REPORT TO COUNCIL
City of Sacramento

15

915 I Street, Sacramento, CA 95814-2604
www. CityofSacramento.org

CONSENT
March 23, 2010

Honorable Mayor and
Members of the City Council

Title: Norwood Avenue Bridge Replacement Project (T15068400)

Location/Council District: Norwood Avenue Bridge at Arcade Creek between Fairbanks Avenue and Lindley Avenue. Location map – Exhibit A of Resolution. (District 2)

Recommendation: Adopt a **Resolution**: 1) approving the conceptual design plans, and 2) approving the Mitigated Negative Declaration and the Mitigation Reporting Plan for the project.

Contact: Ricky Chuck, Senior Engineer, (916) 808-5050; Tim Mar, Supervising Engineer, (916) 808-7531

Presenters: None

Department: Transportation

Division: Engineering Services

Organization No: 15001131

Description/Analysis

Issue: The project will replace the structurally deficient Norwood Avenue Bridge over Arcade Creek with a new bridge that meets current standards. The project will construct a new and higher concrete bridge with two travel lanes, bike lanes, sidewalks, and street lighting.

Approval of the conceptual design plans and adoption of the Mitigated Negative Declaration and Mitigation Reporting Plan are necessary to move forward with completing the final design and comply with the California Environmental Quality Act.

Policy Considerations: This action requested herein is consistent with the Sacramento City Code, Title 3 and with the City of Sacramento Strategic Plan goals of improving and expanding public safety and enhancing livability.

Environmental Considerations:

California Environmental Quality Act (CEQA): The Community Development Department, Environmental Planning Services has prepared an Initial Study and Mitigated Negative Declaration for the proposed project. City Council approved the 2030 General Plan and certified the Master Environmental Impact Report (Master EIR) on March 3, 2009. The project was included in the Master EIR, and the Initial Study prepared for the project examines the project for the purpose of identifying any additional significant environmental effects, or project-specific effects, that could occur with the project and that were not examined in the Master EIR.

The project-specific effects that the City has identified that were not covered in the Master EIR include transportation and circulation, biological resources, hazards, and cultural resources. In compliance with Section 15070(B) 1 of the California Environmental Quality Act (CEQA) Guidelines, the City has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where clearly no significant impacts will occur.

The Mitigated Negative Declaration was distributed through the State Clearinghouse (SCH# 2010022016) and was available for public review during the period of February 4, 2010 through March 8, 2010. As of the writing of this report, one comment letter regarding the project has been received. The comment letter, from the Sacramento Area Bicycle Advocates (SABA), is attached to this staff report. SABA comments on the importance of planning for the Arcade Creek bike path and consideration of general plan policies. The project will accommodate future bike path improvements when planning and financing arrangements are in place, and the letter therefore identifies no new impacts. Staff has contacted SABA to discuss the comment.

The project is funded by Federal Highway Bridge Replacement and Rehabilitation (HBRR) Program funds. As a result, the proposed project is also subject to the National Environmental Policy Act (NEPA). NEPA studies are currently under review with the State Department of Transportation and the Federal Highway Administration. These agencies will take their respective actions.

Sustainability Considerations: This project is consistent with the City's Sustainability Master Plan. It conforms to the Air Quality Focus Area by improving and optimizing transportation infrastructure.

Other: None

Commission/Committee Action: None

Rationale for Recommendation: Approval of the conceptual design plans and adoption of the Mitigated Negative Declaration and Mitigation Reporting Plan are necessary to move forward with completing the final design and comply with the California Environmental Quality Act.

Financial Considerations: The current project budget is $1,292,359. The budget is comprised of $230,000 in Major Street Construction Tax (Fund 2007) and $1,062,359 in Federal Capital Grant (Fund 3703) funds. As of February 18, 2010, the project has an unobligated balance of $244,097, which is sufficient to complete the design. There are no General Funds planned or allocated to this project.

Emerging Small Business Development (ESBD): No goods or services are being procured at this time.

Respectfully Submitted by: _____
Nicholas Theocharides
Engineering Services Manager

Approved by: _____ for
Jerry Way
Director of Transportation

Recommendation Approved:

_____
Gus Vina
Acting City Manager

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	Exhibit C – Mitigated Negative Declaration	
	Exhibit D – Mitigation Monitoring Plan	

Attachment 1

Background Information:

The project will replace the structurally deficient Norwood Avenue Bridge over Arcade Creek with a new bridge that meets current standards. The project will construct a new and higher concrete bridge with two travel lanes, bike lanes, sidewalks, and street lighting and a new approach roadway between the intersections of Fairbanks Avenue and Lindley Way. Retaining walls will be constructed on both approaches in order to support the increase in profile grade.

The bridge was constructed in 1945 and is rated structurally deficient. Arcade Creek has a history of elevated water levels that inundate the bridge. During high canal flows, Norwood Avenue had to be closed by using stop log floodwalls. This project will eliminate the need for road closure during high canal flows.

The City was successful in obtaining Federal Highway Bridge Replacement and Rehabilitation (HBRR) Program funds to replace the bridge. Under this program, the federal government paid 88.53% of the cost of the project, while the City pays an 11.47% local match.

Construction is anticipated to start in spring 2011 and be completed in December 2011.

Environmental Planning Services has determined that the project, as proposed, will not have a significant impact to the environment; therefore, a Mitigated Negative Declaration has been prepared. The City has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where clearly no significant impacts will occur. These mitigation measures are included in the attached Mitigation Monitoring Plan.

In February 2010, the City circulated the Mitigated Negative Declaration for a 30 day public review and comment. The City received one comment letter from the Sacramento Area Bicycle Advocates (SABA) regarding the importance of planning for the Arcade Creek bike path. The project will accommodate future bike path improvements when planning and financing arrangements are in place, and the letter therefore identifies no new impacts. Based upon the analysis contained within the Initial Study/Mitigated Negative Declaration, the project will not create any significant impacts that will not be mitigated to a less than significant level. Therefore, staff recommends that the City Council adopt the Mitigated Negative Declaration and the Mitigated Reporting Plan for the Norwood Avenue Bridge Replacement Project.

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Attachment 2

Sacramento Area Bicycle Advocates
SABA
Making Sacramento a cycling capital

909 12th Street Ste 116 Sacramento CA 95814 (916) 444-6600 www.sacbike.org

Advisory Board

Jane Hagedorn
Consultant
Breathe California of Sacramento-Emigrant Trails

Wendy Hoyt
President
HDR|*The Hoyt Company*

Matt Kuzins
President
Matt Kuzins & Kumpany

Michele McCormick
Principal
Circle Point/*MMC Communications*

James Moose
Partner
Remy, Thomas, Moose and Manley, LLP

Craig Stradley
Principal
Mogavero Notestine Associates

Jim Streng
Partner
Streng Brothers Rentals

February 5, 2010

Jennifer Hageman, Senior Planner
City of Sacramento, Community Development Department
Environmental Planning Services
300 Richards Boulevard, Third Floor
Sacramento, CA 95811

RE: Notice of Availability/Intent to Adopt Draft Mitigated Negative Declaration for the Norwood Avenue at Arcade Creek Bridge Replacement

Dear Ms. Hageman:

Thank you for the opportunity to comment.

The project description does not mention plans for the Arcade Creek bike path. The Arcade Creek bike path is in the city's Bikeway Master Plan. The mobility element of the city's General Plan calls for implementation of the Bikeway Master Plan. The General Plan also calls for providing an integrated, multimodal transportation system and specifically encourages bike use. It not clear that this project is fully consistent with those plans.

It's possible that the permanent maintenance access road on the north side of the creek that would go under the new bridge could double as a bike path in the future. It this is the intent, it should be clarified. Ideally, the Arcade Creek path would be grade separated from Norwood Avenue either via an undercrossing or an overcrossing, but the path would also have access to Norwood Avenue on both sides of the street. As with the Arcade Creek path itself, access provisions from the path to the street or bridge structure are not mentioned in the project description. For economic reasons, we recommend access provisions be included in the planning and design of this project.

We recommend that impacts on bicycle safety and the level of service for bicyclists and pedestrians (and not just whether a project adversely affects bicycle/pedestrian travel, bicycle or pedestrian paths or fails to adequately provide for access by bicycle or pedestrians) be evaluated in all environmental reviews in accordance with newly adopted California Environmental Quality Act guidelines. If such an evaluation were done, it may be that the project could provide good to excellent bicycle and pedestrian levels of service with narrower than 8' sidewalks and 6' foot bike lanes/shoulders while at the same time substantially decreasing project costs, reducing overall environmental impacts and not adversely impacting (and perhaps even improving) bicycle and pedestrian safety.

SABA is an award-winning nonprofit organization with more than 1400 members. We represent bicyclists. Our aim is more and safer trips by bike. We are working for a

American Lung Association Clean Air Award, Sacramento Environmental Commission Environmental Recognition Award, League of Women Voters Civic Contribution Award, League of American Bicyclists Club of the Year

future in which bicycling for everyday transportation is common because it is safe, convenient, and desirable. Bicycling is the healthiest, cleanest, cheapest, quietest, most energy efficient, and least congesting form of transportation.

Yours truly,

Walt Seifert
Executive Director

DEPARTMENT OF
TRANSPORTATION

ENGINEER SERVICES DIVISION

CITY OF SACRAMENTO
CALIFORNIA

915 I STREET
Room 2000
SACRAMENTO, CA
95814-2604

PH. (916) 808-8300
FAX (916) 808-8357

February 22, 2010

Mr. Walt Seifert
Executive Director
Sacramento Area Bicycle Advocates
909 12th Street, Suite. 116
Sacramento, CA 95814

Re: Norwood Avenue at Arcade Creek Bridge Replacement

Thank you for providing comments on behalf of the Sacramento Area Bicyclist Advocates (SABA) on the Draft Mitigated Negative Declaration for the Norwood Avenue at Arcade Creek Bridge Replacement Project.

The Project description does not mention plans for the proposed off-street bike path located on the north side of Arcade Creek since improvement for this path will not be constructed with this project. The project does replace the existing bridge at an appropriate elevation to allow implementation of the City's Bikeway Master Plan though a future phase of the Ueda Parkway project which in-turn allows the project to remain consistent the mobility element of the City's General Plan. The project also remain consistent with the City's General Plan by providing an integrated, multimodal transportation system while specifically encourages bike use by constructing an on-street Class II bike path and thus extending the existing Class II bike path farther north to the intersection of Norwood Avenue and Fairbanks Ave. The project will also construct wider sidewalks and curb ramp improvements to the intersections of Norwood Avenue and Fairbanks Avenue allowing access to the adjacent bus stop on Fairbanks Avenue for pedestrians.

It is not the intent of the City for the proposed maintenance access road on the north side of Arcade Creek to double as a bike path in the future. The proposed maintenance access road on the north side of Arcade Creek meets the design requirements of the maintenance access road which are not consistent with requirements of a shared use path. The construction of future a grade separated bike way crossing under the proposed Norwood Avenue Bridge could be a future phase of the Ueda Parkway project.

Improvements related to providing access from the street to the future path are not warranted at this time. Access to the Arcade Creek Levee is restricted to maintenance vehicles only.

SABA's recommendation that impacts on bicycle safety and the level of service for bicyclists and pedestrians be evaluated in all environmental reviews in accordance with newly adopted CEQA guidelines is noted and will be considered for future use. The City is in agreement with SABA's comments stating "the project could provide good to excellent bicycle and pedestrian levels of service with narrower than 8' sidewalks and 6' bike lanes/shoulders". However reductions in these widths would shift the exterior concrete barrier on the bridge closer to the traveled way. The exterior concrete barrier would then be in a position to obstruct the sight lines of maintenance vehicle attempting to leave the levee roads and enter Norwood Avenue. This would create an unsafe turning movement for maintenance vehicles.

Sincerely,

R Chuck

Ricky Chuck,
Senior Engineer
Department of Transportation
City of Sacramento

Copy: Ed Cox, Jennifer Hageman, Tom Buford – City of Sacramento
Thomas Post – T.Y. Lin International

File:P\Active\RR41\Letter to SABA – 2-17-2010

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Attachment 3

RESOLUTION NO.

Adopted by the Sacramento City Council

APPROVING CONCEPTUAL DESIGN PLAN AND ADOPTING MITIGATED NEGATIVE DECLARATION AND MITIGATION REPORTING PLAN FOR THE NORWOOD AVENUE BRIDGE REPLACEMENT PROJECT (T15068400)

BACKGROUND

A. The project will replace the structurally deficient Norwood Avenue Bridge over Arcade Creek with a new bridge that meets current standards. The project will construct a new and higher concrete bridge with two travel lanes, bike lanes, sidewalks, and street lighting and a new approach roadway between the intersections of Fairbanks Avenue and Lindley Way. Retaining walls will be constructed on both approaches in order to support the increase in profile grade. The bridge was constructed in 1945 and is rated structurally deficient. Arcade Creek has a history of elevated water levels that inundate the bridge. During high canal flows, Norwood Avenue had to be closed by using stop log floodwalls. This project will eliminate the need for road closure during high canal flows.

B. The City of Sacramento has prepared an Initial Study and Mitigated Negative Declaration for this project.

C. The Initial Study and Mitigated Negative Declaration have been circulated for public review and comment from February 4, 2010 through March 8, 2010 pursuant to the California Environmental Quality Act (CEQA).

D. On the basis of the whole record before it, including the Initial Study and all comments received, the City has determined that there is no substantial evidence that the project, with mitigation measures as identified in the Initial Study, will have a significant effect on the environment.

E. The Mitigated Negative Declaration reflects the City's independent judgment and analysis.

F. In accordance with Section 21081.6 of the California Public Resources Code, the City of Sacramento requires that a Mitigation Reporting Plan be developed for implementing mitigation measures as identified in the Initial Study for the project.

G. The Environmental Manager has prepared a Mitigation Reporting Plan for ensuring compliance and implementation of the mitigation measures as prescribed in the Initial Study for the project.

H. The record of proceedings upon which this decision is based is on file on the Office of the City Clerk.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. The conceptual design plan for the project is approved.

Section 2. The Mitigated Negative Declaration and Mitigation Reporting Plan for the Norwood Avenue Bridge Replacement Project (T15068400) are adopted.

Section 3. Exhibits A through D are incorporated into and made part of this resolution.

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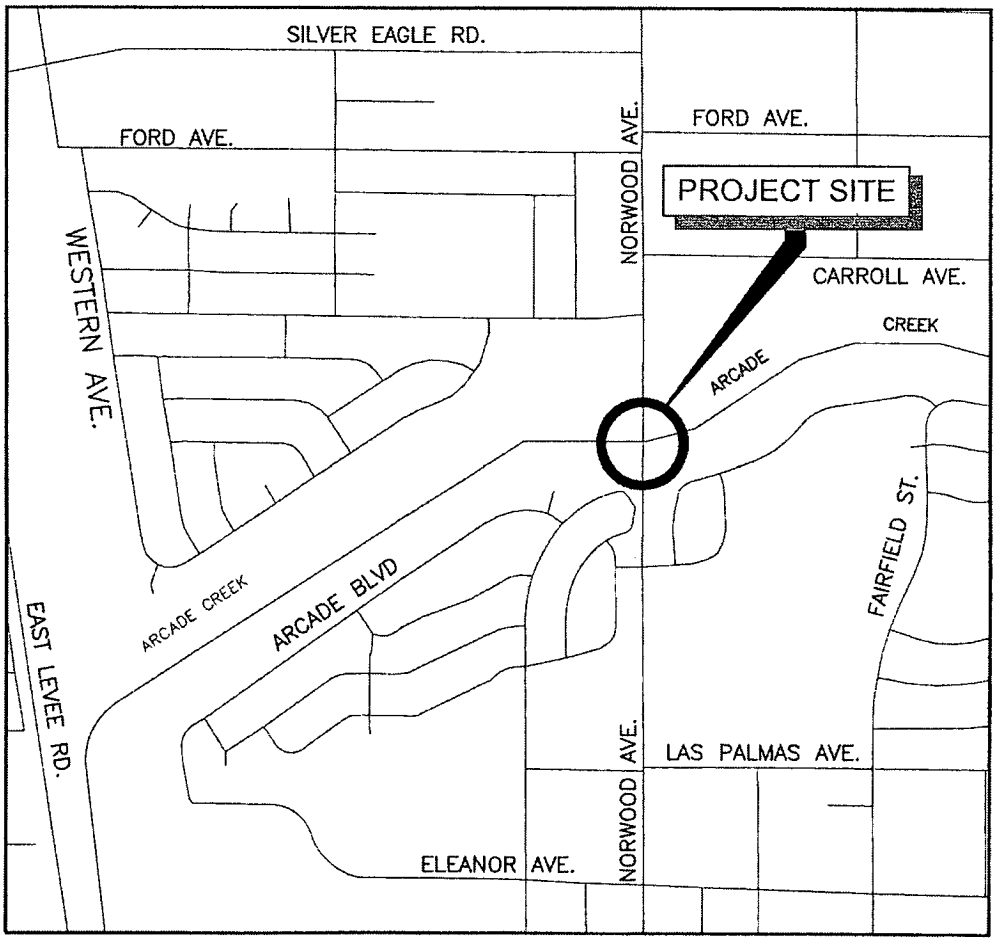
Exhibit A: Map of Norwood Avenue Camino Bridge Replacement
Exhibit B: Conceptual Design Plan
Exhibit C: Mitigation Negative Declaration
Exhibit D: Mitigation Reporting Plan

EXHIBIT A

Location map for:

NORWOOD AVENUE BRIDGE REPLACEMENT PROJECT
AT ARCADE CREEK
(BETWEEN FAIRBANKS AVENUE AND LINDLEY AVENUE)
PN: T15068400



0 800 1600 2400 3200

Date: February 2010

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EXHIBIT B

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SACRAMENTO STANDARD SPECIFICATIONS, DATED JUNE 2007, AND ALL UPDATES, ADDENDUMS, AND MEMORANDUMS TO THEM.
2. TWO WORKING DAYS PRIOR TO PROJECT STARTING, THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER A COMPLETED CONSTRUCTION STAKING REQUEST FORM.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK, AND FOR PROVIDING PROPER AND SAFE ROUTING OF THE VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL HOURS. THE USE OF FLAGGERS, BARRICADES AND CONSTRUCTION SIGNING SHALL COMPLY WITH THE CURRENT EDITION OF WORK AREA AND TRAFFIC CONTROL HANDBOOK (W.A.T.C.H.).
4. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UTILITIES AND PROTECTING AND PREVENTING DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (1-800-642-2444) TWO WORKING DAYS PRIOR TO WORK COMMENCEMENT.
5. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING SEWER AND/OR DRAINAGE FACILITIES WITHIN THE CONSTRUCTION AREA UNTIL THE PROPOSED SEWER AND/OR DRAINAGE IMPROVEMENTS ARE PLACED.
6. THE RESIDENT ENGINEER SHALL DETERMINE THE EXACT LIMITS OF PAVEMENT REMOVAL IN THE FIELD. EXISTING ASPHALT AND CONCRETE TO BE SAWCUT, SHALL BE SAWCUT IN A NEAT STRAIGHT LINE A MINIMUM OF 2-1/2" DEEP. THE EXPOSED VERTICAL EDGES SHALL BE TACKED WITH EMULSION PRIOR TO ASPHALT CONCRETE PAVING.
7. DEMOLITION OF EXISTING FEATURES SHALL BE LIMITED TO THE ITEMS SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE ALL EXISTING FEATURES DAMAGED BY HIS OPERATIONS, AT HIS EXPENSE.
8. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR PROTECTING EXISTING TREES NOT SCHEDULED TO BE REMOVED BY THIS CONTRACT. ANY TREE DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
9. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR CAPPING AND RELOCATING EXISTING SPRINKLERS AS DIRECTED BY THE ENGINEER.
10. AT THE TIME THE CONTRACT IS AWARDED, THE CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE, OR A COMBINATION OF CLASSES REQUIRED BY THE CATEGORIES AND CLASSES OF WORK INCLUDED IN THIS CONTRACT.
11. ALL CURB, GUTTER AND SIDEWALK SHOWN TO BE REMOVED SHALL BE REMOVED TO THE NEAREST EXPANSION JOINT OR SCORE MARK. DAMAGE TO EXISTING CURB, GUTTER, AND SIDEWALK WHICH IS SHOWN ON THE PLANS TO REMAIN, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
12. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY & HEALTH (2424 ARDEN WAY SUITE 165, SACRAMENTO, CA PHONE 452-2500) PRIOR TO ANY TRENCHING EXCAVATION 5 FEET OR MORE IN DEPTH. A COPY OF THIS PERMIT SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
13. REPLACEMENT OF USE SEWER SERVICES SHALL BE TO THE PROPERTY LINE. REPLACEMENT SEWER CLEANOUTS AND SERVICES SHALL HAVE THE SAME DIAMETER PIPE AS THE EXISTING, WITH THE EXCEPTION OF MAINTAINING A 4" MINIMUM DIAMETER.
14. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR PRESERVING ALL EXISTING MONUMENTS WHICH WILL BE DISTURBED OR REMOVED AS REQUIRED BY CONTRACTOR'S WORK. CONTRACTOR SHALL COORDINATE WITH ENGINEER/SURVEYOR PRIOR TO DISTURBANCE OF EXISTING MONUMENTS, AND SHALL RESET MONUMENTS ON PRESENT PERMANENT WITNESS MONUMENTS AND FILE DOCUMENTATION WITH THE COUNTY SURVEYOR PURSUANT TO BUSINESS AND PROFESSIONS CODE.
15. THE CONTRACTOR, SUBCONTRACTOR OR SURVEYOR SHALL NOT CUT PERMANENT GROOVES INTO EXISTING CONCRETE CURBS, GUTTERS OR SIDEWALKS. THE CONTRACTOR SHALL BE ASSESSED AN ADMINISTRATIVE PENALTY OF $500 FOR EACH CROSS THAT IS CUT PERMANENTLY INTO EXISTING CONCRETE CURBS, GUTTERS, AND SIDEWALKS.

CITY OF SACRAMENTO

IMPROVEMENT PLANS FOR

NORWOOD AVENUE BRIDGE REPLACEMENT

APPROVED BY: _____ _____
NADER KAMAL, R.C.E. 59522 — DATE
SPECIAL PROJECTS ENGINEER

APPROVED BY: _____ _____
ANDREW HUNT, R.C.E. 30513 — DATE
SUPERVISING CIVIL ENGINEER,
UTILITIES DEPARTMENT

ACCEPTED BY: _____ _____
HECTOR BARRON, R.C.E 45465 — DATE
CITY TRAFFIC ENGINEER
(SIGNING AND STRIPING)

LOCATION MAP

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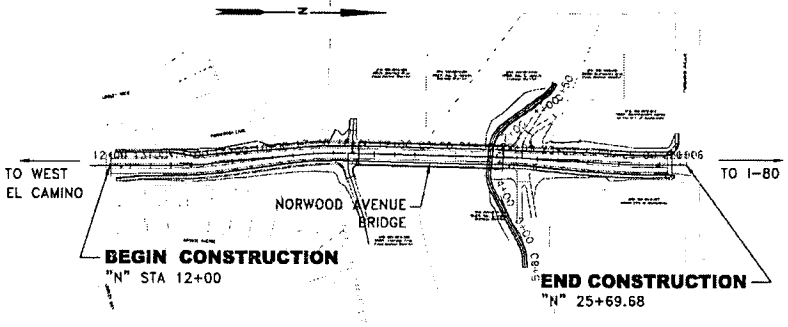

SITE PLAN

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

T-1

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. 25.201
DESCRIPTION: CITY BENCHMARK BV277H, 4D
VERT. DATUM NAVD88
HORIZ. DATUM NAD83 (1997.30)

FIELD BOOK 1234
SCALE HORIZ. N/A VERT. N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TYLIN INTERNATIONAL

DRAWN BY L. BEWLEY DATE 01/14/2010
DESIGNED BY K. BLOUNT R.C.E. 71485 DATE 01/14/2010
CHECKED BY XXXXXXXXXXXX R.C.E. XXXXX DATE XX/XX/XXXX

IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
TITLE SHEET

PN: RP41

SHEET 1 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATION.

