CALIFORNIA COASTAL COMMISSION
South Coast Area Office
200 Oceangate, Suite 1000
ong Beach, CA 90802-4302
62) 590-5071

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STAFF REPORT: DE NOVO & REGULAR CALENDAR

APPLICATION NUMBER: 5-01-289 **APPEAL NUMBER:** A-5-VEN-01-280

APPLICANT: City of Los Angeles Department of Public Works

AGENT: Raul Rojas, Deputy City Engineer

PROJECT LOCATION: Segment of Grand Canal between Washington Boulevard and Ballona Lagoon, Venice, City of Los Angeles.

PROJECT DESCRIPTION: Rehabilitation of the Grand Canal banks, public walkways and waterway (between Washington Boulevard and Ballona Lagoon).

LOCAL APPROVAL: City of Los Angeles Local Coastal Development Permit No. 01-05.

SUMMARY OF STAFF RECOMMENDATION

At a public hearing on September 11, 2001, the Commission determined that **a substantial issue exists** with respect to the City's approval of the local coastal development permit on the grounds that the City did not adequately analyze and mitigate the impacts of the proposed project on sensitive habitat areas. In response to the Commission's determination, the City has made substantial changes to the proposed project in order to reduce and mitigate the proposed project's temporary and permanent impacts to the Grand Canal's sensitive habitat areas. These changes include: a substantial reduction in the amount of proposed channel alteration (dredging), minimization of proposed bank alteration by limiting the placement of Loffelstein blocks to significantly eroded bank areas and to the section of the east bank that currently consists of concrete, increasing rather than decreasing the existing width of the waterway on the north and south ends of the project, and incorporation of procedures to preserve most of the wetland vegetation that currently exists on the canal banks.

Staff is recommending that the Commission grant a de novo permit (A-5-VEN-01-280) and a coastal development permit (5-01-289) for the proposed development with special conditions to protect public access opportunities and to mitigate the proposed project's temporary and permanent impacts to sensitive habitat areas. The applicant agrees with the recommendation. **See Page Three for motions**.

See Pages Four through Nine for the recommended conditions of approval. The recommended special conditions require the permittee to implement specific construction methods and to phase the proposed work in order to ensure that the proposed project is the least environmentally damaging alternative for restoration of the public access and habitat resources of Grand Canal. The permittee must also assume the risks of the development.

SUBSTANTIVE FILE DOCUMENTS:

1. City of Los Angeles certified Land Use Plan for Venice, 6/12/01.
2. City of Los Angeles Local Coastal Development Permit No. 01-05.
3. Coastal Development Permit Appeal A5-VEN-01-279 (City of LA - Ballona Lagoon)
4. Coastal Development Permit Application 5-01-257 (City of LA - Ballona Lagoon).
5. Coastal Development Permit 5-91-584 & amendments (City of LA – Venice Canals).
6. City of Los Angeles Mitigated Negative Declaration for the Grand Canal Rehabilitation Project (CEQA), No. BE 097-01, 2/14/01.
7. California Regional Water Quality Board Permit Application, File No. 01-086.
8. U.S. Army Corps of Engineers Permit Application No. 2001-01330-JLB.
9. Report of Subsurface Investigation (Analysis of Sediment in Grand Canal), by City of Los Angeles Department of General Services, Lab No. 140-5092, 9/27/01.
10. Tidal Flushing for Venice Canals Rehabilitation, Phase II Report, by Philip Williams & Associates, Ltd., September 1994.
11. Avifauna of the Venice Canals by Charles T. Collins, Ph.D., 1986.
12. Grand Canal Wetland Enhancement Assessment, Prepared for State Coastal Conservancy by Michael Josselyn, PhD, February 24, 1998.
13. Biota of the Ballona Region, Los Angeles County Natural History Museum Foundation, Edited by Ralph W. Schreiber, 1981.

STAFF NOTE:

Pursuant to Section 30519 of the Coastal Act, any development located within the Commission's area of original jurisdiction requires a coastal development permit from the Commission. The Commission's area of original jurisdiction includes tidelands, submerged lands, and public trust lands, whether filled or unfilled. The proposed project involves work within the channel of Grand Canal, a submerged area. Therefore, a coastal development permit is required from the Commission for the proposed development because the project site is located within the Commission's area of original jurisdiction. The Commission's standard of review for the proposed development is the Chapter 3 policies of the Coastal Act. The City of Los Angeles certified LUP for Venice is advisory in nature and may provide guidance.

The proposed project is also located within 300 feet of the mean high tide line. Therefore, it is within the coastal zone area of the City of Los Angeles which has been designated in the City's permit program as the "Dual Permit Jurisdiction" area. Pursuant to Section 30601 of the Coastal Act and Section 13307 of the California Code of Regulations, any development located in the Dual Permit Jurisdiction that receives a local coastal development permit from the City must also obtain a permit from the Coastal Commission. The City-approved local coastal development permit for the proposed project was appealed to the Commission on July 20, 2001 (Appeal No. A-5-VEN-01-280). On September 11, 2001, the Commission found that a Substantial Issue exists with the City's approval of the proposed project, thus nullifying the local coastal development permit approval.

In order to minimize duplication, Commission staff has combined the de novo appeal permit (A-5-VEN-01-280) and coastal development permit application (5-01-289) into one staff report and one Commission hearing. However, the Commission's approval, modification or disapproval of the proposed project will require two separate Commission actions: one action for the de novo appeal permit and one action for the coastal development permit application. Staff is recommending that the Commission approve both permits with the following identical special conditions and findings.

STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolutions to **APPROVE** Coastal Development Permits 5-01-289 and A-5-VEN-01-280 with special conditions. Staff recommends two **YES** votes which would result in the adoption of the following resolutions and findings. Affirmative votes by a majority of the Commissioners present are needed to pass the motions.

FIRST MOTION:

"I move that the Commission approve with special conditions Coastal Development Permit 5-01-289 per the staff recommendation as set forth below."

I. Resolution: Approval with Conditions of 5-01-289

The Commission hereby **APPROVES** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

SECOND MOTION:

"I move that the Commission approve with special conditions Coastal Development Permit A-5-VEN-01-280 per the staff recommendation as set forth below."

II. Resolution: Approval with Conditions of A-5-VEN-01-280

The Commission hereby **APPROVES** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

III. Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

IV. Special Conditions

1. Draining of Canal - Timing of Construction

The damming and draining of Grand Canal and the removal of sediment from the channel is approved for one time only. The permittee shall install and put into operation the proposed water bypass pipeline from Ballona Lagoon to the northern canals (north of Washington Boulevard) prior to construction of the approved dams. The permittee shall construct the approved dams and drain Grand Canal at low tide in order to allow the maximum number of fish and other creatures to move into Ballona Lagoon or the northern canals. The animals remaining in Grand Canal shall be safely captured by a qualified biologist and moved to Ballona Lagoon or other appropriate habitat area. No lime or other chemical shall be used in the canal for odor control.

In order to allow foraging by California least terns in Grand Canal during the California least tern nesting season, the permittee shall phase the proposed development in conformance with the following requirement:

A. All work approved within the portion of the Grand Canal channel located south of Driftwood Street shall be completed as soon as possible and before April 30, 2002. [Work "*within the channel*" means work that occurs below the elevation of the mean high tide line.]

B. The portion of the Grand Canal channel located south of Driftwood Street shall not be dammed, drained or left dry subsequent to April 30, 2002, and shall be restored to its usual hydrologic connection with Ballona Lagoon on or before April 30, 2002.

C. Work within the portion of the Grand Canal channel located north of Driftwood Street shall be completed as soon as possible, but may continue until completion. All dams shall be removed, the entire canal shall be refilled with water, and the complete hydrologic connection between Ballona Lagoon and the canals north of Washington Boulevard shall be restored, immediately following the completion of work within the channel.

D. The above-stated limitations and requirements shall not preclude landscaping activities and work on the approved accessways and fencing subsequent to April 30, 2002. Work occurring above the elevation of the mean high tide line along the Grand Canal channel located south of Driftwood Street shall be limited only to activities that can be carried-out using hand-held tools.

In addition, the permittee shall comply with all requirements, requests and mitigation measures from the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project which may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

2. Grand Canal Wetland Vegetation

All 1,057.8 square meters of existing native wetland vegetation shall be preserved for the life of the project, except for those areas where Loffelstein banks are permitted to be installed. Prior to the damming and draining of Grand Canal and the commencement of construction, a qualified biologist shall survey the canal banks and identify with flags all areas of existing native wetland vegetation. The permittee shall ensure that the areas of existing native wetland vegetation, except for those areas where Loffelstein banks are permitted to be installed, are protected from disturbance during the implementation of the approved project, and that adequate water is provided to keep the plants healthy. Native wetland vegetation that is removed from the sections of the bank where Loffelstein banks are permitted shall be transplanted elsewhere within the project area.

Under the supervision of a qualified biologist, the permittee shall remove all non-native plants from the canal banks using only hand-held tools while taking care to avoid disturbance of native plants. No dead plants shall be left on site and no persistent chemicals shall be employed. Herbicides may be employed if applied with small cans or paintbrushes to the stems of cut plants. The permittee shall landscape the banks of Grand Canal in conformance with the following requirements:

A. As proposed, a total of 4,176 square meters of the canal banks will be planted with native wetland vegetation. Of this amount, 1,211.44 square meters is required to be planted as mitigation (4:1 ratio) for the removal of 302.86 square meters of existing wetland vegetation that will result from the installation of the permitted Loffelstein embankments in existing vegetated areas.

B. All vegetation planted on the site will consist of native, drought-tolerant plants typically found in the Ballona wetlands and associated dune and bluff faces. The seeds and cuttings employed shall be from sources in and adjacent to Ballona Lagoon, the Ballona wetlands and the Airport Dunes.

C. No non-native invasive species will be employed or allowed to naturalize or persist on the site. Invasive plants are those identified in the California Native Plant Society, Los Angeles -- Santa Monica Mountains Chapter handbook entitled *Recommended List of Native Plants for Landscaping in the Santa Monica Mountains,* January 20, 1992 and those otherwise identified by the Department of Fish and Game or the United States Fish and Wildlife Service.

D. Planting will maintain views of the water from the public accessways.

E. All planting will be completed and the revegetated banks shall be protected with fencing within 60 days after completion of construction. Landscaping activities may continue during the least tern nesting season consistent with the provisions of Special Condition 1.D.

F. The permittee shall actively monitor the site for three years after permit issuance, remove non-natives and reinstall plants that have failed. The permittee will monitor and inspect the site no less than every 30 days during the first rainy season and no less than every 60 days during the first year. Thereafter, the applicant will monitor the site every three months or on the City's regular landscape maintenance schedule, whichever is more frequent.

G. All required plantings will be maintained in good growing conditions throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan.

3. Construction Staging - Protection of Marine Resources

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a project staging and construction plan, subject to the review and approval of the Executive Director, that includes specific staging and construction measures sufficient to prevent the unpermitted deposition, spill or discharge of any liquid or solid into coastal waters (which include Ballona Lagoon and the Venice Canals). At a minimum, the plan shall include the following provisions:

A. A site plan which identifies the specific locations of all construction staging activities and equipment and materials storage areas. Construction staging activities and equipment and materials storage areas shall not be located on any beach, wetland or environmentally sensitive habitat area, except where such work is specifically permitted by this coastal development permit.

B. The storage or stockpiling of soil, silt, other organic or earthen materials, or any materials and chemicals related to the construction, shall not occur where such materials/chemicals could pass into coastal waters. Any spills of construction equipment fluids or other hazardous materials shall be immediately contained on-site and disposed of in an environmentally safe manner as soon as possible.

C. Construction vehicles shall be inspected daily to ensure there are no leaking fluids. If there are leaking fluids, the construction vehicles shall be serviced immediately. Equipment and machinery shall be serviced, maintained and washed only in confined areas specifically designed to control runoff and prevent discharges into coastal waters. Thinners, oils or solvents shall not be discharged into sanitary or storm sewer systems.

D. Washout from concrete trucks shall be disposed of at a location not subject to runoff and more than fifty feet away from all stormdrains, open ditches and surface waters.

E. All floatable debris and trash generated by construction activities within the project area shall be disposed of at the end of each day, or as soon as possible.

F. Measures to control erosion must be implemented at the end of each day's work.

The permittee shall implement and carry out the project staging and construction plan during all construction and cleaning activities consistent with the plan approved by the Executive Director.

4. Street Drain Filters - Protection of Marine Resources

Street drain filters shall be installed in all drains that discharge directly into Grand Canal. Each street drain filter shall be designed to treat, infiltrate or filter the stormwater runoff from each runoff event up to and including the 85th percentile, 24-hour runoff event for volume based BMPs and/or the 85th percentile, 1 hour event, with an appropriate safety factor, for flow-based BMPs. The filters shall be maintained and replaced as necessary.

5. Public Access

A. The permittee shall complete all of the proposed improvements to the walkways (five-foot wide decomposed granite path and connections to existing sidewalks) along the entire east and west banks of Grand Canal, including the section that

connects the south end of the east bank accessway to Via Dolce, consistent with the approved plans and all conditions of approval. All encroachments and other obstructions to public access shall be removed from the Grand Canal public trail system as part of the project.

