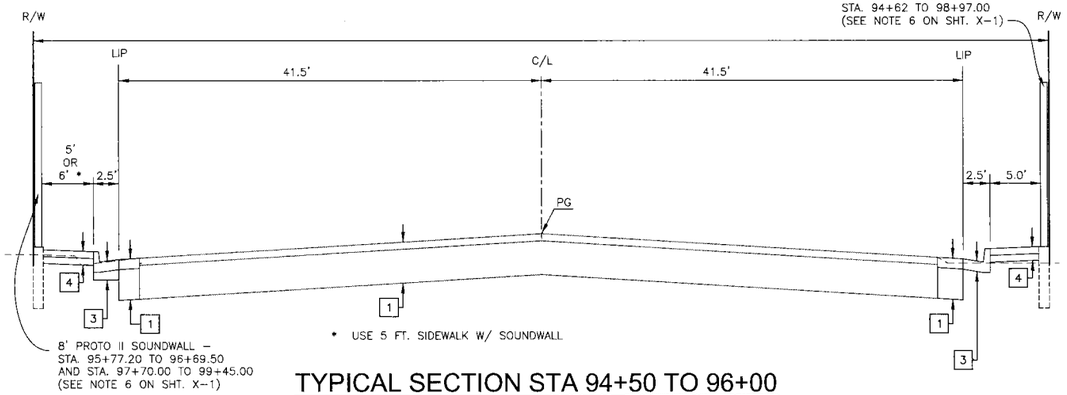
CONFORM DETAIL 3
N.T.S.

* RELATIVE TO DIRECTION OF TRAVEL



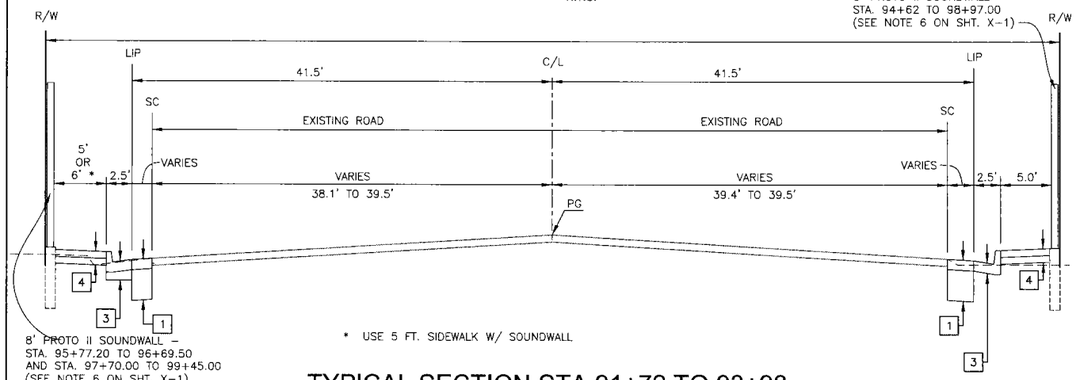
TYPICAL SECTION STA 99+45 TO 103+92

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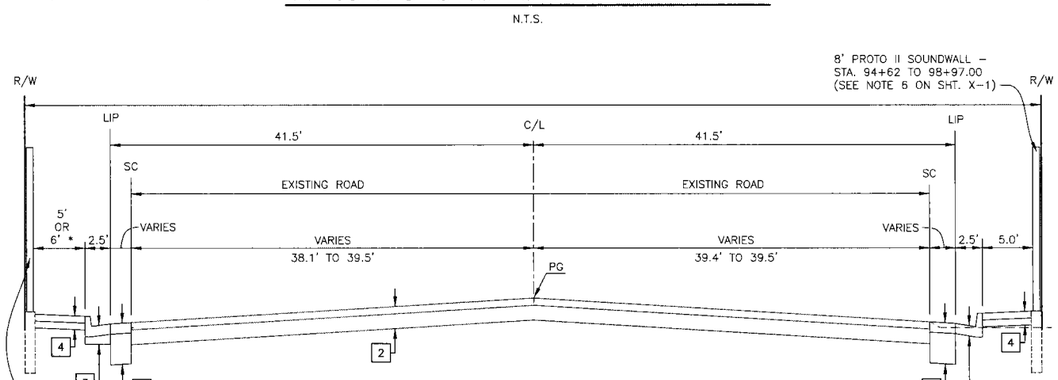
TYPICAL SECTION STA 94+50 TO 96+00

N.T.S.



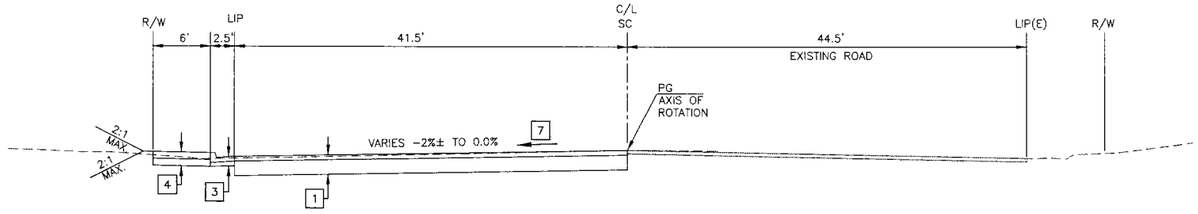
TYPICAL SECTION STA 91+72 TO 93+98

N.T.S.



TYPICAL SECTION STA 96+00 to 99+45

N.T.S.



TYPICAL SECTION STA 87+62 to 90+20

N.T.S.

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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Thornton Road Widening
Stockton, California

Title
TYPICAL CROSS SECTIONS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

TYPICAL CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
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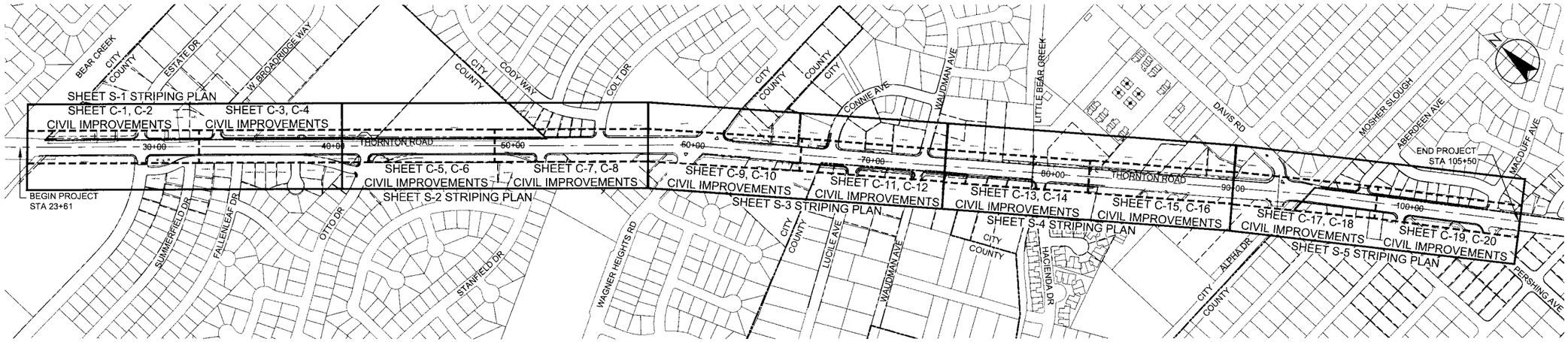
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JOB NO.	
183910142	

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
KEY SHEET

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

KEY SHEET

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

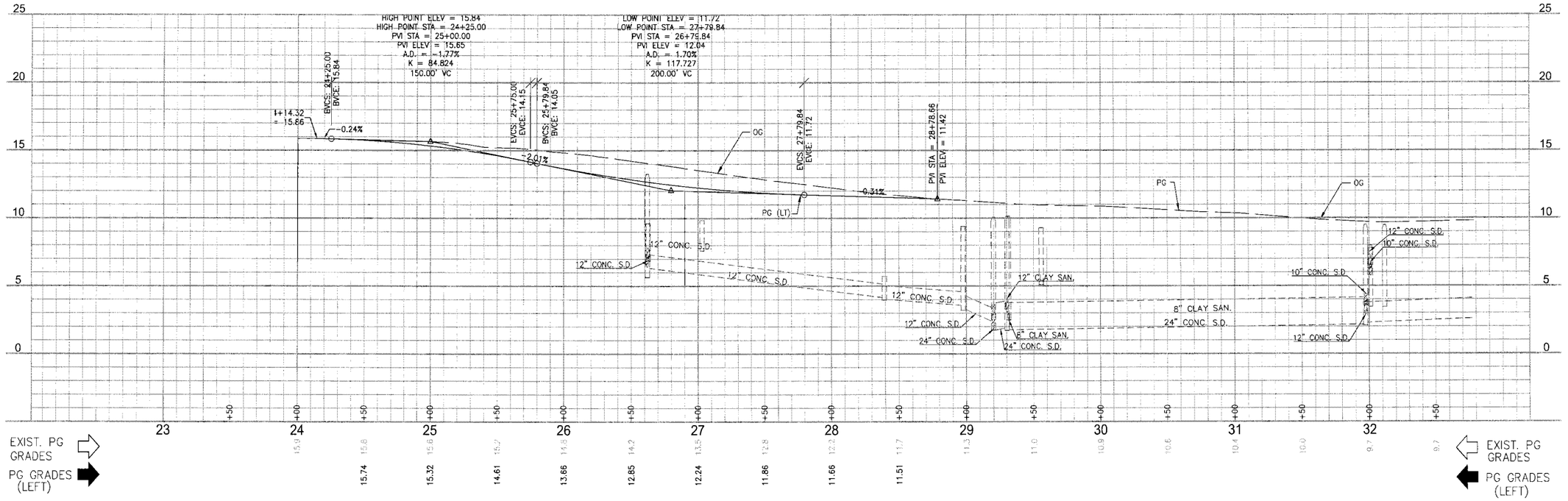
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No.	Revision
C-0	0
5 OF 145	
JOB NO. 183910142	

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THORNTON ROAD

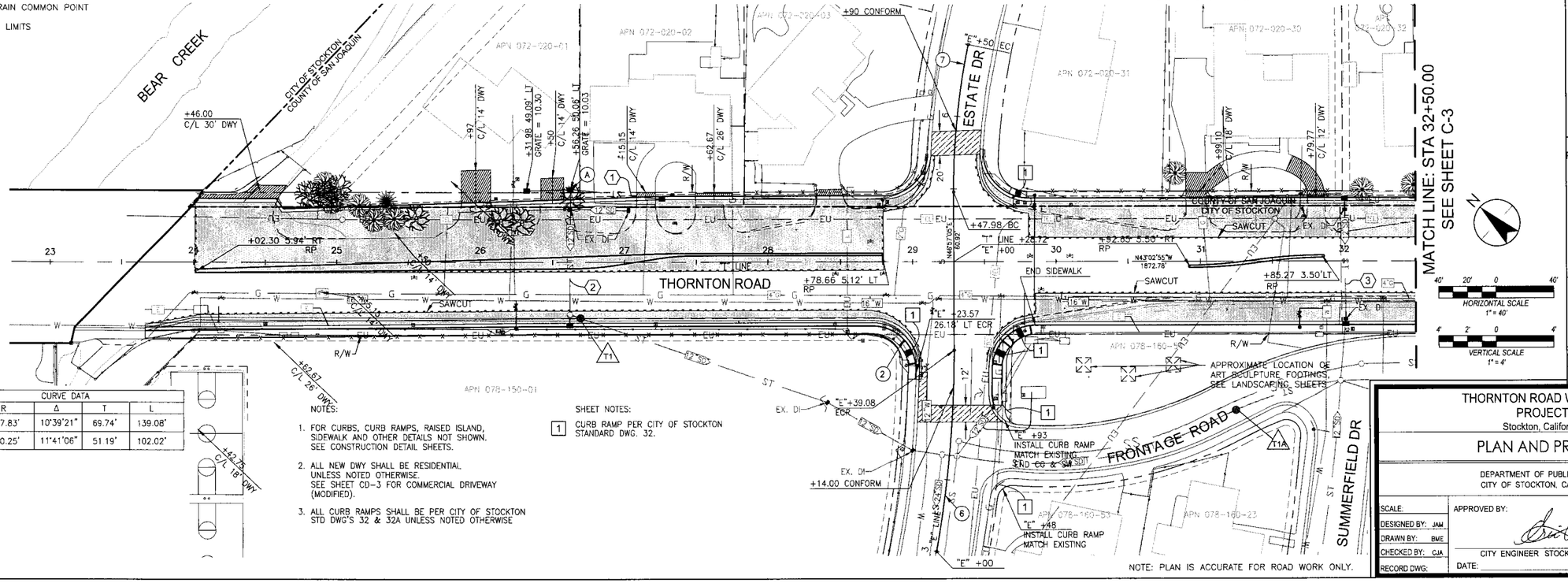
LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

STORMWATER TREATMENT DEVICE LAYOUT

LOCATION	STATION / OFFSET	INVERT IN	INVERT OUT	RIM	TYPE	COMMENTS
T1	26+69.38 / 38.4 FT RT	6.35*	6.34*	13.01	CDS2015	DOWNSTREAM OF SYSTEM 2; 60" DIA.
T1A	31+24.30 / 102.2 FT RT	2.02*	2.01*	9.71	CDS2015	IN FRONTAGE ROAD; 60" DIA.

*VERIFY INVERTS IN FIELD



CURVE DATA				
#	R	Δ	T	L
6	747.83'	10°39'21"	69.74'	139.08'
7	500.25'	11°41'06"	51.19'	102.02'

NOTES:

1. FOR CURBS, CURB RAMPS, RAISED ISLAND, SIDEWALK AND OTHER DETAILS NOT SHOWN. SEE CONSTRUCTION DETAIL SHEETS.
2. ALL NEW DWY SHALL BE RESIDENTIAL UNLESS NOTED OTHERWISE. SEE SHEET CD-3 FOR COMMERCIAL DRIVEWAY (MODIFIED).
3. ALL CURB RAMPS SHALL BE PER CITY OF STOCKTON STD DWG'S 32 & 32A UNLESS NOTED OTHERWISE

SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	MM/YY	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 23+00.00 TO STA. 32+50.00

Permit-Seal

PROFESSIONAL ENGINEER
JASPER A. MACTUTIS
C59768
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.

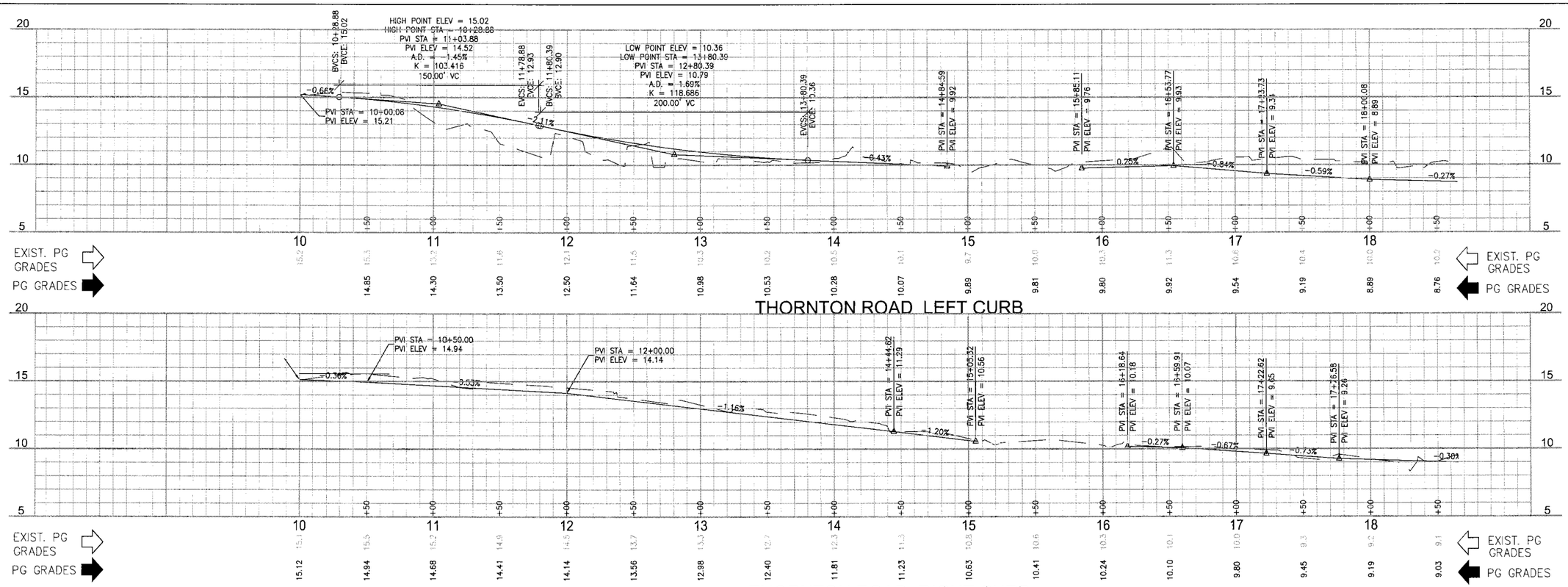
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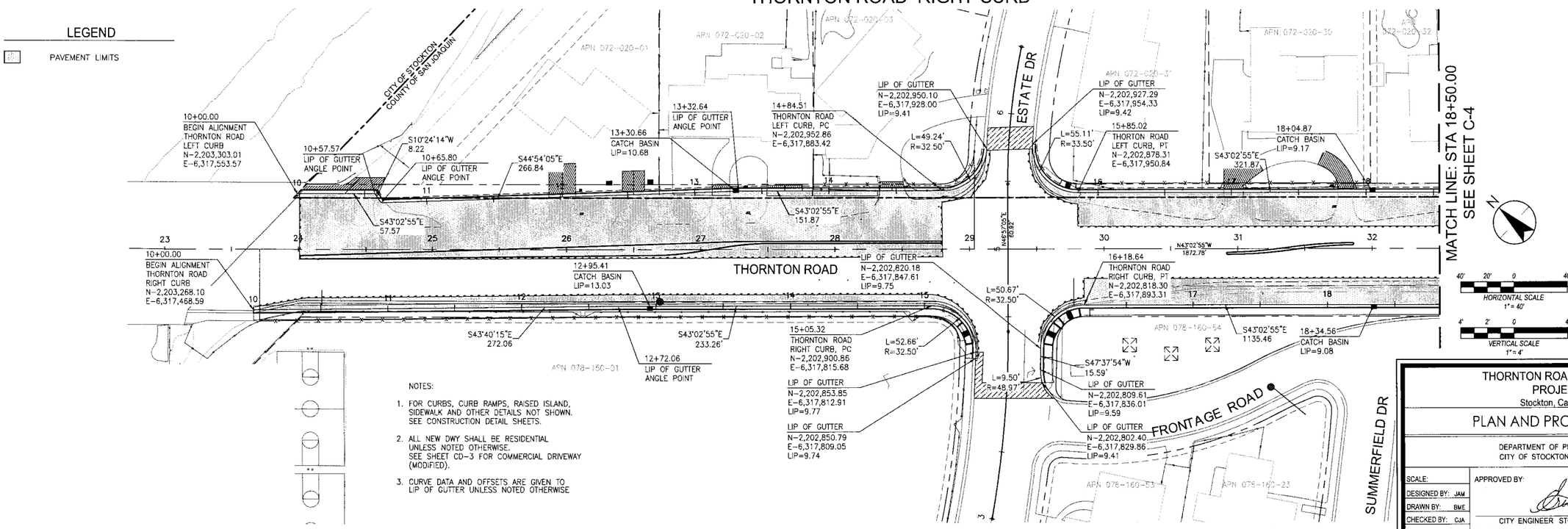
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6 OF 145

JOB NO. 183910142

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No.	MM.YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 23+00.00 TO STA. 32+50.00

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

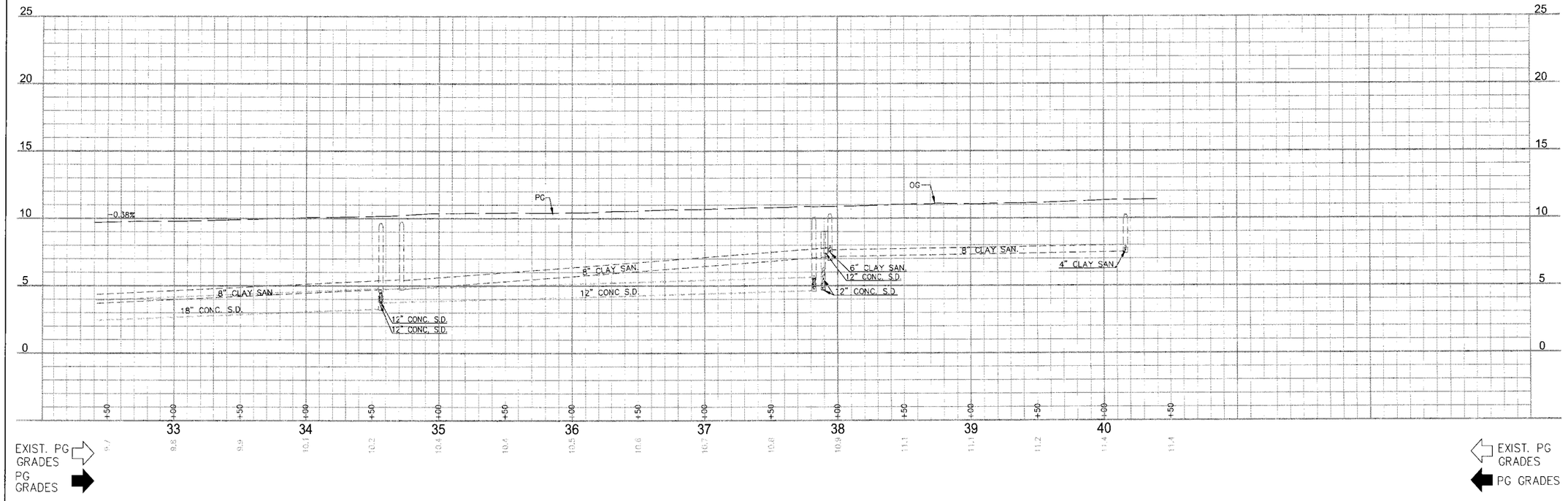
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
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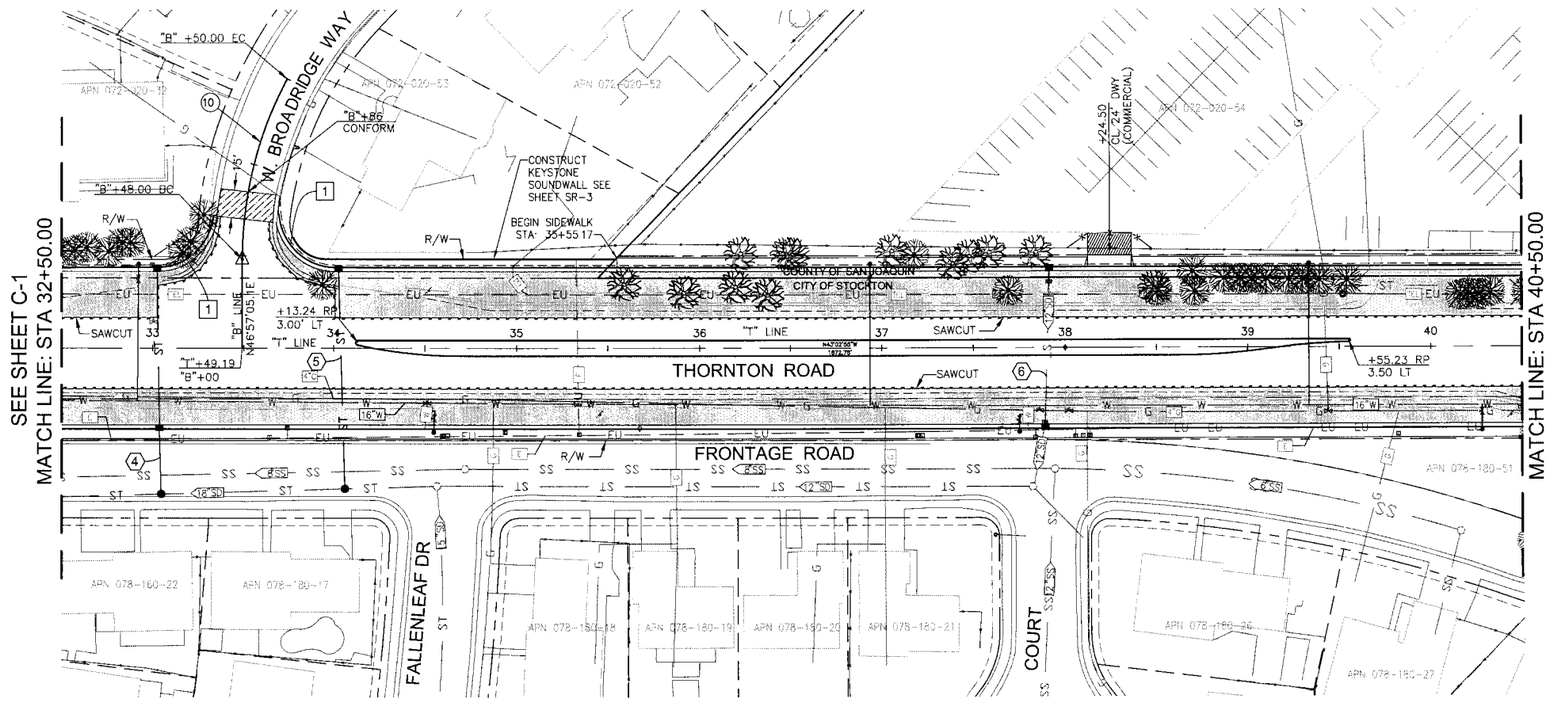
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CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No. Revision
C-2 0
7 OF 145
JOB NO.
183910142

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THORNTON ROAD



CURVE DATA				
#	R	Δ	T	L
(10)	205.00'	28°30'29"	52.08'	102.00'

LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 32+50.00 TO STA. 40+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

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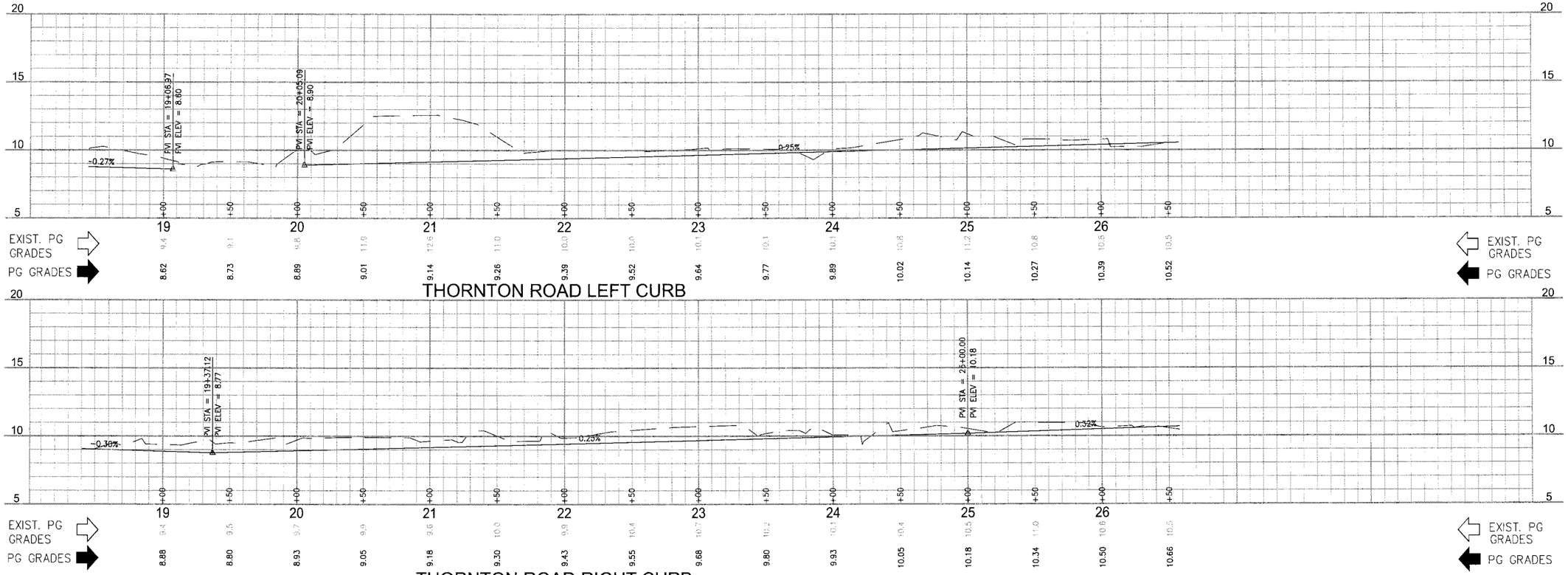
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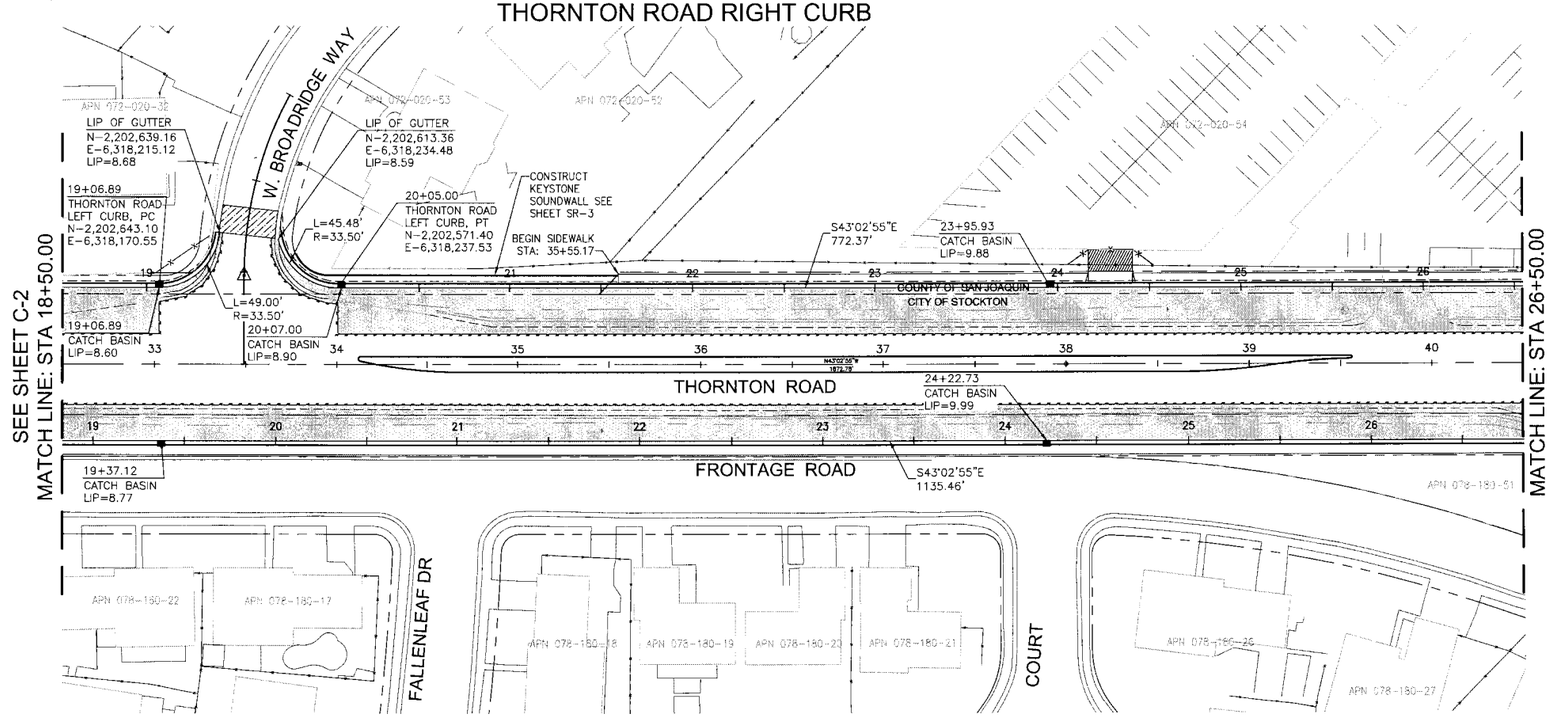
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Sheet No. Revision
C-3 0
8 OF 145

JOB NO.
183910142

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LEGEND

PAVEMENT LIMITS

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

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Revision

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 18+50.00 TO STA. 26+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59758 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

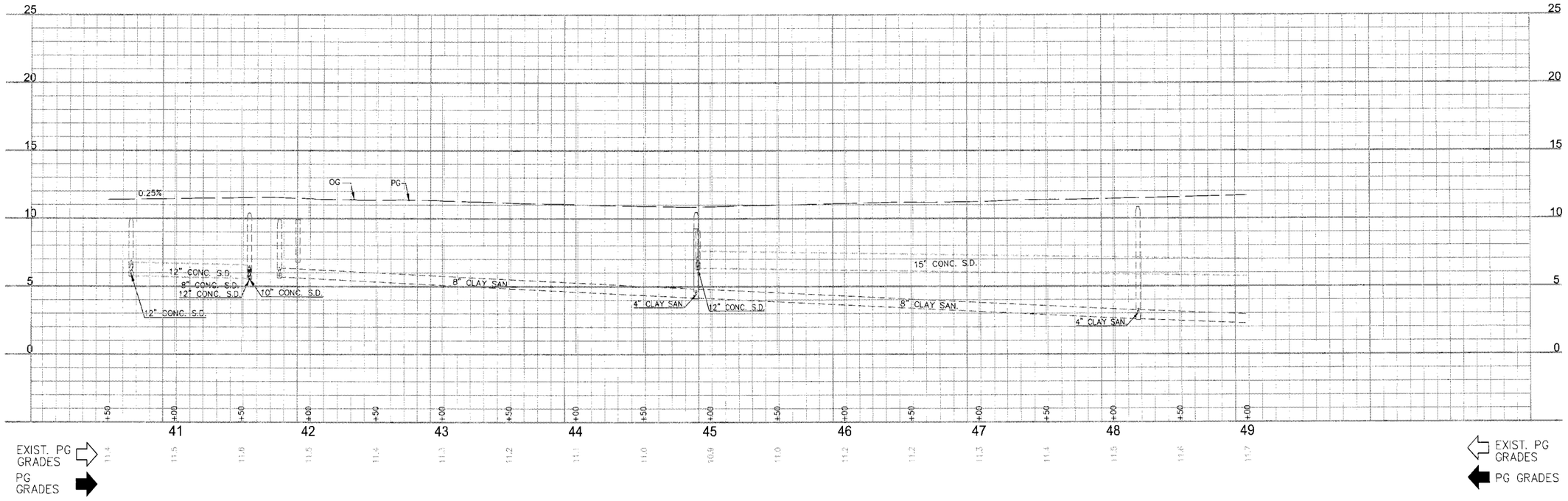
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Sheet No.	Revision
C-4	0
9 OF 145	
JOB NO. 183910142	

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EXIST. PG GRADES

PG GRADES

EXIST. PG GRADES

PG GRADES

SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.
2. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32B.
3. UTILITY EASEMENT

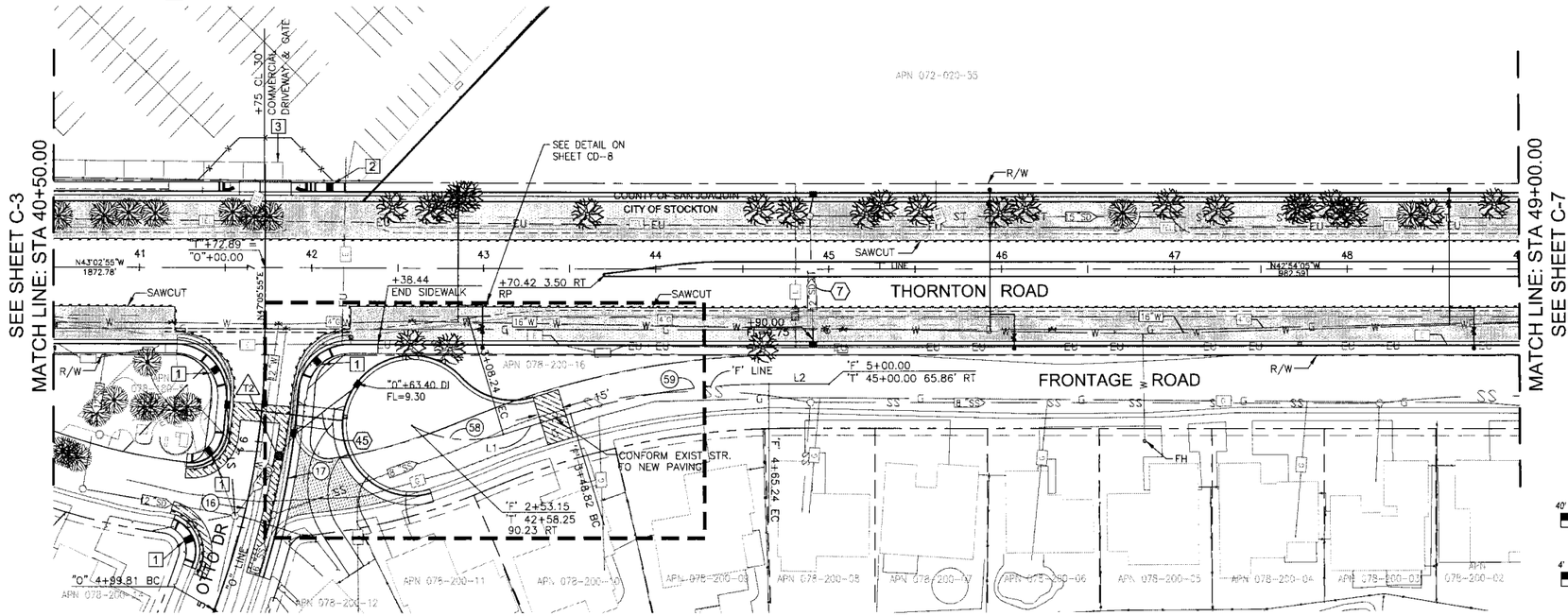
THORNTON ROAD

STORMWATER TREATMENT DEVICE LAYOUT

LOCATION	STATION / OFFSET	INVERT IN	INVERT OUT	RIM	TYPE	COMMENTS
T2	41+81.30 / 107.9 FT RT	6.73*	6.71*	10.23	CDS2015	DOWNSTREAM SYSTEM 45; 60" DIA.
		*FIELD VERIFY INVERTS				

CURVE DATA				
#	R	Δ	T	L
15	---	---	---	---
16	423.00'	21°16'45"	79.46'	157.10'
17	443.50'	13°55'49"	54.18'	107.83'
58	70.86'	44°32'48"	29.02'	55.09'
59	390.00'	17°06'15"	58.65'	116.42'

TANGENT DATA		
#	BEARING	DISTANCE
L1	N 60°00'20" W	40.58'
L2	N 42°54'05" W	34.76'



LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 40+50.00 TO STA. 49+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP. 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

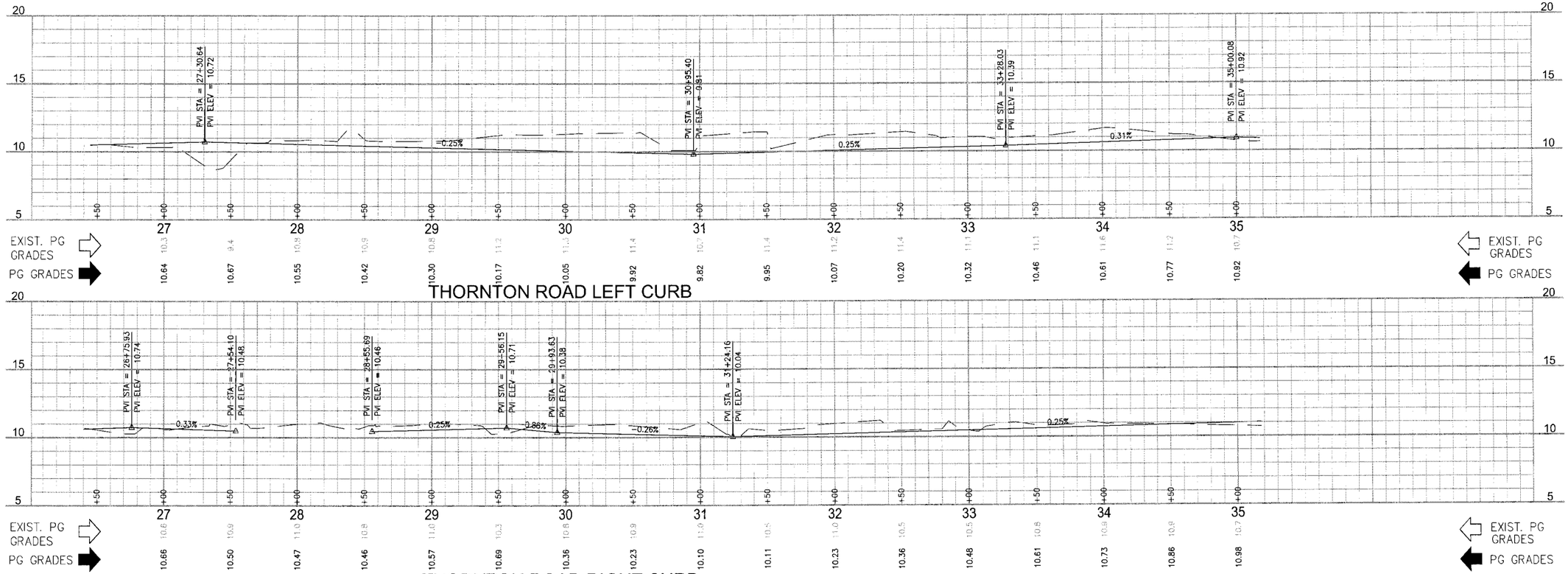
CITY ENGINEER STOCKTON, CA.

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Sheet No. Revision
C-5 0
10 OF 145

JOB NO.
183910142

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 26+50.00 TO STA. 35+00.00

Permit-Seal



Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

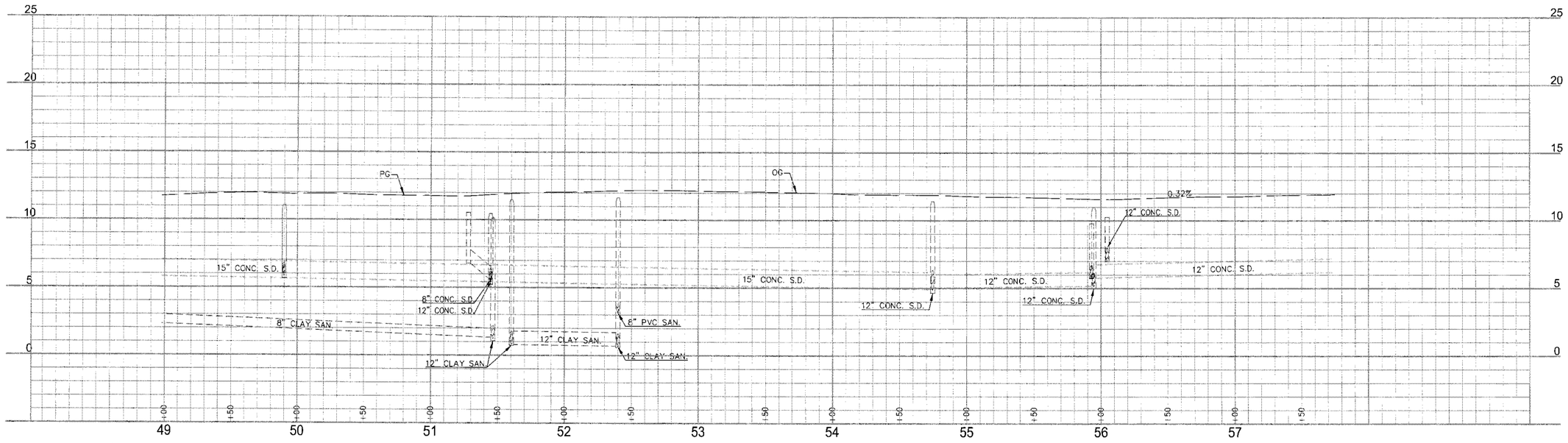
CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
C-6 0
11 OF 145

JOB NO.
183910142

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SHEET NOTES:

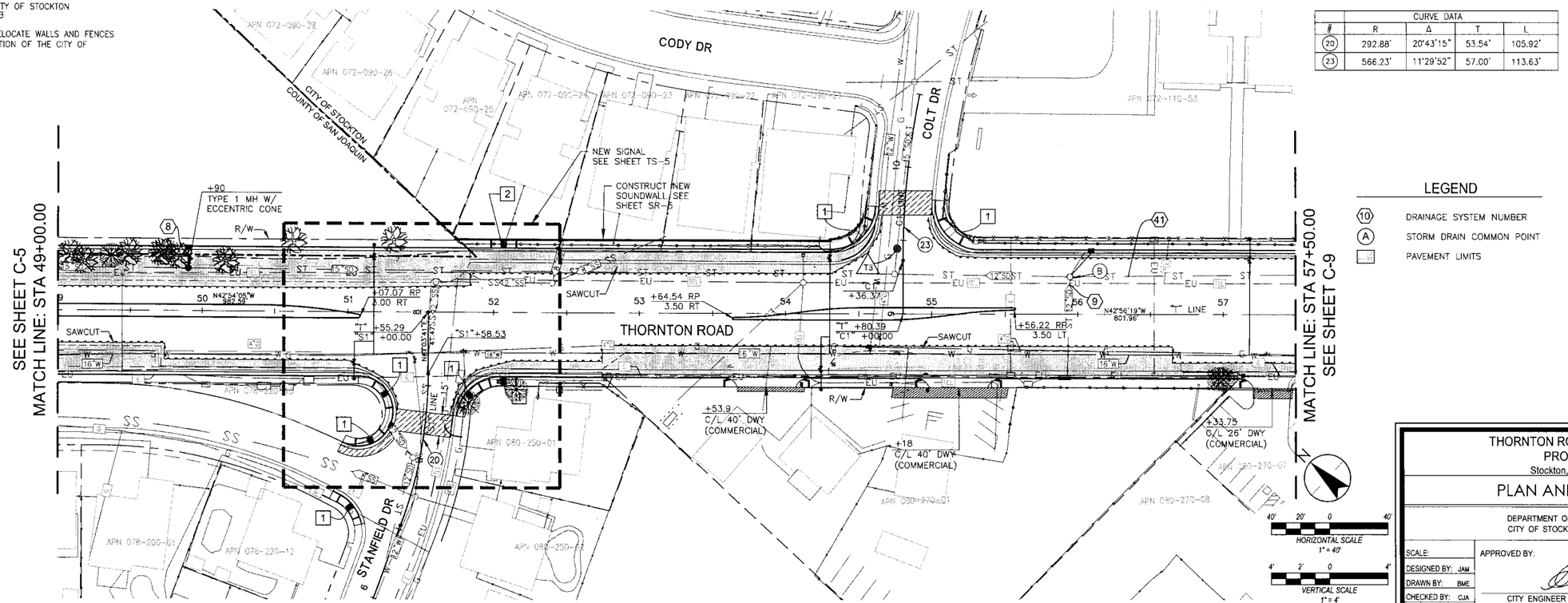
1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.
2. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32B.
3. RECONSTRUCT / RELOCATE WALLS AND FENCES IN KIND PER DIRECTION OF THE CITY OF STOCKTON.

THORNTON ROAD

STORMWATER TREATMENT DEVICE LAYOUT

LOCATION	STATION / OFFSET	INVERT IN	INVERT OUT	RIM	TYPE	COMMENTS
T3	09+41.38 / 4.2 FT LT	4.81*	4.80*	12.68	CDS3020	COLT DRIVE
		*VERIFY INVERTS IN FIELD				

	CURVE DATA			
#	R	Δ	T	L
20	292.88'	20°43'15"	53.54'	105.92'
23	566.23'	11°29'52"	57.00'	113.63'



LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 49+00.00 TO STA. 57+50.00

Permit-Seal

PROFESSIONAL ENGINEER — JOSEPH D. MACTUTIS — No. C59768 — EXP. 12/31/17 — CIVIL — STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
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DRAWN BY:	BME
CHECKED BY:	CJA
RECORD DWG.	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.

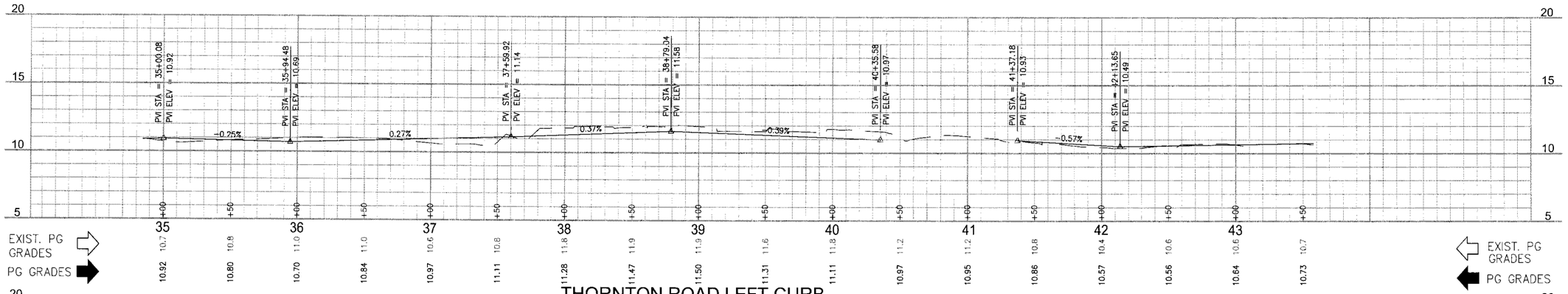
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Sheet No. Revision: C-7 0

12 OF 145

JOB NO. 183910142

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No.	MM/YY	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 35+00.00 TO STA. 43+50.00

Permit-Seal
LICENSED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

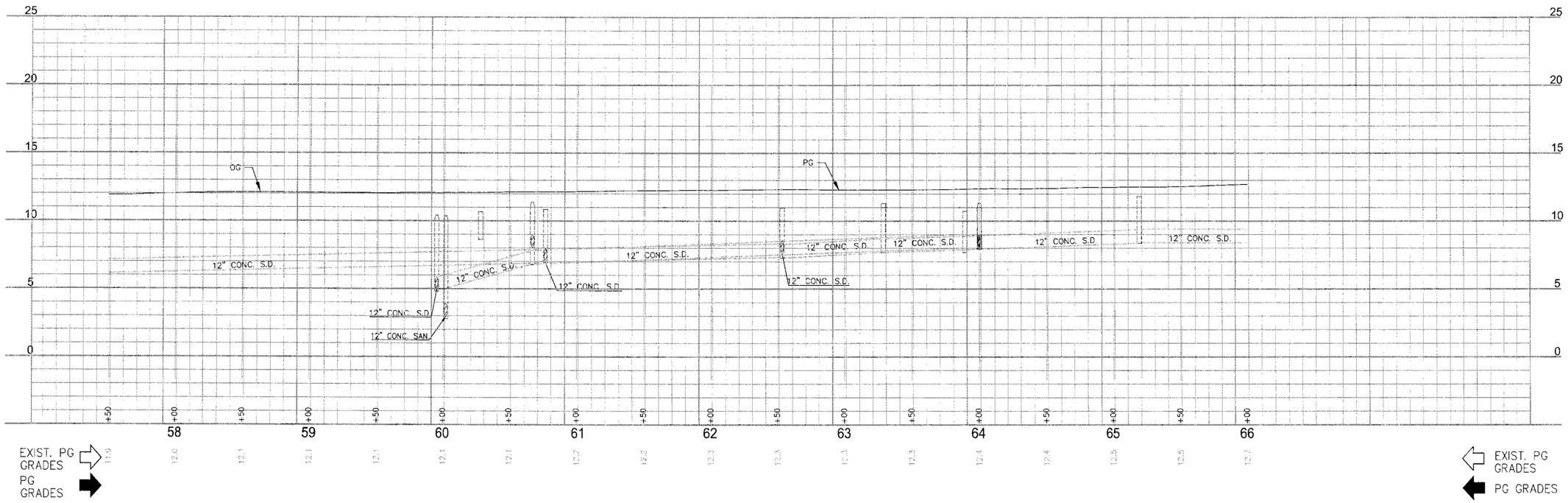
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CITY OF STOCKTON, CALIFORNIA

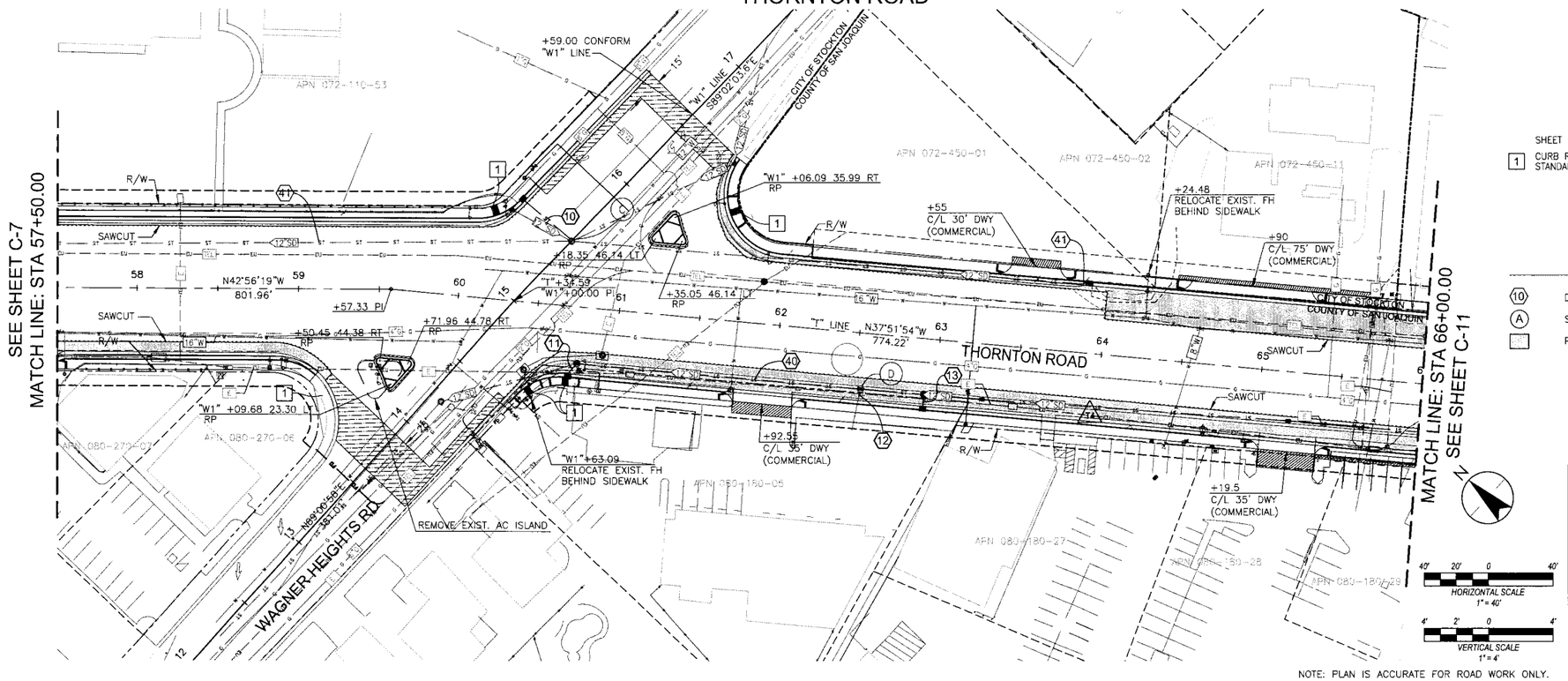
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DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

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DATE:

Sheet No. Revision
C-8 0
13 OF 145
JOB NO.
183910142

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SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.

LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	M/D/Y	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 57+50.00 TO STA.66+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA 4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

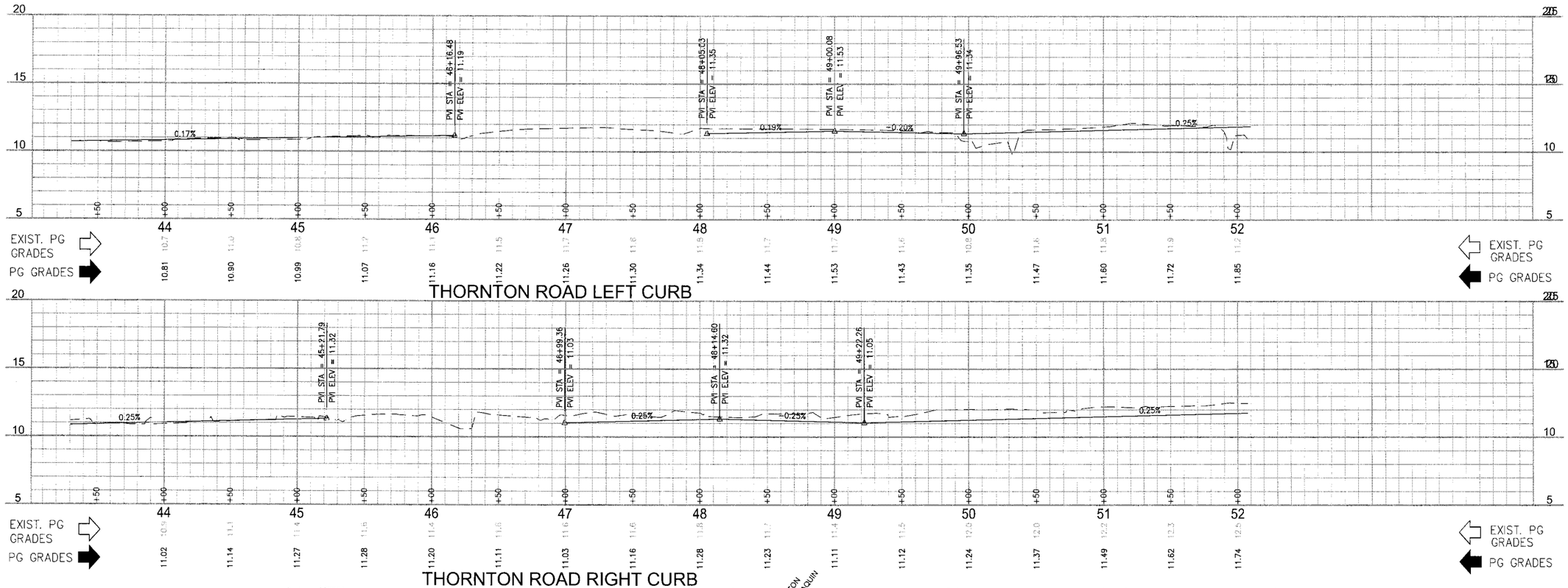
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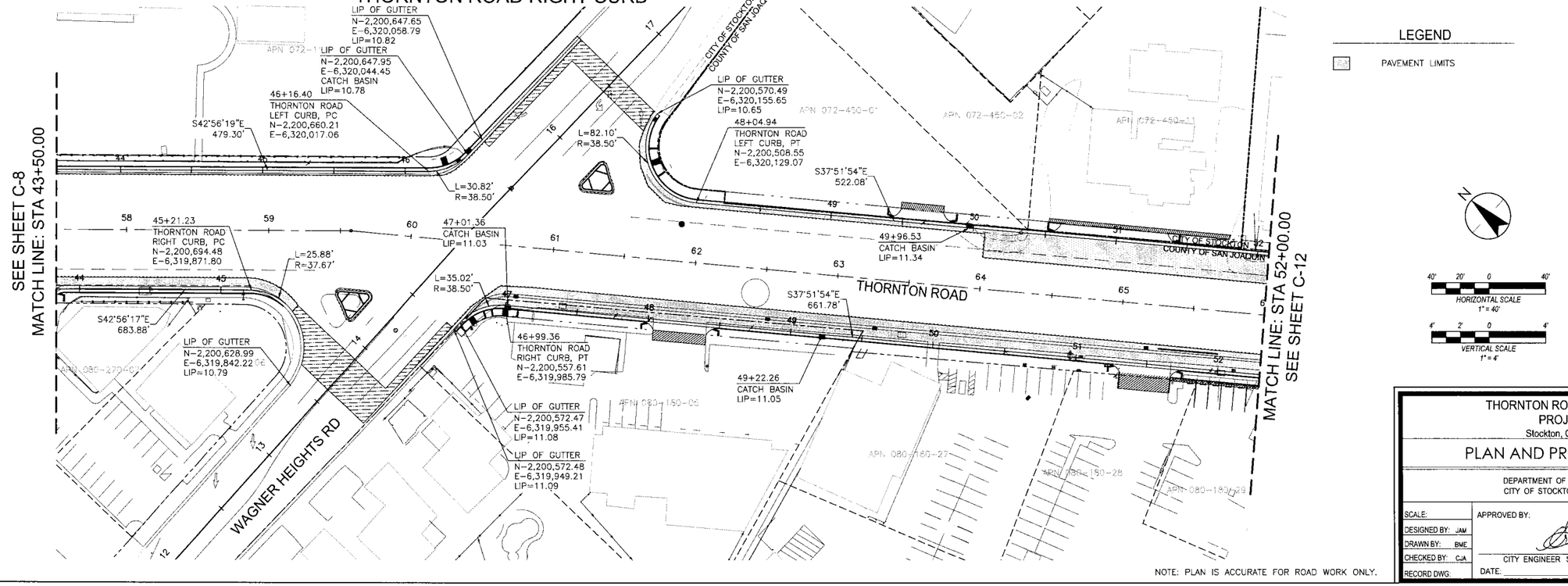
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14 OF 145

JOB NO.
183910142

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LEGEND

PAVEMENT LIMITS

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

HORIZONTAL SCALE 1"= 40'

VERTICAL SCALE 1"= 4'

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis

Submitted Date: April 18, 2016

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No.	MM/YY	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 43+50.00 TO STA. 52+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JAMES A. MATTHEWS
C59768
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

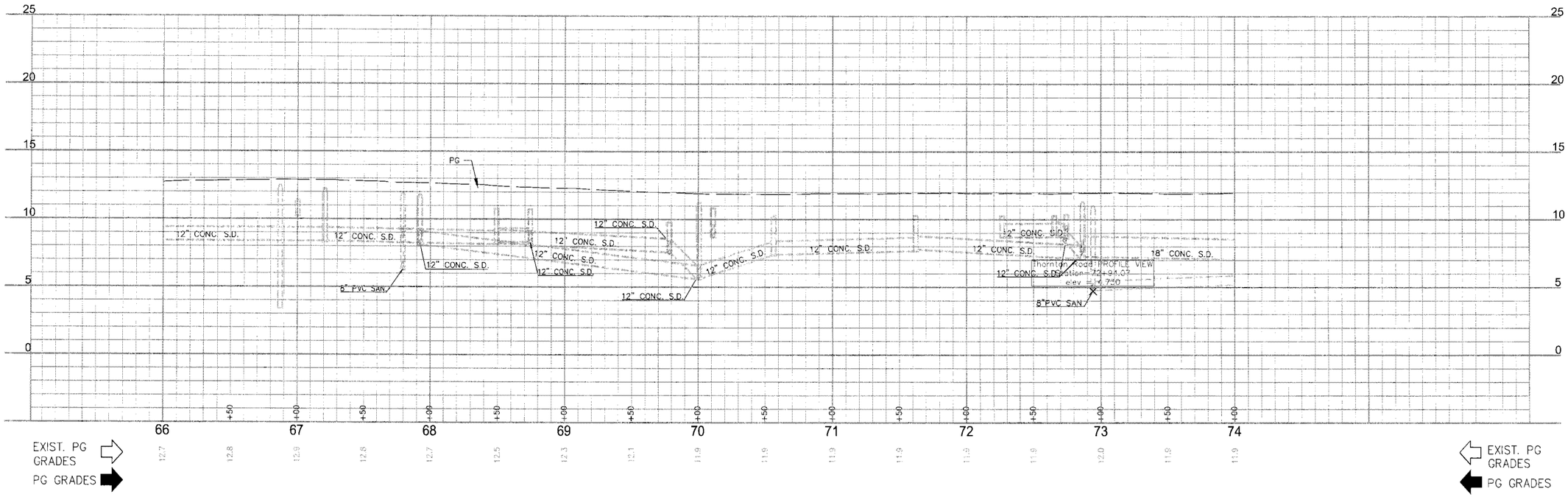
THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

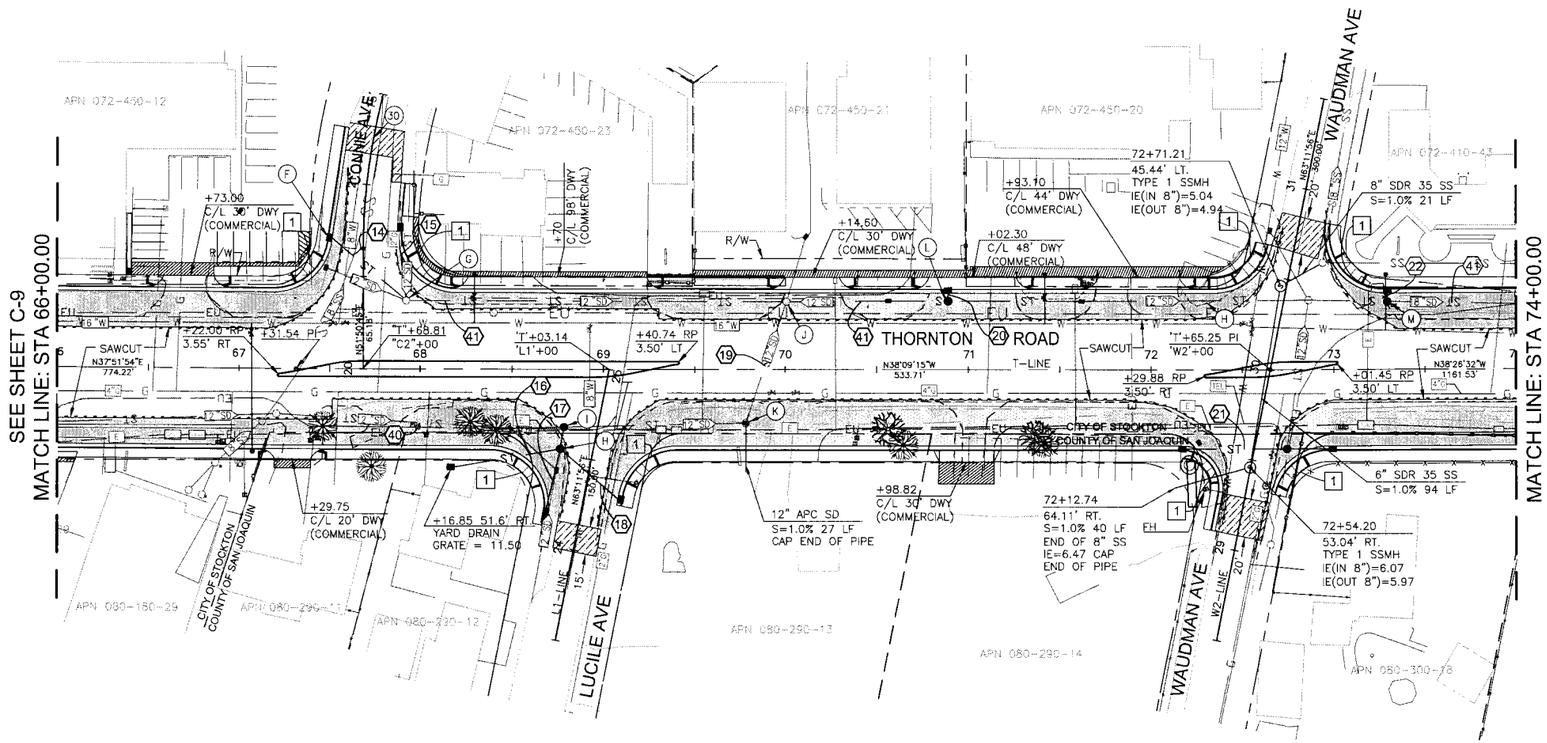
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DESIGNED BY: JAM		C-10 0
DRAWN BY: BME		15 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG.	DATE:	183910142

V:\183910142\Drawings\Sheets\C-10.dwg 4/18/16 3:36pm Mactutis



THORNTON ROAD

#	CURVE DATA			
	R	Δ	T	L
(30)	330.12'	23°23'57"	68.36'	134.82'



SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.

LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 66+00.00 TO STA. 74+00.00

Permit-Seal



Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
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CHECKED BY: CJA	
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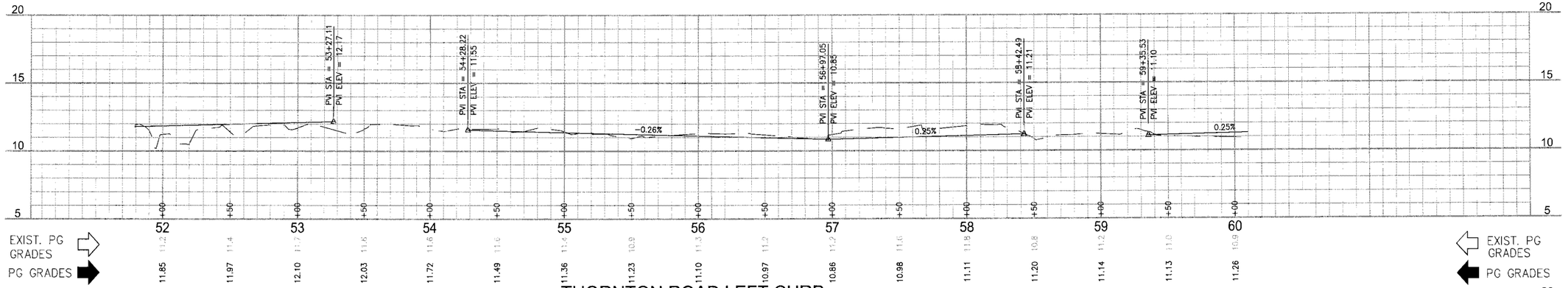
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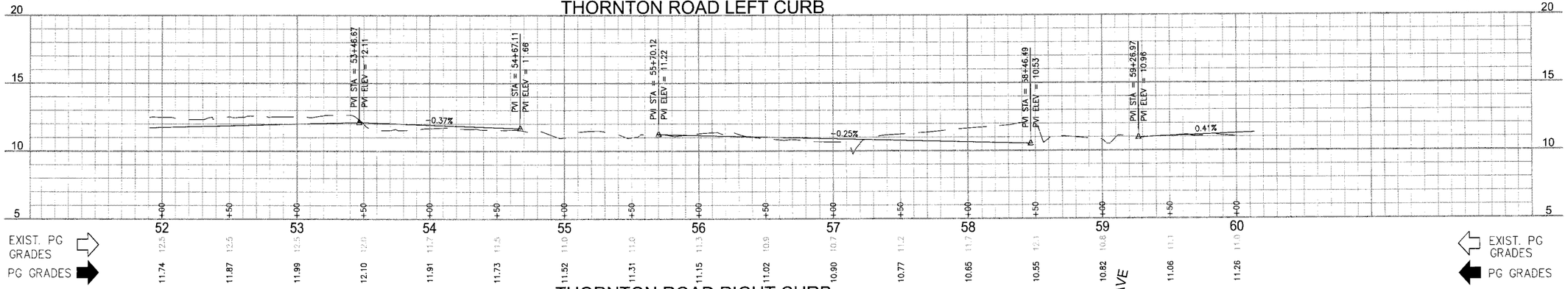
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JOB NO.
183910142

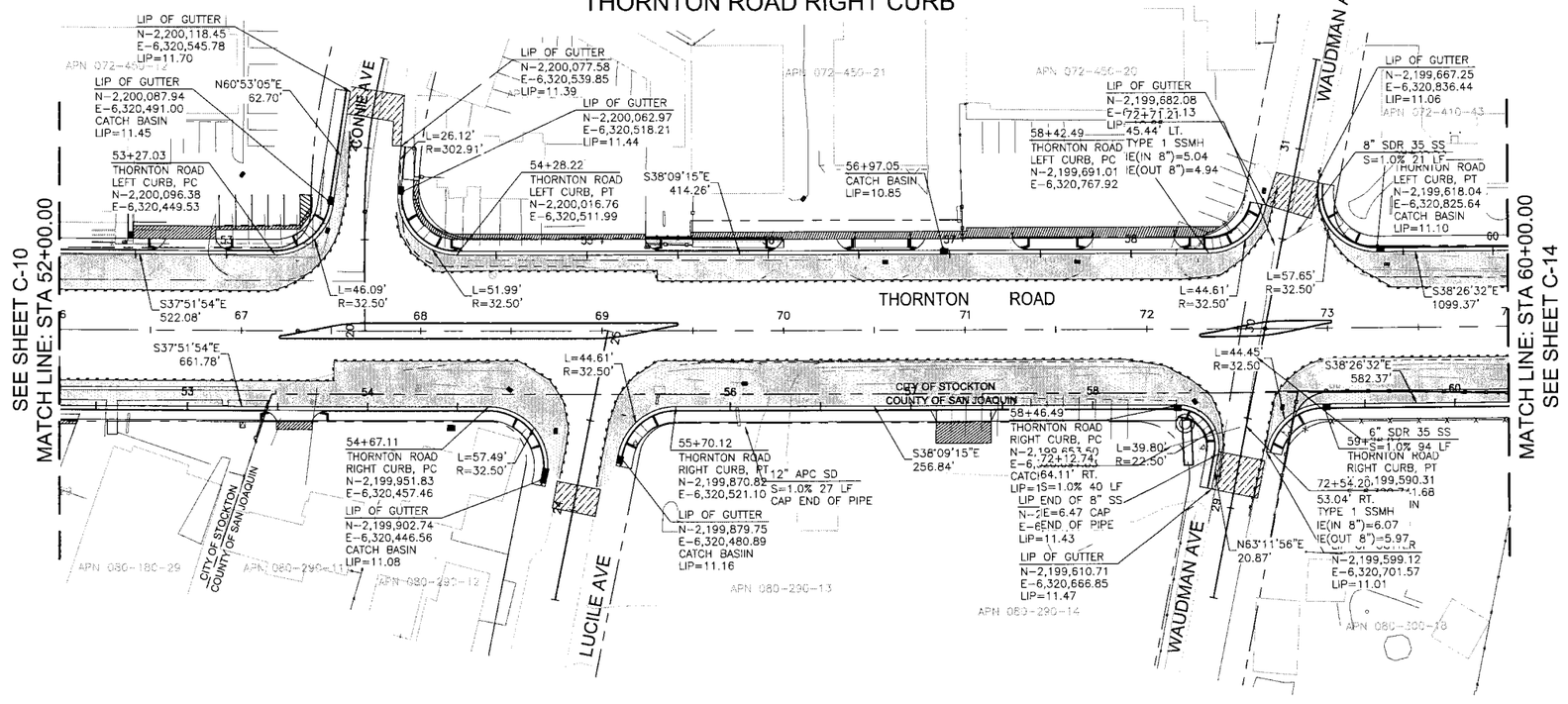
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THORNTON ROAD LEFT CURB



THORNTON ROAD RIGHT CURB



LEGEND

PAVEMENT LIMITS

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	M.M.YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 52+00.00 TO STA. 60+00.00

Permit-Seal
JOSEPH A. MACTUTIS
C59768
Exp 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature

Signature Date:

40' 20' 0 40'
HORIZONTAL SCALE
1" = 40'

4' 2' 0 4'
VERTICAL SCALE
1" = 4'

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis

Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
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CHECKED BY: CJA	
RECORD DWG.	

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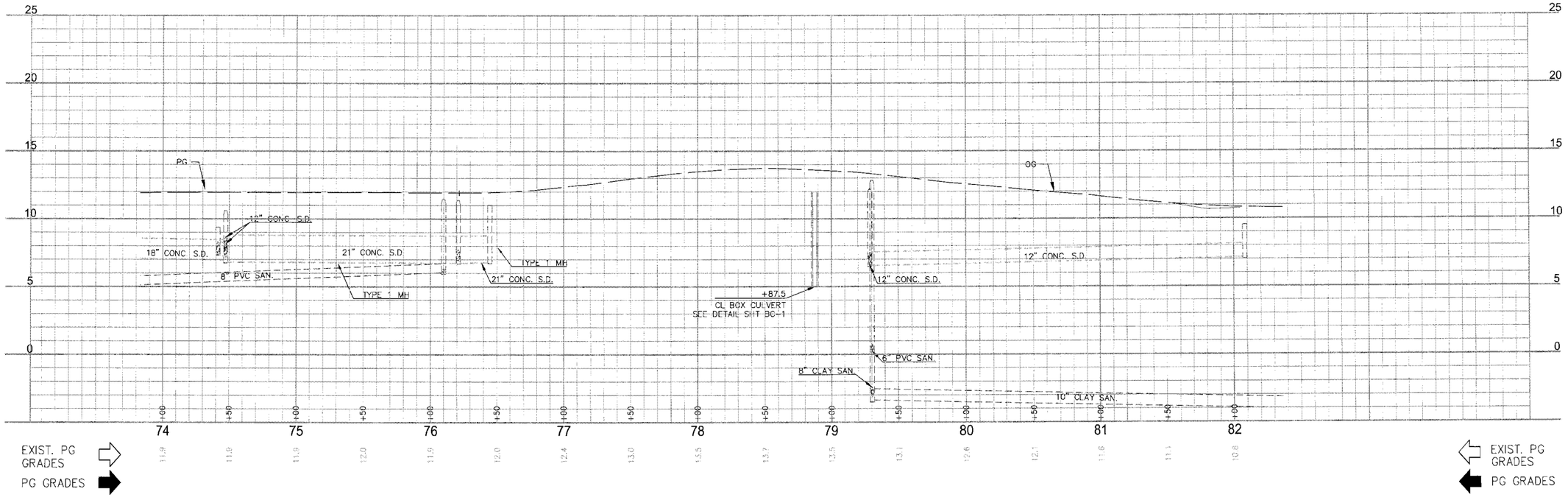
CITY ENGINEER STOCKTON, CA.

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Sheet No. Revision
C-12 0
17 OF 145

JOB NO.
183910142

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THORNTON ROAD

STORMWATER TREATMENT DEVICE LAYOUT

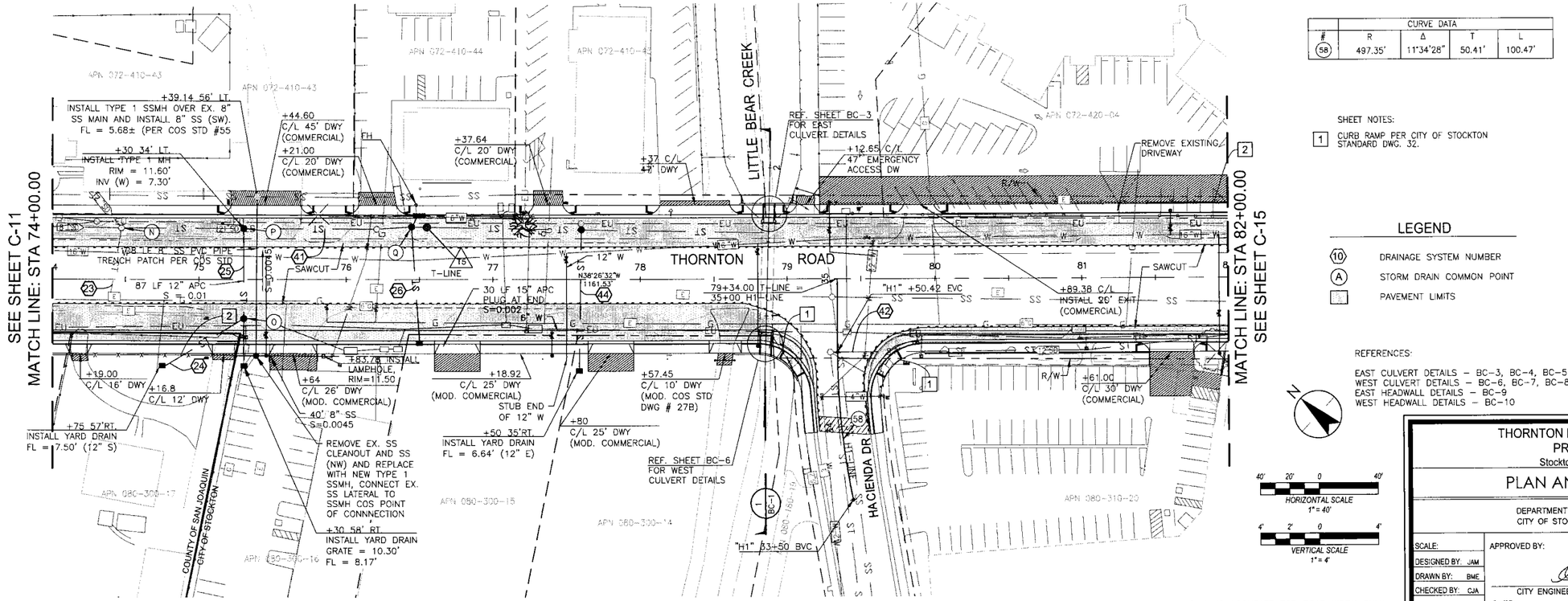
LOCATION	STATION / OFFSET	INVERT IN	INVERT OUT	RIM	TYPE	COMMENTS
T5	76+55.0 / 35.25 FT LT	6.72*	6.72*	11.40	CDS3020	DOWNSTREAM SYSTEM 26; 60" DIA.

*FIELD VERIFY INVERTS

	CURVE DATA			
#	R	Δ	T	L
58	497.35'	11°34'28"	50.41'	100.47'

SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.



LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

REFERENCES:

EAST CULVERT DETAILS – BC-3, BC-4, BC-5
WEST CULVERT DETAILS – BC-6, BC-7, BC-8
EAST HEADWALL DETAILS – BC-9
WEST HEADWALL DETAILS – BC-10

HORIZONTAL SCALE 1" = 40'
VERTICAL SCALE 1" = 4'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	Revision	By	Appd.
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 74+00.00 TO STA. 82+00.00

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA 4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

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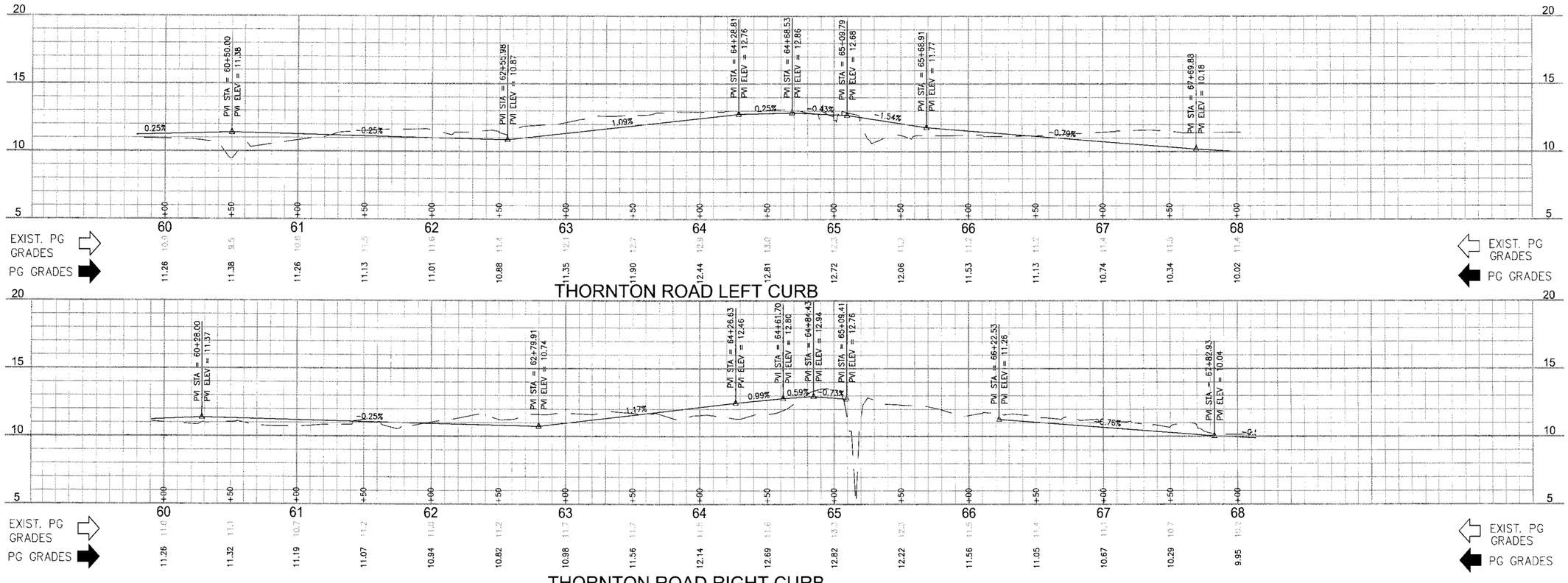
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Sheet No. Revision
C-13 0
18 OF 145

JOB NO.
183910142

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No.	By	Description	Appd
1	MALYY	Revision	

ClientProject
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 60+00.00 TO STA. 68+00.00

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MOCTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Moctutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DRAWN BY: BME	
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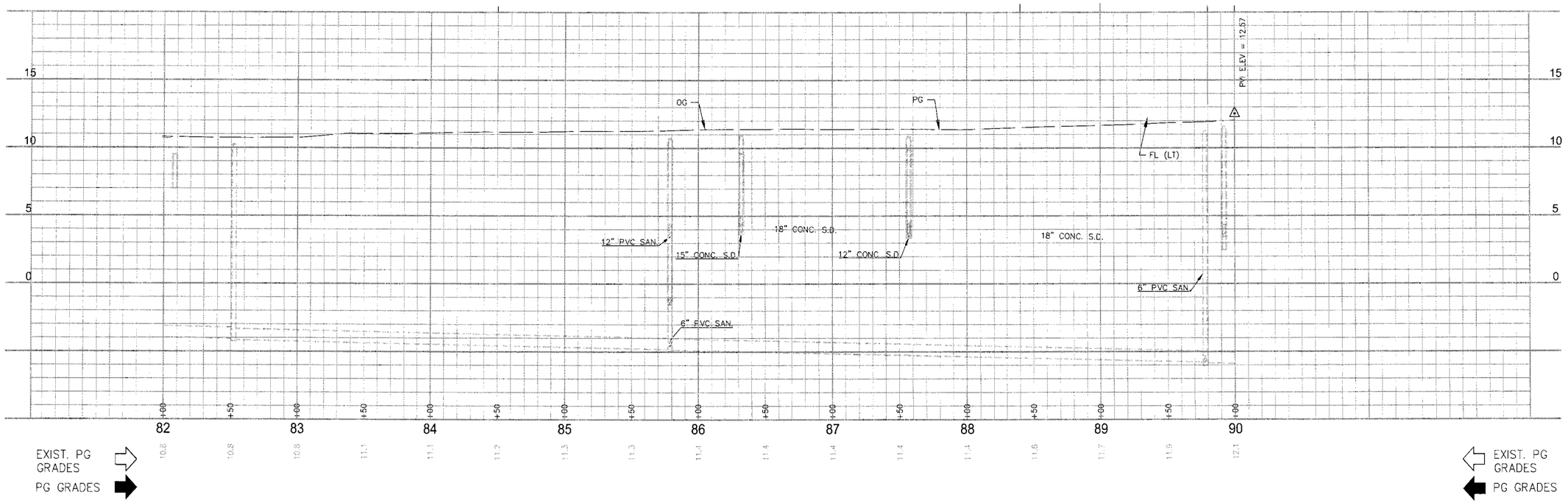
CITY ENGINEER STOCKTON, CA.

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Sheet No. Revision
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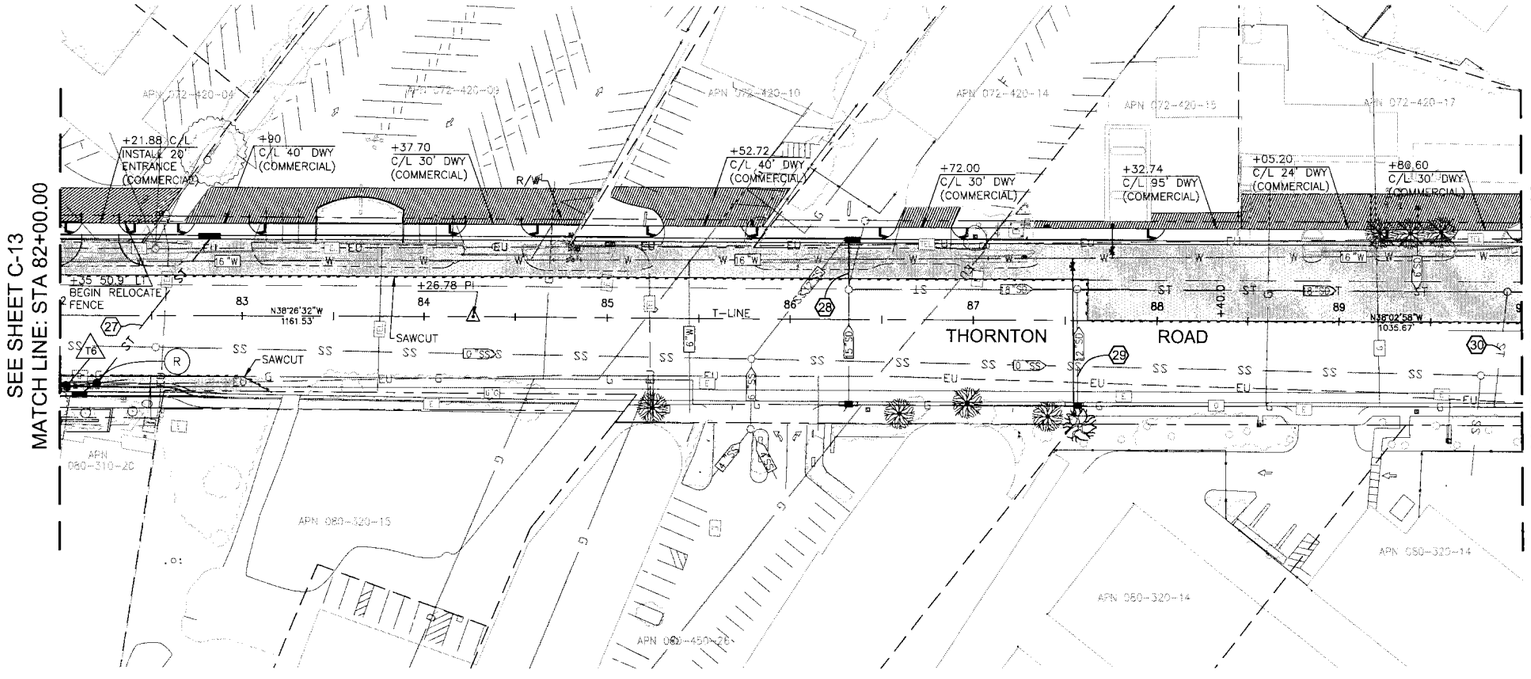
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THORNTON ROAD

STORMWATER TREATMENT DEVICE LAYOUT

LOCATION	STATION / OFFSET	INVERT IN	INVERT OUT	RIM	TYPE	COMMENTS
T6	82+03.20 / 38.5 FT RT	*7.23	*7.17	9.91	CDS2015	DOWNSTREAM SYSTEM 27; 60" DIA.
		*FIELD VERIFY INVERTS				



NOTE. PLAN IS ACCURATE FOR ROAD WORK ONLY.

LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

40' 20' 0 40'
HORIZONTAL SCALE
1" = 40'

4' 2' 0 4'
VERTICAL SCALE
1" = 4'

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No.	M/D/Y	Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 82+00.00 TO STA. 90+00.00

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

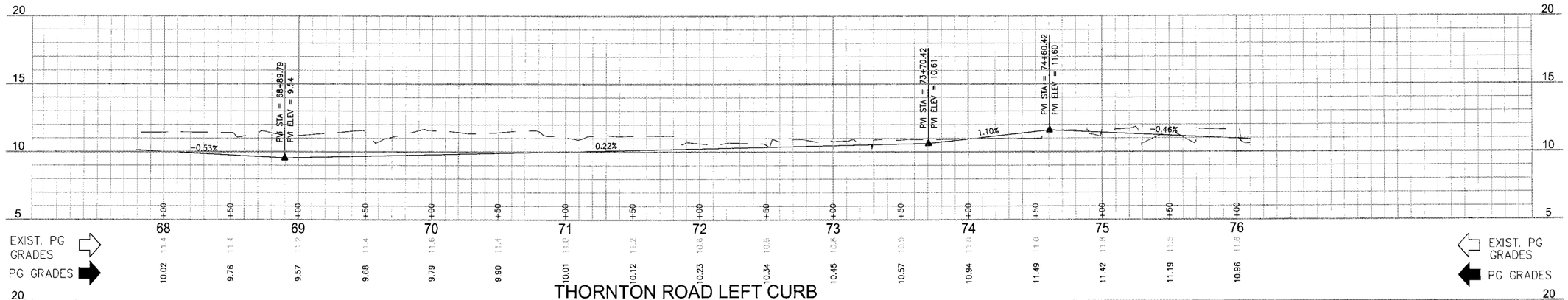
THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

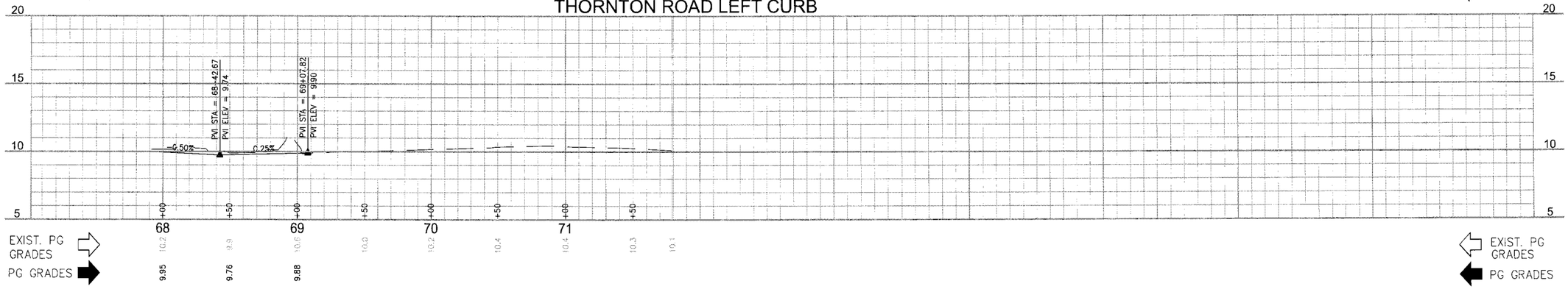
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CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM		C-15 0
DRAWN BY: BME		20 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
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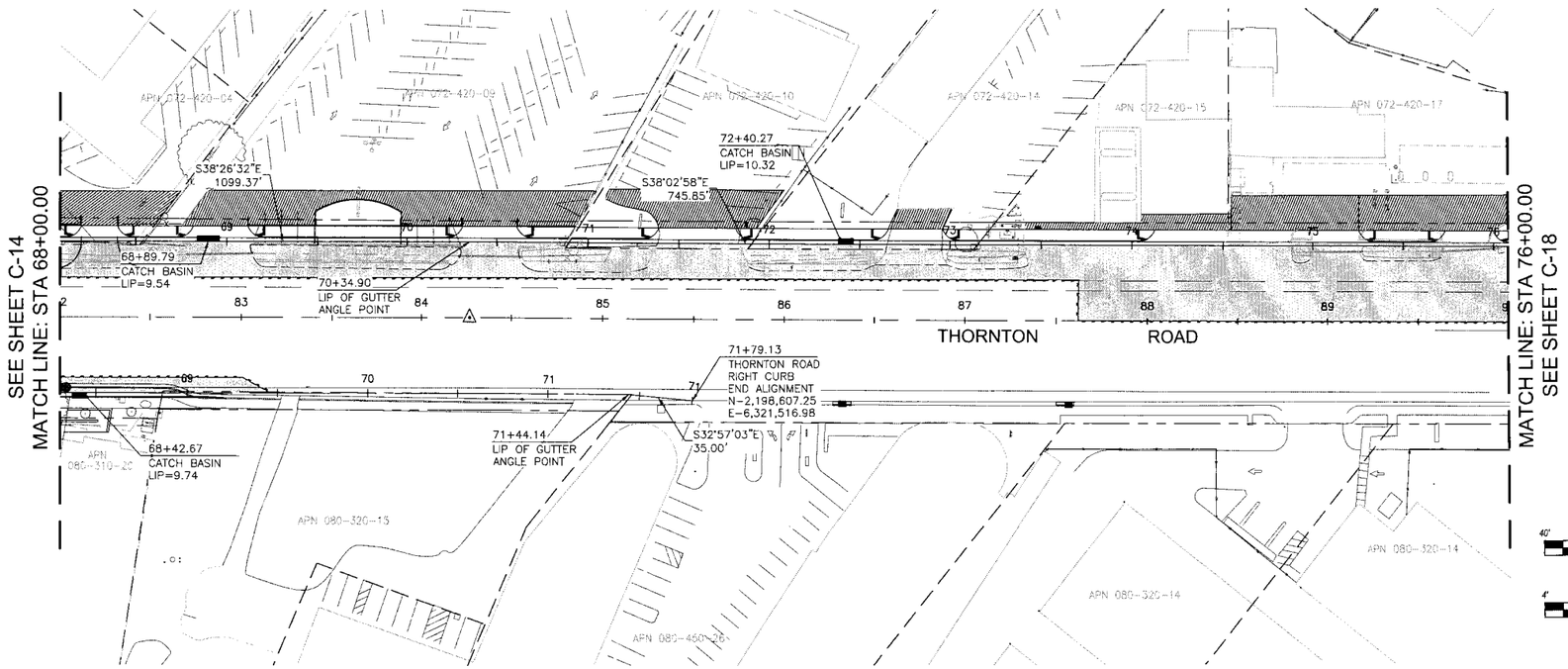
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THORNTON ROAD LEFT CURB



THORNTON ROAD RIGHT CURB



LEGEND

PAVEMENT LIMITS

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

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No.	MM/YY	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 68+00.00 TO STA. 76+00.00

Permit-Seal

JOSEPH A. MACTUTIS
No. C59768
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
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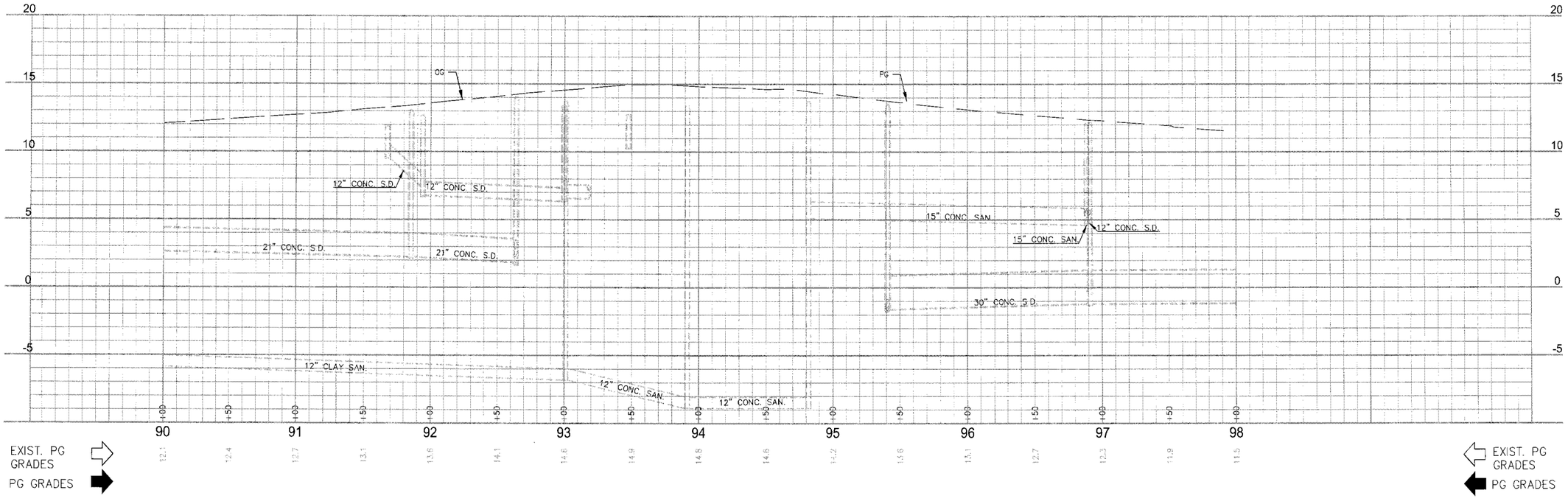
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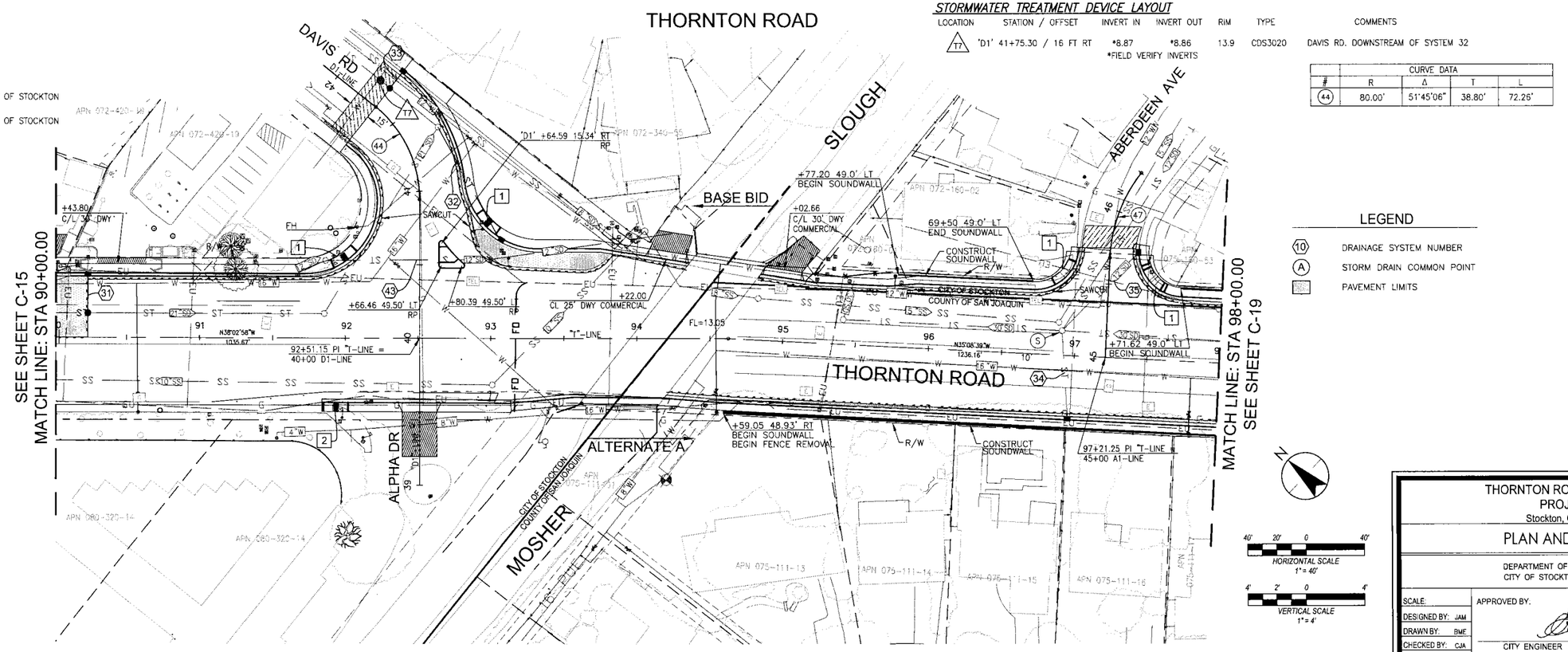
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C-16 0
21 OF 145

JOB NO.
183910142

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SHEET NOTES:

1. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.
2. CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32B.