DESIGN DESIGNATION

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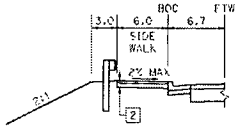

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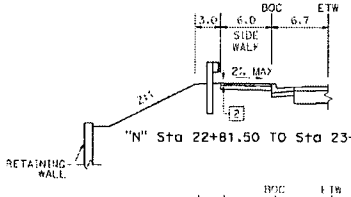
"N" Sta 23+53.50 Sta 24+25.00



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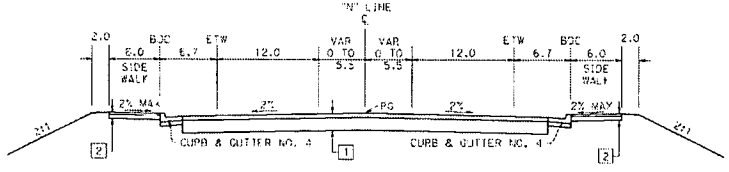

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NORWOOD AVENUE

TYPICAL STRUCTURAL SECTIONS

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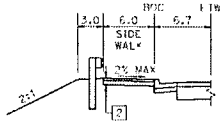
#" CLASS 2 AB

2 [EXIST.
#" PCC
#" CLASS 2 AB



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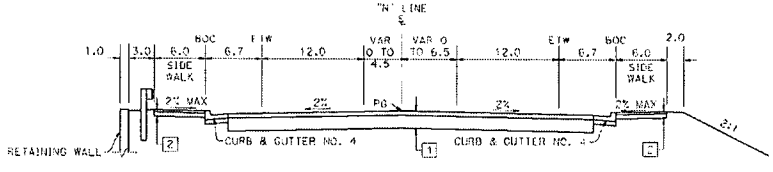
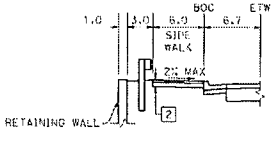


"N" Sta 14+75.22 TO Sta 18+12.00

NORWOOD AVENUE



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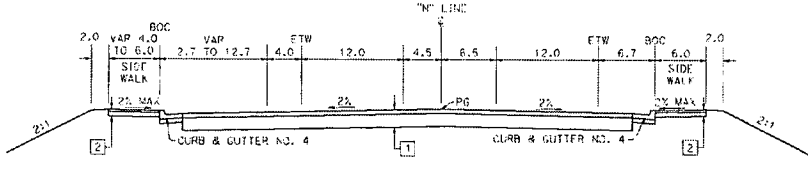

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NORWOOD AVENUE

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

THIS PLAN ACCURATE FOR TYPICAL SECTIONS ONLY.

X-1

REVISIONS						
NO.	DESCRIPTION	DATE	BY	BENCH MARK ELEV. 25.261 DESCRIPTION: CP BENCHMARK BM2774 4D VERT. DATUM NAVD88 HORIZ. DATUM NAD83 (1997.30)	FIELD BOOK 1234 SCALE HORIZ. NTS VERT. NTS	CITY OF SACRAMENTO DEPARTMENT OF TRANSPORTATION — DRAWN BY J. BERNER DATE 8/30/2006 — DESIGNED BY Z. BEAGLY R.C.E. 71465 DATE 7/16/2009 — CHECKED BY R.C.E. DATE

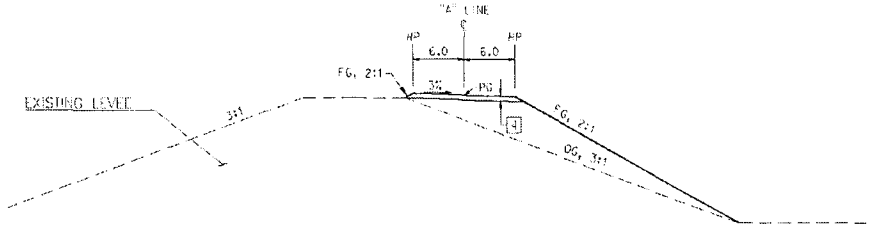
TYLIN INTERNATIONAL

IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
TYPICAL CROSS SECTIONS

PROJECT NO. T15G0R0C0 — SHEET 3 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATION.



"A" Sta XXXX TO Sta XXXX

MAINTENANCE ACCESS

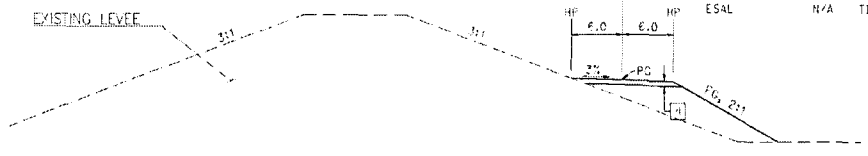
TYPICAL STRUCTURAL SECTIONS

3 — 2" HMA (TYPE A) / 6" CLASS II AB / W/ STABILIZATION

4 — 6" CLASS II AB / W/ STABILIZATION

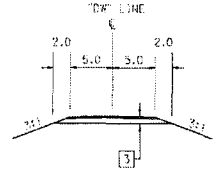
DESIGN DESIGNATION

ADT (2007)	N/A	D	N/A
ADT (2030)	N/A	T	N/A
DHV	N/A	V	10 mph
ESAL	N/A	TI_{20}	N/A



"A" Sta XXXX TO Sta XXXX

MAINTENANCE ACCESS



"DW" Sta XXXX TO Sta XXXX

DRIVEWAY
(LEVEE ACCESS)

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

THIS PLAN ACCURATE FOR TYPICAL SECTIONS ONLY.

X-2

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV 29.261
DESCRIPTION
CITY BENCHMARK BM277H 4D
VERT. DATUM NGVD29
HORIZ. DATUM NAD83 (1997.30)

FIELD BOOK 1234
SCALE HORIZ. N/A VERT. N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TYLIN INTERNATIONAL

DRAWN BY J. WERNER DATE 6/30/2009
DESIGNED BY K. BERSEY P.O.E. 7486 DATE 7/10/2009
CHECKED BY XXXXXXXXXXX P.O.E. XXXX DATE XX/XX/XXXX

IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
TYPICAL CROSS SECTIONS

PROJECT NO. T15GR100

SHEET 4 OF 29

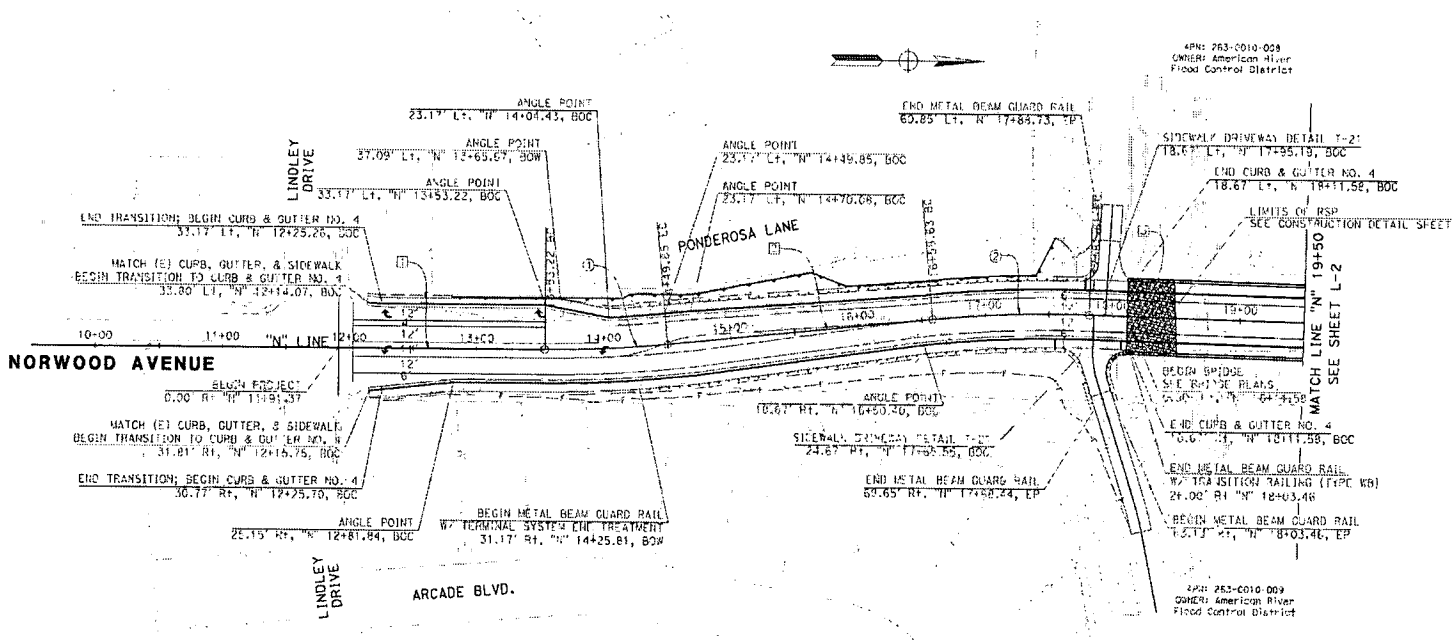
NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. FOR COMPLETE RIGHT OF WAY, SEE RIGHT OF WAY RECORD MAPS AT THE CITY OF SACRAMENTO

LEGEND

- ADJUST MH TO GRADE
- ADJUST VALVE BOX OR PULL BOX TO GRADE
- DRAINAGE SYSTEM, SEE SHEET D-1 FOR DETAILS
- LINE NUMBER, SEE LINE TABLE
- CURVE NUMBER, SEE CURVE TABLE
- STRUCTURAL SECTION, SEE X-1
- COLD PLANE AC PAVEMENT
- HINGE
- FILL
- CUT
- RIGHT OF WAY
- TEMPORARY CONSTRUCTION EASEMENT
- METAL BEAM GUARD RAIL
- RETAINING WALL

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION



LINE TABLE		
No.	BEARING	DISTANCE
1	N 0°14'39.54" W	1378.28'
2	N 5°46'50.57" W	208.79'
3	N 11°16'37.26" E	401.65'

CURVE TABLE				
No.	R	Δ	T	L
1	1000.00'	5° 19' 11"	48.35'	96.63'
2	1000.00'	7° 03' 38"	61.67'	123.18'

L-1

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. 25.261
DESCRIPTION
CITY BENCHMARK BH272H 4D
YEAR: 04-05 NORDAN
HORIZ. DATUM NAD83 (1992.00)

FIELD BOOK 1234
SCALE
HORIZ 1"=40'
VERT N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TAYLOR INTERNATIONAL

DRAWN BY: J. WERNER
DATE 6/30/2009
DESIGNED BY: N. WINSEY
P.C.E. 21188 DATE 7/10/2009
CHECKED BY: XXXXXXXXXXXX
P.C.E. XXXXX DATE XX/XX/XXXX

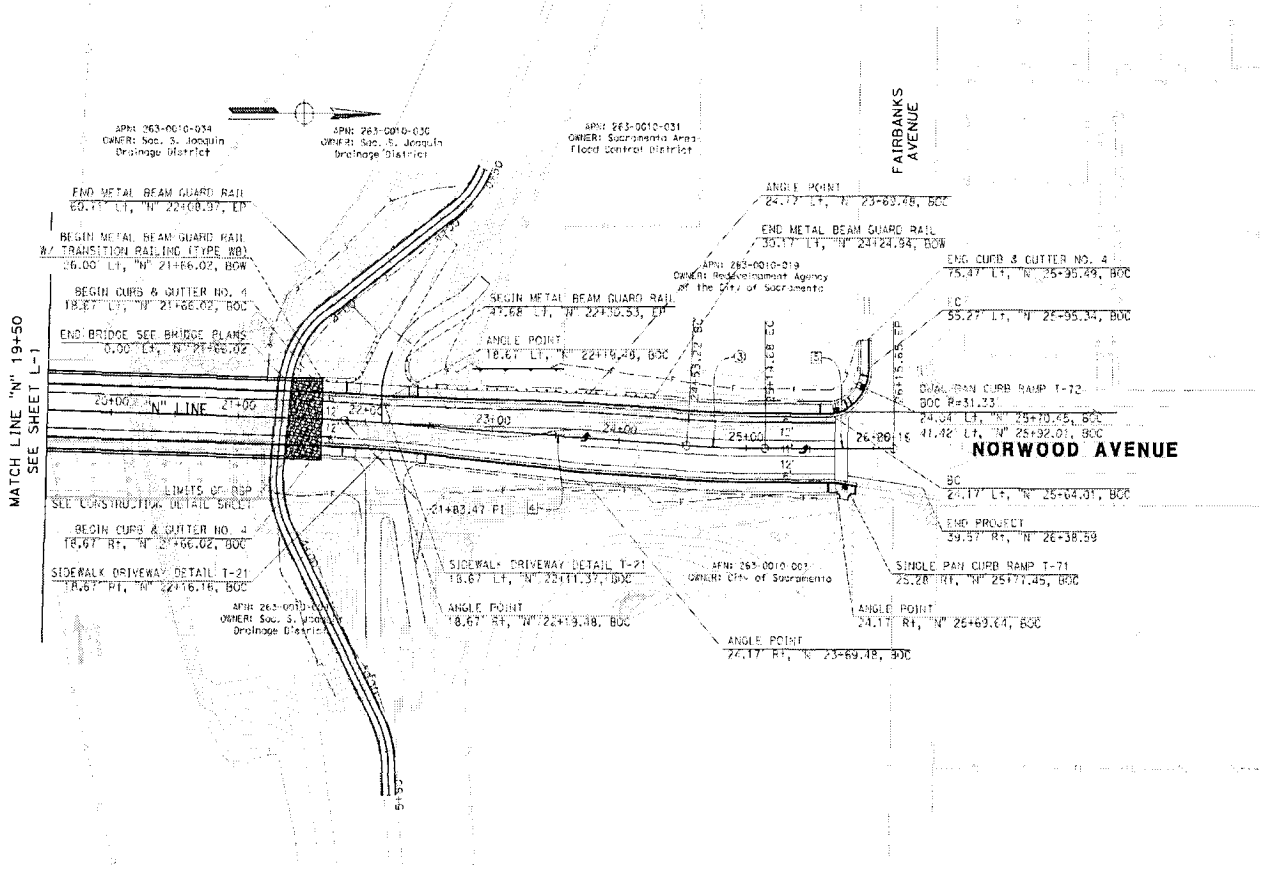
IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
LAYOUT
"N" LINE 9+50 TO 19+50

PROJECT NO. 5084400

SHEET 6 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. FOR COMPLETE RIGHT OF WAY, SEE RIGHT OF WAY RECORD MAPS AT THE CITY OF SACRAMENTO



LINE TABLE		
No.	BEARING	DISTANCE
4	N 3°16'37.26" E	266.78'
5	N 0°14'29.54" W	100.97'

CURVE TABLE				
No.	R	Δ	T	L
3	1000.00'	3° 31' 17"	30.74'	61.46'

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

L-2

REVISIONS			
NO	DESCRIPTION	DATE	BY

BENCH MARK elev 25.261
DESCRIPTION
CITY BENCHMARK BM277H 4D
VERT. DATUM NGVD29
HORIZ. DATUM NAD83 (1997.30)

FIELD BOOK 1234
SCALE HORIZ. 1"=40' VERT. N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TYLIN INTERNATIONAL

DRAWN BY J. BERNER DATE 6/30/2006
DESIGNED BY K. BENSCH P.C.E. 21485 DATE 7/10/2009
CHECKED BY XXXXXXXXXXX P.C.E. XXXX DATE XX/XX/XXXX

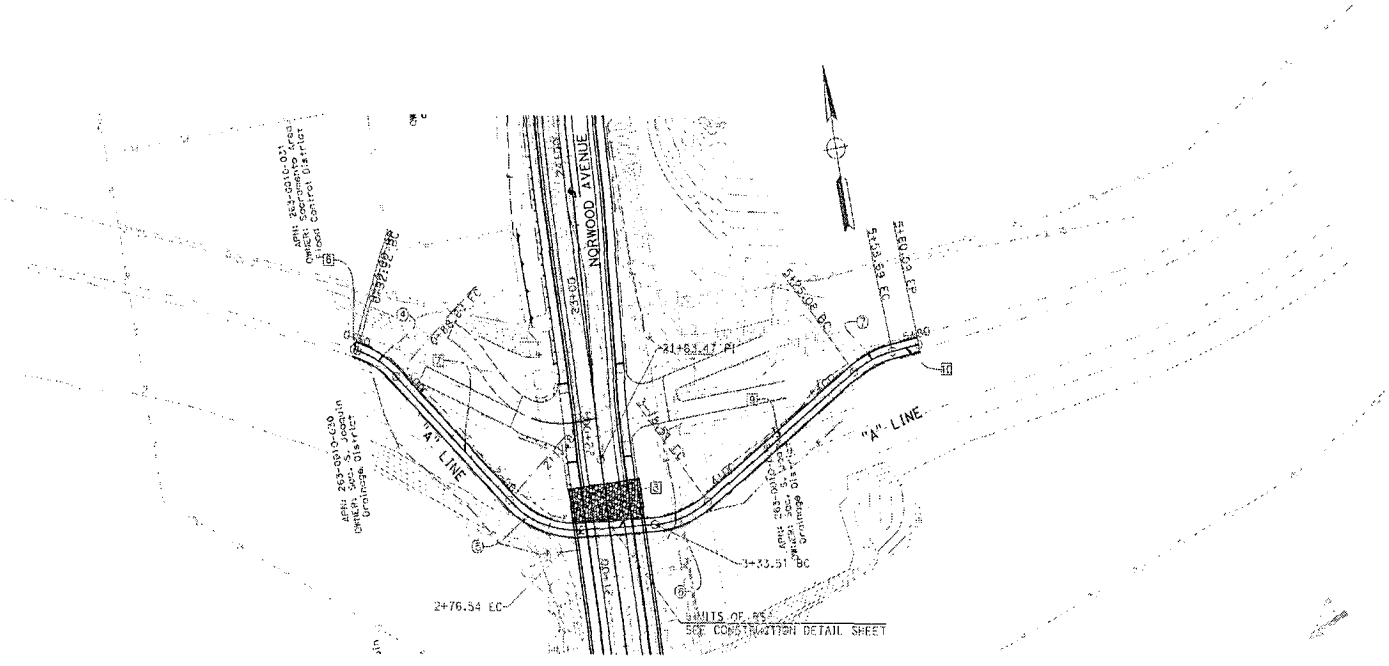
IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
LAYOUT
"N" LINE 19+50 TO 26+15

PROJECT NO. 1150684000

SHEET 7 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. FOR COMPLETE RIGHT OF WAY, SEE RIGHT OF WAY RECORD MAPS AT THE CITY OF SACRAMENTO



LINE TABLE		
No.	BEARING	DISTANCE
6	S 67°53'20.43" E	2.93'
7	S 35°34'29.41" E	124.13'
8	S 84°18'28.09" E	58.97'
9	N 61°20'44.17" E	146.57'
10	N 67°01'31.28" E	21.40'

CURVE TABLE				
No.	R	Δ	T	L
4	75.00'	27° 18' 41"	18.22'	35.75'
5	75.00'	48° 41' 42"	33.94'	63.74'
6	75.00'	34° 22' 50"	23.20'	45.00'
7	75.00'	25° 49' 47"	17.09'	33.61'

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

L-3

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. 25.281
DESCRIPTION CITY BENCHMARK BM277H, 40 VERT. DATUM NGVD29
HORIZ. DATUM NAD83 (1987.30)

FIELD BOOK 1234
SCALE HORIZ 1"=40' VERT. N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

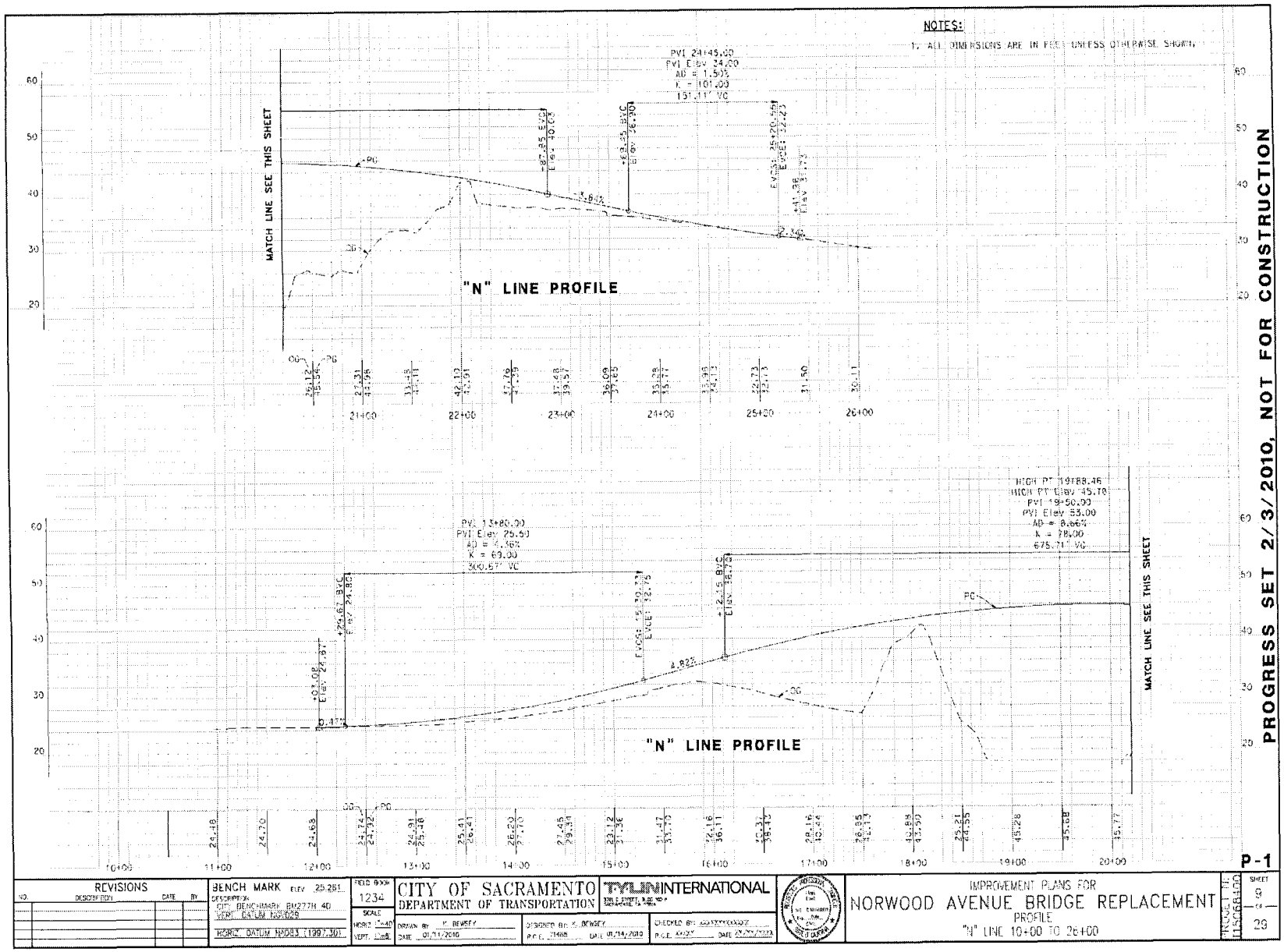
TYLIN INTERNATIONAL

DRAWN BY: J. WERNER DATE 8/30/2009
DESIGNED BY: K. BENSEY R.C.E. 71483 DATE 7/10/2009
CHECKED BY: XXXXXXXXXXXX R.C.E. XXXXX DATE XX/XX/XXXX

IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
LAYOUT
"A" LINE 0+00 TO 11+12.45

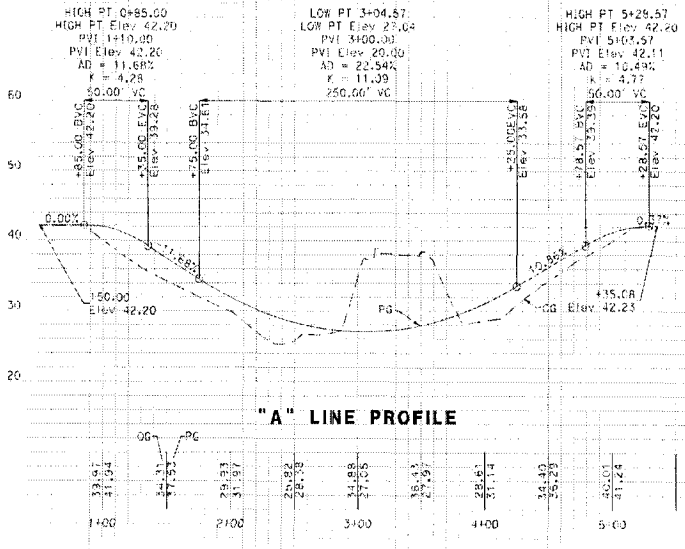
PROJECT NO. B159(8)(10)

SHEET 8 OF 29


NOTES:
1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
MATCH LINE SEE THIS SHEET
"N" LINE PROFILE
PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION
MATCH LINE SEE THIS SHEET
"N" LINE PROFILE
P-1
REVISIONS
BENCH MARK
CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION
TYLIN INTERNATIONAL
IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
PROFILE
"N" LINE 10+00 TO 26+00
SHEET 9 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.



PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

P-2

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. 25.201
DESCRIPTION: CITY BENCHMARK BM277H 4D
VERT. DATUM NAVD29
HORIZ. DATUM NAD83 (1997.30)

FIELD BOOK 1234
SCALE HORZ. 1"=40' VERT. 1"=8'

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TYLIN INTERNATIONAL

DRAWN BY: K. BEWSEY
DATE: 01/14/2010
DESIGNED BY: K. BEWSEY
R.C.E. 71489 DATE 01/14/2010
CHECKED BY: XXXXXXXXXXXX
R.C.E. XXXXX DATE XX/XX/XXXX

IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
PROFILE
"A" LINE 0+50 TO 5+35.08

PROJECT NO. T15007100

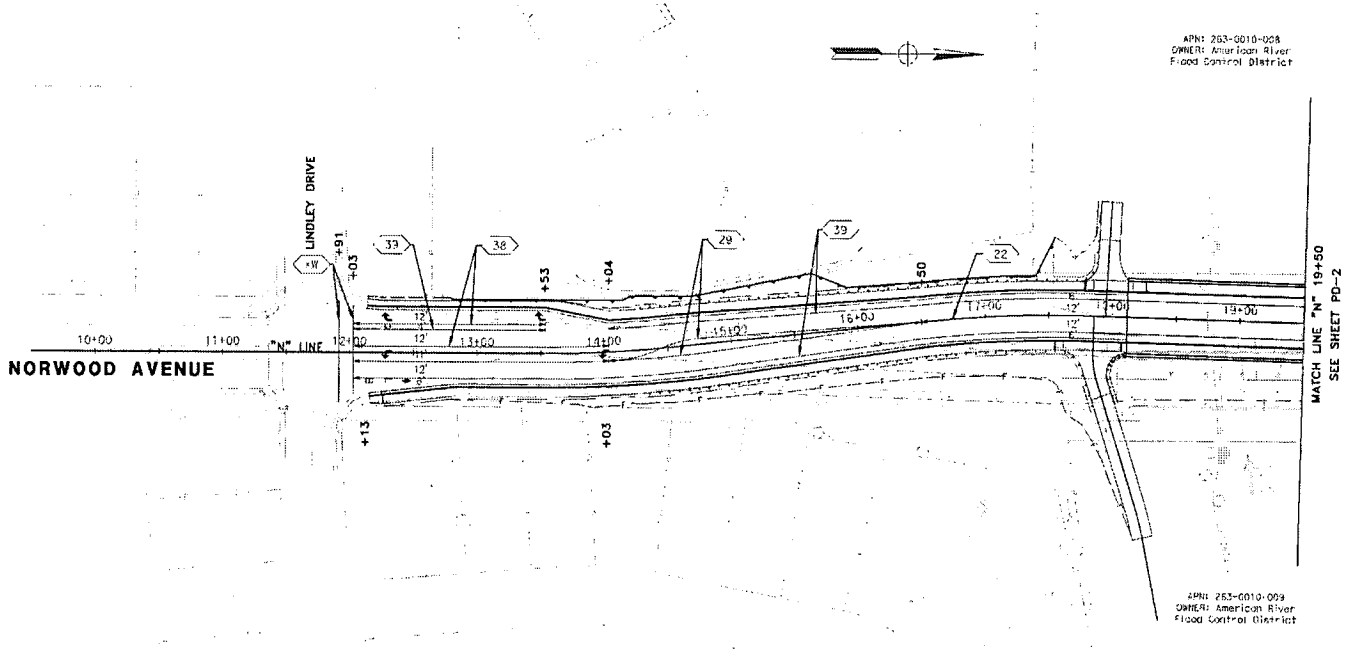
SHEET 10 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY.

LEGEND

- NO PAVEMENT DELINEATION NUMBER
- LL LIMIT LINE
- XW CROSS WALK
- BEGIN / END DELINEATION
- TYPE I 10' ARROW (THERMOPLASTIC PAVEMENT MARKING)
- TYPE IV (L) ARROW (THERMOPLASTIC PAVEMENT MARKING)
- TYPE IV (R) ARROW (THERMOPLASTIC PAVEMENT MARKING)
- "BIKE" "LANE" WITH BIKE LANE ARROW (THERMOPLASTIC PAVEMENT MARKING)
- TYPE VII (L) ARROW (THERMOPLASTIC PAVEMENT MARKING)
- TYPE VII (R) ARROW (THERMOPLASTIC PAVEMENT MARKING)
- TYPE VII (B) ARROW (THERMOPLASTIC PAVEMENT MARKING)
- "STOP" THERMOPLASTIC PAVEMENT MARKINGS
- CHANGE IN STRIPING DETAIL
- BICYCLE LOOP DETECTOR SYMBOL
- DIRECTION OF TRAFFIC FLOW



PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

PD-1

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. 25.261
DESCRIPTION
10" BENCHMARK BM2727H 4D
VERT. DATUM NGVD29
HORIZ. DATUM NAD83 (1997.30)

FIELD BOOK 1234
SCALE
HORIZ. 1"=40'
VERT. N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TYLIN INTERNATIONAL

DRAWN BY J. WERNER
DATE 6/30/2009
DESIGNED BY Y. DEWSEY
P.E. 71485 DATE 7/10/2009
CHECKED BY XXXXXXXXXXXX
P.E. XXXX DATE XX/XX/XXXX

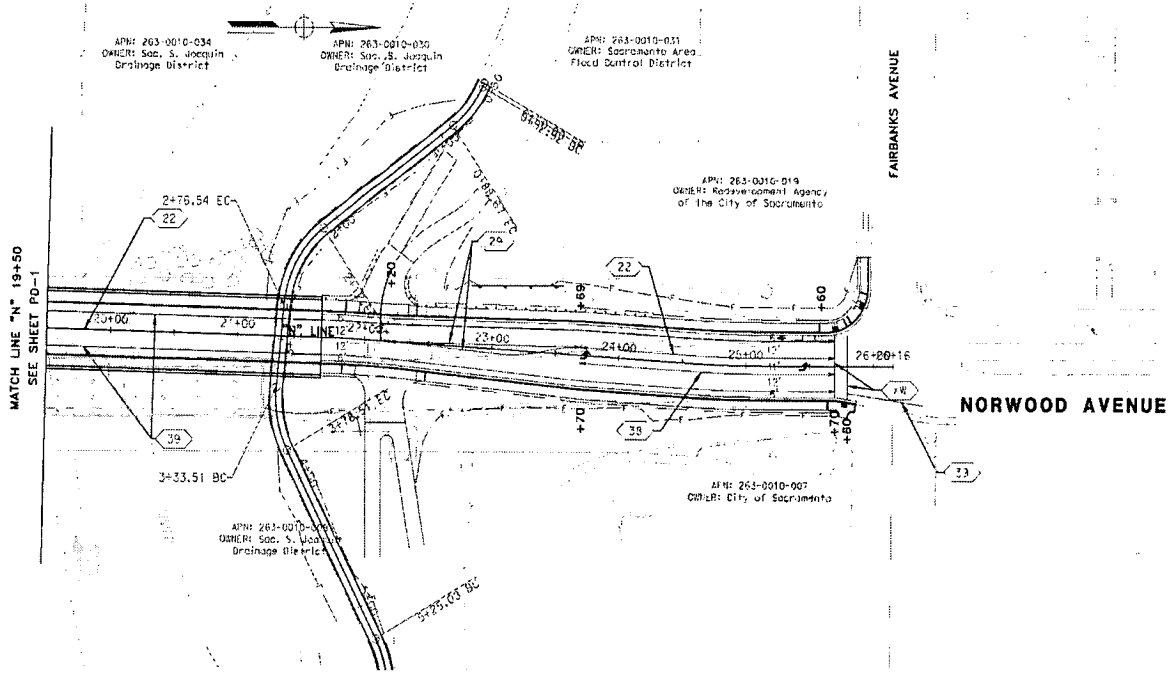
IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
PAVEMENT DELINEATION PLAN

PROJECT NO. 1150254000

SHEET 27 OF 29

NOTES:

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY



PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

PD-2

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV. 25.201
DESCRIPTION: CITY BENCHMARK BM277H 4D
VERT. DATUM NGVD29
HORIZ. DATUM NAD83 (1997.30)

FIELD BOOK 1234
SCALE HORIZ. 1"=40' VERT. N/A

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

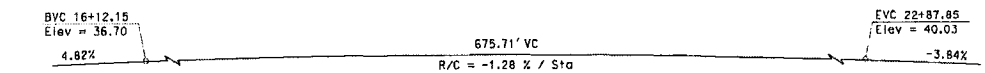
TYLIN INTERNATIONAL
725 K STREET, SUITE 100
SACRAMENTO, CA 95814

DRAWN BY: J. WEPNER DATE 8/30/2009
DESIGNED BY: J. BENSEY R.C.E. 71485 DATE 7/10/2009
CHECKED BY: XXXXXXXXXXXX R.C.E. XXXX DATE XX/XX/XXXX

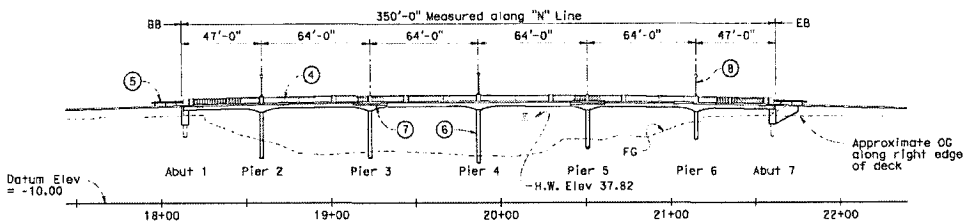
IMPROVEMENT PLANS FOR
NORWOOD AVENUE BRIDGE REPLACEMENT
PAVEMENT DELINEATION PLAN

PROJECT NO. T15068100

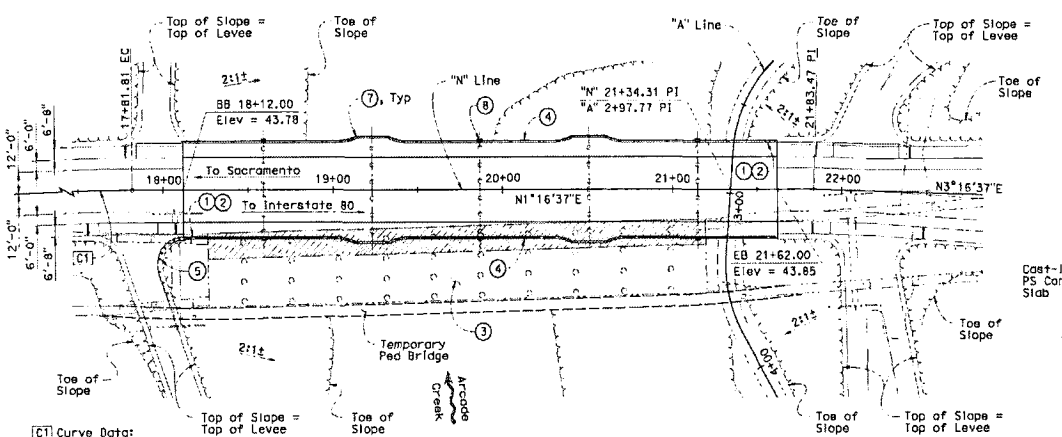
SHEET 28 OF 29



PROFILE
No Scale



ELEVATION
1"=30'

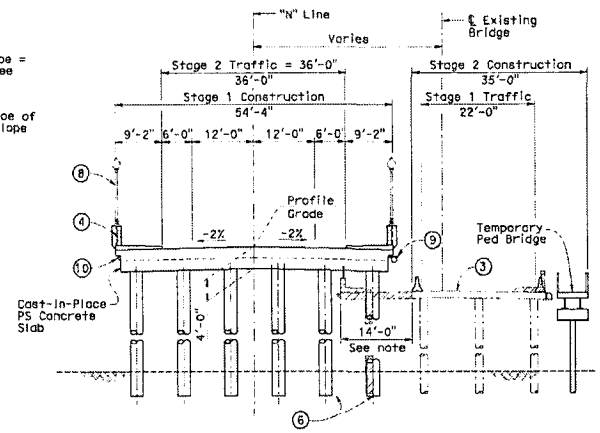


PLAN
1"=30'

Legend:

1. Paint "Norwood Avenue Bridge"
2. Paint Bridge No. and year constructed
3. Existing Bridge, to be removed
4. Concrete Barrier Texas Type C411 w/ Aesthetic Treatment
5. Metal Beam Guard Railing, see Road Plans
6. 30" ø CIDH Piles & extension
7. Concrete overlook, Total 4 locations
8. City of Sacramento Light Standard
9. Utility 12" Water Line
10. Utility ? Gas Line

- Indicates Existing Structure
- Indicates New Structure
- Indicates Remove portion of Existing Bridge & foundation prior to Stage 1 Construction.



TYPICAL SECTION
1"=10'-0"

PROGRESS SET 2/3/2010, NOT FOR CONSTRUCTION

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BRIDGE NO. 24C-0080

CITY OF SACRAMENTO
DEPARTMENT OF PUBLIC WORKS

DRAWN BY: K. Pope DATE
DESIGNED BY: C. Hodge R.C.E. DATE
CHECKED BY: R.C.E. DATE

T·Y·LIN INTERNATIONAL

IMPROVEMENT PLANS FOR
NORWOOD AVE BRIDGE
GENERAL PLAN

SHEET 29 OF 29

Return to Table of Contents

Exhibit C

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

NORWOOD AVENUE AT ARCADE CREEK BRIDGE REPLACEMENT (CIP# RR41/T150684100)

SACRAMENTO, CALIFORNIA

LSA

January 2010

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

NORWOOD AVENUE AT ARCADE CREEK BRIDGE REPLACEMENT (CIP# RR41/T150684100)

SACRAMENTO, CALIFORNIA

Submitted to:

T.Y. Lin International
10365 Old Placerville Road, Suite 200
Sacramento, California
916-366-6331

Prepared by:

LSA Associates, Inc.
4200 Rocklin Road, Suite 11B
Rocklin, California 95677
(916) 630-4600

LSA Project No. TYL0701

LSA

January 2010

TABLE OF CONTENTS

SECTION I – BACKGROUND 2
SECTION II – PROJECT DESCRIPTION 4
SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION 7
SECTION IV – ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 66
SECTION V – DETERMINATION 67
REFERENCES CITED 69

ATTACHMENTS

Attachment 1 – Project Location
Attachment 2 – Project Vicinity
Attachment 3 – APE Map
Attachment 4 – Bridge Cross Section

Return to Table of Contents

COMMUNITY DEVELOPMENT
DEPARTMENT

PLANNING DIVISION

ENVIRONMENTAL PLANNING
SERVICES
916-808-8419
FAX 916-808-1077

MITIGATED NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Mitigated Negative Declaration for the following described project:

City of Sacramento Norwood Avenue at Arcade Creek Bridge Replacement (CIP# RR41/T150684100) The proposed project would replace the bridge on Norwood Avenue at Arcade Creek in the Del Paso Heights/Strawberry Manor communities.

The project is consistent with the 2030 General Plan Mobility Element.

The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, reviewed the proposed project and, on the basis of the whole record before it, determined that the proposed project is consistent with the land use designation for the project site as set forth in the 2030 General Plan. The City prepared the attached Initial Study that identifies potentially new or additional significant environmental effects (project-specific effects) that were not analyzed in the 2030 General Plan Master EIR. The City will incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR, and adopt project-specific mitigation measures in order to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Sections 15177(d), 15178(b)(2)). This Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required pursuant to the Environmental Quality Act of 1970 (Sections 21000, et seq., Public Resources Code of the State of California).

This Mitigated Negative Declaration was prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento, and the Sacramento City Code. A copy of this document and all supportive documentation may be reviewed or obtained at the City of Sacramento, Community Development Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811 during regular business hours. The document may also be viewed online at http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/.

Environmental Services Manager, City of Sacramento, California, a municipal corporation

By:

Date: February 4, 2010

CITY OF SACRAMENTO NORWOOD AVENUE AT ARCADE CREEK BRIDGE REPLACEMENT (CIP# RR41/T150684100)

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

This Initial Study has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2030 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

SECTION I - BACKGROUND

Project Name and File Number: City of Sacramento Bridge Replacement - CIP# RR41/T150684100

Project Location: Bridge No. 24C-0080 is a bridge for Norwood Avenue at Arcade Creek

Project Applicant: City of Sacramento Project Engineer, Ricky Chuck (916) 808-5050

Environmental Planner: City of Sacramento Senior Planner, Jennifer Hageman (916) 808-5538

Date Initial Study Completed: December 2009

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq.*). The Lead Agency is the City of Sacramento.

The project technical studies were originally prepared based on a box girder design for the bridge deck. The bridge deck design has been redesigned as a concrete slab and technical studies have been updated accordingly.

The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2030 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to (a) review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2030 General Plan Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and (b) identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). The Master EIR mitigation measures that are identified as appropriate are set forth in the applicable technical sections below.

This analysis incorporates by reference the general discussion portions of the 2030 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for public

review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, and on the City's web site at: www.cityofsacramento.org/dsd/planning/environmental-review/eirs/.

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but no later than the 30 days review period ending 3/8/10.

Please send written responses to:

Jennifer Hageman
Community Development Department
City of Sacramento
300 Richards Blvd, 3rd Floor
Sacramento, CA 95811
Direct Line: (916) 808-5538
FAX (916) 808-1077
JHageman@cityofsacramento.org

SECTION II - PROJECT DESCRIPTION

Section II – Project Description

Introduction

Project Background

Norwood Avenue provides north-south vehicular access and is one of only three crossings of Arcade Creek in the Del Paso Heights/Strawberry Manor communities (Figures 1 and 2). The existing Norwood Avenue Bridge over Arcade Creek was built in 1956 and is no longer adequate. Long term erosion adjacent to the existing bridge supports has made the bridge susceptible to failure during future storm events. Additionally, the freeboard (extent to which the levee on the bridge remains above floodwaters) is inadequate, which results in the need for flood protection at both bridge abutments during high flows in Arcade Creek. The City seeks to eliminate these hazards and provide a higher and longer bridge to meet hydraulic design requirements. The bridge is too narrow for the required bike lanes and will be widened to meet City standard shoulder requirements and provide adequate bike lanes. Due to the scour problems and the narrowness of the bridge, the existing Norwood Avenue Bridge has been labeled "structurally deficient" in the national bridge inventory rating system.

The purpose of the project is to provide a higher and wider bridge that addresses the flood design needs and required bike lanes. The proposed bridge will be raised to reduce flood-related closures, lessen stream flow obstructions, and improve emergency vehicle access during the high water events.

Project Description

The new design has been engineered to meet current hydraulic design requirements and eliminate the flood control walls on Norwood Avenue. Tradeoffs between span lengths, structure depth, and the resulting raise in roadway profile grade were considered in determining the preferable bridge type. Figure 3 illustrates the proposed site plan and Figure 4 illustrates the cross section of the proposed project.

The minimum soffit elevation of the new structure as recommended by SAFCA and the CVFPB allows for 3-ft of clearance for drift over the design flood water surface elevation.

The proposed bridge will be a cast-in-place post-tensioned concrete slab bridge. A structure depth of approximately 2'-0" will be used. The new bridge will be approximately 350 feet long with two 12-foot wide traffic lanes, two 6-foot wide shoulders/bike lanes, two 8-foot wide sidewalks, and exterior concrete barriers. The proposed project will widen the bridge to meet AASHTO standards, and will shift the alignment of the bridge to the west approximately 40 feet.

The new bridge will be supported by a row of pile extensions founded on drilled shaft pile foundations. The abutments will be seat type founded on drilled shaft piles.

The new bridge will be constructed in two stages in order to maintain traffic along Norwood Avenue. The first stage will consist of construction of a temporary pedestrian bridge east of the existing bridge, removal of a portion of the existing bridge and construction of the new bridge west

of the existing structure. Once the temporary pedestrian bridge is in place, pedestrian access will be limited to the existing sidewalks on the east side of Norwood Avenue. Removal of a portion of the existing bridge will begin by removing the existing sidewalks and shifting the existing through lanes to the east. The proposed bridge would then be completed. The second stage will consist of removal of the existing bridge, and construction of the remaining portion of the roadway approaches. Construction is expected to begin in late spring 2011 and be completed in 2012.