B. By acceptance of this permit, the permittee agrees that the walkways located along the entire east and west banks of Grand Canal (including the section that connects the south end of the east bank accessway to Via Dolce) are public accessways, and that these accessways shall always remain open for general public use. The permittee shall remove all encroachments and periodically inspect the walkways as part of the project. Signs shall identify all of the walkways as public accessways.

C. The permittee shall accept all outstanding offers to dedicate (OTD) for the easements on which these walkways exist within the project area, including the "Marina Manor" vertical and lateral accessways that were offered as a requirement of Special Conditions Two and Three of Coastal Development Permit 5-82-479 (3405 Via Dolce). The City shall accept these easements within six months of the date of the approval of this coastal development permit.

D. The permittee shall ensure that trash receptacles and free provisions (e.g. refuse bags) for the proper disposal of pet feces are provided along the public accessways, at a minimum of two locations on each side of the canal. The permittee shall be responsible for ensuring that the trash receptacles are maintained and routinely emptied in order to prevent spillage of refuse.

6. Permit Compliance

By acceptance of this permit, the permittee agrees that the approved draining of Grand Canal and the removal of sediment from the channel is for one time only, and is subject to the special conditions of this coastal development permit. Any proposed change in the project, change to the public accessways, or other deviation from the approved plans shall be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is necessary pursuant to the requirements of the Coastal Act and the California Code of Regulations. If the Executive Director determines that an amendment is necessary, no changes shall be made until the permit is amended by the Commission and issued by the Executive Director.

7. Boat Docks

No docks or other structures are permitted to be constructed within the Grand Canal channel located south of Washington Boulevard.

8. Assumption of Risk

A. By acceptance of this coastal development permit, the applicant acknowledges and agrees: (i) that the site may be subject to hazards from seismic events, liquefaction,

storms, floods and erosion; (ii) to assume the risks to the permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) to agree to include a provision in any subsequent sublease or assignment of the development authorized by this permit requiring the sublessee or assignee to submit a written agreement to the Commission, for the review and approval of the Executive Director, incorporating all of the foregoing restrictions identified in (i) through (iv).

B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit a copy of a written agreement by the applicant, in a form and content acceptable to the Executive Director, accepting all of the above terms of subsection A of this condition.

V. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description

The City of Los Angeles has proposed to rehabilitate the segment of Grand Canal situated between Washington Boulevard and Ballona Lagoon (Exhibit #2). The proposed project is being financed by the City and local residents through the creation of a special assessment district. The goals of the project are to improve the water quality of the entire canals system, improve habitat values, increase public access and recreational opportunities, and to restore the original character of the neighborhood.

The certified Venice LUP designates the 2,000-foot long project site as an Environmentally Sensitive Habitat Area (ESHA). The section of Grand Canal south of Washington Boulevard is a remnant of an original tidal lagoon (Ballona Lagoon), unlike the canals located north of Washington Boulevard which are man-made canals that were dredged out of the Ballona Marsh in the early 1900's. Many years ago, prior to the adoption of the California Coastal Act of 1976, a five-foot diameter sewer pipe was placed beneath the channel at a depth of about ten feet (Exhibit #3, p.3). Public accessways and street drains were also constructed along both banks of the canal prior to the adoption of the Coastal Act.

The proposed project incorporates elements from two Commission-approved projects that preceded it: the Venice Canals rehabilitation project that was completed in the northern canals located north of Washington Boulevard (see Coastal Development Permit 5-91-584 &

amendments), and the Ballona Lagoon Enhancement Project (see Coastal Development Permit 5-95-152 & amendments). The segment of Grand Canal situated between these two previously completed projects is the only remaining section of this coastal waterway that is yet to be rehabilitated (Exhibit #2). This segment is the project site.

Work within the Canal Channel

The City's prior proposal (Local Coastal Development Permit No. 01-05) for the rehabilitation of this segment of Grand Canal included a plan to grade approximately 7,800 cubic yards from the canal in order to deepen and re-shape the entire channel into a trapezoidal configuration. On September 11, 2001, the Commission determined that a substantial issue exists with respect to the City's prior proposal due to the impacts of the proposed project on the canal's sensitive habitat areas. The removal of such a large amount of the natural mud bottom would have significantly altered the landform and removed most of the existing wetland vegetation that is growing along both banks.

In order to eliminate and reduce the negative impacts of the proposed project, the City has redesigned the project to limit the proposed grading to a twenty-foot wide area down the center of the channel (Exhibit #3, p.3). Small lightweight excavating machines with rubber tires would be used to remove the material from the channel, which would be dammed and dried prior to being graded. Approximately 2,000 cubic yards of accumulated debris, trash and polluted sediments would be removed from the center of the canal, thereby deepening the center of the canal by about eighteen inches. Most of the mudflat areas and existing wetland vegetation would be preserved with the currently proposed design. The deepening of the center of the channel is expected to improve fish habitat and improve the tidal flow as it passes through the Grand Canal between Ballona Lagoon and the canals situated north of Washington Boulevard (Exhibit #1). The sediment removed from the channel would be used to create new mud banks along the southern segment of the east bank which currently consists of concrete (sidewalk constructed c.1907), or disposed of outside of the coastal zone.

Treatment of the Canal Banks

Approximately 73 percent of the canal banks (percentage of the total length of canal banks within the project area) currently consist of natural mud and dirt banks (Exhibit #6). A 900-foot section of the east bank is comprised of a ten-foot wide City sidewalk that was constructed c.1907 (Exhibit #3, p.2:C-D). The concrete sidewalk, which is severely cracked and damaged, comprises approximately 45 percent of the total length of the canal banks within the project area. The existing natural canal banks are vegetated with a mix of non-native landscaping and native wetland plants like pickle weed and salt grass. The existing public access trails, sidewalks and streets are located immediately above (inland) of the vegetated canal banks.

The City's prior proposal (Local Coastal Development Permit No. 01-05) included a plan to scrape (remove all vegetation and grade) the entire lengths of both canal banks, and then construct new 55-degree sloped embankments along the banks. The proposed embankments would be constructed with concrete Loffelstein blocks, like the ones used for the 1993 Venice Canals rehabilitation project in the northern canals situated north of Washington Boulevard.

The City's previously proposed design would have resulted in the elimination of all natural canal banks, loss of the existing wetland vegetation, and resulted in 100 percent of the banks being hardened with Loffelstein blocks. In addition, the City had proposed to place a layer of gravel (total of 2,583 cubic yards) along the toe of each canal bank for public safety reasons (to create a firm foothold to climb out of the water in the event that someone falls into the canal). The placement of the gravel step would have displaced a large amount of natural mud bottom within the sensitive habitat area.

In order to reduce the negative impacts of the proposed project, the City has redesigned the project and is proposing to minimize the bank alteration by limiting the placement of Loffelstein blocks to significantly eroded bank areas and to the 900-foot long section of the east bank that currently consists of a concrete sidewalk (Exhibit #3). The layer of gravel that was proposed to be placed along the toe of each canal bank has been eliminated and the existing mudflats and wetland vegetation would be preserved (a proposed 36-inch high split-rail fence will prevent falls into the canal). As currently proposed, approximately 58 percent of the canal banks would be preserved in their natural mud/dirt state (approximately 73 percent of the canal banks are currently in a natural mud/dirt state). The proposed Loffelstein embankments, however, would be buried with mud after installation resulting in a 900-foot increase in the total length of mud banks (Exhibit #3, p.3).

The City has limited the use of Loffelstein embankments to those portions of the canal banks (about 42 percent) that suffer from existing erosion and subsidence problems. The 900-foot long section of the east bank that currently consists of a concrete sidewalk will be rebuilt using a new Loffelstein embankment (Exhibit #3). In this location, a Loffelstein embankment would support a new five-foot wide public accessway constructed above (on two feet of fill) the existing 900-foot long section of dilapidated concrete sidewalk (Exhibit #3, p.2). The 94 year-old concrete sidewalk, which has subsided a few inches below the high water elevation, would be removed prior to the installation of the proposed Loffelstein embankment and public access trail. In order to avoid any narrowing of the canal channel, the City proposes to install the proposed Loffelstein embankment within the footprint of the old ten-foot wide City sidewalk. A new 900-foot long mud bank would be created along this concrete segment of the bank by burying the Loffelstein embankment up to the second cell from the top of the embankment. The mudflat and exposed Loffelstein cells will then be landscaped with native wetland vegetation (Exhibit #3, p.3)

In order to repair significantly eroded portions of the canal banks and to prevent future erosion problems, the City proposes to install Loffelstein embankments around each stormdrain outlet that drains into Grand Canal, and at the banks that abut the Washington Boulevard bridge (Exhibit #3, ps.1-3). All eight stormdrain outlets are located on the west bank, one at each street end: Anchorage, Buccaneer, Catamaran, Driftwood, Eastwind, Fleet, Galleon, and Hurricane Streets. The proposed project also includes the installation of Ultra Urban filters into the catch basin of each stormdrain on the west bank of Grand Canal.

The currently proposed project includes the preservation of all 1,057.8 square meters of existing native wetland vegetation growing on the canal banks, except for those areas where Loffelstein banks are permitted to be installed, and the removal of all non-native vegetation

from the canal banks. A significant portion of the canal banks is vegetated by non-native plant species, including a large forest of myoporum shrubs growing along the northern portion of the east bank.

The City proposes to landscape the entire lengths of both banks (4,176 square meters) using only native wetland plant species, including pickleweed, saltbush and saltgrass (Exhibit #4). Where the Loffelstein banks are permitted to be installed, the City would plant the cells of the Loffelstein Blocks with native wetland plant species. The Loffelstein blocks are trough shaped so that they can retain organic materials to support wetland vegetation (Exhibit #4).

In the end, the total amount of bank area vegetated with native wetland plant species would be increased by 3,118.66 square meters (295 percent), from 1,057.8 square meters of existing native wetland vegetation to a total of 4,176.46 square meters of proposed native wetland vegetation (Exhibit #5). Of this amount, 1,211.44 square meters is required to be planted as mitigation (4:1 ratio) for the removal of 302.86 square meters of existing wetland vegetation that will result from the installation of the permitted Loffelstein embankments in existing vegetated areas.

Public Access Improvements

Public pedestrian access currently exists along the entire lengths of both banks within the project area (Exhibit #2). Some sections, however, are in a state of disrepair or are merely unimproved dirt pathways. The proposed project includes the improvement of the entire pedestrian access system along the water's edge, resulting in a continuous and improved public access trail along both sides of Grand Canal. No section of Grand Canal will be left without such a trail. The public accessways within the project site link the existing Venice Canal walkways with the east and west bank Ballona Lagoon trails.

Existing sidewalks in good condition, such as the west bank segment between Driftwood Street and Ballona Lagoon, would be preserved in place as part of the City's Grand Canal trail system (Exhibit #3). On the east bank, the existing improved "Marina Manor" vertical and lateral accessways are in good condition and would also be protected for public access. The concrete Marina Manor accessways were offered and improved as a requirement of Special Conditions Two and Three of Coastal Development Permit 5-82-479 (Goldrich & Kest, 3405 Via Dolce). As part of the proposed project, the City has offered to accept the Marina Manor access easements and has incorporated them into the City's Grand Canal trail system. The City has deleted the previously proposed segment of trail on the east bank that would have paralleled and duplicated the Marina Manor sidewalk. The deletion of a duplicate accessway would have required new fill on the east bank and would have narrowed the canal channel.

The existing sections of dilapidated concrete sidewalks along the east bank (north and south of the Marina Manor sidewalk) are proposed to be removed and replaced with a five-foot wide decomposed granite public access trail, similar to the trail that exists along the entire east bank of Ballona Lagoon. The City also proposes to build a five-foot wide decomposed granite public access trail along the section of the west bank that currently has only an unimproved

dirt pathway and a City Street (Strongs Drive/Via Mar between Driftwood Street and Washington Boulevard).

In order to protect the sensitive habitat area of Grand Canal from intrusion by people and domestic animals, the City proposes to erect a 36-inch high split rail fence (with wire fabric) along the waterside of the entire Grand Canal public trail system (Exhibit #3, p.3). No bridges over Grand Canal currently exist south of the Washington Boulevard bridge, and no new bridges have been proposed as part of this project.

Construction Schedule

The City proposes to commence work as soon as possible, probably in early December 2001. The segment of the Grand Canal waterway within the project area is proposed to dammed and drained in order to allow the proposed grading and installation of Loffelstein embankments in a dry channel. Prior to damming and draining the canal, the City proposes to install and put into operation a water bypass pipeline (0.61-meter diameter) that will enable water to continue to flush into and out of the northern canals located north of Washington Boulevard (Exhibit #2). Using the proposed bypass pipeline system, the northern Venice Canals would be flushed at least two times each week to preserve the water quantity and quality.