STORMWATER TREATMENT DEVICE LAYOUT

LOCATION	STATION / OFFSET	INVERT IN	INVERT OUT	RIM	TYPE	COMMENTS
T7	'D1' 41+75.30 / 16 FT RT	*8.87	*8.86	13.9	CDS3020	DAVIS RD. DOWNSTREAM OF SYSTEM 32

*FIELD VERIFY INVERTS

	CURVE DATA			
#	R	Δ	T	L
(44)	80.00'	51°45'06"	38.80'	72.26'

LEGEND

- (10) DRAINAGE SYSTEM NUMBER
- (A) STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

HORIZONTAL SCALE 1" = 40'

VERTICAL SCALE 1" = 4'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	Revision	Description	By	Appd.
1	4/19/16	Per City Comments	JAM	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 90+00.00 TO STA. 98+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP. 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

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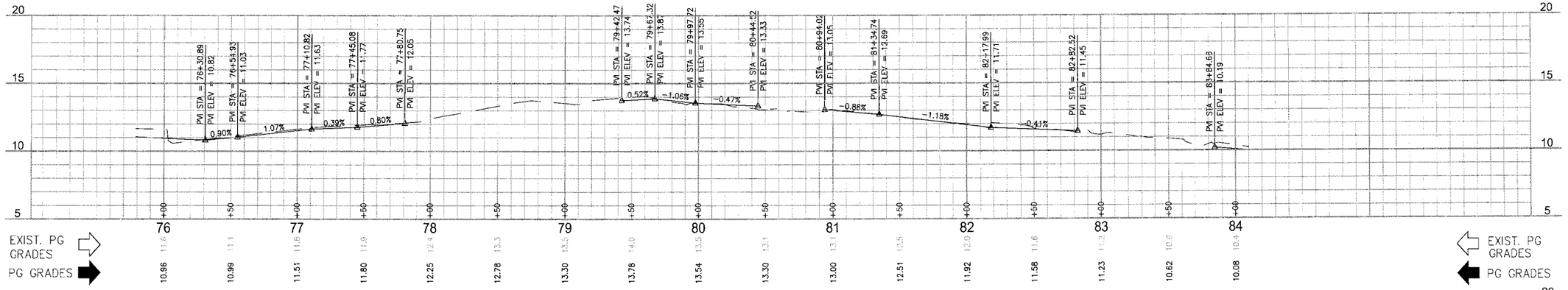
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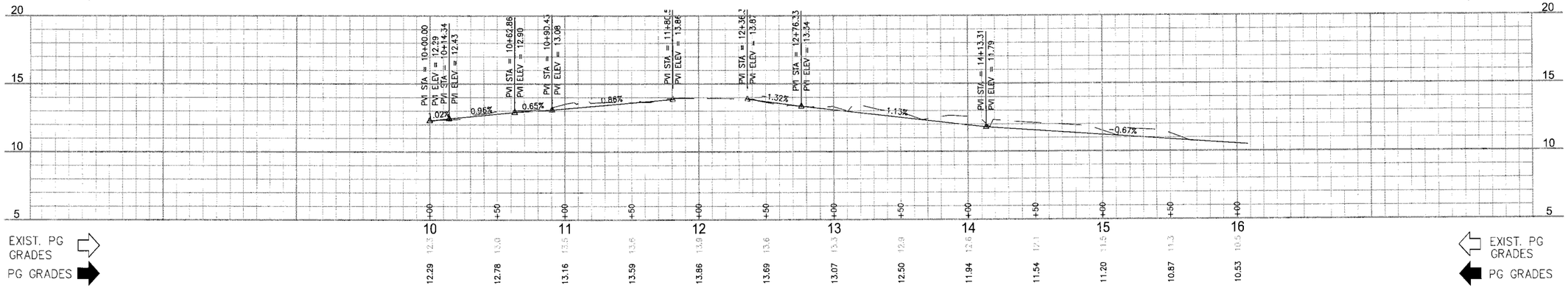
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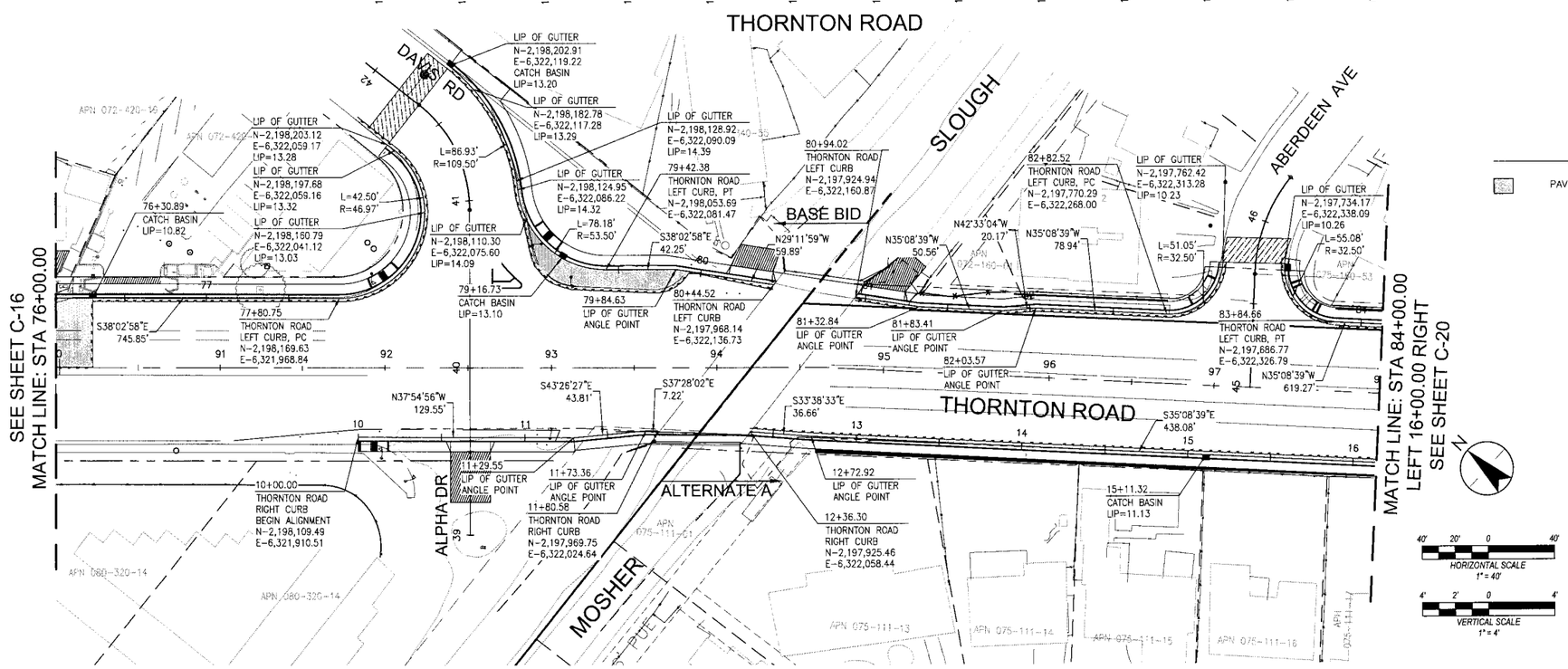
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22 OF 145

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NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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MMJ/Y		Revision	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 76+00.00 TO STA. 84+00.00

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MOCTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Moctutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE - CURB

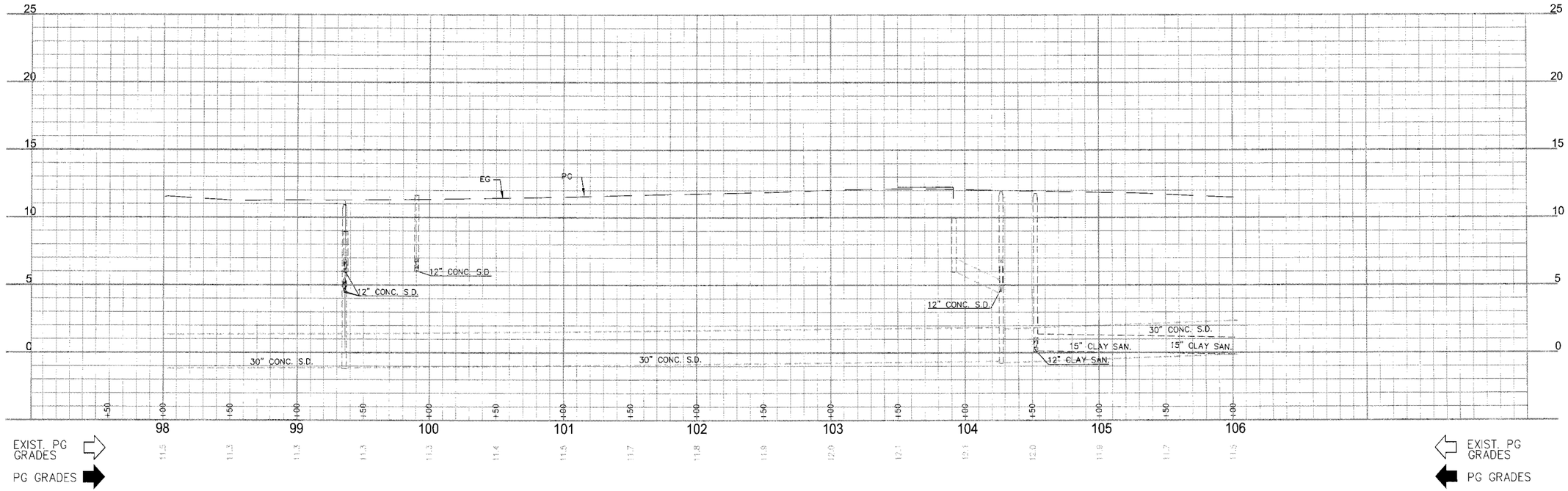
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:
CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No. Revision
C-18 0
23 OF 145
JOB NO.
183910142

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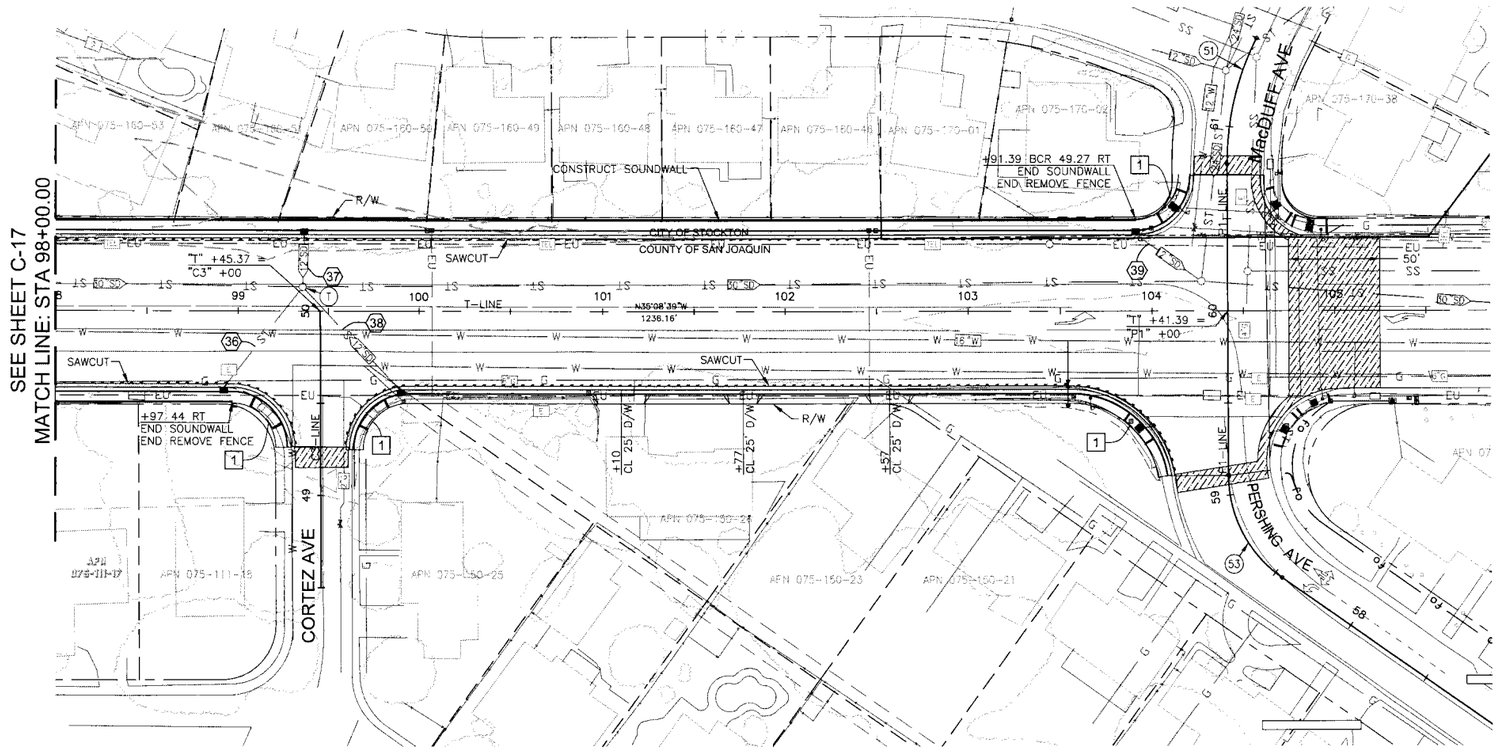


SHEET NOTES:

1 CURB RAMP PER CITY OF STOCKTON STANDARD DWG. 32.

THORNTON ROAD

SEE SHEET C-17
MATCH LINE: STA 98+00.00



	CURVE DATA			
#	R	Δ	T	L
51	150.00'	27°07'50"	36.19'	71.03'
53	68.00'	55°12'24"	35.55'	65.52'

LEGEND

- 10 DRAINAGE SYSTEM NUMBER
- A STORM DRAIN COMMON POINT
- PAVEMENT LIMITS

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

HORIZONTAL SCALE 1" = 40'
VERTICAL SCALE 1" = 4'

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www.stantec.com

No.	Revision	By	Appd

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
STA. 98+00.00 TO STA. 106+98.61

Permit-Seal



Engineer's Signature
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

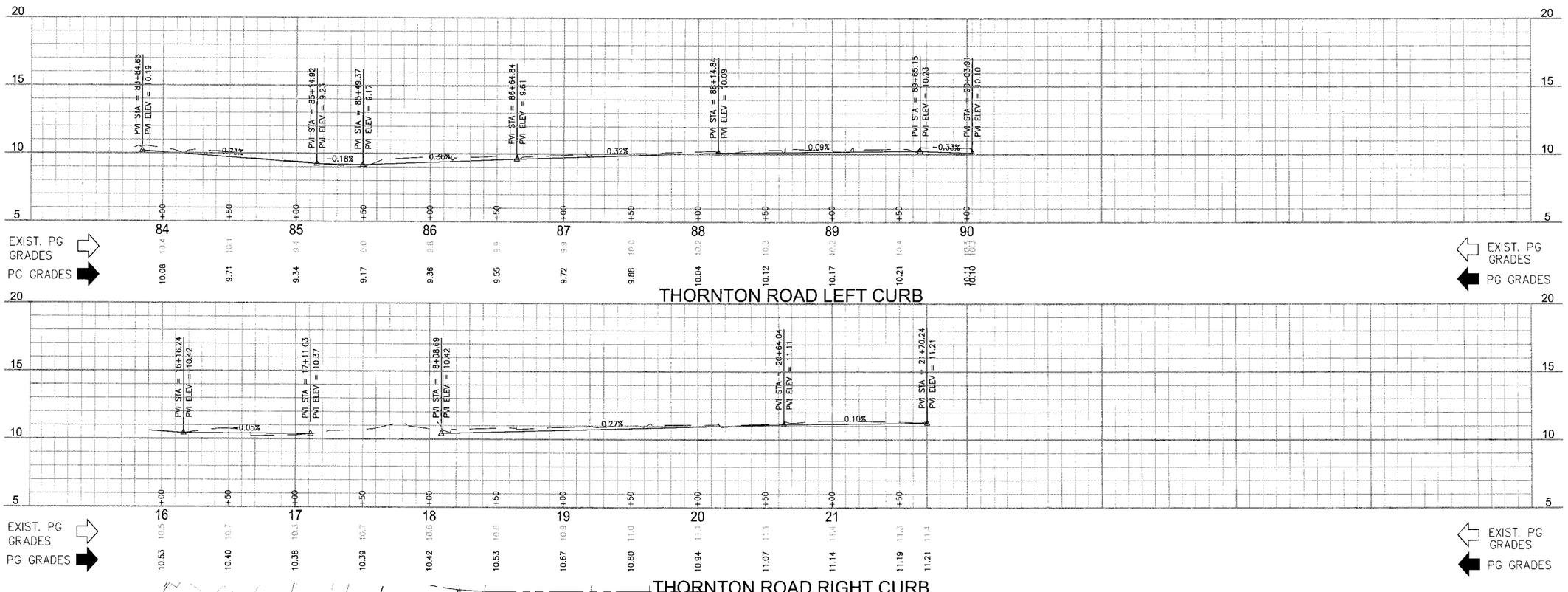
THORNTON ROAD WIDENING PROJECT
Stockton, California

PLAN AND PROFILE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		C-19 0
DRAWN BY: BME		24 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

4/19/16 9:15:08 AM



NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	M/D/Y	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE - CURB
STA. 84+00.00 TO STA. 90+03.61

Permit-Seal

JOSEPH A. MACTUTIS
No. C59768
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/19/16

Engineer's Signature:
Signature Date:

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CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

PLAN AND PROFILE - CURB

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

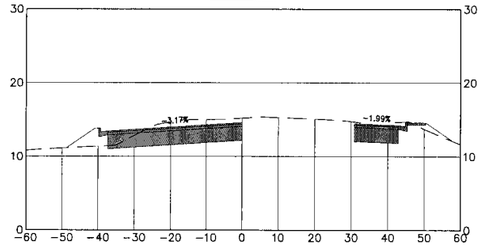
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DATE:

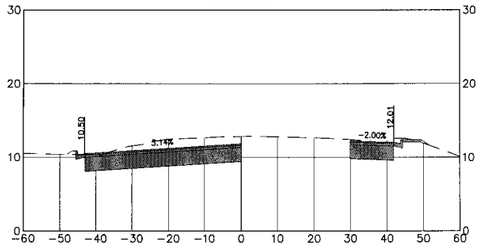
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C-20 0
25 OF 145
JOB NO.
183910142

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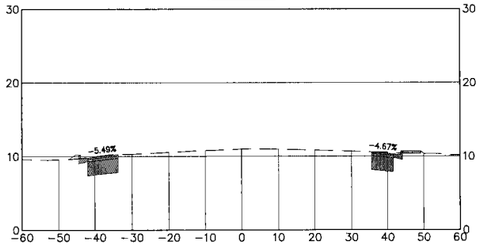
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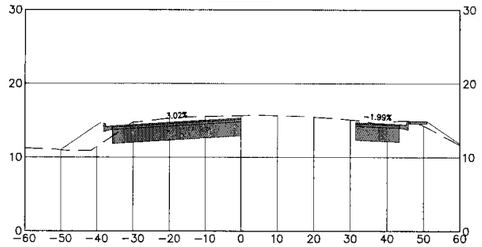
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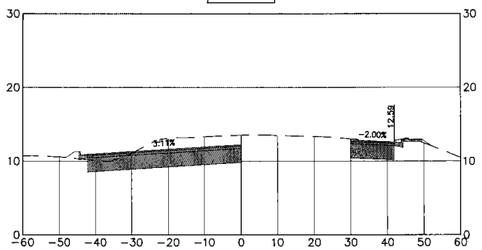
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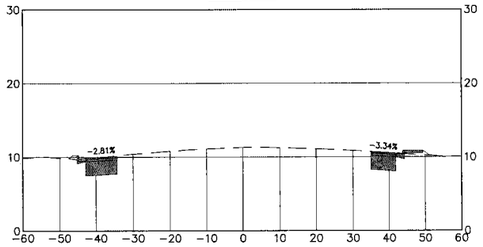
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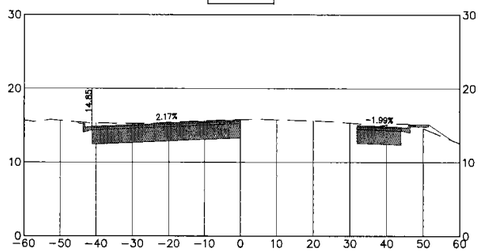
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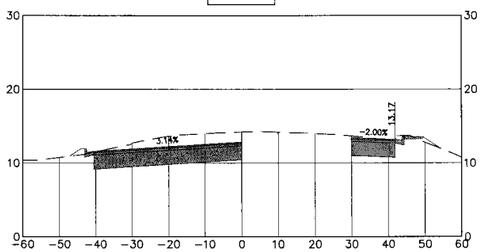
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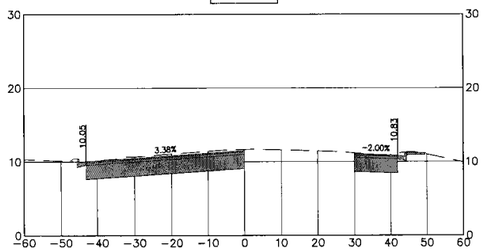
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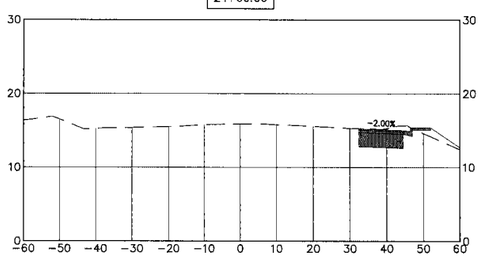
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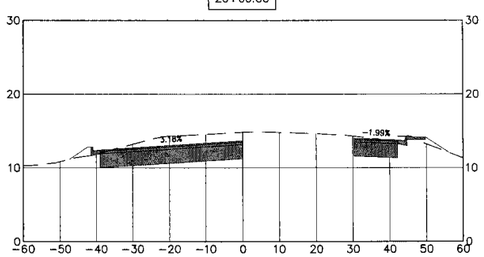
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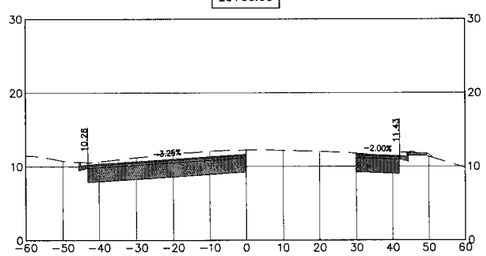
24+00.00



26+00.00



28+00.00



20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

10' 5' 0 10'
VERTICAL SCALE
1" = 10'

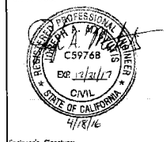
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No.	By	Description	Appd.
1	MMJY	Revision	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 24+00 TO STA. 29+50

Permit-Seal



Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

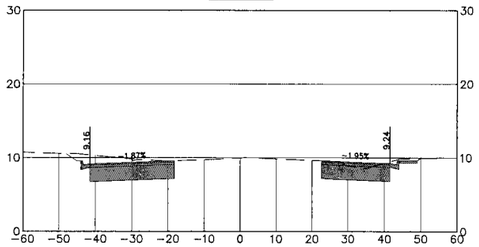
CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

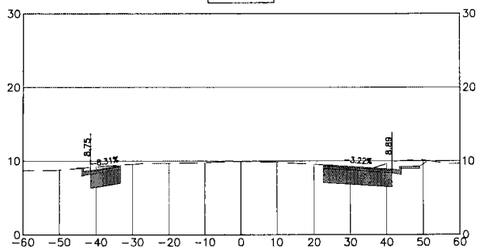
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DESIGNED BY: JAM		XS-1 0
DRAWN BY: BME		26 OF 145
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RECORD DWG:	DATE:	183910142

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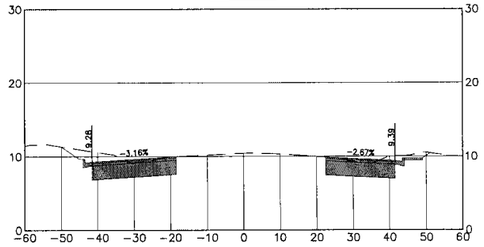
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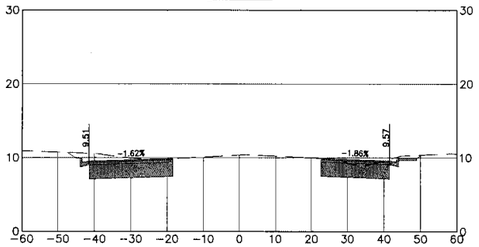
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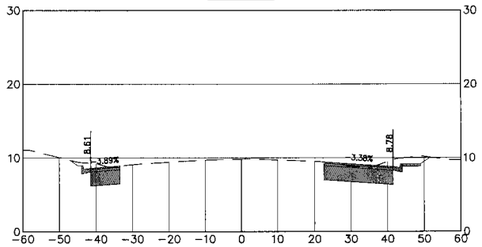
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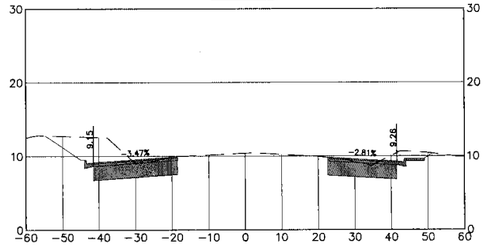
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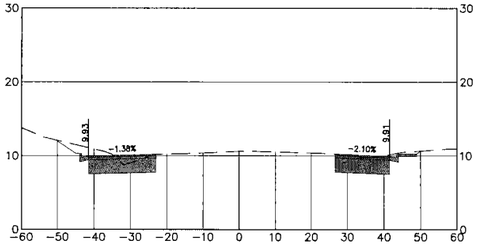
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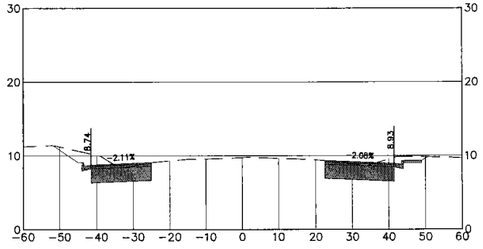
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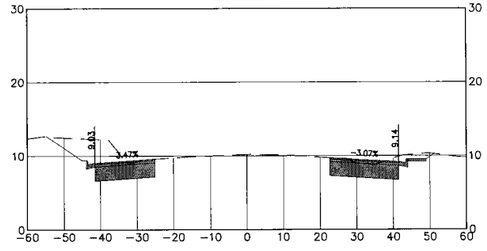
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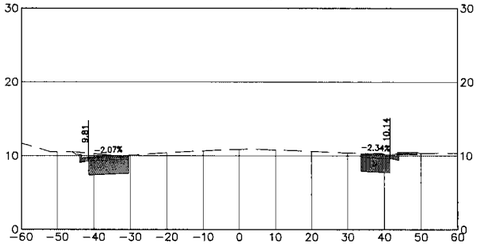
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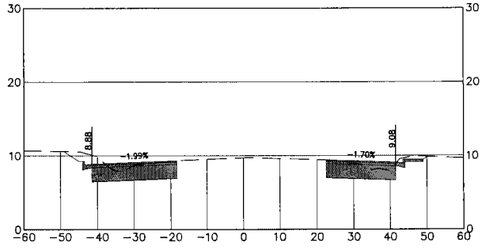
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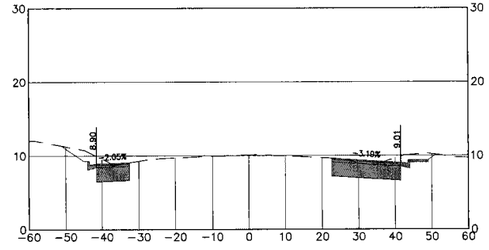
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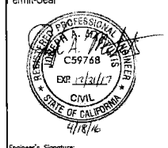
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No.	By	Description	Revision
MALYY			April

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 30+00 TO STA. 35+50

Permit-Seal



Engineer's Signature:
Signature Date:

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CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

10' 5' 0 10'
VERTICAL SCALE
1" = 10'

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

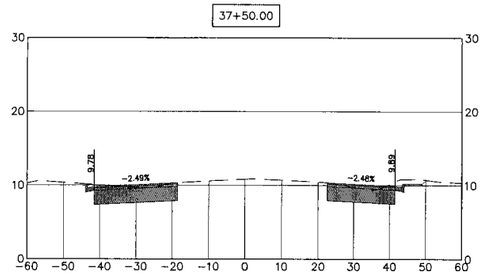
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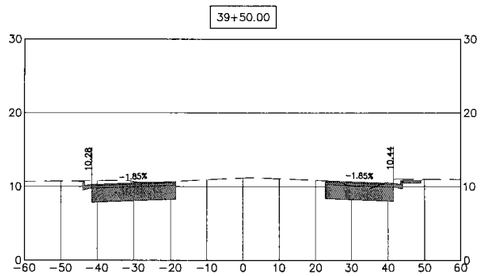
CITY ENGINEER STOCKTON, CA.

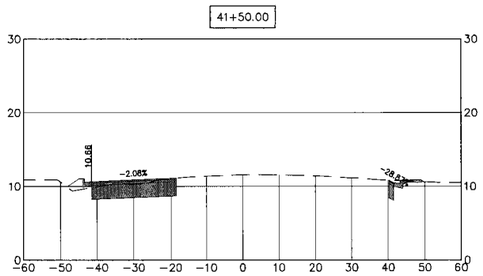
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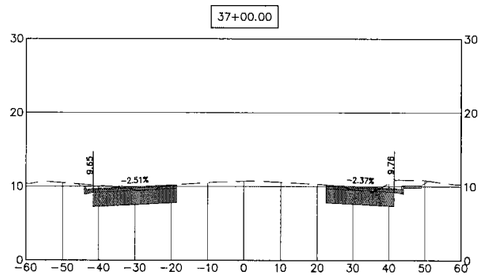
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JOB NO. 183910142	

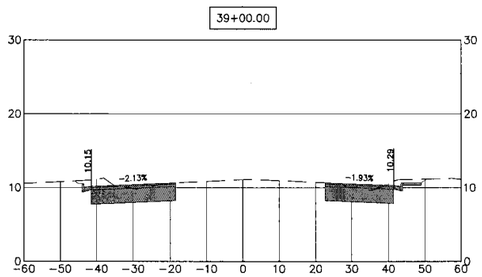
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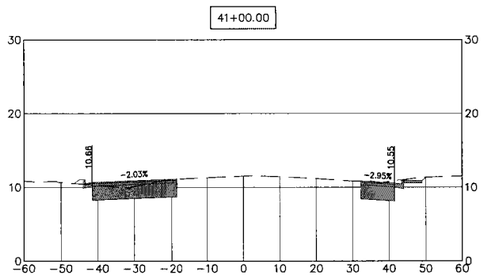


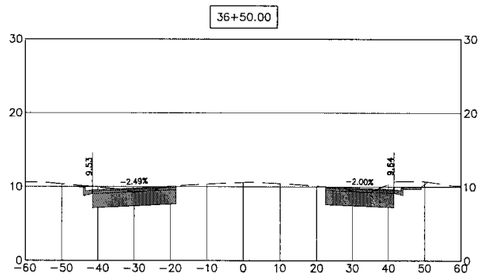


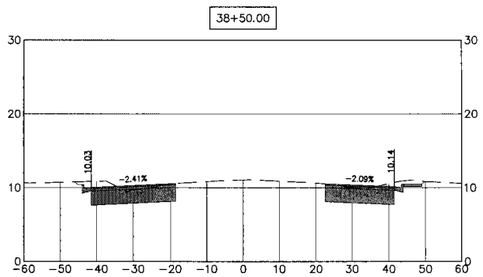


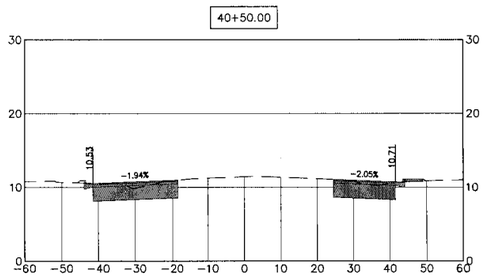


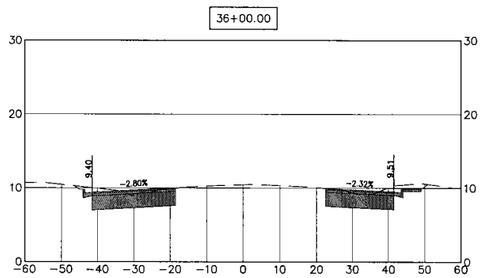


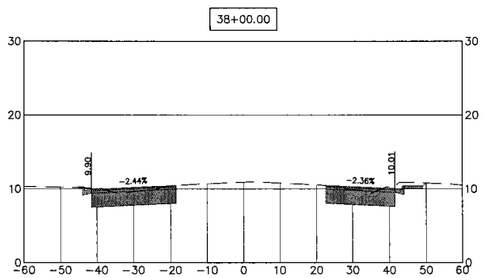


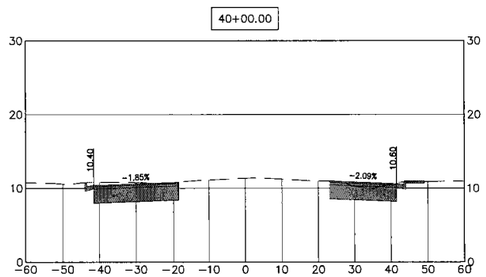












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1" = 10'

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 36+00 TO STA. 41+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MOCTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Moctutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

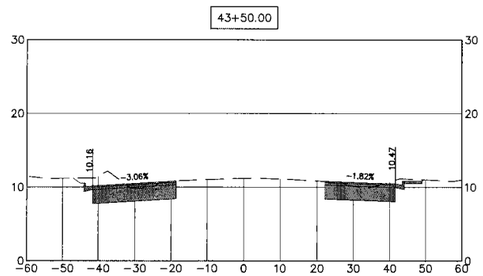
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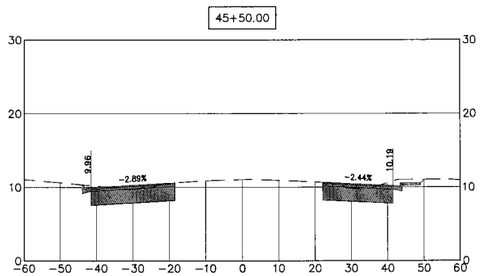
CITY ENGINEER STOCKTON, CA.

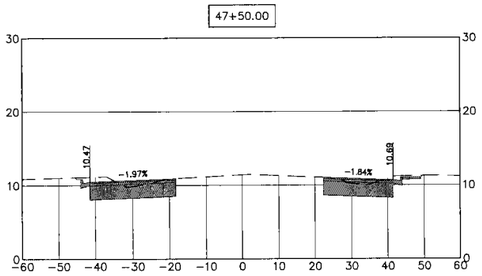
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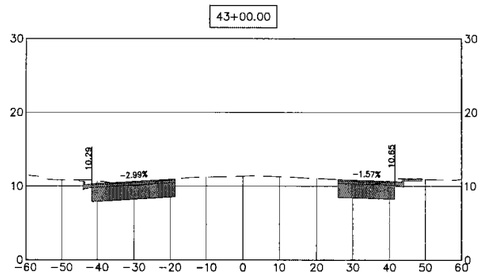
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JOB NO. 183910142	

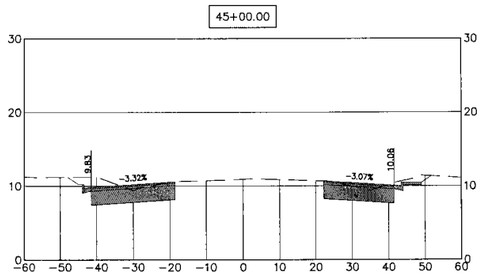
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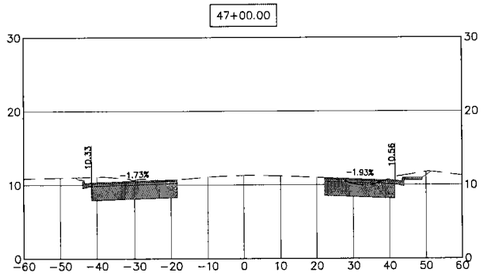


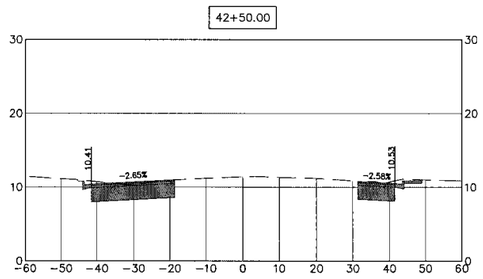


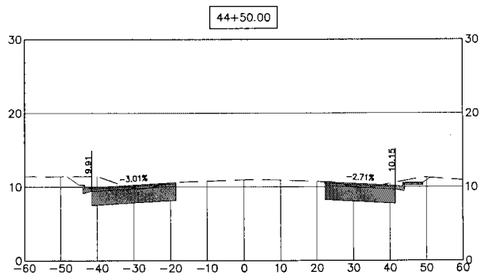


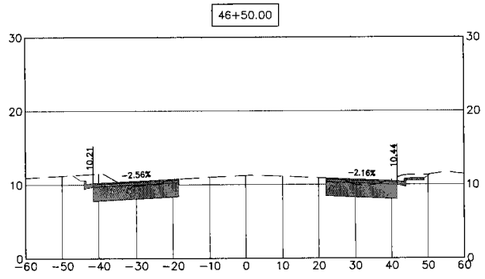


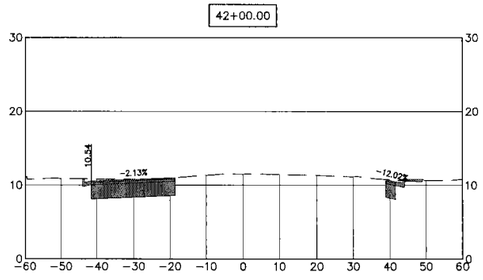


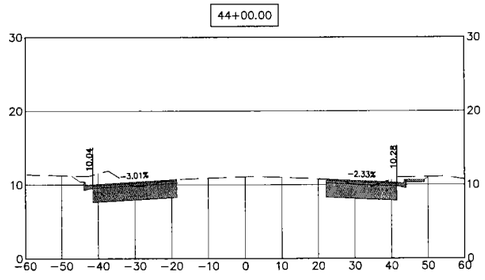


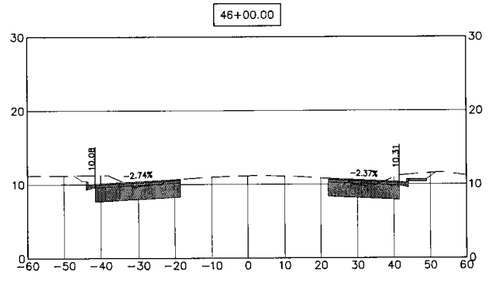












20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

10' 5' 0 10'
VERTICAL SCALE
1" = 10'

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Walnut Creek, CA U.S.A. 94597
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www.stantec.com

No.	M/D/YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 42+00 TO STA. 47+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACCUTIS
C59768
Exp 12/31/17
CIVIL
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Engineer's Signature:
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THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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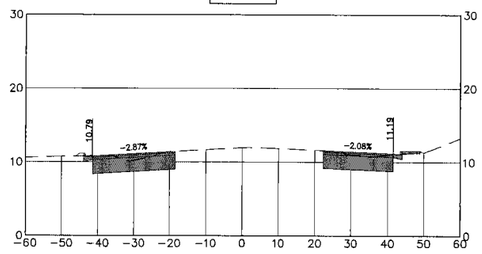
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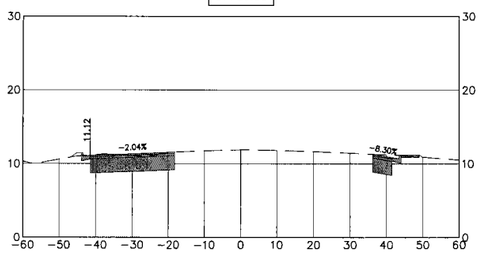
CITY ENGINEER STOCKTON, CA.

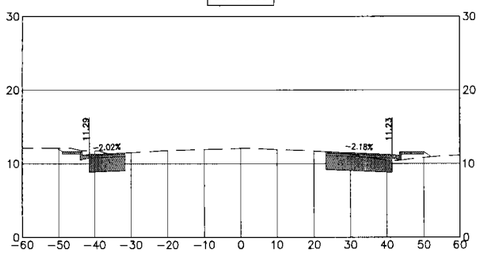
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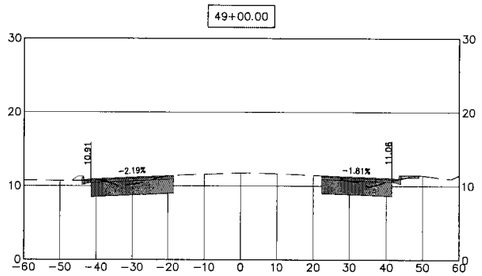
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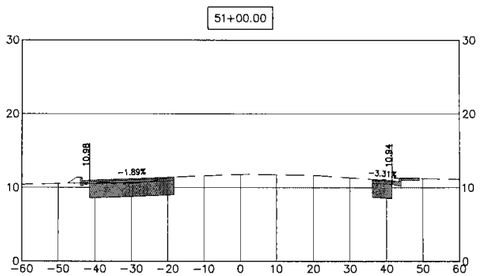
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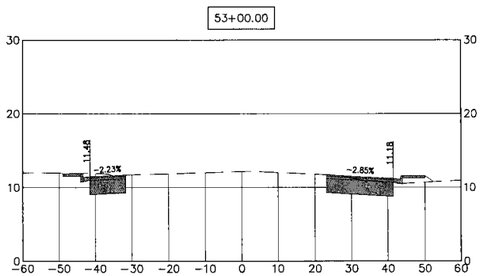


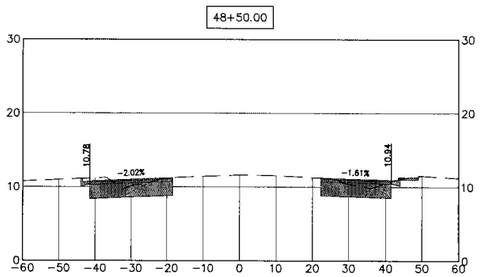


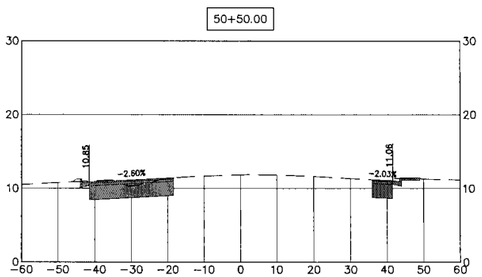


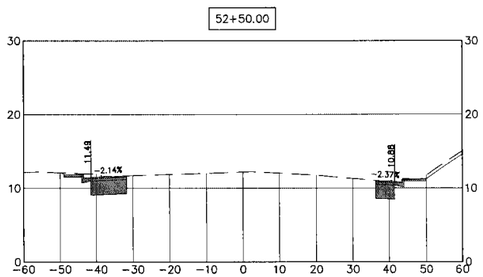


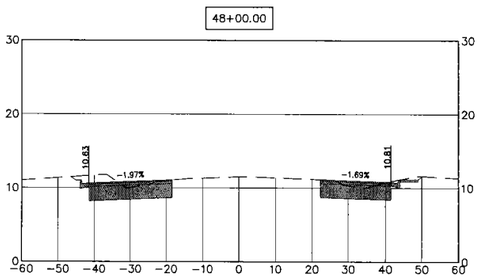


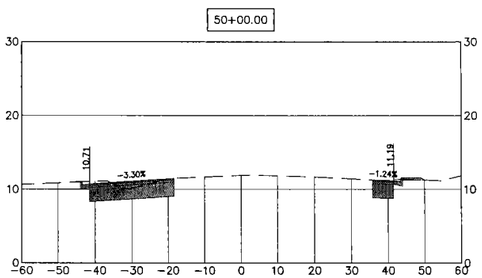


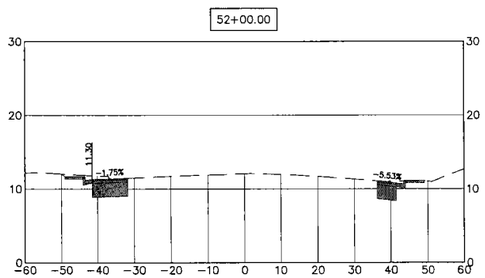












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www.stantec.com

No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 48+00 TO STA. 53+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

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CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
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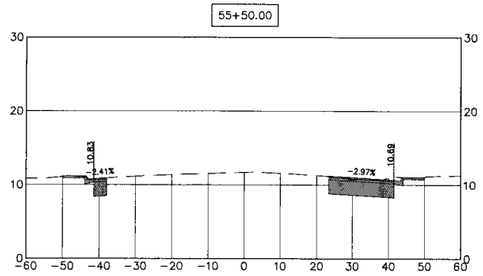
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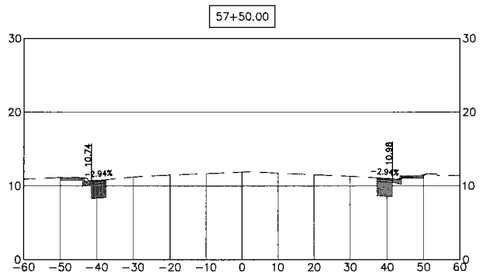
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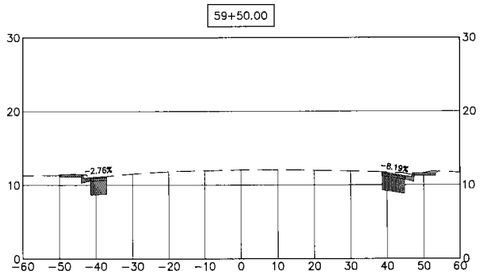
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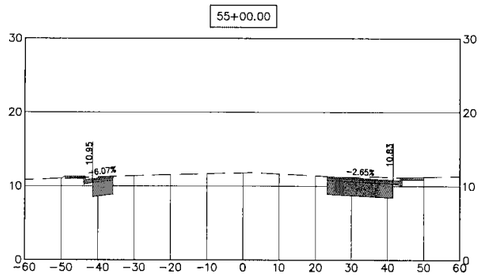
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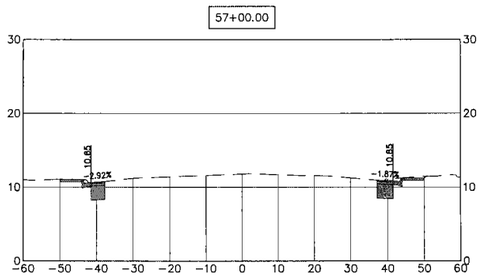
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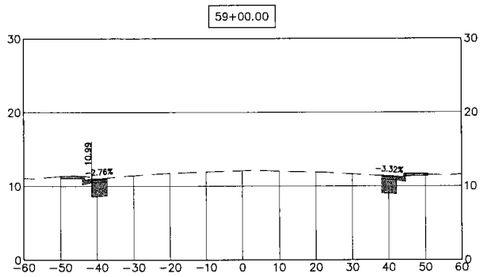


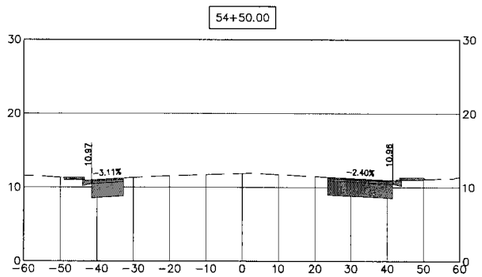


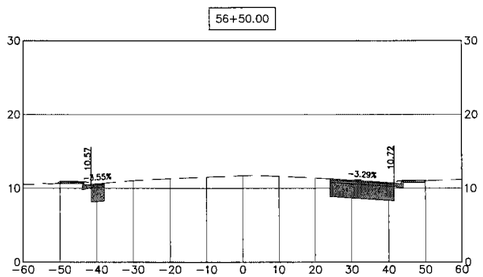


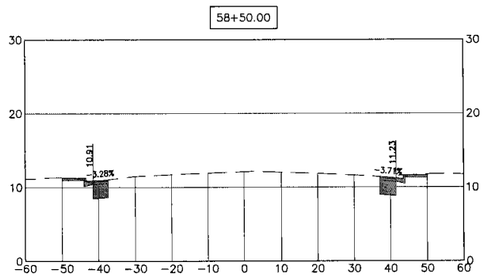


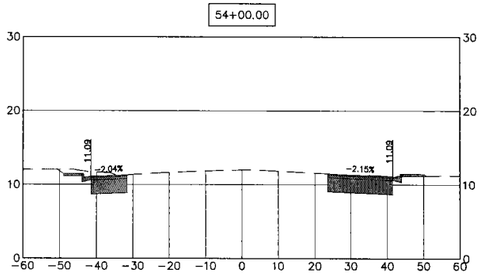


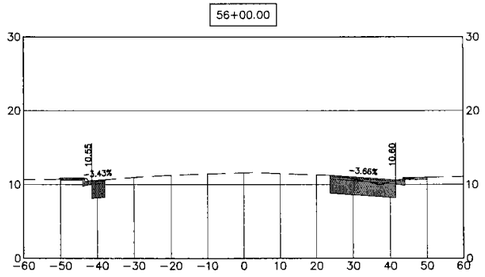


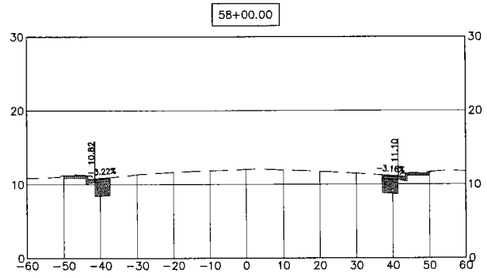












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No.	M/D/Y	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 54+00 TO STA. 59+50

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
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C59768
EXP. 12/31/17
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STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
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THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

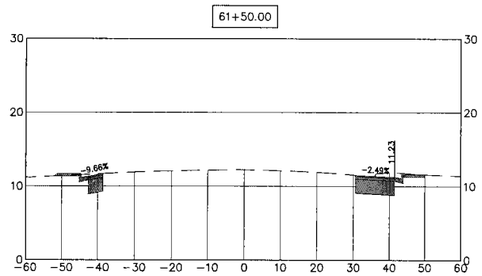
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

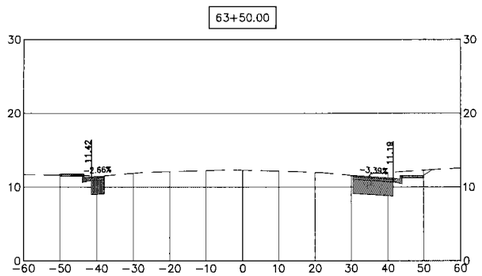
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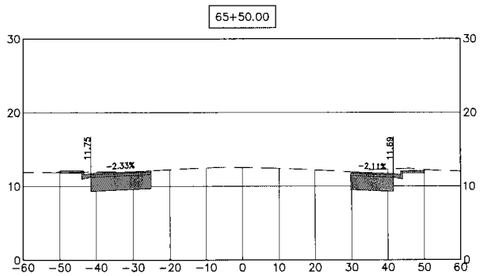
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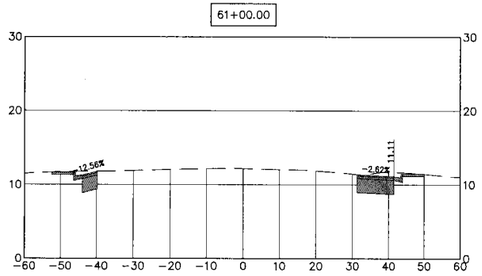
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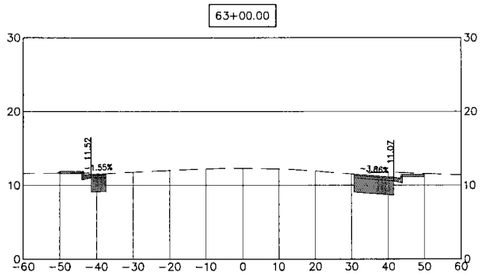
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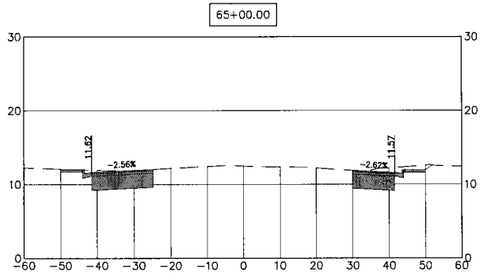


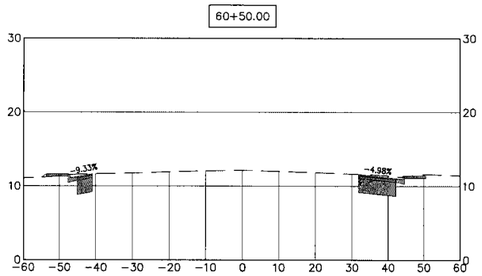


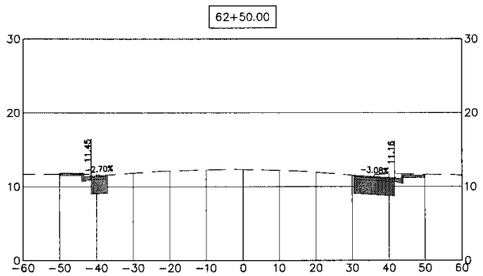


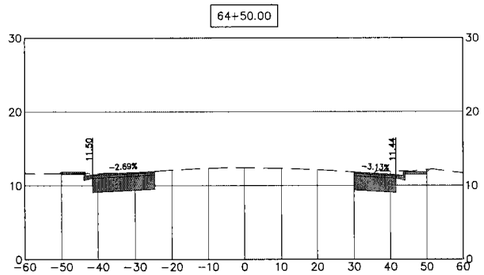


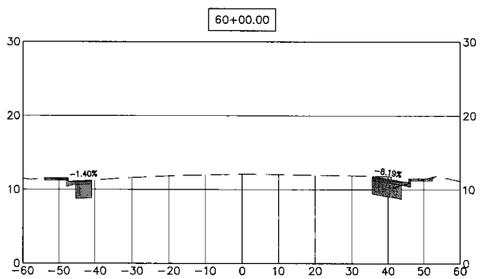


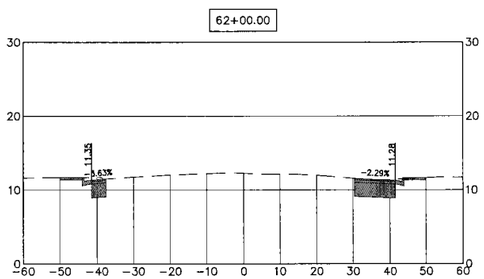


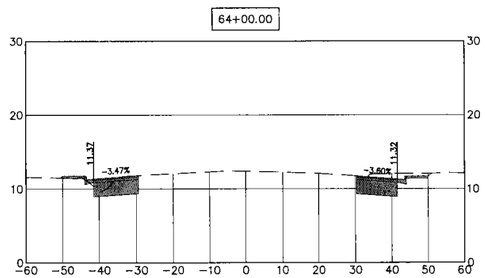












20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

10' 5' 0 10'
VERTICAL SCALE
1" = 10'

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Walnut Creek, CA U.S.A. 94597
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No.	M/D/Y	Description	By	Appd

Revision

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 60+00 TO STA. 65+50

Permit-Seal

PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

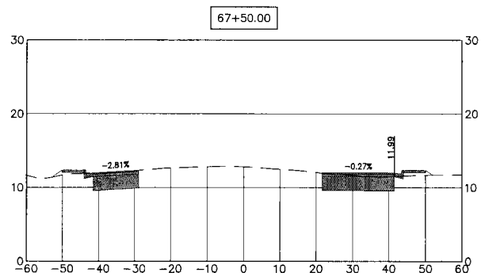
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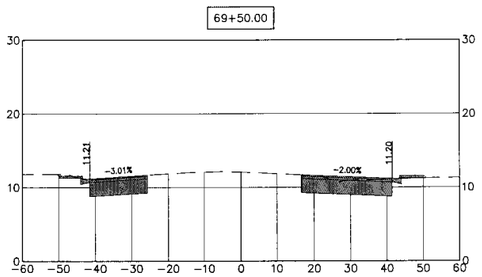
CITY ENGINEER STOCKTON, CA.

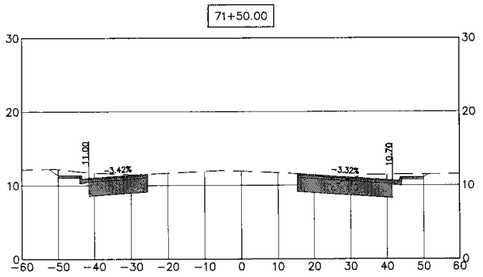
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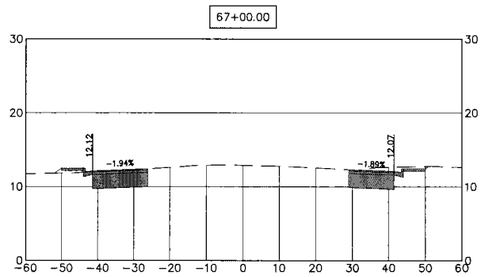
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JOB NO. 183910142	

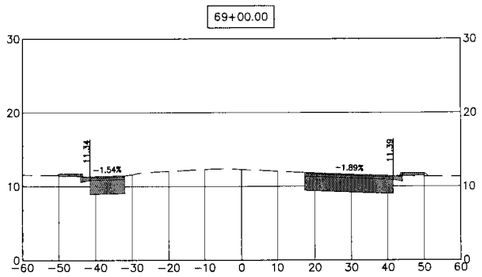
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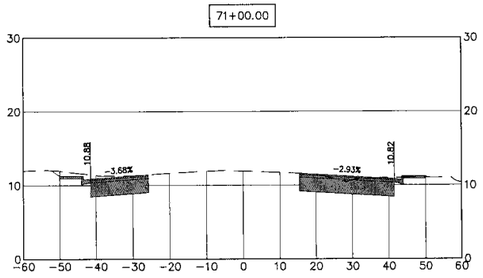


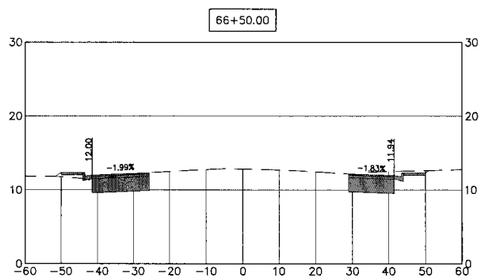


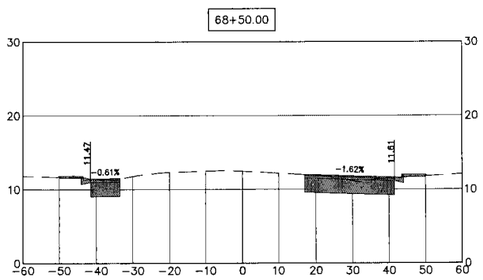


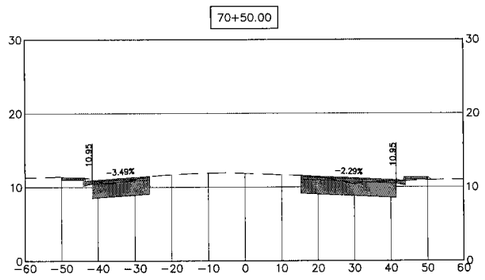


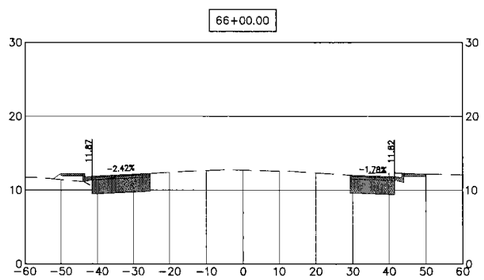


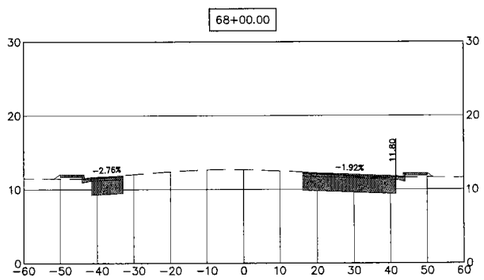


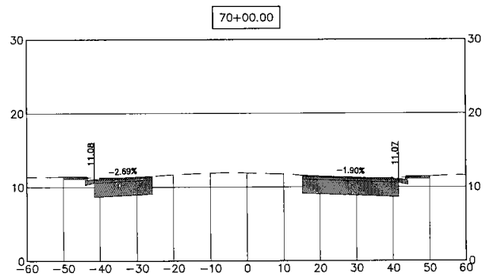


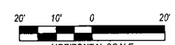


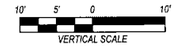












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No.	M/D/Y	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 66+00 TO STA. 71+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
C39768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

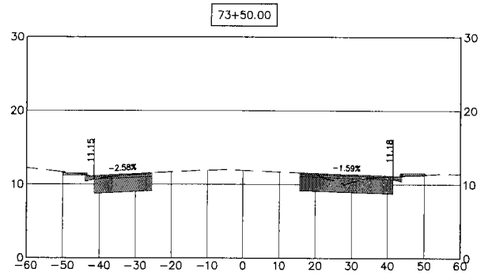
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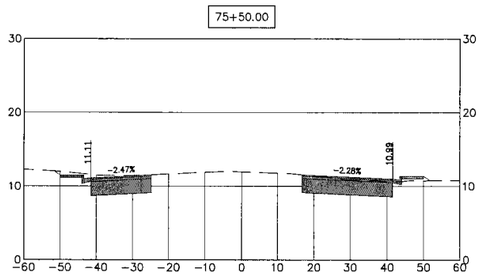
CITY ENGINEER STOCKTON, CA.

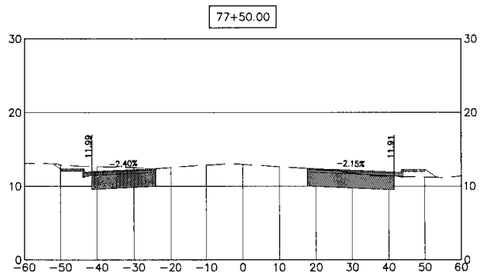
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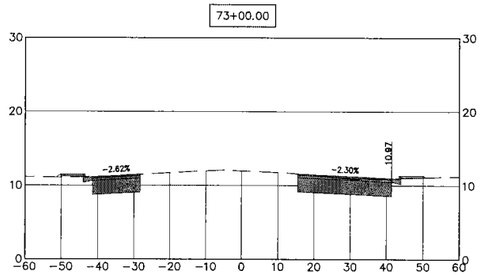
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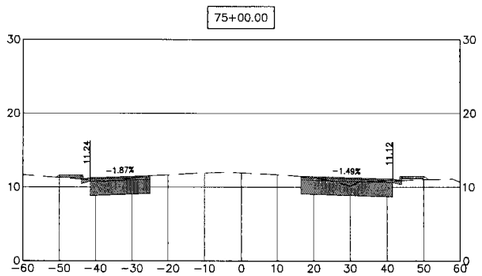
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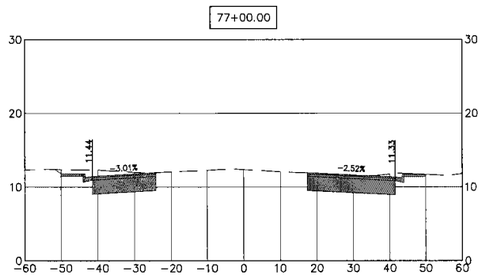


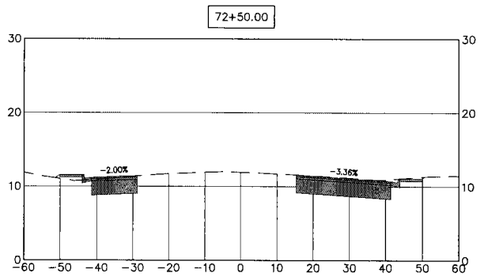


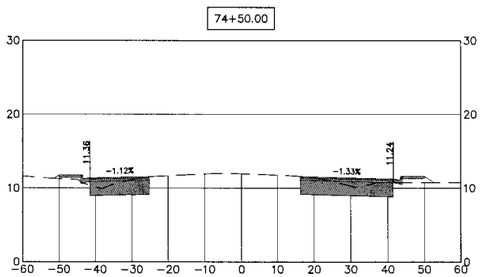


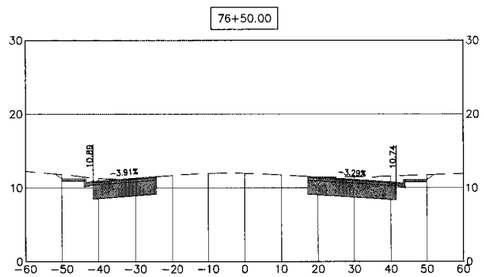


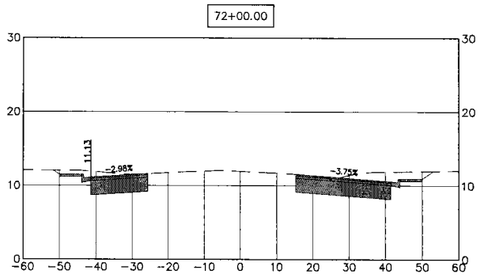


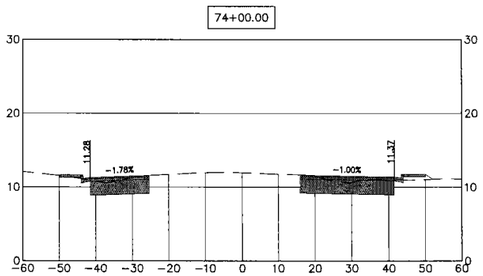


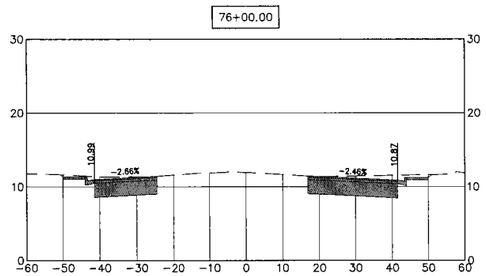












20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

10' 5' 0 10'
VERTICAL SCALE
1" = 10'

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No.	Revision	By	Appd.
	MM/YY	Description	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 72+00 TO STA. 77+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

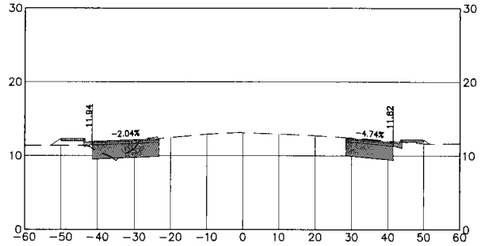
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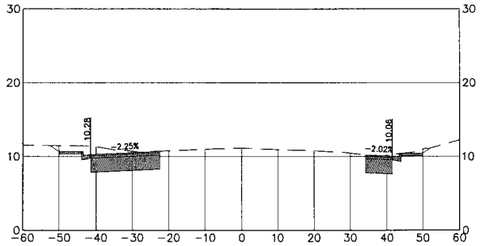
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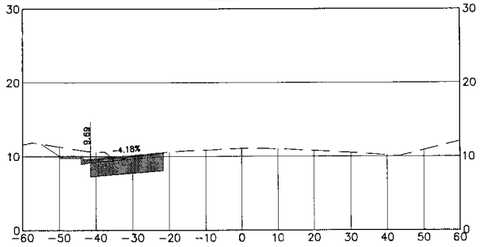
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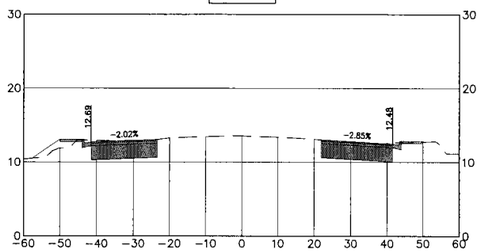
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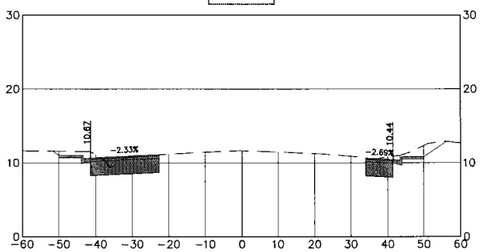
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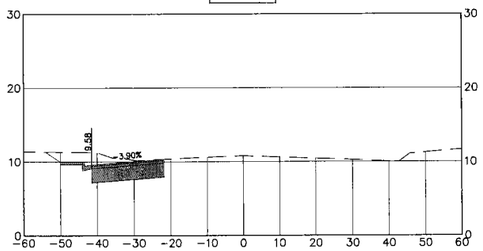
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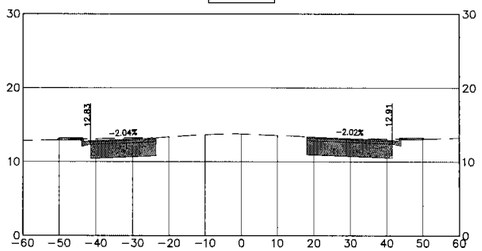
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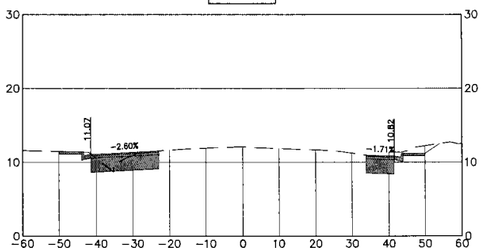
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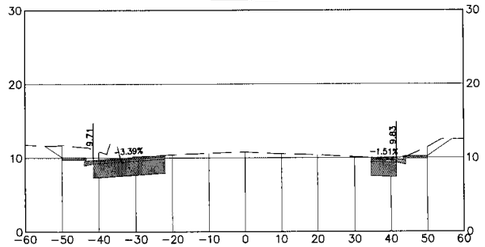
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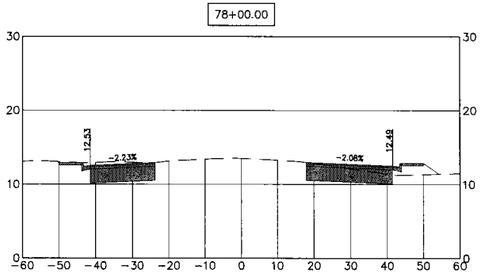
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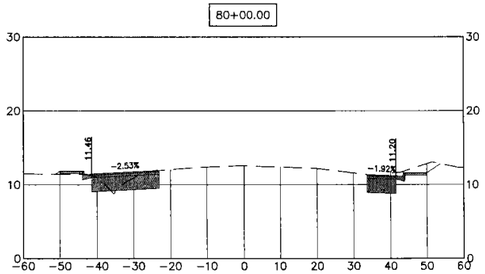
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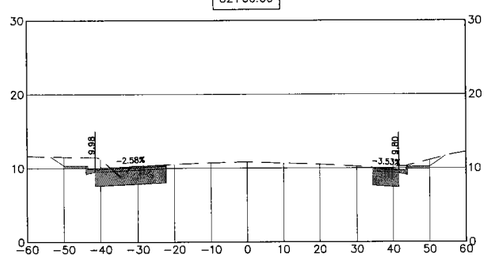
78+00.00



80+00.00



82+00.00



20' 10' 0 20'
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No.	By	Description	Appd.
1	MA/YY	Revision	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 78+00 TO STA. 83+50

Permit-Seal



Engineer's Signature.
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: BME	
CHECKED BY: CJA	
RECORD DWG:	

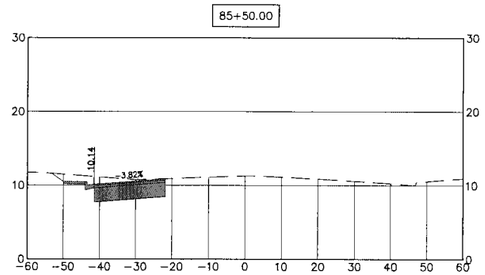
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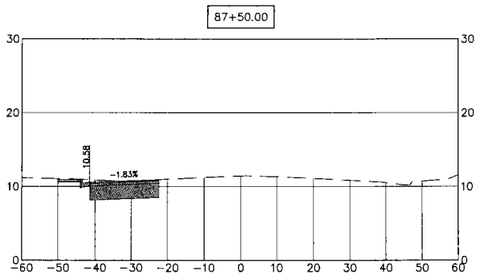
CITY ENGINEER STOCKTON, CA.

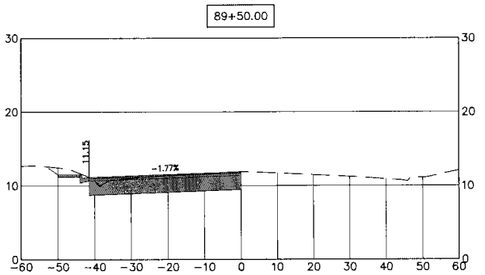
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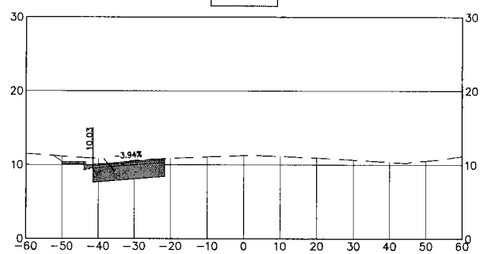
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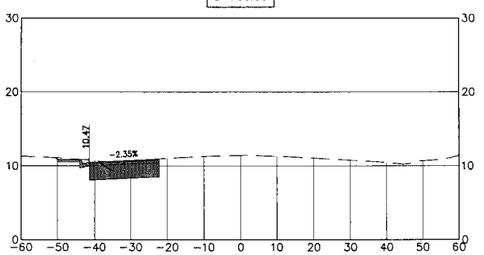
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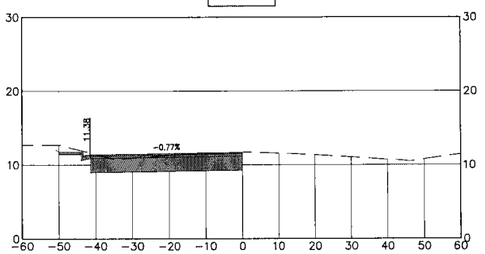


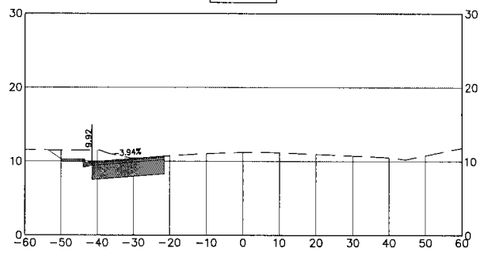


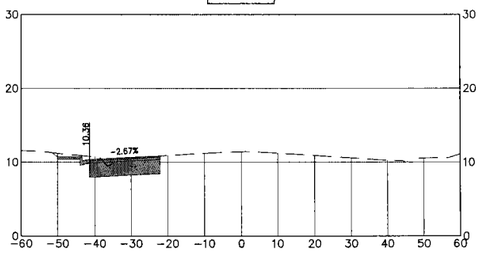


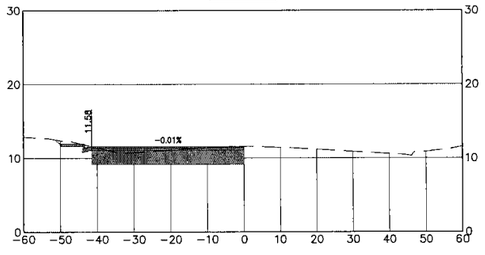


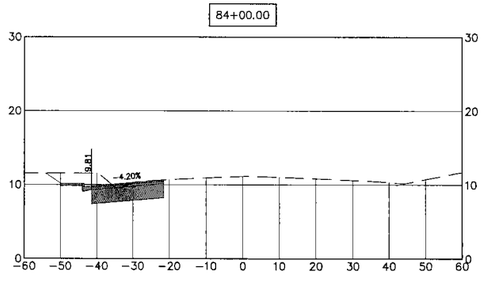


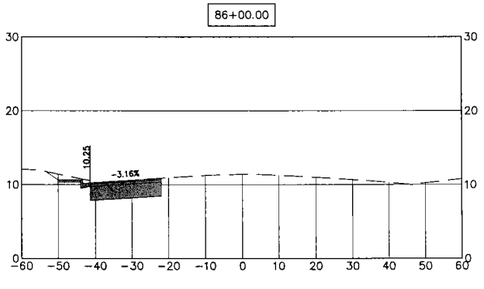


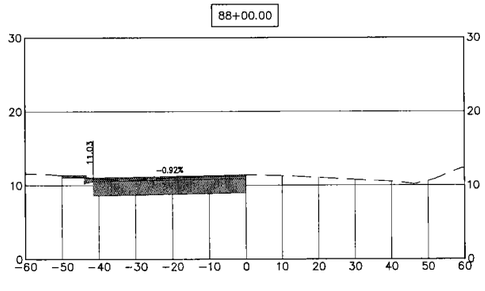












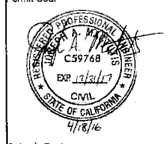
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Tel. 925.941.1400
Fax. 925.941.1401
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No.	M/D/Y	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CROSS SECTIONS
STA. 84+00 TO STA. 89+50

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Maciutis
Submitted Date: April 18, 2016

20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

10' 5' 0 10'
VERTICAL SCALE
1" = 10'

THORNTON ROAD WIDENING
PROJECT
Stockton, California

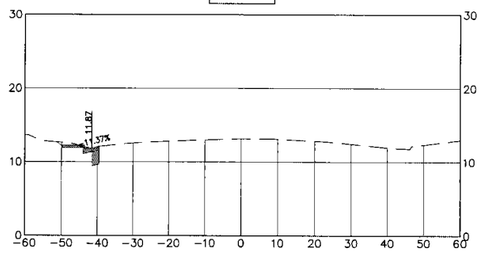
CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

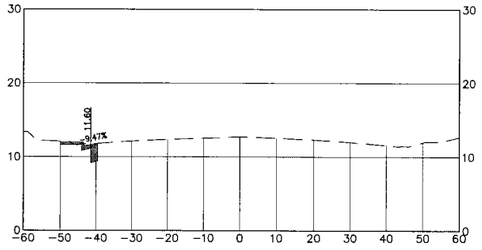
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DESIGNED BY: JAM		XS-11 0
DRAWN BY: BME		36 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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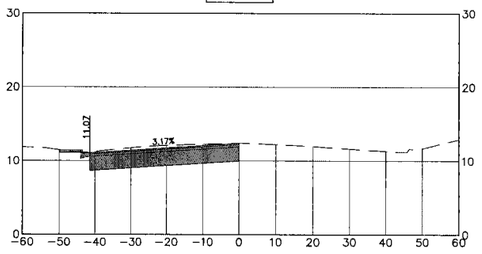
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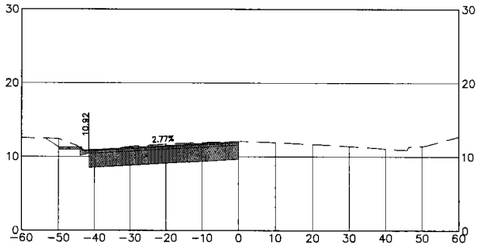
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90+50.00



90+00.00



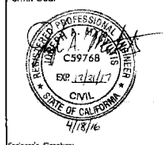
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No.	M.M.YY	Description	By	Appr.
Revision				

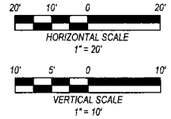
Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

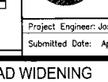
Title
CROSS SECTIONS
STA. 90+00 TO STA. 91+50

Permit-Seal



Engineer's Signature:
Signature Date:





CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

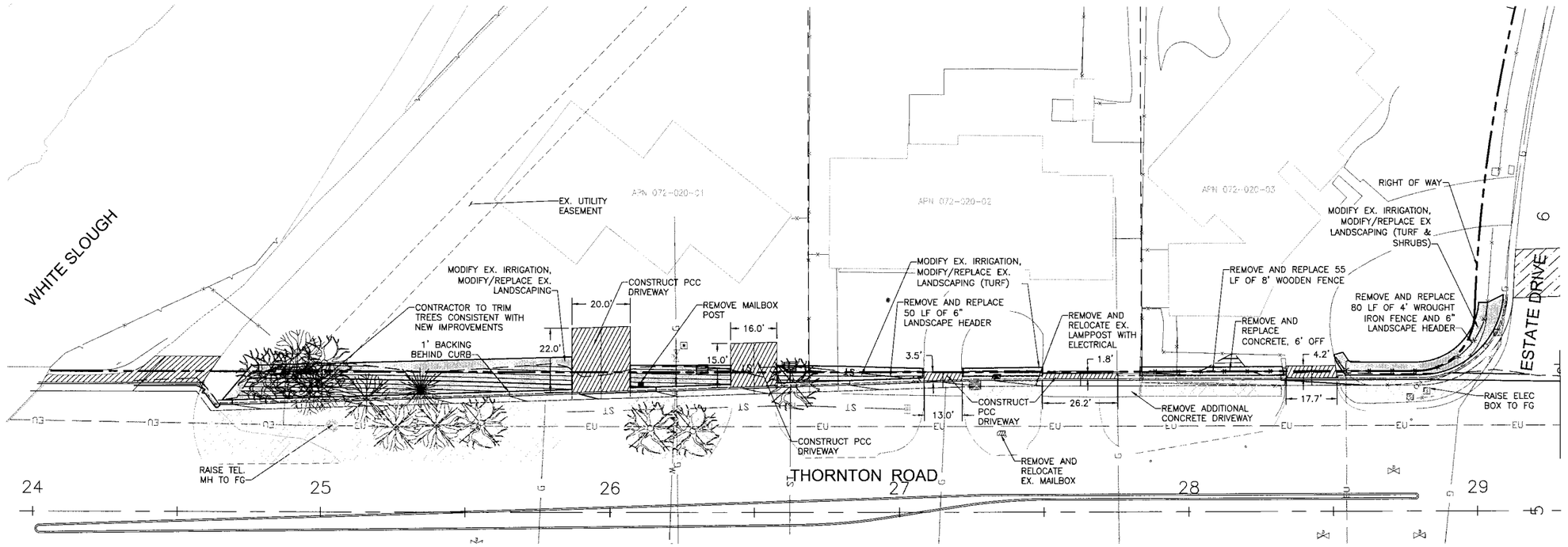
THORNTON ROAD WIDENING
PROJECT
Stockton, California

CROSS SECTIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

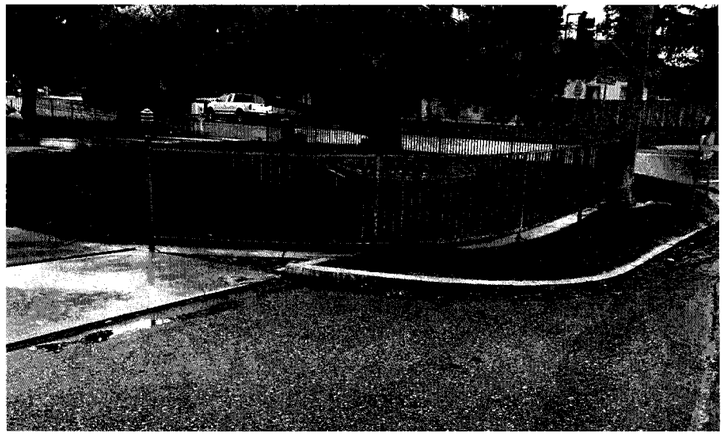
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DESIGNED BY: JAM		XS-12 0
DRAWN BY: BME		37 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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1 SR-1 WOODEN FENCE
N.T.S.



2 SR-2 WROUGHT IRON FENCE
N.T.S.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-020-01, APN 072-020-02, AND APN 072-020-03. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. WOODEN FENCE AND WROUGHT IRON FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTOS OF EXISTING FENCES ARE SHOWN IN DETAIL 1 AND 2 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

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HORIZONTAL SCALE
1" = 20'

No.	MM/YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-020-01, APN 072-020-02
AND APN 072-020-03

Permit-Seal
PROFESSIONAL ENGINEER — JOSEPH A. MACTUTIS — C59768 — EXP 12/31/17 — CIVIL — STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

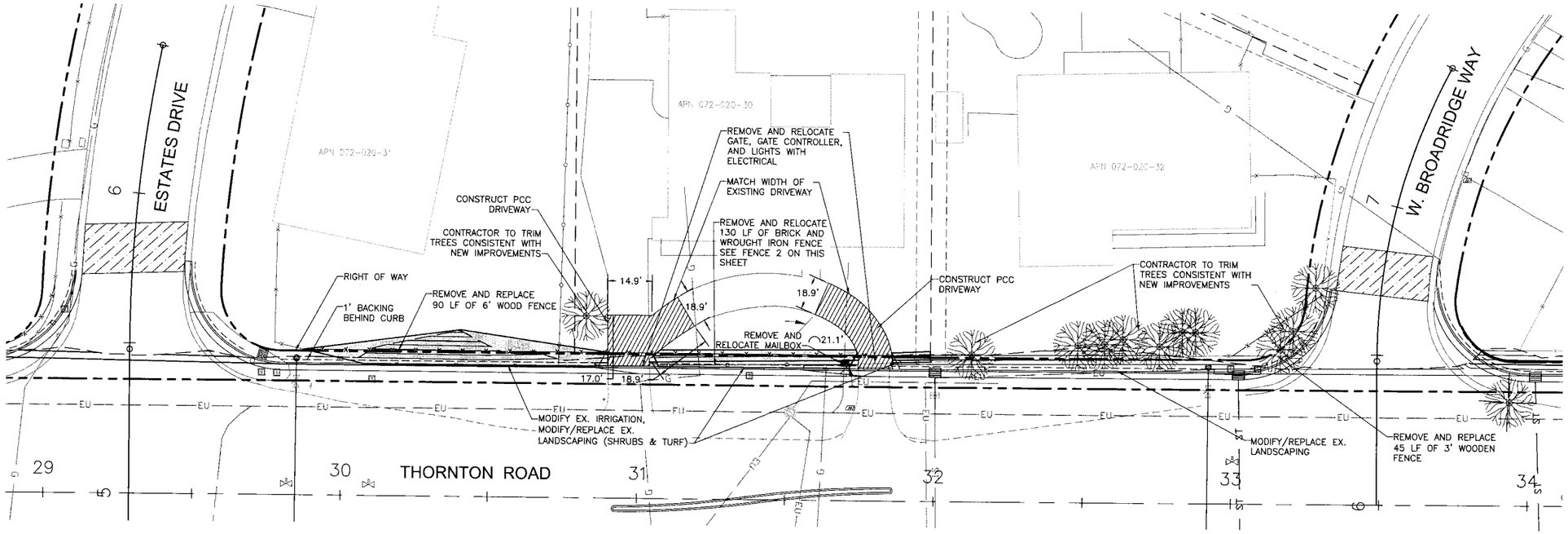
THORNTON ROAD WIDENING PROJECT
Stockton, California

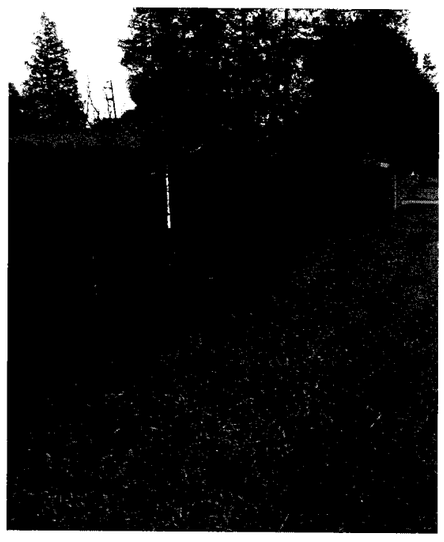
SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM		SR-1 0
DRAWN BY: CBH	CITY ENGINEER STOCKTON, CA.	39 OF 145
CHECKED BY: CJA	DATE:	JOB NO. 183910142
RECORD DWG.		

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1 SR-2 WOODEN FENCE
N.T.S.



2 SR-2 BRICK & WROUGHT IRON FENCE
N.T.S.



3 SR-2 WOODEN FENCE
N.T.S.

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-020-31, APN 072-020-30, AND APN 072-020-32. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. 6' WOODEN FENCE, BRICK AND WROUGHT IRON FENCE, AND 3' WOODEN FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTOS OF EXISTING FENCES SHOWN IN DETAIL 1, 2, AND 3 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	M/D/YY	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title SITE RECONSTRUCTION APN 072-020-31, APN 072-020-30, AND APN 072-020-32

Permit-Seal



Engineer's Signature:
Signature Date:

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CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

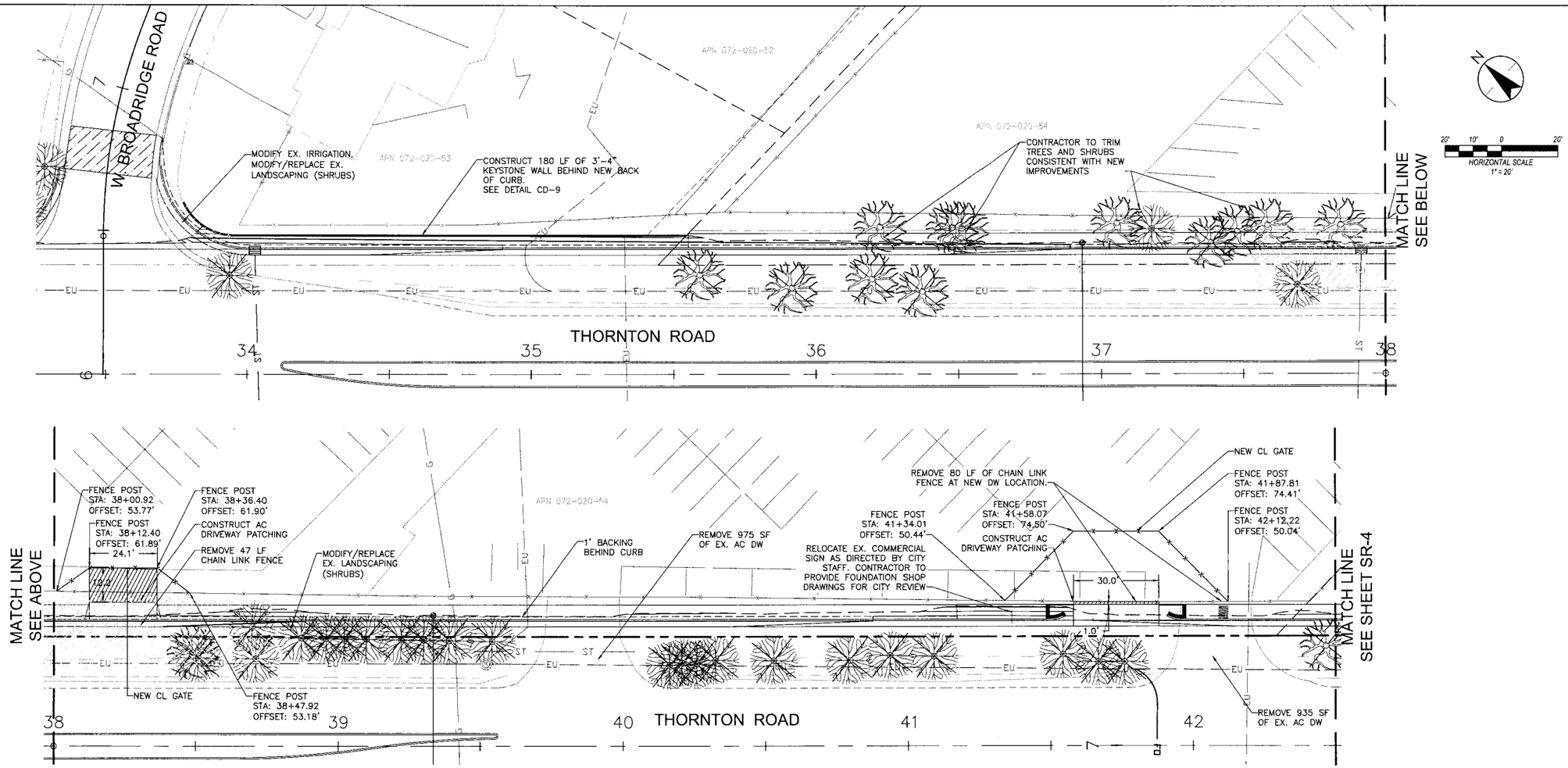
THORNTON ROAD WIDENING PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-2 0
DRAWN BY: CBH		39 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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1 SR-3 CHAIN LINK GATE AND FENCE
N.T.S.

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-020-53 AND APN 072-020-54. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ONSITE STAFF.
2. CHAIN LINK FENCE SHALL BE REPLACED IN KIND. REUSE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAILS 1 ON THIS SHEET.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-020-63 AND
APN 072-020-54

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

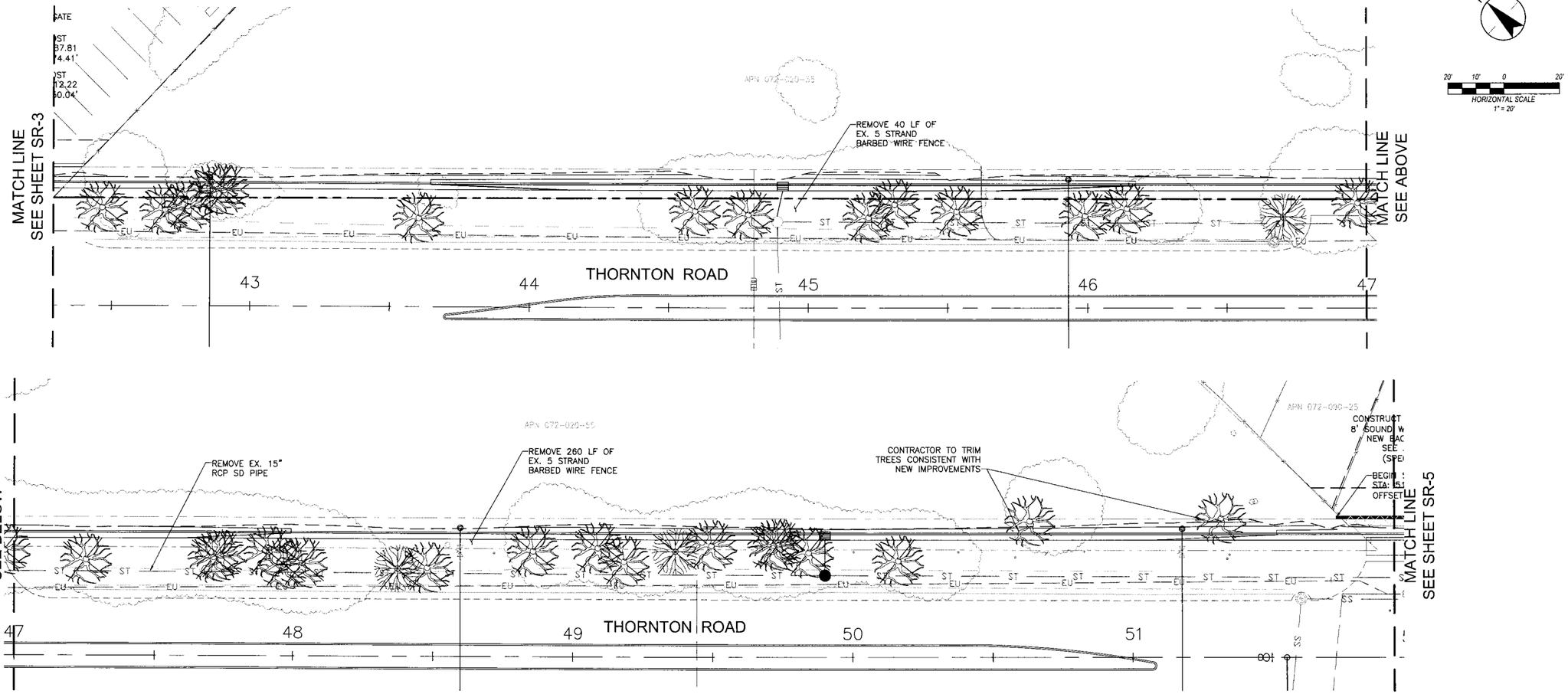
THORNTON ROAD WIDENING PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	By	Appd.	Description	Revision
1	MMJY			

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-020-55

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

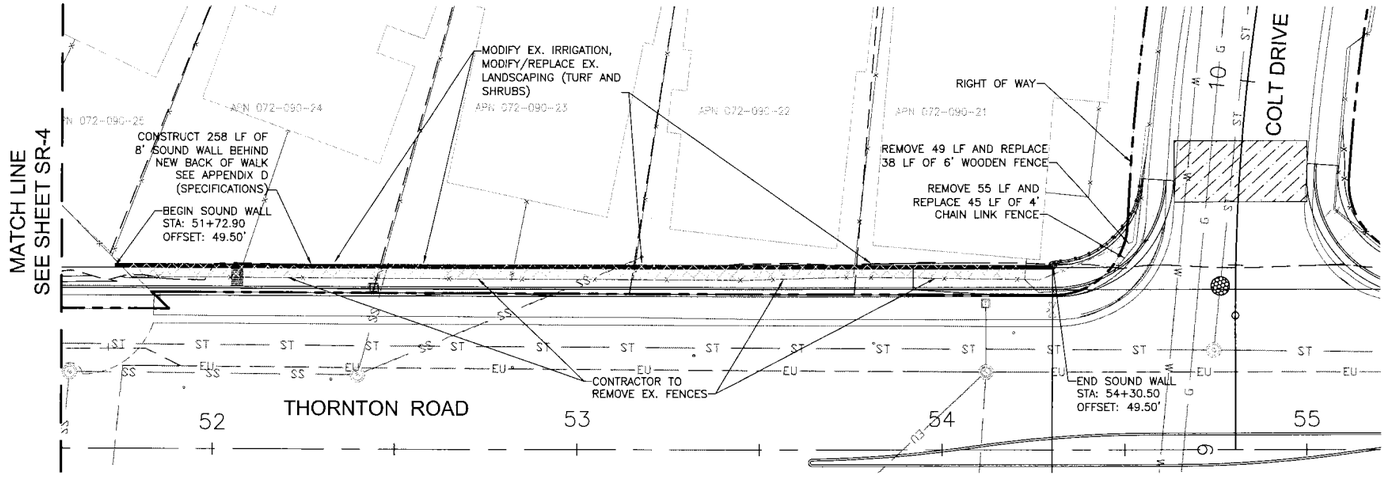
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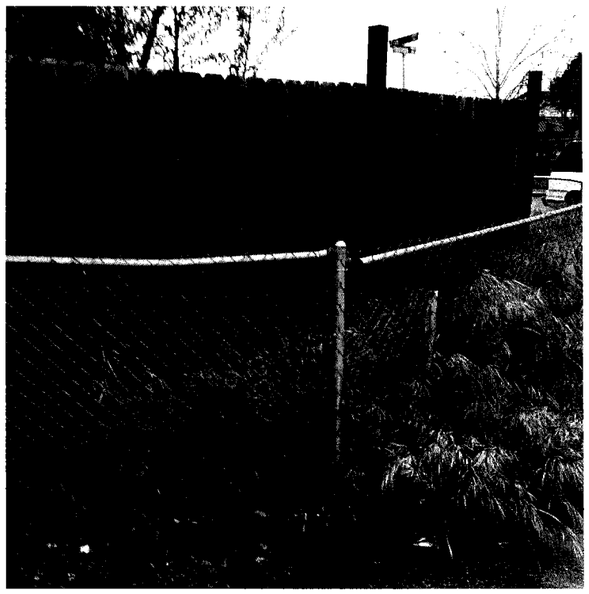
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SR-4 0
41 OF 145

JOB NO.
183910142

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1 / SR-5 CHAIN LINK & WOODEN FENCE
N.T.S.

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-090-24, APN 072-090-23, APN 072-090-22, AND APN 072-090-21. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CHAINLINK FENCE AND WOODEN FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCES ARE SHOWN IN DETAIL 1 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

HORIZONTAL SCALE 1" = 20'

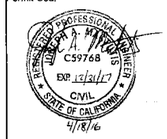
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No.	Revision	By	Appd.
1	4/18/16	WALYY	

Client/Project: CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title: SITE RECONSTRUCTION
APN 072-090-24, APN 072-090-23
APN 072-090-22, AND APN 072-090-21

Permit-Seal



Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SITE RECONSTRUCTION

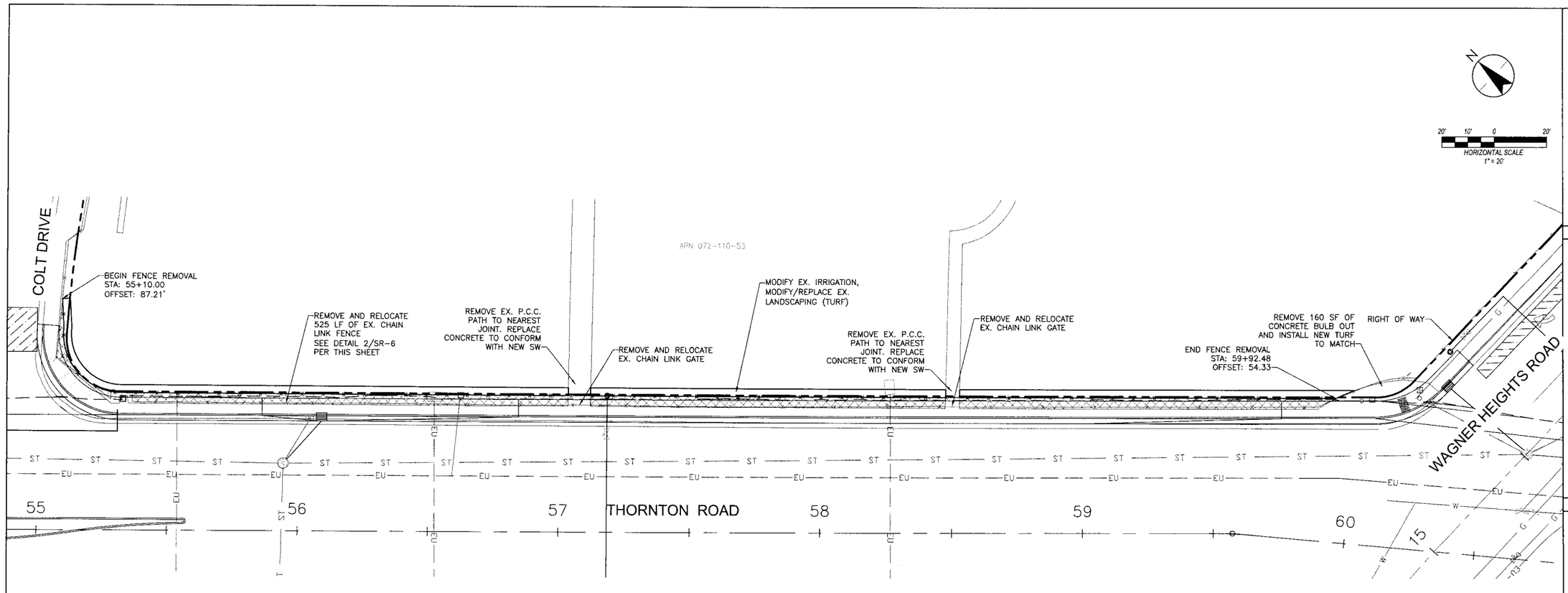
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CITY OF STOCKTON, CALIFORNIA

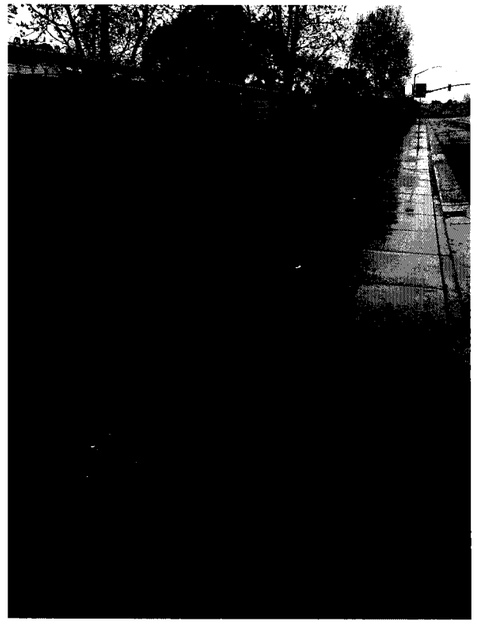
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DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:
CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No. Revision: SR-5 0
42 OF 145
JOB NO. 183910142

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2 / SR-6 WROUGHT IRON FENCE
N.T.S.

SITE RECONSTRUCTION NOTES

1. CHAINLINK FENCE TO BE CONSTRUCTED AT LIMIT OF EXISTING R/W/ CONTRACTOR TO COORDINATE CONSTRUCTION ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CHAINLINK FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAIL 1 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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www.stantec.com

No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-110-53

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
Joseph A. Moctuis
C59758
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Moctuis
Submitted Date: April 18, 2016

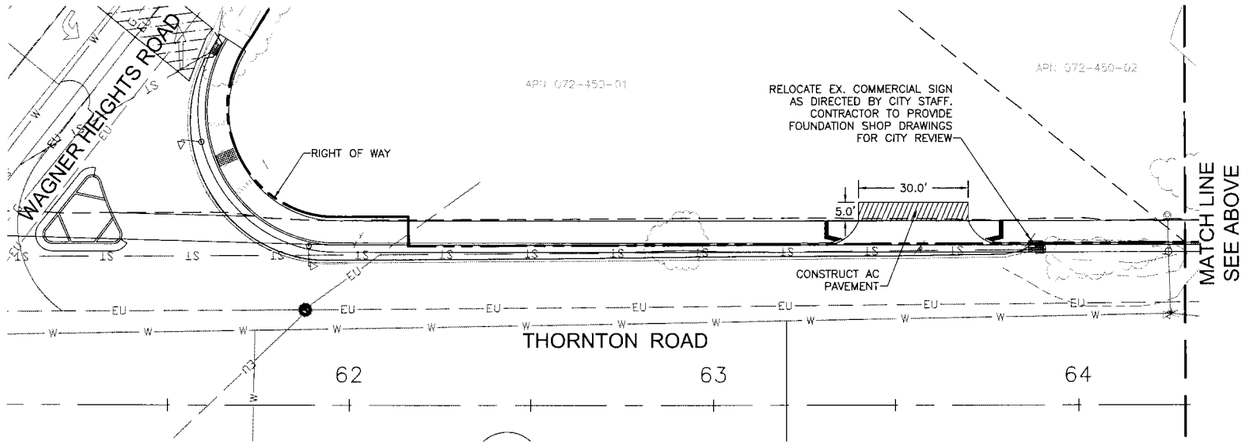
THORNTON ROAD WIDENING
PROJECT
Stockton, California

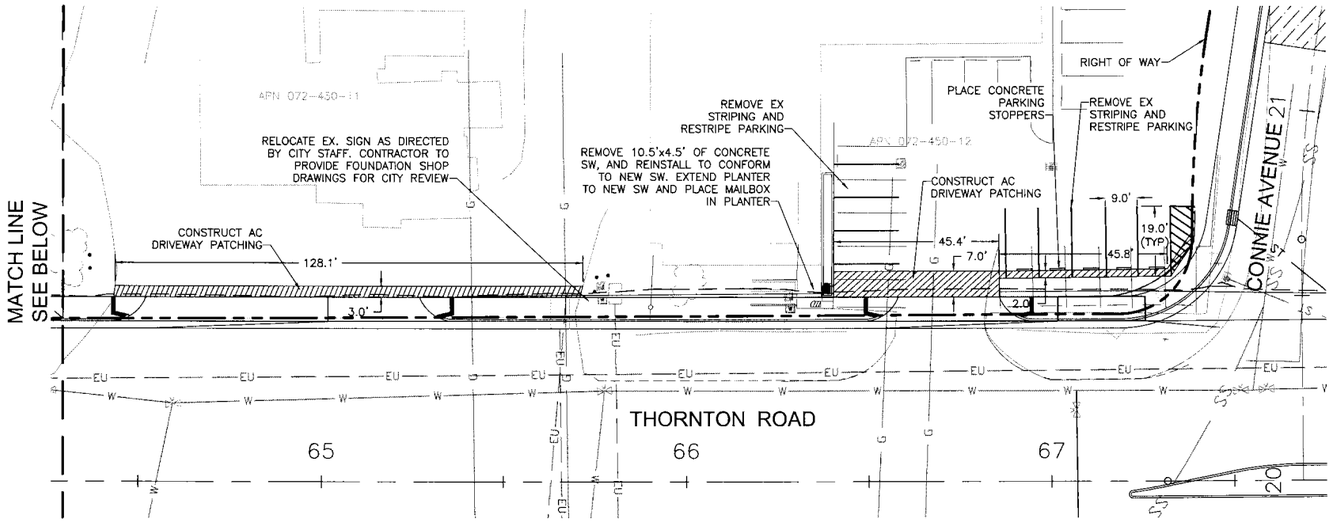
SITE RECONSTRUCTION

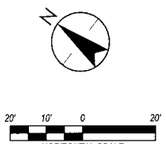
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-6 0
DRAWN BY: CBH		43 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-450-01, APN 072-450-02, APN 072-450-11, AND APN 072-450-12. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	M.M.YY	Revision	By	Appd.
		Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-450-01, APN 072-450-02
APN 072-450-11 AND APN 072-450-12

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

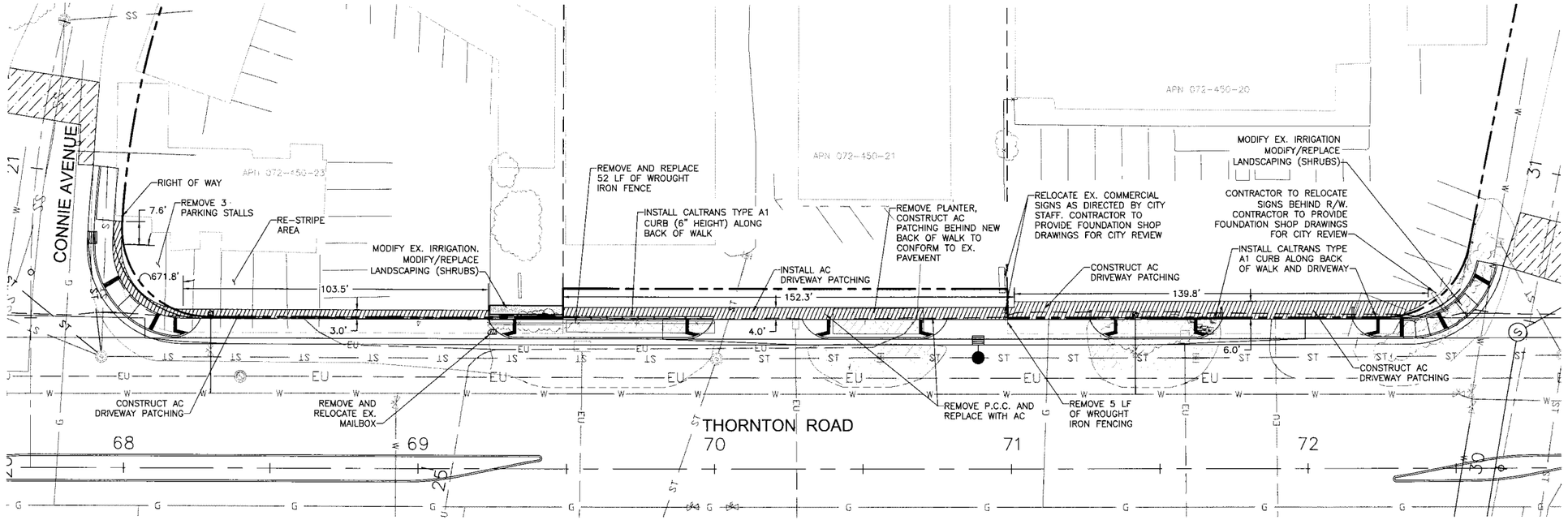
THORNTON ROAD WIDENING
PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-7 0
DRAWN BY: CBH	CITY ENGINEER STOCKTON, CA.	44 OF 145
CHECKED BY: CJA	DATE:	JOB NO.
RECORD DWG:		183910142

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1 / SR-8 WROUGHT IRON FENCE
N.T.S.

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-450-23, APN 072-450-21, AND APN 072-450-20. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. WROUGHT IRON FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAIL 1 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

HORIZONTAL SCALE 1" = 20'

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-450-23, APN 072-450-21
AND APN 072-450-20

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

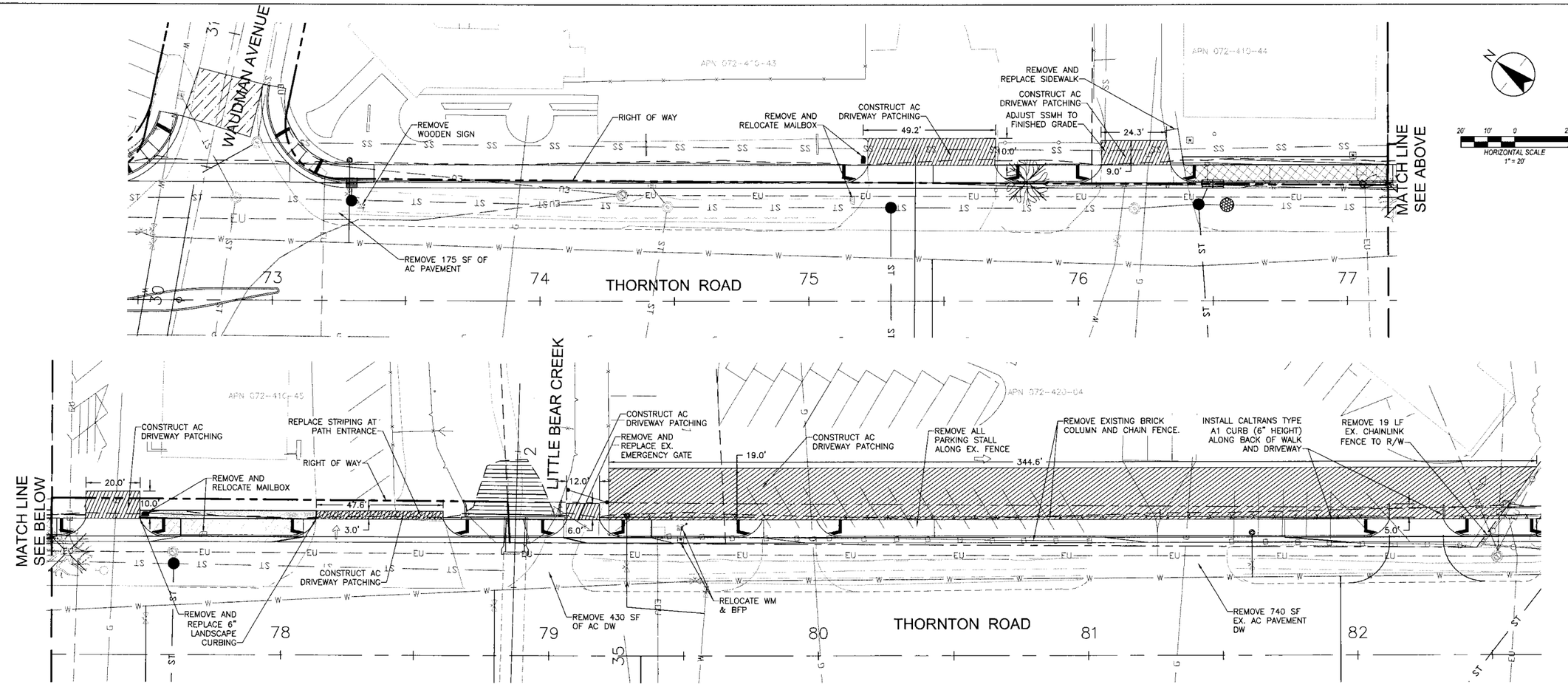
THORNTON ROAD WIDENING PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No.	Revision
DESIGNED BY: JAM		SR-8	0
DRAWN BY: CBH		45 OF 145	
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.	
RECORD DWG:	DATE:	183910142	

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1 SR-9 ACCESS GATE & METAL BAR FENCE
N.T.S.