Construction of the new bridge will involve the use of temporary trestles that will be placed upstream and downstream in the creek to provide a stable platform from which to install the piles. The temporary trestles will be built wide enough to accommodate heavy construction equipment; a minimum working deck width of 36 feet is anticipated. The trestles will be built out from the approaches on driven steel pile supports. The span lengths for a trestle are typically 30 feet, and will require four or five piles per support depending on the size of the pile and the height of the trestle. Common pile sizes for this type of trestle are less than 18 inches on the greatest section dimension, and could either be standard HP pile shapes or steel pipe piles. The trestle piles will be installed with diesel pile-driving hammers.

In order to stabilize erosion, rock slope protection (RSP) will be placed in sections under the proposed bridge in order to stabilize the banks. RSP is recommended as erosion protection for channels when velocities are low and vegetation cannot be established due to of sunlight. In areas where vegetation can be established, areas disturbed by the project will be re-vegetated.

The current utility lines on the bridge would be protected in place during project construction activities or temporarily relocated and transferred onto the new bridge at appropriate phases of the construction.

Access to the flowing channel of Arcade Creek will be required to construct the new bridge. Work within the creek corridor includes the erection of temporary falsework and temporary trestle. Dewatering portions of Arcade Creek could be required during these activities and will consist of installation of cofferdams to isolate the area of the flowing channel where work would take place. The contractor has two options on diverting water from the creek: removed water (from dewatering) may be processed by either an onsite filtration system that redirects water into the creek downstream of the proposed project or by transporting the water offsite for treatment.

A permanent access road will be constructed underneath the bridge on the north side of the creek to accommodate trucks and construction equipment related to the proposed project and for levee maintenance. This road requires approximately 14 feet of vertical clearance between the road and the soffit of the proposed structure. This road can act as a maintenance access for the ARFCD and will cross Norwood Avenue underneath the bridge at the abutment.

Lane closures may be needed during construction as well as complete closure of the road for certain items of work on the bridge or on affected intersections. These closures would be coordinated to occur either overnight or on a weekend to minimize neighborhood traffic disruptions. It is expected that the contractor will temporarily close a travel lane during the daytime hours and store construction equipment on the roadway. Once construction has been completed for that day the equipment will be removed and the lane re-opened. The contractor would be required to determine adequate staging for equipment during the construction period.

All material stockpiling and vehicle and equipment staging will occur in a designated onsite staging area. The staging area will be established in a previously disturbed area adjacent to the

construction site. The existing field located on the northwest side of the bridge has been identified as a potential staging area.

Roadway Profile Description. The Norwood Avenue roadway profile grade is constrained by the intersections at Lindley Drive on the south and Fairbanks Avenue to the north. The profile will be raised approximately 6 feet and will tie back into the existing profile just before the intersections on both sides. Approximately 4,000 cubic yards of fill will be required to raise the profile. The vertical profile will meet ADA requirements as well as a 40 mph design speed and will comply with the minimum stopping sight distance required per the City of Sacramento standards.

Other Agencies. The project is subject to oversight by other federal, state and regional agencies. These agencies, and the permit requirements that apply, are as follows:

- California Department of Fish and Game – Streambed Alteration Agreement
- Regional Water Quality Control Board – 401 Permit
- Army Corps of Engineers – 404 Permit

Figures

Figure 1- Project Location

Figure 2 - Vicinity Map

Figure 3 - Proposed Site Plan

Figure 4 – Bridge Cross Section

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES

The California Environmental Quality Act (CEQA) requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the initial study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and the effect of the project on these resources.

The 2030 General Plan Mobility Element includes a discussion of the City's roadway, pedestrian and bicycle circulation system. The proposed project includes replacement of the existing bridge, which provides access as discussed in the Mobility Element. By improving the existing conditions, and providing improved access for pedestrians and bicycles, the project promotes attainment of the various goals and policies as identified in the Mobility Element, and is consistent with the Mobility Element.

The project would improve the City's transportation infrastructure, but none of the project changes would promote population growth or cause any inconsistency with neighboring land uses. The project would not affect any agricultural resources or agricultural activities in the community.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
1. AESTHETICS, LIGHT AND GLARE Would the proposal: A) Have a substantial adverse effect on a scenic vista?			X
B) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X
C) Substantially degrade the existing visual character or quality of the site and its surroundings?			X
D) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X

ENVIRONMENTAL SETTING

Norwood Avenue has been designated a "Pedestrian Street Corridor", which requires improvements to meet guidelines to create a pedestrian-pleasing experience. The current Norwood Avenue Bridge has street lights located at both ends of the bridge span.

The natural conditions include the live stream resource and associated wetland vegetation that occur within the limits of the channel. Several wildlife species are present or could be present within the creek area. Overall the manmade conditions are dominant over the natural conditions particularly in light of the fact that the natural conditions have been modified to adapt to the manmade setting. The levees are predominantly covered with ruderal vegetation.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, aesthetics impacts may be considered significant if the proposed project would result in one or more of the following:

Glare. Glare is considered to be significant if it would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.

Light. Light is considered significant if it would be cast onto oncoming traffic or residential uses.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Under Chapter 6.13, Urban Design and Visual Resources, the General Plan Master EIR focuses primarily on light and glare impacts, deferring assessments involving visual impacts to policy reviews on individual projects.

The 2030 General Plan finds that the City of Sacramento is primarily built-out with a significant amount of ambient light already existing, especially near the downtown area. The new development that would be allowed under the 2030 General Plan would be subject to the General Plan policies as well as design review. However, the small amount of additional lighting that could be created as a result of the 2030 General Plan would be a small fraction in relation to the existing ambient light already present in the Policy Area.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO PROJECT

Due to this small contribution as well as the mechanisms and policies in place aimed at reducing the impacts of light on surrounding uses including residential and roadways impacts to light and glare is considered less-than significant. The city has also identified specific goals and policies that address concerns associated with visual character.

ANSWERS TO CHECKLIST QUESTIONS

Question A - D

The proposed project will not adversely change the visual quality of the corridor. Some minor tree losses will occur in the immediate vicinity of the project area to accommodate the temporary construction trestles. Overall, the character of the area will not change with the tree losses due to the remaining abundance of riparian vegetation throughout the creek corridor. None of the trees meet the definition for heritage trees as outlined in the Sacramento City Code Chapter 2.64 (Heritage Tree Ordinance). Mitigation for loss of biological resources will assist in compensating for the tree losses and the City will contribute to the Arcade Creek Watershed Group's Del Paso Park Wetland Restoration Project to compensate for the loss of riparian habitat as a result of this project.

The proposed project will enhance the aesthetics of the area with an improved bridge design that is both functional and has improved visual quality over the old bridge. The new bridge design will introduce a state-of-the-art modern bridge design and is considered an aesthetic upgrade when compared with the existing bridge appearance.

The project design will retain lighting equivalent to drop-lens cobra luminaries along the project roadway approaches. Lighting will remain unchanged for adjacent residences. Additional ornamental street lighting will be provided on the bridge structure and some increase in lighting on the bridge will occur. However these shorter light features (approximately 12-feet to the base of the light globe) will illuminate the bridge and sidewalk. The additional lighting would adequately dissipate and would not extend into adjacent residential areas. The existing cobra luminaires at the beginning and end of bridge would be replaced with shorter ornamental street lights to minimize the glare intrusion on adjacent residences.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Aesthetics/Light and Glare.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY *Would the proposal:* A) Conflict with or obstruct implementation of the applicable air quality plan?			X
B) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X
C) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X
D) Expose sensitive receptors to substantial pollutant concentrations?			X
E) Create objectionable odors affecting a substantial number of people?			X
F) Interfere with or impede the City's efforts to reduce greenhouse gas emissions?			X

ENVIRONMENTAL AND REGULATORY SETTING

In December 2006 the Environmental Protection Agency (EPA) revised the national ambient air quality standard for fine particle pollution to provide increased protection of public health and welfare. The revised standard is 35 micrograms per cubic meter (ug/m^3) for particles less than or equal to 2.5 micrometers in diameter ($PM_{2.5}$), averaged over 24 hours. In December 2008 the EPA Administrator identified nonattainment areas, and in October 2009 confirmed the designations. Sacramento County is included on this list, along with portions of surrounding counties that contribute to the nonattainment conditions. The designations became effective on October 8, 2009.

STANDARDS OF SIGNIFICANCE

The Sacramento Metropolitan Air Quality Management District (SMAQMD) has adopted the following thresholds of significance:

Ozone and Particulate Matter. An increase of nitrogen oxides (NOx) above 85 pounds per day for short-term effects (construction) would result in a significant impact. An increase of either ozone precursor, nitrogen oxides (NOx) or reactive organic gases (ROG), above 65 pounds per day for long-term effects (operation) would result in a significant impact (as revised by SMAQMD, March 2002). The threshold of significance for PM_{10} is a concentration based threshold equivalent to the California Ambient Air Quality Standard (CAAQS). For PM_{10}, a project would have a significant impact if it would emit pollutants at a level equal to or greater than five percent of the CAAQS (50 micrograms/cubic meter for 24 hours) if there were an existing or projected violation; however, if a project is below the ROG and NOx thresholds, it can be assumed that the project is below the PM_{10} threshold as well (SMAQMD, 2004).

Carbon Monoxide. The pollutant of concern for sensitive receptors is carbon monoxide (CO). Motor vehicle emissions are the dominant source of CO in Sacramento County (SMAQMD, 2004). For purposes of environmental analysis, sensitive receptor locations generally include parks, sidewalks, transit stops, hospitals, rest homes, schools, playgrounds and residences. Commercial buildings are generally not considered sensitive receptors. Carbon monoxide concentrations are considered significant if they exceed the 1-hour state ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour state ambient standard of 9.0 ppm (state ambient air quality standards are more stringent than their federal counterparts).

Toxic Air Contaminants. The project would create a significant impact if it created a risk of 10 in 1 million for cancer (stationary sources only).

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The City found that greenhouse gas emissions that would be generated by development consistent with the 2030 General Plan would be a significant and unavoidable cumulative impact. The discussion of greenhouse gas emissions and climate change in the 2030 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

The following mitigation measures applicable to air quality were identified in the 2030 General Plan Master EIR, and will be applied to the project:

Greenhouse Gas Emissions and Climate Change: The Master EIR identified numerous policies included in the 2030 General Plan that addressed greenhouse gas emissions and climate change. See Draft MEIR, Chapter 8, and pages 8-49 et seq. The Master EIR is available for review at the offices of Development Services Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA during normal business hours, and is also available online at http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/.

Policies identified in the 2030 General Plan include directives relating to sustainable development patterns and practices, and increasing the viability of pedestrian, bicycle and public transit modes. A complete list of policies addressing climate change is included in the Master EIR in Table 8-5, pages 8-50 et seq; the Final MEIR included additional discussion of greenhouse gas emissions and climate change in response to written comments. See changes to Chapter 8 at Final MEIR pages 2-19 et seq. See also Letter 2 and response.

ANSWERS TO CHECKLIST QUESTIONS

Question A

Construction activities can generate a substantial amount of air pollution, including ROG, NOx, PM10, CO and possibly air toxics. Construction-related emissions would result from site preparation (general land clearing and grubbing), earthmoving activities, general construction (adding improvements such as roadway surfaces and structures), paving, pile driving, and construction worker commute trips. Emissions are generated from fuel combustion of heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, worker commute trips, and fugitive dust from soil disturbance.

NOx is considered a major contributor to construction-related ozone precursor emissions. SMAQMD has adopted a construction emissions threshold of 85 pounds per day of NOx. However, no ROG emissions threshold of significance has been developed for construction emissions within the SMAQMD jurisdiction. SMAQMD accepts a screening assumption that if the project's NOx emissions from heavy-duty, mobile sources is determined not to be potentially significant, then the Lead Agency may assume that exhaust emissions of other pollutants from operation of equipment and worker commute vehicles are also not significant[a].

Fugitive dust emissions would be generated by from soil disturbance such as excavation, backfilling and from vehicle travel over unpaved surfaces within the construction site. Since the proposed project has a disturbed area of smaller than five acres, SMAQMD has indicated that the project would not be considered to have a significant impact on fugitive dust generation.

SMAQMD states that manual calculation and URBEMIS approaches have shortcomings when used for bridge and overpass construction projects[b]. Therefore, the Road Construction Emissions Model[c], developed by SMAQMD to provide a methodology for quantifying the emissions impacts of road construction projects, is recommended for estimating NOx emissions from these types of projects. The Road Construction Emissions Model can be used to estimate emissions for load hauling, worker commute trips, construction site fugitive PM10 dust, and off-road construction vehicles based on project characteristics (e.g., project type, project duration, area disturbed). The model generates estimates of the number of each type (up to 25 different types) of construction equipment based on overall project characteristics. The project assumptions include the import of approximately 4,000 cubic yards of fill as needed to raise the roadway profile.

Peak daily emissions associated with construction equipment were calculated for the proposed project using the recommended emissions model and are summarized in Appendix A. As shown, construction equipment NOx emissions would be a maximum of approximately 43.0 pounds per day and would not exceed the daily operational threshold of 85 pounds per day established by SMAQMD. The project will be required to comply with regional rules that assist in reducing regional air pollutant emissions. SMAQMD Regulation 403 requires that fugitive dust be controlled with best available control measures and requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off-site. In addition the

[a] Sacramento Metropolitan Air Quality Management District. 2004. *Guide to Air Quality Assessment in Sacramento County.*

[b] Ibid.

[c] Sacramento Metropolitan Air Quality Management District. 2008. *Road Construction Emissions Model Version 6.3.* July. Available at www.airquality.org/ceqa/index.shtml

project will be required to comply with the City's Dust Control Ordinance. Therefore, based on the emission calculations and compliance with these requirements, construction-related impacts to air quality standards are less than significant.

Question B

The project would not result in permanent air quality impacts. The project does not involve roadway capacity increasing improvements or result in additional vehicle trips. Any construction-related release of pollutants would be localized and temporary occurring only during active construction. Compliance with dust control regulations (Regulation 403 and City of Sacramento Dust Control Ordinance) should further limit the exposure of sensitive receptors to pollutants. Any impacts would be less-than-significant.

Question C

The project would not result in the alteration of air movement as the improvements will not create a disturbance or generate air movement. Moisture will not be affected as the proposed project will not create or alter moisture patterns within the region. Temperature will not be affected as the proposed project does not have sufficient mass to create a micro-system capable of altering climate either locally or regionally. Therefore any climate-related impacts would be less-than-significant.

Question D

Construction of the replacement bridge would not exceed the Air Quality Standards for emissions generation. Also for long term operations, as the bridge replacement will occur in the immediate vicinity of the existing bridge and does not increase the number of travel lanes or vehicles, adjacent sensitive receptors will not be adversely affected by air quality concerns.

Question E

The project would not create permanent objectionable odors. Construction equipment and materials may emit odors perceptible to residents within the project vicinity. However, any construction-related odors would be temporary and intermittent occurring only during active construction. Therefore the order-related impact is considered less than significant.

Question F

The City Council approved the 2030 General Plan on March 3, 2009. As part of its action, the City Council certified the Master Environmental Impact Report (Master EIR) that evaluated the environmental effects of development that is reasonably anticipated under the new general plan. The Master EIR includes extensive discussion of the potential effects of greenhouse gas emissions. The Master EIR discussions regarding climate change are incorporated here by reference. See, for example:

Draft MEIR: 6.1 Air Quality (Page 6.1-1)
Final MEIR: City Climate Change master Response (Page 4-1)
Errata No. 2: Climate Change (Page 12)

These documents are available at: www.cityofsacramento.org/dsd/planning/environmental-review/eirs/ and at the offices of the Community Development Department at 300 Richards Boulevard, Third Floor, Sacramento, California.

Short-term Construction Emissions

During construction of the project greenhouse gas emissions would be emitted from the operation of construction equipment and from worker and building supply vendor vehicles. The project area source and construction total CO_2 emissions generated by the project would be approximately 812 metric tons per year. These emissions would equate to less than 0.001 percent of the estimated GHG emissions for all sources in California (483 million metric tons) (CARB 2009). Construction would not exceed two years.

Long-term Operational Emissions

The project would not result in increased vehicle trips, and would improve access for pedestrians and bicyclists. No increase in CO_2 emissions would result.

A public transit facility is located at Rio Linda Boulevard and Arcade Boulevard.

Ongoing Activities

The 2030 General Plan included direction to staff to prepare a Climate Action Plan for the City. Staff has continued work on this plan since adoption of the 2030 General Plan. The Climate Action Plan will provide additional guidance for the City's ongoing efforts to reduce greenhouse gas emissions. The tentative completion date for the Climate Action Plan is July 1, 2011.

Action continues at the state and federal level to combat climate change. In December 2009 the Environmental Protection Agency listed greenhouse gases as harmful emissions under the Clean Air Act. This action could eventually result in regulations that would have as their purpose the reduction of such emissions.

The Master EIR concluded that greenhouse gas emissions that could be emitted by development that is consistent with the 2030 General Plan would be cumulatively considerable and unavoidable (Errata No. 2, Page 12). The Master EIR includes a full analysis of greenhouse gas emissions and climate change, and adequately addresses these issues.

The project is consistent with the City's goals as set forth in the 2030 General Plan and MEIR relating to reduction of greenhouse gas emissions. The project would not impede the City's efforts to comply with AB32 requirements. The project would not have any significant additional environmental effects relating to greenhouse gas emissions or climate change.

MITIGATION MEASURES

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Air Quality.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
3. BIOLOGICAL RESOURCES Would the proposal result in impacts to: A) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X	
B) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X
C) Have substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X	
D) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X
E) Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?			X
F) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community conservation Plan, or other approved local, regional, or state habitat conservation plan?			X

A Natural Environment Study (August 2008) was prepared by LSA Associates, Inc. for the proposed project. Findings contained in this MND are based on that study.

ENVIRONMENTAL SETTING

The project is located in an urban section of the City of Sacramento in northern Sacramento County approximately 2.5 miles north of downtown Sacramento and seven miles south of the Sutter County line. The project is placed on both the Rio Linda and Sacramento East quadrangles at Township 9 North, Range 5 East, Sections 12 and 13. Topography in the region consists primarily of lowlands of the valley floor with some shallow undulation.

Much of the project area is developed in urban conditions and highly disturbed due to the amount of residential and business development. Undeveloped lands in the surrounding area include the reach of Arcade Creek and its associated riparian corridor, narrow sections of disturbed/ruderal grassland, and a vacant roadside lot. The riparian corridor also includes the wetlands surrounding the project area.

Arcade Creek flows east to west through the project area and then merges with Steelhead Creek which is contained within the Natomas East Main Drainage Canal. Levees are located on both sides of Arcade Creek. Access roads have been built on the top of both levees.

The topography is mostly flat with exception of the creek channel within the project site; the elevation varies from approximately 80-100 ft above mean sea level.

Special-Status Species

Special-status species are those plants and animals, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized in some fashion by federal, State, or other agencies as deserving special consideration. Some of these species receive specific legal protection pursuant to federal or State endangered species legislation. Others lack such legal protection but have been characterized as "sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this report, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term are presented below:

- Plants or animals listed or proposed for listing as threatened or endangered under the federal ESA (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]);
- Plant or animal candidates for possible future listing as threatened or endangered under the federal ESA (61 FR 40, February 28, 1996);
- Plants or animals designated as “special concern” (former C2 candidates) by Region 1 of the U.S. Fish and Wildlife Service (USFWS);
- Plants or animals listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 California Code of Regulations [CCR] 670.5);P
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- Plants that meet the definitions of rare and endangered under CEQA (State CEQA Guidelines, Section 15380);

- Plants considered under the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (Lists 1A, 1B, and 2 in CNPS 2001);
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in CNPS 2001), which may be included as special-status species on the basis of local significance or recent biological information;
- Animal species of special concern to CDFG; and
- Animals fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Wetlands and Waters of the United States

The U.S. Army Corps of Engineers (Corps) has primary federal responsibility for administering regulations concerning "Waters of the United States," including wetlands, within the Project Area. The Corps requires a permit be obtained if a project proposes placing structures within, over, or under navigable waters and/or discharging dredged or fill material into waters of the U.S. below the ordinary high-water mark in non-tidal waters. The Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Services (NMFS), and other State and local regulatory agencies may provide comment on Corps permit applications.

The State's authority in regulating activities in waters of the U.S. resides primarily with the California Department of Fish and Game (CDFG) and the State Water Resources Control Board (SWRCB). CDFG may provide comments on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the California Fish and Game Code Sections 1600-1616 to develop mitigation measures and enter into Streambed Alteration Agreements (SAA) with applicants who propose projects that would obstruct the flow of, or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The SWRCB, acting through the Regional Water Quality Control Board (RWQCB), must certify that a Corps permit action meets State water quality objectives (Section 401, Clean Water Act). California Fish and Game Code Sections 1600-1616 require the notification of CDFG for any activity that could affect the bank or bed of any stream of value to fish and wildlife. Upon notification the CDFG has the responsibility to prepare a SAA in consultation with the project proponent.

In a jurisdictional sense there are two definitions of a wetland: one definition adopted by the Corps and a separate definition adopted by the State of California. Under normal circumstances the federal definition of wetlands requires three wetland identification parameters (hydrology, soil, and vegetation) to be met, whereas the State adopted definition requires the presence of at least one of these parameters. For this reason identification of wetlands by the CDFG typically consists of all areas periodically inundated or saturated, or in which at least seasonal dominance by hydrophytes may be documented, or in which hydric soils are present. The CDFG does not normally have direct jurisdiction over wetlands unless they are subject to jurisdiction under an SAA or they support State-listed endangered species; however, the CDFG has trust responsibility for wildlife and habitats pursuant to California law.

STANDARDS OF SIGNIFICANCE

For purposes of this environmental document, an impact would be considered significant if any of the following conditions, or potential therefore, would result with implementation of the proposed project:

- Creation of potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environmental, reduction of habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal;
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands); or
- Violate the Heritage Tree Ordinance (City Code 12:64.040).

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The City has found that development consistent with the 2030 General Plan could result in the overall loss of special-status species and their habitats, waters of the US, and wetlands resulting in a potentially significant impact to Biological Resources.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

The following mitigation measures applicable to biological resources were identified in the 2030 General Plan Master EIR, and will be applied to the project:

Special Status Fish: State and federal regulations would require avoidance and mitigation measures of individual projects to reduce impacts on special-status fish species which could include the enhancement or preservation of suitable habitat outside of the Policy Area (due to the developed nature of the Policy Area it is anticipated mitigation would occur in less developed areas outside of the Policy Area boundaries). While individual projects would be required to comply with federal and state regulations, it is anticipated that the impacts could result in the degradation of habitat or loss of habitat within the Policy Area. Because mitigation required by federal and state regulations would occur outside of the Policy Area, there are no feasible mitigation measures that could reduce the severity of this impact. Therefore, this would be a significant and unavoidable impact.

Special Status Plants: Implementation of 2030 General Plan Policy ER 2.1.10 in the Environmental Resources section would allow the City to require protocol surveys for special-status plants. This policy would likely include offsite preservation of the plants and suitable habitat outside of the Policy Area. Because preservation is not likely to be feasible within the Policy Area, implementation of the General Plan would result in significant and unavoidable impacts on special-status plant species.