The City proposes to drain Grand Canal at low tide in order to allow the maximum number of fish and other creatures to move into Ballona Lagoon or the northern canals. The animals remaining in Grand Canal would be captured by a qualified biologist and moved to Ballona Lagoon or other appropriate habitat area. As soon as the channel is dry, the City proposes to complete all grading, install the permitted Loffelstein embankments, and allow the canal to be refilled with water as soon as possible. The proposed landscaping activities and work on the public access system (including the fencing) can occur with water in the channel.

In order to allow foraging by California least terns in Grand Canal during the California least tern nesting season, the City proposes to complete the work in the segment of the channel located south of Driftwood Street first, and to allow this segment of the canal to be refilled with water on or before April 30, 2002. A new dam would be constructed in the channel near Driftwood Street to allow the southern portion of Grand Canal to be refilled with water while work continues north of Driftwood Street. The City expects to complete the work in the segment of the channel located north of Driftwood Street a few weeks after completion of the first segment, depending on the ability of the City to keep the channel dry so that work can continue on schedule. The winter weather could delay the completion of work within the channel. The proposed landscaping activities and work on the public access system (including the fencing) is expected to take up to twelve months to complete once work commences.

B. Description of Grand Canal

The section of Grand Canal located south of Washington Boulevard is a remnant of an original tidal lagoon (Ballona Lagoon). The canals located north of Washington Boulevard were created out of marshland as part of the "Venice of America" subdivision in 1905, about the

same time that the land near the banks of Grand Canal was subdivided into small parcels for beach cottages. Sidewalks were constructed along the banks of all of the Venice Canals, including Grand Canal, in the early 1900's. The Venice Canals are now a unique cultural, historic and scenic resource of Southern California, and they provide the Venice community with a sense of character and history. These waterways also provide habitat for wildlife and opportunities for public access and recreation. The Venice Canals and Ballona Lagoon support some of the last remaining pockets of coastal wetland habitat in Los Angeles County.

The original "Venice of America" canals system became stagnant and fell into disrepair in the early 1920's. In 1927, the City filled many of the original canals. The residents in the area have been attempting to restore the remaining canals since the 1960's. The Venice Canals located north of Washington Boulevard were rehabilitated in 1993 (see Coastal Development Permit 5-91-584 & amendments). The segment of Grand Canal that is currently proposed to be rehabilitated is the only segment of the remaining canals that has not yet been rehabilitated.

The Grand Canal neighborhood located south of Washington Boulevard is a residential community consisting of multi-family and single family homes located along the open waterway (Exhibit #8). A few commercial properties exist on the east bank near Washington Boulevard. The neighborhood is located about two blocks inland of Venice Beach, one of the most popular visitor destinations in Southern California. Most of the residences front on the canals and are accessed from the rear by alleys which run behind the homes. Public walkways, sections of which are damaged or completely deteriorated, run along both sides of the canal and separate the private residences from the canal.

Grand Canal and the rest of the Venice Canals are part of the Ballona Lagoon seawater system. Ballona Lagoon is connected to the southern end of Grand Canal (Exhibit #1). The northern Venice Canals are connected to the project site (Grand Canal) by five three-foot diameter pipes which pass beneath the Washington Boulevard bridge. All five pipes have slide gates on the north side of Washington Boulevard, which are operated by the City of Los Angeles to allow flushing of the Venice Canals. All of the water in the Venice Canals, except for discharges from stormdrains and other sources, originates in the Marina del Rey entrance channel and must pass through Ballona Lagoon and Grand Canal before it reaches the furthest northern reaches of the canals system. The water from the canals is also discharged through the same tide gates during outgoing tides. The proposed water bypass pipeline (0.61-meter diameter) will enable water to continue to flush into and out of the northern canals during the period of construction when the canal is dammed and dried (Exhibit #2).

C. Marine Resources

The Coastal Act contains several policies which protect marine resources and marine habitats from the impacts of development. The following Coastal Act policies apply to the proposed project because it would directly affect the wetland and marine environments that exist in Grand Canal. The City has designed the proposed Grand Canal rehabilitation project in order to conform to the following Coastal Act policies.

Section 30230 of the Coastal Act states:

> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233 of the Coastal Act states:

> (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:
>
> (l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
>
> (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
>
> (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the l9 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division. For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where such improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.

(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Section 30240 of the Coastal Act states:

> (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.
>
> (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

Grand Canal is an integral part of the larger Venice Canals/Ballona Lagoon wetlands system. Seawater enters the wetlands system through tidal gates which control the flow from the Marina del Rey entrance channel into Ballona Lagoon. The seawater then flows through Ballona Lagoon and the project site to another set of tidal gates located beneath Washington Boulevard. Grand Canal is the only hydrologic connection between Ballona Lagoon and the canals located north of Washington Boulevard (Exhibit #1). Thus, Grand Canal is an essential hydrologic connection to maintain water quality within the Venice Canals through the provision of tidal flushing.

Grand Canal is a wetland and an Environmentally Sensitive Habitat Area (ESHA) protected by the above-stated Coastal Act policies. Unfortunately, the wetland habitat in Grand Canal (i.e., salt marsh, sidebanks, mudflats, and marine habitat) is negatively affected by the canal's proximity to human activity, urban runoff, abundance of invasive non-native vegetation, and the scattered isolated pocket nature of the wetlands. Despite this, Grand Canal provides habitat for a variety of benthic invertebrates, fish and shorebirds [See Grand Canal Wetland Enhancement Assessment, by Michael Josselyn, PhD, February 24, 1998.]

California hornshells are the dominant epifaunal organisms, although it is expected that polycheates and mulluscs live in the mud bottom of the canal. Seven species of fish have been documented and are known to inhabit the canals: Topsmelt is the most abundant species, followed by California killifish, bay pipefish, longjaw mudsuckers, halibut, arrow goby, and diamond turbot. Fish eating birds such as egrets and green herons are often seen foraging at the water's edge. Willets, dowitchers and dabbling ducks also forage on the mud banks, while domesticated ducks are attracted by food and water left by nearby human residents. Grand Canal is a critical habitat area for the California least tern, Sterna antillarum browni. No other Federal or State listed endangered species are known to inhabit or to visit the Venice Canals.

Grand Canal is located approximately one mile north of the Venice Beach California least tern colony, one of the largest and most productive colonies of California least terns remaining in the state (Exhibit #1). The California least tern, Sterna antillarum browni, is a Federal and State listed endangered species. The least tern is migratory and generally arrives in the project area each year in early April, and departs in early autumn. Least terns capture small fish for their newly hatched chicks in the nearby ocean, wetlands, lagoons, and canals. These

fish include northern anchovies, gobies, topsmelt, various surf perch, killifish, mosquitofish, and other lagoon and estuarine fish species.

The proposed project involves the rehabilitation of the segment of Grand Canal located south of Washington Boulevard (Exhibit #2). The goals of the project are to improve the water quality of the entire canals system, improve habitat values, increase public access and recreational opportunities, and to restore the original character of the neighborhood. As previously stated, the wetland habitat in Grand Canal is negatively affected by urban runoff, the abundance of invasive non-native vegetation, the scattered isolated pocket nature of the wetlands, and by its proximity to human activity. The proposed project includes specific improvements to address and reduce each of the above-stated problems.

In order to reduce the negative effects of urban runoff, the proposed project includes the installation of Ultra Urban filters into each catch basin of all eight stormdrain outlets that discharge into Grand Canal. The proposed filters would reduce the amount of pollutants that are washed into the canal. The canal's wetland habitat is proposed to be improved and enlarged by the proposed removal of all invasive and non-native vegetation and the landscaping of the canal banks with native wetland vegetation. The negative impacts of human activity would be reduced by the proposed installation of a 36-inch high split rail fence (with wire fabric) along the waterside of the entire Grand Canal public trail system (Exhibit #3, p.3). All of the proposed rehabilitation work is proposed to be completed while minimizing the temporary impacts to the existing wetland habitat and ensuring that the least tern foraging area is protected during the nesting season.

Section 30240 of the Coastal Act protects Environmentally Sensitive Habitat Areas (ESHA) from significant disruption, and allows only uses that are dependant on the ESHA's resources. In addition, development adjacent to ESHAs shall be compatible with the habitat and shall be designed to prevent impacts that would degrade the ESHA. The proposed project is consistent with Section 30240 of the Coastal Act because it involves the restoration of habitat within the ESHA without any significant disruption of the ESHA. The proposed project, as conditioned by the conditions of the permit, is compatible with the habitat and has been designed to prevent impacts that would degrade the ESHA. The disruption of the existing ESHA by the proposed project has been reduced below a level of significance by the proposed construction plans and by the following conditions of the permit.

Special Condition One Requires:

> Prior to damming and draining the canal, the City will install and put into operation a water bypass pipeline (0.61-meter diameter) that will enable water to continue to flush into and out of the northern canals located north of Washington Boulevard (Exhibit #2).
>
> Grand Canal will be drained at low tide in order to allow the maximum number of fish and other creatures to move into Ballona Lagoon or the northern canals. The animals remaining in Grand Canal would be captured by a qualified biologist and moved to Ballona Lagoon or other appropriate habitat area.

All grading and installation of the permitted Loffelstein embankments will be completed as soon as possible to allow the canal to be refilled with water as soon as possible.

In order to allow foraging by California least terns in Grand Canal during the California least tern nesting season, the work will be completed in the segment of the channel located south of Driftwood Street first, and this segment of the canal to be refilled with water on or before April 30, 2002. A new dam would be constructed in the channel near Driftwood Street to allow the southern portion of Grand Canal to be refilled with water while work continues north of Driftwood Street.

Special Condition Two Requires:

All 1,057.8 square meters of existing native wetland vegetation shall be preserved for the life of the project, except for those areas where Loffelstein banks are permitted to be installed. Prior to the damming and draining of Grand Canal and the commencement of construction, a qualified biologist shall survey the canal banks and identify with flags all areas of existing native wetland vegetation. The permittee shall ensure that the areas of existing native wetland vegetation, except for those areas where Loffelstein banks are permitted to be installed, are protected from disturbance during the implementation of the approved project, and that adequate water is provided to keep the plants healthy. Native wetland vegetation that is removed from the sections of the bank where Loffelstein banks are permitted shall be transplanted elsewhere within the project area.

Under the supervision of a qualified biologist, the permittee shall remove all non-native plants from the canal banks using only hand-held tools while taking care to avoid disturbance of native plants. No dead plants shall be left on site and no persistent chemicals shall be employed. Herbicides may be employed if applied with small cans or paintbrushes to the stems of cut plants.

As proposed, a total of 4,176 square meters of the canal banks will be planted with native wetland vegetation. Of this amount, 1,211.44 square meters is required to be planted as mitigation (4:1 ratio) for the removal of 302.86 square meters of existing wetland vegetation that will result from the installation of the permitted Loffelstein embankments in existing vegetated areas.

All vegetation planted on the site will consist of native, drought-tolerant plants typically found in the Ballona wetlands and associated dune and bluff faces. The seeds and cuttings employed shall be from sources in and adjacent to Ballona Lagoon, the Ballona wetlands and the Airport Dunes. No non-native invasive species will be employed or allowed to naturalize of persist on the site. All planting will be completed and the revegetated banks shall be protected with fencing within 60 days after completion of construction.

> The permittee shall actively monitor the site for three years after permit issuance, remove non-natives and reinstall plants that have failed. The permittee will monitor and inspect the site no less than every 30 days during the first rainy season and no less than every 60 days during the first year. Thereafter, the applicant will monitor the site every three months or on the City's regular landscape maintenance schedule, whichever is more frequent. All required plantings will be maintained in good growing conditions throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plan.

In addition, the permittee is required to comply with all requirements, requests and mitigation measures from the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Each of these agencies has reviewed the proposed project and has indicated its support of the proposed project (Exhibit #6). The issuance of the required permits by the Regional Water Quality Control Board and the U.S. Army Corps of Engineers for the proposed project is expected to occur after the Commission takes action on this coastal development permit application. Any change in the approved project which may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

As conditioned, the proposed project protects the least tern foraging area, existing wetland vegetation, and the biota in the channel. All of the non-native plants will be removed, and native vegetation will be planted along the entire lengths of both canal banks, thus improving and enlarging the wetland habitat area. All landscaping will be monitored for three years to ensure its success. The proposed project, as conditioned, is designed to prevent significant impacts to the ESHA and is compatible with the habitat. Therefore, the proposed project is consistent with Section 30240 of the Coastal Act.

Sections 30230 and 30231 of the Coastal Act require the protection of biological productivity, public recreation and marine resources, and that marine resources be maintained and restored. In addition, the adverse impacts of runoff and waste water discharges shall be minimized. The proposed project, as conditioned to minimize adverse impacts, is consistent with Sections 30230 and 30231 of the Coastal Act. The proposed restoration of Grand Canal and its wetland habitat is consistent with, and required by these sections. The wetland vegetation proposed to be planted along the canal banks will form a natural vegetation buffer to further protect the water quality of the canals. The adverse impacts of runoff and waste water discharges will be minimized by the following special conditions of approval:

Special Condition Three states:

> **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit a project staging and construction plan, subject to the review and approval of the Executive Director, that includes specific staging and

construction measures sufficient to prevent the unpermitted deposition, spill or discharge of any liquid or solid into coastal waters (which include Ballona Lagoon and the Venice Canals). At a minimum, the plan shall include the following provisions:

A. A site plan which identifies the specific locations of all construction staging activities and equipment and materials storage areas. Construction staging activities and equipment and materials storage areas shall not be located on any beach, wetland or environmentally sensitive habitat area, except where such work is specifically permitted by this coastal development permit.