2 SR-9 BRICK COLUMN SINGLE CHAIN FENCE
N.T.S.

LEGEND

- PROPOSED DRIVEWAY IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-410-43, APN 072-410-44, APN 072-410-45, AND APN 072-420-04. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

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No.	M/D/Y	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 072-410-43, APN 072-410-44,
APN 072-410-45 AND APN 072-420-04

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

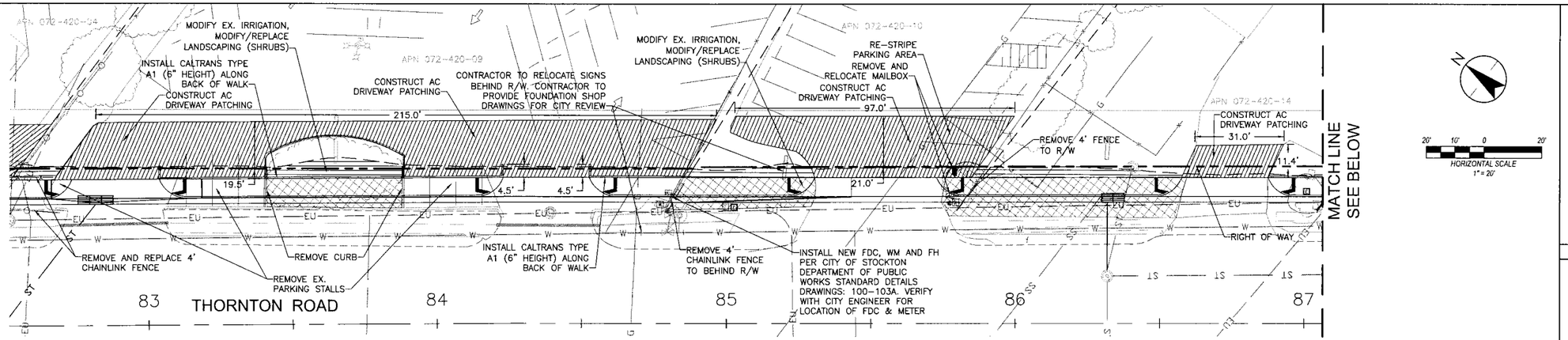
THORNTON ROAD WIDENING PROJECT
Stockton, California

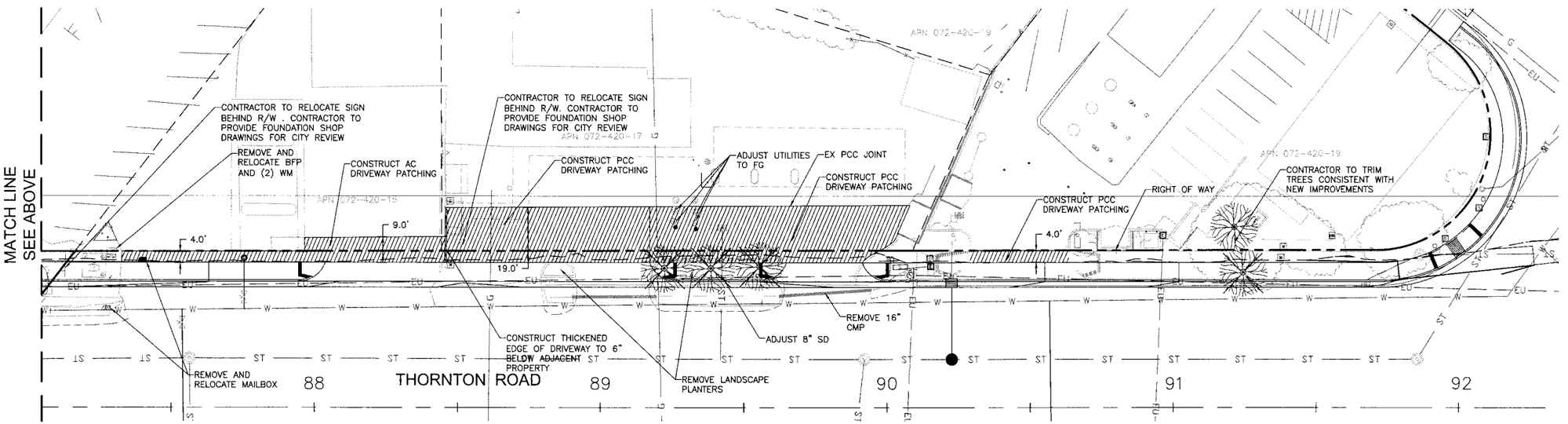
SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No.	Revision
DESIGNED BY: JAM		SR-9	0
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CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.	
RECORD DWG:	DATE:	183910142	

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1 / SR-10 4' CHAIN LINK FENCE
N.T.S.

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 072-420-09, APN 072-420-10, APN 072-420-15, APN 072-420-17, 072-420-19. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CHAINLINK FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAIL 1 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APNS: 072-420-09, 072-420-10, 072-420-15, 072-420-17 & 072-420-19

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUBIS
C59768
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactubis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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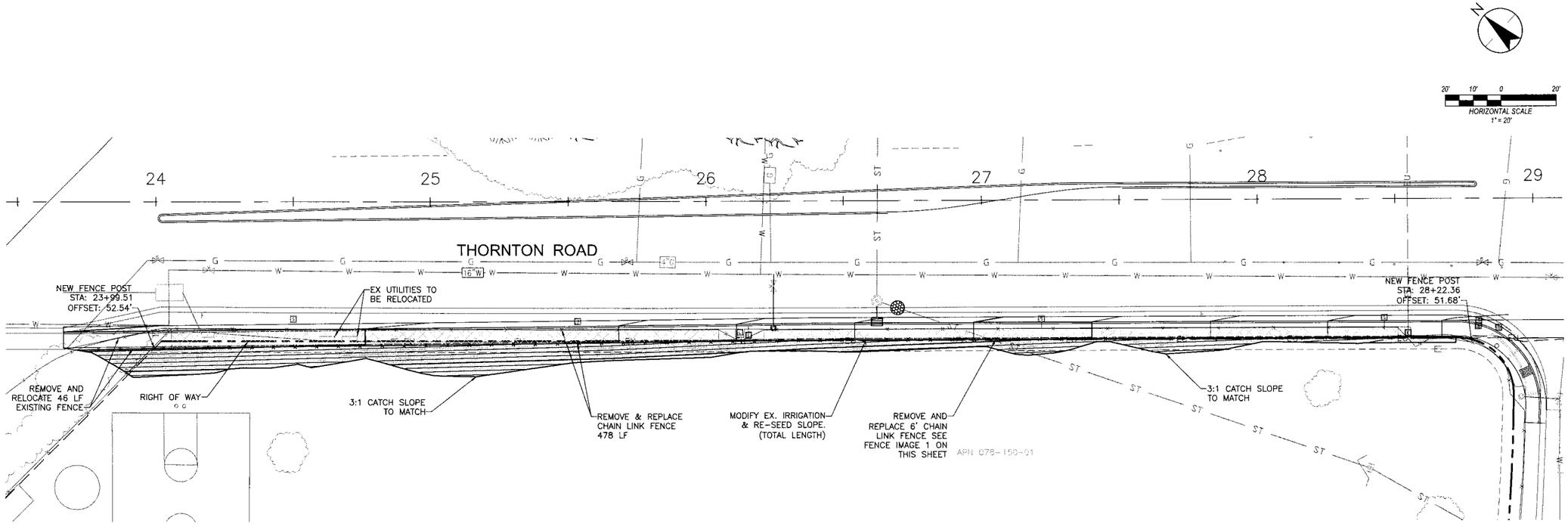
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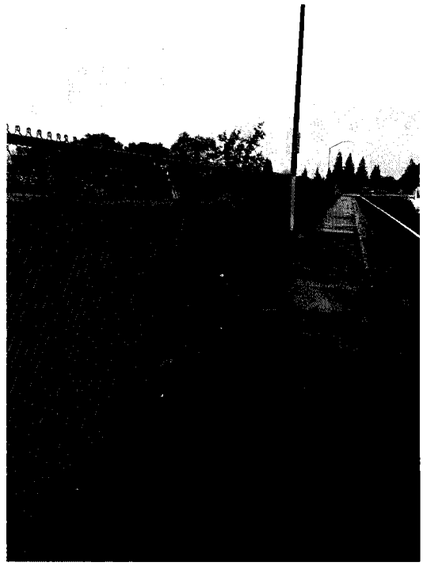
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DATE:

Sheet No.	Revision
SR-10	0
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JOB NO. 183910142	

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1 / SR-12 CHAIN LINK FENCE
NTS

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 078-150-01. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CHAINLINK FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAIL 1 ON THIS SHEET.
3. CONTRACTOR TO HYDROSEED ALL DISTURBED AREA.
4. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	Revision	By	Appd.
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 078-150-01

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
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CHECKED BY: CJA	
RECORD DWG:	

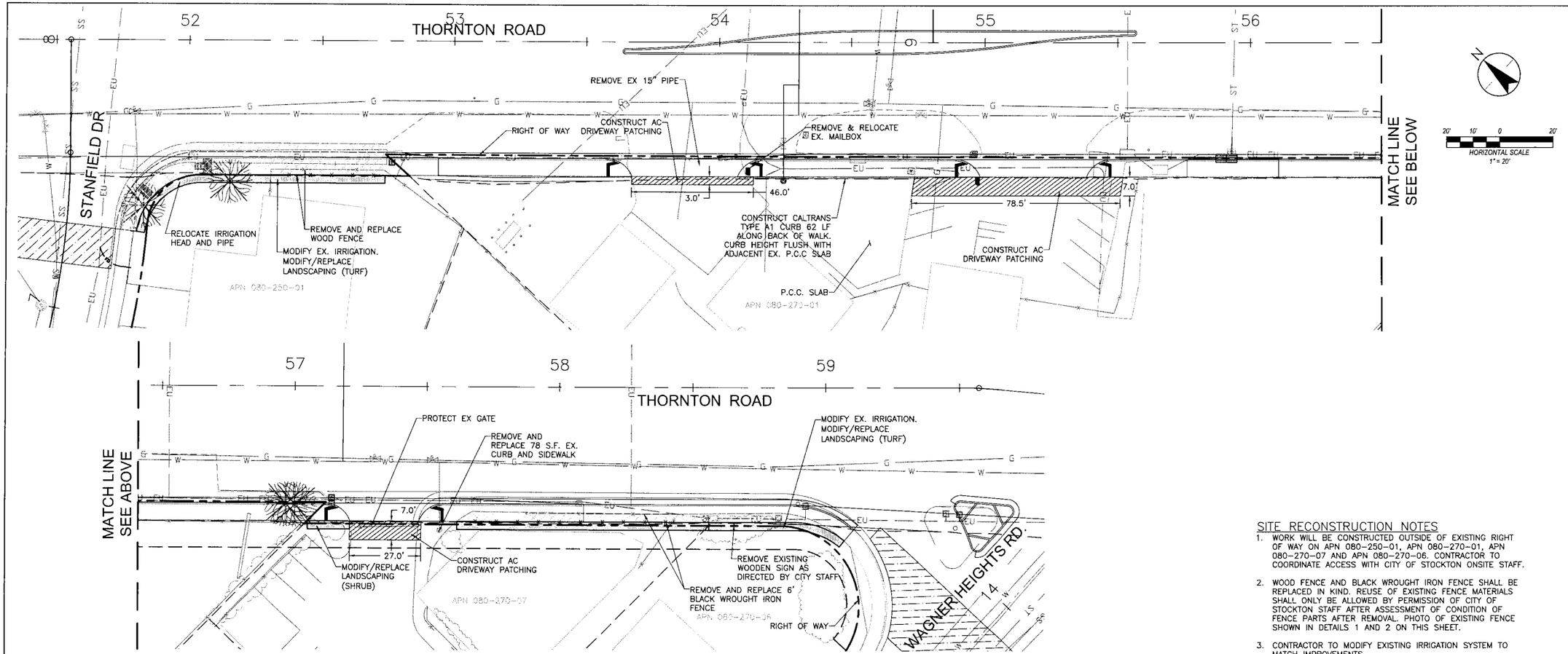
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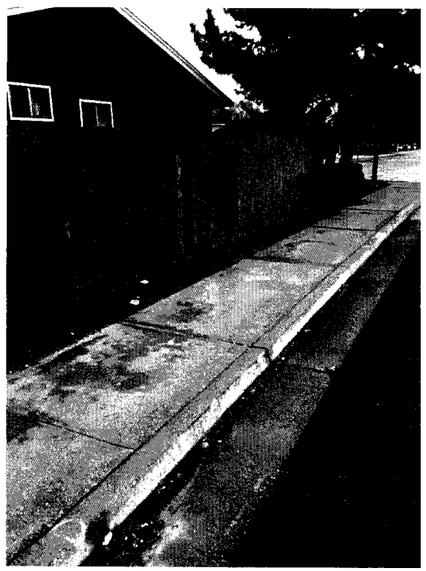
CITY ENGINEER STOCKTON, CA.

DATE:

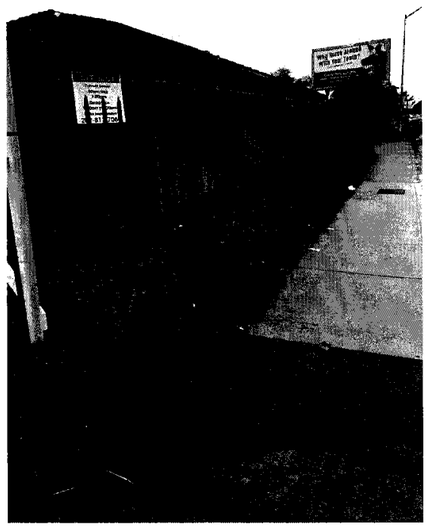
Sheet No. Revision
SR-11 0
48 OF 145
JOB NO.
183910142

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1 SR-13 WOOD FENCE
NTS



2 SR-13 BLACK WROUGHT IRON FENCE
NTS

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 080-250-01, APN 080-270-01, APN 080-270-07 AND APN 080-270-06. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ONSITE STAFF.
2. WOOD FENCE AND BLACK WROUGHT IRON FENCE SHALL BE REPLACED IN KIND. REUSE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAILS 1 AND 2 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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No.	Revision	By	Appd.
MALTY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 080-250-01, APN 080-270-01,
APN 080-270-07, AND APN 080-270-06

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

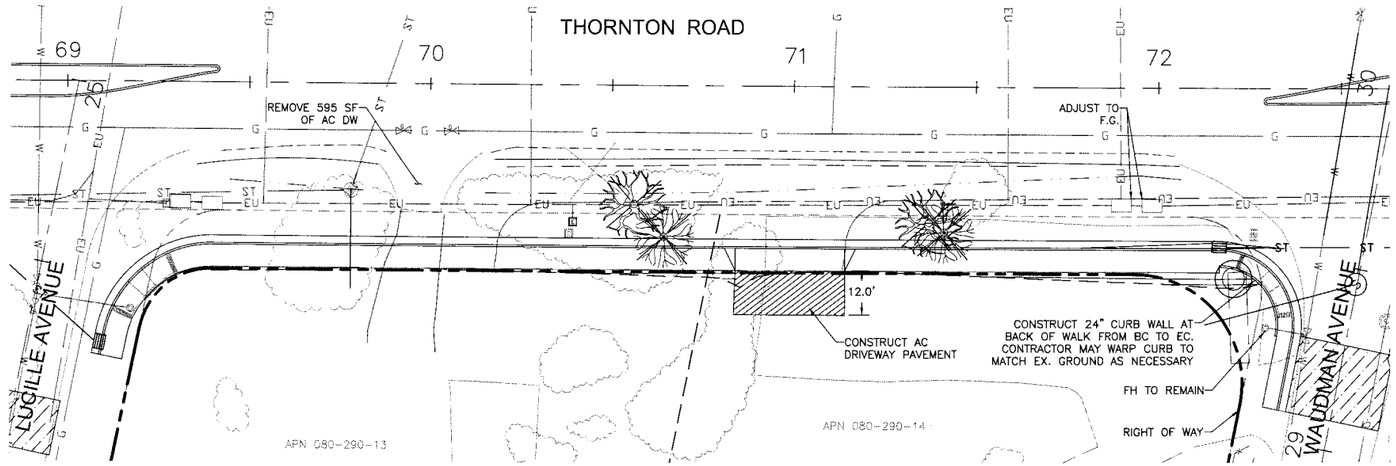
THORNTON ROAD WIDENING
PROJECT
Stockton, California

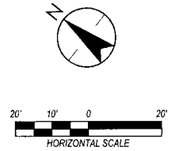
SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-12 0
DRAWN BY: CBH		49 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 080-290-13 AND APN 080-290-14. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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www.stantec.com

No.	M.M.YY	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 080-290-13 AND
APN 080-290-14

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

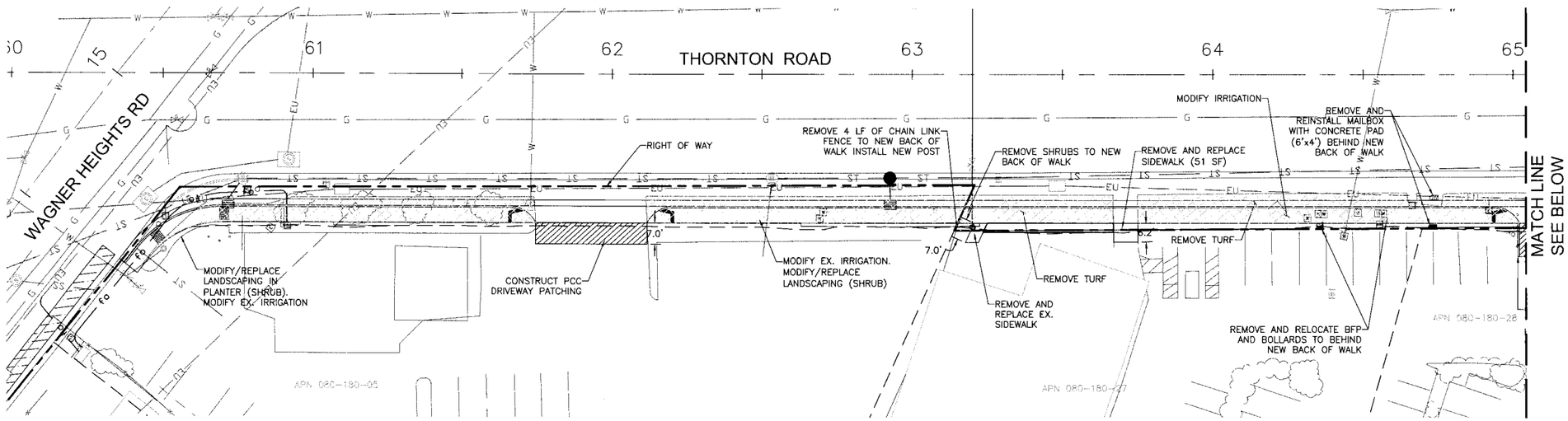
THORNTON ROAD WIDENING
PROJECT
Stockton, California

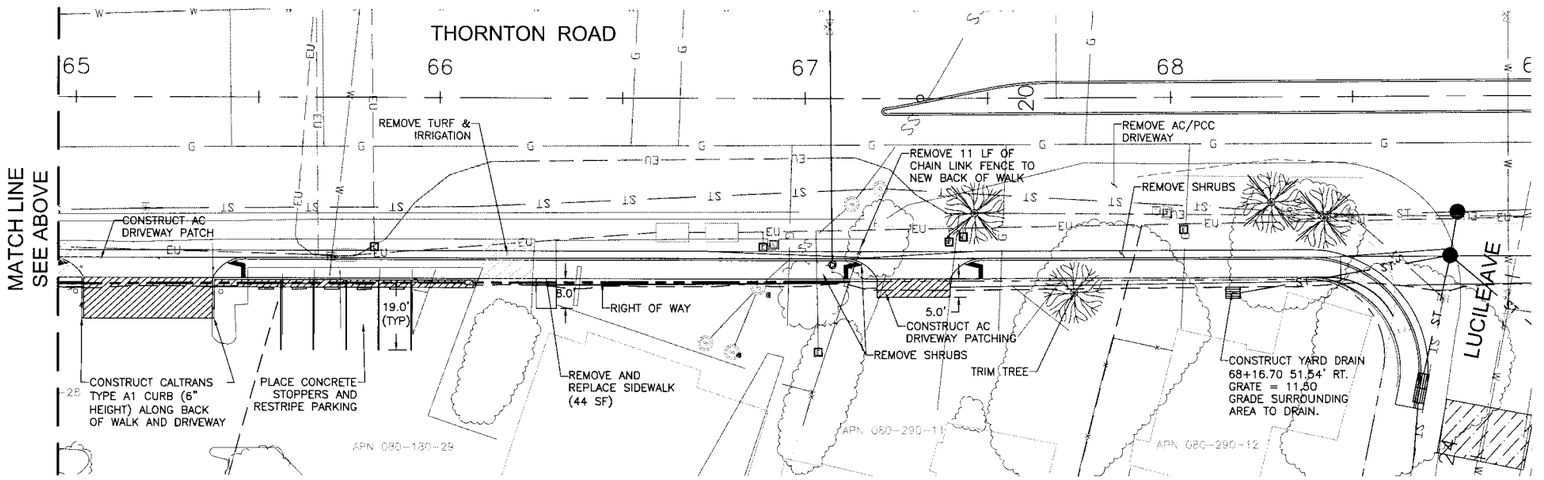
SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-13 0
DRAWN BY: CBH		50 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 080-180-05, 080-180-27, 080-180-29, 080-280-11, AND 080-290-12 CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

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www.stantec.com

No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 080-180-05, 080-180-27, 080-180-29, 080-280-11, AND 080-290-12

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

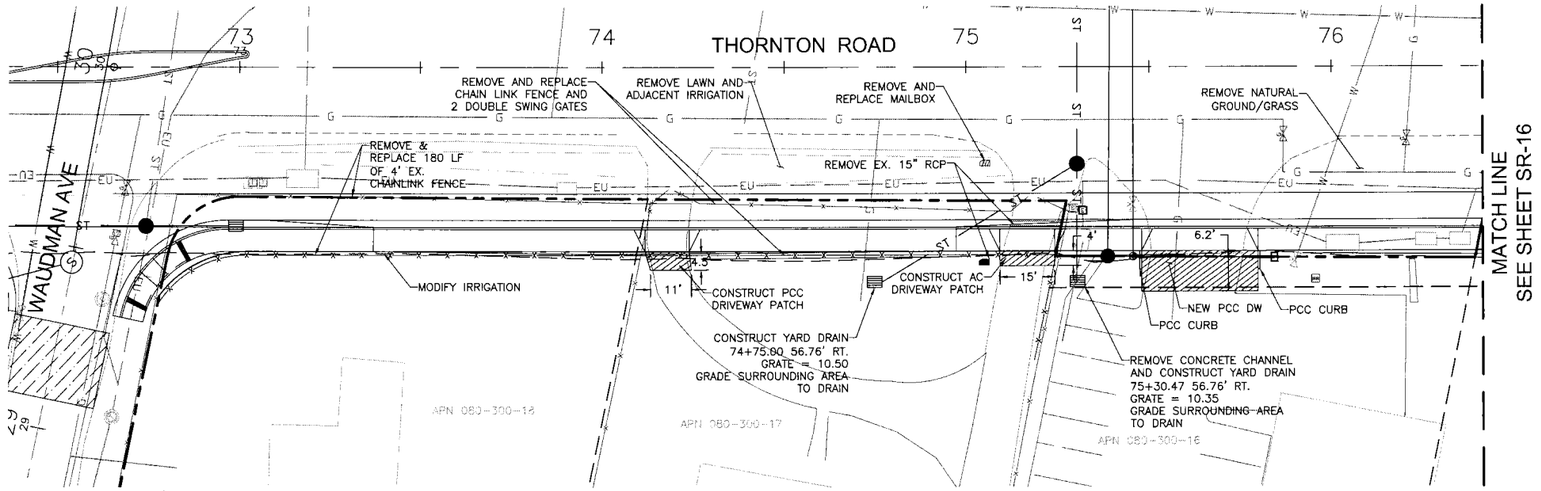
THORNTON ROAD WIDENING PROJECT
Stockton, California

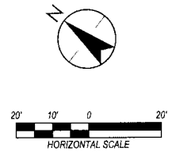
SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-14 0
DRAWN BY: CBH		51 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 080-300-18, APN 080-300-17, AND APN 080-300-16. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CHAINLINK FENCE SHALL BE REPLACED IN KIND. RE USE OF EXISTING FENCE MATERIALS SHALL ONLY BE ALLOWED BY PERMISSION OF CITY OF STOCKTON STAFF AFTER ASSESSMENT OF CONDITION OF FENCE PARTS AFTER REMOVAL. PHOTO OF EXISTING FENCE SHOWN IN DETAIL 1 ON THIS SHEET.
3. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY



1 / SR-15 CHAIN LINK FENCE
NTS

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No.	BY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 080-300-18, APN 080-300-17, AND APN 080-300-16

Permit-Seal
PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP. 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

SITE RECONSTRUCTION

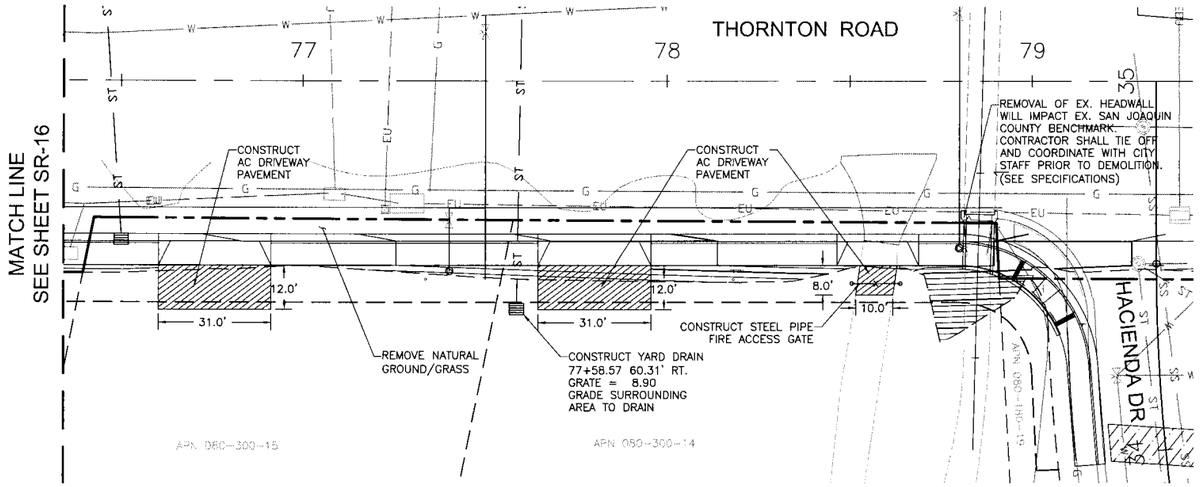
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CITY OF STOCKTON, CALIFORNIA

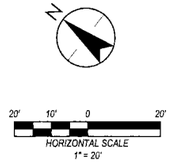
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DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:
CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No.	Revision
SR-15	0
52 OF 145	
JOB NO. 183910142	

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SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 080-300-15, APN 080-300-14, AND APN 080-180-19. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.

LEGEND

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 080-300-15, APN 080-300-14
APN 080-180-19

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

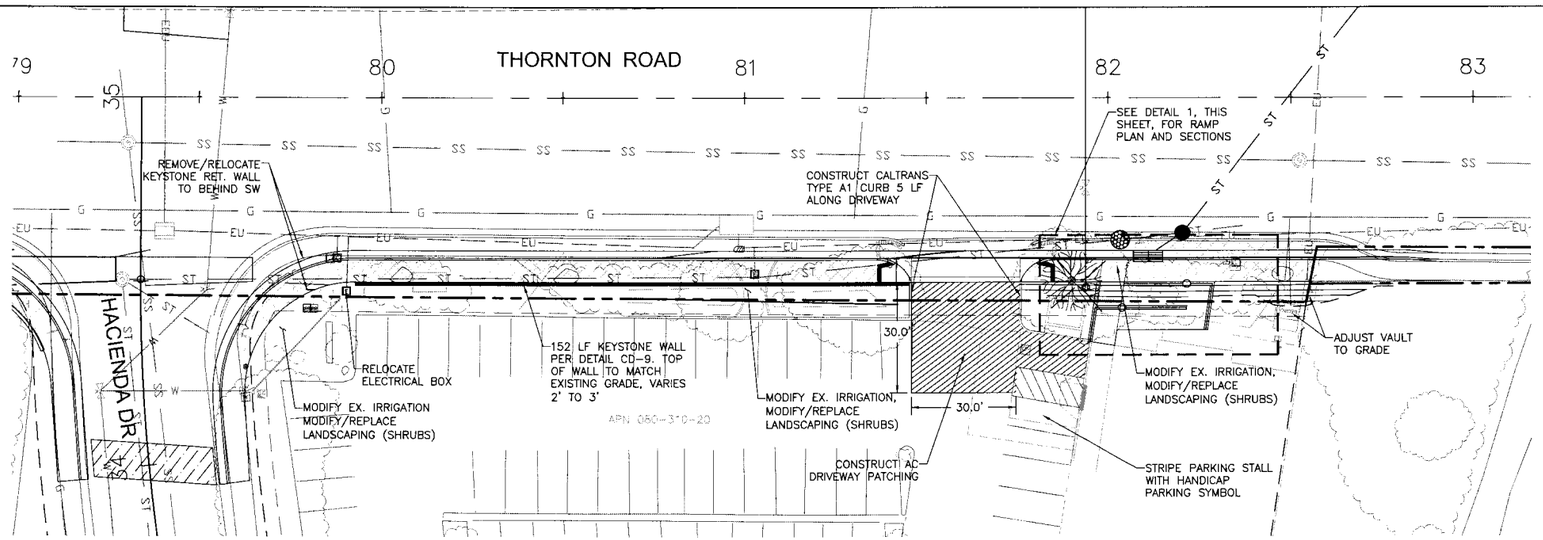
THORNTON ROAD WIDENING
PROJECT
Stockton, California

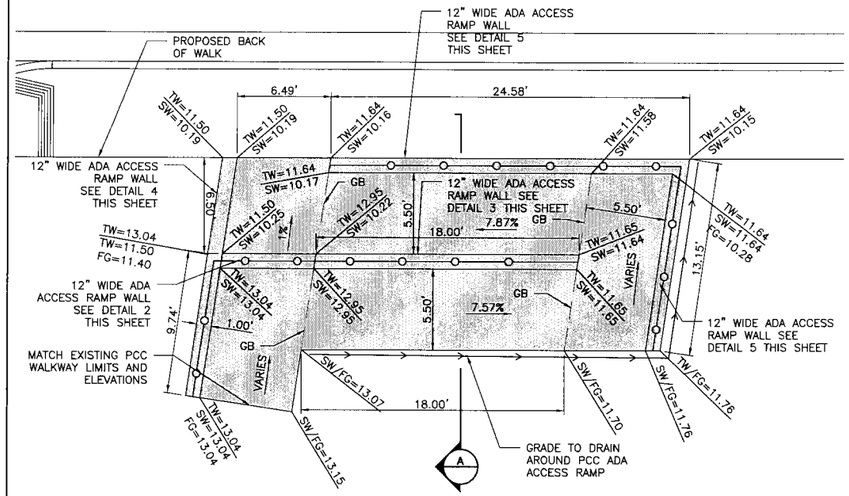
SITE RECONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		SR-16 0
DRAWN BY: CBH		53 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

Plotted: 4/19/16 9:31am by Jason Johnson
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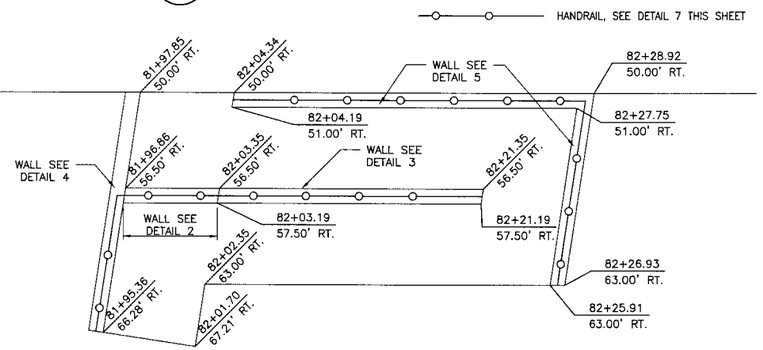




1 SR-17 ADA ACCESS RAMP PLAN
1" = 5'

LEGEND (DETAIL)

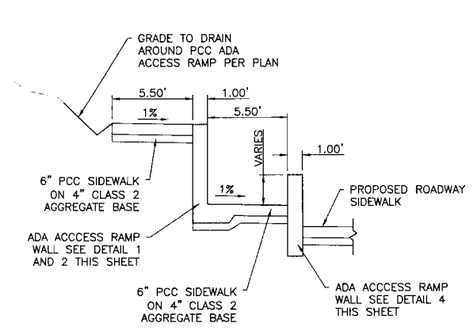
- LIMITS OF PCC ADA RAMP
- HANDRAIL, SEE DETAIL 7 THIS SHEET



6 SR-17 ADA ACCESS RAMP LAYOUT PLAN
1" = 5'

LAYOUT PLAN NOTES

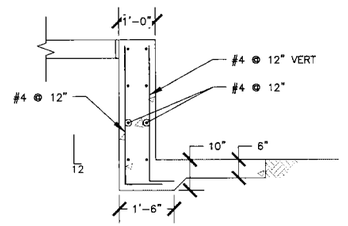
1. ALL STATION AND OFFSETS ARE TO THE THORNTON ROAD 'T' ALIGNMENT.



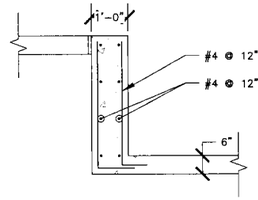
A SR-17 SECTION A-A
NTS

ADA ACCESS RAMP WALL NOTES

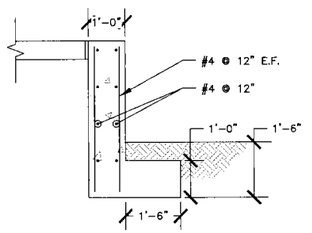
1. PLACE 6" TYPE 2 AGGREGATE BASE UNDER ALL WALLS. COMPACT BASE TO 95% RELATIVE COMPACTION.



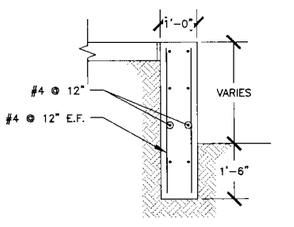
2 SR-17 ADA ACCESS RAMP WALL DETAIL
1/2" = 1'



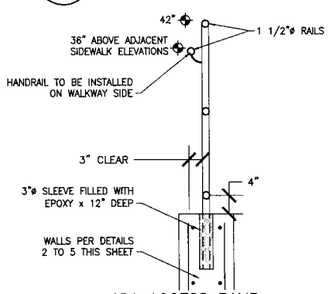
3 SR-17 ADA ACCESS RAMP WALL DETAIL
1/2" = 1'



4 SR-17 ADA ACCESS RAMP WALL DETAIL
1/2" = 1'



5 SR-17 ADA ACCESS RAMP WALL DETAIL
1/2" = 1'



7 SR-17 ADA ACCESS RAMP HANDRAIL DETAIL
3/4" = 1'

LEGEND (PLAN)

- PROPOSED PAVEMENT IMPROVEMENTS
- REMOVE LANDSCAPE
- REMOVE AND REPLACE LANDSCAPE
- EXISTING PROPERTY LINE

20' 10' 0 20'
HORIZONTAL SCALE
1" = 20'

SITE RECONSTRUCTION NOTES

1. WORK WILL BE CONSTRUCTED OUTSIDE OF EXISTING RIGHT OF WAY ON APN 080-310-20. CONTRACTOR TO COORDINATE ACCESS WITH CITY OF STOCKTON ON SITE STAFF.
2. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM TO MATCH IMPROVEMENTS.

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www.stantec.com

No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SITE RECONSTRUCTION
APN 080-310-20

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

SITE RECONSTRUCTION

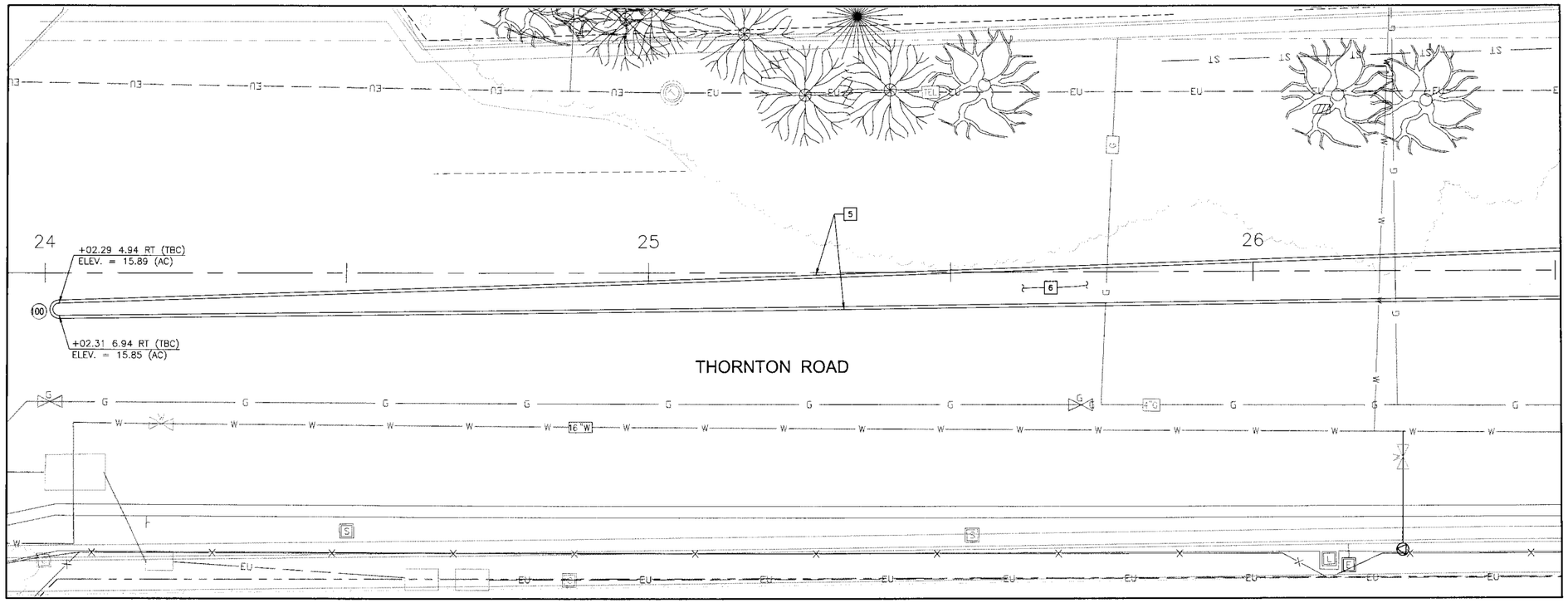
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

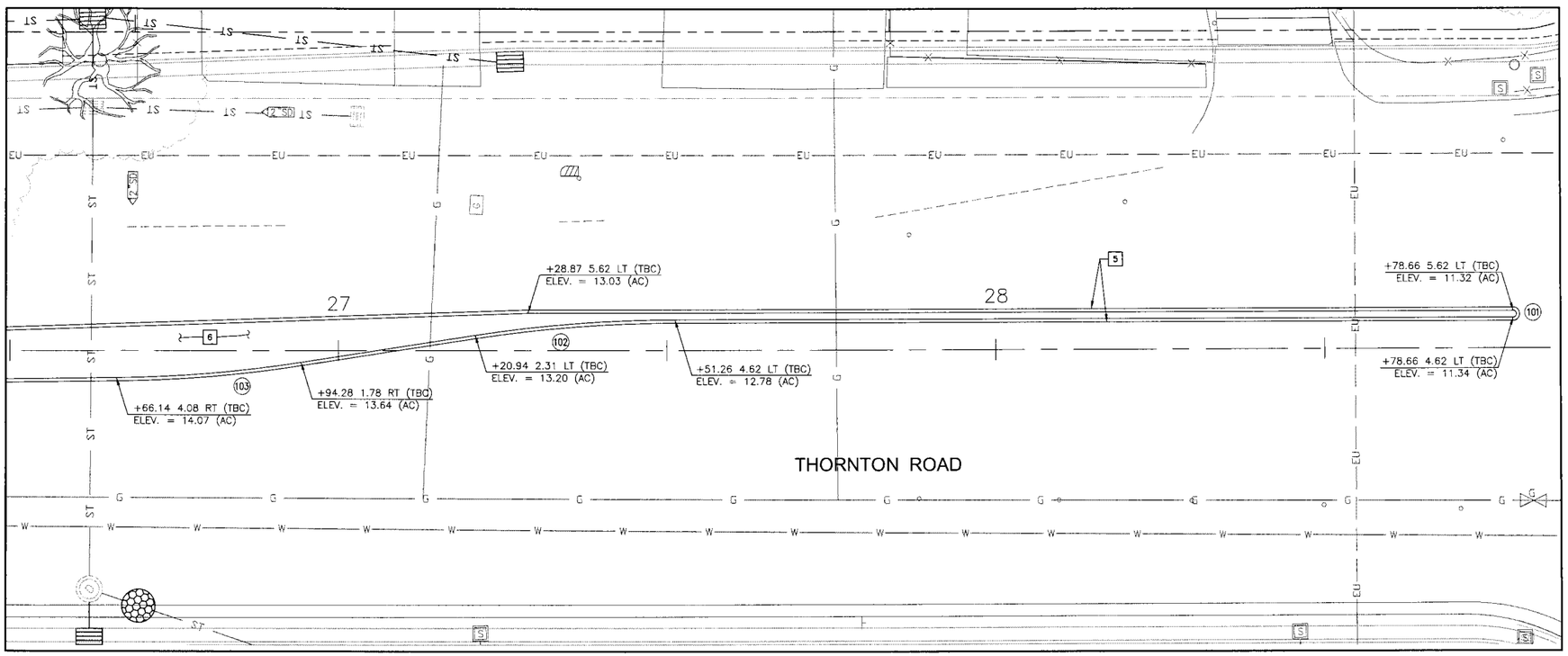
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DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:
CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No. Revision
SR-17 0
54 OF 145
JOB NO.
183910142

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NOTE:

5 CALTRANS TYPE A1-8 CURB – STD. DWG A87A

6 STAMPED CONCRETE

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
100	1.00'	180° 00' 00"	3.14'	---
101	0.50'	180° 00' 00"	1.57'	---
102	200.00'	8° 43" 08"	30.43'	15.25'
103	200.00'	8° 05' 48"	28.26'	14.15'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

HORIZONTAL SCALE 1" = 10'

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No.	MM/YY	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON RD AT ESTATE DRIVE - STA. 24+00 TO STA. 29+00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature

Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis

Submitted Date: April 18, 2016

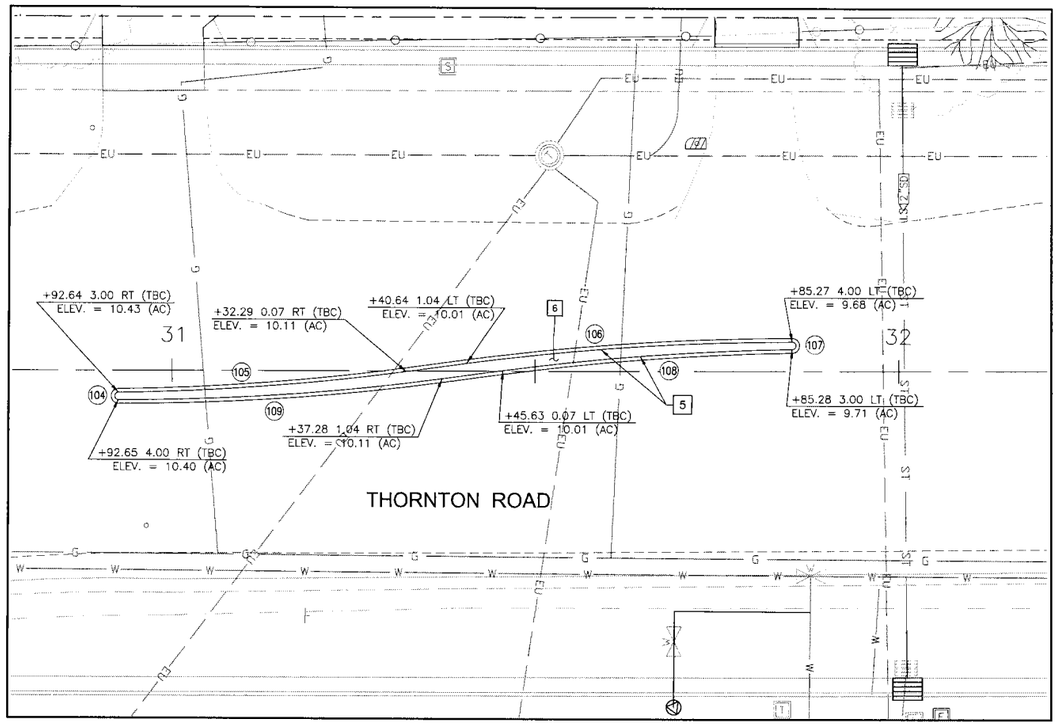
THORNTON ROAD WIDENING PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		CD-1 0
DRAWN BY: CBH		55 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
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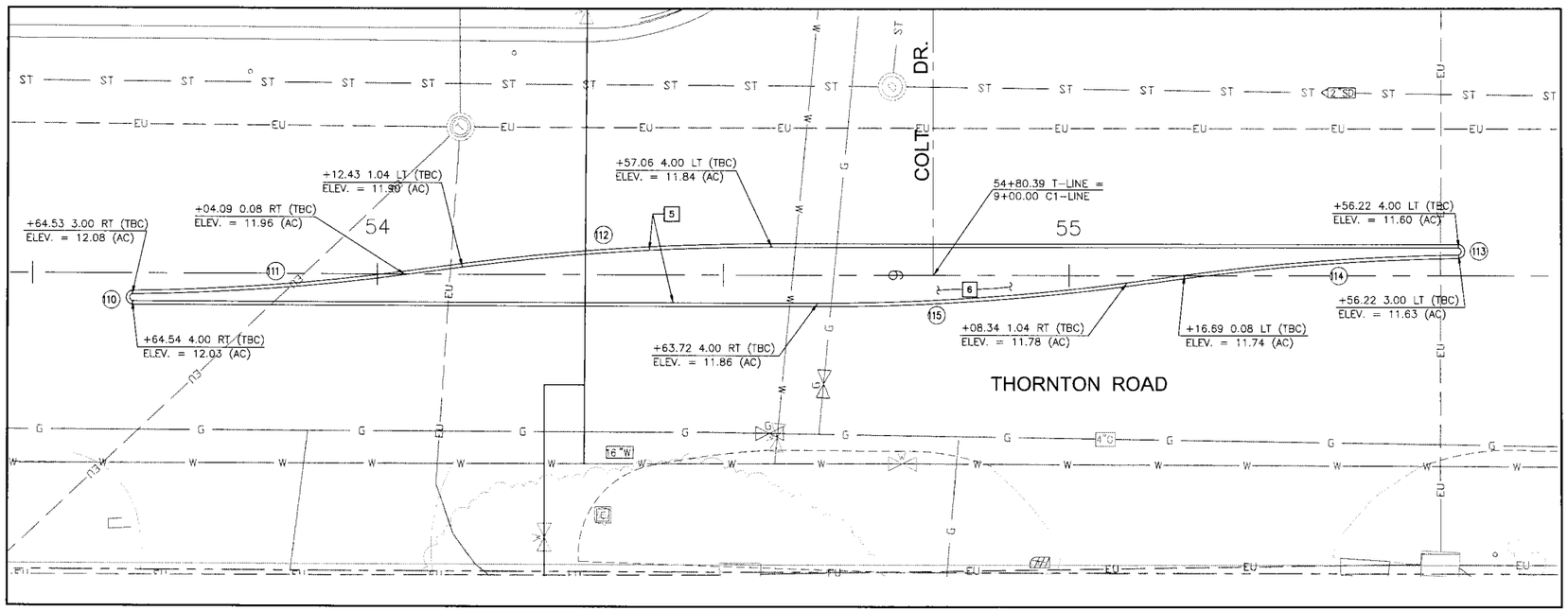


NOTE:

5 CALTRANS TYPE A1-8 CURB - STD. DWG A87A

6 STAMPED CONCRETE

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
104	0.50'	179° 09' 24"	1.56'	67.94'
105	337.63'	6° 45' 05"	39.78'	19.92'
106	337.63'	7° 35" 41"	44.75'	22.41'
107	0.50'	179° 09' 24"	1.56'	67.94'
108	337.63'	6° 45' 05"	39.78'	19.92'
109	337.63'	7° 35" 41"	44.75'	22.41'
110	0.50'	179° 08" 20"	1.56'	66.53'
111	337.63'	6° 44' 04"	39.66'	19.87'
112	337.63'	7° 35" 41"	44.75'	22.41'
113	0.50'	179° 08" 10"	1.56'	66.33'
114	337.63'	6° 43' 55"	39.67'	19.86'
115	337.63'	7° 35" 41"	44.75'	22.41'



NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	By	Description	Appd.
Revision			

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON RD AT COLT DRIVE - STA. 31+00 TO STA. 56+00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

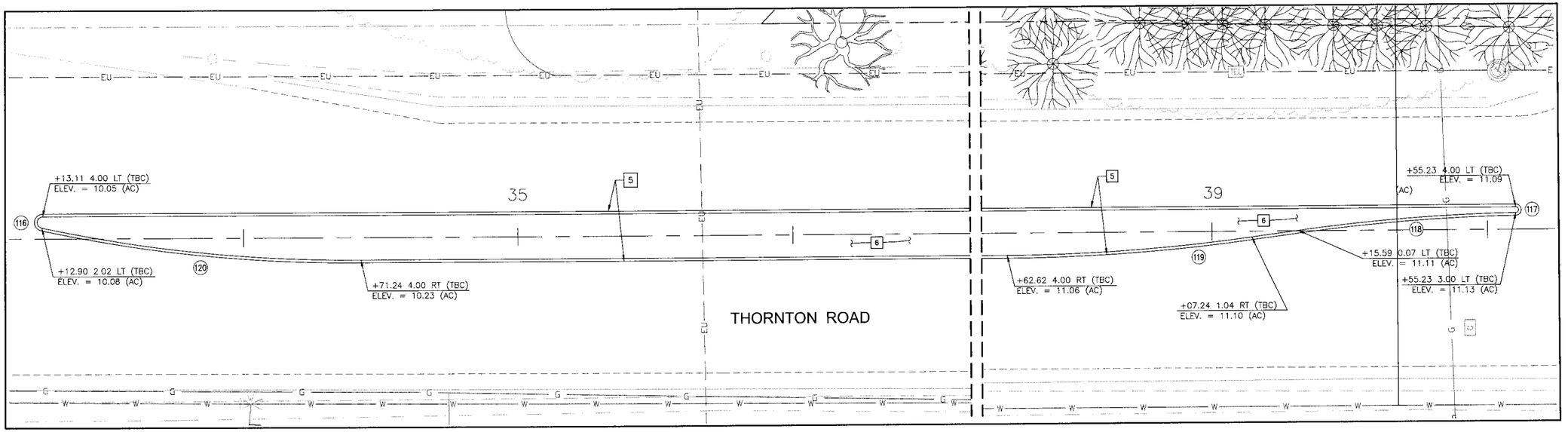
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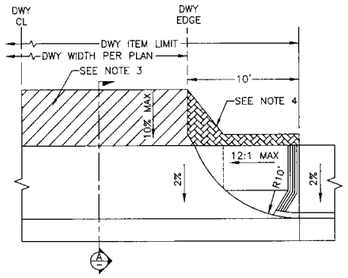
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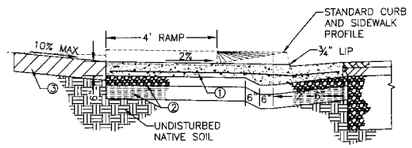
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Sheet No. Revision
CD-2 0
56 OF 145
JOB NO.
183910142

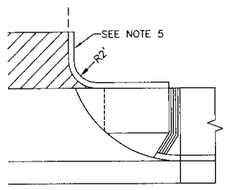




PLAN VIEW



SECTION A – A



ALTERNATE
NOT TO SCALE

NOTES:

1. PLACE #4 REBAR AT 18" MAX ON CENTER, EACH WAY. PLACE MIN 1-1/2" AWAY FROM EDGE.
2. 4" SAND OR AB. ALL MATERIALS UNDER SAND BASE SHALL BE SCARIFIED FOR A 6" MIN DEPTH AND COMPACTED TO 90% RELATIVE COMPACTION.
3. CONFORM. MATCH EXISTING MATERIAL. MATCH EXISTING THICKNESS. USE 10% MAX SLOPE TO DETERMINE WIDTH DISTANCE.
4. NON-DRIVEWAY CONFORM AREA. MATCH EXISTING MATERIALS. FOR PAVEMENT TYPE (AC,CONC), USE MAX 5:1 SLOPE. FOR NON-PAVED TYPE (DIRT, GRASS, LANDSCAPED), USE MAX 2:1 SLOPE.
5. ALTERNATE CONFORM. USE WHEN GRADE DIFFERENCE IS GREATER THAN 1 FOOT OR AS DIRECTED BE ENGINEER.
6. REFER TO CITY STANDARD DRAWINGS 25, 25D, 27, 27A, 27B, AND 38 FOR DETAILS NOT SHOWN.

COMMERCIAL DRIVEWAY (MODIFIED)

NOT TO SCALE





NOTE:

5 CALTRANS TYPE A1-8 CURB, STD. DWG. A87A

6 STAMPED CONCRETE

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
116	1.00'	167° 55' 24"	2.93'	9.45'
117	0.50'	179° 09' 24"	1.57'	---
118	337.63'	6° 45" 05"	39.78'	19.92'
119	337.63'	7° 35' 41"	44.75'	22.41'
120	272.27'	12° 21' 53"	58.64'	29.49'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY

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No.	M/D/YY	Revision / Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON RD - STA. 34+00
TO STA. 39+50

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

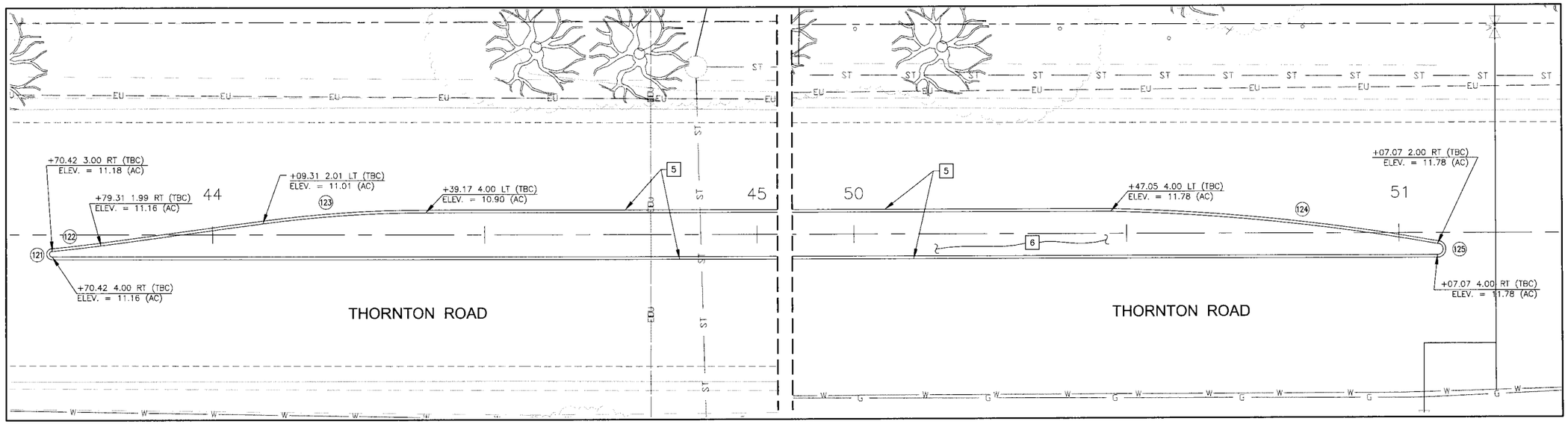
THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: JAM		CD-3 0
DRAWN BY: CBH		57 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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10' 5' 0 10'
HORIZONTAL SCALE
1" = 10'

NOTE:

5 CALTRANS TYPE A1-8 CURB PER STD. DWG. A87A

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
121	0.50'	180° 00' 00"	1.57'	---
122	222.12'	2° 18' 26"	8.94'	4.47'
123	225.75'	7° 36' 11"	29.96'	15.00'
124	395.85'	8° 44' 23"	60.38'	30.25'
125	1.00'	180° 00' 00"	3.14'	---

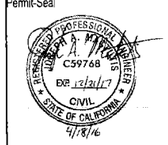
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Revision		Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON ROAD - STA. 44+00 TO STA. 51+00

Permit-Seal



Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

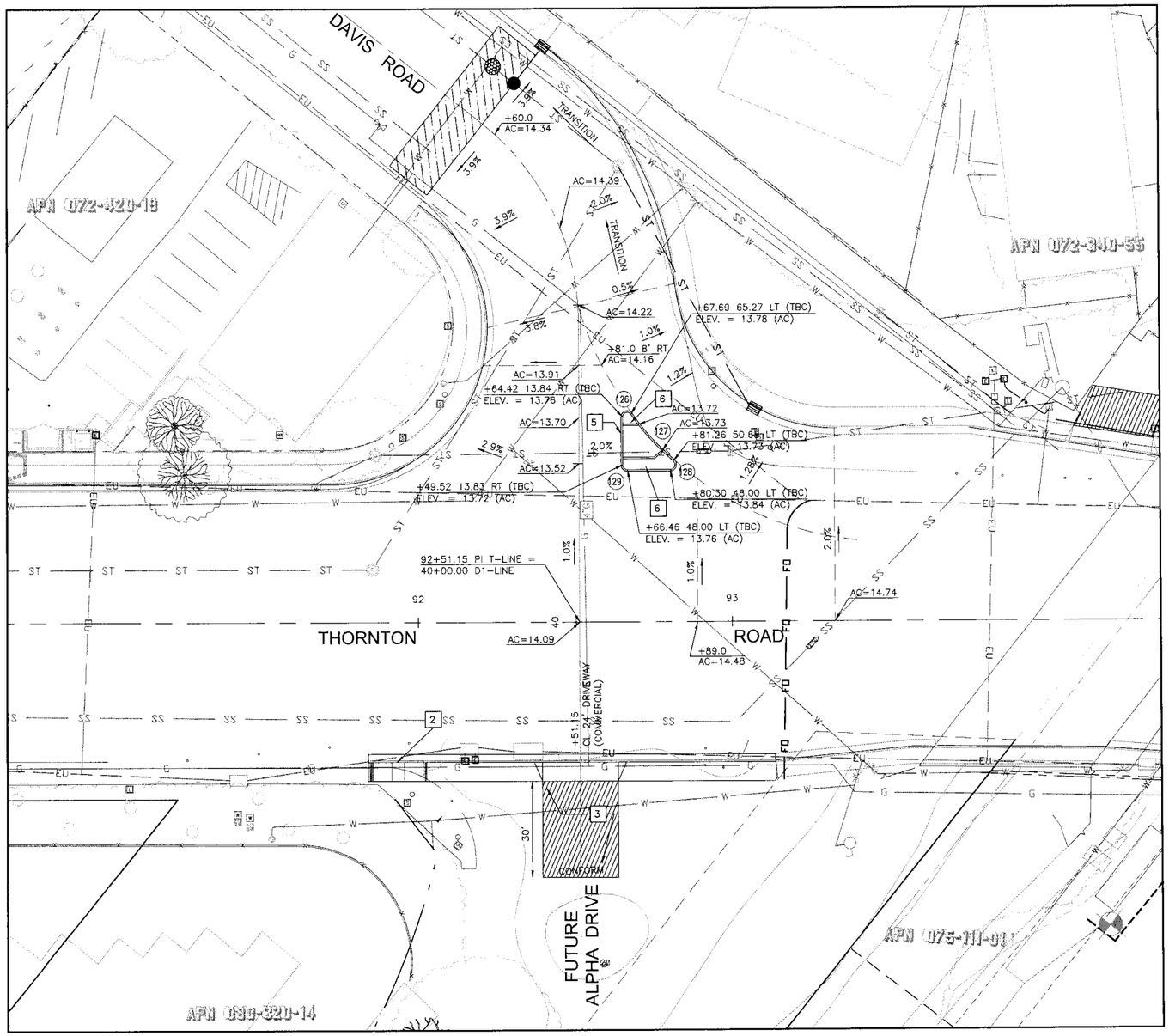
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Sheet No. Revision
CD-4 0
58 OF 145
JOB NO.
183910142

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NOTE:

2 SPECIAL WHEELCHAIR RAMP @ MIDBLOCK PER CITY OF STOCKTON STD. DWG. 32B
3 4" AC/12" AB PAVEMENT
5 TYPE B VERTICAL CURB - STD. DWG 25C
6 STAMPED CONCRETE

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
126	1.50'	144° 21' 33"	3.78'	4.67'
127	79.00'	14° 30' 22"	20.00'	10.05'
128	1.50'	140° 06' 46"	3.67'	4.13'
129	1.50'	90° 02' 03"	2.36'	1.50'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	MM.YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON RD AT DAVIS RD

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

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CITY OF STOCKTON, CALIFORNIA

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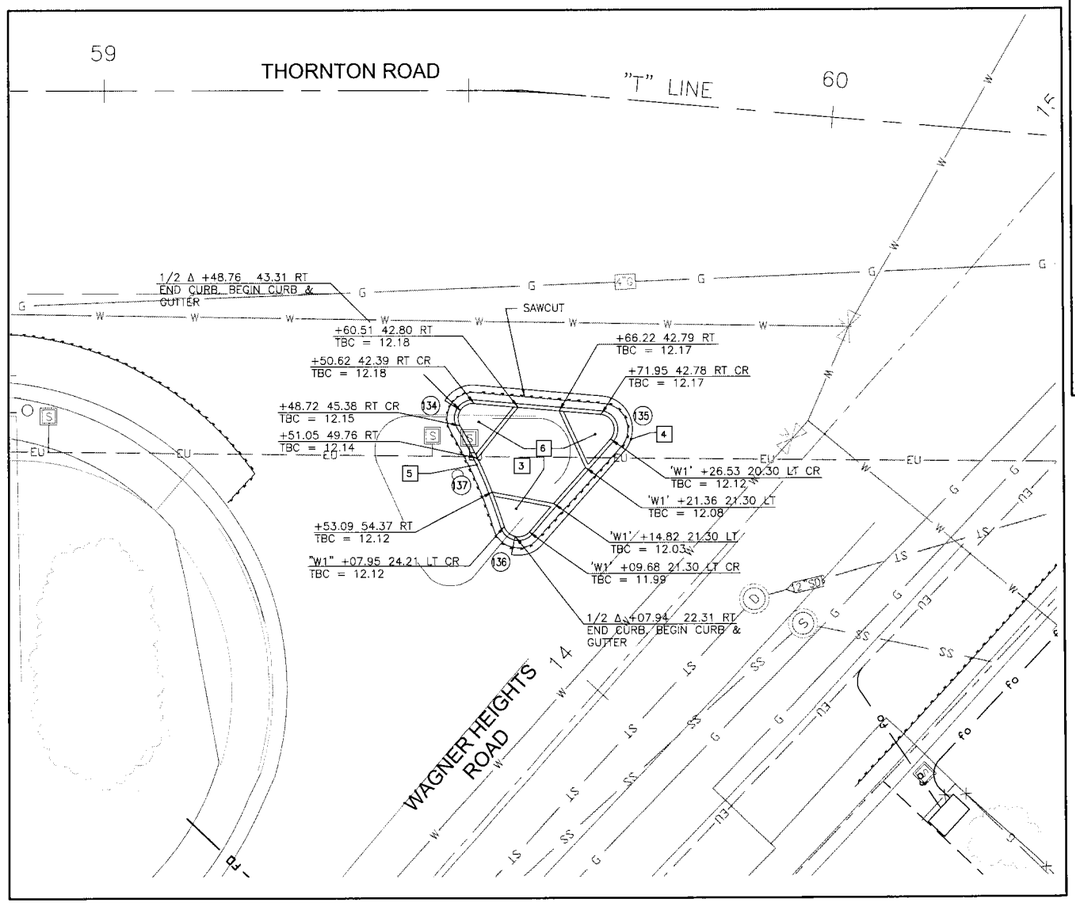
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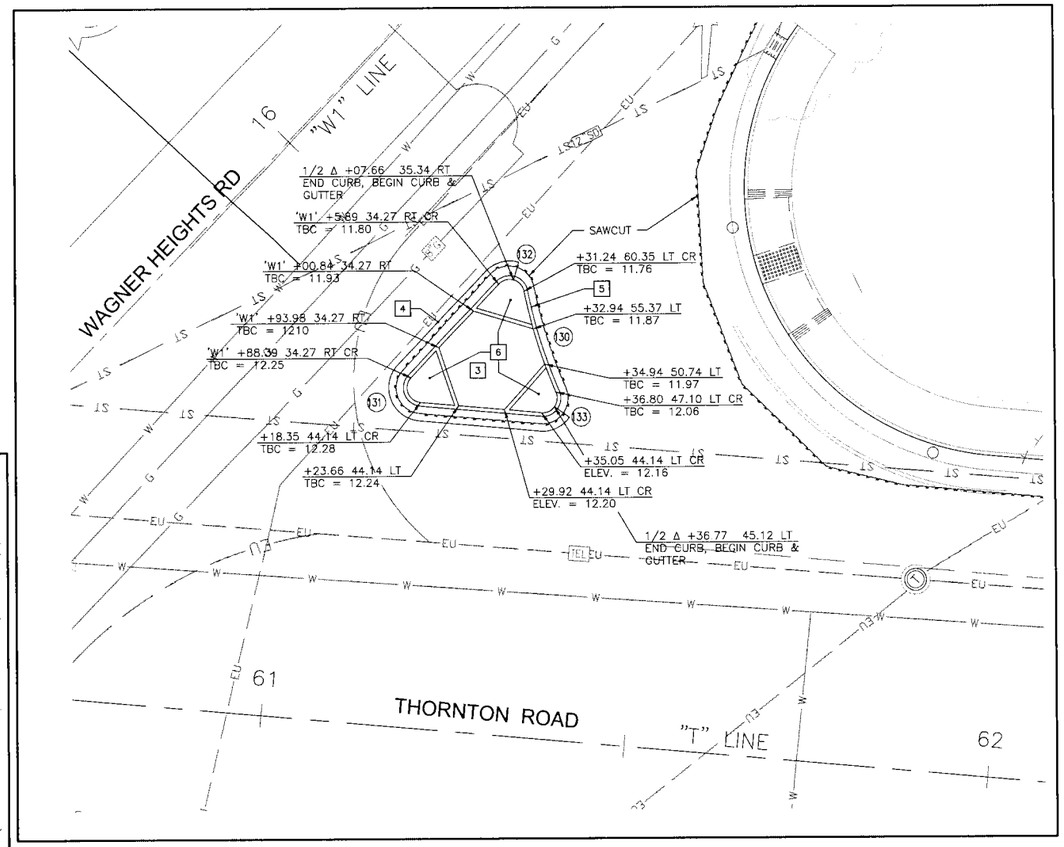
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59 OF 145
JOB NO.
183910142

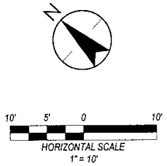
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WEST ISLAND



EAST ISLAND



NOTES:

3 6" PCC WALK

4 VERTICAL CURB & GUTTER; CITY OFSTOCKTON STD. DWG 25B

5 CALTRANS TYPE A1-8 CURB PER STD. DWG A87A

6 STAMPED CONCRETE

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
130	68.20'	12° 05' 35"	14.39'	7.22'
131	2.00'	128° 48' 50"	4.50'	4.18'
132	2.00'	124° 26' 27"	4.34'	3.80'
133	2.00'	118° 50' 17"	4.15'	3.38'
134	2.00'	125° 05' 02"	4.37'	3.85'
135	2.00'	126° 59' 03"	4.43'	4.01'
136	2.00'	120° 21' 51"	4.20'	3.49'
137	69.00'	12° 25' 38"	14.97'	7.51'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON RD AT WAGNER HEIGHTS RD

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

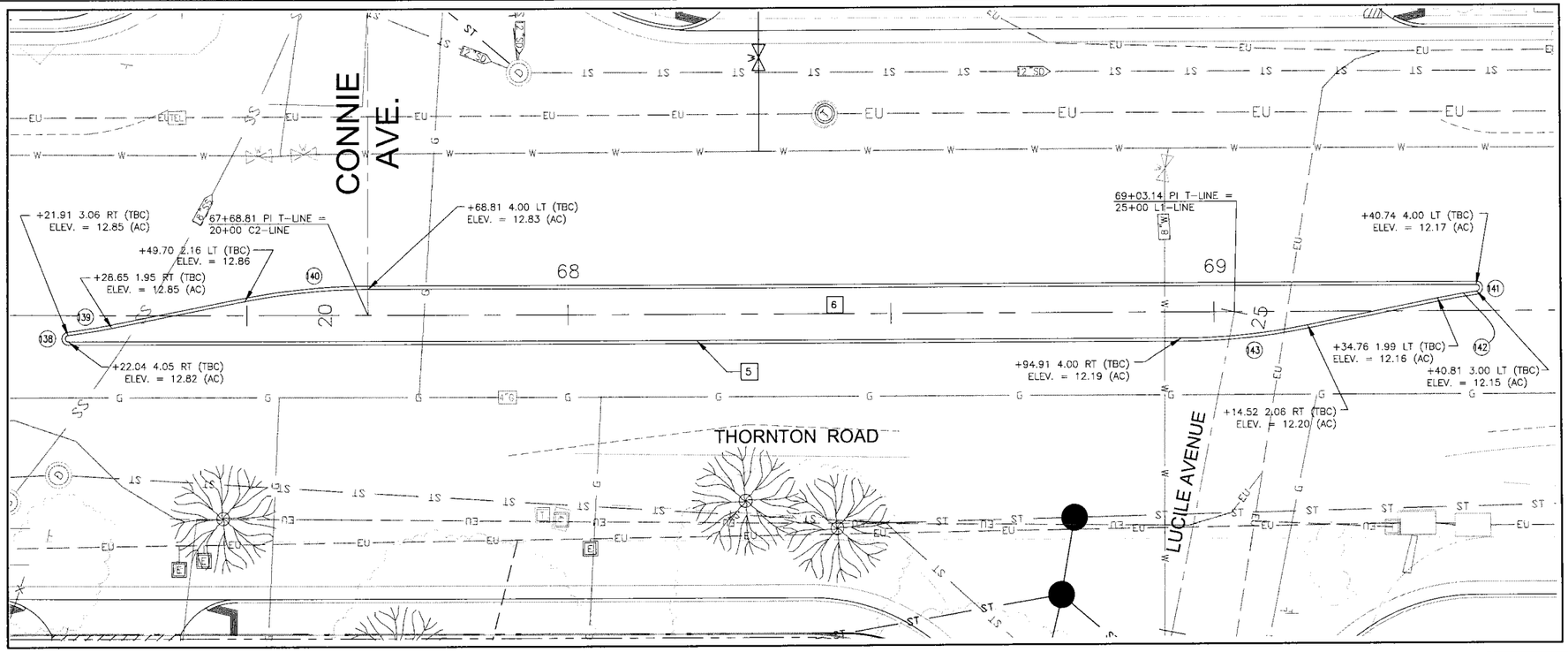
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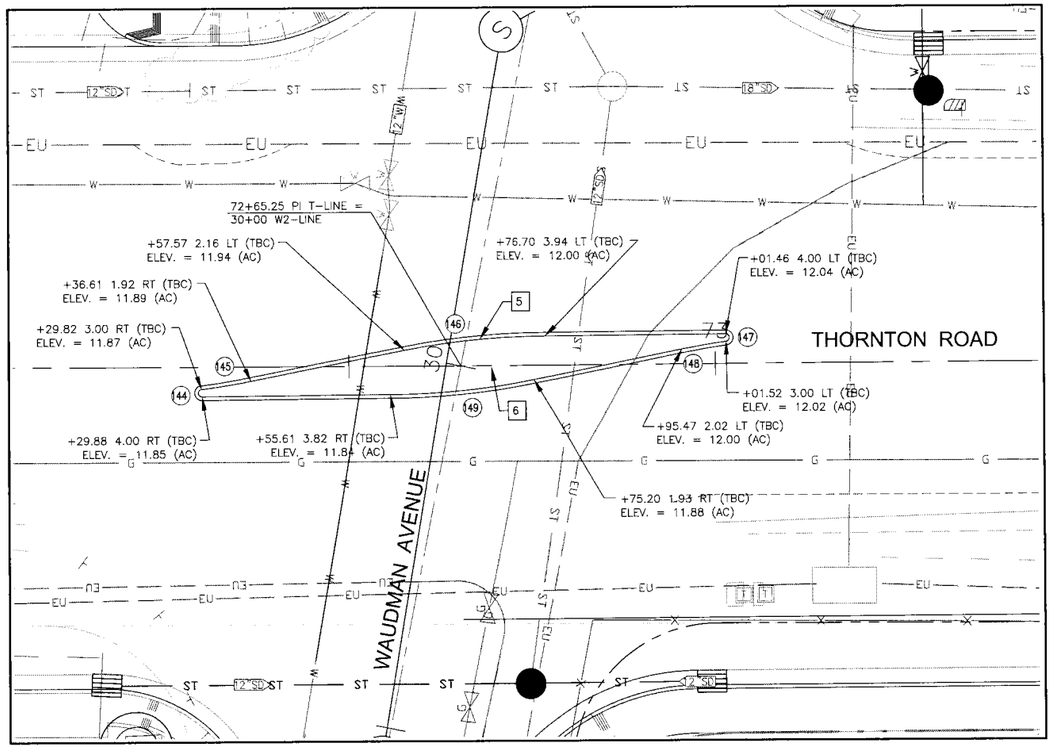
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60 OF 145
JOB NO.
183910142

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NOTE:

5 CALTRANS TYPE A1-8 CURB PER STD. DWG. A87A

6 STAMPED CONCRETE

CURVE DATA				
NO.	RADIUS	Δ	LENGTH	TANGENT
138	0.50'	172° 55' 16"	1.51'	8.08'
139	100.00'	3° 56' 14"	6.87'	3.44'
140	100.00'	11° 00" 58"	19.23'	9.64'
141	0.50'	172° 12' 24"	1.50'	7.34'
142	100.00'	3° 30' 43"	6.13'	3.07'
143	100.00'	11° 18' 23"	19.73'	9.90'
144	0.50'	172° 55' 16"	1.51'	8.08'
145	100.00'	3° 56' 14"	6.87'	3.44'
146	100.00'	11° 00' 58"	19.23'	9.64'
147	0.50'	172° 12' 24"	1.50'	7.34'
148	100.00'	3° 30' 43"	6.13'	3.07'
149	100.00'	11° 18' 23"	19.73'	9.90'

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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No.	Revision	By	Appd.	Description
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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
THORNTON RD AT WAUDMAN & CONNIE AVE TO LUCILLE AVE

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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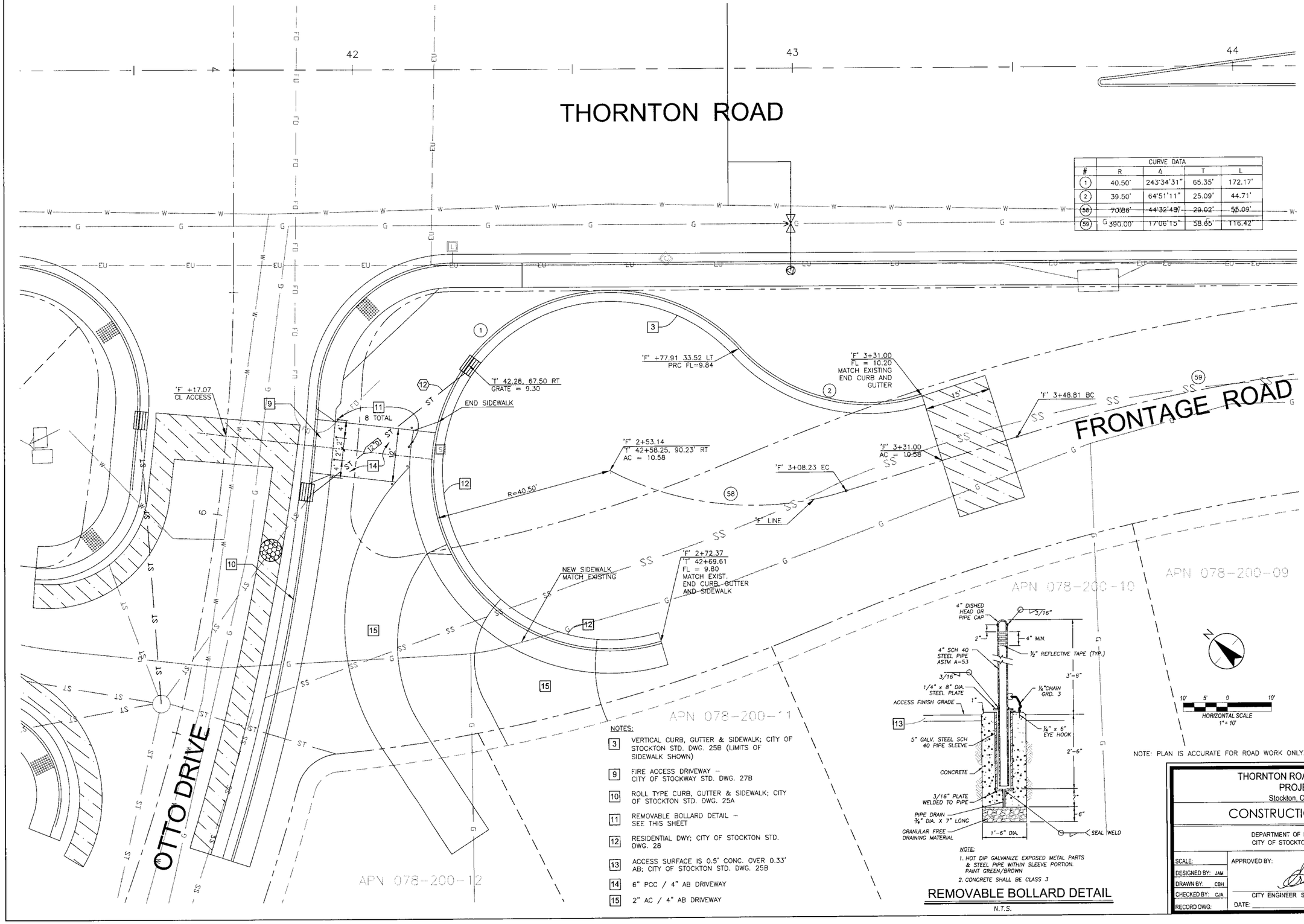
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61 OF 145
JOB NO.
183910142

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#	CURVE DATA			
	R	Δ	T	L
1	40.50'	243°34'31"	65.35'	172.17'
2	39.50'	64°51'11"	25.09'	44.71'
~~58~~	~~70.00'~~	~~44°32'48"~~	~~29.02'~~	~~55.09'~~
59	390.00'	17°06'15"	58.65'	116.42'

NOTES:

3. VERTICAL CURB, GUTTER & SIDEWALK; CITY OF STOCKTON STD. DWG. 25B (LIMITS OF SIDEWALK SHOWN)
9. FIRE ACCESS DRIVEWAY -- CITY OF STOCKWAY STD. DWG. 27B
10. ROLL TYPE CURB, GUTTER & SIDEWALK; CITY OF STOCKTON STD. DWG. 25A
11. REMOVABLE BOLLARD DETAIL -- SEE THIS SHEET
12. RESIDENTIAL DWY; CITY OF STOCKTON STD. DWG. 28
13. ACCESS SURFACE IS 0.5' CONC. OVER 0.33' AB; CITY OF STOCKTON STD. DWG. 25B
14. 6" PCC / 4" AB DRIVEWAY
15. 2" AC / 4" AB DRIVEWAY

NOTE:
1. HOT DIP GALVANIZE EXPOSED METAL PARTS & STEEL PIPE WITHIN SLEEVE PORTION. PAINT GREEN/BROWN
2. CONCRETE SHALL BE CLASS 3

REMOVABLE BOLLARD DETAIL

N.T.S.

NOTE: PLAN IS ACCURATE FOR ROAD WORK ONLY.

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
FRONTAGE ROAD CUL-DE-SAC

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
No. C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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REQUIREMENTS FOR INSTALLATION OF THE KEYSTONE RETAINING WALL SYSTEM ARE AS FOLLOWS:

1. EXCAVATE FOR LEVELING PAD AND REINFORCED FILL ZONE.

2. INSPECT EXCAVATIONS FOR ADEQUATE BEARING CAPACITY OF FOUNDATION SOILS AND OBSERVATION OF GROUNDWATER CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.

3. INSTALL A 6–INCH–THICK (152 MM) LEVELING PAD OF CRUSHED STONE, COMPACTED TO 75 PERCENT RELATIVE DENSITY AS DETERMINED BY ASTM D 4564. (AN UNREINFORCED CONCRETE PAD IN ACCORDANCE WITH IBC SECTION 1910 MAY BE UTILIZED IN PLACE OF THE CRUSHED STONE PAD).

4. INSTALL THE FIRST COURSE KEYSTONE UNITS, ENSURING UNITS ARE LEVEL FROM SIDE TO SIDE AND FRONT TO BACK. ADJACENT KEYSTONE UNITS ARE PLACED SO PIN HOLES ARE APPROXIMATELY 12 INCHES (305 MM) ON CENTER.

5. INSTALL THE FIBERGLASS PINS IN THE UNITS TO ESTABLISH THE ANGLE WALL INCLINATION (BATTER). THE PIN PLACEMENT AND RESULTING BATTER FOR GIVEN UNITS ARE AS FOLLOWS:

   - STANDARD, COMPAC AND COMPAC II UNITS: PLACING THE PIN IN THE REAR PIN HOLES IN EVERY COURSE PROVIDES A MINIMUM WALL INCLINATION OF 7.1 DEGREES FROM VERTICAL TOWARD THE BACKFILL [1 INCH (25.4 MM) MINIMUM SETBACK PER COURSE]. PIN PLACEMENT ALTERNATING BETWEEN THE FRONT AND REAR PIN HOLES ON VERTICALLY ADJACENT ROWS PROVIDES A WALL INCLINATION OF APPROXIMATELY 3.6 DEGREES FROM VERTICAL TOWARD THE BACKFILL [1/2 INCH (13 MM) MINIMUM SETBACK PER COURSE]. THE PIN PLACEMENT DURING ASSEMBLY IN THE FRONT PIN HOLE PROVIDES A WALL INCLINATION OF APPROXIMATELY 0.5 DEGREE FROM VERTICAL TOWARD THE BACKFILL [1/8 INCH (3 MM) MINIMUM SETBACK PER COURSE].

6. FILL THE UNIT CORES WITH UNIT CORE DRAINAGE FILL DESCRIBED. THE UNIT CORE DRAINAGE FILL IS REQUIRED FOR ALL INSTALLATIONS AND MUST EXTEND BACK A MINIMUM OF 2 FEET (610 MM) FROM THE OUTSIDE OR FRONT FACE OF THE WALL. SEE FIGURE 3.

7. CLEAN THE TOP SURFACE OF THE UNITS TO REMOVE LOOSE AGGREGATE.

8. AT DESIGNATED ELEVATION PER THE DESIGN, INSTALL GEOGRID REINFORCING. ALL GEOGRID REINFORCEMENT IS INSTALLED BY PLACING IT OVER THE FIBERGLASS PIN. CHECK TO ENSURE THE PROPER ORIENTATION OF THE GEOGRID REINFORCEMENT IS USED SO THE STRONG DIRECTION IS PERPENDICULAR TO THE FACE. ADJACENT ROLLS ARE PLACED SIDE BY SIDE; NO OVERLAP IS REQUIRED.

9. PULL TAUT TO REMOVE SLACK FROM THE GEOGRIDS BEFORE PLACING BACKFILL. PULL THE ENTIRE LENGTH TAUT TO REMOVE ANY FOLDS OR WRINKLES.

10. PLACE AND COMPACT BACKFILL OVER THE GEOGRID REINFORCING LAYER IN APPROPRIATE LIFT THICKNESS TO ENSURE COMPACTION.

11. REPEAT PLACEMENT OF UNITS, CORE FILL, BACKFILL, AND GEOGRIDS, AS SHOWN ON PLANS, TO FINISHED GRADE.

12. BACKFILL USED IN THE REINFORCED FILL MASS MUST CONSIST OF SUITABLE FINE–GRAINED OR COARSE–GRAINED SOIL PLACED IN LIFTS COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 (95 PERCENT PER ASTM D 698).

13. CONSTRUCT KEYSTONE RETAINING WALL PER ESR–2113

SPECIAL INSPECTION:

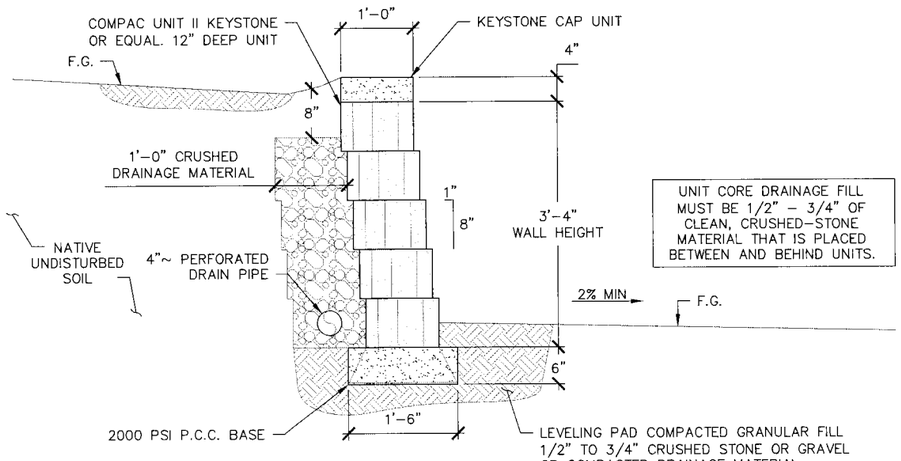
SPECIAL INSPECTION MUST BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1704.5 (CBC) SECTION 1701.5.7.1, AS APPLICABLE. THE INSPECTOR'S RESPONSIBILITIES INCLUDE VERIFYING THE FOLLOWING:

1. FOUNDATION PREPARATION.

2. KEYSTONE UNIT PLACEMENT, INCLUDING ALIGNMENT AND INCLINATION.

3. BACKFILL PLACEMENT AND COMPACTION.

4. DRAINAGE PROVISIONS.



1 / CD–9 KEYSTONE RETAINING WALL 3'–4" HEIGHT
SCALE: 1" = 1'–0"

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No.	Revision	Description	By	Appd.
MM/YY				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION DETAILS
KEYSTONE WALL DETAIL

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

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Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

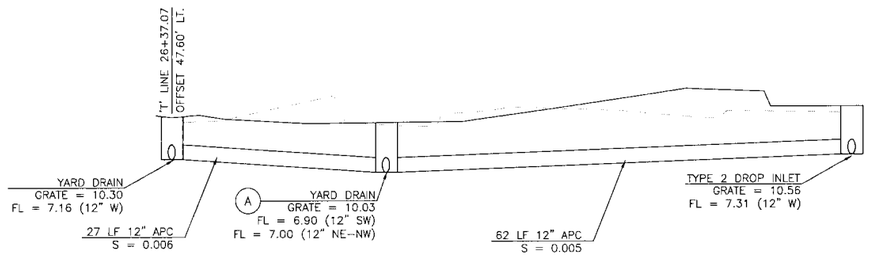
THORNTON ROAD WIDENING
PROJECT
Stockton, California

CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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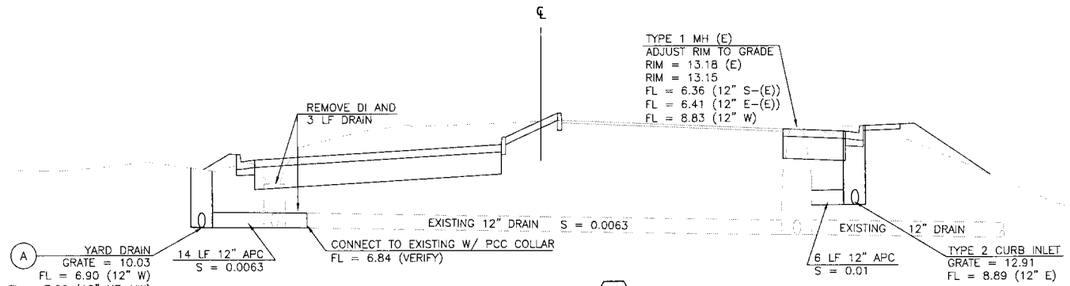
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DRAIN SYSTEM 1

STA. 26+37.07 TO STA. 27+26.33 N.T.S.

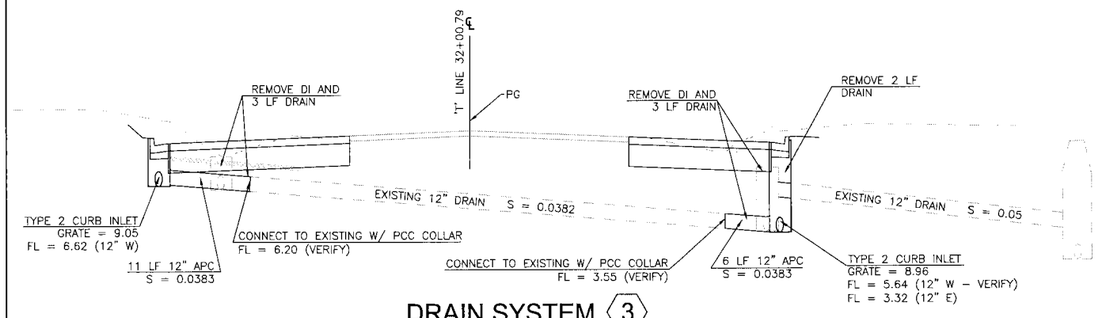
(A) SAME POINT
SEE DRAIN SYSTEM 2



DRAIN SYSTEM 2

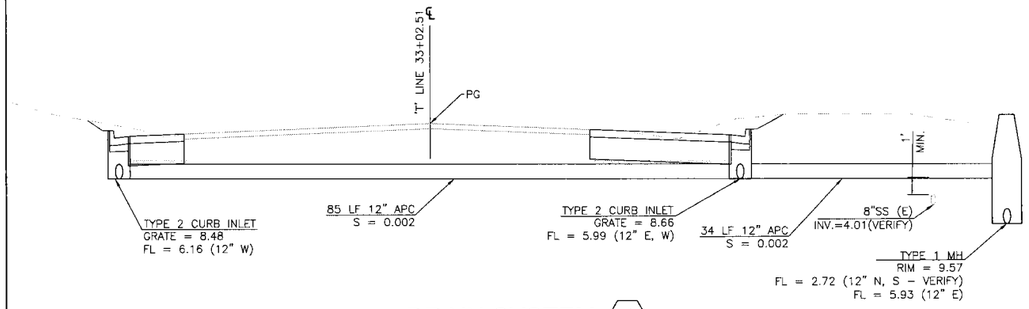
STA. 26+62.32 N.T.S.

(A) SAME POINT
SEE DRAIN SYSTEM 1



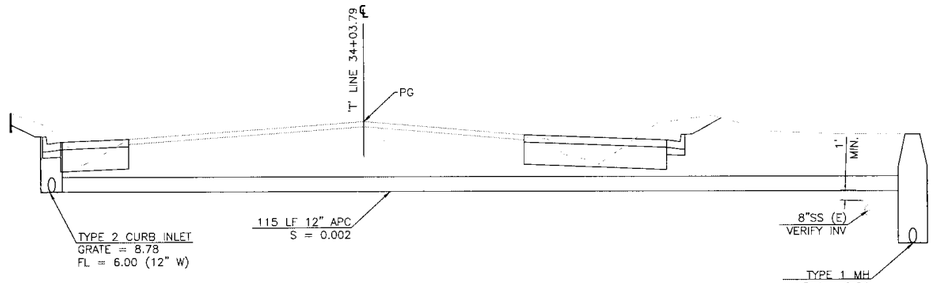
DRAIN SYSTEM 3

STA. 32+00.79 N.T.S.



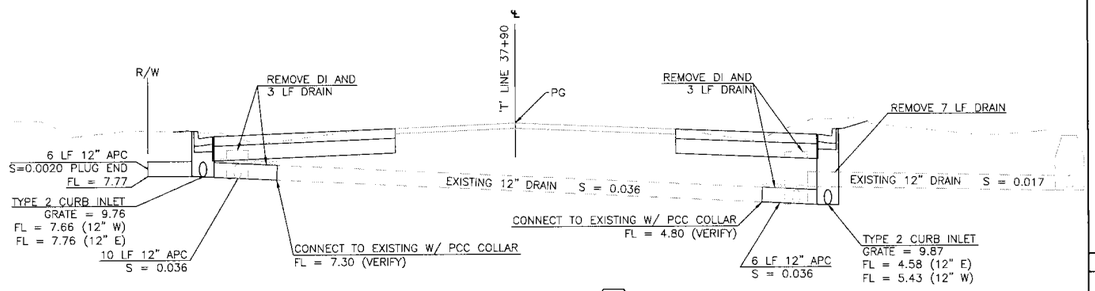
DRAIN SYSTEM 4

STA. 33+02.51 N.T.S.



DRAIN SYSTEM 5

STA. 34+03.79 N.T.S.



DRAIN SYSTEM 6

STA. 37+90.37 N.T.S.

ACCEPTABLE ALTERNATE PIPE CULVERTS (APC) :

DIAMETER	PLASTIC PIPE (SDR 35)	RCP
12"	•	•
15"	•	•
18"	N/A	•
24" <	N/A	•

DRAINAGE LEGEND:

10	DRAINAGE SYSTEM NUMBER
℄	FLOWLINE
TBC	TOP BACK OF CURB
℄	CENTERLINE
	CONCRETE CAP

DRAINAGE NOTES:

1. VERIFY THE LOCATION AND ELEVATION OF EXISTING DRAINAGE FACILITIES BEFORE MODIFING.
2. INLET GRATE ELEVATIONS ARE TO GUTTER FLOWLINE. INLET GRATE ELEVATIONS DO NOT INCLUDE INLET DEPRESSION.
3. DRAIN PIPE SHALL BE PROTECTED PER CITY OF STORCKTON DWG 61A WHEN THERE IS LESS THAN 1-FOOT OF COVER FROM SUBGRADE.

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	M/D/Y	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES
SYSTEMS 1 THRU 6

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

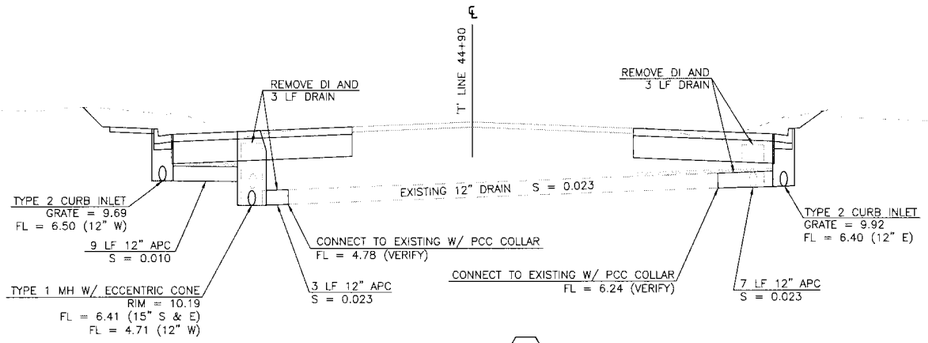
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

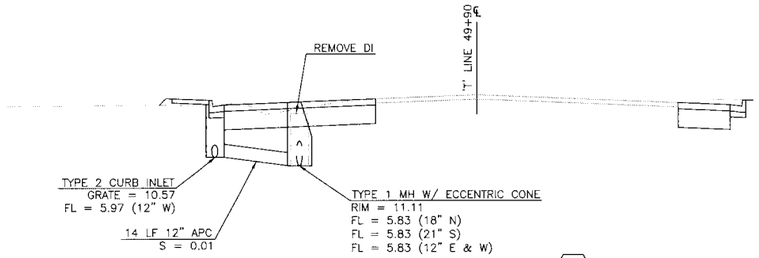
Sheet No. Revision
D-1 0
64 OF 145
JOB NO.
183910142

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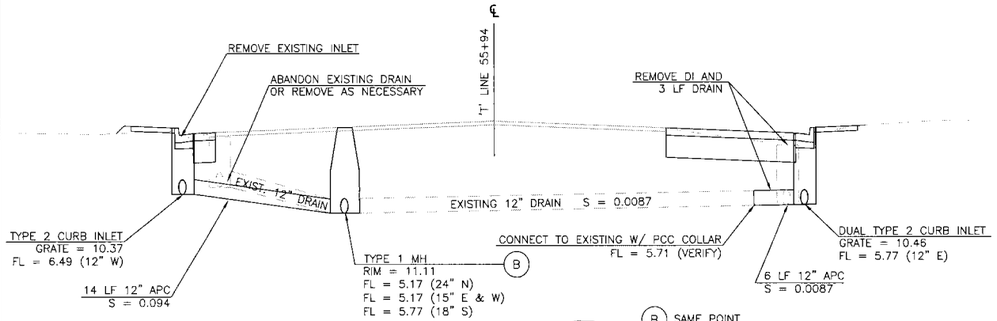
DRAIN SYSTEM 7

STA. 44+90.00 N.T.S.



DRAIN SYSTEM 8

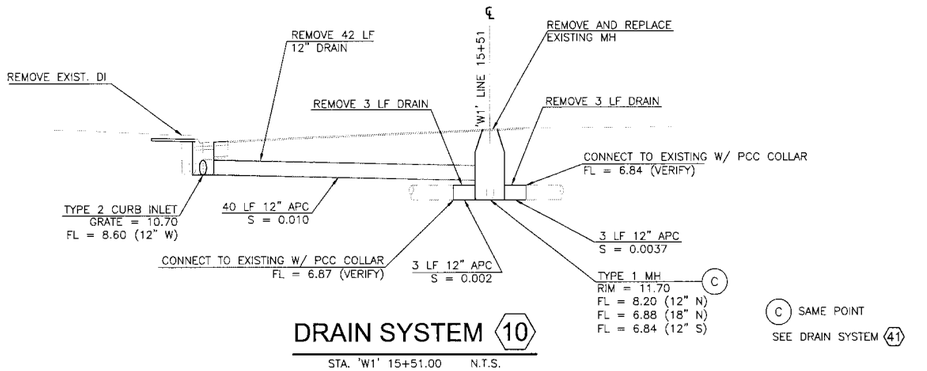
STA. 49+90.00 N.T.S.



DRAIN SYSTEM 9

STA. 55+94.00 N.T.S.

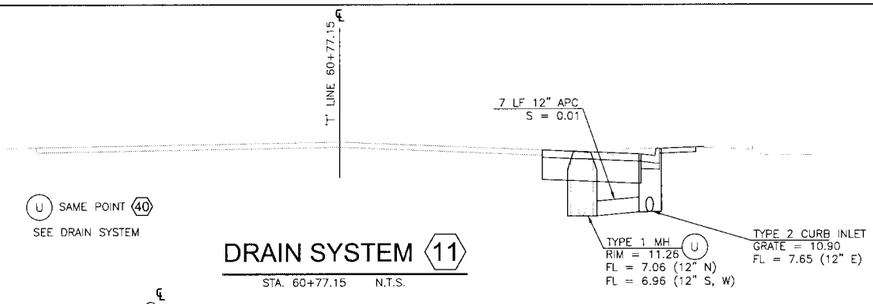
(B) SAME POINT
SEE DRAIN SYSTEM (41)



DRAIN SYSTEM 10

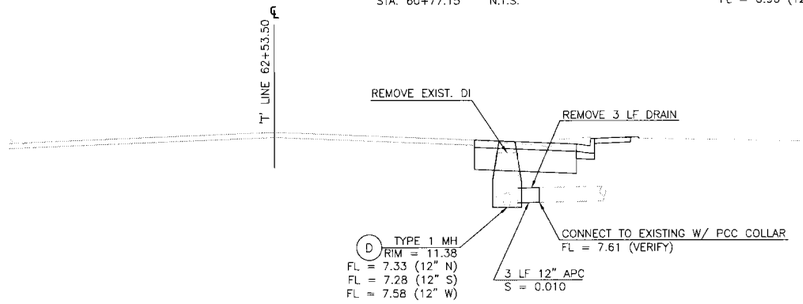
STA. 'W1' 15+51.00 N.T.S.

(C) SAME POINT
SEE DRAIN SYSTEM (41)



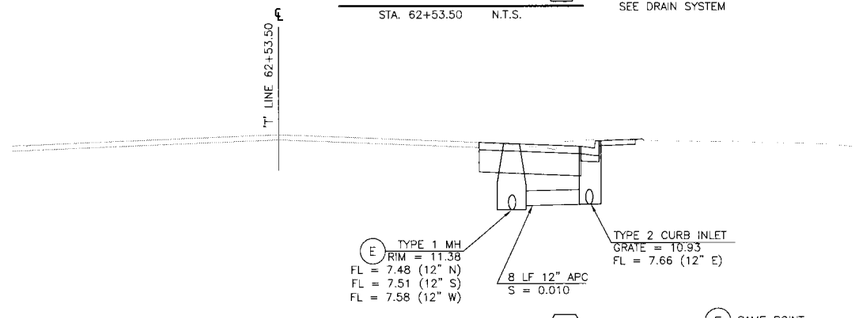
DRAIN SYSTEM 11

STA. 60+77.15 N.T.S.



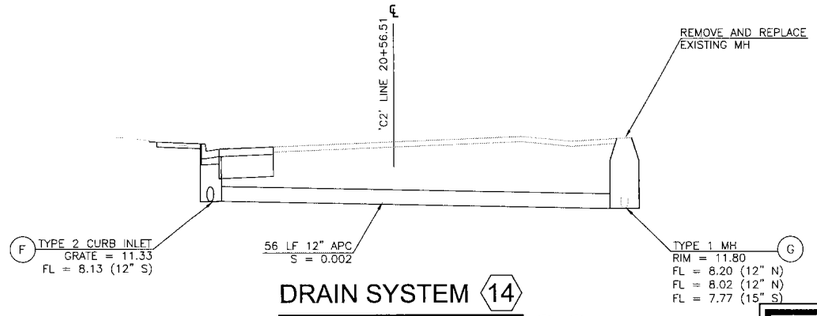
DRAIN SYSTEM 12

STA. 62+53.50 N.T.S.



DRAIN SYSTEM 13

STA. 62+92.35 N.T.S.



DRAIN SYSTEM 14

STA. 'C2' 20+56.51 N.T.S.

(F) (G) SAME POINT
SEE DRAIN SYSTEM (41)

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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www.stantec.com

No.	Revision	By	Appd
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES SYSTEMS 7 THRU 14

Permit-Seal

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

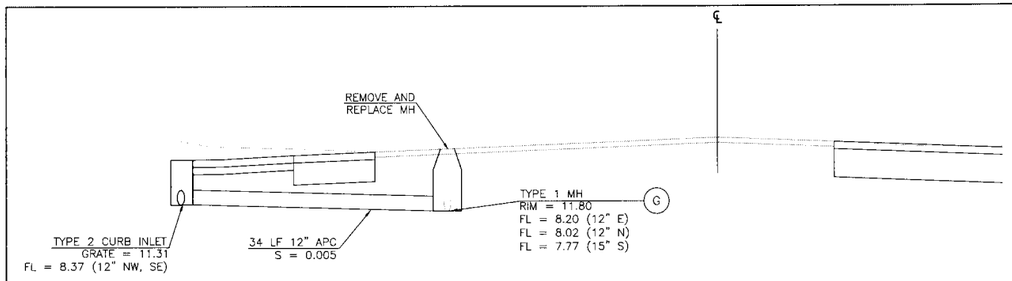
THORNTON ROAD WIDENING PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No.	Revision
DESIGNED BY: JAM		D-2	0
DRAWN BY: CBH		65 OF 145	
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.	
RECORD DWG:	DATE:	183910142	

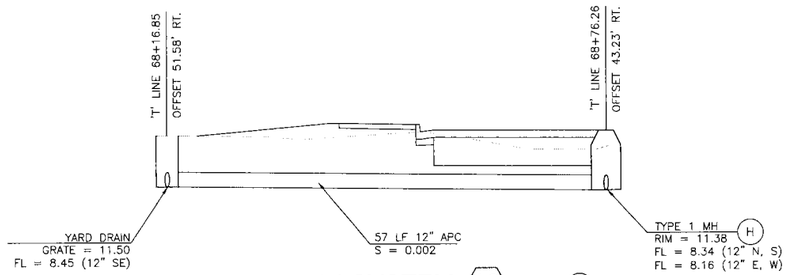
Plotted: 4/18/16 By: Joseph Mactutis
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DRAIN SYSTEM 15

STA. 67+92.33 N.T.S.

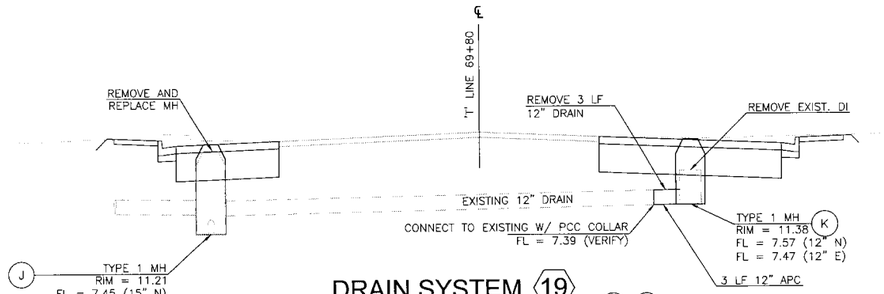
G SAME POINT
SEE DRAIN SYSTEM 41



DRAIN SYSTEM 16

STA. 68+16.85 TO STA. 68+76.26 N.T.S.

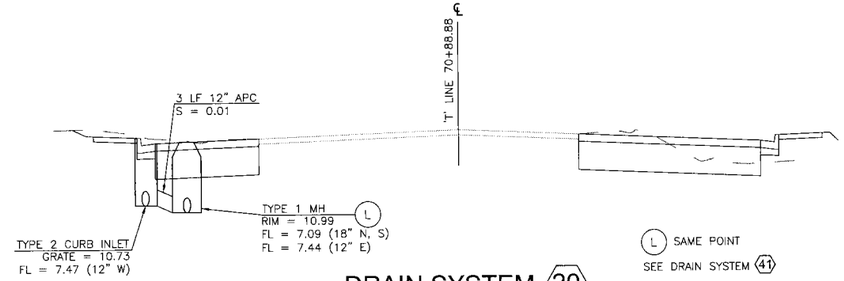
H SAME POINT
SEE DRAIN SYSTEM 17 18



DRAIN SYSTEM 19

STA. 69+80.00 N.T.S.

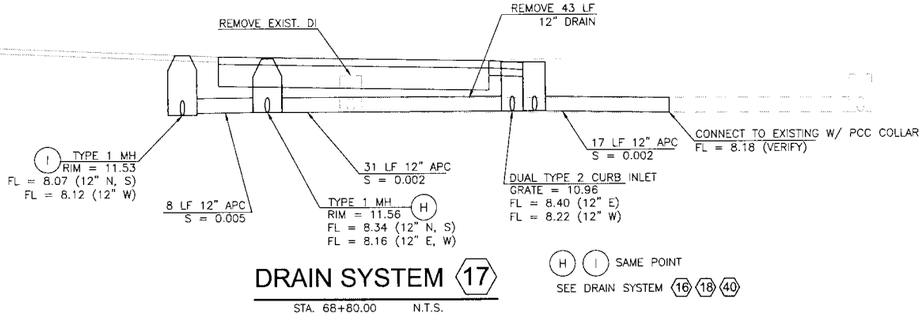
K J SAME POINT
SEE DRAIN SYSTEM 40 41



DRAIN SYSTEM 20

STA. 70+88.88 N.T.S.

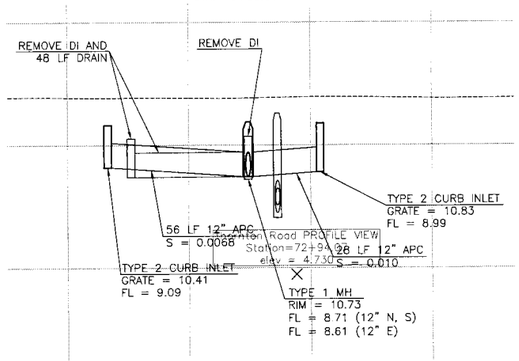
L SAME POINT
SEE DRAIN SYSTEM 41



DRAIN SYSTEM 17

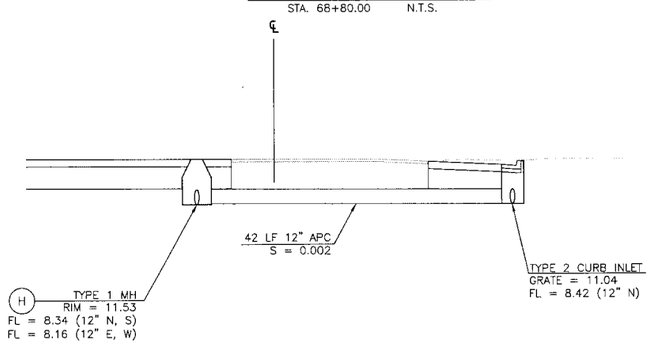
STA. 68+80.00 N.T.S.

H I SAME POINT
SEE DRAIN SYSTEM 16 18 40



DRAIN SYSTEM 21

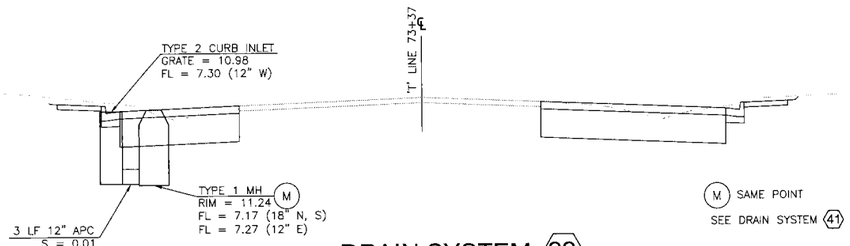
STA. 72+16.79 TO 72+99.07 RT N.T.S.



DRAIN SYSTEM 18

STA. 'L1' 24+45.00 N.T.S.

H SAME POINT
SEE DRAIN SYSTEM 16 17



DRAIN SYSTEM 22

STA. 73+37.00 N.T.S.

M SAME POINT
SEE DRAIN SYSTEM 41

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	By	Appd.	Description	Revision
1	MM/YY	BV		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES SYSTEMS 15 THRU 22

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.

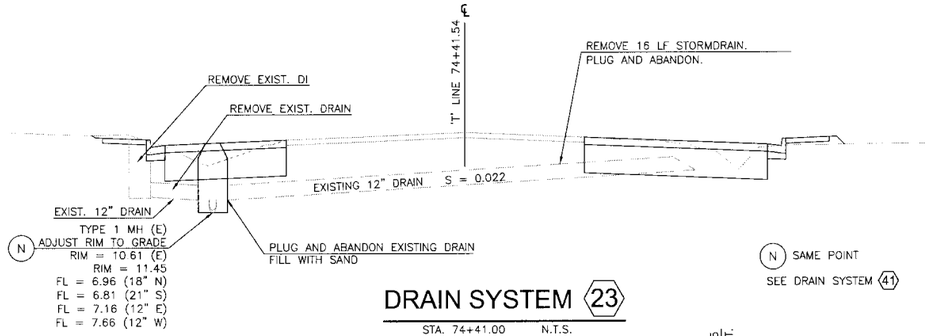
DATE:

Sheet No. Revision: D-3 0

66 OF 145

JOB NO. 183910142

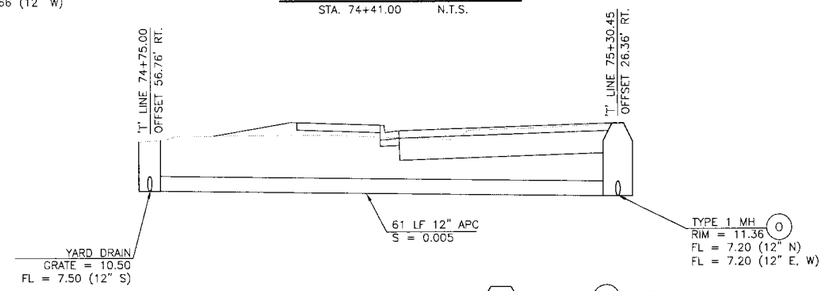
\\183910142\active\183910142\Drawings\Plan Sheets\Dr-06-drn_sect.dwg 4/19/16 9:39am cbrewster



DRAIN SYSTEM 23

STA. 74+41.00 N.T.S.

