

2004 MAY 26 AM 10:05

**CITY OF OAKLAND  
COUNCIL AGENDA REPORT**

TO: Office of the City Manager  
ATTN: Deborah Edgerly  
FROM: Public Works Agency  
DATE: June 8, 2004

**RE: RESOLUTION AUTHORIZING THE CITY MANAGER TO ACCEPT AND APPROPRIATE THE HAZARDOUS ELIMINATION SAFETY GRANT IN THE AMOUNT OF \$360,000 TO REPLACE/REPAIR STORM WATER INLET GRATES ON OAKLAND STREETS THAT HAVE SLOTS PARALLEL TO THE DIRECTION OF TRAVEL WITH BICYCLE-PROOF GRATES, AS RECOMMENDED IN THE CALTRANS HIGHWAY DESIGN MANUAL, THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AND THE CITY OF OAKLAND BICYCLE MASTER PLAN**

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**SUMMARY**

A resolution has been prepared requesting acceptance of a Hazardous Elimination System (HES) Grant in the amount of \$360,000. The funds will allow the City of Oakland to replace hazardous storm water inlet grates with Caltrans approved bicycle proof grates, and to reconstruct non-standard inlets so that they can accept bicycle-proof grates. Such improvements will remove obstacles citywide and improve our streets for bicyclists, motorists, wheelchair users and pedestrians.

**Renewed Infrastructure:** Repair and maintain the City's infrastructure, including streets, sidewalks, sewers and storm drains, buildings, and vegetation management.

**FISCAL IMPACTS**

The proposed resolution authorizes an appropriation of \$360,000 from Caltrans for implementation of the HES Grant. A new project number will be set up under the California Department of Transportation (Fund 2140) in this amount. As a requirement of the grant, the City will provide matching funds in the amount of \$40,000 from Measure B - ACTIA funds (Fund 2211), Traffic Safety- Hazard Elimination Project (C184020). The total project budget will be \$400,000.

## **BACKGROUND**

The City of Oakland has many storm water inlet grate slots parallel to the direction of travel that are wide enough apart to catch a bicycle tire. The City's Bicycle Master plan (Policy 2 Action 2.2) calls for addressing this issue. Until recently, the City has received Hazard Elimination forms from the East Bay Bicycle Coalition, other citizen reports, and City maintenance staff to locate non-compliant grates. As part of the Storm Drain Master Plan, all inlets in the City of Oakland were inspected to identify those that are non-compliant. To date, approximately 1,000 out of 10,000 inlets have been identified as non-compliant throughout the City. City staff will repair/replace the 1,000 grates that have been identified as non-compliant. Approximately 250 of these inlet grates will require concrete work and reconstruction to accommodate bicycle-proof grates. The work will begin July 2004 and end October 2005. In the last five years, the City has settled seven claims related to bicycle accidents and injuries on non-compliant grates for a total of \$88,059.00.

## **KEY ISSUES AND IMPACTS**

Non-compliant grates pose the following dangers to cyclists:

- 1) Grates and covers that are not flush with the roadway surface can stop or divert a cyclist's front wheel, causing damage and/or serious crashes.
- 2) Drain grate slots that run parallel to the direction of travel can catch a bicycle wheel. If the bicyclist's wheel suddenly gets stuck in a grate slot, the bicyclist is often thrown from the bicycle, causing injury when hitting the pavement and/or when falling into the path of oncoming vehicles.
- 3) When cyclists try to avoid non-obvious obstacles, such as non-compliant drain grates, they may enter the path of another vehicle, resulting in a crash that can injure the cyclist and possibly the occupants of the other vehicle.
- 4) The inexpensive solution of welding steel cross straps perpendicularly to the bars of non-compliant drain grates temporarily protects bicyclists, but if the welds fail, the protruding steel straps present considerable danger to all road users, possibly causing tire blowout to bicyclists and motorists, tripping hazards to pedestrians and obstructions to wheel chair users.

The City of Oakland is committed to improving roadways for all users. This grant offers the City an opportunity to respond to frequent requests from bicycling citizens, bicycle advocacy groups and the City's Bicycle/Pedestrian Advisory Committee. Grant funds will expedite the process of replacement and can meet the requirement of timely implementation.

