

STANDARD PLANS SUMMARY

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|------------------------|-------|-----------------------|----------------|--------------|-----------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| HAWAII | HAW. | NH-092-1(25) | 2002 | 3 | 268 |

| STANDARD PLAN NO. | TITLE | DATE |
|----------------------|--|-----------|
| B-01 ● | Notes and Miscellaneous Details | 07/01/86 |
| B-02 | | |
| B-03 ● | Typical Structure Excavation and Backfill Pay Limits | 07/01/86 |
| B-04 | | |
| B-05 | | |
| B-06 | Concrete Box Girder | 07/01/86 |
| B-07 | Concrete Box Girder | 07/01/86 |
| B-08 | Concrete Box Girder | 07/01/86 |
| B-09 | | |
| B-10 | | |
| B-11 | | |
| B-12 | Prestressed Concrete Piles | r07/16/90 |
| B-13 | Prestressed Concrete Piles | r07/16/90 |
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|--------|--|-----------|
| D-01 ● | Chain Link Fence With Toprail | r03/06/87 |
| D-02 ● | Chain Link Fence Without Toprail | r07/26/90 |
| D-03 | Wire Fence With Metal Posts | 07/01/86 |
| D-04 ● | Typical Details of Curbs and/or Gutters | 07/01/86 |
| D-05 ● | Typical Details of Reinforced Concrete Drop Driveway | 07/01/86 |
| D-06 ● | Centerline and Reference Survey Monument | 07/01/86 |
| D-07 ● | Street Survey Monument | 07/01/86 |
| D-08 ● | Landscaping Shrub and Tree Planting | 07/01/86 |
| D-09 ● | Field Office | 07/01/86 |
| D-10 ● | Field Office | 07/01/86 |
| D-11 ● | Project Site Laboratory | 07/01/86 |
| D-12 ● | Project Site Laboratory | 07/01/86 |
| D-13 ● | Field Office & Project Site Laboratory | 07/01/86 |
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|--------|---|-----------|
| H-01 ● | Type A, B, C and D Catch Basin | 07/01/86 |
| H-02 ● | Type A1, B1, C1 and D1 Catch Basin | 07/01/86 |
| H-03 ● | Type A2, B2, C2 and D2 Catch Basin | 07/01/86 |
| H-04 ● | Typical Reinforcing Details for Catch Basins | 07/01/86 |
| H-05 | Type A, B and C Storm Drain Manhole | 07/01/86 |
| H-06 | Type D and E Storm Drain Manhole | 07/01/86 |
| H-07 | Type F Storm Drain Manhole | 07/01/86 |
| H-08 ● | Catch Basin and Manhole Casting | 07/01/86 |
| H-09 | Type A-9 and A-9P Frames and Grates | 07/01/86 |
| H-10 | Type A-9B Frames and Grates | 07/01/86 |
| H-11 | Type 61614 and 61214 Grated Drop Inlet | 07/01/86 |
| H-12 | Type 61616 Grated Drop Inlet | 07/01/86 |
| H-13 | 61214, 61614 & 61616 Steel Frames and Grates | 07/01/86 |
| H-14 | 61214B Steel Frame and Grates | 07/01/86 |
| H-15 | 61614B Steel Frame and Grates | 07/01/86 |
| H-16 | Concrete and Cement Rubble Masonry Structures | r10/16/90 |
| H-17 | Inlet Structures | r10/16/90 |
| H-18 | Flared End Section for Culverts | 07/01/86 |
| H-19 | Outlet Structures | r02/15/91 |
| H-20 | Concrete Spillway Inlet | 07/01/86 |
| H-21 | 18" Slotted C.M.P. Drain | 07/01/86 |
| H-22 | C.M.P. Coupling Details Standard Joint | r10/16/90 |
| H-23 | Hat Shaped Coupling Band | r10/16/90 |
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| STANDARD PLAN NO. | TITLE | DATE |
|----------------------|--|-----------|
| TE-01 ● | Miscellaneous Sign Details | 07/01/86 |
| TE-02 ● | Galvanized Flanged Channel Sign Post Mounting | 07/01/86 |
| TE-03 ● | Galvanized Square Tube Sign Post Mounting | 07/01/86 |
| TE-04 ● | Regulatory Signs | r09/01/87 |
| TE-05 ● | Warning Signs | 07/01/86 |
| TE-06 ● | Miscellaneous Signs | r11/03/89 |
| TE-07 | Reserved | 07/01/86 |
| TE-08 ● | Construction Signs | r09/01/87 |
| TE-09 ● | Miscellaneous Intersection Signs | r03/06/87 |
| TE-10 | Reserved | 07/01/86 |
| TE-11 ● | Bike Route Sign and Supplementary Plates | 07/01/86 |
| TE-12 ● | State Route Marker and Auxiliary Markers | 07/01/86 |
| TE-13 | Interstate Route Marker | 07/01/86 |
| TE-14 | State Route Marker and Border Detail for Guide Signs | 07/01/86 |
| TE-15 ● | Route Marker Assemblies | 07/01/86 |
| TE-16 ● | Miscellaneous Reflector Markers | 07/01/86 |
| TE-17 ● | Type II Object Markers | 07/01/86 |
| TE-18 ● | Mileposts | 07/01/86 |
| TE-19 | Reserved | 07/01/86 |
| TE-20 ● | Overhead Sign Supports | 07/01/86 |
| TE-21 ● | Overhead Sign Support, Box Truss Type, Aluminum | 07/01/86 |
| TE-22 ● | Foundation Details and Schedules | 07/01/86 |
| TE-23 ● | Supports for Ground Mounted Guide Sign | r11/03/89 |
| TE-24 ● | Breakaway Sign Supports for Ground Mounted Guide Signs | 07/01/86 |
| TE-25 ● | Laminated Aluminum Sign Panels (Overhead) | 07/01/86 |
| TE-26 ● | Laminated Aluminum Sign Panels (Ground Mounted) | 07/01/86 |
| TE-27 ● | Solid Aluminum Extruded Sign Panel and Accessory Details | 07/01/86 |
| TE-28 ● | Guide Signs Luminaire Mountings | 07/01/86 |
| TE-29 | Reserved | 07/01/86 |
| TE-30 ● | Raised Pavement Markers and Striping | r05/09/90 |
| TE-31 ● | Miscellaneous Pavement Markings | r05/09/90 |
| TE-32 ● | Miscellaneous Pavement Markings | r05/09/90 |
| TE-33 ● | Miscellaneous Pavement Markings | r11/03/89 |
| TE-34 | Reserved | 07/01/86 |
| TE-35 ● | Pavement Alphabets, Numbers & Symbols | 07/01/86 |
| TE-36 ● | Pavement Alphabets, Numbers & Symbols | 07/01/86 |
| TE-37 | Reserved | 07/01/86 |
| TE-38 ● | Traffic Signal System, Miscellaneous Details | r11/03/89 |
| TE-39 ● | Traffic Signal System, Miscellaneous Details | 07/01/86 |
| TE-40 | Loop Detectors | r11/03/89 |
| TE-41 ● | Pullboxes | 07/01/86 |
| TE-42 | Type III Traffic Signal Standard | 07/01/86 |
| TE-43 | Concrete Pullbox (2' x 3') | 07/01/86 |
| TE-44 | Reserved | 07/01/86 |