B. The storage or stockpiling of soil, silt, other organic or earthen materials, or any materials and chemicals related to the construction, shall not occur where such materials/chemicals could pass into coastal waters. Any spills of construction equipment fluids or other hazardous materials shall be immediately contained on-site and disposed of in an environmentally safe manner as soon as possible.

C. Construction vehicles shall be inspected daily to ensure there are no leaking fluids. If there are leaking fluids, the construction vehicles shall be serviced immediately. Equipment and machinery shall be serviced, maintained and washed only in confined areas specifically designed to control runoff and prevent discharges into coastal waters. Thinners, oils or solvents shall not be discharged into sanitary or storm sewer systems.

D. Washout from concrete trucks shall be disposed of at a location not subject to runoff and more than fifty feet away from all stormdrains, open ditches and surface waters.

E. All floatable debris and trash generated by construction activities within the project area shall be disposed of at the end of each day, or as soon as possible.

F. Measures to control erosion must be implemented at the end of day's work.

The permittee shall implement and carry out the project staging and construction plan during all construction and cleaning activities consistent with the plan approved by the Executive Director.

Special Condition Four states:

Street Drain Filters - Protection of Marine Resources

Street drain filters shall be installed in all drains that discharge directly into Grand Canal. Each street drain filter shall be designed to treat, infiltrate or filter the stormwater runoff from each runoff event up to and including the 85th percentile, 24-hour runoff event for volume based BMPs and/or the 85th percentile, 1 hour event, with an appropriate safety factor, for flow-based BMPs. The filters shall be maintained and replaced as necessary.

Special Condition Three requires the applicant to implement specific marine resource protection measures during the construction and staging of the proposed project. The implementation of the required marine resource protection measures will prevent the discharge of polluted runoff into the marine environment consistent with the requirements of Sections 30230 and 30231 of the Coastal Act. Special Condition Four requires the City to use adequately sized filters in the catch basins that discharge into Grand Canal, and that the filters be maintained and replaced as necessary. Only as conditioned is the proposed project consistent with the marine resource policies of the Coastal Act.

Section 30233 of the Coastal Act allows limited types of projects in wetlands where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects. The restoration of wetlands is allowed under Section 30233.a.7. The no project alternative and an alternative design for the proposed restoration project were considered. The no project alternative was rejected because of the current need for restoration of the wetlands and public accessways in and adjacent to Grand Canal. The proposed project, as conditioned, is the least environmentally damaging alternative because:

- The existing width of the channel would not be reduced in any location, and widened by two feet at the south end of Grand Canal where a 900-foot long length of concrete bank would be replaced with a Loffelstein embankment (with a new mud bank) planted with native wetland vegetation (Exhibit #3). A previously proposed and rejected alternative involved the placement of new Loffelstein embankments within (on the inside edge of) the existing channel, thus narrowing the width of the existing channel.

- The proposed Loffelstein embankments will not permanently displace any existing mudflat areas, as the proposed embankments will be buried with mud after installation. The backfilled mudflat area will extend up to the second cell from the top of the embankment. The mudflat and exposed Loffelstein cells will then be landscaped with native wetland vegetation (Exhibit #3, p.3).

- The amount of proposed bank alteration has been minimized by limiting the placement of Loffelstein blocks to significantly eroded bank areas and to the section of the east bank that currently consists of concrete. A previously proposed and rejected alternative involved the placement of new Loffelstein embankments along 100 percent of the canal banks, thus filling and displacing significant amounts of existing wetland habitat areas. The amount of fill included in the proposed alternative is insignificant because it includes only very small and limited areas that have eroded around stormdrain outlets beneath the existing sidewalk on the west bank. As currently proposed, approximately 58 percent of the canal banks would be preserved in their natural mud/dirt state. Approximately 75 percent of the canal banks are currently in a natural mud/dirt state (See Project Description on Pages 9-14). With the restoration of a mud bank where only concrete currently exists (900-

foot long sidewalk on east bank), the proposed project will increase the amount of mud banks to approximately 90 percent of the total length.

- The proposed project includes the preservation of all existing wetland vegetation on the canal banks, except for those areas where Loffelstein banks are permitted to be installed, and the removal of all non-native vegetation from the canal banks. Where the Loffelstein banks are permitted to be installed, the City would plant the cells of the Loffelstein Blocks with native wetland plant species. The City estimates that the total amount of bank area vegetated with native wetland plant species would be increased from 1,057.8 square meters of existing native wetland vegetation to a total of 4,176.46 square meters of native wetland vegetation along both banks of the project area (Exhibit #5).

- The amount of proposed channel alteration (dredging) has been minimized while still providing a deepened channel for the improvement of tidal flushing and fish habitat. Improvement of water quality and fish habitat would have a beneficial effect on the least terns which use the Grand Canal as a foraging area. A previously proposed and rejected alternative involved the removal of approximately 7,800 cubic yards of the channel bottom. The removal of such a large amount of the natural mud bottom would have significantly altered the landform and removed most of the existing wetland vegetation that is growing along both banks. The proposed project would reduce the amount of removed sediment to approximately 2,000 cubic yards, thereby deepening only the center of the canal by about eighteen inches. Most of the mudflat areas and existing wetland vegetation would be preserved with the currently proposed design.

- The proposed project will improve the existing Grand Canal public trail system while reducing the negative impacts of human activity on the wetland. A 36-inch high split rail fence (with wire fabric) will be installed along the waterside of the entire public trail system to reduce the problem of intrusion by people and domestic animals (Exhibit #3, p.3).

- The proposed construction schedule would enable the segment of the channel south of Driftwood Street to be refilled and used as a foraging area in time for the least tern nesting season foraging (Exhibit #6).

- All impacts of the proposed project on existing wetland habitat will be adequately mitigated by the substantial improvements to the ESHA and the increase in the amount of wetland vegetation that would result from the proposed project. The 1,057.8 square meters of existing native wetland vegetation will be increased by 3,118.66 square meters (295 percent) to a total of 4,176.46 square meters of native wetland vegetation (Exhibit #5). Of this amount, 1,211.44 square meters is required to be planted as mitigation (4:1 ratio) for the removal of 302.86 square meters of existing wetland vegetation that will result from the installation of the permitted Loffelstein embankments in existing vegetated areas.

Section 30233 also requires that disposal of dredged materials be carried out in a manner which avoids disruption of marine and wildlife habitats. The City has stated that all materials removed from the project site will be transported to a landfill located outside of the coastal zone. Preliminary tests indicated that the sediment might be tainted beyond levels acceptable for beach disposal.

All adverse environmental effects of the proposed project have been minimized by the special conditions of approval. The proposed provision of 3,118.66 square meters of new wetland vegetation (well in excess of the Commission's required 4:1 ratio) will adequately mitigate the temporary impacts of the proposed project on the existing wetland habitat. Therefore, the proposed project, as conditioned, is consistent with Section 30233 of the Coastal Act. The Commission finds that the proposed project, as conditioned, is consistent with all the marine resource policies of the Coastal Act.

D. Public Access and Recreation

One of the basic goals stated in the Coastal Act and the certified Venice Land Use Plan (LUP) is to maximize public access to and along the coast. The improvement of the existing Grand Canal public trail system is one of the goals of the proposed project. The Coastal Act has several policies which protect public access along the shoreline and public recreational opportunities.

Section 30210 of the Coastal Act states:

> In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211 of the Coastal Act states:

> Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30213 of the Coastal Act states:

> Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred...

Section 30220 of the Coastal Act states:

> Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30221 of the Coastal Act states:

> Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

The certified Venice LUP contains the following policies that specifically protect the existing Grand Canal public trail system:

> ***Policy II. C. 2. Grand Canal Pedestrian Access.*** *The three existing public rights-of-way from the Grand Canal to Strongs Drive and Pacific Avenue shall be improved and appropriately signed. South of Washington Boulevard, the public walkways that provide public pedestrian access along both sides of Grand Canal shall be improved and appropriately signed.*
>
> ***Policy II. C. 4. Venice Canals.*** *The Venice Canals Walkways have been fully rehabilitated and shall be maintained for public access. The Department of Transportation shall provide signs on Venice Boulevard which direct the public to the Venice Canals Historic District and the existing Venice Canals Walkways.*

Public pedestrian access currently exists along the entire lengths of both banks within the project area (Exhibit #2). Some sections, however, are in a state of disrepair or are merely unimproved dirt pathways. The proposed project includes the improvement of the entire pedestrian access system along the water's edge, resulting in a continuous and improved public access trail along both sides of Grand Canal. No section of Grand Canal will be left without such a trail. The public accessways within the project site link the existing Venice Canal walkways with the east and west bank Ballona Lagoon trails.

Existing sidewalks in good condition, such as the west bank segment between Driftwood Street and Ballona Lagoon, would be preserved in place as part of the City's Grand Canal trail system (Exhibit #3). On the east bank, the existing improved "Marina Manor" vertical and lateral accessways are in good condition and would also be protected for public access. The concrete Marina Manor accessways were offered and improved as a requirement of Special Conditions Two and Three of Coastal Development Permit 5-82-479 (Goldrich & Kest, 3405 Via Dolce). As part of the proposed project, the City has offered to accept the Marina Manor access easements and has incorporated the easements (and improved sidewalks) into the City's Grand Canal trail system. The Marina Manor accessway is the only segment of the Grand Canal public trail system that is not currently under City control.

The existing sections of dilapidated concrete sidewalks along the east bank (north and south of the Marina Manor sidewalk) are proposed to be removed and replaced with a five-foot wide decomposed granite public access trail, similar to the trail that exists along the entire east bank of Ballona Lagoon. The City also proposes to build a five-foot wide decomposed granite public access trail along the section of the west bank that currently has only an unimproved

dirt pathway and a City Street (Strongs Drive/Via Mar between Driftwood Street and Washington Boulevard).

In one segment of the proposed east bank public trail system, some trees, fences and yards are encroaching into the City's Esplanade, the public right-of-way on the water's edge (3601-3618 Grand Canal). As part of the proposed project, the City will remove all encroachments from the public right-of-way and construct a five-foot wide decomposed granite public access trail on the City right-of-way. The project is conditioned to require that the City maintain the Grand Canal public trail system, keep the accessways open to the public, and to remove any future encroachments after completion of the restoration project.

Special Condition Five states:

A. The permittee shall complete all of the proposed improvements to the walkways (five-foot wide decomposed granite path and connections to existing sidewalks) along the entire east and west banks of Grand Canal, including the section that connects the south end of the east bank accessway to Via Dolce, consistent with the approved plans and all conditions of approval. All encroachments and other obstructions to public access shall be removed from the Grand Canal public trail system as part of the project.

B. By acceptance of this permit, the permittee agrees that the walkways located along the entire east and west banks of Grand Canal (including the section that connects the south end of the east bank accessway to Via Dolce) are public accessways, and that these accessways shall always remain open for general public use. The permittee shall remove all encroachments and periodically inspect the walkways as part of the project. Signs shall identify all of the walkways as public accessways.

C. The permittee shall accept all outstanding offers to dedicate (OTD) for the easements on which these walkways exist within the project area, including the "Marina Manor" vertical and lateral accessways that were offered as a requirement of Special Conditions Two and Three of Coastal Development Permit 5-82-479 (3405 Via Dolce). The City shall accept these easements within six months of the date of the approval of this coastal development permit.

D. The permittee shall ensure that trash receptacles and free provisions (e.g. refuse bags) for the proper disposal of pet feces are provided along the public accessways, at a minimum of two locations on each side of the canal. The permittee shall be responsible for ensuring that the trash receptacles are maintained and routinely emptied in order to prevent spillage of refuse.

In order to protect the sensitive habitat area of Grand Canal from intrusion by people and domestic animals, the City proposes to erect a 36-inch high split rail fence (with wire fabric) along the waterside of the entire Grand Canal public trail system (Exhibit #3, p.3). No bridges over Grand Canal currently exist south of the Washington Boulevard bridge, and no new bridges have been proposed as part of this project.

After completion of the proposed project, the public will gain improved access along this last remaining section of the Venice Canals that has yet to be rehabilitated. The proposed public access improvements are consistent with the historical character of the area. Walking, jogging, bird watching, photography, and other popular forms of recreation will be improved by the proposed project. Curbside public parking is available on Strongs Drive (metered) on the northern segment of the west bank, and along Via Dolce near the east bank (Exhibit #2).

The proposed project, as conditioned, would enhance the existing Grand Canal public trail system and would improve public recreation opportunities. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with the public access and recreation policies of the Coastal Act.

E. Hazards

The Coastal Act states that new development must minimize risks to life and property and not create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. Section 30253 of the Coastal Act states, in part:

> New development shall:
>
> (l) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
>
> (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Developments located in or near the ocean have the potential for damage caused by wave energy, floods, seismic events, storms and erosion. No development near the water can be guaranteed to be safe from hazard.