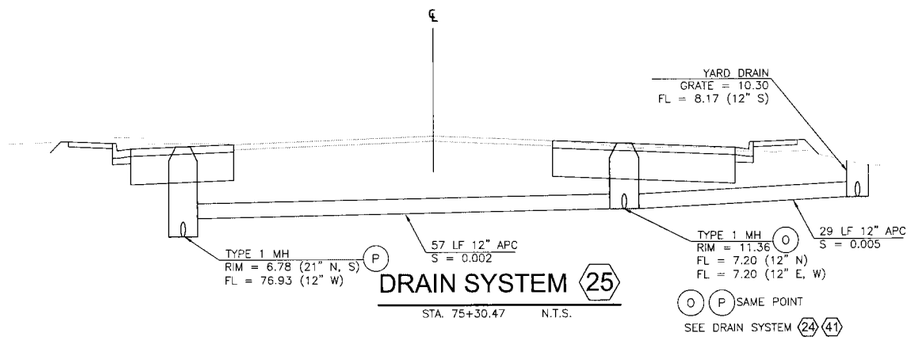
(N) SAME POINT
SEE DRAIN SYSTEM 41



DRAIN SYSTEM 24

STA. 74+75.00 TO STA. 75+30.45 N.T.S.

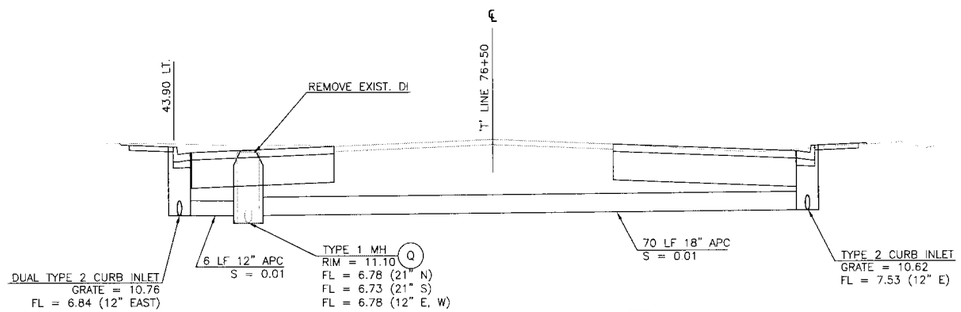
(O) SAME POINT
SEE DRAIN SYSTEM 25



DRAIN SYSTEM 25

STA. 75+30.47 N.T.S.

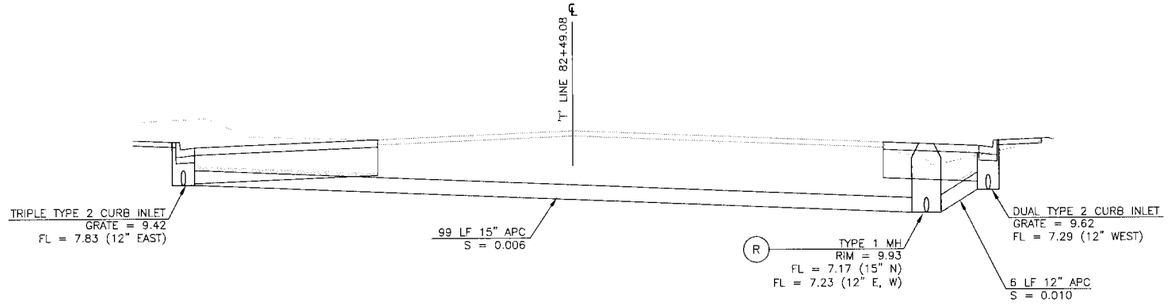
(O) (P) SAME POINT
SEE DRAIN SYSTEM 24 41



DRAIN SYSTEM 26

STA. 76+47.16 N.T.S.

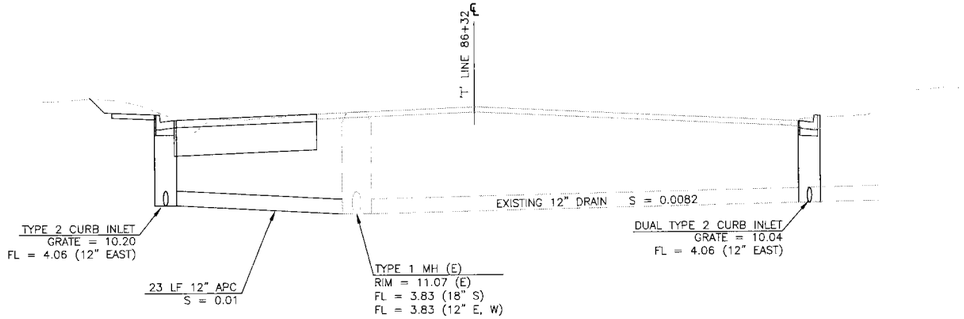
(Q) SAME POINT
SEE DRAIN SYSTEM 41



DRAIN SYSTEM 27

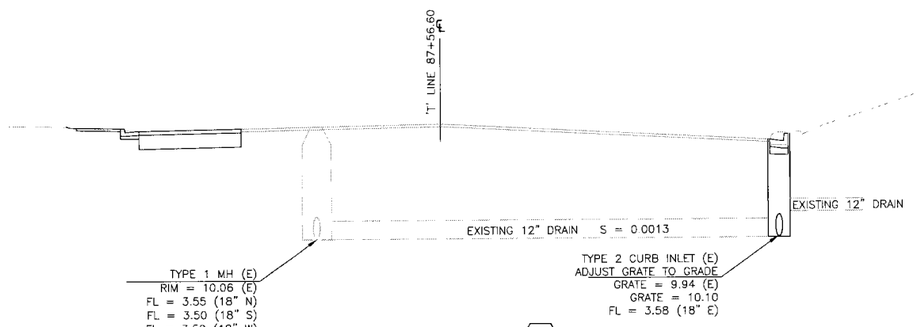
STA. 82+49.08 N.T.S.

(R) SAME POINT
SEE DRAIN SYSTEM 42



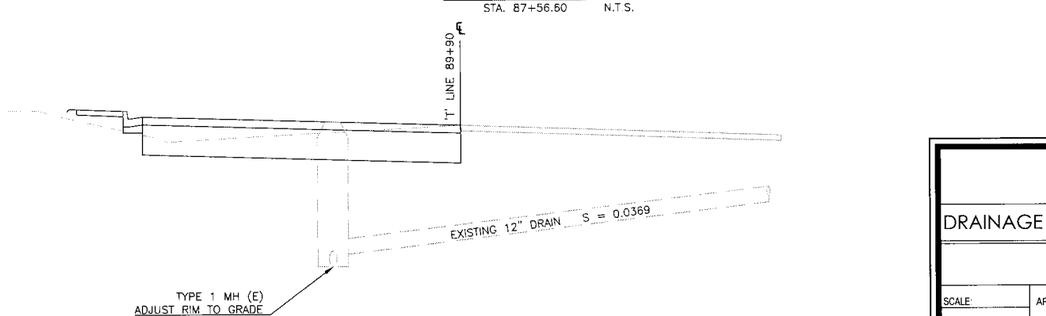
DRAIN SYSTEM 28

STA. 86+32.00 N.T.S.



DRAIN SYSTEM 29

STA. 87+56.60 N.T.S.



DRAIN SYSTEM 30

STA. 89+90.00 N.T.S.

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	M/A/Y/Y	Description	By	Appd.
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES
SYSTEMS 23 THRU 30

Permit-Seal



Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

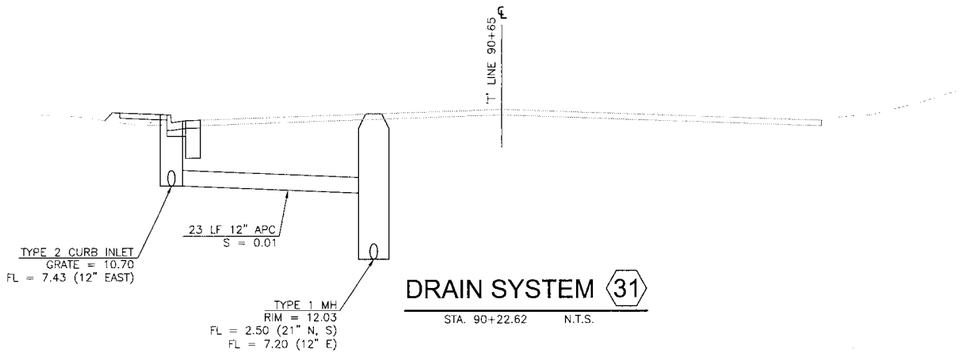
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

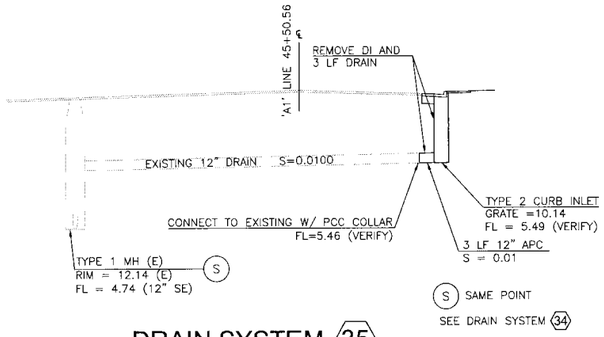
Sheet No.	Revision
D-4	0
67 OF 145	
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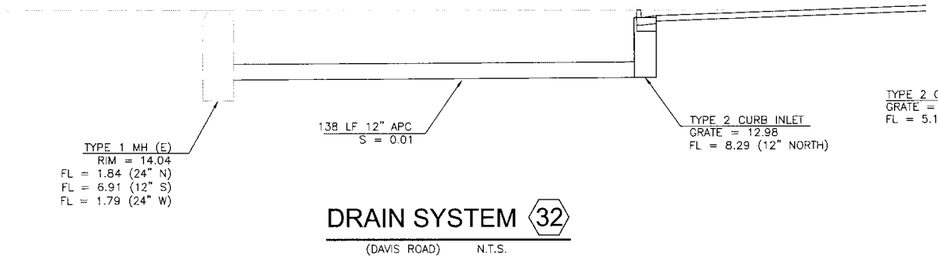
DRAIN SYSTEM 31

STA. 90+22.62 N.T.S.



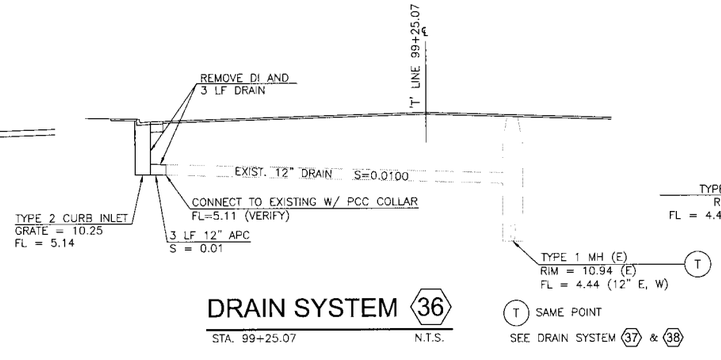
DRAIN SYSTEM 35

STA. 'A1' 45+50.56 N.T.S.



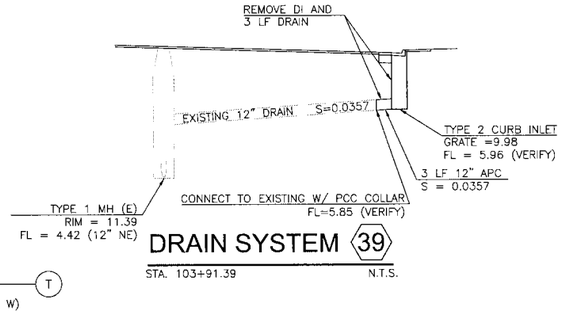
DRAIN SYSTEM 32

(DAVIS ROAD) N.T.S.



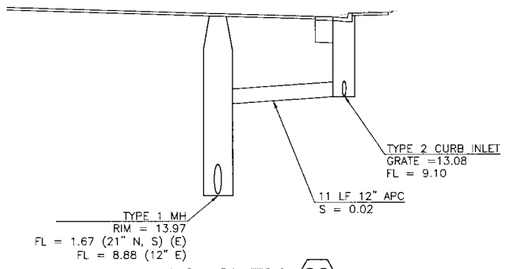
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STA. 99+25.07 N.T.S.



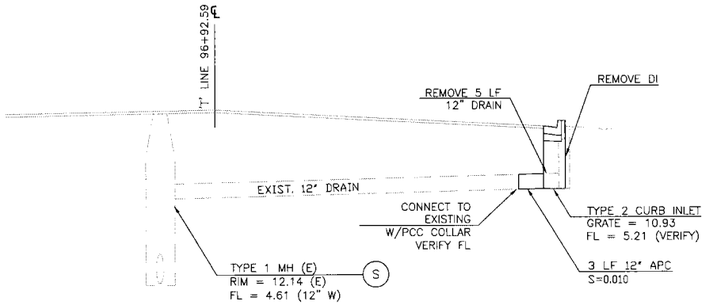
DRAIN SYSTEM 39

STA. 103+91.39 N.T.S.



DRAIN SYSTEM 33

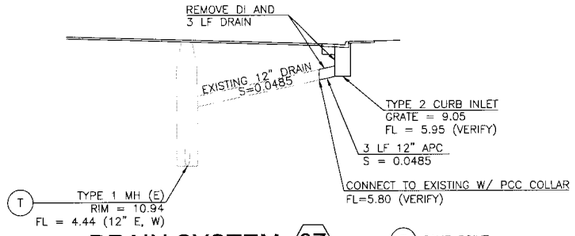
"D1" STA. 41+66.70 N.T.S.



DRAIN SYSTEM 34

96+92.59 N.T.S.

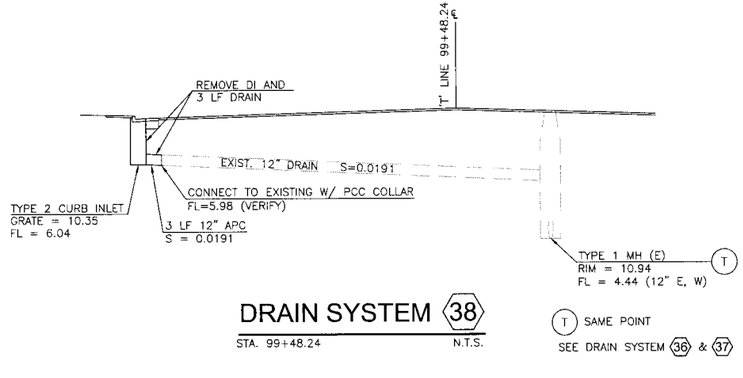
S SAME POINT
SEE DRAIN SYSTEM 35



DRAIN SYSTEM 37

STA. 99+35.57 N.T.S.

T SAME POINT
SEE DRAIN SYSTEM 36 & 38



DRAIN SYSTEM 38

STA. 99+48.24 N.T.S.

T SAME POINT
SEE DRAIN SYSTEM 36 & 37

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	Revision	By	Appd.

Client/Project: CITY OF STOCKTON, Thornton Road Widening, Stockton, California

Title: DRAINAGE PROFILES SYSTEMS 31 THRU 39

Permit-Seal



Engineer's Signature:

Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis

Submitted Date: April 18, 2016

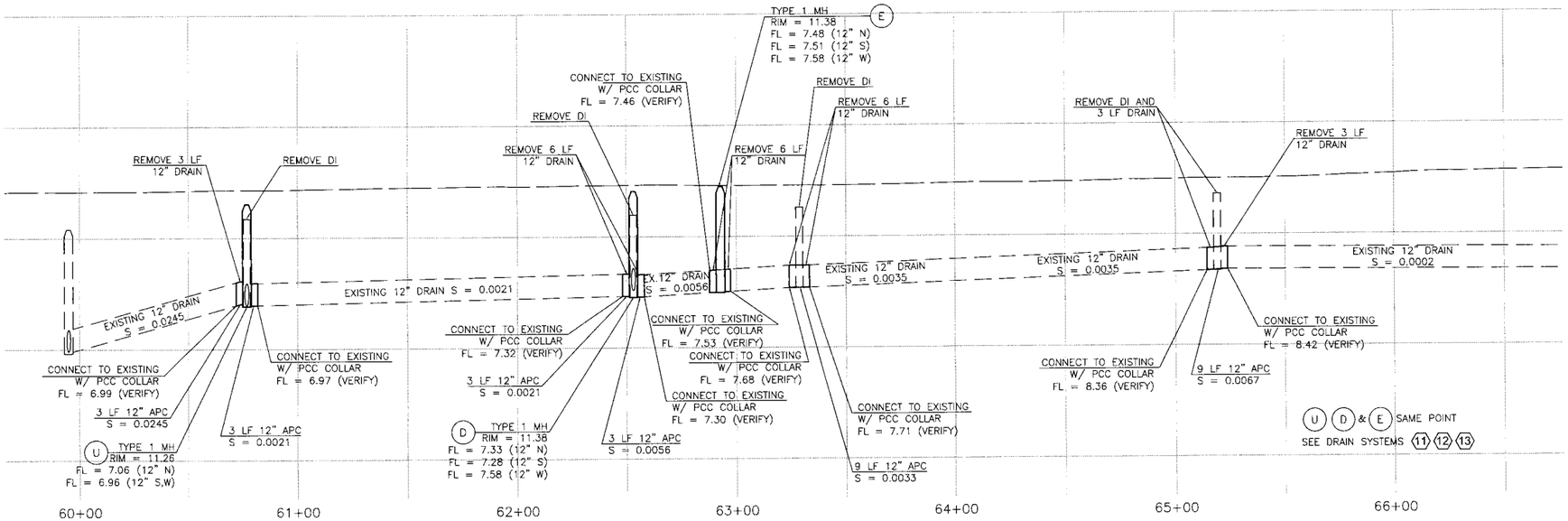
THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

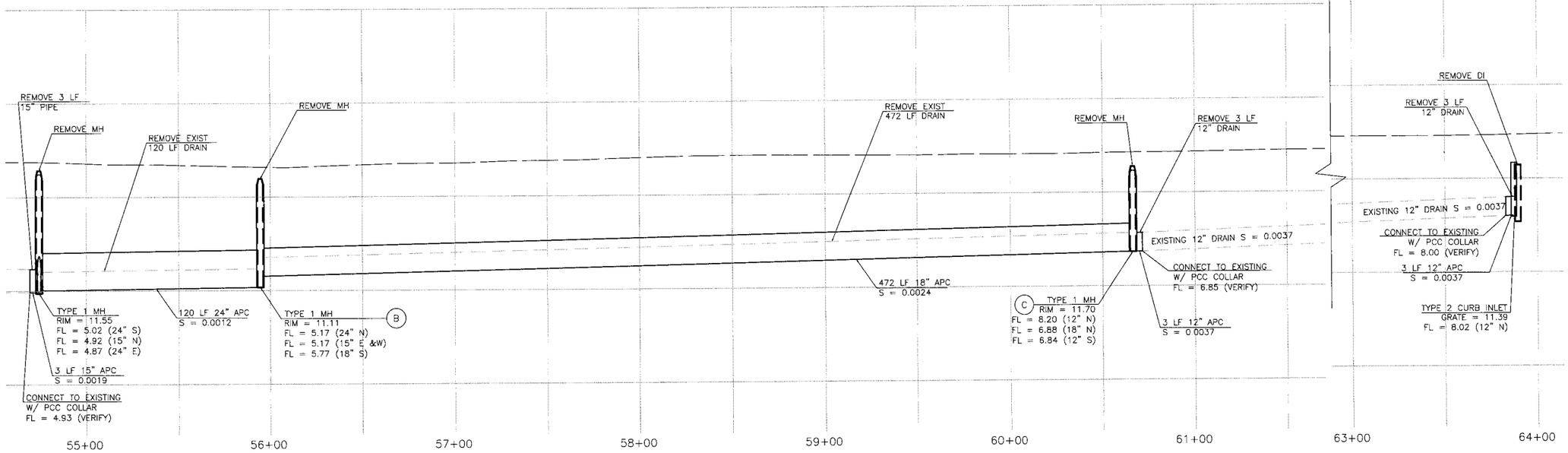
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DESIGNED BY: JAM		D-5 0
DRAWN BY: CBH		68 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

V:\183910142 - Thornton Road Widening\Design\Drainage\Sheets\dr-11 dr-24sht.dwg 4/19/16 3:44pm rdawson



DRAIN SYSTEM 40

STA. 60+50.00 TO 65+50.00 RT N.T.S.



DRAIN SYSTEM 41

STA. 54+50.00 TO 64+00.00 LT N.T.S.

B C SAME POINT
SEE DRAIN SYSTEM 9 10

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	Revision	By	Appd.
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES
SYSTEMS 40 THRU 41

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JENNIFER A. MATTOS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

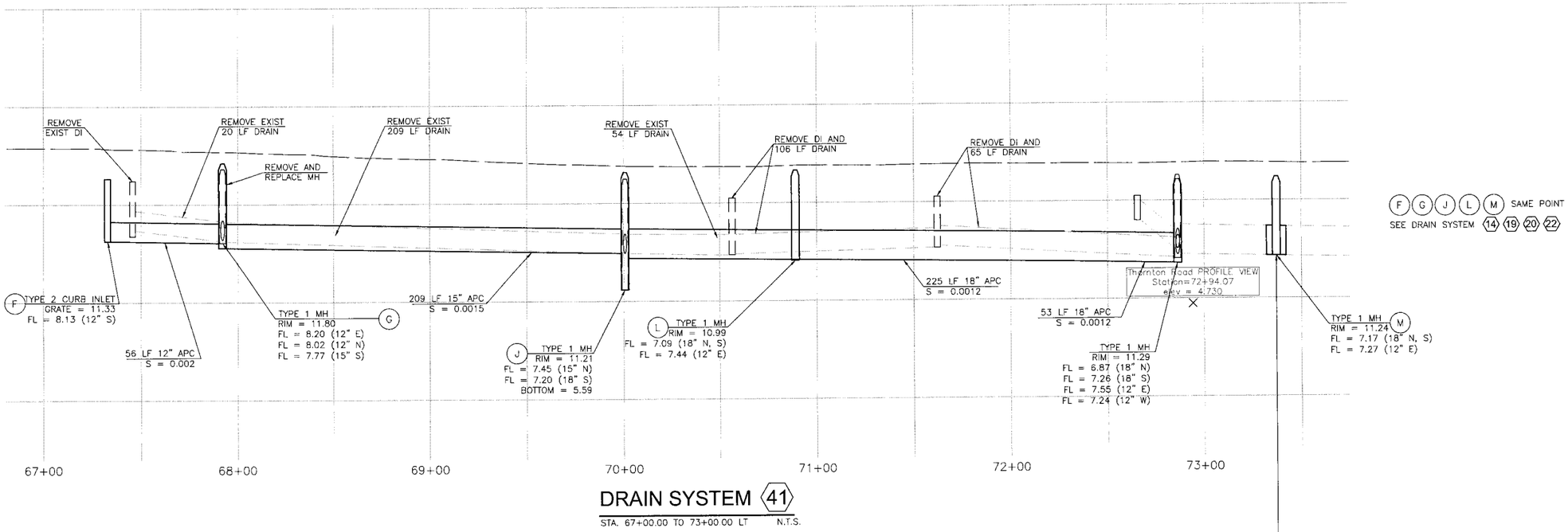
CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
D-6 0
69 OF 145

JOB NO.
183910142

V:\183910142 Thornton Rd Widening\Design\Drawings\Sheets\Drainage\183910142 drainage sections, profiles and details.dwg 4/19/16 3:41pm tjohnson

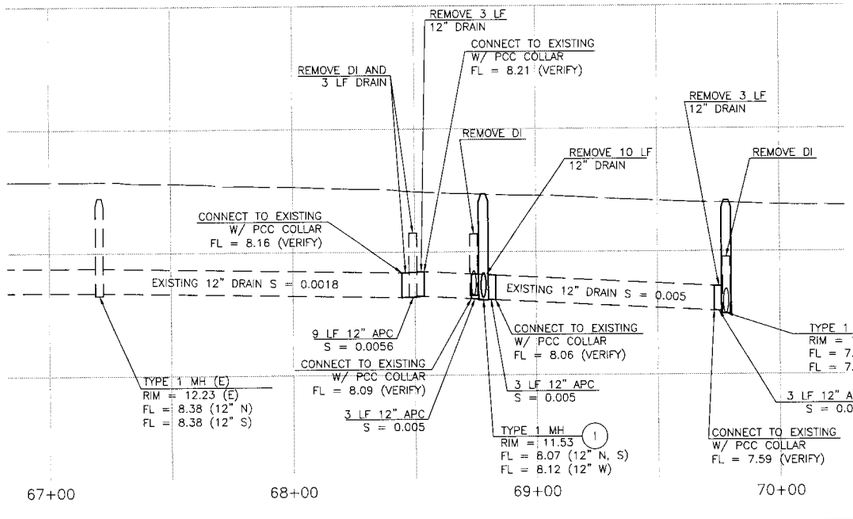


DRAIN SYSTEM 41

STA. 67+00.00 TO 73+00.00 LT N.T.S.

DRAIN SYSTEM 41

STA. 73+00.00 TO 77+50.00 LT N.T.S.



DRAIN SYSTEM 40

STA. 67+00.00 TO 70+00.00 RT N.T.S.

I & K SAME POINT
SEE DRAIN SYSTEMS 16 17 18 19

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	MM.YY	Description	By	Appd.

ClientProject
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES
SYSTEMS 40 THRU 41 CONTINUED

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA 4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

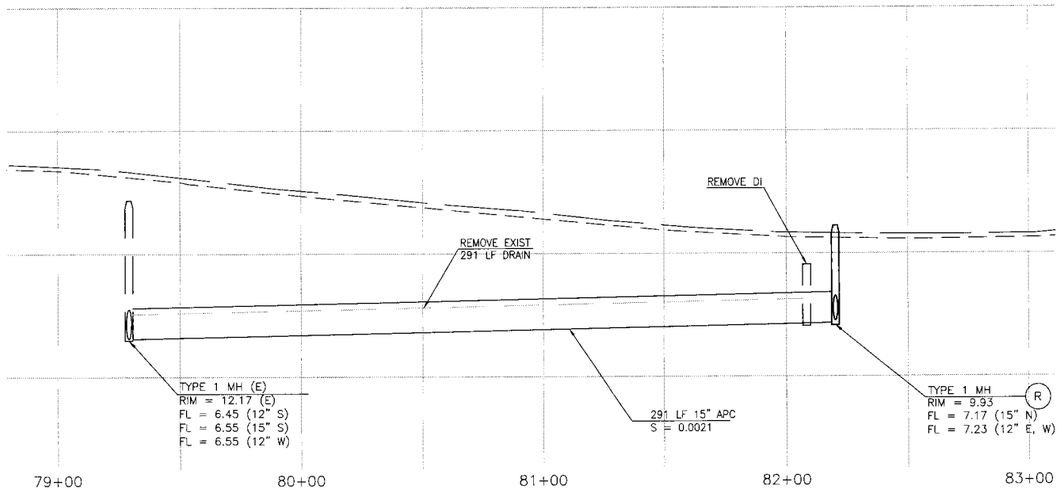
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CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

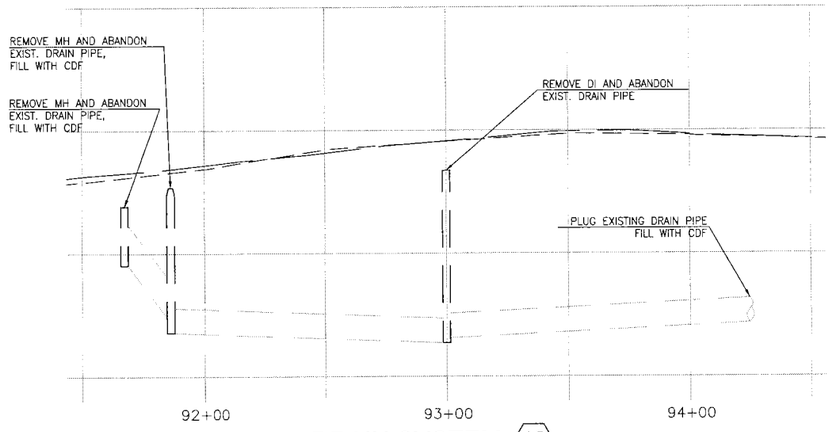
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JOB NO. 183910142	



DRAIN SYSTEM 42

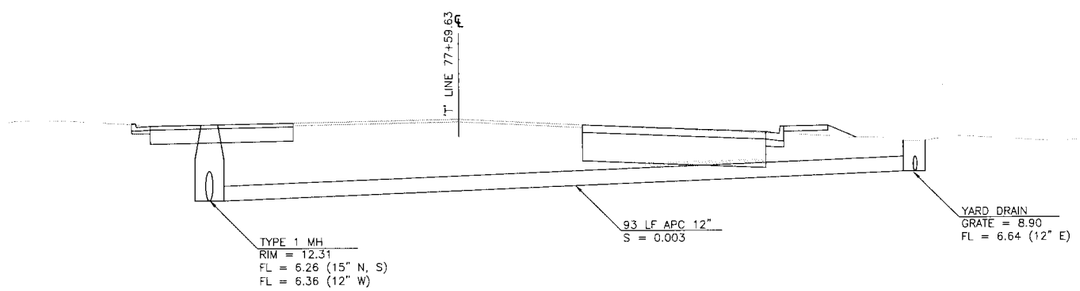
STA. 79+00.00 TO 82+50.00 RT N.T.S.

R SAME POINT
SEE DRAIN SYSTEM 42



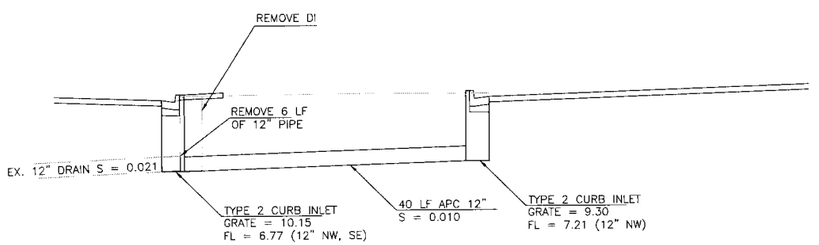
DRAIN SYSTEM 43

STA. 91+50.00 TO 94+50.00 LT N.T.S.



DRAIN SYSTEM 44

STA. 77+59.63 N.T.S.



DRAIN SYSTEM 45

CUL-DE-SAC N.T.S.

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE PROFILES
SYSTEMS 42 THRU 45

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
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1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

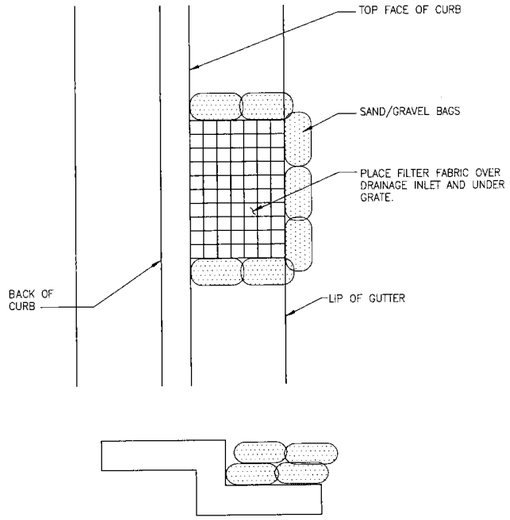
THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

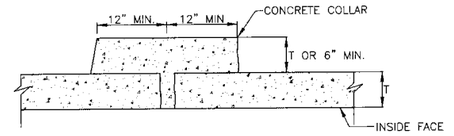
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DRAWN BY: CBH	CITY ENGINEER STOCKTON, CA.	71 OF 145
CHECKED BY: CJA	DATE:	JOB NO.
RECORD DWG:		183910142

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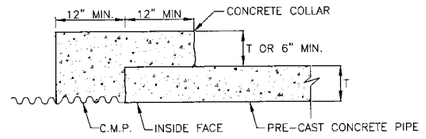
GRAVEL BAG INLET DETAIL

N.T.S.



CONCRETE PIPE TO CONCRETE PIPE WITHOUT STANDARD JOINT

N.T.S.



REINFORCED CONCRETE PIPE TO CMP PCC COLLAR DETAIL

N.T.S.

NOTE: PLAN IS ACCURATE FOR DRAINAGE WORK ONLY.

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No.	Revision	By	Appd.
	Description	TY/MM/DD	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
DRAINAGE DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MACTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

DRAINAGE SECTIONS, PROFILES AND DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DRAWN BY: CBH	
CHECKED BY: CJA	
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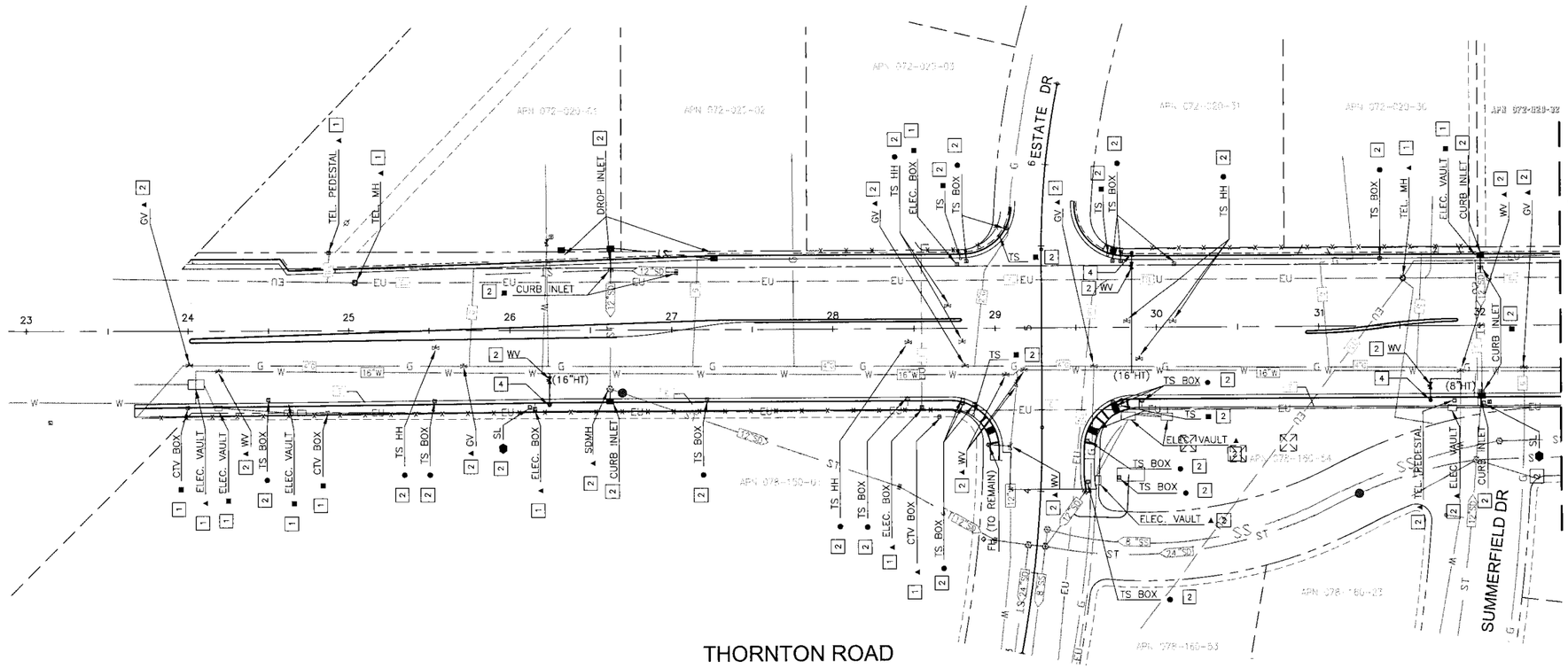
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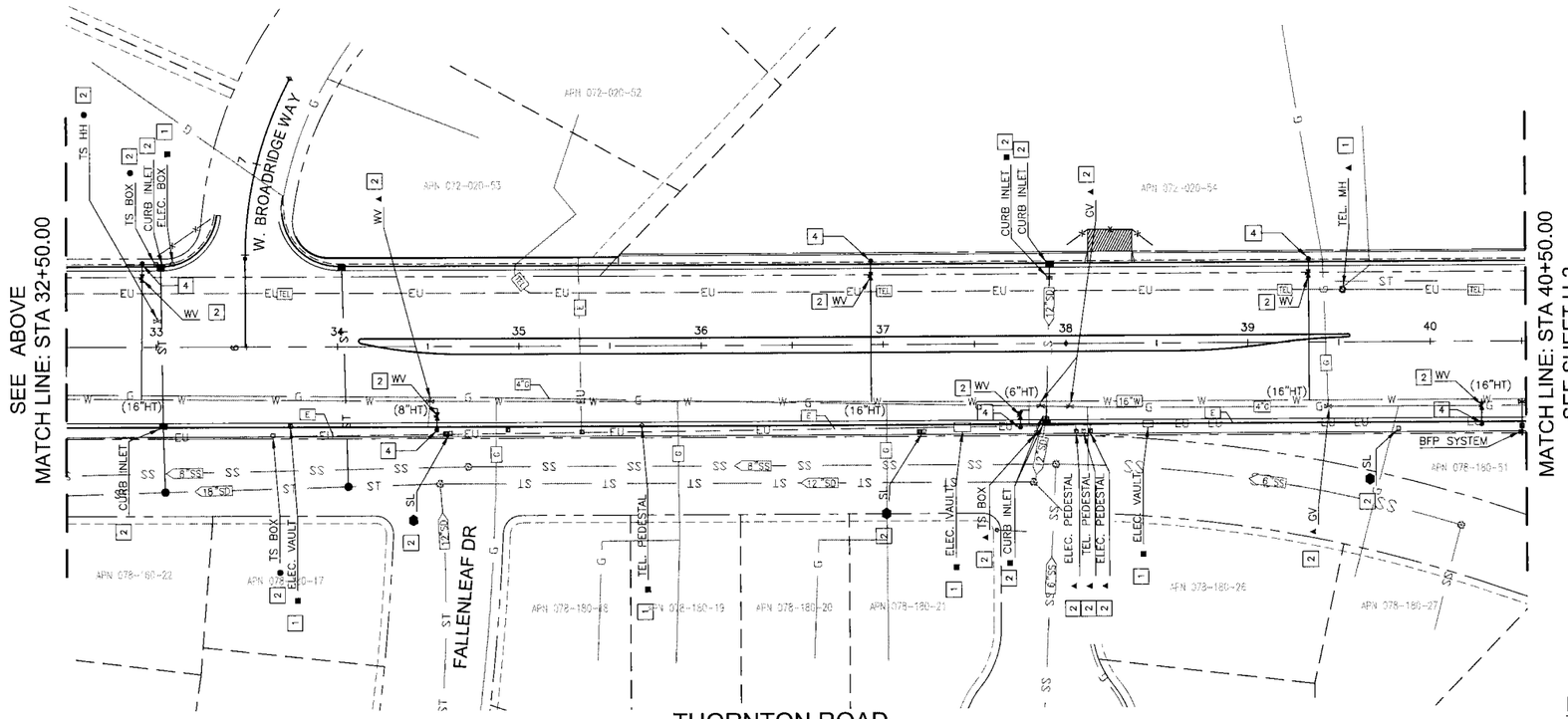
CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No.	Revision
D-9	0
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JOB NO	
183910142	

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UTILITY NOTES:

1. WORK PERFORMED BY UTILITY (CONTRACTOR TO COORDINATE WITH UTILITY CO.)
2. ADJUST TO GRADE WORK PERFORMED BY CONTRACTOR
3. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
4. INSTALL FH PER COS STANDARD DWG#101 LOCATION OF FH ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

(HT) HOT TAP T-CONNECTION

INSTALL 8" PIPE FROM POINT OF CONNECTION TO WATER VALVE.

LEGEND FOR UTILITIES

BFP	–	BACK FLOW PERVENTION DEVICE
CTV	–	CABLE TELEVISION
ELEC.	–	PG&E ELECTRIC
FH	–	FIRE HYDRANT
G	–	PG&E GAS
HH	–	HAND HOLE
MH	–	MANHOLE
S	–	SANITARY SEWER
SD	–	STORM DRAIN
SL	–	STREET LIGHT
TEL.	–	TELEPHONE
TS	–	TRAFFIC SIGNAL
UNK.	–	UNKNOWN
GV	–	GAS VALVE
WM	–	WATER METER
WV	–	WATER VALVE
⊕	–	NEW FIRE HYDRANT
▲	–	REMAIN, ADJUST TO GRADE AS REQUIRED
■	–	RELOCATE
●	–	REMOVE
⬟	–	REMOVE & SALVAGE

NOTE: THIS PLAN IS ACCURATE FOR UTILITY WORK ONLY.

HORIZONTAL SCALE 1" = 40'

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No.	M/M/Y	Revision	By	Appd

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
UTILITY PLAN
STA. 24+00.00 TO STA. 40+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA 4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

UTILITY PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

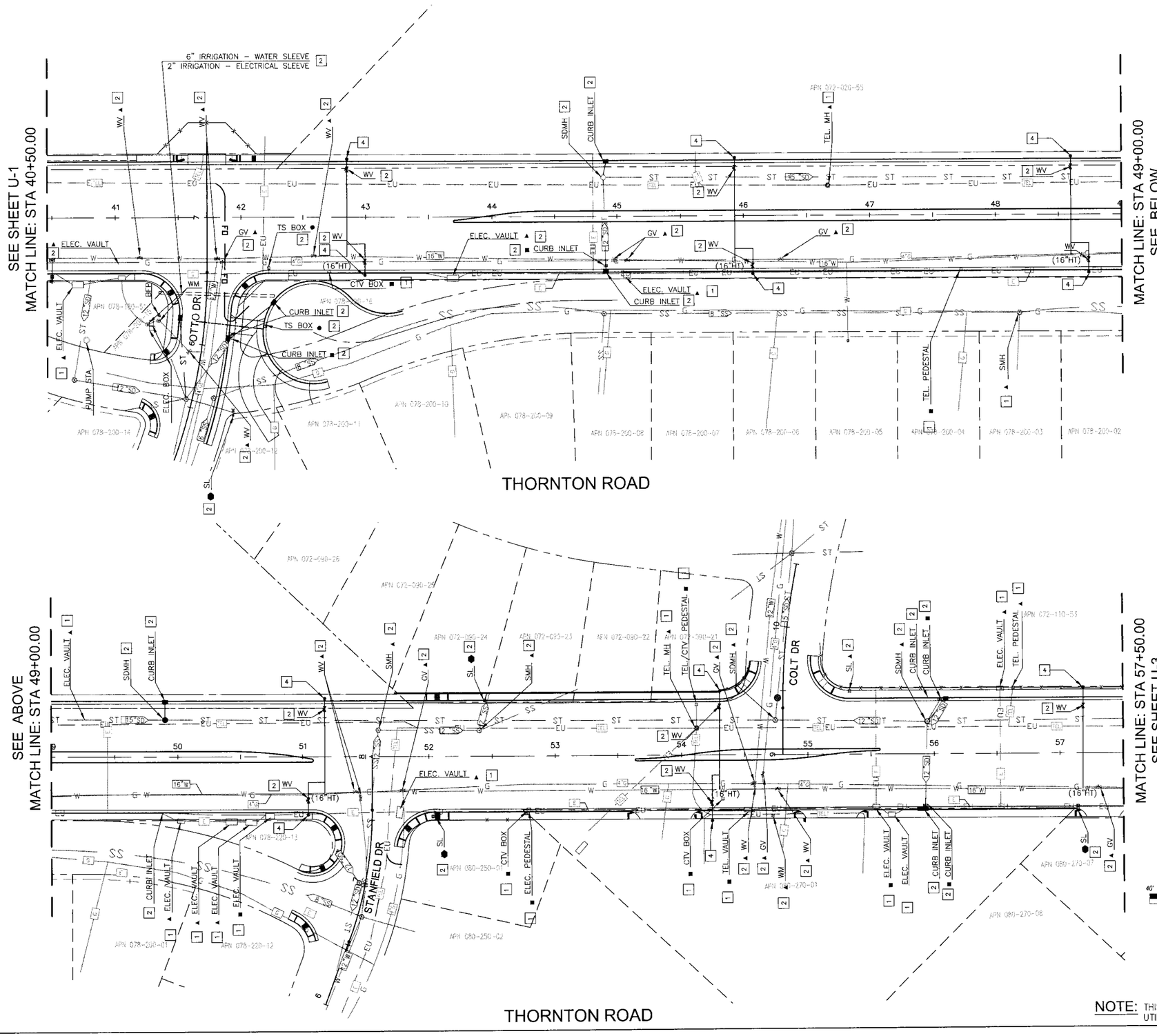
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DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.
DATE:

Sheet No. Revision
U-1 0
73 OF 145
JOB NO.
183910142

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UTILITY NOTES:

1. WORK PERFORMED BY UTILITY (CONTRACTOR TO COORDINATE WITH UTILITY CO.)
2. ADJUST TO GRADE WORK PERFORMED BY CONTRACTOR
3. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
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(HT) HOT TAP T–CONNECTION

INSTALL 8" PIPE FROM POINT OF CONNECTION TO WATER VALVE.

LEGEND FOR UTILITIES

BFP	–	BACK FLOW PERVENTION DEVICE
CTV	–	CABLE TELEVISION
ELEC.	–	PG&E ELECTRIC
FH	–	FIRE HYDRANT
G	–	PG&E GAS
HH	–	HAND HOLE
MH	–	MANHOLE
S	–	SANITARY SEWER
SD	–	STORM DRAIN
SL	–	STREET LIGHT
TEL.	–	TELEPHONE
TS	–	TRAFFIC SIGNAL
UNK.	–	UNKNOWN
GV	–	GAS VALVE
WM	–	WATER METER
WV	–	WATER VALVE
▲	–	REMAIN, ADJUST TO GRADE AS REQUIRED
■	–	RELOCATE
●	–	REMOVE
●	–	REMOVE & SALVAGE

NOTE: THIS PLAN IS ACCURATE FOR UTILITY WORK ONLY.

HORIZONTAL SCALE 1" = 40'

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No.	M/A/Y/Y	Description	By	Appd
		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
UTILITY PLAN
STA. 40+50.00 TO STA. 57+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOSEPH A. MCCTUTIS
C59768
EXP 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature
Signature Date

CALL BEFORE YOU DIG CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mcctutis
Submitted Date: April 18, 2016

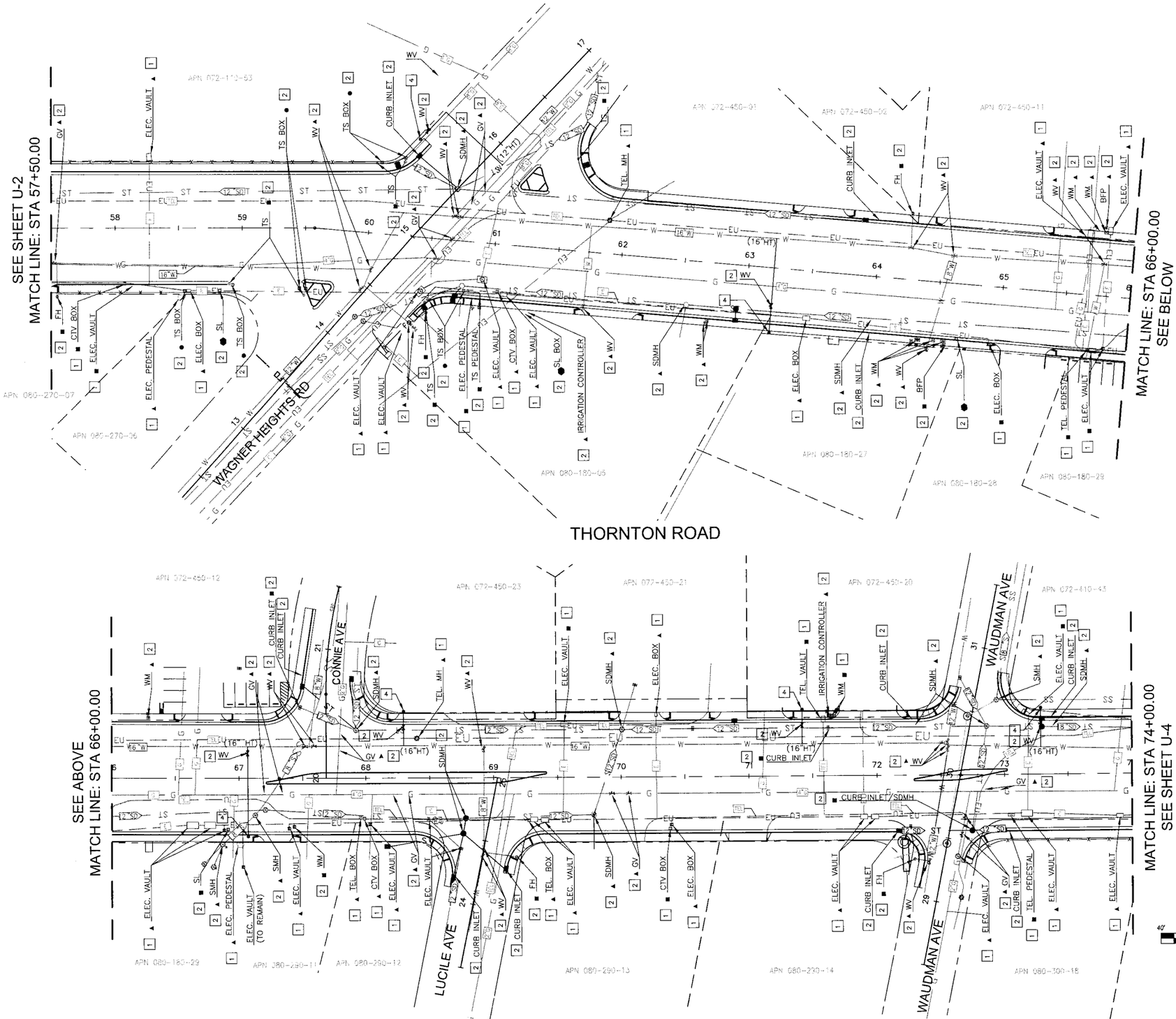
THORNTON ROAD WIDENING PROJECT
Stockton, California

UTILITY PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No.	Revision
DESIGNED BY: JAM		U-2	0
DRAWN BY: CBH		74 OF 145	
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO	
RECORD DWG:	DATE:	183910142	

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UTILITY NOTES:

1. WORK PERFORMED BY UTILITY (CONTRACTOR TO COORDINATE WITH UTILITY CO.)
2. ADJUST TO GRADE WORK PERFORMED BY CONTRACTOR
3. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
4. INSTALL FH PER COS STANDARD DWG#101 LOCATION OF FH ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

(HT) HOT TAP T-CONNECTION

INSTALL 8" PIPE FROM POINT OF CONNECTION TO WATER VALVE.

LEGEND FOR UTILITIES

BFP	–	BACK FLOW PERVENTION DEVICE
CTV	–	CABLE TELEVISION
ELEC.	–	PG&E ELECTRIC
FH	–	FIRE HYDRANT
G	–	PG&E GAS
HH	–	HAND HOLE
MH	–	MANHOLE
S	–	SANITARY SEWER
SD	–	STORM DRAIN
SL	–	STREET LIGHT
TEL.	–	TELEPHONE
TS	–	TRAFFIC SIGNAL
UNK.	–	UNKNOWN
GV	–	GAS VALVE
WM	–	WATER METER
WV	–	WATER VALVE
▲	–	REMAIN, ADJUST TO GRADE AS REQUIRED
■	–	RELOCATE
●	–	REMOVE
●	–	REMOVE & SALVAGE

NOTE: THIS PLAN IS ACCURATE FOR UTILITY WORK ONLY.

HORIZONTAL SCALE 1" = 40'

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No.	M/A/Y	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
UTILITY PLAN
STA. 57+50.00 TO STA. 74+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. MACTUTIS C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

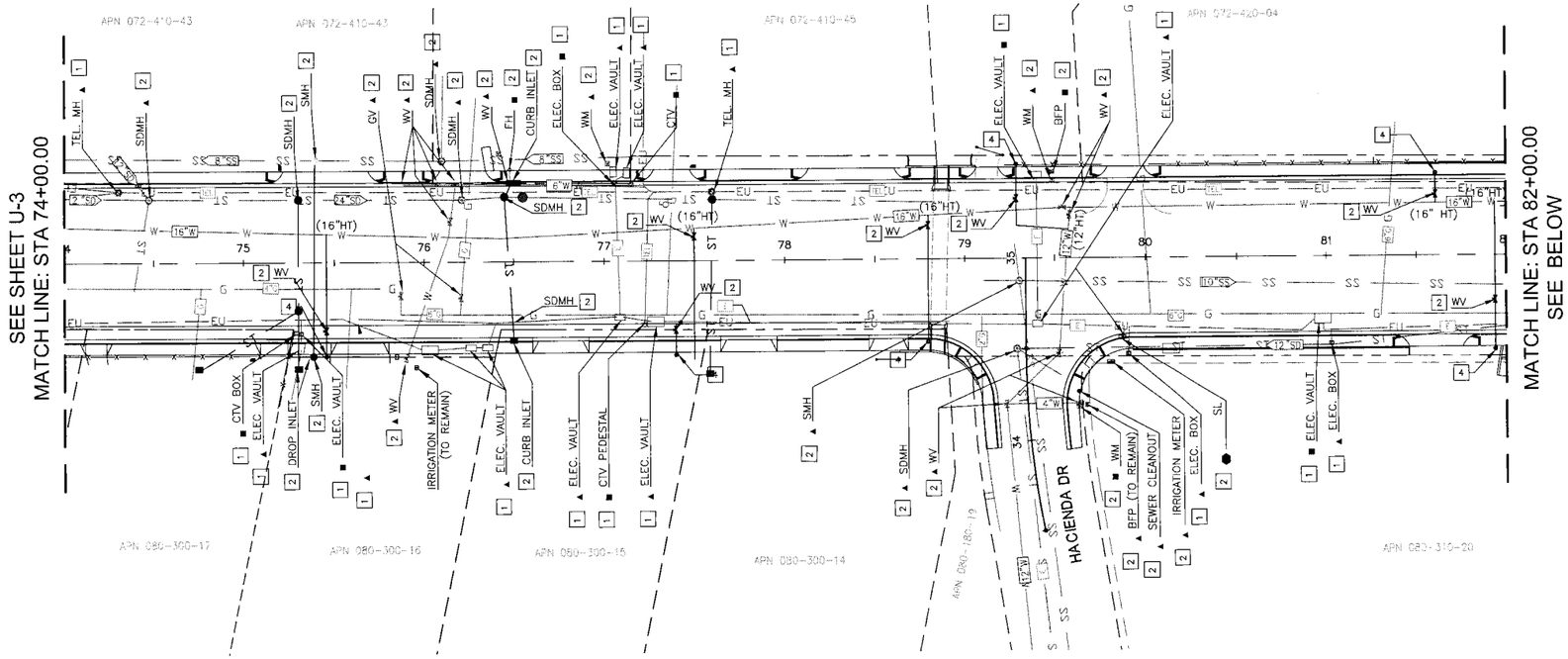
THORNTON ROAD WIDENING PROJECT
Stockton, California

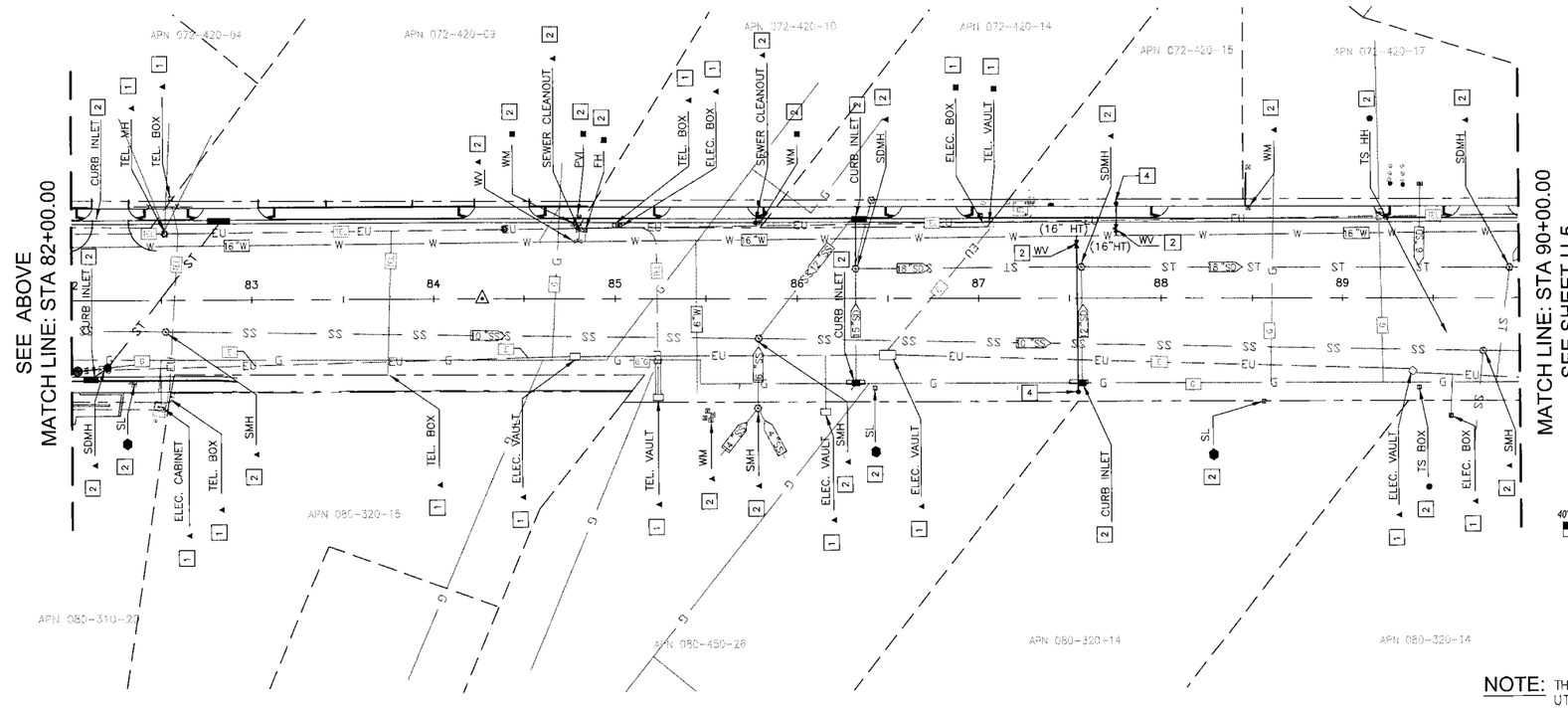
UTILITY PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No.	Revision
DESIGNED BY: JAM		U-3	0
DRAWN BY: CBH		75 OF 145	
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.	
RECORD DWG:	DATE:	183910142	

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UTILITY NOTES:

1. WORK PERFORMED BY UTILITY (CONTRACTOR TO COORDINATE WITH UTILITY CO.)
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(HT) HOT TAP T-CONNECTION

INSTALL 8" PIPE FROM POINT OF CONNECTION TO WATER VALVE.

LEGEND FOR UTILITIES

BFP	–	BACK FLOW PERVENTION DEVICE
CTV	–	CABLE TELEVISION
ELEC.	–	PG&E ELECTRIC
FH	–	FIRE HYDRANT
G	–	PG&E GAS
HH	–	HAND HOLE
MH	–	MANHOLE
S	–	SANITARY SEWER
SD	–	STORM DRAIN
SL	–	STREET LIGHT
TEL.	–	TELEPHONE
TS	–	TRAFFIC SIGNAL
UNK.	–	UNKNOWN
GV	–	GAS VALVE
WM	–	WATER METER
WV	–	WATER VALVE
▲	–	REMAIN, ADJUST TO GRADE AS REQUIRED
■	–	RELOCATE
●	–	REMOVE
●	–	REMOVE & SALVAGE

NOTE: THIS PLAN IS ACCURATE FOR UTILITY WORK ONLY.

N

40' 20' 0 40'
HORIZONTAL SCALE
1" = 40'

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No.	M/D/Y	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
UTILITY PLAN
STA. 74+00.00 TO STA. 90+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JAMES A. MANTELLA C59768 EXP. 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORN/A/NEVADA 1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

UTILITY PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

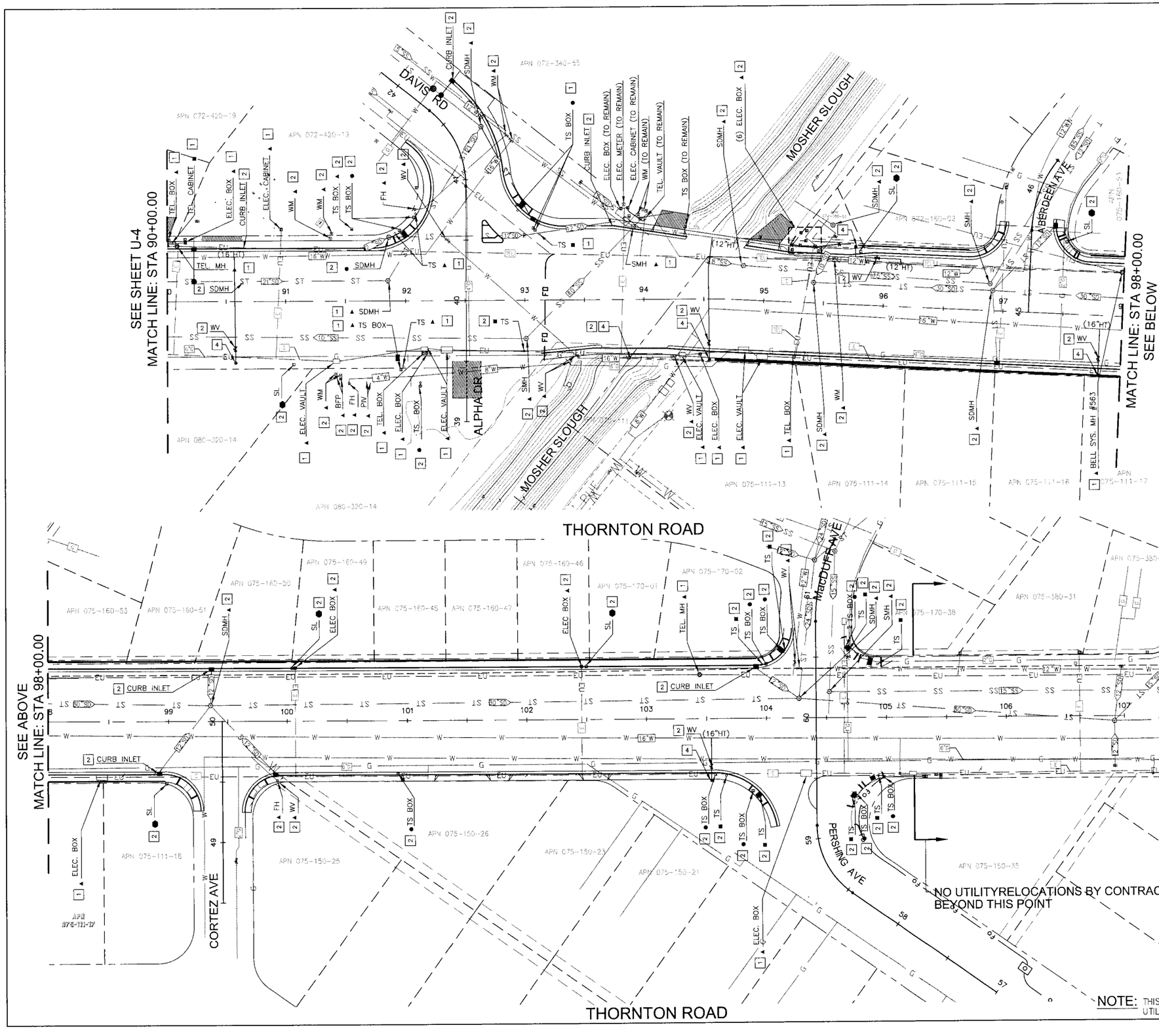
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CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No.	Revision
U-4	0
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JOB NO. 183910142	

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UTILITY NOTES:

1. WORK PERFORMED BY UTILITY (CONTRACTOR TO COORDINATE WITH UTILITY CO.)
2. ADJUST TO GRADE WORK PERFORMED BY CONTRACTOR
3. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
4. INSTALL FH PER COS STANDARD DWG#101 LOCATION OF FH ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

(HT) HOT TAP T-CONNECTION

INSTALL 8" PIPE FROM POINT OF CONNECTION TO WATER VALVE.

5. PROTECT EXISTING WATER ON OUTSIDE OF CULVERT AS DIRECTED MY CITY MUD.

LEGEND FOR UTILITIES

BFP	–	BACK FLOW PERVENTION DEVICE
CTV	–	CABLE TELEVISION
ELEC.	–	PG&E ELECTRIC
FH	–	FIRE HYDRANT
G	–	PG&E GAS
HH	–	HAND HOLE
MH	–	MANHOLE
S	–	SANITARY SEWER
SD	–	STORM DRAIN
SL	–	STREET LIGHT
TEL.	–	TELEPHONE
TS	–	TRAFFIC SIGNAL
UNK.	–	UNKNOWN
GV	–	GAS VALVE
WM	–	WATER METER
WV	–	WATER VALVE
▲	–	REMAIN, ADJUST TO GRADE AS REQUIRED
■	–	RELOCATE
●	–	REMOVE
⬢	–	REMOVE & SALVAGE

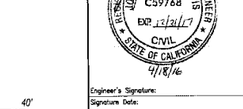
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Fax. 925.941.1401
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No.	By	Description	Appd.
MA/YY		Revision	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
UTILITY PLAN
STA. 90+00.00 TO STA. 106+98.61

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joseph Mactutis
Submitted Date: April 18, 2016

40' 20' 0 40'
HORIZONTAL SCALE
1" = 40'

4' 2' 0 4'
VERTICAL SCALE
1" = 4'

NOTE: THIS PLAN IS ACCURATE FOR UTILITY WORK ONLY.

THORNTON ROAD WIDENING
PROJECT
Stockton, California

UTILITY PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

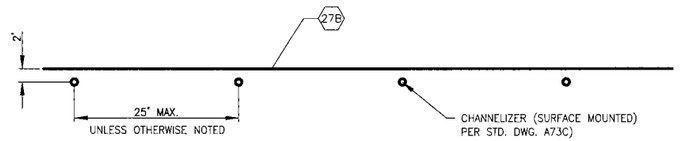
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

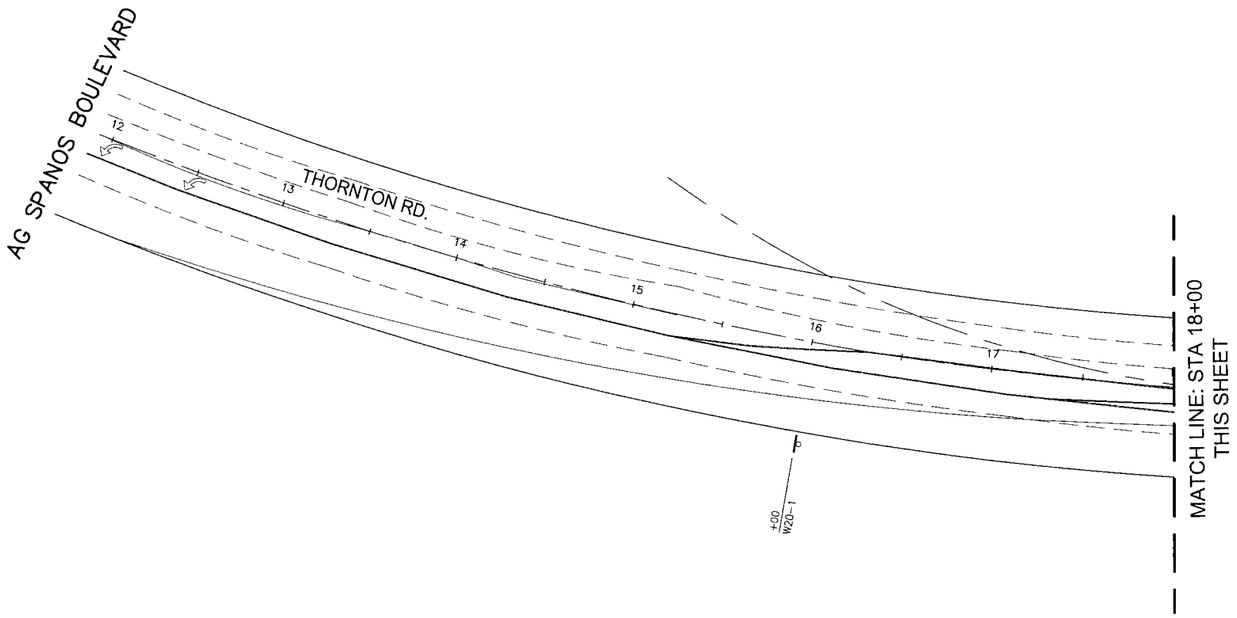
Sheet No.	Revision
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77 OF 145	
JOB NO.	
183910142	

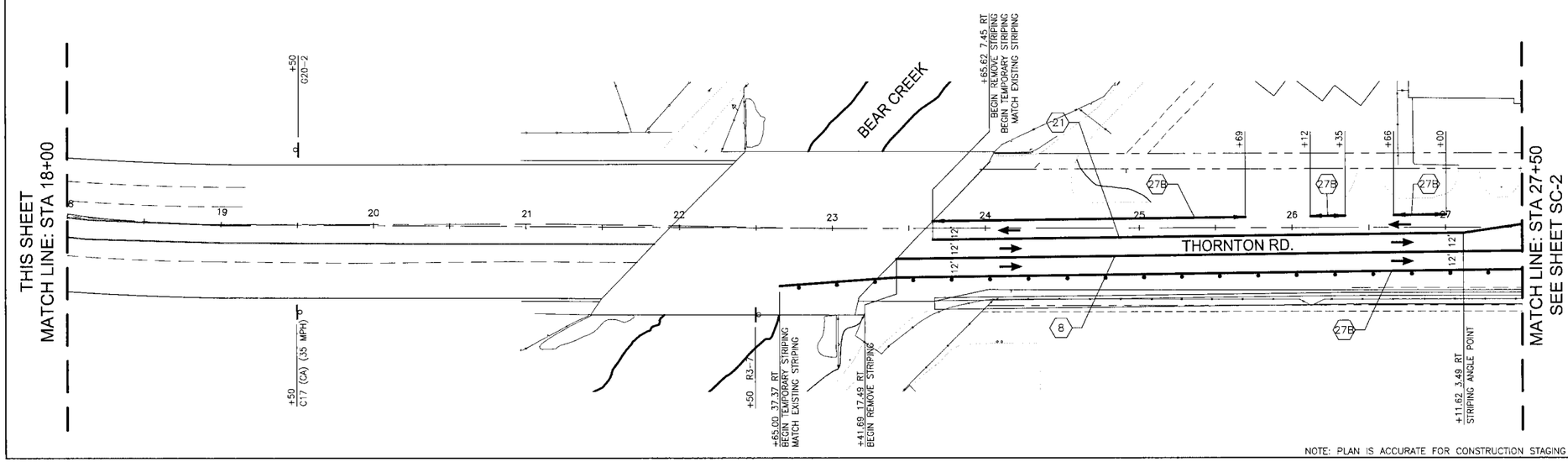
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CHANNELIZER PLACEMENT DETAIL

NTS





LEGEND – STAGE 1 CONSTRUCTION

- CONSTRUCT THIS STAGE
- DIRECTION OF TRAFFIC THIS STAGE
- CHANNELIZERS (SURFACE MOUNTED) 25 FT MAX SPACING UNLESS NOTED OTHERWISE
- (XX) TEMP. PAINT DELINEATION DETAIL
- (X) CONSTRUCTION AREA SIGN LETTER
- TYPE III BARRICADE

PROCEDURE – STAGE 1 CONSTRUCTION

(1) WIDEN SOUTHBOUND THORNTON ROAD. FINAL AC LIFT TO BE STAGE 3.

(2) CURB, GUTTER AND SIDEWALK ON WEST SIDE OF THORNTON, INCLUDING INTERSECTING STREETS.

(3) STORM DRAIN IMPROVEMENTS ON WEST SIDE OF THORNTON AND FRONTAGE ROADS.

(4) CUL-DE-SAC IMPROVEMENTS.

(5) WIDEN WEST SIDE OF LITTLE BEAR CREEK.

NOTES – STAGE 1 CONSTRUCTION

(1) CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN FOR AREAS OF MINOR CONSTRUCTION,

(2) CONTRACTOR TO PROVIDE PEDESTRIAN ACCESS THRU CONSTRUCTION AT ALL TIMES.

(3) CONTRACTOR TO MAINTAIN ACCESS TO ALL RESIDENTIAL AND COMMERCIAL DRIVEWAYS DURING CONSTRUCTION.

TRAFFIC – STAGE 1 CONSTRUCTION

(1) REMOVE EXISTING STRIPING.

(2) PROVIDE TEMPORARY PEDESTRIAN SIGNAL AT STANFIELD INTERSECTION.

(3) SHIFT ALL THRU TRAFFIC TO EAST SIDE OF EXISTING ROADWAY.

CONSTRUCTION AREA SIGNS – STAGE 1

SIGN CODE	PANEL SIZE (INCHES)	SIGN MESSAGE	NO. OF POSTS AND SIZE (INCHES)	NO. OF SIGNS
A W20-1	24 x 24	ROAD WORK AHEAD	1 – 3.5 x 5.5	19
B G20-2	18 x 36	END ROAD WORK	1 – 3.5 x 5.5	15
C C17 (CA)	24 x 24	ROAD WORK SPEED LIMIT (35)	1 – 3.5 x 5.5	14
D SC11 (CA)	30 x 42	LANE CLOSED	1 – 3.5 x 5.5	2
E C30 (CA)	30 x 30	LANE CLOSED	1 – 3.5 x 5.5	4
F W4-2	30 x 30	LANE ENDS	1 – 3.5 x 5.5	1
G W73A (CA)	36 x 36	RIGHT LANE TURNS RIGHT AHEAD	1 – 3.5 x 5.5	1

N

0 40' 60' 80'

1"=40'

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No.	Revision	By	Appd.
MMJYY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 1 CONSTRUCTION PLAN - STA. 0+00 TO STA. 27+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

STAGE 1 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
RECORD DWG:	

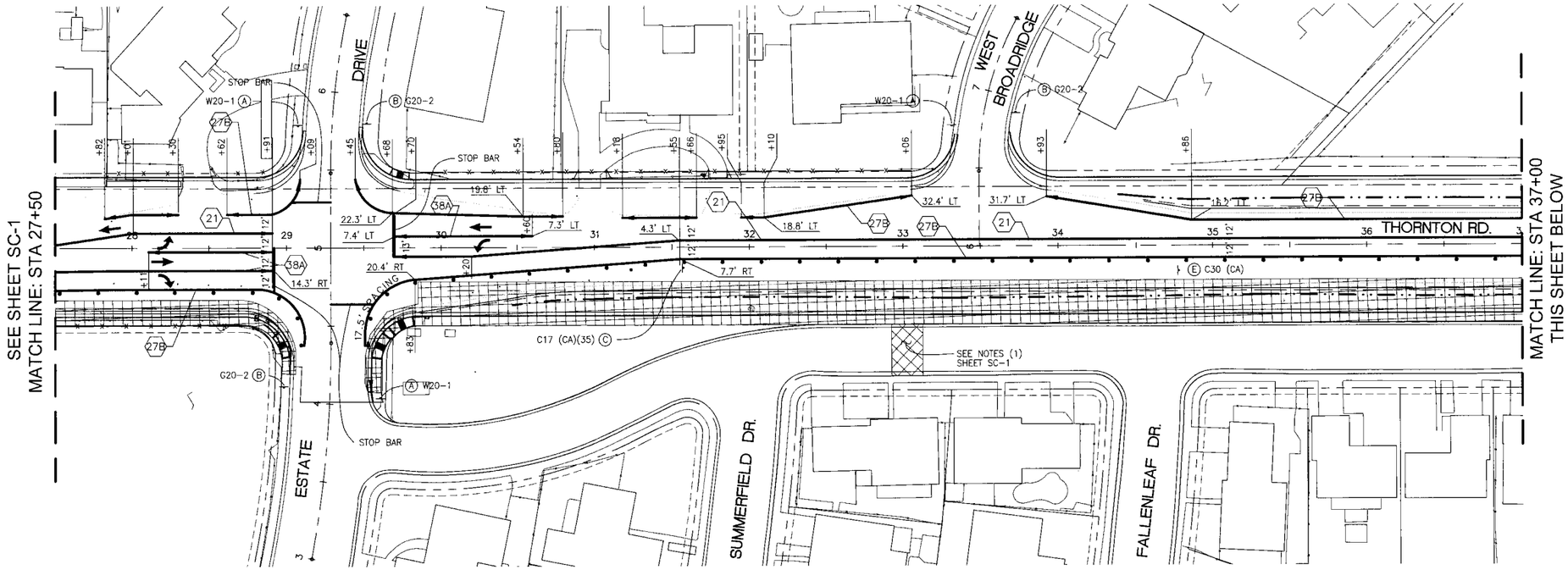
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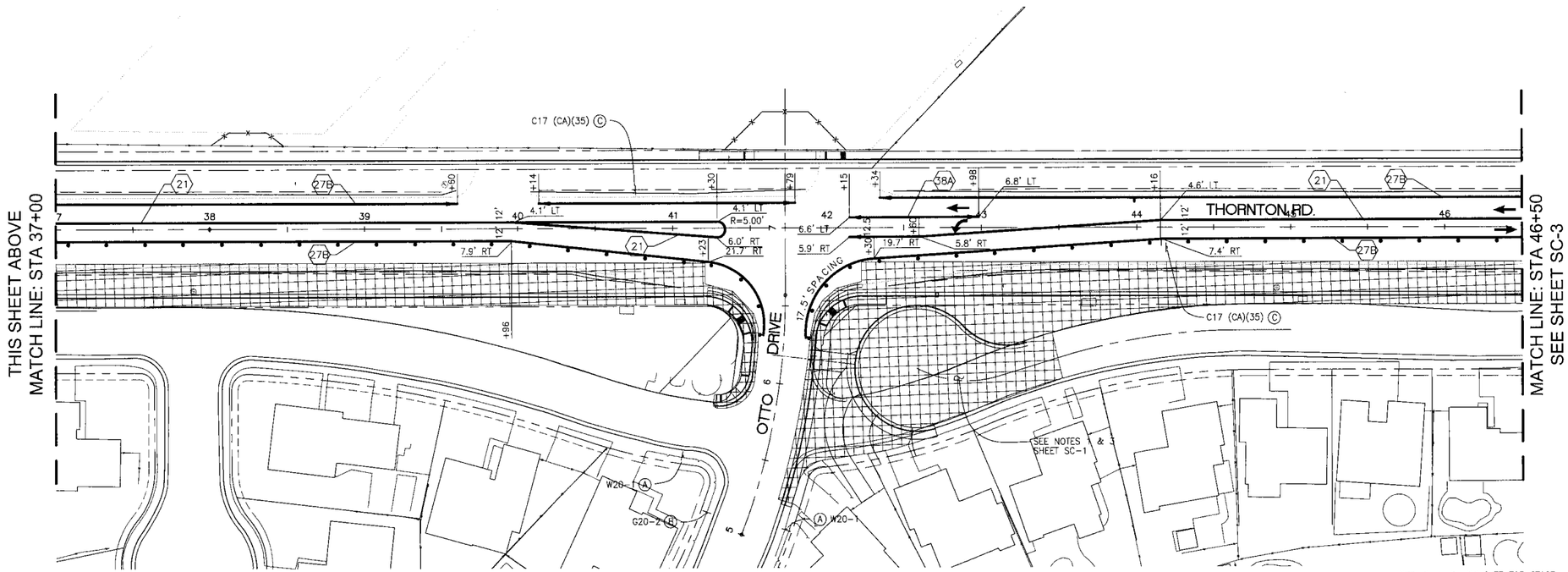
CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
SC-1
78 OF 145
JOB NO.
183910142

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NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

N

0 40' 60' 80'
1"=40'

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No.	M/D/Y	Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 1 CONSTRUCTION PLAN - STA. 27+50 TO STA. 46+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
Joy Bhattacharya
No. 68926
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 1 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
RECORD DWG:	

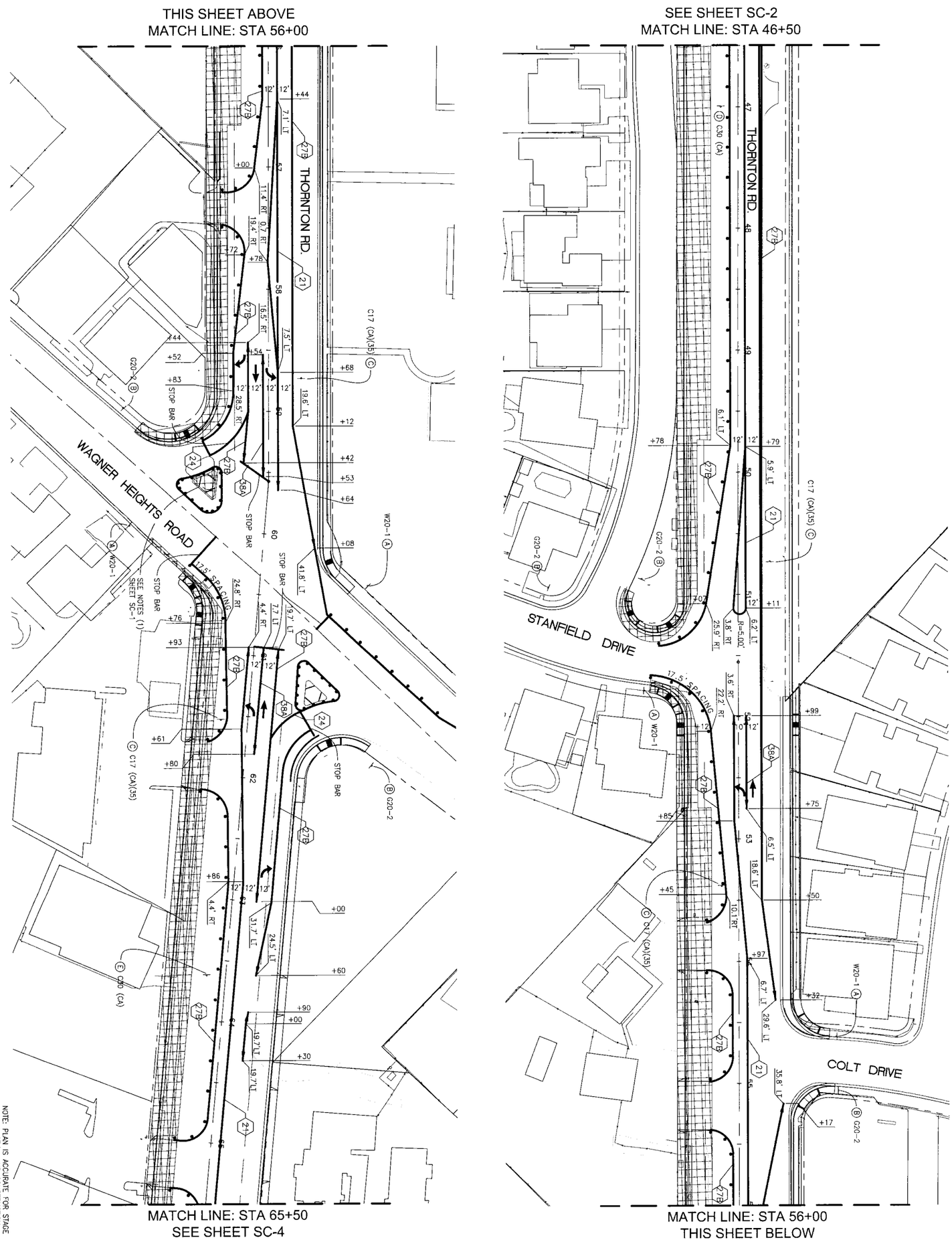
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
SC-2
79 OF 145
JOB NO.
183910142

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NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

1"=40' 0 40' 80'

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 1 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:
DESIGNED BY: KBH
DRAWN BY: MMT
CHECKED BY: JB
RECORD DWG:

APPROVED BY:
CITY ENGINEER, STOCKTON, CA
DATE:

Sheet No. Revision
SC-3
80 OF 145
JOB NO.
183910142

Permit/Seal

Project Engineer: Joy Bhattacharya
Submitted Date: April 15, 2016

Engineer's Signature
Signature Date

CALIFORNIA 811 1-800-227-2600

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title STAGE 1 CONSTRUCTION PLAN - STA. 46+50 TO STA. 65+50

No.	MM.YY	Description	By	Appd.
Revision				

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V:\1839\active\183910142 Plans\plans and xrefs\drawing\tc-1645-s1.dwg 4/15/16 4:09pm MTRIBELHORN

SEE SHEET SC-3
MATCH LINE: STA 65+50

MATCH LINE: STA 75+00
THIS SHEET BELOW

THIS SHEET ABOVE
MATCH LINE: STA 75+00

MATCH LINE: STA 84+50
SEE SHEET SC-5

NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

1"=40' 0 40' 60' 80'

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No.	MM/YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 1 CONSTRUCTION PLAN - STA. 65+50 TO STA 84+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58928
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

STAGE 1 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
RECORD DWG:	

APPROVED BY:

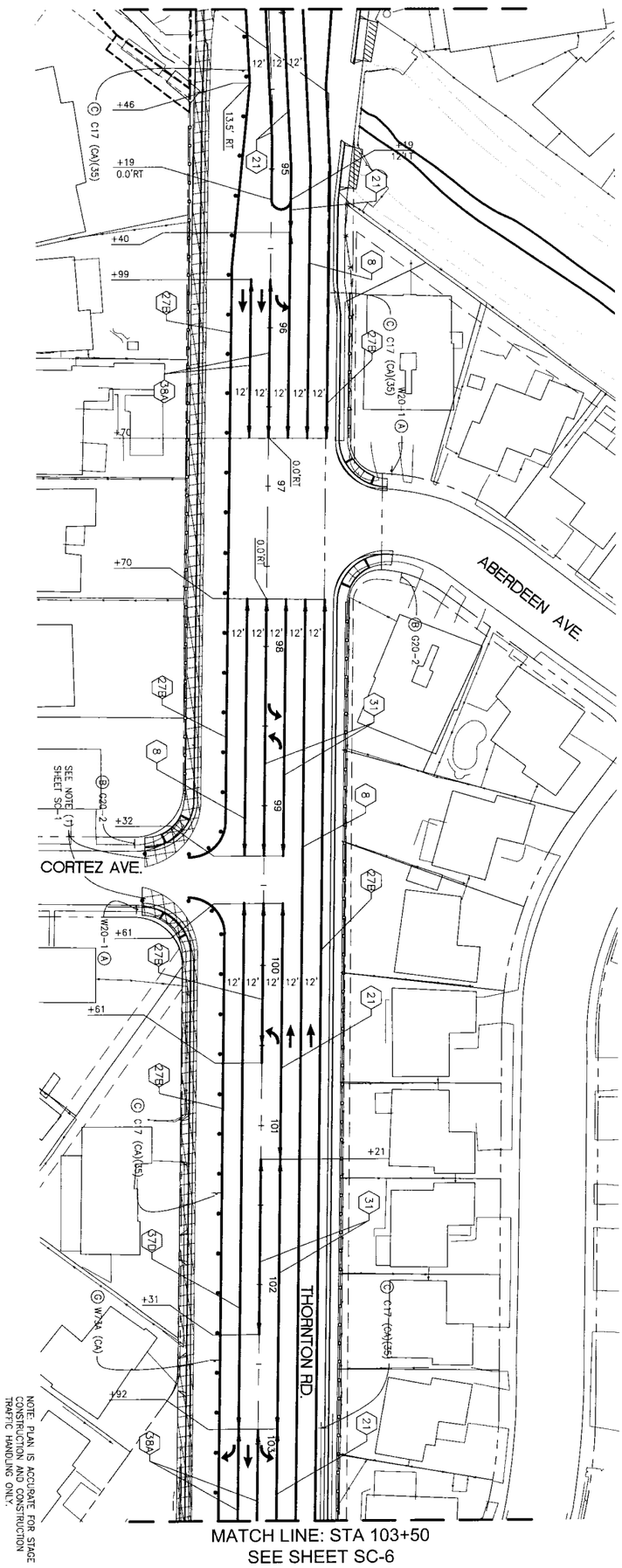
CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
SC-4
81 OF 145
JOB NO.
183910142

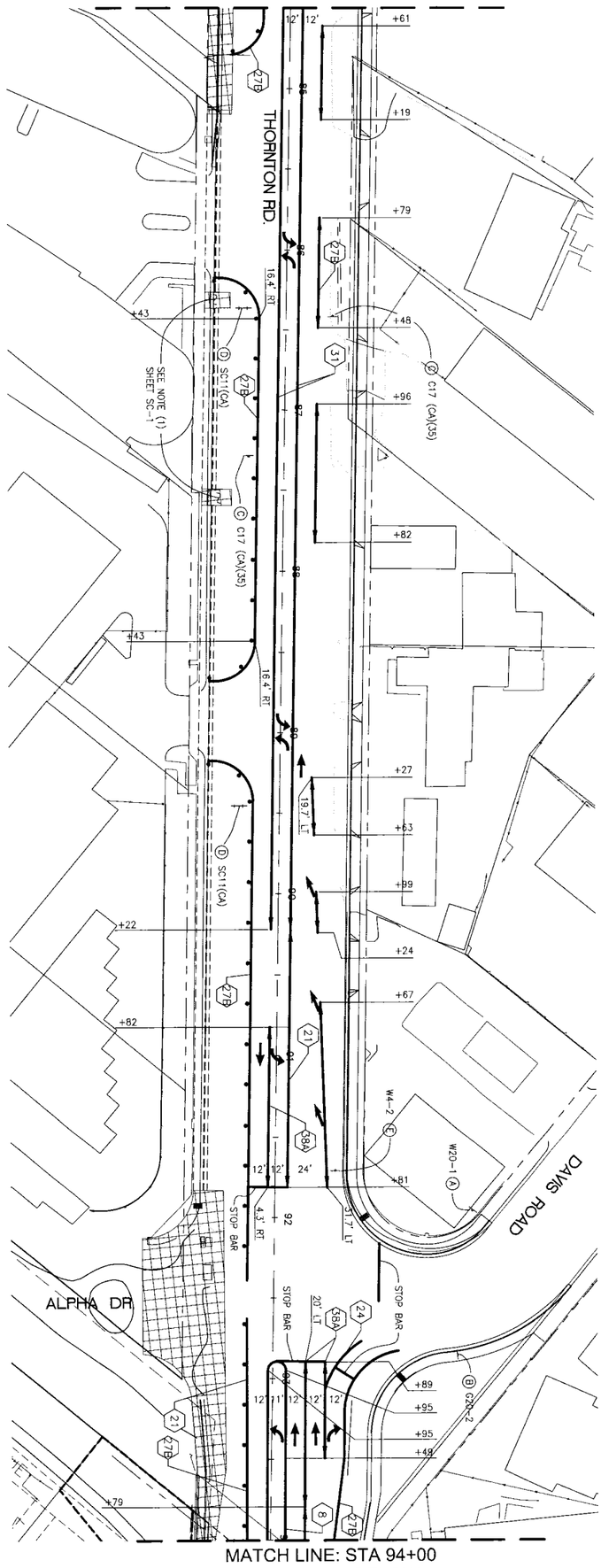
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THIS SHEET ABOVE
MATCH LINE: STA 94+00



MATCH LINE: STA 103+50
SEE SHEET SC-6

SEE SHEET SC-4
MATCH LINE: STA 84+50



MATCH LINE: STA 94+00
THIS SHEET BELOW

SCALE:	
DESIGNED BY:	ABH
DRAWN BY:	MMT
CHECKED BY:	JB
RECORD DWG	
DATE:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 1 CONSTRUCTION PLAN

Sheet No.	Revision
SC-5	
82 OF 145	
PROJECT NO. 183910142	

1"=40' 0 40' 80'

N

Project Engineer: Jay Bhatnagar
Submitted Date: April 18, 2016

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1-800-227-2600

Engineer's Signature
Signature Date:

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
CIVIL
No. 48535

Permit/Seal

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title STAGE 1 CONSTRUCTION PLAN - STA. 84+50 TO STA. 103+50

No.	MM.YY	Description	By	Appd.
Revision				

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J:\183910142\Drawings and Plans\Drawing\sc-165-st.dwg 4/18/16 4:11pm MTRIBELHORN

NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

1"=40' 0 40' 60' 80'

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No.	MM/YY	Description	By	Appd.
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 1 CONSTRUCTION PLAN - STA. 103+50 TO END

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 1 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
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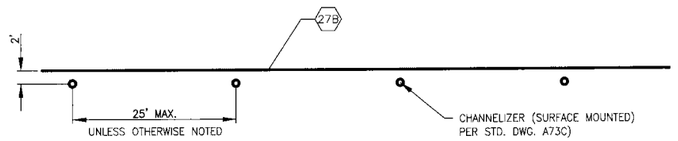
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CITY ENGINEER STOCKTON, CA.

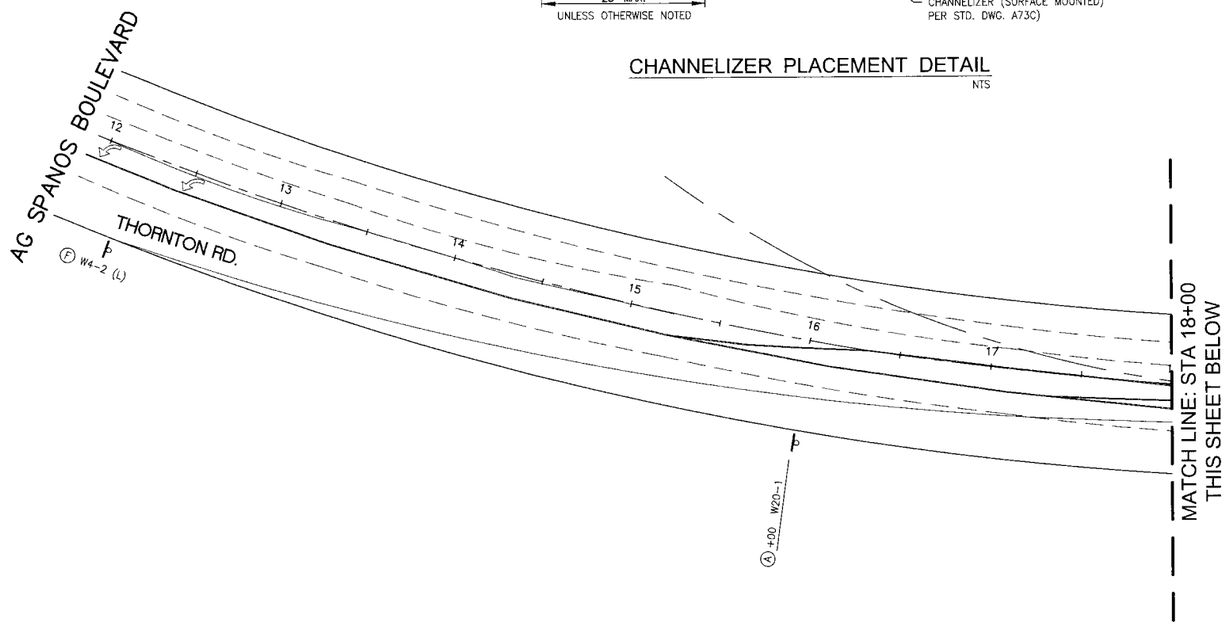
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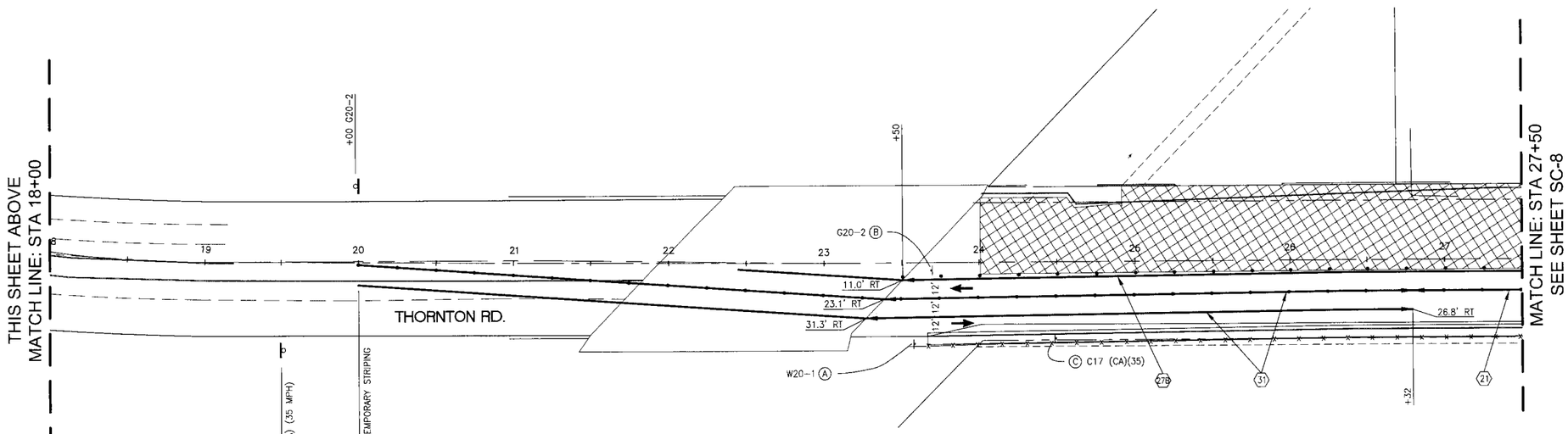
Sheet No. Revision
SC-6
83 OF 145
JOB NO.
183910142

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CHANNELIZER PLACEMENT DETAIL
NTS





NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

LEGEND – STAGE 2 CONSTRUCTION

- CONSTRUCT THIS STAGE
- DIRECTION OF TRAFFIC THIS STAGE
- CHANNELIZERS (SURFACE MOUNTED) 25 FT MAX SPACING UNLESS NOTED OTHERWISE
- (XX) TEMP. PAINT DELINEATION DETAIL
- (X) CONSTRUCTION AREA SIGN LETTER
- TYPE III BARRICADE

PROCEDURE – STAGE 2 CONSTRUCTION

(1) WIDEN SOUTHBOUND THORNTON ROAD. FINAL AC LIFT TO BE STAGE 3.

(2) CURB, GUTTER AND SIDEWALK ON EAST SIDE OF THORNTON, INCLUDING INTERSECTING STREETS.

(3) WIDEN EAST SIDE OF LITTLE BEAR CREEK.

NOTES – STAGE 2 CONSTRUCTION

(1) CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN FOR AREAS OF MINOR CONSTRUCTION.

(2) CONTRACTOR TO PROVIDE PEDESTRIAN ACCESS THRU CONSTRUCTION AT ALL TIMES.

(3) CONTRACTOR TO MAINTAIN ACCESS TO ALL RESIDENTIAL AND COMMERCIAL DRIVEWAYS DURING CONSTRUCTION.

TRAFFIC – STAGE 2 CONSTRUCTION

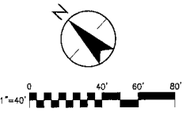
(1) SHIFT ALL THRU TRAFFIC TO WEST SIDE OF EXISTING ROADWAY.

(2) REMOVE EXISTING STRIPING.

(3) PROVIDE TEMPORARY PEDESTRIAN SIGNAL AT STANFIELD INTERSECTION.

CONSTRUCTION AREA SIGNS – STAGE 2

SIGN CODE	PANEL SIZE (INCHES)	SIGN MESSAGE	NO. OF POSTS AND SIZE (INCHES)	NO. OF SIGNS
A W20-1	24 x 24	ROAD WORK AHEAD	1 – 3.5 x 5.5	20
B G20-2	18 x 36	END ROAD WORK	1 – 3.5 x 5.5	20
C C17 (CA)	24 x 24	ROAD WORK SPEED LIMIT (35)	1 – 3.5 x 5.5	21
D SC11 (CA)	30 x 42	LANE CLOSED	1 – 3.5 x 5.5	–
E C30 (CA)	30 x 30	LANE CLOSED	1 – 3.5 x 5.5	7
F W4-2	30 x 30	LANE ENDS	1 – 3.5 x 5.5	1
G W73A (CA)	36 x 36	RIGHT LANE TURNS RIGHT AHEAD	1 – 3.5 x 5.5	–



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No.	MM/YY	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 2 CONSTRUCTION PLAN - STA. 0+00 TO STA. 27+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68926
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

STAGE 2 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
RECORD DWG:	

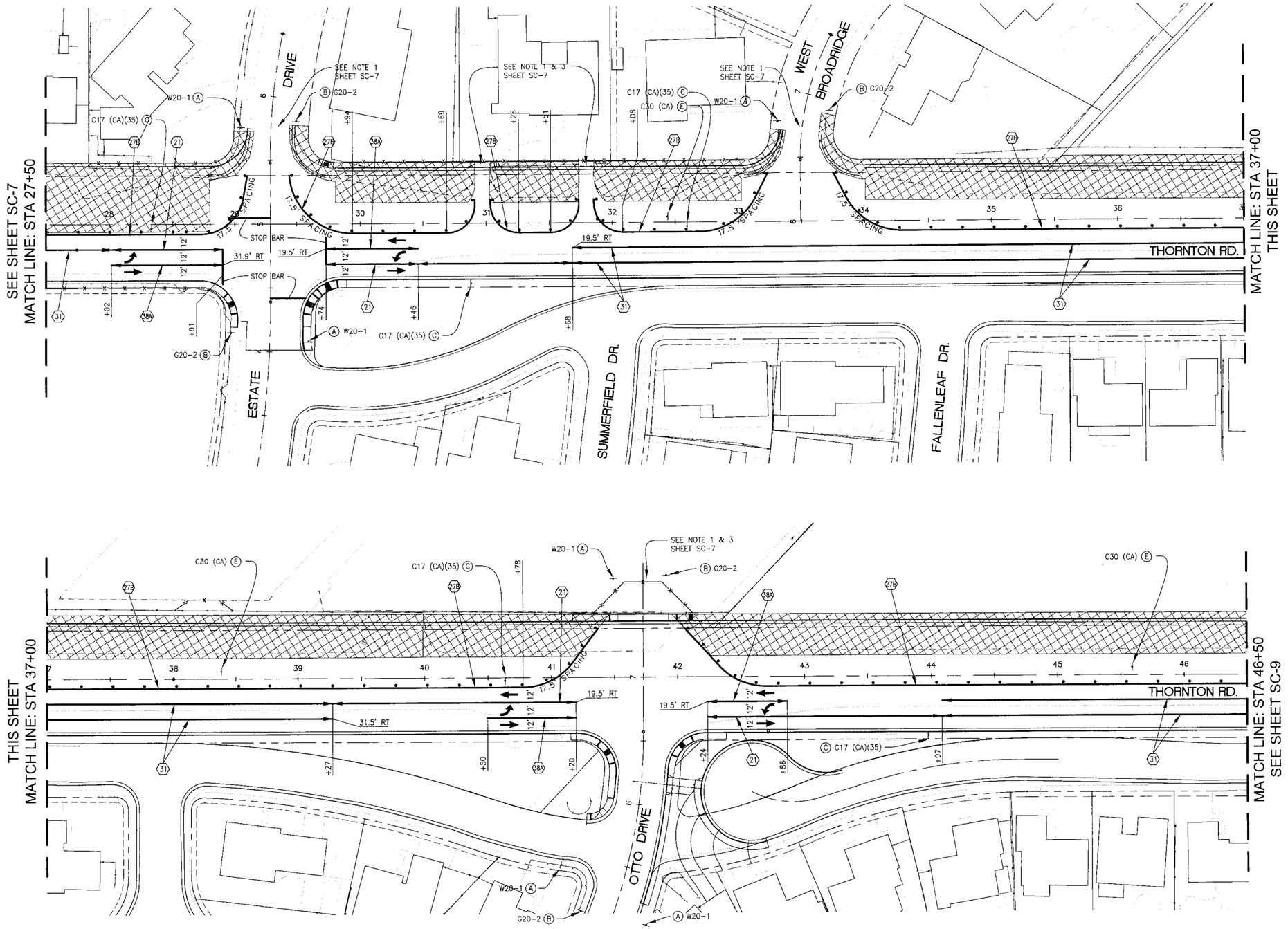
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
SC-7
84 OF 145
JOB NO.
183910142

V:\183\active\183910142\Plans\plans and profile\Stage2.dwg 4/14/16 4:12pm MTREEL1



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www.stantec.com

No.	By	Description	Appd.
MMJY		Revision	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 2 CONSTRUCTION
PLAN - STA. 27+50 TO STA.
46+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

N

0 40' 60' 80'
1"=40'

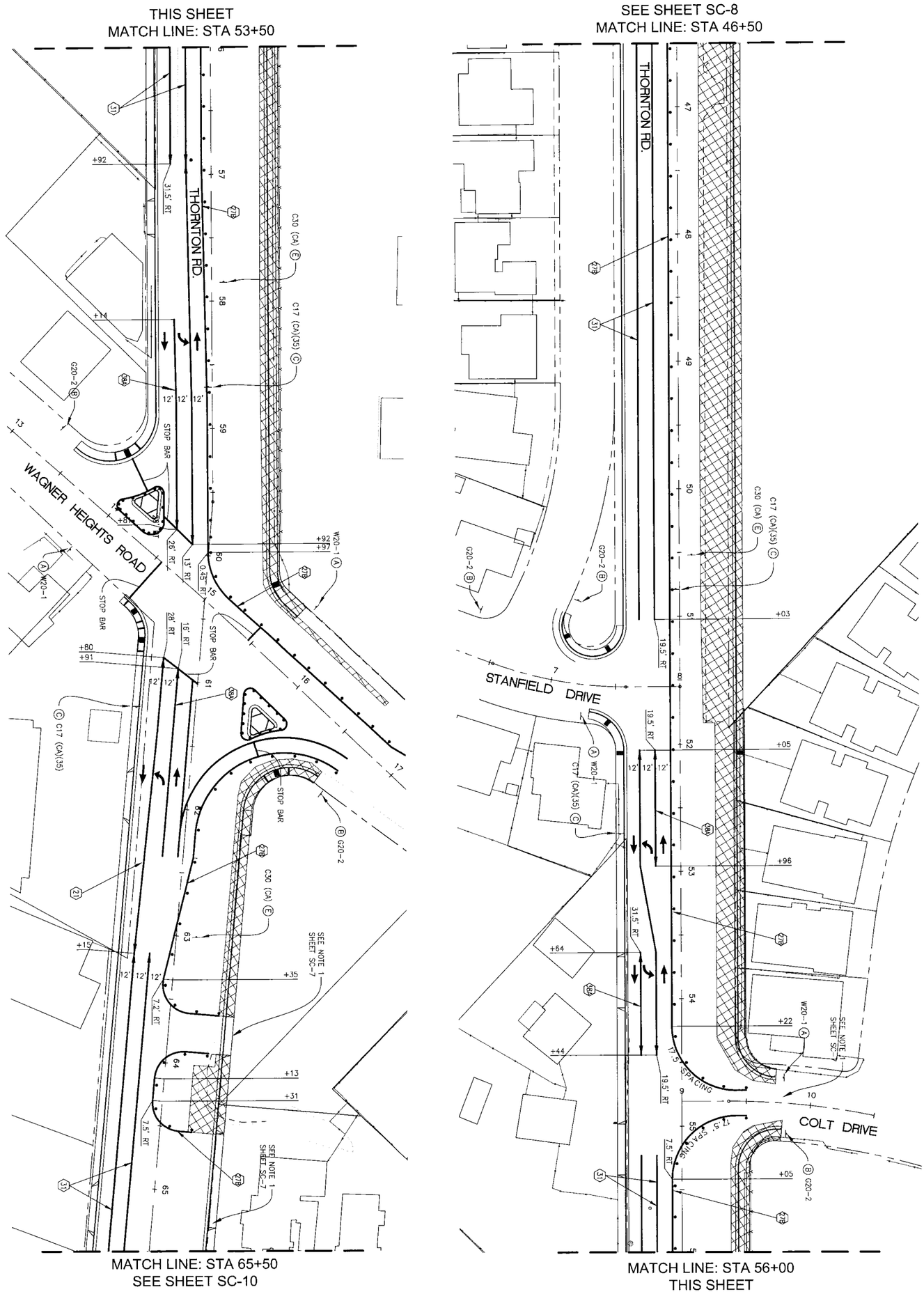
THORNTON ROAD WIDENING
PROJECT
Stockton, California

STAGE 2 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: ABH		SC-8
DRAWN BY: MMT		85 OF 145
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

J:\183910142 Thornton Widening\Design\Plans\Sheets\SC-108-12.dwg 4/19/16 4:12pm MMILLER



NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 2 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:
DESIGNED BY: ABH
DRAWN BY: MM
CHECKED BY: JB
RECORD DWG

APPROVED BY:
DATE: CITY ENGINEER, STOCKTON, CA.