| STANDARD PLAN NO. | TITLE | DATE |
|----------------------|---|-----------|
| TE-45 | Reserved | 07/01/86 |
| TE-46 | Reserved | 07/01/86 |
| TE-47 | Reserved | 07/01/86 |
| TE-48 | Reserved | 07/01/86 |
| TE-49 | Reserved | 07/01/86 |
| TE-50 | Metal Guardrail | r03/06/87 |
| TE-51 | Metal Guardrail | r09/01/87 |
| TE-52 | Metal Guardrail with Rubrail | r11/03/89 |
| TE-53 | Metal Guardrail with Rubrail at Obstruction | r09/01/87 |
| TE-54 | Beam Type Guardrail with Rubrail at Obstruction (Shoulder Installation) | r11/03/89 |
| TE-55 | Metal Guardrail Connection to Concrete Barrier | r11/03/89 |
| TE-56 | Concrete Barrier Transition | 07/01/86 |
| TE-57 | Guardrail Type 3, Thrie Beam | r11/03/89 |
| TE-57A | Guardrail Type 3, Modified Thrie Beam | 11/03/89 |
| TE-58 | Approach End Flare, One & Two Way Roadway | 07/01/86 |
| TE-59 | Trailing End Flare, One & Two Way Roadway | r11/03/89 |
| TE-60 | Anchor Block Details | 07/01/86 |
| TE-61 | Breakaway Cable Terminal (BCT) | r11/03/89 |
| TE-62 | Breakaway Cable Terminal (BCT) | r09/01/87 |
| TE-63 | Guardrail Type 4 (Rigid Barrier) | r09/01/87 |
| TE-64 ● | Portable Concrete Barrier | r11/03/89 |
| TE-65 ● | Guardrail Type 4, Miscellaneous | r09/01/87 |
| TE-66 ● | Barricades | 07/01/86 |
| TE-67 ● | Delineation & Pavement Markings at Bridges | 07/01/86 |
| TE-68 | Wheelchair Ramps | r11/03/89 |
| TE-69 | Wheelchair Ramps | r11/03/89 |
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| | | |

NOTE:
Standard Plans applicable to this project are indicated by a "●" next to the Standard Plan No. (D-07 ●)

DATE

ORIGINAL PLAN

DESIGNED BY

NOTED BY

CHECKED BY

No.

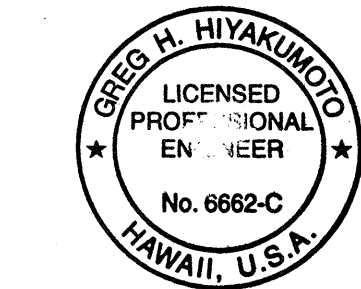
SURVEY PLOTTED BY

DRAWN BY

DESIGNED BY

NOTED BY

CHECKED BY



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
DATE

02/15/91 Revised Standard Plan H-19
10/16/90 Revised Standard Plans H-16,H-17,
H-22 & H-23.
07/26/90 Revised Standard Plan D-02.
07/16/90 Revised Standard Plans B-12, B-13.
05/09/90 Revised Standard Plans TE-30,TE-31,
& TE-32.
11/03/89 Revised Standard Plans TE-06,TE-23,
TE-30, TE-31, TE-32, TE-33, TE-38,
TE-40, TE-52, TE-54, TE-55, TE-57,
TE-59, TE-61, TE-64, TE-68 & TE-69.
09/01/87 Added TE-57A to Standard Plans
Revised Standard Plans TE-04,TE-06,
TE-08, TE-32, TE-51, TE-53, TE-54,
TE-55, TE-57, TE-59, TE-62, TE-63,
TE-65 & TE-69.
03/06/87 Revised Standard Plans D-01, TE-09,
TE-40, TE-50, TE-51, TE-57, TE-59,
TE-61, TE-63 & TE-64.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None Date: 10/19/01

SHEET No. SP-1 OF 107 SHEETS

GENERAL NOTES

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|------------------------|-------|-----------------------|----------------|--------------|-----------------|
| HAWAII | HAW. | NH-092-1(25) | 2002 | 4 | 269 |

- DATE

SURVEY PLOTTED BY

DRIVEN BY

DESIGNED BY

CHECKED BY

ORIGINAL PLAN

NOTE BOOK

No.

1.

The Project Scope of Work includes replacement of sidewalks, curbs, and gutters; reconstruction of pavement; adjustment of utilities and structures to accommodate new work; resurfacing; replacement of street lights and traffic signals; and replacement of bridge railings.

2.

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 50 percent of the total contract cost less deductible items. Noncompliance with this Subsection may be grounds for rejection of bid.

3.

The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 107.13 – Public Convenience and Safety; Subsection 107.21 – Contractor's Responsibility For Utility Property And Services; and Section 645 – Traffic Control.

4.

The Contractor shall follow all work hours, conditions and other restrictions as specified in the approved noise variance.

5.

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.

6.

The existence and location of underground utilities, manholes, monuments, buried railroad tracks and concrete pavements, and other 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 make an independent check on the ground by probing and/or with the various utility companies and governmental agencies to verify the exact locations and depths of the existing utilities and obstructions. The contractor shall exercise proper care in excavating and cold planing in the area. Whenever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavating for the new lines. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.

7.

The exact locations and limits or areas to be filled with leveling course, reconstructed and/or cold planed shall be determined in the field by the Engineer.

8.

The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (Ph.# 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 Contractor shall remove and dispose of all existing raised pavement markers and traffic tapes prior to the overlaying of Asphalt Concrete. This work shall be considered incidental to Superpave Asphalt Concrete Pavement and will not be paid for separately.

11.

Smooth riding connections shall be constructed at all limits of resurfacing, including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans and/or as directed by the Engineer.

12.

Dressing of shoulder, sidewalk and bus turnout shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.

13.

Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.

14.

For traffic and pedestrian access, the contractor shall provide for access to and from all existing side streets at all times.

15.

All saw cutting work shall be considered incidental to the Reconstruction of the Pavement.

16.

Contractor shall notify owners of their driveway adjustments two (2) weeks prior to construction.

17.

Contractor shall dispose or deliver any removed material at no cost to the State.

18.

Contractor shall exercise caution when cold planing over existing structures.

19.

