

GENERAL NOTES

1. The scope of this project consists of replacing the traffic light standards, cabling, loop detectors at the Nimitz/Pacific intersections; increasing the left turn storage lane at Pali Hwy (inbound)/Vineyard Blvd.
2. For improvements at Nimitz Hwy/Pacific Street intersections, see electrical drawings. Curb ramps shall be restored back to original condition upon completion of construction.
3. The Contractor shall reference the "Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, 1994."
4. The Contractor is reminded of the requirements of Subsection 108.01 – Subletting of Contract, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
5. The Contractor's attention is directed to the following Sections of the Special Provisions : Subsection 104.04 – Maintenance of Traffic; Subsection 105.06 – Coordination Between Contractors; Subsection 107.13 – Public Convenience and Safety; Subsection 107.21 – Contractor's Responsibility For Utility Property And Services; and Section 645 –Traffic Control.
6. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
7. The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
8. The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (Phone: 848-4571) seven (7) days prior to any paving operations.
9. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
10. The existing drainage system shall be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.

GENERAL NOTES (CONT.)

11. All saw cutting work including vacuum of slurry shall be considered incidental to Asphalt Concrete Pavement, Mix. No. IV.
12. All azimuths and coordinates for the Pali Highway Intersection are referred to "PUNCHBOWL." For Bench Mark see 'Roadway Plan – Pali Highway.'
13. At the location where the new pavements tie into the existing pavement, the Contractor shall check the existing and design grades to ensure a smooth riding connection. The Contractor shall saw cut including vacuum of slurry the existing pavement in the transverse direction to provide a neat connection. This work will be incidental to various bid items.
14. Work required to complete the project but not itemized specifically in the proposal shall be considered incidental to the various contract items and shall not be paid for separately. This includes restoration of areas adjacent to work areas to a condition of same or better.
15. Steel plate used on roadways exposed to traffic shall be 1" thick minimum with non-skid surfaces.
16. Contractor shall pre-arrange for an Environmental Consultant to sample and submit reports as required.
17. Hazardous materials may be encountered during excavation in the Pacific St. and Nimitz Highway in and outbound roadway intersections. If hazardous materials are encountered, work shall stop in that area and the Engineer shall be notified.
18. Construction Area:
 - A. Nimitz Hwy/Pacific Street Intersection = 0.50 AC
 - B. Pali Hwy/Vineyard Blvd. Intersection = 0.10 AC
19. The Contractor shall maintain all street lights within the project limits at no cost to the State. All street lights shall be operating within 24 hours of discovery of a malfunction.

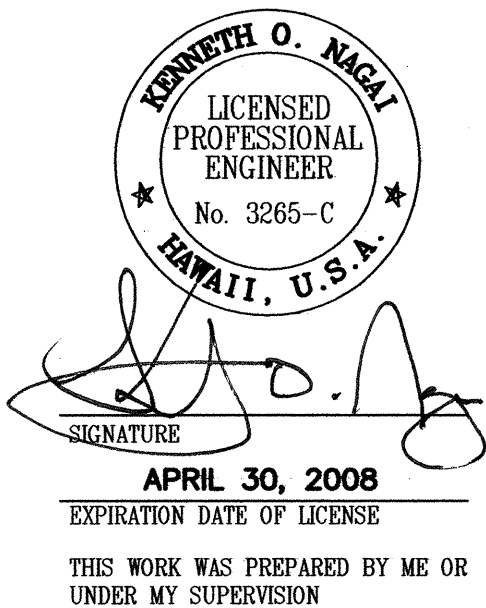
TRAFFIC SIGNALS AND TECHNOLOGY DIVISION NOTES

1. The Contractor shall notify the Traffic Signals and Technology Division, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (Phone: 523-4589).
2. The traffic signal system shall be kept operational during construction. Any relocation required shall be approved by the Traffic Signals and Technology Division, Department of Transportation Services, and paid for by the Contractor.
3. The Contractor shall be responsible for any damages to the existing traffic signal facilities, including but not limited to the traffic signal fiber optic cable system, and interconnect system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the Traffic Signals and Technology Division.