Sheet No. Revision
SC-9
86 OF 145
JOB NO.
183910142

Project Engineer: Jay Bhattacharya
Submittal Date: April 18, 2016

Engineer's Signature Date:

Permit/Seal

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

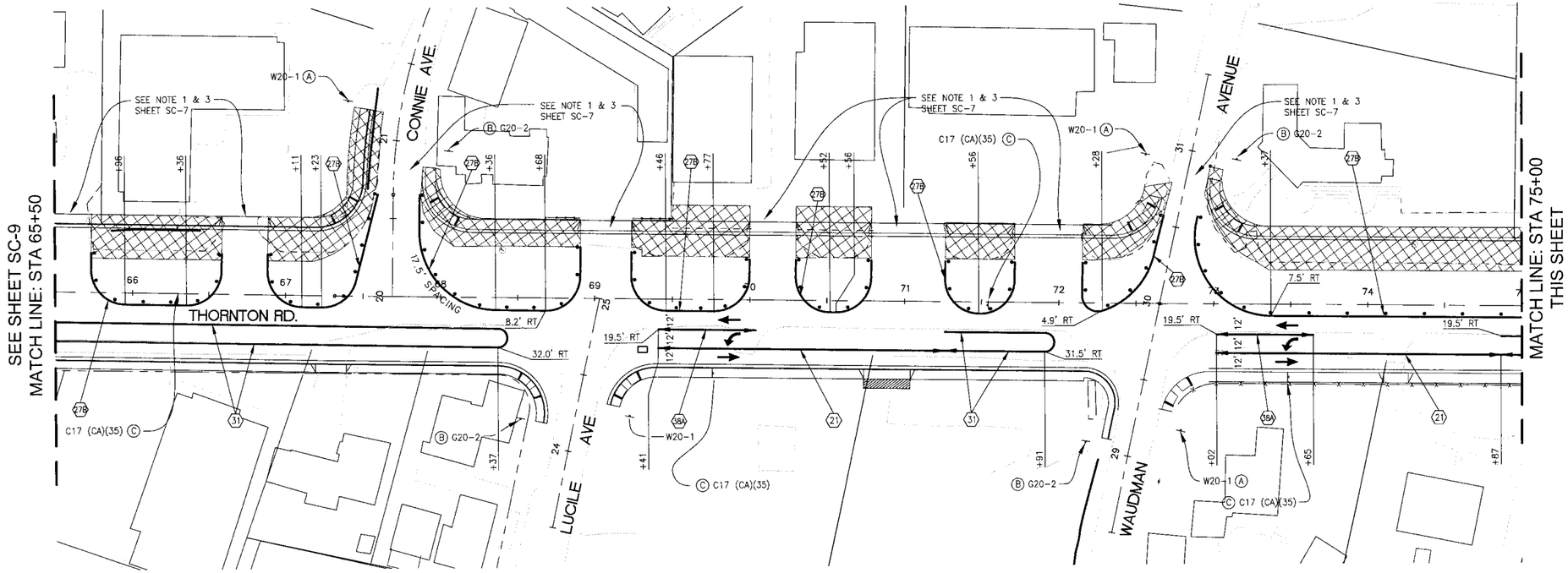
Title STAGE 2 CONSTRUCTION PLAN - STA. 46+50 TO STA. 65+50

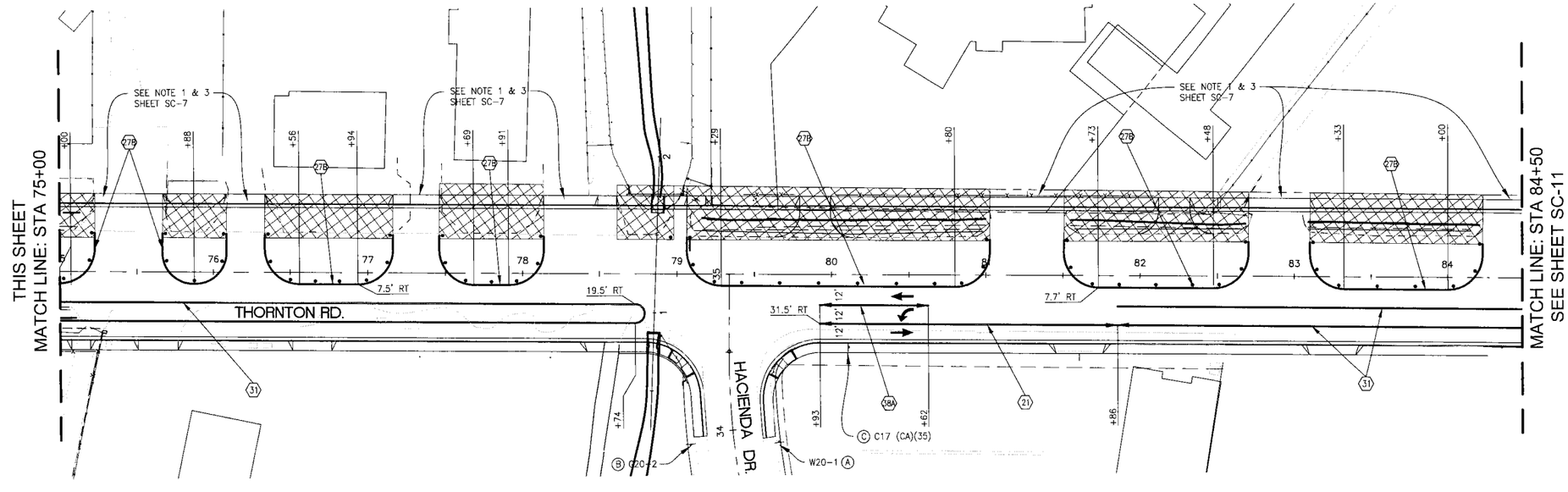
No.	MM.YY	Description	By	Appd.
Revision				

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I:\183910142\Drawings and Models\Drawing1(C-1(6)-12.dwg 4/14/16 4:13pm MTREDEHORN





NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

N

0 40' 60' 80'

1"=40'

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		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 2 CONSTRUCTION
PLAN - STA. 65+50 TO STA. 84+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

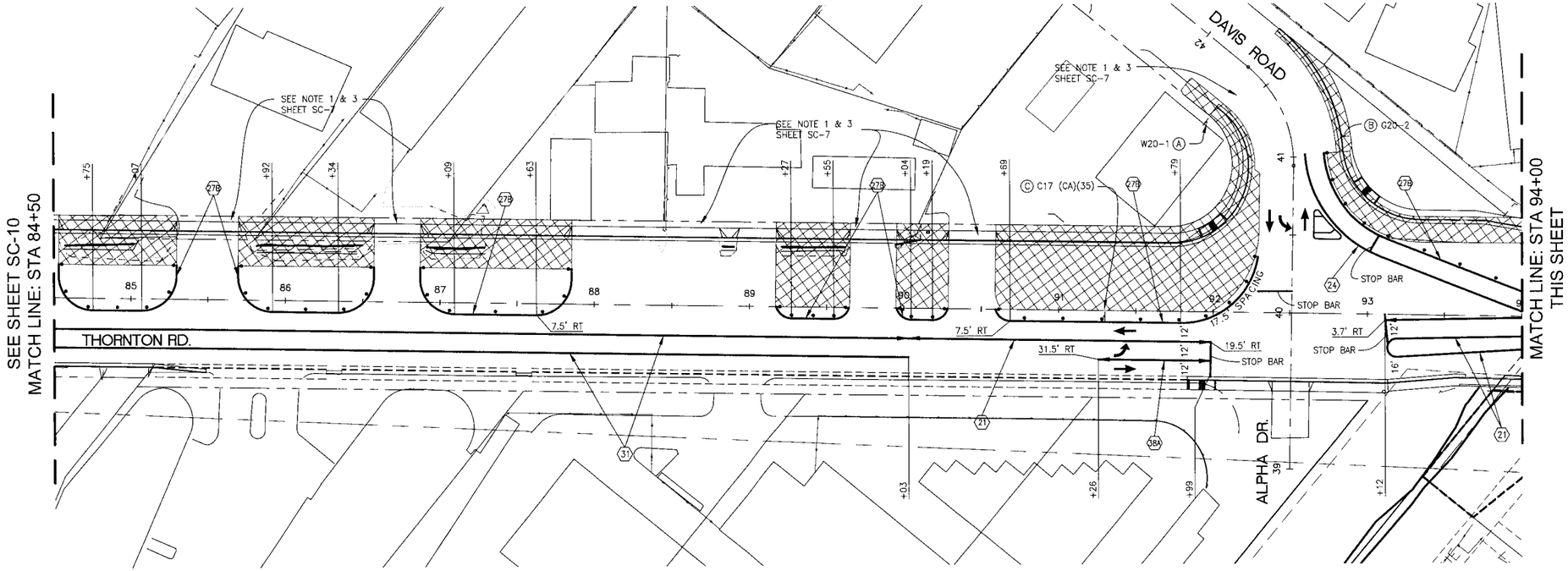
THORNTON ROAD WIDENING
PROJECT
Stockton, California

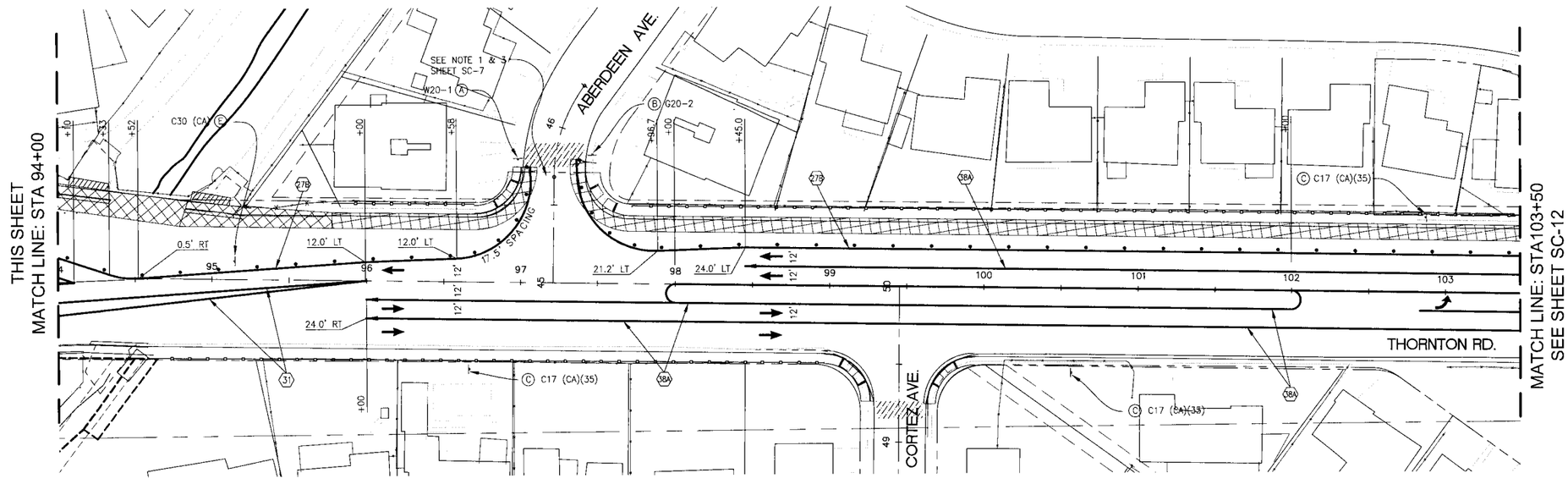
STAGE 2 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:	Sheet No. Revision
DESIGNED BY: ABH		SC-10
DRAWN BY: MMT		87 OF 145
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY

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No.	MM/YY	Revision / Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 2 CONSTRUCTION PLAN - STA. 84+50 TO STA. 103+50

Permit-Seal

JOY BHATTACHARYA
No. 68928
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date.

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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

N

1"=40' 0 40' 60' 80'

THORNTON ROAD WIDENING
PROJECT
Stockton, California

STAGE 2 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
RECORD DWG:	

APPROVED BY:

CITY ENGINEER STOCKTON, CA.

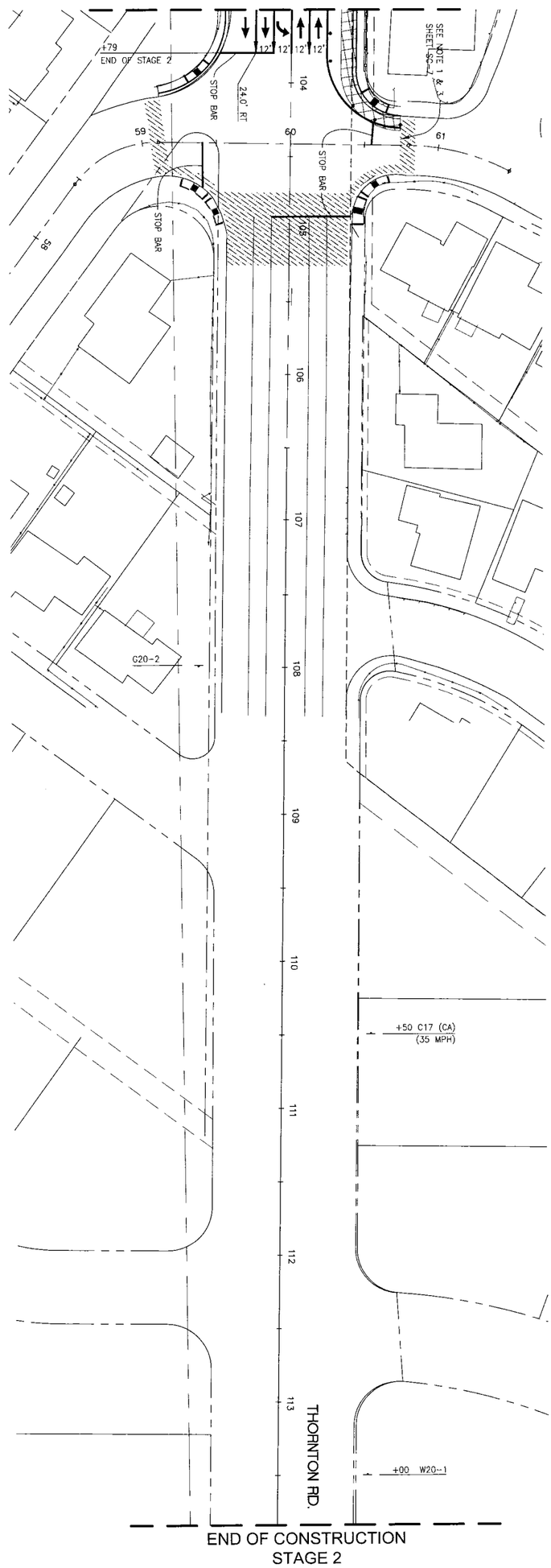
DATE:

Sheet No. Revision
SC-11
88 OF 145

JOB NO.
183910142

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SEE SHEET SC-11
MATCH LINE: STA 103+50



END OF CONSTRUCTION
STAGE 2

NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

1"=40' 0 40' 80' 80'

N

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 2 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:
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RECORD DWG:

APPROVED BY:
CITY ENGINEER STOCKTON, CA.
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Sheet No. Revision
89 OF 145
SC-12
JOB NO.
183910142

Project Engineer: Joy Bhattacharyya
Submitted Date: April 18, 2016

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1-800-227-2600

Engineer's Signature
Signature Date:

Permit/Seal
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
CIVIL

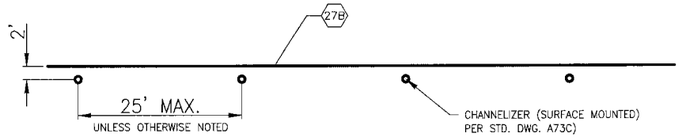
Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 2 CONSTRUCTION PLAN - STA. 103+50 TO END

No.	MM.YY	Description	By	Appd.
Revision				

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CHANNELIZER PLACEMENT DETAIL

NTS

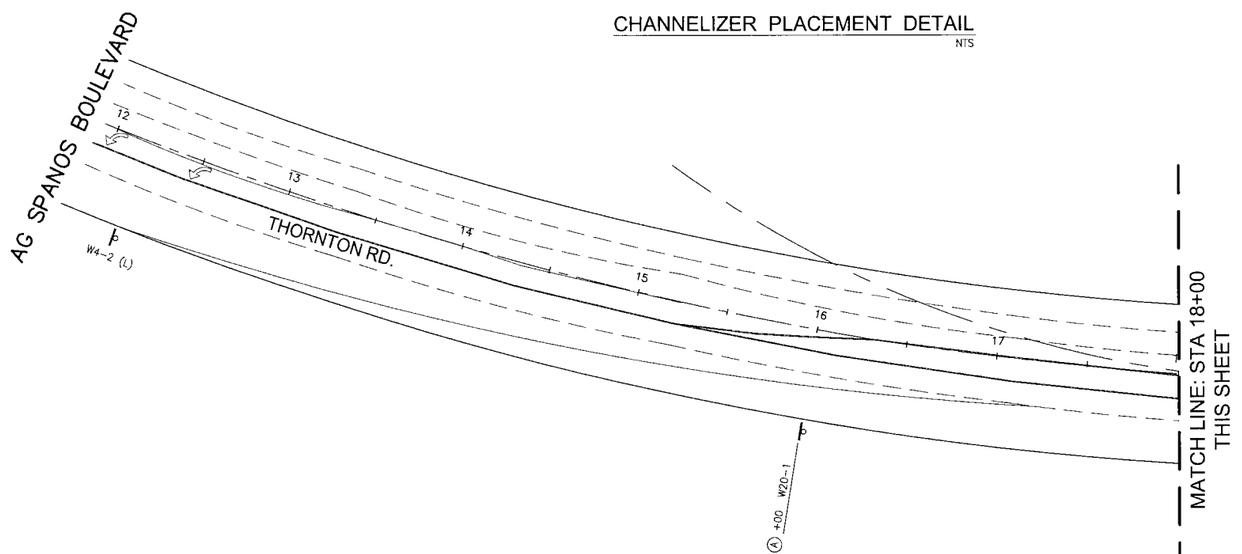
LEGEND – STAGE 3 CONSTRUCTION

- CONSTRUCT THIS STAGE
- DIRECTION OF TRAFFIC THIS STAGE
- CHANNELIZERS (SURFACE MOUNTED) 25 FT. MAX SPACING UNLESS NOTED OTHERWISE
- (XX) TEMP. PAINT DELINEATION DETAIL
- CONFORM AREA (MINOR CONSTRUCTION)

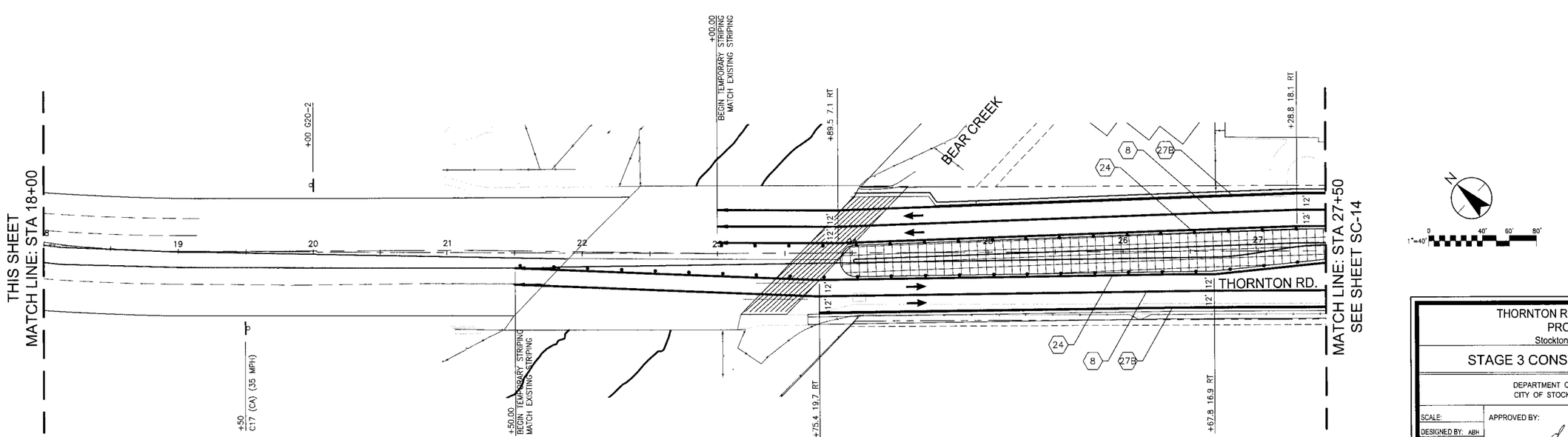
NOTES – STAGE 3 CONSTRUCTION

(1) CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN FOR AREAS OF MINOR CONSTRUCTION.

(2) CONTRACTOR TO PROVIDE PEDESTRIAN ACCESS THRU CONSTRUCTION AT ALL TIMES.



CONSTRUCTION AREA SIGNS – STAGE 3				
SIGN CODE	PANEL SIZE (INCHES)	SIGN MESSAGE	NO. OF POSTS AND SIZE (INCHES)	NO. OF SIGNS
A W20-1	24 x 24	ROAD WORK AHEAD	1 – 3.5 x 5.5	2
B G20-2	18 x 36	END ROAD WORK	1 – 3.5 x 5.5	5
C C17 (CA)	24 x 24	ROAD WORK SPEED LIMIT (35)	1 – 3.5 x 5.5	2
F W4-2	30 x 30	LANE ENDS	1 – 3.5 x 5.5	1



NOTE: PLAN IS ACCURATE FOR CONSTRUCTION STAGING ONLY.

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1	MMT		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 3 CONSTRUCTION PLAN - STA. 0+00 TO STA. 27+50

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 64928 Ex. 6-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 3 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	
RECORD DWG:	

APPROVED BY:

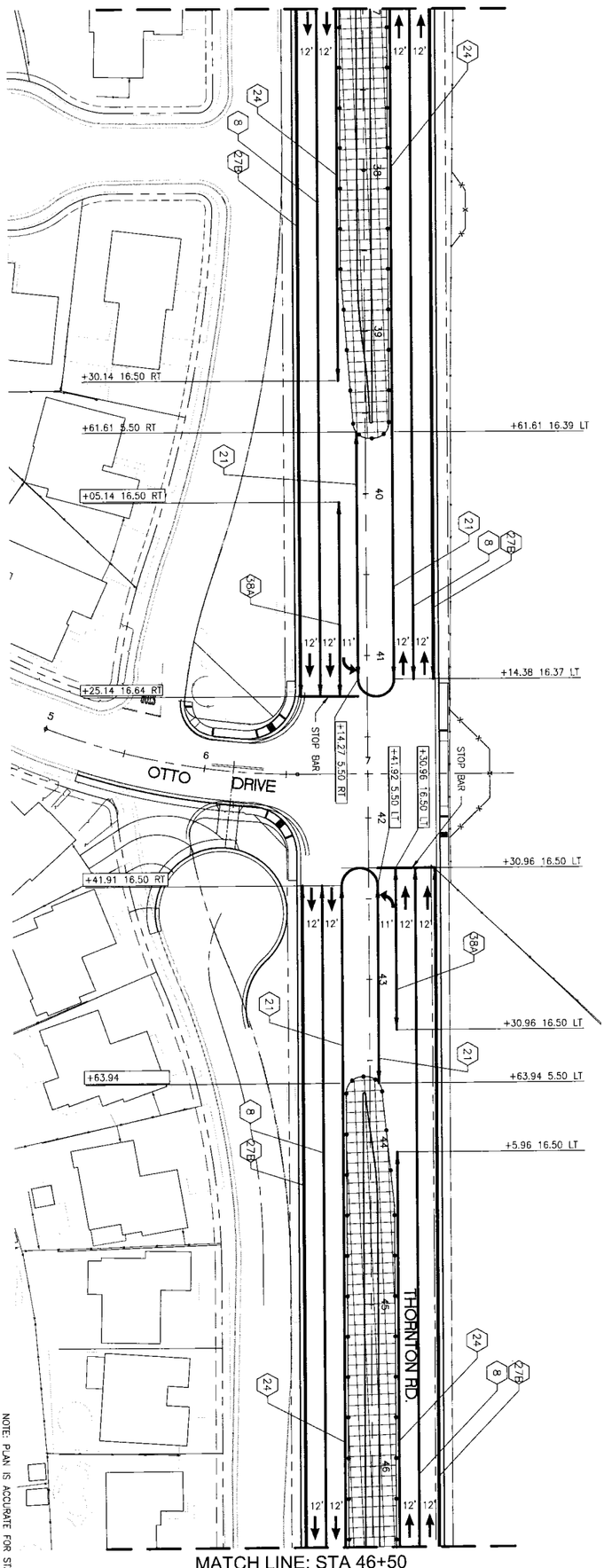
CITY ENGINEER STOCKTON, CA.

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Sheet No. Revision
SC-13
90 OF 145
JOB NO.
183910142

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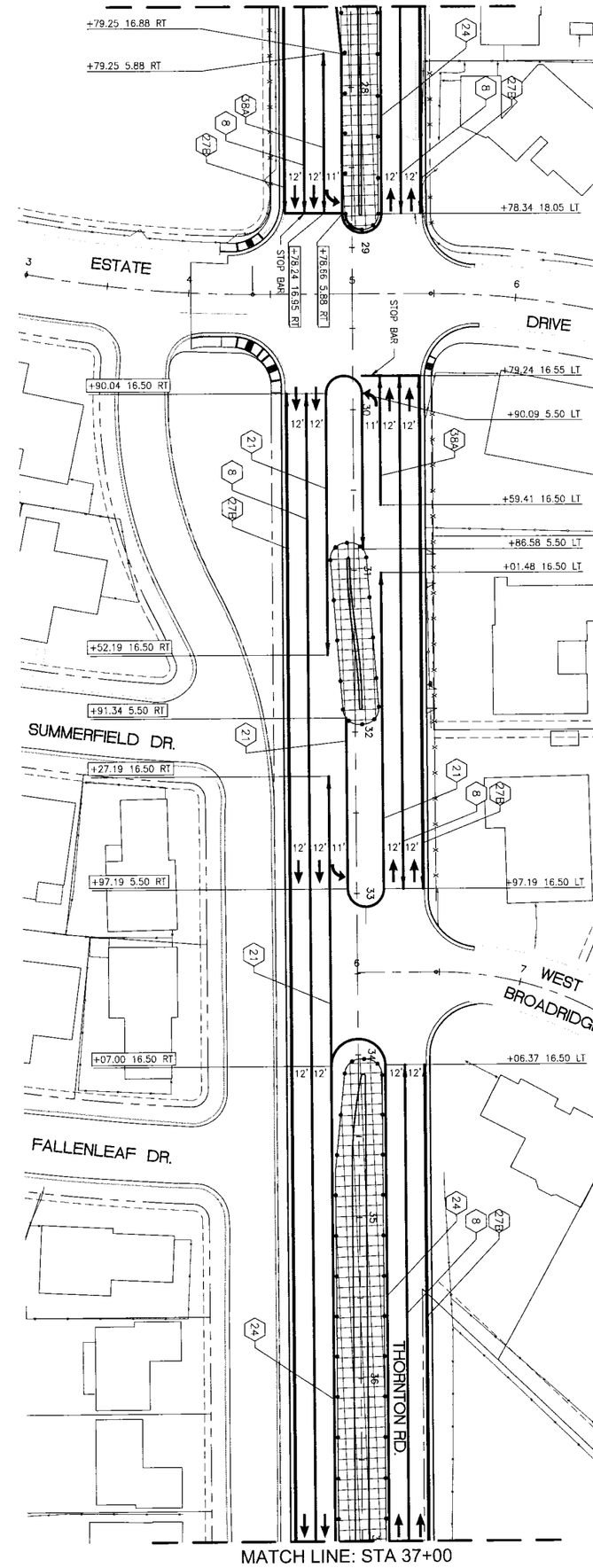
THIS SHEET
MATCH LINE: STA 37+00



NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

MATCH LINE: STA 46+50
SEE SHEET SC-15

SEE SHEET SC-13
MATCH LINE: STA 27+50



MATCH LINE: STA 37+00
THIS SHEET

1"=40'

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 3 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:
DESIGNED BY: Abi
DRAWN BY: MHT
CHECKED BY: JB
RECORD DWG:

APPROVED BY:
DATE:
CITY ENGINEER, STOCKTON, CA.

Sheet No. Revision
SC-14
91 OF 145
JOB NO.
163910142

Project Engineer's Seal: Professional Engineer
Submitted Date: April 18, 2016

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Engineer's Signature Date:

Permit Seal: REGISTERED PROFESSIONAL ENGINEER JOE BARTANEN NO. 58578 STATE OF CALIFORNIA CIVIL

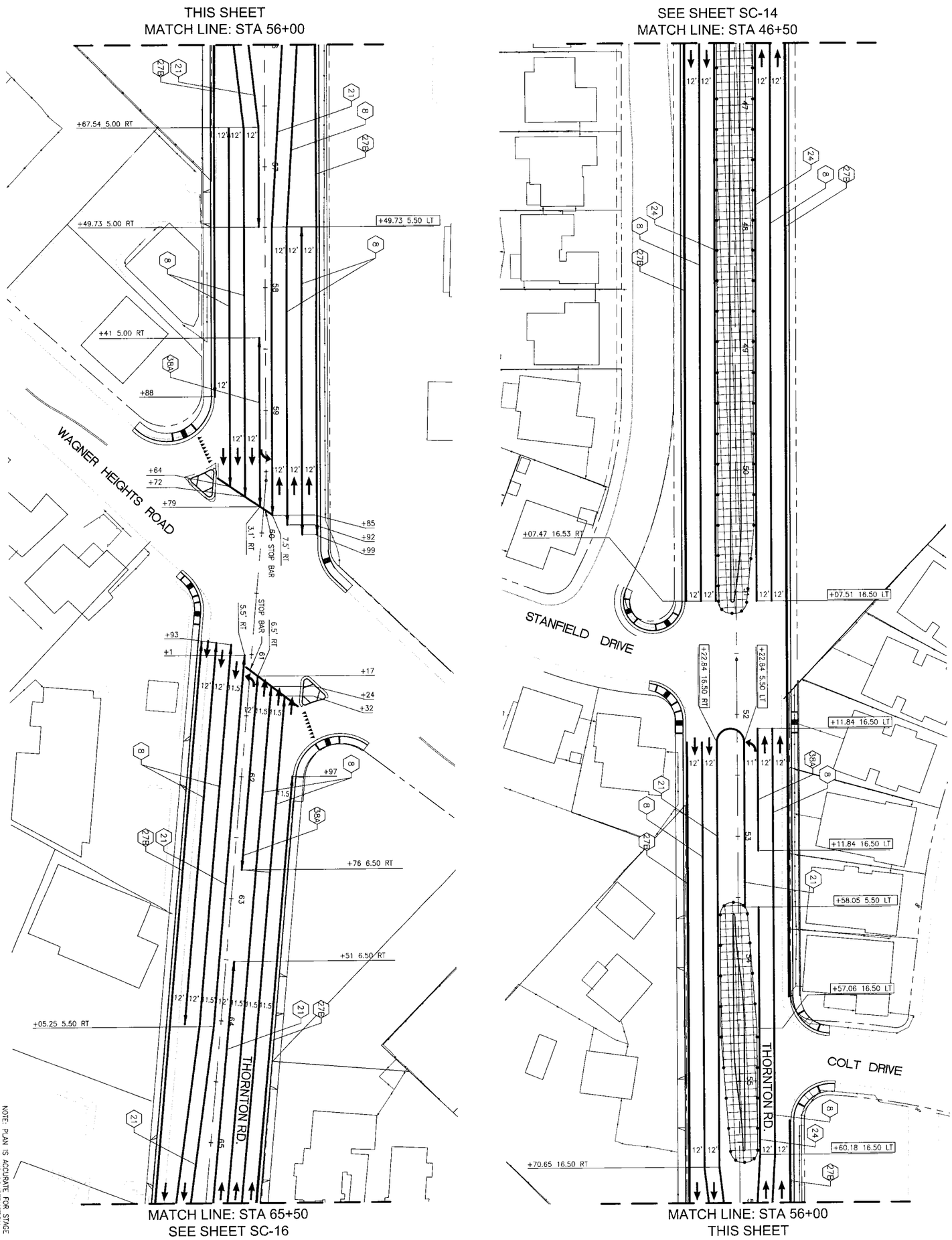
Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title STAGE 3 CONSTRUCTION PLAN - STA. 27+50 TO STA. 46+50

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NOTE: PLAN IS ACCURATE FOR STAGE CONSTRUCTION AND CONSTRUCTION TRAFFIC HANDLING ONLY.

1"=40' 0 40' 80'

N

THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 3 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

APPROVED BY:

CITY ENGINEER STOCKTON, CA. DATE

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RECORD DWG:

Sheet No. Revision
SC-15
92 OF 145

JOB NO.
183910142

Project Engineer: Jay Brattkehorst
Submitted Date: April 18, 2016

Engineer's Signature
Signature Date:

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Permit Seal
REGISTERED PROFESSIONAL ENGINEER
JAY BRATTKEHORST
No. 58215
EXP. 9-30-17
STATE OF CALIFORNIA
CIVIL

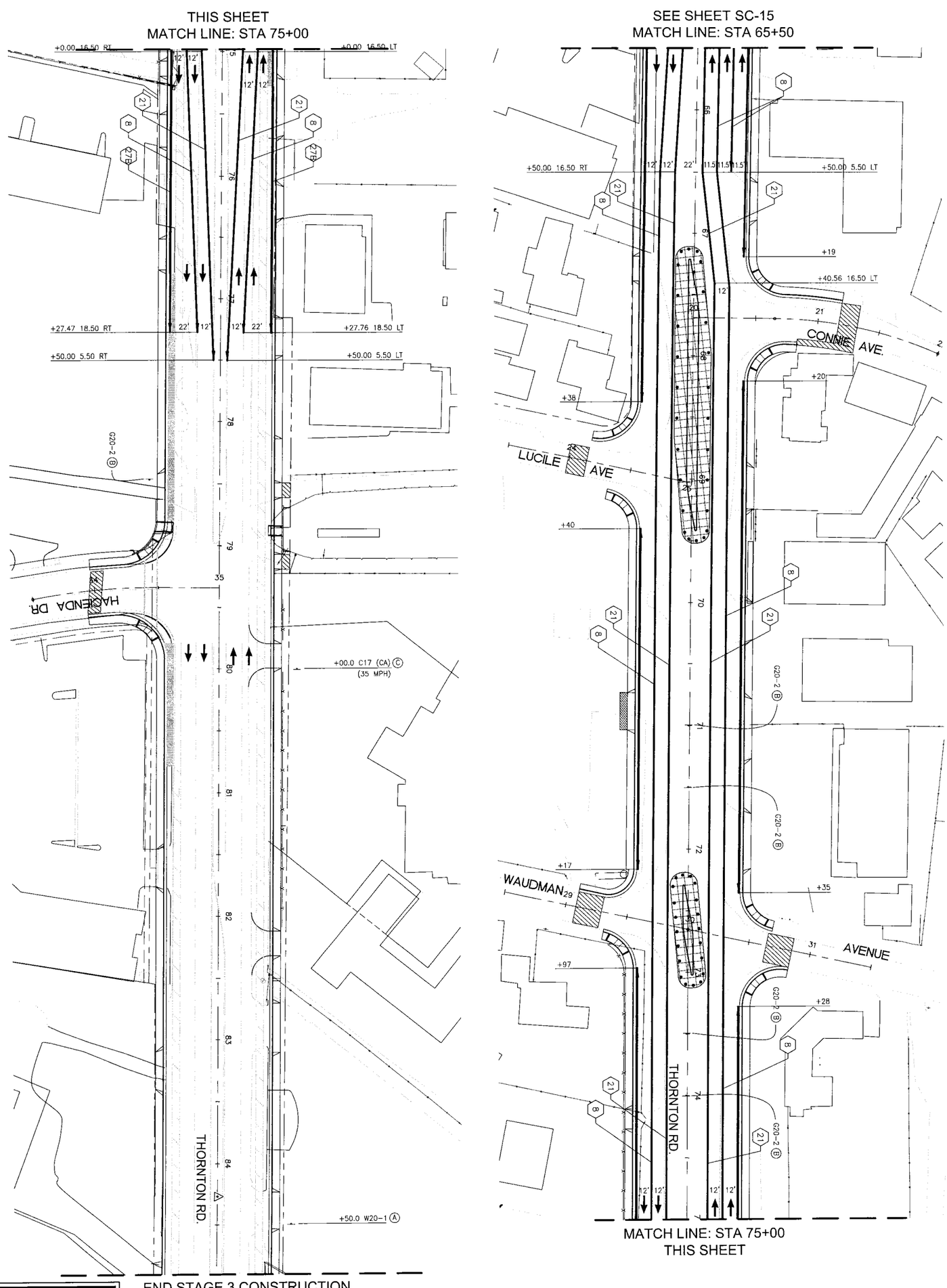
Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STAGE 3 CONSTRUCTION PLAN - STA. 46+50 TO STA. 65+50

No.	MM.YY	Description	By	Appd.
Revision				

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THORNTON ROAD WIDENING PROJECT
Stockton, California

STAGE 3 CONSTRUCTION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

APPROVED BY:

CITY ENGINEER, STOCKTON, CA.

DATE:

SCALE:
DESIGNED BY: ABH
DRAWN BY: MAT
CHECKED BY: JB
RECORD DWG

Sheet No. Revision
SC-16
93 OF 145

JOB NO.
183910142

Project Engineer's Initials: ptrotsthorpe
Submitted Date: April 18, 2016

Engineer's Signature
Signature Date

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REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
CIVIL
No. 58517

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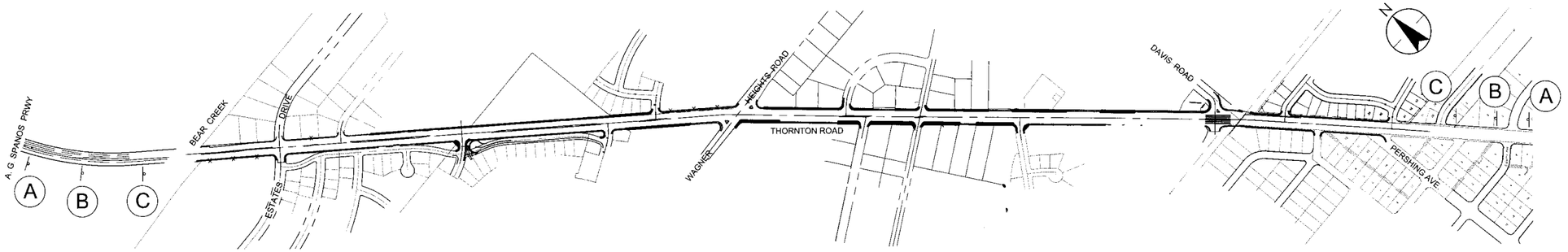
Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

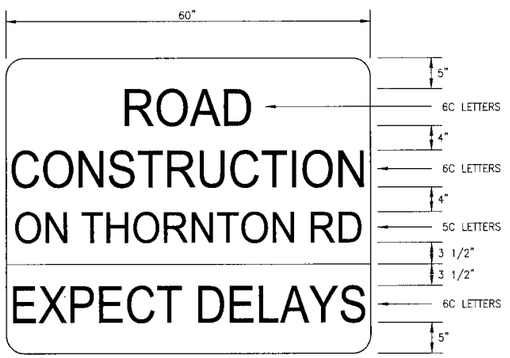
Title
STAGE 3 CONSTRUCTION PLAN - STA. 65+50 TO END

No.	MM.YY	Description	By	Appd.
Revision				

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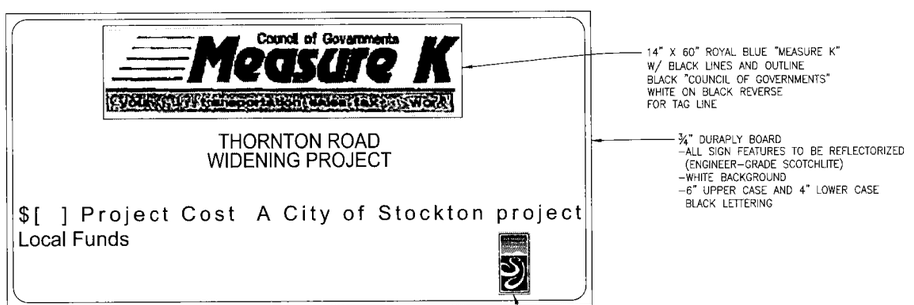
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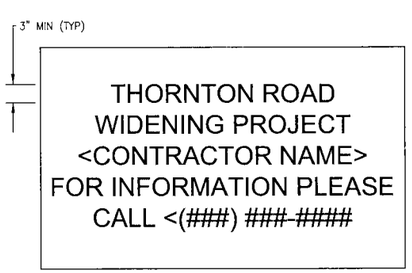


-BORDER WIDTH = 7/8"
-MARGIN WIDTH = 5/8"
-BLACK ON ORANGE
-REFLECTIVE BACKGROUND

DETAIL (A)
C11 (MOD)



DETAIL (C)
MEASURE K FUNDING SIGN



-BLACK ON ORANGE
-REFLECTIVE BACKGROUND

DETAIL (B)
INFORMATIONAL SIGN

	SIGN CODE	PANEL SIZE IN X IN
A	C11 (MOD)	60" X 48"
B	INFORMATIONAL	60" X 36"
C	MEASURE K	96" X 48"

NOTES:
1. EXACT LOCATION AND POSITIONS OF TEMPORARY ROADSIDE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
2. CONTRACTOR SHALL REMOVE AL TEMPORARY ROADSIDE SIGNS AFTER COMPLETION OF THIS PROJECT.

NOTE: THIS PLAN IS ACCURATE FOR CONSTRUCTION AREA SIGNS ONLY.

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
CONSTRUCTION AREA SIGNS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature

Signature Date:

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Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

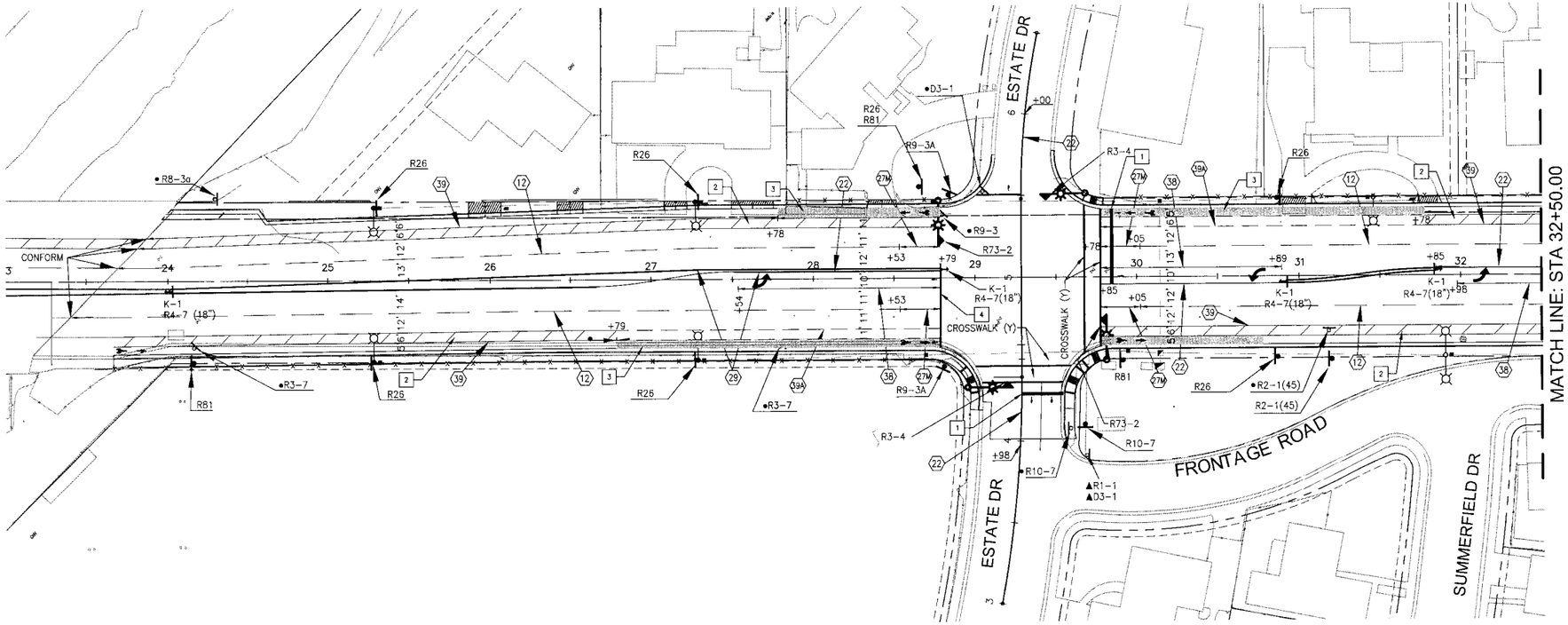
CONSTRUCTION AREA SIGNS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

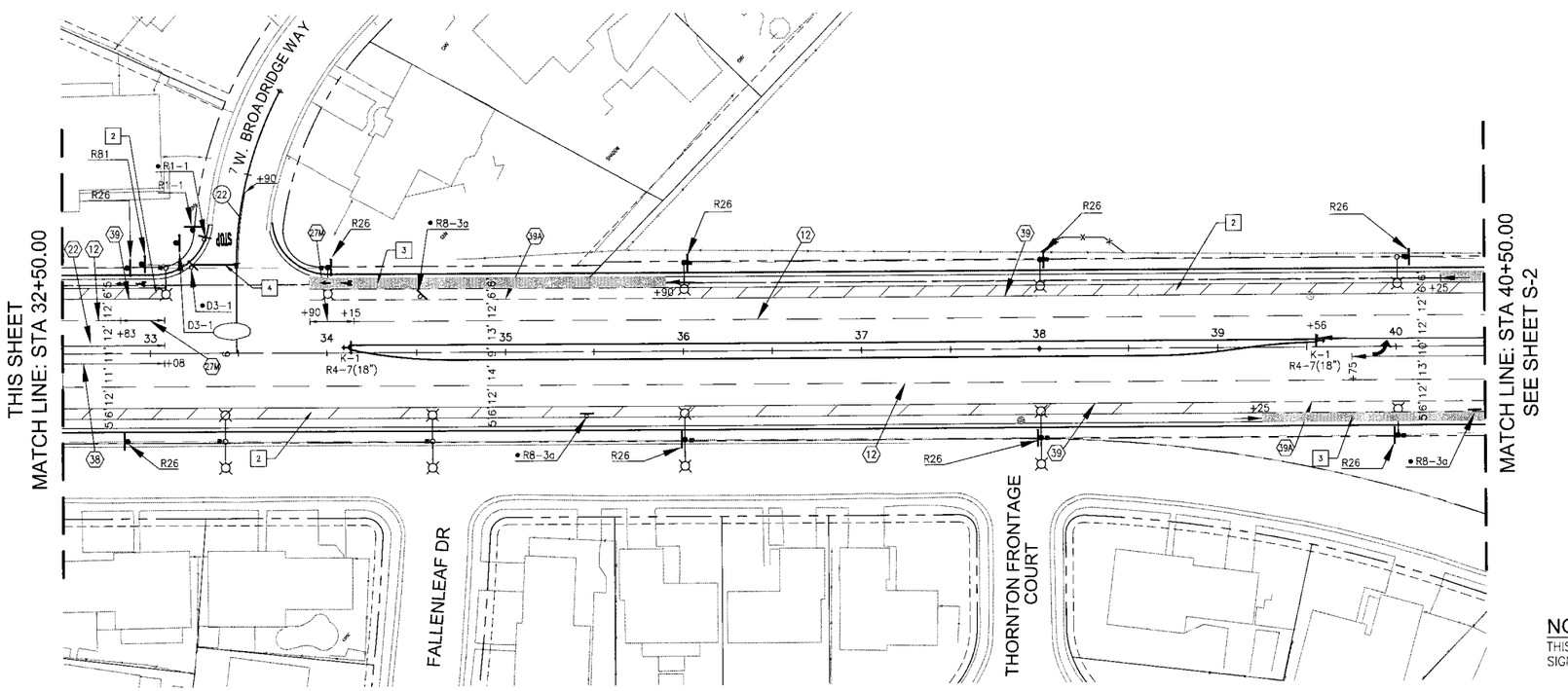
SCALE: 1"=300'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No. Revision
SC-17
94 OF 145
JOB NO.
183910142

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THORNTON ROAD



SIGNING & STRIPING LEGEND

- EXISTING SIGN
- INSTALL SIGN
- REMOVE AND SALVAGE ROADSIDE SIGN
- EXISTING SIGN TO REMAIN
- OBJECT MARKER, TYPE AS SHOWN
- CHANGE IN STRIPE PATTERN
- (XX) PAVEMENT DELINEATION DETAIL NUMBER PER CALTRANS STANDARD PLAN
- BIKE LANE (HELMETED BICYCLIST SYMBOL)
- BIKE DETECTION SYMBOL
- TYPE IV ARROW (LT OR RT)
- TYPE VII ARROW
- TYPE VI ARROW
- 8" STOP "STOP" LEGEND W/LIMIT LINE
- 10" CROSSWALK
- (18") 'A' SIGN DIMENSION IF NON-STANDARD

NOTES:

1. ALL SIGNS WITHIN PROJECT LIMITS SHALL BE NEW AND SHALL CONFORM TO CALIFORNIA MUTCD.
2. MOUNT R26 AT 45° TO STREET.
3. ALL SIGN LOCATIONS SHALL BE FIELD VERIFIED PRIOR TO COMMENCING WORK.
4. FURNISH AND INSTALL CROSSWALKS IN ACCORDANCE WITH CALTRANS STANDARD PLAN A24F (BASIC). CROSSWALK LINES SHALL BE 1'-0" THICK THERMOPLASTIC. CROSSWALKS CONTIGUOUS TO SCHOOLS SHALL BE YELLOW (Y) 1'-0".
5. SEE DETAIL A FOR ROADSIDE SIGN CONSTRUCTION DETAILS.

PROJECT NOTES (SIGNING AND STRIPING SHEETS ONLY):

1. FURNISH AND INSTALL 24" WHITE THERMOPLASTIC LIMIT LINE. INSTALL 7' BEHIND CROSSWALK LINE.
2. FURNISH AND INSTALL DIAGONAL (45°) HATCHING AT 20' SPACING. HATCH LINES SHALL BE 12" WHITE PAINT.
3. FURNISH AND INSTALL GREEN STAMP.
4. FURNISH AND INSTALL 24" WHITE THERMOPLASTIC LIMIT LINE.

1"=40'

NOTE:
THIS PLAN IS ACCURATE FOR SIGNING AND STRIPING ONLY.

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Tel. 925.941.1400
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No.	Revision	By	Appd.
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN - STA. 24+00.00 TO STA. 40+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER — JOY BHATTACHARYYA — No. 68928 — EXP. 9-30-17 — CIVIL — STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

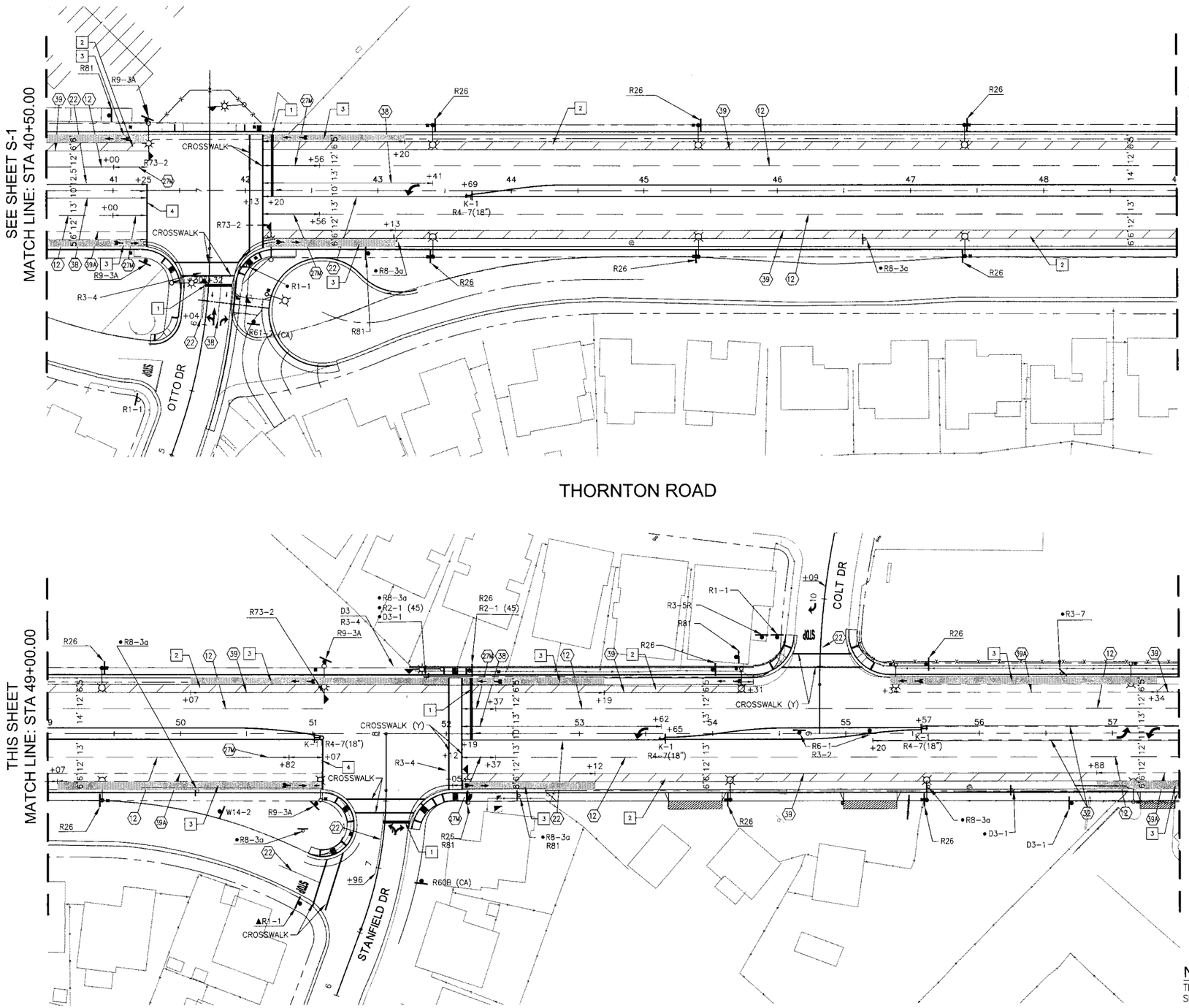
SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=40'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision: S-1
95 OF 145
JOB NO. 183910142

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NOTES:

1. SEE SHEET S-1 FOR ALL NOTES AND LEGEND.

NOTE:
THIS PLAN IS ACCURATE FOR SIGNING AND STRIPING ONLY.

Stantec
Stantec Consulting Inc.
1340 Treat Blvd. Suite 300
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Tel. 925.941.1400
Fax. 925.941.1401
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No.	Revision	Description	By	Appd.
	M/D/Y			

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN - STA. 40+50.00 TO STA. 57+50.00

Permit-Seal

LICENSED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

1"=40' 0 40' 60' 80'

THORNTON ROAD WIDENING PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=40'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No. Revision
S-2
96 OF 145
JOB NO.
183910142

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NOTES:

1. SEE SHEET S-1 FOR ALL NOTES AND LEGEND.

NOTE:
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Walnut Creek, CA U.S.A. 94597
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Fax. 925.941.1401
www.stantec.com

No.	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN
- STA. 57+50.00 TO STA. 74+00.00

Permit-Seal

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

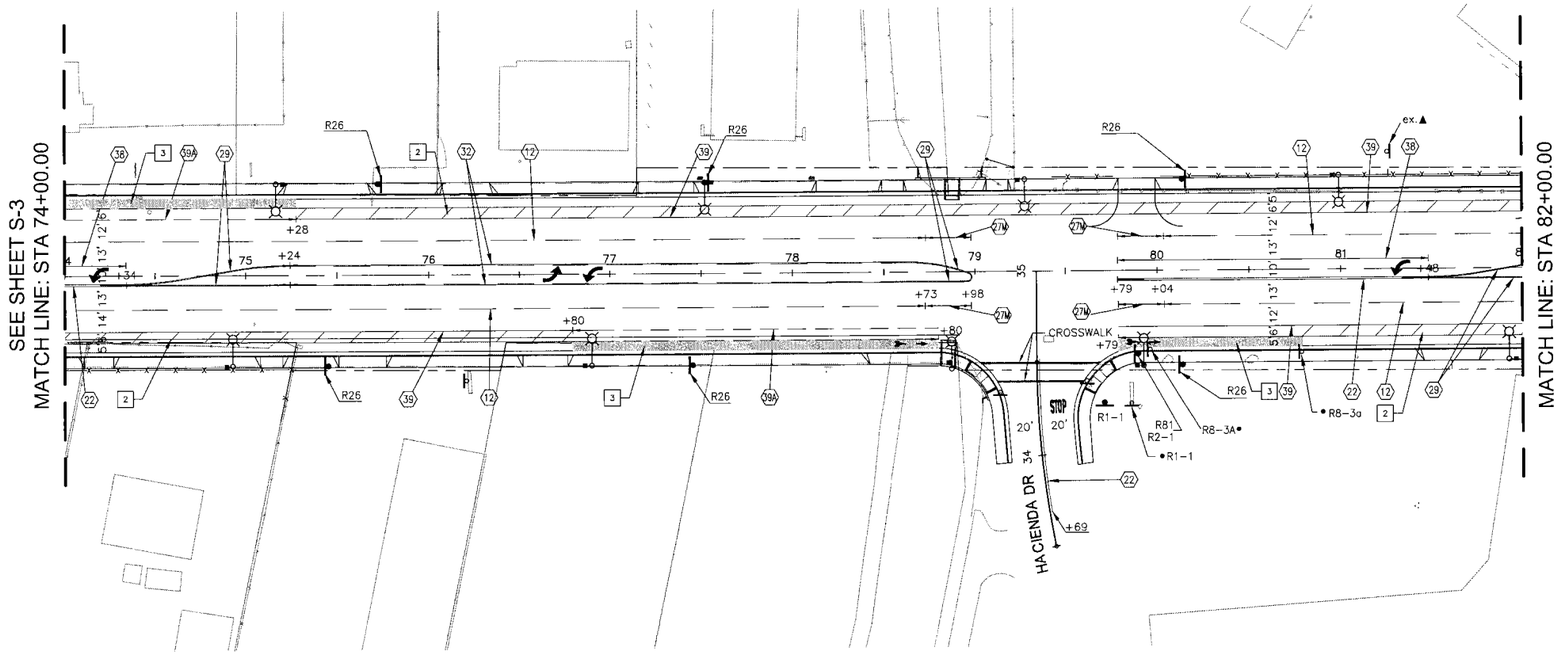
THORNTON ROAD WIDENING
PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

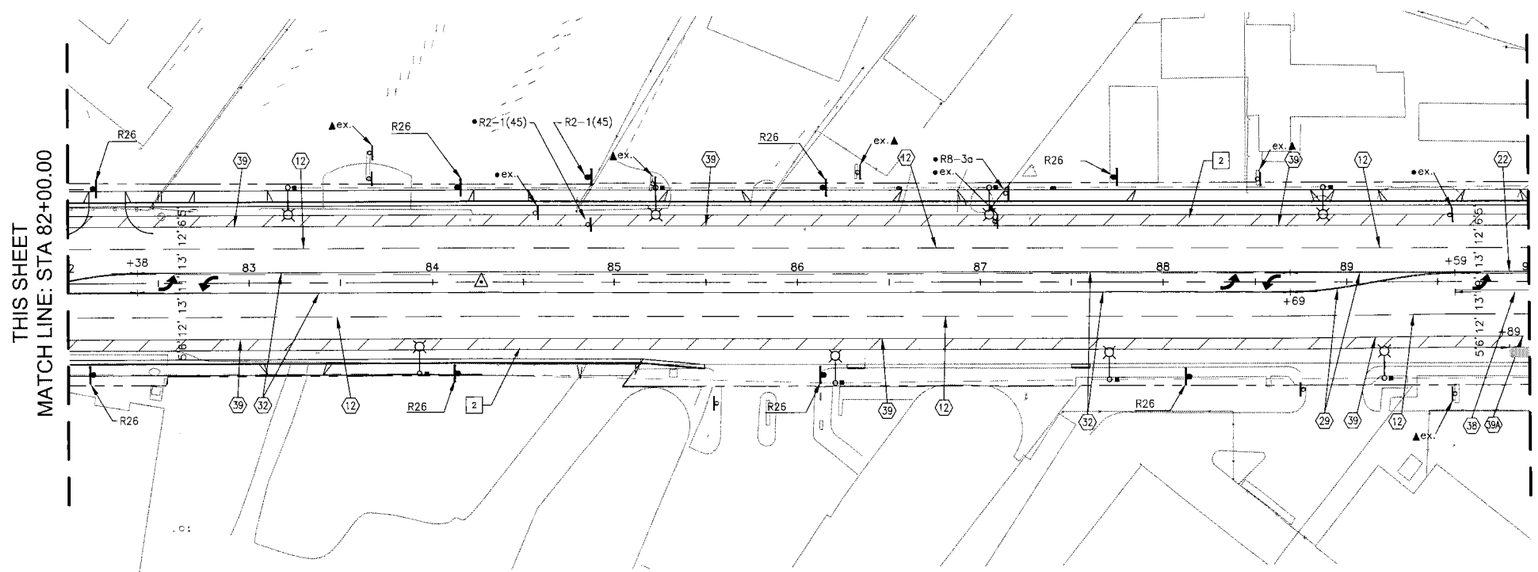
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=40'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision
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97 OF 145
JOB NO.
183910142



THORNTON ROAD



NOTES:

1. SEE SHEET S-1 FOR ALL NOTES AND LEGEND.

NOTE:
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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title SIGNING AND STRIPING PLAN - STA. 74+00.00 TO STA. 90+00.00

Permit-Seal

JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

1"=40' 0 40' 60' 80'

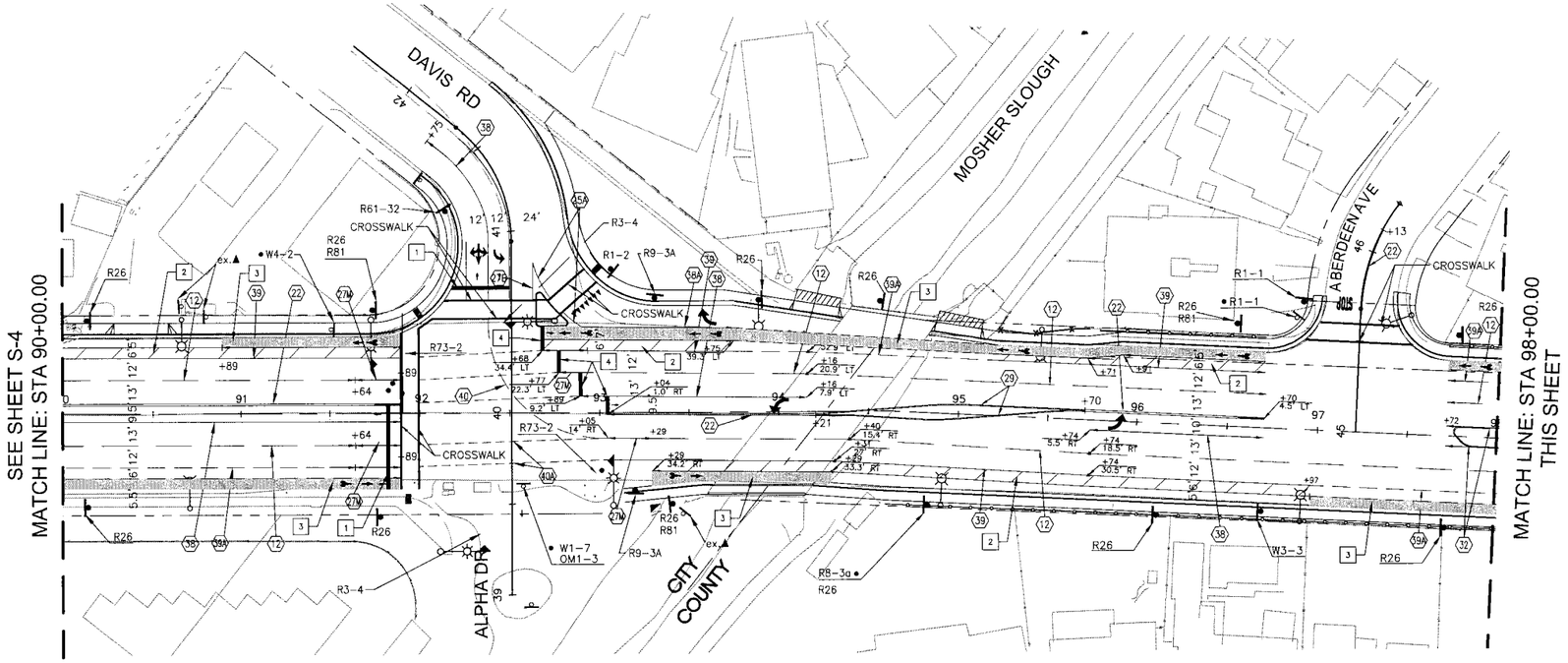
THORNTON ROAD WIDENING
PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

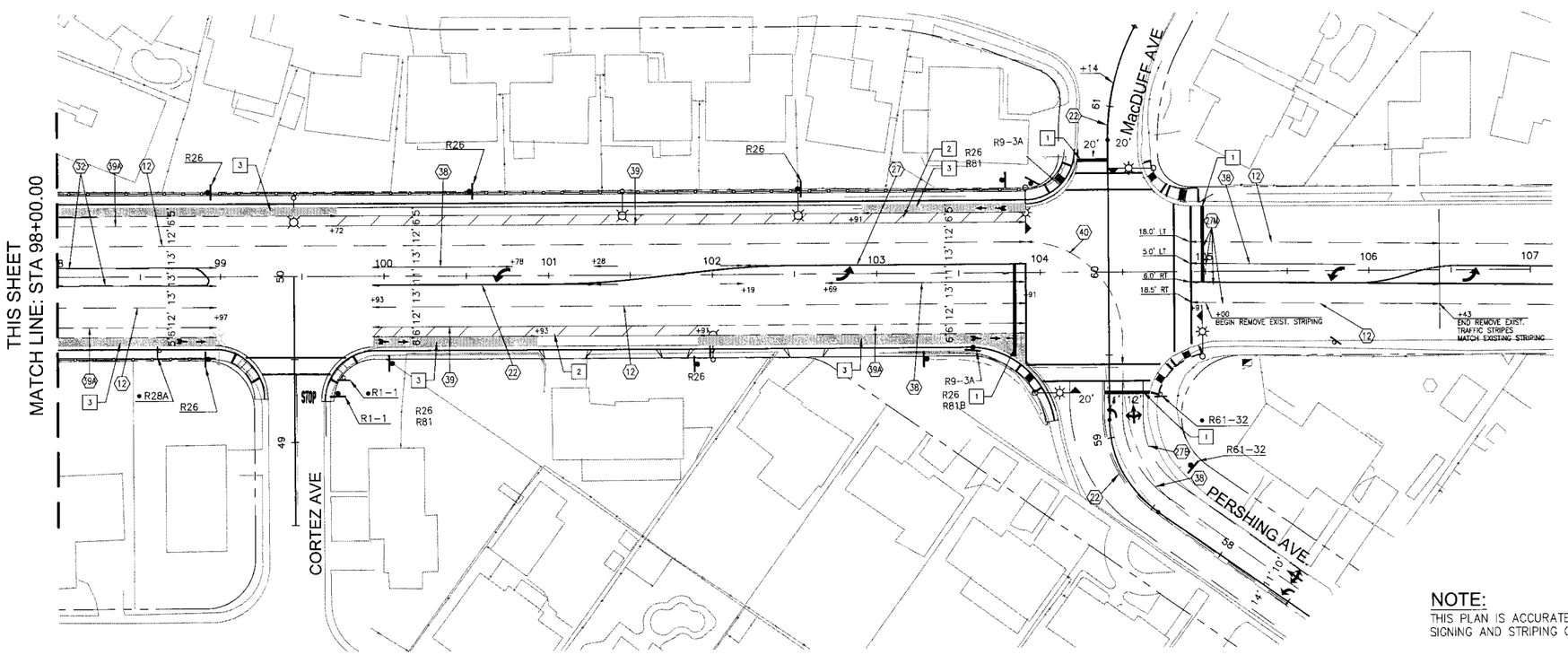
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=40'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision
S-4
98 OF 145
JOB NO.
183910142



THORNTON ROAD



NOTES:

1. SEE SHEET S-1 FOR ALL NOTES AND LEGEND.

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No.	Revision	By	Appd.
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN
- STA. 90+00.00 TO STA. 106+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYYA
No. 68928
Exp. 6-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharyya
Submitted Date: April 18, 2016

1"=40'

THORNTON ROAD WIDENING PROJECT
Stockton, California

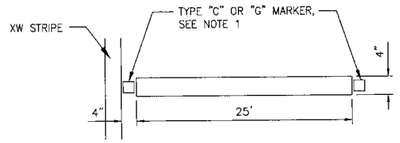
SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=40'	APPROVED BY:
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DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
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RECORD DWG:	

Sheet No. Revision
S-5
99 OF 145
JOB NO.
183910142

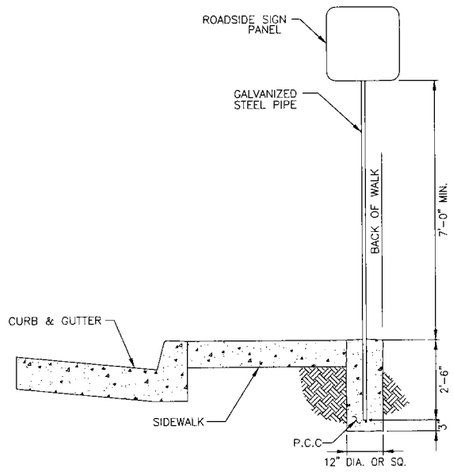
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DETAIL 27 MODIFIED (27M)

DETAIL 27 MOD NOTES:

1. TYPE "C" MARKER IS USED FOR A MEDIAN DIVIDED ROADWAY, TYPE "G" MARKER IS USED FOR PAINTED MEDIAN.
2. LEAVE A 4" SPACE BETWEEN PEDESTRIAN CROSS WALK LINE AND SOLID LANE LINE WITH MARKER PLACED IN BETWEEN.



ROADSIDE SIGN

DETAIL 'A'

Stantec
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Tel. 925.941.1400
Fax. 925.941.1401
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No.	MM/YY	Description	By	Appd
Revision				

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN - GENERAL NOTES AND DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 65928 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:

Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya

Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: N.T.S.	APPROVED BY:	Sheet No. Revision
DESIGNED BY: ABH		S-6
DRAWN BY: MMT		100 OF 145
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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SIGN INVENTORY

STATION	SIDE	SIGN TYPE	DESCRIPTION	NOTES
24+03.00	R	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
24+16.53	R	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
24+16.63	R	R3-7	RIGHT LANE MUST TURN RIGHT	remove ex. sign
24+29.79	L	R8-3A	NO PARKING	remove ex. sign
25+28.82	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
25+28.94	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
27+27.21	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
27+28.59	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
27+79.37	R	R3-7	RIGHT LANE MUST TURN RIGHT	remove ex. sign
28+65.43	L	R26, R81	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
28+77.38	L	R73-2	LEFT TURN/U-TURN PERMITTED	FURNISH AND INSTALL NEW SIGN(S)
28+78.68	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
28+79.38	L	R9-4	NO PEDESTRIAN CROSSING (SYMB.)	remove ex. sign
28+80.73	R	R9-3A	NO PEDESTRIAN CROSSING (TEXT)	FURNISH AND INSTALL NEW SIGN(S)
28+83.71	L	R9-3A	NO PEDESTRIAN CROSSING (TEXT)	FURNISH AND INSTALL NEW SIGN(S)
29+04.67	L	D3-1	STREET NAME SIGN	remove ex. sign
29+19.73	R	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
29+43.87	L	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
29+58.85	R	R10-7	DO NOT BLOCK INTERSECTION	remove ex. sign
29+67.61	R	R10-7	DO NOT BLOCK INTERSECTION	FURNISH AND INSTALL NEW SIGN(S)
29+68.48	R	R1-1, D3-1	STOP SIGN, STREET NAME SIGN	ex. sign to remain
29+81.06	R	R73-2	LEFT TURN/U-TURN PERMITTED	FURNISH AND INSTALL NEW SIGN(S)
29+91.85	R	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
30+86.66	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
30+86.75	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
30+92.65	R	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
31+13.28	R	R2-1(45)	SPEED LIMIT 45	remove ex. sign
31+19.97	R	R2-1(45)	SPEED LIMIT 45	FURNISH AND INSTALL NEW SIGN(S)
31+83.61	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
32+86.71	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
32+86.76	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
32+95.25	L	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
33+14.70	L	D3-1	STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
33+23.28	L	D3-1	STREET NAME SIGN	remove ex. sign
33+24.30	L	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
33+30.95	L	R1-1	STOP SIGN	remove ex. sign
34+00.65	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
34+13.38	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
34+52.20	L	R8-3A	NO PARKING	remove ex. sign
35+46.46	R	R8-3A	NO PARKING	remove ex. sign
36+00.61	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
36+00.66	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
36+00.62	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
36+00.63	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
38+85.23	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
40+00.62	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
40+05.82	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
40+43.96	R	R8-3A	NO PARKING	remove ex. sign
40+97.08	L	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
41+18.61	R	R1-1	STOP SIGN	ex. sign to remain
41+24.25	R	R9-3A	NO PEDESTRIAN CROSSING (TEXT)	FURNISH AND INSTALL NEW SIGN(S)
41+24.92	L	R9-3A	NO PEDESTRIAN CROSSING (TEXT)	FURNISH AND INSTALL NEW SIGN(S)
41+28.47	L	R73-2	LEFT TURN/U-TURN PERMITTED	FURNISH AND INSTALL NEW SIGN(S)
41+67.02	R	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
41+91.76	L	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
41+99.80	R	R1-1	STOP SIGN	remove ex. sign
42+06.47	R	R81-7(CA)	LANE DELINEATION	FURNISH AND INSTALL NEW SIGN(S)
42+22.41	R	R73-2	LEFT TURN/U-TURN PERMITTED	FURNISH AND INSTALL NEW SIGN(S)
42+92.92	R	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
43+13.67	R	R8-3A	NO PARKING	remove ex. sign

SIGN INVENTORY

STATION	SIDE	SIGN TYPE	DESCRIPTION	NOTES
43+40.63	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
43+41.04	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
43+70.42	R	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
43+40.54	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
45+41.05	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
46+65.62	R	R8-3A	NO PARKING	remove ex. sign
47+40.87	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
47+41.06	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
48+40.82	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
48+41.08	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
50-12.48	R	R8-3A	NO PARKING	remove ex. sign(s)
50+29.66	R	W14-3	NO OUTLET	FURNISH AND INSTALL NEW SIGN(S)
50+90.30	R	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
50+92.53	R	R8-3A	NO PARKING	remove ex. sign(s)
51+01.25	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
51+02.72	R	R9-3A	NO PEDESTRIAN CROSSING (TEXT)	FURNISH AND INSTALL NEW SIGN(S)
51+08.88		R73-2	LEFT TURN/U-TURN PERMITTED	FURNISH AND INSTALL NEW SIGN(S)
51-08.98	L	R9-3A	NO PEDESTRIAN CROSSING (TEXT)	FURNISH AND INSTALL NEW SIGN(S)
51+61.08	L	D3, R3-4	STREET NAME SIGN, NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
51+81.41	R	R81B(CA)	LANE DELINEATION	FURNISH AND INSTALL NEW SIGN(S)
51+85.38	L	R8-3, R2-1(45), D3-1	NO PARKING, SPEED LIMIT 45, STREET NAME SIGN	remove ex. sign(s)
52+02.57	R	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
52+17.40	R	R26, R81	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
52+17.64	L	R26, R2- (45)	NO PARKING ANY TIME, SPEED LIMIT 45	FURNISH AND INSTALL NEW SIGN(S)
52+54.45	R	R8-3A, R81	NO PARKING, BIKE LANE	remove ex. sign(s)
53+64.54	R	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
54-00.26	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
54+12.93	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
54+17.52	L	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
54+36.94	L	R3-8R	RIGHT TURN ONLY	FURNISH AND INSTALL NEW SIGN(S)
54+48.42	L	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
54+65.12	L	R6-1, R3-2	ONE WAY, NO LEFT TURN	FURNISH AND INSTALL NEW SIGN(S)
55-17.22	L	R6-1, R3-2	ONE WAY, NO LEFT TURN	FURNISH AND INSTALL NEW SIGN(S)
55+56.38	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
55+60.23	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
55+60.48	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
55+61.76	R	R8-3A	NO PARKING	remove ex. sign(s)
56+25.00	R	D3-1	STREET NAME SIGN	remove ex. sign(s)
56-61.71	L	R3-7	RIGHT LANE MUST TURN RIGHT	remove ex. sign
56+60.06	R	D3-1	STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
57+60.23	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
57-80.45	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
58+90.54	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
59+05.75	R	P1-2	YIELD	FURNISH AND INSTALL NEW SIGN(S)
59-21.50	R	W73A	RIGHT LANE TURNS RIGHT AHEAD	FURNISH AND INSTALL NEW SIGN(S)
59+26.35	L	BS	BUS STOP	FURNISH AND INSTALL NEW SIGN(S)
59+27.97	L	BS	BUS STOP	remove ex. sign(s)
59-82.26	L	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)

NOTES:

1. SEE SHEETS S-1 THROUGH S-5 FOR ALL SIGNING AND STRIPING PLANS.

Stantec

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www.stantec.com

No.	Revision	By	Appd
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN
- SIGN INVENTORY 1

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 15, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: N.T.S.	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No. Revision
S-7
101 OF 145
JOB NO.
183910142

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SIGN INVENTORY

STATION	SIDE	SIGN TYPE	DESCRIPTION	NOTES
59+30.34	R	R73-2, D3	LEFT TURN/U-TURN PERMITTED, STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
60+02.96	L	R73-2, D3	LEFT TURN/U-TURN PERMITTED, STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
60+10.16	R	R3-7	RIGHT LANE MUST TURN RIGHT	FURNISH AND INSTALL NEW SIGN(S)
60+31.10	R	R73-2, D3	LEFT TURN/U-TURN PERMITTED, STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
60+92.02	R	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
61+00.87	L	R73-2, D3	LEFT TURN/U-TURN PERMITTED, STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
61+67.82	R	BS	BUS STOP	remove ex. sign(s)
61+44.92	R	BS	BUS STOP	FURNISH AND INSTALL NEW SIGN(S)
61+71.58	R	R8-3A	NO PARKING	remove ex. sign(s)
61+78.53	L	R1-2	YIELD	FURNISH AND INSTALL NEW SIGN(S)
62+17.47	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
62+17.48	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
62+42.97	R	R48	SPEED ENFORCED BY RADAR	remove ex. sign(s)
62+44.52	R	R48	SPEED ENFORCED BY RADAR	FURNISH AND INSTALL NEW SIGN(S)
63+56.96	L	R3-7	RIGHT LANE MUST TURN RIGHT	remove ex. sign
63+36.51	L	D3-1	STREET NAME SIGN	remove ex. sign(s) 729 SQUARE NOT CIRCLE
63+87.45	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
63+96.73	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
65+85.80	R	R8-3A	NO PARKING	remove ex. sign(s)
65+87.41	L	R8-3A	NO PARKING	remove ex. sign(s)
65+87.41	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
66+98.74	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
66+94.18	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
67+18.74	R	R8-3A	NO PARKING	remove ex. sign(s)
67+23.47	L	R3-5R	RIGHT TURN ONLY	FURNISH AND INSTALL NEW SIGN(S)
67+23.95	R	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
67+30.83	L	R8-3A	NO PARKING	remove ex. sign(s)
67+35.13	L	D3-1, R1-1	STOP SIGN, STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
67+45.81	L	D3-1, R1-1	STOP SIGN, STREET NAME SIGN	remove ex. sign(s)
67+58.47	R	W1-6, OM1-3	ONE-WAY DIRECTIONAL SIGN, OBJECT MARKER	remove ex. sign(s)
68+36.78	R	R6-1, R3-2	ONE WAY, NO LEFT TURN	FURNISH AND INSTALL NEW SIGN(S)
67+62.21	R	W1-7, OM1-3	TWO-WAY DIRECTIONAL SIGN, OBJECT MARKER	remove ex. sign(s)
67+88.15	R	R6-1, R3-2	ONE WAY, NO LEFT TURN	FURNISH AND INSTALL NEW SIGN(S)
68+48.59	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
68+49.04	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
69+00.98	R	R6-1, R3-2	ONE WAY, NO LEFT TURN (FACING L)	FURNISH AND INSTALL NEW SIGN(S)
69+00.93	R	R6-1, R3-2	ONE WAY, NO LEFT TURN (FACING R)	FURNISH AND INSTALL NEW SIGN(S)
69+11.99	R	D3-1	STREET NAME SIGN	remove ex. sign(s)
69+23.28	R	R1-1, R3-5R	STOP SIGN, RIGHT TURN ONLY	FURNISH AND INSTALL NEW SIGN(S)
69+27.61	R	D3-1	STREET NAME SIGN	FURNISH AND INSTALL NEW SIGN(S)
69+39.38	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
69+53.49	R	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
69+80.08	L	R2-1(45)	SPEED LIMIT 45	remove ex. sign(s)
69+82.33	L	R2-1(45)	SPEED LIMIT 45	FURNISH AND INSTALL NEW SIGN(S)
69+94.42	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
70+08.54	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
71+65.34	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
71+85.46	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
72+15.03	R	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
72+19.71	R	W11-2	PEDESTRIAN CROSSING SIGN	remove ex. sign(s)
72+21.92	L	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
72+30.80	R	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
72+30.83	L	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
72+39.94	L	R3-5R	RIGHT TURN ONLY	FURNISH AND INSTALL NEW SIGN(S)
72+51.32	L	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
72+56.10	L	R1-1	STOP SIGN	remove ex. sign(s)
72+60.63	R	R6-1	ONE WAY	FURNISH AND INSTALL NEW SIGN(S)
72+72.89	L	R3-2	NO LEFT TURN	FURNISH AND INSTALL NEW SIGN(S)

SIGN INVENTORY

STATION	SIDE	SIGN TYPE	DESCRIPTION	NOTES
72+75.57	R	R1-1	STOP SIGN	remove ex. sign(s)
72+73.67	R	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
72+83.42	L	K-1, R4-7(18")	OBJECT MARKER, KEEP RIGHT	FURNISH AND INSTALL NEW SIGN(S)
72+98.86	R	R3-5R	RIGHT TURN ONLY	FURNISH AND INSTALL NEW SIGN(S)
73+04.53	R	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
73+12.69	R	R81	BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
73+30.21	L	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
73+72.48	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
73+72.50	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
74+45.21	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
73+72.47	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
77+45.23	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
77+52.13	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
78+71.01	R	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
78+85.87	R	R1-1	STOP SIGN	remove ex. sign(s)
79+82.62	R	R81, R2-1	BIKE LANE, SPEED LIMIT	FURNISH AND INSTALL NEW SIGN(S)
79+96.15	R	R8-3A	NO PARKING	remove ex. sign(s)
80+13.96	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
80+14.02	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
80+76.84	R	R8-3A	NO PARKING	remove ex. sign(s)
82+13.94	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
82+14.02	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
84+13.95	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
84+14.02	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
84+35.50	L	R2-1(45)	SPEED LIMIT 45	FURNISH AND INSTALL NEW SIGN(S)
84+85.59	L	R2-1(45)	SPEED LIMIT 45	remove ex. sign(s)
86+13.68	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
86+14.30	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
87+13.37	L	R8-3A	NO PARKING	remove ex. sign(s)
87+73.11	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
88+14.31	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
90+13.59	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
90+14.32	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
91+50.80	L	W4-2	MERGE	remove ex. sign(s)
91+73.89	L	R26, R81	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
91+78.04	R	R26, R81	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
81+90.14	L	R73-2	LEFT TURN/U TURN SIGN	FURNISH AND INSTALL NEW SIGN(S)
82+14.30	L	R6-1-32	LANE GUIDANCE SIGNS	FURNISH AND INSTALL NEW SIGN(S)
82+34.12	R	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
82+45.60	L	R3-4	NO U-TURN	FURNISH AND INSTALL NEW SIGN(S)
82+57.45	R	W1-7, OM1-3	LEFT/RIGHT WARNING, OBJECT MARKER	remove ex. sign(s)
93+00.99	R	R73-2	LEFT TURN/U TURN SIGN	FURNISH AND INSTALL NEW SIGN(S)
83+06.38	L	R1-2	YIELD	FURNISH AND INSTALL NEW SIGN(S)
93+19.67	R	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
93+30.90	L	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
93+40.71	R	R26, R81	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
93+88.92	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
94+58.76	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
94+84.67	R	R8-3A	NO PARKING	remove ex. sign(s)

NOTES:

1. SEE SHEETS S-1 THROUGH S-5 FOR ALL SIGNING AND STRIPING PLANS.

Stantec

Stantec Consulting Inc.
1340 Treat Blvd. Suite 300
Walnut Creek, CA U.S.A. 94597
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www.stantec.com

No.	Revision	By	Appd
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN
- SIGN INVENTORY 2

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 63328
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: N.T.S.	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No.	Revision
S-8	
102 OF 145	
JOB NO. 183910142	

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SIGN INVENTORY

STATION	SIDE	SIGN TYPE	DESCRIPTION	NOTES
96+24.87	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
96+12.74	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
96+53.02	L	R3*, R26	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
96+70.32	R	W3-3	SIGNAL WARNING	FURNISH AND INSTALL NEW SIGN(S)
96+84.28	L	R1-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
96+86.02	L	R*-1	STOP SIGN	remove ex. sign(s)
97+72.69	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
97+70.59	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
98+61.96	R	R28A	NO PARKING ANY TIME	remove ex. sign(s)
98+92.17	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
98+92.34	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
99+71.78	R	R*-1	STOP SIGN	FURNISH AND INSTALL NEW SIGN(S)
99+75.33	R	R*-1	STOP SIGN	remove ex. sign(s)
100+04.71	R	R26, R81	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
100+52.10	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
101+90.65	R	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
102+52.23	L	R26	NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
103+30.19	R	R26, R5-B	END NO PARKING ANY TIME	FURNISH AND INSTALL NEW SIGN(S)
103+52.46	R	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
103+70.66	L	R26, R81	NO PARKING ANY TIME, BIKE LANE	FURNISH AND INSTALL NEW SIGN(S)
103+94.66	L	R9-3A	NO PEDESTRIAN CROSSING	FURNISH AND INSTALL NEW SIGN(S)
104+72.42	R	R81-J2	LANE GUIDANCE SIGNS	FURNISH AND INSTALL NEW SIGN(S)
104+90.25	R	R81-J2	LANE GUIDANCE SIGNS	FURNISH AND INSTALL NEW SIGN(S)

NOTES:

1. SEE SHEETS S-1 THROUGH S-5 FOR ALL SIGNING AND STRIPING PLANS.

Stantec

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No.	Revision	By	Appd
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SIGNING AND STRIPING PLAN
- SIGN INVENTORY 3

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYYA
No. 65928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SIGNING AND STRIPING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: N.T.S.	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No.	Revision
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103 OF 145	
JOB NO. 183910142	

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STREET LIGHT GENERAL NOTES

1. ALL NEW IMPROVMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS, AND THE LATEST EDITION OF THE CITY FO STOCKTON STANDARD SPECIFICATIONS AND PLANS, THE CALIFORNIA MUTCD, AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION AND STANDARD PLANS.

2. THE INTENT IS THAT THESE PLANS REQUIRE ALL LABOR AND MATERIAL (EXCEPT AS SPECIFIED IN THE SPECIFICATIONS) NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. IF THE PLANS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAILS, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY APPROVED MATERIALS AND WORKMANSHIP OF THE BEST QUALITY ARE TO BE USED.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE PHYSICAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND SHALL CONTACT THE RESPONSIBLE UTILITY COMPANIES PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL SUCH FACILITIES IN THE AREA OF CONSTRUCTION, AND SHALL NOTIFY UTILITY COMPANIES FORTY-EIGHT HOURS IN ADVANCE OF ANY CONSTRUCTION (UNDERGROUND SERVICE ALERT 1-800-227-2600). UTILITY COMPANY(S) SHALL BE RESPONSIBLE TO ADJUST TO PROPOSED CONCRETE GRADE ALL SURFACE FACILITIES, UNLESS OTHERWISE NOTED IN THESE PLANS.

4. THE CONTRACTOR'S ATTENTIONS DIRECTED TO SECTION 1540 (a)(1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540). ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, WHICH STATES:
PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATION: I.E., SEWER, WATER, FUEL, ELECTRIC LINES, ETC, WILL BE ENCOUNTERED AND, IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING AND/OR DIGGING, AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR THE START OF ACTUAL EXCAVATION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE REMOVAL AND/OR RELOCATION OF ALL EXISTING UTILITIES WITH RESPECTIVE UTILITY COMPANIES. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED IMPROVEMENTS.

6. PRIOR TO PLACEMENT OF ANY FINISH ASPHALT CONCRETE OR CONCRETE, THE CONTRACTOR SHALL VERIFY ALL FINISH GRADES AND SLOPES FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND APPROVAL AND ACCEPTANCE BY THE CITY.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE CITY'S REPRESENTATIVE.

8. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF EXISTING FACILITIES. THE CONTRACTOR IS RESPONSIBLE TO REPAIR, TO THE SATISFACTION OF THE CITY OF STOCKTON, ANY FACILITIES DAMAGED DURING CONSTRUCTION, AT NO COST TO THE CITY.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT.

10. ALL WORK IN PUBLIC RIGHT-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF CITY OF STOCKTON PUBLIC WORKS DEPARTMENT.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE REMOVAL AND/OR RELOCATION OF ALL EXISTING UTILITIES AND INSTALLATION OF NEW SERVICES, METERS, TRANSFORMERS, ETC. WITH RESPECTIVE UTILITY COMPANIES.

PACIFIC GAS & ELECTRIC	(209) 932-6461
COMCAST	(209) 955-6020
AT&T	(209) 549-5847
C.O.S. M.U.D.	(209) 937-8706

12. THE CONTRACTOR SHALL ADJUST TO GRADE ALL FACILITIES (INCLUDING, BUT NOT LIMITED TO VALVE BOXES, PULL BOXES, MAINTENANCE HOLE RIM AND COVERS, METER BOXES) WITHIN THE LIMITS OF WORK AND/OR AS DIRECTED BY THE ENGINEER. THE FACILITIES SHALL BE ADJUSTED AS SET FORTH IN C.O.S. STANDARD DRAWING NO. 39 AND/OR AS DIRECTED BY THE ENGINEER.

STREET LIGHT NOTES

1. ALL TRAFFIC STRIPING, MARKINGS, SIGNS, TRAFFIC SIGNALS AND HIGHWAY LIGHTING, EXCEPT AS INDICATED HEREON SHALL BE DONE IN STRICT CONFORMANCE WITH THE CURRENT CITY OF STOCKTON STANDARD SPECIFICATIONS AND STANDARD DRAWINGS AND THE 2006 (US CUSTOMARY UNITS) EDITION OF THE CALTRANS STANDARD SPECIFICATIONS SECTIONS 56, 82, 84, 85, 86 AND THE 2006 STANDARD PLANS, AND THE 2006 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

2. ALL CABLE SHALL BE DELIVERED NEW TO THE SITE AND SHALL BE PULLED CONTINUOUSLY FROM LIGHT STANDARD TO FEED POINT. SPLICED WIRES ARE ALLOWED IN PULL BOXES ONLY. SPLICING IS NOT ALLOWED IN CONDUITS OR STREET LIGHT STANDARDS.

3. AS SHOWN ON THE STATE STANDARD PLAN, ES-13, CONDUCTORS SHALL BE SPLICED BY THE USE OF COMPRESSION CONNECTORS AND INSULATION SHALL BE BY "METHOD B". WIRE NUTS ARE NOT ALLOWED.

4. WIRING SHALL BE POLY VINYL-CHLORIDE INSULATED (TYPE THWN, OR THHN) – NO. 8 AWG COPPER CABLE PER THE STANDARD SPECIFICATIONS OR APPROVED EQUAL. NUMBER 10 AWG COPPER CABLE SHALL BE ALLOWED IN THE LIGHT STANDARDS.

5. CONDUCTORS SHALL CONFORM TO THE FOLLOWING COLORS: CONDUCTORS FOR GROUNDING AND BONDING SHALL BE EITHER BARE OR GREEN, COMMON OR NEUTRAL CONDUCTORS SHALL BE WHITE, UNDERGROUND-LINE 1 CONDUCTORS SHALL BE BLACK, UNDERGROUND-LINE 2 CONDUCTORS SHALL BE RED.

6. A NUMBER 3 1/2 PULL BOX SHALL BE INSTALLED 6" BEHIND CURB IN LINE WITH THE CENTER OF THE LIGHT STANDARD ON SIDE NEAREST ELECTRICAL SERVICE. THE PULL BOX SHALL BE SLOPED AT 1/4" PER FOOT TO TOP OF CURB, FITTED WITH A FUSED SPLICE CONNECTOR CONFORMING TO STATE OF CALIFORNIA STANDARD SPECIFICATION, SECTION 86-2.095. THE FUSE CONNECTOR SHALL BE BUSSMAN – TYPE TRON-HEB FOR 120V, OR TRON-HEX FOR 240V, WITH TYPE KTK FUSES RATED AT 20 AMPS (BUSSMAN BULLETIN SPF-11). REFER TO CITY OF STOCKTON STANDARD DRAWING STREET LIGHT INSTALLATION DETAIL.

7. ALL CONDUIT SHALL BE 1 1/2" POLY VINYL CHLORIDE (PVC), SCHEDULE 80 UNLESS OTHERWISE NOTED.

8. BONDING OF CIRCUITS SHALL BE PER APPLICABLE CODES.

9. ALL NEW LUMINARIE CIRCUITS SHALL OPERATE ON 240 VOLTS. THE CONTRACTOR SHALL VERIFY THE VOLTAGE OF THE EXISTING LUMINARIES.

10. POLES SHALL BE FROM ONE MANUFACTURER.

11. POLES SHALL BE MOUNTED IN CENTER OF FOUNDATION PER STOCKTON STANDARD DRAWING STREET LIGHT STANDARD.

12. ALL FOUNDATIONS SHALL BE ADJACENT TO BACK OF CURB PER STOCKTON STANDARD DRAWING STREET LIGHT STANDARD, OR AS OTHERWISE SHOWN.

13. ALL ANCHOR BOLTS SHALL BE 1" X 36" X 4", AND PROJECT 4 1/2" ABOVE TOP OF FOUNDATION. CAP WITH 5" OF GROUT SLOPED AT 1/4" PER FOOT TO TOP OF CURB. REFER TO STOCKTON STANDARD DRAWING STREET LIGHT INSTALLATION DETAIL.

14. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL MATERIALS INCLUDING PHOTOELECTRIC CONTROL CIRCUIT BREAKERS AND AUXILIARY RELAY(S). PACIFIC GAS & ELECTRIC (PG&E) WILL FURNISH AND INSTALL SERVICE CONDUCTORS TO THE LANDING LUGS PER CITY OF STOCKTON STANDARD DRAWINGS UNDERGROUND ELECTRICAL FEED POINT AND STREET LIGHT PEDESTAL WIRING DIAGRAM.

15. CIRCUIT PROTECTION SHALL BE PROVIDED AS FOLLOWS: 15 AMP FOR PHOTOELECTRIC CONTROL, 30 AMP SINGLE OR DOUBLE POLE FOR EACH CIRCUIT AS REQUIRED.

16. AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL DELIVER AND UNLOAD ANY SALVAGE TO THE CITY OF STOCKTON.

17. INSTALL A SHORTING CAP IN THE PHOTOELECTRIC CONTROL RECEPTACLE OF ALL LIGHT STANDARDS.

18. A 5/8" X 8' BLACKBURN COPPER CLAD GROUND ROD, OR EQUIVALENT, WITH COPPER WELD GROUND CLAMP, OR EQUIVALENT, SHALL BE INSTALLED IN THE UNDERGROUND ELECTRICAL FEED POINT (SERVICE PEDESTAL). REFER TO STOCKTON STANDARD DRAWING UNDERGROUND ELECTRICAL FEED POINT.

19. ALL WORK RELATED TO ELECTRIC SERVICE SHALL BE PERFORMED IN CONFORMANCE WITH THE REQUIREMENTS OF THE PACIFIC GAS AND ELECTRIC COMPANY.

20. STATE LAW CAL/OSHA ELECTRICAL SAFETY 2946 REQUIRES A MINIMUM CLEARANCE OF 10 FEET FROM OVERHEAD HIGH VOLTAGE LINES AND STREET LIGHTS AND OPERATING BOOM-TYPE LIFTING OR HOISTING EQUIPMENT.

21. CONTRACTOR SHALL REQUEST THE FIELD INSPECTOR TO NOTIFY THE TRAFFIC ENGINEERING DEPARTMENT TO SEND A LETTER OF SERVICE REQUEST TO PG&E AT THE START OF CONSTRUCTION OF THE PROJECT.

LIGHTING PLAN LEGEND

- EXISTING R/W
- PROP CURB AND GUTTER
- EXISTING CURB AND GUTTER
- INDICATES EXISTING TRAFFIC SIGNAL WITH STREET LIGHT TO BE REMOVED AND SALVAGED, UNLESS OTHERWISE NOTED
- INDICATES EXISTING STREET LIGHT TO BE REMOVED AND SALVAGED, UNLESS OTHERWISE NOTED
- INDICATES NEW TRAFFIC SIGNAL WITH STREET LIGHT TO BE INSTALLED SEE TRAFFIC SIGNAL PLANS
- INDICATES NEW GENERAL ELECTRIC, HPS, MODEL #MSCL20S0A22FMC3 LUMINAIRES TO BE INSTALLED ON SIGNLE-MAST ARM STREET LIGHT POLE
- INDICATES NEW GENERAL ELECTRIC, HPS, MODEL #MSCL20S0A22FMC3 LUMINAIRES TO BE INSTALLED ON DOUBLE-MAST ARM STREET LIGHT POLE
- INDICATES INSTALL NO. 3 1/2 PULL BOX WITH SECURITY LID PER CALTRANS STANDARD DWG. ES-8 AND DETAIL "A" ON SHEET E-2.
- INDICATES INSTALL NO. 5 PULL BOX PER CALTRANS STANDARD DWG. ES-8.
- INDICATES INSTALL TYPE III-BF 120/240 METERED SERVICE PEDESTAL PER CALTRANS STANDARD DWG. ES-2E.
- (A) INDICATES INSTALL UNDERGROUND ELECTRICAL FEED POINT BY PG&E
- (1) INDICATES CIRCUIT NUMBER.
  (A) INDICATES FEED POINT.
- INDICATES INSTALL ELECTRICAL STREET LIGHTING CONDUIT.

LIGHTING PLAN LIST OF ABBREVIATIONS

<PT	ANGLE POINT	P/L	PROPERTY LINE
APN	ASSESSORS PARCEL NUMBER	PB	PULL BOX
C/L	CENTERLINE	PP	POWER POLE
C/G	CURB AND GUTTER	PROP	PROPOSED
CC	CONDUIT	R/W	RIGHT OF WAY
DWG	DRAWING	SCE	SOUTHERN CALIFORNIA EDISON
DWY	DRIVEWAY	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SS	SANITARY SEWER
INT	INTERSECTION	SST	SIGNING & STRIPING
L	LENGTH	ST	STREET
LF	LINEAR FEET	STA	STATION
MAX	MAXIMUM	STD	STANDARD
MH	MANHOLE	TELE	TELEPHONE
MIN	MINIMUM	TS	TRAFFIC SIGNAL
MPH	MILES PER HOUR	TTM	TENTATIVE TRACT NO.
NO.	NUMBER	TYP	TYPICAL
NTS	NOT TO SCALE	UG	UNDERGROUND
OC	ON CENTER	VERT	VERTICAL
		VZN	VERIZON

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
GENERAL NOTES AND LEGEND

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

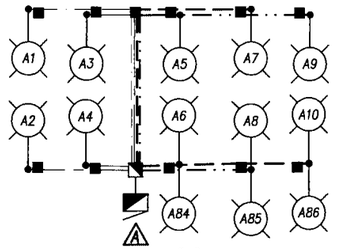
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PROJECT
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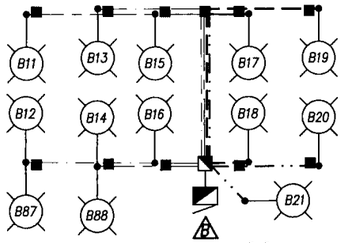
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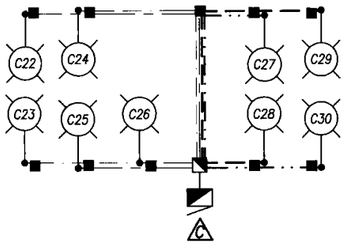
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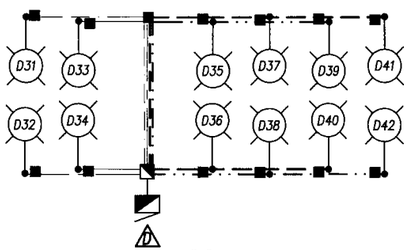
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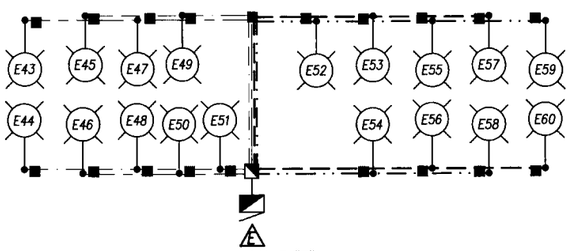
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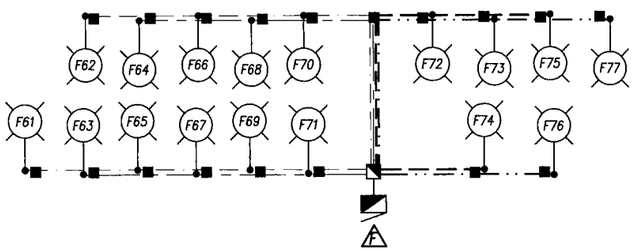


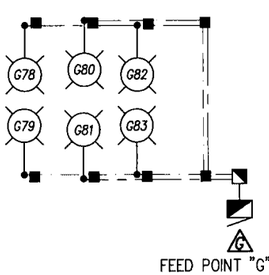


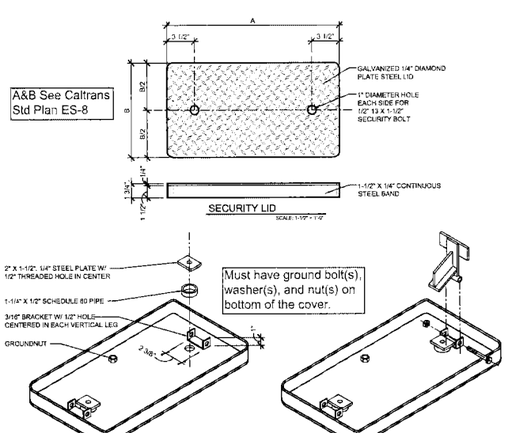












DETAIL "A"

SECURITY LID

(NO SCALE)

STREET LIGHT LEGEND

INDICATES INSTALL NEW SINGLE-MAST ARM STREET POLE AND LIGHT.

INDICATES INSTALL NEW DOUBLE-MAST ARM STREET POLE AND LIGHT.

INDICATES CIRCUIT 1.

INDICATES CIRCUIT 2.

INDICATES CIRCUIT 3.

INDICATES CIRCUIT 4.

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STREET LIGHT PLANS
WIRING SCHEMATIC & DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

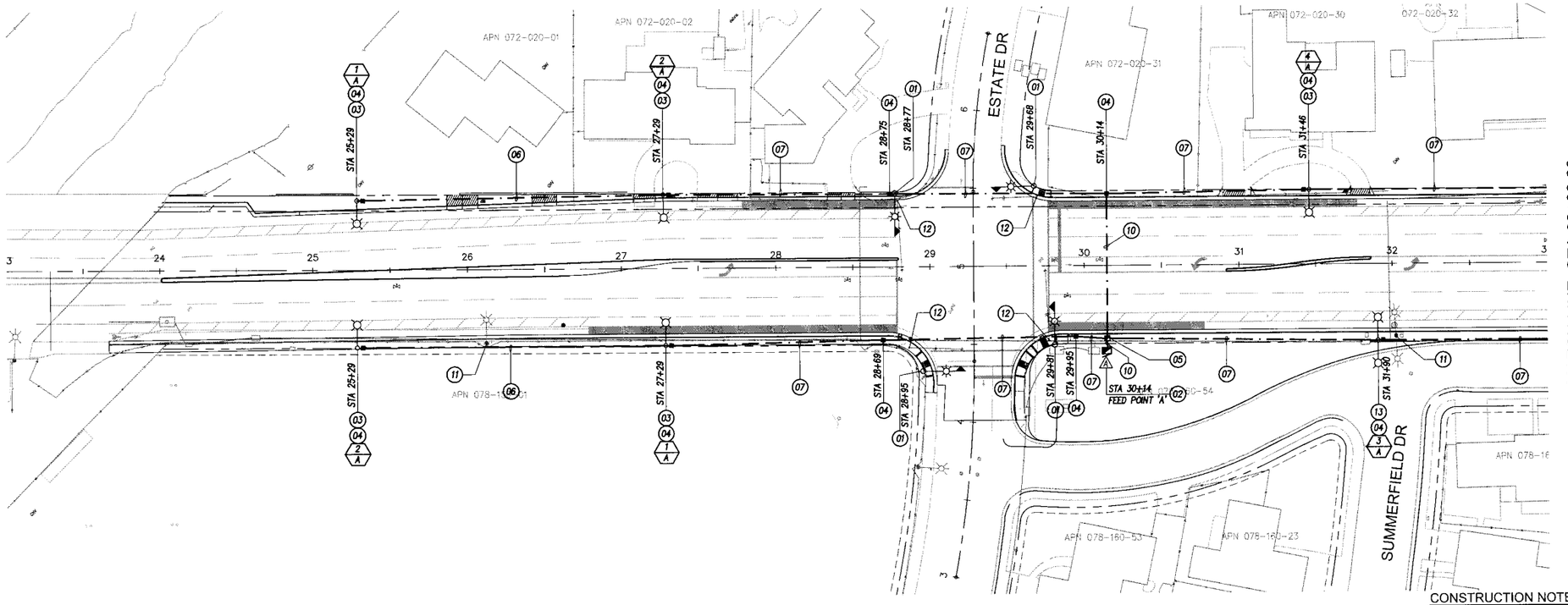
ELECTRICAL PLAN

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CITY OF STOCKTON, CALIFORNIA

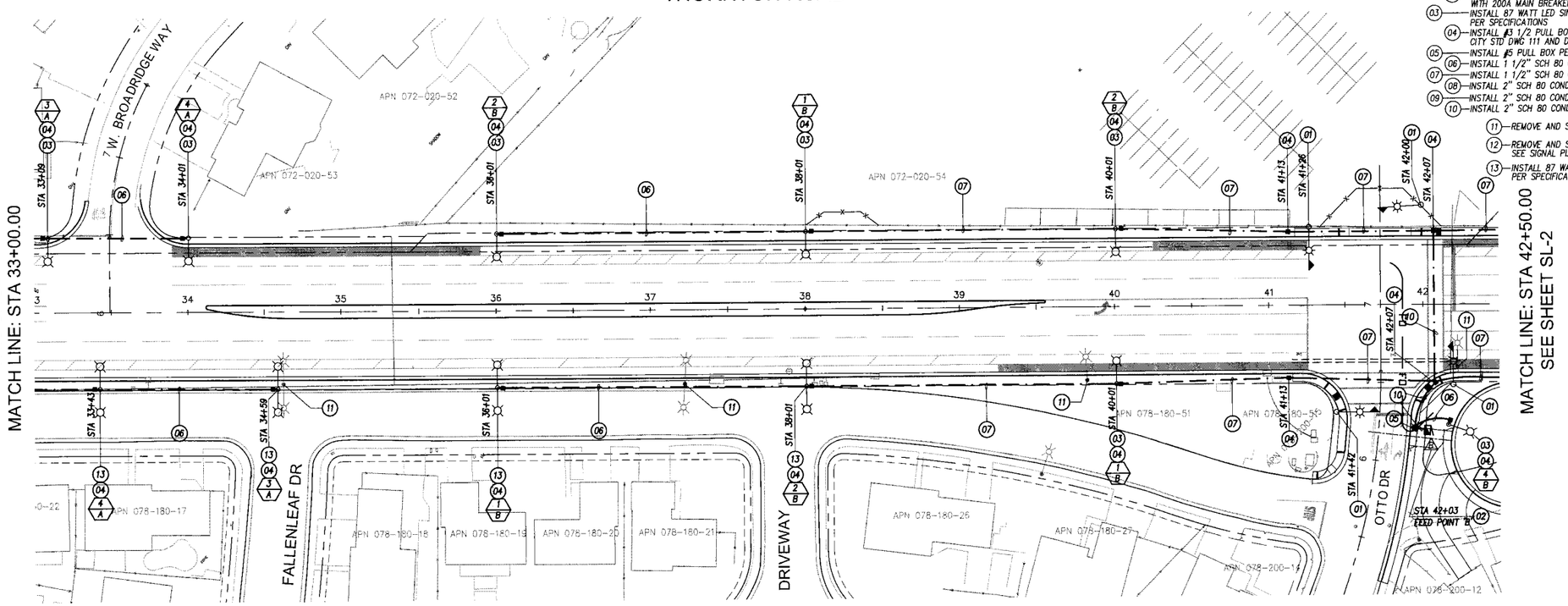
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THORNTON ROAD



CONSTRUCTION NOTES

01. SEE TRAFFIC SIGNAL PLAN
02. INSTALL 120/240V METERED SERVICE PEDESTAL PER CITY STD WITH 200A MAIN BREAKER AND FOUR 240V 30A BRANCH BREAKERS.
03. INSTALL 87 WATT LED SINGLE-MAST ARM STREET LIGHT PER SPECIFICATIONS
04. INSTALL #3 1/2 PULL BOX WITH SECURITY LID PER CITY STD DWG 111 AND DETAIL "A" ON SHEET E-2.
05. INSTALL #5 PULL BOX PER CITY STD DWG 111 AND CALTRANS DETAIL ES-8.
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11. REMOVE AND SALVAGE EXISTING STREET LIGHT
12. REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL WITH STREET LIGHT. SEE SIGNAL PLAN.
13. INSTALL 87 WATT LED DOUBLE-MAST ARM STREET LIGHT PER SPECIFICATIONS

1"=40'

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STREET LIGHT PLANS
STA. 24+00.00 TO STA. 40+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

STREET LIGHT PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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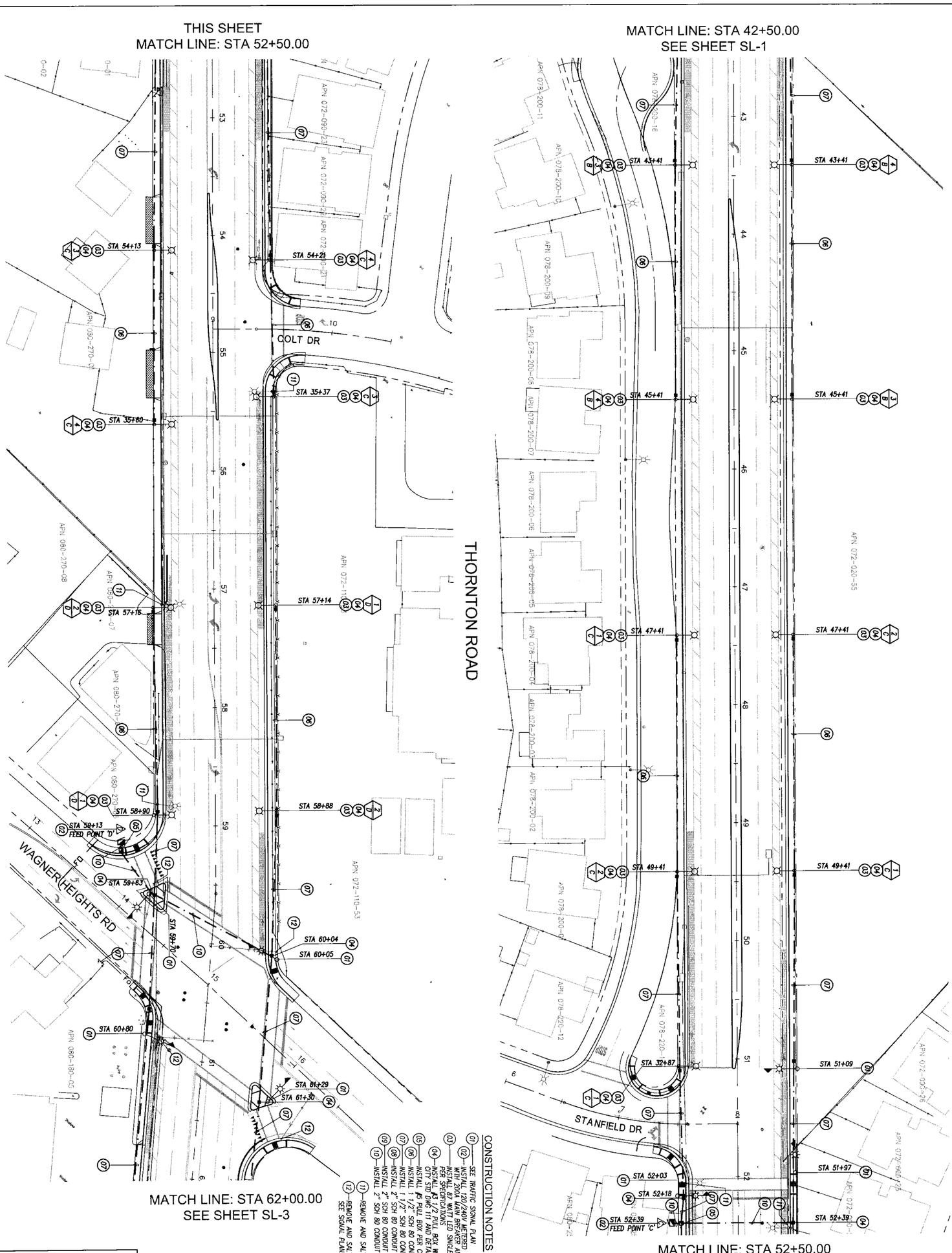
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CONSTRUCTION NOTES

(01) SEE TRAFFIC SIGNAL PLAN

(02) INSTALL 12" DIAMETER PEDESTAL FOR CITY STD. WITH 2-WAY LED PEDESTRIAN HEAD AND FOUR 240V 10A BRANCH BREAKERS. INSTALL 8' WITT LED SINGLE-MAST ARM STREET LIGHT PER SPECIFICATIONS

(04) INSTALL SECURITY LID PER CITY STD. DWG. 111 AND DETAIL 'A' ON SHEET E-2

(05) INSTALL #5 PULL BOX PER CITY STD DWG 111 AND CALTRANS DETAIL ES-8.