The Contractor is to take special measures to reduce dust from cold planing operations including but not limited to use of water misters on cold planing equipment and vacuum sweepers. Use of power brooms to sweep road is not allowed if a dust nuisance is created.

20.

The Contractor shall be held liable for any damages incurred to the existing utilities as a result of his operations. All damaged portions shall be replaced in accordance with the standards and specifications of the affected utility company at the Contractor's expense.

21.

Tack coat shall be incidental to the various Asphalt Concrete Pavement items.

22.

The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.

23.

After the project is completed, the Contractor shall restore grades and groundcover in the project limits to a condition equal or better than existing before such damage or injury was done.

24.

All existing utilities, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. Any damage to the existing utilities shall be repaired and paid for by the Contractor.

25.

Unless relocation is called for on the plans, existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense with the approval of the affected utility company.

26.

The Contractor shall field verify the operational status of all existing utilities to be removed or abandoned in place. Any discrepancy shall be brought to the attention of the Engineer.

27.

The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.

28.

Construction outside the State Department of Transportation (SDOT) right-of-way are subject to permission of the affected owner as verified by SDOT.

29.

For structures to be abandoned in place, the top 4' below finish grade shall be removed and backfilled with approved material.

30.

All construction work shall be done in accordance with the standards and specifications of the State Department of Transportation as amended and the "Geotechnical Investigation, Ala Moana Boulevard Rehabilitation, Sumner Street to Queen Street, Honolulu, Hawaii," dated April 20, 2000 as amended.

31.

The Contractor shall notify the Engineer upon uncovering any potential historical artifacts or items of archaeological significance.

32.

The existing improvements on the premises and in adjacent area that are not to be removed shall be preserved and protected. Any and all damages resulting from the Contractor's construction operations shall be replaced and repaired to original condition, to the satisfaction of the owner.
-
- THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
- Greg H. Hiyakumoto* 10/19/01
SIGNATURE DATE
- STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
- CONSTRUCTION NOTES – 1
- NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
- Scale: None Date: 10/19/01
- SHEET No. C-1 OF 107 SHEETS
- RMTc JOB NO.: 1-18681-0E
- 4

GENERAL NOTES CONT.

33. For benchmark see sheets C-19 through C-21.
34. All catch basins shall be marked as directed by the State Inspector.
35. All coordinates and azimuths are referred to Government Triangulation Station "Punchbowl"
36. Elevations shown on these plans are referenced to Mean Sea Level (MSL).
37. The Contractor shall adjust centerline and reference survey monuments to the finished pavement grade.
38. All steel plates shall have a non-skid surface.
39. The Contractor shall coordinate construction of electrical, telephone, cable television and water line relocation work with Hawaiian Electric Company, Verizon, Oceanic Cable, Board of Water Supply, Department of Environmental Services, and The Gas Co., respectively. All coordination shall be considered incidental to Roadway excavation work.

COLD PLANING NOTES

1. Prior to cold planing over an existing structure, the Contractor shall determine the actual depth of the existing asphalt concrete pavement. The Contractor shall take several cross section measurements throughout the structure. If the thickness of the existing pavement is less than the proposed resurfacing thickness, the Contractor shall remove the existing pavement to the level of the structure and resurface to the original thickness. This work shall be considered incidental to cold planing, and will not be paid for separately.
2. In cold planing the pavement over a structure, the Contractor shall exercise care not to damage any portion of the structure (especially the slab, joints, drain pipes or reinforcement). Any damage to the structure during the cold planing operations shall be repaired by the Contractor at his own expense. Repair work shall be as directed by the Engineer. The Contractor shall verify the existing pavement thickness by hand digging at various locations. This work shall be considered incidental to cold planing, and will not be paid for separately.
3. Exposure of existing aggregate base is expected when cold planing deeper than 4 inches. The Contractor shall pave over exposed existing aggregate base with the new asphalt base course and reopen lanes to traffic at the end of construction hours. Contractor shall compact the existing aggregate base in accordance with Section 301 Asphalt Base Course and apply Prime Coat in accordance with Section 408 Prime Coat, prior to laying the new Asphalt Base Course. This work shall be considered incidental to the new Asphalt Base Course, and will not be paid for separately.
4. The vertical pavement drop-off shall not exceed 3-inches. If a vertical pavement drop-off exists at the end of each day's cold planing and paving, the Contractor shall provide temporary transition tapers with maximum slopes of 48:1 for travel in the longitudinal direction and 6:1 for transverse movements. This work shall be considered incidental to Cold Planing.

WATER NOTES

1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the Standard Specifications for Road and Bridge Construction, dated 1994, as amended, of Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu, Board of Water Supply's "Water System Standards" Volume 1, dated 1985, the "Approved Material List and Standard Details for Water System Construction," Volume 2, dated 1985, and the "Water System External Corrosion Control Standards," Volume 3, dated 1991, and all subsequent amendments and additions.

WATER NOTES

2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.
3. The Contractor shall notify the BWS Maintenance Engineering Division, Construction Section, in one week prior to commencing work on the water system.
Unit - Engineering, Writing and submit five (5) sets of approved construction plans.
4. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth behind the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction methods.
5. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and shall pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
6. Re-approval shall be required if this project is not under construction within a period of two years.
7. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.
8. The Contractor shall verify all existing service lateral locations whether shown or not shown on plans prior to commencing with any of the work and shall not assume that where no services are shown, none exist.
9. Contractor shall cut and plug all existing unused laterals at the main whether or not shown on the plans. Meter and valve boxes to be or already abandoned shall be demolished or removed and properly disposed of. The damaged area shall be repaired to an equal or better condition than the immediate area. All work shall be done at the expense of the Contractor.
10. The Contractor shall adjust all manhole frames/valve boxes within the resurfaced area. Prior to resurfacing, BWS will initially locate all water manholes/valve boxes that will require adjustments. The Contractor shall then be responsible for "referencing" these manholes/valve boxes to facilitate the adjustments. The cost for adjustments shall be made at their respective unit prices in the Bid based on the actual number adjusted. Cost for referencing shall be incidental and shall not be paid directly. Any additional request to BWS to again locate the manholes/valve boxes shall be done at the expense of the Contractor. (BWS will charge and bill the Contractor for all cost said additional work.)
11. At the electrical/signal ductline water crossings, adjust all electrical/signal ductline elevations to maintain 6" vertical clear separation from all waterlines (12" clear for all electrical/signal ductline structures larger than 16") at no cost to the Board of Water Supply.
12. Maintain 3'-0" min. horizontal clear separation between all waterline systems and nearest electrical/signal ductlines paralleling the water system at no cost to the Board of Water Supply.
13. Maintain 3'-0" minimum cover for all existing waterlines (18" minimum for service laterals) from new finish grade. The Contractor shall probe the waterline and service laterals and submit the probing data to BWS Construction Section. Any adjustments to the existing water system to meet the minimum cover and the requirements of the BWS standards, whether shown on plans or not, shall be done by the Contractor at no cost to BWS.