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GAS FACILITIES NOTES

1. The Gas Company gas pipelines in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.
2. Written clearances must be obtained from The Gas Company, Maps and Records Department, 515 Kamakee Street, at least five (5) working days prior to starting excavation near these gas pipelines.
3. Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call USA North a minimum of two (2) working days before starting excavation to arrange for field location of the existing gas pipelines. The telephone number is 1-800-227-2600.
4. The Contractor shall excavate and backfill around gas pipelines in the presence of a representative of The Gas Company. All backfill within six inches of any gas pipeline shall be select cushion material approved by The Gas Company.
5. For relocation of any gas pipeline, the Contractor shall notify The Gas Company five (5) working days before starting work. The telephone number is 594-5574. The Contractor shall provide the necessary excavation and backfill, obtain traffic permits, and restore pavement, sidewalks, and other facilities. Any relocation of gas facilities shall be borne by the Contractor.
6. The Contractor shall notify The Gas Company immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. The telephone number is 535-5933, 24 hours a day. The Contractor shall be liable for any damage to The Gas Company facilities. Repair work on such damage shall be done by The Gas Company with payment for this work to be borne by the Contractor.
7. Minimum vertical and horizontal clearance between the gas pipelines and other pipelines, conduits, ductlines, or other facilities shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by The Gas Company.
8. The Contractor shall work in an expeditious manner in order to keep the uncovered gas pipelines exposed for as short a period of time as possible.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

TRAFFIC OPERATIONAL IMPROVEMENTS
AT VARIOUS INTERSECTIONS & ROADWAYS

PROJECT NO. HWY-0-04-04

DATE: March 2006

SHEET No. C-1 OF 14 SHEETS

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| ORIGINAL PLAN NOTE BOOK No. | SURVEY PLOTTED BY | DATE |
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TRAFFIC CONTROL PLAN NOTES

1. The permittee shall make minor adjustments at intersections, driveways bridges, structures, etc., to fit field conditions.
2. Cones or delineators shall be extended to a point where they are visible to approaching traffic.
3. Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
4. Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon completion of the work.
5. Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
6. All traffic lanes shall be a minimum of 10 feet wide.
7. All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
8. The backs of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when signs have messages on both faces).
9. At the end of each day's work or as soon as the work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation.
10. Permanent pavement markings and traffic signs shall be replaced upon the completion of each phase of work.
11. The Contractor shall be responsible for adjusting and/or installing signs outside of the work area which the district engineer deems needed to maintain a smooth traffic control transition.

ABBREVIATIONS

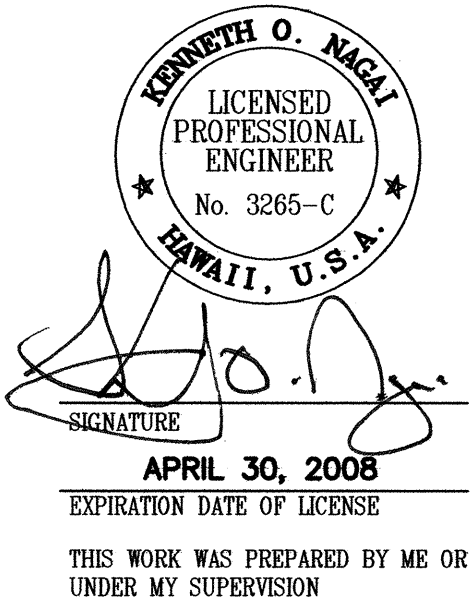
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|-----------|-----------------------------------|-----------|--------------------------|
| A.C. | ASPHALT CONCRETE | MH | MANHOLE |
| APPROX. | APPROXIMATE | MON. | MONUMENT |
| BC | BOTTOM CURB | O.C. | ON CENTER |
| BOT. | BOTTOM | O/H | OVERHEAD |
| BW | BOTTOM WALL | O/S | OFFSET |
| CATV | CABLE TELEVISION | PAV'T. | PAVEMENT |
| C.B. | CATCH BASIN | P.M. | PARKING METER |
| C.L. | CHAIN LINK | REF. | REFLECTOR |
| CLR. | CLEAR | RT. | RIGHT |
| CMU | CONCRETE MASONRY UNIT | ROW | RIGHT OF WAY |
| C.O. | CLEAN OUT | S | SEWER OR SPREAD |
| COMM. | COMMUNICATION | SHT. | SHEET |
| CONC. | CONCRETE | STD. | STANDARDS |
| CRM | CONCRETE RUBBLE MASONRY | SDMH | STORM DRAIN MANHOLE |
| D | DIAMETER OF DRAIN | SL | STREET LIGHT |
| DET. | DETAIL | SLB | STREET LIGHT BOX |
| D.I. | DRAIN INLET | SMH | SEWER MANHOLE |
| DWGS. | DRAWINGS | ST. NAME | STREET NAME |
| E/ELEC. | ELECTRIC | STA. | STATION |
| ELEV./EL. | ELEVATION | TC | TOP CURB |
| ep | EXIST. EDGE OF PAV'T. | TDC | TOP DROP CURB |
| es | EXIST. EDGE OF SHOULDER | T OR TEL. | TELEPHONE |
| EXIST. | EXISTING | TP | TOP PIPE |
| F.H. | FIRE HYDRANT | TRC | TOP ROLLED CURB |
| G | GAS | TS | TOP STEM |
| GDI | GRADED DRAIN INLET | TSL | TRAFFIC SIGNAL LIGHT |
| GND. | GROUND | TSLB | TRAFFIC SIGNAL LIGHT BOX |
| G.P. | GUARD POST/GUY POLE/ GATE POST | TV | TOP VALVE |
| G.W. | GUY WIRE | TW | TOP WALL |
| H | HEIGHT | TYP. | TYPICAL |
| HW | HEADWALL | U.P. | UTILITY POLE |
| ICV | IRRIGATION CONTROL VALVE | W | WATER |
| INV. | INVERT | WM | WATER METER |
| L.P. | LAMP POLE | WMH | WATER MANHOLE |
| LT. | LEFT | WV | WATER VALVE |
| | | X-WALK | CROSS WALK |