The proposed project is located within and adjacent to Grand Canal, a coastal waterway. The Grand Canal neighborhood is susceptible to flooding due to its low elevation in relation to sea level. The City and county operate tidal gates to control the water level in Grand Canal. In the past, periods of heavy precipitation occurring at the same time as high tidal levels has resulted in flooding of the lower levels of the homes situated next to some of the Venice Canals. The sandy substrata beneath the Grand Canal neighborhood make the area susceptible to liquefaction during seismic events.

The Commission routinely imposes conditions for assumption of risk in areas at high risk from hazards. The condition ensures that the permittee understands and assumes the potential hazards associated with development in or near the water. Therefore, by acceptance of this coastal development permit, the applicant acknowledges and agrees: (i) that the site may be

subject to hazards from seismic events, liquefaction, storms, floods and erosion; (ii) to assume the risks to the permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) to agree to include a provision in any subsequent sublease or assignment of the development authorized by this permit requiring the sublessee or assignee to submit a written agreement to the Commission, for the review and approval of the Executive Director, incorporating all of the foregoing restrictions identified in (i) through (iv).

Prior to issuance of the coastal development permit, the applicant shall submit a copy of a written agreement by the applicant, in a form and content acceptable to the Executive Director, accepting all of the above terms. Only as conditioned is the proposed project is consistent with Section 30253 of the Coastal Act.

F. Local Coastal Program

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal development permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act:

> (a) Prior to certification of the Local Coastal Program, a Coastal Development Permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200). A denial of a Coastal Development Permit on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.

The City of Los Angeles does not have a certified Local Coastal Program for the Venice area. The Los Angeles City Council adopted a proposed Land Use Plan (LUP) for Venice on October 29, 1999. On November 29, 1999, the City submitted the draft Venice LUP for Commission certification. On November 14, 2000, the Commission approved the City of Los Angeles Land Use Plan (LUP) for Venice with suggested modifications. On March 28, 2001, the Los Angeles City Council accepted the Commission's suggested modifications and

adopted the Venice LUP as it was approved by the Commission on November 14, 2000. On June 14, 2001, the Venice LUP was officially certified by the Commission.

The certified Venice LUP contains the following relevant policies:

> ***Policy IV. B. 6. Domestic Animals.*** *A program should be developed to protect the wetland area of Ballona Lagoon and the Grand Canal south of Washington Boulevard from intrusion by domestic animals and pets, particularly cats and dogs.*
>
> ***Policy IV. B. 7. Grand Canal Rehabilitation.*** *The Grand Canal between Hurricane Street and Washington Boulevard shall be restored and maintained in order to improve water quality, aquatic habitat, and public pedestrian access along the waterway in a manner that is sensitive to the privacy of adjoining residents.*
>
> ***Policy IV. E. 1.*** *The banks, waterways and public walkways of the Venice Canals, Ballona Lagoon and Grand Canal south of Washington Boulevard shall be periodically maintained by the City or other appropriate entity, to keep these areas free of accumulated trash and wastes, thereby maintaining the biological, water quality, recreational and aesthetic resources of these areas.*
>
> ***Policy V. A. 3. Infrastructure.*** *New sewer, storm drain, and water lines shall be installed using the least environmentally disturbing method feasible. The City of Los Angeles Department of Public Works shall develop a comprehensive citywide Storm Water Management Program, as discussed further in Implementation Strategy of Policy IV.C.1 of this LUP, to control stormwater run-off from new public and private developments and, where feasible, to remove pollutants from that run-off. Development of infrastructure shall precede or be constructed concurrently with the construction of developments or in lieu-fee should be paid.*
>
> ***Policy IV. C. 2. Water Quality.*** *The methods to improve water quality, recommended in California's Plan for the Control of Non-Point Source Pollution (January 2000), such as watershed planning and management programs, and habitat restoration projects, shall be considered and implemented by the City of Los Angeles where feasible opportunities exist. Selected Best Management Practices (BMPs) or suites of BMPs shall be designed to treat, infiltrate or filter the stormwater runoff from each runoff event up to and including the 85th percentile, 24-hour runoff event for volume based BMPs and/or the 85th percentile, 1 hour event, with an appropriate safety factor, for flow-based BMPs.*

The proposed project is consistent with, and implements the provisions of the certified Venice LUP. The proposed project, as conditioned, are consistent with the Chapter 3 policies of the Coastal Act. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the City's ability to prepare a Local Coastal Program consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

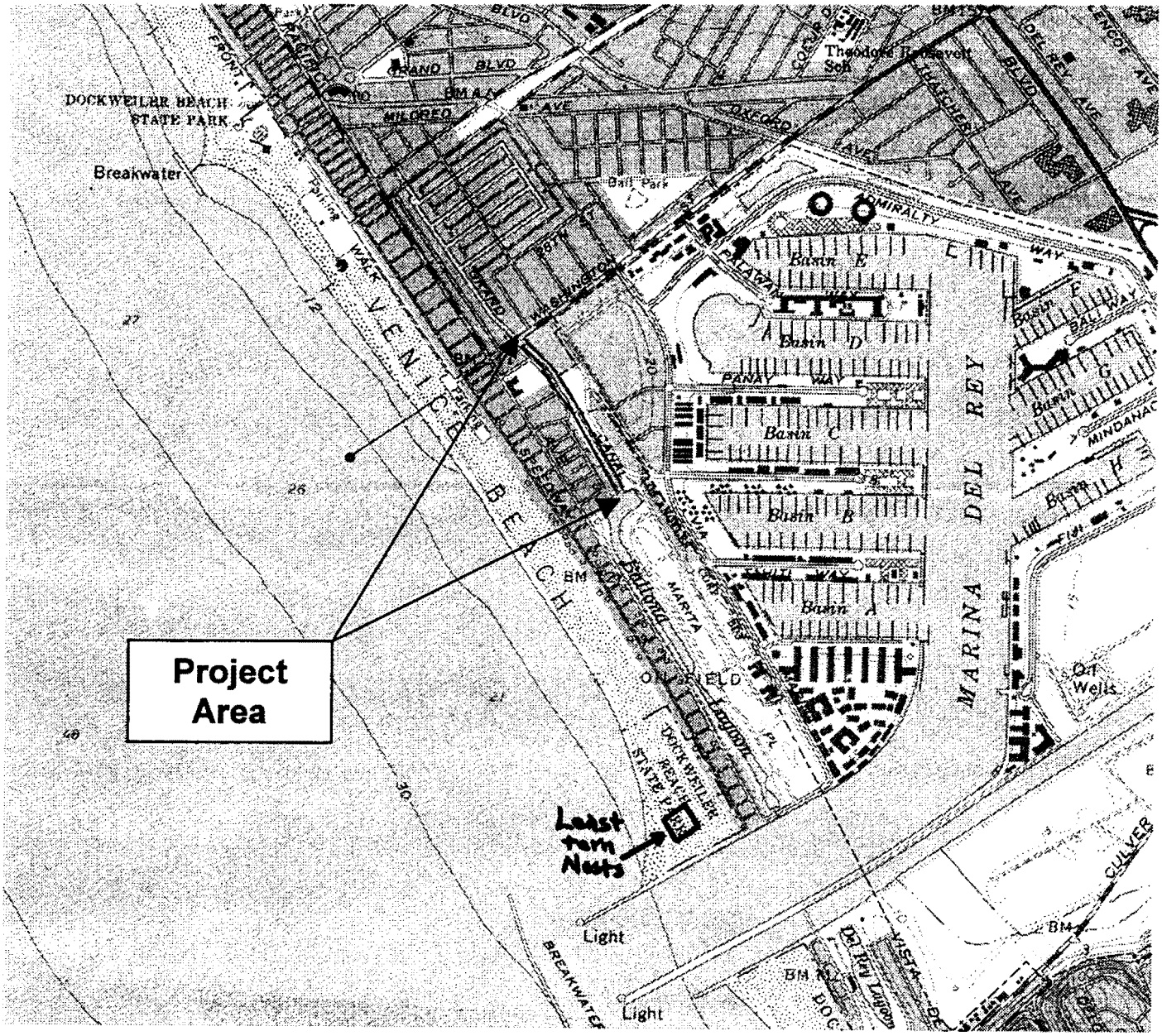
G. California Environmental Quality Act (CEQA)

Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project, as conditioned, has been found consistent with the Chapter 3 policies of the Coastal Act. All adverse impacts have been minimized by the recommended conditions of approval and there are no feasible alternatives or additional feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. The no project alternative and an alternative design for the proposed restoration project were considered. The no project alternative was rejected because of the current need for restoration of the wetlands and public accessways in and adjacent to Grand Canal. The alternative restoration project reviewed as part of Local Coastal Development Permit No. 01-05 has been rejected because it is not the least environmentally damaging alternative. The currently proposed project, as conditioned, is the least environmentally damaging alternative. Therefore, the Commission finds that the proposed project can be found consistent with the requirements of the Coastal Act to conform to CEQA.

End/cp

Grand Canal Rehabilitation Project – Vicinity Map



VENICE, CA

COASTAL COMMISSION

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5-01-289

EXHIBIT # 1

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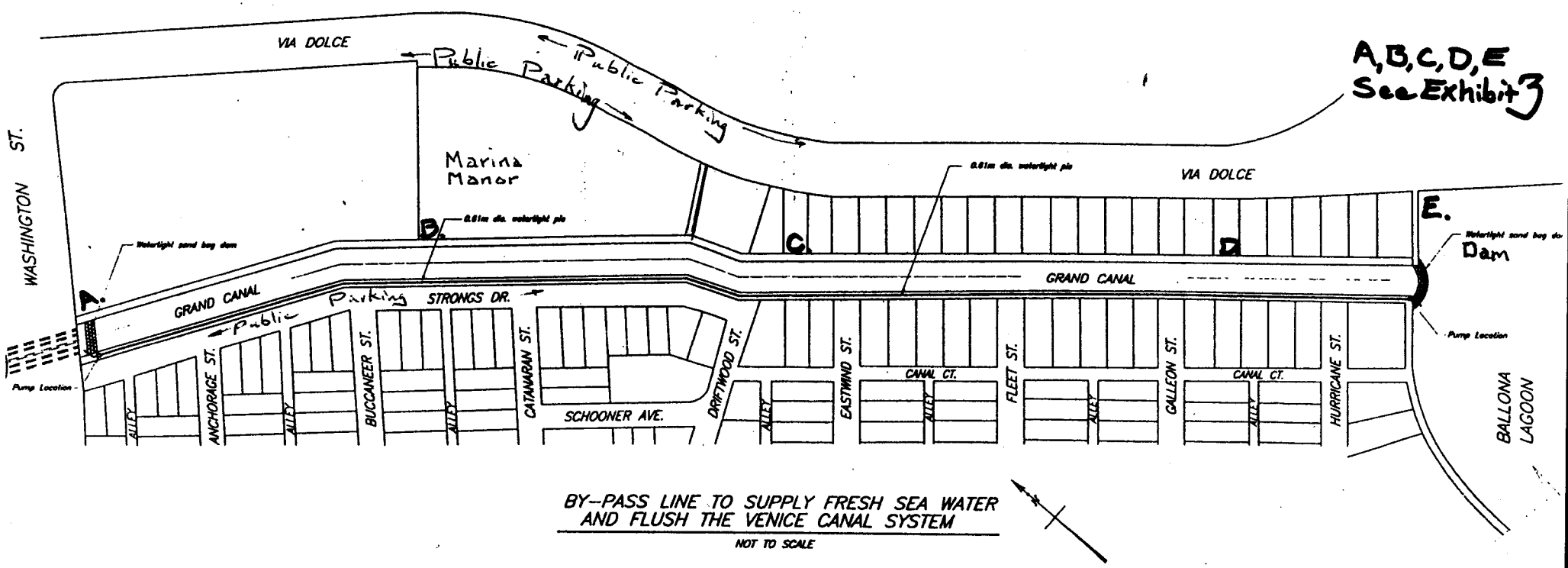

BY-PASS LINE TO SUPPLY FRESH SEA WATER AND FLUSH THE VENICE CANAL SYSTEM

NOT TO SCALE

Note: See Special Provisions for dewatering of Grand Canal and water pumping system for supplying/flushing of water to the Venice Canal Area.