Note: For continuation, see sht. C-3

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-092-1(25) | 2002 | 5 | 268 |

| REVISION | DATE | BY | APPROVED |
|----------|---------|-----------------------|----------|
| 1 | 6/15/04 | ADDED REFERENCE NOTES | |

ADDITIONAL WATER NOTES:

20. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply.
21. The project shall be subject to the Board of Water Supply's Cross-Connection control requirements prior to issuance of the building permit.
22. The installation, chlorination and testing of the water main and facilities after the meter shall not be the responsibility of the Board of Water Supply.

APPROVED:

Kelly E. Ota
Leader, Maintenance Unit, BWS

10/31/01
Date



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Greg H. Hiyakimoto
SIGNATURE DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES - 2

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None

Date: 10/19/01

SHEET No. C-2 OF 107 SHEETS

"AS-BUILT"

5

WATER NOTES

14. Maintain 3'-0" min. horizontal clear separation between street light/traffic signal standards (including modular units) and the nearest water system. Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the Contractor shall coordinate with the project engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to BWS.
15. Two-way blue reflective hydrant markers type DB shall be installed at all fire hydrant installations. Contractor shall verify the exact locations of hydrant markers with the nearest Honolulu Fire Department Battalion Chief.
16. The Contractor shall coordinate the securing of existing water system with the BWS prior to excavating behind or removing any existing thrust blocks, structural struts or reaction beams, or any fittings such as tees, plugs, caps, bends, offsets, and valves, or any other pipeline appurtenance. The Contractor shall be responsible for all associated damages resulting from failure to adequately secure the existing system.
17. Any adjustments to the existing water system required during construction to meet requirements of BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.
18. Board of Water Supply approval of these plans does not constitute a water commitment. Availability of water will be determined when building permit is presented to the Department. Water commitment will depend upon the status of the water system at that time. Should water service be made available, the water commitment will be effective when the project receives an approved building permit from the Building Department. All water commitments will be canceled in the event the building permit is canceled.
19. For water installation notes see Nimitz Highway Water System Improvement plans Part 1, BWS Job No. 01-87A.

Note: For additional Water Notes, see Sht. C-2.

DRAINAGE NOTES

1. The Contractor shall verify the locations of all existing culverts and drainage facilities in the field. Any existing culverts and drainage facilities damaged during construction shall be repaired or replaced by the contractor at his own expense.
2. Storm drain pipes shall be reinforced concrete pipe (RCP), class III, unless noted otherwise.
3. All drain lines shall have a minimum cover 3 feet under paved areas and 2 foot cover in other areas.

SEWER NOTES

1. All sewer construction shall be performed in accordance with the City's standard specifications, Sept. 1986, the Department of Public Works standard details, Sept. 1984, current city practices and Revised Ordinances of Honolulu, 1990 as amended, and the Design Standards of the Department of Wastewater Management Vol. 1, July 1993.
2. The Contractor shall notify the Inspection Section, Wastewater Branch, DDC, at 527-5842 or 523-4345 to arrange for inspection services and submit four (4) sets of approved construction plans seven (7) days prior to commencement of sewer work. The Contractor shall pay for all inspection costs.
3. The underground pipes, cables or ductlines known to exist by the engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities, including and affecting sewer lines, in the presence of the Wastewater inspector and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.

SEWER NOTES CON'T

4. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
5. The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notifications and press releases.
6. Confined Space

For entry by city personnel, including inspectors, into a permit required confined space as defined in 29 CFR part 1910.146(b), the contractor shall be responsible for providing:

1. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
- a. Full body harnesses for up to two personnel.
 - b. Lifeline and associated clips.
 - c. Ingress/egress and fall protection equipment.
 - d. Two-way radios (walkie-talkies) if out of line-of-sight.
 - e. Emergency (escape) respirator (10 minute duration).
 - f. Cellular telephone to call for emergency assistance.
 - g. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20-feet away).
 - h. Personal multi-gas detector to be carried by the inspector.
2. Continuous forced air ventilation adequate to provide safe entry conditions.
3. One attendant/rescue personnel topside (two, if conditions warrant it)
7. At the electrical/signal ductline sewer crossings, adjust all electrical/signal ductline elevations to maintain 24 inches vertical clear separation from all sewer lines, at no cost to the CITY.
8. Maintain 3'-0" minimum horizontal clear separation between all sewer lines systems and nearest electrical/signal ductlines, pullboxes/handholes, paralleling the sewer system at no cost to the CITY.
9. Maintain 5'-0" minimum horizontal clear separation between street light/traffic signal standards (including modular units), and the nearest sewer system. The Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the Contractor shall coordinate with the project engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the CITY.

WATER POLLUTION AND EROSION CONTROL NOTES:

1. General:
- The Contractor is reminded of the requirements of Section 209 - Water Pollution and Erosion Control, in the "Hawaii Standard Specifications for Road, Bridge and Public Works Construction," 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. No work shall commence without an approved BMP plan.
- 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) for the project.
- 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) for the project.

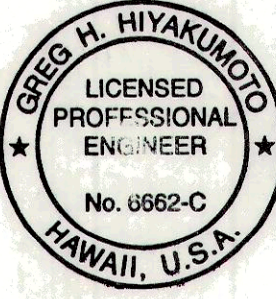
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| HAWAII | HAW. | NH-092-1(25) | 2002 | 6 | 268 |

| REVISION | DATE | BRIEF | BY | APPROVED |
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| 1 | 6/15/04 | ADDED REFERENCE NOTES | NC | BWS |

APPROVED:

Wagner Delmon 11/8/01
Chief, Wastewater Branch, DPP
(For sewer work only) Date

Kelly E. Ota 10/31/01
Leader, Maintenance Unit, BWS Date



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Greg A. Hiyakumoto 06/19/04
SIGNATURE DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES - 3

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None Date: 10/19/01

SHEET No. C-3 OF 107 SHEETS

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| QUANTITIES BY | |
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WATER POLLUTION AND EROSION CONTROL NOTES CONT.:

The Engineer may assess liquidated damages of up to \$25,000 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.

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.

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 regulation 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 hazardous waste materials shall be disposed of in the manner specified by local or State regulation 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.
- D. 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. The Contractor shall provide a rain gauge and install at a location agreed to by the State.
- 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.
- E. Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- F. The Contractor shall submit to the Engineer a maintenance inspection report promptly after each weekly inspection.
- 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.

WATER POLLUTION AND EROSION CONTROL NOTES CONT.:

- I. All slopes and exposed areas shall be grassed as soon as final grades have been established. Grading to final grade shall be continuous, and any area in which work within has been interrupted or delayed for more than 15 days shall be grassed in order to prevent dust, erosion and silt runoff. Areas with imported soils shall be grassed not more than 5 working days after final grades have been established.
- J. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.