LEGEND

| | |
|---------------------|------------------------|
| — — — — — | RIGHT OF WAY |
| — 0000 —> | FLOW LINE |
| — x x x x — | EXIST CHAIN LINK FENCE |
| — D ₃₀ — | EXIST DRAIN LINE (30") |
| — G ₂ — | EXIST GAS LINE (2") |
| — W ₈ — | EXIST WATER LINE (8") |

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES
AND LEGEND

TRAFFIC OPERATIONAL IMPROVEMENTS
AT VARIOUS INTERSECTIONS & ROADWAYS

PROJECT NO. HWY-0-04-04

DATE: March 2006

SHEET No. C-2 OF 14 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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1. General:

- A. The Contractor is reminded of the requirements of Section 209 – Water Pollution, Dust and Erosion Control, in the Special Provisions. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment.
- B. The Contractor shall follow the guidelines in the "Best Management Practices Manual for Construction Sites in Honolulu", dated May 1999, in developing, installing and maintaining the Best Management Practices (BMP) Devices for the project.
- C. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- D. The Contractor shall follow the guidelines in the Honolulu's City & County "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu. Use applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- E. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
- F. For projects that require an NPDES Permit from the Department of Health, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.

2. Waste Disposal:

- A. Waste Materials
All waste materials shall be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied a minimum of twice per week or as often as is deemed necessary. No construction waste materials shall be buried onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.
- B. Hazardous Waste
All hazardous waste materials shall be disposed of in the manner specified by local or State regulations or by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.
- C. Sanitary Waste
All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

3. Erosion and Sediment Control Inspection and Maintenance Practices:

- A. All control measures shall be inspected at least once each week and following any rainfall event of 0.5 inches or greater.
- B. All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- C. Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- D. Silt screen or fence shall be inspected for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. The bottom of the silt screen shall be inspected and verified that it is buried a minimum of 6 inches below the existing ground.
- E. Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- F. A maintenance inspection report shall be submitted one (1) working day after each inspection by the Contractor.
- G. The Contractor shall select a minimum of three personnel who shall be responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- H. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

4. Good Housekeeping Best Management Practices:

- A. Materials Pollution Prevention Plan
- 1) Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.
- Concrete
Fertilizers
Detergents
Petroleum Based Products
Paints (enamel and latex)
Cleaning Solvents
Metal Studs
Wood
Tar
Masonry Block
- 2) Material Management Practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort shall be made to store only enough product as is required to do the job.
- 3) All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- 4) Products shall be kept in their original containers with the original manufacturer's label.
- 5) Substances shall not be mixed with one another unless recommended by the manufacturer.
- 6) Whenever possible, a product shall be used up completely before disposing of the container.

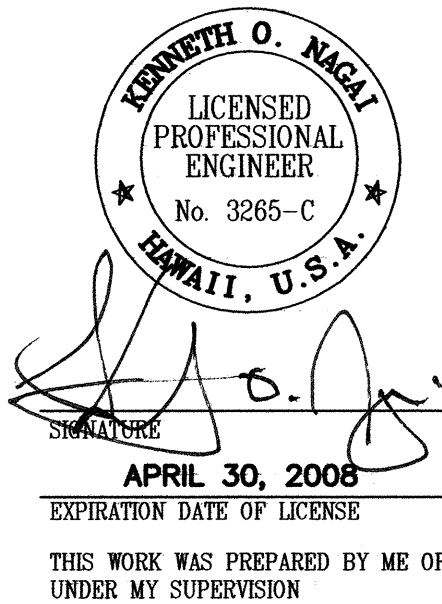
- 7) Manufacturer's recommendations for proper use and disposal shall be followed.
- 8) The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

B. Hazardous Material Pollution Prevention Plan

- 1) Products shall be kept in original containers unless they are not resealable.
- 2) Original labels and material safety data sheets (MSDS) shall be retained.
- 3) Surplus products shall be disposed of according to manufacturers' instructions or local and State recommended methods.