Wetlands: Implementation of 2030 General Plan policy ER 2.1.6 in the Environmental Resources section would reduce the impact on wetlands and waters of the U.S.; however, future development within the Policy Area could result in the permanent loss of wetland habitat. At this time it is anticipated that these wetlands could be preserved off-site in areas outside of

the Policy Area. Therefore, the permanent loss of wetland habitat within the Policy Area would be considered a significant and unavoidable impact.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The project will affect Sanford's Arrowhead a CNPS List 1 B plant. The project may affect the Giant Garter Snake and Central Valley steelhead, both federally threatened species under the Federal Endangered Species Act (FESA). The project is not expected to significantly affect Essential Fish Habitat (EFH) for Pacific Salmon. Special status plant and wildlife observed or potentially occurring on the project site are discussed below.

Sanford's Arrowhead

The project will affect Sanford's Arrowhead during construction while the west temporary trestle bridge is in place. Sanford's Arrowhead is a CNPS List 1 B plant that grows in freshwater marshes and assorted shallow emergent wetlands that have standing or slow moving water.

Giant Garter Snake

The project may affect the Giant garter snake during construction of the new bridge piers and removal of the existing piles. Work in Arcade Creek includes the erection of bridge falsework, the construction of the temporary trestle, and the removal and replacement of the existing piles. These construction activities could potentially result in harassment or harm to the Giant garter snake, which constitutes "take" under the FESA. Consequently the proposed project is likely to adversely affect Giant garter snake. Formal consultation with USFWS under Section 7 of the FESA was completed based on a box girder design (Dec. 10, 2008). Additional coordination will be required with USFWS to address the current design. Caltrans as the designated federal lead agency will initiate this coordination.

Central Valley Steelhead Distinct Population Segment

The project is not likely to adversely affect Central Valley steelhead during instream work, including dewatering of the flowing channel and removal of approximately (0.03 ac) of stream bank habitat in Arcade Creek. Arcade Creek is not designated as critical habitat for Central Valley steelhead. Informal consultation with National Oceanic and Atmospheric Administration-National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act was completed based on a box girder design (Dec. 16, 2008). Additional coordination will be required with USFWS to address the current design. Caltrans as the designated federal lead agency will initiate this coordination.

Essential Fish Habitat (EFH) for Pacific Salmon

The project is not expected to significantly impact EFH for Pacific salmon. Consultation with NMFS was completed based on a box girder design (Dec. 16, 2008). Additional coordination will be required with USFWS to address the current design. Caltrans as the designated federal lead agency will initiate this coordination.

Caltrans as the designated federal lead agency will initiate these consultations.

The identified impacts are considered significant. Mitigation identified below (BR-1 to BR-18) would reduce the impact to a less-than-significant level.

Question B

The proposed project site does not contain or provide habitats for any locally designated species.

Question C

For waters of the U.S., the project will result in permanent impacts to 0.001 acre of wetlands during placement of new bridge piers. The project will also result in temporary impacts to 0.001 acre of wetlands during removal of the piles from the existing bridge and installation of the piles for the temporary trestle. Table A summarizes project impacts to waters of the U.S.

Table A: Impacts To Waters Of The U.S.

Type	Permanent	Temporary	Total
Wetlands	0.001 acre	0.001	0.002 acre
Non-wetland Waters	----	----	----
Total	0.001 acre	0.001 acre	0.002 acre

For waters subject to CDFG jurisdiction, the project will result in permanent impacts to 0.100 acre to wetland and riparian habitat as a result of a wider bridge footprint. The project will also result in temporary impacts to 0.925 acres of CDFG waters from grading, staging and access during construction activities. Mitigation identified below (see BR-18 et seq.) will reduce the impact to a less-than-significant level.

Question D

This project is not expected to cause substantial interference with the movement of native resident or migratory fish or wildlife species. Please see discussion under Question A (above).

Question E and F

The proposed project would not create conflicts with adopted policies and plans since the bridge is already in place and in use.

MITIGATION MEASURES

The following measures are proposed to avoid and minimize impacts to Sanford's Arrowhead (Sagittaria sanfordii), Giant garter snake (Thamnophis gigas), Central Valley steelhead (Oncorhynchus mykiss) Distinct Population Segment (DPS), and Essential Fish Habitat (EFH) for Central Valley steelhead and Pacific salmon resulting in less-than-significant impact.

BR-1. The City shall develop a salvage and relocation plan for all affected plants to a suitable protected area. The relocation shall occur prior to initiation of any project activities that may impact Sanford's arrowhead. Monitoring shall be required during relocation process until deemed complete by a qualified biologist.

BR-2. The City shall coordinate with the Arcade Creek Watershed Group's Del Paso Park Wetland Restoration Project to identify potential relocation areas for Sanford's Arrowhead within the local watershed if an onsite location cannot be found.

BR-3. Construction activity within Giant garter snake habitat shall be conducted between May 1 and October 1. This is the active period for Giant garter snakes and direct mortality is lessened because snakes are expected to actively move and avoid danger. Between October 2 and April 30 contact the USFWS's Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.

BR-4. Clearing of Giant garter snake habitat shall be confined to the minimal area necessary to facilitate construction activities. Flagging shall designate areas to avoid Giant garter snake habitat within or adjacent to the project area as ESA's. This area shall be avoided by construction personnel.

BR 5. Construction personnel shall receive USFWS-approved worker environmental awareness training. This training instructs workers to recognize Giant garter snakes and their habitat(s).

BR-6. Twenty-four hours prior to the start of construction activities, the project area shall be surveyed for Giant garter snakes. Survey of the project area shall be repeated if a lapse in time for construction activities of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate measures prescribed by a qualified biologist have been completed or it has been determined that the snake will not be harmed. Any sightings and any incidental take shall be reported to the USFWS immediately by telephone at (916) 414-6600.

BR-7. The proposed project footprint will result in less than 20 acres (i.e. 0.857 acres) of temporary impacts to Giant garter snake habitat. The project will result in less than 3 acres (i.e. 0.428 acre) total permanent loss of Giant garter snake upland habitat. Due to these factors, the project will qualify as Level 1 impacts requiring restoration and Level 3 impacts for permanent loss requiring 3:1 replacement.

BR-8. Following project completion, all areas temporarily disturbed during construction shall be restored following the "Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat" outlined below.

a. The disturbed area shall be re-graded to its preexisting contour and ripped, if necessary, to decompact the soil.

b. The area shall be hydroseeded with a creek bank approved mix. Hydroseed mix shall contain at least 20-40 percent native grass seeds. Some acceptable native grasses include annual fescue (Vulpia spp.), California brome (Bromus carinatus), blue wildrye (Elymus glaucus), and needle grass (Nassella spp.). The seed mix shall also contain 2-10 percent native forb seeds, five percent rose clover (Trifolium hirtum), and five percent alfalfa (Medicago sativa). Approximately 40-68 percent of the mixture may be non-aggressive European annual grasses, such as wild oats (Avena sativa), wheat (Triticum sp.), and barley (Hordeum vulgare). Aggressive non-native grasses shall not be included in the seed mix. These grasses include perennial ryegrass (Lolium perenne), cheatgrass (Bromus tectorum), fescue (Festuca sp.), giant reed (Arundo donax), medusa-head

(Taeniatherum caput-medusae), or Pampas grass (Cortaderia selloana). Endophyte-infected grasses will not be included in the seed mix.

Sufficient credits shall be purchased at a USFWS-approved bank to compensate for 0.428 acres of permanent Giant garter snake habitat impacts (i.e., 0.418 acres of upland habitat and 0. 01 acre of aquatic habitat) at a 3:1 replacement ratio for a total of 1.284 acres of mitigation credits. Temporary impacts totaling 0.857 acre (i.e., 0.856 acre of upland habitat and 0.001 acre of aquatic habitat) shall be restored following construction. Removal of the existing bridge's north abutment and associated fill, and new 40-foot setback to the levee wall shall improve the hydraulic regime for Arcade Creek, which will be a beneficial affect to giant garter snake. See BR-15 reguarding construction restrictions to daylight hours.

BR-9. Upon completion of construction season, in October, all areas within the BSA temporarily disturbed during construction (e.g., equipment storage and access areas) shall be reseeded with erosion control seeding consisting of a sterile, non-proliferating grass species such as cereal barley or Regreen, to minimize effects to Central Valley steelhead, its critical habitat, and Pacific salmon EFH resulting from erosion, siltation, and other water quality impacts. The seed mix shall not include any fertilizers or chemicals. If the project is to be completed as proposed under the two-seasons, then reseeding, as described above, needs to take place after both the first and second seasons.

BR-10. Measures consistent with the Caltrans' Construction Site Best Management Practices (BMPs) Manual (including the Storm Water Pollution Prevention Plan [SWPPP] and Water Pollution Control Program [WPCP] Manuals [http://www.dot.ca.gov/hq/construc/Construction_Site_BMPs.pdf]), as amended and updated from time-to-time, shall be implemented to minimize effects to Giant garter snake (e.g., siltation) during construction.

BR-11. All instream work (e.g., dewatering, removal of the existing bridge piles, and possible excavation for installation of new piles) shall be conducted between June 1 and October 1, which is within the time period when salmonids are least likely to be present in the BSA. If any work within the flowing channel of Arcade Creek is not completed by October 31, a written approval/extension shall be obtained from NMFS to allow work past October 31. Revegetation activities are excluded from this requirement with the stipulation that no heavy equipment be used in the channel.

BR-12. The work area for removal of the existing bridge piles (i.e., in the flowing channel) shall be dewatered prior to the start of work. Cofferdams will be installed around the perimeter of the foundations. After the cofferdam perimeter has been sealed it will then be dewatered by pumping the water into a suitable off-site location determined by the contractor for filtration. Dewatering the work area will minimize the potential water quality impacts (e.g., siltation) and ensure that no salmonids are directly affected by project construction activities (i.e., no work will be conducted in flowing water).

BR-13. ESA fencing shall be installed within the riparian corridor of Arcade Creek, upstream and downstream of the work area, to protect the adjacent habitat during construction. ESA fencing will consist of orange construction fencing or equivalent, and shall be maintained in good condition until construction is complete.

BR-14. All construction shall be conducted during daylight hours to allow for an extended period of inactivity (i.e., night time) for salmonids, if present, to migrate undisturbed through the BSA.

BR-15. During removal of the existing bridge, a tarp or other approved method shall be used below the bridge to prevent debris from falling into Arcade Creek. The tarp shall be left in place until the bridge is removed.

BR-16. Measures consistent with the current Caltrans' Construction BMPs Manual (including the SWPPP and WPCP Manuals [http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM_303_Final.pdf]) shall be implemented to minimize effects to Central Valley steelhead, its critical habitat, and Pacific salmon EFH resulting from erosion, siltation, and other water quality impacts during construction.

BR-17. A Water Pollution Control Program (WPCP) shall be prepared by the contractor in accordance with typical provisions associated with a Regional General Permit for Construction Activities. The WPCP shall include a Spill Response Plan with instructions and procedures for reporting spills, the use and location of spill containment equipment, and the use and location of spill collection materials. Implementation of the WPCP will minimize effects to Central Valley steelhead, its critical habitat, and Pacific salmon EFH resulting from potential spills associated with the construction activities.

The project shall implement the following measures to avoid and minimize the 0.002 acre of impacts to waters of the U.S. and 1.02 acres of CDFG waters:

BR-18. The project shall avoid waters of the U.S. in the Biological Study Area to the maximum extent feasible.

BR-19. ESA fencing shall be installed within the riparian corridor of Arcade Creek, upstream and downstream of the work area, to protect the adjacent habitat during construction. ESA fencing will consist of orange construction fencing or equivalent, and shall be maintained in good condition until construction is complete.

BR-20. Contract specifications shall include the Best Management Practices, where applicable, to reduce erosion during construction.

BR-21. The City shall contribute to the Arcade Creek Watershed Group's Del Paso Park Wetland Restoration Project to compensate for the loss of riparian habitat as a result of the proposed project.

FINDINGS

With implementation of the mitigation measures identified above, additional significant environmental effects of the project relating to Biological Resources would be mitigated to a less-than-significant level.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
4. CULTURAL RESOURCES *Would the proposal:* A) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			X
B) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X	
C) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X
D) Disturb any human remains, including those interred outside of formal cemeteries?			X

A Historic Property Survey Report and Archaeological Survey Report (July 2008) were prepared by LSA Associates, Inc. Findings contained within those reports were used in this MND. As a result of the bridge type selection changes, an additional staging area was added to the Area of Potential Effects (APE). A subsequent survey of the additional staging area was conducted on December 3, 2009 yielding negative results.

ENVIRONMENTAL SETTING

Environment

The APE is centered on Norwood Avenue between Lindley Drive to the south and Fairbanks Avenue to the north, a distance of approximately 1,530 feet. The APE extends 225 feet east and 225 feet west from the centerline of Norwood Avenue along the levees north and south of Arcade Creek and steadily decreases in size to a width of 90 feet at the intersections with Lindley Drive and Fairbanks Avenue. The Norwood Avenue Bridge was built in 1956, and was recently widened to provide a full width sidewalk on the west side of Norwood Avenue. The APE was established to encompass the maximum extent of construction effects including staging areas.

Prehistory

The Sacramento Valley area was probably settled by Native Americans between 13,500 and 8,550 years ago. These people roamed widely, probably subsisting mainly on big game and to a lesser extent on processed plant foods, with few or no trade networks. Current research, however, is indicating more sedentism, plant processing, and trading than previously believed. Human populations during the Paleo-Indian period in the vicinity of the proposed project were low and probably consisted of small groups moving frequently in order to exploit plant and animal resources. The western foothills of the Sierra Nevada area contain few sites dating from this

period of early occupation.

The Sacramento Valley has had many population movements and waves of cultural influence from neighboring regions; it was probably first occupied at the end of the Pleistocene, as evidenced by core and flake tools. Hokan speakers may have been the early occupants of the Sacramento Valley, eventually displaced by migrating Penutian speakers (ancestral Nisenan) coming from areas outside California. They most likely entered the Central Valley in several minor waves, slowly replacing the original Hokan speakers, causing them to migrate to the periphery of the valley. By about A.D. 300-500, the Penutian settlement of the Sacramento Valley was complete.

Ethnography

Ethnographically, the area of the proposed project area is attributed to the Nisenan (Southern Maidu) people. Nisenan is a Penutian language with many local dialects, including Valley Nisenan, Oregon House, Auburn, Clipper Gap, Nevada City, Colfax, and Placerville. The territory of the Nisenan consisted of the drainages of the Feather and American Rivers; from the crest of the Sierra Nevada in the east to the Sacramento River in the west; as far south as the Cosumnes River; and north to the divide of the North Fork of the Yuba River and Middle Fork of the Feather River. The nearest ethnographic village to the APE was called *Yalisumni*, situated on the south bank of the American River.

History

The area that is now Sacramento was granted by the Mexican government to John A. Sutter in 1841. Beginning with the discovery of gold at Sutter's Mill on the American River in January of 1848, the region surrounding Sutter's Fort in Sacramento was inundated with prospectors from Central and South America, Europe, Asia, the Pacific Islands, and the "States." Named Sacramento, after the river named for the Holy Sacrament by early Spanish explorers, the city sprang up seemingly overnight as a boom town in 1848 as a direct response to the discovery of gold in the nearby Sierra Nevada foothills. Located at the confluence of the Sacramento and American rivers, the city's location provided excellent access to shipping routes to San Francisco, yet was within easy travel of the gold fields, and was an important transportation and trading center for those destined for the northern mines.

Located south of the American River and east of the Sacramento River, Sacramento experienced periodic seasonal flooding from both of those watercourses, a situation that led to the development of a series of levees to provide a line of defense around the burgeoning metropolis. By the early 1860s a series of levees had been constructed around the downtown core, while an entirely new channel was dug in the American River, bypassing an "S" meander and joining it to the Sacramento River southwest of the APE. During the 1860s, a major street-raising was undertaken to raise the level of the landscape in the downtown corridor by dumping huge loads of rock and gravel in the area. Major floods in the early and mid-twentieth century continued to strain or overwhelm increasingly elaborate flood control efforts involving levees, weirs, dams, and reservoirs. In 1986, a major flood that dropped 10 inches of rain in 11 days led to the formation of the Sacramento Area Flood Control Agency (SAFCA) three years later. In 1998, due to SAFCA's work raising and rebuilding levees as part of the North Local Project, FEMA certifies northern Sacramento's flood protection as being able to withstand a 100-year flood.

The Norwood Avenue Bridge was built in 1956, and was recently widened to provide a full width sidewalk on the west side of Norwood Avenue.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, cultural resource impacts may be considered significant if the proposed project would result in one or more of the following:

1. Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 or

2. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The City has found that development consistent with the 2030 General Plan could affect the integrity of archaeological sites thereby causing a substantial change in the significance of the resource.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Policies HCR 2.1.2 and HCR 2.1.15 in the proposed 2030 General Plan are in place to protect archaeological resources by requiring surveys, research and testing prior to excavation in high-sensitivity areas and the proper handling of discovered resources and enforcement of applicable laws and regulations. However, no feasible mitigation measures beyond what the proposed 2030 General Plan policies require are available to ensure that no archaeological resources are damaged or destroyed. Therefore the impact would remain significant and unavoidable.

ANSWERS TO CHECKLIST QUESTIONS

Questions A - C

The soils and geomorphology indicate a high likelihood for buried resources. As the alluvial landform dates to late Pleistocene and Holocene, it falls within the timeframe of human habitation of the region. The soils present in the project area are derived from alluvium and a buried surface is recorded within the general stratigraphy of Dierssen sandy loam (Tugel 1993). While this may not be associated with a specific known buried archaeological site, the age of the landform and the types of soils allow for the possibility of buried archaeological materials within the project area.

A review of the geotechnical borings did not identify any cultural material, but could not rule out their possibility. No archaeological surface sites were identified in the field survey and no signs of buried sites were visible in rodent back dirt, or in stream banks. Due to the possibility of buried resources within the project area and the presence of a buried site further upstream, the analysis indicates that the project area has the possibility of containing buried archaeological sites.

Ground disturbance relating to road construction will take place within areas of pre-existing and project-specific fill. Ground disturbing project activities that go to a depth that could encounter buried deposits are limited to the construction of piers. The abutments will be placed within the existing levee system and be of a depth that would not disturb soils below the levees.

The piers will be placed within Arcade Creek, a dynamic erosional environment. As the existing bridge is scour critical, any subsurface archaeological deposits would likely have been greatly impacted by the combination of fluvial erosion and the existing bridge's 44 piers. As historic descriptions of Arcade Creek have indicated that it began to receive more water in the later half of the 20th century than periods before that (Curtice 1961), it is likely that the process of sediment erosion has been magnified. The high number and depth of previous piers would have disturbed any buried surfaces as well as facilitated the erosion of the stream bed.

As the project area has been greatly affected by previous construction and natural processes, and ground disturbing project activities are limited to areas of fill and previously disturbed and eroded areas, it is unlikely that the project will affect areas containing intact buried surfaces.

The background research identified no archaeological resources within the project area. Field surveys identified no archaeological cultural resources within the project area. The subsurface sensitivity study indicated that the project area has a possibility of buried surfaces that contain archaeological materials, but due to the locations of project activities within areas of fill and previously disturbed and eroded areas, the project would not likely affect intact subsurface deposits.

The background research and field survey identified two built environment resources: Bridge 24C0080 and CA-SAC-495-H, the Arcade Creek Levees. Both built environment resources were previously considered ineligible for the National Register (Caltrans 2008; Windmiller 2002).

No paleontological resources were found within or near the project site during initial construction of the bridge. Although construction of the proposed project will involve more excavation, it is unlikely that paleontological resources will be encountered.

While discovery of subsurface archaeological resources is not likely, such resources could be encountered, and the impact could be significant. Mitigation Measures CR 1a, CR 1b and CR 2 would reduce any potentially significant impacts to a less-than-significant level.

Questions D and E

There are no existing ethnic cultural values or religious or sacred uses known to be present on or associated with the proposed project site. Therefore, the proposed project's impacts to these resources would be less than significant.

MITIGATION MEASURES

CR 1a In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 150 feet of the resources shall be halted, and the City shall consult with a qualified archeologist to assess the significance of the find. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist, representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In addition, a report shall be prepared by the qualified archeologist according to current professional standards.

CR 1b If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.

If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.

In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.

CR 2 If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.

FINDINGS

With implementation of the mitigation measures identified above, additional significant environmental effects of the project relating to Cultural Resources would be mitigated to a less-than-significant level.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
5. ENERGY Would the proposal result in impacts to: A) Power or natural gas?			X
B) Use non-renewable resources in a wasteful and inefficient manner?			X
C) Substantial increase in demand of existing sources of energy or require the development of new sources of energy?			X

ENVIRONMENTAL SETTING

There are various overhead and underground utilities within the proposed project limits including overhead power and gas lines attached to the east and west sides of the current bridge.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, energy impacts may be considered significant if the proposed project would result in one or more of the following:

Gas Service. A significant environmental impact would result if a project would require PG&E to secure a new gas source beyond their current supplies.

Electrical Services. A significant environmental impact would occur if a project resulted in the need for a new electrical source (e.g., hydroelectric and geothermal plants).

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Implementation of the 2030 General Plan would create an increase in population and employment within the Policy Area, which would increase the demand for electricity and natural gas. However, it should be noted that the bridge replacement retains the existing lane configuration on Norwood Avenue. In addition, bike lanes will be provided on the bridge structure. Overall, the project will have an equal or beneficial impact on energy.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

While the demand for energy within the Policy Area would add considerably to the cumulative impacts on energy resources, implementation of the policies listed in the 2030 General Plan in conjunction with the continued efforts on behalf of SMUD and PG&E to promote energy efficiency and renewable energy would make cumulative energy impacts less than significant.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The proposed project would not affect power or natural gas supplies in the region due to the fact that the proposed bridge does not require additional power or natural gas demand. Overhead power lines will be relocated as necessary during bridge construction at Sacramento Municipal Utility District discretion. Natural gas is attached to the bridge and PG&E will need to relocate the natural gas lines to the proposed new structure. Natural gas and power service could be temporarily disrupted as a result of the proposed project when lines are transferred from the old bridge to the new bridge.

Question B

The proposed project is not expected to use non-renewable resources in a wasteful or inefficient manner.

Question C

The proposed project is a transportation project and will not have an increased demand on existing energy or require the use or development of new sources of energy.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Energy.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
6.GEOLOGY AND SOILS Would the project: A) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii.) Strong seismic ground shaking? iii.) Seismic-related ground failure, including liquefaction? iv.) Landslides?			X
B) Result in substantial soil erosion or the loss of topsoil?			X
C) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X
D) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X
E) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			X

A technical memorandum was prepared for this project by Parikh Consultants, Inc. Geotechnical information provided in this section is based on the findings contained in the memorandum.

ENVIRONMENTAL SETTING

Seismicity

Based upon the seismic hazard map prepared by Caltrans, the governing fault for the proposed structure is the Coastal Range – Sierran Block Boundary Zone, (Mw=7.00, a reverse fault) located at about 28 miles from the site. Development within this area is subject to potential damage from earthquake ground shaking at maximum intensity of VII of the Modified Mercali Scale although the project area is characterized by low seismic activity.