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 of the Construction Contractor's site-specific BMP plan.

| | |
|---------------------------|--------------------------|
| 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 and made available to the Engineer upon request.
- (3) Surplus products shall be disposed of according to manufacturers' instructions or local and state recommended methods.

C. Onsite and Offsite Products Specific Plan

- (1) The following product specific practices shall be followed onsite:
- a. Petroleum Based Products: All onsite vehicles 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 recommendation.

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| CHECKED BY | _____ |
| ORIGINAL PLAN | _____ |
| NOTE BOOK | _____ |
| No. | _____ |



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

SIGNATURE: *Greg H. Miyakumoto* DATE: _____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES - 4

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None

Date: 10/19/01

SHEET No. C-4 OF 107 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES CONT.:

- 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 drum wash water only at designated site. Water shall not be discharged in the highway drainage system or waters of the United States (i.e. streams, rivers, harbors). The Contractor shall contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. The Contractor shall clean the disposal site as required or as requested by the owner's representative at no cost to the owner or the State.
- (2) Offsite Vehicle Tracking: A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Pollutants shall not be discharged to the drainage system. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.
- D. Spill Control Plan
- (1) A spill prevention plan shall be posted and adjusted to include a description and cause of each spill, measures to prevent and clean up each spill.
- (2) The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.
- (3) Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.
- (4) Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.
- (5) All spills shall be cleaned up immediately after discovery.
- (6) The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- (7) Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.
5. Permit Requirements
- A. The Contractor is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for all construction activities five acres or more. The Contractor shall submit to the Engineer four sets of the water pollution and erosion control submittals as detailed in Subsection 209.04 of the specifications. No work shall begin until the submittal has been reviewed and approved by the Engineer.

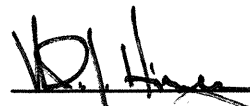
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WATER POLLUTION AND EROSION CONTROL NOTES CONT.:

- B. The Contractor shall comply with all applicable State and Federal permit conditions. Permits may include but are not limited to the following:
- NPDES Permit for Construction Activities
6. The Contractor shall be responsible for conformance with the applicable provisions of Chapter 54, Water Quality Standards, and Chapter 55, Water Pollution Control of Title 11, Administrative Rules of the State Department of Health.
7. The Contractor at his own expense shall keep the project area and surrounding areas free from dust nuisance. The work shall be in conformance with the Air and Water Pollution Control Standards and Regulations of the State Department of Health.
- SIGNS AND MARKING NOTES FOR WORK WITHIN C&C R/W:
1. All traffic sign and pavement marking installations shall be done in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways", 2000 edition, as amended, the latest specifications from the Traffic Review Branch, Department of Planning and Permitting, and as shown on the plans.
2. Contractor shall notify and coordinate work with the Traffic Review Branch, Department of Planning and Permitting, one (1) week in advance of commencing work at 527-5087.
3. Contractor shall submit material brochures for all signs and paint materials to the Traffic Review Branch, Department of Planning and Permitting.
4. The signing and/or striping Contractor shall keep one (1) set of approved plans at the project site at all times during construction work.
5. Contractor shall paint temporary guidelines and outline of arrows, legends, and crosswalks with two inch (2") wide brushed line on the day the roadway is opened to traffic. These markings must be approved by the inspector from the Traffic Review Branch, Department of Planning and Permitting.
6. Contractor shall notify the Traffic Review Branch, Department of Planning and Permitting, three (3) days in advance of final inspection.
7. Contractor shall meet with the inspector from the Traffic Review Branch, Department of Planning and Permitting during the final inspection.
8. Within ten (10) days following notification of award of contract, the Contractor shall submit to the Department of Planning and Permitting (phone: 523-4881) for approval, a list of any signing and pavement marking material which he proposes to install. The list shall be complete as to the name of the manufacturer, catalog number, and shall be supplemented with material brochures.
9. Upon final inspection of the project, the Contractor shall submit a letter of certification for all traffic signing and pavement marking material installed.
10. Signs shall be attached to brackets with 5/16" zinc plated steel bolts, nuts and washers. Signs 48" wide or larger than 10 sq. ft. in area shall be mounted on two 2" galv. pipe post. The sign shall be installed with at least one (1) feet of clearance from sign edge to curb face.
11. All traffic signs shall be reflectorized.
12. Raised pavement markers shall be installed in accordance with the Department of Planning and Permitting standards.


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APPROVED:

 Chief, Traffic Review Branch, DPP Date
(For Work Within City ROW Only)



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

 11/15/01
SIGNATURE DATE

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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION | |
| CONSTRUCTION NOTES - 5 | |
| NIMITZ HIGHWAY REHABILITATION SUMNER STREET TO QUEEN STREET F.A.I. Proj. No. NH-092-1(25) | |
| Scale: None | Date: 10/19/01 |
| SHEET No. C-5 OF 107 SHEETS | |

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SIGNS AND MARKING NOTES CONT.

13. Location of "stop" sign:
- A. Install "stop" sign at curb tangent point.
 - B. Install "stop" sign on metal street light standard if a standard is located within 10 feet of curb return.
 - C. Install "stop" sign in front of utility pole if a pole is located within 10 feet of curb return.
14. Pavement word and symbol markings shall be in accordance with the Department of Planning and Permitting standards.
15. The Contractor shall use thermoplastic material, approved by the Traffic Review Branch, Department of Planning and Permitting, for all crosswalks, stop bars, pavement arrows, center lanes, lane lines and arc lines, channelized traffic islands and legends.

TRAFFIC SIGNAL NOTES

1. The locations of the Traffic Signal Standards Foundations, Pedestrian Push Buttons, Pullboxes, Conduits and Loop Detectors shall be staked out in the field by the Contractor and approval of the locations shall be obtained from the Engineer prior to construction and installation.
2. All splicing shall be done in the pullboxes.
- Furnishing and installing the conduit stubouts (pullboxes to edge of pavement) including stubout markers will not be paid for separately but shall be considered incidental to the various contract items.
3. Should any defect be encountered during the warranty period, the manufacturer will be notified and he shall promptly correct such defect. Service call (by factory qualified representative) during the warranty period for repairs or other maintenance shall be answered within 24 hours and shall be done at no expense to the State. All repairs shall be done as soon as possible.
4. All traffic signal work shall conform to the requirements of the "Manual On Uniform Traffic Control Devices For Streets And Highways", Federal Highway Administration (2000) and Amendments.
5. Locations of traffic markings and markers (lane lines, Stop lines, crosswalk, etc.) shown on the plans shall be verified with the Engineer prior to the installation of the traffic signal system.
6. All Conduits between pullboxes and Traffic Signal/Highway Lighting Standards shall not be paid for separately but shall be considered incidental to the various contract items.
7. All Signal-Drop Cables (Type 5 Cables/4C#14) from the various Types of Traffic Signal Head on the traffic signal standards and mast arms to the pullboxes shall not be paid for separately but shall be considered incidental to the Traffic Signal Head.
8. After installing all the traffic signal cables, the Contractor shall duct seal all conduits in the pullboxes, traffic signal standards and traffic signal controller cabinet concrete base. The duct seal material shall be approved by the Traffic Signal Inspector/Engineer and shall not be paid for separately but considered incidental to the direct buried and/or concrete encased conduits.
9. After installing the Traffic Signal System, the Contractor shall apply grease to all parts of the Traffic Signal System (i.e. fittings, brackets, nipples, elbows, screws, signal head assemblies, bolts, hinges, etc.) as directed by the Traffic Signal Inspector, to prevent rust and corrosion. The grease material shall be approved by the Signal Inspector.