(06) INSTALL 1 1/2" SCH 80 CONDUIT WITH 2 #8 AND 1 #8 GROUND CONDUCTORS.

(07) INSTALL 1 1/2" SCH 80 CONDUIT WITH 4 #8 AND 1 #8 GROUND CONDUCTORS.

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(11) REMOVE AND SALVAGE EXISTING STREET LIGHT

(12) REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL WITH STREET LIGHT. SEE SIGNAL PLAN.

1"=40'
0 40' 80'

N

THORNTON ROAD WIDENING PROJECT
Stockton, California
STREET LIGHT PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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Project Engineer: Jay Prettenhofer
Submitted Date: April 18, 2016
Engineer's Signature
Signature Date

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REGISTERED PROFESSIONAL ENGINEER
No. 58813
CIVIL
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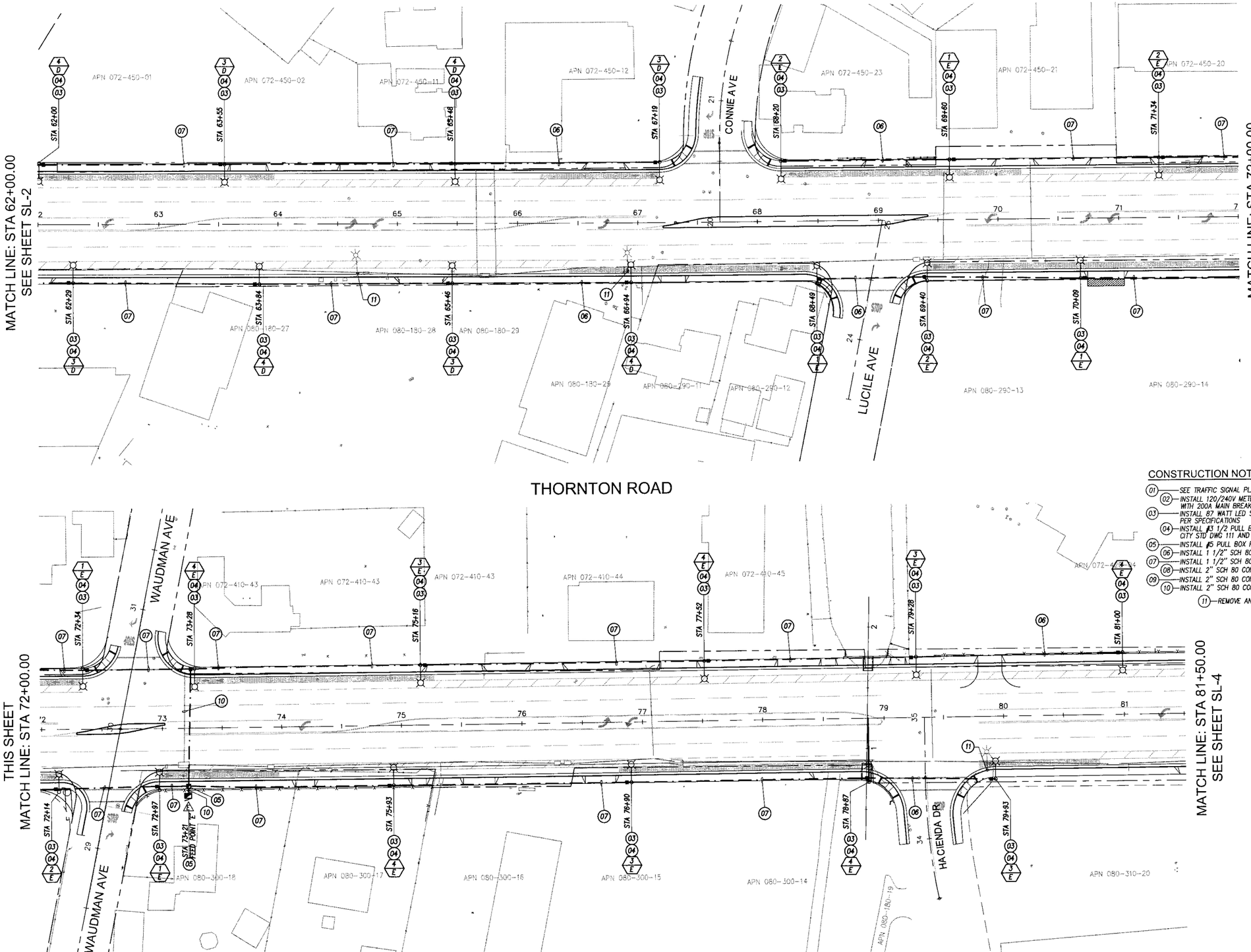
Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STREET LIGHT PLANS
STA. 42+50.00 TO STA. 62+00.00

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Revision				

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STREET LIGHT PLANS
STA. 62+00.00 TO STA. 81+50.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58926
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date

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Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

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PROJECT
Stockton, California

STREET LIGHT PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

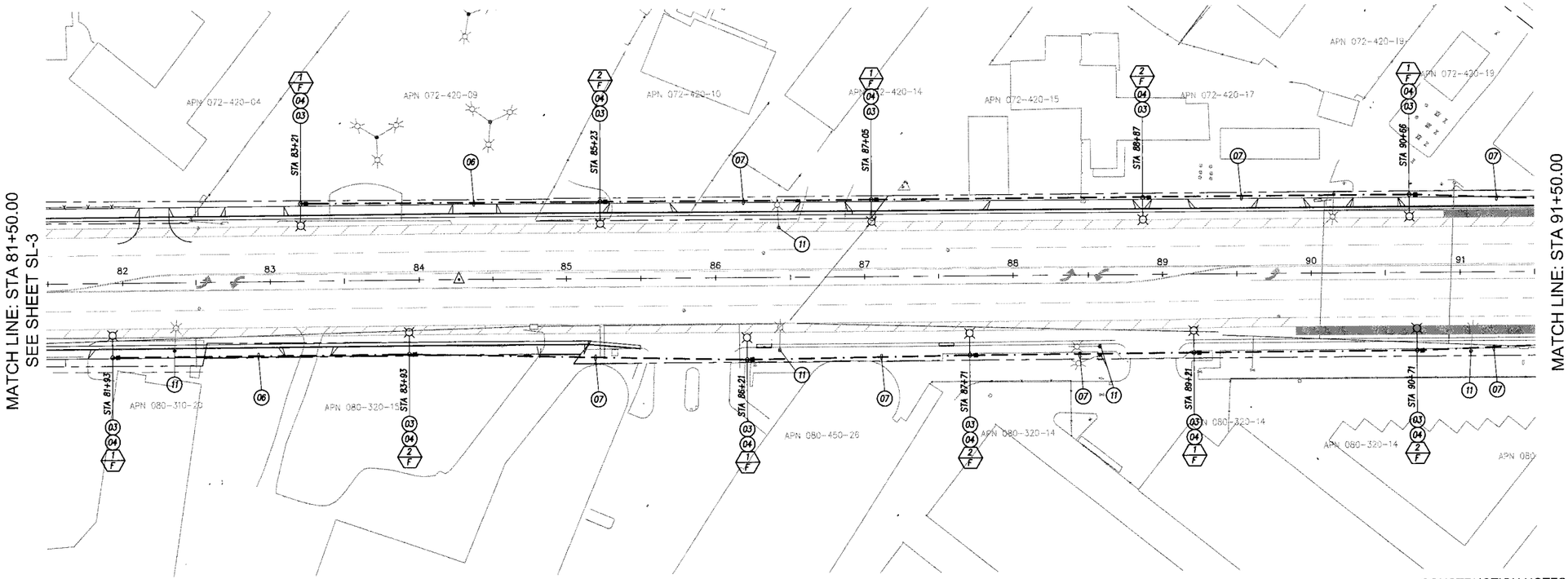
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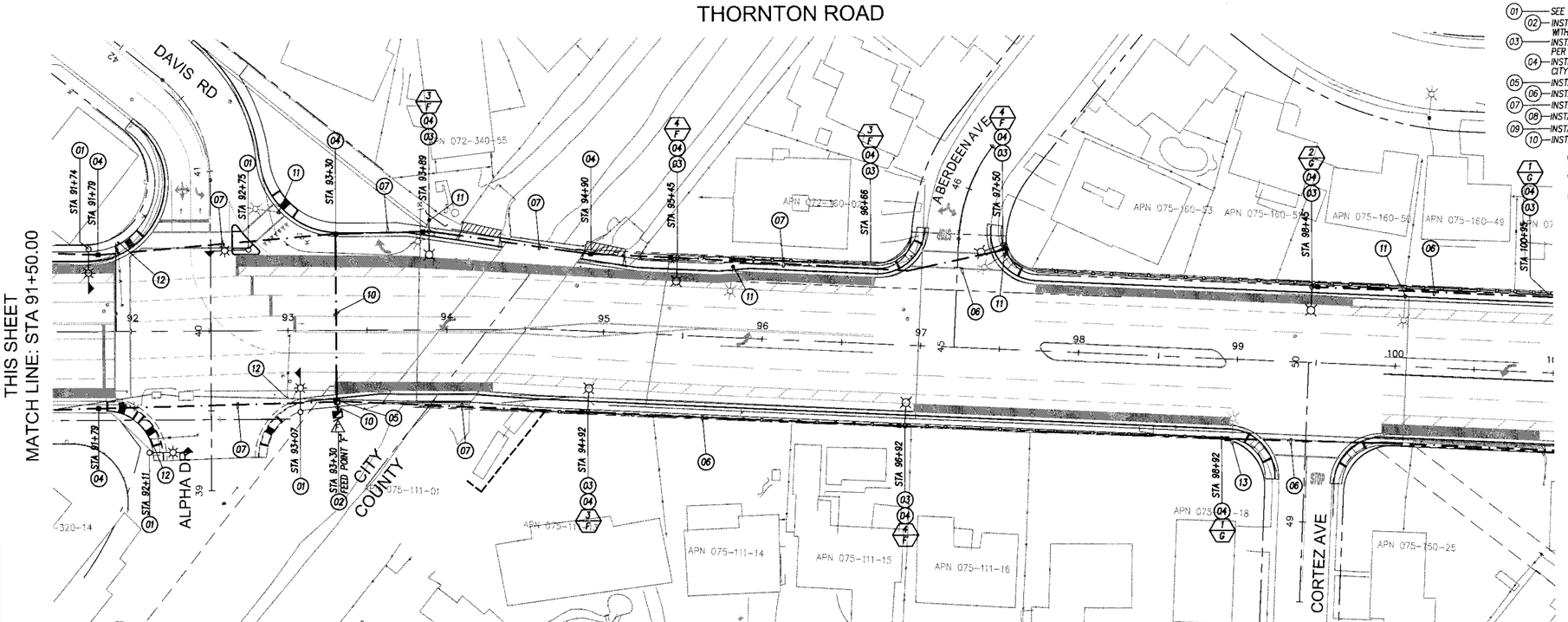
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SL-3
108 OF 145
JOB NO.
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THORNTON ROAD



CONSTRUCTION NOTES

01 SEE TRAFFIC SIGNAL PLAN
02 INSTALL 120/240V METERED SERVICE PEDESTAL PER CITY STD WITH 200A MAIN BREAKER AND FOUR 240V 30A BRANCH BREAKERS.
03 INSTALL 87 WATT LED SINGLE-MAST ARM STREET LIGHT PER SPECIFICATIONS
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11 REMOVE AND SALVAGE EXISTING STREET LIGHT
12 REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL WITH STREET LIGHT. SEE SIGNAL PLAN.
13 RETROFIT EXISTING STREET LIGHT WITH 87 WATT LED STREET LIGHT.

1"=40'

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CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STREET LIGHT PLANS
STA. 81+50.00 TO STA. 101+00.00

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Project Engineer: Joy Bhattacharyya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

STREET LIGHT PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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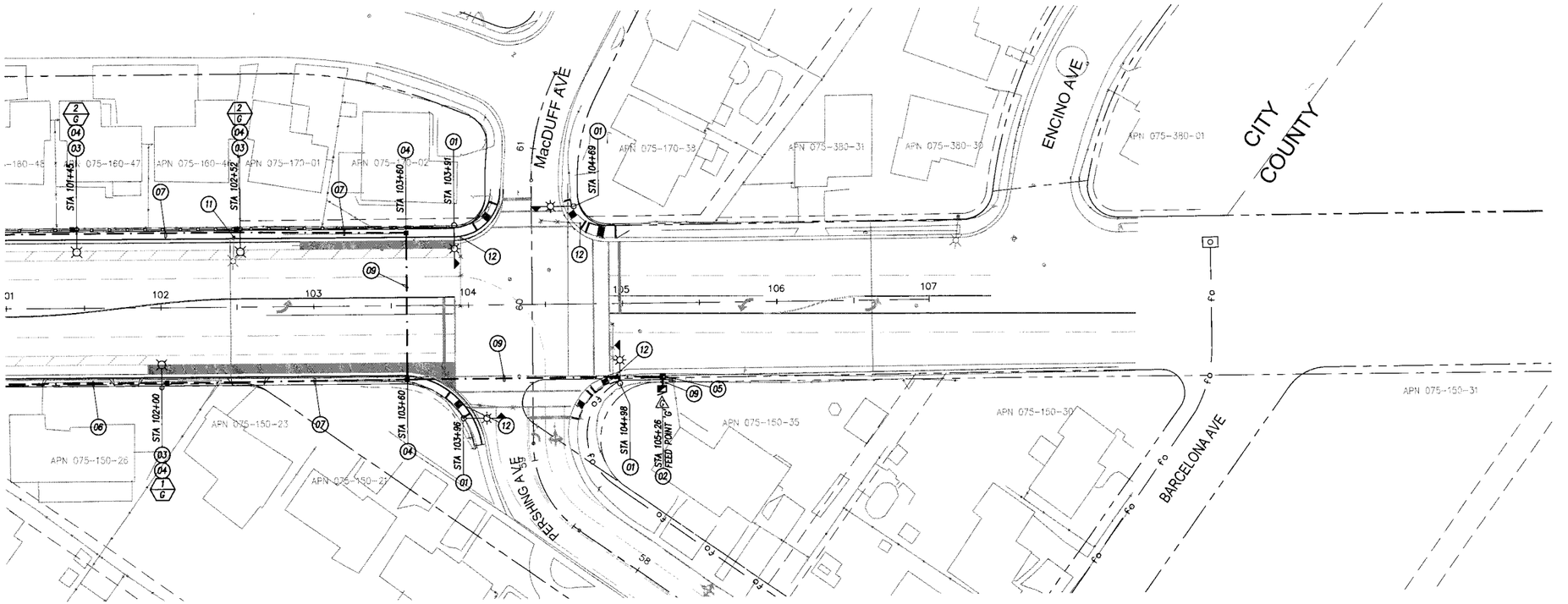
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109 OF 145

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CONSTRUCTION NOTES

(01) SEE TRAFFIC SIGNAL PLAN
(02) INSTALL 120/240V METERED SERVICE PEDESTAL PER CITY STD WITH 200A MAIN BREAKER AND FOUR 240V 30A BRANCH BREAKERS.
(03) INSTALL 87 WATT LED SINGLE-MAST ARM STREET LIGHT PER SPECIFICATIONS.
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(12) REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL WITH STREET LIGHT. SEE SIGNAL PLAN.

N

1"=40' 0 40' 80'

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
STREET LIGHT PLANS
STA. 101+00.00 TO STA. 107+00.00

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

STREET LIGHT PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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TRAFFIC SIGNAL IMPROVEMENTS FOR
THORNTON ROAD WIDENING PROJECT
FROM ESTATE DRIVE TO PERSHING AVE
IN THE CITY OF STOCKTON, CA

GENERAL NOTES

1. CONTRACTOR SHALL MARK LOOP LOCATIONS, LOOP WIRE RUNS AND DETECTOR HANDHOLES AND HAVE LOCATIONS APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

2. PEDESTRIAN PUSH BUTTONS SHALL MEET ADA ACCESSIBILITY GUIDELINES.

3. REFER TO CITY OF STOCKTON STANDARD DRAWINGS FOR STREET NAME SIGN ASSEMBLY AND MOUNTINGS.

4. ALL WORK AND MATERIAL EMBRACED IN THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE LATEST CITY OF STOCKTON, DEPT. OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND PLANS, AND THE MAY 2006 EDITION OF CALTRANS STANDARD PLANS AND SPECIFICATIONS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THIS PROJECT.

5. POLES, PULL BOXES, DETECTOR HANDHOLES, INDUCTIVE LOOPS, AND CONTROLLER CABINET LOCATIONS SHALL BE LOCATED IN THE FIELD BY THE CONTRACTOR WITH THE APPROVAL OF THE CITY TRAFFIC ENGINEER. TYPICALLY, DETECTOR HANDHOLES SHOULD BE INSTALLED ON LANE LINES.

6. CONTRACTOR SHALL RETURN ALL EXISTING & SALVAGEABLE EQUIPMENT AND SIGNS TO THE CITY OF STOCKTON CORPORATION YARD AT 1465 SOUTH LINCOLN STREET, STOCKTON, CALIFORNIA, 95206. CONTRACTOR SHALL NOTIFY THE CORP. YARD AT (209)937-8341 A MINIMUM OF 72 HOURS IN ADVANCE OF DELIVERY. SECTION 86-7 "REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT" SHALL APPLY.

7. CONTRACTOR SHALL BACKFILL WITH CUTBACK EACH NIGHT AREAS NOT COMPLETED TO ITS FINISHED STATE. ALL EXCAVATED AREAS SHALL BE PROTECTED FROM PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL TIMES.

8. SIDEWALK REMOVAL SHALL BE TO THE NEAREST SCORE MARK OR AS DETERMINED BY THE ENGINEER. CONTRACTOR SHALL NEATLY SAW-CUT CONCRETE WHERE PULL BOXES ARE TO BE PLACED AND SHALL RESTORE THE SLAB TO MATCH THE EXISTING CONDITION.

9. ALL PULL BOXES SHALL BE STATE STANDARD NUMBER 5 UNLESS OTHERWISE NOTED ON PLAN.

10. CONDUITS RUNNING FROM PULL BOX TO HANDHOLE AND HANDHOLE TO HANDHOLE SHALL BE A MINIMUM 2" DIA. UNLESS OTHERWISE NOTED.

11. LABEL PEDESTRIAN AND SIGNAL COMMONS SEPARATELY IN THE CONTROLLER CABINET.

12. ALL VEHICLE INDICATIONS SHALL BE INTERNALLY FUSED LED'S.

13. CONDUIT ROUTING SHOWN IS ESSENTIALLY DIAGRAMMATIC. THE CONTRACTOR SHALL LAY OUT RUNS TO SUIT FIELD CONDITIONS AND THE COORDINATION REQUIREMENTS OF UTILITIES OR ANY OTHER TRADES, AND TO THE SATISFACTION OF THE CITY OF STOCKTON. UPON COMPLETION OF CONDUIT INSTALLATION, THE ACTUAL LOCATION OF THE CONDUITS SHALL BE NOTED ON AN AS-BUILT SET OF PRINTS AND FURNISHED TO THE CITY.

14. THE CONTRACTOR SHALL INSTALL TYPE V PHOTO ELECTRIC CONTROL UNIT IN SERVICE CABINET. A SECONDARY PHOTOELECTRIC IS ALSO REQUIRED ON THE NEAREST POLE TO THE SERVICE CABINET.

15. ALL VEHICLE INDICATIONS SHALL BE 12 INCH UNLESS OTHERWISE NOTED. ALL SIGNAL HEADS SHALL HAVE VENTILATED BACK PLATES.

16. THE CONTRACTOR SHALL NOTIFY THE CITY OF STOCKTON CORPORATION YARD (SIGNAL SHOP) AT (209) 937-8341 A MINIMUM OF 72 HOURS EN ADVANCE OF THE LAYOUT AND CUTTING OF TRAFFIC SIGNAL LOOPS.

17. THESE PLANS SHALL BE ACCOMPANIED BY SEPARATE SET OF SPECIAL PROVISIONS.

18. ALL STREET NAME SIGNS SHALL BE APPROVED FOR CONFORMANCE BY THE CITY TRAFFIC DEVICES STAFF PRIOR TO INSTALLATION. A STREET BLOCK NUMBER SHALL BE OBTAINED PRIOR TO THE INSTALLATION OF THE STREET NAME SIGN.

19. THE INFRARED DETECTOR SHALL BE DESIGNED FOR MOUNTING AT OR NEAR THE INTERSECTION ON MAST ARMS OR PEDESTALS. ALL INFRARED DETECTORS SHALL BE MOUNTED VERTICALLY. THE CONTRACTOR SHALL PURCHASE AND FURNISH A DATA-ENCODED EMITTER WITH A 25 FOOT CABLE FOR EACH SIGNALIZED INTERSECTION.

20. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY PG&E, AT&T, AND OTHER UTILITY COMPANIES PRIOR TO START OF WORK. THE CONTRACTOR SHALL CALL USA (800-227-2600) 48 HOURS PRIOR TO ANY EXCAVATION.

21. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK CALLED FOR ON THESE PLANS UNTIL THE CITY ENGINEER SIGNATURE OF APPROVAL IS AFFIXED HEREON AND ALL APPLICABLE PERMITS HAVE BEEN OBTAINED. AN APPROVED SET OF PLANS SHALL BE ON THE JOB SITE DURING ANY CONSTRUCTION.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ALL CONFLICTS, ERRORS, OMISSIONS, ETC. TO THE ENGINEER IMMEDIATELY UPON DISCOVERY. IF SO DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL STOP WORK UNTIL REMEDIAL ACTION CAN BE TAKEN. ANY COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO REPORT, OR FAILURE TO STOP WORK AS DIRECTED, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

23. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

24. ATTENTION IS CALLED TO: SECTION 1540(A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540), ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, WHICH STATES:

"PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATION I.E., SEWER, WATER, FUEL, ELECTRIC LINES, ETC. WILL BE ENCOUNTERED AND, IF SO, WHETHER SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION."

25. THE CONTRACTOR SHALL MEET G.O.95 REQUIREMENTS AND LOCATE FOUNDATION SO AS TO PROVIDE A MINIMUM OF 6' RADIAL CLEARANCE FROM ALL EQUIPMENT TO OVERHEAD POWER LINE (PRIMARY) AND 3' RADIAL CLEARANCE TO COMMON NEUTRAL LINE. POLE HEIGHT AND LOCATION ARE INTENDED TO PROVIDE 10' RADIAL CLEARANCE TO PRIMARY LINES. CONTRACTOR SHALL CONTACT PG&E FOR ANY WORK TO BE DONE WITHIN 10' RADIAL CLEARANCE ZONE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH WORKING WITHIN THE 10' RADIAL CLEARANCE ZONE.

26. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEASURES FOR THE PROTECTION OF ALL EXISTING IMPROVEMENTS AND UTILITIES, WHETHER OR NOT SHOWN ON THESE PLANS. ANY RESULTING DAMAGE DURING THE PERFORMANCE OF THE WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY OF STOCKTON AT THE CONTRACTOR'S EXPENSE.

27. ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LIGHT EMITTING DIODE (LED) TYPE WITH COUNTDOWN INDICATION.

28. THE CONTRACTOR SHALL FURNISH AND INSTALL AUDIBLE PEDESTRIAN NAVIGATION SYSTEMS.

29. ALL INDIVIDUALS WHO PERFORM ELECTRICAL WORK SHALL BE CERTIFIED BY THE STATE OF CALIFORNIA ACCORDING TO ASSEMBLY BILL AB 1719.

30. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CONDUIT TO SERVICE POINTS WITH PG&E. CONDUIT RUNS BETWEEN PG&E SERVICE POINTS AND SERVICE ENCLOSURES SHALL CONFORM TO PG&E REQUIREMENTS.

31. THE CONTRACTOR SHALL CONTACT THE CITY OF STOCKTON (209)937-8374 FOR A PRE-CONSTRUCTION CONFERENCE AFTER THE AWARD OF CONTRACT AND AT LEAST 72 HOURS IN ADVANCE OF WORK.

32. FLASHING INDICATIONS SHALL FLASH IN RED ON ALL PHASES.

33. CONTRACTOR SHALL, BY HAND, POTHOLE EXISTING UTILITIES TO VERIFY LOCATION PRIOR TO CONSTRUCTION.

34. THE CONTRACTOR SHALL MAKE AN ON-SITE INSPECTION PRIOR TO PROVIDING ANY BIDS TO DETERMINE ANY AND ALL ITEMS NECESSARY TO PERFORM A COMPLETE AND ACCEPTABLE JOB.

35. THE LOCATIONS OF ALL UNDERGROUND FACILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL UNDERGROUND FACILITIES; HOWEVER, THE CONSULTANT ENGINEER ASSUMES NO LIABILITIES FOR THE ACCURACY OR COMPLETENESS OF THE EXISTING FACILITIES SHOWN HEREON OR FOR THE EXISTENCE OF OTHER UNDERGROUND UTILITIES OR OBJECTS WHICH MAY BE DISCOVERED BUT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING FACILITIES AND IMMEDIATELY NOTIFY THE ENGINEER IF ANY SUCH FACILITIES INTERFERE WITH THE CONSTRUCTION OF IMPROVEMENTS. CALL U.S.A 1-800-227-2600. THE CONTRACTOR SHALL STOP WORK AROUND THE AREA OF CONFLICT UNTIL HE IS DIRECTED BY THE CITY ENGINEER TO CONTINUE.

36. THE CONTRACTOR SHALL USE CABLE LOOSENER (APPROVED BY THE CITY) TO LOOSEN EXISTING CONDUCTORS IN THE CONDUITS. THE CONTRACTOR SHALL ALSO USE PULLING LUBRICANT FOR PULLING WIRES, AND A PULL TAPE CONFORMING TO THE PROVISION DESCRIBED UNDER "CONDUIT" IN THE SPECIAL PROVISION.

37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED TO COMPLETE THE PROJECT.

38. THE EXISTING TRAFFIC SIGNAL SYSTEMS SHALL BE KEPT IN EFFECTIVE OPERATION DURING THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE ENTIRE EXISTING SIGNAL SYSTEM FROM THE FIRST DAY THE CONTRACTOR BEGINS WORK ON THE PROJECT TO THE FINAL ACCEPTANCE. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH EMERGENCY PHONE CONTACT LIST FOR AFTER HOURS WORK.

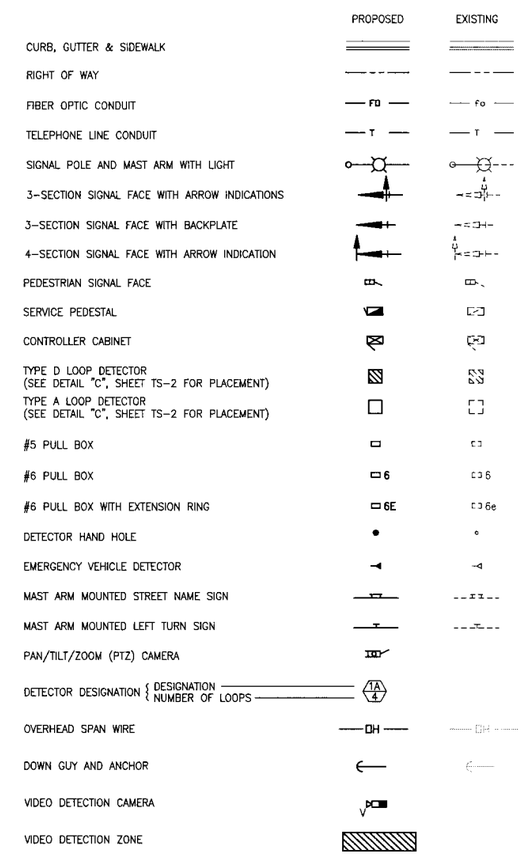
39. THE CONTRACTOR SHALL USE CITY APPROVED CONCRETE FORM TUBES FOR POLE FOUNDATION INSTALLATION AT ANY LOCATIONS WHERE EXISTING UTILITIES ARE IMMEDIATELY ADJACENT TO FOUNDATION.

40. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) ORDER NO. 99-08-DWQ. THE CONTRACTOR SHALL IMPLEMENT AND MONITOR A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE SWCRB REGULATIONS. IT IS HIGHLY RECOMMENDED THAT THE CONTRACTOR FOLLOW THE REQUIREMENTS IN THE STORM WATER BEST MANAGEMENT PRACTICE CONSTRUCTION HANDBOOK WHICH IS PREPARED BY CASQA AND ADOPTED BY THE STATE AND THE CITY.

SHEET INDEX

DWG. NO.	DESCRIPTION
TS-1	TRAFFIC SIGNAL PLAN – GENERAL NOTES AND LEGENDS
TS-2	TRAFFIC SIGNAL PLAN – DETAILS SHEET 1
TS-4	TRAFFIC SIGNAL PLAN – THORNTON RD AT ESTATE DR
TS-5	TRAFFIC SIGNAL PLAN – THORNTON RD AT OTTO DR
TS-6	TRAFFIC SIGNAL PLAN – THORNTON RD AT STANFIELD DR
TS-7	TRAFFIC SIGNAL PLAN – THORNTON RD AT WAGNER HEIGHTS RD
TS-8	TRAFFIC SIGNAL PLAN – THORNTON RD AT DAVIS RD-ALPHA DR
TS-9	TRAFFIC SIGNAL PLAN – THORTON RD AT PERSHING-MACDUFF AVE
TTS-1	STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN – THORNTON RD AT ESTATE DR
TTS-2	STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN – THORNTON RD AT WAGNER HEIGHTS RD
TTS-3	STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN – THORNTON RD AT DAVIS RD-ALPHA DR
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TTS-6	STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN – THORNTON RD AT WAGNER HEIGHTS RD
TTS-7	STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN – THORNTON RD AT DAVIS RD-ALPHA DR
TTS-8	STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN – THORNTON RD AT PERSHING AVE-MACDUFF AVE
TTS-9	TEMPORARY TRAFFIC SIGNAL PLAN – DETAILS

LEGEND



NOTE: THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

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No.	Revision	By	Appr.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - GENERAL NOTES AND LEGENDS

Permit-Seal



Engineer's Signature:
Signature Date:

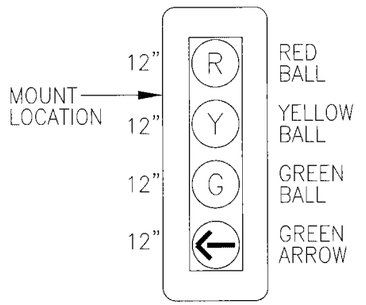
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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

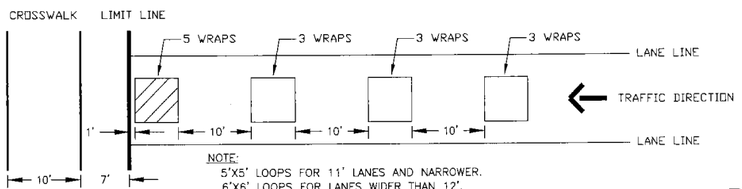
THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN-
GENERAL NOTES AND LEGENDS
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

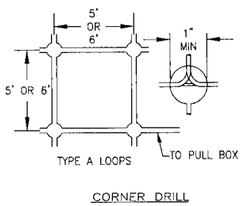
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DESIGNED BY: ABH		TS-1
DRAWN BY: MMT		111 OF 145
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.	JOB NO.
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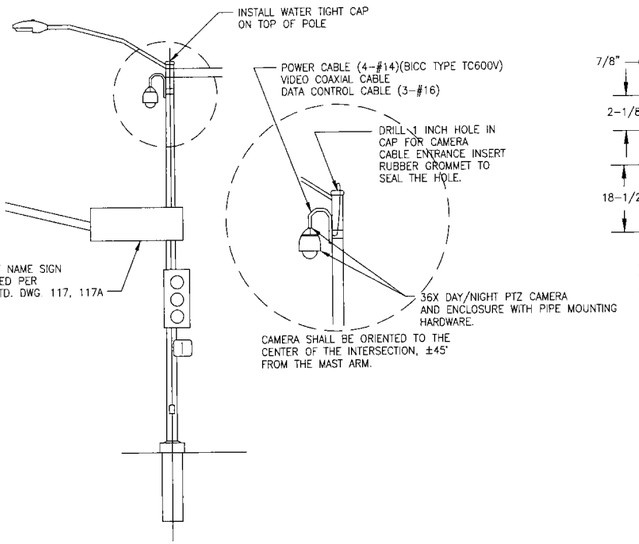


DETAIL 'A'
4-SECTION SIGNAL HEAD
(NO SCALE)

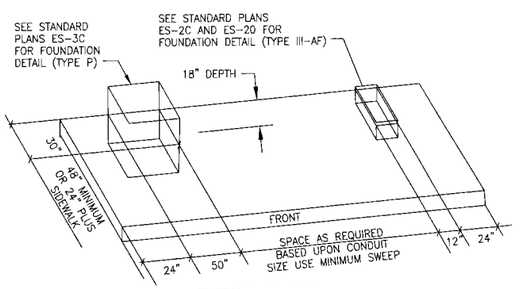




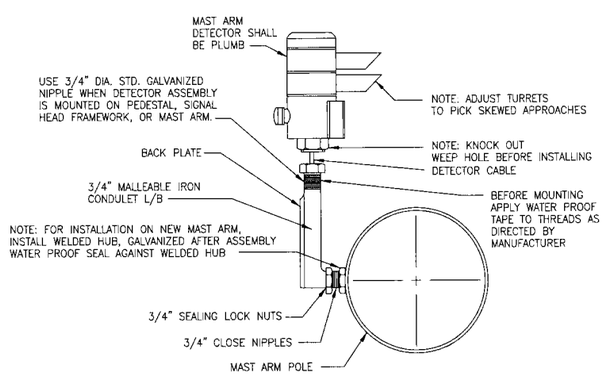
DETAIL 'C'
TYPE A LOOP DETECTOR INSTALLATION
(NO SCALE)



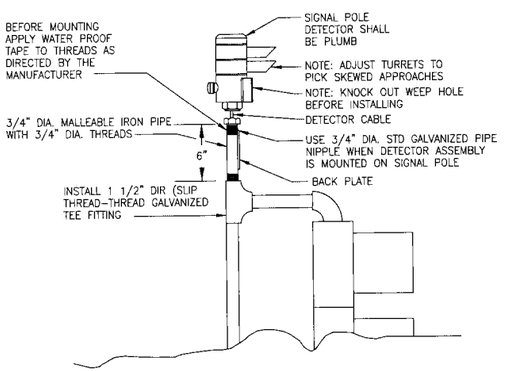
DETAIL 'B'
PAN-TILT-ZOOM CAMERA MOUNTING DETAIL
(NO SCALE)



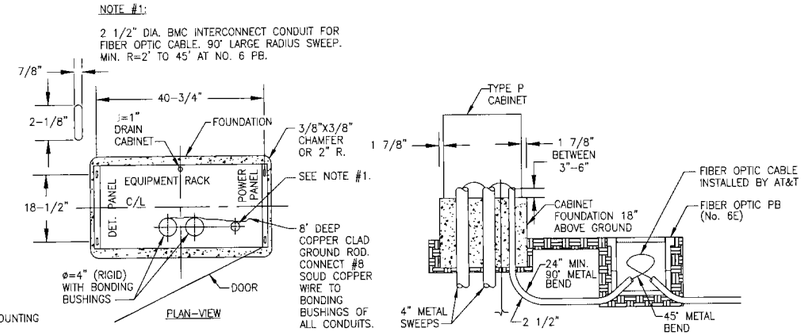
DETAIL "E"
CONTROLLER WALKWAY
(NO SCALE)



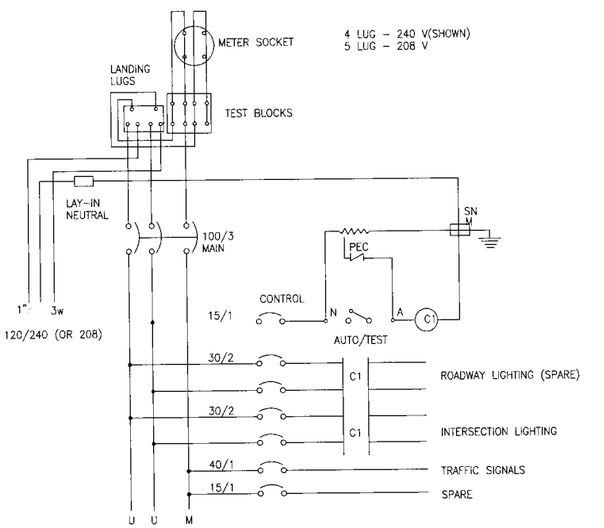
DETAIL "G"
EVP DETECTOR MAST ARM MOUNTING
(NO SCALE)



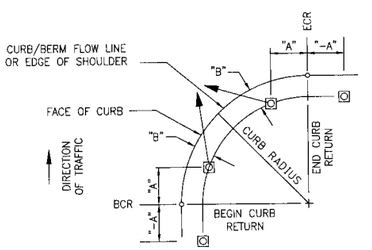
DETAIL "H"
EVP DETECTOR 1-B POLE MOUNTING
(NO SCALE)



DETAIL 'D'
CONTROLLER CABINET
(NO SCALE)



DETAIL "F"
TYPE III-AF SERVICE WIRING DIAGRAM
(NO SCALE)



NOTE: 1. FOR "A" AND "B" DIMENSIONS, SEE EQUIPMENT SCHEDULE, OR AS DIRECTED BY THE ENGINEER.
2. FOR ELEVATION OF THE FINISHED GRADE, SEE CIVIL IMPROVEMENT PLANS.

DETAIL "J"
POLE PLACEMENT
(NO SCALE)

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - DETAILS SHEET 1

Permit-Seal



Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

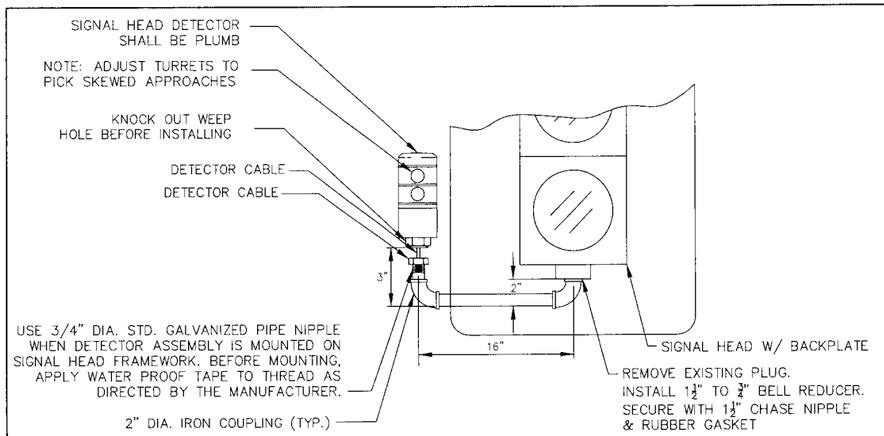
TRAFFIC SIGNAL PLAN - DETAILS SHEET 1

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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RECORD DWG:	DATE:

Sheet No. Revision
TS-2
112 OF 145
JOB NO.
183910142

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DETAIL 'K'

EVP DETECTOR BOTTOM OF SIGNAL HEAD MOUNTING

(NO SCALE)

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - DETAILS SHEET 2

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58926
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

TRAFFIC SIGNAL PLAN - DETAILS SHEET 2

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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RECORD DWG:	DATE:

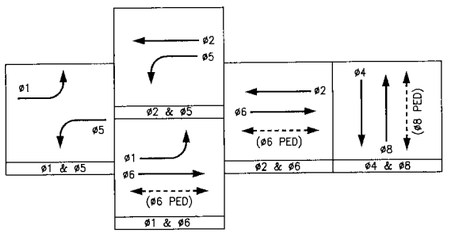
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113 OF 145
JOB NO. 183910142

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EQUIPMENT SCHEDULE

LOCATION	POLE TYPE	POLE HGT	POLE PLACEMENT "A"	POLE PLACEMENT "B"	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	PED SIGNAL MTG	PPB ø	PPB ARROW	PPB QUAD.	REMARKS
Ⓐ	29-5-100	30'	-3'	2'	50'	12'	87 LED	5	3-A	MAT					INSTALL R73-2 (CA) SIGN. INSTALL SNS "ESTATE DRIVE" SIGN ON MAST ARM PER DRAWING # 117.
								2	12"	MAS, MAS					
								2	12"	SV-1-T					
Ⓑ	1-B	10'	15'	5'				8	12"	TV-1-T					
Ⓒ	19-3-100	30'	12'	5'	30'	12'	87 LED	8	12"	MAT	SP-1-T	8	RT	NORTH	INSTALL R3-4 SIGN. INSTALL SNS "THORNTON ROAD" SIGN ON MAST ARM PER DRAWING # 117.
								1	3-A	SV-3-TB					
								8	12"						
								2	12"						
Ⓓ	29-5-100	30'	8.5'	7'	50'	15'	87 LED	1	3-A	MAT	SP-1-T	8	LT	NORTH	INSTALL R73-2 (CA) SIGN. INSTALL SNS "ESTATE DRIVE" SIGN ON MAST ARM PER DRAWING # 117.
								6	12"	MAS, MAS					
								6	12"	SV-1-T					
Ⓔ	1-B	10'	4'	7'				4	12"	TV-1-T	SP-1-T	6	RT	EAST	
Ⓕ	19-3-100	30'	9'	6'	25'	12'	87 LED	4	12"	MAT	SP-1-T	6	LT	EAST	INSTALL R3-4 SIGN. INSTALL SNS "THORNTON ROAD" SIGN ON MAST ARM PER DRAWING # 117.
								4	12"	SV-1-T					
Ⓖ	1-B	10'	5'	6'				5	3-A	TV-2-T					
								6	12"						

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
SEE DETAIL "J", SHEET TS-2 FOR POLE PLACEMENT DETAIL



SENSOR TABLE

CH	DET	LOOP DETECTORS	
1	1	1A	(4)
2		2A	(2)
3		3A NOT USED	
4		4A	(4)
1	2	5A	(4)
2		6A	(2)
3		7A NOT USED	
4		8A	(4)
1	3	2B SAMPLER	(1)
2		2C SAMPLER	(1)
3			
4			
1	4	6B SAMPLER	(1)
2		6C SAMPLER	(1)
3			
4			
1	5	8B (DELAY)	(2)
2		8C (DELAY/EXT.)	(1)
3			
4			
1	6	2D BIKE	
2		6D BIKE	
3			
4			

( )=LOOPS PER SENSOR

PROPOSED PHASE DIAGRAM

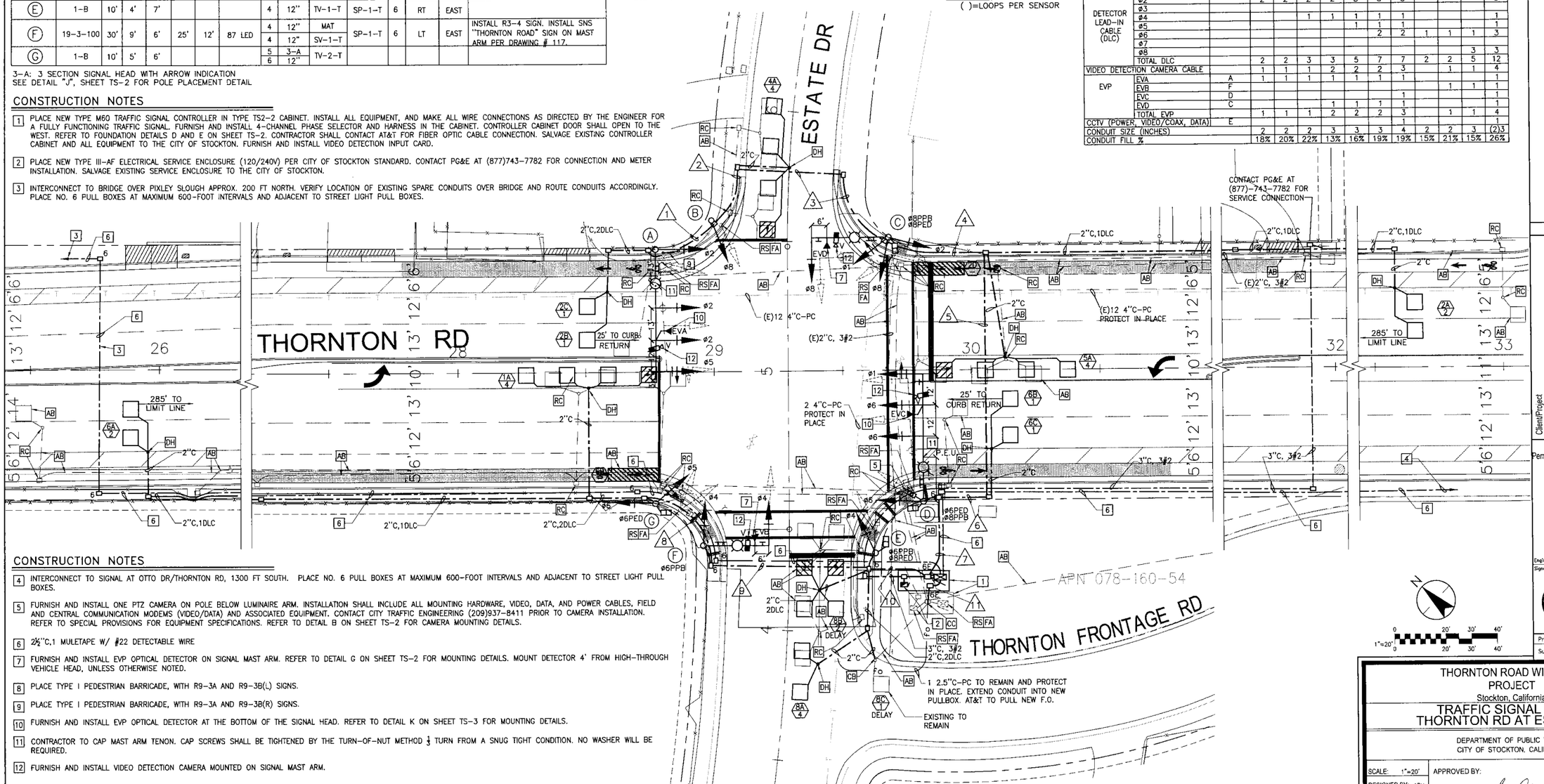
DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (ESTATE DR.)
EVA = ø5 + ø2 EVC = ø6 + ø1
EVD = ø4 EVB = ø8

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7	8	9	10	11
No. 14 AWG	ø1 VEHICLE	C,D				3	3	3					3
	ø2 VEHICLE	A,C	3	3	3	3	3	3					3
	ø4 VEHICLE	E,F								3	3	3	3
	ø5 VEHICLE	A,G	3	3	3	3	3	3	3	3	3	3	6
	ø6 VEHICLE	D,G						3	3	3	3	3	6
	ø8 VEHICLE	B,C		3	3	3	3	3	3				3
	ø6 PED	D,G						2	2	2	2	2	4
	ø8 PED	C,E				2	2	2	2			2	4
	ø6 PPB	E,F									1	1	1
	ø8 PPB	C,D				1	1	1	1				1
	PPB NEUTRAL	C,D,E,F				1	1	1	1		1	1	2
	PEU (120 V)								3				
	SPARES		3	3	3	3	3	3	3	3	3	3	6
	TOTAL #14 AWG		9	12	12	19	19	19	27	11	16	18	42
No. 8 AWG	SERVICE												3
	SIGNAL NEUTRAL		1	1	1	1	1	1	1	1	1	1	2
	TOTAL #8 AWG		1	1	1	1	1	1	1	1	1	1	5
No. 10 AWG	LIGHTING (240 V)	A,C,D,F	2	2	2	2	2	2	2		2	2	4
DETECTOR LEAD-IN CABLE (DLC)	ø1									1	1	1	1
	ø2		2	2	2	2	3	3	3				3
	ø3												
	ø4				1	1	1	1	1				1
	ø5						1	1	1				1
	ø6							2	2	1	1	1	3
	ø7												
	ø8											3	3
	TOTAL DLC		2	2	3	3	5	7	7	2	2	5	12
VIDEO DETECTION CAMERA CABLE			1	1	1	2	2	2	3		1	1	4
EVP	EVA	A	1	1	1	1	1	1	1				1
	EVB	F									1	1	1
	EVC	D							1				1
	EVD	C				1	1	1	1				1
	TOTAL EVP		1	1	1	2	2	2	3		1	1	4
CCTV (POWER, VIDEO/COAX, DATA)		E							1				1
CONDUIT SIZE (INCHES)			2	2	2	3	3	3	4	2	2	3	(2)3
CONDUIT FILL %			18%	20%	22%	13%	16%	19%	19%	15%	21%	15%	26%

CONSTRUCTION NOTES

1. PLACE NEW TYPE M60 TRAFFIC SIGNAL CONTROLLER IN TYPE TS2-2 CABINET. INSTALL ALL EQUIPMENT, AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 4-CHANNEL PHASE SELECTOR AND HARNESS IN THE CABINET. CONTROLLER CABINET DOOR SHALL OPEN TO THE WEST. REFER TO FOUNDATION DETAILS D AND E ON SHEET TS-2. CONTRACTOR SHALL CONTACT AT&T FOR FIBER OPTIC CABLE CONNECTION. SALVAGE EXISTING CONTROLLER CABINET AND ALL EQUIPMENT TO THE CITY OF STOCKTON. FURNISH AND INSTALL VIDEO DETECTION INPUT CARD.
2. PLACE NEW TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) PER CITY OF STOCKTON STANDARD. CONTACT PG&E AT (877)743-7782 FOR CONNECTION AND METER INSTALLATION. SALVAGE EXISTING SERVICE ENCLOSURE TO THE CITY OF STOCKTON.
3. INTERCONNECT TO BRIDGE OVER PIXLEY SLOUGH APPROX. 200 FT NORTH. VERIFY LOCATION OF EXISTING SPARE CONDUITS OVER BRIDGE AND ROUTE CONDUITS ACCORDINGLY. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.



CONSTRUCTION NOTES

4. INTERCONNECT TO SIGNAL AT OTTO DR/THORNTON RD, 1300 FT SOUTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
5. FURNISH AND INSTALL ONE PTZ CAMERA ON POLE BELOW LUMINAIRE ARM. INSTALLATION SHALL INCLUDE ALL MOUNTING HARDWARE, VIDEO, DATA, AND POWER CABLES, FIELD AND CENTRAL COMMUNICATION MODEMS (VIDEO/DATA) AND ASSOCIATED EQUIPMENT. CONTACT CITY TRAFFIC ENGINEERING (209)937-8411 PRIOR TO CAMERA INSTALLATION. REFER TO SPECIAL PROVISIONS FOR EQUIPMENT SPECIFICATIONS. REFER TO DETAIL B ON SHEET TS-2 FOR CAMERA MOUNTING DETAILS.
6. 2½"C,1 MULETAPE W/ #22 DETECTABLE WIRE
7. FURNISH AND INSTALL EVP OPTICAL DETECTOR ON SIGNAL MAST ARM. REFER TO DETAIL G ON SHEET TS-2 FOR MOUNTING DETAILS. MOUNT DETECTOR 4' FROM HIGH-THROUGH VEHICLE HEAD, UNLESS OTHERWISE NOTED.
8. PLACE TYPE I PEDESTRIAN BARRICADE, WITH R9-3A AND R9-3B(L) SIGNS.
9. PLACE TYPE I PEDESTRIAN BARRICADE, WITH R9-3A AND R9-3B(R) SIGNS.
10. FURNISH AND INSTALL EVP OPTICAL DETECTOR AT THE BOTTOM OF THE SIGNAL HEAD. REFER TO DETAIL K ON SHEET TS-3 FOR MOUNTING DETAILS.
11. CONTRACTOR TO CAP MAST ARM TENON. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD ⅓ TURN FROM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
12. FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON SIGNAL MAST ARM.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - THORNTON RD AT ESTATE DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 58928 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN - THORNTON RD AT ESTATE DR
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No. Revision: TS-4
114 OF 145
JOB NO. 183910142

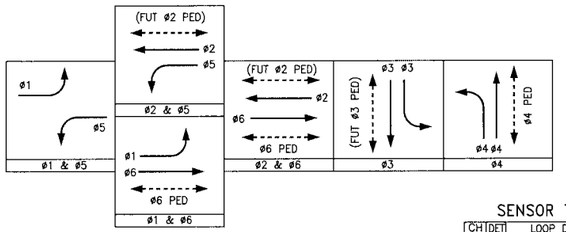
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EQUIPMENT SCHEDULE

LOCATION	POLE TYPE	HGT	POLE PLACEMENT "A"	POLE PLACEMENT "B"	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	PED SIGNAL MTG	PPB ø	PPB ARROW	PPB QUAD.	REMARKS
Ⓐ	29-5-100	30'	STA. 41+26	8.5'	50'	15'	87 LED	5	3-A	MAT	(SP-1-T) (FUTURE)	(3)	(LT)	(SOUTH)	INSTALL R73-2 (CA) SIGN. INSTALL "OTTO DIRVE" SNS ON MAST ARM PER DRAWING # 117.
								2	12"	MAS, MAS					
								2	12"	SV-1-T					
Ⓑ	1-B	10'	STA. 41+48	14.0'				4	3-A	TV-2-T	(SP-1-T) (FUTURE)	(2)	(RT)	(WEST)	
								3	12"						
Ⓒ	17-3-100	30'	STA. 42+00	20.2'	20'	12'	87 LED	4	4-A	MAS	(SP-1-T) (FUTURE)	(2)	(RT)	(WEST)	INSTALL R61-7(CA) SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								4	12"	SV-1-T					
Ⓓ	1-B	10'	STA. 42+18	6.0'				1	3-A	TV-2-T	SP-1-T	4	RT	NORTH	
								2	12"						
Ⓔ	29-5-100	30'	2.9'	7.0'	50'	15'	87 LED	1	3-A	MAT	SP-1-T	4	LT	NORTH	INSTALL R73-2 (CA) SIGN. INSTALL "OTTO DRIVE" SNS ON MAST ARM PER DRAWING # 117.
								6	12"	MAS, MAS					
								6	12"	SV-1-T					
Ⓕ	1-B	10'	2.5'	6.0'				3	3-A	TV-2-T	SP-1-T	6	RT	EAST	
								4	12"						
Ⓖ	19-3-100	30'	5.0'	6.5'	25'	12'	87 LED	3	4-A	MAS	SP-1-T	6	LT	EAST	INSTALL R3-4 SIGN. INSTALL "THORNTON ROAD" SNS ON MAST ARM PER DRAWING # 117.
								3	12"	SV-1-T					
Ⓗ	1-B	10'	2.8'	6.5'				5	3-A	TV-2-T	(SP-1-T) (FUTURE)	(3)	(RT)	(SOUTH)	
								6	12"						

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION 4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION PER DETAIL "A" ON SHEET TS-2
SEE DETAIL "J", SHEET TS-2 FOR POLE PLACEMENT DETAIL

PROPOSED PHASE DIAGRAM



DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (OTTO DRIVE)
EVA = ø2 + ø5 EVC = ø6 + ø1
EVB = ø3 EVD = ø4

SENSOR TABLE

CH	DET	LOOP DETECTORS	
1	1	1A	(4)
2		2A	(3)
3		3A	(2)
4		4A	(4)
1	2	5A	(4)
2		6A	(3)
3		7A NOT USED	
4		8A NOT USED	
1	3	2B SAMPLER	(1)
2		2C SAMPLER	(1)
3			
4			
1	4	6B SAMPLER	(1)
2		6C SAMPLER	(1)
3			
4			
1	5	4B (DELAY)	(2)
2		4C (DELAY/EXT.)	(1)
3			
4			
1	6	2D BIKE	
2		6D BIKE	
3			
4			

( )=LOOPS PER SENSOR

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7	8	9	10	11
No. 14 AWG	ø1 VEHICLE	D,E				3	3	3	3				3
	ø2 VEHICLE	A,D	3	3		3	3	3	3				3
	ø3 VEHICLE	B,F,G		3		3	3	3	3		3	3	6
	ø4 VEHICLE	B,C,F		3	3	3	3	3	3			3	6
	ø5 VEHICLE	A,H	3	3		3	3	3	3	3	3	3	6
	ø6 VEHICLE	E,H							3	3	3	3	6
	ø7 VEHICLE												
	ø8 VEHICLE												
	ø2 PED (FUTURE)	B,C		(2)	(2)	(2)	(2)	(2)	(2)				(2)
	ø3 PED (FUTURE)	A,H	(2)	(2)		(2)	(2)	(2)	(2)	(2)	(2)	(2)	(4)
	ø6 PED	G,E							2		2	2	4
	ø4 PED	D,E				2	2	2	2			2	4
	ø2 PPB (FUTURE)	B,C		(1)	(1)	(1)	(1)	(1)	(1)				(1)
	ø3 PPB (FUTURE)	A,H	(1)	(1)		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
	ø6 PPB	F,G									1	1	1
	ø4 PPB	D,E				1	1	1	1				1
	PPB NEUTRAL	A THRU H	1	1	1	1	1	1	1	1	1	1	2
	PEU (120 V)	E							3				
	SPARES		3	3	3	3	3	3	3	3	3	3	6
	TOTAL #14 AWG		10(3)	16(6)	7(3)	22(6)	22(6)	22(6)	30(6)	10(3)	16(3)	21(3)	48(9)
No. 8 AWG	SERVICE												3
	SIGNAL NEUTRAL		1	1	1	1	1	1	1	1	1	1	2
	TOTAL #8 AWG		1	1	1	1	1	1	1	1	1	1	5
No. 10 AWG	LIGHTING (240 V)	A,C,E,G	2	2	2	2	2	2	2		2	2	
DETECTOR LEAD-IN CABLE (DLC)	ø1									1	1	1	1
	ø2		2	2		2	3	3	3				3
	ø3			1		1	1	1	1				1
	ø4										1	3	3
	ø5						1	1	1				
	ø6							2	2	1	1	1	2
	ø7												
	ø8												
	TOTAL DLC		2	3		3	5	7	7	2	3	5	11
VIDEO DETECTION CAMERA CABLE			1	1	1	2	2	2	3		1	1	4
EVP	EVA	A	1	1		1	1	1	1				1
	EVB	C									1	1	1
	EVC	E							1				1
	EVD	C			1	1	1	1	1				1
	TOTAL EVP		1	1	1	2	2	2	3		1	1	4
CCTV (POWER, VIDEO/COAX, DATA)		E							1				1
CONDUIT SIZE (INCHES)			2	2	2	3	3	3	4	2	2	3	2-3
CONDUIT FILL %			19%	24%	9%	14%	16%	19%	19%	11%	21%	13%	23%

CONSTRUCTION NOTES

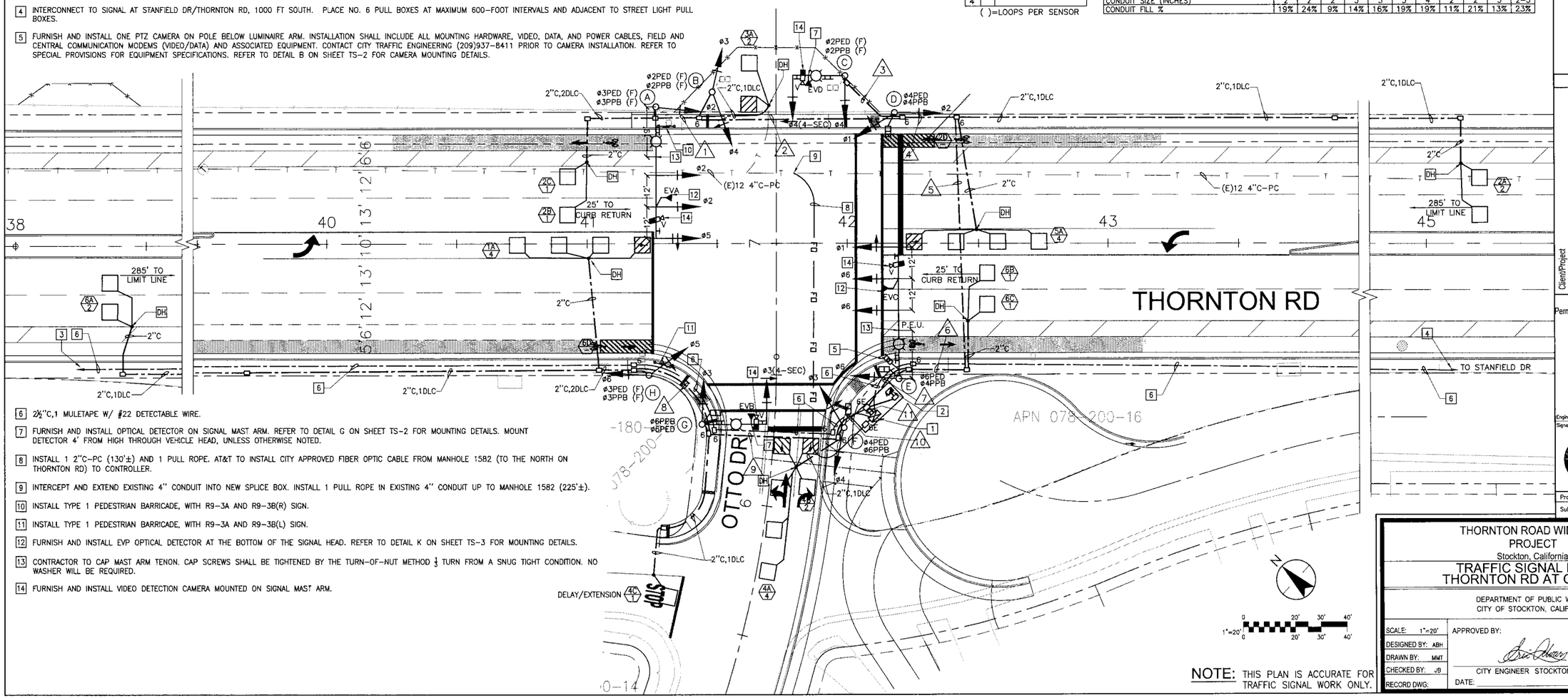
1 FURNISH AND INSTALL TYPE M60 TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN A TYPE TS2-2 CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE. CONTRACTOR SHALL CONSTRUCT FOUNDATION, INSTALL ALL EQUIPMENT AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 4-CHANNEL PHASE SELECTOR AND HARNESS IN THE CABINET. CONTROLLER CABINET DOOR SHALL OPEN TO THE WEST. REFER TO FOUNDATION DETAILS D AND E ON SHEET TS-2. FURNISH AND INSTALL VIDEO DETECTION INPUT CARD.

2 FURNISH AND INSTALL TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V). REFER TO DETAIL F ON SHEET TS-2 FOR SERVICE WIRING DIAGRAM. CONTACT PG&E AT (877)743-7782 FOR CONNECTION AND METER INSTALLATION.

3 INTERCONNECT TO SIGNAL AT ESTATE DR/THORNTON RD, 1300 FT NORTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.

4 INTERCONNECT TO SIGNAL AT STANFIELD DR/THORNTON RD, 1000 FT SOUTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.

5 FURNISH AND INSTALL ONE PTZ CAMERA ON POLE BELOW LUMINAIRE ARM. INSTALLATION SHALL INCLUDE ALL MOUNTING HARDWARE, VIDEO, DATA, AND POWER CABLES, FIELD AND CENTRAL COMMUNICATION MODEMS (VIDEO/DATA) AND ASSOCIATED EQUIPMENT. CONTACT CITY TRAFFIC ENGINEERING (209)937-8411 PRIOR TO CAMERA INSTALLATION. REFER TO SPECIAL PROVISIONS FOR EQUIPMENT SPECIFICATIONS. REFER TO DETAIL B ON SHEET TS-2 FOR CAMERA MOUNTING DETAILS.



6 2½"C,1 MULETAPE W/ #22 DETECTABLE WIRE.

7 FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL MAST ARM. REFER TO DETAIL G ON SHEET TS-2 FOR MOUNTING DETAILS. MOUNT DETECTOR 4' FROM HIGH THROUGH VEHICLE HEAD, UNLESS OTHERWISE NOTED.

8 INSTALL 1 2"C-PC (130'±) AND 1 PULL ROPE. AT&T TO INSTALL CITY APPROVED FIBER OPTIC CABLE FROM MANHOLE 1582 (TO THE NORTH ON THORNTON RD) TO CONTROLLER.

9 INTERCEPT AND EXTEND EXISTING 4" CONDUIT INTO NEW SPLICE BOX. INSTALL 1 PULL ROPE IN EXISTING 4" CONDUIT UP TO MANHOLE 1582 (225'±).

10 INSTALL TYPE 1 PEDESTRIAN BARRICADE, WITH R9-3A AND R9-3B(R) SIGN.

11 INSTALL TYPE 1 PEDESTRIAN BARRICADE, WITH R9-3A AND R9-3B(L) SIGN.

12 FURNISH AND INSTALL EVP OPTICAL DETECTOR AT THE BOTTOM OF THE SIGNAL HEAD. REFER TO DETAIL K ON SHEET TS-3 FOR MOUNTING DETAILS.

13 CONTRACTOR TO CAP MAST ARM TENON. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD ⅓ TURN FROM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.

14 FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON SIGNAL MAST ARM.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.
		MMYY	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - THORNTON RD AT OTTO DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 68928 Dtf. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN - THORNTON RD AT OTTO DR

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No. Revision
TS-5
115 OF 145
JOB NO.
183910142

1"=20' 0 20' 30' 40'

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM PLACEMENT "A"	MAST ARM PLACEMENT "B"	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	PED SIGNAL MTG	PPB ø	PPB ARROW	PPB QUAD.	REMARKS
Ⓐ	29-5-100	30'	STA. 51+ 8.6	6.5'	50'	15'	87LED	5	3-A	MAT					INSTALL R73-2 (CA) SIGN AND "STANFIELD DIRVE" SNS ON MAST ARM
								2	12"	MAS, MAS					
								2	12"	SV-2-TB					
								8	12"						
Ⓑ	TYPE 15-TS	30'	STA. 51+ 97.0	5.5'		12'	87LED	2	12"	SV-2-TB	SP-1-T	8	LT	SOUTH	INSTALL R3-4 SIGN AND "THORNTON ROAD" SNS ON SIGN POLES.
								8	12"						
Ⓒ	29-5-100	30'	-14'	7.5'	40'	12'	87LED	6	12"	MAT, MAS		8	LT	NORTH	INSTALL R3-18 SIGN AND "STANFIELD DRIVE" SNS ON MAST ARM
								6	12"	SV-1-T					
Ⓓ	1-B	10'	7.5'	7'							TP-2-T	6	RT	EAST	
Ⓔ	1-B	10'	8.8'	6.5'				5	3-A	TV-2-T	SP-1-T	6	RT	WEST	
								6	12"						
Ⓕ	1-B	10'	STA. 51+ 62.0	7.5'				8	12"	TV-1-T					INSTALL EVP ON SIGNAL HEAD

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
SEE DETAIL "J", SHEET TS-2 FOR POLE PLACEMENT DETAIL

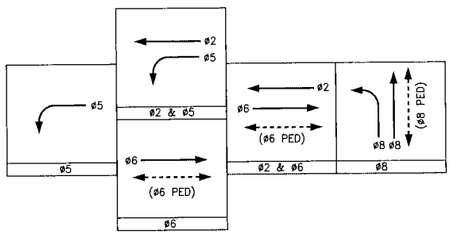
CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6
No. 14 AWG	ø1 VEHICLE							
	ø2 VEHICLE	A,B	3	3			3	3
	ø3 VEHICLE							
	ø4 VEHICLE							
	ø5 VEHICLE	A,E	3	3		3	6	6
	ø6 VEHICLE	C,E			3	3	6	6
	ø7 VEHICLE							
	ø8 VEHICLE	A,B	3	3			3	3
	ø2 PED							
	ø4 PED							
	ø6 PED	D,E				2	2	2
	ø8 PED	B,D		2			2	2
	ø2 PPB							
	ø4 PPB							
	ø6 PPB	D,E				1	1	1
	ø8 PPB	B,C		1	1		1	1
	PPB NEUTRAL	B,C,D,E	1	1	1	1	2	2
	PEU (120 V)				3		3	
	SPARES		3	3	3	3	6	6
	TOTAL #14 AWG		13	16	11	13	35	32
No. 8 AWG	SERVICE							3
	SIGNAL, NEUTRAL		1	1	1	1	2	2
	TOTAL #8 AWG		1	1	1	1	2	5
No. 10 AWG	LIGHTING (240 V)	A,B,C	2	2	2	2	4	
DETECTOR LEAD-IN CABLE (DLC)	ø1							
	ø2		2	3			3	3
	ø3							
	ø4							
	ø5			1			1	1
	ø6				2	1	3	3
	ø7							
	ø8					1	1	2
	TOTAL DLC		2	4	2	2	8	9
VIDEO DETECTION CAMERA CABLE			2	2	1		3	3
EVP	EVA	A	1	1			1	1
	EVB							
	EVC	C			1		1	1
	EVD	B		1			1	1
	TOTAL EVP		1	2	1		3	3
CCTV (POWER, VIDEO/COAX, DATA)		C			1		1	1
CONDUIT SIZE (INCHES)			2	3	3	2	4	(2)3
CONDUIT FILL %			21%	21%	20%	14%	21%	22%

SENSOR TABLE

CH	DET	LOOP DETECTORS	
1	1	1A	(4)
2		2A	(3)
3		3A NOT USED	
4		4A NOT USED	
1	2	5A	(4)
2		6A	(3)
3		7A NOT USED	
4		8A	(4)
1	3	2B SAMPLER	(1)
2		2C SAMPLER	(1)
3			
4			
1	4	6B SAMPLER	(1)
2		6C SAMPLER	(1)
3			
4			
1	5		
2		8B (DELAY/EXT.)	(1)
3			
4			
1	6	2D BIKE	
2		6D BIKE	
3			
4			

( )=LOOPS PER SENSOR

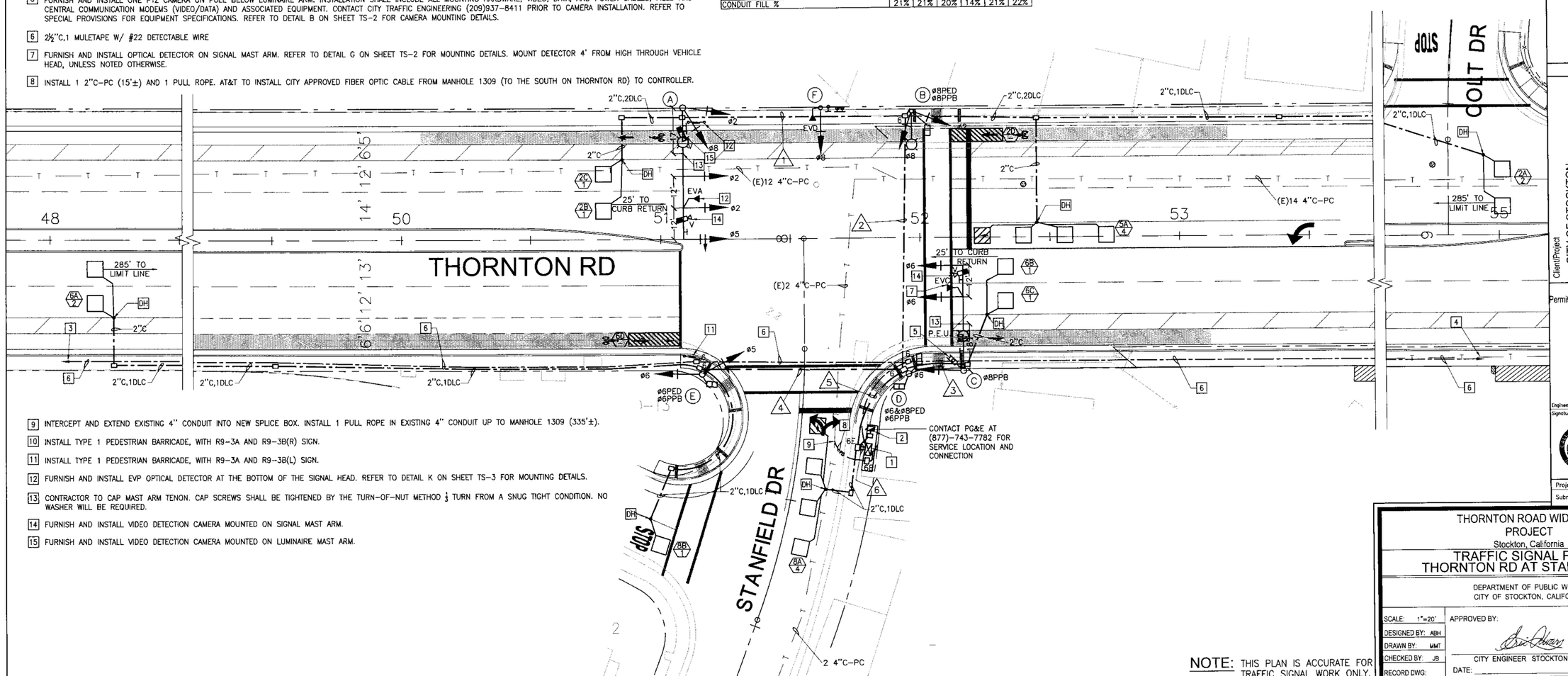


PROPOSED PHASE DIAGRAM

DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (STANFIELD DRIVE)
EVA = ø2 + ø5 EVC = ø6
EVD = ø8

CONSTRUCTION NOTES

1. FURNISH AND INSTALL TYPE M60 TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN A TYPE TS2-2 CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE. CONTRACTOR SHALL CONSTRUCT FOUNDATION, INSTALL ALL EQUIPMENT AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 3-CHANNEL PHASE SELECTOR AND HARNESS IN THE CABINET. CONTROLLER CABINET DOOR SHALL OPEN TO THE WEST. REFER TO FOUNDATION DETAILS D AND E ON SHEET TS-2. FURNISH AND INSTALL VIDEO DETECTION CAMERA INPUT CARD.
2. FURNISH AND INSTALL TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V). REFER TO DETAIL F ON SHEET TS-2 FOR SERVICE WIRING DIAGRAM. CONTACT PG&E AT (877)743-7782 FOR CONNECTION AND METER INSTALLATION.
3. INTERCONNECT TO SIGNAL AT OTTO DR/THORNTON RD, 1000 FT NORTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
4. INTERCONNECT TO SIGNAL AT WAGNER HEIGHTS RD /THORNTON RD, 900 FT SOUTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
5. FURNISH AND INSTALL ONE PTZ CAMERA ON POLE BELOW LUMINAIRE ARM. INSTALLATION SHALL INCLUDE ALL MOUNTING HARDWARE, VIDEO, DATA, AND POWER CABLES, FIELD AND CENTRAL COMMUNICATION MODEMS (VIDEO/DATA) AND ASSOCIATED EQUIPMENT. CONTACT CITY TRAFFIC ENGINEERING (209)937-8411 PRIOR TO CAMERA INSTALLATION. REFER TO SPECIAL PROVISIONS FOR EQUIPMENT SPECIFICATIONS. REFER TO DETAIL B ON SHEET TS-2 FOR CAMERA MOUNTING DETAILS.
6. 2½"C,1 MULETAPE W/ #22 DETECTABLE WIRE
7. FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL MAST ARM. REFER TO DETAIL G ON SHEET TS-2 FOR MOUNTING DETAILS. MOUNT DETECTOR 4' FROM HIGH THROUGH VEHICLE HEAD, UNLESS NOTED OTHERWISE.
8. INSTALL 1 2"C-PC (15'±) AND 1 PULL ROPE. AT&T TO INSTALL CITY APPROVED FIBER OPTIC CABLE FROM MANHOLE 1309 (TO THE SOUTH ON THORNTON RD) TO CONTROLLER.



9. INTERCEPT AND EXTEND EXISTING 4" CONDUIT INTO NEW SPLICE BOX. INSTALL 1 PULL ROPE IN EXISTING 4" CONDUIT UP TO MANHOLE 1309 (335'±).
10. INSTALL TYPE 1 PEDESTRIAN BARRICADE, WITH R9-3A AND R9-3B(R) SIGN.
11. INSTALL TYPE 1 PEDESTRIAN BARRICADE, WITH R9-3A AND R9-3B(L) SIGN.
12. FURNISH AND INSTALL EVP OPTICAL DETECTOR AT THE BOTTOM OF THE SIGNAL HEAD. REFER TO DETAIL K ON SHEET TS-3 FOR MOUNTING DETAILS.
13. CONTRACTOR TO CAP MAST ARM TENON. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD ⅓ TURN FROM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
14. FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON SIGNAL MAST ARM.
15. FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON LUMINAIRE MAST ARM.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - THORNTON RD AT STANFIELD DR

Permit-Seal
REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 58928 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN - THORNTON RD AT STANFIELD DR
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision
TS-6
116 OF 145
JOB NO. 183910142

N:\183\10\183910142 Planning and Analysis\Traffic\TS\183910142-TS-6.dwg 4/18/16 4:42pm MTREIT

EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	POLE PLACEMENT "A"	POLE PLACEMENT "B"	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	PED SIGNAL MTG	PPB ø	PPB ARROW	PPB QUAD.	REMARKS
Ⓐ	61-5-100	30'	2.0'	7.5'	60'	15'	87 LED	5	3-A	MAT					
								2	12"	MAS, MAS	SP-1-T	4	LT	SOUTH	INSTALL R73-2 (CA) SIGN AND "WAGNER HEIGHTS ROAD" SNS ON MAST ARM
								2	12"	SV-1-T					
Ⓑ	1-B	10'	4.5'	7.5'				3	3-A	TV-2-T	SP-1-T	2	RT	WEST	
								4	12"						
Ⓒ	19-4-100	30'	-1.5'	3.5'	30'	12'	87 LED	3	3-A	MAT	SP-1-T	2	LT	WEST	INSTALL R73-3(CA) SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								8	12"	MAS					
								8	12"	SV-1-T					
Ⓓ	1-B	10'	-1.5'	3.5'				1	3-A	TV-2-T		8	RT	NORTH	
								2	12"						
Ⓔ	1-B	10'	0.0'	7.5'				2	12"	TV-1-T					
Ⓕ	61-5-100	30'	-10.2'	6.5'	65'	15'	87 LED	1	3-A	MAT	SP-1-T	8	LT	NORTH	INSTALL R73-2 (CA) SIGN AND "WAGNER HEIGHTS ROAD" SNS ON MAST ARM
								6	12"	MAS, MAS					
								6	12"	SV-1-T					
Ⓖ	1-B	10'	4'	6.5'				7	3-A	TV-2-T	SP-1-T	6	RT	EAST	
								8	12"						
Ⓗ	19-4-100	30'	-1.5'	3.5'	25'	12'	87 LED	7	12"	MAT	SP-1-T	6	LT	EAST	INSTALL R73-3(CA) SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								4	12"	MAS					
								4	12"	SV-1-T					
Ⓙ	1-B	10'	-1.5'	3.5'				5	3-A	TV-2-T		4	RT	SOUTH	
								6	12"						
Ⓚ	1-B	10'	0'	7.5'				6	12"	TV-1-T					

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION SEE DETAIL "J", SHEET TS-2 FOR POLE PLACEMENT DETAIL

SENSOR TABLE

CH	DET	LOOP DETECTORS	
1	1	1A	(4)
2		2A	(3)
3		3A	(4)
4		4A	(4)
1	2	5A	(4)
2		6A	(3)
3		7A	(4)
4		8A	(4)
1	3	2B SAMPLER	(1)
2		2C SAMPLER	(1)
3			
4			
1	4	6B SAMPLER	(1)
2		6C SAMPLER	(1)
3			
4			
1	5	8B	(4)
2		4B	(4)
3			
4			
1	6	4C (DELAY)	(2)
2		2D BIKE	
3		6D BIKE	
4			

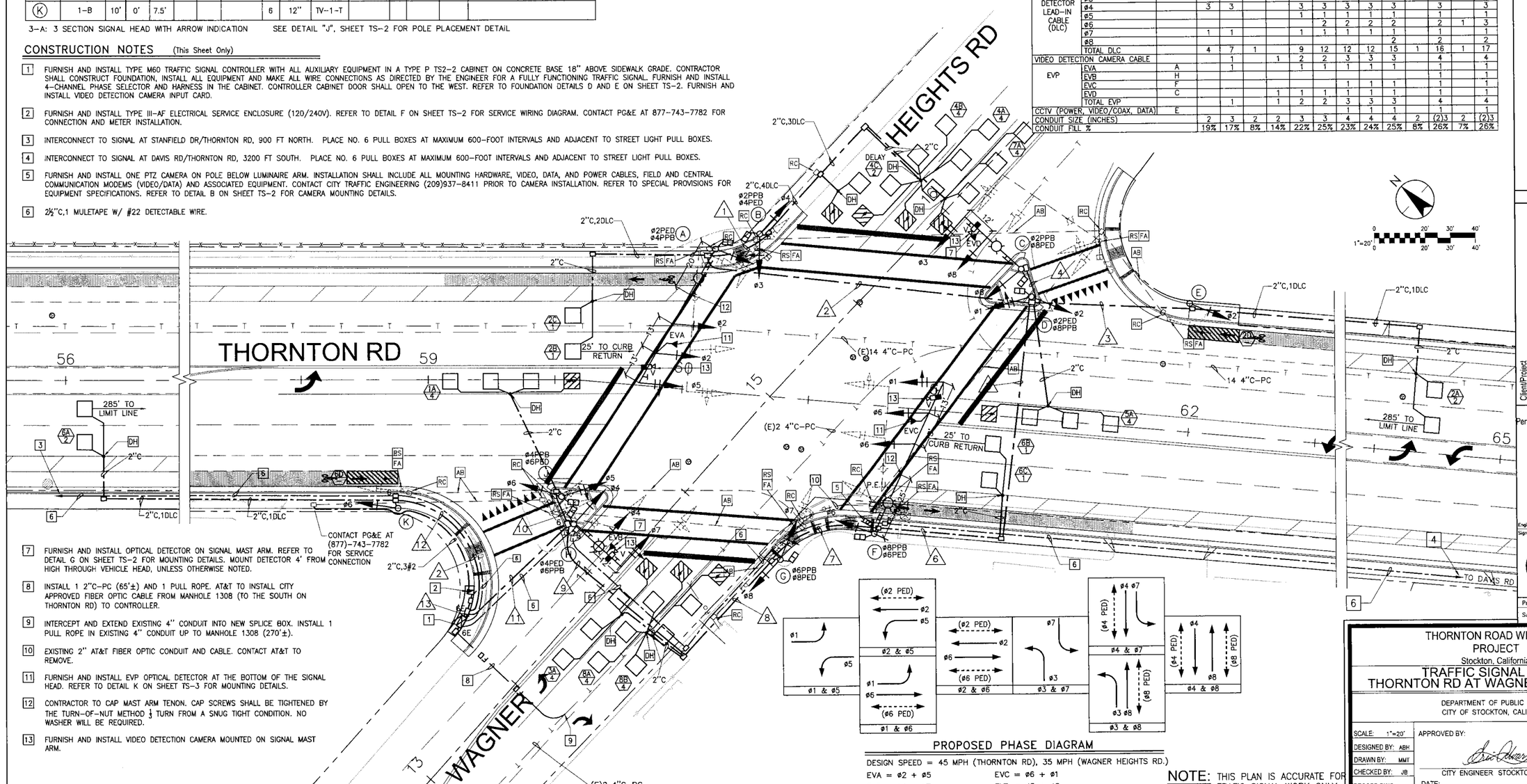
( )=LOOPS PER SENSOR

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13
No. 14 AWG	ø1 VEHICLE	D,F					3	3	3	3	3		3		3
	ø2 VEHICLE	A,D,E		3	3		3	3	3	3	3		3		3
	ø3 VEHICLE	B,C	3	3		3	3	3	3	3	3		3		3
	ø4 VEHICLE	B,H	3	3			3	3	3	3	3		3		3
	ø5 VEHICLE	A,J		3			3	3	3	3	3	3	6		6
	ø6 VEHICLE	F,J,K							3	3	3	3	6	3	9
	ø7 VEHICLE	G,H									3		3		3
	ø8 VEHICLE	C,G				3	3	3	3	3	3		3		3
	ø2 PED	A,D		2			2	2	2	2	2		2		2
	ø4 PED	B,H	2	2			2	2	2	2	2		2		2
	ø6 PED	F,J							2	2	2	2	4		4
	ø8 PED	C,G				2	2	2	2	2	2		2		2
	ø2 PPB	B,C	1	1		1	1	1	1	1	1		1		1
	ø4 PPB	A,J		1			1	1	1	1	1	1	2		2
	ø6 PPB	G,H								1	1		1		1
	ø8 PPB	D,F					1	1	1	1	1		1		1
	PPB NEUTRAL	A,B,C,D,F,G,H,J	1	1		1	1	1	1	1	1	1	1		1
	PEU (120 V)	F							3	3	3		3		
	SPARES		3	3	3	3	3	3	3	3	3	3	6	3	6
	TOTAL #14 AWG		13	22	6	13	31	31	39	43	43	13	55	6	55
No. 8 AWG	SERVICE														3
	SIGNAL NEUTRAL		1	1	1	1	1	1	1	1	1	1	2	1	2
	TOTAL #8 AWG		1	1	1	1	1	1	1	1	1	1	2	1	5
No. 10 AWG	LIGHTING (240 V)	A,C,F,H		2		2	2	2	2	2	2		4		
DETECTOR LEAD-IN CABLE (DLC)	ø1											1	1		1
	ø2			2	1		3	3	3	3	3		3		3
	ø3										1		1		1
	ø4		3	3			3	3	3	3	3		3		3
	ø5						1	1	1	1	1		1		1
	ø6							2	2	2	2		2	1	3
	ø7		1	1			1	1	1	1	1		1		1
	ø8										2		2		2
	TOTAL DLC		4	7	1		9	12	12	12	15	1	16	1	17
VIDEO DETECTION CAMERA CABLE				1		1	2	2	3	3	3		4		4
EVP	EVA	A		1			1	1	1	1	1		1		1
	EVB	H											1		1
	EVC	F					1	1	1	1	1		1		1
	EVD	C				1	1	1	1	1	1		1		1
	TOTAL EVP			1		1	2	2	3	3	3		4		4
CCTV (POWER, VIDEO/COAX, DATA)		E							1	1	1		1		1
CONDUIT SIZE (INCHES)			2	3	2	2	3	3	4	4	4	2	(2)3	2	(2)3
CONDUIT FILL %			19%	17%	8%	14%	22%	25%	23%	24%	25%	8%	26%	7%	26%

CONSTRUCTION NOTES (This Sheet Only)

1. FURNISH AND INSTALL TYPE M60 TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN A TYPE P TS2-2 CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE. CONTRACTOR SHALL CONSTRUCT FOUNDATION, INSTALL ALL EQUIPMENT AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 4-CHANNEL PHASE SELECTOR AND HARNESS IN THE CABINET. CONTROLLER CABINET DOOR SHALL OPEN TO THE WEST. REFER TO FOUNDATION DETAILS D AND E ON SHEET TS-2. FURNISH AND INSTALL VIDEO DETECTION CAMERA INPUT CARD.
2. FURNISH AND INSTALL TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V). REFER TO DETAIL F ON SHEET TS-2 FOR SERVICE WIRING DIAGRAM. CONTACT PG&E AT 877-743-7782 FOR CONNECTION AND METER INSTALLATION.
3. INTERCONNECT TO SIGNAL AT STANFIELD DR/THORNTON RD, 900 FT NORTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
4. INTERCONNECT TO SIGNAL AT DAVIS RD/THORNTON RD, 3200 FT SOUTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
5. FURNISH AND INSTALL ONE PTZ CAMERA ON POLE BELOW LUMINAIRE ARM. INSTALLATION SHALL INCLUDE ALL MOUNTING HARDWARE, VIDEO, DATA, AND POWER CABLES, FIELD AND CENTRAL COMMUNICATION MODEMS (VIDEO/DATA) AND ASSOCIATED EQUIPMENT. CONTACT CITY TRAFFIC ENGINEERING (209)937-8411 PRIOR TO CAMERA INSTALLATION. REFER TO SPECIAL PROVISIONS FOR EQUIPMENT SPECIFICATIONS. REFER TO DETAIL B ON SHEET TS-2 FOR CAMERA MOUNTING DETAILS.
6. 2½"C,1 MULETAPE W/ #22 DETECTABLE WIRE.
7. FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL MAST ARM. REFER TO DETAIL G ON SHEET TS-2 FOR MOUNTING DETAILS. MOUNT DETECTOR 4' FROM HIGH THROUGH VEHICLE HEAD, UNLESS OTHERWISE NOTED.
8. INSTALL 1 2"C-PC (65'±) AND 1 PULL ROPE. AT&T TO INSTALL CITY APPROVED FIBER OPTIC CABLE FROM MANHOLE 1308 (TO THE SOUTH ON THORNTON RD) TO CONTROLLER.
9. INTERCEPT AND EXTEND EXISTING 4" CONDUIT INTO NEW SPLICE BOX. INSTALL 1 PULL ROPE IN EXISTING 4" CONDUIT UP TO MANHOLE 1308 (270'±).
10. EXISTING 2" AT&T FIBER OPTIC CONDUIT AND CABLE. CONTACT AT&T TO REMOVE.
11. FURNISH AND INSTALL EVP OPTICAL DETECTOR AT THE BOTTOM OF THE SIGNAL HEAD. REFER TO DETAIL K ON SHEET TS-3 FOR MOUNTING DETAILS.
12. CONTRACTOR TO CAP MAST ARM TENON. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD ⅓ TURN FROM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
13. FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON SIGNAL MAST ARM.



PROPOSED PHASE DIAGRAM

DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (WAGNER HEIGHTS RD.)

EVA = ø2 + ø5 EVC = ø6 + ø1

EVB = ø4 + ø7 EVD = ø3 + ø8

NOTE: THIS PLAN IS ACCURATE FOR TRAFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.

Description

Client/Project: CITY OF STOCKTON, Thornton Road Widening, Stockton, California

Title: TRAFFIC SIGNAL PLAN - THORNTON RD AT WAGNER HEIGHTS RD

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER, JOY BHATTACHARYA, No. 68926, EXP. 9-30-17, CIVIL, STATE OF CALIFORNIA

Engineer's Signature:

Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya

Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN - THORNTON RD AT WAGNER HEIGHTS RD
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision: TS-7

117 OF 145

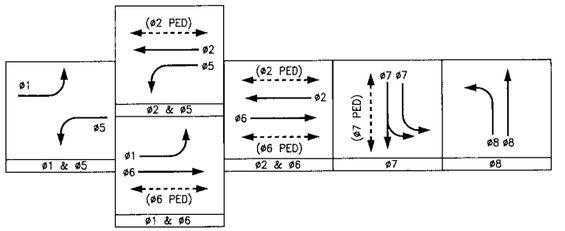
JOB NO. 183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	POLE PLACEMENT "A"	POLE PLACEMENT "B"	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	PED SIGNAL MTG	PPB ø	PPB ARROW	PPB QUAD.	REMARKS
Ⓐ	29-5-100	30'	0.0'	7.5'	50'	12'	87 LED	5	3-A	MAT					INSTALL R73-2 (CA) SIGN AND "DAVIS ROAD" SNS ON MAST ARM
								2	12"	MAS, MAS					
								2	12"	SV-1-T					
Ⓑ	1-B	7'	29'	7.5'							TP-1-T	7	LT	SOUTH	
Ⓒ	1-B	10'	76'	7.5'				7	12"	TV-2-T	SP-1-T	2	RT	WEST	
								8	3-A						
Ⓓ	TYPE 15-TS	30'	19.5'	6.5'		12'		7	12"	SV-1-T					
Ⓔ	17-3-100	30'	-4.6'	4.75'	20'	12'	87 LED	8	4-A	MAS	SP-1-T	2	RT	EAST	INSTALL R3-4 SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								1	3-A	SV-3-TB					
								2	12"						
								8	12"						
Ⓕ	1-B	10'	0.0'	7.5'				2	12"	TV-1-T					
Ⓖ	29-5-100	30'	6.5'	6.5'	50'	15'	87 LED	1	A	MAT					INSTALL R73-2 (CA) SIGN AND "ALPHA DRIVE" SNS ON MAST ARM
								6	12"	MAS, MAS					
								6	12"	SV-1-T					
Ⓗ	1-B	10'	2.0'	7.5'				5	3-A	TV-2-T	SP-1-T	7	RT	SOUTH	
								6	12"						
Ⓙ	19-3-100	30'	STA. 92+11	75' RT	25'	12'	87 LED	7	4-A	MAS	SP-1-T (F)	6 (F)	LT (F)	EAST (F)	INSTALL R61-32(CA) SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								7	12"	SV-1-T					
Ⓚ	1-B	10'	STA. 92+11	75' RT				7	3-A	TV-2-T	SP-1-T (F)	6 (F)	RT (F)	EAST (F)	ø8 12" SIGNAL HEAD IS TO BE INSTALLED IN THE FUTURE.
								8	12"(F)						

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
(F) = FUTURE



PROPOSED PHASE DIAGRAM

DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (DAVIS RD. AND ALPHA DR)
EVA = ø2 + ø5 EVC = ø1 + ø6
EVB = ø7 EVD = ø8

SENSOR TABLE

CH	DET	LOOP DETECTORS	
1	1	1A	(4)
2		2A	(3)
3	2	3A NOT USED	
4		4A NOT USED	
1	2	5A	(4)
2		6A	(3)
3		7A	(4)
4		8A (F)	(4)
1	3	2B SAMPLER	(1)
2		2C SAMPLER	(1)
3			
4			
1	4	6B SAMPLER	(1)
2		6C SAMPLER	(1)
3			
4			
1	5	7B	(4)
2		8B (DELAY) (F)	(2)
3		8C	(2)
4			
1	6	2D BIKE	
2		6D BIKE	
3			
4			

( )=LOOPS PER SENSOR

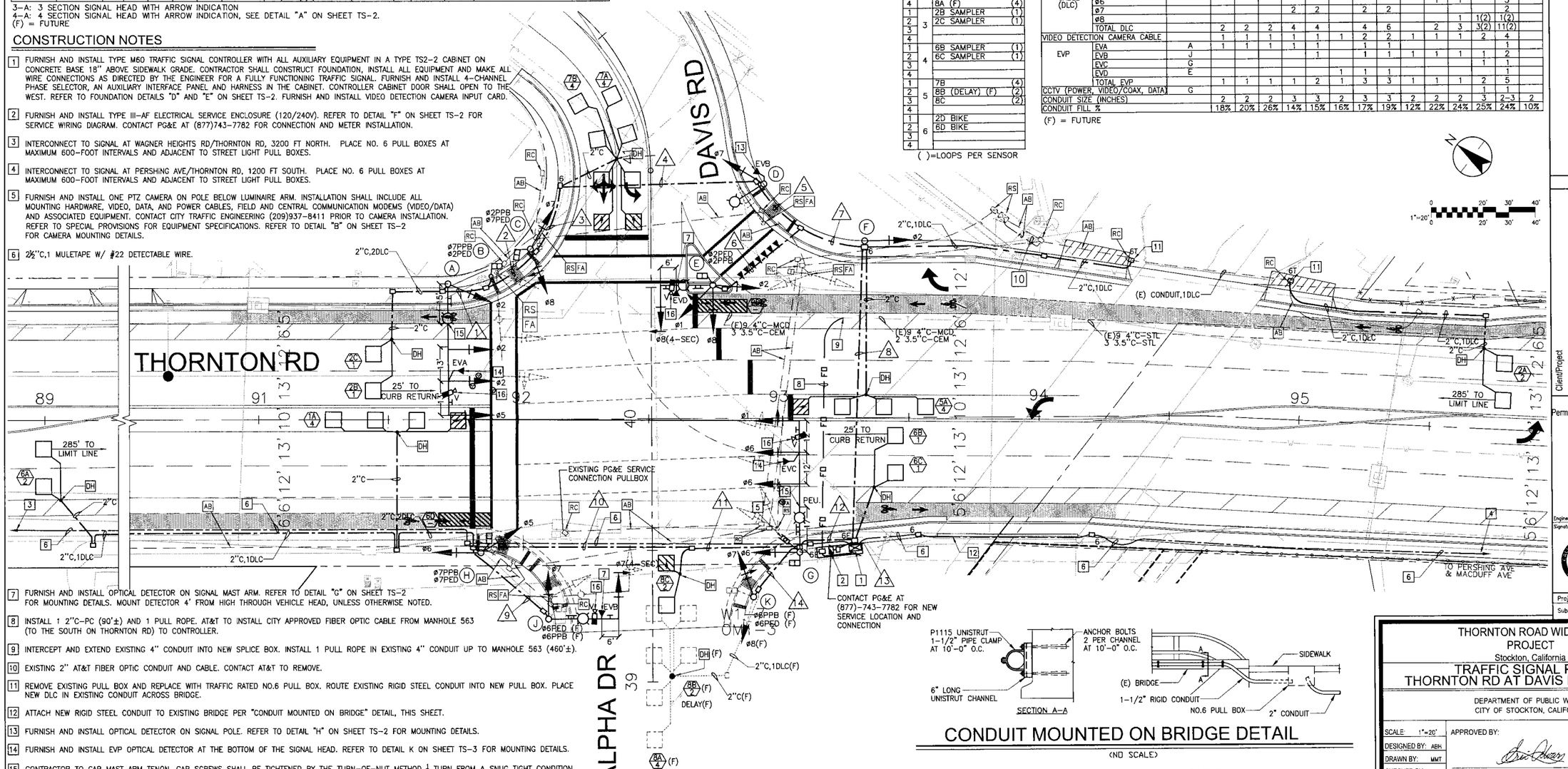
CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14
No. 14 AWG	ø1 VEHICLE	E,G						3	3	3				3	6	
	ø2 VEHICLE	A,E,F	3	3	3	3	3	3	3	3					3	
	ø3 VEHICLE															
	ø4 VEHICLE															
	ø5 VEHICLE	A,H	3	3	3	3	3		3	3		3	3	3	6	
	ø6 VEHICLE	G,H										3	3	3	3	
	ø7 VEHICLE	C,D,G,J			3	3	3		3	3	3	3	3	3	6	3
	ø8 VEHICLE	C,E,K			3	3	3	3	3	3					6	(3)
	ø2 PED	B,E		2	2	2	2	2	2	2					2	
	ø4 PED															
	ø6 PED (F)	J,K									(2)	(2)	(2)	(2)	(2)	(2)
	ø7 PED	C,H			2	2	2		2	2		2	2	2	4	
	ø2 PPB	C,E			1	1	1	1	1	1					1	
	ø4 PPB															
	ø6 PPB (F)	J,K									(1)	(1)	(1)	(1)	(1)	(1)
	ø7 PPB	B,H		1	1	1	1		1	1		1	1	1	2	
	PPB NEUTRAL	B,C,E,H,J		1	1	1	1	1	1	1	(1)	1	1	1	2	(1)
	PEU (120 V)													1		
	SPARES		3	3	3	3	3	3	3	3	3	3	3	3	6	3
	TOTAL #14 AWG		9	13	22	22	22	16	25	25	6(4)	16(3)	16(3)	20(3)	47(3)	6(7)
No. 8 AWG	SERVICE														3	
	SIGNAL NEUTRAL		1	1	1	1	1	1	1	1	1	1	1	1	2	1
	TOTAL #8 AWG		1	1	1	1	1	1	1	1	1	1	1	1	5	1
No. 10 AWG	LIGHTING (240 V)	A,D,E,G,J	2	2	2	2	2	2	2	2	2	2	2	2		
DETECTOR LEAD-IN CABLE (DLC)	ø1											1	1	1	1	
	ø2		2	2	2	2	2		2	3					3	
	ø3															
	ø4															
	ø5									1					1	
	ø6											1	1		3	
	ø7					2	2		2	2					2	
	ø8													1	1(2)	1(2)
	TOTAL DLC		2	2	2	4	4		4	6		2	3	3(2)	11(2)	
VIDEO DETECTION CAMERA CABLE			1	1	1	1	1	1	2	2	1	1	1	2	4	
EVP	EVA	A	1	1	1	1			1	1					1	
	EVB	J					1		1	1	1	1	1	1	2	
	EVC	G												1	1	
	EVD	E						1	1						1	
	TOTAL EVP		1	1	1	1	2	1	3	3	1	1	1	2	5	
CCTV (POWER, VIDEO/COAX, DATA)		G												1	1	
CONDUIT SIZE (INCHES)			2	2	2	3	3	2	3	3	2	2	2	2	2-3	2
CONDUIT FILL %			18%	20%	26%	14%	15%	16%	17%	19%	12%	22%	24%	25%	24%	10%

(F) = FUTURE

CONSTRUCTION NOTES

1. FURNISH AND INSTALL TYPE M60 TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN A TYPE TS2-2 CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE. CONTRACTOR SHALL CONSTRUCT FOUNDATION, INSTALL ALL EQUIPMENT AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 4-CHANNEL PHASE SELECTOR, AN AUXILIARY INTERFACE PANEL AND HARNESS IN THE CABINET. CONTROLLER CABINET DOOR SHALL OPEN TO THE WEST. REFER TO FOUNDATION DETAILS "D" AND "E" ON SHEET TS-2. FURNISH AND INSTALL VIDEO DETECTION CAMERA INPUT CARD.
2. FURNISH AND INSTALL TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V). REFER TO DETAIL "F" ON SHEET TS-2 FOR SERVICE WIRING DIAGRAM. CONTACT PG&E AT (877)743-7782 FOR CONNECTION AND METER INSTALLATION.
3. INTERCONNECT TO SIGNAL AT WAGNER HEIGHTS RD/THORNTON RD, 3200 FT NORTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
4. INTERCONNECT TO SIGNAL AT PERSHING AVE/THORNTON RD, 1200 FT SOUTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
5. FURNISH AND INSTALL ONE PTZ CAMERA ON POLE BELOW LUMINAIRE ARM. INSTALLATION SHALL INCLUDE ALL MOUNTING HARDWARE, VIDEO, DATA, AND POWER CABLES, FIELD AND CENTRAL COMMUNICATION MODEMS (VIDEO/DATA) AND ASSOCIATED EQUIPMENT. CONTACT CITY TRAFFIC ENGINEERING (209)937-8411 PRIOR TO CAMERA INSTALLATION. REFER TO SPECIAL PROVISIONS FOR EQUIPMENT SPECIFICATIONS. REFER TO DETAIL "B" ON SHEET TS-2 FOR CAMERA MOUNTING DETAILS.
6. 2½"C,1 MULETAPE W/ #22 DETECTABLE WIRE.
7. FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL MAST ARM. REFER TO DETAIL "G" ON SHEET TS-2 FOR MOUNTING DETAILS. MOUNT DETECTOR 4' FROM HIGH THROUGH VEHICLE HEAD, UNLESS OTHERWISE NOTED.
8. INSTALL 1 2"C-PC (90'±) AND 1 PULL ROPE. AT&T TO INSTALL CITY APPROVED FIBER OPTIC CABLE FROM MANHOLE 563 (TO THE SOUTH ON THORNTON RD) TO CONTROLLER.
9. INTERCEPT AND EXTEND EXISTING 4" CONDUIT INTO NEW SPLICE BOX. INSTALL 1 PULL ROPE IN EXISTING 4" CONDUIT UP TO MANHOLE 563 (460'±).
10. EXISTING 2" AT&T FIBER OPTIC CONDUIT AND CABLE. CONTACT AT&T TO REMOVE.
11. REMOVE EXISTING PULL BOX AND REPLACE WITH TRAFFIC RATED NO.6 PULL BOX. ROUTE EXISTING RIGID STEEL CONDUIT INTO NEW PULL BOX. PLACE NEW DLC IN EXISTING CONDUIT ACROSS BRIDGE.
12. ATTACH NEW RIGID STEEL CONDUIT TO EXISTING BRIDGE PER "CONDUIT MOUNTED ON BRIDGE" DETAIL, THIS SHEET.
13. FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL POLE. REFER TO DETAIL "H" ON SHEET TS-2 FOR MOUNTING DETAILS.
14. FURNISH AND INSTALL EVP OPTICAL DETECTOR AT THE BOTTOM OF THE SIGNAL HEAD. REFER TO DETAIL K ON SHEET TS-3 FOR MOUNTING DETAILS.
15. CONTRACTOR TO CAP MAST ARM TENON. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD ⅓ TURN FROM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
16. FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON SIGNAL MAST ARM.



CONDUIT MOUNTED ON BRIDGE DETAIL

(NO SCALE)

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - THORNTON RD AT DAVIS RD-ALPHA DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JAY BHATTACHARYA RCE 65926 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Jay Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN - THORNTON RD AT DAVIS RD-ALPHA DR
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

Sheet No. Revision: TS-8
118 OF 145
JOB NO. 183910142

K:\PROJECTS\183910142 Thornton Rd Widening\Design\Signal and Lighting\Sheets\TS-8.dwg 10/5/16 1:49pm MTRIBUNIS

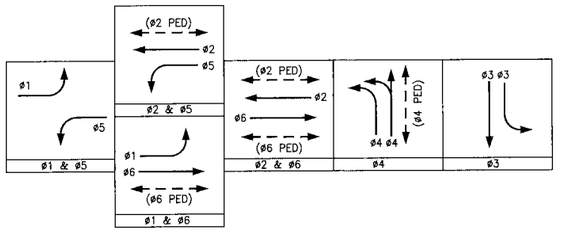
EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	POLE PLACEMENT "A"	POLE PLACEMENT "B"	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	PED SIGNAL MTG	PPB ø	PPB ARROW	PPB QUAD.	REMARKS
Ⓐ	29-5-100	30'	0.0'	7.7'	50'	15'	87 LED	5	3-A	MAT	SP-1-T				INSTALL R73-2 (CA) SIGN AND "MACDUFF AVE" SNS ON MAST ARM
								2	12"	MAS, MAS					
								2	12"	SV-1-T					
Ⓑ	1-B	10'	8.0'	7.5'				4	12"	TV-2-T		2	RT	WEST	
								8	3-A						
Ⓒ	17-3-100	30'	7.0'	6.0'	20'	12'	87 LED	8	4-A	MAS	SP-1-T	2	LT	WEST	INSTALL R61-32(CA) SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								8	12"	SV-1-T					
Ⓓ	1-B	10'	-5.0'	8.0'				1	3-A	TV-2-T	SP-1-T	8	RT	NORTH	
								2	12"						
Ⓔ	29-5-100	30'	6.0'	6.5'	50'	15'	87 LED	1	A	MAT	SP-1-T	8	LT	NORTH	INSTALL R73-2 (CA) SIGN AND "PERSHING AVE" SNS ON MAST ARM
								6	12"	MAS, MAS					
								6	12"	SV-1-T					
Ⓕ	1-B	10'	13.5'	6.0'				8	12"	TV-2-T	SP-1-T	6	RT	EAST	
								4	3-A						
Ⓖ	24-3-100	30'	19.0'	5.5'	35'	12'	87 LED	4	4-A	MAS		6	LT	EAST	INSTALL R3-4 SIGN AND "THORNTON ROAD" SNS ON MAST ARM
								4	12"	SV-2-TB					
								8	12"						
Ⓗ	1-B	10'	8'	5.5'				5	3-A	TV-2-T	SP-1-T				
								6	12"						

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2
SEE DETAIL "J", SHEET TS-2 FOR POLE PLACEMENT DETAIL

CONSTRUCTION NOTES

1. FURNISH AND INSTALL TYPE M60 TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN EXISTING TYPE TS2-2 CABINET. CONTRACTOR SHALL CONSTRUCT FOUNDATION, INSTALL ALL EQUIPMENT AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 4-CHANNEL PHASE SELECTOR, AN AUXILIARY INTERFACE PANEL AND HARNESS IN THE CABINET. CONTROLLER CABINET DOOR SHALL OPEN TO THE WEST. REFER TO FOUNDATION DETAILS D AND E ON SHEET TS-2. FURNISH AND INSTALL VIDEO DETECTION CAMERA INPUT CARD.
2. PLACE NEW TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) PER CITY OF STOCKTON STANDARD. CONTACT PG&E AT (877)743-7782 FOR CONNECTION AND METER INSTALLATION. SALVAGE EXISTING SERVICE ENCLOSURE TO THE CITY OF STOCKTON.
3. INTERCONNECT TO SIGNAL AT DAVIS RD/THORNTON RD, 1200 FT NORTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
4. INTERCONNECT TO SIGNAL AT HAMMER LN/THORNTON RD, 2350 FT SOUTH. PLACE NO. 6 PULL BOXES AT MAXIMUM 600-FOOT INTERVALS AND ADJACENT TO STREET LIGHT PULL BOXES.
5. FURNISH AND INSTALL ONE PTZ CAMERA ON POLE BELOW LUMINAIRE ARM. INSTALLATION SHALL INCLUDE ALL MOUNTING HARDWARE, VIDEO, DATA, AND POWER CABLES, FIELD AND CENTRAL COMMUNICATION MODEMS (VIDEO/DATA) AND ASSOCIATED EQUIPMENT. CONTACT CITY TRAFFIC ENGINEERING (209)937-8411 PRIOR TO CAMERA INSTALLATION. REFER TO SPECIAL PROVISIONS FOR EQUIPMENT SPECIFICATIONS. REFER TO DETAIL B ON SHEET TS-2 FOR CAMERA MOUNTING DETAILS.
6. 2½"C,1 MULETAPE W/ #22 DETECTABLE WIRE.
7. FURNISH AND INSTALL OPTICAL DETECTOR ON SIGNAL MAST ARM. REFER TO DETAIL G ON SHEET TS-2 FOR MOUNTING DETAILS. MOUNT DETECTOR 4' FROM HIGH THROUGH VEHICLE HEAD, UNLESS OTHERWISE NOTED.
8. INSTALL 1 2"C-PC (60'±) AND 1 PULL ROPE. AT&T TO INSTALL CITY APPROVED FIBER OPTIC CABLE.
9. INTERCEPT AND EXTEND EXISTING 2"C-PC CONDUIT AND FIBER OPTIC CABLE INTO THE NEW PULL BOX.
10. EXISTING 2" AT&T FIBER OPTIC CONDUIT AND CABLE. CONTACT AT&T TO REMOVE.
11. FURNISH AND INSTALL EVP OPTICAL DETECTOR AT THE BOTTOM OF THE SIGNAL HEAD. REFER TO DETAIL K ON SHEET TS-3 FOR MOUNTING DETAILS.
12. CONTRACTOR TO CAP MAST ARM TENON. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD ⅓ TURN FROM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
13. FURNISH AND INSTALL VIDEO DETECTION CAMERA MOUNTED ON SIGNAL MAST ARM.