Project Site: Grand Canal

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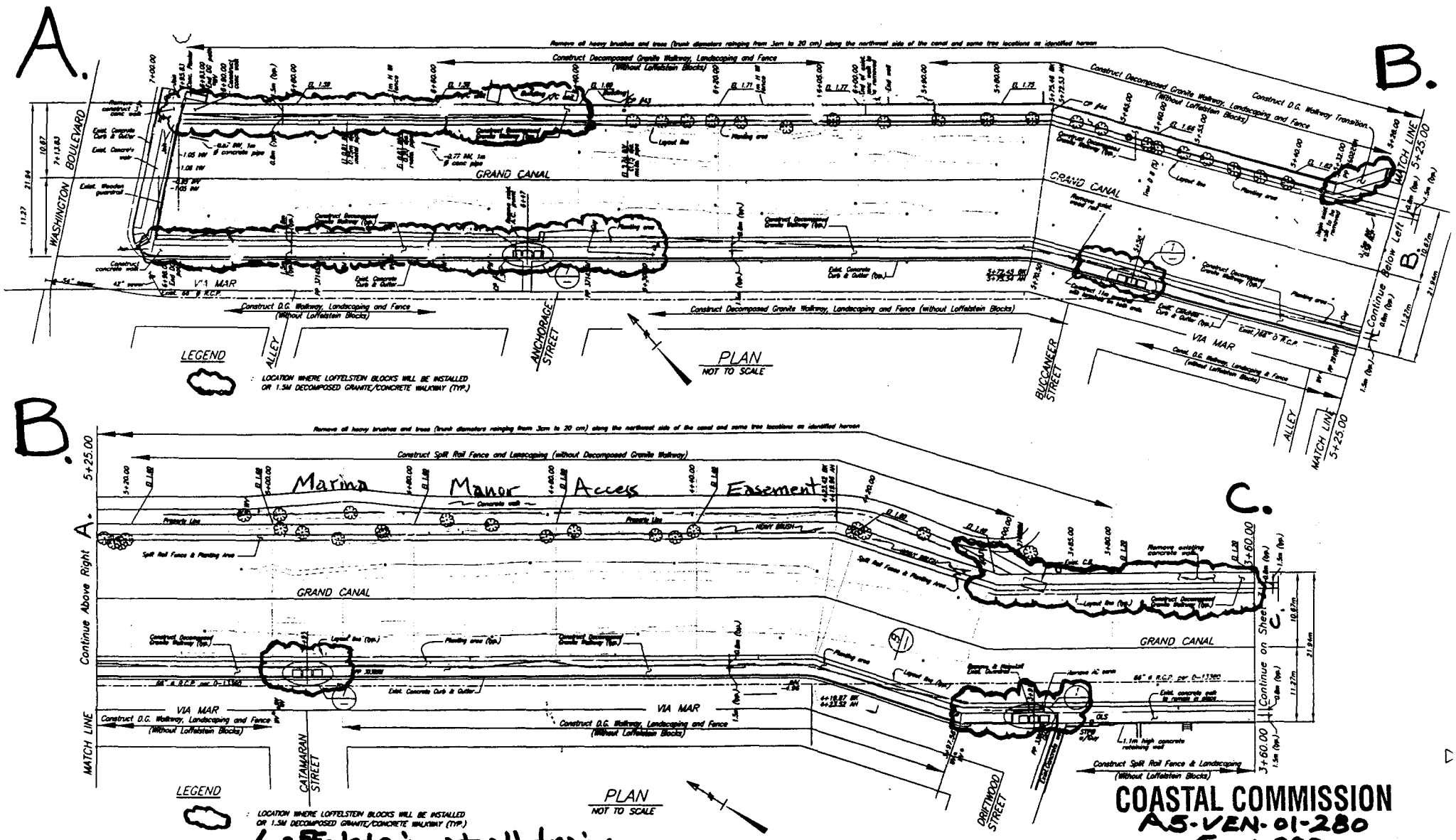
East



Loffelstein at all drains

COASTAL COMMISSION
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EXHIBIT # 3

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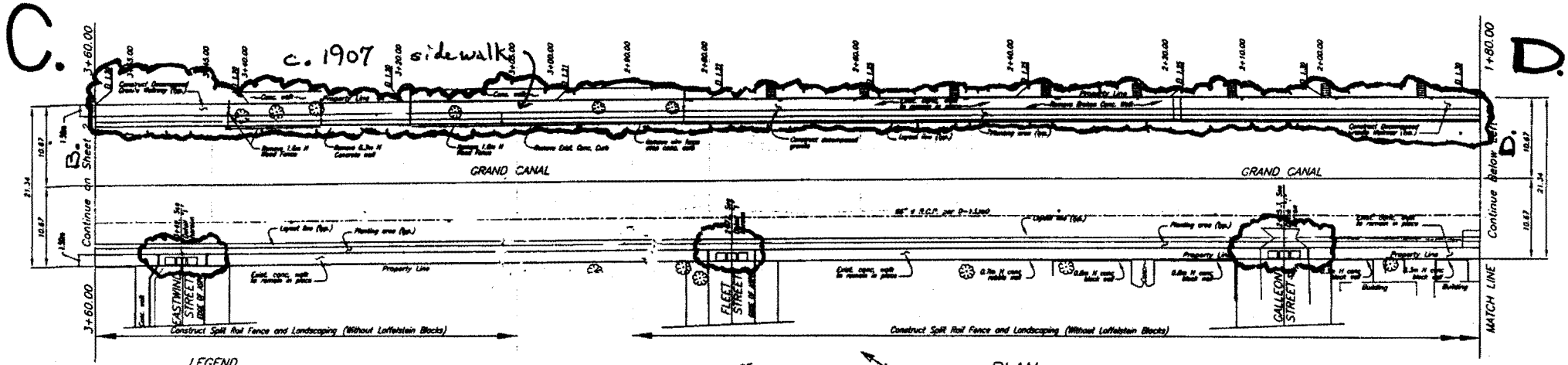
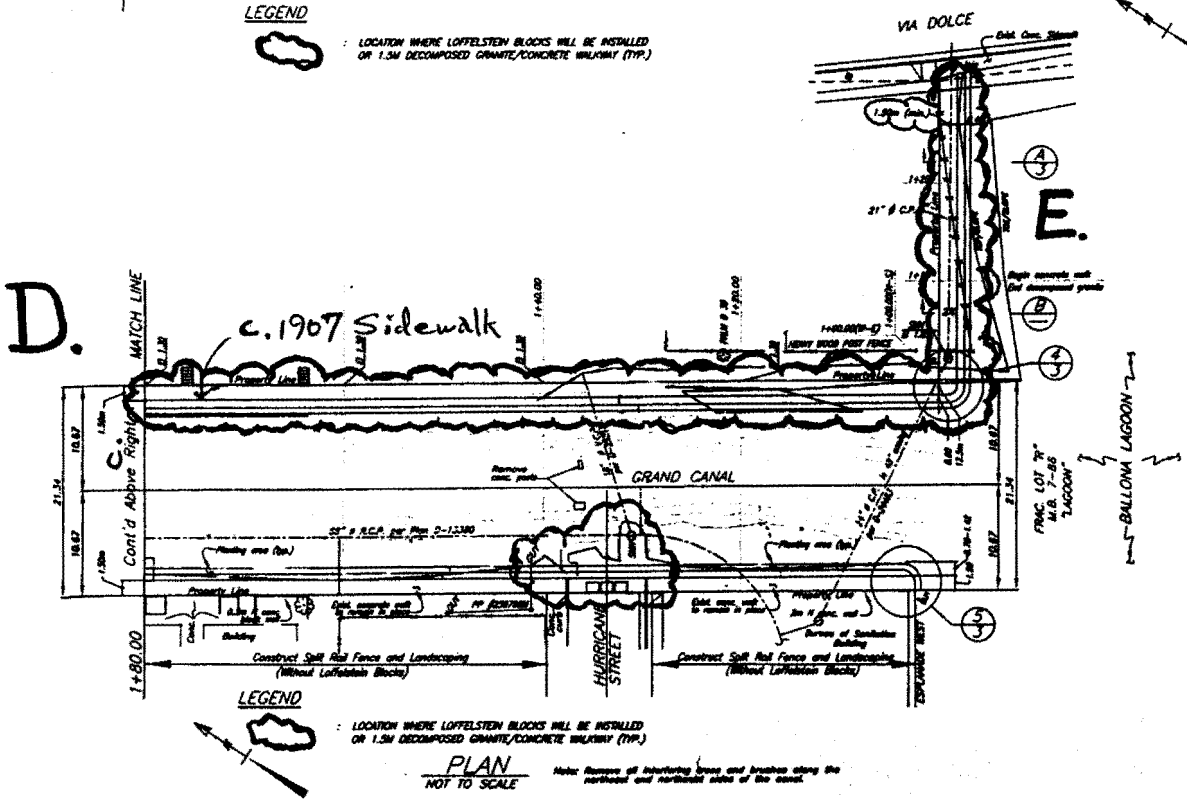
GRAND CANAL REHABILITATION PROJECT W.O. E6000570

SCALES	HORIZ. 1" = VERT. 1" =	SHEET 13	INDEX NUMBER D-32002

West

East





ADDITIONAL NOTES TO THE CONTRACTORS

1. THE CONTRACTOR SHALL INSTALL LOFFELSTEIN BLOCKS PER REVISED SECTION AT THE FOLLOWING LOCATIONS:
   - A. WEST SIDE OF GRAND CANAL
     From Sta. 1+25 to Sta. 1+40, from Sta. 2+90 to Sta. 3+05, from Sta. 3+85 to Sta. 4+00 from Sta. 4+90 to Sta. 5+00, from Sta. 5+55 to Sta. 5+65 from Sta. 6+30 to Sta. 6+70, and Sta. 6+90 to Sta. 7+00).
   - B. EAST SIDE OF GRAND CANAL
     From Beginning of Concrete Walk at 1+10 (N-E) to Sta. 4+00 (N-S). from Sta. 5+90 to 6+05, and from Sta. 6+60 to Sta. 6+85.
2. LOFFELSTEIN BLOCKS WILL BE INSTALLED ONLY AT THE SPECIFIED STATION ON EITHER WEST SIDE OR EASTSIDE OF GRAND CANAL. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER AT THE JOB SITE REGARDING LOCATIONS OF LOFFELSTEINS TO BE INSTALLED PRIOR TO STARTING EXCAVATION.
3. THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO INSTALL LOFFELSTEIN BLOCKS AT ADDITIONAL LOCATIONS OR REDUCE LENGTH/QUANTITY OF LOFFELSTEIN BLOCKS AT THE SPECIFIED LOCATIONS PER ITEM "1" ABOVE).
4. COMPENSATION/DEDUCTION COST FOR THE INSTALLATION OF LOFFELSTEIN BLOCKS AT ADDITIONAL LOCATIONS SHALL BE BASED ON CORRESPONDING BID PRICES. NO OTHER PAYMENT SHALL BE MADE TO THE CONTRACTOR.
5. NECESSARY ADJUSTMENTS MAY BE MADE BY THE ENGINEER DUE TO EXISTING SITE CONDITION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH CONDITION IF EXISTS.
6. THE CONTRACTOR SHALL REMOVE ALL VISIBLE BROKEN CONCRETE, BOAT DOCKS, DEBRIS AND MISC., ETC. IN THE CANAL CHANNEL DURING LOW TIDE. ALL COST ASSOCIATED WITH THIS REMOVAL IS INCLUDED IN BID ITEM NO.1.
7. ALL OTHER CONSTRUCTION AND LANDSCAPING DETAILS, INFORMATION REGARDING THIS PROJECT, PLEASE REFER TO THE ORIGINAL BID PROPOSAL, PLAN D-32002 AND THE SPECIAL PROVISIONS.
8. THESE ADDITIONAL SHEETS 12, 13, AND 14 SHALL BE USED IN CONJUNCTION WITH THE ORIGINAL CONTRACT PLANS D-3300002, SHEETS 2, 3 AND 4 AND THE SPECIAL PROVISIONS.