TRAFFIC SIGNAL NOTES CONT.

10. Connecting into existing traffic signal system and making all necessary adjustments shall not be paid for separately, but considered incidental to the various traffic signal contract items.
11. The Contractor shall notify the Traffic Signal Branch, Department of Transportation Services, City & County of Honolulu, (phone no. 523-4589) two weeks prior to commencing any work on the traffic signal system.
12. The Department of Transportation Services, City & County of Honolulu, will assist the Engineer in construction inspection for the traffic signal system. The Contractor shall notify the Electrical and Maintenance Services Division, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (phone no. 523-4589).
13. All existing pullboxes, traffic signal poles and controller bases not incorporated into the New Traffic Signal System shall be removed to 6 inches below grade.
14. Existing loop detectors and conduits not incorporated into the New Traffic Signal System shall be abandoned in place. Abandoned conduits shall be plugged with concrete. Remove existing cables.
15. The traffic signals shall be kept operational during construction. Any relocation required shall be approved by the Electrical and Maintenance Services Division, Department of Transportation Services, City & County of Honolulu and paid for by the Contractor.
16. The Contractor shall be responsible for any damages to existing Traffic Signal Facilities. Including the Traffic Signal Interconnect System, and any and all damages to these facilities shall be repaired by the Contractor at his cost in with the requirements of the City & County of Honolulu.
17. The Contractor's attention is directed to the Curb Ramp Detail Sheets for planned locations of traffic signal poles and/or pedestals with pedestrian push buttons.
18. The Contractor's attention is directed to the Electrical Notes Sheet E-3 when working in close proximity to any utility.
19. The Contractor shall adjust pedestrian Signals on relocated Traffic Signal Poles as directed by the Engineer. Adjustments of Pedestrians Signals shall be considered incidental to relocation of Traffic Signal Poles.

APPROVED:

TRAFFIC SIGNAL AND TECHNOLOGY DIVISION NOTES

1. The Contractor shall notify the Traffic Signal 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 Signal 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 the traffic signal interconnect system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirement of the City and County of Honolulu.
4. The Contractor shall be responsible for any damages to the existing traffic signal fiber optic cable system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu.

Chief, Traffic Review Branch, DPP Date
(For Work Within City ROW Only)



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SIGNATURE DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