General geologic features pertaining to the site were evaluated by references to the Geologic Map of the Late Cenozoic Deposits of the Sacramento Valley and Northern Sierran Foothills, California, by Edward J. Halley and David S. Harwood, 1985 (USGS MF-1970). Based on the publication, this site is generally underlain by Alluvium (Qa, Holocene) overlaying Basin Deposits (Qb, Holocene). Description of the main geologic units is as follows:

Qa - Alluvium- Unweathered gravel, sand, and silt deposited by present-day stream and river systems.
Qb – Basin Deposits Undivided – Fine-grained silt and clay derived form the same sources as modern alluvium.

According to the as-built boring data (1955), groundwater was measured at about Elev. 7 feet. Based on the recent exploration (2008), groundwater was encountered ate Elev. 14 feet. Groundwater level is anticipated to vary with the passage of time due to seasonal groundwater fluctuation, surface and subsurface flows, ground surface run-off, water level in the creek, and other factors at the time of geotechnical investigation.

Topography

The proposed project site includes an existing bridge that spans across Arcade Creek. The project area is generally described as flat. Minor topographical differences are present due to the lower creek elevation compared with the surrounding higher land area. The creek channel is approximately 14 feet below the existing road/bridge deck.

Regional Geology

The proposed project area is located within the Sacramento Valley which is part of the larger Great Central Valley. The Great Central Valley extends 400 miles from the Klamath Mountains in the north to the Tehachapi Mountains in the south. The site does not contain any unique geologic or physical features.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if it allows a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Development under the proposed 2030 General Plan would result in the addition of new structures and infrastructure throughout the City and Policy Area to accommodate new population growth. The 2030 General Plan includes a number of policies and regulation to address impacts to geology and soils.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Through the implementation of the policies provided in the 2030 General Plan, impacts would result in a less-than-significant impact to soils and geology.

ANSWERS TO CHECKLIST QUESTIONS

Question A

A geotechnical assessment was prepared that evaluated the existing seismic-safety hazards for the project site in light of the structural condition of the existing bridge. Based on that assessment, design criteria were developed for the proposed bridge structure. Project implementation will resolve a potentially hazardous seismic-related condition associated with the deteriorating bridge structure. The new bridge will be designed and constructed to current state and federal structural and seismic standards, and will provide a greater level of safety for motorists, bicyclists and pedestrians.

Question B

The existing bridge has a scouring problem along the banks of the creek, and has been labeled "structurally deficient" in the national bridge inventory rating system. The proposed project would provide a higher and wider bridge that would reduce the erosion of the bank. When compared with the existing bridge, the proposed bridge would reduce or eliminate flooding-related bridge closures and reduce stream flow obstructions. Overall erosion and scour of the creek channel would be reduced with the proposed project. The project proposes to utilize RSP along the banks of the creek to prevent erosion and scouring of the creek channel.

Question C

The majority of construction will occur during the portion of the year outside the rainy season when surface water within Arcade Creek is at its seasonal minimum and subsidence, off-site landslides, lateral spreading, liquefaction or collapse should not be a concern of a project of this magnitude (Per. Gary Parikh, 1/18/2010).

Questions D and E

The proposed project is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code. The project will not involve the use, removal, or storage of septic tanks or alternative waste water disposal systems.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Geology and Soils.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
7. HAZARDS Would the project: A) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X
B) Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X	
C) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X	
D) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X
F) For a project within the vicinity of private airstrip, would the project result in a safety hazard for people residing or working in the project area?			X
G) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X
H) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X

ENVIRONMENTAL AND REGULATORY SETTING

Federal regulations and regulations adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) apply to the identification and treatment of hazardous materials during demolition and construction activities. Failure to comply with these regulations respecting asbestos may result in a Notice of Violation being issued by the AQMD and civil penalties under state and/or federal law, in addition to possible action by U.S. EPA under federal law.

Federal law covers a number of different activities involving asbestos, including demolition and renovation of structures (40 CFR § 61.145).

SMAQMD RULE 902 AND COMMERCIAL STRUCTURES

The work practices and administrative requirements of Rule 902 apply to all commercial renovations and demolitions where the amount of Regulated Asbestos-Containing Material (RACM) is greater than:

- 260 lineal feet of RACM on pipes, or
- 160 square feet of RACM on other facility components, or
- 35 cubic feet of RACM that could not be measured otherwise.

The administrative requirements of Rule 902 apply to any demolition of commercial structures, regardless of the amount of RACM.

ASBESTOS SURVEYS

To determine the amount of RACM in a structure, Rule 902 requires that a survey be conducted prior to demolition or renovation unless:

- the structure is otherwise exempt from the rule, or
- any material that has a propensity to contain asbestos (so-called "suspect material") is treated as if it is RACM.

Surveys must be done by a licensed asbestos consultant and require laboratory analysis. Asbestos consultants are listed in the phone book under "Asbestos Consultants." Large industrial facilities may use non-licensed employees if those employees are trained by the U.S. EPA. Questions regarding the use of non-licensed employees should be directed to the AQMD.

REMOVAL PRACTICES, REMOVAL PLANS/NOTIFICATION AND DISPOSAL

If the survey shows that there are asbestos-containing materials present, the SMAQMD recommends leaving it in place.

If it is necessary to disturb the asbestos as part of a renovation, remodel, repair or demolition, Cal OSHA and the Contractors State License Board require a licensed asbestos abatement contractor be used to remove the asbestos-containing material.

There are specific disposal requirements in Rule 902 for friable asbestos-containing material, including disposal at a licensed landfill. If the material is non-friable asbestos, any landfill willing to accept asbestos-containing material may be used to dispose of the material.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The City has found that development/construction activities consistent with the 2030 General Plan could expose people to known or unknown hazards.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Policies identified in the 2030 General Plan include directives relating to reducing exposure to hazardous waste, protecting public safety, and response to natural and human-made disasters. A complete list of policies addressing hazards and hazardous material is included in the Master EIR in section 6.6.

ANSWERS TO CHECKLIST QUESTIONS

Question A

The proposed project involves the replacement and demolition of a currently existing bridge and will not involve routine transport, use, or disposal of hazardous materials. Therefore, the project related impacts will be less than significant.

Questions B and C

The proposed project is located within ¼ mile of three schools, and the current Norwood Bridge and nearby roadways has supported vehicular activity since the 1950's. It is likely that the surface soils along Norwood Avenue are affected by deposition of aerial lead (ADL).Since the traffic volumes are constrained by the two lane roadway, the ADL levels are not expected to

exceed contamination limits. The pavement markings consist of yellow paint and thermoplastic stripes that could contain lead. Based on the age of the bridge it is likely that the structure may contain asbestos-containing materials (ACM) and lead-based paint (LBP) in their construction materials. Implementation of the Mitigation Measures H-1, H-2 and H-3 will ensure the impacts remain less than significant.

Question D

There are no known sources of potential health hazards to exist within the project site. As is the case for any project involving excavation there is the potential for unintended discovery of unknown hazardous contamination to be revealed during project construction. For the possibility of known substances such as asbestos-containing materials and lead-based paint refer to Mitigation Measures H-1, H-2 and H-3. Implementation of these mitigation measures will ensure impacts remain less than significant. For any previously unknown hazardous waste/material encountered during project construction, the procedures outlined in Caltrans' Hazardous Waste Contingency Plan for Construction shall be adhered to (Appendix A).

Question E and F

The proposed project is not located within an airport land use plan or within two miles of a public airport, private airstrip, or public use airport. The project would not result in any known health hazard or potential health hazard related to airports for people working or residing within the project area.

Question G

The proposed project will not interfere with an emergency response plan or an emergency evacuation plan as traffic lanes will remain open during the construction, although with periodic minor delays. Within a mile, alternate routes are available to cross Arcade Creek at Rio Linda Boulevard and Marysville Boulevard. Therefore, the project is considered to have a less-than-significant impact on emergency evacuation or creation of health hazards. Also refer to Mitigation Measure T/C 1 in Section 12, Transportation and Circulation.

Question H

The climate of the proposed project region in northern California makes fire hazards a potential risk. During construction implementation of Mitigation Measures H-4, H-5 and H-6 will ensure construction related activities minimize the risk of potential wildland fires.

MITIGATION MEASURES

H-1. Surface samples of soil shall be collected and analyzed for total lead prior to the start of construction activities.

H-2. Special arrangements shall be made for the disposal of any pavement that contains lead based thermoplastic stripes.

H-3. Surveys of the current bridge structure shall be conducted for asbestos-containing materials and lead-based paint prior to demolition or renovation. If asbestos and/or lead based paint is present and abatement is required, state certified contractors shall perform the abatement in accordance with State and Federal regulations. Specifications shall be

included for contractor compliance.

H-4. Machinery used during construction shall be maintained according to manufacturer's specifications to prevent accidental sparks.

H-5. Fire extinguishers shall be kept on-site during all construction activities.

H-6. A spill prevention plan shall be prepared by the contractor in the event of an accidental materials spill.

FINDINGS

All additional significant environmental effects of the project relating to Hazards can be mitigated to a less-than-significant level.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
8. HYDROLOGY AND WATER QUALITY Would the project: A) Violate any water quality standards or waste or discharge requirements?			X
B) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to level which would not support existing land uses or planned uses for which permits have been granted)?			X
C) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X
D) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X
E) Otherwise substantially degrade water quality?			X
F) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X
G) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			X
H) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X

A Preliminary Hydraulic Analysis Memorandum (Dec. 4, 2007) was prepared for the project by Pacific Hydrologic Incorporated. Hydrologic and hydraulic findings in this document are based on the analysis contained in the memorandum. Although the bridge type and pile requirements have changed since the memo was prepared, the revised concrete slab design will have similar (or beneficial) hydraulic and hydrologic effects as previously presented for the original box girder design.

ENVIRONMENTAL SETTING

Drainage/Surface Water/Groundwater

The Sacramento, American, and Cosumnes Rivers are the main surface water tributaries that drain much of Sacramento region, recharge the aquifer system, and flow into the Delta. The proposed project is located across Arcade Creek and drains into the Natomas East Main Drainage Canal (renamed "Steelhead Creek") and ultimately into the American River.

The proposed project is located on existing levees that convey drainage to the adjacent drainage ways or drainage catch basins and culverts at the levee toe.

Water Quality

The City's municipal water is received primarily from the American and Sacramento Rivers. The water quality of the American River is considered very good. The Sacramento River water is considered to be of good quality also, although higher sediment loads and extensive irrigated agriculture upstream of the Sacramento tend to degrade the water quality. During the spring and fall irrigation tailwaters are discharged into drainage canals that flow into the river. In the winter runoff flows over these same areas. In both instances flows are highly turbid and introduce large amounts of herbicides and pesticides into the drainage canals (including Arcade Creek). This is particularly true for rice field herbicide applications in May and June. The aesthetic quality of the river is changed from relatively clear to turbid during these periods of irrigation discharges.

Water quality of the drainage tributaries is also affected by other pollutants such as runoff from urban storm drains and illegal dumping at creeks and drainage ways. Therefore, to maintain high water quality it is imperative to reduce sedimentation and erosion into the tributaries. There are a number of precautionary construction measures to maintain water quality. The Central Valley Regional Water Quality Control Board (RWQCB) has primary responsibility for protecting the quality of surface and groundwaters within the City. The RWQCD's efforts are generally focused on preventing either the introduction of new pollutants or an increase in the discharge of existing pollutants into bodies of water that fall under its jurisdiction. The proximity of the Sacramento and American Rivers to the project site and existence of both a shallow water table and deep aquifer beneath the project area emphasize that water quality control is a substantial concern.

A general National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board under the requirements of the Environmental Protection Agency and Section 402 of the Clean Water Act is required and has been obtained by the City. The goal of the permit is to reduce pollutants found in urban storm runoff. The general permit requires the permittee to employ Best Management Practices (BMPs) before, during, and after construction. The primary objective of the BMPs is to reduce non-point source pollution into

waterways. These practices include structural and source control measures from residential and commercial areas and BMPs for construction sites. BMPs mechanisms minimize erosion and sedimentation and prevent pollutants such as oil and grease from entering the stormwater drains. BMPs are approved by the City Department of Utilities before the beginning construction. The BMP document is available from the City Department of Utilities, Flood Control and Sewers Division, 1391 35th Avenue, Sacramento, CA.

Flooding

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) that delineates flood hazard zones for communities. The project site is currently within areas designated as Zone AR, AE and Zone X. Appendix B provides the map prepared by FEMA indicating the FIRM showing the region of Sacramento where the project is located. These zones are defined by FEMA as follows:

Zone AR: Area of special flood hazard which results from the decertification of a previously accredited flood protection system which is determined to be in the process of being restored to provide a 100-year or greater level of flood protection.

Zone AE: Base flood elevation determined.

Zone X: Area of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

STANDARDS OF SIGNIFICANCE

Water Quality. For purposes of this Initial Study, an impact is considered significant if the proposed project would substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increased sediments and other contaminants generated by construction and/or operational activities.

Flooding. For purposes of this Initial Study, an impact is considered significant if the proposed project substantially increases exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The City has found that construction activities associated with implementation of the 2030 General Plan would result in land-disturbing activities. The General Plan offers several regulatory mechanisms and policies to control construction activities and minimize, to the maximum extent practicable, the degradation of water quality.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

To reduce or eliminate construction-related water quality effects, the City of Sacramento would require future public or private contractors to comply with the requirements of the City's Stormwater Quality Improvement Plan. Adherence to the regulations and policies stated in the

General Plan would reduce the potential for projects to substantially impact hydrology and water quality during construction activities.

ANSWERS TO CHECKLIST QUESTIONS

Question A

Significant changes in absorption rates, drainage patterns, or the rate and amount of surface/stormwater runoff are not expected for the project. It is expected that a negligible increase in runoff would occur due to the longer/wider bridge surface. The surface/stormwater runoff collected from bridge/roadway surfaces will be discharged into the City's' stormwater drainage system. Slope repairs are not expected to result in an increase in impervious surfaces, nor increase the quantity of water runoff (Per. Kevin Bewsey 10/21/2008).

The proposed access roads will not be large enough to add measurable amounts of stormwater runoff into Arcade Creek. It is anticipated that runoff would either percolate into the ground prior to entering the active channel or be collected into a vegetative swale for further infiltration and percolation. In addition the access road will be gravel allowing runoff to percolate into the ground. (Per Kevin Bewsey 1/11/2010.)

The existing bridge uses scuppers allowing runoff on the bridge to pass directly through the structure and enter the channel. The proposed bridge does not use scuppers, but collects runoff into gutters which flow down the road approaches into drainage inlets which are part of the City's storm drain system.

Question B

The proposed project would not result in a change in the FEMA Flood Insurance Rate Map. According to the Preliminary Hydraulic Analysis Memorandum, Arcade Creek has been mapped by FEMA using detailed study methods. As such, replacement structures causing any unmitigated increase in water surface elevation of the Base Flood are not acceptable. FEMA computed flood profiles from flows bracketing the FEMA Base Flood; replacement of the existing bridge with the proposed project is expected to reduce the water surface elevation of the FEMA Base Flood by 0.005 feet. Therefore, no flood mitigation measures or flood map revisions are necessary to meet the requirements of FEMA. The construction of a replacement bridge will not alter the current or channel in a way that increases risk of flooding along the creek.

Question C

Construction activities associated with the proposed project would cause disruption and displacement of soil which could adversely impact water quality. To prevent sediments from being discharged into the creek during the construction phase, temporary sedimentation and erosion control mitigation will be required during construction, including compliance with the terms of Section 401 water quality certification.

In addition, requirements of the Department of Fish and Game Streambed Alteration Agreement shall be met. The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittingly through a bed or channel. The Streambed Alteration Agreement usually restricts construction of the project during periods of low stream flow which is typically between the dates of June 1 and October 1.

The project would be required to comply with the City of Sacramento Code, Ordinance 15.88.250, Erosion and Sediment Control (ESC). The City shall require that the project employ BMPs before, during, and after construction. The primary objective of BMPs is to reduce non-point source pollution into waterways. These practices include structural and source control measures for residential and commercial areas and BMPs for construction sites. BMP mechanisms minimize erosion and sedimentation and prevent pollutants such as oil and grease from entering the stormwater drains. BMPs are approved by the Department of Utilities prior to construction. Compliance with BMP provisions will ensure that development and use of the site will result in a less-than-significant impact to surface waters and will not result in the alteration of surface water quality as pollutants will be removed. This ordinance requires preparation of erosion, sediment, and pollution control plans both during and after construction of the proposed project. With compliance of the above requirements and the mitigation measures in biological resources and hazards, the impacts to surface waters and changes in water movements would be less than significant.

The following conditions shall be implemented as required by local and state agencies:

- The contractor shall employ Caltrans Construction Site BMP Manual before, during, and after construction. Compliance with BMP provisions will ensure the construction at the site will not result in the alternation of surface water quality.
- The contractor shall comply with the City of Sacramento Code 15.88.250, Erosion and Sediment Control (ESC). This ordinance will require the preparation of erosion, sediment, and pollution control plans both during and after construction of a proposed project, as well as the preparation of preliminary and final grading plans.

Question D

For the project area watershed natural and beneficial floodplain values include, but are not limited to: fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge. The proposed project will not cause any measurable change in flow velocity or volume of stormwater runoff. For the proposed bridge replacement project there are no significant impacts to the natural and beneficial floodplain values.

Wetland areas are a natural and beneficial floodplain value that exists within the levees of the Natomas East Main Drain Canal. Habitats for special status species are another natural and beneficial floodplain value that is present within the project corridor. The proposed project would be designed to minimize impacting waters of the U.S. including jurisdictional wetlands and habitat for special status species. To ensure minimization of the impacts to these natural and beneficial floodplain values, runoff from the deck of the proposed bridge will be conveyed into existing underground drainage systems located north and south of Arcade Creek.

Question E

The proposed replacement bridge structure provides a hydraulic level of service equal to or marginally better than the existing bridge, and represents a substantially reduced risk of drift accumulation (i.e., any materials suspended in the creek that could accumulate at the piers of the bridge).

Accumulation of drift has not been reported as a problem at the existing structure. Nevertheless, the proposed bridge has much longer spans and larger diameter piers that are less prone to catch drift. Therefore the proposed bridge is expected to have much less potential for accumulation of drift than the existing bridge. With no change in drift this result in little to no change in the current, or the course or direction of the water movement in Arcade Creek.

Construction of the proposed bridge improvements may require the temporary diversion of water as needed to access the bridge for section removal and to construct the new bridge. This will require the installation of a cofferdam. Cofferdams will be installed using steel sheet piles vibrated into place with a vibratory hammer around the perimeter of the footing. After the cofferdam perimeter has been sealed, the creek would then be de-watered by pumping out of the creek.

Dewatering will be required prior to site activity to accommodate the work plan. This will include driving the piles within the creek channel, erecting falsework and drilling shafts for permanent bridge foundations. This will require the installation of a cofferdam. Cofferdams will be installed using steel sheet piles vibrated into place with a vibratory hammer around the perimeter of the drilled shaft. After the cofferdam perimeter has been sealed, the area will be de-watered (by pumping) filtered, and returned to the creek below the construction site or the contractor may take the water to an offsite location. Dewatering will also be required if groundwater is encountered in the drill holes during construction of the drilled shafts. If necessary water will be pumped out of the drilled holes and disposed at a suitable location.

Depending on the contractor, the water will be filtered before returning the water to the creek or removed offsite. These activities will require partial dewatering below the Ordinary High Water Mark, which would temporarily change the rate of the current and course of the drainage way. This partial dewatering is minor and would not be significant enough to change the current, or the course or direction of the water movement in Arcade Creek.

Question F

The proposed project would not have an effect on the quantity of groundwater resulting in the loss of groundwater supply. Construction of bridge piles may temporarily involve penetrating the shallow groundwater table but would be rapidly stabilized. Groundwater conditions should not be adversely affected.

Question G

Groundwater flow will not be intercepted by grading. Ripping of earth will involve shallow earthwork cuts (2-3 feet) and will not penetrate into the deep aquifers. In addition fill material will be added in order to raise the bridge/roadway profile by 7 feet.

Question H

BMPs will be applied to prevent impact on groundwater quality from percolation. Bridge deck drainage will be collected and treated in accordance with BMPs. Runoff will be conveyed into existing underground drainage systems located north and south of Arcade Creek. Bridge deck drainage will not flow into the creek.

Mitigation Measures

No mitigation is required.

Findings

All additional significant environmental effects of the project relating to Hydrology and Water Quality can be mitigated to a less-than-significant level.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
9. NOISE Would the project result in: A) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X
B) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X
C) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X
D) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X
F) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			X

ENVIRONMENTAL SETTING

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB) with 0 dB being the threshold of hearing. Measurable decibel levels range from 0 to 140. Typical examples of decibel levels would be a low level of 50 dB for light traffic to a high level of 120 dB for a jet takeoff at 200 feet.

The proposed project is a bridge replacement over Arcade Creek. The proposed project is located mainly within a residential area with a few commercial uses located in the area. There are several Sacramento City Codes pertaining to noise within the City limits. These include:

8.68.060 Exterior noise standards.

A. The following noise standards unless otherwise specifically indicated in this article shall apply to all agricultural and residential properties.

1. From seven a.m. to ten p.m. the exterior noise standard shall be fifty-five (55) dBA.

2. From ten p.m. to seven a.m. the exterior noise standard shall be fifty (50) dBA.

Construction activity is exempt from the City Code (8.68.080 Exemptions) as follows:

E. Noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The Director of Transportation may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.

STANDARDS OF SIGNIFICANCE

Thresholds of significance are those established by the Title 24 standards and by the 2030 General Plan Noise Policies and the City Noise Ordinance. Noise and vibration impacts resulting from the implementation of the proposed project would be considered significant if they cause any of the following results:

- Exterior noise levels at the proposed project exceeding the upper value of the normally acceptable category for various land uses caused by noise level increases due to the project. (2030 General Plan, Table EC-1, 2009).

- Residential interior noise levels of L_{dn} 45 dB or greater caused by noise level increases due to the project;

- Construction noise levels not in compliance with the City of Sacramento Noise Ordinance;

- Occupied existing and project residential and commercial areas are exposed to vibration peak particle velocities greater than 0.5 inches per second due to project construction;

- Project residential and commercial areas are exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; and

- Historic buildings and archaeological sites are exposed to vibration peak particle velocities greater than 0.25 inches per second due to project construction, highway traffic, and rail operations.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

The City has found, based on measurements and on existing noise modeling, noise levels in excess of City standards currently occur and would continue to occur in many residential areas and other noise-sensitive uses throughout the policy area. Activities associated with implementation of the 2030 General Plan would not be the primary cause of an increase in noise, but development both inside and outside of the Policy Area that is anticipated to occur regardless of whether the General Plan is adopted or not. The 2030 General Plan includes a number of policies to address noise issues.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Implementation of the proposed General Plan policies would, in most cases, reduce to a less-than-significant level, the exterior noise level and/or increments on future noise-sensitive land uses that could be developed under the proposed General Plan.

ANSWERS TO CHECKLIST QUESTIONS

Question A

Short-term Construction Noise Impacts. Temporary increases in noise levels would occur during construction hours of the proposed project. Generally noise levels at construction sites can vary from 65 dBA to a maximum of nearly 90 dBA when heavy equipment is used nearby. Construction noise would be intermittent and noise levels would vary depending on the type of construction activity. However, construction noise is exempt from the City of Sacramento Noise Ordinance provided construction is limited to the hours between 7:00 a.m. and 6:00 p.m. Monday through Saturday and between 9:00 a.m. and 6:00 p.m. on Sundays. A notation must be placed on the construction plans which indicate that the operation of construction equipment shall be restricted to the hours listed above. All internal combustion engines in use on the project must be equipped with original manufacturers' silencers or their after market equivalents and be in good working order (as required by City Ordinance).