C. Onsite and Offsite Product Specific Plan

- 1) The following product specific practices shall be followed onsite:
- a. Petroleum Based Products:
All onsite vehicles and equipment shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite shall be applied according to the manufacturer's recommendations. Stored petroleum products shall be kept in an area prepared to prevent contamination or spill.
- b. Fertilizers:
Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to storm water. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.
- c. Paints:
All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturers' instructions or State and local regulations.
- d. Concrete Trucks:
Concrete trucks shall be allowed to wash out or discharge drum wash water only at a designated site. Water shall not be discharged in the highway drainage system or waters of the United States. The Contractor shall contact Clean Water Branch, Department of Health at 586-4309 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.



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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION |
| GENERAL NOTES |
| TRAFFIC OPERATIONAL IMPROVEMENTS AT VARIOUS INTERSECTIONS & ROADWAYS |
| PROJECT NO. HWY-0-04-04 |
| DATE: March 2006 |
| SHEET No. C-3 OF 14 SHEETS |

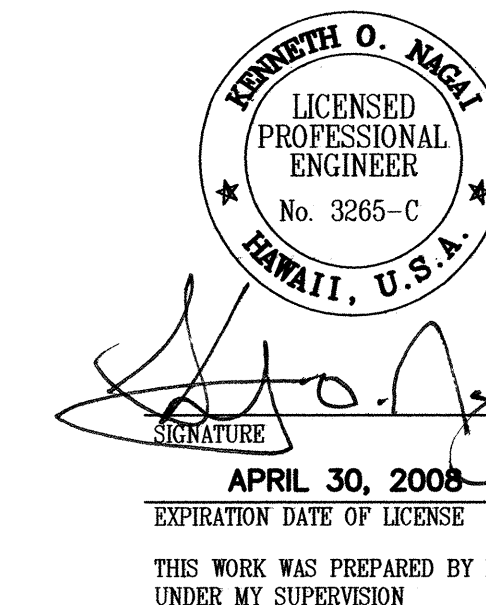
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1. Erosion and Sediment Control Inspection and Maintenance Practices shall be performed by the Contractor at his own expense.
 - A. The Contractor shall furnish and install a rain gage as agreed by the Engineer, and provide daily rain gage readings to the Engineer.
 - B. The Contractor shall inspect the erosion and sediment control measures at least once a week and after 0.5 inches of rainfall.
 - C. The Contractor shall maintain the erosion and sediment control measures according to the contract. If a repair is necessary, the Contractor shall initiate the repairs within twenty-four (24) hours after the inspection such as:
 - 1) When sediment build-up reaches one-third ($1/3$) the height of the silt fence, the Contractor shall remove and dispose of the sediment build-up.
 - 2) When the depth of the sediment basin reaches ten percent (10 %) of the design capacity, the Contractor shall remove and dispose of the sediment build-up.
 - 3) When tears are found on the silt fence, the Contractor shall replace the fabric.
 - 4) The Contractor shall check to see if the fabric is securely attached to the fence posts and to see that the fence posts are firmly in the ground. Post spacing shall be 6' maximum.
 - 5) The Contractor shall inspect the diversion dike and repair the breaches.
 - 6) The Contractor shall inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth, and maintain seeping and planting area.
 - D. The Contractor shall have its personnel make a maintenance inspection report promptly after each inspection. The Contractor shall select a minimum of three (3) personnel who will be responsible for inspection, maintenance, repair activities, and filling out the inspection and maintenance report. Personnel selected for the inspection and maintenance responsibilities will receive training from the Contractor. The Contractor shall train these personnel in the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite according to the contract.
2. Submittal Requirements:
 - A. Construction activities of one (1) acre or more.

State (Design/Consultant) shall apply for NPDES Permit during design. Only required documentation from the Contractor should be site-specific BMP, Solid Waste Disposal form and any other documentation required by DOH which cannot be obtained in advance.
 - B. Storm water discharged into State waters due to construction activities will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the Engineer six (6) sets of Site-Specific Best Management Practices Plans (BMP). The Plans shall be submitted no later than two (2) weeks after the award of contract.
 - C. DOH requires a minimum of 30 calendar days to review site-specific BMP depending on the completeness of the submittal. Contractor shall not start work until all required documentation including site-specific BMP are accepted by DOH.



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GENERAL NOTES

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DATE: March 2006

SHEET No. C-4 OF 14 SHEETS

TRAFFIC OPERATIONAL IMPROVEMENTS AT VARIOUS INTERSECTIONS AND ROADWAYS

PROJECT NO. HWY-0-04-04

MARCH 14, 2006