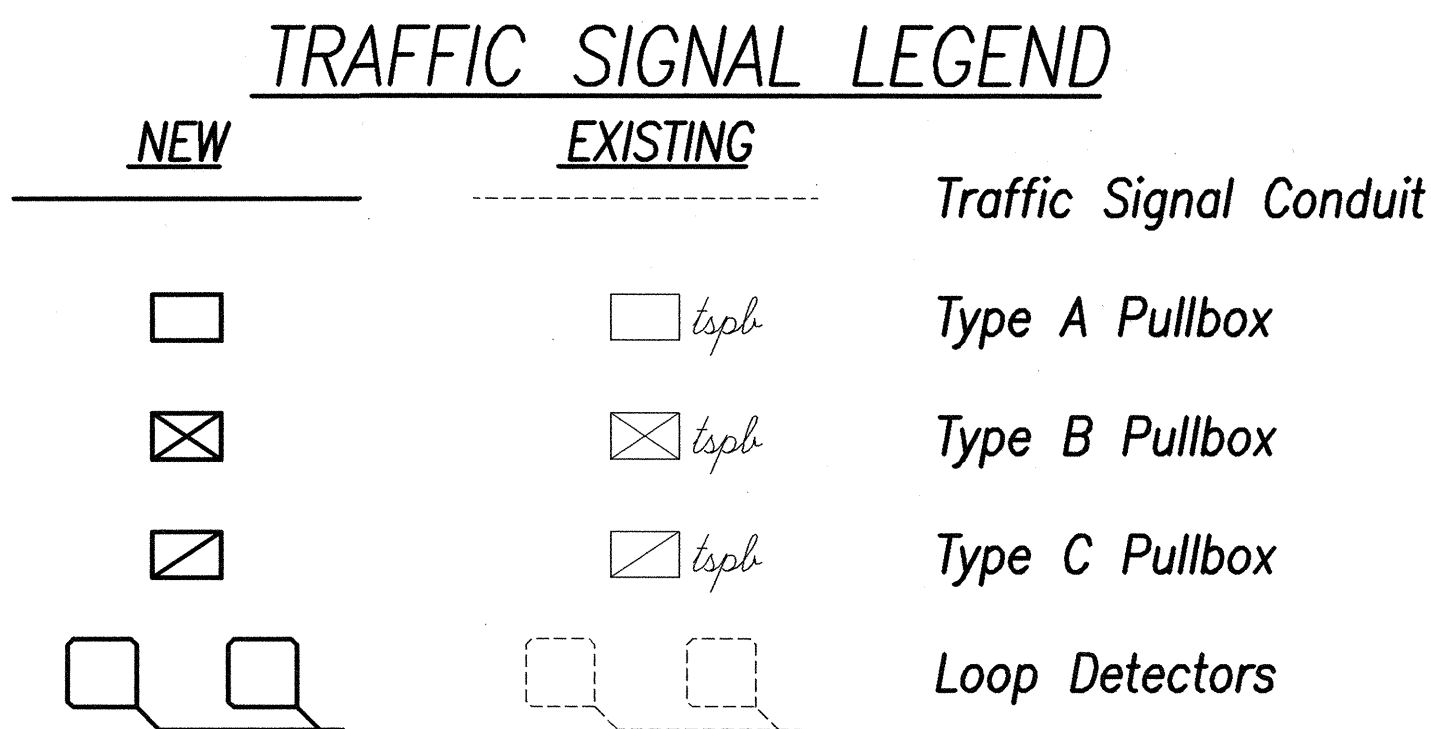
CONSTRUCTION NOTES - 6

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None Date: 10/19/01

SHEET No. C-6 OF 107 SHEETS

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TRAFFIC NOTES FOR WORK ON CITY AND COUNTY STREETS

- A permit shall be obtained from the Department of Transportation Services before work on any portion of a public street or highway may begin. Construction traffic control plans approved by the Department of Transportation Services and/or the Department of Planning and Permitting must be provided when applying for the permit.
- The Contractor shall provide, install, and maintain all necessary signs and other protective facilities, which shall conform with the "Hawaii Administration Rules Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways" adopted by the Director of Transportation, and the current U.S. Federal Highways Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations."
- Work on any city street area may be performed only between the hours of 8:00 pm to 5:00 am, Monday through Friday, and 8:30 am to 3:30 pm with additional night hours as needed during construction on Saturday, Sunday, and holidays, unless otherwise permitted by the Department of Transportation Services.
- During working hours, the Contractor shall provide for through traffic. During non-working hours, all trenches shall be covered with a safe non-skid bridging material and all lanes shall be open to traffic.
- As required by the Department of Transportation Services, the Contractor shall provide off-duty police officers to control the flow of traffic.
- Where pedestrian walkways exist, they shall be maintained in passable and accessible condition, or other facilities for pedestrians shall be provided. Accessible passage between walkways at intersections shall likewise be provided.
- Driveways shall be kept open unless the owners of the property using these rights-of-way are otherwise provided for satisfactorily.
- Contractor shall reference, to the approval of the Department of Planning and Permitting, all existing traffic signs, posts and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts and pavement markings disturbed by his activities.
- The Contractor shall notify the Department of Planning and Permitting at 523-4881 one (1) week prior to any work to be done on signs, posts and pavement markings.
- No material and/or equipment shall be stockpiled or otherwise stored within street rights-of-way except at locations designated in writing and approved by the Department of Transportation Services.
- The Engineer shall ensure that the Contractor installs the construction traffic control devices in accordance with the MUTCD and the Hawaii Administration Rules as specified in Traffic Note #2.

HAWAIIAN ELECTRIC COMPANY NOTES

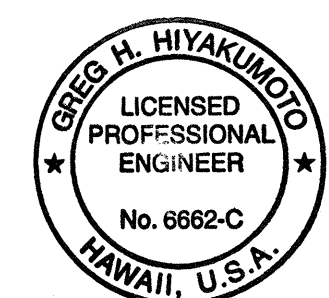
- The location of HECO's overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines and shall maintain adequate clearance when operating within or under any overhead lines.
- The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).
- The Contractor shall obtain an excavation permit from HECO's Technical Division (543-5654) located at 820 Ward Avenue, 4th Floor, two weeks prior to starting construction. Please refer to our request number at the time.
- For verification of underground lines or for assistance in supporting and protecting these lines, the Contractor shall call HECO's Underground Division at 543-7871 a minimum of 72 hours in advance.
- When trench excavation is adjacent to or beneath our existing structures or facilities, the Contractor is responsible for:
 - Sheeting and bracing the excavation to prevent slides, cave-ins, and settlements.
 - Protecting existing structures or facilities with beams, struts, or underpinnings.
- For pole bracing instructions, the Contractor shall call the HECO District Superintendent at (Koolau 261-6084, Waiau 543-4223, Ward 53-7745) a minimum of 72 hours in advance.
- Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for possible costs if applicable.
- Should it become necessary to temporarily relocate any of HECO facilities to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations, these temporary relocations will be done by HECO, or by the Contractor under HECO's supervision, with all costs borne by the Contractor
- Any unforeseen conflict that would result in the redesign or relocation (either temporary or permanent) of HECO's electrical facilities may be cause for lengthy delays. To avoid such delays, the Contractor must notify HECO of the conflict a minimum of 30 days prior to the start of construction.
- Any damage of HECO's facilities will be reported immediately to HECO's trouble dispatcher at 548-7961.
- All HECO overhead and underground facilities shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities shall be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO's supervision.
- The Contractor shall indemnify, defend and hold harmless HECO from and against all losses, damages, claims and actions, including but not limited to reasonable attorney's fees and costs based upon or arising out of damage to property or injuries to persons, or other tortuous acts caused or contributed by the Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability based upon the sole negligence of HECO.
- The Contractor shall use caution when working in close proximity of ductlines. HECO required minimum clearance shall be 1'-6" from the surface of sidewalk to top of ductline.

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See Notes for Hawaiian Electric Company, Inc. (HECO) Underground Fuel Pipelines and Other Facilities in the Special Provisions, Section 107.

APPROVED:

Chief, Traffic Review Branch, DPP
(For Work Within City ROW Only) Date



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SIGNATURE DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES - 7

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None

Date: 10/19/01

SHEET No. C-7 OF 107 SHEETS

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MECHANICAL/ELECTRICAL DESIGN AND ENGINEERING DIVISION NOTES

1. The Contractor shall notify the joint pole committee two (2) weeks in advance of any relocation of utility pole(s) that may be necessary.
2. The Contractor shall notify the Mechanical/Electrical Design and Engineering Division, Department of Design and Construction, three (3) working days prior to commencing work on the street lighting system (phone: 523-4106).
3. The street lighting system shall be kept operational during construction. Any relocation required shall be approved by the Mechanical/Electrical Design and Engineering Division, Department of Design and Construction, and paid for by the Contractor.
4. The Contractor shall be responsible for any damages to the existing street lighting facilities. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu.
5. The Contractor shall be responsible for any damages to the city's existing communications fiber optic cable system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu.

VERIZON NOTES

1. The location of GTE Hawaiian Telephone Company's existing facilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of GTE Hawaiian Telephone Company's facilities. The Contractor shall verify their locations and shall be liable for any damages to GTE Hawaiian Telephone Company facilities. Any damages shall be reported immediately to GTE Hawaiian Telephone Company's repair section at #611 (24 hours) or to the excavation permit section at 483-8085 (normal working hours, Monday through Friday, except holidays).
2. For underground cable locating and marking, five working days advance notice is required. Three working days advance notice is required for any inspection by a designated representative.
3. The Contractor shall take necessary precautions not to damage any existing cables or conduits. Any work involving existing GTE Hawaiian Telephone Company cables or conduits, shall be done in the presence of a GTE Hawaiian Telephone Company inspector or designated representative.
4. The Contractor shall obtain an excavation permit and toning request from GTE Hawaiian Telephone Company's excavation permit section, located at 3239 Ualena Street, Third Floor, two weeks prior to the start of construction. Hours of business is 7:00 am to 10:30 am and 11:30 am to 3:00 pm Monday through Friday, except holidays.
5. The Contractor shall notify GTE Hawaiian Telephone Company's inspector or designated representative a minimum of 72 hours prior to excavation, bracing or backfilling of GTE Hawaiian Telephone Company's structures or facilities.
6. When excavation is adjacent to or beneath GTE Hawaiian Telephone Company's existing structures or facilities, the Contractor shall:
 - A. Sheet and/or brace the excavation to prevent slides, cave-ins or settlements to ensure no movement to GTE Hawaiian Telephone Company's structures or facilities.
 - B. Protect existing structures and/or facilities with beams, struts or underpinning while excavating beneath them to ensure no movement to GTE Hawaiian Telephone Company's structures or facilities.