Long-term Operational Noise Impacts. No long term increases in noise levels would occur after construction is complete due to the fact that Norwood Avenue is not expected to generate any additional traffic or traffic noise as a result of this project.

Question B

Construction activities, especially those associated with the use of impact equipment such as used in pile driving, are a known source of groundborne noise and vibration. Sheet pile and trestle pile driving will be required to dewater portions of the creek and to construct the temporary pedestrian bridge and the contractor's work platforms. These features will be located within the creek corridor between levees. Proposed construction techniques would require the use of pile driving. The Federal Transit Administration's (FTA) vibration impact criteria and impact assessment guidelines are published in their *Transit Noise and Vibration Impact Assessment* document.[d] Typical groundborne vibration levels measured at a distance of 25 feet from heavy construction equipment in full operation, such as vibratory rollers, range up to

[d] Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment.*

approximately 94 VdB[e]; while pile driving can result in typical groundborne vibration levels of 104 VdB at a distance of 25 feet from the operating equipment. The FTA groundborne vibration damage threshold for buildings considered particularly fragile structures is approximately 90 VdB; while the damage threshold for structures made of engineered concrete and masonry is 98 VdB. The closest sensitive receptors would be located over 150 feet from the proposed pile driving locations. At this distance vibration levels from pile driving and other construction activities would attenuate to well below 80 VdB which would result in a less-than-significant impact to the surrounding residential neighborhoods.

Question C and D

The project would result in short-term construction noise. Operation of the new bridge would not result in increased vehicle trips, and operational noise impacts would be minimal. No substantial increase in ambient noise levels would occur as a result of the project.

Question E and F

The project site is located in a residential area of Sacramento. The closest airport (private or public) is Sacramento International, approximately 8 miles northwest of the project site. There would be no impact created by noise from airport uses.

MITIGATION MEASURES

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Noise.

[e] To distinguish noise levels from vibration levels, the unit is written as VdB.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
10. PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: A) Fire protection?			X
B) Police protection?			X
C) Schools?			X
D) Parks?			X
E) Other public facilities?			X

Environmental Setting

The City of Sacramento Police Department provides police protection service within the project area. Duties of the City of Sacramento Police Department include law enforcement, crime prevention, and community relation services. The City of Sacramento provides fire protection and emergency medical services as well as first response hazardous materials services within the project area. The

There are several schools in the vicinity of the proposed project site including: Las Flores High School, Samuel Jackman Middle School, St. Charles Borromeo Catholic School, and Charles Mack Elementary School. The Sacramento Unified School District has 61 schools: 38 elementary schools, eight middle schools, eight high schools, four alternative education schools, an adult school, a special education school, and one charter school.

STANDARDS OF SIGNIFICANCE

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, roadway maintenance, or other governmental services beyond what was anticipated in the 2030 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Future development associated with the 2030 General Plan would result in an increase in the City's population, however, because future development anticipated under the 2030 General Plan would be required to comply with the general plan policies, adequate public services would be provided to serve the anticipated increase in demand.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Through the implementation of the policies provided in the 2030 General Plan impacts would result in a less-than-significant impact to public services.

ANSWERS TO CHECKLIST QUESTIONS

Questions A - E

The proposed project would replace an obsolete bridge with a structure designed to accommodate motor vehicles as well as pedestrians and bicycles. The project would result in improved access for emergency vehicles.

The proposed project would not require altered services to existing fire protection, police protection, schools, maintenance of public facilities, or other governmental services. The proposed project would not result in the need for any new facilities since the bridge is already established and in use. Bridge construction would be conducted in a manner that will retain access on Norwood Avenue through the duration of construction. While lane closures may be expected during construction (as well as complete closure for specific construction items) emergency services access should not be significantly impaired due the availability of alternate routes. Closures will be limited in duration (e.g., complete closure occurring during overnight hours or on weekends). The project would not result in any increased demand for school services. A less-than-significant impact is expected to fire, police, school, and other public services.

MITIGATION MEASURES

No mitigation is required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Public Services.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
11. RECREATION A) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X
B) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X

ENVIRONMENTAL SETTING

The proposed project site is located in an urban area of north Sacramento and is surrounded by residential and commercial uses as well as Gateway Park. The project site is located over a section of land the City has designated a parkway. The approved Walt Ueda Parkway will consist of approximately 12.5 miles of paved recreation trails that are mostly on the crown of levees and has access to the natural habitat of Steelhead Creek, Arcade Creek, Dry Creek, and Robla Creek. The Walt Ueda Parkway will also include approximately 3.5 miles of equestrian trail in the Hansen Ranch area.

Adjacent to the northwest abutment of the current Norwood Bridge is Gateway Park. Gateway Park is owned and maintained by City of Sacramento Department of Parks and Recreation. Gateway Park is 4.7 acres and has a Class II picnic area (tables for group or individuals with or without barbecue) and bantam soccer field (120' x 180').

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2030 General Plan.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

An increase in population resulting from implementation of the 2030 General Plan may place a

higher demand on area parks or recreational facilities such that deterioration of these facilities could occur or be accelerated. However, these new residents are anticipated as part of the 2030 General Plan and policies have been created to ensure that future development within the Policy Area would not create a need for construction or expansion of recreational facilities beyond what was anticipated in the General and other Community Plans.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Through the implementation of the policies provided in the 2030 General Plan, impacts would result in a less-than-significant impact to recreation.

ANSWERS TO CHECKLIST QUESTIONS

Questions A and B

The proposed project site will have beneficial impacts on recreation opportunities and access to recreational facilities. An access road will be constructed underneath the bridge on the north side of the creek to accommodate construction equipment related to levee maintenance. The access road will serve as a section of the bike path for the Walt Ueda Parkway. The proposed project would disturb the parkway during the construction phase but once complete the proposed project would enhance the parkway by providing continuous passage for bicyclists and pedestrians along the levees without having to cross Norwood Avenue. Bridge widening improvements would encroach into the undeveloped region on the western side of Gateway Park. This expansion would not affect the quality of the recreational experience or opportunities as the encroachment is minor and avoids the usable park lands.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Recreation.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
12. TRANSPORTATION AND CIRCULATION Would the project: A) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?			X
B) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X
C) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X
D) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X	
E) Result in inadequate emergency access?			X
F) Result in inadequate parking capacity?			X
G) Conflict with adopted policies, plans, or programs supporting alternative modes of transportation (e.g., bus turnouts, bicycle racks)?			X

ENVIRONMENTAL SETTING

The current Norwood Bridge was built in 1956 and was recently widened to provide a full width sidewalk on the west side of Norwood Avenue. The deck has a clear width of 28 feet and carries two lanes of traffic. Each side of the bridge carries a five-foot-wide raised sidewalk. The bridge is too narrow for the required bike lanes. Norwood Avenue is a principal arterial road and one of only three crossings of Arcade Creek in the Del Paso Heights / Strawberry Manor communities. The roadway profile grade is constrained by the intersections at Lindley on the south and Fairbanks to the north.

STANDARDS OF SIGNIFICANCE

The standards of significance for Transportation utilize policies in the 2030 General Plan, Mobility Element and, when appropriate, standards used by regulatory agencies. For traffic flow on the freeway system, the standards of Caltrans have been used.

ROADWAY SEGMENTS

A significant traffic impact occurs for roadway segments when:

1. The traffic generated by a project degrades peak period Level of Service (LOS) from A,B,C or D (without the project) to E or F (with project); or

2. The LOS (without project) is E or F, and project generated traffic increases the Volume-to-Capacity Ratio (V/C ratio) by 0.02 or more.

Intersections

A significant traffic impact occurs for intersections when:

1. The traffic generated by a project degrades peak period level of service from A, B, C or D (without project) to E or F (with project); or

2. The LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

Freeway Facilities

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway;
- Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service;
- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or
- The expected ramp queue is greater than the storage capacity.

Transit

Impacts to the transit system are considered significant if the proposed project would:

- Adversely affect public transit operations or
- Fail to adequately provide for access to public transit.

Bicycle Facilities

Impacts to bicycle facilities are considered significant if the proposed project would:

- Adversely affect bicycle travel, bicycle paths or
- Fail to adequately provide for access by bicycle.

Pedestrian Circulation

Impacts to pedestrian circulation are considered significant if the proposed project would:

- adversely affect pedestrian travel, pedestrian paths or
- fail to adequately provide for access by pedestrians.

Parking

Impacts to parking are considered significant if the proposed project would eliminate or adversely affect an existing parking facility, interfere with the implementation of a proposed parking facility, or result in an inadequate supply of parking.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Implementation of the 2030 General Plan would create an increase in population within the Policy Area, which would increase the demand placed on transportation and circulation facilities resulting in significant and unavoidable impacts. The proposed bridge replacement retains the existing lane configuration on Norwood Avenue and would not have capacity increasing or growth inducing impacts. In addition, bike lanes will be provided on the bridge structure. Overall, the project will have an equal or beneficial impact on traffic and circulation.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Adherence to the 2030 General Plan policies, combined with the proposed bridge retaining the original lane configuration, would result in a less-than-significant impact to traffic and circulation.

ANSWERS TO CHECKLIST QUESTIONS

Question A and B

During project construction hours, additional contractor vehicles will be using the bridge and

parking in the area. Approximately 5-10 trips per day would be generated by construction workers commuting to/from the project site. This additional traffic would occur over the course of a construction period. Any trips required as a result of demolishing the existing structure are very limited, totaling only 1-2 truck trips per day for one week. Because of the negligible number of construction-related trips, this impact is less-than-significant. No other trip generation will occur with the new bridge.

Questions C

The proposed project would replace an obsolete bridge with a structure that reduces hazards at the existing site due to inadequate design and stream scouring. Project impacts for safety would be less than significant.

Question D

During construction, lane closures may be necessary on a temporary basis and an increase in traffic hazards may occur. Mitigation measure T/C-1 will reduce the potential traffic hazard to less-than-significant levels.

Question E

The proposed project will not interfere with emergency access or access to nearby uses as traffic lanes will remain open during the construction, although with periodic minor delays. Within a mile, alternate routes are available to cross Arcade Creek at Rio Linda Boulevard and Marysville Boulevard.

Question F

The proposed project would not result in any increase in parking demand. The proposed project does not involve parking along this section of roadway due to the fact that parking is typically not allowed on bridges. Adequate parking is currently available on streets surrounding the bridge for nearby residential and commercial properties.

Questions G

The project would construct a new bridge and, consistent with the 2030 General Plan policies, accommodate motor vehicle, pedestrian and bicycle traffic. The project would have beneficial impacts relating to alternative transportation, and any impacts relating to rail, waterborne, or air traffic would be less than significant.

MITIGATION MEASURES

T/C-1. During construction in order to avoid potential conflict with traffic in the public right-of-way, the construction contractor shall be required to submit to the City of Sacramento and implement an approved traffic control plan as a component of the proposed project. The traffic control plan would include the following measures:

- Staging construction plans, a construction schedule, and a description of the City's noticing procedures prepared prior to commencement of construction activities to avoid inadequate emergency access or access to nearby uses.

- Statements on the improvement plans that:
  - Public safety and emergency services will be kept informed of construction activities for use in planning emergency response routing.
  - Construction will occur during non-peak hours (i.e., 8:30am -4:00pm) so as to not significantly impact traffic flow.
  - Only one lane of travel will be closed at one time; thereby, allowing controlled through access.

FINDINGS

Implementation of Mitigation Measure T/C-1 would reduce project-specific effects for transportation and circulation to a less-than-significant level.

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
13. UTILITIES AND SERVICE SYSTEMS Would the project: A) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X
B) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X
C) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X
D) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X
E) Result in a determination by the wastewater treatment provider which serves or may serve the project's projected demand in addition to the provider's existing commitments?			X
F) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid water disposal needs?			X
G) Comply with federal, state, and local statutes and regulations related to solid waste?			X

ENVIRONMENTAL SETTING

There are various overhead and underground utilities within the proposed project limits, including overhead power, telephone and cable on the west side of Norwood Avenue, and water and gas lines attached to the east and west sides of the current bridge.

STANDARDS OF SIGNIFICANCE

For purposes of this Initial Study, an impact is considered significant if the proposed project would:

- Result in a detriment to microwave, radar, or radio transmissions;
- Create an increase in water demand of more than 10 million gallons per day;
- Substantially degrade water quality;
- Generate more than 500 tons of solid waste per year; or
- Generate stormwater that would exceed the capacity of the stormwater system.

SUMMARY OF ANALYSIS UNDER THE 2030 GENERAL PLAN MASTER EIR, INCLUDING CUMULATIVE IMPACTS, GROWTH INDUCING IMPACTS, AND IRREVERSIBLE SIGNIFICANT EFFECTS

Future development associated with the 2030 General Plan would result in an increase in the City's population, however, because future development anticipated under the 2030 General Plan would be required to comply with the general plan policies, adequate utilities and services systems would be provided to serve the anticipated increase in demand. It should be noted that the new bridge will retain the original lane configuration along Norwood Avenue and will not induce growth or create new demand for utilities and services.

MITIGATION MEASURES FROM 2030 GENERAL PLAN MASTER EIR THAT APPLY TO THE PROJECT

Through the implementation of the policies provided in the 2030 General Plan impacts would result in a less-than-significant impact to utilities and services systems.

ANSWERS TO CHECKLIST QUESTIONS

Question A - F

The proposed project site is already established and in use; the proposed project would have no impact on utilities including communication systems, water supplies, water treatment, or sewer and septic tanks. Existing utility lines would be protected in place during project construction activities and transferred onto the new bridge. Service disruption would be minimal and would have little to no affect on the region. No impacts to existing utility lines would occur as a result of the proposed bridge repairs. Also refer to Section 5.0, Energy regarding power and natural gas utilities.

The proposed project storm water runoff would be diverted into the city drainage system. This would eliminate stormwater entering Arcade Creek. According to City utilities plans, the current drainage system is capable of handling the increased volume of stormwater. The north half of the proposed project will be connected to manhole #103 of an existing 10 inch line located in Fairbanks Avenue. The southern half of the proposed project will connect to manhole #103 of an existing 8 inch line located in Norwood Avenue. Also refer to Section 8.0 Hydrology and Water Quality regarding site drainage.

Question G

The proposed project does not involve ongoing waste disposal related project and as such will have no long-term impact on solid waste disposal. In the short-term, various bridge material collected from demolishing the existing bridge structure will be disposed at appropriate landfill facilities, or recycled.

MITIGATION MEASURES

No mitigation measures are required.

FINDINGS

The project would have no additional project-specific environmental effects relating to Utilities and Service Systems.

MANDATORY FINDINGS OF SIGNIFICANCE

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
14. MANDATORY FINDINGS OF SIGNIFICANCE A.) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X	
B.) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X
C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X	

Answers to Checklist Questions

Question A

With the implementation of the proposed mitigation measures, the project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. The project would not impact rare or endangered wildlife species, or eliminate important examples of the major periods of California history or prehistory.

Question B

The project does not have impacts individually limited, but cumulatively considerable. Although certain project impacts cumulatively combine with impacts from other projects the proposed mitigation measures will mitigate those impacts to less-than-significant. Individual impacts will be mitigated to less-than-significant levels, resulting in no cumulative impacts for the project.

Question C

With implementation of the mitigation measures described in this document, the project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this project.

	Aesthetics	X	Hazards
	Air Quality		Noise
X	Biological Resources		Public Services
X	Cultural Resources		Recreation
	Energy and Mineral Resources	X	Transportation/Circulation
	Geology and Soils		Utilities and Service Systems
	Hydrology and Water Quality	X	Mandatory Finding of Significance
	None Identified		

SECTION V - DETERMINATION

On the basis of the initial study:

☐ I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; and (c) the proposed project **will not** have any project-specific additional significant environmental effects not previously examined in the Master EIR, and no new mitigation measures or alternatives will be required. Mitigation measures from the Master EIR will be applied to the proposed project as appropriate. Notice shall be provided pursuant to CEQA Guidelines Section 15087. (CEQA Guidelines Section 15177(b))

☒ I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))

☐ I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. A focused EIR shall be prepared which shall incorporate by reference the Master EIR and analyze only the project-specific significant environmental effects and any new or additional mitigation measures or alternatives that were not identified and analyzed in the Master EIR. Mitigation measures from the Master EIR will be applied to the project as appropriate. (CEQA Guidelines Section 15178(c))

☐ I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2030 General Plan Master EIR; (b) the proposed project is consistent with the 2030 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR **are not** adequate for the proposed project; and (d) the proposed project **will** have additional significant environmental effects not previously examined in the Master EIR. An EIR shall be prepared, which shall tier off of the Master EIR to the extent feasible. (CEQA Guidelines Section 15178(e))

Puysan Cook
Signature

2/1/10
Date

Puysan "Susanne" Cook
Printed Name

REFERENCES CITED

City of Sacramento. 2008. Website: www.cityofsacramento.org

City of Sacramento 2030 General Plan

City of Sacramento 2030 General Plan Master EIR

Federal Emergency Management Agency. 2008. Website: www.fema.gov

LSA Associates, Inc. Historic Property Survey Report For The Norwood Avenue Over Arcade Creek Bridge Replacement Project. June 2008.

LSA Associates, Inc. Natural Environment Study. August 2008.

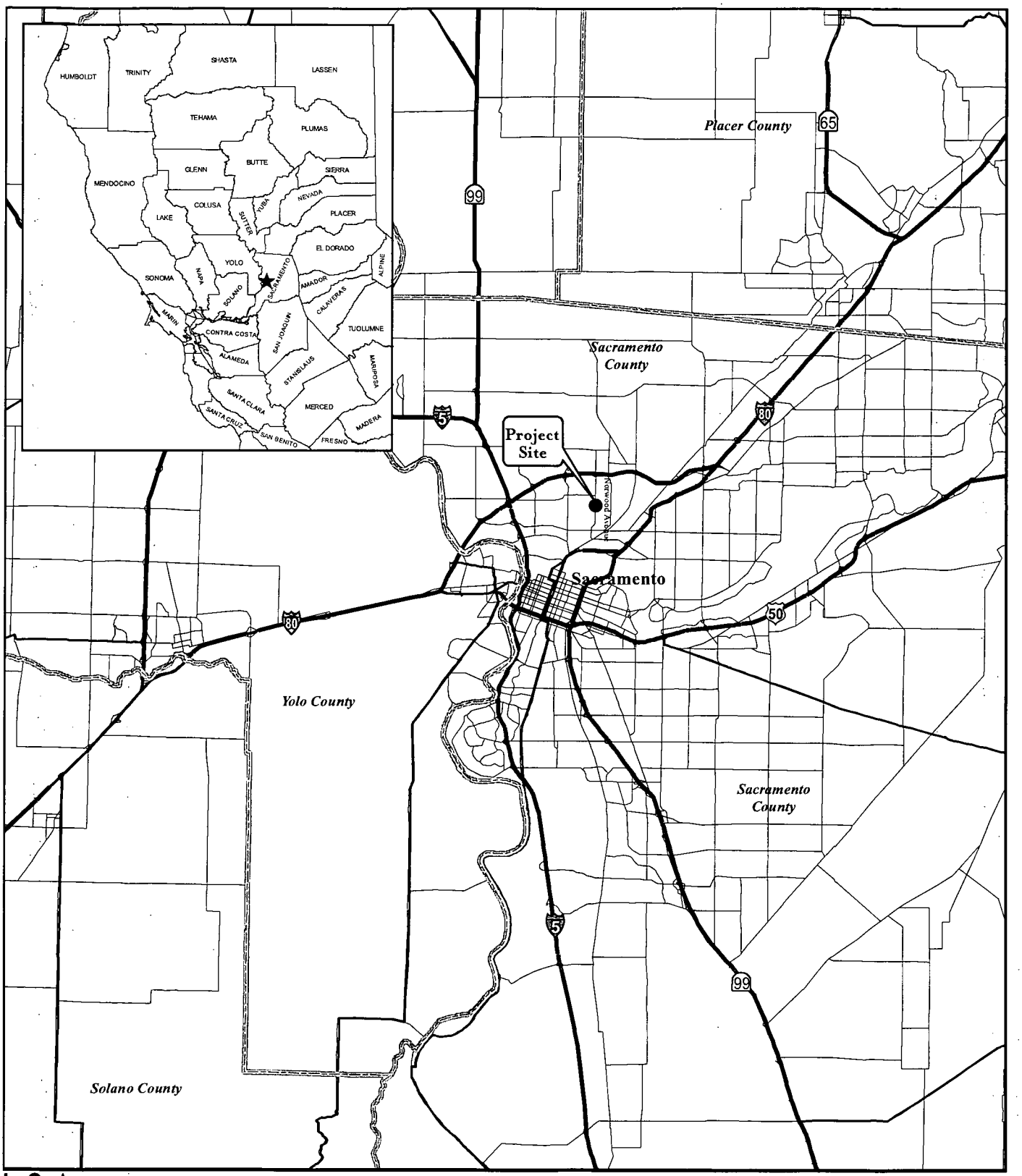
U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey. 2008. Website: http://websoilsurvey.nrcs.usda.gov

Pacific Hydrologic, Inc. Preliminary Hydraulic Analysis Memorandum. December 2007.

Parikh Consultants, Inc. Preliminary Geotechnical Memorandum. June 2008.

Parikh Consultants, Inc. Preliminary Phase 1 ISA Report. February 2008.