## **PROJECT DESCRIPTION**

Currently, the City responds to requests to improve or replace non-compliant grates when they are reported. If in stock, maintenance staff replaces the grate with a Caltrans approved bicycle-proof grate. Non-compliant grates can only be replaced if they have a standard sized inlet; many Oakland inlets are not standard size. Maintenance staff will then either weld steel cross-straps perpendicular to the bars of the drain grates or perform a complete reconstruction of the inlet. Although inexpensive and quick to implement, AASHTO only recommends welding cross-straps as a temporary correction, and the welds do not hold well to the cast iron grates common in older parts of Oakland. When the welds fail and cause the perpendicular straps to come loose, the protruding steel straps in the roadway inconvenience and endanger bicyclists, motorists and pedestrians. This grant would allow a more exhaustive citywide replacement and reconstruction of non-compliant grates. For these reasons, replacement and reconstruction are the only cost-effective permanent solutions that serve all users of the Oakland street system.

## **SUSTAINABLE OPPORTUNITIES**

Economic: Reduce potential liability to the City regarding claims that result from bicycle accidents.

Environmental: Safe bicycle routes, a non-motorized mode of travel, will help improve air quality by encouraging citizens to use bicycles more often reducing traffic congestion, thus reducing air pollution.

Social Equity: Improvements will provide safe movement of bicycles, vehicles, and pedestrians.

## **DISABILITY AND SENIOR CITIZEN ACCESS**

The new grates will improve the travel surface for travel-assisting devices such as wheel chairs, by preventing their wheels from getting lodged in the non-compliant grates. They also remove a potential hazard for persons who are visually impaired.

## **RECOMMENDATIONS AND RATIONALE**

Staff recommends that the City Council authorize acceptance of the Caltrans Hazardous Elimination Safety (HES) Grant in the amount of \$360,000 to replace storm inlet grates that are hazardous to bicycles and pedestrians.

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**ACTION REQUESTED OF THE CITY COUNCIL**

Staff recommends that the City Council authorize the City Manager to accept and appropriate funds of the Caltrans Hazardous Elimination Safety (HES) Grant in the amount of \$360,000 and City matching funds of \$40,000 to replace storm inlet grates that are hazardous to bicycles and pedestrians.

Respectfully submitted,



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**RAUL GODINEZ II, P.E.**  
Director, Public Works Agency

Prepared by:  
David Ferguson  
Operations Manager  
Sewer Maintenance and Utility Inspection Division

APPROVED AND FORWARDED TO THE  
PUBLIC WORKS COMMITTEE:



**OFFICE OF THE CITY MANAGER**

2004 MAY 26 AM 10:05

OAKLAND CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_ C.M.S.



INTRODUCED BY COUNCILMEMBER \_\_\_\_\_

**RESOLUTION AUTHORIZING THE CITY MANAGER TO ACCEPT AND APPROPRIATE THE HAZARDOUS ELIMINATION SAFETY GRANT IN THE AMOUNT OF \$360,000 TO REPLACE STORM INLET GRATES ON OAKLAND STREETS THAT HAVE SLOTS PARALLEL TO THE DIRECTION OF TRAVEL WITH BICYCLE-PROOF DRAIN GRATES, AS RECOMMENDED IN THE CALTRANS HIGHWAY DESIGN MANUAL, THE AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AND THE CITY OF OAKLAND BICYCLE MASTER PLAN**

**WHEREAS**, Caltrans will provide funds in the amount of \$360,000; and

**WHEREAS**, the City of Oakland will provide matching funds in the amount of \$40,000;  
and

**WHEREAS**, City forces will perform all repair/replacement work to make inlet grates bicycle safe; and

**WHEREAS**, approximately 1,000 grates have been identified to be replaced; and

**WHEREAS**, the City is committed to improving roadways for all users; and

**WHEREAS**, the program offers the City an opportunity to respond to frequent requests from bicycling citizens, bicycle advocacy groups and the City's Bicycle/Pedestrian Advisory Committee; and

**WHEREAS**, the program will reduce liability to the City regarding claims that result from bicycle accidents; now, therefore, be it

**RESOLVED:** That the City Manager is authorized to accept Hazardous Elimination Safety Funds in the amount of \$360,000 to replace defective storm water inlet grates on City streets; and be it



**PUBLIC WORKS CMTE.**

**JUN 8 2004**

**FURTHER RESOLVED:** That this project is proposed to begin August 2004 with completion in October 2005.

IN COUNCIL, OAKLAND, CALIFORNIA, \_\_\_\_\_, 20\_\_\_\_

**PASSED BY THE FOLLOWING VOTE:**

AYES-        BROOKS, BRUNNER, CHANG, NADEL, QUAN, REID, WAN AND  
              PRESIDENT DE LA FUENTE

NOES-

ABSENT-

ABSTENTION-

ATTEST: \_\_\_\_\_

CEDA FLOYD  
City Clerk and Clerk of the Council  
of the City of Oakland, California



**PUBLIC WORKS CMTE.**

**JUN 8 2004**