PROPOSED PHASE DIAGRAM

DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (PERSHING AVE)
25 MPH (MACDUFF AVE)
EVA = ø2 + ø5 EVC = ø1 + ø6
EVB = ø4 EVD = ø3

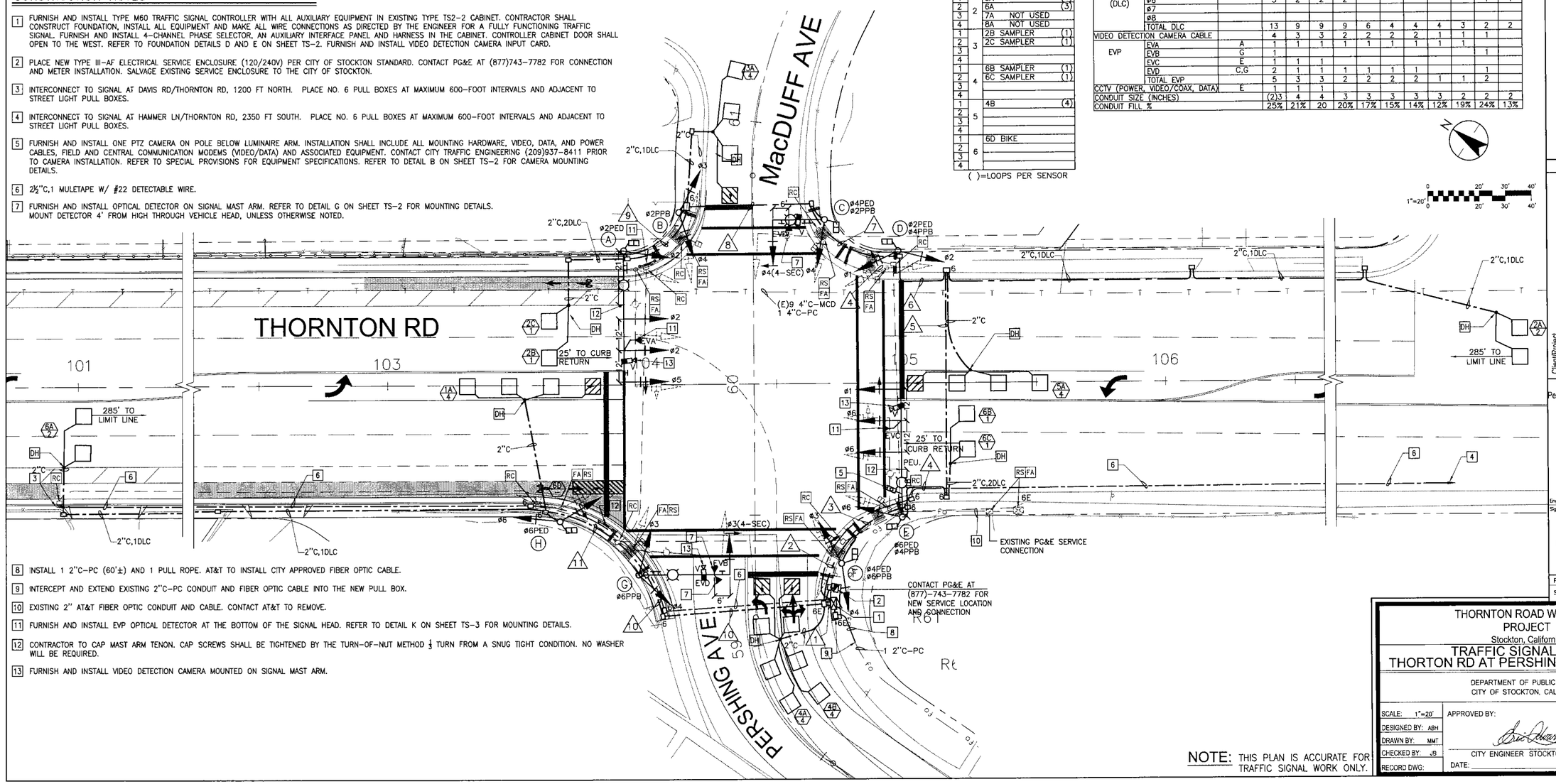
SENSOR TABLE

CH	DET	LOOP DETECTORS	
1	1	1A	(4)
2		2A	(3)
3		3A (DELAY)	(4)
4		4A	(4)
1	2	5A	(4)
2		6A	(3)
3		7A NOT USED	
4		8A NOT USED	
1	3	2B SAMPLER	(1)
2		2C SAMPLER	(1)
3			
4			
1	4	6B SAMPLER	(1)
2		6C SAMPLER	(1)
3			
4			
1	5	4B	(4)
2			
3			
4			
1	6	6D BIKE	
2			
3			
4			

( )=LOOPS PER SENSOR

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7	8	9	10	11
No. 14 AWG	ø1 VEHICLE	D,E	3	3	3	3	3	3					
	ø2 VEHICLE	A,D	3	3	3	3	3	3	3	3	3		
	ø3 VEHICLE	B,F,G	6	3	3	3	3	3	3	3		3	
	ø5 VEHICLE	A,H	6	3	3	3	3	3	3	3	3	3	3
	ø6 VEHICLE	E,H	6	3	3							3	3
	ø8 VEHICLE	B,C,F,G	6	3	3	3	3	3	3	3		3	
	ø2 PED	A,D	2	2	2	2	2	2	2	2	2		
	ø6 PED	E,H	4	2	2							2	2
	ø4 PED	C,F	2	2	2	2	2	2	2				
	ø2 PPB	B,C	1	1	1	1	1	1	1	1			
	ø6 PPB	F,G	2	1								1	
	ø4 PPB	D,E	1	1	1	1	1	1					
	PPB NEUTRAL	B,C,D,E,F,G	2	1	1	1	1	1	1	1		1	
	PEU (120 V)	E		3	3								
	SPARES		6	3	3	3	3	3	3	3	3	3	3
	TOTAL #14 AWG		50	34	33	25	25	25	21	19	11	19	11
No. 8 AWG	SERVICE		3										
	SIGNAL NEUTRAL		2	1	1	1	1	1	1	1	1	1	1
	TOTAL #8 AWG		5	1	1	1	1	1	1	1	1	1	1
No. 10 AWG	LIGHTING (240 V)	A,C,E,G		2	2	2	2	2	2	2	2	2	
DETECTOR LEAD-IN CABLE (DLC)	ø1		1									1	1
	ø2		3	3	3	3	3	2	2	2	2		
	ø3		1	1	1	1	1	1	1	1			
	ø4		2										
	ø5		1	1	1	1	1						
	ø6		3	2	2	2						1	1
	ø7												
	ø8												
	TOTAL DLC		13	9	9	9	6	4	4	4	3	2	2
VIDEO DETECTION CAMERA CABLE			4	3	3	2	2	2	2	1	1	1	1
EVP	EVA	A	1	1	1	1	1	1	1	1	1		
	EVB	G	1									1	
	EVC	E	1	1	1								
	EVD	C,G	2	1	1	1	1	1	1			1	
	TOTAL EVP		5	3	3	2	2	2	2	1	1	2	
CCTV (POWER, VIDEO/COAX, DATA)		E	1	1	1								
CONDUIT SIZE (INCHES)			(2)3	4	4	3	3	3	3	3	2	2	2
CONDUIT FILL %			25%	21%	20	20%	17%	15%	14%	12%	19%	24%	13%



NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.
1	ADDENDUM 1	MMT	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TRAFFIC SIGNAL PLAN - THORTON RD AT PERSHING-MACDUFF AVE

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 68928
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
TRAFFIC SIGNAL PLAN - THORTON RD AT PERSHING-MACDUFF AVE
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

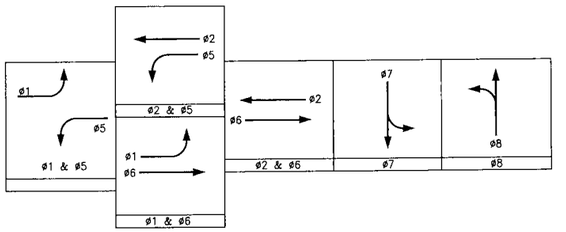
Sheet No. Revision: TS-9
119 OF 145
JOB NO. 183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
Ⓐ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø2	12"	SW-EA	3 5 7
						ø5	3-A		
						ø2	12"	SV-3-TB	
						ø7	12"		
						ø8	3-A		
Ⓑ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø8	4-A	SW-AB	3 5 6 7
						ø1	3-A	SV-3-TB	
						ø2	12"		
						ø8	12"		
Ⓒ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø1	3-A	SW-BC	3 7 8
						ø6	12"	SV-3-TB	
						ø6	12"		
						ø7	12"		
						ø8	12"		
Ⓓ	TEMPORARY WOODEN POLE	30'							4
Ⓔ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø7	4-A	SW-CE	3 5 7
						ø5	3-A	SV-3-TB	
						ø6	12"		
						ø7	3-A		
Ⓕ	TEMPORARY WOODEN POLE	30'							
Ⓖ	TEMPORARY WOODEN POLE	30'							4

3-A: 12"-3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 12"-4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-AB: SPAN WIRE BETWEEN POLES A AND B.
SW-BC: SPAN WIRE BETWEEN POLES B AND C.
SW-CE: SPAN WIRE BETWEEN POLES C AND E.
SW-EA: SPAN WIRE BETWEEN POLES E AND A.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (ESTATE DR.)

SENSOR TABLE

CH	DET	DETECTORS
1	1	1A (VD)
2		2A (VD)
3		3A NOT USED
4		4A NOT USED
1	2	5A (VD)
2		6A (VD)
3		7A (VD)
4		8A (VD)
1	3	6B (DELAY) (VD)
2		8B (DELAY) (VD)
3		
4		
1	4	
2		
3		
4		
1	5	
2		
3		
4		
1	6	
2		
3		
4		

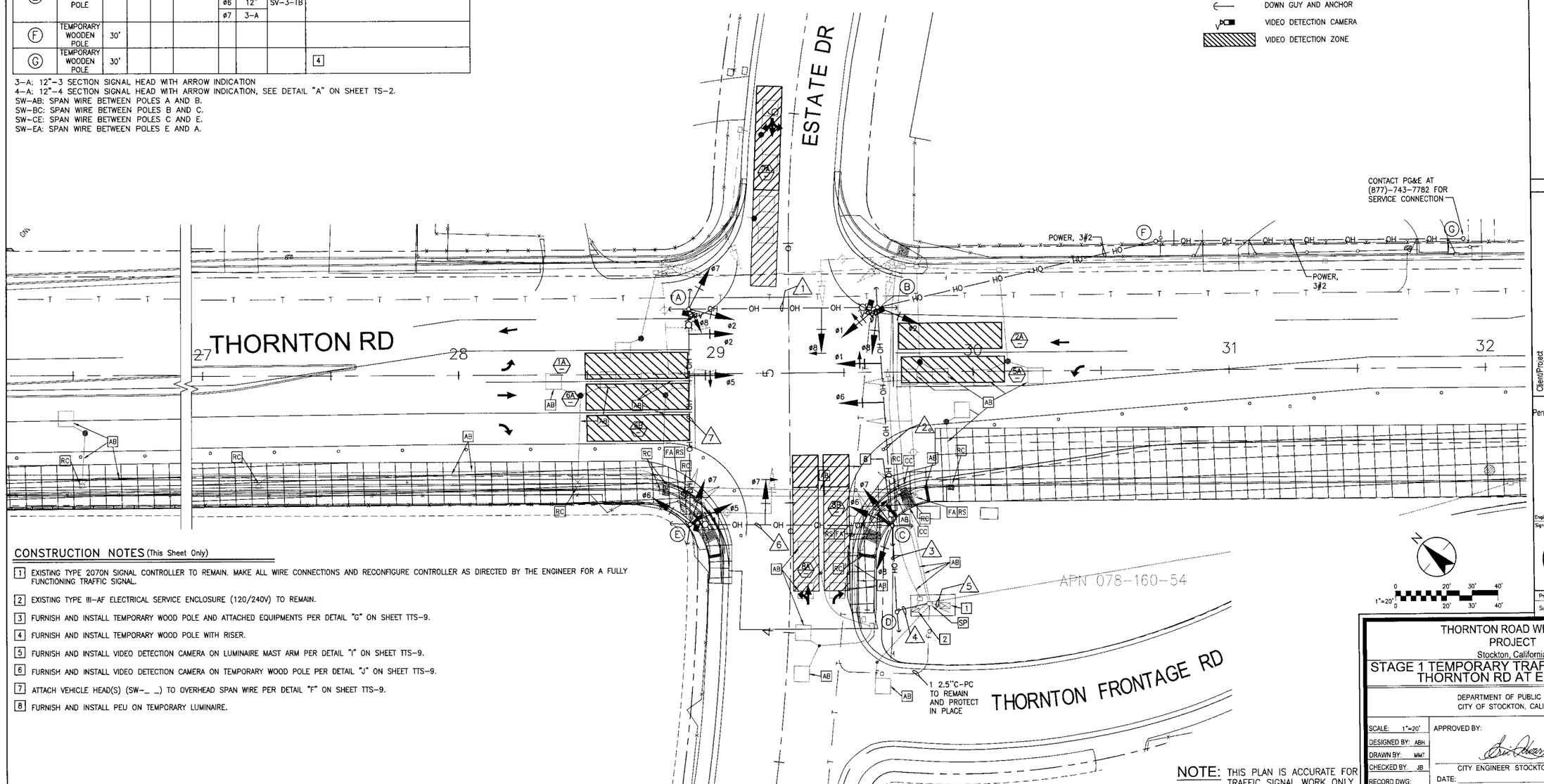
VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7
No. 14 AWG	ø1 VEHICLE	A,SW-BC		3	3	3	3		
	ø2 VEHICLE	A,B,SW-EA	3	3	3	3	3		
	ø3 VEHICLE								
	ø4 VEHICLE								
	ø5 VEHICLE	E,SW-EA			3	3	3	3	3
	ø6 VEHICLE	SW-BC,C,E		3	6	6	6	3	
	ø7 VEHICLE	SW-CE,A,C,E	3	3	6	6	6	3	
	ø8 VEHICLE	SW-AB,A,B,C	3	3	3	3	3		
	PEU (120 V)	C			3	3			
	SPARES		3	3	6	6	6	3	3
	TOTAL #14 AWG		12	18	33	33	30	12	6
No. 8 AWG	SERVICE						3		
	SIGNAL NEUTRAL		1	1	1	1	1	1	1
	TOTAL #8 AWG		1	1	1	1	4	1	1
No. 2 AWG	POWER FROM PG&E			3	3	3			
No. 10 AWG	LIGHTING (240 V)		2	2	4	4		2	
VIDEO DETECTION CABLE				2	4	4	4	2	1

LEGEND

- OH — OVERHEAD SPAN WIRE
- DOWN GUY AND ANCHOR
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE



CONSTRUCTION NOTES (This Sheet Only)

1. EXISTING TYPE 2070N SIGNAL CONTROLLER TO REMAIN. MAKE ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL.
2. EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) TO REMAIN.
3. FURNISH AND INSTALL TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.
4. FURNISH AND INSTALL TEMPORARY WOOD POLE WITH RISER.
5. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER DETAIL "I" ON SHEET TTS-9.
6. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON TEMPORARY WOOD POLE PER DETAIL "J" ON SHEET TTS-9.
7. ATTACH VEHICLE HEAD(S) (SW-_ _) TO OVERHEAD SPAN WIRE PER DETAIL "F" ON SHEET TTS-9.
8. FURNISH AND INSTALL PEU ON TEMPORARY LUMINAIRE.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT ESTATE DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 58928 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT ESTATE DR

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision: TTS-1
120 OF 145
JOB NO. 183910142

The Stantec Consulting Ltd. Professional Engineers and Architects Seal Appearing on This Drawing Was Authorized by Ryan Lee on 4/18/16. 2:23pm M:\PROJECTS\

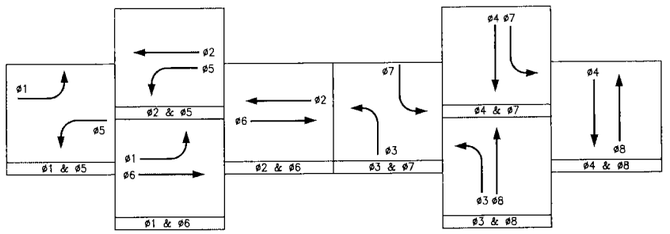
EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
Ⓐ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø2	12"	SW-DA	3 5 7
						ø5	3-A		
						ø2	12"	SV-3-TB	
						ø3	3-A		
						ø4	12"		
Ⓑ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø3	3-A	SW-AB	3 5 7
						ø8	12"		
						ø1	3-A	SV-3-TB	
						ø2	12"		
						ø8	12"		
Ⓒ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø1	3-A	SW-BC	3 5 7
						ø6	12"		
						ø6	12"	SV-3-TB	
						ø7	3-A		
						ø8	12"		
Ⓓ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø4	12"	SW-CD	3 5 6 7
						ø7	3-A		
						ø4	12"	SV-3-TB	
						ø5	3-A		
						ø6	12"		
Ⓔ	TEMPORARY WOODEN POLE	30'							4
Ⓕ	TEMPORARY WOODEN POLE	30'							4

3-A: 12"-3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 12"-4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-AB: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES A AND B.
SW-BC: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES B AND C.
SW-CD: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES C AND D.
SW-DA: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES D AND A.

CONSTRUCTION NOTES (This Sheet Only)

1. FURNISH AND INSTALL TYPE M60 TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN A TYPE P CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE. CONTRACTOR SHALL CONSTRUCT FOUNDATION, INSTALL ALL EQUIPMENT AND MAKE ALL WIRE CONNECTIONS AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. FURNISH AND INSTALL 4-CHANNEL PHASE SELECTOR AND HARNESS IN THE CABINET. MAKE ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL. MAKE ALL CONTROLLER CABINET DOOR SHALL OPEN TO THE NORTH. REFER TO FOUNDATION DETAILS "D" AND "E" ON SHEET TS-2.
2. FURNISH AND INSTALL TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V). REFER TO DETAIL "F" ON SHEET TS-2 FOR SERVICE WIRING DIAGRAM. CONTACT PG&E AT (877)743-7782 FOR CONNECTION AND METER INSTALLATION.
3. FURNISH AND INSTALL TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.
4. FURNISH AND INSTALL TEMPORARY WOOD POLE WITH RISER.
5. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER DETAIL "I" ON SHEET TTS-9.
6. FURNISH AND INSTALL PEU ON LUMINAIRE.
7. ATTACH VEHICLE HEAD (SW-___) TO OVERHEAD SPAN WIRE PER DETAIL "G" ON SHEET TTS-9.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (WAGNER HEIGHTS RD.)

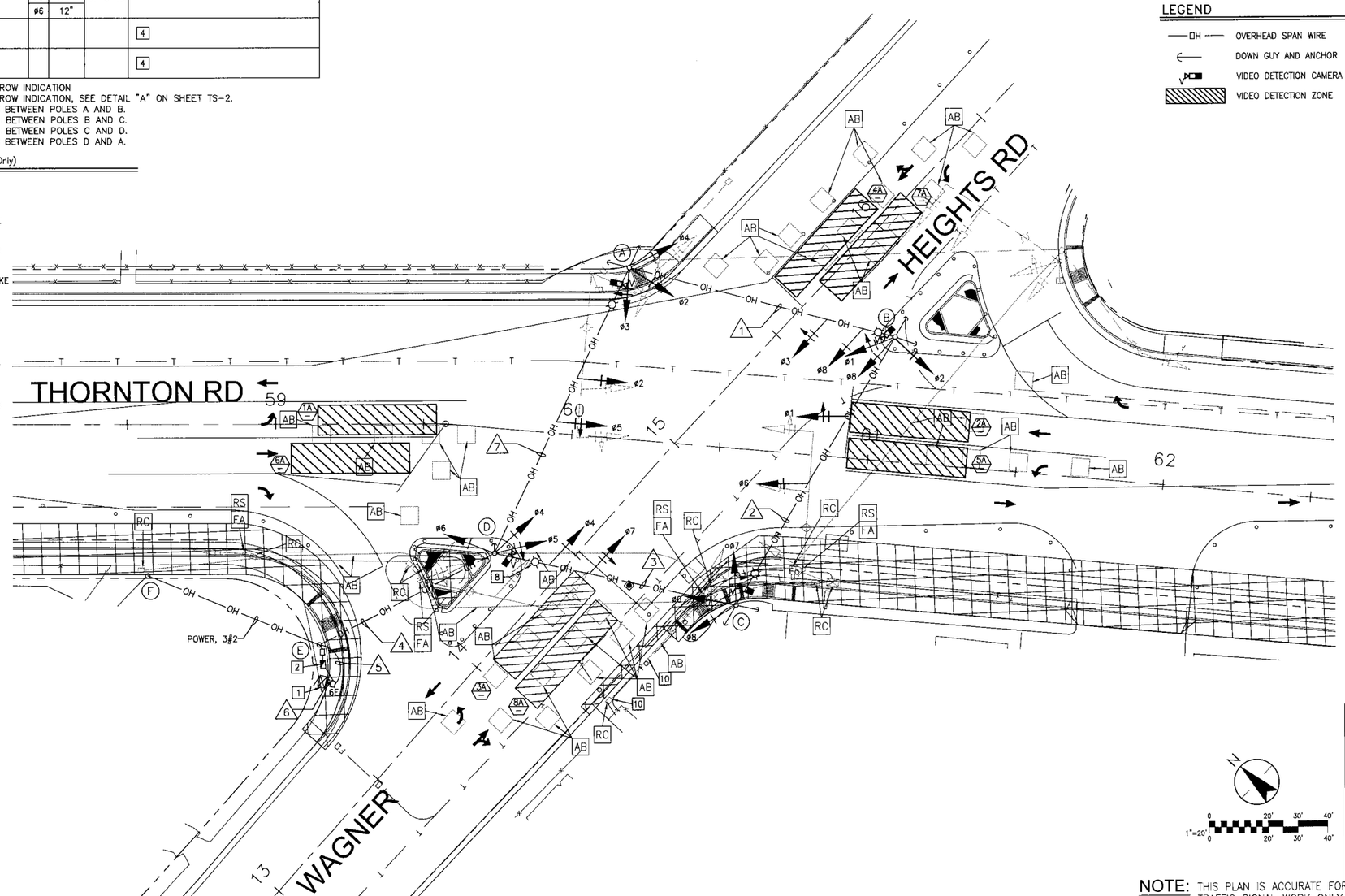
SENSOR TABLE

CH	DET	DETECTORS	
1	1	1A	(VD)
2		2A	(VD)
3		3A	(VD)
4		4A	(VD)
1	2	5A	(VD)
2		6A	(VD)
3		7A	(VD)
4		8A	(VD)
1	3		
2			
3			
4			
1	4		
2			
3			
4			
1	5		
2			
3			
4			
1	6		
2			
3			
4			

VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7
No. 14 AWG	ø1 VEHICLE	B,SW-BC		3	3	3	3	3	
	ø2 VEHICLE	SW-DA,A,B	3			3	3	3	3
	ø3 VEHICLE	A,SW-AB	3			3	3	3	3
	ø4 VEHICLE	A,SW-CD,D			3	3	3	3	3
	ø5 VEHICLE	D,SW-DA				3	3	3	3
	ø6 VEHICLE	SW-BC,C,D		3	3	3	3	3	
	ø7 VEHICLE	C,SW-CD			3	3	3	3	
	ø8 VEHICLE	SW-AB,B,C	3	3	3	3	3	3	
	PEU (120 V)	D				3	3		
	SPARES		3	3	3	6	6	6	3
	TOTAL #14 AWG		12	18	18	31	31	30	15
No. 8 AWG	SERVICE							3	
	SIGNAL NEUTRAL		1	1	1	1	1	1	1
	TOTAL #8 AWG		1	1	1	1	1	4	1
No. 2 AWG	POWER FROM PG&E								
No. 10 AWG	LIGHTING (240 V)			2	4	4	4		2
VIDEO DETECTION CABLE			1		1	4	4	4	2



LEGEND

—OH— OVERHEAD SPAN WIRE
DOWN GUY AND ANCHOR
VIDEO DETECTION CAMERA
VIDEO DETECTION ZONE

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

Stantec
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www.stantec.com

No.	Revision	Description	By	Appd.
	MMT			

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT WAGNER HEIGHTS RD

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58925
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT WAGNER HEIGHTS RD

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	CITY ENGINEER STOCKTON, CA.
DRAWN BY: MMT	DATE:
CHECKED BY: JB	
RECORD DWG:	

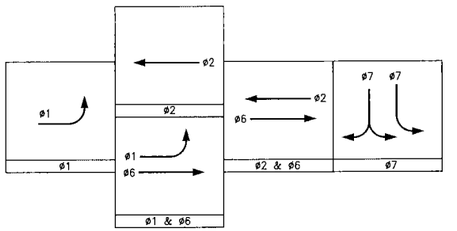
Sheet No. Revision
TTS-2
121 OF 145
JOB NO.
183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
Ⓐ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø2	12"	SW-EA	[3][5][7]
						ø2	12"		
						ø7	12"	SV-2-TB	
Ⓑ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø1	3-A	SV-2-TB	[3][5][6][7]
						ø2	12"		
Ⓒ	TEMPORARY WOODEN POLE	30'							[4]
Ⓓ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø1	3-A	SW-BD	[3][7]
						ø6	12"		
						ø6	12"	SV-2-TD	
						ø7	3-A		
Ⓔ	TEMPORARY WOODEN POLE	30'		12'	87 LED	ø7	4-A	SW-DE	[3][5][7]
						ø6	12"	SV-2-TD	
						ø7	12"		

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-AB: SPAN WIRE BETWEEN POLES A AND B.
SW-BD: SPAN WIRE BETWEEN POLES B AND D.
SW-DE: SPAN WIRE BETWEEN POLES D AND E.
SW-EA: SPAN WIRE BETWEEN POLES E AND A.



TEMORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (DAVIS RD. AND ALPHA DR)

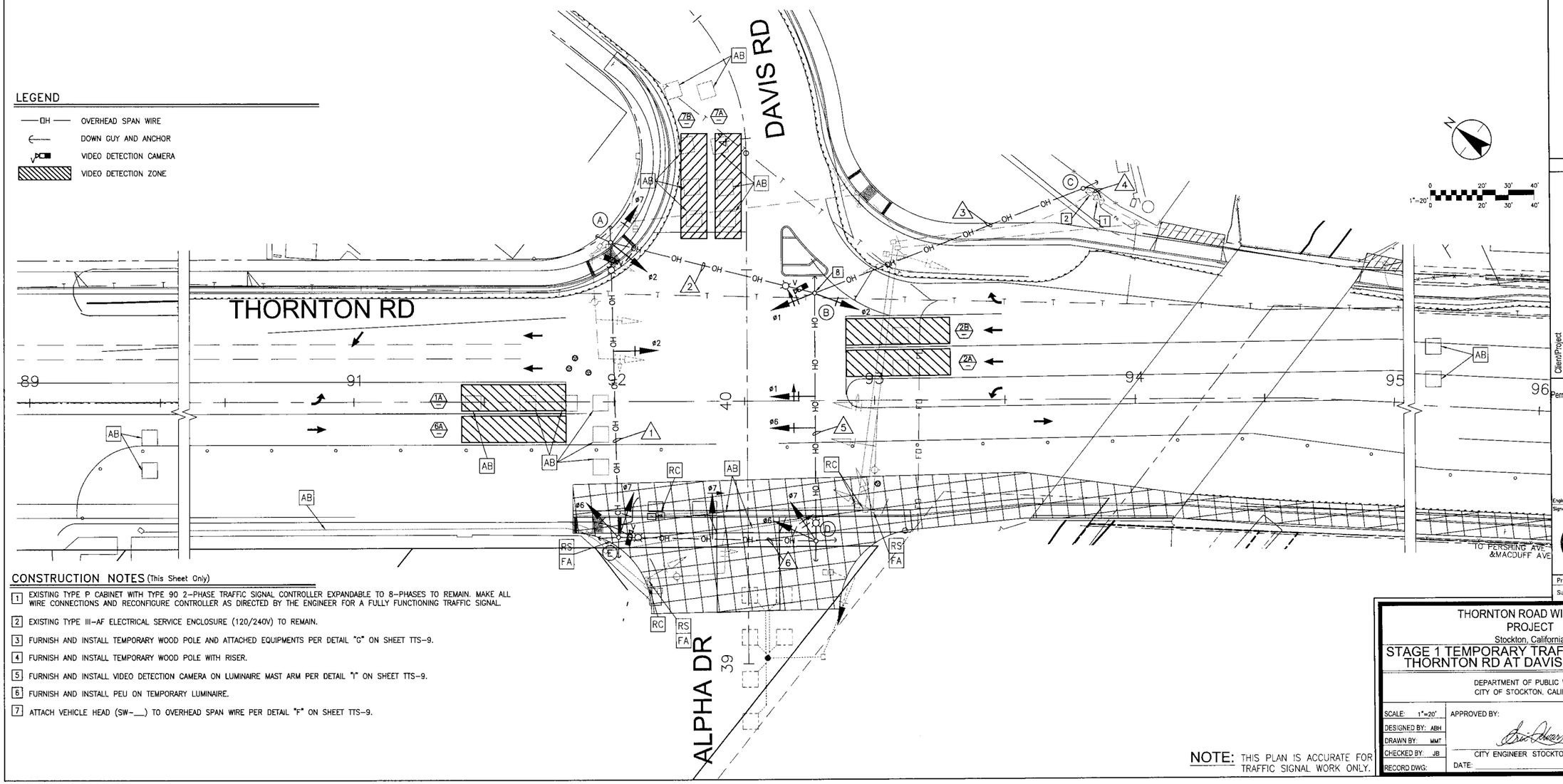
SENSOR TABLE

CH	DET	DETECTORS	
1	1	1A	(VD)
2		2A	(VD)
3		3A	NOT USED
4		4A	NOT USED
1	2	5A	NOT USED
2		6A	(VD)
3		7A	(VD)
4		8A	NOT USED
1	3	2B	(VD)
2		7B	(VD)
3			
4			
1	4		
2			
3			
4			
1	5		
2			
3			
4			
1	6		
2			
3			
4			

VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6
No. 14 AWG	ø1 VEHICLE	B,SW-BD			3	3	3	
	ø2 VEHICLE	A,B,SW-EA	3	3	3	3		
	ø3 VEHICLE							
	ø4 VEHICLE							
	ø5 VEHICLE							
	ø6 VEHICLE	D,E,SW-BD			3	3	3	3
	ø7 VEHICLE	A,D,E,SW-DE		3	6	6	3	3
	ø8 VEHICLE							
	PEU (120 V)				3			
	SPARES		3	3	6	6	3	3
	TOTAL #14 AWG		6	9	24	21	12	9
No. 8 AWG	SERVICE					3		
	SIGNAL NEUTRAL		1	1	1	1	1	1
	TOTAL #8 AWG		1	1	1	4	1	1
No. 2 AWG	POWER FROM PG&E							
No. 10 AWG	LIGHTING (240 V)		2	2	4		2	2
VIDEO DETECTION CABLE			1	2	3	3		



CONSTRUCTION NOTES (This Sheet Only)

1. EXISTING TYPE P CABINET WITH TYPE 90 2-PHASE TRAFFIC SIGNAL CONTROLLER EXPANDABLE TO 8-PHASES TO REMAIN. MAKE ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL.
2. EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) TO REMAIN.
3. FURNISH AND INSTALL TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.
4. FURNISH AND INSTALL TEMPORARY WOOD POLE WITH RISER.
5. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER DETAIL "I" ON SHEET TTS-9.
6. FURNISH AND INSTALL PEU ON TEMPORARY LUMINAIRE.
7. ATTACH VEHICLE HEAD (SW-__) TO OVERHEAD SPAN WIRE PER DETAIL "F" ON SHEET TTS-9.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	M.M.YY	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT DAVIS RD-ALPHA DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 65925
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature
Signature Date

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT DAVIS RD-ALPHA DR

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

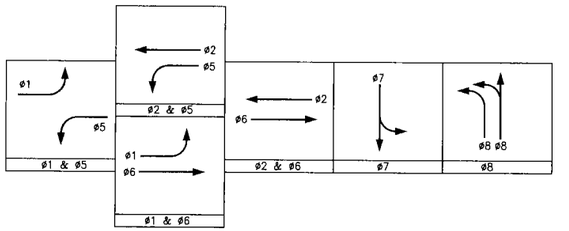
Sheet No. Revision: TTS-3
122 OF 145
JOB NO. 183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
Ⓐ	TEMPORARY WOODEN POLE	30'		12'	200W	ø2	12"	SW-EA	3 5 7
						ø5	3-A		
						ø6	12"	9	
						ø2	12"	SV-3-TB	
						ø7	3-A		
						ø8	12"		
Ⓑ	TEMPORARY WOODEN POLE	30'		12'	200W	ø8	4-A	SW-AB	3 5 6 7
						ø1	3-A		
						ø2	12"	SV-3-TB	
						ø8	12"		
Ⓒ	TEMPORARY WOODEN POLE	30'							4
Ⓓ	TEMPORARY WOODEN POLE	30'		12'	200W	ø1	3-A	SW-BD	3 7 8
						ø6	12"		
						ø6	12"	SV-2-TB	
						ø7	3-A		
Ⓔ	TEMPORARY WOODEN POLE	30'		12'	200W	ø7	4-A	SW-DE	3 5 7
						ø5	12"		
						ø7	12"	SV-4-TB	
						ø8	12"		

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-AB: SPAN WIRE BETWEEN POLES A AND B.
SW-EA: SPAN WIRE BETWEEN POLES E AND A.
SW-BD: SPAN WIRE BETWEEN POLES B AND D.
SW-DE: SPAN WIRE BETWEEN POLES D AND E.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (PERSHING AVE)
25 MPH (MACDUFF AVE)

SENSOR TABLE

CH	DET	DETECTORS
1	1	1A (VD)
2		2A (VD)
3		3A NOT USED
4		4A NOT USED
1	2	5A (VD)
2		6A (VD)
3		7A (VD)
4		8A (VD)
1	3	2B (VD)
2		6B (VD)
3		8B (VD)
4		
1	4	
2		
3		
4		
1	5	
2		
3		
4		
1	6	
2		
3		
4		

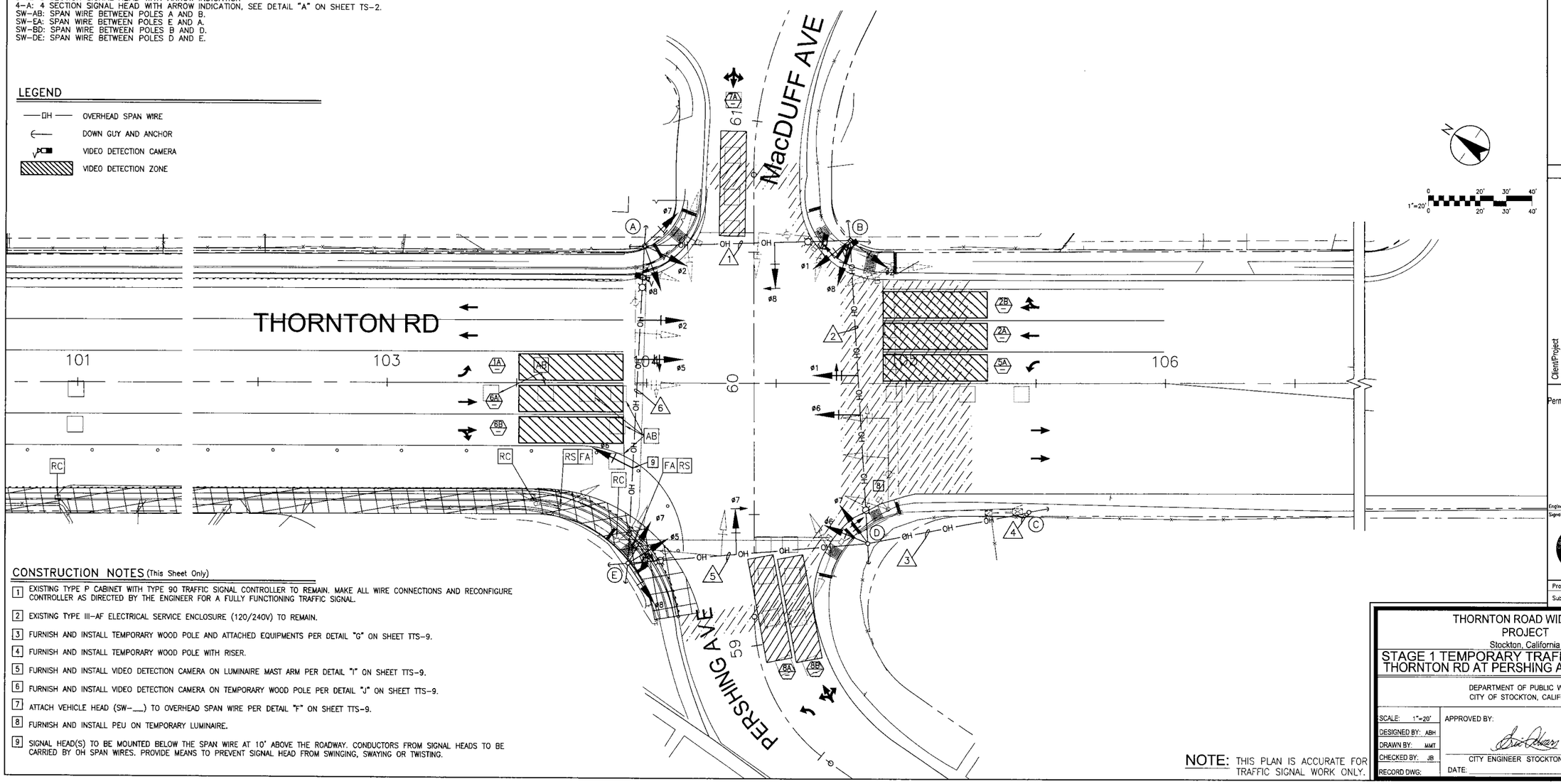
VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6
No. 14 AWG	ø1 VEHICLE	B,SW-BD		3	3	3		
	ø2 VEHICLE	A,B,SW-EA	3	3	6	6	3	3
	ø3 VEHICLE							
	ø4 VEHICLE							
	ø5 VEHICLE	E,SW-EA			3	3	3	3
	ø6 VEHICLE	D,SW-EA,SW-BD		3	6	6	3	3
	ø7 VEHICLE	A,D,E,SW-DE			3	3	3	3
	ø8 VEHICLE	A,B,E,SW-AB	3	3	6	6	3	
	PEU (120 V)				3			
	SPARES		3	3	6	6	3	3
	TOTAL #14 AWG		9	15	36	33	18	15
No. 8 AWG	SERVICE					3		
	SIGNAL NEUTRAL		1	1	2	2	1	1
	TOTAL #8 AWG		1	1	2	5	1	1
No. 2 AWG	POWER FROM SCE							
No. 10 AWG	LIGHTING (240 V)		2	2	4		2	2
VIDEO DETECTION CABLE				2	4	4	2	1

LEGEND

- OH — OVERHEAD SPAN WIRE
- DOWN GUY AND ANCHOR
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE



CONSTRUCTION NOTES (This Sheet Only)

1. EXISTING TYPE P CABINET WITH TYPE 90 TRAFFIC SIGNAL CONTROLLER TO REMAIN. MAKE ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER AS DIRECTED BY THE ENGINEER FOR A FULLY FUNCTIONING TRAFFIC SIGNAL.
2. EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) TO REMAIN.
3. FURNISH AND INSTALL TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.
4. FURNISH AND INSTALL TEMPORARY WOOD POLE WITH RISER.
5. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM PER DETAIL "I" ON SHEET TTS-9.
6. FURNISH AND INSTALL VIDEO DETECTION CAMERA ON TEMPORARY WOOD POLE PER DETAIL "J" ON SHEET TTS-9.
7. ATTACH VEHICLE HEAD (SW-___) TO OVERHEAD SPAN WIRE PER DETAIL "F" ON SHEET TTS-9.
8. FURNISH AND INSTALL PEU ON TEMPORARY LUMINAIRE.
9. SIGNAL HEAD(S) TO BE MOUNTED BELOW THE SPAN WIRE AT 10' ABOVE THE ROADWAY. CONDUCTORS FROM SIGNAL HEADS TO BE CARRIED BY OH SPAN WIRES. PROVIDE MEANS TO PREVENT SIGNAL HEAD FROM SWINGING, SWAYING OR TWISTING.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

Stantec
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Tel. 925.941.1400
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www.stantec.com

No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT PERSHING AVE-MACDUFF AVE

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 68926 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 16, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 1 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT PERSHING AVE-MACDUFF AVE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

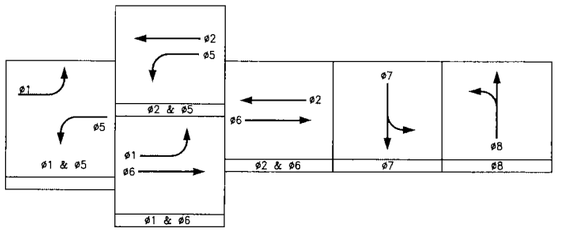
Sheet No. Revision
TTS-4
123 OF 145
JOB NO.
183910142

V:\183\Active\183910142 Thornton Road Widening\TTS-4.dgn 4/8/16 4:33pm MMiller

EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTC.	REMARKS
ⓐ	TEMPORARY WOODEN POLE	30'		12'	200W	ø2	12"	SW-ea	[3][5][7]
						ø5	3-A		
						ø2	12"	SV-3-TB	
						ø7	12"		
						ø8	3-A		
ⓑ	TEMPORARY WOODEN POLE	30'		12'	200W	ø8	4-A	SW-ab	[3][5][6][7]
						ø1	3-A		
						ø2	12"	SV-3-TB	
						ø8	12"		
ⓒ	TEMPORARY WOODEN POLE	30'		12'	200W	ø1	3-A	SW-bc	[3][6][7][8]
						ø6	12"		
						ø6	12"	SV-3-TB	
						ø7	3-A		
						ø8	12"		
ⓓ	TEMPORARY WOODEN POLE	30'							[4]
ⓔ	TEMPORARY WOODEN POLE	30'		12'	200W	ø7	4-A	SW-ce	[3][5][7]
						ø5	3-A		
						ø6	12"	SV-3-TB	
						ø7	12"		
ⓕ	TEMPORARY WOODEN POLE	30'							
ⓖ	TEMPORARY WOODEN POLE	30'							[4]

3-A: 12"-3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 12"-4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-ab: SPAN WIRE BETWEEN POLES a AND b.
SW-bc: SPAN WIRE BETWEEN POLES b AND c.
SW-ce: SPAN WIRE BETWEEN POLES c AND e.
SW-ea: SPAN WIRE BETWEEN POLES e AND a.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (ESTATE DR.)

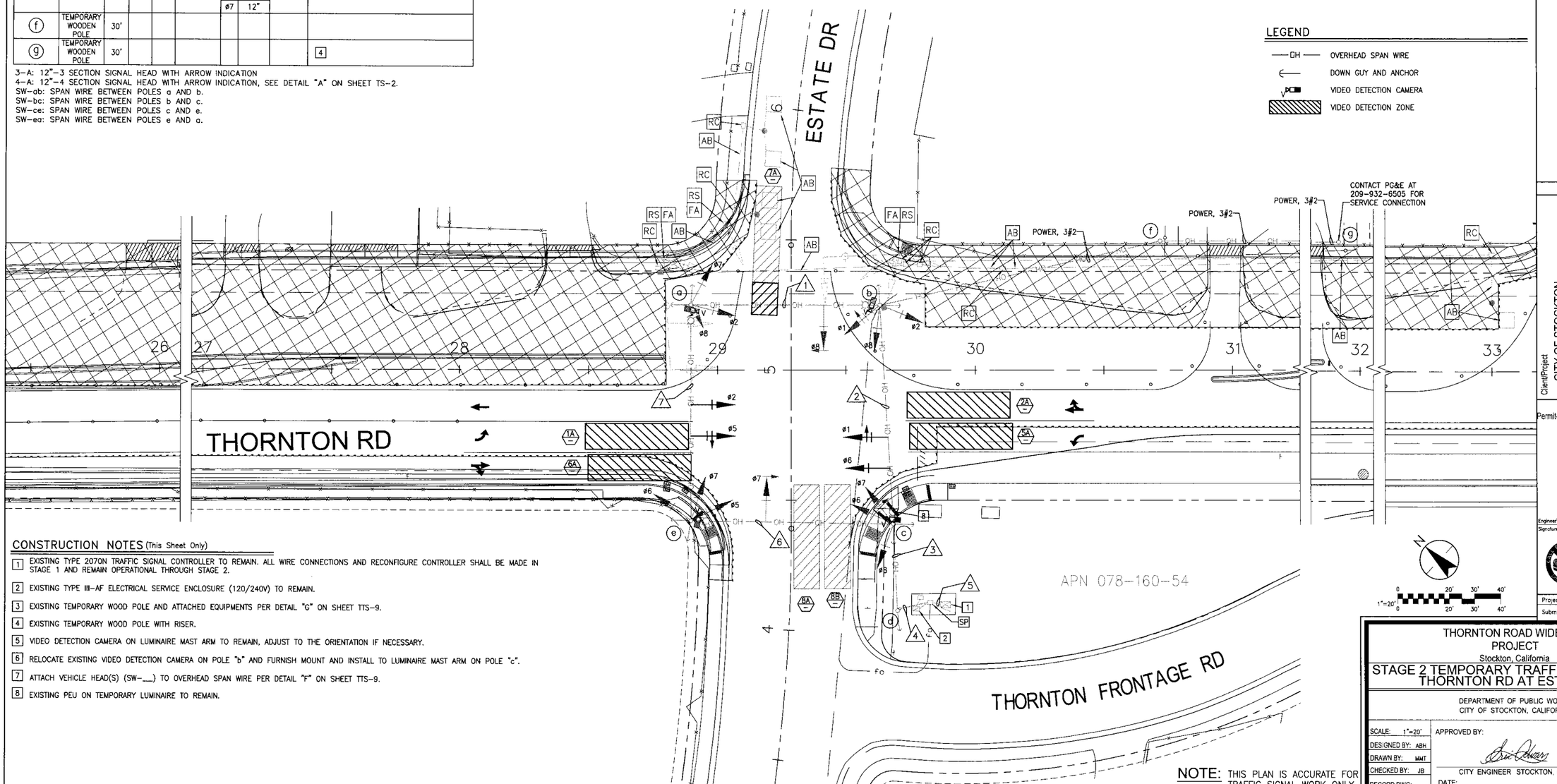
SENSOR TABLE

CH	DET	DETECTORS
1	1	1A (VD)
2		2A (VD)
3	2	3A NOT USED
4		4A NOT USED
1		5A (VD)
2		6A (VD)
3		7A (VD)
4		8A (VD)
1	3	
2		8B (DELAY) (VD)
3		
4		
1	4	
2		
3		
4		
1	5	
2		
3		
4		
1	6	
2		
3		
4		

VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7
No. 14 AWG	ø1 VEHICLE	A,SW-BC		3	3	3	3		
	ø2 VEHICLE	A,B,SW-EA	3	3	3	3	3		
	ø3 VEHICLE								
	ø4 VEHICLE								
	ø5 VEHICLE	E,SW-EA			3	3	3	3	3
	ø6 VEHICLE	SW-BC,C,E		3	6	6	6	3	
	ø7 VEHICLE	SW-CE,A,C,E	3	3	6	6	6	3	
	ø8 VEHICLE	SW-AB,A,B,C	3	3	3	3	3		
	PEU (120 V)	C			3	3			
	SPARES		3	3	6	6	6	3	3
	TOTAL #14 AWG		12	18	33	33	30	12	6
No. 8 AWG	SERVICE						3		
	SIGNAL NEUTRAL		1	1	1	1	1	1	1
	TOTAL #8 AWG		1	1	1	1	4	1	1
No. 2 AWG	POWER FROM PG&E			3	3	3			
No. 10 AWG	LIGHTING (240 V)		2	2	4	4		2	
VIDEO DETECTION CABLE				1	4	4	4	2	1



LEGEND

- —OH— OVERHEAD SPAN WIRE
- ⟵ DOWN GUY AND ANCHOR
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE

CONSTRUCTION NOTES (This Sheet Only)

1. EXISTING TYPE 2070N TRAFFIC SIGNAL CONTROLLER TO REMAIN. ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER SHALL BE MADE IN STAGE 1 AND REMAIN OPERATIONAL THROUGH STAGE 2.
2. EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) TO REMAIN.
3. EXISTING TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.
4. EXISTING TEMPORARY WOOD POLE WITH RISER.
5. VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM TO REMAIN, ADJUST TO THE ORIENTATION IF NECESSARY.
6. RELOCATE EXISTING VIDEO DETECTION CAMERA ON POLE "b" AND FURNISH MOUNT AND INSTALL TO LUMINAIRE MAST ARM ON POLE "c".
7. ATTACH VEHICLE HEAD(S) (SW-___) TO OVERHEAD SPAN WIRE PER DETAIL "F" ON SHEET TTS-9.
8. EXISTING PEU ON TEMPORARY LUMINAIRE TO REMAIN.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

Stantec
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www.stantec.com

No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT ESTATE DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOY BHATTACHARYA
No. 58328
EXP. 9-30-17
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California
STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT ESTATE DR

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

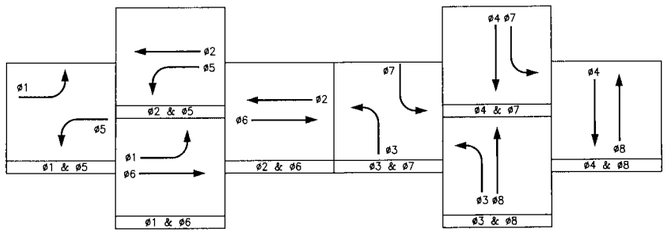
Sheet No. Revision
TTS-5
124 OF 145
JOB NO.
183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
ⓐ	TEMPORARY WOODEN POLE	30'		12'	200W	ø2	12"	SW-da	3 5 6
						ø5	3-A		
						ø2	12"	9	
						ø3	3-A		
						ø4	12"	SV-2-TB	
ⓑ	TEMPORARY WOODEN POLE	30'		12'	200W	ø3	3-A	SW-ab	3 5 6
						ø8	12"		
						ø1	3-A	9	
						ø2	12"		
						ø8	12"	SV-2-TB	
ⓒ	TEMPORARY WOODEN POLE	30'		12'	200W	ø1	3-A	SW-bc	3 5 6
						ø6	12"		
						ø6	12"		
						ø7	3-A	SV-2-TB	
						ø8	12"		
ⓓ	TEMPORARY WOODEN POLE	30'		12'	200W	ø4	12"	SW-ce	3 5 6 7
						ø7	3-A		
						ø4	12"		
						ø5	3-A	SV-2-TB	
						ø6	12"		
ⓔ	TEMPORARY WOODEN POLE	30'							4
ⓕ	TEMPORARY WOODEN POLE	30'							4

3-A: 12"-3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 12"-4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-ab: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES a AND b.
SW-bc: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES b AND c.
SW-cd: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES c AND d.
SW-da: SPAN WIRE MOUNTED SIGNAL HEADS BETWEEN POLES d AND a.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (WAGNER HEIGHTS RD.)

SENSOR TABLE

CH	DET	DETECTORS
1	1	1A (VD)
2		2A (VD)
3		3A (VD)
4		4A (VD)
1	2	5A (VD)
2		6A (VD)
3		7A (VD)
4		8A (VD)
1	3	
2		
3		
4		
1	4	
2		
3		
4		
1	5	
2		
3		
4		
1	6	
2		
3		
4		

VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6	7
No. 14 AWG	ø1 VEHICLE	b,SW-b,c		3	3	3	3	3	
	ø2 VEHICLE	SW-da,a,b	3			3	3	3	3
	ø3 VEHICLE	a,SW-ab	3			3	3	3	3
	ø4 VEHICLE	a,SW-cd,d			3	3	3	3	3
	ø5 VEHICLE	d,SW-da				3	3	3	3
	ø6 VEHICLE	SW-bc,c,d		3	3	3	3	3	
	ø7 VEHICLE	c,SW-cd			3	3	3	3	
	ø8 VEHICLE	SW-ab,b,c	3	3	3	3	3	3	
	PEU (120 V)	d				3	3		
	SPARES		3	3	3	6	6	6	3
	TOTAL #14 AWG		12	18	18	31	31	30	15
No. 8 AWG	SERVICE							3	
	SIGNAL NEUTRAL		1	1	1	1	1	1	1
	TOTAL #8 AWG		1	1	1	1	1	4	1
No. 2 AWG	POWER FROM PG&E								
No. 10 AWG	LIGHTING (240 V)			2	4	4	4		2
VIDEO DETECTION CABLE			1		1	4	4	4	2

CONSTRUCTION NOTES (This Sheet Only)

1 EXISTING TYPE 2070N TRAFFIC SIGNAL CONTROLLER WITH ALL AUXILIARY EQUIPMENT IN A TYPE P CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE INSTALLED IN STAGE 1. FOR THE INTERIM TRAFFIC SIGNAL, VIDEO DETECTION SHALL BE INSTALLED IN STAGE 1 AND REMAIN OPERATIONAL THROUGH STAGE 2.

2 EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) INSTALLED IN STAGE 1 TO REMAIN.

3 EXISTING TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS TO REMAIN.

4 EXISTING TEMPORARY WOOD POLE WITH RISER TO REMAIN.

5 VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM TO REMAIN, ADJUST TO THE ORIENTATION IF NECESSARY.

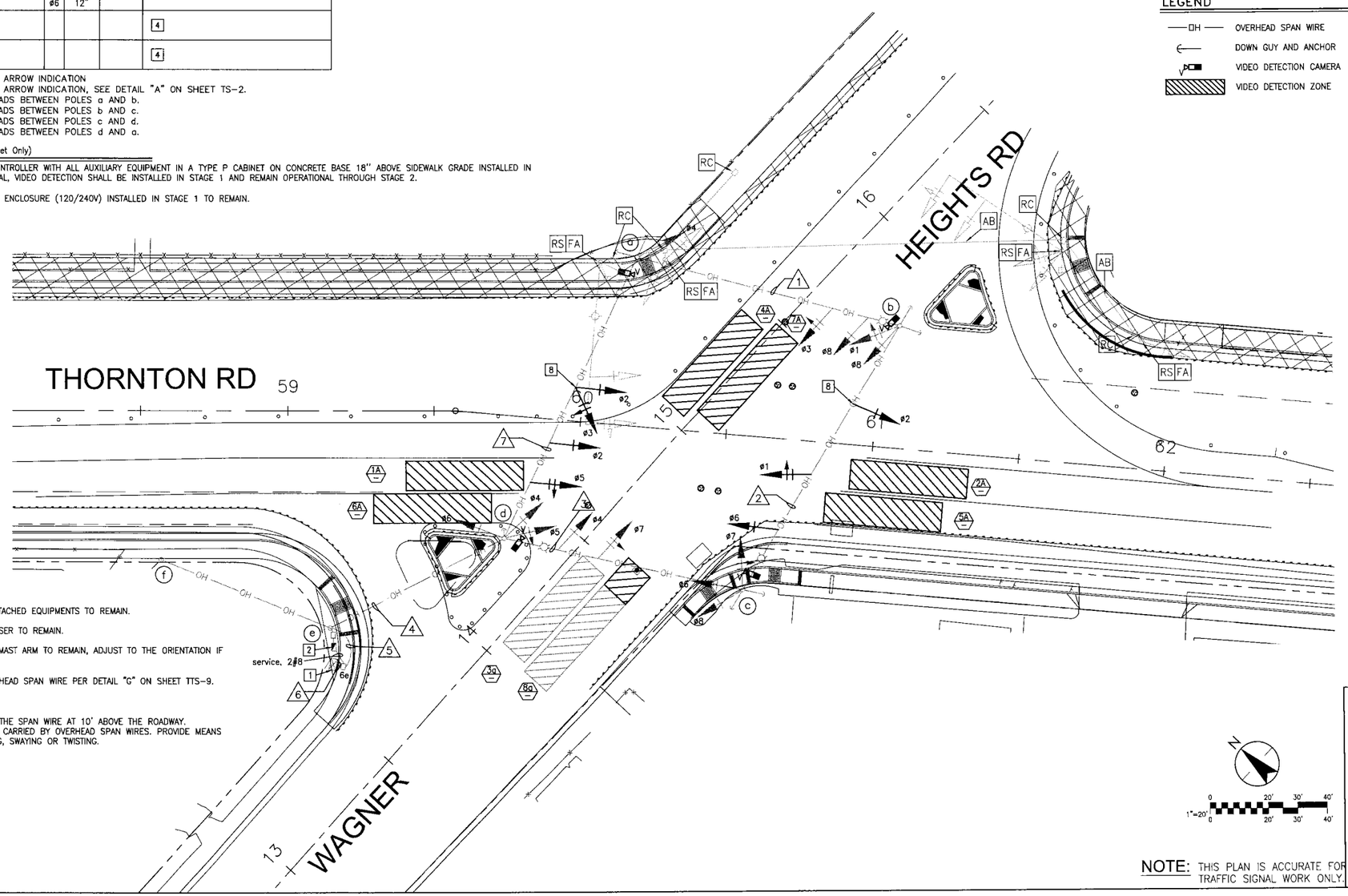
6 ATTACH VEHICLE HEAD (SW-___) TO OVERHEAD SPAN WIRE PER DETAIL "G" ON SHEET TTS-9.

7 EXISTING PEU ON LUMINAIRE TO REMAIN.

8 SIGNAL HEAD(S) TO BE MOUNTED BELOW THE SPAN WIRE AT 10' ABOVE THE ROADWAY. CONDUCTORS FROM SIGNAL HEADS TO BE CARRIED BY OVERHEAD SPAN WIRES. PROVIDE MEANS TO PREVENT SIGNAL HEAD FROM SWINGING, SWAYING OR TWISTING.

LEGEND

—OH— OVERHEAD SPAN WIRE
DOWN GUY AND ANCHOR
VIDEO DETECTION CAMERA
VIDEO DETECTION ZONE



NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.
	Description		

Client/Project: CITY OF STOCKTON, Thornton Road Widening, Stockton, California

Title: TEMPORARY TRAFFIC SIGNAL PLAN THORNTON RD AT WAGNER HEIGHTS RD

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 68928 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN THORNTON RD AT WAGNER HEIGHTS RD

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'
DESIGNED BY: ABH
DRAWN BY: MMT
CHECKED BY: JB
RECORD DWG:

APPROVED BY:

CITY ENGINEER STOCKTON, CA.
DATE:

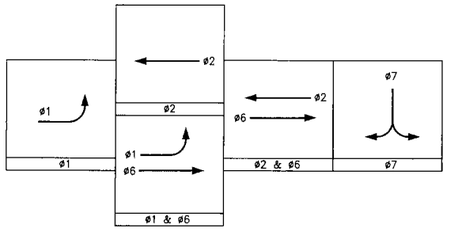
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125 OF 145
JOB NO. 183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
ⓐ	TEMPORARY WOODEN POLE	30'		12'	200W	ø2	12"	SW-ea	[3] [5] [7]
						ø2	12"	[9]	
						ø7	12"	SW-2-TB	
ⓑ	TEMPORARY WOODEN POLE	30'		12'	200W	ø1	3-A	[9]	[3] [6] [7] [8]
						ø2	12"		
ⓒ	TEMPORARY WOODEN POLE	30'							[4]
ⓓ	TEMPORARY WOODEN POLE	30'		12'	200W	ø1	3-A	SW-bd	[3] [6] [7]
						ø6	12"		
						ø6	12"	SW-2-TD	
						ø7	3-A		
ⓔ	TEMPORARY WOODEN POLE	30'		12'	200W	ø7	4-A	SW-de	[3] [5] [7] [10]
						ø6	12"	SV-2-TD	
						ø7	12"		

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-ab: SPAN WIRE BETWEEN POLES a AND b.
SW-bd: SPAN WIRE BETWEEN POLES b AND d.
SW-de: SPAN WIRE BETWEEN POLES d AND e.
SW-ea: SPAN WIRE BETWEEN POLES e AND a.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 35 MPH (THORNTON RD), 35 MPH (DAVIS RD. AND ALPHA DR)

SENSOR TABLE

CH	DET	DETECTORS	
1	1	1A	(VD)
2		2A	(VD)
3		3A	NOT USED
4		4A	NOT USED
1	2	5A	NOT USED
2		6A	(VD)
3		7A	(VD)
4		8A	NOT USED
1	3		
2			
3			
4			
1	4		
2			
3			
4			
1	5		
2			
3			
4			
1	6		
2			
3			
4			

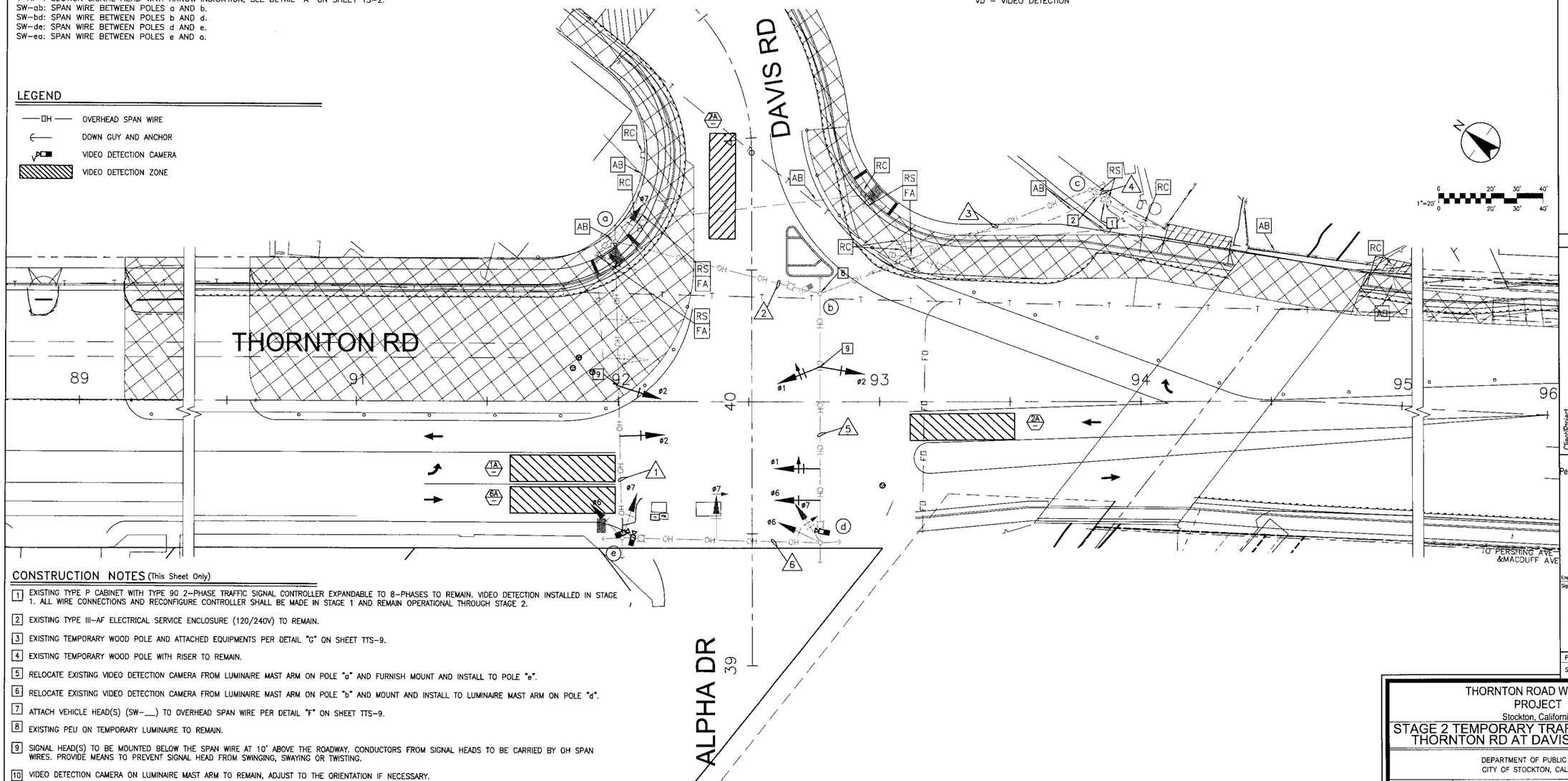
VD - VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6
No. 14 AWG	ø1 VEHICLE	b,SW-bd			3	3	3	
	ø2 VEHICLE	a,SW-ea,SW-bd	3	3	3	3		
	ø3 VEHICLE							
	ø4 VEHICLE							
	ø5 VEHICLE							
	ø6 VEHICLE	d,e,SW-bd			3	3	3	3
	ø7 VEHICLE	a,d,e,SW-de		3	6	6	3	3
	ø8 VEHICLE							
	PEU (120 V)				3			
	SPARES		3	3	6	6	3	3
	TOTAL #14 AWG		6	9	24	21	12	9
No. 8 AWG	SERVICE					3		
	SIGNAL NEUTRAL		1	1	1	1	1	1
	TOTAL #8 AWG		1	1	1	4	1	1
No. 2 AWG	POWER FROM PG&E							
No. 10 AWG	LIGHTING (240 V)		2	2	4		2	2
VIDEO DETECTION CABLE			2	2	3	3	1	

LEGEND

- —OH— OVERHEAD SPAN WIRE
- DOWN GUY AND ANCHOR
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE



CONSTRUCTION NOTES (This Sheet Only)

[1] EXISTING TYPE P CABINET WITH TYPE 90 2-PHASE TRAFFIC SIGNAL CONTROLLER EXPANDABLE TO 8-PHASES TO REMAIN. VIDEO DETECTION INSTALLED IN STAGE 1. ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER SHALL BE MADE IN STAGE 1 AND REMAIN OPERATIONAL THROUGH STAGE 2.

[2] EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) TO REMAIN.

[3] EXISTING TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.

[4] EXISTING TEMPORARY WOOD POLE WITH RISER TO REMAIN.

[5] RELOCATE EXISTING VIDEO DETECTION CAMERA FROM LUMINAIRE MAST ARM ON POLE "a" AND FURNISH MOUNT AND INSTALL TO POLE "e".

[6] RELOCATE EXISTING VIDEO DETECTION CAMERA FROM LUMINAIRE MAST ARM ON POLE "b" AND MOUNT AND INSTALL TO LUMINAIRE MAST ARM ON POLE "d".

[7] ATTACH VEHICLE HEAD(S) (SW-___) TO OVERHEAD SPAN WIRE PER DETAIL "F" ON SHEET TTS-9.

[8] EXISTING PEU ON TEMPORARY LUMINAIRE TO REMAIN.

[9] SIGNAL HEAD(S) TO BE MOUNTED BELOW THE SPAN WIRE AT 10' ABOVE THE ROADWAY. CONDUCTORS FROM SIGNAL HEADS TO BE CARRIED BY OH SPAN WIRES. PROVIDE MEANS TO PREVENT SIGNAL HEAD FROM SWINGING, SWAYING OR TWISTING.

[10] VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM TO REMAIN, ADJUST TO THE ORIENTATION IF NECESSARY.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	Description	By	Appd.
1	MMYY			

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT DAVIS RD-ALPHA DR

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 58926 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:

Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya

Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT DAVIS RD-ALPHA DR

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

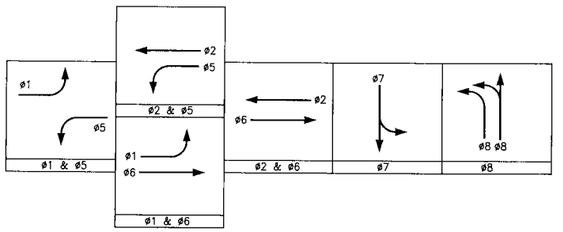
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TTS-7
126 OF 145
JOB NO.
183910142

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EQUIPMENT SCHEDULE

POLE LOCATION	POLE TYPE	POLE HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE WATTAGE	VEH. SIGNALS ø	VEH. SIGNALS SEC.	VEH. SIGNALS MTG.	REMARKS
ⓐ	TEMPORARY WOODEN POLE	30'		12'	200W	ø2	12"	SW-ea	3 5 7
						ø5	3-A		
						ø2	12"		
						ø7	3-A	SV-3-TB	
						ø8	12"		
ⓑ	TEMPORARY WOODEN POLE	30'		12'	200W	ø8	4-A	SW-ab	3 5 6 7
						ø1	3-A		
						ø2	12"	SV-3-TB	
						ø8	12"		
ⓒ	TEMPORARY WOODEN POLE	30'							4
ⓓ	TEMPORARY WOODEN POLE	30'		12'	200W	ø1	3-A	SW-bd	3 6 7 8
						ø6	12"		
						ø6	12"	SV-2-TB	
						ø7	3-A		
ⓔ	TEMPORARY WOODEN POLE	30'		12'	200W	ø7	4-A	SW-de	3 5 7
						ø5	3-A		
						ø6	12"	SV-4-TB	
						ø7	12"		
						ø8	12"		

3-A: 3 SECTION SIGNAL HEAD WITH ARROW INDICATION
4-A: 4 SECTION SIGNAL HEAD WITH ARROW INDICATION, SEE DETAIL "A" ON SHEET TS-2.
SW-ab: SPAN WIRE BETWEEN POLES a AND b.
SW-ea: SPAN WIRE BETWEEN POLES e AND a.
SW-bd: SPAN WIRE BETWEEN POLES b AND d.
SW-de: SPAN WIRE BETWEEN POLES d AND e.



TEMPORARY SIGNAL PHASE DIAGRAM

DESIGN SPEED = 45 MPH (THORNTON RD), 35 MPH (PERSHING AVE)
25 MPH (MACDUFF AVE)

SENSOR TABLE

CH	DET	DETECTORS	
1	1	1A	(VD)
2		2A	(VD)
3		3A	NOT USED
4		4A	NOT USED
1	2	5A	(VD)
2		6A	(VD)
3		7A	(VD)
4		8A	(VD)
1	3	2B	(VD)
2		6B	(VD)
3		8B	(VD)
4			
1	4		
2			
3			
4			
1	5		
2			
3			
4			
1	6		
2			
3			
4			

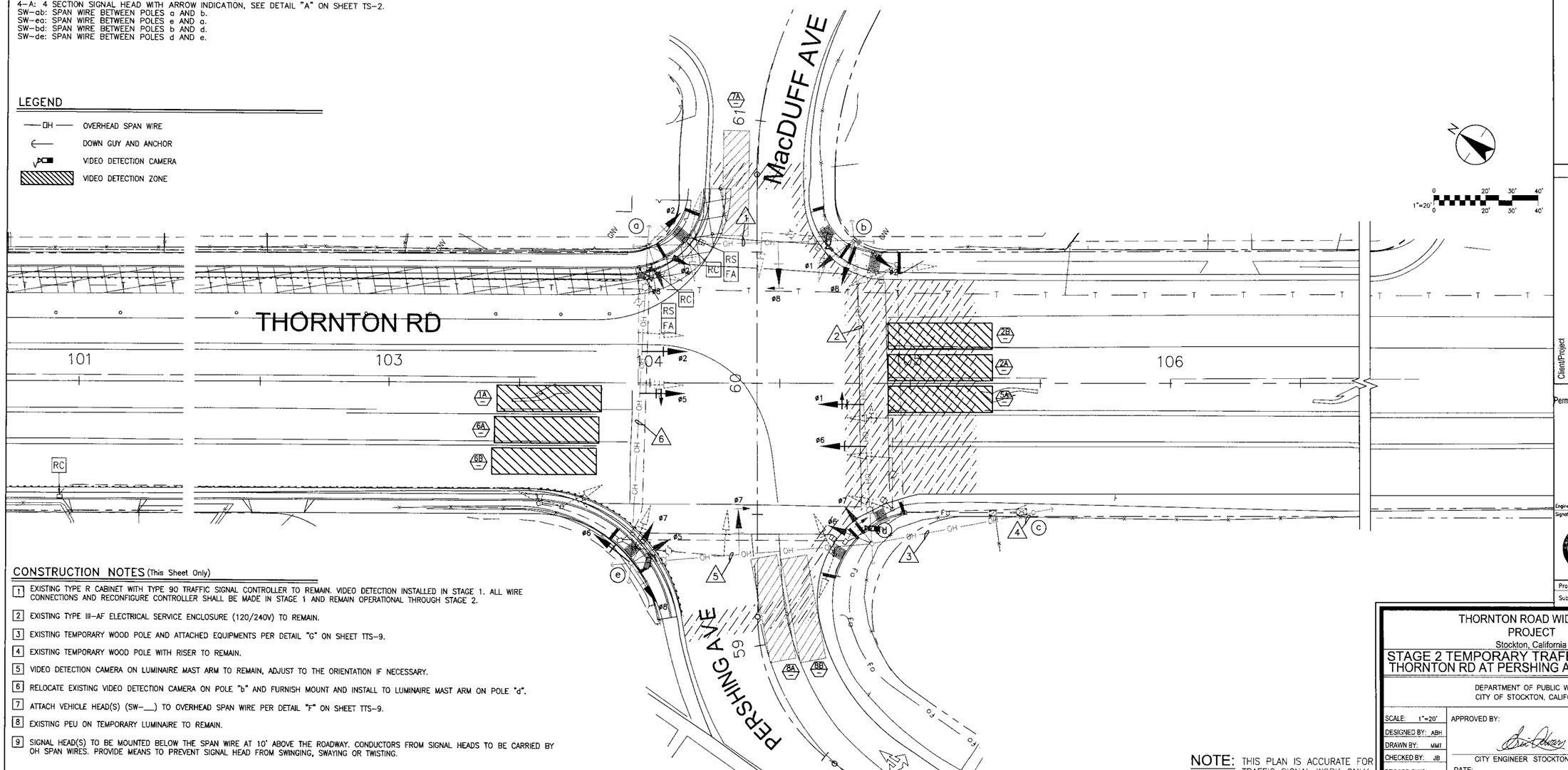
VD – VIDEO DETECTION

CONDUCTOR AND CONDUIT SCHEDULE

AWG SIZE / CABLE SIZE	PHASE OR CIRCUIT	POLE LOCATION	CONDUIT SIZE AND RUN NUMBERS 1	2	3	4	5	6
No. 14 AWG	ø1 VEHICLE	b,SW-bd		3	3	3		
	ø2 VEHICLE	a,b,SW-ea	3	3	6	6	3	3
	ø3 VEHICLE							
	ø4 VEHICLE							
	ø5 VEHICLE	e,SW-ea			3	3	3	3
	ø6 VEHICLE	d,SW-ea,SW-bd		3	6	6	3	3
	ø7 VEHICLE	a,d,e,SW-de			3	3	3	3
	ø8 VEHICLE	a,b,e,SW-ab	3	3	6	6	3	
	PEU (120 V)				3			
	SPARES		3	3	6	6	3	3
	TOTAL #14 AWG		9	15	36	33	18	15
No. 8 AWG	SERVICE					3		
	SIGNAL NEUTRAL		1	1	2	2	1	1
	TOTAL #8 AWG		1	1	2	5	1	1
No. 2 AWG	POWER FROM SCE							
No. 10 AWG	LIGHTING (240 V)		2	2	4		2	2
VIDEO DETECTION CABLE				1	4	4	2	1

LEGEND

- —OH— OVERHEAD SPAN WIRE
- DOWN GUY AND ANCHOR
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE



CONSTRUCTION NOTES (This Sheet Only)

1. EXISTING TYPE R CABINET WITH TYPE 90 TRAFFIC SIGNAL CONTROLLER TO REMAIN. VIDEO DETECTION INSTALLED IN STAGE 1. ALL WIRE CONNECTIONS AND RECONFIGURE CONTROLLER SHALL BE MADE IN STAGE 1 AND REMAIN OPERATIONAL THROUGH STAGE 2.
2. EXISTING TYPE III-AF ELECTRICAL SERVICE ENCLOSURE (120/240V) TO REMAIN.
3. EXISTING TEMPORARY WOOD POLE AND ATTACHED EQUIPMENTS PER DETAIL "G" ON SHEET TTS-9.
4. EXISTING TEMPORARY WOOD POLE WITH RISER TO REMAIN.
5. VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM TO REMAIN, ADJUST TO THE ORIENTATION IF NECESSARY.
6. RELOCATE EXISTING VIDEO DETECTION CAMERA ON POLE "b" AND FURNISH MOUNT AND INSTALL TO LUMINAIRE MAST ARM ON POLE "d".
7. ATTACH VEHICLE HEAD(S) (SW-___) TO OVERHEAD SPAN WIRE PER DETAIL "F" ON SHEET TTS-9.
8. EXISTING PEU ON TEMPORARY LUMINAIRE TO REMAIN.
9. SIGNAL HEAD(S) TO BE MOUNTED BELOW THE SPAN WIRE AT 10' ABOVE THE ROADWAY. CONDUCTORS FROM SIGNAL HEADS TO BE CARRIED BY OH SPAN WIRES. PROVIDE MEANS TO PREVENT SIGNAL HEAD FROM SWINGING, SWAYING OR TWISTING.

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	MM.YY	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT PERSHING AVE-MACDUFF AVE

Permit-Seal

PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 63928 Exp. 6-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya
Submitted Date: April 18, 2018

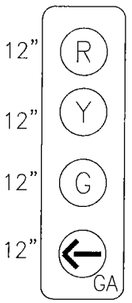
THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN
THORNTON RD AT PERSHING AVE-MACDUFF AVE

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

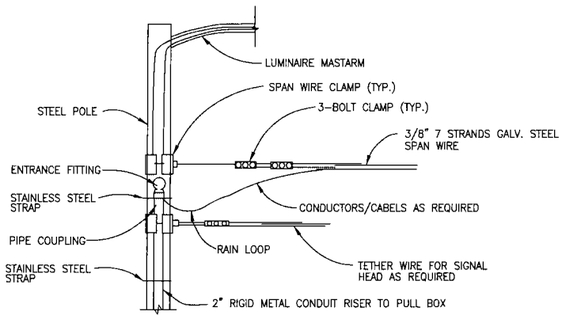
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DESIGNED BY: ABH	
DRAWN BY: MMT	CITY ENGINEER STOCKTON, CA.
CHECKED BY: JB	DATE:
RECORD DWG:	

Sheet No. Revision: TTS-8
127 OF 145
JOB NO. 183910142

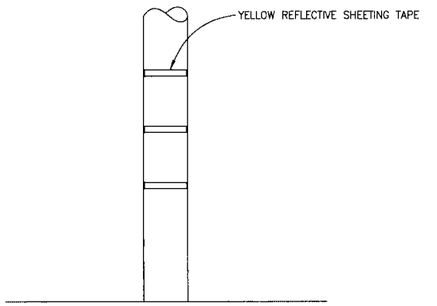
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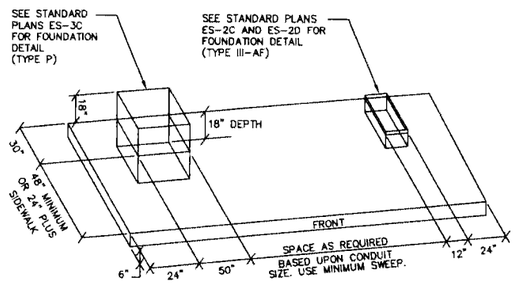
DETAIL 'A'
4-SECTION SIGNAL HEAD
(NO SCALE)



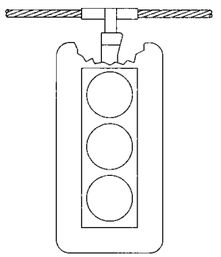
DETAIL 'E'
OVERHEAD SPAN WIRE ATTACHMENT
(NO SCALE)



DETAIL 'H'
REFLECTIVE MARKING FOR WOOD POLE
(NO SCALE)

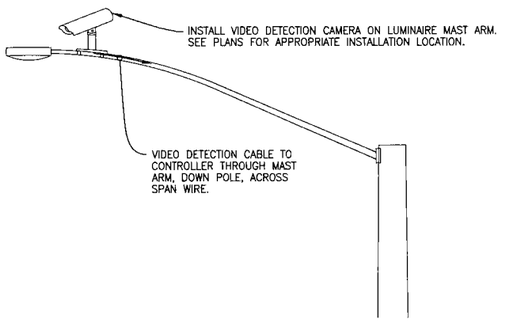


DETAIL "B"
CONTROLLER WALKWAY
(NO SCALE)

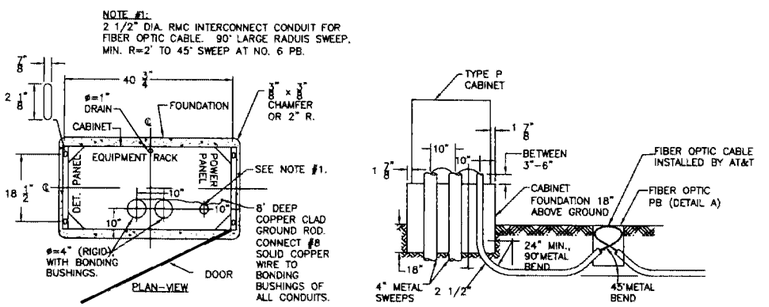


1 FACE (SW-1)

DETAIL 'F'
OVERHEAD SPAN WIRE MOUNT
(NO SCALE)

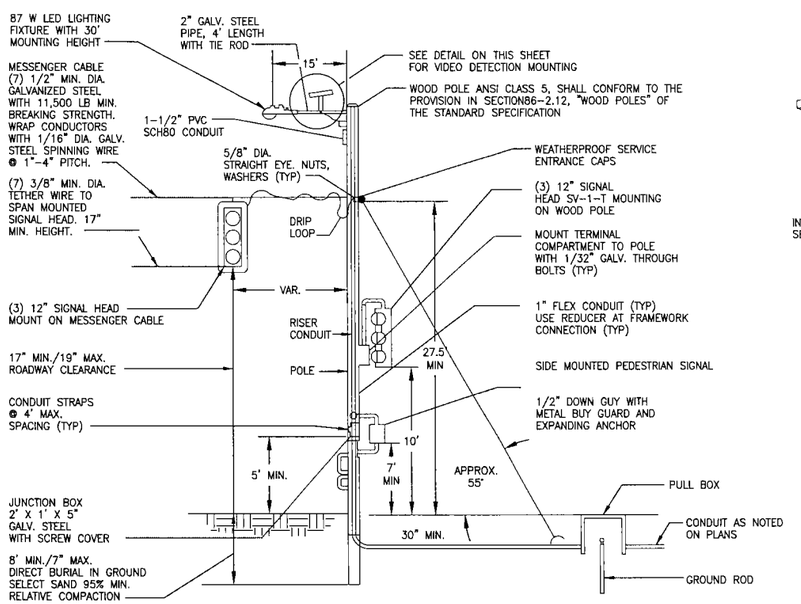


DETAIL 'I'
VIDEO MOUNTED ON LUMINAIRE MAST ARM
(NO SCALE)

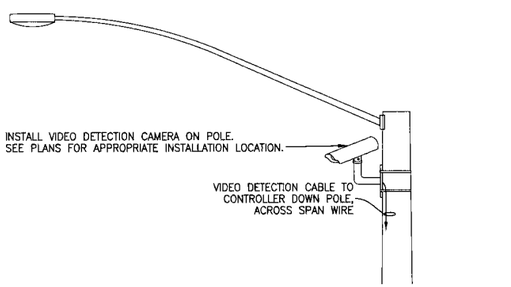


DETAIL 'C'
CONTROLLER CANINET
(NO SCALE)

DETAIL 'D'
NOT USED
(NO SCALE)



DETAIL 'G'
TEMPORARY WOOD POLE INSTALLATION
(NO SCALE)



DETAIL 'J'
VIDEO MOUNTED ON POLE
(NO SCALE)

NOTE: THIS PLAN IS ACCURATE FOR TRAFFIC SIGNAL WORK ONLY.

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No.	Revision	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
TEMPORARY TRAFFIC SIGNAL PLAN DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER JOY BHATTACHARYA No. 68928 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA

Engineer's Signature

Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Joy Bhattacharya

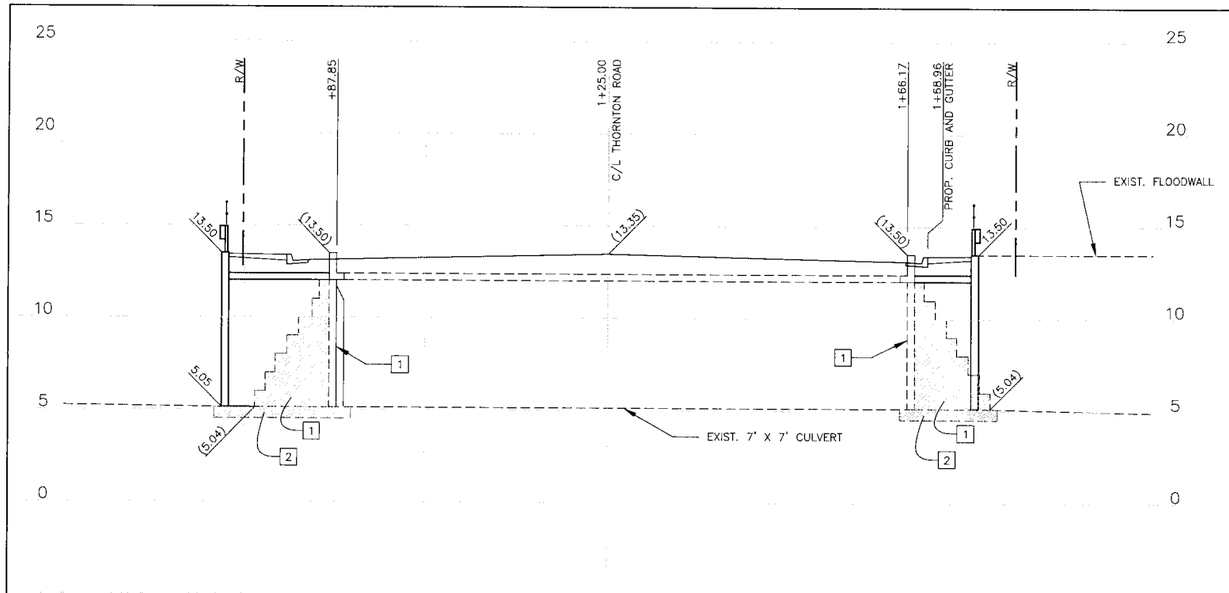
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
STAGE 2 TEMPORARY TRAFFIC SIGNAL PLAN DETAILS

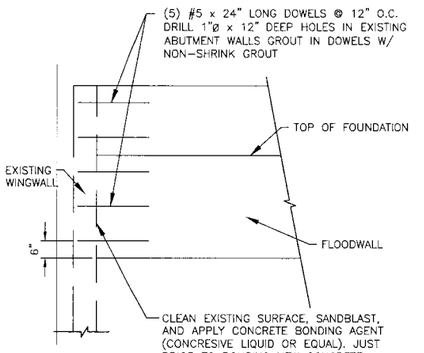
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DRAWN BY: MMT		128 OF 145
CHECKED BY: JB	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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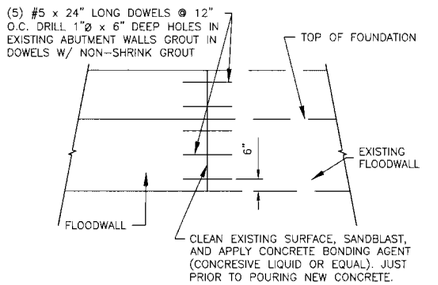


PROFILE



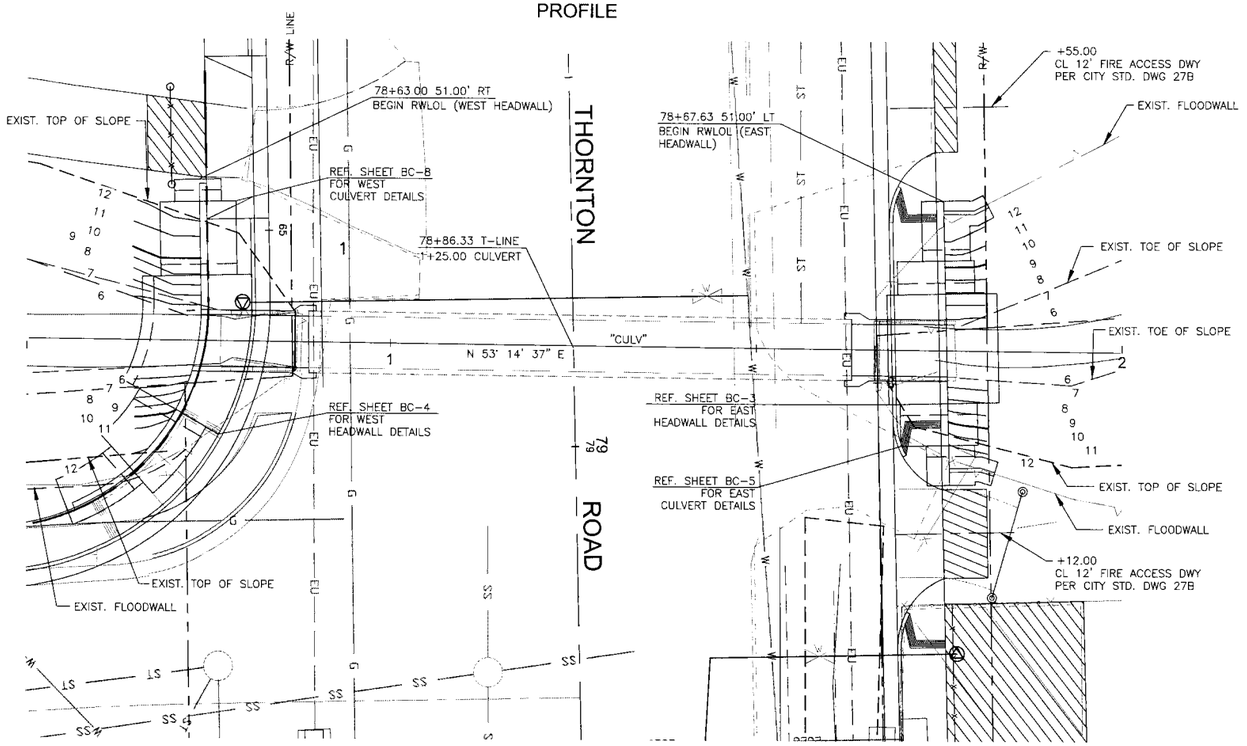
DETAIL CONNECTION TO WINGWALL

NOT TO SCALE



DETAIL CONNECTION TO EXIST. FLOODWALL

NOT TO SCALE



PLAN

SHEET NOTES:

1. REMOVE EXISTING HEADWALL, WINGWALLS, FLOOD WALLS AND CONFLICTING PORTION OF BOX CULVERT. SEE STD. PLAN D-82 FOR CULVERT EXTENSION DETAILS.
2. FOUNDATION BEDDING 1.5' MIN. BELOW FOUNDATION

REFERENCE CIVIL DRAWINGS:

LITTLE BEAR CREEK PLAN & PROFILE STA: 74+00.00 TO STA:82+00.00 – C-13
EAST HEADWALL DETAILS – BC-3
WEST HEADWALL DETAILS – BC-4

REFERENCE STRUCTURAL DRAWINGS:

EAST CULVERT DETAILS – BC-5, BC-6, BC-7
WEST CULVERT DETAILS – BC-8, BC-9, BC-10

NOTES:

1. BATTER LANDSIDE FACE OF WALL 1:12
2. PROVIDE EXPANSION JOINT IN WALL AT 60' MAX. EXPANSION JOINT NOT REQUIRED IN FOOTING.
3. PROVIDE WEAKENED PLANE JOINT IN WALL AT 10' O.C. MAX.
4. FOOTING MAY BE REDUCED TO 8" MIN. BY APPROVAL OF THE ENGINEER.
5. FOOTING TRENCH SHALL BE CLEAR OF DEBRIS AND LOOSE MATERIAL PRIOR TO POURING CONCRETE.

FLOODWALL DIMENSIONS		
<Y	Y≤	D
1'-0"	1'-6"	4'-0"
1'-6"	2'-0"	4'-8"
2'-0"	3'-0"	5'-6"

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.



10' 5' 0 10'
HORIZONTAL SCALE
1" = 10'

4' 2' 0 4'
VERTICAL SCALE
1" = 4'

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No.	Revision	By	Appd

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLAN AND PROFILE
CULVERT EXTENSION

Permit-Seal



4/18/16

Engineer's Signature:
Signature Date.

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vondersitze
Submitted Date: April 18, 2016

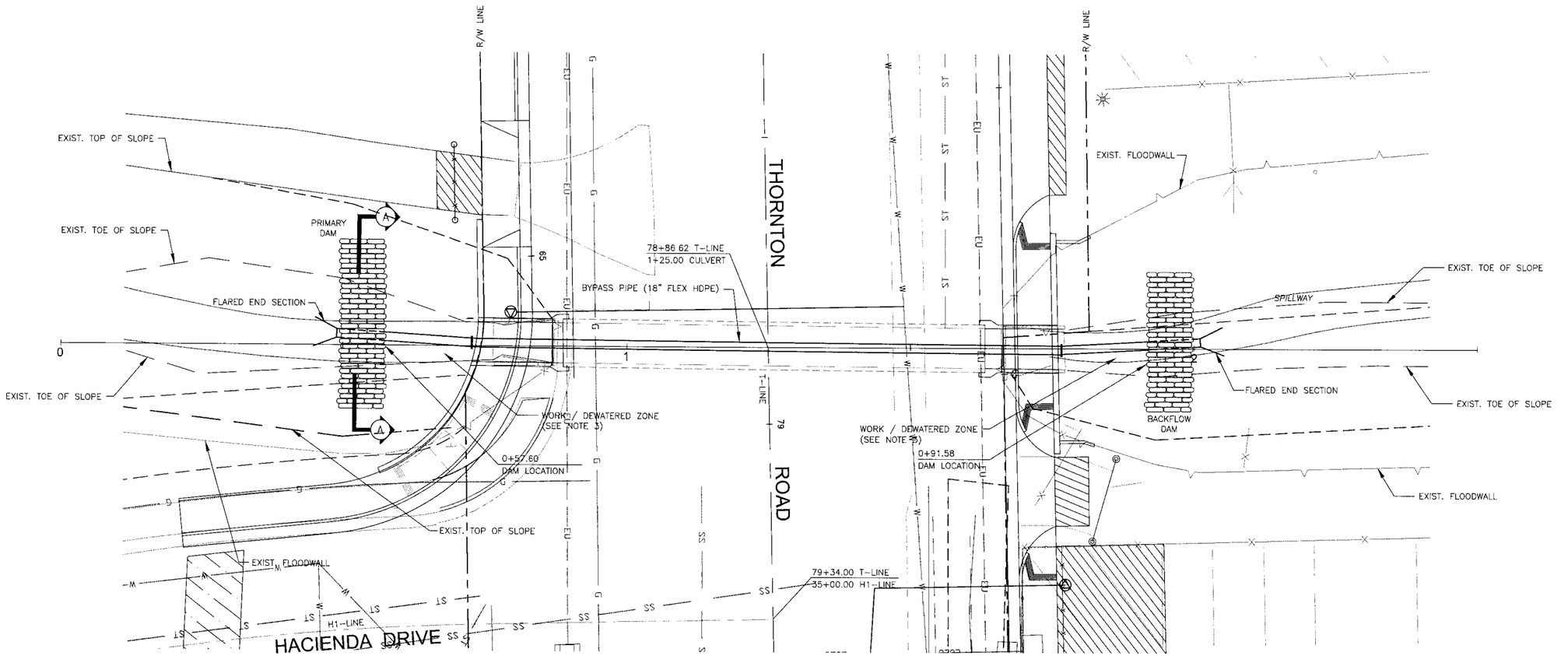
THORNTON ROAD WIDENING
PROJECT
Stockton, California

LITTLE BEAR CREEK CULVERT PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

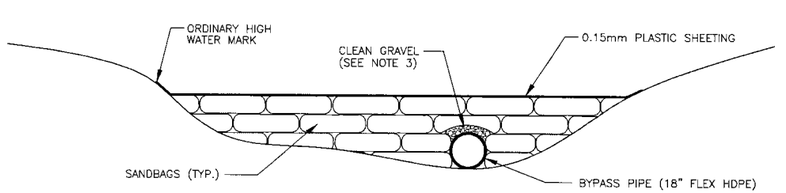
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DESIGNED BY: JAM		BC-1 0
DRAWN BY: CBH		129 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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SCHEMATIC GRAVITY STREAM DIVERSION DETAIL

TEMPORARY CULVERT THROUGH WORK ZONE ISOLATION METHOD



SECTION A - A

N.T.S.

NOTES:

1. METHOD OF PLACEMENT AND REMOVAL OF DAMS, BYPASS PIPE AND ALL IN-WATER ITEMS MUST BE APPROVED BY THE ENGINEER. FISH REMOVAL MUST OCCUR PRIOR TO DEWATERING AND MUST BE COORDINATED WITH THE BIOLOGIST.
2. BYPASS OUTFALL SHALL BE PLACED TO MINIMIZE THE ENERGY OF FALLING WATER. PLACE OUTFALL AS CLOSE TO GROUND ELEVATION AS FEASIBLE.
3. BACKFILL OVER TOP OF PIPE TO BE CLEAN GRAVEL.
4. PRIMARY / BACKFLOW DAM TO BE CONSTRUCTED AT A MINIMUM OF 15' EITHER END OF CONSTRUCTION.

NOTE: PLAN IS ACCURATE FOR STREAM DIVERSION WORK ONLY.

10' 5' 0 10'
HORIZONTAL SCALE
1" = 10'

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www.stantec.com

No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SCHEMATIC GRAVITY STREAM DIVERSION DETAIL

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
JOHN R. WATTS
No. C59758
EXP. 12/31/17
CIVIL
STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vondersitte
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

LITTLE BEAR CREEK DIVERSION PLANS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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CHECKED BY: CJA	
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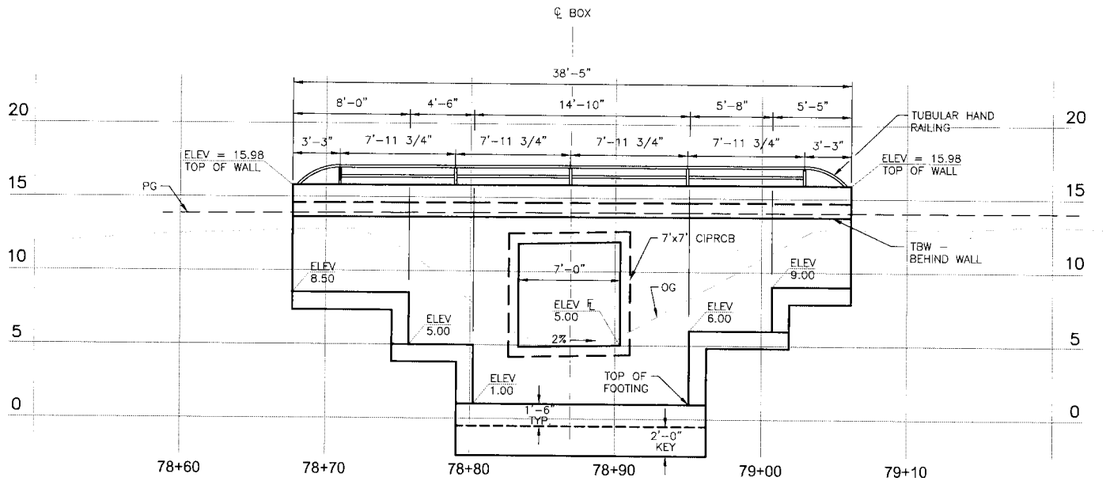
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CITY ENGINEER STOCKTON, CA.

DATE:

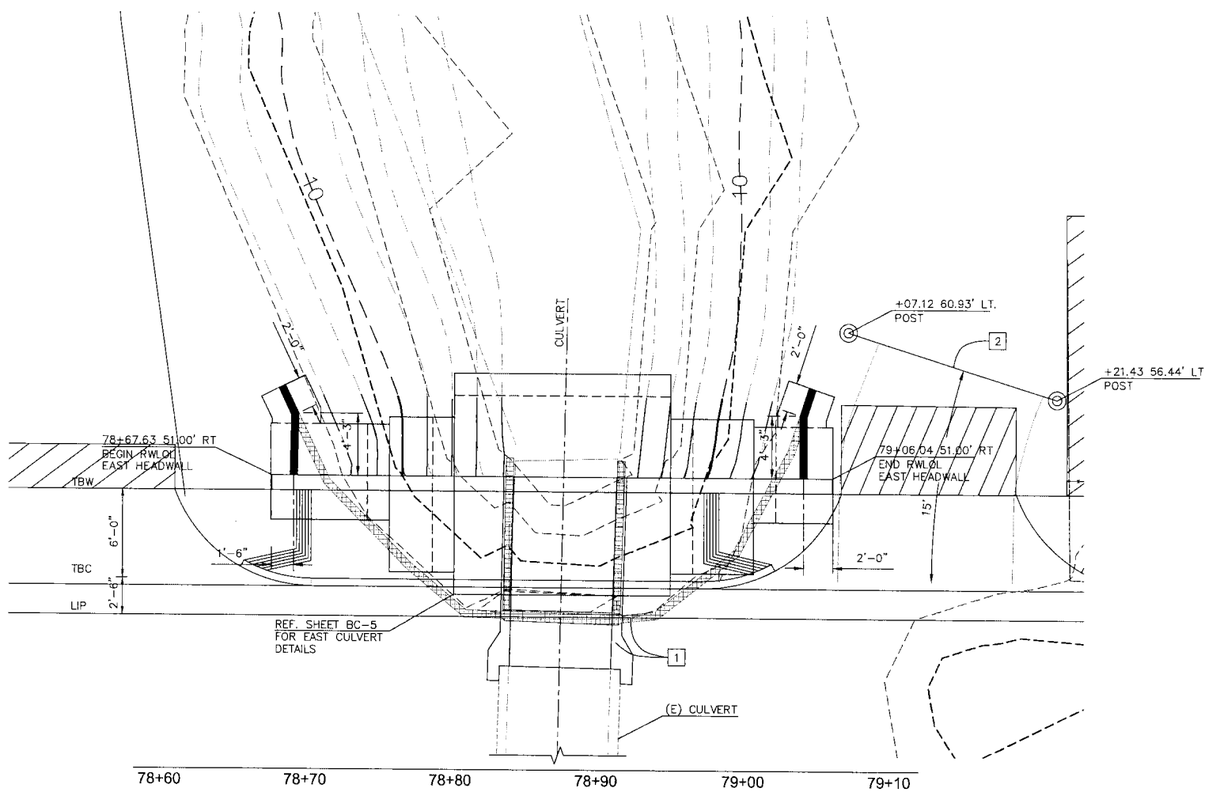
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BC-2 0
130 OF 145
JOB NO.
183910142

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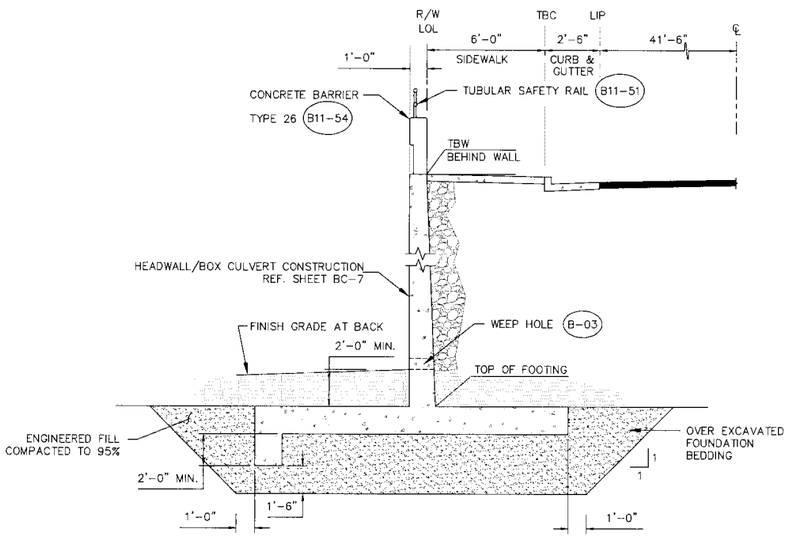
LITTLE BEAR CREEK - EAST HEADWALL

SCALE: HORIZ.: 1"=5', VERT. 1" = 5'



LITTLE BEAR CREEK - EAST HEADWALL

SCALE: HORIZ.: 1" = 5'



TYPICAL SECTION - EAST HEADWALL

NOT TO SCALE

REFERENCE CIVIL DRAWING:

LITTLE BEAR CREEK PLAN & PROFILE STA: 74+00.00 TO STA:82+00.00 - C-13

REFERENCE STRUCTURAL DRAWINGS:

EAST CULVERT DETAILS - BC-5, BC-6, BC-7

NOTES:

1. REMOVE EXISTING HEADWALL, WINGWALLS, FLOOD WALLS AND BOX CULVERT. SEE STD. PLAN D-82 FOR CULVERT EXTENSION DETAILS.
2. 15' FIRE ACCESS GATE PER CITY OF STOCKTON, DWG. NO. 27C.