Sacramento Metropolitan Air Quality Management District, CEQA and Land Use Mitigation. 2008. Website: http://www.airquality.org/ceqa/index.shtml



LSA

FIGURE 1

N

0 5

SCALE IN MILES

Norwood Avenue Bridge Replacement
03-Sac-Norwood
Federal Project No. BHLS-5002(111)

Project Location

SOURCE: US CENSUS BUREA TIGER 2K (2002)
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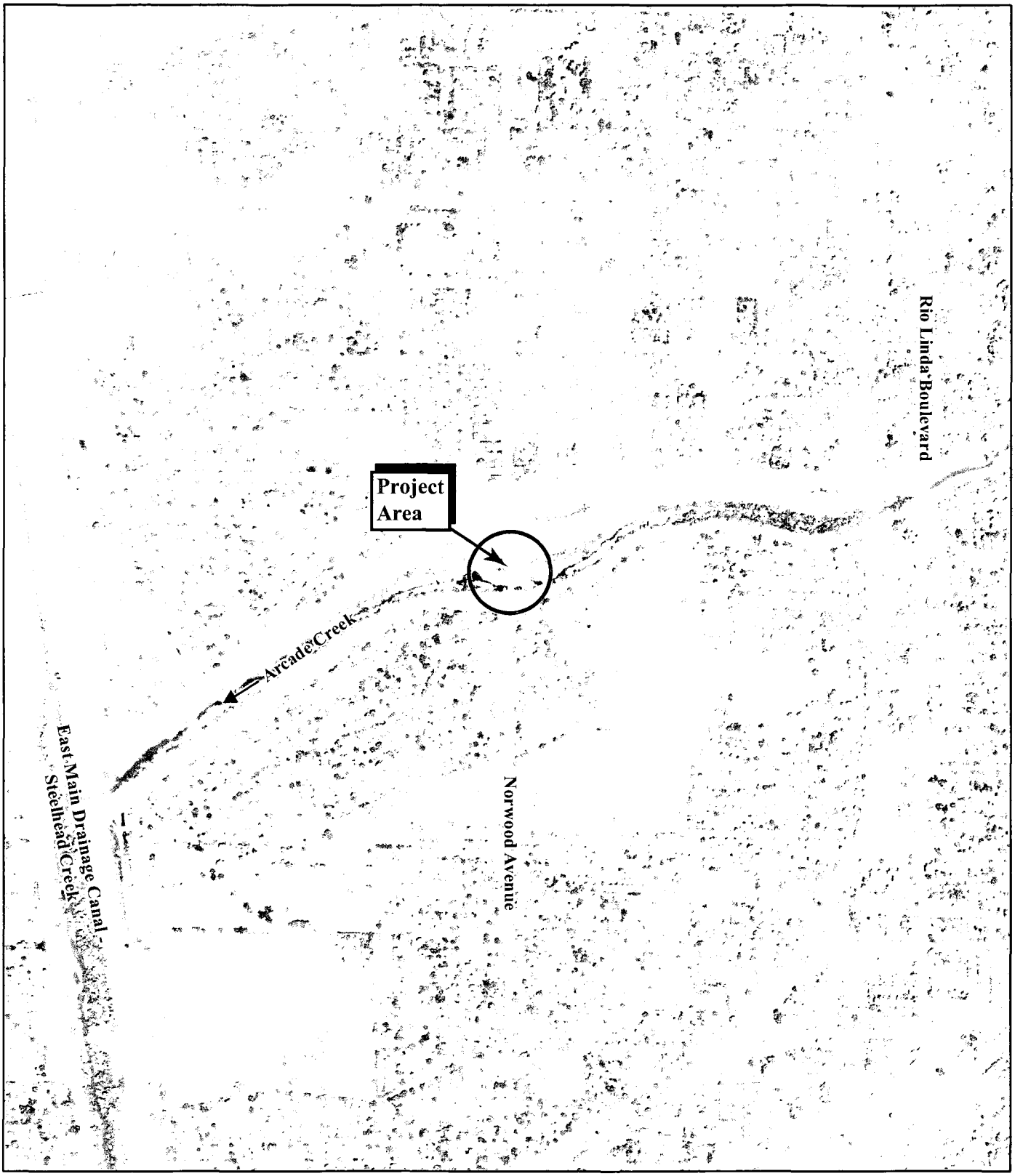


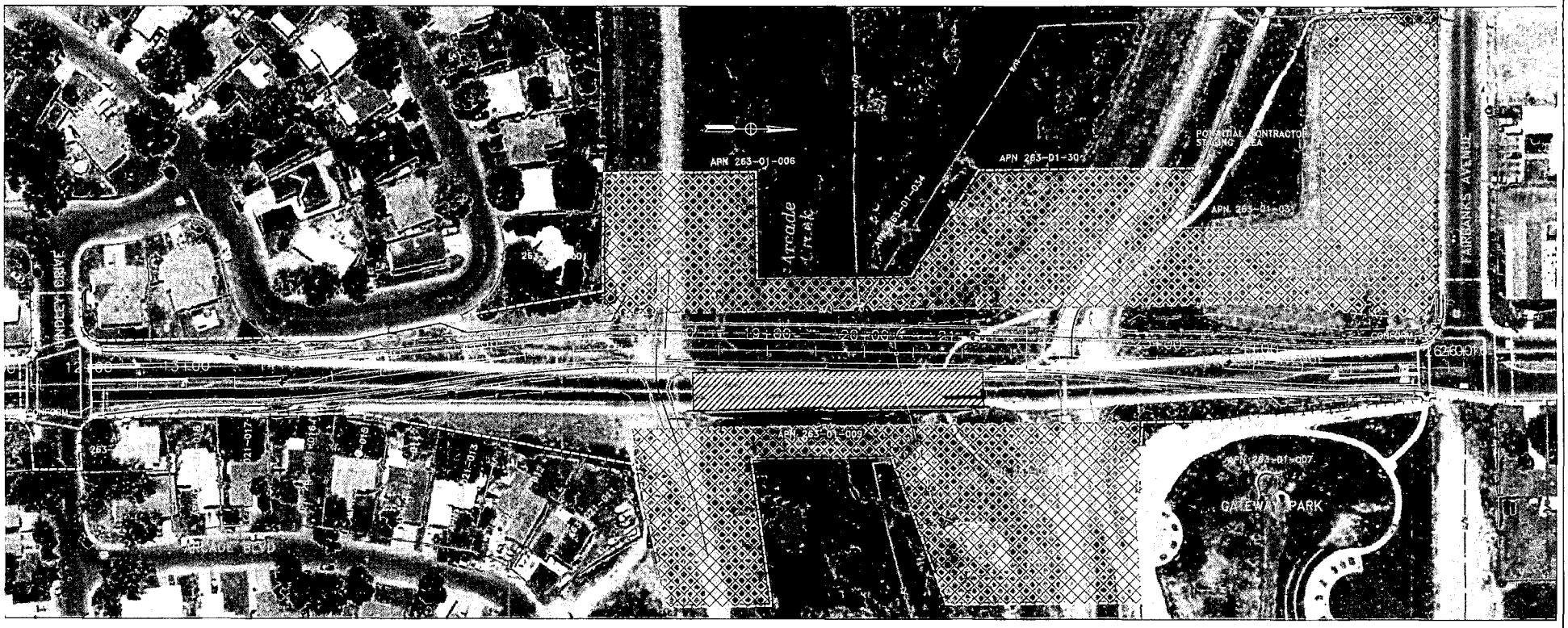
LSA

FIGURE 2

0 1,000
SCALE IN FEET

Norwood Avenue Bridge Replacement
03-Sac-Norwood
Federal Project No. BHLS-5002(111)
Project Vicinity

SOURCE: SACRAMENTO COUNTY NAIP AERIAL (2005)
P:\TYL0701\Graphics\Figure2.ai (9-25-08)



SCALE 1"=100'

LSA

N

Legend

EXISTING BRIDGE, TO BE REMOVED
PROPOSED BRIDGE
EXISTING RIGHT OF WAY & PROPERTY LINES
ARCHAEOLOGICAL AND ARCHITECTURAL LIMITS
TEMPORARY CONSTRUCTION EASEMENT

FIGURE 3

Norwood Avenue Bridge Replacement
03-Sac-Norwood
Federal Project No. BHLS-5002(111)
APE Map

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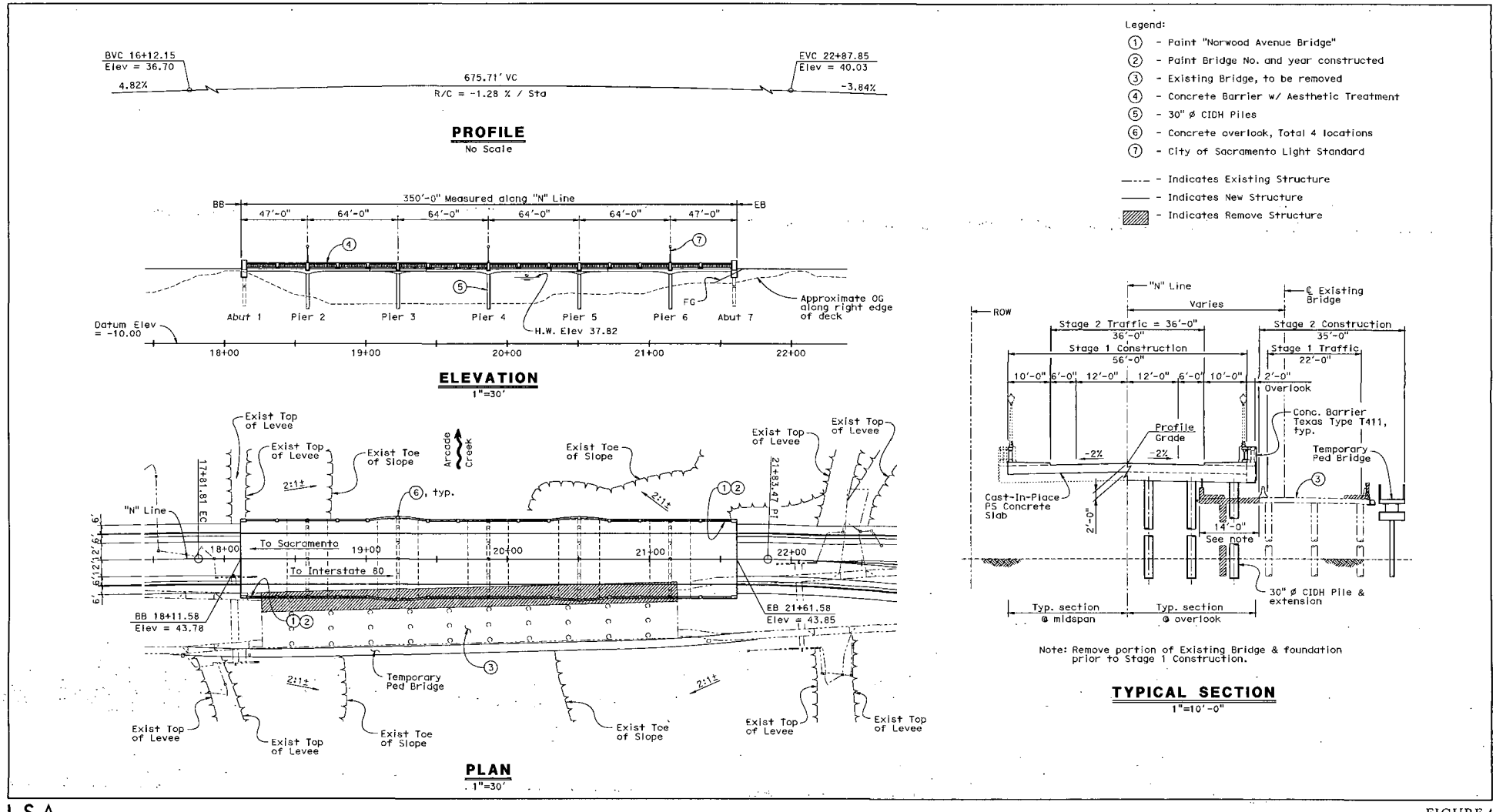

LSA

FIGURE 4

Norwood Avenue Bridge Replacement
03-Sac-Norwood
Federal Project No. BHLS-5002 (111)
Bridge Cross Section

SOURCE: T.Y. LIN International, 2006

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Exhibit D

NORWOOD AVENUE AT ARCADE CREEK BRIDGE REPLACEMENT (T15068400) MITIGATION MONITORING PROGRAM

This Mitigation Monitoring Program (MMP) has been required by and prepared for the City of Sacramento Community Development Department, Environmental Planning Services, 300 Richards Boulevard, Sacramento, CA 95811, pursuant to CEQA Guidelines Section 21081.6.

SECTION 1: PROJECT IDENTIFICATION

Project Name / File Number: Norwood Avenue at Arcade Creek Bridge Replacement (Project #T15068400)

Owner/Developer- Name: City of Sacramento, Dept. of Transportation
Address: New City Hall
915 I Street, 2nd Floor
Sacramento, CA 95814

Project Location:

Bridge No. 24C-0080 is a bridge for Norwood Avenue at Arcade Creek

Project Description:

Norwood Avenue provides north-south vehicular access and is one of only three crossings of Arcade Creek in the Del Paso Heights/Strawberry Manor communities. The existing Norwood Avenue Bridge over Arcade Creek was built in 1956 and is no longer adequate. The purpose of the project is to provide a higher and wider bridge that addresses the flood design needs and required bike lanes. The proposed bridge will be raised to reduce flood-related closures, lessen stream flow obstructions, and improve emergency vehicle access during the high water events.

The proposed bridge will be a cast-in-place post-tensioned concrete slab bridge. A structure depth of approximately 2'-0" will be used. The new bridge will be approximately 350 feet long with two 12-foot wide traffic lanes, two 6-foot wide shoulders/bike lanes, two 8-foot wide sidewalks, and exterior concrete barriers. The proposed project will widen the bridge to meet AASHTO standards, and will shift the alignment of the bridge to the west approximately 40 feet.

SECTION 2: GENERAL INFORMATION

The Plan includes mitigation for Biological Resources, Cultural Resources, Hazards and Transportation/Circulation. The intent of the Program is to prescribe and enforce a means for properly and successfully implementing the mitigation measures as identified within the Initial Study for this project. Unless otherwise noted, the cost of implementing the mitigation measures as prescribed by this Program shall be funded by the owner/developer identified above. This Mitigation Monitoring Program (MMP) is designed to aid the City of Sacramento in its implementation and monitoring of mitigation measures adopted for the proposed project.

The mitigation measures have been taken from the Initial Study and are assigned the same number they have in the document. The MMP describes the actions that must take place to implement each mitigation measure, the timing of those actions, and the entities responsible for

implementing and monitoring the actions. The developer will be responsible for fully understanding and effectively implementing the mitigation measures contained with the MMP. The City of Sacramento will be responsible for ensuring compliance.

NORWOOD AVENUE AT ARCADE CREEK BRIDGE REPLACEMENT
MITIGATION MONITORING PROGRAM

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
1. <u>BIOLOGICAL RESOURCES</u>		
BR-1. The City shall develop a salvage and relocation plan for all affected plants to a suitable protected area. The relocation shall occur prior to initiation of any project activities that may impact Sanford's arrowhead. Monitoring shall be required during relocation process until deemed complete by a qualified biologist.	City of Sacramento:	Prior to the start of any construction activities
BR-2. The City shall coordinate with the Arcade Creek Watershed Group's Del Paso Park Wetland Restoration Project to identify potential relocation areas for Sanford's Arrowhead within the local watershed if an onsite location cannot be found.	Community Development Department;	
BR-3. Construction activity within Giant garter snake habitat shall be conducted between May 1 and October 1. This is the active period for Giant garter snakes and direct mortality is lessened because snakes are expected to actively move and avoid danger. Between October 2 and April 30 contact the USFWS's Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.	& Department of Transportation;	
BR-4. Clearing of Giant garter snake habitat shall be confined to the minimal area necessary to facilitate construction activities. Flagging shall designate areas to avoid Giant garter snake habitat within or adjacent to the project area as ESA's. This area shall be avoided by construction personnel.		
BR 5. Construction personnel shall receive USFWS-approved worker environmental awareness training. This training instructs workers to recognize Giant garter snakes and their habitat(s).		
BR-6. Twenty-four hours prior to the start of construction activities, the project area shall be surveyed for Giant garter snakes. Survey of the project area shall be repeated if a lapse in time for construction activities of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate measures prescribed by a qualified biologist have been completed or it has been determined that the snake will		

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
not be harmed. Any sightings and any incidental take shall be reported to the USFWS immediately by telephone at (916) 414-6600.		
BR-7. The proposed project footprint will result in less than 20 acres (i.e. 0.857 acres) of temporary impacts to Giant garter snake habitat. The project will result in less than 3 acres (i.e. 0.0428 acre) total permanent loss of Giant garter snake upland habitat. Due to these factors, the project will qualify as Level 1 impacts requiring restoration and Level 3 impacts for permanent loss requiring 3:1 replacement.		
BR-8. Following project completion, all areas temporarily disturbed during construction shall be restored following the "Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat" outlined below.		After construction completion
a. The disturbed area shall be re-graded to its preexisting contour and ripped, if necessary, to decompact the soil.		
b. The area shall be hydroseeded with a creek bank approved mix. Hydroseed mix shall contain at least 20-40 percent native grass seeds. Some acceptable native grasses include annual fescue (Vulpia spp.), California brome (Bromus carinatus), blue wildrye (Elymus glaucus), and needle grass (Nassella spp.). The seed mix shall also contain 2-10 percent native forb seeds, five percent rose clover (Trifolium hirtum), and five percent alfalfa (Medicago sativa). Approximately 40-68 percent of the mixture may be non-aggressive European annual grasses, such as wild oats (Avena sativa), wheat (Triticum sp.), and barley (Hordeum vulgare). Aggressive non-native grasses shall not be included in the seed mix. These grasses include perennial ryegrass (Lolium perenne), cheatgrass (Bromus tectorum), fescue (Festuca sp.), giant reed (Arundo donax), medusa-head (Taeniatherum caput-medusae), or Pampas grass (Cortaderia selloana). Endophyte-infected grasses will not be included in the seed mix.		
Sufficient credits shall be purchased at a USFWS-approved bank to compensate for 0.0428 acres of permanent Giant garter snake habitat impacts (i.e., 0.418 acres of upland habitat and 0.01 acre of aquatic habitat) at a 3:1 replacement ratio for a total of 01.284 acres of		

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
mitigation credits. Temporary impacts totaling 0.857 acre (i.e., 0.856 acre of upland habitat and 0.001 acre of aquatic habitat) shall be restored following construction. Removal of the existing bridge's north abutment and associated fill, and new 40-foot setback to the levee wall shall improve the hydraulic regime for Arcade Creek, which will be a beneficial affect to giant garter snake. See BR-15 regarding construction restrictions to daylight hours.		
BR-10. Upon completion of construction season, in October, all areas within the BSA temporarily disturbed during construction (e.g., equipment storage and access areas) shall be reseeded with erosion control seeding consisting of a sterile, non-proliferating grass species such as cereal barley or Regreen, to minimize effects to Central Valley steelhead, its critical habitat, and Pacific salmon EFH resulting from erosion, siltation, and other water quality impacts. The seed mix shall not include any fertilizers or chemicals. If the project is to be completed as proposed under the two-seasons, then reseeding, as described above, needs to take place after both the first and second seasons.		
BR-11. Measures consistent with the Caltrans' Construction Site Best Management Practices (BMPs) Manual (including the Storm Water Pollution Prevention Plan [SWPPP] and Water Pollution Control Program [WPCP] Manuals [http://www.dot.ca.gov/hq/construc/Construction_Site_BMPs.pdf]), as amended and updated from time-to-time, shall be implemented to minimize effects to Giant garter snake (e.g., siltation) during construction.		
BR-12. All instream work (e.g., dewatering, removal of the existing bridge piles, and possible excavation for installation of new piles) shall be conducted between June 1 and October 1, which is within the time period when salmonids are least likely to be present in the BSA. If any work within the flowing channel of Arcade Creek is not completed by October 31, a written approval/extension shall be obtained from NMFS to allow work past October 31. Revegetation activities are excluded from this requirement with the stipulation that no heavy equipment be used in the channel.		
BR-13. The work area for removal of the existing bridge piles (i.e., in the flowing channel) shall be dewatered prior to the start of work. Cofferdams will be installed around the perimeter of the		

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
foundations. After the cofferdam perimeter has been sealed it will then be dewatered by pumping the water into a suitable off-site location determined by the contractor for filtration. Dewatering the work area will minimize the potential water quality impacts (e.g., siltation) and ensure that no salmonids are directly affected by project construction activities (i.e., no work will be conducted in flowing water).		
BR-14. ESA fencing shall be installed within the riparian corridor of Arcade Creek, upstream and downstream of the work area, to protect the adjacent habitat during construction. ESA fencing will consist of orange construction fencing or equivalent, and shall be maintained in good condition until construction is complete.		
BR-15. All construction shall be conducted during daylight hours to allow for an extended period of inactivity (i.e., night time) for salmonids, if present, to migrate undisturbed through the BSA.		
BR-16. During removal of the existing bridge, a tarp or other approved method shall be used below the bridge to prevent debris from falling into Arcade Creek. The tarp shall be left in place until the bridge is removed.		
BR-17. Measures consistent with the current Caltrans' Construction BMPs Manual (including the SWPPP and WPCP Manuals [http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM_303_Final.pdf]) shall be implemented to minimize effects to Central Valley steelhead, its critical habitat, and Pacific salmon EFH resulting from erosion, siltation, and other water quality impacts during construction.		
BR-18. A Water Pollution Control Program (WPCP) shall be prepared by the contractor in accordance with typical provisions associated with a Regional General Permit for Construction Activities. The WPCP shall include a Spill Response Plan with instructions and procedures for reporting spills, the use and location of spill containment equipment, and the use and location of spill collection materials. Implementation of the WPCP will minimize effects to Central Valley steelhead, its critical habitat, and Pacific salmon EFH resulting from potential spills associated with the construction activities.		

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
The project shall implement the following measures to avoid and minimize the 0.002 acre of impacts to waters of the U.S. and 1.02 acres of CDFG waters: BR-19. The project shall avoid waters of the U.S. in the Biological Study Area to the maximum extent feasible. BR-20. ESA fencing shall be installed within the riparian corridor of Arcade Creek, upstream and downstream of the work area, to protect the adjacent habitat during construction. ESA fencing will consist of orange construction fencing or equivalent, and shall be maintained in good condition until construction is complete. BR-21. Contract specifications shall include the Best Management Practices, where applicable, to reduce erosion during construction. BR-22. The City shall contribute to the Arcade Creek Watershed Group's Del Paso Park Wetland Restoration Project to compensate for the loss of riparian habitat as a result of the proposed project.		
2. <u>CULTURAL RESOURCES</u> CR 1a In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 150 feet of the resources shall be halted, and the City shall consult with a qualified archeologist to assess the significance of the find. Archeological test excavations shall be conducted by a qualified archeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archeologist, representatives of the City and the qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and	City of Sacramento: Community Development Department; & Department of Transportation	Measures shall be shown and confirmed on construction plans. During Construction activities

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
professional museum curation. In addition, a report shall be prepared by the qualified archeologist according to current professional standards. CR 1b If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives. If Native American archeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions. In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out by qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements. CR 2 If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.		
4. <u>HAZARDS</u> H-1. Surface samples of soil shall be collected and analyzed for total lead prior to the start of construction activities. H-2. Special arrangements shall be made for the disposal of any pavement that contains lead based thermoplastic stripes.	City of Sacramento Dept. of Transportation	Prior to the start of any construction activities

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
H-3. Surveys of the current bridge structure shall be conducted for asbestos-containing materials and lead-based paint prior to demolition or renovation. If asbestos and/or lead based paint is present and abatement is required, state certified contractors shall perform the abatement in accordance with State and Federal regulations. Specifications shall be included for contractor compliance. H-4. Machinery used during construction shall be maintained according to manufacturer's specifications to prevent accidental sparks. H-5. Fire extinguishers shall be kept on-site during all construction activities. H-6. A spill prevention plan shall be prepared by the contractor in the event of an accidental materials spill.		
5. <u>TRANSPORTATION AND CIRCULATION</u> T/C-1. During construction in order to avoid potential conflict with traffic in the public right-of-way, the construction contractor shall be required to submit to the City of Sacramento and implement an approved traffic control plan as a component of the proposed project. The traffic control plan would include the following measures: • Staging construction plans, a construction schedule, and a description of the City's noticing procedures prepared prior to commencement of construction activities to avoid inadequate emergency access or access to nearby uses. • Statements on the improvement plans that: • Public safety and emergency services will be kept informed of construction activities for use in planning emergency response routing.	City of Sacramento Dept. of Transportation	

Mitigation Measure	Monitoring Party	Compliance Milestone / Confirm Compliance
• Construction will occur during non-peak hours (i.e., 8:30am -4:00pm) so as to not significantly impact traffic flow. • Only one lane of travel will be closed at one time; thereby, allowing controlled through access.		