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GRAND CANAL REHABILITATION PROJECT W.O. E6000570
EXHIBIT #3

SCALES	HORIZ. 1" = AS SHOWN VERT. 1" = AS SHOWN	SHEET 14	INDEX NUMBER D-32002

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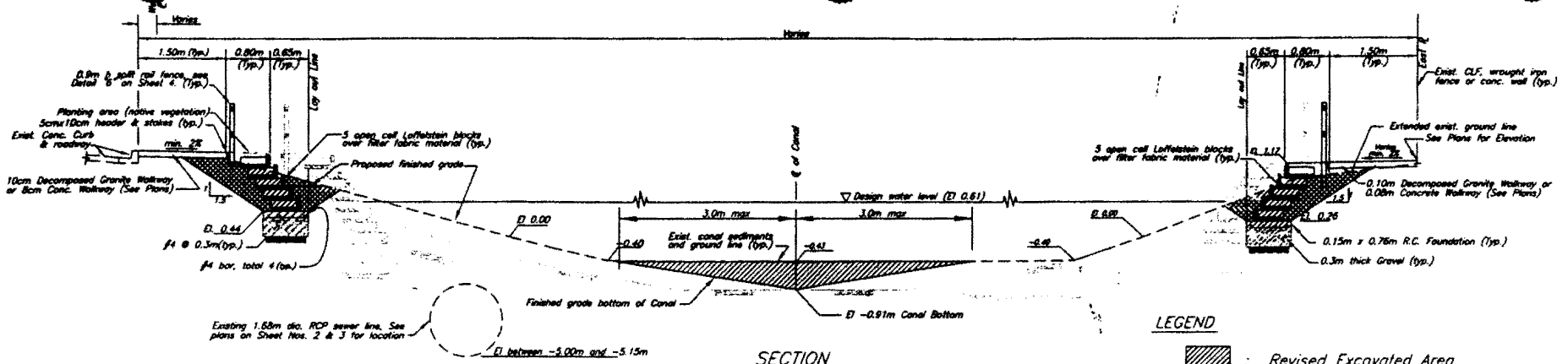
West

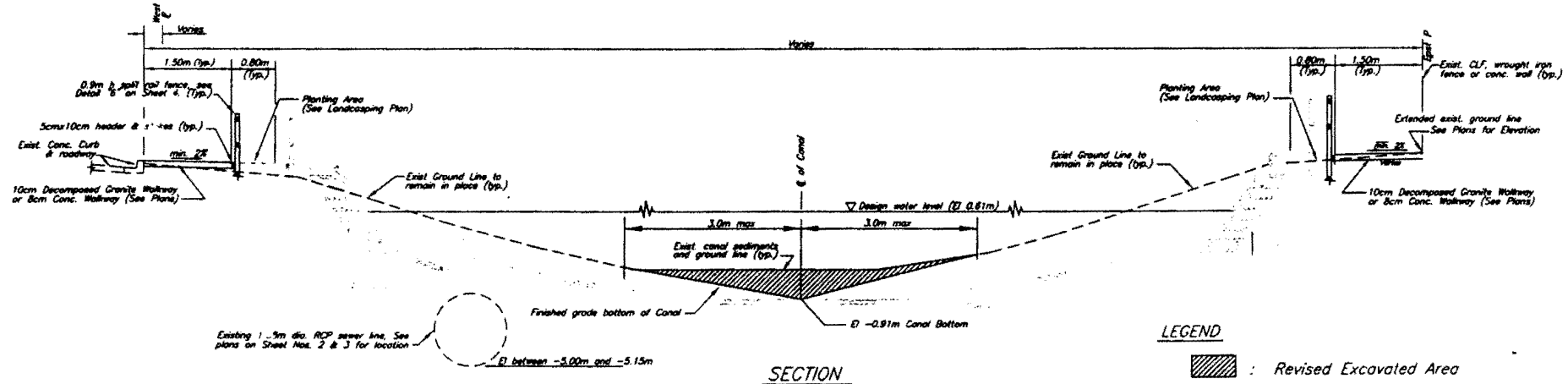


SECTION
NOT TO SCALE
(EXISTING GROUND LINE DRAWED FOR STA. 3+40.00)

LEGEND

: Revised Excavated Area

: Revised Fill Area (See Landscaping Plan, Sheet L-4)

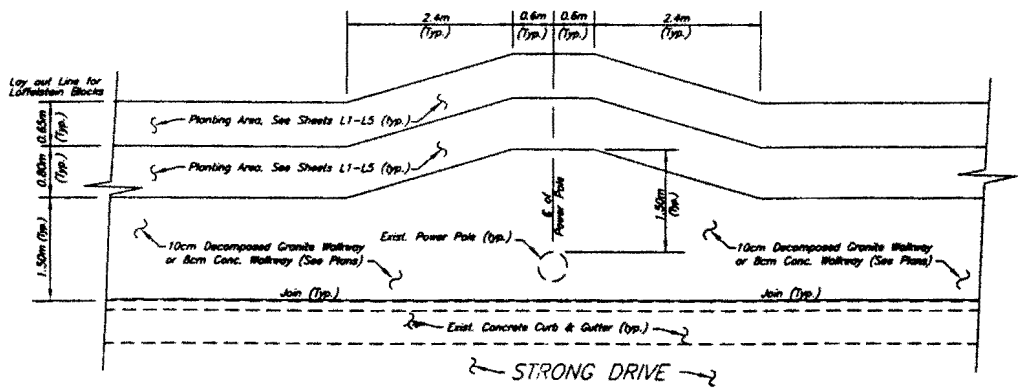


SECTION
NOT TO SCALE
(EXISTING GROUND LINE DRAWED FOR STA. 6+20.00)

LEGEND

: Revised Excavated Area

: Revised Fill Area (See Landscaping Plan, Sheet L-4)



PARTIAL PLAN AT POWER POLE LOCATION
NOT TO SCALE

COASTAL COMMISSION
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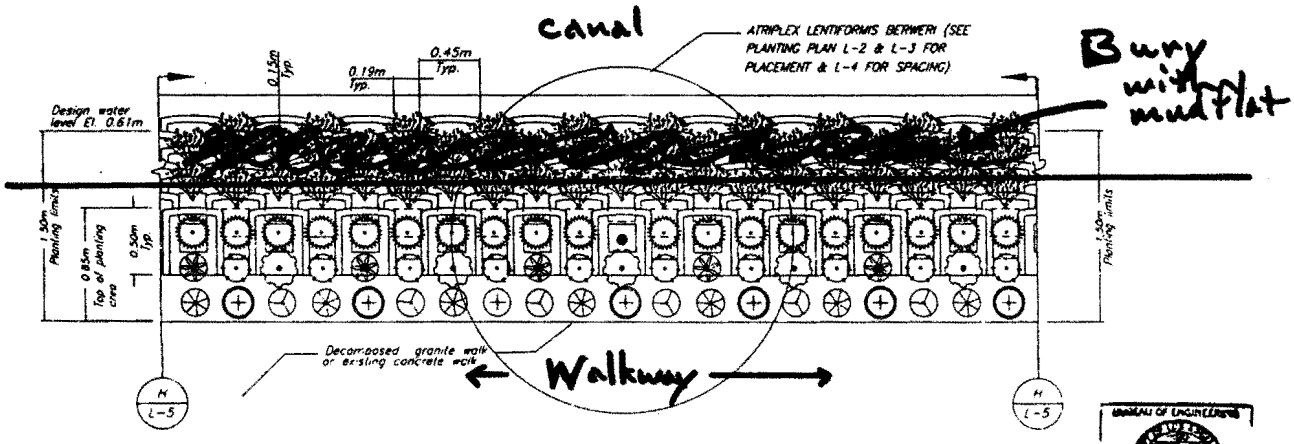
GRAND CANAL REHABILITATION PROJECT W.O. E6000570

PLANT LIST

SYMBOL	BOTANICAL NAME (COMMON NAME) SHRUB OR GROUNDCOVER	PLANT QUANTITY	SIZE	REMARKS
	ATRIPLEX LENTIFORMIS BREWERI (BREWER SALTBUSH)	193	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	ISOMERIS ARBOREA (BLADDER POD)	76	2 1/2" X 9 1/2" DEE POT	CONTRACTOR TO CONTRACT GROW (FIELD SPOT W/ FLAG).
	SALICONIA VIRGINICA (PICKELWEED)	18,328	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW (NO PLANT TABLETS)
	DISTICHLIS SPICATA (SALTGRASS)	5,219	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	FRANKENIA GRANDFLORA (ALKALI HEATH)	1,282	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	JAUMEA CARNOSA (JAUMEA)	2,562	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	LIMONIUM CALIFORNICUM (SEA LAVENDAR)	1,282	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	MONATHOCHLOE LITTORALIS (SHOREGRASS)	1,302	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	SAUEDA CALIFORNICA (SEA BLITE)	1,302	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	SALICORNIA SUBTERMINALIS (GLASSWORT)	1,302	2 1/4" LINER	CONTRACTOR TO CONTRACT GROW
	ENCELIA CALIFORNICA (COAST SUNFLOWER)	4	1 GAL.	(FIELD SPOT W/ FLAG).



TYPICAL PLANTING DETAIL @ LOFFELSTEIN BLOCK WALL @ N/W ROW
~~(STA. 4+00 TO 7+00)~~

H L-5

Note
SEE PLANTING PLAN SHEET L-3 FOR PLANTING LOCATION

NOT TO SCALE

COASTAL COMMISSION

EXHIBIT # 4

PAGE 1 of 1

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
VITALY B. TROYAN, P.E. CITY ENGINEER
ARCHITECTURAL DIVISION
800 S. SPRING ST. STE 200 PHONE 847-8364
DEBORAH WEINTRAUB AIA

REVISIONS

NO.	DATE

CITY ENGINEER
DEPUTY CITY ENGINEER
CITY ARCHITECT 4/11/01

ARCHITECT
STRUCTURAL ENG.
BLDG. MECH. ENG.
BLDG. ELEC. ENG.

PLANTING DETAIL & PLANT LIST
A5-VEN-01-280
GRAND CANAL REHABILITATION PROJECT
FOP

BLDG. NO.
WORK ORDER NO. E6000570
PLAN NO.
DATE 4/12/01
JOB CAPTAIN RT.
DRAWN BY RT.
CHECKED BY GN.
SHEET NO. L-5

LICENSED ARCHITECT DEBORAH WEINTRAUB C-19801 7/31/01 STATE OF CALIFORNIA

GRAND CANAL REHABILITATION -
EXISTING WETLAND VEGETATION AREA

Location	Existing Wetland Vegetation Area	Area	Unit
EAST BANK			
From Sta. 1+00 to Sta. 1+25	25m x 1m =	25.00	M^2
From Sta. 1+33 to Sta. 1+40	7m x 1.2m =	8.40	M^2
Near Sta. 2+25	1m x 1m =	1.00	M^2
Near Sta. 2+35	1.22m x 1.52m =	1.85	M^2
Near Sta. 2+60	2.44m x 1.52m =	3.71	M^2
Near Sta. 2+85	1.22m x 2.13m =	2.60	M^2
From Sta. 3+35 to Sta. 3+44	9m x 1m =	9.00	M^2
From Sta. 3+75 to Sta. 3+85	10m x 2.13m =	21.30	M^2
From Sta. 4+60 to Sta. 4+71	11.25m x 1.2m =	13.50	M^2
From Sta. 4+93 to Sta. 5+00	7.32m x 1.52m =	11.13	M^2
From Sta. 5+32 to Sta. 5+35	3m x 2.75m =	8.25	M^2
From Sta. 5+84 to Sta. 5+90	5.5m x 1m =	5.50	M^2
From Sta. 6+60 to Sta. 6+95	33m x 1.83m =	60.30	M^2
	(East Bank) Subtotal =	**171.54**	**M^2**
WEST BANK Street			
From Sta. 1+00 to Sta. 1+30	26m x 1m =	26.00	M^2
From Sta. 1+40 to Sta. 1+65 HURRICANE	23m x 1 =	23.00	M^2
From Sta. 1+65 to Sta. 1+85	20m x 1.52m =	30.40	M^2
From Sta. 1+85 to Sta. 2+00 GALLEON	15m x 0.6m =	9.00	M^2
From Sta. 2+10 to Sta. 2+43	27.5m x 1.52m =	41.80	M^2
From Sta. 2+43 to Sta. 2+75 FLEET	27.5m x 1.52m =	41.80	M^2
From Sta. 2+80 to Sta. 3+00	16.75m x 1m =	16.75	M^2
From Sta. 3+00 to Sta. 3+45	45m x 1.83m =	82.35	M^2
From Sta. 3+45 to Sta. 3+55 EASTWIND	30m x 1m =	30.00	M^2
From Sta. 3+60 to Sta. 3+90	30m x 2.13m =	63.90	M^2
From Sta. 3+90 to Sta. 4+00 DRIFTWOOD	7.62m x 1m =	7.62	M^2
From Sta. 4+00 to Sta. 4+25	23m x 2.13m =	48.99	M^2
From Sta. 4+25 to Sta. 4+90	62.5m x 1.83m =	114.38	M^2
From Sta. 4+90 to Sta. 5+00 CATAMARAN	9m x 1m =	9.00	M^2
From Sta. 5+00 to Sta. 5+70 BUCCANEER	62.5m x 2.13m =	133.13	M^2
From Sta. 5+70 to Sta. 6+40	64m x 2.13 m =	136.32	M^2
From Sta. 6+40 to Sta. 7+00 ANCHORAGE	47.25m x 1.52m =	71.82	M^2
	(West Bank) Subtotal =	**886.26**	**M^2**
TOTAL EXISTING WETLAND VEGETATION AREA =		**1,057.80**	**M^2**
	OR =	**11,063.15**	**SF**

900' c. 1907 Sidewalk

COASTAL COMMISSION
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EXHIBIT # 5