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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No.	Revision	By	Appd.
MM/YY	Description		
	Revision	By	Appd.
	YY-MM-DD		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
EAST HEADWALL DETAILS

Permit-Seal



Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

LITTLE BEAR - EAST HEADWALL

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

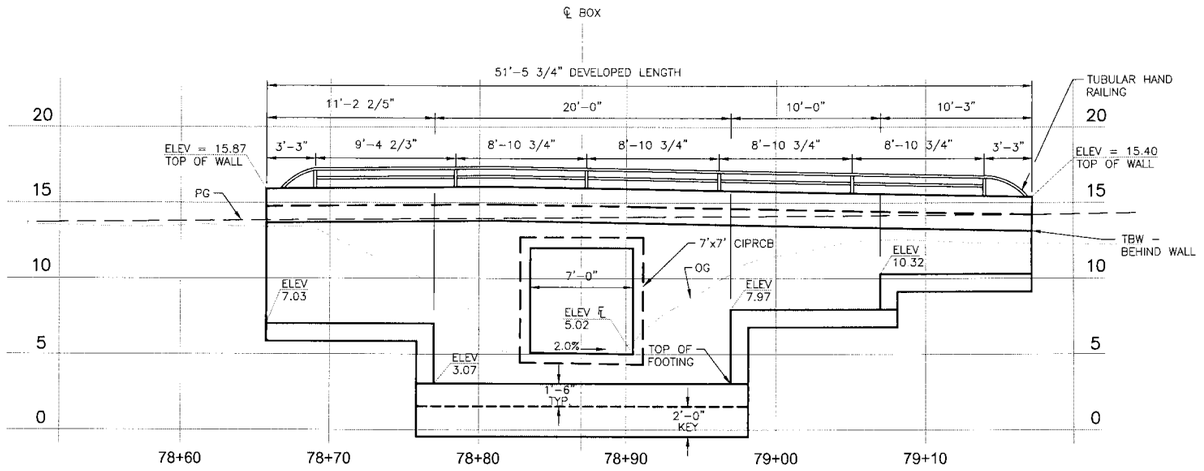
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

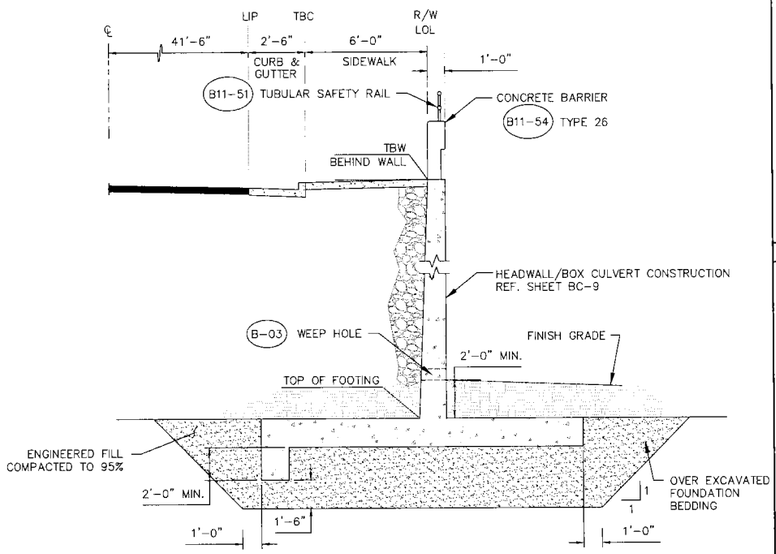
Sheet No. Revision
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131 OF 145
JOB NO.
183910142

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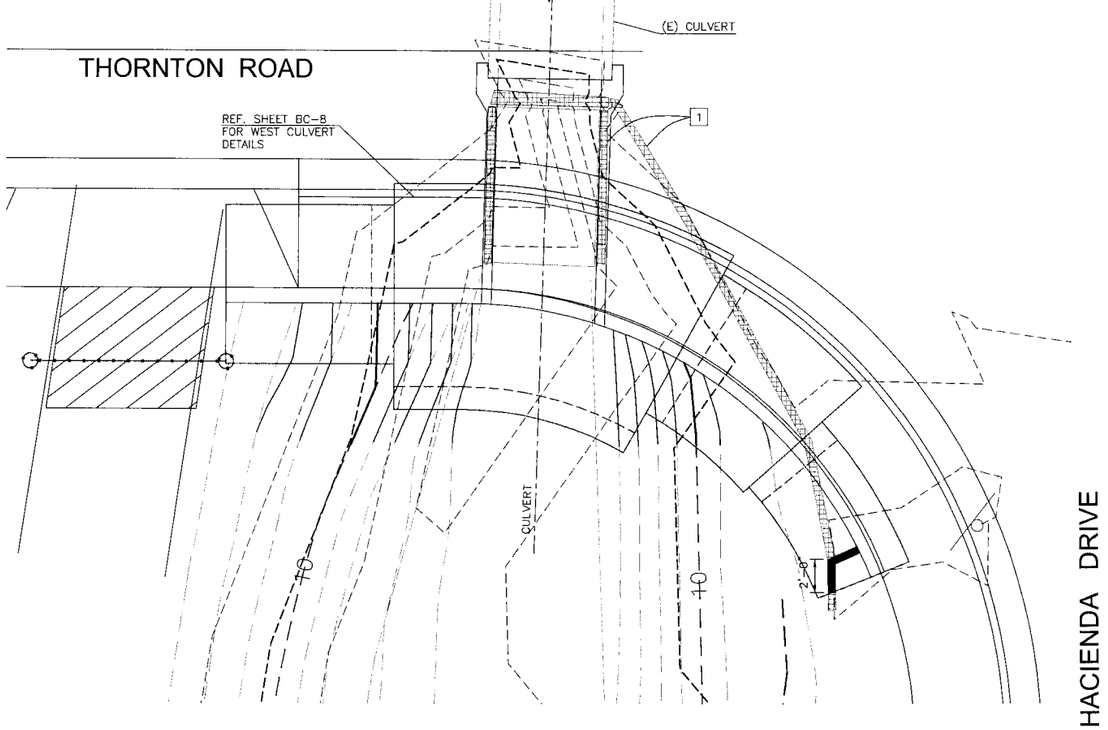
LITTLE BEAR CREEK - WEST HEADWALL

SCALE: HORIZ.: 1"=5', VERT. 1" = 5'



TYPICAL SECTION - WEST HEADWALL

NOT TO SCALE



LITTLE BEAR CREEK - WEST HEADWALL

SCALE: HORIZ.: 1"=5'

SHEET NOTES:

1 REMOVE EXISTING HEADWALL, WINGWALLS, FLOOD WALLS AND BOX CULVERT. SEE STD. PLAN D-82 FOR CULVERT EXTENSION DETAILS.

REFERENCE CIVIL DRAWING:

LITTLE BEAR CREEK PLAN & PROFILE STA: 74+00.00 TO STA:82+00.00 - C-13

REFERENCE STRUCTURAL DRAWINGS:

WEST CULVERT DETAILS - BC-8, BC-9, BC-10

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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No.	Revision	By	Appd.

Client/Project: CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title: WEST HEADWALL DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER WILLIAM D. VANDERSLICE III C59768 EXP 12/31/17 CIVIL STATE OF CALIFORNIA
4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: April 18, 2016

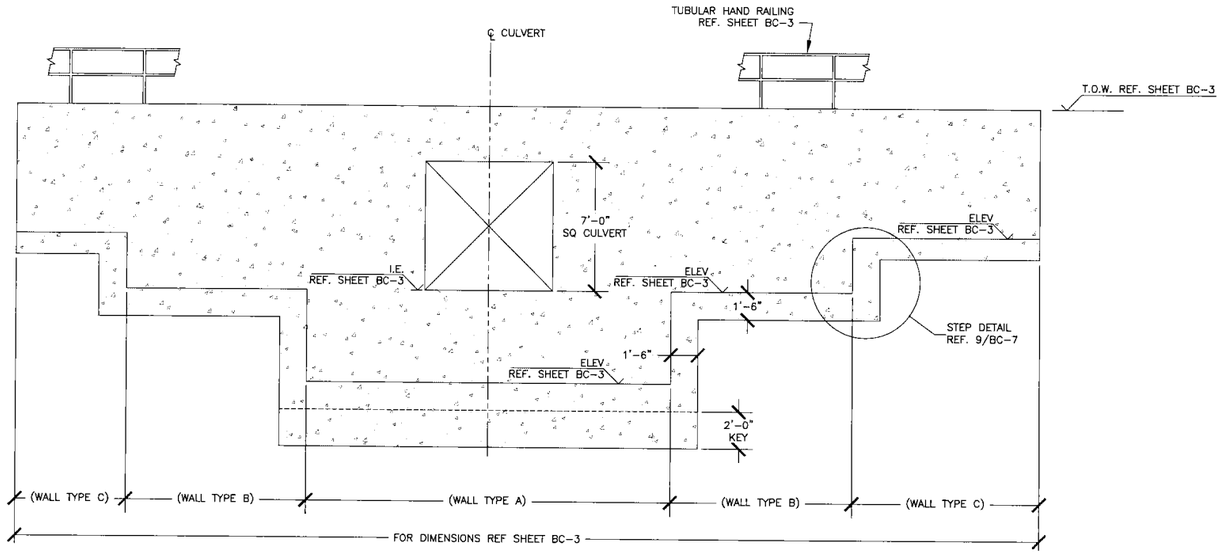
THORNTON ROAD WIDENING PROJECT
Stockton, California

LITTLE BEAR - WEST HEADWALL

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

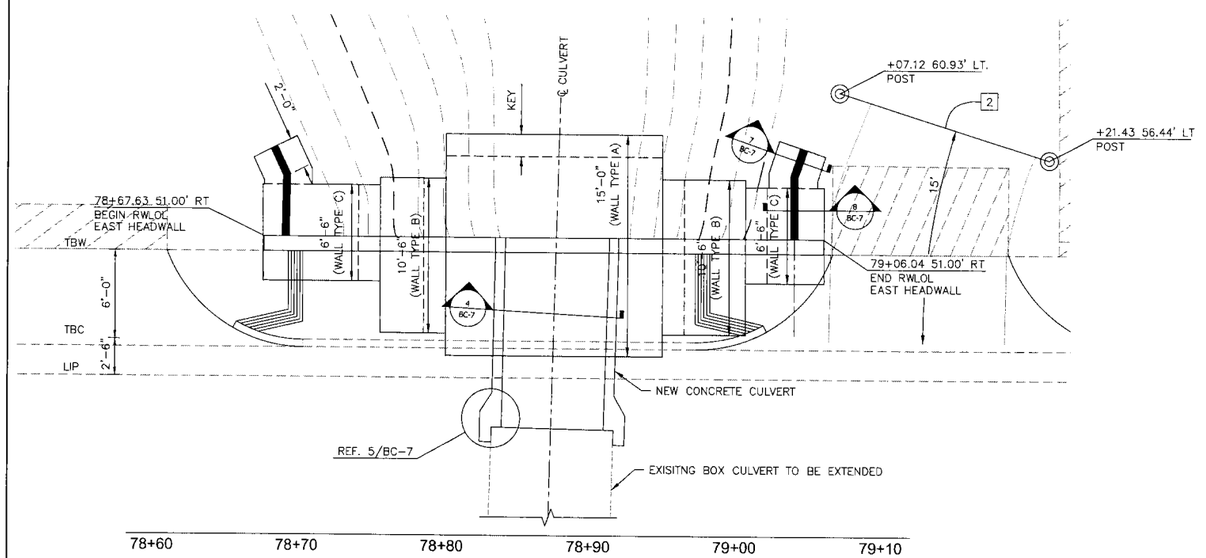
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DRAWN BY: CBH		132 OF 145
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE:	183910142

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LITTLE BEAR CREEK - EAST HEADWALL

SCALE: 1/4" = 1'-0"



LITTLE BEAR CREEK - EAST HEADWALL

SCALE: HORIZ.: 1" = 5'

BASIS OF DESIGN

A. CODES: CALIFORNIA BUILDING CODE - CBC-2013, ASCE 7-10, ACI 11 AND AASHTO 2012

B. SEISMIC DATA: EQ GROUND MOTION: SPECTRAL RESPONSE ACCELERATION, SHORT PERIOD S_S=83.40% G
SPECTRAL RESPONSE ACCELERATION, 1 SEC. PERIOD S_1=29.10 % G
SEISMIC DESIGN CATEGORY SDC 'D', SITE CLASS 'B'

C. SOILS SOIL FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RECOMMENDATION CONTAINED IN THE GEOTECHNICAL REPORT PREPARED BY CONVERSE CONSULTANT DATED 2/12/2008 AND CBC SECTION 1807

D. WIND: BASIC WIND ULTIMATE SPEED 115 MPH, V_{ULT} WIND SPEED, EXPOSURE C

E. MATERIALS:
1. CONCRETE: FC = 4000 PSI MIN. @ 28 DAYS COMPRESSIVE STRENGTH
2. REINFORCING STEEL: ASTM A615, GRADE 60 - #4 AND LARGER, GRADE 40 - #3.

STRUCTURAL NOTES

A) ALL WORK SHALL BE IN ACCORDANCE WITH THESE SPECIFICATIONS, THE CALIFORNIA BUILDING CODE CBC-2013/ACI 318-11, AASHTO'12 AND THE REQUIREMENT OF THE CITY OF STOCKTON.

B) THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING WORK. DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL WORK WITH ALL DIMENSIONS AND SLOPES AS SPECIFIED ON PLANS.

C) DETAILS NOTED AS "TYPICAL" SHALL BE USED WHENEVER APPLICABLE. SPECIFIC DETAILS OR NOTES TAKE PRECEDENCE OVER TYPICAL DETAILS AND NOTES. STRUCTURAL FEATURES, WHICH ARE NOT FULLY DESCRIBED ON THE DRAWINGS OR IN THE SPECIFICATIONS, SHALL BE CONSTRUCTED IN A SIMILAR MANNER AS THOSE SHOWN ON THE DRAWINGS OR DESCRIBED IN THESE SPECIFICATIONS.

D) THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION.

E) THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING STRUCTURE DIMENSIONS WITH OUR PLANS BEFORE START THE PROJECT

F) STRUCTURAL DESIGN OR REVIEW OF TEMPORARY SHORING, ADDITIONAL BRACING, FORMWORK, SCAFFOLDING, ERECTION METHOD, ETC. REQUIRED FOR PROPER CONSTRUCTION OF ANY COMPONENTS OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL TEMPORARY SHORING SHALL BE REMOVED AFTER REACHING OF FULL CONCRETE STRENGTH AT FOUNDATIONS.

FOUNDATION

A) FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT PREPARED BY CONVERSE CONSULTANT, PROJECT #08-13101-01, DATED FEBRUARY 12TH, 2008.

B) ALL GRADING, FILLING, STRUCTURAL FILL, FOUNDATION BASE MATERIAL, COMPACTION, ALL OTHER RECOMMENDATIONS SHALL BE ACCORDANCE WITH THE ABOVE -REFERENCED GEOTECHNICAL REPORT AND SPECIFICATION

CONCRETE

A) ALL CONCRETE AND COMPONENT MATERIALS USED IN THIS PROJECT SHALL CONFORM TO THE FOLLOWING CRITERIA:

28-DAY COMPRESSIVE STRENGTH (MIN)	4000 PSI UNLESS NOTED OTHERWISE, USE
CEMENT	ASTM A 150, TYPE II
CONCRETE AGGREGATE	ASTM C 33 (HARDROCK)
MAXIMUM AGGREGATE SIZE	¾ INCH DIAMETER
WATER CEMENT RATIO	0.45 MINIMUM

B) EXCEPT AS ABOVE ITEMIZED, ALL CONCRETE WORK SHALL BE PRODUCED, PLACED, CONSOLIDATED, CURED, AND FINISHED IN CONFORMANCE WITH AMERICAN CONCRETE INSTITUTE STANDARD 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", STANDARD 305 "HOT WEATHER CONCRETING", AND STANDARD 306 "COLD WEATHER CONCRETING". CALCIUM CHLORIDE, SALT, OR OTHER MATERIALS CREATING A CORROSIVE ENVIRONMENT IN THE CONCRETE SHALL NOT BE USED FOR ANY REASON.

REINFORCING STEEL

A) REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, UNLESS NOTED OTHERWISE. LAP BARS AS SHOWN ON PLANS. 30 BAR DIAMETERS IN CONCRETE. ALL BARS SHALL BE LAPPED 2'-0" MINIMUM. REINFORCING STEEL SHALL BE FABRICATED IN CONFORMANCE WITH ACI STANDARD 318.

B) THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT (UNLESS NOTED OTHERWISE):

		MIN. COVER
1)	CONCRETE CAST AGAINST EARTH	3 INCHES
2)	CONCRETE EXPOSED TO EARTH OR WEATHER	2 INCH
3)	CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	1½ INCH

SPECIAL INSPECTION REQUIREMENTS

THE FOLLOWING TESTS AND INSPECTIONS AS INDICATED BELOW WILL BE REQUIRED AS DETAILED IN APPLICABLE PROJECT PLANS, SPECIFICATIONS AND CALIFORNIA BUILDING CODE 2013, SECTION 1701.

SPECIAL INSPECTION

A) CONCRETE: DURING THE TAKING OF TEST SPECIMENS AND PLACING OF REINFORCED CONCRETE.

B) REINFORCING STEEL: DURING THE PLACING OF REINFORCING STEEL.

C) ENGINEERED FILL SOIL PLACEMENT AND SOIL COMPACTION TEST

NOTES:

REMOVE EXISTING HEADWALL, WINGWALLS, FLOOD WALLS AND EXTEND EXISTING BOX CULVERT. SEE STD. PLAN D-82 FOR CULVERT EXTENSION DETAILS.

2 15' FIRE ACCESS GATE PER CITY OF STOCKTON, DWG. NO. 27C.

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

Stantec
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www.stantec.com

No.	Revision	By	Appd	YY-MM-DD
MAJ1Y	Revision			

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
EAST CULVERT DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
VIRGINIA ANN MCKAY
No. C 55236
EXP. 6/30/2016
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date: 4/18/16

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

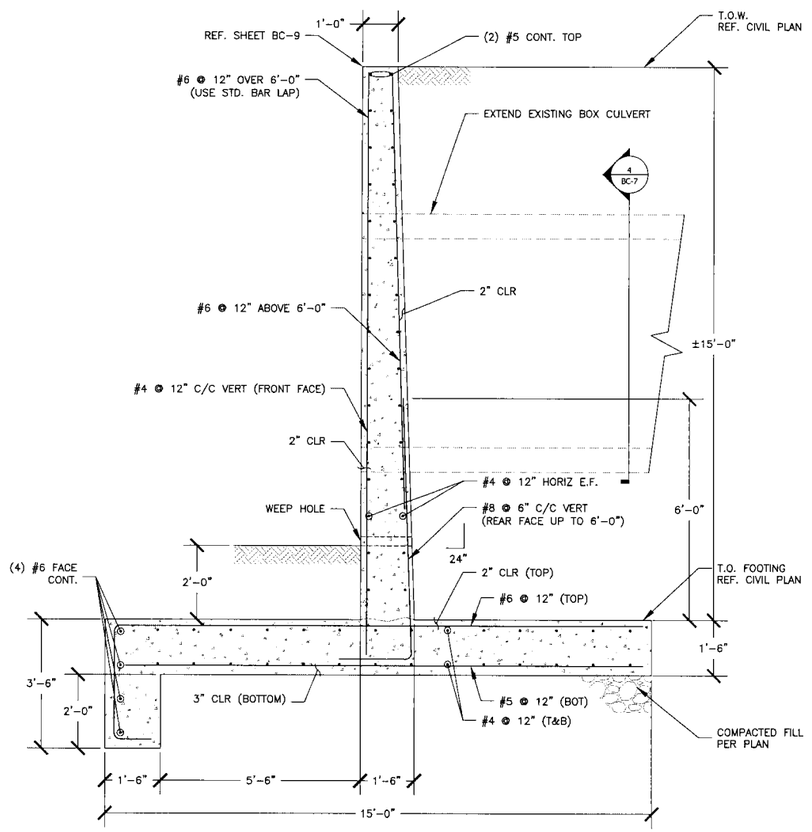
LITTLE BEAR - EAST CULVERT

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	APPROVED BY:
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DRAWN BY: CBH	
CHECKED BY: CJA	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE:

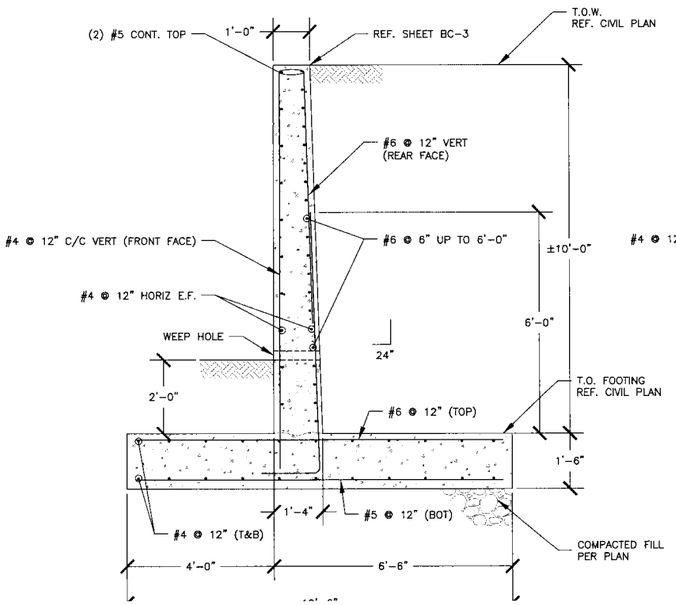
Sheet No. Revision
BC-5 0
133 OF 145
JOB NO.
183910142

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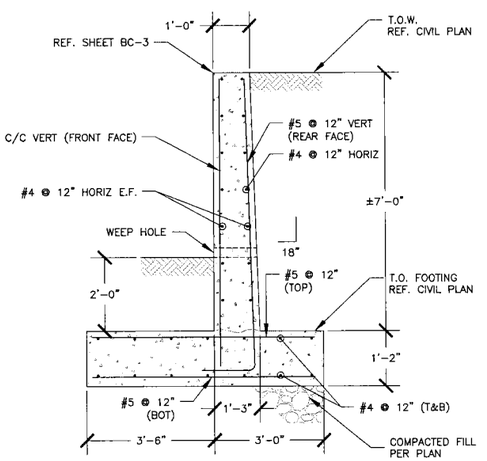
1 RETAINING WALL TYPE "A"

SCALE: 1/2" = 1'-0"



2 RETAINING WALL TYPE "B"

SCALE: 1/2" = 1'-0"



3 RETAINING WALL TYPE "C"

SCALE: 1/2" = 1'-0"

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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No.	By	Appd.	YY.MM.DD	Description	Revision
MAJ.TY					Revision

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
EAST CULVERT DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
PRATOSH K. ROY
No. C 55236
EXP. 9/30/2016
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date: 4/18/16

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

LITTLE BEAR - EAST CULVERT

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
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APPROVED BY:

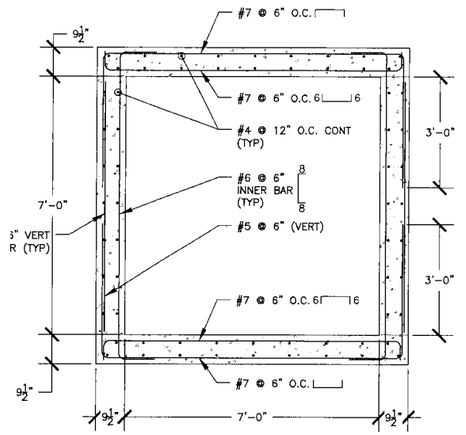
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DATE:

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134 OF 145

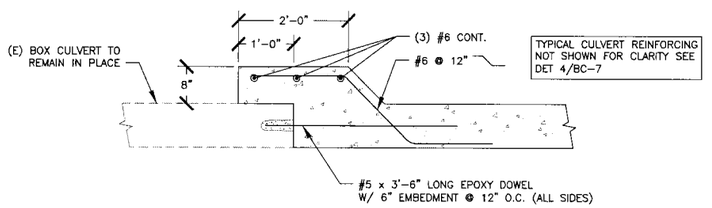
JOB NO.
183910142

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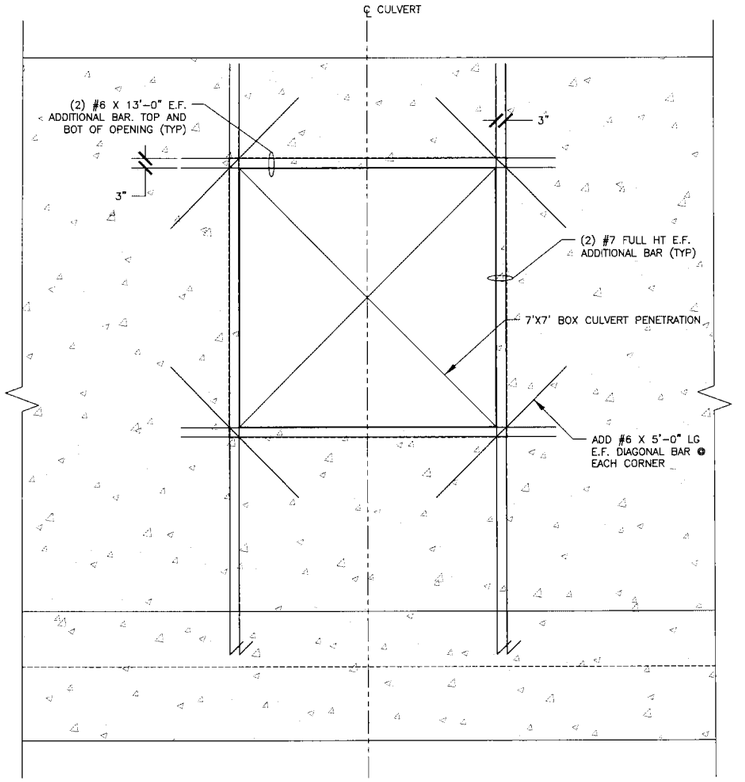
4 BOX CULVERT SECTION

SCALE: 1/2" = 1'-0"



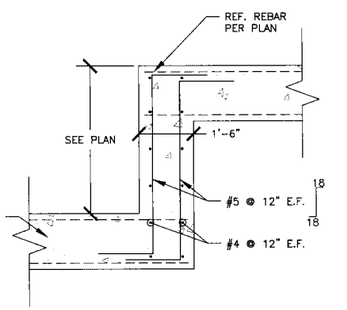
5 BOX CULVERT CONNECTION WITH EXISTING

SCALE: 3/4" = 1'-0"



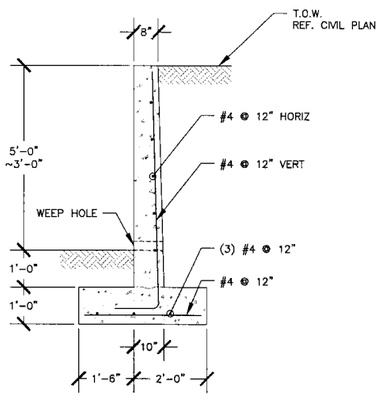
6 ADDITIONAL REINFORCEMENT FOR HEADWALL OPENING

SCALE: 1/2" = 1'-0"



9 FOOTING STEP DETAIL, TYP.

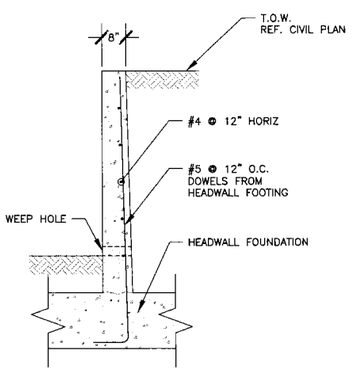
SCALE: 1/2" = 1'-0"



NOTE:
WING WALL SHOWN '▬' THUS ON PLAN

7 WING WALL

SCALE: 1/2" = 1'-0"



NOTE:
WING WALL SHOWN '▬' THUS ON PLAN

8 WING WALL FOOTING 'C'

SCALE: 1/2" = 1'-0"

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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www.stantec.com

No.	Revision	By	Appd.
MM.YY	Description	TYM/CSD	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
EAST CULVERT DETAILS

Permit-Seal



4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

LITTLE BEAR - EAST CULVERT

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

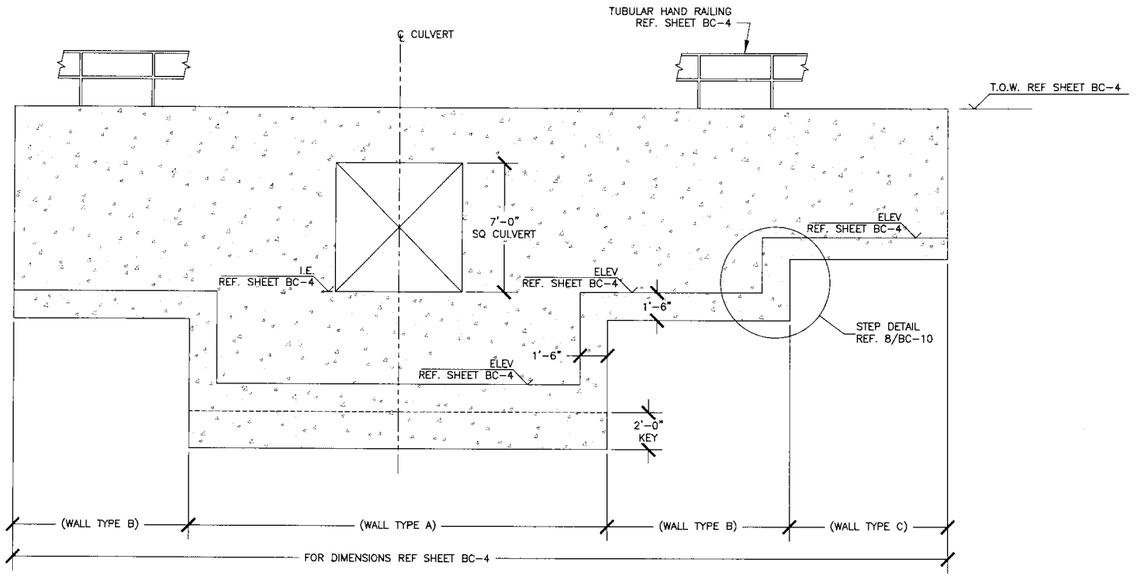
APPROVED BY:

CITY ENGINEER STOCKTON, CA.

DATE:

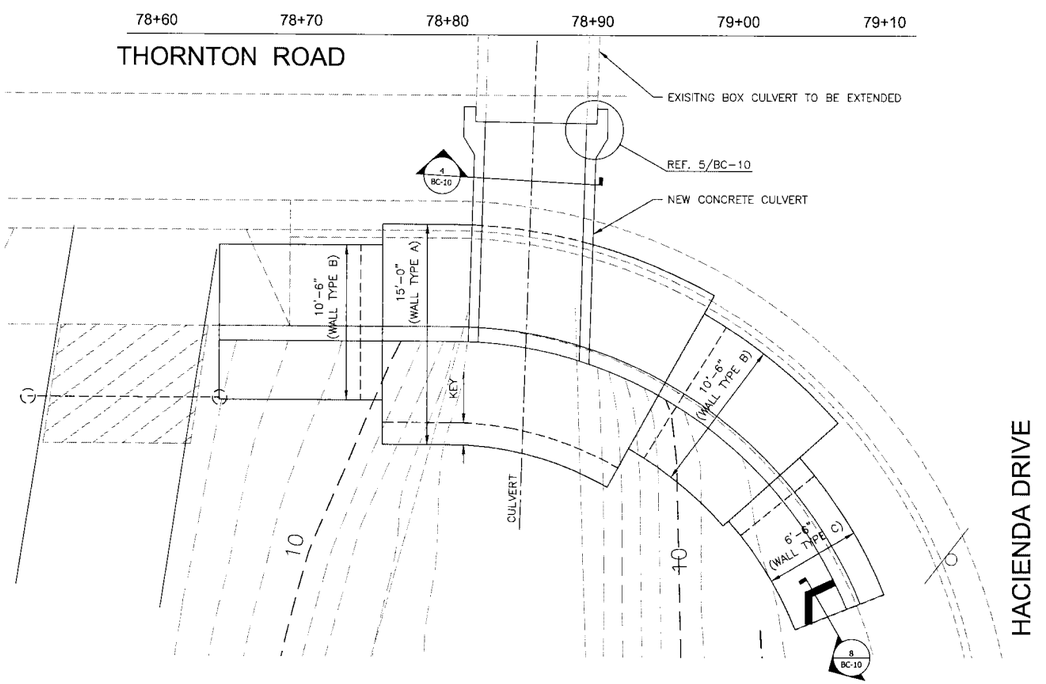
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135 OF 145
JOB NO.
183910142

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LITTLE BEAR CREEK - WEST HEADWALL

SCALE: 1/4" = 1'-0"



LITTLE BEAR CREEK - WEST HEADWALL

SCALE: HORIZ.: 1"=5'

SHEET NOTES:

1. REMOVE EXISTING HEADWALL, WINGWALLS, FLOOD WALLS AND BOX CULVERT. SEE STD. PLAN D-82 FOR CULVERT EXTENSION DETAILS.

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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No.	Revision	By	Appd.
MULTY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
WEST CULVERT DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
PRIYANKA KAMBLE
No. C 85238
EXP. 6/30/2016
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date: 4/18/16

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

LITTLE BEAR - WEST CULVERT

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

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DRAWN BY: CSH	
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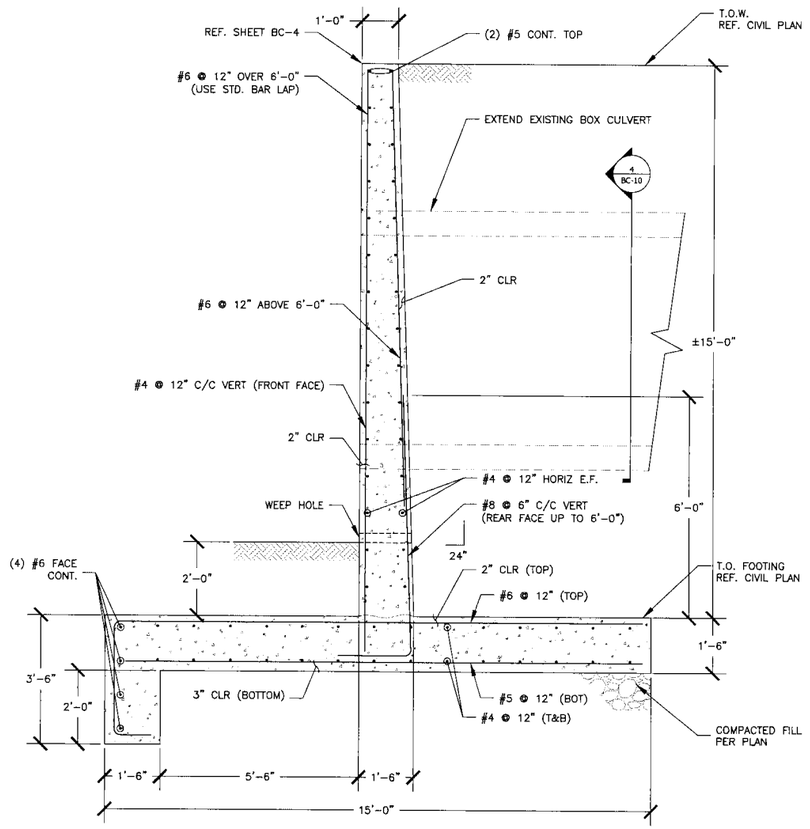
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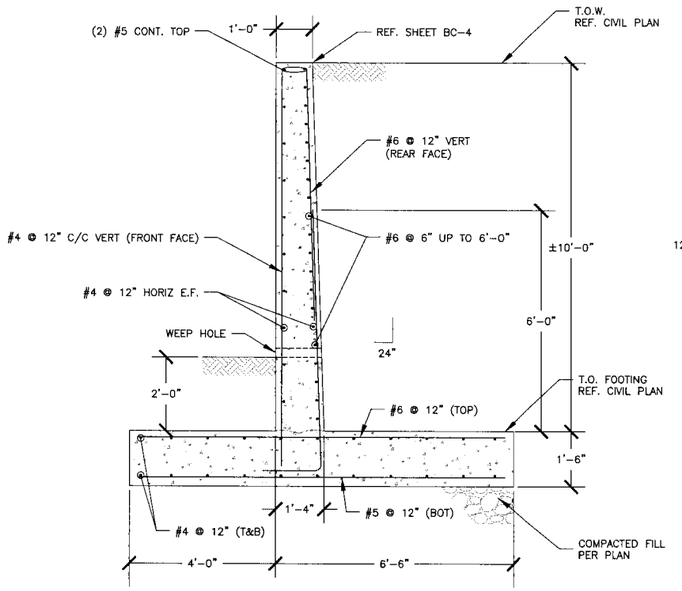
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Sheet No.	Revision
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136 OF 145	
JOB NO.	
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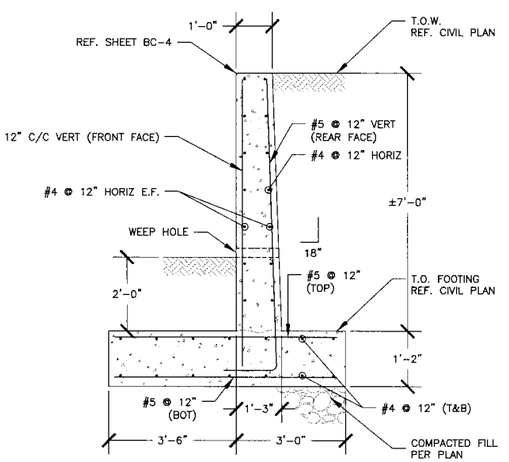
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1 RETAINING WALL TYPE "A"
SCALE: 1/2" = 1'-0"



2 RETAINING WALL TYPE "B"
SCALE: 1/2" = 1'-0"



3 RETAINING WALL TYPE "C"
SCALE: 1/2" = 1'-0"

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
WEST CULVERT DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
BRIAN MACKENZIE VANDERSLICE
No. C 58236
EXP. 6/30/2018
CIVIL
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date: 4/18/16

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vandersiice
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

LITTLE BEAR - WEST CULVERT

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
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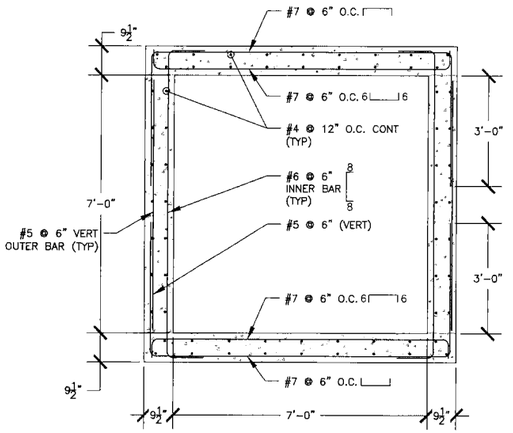
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CITY ENGINEER STOCKTON, CA.

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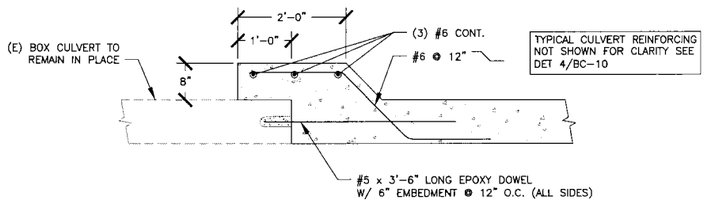
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137 OF 145
JOB NO.
183910142

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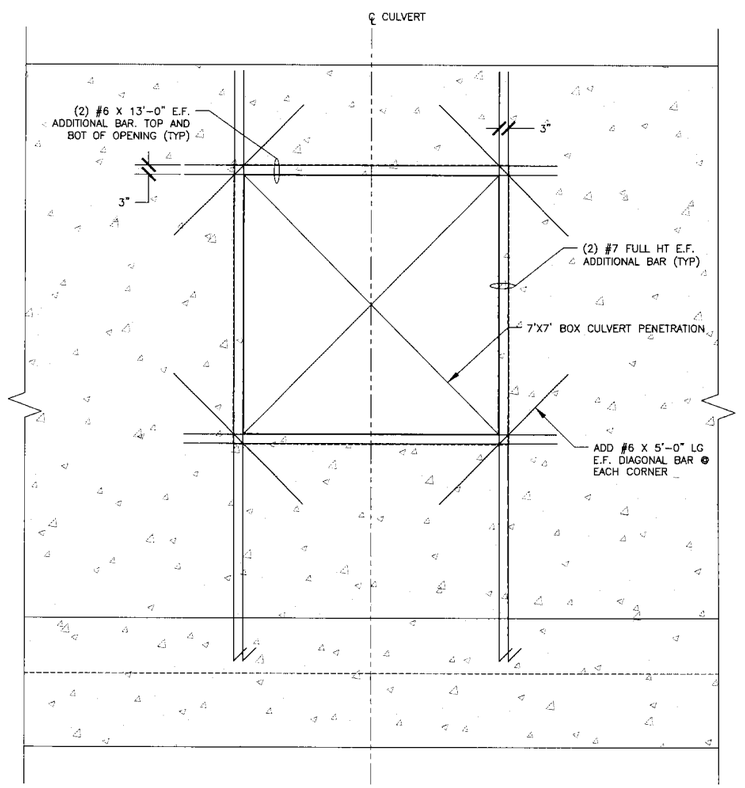
4 BOX CULVERT SECTION

SCALE: 1/2" = 1'-0"



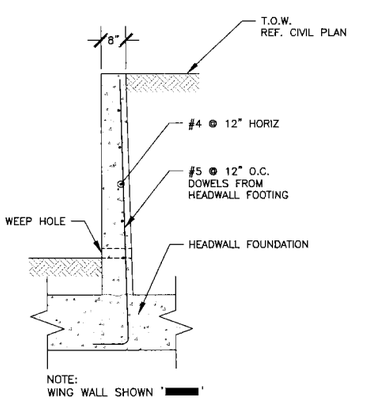
5 BOX CULVERT CONNECTION WITH EXISTING

SCALE: 3/4" = 1'-0"



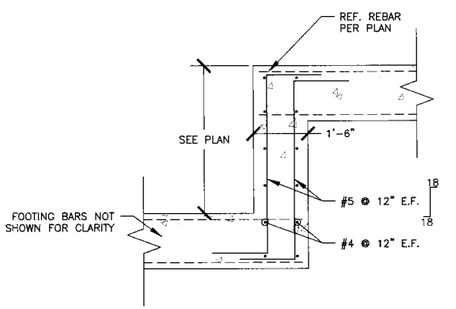
6 ADDITIONAL REINFORCEMENT FOR HEADWALL OPENING

SCALE: 1/2" = 1'-0"



8 WING WALL FOOTING 'C'

SCALE: 1/2" = 1'-0"



9 FOOTING STEP DETAIL, TYP.

SCALE: 1/2" = 1'-0"

NOTE: PLAN IS ACCURATE FOR CULVERT WORK ONLY.

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No.	M/D/Y	Revision	Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
WEST CULVERT DETAILS

Permit-Seal

REGISTERED PROFESSIONAL ENGINEER
BRYAN S. KAY
NO. C 55238
EXP. 9/30/2016
CIVIL
STATE OF CALIFORNIA

4/18/16

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vandersloot
Submitted Date: April 18, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

LITTLE BEAR - WEST CULVERT

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	
DESIGNED BY: JAM	
DRAWN BY: CBH	
CHECKED BY: CJA	
RECORD DWG:	

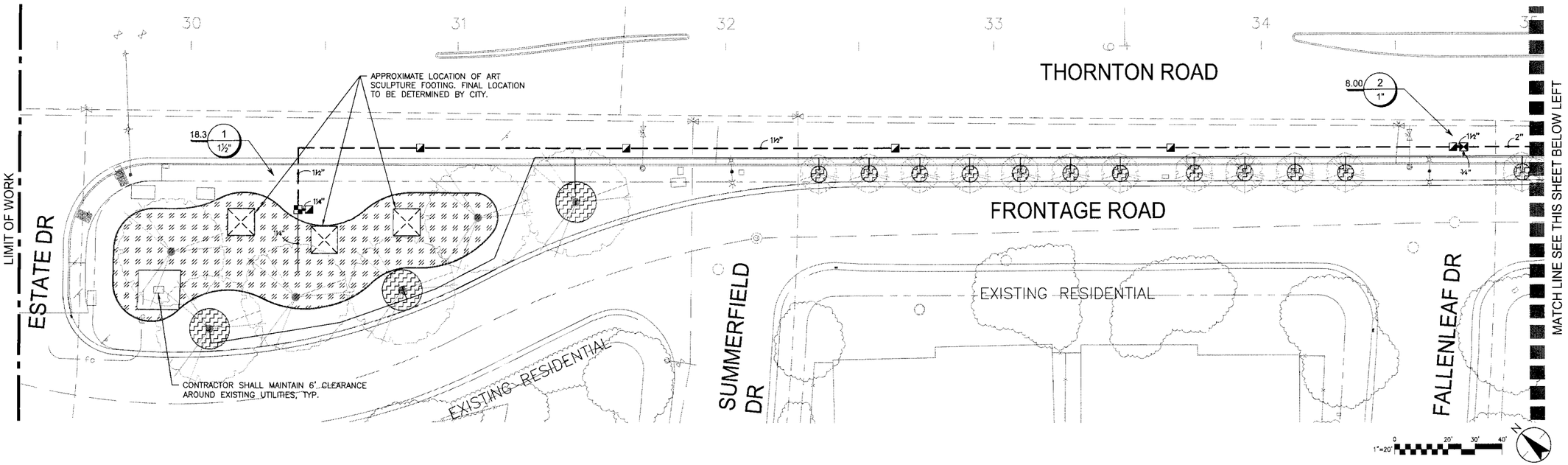
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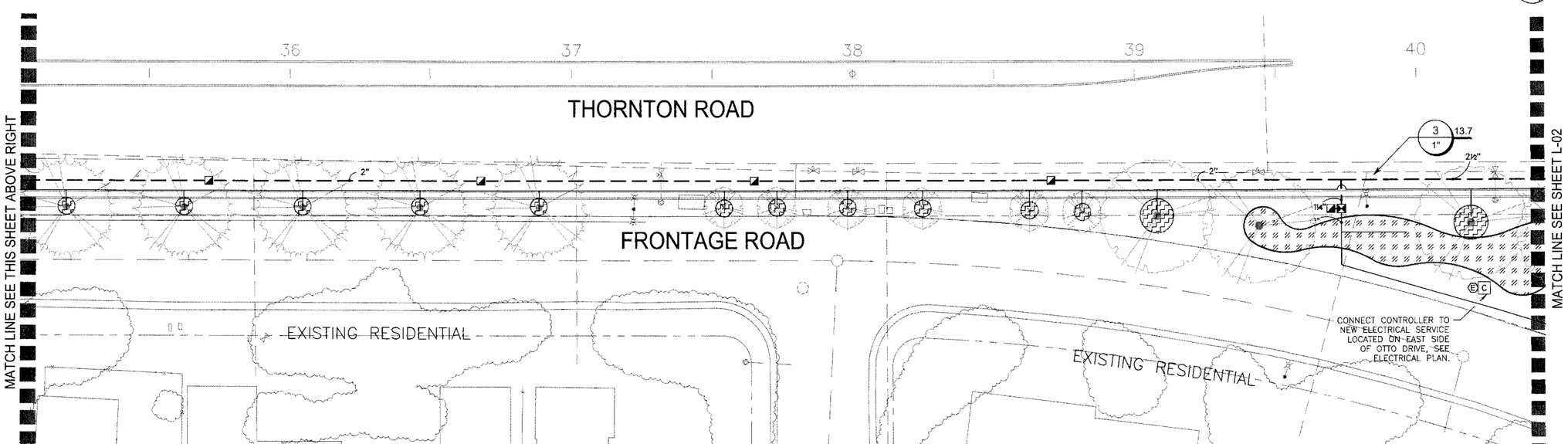
CITY ENGINEER STOCKTON, CA.

DATE:

Sheet No. Revision
BC-10 0
138 OF 145
JOB NO.
183910142

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IRRIGATION NOTES

1. PLANS ARE DIAGRAMMATIC. ALL DIMENSIONS, QUANTITIES AND MATERIALS SHALL BE VERIFIED BY CONTRACTOR. CONTRACTOR SHALL INSTALL ADDITIONAL HEADS, AS NEEDED, TO PROVIDE ADEQUATE COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
2. THE SYSTEM IS DESIGNED TO OPERATE WITH A STATIC PRESSURE OF 50 PSI AND A MAXIMUM OF 40 GPM. THE CONTRACTOR SHALL VERIFY THAT THERE IS SUFFICIENT PRESSURE ON-SITE PRIOR TO INSTALLATION OF ANY IRRIGATION WORK. IF THERE IS A DISCREPANCY, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING SO ADJUSTMENTS CAN BE MADE.
3. ALL LOCAL CODES AND ORDINANCES SHALL BE COMPLIED WITH. IF THERE IS A CONFLICT, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING. ALL WORK AND MATERIALS SHALL COMPLY WITH THE CITY OF STOCKTON STANDARD CONSTRUCTION SPECIFICATIONS.
4. SLEEVES:
   A. ALL PIPING AND 24 VOLT WIRING PASSING UNDER PAVING OR GRAVEL ROADS SHALL BE SLEEVED.
   B. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH PAVING OPERATIONS FOR INSTALLATION OF SLEEVES.
5. ALL PIPING UNDER PAVING SHALL BE INSTALLED IN SEPARATE SCH 40 SLEEVES AT 24" MIN. DEPTH BELOW GRADE AND HAVE SAND BACKFILL 6" MIN. ABOVE AND BELOW PIPE. ALL WIRING UNDER PAVEMENTS SHALL BE INSTALLED IN PVC SCH 40 ELECTRICAL CONDUIT AND SHALL EXTEND 6" BEYOND EDGE OF PAVEMENT OR CURB. ALL SLEEVES AND CONDUIT SHALL BE INSTALLED PRIOR TO THE PAVEMENT INSTALLATION.
6. THE CONTRACTOR SHALL LAYOUT ALL WORK PRIOR TO TRENCHING OPERATIONS TO DETERMINE IF MINOR MODIFICATIONS WILL BE REQUIRED.
7. THE CONTRACTOR SHALL CONNECT ALL VALVES TO THE AUTOMATIC CONTROLLER.
8. MAINLINE SHALL BE PVC SCHEDULE 40 WITH SOLVENT WELD SCHEDULE 40 NIPPLES AND FITTINGS. COVER FOR MAINLINE SHALL BE 18". SOLVENT WELD MAINLINE FITTING WITHIN SLEEVES.
9. ALL PIPING, RCV'S AND QCV'S SHALL BE INSTALLED IN PLANTING AREAS (PIPING MAY PASS UNDER PAVING AS REQUIRED). RCV'S AND QCV'S SHALL BE INSTALLED ADJACENT TO WALKS OR PAVING (AS PER DETAIL).
10. INSTALL SLEEVES AS NECESSARY OR AS REQUIRED AS PER PLANS. THE SLEEVES SHALL BE INSTALLED JUST PRIOR TO PLACEMENT OF BASE MATERIALS AND PAVING. BACKFILL FOR SLEEVES SHALL BE COMPACTED TO THE SPECIFIED DENSITY FOR THE SUBGRADE.
11. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES SO PROGRESS OF WORK IS NOT INTERRUPTED AND CAN BE COMPLETED IN A TIMELY MANNER.
12. NO OVERSPRAY SHALL BE ALLOWED ON PUBLIC SIDEWALKS OR PUBLIC ROADS.
13. SEE IRRIGATION DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ALL EXISTING SPRINKLER EQUIPMENT DAMAGED BY HIS CONSTRUCTION OPERATIONS.

SEE SHEET L-02 FOR IRRIGATION LEGEND

NOTE: PLAN IS ACCURATE FOR LANDSCAPE WORK ONLY.

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No.	Revision	By	Appd.
	MAJ/Y	Description	

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
IRRIGATION PLAN
THORTON ROAD
STA. 29+50 TO STA. 40+50

Permit-Seal
REGISTERED LANDSCAPE ARCHITECT PAUL A. MARCILLAC 2585 Signature 10/30/15 Renewal Date 04.18.2016 Date STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: January 11, 2016

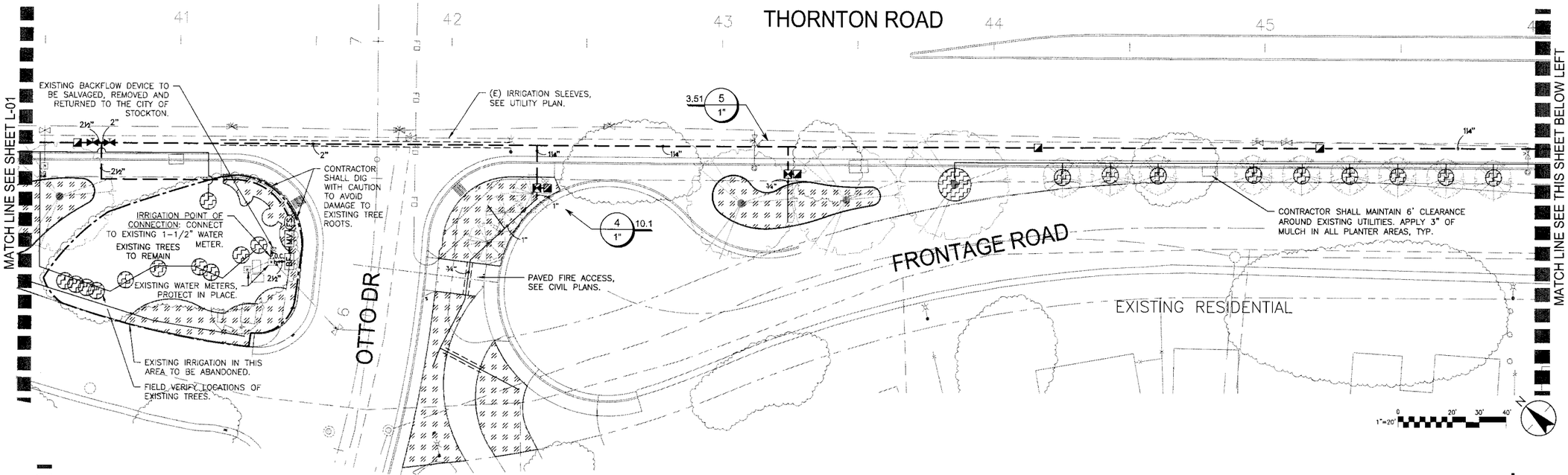
THORNTON ROAD WIDENING PROJECT
Stockton, California

IRRIGATION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:
DESIGNED BY: CF	
DRAWN BY: CF	
CHECKED BY: PM	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE: 04.18.2016

Sheet No.	Revision
L-01	
139 OF 145	
JOB NO. 183910142	



IRRIGATION LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-150-PRB-COM DRIP VALVE CONTROL ZONE KIT, 1-1/2" PESB VALVE WITH TWO 1" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTERS. FLOW RANGE: 15 TO 40GPM.
	RAIN BIRD XCZ-100-PRB-COM DRIP VALVE CONTROL ZONE KIT, 1" BALL VALVE WITH 1" PESB VALVE AND 1" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTER. FLOW RANGE: 3 TO 20GPM.
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 (18) TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6GPH EMITTERS AT 18.0" O.C. DRIPLINE LATERALS SPACED AT 18.0" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.
	TREE DRIPLINE LAYOUT RING NETAFIM TLCV-06-18 (18) TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6GPH EMITTERS AT 18.0" O.C. 17MM.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD 44-LRC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.
	MATCO-NORCA 514T BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. WHEEL HANDLE. SAME SIZE AS PIPE DIAMETER.
MV	BUCKNER-SUPERIOR 3300 2-1/2" NORMALLY OPEN BRASS MASTER VALVE W/ DIRTY WATER PROTECTION AND NO MINIMUM FLOW FEATURE.
C	RAIN BIRD ESPBLXMEF-LXMM-LXMMPED 8 STATION CAPABLE COMMERCIAL CONTROLLER. MOUNTED IN A POWDER-COATED METAL PEDESTAL. FLOW SENSING AND WATER MANAGEMENT.
E	RAIN BIRD ETC-LX UPGRADES CONTROLLER TO AN ET/WEATHER-BASED IRRIGATION CONTROLLER.
FS	RAIN BIRD FS-150-B 1-1/2" FLOW SENSOR, BRASS MODEL. SUGGESTED OPERATING RANGE OF 2.0 GPM TO 82.6 GPM.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
M	EXISTING WATER METER 1-1/2" WATER METER SHALL BE RETAINED AND PROTECTED.
P.O.C. "X"	POINT OF CONNECTION CONNECT TO EXISTING 1-1/2" WATER METER
BF	FEBCO 825Y 2" REDUCED PRESSURE BACKFLOW PREVENTER TO BE FURNISHED AND INSTALLED BY CONTRACTOR PER CITY OF STOCKTON STANDARD DRAWING NO. 97 WITH FREEZE INSULATION COVER.
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40 PIPE SLEEVE SIZE SHALL 2 X THE DIAMETER OF ALL PIPE BEING SLEEVED. WIRING SHALL BE SLEEVED SEPARATELY. EXTEND SLEEVES 12 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.

Valve Callout
Valve Number
Valve Flow
Valve Size

SEE SHEET L-01 FOR IRRIGATION NOTES

NOTE: PLAN IS ACCURATE FOR LANDSCAPE WORK ONLY.

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No.	M.M.YY	Revision	Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
IRRIGATION PLAN
THORTON ROAD
STA. 40+50 TO STA. 51+50

Permit-Seal
LICENSED LANDSCAPE ARCHITECT
PAUL A. MARCILLAC
No. 2499
Signature
10/30/17
Renewal Date
04.18.2016
Date
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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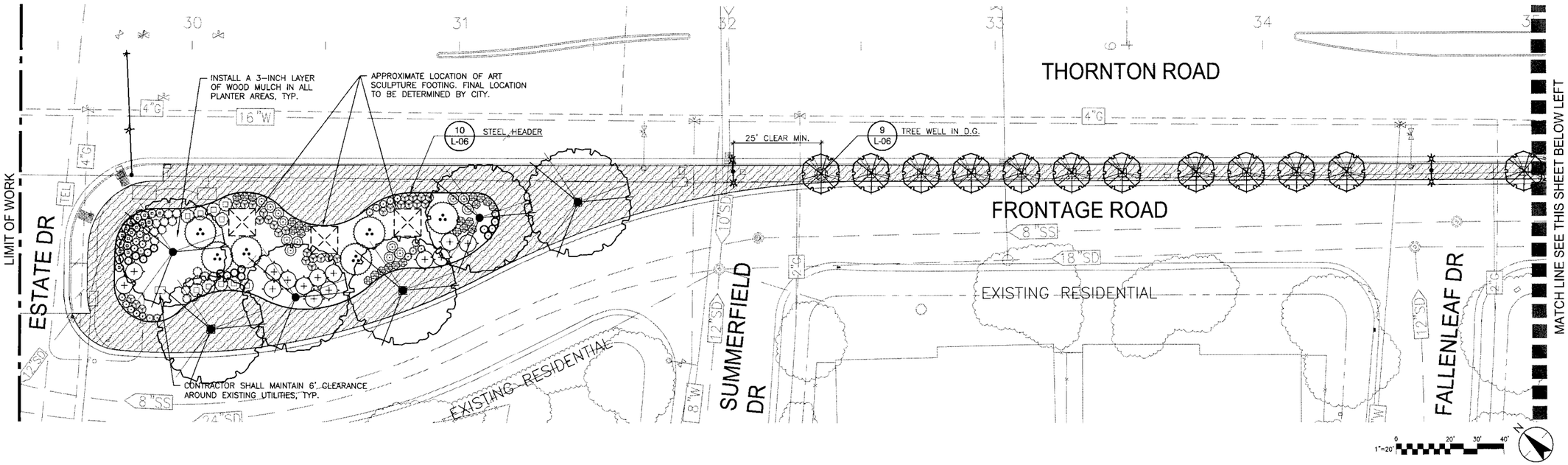
Project Engineer: Bill Vanderslice
Submitted Date: January 11, 2016

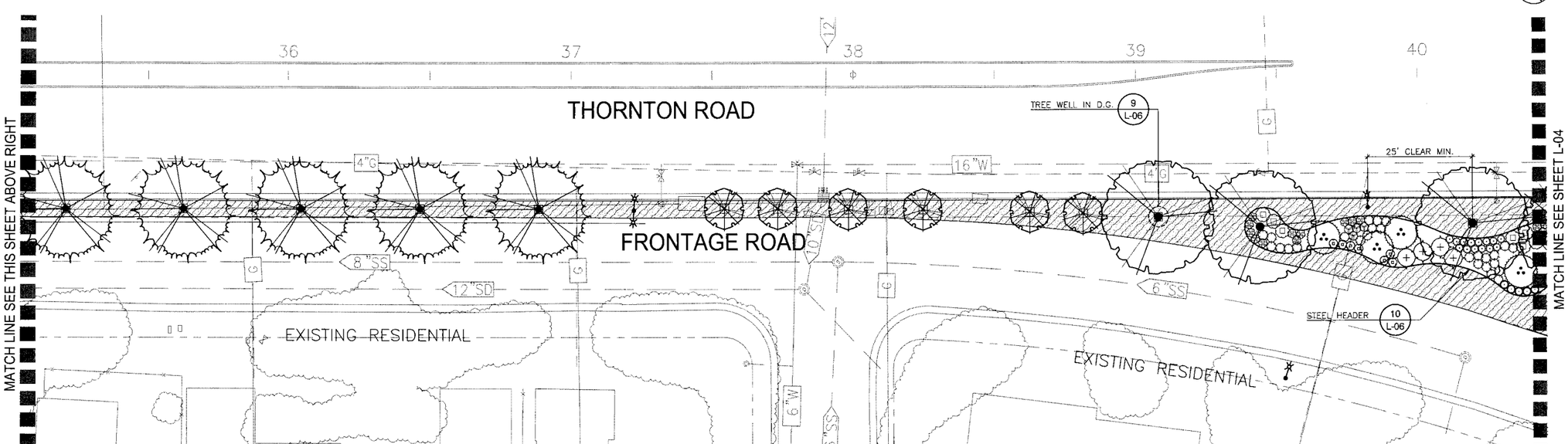
THORNTON ROAD WIDENING
PROJECT
Stockton, California

IRRIGATION PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=20'	APPROVED BY:	Sheet No. Revision
DESIGNED BY: CF		L-02
DRAWN BY: CF		140 OF 145
CHECKED BY: PM	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE: 04.18.2016	183910142





PLANTING NOTES

1. LANDSCAPE CONTRACTOR SHALL VERIFY PLANT QUANTITIES FROM LANDSCAPE PLAN PRIOR TO SUBMITTING BID.
2. NO PLANTING SHALL BE STARTED UNTIL FINISH GRADING AND IRRIGATION SYSTEM HAVE BEEN COMPLETED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
3. LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN THE EVENT OF PLANT UNAVAILABILITY IMMEDIATELY AFTER BID AWARD(S). ANY SUBSTITUTIONS MUST BE REQUESTED IN WRITING AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
4. NOTIFY ENGINEER IF SUBSURFACE WATER IS ENCOUNTERED DURING PLANT PIT EXCAVATION.
5. INSTALL A 3-INCH LAYER OF WOOD MULCH IN ALL NON-TURF, NON-D.G. PLANTER AREAS.
6. FERTILIZER PACKETS SHALL BE PER SPECIFICATIONS.
7. ALL PLANT MATERIAL SHALL MAINTAIN A 3 FT. CLEARANCE AROUND ALL FIRE DEPARTMENT APPARATUS.
8. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9. CONTRACTOR SHALL SUBMIT A SOIL SAMPLE OF TOPSOIL TO BE IMPORTED AND HAVE THE SAMPLE ANALIZED BY A REPUTABLE FIRM (SUBMIT A COPY OF THE REPORT) TO THE ENGINEER AND THE CITY LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL BASE THE AMOUNT OF SOIL AMENDMENTS AND SOIL PREPARATION ON THIS REPORT.
10. THE MAINTENANCE PERIOD SHALL BEGIN AFTER ALL THE PUNCH LIST ITEMS HAVE BEEN COMPLETED AND APPROVED BY THE OWNER.
11. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: WATERING, WEEDING, TRIMMING, FERTILIZING, SPRAYING INSECT AND PEST CONTROLS, REPLACEMENT OF DAMAGED OR DYING PLANT MATERIAL, LITTER AND TRASH REMOVAL.
12. ALL LANDSCAPED AREAS SHALL HAVE A MINIMUM SLOPE OF 1-1/2% AND A MAXIMUM OF 20% FOR POSITIVE DRAINAGE.
13. CONTACT THE CITY OF STOCKTON 48 HOURS PRIOR TO ANY PLANTING FOR INSPECTION AND APPROVAL OF PLANT MATERIAL.
14. ALL PLANT MATERIALS SHALL MEET SIZE SPECIFICATIONS AS SHOWN ON THE PLANT LIST, AND SHALL BE HEALTHY, FULL, AND SHALL BE OF FIRST RATE QUALITY FOR THE SPECIES.
15. ALL PLANT MATERIALS SHALL BE INSTALLED AS SHOWN ON THE DETAILS OF THESE PLANS.
16. ALL PLANTING AREAS SHALL BE GRADED AND PLANTED FOR POSITIVE DRAINAGE AWAY FROM STRUCTURES, WALLS, AND FENCES.
17. THE LOCATIONS OF TREES AND SHRUBS SHALL BE ADJUSTED IN THE FIELD TO ACCOMMODATE EXISTING UTILITIES, LIGHTS, SPRINKLERS, ETC.
18. TREES SHALL NOT BE PLANTED WITHIN 15 FEET OF A BUILDING FOUNDATION.
19. NO TREES SHALL BE PLANTED WITHIN 5 FEET OF A MAIN IRRIGATION LINE, WHERE POSSIBLE.
20. JUTE NETTING SHOULD BE PLACED ON PLANTER AREAS EXCEEDING 3:1 SLOPE.
21. INSTALL 24" DEEP ROOT BARRIERS ADJACENT TO PAVING OR CURB WHEN TREE TRUNK IS WITHIN FIVE FEET OF HARDSCAPE EDGE. INSTALL EIGHT FOOT MINIMUM PANEL CENTERED ON TREE TRUNK PER TREE ROOT BARRIER DETAIL.

TREE PRESERVATION NOTES

1. GRADING AROUND TREES TO BE LIMITED TO OUTSIDE THE DRIPLINE.
2. HAND TRENCHING ONLY SHALL OCCUR WITHIN THE DRIPLINE OF ANY EXISTING TREE UNLESS SPECIFICALLY APPROVED BY THE OWNER.
3. PARKING OF VEHICLES AND EQUIPMENT OR STORAGE OF MATERIALS UNDER THE DRIPLINE OF TREES SHALL NOT OCCUR AT ANY TIME.

SEE SHEET L-04 FOR PLANTING LEGEND

NOTE: PLAN IS ACCURATE FOR LANDSCAPE WORK ONLY.

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No.	Revision	By	Appd.
MM/YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLANTING PLAN
THORNTON ROAD
STA. 29+50 TO STA. 40+50

Permit-Seal
REGISTERED LANDSCAPE ARCHITECT MARCELLA CHRISTINE GIBBS
Signature 10/20/17
Renewal Date 04.18.2016
Date
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG CALIFORNIA/NEVADA 1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: January 11, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California

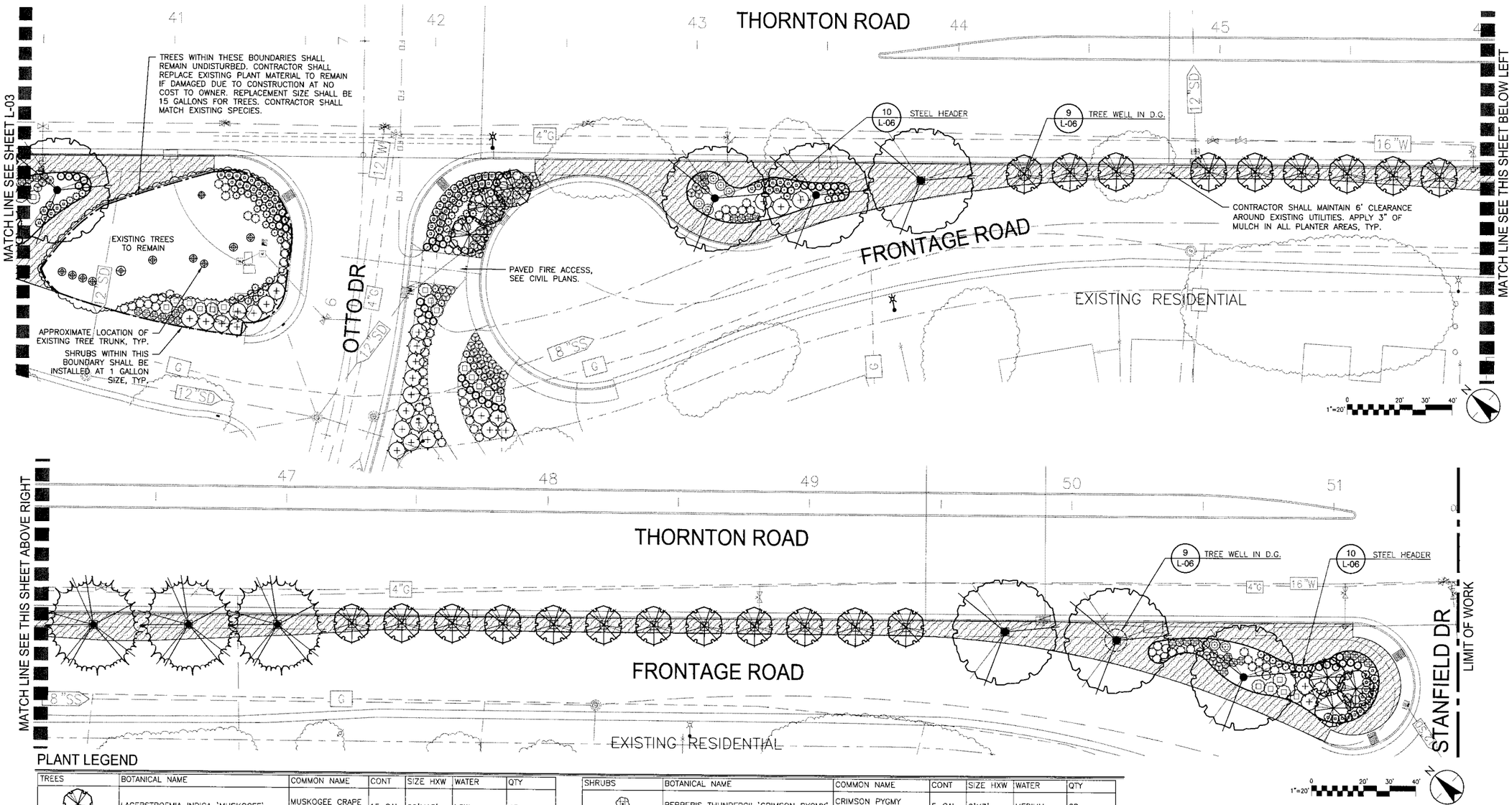
PLANTING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=20'
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CITY ENGINEER STOCKTON, CA.
DATE: 04.18.2016

Sheet No. Revision
L-03
141 OF 145
JOB NO.
183910142



PLANT LEGEND

TREES	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	WATER	QTY
	LAGERSTROEMIA INDICA 'MUSKOGEE'	MUSKOGEE CRAPE MYRTLE	15 GAL	20'X15'	LOW	45
	QUERCUS ILEX	HOLLY OAK	15 GAL	60'X50'	LOW	8
	QUERCUS LOBATA	VALLEY OAK	15 GAL	60'X60'	LOW	16

GROUND PLANE	DESCRIPTION	DETAIL	WATER	QTY
	DECOMPOSED GRANITE	SEE L-06, DETAIL 11	NONE	22,576 SF

SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	WATER	QTY
	BERBERIS THUNBERGII 'CRIMSON PYGMY'	CRIMSON PYGMY BARBERRY	5 GAL	2'X3'	MEDIUM	68
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	5 GAL	4'X3'	LOW	90
	CALLISTEMON VIMINALIS 'LITTLE JOHN'	DWARF WEEPING BOTTLEBRUSH	5 GAL	3'X5'	LOW	37
	CERCIS OCCIDENTALIS	WESTERN REDBUD	15 GAL	12'X12'	VERY LOW	10
	DIETES VEGETA	FORTNIGHT LILY	5 GAL	4'X4'	LOW	127
	JUNIPERUS HORIZONTALIS 'LIMEGLOW'	LIMEGLOW JUNIPER	5 GAL	1'X3'	LOW	21
	JUNIPERUS HORIZONTALIS 'WILTONII'	BLUE RUG JUNIPER	1 GAL	6"X8'	LOW	47
	LAVANDULA ANGUSTIFOLIA 'HIDCOTE'	HIDCOTE LAVENDER	1 GAL	2'X3'	LOW	113
	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	5 GAL	3'X3'	LOW	64
	TULBAGHIA VIOLACEA 'VARIEGATA'	STRIPED CAPE GARLIC	1 GAL	2'X2'	LOW	101

NOTE: PLAN IS ACCURATE FOR LANDSCAPE WORK ONLY.

SEE SHEET L-03 FOR PLANTING NOTES

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		Revision		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
PLANTING PLAN
THORTON ROAD
STA. 40+50 TO STA. 51+50

Permit-Seal
LICENSED LANDSCAPE ARCHITECT
PAUL A. MARCILLAC
No. 5602
Signature
10/30/15
Renewal Date
04.18.2015
Date
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

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1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: January 11, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

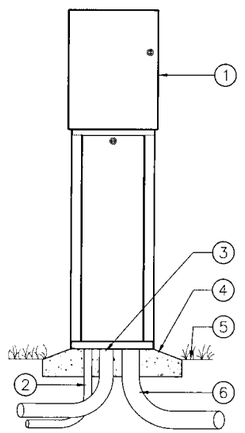
PLANTING PLAN

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=20'
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CITY ENGINEER STOCKTON, CA.
DATE: 04.18.2016

Sheet No. Revision
L-04
142 OF 145
JOB NO.
183910142

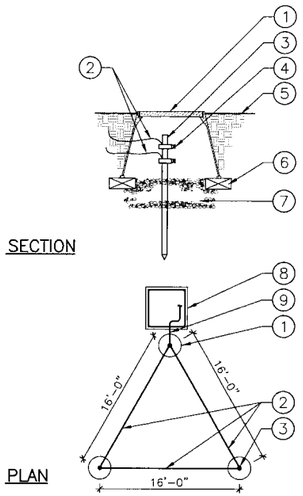


1. POWDER COATED METAL PEDESTAL ENCLOSURE WITH CONTROLLER INSIDE.
2. 3/4" POWER CONDUIT: SIZE, TYPE AND DEPTH PER LOCAL CODE.
3. GROUND WIRE CONDUIT, MIN. 1-1/2". GROUND PER ASIC GUIDELINES.
4. PEDESTAL BASE: CONCRETE OR PREFABRICATED.
5. FINISH GRADE.
6. CONDUIT FOR CONTROL WIRES.

1 L-05 IRRIGATION CONTROLLER

SCALE: NOT TO SCALE

PROJ-THRNT-20

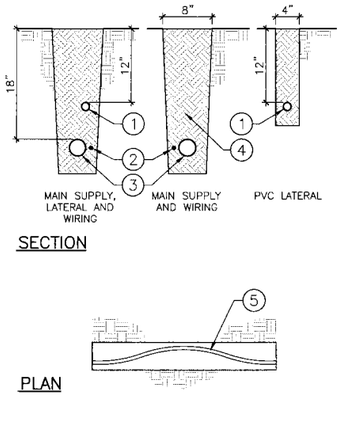


1. 9" PLASTIC VALVE BOX W/ BOLT DOWN COVER. HEAT BRAND "GND" ON LID
2. BARE COPPER WIRE (#10 AWG MIN.) BETWEEN GROUNDING RODS.
3. GROUNDING ROD: 10 OHMS OR LESS.
4. GROUNDING ROD CLAMP.
5. FINISH GRADE.
6. STANDARD BRICK IN 3 PLACES.
7. 6" DEPTH OF PEA GRAVEL.
8. CONTROLLER.
9. SOLID BARE COPPER WIRE (#10 AWG MIN.) FROM GROUNDING ROD TO CONTROLLER. INSTALL WIRE AS SHORT AND STRAIGHT AS POSSIBLE.

2 L-05 CONTROLLER GROUNDING LAYOUT

SCALE: NOT TO SCALE

PROJ-THRNT-18



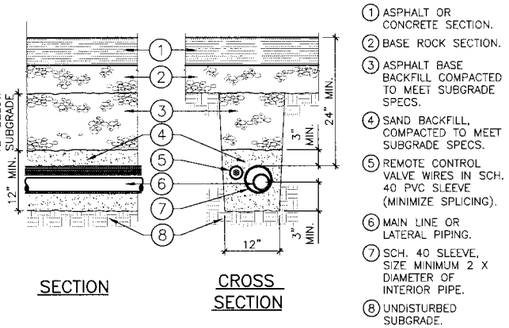
1. IRRIGATION LATERAL PIPE.
2. WIRING: TAPE AND BUNDLE WIRING AT 10'-0" INTERVALS. COMMON TRENCHING OF IRRIGATION PIPE AND REMOTE CONTROL VALVE WIRING TO BE DONE WHERE POSSIBLE (INSTALL TRACE WIRE ALONG ALL MAIN LINE PIPE THAT DOES NOT HAVE CONTROL WIRES ADJACENT TO PIPE).
3. MAIN LINE: ALL MAIN LINE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. MAINTAIN MIN. 4" SPACE BETWEEN PARALLEL PIPE LINES AND 6" VERTICAL SPACE BETWEEN MAIN LINE AND LATERAL LINES. WIRING AND MAIN LINE TO BE AT SAME MIN. DEPTH OF 18".
4. BACKFILL.
5. ALL PVC PIPE TO BE SNAKED IN TRENCHED AS SHOWN.

NOTES:
1. ALL PIPING UNDER PAVING SHALL BE SLEEVED.

3 L-05 TRENCHING

SCALE: 1" = 1'-0"

PROJ-THRNT-01



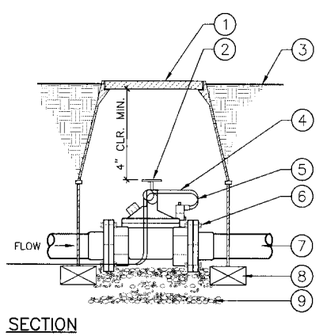
1. ASPHALT OR CONCRETE SECTION.
2. BASE ROCK SECTION.
3. ASPHALT BASE BACKFILL COMPACTED TO MEET SUBGRADE SPECS.
4. SAND BACKFILL, COMPACTED TO MEET SUBGRADE SPECS.
5. REMOTE CONTROL VALVE WIRES IN SCH. 40 PVC SLEEVE (MINIMIZE SPLICING).
6. MAIN LINE OR LATERAL PIPING.
7. SCH. 40 SLEEVE, SIZE MINIMUM 2 X DIAMETER OF INTERIOR PIPE.
8. UNDISTURBED SUBGRADE.

NOTES:
1. TRENCH SHALL BE BACKFILLED AND COMPACTED PRIOR TO BASE PREPARATION.
2. IRRIGATION CONTRACTOR SHALL COORDINATE W/ PAVING CONTRACTOR FOR INSTALLATION OF SLEEVES UNDER PAVING.

4 L-05 TRENCH UNDER PAVING

SCALE: NOT TO SCALE

PROJ-THRNT-02



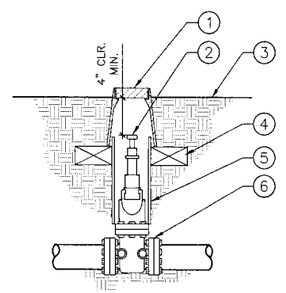
1. PLASTIC VALVE BOX W/ BOLT DOWN COVER WITH BOX EXTENSION IF REQUIRED, REFER TO SPECS. HEAT BRAND VALVE NUMBER ON LID.
2. MASTER CONTROL VALVE.
3. FINISH GRADE.
4. PIG TAIL EXPANSION LOOP (MIN. 18").
5. CONTROL AND COMMON WIRES.
6. SCH. 80 PVC FLANGES, TYP. 2 PLACES.
7. PVC MAIN LINE.
8. STANDARD BRICK AT 4 CORNERS.
9. 6" DEPTH OF PEA GRAVEL.

NOTES:
1. VALVE SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
2. PLACE IN VALVE BOX AT RIGHT ANGLES TO STRUCTURES OR HARDSCAPING.
3. REFER TO SPECS. AND PLAN SHEETS FOR MORE INFORMATION.

5 L-05 MASTER VALVE

SCALE: 1" = 1'-0"

PROJ-THRNT-16



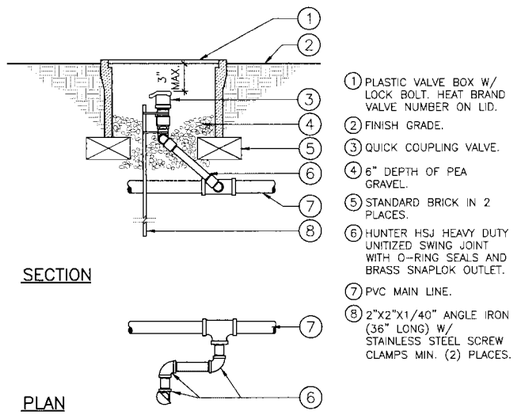
1. PLASTIC VALVE BOX AND LOCKING COVER W/ BOX EXTENSIONS AS REQUIRED. REFER TO SPECS. HEAT BRAND VALVE NUMBER ON LID.
2. ISOLATION GATE VALVE W/ OPERATING NUT
3. FINISH GRADE.
4. STANDARD BRICK IN 2 PLACES.
5. 6" PVC SLEEVE.
6. SCH. 80 PVC FLANGES, TYP. 2 PLACES.

NOTES:
1. INSTALL GATE VALVES A MIN. OF 24" FROM STRUCTURES OR HARDSCAPING.
2. REFER TO SPECS. AND PLAN SHEETS FOR MORE INFORMATION.

6 L-05 ISOLATION GATE VALVE

SCALE: 1" = 1'-0"

PROJ-THRNT-03

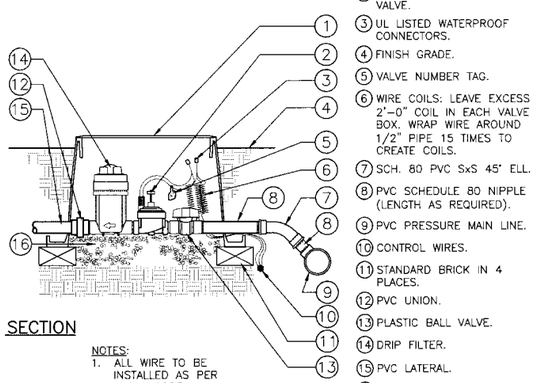


1. PLASTIC VALVE BOX W/ LOCK BOLT. HEAT BRAND VALVE NUMBER ON LID.
2. FINISH GRADE.
3. QUICK COUPLING VALVE.
4. 6" DEPTH OF PEA GRAVEL.
5. STANDARD BRICK IN 2 PLACES.
6. HUNTER HSJ HEAVY DUTY UNITIZED SWING JOINT WITH O-RING SEALS AND BRASS SNAPLOK OUTLET.
7. PVC MAIN LINE.
8. 2"X2"X1/40" ANGLE IRON (36" LONG) W/ STAINLESS STEEL SCREW CLAMPS MIN. (2) PLACES.

7 L-05 QUICK COUPLING VALVE

SCALE: 1 1/2" = 1'-0"

PROJ-THRNT-05



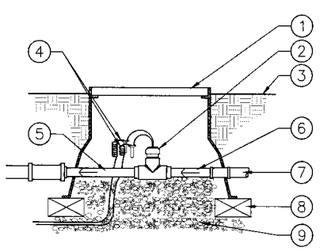
1. PLASTIC VALVE BOX W/ BOLT DOWN LID. HEAT BRAND VALVE NUMBER ON LID.
2. REMOTE CONTROL DRIP VALVE.
3. UL LISTED WATERPROOF CONNECTORS.
4. FINISH GRADE.
5. VALVE NUMBER TAG.
6. WIRE COILS: LEAVE EXCESS 2'-0" COIL IN EACH VALVE BOX. WRAP WIRE AROUND 1/2" PIPE 15 TIMES TO CREATE COILS.
7. SCH. 80 PVC SxS 45° ELL.
8. PVC SCHEDULE 80 NIPPLE (LENGTH AS REQUIRED).
9. PVC PRESSURE MAIN LINE.
10. CONTROL WIRES.
11. STANDARD BRICK IN 4 PLACES.
12. PVC UNION.
13. PLASTIC BALL VALVE.
14. DRIP FILTER.
15. PVC LATERAL.
16. 6" DEPTH OF PEA GRAVEL.

NOTES:
1. ALL WIRE TO BE INSTALLED AS PER LOCAL CODE.

8 L-05 DRIP REMOTE CONTROL VALVE

SCALE: 1" = 1'-0"

PROJ-THRNT-07

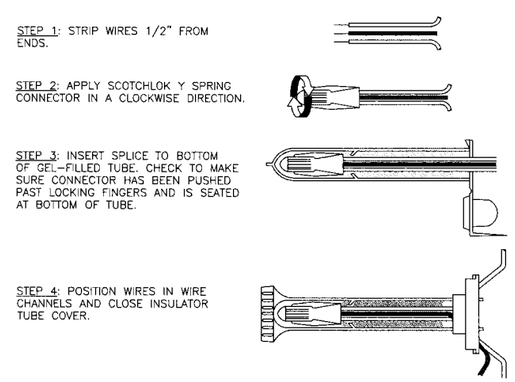


1. JUMBO PLASTIC VALVE BOX W/ (2) 6" EXTENSIONS AND LOCKING COVER.
2. FLOW SENSOR. ENSURE ADEQUATE OPERATION AT LOW VOLUMETRIC FLOW RANGES (I.E. GPM). PIPE TO BE SIZED SMALL ENOUGH TO ENSURE THAT THE LINEAR FLOW EQUALS OR EXCEEDS THE 1 FT/SEC. MIN. SPECIFIED.
3. FINISH GRADE.
4. COMMUNICATION WIRES TO CONTROLLER.
5. DOWNSTREAM: KEEP PIPE DIA. CONSISTENT FOR A LENGTH 5X THE PIPE DIA.
6. UPSTREAM: KEEP PIPE DIA. CONSISTENT FOR A LENGTH 10X THE PIPE DIA.
7. PRESSURE MAIN LINE.
8. STANDARD BRICK IN 2 PLACES.
9. 6" DEPTH OF PEA GRAVEL.

9 L-05 FLOW SENSOR

SCALE: 1" = 1'-0"

PROJ-THRNT-17



STEP 1: STRIP WIRES 1/2" FROM ENDS.

STEP 2: APPLY SCOTCHLOK Y SPRING CONNECTOR IN A CLOCKWISE DIRECTION.

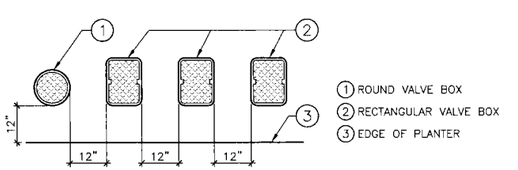
STEP 3: INSERT SPLICE TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT BOTTOM OF TUBE.

STEP 4: POSITION WIRES IN WIRE CHANNELS AND CLOSE INSULATOR TUBE COVER.

10 L-05 ELECTRICAL WIRING CONNECTOR KIT

SCALE: NOT TO SCALE

PROJ-THRNT-04



1. ROUND VALVE BOX
2. RECTANGULAR VALVE BOX
3. EDGE OF PLANTER

NOTES:
1. CENTER VALVE BOXES DIRECTLY OVER VALVES TO FACILITATE SERVICING.
2. FINISH GRADE AROUND BOXES TO BE KEPT BELOW VALVE BOX LID:
   1/2" IN SEED
   1-1/2" IN SOD
   3" IN PLANTER BED
3. SET VALVES IN GROUNDCOVER/SHRUB AREAS WHENEVER POSSIBLE. INSTALL IN TURF ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO TURF.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE OR DEFORMATION OF VALVE BOX SIDES.

11 L-05 VALVE BOX LAYOUT

SCALE: 1/2" = 1'-0"

PROJ-THRNT-06

Stantec

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No.	Revision	By	Appd.
	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
IRRIGATION CONSTRUCTION DETAILS

Permit-Seal

LICENSED LANDSCAPE ARCHITECT
PAUL A. MARCILLAC 2585
Signature
Renewal Date 04.18.2016
Date
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vanderslice
Submitted Date: January 11, 2016

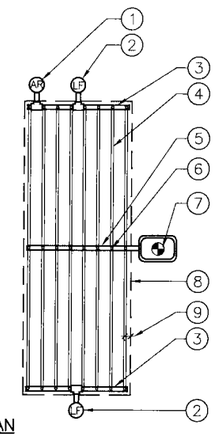
THORNTON ROAD WIDENING PROJECT
Stockton, California

IRRIGATION CONSTRUCTION DETAILS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: AS SHOWN	APPROVED BY:
DESIGNED BY: CF	
DRAWN BY: CF	
CHECKED BY: PM	CITY ENGINEER STOCKTON, CA.
RECORD DWG:	DATE: 04.18.2016

Sheet No. Revision
L-05
143 OF 145
JOB NO.
183910142

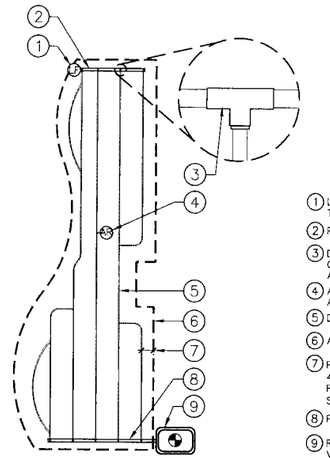


PLAN

1. AIR RELIEF VALVE LOCATED AT HIGH POINT OF ZONE.
2. LINE FLUSH VALVE PLUMBED TO PVC.
3. PVC EXHAUST HEADER.
4. DRIPLINE TUBING LATERAL.
5. PVC SUPPLY HEADER.
6. DRIPLINE START CONNECTION: MALE PVC ADAPTER.
7. REMOTE CONTROL DRIP VALVE ASSEMBLY WITH FILTER.
8. AREA PERIMETER.
9. PERIMETER LATERALS 2" TO 4" FROM EDGE (KEEP 24" FROM BOTTOM OF 5:1 OR STEEPER SLOPE).

1 DRIPLINE MIDDLE FEED LAYOUT
L-06 SCALE: NOT TO SCALE

PROJ-THRNT-08

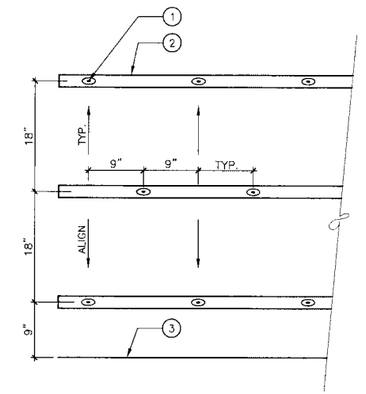


PLAN

1. LINE FLUSH VALVE PLUMBED TO PVC.
2. PVC EXHAUST HEADER.
3. DRIPLINE START CONNECTION: PVC TO DRIP ADAPTER.
4. AIR RELIEF VALVE LOCATED AT HIGH POINT OF ZONE.
5. DRIPLINE TUBING LATERAL.
6. AREA PERIMETER.
7. PERIMETER LATERALS 2" TO 4" FROM EDGE (KEEP 24" FROM BOTTOM OF 5:1 OR STEEPER SLOPE).
8. PVC SUPPLY HEADER.
9. REMOTE CONTROL DRIP VALVE ASSEMBLY WITH FILTER.

2 DRIP LAYOUT (IRREGULARLY SHAPED)
L-06 SCALE: NOT TO SCALE

PROJ-THRNT-10

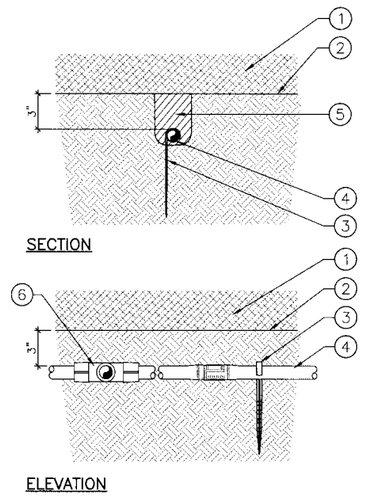


PLAN

1. EMITTER, TYP.
2. TUBING, TYP.
3. PAVING, WALL OR MOWBAND.

3 DRIPLINE EMITTER & TUBE SPACING
L-06 SCALE: 1" = 1'-0"

PROJ-THRNT-13



SECTION

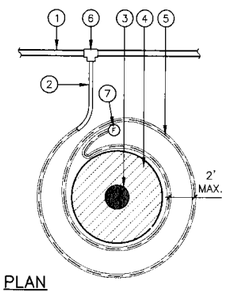
ELEVATION

1. MULCH.
2. FINISH GRADE OF SOIL.
3. TIE DOWN STAKE OR STAPLE.
4. DRIPLINE TUBE.
5. BACKFILLED TRENCH (FREE OF DEBRIS).
6. COMPRESSION FITTING.

NOTES:
1. INSTALL AIR RELIEF VALVE AT HIGH POINT OF DRIP ZONE (SEE DETAIL).

4 DRIPLINE 3" BELOW GRADE
L-06 SCALE: NOT TO SCALE

PROJ-THRNT-19



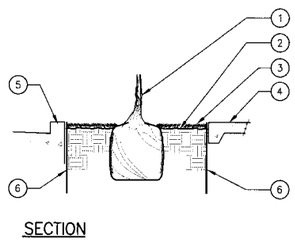
PLAN

KEY NOTES
1. PVC LATERAL LINE.
2. EMITTER SUB-LATERAL (TYP) PEPCO FLEXIBLE DRIP DISTRIBUTION TUBE, 1/2" DIA., 3'-0" MAXIMUM LENGTH. 150' OR 200 GPH MAXIMUM FROM ANY ONE CONNECTION AT FLEXIBLE PVC.
3. TREE TRUNK.
4. TREE ROOT BALL.
5. INLINE EMITTER DRIP LINE, SEE IRRIGATION LEGEND.
6. PVC TEES, SOLVENT WELD.
7. FLUSHING END CAP IN VALVE BOX, TYPICAL.

GENERAL NOTES
a. USE CONNECTORS SPECIFIED BY TUBE MANUFACTURER.
b. ANCHOR DRIP TUBE TO MAINTAIN EMITTER LOCATION IN RELATION TO PLANT, 8'-0" ON CENTER MAXIMUM.

5 TREE DRIPLINE LAYOUT RING
L-06 SCALE: NONE

PROJ-THRNT-09

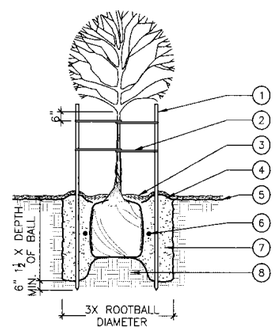


SECTION

1. TREE.
2. FINISHED GRADE.
3. MULCH.
4. CONCRETE WALK.
5. CONCRETE CURB.
6. 24" DEEP ROOT BARRIER BY DEEP ROOT CORP. INSTALL 8' (MIN.) PANEL PER MANUFACTURE'S SPECIFICATIONS. INSTALL PER PLAN WHERE CENTER OF PROPOSED TREE TRUNK IS WITHIN 5' OF CURB, PAVING OR WALKS.
7. SEE "TREE PLANTING" DETAIL (THIS SHEET) FOR PLANTING AND STAKING OF PROPOSED TREES.

6 TREE ROOT BARRIER
L-06 SCALE: NONE

PROJ-THRNT-12

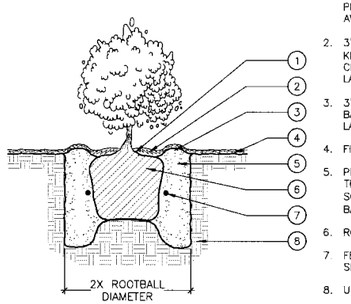


SECTION

1. TREE STAKES: 2 PER 15 GAL. TREE. DO NOT ALLOW STAKES TO RUB TRUNK OR LIMBS.
2. RUBBER TREE TIES: 2 PER STAKE.
3. MULCH
4. EARTH MOUND.
5. FINISH GRADE. KEEP ROOT CROWN 1" ABOVE FINISH GRADE.
6. PLANT TABS, SEE SPECS.
7. PREPARE BACKFILL.
8. EXISTING UNDISTURBED OR COMPACTED SOIL.
9. SEE SPECS. FOR ADDITIONAL INFORMATION.

7 TREE PLANTING
L-06 SCALE: 1/4" = 1'-0"

PROJ-THRNT-11

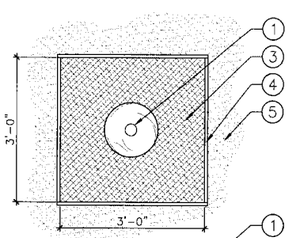


SECTION

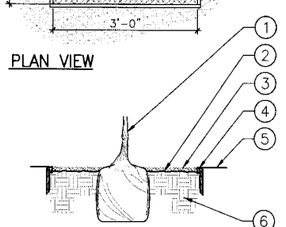
1. PLACE ROOT CROWN 1" ABOVE FINISH GRADE. PROVIDE POSITIVE DRAINAGE AWAY FROM CROWN
2. 3" LAYER OF WOOD MULCH. KEEP 3" AWAY FROM CROWN. NOT REQUIRED IN LAWN AREAS
3. 3" HIGH SOIL WATERING BASIN. NOT REQUIRED IN LAWN AREAS.
4. FINISH GRADE
5. PLANTING PIT SHALL BE 2X THE DIA. OF THE ROOTBALL. SCARIFY SIDES/BOTTOM AND BACKFILL W/ NATIVE SOIL.
6. ROOTBALL
7. FERTILIZER TABLETS, SEE SPECS.
8. UNDISTURBED SOIL

8 SHRUB PLANTING
L-06 SCALE: 3/4" = 1'-0"

PROJ-THRNT-13



PLAN VIEW

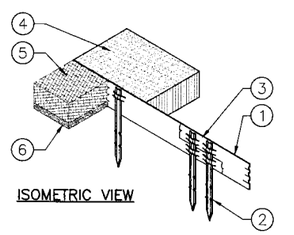


SECTION

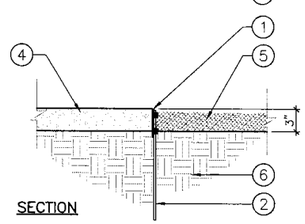
1. TREE.
2. FINISH GRADE.
3. MULCH.
4. STEEL HEADER.
5. DECOMPOSED GRANITE.
6. SEE "TREE PLANTING" DETAIL (THIS SHEET) FOR PLANTING AND STAKING OF PROPOSED TREES.

9 TREE WELL IN D.G.
L-06 SCALE: NONE

PROJ-THRNT-21



ISOMETRIC VIEW

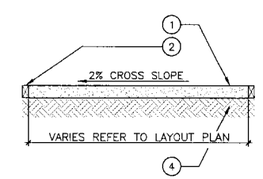


SECTION

1. 3/16" X 4" STEEL HEADER, UNPAINTED.
2. 12" ALUMINUM STAKE, INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PLACE AT 30" O.C., ALL LOOSE ENDS SHALL BE DOUBLE STAKED.
3. OVERLAP JOINT, DOUBLE STAKED.
4. DECOMPOSED GRANITE, FINISH SURFACE FLUSH WITH TOP OF HEADER.
5. MULCH.
6. SUBGRADE.

10 STEEL HEADER
L-06 SCALE: NONE

PROJ-THRNT-26



SECTION

1. DECOMPOSED GRANITE: 3-1/2" DEPTH W/ STABILIZER.
2. ADJACENT STEEL HEADER OR CONCRETE, REFER TO PLAN.
3. COMPACTED SUBGRADE, 95% RELATIVE COMPACTION.
4. SEE SPECS. FOR ADDITIONAL INFORMATION.

11 DECOMPOSED GRANITE PAVING
L-06 SCALE: 1/2" = 1'-0"

PROJ-THRNT-22

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No.	Revision	By	Appd.
MM.YY	Description		

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
IRRIGATION AND PLANTING CONSTRUCTION DETAILS

Permit-Seal

LICENSED LANDSCAPE ARCHITECT
PAUL A. MARCELLAC
No. 5555
Signature
10/30/17
Renewal Date
04.18.2015
Date
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vandersilice
Submitted Date: January 11, 2016

THORNTON ROAD WIDENING PROJECT
Stockton, California
IRRIGATION AND PLANTING CONSTRUCTION DETAILS
DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: AS SHOWN	APPROVED BY:	Sheet No. Revision
DESIGNED BY: CF		L-06
DRAWN BY: CF		144 OF 145
CHECKED BY: PM	CITY ENGINEER STOCKTON, CA.	JOB NO.
RECORD DWG:	DATE: 04.18.2016	183910142

WATER USE CALCULATIONS

THE MAXIMUM APPLIED WATER ALLOWANCE SHALL BE CALCULATED USING THE FOLLOWING FORMULA:

MAWA = (ETo)(0.62)[(ETAF X LA) + (1-(ETAF) X SLA)]
MAWA = MAXIMUM APPLIED WATER ALLOWANCE
ETo = REFERENCE EVAPOTRANSPIRATION (INCHES PER YEAR)
0.62 = CONVERSION FACTOR (TO GALLONS PER SQUARE FOOT)
ETAF = 0.45 FOR NON-RESIDENTIAL AREAS, 0.55 FOR RESIDENTIAL AREAS
LA = LANDSCAPED AREA INCLUDES SPECIAL LANDSCAPE AREA (SQUARE FEET)
SLA = PORTION OF LANDSCAPE AREA IDENTIFIED AS SPECIAL LANDSCAPE AREA (SQUARE FEET)

MAWA = (49.7 IN/YR)(0.62)[(0.45 X 33,588.54 SF) + (0.55 X 0 SF)] = 465,748.77 GALLONS PER YEAR

THE ESTIMATED TOTAL WATER USE (ETWU) SHALL BE CALCULATED USING THE FOLLOWING FORMULA:

ETWU = (ETo)(0.62)(ETAF)(AREA)
ETWU = ESTIMATED TOTAL WATER USE PER YEAR (GALLONS PER YEAR)
ETo = REFERENCE EVAPOTRANSPIRATION (INCHES PER YEAR)
0.62 = CONVERSION FACTOR (TO GALLONS PER SQUARE FOOT)
ETAF = PLANT FACTOR DIVIDED BY IRRIGATION EFFICIENCY (PF/IE)
AREA = HYDROZONE AREA (SQUARE FEET)
PF = PLANT FACTOR FROM WUCOLS
IE = IRRIGATION EFFICIENCY (MINIMUM 0.71)

WATER EFFICIENT LANDSCAPE WORKSHEET

REGULAR LANDSCAPE AREAS

HYDROZONE	ETo	PF	IE	ETAF (PF/IE)	AREA (SQ. FT.)	ETAF X AREA	ETWU
A	49.7	0.50	0.81	0.62	9,886.73	6,102.92	188,055.37
B	49.7	0.20	0.81	0.25	2,410.75	595.25	18,341.94
C	49.7	0.00	0.00	0.00	21,291.06	0.00	0.00
				TOTALS:	33,588.54	6,698.17	206,397.31

SPECIAL LANDSCAPE AREAS

NONE				1.00			0.00
				TOTALS:			0.00
						ETWU TOTAL:	206,397.31
						MAWA TOTAL:	465,748.77

HYDROZONE INFORMATION TABLE

HYDROZONE	VALVE	IRRIGATION METHOD	PLANT TYPE	EXPOSURE	WATER USE	AREA (SQ. FT.)	% OF LANDSCAPE
A	1,3,4,5,7	DRIP	MIXED	FULL SUN	MODERATE (MIXED)	9,886.73	29.43%
B	2,6	DRIP	TREE	FULL SUN	LOW	2,410.75	7.18%
C	NONE	NONE	D.G.	FULL SUN	NONE	21,291.06	63.39%
					TOTAL:	33,588.54	100.00%

IRRIGATION SCHEDULE

WATERING SCHEDULE		WINTER (NOV THROUGH FEB)												
NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	RAIN BIRD XCZ-150-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		10 min			10 min			0.15	20	366.7	183.4
2	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		4 min			4 min			0.06	8	52.5	26.2
3	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		10 min			10 min			0.15	20	169.5	84.8
4	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		10 min			10 min			0.15	20	202.2	101.1
5	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		10 min			10 min			0.15	20	70.3	35.1
6	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		4 min			4 min			0.06	8	38.2	19.1
7	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		10 min			10 min			0.15	20	120.7	60.4
		TOTALS:			58			58				116	1,020	510.0

WATERING SCHEDULE		SPRING/FALL (MARCH, APRIL, OCT)												
NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	RAIN BIRD XCZ-150-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min		23 min		23 min		0.50	67	1,229	409.5
2	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		9 min		9 min		9 min		0.20	27	177.0	59.0
3	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min		23 min		23 min		0.50	67	567.8	189.3
4	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min		23 min		23 min		0.50	67	677.2	225.7
5	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min		23 min		23 min		0.50	67	235.4	78.5
6	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		9 min		9 min		9 min		0.20	27	126.9	43.0
7	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min		23 min		23 min		0.50	67	404.4	134.8
		TOTALS:			133		133		133			389	3,419	1,140

WATERING SCHEDULE		SUMMER (JUNE, JULY & AUGUST)												
NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	RAIN BIRD XCZ-150-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min	23 min	23 min	23 min	23 min		0.84	112	2,054	410.7
2	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		9 min	9 min	9 min	9 min	9 min		0.33	44	288.5	57.7
3	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min	23 min	23 min	23 min	23 min		0.84	112	949.2	189.8
4	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min	23 min	23 min	23 min	23 min		0.84	112	1,132	226.4
5	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min	23 min	23 min	23 min	23 min		0.84	112	393.5	78.7
6	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		9 min	9 min	9 min	9 min	9 min		0.33	44	210.0	42.0
7	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		23 min	23 min	23 min	23 min	23 min		0.84	112	676.0	135.2
		TOTALS:			133	133	133	133	133			648	5,703	1,141

WATERING SCHEDULE		MAY & SEPTEMBER												
NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	RAIN BIRD XCZ-150-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		16 min	16 min	16 min	16 min	16 min		0.57	76	1,394	278.7
2	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		7 min	7 min	7 min	7 min	7 min		0.23	31	203.3	40.7
3	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		16 min	16 min	16 min	16 min	16 min		0.57	76	644.1	128.8
4	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		16 min	16 min	16 min	16 min	16 min		0.57	76	768.2	153.6
5	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		16 min	16 min	16 min	16 min	16 min		0.57	76	267.0	53.4
6	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		7 min	7 min	7 min	7 min	7 min		0.23	31	148.0	29.6
7	RAIN BIRD XCZ-100-PRB-COM	AREA FOR DRIPLINE	0.45 in/h		16 min	16 min	16 min	16 min	16 min		0.57	76	458.7	91.7
		TOTALS:			94	94	94	94	94			442	3,883	776.6

SOILS

Sunland Analytical
11353 Pyrites Way, Suite 4
Rancho Cordova, CA 95670
(916) 852-8557

DATE 01/23/2008
SUN NUMBER 104881

Information requested by:
Donald Timberman
Stantec Consulting

Information for:
THORNTON RD
Sample ID: LS-2

SOIL RECOMMENDATIONS FOR LANDSCAPE GARDENING

SOIL pH (Acidity and Alkalinity)
The pH of this sample indicates the soil is moderately alkaline, a condition negatively affecting some plants. Apply 15 pounds of soil sulfur per 1000 sq.ft. Spread evenly and work into the top six inches. Recall that sulfur alteration of pH is a slow process. For more rapid effect Sulfuric Acid may be used.

DISSOLVED SALTS (Indicated by E.C. & TDS)
These conditions are in the normal range for plant growth.

SOIL TEXTURE AND RATE OF WATER INFILTRATION
The infiltration rate for all soil textures decreases with increasing ground slope. At 0 to 4%, 5 to 8%, 9 to 12%, 13 to 16% and above 16% the infiltration rate of this sample decreases from 0.75 to 0.60, 0.45, 0.30, 0.19, respectively. Infiltration rate also decreases with percent of ground cover and by compaction.

WATER PENETRATION OF SOIL DUE TO CHEMICAL CHARACTERISTICS
When exchangable Sodium increases in the soil, water penetration decreases. Based on SAR and ESP values this sample has no penetration problem due to soil Sodium. No Gypsum required.

ORGANIC MATTER
Organic matter provides a slow nitrogen release and aids water retention. This sample has a moderate Organic Matter content.
To maintain moisture and provide sustained nitrogen release a level of 10% organic matter is recommended. Use amending material that is approximately 75% organic matter (i.e. many ground fir barks). Based on the analysis of this soil sample apply 4 yards per 1000 sq.ft. Spread evenly and blend into the top six inches of soil. It is a reasonable practice to apply a top dressing of 3 inches of organic mulches to aid water penetration and retention.

SOIL BORON
Boron concenrations are in a range allowing normal plant growth.

SOIL MACRONUTRIENTS : NITROGEN-PHOSPHORUS-POTASSIUM (N-P-K)
GENERAL N-P-K RECOMMENDATION

Use ONE of these NPK preparations for the first fertilizer application.

Standard NPK Fertilizer Preparations	6-20-20	5-20-10	16-16-16	0-10-10	28-3-4	21-0-0	Customer Choice None
#/1000 sq.ft.	N/A	N/A	N/A	11	N/A	N/A	N/A

** To avoid nitrogen burn leach soil with good quality water before fertilizer application. It is recommended that soil nitrate be retested before further fertilizer is applied.

GRASS OR SOD PREPARATION
Till in organic matter, N,P,K and micro nutrients in addition to any lime gypsum or sulfur as directed above. Smooth soil surface and follow seed or sod producers direction for moisture and product application.

TREES AND SHRUBS
Excavate holes for planting shrubs and trees to at least twice the volume of the container. Prepare backfill for tree and shrub planting holes by mixing three parts of native soil (or imported top soil) with one part organic amendment (preferably nitrogen and iron fortified) and 2.5 pounds of 6-20-20 per yard of mix. For extended fertilization, place slow release fertilizer tablets in each hole per manufacturer's instructions. If 6-20-20 was not directly added to backfill mix, during backfill apply uniformly 1/2 oz of 6-20-20 per gallon containers, 2.5 oz per 5 gallons, 6 oz per 24 inch boxes.

Summary and Suggested Sequence of Soil Improvements (#/1000 Sq.Ft.)

	Leach soil to avoid nitrogen burn.	
Soil Sulfur	19.0	# for pH modification, repeat as above
Organic Amendment	4	Yd./1000 Sq.Ft. Bulk organic amendment (nitrofied)
N-P-K Fertilizer	See above chart	

Maintenance Fertilization
Apply 5 pounds of Ammonium sulfate (21-0-0) per 1000 sq.ft.every month until plants become established. After established, apply 28-3-4 (or similar preparation) to provide desired growth rate and color.

Sunland Analytical
11353 Pyrites Way, Suite 4
Rancho Cordova, CA 95670
(916) 852-8557

Date Reported 01/23/2008
Date Submitted 01/18/2008

To: Donald Timberman
Stantec Consulting
2590 Venture Oaks Way
Sacramento, CA 95033

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following:
Location : THORNTON RD Site ID : LS-2.
Thank you for your business.

* For future reference to this analysis please use SUN # 52446-104881.

SOIL ANALYSIS

Saturation Percent (SP)	32		Soil Texture Sandy Loam
pH	7.83		
E.C.	1.62	mmho/cm	
Tot.Dissolved Salts	1036.8	ppm	
Infiltration Rate (0% Slope)	0.75	in/hr	
% Organic Matter	2.3		
C.E.C.	24.0	meq/100g	
Sodium Absorption Ratio (SAR)	1.5		
Exchangable Sodium Percent (ESP)	1.0		
Gypsum Req. (CaSO4*2H2O)	None Required		
est. Nitrogen Release	2.1	#/1000 sq.ft.	

Nitrate	149.26	ppm	*************************
Phosphorus	19.31	ppm	************
Potassium	192.73	ppm	************************
Sulfur	63.82	ppm	**************************
Chloride	No Test		
Carbonates	No Test		
Sodium	52.69	ppm	
Calcium	4128.38	ppm	************************
Magnesium	326.28	ppm	**********
Boron	0.55	ppm	***************
Copper	No Test		
Iron	No Test		
Manganese	No Test		
Zinc	No Test		

Very Low | Low | Adequate | Excessive

Stantec
Stantec Consulting Inc.
1340 Treat Blvd. Suite 300
Walnut Creek, CA U.S.A. 94597
Tel. 925.941.1400
Fax. 925.941.1401
www.stantec.com

No.	Revision	Description	By	Appd.

Client/Project
CITY OF STOCKTON
Thornton Road Widening
Stockton, California

Title
SOILS AND WATER USE CALCULATIONS

Permit-Seal
LICENSED LANDSCAPE ARCHITECT
PAUL A. MARCELLA
No. 5004
Signature
10/30/17
Renewal Date
04.18.2018
STATE OF CALIFORNIA

Engineer's Signature:
Signature Date:

CALL BEFORE YOU DIG
CALIFORNIA/NEVADA
1-800-227-2600

Project Engineer: Bill Vanderlice
Submitted Date: January 11, 2016

THORNTON ROAD WIDENING
PROJECT
Stockton, California

SOILS AND WATER USE CALCULATIONS

DEPARTMENT OF PUBLIC WORKS
CITY OF STOCKTON, CALIFORNIA

SCALE: AS SHOWN
DESIGNED BY: CF
DRAWN BY: CF
CHECKED BY: PM
RECORD DWG:

APPROVED BY:
CITY ENGINEER STOCKTON, CA.
DATE: 04.18.2016

Sheet No. Revision
L-07
145 OF 145
JOB NO.
183910142