GAS COMPANY 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. Existing gas line under Iwilei exit roadway is shallow.
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 done by The Gas Company and paid for 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.

PAVING AROUND MANHOLES:

1. The Contractor shall place hot asphalt concrete around manholes and compact properly with a vibrating plate compactor.
2. If a plate compactor is not used, the Contractor shall use a pneumatic roller to roll the area around the manhole which is not rolled by the steel roller.
3. The Contractor shall fog seal or brush emulsion seal on the material placed as backfill on the area around the manhole that was not compacted by the roller. Black sand shall be used to blot out the area if the fog is too heavy.
4. The Contractor shall lower manholes prior to Cold Planing, backfill with hot mix and re-adjust after final paving. This work shall be considered incidental to Manhole Adjustments.

FREE SERVICE FOR LOCATING UNDERGROUND UTILITIES

A free service is available to Contractors for locating underground utilities. Service is provided by Underground Service Alert North, at toll free telephone no. 1-800-227-2600. Call Underground Service Alert North at least two days prior to the start of any excavation work.

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|------------------|------|
| ORIGINAL PLAN | DATE |
| DESIGNED BY | |
| CHECKED BY | |
| NOTED BY | |
| QUANTITIES BY | |
| NO. | |



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

SIGNATURE DATE

| |
|---|
| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION |
| CONSTRUCTION NOTES - 8 |
| NIMITZ HIGHWAY REHABILITATION SUMNER STREET TO QUEEN STREET F.A.I. Proj. No. NH-092-1(25) |
| Scale: None Date: 10/19/01 |
| SHEET No. C-8 OF 107 SHEETS |

Construction Notes For Work Within City R/W:

1. All applicable construction work shall be done in accordance with the Standard Specifications for Public Works Construction, September 1986 and Standard Details for Public Works Construction, September 1984, as amended, of the Department of Public Works, City and County of Honolulu and the Counties of Kauai, Maui, and Hawaii.
2. The underground pipes, cables or duct lines known to exist by the engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.
3. No contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing City drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
4. The Contractor shall be responsible for conformance with the applicable provisions of the Water Quality and Water Pollution Control Standards contained in Hawaii Administrative Rules, Chapter 11 - 54, "Water Quality Standards" and Chapter 11-55, "Water Pollution Control", as well as Chapter 14 of the Revised Ordinances of Honolulu, as amended. Best Management Practices shall be employed at all times during construction.
5. The Contractor shall notify the Civil Engineering Branch, D.P.P. at 523-4881 to arrange for inspectional services and submit three (3) sets of approved construction plans seven (7) days prior to commencement of construction work.
6. Confined space for entry by City personnel, including inspectors, into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:
- I. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
- A. Full body harnesses for up to two personnel.
- B. Lifeline and associated clips.
- C. Ingress/egress and fall protection equipment.
- D. Two-way radios (walkie-talkies) if out of line-of-sight.
- E. Emergency (escape) respirator (10 minute duration).
- F. Cellular telephone to call for emergency assistance.
- G. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20 feet away).
- H. Personal multi-gas detector to be carried by Inspector.
- II. Continuous forced air ventilation adequate to provide safe entry conditions.
- III. One attendant/rescue personnel topside (two, if conditions warrant it).
7. In the event any artifacts or human remains are uncovered during the construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources-Historic Preservation Branch (692-8015), and the Civil Engineering Branch, D.P.P.. (523-4881).
8. For bench mark, see sheets C-19 and C-21.

LEGEND

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|--|-------------------------------------|--|--|
| | Cold Planing and Resurfacing Limits | | Adjust Water Meter |
| | Pavement Reconstruction Areas | | New Water Meter |
| | Leveling Concrete Areas | | Existing Fire Hydrant |
| | Transition Areas | | New Fire Hydrant |
| | Grass/Mulch Areas | | Existing Sewer Line |
| | Existing Electrical Line | | New 12 inch Sewer Line |
| | New Electrical Line | | Existing Sewer Manhole |
| | Existing Joint Pole | | Adjust Sewer MH Frame and Cover, For Details, See Sheet C-79 |
| | Existing Power Pole | | New Sewer Manhole |
| | Existing Guy Pole | | Existing 6 inch Gas Line |
| | Existing Light Pole | | New 6 inch Gas Line |
| | Existing Electrical Manhole | | Existing Gas Valve Box |
| | Existing Street Light Box | | Adjust Gas Valve Box |
| | Adjust Elec. MH Frame and Cover | | New Gas Valve Box |
| | New Electrical Manhole | | Existing Gas Manhole |
| | Existing Traffic Light | | Adjust Gas MH Frame and Cover |
| | Existing Telephone Line | | New Gas Manhole |
| | New Telephone Line | | Existing Monument |
| | Existing Telephone Pole | | Adjust Monument |
| | Existing Telephone Manhole | | New Monument |
| | Adjust Tele. MH Frame and Cover | | Existing 24 inch Drain Line |
| | New Telephone Manhole | | New 24 inch RCP Drain Line |
| | Existing Signal Corps Line | | Existing Storm Drain Manhole |
| | New Signal Corps Line | | Adjust Storm Drain MH Frame and Cover |
| | Existing TV Cable | | New Storm Drain Manhole |
| | New TV Cable | | Existing Grated Drop Inlet |
| | Existing 12 inch Water Line | | Existing Catch Basin |
| | New 12 inch Water Line | | Existing Traffic Sign |
| | Existing Water Manhole | | Existing Highway Lighting Standard |
| | Adjust Water MH Frame and Cover | | Existing Utility Box |
| | New Water Manhole | | Adjust Utility Box |
| | Existing Water Air Valve | | |
| | Adjust Water Air Valve | | |
| | New Water Air Valve | | |
| | Existing Water Valve Box | | |
| | Adjust Water Valve Box | | |
| | New Water Valve Box | | |
| | Existing Water Meter | | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-092-1(25) | 2002 | 12 | 268 |

APPROVED:

M. J. [Signature] 10/2/01
Chief, Civil Engineering Branch, DPP Date
(For Work Within City ROW Only)

[Signature] 11/16/01
for Director, Department of Planning Date
and Permitting
City and County of Honolulu
(for Construction within City R/W
and effect on City Sewers Only)



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

[Signature] 10/19/01
SIGNATURE DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

Scale: None

Date: 10/19/01

SHEET No. C-8.1 OF 107 SHEETS