PAGE 1 OF 2

GRAND CANAL REHABILITATION -
PROPOSED WETLAND VEGETATION AREA

Location	Proposed Wetland Slope Area	Area	Unit	Proposed Wetland Loffels Block Area	Area	Unit
EAST BANK						
c.1907 Sidewalk From Sta. 1+00 to Sta. 4+00	None	0	M^2	300 m x 2.72m=	816.00	M^2
From Sta. 4+00 to Sta. 4+25	25m x 7.62m =	190.5	M^2			
Marina Manor From Sta. 4+25 to Sta. 5+28	103m x 7.62m =	784.86	M^2			
From Sta. 5+28 to Sta. 5+32	4m x 3.66m =	14.64	M^2			
From Sta. 5+32 to Sta. 5+75	43m x 3.66m =	157.38	M^2			
From Sta. 5+75 to Sta. 6+30	55m x 3.66m =	201.3	M^2			
From Sta. 6+30 to Sta. 6+95	None	0	M^2	65m x 2.72m =	176.8	M^2
	(East Bank) Subtotal =	**1,348.68**	**M^2**	365m	992.8	**M^2**
WEST BANK	5 of 7 Drains			5x10m x 2.72	136	M^2
From Sta. 1+00 to Sta. 1+30	27m x 2.74 m =	73.98	M^2			
From Sta. 1+40 to Sta. 1+65	23m x 2.74m =	63.02	M^2			
From Sta. 1+65 to Sta. 1+85	20m x 3.66m =	73.2	M^2			
From Sta. 1+85 to Sta. 2+00	15m x 3.66m =	54.9	M^2			
From Sta. 2+10 to Sta. 2+43	33m x 3.66m =	120.78	M^2			
From Sta. 2+43 to Sta. 2+75	27.5m x 2.74m =	75.35	M^2			
From Sta. 2+80 to Sta. 3+00	20m x 3.66m =	73.2	M^2			
From Sta. 3+00 to Sta. 3+45	45m x 3.35m =	150.75	M^2			
From Sta. 3+60 to Sta. 3+90	30m x 3.35m =	100.5	M^2			
From Sta. 3+90 to Sta. 4+00	None	0	M^2	10m x 2.72m =	27.2	M^2
From Sta. 4+00 to Sta. 4+25	25 m x 2.44m =	61	M^2			
From Sta. 4+25 to Sta. 4+90	62.5m x 2.75m =	171.88	M^2			
From Sta. 4+90 to Sta. 5+00	None		M^2	10m x 2.72m =	27.2	M^2
From Sta. 5+00 to Sta. 5+70	62.5m x 3.35m =	209.38	M^2			
From Sta. 5+70 to Sta. 6+40	64m x 3.96m =	253.44	M^2			
From Sta. 6+40 to Sta. 7+00	None	0	M^2	60m x 2.72m =	163.2	M^2
	(West Bank) Subtotal =	**1,481.38**	**M^2**	130m	353.6	**M^2**

TOTAL PROPOSED WETLAND VEGETATION AREA = 4,176.46 M^2

SUMMARY

TOTAL PROPOSED WETLAND VEGETATION AREA =	4176.46	M^2
TOTAL EXISTING WETLAND VEGETATION AREA =	1057.8	M^2
ADDITIONAL WETLAND VEGETATION AREA =	3118.66	M^2

EXHIBIT # 5

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CITY OF LOS ANGELES
CALIFORNIA

JAMES K. HAHN
MAYOR

DEPARTMENT OF
PUBLIC WORKS
BUREAU OF
ENGINEERING
VITALY B. TROYAN, P.E.
CITY ENGINEER
650 SOUTH SPRING ST., SUITE 200
LOS ANGELES, CA 90014-1911

October 24, 2001

Mr. Josh Burnam
U.S. Army Corps of Engineers
Los Angeles District
Regulatory Branch
P.O. Box 2711
Los Angeles, CA 90053-2325

GRAND CANAL REHABILITATION PROJECT – No. 200101330-JLB

Mr. Burnam:

Please note the minor changes in our project description under the above Department of the Army authorization to rehabilitate the Grand Canal from Washington Street to Hurricane Street, in the community of Venice, CA. There are two changes of note:

1. Due to unforeseen permitting delays, we now expect that the construction of this project will begin in early December of this year. Per conversations with Mr. Kevin Clark of the United States Fish & Wildlife Service on October 22 and 23, we are required to complete the portion of the canal south of Driftwood and return water to that area by **April 30, 2002** in order to minimize impacts to the California least tern. The area north of Driftwood will be completed as soon as possible thereafter. Please note that other work outside of the water prism, such as fence erection, plantings, and sidewalk construction, may still proceed as necessary throughout the canal after April 30, as this will not effect least tern foraging in the canal.

2. The project design now includes approximately 60-70% natural earthen banks and 30-40% Loffel block embankments rather than Loffel block throughout the canal length. This change was in response to requests from both the USFWS and the California Coastal Commission.

If you have any questions regarding this matter, please call Mr. Russell Ruffing of my office at (213) 847-8788. Thank you for your attention to this matter.

Sincerely,

VITALY B.TROYAN, P.E.
City Engineer

By James E Doty

ARA J. KASPARIAN, Ph.D.
Group Manager
Environmental Group

cc: Kevin Clark, USFWS
Tony Klecha, RWQCB
Brad Henderson, DFG
Lyann Comrack, DFG
Charles Posner, CCC
Council District 6, MS 210 & 228
Randy Price, MS 545
Luis Ganaja, MS 494

U.S. Fish and Wildlife Service

October 25, 2001

We have reviewed the proposed changes associated with the Venice Grand Canal Rehabilitation project. The proposed changes include 1) the completion of the in-water phase of construction south of Driftwood by April 30, 2002, and 2) the restriction of Loffel block embankments to 30-40% of the canal length. The Ballona Lagoon is a primary foraging area for the California least tern (Sterna antillarum browni, "tern") colony located at Venice beach. The terns will also occasionally forage in the southern end of the Venice canal adjacent to the lagoon. However, this section of the canal is currently constrained as foraging habitat by the extensive non-native vegetation such as Myoporum covering much of the surface area. Removal of this vegetation will open up more foraging habitat for the terns, and will compensate for the short term dewatering of the canal north of Driftwood which may extend into the beginning of the tern breeding season. The canal north of Driftwood is narrow and little used by foraging terns, but likely will be used more extensively after completion of the project.

The restriction of Loffel block embankments should greatly improve the habitat quality of the shoreline for migrating and wintering shorebirds, and should result in greater vegetative cover of estuarine vegetation such as pickleweed, which will provide more suitable habitat for sensitive avian species such as the Belding's savannah sparrow (Passerculus sandwhichensis beldingi).

Therefore we conclude that the proposed project is not likely to adversely affect the tern. We will continue to monitor tern foraging behavior through the 2002 nesting season. Should project plans change, or if additional information becomes available, this determination may be reconsidered.

Sincerely,

Kevin B. Clark
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
2730 Loker Ave. West
Carlsbad, CA 92008
(760) 431-9440 (phone)
(760) 431-5901 (fax)

STATE OF CALIFORNIA-THE RESOURCES AGENCY GRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME

South Coast Region
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
FAX (858) 467-4299

October 25, 2001

Vitaly B. Troyan, P.E.
City Engineer
City of Los Angeles
Department of Public Works
650 South Spring Street, Suite 200
Los Angeles, CA 90014-1911

Flex your POWER

Grand Canal Rehabilitation Project - No. 200101330-JLB

Dear Mr. Troyan:

The Department of Fish and Game (Department) has reviewed proposed changes to the project description of the aforementioned project summarized in your letter to Mr. Josh Burnam of the U.S. Army Corps of Engineers dated October 24, 2001 (Attached). The Mission of the Department of Fish and Game is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.

The Department has determined that the proposed project modifications are not likely to result in adverse impacts to the California least tern (*Sterna antillarum browni*).

Thank you for the opportunity to comment on your project. If you have any questions about this letter, please contact Brad Henderson at (310) 214-9950.

Sincerely,

Bradley J. Henderson for

Donald R. Chadwick
Habitat Conservation Supervisor

Attachment

COASTAL COMMISSION
A5-VEN-01-280
5-01-289
EXHIBIT # 6
PAGE 3 OF 3

Grand Canal Rehabilitation Data – A5-VEN-01-280/5-01-289 (10/31/01 CP)

Total length of canal banks
- East Bank: 600m
- West Bank: 600m
- Total: 1200m

Existing mud/dirt banks
- East Bank: 300m (all except 300m sidewalk c.1907)
- West Bank: 580m (all except for paved banks @ Hurricane & Galleon)
- Total: 880m (73% of total)

Proposed Loffel banks
- East Bank: 365m (replaces 300m sidewalk c.1907 + 65m @ bridge)
- West Bank: 135m (7x10m drains + 65m @ bridge)
- Total: 500m (41.6% of total)

Proposed Mud/dirt banks without Loffel (Loffel embankments will be buried with mud)
- East Bank: 235m (all except 300m sidewalk + 65m @ bridge)
- West Bank: 465m (7x10m drains + 65m @ bridge)
- Total: 700m (58% of total)

Existing Mud/dirt banks (mudflat) temporarily displaced by Loffel
- East Bank: 65m
- West Bank: 125m
- Total: 190m

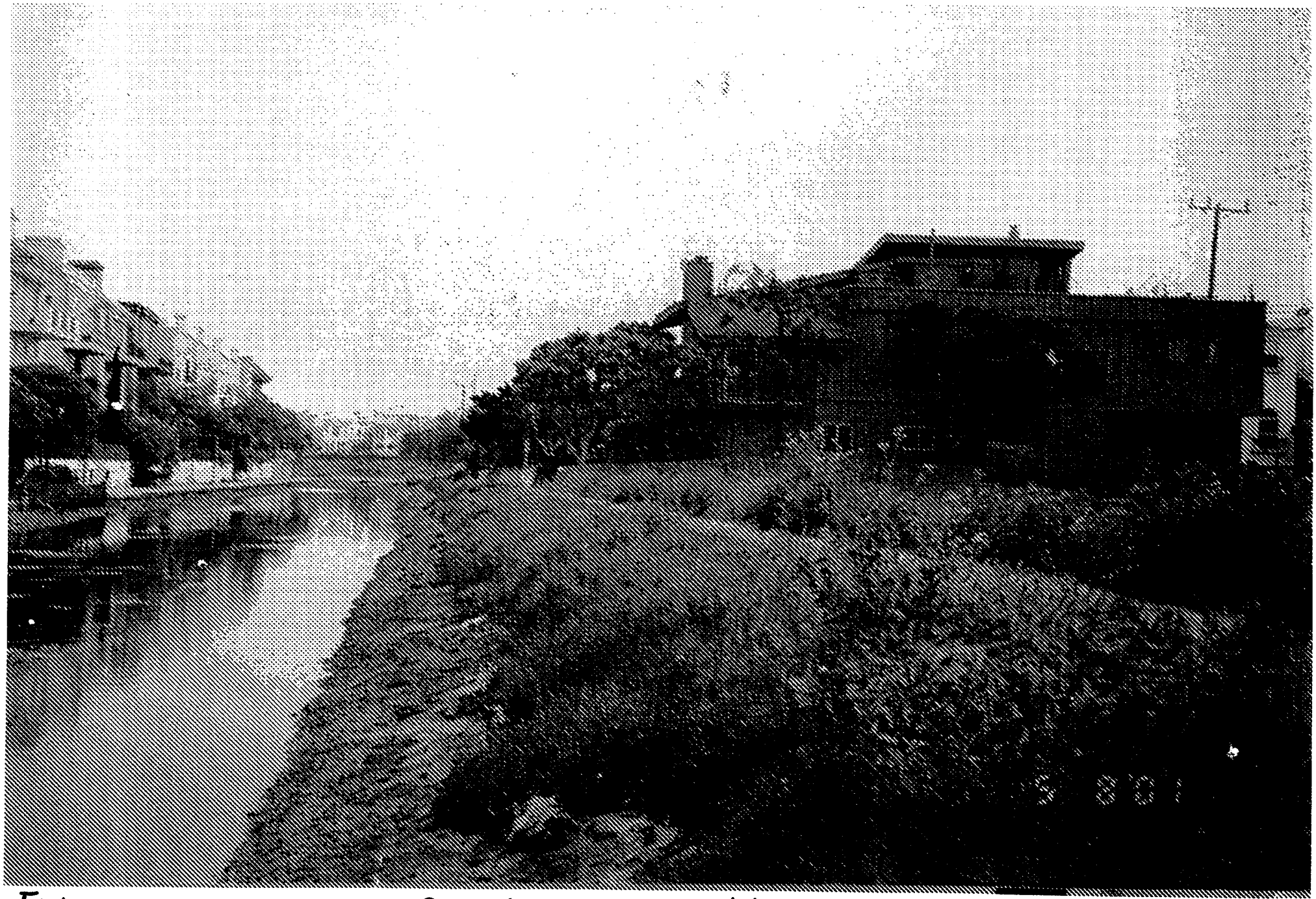
Existing Wetland Veg area
- East Bank: 171.54 sq.m.
- West Bank: 886.26 sq.m.
- Total: 1057.80 sq.m.

Existing Wetland Veg area displaced by Loffel
- East Bank: 133.16 sq.m.
- West Bank: 169.70 sq.m.
- Total: 302.86 sq.m.

Proposed Wetland Veg area (including Loffel cells)
- East Bank: 2341.48 sq.m.
- West Bank: 1834.98 sq.m.
- Total: 4176.46 sq.m.

Increase in Total Wetland Veg area (including Loffel cells)
- Total proposed: 4176.46 sq.m.
- Total existing: 1057.80 sq.m.
- Total increase: 3118.66 sq.m. (295% increase)

Wetland Mitigation Area
- Veg displaced: 302.86 sq.m.
- Veg increase: 3118.66 sq.m.
- Ratio of new veg: 10.3 to One



East

Grand Canal - Exhibit 8

West Bank